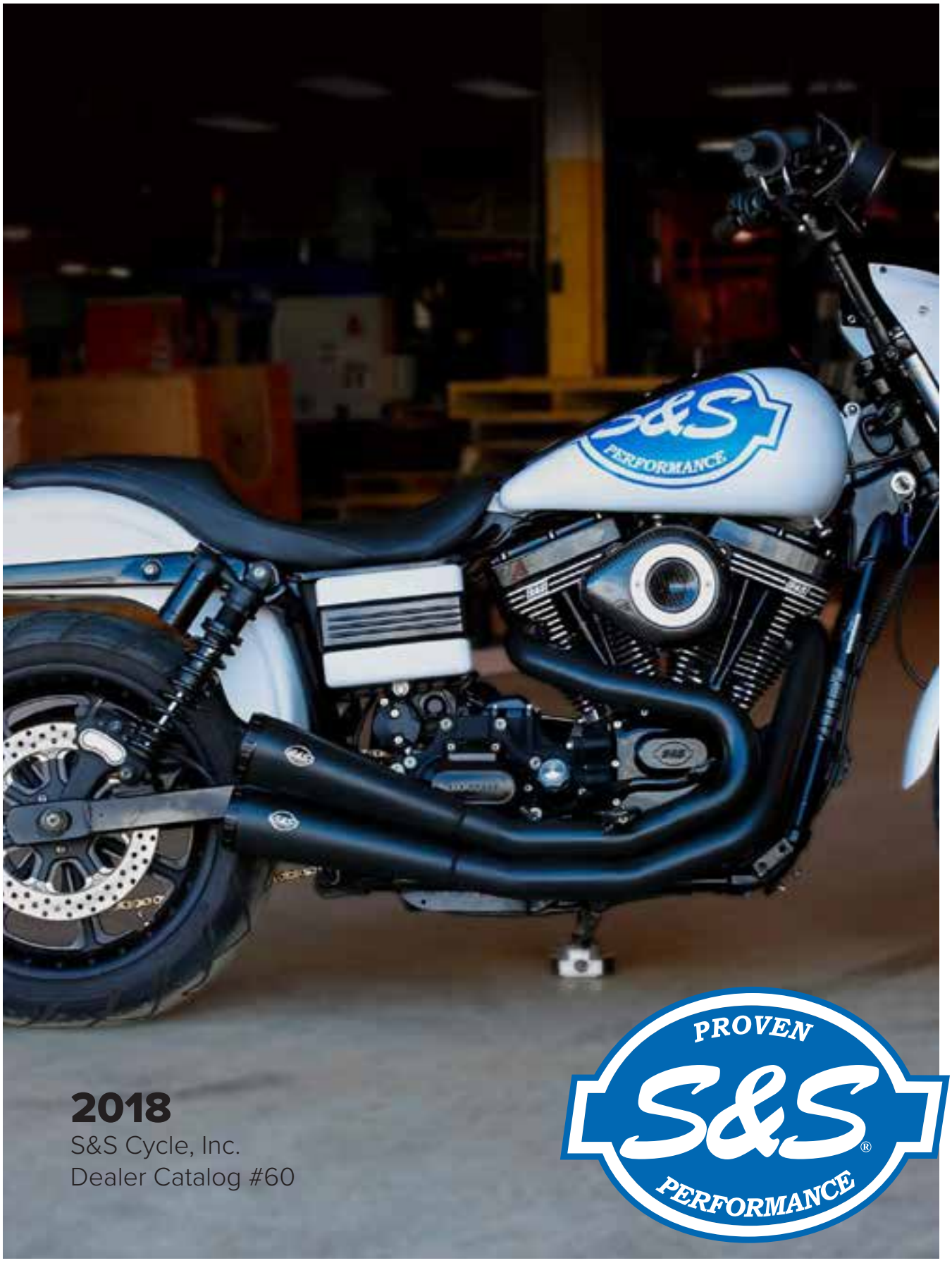


2018

S&S Cycle, Inc.
Dealer Catalog #60

PROVEN
S&S®
PERFORMANCE

MILWAUKEE-EIGHT®
Exciting new performance products for motorcycles with the new Harley-Davidson® Milwaukee Eight® engine.

2007-2016 BIG TWIN
Performance upgrades for 2007-'17 Harley-Davidson® big twins with Twin Cam 96™, 103™, 110™ engines. From the basics like slip-on mufflers and air cleaners to camshafts, fuel systems, and big bore kits, to complete big inch engines. Replacement parts and service items too!

1999-2006 BIG TWIN
Everything you need to upgrade and maintain 1999-'06 Harley-Davidson® big twins with Twin Cam 88® and Twin Cam 88B™ engines. Exhaust, intake, fuel systems, cams, big bore kits, and complete engines. Also many service and replacement components.

1984-1999 BIG TWIN
Performance products and service replacement parts for Harley-Davidson® Evolution® engines. The newest of these engines is 17 years old, and many are in need of an engine overhaul. Why not upgrade to a stroker or big bore kit while you have it apart? Why not replace it with a new engine? Just turn the page.

SPORTSTER® & BUELL®
Harley-Davidson® Sportster® motorcycles are becoming increasingly popular. S&S offers a lot of options for increasing displacement and performance. Carburetors, air cleaners, big bore kits, cam shafts, cylinder heads, and much more.

STREET®
Performance products for Harley-Davidson® Street® & Street Rod™ engines.

1926-1984 VINTAGE
Building an old school chopper, a retro vehicle or restoration? We have the engine components you need. Keep that old iron on the road!

X-WEDGE®
The proprietary S&S X-Wedge® engine, as well as performance upgrades and replacement parts.

VICTORY®/INDIAN®
Performance parts for Victory® and Indian® motorcycles.

RACING
Whether you're ready for the drag strip or are a spirited street rider, these quality high performance parts will get you to the finish line first.

TOOLS & SHOP SUPPLIES
Every job is easier with the right tools. Keep your bike running in top condition! You'll find special tools, shop supplies and fluids you need, whether you are a "do-it-yourselfer" or a professional servicing technician.

DEALER SERVICES
S&S supports the S&S dealer network with Dealer training, Engine rebuilding, accessories, apparel, and other promotional items.

COMPANY POLICY & WARRANTY
Information on sales, ordering, shipments, S&S internet policy, and special orders. Warranty policies on all S&S parts and S&S assembled engines.

APPENDIX & INDEX
Useful information for our customers: identify S&S components, measuring manifolds, calculating cylinder head bolt lengths, and an easy to use index to find products in this catalog.

MILWAUKEE-EIGHT ENGINES 1
2007-2016 BIG TWIN 2
1999-2006 BIG TWIN 3
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SPORTSTER® & BUELL® 5
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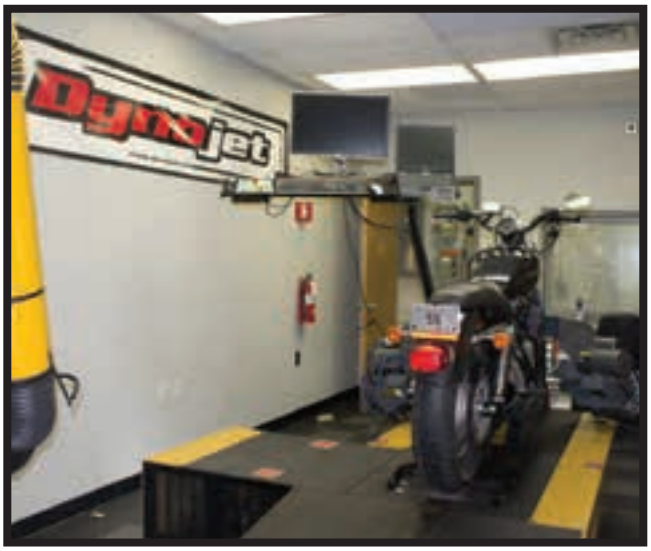
CELEBRATING 60 YEARS OF MAKING POWER!

Proven Performance isn't some sort of empty slogan or marketing catch phrase, but rather a way of thinking, a mantra and something we've practiced every day of every week for the last six decades. Building the best of the best in powersports performance is our mission and creating parts like our newest Mini Teardrop or high flow 2:1 Sidewinder exhaust are the result of an unrelenting focus on torque and horsepower.

Designed, manufactured, and tested in the heartland of America, S&S is your first choice for powersports performance on and off the track.

A WORD ABOUT DYNO NUMBERS

With a motto like "Proven Performance®", which is a registered trademark of S&S® Cycle Inc., it is very important that we be able to back up our claims regarding performance. It is also vitally important to be able to evaluate new designs in our development process. One of the tools we depend on for both of these functions is the chassis dynamometer.



Something that needs to be understood about dynamometers is that the results from one dyno will not necessarily be identical to those from another dyno. So comparing results from different dynos is bound to create a certain amount of confusion. This is especially true with dynos from different manufacturers. However, results of tests run on the same machine can be compared with a high degree of confidence. We can determine, for example if a performance modification increased power or torque, but there is a problem if you expect absolute values.



There are several brands of dynamometers which are in common use in the performance industry. These dynos will yield very reliable values for comparison, especially when tests are performed on the same machine. However values obtained from these dynos may not always agree. Which value is correct? It depends on who you ask.

NO ABSOLUTES

In our literature and catalogs, we publish dyno results so our customers easily can see how our products improve performance over stock. However, it must be remembered that these are comparative values, and should not be taken as absolutes. If a similar or even identical engine or motorcycle is tested on another dynamometer, the results will more than likely differ.

SYMBOL KEY

CONFIGURE TO ORDER: CTO allows you to choose available options for a specific part or kit, and covers both "special order" parts and "made to order" kits. Some CTO kits have a base price with additional upcharges for the optional selections. In some cases, the entire price of a kit is determined by upcharges for the options selected. It is best to call an S&S customer service representative and configure the kit with exactly the options you want.

VIDEO If you see this icon, there is a video available.

These are our latest innovations to the market.

EMISSIONS SYMBOLS

Part numbers marked with this logo are replacement parts for specific S&S certified emission engines and are legal for sale and use on these engines. The number(s) listed by each logo in the catalog indicates the model(s) of S&S certified engines that use the part. Use the table below to reference your engine model to its number in the logo.

Example: This part is legal for use on V96E, V124C, and V124E engine models.

Engine Model Number	
V96E	1
V100C, V113E, V113C	2
V124E, V124C	3
X117E, X117C	4

Part numbers marked with this logo are legal to be sold for and used as replacement parts on Harley-Davidson® motorcycles in all 50 states. These parts may only be installed on a motorcycle model listed in the part's description. Selling or installing these parts on a pollution controlled motorcycle not listed is in violation of California and/or Federal emissions laws and could result in fines and penalties.

Note:
Vehicles 1977 model year and earlier are exempt from emissions regulations. Owners of such vehicles may install any parts desired without concern about violating exhaust emissions regulations. However, local noise ordinances still apply to these vehicles, so the owner of a 1977 or earlier vehicle can still receive a noise citation if the vehicle is too loud.



Performance Parts

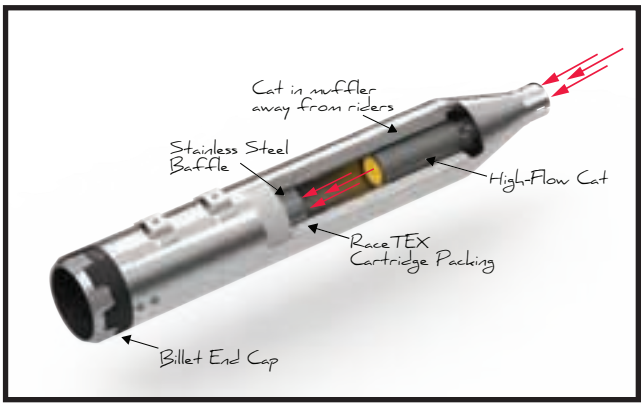
Air Cleaners 16
Camshafts 18
Exhaust 8
Gaskets 21
Oil 21
Oil Filters 21
Pushrods 20
Tappets 19

Replacement Parts 22

EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

FEATURES AND BENEFITS

- Improved power and torque
- Deep bass rumble throughout the RPM range
- Stainless steel header construction
- Includes adapters for wide band or wide band O2 sensors
- 50-state legal
- SAE J2825 Sound Level Compliant
- Exempt from emissions tampering regulations under CARB EO# K-010-1
- High Flow Cats to increase exhaust flow for optimum torque
- Catalysts located in mufflers moves heat away from rider
- Available in Show Chrome or Black Ceramic Finish
- Highlight Machined Thruster or Tracer end cap
- Bold Styling of Mk45 Mufflers



EL DORADO 50-STATE EXHAUST SYSTEM FOR 2017-'18 TOURING MODELS

Finish	End Cap	Part #
Chrome	Highlight Machined Thruster	**550-0699A**
Black	Highlight Machined Thruster	**550-0700A**
Chrome	Highlight Machined Tracer	**550-0701A**
Black	Highlight Machined Tracer	**550-0702A**

Exempt from emissions tampering regulations under CARB EO# K-010-1 for all 2017-2018 FL Touring Models

CARB compliant
CARB EO K-010-1




Black w/Tracer


Black w/Thruster


Chrome w/Thruster


Chrome w/Tracer

REPLACEMENT PARTS: SEE PAGE 23

SIDEWINDER 2:1 EXHAUST SYSTEM

FITMENT
- 2017-'18 M8 FL Models

FEATURES AND BENEFITS
- 2:1 styling for high-performance baggers
- High-flow cat
- Increased power and torque
- Available in show chrome or black ceramic finish
- Machined aluminum endcap
- Includes adapters that allow use of wide band or stock O2 sensors
- Stainless steel header construction
- Deep 2:1 performance exhaust note
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- All hardware included
- Made in USA!



Removable dB reducer



SIDEWINDER 2:1 EXHAUST SYSTEM FOR M8 TOURING MODELS – 49-STATE†	
Finish	Part #
Chrome	**550-0758**
Black	**550-0759**
SIDEWINDER 2:1 EXHAUST SYSTEM FOR M8 TOURING MODELS – RACE ONLY*	
Chrome	**550-0728**
Black	**550-0729**

†NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE
Qualified manufacturer declared emissions compliant part (and SAE J2825 sound compliant) on the following FL touring models: 49 State Federal Certified 2017-2018 FL Touring Models

*NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE



REPLACEMENT PARTS: SEE PAGE 30

GRAND NATIONAL SLIP-ON MUFFLERS
FOR 2018 FAT BOB® MODELS

FITMENT
- 2018 Harley-Davidson® Fat Bob® Models

FEATURES AND BENEFITS
- Up to 12% more horsepower and 6% more torque *(when used with Stealth Air Cleaner Kit)*
- Race inspired design
- Black ceramic finish
- Deep performance rumble replaces stock whisper tone
- No mapping required
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL SLIP-ON MUFFLERS FOR 2018 FAT BOB® MODELS

Description	Part #
Grand National Slip-Ons for 2018 HD® Fat Bob®	**550-0734**

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2018 Fat Bob models.



REPLACEMENT PARTS: SEE PAGE 25

GRAND NATIONAL® SLIP-ON MUFFLERS
FOR 2018 SOFTAIL® MODELS (EXCEPT FAT BOB® MODELS)

FITMENT

- Fits 2018 M8 Softail® models *(excluding Fat Bob®)*

FEATURES AND BENEFITS

- Up to 12% more horsepower and 6% more torque *(when used with Stealth Air Cleaner Kit)*
- Race inspired Grand National endcap design
- Deep performance rumble replaces stock whisper tone
- Show chrome or black ceramic finish
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- Made in USA!



Removable dB reducer

GRAND NATIONAL MUFFLERS FOR 2018 M8 SOFTAIL® MODELS – 49-STATE COMPLIANT††		
Fitment	Muffler Body Finish	Part #
2018 M8 Softail models, *except Heritage Softail® Classic & Softail® Deluxe*	Black	**550-0754**
2018 M8 Softail models, *except Heritage Softail Classic & Softail Deluxe*	Chrome	**550-0755**
2018 M8 Heritage Softail Classic & Softail Deluxe models	Chrome	**550-0757**
GRAND NATIONAL MUFFLERS FOR 2018 M8 SOFTAIL® MODELS – RACE ONLY†		
2018 M8 Softail models, *except Heritage Softail® Classic & Softail® Deluxe*	Black	**550-0737**
2018 M8 Softail models, *except Heritage Softail Classic & Softail Deluxe*	Chrome	**550-0738**
2018 M8 Heritage Softail Classic & Softail Deluxe models	Chrome	**550-0740**

†DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.
††DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE
*Qualified Manufacturer Declared 49-State Emissions Compliant Catalyst Exhaust Component



REPLACEMENT PARTS: SEE PAGE 26

SLASH CUT SLIP-ON MUFFLERS
FOR 2018 SOFTAIL® MODELS (EXCEPT FAT BOB® MODELS)

FITMENT
- Fits 2018 M8 Softail® models *(excluding Fat Bob®)*

FEATURES AND BENEFITS
- Up to 12% more horsepower and 6% more torque *(when used with Stealth Air Cleaner Kit)*
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or black ceramic finish
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- Made in USA!





Removable dB reducer

SLASH CUT MUFFLERS FOR 2018 M8 SOFTAIL® MODELS – 49-STATE COMPLIANT††		
Fitment	**Muffler Body Finish**	**Part #**
2018 M8 Softail models, *except Heritage Softail® Classic & Softail® Deluxe*	Black	**550-0752**
2018 M8 Softail models, *except Heritage Softail Classic & Softail Deluxe*	Chrome	**550-0753**
2018 M8 Heritage Softail Classic & Softail Deluxe models	Chrome	**550-0756**
SLASH CUT MUFFLERS FOR 2018 M8 SOFTAIL® MODELS – RACE ONLY†		
2018 M8 Softail models, *except Heritage Softail® Classic & Softail® Deluxe*	Black	**550-0735**
2018 M8 Softail models, *except Heritage Softail Classic & Softail Deluxe*	Chrome	**550-0736**
2018 M8 Heritage Softail Classic & Softail Deluxe models	Chrome	**550-0739**

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††DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE
*Qualified Manufacturer Declared 49-State Emissions Compliant Catalyst Exhaust Component



REPLACEMENT PARTS: SEE PAGE 27

Mk45 TOURING MUFFLERS



FITMENT

- 2017-'18 Harley-Davidson® touring models with Milwaukee-Eight engine
  Does not fit Trike or Freewheeler models

FEATURES AND BENEFITS

- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or black ceramic finish
- Choose from S&S Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

Mk45 4.5" SLIP-ON MUFFLERS

Muffler Body Finish	End Cap Finish & Style	Part #
Chrome	Chrome Thruster	**550-0665**
	Highlight Machined Thruster	**550-0664**
	Chrome Tracer	**550-0669**
	Highlight Machined Tracer	**550-0668**
Black	Chrome Thruster	**550-0667**
	Highlight Machined Thruster	**550-0666**
	Chrome Tracer	**550-0671**
	Highlight Machined Tracer	**550-0670**

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2018 FL Touring models



Removable dB reducer



550-0665



550-0664



550-0669



550-0668



550-0667



550-0664



550-0671



550-0670

REPLACEMENT PARTS: SEE PAGE 24

GRAND NATIONAL® 4" SLIP-ON MUFFLERS
FOR 2017-2018 FLH TOURING MODELS

FITMENT
- 2017-'18 FLH Touring Models

FEATURES AND BENEFITS
- Show quality chrome or black ceramic finish
- Race inspired Grand National end cap
- High flowing baffle design
- Aggressive sound and excellent horsepower
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!







Grand National

GRAND NATIONAL 4" MUFFLERS FOR 2017-'18 TOURING M8 ENGINES *EXCEPT FREEWHEELER® OR TRIKE MODELS*

Finish	Part #
Chrome	**550-0693**
Black	**550-0694**

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2018 FL Touring models

REPLACEMENT PARTS: SEE PAGE 28

SLASH CUT 4" SLIP-ON MUFFLERS



FITMENT
- 2017-2018 Touring Models

FEATURES AND BENEFITS
- Available in show chrome or black ceramic finish
- Stripped down styling
- Aggressive sound
- Economical price
- Removable dB Reducer
- Excellent choice for Trike and Freewheeler® models
- Made in USA!



SLASH CUT 4" TOURING MUFFLERS FOR 2017-2018 TOURING M8 ENGINES

Finish	Part #
Chrome	**550-0695**
Black	**550-0696**

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2018 FL Touring models

REPLACEMENT PARTS: SEE PAGE 29

MINI TEARDROP STEALTH AIR CLEANER KITS

CARB compliant EO #D-355-21

FEATURES AND BENEFITS
- 85% of original size
- Iconic look
- Machined openings around the rim add style and provide additional air flow
- Gloss Black or Chrome

MINI TEARDROP STEALTH AIR CLEANER KITS

Fitment	Fuel System	Finish	Part No.
2017-'18 M8 Touring	Throttle by Wire, Stock Bore	Chrome	**170-0435**
		Gloss Black	**170-0436**

Kit includes Stealth Air Cleaner 170-0354 which is exempt from emissions tampering regulations under CARB EO# D-355-21.

STEALTH AIR CLEANER KITS



FITMENT
- 2017 Harley-Davidson® models with the Milwaukee-Eight® engine

FEATURES AND BENEFITS
- Use with any S&S Stealth cover (see page 17)
- Use with your stock Harley-Davidson® Milwaukee-Eight® engine air cleaner cover (Adapter required –see below)
- High flow (1" taller) filter kit available (P/N 170-0127*)
- Backplate made from high-strength advanced synthetic polymer –reduces heat transfer to intake air
- Cooler, denser air allows for more efficient cylinder fill and better performance
- Included actuator cover, hides TBW servo motor for a clean, attractive installation
- Exempt from emissions tampering regulations under CARB EO# D-355-21

STEALTH AIR CLEANER KITS

Description	Part #
Stealth Kit *(170-0354)* plus Chrome Airstream cover	**170-0390**
Stealth Kit *(170-0354)* plus Gloss Black Airstream cover	**170-0397**
Stealth Kit *(170-0354)* plus Tri-Spoke cover	**170-0392**
Stealth Kit *(170-0354)* plus Torker cover	**170-0393**
Stealth Kit *(170-0354)* plus Air 1 cover	**170-0394**
Stealth Air Cleaner Kit for Stock M8 and 58mm Throttle Body	**170-0354**
Adapter for Stock M8 Air Cleaner Cover	**170-0352**

Exempt from emissions tampering regulations under CARB EO# D-355-21



CARB compliant EO #D-355-21



The S&S Stealth air cleaner backplate in this kit is made from the same high-strength, advanced, synthetic polymers used in high performance automotive intake manifolds and high-end handgun bodies! This material offers superior mechanical properties, thermal stability, and chemical resistance. Designed to reduce heat transfer to the intake air for more efficient induction.

REPLACEMENT PARTS: SEE PAGE 22

STEALTH AIR CLEANER KIT COVERS



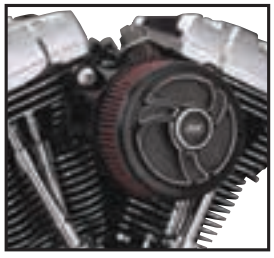




Air 1



Tri-Spoke



Torker



Bobber-dished

STEALTH COVERS

Style	Finish	Part No.
Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	NEW FOR 2018 Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**

DYNOJET® POWER VISION® TUNER

FITMENT

- 2017-'18 Harley-Davidson® models with the Milwaukee-Eight® engine

FEATURES AND BENEFITS

- Flash tune all H-D® models equipped with a Delphi ECM
- Does NOT require the user to interface with a computer in order to flash a tune. Change rev limit, idle speed, and other parameters directly from the device
- Display all H-D vehicle data
- Customizable virtual gauges allow data to be monitored live, and/or logged while riding
- User defined visual alarms for any data channel
- Check and clear diagnostic codes
- Reset adaptive fuel trims and idle offset (with bike running)

The Power Vision Suite includes a highly flexible tuning / data logging device, as well as a productive tuning application (WinPV) that's user friendly compared to other products on the market.

WINPV SOFTWARE FEATURES

- Allows you to import Power Commander Maps
- Tuning parameters laid out in a clear, concise manner utilizing a "tree view structure"
- A viewing mode for every type of user, beginners or professionals
- Individual tuning parameters are able to be saved as "value files." The value files can then be applied to other calibrations
- Compare, restore, and undo features
- Various math functions can be performed on any value
- Synchronized editing of front and rear VE and/or Spark tables
- Helpful tuning parameter descriptions
- Automatic update client ensures you have the latest tuning application, firmware, and tune file database

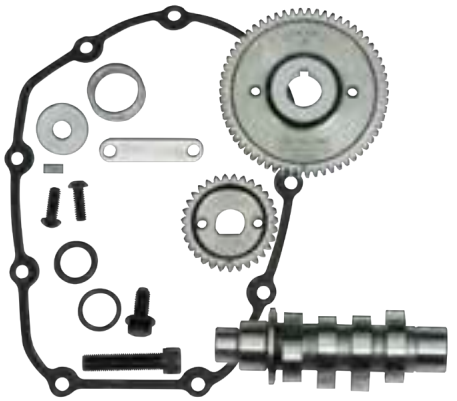


DYNOJET® POWER VISION® TUNER

Fitment	Mfr PN	Part #
2017-'18 HD® models with the Milwaukee-Eight® engine	PV-2	**550-0111**

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CAM KITS



FITMENT

- 2018 Harley-Davidson® models with Milwaukee-Eight® Engine and 2017 Touring models

FEATURES AND BENEFITS

- 465C chain drive and 465G gear drive cams both provide increased torque and horsepower
- 350G gear drive cam has stock specs, but eliminates cam drive chain and tensioner
- Kits include all required bearings, o-rings and hardware
- Gear drive cams provide improved valve timing accuracy
- Made in the USA

S&S® CAMSHAFT SPECIFICATIONS

Cam Name	Cylinder	Valve Timing		Valve Duration		Valve Lift		Lobe Center Line		Valve Lift @ TDC	
		Intake	Exhaust								
		Open BTDC/ Close ABDC	Open BBDC/ Close ATDC	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
350G Stock Grind Gear Drive	Both	-7.0/1.0	33.0/-14.0	174.0	199.0	.350	.374	94.0	113.5	.057	.048
465 Performance	Front	2.6/14.6	30.1/8.8	197.2	218.9	.462	.462	96.0	100.6	.087	.109
	Rear	2.8/14.4	33.1/5.8	197.2	218.9	.462	.462	95.8	103.6	.088	.098
475 HP	Front	6.2/27.2	55.5/28.5	213.5	263.9	.475	.475	100.5	103.5	.107	.208
	Rear	2.2/31.2	52.5/20.2	213.5	252.5	.475	.475	104.5	106.0	.093	.170
550 Big Bore	Front	9.4/29.4	62.5/30.5	218.9	273.1	.550	.550	100.0	106.0	.127	.232
	Rear	3.1/31.1	59.4/38.4	214.2	277.8	.550	.550	104.0	100.5	.099	.264

CHAIN DRIVE CAMSHAFTS FOR 2017-'18 HD® MODELS WITH M8 ENGINE

Description	Part #
465C	**330-0620**
475C	**330-0641**
550C	**330-0643**

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GEAR DRIVE CAMSHAFTS FOR 2017-'18 HD® MODELS WITH M8 ENGINE

Description	Part #
350G - Stock	**330-0625**
465G	**330-0624**
475G	**330-0645**
550G	**330-0647**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS

Description	Part #
Cam Cover Gasket	**310-0911**
Pinion Gear	**330-0622**
Undersized Pinion Gear	**330-0626**
Oversized Pinion Gear	**330-0627**
Cam Gear Drive	**330-0621**

CAMSHAFT INSTALLATION KITS FOR M8 2017-'18 TOURING

Description	Part #
Chain Drive Installation Kit	**330-0619**
Gear Drive Installation Kit	**330-0623**



All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

TAPPET CUFFS



FITMENT
- 2017-'18 touring models
- 2018 HD Softail® models

FEATURES AND BENEFITS
- Hard anodized black coating
- Billet aluminum construction
- Stronger material eliminates distortion
- Improve tappet stability in high lift and high rpm situations
- An easy upgrade when changing tappets or doing a cam change

TAPPET CUFFS

Fitment	Part #
2017-'18 HD® touring models with M8 Powerplant 2018 HD Softail® models with M8 Powerplant	**330-0655**

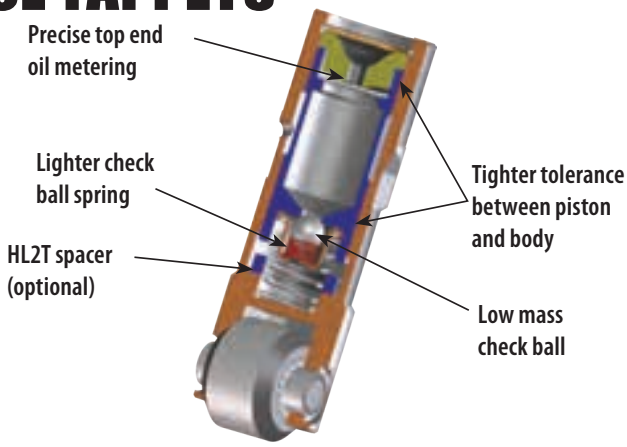




PREMIUM HIGH PERFORMANCE TAPPETS

FITMENT
- 2017-2018 big twins with the Milwaukee-Eight® engine

FEATURES
- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates - *fast pump up and superior high rpm performance*
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring *- enhances fast pump up and quiet operation*
- 100% tested to ensure that leak down and top end oil flow are within specification



PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL_2T kit	**330-0174**
Set of 4 tappets without HL_2T kit	**330-0175**

HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT
- 1999–'18 big twins
- S&S T-Series engines

HIGH PERFORMANCE HYDRAULIC TAPPET SETS

Description		Part #
Standard Tappet Set (4)	Without HL_2T Kit	**33-5350** *18538-99A, 18538-99B, 18538-99C*

**S&S tappets with HL_2T Kit require the use of adjustable pushrods.*



QUICKEE ADJUSTABLE PUSHRODS



FITMENT
- 2017-2018 big twins with the Milwaukee-Eight® engine

FEATURES AND BENEFITS
- Adjustable to accommodate all tappets and cam base circle diameters and engine heights
- Easy to install – removal of rocker box not needed
- Perfect for S&S HL_2T
- No threads on wrench flats

KIT CONTENTS
- Pushrods, chrome pushrod covers, o-rings, and cover keepers

QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Kit *(includes chrome pushrod covers, o-rings & cover keepers)*	**930-0123**
Pushrods Only	**93-5122** USA



PUSHROD COVER KEEPER SET FOR 2017-'18 BIG TWINS WITH THE M8 ENGINE

Description	Part #
Pushrod Cover Kit	**106-1340**
2.200"	**930-0129**

NOTE

S&S quickee pushrods require aftermarket tubes.

VALVE SPRINGS



FEATURES AND BENEFITS
- Works well with cams up to .605" lift
- High Performance conical single wire spring
- Kit includes: Springs, Top Collars, Keepers, Valve seal/bottom collar

VALVE SPRING KIT

Description	Part #
Valve Spring Kit for M8 2017-'18 Models	**900-0958**

REPLACEMENT PARTS FOR VALVE SPRING KITS

Description	Part #
Valve Keeper	**900-0956**
Top Collar	**900-0952**

S&S® OIL

FEATURES AND BENEFITS

- Ultimate protection
- Superior lubrication for reduced engine wear and lower oil temperatures
- Provides consistent viscosity, and resists thermal breakdown and oxidation at elevated temperatures
- Includes a oil drain plug oring for convenience



S&S® OIL CHANGE KIT

Description	Part #
2017-2018 Harley-Davidson® Models with Milwaukee-Eight® engine	**3601-0492**

S&S® OIL

Description	Part #
20W50 Synthetic, 1 quart	**3601-0407**
20W50 Synthetic, 2.5 Gallon	**3601-0408**
Primary, Synthetic, 1 quart	**3603-0044**
80W140 Gear, Synthetic, 1 quart	**3604-0007**

OIL FILTERS

FEATURES AND BENEFITS

- Captures smaller particles than stock filters
- Low restriction to oil flow
- Direct bypass – bypass oil does not pass over dirty filter media
- Smaller diameter for easier installation
- Black or chrome finish



S&S® OIL FILTERS

Year Application	Micron Rating	QTY	Chrome	Black
1999-'17* Twin Cam 88®/96™/103™ and Milwaukee-Eight® engines	10µ	*each*	**31-4104A**	**31-4103A**
		12 pack	**310-0242** *63798-99A*	**310-0241** *63731-99A*

** Contains an anti-drain back valve*

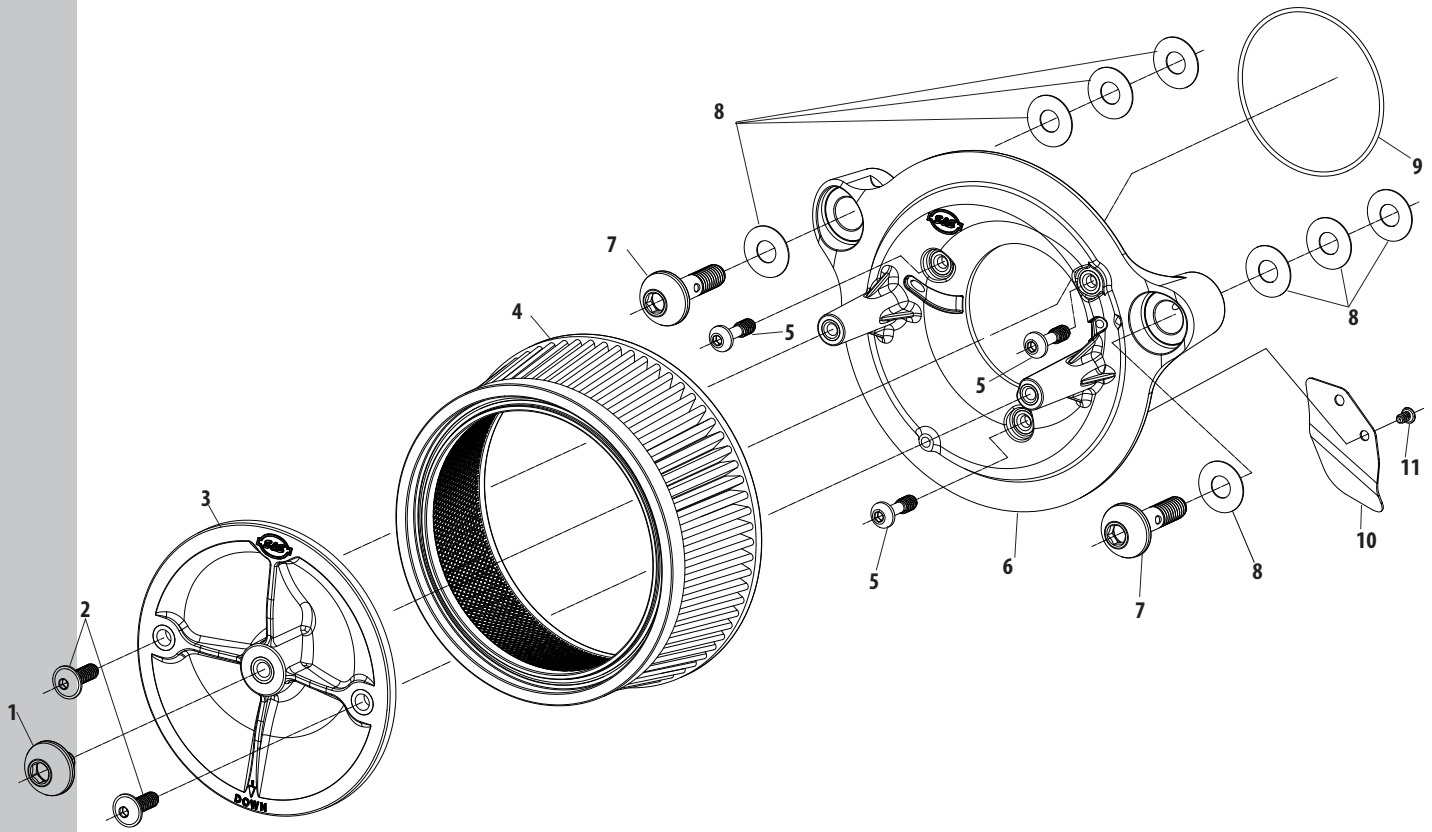
GASKETS

GASKETS

Cam Cover		**310-0911**
Exhaust Gaskets	*each*	**106-5029**
	10 pack	**93-1072**
Valve Stem Oil Seal, Hat Style, 6mm, M8 2017 Touring	*8 pack*	**900-0959**

STEALTH AIR CLEANER KIT REPLACEMENT PARTS

1. Screw, SHCB, 5⁄16-18 x .500", Polished, Stainless Steel **500-0051**
2. Screw, SHC, Flanged Button, 1⁄4-20 UNC x .750" *(Each)*....**500-0060**
3. Plate, Top, Air Filter, Molded, Plastic.....**170-0026**
4. Filter, Air, Tapered, Standard Pleated, 5.500" x 6.000" x 2.375", Cotton **170-0126**
5. Screw, SHCB, 1⁄4-20 UNC X .825" *(Each) 3 required* **500-0059**
6. Backplate, Air Cleaner, Throttle-by-Wire, Stock Bore, Black, Die Cast, . 2017 Touring, M8 .....**170-0353**
7. Screw, Backplate Vent, SHCB, 3⁄8-16 x 1-1⁄2", Polished,Stainless Steel (Each) 2 required **170-0045**
8. Washer, Flat,.380" x .880" x .024", Nitrile Rubber Coated, Cold Rolled Steel *(Each) 8 required*..... **50-7054**
9. O-ring, 2.75" ID x 2.875 OD, X 1⁄16" Buna, (-039) **50-8207-S**
10. Cover,Electrical Plug,Throttle by Wire,Aluminum M8 2017 Touring..... **N/S**
11. Screw,#10-14 x .375" Long,Plastite..... **N/S**



POWER TUNE DUAL REPLACEMENT HEADER SYSTEM
FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM



REPLACEMENT HEADER FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

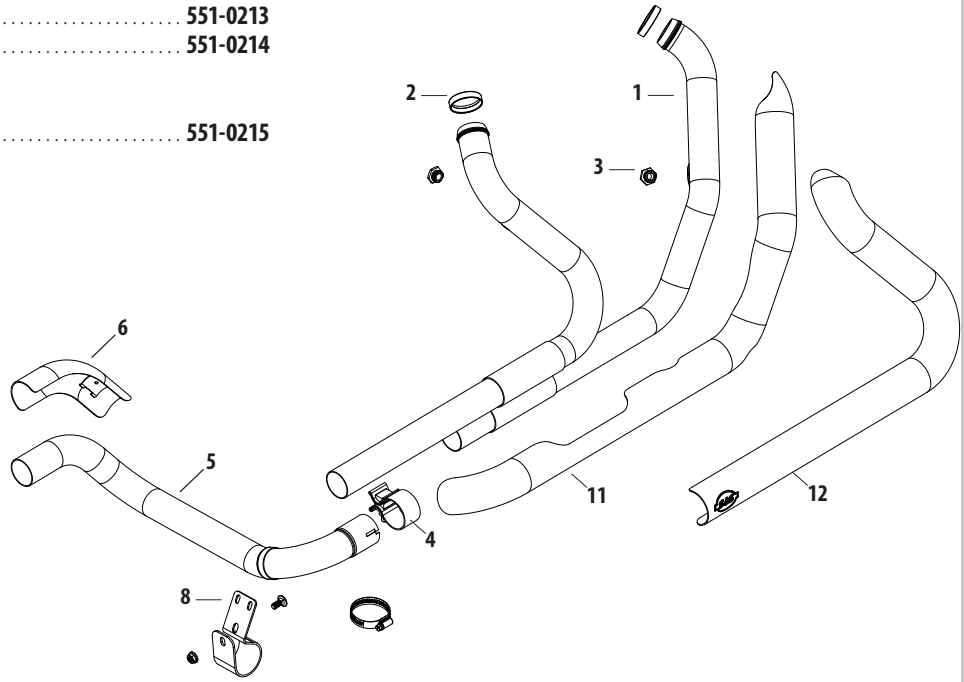
Finish	Part #
Chrome	**550-0704**
Black	**550-0705**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.
This part is emissions compliant only when used as part of a complete El Dorado exhaust package.

POWER TUNE DUAL HEADER REPLACEMENT PARTS
FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

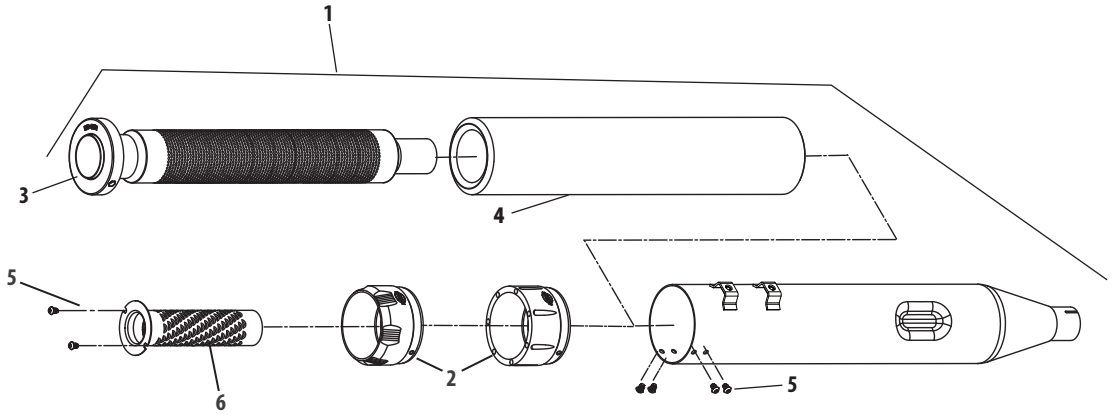
1. Pipe, header, power tune dual, header pipe weldment **551-0198**
2. Gasket, exhaust, tapered, stainless steel, *(2 Req)* **106-5029**
3. Adapter, oxygen sensor, 12mm to 18mm, stainless steel *(2 Req)* **550-0375**
4. Clamp, muffler, band style **551-0028**
5. Tube, crossover, power tune dual, formed, ... **551-0229**
6. Shield, left, power tune dual,
   - Chrome **551-0115**
   - Black **551-0116**
7. Nut, HSFH, 5/16-18 UNC-2b x .283", Zinc, steel **50-5053-S**
8. Clamp, p-style, crossover, power tune dual header **551-0121**
9. Bolt, carriage, 5/16"-18 x 3/4" **500-0555**
10. Clamp, hose *(8 Req)* **551-0124**
11. Shield, front, power tune dual,
    - Chrome **551-0206**
    - Black **551-0207**
12. Shield, rear, power tune dual,
    - Chrome **551-0213**
    - Black **551-0214**

Not Shown
Hardware kit, power tune dual, header
Includes items 2, 3, 4, 7, 8, and 9 ..... **551-0215**



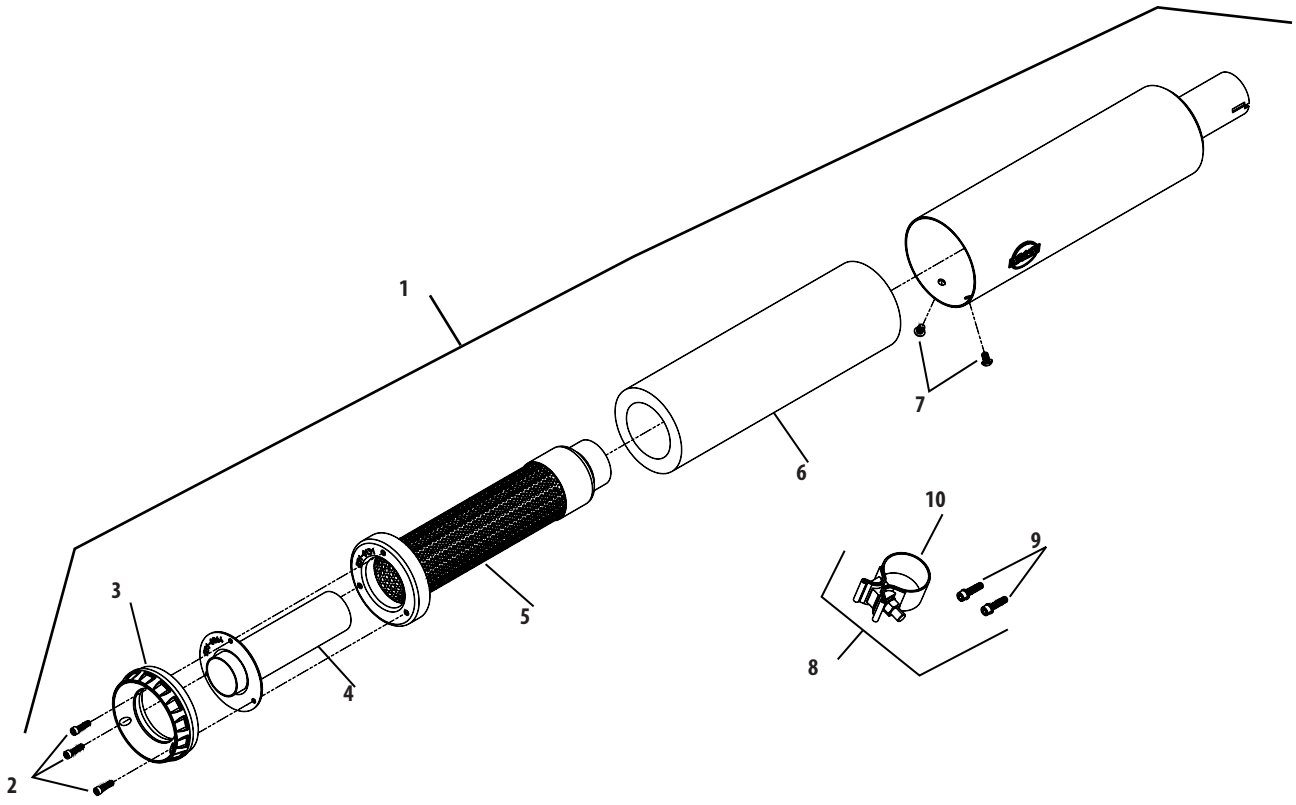
Mk45 4½" MUFFLER REPLACEMENT PARTS

1. 4.5" Muffler assembly for 2017-'18 Models
   - Left, chrome **551-0149**
   - Right chrome **551-0150**
   - Left black **551-0151**
   - Right black **551-0152**
2. End cap
   - Thruster chrome **550-0634A**
   - Thruster Highlight Machined **550-0629A**
   - Tracer chrome **550-0636A**
   - Tracer Highlight Machined **550-0632A**
3. Main baffle assembly, 4.5" muffler for 2017-'18 Models
   - Left **551-0007**
   - Right **551-0138**
4. Insulation, 4.5" muffler **551-0003**
5. Button head cap screw, Stainless, ¼"-20 x ⅜" **500-0441**
6. Baffle,Assembly,Muffler,SAE J2825 ..... **551-0026**
7. Hardware kit, muffler clamps and screws (N/S) 2017 Models
   - Left **551-0027**
   - Right **551-0148**



GRAND NATIONAL® MUFFLER REPLACEMENT PARTS
FOR 2018 FAT BOB®

1. Muffler, Grand National, Black, 2018 M8 Fat Bob® Front/Rear **551-0431**
2. Screw,Shc,High Temp Lock Patch,10-32 X ¾", Stainless Steel **500-0569**
3. 4" End Cap, Grand National, Black **551-0239**
4. Db Reducer Baffle Assembly **551-0063**
5. Baffle, Assembly **551-0422**
6. Fiberglass Wrap, Pillow, 12"X 13" **551-0276**
7. Screw, Bhc, High Temp Lock Patch, ¼-20 ..... **500-0441**
8. Hardware Kit, Muffler, 2018 M8 Fat Bob® **551-0425**
   Screw, Shcs, W/ Flat Washer, ¼-20 X 1",
9. Zinc, Astm A574-92A *4741A* **50-0092-S**
10. Clamp, Muffler, Band Style, 1.75" **551-0028**

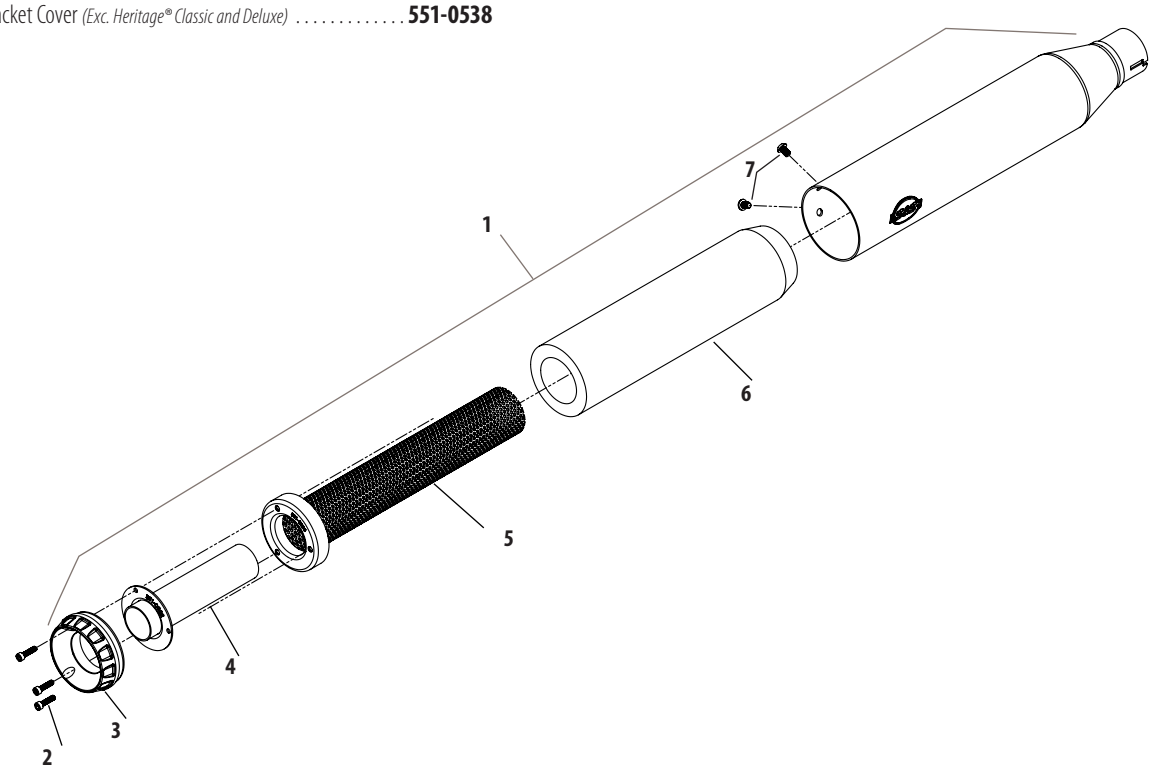


GRAND NATIONAL® MUFFLER REPLACEMENT PARTS
FOR 2018 SOFTAIL® MODELS (EXCEPT FAT BOB® MODELS)

1. Muffler Assembly
M8 Softail® Except Heritage® Classic and Deluxe
Top
Black, ... **551-0440**
Chrome **551-0443**
Bottom
Black **551-0452**
Chrome **551-0455**
M8 Softail® Heritage® Classic and Deluxe
Chrome Front or Rear **551-0461**
2. Screw, SHC, High Temp Lock Patch,
10-32x¾", Stainless Steel **500-0569**
3. 4" End Cap, Grand National, Black **551-0239**
4 dB Reducer Baffle Assembly **551-0304**
5. Baffle Assembly **551-0299**
6. Fiberglass Wrap **551-0305**
7. Screw, BHC, High Temp Lock Patch, ¼-20 ..... **500-0441**

Parts Not Shown

8. Hardware Kit,Muffler,2018 M8 Fat Bob® **551-0425**
9. Screw, SHCS, w/Flat Washer, ¼-20x1" *4741A* **50-0092-S**
10. Clamp, Muffler, Band Style, 1.75" **551-0028**
11. Muffler Gasket **551-0360**
12. Bracket Cover *(Exc. Heritage® Classic and Deluxe)* **551-0538**



SLASH CUT MUFFLER REPLACEMENT PARTS
FOR 2018 SOFTAIL® MODELS (EXCEPT FAT BOB® MODELS)

1. Muffler Assembly
M8 Softail® Except Heritage® Classic and Deluxe®
Top
Black **551-0434**
Chrome **551-0437**
Bottom
Black **551-0446**
Chrome **551-0449**
M8 Softail® Heritage® Classic and Deluxe®
Chrome, Front or Rear **551-0458**

2. Screw, BHC, High Temp Lock Patch, 10-32x⅜", Stainless Steel **500-0570**

3. dB Reducer Baffle Assembly **551-0350**

4. Baffle Assembly **551-0301**

5. Screw, BHC, High Temp Lock Patch, ¼-20 . . . . . **500-0441**

Parts Not Shown

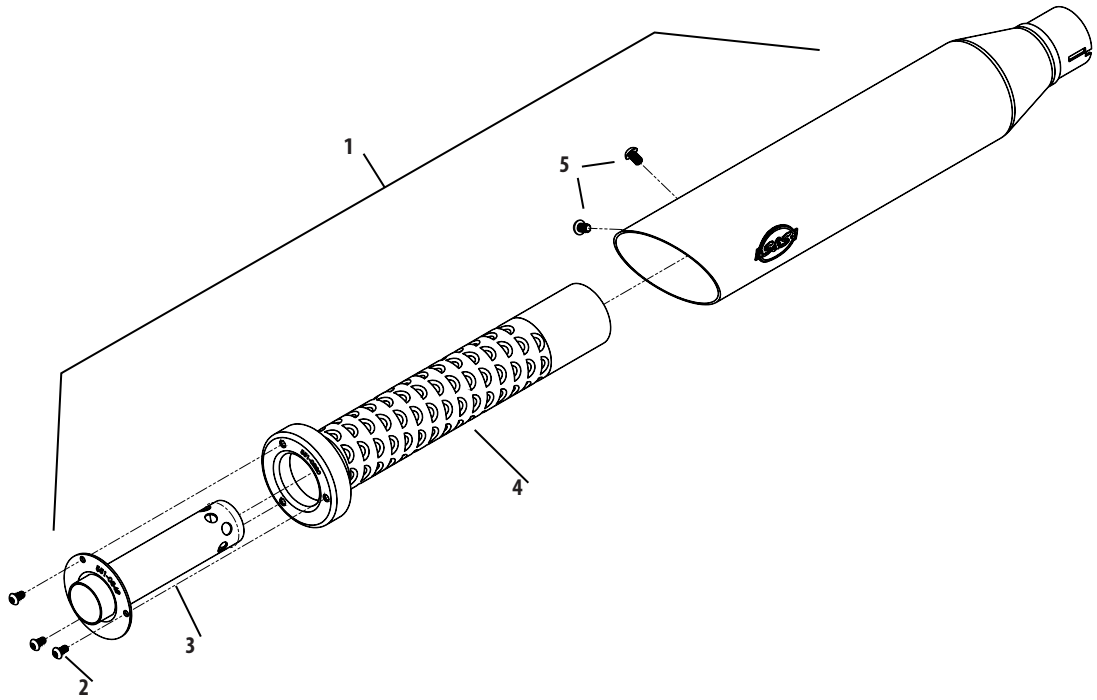
6. Hardware Kit, Muffler **551-0425**

7. Screw, SHCS, w/Flat Washer, ¼-20x1" *4741A* **50-0092-S**

8. Clamp, Muffler, Band Style, 1.75" **551-0028**

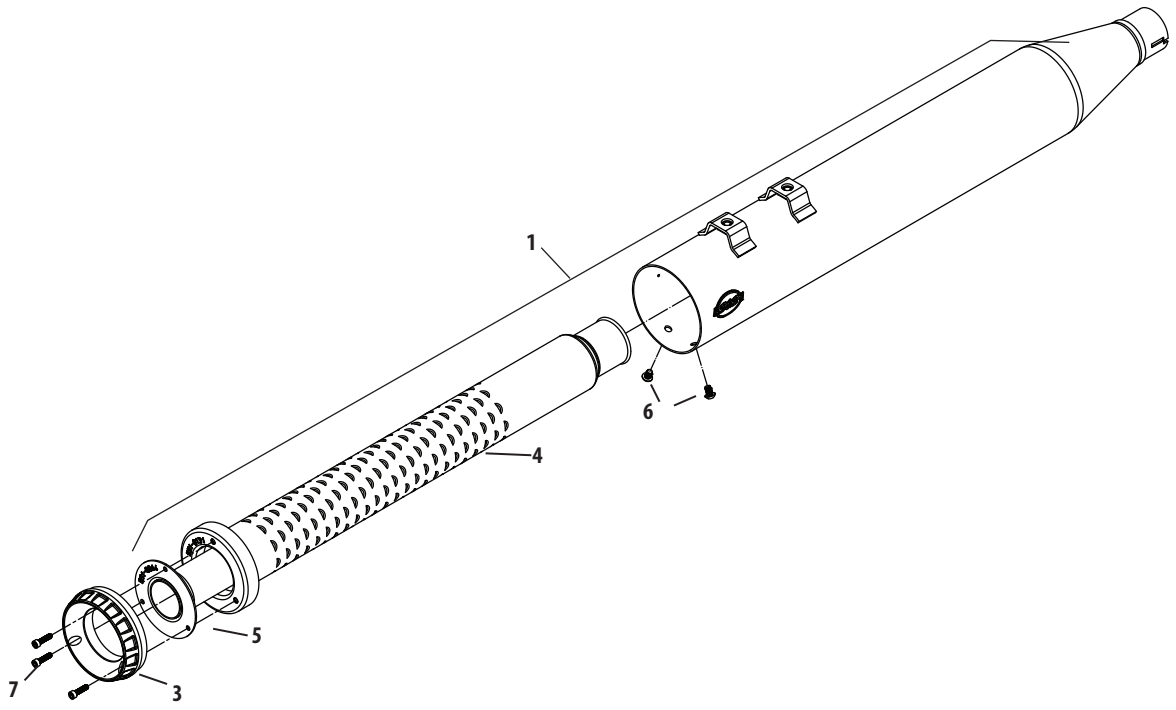
9. Muffler Gasket **551-0360**

10. Bracket Cover (Exc. Heritage® Classic and Deluxe®) **551-0538**



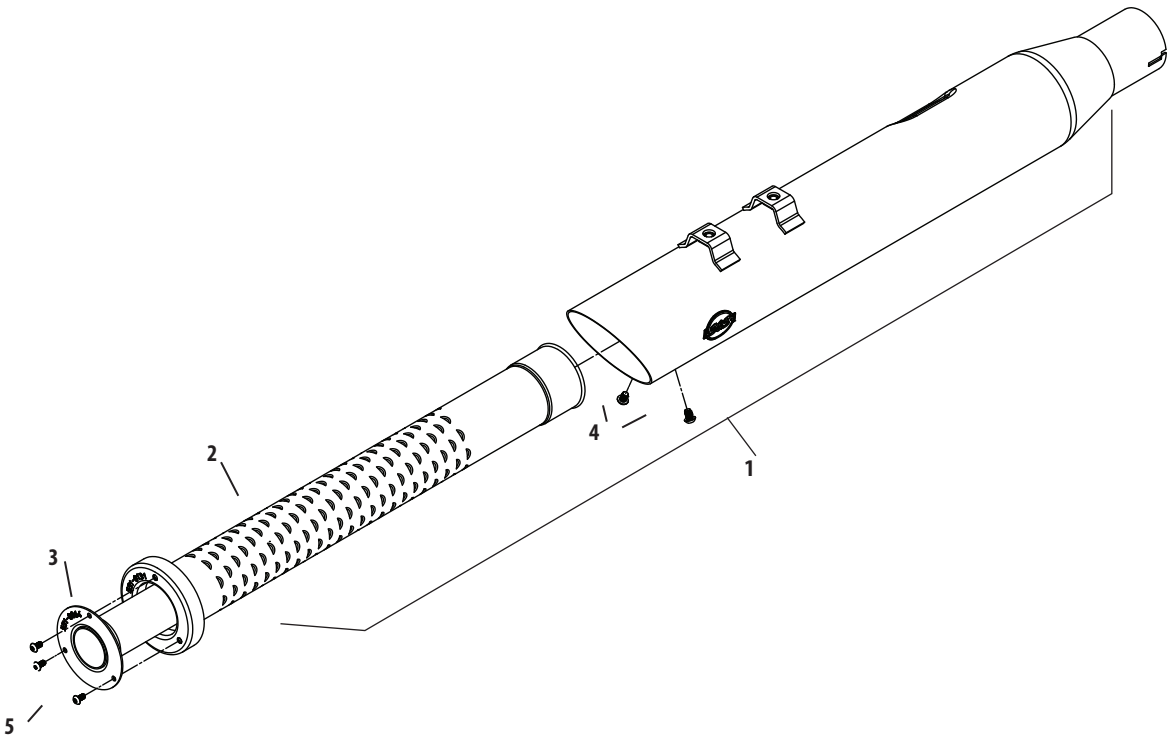
GRAND NATIONAL® 4" MUFFLERS REPLACEMENT PARTS

1. 4" Muffler assembly with Grand National end cap
   - Left, Chrome. **551-0181**
   - Right, Chrome **551-0180**
   - Left, Black. **551-0183**
   - Right, Black **551-0182**
3. End Cap (*Left and Right*) **551-0188**
4. Main baffle assembly
   - Left **551-0053**
   - Right. **551-0132**
5. dB reducer baffle *(Left and Right)* **551-0063**
6. Button head cap screw, Stainless, ¼"-20x⅜" **500-0441**
7. Socket head cap screw, Stainless, 10-32x¾" **500-0569**
9. Hardware kit, muffler clamps and screws (N/S) **551-0027**



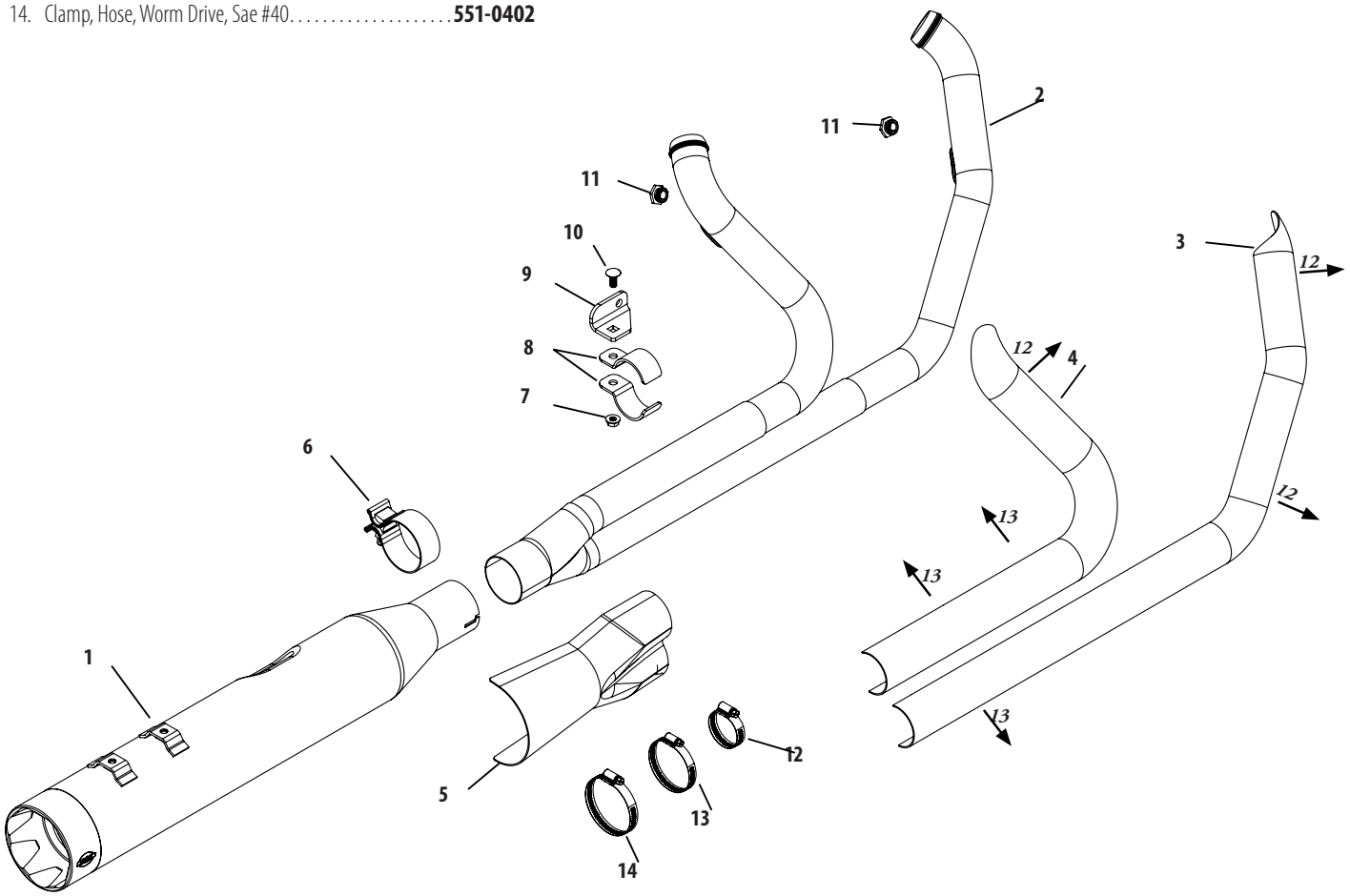
SLASH CUT 4" MUFFLERS REPLACEMENT PARTS

1. 4" Muffler assembly Slash Down
   - Left, Chrome. **551-0185**
   - Right, Chrome **551-0184**
   - Left, Black. **551-0187**
   - Right, Black **551-0186**
2. Main baffle assembly
   - Left **551-0053**
   - Right. **551-0132**
3. dB reducer baffle *(Left and Right)* **551-0063**
4. Button head cap screw, Stainless, ¼"-20x⅜" **500-0441**
5. Button head cap screw, Stainless, 10-32x⅜". **500-0570**
6. Hardware kit, muffler clamps and screws (N/S) **551-0027**



SIDEWINDER 2:1 EXHAUST SYSTEM REPLACEMENT PARTS

1. Muffler, Assembly, 2 Into 1, 2017-'18 M8 Touring
   - Chrome ..... **N/A**
   - Black ..... **N/A**
2. Header, Assembly, Weldment, 2017-'18 M8 Touring **551-0367**
3. Shield, Front, Heat, 2017-'18 M8 Touring
   - Chrome **551-0385**
   - Black **551-0387**
4. Shield, Rear, Heat, 2017-'18 M8 Touring
   - Chrome **551-0391**
   - Black **551-0393**
5. Collector, Heat Shield, 2017-'18 M8 Touring
   - Chrome **551-0379**
   - Black **551-0381**
6. Clamp, Muffler, Band Style, 2.5" **551-0135**
7. Nut, Flanged, Serrated, 5/16-18 ..... **50-5053-S**
8. Bracket, Header Mount, 2 Into 1, Powdercoated, 2017-'18 M8 Touring **551-0397**
9. Clamp, Header Mount, 2 Into 1, Chrome Plate, Mild Steel, 11 Gauge, 2017-'18 M8 Touring **551-0361**
10. Bolt, Carriage, 5/16-18 X 3/4" **500-0555**
11. Adapter, Oxygen Sensor, 12mm To 18mm, Stainless Steel **550-0375**
12. Clamp, Hose, Worm Drive, Sae #20 ..... **551-0527**
13. Clamp, Hose, Worm Drive, Sae #24 ..... **500-0791**
14. Clamp, Hose, Worm Drive, Sae #40 ..... **551-0402**





SECTION 2: 2007-2017 BIG TWINS

Performance Kits

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SLASH CUT SLIP-ONS FOR DYNA® MODELS

FITMENT

- 1995-2009 Dyna® models with staggered exhaust
- 2008-'17 Dyna® Models with 2-1-2 exhaust

FEATURES AND BENEFITS

- Up to 16% more horsepower and 10% more torque *(when used with Stealth Air Cleaner Kit)*
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or black ceramic finish
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



SLASH CUT MUFFLERS FOR 1995-2009 DYNA® MODELS WITH STAGGERED EXHAUST‡

Finish	Part #
Chrome	**550-0718**
Black	**550-0720**
SLASH CUT MUFFLERS FOR 2008-2017 DYNA® MODELS WITH 2-1-2 EXHAUST‡‡	
Chrome	**550-0722**
Black	**550-0724**

‡DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: MY 2006-2007, Except CVO models. 49 State Models: MY 1995-2009, Except CVO models

‡‡DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: Fat Bob MY 2008, 2010-2017; Wide Glide MY 2010-2017; Low Rider S MY 2017. 49 State Models: Fat Bob MY 2008-2017; Wide Glide MY 2010-2017; Low Rider S MY 2017

REPLACEMENT PARTS: SEE PAGE 120

NEW FOR 2018 GRAND NATIONAL® SLIP-ONS FOR DYNA® MODELS

FITMENT

- 1995-2009 Dyna® models with staggered exhaust

FEATURES AND BENEFITS

- Up to 17% more horsepower and 9% more torque *(when used with Stealth Air Cleaner Kit)*
- Race inspired Grand National end caps
- Show chrome or black ceramic finish
- Deep performance rumble
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL MUFFLERS FOR 1995-2009 DYNA® MODELS WITH STAGGERED EXHAUST‡	
Finish	**Part #**
Chrome	**550-0719**
Black	**550-0721**
GRAND NATIONAL MUFFLERS FOR 2008-2017 DYNA® MODELS WITH 2-1-2 EXHAUST‡‡	
Chrome	**550-0723**
Black	**550-0725**

‡DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: MY 2006-2007, Except CVO models. 49 State Models: MY 1995-2009, Except CVO models

‡‡DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: Fat Bob MY 2008, 2010-2017; Wide Glide MY 2010-2017; Low Rider S MY 2017. 49 State Models: Fat Bob MY 2008-2017; Wide Glide MY 2010-2017; Low Rider S MY 2017

REPLACEMENT PARTS: SEE PAGE 121

GRAND NATIONAL® 2 INTO 2 EXHAUST SYSTEM
FOR DYNA® MODELS

NEW FOR 2018



FITMENT
- 2006-2017 Dyna® models

FEATURES AND BENEFITS
- 2:2 Free-flow design equals solid HP gains
- Hidden crossover provides performance benefits of 2:1
- Full heat shields on both front and rear headers
- Stainless steel header construction
- Race inspired Grand National end cap
- Available in chrome or black ceramic finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors.
- SAE J2825 Sound Level Compliant
- Removable dB reducers
- Made in USA!



Removable dB reducer

GRAND NATIONAL 2:2 EXHAUST SYSTEM FOR 2006-2007 DYNA® MODELS	
Finish	**Part #**
Chrome	**550-0743**
Black	**550-0742**
GRAND NATIONAL 2:2 EXHAUST SYSTEM FOR 2008-2017 DYNA® MODELS – RACE ONLY	
Chrome	**550-0743**
Black	**550-0742**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the Dyna® Models Listed Below.
California Models: MY 2006-2007, Except CVO® models
49 State Models: MY 2006-2009, Except CVO models



EL DORADO TOURING EXHAUST SYSTEM
MK45 MUFFLER/HEADER PACKAGE

FITMENT
- 2009-'16 Touring Models

FEATURES AND BENEFITS
- Improved power and torque
- Deep bass rumble throughout the RPM range
- Stainless steel header construction
- Includes adapters for OE or wide band O2 sensors
- O2 sensor location same as stock
- 50-state legal CARB EO# K-010
- SAE J2825 Sound Level Compliant
- High Flow Cats increase exhaust flow for optimum torque
- Catalysts located in mufflers moves heat away from rider
- Show chrome or black ceramic finish
- Highlight Machined Thruster or Tracer end caps
- Made in USA!



CARB compliant
CARB EO K-010


Black w/Thruster


Chrome w/Thruster


Black w/Tracer


Chrome w/Machined Tracer

EL DORADO 50-STATE COMPLIANT EXHAUST SYSTEM FOR 2009-2016 TOURING MODELS		
Description/Finish	**End Cap**	**Part #**
Chrome	Highlight Machined Thruster	**550-0677A**
Chrome	Highlight Machined Tracer	**550-0678A**
Black	Highlight Machined Thruster	**550-0679A**
Black	Highlight Machined Tracer	**550-0680A**
REPLACEMENT MUFFLERS FOR 50-STATE COMPLIANT SYSTEM*		
Muffler Kit/Chrome	Highlight Machined Thruster	**550-0685A**
Muffler Kit/Chrome	Highlight Machined Tracer	**550-0686A**
Muffler Kit/Black	Highlight Machined Thruster	**550-0687A**
Muffler Kit/Black	Highlight Machined Tracer	**550-0688A**

Exempt from emissions tampering regulations under CARB EO# K-010
*Replacement mufflers for use in complete MK45 Muffler Header kits only!

Mk45 TOURING MUFFLERS

Mk45 4.5" Touring Mufflers are the result of decades of riding, racing and tuning. Combining both a stainless steel baffle and fiberglass packing, they create a deep rumble and improved horsepower and torque, all while adding a unique look with styled aluminum end caps.

FITMENT

- 1995-2016 touring models

FEATURES AND BENEFITS

- 7 horsepower gain*
- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or black ceramic finish
- Choose from S&S® Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

**Tested with S&S Power Tune Dual Header and Stealth Air Cleaner Kit*



MK45 4.5" TOURING MUFFLERS W/END CAPS

Muffler Body Finish	End Cap Finish & Style	Part #
Chrome	Chrome Thruster	**550-0620**
	Black Highlight Machined Thruster	**550-0619**
	Chrome Tracer	**550-0624**
	Black Highlight Machined Tracer	**550-0623**
Black Ceramic	Chrome Thruster	**550-0622**
	Black Highlight Machined Thruster	**550-0621**
	Chrome Tracer	**550-0626**
	Black Highlight Machined Tracer	**550-0625**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH MUFFLERS CONTAINING CATALYST.
*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON THE FL TOURING MODELS LISTED BELOW.
CALIFORNIA FL TOURING MODELS: FUEL INJECTED MY 1995-2003, 2007, AND 2009-2016; CVO MY 2000-2003, AND 2009-2016.
49 STATE FL TOURING MODELS: CARBURETED MY 1995-2005; FUEL INJECTED MY 1995-2005, AND 2007-2016; CVO MY 2000-2005, AND 2009-2016



Removable dB reducer



550-0620



550-0619



550-0624



550-0623



550-0622



550-0621



550-0626



550-0625

REPLACEMENT PARTS: SEE PAGE 122

SLASH CUT 4" SLIP-ONS

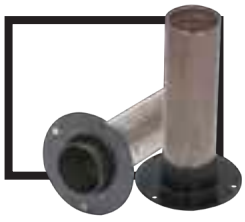
FITMENT

- 1995-2016 Harley-Davidson® touring models with non-catalyst mufflers
- 2009-'18 Tri Glide® models

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!





Removable dB reducer



SLASH CUT 4" TOURING MUFFLERS FOR 1995-2016 BIG TWINS *AND 2009-'18 TRIGLIDE® MODELS*

Finish	Part #
Chrome	**550-0691**
Black	**550-0692**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2017; CVO MY 2000-2003, and 2009-2017, 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2017; CVO MY 2000-2005, and 2009-2017

REPLACEMENT PARTS: SEE PAGE 123

GRAND NATIONAL® 4" SLIP-ONS

FITMENT

- 1995-2016 Harley-Davidson® touring models with non-catalyst mufflers *(except 2010 Road Glide® and Street Glide® using OEM 2-1 Header)*
- 2009-'18 Tri Glide® models

FEATURES AND BENEFITS

- Show quality chrome or black ceramic finish
- Race inspired Grand National end cap
- High flow baffle
- Aggressive sound & excellent HP
- SAE J2825 Sound Level Compliant
- 50-state legal on most models
- Removable dB reducer
- Made in USA!





Removable dB reducer



Grand National

GRAND NATIONAL® 4" MUFFLERS FOR 1995-2016 BIG TWINS *AND 2017-'18 TRI GLIDE® MODELS*

Finish	Part #
Chrome	**550-0689**
Black	**550-0690**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2016; CVO MY 2000-2003, and 2009-2016, 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2016; CVO MY 2000-2005, and 2009-2016

REPLACEMENT PARTS: SEE PAGE 123

POWER TUNE DUAL HEADERS

FITMENT

- Non-catalyst equipped Harley-Davidson® touring models‡
- Harley-Davidson® Tri Glide® models††

FEATURES AND BENEFITS

- Adds up to 8 horsepower over stock header pipes
- Independent dual look with hidden crossover
- Exclusive design moves the rear cylinder header away from the passenger to reduce radiated heat
- Full chrome or black ceramic heat shielding with 220º coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs**
- Durable 16 gauge construction
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Compatible with all equal size inlet slip-on mufflers
- Exhaust port gaskets included
- All hardware included
- Made in USA!



550-0003a



550-0142a

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: See page 89.

POWER TUNE DUAL HEADERS

Fitment	Finish	Part #
1995-'08† big twins	Chrome	**550-0003A****
	Black	**550-0142A****
2009-'16 non-catalyst equipped touring and 2009-'18 Tri Glide†† models	Chrome	**550-0004B*****
	Black	**550-0143B*****

†Has 18mm sensor fittings in the stock locations for 2007-'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.

††Requires the Pipe Extension Adaptor Kit. See chart below.

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED VEHICLES ORIGINALLY EQUIPPED WITH CATALYST.
*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON FL TOURING MODELS LISTED BELOW.
CALIFORNIA MODELS: FL TOURING FUEL INJECTED MY 1995-2003, AND 2007. CVO FL TOURING MY 2000-2003.
49 STATE MODELS: FL TOURING CARBURETED MY 1995-2005. FL TOURING FUEL INJECTED MY 1995-2005 AND 2007-2008. CVO FL TOURING MY 2000-2005.

***DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH A CATALYST EXHAUST
*QUALIFIED MANUFACTURER DECLARED EMISSIONS COMPLIANT PART FOR 2009 HARLEY-DAVIDSON 49-STATE NON-CVO FL TOURING MODELS ONLY



††PIPE EXTENSION ADAPTOR KIT

Fitment	Finish	Part #
2009-'16 Tri Glide® models	Chrome	**550-0088**

REPLACEMENT PARTS: SEE PAGE 124

SPECIAL NOTES

It may be necessary to re-jet the carburetor or recalibrate the fuel injection system for best performance when a change is made in the exhaust system.

Dyno results are from tests performed at the S&S® Research and Development facility in Viola, Wisconsin.

Exhaust Noise Disclaimer: Unless noted, S&S exhaust components do not meet U.S. EPA noise standards and may be restricted to closed course competition use. Check local noise ordinances before use.

MINI TEARDROP STEALTH AIR CLEANER KITS

FEATURES AND BENEFITS

- 85% of original size
- Iconic look
- Machined openings around the rim add style and provide additional air flow
- Gloss Black or Chrome



S&S MINI TEARDROP STEALTH AIR CLEANER KITS

Fitment	Fuel System	Finish	Part #
2008-'16 Touring,'16-'17 ST® *(except Tri-Glide® & CVO® Models)* *Includes Stealth AC Kit 170-0301*	Throttle by Wire, Stock Bore	Chrome	**170-0437**
		Gloss Black	**170-0438**
2001-'17 bt *(except Throttle by Wire)* *Includes Stealth AC Kit 170-0300*	Stock EFI, Delphi® EFI	Chrome	**170-0441**
		Gloss Black	**170-0442**

Exempt from emissions tampering regulations under CARB EO# D-355-21



STEALTH AIR CLEANER KITS

CARB compliant EO #D-355-21

FITMENT

- 1999-'17 model big twins

FEATURES AND BENEFITS

- Air directional stinger cone in the filter
- Pre-filters are available - See page 46
- Use with any of several S&S designed covers. See page 43
- High flow (1" taller) filter kit available -See page 46
- Backplate adaptor for Rushmore covers also available-See page 46



STEALTH AIR CLEANER KITS WITH AIR 1 COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	**170-0478**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® *(except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B*	Throttle By Wire	**170-0485**



STEALTH AIR CLEANER KITS WITH TRI-SPOKE COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	**170-0476**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® *(except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B*	Throttle By Wire	**170-0483**



STEALTH AIR CLEANER KITS WITH TORKER COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	**170-0477**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® *(except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B*	Throttle By Wire	**170-0484**



STEALTH AIR CLEANER KITS WITH AIRSTREAM COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	FINISH	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	Chrome	**170-0479**
		Gloss Black	**170-0480**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® *(except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B*	Throttle By Wire	Chrome	**170-0486**
		Gloss Black	**170-0487**



STEALTH AIR CLEANER KITS WITH MUSCLE COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	FINISH	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	Chrome	**170-0481**
		Gloss Black	**170-0482**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® *(except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B*	Throttle By Wire	Chrome	**170-0488**
		Gloss Black	**170-0489**



STEALTH AIR CLEANER KITS* EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® big twin *(except Throttle By Wire and CVO® Models)*	Stock EFI Delphi®	**170-0300B**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® *(except Tri-Glide® & CVO® Models)*	Throttle By Wire	**170-0301B**

**These kits do not contain covers – Choose an S&S cover or use your stock Twin Cam 88®, 96™ or 103™ cover*

CON'T NEXT PAGE

CON'T STEALTH AIR CLEANER KITS

NOTES

Fuel injection tuning is not required for this product.

SEE PAGE 230 FOR '99 SOFTAIL CARB & THROTTLE BY WIRE OPTIONS



Airstream

STEALTH AIR CLEANER KITS W/CHROME AIRSTREAM COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted big twins and 2007-'10 Softail® CVO® Models	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0056**
2008-'16 HD® Tri-Glide and CVO® Stock-Bore Models	Throttle by Wire	**170-0054**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



Muscle

STEALTH AIR CLEANER KITS W/CHROME MUSCLE COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted big twins and 2007-'10 Softail® CVO® Models	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0106**
2008-'16 HD® Tri-Glide and CVO® Stock-Bore Models	Throttle by Wire	**170-0099**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



Bobber-Dished

STEALTH AIR CLEANER KITS W/CHROME BOBBER-DISHED COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted big twins and 2007-'10 Softail® CVO® Models	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0104**
2008-'16 HD® Tri-Glide and CVO® Stock-Bore Models	Throttle by Wire	**170-0097**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



Bobber-Domed

STEALTH AIR CLEANER KITS W/CHROME BOBBER-DOMED COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted big twins and 2007-'10 Softail® CVO® Models	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0105**
2008-'16 HD® Tri-Glide and CVO® Stock-Bore Models	Throttle by Wire	**170-0098**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



STEALTH AIR CLEANER KITS*

Application	Fuel System	Part #
1999-'06 HD® Carbureted big twins and 2007-'10 Softail® CVO® Models	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0060**
2008-'17 HD® Tri-Glide and CVO® Stock-Bore Models	Throttle by Wire	**170-0061**

**These kits do not contain covers – Choose an S&S cover or use your stock Twin Cam 88®, 96™ or 103™ cover*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.

REPLACEMENT PARTS: SEE PAGE 113

STEALTH AIR CLEANER KITS FOR S&S ENGINES

STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
1999-2017 big twin models *(except '17 Touring Models)* & S&S T-Series Engines	S&S 66mm Throttle Hog	**170-0165**
1999-2017 big twin models *(except '17 Touring Models)* & S&S T-Series Engines	S&S 58mm Throttle Hog	**170-0164**
1995-1999 S&S Super Stock Engines	S&S Single Bore VFI 52mm Throttle Bodies	**170-0287**
1995-1999 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	**170-0283**
1999-2017 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	**170-0284**
T124 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	S&S E or G Carburetor	**170-0058**
T124 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	Stock CV/EFI Delphi®	**170-0060**
T111 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	S&S E or G Carburetor	**170-0058**
T111 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	Stock CV/EFI Delphi®	**170-0060**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW MINI TEARDROP

FITMENT

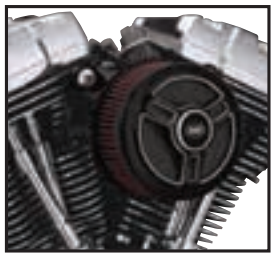
- All S&S Stealth Air Cleaners



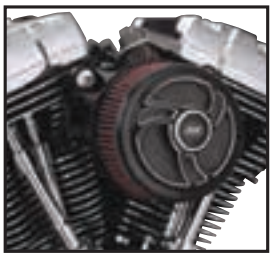




Air 1



Tri-Spoke



Torker



Bobber-dished



Airstream

STEALTH COVERS

Style	Finish	Part #
Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	NEW FOR 2018 Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**
111	Gloss Black with Highlights	**170-0319**
124	Gloss Black with Highlights	**170-0321**
143	Gloss Black with Highlights	**170-0323**

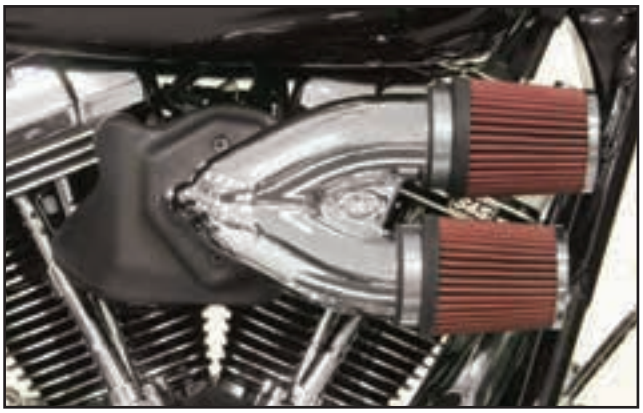
SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT

- Single bore intake big twin models including Harley-Davidson® Tri Glide® models *(except 2007-'08 FXDWG & 2009 FXDC/FXDF)*

FEATURES AND BENEFITS

- Bolt-on performance – over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy
- Available in wrinkle black, chrome, or natural



CARB compliant EO #D-355-21

SINGLE BORE TUNED INDUCTION SYSTEM KITS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Fitment	Fuel System	Finish	Part #
2001-'17 Harley-Davidson® big twin *(except Throttle By Wire and CVO® Models)*	Stock EFI Delphi®	Chrome/Red Filters	**170-0308B**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® *(except Tri-Glide® & CVO® Models)*	Throttle By Wire	Gloss Black/Red Filters	**170-0309C**
		Chrome/Red Filters	**170-0310B**

SINGLE BORE TUNED INDUCTION SYSTEM KITS

Fitment	Fuel Delivery	Finish	Part #
2007-'15 big twins *(except 2007-'08 FXDWG & 2009 FXDC/FXDF)*	S&S Single Bore EFI	Chrome/Red Filters	**170-0085**
2007-'10 Softail® CVO® Models	Stock CV & EFI Delphi®	Chrome/Red Filters	**170-0087**
2008-'16 HD® Tri-Glide and CVO® Stock-Bore Throttle By Wire Models	Electronic Throttle Control	Gloss Black/Red Filters	**170-0457**
2008-'16 HD® Tri-Glide and CVO® Stock-Bore Throttle By Wire Models		Chrome/Red Filters	**106-2448**
CTO	Specify	Specify	**106-5337***

Use the Configure to Order (CTO) part number to order different finish and filter color.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



Molded black adaptor bracket for 2008-'15 touring models

Chrome billet adaptor bracket for 2007-'15 big twins,except touring



REPLACEMENT PARTS: SEE PAGE 114 & PAGE 115

NOTES

Does not fit Screamin' Eagle 58mm or 64mm throttle bodies, or S&S 58mm or 66mm Throttle Hogs.

Single bore tuned induction will not fit on motorcycles equipped with fairing lower glove boxes.

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: See page 89.

CLASSIC TEARDROP AIR CLEANER KIT

FITMENT
- Single bore intake big twin models including Harley-Davidson® Tri Glide® models

FEATURES AND BENEFITS
- Efficient and free flowing intake that can add two to five horsepower
- Uniquely designed back plate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS
- Filter
- Backing plate and Cover
- All mounting hardware
- Instructions



106-2091

CARB compliant EO #D-355-21

CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK EFI EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Fitment	Fuel System	Finish	Stock EFI, With 96 & 103 Engines
2001-'17 HD® big twin Models *(except Throttle By Wire and CVO® Models)*	Stock EFI Delphi®	Chrome	**170-0303B**
		Gloss Black	**170-0304B**
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® Models *(except Tri-Glide® & CVO® Models)*	Throttle By Wire	Chrome	**170-0305B**
		Gloss Black	**170-0312B**

CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK CARB/EFI

Fitment	Finish	Stock EFI, With 110 Engines
2008-'16 HD® Tri-Glide and CVO® Stock-Bore Models	Chrome	**106-2091**
1993-'06 HD® Carbureted big twins and 2007-'10 Softail® CVO® Models	Chrome	**17-0450**
	Gloss Black	**170-0181A**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

CLASSIC TEARDROP AIR CLEANER KITS FOR S&S SINGLE BORE EFI THROTTLE BODIES

Fitment	Style/Finish	52mm	58mm
Stock Harley-Davidson® heads, S&S T-Series Long block engines or S&S Heads for stock breathing system	Teardrop/Chrome	**17-0498**	**106-4669**
S&S Heads for 4⅛" bore engines with vacuum breathing	Teardrop/Chrome	–	**106-4668**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: PAGE 116

NOTE

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: See page 89

TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Classic Teardrop	Chrome	**17-0378**
	Gloss Black	**170-0384A**
Slasher Teardrop	Chrome	**17-0004**
Nostalgic Teardrop	Polished	**17-0071**



17-0004



17-0378



170-0384A



17-0071

STEALTH BACKPLATE ADAPTOR
FOR RUSHMORE COVER FOR 2014-2016 TOURING MODELS

S&S Stealth air cleaners allow owners of 1999-later big twins to use their stock air cleaner cover to hide a performance air cleaner, the new adaptor kit for Rushmore Models allows late model bagger owners to fly under the radar too.

FITMENT
- 2014-2016 touring models

STEALTH BACKPLATE ADAPTOR FOR RUSHMORE COVER

Fitment	Part #
2014-2016 touring models	**170-0261**



170-0261

PRE-FILTERS

FITMENT
- S&S® Stealth Air Filters

FEATURES AND BENEFITS
- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard	**170-0193**
1" Tall	**170-0197**



170-0197

HIGH FLOW AIR FILTER KITS

FITMENT
- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS
- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS
- Wide filter
- Filter spacers



170-0127

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit *(includes spacers)*	Classic Teardrop	**17-0045**
	Stealth, 1" Taller	**170-0127***
1" Taller Filter Only	Classic Teardrop	**106-4724**
	Stealth	**170-0154**
Spacer	Classic Teardrop & Stealth, 1" Taller	**50-5009-S**

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



17-0045

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	**106-4722**
	Stealth	**170-0126**

PERFORMANCE KIT OVERVIEW

FOR HARLEY-DAVIDSON® TWIN CAM 96™ AND 103™



4" BORE BOLT-IN SIDEWINDER® BIG BORE KIT

S&S 4" big bore cylinder and piston kits boost 88 and 96/103" Harley-Davidson® big twin engines to 100" and 110" respectively. These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining! See page 48



124" HOT SET UP KIT

Ready for the ultimate? The 124" HSU kit will take you to the limit increasing both your bore and stroke. The included flywheel increases the stroke from 4 3⁄8" to 4 5⁄8". The kit's cylinders open the stock 3 3⁄4" bore to 4 1⁄8". S&S Easy Start 640 gear drive camshafts are included! Kits are available for balanced and unbalanced engines. CTO allows you to select other camshaft and cylinder head options to build the ultimate kit of your dreams. Your crankcase will require machining for these cylinder spigots to fit. Fuel injection tuning required. See page 49



117" BIG BORE KIT

The S&S 117" big bore top end kit, for 96" and 103" engines, is an economical route to big inches and increased performance. Use the stock crankcases, flywheel assembly, and cylinder heads for a stock look and a smaller price tag. Crankcase boring is required to accommodate the larger 4 1⁄8" bore cylinders. Finish the conversion off with your choice of performance cams, fuel system upgrade, and tuning. Available in dished dome or flat topped pistons and in wrinkle black or silver powder coat finish that matches the stock heads and cases. See page 50.



103" AND 106" HOT SET UP KIT

This kit gives you the flexibility to build the performance package you want. 103" owners can have their stock cylinders bored or purchase pistons and cylinders already sized. S&S Easy Start 585 chain drive cams are included in all kits or select a specific camshaft from the CTO options. 106" kits can be purchased with or without heads. Retain your stock heads or select 83cc CNC heads for even greater performance. See page 54
No crankcase machining is required with either displacement package. Fuel injection tuning required.



107" & 106" BIG BORE KIT

A low cost bolt-on kit provides big displacement! Just like the 97" kit, the 107" and 106" Big Bore Kits offer the simplicity of a bolt-on cylinder kit. Satisfy your thirst for speed with the largest bolt-on cylinders available. Bore is increased from 3.750" to 3.927", taking your displacement from 96" or 103" to 106"! The kit contains cylinders, pistons, rings and all gaskets needed. Fuel injection tuning required. See page 52

PERFORMANCE KIT SPECIFICATIONS FOR HARLEY-DAVIDSON® TWIN CAM 96™/103™/110™

KIT DESCRIPTION	BORE	STROKE	COMPRESSION RATIO								CAMSHAFT	HORSEPOWER (CNC Heads)	TORQUE (CNC Heads)
			Stock Heads	79cc	89cc	91cc	CNC Heads 83cc	CNC Heads 85cc	CNC Heads 87cc	CNC Heads 90cc			
Power Pack	4"										585		
124" Hot Set Up Kit (Flat Top Piston)	4 1⁄8"	4 5⁄8"	11.4:1	*	11:1	10.8:1	11.6:1	11.4:1	11.2:1	10.9:1	640	127	130
106" Hot Set Up Kit	3.927"	4 3⁄8"	10.0:1	10.7:1	9.7:1	9.5:1	10.2:1	10.1:1	9.9:1	9.6:1	585	106	108
106" Big Bore Kit	3.927"	4 3⁄8"	10.0:1	10.7:1	9.7:1	9.5:1	10.2:1	10.1:1	9.9:1	9.6:1	–	106	108
103" Hot Set Up Kit	3 7⁄8"	4 3⁄8"	10.5:1	11.2:1	10.1:1	9.9:1	10.7:1	10.5:1	10.3:1	10:1	585	100	102

Not Recommended

PERFORMANCE KIT CONTENTS, OPTIONS AND REQUIREMENTS FOR HARLEY-DAVIDSON® TWIN CAM 96™/103™/110™

KIT DESCRIPTION	PACKAGE CONTENTS										MACHINING REQUIRED	CTO OPTIONS*	REJETTING OR CALIBRATION CHANGE
	Flywheels	Cylinders	Pistons w/rings	Rocker Arms	Pushrods w/covers	Lifters	Camshafts	Valve Springs	Heads w/ springs	Gaskets			
Power Pack		●	●			●	●						
124" Hot Set Up Kit	●	●	●	●	●	●	●		⓪	●	❸❹	❺❻❼	●
117" Big Bore Kit		●	●						⓪	●	❸❹	❺❻❼	●
106" Hot Set Up Kit		●	●		●	●	●		⓪	●		❺❻❼	●
106" Big Bore Kit		●	●							●			●
103" Hot Set Up Kit			❶		●	●	●			●	❷	❺❻❼❽	●

⓪ = *Optional*
❶ = *Order separately*
❷ = *Bore & hone cylinders*
❸ = *Crankcase machining for center stud*
❹ = *Crankcase machining for cylinder spigots*
❺ = *Camshaft selection*
❻ = *CNC heads*
❼ = *Combustion chamber size selection*
❽ = *Cylinder & piston set available*

*The CTO option column lists only the major items offered. Virtually any option can be selected from our product offerings through the Configure To Order (CTO) Program.

FUEL INJECTION TUNING REQUIRED. S&S OFFERS FUEL INJECTION TUNING SOLUTIONS: SEE PAGE 88.

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS



S&S 4" big bore cylinder and piston kits boost 96/103" Harley-Davidson® big twin engines to 110" respectively. These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining!

FEATURES & BENEFITS

- Bolts in. No machining, balancing, or splitting the crankcases
- 96" and 103" engines end up at 110"
- Complete kits include cylinders, pistons, gaskets, and instructions
- Choose from wrinkle black or silver powder coat cylinders – *matches stock finish*

FITMENT

- 2007-17 big twins *(except 2017 Touring)*

SPECS FOR S&S 4" BORE BOLT-IN CYLINDER & PISTON KITS

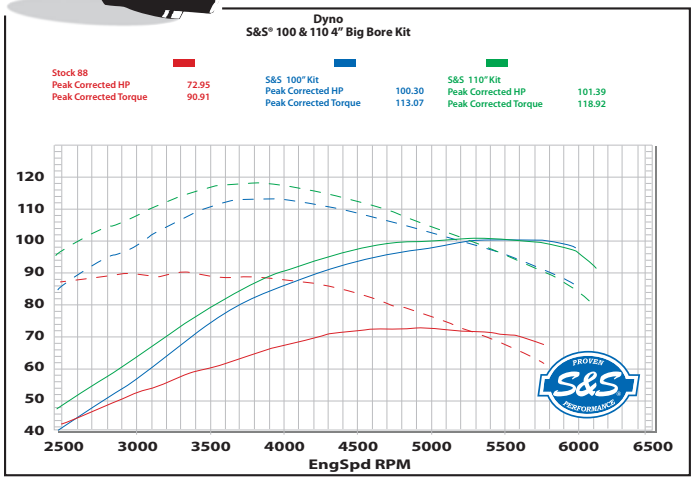
Year	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
2007-2017	4 3⁄8	4.00"	4.937"	Forged	.75 pop up	10.7:1	10.5:1	10.2:1

Sidewinder®

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS

Displacement	Year	Stroke	Finish	Part #
110	2007-'17 big twin *(except 2017 Touring)*	4⅜"	Silver	**910-0650**
	2007-'17 big twin *(except 2017 Touring)*	4⅜"	WBlack	**910-0651**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



These dyno results from our DynoJet® 250i chassis dynamometer clearly show the performance increases available with the S&S bolt-in 4 inch bore kits. The lowest (red) set of curves represents a stock 88 cid engine in a 2004 Harley-Davidson® FLHR Road King®. The next curves above the stock baseline (blue) shows the performance of the S&S 100" bolt-in big bore kit. The highest set of curves show the results from an S&S 110" big bore kit installed in a 96 cid engine. The engines with the S&S 100" and 110" kits were also set up with S&S 585 cams, Power Tune headers, MK45 muffler, and the stock EFI throttle body with an S&S Stealth air cleaner.

NOTE Not for use with S&S 79cc Cylinder Heads

124" HOT SET UP KIT®

Now with Easy Start Gear Drive Cams!

S&S GEAR DRIVE

FITMENT

- All 2007-'17 big twin models and 2006 Dyna® models, except 2017 touring models *(2016 Twin-Cooled™ models not compatible with kits containing heads)*

FEATURES AND BENEFITS

- Huge displacement increase means huge power increase
- Stock crankcases, cylinder heads, oil pump, and cam cover can be reused
- Original engine serial numbers are retained
- Gear drive S&S 640 Easy Start Cams included!
- Wrinkle Black *(WBlack)* Powder coat finish heads match factory finish
- .045" MLS *(multi-layered steel)* head gaskets
- Adds .096" to engine height –still fits in stock frames
- Kits with S&S heads use stock length manifolds *(S&S size 405)*
- Cylinder w/piston kits include fitted pistons ready to install

OPTIONS

The following three options are examples of the most commonly ordered kits.
Option 1 *(10.8:1 compression ratio)* includes:
- S&S 91cc high flow Super Stock® heads
- Flat topped pistons

Option 2 *(without heads)* Available only through CTO. Includes:
- Flat topped pistons

Option 3 *(without heads, 10.4:1 compression ratio intended for stock 85cc chamber cylinder heads)* includes:
- 10.9cc Dished pistons

Silver finish available through CTO.

S&S® 124" HOT SET UP KIT® SPECIFICATIONS

Year	Stroke	Bore	Cylinder Length	Piston Type/Compression Ratio			
				91cc S&S Heads	89cc S&S Heads	85cc Stock Heads	95cc Stock 110 CVO Heads
2007-'16	4 5/8"	4 1/8"	5.004"	Flat top forged/10.8:1	Flat top forged/11:1	Forged, 10.9cc dish/10.4:1	10.5:1



900-0569

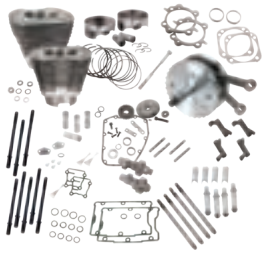
124" HOT SET UP KITS® FOR HARLEY-DAVIDSON® TWIN CAM 96™/96B™ /103™/110™ ENGINES

(Kits include S&S® Super Stock® 91cc Cylinder Heads 10.8:1 Compression)

Model or Engine Type	Cam	Finish	Part #
2006 Dyna® & 2007-'17 Twin Cam 96™/103™ & 2008-up Touring Models	640GE	WBlack	900-0568
2007-'17 big twins w/Balancer			900-0569
CTO Other Finishes and Combinations Available Here	Specify	Specify	106-5752

Does not fit Twin-Cooled™ models

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124" HOT SET UP KIT® WITHOUT HEADS FOR HARLEY-DAVIDSON® CVO 110 ENGINES

(Kits include flat top pistons 10.5:1 Compression when used with 95cc stock 110 CVO heads)

Year	Cam	Finish	Part #
2007-'17 CVO 110 engines	640	Stone Gray	900-0690

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NOTES

S&S Easy Start Cams save you money – no need to buy compression releases or S&S rocker covers.

Twin-Cooled applications will require separate purchase of 900-0609 head gaskets.

For engines with cable controlled throttle bodies we recommend the S&S 58mm single bore throttle bodies and manifolds. (See page 85) For 2008-up touring models with electronic throttle control S&S recommends a S&S Throttle Hog 58mm or 66mm Throttle body (See page 84).

This kit will require that the case be bored to accept the larger cylinders.

Main Bearing Note: S&S flywheel assemblies included in a 124" S&S Hot Set Up Kit® for 1999-'16 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999-'02 Harley-Davidson® crankcases and in all S&S crankcases for 1999-'16 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft, and will require modification.

Due to the amount of power these engines produce with an S&S Hot Set Up Kit, S&S strongly recommends retrofitting 2003-'16 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999-'02 model year is also required.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines with the installation of the Harley-Davidson® bearing kit #24004-03B. This bearing kit adapts the S&S sprocket shaft to be compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 or sprocket shaft bearing or S&S p/n 310-0761 for touring models. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

Fuel injection tuning is required. S&S offers fuel injection tuning solutions: See page 88

Kits with S&S heads are machined special to compensate for engine height change to accomodate a stock length manifold. When using a kit with stock cylinder heads, S&S recommends using the appropriate length manifold. For a 124" with stock OEM cylinder heads, the standard manifold length is 417.

Center case bolt between cylinders will use waisted bolt kit 900-0807

117" BIG BORE KITS

FITMENT

- 2007-'17 big twins, *except 2017 touring models (Twin-Cooled™ models require 900-0609 head gaskets)*

FEATURES AND BENEFITS

- Large displacement increase with a small price
- Your original crankcase, flywheel, cylinder heads, oil pump, and cam cover are reused
- Silver or wrinkle black (WBlack) Powder coat cylinders and heads match factory finish
- .060" shorter than stock engine - no frame clearance issues
- Piston weight is the same as stock Twin Cam 96™/103™ –no balancing required
- Piston is plated for extreme durability and skirts feature low friction Wiseco ArmorGlide® coating

SPECIAL ORDER OPTIONS

- CNC heads – Available in 83, 85, 87, 90cc chambers
- Camshafts –Gear or Chain Drive: 570, 585, 625, or 640



910-0221

117" BIG BORE KITS

Model or Engine Type	Piston	Finish	Part #
117" Standard Compression	Flat Top	Silver	**910-0213**
		WBlack	**910-0221**
117" Low Compression	Dished	Silver	**910-0321**
		WBlack	**910-0318**
Special Order*		Specify	**91-7506***

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S&S® 117" BIG BORE KIT SPECIFICATIONS

Year	Stroke	Displacement	Bore	Cylinder Length	Piston Type	Compression Ratio			
						91cc Super Stock Heads	89cc Super Stock Heads	85cc Stock Heads	83cc CNC Ported Stock Heads
2007-'17	4 3/8"	117"	4 1/8"	4.878"	Flat Top 106-3491A	10.4:1	10.5:1	10.9:1	11.2:1
2007-'17	4 3/8"	117" LC	4 1/8"	4.878"	Dished, 10cc 920-0046	9.5:1	9.7:1	10.0:1	10.3:1

NOTES

Twin-Cooled applications will require separate purchase of 900-0609 head gaskets.

The 117" cylinder kit will reduce the engine height ~.060", this may require the stock manifold be shortened by sanding some material off each side of the intake runner.

Cylinder w/piston kits included in this Hot Set Up Kit are pre-fit and ready to install.

2008-up touring models with electronic throttle control recommends S&S Throttle Hog 58mm or 66mm Throttle body (See page 84) and Dynojet® Power Vision flash tuner, see page 89 or Harley-Davidson® race tuner.

This kit will require that the case be bored to accept the larger cylinders.

.030" MLS head gaskets optional: Part #900-0217

S&S recommends retrofitting a Timken bearing (31-4013) into 2003-'16 model crankcases with the use of a Timken sleeve, Screamin' Eagle #34822-08 or Jim's #956. A charging system spacer for 1999-'02 model year is also required. S&S p/n 310-0761.

Requires recalibration.

110" PISTONS AND CAMS

MAKE THAT BIG HOG REALLY RUN!
S&S CAMS AND PISTONS FOR CVO™ 110

Not satisfied with 86 horsepower from your CVO™ 110 engine? Neither were we! Fortunately, we can show you how to make that big hog really run. Here's how.

1. Install an S&S performance exhaust and air cleaner – *a must for any performance upgrade*
2. Install a set of S&S 585 bolt-in cams and tune the EFI system – *produces over 107 horsepower*
3. Increase the compression ratio from the stock 9.3:1 to 10.6:1 with S&S high compression pistons – *brings the horsepower up to 114*





FITMENT
- 2007-Up Harley-Davidson® CVO™ 110 engines

FEATURES AND BENEFITS
- Significant performance increase – *See the dyno chart*
- Don't trade torque for horsepower – *get more of both! See the dyno chart*
- Easy installation! All parts bolt in without splitting the cases or even removing engine from the frame
- S&S Easy Start Cams ensure reliable starting even with high compression pistons
- Easy EFI tuning with free calibration downloads for Dynojet® Power Vision® tuner or S&S EZ Loader – *no expensive dyno time required*

S&S exclusive EASY START CAMS US PATENT 7,669,035

S&S exclusive GEAR DRIVE US PATENT 6,318,321

10.6:1 HIGH COMPRESSION PISTONS FOR HARLEY-DAVIDSON® CVO™ 110 ENGINES

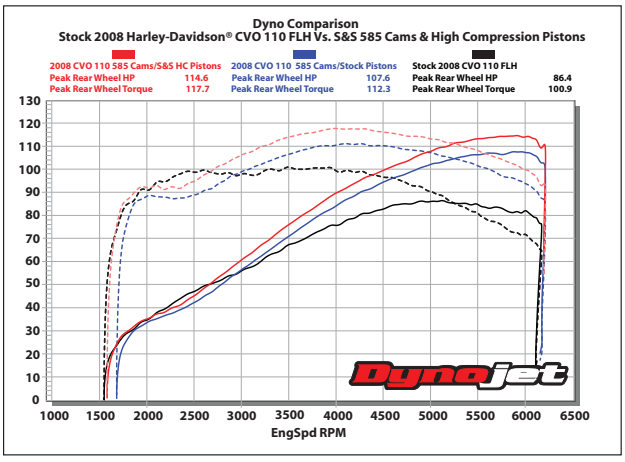
Fitment	Deck Height	Wristpin Diameter	Standard	+.010"
2007-'17 bt CVO™ 110" engines	1.0895"	.927"	**920-0114**	**920-0115**

585 CAMSHAFTS FOR HARLEY-DAVIDSON® CVO™ 110 ENGINES

Cam Style	Easy Start*	Standard
Chain Drive 585 cams (includes installation kit)	**106-5233**	**106-4382**
Gear Drive 585 cam kits (includes inner and outer gears and installation kit)	**106-5225**	**33-5268**

**S&S Easy Start cams feature a built-in automatic compression release for reliable starting. For more information go to www.sscycle.com/easy-start-cams*

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The Dynojet® 250i chassis dynamometer shows how this 2008 Harley-Davidson® CVO™ FLH revealed its true potential with the addition of S&S performance exhaust, intake and 585 cams. The top set of curves show that bumping the compression with S&S 10.6:1 pistons really wakes up the engine and makes over 114 horsepower. That's a total increase of over 28 horsepower or nearly 33%! All tests were done with the stock 50mm throttle body. Make even more power with an S&S 58mm Throttle Hog or cable controlled throttle body.

107" BIG BORE KITS



910-0500

FITMENT
- 2007 – 2017 big twins, *except 2017 touring models*
- 2014 – 2017 Twin Cooled models, *except 2017 touring models*

FEATURES AND BENEFITS
- 3.937" bore
- Cylinder and piston kits make going to the maximum bores size easy – *no machining required*
- Stock engine height is maintained
- 11 fin cylinder design closely resembles OEM shape and come prefinished – *ready to install*
- Increased fin area for better heat dissipation
- Centrifugal cast, gray iron liner features 40,000 psi tensile strength – *superior wear and performance*
- CP Pistons are recognized as industry leaders, and provide exceptional wear, performance and noise characteristics

KIT CONTENTS
- S&S cylinders with gaskets
- Piston set with rings, wristpins, and wristpin clips

CTO OPTIONS
- Hot Set Up Kit - options for heads, cams, pushrods, tappets, and gaskets

S&S® 107" BIG BORE KIT AND HOT SET UP KIT SPECIFICATION CHART

Year	Stroke	Bore	Cylinder Length	Piston Type	COMPRESSION RATIO (with provided .045" head gasket)		
					83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
2007-2017	4 3/8"	3.937"	4.937"	Forged, 3cc Dome	10.7:1	10.5:1	10.1:1

Cylinder w/piston kits include pistons and cylinders that require no boring or honing.

107" BIG BORE KITS

Fitment	Cylinder Finish	Part #
2007-'17 big twin, *except 2017 touring models*	Silver Powder coat	**910-0480**
	WBlack Powder coat	**910-0500**

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107" HOT SET UP KITS® WITH 83CC CNC PORTED HEADS, CYLINDERS & PISTONS

Model Year	Cam	Compression Ratio	Piston Type	Valve Springs	Finish	Part #
CTO	Specify	Specify	Specify	Specify	Specify	**106-5744**

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NOTES

Not for use with 79cc heads

S&S® highly recommends installing a performance cam for easier starting and better engine performance.

S&S high flow cylinder heads or CNC ported stock heads will provide further horsepower gains.

These kits require tuning. When used on EFI models, S&S recommends Dynojet® Power Vision flash tuner, for more information, see page 89.

106" BIG BORE KITS

FITMENT

- 2007 – 2017 big twins, *except 2017 touring models*
- 2014 – 2016 Twin Cooled models

FEATURES AND BENEFITS

- Increased fin area for better heat dissipation – be cool!
- Increase bore size from 3.750" to 3.927" – bigger is better!
- Easy installation – no machining or rebalancing required – economical!
- Forged coated pistons are compatible with stock or S&S Super Stock® 79cc & 89cc heads
- Valve pocket recessed in S&S pistons are enlarged for oversize valves and higher lift cams
- Maintains stock engine height and stock piston weight
- Cosmetic improvements – hard to tell from stock cylinders
  - 11 fins and full fin pattern on cam side closely resembles OEM shape
  - S&S logo and part numbers are less conspicuous
  - Better overall appearance

OPTIONS

- Oversize pistons available - See page 64

KIT CONTENTS

- S&S cylinders with gaskets
- Piston set with rings
- Top end gasket kit
- Instructions



910-0206

S&S® 106" BIG BORE KIT SPECIFICATION CHART

Year	Stroke	Bore	Cylinder Length	Piston Type	COMPRESSION RATIO			
					85cc Stock Heads	79cc S&S Heads	89cc S&S Heads	83cc CNC Ported Stock Heads
2007-'17	4 3/8"	3.927"	4.937"	Forged Flat Top	10.0:1	10.7:1	9.7:1	10.2:1

Cylinder w/piston kits include fitted pistons and cylinders that require no boring or honing.

106" BIG BORE KITS

Fitment	Finish	Part #
2007-'17 big twin and 2014-'16 Twin Cooled Models	WBlack	**910-0206**
	Silver	**910-0202**

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106" HOT SET UP KITS® WITH CYLINDERS & PISTONS WITHOUT HEADS

Model Year	Cam	Compression Ratio	Piston Type	Valve Springs	Finish	Part #
2007-'17 big twin and 2014-'16 Twin Cooled Models	585CE	10.0:1	Flat top	–	WBlack	**900-0354**
					Silver	**900-0355**
CTO	Specify	Specify	Specify	Specify	Specify	**106-5744**

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106" HOT SET UP KITS® WITH 83CC CNC PORTED HEADS, CYLINDERS & PISTONS

Model Year	Cam	Compression Ratio	Piston Type	Valve Springs	Finish	Part #
2007-'17 big twin *(except Twin-Cooled™ models)*	585CE	10.2:1	Flat top	.585"	WBlack	**900-0352**
CTO	Specify	Specify	Specify	Specify	Specify	**106-5744**

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900-0352

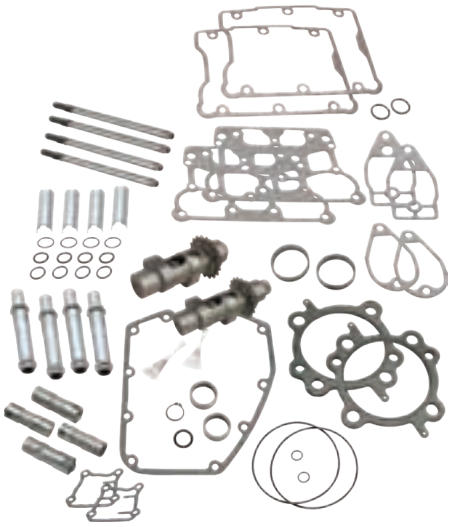
NOTES

S&S® highly recommends installing a performance cam for easier starting and better engine performance.

S&S high flow cylinder heads or CNC ported stock heads will provide further horsepower gains.

These kits require tuning. When used on EFI models, S&S recommends Dynojet® Power Vision flash tuner, for more information, see page 89

103" BIG BORE KITS



FITMENT
- 2007-'17 big twins, *except 2017 touring models*

FEATURES AND BENEFITS
- Up to 25hp increase! (when combined with upgraded fuel system and a performance exhaust)
- No crankcase modification required. Uses your stock flywheels!
- S&S high lift cams are included for maximum power increase
- Kits include S&S Easy Start chain drive cams
- S&S adjustable pushrods are made from high strength chromoly tubing
- For 103" customers, stock cylinders can be bored to 3⅞", honed and reused
- 103" pop-up domed pistons increase compression and add horsepower
- Valve pocket recesses in S&S pistons are enlarged for oversized valves and high lift cams
- .045" MLS head gaskets included
- Maintains stock engine height and stock piston weight

S&S® 103" AND 106" HOT SET UP KIT® SPECIFICATIONS

Year	Displacement	Stock Stroke	Bore	Cylinder Length	Piston Type	Compression Ratio		
						85cc Stock Heads	79cc S&S Heads	83cc CNC Ported Stock Heads
2007 - '17	103"	4⅜"	3⅞"	4.937"	Forged, 5.2cc pop-up dome	10.5:1	11.2:1	10.7:1

103" HOT SET UP KITS®
(REQUIRES SPECIAL S&S PISTONS. SEE CHART BELOW)

Model Year	Cam	Induction	Piston Type	Valve Springs	Part #
CTO	Specify	Specify	5.2cc Domed	Specify	**106-5744**

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106-0432

THIS KIT REQUIRES SPECIAL S&S PISTONS.
ORDER THE REQUIRED PISTON OVERSIZE FROM THIS CHART.

106-0432 SERIES PISTONS FOR S&S® 103" HOT SET UP KIT®

Oversize	Standard	+.005"	+.010"
Part #	**106-0432**	**106-0433**	**106-0434**

Pistons are designed for 4⅜" stroke flywheels in 2007-'12 96" engines and are coated to reduce friction.

NOTES

These kits require tuning, for EFI models S&S recommends Dynojet® Power Vision® flash tuners, see page 89 for more details.

2008-up touring models with electronic throttle control require throttle body and Dynojet® Power Vision flash tuner, page 89 or Harley-Davidson® race tuner.

ENGINE OVERVIEW

S&S performance engines for 2007-'17 Harley-Davidson® big twins are available as long blocks which do not include fuel or ignition systems. Engines are protected by super tough powder coat finishes. Available in silver and chrome, wrinkle black and chrome, Stone Grey and chrome, and Black Edition color schemes. Stone Grey matches the engine finish on CVO models, and Black Edition is a wrinkle black engine with gloss black covers.

BLACK EDITION

S&S Cycle's new Black Edition engines combine classic wrinkle black with high gloss black powder coated covers for a subtle contrast and elegant look while still producing the power and reliability you've come to expect.

T143 (143 cid)

The T143 T2 long block engine is the largest (143 cid) S&S engine that will fit in a stock chassis. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. Available in silver, wrinkle black, Stone Grey, or black edition finishes. The 160 rear wheel horsepower also requires performance drive train upgrades. Not for the faint of heart!

T124 (124 cid)

The S&S T124 T2 long block engine has been our daily rider hot rod since 2004. The combination of day in and day out reliability and brutal power make it the perfect choice. Available in silver, wrinkle black, Stone Grey, or black edition finishes. Long blocks come without fuel of ignition systems. Our Throttle Hog EFI throttle bodies are highly recommended.

T111 (111 cid)

The S&S T111 T2 long block is the ultimate sport touring engine. The shorter stroke provides a perfect combination of performance, engine life, quiet operation, and reduced vibration. Available in silver, wrinkle black, Stone Grey, or black edition finishes. Long blocks come without fuel or ignition systems. Our Throttle Hog EFI throttle bodies are available to complete the package.

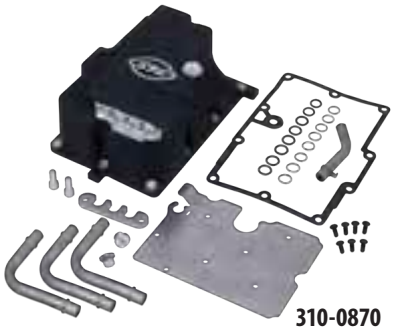


T143 ENGINES

If Bigger is Better, the T143 is the Best…
The *BIGGEST, BADDEST, BOLT-IN* for a Stock Frame.

All joking about size aside, it does matter. The S&S T143 Long Block engine for Harley-Davidson® models is the largest S&S engine that will fit in a stock Harley- Davidson® chassis. It's big, 143 cubic inches. 'Nuff said.
At double the HP of a stock motor the power of the T143 requires technical expertise for the installation and tuning along with an experienced rider. This is an ultra performance/ race engine. Longevity, engine noise, vibration and throttle sensitivity have all been compromised to reach this level of performance while fitting in a stock chassis and as such is not suitable for every situation. It is the purchaser's responsibility to consider the suitability for their application. Engine noise and damage from abuse is not covered under warranty.


310-0548


310-0870


310-0435


170-0288


170-0253

FITMENT
- 2007-'16 Harley-Davidson® touring models
- 2006-17 Dyna® models

FEATURES AND BENEFITS
- Fits in stock chassis – no cutting or frame modifications
- S&S B3 cylinder heads CNC machined with 2 bolt exhaust flanges
- S&S Super Stock T2 Crankcases with reed breather valve
- 3 Piece Flywheels
- S&S high flow oil pump and cam cover
- S&S 635 Easy Start Gear Drive Cams and S&S 1.725:1 rocker arms for .674" total lift.
- S&S Premium High Performance Tappets
- 1 year warranty

OPTIONS
- Wrinkle Black, Stone Gray, or Black Edition powder coat finish

SUGGESTED ACCESSORIES
- Dynojet® Power Vision® for tuning
- Stealth Air Cleaner Kit 143 Cover: See page 43

T143 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	CR	Warranty	Finish	Part #
2007-2016 Touring Models	143"	4.425"	4⅝"	635	S&S Forged Flat Top	10.5:1	1 year	WBlack & Chrome	**310-0548**
								Stone Gray	**310-0549**
								Black Edition	**310-0837**
2006-'17 Dyna® Models	143"	4.425"	4⅝"	635	S&S Forged Flat Top	10.5:1	1 year	Black Edition	**310-0901**
								WBlack & Chrome	**310-0883**

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REQUIRES OIL LINE INSTALLATION KIT. See chart.

INSTALLATION PARTS

Description		Part #
Oil Line Install Kit for 2006-'17 Dyna® Models	WBlack	**310-0870**
	Silver	**310-0871**
Oil Line Kit for 2007-16 touring models		**310-0435**
Transmission Drilling Fixture Kit for 2007-16 touring models		**530-0006**
Head Mount Bracket	2009-16 Touring	**900-0798**
	2008 Touring	**900-0797**
Fuel Injector *2 pack*		**550-0603**

Description	Part #
70mm Induction Kit* 2008-'16 Touring (includes injectors)	**170-0253**
70mm Induction Kit Cable operated 2007-17 Dyna® models & 2007 Touring (includes injectors)	**170-0288**
Exhaust Flange Starter Kit	**550-0216**

**Includes a 70mm S&S Throttle Hog specially designed for the T143 engine in which a functional, stock, throttle by wire throttle body must be supplied to build.* *page 84 for more details.*

T-SERIES T2 LONG BLOCK ENGINES



FITMENT

- 2007-'16 Touring Models (except Twin-Cooled™ models)
- 2006-'17 Dyna® Models

FEATURES AND BENEFITS

- No fuel system or ignition systems included - Use what you already have
- Special Head machining – Fits stock length intake manifolds (S&S manifold size 405)
- Stock style breathing system – stock breather spacing and function is compatible with stock and most performance air cleaners
- Super Stock™ T2 Crankcase
- 3 Piece Flywheels
- S&S high flow oil pump and cam cover
- S&S Easy Start gear drive cams
- Stock Twin Cam 96™ bolt pattern

OPTIONS

- T111 – 111 cubic inches, perfect sport-touring engine
- T124 – 124 cubic inches, hot-rod performance, 640 Easy Start gear drive cams
- T124LC – 124 cubic inches with slightly lower compression, 585 Easy Start gear drive cams
- Stone Gray powder coat finish that matches the Granite color of a "stock" CVO engine

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kits. See page 41

T124 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty	Finish	Part #
2007-up Touring Models	124"	4⅛"	4⅝"	640	S&S Forged Flat Top	10.8:1	2 Year	Black Edition	**310-0835**
								WBlack & Chrome	**310-0400**
								Stone Gray	**310-0511**
				585	S&S Forged Dished, 11cc	10.2:1	2 Year	Black Edition	**310-0836**
								WBlack & Chrome	**310-0401**
								Stone Gray	**310-0512**
2006-'17 Dyna® Models	124"	4⅛"	4⅝"	640	S&S Forged Flat Top	10.8:1	2 Year	Black Edition	**310-0900**
								WBlack & Chrome	**310-0882**
CTO				Specify		Specify	Varies	Specify	**319-0010**

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T111 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty	Finish	Part #
2007-up Touring Models	111"	4⅛"	4⅛"	585	S&S Forged	9.8:1	2 Year	WBlack & Chrome	**310-0402**
2007-up Touring Models				585				Black Edition	**310-0834**
CTO				Specify		Specify	Varies	Specify	**319-0010**

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REQUIRES OIL LINE INSTALLATION KIT. See chart.

INSTALLATION PARTS FOR S&S T-SERIES T2 LONG BLOCK ENGINES

Description		Part No
Oil Line Kit for 2007-'16 Touring Models		**310-0435**
Transmission Drilling Fixture Kit		**530-0006**
Oil Line Install Kit for 2006-'17 Dyna® Models	WBlack	**310-0870**
	Silver	**310-0871**

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Bore Size	Part No
T-Series	4⅛"	**310-0335**

310-0435



530-0006



NOTES

ENGINE MANAGEMENT AND FUEL SYSTEMS

Cylinder heads on these engines are specially machined to compensate for the non-stock cylinder length. As a result, they are compatible with manifolds and throttle bodies with stock length intake runners. In addition, the breather vent bolt locations have been adjusted so they are in the stock location, so stock style air cleaner back plates will bolt up to these engines.

Will require early style sprocket shaft spacer for charging system us S&S pn 310-0761 for touring models.

For best performance, S&S Throttle Hog Throttle Body is recommended. See page 84.

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SUPER STOCK™ T2 CRANKCASE


310-0367

FITMENT
- 2007-'16 Harley-Davidson® touring model big twins
- 2006-'17 Dyna® models


Stone Gray


Wrinkle Black


Silver

FEATURES AND BENEFITS
- Stock looking, but stronger – Thicker wall sections and superior 356-T6 aircraft grade aluminum
- Tough powder coat finish
- Reinforced front motor mount for extra strength
- Timken® sprocket shaft bearing – Strong enough for the most demanding applications
- Clearanced for strokes up to 4 13/16" and cams up to .720" lift
- Includes pinion and Timken® bearing
- Manufacturer's Statement of Origin (MSO) included
- Includes studs and cam bearings installed

KIT CONTENTS
- S&S crankcase
- Bearings and hardware
- Instructions

INSTALLATION PARTS
- S&S oil line kit *(required)*
- S&S transmission drilling fixture kit *(recommended for easy installation)*


310-0435


530-0006

NOTE

Will require early style sprocket shaft spacer for charging system us S&S pn 310-0761 for touring models.

INSTALLATION PARTS

Description		Part No
Oil Line Kit for 2007-'16 Touring		310-0435
Transmission Drilling Fixture Kit		530-0006
Oil Line Install Kit for 2006-'17 Dyna® Models	WBlack	310-0870
	Silver	310-0871

SUPER STOCK™ T2 CRANKCASES FOR 2007-'16 HARLEY-DAVIDSON® FL BIG TWIN ENGINES

Bore Size	Stone Gray	WBlack	Silver
Stock Bore (Stock Bolt Pattern) 2007-16 Touring Models	–	310-0367A†	310-0366A†
Stock Bore (Dyna® models)	–	310-0878	310-0881
CVO 110 Stock Bore	310-0543A†	–	–
4⅛" Bore (Stock Bolt Pattern) 2007-16 Touring Models	310-0503	310-0369	310-0368
4⅛" Bore (Dyna models with Stock Bolt Pattern)	–	310-0856	–
4⅜" Bore (S&S Bolt Pattern)** 2007-16 Touring Models	–	310-0371	310-0370
4.425" Bore 2007-16 Touring Models	310-0691	310-0690	–
4.425" Bore (Dyna models)	–	310-0859	–
Special Order*	319-0025	319-0025	319-0025

**Special Order: Download the Special Order Form at sscycle.com/soforms. Use the special order part number to order crankcases with a special finish*

***Requires seperate purchase of tappet covers sets #330-0281*

†Exempt from emissions tampering regulations under CARB EO# D-355-18 when used with stock bore cylinders

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DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.

REPLACEMENT PARTS: SEE PAGE 98

CRANKCASE BREATHER REED VALVES

FITMENT
- Twin Cam 96™/103™ *(except "B" engines)*
- S&S T-Series engines

FEATURES AND BENEFITS
- Improved oil scavenging and reduced oil carryover

S&S exclusive BREATHER VALVE US PATENT 6,899,066


310-0742

CRANKCASE BREATHER REED VALVES

Oil Pump Fitment	Year Application	Part #	
For Engines with S&S Gear Oil Pump	2007-up S&S crankcases	310-0742	

REPLACEMENT SPRING

Spring, Wave, 1.6" x 2" x 2", 2.8mm	31-2078	

NOTES

The crankcases breather valve for Twin Cam 96™/103™ engines was designed and developed for use with S&S Gear Oil Pumps and tappets, and may not be compatible with some aftermarket components.

Not available for Twin Cam 96™/103™ "B" engines with internal balancers.

Does not fit with aftermarket oil pumps.

3 PIECE FLYWHEEL ASSEMBLIES


320-0350

FITMENT

- 2007-'17 Harley-Davidson® big twins (*except 2017 touring models)* – Balanced and unbalanced models
- S&S T-Series Engine and Hot Set Up Kit® replacement flywheels

FEATURES AND BENEFITS

- Heat-treated 4140 material is harder and 114% stronger than stock
- New light weight connecting rod forgings
- Available with full width wristpin connecting rods
- Larger 1.671" diameter crankpin - increased contact area and tighter press fit for a stronger joint.
- No welding required!
- Integral mainshafts - eliminates two potential points of weakness
- Consistent balance and precision machining – Truer flywheels and less vibration
- Reduced mainshaft deflection at high rpm – less vibration, reduced piston and rod side thrusting, prevents oil pump damage, fully compatible with gear drive cams
- Capable of higher rpm – More available power!

How Strong Are Your Flywheels?
www.sscycle.com/videos

FLYWHEEL ASSEMBLIES FOR 2007-2017 *(EXCEPT 2017 TOURING MODELS)* HARLEY-DAVIDSON® BIG TWIN MODELS

Engine Displacement	Stroke	Balanced to Total Piston Weight (gms)	Rod WP End Style	Sprocket Bearing Race	Harley-Davidson® Twin Cam 96®/103™	Harley-Davidson® Twin Cam 96B™/103B™
96, 103, 106 big bore, 110, 117 w/S&S Pistons	4 3/8"	1035	Straight	Yes**	**320-0350**	**320-0356**
				No	**320-0351**	**320-0357**
96, 103, 110 w/Stock Pistons* USA	4 3/8"	1035	Tapered*	Yes**	**320-0352**	**320-0358**
				No	**320-0353**	**320-0359**
S&S 106 Stroker***	4 1/2"	1108	Straight	No	**320-0450**	**320-0544**
S&S 111	4 1/8"	1035	Straight	No	**320-0407**	**320-0413**
SE 120R (uses 7.575" length rods)	4 5/8"	1035	Straight	No	**320-0523**	**320-0529**
S&S 124	4 5/8"	1035	Straight	No	**320-0464**	**320-0471**
S&S 143	4 5/8"	1290	Straight	No	**320-0545**	–
Special Order	Specify	Specify	Specify	Specify	**329-0002**	**329-0002**

**Stock pistons in 2007 and later engines require rods with tapered wristpin ends.*
Note - All S&S Flywheels for 2007 and later engines have 7.659" length connecting rods.
***Note - Flywheel assemblies supplied with sprocket shaft bearing race installed are compatible with stock roller style sprocket shaft bearings. Assemblies with no race require a Timken® sprocket shaft bearing.*
**** 4½" stroke flywheels include 7.667" long connecting rods.*

NOTES

Strokes longer than stock will require S&S Piston Oiler Set, part #31-2026.

2007-up stock rod length is 7.659".

Main Bearing Note: Most S&S flywheel assemblies for 1999-'17 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999-'02 Harley-Davidson® crankcases and in all S&S crankcases for 1999-'17 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft. S&S does offer flywheel assemblies that are compatible with late roller style stock sprocket shaft bearings, but they are not recommended for very large, high performance engines.

S&S strongly recommends retrofitting 2003-'16 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999-'02 model year is also required.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines by either purchasing the stock compatible flywheels or by installing Harley-Davidson® bearing kit #24004-03B when using S&S flywheels designed for Timken bearings. This bearing kit adapts the S&S sprocket shaft so it is compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 sprocket shaft bearing. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

TRYING TO IDENTIFY AN S&S® FLYWHEEL?
SEE FLYWHEEL I.D. CHART: PAGE 548.

REPLACEMENT PARTS: PAGE 101

TC3 CAM PLATE



S&S cam support plates are just what the doctor ordered when repairing a damaged engine or installing new camshafts. CNC machined from forged aluminum for excellent strength and dimensional accuracy. S&S cam support plates are available to fit 1999-2006 and 2007-'17 Harley-Davidson® big twin engines. We don't want to encourage bad habits so plates for 1999-2006 are not compatible with stock spring-loaded chain tensioners, and require late style hydraulic tensioners and oil pump. We suggest the S&S TC3 oil pumps be installed with S&S TC3 Cam Plate.

FITMENT

- 2007-'17 big twins and 2006 Dyna models, *except 2017 touring models*

FEATURES AND BENEFITS

- Precision CNC machined forged aluminum
- Adjustable oil pressure regulator – adjust without removing plate from engine
- Passage plugs are removable for service
- Made In The USA

*Not compatible with stock spring-loaded chain tensioners or stock 1999-2006 oil pumps. Hydraulic tensioners (Unless running gear drive cams) and 2007-later style oil pump is required.

TC3 CAM PLATE

Fitment	Part #
2006 Dyna® models & 2007-'17 bt, *except 2017 touring models*	**310-0625**

TC3 OIL PUMP



If motor oil is the lifeblood of an engine, then the oil pump is its heart. If your engine needs a transplant, the S&S TC3 Oil Pumps are a great solution for worn out or destroyed stock units. Common causes of stock pump failure are debris and excessive pinion shaft run out. The new S&S oil pumps are much less likely to be damaged by either. Oh, and by the way, the S&S TC3 Oil Pumps pump and scavenge way more oil than stock. While you've got that motor apart, it would be a good time to install a forged S&S TC3 Cam Plate.

FITMENT

- 2007-'17 big twins and 2006 Dyna models, *except 2017 touring models*

FEATURES AND BENEFITS

- Consistent pressure and reliable scavenging
- Separate scavenge sections for flywheel cavity and cam chest – no interference
- Screens and magnetic traps help protect the scavenge rotors from debris
- Special design allows S&S pumps to tolerate more pinion shaft run out without damage
- Made in the USA!

TC3 OIL PUMP

Fitment	Part #
2006 Dyna® models & 2007-'17 bt, *except 2017 touring models*	**310-0641**

TC3 OIL PUMP & CAM PLATE KITS



TC3 OIL PUMP AND CAM PLATE KITS

Fitment	Part #
2006 Dyna® models & 2007-'17 bt, *except 2017 touring models*	**310-0732**

REPLACEMENT PARTS: SEE PAGE 102 & PAGE 103

OIL PUMPS

FITMENT

- 2007-'17 big twins and 2006 Dyna® models
- Fits all engines built with S&S T-Series crankcases, *except 2017 touring models*

FEATURES AND BENEFITS

- Replaces stock oil pump, cams, cam support plate, bearing plate, bearings and decorative gearcover
- Uses drive gears of special S&S gear drive cams to pump oil
- Oil pressure is regulated after the – *more consistent pressure to the engine*
- Increased scavenging capacity results in:
  - Less oil in the crankcase
  - Less power loss
  - Less heat build up
  - Less oil carryover
- Excess oil from pressure control valve is filtered – longer pump life



106-3887

OIL PUMP KIT WITHOUT CAMS

Finish	Part #
Chrome	**106-3887** USA

Requires installation of gear drive cams, see chart. below

REPLACEMETNT PARTS: PAGE 104



330-0145

GEAR DRIVE EASY START CAM SETS FOR USE WITH S&S GEAR OIL PUMPS FOR 2007-'17 *(EXCEPT 2017 TOURING MODELS)* **BIG TWIN AND 2006 DYNA® MODELS**

Cam*	Part #
585GPE	**330-0145**
635GPE	**330-0369**
640GPE	**330-0144**

**See Camshafts starting page 68 of this catalog for further information on cam recommendations for different applications.*

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BILLET GEARCOVER

FITMENT

- 1999-'17 Twin Cam 88®/96™/103™, *except 2017 touring models*

BILLET GEARCOVER*

Finish	Part #
Polished	**31-6516** USA
Chrome	**106-3774** USA

**The S&S gearcover is not compatible with 1999-'01 engines with stock fuel injection or ignition systems which require a cam position sensor in the gearcover. May be used in 1999-'01 engines if an aftermarket ignition or fuel injection system, that does not require a cam position sensor, is installed.*



31-6516

CYLINDERS WITH PISTONS KIT



- Cylinder w/piston kits include fitted pistons and cylinders, head gaskets, base, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included.

S&S® 4" BORE BOLT-IN SIDEWINDER® KITS SPECIFICATION CHART

Displacement	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
110"	4 3/8	4.00"	4.937"	Forged	.75 pop up	10.7:1	10.5:1	10.2:1

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS

Displacement	Silver	WBlack
110	**910-0650**	**910-0651**

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PISTON REPLACEMENT PARTS: PAGE 64

S&S® 4⅛" BORE CYLINDERS WITH PISTONS SPECIFICATION CHART FOR 124" AND 117" KITS

Displacement	Stroke	Cylinder Length	Forged Piston Type	Compression Ratio			
				85cc stock heads	89cc S&S heads	91cc S&S heads	SE 95cc heads
124"	4.625	5.004	Flat Top	11.4:1	11.0:1	10.8:1	10.5:1
124" Dish	4.625	5.004	10.9 cc dish	10.5:1	10.2:1	10.0:1	9.7:1
117"	4.375	4.878	Flat Top	10.9:1	10.5:1	10.3:1	10.0:1
117" Dish	4.375	4.878	10.9 cc dish	10.0:1	9.7:1	9.6:1	9.3:1
111"	4.125	4.754	Flat Top	10.3:1	9.9:1	9.8:1	9.4:1

4⅛" BORE CYLINDERS WITH PISTONS FOR 124" AND 117" KITS

Displacement	STOCK HEADS OR S&S HEADS WITH STOCK BOLT PATTERN		
	Stone Gray	Silver	WBlack
124"	**910-0469**	**910-0341**	**910-0338**
124" dish	**910-0490**	**910-0327**	**910-0324**
117"	**910-0474**	**910-0213**	**910-0221**
117" dish	–	**910-0321**	**910-0318**

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S&S® BIG BORE KIT SPECIFICATION CHART FOR 106" & 107" KITS

Displacement	Bore	Stroke	Cylinder Length	Forged Piston Type	Compression Ratio (with provided .045" head gasket)			
					79cc S&S Heads	83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
107"	3.937"	4⅜"	4.937"	3cc Dome	11.2:1	10.7:1	10.5:1	10.1:1
106"	3.927"	4⅜"	4.937"	Flat Top	10.6:1	10.2:1	10.0:1	9.7:1

Cylinder w/piston kits include pistons and cylinders that require no boring or honing.

BOLT-IN BIG BORE KITS

Displacement	Silver	WBlack
107"	**910-0480**	**910-0500**
106"	**910-0202**	**910-0206**

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ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-7506***

* Special Order: Download the Special Order Form at sscycle.com/soforms

CYLINDERS

- Individual cylinders and cylinder sets without pistons are bored slightly under nominal size and are not honed.



910-0497

4.425" BORE CYLINDERS WITHOUT PISTONS FOR T143

Displacement		Stone Gray	WBlack
143"	Set	**910-0562**	**910-0565**

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4⅛" BORE CYLINDERS WITHOUT PISTONS FOR 124" AND 117" HOT SET UP KITS (STOCK BOLT PATTERN)

Displacement		Stone Gray	Silver	WBlack
124" & 124" dish	Set	**910-0494**	**910-0392**	**910-0401**
117" & 117" dish	Set	**910-0497**	**910-0231**	**910-0252**

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NOTE

S&S 4⅛" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002" - .0025" close clearance for street applications or .0032" - .0045" loose clearance for immediate competition use.

3.937" BORE CYLINDER

Displacement		Silver	WBlack
107"	Front or Rear	**910-0478**	**910-0477**

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3.927" BORE CYLINDERS

Displacement		Silver	WBlack
106"	Front or Rear	**910-0210**	**910-0212**

NOTE

S&S 3.927" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002" - .0025" close clearance for street applications or .0032" - .0045" loose clearance for immediate competition use.

3⅞" BORE CYLINDERS

Displacement		Silver	WBlack
103" USA	Set	**910-0207**	**910-0208**

NOTE

S&S 3⅞" pistons for 103" kits are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance.

ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-7506***

* Special Order: Download the Special Order Form at sscycle.com/soforms

PISTON KITS

- Piston kits include set of pistons, rings, wristpins, and clips



4" BORE FORGED PISTON KITS FOR 110

Displacement	Deck Height	Stroke	Standard
110	1.090"	4⅜"	**920-0127**

4.425" BORE FORGED PISTON KITS FOR T143

Displacement	Deck Height	Stroke	Standard	+.020"
T143	1.167"	4⅝"	**920-0106**	**920-0111**

4⅛" BORE FORGED PISTON KITS FOR HOT SET UP KITS®

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"
124" & 117" Stock Heads 10cc Dished	1.050"	Up To 4⅝"	**920-0046**	**920-0047**	**920-0050**	**920-0053**
124", 117" & 111" -Stock or S&S Heads Flat Top	1.050"	Up To 4⅝"	**106-3491A**	**106-3872A**	**106-3964A**	**920-0094**

10.6:1 HIGH COMPRESSION PISTONS FOR HARLEY-DAVIDSON® CVO™ 110 ENGINES

Fitment	Deck Height	Wristpin Diameter	Standard	+.010"
2007-'17 bt CVO™ 110" engines	1.0895"	.927"	**920-0114**	**920-0115**



3.937" BORE FORGED PISTON KIT

Displacement	Deck Height	Stroke	Standard
107"	1.085"	4⅜"	**920-0100**

3.927" BORE FORGED PISTON KITS FOR 106" TOP END KITS

Displacement	Deck Height	Stroke	Standard	+.010"
106" Flat top	1.090"	4⅜"	**106-3690**	**106-4416**

3⅞" BORE FORGED PISTON KITS FOR 103" ENGINES

Displacement	Deck Height	Stroke	Standard	+.005"	+.010"
103" Forged, 5.2cc pop-up dome	1.083"	4⅜"	**106-0432**	**106-0433**	**106-0434**

NOTE

S&S' 4⅛" and 3.927" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002" - .0025" close clearance for street applications or .0032" - .0045" loose clearance for immediate competition use.

S&S 3⅞" pistons for 103" kits are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance.

REPLACEMENT PARTS FOR PISTONS

REPLACEMENT CHROMOLY FACED PISTON RINGS

Bore	Standard	+.005"	+.010"	+.020"	+.030"
4.425"	**940-0043**	–	–	**940-0044**	–
4⅛"	**940-0014**	–	**940-0012**	**940-0013**	**940-0017**
3⅞"	**94-1290X**	**94-1294X**	**94-1291X**	–	–
3.927"	**106-3709A**	–	**106-4422A**	–	–
3.937"	**940-0032***	–	–	–	–
4"	**940-0056**	–	–	–	–

**Only includes one set of rings.*

REPLACEMENT PISTON WRISTPINS

Description		Part #
Wristpin	For 4.425" Pistons	**940-0037**
	For 4 ⅛", 3 ⅞", 3.927" Pistons	**106-1052**
	For 3.937" Pistons	**940-0033**
	For 4" Pistons	**940-0057**

REPLACEMENT PISTON KEEPERS

Description		Part #
Keeper	*each*	**94-9278-S**
	2 pack	**94-9278-2**
	4 pack	**106-2304**
Keeper for 4.425"	*each*	**94-9278-S**
Keeper for 3.937" & 4"	*2 pack*	**940-0034**



POWER PACK

Bump 1999-'06 engines from 88ci to 100ci and 2007-'17 engines from 96ci or 103ci to 110ci with the new S&S 4" big bore kit. The kit also includes matched cams, cam plate, oil pump and everything else a high performance big inch engine needs to reliably make serious power.



FITMENT

- All 2007-'17 big twin models and 2006 Dyna® models, *except 2017 touring models*

FEATURES AND BENEFITS

- Largest big bore kit available without doing crankcase mods
- Upgrade Twin Cam 88 to 100 cu inches
- Upgrade Twin Cam 96 and Twin Cam 103 to 110 cu inches
- Cylinders fit to pistons–No machining required
- All parts required to upgrade to gear drive cam or hydraulic tensioners
- Engineered package to deliver the best bolt-in performance available

POWER PACKAGE KIT

Fitment	Finish	Cam	Drive	Part Number
2007-'17 *except '17 touring*	Silver	585CE	Chain	**330-0666**
2007-'17 *except '17 touring*	Silver	585GE	Gear	**330-0667**
2007-'17 *except '17 touring*	Black	585CE	Chain	**330-0668**
2007-'17 *except '17 touring*	Black	585GE	Gear	**330-0669**

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NOTES

1999-'04 engines will require the additional purchase of valve springs pn 900-0593

Pinion shaft runout must be less that .003" to use gear drive cams

Kit not available to fit '06 Dyna® models but parts may be purchased separately.

Not for use with S&S 79cc Cylinder Heads



CAMSHAFT OVERVIEW

OES: Original Equipment Specification (OES) A bolt-in replacement cam with stock cam timing is designed for riders with stock engines. Does not require tuning. Bolt-in stock. Equivalent to H-D® A-Grind

MR103: Designed as bolt-in cams for 103 CID engines with stock 9.7:1 compression ratio up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. More power across the rpm range best results form 2500-5500 rpm. Bolt-in.

HP103: Designed as bolt in cams for engines with 103 and stock 9.7:1 compression up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. Best power in the higher rpm range, 3000-6000 rpm. Bolt-in.

635 H.O.: High lift cam for modified engines with 106" or greater displacement and compression ratios between 10.0:1 and 11.0:1. Works well with stock, un-ported heads, but S&S CNC ported heads are recommended. Best power from 3000-6000 rpm. This is not a bolt-in cam set. High-lift springs and clearance checks are required.

510: Designed as a bolt-in cam for 88, 95, and 96 CID engines with compression ratios below 9.7:1, it is primarily intended for use with stock, un-ported heads. 3000-5500 rpm. Bolt-in.

551: Designed for engines with 96 to 106 CID and 9:1 to 9:9 compression, this is a bolt-in cam set designed for stock or mildly modified touring bikes. 551 cams are not recommended for compression ratios of 10:1 or greater. Greatly improves low-end and midrange torque, strongest from idle-4000rpm. Bolt-in torque.

557: Designed for Tri Glide® models, this bolt-in cam, with its short duration, produces lots of usable torque. The camshaft's stock base circle permits the use of stock pushrods. However, we recommend S&S Quickee Adjustable pushrods for easy installation. Fits all 2009-2012 Harley-Davidson®Tri Glide® models. Bolt-in.

570: Designed for 88 to 103 CID engines with compression ratios between 9:1 and 10:1, this bolt-in cam will provide a nice power increase across the entire power band. 3200-5700 rpm. Excellent bolt-in for overall power on 103". Bolt-in overall.

583: Optimized for use in the Softail®/Dyna® lines, this bolt-in cam makes horsepower and torque that you can feel all the way through the rpm range, making the most power right where you need it:1500–5000rpm. Bolt-in. 583 cams are not recommended for enginess having comression ratios greater than 10.1:1.

585: Designed for 88 to 106 CID engines with compression ratios from 9.7:1 to 10.5:1 and 106 to 124 CID engines from 9:1 to 10:1 compression. This bolt-in cam provides massive horsepower and torque increases starting at 3000rpm and holds steady all the way to redline. 3500-6000 rpm for 88" - 103" engines and 2500-5500 for larger engines.

625: Cam set designed for 95" or larger engines with compression ratios between 10.0 and 10.75:1. 3000-6000 rpm.

640: Used in S&S T124 engines, this cam makes horsepower! Intended for engines of 95 CID or more w/compression ratios between 10.5:1 and 11.5:1. 3000-6000 rpm.

675: A high lift monster, this cam set is designed for 120" or larger engines with at least 11:1 compression ratio. 4500-6500 rpm.

S&S exclusive EASY START CAMS US PATENT 7,669,035

S&S EASY START CAMS

Start any engine regardless of displacement or compression ratio, with a stock starter. Easy Start Cams from S&S® Cycle make hard starting obsolete for 1999-'16 big twins. Available in economical chain drive and rock-solid gear drive versions. Don't get caught "dead" without them!

FEATURES AND BENEFITS

- Start any engine with a stock starter
- Save your starter and battery!
- Reliable – tested for 100,000 accumulative starts and over 150,000 road miles without breakage or compression release failure!
- Automatic – no buttons to push

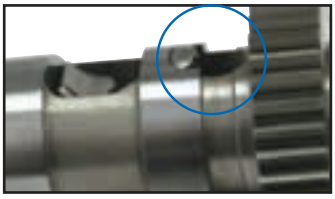
OPTIONS

- Chain drive or gear drive *(See the following pages for part numbers)*

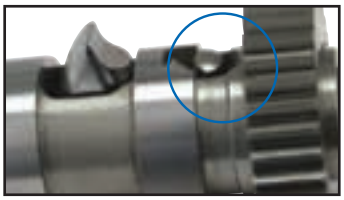
HERE'S HOW IT WORKS

Each of the two exhaust cam lobes are equipped with a spring loaded compression release lobe on the "heel" of the cam at the point where the valve would normally be fully closed.

The lobe holds the exhaust valve open slightly at cranking speed.
This releases some of the compression, making the engine much easier to crank.
Once the engine starts, and rpm increases, the compression release lobe is centrifugally retracted and the engine runs normally, with full compression, and without any loss in performance. This allows a stock starter and battery to start nearly any engine.



The compression release lobe reduces compression until the engine starts.



Increased rpm causes the compression release lobe to be centrifugally retracted so the engine runs normally.

CAMSHAFT OVERVIEW
CON'T

SPECIFICATIONS OF S&S® CHAIN DRIVE AND GEAR DRIVE CAMSHAFTS FOR 2007-17 BIG TWIN *(EXCEPT 2017 TOURING MODELS)*

Cam Name	Bolt-In	Valve Timing (open/close)		Valve Duration		Valve Lift	Centerline		Lift @ TDC		APPLICATION CROSS REFERENCE CHART		
		Intake	Exhaust	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	H-D® Screamin' Eagle®	Andrews®	Most Fitting Application
		Open BTDC/ Close ABDC	Open BBDC/ Close ATDC										
510	●	20˚/38˚	52˚/20˚	238˚	252˚	.510"	99˚	106˚	.187"	.178"			
551**	●	17°/19°	41°/17°	216°	238°	.550"	91˚	102˚	.178"	.170"	SE-203/255	21H/26H	Touring
557	●	6°/27°	39°/12°	212°	231°	.557"	100°	103°	.113"	.146"			Tri-Glide®
570	●	20˚/40˚	55 ˚/20˚	240˚	255˚	.570"	100˚	107.5˚	.187"	.179"	–	54H	All big twin
583	●	5˚/18˚	58˚/24˚	203˚	262˚	.583"	96.5˚	107˚	.113"	.206"	SE-203/255	21H/26H	Softail®/Dyna®
585	●	20˚/45˚	60˚/20˚	245˚	260˚	.585"	102.5˚	110˚	.186"	.179"	SE-211/251/257	31H/32H/50H 55H/67H	All big twin
625		20˚/55˚	60˚/20˚	255˚	260˚	.625"	107.5˚	110˚	.189"	.184"	SE-258/260	60H	All big twin
640		25˚/60˚	65˚/25˚	265˚	270˚	.640"	107.5˚	110˚	.228"	.214"	SE-264	59H	All big twin
675		25˚/64˚	70˚/25˚	269˚	275˚	.675"	109.5˚	112.5˚	.235"	.205"	–	64H	All big twin

***551 cams are not recommended with compression ratio of 10:1 or higher.*

S&S® CAMSHAFT SPECIFICATIONS

Cam Name	Valve Timing		Valve Duration		Valve Lift		Lobe Center Line		Valve Lift @ TDC	
	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
	Open BTDC/ Close ABDC	Open BBDC/ Close ATDC								
OES	-9°/25°	42°/-3°	196°	219°	.474"	.474"	107°	112.5°	.087"	.110"
MR103	13°/33°	50°/22°	226°	252°	.585"	.585"	100°	104°	.172"	.177"
HP103	20°/49°	45°/26°	249°	251°	.575"	.575"	102.7°	101.5°	.199"	.206"
635 H.O.	19.5°/43.5°	58.5°/37.5°	243°	276°	.635"	.635"	102°	100.5°	.186"	.284"

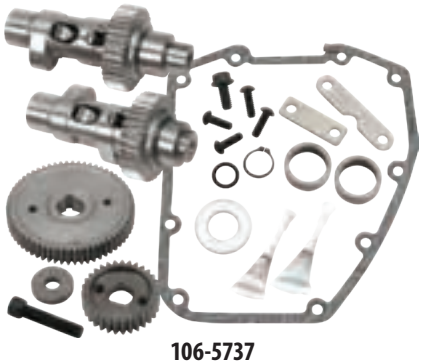
NOTE

Stock valve springs in 2005-up engines can accommodate valve lifts up to .590".

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

GEAR DRIVE CAM KITS

S&S exclusive EASY START CAMS US PATENT 7,669,035



106-5737

FITMENT

- 2006 Dyna® and 2007-'17 big twins, *except 2017 touring models*

FEATURES AND BENEFITS

- Improves valve timing accuracy by eliminating timing chain lash
- Easy Start cams allow stock starter to start any engine
- No tensioner shoes to wear out or fail

OPTIONS

Which S&S Gear Drive Cam Kit to Order?

- If updating a stock chain drive system, it's easiest to order a complete kit. Includes:
  - Camshafts with inner gears
  - Outer cam drive gear kit
  - Camshaft installation kit
- If replacing cams in an engine already equipped with S&S gear drive cams, order cams with inner gears and reuse the existing outer gears. Camshaft installation kit for the appropriate model year is recommended.
- If installing a set of gear drive cams from another manufacturer, order S&S cam gear kits for the appropriate model year. Each kit provides the inner cam gear as well as an outer cam gear. Camshaft installation kit for the appropriate model year is recommended.

GEAR DRIVE CAMS FOR 2007-'17 BIG TWIN MODELS *(EXCEPT 2017 TOURING MODELS)*

Cam Name	Easy Start Cams			Standard cams	
	Complete Kit**	Cams w/Inner Gears†		Complete Kit**	Cams w/Inner Gears†
	Stock Oil Pump	Stock Oil Pump	S&S Gear Oil Pump	Stock Oil Pump	Stock Oil Pump
510	–	–	–	**33-5266**	**33-5246**
551	**106-5737**	**106-5736**	–	**106-4868**	**106-4870**
557*	**330-0057**	**330-0056**	–	**330-0109**	–
570	**106-5221**	**106-5220**	–	**33-5267**	–
583	**106-5811**	**106-5810**	–	**330-0111**	**330-0112**
585	**106-5225**	**106-5224**	**330-0145**	**33-5268**	**33-5248**
625	**106-5229**	**106-5228**	–	**33-5269**	**33-5249**
640	**106-4850**	**106-4849**	**330-0144**	**33-5270**	**33-5250**
675	**106-5741**	**106-5740**	–	**330-0113**	**330-0114**
MR103	**330-0303**	**330-0302**	–	–	–
HP103	**330-0354**	**330-0353**	–	**330-0350**	**330-0349**
635 H.O.	**330-0339**	**330-0338**	**330-0369**	**330-0335**	**330-0334**

2006 Dyna® uses 2007-up style cams. **For Harley-Davidson® Tri Glide® models.* ***Complete kits include inner and outer gears, and installation kit.* *† Installation kit not included but reccommended.*



106-6068

INSTALLATION KIT FOR S&S GEAR DRIVE CAM*

Models	Part #	
2006 Dyna® and 2007-'17 big twins, *except 2017 touring models*	**106-6068**	

*Includes a gearcover gasket, bearings, oil passage block-off kit, retaining ring, o-ring, thread lock and instructions. *This kit is included with all Complete Gear Drive Cam Kits.*



106-5723

Oil passage block-off kit

Use this kit to block oil passages in cam plate when hydraulic cam chain tensioners are removed to install gear drive cams. Fits any cam plate designed for hydraulic tensioners. This oil passage block-off kit is included in the cam installation kit, part #106-6068.

NOTES

Fuel injection tuning required.

Pinion shaft run-out must be checked before installing S&S® gear drive cams.

A hydraulic press and other professional tools are required to install S&S gear drive cams. Additionally, material must be removed from the inner surface of the stock gearcover. The stock crankcase may require clearancing for S&S .625", .640", and .675" lift cams. S&S recommends that gear drive cams be installed by a professional mechanic.

Due to the inheraent characteristics of gear drives, you may experience more valve train noise with gear driven cams. Oversized and undersized gears are available to help achieve correct gear lash. We have found that with 160 lb. of valve seat force, the S&S gear drive cams will perform well up to 6200 rpm. If higher rpm is anticipated, valve springs that provide higher seat force should be used.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

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CHAIN DRIVE CAM KITS

FITMENT
- 2006 Dyna® and 2007-2017 big twins, *except 2017 touring models*

FEATURES AND BENEFITS
- Great way to increase performance at an affordable price
- Quick installation – reuse many stock components
- Easy Start cams allow stock starter to start any engine

KIT CONTENTS
- Cams
- Installation Kit: gearcover gasket, bearings, retaining ring, o-ring, thread lock
- Instructions



106-4947

S&S CHAIN DRIVE CAM KITS FOR 2007-'17 BIG TWIN MODELS
(EXCEPT 2017 TOURING MODELS)

Cam Name	Standard	Easy Start
OES	**330-0293**	–
510	**106-4380**	–
551	**106-4858**	**106-4947**
557*	**330-0105**	**330-0053**
570	**106-4381**	**106-5234**
583	**330-0106**	**106-5807**
585	**106-4382**	**106-5233**
625	**106-4383**	**106-5239**
640	**106-4399**	**106-5235**
MR103	**330-0470**	**330-0299**
HP103	**330-0343**	**330-0346**
635 H.O.	**330-0328**	**330-0331**

Note: 2006 Dyna® uses 2007-up style cams. **For Harley-Davidson® Tri Glide® models.*

REPLACEMENT INSTALLATION KIT FOR S&S CHAIN DRIVE CAM*

Models	Part #
2006 Dyna® and 2007-'17, *except 2017 touring models*	**106-5929**

Includes a gearcover gasket, cam bearings, retaining ring, o-ring, thread lock and instructions.
**This kit is included with all S&S Chain Drive Cam Kits.*

NOTES

Fuel injection tuning required.

551 & 583 cams are not recommended with compression ratio of 10:1 or higher.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

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CAM RELATED REPAIR PARTS



33-4285



33-4160Z



31-4499

REPLACEMENT GEARS* FOR 2006 DYNA® AND 2007-'17 MODELS
EXCEPT 2017 TOURING MODELS

Description		Part #
Outer cam drive gear only		**33-4269**
Front inner cam gear		**330-0593**
Rear inner cam gear	Standard	**330-0593**
	Undersized	**330-0594**
	Oversized	**330-0595**
Pinion Gears	Standard	**33-4160**
	Undersized	**33-4160X**
	Double Under	**33-4160XX**
	Oversized	**33-4160Z**
	Double Over	**33-4160ZZ**

**Due to machining variations in the stock cam plate, oversized or undersized gears may be needed to achieve correct gear lash.*

CAM GEAR DRIVE KIT

Fitment	Part #
2006 Dyna® and all 2007-'17 models, *except 2017 touring models*	**33-4285**

Includes front and rear inner cam gears, pinion gear, and outer cam gear

OUTER CAM GEAR DRIVE KIT

Fitment	Part #
2006 Dyna® and all 2007-'17 models, *except 2017 touring models*	**33-4268**

Includes 2 outer gears and hardware

REPLACEMENT HARDWARE FOR OUTER CAM GEAR DRIVE

Description	Part #
Hardware Kit for 2006 Dyna® and all 2007-'17 models, *except 2017 touring models*	**33-4271P**
Replacement Key for 2006 Dyna® and all 2007-'17 models, *except 2017 touring models*	**106-1348**

CAM NEEDLE BEARINGS ASSEMBLIES

Description		Part #
Inner Cam Bearing	*each*	**31-4199-S** *9215*
	2 pack	**31-4499** *9215*

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CAM CHEST UPGRADE
GEAR OR CHAIN DRIVE



FITMENT
- 2007-'17 Harley-Davdison® big twins *(except 2017 touring)* & 2006 Dyna® models

FEATURES
- Upgrade to S&S bolt-in performance chain drive or gear drive camshafts
- Improved engine performance – higher lift and optimized cam timing
- S&S Quickee pushrods – easy installation, without removing rocker covers
- Replace stock oil pump, cam support plate, cams, chain tensioners, and tappets with all new premium U.S. made S&S components
- Better, more consistent oil pressure

CHAIN DRIVE CAM CHEST UPGRADE KIT FOR 2007-'17 BIG TWIN *(EXCEPT 2017 TOURING)* & DYNA® MODELS

Fitment	Cam	Part #
2007-up bt and 2006 Dyna models	551CE Easy Start	**330-0544**
	583CE Easy Start	**330-0545**
	585CE Easy Start	**330-0546**
	585C Standard	**330-0553**

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GEAR DRIVE CAM CHEST UPGRADE KIT FOR 2007-'17 BIG TWIN *(EXCEPT 2017 TOURING)* & DYNA® MODELS

Fitment	Cam	Part #
2007-up bt and 2006 Dyna Models	510G Standard	**310-0814**
	551GE Easy Start	**310-0815**
	585GE Easy Start	**310-0816**

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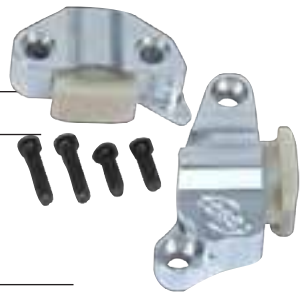
HYDRAULIC CAM CHAIN TENSIONER KIT

FITMENT
- 2007-'17 *except 2017 Touring* & 2006 Dyna® models
- 1999-06 models with hydraulic cam plate upgrade

FEATURES
- Thicker shoe for longer wear
- Direct chain oiling
- Larger piston
- Tighter tolerance for improved stability
- Made in USA

HYDRAULIC CAM CHAIN TENSIONER KIT

Fitment	Part #
2007-'17 *except 2017 Touring*	**330-0518**



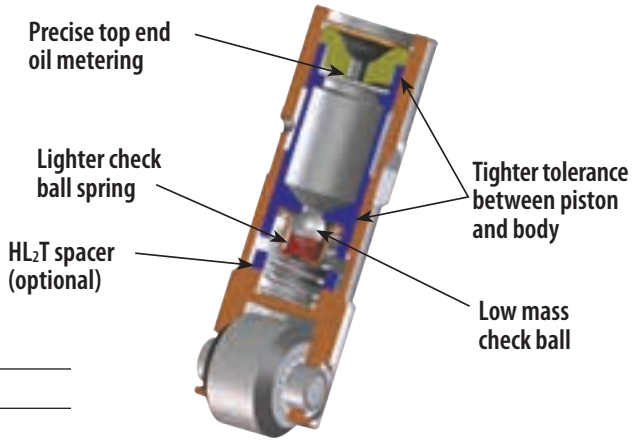
REPLACEMENT PARTS

Description	Part #
Tensioner,Asm,Inner,Body,Cam Chain	**330-0519**
Tensioner,Assembly,Outer,Body,Cam Chain	**330-0520**
Tensioner Shoe,Chain,Camshaft	**330-0521**

PREMIUM HIGH PERFORMANCE TAPPETS

FITMENT
- 1999-2017 big twins
- S&S T-Series engines

FEATURES
- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates - *fast pump up and superior high rpm performance*
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring *- enhances fast pump up and quiet operation*
- 100% tested to ensure that leak down and top end oil flow are within specification




330-0174

PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL_2T kit	**330-0174**
Set of 4 tappets without HL_2T kit	**330-0175**

HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT
- 1999–'17 big twins
- S&S T-Series engines



HIGH PERFORMANCE HYDRAULIC TAPPET SETS

Description		Part #
Standard Tappet Set (4)	Without HL_2T Kit	**33-5350** *18538-99A, 18538-99B, 18538-99C*

**S&S tappets with HL2T Kit require the use of adjustable pushrods.*

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL_2T)

FITMENT
- Stock 1999–'17 big twin
- All S&S tappets

FEATURES AND BENEFITS
- Designed to limit the range of travel of the hydraulic tappet plunger - *Easier starting*
- More horsepower at higher RPMs



HYDRAULIC LIFTER LIMITED TRAVEL SPACER

Description	Part #
Set of four spacers (fits tappets with .612" I.D.)	**33-5338** *18526-89A*

Adjustable pushrods must be used with HL_2T kit in order to obtain proper plunger position. If replacing lifters in a 1999-'02 with H-D® #18538-99B, order S&S part #33-5338.

TAPPET COVERS

FITMENT
- 1999–'17 big twins, *except 2017 touring models*
- S&S crankcases

KIT CONTENTS
- Covers
- Gaskets
- Installation hardware

FEATURES AND BENEFITS
- CNC billet aluminum provides extra strength and dimensional stability over a wide temperature range
- Simple to install upgrade that looks great


33-5601

TAPPET COVER KITS

Finish	Part #
Polished	**33-5601**
Chrome	**106-3883**
Chrome 4 3⁄8" style	**330-0281**

REPLACEMENT PARTS FOR TAPPET COVERS

Descriptions		Part #
Gasket	*each*	**33-5303-S** *18635-99B*
	2 pack	**33-5303-2** *18635-99B*
Tappet Cover Gasket 4 3⁄8" style	*each*	**330-0282**
Screw w/flat washer, Zinc	*each*	**50-0092-S** *4741A*
	4 pack	**50-0092P** *4741A*
Screw, Chrome	*each*	**50-0482**
Washer, Flat, Chrome	*each*	**50-7017**

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

TIME-SAVER ADJUSTABLE PUSHRODS



FITMENT
- 1999-'17 big twins, *except 2017 touring models*

FEATURES AND BENEFITS
- No need to remove rocker covers to install
- Speeds up installation of cams and rockers arms
- Makes upper-engine work easy!
- Can be installed with stock pushrod tubes

TIME-SAVER ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Set	**930-0053**

QUICKEE ADJUSTABLE PUSHRODS

FITMENT
- 1999-'17 big twins *(except 2017 touring models)* w/stock engine height +/- .050"

FEATURES AND BENEFITS
- Adjustable to accommodate all tappets and cam base circle diameters and engine heights
- Easy to install – removal of rocker box not needed
- Perfect for S&S HL_2T
- No threads on wrench flats

KIT CONTENTS
- Pushrods, chrome pushrod covers, o-rings, and cover keepers



When a Quickee adjustable pushrod is collapsed, it can easily be installed or removed from an assembled engine.



106-6051

QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Kit *(includes chrome pushrod covers, o-rings & cover keepers)*	**106-6051**
Pushrods Only*	**93-5122**
Special Order	**93-5135****

Longer keepers are required for taller than stock engines. page 74 of this catalog for pushrod cover keepers.
**1984-'99 style pushrod covers are required for access to the Quickee Adjustable Pushrod adjusters in 2007-'12 big twins. page 74 of this catalog for pushrod covers.*
***Special Order: Download the Special Order Form at sscycle.com/soforms*

STANDARD ADJUSTABLE PUSHRODS



93-5095

FITMENT
- 1999 – '17 big twins, *except 2017 touring models*
- Lengths available for various displacements

FEATURES AND BENEFITS
- Adjustable to accommodate all tappets & cam base circle diameters
- Perfect for HL_2T kits

KIT CONTENTS
- Pushrods, chrome pushrod covers, tappet cover gaskets, o-rings, cover keepers

STANDARD ADJUSTABLE PUSHRODS FOR HARLEY-DAVIDSON® TWIN CAM 96™/103™

Displacement	Engine Height	Cylinder Length	Pushrod Kit	Pushrods Only	Pushrod Covers	Cover Keepers
96", 103", 106"	Stock	4.937"	**93-5095**	**93-5096**	**106-1340**	**93-4100**
124"	+.096"	5.013"	–	**93-5098**	**106-1340**	**93-4115**
143"	+.2875"	5.057"	–	**930-0103**	**106-1340**	**93-4102**
Special Order	Specify	Specify	–	**93-5102****	–	**93-4109***

**Custom, extra long stainless steel 4.250", customer to cut to required length*
***Special Order: Download the Special Order Form at sscycle.com/soforms*

NON-ADJUSTABLE PUSHRODS



930-0046

FITMENT

- 2007-'17 Harley-Davidson® Twin Cam 96™ and 103™ big twin enginess, *except 2017 touring models*

FEATURES AND BENEFITS

- Replaces stock pushrods perfectly
- 7/16" high strength chromoly steel tubing for increased strength
- Pushrods are marked with stock color code and valve position for easy installation

NON-ADJUSTABLE PUSHRODS

Description	Part #
Pushrods Only	**930-0046**

PUSHROD COVERS & RELATED PARTS

PUSHROD REPLACEMENT PARTS

Description	Part #
Pushrod Cover Kit *(includes top and bottom covers, cover cap, cover spring, spring washer, and o-rings for four pushrods)* USA	**106-1340**
Top Cover USA USA 1,2,3	**93-4016** *17935-66T, 17935-79B*
Bottom Cover USA USA 1,2,3	**93-4015** *17938-83*
Cover Cap USA USA 1,2,3	**93-4017** *17945-36B*
Cover Spring USA USA 1,2,3	**93-4018** *17947-36*
Cover Cap Washer	**50-7131** *6762B*
Pushrod O-ring Kit *(includes top, middle, and bottom o-rings for four pushrods)*	**93-4022** *11293, 11157, 11101, 11190*
Top O-ring	**50-8039**
Middle O-ring	**50-8038** *11132A*
Bottom O-ring	**50-8037** *11145A*



93-4016



93-4015



93-4017



93-4018



50-7131



50-8037



50-8039



50-8038

PUSHROD COVER KEEPER SETS FOR 2007-'17 BIG TWINS

Length	S&S Tubes	Part #
2.400" USA	All stock height TC 96/103	**93-4070** *17950-48*
2.500"	96", 100", 117", 103", 106" HSU	**93-4100**
2.600"	124"	**93-4101**
2.800" USA		**93-4115** *17950-86*
2.900"	143"	**93-4102**
3.000"		**93-4103**
3.100"		**93-4104**
3.200"		**93-4105**
3.330" USA		**93-4106** *17949-40, 17950-66*
3.500"		**93-4107**
3.625"		**93-4108**
4.250"*		**93-4109**

**Custom, extra long stainless steel 4.250", customer to cut to required length*



93-4101

All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

660" & 720" VALVE SPRINGS KITS FOR B3 HEADS

FITMENT
- Modified Harley-Davidson® 1984-up big twin and 1986-'03 Sportster® Models For S&S® Super Stock®, Special Application, or other heads which can accept a larger than stock O.D. outer spring. Stock spring O.D. is approximately 1.400". See descriptions below for outer spring O.D. of specific spring kits. S&S racing valve springs are designed to be used with "no shoulder" style valve guides. Special keepers fit stock 5⁄16" diameter stemmed valves and S&S collars only. Pro Stock spring kits include keepers for valves with 11⁄32" or 5⁄16" stems.

KIT CONTENTS
4 titanium top collars, 4 bottom collars, 4 outer, 4 middle, and 4 inner valve springs, 8 valve keepers, 4 each .015" shims and .030" shims.

.660" LIFT TRIPLE VALVE SPRING KIT WITH TITANIUM TOP COLLARS
- These springs can be set up for use with S&S 675 cams
- Typically used with cast iron guides
- 1.900" installed height
- 1.550" O.D. outer spring, middle spring is flat style and serves as a harmonic dampener
- Valve spring seat pressure equals 210 lbs
- Open pressure @ .660" is about 520 lbs
- Coil bind @ 1.175"

.720" LIFT TRIPLE VALVE SPRING KIT WITH TITANIUM TOP COLLARS
- Typically used with bronze guides
- 1.975" installed height
- 1.570" O.D. outer spring
- Valve spring seat pressure 216 lbs
- Valve spring open pressure @ .720" is 540 lbs
- Coil bind @ 1.130"



90-2079

S&S®.660" & 720" LIFT VALVE SPRING KIT FOR B3 HEADS

Description	Part #
.660" Lift Triple Valve Spring	**90-2079**
.720" Lift Triple Valve Spring	**90-2080**

REPLACEMENT PARTS

Description		Part #
Top collar - titanium .660"/.720" lift		**90-2155A**
Bottom collar - .660"/.720" lift	*each*	**90-2090**
Valve keeper 5⁄16" valve stem SA	*each*	**90-2153A**
Shim - .015"	*each*	**90-2086**
	5 pack	**50-7161**
Shim - .030"	*each*	**90-2087**
	5 pack	**90-2198**

NOTE The .660" lift kit (90-2079) can be used to replace the S&S spring combination installed in early .630" lift S&S heads. Requires the use of S&S .085" longer intake valve 90-2004 and exhaust valve 90-2005.

VALVE SPRING REPLACEMETNT PARTS: SEE PAGE 110

650" VALVE SPRINGS KITS FOR B2 HEADS

FITMENT
- S&S® B2 heads

FEATURES AND BENEFITS
- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS
- Valve keepers, Top & Bottom collars, Springs, Shims



S&S®.650" LIFT VALVE SPRING KIT FOR B2 HEADS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500

S&S®.650" LIFT VALVE SPRING KIT FOR B2 HEADS

Description	Part #
Spring,Kit,Valve,.650,84-04bt/xl	**900-0050**

SIDEWINDER® .650" VALVE SPRINGS

FITMENT
- Stock 2005-'17 Twin Cam 96™/103™ big twins *(except 2017 touring models)* with 7mm valve stems
- All S&S CNC ported heads

S&S® .650" LIFT VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500

FEATURES AND BENEFITS
- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers



KIT CONTENTS
- Valve keepers, Top & Bottom collars, Springs, Shims

.650" LIFT VALVE SPRING KIT

Description	Part #
2005-'17 big twins (7mm stems) *except 2017 touring models*	**106-5909**

NOTE S&S recommends roller rocker arms be used with lifts over .585"

STREET PERFORMANCE .585" VALVE SPRINGS

FITMENT
- 2005-'17 big twins with 7mm valve stemmed stock heads *(except 2017 touring models)*
- All S&S Super Stock Heads
- S&S CNC Ported Heads

S&S® STREET PERFORMANCE .585" VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.850"	135 lb.	325 lb.

FEATURES AND BENEFITS
- Springs reduce the risk of valve float
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"



900-0594

KIT CONTENTS
- Valve Guide Seals, Springs, Top & Bottom Collars, Keepers, Shims

STREET PERFORMANCE .585" VALVE SPRING KIT

Description	Part #
2005-'17 big twins (7mm stems) *except 2017 touring models*	**900-0594**
All S&S Super Stock Heads	**900-0595**
S&S CNC Ported Heads	**900-0596**

VALVE SPRING REPLACEMETNT PARTS: SEE PAGE 110

FORGED ROCKER ARMS

FITMENT
- 1999-2017 big twins, except 2017 touring models

FEATURES AND BENEFITS
- **Roller Rocker Arms:**
- Extremely durable rollers reduce valve stem side thrusting with high lift cams
- Superior wear and fatigue resistance even in the most demanding applications
- ¾" long bushings provide 50% more bushing support area than ½" long bushings
- Available in stock 1.625:1 ratio or performance 1.725:1 ratio
- **Standard Rocker Arms:**
- ¾" long bronze bushings provide 50% more load bearing area than the ½" long bushings used in stock and other aftermarket rocker arms
- Case carburized hard surface for longer life
- Stock 1.625:1 ratiot



900-4065A

KIT CONTENTS
- 2 front and 2 rear rocker arms

FORGED ROLLER ROCKER ARM KIT

Description		Part #
2 front and 2 rear rocker arms	1.625:1	**900-4065A** USA
	1.725:1	**900-4098A**

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.



900-4119A

STANDARD FORGED ROCKER ARM KIT

Description		Part #
2 front and 2 rear rocker arms	1.625:1	**900-4119A** USA

New rocker arm shafts are recommended for maximum performance and rocker life.

ROCKER ARM SHAFTS

Description	Part #
Set of 4	**90-4036** USA *17611-83B*
Individual	**90-4006** USA USA 1,2,3 *17611-83B*



90-4036

New rocker arm shafts are recommended for maximum performance and rocker life.

REPLACEMENT PARTS FOR FORGED ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm	**900-4065FA** USA 1,2,3
	Rear exhaust or front intake rocker arm	**900-4065RA** USA 1,2,3
Standard	Front exhaust or rear intake rocker arm	**900-4119FA** USA *17375-83A*
	Rear exhaust or front intake rocker arm	**900-4119RA** USA *17360-83A*
Roller	Rebuild kits (rebuilds 4 rocker arms)	**90-4104**
Roller & Standard	Rocker arm bushing (¾" long)	**90-4014**



90-4104

NOTES

S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift.
Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

B2 HEADS WITH STOCK BOLT PATTERN

Kits do not include gaskets, hardware, or intake and exhaust flanges. These parts must be purchased separately.

FITMENT

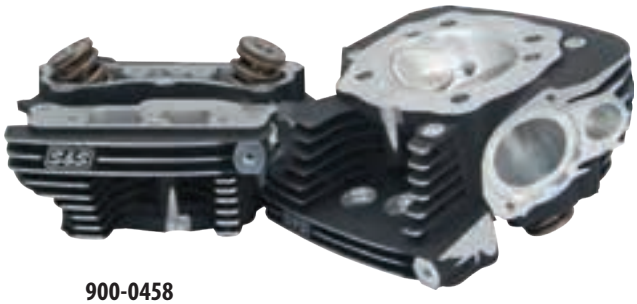
- 1999-'17 big twin engines (*except 2017 touring models)* 4⅛" bore, stock bolt pattern (in stock, off-the-shelf*)
  *S&S only stocks the late model 4⅛" bore versions as off-the-shelf items, but heads for other applications and individual front of rear replacement heads are available by special order.
- 1999-'17 big twin engines (*except 2017 touring models)* 4⅛" bore and larger with S&S or other bolt pattern (special order only)
- 1984-'99 big twin engines 4⅛" bore and larger (special order only)
- S&S SB-Series 4⅛" bore and larger engines for 1986-'03 Sportster® models (special order only)
- Old style B2 replacement heads still available by special order
- Not compatible with Twin-Cooled™ models

FEATURES AND BENEFITS

- 106cc combustion chambers
- Oval intake ports bolt up to S&S Throttle Hog 70mm throttle bodies (2008-up touring applications only)
- Stock style breather system – compatible with stock and aftermarket air cleaners
- Large 2.200" intake and 1.800" exhaust valves
- .660" lift S&S valve springs with titanium top collars
- Machined for stock sensors – EFI ready
- Available in Wrinkle Black (WBlack) or Silver Powder coat
-

OPTIONS BY SPECIAL ORDER

- CNC ported intake and exhaust ports – more air, more power!
- wo-bolt exhaust flanges – Can accommodate stock exhaust headers, existing 2" headers, or build your own 2" exhaust system
- Machined for 2008-later bagger front motor mount
- Select heads for 1984-'99 or 1999-'17 big twin style, or 1986-'03 XL
- 4⅛" to 4⅜" bore sizes
- Stock 1999-'17, S&S, or other cylinder stud patterns – other patterns subject to approval
- Machined with or without S&S electric compression release
- Choose from a variety of pushrod geometry machining styles
- Choose from a variety of different chamber sizes
- Individual front of rear heads available by special order



900-0458

B2 HEADS WITH STOCK BOLT PATTERN

Finish	Part #
Silver Powder Coat	**900-0450**
WBlack Powder Coat	**900-0458**
**Head Kits include valves and valve springs. Head sets w/o valves or springs individual front or rear heads are available by special order.*	
Special Order B2 Cylinder Heads	**106-6385***

**Download the Special Order Form at sscycle.com/soforms*

ADDITIONAL PARTS REQUIRED

Product Description		Part #
Special 4⅛" Bore Pistons & Ring Set	Standard	**92-1580**
	+.010"	**92-1581**
Special Length Pushrods (+.250")	For 124" engines	**93-5106**
	Stock height engines	**93-5098**
Intake Manifold	Carbureted engines	**16-3629***
Intake Manifold Flange Kits	All B2 heads	**16-0250**
Exhaust Adaptor Kit	B2 to stock header	**550-0217**
	B2 to exisiting 2" header	**550-0216**
	Stock & 2" header	**550-0218**

**Download the Special Order Form at sscycle.com/soforms*

REPLACEMENT PARTS: PAGE 106

NOTES

Heads are .230" taller than stock – requires special pushrods and/or frame clearancing or motor mount modifications

Exhaust pipe adaptor kits and other parts must be purchased separately. See "Additional Parts Required" chart, above.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

SUPER STOCK® CYLINDER HEADS
WITH STOCK BOLT PATTERN

FITMENT
- 2006–2017 big twins, *except 2017 touring models*
- Not compatible with Twin-Cooled™ models

FEATURES AND BENEFITS
- Heads can be decked up to .060" to increase compression
- 79cc heads 1.940" intake and 1.575" exhaust valves
- 89cc heads have 2.000" intake and 1.605" exhaust valves
- 91cc heads have 2.000" intake and 1.605" exhaust valves
- S&S 89cc heads have a whopping 264cfm flow rate (*compared to 182cfm for stock H-D® heads)*
- S&S .585" or .650" lift valve springs
- Must use the included S&S valve cover gasket kit part #90-4120 with stock rocker covers
- 2006-'17 heads are machined for 2008-'17 FL top motor mount
- Includes 4 long headbolts for installation
- Compatible with stock rocker boxes, exhaust and intake manifolds
-

OPTIONS
- Compression release machining or without compression release machining *(Compression release machining for S&S compression releases)*
- Silver, wrinkle black (WBlack), or Stone Gray powder coat finish

COMPRESSION RATIOS FOR S&S® SUPER STOCK® CYLINDER HEADS FOR 2006-'17 BIG TWINS *(EXCEPT 2017 TOURING MODELS)*

Configuration	96"	103"	106" Big Bore	110"	111"	117"	124"
79cc	9.8	10.2/11.1*	10.6	10.8	–	–	–
89cc	8.9	9.3/10.1*	9.7	9.8	–	–	–
91cc	–	–	–	9.6	9.75	10.3	10.8

** S&S pop-up piston*



106-3233



900-0666

SUPER STOCK® CYLINDER HEAD KITS FOR 2006-'17 BIG TWINS

Description	Chamber Volume	Manifold** Surface	Compression Release Machining	Springs	Finish	Part #
2006-'17 big twins *except 2017 touring models*	79cc		●	.650" lift	Silver	**106-3227**
			●	.650" lift	WBlack	**106-3233**
2006-'17 big twins *except 2017 touring models*	89cc		●	.650" lift	Silver	**106-3255**
	89cc		●	.650" lift	WBlack	**106-3240**
2006-'17 big twins, 2008-'16 touring models S&S 124" Hot Set Up Kits	91cc	+.032"	●	.650" lift	Silver	**106-4278**
		Stock		.650" lift		**900-0344**
		+.032"		.650" lift		**900-4278**
	91cc	+.032"	●	.650" lift	WBlack	**106-3249**
		Stock		.650" lift		**900-0349**
		+.032"		.650" lift		**900-3249**
					Stone Gray	**900-0666**

***In order to accommodate the change in engine height on S&S 124" engines and still use a stock length manifold, S&S added material to the surface for proper sealing of manifold to cylinder head.*

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All other Specifications and finishes are available through Special Order 90-1060*
*** Special Order: Download the Special Order Form at sscycle.com/soforms**

Call for Pricing

TOP END GASKET KITS FOR 1999-'17 BIG TWINS *(EXCEPT 2017 TOURING MODELS)*

3⅞" & 3.927" Bore	4" Bore	S&S 4⅛" Bore (Graphite)		Stock 4⅛" Bore (Layered Steel)
910-0465	**90-1913**	**90-1910**		**90-1914**

Includes a set of head and base gaskets, exhaust gaskets, and o-rings.

NOTES

79cc heads

When 79cc stock compatible heads are used with stock H-D® pistons, TDC lifts of up to .186" for intake and .179" for exhaust and can be used without additional valve pocket clearancing. This allows the use of S&S® 510, 570, and 585 camshafts. If cams with higher TDC lifts are used, or if the heads are decked, piston valve pocket machining will be required.

79cc heads may be decked as much as .060" to increase compression. If heads are decked, piston valve pockets must be re-machined.

Moderate valve spring force in S&S Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

Must use S&S rocker base gasket kit part #90-4120 with stock rocker covers.

79cc Heads should not be used with any piston having a pop up dome.

89cc heads

If 89cc heads are used with stock pistons, valve reliefs must be machined in the pistons due to larger valve size.

89cc heads may be decked as much as .060" to increase compression. If heads are decked, valve-to-piston clearance must be checked. If stock pistons are used, valve pockets must be re-machined.

Moderate valve spring force in S&S® Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

A larger intake manifold is recommended to supplement the heads in order to let them flow to their full potential.

Must use S&S rocker base gasket kit part #90-4120 with stock rocker covers.

91cc heads

By changing the profile and shape of the cooling fins on our heads for 4⅛" bore engines, a large reduction in the transmission of mechanical noise was found. This not only benefits our TÜV certified engines and our EPA approved engines, but our performance engines as well!

Since April 1, 2007, these redesigned heads have been installed on all S&S 4⅛" bore engines and Hot Set Up Kits.

Replacement heads of the old style are available by special order.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

MANIFOLD RECOMMENDATIONS

S&S single bore throttle body and manifold are recommended for engines with Magneti Marelli® and Delphi® fuel injection.
S&S single bore throttle body and manifold are recommended for 2006-'15, except 2008-'15 touring models. Due to the change in manifold flange mounting bolt pattern, stock flanges and S&S seal part #16-0235 must be used. The Screamin' Eagle® 58mm throttle body/manifold may also be used on 2006-'09 engines.
We recommend the stock 50 mm throttle body or S&S Throttle Hog 58mm throttle body/manifold for 2008-up touring models with Electronic Throttle Control (ETC). These engines can be tuned with the Dynojet Power Vision Flash Tuner

REPLACEMENT PARTS: SEE PAGE 108

IMPORTANT MANIFOLD INFORMATION

In 2006, Harley-Davidson® changed the bolt pattern of the flanges that connect the manifold to the cylinder heads for all big twin engines. The pattern was changed from an offset bolt pattern to a symmetrical bolt pattern, so flanges can fit either the front or rear cylinder head. In addition, the intake port was moved slightly toward the drive side of the engine, making the port-to-port distance of the intake manifold slightly shorter. S&S® heads for 2006-up big twins are machined with the symmetrical bolt pattern and relocated port to allow for the fitment of stock manifolds. In 2008, Harley-Davidson touring models were equipped with electronic throttle control (ETC). The throttle body and manifold used on these engines is a one-piece unit that contains a servomechanism to control the position of the throttle plate. S&S recommends the S&S Throttle Hog throttle body for this application, see page 84. This limits the cylinder length of engines using an ETC manifold/throttle body to stock length because the ETC manifold/throttle body units are only available in stock length. However, S&S does supply specially machined cylinder heads for our 124" Hot Set Up Kit® for 2008 and later baggers, which allows the use of a stock length manifold on these longer-than-stock engines.

CNC PORTED CYLINDER HEAD SERVICES

FITMENT

- Available for 1999-2017 big twin engines, except 2017 touring models
- Ideal for 88" - 124" engines (must use Screamin' Eagle® high flow injectors, HD #27796-08, with kits over 107")
- Not compatible with Twin-Cooled™ models

FEATURES AND BENEFITS

- CNC machined ports for a consistent performance increase from stock heads
- Great throttle response, high velocity port without losing low RPM torque
- Assembled with performance valves and springs ready to bolt-on
- Choice of .585" or .650" lift valve springs
- Combustion chambers are available in the following volumes:
  - 83cc-Generally used for stock 88" up to 106" engine displacements
  - 85cc- Same as stock Twin Cam 88® and 96™ engine displacements
  - 87cc- Recommended for up to 117" engine displacements
  - 90cc- Generally used for 124" and up engine displacements
- Available in factory black or silver



S&S CNC PORTING SERVICE OPTIONS

REWORK SERVICE

- Send your stock heads to S&S
- Get the same set of heads back with CNC machined ports
- The best option for heads with a special cosmetic treatment
- Allow 1 week turn-around (does not include shipping)

CUSTOM CNC PORT DUPLICATION

- S&S can digitize your port design and machine it in your heads, ask an S&S customer service rep for details

WATCH THE S&S CNC PORTING VIDEOS AT SSCYCLE.COM/VIDEOS

CNC PORTING SERVICE

Fitment	Part #
1999-2017 big twins *(except Twin-Cooled™ & 2017 touring models)*	**106-5880**

S&S® CNC PORTING SERVICE SPECIFICATION COMPARISON

Heads	VALVE SIZE		Max Valve Lift	MAX TDC LIFT		PORT FLOW		Chamber Volume
	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	
Stock	1.805"	1.575"	.585"	–	–	216.2 cfm	191.8 cfm	85cc
CNC Ported by S&S	1.900"	1.610"	.650"	.230"	.215"	248.6 cfm	209.7 cfm	83cc**

**Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift. Heads tested are 2006-'12 style.*

Heads	COMPRESSION RATIO								
	88"	95"	96"	97"	103"	106" Stroker	106" Big Bore	117" DD Piston	124" DD Piston
Stock	9.0:1	9.2:1	9.2:1	9.7:1	10.1:1	10.1:1	10.0:1	10.0:1	10.7:1
CNC Ported by S&S	9.2:1	9.4:1	9.4:1	9.9:1	10.3:1	10.3:1	10.2:1	10.2:1	10.9:1

***As a general rule of thumb, for every 1cc decrease in chamber volume equals a .1 increase in compression ratio.*

NOTES

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases, the customer will be notified and options will be reviewed. New, CNC ported stock heads or S&S heads are available for purchase.

Due to variations in stock cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

Fuel injection tuning required. See page 89 for information on the Dynojet® Power Vision® Tuner.

CNC porting is not currently available for Harley-Davidson® CVO engines or Screamin' Eagle® cylinder heads.

Must use Screamin' Eagle® high flow injectors, H-D #27796-08, with kits over 106"

S&S recommends using a S&S Throttle Hog throttle body when installing S&S CNC ported heads to achieve full horsepower performance potential. See page 84.

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HEAD BOLTS WITH WASHERS

HEAD BOLTS

Bolt Length w/Washer	Washer Thickness	Head Bolt w/Washer	Washer Only
1.690"	.250"	**93-3028**	**50-7091**
1.840"	.150"	**93-3027**	**50-0418-S**
1.920"	.250"	**93-3036**	**50-7091**
2.070"	.150"	**93-3031** USA	**50-0418-S**
2.220"	.250"	**93-3038**	**50-7091**
2.370"	.150"	**93-3032**	**50-0418-S**
3.134"	.250"	**93-3029**	**50-7091**
3.284"	.150"	**93-3030**	**50-0418-S**
3.501"	.250"	**93-3037***	**50-7091**
3.651"	.150"	**93-3033***	**50-0418-S**
–	.150"	–	**50-0418-S**

** Drilled & tapped deeper to allow shortening for custom lengths.*



93-3031

HEAD BOLTS FOR HARLEY-DAVIDSON® TWIN CAM 96™ ENGINES

Engine Displacement	Stroke	Cylinder Length	Cylinder Head Type	Short Bolt w/Washer	Long Bolt w/Washer	Head Bolt Kit
Stock 96 and 103	4⅜"	4.937"	Stock H-D®	**93-3031** USA	**93-3030** USA	**93-3014** USA
117" Big Bore	4⅜"	4.878"	S&S®	–	**93-3030** USA	**93-3070**
124" Big Bore Stroker	4⅝"	5.013" or 5.004"	Stock H-D®	**93-3038**	**93-3037**	**93-3016**
			S&S®	–	**93-3037**	**93-3071**

CALCULATING CUSTOM HEAD BOLT LENGTH
SEE INSTRUCTIONS IN THE APPENDIX: PAGE 551

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown

S&S® CHROME HEAD BOLT COVERS

Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.



CHROME HEAD BOLT COVERS

Description	Part #
Set of 4, for S&S Head Bolts only	**50-0333** USA

DIE-CAST ROCKER COVERS

FITMENT

- 2007-'17 model big twins, *except 2017 touring models*

FEATURES AND BENEFITS

- Special rocker arm supports are included
- S&S rocker covers are finished with show-quality chrome
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame
- Clearanced to permit valve lifts up to .640" using S&S valve spring packages and stock rocker arms or S&S roller rocker arms
- S&S rocker covers accept valve springs up to 1.660" O.D. without modification
- Exclusive one way valve built into the rocker cover gasket to control oil carry over



KIT CONTENTS

- Front and rear covers
- All necessary gaskets and o-rings
- Mounting hardware

DIE-CAST ROCKER COVER KIT

Description	Part #
Chrome	**90-4110** USA

REPLACEMENT PARTS: SEE PAGE 111

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, PAGE 523

NOTES

If using valve spring packages with taller than stock installed height, some minor clearancing may be required.

Cylinder heads must be set up correctly for high lift cams, and it remains the builder's responsibility to confirm all clearances.

In most instances, only minor clearancing is required to use S&S rocker covers with valve springs larger than 1.660" O.D.

S&S® rocker covers are required if S&S cylinder heads are used with S&S electric compression releases.

THROTTLE HOG CABLE-OPERATED THROTTLE BODIES

S&S cable operated Throttle Hog Throttle bodies are available for 2002-'17 Harley-Davidson® big twins using cable operated throttles. Choose from 58mm, for stock or mildly built engines, or the whopping 66mm Throttle Hog for big inch engines. More Air, More Power!

FITMENT

- 2006-'17 Harley-Davidson EFI big twins with cable controlled throttles
- S&S EFI Hot Set Up Kit® installations and T-Series Long Block engines with cable controlled throttles

FEATURES & BENEFITS

- More air flow for improved performance
- S&S Stealth air cleaners kit, with the proper bore sizes, are available
- Works with all air cleaner kits designed for throttle by wire engines with stock breather system
- One-piece design for easy installation and stock appearance
- Compatible with stock sensors, fuel rail, and throttle cables
- Black powder coat finish matches stock
- Sealed, stainless steel throttle shaft with dual roller bearings for smooth operation and no air leaks
- Kit includes hardened steel flanges and seals
- No stock throttle body exchange required!

THROTTLE HOG CABLE OPERATED THROTTLE BODIES FOR 2006-2017 BT

Year	Size (mm)	Engine Fitment	Manifold Size	Part Number
2006-2017 bt	58	96", 103", 106", 107", S&S 117" Hot Set Up Kit®, and 124" Hot Set Up Kit® *(w/S&S +.032" heads only)*** S&S T-Series Engines** *(Engines produced after 2013)*	405	**170-0346**
		S&S T-Series 111" Long Block Engines**	398	**170-0347**
		S&S T-Series 124" Engines with S&S bolt pattern, and 124" Hot Set Up Kit® *(w/stock or standard S&S heads)***	417	**170-0345**
	66	96", 103", 106", 107", S&S 117" Hot Set Up Kit®, and 124" Hot Set Up Kit® *(w/S&S +.032" heads only)*** S&S T-Series Engines** *(Engines produced after 2013)*	405	**170-0349**
		S&S T-Series 111" Long Block Engines**	398	**170-0350**
		S&S T-Series 124" Engines with S&S bolt pattern, and 124" Hot Set Up Kit® *(w/stock or standard S&S heads)*** S&S T-Series Engines** *(Engines produced after 2013)*	417	**170-0348**

***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (405) on a 124" engine. If you are not sure which manifold should be rdered, check fitment with the stock manifold first.*

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MAKE MORE POWER!

S&S Air Cleaner Kits
See page 41

REPLACEMENT FLANGE KITS
2006-2017 bt 160-0168



NEW FOR 2018

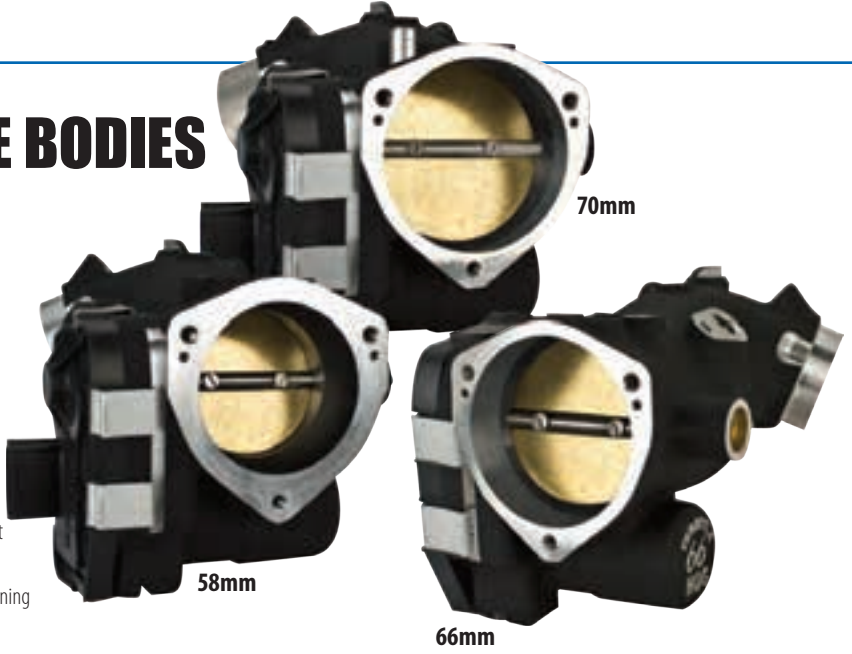
6.2 g/s FUEL INJECTORS for 2006-2017 Cable-operated Throttle Hogs 550-0749





REPLACEMENT PARTS: PAGE 96

THROTTLE HOG THROTTLE BODIES



FITMENT

- 2008 - 2016 big twins w/throttle-by-wire
  (Except models equipped with the Twin-Cooled™ system)

FEATURES AND BENEFITS

- Increase in airflow for additional performance gains
- Meets the breathing needs of even the largest of engines
  – *choose from 58mm, 66mm, or 70mm*
- Increased manifold port I.D. 1.780"
- Economically priced compared to competitors
- Utilizes stock sensors and fuel rail

58MM Recommended for engines up to 110". Perfect with a S&S® 106" Big Bore kit

66MM Perfect pairing with a S&S 124" Hot Set Up Kit® or a 124" engine (when running cylinder heads with stock style round intake ports)

70MM Recommended for engines up to 145" displacement. S&S B2 and B3 cylinders heads are required to match the oval port configuration

ADDITIONAL PARTS REQUIRED

- Air cleaner (see chart for recommended air cleaner kits)
- High flow injectors P/N 550-0747
- Intake Manifold Flange kit for 2006 -up PN 160-0168 (includes seals)
- A performance motorcycle tuning module. S&S recommends Dynojet Power Vision®

SOLD ON EXCHANGE ONLY – HERE'S HOW IT WORKS

1. Your S&S® dealer sends your stock throttle body to S&S Cycle, Inc
2. S&S tests your incoming throttle body and its electrical components
   – a non-functional unit cannot be used and will be returned
3. S&S transfers your functional electrical components to your new S&S Throttle Hog
4. The complete Throttle Hog is tested and shipped to your S&S dealer
   (along with your original throttle body)
5. Your new Throttle Hog will typically be shipped within 2–3 days of receipt at S&S.

THROTTLE HOG THROTTLE BODIES AND AIR CLEANER KITS

Size	Throttle Hog Throttle Body	Stealth Air Cleaner Kits***	Backplate only*
58mm	**160-0034**	**170-0164**	**170-0167**
66mm	**160-0010**	**170-0165**	**170-0168**
70mm B2	**160-0112**	**170-0263**	**170-0247****

**If you already have a Stealth air cleaner for a stock throttle body, all you need is the backplate.*

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***70mm B2 backplates do not have mounts to the cylinder head. A bracket must be fabricated to support the throttle body separately. Engine height determines if stock bracket can be used.*

**** These kits do not include an air cleaner cover.* *See page 41 for S&S Stealth covers.*

NEW FOR 2018 **6.2 g/s FUEL INJECTORS for 2008-2017 Throttle-by-Wire Throttle Hogs 550-0747**



B3 APPLICATIONS FOUND ON PAGE 56

WARRANTY:
S&S THROTTLE HOG THROTTLE BODIES

S&S® Cycle, Incorporated warrants the S&S components of your S&S Throttle Hog throttle body to be free from defects in material and workmanship for a period of one year from the date of purchase by the original consumer customer. If parts become defective during the warranty coverage period, S&S will, at its option, repair or replace any, or all, defective parts. Repair or replacement of defective parts is the sole and exclusive remedy.

In the event that any OEM component re-utilized in the assembly of the throttle body fails, S&S may service the unit provided the OEM components are supplied to S&S at the time of service.

MANIFOLDS FOR SINGLE BORE EFI BIG TWIN ENGINES

FITMENT

- Stock height or taller than stock 2006-'15 bt, except 2008-2015 touring models
- S&S 52mm or 58mm throttle bodies
- Stock or S&S heads
- S&S T-Series Long Block engines

KIT CONTENTS

- Manifold
- O-ring intake seals
- VOES fitting cap



16-5139

MANIFOLDS FOR SINGLE BORE EFI 2007-'15 BIG TWIN ENGINES

Engine Displacement	Cylinder Length	Manifold Size	Part #
96", 103" & 106" (S&S engines with stock bolt pattern)	4.937"	405	**16-5134**
124" Hot Set Up Kit® (w/stock or standard S&S heads) **	5.004"	417	**16-5139**
124" Hot Set Up Kit® (w/S&S +.032" heads only)**	5.004"	405	**16-5134**
111" S&S T-Series Long Block Engines	4.754"	398	**16-5136**
117" Hot Set Up Kit®	4.878"	405	**16-5134**
124" S&S T-Series Engines, S&S bolt pattern	5.013"	417	**16-5139**
Special Order (All Styles)	Specify	389-428	**16-5142***

** Special Order: Download the Special Order Form at sscycle.com/soforms*

***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (405) on a 124" engine. If you are not sure which manifold should be ordered, check fitment with the stock manifold first.*

NOTES

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may cause damage.

2006-up models require seperate purchase of H-D® intake manifold flanges pn 26993-06 (1 pack).

SINGLE BORE EFI THROTTLE BODIES

52MM: Offering a 30% larger cross sectional area than stock throttle bodies, the S&S 52mm bore throttle body flows more than enough air for all but the most demanding street engines.

58MM: In response to constant requests for something bigger, S&S also offers a huge 58mm bore throttle body! Strictly for large displacement competition engines, this throttle body allows your engine to breathe easily and make more power! Recommended for S&S 106" big bore kit.

FITMENT

- 2006-'16 EFI big twins
  (except 2008-up touring models with electronic throttle control)

FEATURES AND BENEFITS

- Excellent performance
- Recommended tuning products:
  - S&S VFI
  - Dynojet® Power Vision Tuner
- Cruise control compatible with no extra bracket

OPTIONS

- 52mm
- 58mm

KIT CONTENTS

- Throttle body assembly
- Fuel injectors
- Fuel rail
- Harness adaptors
- All necessary hardware, gaskets, and hoses

SINGLE BORE EFI THROTTLE BODY KIT

Description	Part #
52mm Kit including Fuel Rail Kit	**17-5070**
58mm Kit including Fuel Rail Kit	**106-4408**

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MAKE MORE POWER!
S&S® Stealth Air Cleaners on page 41
S&S Air Cleaner Kits for on page 45

NEW & IMPROVED!
CABLE-OPERATED THROTTLE HOGS
PAGE 83

NOTES

If you plan to use another programmable fuel injection module, it is best to consult the manufacturer to be certain that it is compatible with the S&S single bore system and has enough tuning capability for your engine configuration.

Requires S&S manifold and air cleaner assembly (order separately)



Stock



S&S 52mm



S&S 58mm

REPLACEMENT PARTS: SEE PAGE 97

COMPRESSION RELEASES

FITMENT

- S&S cylinder heads and rocker boxes for big twin with compression release machining
- Will not fit OEM heads

OPTIONS

MANUAL RELEASE:

Activated by a cable similar to a choke control, this slick system can be used with any style rocker cover.

ELECTRIC RELEASE:

Solenoid operated, this system automatically opens and closes when the starter button is pressed and released. Convenient and simple, this is the best setup for big displacement high compression bikes. Requires S&S die cast rocker covers, page 82



55-1009



90-4915



53-0045



90-4916



90-4925

S&S ® COMPRESSION RELEASE KITS

Description	Part #
Electric	**90-4915**
Manual	**90-4925**

TOOLS AND ACCESSORIES

Description		Part #
S&S Two-Piece Socket Kit: *Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.*		**53-0045**
S&S Compression Release Hole Plug	*each*	**90-4916**
	2 pack	**90-4916-2**

REPLACEMENT PARTS

Description	Part #
Silicone Solenoid Caps	**55-1009**
Wiring Harness USA 2,3	**55-1010**
Electric Compression Release Assembly USA 2,3	**90-4914**

NOTES

S&S rocker covers must be used with electric compression releases due to clearance requirements for the solenoids.

Rocker covers must be removed when installing S&S® compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.

In most cases, S&S compression releases can be installed while the engine is in the frame with the special S&S two-piece socket kit, part #53-0045 .

If cylinder heads are machined for S&S compression releases, but compression releases are not used, special plug part #90-4916 (two required) must be installed to seal the machined hole.

Stock cylinder heads cannot be machined for S&S compression releases because there is not enough material in critical areas.

VARIABLE FUEL INJECTION MODULES (VFI)

DELPHI® STYLE S&S® VFI MODULE

FITMENT

- 2007-'10 Harley-Davidson® Softail®
- 2007-'11 big twins, except 2008-up touring with electronic throttle control, 2011-up Softail® or 2012-up Dyna®

FEATURES AND BENEFITS

- Replaces stock Harley-Davidson® fuel injection modules – *plugs directly into stock wiring harness*
- Includes ProTune II software and can be updated at sscycle.com/software/protune
- Three stage engine overheat protection helps prevent possible engine damage caused by improper modifications to fuel maps
- Altitude compensation automatically adjusts for altitude variations
- Live tuning allows manual changes to maps while the engine is running
- Self diagnostics and actuator test functions help tuning and verify proper installation/operation
- Engine light can be programmed to function as a shift light
- Closed loop capable
- Knock sensing ignition control *(USB Delphi® style unit only)*
- Optional closed loop sensor kit and knock sensor kit extend module capabilities
- Speedometer calibration function for 2004-up Harley-Davidson® models *(does not require installation of separate speedometer calibrator)*

CLOSED LOOP CAPABILITY

When equipped with a dual closed loop sensor kit and running in closed loop mode, VFI tuning becomes a breeze! S&S supplies base maps for several displacement groups, creating a starting point to get bikes up and running. Utilizing dual oxygen sensors *(sold separately)* placed in the exhaust, the S&S closed loop system modifies the base fuel map to meet the specific requirements of your engine!

- Automatic tuning on the street or on the dyno
- Each cylinder is tuned individually
- Fuel map changes are saved in the module & can be merged with the pre-loaded base map
- Works with stock oxygen sensors used on late model Harley-Davidson® motorcycles

Closed loop VFI can also automatically compensate fuel delivery for modifications creating up to a 20 hp gain, such as changes in:

- Displacement
- Cams
- Exhaust
- Head porting or installation of aftermarket heads

KIT CONTENTS

- Delphi® style S&S VFI module
- ProTune II software
- USB port cover kit
- Installation instructions



55-5090



106-2066

DELPHI® STYLE S&S VFI MODULE

Fitment/Description	Part #
VFI Module for 2001-'11 bt *(except 2008-up touring and 2011 Softail®)***	**55-5090***
S&S Delphi Style VFI Closed Loop Sensor Kit USA	**106-2066**
Knock Sensor Kit *(55-5090 module only)* USA	**106-0810**

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REPLACEMENT PARTS FOR VFI MODULES

Description	Part #
Service Kit, O2 Sensor USA	**106-2061**
Service Kit, DTM Pin	**55-1521**
Service Kit, Oxygen Sensor Boss USA USA	**55-6071-S**
Service Kit, Subharness *(Delphi Style)*	**55-1595**
Hardware Kit *(USB Cover)*	**55-5091**

NOTES

All current production S&S modules are closed loop compatible, and all older S&S modules can be updated with current calibration by simply downloading software from the S&S website at www.sscycle.com/software/protune.

Please note that maps created for older versions of the VFI software are not compatible with the new closed loop software, however they can be converted to closed loop if desired.

Optional Delphi® style knock sensor adjusts timing to eliminate spark knock, prolonging engine life (55-5090 module only).

S&S VFI systems installed on 2004–up Harley-Davidson® models incorporate a speedometer calibration feature.

Due to the extreme range of control offered by the S&S VFI modules, we recommend that they be installed and tuned by S&S Certified VFI Tuning Centers. Check www.sscycle.com to find a tuning center near you.

DYNOJET® POWER VISION® TUNER

FITMENT

- 2001-'17 Harley-Davidson® models equipped with Delphi® ECM

FEATURES AND BENEFITS

- Flash tune all H-D® models equipped with a Delphi ECM
- Does NOT require the user to interface with a computer in order to flash a tune. Change rev limit, idle speed, and other parameters directly from the device
- Display all H-D vehicle data
- Customizable virtual gauges allow data to be monitored live, and/or logged while riding
- User defined visual alarms for any data channel
- Check and clear diagnostic codes
- Reset adaptive fuel trims and idle offset (with bike running)

The Power Vision Suite includes a highly flexible tuning / data logging device, as well as a productive tuning application (WinPV) that's user friendly compared to other products on the market.

WINPV SOFTWARE FEATURES

- Allows you to import Power Commander Maps
- Tuning parameters laid out in a clear, concise manner utilizing a "tree view structure"
- A viewing mode for every type of user, beginners or professionals
- Individual tuning parameters are able to be saved as "value files." The value files can then be applied to other calibrations
- Compare, restore, and undo features
- Various math functions can be performed on any value
- Synchronized editing of front and rear VE and/or Spark tables
- Helpful tuning parameter descriptions
- Automatic update client ensures you have the latest tuning application, firmware, and tune file database



DYNOJET® POWER VISION® TUNER

Fitment	Mfr PN	Part #
2001-'13 H-D® models *(except 2011 - Later Softail® & 2012 - Later Dyna®)*	PV-1	**550-0087**
2011-'17 Softail®, 2012-'17 Dyna®, and 2014-2016 Touring	PV-2	**550-0111**

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VARIABLE PRESSURE CLUTCH

The VP clutch is the most cost effective kit for upgrading your H-D® stock clutch without any modifications. Up to 40% more pressure for stronger clutch engagement.

FEATURES AND BENEFITS

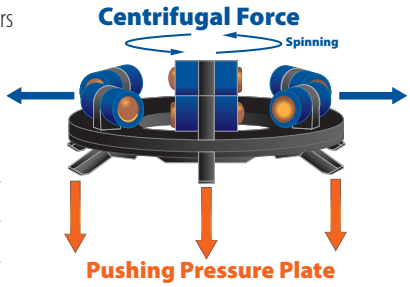
- Works like a lock up clutch
- Increased torque capacity: strength of engagement increases with RPM
- 10 minute installation
- Fits behind a stock derby cover and primary cover - *No modification required*
- Can be used with cable and hydraulic clutch controls

Does not fit: 2013 and later CVO™ and Tri-Glide™, 2015 and later Ultra Limited Low and Electra Glide Classic Low Models with new H-D® Assist and Slipper Clutch: 3 Stud Clutch Hub

Non-stock derby cover (including any special or 2003 anniversary cover) and 3 hole derby covers may require a derby



560-0242



Centrifugal force makes more clamping force. Regular clutches have static pressure only with clutch springs. The Lock up clutch has two different types of pressure. One is a Static Pressure, and another is a Centrifugal Force by Lock-up as an additional pressure.

VARIABLE PRESSURE CLUTCH

Description	Part #
1998-2016 big twins with 6 Stud Clutch Hub	**560-0242**

INNER PRIMARY BEARING RACE

FEATURES AND BENEFITS

- Will not "walk" on transmission mainshaft
- Prevents costly damage to mainshaft seal, output gear & output gear bearing
- Simple to install

The tendency of the stock inner primary bearing race on late model big twins to shift on the transmission mainshaft under high torque loads, also known as "walking" of the race, can cause destruction of the transmission mainshaft seal, and ultimately the mainshaft seal, output gear and output gear bearing. The S&S inner primary bearing race features an extra step on the inside diameter that acts as a stop on the transmission mainshaft. When the race is pressed on to the shaft, the step will not allow the race to move inward toward the mainshaft seal. The improved S&S bearing race is a must for any high performance application.



560-0241

INNER PRIMARY BEARING RACE

Description	Part #
2006 Dyna, 2008, 2010-2017 big twins, *except 2017 touring*	**560-0241**

HEAVY DUTY DIAPHRAGM SPRING

FITMENT

- 1998 - 2017 big twin models, *except 2017 touring models*

FEATURES AND BENEFITS

- 380 lbs pressure, 25% stronger than stock
- Same pressure as Screamin' Eagle® heavy-duty spring
- Compatible with S&S VP and stock clutches

HEAVY DUTY DIAPHRAGM SPRING

Description	Part #
1998- up big twins	**560-0244**



560-0244

GATES® HIGH STRENGTH FINAL DRIVE BELTS

S&S final drive belts by Gates are available with 14mm pitch in 1½" and 1⅛" widths. See the chart and match the width and number of teeth required for your vehicle. You can find this information in the vehicle service manual.



SECONDARY DRIVE BELTS (14MM PITCH)

Teeth	1⅛" Wide	1½" Wide
125	**106-0357**	–
126	–	**106-0348**
127	–	**106-0349**
128	**106-0358**	**106-0350**
130	**106-0359**	**106-0351**
132	**106-0360**	**106-0352**
133	**106-0361**	**106-0353**
135	**106-0362**	**106-0354**
136	–	**106-0355**
139	**106-0363**	**106-0356**
149	**106-1338**	**106-2695**
156	–	**106-2827**

ATTENTION CUSTOM BIKE MANUFACTURERS! SPECIAL ORDER BELTS FROM S&S® AND GATES®

Special belt sizes, private brand labeling, and assistance with belt drive design, are available to custom performance OEM's and aftermarket bike builders, through S&S. These products and services are available for licensed motorcycle manufacturers only, and a minimum order quantity may be required.

Drive belts with your company name imprinted on them are a perfect way to show off your brand. Any belt size currently available in the S&S catalog, as well as the special ordered sizes, can be specially branded. Minimum order quantities would apply.

Whether you're designing a completely new chassis, or simply need a replacement belt, S&S can help you find the belt you're looking for. Through the combined efforts of Gates and S&S, S&S can now provide customers with the technical assistance they need for designing new secondary belt drive systems. In addition, S&S can help you determine required tooth count for your existing chassis design, based on the pulley center-to-center distances and pulley tooth counts.

All belts have a 14mm tooth pitch, and are made of the super strong Gates Carbon X3N material. Belts are available in three standard widths of 1.125", 1.5"and 1.181" (30mm), but can be special ordered in nearly any width for a nominal charge. If you want a belt with a special tooth count, they are also available (see the special order chart for availability).

Contact your S&S Customer Support Representative for more information.

BELTS AVAILABLE BY SPECIAL ORDER (14MM PITCH)

Tooth Count	1.181" (30mm) Width*	1.25" Width*
125	●	
126	●	●
127	●	●
128	●	
130	●	
131	●	●
132	●	
133	●	
135	●	
136	●	●
137	●	●
139	●	
140	●	●
149	●	
150	●	●
151	●	●
152	●	●
156	●	

**Minimum order required: 1.181" (30mm) – 16 belts; 1.25" – 17 belts.*

GASKETS

REBUILD GASKET KITS FOR S&S T-SERIES 1999-UP ENGINES AND HOT SET UP KIT®

1999-up 4⅛", S&S base bolt pattern	**106-0976**
1999-up, 4⅛", Stock base bolt pattern	**310-0335**
1999-up T143 4.425" bore	**310-0751**

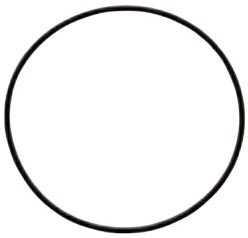


Micropore

TOP END GASKET KIT FOR TWIN CAM 96®/103® AND S&S ENGINES

Bore	Part #
4⅜"	**90-9511**
4⅛" Stock Cases	**90-9510**
4" Stock Bolt Pattern	**90-9505**
3⅞" Stock Bolt Pattern	**90-9504**

Kits include all gaskets and seals required to rebuild the top end of an S&S engine with S&S cylinders and cylinder heads. Rocker cover gaskets are not included in kits. See "S&S Rocker Cover Gasket Kit" chart to order separately.



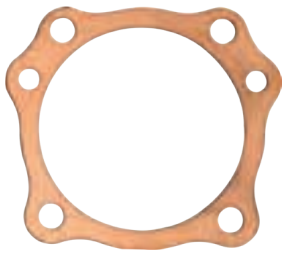
Viton® O-ring

CYLINDER HEAD GASKET KITS FOR T-SERIES 1999-UP

Bore	Part #
4⅛" Stock Bolt Pattern	**90-1914**
4 ⅜" bore	**900-0800**
4" Stock Bolt Pattern	**90-1913**
3⅞" & 3.937" Stock Bolt Pattern	**910-0465***

Kits contain head gaskets, base gaskets or o-rings, and exhaust pipe gaskets for two cylinder heads. Rocker cover gaskets are not included in kits. See "S&S Rocker Cover Gasket Kit" chart to order separately.

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



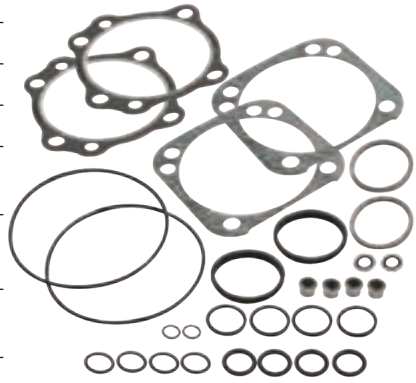
Copper

HEAD GASKETS FOR S&S® ENGINES

Description	Bore Size	Thickness	QTY	Part #
Copper	4⅜"	.045"	*2 pack*	**93-1081**
Layered Steel	4⅛" Stock Bolt Pattern	.043"	*each*	**93-1091-S**
			2 pack	**930-0102**
			10 pack	**93-1920**
Layered Steel	4⅛" Stock Bolt Pattern	.030"	*2 pack*	**900-0217**
Layered Steel	4⅛" Stock Bolt Pattern with Twin Cooled™ Heads	.030"	*2 pack*	**900-0609**
Graphite	4" Stock Bolt Pattern	.043"	*each*	**93-1043-S**
			10 pack	**93-1058**
Layered Steel	4" Stock Bolt Pattern	.045"	*2 pack*	**900-0822**
Layered Steel	4" Stock Bolt Pattern	.030"	*2 pack*	**900-0821**
Layered Steel	3.937" Stock Bolt Pattern with Twin Cooled Heads	.030"	*2 pack*	**900-0605**
Graphite	3¾" Stock Bolt Pattern	.043"	*each*	**93-1045-S** *16775-99B*
Layered Steel	3⅞" & 3.937" including Twin-Cooled Heads	.045"	*2 pack*	**900-0862**
Layered Steel	4 7⁄16"	.045"	*2 pack*	**900-0762**
Layered Steel	4.125" Stock Bolt Pattern with Twin Cooled™ Heads	.045"	*each*	**900-0608**



Layered Steel



90-9505

CONTINUED- GASKETS

BASE GASKETS AND O-RINGS S&S® T-SERIES 1999-UP

Description	Bore Size	Thickness	QTY	Part #
Graphite	4"	.018"	*each*	**93-1050-S**
	4⅛"	.018"	*each*	**93-1048-S**
			2 pack	**930-0101**
			10 pack	**93-1074**
Micropore	4⅜"	.018"	*2 pack*	**93-1082**
	4⅛" Stock Bolt Pattern	.018"	*each*	**93-1092-S**
			2 pack	**930-0101**
			10 pack	**93-1921**
	4.425"	.018"	*2 pack*	**900-0783**
Viton O-ring	4"	.103"	*each*	**50-8049**
	3¾", 3⅞", 3.927"	.103"	*each*	**50-8048** *11256*



106-5029



106-5688

EXHAUST GASKETS

1984-'12 big twins	*each*	**106-5029** *65324-83B, 65324-83A*
	10 pack	**93-1072**

ROCKER COVER GASKET KITS

Rocker Cover Style	Head Type	Part #
S&S Die-cast	S&S Heads	**90-4111**
Stock 1999-2017, *except 2017 touring models*	Stock or S&S Heads	**90-4097***
Stock 1999-2017, *except 2017 touring models*	Stock heads	**900-0534**

All kits include gaskets for two rocker covers.
**Kit contains bottom rocker gaskets for stock heads and S&S 79cc heads.*

VALVE GUIDE SEALS

Valve Stem Oil Seal, Hat Style	*each*	**900-0590** *18094-02*
Valve Guide Seal	*each*	**106-5688**
Valve, Umbrella	*each*	**900-0495** *26858-99*
Filter, Breather	*each*	**900-0496** *63815-99*

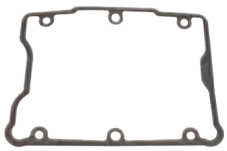
DIE CAST ROCKER BOXES

Gasket, bottom rocker cover, 4⅛", 1984-up	*each*	**90-4071-S**
	2 pack	**90-4071**
	10 pack	**90-4099**

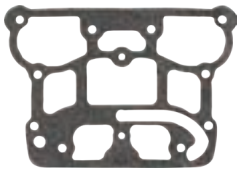
CONTINUED- GASKETS

STOCK ROCKER BOXES

O-ring, (-114), .625" ID x .812" OD, Black, Viton®			**50-8033** *11270*
Gasket, bottom rocker cover, 4⅛", 1984-up		*each*	**90-4071-S** *16719-99B*
		2 pack	**90-4071**
		10 pack	**90-4099**
Gasket,Breather Cover,Stock Pattern	1999-'10	*each*	**90-4077** *17591-99, 17162-03, 17592-99*
	2011-'17	*each*	**900-0415**
Gasket,Breather Baffle,Stock Pattern	1999-'10	*each*	**90-4078** *17162-03, 17592-99*
	2011-'17	*each*	**900-0416**
Gasket,Rocker Cover,Steel, 1999-up bt		*each*	**90-4096-S** *17386-99A*
Gasket,Rocker Cover,w/Stock Rocker Box, 1999-up bt		*each*	**90-4124**
		2 pack	**90-4120**



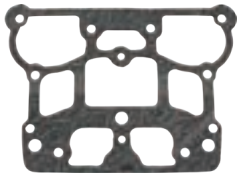
90-4096-S



90-4124

LOWER END GASKETS AND SEALS

Gear Cover gasket	*each*	**31-2032-S** *25244-99A*
Tappet Cover gasket	*each*	**33-5303-S** *18635-99B*
	2 pack	**33-5303-2** *18635-99B*



90-4071-S

PUSHROD O-RINGS

O-ring,Kit,Pushrod Cover,1984-'99 bt		**93-4022**
Top O-ring	*each*	**50-8039** *11293, 11157, 11101, 11190*
Middle O-ring	*each*	**50-8038** *11132A*
Bottom O-ring	*each*	**50-8037** *11145A*
Sprocket Shaft seal		**31-4035** *12068*
S&S Oil pump seal kit		**31-2097**
Oil Pump Scavenge o-ring	*each*	**50-8039** *11293, 11157, 11101, 11190*
Case alignment dowel o-ring	*each*	**50-8034-S** *26432-76A*
	2 pack	**50-8034** *26432-76A*
Oil jet o-ring	*each*	**50-8270**
	5 pack	**50-8275**
Cam plate and oil line plate o-ring	*each*	**50-8066-S** *11301*

MANIFOLD SEALS

S&S Manifold O-Ring	each	**16-0235**
	10 pack	**16-0243**
Stock Manifold O-ring	each	**16-0236** *26995-86B, 26995-86A, 26992-99*
	10 pack	**16-0244** *26995-86A, 26992-99, 26995-86B*
Cap, rubber, manifold, fitting	each	**50-8372**

CLASSIC TEARDROP AIR CLEANER

Backplate gasket		each	**106-1724**
		10 pack	**106-2328**
Vent seal washers silicone coated steel	½"	each	**50-7055**
		10 pack	**50-7057**
	⅜"	each	**50-7054**
		10 pack	**50-7059**

STEALTH AIR CLEANER

Backplate gasket

Stock CV Carb & EFI Throttle Body,1991-up xl/bt *(except Throttle by Wire)*		**106-6022** *29062-95B*
Super E/G	each	**106-1724**
	10 pack	**106-2328**
For Muscle air cleaner *(includes lanyards)*		**170-0137**
Vent seal washers Nitrile Rubber Coated, .380" x .880" x .024"	each	**50-7054**
	10 pack	**50-7059**

SINGLE BORE TUNED INDUCTION

Backplate gasket

Gasket, Backplate - E/G/SBEFI	each	**106-1724**
	10 pack	**106-2328**
Gasket, S&S SBEFI 58mm		**106-4662**
Gasket, Stock carb/Throttle Body		**106-6022** *29062-95B*
Adaptor plate gasket		**17-1022**
Adaptor plate bracket o-ring	each	**50-0446**

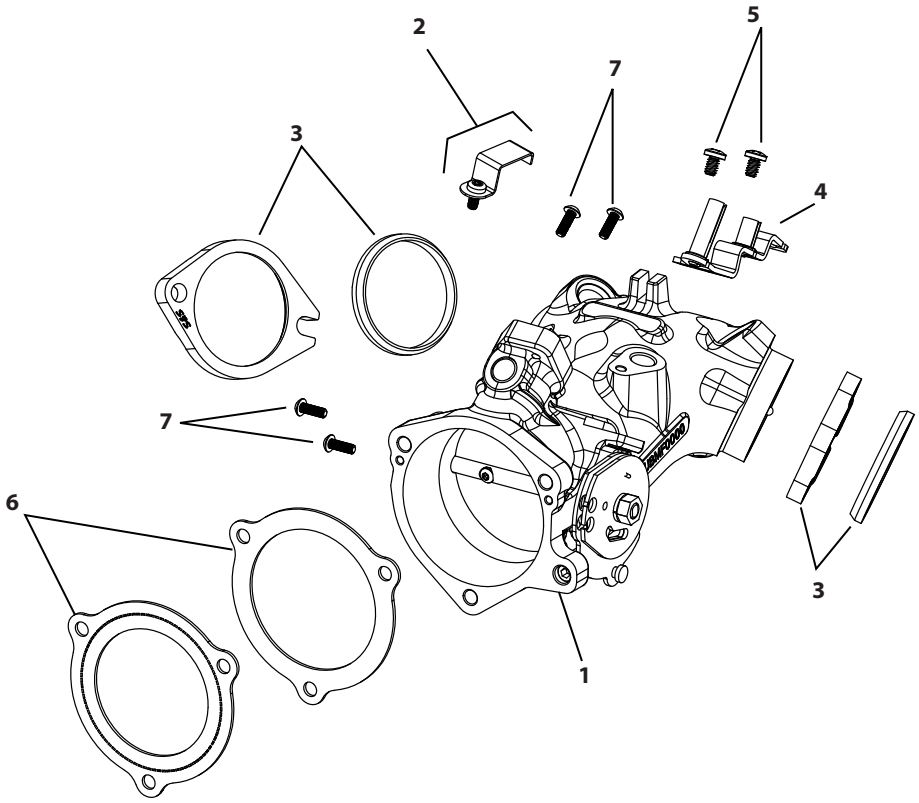
SINGLE BORE EFI THROTTLE BODY

Backplate gasket

52mm	each	**106-1724**
	10 pack	**106-2328**
58mm	each	**106-4662**
O-ring, throttle body to manifold		**50-7967-S**
Air Temp Sensor gasket		**16-5009-S**
IAC o-ring		**50-8149-S**
Fuel injector o-ring top		**50-8264-S**
Fuel injector o-ring bottom		**50-8265-S**
Fuel rail inlet o-ring	each	**50-8137-S** *27237-95*

THROTTLE HOG CABLE-OPERATED THROTTLE BODIES
REPLACEMENT PARTS

1. Throttle Body, Assembly, Cable Operated ..... **N/A**
2. Clamp, Kit, Hold-Down, MAP Sensor **160-0169**
3. Flange, Set, Packaged, 2006-Up bt. **160-0168**
4. Guide, Assembly, Throttle Cable **160-0113**
5. Screw,PH Panhead,10-24 x 5/16",Zinc,Steel **50-0093-S**
6. Gasket, Throttle Body,
   - 58mm **160-0050**
   - 66mm **160-0035**
7. Screw,Torx,M4 x 12mm,Zinc,Steel **50-0358-S**



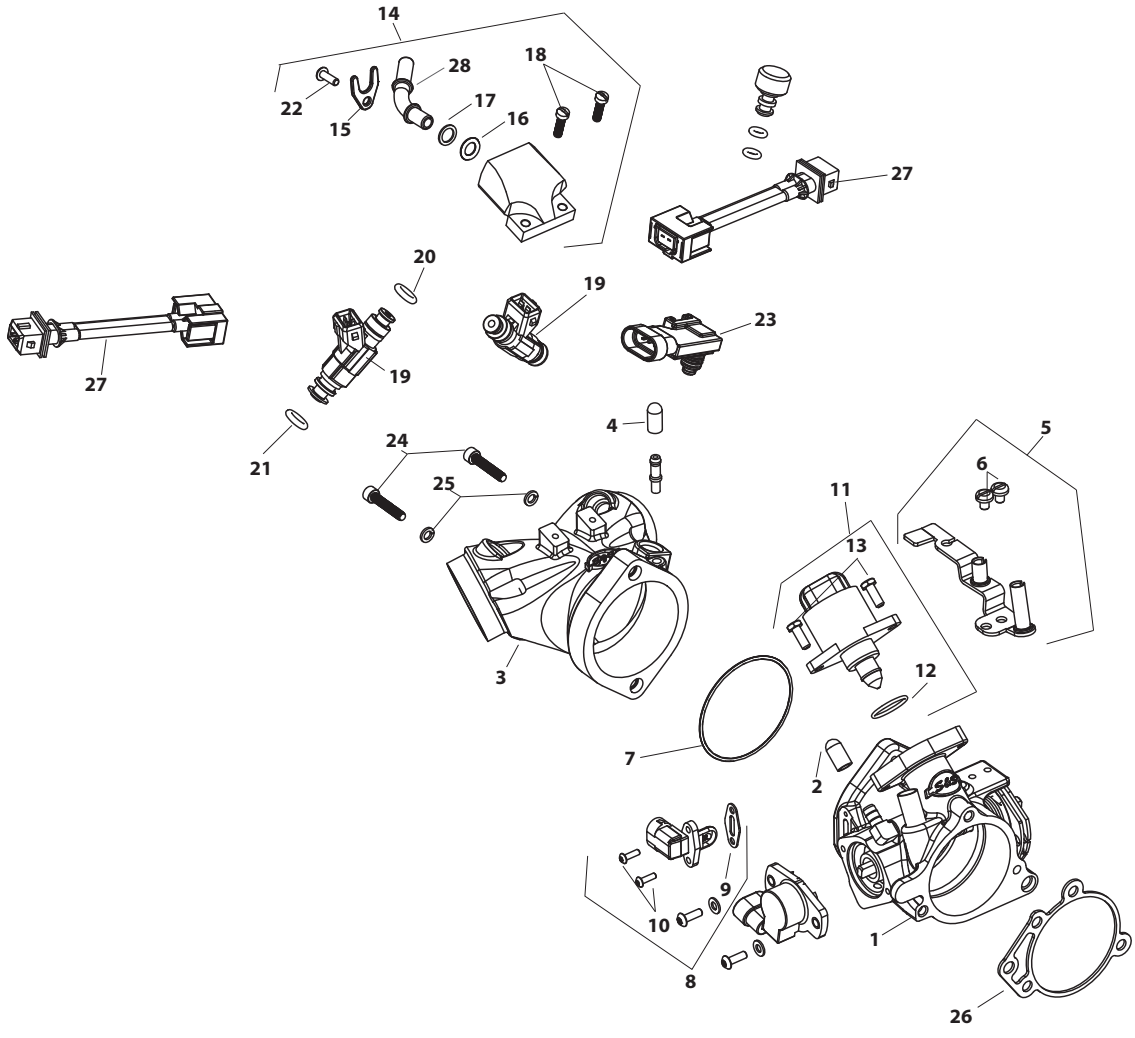
6.2 g/s FUEL INJECTORS for
2006-2017 Cable-operated Throttle Hogs **550-0749**



SINGLE BORE EFI THROTTLE BODY
AND RELATED REPLACEMENT PARTS

1. Throttle body
52mm, 2006-'16 bt (N/S) **16-5153**
58mm, 2006-'16 bt (N/S) **106-3957**
2. Cap, canister purge *(each)* **50-8266-S**
3. Manifold (See page 85)
4. Cap, rubber, manifold, fitting **50-8372**
5. Throttle cable guide packet with hardware **55-5084**
6. Screw, cable guide & air cleaner backplate *(each)* **50-0041**
10 pack **50-0062**
7. O-ring, throttle body to manifold *27270-95* **50-7967-S**
8. Intake air temperature sensor with hardware *27270-95* **55-5041**
9. Gasket, IAT **16-5009-S**
10. Screw, M3, IAT **50-0357-S**
11. Idle air control motor SS EFI with hardware ..... **N/A**
12. O-ring, IAC ..... **N/A**
13. Screw, Idle air control motor
2006-'16 *(each)* **50-0358-S**
14. Fuel rail kit
2006-'16 (Fuel inlet tube not included.) **16-5202**
15. Tube clip, fuel rail inlet 2001-'16 *(each)* **50-0391-S**
16. O-ring, fuel rail inlet, 2001-'16 *27237-95* (*each*) **50-8137-S**
17. Backing washer, fuel rail inlet, 2001-'15 ..... **50-0349-S**
18. Screw, rail, 1995-'16 (*each*) **50-0039**
10 Pack **50-0146**
19. Fuel injector (*each*) **55-5052A**
2 Pack **55-5052**
20. O-ring, injector top, black **50-8264-S**
21. O-ring, injector bottom, orange **50-8265-S**
22. Screw, fuel rail *(each)* **50-0358-S**
23. MAP sensor *32424-98, 32416-10, 32417-10* **55-5057**
24. Screw, throttle body to manifold *(each)* **50-0359-S**
25. Washer, lock , #10, throttle body to manifold **50-7000**
26. Gasket, backplate
52mm *(each)* **106-1724**
10 pack **106-2328**
58mm *(each)* **106-4662**
27. Harness, injector adapter kit
1995-'05 ..... **55-5074**
2006-'16 (N/S) **55-5209**
28. Fuel inlet tube 45°, 2002-'16 *27221-95* **50-0485**
29. Spacer, throttle position – 2002-'16 (N/S) **55-5201**

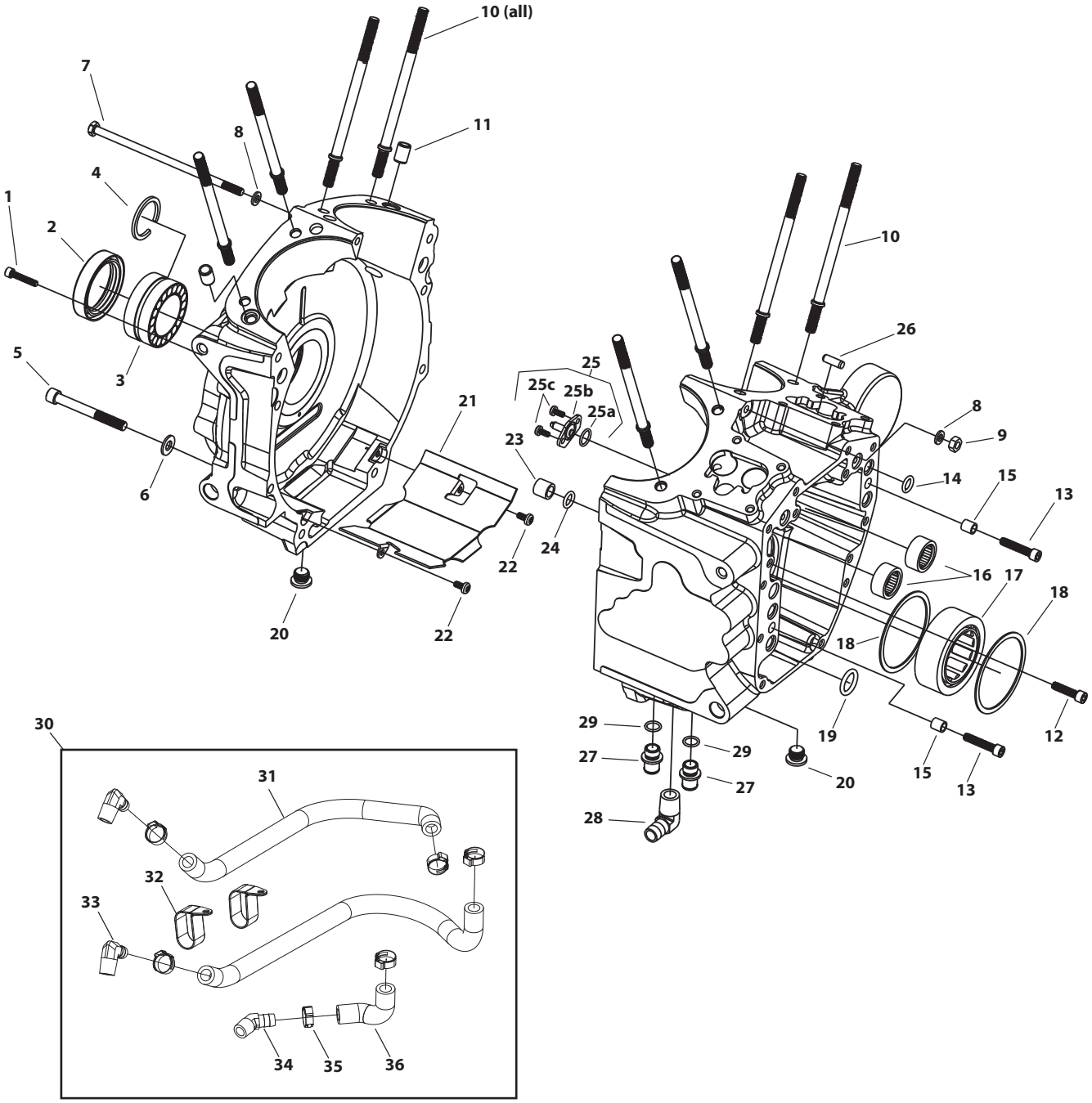
(N/S) = Not Shown
N/A = Not Available



SUPER STOCK™ T2 CRANKCASE REPLACEMENT PARTS

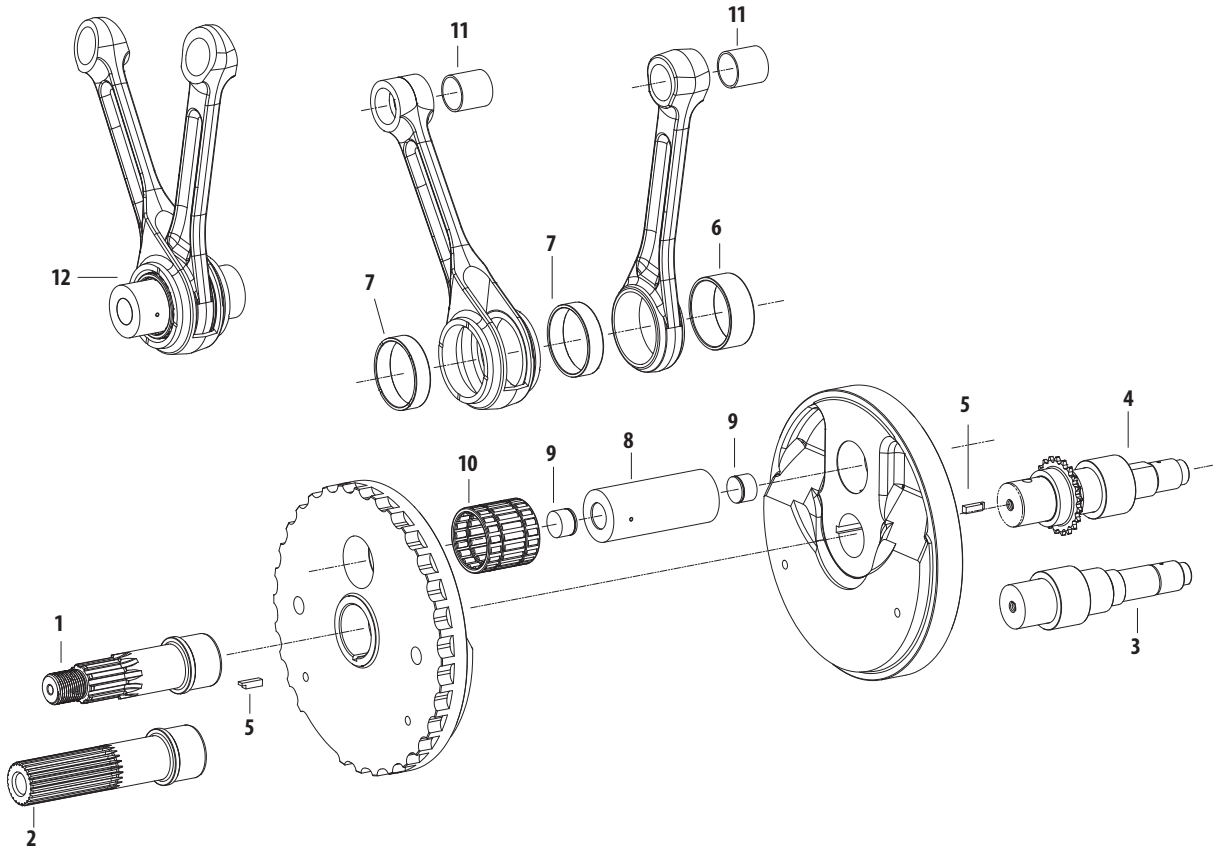
1. Bolt, stator 10-24 x1" SHC - 4 required *2720* **50-0044**
2. Seal, sprocket shaft *12068* **31-4035**
3. Bearing, Timken® sprocket shaft *9028*
..... USA USA 1,2,3 **31-4013**
4. Timken Main Bearing Spacers
Fits 1 1/4" stock diameter shaft.
.0995" - .1005" *9124* ..... USA **31-4071**
.1015" - .1025" *9125* ..... USA **31-4072**
.1035" - .1045" *9126* ..... USA **31-4073**
.1055" - .1065" *9127* ..... USA **31-4074**
.1075" - .1085" *9128* ..... USA **31-4075**
.1195" - .1205" *9134* ..... USA **31-4076**
5. Bolt, case 5/16" -18 x 3 1/2" HHC - 8 required
Chrome *(each)* **50-0254-S**
Zinc *3427 (each)* **50-0117**
6. Washer, flat 5/16" x 1 1/16" x 1/16" - 8 required *6320, 70907-07, 6016, 6702*
each **50-7034**
7. Bolt center case Screw,HHC,Gr8,1/4-28 x 5-1/2",Zinc,Steel
each **50-0090**
8. Washer, flat, 1/4" x .474" x .050"
each **50-7020**
9. Nut 1/4"-28 Grade 8 - 1 required *7683* **50-5011**
10. Cylinder stud, S&S® Bolt Pattern - 8 required *(each)* USA **31-2325-S**
8 pack ..... USA **31-2340**
Cylinder stud, Stock Bolt Pattern - 8 required *(each)* **310-0437**
11. Pin, Dowel, .4377" x .500", Steel, *4 Pack* **500-0219**
12. Bolt, cam plate 1/4" -20 x 1" SHC - 4 required *852*
each **50-0084**
13. Bolt, cam plate 1/4" -20 x 1 1/4" SHC - 2 required *4740A, 3482A*
each **50-0008**
14. O-ring, cam plate - 9 required *11301 (each)* **50-8066-S**
15. Dowel, cam plate - 2 required *16589-99A* **50-8148-S**
16 Bearing,Inner,Needle,Cam,1.0" x 1.25" x .50" *9215*
each ..... USA **31-4199-S**
17. Bearing, pinion shaft – Fits all S&S and OEM 2000-'02 (Balanced models only) & all OEM 2003-up
24604-00D **31-4085**
18. Retaining Ring,Internal,25/8",Black,Carbon Steel 2 required
eacht **310-0730**
19. O-ring, oil pump 1 1/16" I.D. x 15/16" O.D. x 1/8" CS *11293, 11157, 11101, 1119*
each **50-8039**
20. Plug, magnetic drain **50-8335**
21. Baffle plate **31-0119-S**
22. Screw 10-24 x 3/8" pan head - 2 required
each **50-0050**
23. Dowel, case alignment - 2 required *16574-99A, 16573-83, 16573-83A*
each **50-8023**
10 pack **50-8109**
24. O-ring, case alignment,- 2 required *26432-76A*
9/16" I.D. x 1 1/16" O.D. x 1/6" CS *(each)* **50-8034-S**
2 pack **50-8034**
25. Jet, Assembly, Piston Cooling, Low Profile, for T143
Piston Oiler Jet Kit ..... USA **310-0647**
Piston Oiler Jet Kit includes:
a. O-ring, (-014), .500" ID x .625" OD *11140, 11273*
each **50-8270**
10 pack **50-8130**
b. Jet, Assembly, Piston Cooling
each **310-0646**
c. Screw, Torx Panhead, 8-32 x 3/8", Zinc, Steel *68042-99*
each **50-0054-S**
26. Pin Dowel, *2 pack* **50-8195**
27. Fitting, crankcase vent, *2 pack* **50-0451**
28. Fitting Pipe, 90°, Bared Male Pipe 3/8 ..... **50-8288**
29. O-ring, -13, .437 ID, X .565 OD, Viton *11105, 11273* **50-8008**
30. Installation Kit, Oil Line, 2007-'16 FL **310-0435**
Installation Kit Includes:
31. Hose,Oil Line,.500"x.750"x24" **500-0223**
32. Clamp,Hose,Pinch Style,.812"OD Hose. **500-0241**
33. Fitting Pipe, 90°, Bared Male Pipe 3/8 ..... **50-8288**
34. Fitting,Pipe,45°,Male,3/8 NPT x .500",Brass **500-0226**
35. Clamp,Hose,Pinch Style,45/64" - 53/64" **50-0378-S**
36. Hose,Oil Line,Feed.Formed,.500"ID, 2007-up Touring **310-0350**

(N/S) = Not shown


10 (all)
7
11
8
4
1
2
5
3
6
21
20
22
22
10
26
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25c
25b
25a
23
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5-PIECE FLYWHEEL REPLACEMENT PARTS

1. Sprocket Shaft, 1999-2006 bt (includes key #5) **33-2009**
2. Sprocket Shaft, 2006 Dyna®, 2007-2012 bt **33-2011**
3. Pinion Shaft, 1999-2012 bt (includes key #5) **33-2030**
4. Pinion Shaft, 2000-2012 w/balancer (includes key #5) ..... **N/A**
5. Key *(each)* **50-8227**
6. Front Rod Race, 1999-2012 ..... USA **34-4008**
7. Rear Rod Race ..... USA **34-4013**
8. Crankpin
   Standard **106-6239**
   +.001 ..... **340-0017**
   +.002 ..... **340-0018**
9. Crankpin Plug *(each)* **106-5256**
   2 pack **50-8329-2**
10. Bearing Assembly **340-0028**
11. Wristpin Bushing,
    1999-2012* bt , straight bushing ..... USA **34-4012**
12. Connecting Rod Set,
    T143, full width wristpin, 7.800" **340-0128**



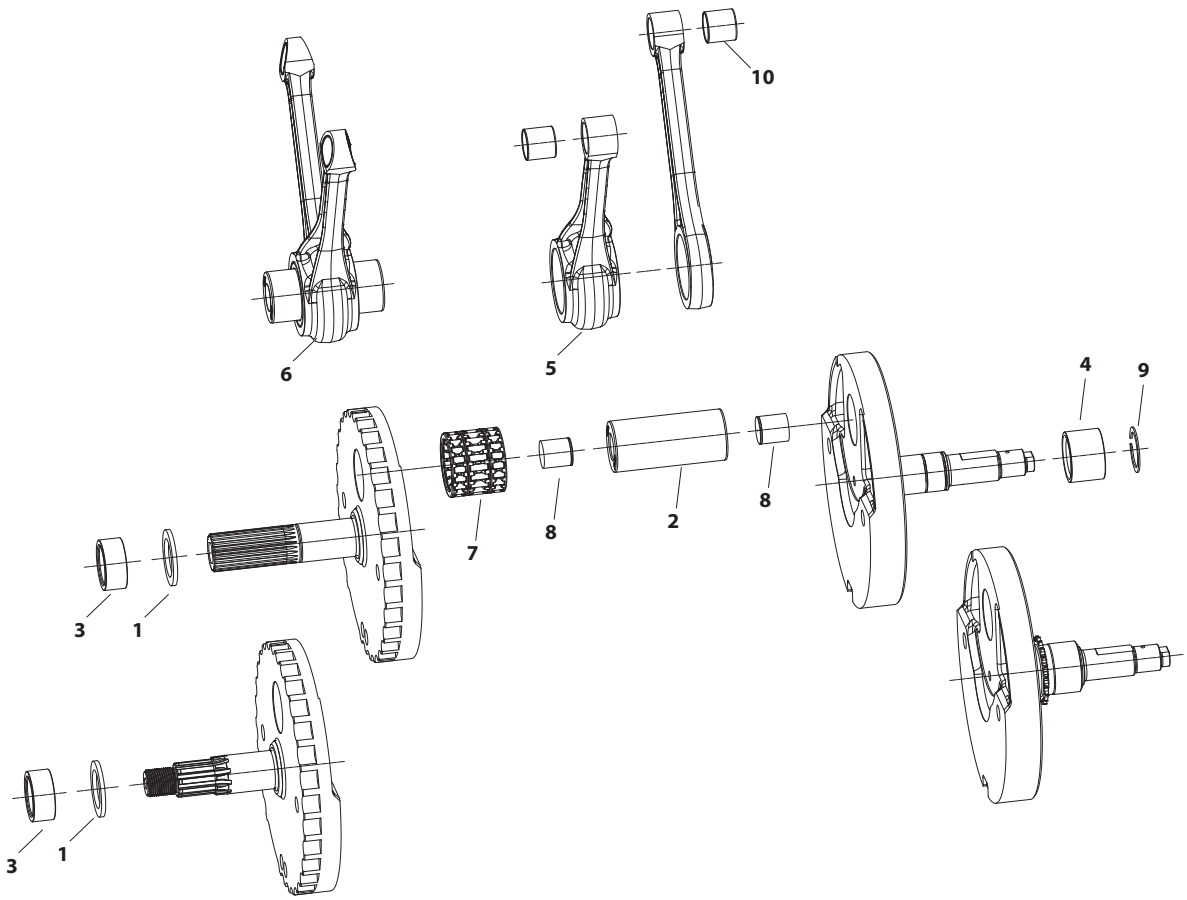
NOTES

Due to different crankpin diameters, S&S® connecting rod assemblies cannot be used with stock Harley-Davidson® flywheels.

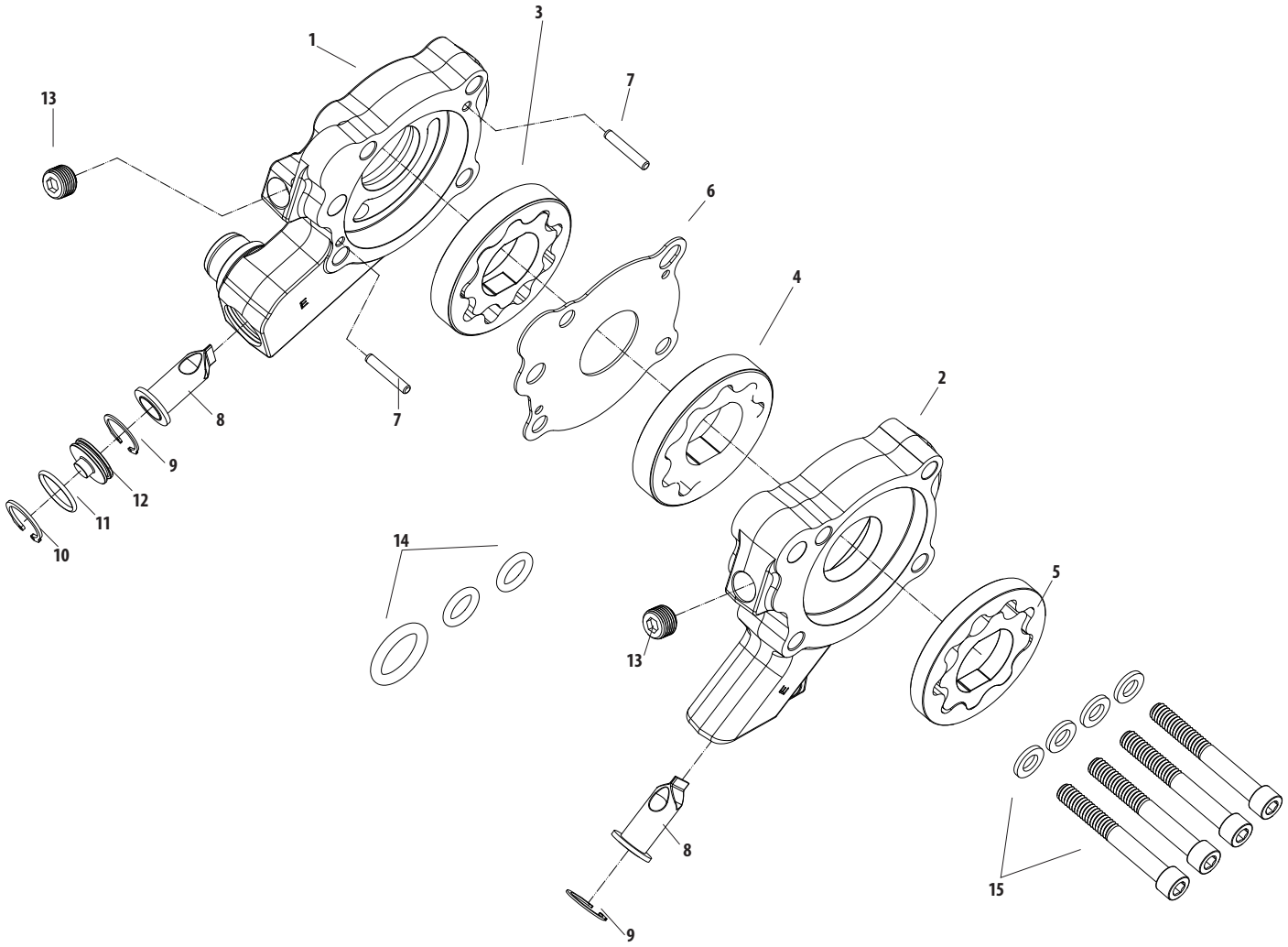
S&S flywheels for Harley-Davidson® Twin Cam 88® and Twin Cam 96™ engines are pressed together as opposed to using the traditional tapered shafts and crankpin. Assembly and truing requires special equipment.

3-PIECE FLYWHEEL REPLACEMENT PARTS

1. Washer, Flywheel, Thrust, 1.25" x 1.83" x .136", Hardened Steel **320-0198**
2. Crankpin, Press-In, Straight, 1.671", 1999-Up bt (includes plugs)
   Standard **340-0069**
   +.001 ..... **340-0070**
   +.002 ..... **340-0071**
3. Race, Inner, Left Main Bearing, 1.25" x 1.65" x .713", Hardened Steel **340-0076**
4. Race, Inner, Right Main Bearing, 1.25" x 1.65" x 1.120", Hardened Steel **340-0077**
5. Connecting Rod, Set, Full Width Wristpin, 7.575", 120R. . **340-0062**
   Connecting Rod, Set, Full Width Wristpin, 7.659" **340-0074**
   Connecting Rod Set, Full Wristpin, 7.800", T143 ..... **340-0128**
6. Connecting Rod, Set, Tapered Wristpin, 7.659" **340-0061**
7. Bearing, Set, Rod, Standard **340-0072**
   Bearing Set, Rod, Standard,T143. ..... **340-0127**
8. Plug, Drive, .8965" x .850", Steel, Fatigue Proof
   2 pack **500-0187**
9. Retaining Ring,External,Pinion Bearing,1.160" x 1.480" x .046" Carbon Steel,SAE 1060-1090 *11177A* **50-8057**
10. Bushing, Wristpin, .928", Bronze *each* **340-0024**



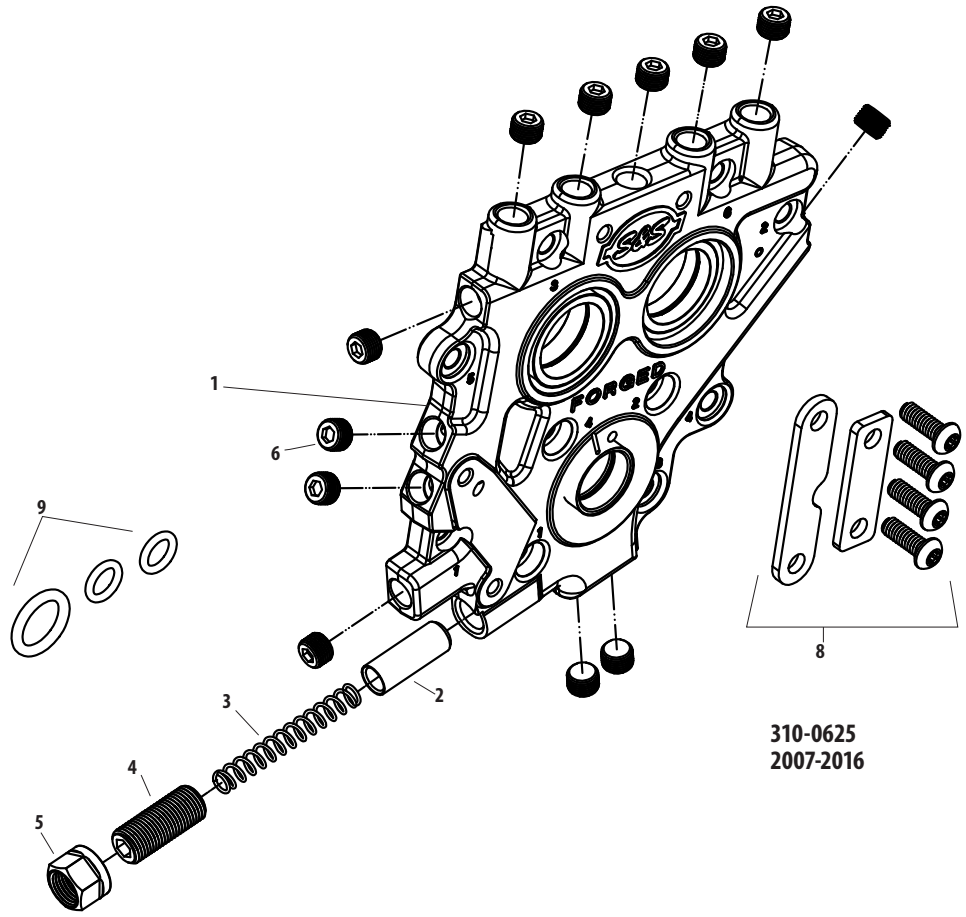
TC3 OIL PUMP REPLACEMENT PARTS



1. Oil pump body case return section ..... **NA**
2. Oil pump body cam chest return / pressure feed ..... **NA**
3. Oil pump rotor set, flywheel cavity return **310-0644**
4. Oil pump rotor set, cam chest cavity return **36-7021-S**
5. Oil pump rotor set, supply **310-0561**
6. Plate, divider **310-0516**
7. Dowel Pin, .125 x .750 Hardened Steel **106-3794**
8. Debris screen **310-0546**
9. Internal Retaining Ring, .625 ..... **500-0320**
10. Internal Retaining Ring, 17mm **500-0209**
11. O-ring, 1.5mm x 14mm, Viton **500-0321**
12. Oil pump return plug **310-0564**
13. Plug, Pipe 1/8" 27 ..... **50-8331A**
14. O-ring kit **500-0326**
15. Screw, Kit, Oil Pump, 1999-Up BT (¼" 20 x 2" SHCS w/washers) **500-0327**

TC3 CAM PLATE REPLACEMENT PARTS

1. Cam support plate ..... **N/A**
2. Pressure relief valve **31-6082-S**
3. Pressure relief spring. **31-6018**
4. Pressure relief adjusting screw **170-0252**
5. Pressure relief adjusting screw lock nut **170-0251**
6. ⅛" 27 taper pipe plug **50-8331A**
7. Bearing retention plate kit **330-0015**
8. Hydraulic tensioner block off kit **106-5723**
9. O-ring kit **500-0326**

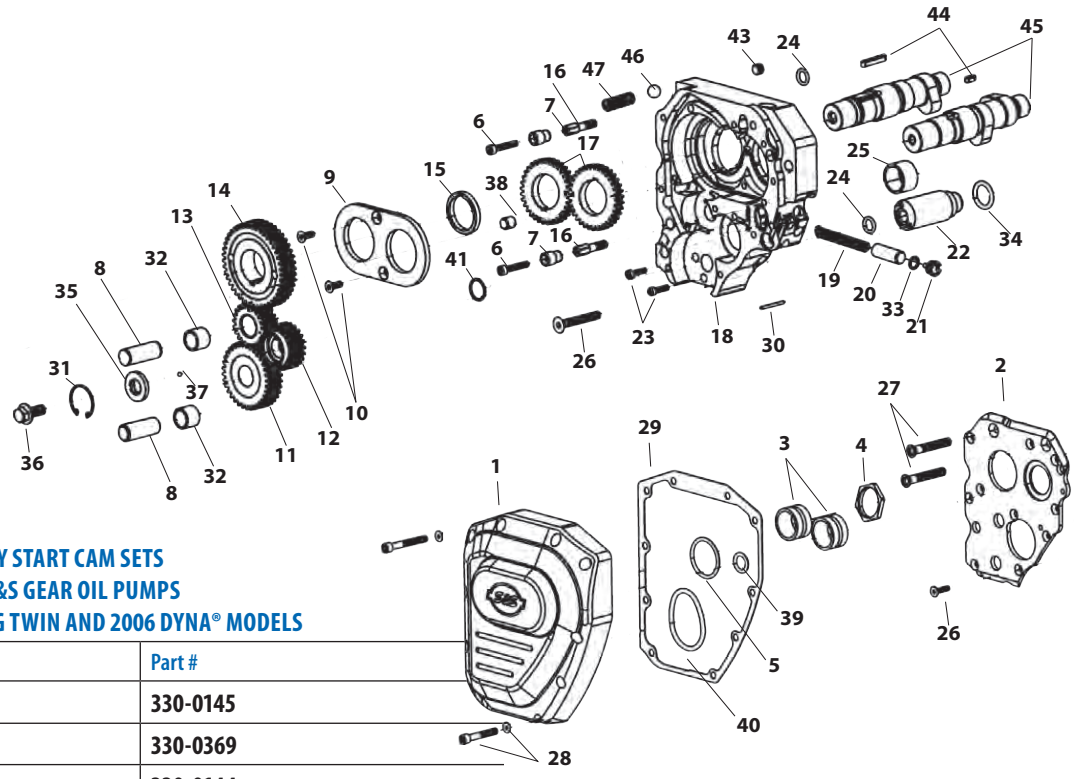


310-0625
2007-2016

OIL PUMP REPLACEMENT PARTS
FOR 2007-'16 HARLEY-DAVIDSON® BIG TWINS

1. Cover, assembly, camchest Chrome 106-3890
2. Cover plate 31-6507
3. Bushing, cam support *(each)* 31-4087-S
4. Nut, gear retainer, rear cam 31-6511
5. O-ring, Viton (-220) *(each)* 50-8245-S
6. Screw, SHC - 10-24 x 1" *(each)* 50-0044
7. Alignment dowel *(each)* 50-8182-S
8. Idler gear shaft *(each)* 31-2079-S
9. Divider plate 31-6508
10. Screw FHSC 10-24 x 1/2" *(5 pack)* 50-0312
11. Gear, cam chest return 33-4291
12. Gear assembly, pinion shaft 33-4170
13. Gear, idler - Includes item PN 33-4214 bushing 33-4172
14. Gear, cam drive 33-4292
15. Gear, spacer 33-4171
16. Thread adapter 31-2089-S
17. Cam drive gear 33-4293
    (For reference only, not included in pump kit.)
18. Body assembly 31-6505
19. Spring, pressure control *(each)* 31-6018
    10 pack 31-6084
20. Plunger, pressure control valve *26400-82, 26400-82B* 31-6082
21. Pressure control plug w/o-ring 50-8326
22. Fitting, flywheel cavity return 50-8183
23. Screw, SHC 8-32 x 5/8" *(5 pack)* 50-0293
24. O-ring, Viton *11301 (each)* 50-8066-S
25. Bushing, pinion shaft 31-4088
26. Screw FHSC 10-24 x 3/4" *(5 pack)* 50-8328
27. Screw FHSC 1/4"-20 x 2" *(5 pack)* 50-8163
28. Kit, cover screw 50-1035
29. Gasket *(each)* 31-2032-S
30. Dowel pin, 3/32" diameter x 1" *(each)* 50-8193-S
31. Retaining ring *(5 pack)* ..... N/A
32. Bushing 33-4214
33. O-ring 5/16" O.D. x 1/16" Viton (-011) 50-8138-S
34. O-ring (-209) Viton *(each)* 50-8039
35. Washer, pinion gear 50-0331-S
36. Screw, FHHC - 5/16"-18 x 3/4" G8 *25566-06* 50-0100
37. Steel ball, 1/8" *(each)* 50-8092-S
38. Pin dowel - .275" I.D. x .3745" O.D. x .397" 50-8148-S
39. Viton o-ring (-207) *(5 pack)* 50-8244
40. Viton o-ring (-225) *(5 pack)* 50-8243
41. Viton o-ring (-16) *(5 pack)* 50-8242
42. Screw, FLC 1/4"-20 x 13/4" *905 (each)* 50-0334-S
43. Pipe plug 1/8"-27 *(each)* 50-8331A
    10 pack 50-1015
44. Key kit - cams 50-1038
45. Camshafts - See Cam Selection Chart below.
46. Ball, pressure relief valve 3/8" diameter *8866, 8873* ..... USA 1,2,3 50-8091
47. Spring, pressure relief valve 50-8408
48. Seal rebuild kit (N/S) (Includes #5, 24, 29, 34, 39, 40, 41). 31-2097

N/S = Not Shown



GEAR DRIVE EASY START CAM SETS FOR USE WITH S&S GEAR OIL PUMPS FOR 2007-'15 BIG TWIN AND 2006 DYNA® MODELS

Cam*	Part #
585GPE	330-0145
635GPE	330-0369
640GPE	330-0144

**See page 68 of this catalog for further information on cam recommendations for different applications.*

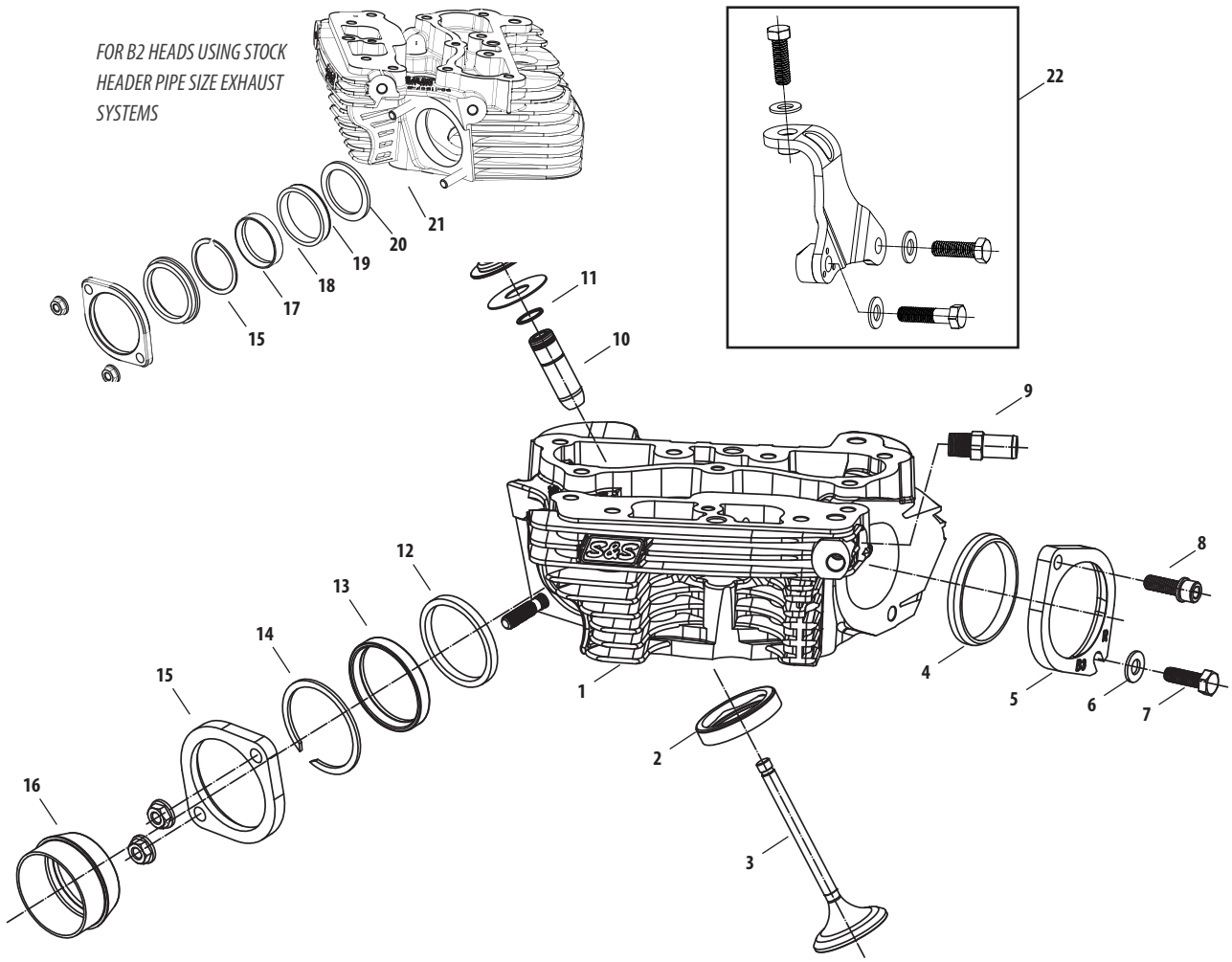
DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

B3 CYLINDER HEADS REPLACEMENT PARTS
FOR S&S T143 ENGINES

1. Cylinder Heads Set, B3
   Black. **900-0803**
   Stone Gray **900-0806**
2. Seat, Blank, B3 Heads, 2.300"
   Intake **900-0677**
   Exhaust . . . . . .
3. Valve
   Intake **900-0678**
   Exhaust **900-0679**
4. Seal,Manifold,B2 Heads,2.250" x 2.520" x .290" **16-0246-S**
5. Flange, Set. **160-0091**
   Front. **160-0087**
   Rear **160-0088**
6. Washer,Flat,.344" x .688" x .065",Zinc,Steel **50-7034**
7. Bolt,Hex Head,Gr5,5⁄16-18 x 1",Zinc. **50-0108**
8. Screw,SHCS,w/Flat Washer,5⁄16-18 x 1",Zinc. . . . **50-0125-S**
9. Fitting,Pipe,Straight,1⁄4-18 NPTF x 1.510" X .500",Zinc,Steel
   . . . . . **50-8158-S**
10. Valve Guide, Intake, Powder Metal **900-0780**
11. Retaining Ring,External,Spiral,Heavy Duty,.525" x .035" x .050",
    Carbon Steel **106-2164**
12. Exhaust Gasket Backing Washer,
    2.18" x 1.885" x .200" **550-0219**
13. Exhaust Gasket, Tapered, Stainless Steel. **550-0221**
14. Exhaust Flange Retaining Ring, 2.125" x .078". **50-8159-S**
15. Exhaust Flange **550-0223**
16. Weld-On Exhaust Header Pipe **550-0222**
17. Exhaust Adapter Flange for Stock Header Pipe . . **550-0224**
18. Exhaust Flange Retaining Ring, 1.759" x .062". . **550-0226**
19. Exhaust Gasket,Tapered Stainless Steel **106-5029**
20. Press-in Aluminum Retaining Ring, 1984–up . . **550-0225**
21. Exhaust Gasket Backing Washer,
    2.18" x 1.690" x.125". **550-0220**
22. Head Mount Bracket Kit
    2008 T143 . . . . . **900-0797**
    2009-up T143 . . . . . **900-0798**

VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 110



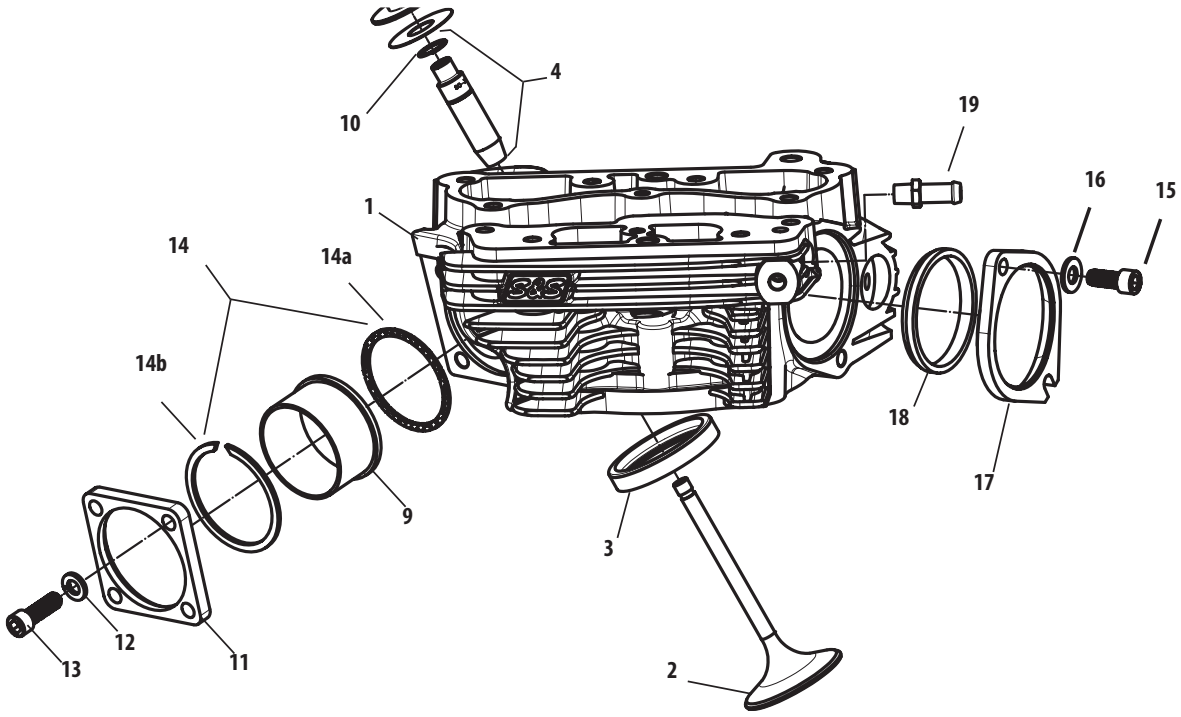
All reference to H-D® Part # is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® Part # shown.

B2 CYLINDER HEADS REPLACEMENT PARTS

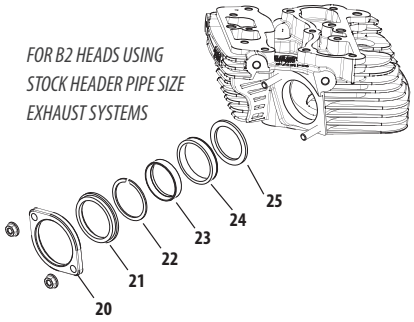
1. Cylinder head – (See page 78)
2. Valve
   Intake, 2.200" Dia. **90-2127**
   Exhaust, 1.800" Dia. **90-2128**
3. Valve Seat
   Exhaust, 1.800" Dia, ... **90-2126**
   Intake, 2.200" Dia, ... **90-2125**
4. Valve guide, intake/exhaust, cast
   STD **106-2166**
   +.030" **106-2170**
9. Adaptor, Exhaust Flange. **55-6022**
10. Snap ring *(each)* **106-2164**
11. Flange, exhaust, front/rear. **55-6021**
12. Washer,Lock,.332" x .583" x .078" **50-7032**
13. Screw, SH, 5/16" -18 x 1" *3201WA, 2708* **50-0101**
14. Gasket,Kit,Exhaust,B2 Heads,SA. **90-1900**
    Kit includes two each:
    a. Gasket, exhaust pipe *(each)* **93-1083-S**
    6 pack **93-1083**
    b. Retaining Ring. ..... **N/A**
15. Screw, SH, 5/16-18 x ¾" *(H-D® #3275) each* **50-0302-S**
16. Washer, 5/16" *6320, 70907-07, 6016, 6702)* **50-7034**
17. Manifold mounting flange
    Front **16-0247**
    Rear **16-0248**
18. O-ring, manifold *(each)* **16-0246-S**
    6 pack **16-0246**
19. Fitting, vent hose, 1/8"-27 pipe **50-8115**
20. Exhaust Flange, 1984–up S&S® B2 Heads **550-0223**
21. Exhaust Adapter Flange for Stock Header Pipe, 1984–up S&S® B2 Heads **550-0224**
22. Exhaust Flange Retaining Ring, 1.759" x .062" **550-0226**
23. Exhaust Gasket,Tapered Stainless Steel, 1984–up bt, 1986–up xl
    (H-D® #65324-83A, 65324-83B) **106-5029**
24. Press-in Aluminum Retaining Ring, 1984–up S&S® B2 Heads **550-0225**
25. Exhaust Gasket Backing Washer 2.18" x 1.690" x.125" **550-0220**
26. Exhaust Flange Retaining Ring, 2.125" x .078" **50-8159-S**
27. Exhaust Gasket, Tapered, Stainless Steel, 1984–up S&S® B2 Heads **550-0221**
28. Exhaust Gasket Backing Washer 2.18" x 1.885" x .200" **550-0219**
29. Weld-On Exhaust Header Pipe **550-0222**

VALVE SPRING REPLACEMENT PARTS: SEE PAGE 110

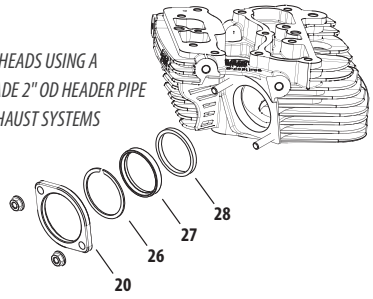
All reference to H-D® Part # is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® Part # shown.



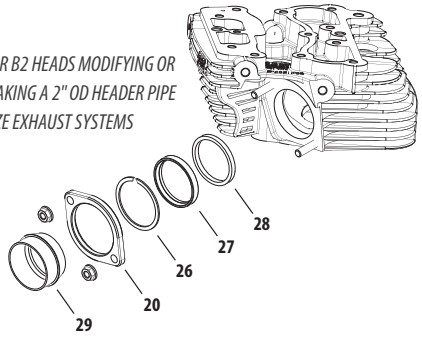
FOR B2 HEADS USING STOCK HEADER PIPE SIZE EXHAUST SYSTEMS



FOR B2 HEADS USING A PRE-MADE 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



FOR B2 HEADS MODIFYING OR MAKING A 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS
FOR 2007-2016 BIG TWIN ENGINES

1. Cylinder head (Starting page 79)

2. Valve
All S&S heads with 89cc or 91cc chamber
Intake
2.000" diameter ..... USA 4 **90-2000**
2.000"diameter +.085" stem length **90-2004**
Exhaust
1.605" diameter ..... USA 4 **90-2001**
All S&S heads with 79cc chamber
Intake – 1.940" diameter **90-2025**
Exhaust – 1.575" diameter **90-2026**

3. Valve seat
All S&S heads with 89cc or 91cc chamber
Intake - 2.000" diameter ..... USA 1,2,3 **90-2002**
Exhaust - 1.605" diameter ..... USA 1,2,3 **90-2003**
All S&S heads with 79cc chamber
Intake - 1.940" diameter **90-2027**
Exhaust - 1.575" diameter **90-2028**

4.

a. Valve guide - Intake or Exhaust Cast
Standard *18112-92* ..... USA USA 1,2,3 **90-2210**
+.001" *18130-83C* ..... USA **90-2211**
+.002" *18133-83A, 18133-83D* ..... USA **90-2212**
+.003" *18131-83C* ..... USA **90-2213**
+.030" ..... USA **90-2219**

b. Valve Guide - Intake or Exhaust Powder Metal (PM)
Standard **900-0553**
+.001 ..... **900-0554**
+.002 ..... **900-0555**
+.003 ..... **900-0556**

5. Head bolt assembly – (8 Required) (Includes head bolt washer)
each **93-3037**
4 pack **93-3037-4**

6. Head bolt washer, .250" *(each)* **50-7091**

7. Exhaust port stud *16715-83 (each)* ..... USA **50-0493**
5 pack ..... USA **50-1028**

8. Lock washer - 5/16" **50-7032**

9. Nut, flanged - 5/16" -24 *7593*
Zinc *(each)* **50-5025-S**
2 pack **50-5025-2**
5 pack **50-1001**
Chrome *(each)* **50-5030-S**

10. Exhaust pipe gasket, tapered *65324-83B, 65324-83A*
each **106-5029**
10 pack **93-1072**

11. Intake manifold (see page 85)

12. Manifold mounting screw
SH - 5/16"-18 x 3/4" *3275 (each)* **50-0302-S**
SH - 5/16"-18 x 1" *3201WA, 2708* **50-0101**
HH - 5/16"-18 x 1" *3987 (each)* ..... USA **50-0108**

13. Flat washer - 5/16" *6320, 70907-07, 6016, 6702* **50-7034**

14. Manifold mounting flange
Front *27009-86A (each)* ..... USA **16-0232**
5 pack ..... USA **16-0600**
Rear *27010-86A (each)* ..... USA **16-0233**
5 pack ..... USA **16-0601**
Set (Front & Rear) **106-3516**

15. Manifold o-ring
For S&S manifold *(each)* **16-0235**
10 pack **16-0243**
For Stock manifold *26995-86B, 26995-86A, 26992-99* .....
each ..... USA **16-0236**
10 pack **16-0244**

16. Head gasket
For Stock Bolt Pattern
3¾" x .043" Graphite *(each)* **93-1045-S**
3⅞"/3.927" x .030" Layered Steel *(2 pack)* **900-0605**
3⅞"/3.927" x .045" Layered Steel *(each)* **900-0606**
4" x .043" Graphite *(each)* **93-1043-S**
10 pack **93-1058**
4⅛" x .043" Layered Steel *(each)* **93-1091-S**
10 pack **93-1920**
4⅛" x .030" Layered Steel *(2 pack)* **900-0217**
For S&S Bores
4⅛" x .043" Graphite *(each)* **93-1047-S**
10 pack **93-1073**
4⅜" x .045" Copper *(2 pack)* **93-1081**

17. Alignment dowel, base and head *16595-99A (each)* **50-8177**
4 pack **50-8177-4**

18. Alignment dowel o-ring – Base (all bore sizes)
S&S heads 3¾" bore only *11105, 11273*
each **50-8008**
10 pack **50-8078**

19. Plug, HH - 14mm *(each)* **90-4916**
2 pack **90-4916-2**

20. Washer, compression - 14mm
507" x .705" x .047" *(each)* **50-7094**

21. Head mount bolt - 3/8"-16 x 1¼" *4716W*
each **50-0168**

22. Flat washer - 3/8" *(each)* **50-7051**

23. Vent hose fitting, (For 4⅛" Bore Only)
Front, 1/16"-27 pipe **50-8117**
Rear, 1/8"-27 pipe **50-8115**

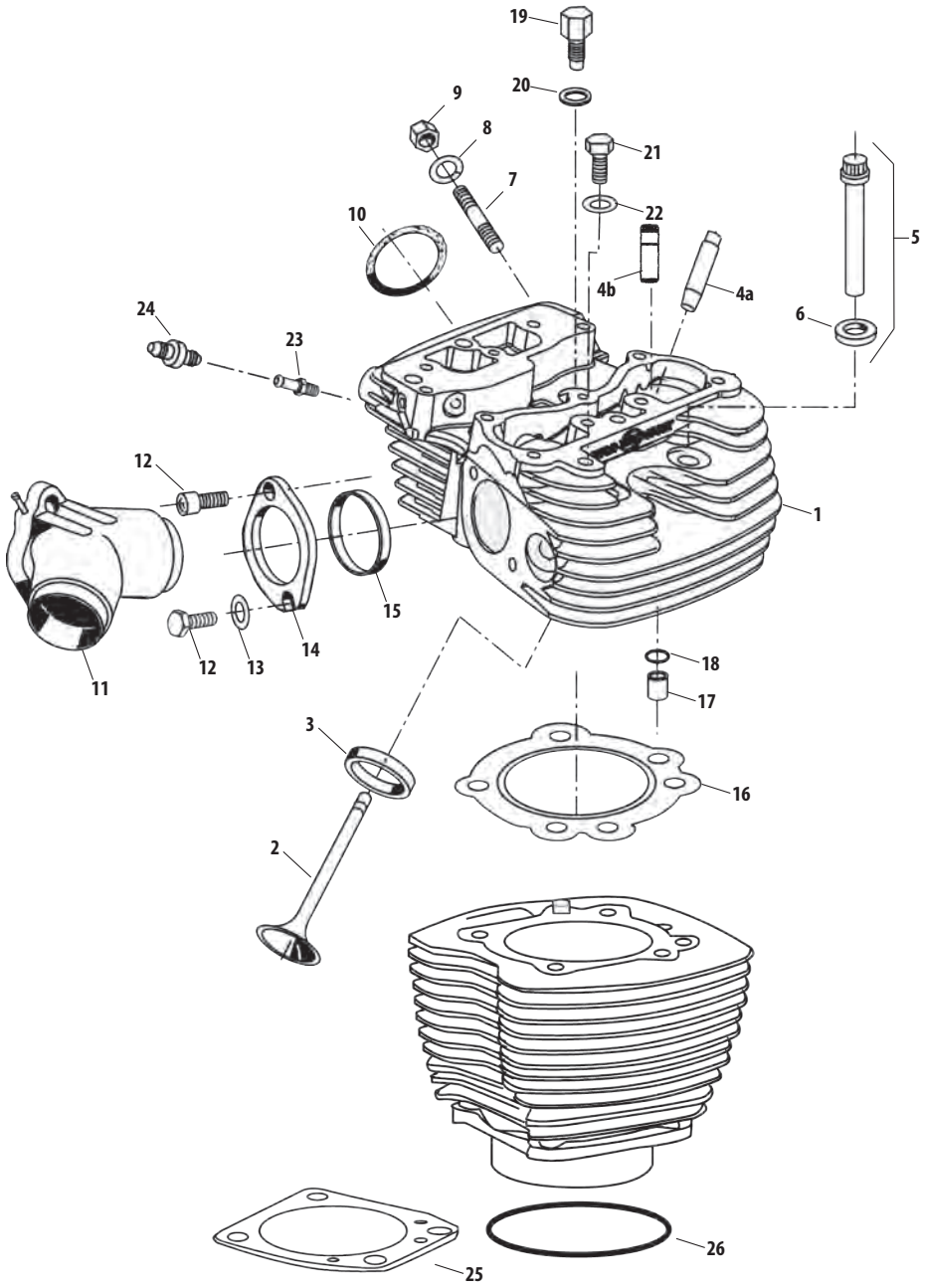
24. Check Valve (For 4⅛" Bore Only) **50-8122**

25. Base Gaskets
For S&S Bores
4⅜" x .018" Graphite *(2 pack)* **93-1082**
4⅛" x .018" Graphite *(each)* **93-1048-S**
10 pack **93-1074**
4" x .018" Graphite *(each)* **93-1050-S**
For Stock Bolt Pattern
4⅛" x .018" Graphite *(each)* **93-1092-S**
10 pack **93-1921**

26. Base O-ring (Used for early S&S bores)
4" x .103" *(each)* **50-8049**
3⅝" or 3½" x.103" *(each) 11256* **50-8048**

VALVE SPRING REPLACEMENT PARTS: SEE PAGE 110

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TOP END GASKET KIT FOR S&S ENGINES

Bore	Part #
4⅜"	**90-9511**
4⅛" Stock Cases	**90-9510**
4" Stock Bolt Pattern	**90-9505**
3⅞" Stock Bolt Pattern	**90-9504**

Kits include all gaskets and seals required to rebuild the top end of an S&S engine with S&S cylinders and cylinder heads. Rocker cover gaskets are not included in kits. *See "Rocker cover gasket kits" on page 93* *to order separately.*

VALVE GUIDE DIAMETERS FOR S&S® T-SERIES ENGINES

Oversize	Diameter	Part Number
Std.	.5625/.5620	**90-2210** USA 1,2,3
+.001	.5635/.5630	**90-2211** USA
+.002	.5645/.5640	**90-2212** USA
+.003	.5655/.5650	**90-2213** USA
+.030	.5925/.5920	**90-2219** USA

VALVE SPRING REPLACEMENT PARTS

.720" & .660" Lift Valve Springs (B3 Cylinder Heads)

1. Seal, valve guide, intake/exhaust *18001-83B* (each) . . . **90-2008**
   8 pack . . . **90-2158**
2. Keeper, valve spring, SA . . . **90-2153A**
3. Valve spring shim
   .015" (each) . . . **90-2086**
   5 pack . . . **50-7161**
   .030" (each) . . . **90-2087**
   5 pack . . . **90-2198**

.650" Lift Valve Springs (B2 Cylinder Heads)

1. Seal, Valve Guide,fits .315" x .554"OD, Viton® . . . **900-0737**
2. Keeper, valve spring, Standard, 9° Degree . . . **90-2094-S**

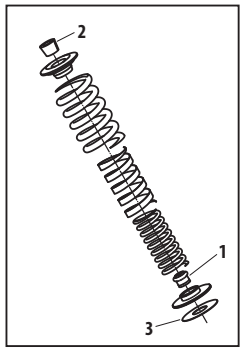
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .650" . . . **106-5689**
2. Collar, Top, Steel . . . **106-5690**
3. Collar, Bottom, Steel . . . **106-5691**
4. Seal,Valve
   S&S CNC Ported Heads & 2005-up bt w/7mm valve stem **106-5688**
   S&S Super Stock Heads
   .420" Cast . . . **900-0338**
   .562" Powder Metal . . . **900-0737**
5. Keeper, valve spring . . . **106-5692**
6. Valve Spring Shim
   .015" *(each)* . . . **500-0013**
   .030" *(each)* . . . **500-0014**

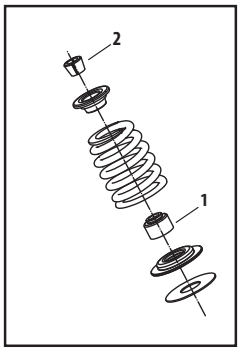
.585" Lift Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .585" . . . **900-0444**
2. Collar, Top . . . **900-0550**
3. Collar, Bottom
   For Stock Heads w/7mm valve stem (includes seal) . . . **900-0590**
   For CNC Ported Heads w/7mm valve stem . . . **900-0549**
   For Super Stock Heads . . . **900-0600**
4. Seal, valve guide
   For Stock Heads w/7mm valve stem
   (includes bottom collar) . . . **900-0590**
   For CNC Ported Heads w/7mm valve stem . . . **106-5688**
   For Super Stock Heads
   .420" Cast . . . **900-0338**
   562" Powder Metal . . . **900-0737**
5. Keeper, valve spring
   For Stock and CNC Ported Heads . . . **106-5692**
   For Super Stock Heads . . . **90-2094-S**
6. Valve spring shim
   For Stock and CNC Ported Heads
   .015" . . . **500-0013**
   .030" . . . **500-0014**
   For Super Stock Heads
   015" . . . **90-2086**
   .030" . . . **90-2087**

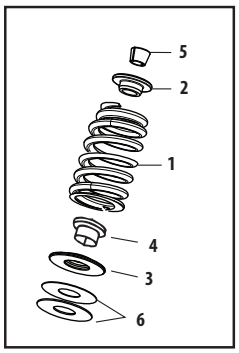
.720" & .660" Lift Valve Springs



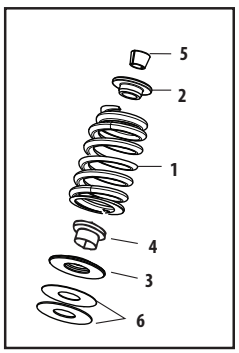
.650" Lift Valve Springs



.650" Lift Sidewinder® Valve Springs

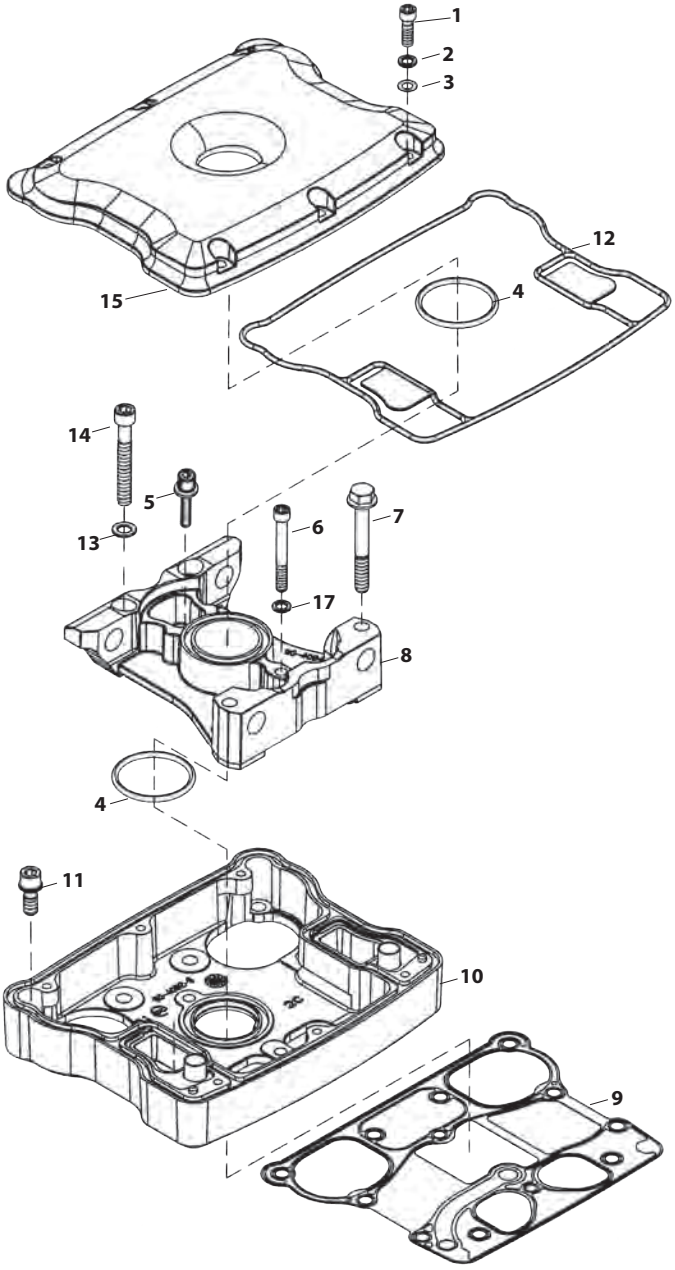


.585" Lift Valve Springs



DIE-CAST ROCKER COVER REPLACEMENT PARTS
FOR 2007-2015 BIG TWIN ENGINES

1. Screw, socket head ¼"-20 x ¾" *4069A (each)* **50-0067**
2. Washer, flat ¼" *(each)* **50-7017**
   12 pack **50-7013**
3. Washer, silicone coated ¼" *(each)* **50-7015**
   8 pack **50-7015-8**
   12 pack **50-7015-12**
4. Seal, o-ring
   (Included in gasket kit see #16 below.)
5. Screw, socket head, ¼"-20 x 1" *4741A*
   each **50-0092-S**
   4 pack **50-0092P**
6. Screw, socket head, ¼"-20 x 2" *25794-36* **50-0013**
7. Screw, hex flange head, 5⁄16"-18 x 2½" *3501* **50-0123**
8. Support, rocker arm **90-4140**
9. Gasket, rocker cover, Graphite
   For Stock or S&S rocker covers on stock heads *16719-99B*
   each **90-4071-S**
   2 pack **90-4071**
   10 pack **90-4099**
   For Stock rocker covers on S&S heads *(each)* **90-4124**
   2 pack **90-4120**
10. Housing, rocker, Chrome ..... USA 3 **900-4283**
11. Screw, socket head, 5⁄16"-18 x 1" **50-0125-S**
12. Seal, rocker cover
    (Included in gasket kit see #16 below.)
13. Washer, flat 5⁄16" *(each)* **50-7026**
14. Screw, socket head 5⁄16"-18 x 2¼"
    each **50-0115-S**
15. Cover, rocker, chrome ..... USA 1,2,3 **900-0706**
16. Gasket set - rocker cover, cast (Not Shown) **90-4111**
17. Washer,.261" x .474" x .050",Annealed,Stainless Steel
    each **50-7020**

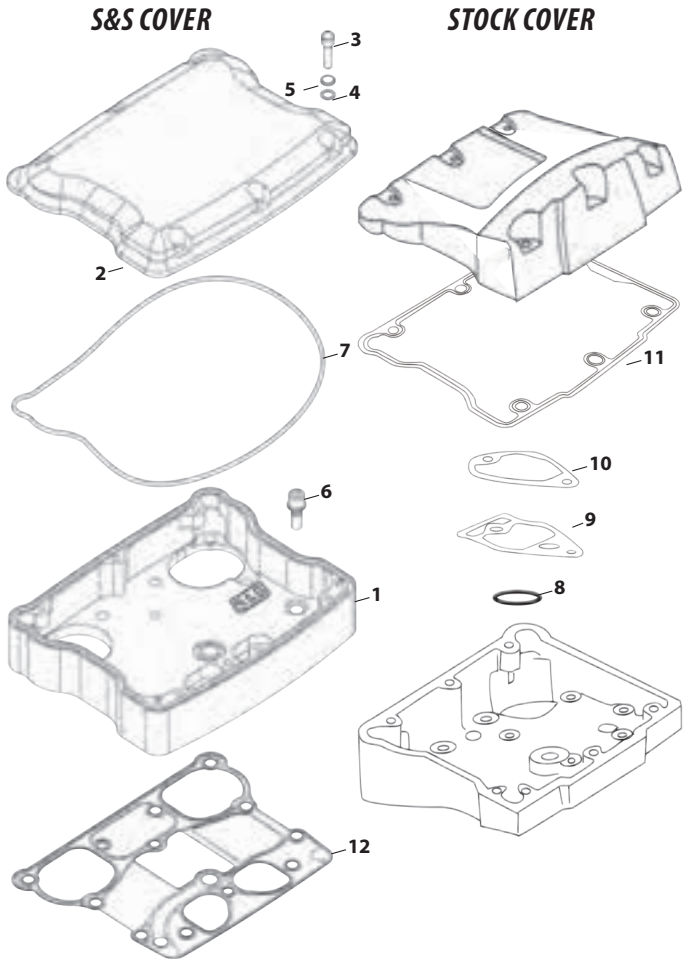


All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

BILLET ROCKER COVER REPLACEMENT PARTS
FOR 1999-2017 BIG TWIN ENGINES (DISCONTINUED) EXCEPT 2017 TOURING MODELS

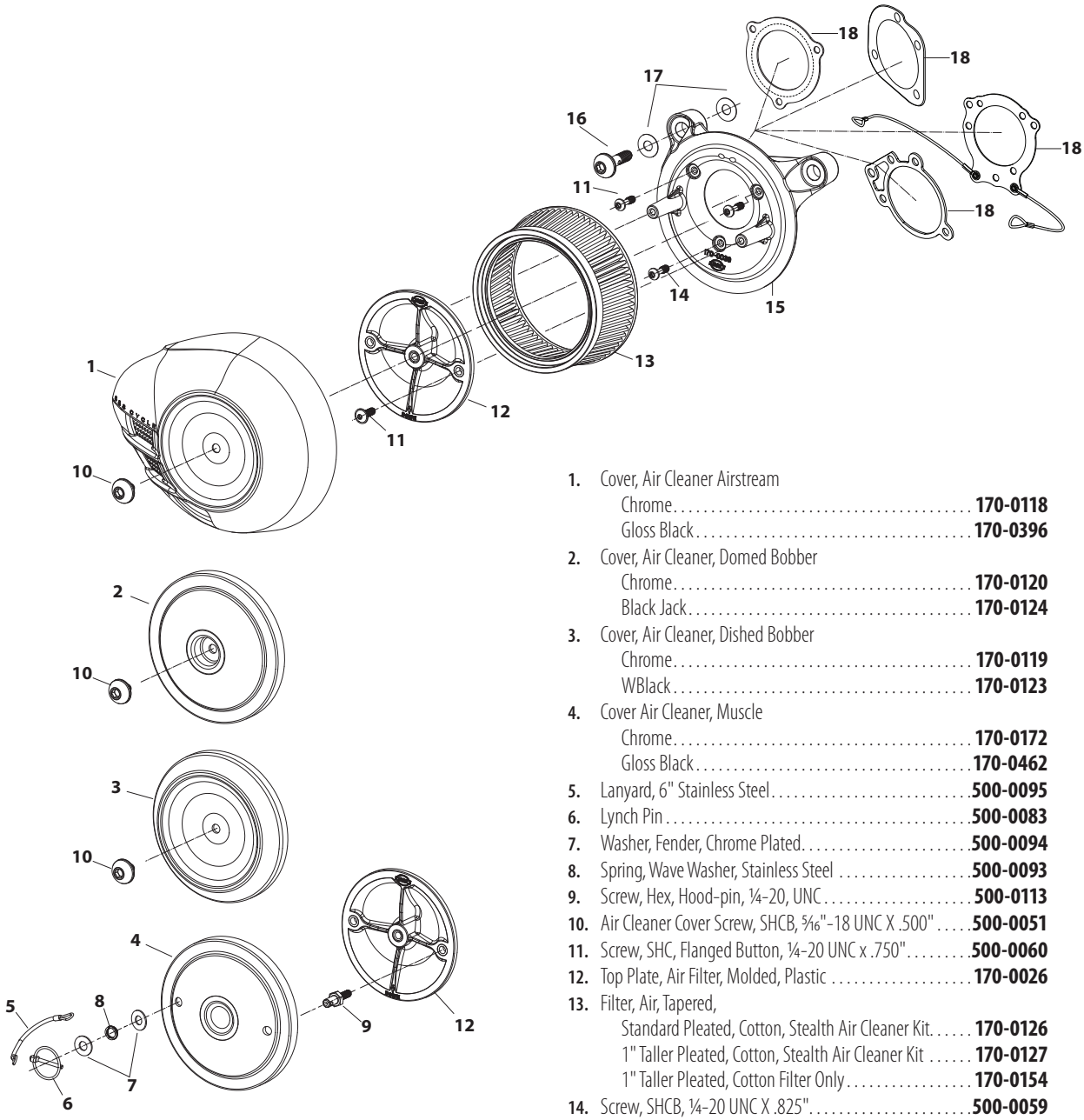
1. Base assembly, rocker ..... **N/A**
2. Top, rocker cover ..... **N/A**
3. SHCS, 1/4"-20 x 3/4" *4069A (each)* **50-0067**
4. Washer, flat, chrome, 260" x .425" x .060"
   each **50-7017**
   12 pack **50-7013**
5. Washer, flat, rubber coated, 1/4" x 7/16" x .020"
   each **50-7015**
   8 pack **50-7015-8**
   12 pack **50-7015-12**
6. SHCS, 5/16"-18 x 1" with flatwasher **50-0125-S**
7. O-ring, rocker cover seal, Viton®
   (Included in gasket kit #90-4073. See below)
8. O-ring, (-114), .625" ID x .937" OD *11270* **50-8033**
9. Gasket, Breather Baffle, Stock Pattern, Paper, 1999-'10 bt
   17162-03, 17592-99 each **90-4078**
10. Gasket, Breather Cover, Stock Pattern, Paper, 1999-'10 bt
    17591-99, 17162-03, 17592-99 each **90-4077**
11. Gasket, Rocker Cover, Steel, 1999-up bt *17386-99A* **90-4096-S**
12. Gasket, bottom rocker cover
    2 pack **90-4071**
    10 pack **90-4099**
13. Gasket kit, rocker cover (includes gaskets for 2 rocker covers) (Not Shown)
    For S&S billet rocker covers
    (includes #5,7,8,9,10,12). **90-4073**
    For 1999-'10 bt
    (includes #8,9,10,11,12) **90-4097**

N/A = No longer available



All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

STEALTH REPLACEMENT PARTS



1. Cover, Air Cleaner Airstream
   - Chrome **170-0118**
   - Gloss Black **170-0396**
2. Cover, Air Cleaner, Domed Bobber
   - Chrome **170-0120**
   - Black Jack **170-0124**
3. Cover, Air Cleaner, Dished Bobber
   - Chrome **170-0119**
   - WBlack **170-0123**
4. Cover Air Cleaner, Muscle
   - Chrome **170-0172**
   - Gloss Black **170-0462**
5. Lanyard, 6" Stainless Steel **500-0095**
6. Lynch Pin **500-0083**
7. Washer, Fender, Chrome Plated **500-0094**
8. Spring, Wave Washer, Stainless Steel **500-0093**
9. Screw, Hex, Hood-pin, ¼-20, UNC **500-0113**
10. Air Cleaner Cover Screw, SHCB, 5⁄16"-18 UNC X .500" **500-0051**
11. Screw, SHC, Flanged Button, ¼-20 UNC x .750" **500-0060**
12. Top Plate, Air Filter, Molded, Plastic **170-0026**
13. Filter, Air, Tapered,
    - Standard Pleated, Cotton, Stealth Air Cleaner Kit. **170-0126**
    - 1" Taller Pleated, Cotton, Stealth Air Cleaner Kit **170-0127**
    - 1" Taller Pleated, Cotton Filter Only **170-0154**
14. Screw, SHCB, ¼-20 UNC X .825" **500-0059**
15. Backplate
    - 1993-up Stock CV Carb; 2001-up Delphi® EFI (except Throttle by Wire) **170-0021**
    - 2008-up bt, Delphi® EFI w/Throttle by Wire **170-0065**
16. Screw, Backplate Vent, SHCB, ⅜-16 x 1½", Polished Stainless **170-0045**
17. Washer,Flat, ,Nitrile Rubber Coated, .380" x .880" x .024"
    - *each* **50-7054**
    - *10 pack* **50-7059**
18. Gasket,Backplate
    - Stock CV Carb & EFI Throttle Body, 1991-up bt (except Throttle by Wire) *29062-95B* **106-6022**
    - 2008-up bt, Throttle by Wire **160-0035**
    - Super E/G,CV Adapter **106-1724**
    - w/lanyards for use with Muscle Cover **170-0137**

SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

FOR S&S T-SERIES ENGINES AND 2007-'16 BIG TWINS, EXCEPT 2008-'16 TOURING MODELS

1. Tuned Intake Kit, 2.19" Single Bore with Red Filters
- Gloss Black **170-0454**
- Chrome Plated **106-4967**

2. Tuned Intake Assembly, 2.19" Single Bore
- Natural **106-4968**
- Gloss Black **170-0453**
- Chrome Plated **106-4970**

3. Air Filter, w/clamp, Stainless Cap – Conical – 2⁷⁄₁₆" I.D. x 4"
- Red *(each)* **17-1020**
- Blue *(each)* **17-1023**

4. Gasket, Intake – Adapter Plate **17-1022**

5. Plate, Adapter, 2.19" Single Bore Tuned Intake
- Chrome Steel **17-1014**

6. FHSC ¼-20 x ⅝" *(each)* **50-0433**

7. FHSC ⁵⁄₁₆-18 x ⅝" *(each)* **50-0432**

8. O-Ring, Adapter Plate Bracket 3⅝" O.D. x 3 ½" I.D. ⅛ CS, Viton
each **50-0446**

9. Bracket Kit, 2.19" Single Bore Tuned Intake, Chrome
- Single VFI, S&S T124 ..... **106-4976**
- Single VFI, 1984-up BT **106-4977**
- Stock Carb, Delphi® EFI, 1984-up BT **106-4978**

10. Backplate Screw, SHC, w/Threadlock, ¼-20 x ½" *(each)* ... **106-2084**
10 pack **106-2105**

11. Screw, ⁵⁄₁₆ -18 x 1¼, BHC, Chrome *(each)* **50-0309-S**

12. Flat Washer ⁵⁄₁₆" x ⅛" *6320, 70907-07, 6016, 6702* **50-7034**

13. Hose, Breather, ¼" I.D., 90° **19-0178A**

14. Screw, Breather Fitting, ⅜ -16 x 1¼" **50-0436**

15. Washer, Flat, ⅜" x ¹³⁄₁₆" x ⅛", Chrome **50-7106-S**

16. Screw, Breather Fitting, ½ -13 x 1.25 ..... **50-0435**

17. Shim Kit
- (a) ⁵⁄₁₆" I.D. S&S 4⅛" engines **17-0314**
  Includes:
  - .325" x 1" x .018",Stainless Steel *(each)* **50-7038**
  - .325" x 1" x .030",Stainless Steel (each) **50-7039**
  - .325" x 1" x .048",Stainless Steel *(each)* **50-7040**
  - .325" x 1" x .105",Stainless Steel *(each)* **50-7041**
  - .325" x 1" x .125",Stainless Steel *(each)* **50-7042**
- (b) ½" I.D. 1993-up BT **17-0464**
  Includes:
  - .515" x 1" x .018",Stainless Steel *(each)* **50-7085**
  - .515" x 1" x .030",Stainless Steel *(each)* **50-7086**
  - .515" x 1" x .048",Stainless Steel *(each)* **50-7087**
  - .515" x 1" x .105",Stainless Steel *(each)* **50-7089**
  - .515" x 1" x .125",Stainless Steel *(each)* **50-7090**

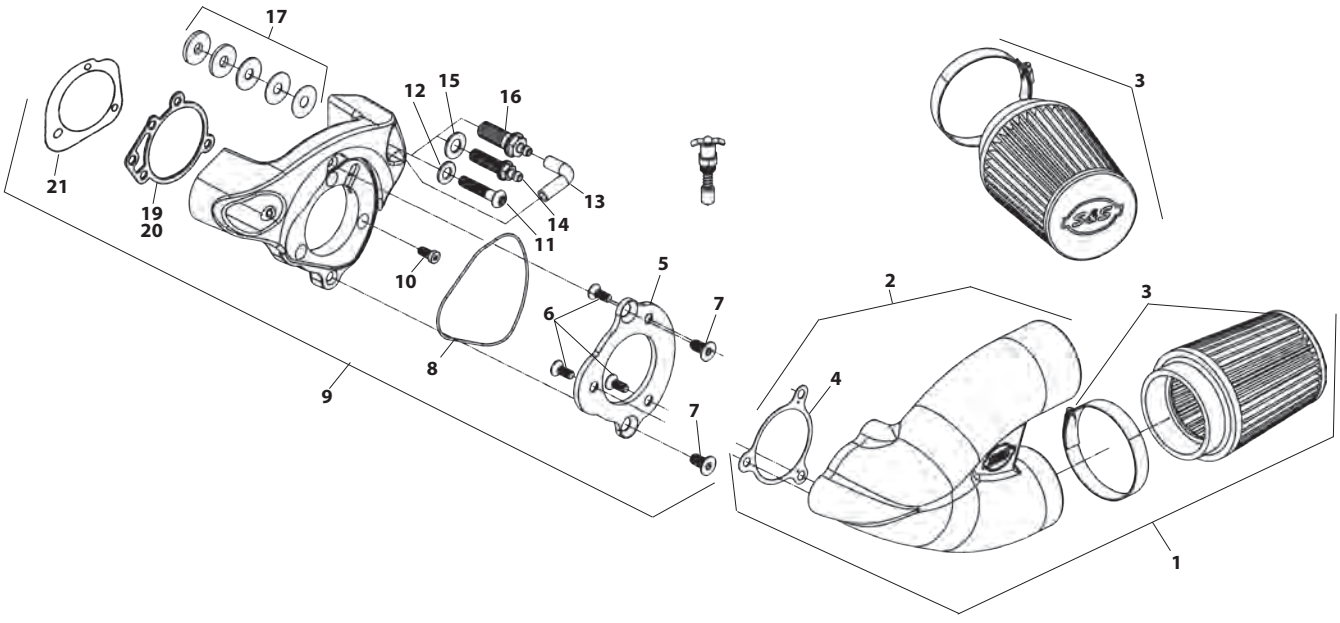
19. Gasket, Backplate - E/G/SBEFI *(each)* **106-1724**
10 pack **106-2328**

20. Gasket, Backplate, S&S SBEFI 58mm **106-4662**

21. Gasket, Backplate, Stock carb/Throttle Body *29062-95B* **106-6022**

22. Hardware Kit
- 2007-'12 bt, except 2008-'12 Touring
  (includes #7, 8, 10, 11, 12, 13, 14, 15, 16, 17a, 17b, 19, 21) **17-5098**
- S&S 4⅛" Bore Heads *(includes #7, 8, 10, 11, 12, 13, 17a, 19)* .. **500-0016**

23. Oil, Air Filter, 8 oz. (Not shown)
- Red **106-1163**
- Blue **106-1164**



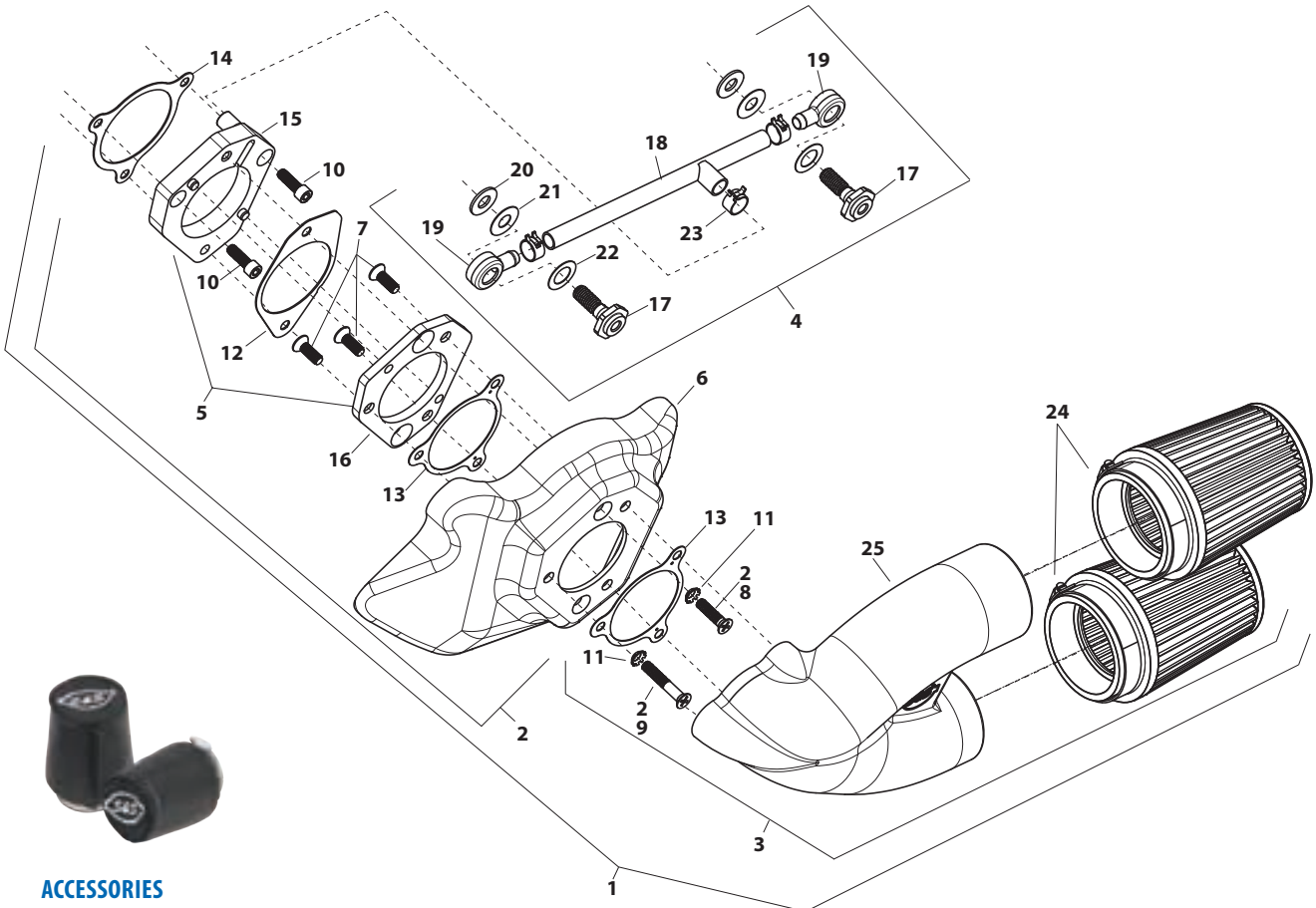
ACCESSORIES

Description		Part #
Nylon Air Filter Cover	*each*	**106-0247**
	2 pack	**106-0248**



THROTTLE BY WIRE SINGLE BORE TUNED INDUCTION REPLACEMENT PARTS
FOR 2008-2016 TOURING MODELS

1. Intake Runner, Kit, Single Bore, 2.19", 2008-Up Touring (See page 44)
2. Installation Kit, Throttle by Wire, 2008-up bt. **106-4851**
3. Intake Runner, Single Bore, w/Gasket & Air Filter, 2.19"
   - Gloss Black **170-0454**
   - Chrome Plated **106-4967**
4. Breather, Kit, Throttle by Wire, 2008-up bt. **106-4827**
5. Mount, Kit, Spacer/Adapter, Throttle by Wire, 2008-up bt. **106-4824**
6. Cover, Induction Module, Throttle by Wire, Plastic, 2008-up **106-3612**
7. Screw, FHSC, ¼-20 x ¾", Zinc Plated **50-0491**
8. Screw, FHSC, ¼-20 x 1", Black Chrome **106-4828**
9. Screw, FHSC, ¼-20 x 1½", Black Chrome. **106-4829**
10. Screw, SHC, ¼-20 x ¾", Chrome, ASTM A574-92A *4069A* . . **50-0067**
11. Washer, countersunk, external tooth, ¼" x ½", parkerized steel **106-4980**
12. Gasket, Intake Adapter, Throttle by Wire, 2008-up bt **106-4428**
13. Gasket, Intake Adapter, .020", 2.19", Gray, Paper. **17-1022**
14. Gasket, Throttle Body, Throttle by Wire, 2008-up bt *29645-08*
    - *each* **106-2643**
    - Gasket, S&S Throttle Hog, 58mm **160-0050**
    - Gasket, S&S Throttle Hog, 66mm & 70mm **160-0035**
15. Spacer, Plate, Throttle By Wire, Intake Runner, 2008-up bt **106-4826**
16. Adapter, Plate, Throttle by Wire, Intake Runner **106-3607**
17. Screw, Breather, ⅜-16 UNC, +.250, 2008 Touring *(each)* . . **106-2667**
18. Hose, Vent, Breather . . . . . USA 1,2 **17-0339**
19. Fitting, Vent, Aluminum Alloy *(each)* **17-0350**
    - *2 pack* **17-0355**
20. Washer, Flat, .375" x .813" x .063", Zinc, Steel
    - *each* **50-7051**
21. Washer, Flat, .380" x .880" x .024", Nitrile Rubber Coated, Cold Rolled Steel
    - *each* **50-7054**
    - *10 pack* **50-7059**
22. Washer, Flat, .520" x .880" x .024", Nitrile Rubber Coated, Cold Rolled Steel
    - *each* **50-7055**
    - *10 pack* **50-7057**
23. Clamp, Spring, 9/16" **50-8001**
24. Air Filter, with Clamp, Stainless Cap, Conical, 2⅞" I.D. x 4"
    - Red *(each)* **17-1020**
    - Blue *(each)* **17-1023**
25. Intake Runner, Single Bore, 2.19" + Gasket
    - Natural **106-4968**
    - Gloss Black **170-0453**
    - Chrome Plated **106-4970**
26. Oil, Air Filter, 8 oz. (Not shown)
    - Red **106-1163**
    - Blue. **106-1164**



ACCESSORIES

Description		Part #
Nylon Air Filter Cover	*each*	**106-0247**
	2 pack	**106-0248**

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS
FOR S&S® SINGLE BORE EFI

1. Air Cleaner Cover
- Slasher (slotted chrome) **17-0004**
- Chrome **17-0378**
- Gloss Black (includes black screws) **170-0384A**

2. Element, pleated **106-4722**

3. Backplate SBEFI
- 2006-'16 bt **17-0120**
- S&S 4⅛" bore engines **17-0380**

4. Screw, Cover, oval ¼-20 x 1
- Chrome *1305 (each)* **50-0072**
- *3 pack* **50-1052**
- *10 pack* **50-0094**
- Black *902 (each)* **50-0310-S**
- *3 pack* **50-0310**

5. Backplate screw
- Zinc Plated *(each)* **106-2084**
- *10 pack* **106-2105**

6. Pipe plug, ⅛, air cleaner backplate *(each)* **50-8331A**
- *10 pack* **50-1015**

7. Mounting bracket bolt, hex 5⁄16-18 x 1¼ **50-0110**

8. Flat washer, 5⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**

9. Shim, .850" x .325" x .400" **50-7027**

10. Shim kit for 4⅛" bore **17-0314**
Individual shims:
- 5⁄16" x .018" *(each)* **50-7038**
- 5⁄16" x .030" *(each)* **50-7039**
- 5⁄16" x .048" *(each)* **50-7040**
- 5⁄16" x .105" *(each)* **50-7041**

11. Screw,PH,10-24 x ¼",Zinc,Steel *(each)* **50-0041**
- *10 pack* **50-0062**

12. Clamp,Spring,.660" **50-8076-S**

13. Hose, Rear, Vent, Breather, Formed, Section 1, SAE J30 ..... **50-8262-S**

14. Hose,Rear,Vent,Breather,Formed,Section 2,SAE J30 ..... **50-8263-S**

15. Clamp,Spring,.440" **50-8143-S**

16. Hose,Cut To Size,.1875" x 6",Black,Rubber **50-8142AS**

17. Shims, individual
- 5⁄8 x 7⁄8 x .025 *(each)* **50-7113**
- *10 pack* **50-7110**
- 5⁄8 x 7⁄8 x .050 *(each)* **50-7114**
- *10 pack* **50-7111**
- 5⁄8 x 7⁄8 x .075 *(each)* **50-7115**
- *10 pack* **50-7112**

18. Air cleaner hardware kit
- 2006-'16 bt *(includes #4, 5, 6, 11, 17, 23)* **17-0482**
- S&S 4⅛" bore *(includes #4, 5, 6, 7, 8, 9, 10, 11)* **17-0481**

19. Silicone washer, ½" ID *(each)* **50-7055**
- *10 pack* **50-7057**

20. Silicone washer, ⅜" ID *(each)* **50-7054**
- *10 pack* **50-7059**

21. Hose,Vent,Breather,Epichlorohydrin Polymer ..... USA 1,2 **17-0339**

22. Clamp,Spring,9⁄16" **50-8001**

23. Screw, wide head, 5⁄16-24 x 36 ..... **17-0346**

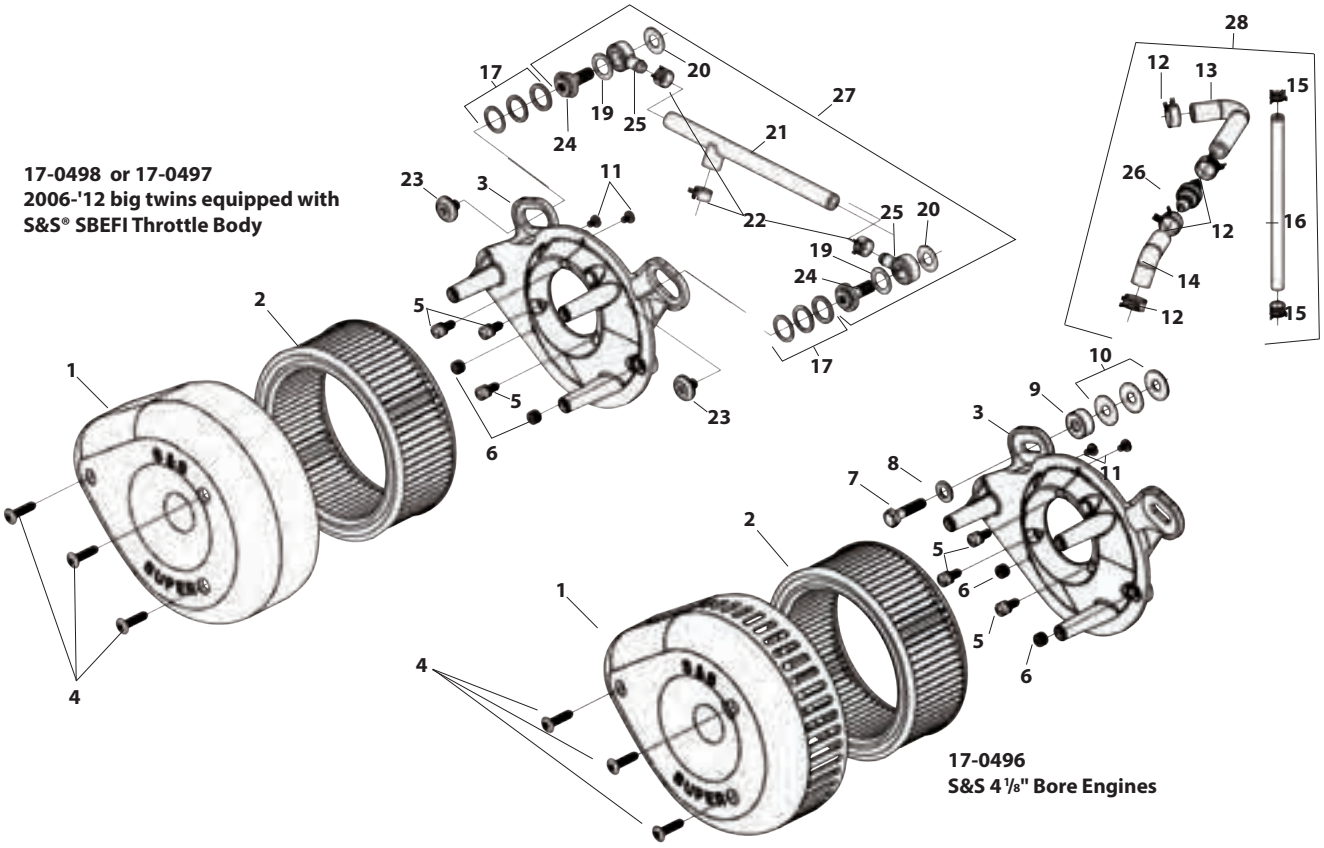
24. Breather vent fitting
- 2006-'16 bt **17-0345**

25. Breather fitting *(each)* **17-0350**
- *2 pack* **17-0355**

26. Check Valve **50-8122**

27. Breather hardware for 2006-'16 bt* **17-0455**

28. Breather hardware for 4⅛" bore* **31-2104**
(*Not included in air cleaner kit)



NOTE

Breather hardware not included in these air cleaner kits.

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS
FOR STOCK FUEL SYSTEMS

1. Air cleaner cover
- Chrome **17-0378**
- Gloss Black (includes black screws) **170-0384A**
- Slasher **17-0004**

2. Filter Element
- a. Pleated **106-4722**
- b. Foam *(for 17-0444 kit only)* **17-0079**

3. Backplate
- a. 2006-'16 bt *(except 2008-'16 touring models)* **106-0907**
- b. 2008-'16 touring models **106-2092**
- c. 2006-up Dyna® models & all 2007 bt with stock EFI . **17-0003**

4. Cover screw, *1305*
- Chrome *(each)* **50-0072**
- *3 pack* **50-1052**
- *10 pack* **50-0094**
- Black *(each)* **50-0310-S**
- *3 pack* **50-0310**

5. Backplate screw, Zinc Plated *(each)* **106-2084**
- *10 pack* **106-2105**

6. Backplate plug ⅛"-27 *(each)* **50-8331A**
- *10 pack* **50-1015**
- Backplate plug .285" x .170" **50-8306**

7. Gasket, backplate
- CV Adaptor, .0625" *(each)* **106-1724**
- *10 pack* **106-2328**
- 2006 - '12 bt *29062-95B* **106-6022**

8. Adaptor assembly
- 2006-'12 bt (*except 2008-'12 touring models*) **106-0881**
- 2008-'12 touring models **106-1716**

9. Hose, vent, breather, .250" x .375" x 1.825" *(each)* **17-0364A**

10. Clamp, spring, 9/16" **50-8001**

11. Screw, w/lockwasher SLTD FH, ¼-20 x ¾", Zinc, Steel **50-0073**

12. Banjo fitting *(each)* **17-0350**
- *2 pack* **17-0355**

13. Washer, silicone coated steel, ⅜" (*each*) **50-7054**
- *10 pack* **50-7059**

14. Breather screw
- a. +.250", 2006-'12 bt *(except 2008-'12 touring models)* **17-0348**
- b. ⅜-16 UNC, +.250, 2008-'12 Touring *(each)* **106-2667**
- c. ⅜-16 NC, 2006-up Dyna models & all 2007 bt **17-0345**

15. Replacement shims
- ⅝" x .025" (*each*) **50-7113**
- *10 pack* **50-7110**
- ⅝" x .050" (*each*) **50-7114**
- *10 pack* **50-7111**
- ⅝" x .075" *(each)* **50-7115**
- *10 pack* **50-7112**

16. Screw, LSHC, ¼-20 x ½", zinc plated (*each*) **106-2037**
- *10 pack* **106-2125**

17. Gasket, throttle body, throttle by wire, 2008-up BT *29645-08*
- *each* **106-2643**

18. Hose, vent, breather ..... USA 1,2 **17-0339**

19. Washer, flat, .375" x .813" x .063", zinc, steel
- *each* **50-7051**

20. Washer, silicone coated steel ½" *(each)* **50-7055**
- *10 pack* **50-7057**

21. Cover, breather screw, chrome, aluminum **106-2022**

22. Screw, LSHC, 5/16-24 x ½", stainless steel **106-2023**

23. Screw;Backplate Vent;Special Socket Panh **17-0346**

24. Clamp,Spring,.660" **50-8076-S**

25. Nut, HH, ¼-28 UNC-2B x .328", Zinc, Steel **50-5010**

26. Vent hose, with angle cut **17-0365**

27. Hose fitting **17-0336C-S**

28. Flatwasher, ¼" *6194, 6245, 6703, 6736, 6228W, 6192 (each)* **50-7021**

29. Carb support bracket **17-0308**

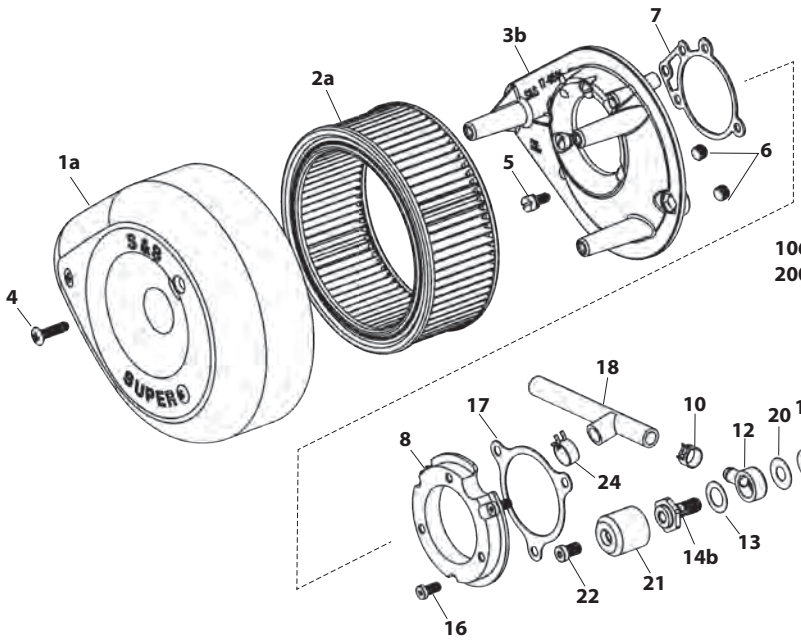
30. Shim - ¼" x ¾" x .200" **50-7024**

31. Mounting Hardware Kit
- 2006-'12 bt *(except 2008-'12 touring models)* **106-0838**
  (includes 7,5,25,11,9,19,14,12,10,26,33)
- 2008-'12 touring models **106-2102**
  (includes 7,23,24,15,5,16,22,17,11,18,12,19,10,27,33)

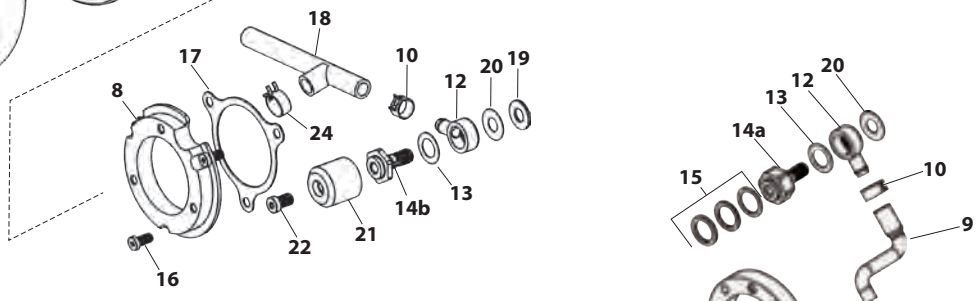
32. Cable Tie **(N/S)** **50-8003**

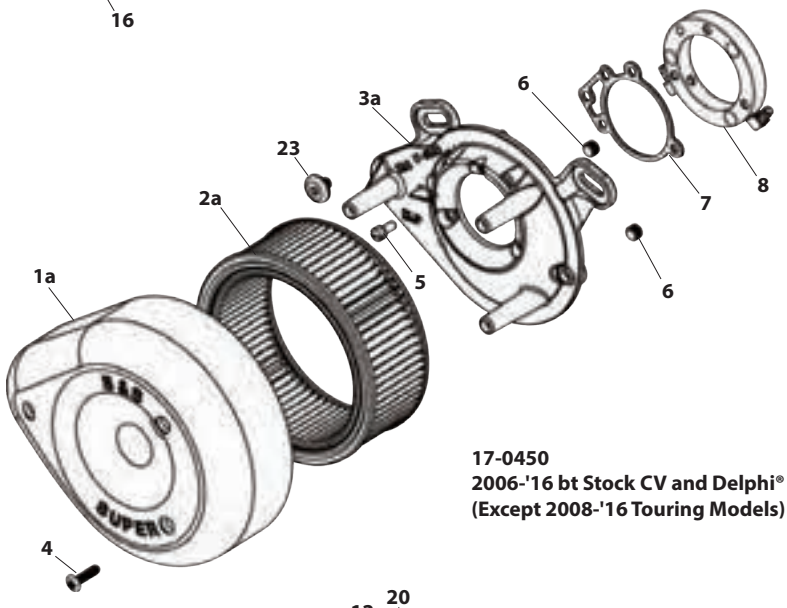
33. Screw,PH,¼-20 x 1",Nickel,Stainless Steel *1305* **(N/S)** **50-0072**

(N/S) = Not Shown

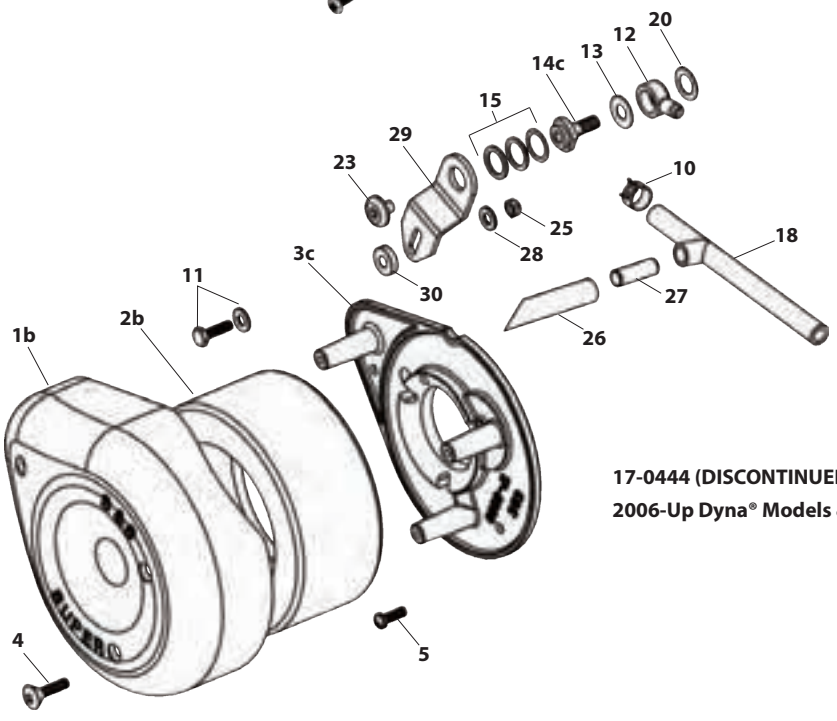


106-2091
2008-'16 Touring Models with Stock EFI Throttle Body





17-0450
2006-'16 bt Stock CV and Delphi® Single Bore EFI
(Except 2008-'16 Touring Models)

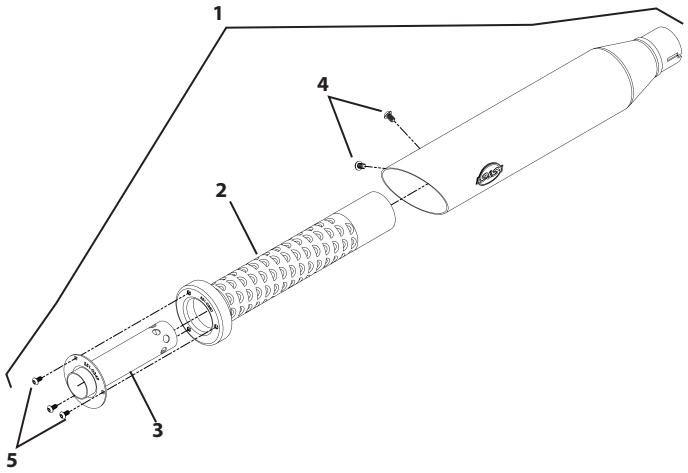


17-0444 (DISCONTINUED)
2006-Up Dyna® Models & All 2007 big twin Models with Stock EFI

SLASH CUT SLIP-ONS FOR DYNA® MODELS REPLACEMENT PARTS

Kit Part #s: 550-0718 and 550-0720

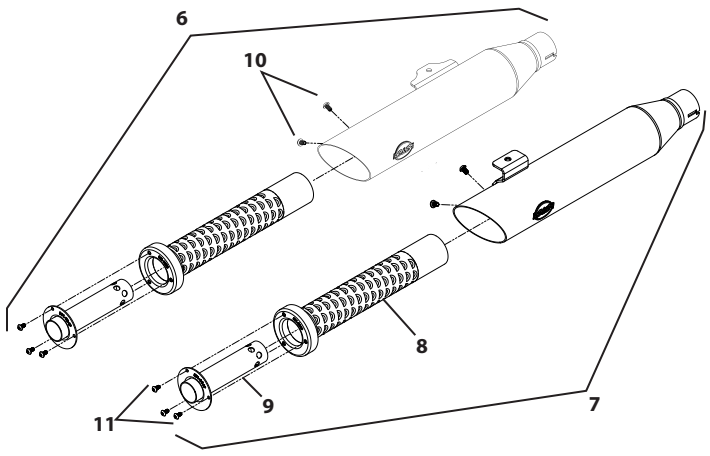
1. Slash Cut Muffler Assembly, Front or Rear
   - Chrome **551-0308**
   - Black **551-0311**
2. Main Baffle Assembly **551-0301**
3. dB Reducerr Baffle **551-0350**
4. Button head cap screw, Stainless, ¼"-20x3/8"1
   (Hold Main baffle assy to muffler shell) **500-0441**
5. Socket head cap screw, Stainless, 10-32x3/8"
   (Hold db reducer baffle to main baffle assy) **500-0570**



Kit Part #s: 550-0722 and 550-0724

6 Top Muffler Assembly Slash Cut
- Chrome **551-0320**
- Black **551-0323**

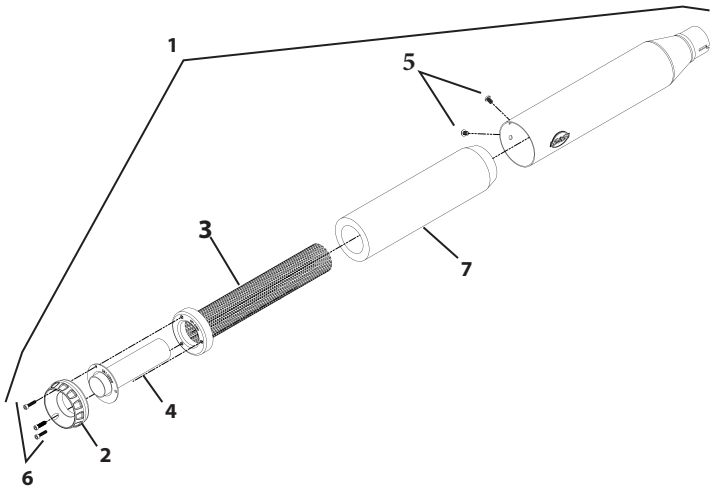
7. Bottom Muffler Assembly,Slash Cut
   - Chrome **551-0326**
   - Black **551-0329**
8. Main Baffle Assembly **551-0301**
9. dB Reducer Baffle **551-0350**
10. Button head cap screw, Stainless, ¼"-20x3/8"
    (Hold Main baffle assy to muffler shell) **500-0441**
11. Socket head cap screw, Stainless, 10-32x3/8"
    (Hold db reducer baffle to main baffle assy) **500-0570**



GRAND NATIONAL® SLIP-ONS FOR DYNA® MODELS REPLACEMENT PARTS

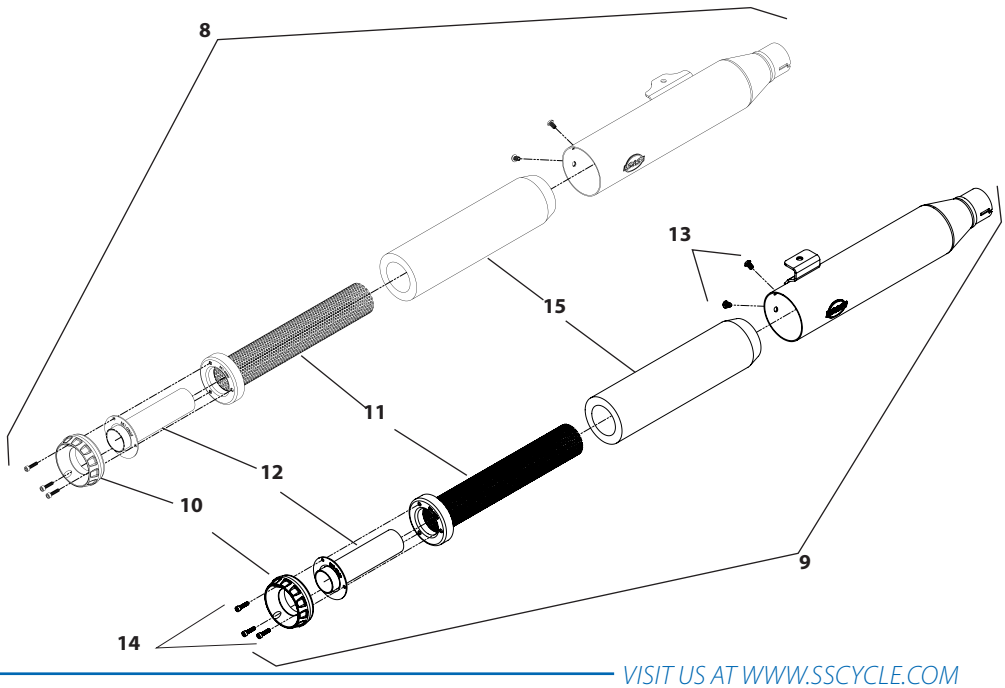
Kit Part #s: 550-0719 and 550-0721

1. Grand National Muffler Assembly Front or Rear
   Chrome **551-0314**
   Black **551-0317**
2. End Cap **551-0294**
3. Main Baffle Assembly **551-0299**
4. dB Reducer Baffle **551-0304**
5. Button head cap screw, Stainless, ¼"-20x3/8"
   (Hold Main baffle assy to muffler shell) **500-0441**
6. Socket head cap screw, Stainless, 10-32x3/4"
   (Hold End Cap to main baffle assy) **500-0569**
7. Insulation, Muffler, Pillow Pack **551-0305**



Kit Part #s: 550-0723 and 550-0725

8. Muffler Assembly, Grand National, Top
   Chrome **551-0332**
   Black **551-0335**
9. Muffler Assembly, Grand National, Bottom
   Chrome **551-0338**
   Black **551-0341**
10. End Cap **551-0294**
11. Main Baffle Assembly **551-0299**
12. dB Reducer Baffle **551-0304**
13. Button head cap screw, Stainless, ¼"-20x3/8"
    (Hold Main baffle assy to muffler shell) **500-0441**
14. Socket head cap screw, Stainless, 10-32x3/4"
    (Hold End Cap to main baffle assy) **500-0569**
15. Insulation, Muffler, Pillow Pack **551-0305**

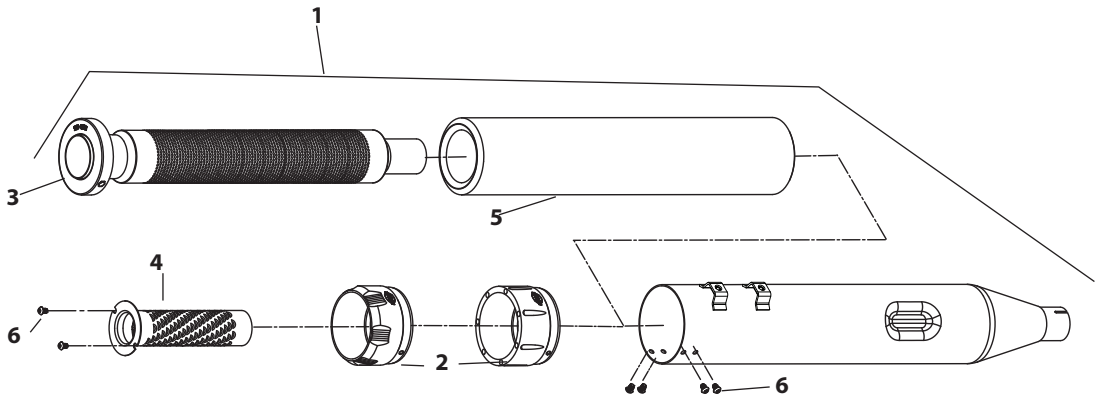


Mk45 4½" MUFFLER REPLACEMENT PARTS

1. 4.5" Muffler Assembly
- Left, Chrome **551-0020**
- Right, Chrome **551-0021**
- Left, Black **551-0022**
- Right, Black **551-0023**

2. End Cap
- Thruster, Chrome **550-0634A**
- Thruster, Highlighted Machined **550-0629A**
- Tracer, Chrome **550-0636A**
- Tracer, Highlighted Machined **550-0632A**

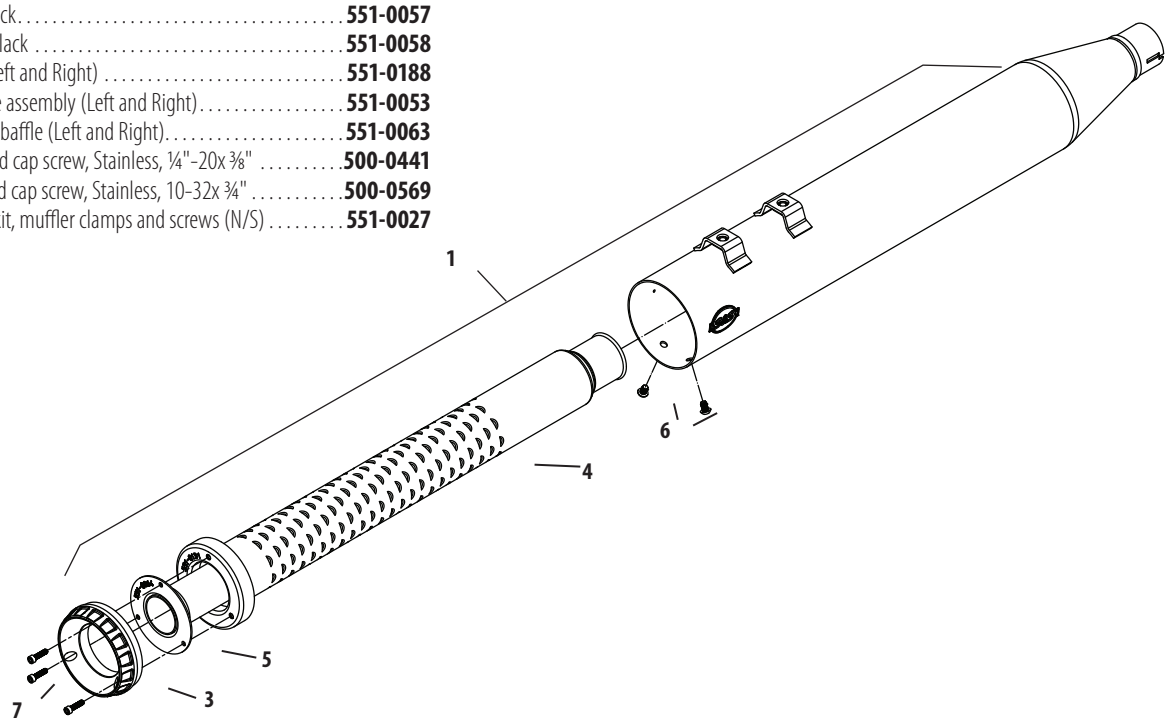
3. Main Baffle Assembly, 4.5" Muffler **551-0007**
4. dB reducer **551-0026**
5. Insulation, 4.5" Muffler **551-0003**
6. Button Head Cap Screw, Stainless, ¼"-20 X ⅜" **500-0441**
7. Hardware Kit, Muffler Clamps And Screws (N/S) **551-0027**



GRAND NATIONAL® 4" REPLACEMENT PARTS

1. 4" Muffler assembly with Grand National end cap
- Left, Chrome. **551-0055**
- Right, Chrome **551-0056**
- Left, Black. **551-0057**
- Right, Black **551-0058**

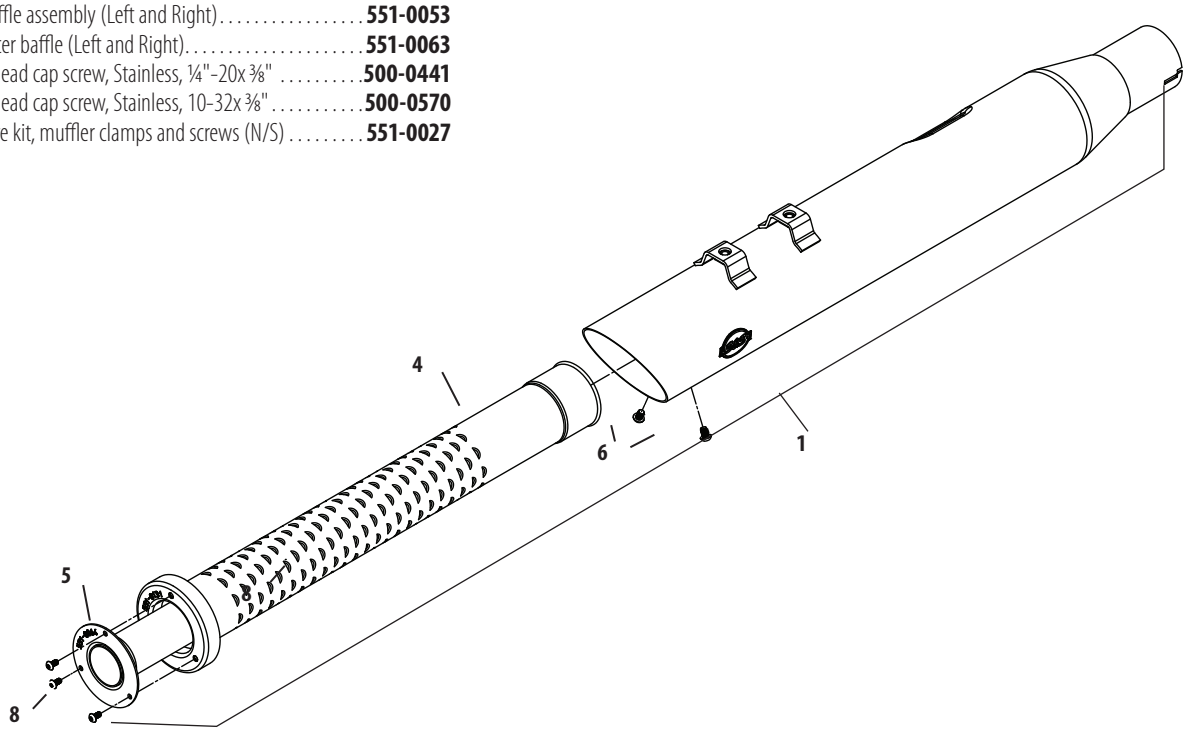
3. End Cap (Left and Right) **551-0188**
4. Main baffle assembly (Left and Right). **551-0053**
5. dB reducer baffle (Left and Right). **551-0063**
6. Button head cap screw, Stainless, ¼"-20x ⅜" **500-0441**
7. Socket head cap screw, Stainless, 10-32x ¾" **500-0569**
9. Hardware kit, muffler clamps and screws (N/S) **551-0027**



SLASH CUT 4" REPLACEMENT PARTS

1. 4" Muffler assembly Slash Down
- Left, Chrome. **551-0059**
- Right, Chrome **551-0060**
- Left, Black. **551-0061**
- Right, Black **551-0062**

4. Main baffle assembly (Left and Right). **551-0053**
5. dB reducer baffle (Left and Right). **551-0063**
6. Button head cap screw, Stainless, ¼"-20x ⅜" **500-0441**
8. Button head cap screw, Stainless, 10-32x ⅜" **500-0570**
9. Hardware kit, muffler clamps and screws (N/S) **551-0027**

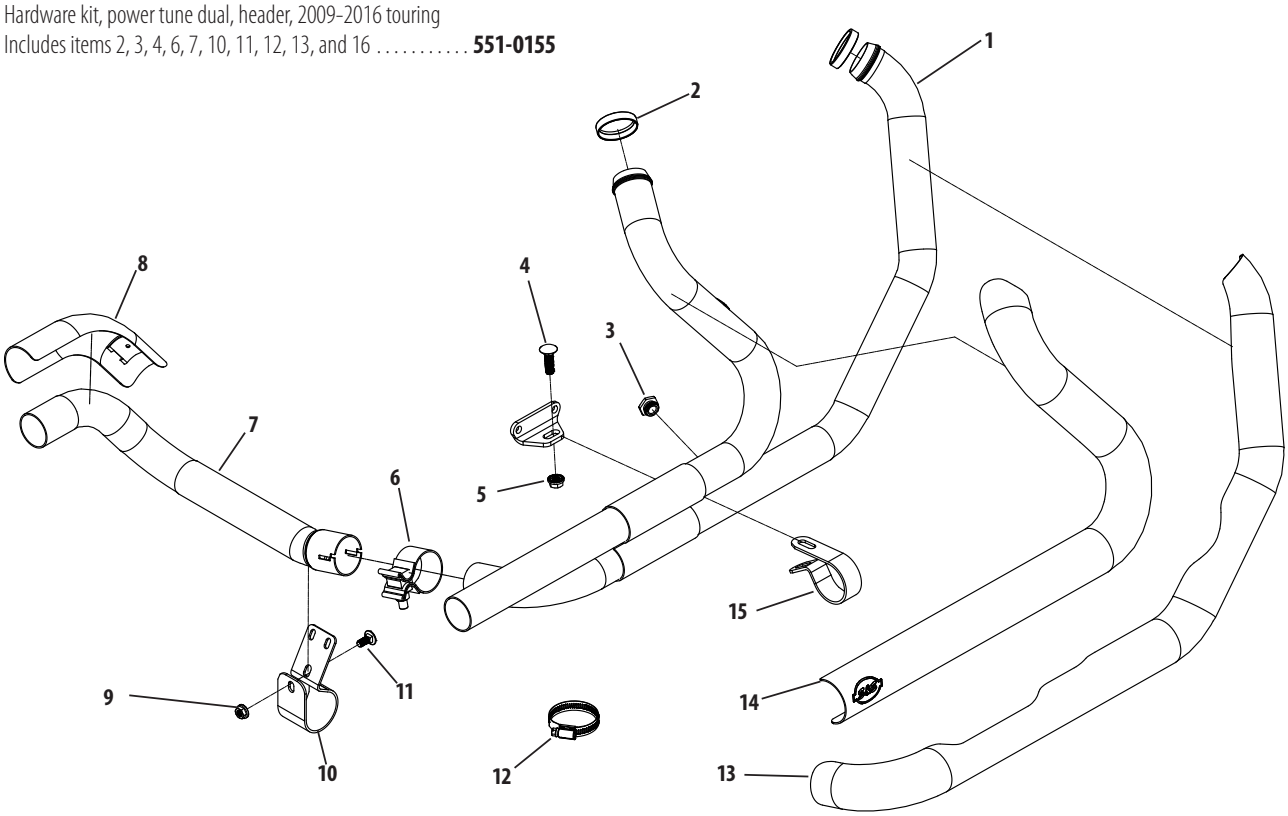


POWER TUNE DUAL HEADER REPLACEMENT PARTS

1. Pipe, header, power tune dual, weldment,
   2009-2016 touring **551-0084**
2. Gasket, exhaust, tapered, stainless steel,
   1984-up bt, 1986-up xl *(2 Req)* ***65324-83B, 65324-83A*** **106-5029**
3. Adapter, oxygen sensor, 12mm to 18mm,
   stainless steel *(2 Req)* **550-0375**
4. Bolt, carriage, ⅜"-16 x 1-¼" **500-0553**
5. Nut, flanged, serrated, ⅜"-16 ..... **500-0554**
6. Clamp, muffler, band style **551-0028**
7. Tube, crossover, power tune dual, formed,
   2009-2016 touring **551-0080**
8. Shield, left, power tune dual,
   Chrome, 2009-2016 touring **551-0115**
   Black, 2009-2016 touring **551-0116**
9. Nut, HSFH, 5⁄16-18 UNC-2b x .283", Zinc, steel **50-5053-S**
10. Clamp, p-style, crossover, power tune dual header,
    2009-2016 touring **551-0121**
11. Bolt, carriage, 5⁄16"-18 x ¾" **500-0555**
12. Clamp, hose *(8 Req)* **551-0124**
13. Shield, front, power tune dual,
    Chrome, 2009-2016 touring **551-0097**
    Black, 2009-2016 touring **551-0098**
14. Shield, rear, power tune dual,
    Chrome, 2009-2016 touring **551-0103**
    Black, 2009-2016 touring **551-0104**
15. Clamp, p-style, power tune dual, side,
    1995-2016 touring **551-0119**

Not Shown

Hardware kit, power tune dual, header, 2009-2016 touring
Includes items 2, 3, 4, 6, 7, 10, 11, 12, 13, and 16 ..... **551-0155**





Performance Kits

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SECTION 3: 1999-2006 BIG TWINS

SLASH CUT SLIP-ONS FOR DYNA® MODELS

FITMENT

- 1995–2009 Dyna® models with staggered exhaust

FEATURES AND BENEFITS

- Up to 16% more horsepower and 10% more torque *(when used with Stealth Air Cleaner Kit)*
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or black ceramic finish
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



SLASH CUT MUFFLERS FOR 1995-2009 DYNA® MODELS WITH STAGGERED EXHAUST

Finish	Part #
Chrome	**550-0718**
Black	**550-0720**

DISCAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below.

California Models: MY 2006-2007, Except CVO models

49 State Models: MY 1995-2009, Except CVO models‡

REPLACEMENT PARTS: SEE PAGE 222

NEW FOR 2018 GRAND NATIONAL® SLIP-ONS FOR DYNA® MODELS

FITMENT

- 1995-2009 Dyna® models with staggered exhaust

FEATURES AND BENEFITS

- Up to 17% more horsepower and 9% more torque *(when used with Stealth Air Cleaner Kit)*
- Race inspired Grand National end caps
- Show chrome or black ceramic finish
- Deep performance rumble
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL® MUFFLERS FOR 1995-2009 DYNA® MODELS WITH STAGGERED EXHAUST

Finish	Part #
Chrome	**550-0719**
Black	**550-0721**

DISCAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below.
California Models: MY 2006-2007, Except CVO models
49 State Models: MY 1995-2009, Except CVO models‡

REPLACEMENT PARTS: SEE PAGE 223

SLASH CUT 4" SLIP-ONS

FITMENT

- 1995-2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!





Removable dB reducer



SLASH CUT 4" TOURING MUFFLERS FOR 1995-2016 BIG TWINS

Finish	Part #
Chrome	**550-0691**
Black	**550-0692**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2017; CVO MY 2000-2003, and 2009-2017, 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2017; CVO MY 2000-2005, and 2009-2017

REPLACEMENT PARTS: SEE PAGE 221

GRAND NATIONAL® 4" SLIP-ONS

FITMENT

- 1995-2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!



Removable dB reducer

GRAND NATIONAL® 4" MUFFLERS FOR 1995-2016 BIG TWINS

Finish	Part #
Chrome	**550-0689**
Black	**550-0690**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2016; CVO MY 2000-2003, and 2009-2016, 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2016; CVO MY 2000-2005, and 2009-2016

REPLACEMENT PARTS: SEE PAGE 221

Mk45 TOURING MUFFLERS

Mk45 4.5" Touring Mufflers are the result of decades of riding, racing and tuning. Combining both a stainless steel baffle and fiberglass packing, they create a deep rumble and improved horsepower and torque, all while adding a unique look with styled aluminum end caps.



FITMENT

- 1995-2016 touring models

FEATURES AND BENEFITS

- 7 horsepower gain*
- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or black ceramic finish
- Choose from S&S® Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

*Tested with S&S Power Tune Dual Header and Stealth Air Cleaner Kit



Removable dB reducer

MK45 4.5" TOURING MUFFLERS W/END CAPS

Muffler Body Finish	End Cap Finish & Style
Chrome	Chrome Thruster
	Black Highlight Machined Thruster
	Chrome Tracer
	Black Highlight Machined Tracer
Black Ceramic	Chrome Thruster
	Black Highlight Machined Thruster
	Chrome Tracer
	Black Highlight Machined Tracer

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.
*Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.
California FL Touring Models:
Fuel Injected MY 1995-2003, 2007, and 2009-2016;
CVO MY 2000-2003, and 2009-2016
49 State FL touring Models:
Carbureted MY 1995-2005;
Fuel Injected MY 1995-2005, and 2007-2016;
CVO MY 2000-2005, and 2009-2016



550-0620



550-0619



550-0624



550-0623



550-0622



550-0621



550-0626



550-0625

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: see page 183.

SEE SPECIAL NOTES ON PAGE 131 FOR NOISE DISCLAIMERS

REPLACEMENT PARTS: SEE PAGE 220

POWER TUNE DUAL HEADERS

FITMENT

- Non-catalyst equipped Harley-Davidson® touring models‡
- 1995 - '08 touring big twins

FEATURES AND BENEFITS

- Adds 8 horsepower over stock header pipes
- Independent dual look with hidden crossover
- Exclusive design moves the rear cylinder header away from the passenger to reduce radiated heat
- Full chrome or black ceramic heat shielding with 220º coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs*
- Durable 16 gauge construction
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Compatible with all equal size inlet slip-on mufflers
- Exhaust port gaskets included
- Made in the U.S.A.

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: see page 183

REPLACEMENT PARTS: SEE PAGE 224



550-0003A



550-0142A

POWER TUNE DUAL HEADERS

Fitment	Finish
1995-'08* big twins	Chrome
	Black

**Has 18mm sensor fittings in the stock locations for 2007-'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst.

*Qualified manufacturer declared emissions replacement part on FL touring models listed below.

California Models:
FL Touring Fuel Injected MY 1995-2003, and 2007
CVO FL Touring MY 2000-2003

49 State Models:
FL Touring Carbureted MY 1995-2005
FL Touring Fuel Injected MY 1995-2005 and 2007-2008
CVO FL Touring MY 2000-2005

SPECIAL NOTES

It may be necessary to re-jet the carburetor or recalibrate the fuel injection system for best performance when a change is made in the exhaust system.

Dyno results are from tests performed at the S&S® Research and Development facility in Viola, Wisconsin.

Exhaust Noise Disclaimer: Unless noted, S&S exhaust components do not meet U.S. EPA noise standards and may be restricted to closed course competition use. Check local noise ordinances before use.

MINI TEARDROP STEALTH AIR CLEANER KITS



FEATURES AND BENEFITS

- 85% of original size
- Iconic look
- Machined openings around the rim add style and provide additional air flow
- Gloss Black or Chrome

MINI TEARDROP STEALTH AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER 170-0300 WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21.

Fitment	Fuel System	Finish	Part #
2001-'17 bt* *(except Throttle by Wire)* *Includes Stealth AC KIT 170-0300*	Stock EFI, Delphi® EFI	Chrome	**170-0441**
		Gloss Black	**170-0442**

CARB compliant EO #D-355-21

STEALTH AIR CLEANER KITS

CARB compliant
EO #D-355-21

FITMENT
- 1999–2006 big twins

FEATURES AND BENEFITS
- Air directional stinger cone in the filter
- Use with any of several S&S designed covers. See page 135
- High flow (1" taller) filter kit available



STEALTH AIR CLEANER KITS WITH AIR 1 COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	**170-0478**



STEALTH AIR CLEANER KITS WITH TRI-SPOKE COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	**170-0476**



STEALTH AIR CLEANER KITS WITH TORKER COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	**170-0477**



STEALTH AIR CLEANER KITS WITH AIRSTREAM COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Finish	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	Chrome	**170-0479**
		Gloss Black	**170-0480**



STEALTH AIR CLEANER KITS WITH MUSCLE COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Finish	Part #
2001-'17 HD® big twin *(except Throttle By Wire) Includes Stealth AC Kit 170-0300B*	Stock EFI Delphi®	Chrome	**170-0481**
		Gloss Black	**170-0482**



STEALTH AIR CLEANER KITS* EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Application	Fuel System	Part #
2001-'17 HD® Big Twin *(except Throttle By Wire and CVO® Models)*	Stock EFI Delphi®	**170-0300B**

*These kits do not contain covers – *Choose an S&S Cover (see page 135)r*

CON'T NEXT PAGE

CON'T STEALTH AIR CLEANER KITS

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products starting on page 183

SEE PAGE 230 FOR '99 SOFTAIL CARB & THROTTLE BY WIRE OPTIONS


Airstream

STEALTH AIR CLEANER KITS W/CHROME AIRSTREAM COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted Big Twins	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0056**
	S&S Super E & G Carbs	**170-0063**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.


Muscle

STEALTH AIR CLEANER KITS W/CHROME MUSCLE COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted Big Twins	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0106**
	S&S Super E & G Carbs	**170-0112**

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Bobber-dished

STEALTH AIR CLEANER KITS W/CHROME BOBBER-DISHED COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted Big Twins	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0104**
	S&S Super E & G Carbs	**170-0110**

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Bobber-domed

STEALTH AIR CLEANER KITS W/CHROME BOBBER-DOMED COVER

Application	Fuel System	Part #
1999-'06 HD® Carbureted Big Twins	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)t*	**170-0105**
	S&S Super E & G Carbs	**170-0111**

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STEALTH AIR CLEANER KITS*

Application	Fuel System	Part #
1999-'06 HD® Carbureted Big Twins	Stock CV/EFI Delphi® *(except '99 Softail® carb & Throttle by Wire)*	**170-0060**
	S&S Super E & G Carbs	**170-0058**

*These kits do not contain covers –*Choose an S&S Cover (see page 135) or use your stock Twin Cam 88®, 96™ or 103™ cover* DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.

REPLACEMENT PARTS: SEE PAGE 205

STEALTH AIR CLEANER KITS FOR S&S ENGINES

STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
T124LC 2008-'16 Touring Models	S&S 66mm Throttle Hog	**170-0165**
T111 2008-'16 Touring Models	S&S 58mm Throttle Hog	**170-0164**
1995-1999 S&S Super Stock Engines	S&S Single Bore VFI 52mm Throttle Bodies	**170-0287**
1995-1999 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	**170-0283**
1999-2017 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	**170-0284**
T124 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	S&S E or G Carburetor	**170-0058**
T124 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	Stock CV/EFI Delphi®	**170-0060**
T111 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	S&S E or G Carburetor	**170-0058**
T111 1999-'06 bt *(except '06 Dyna®) (Engines produced after 2013)*	Stock CV/EFI Delphi®	**170-0060**

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STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW MINI TEARDROP

FITMENT

- All S&S Stealth Air Cleaners











Air 1



Tri-Spoke



Airstream

STEALTH COVERS

Style	Finish	Part #
Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	NEW FOR 2018 Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**
111	Gloss Black with Highlights	**170-0319**
124	Gloss Black with Highlights	**170-0321**
143	Gloss Black with Highlights	**170-0323**

SINGLE BORE TUNED INDUCTION SYSTEM



FITMENT

- 1999-'06 stock CV carbureted big twins *(except 1999-'06 FXDWG/FXD35)*
- 2001-'06 Delphi® EFI big twins

FEATURES AND BENEFITS

- Bolt-on performance – over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tunted lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy
- Available in wrinkle black, chrome, or natural

CARB compliant EO #D-355-21

SINGLE BORE TUNED INDUCTION SYSTEM KITS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Fitment	Fuel System	Finish	Part #
2001-'17 Harley-Davidson® Big Twin *(except Throttle By Wire and CVO® Models)*	Stock EFI Delphi®	Chrome/Red Filters	**170-0308B**

SINGLE BORE TUNED INDUCTION SYSTEM KITS

Fitment	Fuel Delivery	Finish	Part #
1999-'06 big twins *(except 1999-'06 FXDWG/FXD35)* and S&S engines w/stock head breathing	S&S Single Bore EFI	Chrome Runner and Red Filters	**170-0085**
	S&S Super E/G		**170-0086**
1984-'06 HD® Carbureted Big Twins Models	Stock	Chrome Runner and Red Filters	**170-0087**
4⅛" bore S&S T-Series (S&S bolt pattern w/vaccum breathing)	S&S Single Bore EFI	Chrome Runner and Red Filters	**170-0083**
	S&S Super E/G		**170-0084**
CTO	Specify	Specify	**106-5337**

Use the Configure to Order (CTO) part number to order different finish and filter color.

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NOTES

Single bore tuned induction will not fit on motorcycles equipped with fairing lower glove boxes.

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: see page 183.

REPLACEMENT PARTS: SEE PAGE 206

CLASSIC TEARDROP AIR CLEANER KIT



FEATURES AND BENEFITS

- Efficient and free flowing intake that can add two to five horsepower
- Uniquely designed Backplate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS

- Filter
- Backing plate and cover
- All mounting hardware
- Instructions

CARB compliant EO #D-355-21

CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK EFI EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Fitment	Fuel System	Finish	Stock EFI, With 96 & 103 Engines
2001-'17 HD® Big Twin Models *(except Throttle By Wire and CVO® Models)*	Stock EFI Delphi®	Chrome	**170-0303B**
		Gloss Black	**170-0304B**

CLASSIC TEARDROP AIR CLEANER KITS

Fitment	Finish	Stock Carb	S&S® Super E/G
S&S 4⅛" Bore Engines w/vaccum breathing	Slasher /Chrome	–	**17-0416**
1993-'06 HD® Carbureted Big Twins	Chrome	**17-0450**	**17-0403**
	Gloss Black	**170-0181A**	–

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CLASSIC TEARDROP AIR CLEANER KITS FOR S&S SINGLE BORE EFI THROTTLE BODIES

Fitment	Style/Finish	52mm	58mm
Stock Harley-Davidson® heads or S&S Heads for stock or 4" bore head breathing	Teardrop/Chrome	**17-0498**	**106-4669**
S&S Heads for 4⅛" bore vaccum breathing	Teardrop/Chrome	–	**106-4668**

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17-0378



170-0384A



17-0071



17-0004

TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Classic Teardrop	Chrome	**17-0378**
	Gloss Black	**170-0384A**
Slasher Teardrop	Chrome	**17-0004**
Nostalgic Teardrop	Polished	**17-0071**

REPLACEMENT PARTS STARTING ON PAGE 208

PRE-FILTERS



FITMENT
- S&S® Stealth Air Filters

FEATURES AND BENEFITS
- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard	**170-0193**
1" Tall	**170-0197**

HIGH FLOW AIR FILTER KITS

FITMENT
- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS
- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS
- Wide filter
- Filter spacers



170-0127

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit *(includes spacers)*	Classic Teardrop	**17-0045**
	Stealth, 1" Taller	**170-0127 ***
1" Taller Filter Only	Classic Teardrop	**106-4724**
	Stealth	**170-0154**
Spacer	Classic Teardrop & Stealth, 1" Taller	**50-5009-S**

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17-0045

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	**106-4722**
	Stealth	**170-0126**

PERFORMANCE KIT OVERVIEW
FOR HARLEY-DAVIDSON® TWIN CAM 88®



4" BORE BOLT-IN SIDEWINDER® BIG BORE KIT
S&S 4" big bore cylinder and piston kits boost 88 and 96/103" Harley-Davidson® big twin engines to 100" and 110" respectively. These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining! SEE PAGE 140



124" HOT SET UP KIT
Move to the ultimate in performance packages! Increase your bore to 4⅛" and stroke to 4⅝" to realize a massive 124 cubic inches of pure performance. This kit includes flywheel assembly, cylinders and pistons, S&S Easy Start 640 lift chain drive camshafts, hydraulic lifters, pushrods, covers, valve springs and rocker arms. Comes complete with all gaskets and instructions. CTO options give you even more choices. Crankcases require boring to accept the larger cylinder spigots. SEE PAGE 141



106" STROKER KIT
Stroke it! This performance package gives big displacement. The kit's flywheel assembly increases your stroke from 4 ⅜" to a hefty 4 ½" and bumps your 88" to 106". Oversize your stock cylinder bore from 3 ¾" to 3 ⅞". No crankcase machining needed. Maintains stock engine height for easy installation. SEE PAGE 142



98 & 97" BIG BORE KIT
Up the displacement of your Twin Cam® 88 to a whopping 98". This bolt-on cylinder kit adds significant displacement without any machining required to your engine. Stroke stays the same at 4.00". Bore increases from 3.750 to 3.937". This kit contains pistons, cylinders and all related parts, gaskets and instructions. SEE PAGE 143



95" HOT SET UP KIT
Looking to go further? Consider the Hot Set Up Kits. These kits will put some stride in your glide. Pushrods, covers and hydraulic lifters are all included. Select from a variety of cylinder heads to achieve the compression ratio you desire or keep your stock heads. Kits include S&S Easy Start 570 or 585 chain drive camshafts. SEE PAGE 144

PERFORMANCE KIT SPECIFICATIONS FOR HARLEY-DAVIDSON® TWIN CAM 88®

KIT DESCRIPTION	BORE	STROKE	COMPRESSION RATIO								CAMSHAFT	HORSEPOWER	TORQUE
			Stock Heads	79cc	89cc	91cc	CNC Heads					(CNC Heads)	
							83cc	85cc	87cc	90cc			
124" Hot Set Up Kit	4 1/8"	4 5/8"	10.9:1	11.4:1*	11.1	10.8:1	11.6:1	11.4:1	11.2:1	10.9:1	640	127	130
106" Stroker Kit	3 7/8"	4 1/2"	10.1:1	10.7:1	9.7:1	9.6:1	10.3:1	10.1:1	9.9:1	9.7:1	585	109	115
98" Big Bore Kit	3.937"	4"	10.4:1	11.1:1	9.9:1	9.7:1	10.6:1	10.3:1	10.1:1	9.8:1	–		
97" Big Bore Kit	3.927"	4"	9.7:1	10.3:1	9.3:1	9.1:1	9.8:1	9.6:1	9.5:1	9.2:1	–	103	107
95" Hot Set Up Kit	3 7/8"	4"	9.7:1	10.3:1	9.4:1	9.2:1	9.9:1	9.7:1	9.5:1	9.3:1	570	103	107

**Not Recommended*

PERFORMANCE KIT CONTENTS, OPTIONS AND REQUIREMENTS FOR HARLEY-DAVIDSON® TWIN CAM 88®

KIT DESCRIPTION	PACKAGE CONTENTS										MACHINING REQUIRED	CTO OPTIONS	REJETTING OR CALIBRATION CHANGE
	Flywheels	Cylinders	Pistons w/rings	Rocker Arms	Pushrods w/covers	Lifters	Camshafts	Valve Springs	Heads w/ springs	Gaskets			
124" Hot Set Up Kit	●	●	●	●	●	●	●		❼	●	❸❹	❺❻❼	●
106" Stroker Kit	●		❶								❷		●
98" Big Bore Kit		●	●							●			●
97" Big Bore Kit		●	●							●			●
95" Hot Set Up Kit		❼	❼❶		●	●	●		❼	●	❷	❺❻❼	●

❼ = Optional
❶ = Order separately
❷ = Bore & hone cylinders
❸ = Crankcase machining for center stud
❹ = Crankcase machining for cylinder spigots
❺ = Camshaft selection
❻ = CNC heads
❼ = Combustion chamber size selection
❽ = Cylinder & piston set available

**The CTO option column lists only the major items offered. Virtually any option can be selected from our product offerings through the Configure To Order (CTO) program.*

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS



S&S 4" big bore cylinder and piston kits boost 88" Harley-Davidson® big twin engines to 100". These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining!

FEATURES & BENEFITS

- Bolts in. No machining, balancing, or splitting the crankcases
- 88 engines end up at 100"
- Complete kits include cylinders, pistons, gaskets, and instructions
- Choose from wrinkle black or silver powder coat cylinders – *matches stock finish*

FITMENT

- 1999-2006 big twins

SPECS FOR S&S 4" BORE BOLT-IN CYLINDER & PISTON KITS

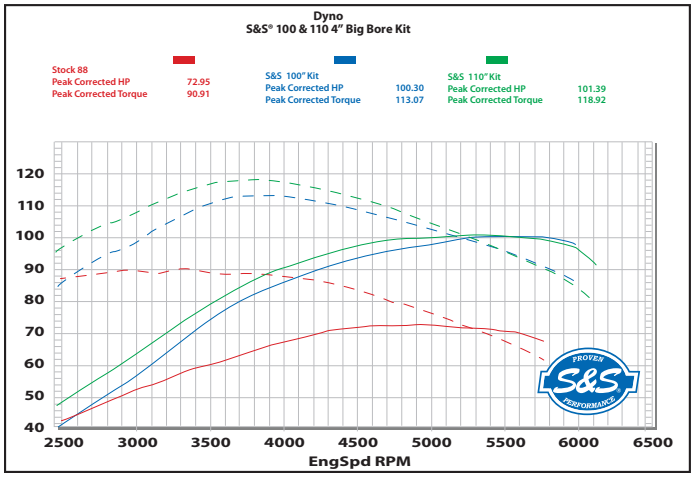
Year	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
1999-2006	4"	4.00"	4.937"	Forged	8.75 pop up	10.8:1	10.5:1	10.1:1



4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS

Displacement	Year	Stroke	Finish	Part #
100	1999-2006 Big Twin	4"	Silver	**910-0642**
	1999-2006 Big Twin	4[4]	WBlack	**910-0646**

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These dyno results from our DynoJet® 250i chassis dynamometer clearly show the performance increases available with the S&S bolt-in 4 inch bore kits. The lowest (red) set of curves represents a stock 88 cid engine in a 2004 Harley-Davidson® FLHR Road King®. The next curves above the stock baseline (blue) shows the performance of the S&S 100" bolt-in big bore kit. The highest set of curves show the results from an S&S 110" big bore kit installed in a 96 cid engine. The engines with the S&S 100" and 110" kits were also set up with S&S 585 cams, Power Tune headers, MK45 muffler, and the stock EFI throttle body with an S&S Stealth air cleaner.

NOTES

Not for use with S&S 79cc Cylinder Heads

124" HOT SET UP KIT®

Now with Easy Start Gear Drive Cams!

S&S GEAR DRIVE

FITMENT

- All big twin models

FEATURES AND BENEFITS

- Huge displacement increase means huge power increase
- Stock crankcases, cylinder heads, oil pump, and cam cover can be reused, saving hundreds of dollars
- Original engine serial numbers are retained
- Gear drive S&S 640 Easy Start Cams included!
- Wrinkle black (WBlack) powder coat finish heads match factory finish, giving bike a "sleeper" advantage
- .045" MLS (multi-layered steel) head gaskets
- Adds .096" to engine height
- Kits with S&S heads use stock length manifolds (S&S size 410)

OPTIONS

- Silver finish available through CTO

S&S® 124" HOT SET UP KIT® SPECIFICATIONS

Year	Stroke	Displacement	Bore	Cylinder Length	PISTON TYPE/COMPRESSION RATIO		
					91cc S&S Heads	89cc S&S Heads	85cc Stock Heads
1999-'06	4 5/8"	124"	4 1/8"	5.013"	Flat top forged/10.8:1	Flat top forged/11:1	Forged, 10.9cc dish/10.4:1

Cylinder w/piston kits include fitted pistons and cylinders that require no boring or honing.



900-0565

124" HOT SET UP KITS® FOR HARLEY-DAVIDSON® TWIN CAM 88®/88B™ ENGINES
(Kits include S&S® Super Stock® 91cc Cylinder Heads) (10.8:1 Compression)

Model or Engine Type	Finish
1999-2006 Twin Cam 88 Touring and Dyna® (except 2006 Dyna® models)*	WBlack
2000-2006 Twin Cam 88B Softail® w/Balancer	WBlack
CTO Other Finishes and Combinations Available Here	Specify

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle. *For 2006 Dyna® 124" Kits, see Section 2.*

NOTES

Requires recalibration.

S&S Easy Start Cams save you money – no need to buy compression releases or S&S rocker covers. Note when using 1999-'06 chain drive cams: For lifts over .510", S&S strongly recommends that the stock chain drive be upgraded to the S&S gear drive or S&S TC3 oil pump and cam plate. This kit updates the problematic spring loaded chain tensioners to more reliable hydraulic tensioners and also upgrades the oil pump.

Main Bearing Note: S&S flywheel assemblies included in a 124" S&S Hot Set Up Kit® for 1999-'15 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999-'02 Harley-Davidson® crankcases and in all S&S crankcases for 1999-'15 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft, and will require modification.

Due to the amount of power these engines produce with an S&S Hot Set Up Kit, S&S strongly recommends retrofitting 2003-'15 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999-'02 model year is also required.

This kit will require that the case be bored to accept the larger cylinders.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines with the installation of the Harley-Davidson® bearing kit #24004-03B. This bearing kit adapts the S&S sprocket shaft to be compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 sprocket shaft bearing. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

Kits with S&S heads are machined special to compensate for engine height change to accomodate a stock length manifold. When using a kit with stock cylinder heads, S&S recommends using the appropriate length manifold. For a 124" with stock OEM cylinder heads, the standard manifold length is 417.

Center case bolt between cylinders will use waisted bolt kit 900-0807

106" STROKER KITS
FOR USE WITH STOCK CYLINDERS



320-0460

FITMENT
- 1999-'06 big twins

FEATURES AND BENEFITS
- Installation of the kit does not require any special machining, other than fitting the pistons
- S&S stroker pistons, which are sold separately, are available in all standard oversizes
- Stock 88" cylinders can be bored from 3¾" bore to 3⅞" to accommodate the S&S pistons, or a pre-fit S&S cylinder and piston kit may be installed
- Engines with factory 95" kits require piston fitting only – stock or S&S cylinder heads can be used
- Fuel injected engines will require recalibration of the fuel injection system – the S&S VFI modules and closed loop sensor kits are highly recommended
- Piston jets (p/n 31-2026) included
- Maintains stock engine height

S&S® 106" STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® TWIN CAM 88® AND TWIN CAM 88B™ ENGINES SPECIFICATION CHART

Displacement	Stroke	Bore	Compression Ratio*	Piston Type	Piston Deck Height	Cylinder Length	Application	Engine Life
106"	4½"	3⅞"	10.1:1	Flat Top	1.020"	4.937"	Trips	Very Good

**Compression ratio with stock heads. Compression ratio with S&S 89cc heads 9.8:1. For additional compression use .030" MLS head gaskets- part #900-0605*
Includes S&S piston oiling jets

106" STROKER KITS FOR HARLEY-DAVIDSON® TWIN CAM 88® ENGINES WITH STOCK CYLINDERS

Engine Displacement	Stroke	Sprocket Bearing Race	1999-2006 H-D® big twin models (except 2006 Dyna® models)			2006 H-D® Dyna® models
			TC 88®		TC 88B™	
S&S 106 Stroker	4 ½"	Yes	**320-0459**		**320-0453**	**320-0449**
		No	**320-0460**		**320-0454**	**320-0450**
Special Order	Specify	Specify	**329-0002**		**329-0002**	**329-0002**

Note - All S&S flywheel assemblies for 1999-'06 engines have connecting rods with 7.667" length and full width straight wristpin ends.

THESE KITS REQUIRE SPECIAL S&S PISTONS: Order the required 92-1210 Series pistons. See chart.



92-1210 SERIES PISTONS FOR S&S® 106" STROKER KIT				CYLINDER & PISTON KIT*	
Standard	+.005"	+.010"	+.020"	Silver	Black
92-1210	**92-1214**	**92-1211**	**92-1212**	**910-0199**	**910-0203**

*Piston Deck Height 1.020" *Cylinder w/ piston kits include fitted pistons and cylinders that require no boring or honing.*

98" BIG BORE KITS

FITMENT
- 1999-2006 big twin

FEATURES AND BENEFITS
- 3.937" bore
- Cylinder and piston kits make going to larger bore sizes easy – *no machining required*
- Stock engine height is maintained
- 11 fin cylinder design closely resembles OEM shape and come prefinished – *ready to install*
- Increased fin area for better heat dissipation
- Centrifugal cast, gray iron liner features 40,000 psi tensile strength – *superior wear and performance*
- CP Pistons are recognized as industry leaders, and provide exceptional wear, performance and noise characteristics

KIT CONTENTS
- S&S cylinders with gaskets
- Piston set with rings, wristpins and wristpin clips

S&S® 98" BIG BORE KIT SPECIFICATION CHART

Displacement	Stroke	Bore	Cylinder Length	Forged Piston Type	COMPRESSION RATIO (with provided .045" head gasket)		
					83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
98"	4"	3.937"	4.937"	10cc Dome	10.6:1	10.4:1	9.9:1

Cylinder w/ piston kits include pistons and cylinders that require no boring or honing.



910-0481

98" BIG BORE KITS	
Cylinder Finish	Part #
Silver Powder coat	**910-0482**
Wrinkle Black Powder coat	**910-0481**

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NOTES

Not for use with S&S 79cc Cylinder Heads

97" BIG BORE KITS

FITMENT
- 1999-'06 big twins

FEATURES AND BENEFITS
- No case machining required
- Bolt-on 9 to 10 cubic inches – cylinders do not require crankcase machining to install
- Piston weight for 97" kits are the same as stock, requiring no flywheel rebalancing
- Forged coated pistons are compatible with stock or S&S Super Stock® 79cc & 89cc heads
- Valve pocket recessed in S&S pistons are enlarged for oversize valves and higher lift cams
- Maintains stock engine height
- 11 fins and full fin pattern on cam side closely resembles OEM shape

OPTIONS
- Oversize pistons available - see page 155

KIT CONTENTS
- S&S cylinders with gaskets
- Piston set with rings

S&S® 97" BIG BORE KITS SPECIFICATION CHART

Displacement	Stroke	Bore	Cylinder Length	Forged Piston Type	Compression Ratio			
					79cc S&S Heads	83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
97"	4"	3.927"	4.937"	3cc Dome	10.3:1	9.9:1	9.7:1	9.3:1

Cylinder w/ piston kits include fitted pistons and cylinders that require no boring or honing.

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910-0205

97" BIG BORE KITS	
Cylinder Finish	Part #
Silver Powder coat	**910-0201**
WBlack Powder coat	**910-0205**

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NOTES

S&S® highly recommends installing a performance cam for easier starting and better engine performance.

S&S high flow cylinder heads will provide further horsepower gains.

For an additional .2 bump in compression, order .030" thick head gaskets #900-0605 (2 pack). Remember to check your clearances.

These kits require tuning. When used on EFI models, S&S recommends Dynojet® Power Vision flash tuner, for more info, see page 183.

95" HOT SET UP KITS



FITMENT
- 1999-'06 big twins

FEATURES AND BENEFITS
- .045" MLS head gaskets standard
- Up to a 40 HP increase
- True bolt on kit, no machining required
- Maintains stock engine height
- Kits include S&S 570 or 585 Easy Start chain drive cams – depending on resultant compression ratio
- S&S pushrods are made of high strength chrome-moly tubing
- Valve pocket recesses in S&S pistons are enlarged for oversize valves and high lift cams

S&S® 95" HOT SET UP KIT® SPECIFICATIONS

Displacement	Stock Stroke	Bore	Cylinder Length	Forged Piston Type	Compression Ratio			
					79cc S&S Heads	83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
95"	4"	3⅞"	4.937"	5.3cc pop-up dome	10.4:1	9.9:1	9.7:1	9.4:1

Cylinder w/ piston kits include fitted pistons and cylinders that require no boring or honing.

95" SUPER STOCK® HOT SET UP KITS® FOR 88" ENGINES
Includes S&S 3⅞" bore cylinders and pistons, 585 Easy Start chain drive cams and 79cc heads

Application	Silver	WBlack
1999-'06 *(except 2006 Dyna® Models*)*	-	-
CTO	**106-5744**	**106-5744**

**Kits for 2006 Harley-Davidson® Dyna models, use CTO part number.*

95" SUPER STOCK® HOT SET UP KITS® FOR 88" ENGINES
Includes S&S 3⅞" bore cylinders and pistons, 585 gear drive cams and 79cc heads

Application	Silver	WBlack
1999-'06 *(except 2006 Dyna® Models*)*	–	**106-0214**
CTO	**106-5744**	**106-5744**

**Kits for 2006 Harley-Davidson® Dyna models, use CTO part number.*



NOTES

Fuel injected engines will require recalibration of the fuel injection system. The S&S VFI modules and closed loop sensor kits are highly recommended. Additionally, S&S recommends the Dynojet Power Vision Flash Tuner, see page 183 for more information.

Stock cylinders must either be bored to 3⅞" or replaced with S&S® 3⅞" bore cylinders.

S&S recommends either CNC porting stock cylinder heads or purchasing Super Stock® heads to maximize the effect of higher lift cams. Stock cylinder heads will produce significantly less power. S&S can CNC port your heads, for an economical increase in power.

For 95" kits ordered without cylinders, pistons must be measured and cylinders bored/honed accordingly. Recommended piston fitment:

Close: 0.0020" – 0.0025" Loose: 0.0032" – 0.0045"

92-1200 series pistons have a 1.270" deck height.

.030" MLS head gaskets optional: Part #900-0606

S&S Easy Start Cams can save you money – no need to buy compression releases or S&S rocker covers. Note when using 1999-'06 chain drive cams: For lifts over .510", S&S strongly recommends that the stock chain drive be upgraded to the S&S gear drive or S&S TC3 oil pump and cam plate. This kit updates the problematic spring loaded chain tensioners to more reliable hydraulic tensioners and also upgrades the oil pump.

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ENGINE OVERVIEW

S&S performance engines for 1999-'06 Harley-Davidson® big twins are available as long blocks which do not include fuel or ignition systems. Emissions compliant engines are complete. Engines are protected by super tough powder coat finishes. Available in silver and chrome, wrinkle black and chrome, Stone Grey and chrome, and Black Edition color schemes. Stone Grey matches the engine finish on CVO models. Black Edition is a wrinkle black engine with gloss black covers.

BLACK EDITION
S&S Cycle's new Black Edition engines combine classic wrinkle black with high gloss black powder coated covers for a subtle contrast and elegant look while still producing the power and reliability you've come to expect.

T143 (143 cid)
Now available for 1999-2006 chassis, the T143 long block engine is the largest (143 cid) S&S engine that will fit in a stock chassis. Available in silver, wrinkle black, or black edition finishes. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. The 160 rear wheel horsepower also requires performance drive train upgrades. Not for the faint of heart!

T124 (124 cid)
The S&S T124 long block engine has been our daily rider hot rod since 2004. The combination of day in and day out reliability and brutal power make it the perfect choice. Available in silver, wrinkle black, or black edition finishes. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. Our Super G carburetors and Throttle Hog EFI throttle bodies are highly recommended.

T111 (111 cid)
The S&S T111 long block is the ultimate sport touring engine. The shorter stroke provides a perfect combination of performance, engine life, quiet operation, and reduced vibration. Available in silver, wrinkle black, or black edition finishes. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. Our Super E and G carburetors and Throttle Hog EFI throttle bodies are available to complete the package.



T143 ENGINES

The *BIGGEST, BADDEST, BOLT-IN* for a Stock Frame.

The S&S T143 Long Block engine is the largest S&S engine that will fit in a stock Harley- Davidson® chassis.
At double the HP of a stock motor the power of the T143 requires technical expertise for the installation and tuning along with an experienced rider. This is an ultra performance/race engine. Longevity, engine noise, vibration and throttle sensitivity have all been compromised to reach this level of performance while fitting in a stock chassis and as such is not suitable for every situation. It is the purchaser's responsibility to consider the suitability for their application. Engine noise and damage from abuse is not covered under warranty.



310-0737

FITMENT

- 1999-2006 Harley-Davidson® touring models
- 1999-2005 Harley-Davidson® Dyna® models

FEATURES AND BENEFITS

- Fits in stock chassis – no cutting or frame modifications
- S&S B3 cylinder heads CNC machined with 2 bolt exhaust flanges
- 3 Piece Flywheels
- S&S high flow oil pump and cam cover
- S&S 635 Easy Start Gear Drive Cams and S&S 1.725:1 rocker arms for .674" total lift.
- S&S Premium High Performance Tappets

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kit 143 Cover
See page 135



110-0120



110-0119



170-0288

T143 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty Period	Finish	Part #
1999-'06 Touring Models 1999-'05 Dyna® Models	143"	4.425"	4.625"	635	S&S Forged Flat Top	10.47:1	1 year	WBlack	**310-0737**
								Silver	**310-0738**
1999-2006 bt *(except '06 Dyna®)*								Black Edition	**310-0833**

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REQUIRES OIL LINE INSTALLATION KIT. See chart.

INSTALLATION PARTS

Description		Part Number
Oil Line Kit	Touring models	**31-0425**
	Dyna® models	**31-0424**
Super G Carburetor Kit w/air cleaner*		**110-0120**
Super D Carburetor Kit w/air cleaner*		**110-0119**

**Air cleaner assemblies included with these carburetor kits do not include air cleaner covers. Stock 1999-later air cleaner or any S&S Stealth air cleaner covers may be used.*

Description		Part #
70mm Induction Kit	2002-'05 Dyna® & Touring Models	**170-0289**
	2006-'07 Touring Models	**170-0288**
Exhaust Flange Starter Kit		**550-0216**

NOTE

No fuel system available for 1999-2001 magnetti Morelli EFI models

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T-SERIES LONG BLOCK ENGINES

FOR 1999-'06 HARLEY-DAVIDSON® BIG TWINS EXCEPT 2006 DYNA® MODELS



FEATURES

- No fuel system or ignition systems included - Use what you already have
- Special Head machining – Fits stock length intake manifolds (S&S manifold size 410)
- Stock style breathing system – stock breather spacing and function is compatible with stock and most performance air cleaners
- Same quality components and performance as our complete T-Series engines
  - New S&S cylinders that look more like stock
  - Super Stock heads and crankcases
  - S&S high flow oil pump and cam cover
  - S&S Easy Start cams

OPTIONS

- T111 – 111 cubic inches, perfect sport-touring engine
- T124 – 124 cubic inches, hot-rod performance, 640 Easy Start Cams
- T124LC – 124cubic inches with slightly lower compression, 585 Easy Start Cams

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kits. See page 133

Not for 1999-2001 Magneti Marelli® EFI models

S&S® T124 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty Period	Finish	Part #
1999-'06 bt *(except '06 Dyna®)*	124"	4⅛"	4⅝"	640	S&S Forged Flat Top	10.8:1	2 Years	Silver	**310-0281**
								WBlack	**310-0282**
								Black Edition	**310-0831**
	124"	4⅛"	4⅝"	585	S&S Forged Dished	10.2:1	2 Years	Silver	**310-0327**
								WBlack	**310-0326**
								Black Edition	**310-0832**
CTO				Specify		Specify	Varies	Specify	**319-0010**

S&S® T111 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Pistton Type	Compression Ratio	Warranty Period	Finish	Part #
1999-'06 bt, *(except '06 Dyna®)*	111"	4⅛"	4⅛"	585	S&S Forged	9.8:1	2 Years	Silver	**310-0279**
								WBlack	**310-0770**
								Black Edition	**310-0830**
CTO				Specify		Specify	Varies	Specify	**319-0010**

REQUIRES OIL LINE INSTALLATION KIT. See chart.



31-0424

OIL LINE INSTALLATION KIT

Fitment	Part #
1999-'06 FLT Models	**31-0425**
1995-'05 Dyna® Models	**31-0424**

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Year Group	Bore Size	Part No
T-Series	1999-'06	4⅛"	**310-0335**

NOTES

ENGINE MANAGEMENT AND FUEL SYSTEMS

Cylinder heads on T-Series long block engines are 1999-'05 style. Owners of 2006 models will need to purchase a set of 1999-'05 style, offset intake flanges such as S&S #106-3516.

Cylinder heads on these engines are specially machined to compensate for the non-stock cylinder length. As a result, they are compatible with manifolds and throttle bodies with stock length intake runners. In addition, the breather vent bolt locations have been adjusted so they are in the stock location, so stock style air cleaner Backplates will bolt up to these engines.

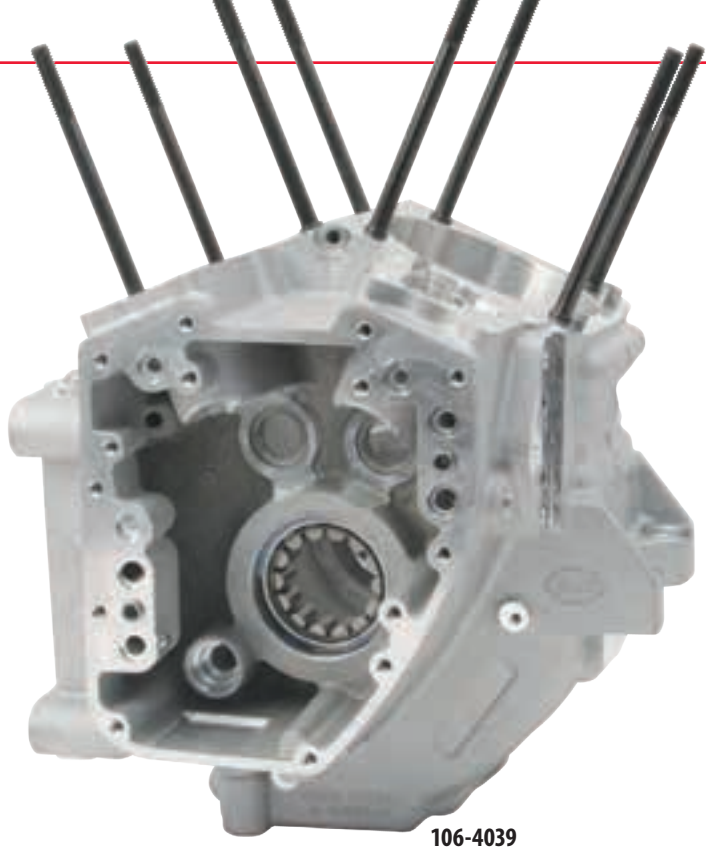
2002-'06 EFI engines equipped with Delphi® fuel injection will require a performance tuner such as the DynoJet Power Vision® tuner, Harley-Davidson® Race Tuner. The stock single bore throttle body can not supply adequate air for these large displacement engines. An S&S 58mm throttle body is highly recommended for maximum performance.

Carbureted engines will require a performance ignition module that allows adjustments to the advance curves. The stock ignition module is not adjustable, and use of the stock module will likely result in engine damage due to knock from incorrect ignition timing.

Performance carburetors are recommended to achieve maximum performance. S&S Super E carbs are ideal for T111 engines in touring applications, but a Super G will produce more top end horsepower. S&S Super G carbs are recommended for T111 engines in performance applications, and for T124 engines in all applications.

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CRANKCASES



106-4039

FITMENT

- 1999–'06 Harley-Davidson® Twin Cam 88® A Engines *(except 2006 Dyna®)*

FEATURES AND BENEFITS

- Much stronger than stock crankcases in every aspect, extra large front motor mount for increased strength
- Large cam chest allows cam lift up to .675" without clearancing
- Timken® style sprocket shaft bearings withstand the most demanding applications
- Includes S&S crankcase breather reed valve to eliminate oil carry-over and oil scavenging problems
- Clearanced for strokes up to 5"
- All passages between the crankcase and the cam support plate are o-ring sealed
- Includes pinion and Timken® bearing

OPTIONS

- Available in stock bore, 4" bore, and 4⅛" bore versions

S&S exclusive FLUID LINE CONNECTOR US PATENT PENDING

KIT CONTENTS

- S&S crankcase
- S&S breather reed valve
- Bearings and hardware

CARB compliant EO #D-355-10

CRANKCASE FOR 1999-'06 BIG TWIN ENGINES (EXCEPT 2006 DYNA®)

Crankcase Bore Size	Silver	WBlack	Polished
Stock Bore (Stock Stud Pattern)*24596-99A 24597-99A*	**106-4039**†	**31-0172**†	–
41/8" Bore (Stock Stud Pattern)	**106-4057***	**31-0181***	–
41/8" Bore (S&S Stud Pattern)	**106-4043***	**31-0178***	**31-0179**
4.425" Bore (S&S® T143)	—	**310-0721**	
Special Order	**31-0120***	**31-0120***	**31-0120***

Use the special order part number to order crankcases with a special finish or motor mount style. **Special Order: Download the Special Order Form at sscycle.com/soforms*

†Exempt from emissions tampering regulations under CARB EO# D-355-10 when used in 1999-2006 models originally equipped with 1449cc engines

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31-0424

OIL LINE INSTALLATION KIT

Fitment	Part #
1999-'06 FLT Models	**31-0425**
1999-'05 Dyna® Models	**31-0424**

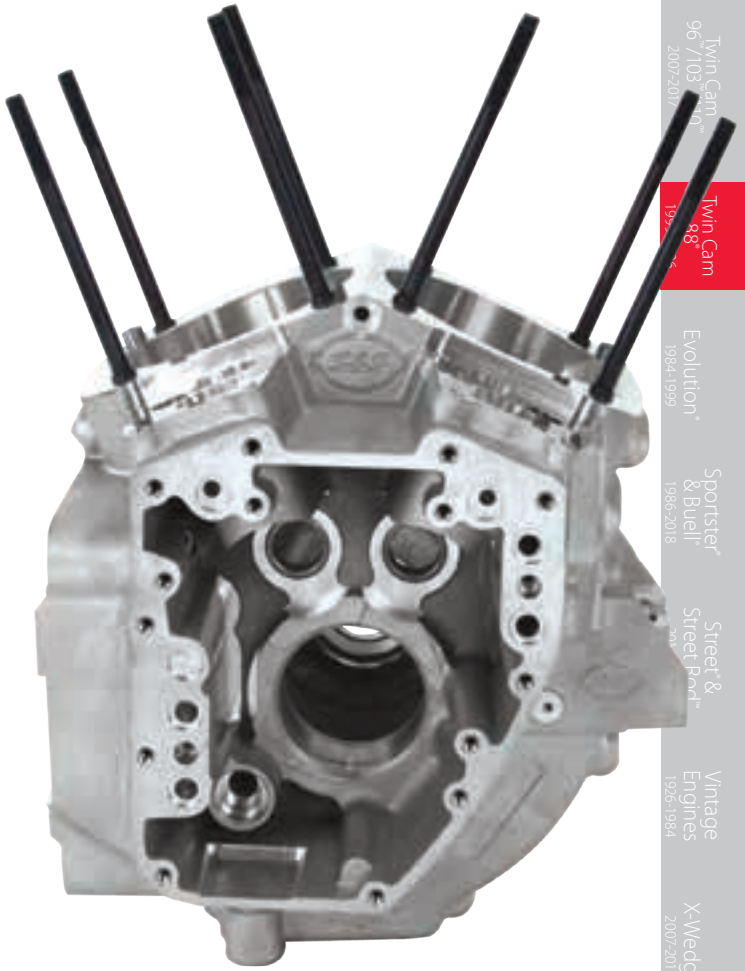
REPLACEMENT PARTS: SEE PAGE 190

NOTES

Oil line installation kit part #31-0424 is required for installation in 1999-'05 Dyna® models. This kit includes a special transmission top cover and oil lines.

Oil line installation kit part #31-0425 is required for installation in 2000-'06 FLT models. Stock transmission top cover may be used.

SPECIAL APPLICATION BIG BORE CRANKCASES



FITMENT

- 1999–'06 Harley-Davidson® Twin Cam 88® A Engines *(except 2006 Dyna®)*

FEATURES AND BENEFITS

- Cast from aircraft grade A206 aluminum, for exceptional strength, and are precision CNC machined to maintain the highest dimensional accuracy
- Can be ordered for 4.375" to 4.800" bore engines
- Cam chest on the right side has been offset .375" — *requires a special .375" longer pinion shaft*
- Deck height can be machined to the stock height of 6.000" or as high as 7.125" from the crank center line — *allows for more material and greater strength between the cylinder spigot bores*
- Optional stock cam geometry — *allows the engine builder to select from a wide variety of readily available cams*
- Optional special rotated S&S cam geometry — *improves the pushrod angles for more direct application of force to the rocker arms, hence more accurate valve actuation.* (Cases machined for this option require specially ground cams. These cams are not currently available from S&S and must be special ordered from the cam manufacturer.)
- Recommended for any racing or high performance street application

KIT CONTENTS

- Crankcase
- S&S crankcase breather valve
- All required hardware for assembly

SA BIG BORE CRANKCASES

Description	Part #
4⅜" Bore – stock geometry	**106-0505**
Special Order*	**106-0719**
Special order options: 4.600" Bore – standard stock cam geometry only or 4.800" Bore	

**Not available for Twin Cam 88B™ engines or 2006 Dyna® or any 2007-up models.*
Special order sheet is required. Download the Special Order Sheet from our website www.sscycle.com/soforms
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CRANKCASE BREATHER REED VALVES

FITMENT

- Twin Cam 88®/96™ *(except "B" engines)*
- S&S T-Series engines

FEATURES AND BENEFITS

- Improved oil scavenging and reduced oil carryover

S&S exclusive BREATHER VALVE US PATENT 6,899,066



31-2070



31-2103

CRANKCASE BREATHER REED VALVES

Oil Pump Fitment	Year Application	Part #
For Engines with Stock or S&S TC3 Oil Pump	1999-'02	**31-2070** USA
	2003-'10	**310-0742** USA
	S&S special application crankcases*	**310-0742**
For Engines with S&S gear oil pump	2003-'10 stock crankcases & 1999-'06 S&S crankcases	**310-0742**

**Spring adaptor required to accommodate the extra .375" case width of S&S Special Application big bore crankcases.*

SPRING ADAPTER AND SPACER

Fitment	Part #
Spacer (for S&S SA crankcases)*	**31-2103**

**Required to accommodate the extra .375" case width of S&S Special Application big bore crankcases.*

REPLACEMENT PARTS: SEE PAGE 218

NOTES

The crankcases breather valve for Twin Cam 88® engines was designed and developed for use with stock Harley-Davidson® or S&S gear oil pumps and tappets, and may not be compatible with some aftermarket components.

Not available for Twin Cam 88B™ or Twin Cam 96B™ engines with internal balancers.

Does not fit with Screamin' Eagle® oil pumps.

3 PIECE FLYWHEEL ASSEMBLIES

S&S exclusive 3 PIECE FLYWHEEL US PATENT PENDING

FITMENT

- 1999-'06 Harley-Davidson® big twins – Balanced and unbalanced models
- S&S T-Series Engine and Hot Set Up Kit® replacement flywheels

FEATURES AND BENEFITS

- Heat-treated 4140 material is harder and 114% stronger than stock
- Harder material, no thrust washers required – *Where stock flywheels have thrust washers, S&S flywheels have steel gripping the crankpin*
- Larger 1.671" diameter crankpin – *increased contact area and tighter press fit for a stronger joint. No welding required!*
- Integral mainshafts – *eliminates two potential points of weakness*
- Consistent balance and precision machining – *Truer flywheels and less vibration*
- Reduced mainshaft deflection at high rpm – *less vibration, reduced piston and rod side thrusting, prevents oil pump damage, fully compatible with gear drive cams*
- Capable of higher rpm – *More available power!*



320-0460

FLYWHEEL ASSEMBLIES

Engine Displacement	Stroke	Sprocket Bearing Race	1999-2006 H-D® big twin models (except 2006 Dyna® models)			2006 H-D® Dyna® models	
			Total Piston Weight	TC 88®	TC 88B™	Total Piston Weight	Part #
88, 95, 97, 100 w/ Stock or S&S® Pistons	4"	Yes*	1230	**320-0402**	**320-0396**	1230	**320-0392**
		No	1230	**320-0403**	**320-0397**	1230	**320-0393**
96, 103,CVO 103, 106 big bore, 110, 117 w/ Stock or S&S® Pistons	4 3⁄8"	Yes*	1035	**320-0360**	**320-0354**	1035	**320-0350**
		No	1035	**320-0361**	**320-0355**	1035	**320-0351**
S&S® 106 Stroker**	4 1⁄2"	No	1108	**320-0460**	**320-0454**	1108	**320-0450**
S&S® 111	4 1⁄8"	No	1035	**320-0417**	–	1035	**320-0407**
SE 120R (uses 7.575" length rods)	4 5⁄8"	No	1035	**320-0525**	**320-0527**	1035	**320-0523**
S&S® 124	4 5⁄8"	No	1035	**320-0475**	**320-0469**	1035	**320-0464**
S&S® T143	4 5⁄8"	No	1290	**320-0552**	–	–	–
Special Order	Specify	Specify	Specify	**329-0002**	**329-0002**	Specify	**329-0002**

Note - All S&S flywheel assemblies for 1999-'06 engines have connecting rods with 7.667" length and full width straight wristpin ends.

**Flywheel assemblies supplied with sprocket shaft bearing race installed are compatible with stock roller style sprocket shaft bearings. Assemblies with no race require a Timken® sprocket shaft bearing.*

***4½" stroke flywheels for 2006 Dyna® include 7.667" long connecting rods.*

NOTE

Engines with strokes over 4" may require S&S® piston oiling jets (p/n 31-2026) and piston to jet clearance notches in the piston skirt to avoid contact.

Main Bearing Note: Most S&S flywheel assemblies for 1999-'16 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999-'02 Harley-Davidson® crankcases and in all S&S crankcases for 1999-'15 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft. S&S does offer flywheel assemblies that are compatible with late roller style stock sprocket shaft bearings, but they are not recommended for very large, high performance engines.

S&S strongly recommends retrofitting 2003-'16 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999-'02 model year is also required.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines by either purchasing the stock compatible flywheels or by installing Harley-Davidson® bearing kit #24004-03B when using S&S flywheels designed for Timken bearings. This bearing kit adapts the S&S sprocket shaft so it is compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 sprocket shaft bearing. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

REPLACEMENT PARTS: SEE PAGE 192

TRYING TO IDENTIFY AN S&S® FLYWHEEL?
SEE FLYWHEEL I.D. CHART ON PAGE 548

TC3 CAM PLATE

S&S cam support plates are just what the doctor ordered when repairing a damaged engine or installing new camshafts. CNC machined from forged aluminum for excellent strength and dimensional accuracy. S&S cam support plates are available to fit 1999-2006 and 2007-later Harley-Davidson® big twin engines. We don't want to encourage bad habits so plates for 1999-2006 are not compatible with stock spring-loaded chain tensioners, and require late style hydraulic tensioners and oil pump. We suggest the S&S TC3 oil pumps be installed with S&S TC3 Cam Plate.



310-0625

FITMENT

- 1999-'06 big twins *except 2006 Dyna® models**

FEATURES AND BENEFITS

- Precision CNC machined forged aluminum
- Adjustable oil pressure regulator – adjust without removing plate from engine
- Passage plugs are removable for service
- Rebuildable - bronze pinion shaft bushing in all models and bronze cam bushings in 2007-later style
- Made in the USA!

*Not compatible with stock spring-loaded chain tensioners or stock 1999-2006 oil pumps. A 2007-later style oil pump is required for all applications. 2007-later style hydraulic tensioners are required for chain drive cams.

TC3 CAM PLATE

Fitment	Part #
1999-2006 bt *(except 2006 Dyna® models)*	**310-0623**

TC3 OIL PUMP

If motor oil is the lifeblood of an engine, then the oil pump is its heart. If your engine needs a transplant, the S&S TC3 Oil Pumps are a great solution for worn out or destroyed stock units. Common causes of stock pump failure are debris and excessive pinion shaft run out. The new S&S oil pumps are much less likely to be damaged by either. Oh, and by the way, the S&S TC3 Oil Pumps pump and scavenge way more oil than stock. While you've got that motor apart, it would be a good time to install a forged S&S TC3 Cam Plate.



FITMENT

- 1999-'06 Harley-Davidson® big twin engines*
- 2007-'16 Harley-Davidson big twin engines

FEATURES AND BENEFITS

- Consistent pressure and reliable scavenging
- Separate scavenge sections for flywheel cavity and cam chest – *no interference*
- Screens and magnetic traps help protect the scavenge rotors from debris
- Special design allows S&S pumps to tolerate more pinion shaft run out without damage
- Made in the USA!

TC3 OIL PUMP

Fitment	Part #
1999-2006 bt *except 2006 Dyna® models*	**310-0640**

*S&S oil pumps for 1999-'06 are not compatible with S&S cam support plates for 1999-'06 engines. All S&S cam support plates are machined for 2007-later style oil pumps.

TC3 OIL PUMP & CAM PLATE KITS



TC3 OIL PUMP AND CAM PLATE KITS

Fitment	Part #
1999-2006 bt *(except 2006 Dyna® models)*	**310-0731**

REPLACEMENT PARTS: SEE PAGE 102 & 103

OIL PUMPS

FITMENT
- 2002 - '06 carbureted & EFI big twins *(except 2006 Dyna®)*
- May be used in 1999-'01 engines with aftermarket ignition or EFI *(see note below)*
- Fits all engines built with S&S T-Series crankcases

FEATURES AND BENEFITS
- Replaces stock oil pump, cams, cam support plate, bearing plate, bearings and decorative gearcover
- Uses drive gears of special S&S gear drive cams to pump oil
- Oil pressure is regulated after the oil filter – *more consistent pressure to the engine*
- Increased scavenging capacity results in:
- Less oil in the crankcase
- Less power loss
- Less heat build up
- Less oil carryover
- Excess oil from pressure control valve is filtered – *longer pump life*



OIL PUMPS WITHOUT CAMS

Gearcover Finish	Part #
Chrome	**106-3887**

REPLACEMENT PARTS: SEE PAGE 196

NOTES

Requires installation of gear drive cams, see chart.

The S&S oil pump is not compatible with 1999-'01 engines with stock fuel injection or ignition systems which require a cam position sensor in the gearcover. May be used in 1999-'01 engines if an aftermarket ignition or fuel injection system, that does not require a cam position sensor, is installed.

GEAR DRIVE CAMS FOR USE WITH S&S GEAR OIL PUMPS FOR 1999-'06 BIG TWIN *(EXCEPT 2006 DYNA® MODELS)*

Cam*	Easy Start Cams with Drive Gears Part #
570GP	**106-4751**
585GP	**106-4771**
635GPE	**330-0405**
640GP	**106-4781**
675GP	**106-5215**

**See Camshafts starting on 157 for further information on cam recommendations for different applications*

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BILLET GEARCOVER

FITMENT
- 1999-'12 Twin Cam 88®, 96™ and 103™



31-6516

BILLET GEARCOVER

Finish	Part #
Polished	**31-6516**
Chrome	**106-3774**

NOTES

The S&S gearcover is not compatible with 1999-'01 engines with stock fuel injection or ignition systems which require a cam position sensor in the gearcover.

May be used in 1999-'01 engines if an aftermarket ignition or fuel injection system, that does not require a cam position sensor, is installed.

BILLET OIL FILTER BRACKET

FITMENT
- 1999-'06 big twin *(except 2006 Dyna® models)*



31-6510

BILLET OIL FILTER BRACKET

Finish	Part #
Polished *26261-99*	**31-6510**
Chrome	**106-3884**

CYLINDERS WITH PISTONS KIT

- Cylinder w/piston kits include fitted pistons and cylinders, head gaskets, base, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included.



S&S® 4⅛" BORE CYLINDERS WITH PISTONS SPECIFICATIONS

Displacement	Stroke	Cylinder Length	Forged Piston type	Compression Ratio			
				85cc Stock heads	89cc S&S heads	91cc S&S heads	SE 95cc heads
124"	4.625	5.013	Flat Top	11.4:1	11.0:1	10.8:1	10.5:1
124" Dish	4.625	5.013	10.9 cc dish	10.5:1	10.2:1	10.0:1	9.7:1
117"	4.375	4.888	Flat Top	10.9:1	10.5:1	10.3:1	10.0:1
117" Dish	4.375	4.888	10.9 cc dish	10.0:1	9.7:1	9.6:1	9.3:1
111"	4.125	4.763	Flat Top	10.3:1	9.9:1	9.8:1	9.4:1

4⅛" BORE CYLINDERS WITH PISTONS FOR 124", 117", & 111" KIT

Displacement	Bolt Pattern	Silver	WBlack
124" Hot Set Up - Stock Heads	Stock	**910-0215**	**910-0223**
124" Hot Set Up - S&S 89cc/91cc Heads	Stock	**910-0214**	**910-0222**
124"	S&S	**910-0216**	**910-0226**
117"	S&S	**910-0217**	**910-0227**
111"	Stock	**910-0017**	**910-0025**
111"	S&S	**910-0218**	**910-0277**

S&S® 4" BORE BOLT-IN SIDEWINDER® KITS SPECIFICATION CHART

Displacement	Bore	Stroke	Cylinder Length	Piston Type	Dome Volume			
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
100"	4.00"	4.00"	4.937"	Forged	8.75 pop up	10.8:1	10.5:1	10.1:1

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS

Displacement	Silver	WBlack
100	**910-0642**	**910-0646**

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S&S® 98" & 97" BIG BORE KIT SPECIFICATION CHART

Displacement	Bore	Stroke	Cylinder Length	Forged Piston Type	Bolt Pattern	Compression Ratio (with provided .045" head gasket)					
						83cc Heads	79cc S&S Heads	85cc Heads	87cc Heads	89cc S&S Heads	90cc Heads
98"	3.937"	4.00"	4.937"	10cc Dome	Stock	10.5:1	n/a	10.3:1	10.1:1	n/a	9.8:1
97"*	3.927"	4.00"	4.937"	3cc Dome	Stock	n/a	9.7:1	10.3:1	n/a	9.4:1	n/a

**For an additional .2 bump in compression, order .030" thick head gaskets #900-0605 (2 pack). Remember to check your clearances.*

BIG BORE KIT

Displacement	Bolt Pattern	Silver	WBlack
98" Big Bore Kits	Stock	**910-0482**	**910-0481**
97" Big Bore Kits	Stock	**910-0201**	**910-0205**

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CYLINDERS WITH PISTONS KIT CON'T

S&S® 3⅞" BORE CYLINDERS WITH PISTONS SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Forged Piston Type	Bolt Pattern	COMPRESSION RATIO		
					85cc Stock Heads	79cc S&S Heads	89cc S&S Heads
106" Stroker	4½"	4.937"	Forged	Stock	10.1:1	9.8:1	10.8:1
95"	4"	4.937"	Forged	Stock	9.7:1	10.3:1	9.9:1

3⅞" BORE CYLINDERS WITH PISTONS FOR 106" & 95" KIT

Displacement	Bolt Pattern	Silver	WBlack
106" Stroker	Stock	**910-0199**	**910-0203**
95"	Stock	**910-0200** USA	**910-0204** USA

ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-7506***
**Special Order: Download the Special Order Form at sscycle.com/soforms*

NOTES

S&S® highly recommends installing a performance cam for easier starting and better engine performance.

S&S high flow cylinder heads will provide further horsepower gains.

These kits require tuning. When used on EFI models, S&S recommends Dynojet® Power Vision flash tuner or S&S VFI, for more information, see page 183.

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CYLINDERS

- Individual cylinders and cylinder sets without pistons are bored slightly under nominal size and are not honed.



4.425" BORE CYLINDERS WITHOUT PISTONS FOR T143

Displacement		Silver	Black
143"	Set	**910-0568**	**910-0565**

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4⅛" BORE CYLINDERS

Displacement		Silver	WBlack	Polished
124" Hot Set Up	Set	**910-0234**	**910-0255***	–
124"	Set	**910-0237**	**910-0264**	**910-0249**
117"	Set	**910-0240**	–	–
111"	Set	**910-0243**	**910-0281**	–

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3⅞" BORE CYLINDERS

Displacement		Silver	WBlack
106" Stroker	Set	**910-0207** USA	**910-0208** USA

3.937" BORE CYLINDERS

Displacement		Silver	WBlack
98"	Front or Rear	**910-0478**	**910-0477**

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3.927" BORE CYLINDERS

Displacement		Silver	WBlack
97"	Front or Rear	**910-0210**	**910-0212**

ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-7506***
**Special Order: Download the Special Order Form at sscycle.com/soforms*

CYLINDER REPLACEMENT PARTS: SEE PAGE 200

PISTON KITS

• Piston kits include set of pistons, rings, wristpins, and clips



920-0046
Dish topped



106-3491A
Flat topped

4.425" BORE FORGED PISTON KITS FOR T143

Displacement	Deck Height	Stroke	Standard	+.020"
T143	1.167"	4⅝"	**920-0106**	**920-0111**

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4⅛" BORE FORGED PISTON KITS FOR HOT SET UP KITS®

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"
124" & 117" Stock Heads 10cc Dished	1.050"	Up To 4⅝"	**920-0046**	**920-0047**	**920-0050**	**920-0053**
124", 117" & 111" -Stock or S&S Heads Flat Top	1.050"	Up To 4⅝"	**106-3491A**	**106-3872A**	**106-3964A**	**920-0094**

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

4" BORE FORGED PISTON KIT

Displacement	Deck Height	Dome Height	Stroke	Standard
100	1.270	8.75cc	4"	**920-0129**

3.937" BORE FORGED PISTON KIT

Displacement	Deck Height	Dome Height	Stroke	Standard
98"	1.270"	10cc	4"	**920-0101**



92-1210
106" Stroker



92-1200
95"

3.927" BORE FORGED PISTON KITS

Displacement	Deck Height	Dome Height	Stroke	Standard	+.010"
97"	1.270"	3cc	4"	**106-3688**	**106-4414**

3⅞" BORE FORGED PISTON KITS

Displacement	Deck Height	Stroke	Standard	+.005"	+.010"	+.020"
106" Stroker	1.020"	4 ½"	**92-1210**	**92-1214**	**92-1211**	**92-1212**
95"	1.270"	4"	**92-1200**	**92-1204**	**92-1201**	**92-1202**

NOTE

S&S' 3⅞" pistons for 95" kits and 4⅛" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0005" for correct clearance.

S&S' 3.937" & 3.927" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002" - .0025" close clearance for street applications or .0032" - .0045" loose clearance for immediate competition use.

REPLACEMENT PARTS FOR PISTONS

PISTON RINGS, CHROMOLY FACED

Bore	Standard	+.005"	+.010"	+.020"	+.030"
4.425"	**940-0043**	–	–	**940-0044**	–
4⅛"	**940-0014**	–	**940-0012**	**940-0013**	**940-0017**
3.937"	**940-0032***	–	–		–
3.927"	**106-3709A**	–	**106-4422A**		–
3⅞" for 106" Stroker	**94-1295X**	**94-1299X**	**94-1296X**	**94-1297X**	–
3⅞" for 95" Kit	**94-1290X**	**94-1294X**	**94-1291X**	**94-1292X**	–
4"	**940-0056†**	–	–		–

Only includes one set of rings.

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REPLACEMENT PISTON WRISTPINS

Description		Part #
Wristpin	For 4.425" Pistons	**940-0037**
	For 4 ⅛" Pistons (92-1550 Series)	**94-9277**
	For 4 ⅛", 3 ⅞", 3.927" Pistons	**106-1052**
	For 3.937" Pistons	**940-0033**

REPLACEMENT PISTON KEEPERS

Description		Part #
Keeper	*each*	**94-9278-S**
	2 pack	**94-9278-2**
	4 pack	**106-2304**
Keeper for 4.425"	*each*	**94-9278-S**
Keeper For 3.937" & 4"	*2 pack*	**940-0034**

POWER PACK

Bump 1999-'06 engines from 88ci to 100ci and 2007-'17 engines from 96ci or 103ci to 110ci with the new S&S 4" big bore kit. The kit also includes matched cams, cam plate, oil pump and everything else a high performance big inch engine needs to reliably make serious power.



FITMENT

- 1999-06 big twin except 2006 Dyna® models

FEATURES AND BENEFITS

- Largest big bore kit available without doing crankcase mods
- Upgrade Twin Cam 88 to 100 cu inches
- Cylinders fit to pistons–No machining required
- All parts required to upgrade to gear drive cam or hydraulic tensioners
- Engineered package to deliver the best bolt-in performance available

POWER PACKAGE KIT

Fitment	Finish	Cam	Drive	Part #
1999-'06 *except '06 Dyna®*	Silver	585CE	Chain	**330-0662**
1999-'06 *except '06 Dyna®*	Silver	585GE	Gear	**330-0663**
1999-'06 *except '06 Dyna®*	Black	585CE	Chain	**330-0664**
1999-'06 *except '06 Dyna®*	Black	585GE	Gear	**330-0665**

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NOTES

1999-'04 engines will require the additional purchase of valve springs pn 900-0593

Pinion shaft runout must be less that .003" to use gear drive cams

Kit not available to fit '06 Dyna® models but parts may be purchased separately.

Not for use with S&S 79cc Cylinder Heads.

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CAMSHAFT OVERVIEW

OES: Original Equipment Specification (OES). A bolt-in replacement cam with stock cam timing is designed for riders with stock engines. Does not require tuning. Bolt-in stock. Equivalent to H-D® A-Grind

505C: Bolt-in cam, low-end torque and mid-range horsepower. Good for heavy bikes. Stock comp. ratio. Compatible with stock valve springs. Range: Idle to 5,000 rpm

509: Designed as a bolt-in, high torque cam for 1999-'06 models. 180 psi cranking compression, no need for compression releases. For 88 CID engines with stock compression ratio. Idle-4500 rpm. Bolt-in torque.

510: Designed as a bolt-in cam for 88, 95, and 96 CID engines with compression ratios below 9.7:1, it is primarily intended for use with stock, un-ported heads. 3000-5500 rpm. Bolt-in overall.

551: Designed for engines with 96 to 106 CID and 9:1 to 9:9 compression this cam set designed for stock or mildly modified touring bikes. 551 cams are not recommended for compression ratios of 10:1 or greater. Greatly improves low-end and midrange torque, strongest from idle-4000rpm.

570: Designed for 88 to 103 CID engines with compression ratios between 9:1 and 10:1 this cam will provide a nice power increase across the entire power band. 3200-5700 rpm. Excellent bolt-in for overall power on 103".

583: Optimized for use in the Softail®/Dyna® lines, this cam makes horsepower and torque that you can feel all the way through the rpm range, making the most power right where you need it:1500–5000rpm. 583 cams are not recommended for enginess having comression ratios greater than 10.1:1

585: Designed for 88 to 95 CID engines with compression ratios from 9.7:1 to 10.5:1 and 100 to 124 CID engines from 9:1 to 10:1 compression. Provides massive horsepower and torque increases starting at 3000rpm and holds steady all the way to redline. 3500-6000 rpm for 88" - 103" engines and 2500-5500 for larger engines.

625: Cam set designed for 95" or larger engines with compression ratios between 10.0 and 10.75:1. 3000-6000 rpm.

MR103: Designed as bolt-in cams for 103 CID engines with stock 9.7:1 compression ratio up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. More power across the rpm range best results form 2500-5500 rpm. Bolt-in.

HP103: Designed as bolt in cams for engines with 103 and stock 9.7:1 compression up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. Best power in the higher rpm range, 3000-6000 rpm. Bolt-in.

635 H.O.: High lift cam for modified engines with 106" or greater displacement and compression ratios between 10.0:1 and 11.0:1. Works well with stock, un-ported heads, but S&S CNC ported heads are recommended. Best power from 3000-6000 rpm. This is not a bolt-in cam set. High-lift springs and clearance checks are required.

640: Used in S&S T124 engines, this cam makes horsepower! Intended for engines of 95 CID or more w/ compression ratios between 10.5:1 and 11.5:1. 3000-6000 rpm.

675: A high lift monster, this cam set is designed for 120" or larger engines with at least 11:1 compression ratio. 4500-6500 rpm.

CARB compliant
EO #D-355-14

NOTE

Stock valve springs in 1999-'04 big twin models can handle cams with valve lifts as high as .515". Stock valve springs in 2005-up engines can accommodate valve lifts up to .590".

SPECIFICATIONS OF S&S® CHAIN & GEAR DRIVE CAMSHAFTS FOR 1999-UP BIG TWINS

Cam Name	Bolt-In	Valve Timing (open/close)		Valve Duration		Valve Lift	Centerline		Lift @ TDC		APPLICATION CROSS REFERENCE		
		Intake	Exhaust	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	H-D® Screamin' Eagle®	Andrews®	Most Fitting
		Open BTDC/ Close ABDC	Open BBDC/ Close ATDC										
OES	●	2˚/34˚	36˚/4˚	216˚	220˚	.475"	106˚	106˚	.060"	.060"	A-Grind		
505C	●	20°/36°	47°/15°	236°	242°	.505"	98˚	106˚	.185"	.157"			
509	●	18˚/18˚	46˚/11˚	216˚	237˚	.509"	90˚	107.5˚	.174"	.140"			
510	●	20˚/38˚	52˚/20˚	238˚	252˚	.510"	99˚	106˚	.187"	.178"			
551**		17°/19°	41°/17°	216°	238°	.550"	91˚	102˚	.178"	.170"	SE-203/255	21H/26H	Touring
570		20˚/40˚	55 ˚/20˚	240˚	255˚	.570"	100˚	107.5˚	.187"	.179"	–	54H	All Big Twin
583		5˚/18˚	58˚/24˚	203˚	262˚	.583"	96.5˚	107˚	.113"	.206"	SE-203/255	21H/26H	Softail®/Dyna®
585		20˚/45˚	60˚/20˚	245˚	260˚	.585"	102.5˚	110˚	.186"	.179"	SE-211/251/257	31H/32H/ 50H/55H/67H	All Big Twin
625		20˚/55˚	60˚/20˚	255˚	260˚	.625"	107.5˚	110˚	.189"	.184"	SE-258/260	60H	All Big Twin
635		19.5°/43.5°	58.5°/37.5°	243°	276°	.635"	102°	100.5°	.186"	.284"			
MR103		13°/33°	50°/22°	226°	252°	.585"	104°	104°	.172"	.177"			
HP103		20°/49°	45°/26°	249°	251°	.575"	102.7°	101.5°	199"	.206"			
640		25˚/60˚	65˚/25˚	265˚	270˚	.640"	107.5˚	110˚	.228"	.214"	SE-264	59H	All Big Twin
675		25˚/64˚	70˚/25˚	269˚	275˚	.675"	109.5˚	112.5˚	.235"	.205"	–	64H	Race

**Note: Although several cam grinds were used in stock engines from 1999-'06, the timing specs of the 475G cams is most similar to cams used in 1999-'03 EFI engines.*

***551 cams are not recommended with compression ratio of 10:1 or higher.*

All reference to H-D® and Andrews® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown. Use of brand names such as Harley-Davidson® Sportster® are also for reference only.

CAMSHAFT OVERVIEW CON'T

S&S EASY START CAMS

Start any engine regardless of displacement or compression ratio, with a stock starter. Easy Start Cams from S&S® Cycle make hard starting obsolete for 1999-'12 big twins. Available in economical chain drive and rock-solid gear drive versions. Don't get caught "dead" without them!

FEATURES AND BENEFITS

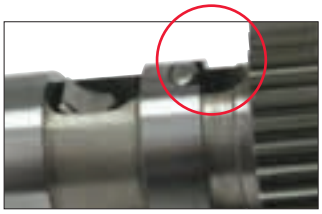
- Start any engine with a stock starter
- Save your starter and battery!
- Reliable – *tested for 100,000 accumulative starts and over 150,000 road miles without breakage or compression release failure!*
- Automatic – *no buttons to push*

OPTIONS

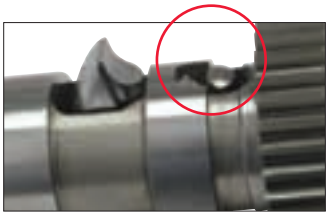
- Chain drive or gear drive *(See the following pages for part numbers)*

HERE'S HOW IT WORKS

Each of the two exhaust cam lobes are equipped with a spring loaded compression release lobe on the "heel" of the cam at the point where the valve would normally be fully closed. The lobe holds the exhaust valve open slightly at cranking speed. This releases some of the compression, making the engine much easier to crank. Once the engine starts, and rpm increases, the compression release lobe is centrifugally retracted and the engine runs normally, with full compression, and without any loss in performance. This allows a stock starter and battery to start nearly any engine.



The compression release lobe reduces compression until the engine starts.



Increased rpm causes the compression release lobe to be centrifugally retracted so the engine runs normally.

GEAR DRIVE CAM KITS



FEATURES AND BENEFITS

- Improves valve timing accuracy by eliminating timing chain lash
- Easy Start Cams allow stock starter to start any engine
- No tensioner shoes to wear out or fail

OPTIONS

WHICH S&S GEAR DRIVE CAM KIT TO ORDER?

- If updating a stock chain drive system, it's easiest to order a complete kit. Includes:
  - Camshafts with inner gears
  - Outer cam drive gear kit
  - Camshaft installation kit
- If replacing cams in an engine already equipped with S&S gear drive cams, order cams with inner gears and reuse the existing outer gears. Camshaft installation kit for the appropriate model year is recommended.
- If installing a set of gear drive cams from another manufacturer, order S&S cam gear kits for the appropriate model year. Each kit provides the inner cam gear as well as an outer cam gear. Camshaft installation kit for the appropriate model year is recommended.

CARB compliant
EO #D-355-14

GEAR DRIVE CAMS FOR 1999-'06 MODELS *(EXCEPT 2006 DYNA®)**

Cam Name				Standard	
	Complete Kit	Cams w/Inner Gears		Complete Kit	Cams w/Inner Gears
	Stock Oil Pump	Stock Oil Pump	S&S gear oil pump	Stock Oil Pump	Stock Oil Pump
OES	–	–	–	106-4033†	106-4385†
509	–	–	–	330-0017	330-0018
510	–	–	–	33-5177	33-5174
551	106-5442	106-5441	–	330-0100	330-0099
570	106-5243	106-5242	106-4751	33-5178	33-5166
583	106-5859	106-5858	–	330-0107	–
585	106-5247	106-5246	106-4771	33-5179	33-5168
625	106-5251	106-5250	–	33-5180	33-5170
MR103	330-0466	330-0467	–	330-0462	330-0463
HP103	330-0452	330-0453	–	330-0448	330-0449
635 H.O.	330-0438	330-0439	330-0405	330-0432	330-0435
640	106-4840	106-4839	106-4781	33-5181	33-5172
675	106-5255	106-5254	106-5215	–	33-5237

**2006 Dyna® install kit is in Section 2.*

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†Exempt from emissions tampering regulations in 1999-2006 applications originally equipped with H-D? "A" grind camshafts under CARB EO# D-355-14

NOTES

Pinion shaft run-out must be checked before installing S&S® gear drive cams. Gear Drive cams should only be used in engines with pinion shaft runout of no more than .003"

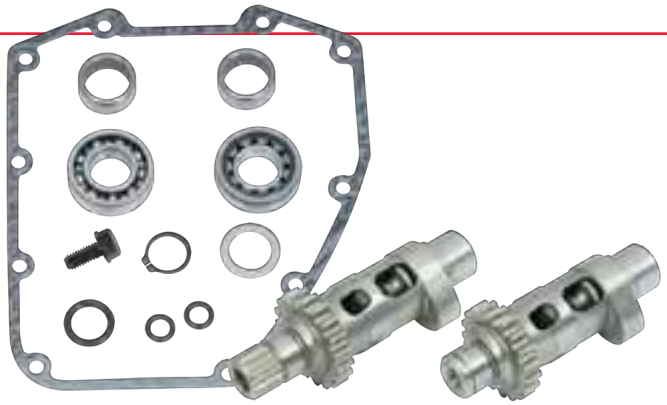
A hydraulic press and other professional tools are required to install S&S gear drive cams. Additionally, material must be removed from the inner surface of the stock gearcover. The stock crankcase will require clearancing for S&S .625", .640", and .675" lift cams. S&S recommends that gear drive cams be installed by a professional mechanic.

New cam bearings and a new gearcover gasket are required to complete cam installation. Gear drive cams for 1999-' 06 models require the use of ball bearing style cam bearing rather than the stock roller bearing. Roller bearings have more internal clearance which can cause excessive gear lash and increased noise. The correct parts are provided in S&S Camshaft Installation Kit, part #106-5896.

Due to the inherent characteristics of gear drives, you may experience more valve train noise with gear driven cams. Oversized and undersized gears are available to help achieve correct gear lash. We have found that with 160 lb. of valve seat force, the S&S gear drive cams will perform well up to 6200 rpm. If higher rpm is anticipated, valve springs that provide higher seat force should be used.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

CHAIN DRIVE CAM KITS



FEATURES AND BENEFITS

- Increase performance at an affordable price
- Quick installation – reuse many stock components
- Easy Start Cams allow stock starter to start any engine

KIT CONTENTS

- Cams
- Installation Kit: gearcover gasket, bearings, retaining ring, o-ring, thread lock
- Instructions

NOTES

If OES, 509 or 510C cams are used with the stock chain drive system in Twin Cam 88® engines, it is recommended to use cylinder heads with stock valve springs or performance valve springs with no more than 160 lb. of seat force. For more demanding applications, we recommend the S&S gear drive cams.

When using 1999-'06 chain drive cams for lifts over .510", S&S strongly recommends that the stock chain drive be upgraded to the S&S gear drive or to the H-D® #25284-08 or #25284-11 hybrid plate. This kit updates the problematic spring loaded chain tensioners to reliable hydraulic tensioners and also upgrades the oil pump.

551 and 583 cams are not recommended with compression ratio of 10:1 or higher.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

CHAIN DRIVE CAM KITS FOR 1999-'06 MODELS *(EXCEPT 2006 DYNA®)*

Cam	Standard	Easy Start
OES	**330-0400**	–
505	**330-0374**	–
509	**330-0016**	–
510	**33-5182A**	–
551	**330-0002**	**106-5293**
570	**330-0003**	**106-5296**
583	**330-0004**	**106-5289**
585	**330-0005**	**106-5299**
625	**330-0006**	**106-5302**
MR103	**330-0456**	**330-0459**
HP103	**330-0442**	**330-0445**
635 H.O.	**330-0426**	**330-0429**
640	**330-0007**	**106-5305**

**2006 Dyna® cams are in Section 2.*

CAM RELATED PARTS



33-4275

CAM GEAR DRIVE KITS

Fitment	Part #
1999-'06 bt	**33-4275**

(Includes front and rear inner cam gears, pinion gear, and outer cam gear)



33-4276

OUTER CAM DRIVE GEAR KIT

Fitment	Part #
Fits 1999-'06 bt	**33-4276**



33-4271P

HARDWARE PACK FOR OUTER CAM GEAR

Description	Part #
Hardware Pack, Fits 1999-up bt	**33-4271P**
Replacement Key	**106-1348**



33-5212

HEAVY DUTY CAM BEARING PLATE

Fitment	Part #
Fits 1999-'06 bt	**33-5212**



31-4080

CAM NEEDLE BEARINGS ASSEMBLIES

Fitment	Part #
Inner Cam Bearing 1999-'06 bt *(except 2006 Dyna®)* USA *9198*	**31-4080**

REPLACEMENT GEARS, OVERSIZED & UNDERSIZED

Description		Fitment	Part #
Cam Drive Gear Set		1999-up	**33-4293**
Outer Rear Cam Drive Gear Only		1999-'06 *(except '06 Dyna)*	**106-4882**
Inner cam gear, Front or Rear		1999-'06 *(except '06 Dyna)*	**330-0550**
Rear Inner Cam Gear, Undersized		1999-'06 *(except '06 Dyna)*	**330-0551**
Rear Inner Cam Gear, Oversized		1999-'06 *(except '06 Dyna)*	**330-0552**
Pinion Gears	Standard Size	1999-up	**33-4160**
	Undersized		**33-4160X**
	Double Under		**33-4160XX**
	Oversized		**33-4160Z**
	Double Over		**33-4160ZZ**

Due to machining variations in the stock cam plate, oversized or undersized gears may be needed to achieve correct gear lash.

REPLACEMENT INSTALLATION KITS

Description	Standard
For S&S Chain Drive Cams	**33-5175**
For S&S Gear Drive Cams	**106-5896**

Includes a gearcover gasket, cam bearings, retaining ring, o-ring, thread lock and instructions.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

CAM CHEST UPGRADE
GEAR OR CHAIN DRIVE



FITMENT
- 1999-'06 Harley-Davdison® big twins & 2006 Dyna® models *(except 2006 Dyna® models)*

FEATURES
- Upgrade to S&S bolt-in performance chain drive or gear drive camshafts
- Upgrade 1999-'06 models to 2007-'16 style oil pump
- Improved engine performance – higher lift and optimized cam timing
- S&S Quickee pushrods – easy installation, without removing rocker covers
- Replace stock oil pump, cam support plate, cams, chain tensioners, and tappets with all new premium U.S. made S&S components
- Better, more consistent oil pressure

CHAIN DRIVE CAM CHEST UPGRADE KIT FOR 1999-'06 BIG TWINS *(EXCEPT 2006 DYNA®)*

Cam	Part #
509C Standard	**330-0540**
510C Standard	**330-0541**
551CE Easy Start	**330-0542**
585CE Easy Start	**330-0543**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.

GEAR DRIVE CAM CHEST UPGRADE KIT FOR 1999-'06 BIG TWINS *(EXCEPT 2006 DYNA®)*

Cam	Part #
509G Standard	**310-0810**
510G Standard	**310-0811**
551GE Easy Start	**310-0812**
585GE Easy Start	**310-0813**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.

NOTE

Stock valve springs in 1999-'04 big twin models can handle cams with valve lifts as high as .515". Stock valve springs in 2005-up engines can accommodate valve lifts upto .590".

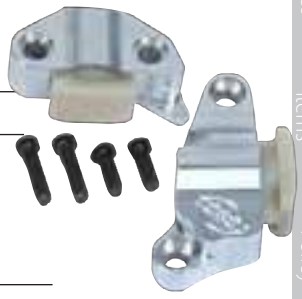
HYDRAULIC CAM CHAIN TENSIONER KIT

FITMENT
- 2007-2016 Big Twin & 2006 Dyna®
- 1999-06 models with hydraulic cam plate upgrade

FEATURES
- Thicker shoe for longer wear
- Direct chain oiling
- Larger piston
- Tighter tolerance for improved stability
- Made in USA

HYDRAULIC CAM CHAIN TENSIONER KIT

Fitment	Part #
1999-06 models with hydraulic cam plate upgrade	**330-0518**



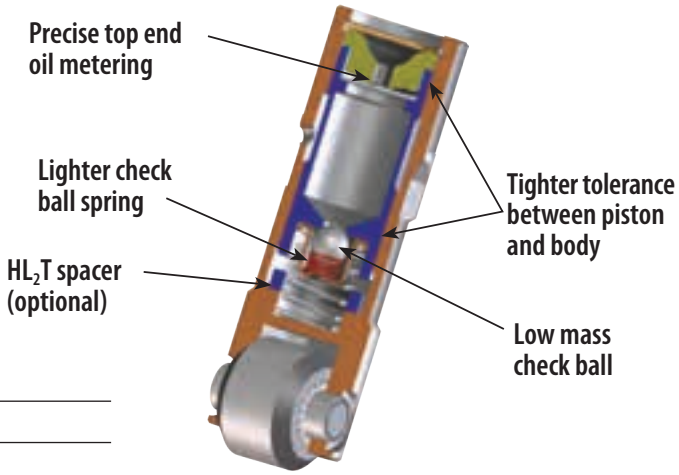
REPLACEMENT PARTS

Description	Part #
Tensioner,Asm,Inner,Body,Cam Chain	**330-0519**
Tensioner,Assembly,Outer,Body,Cam Chain	**330-0520**
Tensioner Shoe,Chain,Camshaft	**330-0521**

PREMIUM HIGH PERFORMANCE TAPPETS

FITMENT
- 1999-2017 big twin

FEATURES AND BENEFITS
- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates - fast pump up and superior high rpm performance
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring - enhances fast pump up and quiet operation
- 100% tested to ensure that leak down and top end oil flow are within specification
- Available with or without the S&S HL2T limited travel kit installed





PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL_2T kit	**330-0174**
Set of 4 tappets without HL_2T kit	**330-0175**

HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT
- 1999–'17 big twin
- S&S T-Series engines



HIGH PERFORMANCE HYDRAULIC TAPPET SETS

Description		Part #
Standard Tappet Set (4)	Without HL_2T Kit	**33-5350** *18538-99A, 18538-99B, 18538-99C*

**S&S tappets with HL_2T Kit require the use of adjustable pushrods.*

TAPPET COVERS

FITMENT
- 1999–'16 big twin
- S&S crankcases

FEATURES AND BENEFITS
- CNC billet aluminum provides extra strength and dimensional stability over a wide temperature range
- Simple to install upgrade that looks great

KIT CONTENTS
- Covers
- Gaskets
- Installation hardware


33-5601

TAPPET COVER KITS

Finish	Part #
Polished	**33-5601**
Chrome	**106-3883**

REPLACEMENT PARTS FOR TAPPET COVERS

Descriptions		Part #
Gasket	*each*	**33-5303-S** *18635-99B*
	2 pack	**33-5303-2** *18635-99B*
Screw w/ flat washer, Zinc	*each*	**50-0092-S** *4741A*
	4 pack	**50-0092P** *4741A*
Screw, Chrome	*each*	**50-0482**
Washer, Flat, Chrome	*each*	**50-7017**

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL_2T)

FITMENT
- Stock 1999–'16 big twin
- All S&S tappets

FEATURES AND BENEFITS
- Designed to limit the range of travel of the hydraulic tappet plunger - Easier starting
- Low noise and positive valve train activation
- More horsepower at higher RPMs



HYDRAULIC LIFTER LIMITED TRAVEL SPACER

Description	Part #
Set of four spacers (fits tappets with .612" I.D.)	**33-5338** *18526-89A*

Adjustable pushrods must be used with HL_2T kit in order to obtain proper plunger position. If replacing lifters in a 1999-'02 with H-D® #18538-99B, order S&S part #33-5338.

QUICKEE ADJUSTABLE PUSHRODS

FITMENT
- 1999-'17 big twin w/stock engine height +/- .050"

FEATURES AND BENEFITS
- Adjustable to accommodate all tappets and cam base circle diameters and engine heights
- Easy to install – removal of rocker box not needed
- Perfect for S&S HL_2T
- No threads on wrench flats

KIT CONTENTS
- Pushrods, chrome pushrod covers, o-rings, and cover keepers



When a Quickee adjustable pushrod is collapsed, it can easily be installed or removed from an assembled engine.



106-6051

QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Kit *(includes chrome pushrod covers, o-rings & cover keepers)*	**106-6051**
Pushrods Only*	**93-5122**

Longer keepers are required for taller than stock engines. See 164 for pushrod cover keepers.
**1984-'99 style pushrod covers are required for access to the Quickee Adjustable Pushrod adjusters in 2007-'12 big twins. See page 164 for pushrod covers.*

STANDARD ADJUSTABLE PUSHRODS



93-5095

FITMENT
- 1999 – '17 *(except '17 touring)*
- Lengths available for various displacements

FEATURES AND BENEFITS
- Adjustable to accommodate all tappets & cam base circle diameters
- Perfect for HL_2T kits

KIT CONTENTS
- Pushrods, chrome pushrod covers, tappet cover gaskets, o-rings, cover keepers

STANDARD ADJUSTABLE PUSHRODS FOR HARLEY-DAVIDSON® TWIN CAM 88®

Displacement	Engine Height	Cylinder Length	Pushrod Kit		Pushrods Only	Pushrod Covers	Cover Keepers
88", 95", 96", 103", 106"	Stock	4.937"	**93-5095**		**93-5096**	**106-1340**	**93-4100**
124"	+.096"	5.013"	–		**93-5098**	**106-1340**	**93-4115**
T143	+.2875"	5.057"	–		**930-0103**	**106-1340**	**93-4102**
Special Order	Specify	Specify	–		**93-5102****	–	**93-4109***

**Custom, extra long stainless steel 4.250", customer to cut to required length* ***Special Order: Download the Special Order Form at sscycle.com/soforms*

NON-ADJUSTABLE PUSHRODS

FITMENT
- 1999-'06 Harley-Davidson® Twin Cam 88® big twin engines

FEATURES AND BENEFITS
- Replaces stock pushrods perfectly
- 7/16" high strength chromoly steel tubing for increased strength
- Pushrods are marked with stock color code and valve position for easy installation



NON-ADJUSTABLE PUSHRODS

Description	Part #
Pushrods Only	**930-0046**

PUSHROD COVERS & RELATED PARTS

FITMENT

- 1999–'16 big twins

PUSHROD REPLACEMENT PARTS

Description		Part #
Pushrod Cover Kit *(includes top and bottom covers, cover cap, cover spring, o-rings, and spring washer for four pushrods)*		**106-1340**
Top Cover	*each*	**93-4016** *17935-66T, 17935-79B*
Bottom Cover	*each*	**93-4015** *17938-83*
Cover Cap	*each*	**93-4017** *17945-36B*
Cover Spring	*each*	**93-4018** *17947-36*
Cover Cap Washer	*each*	**50-7131** *6762B*
Pushrod O-ring Kit *(includes top, middle, and bottom o-rings for four pushrods)*		**93-4022**
Top O-ring	*each*	**50-8039** *11293, 11157, 11101, 11190*
Middle O-ring	*each*	**50-8038** *11132A*
Bottom O-ring	*each*	**50-8037** *11145A*



93-4016



93-4015



93-4017



93-4018



50-7131



50-8037



50-8039



50-8038

PUSHROD COVER KEEPER SETS FOR 2007-'16 BIG TWINS

Length	S&S Tubes	Part #
2.400"	All stock height TC 96/103	**93-4070** *17950-48*
2.500"	96", 100", 117", 103", 106" HSU	**93-4100**
2.600"	124"	**93-4101**
2.800"		**93-4115** *17950-86*
2.900"	143"	**93-4102**
3.000"		**93-4103**
3.100"		**93-4104**
3.200"		**93-4105**
3.330"		**93-4106** *17949-40, 17950-66*
3.500"		**93-4107**
3.625"		**93-4108**
4.250"*		**93-4109**

**Custom, extra long stainless steel 4.250", customer to cut to required length*



93-4101

All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

SIDEWINDER® .650" VALVE SPRINGS

FITMENT
- Twin Cam 88® big twins w/stock heads (both 7mm and 5/16" valve stems)
- All S&S Super Stock® heads (5/16" valve stems)

FEATURES AND BENEFITS
- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS
- Valve keepers, Top & Bottom collars, Springs, Shims

S&S® .SIDEWINDER .650" VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500



106-5909

SIDEWINDER .650" VALVE SPRING KITS

Description	Part #
1999-'04 (5⁄16" valve stems) *	**900-0050**
2005-'16 big twins (7mm stems)	**106-5909**

**Does not include seals*

NOTE S&S recommends roller rocker arms be used with lifts over .585"

STREET PERFORMANCE .585"

FITMENT
- Twin Cam 88® big twins w/stock heads (both 7mm and 5⁄16" valve stems)
- All S&S Super Stock® heads (5⁄16" valve stems)

FEATURES AND BENEFITS
- Single wire conical shape
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"

S&S® .STREET PERFORMANCE .585" VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.85"	135 lb.	325 lb.



900-0594

STREET PERFORMANCE .585" SPRING KITS

Description	Part #
1999-'04 big twins (5⁄16" valve stems)	**900-0593**
2005-'16 big twins (7mm stems)	**900-0594**
All S&S Super Stock Heads	**900-0595**

VAVLE SPRING REPLACEMENT PARTS: SEE PAGE 202

FORGED ROCKER ARMS



900-4065A

FITMENT

- 1999-'17 big twins *(except '17 touring)*

FEATURES AND BENEFITS

ROLLER ROCKER ARMS

- Extremely durable rollers reduce valve stem side thrusting with high lift cams
- Superior wear and fatigue resistance even in the most demanding applications
- ¾" long bushings provide 50% more bushing support area than ½" long bushings

STANDARD ROCKER ARMS

- ¾" long bushings provide 50% more bushing support area than ½" long bushings

KIT CONTENTS

- 2 front and 2 rear rocker arms

FORGED ROLLER ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms	**900-4065A** USA

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.



900-4119A

STANDARD FORGED ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms	**900-4119A** USA

New rocker arm shafts are recommended for maximum performance and rocker life.

1.725:1 RATIO ROLLER ROCKER ARMS

Description	Part #
1.725:1 Ratio Roller Rocker Arm Set	**900-4098A**
Front exhaust/Rear Intake *each*	**900-4098FA**
Rear exhaust/Front Intake *each*	**900-4098RA**



900-4098A

ROCKER ARM SHAFTS

Description	Part #
Set of 4 *17611-83B*	**90-4036** USA
Individual *17611-83B*	**90-4006** USA USA 1,2,3

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4036



90-4104

REPLACEMENT PARTS FOR FORGED ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm	**900-4065FA** USA 1,2,3
	Rear exhaust or front intake rocker arm	**900-4065RA** USA 1,2,3
Standard *17375-83A*	Front exhaust or rear intake rocker arm	**900-4119FA** USA
	Rear exhaust or front intake rocker arm	**900-4119RA** USA
Roller	Rebuild kits (rebuilds 4 rocker arms)	**90-4104**
Roller & Standard	Rocker arm bushing (¾" long)	**90-4014**

NOTES

S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift.

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.

New rocker arm shafts are recommended for maximum performance and rocker life.

The use of 1.725:1 ratio rocker arms will increase stress on cams, tappets, and pushrods. For this reason they are recommended for racing only and not for street applications.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.

CNC PORTED CYLINDER HEAD SERVICES

FITMENT

- Available for 1999-2017 big twin engines *(except twin cooled models and '17 touring)*
- Ideal for 88" - 124" engines (must use Screamin' Eagle® high flow injectors, HD #27796-08, with kits over 106")

FEATURES AND BENEFITS

- CNC machined ports for a consistent performance increase from stock heads
- Great throttle response, high velocity port without losing low RPM torque
- Assembled with performance valves and springs ready to bolt-on
- Choice of .585" or .650" lift valve springs
- Combustion chambers are available in the following volumes:
  - 83cc-Generally used for stock 88" up to 106" engine displacements
  - 85cc- Same as stock Twin Cam 88® and 96™ engine displacements
  - 87cc- Recommended for up to 117" engine displacements
  - 90cc- Generally used for 124" and up engine displacements
- Available in factory black or silver



106-5880

WATCH THE S&S CNC PORTING VIDEOS AT SSCYCLE.COM/MEDIA/VIDEOS

S&S CNC PORTING SERVICE OPTIONS

REWORK SERVICE

- Send your stock heads to S&S
- Get the same set of heads back with CNC machined ports
- The best option for heads with a special cosmetic treatment
- Allow 1 week turn-around (does not include shipping)

CUSTOM CNC PORT DUPLICATION

- S&S can digitize your port design and machine it in your heads, ask an S&S customer service rep for details

CNC PORTING SERVICE

Fitment	Part #
1999-2017 big twins *(except for twin cooled models & '17 touring)*	**106-5880**

S&S® CNC PORTING SERVICE SPECIFICATION COMPARISON

Heads	Valve Size		Max Valve Lift	Max TDC Lift		Port Flow		Chamber Volume
	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	
Stock	1.805"	1.575"	.585"	–	–	216.2 cfm	191.8 cfm	85cc
CNC Ported by S&S	1.900"	1.610"	.650"	.230"	.215"	248.6 cfm	209.7 cfm	83cc**

**Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift. Heads tested are 2006-'12 style.*

Heads	COMPRESSION RATIO								
	88"	95"	96"	97"	103"	106" Stroker	106" Big Bore	117" DD Piston	124" DD Piston
Stock	9.0:1	9.2:1	9.2:1	9.7:1	10.1:1	10.1:1	10.0:1	10.0:1	10.7:1
CNC Ported by S&S	9.2:1	9.4:1	9.4:1	9.9:1	10.3:1	10.3:1	10.2:1	10.2:1	10.9:1

***As a general rule of thumb, for every 1cc decrease in chamber volume equals a .1 increase in compression ratio.*

NOTES

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases, the customer will be notified and options will be reviewed. New, CNC ported stock heads or S&S heads are available for purchase.

Due to variations in stock cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

Fuel injection tuning required. See page 183 for information on the Dynojet® Power Vision® Tuner.

CNC porting is not currently available for Harley-Davidson® CVO engines or Screamin' Eagle® cylinder heads.

Must use Screamin' Eagle® high flow injectors, H-D #27796-08, with kits over 106"

S&S recommends using a S&S Throttle Hog throttle body when installing S&S CNC ported heads to achieve full horsepower performance potential.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

B2 HEADS WITH STOCK BOLT PATTERN

CNC PORTED B2 SPECIAL APPLICATION CYLINDER HEADS

High performance just got a lot easier and more affordable. In the past, S&S' B2 Special Application heads, that were used on the now legendary Tribute 145 engines, were often hailed as the best choice for very large displacement v-twin engines. S&S Cycle's B2 CNC ported heads are even better, providing added convenience, economy, and performance at the same time. Convenient because they now fit 2008-later bagger front motor mounts and the new two bolt exhaust-mounting flange is a lot easier to work with. Economical because riders can use stock exhaust pipes, or existing 2" header systems. The increased performance comes from the increased flow of the CNC ported intake and exhaust ports.

Kits do not include gaskets, hardware, or intake and exhaust flanges. These parts must be purchased separately. See next page.



900-0458

FITMENT

- 1999-'16 big twin engines 4⅛" bore, stock bolt pattern (in stock, off-the-shelf*)
  **S&S only stocks the late model 4⅛" bore versions as off-the-shelf items, but heads for other applications and individual front of rear replacement heads are available by special order.*
- 1999-'16 big twin engines 4⅛" bore and larger with S&S or other bolt pattern *(special order only)*
- 1984-'99 big twin engines 4⅛" bore and larger *(special order only)*
- S&S SB-Series 4⅛" bore and larger engines for 1986-'03 Sportster® models *(special order only)*
- Old style B2 replacement heads still available by special order

FEATURES AND BENEFITS

- 106cc combustion chambers
- Oval intake ports bolt up to S&S Throttle Hog 70mm throttle bodies *(08-up touring applications only)*
- Stock style breather system – compatible with stock and aftermarket air cleaners
- Large 2.200" intake and 1.800" exhaust valves
- .660" lift S&S valve springs with titanium top collars
- Machined for stock sensors – EFI ready
- Available in Wrinkle Black (WBlack) or Silver Powder coat

OPTIONS BY SPECIAL ORDER

- CNC ported intake and exhaust ports – more air, more power!
- Two-bolt exhaust flanges – Can accommodate stock exhaust headers, existing 2" headers, or build your own 2" exhaust system
- Machined for 2008-later bagger front motor mount
- Select heads for 1984-'99 or 1999-'15 big twin style, or 1986-'03 XL
- 4⅛" to 4⅜" bore sizes
- Stock 1999-up, S&S, or other cylinder stud patterns – other patterns subject to approval
- Machined with or without S&S electric compression release
- Choose from a variety of pushrod geometry machining styles
- Choose from a variety of different chamber sizes
- Individual front of rear heads available by special order
- Available in Wrinkle Black (WBlack), Gloss Black, Silver, or Natural

B2 HEADS WITH STOCK BOLT PATTERN

Finish	Part #
Silver Powder Coat	**900-0450**
WBlack Powder Coat	**900-0458**

**Head Kits include valves and valve springs. Head sets w/o valves or springs individual front or rear heads are available by special order.*

Special Order B2 Cylinder Heads	**106-6385***

**Download the Special Order Form at sscycle.com/soforms*

ADDITIONAL PARTS REQUIRED

Product Description		Part #
Special 4⅛" Bore Pistons & Ring Set	Standard	**92-1580**
	+.010"	**92-1581**
Special Length Pushrods (+.250")	For 124" engines	**93-5106**
	Stock height engines	**93-5098**
Intake Manifold	Carbureted engines	**16-3629***
	EFI engines	**N/A**
Intake Manifold Flange Kits	All B2 heads	**16-0250**
Exhaust Adaptor Kit	B2 to stock header	**550-0216**
	B2 to exisiting 2" header	**550-0217**
	Stock & 2" header	**550-0218**

**Download the Special Order Form at sscycle.com/soforms*

REPLACEMENT PARTS: SEE PAGE 106

NOTES

Heads are .230" taller than stock – requires special pushrods and/or frame clearancing or motor mount modifications

Exhaust pipe adaptor kits and other parts must be purchased separately. See "Additional Parts Required" chart.

See page 198 for replacement parts.

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SUPER STOCK® CYLINDER HEADS

FITMENT

- 1999 – '05 big twins *(2006 model year heads can be found in Section 2)*

FEATURES AND BENEFITS

- Heads can be decked up to .060" to increase compression
- 79cc heads 1.940" intake and 1.575" exhaust valves
- 89cc heads have 2.000" intake and 1.605" exhaust valves
- 91cc heads have 2.000" intake and 1.605" exhaust valves
- S&S .585" or .650" lift valve springs
- Stock Harley-Davidson® rocker boxes can be retained if S&S manual compression release or S&S Easy Start cams are used. Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers
- Stock bolt pattern heads include rocker base gaskets

OPTIONS

- With or with out compression release machining
  (Compression release machining is for S&S compression releases)
- Silver powder coat or wrinkle black (WBlack) powder coat finish

COMPRESSION RATIOS FOR S&S® SUPER STOCK® CYLINDER HEADS FOR 1999-'06 BIG TWINS

Configuration	88"	95"	97" Big Bore	103"	106" Stroker	110"	111"	117"	124"
79cc	9.1	9.6/10.3*	10.3	10.2/11.1*	10.7	10.8	–	–	–
89cc	8.3	8.7/9.3*	9.4	9.3/10.1*	9.8	9.8	–	–	–
91cc	–	–	–	–	–	9.6	9.75	10.2	10.4

**S&S pop-up piston*



106-4277



90-4120

S&S valve cover gasket kit # 90-4120 must be used with stock rocker covers. Included with Stock Bolt Pattern Super Stock® Head Kits.

STOCK BOLT PATTERN*

S&S® SUPER STOCK® CYLINDER HEAD KITS

Fitment	Chamber Volume	Manifold Surface	Compression Release Machining	Springs	Finish	Part #
1999-'05 bt	79cc		●	.650" lift	Silver	**106-4277**
				.585" lift		**900-0254**
			●	.650" lift	WBlack	**90-1293**
				.585" lift		**900-0251**
	89cc		●	.650" lift	Silver	**106-4270**
			●	.650" lift	WBlack	**90-1106**
1999-'05 bt** 4⅛" Bore	91cc		●	.650" lift	Silver	**-**
				.650" lift		**900-4272**
			●	.650" lift	WBlack	**90-1163**
				.650" lift		**900-1163**
S&S T124 Engines	91cc	+.032		.650" lift	Silver	**900-0465**
				.650" lift	WBlack	**900-0470**
S&S T111 Engines	91cc	-.064		.585" lift	Silver	**900-0475**
				.585" lift	WBlack	**900-0480**

**All stock bolt pattern Super Stock® head kits include S&S valve cover gasket kit part #90-4120 for use with stock rocker covers.*

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S&S® BOLT PATTERN

S&S REPLACEMENT CYLINDER HEAD KITS FOR S&S T-SERIES ENGINES FOR 1999-'06 BIG TWINS

Description	Chamber Volume	Compression Release Machining	Springs	Finish	Part #
S&S® T-Series Engines 4⅛" Bore	91cc	●	.650" lift	Silver	**106-4275**
		●	.650" lift	WBlack	**90-1371**

ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **90-1060*** *Call for Pricing*

**Special Order: Download the Special Order Form at sscycle.com/soforms*

TOP END GASKET KITS FOR 1999-'06 BIG TWINS

3⅞" & 3.927" Bore	4" Bore	S&S 4⅛" Bore (Graphite)	Stock 4⅛" Bore (Layered Steel)
910-0465	**90-1913**	**90-1910**	**90-1914**

Includes a set of head and base gaskets, exhaust gaskets and o-rings.

REPLACEMENT PARTS: SEE PAGE 200

NOTES

79cc heads

When 79cc stock compatible heads are used with stock H-D® pistons, TDC lifts of up to .186" for intake and .179" for exhaust and can be used without additional valve pocket clearancing. This allows the use of S&S® 510, 570, and 585 camshafts. If cams with higher TDC lifts are used, or if the heads are decked, piston valve pocket machining will be required.

79cc heads may be decked as much as .060" to increase compression. If heads are decked, piston valve pockets must be re-machined.

Moderate valve spring force in S&S Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

79cc Heads should not be used with any piston having a pop up dome.

89cc heads

If 89cc heads are used with stock pistons, valve reliefs must be machined in the pistons due to larger valve size.

89cc heads may be decked as much as .060" to increase compression. If heads are decked, valve-to-piston clearance must be checked. If stock pistons are used, valve pockets must be re-machined.

Moderate valve spring force in S&S® Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

A larger intake manifold is recommended to supplement the heads in order to let them flow to their full potential.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

91cc heads

By changing the profile and shape of the cooling fins on our heads for 4⅛" bore engines, a large reduction in the transmission of mechanical noise was found. This not only benefits our TÜV certified engines and our EPA approved engines, but our performance engines as well!

Since April 1, 2007, these redesigned heads have been installed on all S&S 4⅛" bore engines and Hot Set Up Kits.

Replacement heads of the old style are available by special order.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

MANIFOLD RECOMMENDATIONS

S&S® manifolds for 1999-'06 carbureted engines are available to fit stock CV carburetors and S&S Super E and G carbs. Note that 2006 models require a slightly shorter manifold. (See "Important Manifold Information")

S&S single bore throttle body and manifold are recommended for engines with Magneti Marelli® and Delphi® fuel injection.

S&S single bore throttle body and manifold are recommended for 2006-'12, except 2008-'12 touring models. Due to the change in manifold flange mounting bolt pattern, stock flanges and S&S seal part #16-0235 must be used. The Screamin' Eagle® 58mm throttle body/manifold may also be used on 2006-'09 engines.

We recommend the stock 50 mm throttle body or Screamin' Eagle 58mm throttle body/manifold for 2008-up touring models with Electronic Throttle Control (ETC). These engines can be tuned with the Harley-Davidson® Super Tuner package, Pro EFI Super Tuner, Power Commander® or an aftermarket EFI tuning module or software tuner.

IMPORTANT MANIFOLD INFORMATION

In 2006, Harley-Davidson® changed the bolt pattern of the flanges that connect the manifold to the cylinder heads for all big twin engines. The pattern was changed from an offset bolt pattern to a symmetrical bolt pattern, so flanges can fit either the front or rear cylinder head. In addition, the intake port was moved slightly toward the drive side of the engine, making the port-to-port distance of the intake manifold slightly shorter. S&S® heads for 2006-up big twins are machined with the symmetrical bolt pattern and relocated port to allow for the fitment of stock manifolds. In 2008, Harley-Davidson touring models were equipped with electronic throttle control (ETC). The throttle body and manifold used on these engines is a one-piece unit that contains a servomechanism to control the position of the throttle plate. S&S recommends the S&S Throttle Hog throttle body for this application. This limits the cylinder length of engines using an ETC manifold/throttle body to stock length because the ETC manifold/throttle body units are only available in stock length. However, S&S does supply specially machined cylinder heads tfor our 124" Hot Set Up Kit® for 2008 and later baggers, which allows the use of a stock length manifold on these longer-than-stock engines.

ORDERING NOTES:

- Select the cylinder head kit that is correct for your application.
- Select a gasket kit for the bore size of your engine. (Refer to "S&S Top End Gasket Kits" chart on page 169)
- Select an S&S manifold for your engine size or cylinder length and fuel system. *(Optional)*
- Select head bolt kit. (See page 171)

REPLACEMENT PARTS: SEE PAGE 200

HEAD BOLTS WITH WASHERS

HEAD BOLT-INFORMATION CHART

Length w/ Washer	Washer Thickness	Head Bolt w/Washer	Washers Only
1.690"	.250"	**93-3028**	**50-7091**
1.840"	.150"	**93-3027**	**50-0418-S**
1.920"	.250"	**93-3036**	**50-7091**
2.070"	.150"	**93-3031** USA	**50-0418-S**
2.220"	.250"	**93-3038**	**50-7091**
2.370"	.150"	**93-3032**	**50-0418-S**
3.134"	.250"	**93-3029**	**50-7091**
3.284"	.150"	**93-3030** USA	**50-0418-S**
3.501"	.250"	**93-3037***	**50-7091**
3.651"	.150"	**93-3033***	**50-0418-S**

**Drilled & tapped deeper to allow shortening for custom lengths.*



HEAD BOLT WASHERS

Thickness	Part #
.150"	**50-0418-S**
.250"	**50-7091**

HEAD BOLTS FOR HARLEY-DAVIDSON® TWIN CAM 88® AND TWIN CAM 96™ ENGINES

Engine Displacement	Stroke	Cylinder Length	Cylinder Head	Short Bolt w/Washer	Long Bolt w/Washer	Head Bolt Kit
88", 95"	4"	4.935"	Stock H-D®	**93-3031** USA	**93-3030** USA	**93-3014** USA
			S&S®	–	**93-3030** USA	**93-3070**
100"	4"	4.850"	Stock H-D®	**93-3036**	**93-3030** USA	**93-3014** USA
			S&S®	–	**93-3029**	–
106" Stroker	4½"	4.935"	Stock H-D®	**93-3031** USA	**93-3030** USA	**93-3014** USA
			S&S®	–	**93-3030** USA	**93-3070**
107"	4¼"	4.975"	Stock H-D®	**93-3031** USA	**93-3037**	**93-3012**
			S&S®	–	**93-3030** USA	**93-3070**
111"	4⅛"	4.763"	Stock H-D®	**93-3027**	**93-3030** USA	**93-3010** USA
			S&S®	–	**93-3029**	–
116"	4⅝"	5.160"	Stock H-D®	**93-3038**	**93-3037**	**93-3016**
			S&S®	–	**93-3037**	**93-3071**
117"	4⅜"	4.888"	Stock H-D®	**93-3031** USA	**93-3030** USA	**93-3014** USA
			S&S®	–	**93-3030** USA	**93-3070**
124"	4⅝"	5.013"	Stock H-D®	**93-3038**	**93-3037**	**93-3016**
			S&S®	–	**93-3037**	**93-3071**

CALCULATING CUSTOM HEAD BOLT LENGTHS
SEE INSTRUCTIONS ON PAGE 551

S&S exclusive HEAD BOLT COVERS US PATENT PENDING

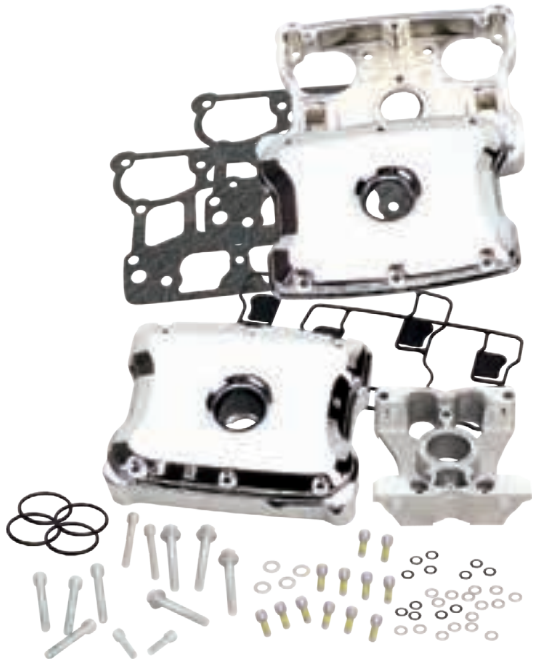


Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.

CHROME HEAD BOLT COVERS

Set of 4	**50-0333**

DIE-CAST ROCKER COVERS



FITMENT
- All Twin Cam 88® big twins
- Sold as stock in 4⅛" bore S&S engines

FEATURES AND BENEFITS
- Special rocker arm supports are included
- S&S rocker covers are finished with show-quality chrome
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame
- Clearanced to permit valve lifts up to .640" using S&S valve spring packages and stock rocker arms or S&S roller rocker arms
- S&S rocker covers accept valve springs up to 1.660" O.D. without modification
- Exclusive one way valve built into the rocker cover gasket to control oil carry over

KIT CONTENTS
- Front and rear covers
- All necessary gaskets and o-rings
- Mounting hardware

DIE-CAST ROCKER COVER KIT

Description	Part #
Chrome USA	**90-4110**

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, **SEE PAGE 523**

REPLACEMENT PARTS: **SEE PAGE 203**

NOTES

If using valve spring packages with taller than stock installed height, some minor clearancing may be required.

Cylinder heads must be set up correctly for high lift cams, and it remains the builder's responsibility to confirm all clearances.

In most instances, only minor clearancing is required to use S&S rocker covers with valve springs larger than 1.660" O.D.

S&S® rocker covers are required if S&S cylinder heads are used with S&S electric compression releases.

MANIFOLDS FOR CARBURETED BIG TWIN ENGINES

FITMENT
- 1999–'06 big twins

FEATURES AND BENEFITS
- Fits stock or S&S heads
- Fits stock or engines with taller cylinders

NOTES

S&S manifolds require S&S style manifold o-rings.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may cause damage. See page 188.



Manifold for S&S carburetors



Manifold for CV carburetor

MANIFOLDS FOR 1999-2005 BIG TWIN ENGINES (REQUIRING MAP SENSOR*MACHINING)

Engine Style and Displacement	Cylinder Length	Manifold Size	Super E	Super G	
**88", 95" & 106" & S&S T-Series Engines	4.937"	410	**160-1718**	**16-2588**	
Stock 2006 models	4.937"	405	**160-1717**	**16-2587**	
**111" & S&S T-Series 111" Engines	4.763"	398	**160-4487**	**16-2604**	
117" & S&S117" Hot Set Up Kits	4.888"	408	–	**16-2603**	
**124" & S&S T-Series 124" Engines	5.013"	417	–	**16-2598**	
Special Order	Specify	–	**169-1639†**	**16-2539†**	

**All S&S engines for 1984-'06 and 1999-up big twins equipped with S&S IST ignition system.* *†Special Order: Download the Special Order Form at sscycle.com/soforms*
***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (410) on a 99-06 111" and 124" engine. If you are not sure which manifold should be ordered, check fitment with the stock manifold first.*



16-0241



16-0242

CV MANIFOLDS – 1999-2005 BIG TWIN

Style/Displacement	(mm)	Manifold Size	Part #
88", 95", 106" Twin Cam 88	40-45mm	410	**160-1722**
96 stock	48mm	410	**160-0001A**
Special order	Specify	–	**169-1725A***

**Special Order: Download the Special Order Form at sscycle.com/soforms*

U-RINGS FOR CONSTANT VELOCITY CARBS

Size	Part #
40-42mm	**16-0242** *27002-89*
44-48mm	**16-0241**



16-0136-S



50-8372

CV MANIFOLDS – 2006 & UP BIG TWIN

Style/Displacement	(mm)	Manifold Size	Part #
96 stock	40-45mm	405	**160-1721**
96 stock	48mm	405	**160-0002A**
Special order	Specify	–	**169-1725A**

**Special Order: Download the Special Order Form at sscycle.com/soforms*

REPLACEMENT PARTS FOR MANIFOLDS

Description	Part #
Manifold Fitting VOES Rubber Cap 3⁄16" I.D. x 5⁄16" O.D. x 1⁄2"	**50-8372**
Manifold Vacuum Fitting	**16-0136-S**

MANIFOLDS FOR SINGLE BORE EFI BIG TWIN ENGINES

FITMENT
- Stock height or taller than stock 1999-'05 bt (see page 85 for 2006 models)
- S&S 52mm or 58mm throttle bodies
- Stock or S&S heads
- S&S T-Series Long Block engines

NOTE

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may cause damage.



MANIFOLDS FOR SINGLE BORE EFI 1999-'05 BIG TWINS

Engine Displacement	Cylinder Length	Manifold Size	Part #
**88", 95", 103", 106" & S&S T-Series Engines	4.937"	410	**16-5141**
124" Hot Set Up Kit *(w/stock or S&S heads w/stock manifold geometry)*	5.013"	417	**16-5139**
**S&S T-Series 111" Long Block engines	4.763"	398	**16-5136**
117" Hot Set Up Kit	4.888"	408	**16-5138**
**S&S T-Series 124" Long Block engines	5.013"	417	**16-5139**

***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (410) on a 99-06 111" and 124" engine. If you are not sure which manifold should be ordered, check fitment with the stock manifold first.*

THROTTLE HOG CABLE OPERATED THROTTLE BODIES

S&S cable operated Throttle Hog Throttle bodies are available for 2002-'17 Harley-Davidson® big twins using cable operated throttles. Choose from 58mm, for stock or mildly built engines, or the whopping 66mm Throttle Hog for big inch engines. More Air, More Power!

FITMENT

- 2002-'05 Harley-Davidson EFI big twins with cable controlled throttles
- S&S EFI Hot Set Up Kit® installations and T-Series Long Block engines with cable controlled throttles

FEATURES & BENEFITS

- More air flow for improved performance
- S&S Stealth air cleaners kit, with the proper bore sizes, are available
- Works with all air cleaner kits designed for throttle by wire engines with stock breather system
- One-piece design for easy installation and stock appearance
- Compatible with stock sensors, fuel rail, and throttle cables
- Black powder coat finish matches stock
- Sealed, stainless steel throttle shaft with dual roller bearings for smooth operation and no air leaks
- Kit includes hardened steel flanges and seals
- No stock throttle body exchange required!

THROTTLE HOG CABLE OPERATED THROTTLE BODIES FOR 2002-2005 BT

Year	Size (mm)	Engine Fitment	Manifold Size	Part Number
2002-2005 bt	58	97", 98" & S&S T-Series Engines** *(Engines produced after 2013)*	410	**170-0337**
		S&S T-Series 111" Engines**	398	**170-0339**
		S&S 117" Hot Set Up Kits	408	**170-0340**
		S&S T-Series 124" Engines**	417	**170-0338**
	66	97", 98" & S&S T-Series Engines** *(Engines produced after 2013)*	410	**170-0342**
		S&S T-Series 111" Engines**	398	**170-0344**
		S&S 117" Hot Set Up Kits	408	**170-0343**
		S&S T-Series 124" Engines**	417	**170-0341**

***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (405) on a 124" engine.*
If you are not sure which manifold should be rdered, check fitment with the stock manifold first.

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MAKE MORE POWER!

S&S AIR CLEANER KITS

See Page 133

REPLACEMENT FLANGE KITS

2002-2005 bt.....**160-0175**





SINGLE BORE EFI THROTTLE BODIES

52MM: Offering a 30% larger cross sectional area than stock throttle bodies, the S&S 52mm bore throttle body flows more than enough air for all but the most demanding street engines.

58MM: In response to constant requests for something bigger, S&S also offers a huge 58mm bore throttle body! Strictly for large displacement competition engines, this throttle body allows your engine to breathe easily and make more power!



Seeing is believing. It's easy to see the differences in the bore sizes of a stock Harley-Davidson® throttle body and the S&S® 52mm or 58mm throttle bodies. How big do you want to go?

FITMENT

- 1999–'16 big twins *(except 2008-up touring models with electronic throttle control)*

FEATURES AND BENEFITS

- Excellent performance
- Recommended tuning products:
  - S&S VFI
  - Dynojet® Power Vision Tuner
  - Cruise control compatible with no extra bracket

KIT CONTENTS

- Throttle body assembly, Fuel injectors, Fuel rail, Harness adaptors, All necessary hardware, gaskets, and hoses

REPLACEMENT PARTS:
SEE PAGE 214

NEW & IMPROVED!
CABLE-OPERATED THROTTLE HOGS **PAGE 174**

MAKE MORE POWER!
S&S® STEALTH AIR CLEANERS **ON PAGE 133**
S&S AIR CLEANER KITS FOR **ON PAGE 136**


106-4408

SINGLE BORE EFI THROTTLE BODY/FUEL RAIL KITS

Fitment	52mm	58mm
1995–'01 EFI big twin *(except Softail® models)*	-	**106-4406**
2002–'05 EFI big twin & 2001 Softail models	**17-5067**	**106-4407**
2006–'16 EFI big twin*	**17-5070**	**106-4408**

**except 2008–up touring models with electronic throttle control.*

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If you plan to use another programmable fuel injection module, it is best to consult the manufacturer to be certain that it is compatible with the S&S single bore system and has enough tuning capability for your engine configuration.

Installation of S&S throttle body on 1995-'01 bikes requires S&S ECU. Single bore throttle bodies are not compatible with stock Magneti Marelli® ECU

BLACK SUPER E & G CARBURETORS

FEATURES AND BENEFITS

- Exclusive black coating – heat and chemical resistant
- Offered in standard venturi or increased venturi diameter – specially machined for 7% more flow



BLACK CARBURETORS FOR 1984-2005 BIG TWINS

Fitment	Description	Part #
Increased venturi diameter *(7% more flow)*	Super E Carb	**110-0099**
	Super G Carb	**110-0100**
NEW FOR 2018 Standard venturi diameter	Super E Carb	**110-0133**
	Super G Carb	**110-0138**

DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.

NOTES

These black carb kits do not include air cleaners.
Air cleaner options are available starting on page 133.

Manifolds are required. See page 173.

SUPER E & G COMPLETE CARBURETOR KITS

FITMENT

- 1999–'06 Twin Cam 88® engines
- S&S carbureted engines
- Custom v-twin applications

FEATURES AND BENEFITS

- Four fuel delivery ports – Better throttle response
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Adjustable accelerator pump for quick throttle response and easy starting
- Utilization of the factory dual cable system ensures safe operation
- Direct replacement and high quality fit and finish – less down time and better performance
- Variable position enrichment starting system

SUPER E & G COMPLETE CARBURETOR KITS

Fitment	Super E	Super G
1999–'05 big twin	**11-0450**	**11-0451**
2006 big twin	**106-0874**	**106-0875**

SUPER G PARTIAL KITS (NO MANIFOLD)

Fitment	Super G
1993- '99	**11-0446**

Does not include intake manifold. Partial kit designed for engines with longer/shorter than stock cylinders. Manifold is ordered separately.

SUPER E & G CARBURETOR ONLY

Fitment	Super E	Super G
All Years & Models	**11-0420**	**11-0421**

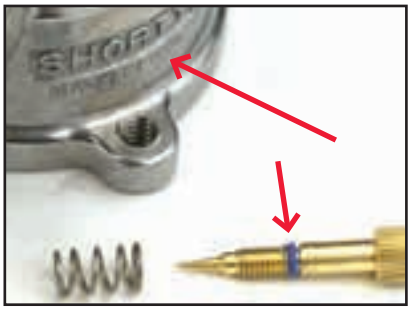
KIT CONTENTS

- Super E or G carburetor
- S&S intake manifold
- Classic Teardrop air cleaner kit
- Mounting hardware
- Gaskets, seals and hoses
- Instructions



11-0450





As the throttle plate opens, it exposes more of these holes to engine vacuum and delivers more fuel as rpm increases. This o-ring around the idle mixture screw not only eliminates potential air leaks, but helps keep the screw from vibrating out of adjustment. "Made in USA" cast into carb body identifies this as a new style carb.

REPLACEMENT PARTS: SEE PAGE 210

NOTES

S&S® does not recommend polishing or chrome plating Super E & G carbs. Our repair department has seen many carbs with plugged passages due to polishing compounds, and some carbs that have been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only—S&S Super E & G carbs shown are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



OPTION

Optional cruise control adapter kits allows riders to keep factory cruise feature on 1999–'06 models

CRUISE CONTROL ADAPTER KIT

Fitment	Part #
1999-'06 bt	**11-2927**

TWO CABLE THROTTLE ASSEMBLIES

The S&S two cable throttle assemblies are high quality "pull open – pull close" type throttles designed for use on any two cable carburetor installations on bikes with 1" O.D. handlebars. A special soft plastic material used to mold the grips makes them look and feel exactly like stock grips. There are four different assemblies available to make installation on most chassis easy.



19-0440

TWO CABLE THROTTLE REQUIRED

S&S Super E and G carburetors require the use of a two cable, pull open–pull closed throttle assembly. Any chassis including 1980 and earlier stock models equipped with a single cable throttle mechanism requires conversion to a two cable, pull open–pull closed type. S&S offers high quality two cable throttle assemblies for this purpose. Stock big twin models from 1981 to present have a two cable throttle and should not require changing. Super E and G Carb kits for 1990 and later models come with the new longer throttle cable guide bracket which allows the use of the stock CV style throttle cables.

NOTE

The chart on this page is used only when using throttle cable bracket part #11-2339. This bracket is standard on all S&S Super E & G carburetor kits for big twins 1989 and earlier and all kits for Harley-Davidson® Sportster® models with the exception of the kit for 2004-'05 models. Carburetor kits for 1990 and later big twin models come with the longer cable bracket part #11-2338 for use with stock CV throttle cables. Super E and G carburetors ordered for big twin models 1981 and later are being shipped with the correct throttle cable bracket to fit the stock cables. Big twin carbs that are not year specific will be shipped with both cable brackets. All Sportster models 1988-'03 will still require conversion to butterfly style cables.

THROTTLE CABLE APPLICATION CHART

Application	Fastening Method	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
1996-Up Softail (FXSTS, FXSTC, FLSTC, FLSTF) 1996-Up Dyna®	Snap-in	39"	35"	**19-0438**	**19-0439**
1996-Up All FLT models	Snap-in	48"	44"	**19-0464**	**19-0465**
1996-Up custom application	Snap-in	42"	38"	**19-0440**	**19-0441**

**1998 and later required Harley-Davidson® throttle assembly #71831-96* ***1980 and earlier must be converted to dual cable throttle assembly.*

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	**106-3520**
Throttle Grip Clamp Set 1985-'95	**106-3519**
Top Throttle Grip Clamp only	**19-0222**
Bottom Throttle Grip Clamp only	**19-0220**
Throttle Grip Clamp Screw *(Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, , #19-0229)*	**50-0043**
Throttle Grip Set	**106-3521**
Right Hand Grip only	**19-0225**
Left Hand Grip only	**19-0226**
Cable Adjuster *(Fits S&S throttle assembly part #19-0229)*	**19-0223**
Cable Adjuster Jam Nut *(Fits S&S throttle assembly part #19-0229)*	**19-0227**
Handlebar Spacing Sleeve 4" x 1" O.D. – converts ⅞" handlebars to 1" O.D.	**19-0235**



JETS & CARB REBUILD KITS
FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS

Description	Part #
S&S Carb Parts Kit *(Contains needed parts to maintain S&S Super E and G carburetors)*	**11-3103**
S&S Jet Kit *(Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)*	**11-3102**



11-3103

JET PACKS

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295") one each main jets (.062", .064", .066", .068", .070", .072", .074").	**11-7270**
High Range Jet Pack – For jetting some stock and all performance engines.	
Includes one each intermediate jets (.0295", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084").	**11-7271**
Master Jet Pack – For jetting all Super B, E, and G equipped engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084").	**11-7272**



11-3102

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION

Size	QTY	Part #	Size	QTY	Part #
.025	each	**11-0250**	.032	each	**11-0320**
	3 pack	**11-7107**		3 pack	**11-7112**
.0265	each	**11-0265**	.033	each	**11-0330**
	3 pack	**11-7108**		3 pack	**11-7113**
.028	each	**11-0280**	.036	each	**11-0360**
	3 pack	**11-7109**		3 pack	**11-7114**
.0295	each	**11-0295**	.040	each	**11-0400**
	3 pack	**11-7110**		3 pack	**11-7115**
.031	each	**11-0310**	Blank	each	**11-0000**
	3 pack	**11-7111**			



11-7272

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1..... .025" 4..... .033"
2..... .028" 5..... .036"
3..... .031" 6..... .040"



106-3517

NOTES

No returns or exchanges on jets.

Refer to Section 9: Racing for the S&S fuel and turbo carburetors.

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
.070	each	11-4070	.110	each	11-4110
	5 pack	11-7235		5 pack	11-7255
.072	each	11-4072	.115	each	11-4115
	5 pack	11-7236		5 pack	11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

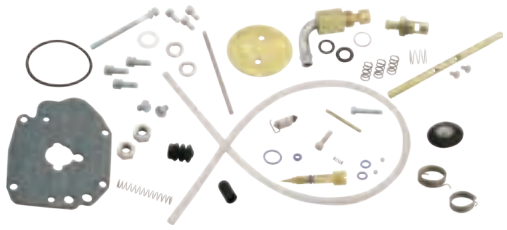
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT

Description	Part #
Super E	11-2923
Super G	11-2924



11-2923

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT

Description	Part #
Super E	11-2906
Super G	11-2907



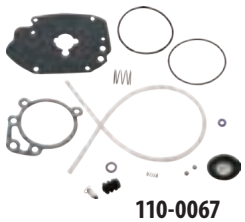
11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT

Description	Part #
Super E & G	110-0067



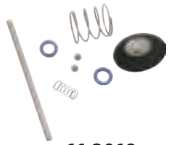
110-0067

ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



11-2918

UNIVERSAL WIRING HARNESS
FOR CUSTOM BIKES AND RACING APPLICATIONS

FITMENT

- Custom and racing v-twin applications using Delphi® style EFI module
- Easy replacement for engine sub harness on 2002 through 2005 FL models
- 1995-'05 big twins – Useful for carb to Delphi EFI and Magneti Marelli® to Delphi EFI conversions
- Great for S&S X-Wedge® engines



FEATURES AND BENEFITS

- Simple electrical hook up of all connections required to operate engines with Delphi® style EFI
- All cables are terminated with the correct factory crimped connectors
- Works the S&S, stock and most 36 pin aftermarket Delphi style EFI modules
- Compatible with S&S throttle bodies, as well as stock and most aftermarket throttle bodies
- Replaces stock engine sub-harness in 2002-'05 FL models, simplifies carb to EFI conversions

UNIVERSAL WIRING HARNESS

Description	Part #
For Custom and Racing Applications	**550-0264**

COMPRESSION RELEASES

FITMENT

- S&S cylinder heads for big twin

OPTIONS

MANUAL RELEASE:
Activated by a cable similar to a choke control, this slick system can be used with any style rocker cover.

ELECTRIC RELEASE:
Solenoid operated, this system automatically opens and closes when the starter button is pressed and released. Convenient and simple, this is the best setup for big displacement high compression bikes. Requires S&S die cast rocker covers.



55-1009



90-4915



53-0045



90-4916



90-4925

COMPRESSION RELEASE KITS

Description	Part #
Electric	**90-4915**
Manual	**90-4925**

TOOLS AND ACCESSORIES

Description	Part #
S&S Two-Piece Socket Kit: *Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.*	**53-0045**
S&S Compression Release Hole Plug	**90-4916**

REPLACEMENT PARTS

Description	Part #
Silicone Solenoid Caps	**55-1009**
Wiring Harness USA 2,3	**55-1010**
Electric Compression Release Assembly USA 2,3	**90-4914**

NOTES

S&S rocker covers must be used with electric compression releases due to clearance requirements for the solenoids.

Rocker covers must be removed when installing S&S® compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.

In most cases, S&S compression releases can be installed while the engine is in the frame with the special S&S two-piece socket kit, part #53-0045 .

If cylinder heads are machined for S&S compression releases, but compression releases are not used, special plug part #90-4916 (two required) must be installed to seal the machined hole.

Stock cylinder heads cannot be machined for S&S compression releases because there is not enough material in critical areas.

VARIABLE FUEL INJECTION MODULES (VFI)

FEATURES AND BENEFITS

- Directly replaces stock Harley-Davidson® fuel injection modules – plugs directly into stock wiring harness
- Includes ProTune II software and can be updated at sscycle.com/software/protune
- Three stage engine overheat protection helps prevent possible engine damage caused by improper modifications to fuel maps
- Altitude compensation automatically adjusts for altitude variations
- Live tuning allows manual changes to maps while the engine is running
- Self diagnostics and actuator test functions help tuning and verify proper installation/operation
- Engine light can be programmed to function as a shift light
- Closed loop capable
- Knock sensing ignition control *(USB Delphi® style unit only)*
- Optional closed loop sensor kit and knock sensor kit extend module capabilities
- Speedometer calibration function for 2004-up Harley-Davidson® models (*does not require installation of separate speedometer calibrator)*

CLOSED LOOP CAPABILITY

When equipped with a dual closed loop sensor kit and running in closed loop mode, VFI tuning becomes a breeze! S&S supplies base maps for several displacement groups, creating a starting point to get bikes up and running. Utilizing dual oxygen sensors *(sold separately)* placed in the exhaust, the S&S closed loop system modifies the base fuel map to meet the specific requirements of your engine!

- Automatic tuning on the street or on the dyno
- Each cylinder is tuned individually
- Fuel map changes are saved in the module and can be merged with the pre-loaded base map
- Works with stock oxygen sensors used on late model Harley-Davidson® motorcycles

Closed loop VFI can also automatically compensate fuel delivery for modifications creating up to a 20 hp gain, such as changes in:

- Displacement
- Cams
- Exhaust
- Head porting or installation of aftermarket heads

DELPHI® STYLE S&S VFI MODULE

FITMENT

- Delphi® ECU equipped big twins

KIT CONTENTS

- Delphi® style S&S VFI module
- ProTune II software
- USB port cover kit (part #55-5090 only)
- Installation instructions

NOTES

The Barometric Sensor Relocation kit (part #55-1599) is required for any complete S&S T-series engine installed in a 1995-2001 EFI touring chassis or any engine used in these applications using the S&S T-series oil pump where the stock cam position sensor cannot be used.

All current production S&S modules are closed loop compatible, and all older S&S modules can be updated with current calibration by simply downloading software from the S&S website at www.sscycle.com/software/protune.

Please note that maps created for older versions of the VFI software are not compatible with the new closed loop software, however they can be converted to closed loop if desired.

Optional Delphi® style knock sensor adjusts timing to eliminate spark knock, prolonging engine life (55-5090 module only).

S&S VFI systems installed on 2004–up Harley-Davidson® models incorporate a speedometer calibration feature.



55-5090

DELPHI® STYLE S&S VFI MODULE

Fitment/Description	Part #
VFI Module for 2001-'11 bt (except 2008-up touring and 2011 Softail®)	**55-5090***
S&S Delphi Style VFI Closed Loop Sensor Kit USA	**106-2066**
Knock Sensor Kit (55-5090 module only) USA	**106-0810**

**Special Order: Download the special order form at sscycle.com/soforms*

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NOTE

Due to the extreme range of control offered by the S&S VFI modules, we recommend that they be installed and tuned by S&S Certified VFI Tuning Centers. Check www.sscycle.com to find a tuning center near you.

REPLACEMENT PARTS FOR S&S® VFI MODULES

REPLACEMENT PARTS FOR S&S® VFI MODULES

Description		Part #
S&S VFI Closed Loop Sensor Kit	Delphi® Style USA	106-2066
Knock Sensor Kit *(Delphi style only)* USA		106-0810
Service Kit, O_2 Sensor USA		106-2061
Service Kit, DTM Pin		55-1521
Service Kit, Oxygen Sensor Boss USA		55-6071-S
Service Kit, Subharness	Delphi® Style	55-1595
Barometric Sensor Relocation Kit *(See Notes)*		55-1599*
Hardware Kit (USB Cover) *(for 550-0001 & 55-5090 modules)*		55-5091

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106-2066

HIGH OUTPUT COILS

HIGH OUTPUT COILS

S&S High Output 3.0Ω Single Fire Coil *The perfect complement for S&S IST ignition systems. This single fire coil is actually two separate coils in a single package. Coil impedance is 3Ω per coil.*	55-1571	
S&S High Output 0.5Ω Single Fire Coil USA *High output 0.5Ω single fire coil for S&S IST ignition.*	55-1576	



55-1571



55-1576

DYNOJET® POWER VISION® TUNER

FITMENT
- 2001-'06 Harley-Davidson® models equipped with Delphi® ECM

FEATURES AND BENEFITS
- Flash tune all H-D® models equipped with a Delphi ECM
- Does NOT require the user to interface with a computer in order to flash a tune. Change rev limit, idle speed, and other parameters directly from the device
- Display all H-D vehicle data
- Customizable virtual gauges allow data to be monitored live, and/or logged while riding
- User defined visual alarms for any data channel
- Check and clear diagnostic codes
- Reset adaptive fuel trims and idle offset (with bike running)

The Power Vision Suite includes a highly flexible tuning/data logging device, as well as a productive tuning application (WinPV) that's user friendly compared to other products on the market.

WINPV SOFTWARE FEATURES
- Allows you to import Power Commander Maps
- Tuning parameters laid out in a clear, concise manner utilizing a "tree view structure"
- A viewing mode for every type of user, beginners or professionals
- Individual tuning parameters are able to be saved as "value files". The value files can then be applied to other calibrations
- Compare, restore, and undo features
- Various math functions can be performed on any value
- Synchronized editing of front and rear VE and / or Spark tables
- Helpful tuning parameter descriptions
- Automatic update client ensures you have the latest tuning application, firmware, and tune file database



DYNOJET® POWER VISION® TUNER

Fitment	Mfr PN	Part #
2001-'06 H-D® models *(except 2011 - Later Softail® & 2012 - Later Dyna®)*	PV-1	**550-0087**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

TRANSMISSION TOP COVER

CHROME TRANSMISSION TOP COVER

Description	Part #
Billet for 1999-'05 Dyna® Models	**106-3886**

This cover is required for proper oil line connection in 1999-'05 Dyna models when installing an S&S T124 engine or when installing S&S replacement crankcases. This top cover may also be used as stock replacement for 1999-'05 Dyna models.



INNER PRIMARY BEARING RACE

FITMENT
- All 1991-'06 big twins *(except '06 Dyna®)*

FEATURES AND BENEFITS
- Will not "walk" on transmission mainshaft
- Simple to install
- Prevents costly damage to mainshaft seal, output gear & output gear bearing



INNER PRIMARY BEARING RACE

Fitment	Part #
All 1991-'06 big twins *(except '06 Dyna®)*	**56-5089** USA

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S INNER BEARING RACE PULLER, SEE PAGE 522

VARIABLE PRESSURE CLUTCH

The VP clutch is the most cost effective kit for upgrading your H-D® stock clutch without any modifications. Up to 40% more pressure for stronger clutch engagement.

FEATURES AND BENEFITS

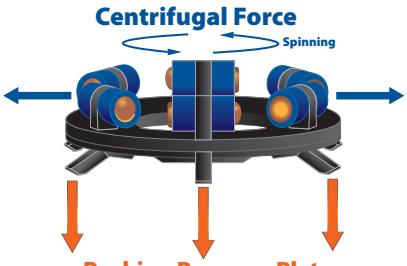
- Works like a lock up clutch
- Increased torque capacity: strength of engagement increases with RPM
- 10 minute installation
- Fits behind a stock derby cover and primary cover - No modification required
- Can be used with cable and hydraulic clutch controls

Does not fit: 2013 and later CVO™ and Tri-Glide™, 2015 and later Ultra Limited Low and Electra Glide Classic Low Models with new H-D® Assist and Slipper Clutch: 3 Stud Clutch Hub

Non-stock derby cover (including any special or 2003 anniversary cover) and 3 hole derby covers may require a derby



560-0242



Centrifugal force makes more clamping force. Regular clutches have static pressure only with clutch springs. The Lock up clutch has two different types of pressure. One is a Static Pressure, and another is a Centrifugal Force by Lock-up as an additional pressure.

VARIABLE PRESSURE CLUTCH

Description	Part #
1998-up Big Twins with 6 Stud Clutch Hub	**560-0242**

HEAVY DUTY DIAPHRAGM SPRING

FITMENT

- 1998 - up big twin models

FEATURES AND BENEFITS

- 380 lbs pressure, 25% stronger than stock
- Same pressure as Screamin' Eagle® heavy-duty spring
- Compatible with S&S VP and stock clutches

HEAVY DUTY DIAPHRAGM SPRING

Description	Part #
1998 - up Big Twins	**560-0244**



560-0244

GATES® HIGH STRENGTH FINAL DRIVE BELTS

S&S final drive belts by Gates are available with 14mm pitch in 1½" and 1⅛" widths. See the chart and match the width and number of teeth required for your vehicle. You can find this information in the vehicle service manual.



ATTENTION CUSTOM BIKE MANUFACTURERS!

SPECIAL ORDER BELTS FROM S&S® AND GATES®

Special belt sizes, private brand labeling, and assistance with belt drive design, are available to custom performance OEM's and aftermarket bike builders, through S&S. These products and services are available for licensed motorcycle manufacturers only, and a minimum order quantity may be required.

Drive belts with your company name imprinted on them are a perfect way to show off your brand. Any belt size currently available in the S&S catalog, as well as the special ordered sizes, can be specially branded. Minimum order quantities would apply.

Whether you're designing a completely new chassis, or simply need a replacement belt, S&S can help you find the belt you're looking for. Through the combined efforts of Gates and S&S, S&S can now provide customers with the technical assistance they need for designing new secondary belt drive systems. In addition, S&S can help you determine required tooth count for your existing chassis design, based on the pulley center-to-center distances and pulley tooth counts.

All belts have a 14mm tooth pitch, and are made of the super strong Gates Carbon X3N material. Belts are available in three standard widths of 1.125", 1.5"and 1.181" (30mm), but can be special ordered in nearly any width for a nominal charge. If you want a belt with a special tooth count, they are also available *(see the special order chart for availability)*.

Contact your S&S Customer Support Representative for more information.

SECONDARY DRIVE BELTS (14MM PITCH)

Teeth	1⅛" Wide	1½" Wide
125	**106-0357**	
126	–	**106-0348**
127	–	**106-0349**
128	**106-0358**	**106-0350**
130	**106-0359**	**106-0351**
132	**106-0360**	**106-0352**
133	**106-0361**	**106-0353**
135	**106-0362**	**106-0354**
136	–	**106-0355**
139	**106-0363**	**106-0356**
149	**106-1338**	**106-2695**
156	–	**106-2827**

BELTS AVAILABLE BY SPECIAL ORDER (14MM PITCH)

Tooth Count	1.181" (30mm) Width*	1.25" Width*
125	●	
126	●	●
127	●	●
128	●	
130	●	
131	●	●
132	●	
133	●	
135	●	
136	●	●
137	●	●
139	●	
140	●	●
149	●	
150	●	●
151	●	●
152	●	●
156	●	

**Minimum order required: 1.181" (30mm) – 16 belts; 1.25" – 17 belts.*

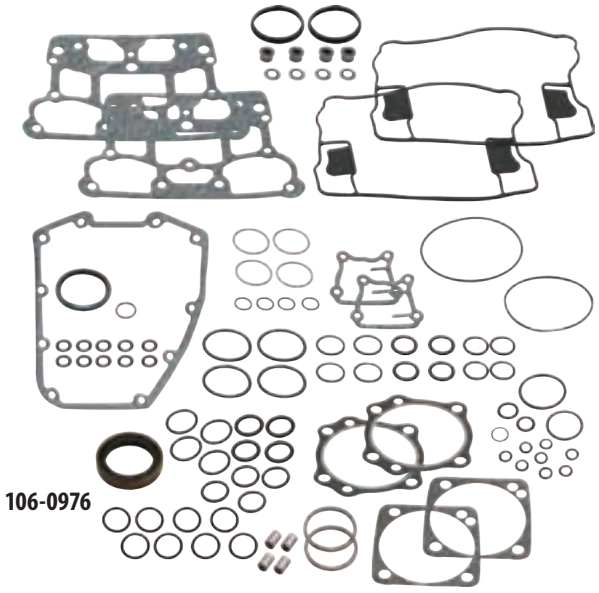
GASKETS

REBUILD GASKET KITS FOR S&S® T-SERIES 1999-UP ENGINES AND HOT SET UP KIT®

1999-'06, 4⅛", S&S base bolt pattern	**106-0976**
1999-'15, 4⅛", Stock base bolt pattern	**310-0335**
1999-up T143 4.425" bore	**310-0751**

TOP END GASKET KIT FOR TWIN CAM 88® AND S&S ENGINES

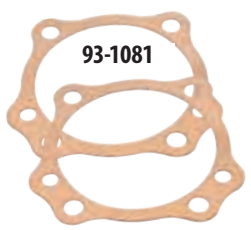
3⅞" Stock Bolt Pattern	**90-9504**
4⅜"	**90-9511**
4⅛", with S&S® bolt pattern	**90-9506**
4⅛", with Stock Cases	**90-9510**
4"	**90-9505**

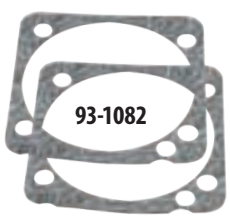


CYLINDER HEAD GASKET KITS T-SERIES 1999-UP

4 ⅜" bore	**900-0800**
4⅛", with S&S® bolt pattern	**90-1910**
4⅛", with Stock bolt pattern	**90-1914**
4" with Stock bolt pattern	**90-1913**
3⅞" & 3.927"	**910-0465**

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



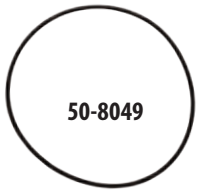


HEAD GASKETS T-SERIES 1999-UP

4⁷⁄₁₆"	.045"	Layered Steel	*2 pack*	**900-0762**
4⅜"	.045"	Copper	*2 pack*	**93-1081**
4⅛"	.043"	Graphite	*each*	**93-1047-S**
			10 pack	**93-1073**
4⅛" Stock Bolt Pattern	.043"	Layered Steel	*each*	**93-1091-S**
			2 pack	**930-0102**
			10 pack	**93-1920**
4⅛" Stock Bolt Pattern	.030	Layered Steel	*2 pack*	**900-0217**
4"	.043"	Graphite	*each*	**93-1043-S**
			10 pack	**93-1058**
4" Stock Bolt Pattern	0.45"	Layered Steel	*2 pack*	**900-0822**
4" Stock Bolt Pattern	.030"	Layered Steel	*2 pack*	**900-0821***
3⅞" & 3.937"	.045"	Layered Steel	*2 pack*	**900-0862**
3¾" *16775-99B*	.043"	Graphite	*each*	**93-1045-S**

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BASE GASKETS AND O-RINGS T-SERIES 1999-UP

4"	.018"	Graphite	*each*	**93-1050-S**
4⅛"	.018"	Graphite	*each*	**93-1048-S**
			2 pack	**930-0101**
			10 pack	**93-1074**
4⅜"	.018"	Micropore	*2 pack*	**93-1082**
4⅛" Stock Bolt Pattern	.018"	Micropore	*each*	**93-1092-S**
			2 pack	**930-0101**
			10 pack	**93-1921**
4.425"	.018"	Micropore	*2 pack*	**900-0783**
4"	.103"	Viton O-ring	*each*	**50-8049**
3¾", 3⅞", 3.927"	.103"	Viton O-ring	*each*	**50-8048** *11256*

EXHAUST GASKETS

1984-'12 big twins *65324-83B, 65324-83A*	*each*	**106-5029**
	10 pack	**93-1072**







CONTINUED- GASKETS

VALVE GUIDE SEALS

S&S® Heads with Powdered Metal Valve Guide	*4 pack*	**900-0737**
Valve Stem Oil Seal, Hat Style *18094-02*	*each*	**900-0590**
Valve, Umbrella *26858-99*	*each*	**900-0495**
For 1984-'02 Big Twin Stock Heads & S&S® prior to Jan. 2014	*each*	**900-0338**
	8 pack	**90-2158**
CNC Heads (2005-up bt)		**106-5688**

ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

S&S BILLET (OBSOLETE)

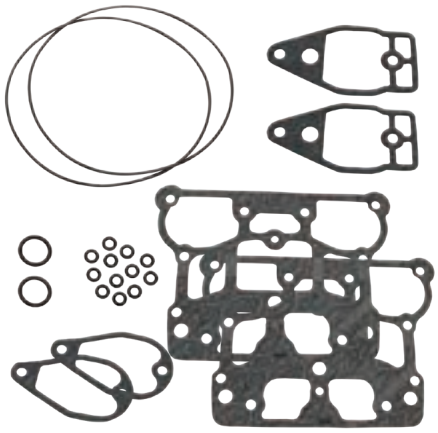
Gasket Kit		**90-4073**
O-ring, (-114), .625" ID x .812" OD, Black, Viton® *11270*		**50-8033**
O-ring,(-268),9.483" ID x		**50-8050**
Gasket, Breather Cover, Stock Pattern,1999-'10 *17591-99, 17162-03, 17592-99*		**90-4077**
Gasket, Breather Baffle, Stock Pattern, 1999-'10 *17162-03, 17592-99*		**90-4078**
Gasket, bottom rocker cover, 4⅛" 1984-up	*each*	**90-4071-S**
	2 pack	**90-4071**
	10 pack	**90-4099**

DIE CAST ROCKER BOXES

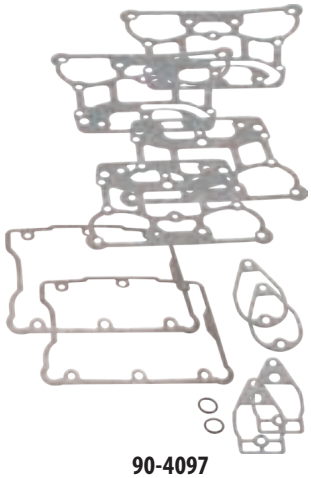
Gasket set - rocker cover, cast		**90-4111**
O-ring,(-223),1.625" ID x 1.875" OD,Vito		**50-8044**
Gasket, bottom rocker cover, 4⅛", 1984-up	*each*	**90-4071-S**
	2 pack	**90-4071**
	10 pack	**90-4099**
Gasket,Rckr Cvr,S&S® DieC,O-ring,1984-up		**90-4079**

STOCK ROCKER BOXES

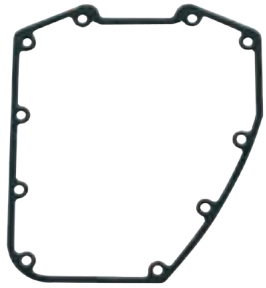
Gasket kit for 1999-'06 bt (use w/S&S heads)		**90-4097**
Gasket kit for 1999-'06 bt (use w/Stock heads)		**900-0534**
O-ring, (-114), .625" ID x .812" OD, Black, Viton® *11270*		**50-8033**
Gasket, bottom rocker cover, 4⅛", 1984-up	*each*	**90-4071-S**
	2 pack	**90-4071**
	10 pack	**90-4099**
Gasket,Breather Cover,Stock Pattern, 1999-'10 *17591-99, 17162-03, 17592-99*		**90-4077**
Gasket,Breather Baffle,Stock Pattern, 1999-'10 *17162-03, 17592-99*		**90-4078**
Gasket,Rocker Cover,Steel, 1999-up bt	*each*	**90-4096-S**
Gasket,Rocker Cover,w/Stock Rocker Box, 1999-up bt	*each*	**90-4124**
	2 pack	**90-4120**
Filter, Breather *63815-99*	*each*	**900-0496**



90-4073



90-4097



31-2032-S



33-5303-2



16-0235



16-0236

CONTINUED- GASKETS

LOWER END GASKETS AND SEALS

For S&S Heads/Stock boxes	each	**90-4124**
	2 pack	**90-4120**
Gear Cover gasket *25244-99A*	each	**31-2032-S**
Tappet Cover gasket *18635-99B*	each	**33-5303-S**
	2 pack	**33-5303-2**

PUSHROD O-RINGS

O-ring,Kit,Pushrod Cover,1984-'99 bt		**93-4022**
Top O-ring *11293, 11157, 11101, 11190*	each	**50-8039**
Middle O-ring *11132A*	each	**50-8038**
Bottom O-ring *11145A*	each	**50-8037**
Sprocket Shaft seal *12068*		**31-4035**
S&S Oil pump seal kit		**31-2097**
Oil Pump Scavenge o-ring *11293, 11157, 11101, 11190*	each	**50-8039**
Case alignment dowel o-ring *26432-76A*	each	**50-8034-S**
	2 pack	**50-8034**
Oil jet o-ring	each	**50-8270**
	5 pack	**50-8275**
Cam plate and oil line plate o-ring *11301*	each	**50-8066-S**



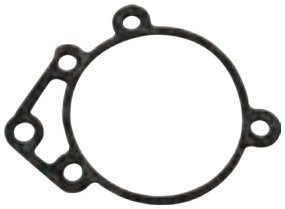
31-4035



50-8066-S



106-6022



106-4662

FUEL SYSTEM GASKETS

Manifold Seals

S&S Manifold O-Ring	each	**16-0235**
	10 pack	**16-0243**
Stock Manifold O-ring *26995-86A, 26992-99, 26995-86B*	each	**16-0236**
	10 pack	**16-0244**
Cap, rubber, manifold, fitting		**50-8372**

CLASSIC TEARDROP AIR CLEANER

Backplate gasket		each	**106-1724**
		10 pack	**106-2328**
Vent seal washers silicone coated steel	½"	each	**50-7055**
		10 pack	**50-7057**
	⅜"	each	**50-7054**
		10 pack	**50-7059**

STEALTH AIR CLEANER

Backplate gasket

Stock CV Carb & EFI Throttle Body,1991-up xl/bt *(except Throttle by Wire) 29062-95B*		**106-6022**
Super E/G	each	**106-1724**
	10 pack	**106-2328**
For Muscle air cleaner *(includes lanyards).*		**170-0137**
Vent seal washers Nitrile Rubber Coated, .380" x .880" x .024"	each	**50-7054**
	10 pack	**50-7059**

SINGLE BORE TUNED INDUCTION

Backplate gasket

Gasket, Backplate - E/G/SBEFI	each	**106-1724**
	10 pack	**106-2328**
Gasket, S&S SBEFI 58mm		**106-4662**
Gasket, Stock carb/Throttle Body *29062-95B*		**106-6022**
Adaptor plate gasket		**17-1022**
Adaptor plate bracket o-ring	each	**50-0446**

CONTINUED- GASKETS

SINGLE BORE EFI THROTTLE BODY

Backplate gasket		
52mm	each	**106-1724**
	10 pack	**106-2328**
58mm	each	**106-4662**
O-ring, throttle body to manifold		**50-7967-S**
Air Temp Sensor gasket		**16-5009-S**
IAC o-ring		**50-8149-S**
Fuel injector o-ring top		**50-8264-S**
Fuel injector o-ring bottom		**50-8265-S**
Fuel rail inlet o-ring *27237-95*	each	**50-8137-S**



11-2386



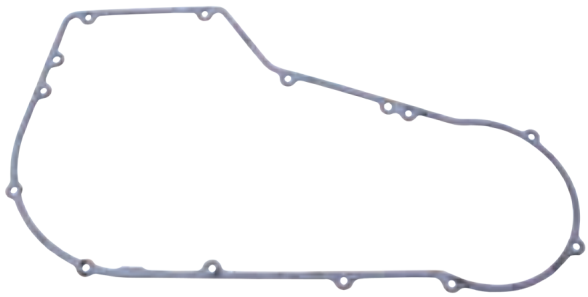
11-2266



11-2282

CARBURETOR GASKETS (for Rebuild Kits, see page 179)

Bowl Gasket, Super E & G			**11-2386**
Pump cap o-ring - (two required)		each	**50-8012**
		10 pack	**50-8100**
Idle Mixture Needle o-ring		each	**500-0036**
		10 pack	**500-0148**
Bellows Seal, Accelerator Pump			**11-2266**
Accelerator pump diaphram			**11-2282**
Manifold to carb/ throttle body o-rings	Super E	each	**50-8016**
		10 pack	**50-8094**
	Super G	each	**50-8015**
		10 pack	**50-8093**
Seat and bowl plug o-ring		each	**50-8009**
		10 pack	**50-8095**



56-4049

TRANSMISSION GASKETS

O-ring, (-114), .625" ID x .812" OD, Black, Viton® *11270*	**50-8033**
O-ring,Quad Seal,(-031),1.734" X 1.875" *11165*	**50-8045**
Seal,Transmission Output Shaft 2.255" x 3.388" x .250,1994-'99 bt *12067B*	**56-3033**

PRIMARY GASKETS

Gasket, Primary Cover, 1990-'05 Softail® and Dyna®	each	**56-4049**

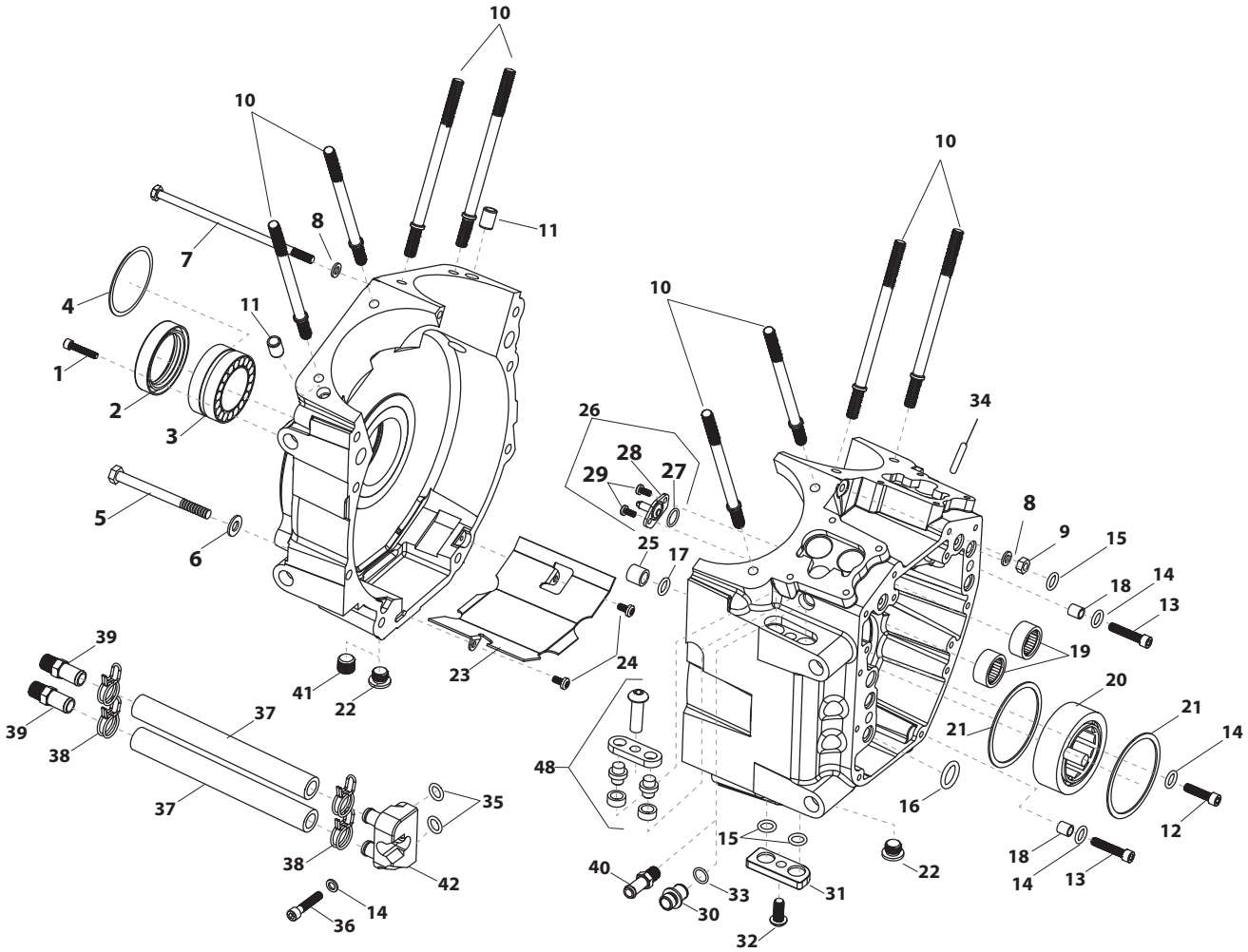
CRANKCASE REPLACEMENT PARTS
FOR HARLEY-DAVIDSON® TWIN CAM 88® ENGINES

1. Bolt, stator 10-24 x1" SHC - 4 required *2720*
each **50-0044**
4 pack **31-0113**
2. Seal, sprocket shaft *12068* **31-4035**
3. Bearing, Timken® sprocket shaft *9028*
USA USA 1,2,3 ..... **31-4013**
4. Timken Main Bearing Spacers
Fits 1¼" stock diameter shaft.
.0995" - .1005" *9124* ..... USA **31-4071**
.1015" - .1025" *9125* ..... USA **31-4072**
.1035" - .1045" *9126* ..... USA **31-4073**
.1055" - .1065" *9127* ..... USA **31-4074**
.1075" - .1085" *9128* ..... USA **31-4075**
.1195" - .1205" *9134* ..... USA **31-4076**
5. Bolt, case 5⁄16" -18 x 3½" HHC - 8 required
Chrome *(each)* **50-0254-S**
Zinc *3427 (each)* **50-0117**
6. Washer, flat 5⁄16" x 1 1⁄16" x 1⁄16" - 8 required
Chrome *(each)* **50-7104-S**
Zinc *6320, 70907-07, 6016, 6702 (each)* **50-7034**
7. Bolt center case ¼" -28 x 5½" HHC Grade 8
Chrome *(each)* **50-0252-S**
Zinc *(each)* **50-0090**
8. Washer, flat, ¼" x .474" x .050"
Chrome *(each)* **50-7105-S**
Zinc *(each)* **50-7020**
9. Nut ¼"-28 Grade 8 - 1 required
Chrome *(each)* **50-5017-S**
Zinc *7683 (each)* **50-5011**
10. Cylinder stud, S&S® Bolt Pattern - 8 required *(each)* ..... USA **31-2325-S**
8 pack ..... USA **31-2340**
Cylinder stud, Stock Bolt Pattern - 8 required *(each)* **310-0437**
11. Dowel, cylinder deck - 2 required *(4 pack)* **500-0219**
12. Bolt, cam plate ¼" -20 x 1" SHC - 4 required *852*
each **50-0084**
13. Bolt, cam plate ¼" -20 x 1¼" SHC - 2 required *4740A, 3482A*
each **50-0008**
14. Washer, flat ¼" chrome *(each)* **50-7017**
12 pack **50-7013**
15. O-ring, cam plate - 9 required *11301 (each)* **50-8066-S**
16. O-ring, oil pump 1 1⁄16" I.D. x 15⁄16" O.D. x 1⁄8" CS *11293, 11157, 11101, 11190*
each **50-8039**
17. O-ring, case alignment,- 2 required 9⁄16" I.D. x 1 1⁄16" O.D. x 1⁄16" CS *26432-76A*
each **50-8034-S**
2 pack **50-8034**
18. Dowel, cam plate - 2 required *16589-99A* **50-8148-S**
19. Bearing, inner cam *9198* ..... USA **31-4080**
20. Bearing, pinion shaft – Fits all S&S & OEM 2000-'02(Balanced models only) & all OEM 2003-up *24604-00D* **31-4085**
21. Retaining ring, internal, spiraloc - 2 required
35114-02 ..... **50-8160-S**
22. Plug, magnetic drain ..... USA 1,2,3 **50-8335**
23. Baffle plate **31-0119-S**
24. Screw 10-24 x ⅜" pan head - 2 required *(each)* **50-0050**
25. Dowel, case alignment - 2 required *16574-99A, 16573-83, 16573-83A*
each **50-8023**
10 pack **50-8109**
26. Piston Oiler Jet Kit *includes #27 (1), #28 (1), #29 (2)* ..... USA **310-0647**
27. O-ring,(-014),.500" ID x .625" OD,Nitrile
each **50-8270**
5 pack **50-8275**
28. Jet,Assembly,Piston Cooling,1999-up bt
(each) ..... USA **310-0646**
29. Screw,Torx Pan,Tri-Lobe,8-32x⅜",Zinc, *68042-99*
each **50-0054-S**
30. Fitting, crankcase vent
1999-'00 ..... **50-0454**
2001-'06 *(each)* **50-0449**
31. Plate, oil line cover **106-1184**
32. BHSH CS 5⁄16" -18 x ¾" *(10 pack)* **106-1178**
33. O-ring *11105, 11273 (each)* **50-8008**
10 pack **50-8078**
34. Pin, dowel *18535-99(each)* **50-8195-S**
2 pack **50-8195**

These parts are for crankcases manufactured before 8-1-06:
35. O-ring, 9⁄16" I.D. x 1 1⁄16" O.D. x 1⁄8" CS *26432-76A (each)* **50-8034-S**
2 pack **50-8034**
36. Bolt, ¼" -20 x ¾" SHCS *4069A (each)* **50-0067**
37. Hose, oil, inlet/outlet **50-8157**
38. Spring clips **50-8156-S**
39. Oil line fittings, inlet/outlet - 2 required ..... **N/A**
40. Oil line fitting- vent ..... **N/A**
41. Plug, sump *765 (each)* **50-8330**
42. Oil conduit block ..... **N/A**
43. Sensor,Kit,Crank Position,1984-2007 bt **(N/S)**
32707-01B, 32707-01C ..... USA USA 2,3 **55-1051**

HARDWARE KITS
45. Hardware Kit,Crankcase,Cam Plate Bolts,1999-up bt
includes #12 (4), #13 (2), #14 (6) **31-0117**
46. Hardware Kit,Crankcase,O-rings,1999-up bt *includes #15 (7), #16 (1), #17 (2)* **31-0111**
47. Hardware Kit,Crankcase Baffle Plate,1999-up bt *includes #23 (1) and #24 (2)* **31-0122**
48. Hardware kit, oil line plugs **50-1081**

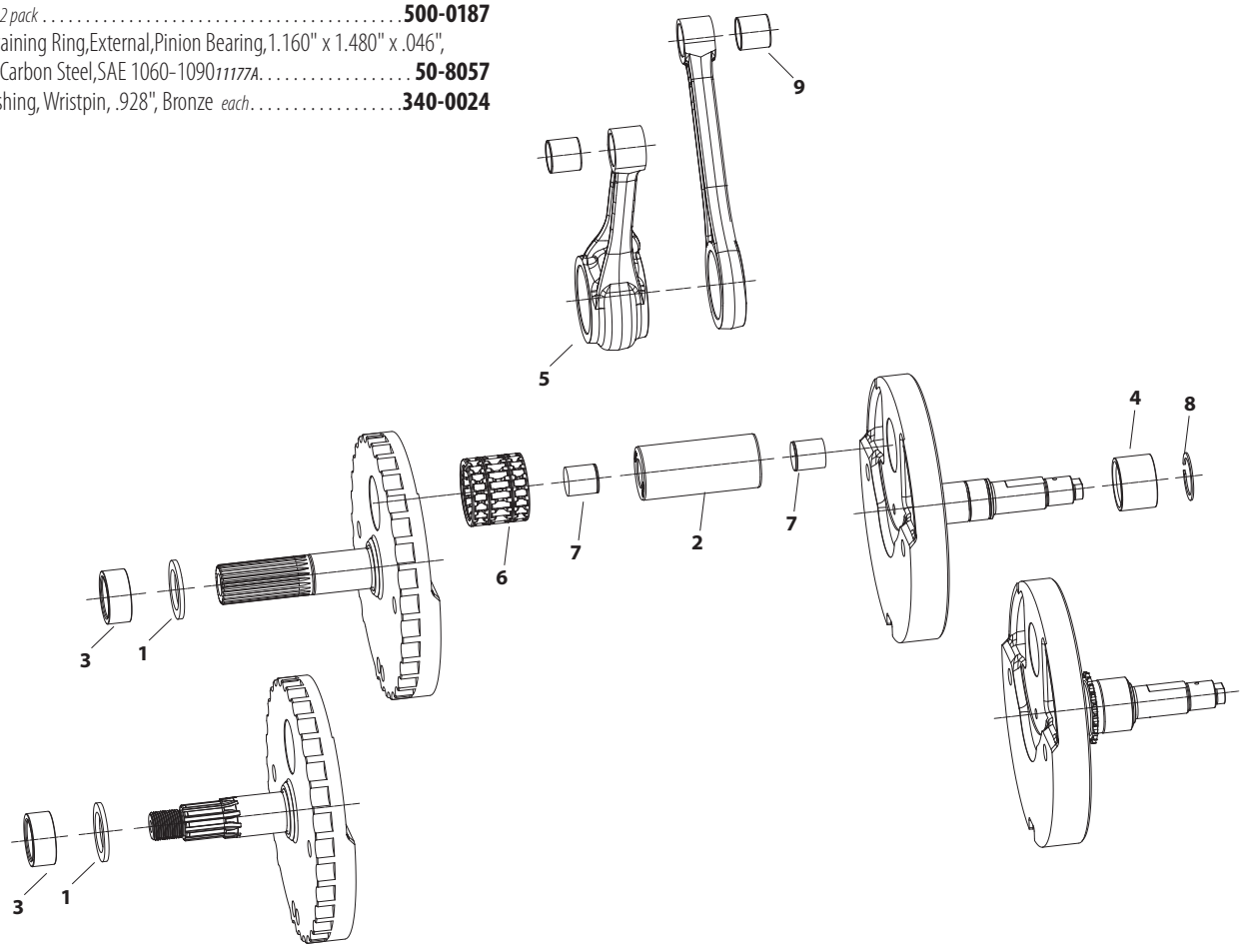
(N/S) = Not Shown



CRANKCASE BREATHER REED VALVE
REPLACEMENT PARTS ON PAGE 218

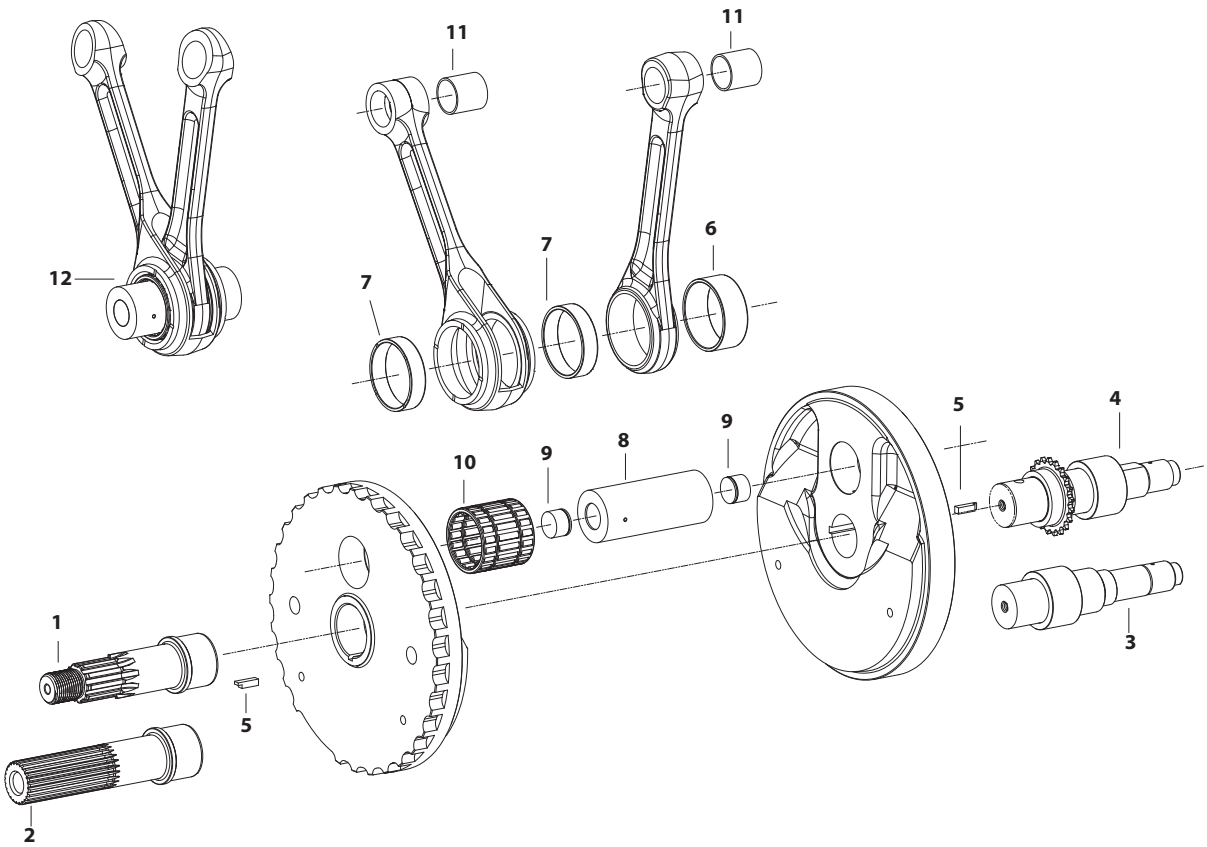
3-PIECE FLYWHEEL REPLACEMENT PARTS

1. Washer, Flywheel, Thrust, 1.25" x 1.83" x .136", Hardened Steel **320-0198**
2. Crankpin, Press-In, Straight, 1.671", 1999-Up bt (includes plugs)
   Standard **340-0069**
   +.001 ..... **340-0070**
   +.002 ..... **340-0071**
3. Race, Inner, Left Main Bearing,
   1.25" x 1.65" x .713", Hardened Steel **340-0076**
4. Race, Inner, Right Main Bearing,
   1.25" x 1.65" x 1.120", Hardened Steel **340-0077**
5. Connecting Rod, Set, Full Width Wristpin, 7.575", 120R ... **340-0062**
   Connecting Rod, Set, Full Width Wristpin, 7.667" **340-0060**
   Connecting Rod, Set, Full Width Wristpin, 7.800", T143 ... **340-0128**
6. Bearing, Set, Rod, Standard ..... USA **340-0072**
7. Plug, Drive, .8965" x .850", Steel, Fatigue Proof
   2 pack **500-0187**
8. Retaining Ring,External,Pinion Bearing,1.160" x 1.480" x .046",
   Carbon Steel,SAE 1060-1090*11177A* **50-8057**
9. Bushing, Wristpin, .928", Bronze *each* **340-0024**



5 PIECE FLYWHEEL REPLACEMENT PARTS

1. Sprocket Shaft, 1999-2006 bt *(includes key #5)* **33-2009**
2. Sprocket Shaft, 2006 Dyna®, 2007-2012 bt **33-2011**
3. Pinion Shaft, 1999-2012 bt *(includes key #5)* **33-2030**
4. Pinion Shaft, 2000-2012 w/ balancer *(includes key #5)* ..... **N/A**
5. Key *(each)* **50-8227**
6. Front Rod Race, 1999-2012 ..... USA **34-4008**
7. Rear Rod Race ..... USA **34-4013**
8. Crankpin (std.) **106-6239**
   - +.001 ..... **340-0017**
   - +.002 ..... **340-0018**
   - +.003 ..... **340-0019**
9. Crankpin Plug *(each)* **106-5256**
   - *2 pack* **50-8329-2**
10. Race/Bearing Set **340-0028**
11. Wristpin Bushing, 1999-2012*bt
    Straight bushing ..... USA **34-4012**
12. Connecting Rod Set, 7.668" length
    1999-2006 bt, straight wristpin ends ..... **N/A**

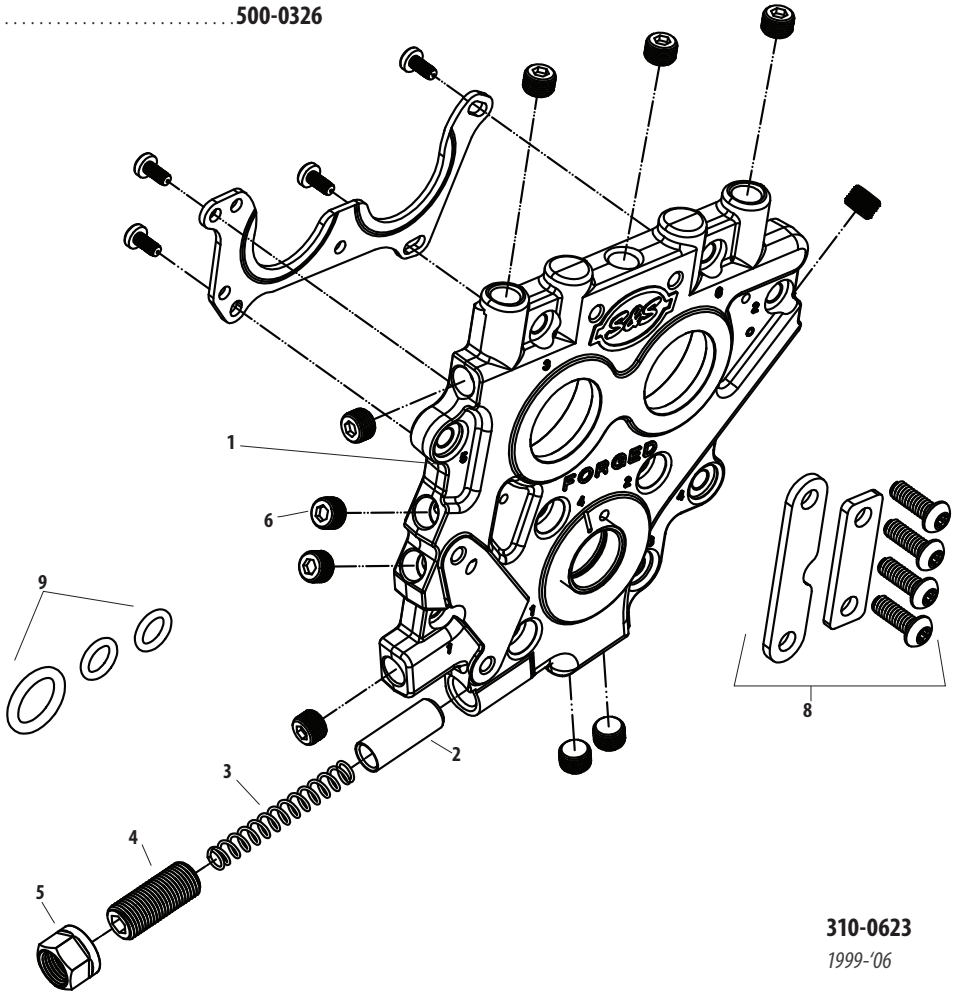


NOTES

S&S flywheels for Harley-Davidson® Twin Cam 88® and Twin Cam 96™ engines are pressed together as opposed to using the traditional tapered shafts and crankpin. Assembly and truing requires special equipment.

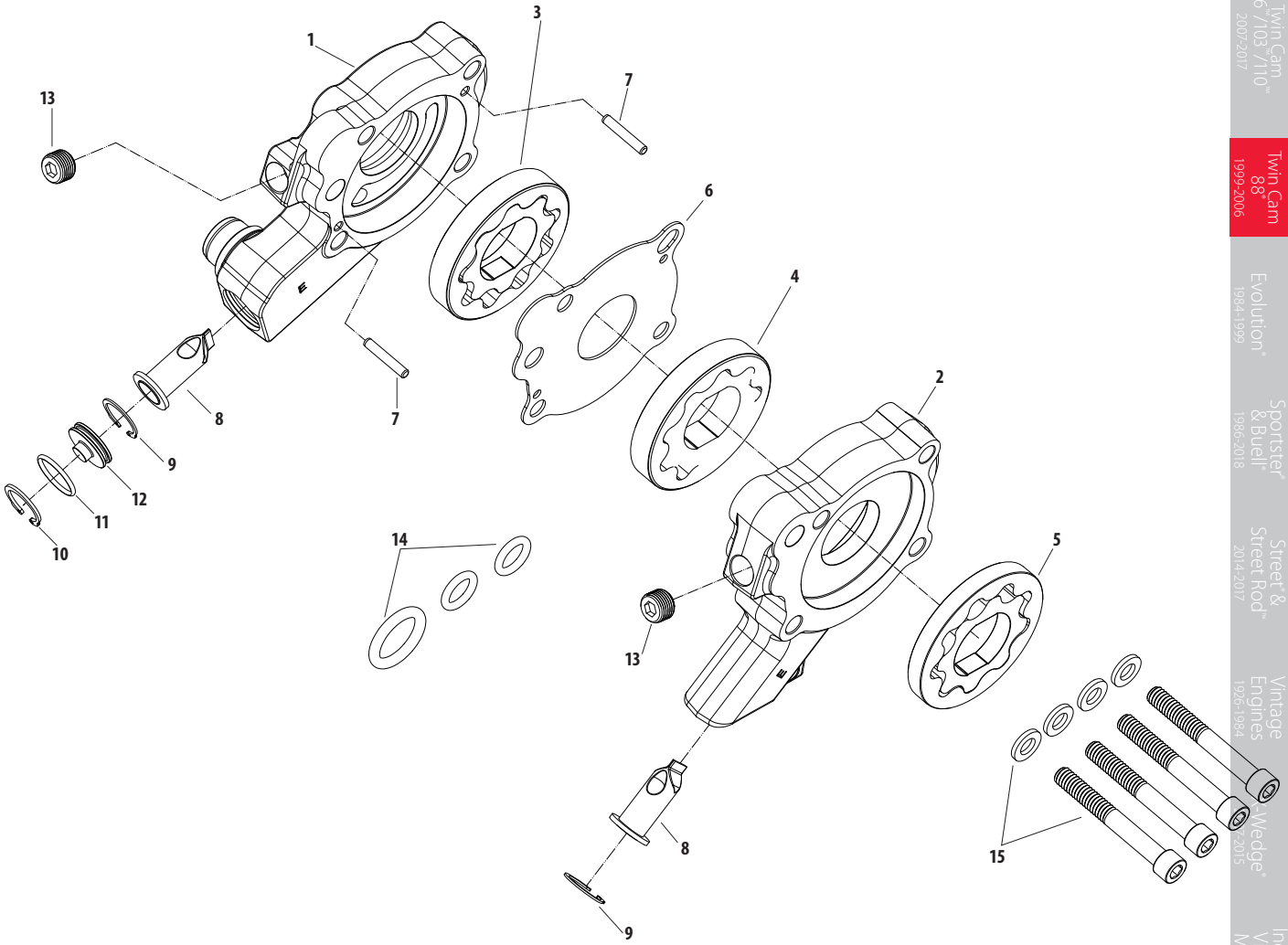
TC3 CAM PLATE REPLACEMENT PARTS

1. Cam support plate ..... **NA**
2. Pressure relief valve **31-6082-S**
3. Pressure relief spring **31-6018**
4. Pressure relief adjusting screw **170-0252**
5. Pressure relief adjusting screw lock nut **170-0251**
6. ⅛" 27 taper pipe plug **50-8331A**
7. Bearing retention plate kit **330-0015**
8. Hydraulic tensioner block off kit **106-5723**
9. O-ring kit **500-0326**



310-0623
1999-'06

TC3 OIL PUMP REPLACEMENT PARTS



1.	Oil pump body case return section	**NA**
2.	Oil pump body cam chest return / pressure feed	**NA**
3.	Oil pump rotor set, flywheel cavity return	**310-0644**
4.	Oil pump rotor set, cam chest cavity return	**36-7021-S**
5.	Oil pump rotor set, supply	**310-0561**
6.	Plate, divider	**310-0516**
7.	Dowel Pin, .125 x .750 Hardened Steel	**106-3794**
8.	Debris screen	**310-0546**
9.	Internal Retaining Ring, .625	**500-0320**
10.	Internal Retaining Ring, 17mm	**500-0209**
11.	O-ring, 1.5mm x 14mm, Viton	**500-0321**
12.	Oil pump return plug	**310-0564**
13.	Plug, Pipe ⅛" 27	**50-8331A**
14.	O-ring kit	**500-0326**
15.	Screw, Kit, Oil Pump, 1999-Up BT (¼" 20 x 2" SHCS w/washers)	**500-0327**

OIL PUMP REPLACEMENT PARTS
FOR HARLEY-DAVIDSON® TWIN CAM 88® ENGINES

1. Cover, assembly, camchest
Chrome **106-3890**
2. Cover plate **31-6507**
3. Bushing, cam support *(each)* **31-4087-S**
4. Nut, gear retainer, rear cam **31-6511**
5. O-ring, Viton (-220) *(each)* **50-8245-S**
6. Screw, SHC - 10-24 x 1" *(each)* **50-0044**
7. Alignment dowel *(each)* **50-8182-S**
8. Idler gear shaft *(each)* **31-2079-S**
9. Divider plate **31-6508**
10. Screw FHSC 10-24 x ½" *(5 pack)* **50-0312**
11. Gear, cam chest return **33-4291**
12. Gear assembly, pinion shaft **33-4170**
13. Gear, idler - *(Includes item PN 33-4214 bushing)* **33-4172**
14. Gear, cam drive **33-4292**
15. Gear, spacer **33-4171**
16. Thread adapter **31-2089-S**
17. Cam drive gear
(for reference only, not included in pump kit) **33-4293**
18. Body assembly **31-6505**
19. Spring, pressure control *26207-83 (each)* **31-6018**
10 pack **31-6084**
20. Plunger, pressure control valve *26400-82, 26400-82B* **31-6082**
21. Pressure control plug w/o-ring **50-8326**
22. Fitting, flywheel cavity return **50-8183**
23. Screw, SHC 8-32 x ⅝", *(5 pack)* **50-0293**
24. O-ring, Viton *11301 (each)* **50-8066-S**
25. Bushing, pinion shaft **31-4088**
26. Screw FHSC 10-24 x ¾" *(5 pack)* **50-8328**
27. Screw FHSC ¼"-20 x 2" *(5 pack)* **50-8163**
28. Screw,SHCS,¼-20 x 1-½",Chrome,ASTM A574-92A **50-0255-S**
29. Screw,SHCS,¼-20 x 1-¼",Chrome,ASTM A574-92A **50-0257-S**
30. Washer,Flat,.260" x .425" x .060",Chrome,Steel **50-7017**
31. Gasket *25244-99A (each)* **31-2032-S**
32. Dowel pin, 3/32" diameter x 1" *(each)* **50-8193-S**
33. Retaining ring ..... **N/A**
34. Bushing **33-4214**
35. O-ring 5/16" O.D. x 1/16" Viton (-011) **50-8138-S**
36. O-ring (-209) Viton *11293, 11157, 11101, 11190*
each **50-8039**
37. Washer, pinion gear **50-0331-S**
38. Screw, FHHC - 5/16"-18 x ¾" G8 *25566-06* **50-0100**
39. Steel ball, ⅛" *(each)* **50-8092-S**
40. Pin dowel - .275" I.D. x .3745" O.D. x .397"
16589-99A **50-8148-S**
41. Viton o-ring (-207) *(5 pack)* **50-8244**
42. Viton o-ring (-225) *(5 pack)* **50-8243**
43. Viton o-ring (-16) *(5 pack)* **50-8242**
44. Screw, FLC ¼"-20 x 1¾" (N/S) *905 (each)* **50-0334-S**
45. Pipe plug ⅛"-27 *(each)* **50-8331A**
10 pack **50-1015**
46. Key kit - cams **50-1038**
47. Camshafts
See Cam Selection Chart below.
48. Ball, pressure relief valve ⅜" diameter *8866, 8873* **50-8091**
49. Spring, pressure relief valve **50-8408**
50. Seal rebuild kit (N/S) *(Includes #5, 24, 31, 36, 41, 42, 43)* **31-2097**
51. Kit, cover screw (N/S) *(includes #28 (7), #29 (3), #30 (10)* **50-1035**
52. Breather Valves (see page 149)
53. Screw,SFH,1/4-20 x 1-3/4",Black,Alloy St. **50-0334-S**

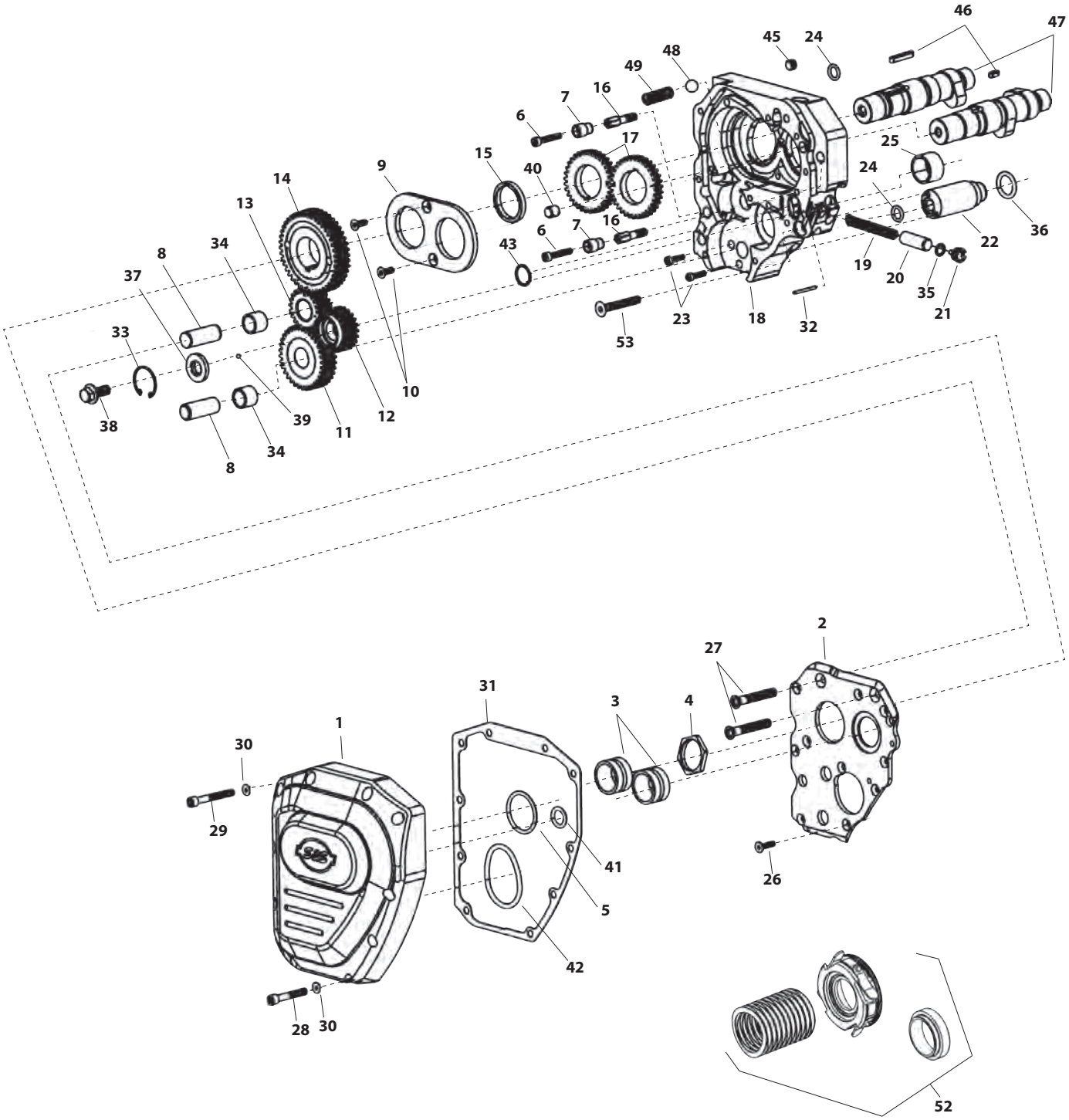
(N/S) = Not Shown

GEAR DRIVE CAMS FOR USE WITH S&S GEAR OIL PUMPS FOR 1999-'06 BIG TWIN (EXCEPT 2006 DYNA® MODELS)

Cam*	Easy Start Cams with Drive Gears
570GP	**106-4751**
585GP	**106-4771**
635GPE	**330-0405**
640GP	**106-4781**
675GP	**106-5215**

**See Cam listings on page 157 for further information on cam recommendations for different applications.*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

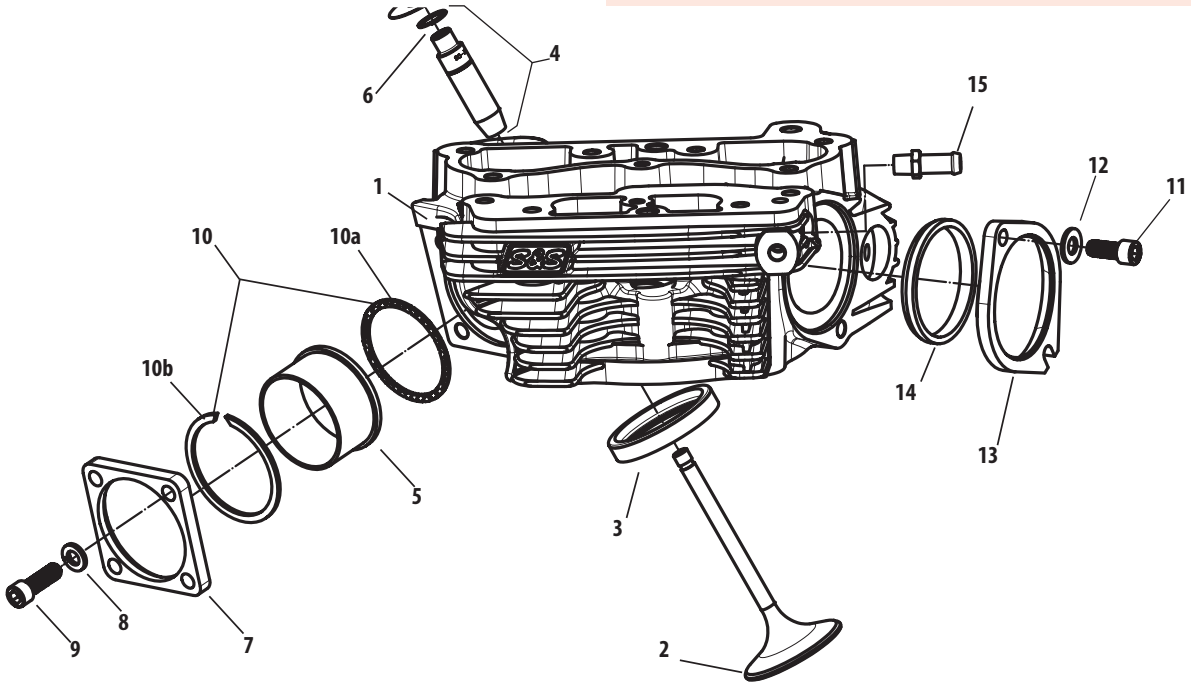


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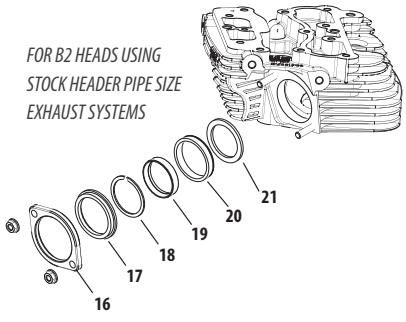
B2 CYLINDER HEADS REPLACEMENT PARTS
FOR 1984-'17 BIG TWIN ENGINES (EXCEPT 2017 TOURING MODELS)

1. Cylinder Head – (See page 168)
2. Valve
   - Intake, 2.200" Dia. ... **90-2127**
   - Exhaust, 1.800" Dia. ... **90-2128**
3. Valve Seat
   - Exhaust, 1.800" Dia, ... **90-2126**
   - Intake, 2.200" Dia,. ... **90-2125**
4. Valve Guide - Cast - Intake/Exhaust
   - Std. ... **106-2166**
   - +.030" ... **106-2170**
5. Adaptor, Exhaust Flange ... **55-6022**
6. Snap Ring ... **106-2164**
7. Flange, Exhaust, Front/Rear ... **55-6021**
8. Washer,Lock,.332" X .583" X .078" ... **50-7032**
9. Screw, Sh, 5/16" -18 X 1" *3201WA, 2708* ... **50-0101**
10. Gasket, Kit, Exhaust, B2 Heads, SA. ... **90-1900**
    Kit Includes Two Each:
    - A: Gasket, Exhaust Pipe *(each)* ... **93-1083-S**
      - *6 pack* ... **93-1083**
    - B: Retaining Ring. ... **50-8159-S**
11. Screw, SH, 5/16-18 X ¾" *3275* ... **50-0302-S**
12. Washer, 5/16" *6320, 70907-07, 6016, 6702* ... **50-7034**
13. Manifold Mounting Flange
    - Front ... **16-0247**
    - Rear. ... **16-0248**
14. O-Ring, Manifold ... **16-0246-S**
    - *6 pack* ... **16-0246**
15. Fitting, Vent Hose, 1/8"-27 Pipe ... **50-8115**
16. Exhaust Flange, 1984–Up S&S® B2 Heads ... **550-0223**
17. Exhaust Adapter Flange For Stock Header Pipe, 1984–Up S&S® B2 Heads ... **550-0224**
18. Exhaust Flange Retaining Ring, 1.759" X .062" ... **550-0226**
19. Exhaust Gasket,Tapered Stainless Steel, 1984–Up bt *65324-83B, 65324-83A* ... **106-5029**
20. Press-In Aluminum Retaining Ring ... **550-0225**
21. Exhaust Gasket Backing Washer 2.18" X 1.690" X.125" ... **550-0220**
22. Exhaust Flange Retaining Ring, 2.125" X .078" ... **50-8159-S**
23. Exhaust Gasket, Tapered, Stainless Steel ... **550-0221**
24. Exhaust Gasket Backing Washer 2.18" X 1.885" X .200" ... **550-0219**
25. Weld-On Exhaust Header Pipe ... **550-0222**

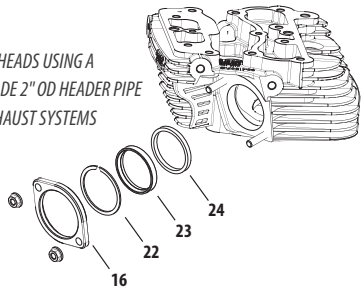
VALVE SPRING REPLACEMENT PARTS ON PAGE 202



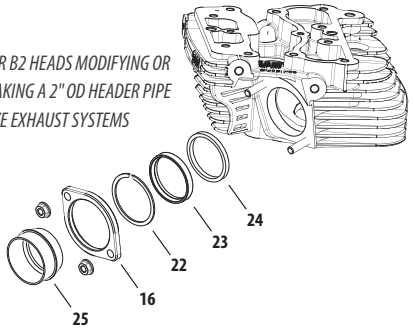
FOR B2 HEADS USING STOCK HEADER PIPE SIZE EXHAUST SYSTEMS



FOR B2 HEADS USING A PRE-MADE 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



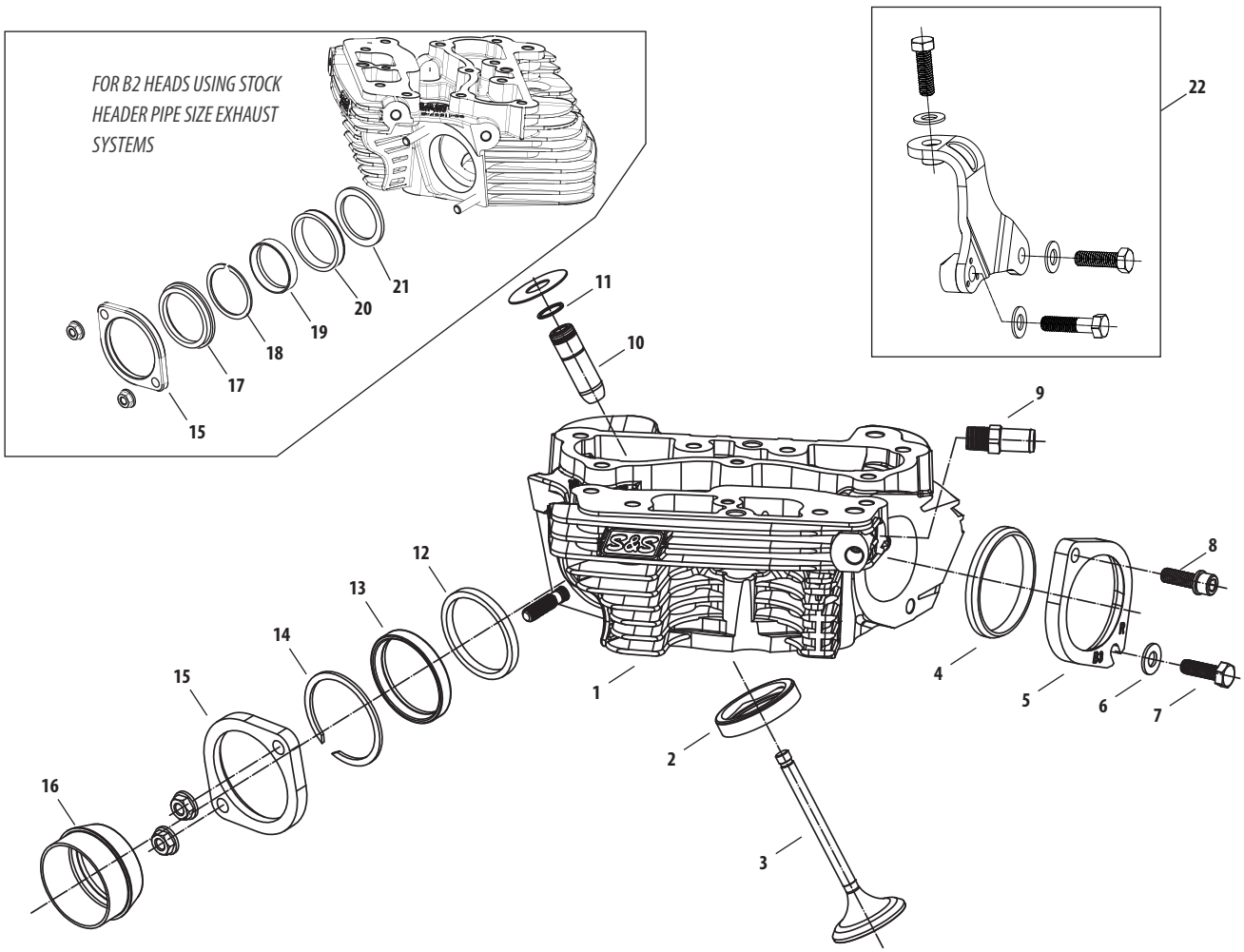
FOR B2 HEADS MODIFYING OR MAKING A 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



B3 CYLINDER HEADS REPLACEMENT PARTS
FOR S&S T143 ENGINES

1. Cylinder Heads Set, B3
   - Black **900-0803**
   - Silver **900-0818**
2. Seat, Blank, B3 Heads, 2.300"
   - Intake **900-0677**
   - Exhaust **90-2126-S**
3. Valve
   - Intake **900-0678**
   - Exhaust **900-0679**
4. Seal,Manifold,B2 Heads,2.250" x 2.520" x .290" **16-0246-S**
5. Flange
   - Front **160-0087**
   - Rear **160-0088**
   - Set **160-0091**
6. Washer,Flat,.344" x .688" x .065",Zinc,Steel **50-7034**
7. Bolt,Hex Head,Gr5,5/16-18 x 1",Zinc **50-0108**
8. Screw,SHCS,w/Flat Washer,5/16-18 x 1",Zinc **50-0125-S**
9. Fitting,Pipe,Straight,1/4-18 NPTF x 1.510" X .500",Zinc,Steel **50-8158-S**
10. Valve Guide, Intake, Powder Metal **900-0780**
11. Retaining Ring,External,Spiral,Heavy Duty,.525" x .035" x .050", Carbon Steel **106-2164**
12. Exhaust Gasket Backing Washer, 2.18" x 1.885" x .200" **550-0219**
13. Exhaust Gasket, Tapered, Stainless Steel **550-0221**
14. Exhaust Flange Retaining Ring, 2.125" x .078" **50-8159-S**
15. Exhaust Flange **550-0223**
16. Weld-On Exhaust Header Pipe **550-0222**
17. Exhaust Adapter Flange for Stock Header Pipe **550-0224**
18. Exhaust Flange Retaining Ring, 1.759" x .062" **550-0226**
19. Exhaust Gasket,Tapered Stainless Steel **106-5029**
20. Press-in Aluminum Retaining Ring, 1984–up **550-0225**
21. Exhaust Gasket Backing Washer, 2.18" x 1.690" x.125" **550-0220**
22. Head Mount Bracket Kit
    - 2008 T143 ..... **900-0797**
    - 2009-up T143 ..... **900-0798**

VALVE SPRING REPLACEMENT PARTS ON PAGE 202



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SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS
FOR 1999-UP BIG TWIN ENGINES

1. Cylinder head (See page 169)

2. Valve
All S&S heads with 89cc chamber
Intake
2.000" diameter **90-2000**
2.000"diameter +.085" stem length **90-2004**
Exhaust
1.605" diameter **90-2001**
All S&S heads with 79cc chamber
Intake – 1.940" diameter **90-2025**
Exhaust – 1.575" diameter **90-2026**

3. Valve seat
All S&S heads with 89cc chamber
Intake - 2.000" diameter **90-2002**
Exhaust - 1.605" diameter **90-2003**
All S&S heads with 79cc chamber
Intake - 1.940" diameter **90-2027**
Exhaust - 1.575" diameter **90-2028**

4a. Valve guide - Cast- Intake or Exhaust
Standard *Diameter .5625/.5620* ***18112-92*** **90-2210**
+.001" *Diameter .5635/.5630* ***18130-83C*** **90-2211**
+.002" *Diameter .5645/.5640* ***18133-83A, 18133-83D*** **90-2212**
+.003" *Diameter .5655/.5650* ***18131-83C*** **90-2213**
+.030" *Diameter .5925/.5920* **90-2219**

4b. Valve guide -Powder Metal - Intake or Exhaust
Standard **900-0553**
+.001" **900-0554**
+.002" **900-0555**
+.003" **900-0556**

5. Head bolt assembly – (8 Required) (Includes head bolt washer)
88", 95", 96", 100", 107" & 111" **93-3030**
4 pack **93-3030-4**
116", 117" **93-3037**
4 pack **93-3037-4**

6. Head bolt washer
.150" *(each)* **50-0418-S**
.250" *(each)* **50-7091**

7. Exhaust port stud ***16715-83*** *(each)* **50-0493**
5 pack **50-1028**

8. Lock washer - 5/16" **50-7032**

9. Nut, flanged - 5/16" -24
Zinc *(each)* **50-5025-S**
2 pack **50-5025-2**
5 pack **50-1001**
Chrome *(each)* **50-5030-S**

10. Exhaust pipe gasket, tapered ***65324-83B, 65324-83A*** *(each)* **106-5029**
10 pack **93-1072**

11. Intake manifold (See page 173)

12. Manifold mounting screw
SH - 5/16"-18 x 3/4" ***3275*** *(each)* **50-0302-S**
SH - 5/16"-18 x 1" ***3201WA, 2708*** **50-0101**
HH - 5/16"-18 x 1" ***3987*** *(each)* **50-0108**

13. Flat washer - 5/16" ***6320, 70907-07, 6016, 6702*** **50-7034**

14. Manifold mounting flange
a. Standard Profile Flange
Front ***27009-86A*** *(each)* **16-0232**
5 pack **16-0600**
Rear ***27010-86A*** *(each)* **16-0233**
5 pack **16-0601**
Set (Front & Rear) **106-3516**
b. Low Profile Flange
Front **106-1344**
Rear **106-1345**

15. Manifold o-ring
For S&S heads *(each)* **16-0235**
10 pack **16-0243**
For Stock heads ***26995-86B, 26995-86A, 26992-99*** *(each)* **16-0236**
10 pack **16-0244**

16. Head gasket
For Stock Bolt Pattern
3¾" x .043" Graphite ***16775-99B*** *(each)* **93-1045-S**
3⅞"/3.927" x .030" Layered Steel *(2 pack)* **900-0605**
3⅞"/3.927" x .045" Layered Steel *(each)* **900-0606**
4" x .043" Graphite *(each)* **93-1043-S**
10 pack **93-1058**
4⅛" x .043" Layered Steel *(each)* **93-1091-S**
10 pack **93-1920**
4⅛" x .030" Layered Steel *(2 pack)* **900-0217**
For S&S Bores
4⅛" x .043" Graphite *(each)* **93-1047-S**
10 pack **93-1073**
4⅜" x .045" Copper *(Set of Two)* **93-1081**

17. Alignment dowel, base and head ***16595-99A***
each **50-8177**
4 pack **50-8177-4**

18. Alignment dowel o-ring – Base (all bore sizes)
S&S heads 3¾" bore only ***11105, 11273***
each **50-8008**
10 pack **50-8078**

19. Plug, HH - 14mm *(each)* **90-4916**
2 pack **90-4916-2**

20. Washer, compression - 14mm, 507" x .705" x .047" *(each)* **50-7094**

21. Head mount bolt - ⅜"-16 x 1¼" ***4716W*** *(each)* **50-0168**

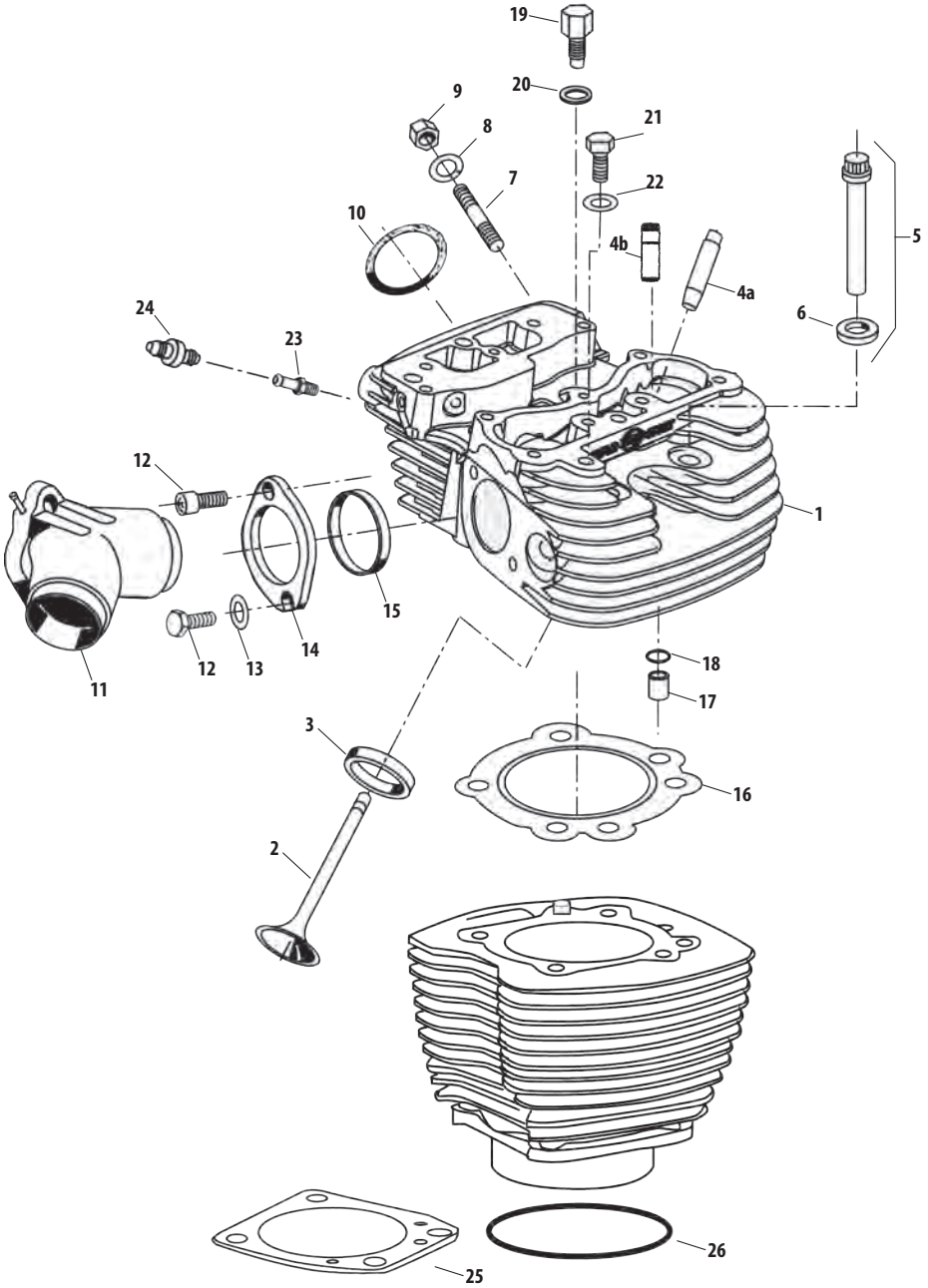
22. Flat washer - ⅜" *(each)* **50-7051**

23. Vent hose fitting, ***(For 4⅛" Bore Only)***
Front, 1/16"-27 pipe **50-8117**
Rear, ⅛"-27 pipe **50-8115**

24. Check Valve ***(For 4⅛" Bore Only)*** **50-8122**

25. Base Gaskets
For S&S Bores
4⅜" x .018" Graphite *(2 pack)* **93-1082**
4⅛" x .018" Graphite *(each)* **93-1048-S**
10 pack **93-1074**
4" x .018" Graphite *(each)* **93-1050-S**
For Stock Bolt Pattern
4⅛" x .018" Graphite *(each)* **93-1092-S**
10 pack **93-1921**

26. Base O-ring (Used for early S&S bores)
4" x .103" *(each)* **50-8049**
3⅝" or 3½" x.103" ***11256*** *(each)* **50-8048**



TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

Bore Size	Part #
S&S 4⅜"	**90-9511***
S&S 4⅛"	**90-9506**
4⅛" Stock Cases	**90-9510**
4"	**90-9505**
3⅞"	**90-9504**

Kits include: Intake and exhaust seals, head & base gaskets, o-rings, pushrod o-rings, and valve guide seals.
**Does not include intake seals.*

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VALVE SPRING REPLACEMENT PARTS

.720" & .660" Lift Valve Springs (B3 Cylinder Heads)

1. Seal, valve guide, intake/exhaust *18001-83B (each)* **90-2008**
   8 pack **90-2158**
2. Keeper, valve spring, SA **90-2153A**
3. Valve spring shim
   .015" *(each)* **90-2086**
   5 pack **50-7161**
   .030" *(each)* **90-2087**
   5 pack **90-2198**

.650" Lift Valve Springs (B2 Cylinder Heads)

1. Seal, Valve Guide,fits .315" x .554"OD, Viton® **900-0737**
2. Keeper, valve spring, Standard, 9° **90-2094-S**

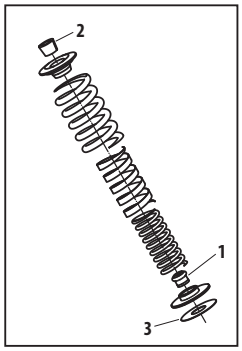
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .650" **106-5689**
2. Collar, Top, Steel **106-5690**
3. Collar, Bottom, Steel **106-5691**
4. Seal,Valve
   S&S CNC Ported Heads & 2005-up bt w/7mm valve stem **106-5688**
   S&S Super Stock Heads
   .420" Cast **900-0338**
   .562" Powder Metal **900-0737**
5. Keeper, valve spring **106-5692**
6. Valve Spring Shim
   .015" *(each)* **500-0013**
   .030" *(each)* **500-0014**

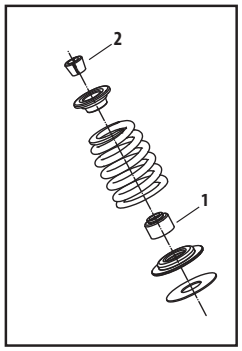
.585" Lift Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .585" **900-0444**
2. Collar, Top **900-0550**
3. Collar, Bottom
   For Stock Heads w/7mm valve stem *(includes seal)* **900-0590**
   For CNC Ported Heads w/7mm valve stem **900-0549**
   For Super Stock Heads **900-0600**
4. Seal, valve guide
   For Stock Heads w/7mm valve stem *(includes bottom collar)* **900-0590**
   For CNC Ported Heads w/7mm valve stem **106-5688**
   For Super Stock Heads
   .420" Cast **900-0338**
   .562" Powdermetal **900-0737**
5. Keeper, valve spring
   For Stock and CNC Ported Heads **106-5692**
   For Super Stock Heads **90-2094-S**
6. Valve spring shim
   For Stock and CNC Ported Heads
   .015" **500-0013**
   .030" **500-0014**
   For Super Stock Heads
   .015" **90-2086**
   .030" **90-2087**

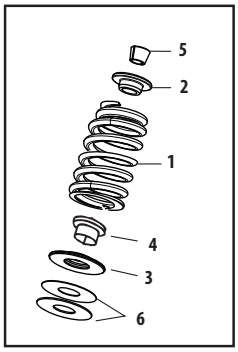
.720" & .660" Lift Valve Springs



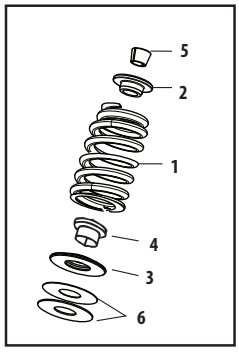
.650" Lift Valve Springs



.650" Lift Sidewinder® Valve Springs

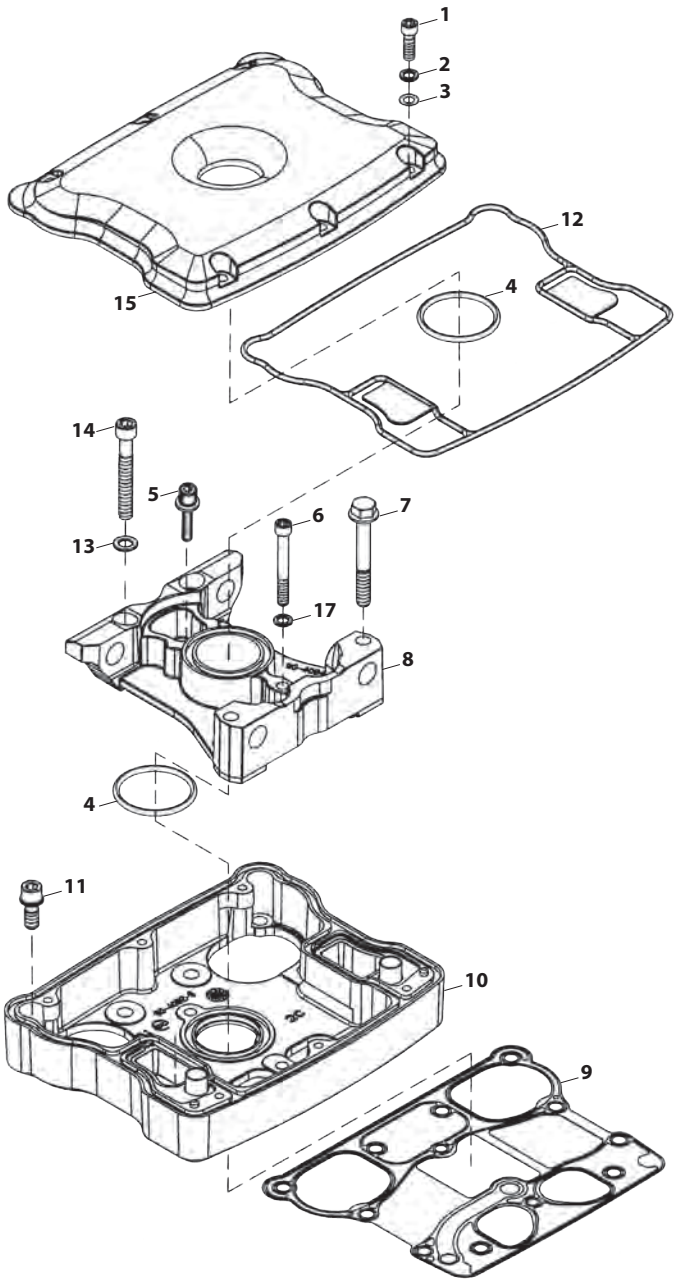


.585" Lift Valve Springs



DIE-CAST ROCKER COVER REPLACEMENT PARTS
FOR 1999-UP BIG TWIN ENGINES

1. Screw, socket head ¼"-20 x ¾" *4069A (each)* **50-0067**
2. Washer, flat ¼" *(each)* **50-7017**
   12 pack **50-7013**
3. Washer, silicone coated ¼" *(each)* **50-7015**
   8 pack **50-7015-8**
   12 pack **50-7015-12**
4. Seal, o-ring
   (Included in gasket kit see #16 below.)
5. Screw, socket head, ¼"-20 x 1" *4741A*
   each **50-0092-S**
   4 pack **50-0092P**
6. Screw, socket head, ¼"-20 x 2" *25794-36* **50-0013**
7. Screw, hex flange head, 5⁄16"-18 x 2½" *3501* **50-0123**
8. Support, rocker arm **90-4140**
9. Gasket, rocker cover, Graphite
   For Stock or S&S rocker covers on stock heads *16719-99B*
   each **90-4071-S**
   2 pack **90-4071**
   10 pack **90-4099**
   For Stock rocker covers on S&S heads *(each)* **90-4124**
   2 pack **90-4120**
10. Housing, rocker, Chrome **900-4283**
11. Screw, socket head, 5⁄16"-18 x 1" **50-0125-S**
12. Seal, rocker cover
    (Included in gasket kit see #16 below.)
13. Washer, flat 5⁄16" *(each)* **50-7026**
14. Screw, socket head 5⁄16"-18 x 2¼"
    each **50-0115-S**
15. Cover, rocker, chrome **900-0706**
16. Gasket set - rocker cover, cast (Not Shown) **90-4111**
17. Washer,.261" x .474" x .050",Annealed,Stainless Steel **50-7020**

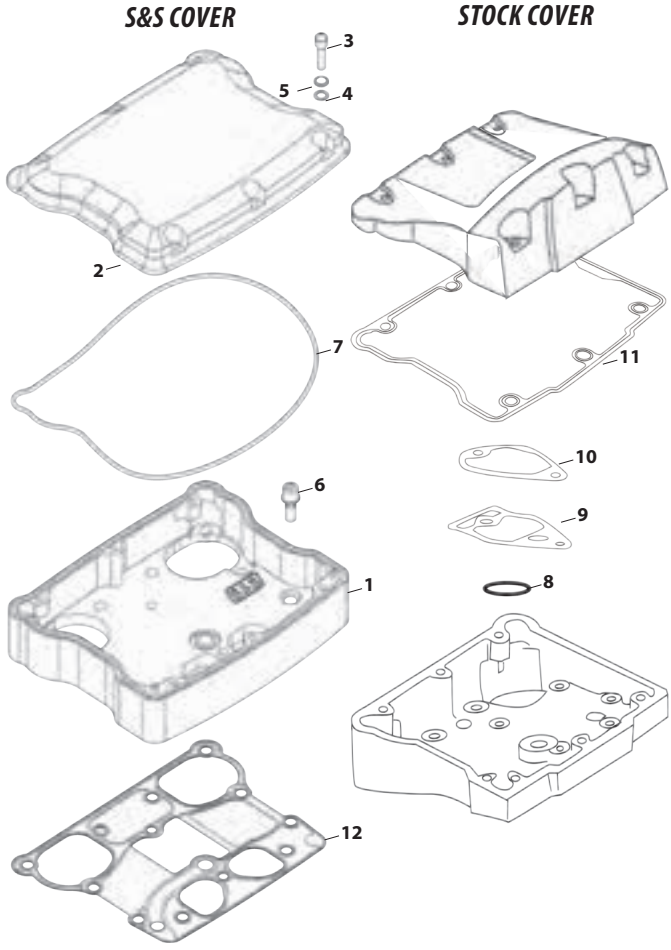


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BILLET ROCKER COVER REPLACEMENT PARTS
FOR 1999-UP BIG TWIN ENGINES (DISCONTINUED)

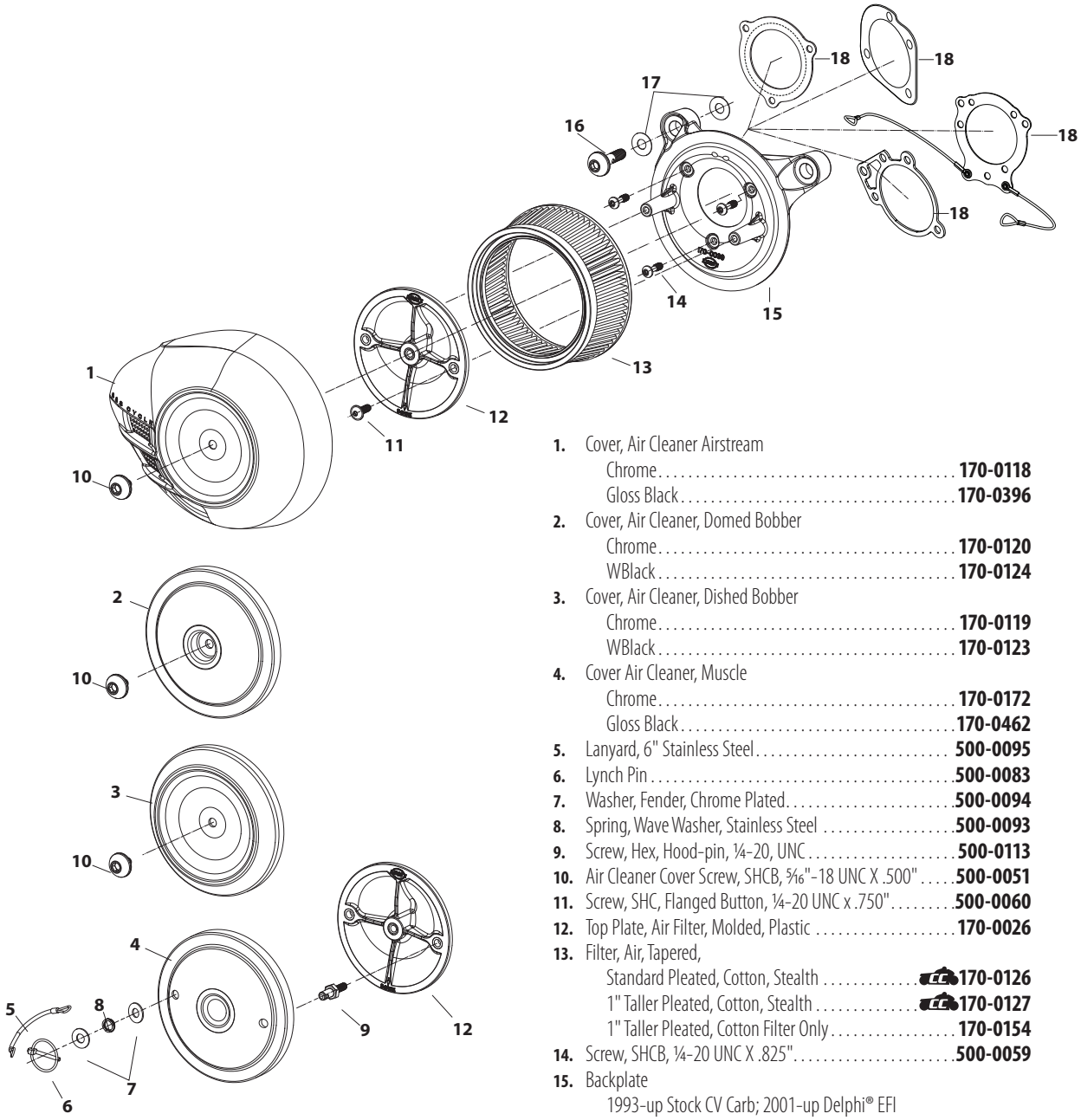
1. Base assembly, rocker ..... **N/A**
2. Top, rocker cover ..... **N/A**
3. Screw, SHCS, ¼"-20 x ¾" *4069A (each)* **50-0067**
4. Washer, flat, chrome, 260" x .425" x .060"
each **50-7017**
12 pack **50-7013**
5. Washer, flat, rubber coated, ¼" x 7⁄16" x .020"
each **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
6. SHCS, 5⁄16"-18 x 1" with flatwasher **50-0125-S**
7. O-ring, rocker cover seal, Viton® **50-8050**
8. O-ring, (-114), .625" ID x .937" OD *11270* **50-8033**
9. Gasket, Breather Baffle, Stock Pattern, Paper, 1999-'10 bt
17162-03, 17592-99 each **90-4078**
10. Gasket, Breather Cover, Stock Pattern, Paper, 1999-'10 bt
17591-99, 17162-03, 17592-99 each **90-4077**
11 Gasket, Rocker Cover, Steel, 1999-up bt *17386-99A*
each **90-4096-S**
12. Gasket, bottom rocker cover
each **90-4071-S**
2 pack **90-4071**
10 pack **90-4099**
9. Gasket kit, rocker cover (includes gaskets for 2 rocker covers)
For S&S billet rocker covers
(includes #5,7,8,9,10,12) **90-4073**
For 1999-'10 bt
(includes #8,9,10,11,12) **90-4097**

N/A = No longer available



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STEALTH AIR CLEANER REPLACEMENT PARTS



1. Cover, Air Cleaner Airstream
   - Chrome **170-0118**
   - Gloss Black **170-0396**
2. Cover, Air Cleaner, Domed Bobber
   - Chrome **170-0120**
   - WBlack **170-0124**
3. Cover, Air Cleaner, Dished Bobber
   - Chrome **170-0119**
   - WBlack **170-0123**
4. Cover Air Cleaner, Muscle
   - Chrome **170-0172**
   - Gloss Black **170-0462**
5. Lanyard, 6" Stainless Steel **500-0095**
6. Lynch Pin **500-0083**
7. Washer, Fender, Chrome Plated **500-0094**
8. Spring, Wave Washer, Stainless Steel **500-0093**
9. Screw, Hex, Hood-pin, ¼-20, UNC **500-0113**
10. Air Cleaner Cover Screw, SHCB, 5⁄16"-18 UNC X .500" **500-0051**
11. Screw, SHC, Flanged Button, ¼-20 UNC x .750" **500-0060**
12. Top Plate, Air Filter, Molded, Plastic **170-0026**
13. Filter, Air, Tapered,
    - Standard Pleated, Cotton, Stealth ..... CC **170-0126**
    - 1" Taller Pleated, Cotton, Stealth ..... CC **170-0127**
    - 1" Taller Pleated, Cotton Filter Only **170-0154**
14. Screw, SHCB, ¼-20 UNC X .825" **500-0059**
15. Backplate
    - 1993-up Stock CV Carb; 2001-up Delphi® EFI *(except Throttle by Wire)* **170-0021**
    - Super E/G, Black, Die Cast, 1993-up bt. **170-0049**
16. Screw, Backplate Vent, SHCB, ⅜-16 x 1½", Chrome Plated **170-0045**
17. Washer,Flat, ,Nitrile Rubber Coated, .380" x .880" x .024"
    - *each* **50-7054**
    - *10 pack* **50-7059**
18. Gasket,Backplate
    - Stock CV Carb & EFI Throttle Body, 1991-up bt *29062-95B (except Throttle by Wire)* **106-6022**
    - Throttle by Wire, 58mm-72mm, .0625"Thick, 2008-up bt .. **160-0035**
    - Super E/G,CV Adapter, ... **106-1724**
    - w/ lanyards for use with Muscle Cover. **170-0137**

SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

FOR S&S T-SERIES ENGINES AND 1999-'06 BIG TWINS

1. Tuned Intake Kit, 2.19" Single Bore with Red Filters
- Gloss Black ..... CC **170-0454**
- Chrome Plated ..... CC **106-4967**

2. Tuned Intake Assembly, 2.19" Single Bore
- Natural ..... CC **106-4968**
- Gloss Black ..... CC **170-0453**
- Chrome Plated ..... CC **106-4970**

3. Air Filter, w/clamp, Stainless Cap – Conical – 2 7/16" I.D. x 4"
- Red *(each)* **17-1020**
- Blue *(each)* **17-1023**

4. Gasket, Intake – Adapter Plate **17-1022**

5. Plate, Adapter, 2.19" Single Bore Tuned Intake
- Chrome Steel **17-1014**

6. FHSC 1/4-20 x 5/8" *(each)* **50-0433**

7. FHSC 5/16-18 x 5/8" *(each)* **50-0432**

8. O-Ring, Adapter Plate Bracket 3 5/8" O.D. x 3 1/2" I.D. 1/16 CS, Viton
each **50-0446**

9. Bracket Kit, 2.19" Single Bore Tuned Intake, Chrome
- Super E/G, S&S T124 ..... **106-4973**
- Super E/G, 1999-'06 BT **106-4974**
- Single VFI, S&S T124 ..... **106-4976**
- Single VFI, 1984-up BT **106-4977**
- Stock Carb, Delphi® EFI, 1984-up BT **106-4978**

10. Backplate Screw, SHC, w/Threadlock, 1/4-20 x 1/2" *(each)* ... **106-2084**
10 pack **106-2105**

11. Screw, 5/16 -18 x 1 1/4, BHC, Chrome *(each)* **50-0309-S**

12. Flat Washer 5/16" x 1/16" *6320, 70907-07, 6016, 6702* **50-7034**

13. Hose, Breather, 1/4" I.D., 90° **19-0178A**

14. Screw, Breather Fitting, 3/8 -16 x 1 1/4" **50-0436**

15. Washer, Flat, 3/8" x 13/16" x 1/16", Chrome **50-7106-S**

16. Screw, Breather Fitting, 1/2 -13 x 1.25 ..... **50-0435**

17. Shim Kit
- (a) 5/16" I.D. S&S 4 1/8" engines **17-0314**
  Includes:
  - .325" x 1" x .018", Stainless Steel *(each)* **50-7038**
  - .325" x 1" x .030", Stainless Steel (each) **50-7039**
  - .325" x 1" x .048", Stainless Steel *(each)* **50-7040**
  - .325" x 1" x .105", Stainless Steel *(each)* **50-7041**
  - .325" x 1" x .125", Stainless Steel *(each)* **50-7042**
- (b) 1/2" I.D. 1993-up BT **17-0464**
  Includes:
  - .515" x 1" x .018", Stainless Steel *(each)* **50-7085**
  - .515" x 1" x .030", Stainless Steel *(each)* **50-7086**
  - .515" x 1" x .048", Stainless Steel *(each)* **50-7087**
  - .515" x 1" x .105", Stainless Steel *(each)* **50-7089**
  - .515" x 1" x .125", Stainless Steel *(each)* **50-7090**

18. Enrichment Device*, S&S Super E & G carbs ..... **N/A**
*(*Use in place of enrichment device on air cleaner backplate)*

19. Gasket, Backplate - E/G/SBEFI *(each)* **106-1724**
10 pack **106-2328**

20. Gasket, Backplate, S&S SBEFI 58mm **106-4662**

21. Gasket, Backplate, Stock carb/Throttle Body *29062-95B* **106-6022**

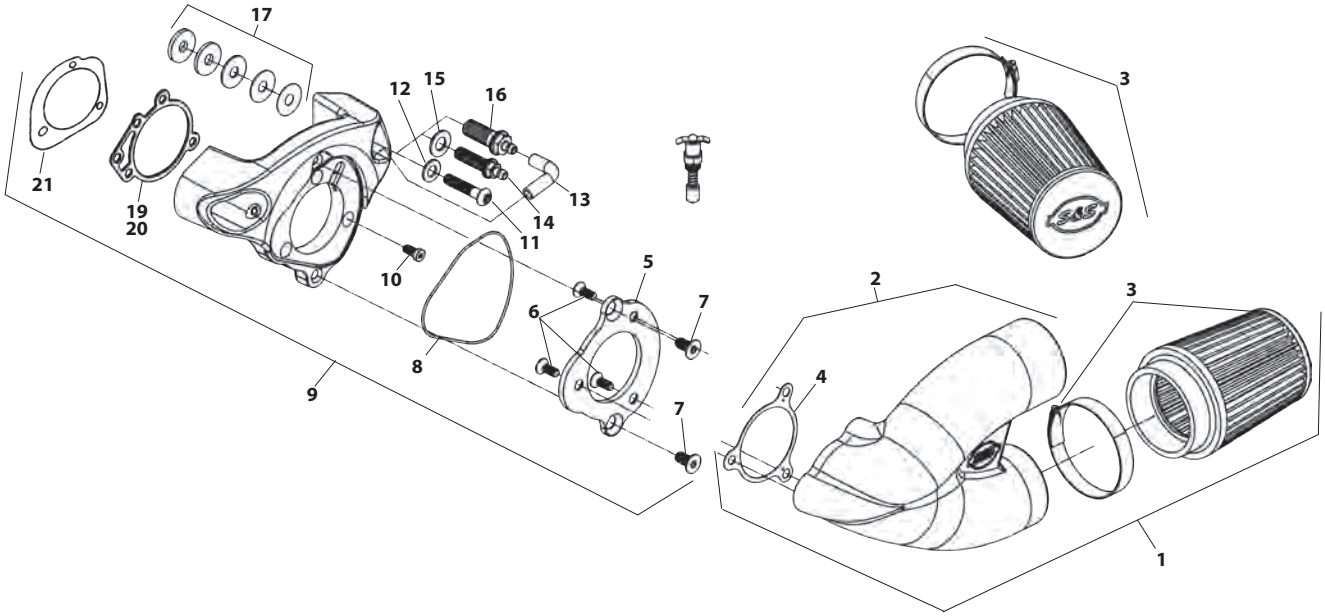
22. Hardware Kit
- 1999-'06 bt, Stock CV & EFI Delphi®
  (includes #7, 8, 10, 11, 12, 13, 14, 15, 16, 17a, 17b, 19, 21) **17-5098**
- 1999-'06 bt, Super E/G
  (includes #7, 8, 10, 11, 12, 13, 14, 15, 16, 17a, 17b, 18, 19, 21) . **17-5099**
- S&S 4 1/8" Bore Heads *(includes #7, 8, 10, 11, 12, 13, 17a, 19)* .. **500-0016**

23. Oil, Air Filter, 8 oz. (Not shown)
- Red **106-1163**
- Blue **106-1164**

ACCESSORIES

Description		Part #
Nylon Air Filter Cover	*each*	**106-0247**
	2 pack	**106-0248**




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AIR CLEANER REPLACEMENT PARTS
FOR STOCK FUEL SYSTEMS

1. Air cleaner cover
- **a.** Chrome **17-0078**
- Black **17-0075**
- **b.** Chrome **17-0378**
- Gloss Black **170-0384A**
- Slasher **17-0004**

2. Filter Element
- a. Foam **17-0079**
- b. Pleated **106-4722**

3. Backplate
- a. 1993-'99, bt stock CV **17-0003**
- b. 1993-'06 bt, stock CV/Delphi® EFI **106-0907**
- c. 1995-'01 bt, Stock EFI, Magneti Marelli® ..... **N/A**

4. Cover screw *1305 (each)* **50-0072**
- *3 pack* **50-1052**
- *10 pack* **50-0094**

Black *902 (each)* **50-0310-S**
- *3 pack* **50-0310**

5. Screw
- b. All others – HHCS ¼"-28 x ⅞" **50-0074**

6. Backplate screw, BT 1999-up, All 2002-up EFI BT
Zinc Plated *(each)* **106-2084**
- *10 pack* **106-2105**

7. Backplate plug ⅛"-27 *(each)* **50-8331A**
- *10 pack* **50-1015**

8. Spacer, 1/2" Hex, Threaded ..... **N/A**

9. Stud, Fully Threaded, 5⁄16-18 x 1.25", Zinc Plated, 1999-'01 ..... **N/A**

10. SHCS, ¼-20 x ¾ SEMS **50-0066**

11. Screw, SHCS,
1995-'98, ¼-20 x ¾", SEMS **50-0066**
1999-'01, 5⁄16-18 x ¾" *3275 (each)* **50-0302-S**

12. Shims
- a. ⅝" x .025" *(each)* **50-7113**
- *10 pack* **50-7110**
- b. ⅝" x .050" *(each)* **50-7114**
- *10 pack* **50-7111**
- c. ⅝" x .075" *(each)* **50-7115**
- *10 pack* **50-7112**

13. Breather screw seal
- a. BT 1993-'99, All 2002 EFI BT – Washer, .520 *(each)* **50-7055**
- *10 pack* **50-7057**
- b. BT 1999-up, All 2002 EFI BT – Washer, .380 *(each)* **50-7054**
- *10 pack* **50-7059**

14. Breather fitting *(each)* **17-0350**
- *2 pack* **17-0355**

15. Crankcase breather vent hose, BT 1999-up ..... USA 1,2 **17-0339**

16. Vent hose, with angle cut **17-0365**

17. Hose fitting **17-0336C-S**

18. Hose, vent, breather, formed,
.250" x .375" x 1.825", 1993-2007 BT *(each)* **17-0364A**

19. Flatwasher, ¼" *6194, 6245, 6703, 6736, 6228W, 6192 (each)* **50-7021**

20. Washer, Lock, .250" *7035, 7036* **50-7019**

21. Screw, SHCS, ¼-20 x 1¼" *(each)* **50-0008**

22. Support bracket locknut - ¼"-28 x ⅞" *(each)* **50-5010**

23. Lockwasher, 5⁄16" **50-7032**

24. Rubber tubing - ¼" x ⅝" x 3' ..... USA **N/A**

25. Washer, flat - ⅜" x ⅞" x .146" *(each)* **50-7053**

26. Washer, Flat, .375" x .875" x .146", Zinc, Steel *(each)* **50-7053**

27. Support bracket
- a. 1999-up bt & EFI Softail® 2001 ..... **17-0308**
- b. 1995-2001 bt, Air Cleaner To Head, Nickel Plated **106-1285**

28. Shim - ¼" x ¾" x .200" **50-7024**

29. Screw vent fitting, BT 1999-up **17-0345**

30. Screw, Breather, +.250" (Rear Head) **17-0348**

31. Screw, Backplate (Rear Head), Socket Panhead
5⁄16-24 x .360", Zinc, Alloy Steel **17-0346**

32. Screw, Backplate Vent (Front Head)
1999-'01, 5⁄16-18 ..... **17-0345**

33. Screw, LSHC 5⁄16-24, x ½" Stainless SteelFront Head **106-2023**

34. Cover, Breather Screw, Chrome, Aluminum, Front Head **106-2022**

35. Gasket, backplate *(each)* **106-1724**
- *10 pack* **106-2328**

36. Adaptor assembly, 1993-'06 bt **106-0881**

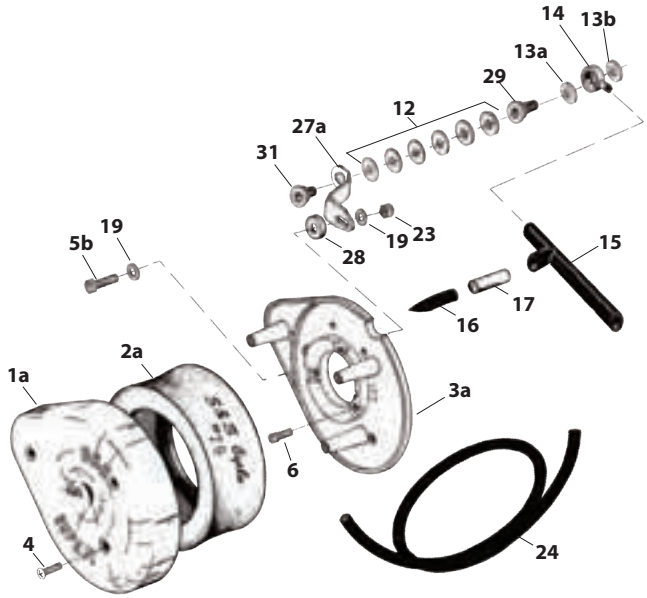
37. Clamp, spring, 9⁄16" **50-8001**

38. Clamp, Spring, .660" *(each)* **50-8076-S**

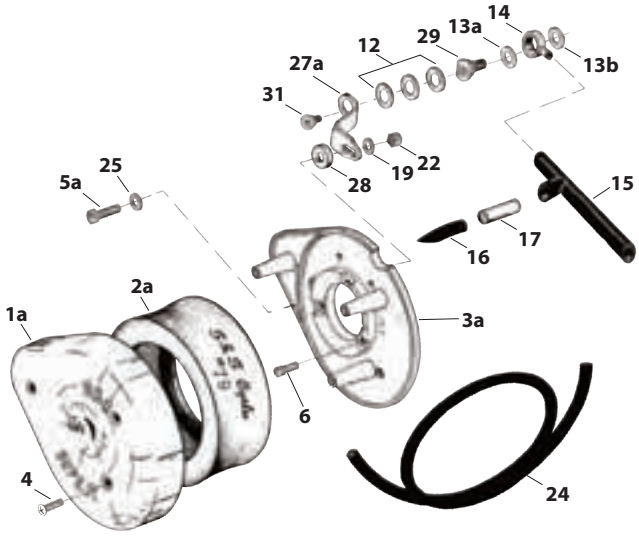
39. Wire tie **(N/S)** **50-8003**

(N/S) = Not ShownT

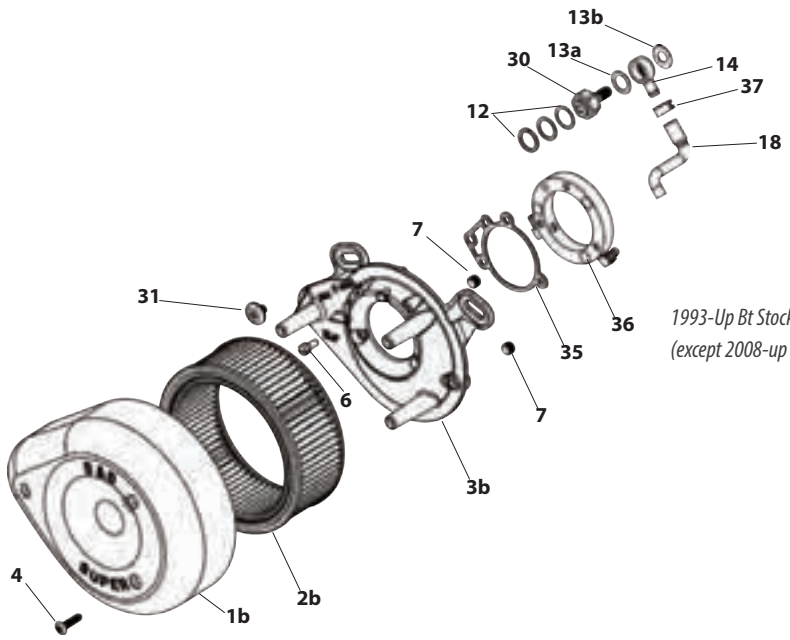
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1999-Up Big Twin with CV Carburetor, 2001 Harley-Davidson® EFI Softail®, & All 2001-'06 EFI Models except Dyna® (Discontinued) **17-0101**



1993-'06 Carbureted Big Twin Models, 2001 EFI Softail® Models, and 2002-Up All EFI Models (except 2006-Up Dyna®) (Discontinued) **17-0117**



1993-Up Bt Stock Cv And Delphi® Single Bore EFI (except 2008-up touring models) **17-0450**

SUPER E & G AIR CLEANER REPLACEMENT PARTS
FOR 1999-'06 BIG TWINS

1. Air cleaner cover –
- Chrome **17-0378**
- Gloss Black **170-0384A**
- Slasher **17-0004**

2. Filter Element
- Pleated **106-4722**
- Pleated Carbon **17-0375**

3. Backplate
- 1999-'06 bt ..... USA 1,2 **17-0336**
- 4⅛" Bore (*Manufactured after 1-1-03*) ..... USA 3 **17-0387**

4. Cover screw
- Chrome *(each)* **50-0347-S**
- Stainless Steel *1305 (each)* **50-0072**
  - *10 pack* **50-0094**
- Black *902 (each)* **50-0310-S**
  - *3 pack* **50-0310**

5. Backplate screw, Zinc Plated *(each)* **106-2084**
- *10 pack* **106-2105**

6. Backplate plug ⅛"-27 *(each)* **50-8331A**
- *10 pack* **50-1015**

7. Screw vent fitting – BT 1999-'06 except 06 Dyna® **17-0345**

8. Screw, air cleaner to head **17-0346**

9. Fast idle friction washer *(each)* **50-7035**
- *10 pack* **50-7058**

10. Fast idle steel washer *(each)* **50-7037**
- *10 pack* **50-7061**

11. Fast idle nylon washer *(each)* **50-7036**
- *10 pack* **50-7060**

12. Fast idle lever ..... USA 1,2,3 **17-0329**

13. Fast idle brass washer *(each)* **50-7007**
- *10 pack* **50-7010**

14. Fast idle lever screw (one required for current backplate)
- *each* **50-0041**
- *10 pack* **50-0062**

15. Shim, .850" x .325" x .400"
S&S 4⅛" Bore **50-7027**

16. Shims
a. S&S 4⅛" Bore, .325" x 1" x
- .018" *(each)* **50-7038**
- .030" *(each)* **50-7039**
- .048" *(each)* **50-7040**

b. BT 1993-'06, .625" x .880" x
- .025" *(each)* **50-7113**
  - *10 pack* **50-7110**
- .050" *(each)* **50-7114**
  - *10 pack* **50-7111**
- .075" *(each)* **50-7115**
  - *10 pack* **50-7112**

17. Screw vent fitting
b. BT 1999-up **17-0345**

18. Washer, silicone coated steel
- BT 1999-up, .520" *(each)* **50-7055**
  - *10 pack* **50-7057**
- BT 1999-up, .380" *(each)* **50-7054**
  - *10 pack* **50-7059**

19. Breather fitting *(each)* **17-0350**
- *2 pack* **17-0355**

20. Crankcase breather hose, BT 1993-'99 ..... USA 1,2 **17-0339**

21. Flatwasher – 5⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**

22. Mounting bracket bolt, S&S 4⅛" Bore, 5⁄16"-18 x 1¼" **50-0110**

23. Spring clamps **50-8001**

24. Clamp,Hose,Bolt Style,⅝" - ⅞" **50-8002**

25. Plate, air cleaner noise reducer **17-0389**

26. Plate, Restrictor, Super E/G TÜV, 1999-up bt ..... **N/A**

27. Rubber isolator mounts *(each)* **50-8510-S**

28. Shim, spacers, ½" OD x ¼" ID x .080" *(each)* **50-7971-S**

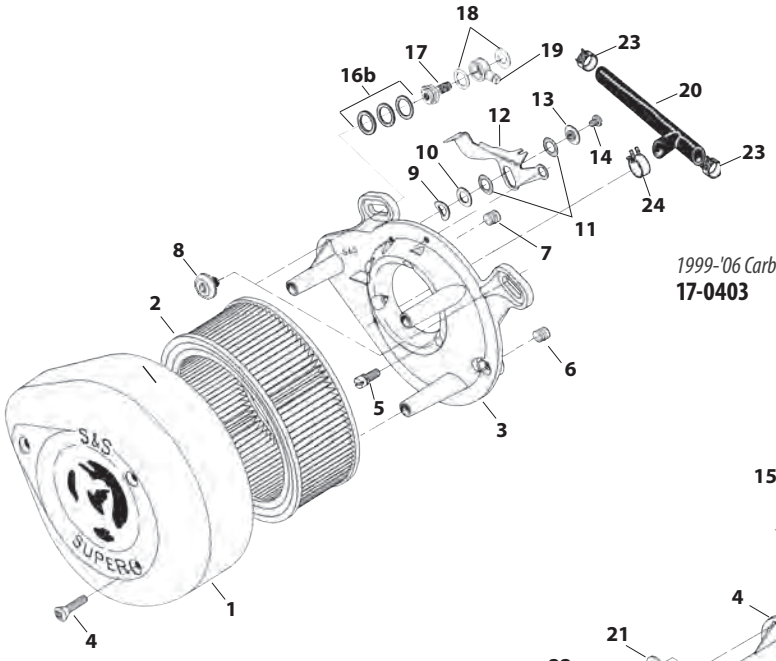
HARDWARE KITS

29. For Super E/G,1999-up bt **17-0437**
For Super E/G, 4-⅛", 1984-'99 bt **17-0460**

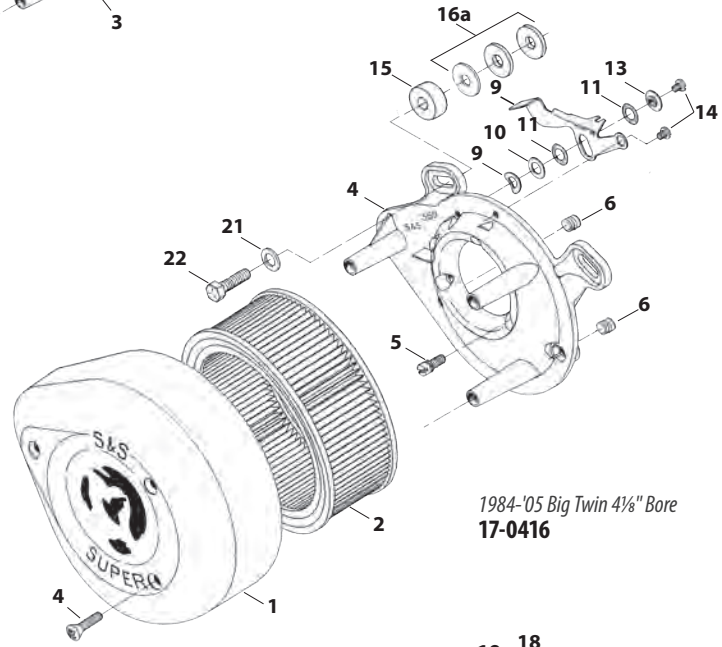
NOTE

The line drawing is used for illustration purposes only. Not all of the parts shown are included and used in every carb installation.

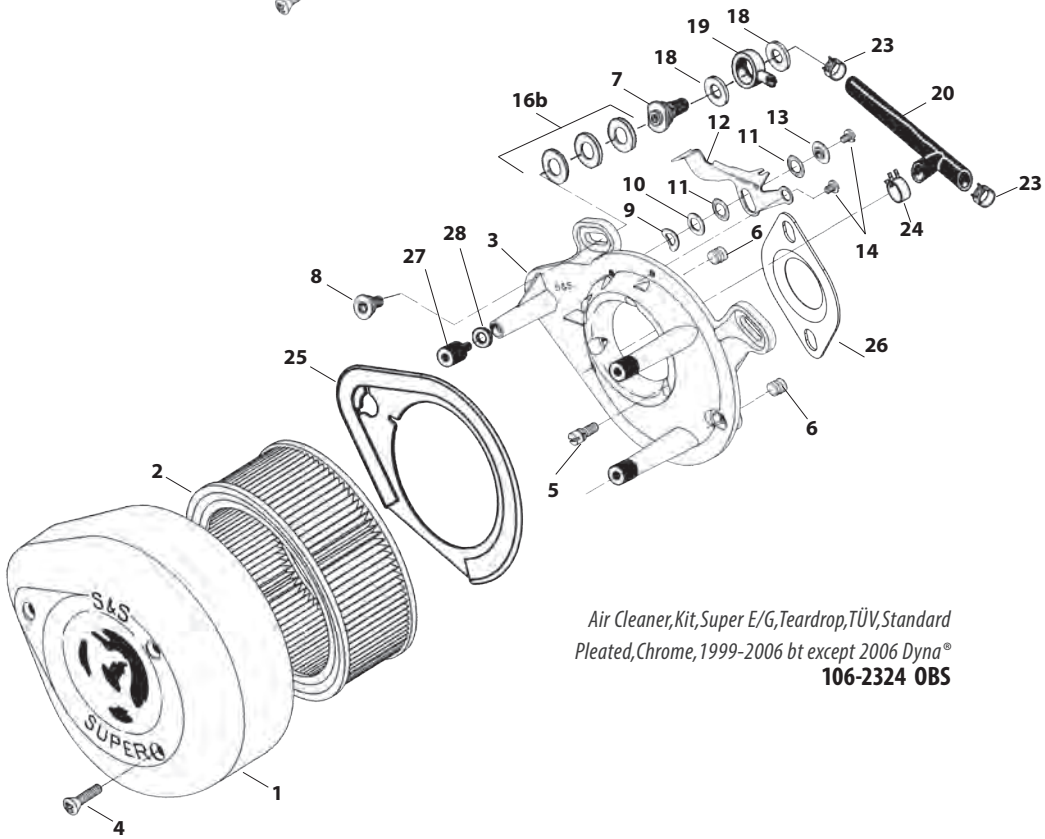
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1999-'06 Carbureted Harley-Davidson® Twin Cam 88®
17-0403



1984-'05 Big Twin 4⅛" Bore
17-0416



Air Cleaner,Kit,Super E/G,Teardrop,TÜV,Standard Pleated,Chrome,1999-2006 bt except 2006 Dyna®
106-2324 OBS

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS
FOR S&S® SINGLE BORE EFI

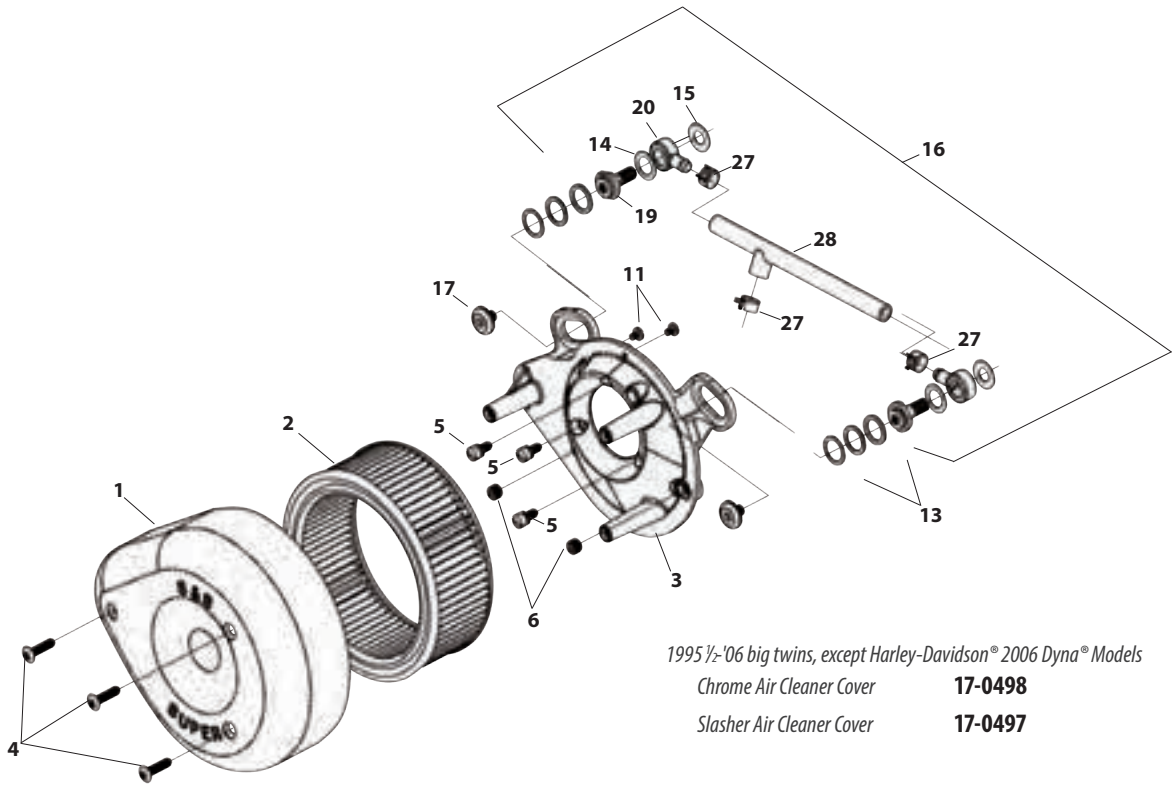
1. Air Cleaner Cover
   - Slasher *(slotted chrome)* **17-0004**
   - Chrome **17-0378**
   - Gloss Black **170-0384A**
2. Element, pleated **106-4722**
3. Backplate SBFFI
   - BT 1999-up **17-0120**
   - S&S 4⅛" bore engines **17-0380**
4. Screw, Cover, oval ¼-20 x 1
   - Chrome *1305 (each)* **50-0072**
     - *3 pack* **50-1052**
     - *10 pack* **50-0094**
   - Black *902 (each)* **50-0310-S**
     - *3 pack* **50-0310**
5. Backplate screw
   - Zinc Plated *(each)* **106-2084**
     - *10 pack* **106-2105**
6. Pipe plug, ⅛, air cleaner backplate *(each)* **50-8331A**
   - *10 pack* **50-1015**
7. Mounting bracket bolt, hex 5⁄16-18 x 1¼ **50-0110**
8. Flat washer, 5⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**
9. Shim, .850" x .325" x .400" **50-7027**
10. Shim kit for 4⅛" bore **17-0314**
    Individual shims, .325" x 1" x
    - .018" *(each)* **50-7038**
    - .030" *(each)* **50-7039**
    - .048" *(each)* **50-7040**
    - .105" *(each)* **50-7041**
    - .125" **50-7042**
      - *2 pack* **50-7042P**
11. Screw, cable guide & air cleaner backplate, 10-24 x ¼ *(each)* **50-0041**
    - *10 pack* **50-0062**
12. Breather hardware for 4⅛" bore **31-2104**
    (Not included in air cleaner kit)
13. Shims, individual
    - 5⁄8 x 7⁄8 x .025 *(each)* **50-7113**
      - *10 pack* **50-7110**
    - 5⁄8 x 7⁄8 x .050 *(each)* **50-7114**
      - *10 pack* **50-7111**
    - 5⁄8 x 7⁄8 x .075 *(each)* **50-7115**
      - *10 pack* **50-7112**
14. Silicone washer, ½" ID *(each)* **50-7055**
    - *10 pack* **50-7057**
15. Silicone washer, ⅜" ID *(each)* **50-7054**
    - *10 pack* **50-7059**
16. Breather hardware for 1999-up bt **17-0455**
    (Not included in air cleaner kit)
17. Screw, wide head, 5⁄16-24 x .36 ..... **17-0346**
18. Air cleaner hardware kit **(N/S)**
    - BT 1999-up **17-0482**
    - S&S 4⅛" bore **17-0481**
19. Breather vent fitting, BT 1999-up **17-0345**
20. Breather fitting *(each)* **17-0350**
    - *2 pack* **17-0355**
21. Check Valve **50-8122**
22. Clamp,Spring,.660" **50-8076-S**
23. Clamp,Spring,.440" **50-8143-S**
24. Hose,Cut To Size,.1875" x 6",Black,Rubber,SAE 30R2 ... **50-8142AS**
25. Hose, Rear, Vent, Breather, Formed, Section 1, SAE J30.... **50-8262-S**
26. Hose,Rear,Vent,Breather,Formed,Section 2,SAE J30..... **50-8263-S**
27. Clamp,Spring,9⁄16" **50-8001**
28. Hose,Vent,Breather,Epichlorohydrin Polymer ..... USA 1,2 **17-0339**

(N/S) = Not shown

NOTE

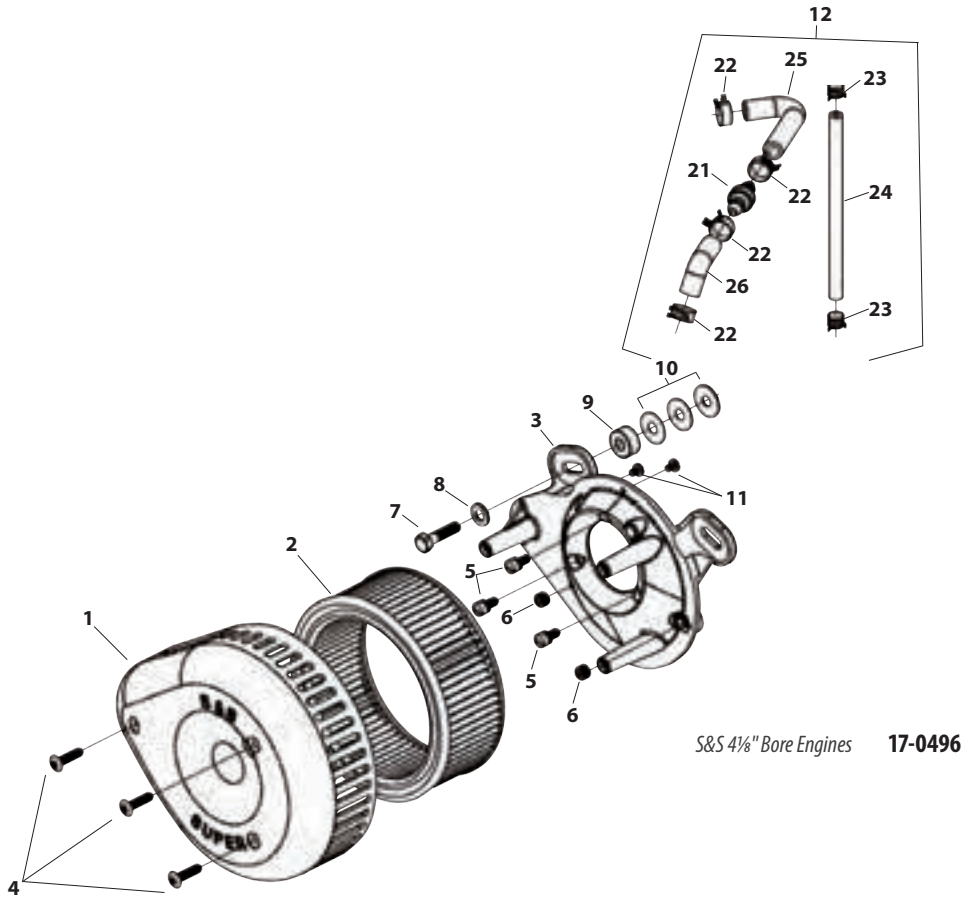
Breather hardware not included in these air cleaner kits.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.



1995½-'06 big twins, except Harley-Davidson® 2006 Dyna® Models

Chrome Air Cleaner Cover	**17-0498**
Slasher Air Cleaner Cover	**17-0497**

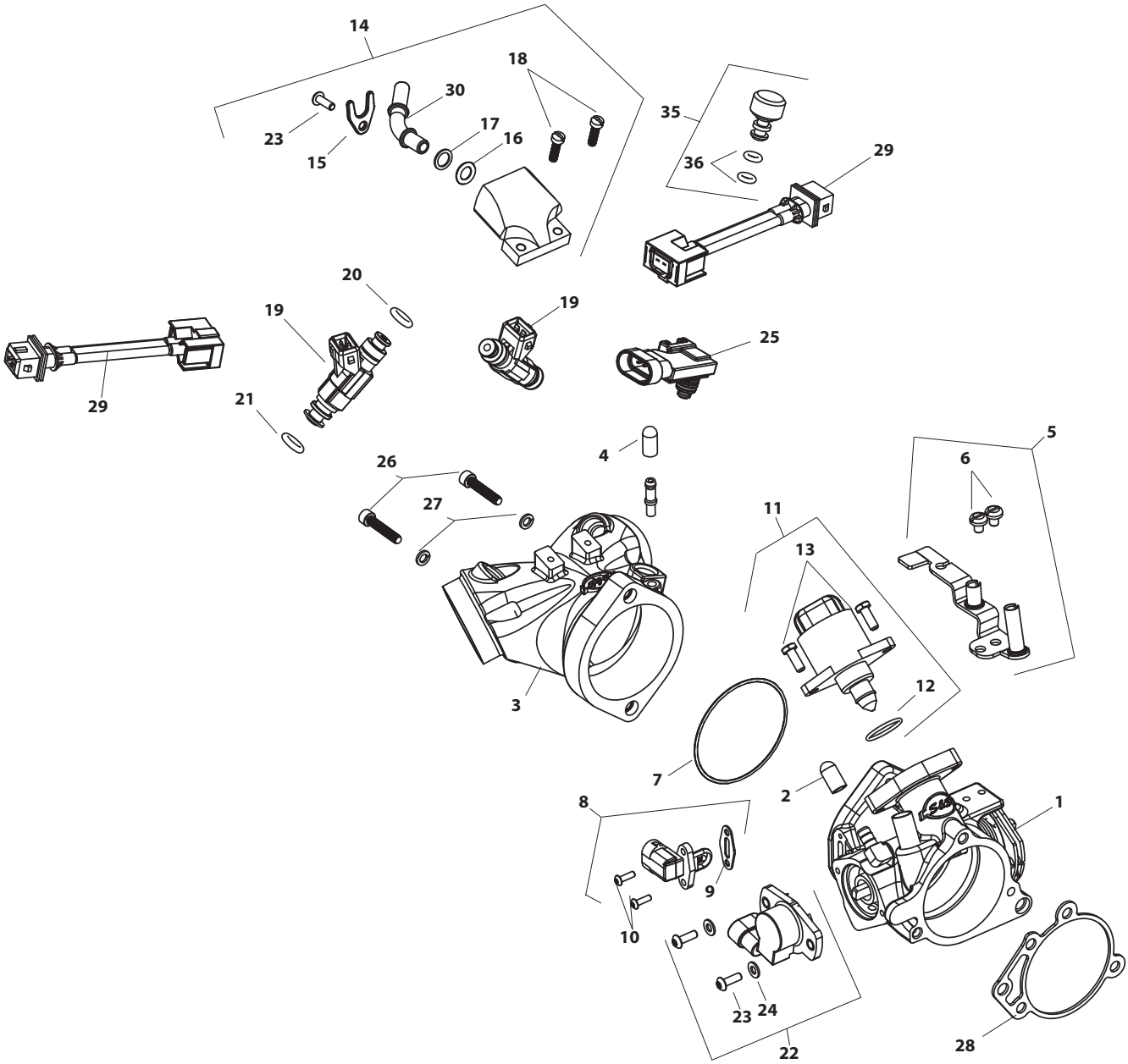


S&S 4⅛" Bore Engines **17-0496**

SINGLE BORE EFI THROTTLE BODY
AND RELATED REPLACEMENT PARTS

1. Throttle body
   - 52mm 1995-'05 ..... **16-5101**
   - 52mm 2006-Up ..... CC **16-5153**
   - 58mm 1995-'05 ..... CC **106-3954**
   - 58mm 2006-Up ..... CC **106-3957**
2. Cap, canister purge (each) **50-8266-S**
3. Manifold (See page 173)
4. Cap, rubber, manifold, fitting **50-8372**
5. Throttle cable guide packet with hardware **55-5084**
6. Screw, cable guide & air cleaner backplate (each) **50-0041**
   10 pack **50-0062**
7. O-ring, throttle body to manifold **50-7967-S**
8. Intake air temperature sensor with hardware *27270-95* ..... USA **55-5041**
9. Gasket, IAT **16-5009-S**
10. Screw, M3, IAT **50-0357-S**
11. Idle air control motor SS EFI with hardware, 1995-'05 *27628-01, 27628-01A* ..... USA **55-5085**
12. O-ring, IAC **50-8149-S**
13. Screw, 10-24, IAC
    - 1995-'05 *(each)* **50-0356-S**
    - 2006-Up *(each)* **50-0358-S**
14. Fuel rail kit
    - 2006-'16 (Fuel inlet tube included) **16-5202**
    - 2002-'05 (Fuel inlet tube not included) **16-5203**
    - 1995-'01 ..... **16-5207**
15. Tube clip, fuel rail inlet 2001-'07
    each **50-0391-S**
16. O-ring, fuel rail inlet, 2001-'07 *27237-95*
    each **50-8137-S**
17. Backing washer, fuel rail inlet
    2001-'07 ..... **50-0349-S**
18. Screw, rail, 1995-Up
    each **50-0039**
    10 pack **50-0146**
19. Fuel injector
    each **55-5052A**
    2 pack **55-5052**
20. O-ring, injector top, black **50-8264-S**
21. O-ring, injector bottom, orange **50-8265-S**
22. Throttle position sensor VFI with hardware
    1995-'0127271-95 ..... USA **55-5058**
23. Screw, TP sensor & fuel rail
    each **50-0358-S**
25. MAP sensor *32424-98, 32416-10, 32417-10* ..... USA **55-5057**
26. Screw, throttle body to manifold
    each **50-0359-S**
27. Washer, lock , #10,
    throttle body to manifold **50-7000**
28. Gasket, backplate
    - 52mm *(each)* **106-1724**
    - *10 pack* **106-2328**
    - 58mm *(each)* **106-4662**
29. Harness, injector adapter kit
    - 1995-'05 ..... **55-5074**
    - 2006-Up **55-5209**
30. Fuel inlet tube 45°, 2002-up *27221-95* ..... USA **50-0485**
31. Spacer, throttle position – 2002-up **55-5201**
32. Pressure regulator, 1995-'01 ..... **16-5297**
33. Screw, pressure regulator, 6-32 x 3/16", 1995-'01 ..... **50-0279-S**
34. Clamps, Hose, ½" diameter, smooth, 1995-'01
    each **50-8352**
35. Plug, assembly, MAP sensor hole, 1995-'01 ..... **50-8350**
36. O-ring, MAP plug, 1995-'01
    each **50-8133-S**

(N/S) = Not Shown


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SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly
- 1⅞" Super E ... USA 1,2,3 **11-2381**
- 2¹⁄₁₆" Super G ... **11-2391**

2. Throttle shaft
- 1⅞" Super E – Includes two plate screws ... **11-2383**
- 2¹⁄₁₆" Super G – Includes two plate screws ... **11-2483**

3. Throttle plate screw *11-2045- (two required) (each)* ... **50-0055-S**
- *10 pack* ... **50-0064**

4. Throttle plate
- 1⅞" Super E ... **11-2055**
- 2¹⁄₁₆" Super G ... **11-2355**

5. Throttle return spring *(each)* ... **11-2382**
- *5 Pack* ... USA 1,2,3 **11-3502**

6. Throttle spool ... USA 1,2,3 **11-2385**

7. Throttle shaft lock washer *(two required)* ... **50-7031**

8. Throttle shaft nut *(two required) (each)* ... **11-2350**
- *5 pack* ... **11-2363**

9. Throttle shaft nylon washer *(each)* ... **50-7050**
- *10 pack* ... **50-7072**

10. Pump actuator lever ... **11-2376**

11. Actuator spring *(each)* ... **11-2375-S**
- *5 pack* ... USA 1,2,3 **11-3501**

12. Pump actuator arm ... **11-2377**

13. Idle mixture screw
- **a.** Idle mixture screw, brass *(each)* ... **11-2354**
  - *5 pack* ... **11-2378**
- **b.** Idle mixture screw only
  - *each* ... **110-0003**
  - *5 pack* ... **110-0069**
  - Idle mixture screw w/ 500-0036 o-ring)
  - *each* ... **110-0068**

14. Idle mixture screw spring *(each)* ... **11-2052**
- *10 Pack* ... USA 1,2,3 **11-2060**

15. Idle speed screw *(each)* ... **50-0038**
- *10 Pack* ... **50-0150**

16. Pump adjustment screw *(each)* ... **50-0039**
- *10 Pack* ... **50-0146**

17. Idle speed/pump adjuster spring *(each)* ... **11-2048**
- *10 pack* ... USA 1,2,3 **11-2053**

18. Plunger nut *(each)* ... **11-2344**
- *5 Pack* ... **11-2372**

19. Plunger spring *(each)* ... **11-2340**
- *10 Pack* ... USA 1,2,3 **11-2359**

20. Fast idle plunger ... **11-2343**

21. Cable guide assembly with screw
- Use with butterfly style cables ... **11-2339P**
- Use with constant velocity style cables ... **11-2338P**

22. Cable clamp/float pin screw *(each)* ... **50-0041**
- *10 Pack* ... **50-0062**

23. O-ring
- 1⅞" Super E *(each)* ... **50-8016**
- *10 Pack* ... **50-8094**
- 2¹⁄₁₆" Super G *(each)* ... **50-8015**
- *10 pack* ... **50-8093**

24. Bellows seal *(each)* ... **11-2266**
- *5 Pack* ... **11-2279**

25. Bowl vent plug *(each)* ... **50-0105**
- *10 pack* ... **50-0151**

26. Main discharge tube ... **11-2085**

27. Main jet – See Chart on 179

28. Intermediate Jets – See Chart on 178
Series #94 fits all Super 1⅞", 2¹⁄₁₆", 2¼" gas carburetors.

29. Bowl gasket *(each)* ... **11-2386**
- *10 pack* ... **11-2387**

30. Float ... **11-2187**

31. Float pin *(each)* ... **11-2369**
- *5 Pack* ... **11-2370**

32. Bowl screw
- 10-24 x ¾" - *Three required (each)* ... **50-0034**
- *10 Pack* ... **50-0063**
- 10-24 x 2⅜" - *One required (each)* ... **50-0040**
- *10 Pack* ... **50-0061**

33. Carb bowl only ... USA 1,2,3 **11-2388**
Carb bowl assembly ... USA 1,2,3 **11-2388P**

34. Bowl plug *(each)* ... **11-2090**
- *5 pack* ... **11-2092**

35. Seat o-ring* *(required with part #11-2465 & #11-2466 only when replaces 360°style fuel inlet.)*
- *each* ... **50-8009**
- *10 pack* ... **50-8095**

36. Needle
- 1⅞" Super E & 2¹⁄₁₆" Super G ... USA 1,2,3 **11-2195**
- Racing only ... **11-2197**

37. Seat - Includes O-ring #35
(Replaces obsolete seats 11-2347 and 11-2348)
- **a.** 1⅞" E & 2¹⁄₁₆" G *(Uses part #11-2195 needle)* ... **11-2465**
- **b.** Racing only *(Uses part #11-2197 needle)* ... **11-2466**
- **c.** Racing only -threaded fuel inlet (6AN .157" ID)
  - *(Uses part #11-2195 needle)* ... **11-2395**
- **d.** Permeation Compliant fuel inlet seat Super E or G
  - *(Uses part #11-2195 needle)* ... USA 1,2,3 **106-2011**

38. Ejector nozzle o-ring *(each)* ... **50-8011**
- *10 Pack* ... **50-8096**

39. Pump pushrod *(each)* ... **11-2373**
- *5 Pack* ... USA 1,2,3 **11-2393**

40. Check ball - *(two required) (each)* ... **50-8090**
- *10 pack* ... **50-8125**

41. Check ball spring *(each)* ... **11-2374**
- *5 Pack* ... USA 1,2,3 **11-2392**

42. Pump cap o-ring - *(two required) (each)* ... **50-8012**
- *10 Pack* ... **50-8100**

43. Pump cap assembly ... USA 1,2,3 **11-2389**

44. Overflow hose per 24" *27369-76 (each)* ... USA **19-0262-S**
- *5 Pack* ... USA **19-0263**

45. Pump cap screw 8-32 - *(two required) (each)* ... **50-0042**
- *10 Pack* ... **50-0098**

46. Diaphram spring *(each)* ... **11-2275**
- *10 pack* ... USA 1,2,3 **11-2278**

47. Diaphragm ... **11-2282**

48. Gasket, backplate *(each)* ... **106-1724**
- *10 pack* ... **106-2328**

49. Enrichment device *(Use with air horn only)* ... **11-2084**

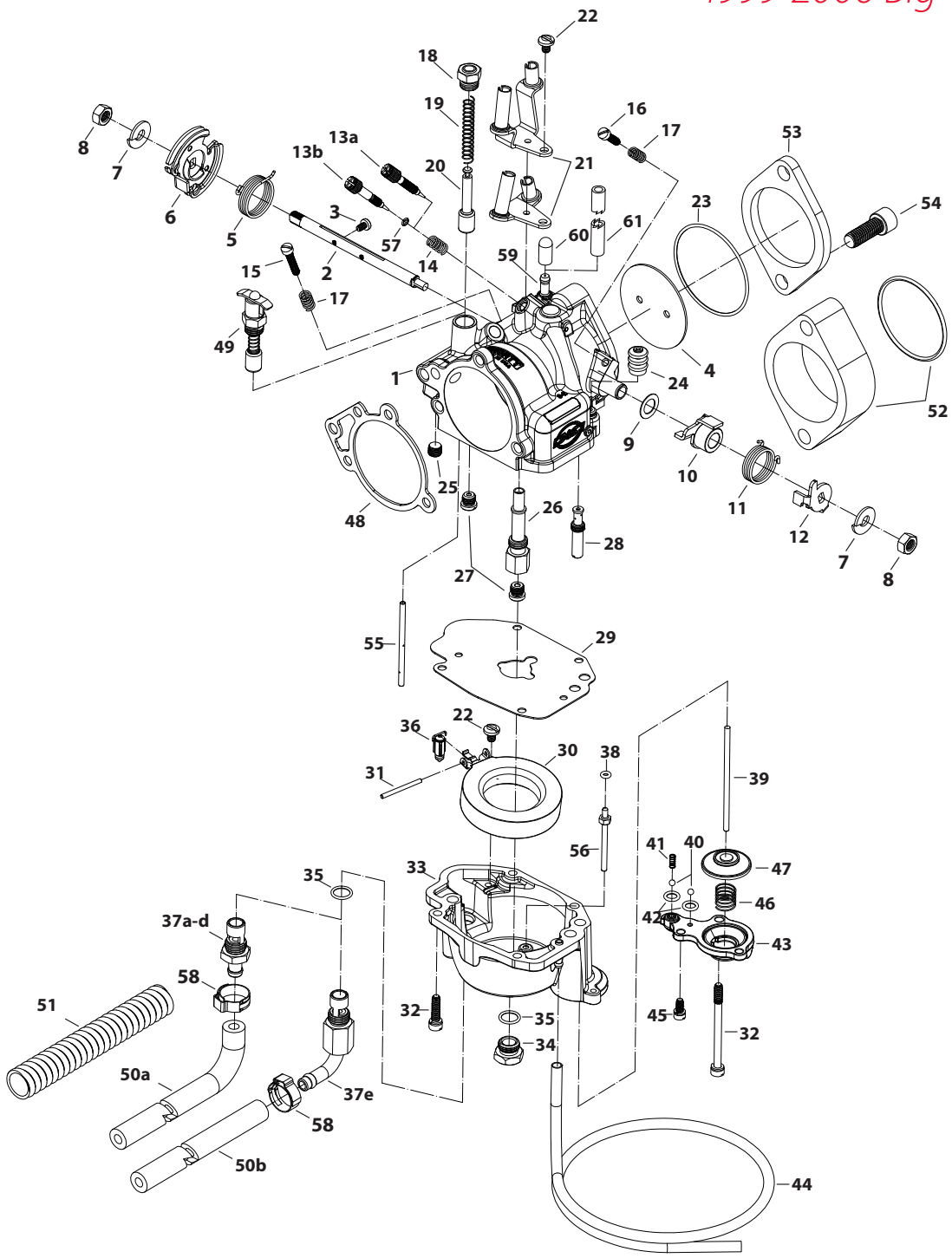
50. Fuel line With 90° bend*19"
- **b.** Permeation Compliant straight, 311" x .563" x 17.5"
  - *(Use with part #106-2011, 90° seat)* ... **190-0001**

51. Fuel line insulator – 12" ... USA 1,2,3 **19-0172**

52. Spacer, Kit, w/ O-ring
- 1⅞" x 1" ... **16-0057***
- 2¹⁄₁₆" x 1" ... **16-0357***
- 2¼" x 1" ... **16-0157***
- *Use with 1" Spacer Block ... **16-0058**

53. Insulator Block,Manifold,w/ O-ring
- 1⅞" x ¼" Super E ... **16-0491**
- 1⅞" x ⅜" Super E ... **16-0497**
- 2¹⁄₁₆" x ¼" Super G ... **16-0492**
- 2¹⁄₁₆" x ⅜" Super G ... **16-0498**
- 2¼" x ¼" Super D ... **16-0499**

54. Screw
- 1" x ⅜"-16 *(each)* ... **50-0161**
- 1¼" x ⅜"-16 *(each)* ... **50-0162**
- *10 pack* ... **50-0177**
- 1⅜" x ⅜"-16 *(each)* ... **50-0163**
- *5 pack* ... **50-0178**
- 2" x ⅜"-16 *(each)* ... **50-0164**
- *5 pack* ... **50-0185**



	1¼" x ¼"-20 *4740A, 3482A (each)*	**50-0008**
	1½" x ¼"-20 *4718A*	**50-0079**
	2¼" x ¼"-20 *4717A*	**50-0078**
55.	Tube,Fast Idle Pick-Up,Super E/G,.125" x 2.350",Brass	**0381F**
56.	Tube,Ejector Nozzle,Super E/G,Flared,Brass.	**106-6124**
57.	O-ring, 3mm x 5mm x 1mm *(each)*	**500-0036**
	10 pack	**500-0148**
58.	Clamp, ⅝" - ⅞"	**50-8002**
59.	Hose, Fitting straight, .040"	**16-0134**
60.	VOES Fitting Cap	**50-8372**
61.	VOES/Oil Return Hose	**19-0395**

**360° banjo style fuel inlet fitting used on early S&S E&G carbs is no longer available. Replace with one of the inlet/seat fittings listed under #37 on this page. We highly recommend inlet/seat #106-2011.*

CARBURETOR REBUILD KITS
SEE PAGE 179

CRANKCASE BREATHER REED VALVE
REPLACEMENT PARTS

1. Valve,Assembly,Breather Reed
Engines with Stock Oil Pumps
1999-'02 bt with stock or S&S Super Stock crankcases **31-2070**
2003-'10 bt with stock or S&S Super Stock crankcases **310-0742**
S&S SA Crankcases **310-0742**
Engines with S&S gear oil pumps
2003-up bt w/stock crankcases and all S&S crankcases **310-0742**

2. O-ring
1999-'02 bt (-038),2.614" ID x 2.750" OD,Viton® ... **50-8154-S**
2003-up bt (-036),2.364" ID x 2.500" OD,Viton® **50-8155-S**

3. Seal,Breather Reed Valve,1999-up bt **31-4086**

4. Stop,Breather Reed Valve,Packaged,1984-up bt **31-2075**

5. Reed,Breather Valve,bt *(each)* **31-2072-S**

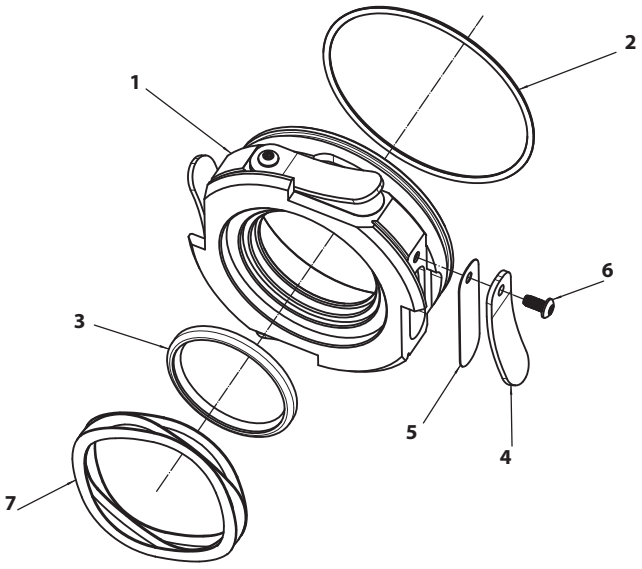
6. Screw,Torx BH,4-40 x ¼",Black,Alloy Steel *(each)* **50-0305-S**

7. Wave Spring ,2"OD X 1.6"ID X .375" **50-8404**

8. Spring Adaptor (for S&S SA Crankcases) **(N/S)** **31-2103***

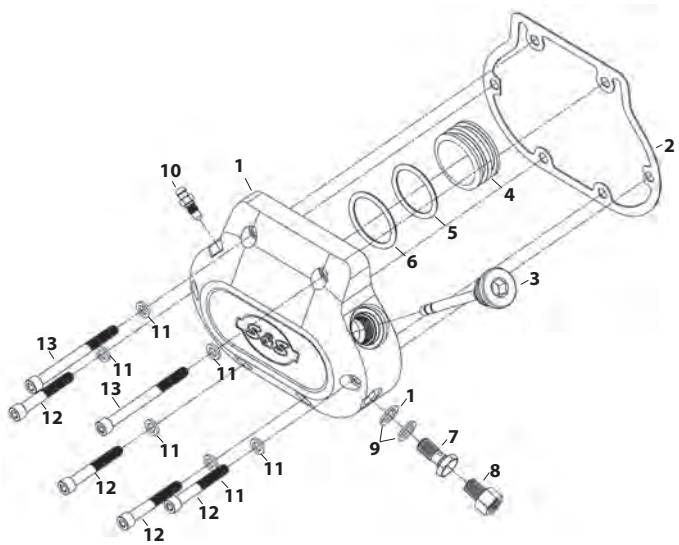
**Required to accommodate the extra .375" case width of S&S Special Application big bore crankcases.*

(N/S) = Not Shown



CHROME PLATED BILLET TRANSMISSION SIDE COVER
REPLACEMENT PARTS

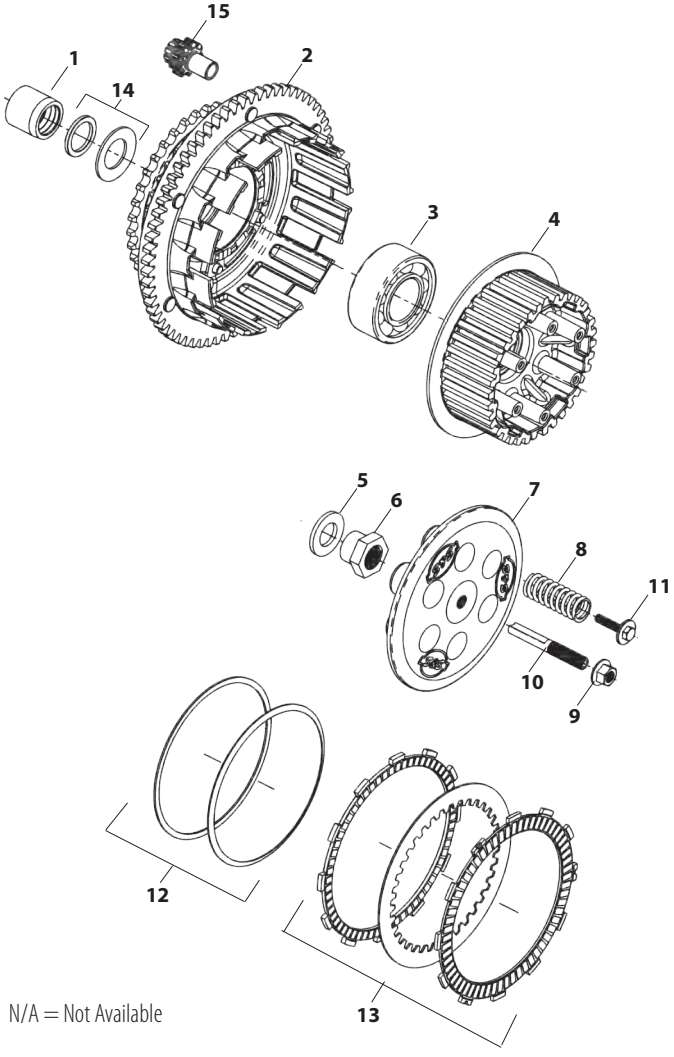
1. Hydraulic Clutch Side Cover (Chrome Billet) ..... **N/A**
Cable Actuated (Chrome Billet) ..... **N/A**
2. Gasket Side Cover *(eacth)* ..... **N/A**
3. Dipstick Assembly ..... **N/A**
4. Piston, Hydraulic Clutch (Billet) ..... **N/A**
5. O-ring, 1 ¼ ID x ⅛ CS, Buna-N 70 *(each)* ..... **N/A**
6. O-ring, 1 ¼ ID x ⅛ CS, Viton ..... **N/A**
7. Banjo Bolt ⅜-24 x ¾ ..... **N/A**
8. Adapter, Hydraulic Clutch Line ..... **N/A**
9. Crush Washer, Copper .400 ID x .590 OD x .050 ..... **N/A**
10. Valve, Bleed Fitting, ¼-28 ..... **N/A**
11. Washer, Flat .260 x .420 x .06 Chrome **50-7017**
12 pack **50-7013**
12. Screw, Cap Hex SH ¼-20 UNC x 1.75 Zinc ..... **N/A**
13. Screw, Cap Hex SH ¼-20 UNC x 2.75 Zinc ..... **N/A**



HIGH PERFORMANCE CLUTCH REPLACEMENT PARTS

1. Race, inner primary bearing, 5/6 speed main shaft
All 1991-'05 BT and 2006 Harley-Davidson® Softail® models
..... **56-5089**
2. Basket,
Clutch, 36-tooth ..... **N/A**
Clutch, 37-tooth ..... **N/A**
3. Bearing, clutch (basket to hub) ..... **N/A**
4. Hub, clutch ..... **N/A**
5. Washer, thrust, 19.5 mm I.D. x 35.6 mm O.D. ..... **N/A**
6. Nut, mainshaft, clutch hub, ¾-18 UNS-2B ..... **N/A**
(Recommended early style mainshaft nut H-D® #37496-84)
(Recommended late style mainshaft nut H-D® #37496-90)
7. Plate, pressure - clutch
Mechanical (3-piece pushrod actuated) ..... **N/A**
8. Spring, pressure plate, clutch
Light duty, 334 lbs. *(6 pack)* ..... **N/A**
Standard, 370 lbs. ..... **N/A**
Heavy duty, 408 lbs. *(each)* **56-5106-S**
6 pack **56-5106**
9. Nut, flange, M10 x 1.25" ..... **N/A**
10. Screw, clutch adjuster, M10 x 1.25" ..... **N/A**
11. Bolt, special, M6 x 30, w/washer **50-8413-S**
12. Jutter spring with seat ..... **N/A**
13. Clutch pack, 11 frictions, 10 steels **56-5085-S**
14. Kit, shim, clutch inner race **56-5090**
Shim, ⅚ speed main shaft
1.300" O.D. x .960" I.D. x .0075" *(36 gauge)* thick ..... **N/A**
1.300" O.D. x .960" I.D. x .0150" *(28 gauge)* thick ..... **N/A**
1.300" O.D. x .960" I.D. x .0240" *(24 gauge)* thick ..... **N/A**
1.300" O.D. x .960" I.D. x .0470" *(18 gauge)* thick ..... **N/A**

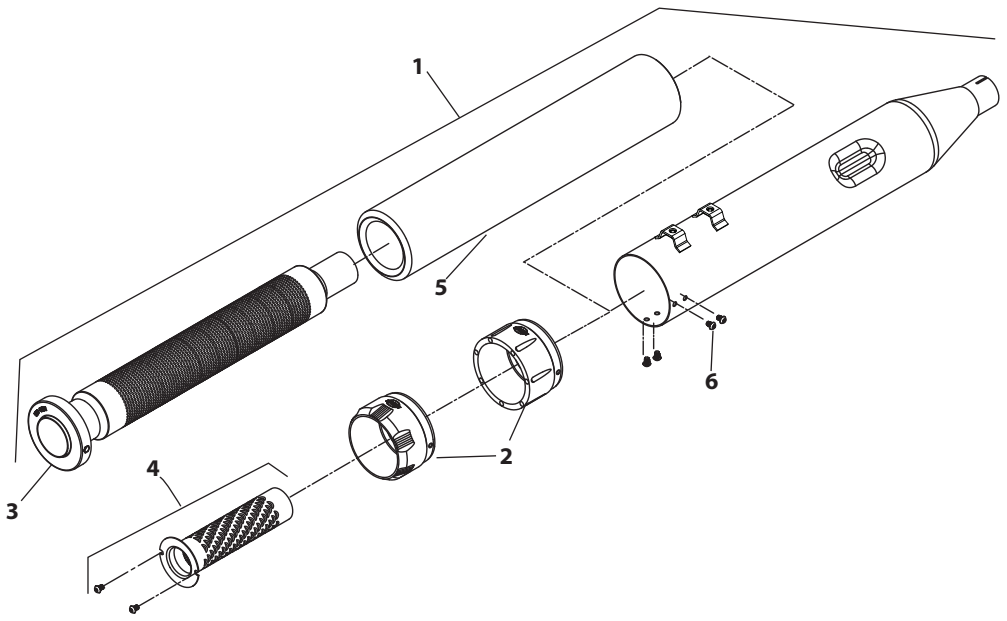
OPTIONAL:
15. Pinion Gear ..... **N/A**



N/A = Not Available

Mk45 4½" MUFFLER REPLACEMENT PARTS

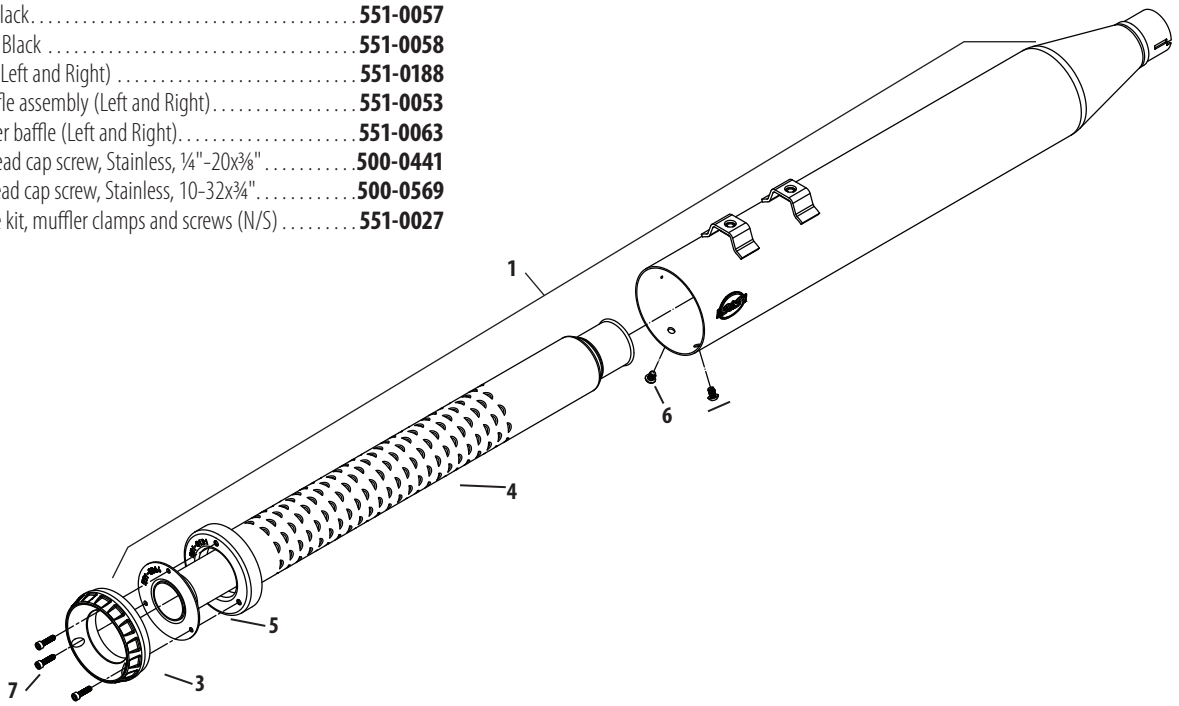
1. 4.5" Muffler Assembly
   - Left, Chrome **551-0020**
   - Right, Chrome **551-0021**
   - Left, Black **551-0022**
   - Right, Black **551-0023**
2. End Cap
   - Thruster, Chrome **550-0634A**
   - Thruster, Highlighted Machined **550-0629A**
   - Tracer, Chrome **550-0636A**
   - Tracer, Highlighted Machined **550-0632A**
3. Main Baffle Assembly, 4.5" Muffler **551-0007**
4. dB reducer **551-0026**
5. Insulation, 4.5" Muffler **551-0003**
6. Button Head Cap Screw, Stainless, ¼"-20X⅜" **500-0441**
7. Hardware Kit, Muffler Clamps And Screws (N/S) **551-0027**



GRAND NATIONAL® 4" REPLACEMENT PARTS

1. 4" Muffler assembly with Grand National end cap
- Left, Chrome. **551-0055**
- Right, Chrome **551-0056**
- Left, Black. **551-0057**
- Right, Black **551-0058**

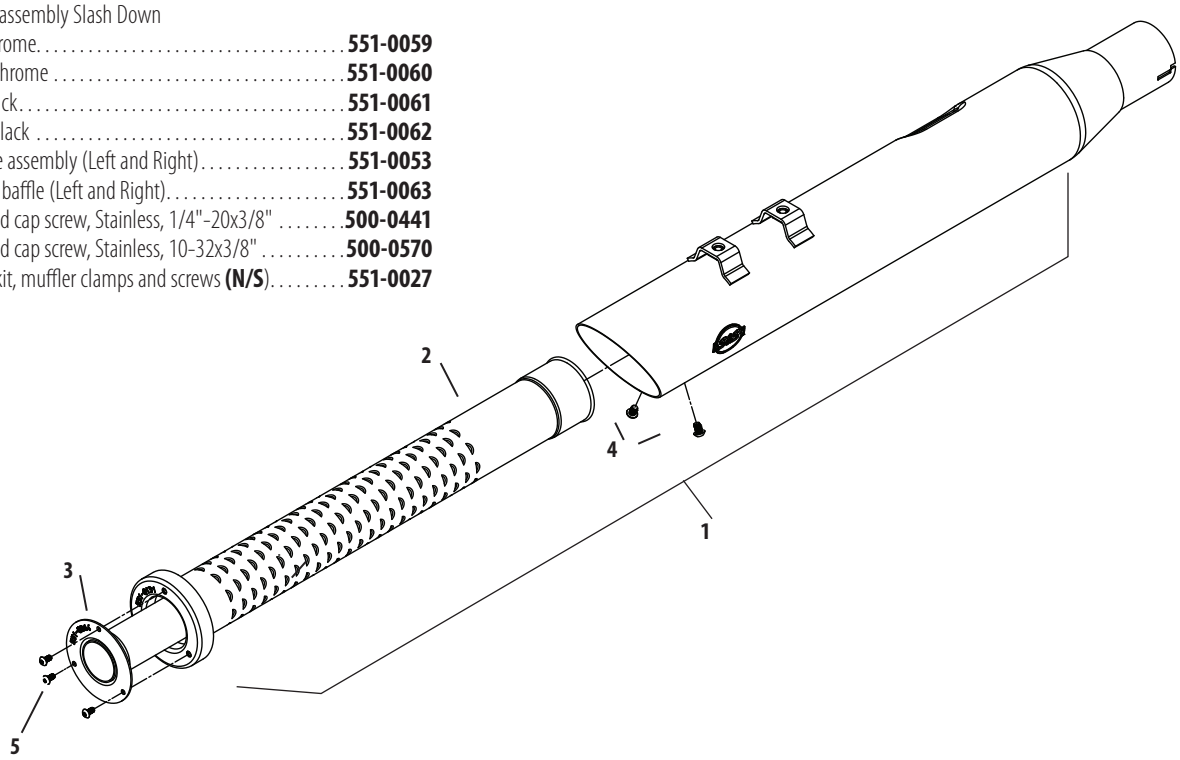
3. End Cap (Left and Right) **551-0188**
4. Main baffle assembly (Left and Right). **551-0053**
5. dB reducer baffle (Left and Right). **551-0063**
6. Button head cap screw, Stainless, ¼"-20x⅜" **500-0441**
7. Socket head cap screw, Stainless, 10-32x¾" **500-0569**
9. Hardware kit, muffler clamps and screws (N/S) **551-0027**



SLASH CUT 4" REPLACEMENT PARTS

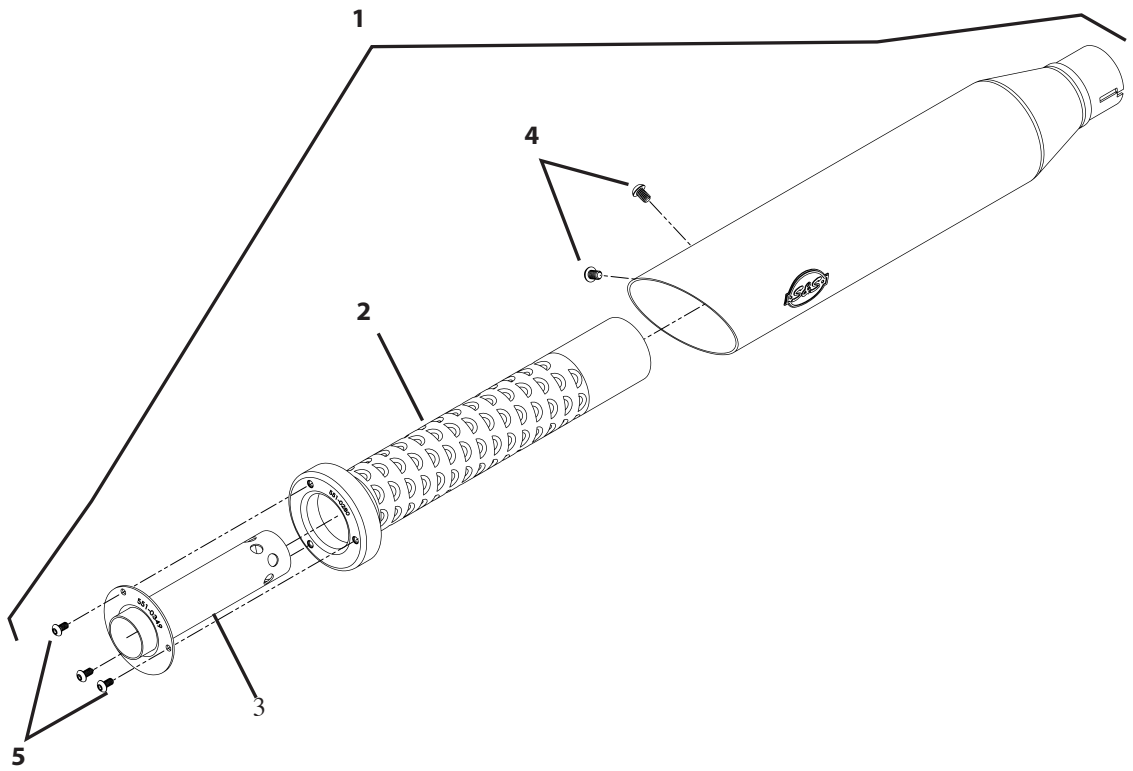
1. 4" Muffler assembly Slash Down
- Left, Chrome. **551-0059**
- Right, Chrome **551-0060**
- Left, Black. **551-0061**
- Right, Black **551-0062**

2. Main baffle assembly (Left and Right). **551-0053**
3. dB reducer baffle (Left and Right). **551-0063**
4. Button head cap screw, Stainless, 1/4"-20x3/8" **500-0441**
5. Button head cap screw, Stainless, 10-32x3/8" **500-0570**
6. Hardware kit, muffler clamps and screws **(N/S)**. **551-0027**



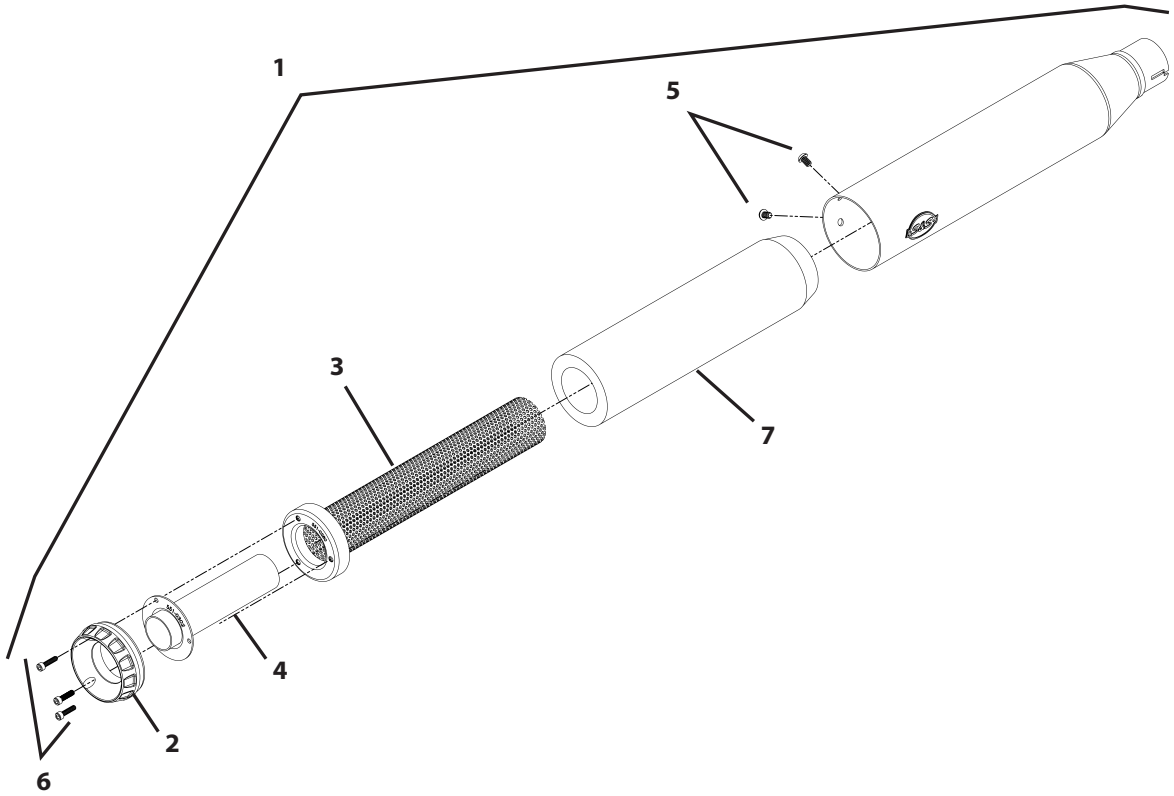
SLASH CUT SLIP-ONS FOR DYNA® MODELS
REPLACEMENT PARTS

1. Slash Cut Muffler Assembly, Front or Rear
   - Chrome **551-0308**
   - Black **551-0311**
2. Main Baffle Assembly **551-0301**
3. dB Reducer **551-0350**
4. Button head cap screw, Stainless, ¼"-20x3/8"1
   - (Hold Main baffle assy to muffler shell) **500-0441**
5. Socket head cap screw, Stainless, 10-32x3/8"
   - (Hold db killer baffle to main baffle assy) **500-0570**



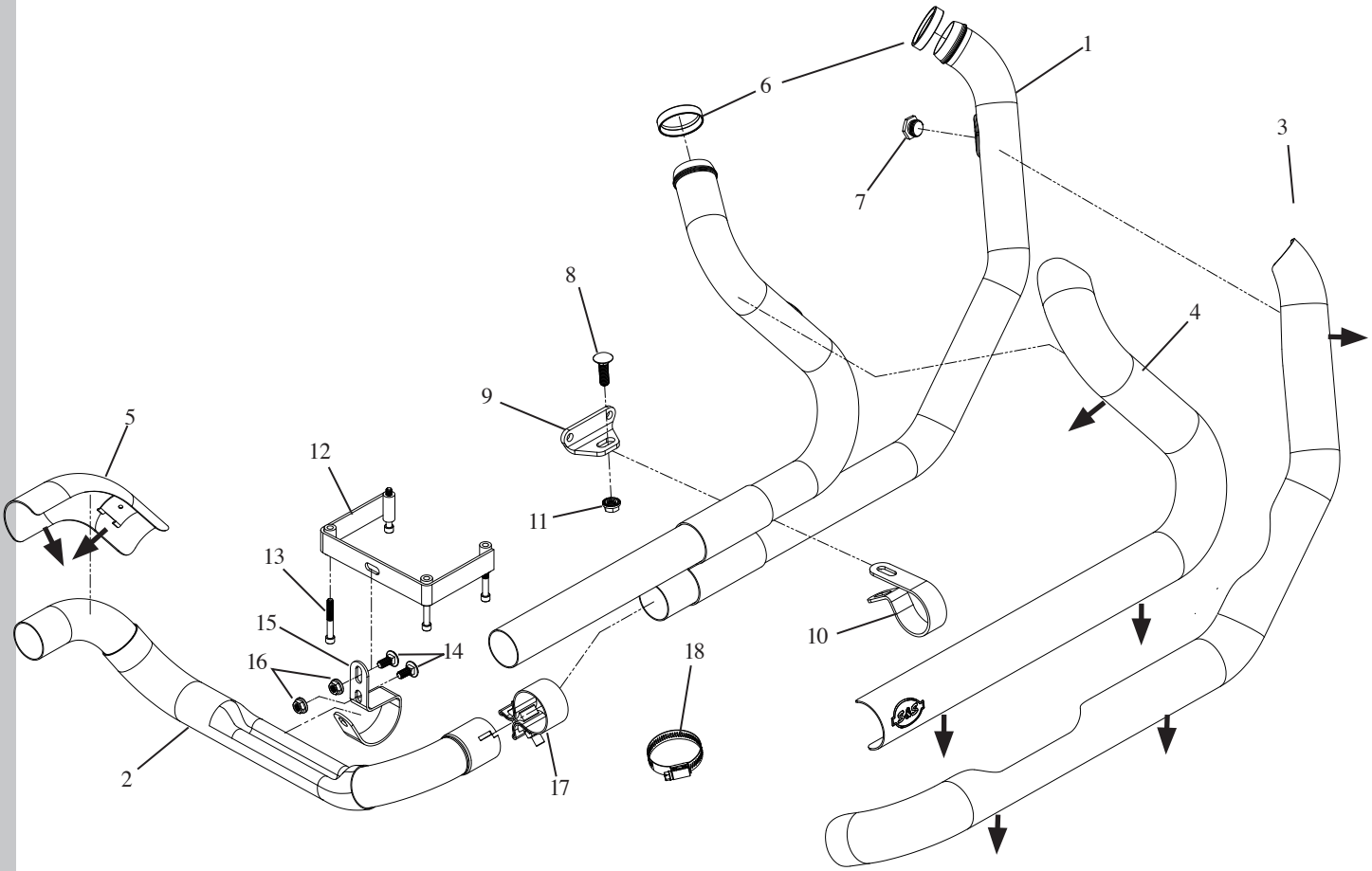
GRAND NATIONAL® SLIP-ONS FOR DYNA® MODELS
REPLACEMENT PARTS

1. Muffler Assembly Front or Rear
   Grand National, Chrome **551-0314**
   Grand National, Black **551-0317**
2. End Cap **551-0294**
3. Main Baffle Assembly **551-0299**
4. dB Reducer **551-0304**
5. Button head cap screw, Stainless, ¼"-20x3/8"
   (Hold Main baffle assy to muffler shell) **500-0441**
6. Socket head cap screw, Stainless, 10-32x3/4"
   (Hold End Cap to main baffle assy) **500-0569**
7. Insulation, Muffler, Pillow Pack **551-0305**



POWER TUNE DUAL HEADER REPLACEMENT PARTS

1. Pipe,Header,Power Tune Dual, Weldment,1999-2008 Touring *(1 Req)* **551-0083**
2. Tube,Crossover,Power Tune Dual,Weldment, 1995-2008 Touring *(1 Req)* **551-0077**
3. Shield,Front,Power Tune Dual,1995-2008 Touring *(1 Req)*
   - Chrome **551-0091**
   - Black **551-0092**
4. Shield,Rear,Power Tune Dual,1995-2016 Touring *(1 Req)*
   - Chrome **551-0103**
   - Black **551-0104**
5. Shield,Left,Power Tune Dual, 1995-2016 Touring *(1 Req)*
   - Chrome **551-0115**
   - Black **551-0116**
6. Gasket,Exhaust,Tapered,Stainless Steel, 1984-up bt, 1986-up xl ***65324-83B, 65324-83A*** *(2 Req)* **106-5029**
7. Plug,M18 x 1.5 Thread *(2 Req)* **551-0122**
8. Bolt,Carriage,⅜-16 x 1¼" *(1 Req)* **500-0553**
9. Bracket,Transmission,Side,Power Tune Duals, 1995-2008 Touring *(1 Req)* **551-0125**
10. Clamp,P-Style,Power Tune Dual,Side, 1995-2016 Touring *(1 Req)* **551-0119**
11. Nut,Flanged,Serrated,⅜-16 *(1 Req)* **500-0554**
12. Bracket,Assembly,Transmission,Pan, Power Tune Dual,1995-2008 Touring *(1 Req)* **551-0126**
13. Screw,SHC,¼-20 x 1⅞",Zinc Plated *(4 Req)* **500-0641**
14. Bolt,Carriage, ⅝-18 x ¾" *(2 Req)* **500-0555**
15. Clamp,P-Style,Crossover, Power Tune Dual Header,1995-2008 Touring *(1 Req)* **551-0120**
16. Nut, Flanged, Serrated, ⅝"-18 *(2 Req)* **50-5053-S**
17. Clamp,Muffler,Band Style *(1 Req)* **551-0028**
18. Clamp,Hose,Worm Drive,SAE #28 *(8 Req)* **551-0124**



NOTE - Install #18 heat shield clamps with screw heads pointing in direction shown by arrows. ➡



SECTION 4: 1984-'99 BIG TWINS

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Mk45 TOURING MUFFLERS

Mk45 4.5" Touring Mufflers are the result of decades of riding, racing and tuning. Combining both a stainless steel baffle and fiberglass packing, they create a deep rumble and improved horsepower and torque, all while adding a unique look with styled aluminum end caps.



FITMENT

- 1995-2016 touring models

FEATURES AND BENEFITS

- 7 horsepower gain*
- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or black ceramic finish
- Choose from S&S® Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

*Tested with S&S Power Tune Dual Header and Stealth Air Cleaner Kit

MK45 4.5" TOURING MUFFLERS W/END CAPS

Muffler Body Finish	End Cap Finish & Style	Part #
Chrome	Chrome Thruster	**550-0620**
	Black Contrast Cut Thruster	**550-0619**
	Chrome Tracer	**550-0624**
	Black Contrast Cut Tracer	**550-0623**
Black Ceramic	Chrome Thruster	**550-0622**
	Black Contrast Cut Thruster	**550-0621**
	Chrome Tracer	**550-0626**
	Black Contrast Cut Tracer	**550-0625**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH MUFFLERS CONTAINING CATALYST.
*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON THE FL TOURING MODELS LISTED BELOW. CALIFORNIA FL TOURING MODELS: FUEL INJECTED MY 1995-2003, 2007, AND 2009-2016; CVO MY 2000-2003, AND 2009-2016.
49 STATE FL TOURING MODELS: CARBURETED MY 1995-2005; FUEL INJECTED MY 1995-2005, AND 2007-2016; CVO MY 2000-2005, AND 2009-2016.



Removable dB reducer



550-0620



550-0619



550-0624



550-0623



550-0622



550-0621



550-0626



550-0625

NOTES

SEE SPECIAL NOTES ON PAGE 229 FOR NOISE DISCLAIMERS

REPLACEMENT PARTS: SEE PAGE 317

4" GRAND NATIONAL® SLIP-ONS

FITMENT

- 1995-2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!





Removable dB reducer

Grand National

GRAND NATIONAL® 4" MUFFLERS FOR 1995-2016 BIG TWINS

Finish	Part #
Chrome	**550-0689**
Black	**550-0690**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2016; CVO MY 2000-2003, and 2009-2016, 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2016; CVO MY 2000-2005, and 2009-2016

REPLACEMENT PARTS: SEE PAGE 318

SLASH CUT 4" SLIP-ONS

FITMENT

- 1995-2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!





Removable dB reducer



SLASH CUT 4" TOURING MUFFLERS FOR 1995-2016 BIG TWINS

Finish	Part #
Chrome	**550-0691**
Black	**550-0692**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2017; CVO MY 2000-2003, and 2009-2017, 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2017; CVO MY 2000-2005, and 2009-2017

REPLACEMENT PARTS: SEE PAGE 319

POWER TUNE DUAL HEADERS

FITMENT

- Non-catalyst equipped Harley-Davidson® touring models‡
- 1995 - '08 touring big twins

FEATURES AND BENEFITS

- Adds 8 horsepower over stock header pipes
- Independent dual look with hidden crossover
- Exclusive design moves the rear cylinder header away from the passenger to reduce radiated heat
- Full chrome or black ceramic heat shielding with 220º coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs*
- Durable 16 gauge construction
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Compatible with all equal size inlet slip-on mufflers
- Exhaust port gaskets included
- Made in the U.S.A.



POWER TUNE DUAL HEADERS

Fitment	Finish	Part #
1995-'08* big twins	Chrome	**550-0003A**
	Black	**550-0142A**

**Has 18mm sensor fittings in the stock locations for 2007-'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst.
*Qualified manufacturer declared emissions replacement part on FL touring models listed below.
California Models:
FL Touring Fuel Injected MY 1995-2003, and 2007
CVO FL Touring MY 2000-2003
49 State Models:
FL Touring Carbureted MY 1995-2005
FL Touring Fuel Injected MY 1995-2005 and 2007-2008
CVO FL Touring MY 2000-2005

REPLACEMENT PARTS: SEE PAGE 320

SPECIAL NOTES

It may be necessary to re-jet the carburetor or recalibrate the fuel injection system for best performance when a change is made in the exhaust system.

Dyno results are from tests performed at the S&S® Research and Development facility in Viola, Wisconsin.

Exhaust Noise Disclaimer: Unless noted, S&S exhaust components do not meet U.S. EPA noise standards and may be restricted to closed course competition use. Check local noise ordinances before use.

STEALTH AIR CLEANER KITS

FITMENT
- 1993-'99 big twins

FEATURES AND BENEFITS
- Air directional stinger cone in the filter
- Use with any of several S&S designed covers. See PAGE 231
- Or use with your stock Harley-Davidson® Twin Cam 88®, 96™ or 103™ air cleaner cover – *the word "sleeper" comes to mind (except 2015 air cleaner covers)*
- High flow (1" taller) filter kit available

NOTES

Fuel injection tuning is not required for this product.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: SEE 302


AIRSTREAM

STEALTH AIR CLEANER KITS WITH CHROME AIRSTREAM COVER

Application	Fuel System	Part #
1993-'99 bt	Stock CV	**170-0055**
	S&S Super E & G Carbs	**170-0062**


MUSCLE

STEALTH AIR CLEANER KITS WITH CHROME MUSCLE COVER

Application	Fuel System	Part #
1993-'99 bt	Stock CV	**170-0103**
	S&S Super E & G Carbs	**170-0109**


BOBBER-DISHED

STEALTH AIR CLEANER KITS WITH CHROME BOBBER-DISHED COVER

Application	Fuel System	Part #
1993-'99 bt	Stock CV	**170-0101**
	S&S Super E & G Carbs	**170-0107**


BOBBER-DOMED

STEALTH AIR CLEANER KITS WITH CHROME BOBBER-DOMED COVER

Application	Fuel System	Part #
1993-'99 bt	Stock CV	**170-0102**
	S&S Super E & G Carbs	**170-0108**



STEALTH AIR CLEANER KITS*

Application	Fuel System	Part #
1993-'99 bt	Stock CV	**170-0100**
	S&S Super E & G Carbs	**170-0057**

**These kits do not contain covers –Choose an S&S cover or use your stock Twin Cam 88®, 96™ or 103™ cover*

STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
V111 Long Block 1984-'99 bt (p/n 310-0766)	S&S E or G Carburetor	**170-0057**
V111 Long Block 1984-'99 bt (p/n 310-0766)	Stock CV/EFI Delphi®	**170-0100**
V80 Long Block 1984-'99 bt (p/n 310-0233 & 310-0232)	S&S E or G Carburetor	**170-0057**
V80 Long Block 1984-'99 bt (p/n 310-0233 & 310-0232)	Stock CV/EFI Delphi®	**170-0100**
1995-1999 S&S Super Stock Engines	S&S Single Bore VFI 52mm Throttle Bodies	**170-0287**
1995-1999 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	**170-0283**
1999-2017 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	**170-0284**

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STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW MINI TEARDROP

FITMENT

- All S&S Stealth Air Cleaners







Air 1



Tri-Spoke



Airstream



Muscle

STEALTH COVERS

Style	Finish	Part #
Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**

CLASSIC TEARDROP AIR CLEANER KIT


17-0450

FITMENT
- 1984–'99 big twins
- S&S V-Series engines

FEATURES AND BENEFITS
- Uniquely designed backplate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS
- Filter
- Classic Teardrop air cleaner cover
- Backing plate
- All mounting hardware

CLASSIC TEARDROP AIR CLEANER KITS

Model/Engine	Finish	Stock Carb/EFI	S&S Super E/G
1993-'06 HD® Carbureted Big Twins	Chrome	**17-0450**	**17-0404**
	Gloss Black	**170-0181A**	–
1990 -'92	Chrome	–	**17-0399**
1984 - '89	Chrome	–	**17-0399**
S&S 4⅛" Bore Engines	Slasher Chrome	–	**17-0416**

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CLASSIC TEARDROP AIR CLEANER KITS S&S SINGLE BORE EFI

Model/Engine	Finish	58mm
S&S 4⅛" Bore Engines	Chrome	**106-4668**

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REPLACEMENT PARTS STARTING ON PAGE 304


17-0378


170-0384A


17-0071


17-0004

TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Classic Teardrop	Chrome	**17-0378**
	Gloss Black	**170-0384A**
Slasher Teardrop	Chrome	**17-0004**
Nostalgic Teardrop	Polished	**17-0071**

NOTE

Fuel delivery (carbureted or EFI) may need to be modified to maintain the correct air and fuel mixture.

CARB EXEMPT AIR CLEANER KITS

FITMENT
- 50-State emissions compliant S&S V-Series engines

KIT CONTENTS
- Filter
- Cover
- Valve assembly, backplate, sealed air cleaner
- Necessary mounting hardware and o-rings

SEALED AIR CLEANER KITS

Engine	Part #
V96, V100, V113	**106-1449**
V111, V117, V124	**106-3082**



106-1449

S&S® sealed air cleaner kit uses a solenoid operated nickel plated rotary valve to keep hydrocarbons from escaping into the atmosphere when the engine is not running, but opens to allow air to enter when the starter button is depressed.

SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT
- 1984-'99 big twin
- S&S V-Series

FEATURES AND BENEFITS
- Bolt-on performance – over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy



SINGLE BORE TUNED INDUCTION SYSTEM KITS

Fitment	Fuel Delivery	Finish	Part #
4 1⁄8" Bore S&S V-Series	S&S Single Bore EFI	Chrome/Red Filters	**170-0083**
4 1⁄8" Bore S&S V-Series	S&S Super E/G	Chrome/Red Filters	**170-0084**
1984-'99 big twins	S&S Single Bore EFI	Chrome/Red Filters	**170-0085**
1984-'99 big twins	S&S Super E/G	Chrome/Red Filters	**170-0086**
1984-'06 big twins	Stock CV	Chrome/Red Filters	**170-0087**
CTO	Specify	Specify	**106-5337***

NOTES

Single bore tuned induction will not fit on motorcycles equipped with fairing lower glove boxes.

Tuned induction system does not fit Dyna® Wide Glide® models due to runner to gas tank interference.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

**Use the Configure to Order (CTO) part number to order different finish and filter color*

REPLACEMENT PARTS: SEE PAGE 303

BREATHER CONVERSION KIT

FITMENT
- 1993–'99 big twin

FEATURES AND BENEFITS
- Instead of o-rings, banjo fittings are sealed with durable silicon coated washers

BREATHER CONVERSION KIT

Application	Part #
1993-'99 big twins	**17-0486**

Breather conversion kit for big twin engines updates earlier S&S air cleaner kits for 1993-'99 big twins to the latest breather hardware.



PRE-FILTERS

FITMENT
- S&S® Stealth Air Filters

FEATURES AND BENEFITS
- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard Stealth Air Filter	**170-0193**
1" Tall Stealth Air Filter	**170-0197**



170-0197

HIGH FLOW AIR FILTER KITS

FITMENT
- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS
- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS
- Wide filter
- Filter spacers

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit *(includes spacers)*	Classic Teardrop	**17-0045**
	Stealth, 1" Taller	**170-0127***
1" Taller Filter Only		**106-4724**
	Stealth	**170-0154**
Spacer	Classic Teardrop & Stealth, 1" Taller	**50-5009-S**

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



170-0127



17-0045

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	**106-4722**
	Stealth	**170-0126**

PERFORMANCE KIT OVERVIEW
FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES



S&S SIDEWINDER® KITS

S&S 3⅝" big bore/stroker kits are available from 88" to 103" displacement (See PAGE 236). We recommend the 96" kit for most applications, and it is our most popular. The 96" Sidewinder is also available as a Hot Set Up Kit, which includes the extra performance goodies you need to make the most of the increased displacement. (See PAGE 237).



S&S 96" HOT SET UP KITS

The S&S 96" Hot Set Up Kit is built around our most popular 3⅝" bore Sidewinder® kit. In addition to the standard flywheel assembly, cylinders, and pistons, the 96" Hot Set Up Kit includes S&S a cam shaft, carb, pushrods, and all required hardware and gaskets. The top of the line Hot Set Up Kit also includes S&S Super Stock® cylinder heads. Kits for stock heads include S&S valve springs to accommodate the high lift cam. Configure your own Hot Set Up Kit with the CTO part number. (See PAGE 237).



S&S 89" STOCK BORE STROKER

S&S has been making stock bore stroker kits since the early 1960's. They're still popular today due to the excellent power gains for the money, as well as the easy installation. Stock bore strokers reuse the stock cylinders and crankcase, so the kits are economical to buy. Since they don't require expensive crankcase modifications, they are also economical to install (See PAGE 238). To ensure maximum performance, we suggest the 89" Stroker Hot Set Up Kit that also includes an S&S camshaft, carb, pushrods, and S&S cylinder heads. Configure your own Hot Set Up Kit with the CTO part number.



S&S 80" HOT SET UP KITS

Boost your performance without splitting your crankcases with the 80" Hot Set Up Kit. The kit includes S&S Super Stock® cylinder heads, cam, carb, pushrods and gaskets. Installation is no more difficult than a stock top end job. Purchase pistons of the required oversize separately.(See PAGE 239).

PERFORMANCE KIT SPECIFICATIONS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES

KIT DESCRIPTION	BORE	STROKE	COMPRESSION RATIO				CAMSHAFT	HORSEPOWER	TORQUE
			Stock Heads	Performance Replacement Heads 76cc	Performance Replacement Heads 82cc	S&S® Super Stock® Heads		S&S Heads	
Sidewinder® Kit	3 ⅝"	*	*	*	*	*	–	*	*
96" Hot Set Up Kit	3 ⅝"	4 ⅜"	9.25	10:1	9.5:1	10.2:1	585	99.5	109.9
89" Stroker Kit	3 ½"	4 ⅜"	9.25	9.4:1	8.9:1	10:1	–	95.0	97.6
89" Stroker Hot Set Up Kit	3 ½"	4 ⅜"	9.25:1	9.4:1	8.9:1	10:1	561	95.0	97.6
80" Hot Set Up Kit	3 ½"	4 ¼"	–	–	–	10.2:1	561	83.0	85.5

**Specifications depend on kit selected. See PAGE 236.*

PERFORMANCE KIT CONTENTS, OPTIONS AND REQUIREMENTS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES

KIT DESCRIPTION	PACKAGE CONTENTS								MACHINING REQUIRED	CTO OPTIONS	REJETTING OR CALIBRATION CHANGE
	Flywheels	Cylinders	Pistons w/ rings	Pushrods	Camshaft	Valve Springs	Heads w/ springs	Gaskets			
Sidewinder® Kit**		●	●				❶	●	❸❹		●
96" Hot Set Up Kit	●	●	●	●	●	●	⓪	●	❸❹	❺❻❼	●
89" Stroker Kit	●	❼	❶				❶		❷❸		●
89" Stroker Hot Set Up Kit	●	❼	❶	●	●	●	⓪	●	❷❸	❺❻❼	●
80" Hot Set Up Kit		❼	❶	●	●		●	●	❷		●

⓪ = Optional
❶ = Order separately
❷ = Bore & hone cylinders
❸ = Crankcase machining crankpin clearance
❹ = Crankcase machining for cylinder spigots
❺ = Camshaft selection
❻ = Combustion chamber size selection
❼ = Cylinder & piston set available

**The CTO option column lists only the major items offered. Virtually any option can be selected from our product offerings through the Configure To Order (CTO) program.*
***Specifications depend on kit selected*

SIDEWINDER® KITS

FITMENT

- 1984-'99 carbureted
- 1995-'98 EFI engines

FEATURES AND BENEFITS

- Large displacement at a relatively small price
- Significant increase in horsepower and torque

OPTIONS

- 96" displacements available
- Top end kits for 80" engines and engines with S&S 89" stroker kits
- Valve train items – Cams, tappets, valve springs, rocker arms, rocker covers
- Fuel systems – Manifolds, carburetors, EFI throttle bodies, EFI modules
- Factory installation available



91-7660

COMPLETE S&S® SIDEWINDER® KITS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES SPECIFICATIONS

Displacement	Stroke	Compression Ratio	Cylinder Length
96"	4⅝"	9.75:1	5.565"

COMPLETE S&S® SIDEWINDER® KITS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES

Displacement	Natural	WBlack
96"	**91-7202***	**91-7702***
	91-7660	**91-7661**

**Denotes big bore Top End Kit only.*

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NOTES

Cases must be bored to accept 3⅝" bore cylinders, and a minor crankcase clearancing operation for the crankpin nut must be performed.

EXTRA PARTS NEEDED:

1977-'89 style pinion gear and oil pump drive gears must be used when installing S&S flywheels in 1990-'99 engines.

96" HOT SET UP KIT®

FITMENT

- 1984-'99 carbureted engines
- 1995-'98 EFI engines

FEATURES AND BENEFITS

- Economical route to a large displacement motor
- Enhance performance with the addition of S&S® Super Stock® cylinder heads
- Includes a 96" Sidewinder® kit with 4⅝" stroker flywheels assembled with mainshafts and rods, 3⅝" bore cylinder and piston kit, an S&S 585 cam, .585" valve springs, adjustable chromoly pushrods, an HL_2T kit, a Super E carb kit, and installation instructions

OPTIONS

- Kits are available with S&S Super Stock® heads or without heads if S&S Performance Replacement heads or stock heads will be used
- Configured to order – Get what you want and need

S&S® 96" HOT SET UP KIT® SPECIFICATIONS

Displacement	Stroke	Bore	Compression Ratio			Piston Type	Cylinder Length
			Stock Heads	S&S Super Stock Heads	S&S 82cc Performance Replacement Heads		
96"	4⅝"	3⅝"	9.75:1	10.1:1	9.5:1	Forged	5.565"

96" HOT SET UP KIT® WITHOUT HEADS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES

Year Group	Stroke	Fuel Delivery	Cam	Finish	Part #
1984-'92 bt	4⅝"	Super E	585	WBlack	**32-2298**
1993-'99 bt	4⅝"	Super E	585	Natural	**32-2297**
				WBlack	**32-2299**

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32-2297

96" HOT SET UP KIT® WITH S&S® SUPER STOCK® HEADS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES

Year Group	Stroke	Fuel Delivery	Cam	Finish	Part #
1993-'99 bt	4⅝"	Super E	585	Natural	**90-0122**
				WBlack	**90-0123**

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90-0122

NOTES

IMPORTANT: 1977-'89 style pinion gears, spacer, and nut are required when installing S&S flywheel assemblies. For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit 33-4148.

89" STROKER KIT



FITMENT

- 1984-'99 carbureted engines
- 1995-'98 EFI engines

FEATURES AND BENEFITS

- Stock, S&S Super Stock® or performance replacement heads can be used with this configuration, depending on which pistons are purchased with the stroker flywheels.
- 89" strokers can be installed in carbureted or fuel injected engines. Note that recalibration of the fuel injection system is required.
- Requires a simple crankcase clearance operation and normal piston fitting.
- Low cost boost in performance - Add S&S 3⅝" cylinders later for 96" engine

FLYWHEEL ASSEMBLIES FOR S&S® 89" STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES

Application	Part #
Carbureted	**32-2230**
Fuel Injected	**32-2146**

S&S® 89" STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES SPECIFICATIONS

Displacement	Stroke	Bore	Compression Ratio*	Piston Type	Cylinder Length
89"	4⅝"	3½"	9.25:1	Forged	Stock

**Compression ratio with stock heads.*
1990 and later installations require 1977 to 1989 pinion shaft gears. Kit 33-4148 includes cam and oil pump drive gears, spacer and nut.

THESE KITS REQUIRES SPECIAL S&S PISTONS. Order the required piston oversize from the chart below.



106-5554

3½" BORE FORGED STROKER PISTON KITS FOR STOCK HEADS OR S&S PERFORMANCE REPLACEMENT HEADS

Standard	+.010"	+.020"	+.030"	
106-5554	**106-5555**	**106-5556**	**106-5793**	

Piston kits include set of pistons, rings, wristpins, and clips. Recommended cast piston fitment: Close: 0.0008" – 0.0013" Loose: 0.0020" – 0.0025"

3½" BORE FORGED PISTON KITS FOR S&S® SUPER STOCK® HEADS

Displacement	Stroke	Piston Deck Height	CR	Standard	0.005"	+0.010"	+0.020"
89" LC	4⅝"	1.1875"	10:1	**92-2046**	**92-20465**	**92-2047**	**92-2048**
89" HC	4⅝"	1.1875"	12.2:1	**92-2016**	**–**	**–**	**92-2018**

Piston kits include set of pistons, rings, wristpins, and clips. Recommended cast piston fitment: Close: 0.0008" – 0.0013" Loose: 0.0020" – 0.0025"

NOTES

If ordering replacement pistons for an older 89" Stroker Kit, the flywheels will require rebalancing.

S&S Super Stock cylinder heads do not have provision for the stock head temperature sensor. For this reason they are not compatible with fuel injected applications. Fuel injected stroker engines must use stock cylinder heads or S&S performance replacement heads. (See PAGE 266)

80" HOT SET UP KIT®



FITMENT

- 1984-'99 carbureted engines

FEATURES AND BENEFITS

- Installation is as easy as a stock top-end rebuild
- Flywheel rebalancing is not required
- Yields 80 cubic inches at 10.2:1 compression ratio with included S&S cylinder heads
- Includes S&S Super Stock cylinder head kit with valves and springs installed, manifold with o-rings and flanges, required hardware, top end gaskets, an S&S 561 cam, adjustable chromoly pushrods, an HL_2T kit, a Super E carb kit, and installation instructions
- Pistons of the required oversize must be ordered separately. Pistons fitted to S&S cylinders are also available

S&S® 80" HOT SET UP KIT® FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES SPECIFICATIONS					
Displacement	Stroke	Bore	Compression Ratio	Piston Type	Cylinder Length
80"	4¼"	3½"	10.2:1	Forged	Stock



90-0082

80FLSS HOT SET UP KITS® WITH SUPER STOCK® CYLINDER HEADS FOR CARBURETED HARLEY-DAVIDSON® EVOLUTION® BIG TWINS		
Model Year	WBlack	Natural
1984-'92	**90-0083**	**90-0081**
1993-'99	**90-0084**	**90-0082**
DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.		

THESE KITS REQUIRES SPECIAL S&S PISTONS. Order the required piston oversize from the chart below.



92-2026

92-2026 SERIES PISTONS FOR S&S® 80" HOT SET UP KITS® 10:1 COMPRESSION					CYLINDER & PISTON KIT	
Standard	+.0005"	+.010"	+.020"	+.030"	Natural	WBlack
92-2026	**92-20265**	**92-2027**	**92-2028**	**92-2029**	**91-7213**	**91-7713**

ENGINE OVERVIEW



S&S engines for 1984-'99 Harley Davidson® big twins with carbureted Evolution® engines are available as complete engines. V80 and V111 engines are also available as long blocks, with no fuel or ignition systems. Choose from natural, as-cast aluminum finish, wrinkle black powder coat, or Black Edition finishes. In addition to the S&S line of Performance Engines, emissions compliant engines are available that meet EPA, CARB, and European Union requirements for certain models.

BLACK EDITION

S&S Cycle's new Black Edition engines combine classic wrinkle black with high gloss black powder coated covers for a subtle contrast and elegant look while still producing the power and reliability you've come to expect.

V124 (124 CID)

The V124 engine first appeared in the S&S Catalog in 2002, and being the biggest engine we make that will fit in a stock frame for this year group, has been the go-to engine for daily rider hot rods. Natural aluminum, wrinkle black powder coat, or polished finishes. Available as a complete engine only in performance and emissions compliant versions.

V111 (111 cid)

The S&S V111 engine was engineered to be the ultimate sport touring engine. The shorter stroke produces less vibration and engine noise, and it increases engine life. The 111 cid produces plenty of power. Available in natural aluminum, wrinkle black, polished, or black edition finishes. Performance versions are available as long blocks or complete engines. Emissions compliant versions are available as complete engines only. Super E carbs and HI-4N ignition modules are recommended engine management for long blocks.

V96 (96 cid)

The S&S V96 engine has been a popular choice with performance riders and builders since it was introduced in the mid-1990s. Near stock engine height makes it easy to install, and there's plenty of power to pass. Available in natural aluminum, wrinkle black, or polished finishes. Complete engines only. Performance and emissions compliant versions are available.

V80 (80 cid)

The S&S V80 engine is logical choice for riders who just want to repower their trusty Evolution® powered Harley-Davidson® big twin. With slightly more power than a stock 80" engine, the V80 offers great engine life, low vibration, and trouble free operation. Natural aluminum or wrinkle black powder coat finishes. Available as a complete engine or as a long block, without fuel or ignition systems. Super E carbs and HI-4N ignition modules are recommended engine management for long blocks.

V124 ENGINES


31-9886

FITMENT
- 1984–'99 carbureted chassis
- Custom chassis designed for Harley-Davidson® Evolution® engines

FEATURES AND BENEFITS
- Long piston stroke and high performance gear driven cam result in large horsepower increase over stock engine
- 1.671" diameter crankpin
- .927" wristpin
- Piston cooling jets
- Large fin pack – heads and cylinders
- Press together crankshaft
- 3 Piece Flywheel
- HVHP oil pump
- Electric compression release – easy starting under any circumstance
- Natural, Wrinkle Black (WBlack) powder coat, and polished finish. Diamond cut black powder coat, fully polished, and diamond cut fully polished finishes are available, but have longer lead times
- Chrome gearcover, tappet covers, and rocker covers

CARBURETED ENGINES
- S&S Super G carburetor with slotted Slasher air cleaner cover
- Super Stock® ignition system

FUEL INJECTION ENGINES
- Single bore EFI throttle body with S&S Classic Teardrop air cleaner
- Magneti Marelli® style S&S Variable Fuel Injection (VFI) module with built-in three stage engine overheat protection
- Closed loop fuel system, dual oxygen sensors provide air-fuel ratio feedback for correct fuel delivery under any condition
- Included S&S ProTune II software provides base fuel maps for most aftermarket exhaust systems

NOTE: **EFI models available by special order

S&S® V124 ENGINE SPECIFICATIONS

Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
124"	4⅛"	4⅝"	640	S&S forged	10.8:1

NOTES

If an aftermarket exhaust or intake system is used, the fuel maps must be modified. It is highly recommended that this tuning be done by a certified S&S® VFI tuning center. Visit our website at www.sscycle.com to locate your nearest certified S&S VFI tuning center. S&S VFI tune files can also be found on our web page and are available for many common exhaust systems.

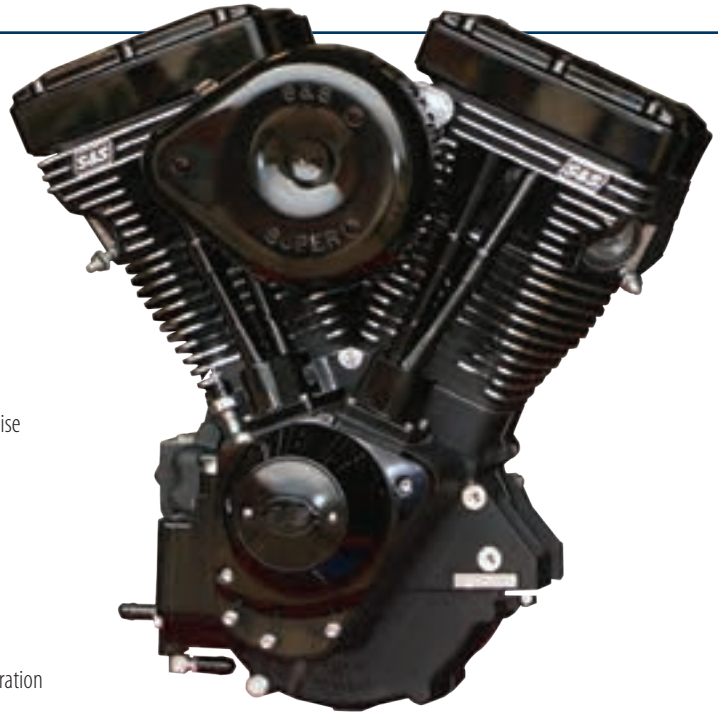
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V124 ENGINES

Chassis Style	Fuel Delivery	Ignition	Warranty Period	Finish	Part #
1984-'99 Carb	S&S® Super G Carb	Super Stock®	2 Year	Black Edition	**310-0925**
				Natural	**31-9860**
				WBlack	**31-9885**
				Polished	**31-9886**
CTO	Specify	Specify	Varies	Specify	**319-0008**

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V111 ENGINES



FITMENT

- 1984–'99 carbureted chassis
- Custom chassis designed for Evolution® engines

FEATURES AND BENEFITS

- Short stroke produces less vibration and longer engine life
- Large cooling fins - increases cooling efficiency
- HVHP (High Volume High Pressure) oil pump
- S&S 585 cam and lightweight single coil valve springs minimize valve train noise
- S&S forged rocker arms
- Shorter than stock height engine makes installation easy
- Chrome plated rocker covers, tappet guides, and gearcover

CARBURETED ENGINES (1984–'99)

- S&S Super E carburetor with Classic Teardrop air cleaner

Super Stock® ignition system

- Protects engine with a 3-step break-in rev-limiter during first 24-hours of operation
- Initially configured for electric start, however, it is kick-start capable
- Two-year warranty

S&S® V111 ENGINE SPECIFICATIONS

Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
111"	4⅛"	4⅛"	585	S&S forged	9.8:1

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	4⅛"	**106-0964** USA

V111 ENGINES

Chassis Style	Fuel Delivery	Ignition	Warranty	Finish	Part Number
1984-'99 Carb	S&S Super E Carburetor	Super Stock®	2 Year	Black Edition	**310-0828**
				Natural	**106-5703**
				WBlack & Chrome	**106-5704**
				Polished	**310-0385**
CTO	Specify	Specify	Varies	Natural or WBlack Finish	**319-0008**

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V96 ENGINES

FITMENT

- 1984–'99 carbureted chassis
- Custom chassis designed for Evolution® engines

FEATURES AND BENEFITS

- Nearly stock height engine makes installation easy (+.015")
- S&S Super E carburetor with Classic Teardrop air cleaner cover
- S&S 585 cam and lightweight single coil valve springs reduce engine noise
- S&S forged rocker arms
- Chrome plated rocker covers, tappet guides, and gearcover

Super Stock® ignition

- Protects engine with a 3-step break-in rev-limiter during first 24 hours of operation
- Initially configured for electric start, however it may be switched to kick-start mode using diagnostic cable and software
- Two-year warranty



31-9955

S&S® V96 ENGINE SPECIFICATIONS

Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
96"	3⅝"	4⅝"	585	S&S flat top forged	9.5:1

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	3⅝"	**106-0992** USA

V96 ENGINES

Chassis Style	Fuel Delivery	Ignition	Warranty	Natural Finish	WBlack Finish		Polished Finish
1984-'99 Carb	S&S Super E Carb	Super Stock®	2 Years	**31-9955**	**31-9956**		**31-9957**

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V80 ENGINES

FITMENT

- 1984-1999 carbureted

FEATURES & BENEFITS

- Adjustable pushrods
- Standard forged rocker arms
- High performance hydraulic lifters
- .585" lift single coil valve springs
- Flat top cast pistons
- 508 cam
- Performance replacement heads

OPTIONS

- Complete engine with an S&S Super E carb and ignition or basic engines without carb, ignition or oil



310-0233

S&S® V80 ENGINE SPECIFICATIONS

Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
80"	3½"	4¼"	508	Cast	8.4:1

V80 ENGINES

Chassis Style	Fuel Delivery	Ignition	Warranty	Natural Finish	WBlack Finish
1984-1999	Super E	Super Stock	2 years	**310-0237**	**310-0238***

**EFI Compatible*

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V-SERIES LONG BLOCKS

Why rebuild that old stock engine? Upgrade, and replace it with an all-new S&S® V111 or V80 engine. Get a 2-year warranty and a lot more power!

FITMENT

- 1984-'99 Harley-Davidson® big twin chassis and custom frames designed for Evolution® big twin engines.

FEATURES AND BENEFITS

- Save time – Replacement is faster than rebuilding.
- Save money – Fuel and ignition systems not included, use the carburetor, air cleaner, and aftermarket ignition you may already have.
- Specially machined cylinder heads allow use of stock length manifolds. Use your existing carb *(re-jetting is required)*
- EFI compatible - Calibration required *(must use aftermarket module or add-on tuner).*
- Premium S&S Components - S&S cylinder heads, S&S 585 valve springs, forged rocker arms
- Made in the USA!

V111

- Easy Installation – Actually shorter than a stock engine. No clearance problems.
- More Power – 111 cubic inches at 9.8:1 compression – runs great on pump gas.
- Superior Cooling – S&S big-fin cylinders with more fin area, and exclusive oil jets to cool the bottom of the pistons.
- S&S HVHP oil pump.

For maximum performance, the following fuel and ignition products are recommended



310-0766

CARBURETED APPLICATIONS

- S&S Super E Carb Kit - 11-0419
- S&S HI-4N Ignition Module Only - 550-0501
- S&S HI-4N Ignition, complete Kit - 550-0502

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kits. See PAGE 230

V-SERIES LONG BLOCK ENGINES

Displacement	Bore	Stroke	Camshaftt	Piston Type	Compression Ratio	Warranty	Finish	Part Number
V111	4⅛"	4⅛"	585	Forged	9.8:1	2 Year	WBlack	**310-0766**
							Black Edition	**310-0829**
V80	3½"	4¼"	508	Cast	8.4:1	2 Year	WBlack	**310-0233**
							Natural	**310-0232**

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49-STATE EPA ENGINES



Certified for "new build" bikes, S&S offers two options for 49-state EPA engine packages.

FITMENT

- Aftermarket frames with motor mounts for 1984–'99 big twins

FEATURES AND BENEFITS

- 49-state emissions legal
- S&S Delphi® style EFI with Classic Teardrop air cleaner cover
- Chrome gearcover, tappet covers, and rocker covers
- Includes all required certification, documentation and labels
- Two-year warranty

S&S® V-SERIES 49-STATE EPA ENGINE SPECIFICATIONS

Engine Name	Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
V124Ei	124"	4 1⁄8"	4 5⁄8"	543	S&S Forged	9.0:1
V111Ei	111"	4 1⁄8"	4 1⁄8"	543	S&S Forged	9.0:1

V-SERIES 49-STATE EPA ENGINES

Engine Name	Chassis Style	Fuel Delivery	Warranty	Finish	Part #
V124Ei	1984-'99 carb	EFI	2 years	Black	**310-0664**
				Polished	**310-0665**
V111Ei	1984-'99 carb	EFI	2 years	Black	**310-0661**

NOTE

These engines are not to be used in a previously certified vehicle or a custom motorcycle built from a previously certified vehicle.

S&S 49-state engine packages are only available through S&S dealers and select distributors.

Requirements for bikes built with S&S EPA certified engine packages:

Vehicles must have a maximum N/V ratio*of no greater than 43.3 for V-Series engines.

Maximum vehicle curb mass for V124E and V111E engines is 1058 lbs.

Exhaust system selected must create back pressure within the specified limits. Min. 3" H20, Max. 21" H20

*Engine rpm divided by miles per hour in top gear.

50-STATE LEGAL ENGINES



CARB compliant
EO #D-355-5

FITMENT
- V96R -1984–'98 carbureted, non catalyst bikes
- V111Ci - 1984–'99 style custom big twin chassis

V96R FEATURES AND BENEFITS
- Nearly stock height engine makes installation easy
- S&S Super E carburetor with Classic Teardrop air cleaner
- S&S forged roller rocker arms
- Chrome gearcover, tappet covers, and rocker covers
- No certification problems – documentation and compliance stickers included
- Exempt from emissions tampering regulations under CARB EO# D-355-5 when used in 1984-1998 carbureted, non-catalyst, big twin powered models

V111Ci FEATURES AND BENEFITS
- 50-state emissions legal
- S&S Super E or G carburetor with Classic Teardrop air cleaner cover
- Chrome gearcover, tappet covers, and rocker covers
- Super Stock® ignition system protects engine with a low rev-limiter during first 24 hours of operation
- Initially configured for electric start, however, it is kick start capable
- Carbon canister
- Vapor valve
- Non-permeable installation tubing
- Instructions and all required documentation
- Two-year warranty

S&S® V-SERIES 50-STATE LEGAL ENGINE SPECIFICATIONS

Engine Name	Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
V96R	96"	3⅝"	4⅝"	520	S&S Forged	10.1:1

V-SERIES 50-STATE LEGAL ENGINES

Engine Name	Chassis Style	Fuel Delivery	Ignition	Warranty Period	Finish	Part #
V111Ci	1984-'99 carb	S&S EFI	S&S VFI	2 years	Black	**310-0673**
V96R	1984-'98 carb	Super E Carb	Super Stock®	2 years	Black	**31-9156***
					Natural	**31-9155***

*Exempt from emissions tampering regulations under CARB EO# D-355-5 when used in 1984-1998 carbureted, non-catalyst, big twin powered models

NOTES

V96R
Gearing must be stock or have an N/V Ratio*lower than stock.

A stock non-catalyst exhaust system must be used.

The stock evaporative system must be retained and connected to the engine as shown in the manual.

S&S® replacement engines are only for use as a replacement engine in 1984-'98 Harley-Davidson motorcycles originally equipped with a carbureted, non-catalyst, big twin Evolution® engine. They may not be used in any new or previously registered custom motorcycles.

*Engine rpm divided by miles per hour in top gear.

This replacement engine is only legal when used to replace a stock 80" Evolution® engine. CARB compliance stickers must be affixed to frame.

V111C/V124C
Vehicles must have a maximum N/V ratio*of no greater than 43.3 for V-Series engines.

Maximum vehicle curb mass for V111Ci engines is 1058 lbs.

Exhaust system selected must create back pressure within the specified limits. Min. 3" H20, Max. 21" H20

Builder must return the included agreement form and required photographs of the vehicle to S&S before a manufacturer's statement of origin (MSO) for the engine can be issued.

Until the MSO is issued, the vehicle is not considered to be certified and the MSO is required to title a custom vehicle.

Maximum fuel capacity is five gallons.

*Engine rpm divided by miles per hour in top gear.

SHORT BLOCK ASSEMBLIES

Replace your entire stock lower end with an S&S Short Block assembly! A rock solid S&S flywheel assembly, installed in a set of bullet proof S&S Super Stock® crankcases.



FITMENT

- 1984-'99 Carbureted and Fuel Injected 80" Evolution big twin

FEATURES AND BENEFITS

- Stock 3½" bore and 4¼" stroke
- Premium quality U.S. made S&S components
- Compatible with all stock and most aftermarket parts
- Full one year parts warranty
- Includes certificate of origin for new crankcases

CARB compliant
EO #D-355-19

SHORT BLOCK ASSEMBLIES

Chassis Style	Bore	Stroke	Warrany Period	Finish	Part #
1984-'91 big twins	3 ½"	4 ¼"	One year parts only	Natural	**310-0780A**
				WBlack	**310-0801A**
1992-'99 big twins				Natural	**310-0781A**
				WBlack	**310-0802A**

1977-'89 style pinion gears, spacers, and nuts are required when installing S&S flywheel assemblies.
For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit
Exempt from emissions tampering regulations under CARB EO# D-355-19



PINION SHAFT CONVERSION KIT

Fitment	Part #
1990 -up big twins	**33-4148**

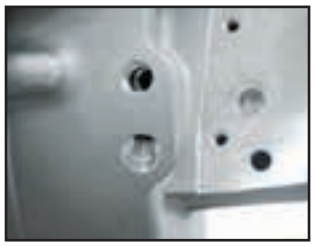
SUPER STOCK® ALTERNATOR STYLE CRANKCASES

FITMENT
- 1984–'99 big twins under 4" bore

CARB compliant
EO #D-355-8


31-0005

FEATURES AND BENEFITS
- Relocated cam chest oil pick-up increases gear case scavenging and virtually eliminates oil carry-over at sustained high speeds
- Machined to accept the stock oil filter assembly used on 1992-'99 big twins
- A ported breather passageway and a machined breather window allows the air/oil mist to flow from the flywheel cavity to the cam chest of the engine with the least possible restriction
- Crankcase venting can be achieved via two crankcase breathers, the cylinder heads, or both. We recommend using both crankcase breathers in engines larger than 95"
- Clearanced for strokes as long as 5"
- Compatible with stock 1984-'99 flywheel assemblies, primary covers and gearcovers, making them perfect for stock replacement or high performance applications
- Machined for installation of a crank position sensor. This allows the cases to be used in stock EFI applications and also allows easy installation of S&S IST® Ignition and VFI Fuel Injection. A plug kit is included for applications that do not use a crank position sensor
- Exempt from emissions tampering regulations under CARB EO# D-355-8 when used with stock bore cylinders for 3½" Bore (stock)


Two crankcase breather holes allows increased flexibility.


Relocated oil scavenge pick-up reduces oil carry-over by increasing oil scavenge efficiency.

OPTIONS
- Available for stock, 3⅝", and 3 13/16" bore applications with deck heights as much as 3/16" taller than 3½" stock

KIT CONTENTS
- Crankcase assembly
- All required hardware, fittings, and bearings

REPLACEMENT PARTS: SEE PAGE 286

SUPER STOCK® ALTERNATOR CRANKCASES FOR 1984-'99 BIG TWIN

Crankcase Style	Finish	3½" Bore (Stock)	3⅝" Bore	Notes
1992-'99	Natural	**31-0005***** *24469-83C, 24469-83A*	**31-0077** USA[1]	1, 3, 4
	WBlack	**31-0055***** *24571-93, 24569-95*	**31-0078** USA[1]	
1984 -'91	Natural	**31-0000***** *24469-83C, 24469-83A*	**31-0001**	2, 3, 4
	WBlack	**31-0052***** *24473-85C*	**31-0053****	
Special Order**		**31-0002***	**31-0002**	

1. 1992-'99 style oil pump. 3. Machined for 1984-'99 alloy primary. 2. 1984-'91 style oil pump. 4. Machined for stock or S&S EFI crank position sensor. Stock diameter only.

**Special Order: Download the Special Order Form at www.sscycle.com/soforms*

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

***Exempt from emissions tampering regulations under CARB EO# D-355-8 when used with stock bore cylinders

NOTE

All S&S crankcases manufactured after June 1, 2008 do not have case interlock groove and ring and do not use case alignment studs. Case mating surface is flat, and cases are aligned with alignment dowels.

SPECIAL APPLICATION CRANKCASES

FITMENT

- 1984-'99 big twins – 4" bore and over
- S&S 4", 4⅛" bore V-Series engines



31-0033

FEATURES AND BENEFITS

- Cam chest is moved outward .250" to allow crankcases to handle large cylinder bore sizes
- Relocated cam chest oil pick-up increases gear case scavenging and virtually eliminates oil carry-over at sustained high rpm
- Machined to accept the stock oil filter assembly used on 1992-'99 big twins
- A ported breather passageway and a machined breather window allows the air/oil mist to flow from the flywheel cavity to the cam chest of the engine with the least possible restriction
- Crankcase venting can be achieved via two crankcase breathers, the cylinder heads, or both! We recommend using both crankcase breathers in engines larger than 95"
- Clearanced for strokes as long as 5"
- Machined for installation of a crank position sensor. This allows the cases to be used in EFI applications and also allows easy installation of S&S IST® Ignition and VFI Fuel Injection. A plug kit is included for applications that do not use a crank position sensor

NOTE

All S&S crankcases manufactured after June 1, 2008 do not have case interlock groove and ring and do not use case alignment studs. Case mating surface is flat, and cases are aligned with alignment dowels.

REPLACEMENT PARTS: SEE PAGE 288

KIT CONTENTS

- Crankcase assembly
- All required hardware, fittings, and bearings

SPECIAL APPLICATION ALTERNATOR CRANKCASES FOR 1984-'99 BIG TWIN

Crankcase Style	Bore	Deck Height	Natural	WBlack	Polished
1984-'99*	4"	5.875"	**31-0047** USA2	**31-0051** USA2	-
1984 -'99*	4⅛"	6.000"	**31-0033** USA3	**31-0037** USA3	**31-0039** USA3
Special Order	Specify	Specify	**31-0015****	**31-0015****	**31-0015****

**1992-'99 style oil pump, machined for 1984-'99 alloy primary, machined for stock or S&S EFI crank position sensor. Stock diameter only.*

***Special Order: Download the Special Order Form at sscycle.com/soforms*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT FLYWHEEL ASSEMBLIES

FITMENT
- 1984–'99 big twins

FEATURES AND BENEFITS
- Drive side flywheels have special keyed 6° large diameter taper that provides more contact area, increasing strength
- Standard S&S tapered crankpin and pinion shaft are used for ease of service
- Flywheels for EFI applications are machined with timing notches compatible with factory crank position sensors

KIT CONTENTS
- Assembled:
  - Flywheels
  - Crankpin
  - Connecting rods



TRYING TO IDENTIFY AN S&S® FLYWHEEL?
SEE FLYWHEEL I.D. CHART PAGE 548

FLYWHEELS FOR 1984-'99 CARBURETED BIG TWINS

Stroke	8½" Diameter (stock)	8¼" Diameter
4¼"	**32-2239** *23906-90, 23906-93B, 23906-90A*	–
Special Order**	**32-2015****	**32-2015****

***Use this special order part number to order flywheels assembled or unassembled,or balanced or unbalanced. Download the Special Order Form at sscycle.com/soforms*

FLYWHEELS FOR 1995-'98 EFI BIG TWINS

Stroke	Part #
4¼"	**32-2145** 23941-95

NOTES

IMPORTANT: 1977-'89 style pinion gears, spacers, and nuts are required when installing S&S flywheel assemblies. For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit 33-4148.

S&S flywheels are no longer available machined for stock Harley-Davidson® main shafts.

4¼" stroke assembly is balanced for stock H-D® 80" pistons.

4⅝" stroke assembly is balanced for S&S stock bore and 3⅝" bore stroker pistons.

Use special order part number for flywheels balanced to other pistons or rods.

All S&S crankcases for 1984-'99 big twin engines are machined to accept a crank position sensor (CPS), and can be used with these flywheels.

REPLACEMENT FLYWHEELS FOR V-SERIES ENGINES



32-2239

REPLACEMENT FLYWHEEL ASSEMBLIES FOR S&S V-SERIES ENGINES

Engine	Stroke	Diameter	Part #
V124*(3-piece)	4⅝"	8¼"	**320-0477**
V117*(3-piece)	4⅜"	8¼"	**320-0363**
V111*(3-piece)	4⅛"	8¼"	**320-0420**
V96	4⅝"	8½"	**32-2230**
V96 (IST)*	4⅝"	8½"	**32-2146**
V80	4¼"	8½"	**32-2239**
1984-1999 Carbureted (non 4⅛" Bore)	Specify	Specify	**32-2015****

**Left side flywheel is notched for crank position sensor.*
***Use this special order part number to order flywheels assembled or unassembled, balanced or unbalanced. Download the Special Order Form at sscycle.com/soforms*

NOTE

IMPORTANT: 1977-'89 style pinion gears, spacers, and nuts are required when installing S&S flywheel assemblies. For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit 33-4148.

HIGH VOLUME HIGH PRESSURE (HVHP) BILLET OIL PUMPS

FITMENT

- 1984-'99 big twins
- S&S V-Series engines

FEATURES AND BENEFITS

- No thicker than a stock pump
- Gears with fewer, but larger teeth provide increased oil volume for both supply and return sides of the pump
- Supply gears are 9% wider than stock and standard S&S oil pumps
- 28% wider than stock return gears ensure proper crankcase scavenging, reduce drag on the flywheels, and eliminate oil carryover
- Increased scavenging capacity results in:
- Less oil in the crankcase
- Less oil carryover
- Equipped with a stock length oil pump drive shaft

OPTIONS

Pump Only Kits:

- Complete oil pump assembly
- Oil pump driveshaft
- Miscellaneous hose fittings and plugs
- Paper gaskets
- Mounting hardware

Pump And Gear Kits:

- For stock 1984-'89 engines or engines with S&S flywheel assemblies
- Everything in the "pump only" kits
- Oil pump drive shaft gear
- Oil pump pinion shaft gear
- Steel breather gear and shim kit

S&S exclusive HVHP OIL PUMP US PATENT RE42,408



31-6208

HIGH VOLUME HIGH PRESSURE OIL PUMP KITS FOR 1984-'99 BIG TWINS

Year Group	Cover Type	Pump Only Kit	Pump w/ Gear Kit*
1984-'91	Universal	31-6214	31-6307
1992-'99	Universal	31-6208 USA 2,3	31-6302
	Standard	31-6209	31-6298

**Pinion shaft gears included in these kits fit stock 1984-'89 pinion shafts and S&S pinion shafts for 1984-'99. Will not fit stock 1990-'99 straight pinion shafts. Standard style covers have feed and return holes in the stock locations. The universal cover has a number of oil feed and return options, allowing maximum flexibility for customized applications.*



The gear tooth profile and the extra gear width of the HVHP oil pump work together to maintain higher oil pressure and to scavenge additional oil from the crankcase.

REPLACEMENT PARTS: SEE PAGE 295

STANDARD BILLET OIL PUMPS

FITMENT

- 1984-'99 big twins

FEATURES AND BENEFITS

- Machined with an oil pressure relief bleed off valve to maintain consistent oil pressure from the time the engine is started to the time it's shut off
- Oil pressure regulation bypass route allows excess oil not used by the engine to return directly to the supply side of the pump, reducing foaming and cavitation
- No thicker than a stock pump
- Increased scavenging capacity results in:
  - Less oil in the crankcase
  - Less oil carryover
- Equipped with a stock length oil pump drive shaft

OPTIONS

Pump Only Kits

- Complete oil pump assembly
- Oil pump driveshaft
- Miscellaneous hose fittings and plugs
- Paper gaskets
- Mounting hardware

Pump And Gear Kits

- For stock 1984-'89 engines or engines with S&S flywheel assemblies.
- Everything in the "pump only" kits
- Oil pump drive shaft gear
- Oil pump pinion shaft gear
- Steel breather gear and shim kit



31-6203

OIL PUMP KITS FOR 1984-99 BIG TWINS

Year	Cover Type	Pump Only Kit	Pump & Gear Kits
1984-'91	Universal	31-6203 USA	*31-6295 USA
1992-'99	Standard	31-6206 USA	*31-6296 USA
	Universal	31-6205 USA 1	–

**Pinion shaft gears included in these kits fit stock 1984-'89 pinion shafts and S&S pinion shafts for 1984-'99. Will not fit stock 1990-'99 straight pinion shafts. Standard style covers have feed and return holes in the stock locations. The universal cover has a number of oil feed and return options, allowing maximum flexibility for customized applications.*

REPLACEMENT PARTS: SEE PAGE 294

NOTE

Chrome Plating the Pump – It is extremely difficult to chrome plate an oil pump without getting chrome in the passageways, cavities or on the machined surfaces where the gears, check ball, and pressure valve operates. Chrome in these areas as well as on the gasket surfaces impairs the pumps performance by altering the operating tolerances machined into the parts. In addition, abrasive particles of chrome may break loose causing damage to the pump and the engine. Because of this, S&S does not recommend chrome plating the pump body or cover. S&S voids its warranty if these parts are chrome plated.

BILLET FILTER BRACKET

FITMENT
- 1993-'99 big twins w/ stock crankcases
- S&S crankcases for 1984-'99 big twins

FEATURES AND BENEFITS
- Includes oil line fittings and has provisions to plumb an oil cooler



Description	Part #
S&S Billet Filter Bracket	31-4105

STEEL ROTARY BREATHER GEARS

FITMENT
- 1984-'99 big twins

FEATURES AND BENEFITS
- Abrasive particles are less likely to get imbedded in a steel gear body than a plastic one
- A welded-in screen prevents particles from entering the gear cavity and damaging either the gears or oil pump
- Larger diameter holes means improved air flow and oil scavenging from the flywheel cavity
- Improved breather window timing increases flywheel cavity vacuum and crankcase oil scavenging
- Slotted scavenge hole increases breather pocket oil scavenging for less carryover

OPTIONS
- Available in standard and +0.030" for use in engines with damaged breather bores



S&S exclusive BREATHER VALVE US PATENT 6,899,066

33-4250

Breather gear kits include breather gear and steel end play shim kit.

BREATHER GEAR KITS FOR 1984-'99 BIG TWINS

Year	Standard Size	+.030"
1984-'99	**33-4250**	**33-4260**

BREATHER GEARS ONLY FOR 1984-'99 BIG TWINS

Year	Standard Size	+.030"
1984-'99	**33-4241** *25310-82A, 25313-77B, 25311-90*	**33-4242**

BREATHER GEAR SPACING SHIM KIT

Description	Part #
Fits stock 1979-'82 and all S&S steel breather gears *Includes one of each: .100", .110", .120", .130", .140", .150", .160", .170"*	**33-4249**

BREATHER GEAR SPACING SHIMS*

Thickness	Part #
+.100"	**33-4200**
+.110"	**33-4201** *25320-79*
+.120"	**33-4202** *25322-79*
+.130"	**33-4203** *25325-79, 25320-82*
+.140"	**33-4204** *25322-82, 25327-79*
+.150"	**33-4205** *25325-82*
+.160"	**33-4206** *25327-82*
+.170"	**33-4207**

**These shims must be used with steel breather gears only.*

CRANKCASE BREATHER REED VALVES
FOR LARGE DISPLACEMENT ENGINES

OPTIONS
- Available in standard size or +.030" for use in engines with damaged breather bores

CRANKCASE BREATHER REED VALVES FOR 1993-'99 BIG TWINS

Application	Standard Size	+.030"
1993-'99	**31-2096**	**31-2100**

NOTE

The crankcase reed valve should not be used in 1984 to 1992 crankcase breathing engines. It is only intended for head breathing applications.



S&S exclusive BREATHER REED VALVE US PATENT 6,899,066

BILLET GEARCOVERS

FITMENT
- 1984–'92 big twins with standard ignition

KIT CONTENTS
- Billet gearcover
- Gaskets
- Mounting hardware
- Instructions



BILLET GEARCOVERS AND IGNITION COVERS

Application	Finish	Part #
1984-'92*	Chrome Plated	**106-4211**

**Gearcover has internal breather passage that is used to vent crankcase.*

REPLACEMENT PARTS: SEE PAGE 283

CAST GEARCOVERS

FITMENT
- 1984–'92 big twins

FEATURES
- Machined from tough 356-T6 aluminum castings – *the same material used to make S&S crankcases*
- Inner cast aluminum cover and a decorative bolt-on outer cover
- Will accept either points or electronic ignition systems

KIT CONTENTS
- Cast gearcover and gaskets
- Mounting hardware



CAST GEARCOVERS AND IGNITION COVERS

Application	Finish	Flangeless Tall
1984-'92 big twins *	Natural	**31-0203**

**Gearcover has internal breather passage that is used to vent crankcase.*

REPLACEMENT PARTS: SEE PAGE 283

IGNITION COVERS

FITMENT
- S&S engines with "cone" style gearcovers



IGNITION COVER

Description	Part #
Chrome	**31-0332**

CYLINDERS WITH PISTONS KIT

- Cylinders wiith piston kits include fitted pistons and cylinders, head gaskets, base gaskets, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included



910-0224

S&S® 4⅛" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Piston Type	Compression Ratio
111"	4⅛"	4.764"	Forged	9.7:1
117"	4⅜"	4.889"		10.2:1
124"	4⅝"	5.014"		10.8:1

4⅛" BORE CYLINDERS WITH PISTONS FOR 124",117", & 111" KIT

Displacement	Cylinders w/Pistons (Set)		
	Natural	WBlack	Polished
111"	**910-0219**	**910-0359**	**910-0424**
117"	**910-0290**	**910-0225**	**910-0228**
124"	**910-0229**	**910-0224**	**910-0230**



91-7521

S&S® 4" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Piston Type	Compression Ratio	
				92cc Heads	84cc Heads
100"	4"	4.745"	Forged	9.1:1	9.6:1
107"	4¼"	4.870"		9.5:1	10.2:1
113"	4½"	4.995"		10.1:1	10.7:1

4" BORE CYLINDERS WITH PISTONS FOR 113",107", & 100" KIT

Displacement	Cylinders w/Pistons (Set)		
	Natural	WBlack	Polished
100"	**91-7011**	–	–
107"	**91-7021**	**91-7521**	**91-7066**
113"	**91-7111**	**91-7611**	**91-7067**



S&S® 3⅝" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	STOCK HEADS		S&S SUPER STOCK® HEADS			
			Piston Type	Compression Ratio	Piston Type	Compression Ratio		
						Standard Compression	Intermediate Compression	High Compression
88"	4¼"	5.375"	Flat Topped	9:1	Domed	9.4:1	10.1:1	12.3:1
96"	4⅝"	5.565"		9.75:1		10.1:1	10.9:1	13.2:1
103"	5"*	5.750"		10.5:1		10.9:1	11.8:1	14.2:1

**Small Diameter Flywheels*

3⅝" BORE CYLINDERS WITH PISTONS FOR 96" & 88" KIT

Displacement	Stock Heads *(Flat Topped Pistons)*		S&S Super Stock® Heads *(Domed Pistons)*				
	Cylinders w/ Pistons		Cylinders w/ Standard Compression Pistons			Cylinders w/ Intermediate Compression Pistons	
	Natural	WBlack	Natural	WBlack	Polished	Natural	WBlack
88"	**91-7002**	**91-7502**	**91-7009**	–	–	**91-7052**	**91-7552**
96"	**91-7202**	**91-7702**	**91-7207**	**91-7707**	**91-7152**	**91-7054**	**91-7554**

CONTINUED
CYLINDER & PISTON KITS



91-7715

S&S® 3½" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART						
Displacement	Piston Type	Stroke	Cylinder Length	COMPRESSION RATIO		
				Stock Heads	S&S 76cc Performance Replacement Heads	S&S Super Stock® Heads
FLAT-TOPPED PISTONS FOR STOCK OR S&S PERFORMANCE REPLACEMENT CYLINDER HEADS						
80"	Cast/Flat-topped	4¼"	5.550" (Stock)	8.5:1	8.8:1	–
89"	Forged Flat-topped	4⅝"	5.550" (Stock)	9.25:1	9.4:1	–
SPECIAL DOMED PISTONS FOR S&S SUPER STOCK® CYLINDER HEADS						
80"	Forged/Super Stock® Domed	4¼"	5.550" (Stock)	–	–	10:1
89" LC	Forged/Super Stock® Domed	4⅝"	5.550" (Stock)	–	–	10:1
89" HC	Forged/Super Stock® Domed	4⅝"	5.550" (Stock)	–	–	12.5:1

3½" BORE CYLINDERS WITH PISTONS KIT FOR STOCK HEADS, S&S PERFORMANCE REPLACEMENT HEADS AND S&S SUPER STOCK® HEADS

Displacement	Cylinders w/ Pistons for S&S Super Stock® Heads		Cylinders w/ Pistons for Stock Heads and S&S Performance Replacement Heads	
	Natural	WBlack	Natural	WBlack
80"	**91-7213**	**91-7713**	**910-0179** *16510-83A*	**910-0182** *16512-86A*
89"	–	–	**91-7211**	**91-7711**
89" LC	–	**91-7715**		–

ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-7504*** *Call for Pricing*
**Special Order: Download the Special Order Form at sscycle.com/soforms*

NOTES

Stock crankcases must be machined to accommodate the large spigot diameter of 3⅝" bore cylinders.

PISTON REPLACEMENT PARTS: SEE PAGE 258

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

CYLINDERS

- Cylinder sets without pistons are bored slightly under normal size and are not honed.
- Include dowel pins

4⅛" BORE CYLINDERS

Displacement		Natural	WBlack	Polished
111"	Set	**910-0284**	**910-0358**	**910-0246**
117"	Set	**910-0267**	**910-0261**	
124"	Set	**910-0270**	**910-0258**	**910-0273**

4" BORE CYLINDERS

Displacement		Natural	WBlack	Polished
100"	Set	**91-7010**	–	
107"	Set	**91-7020**	–	
113"	Set	**91-7110** USA$_2$	**91-7610**	**91-7064** USA$_2$

Recommended Piston Fitment: Close: .0020"-.0025" Loose: .0037"-.0045"

3⅜" BORE CYLINDERS

Displacement		Natural	WBlack
88"	Set	**91-7000**	**91-7500**
96"	Set	**91-7200** USA$_1$	**91-7700** USA$_1$

**Small Diameter Flywheels Recommended Piston Fitment: Close: .0015"-.0020" Loose: .0035"-.0045"*

3½" BORE CYLINDERS

Displacement		Natural	WBlack
80" 89"	Set	**91-7210** USA	**91-7710** USA



ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-7504*** *Call for Pricing*
**Special Order: Download the Special Order Form at sscycle.com/soforms*

NOTES

S&S 4⅛" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0005" for correct clearance.

Stock crankcases must be machined to accommodate the large spigot diameter of 3⅜" bore cylinders.

PISTON KITS

- Piston kits include set of pistons, rings, wristpins, and clips



4⅛" BORE FORGED PISTON KITS FOR HOT SET UP KITS®

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"
124" & 117" Stock Heads 10cc Dished	1.050"	Up To 4⅝"	**920-0046**	**920-0047**	**920-0050**	**920-0053**
124", 117" & 111" -Stock or S&S Heads Flat Top	1.050"	Up To 4⅝"	**106-3491A**	**106-3872A**	**106-3964A**	**920-0094**

NOTE

S&S 4⅛" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0005" for correct clearance.

4" BORE FORGED PISTON KITS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"
Retro 100"	1.200"	4"	**92-1420**	**92-1421**	**92-1422**	–
100"		4"	**92-1400**	**92-1401**	**92-1402**	**92-1403**
107"		4¼"	**92-1400**	**92-1401**	**92-1402**	**92-1403**
113"		4½"	**92-1410**	**92-1411**	**92-1412**	**92-1413**
116"		4⅝"	**92-1420**	**92-1421**	**92-1422**	–

Recommended Piston Fitment: Close: 0.0020"-0.0025" Loose: 0.0037"-0.0045"

FORGED 3⅝" BORE FLAT TOPPED PISTON KITS FOR STOCK STYLE HEADS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"	+.040"
88"	1.200"	4¼"	**92-1900**	**92-1901**	**92-1902**	**92-1903**	**92-1904**
93"		4½"					
98"*		4¾"*					
96"		4⅝"	**92-1930**	**92-1931**	**92-1932**	**92-1933**	**92-1934**
103"*		5"*	**92-1940**	**92-1941**	**92-1942**	**92-1943**	**92-1944**

**Small Diameter Flywheels Recommended Piston Fitment: Close: 0.0015"-0.0020" Loose: 0.0035"-0.0040"*

3⅜" BORE STANDARD COMPRESSION PISTON KITS FOR S&S SUPER STOCK® HEADS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"	+.040"
88"	1.200"	4¼"	**92-1060** (USA)	**92-1061**	**92-1062**	**92-1063**	**92-1064**
93"		4½"					
96"		4⅝"					
103"*		5"*	**92-1080**	**92-1081**		**92-1083**	**92-1084**

3⅜" BORE INTERMEDIATE COMPRESSION PISTON KITS FOR S&S SUPER STOCK® HEADS

88"	1.200"	4¼"	**92-1110**	**92-1111**	**92-1112**		
93"		4½"					
96"		4⅝"					
103"*		5"*	–		**92-1122**		

**Small Diameter Flywheels Recommended Piston Fitment: Close: 0.0023"-0.0025" Loose: 0.0035"-0.0045"*

CONTINUED PISTON KITS

3½" BORE CAST FLAT-TOPPED REPLACEMENT PISTON KITS FOR STOCK HEADS OR S&S PERFORMANCE REPLACEMENT HEADS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"
80"	1.3750"	4¼"	**920-0015** *21940-83*	**920-0026** *21942-83*	**920-0027** *21943-83*

No replacement wristpins are available. Recommended Cast Piston Fitment: Close 0.0010"-0.0015" Loose 0.0020"-0.0025"

3½" BORE FORGED FLAT TOPPED STROKER PISTON KITS FOR STOCK OR S&S PERFORMANCE REPLACEMENT HEADS

Displacement	Deck Height	Stroke	Standard	+0.010"	+0.020"	+0.030"
89"	1.1875"	4⅝"	**106-5554**	**106-5555**	**106-5556**	**106-5793**

Recommended Piston Fitment: Close .0020"-.0025" Loose .0030"-.0035" May require rebalancing if replacing old 92-2040 series pistons.

3½" BORE FORGED DOMED PISTON KITS FOR S&S® SUPER STOCK® HEADS

Displacement	Deck Height	Stroke	Standard	+0.005"	+0.010"	+0.020"	+0.030"
80"	1.3750"	4¼"	**92-2026**	**92-20265**	**92-2027**	**92-2028**	**92-2029**
89" LC	1.1875"	4⅝"	**92-2046**	**92-20465**	**92-2047**	**92-2048**	–
89" HC			**92-2016**	-	**92-2017**	**92-2018**	–

Recommended Piston Fitment: Close .0020"-.0025" Loose .0030"-.0035"

REPLACEMENT PARTS FOR PISTONS

PISTON RINGS, MOLY FACED

Bore	Deck Height	Standard	+.005"	+.010	+.020"	+.030"	+.040"		+.060"
4⅛"	1.050"	**940-0014**	–	**940-0012**	**940-0013**	**940-0017**	–		–
4"	1.200"	**94-1300X**	–	**94-1301X**	**94-1302X**	**94-1303X**	–		–
3⅝"	1.200"	**94-1210X**	–	**94-1211X**	**94-1212X**	**94-1213X**	**94-1214X**		**94-1216X**
3½" Cast Flat-Topped*	1.3750"	**94-2216X**	–	**94-2217X**	**94-2218X**	–	–		–
3½" Forged Flat-Topped	1.1875"	**94-2206X** *22334-78A, 22334-78B, 21920-83*	–	**94-2207X** *22335-78A, 22335-78B, 21922-83*	**94-2208X** *22336-78B, 21923-83*	**94-2209X** *22337-78B, 21924-83*	–		–
3½" Forged Domed	1.3750"	**94-2216X**	**94-22165X** *21921-83*	**94-2217X**	**94-2218X**	**94-2219X**	–		–
	1.1875"								

**No replacement wristpins are available*



940-0014



WRISTPINS

Bore	Description	Part #
4⅛"	.927" x 2.825" long USA 3	**94-9277**
4"	.792" x 2.825" long USA 1,2	**94-9256**
3⅝"		
3½"		

KEEPERS

Bore	Description		Part #
4⅛"	Keeper *22097-99*	*each*	**94-9278-S**
		2 pack	**94-9278-2**
		4 pack	**106-2304**
4"	Keeper *22589-83A*	*each*	**94-9254-S**
3⅝"		*2 pack*	**94-9254-2**
3½"		*4 pack*	**94-9254**

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

CAMSHAFTS

RECOMMENDED APPLICATIONS FOR S&S CAMS

OES: Original Equipment Specification (OES) A bolt-in replacement cam with stock cam timing is designed for riders with stock engines. Does not require tuning. Bolt-in stock. Equivalent to H-D® L-Grind

490LR: Hydraulic Bolt-In. Designed for broad power range improvement. Good choice for heavy bikes and trailer towing. Increases low and mid range performance. Works well with stock compression ratio and stock exhaust. No valve spring change required. Basic rpm Idle-5000.

490MR: Hydraulic Bolt-In Street performance for heavier bikes that are slightly modified. Can be used with stock compression or increased up to 9.5:1. Complements exhaust and intake modifications. No valve spring change required. Basic rpm 1500-5500.

508: Bolt-in cam intended for stock engines with less than 10:1 compression ratio. Quiet valvetrain with excellent low/mid range torque for touring and 2 up riding.

510V: Bolt-in cam that works well with stock or ported heads. Improved ramp design results in low valve train noise. Meant for engines up to 96" and 10:1 compression ratio. 3000-5000 rpm.

520: A replacement part for S&S emissions certified engines, this is a short duration emissions cam with very little overlap to reduce emissions of unburned hydrocarbons. Requires high lift springs and normal clearance checks. 1000-4500 rpm (80"-96").

543: A replacement cam for newer S&S 4⅛" bore V-series emissions certified engines for OE and custom applications. High lift, short duration and no overlap. Requires high lift springs and normal clearance checks. 1000-4000 rpm (111"-124").

561: For 80"–96" engines at 9.5:1–10.5:1 compression ratio. Provides strong midrange power. 3000-5500 rpm.

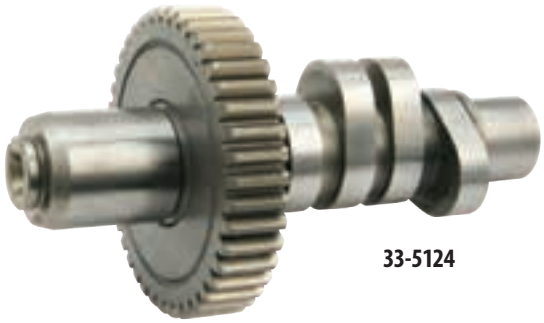
585V: A versatile cam for 80" to 96" engines with 10:1-10.5:1 compression, and larger engines with 9.5:1-10:1 compression ratios. 3500-6000 rpm.

600: An exceptional cam in any large displacement engine with 9.5:1 to 10.5:1 compression. 3500-6000 rpm.

631: For high rpm applications, an excellent choice for all street and racing engines with 11:1 and higher compression ratios. Great performance cam, but expect more "wear and tear" on valve train components. Valve spring spacing and other normal clearancing checks required. 4500-6500 rpm.

640: For large displacement motors with compression ratios of 10.5 - 11.5:1, or smaller motors with 11:1-12:1 compression ratio. Does not require as much compression as the 631 and provides a more linear power delivery. 3000-6000 rpm.

675: Designed for use with S&S special application cylinder heads, but can be used with other cylinder heads with appropriate valve springs. Intended for large displacement competition engines of 120 cubic inches or more, and 11:1 or greater compression. 4500-6500 rpm.



33-5124

CAMS FOR 1984-'99 BIG TWIN ENGINES

Cam Name	Part #
OES	**330-0290**
490LR	**330-0371**
490MR	**330-0373**
508	**330-0093**
510V	**33-5124**
520	**33-5073** USA 1,2
543	**330-0181**
561	**33-5076**
585V	**33-5109**
600	**33-5058**
631	**33-5080**
640	**33-5108**
675	**33-5133**

NOTE

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

S&S CAM SPECIFICATIONS FOR 1984 - '99 BIG TWIN ENGINES

Cam Name		Valve Timing Open/Close		Valve Duration		Valve Lift	Lift @ TDC		Spring Spacing Required	Tappet Type Required
		Intake	Exhaust	Intake	Exhaust		Intake	Exhaust		
		Open BTDC/Close ABDC	Open BBDC/Close ATDC							
OES		2.0°/34.0°	36.0°/4.0°	216.0°	220.0°	.475"	0.060"	0.060"	No	Hydraulic
490LR		12°/34°	41°/15°	226°	236°	490"	.146"	.157"	No	Hydraulic
490MR		19°/37°	46°/16°	236°	242°	.490"	.184"	.162"	No	Hydraulic
508		11°/25°	50°/5°	217°	235°	.508"	.141"	.110"	No	Hydraulic
510V		20°/38°	52°/20°	238°	252°	.510"	.187"	.178"	No	Hydraulic
520		0°/40°	50°/2°	220°	232°	.520"	.086"	.094"	Yes	Hydraulic
543*	Front	-26°/52°	49°/-1°	206°	228°	.543"	.017"	.083"	Yes	Hydraulic
	Rear	-25°/44°	33°/-10°	199°	203°	.543"	.018"	.053"	Yes	Hydraulic
546		5°/55°	52°/5°	240°	237°	.546"	.126"	.106"	Yes	Hydraulic
561		32°/40°	50°/26°	252°	256°	.560"	.252"	.210"	Yes	Hydraulic
585V		20°/45°	60°/20°	245°	260°	.585"	.186"	.180"	Yes	Hydraulic
600		20°/55°	60°/20°	255°	260°	.600"	.192"	.184"	Yes	Hydraulic
631		34°/61°	66°/29°	275°	275°	.630"	.281"	.221"	Yes	Solid or Hydraulic
640		25°/60°	65°/20°	265°	265°	.640"	.222"	.192"	Yes	Hydraulic
675		25°/64°	70°/25°	269°	275°	.675"	.235"	.209"	Yes	Hydraulic

**Emissions cams front and rear do not have identical timing. Negative values are due to special timing for reduced emissions.*

REPLACEMENT PINION GEARS

FITMENT

- 1984-'89 big twins
- 1990-'99 engines with S&S flywheel assembly



33-4145

1984-'89 BIG TWIN STYLE PINION GEAR SELECTION CHART

Color Code	Size	H-D® Part #	S&S Part #
Orange	Biggest	*24040-78*	**33-4141**
White		*24041-78*	**33-4142**
Yellow		*24042-78*	**33-4143**
Red	Average	*24043-78*	**33-4144**
Blue		*24044-78*	**33-4145**
Green		*24045-78*	**33-4146**
Black	Smallest	*24046-78*	**33-4147**

NOTES

If the stock gear is unmarked and the size is unknown or you are scratch building an engine and have no gear, we recommend that you order a gear in the middle of the size range. These sizes were used more often and should provide adequate gear clearance under most circumstances. When in doubt, use a gear from the middle to the small side of the range, because a combination of looser fitting smaller gears is less likely to cause binding and premature wear. Consult the chart for the size and appropriate part number required. If you wish to achieve optimum cam gear to pinion gear fit, consult your factory service manual for instructions on fitting these gears before making a selection. Some sizes, particularly those on and near the ends of each range, are available on a limited basis because they are the extremes.

S&S® does not offer a replacement pinion shaft for 1990-'99 big twin engines that accepts a stock pinion gear, oil pump drive gear, gear spacer and pinion gear nut, because experience has shown that the design is not strong enough for performance applications. For this reason, we recommend and sell only the pre-1990 style pinion shaft for big twins. To make the change easier, S&S offers a conversion package consisting of a pinion gear, spacer, nut and oil pump drive gear for big twin engines.

PINION SHAFT GEAR KITS

PINION SHAFT GEAR KITS FOR 1984-'89 BIG TWINS

Color Code	Size	S&S Part #
Yellow	Biggest	**33-4185**
Red	Average	**33-4148**
Blue		**33-4181**
Black	Smallest	**33-4180**

Note - All S&S Pinion Shaft Gear Kits must be used with 1973-'99 style 24 tooth oil pump drive shaft gear such as S&S part # 33-4230. Use these kits when installing an S&S flywheel assembly in a 1990-'99 engine.

INDIVIDUAL COMPONENTS

Description	S&S Part #
Pinion Shaft Gear Spacer	**33-4289**
Pinion Shaft Gear Nut *24023-54*	**33-4244**
Pinion Shaft Oil Pump Drive Gear* 6 teeth *26349-73, 26349-73A*	**33-4232**
Oil Pump Drive Gear** 24 teeth 26345-73	**33-4230**

**Requires S&S part #33-4230 or 26345-73 drive shaft drive gear. Fits 1984-'89 stock and 1984-'99 S&S pinion shafts.*

***Requires S&S part #33-4232, part #33-4237 or 26349-73, 26349-73A pinion shaft drive gear.*



33-4244



33-4230



33-4232



33-4289

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

TAPPET GUIDES

FITMENT

- 1984-1999 bt
- S&S V-Series engines
- S&S Special Application crankcases with .250" offset cam chest



106-5428

BILLET TAPPET GUIDES FOR S&S V-SERIES ENGINES & S&S SA CRANKCASES

Tappet Guide	CRANKCASE STYLE		
	Stock/Super Stock®		Special Application
	Polished	Chrome	Chrome
Set	106-6459	106-5428	106-3005

CAST TAPPET GUIDES FOR S&S V-SERIES ENGINES & S&S SA CRANKCASES

Tappet Guide	CRANKCASE STYLE			
	Stock/S&S Super Stock®		Special Application	
	Natural	WBlack	Natural	WBlack
Set	33-5301	33-5324	33-5309	33-5325

NOTE

S&S® engines for 1984-'99 chassis with larger than 3 13/16" bores are typically built using special crankcases such as S&S Special Application cases which have an offset right side gear cavity for more tappet guide to cylinder clearance. S&S offers special tappet guides machined to compensate for the change in pushrod angle caused by the cam chest offset of these cases.

HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT

- 1984–'99 big twins
- S&S V-Series engines

FEATURES AND BENEFITS

- .123" larger in diameter than the "raceless" roller axles currently used by some manufacturers
- Improved inner race-roller design allows use of more, and larger bearings to increase load-carrying surface area, further reducing stress and wear in the critical roller area
- Redesigned plunger assembly better withstands forces associated with heavy-duty valve springs and cams typically used in high-performance applications
- Improved metering device precisely controls oil delivery to top end, ensuring rapid lifter pump-up and reducing possibility of oil starvation to bottom end
- Each lifter body and plunger assembly is selective-fit and then leak down tested to ensure correct operation.

OPTIONS

- Tappets are available with the HL_2T Limited Travel Kit for improved cold starts and high rpm valve timing accuracy.

KIT CONTENTS

- Four hydraulic tappets



33-5352

HIGH PERFORMANCE HYDRAULIC TAPPETS

Description	Part #
Without HL_2T Kit *18523-86A*	33-5352
With HL_2T Kit	33-5353

EXTRA PARTS NEEDED:

S&S tappets with HL_2T Kit require the use of adjustable pushrods.

Because of close tolerances, tappets in set part #33-5353 may require slightly longer bleed down time than conventional tappets. At temperatures of 65°F and above, however, bleed-down should take 20 minutes or less using 20W50 engine oil.

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL_2T)

FITMENT

- 1984–'99 big twins
- All S&S tappets

FEATURES AND BENEFITS

- Designed to limit the range of travel of the hydraulic tappet plunger - Easier starting
- Low noise and positive valve train activation
- More horsepower at higher RPMs



HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL_2T)

Description	Part #
Set of four spacers (fits tappets with .612" I.D.)	33-5338 *18526-89A*

EXTRA PARTS NEEDED:

Adjustable pushrods must be used with HL_2T kit in order to obtain proper plunger position.
S&S HL_2T kit will not fit the late stock replacement tappets *H-D#18523-86B* for 1984-'99 big twins. These tappets have a smaller bore size and a larger spring diameter than earlier versions.

Part #33-5338 fits tappets with .612" I.D.

TIME-SAVER ADJUSTABLE PUSHRODS



FEATURES AND BENEFITS

- Eliminates the need to disassemble the top end and remove the rocker arms to change pushrods or camshafts
- Reduce installation time by 75% - Hence the name Time Saver
- Larger 9mm diameter chrome moly tubing provides superior strength and minimizes pushrod flex
- Single adjuster end provides pushrod lengths from 9.5" to 11.5" for stock height and taller engines
- Kit includes set of four pushrods and installation instructions

TIME-SAVER ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Set	**930-0052**

QUICKEE ADJUSTABLE PUSHRODS

FITMENT

- 1984–'99 big twin

FEATURES AND BENEFITS

- Easy to install – no need to remove rocker covers
- Adjustable to work with all stock and aftermarket cams
- Works with stock pushrod covers

REPLACEMENT PARTS: SEE PAGE 263



When a Quickee adjustable pushrod is collapsed, it can easily be installed or removed from an assembled engine.



93-5120

QUICKEE ADJUSTABLE PUSHRODS

Application	Displacement	Part #
1984 - '99 big twin	80" - 98", 113", 117", 124"	**93-5120†**
	107", 111" & S&S 88"	**93-5123**
	V92/V100	**930-0022**

†Will not fit in an 88" engine which is .175" shorter. The rear intake pushrod is too long.

STANDARD ADJUSTABLE PUSHRODS

FITMENT

- 1984–'99 big twins

FEATURES AND BENEFITS

- Made out of 7/16" O.D. chromoly steel tubing for strength and durability
- Adjustable to work with all stock or aftermarket cams
- Compatible with solid and hydraulic lifters



93-5076

PUSHROD SETS FOR 1984-'99 BIG TWINS

Displacement	Cylinder Length	Part #
100"*	4.745"	**93-5090**
88", 107"*	5.375" (-.175")/4.870*	**93-5017**
93", 113"'*	5.500" (-.050")/4.995*	**93-5018**
80", 89", 96"	5.550" (Stock)	**93-5076**
98"	5.625" (+.075")	**93-5019**
103"	5.750" (+.200")	**93-5020**

**These are S&S 4" bore engines using +.500" deck crankcases. Cylinder lengths are .500" shorter.*

PUSHROD SETS FOR 1984-'99 4⅛" BORE BIG TWINS

Displacement	Cylinder Length	Part #
111"	4.764"	**93-5017**
117"	4.889"	**93-5018**
124"	5.014"	**93-5019**

NOTE: Crankcases used in S&S 4⅛" bore engines have 6.000" cylinder deck height. The increased deck height effects the cylinder length. Do not use cylinder lengths in this chart to select pushrods for engines built in crankcases with stock, 5.375" deck height.

REPLACEMENT PARTS: SEE PAGE 263

NON-ADJUSTABLE PUSHRODS



FITMENT
- 1984-'99 Harley-Davidson® Evolution big twin engines

FEATURES AND BENEFITS
- Replaces stock pushrods perfectly
- 7/16" high strength chromoly steel tubing for increased strength
- Pushrods are marked with stock color code and valve position for easy installation

NON-ADJUSTABLE PUSHRODS

Description	Part #
Pushrods Only	**930-0041**

PUSHROD COVERS AND RELATED PARTS

PUSHROD REPLACEMENT PARTS

Item Description			Part #
S&S Pushrod Cover Kit* *(includes Top and bottom covers, Cover cap, Cover spring, & Spring washers)*	Stock Height		**93-4039**
	1" or more taller than stock		**93-4038**
Top Cover USA USA 1,2,3 *17935-66T, 17935-79B*		each	**93-4016**
Bottom Cover *17938-83*		each	**93-4015**
Cover Cap USA USA 1,2,3 *17945-36B*		each	**93-4017**
Cover Spring USA USA 1,2,3 *17947-36*		each	**93-4018**
Cover Cap Washer *6762B*		each	**50-7131**
Bottom Cover Washer		each	**50-7051**
Top O-ring		each	**50-8039**
Middle O-ring		each	**50-8038**
Bottom O-ring		each	**50-8037**
Quad Seal *11133A*		each	**50-8064-S**
Pushrod O-ring Kit USA		each	**93-4022**
Ball End USA 1,2,3	*Fits S&S adjustable with 5/16"-32 threads. (Manufactured after 2-1-1996)*	each	**93-5002**
Adjusting Unit Locknut	*Fits S&S adjustable pushrods with early stock 9/32"-32 threads*	each	**33-5333**
	Fits S&S adjustable pushrods with 5/16"-32 threads.(Manufactured after 2-1-1996)	each	**93-5003-S**



93-4016



93-4015



93-4017



93-4018



50-7131



50-8037



50-8039



50-8038

PUSHROD COVER KEEPER SETS FOR 1984-'99 BIG TWINS

Length	Application	Part #
2.400" *17950-48*		**93-4070**
2.500"		**93-4100**
2.600"	79", Retro 100"	**93-4101**
2.800" *17950-86*		**93-4115**
2.900"		**93-4102**
3.000"	100"	**93-4103**
3.100"	88", 107", 110", 111", 113"	**93-4104**
3.200"	93", 89", 96", 117"	**93-4105**
3.330" *17949-40, 17950-66*	98", 124"	**93-4106**
3.500"	103"	**93-4107**
3.625"		**93-4108**
4.250"		**93-4109***

**Custom extra long stainless steel 4.250", customer to cut to required length*
Keepers are sold in sets of four. Keeper length for stock Harley-Davidson® with 80" engines is 3.330"



93-4101

All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

SIDEWINDER® .650" LIFT VALVE SPRINGS

FITMENT
- 1984-'99 Evolution® with stock heads

FEATURES AND BENEFITS
- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS
- Valve keepers, Top & Bottom collars, Springs, Shims



S&S® .650" LIFT VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500

NOTE

S&S recommends roller rocker arms be used with lifts over .585"

.650" LIFT VALVE SPRING KIT

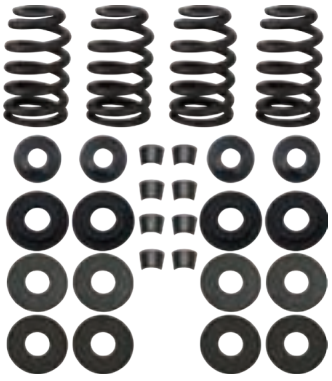
Description	Part #
1984-'99 Evolution® with stock heads	**900-0050**

STREET PERFORMANCE .585" VALVE SPRINGS

FITMENT
- 1984-'99 Evolution® with stock heads
- All S&S Super Stock® heads

FEATURES AND BENEFITS
- Single coil reduce the risk of valve float
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"

KIT CONTENTS
- Springs, Top & Bottom Collars, Keepers, Shims



900-0593

S&S® STREET PERFORMANCE .585" VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.850"	135 lb.	325 lb.

STREET PERFORMANCE .585" SPRING KIT

Description	Part #
1984-'99 big twins with stock heads	**900-0593**
All S&S Super Stock® heads	**900-0595**

VAVLE SPRING REPLACEMENT PARTS STARTING ON PAGE 284

FORGED ROCKER ARMS



FITMENT
- 1984-up big twins

FEATURES AND BENEFITS
ROLLER ROCKER ARMS
- Extremely durable rollers reduce valve side thrusting with high lift cams
- Superior wear and fatigue resistance even in the most demanding applications
- ¾" long bushings provide 50% more bushing support area than ½" long bushings

STANDARD ROCKER ARMS
- ¾" long bushings provide 50% more bushing support area than ½" long bushings

KIT CONTENTS
- 2 front and 2 rear rocker arms

FORGED ROLLER ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms (1.625:1)	**900-4065A**

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.



STANDARD FORGED ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms (1.625:1)	**900-4119A**

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4036

ROCKER ARM SHAFTS

Description	Part #
Set of 4	**90-4036** *17611-83B*
Individual	**90-4006** *17611-83B*

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4104

REPLACEMENT PARTS FOR FORGED ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm	**900-4065FA**
	Rear exhaust or front intake rocker arm	**900-4065RA**
Standard	Front exhaust or rear intake rocker arm	**900-4119FA** *17375-83A*
	Rear exhaust or front intake rocker arm	**900-4119RA** *17360-83A*
Roller	Rebuild kits (rebuilds 4 rocker arms)	**90-4104**
Roller & Standard	Rocker arm bushing (¾" long)	**90-4014**

NOTES

S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift.
Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.

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PERFORMANCE REPLACEMENT CYLINDER HEADS
FOR 3-1/2" AND 3-5/8" BORE

FITMENT
- 1984–'99 big twins
- Stock displacement
- Stock bore strokers
- Big bore engines up to 96"

FEATURES AND BENEFITS
- Compatible with stock or other flat topped pistons
- Heads can be decked .060" if higher compression is desired
- Port design increases flow, while maintaining velocity specifically designed for stock and small displacement engines
- Compatible with up to .585" lift cams with TDC lifts of .252" intake and .210" exhaust
- Stock diameter ports allows installation of original intake manifolds and exhaust
- Stock temperature sensor location for EFI equipped engines
- High compression is 76cc, low compression is 82cc in chamber

KIT CONTENTS
- Two complete heads with valves and springs

COMPRESSION RATIO COMPARISON CHART

Engine Size	S&S® Performance Replacement		Stock H-D®
	High Compression 76cc	Low Compression 82cc	
96"	10:1	9.5:1	9.75:1
89"	9.4:1	8.9:1	9.25:1
80"	8.8:1	8.4:1	8.5:1

FLOW COMPARISON CHART

Cylinder Head Type	Valve Diameter		.600" Lift Flow @ 10"	
	Intake	Exhaust	Intake	Exhaust
Stock H-D®	1.840"	1.610"	125cfm	98cfm
S&S Performance Replacement	1.900"	1.605"	142cfm	109cfm
S&S® Super Stock®	2.000"	1.605"	158cfm	122cfm



106-4570

PERFORMANCE REPLACEMENT CYLINDER HEADS

Finish	Low Compression 82cc*	High Compression 76cc
Natural	**106-3466**	**106-6059**
WBlack	**106-4570** *16696-92A*	**106-6064**
Polished	**106-4575**	–

**Used on V96 engines with flat top pistons*

GASKET KITS FOR S&S PERFORMANCE REPLACEMENT CYLINDER HEADS

Bore Size	Part #
3½"	**90-1905**
3⅝"	**90-1906**

ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **106-5696*** *Call for Pricing*

**Special Order: Download the Special Order Form at sscycle.com/soforms*

REPLACEMENT PARTS: SEE PAGE 296

NOTE

S&S recommends that all clearances be checked with high lift cams, especially if the heads have been decked to increase compression.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

SUPER STOCK™ CYLINDER HEADS
FOR 3-1/2" AND 3-5/8" BORE

FITMENT
- 1984–'99 big twin with 3½" or 3⅝" bore
  (not compatible with stock or flat top pistons)

FEATURES AND BENEFITS
- Machined with a stock bolt pattern
- Larger, more open combustion chamber presents less resistance to air flow around the valves
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast to shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings

KIT CONTENTS
- Complete head assembly with valves and S&S .650" lift springs

ADDITIONAL PARTS (REQUIRED)
Super Stock® Pistons
- 3½" bore. . . . . See PAGE 258
- 3⅝" bore. . . . . See PAGE 257

Gasket Kit . . . . . See chart

REPLACEMENT PARTS: SEE PAGE 297



90-1504

ASSEMBLED S&S® SUPER STOCK™ HEAD KITS

Finish	Part #
Natural	**90-1004** USA1
WBlack	**90-1504** USA1
Polished	**90-1091** USA2

GASKET KITS FOR S&S SUPER STOCK™ CYLINDER HEADS

Bore Size	Part #
3½"	**90-1905**
3⅝"	**90-1906**

SUPER STOCK™ CYLINDER HEADS
FOR 4" BORE S&S ENGINES

FITMENT
- 4" bore S&S V-Series engines

FEATURES AND BENEFITS
- Special S&S 4" bore bolt pattern
- Machined for S&S manual or electric compression releases
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast-to-shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings

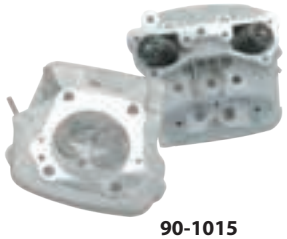
KIT CONTENTS
- 2 fully assembled cylinder heads with S&S valve springs (.640" or .585" lift)
- Threaded plugs to seal compression release holes

NOTES

Due to expanded stud pattern, these heads will not fit on stock Evolution® engines
84cc heads are stock on 100" engines
93cc heads are stock on 107" and 113" engines

EXTRA PARTS NEEDED:
Gasket Kit For S&S® 4" Bore Heads..... **90-1909**

REPLACEMENT PARTS: SEE PAGE 298


90-1015

ASSEMBLED S&S® SUPER STOCK® HEAD KITS FOR 4" V-SERIES ENGINES

Description	Valve Springs	FINISH		
		Natural	WBlack	Polished
84cc	.650" lift	**90-1015**	-	-
93cc	.650" lift	**90-1009** USA2	**90-1509** USA2	**90-1070**
	.585" lift	**90-1280**	**90-1281**	**90-1282**

ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **106-5695*** *Call for Pricing*
**Special Order: Download the Special Order Form at sscycle.com/soforms*

CYLINDER HEADS
FOR 4-1/8" BORE V-SERIES ENGINES

FITMENT
- 4⅛" bore S&S V-Series engines

FEATURES AND BENEFITS
- Redesigned cooling fins – reduces mechanical noise
- 2.00" intake - 1.605" exhaust
- Complete head with .650 springs

NOTE

Replacement heads for existing engines with the old fin profile are available as complete front or rear head assemblies only, by special order.

REPLACEMENT PARTS: SEE PAGE 297


90-1362

91cc 4⅛" BORE S&S® REPLACEMENT CYLINDER HEADS

Finish	Part #	
Natural	**90-1360** USA3	
WBlack	**90-1361** USA3	
Polished	**90-1362** USA3	

GASKET KITS FOR S&S SUPER STOCK™ CYLINDER HEADS

Bore Size	Part #	
4⅛"	**90-1910** USA3	

ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **90-1013***
**Special Order: Download the Special Order Form at sscycle.com/soforms*

HEAD BOLTS WITH WASHERS

HEAD BOLT INFORMATION CHART

Length w/ Washer	Washer Thickness	Head Bolt w/Washer	Washers Only
1.690"	.250"	**93-3028**	**50-7091**
1.840"	.150"	**93-3027**	**50-0418-S**
1.920"	.250"	**93-3036**	**50-7091**
2.070"	.150"	**93-3031**	**50-0418-S**
2.220"	.250"	**93-3038**	**50-7091**
2.370"	.150"	**93-3032**	**50-0418-S**
3.134"	.250"	**93-3029**	**50-7091**
3.284"	.150"	**93-3030**	**50-0418-S**
3.501"	.250"	**93-3037***	**50-7091**
3.651"	.150"	**93-3033***	**50-0418-S**

**Drilled & tapped deeper to allow shortening for custom lengths.*



HEAD BOLT WASHERS

Thickness	Part #
.150"	**50-0418-S**
.250"	**50-7091**

HEAD BOLTS FOR HARLEY-DAVIDSON® 1984-'99 BIG TWINS

Displacement	Cylinder Length	Cylinder Head Type	Short Bolt w/Washer	Long Bolt w/Washer	Head Bolt Kit
S&S® 89 / H-D® 80	5.550"	S&S + Late 1985-'91 H-D	**93-3027**	**93-3030**	**93-3010** USA
		1991-99 H-D	**93-3036**	**93-3030**	**93-3014** USA
S&S V96	5.565"	S&S + Late 1985-'91 H-D	**93-3027**	**93-3030**	**93-3010** USA
		1991-99 H-D	**93-3036**	**93-3030**	**93-3014** USA
S&S V100	4.745"	S&S	**93-3027**	**93-3037**	**93-3010** USA
S&S V103	5.750"	S&S + Late 1985-'91 H-D	**93-3036**	**93-3037**	**93-3015**
		1991-99 H-D	**93-3038**	**93-3037**	**93-3016**
S&S V107	4.870"	S&S	**93-3038**	**93-3037**	**93-3016**
S&S V113	4.995"	S&S	**93-3032**	**93-3033**	**93-3013**
S&S V111	4.763"	S&S	–	**93-3030**	**93-3070**
S&S V117	4.888"	S&S	–	**93-3030**	**93-3070**
S&S V124	5.013"	S&S	–	**93-3033**	**93-3072**

CALCULATING CUSTOM HEAD BOLT LENGTHS
SEE PAGE 551



50-0333

Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.

CHROME HEAD BOLT COVERS

Set of 4	**50-0333** USA

BILLET AND DIE-CAST ROCKER COVERS



FITMENT

- 1984–'99 big twins
- S&S 4⅛" Bore

FEATURES AND BENEFITS

- OEM-style "umbrella" fittings are included with billet rocker boxes for 1993-'99 big twin engines with cylinder head venting.
- Cast rocker boxes use an exclusive one way valve, which is built into the rocker cover gasket to control oil carry over in "head breathing" engines.
- S&S billet rocker covers are available in two finishes: show quality chrome or unfinished. Unfinished is ideal for powder coating and other custom cosmetic treatments. Die-cast covers are available in chrome finish only.
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame.

KIT CONTENTS

- 2 covers
- All necessary gaskets, o-rings, and mounting hardware

DIE-CAST ROCKER COVER KITS & REPLACEMENT GASKET KIT

Application	Description	Part #
1984-'99 big twins	Chrome Die-Cast Rocker Cover Kit USA 1,2	**90-4095**
	Replacement Gasket Kit	**90-4091**
S&S 4⅛" Bore Engines	Chrome Die-Cast Rocker Cover Kit	**90-4110**
	Replacement Gasket Kit	**90-4111**



S&S billet rocker covers

BILLET ROCKER COVER KITS & REPLACEMENT GASKET KIT

Description	Part #
Chrome Billet Rocker Cover Kit	**90-4050**
Unfinished Billet Rocker Cover Kit	**90-4055**
Replacement Gasket Kit	**90-4049**

NOTES

In spite of the similarities between different S&S billet and cast rocker covers, not all parts are interchangeable. See PAGE 300 & PAGE 301 for correct part numbers.

The performance-oriented design of the billet rocker boxes permits valve lifts up to .710" with stock or S&S Super Stock® heads, and up to .810" with S&S Special Application heads. S&S roller rocker arms are recommended for high lift cams. Cast rocker boxes may require some minor clearancing, and it is recommended that they be ordered either polished or unfinished, so that clearancing may be done without disturbing chrome plated surfaces.

S&S billet rocker covers accept valve springs up to 1.660" O.D. without modification. Cast rocker boxes may require minor clearancing. Cylinder heads must be set up correctly for high-lift cams, and it remains the builder's responsibility to confirm all clearances.

Kits include front and rear cover assemblies with base and top cover, rocker shaft supports, gaskets and o-rings, and instructions.

REPLACEMENT PARTS: SEE PAGE 300 & 301

MANIFOLDS FOR CARBURETED ENGINES

FITMENT

- 1984–'99 big twins
- S&S and other butterfly carbs
- CV carbs

FEATURES AND BENEFITS

- Fits stock or S&S heads
- Available for stock engines and engines with longer or shorter cylinders
- Other lengths are available by special order
- Provision for VOES lines, MAP sensors, and cylinder head vents in 4⅛" bore engines



160-1628
Big twins with stock or S&S Super Stock® ignition



16-2588
Engines with S&S IST® ignition (MAP Sensor ready manifold)



16-2594
S&S 4⅛" bore engines with Super Stock ignition



160-1736
CV style carbs

CV MANIFOLDS FOR 1984-'99 BIG TWINS

Displacement	Cylinder Length	Size Number	Part #
80", 89", 96"	5.550"	410	**160-1736**
88"	5.375"	397	**160-1733**
93"	5.500"	406	**160-1734**
100"	*4.745"	387	**160-1732**
107"	*4.870"	397	**160-1733**
113"	*4.995"	406	**160-1734**
Special Order	Specify	Specify	**169-1725A****

**Cylinder lengths reflect the use of S&S SA crankcases with +.500 deck height in S&S 4" bore engines.*
***Special Order: Download the Special Order Form at sscycle.com/soforms*

SEE PAGE 271 FOR U-RINGS FOR CONSTANT VELOCITY CARBS

NOTE

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold. See PAGE 282.

MANIFOLDS FOR CARBURETED 1984-'99 EVOLUTION® AND S&S ENGINES WITH STOCK OR S&S SUPER STOCK™ IGNITION – VOES FITTING

Displacement	Cylinder Length	Size Number	S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G	Super D
88"	5.375"	397	**160-1626**	**16-2526**	–
93"	5.500"	406	**160-1627**	**16-2527**	–
80", 89", 96"	Stock (5.550")	410	**160-1628**	**16-2528**	**16-3528**
103"	5.750"	426	**160-1632**	**16-2532**	**16-3532**
107"	*5.375"	397	**160-1626**	**16-2526**	–
111"	4.763"	398	**160-1760**	–	–
113"	*5.500"	406	**160-1627**	**16-2527**	–
Special Order	Specify	Specify	**169-1639****	**16-2539****	**16-3539A****

**Cylinder lengths reflect the use of S&S SA crankcases with +.500 deck height in S&S 4" bore engines.* ***Special Order: Download the Special Order Form at sscycle.com/soforms*

SPECIAL INTAKE MANIFOLDS FOR CARBURETED S&S® ENGINES FOR 1984-'99 BIG TWINS (REQUIRING MAP SENSOR MACHINING)

Displacement	Cylinder Length	Size Number	Super E	Super G	Super D
Evolution and S&S Engines with Intelligent Spark Technology (IST®) Ignition – MAP Sensor Port					
80", 89", 96"	5.550"	410	**160-1718**	**16-2588**	–
107"	4.870"	397	**160-1643**	–	–
111"	4.763"	398	**160-4487**	**16-2604**	–
113"	4.995"	406	–	**16-2606** USA	–
117"	4.888"	408	–	**16-2603**	–
124"	5.013"	417	–	**16-2598**	**16-3593**
Special Order	Specify	Specify	**169-1639****	**16-2539****	**16-3539A****
4⅛" Bore S&S Engines with Super Stock® Ignition – Extra Vacuum Fitting					
111"	4.763"	398	**160-1760**	**16-2594**	–
117"	4.888"	408	–	**16-2595**	–
124"	5.013"	417	–	**16-2596**	**16-3592**
Special Order	Specify	Specify	–	**16-2539****	**169-0002****

***Special Order: Download the Special Order Form at sscycle.com/soforms*

REPLACEMENT PARTS FOR MANIFOLDS

Description	Part #
Manifold Fitting VOES Rubber Cap 3⁄16" I.D. x 5⁄16" O.D. x 1⁄2"	**50-8372**
Manifold Vacuum Fitting	**16-0136-S**



16-0136-S



50-8372

U-RINGS FOR CONSTANT VELOCITY CARBS

Description	Part #
U-ring, 40-42mm *27002-89*	**16-0242**
U-ring, 44-48mm	**16-0241**



16-0241



16-0242

MANIFOLDS FOR SINGLE BORE EFI ENGINES

FITMENT

- Stock or S&S Hot Set Up Kit® equipped 1995–'98 big twins with S&S 52mm or 58mm throttle bodies, stock or S&S heads
- S&S V-Series engines

NOTE

The included S&S style o-ring, part #16-0235, must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Stock o-rings may damage the manifold.



16-5141

SINGLE BORE EFI MANIFOLDS

Displacement	Cylinder Length	Size Number	Part #
80", 89", 96"	5.550"	410	**16-5141**
V107"	4.763"	398	**16-5136**
V111"	4.763"	398	**16-5136**
V117"	4.888"	408	**16-5138**
V124"	5.013"	417	**16-5139**

Manifolds include the required S&S style o-ring.

MANIFOLD CONVERSION KIT

MANIFOLD CONVERSION SELECTION CHART

Application	Cylinder Length	Size No.	S&S ES, LS, Super B, Super E Tillotson®, Bendix®, Keihin®
1984-'89 big twin	5.550"	410	**160-1658**



REPLACEMENT PARTS

Description			Part #
Manifold			**160-1628**
Flanges	Front *27009-86A*	*each*	**16-0232**
		5 pack	**16-0600**
	Rear *27010-86A*	*each*	**16-0233**
		5 pack	**16-0601**
	Set (Front & Rear)		**106-3516**
O-Rings		*each*	**16-0235**
		10 pack	**16-0243**
0.350" Spacers			**50-7044**

NOTES

S&S rigid mount manifolds are designed to improve intake tract air flow.

These manifolds may change the way a stock carburetor and air cleaner assembly fit. This means that these components may require shimming and/or a slight change in mounting bracketing.

S&S manifold conversion kits for Harley-Davidson® Evolution® are designed to fit stock displacement engines.

Series #16-1600 manifolds included in Manifold Conversion Kits are machined with a 1⅞" throat and will fit stock Keihin® butterfly carburetors, all S&S 1¾" and 1⅞" carbs, and any other carburetors with the same mounting bolt pattern.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold.

BLACK SUPER E & G CARBURETORS

FEATURES AND BENEFITS

- Exclusive black coating – heat and chemical resistant
- Offered in standard venturi or increased venturi diameter – specially machined for 7% more flow

BLACK CARBURETORS FOR 1985-2005 BIG TWINS

Fitment	Description	Part #
Increased venturi diameter *(7% more flow)*	Super E Carb	**110-0099**
	Super G Carb	**110-0100**
Standard venturi diameter	Super E Carb	**110-0133**
	Super G Carb	**110-0138**

DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.



110-0099

NOTE

These black carb kits do not include air cleaners.
Air cleaner options are available starting on PAGE 230.

SUPER E & G COMPLETE CARBURETOR KITS

FITMENT

- 1984-'99 big twins

FEATURES AND BENEFITS

- Four fuel delivery ports – Better throttle response
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Adjustable accelerator pump for quick throttle response and easy starting
- Utilization of the factory dual cable system ensures safe operation
- Direct replacement and high quality fit and finish – less down time and better performance
- Variable position enrichment starting system

KIT CONTENTS

- Super E or G carburetor
- S&S intake manifold (For engines with stock length cylinders)
- Classic Teardrop air cleaner kit
- Mounting hardware
- Gaskets, seals and hoses
- Instructions



11-0419

SUPER E & G COMPLETE CARBURETOR KITS

Fitment	Super E	Super G
1993-'99 big twin	**11-0419**	**11-0434**
1984-'92 big twin	**11-0407**	**11-0427**

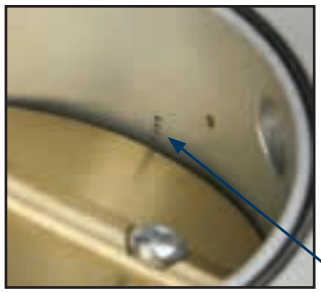
SUPER E & G PARTIAL KIT (NO MANIFOLD)

Fitment	Super E	Super G
1993-'99 big twin	**11-0442**	-
1984-'92 big twin	**11-0440**	-
1993-'99 big twin	-	**11-0446**

Does not include intake manifold. Partial kit designed for engines with longer/shorter than stock cylinders. Manifold is ordered separately. See PAGE 270

SUPER E & G CARBURETOR ONLY

Fitment	Super E	Super G
All Years & Models	**11-0420**	**11-0421**



As the throttle plate opens, it exposes more of these holes to engine vacuum and delivers more fuel as rpm increases. When you run out of holes in the intermediate system, the main jet comes in and handles fuel delivery for the higher rpm.

REPLACEMENT PARTS: SEE PAGE 314

OPTION

Optional cruise control adapter kits allows riders to keep factory cruise feature.



CRUISE CONTROL ADAPTER KIT

Fitment	Part #
1998-'99 big twin	**11-2927**

NOTES

S&S® does not recommend polishing or chrome plating Super E & G carbs. Our repair department has seen many carbs with plugged passages due to polishing compounds, and some carbs that have been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only—S&S Super E & G carbs shown are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

TWO CABLE THROTTLE ASSEMBLIES

The S&S two cable throttle assemblies are high quality "pull open – pull close" type throttles designed for use on any two cable carburetor installations on bikes with 1" O.D. handlebars. A special soft plastic material used to mold the grips makes them look and feel exactly like stock grips. There are four different assemblies available to make installation on most chassis easy.



TWO CABLE THROTTLE REQUIRED

S&S Super E and G carburetors require the use of a two cable, pull open–pull closed throttle assembly. Any chassis including 1980 and earlier stock models equipped with a single cable throttle mechanism requires conversion to a two cable, pull open–pull closed type. S&S offers high quality two cable throttle assemblies for this purpose. Stock big twin models from 1981 to present have a two cable throttle and should not require changing. Super E and G Carb kits for 1990 and later models come with the new longer throttle cable guide bracket which allows the use of the stock CV style throttle cables.

NOTE

The chart on this page is used only when using throttle cable bracket part #11-2339. This bracket is standard on all S&S Super E & G carburetor kits for big twins 1989 and earlier and all kits for Harley-Davidson® Sportster® models with the exception of the kit for 2004-'05 models. Carburetor kits for 1990 and later big twin models come with the longer cable bracket part #11-2338 for use with stock CV throttle cables. Super E and G carburetors ordered for big twin models 1981 and later are being shipped with the correct throttle cable bracket to fit the stock cables. Big twin carbs that are not year specific will be shipped with both cable brackets. All Sportster models 1988-'03 will still require conversion to butterfly style cables.

THROTTLE CABLE APPLICATION CHART

Application	Fastening Method	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
FX and FL models 1985 and earlier* Big Twin models 1995 and earlier*	Threaded	36"	32"	**19-0432** USA	**19-0433** USA
To 1995 Harley-Davidson® Softail® (FXSTC, FXST, FLSTC, FLSTF) 1986-'94 FXR, 1993-'95 Dyna®	Threaded	39"	35"	**19-0434** USA	**19-0435** USA
To 1995 All FLT models	Threaded	48"	44"	**19-0462** USA	**19-0463** USA
To 1995 custom application	Threaded	42"	38"	**19-0446**	**19-0447**
1996-'99 Softail (FXSTS, FXSTC, FLSTC, FLSTF) 1996-'99 Dyna®	Snap-in	39"	35"	**19-0438** USA	**19-0439** USA
1996-'99 All FLT models	Snap-in	48"	44"	**19-0464** USA	**19-0465** USA
1996-'99 custom application	Snap-in	42"	38"	**19-0440** USA	**19-0441** USA

**1980 and earlier must be converted to dual cable throttle assembly*
1998 and later required Harley-Davidson® throttle assembly #71831-96 .

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	**106-3520**
Throttle Grip Clamp Set 1985-'95	**106-3519** USA
Top Throttle Grip Clamp only	**19-0222** USA
Bottom Throttle Grip Clamp only	**19-0220** USA
Throttle Grip Clamp Screw *(Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, , #19-0229)*	**50-0043**
Throttle Grip Set	**106-3521** USA
Right Hand Grip only	**19-0225** USA
Left Hand Grip only	**19-0226** USA
Cable Adjuster *(Fits S&S throttle assembly part #19-0229)*	**19-0223** USA
Cable Adjuster Jam Nut *(Fits S&S throttle assembly part #19-0229)*	**19-0227**
Handlebar Spacing Sleeve 4" x 1" O.D. – converts ⅞" handlebars to 1" O.D.	**19-0235** USA



106-3521



19-0235



106-3520



106-3519



19-0223

50-0043

19-0227

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

JETS & CARB REBUILD KITS
FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS

Description	Part #
S&S Carb Parts Kit *(Contains needed parts to maintain S&S Super E and G carburetors)*	**11-3103**
S&S Jet Kit *(Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)*	**11-3102**

JET PACKS

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295") one each main jets (.062", .064", .066", .068", .070", .072", .074").	**11-7270**
High Range Jet Pack – For jetting some stock and all performance engines.	
Includes one each intermediate jets (.0295", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084").	**11-7271**
Master Jet Pack – For jetting all Super B, E, and G equipped engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084").	**11-7272**



11-3103



11-3102

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION

Size	QTY	Part #	Size	QTY	Part #
.025	each	**11-0250**	.032	each	**11-0320**
	3 pack	**11-7107**		3 pack	**11-7112**
.0265	each	**11-0265**	.033	each	**11-0330**
	3 pack	**11-7108**		3 pack	**11-7113**
.028	each	**11-0280**	.036	each	**11-0360**
	3 pack	**11-7109**		3 pack	**11-7114**
.0295	each	**11-0295**	.040	each	**11-0400**
	3 pack	**11-7110**		3 pack	**11-7115**
.031	each	**11-0310**	Blank	each	**11-0000**
	3 pack	**11-7111**			



11-7272

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1..... .025"
2..... .028"
3..... .031"
4..... .033"
5..... .036"
6..... .040"



106-3517

NOTES

No returns or exchanges on jets.

Refer to Section 10: Racing for the S&S fuel and turbo carburetors.

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.070	each	11-4070	.110	each	11-4110
	5 pack	11-7235		5 pack	11-7255
.072	each	11-4072	.115	each	11-4115
	5 pack	11-7236		5 pack	11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

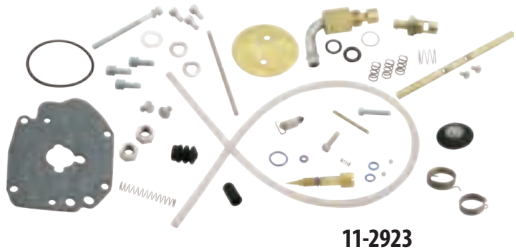
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT

Description	Part #
Super E	11-2923
Super G	11-2924



11-2923

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT

Description	Part #
Super E	11-2906
Super G	11-2907



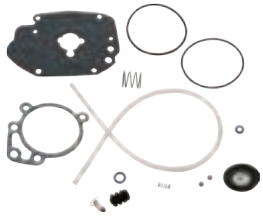
11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT

Description	Part #
Super E & G	110-0067

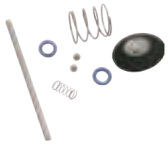


ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



COMPRESSION RELEASES

FITMENT

- S&S cylinder heads with compression release machining

OPTIONS

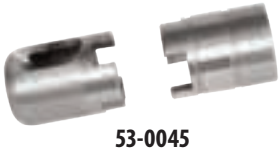
- ***MANUAL RELEASE:***
  Activated by a cable similar to a choke control, this slick system can be used with any style rocker cover.
- ***ELECTRIC RELEASE:***
  Solenoid operated, this system automatically opens and closes when the starter button is pressed and released. Convenient and simple, this is the best setup for big displacement high compression bikes. Requires S&S die cast rocker covers.



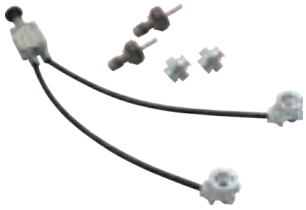
90-4915



55-1009



53-0045



90-4925



90-4916

COMPRESSION RELEASE KITS

Description	Part #	
Electric	**90-4915**	
Manual	**90-4925**	

TOOLS AND ACCESSORIES

Description	Part #	
S&S Two-Piece Socket Kit: *Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.*	**53-0045**	
S&S Compression Release Hole Plug	**90-4916**	

REPLACEMENT PARTS

Description	Part #	
Silicone Solenoid Caps	**55-1009**	
Wiring Harness USA 2,3	**55-1010**	
Electric Compression Release Assembly	**90-4914**	

NOTES

S&S rocker covers must be used with electric compression releases due to clearance requirements for the solenoids.

Rocker covers must be removed when installing S&S® compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.

In most cases, S&S compression releases can be installed while the engine is in the frame with the special S&S two-piece socket kit, part #53-0045 .

If cylinder heads are machined for S&S compression releases, but compression releases are not used, special plug part #90-4916 (two required) must be installed to seal the machined hole.

Stock cylinder heads cannot be machined for S&S compression releases because there is not enough material in critical areas.

HIGH OUTPUT COILS

HIGH OUTPUT COILS

S&S High Output 3.0Ω Single Fire Coil *The perfect complement for S&S IST ignition systems. This single fire coil is actually two separate coils in a single package. Coil impedance is 3Ω per coil.*	**55-1571**	
S&S High Output 0.5Ω Single Fire Coil USA 4 *High output 0.5Ω single fire coil for S&S IST ignition.*	**55-1576**	



55-1571



55-1576

HI-4N PERFORMANCE IGNITION

FITMENT
- 1984–1999 big twins

FEATURES AND BENEFITS
- One piece machined aluminum housing reduces vibration and improves heat dissipation and reliability
- Improved kick start algorithm designed to start as easily as points
- BCD switches with solid detent and legible marking allow easy and repeatable adjustments of mode, advance rate, and rev limit
- Single-fire and dual-fire function built into a single module
- Flexible wiring harness makes installation easier
- Initial timing marks allow precise adjustment and reinstallation
- Sensor covers integrated into housing to provide protection during installation



550-0502

S&S® HI-4N PERFORMANCE IGNITION

Fitment	Part #
Ignition only	**550-0501**
Kit Includes S&S® HI-4N Ignition, Single-Fire Coil, and 8.8mm double silicone, premium quality spark plug wires	**550-0502**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

SUPER STOCK™ IGNITIONS

FITMENT
- V-Series engines
- V80, V92, V96, V100, V107, V111, V113, V117, V124, V145

FEATURES & BENEFITS
- New updated modules can be set to kick-start or electric-start mode by an S&S dealer using the Super Stock diagnostic cable and software
- Electric-start mode allows the pre-ignition cranking to be set anywhere from 1 to 4 engine revolutions (only available with current modules – earlier modules cannot be updated)
- Pre-programmed ignitions are custom tailored for a specific S&S engine – no need for adjustments
- Single fire operation – requires a single fire coil for single spark plug applications
- Dual plugged applications require a pair of two tower coils or a single four tower coil
- Minimum 3.0Ω primary resistance
- Overload and short circuit protected
- VOES switches to less aggressive curve under load or hard acceleration
- 6300 rpm rev-limiter
- 24-hour break-in rev-limiter – prevents damage during break-in
- Data logging diagnostic capabilities



S&S® SUPER STOCK® IGNITION MODULE AND KITS

Engine	Kit	Module
V80	**550-0140**	**550-0139**
V96	**55-1354**	**55-1344**
V100, V107,V113	**55-1355**	**55-1345**
V111, V117, V124	**55-1356**	**55-1346**

NOTE – Only modules and kits with the above part numbers have the updated features.

S&S® SUPER STOCK® IGNITION KIT REPLACEMENT PARTS

Description	Part #
Pick-up Cup and Mounting Screw	**55-1247**
Connector Kit	**55-1249** USA[1]
VOES Switch with Hardware	**55-1248** USA[1]
VOES Hose, 9"	**19-0395** USA
VOES Manifold Fitting	**16-0136-S**
VOES Hose Tee	**50-8124-S**
Optional Parts	
S&S Single Fire Coil (3.0Ω)	**55-1571**

NOTES

S&S Super Stock ignition systems are available in complete ignition kits and as replacement modules. S&S single fire ignition coils are available separately.

Keep in mind that the curves are preset for a specific S&S engine, and that modules intended for one engine may not yield optimum results when used on another configuration.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

INNER PRIMARY BEARING RACE

FITMENT

- All 1991-'06 big twins *(except '06 Dyna®)*

FEATURES AND BENEFITS

- Will not "walk" on transmission mainshaft
- Prevents costly damage to mainshaft seal, output gear & output gear bearing
- Simple to install



INNER PRIMARY BEARING RACE

Fitment	Part #
All 1991-'06 big twins *(except '06 Dyna®)*	**56-5089**

ANY JOB IS EASY WITH THE RIGHT TOOLS

S&S INNER BEARING RACE INSTALLER, SEE PAGE 522

GATES® HIGH STRENGTH FINAL DRIVE BELTS

S&S final drive belts by Gates are available with 14mm pitch in 1½" and 1⅛" widths. See the chart below and match the width and number of teeth required for your vehicle. You can find this information in the vehicle service manual.



ATTENTION CUSTOM BIKE MANUFACTURERS!

SPECIAL ORDER BELTS FROM S&S® AND GATES®

Special belt sizes, private brand labeling, and assistance with belt drive design, are available to custom performance OEM's and aftermarket bike builders, through S&S. These products and services are available for licensed motorcycle manufacturers only, and a minimum order quantity may be required.

Drive belts with your company name imprinted on them are a perfect way to show off your brand. Any belt size currently available in the S&S catalog, as well as the special ordered sizes, can be specially branded. Minimum order quantities would apply.

Whether you're designing a completely new chassis, or simply need a replacement belt, S&S can help you find the belt you're looking for. Through the combined efforts of Gates and S&S, S&S can now provide customers with the technical assistance they need for designing new secondary belt drive systems. In addition, S&S can help you determine required tooth count for your existing chassis design, based on the pulley center-to-center distances and pulley tooth counts.

All belts have a 14mm tooth pitch, and are made of the super strong Gates Carbon X3N material. Belts are available in three standard widths of 1.125", 1.5"and 1.181" (30mm), but can be special ordered in nearly any width for a nominal charge. If you want a belt with a special tooth count, they are also available (see the special order chart for availability).

Contact your S&S Customer Support Representative for more information.

SECONDARY DRIVE BELTS (14MM PITCH)

Teeth	1⅛" Wide	1½" Wide
125	106-0357	–
126	–	106-0348
127	–	106-0349
128	106-0358	106-0350
130	106-0359	106-0351
132	106-0360	106-0352
133	106-0361	106-0353
135	106-0362	106-0354
136	–	106-0355
139	106-0363	106-0356
149	106-1338	106-2695
156	–	106-2827

BELTS AVAILABLE BY SPECIAL ORDER (14MM PITCH)

Tooth Count	1.181" (30mm) Width*	1.25" Width*
125	●	
126	●	●
127	●	●
128	●	
130	●	
131	●	●
132	●	
133	●	
135	●	
136	●	●
137	●	●
139	●	
140	●	●
149	●	
150	●	●
151	●	●
152	●	●
156	●	

**Minimum order required: 1.181" (30mm) – 16 belts; 1.25" – 17 belts.*

GASKETS

REBUILD GASKET KITS FOR S&S V-SERIES 1984-'99 ENGINES AND HOT SET UP KIT®

4⅛"	**106-0964**
4"	**106-1020**
3⅝"	**106-0992**

TOP END GASKET KITS V-SERIES 1984-'99

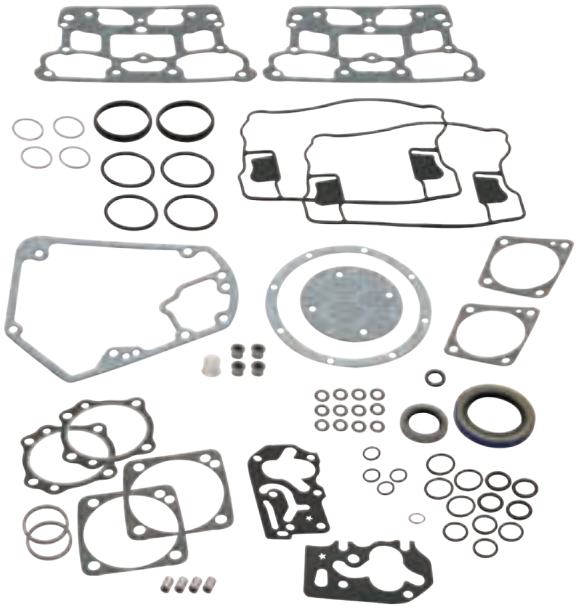
4⅜"	**90-9511**
4⅛"	**90-9506**
4"	**90-9503**
3⅝"	**90-9502**

CYLINDER HEAD GASKET KITS V-SERIES 1984-'99

4⅛"	.043" Micropore	**90-1910**
4"	.045" Micropore	**90-1909**
3⅝"		**90-1906**
3½"		**90-1905**
3½"	.030" Layered Steel	**900-0532**

HEAD GASKETS V-SERIES 1984-'99

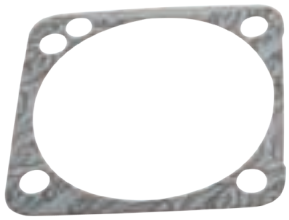
4⅛"	.043" Micropore	*each*	**93-1047-S**
		2 pack	**930-0100**
		10 pack	**93-1073**
4"	.043" Micropore	*each*	**93-1040-S**
		2 pack	**930-0087**
		10 pack	**93-1071**
3⅝"	.045" Micropore	*each*	**93-1037-S**
		2 pack	**930-0091**
		10 pack	**93-1052**
3⅝"	.0625" Micropore	*each*	**93-1016-S**
		2 pack	**930-0097**
		10 pack	**93-1053**
3½"	.045" Micropore *16770-84D, 16770-84F*	*each*	**93-1011-S**
		2 pack	**930-0098**
		10 pack	**93-1024**
3½"	.0625" Micropore *16770-84D, 16770-84F, 10773-85*	*each*	**93-1313-S**
		10 pack	**93-1051**
3½"	.030" Layered Steel	*each*	**900-0530**



106-0964



93-1047-S



93-1048-S



106-5029



900-0338

BASE GASKETS AND O-RINGS V-SERIES 1984-'99

4⅜"	.018" Micropore	*2 pack*	**93-1082**
4⅛"	.018" Micropore	*each*	**93-1048-S**
		2 pack	**930-0099**
		10 pack	**93-1074**
4"	.018" Micropore	*each*	**93-1031-S**
		2 pack	**930-0094**
		10 pack	**93-1067**
3⅝"	.018" Micropore	*each*	**93-1033-S**
		2 pack	**930-0093**
		10 pack	**93-1064**
3½"	.018" Micropore	*each*	**93-1035-S**
		2 pack	**930-0092**

EXHAUST GASKETS

1984-up Big Twins *65324-83B, 65324-83A*	*each*	**106-5029**
	10 pack	**93-1072**

VALVE GUIDE SEALS

1984-'02 Big Twin and 1986-'00 Sportster Models	*each*	**900-0338**
	8 pack	**90-2158**

ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

S&S Billet Rocker Boxes

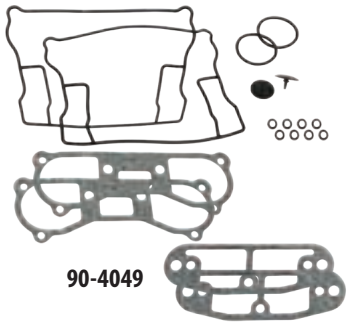
Gasket Kit		**90-4049**
O-ring, (-223), 1.625" ID x 1.875" OD, Viton		**50-8044**
Valve Cover Seal *26856-89, 26856-89A*		**90-4030**
Gasket, Rocker Cover, S&S® Billet, O-ring, 1984-'99		**90-4048**
Gasket, Bottom, Rocker Cover, 1984-99 bt	*each*	**900-0538**
	2 pack	**900-0592**

S&S Die Cast Rocker Boxes - S&S 4⅛" Bore Engines

Gasket Kit		**90-4111**
O-ring, (-223), 1.625" ID x 1.875" OD, Viton		**50-8044**
Gasket, Bottom, Rocker Cover, 4-1/8" 1984-up *16719-99B*	*each*	**90-4071-S**
	2 pack	**90-4071**
	10 pack	**90-4099**
Gasket, Rocker Cover, S&S® Die Cast, O-ring, 1984-up		**90-4079**

S&S Die Cast Rocker Boxes - 3½", 3⅝" and 4" Bore Engines

Gasket Kit		**90-4091**
O-ring, (-223), 1.625" ID x 1.875" OD, Viton		**50-8044**
Gasket, Bottom, Rocker Cover, 1984-99 bt	*each*	**900-0538**
	2 pack	**900-0592**





Gasket, Rocker Cover, S&S® Die Cast, O-ring, 1984-up	**90-4079**

Stock Rocker Boxes

Gasket Kit, Rubber, 1984-'91 *17038-90*	**90-4046**
Gasket Kit, Rubber, 1992-'99	**90-4047**
Gasket,Top,Rocker Cover,Rubber,1992-'99 bt *17356-92*	**90-4045**
Gasket,Middle Outer,Rocker Cover,Rubber,1992-'99 bt *17355-92*	**90-4044**

LOWER END GASKETS AND SEALS

Gear Cover Gasket For 1970-'99 *25225-93A, 25225-93B, 25225-70C, 25257-80*		*each*	**31-2107**
		10 pack	**106-0232**
Camshaft Oil Seals, 1970-'99 *83162-51*		*each*	**31-4022**
Tappet Cover Gasket	Set (includes Front & Rear) *18633-48*	*each*	**33-5302**
		10 pack	**33-5313**
	Front *18634-48C*	*each*	**33-5302F**
		10 pack	**33-5313F**
	Rear *18633-48B, 18633-48D*	*each*	**33-5302R**
		10 pack	**33-5313R**

PUSHROD O-RINGS

O-ring,Kit,Pushrod Cover,1984-'99 bt, 1986-2003 xl		**93-4022**
Top O-ring *11293, 11157, 11101, 11190*		**50-8039**
Middle O-ring *11132A*		**50-8038**
Bottom O-ring *11145A*		**50-8037**
Oil Jet O-ring - S&S 4⅛" Bore Engines	*each*	**50-8270**
	5 pack	**50-8275**

SPROCKET SHAFT SEAL

1970-up BT *12026B*	*each*	**31-4010**
	5 pack	**31-4110**

OIL PUMP GASKETS

S&S Standard Cast and Billet Oil Pumps

1936-'91 Standard	**31-6271**
1992-'99 Standard	**31-6273**

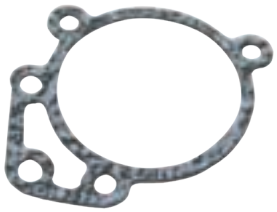
See PAGE 294 for Standard Oil Pump Master Rebuild Kits

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

CONTINUED GASKETS



106-6022



106-1724

S&S High Volume High Pressure (HVHP) Oil Pumps	
1984-'91 Big Twin HVHP *31-6306*	**31-6308**
1992-'99 Big Twin HVHP	**31-6299**
See PAGE 295 for High Volume High Pressure Oil Pump Master Rebuild Kits	
Oil Pump Drive Shaft Seal	
S&S Standard Cast and Billet Oil Pumps *26227-58*	**31-6005**
S&S High Volume High Pressure (HVHP) Oil Pumps	**31-6064-S**

FUEL SYSTEM GASKETS

Manifold Seals			
S&S Manifold O-Ring		*each*	**16-0235**
		10 pack	**16-0243**
Stock Manifold O-ring 26995-86B, 26995-86A, 26992-99		*each*	**16-0236**
		10 pack	**16-0244**
Cap, Rubber, Manifold, Fitting			**50-8372**

CLASSIC TEARDROP AIR CLEANER

Back Plate Gasket		*each*	**106-1724**
		10 pack	**106-2328**
Vent Seal Washers, Silicone Coated Steel	½"	*each*	**50-7054**
		10 pack	**50-7059**

STEALTH AIR CLEANER

Back Plate gasket		
Stock CV Carb & EFI Throttle Body,1991-up xl/bt 29062-95B		**106-6022**
Super E/G	*each*	**106-1724**
	10 pack	**106-2328**
Muscle Air Cleaner (includes lanyards)		**170-0137**
Vent Seal Washers, Nitrile Rubber Coated, .520" x .880" x .024"	*each*	**50-7055**
	10 pack	**50-7057**

TUNED INDUCTION

Back Plate gasket		
Gasket, Backplate - E/G/SBEFI	*each*	**106-1724**
	10 pack	**106-2328**
Gasket, S&S SBEFI 58mm		**106-4662**
Gasket, Stock Carb/Throttle Body *29062-95B*		**106-6022**
Adaptor Plate Gasket		**17-1022**
Adaptor Plate Bracket O-ring	*(each)*	**50-0446**

SINGLE BORE EFI THROTTLE BODY

Back Plate gasket		
52mm	*each*	**106-1724**
	10 pack	**106-2328**
58mm	*each*	**106-4662**
O-ring, Throttle Body to Manifold		**50-7967-S**
Air Temp Sensor Gasket		**16-5009-S**
IAC O-ring		**50-8149-S**
Fuel Injector O-ring, Top		**50-8264-S**
Fuel Injector O-ring, Bottom		**50-8265-S**
Fuel Rail Inlet O-ring *27237-95*	*each*	**50-8137-S**

TRANSMISSION GASKETS

O-ring, (-114), .625" ID x .812" OD, Vitron *11270*	**50-8033**
O-ring, Quad Seal, (-031), 1.734" X 1.875", Nitrile *11165*	**50-8045**
Seal, Transmission Output Shaft, 2.255" x 3.388"x .250*12067B*	**56-3033**

PRIMARY GASKETS

Gasket, Primary Cover, 1990-'99 Softail® and Dyna®	**56-4049**



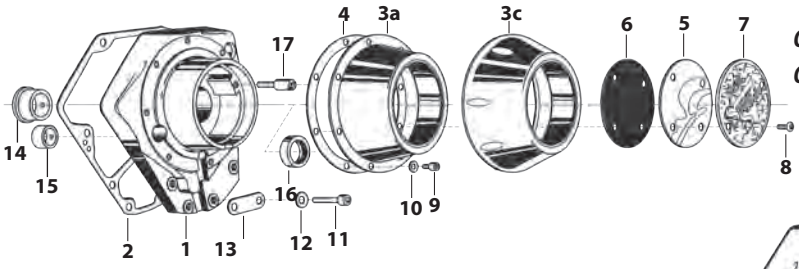
170-0137

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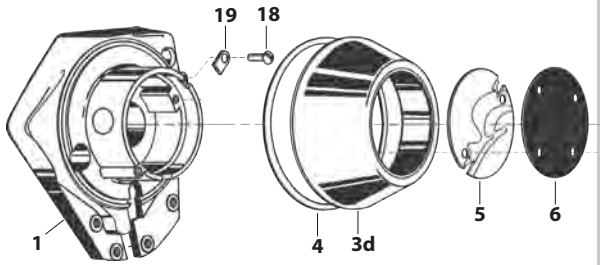
GEARCOVER KIT REPLACEMENT PARTS

1. Gearcover assembly ..... **N/A**
2. Gasket, gearcover
25225-93A, 25225-93B, 25225-70C, 25257-80
each **31-2107**
10 pack **106-0232**
3. Outer cover for cast gearcovers - 1984-'99 BT
a. Flanged type - steel, chrome ..... **N/A**
b. Flanged type - steel, black ..... **N/A**
c. Flanged type - billet ..... **N/A**
d. Flangeless type - chrome **31-0238**
e. Flangeless type - black ..... **N/A**
4. Gasket, outer cover - 1984-'99 BT
Flanged type *(each)* **31-0218**
5 pack **31-0256**
Flangeless type *(each)* **31-0237**
5 pack **31-0261**
5. Ignition cover, inner - 1984-'99 BT
Flanged type *32504-80* **31-0215**
Flangeless type **31-0235**
6. Gasket, ignition cover - 1984-'99 BT *32591-80, 32591-70*
each **31-0225**
7. Ignition cover, outer - 1984-'99 BT
Die-cast *(H-D® #32524-83)* ..... **N/A**
Billet, Chrome with S&S Logo
..... **31-0332**
8. Screw, RSH - 8-32 x ½" (replaces stock rivets)
Stainless Steel *(each)* **50-0048**
Chrome *(each)* **50-0266-S**
9. Screw, SH
10-24 x ¼ " for steel cover *(each)* ..... **N/A**
10-24 x ⅜" - chrome for billet cover *4091 (each)* **50-0023**
10. Washer, flat .192" x 5⁄16" x .035"
each **50-7009**
11. Screw, SH ¼"-20 x 1¼"– *4740A, 3482A*
Zinc *(each)* **50-0008**
Chrome *(each) 4740A* **50-0257-S**
12. Washer, flat
¼" x .474" x .050" *(each)* **50-7020**
¼" Flat washer, chrome, billet covers
each **50-7017**
12 pack **50-7013**
13. Wire harness clip *38711-93* **31-2029**
14. Cam bushing, gearcover
1984-'99 BT *25581-70* **31-4019**
15. Pinion shaft bushing, gearcover
1984-'99 BT *25582-93, 25582-73* **31-4031**
16. Gearcover oil seal 1984-'99 BT
(each) **31-4022**
17. Screw, timing mechanism *32606-82*
each **31-0224**
2 pack **31-0224P**
18. Screw, standard panhead 8-32 x ⅜"
each **50-0004**
19. Clip, outer cover *(each)* **31-0233**

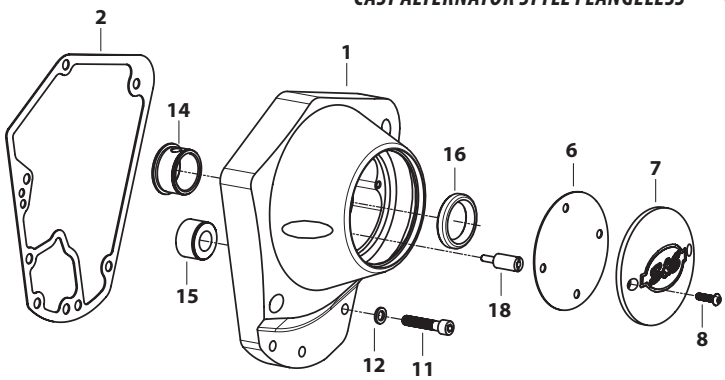
N/A = No longer available



CAST ALTERNATOR STYLE FLANGED CHROME OR BILLET OUTER COVER



CAST ALTERNATOR STYLE FLANGELESS



BILLET ALUMINUM ALTERNATOR STYLES

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VALVE SPRING REPLACEMENT PARTS

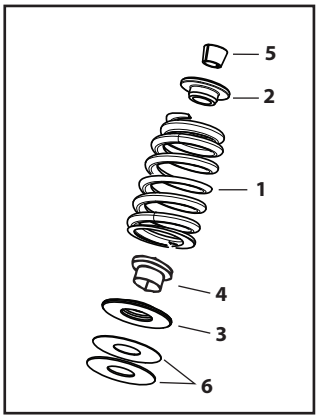
.650" Lift Sidewinder® Valve Springs
(Stock, Super Stock® and Performance Replacement Cylinder Heads)

1. Spring, Valve .650" **106-5689**
2. Collar, Top, Steel **106-5690**
3. Collar, Bottom, Steel *(each)* **106-5691**
4. Valve Seal
   - .420" Cast **900-0338**
   - .562" Powder Metal **900-0737**
5. Valve Keeper *18229-83 (each)* **90-2094-S**
   - *8 pack* **50-7166**
6. Valve Spring Shim
   - .015" *(each)* **500-0013**
   - .030" *(each)* **500-0014**

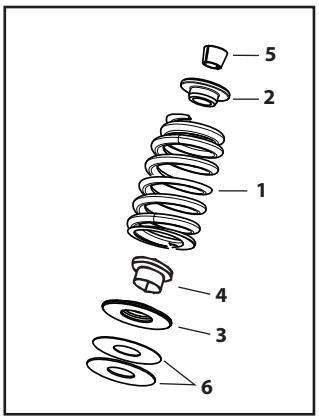
.585" Lift Street Performance Valve Springs
(Stock, Super Stock® and Performance Replacement Cylinder Heads)

1. Spring **900-0444**
2. Collar, top, steel *(each)* ..... **N/A**
3. Collar, bottom, steel ..... **N/A**
4. Valve Seal
   - .420" Cast **900-0338**
   - .562" Powder Metal **900-0737**
5. Valve Keeper *18229-83 (each)* **90-2094-S**
   - *8 pack* **50-7166**
6. Valve spring shim
   - .015" *(each)* **90-2086**
   - *5 pack* **50-7161**
   - .030" *(each)* **90-2087**
   - *5 pack* **90-2198**

.650" Lift Sidewinder® Valve Springs

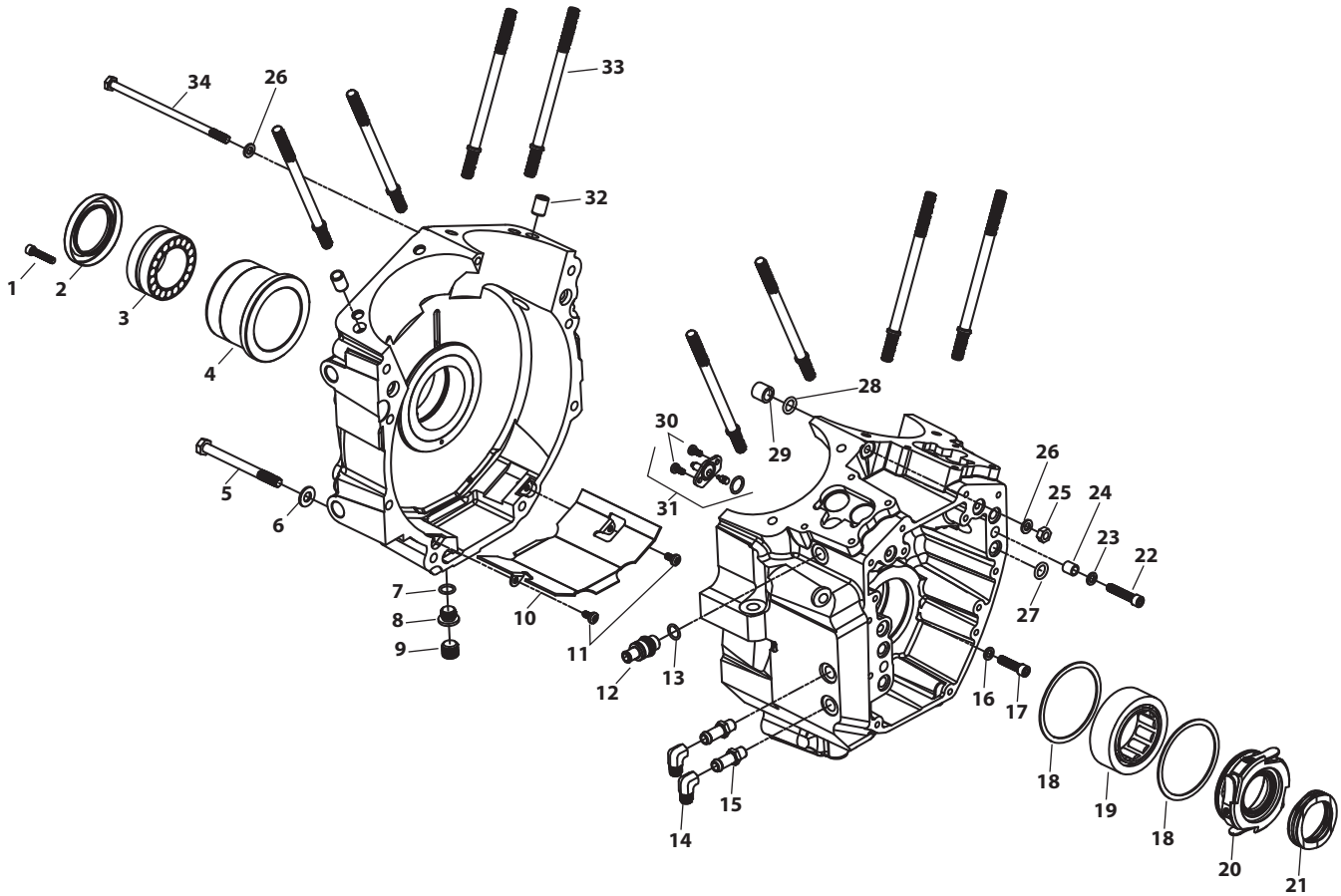


.585" Lift Street Performance Valve Springs



2 CAM V-SERIES CRANKCASE REPLACEMENT PARTS
FOR 1984-'99 BIG TWIN ENGINES

1. Screw, SHCS, 10-24 x 1", Alloy Steel *2720* **50-0044**
2. Seal, Left, Main Bearing, 1.750" x 2.507" x .3130", 1970-up bt *12026B* **31-4010**
3. Bearing, Assembly, Left, Main *9028* **31-4013**
4. Insert, Left, Main Bearing ..... **N/A**
5. Screw, HHC, Gr8, 5/16-18 x 3½", Zinc, Steel *3427* **50-0117**
6. Washer, Flat, .344" x .688" x .065", Zinc, Steel *6320, 70907-07, 6016, 6702* **50-7034**
7. O-ring, (-013), .437" ID x .565" OD, Viton® *11105, 11273* **50-8008**
8. Plug, Drain, w/ O-ring, Magnetic, ½-20, Zinc, Steel **50-8335**
9. Plug, Pipe, ¾ Taper, ¼-18 NPTF x .460", Zinc, Steel *765* **50-8330**
10. Plate, Baffle, Crankcase, 1999-up bt **31-0119-S**
11. Screw, PH, 10-24 x ⅜", Zinc, Steel, ASTM-A307 ..... **50-0050**
12. Fitting, Vent, ⅜", Plated, 1999-2006 bt **50-0454**
13. O-ring, (-013), .437" ID x .565" OD, Viton® *11105, 11273* **50-8008**
14. Fitting, Pipe, 90º, Male/Female, ⅛-27 NPTF x .500", Zinc Plated, Steel *26338-68, 26561-84A, 26561-81A, 26338-68A* **106-2682**
15. Fitting, Hose, Straight, ⅛-27 NPTF x .500", Zinc, Steel **50-8115**
16. Washer, Flat, .260" x .425" x .060", Chrome, Steel **50-7017**
17. Screw, SHCS, ¼-20 x 1", Zinc, ASTM A574-92A *852* **50-0084**
18. Retaining Ring, Internal, 2.731" x .031" x .158", Steel, SAE 1070-1090 *35114-02* **50-8160-S**
19. Bearing, Right, Main, S&S Crankcases 1999-'06 bt, 2000-up Bal bt, 2003-up NB bt *24604-00D* **31-4085**
20. Valve, Assembly, Breather Reed, 2003-2010 bt **310-0742**
21. Wave Spring, 2"OD X 1.6"ID X .375" **50-8404**
22. Screw, SHCS, ¼-20 x 1¼", Zinc *4740A, 3482A* **50-0008**
23. Washer, Flat, .260" x .425" x .060", Chrome, Steel **50-7017**
24. Pin, Dowel, .275" x .397", Steel *(4 pack)* **500-0219**
25. Nut, HH, ¼-28 UNC-2B x .226", Zinc, Steel *7683* **50-5011**
26. Washer, .261" x .474" x .050", Annealed, Stainless Steel **50-7020**
27. O-ring, (-110), .375" ID x .562" OD, Viton® *11301 (each* **50-8066-S**
28. O-ring, (-015), .562" ID x .068" OD, Black, Viton® *26432-76A*
each **50-8034-S**
2 pack **50-8034**
29. Pin, Dowel, .557" x .500", Black, Steel *16574-99A, 16573-83, 16573-83A* **50-8023**
30. Screw, Torx Panhead, 8-32 x ⅜", Zinc, Steel *68042-99* **50-0054-S**
31. Jet, Kit, Piston Cooling, 4⅛" 1984-'99 bt, 1999-up bt, *(2 pack) 22307-99* **31-2026**
32. Pin, Dowel, .437" x .610", Steel *16595-99A* **50-8177**
33. Stud, Cylinder Base, ⅜-16 UNC x 6.070", Black, Steel **31-2325-S**
34. Screw, HHC, Gr8, ¼-28 x 5½", Zinc, Steel **50-0090**



SUPER STOCK® CRANKCASE REPLACEMENT PARTS
FOR BIG TWIN ENGINES OF LESS THAN 4" CYLINDER BORE

1. Crankcase assembly, half ..... **N/A**

2. Race, right main bearing, All S&S BT
Standard (*24599-93, 24599-58A, 24599-58B* **31-4004**
+.005" O.S. *(H-D® #24601-58B)* **31-4007**
+.030" O.S. **31-4030**

3. Right main bearing assembly BT
White *24626-87A* **31-4005**
Green *24628-87A* **31-4016**
Red *24641-87A* **31-4017**
Blue *24643-87A* **31-4018**

4. Retaining ring, main bearing BT
11177A(each) **50-8057**
5 pack **50-1004**

5. Cam needle bearing assembly BT
9058 ..... **31-4009**

6. Washer, cam lock – BT
25550-57A) (each) **33-5201**
5 pack **33-5213**

7. Cam thrust washer – BT
.050" *25550-36(each)* **33-5200**
.055" *25551-36(each)* **33-5202**
.060" *25552-36(each)* **33-5203**
.065" *25553-36 (each)* **33-5204**
.070" *25554-36(each)* **33-5205**
.075" *(each)* **33-5206**
.080" *(each)* **33-5207**
.090" *(each)* **33-5209**

8. Left Timken® main bearing assembly 1984-'99
S&S BT cases *9028* **31-4013**

9. Timken Main Bearing Spacers, 1984-'99 BT
.0995" - .1005" *9124* **31-4071**
.1015" - .1025" *9125* **31-4072**
.1035" - .1045" *9126)* **31-4073**
.1055" - .1065" *9127* **31-4074**
.1075" - .1085" *9128* **31-4075**
.1195" - .1205" *9134* **31-4076**

10. Spacer, drive sprocket, 1984-'99 S&S BT cases
Standard *24002-70* **31-4011**
45A Charging System,1970-'99 bt, *24008-97* **31-4033**

11. Seal, sprocket shaft oil 1936-'99 S&S BT cases
12026B (each) **31-4010**
5 pack **31-4110**

12. Bushing, oil pump shaft - *24641-36* **31-4008**

13. Tappet guide – Shown for reverence only (not included)

14. Screw, 12 pt. DHH ¼"-20 x ⅞" *3770*
Each **50-0068**
5-pack **50-0068P**

15. Gasket, tappet guide – 1948-'99 BT
Front *18634-48C* each) **33-5302F**
10 pack front **33-5313F**
Rear *18633-48B, 18633-48D* (each) **33-5302R**
10 pack rear **33-5313R**
Set (each front & rear) **33-5302**
10 pack set **33-5313**

16. Crankcase oil screen - 1948-'99 BT *24981-70, 24981-66*
(each) **31-2010**
5 pack **31-7008**

17. Crankcase oil screen spring - 1948-'99 BT
24982-66, 24982-70 (each) **31-2011-S**

18. O-ring, drain plug and cover screw
11105, 11273(each) **50-8008**
10 pack **50-8078**

19. Cover screw - 1948-'99 S&S BT *26263-80, 26362-36*
each **31-6021**
5 pack **31-7005**

20. Cylinder stud
1984-up BT *16837-85C (each)* **31-2321-S**
8 pack **31-2321**

21. Crankcase hardware Kits *(N/S - include studs, screws, nut & washers)*
Zinc Plated **106-4908**
Chrome **106-4909**

22. Crankcase studs and screws
(Position 1, 2, 3, & 4) Alignment Stud,
⅝"-24 x 5¾" *24806-36, 3506* **31-2003**
(Position 5 & 6) Screw, HHCS, ⅝"-18 x 3½" **50-0117**
(Position 7) Screw HHCS, ⅝"-24 x 5"
Zinc *3430* **50-0119**
Chrome (each) **50-0253-S**
(Position 8) Screw HHCS, ¼"-28 x 5½" *(each)*
Zinc **50-0090**
Chrome *(each)* **50-0252-S**

23. Nut, Hex - ¼"-28 *7683* **50-5011**

24. Washer, flat - ¼" x ⅝" x 1⁄16" (each)
Zinc *(6192, 6228W, 6194, 6245, 6703, 6736* **50-7021**
Chrome **50-7104-S**

25. Nut, hex - ⅝"-24 *(each)*
Zinc *7833, 7883* **50-5023**

26. Washer, flat - ⅝" x 1 1⁄16" x 1⁄16"
6320, 70907-07, 6016, 6702 ..... **50-7034**

27. Plug, timing hole *720* **31-2005**

28. Fitting, 45° ⅛" x ⅛" pipe male/female **50-8112**

29. Oil pressure switch *26561-84*
(Includes: switch, nut, lock washer.) **31-2016**

30 Plug, SH pipe - ⅛"-27 *(each)* **50-8331A**
10 pack **50-1015**

31. Fitting, hose - ⅛"-27 pipe male **50-8115**

32. Fitting, 45° hose – ¼" pipe male x ⅜" male hose **50-8113**

33. Plug, SH pipe, ¼"-18, 1965-'69 S&S BT *765*
(each) **50-8330**

34 Dowel pin, .250" diameter x ½" *358, 366*
(each) **50-8022**
2 pack **50-8022-2**
5 pack **50-8105**

35. Screw, SHC - 10-24 x 1" *(Stator) (N/S) 2720*
each **50-0044**

36. Screw, SHS - 10-24 x ⅝" - *(Stator plug clamp) (N/S)*
each **50-0045**

37. Gearcover – Shown for reference only *(not included)*

38. Gearcover gasket 1970-up S&S BT
25225-93A, 25225-93B, 25225-70C, 25257-80 ..... **31-2107**

39. CPS hole plug kit **106-2997**

40. Cover, CPS hole **31-2056-S**

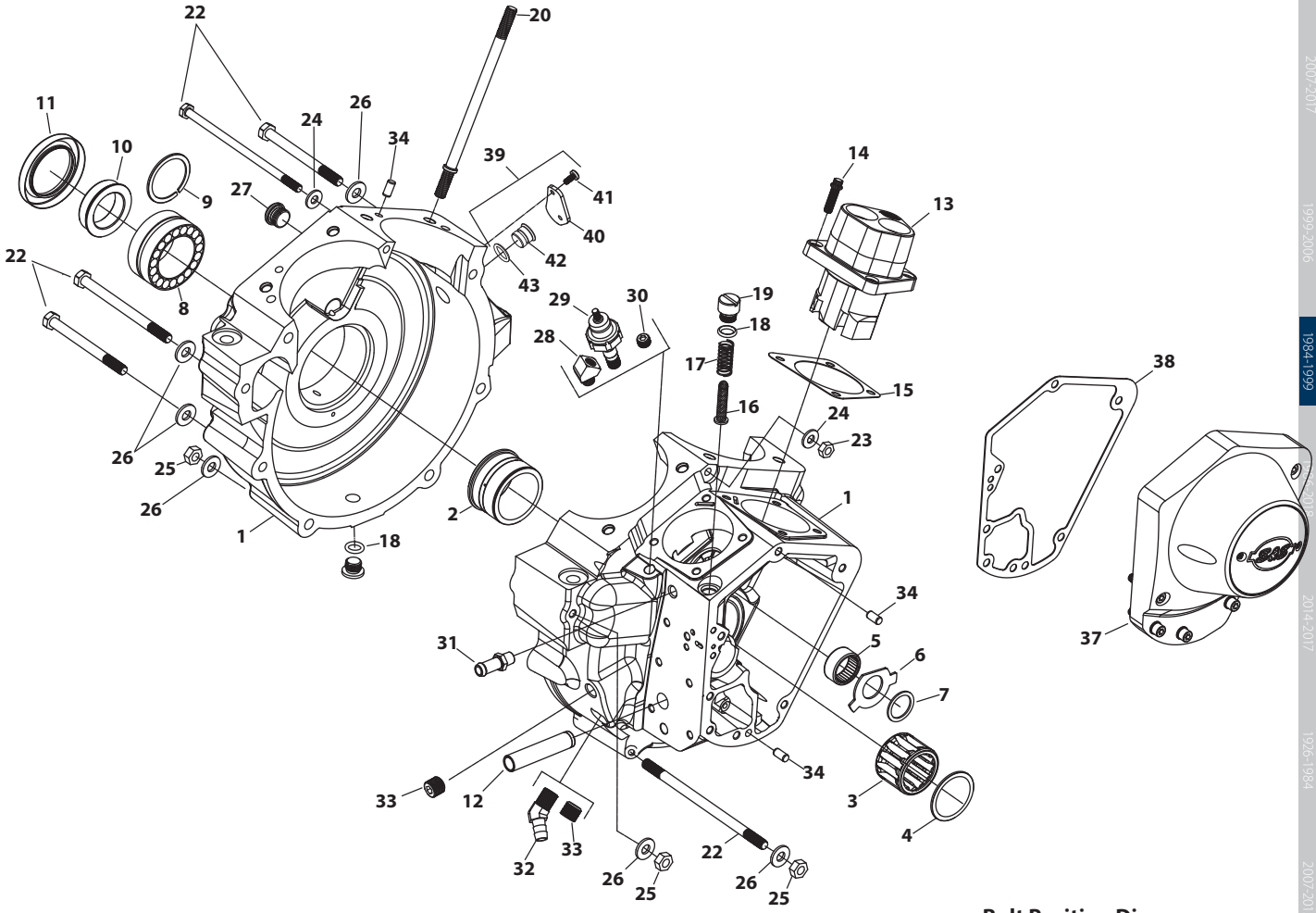
41. Screw, Torx, 8-32 x ⅜" **50-0054-S**

42. CPS hole plug **106-1189**

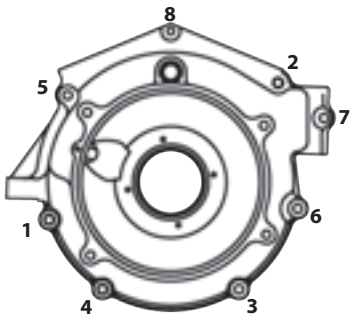
43. O-ring *(each)* **50-8270**
5 pack **50-8275**

(N/S) = Not Shown

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Bolt Position Diagram



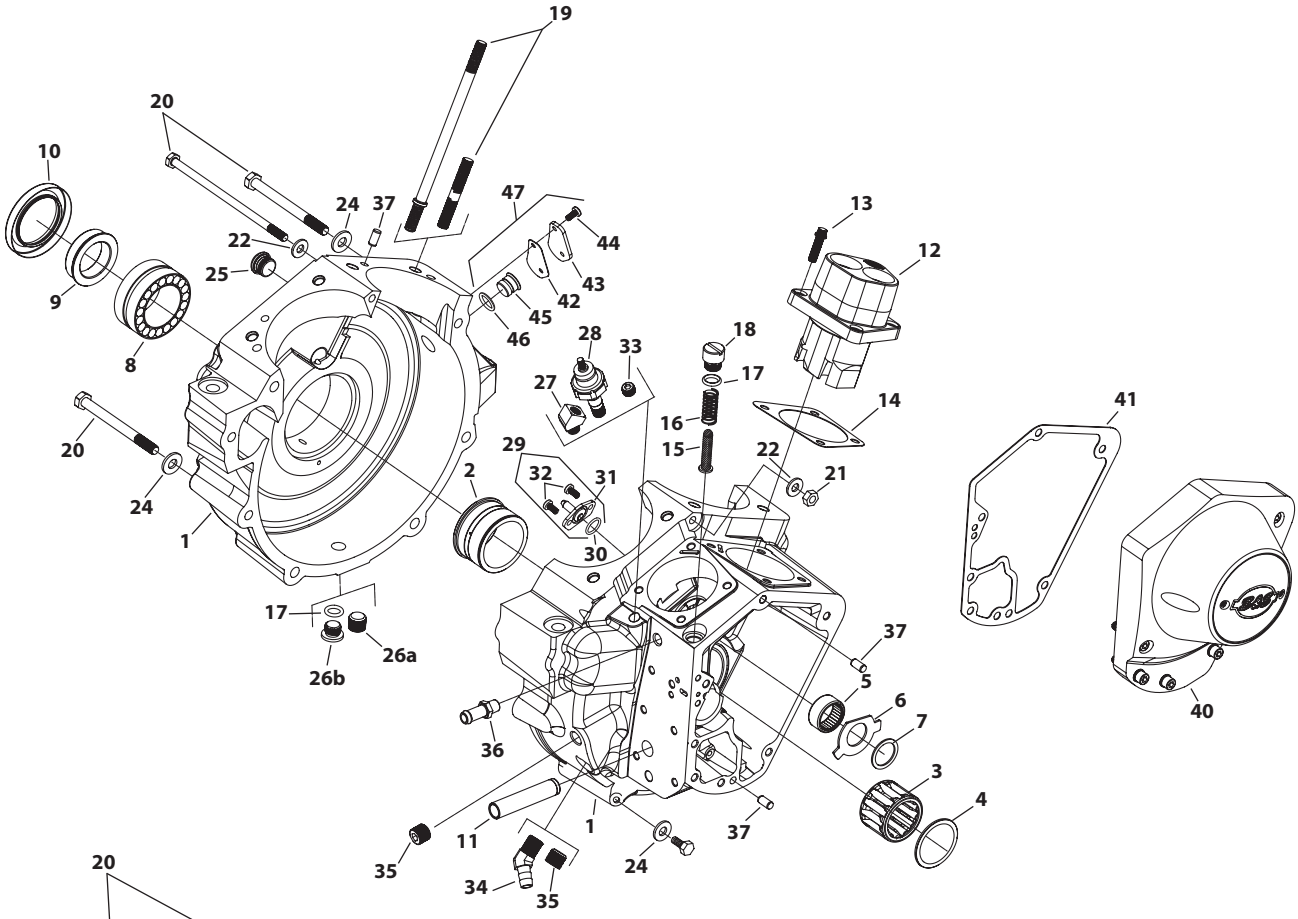
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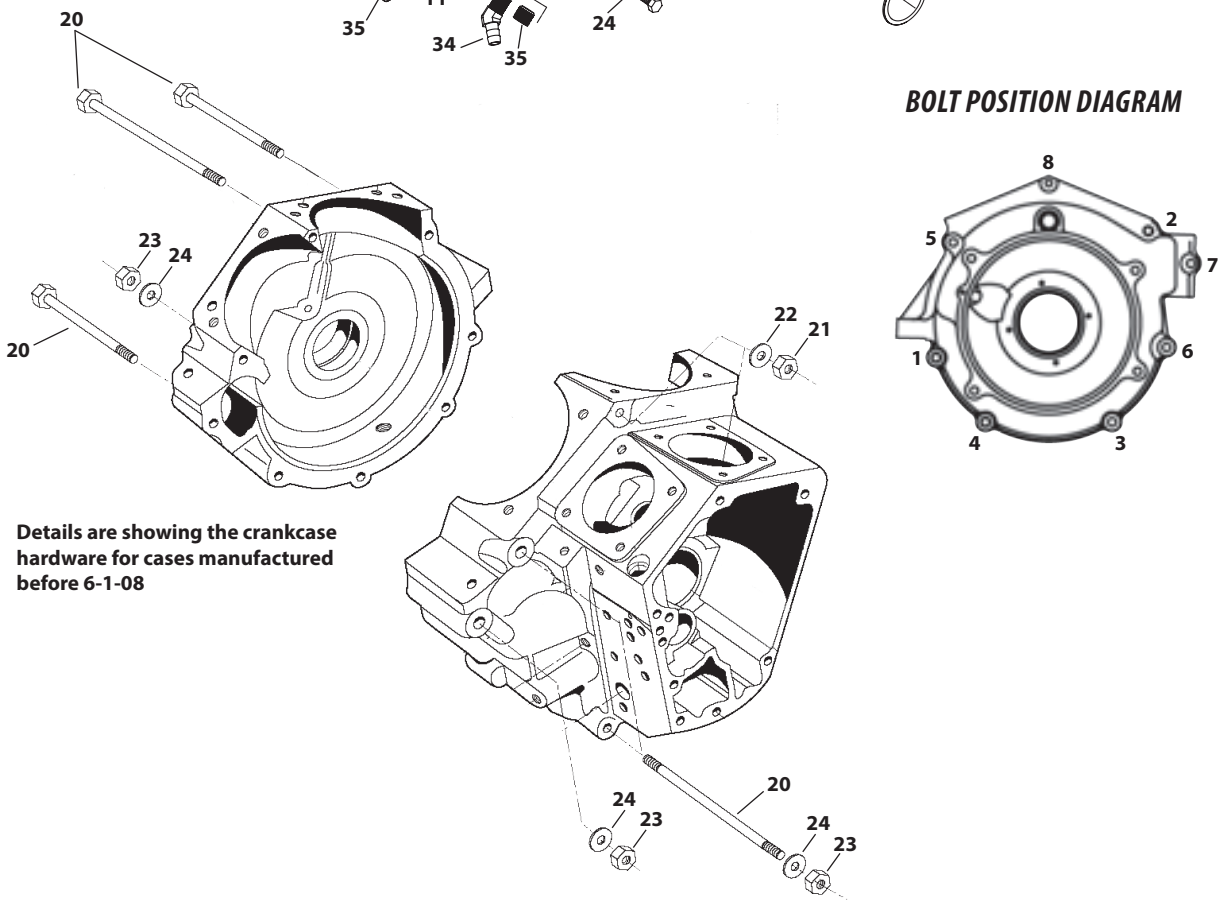
SPECIAL APPLICATION CRANKCASE REPLACEMENT PARTS
FOR BIG TWIN ENGINES WITH 4", 4-1/8" AND 4-3/8" CYLINDER BORE

1. Crankcase assembly, half ..... **N/A**
2. Race, right main bearing, for 1936-'99 big twin
Standard *#24599-93, 24599-58A, 24599-58B)* ..... USA 1,2,3 **31-4004**
+.005" O.S. *24601-58B)* **31-4007**
3. Right main bearing assembly BT
White *24626-87A* **31-4005**
Green *24628-87A* **31-4016**
Red *24641-87A* **31-4017**
Blue *24643-87A* **31-4018**
4. Retaining ring, main bearing BT *11177A*
each **50-8057**
5 pack **50-1004**
5. Cam needle bearing assembly BT*9058* ..... USA USA 1,2,3 **31-4009**
6. Washer, cam lock - 1984-'99 BT *(H-D® #25550-57A)*
each ..... USA **33-5201**
5 pack ..... USA **33-5213**
7. Cam thrust washer - 1984-'99 BT
.050" *25550-36 (each)* ..... USA **33-5200**
.055" *25551-36(each)* ..... USA **33-5202**
.060" *25552-36 (each)* ..... USA **33-5203**
.065" *25553-36 (each)* ..... USA **33-5204**
.070" *25554-36 (each)* ..... USA **33-5205**
.075" *25555-36 (each)* ..... USA **33-5206**
.080" *25556-36 (each)* ..... USA **33-5207**
.090" *25558-36 (each)* ..... USA **33-5209**
8. Left Timken® main bearing assembly
1984-'99 S&S BT cases *9028* ..... USA **31-4013**
9. Spacer, drive sprocket
1984-'99 S&S BT cases*24002-70* ..... USA **31-4011**
10. Seal, sprocket shaft oil 1936-'99 S&S BT cases
12026B (each) ..... USA **31-4010**
5 pack ..... USA **31-4110**
11. Bushing, oil pump shaft - All S&S BT cases
Standard *24641-36* ..... USA 1,2,3 **31-4008**
12. Tappet guide assembly (See PAGE 261)
13. Screw, 12 pt. DHH ¼" -20 x ⅞" *3770* **50-0068**
4 pack **50-0068P**
14. Gasket, tappet guide – 1984-'99 BT
Front *18634-48C (each)* ..... USA **33-5302F**
10 pack front ..... USA **33-5313F**
Rear *18633-48B, 18633-48D (each)* ..... USA **33-5302R**
10 pack rear ..... USA **33-5313R**
Set *(each front & rear) 18633-48* ..... USA **33-5302**
10 pack set ..... USA **33-5313**
15. Crankcase oil screen - 1984-'99 BT
24981-70, 24981-66 (each) **31-2010**
5 pack **31-7008**
16. Crankcase oil screen spring - 1984-'99 big twin
24982-66, 24982-70 (each) **31-2011-S**
17. Cover screw o-ring - 1984-up S&S BT *11105, 11273*
each **50-8008**
10 pack **50-8078**
18. Cover screw - 1984-'99 S&S BT *26263-80, 26362-36*
each **31-6021**
5 pack **31-7005**
19. Cylinder stud
1984-up BT with +.500" cases *16832-86C*
each ..... USA **31-2331-S**
8 pack ..... USA **31-2331**
20. Crankcase Hardware

Special Application Crankcases (For Engines With 4" Cylinder Bore or Greater)
4" and 4⅛" Bore Cases Manufactured Before 6-1-08
(Positions 1 - 4)
Alignment Stud, ⅝" -24 x 6 1⁄16" *24809-30* **31-2034**
(Positions 5 & 6)
Screw, HHCS, ⅝" -18 x 3½" *3427* **50-0117**
Screw, HHCS, ⅝" -18 x 3½" chrome *(each)* **50-0254-S**
(Position 7)
Screw HHCS, ⅝" -24 x 5"
Zinc *3430* **50-0119**
Chrome *(each)* **50-0253-S**
(Position 8)
Screw HHCS, ¼" -28 x 5½" *(each)* **50-0090**
Screw HHCS, ¼" -28 x 5½" Chrome *(each)* **50-0252-S**
4" and 4⅛" Bore Cases Manufactured After 6-1-08
(Positions 1- 7)
1936-'69 S&S BT cases & S&S BT SA cases
Screw, HHCS, ⅝" -18 x 3½" zinc *3427* **50-0117**
Screw, HHCS, ⅝" -18 x 3½", chrome *(each)* **50-0254-S**
(Position 8)
Screw HHCS, ¼" -28 x 5½" zinc *(each)* **50-0090**
Screw HHCS, ¼" -28 x 5½" Chrome *(each)* **50-0252-S**
4⅜" Bore Cases Manufactured Before 6-1-08
(Positions 1 - 4) Alignment Stud
Alignment Stud, ⅝" -24 x 6 1⁄16" *24809-30* **31-2034**
(Positions 5 & 6)
Screw, HHCS, ⅝" -18 x 3½" *3427* **50-0117**
(Position 7)
Screw HHCS, ⅝" -24 x 5"
Zinc *3430* **50-0119**
Chrome *(each)* **50-0253-S**
(Position 8) All S&S BT cases Special Application
Screw,HHCS,¼"-28 x 6", zinc *(each)* **50-0020**
4⅜" Bore Cases Manufactured After 6-1-08
(Positions 1- 7) 1936-'69 S&S BT cases & S&S BT SA cases
Screw, HHCS, ⅝" -18 x 3½", zinc *3427* **50-0117**
Screw, HHCS, ⅝" -18 x 3½", chrome *(each)* **50-0254-S**
(Position 8) All S&S BT cases Special Application
Screw,HHCS,¼"-28 x 6", zinc *(each)* **50-0020**
21. Nut, Hex - ¼"-28 *7683* **50-5011**
22. Washer, .261" x .474" x .050"
Zinc *(each)* **50-7020**
Chrome *(each)* **50-7105-S**
23. Nut, hex - ⅝"-24
Zinc *7833, 7883* **50-5023**
(for Special Application Cases Manufactured Before 6-1-08)
24. Washer, flat - ⅝" x 11⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**
25. Plug, timing hole *720* ..... USA 2,3 **31-2005**
26. Drain plug - Manufactured before 5-1-2000
⅜"-18 NPT. **31-2006**
Manufactured after 5-1-2000
½"-20 ..... **50-8335**
27. Fitting, ⅛" x ⅛" pipe male/female **50-8112**
28. Oil pressure switch *26561-84*
(Includes: 1 each switch, nut, lock washer.) ..... USA 1,2,3 **31-2016**
29. Piston Oiler Jet Kit *22307-99 includes #30 (1), #31 (1), #32 (2)*
2 pack **31-2026**
30. O-ring,(-014),.500" ID x .625" OD
each **50-8270**
10 pack **50-8130**
31. Jet, Assembly, Piston Cooling *22371-99, 22307-99 (each)* **31-2025B**

CONTINUED ON NEXT PAGE





Details are showing the crankcase hardware for cases manufactured before 6-1-08

BOLT POSITION DIAGRAM

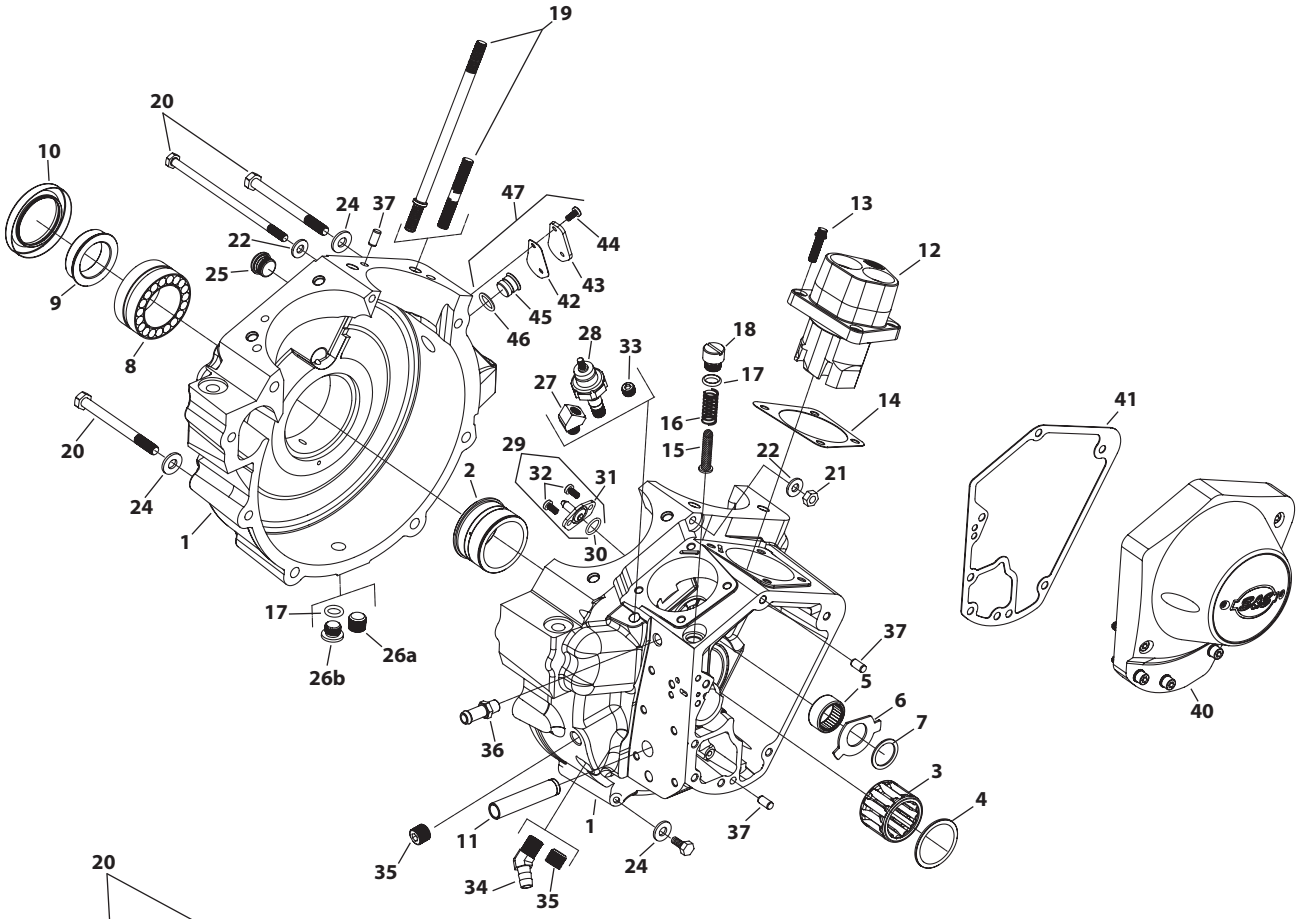
All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

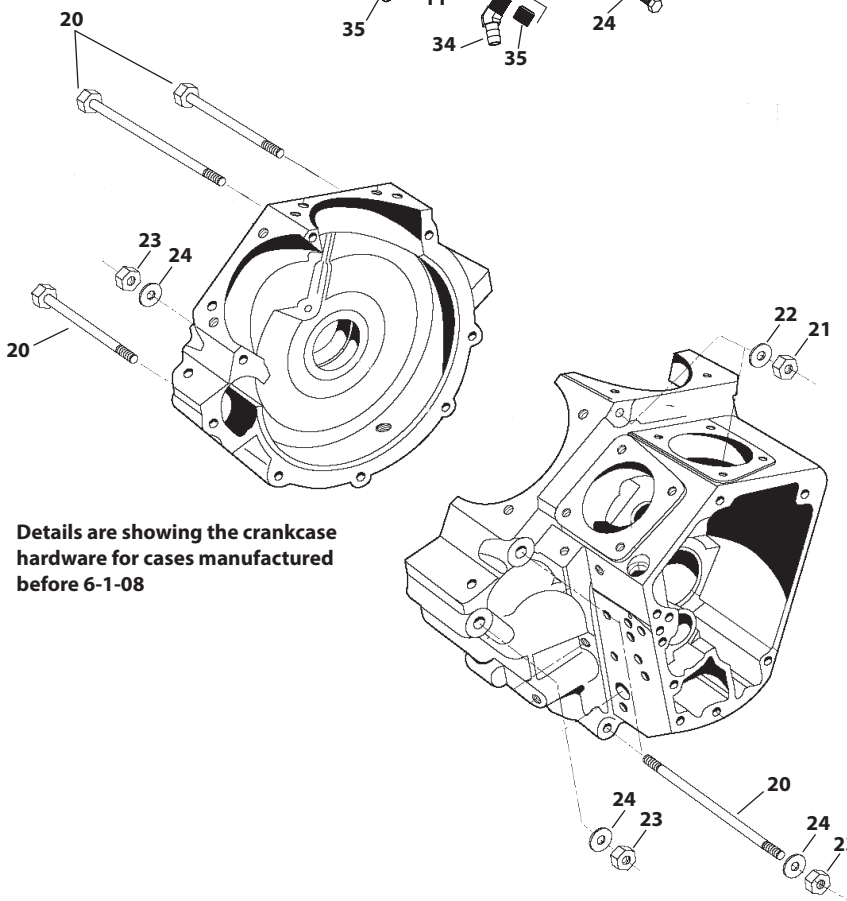
CONTINUED

SPECIAL APPLICATION CRANKCASE REPLACEMENT PARTS FOR BIG TWIN ENGINES WITH 4", 4-1/8" AND 4-3/8" CYLINDER BORE

32. Screw,Torx Panhead,8-32 x ⅜",Zinc,Steel *68042-99*
each **50-0054-S**
33. Plug, SH pipe - ⅛"-27 *45830-48 (each)* **50-8331A**
10 pack **50-1015**
34. Fitting, 45° hose – ¼" pipe male x ⅜" male hose
..... USA 1,2 **50-8113**
35 Plug, SH pipe, ¼"-18, 1965-'69 S&S BT *765*
..... USA 1,2,3 **50-8330**
36. Fitting, hose - ⅛"-27 pipe male ..... USA 1,2,3 **50-8115**
37. Dowel pin, .250" diameter x ½" **(1970-up S&S BT)** *358, 366*
each **50-8022**
2 pack **50-8022-2**
5 pack **50-8105**
38. Screw, SHC - 10-24 x 1" (Stator) (N/S) *2720*
each **50-0044**
39. Screw, SHS - 10-24 x 5⁄16" - (Stator plug clamp) (N/S)
each **50-0045**
40. Gearcover (See PAGE 253)
41. Gearcover gasket 1970-up S&S BT
25225-93A, 25225-93B, 25225-70C, 25257-80 ..... **31-2107**
42. Gasket, CPS hole (obsolete) ..... **N/A**
43. Cover, CPS hole **31-2056-S**
44. Screw, Torx, 8-32 x ⅜" *68042-99 (each)* **50-0054-S**
45. CPS hole plug **106-1189**
46. O-ring *(each)* **50-8270**
5 pack **50-8275**
47. CPS hole plug kit **106-2997**

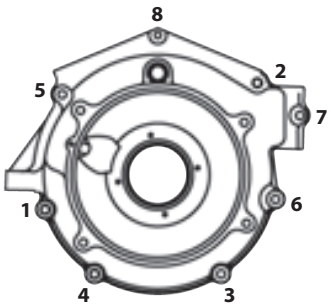
(N/S) = Not Shown
N/A = No longer available





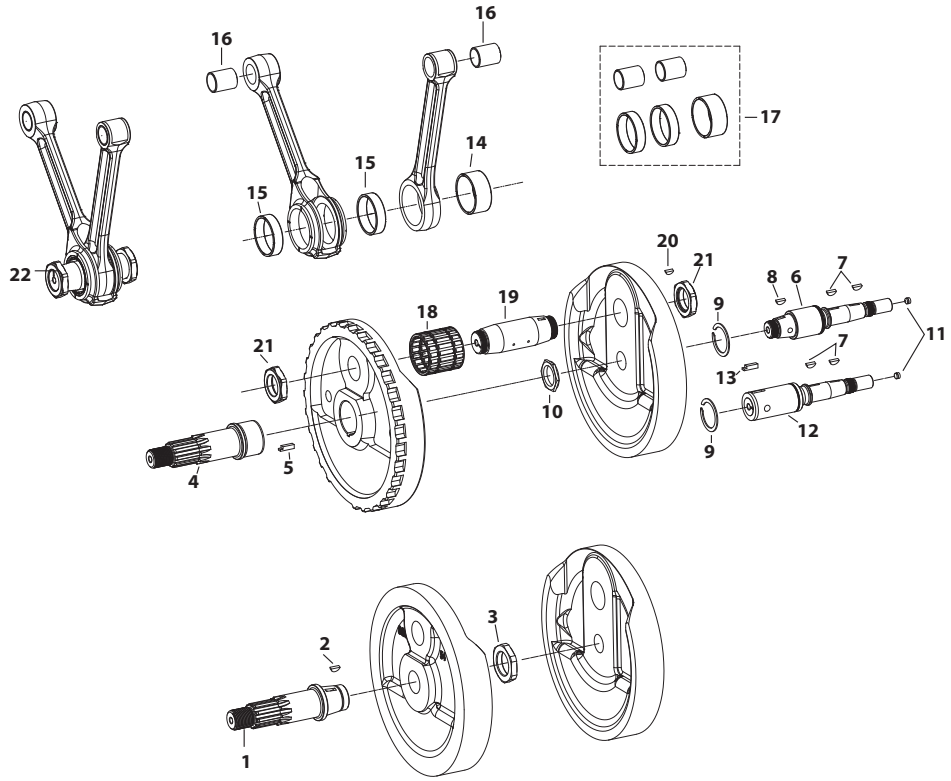
Details are showing the crankcase hardware for cases manufactured before 6-1-08

BOLT POSITION DIAGRAM



FLYWHEEL REPLACEMENT PARTS
FOR V96, V107 AND V113

1. Sprocket Shaft, 1984-1999 w/ S&S SE/SL flywheels *(includes #2 & 3)* **33-2004**
2. Key *(each)* **50-8225-S**
3. Sprocket Shaft Nut **33-2033**
4. Sprocket Shaft, 1984-'99 w/ S&S SGX/SF/SM flywheels *(includes #5)* **33-2009**
5. Key *(each)* **50-8227**
6. Pinion Shaft *(includes #7, 8, 9, 10, 11)*
   1984-1986 Stock Flywheels, L1981-99 S&S BL/SL/SM flywheels Stock or S&S® Super Stock® Cases
   Standard **33-2027**
   +.001" **33-2028**
   1984-1999 S&S BL/SL/SM flywheels S&S SA cases +.250"
   Standard **33-2040**
7. Key, pinion & oil pump *(each)* **50-8221-S**
   5 pack **50-1008**
8. Pinion Shaft Key *11218 (each)* **50-8222-S**
   5 pack **50-1009**
9. Bearing Retaining Ring *11177A (each)* **50-8057**
   5 pack **50-1004**
10. Pinion Shaft Nut **33-2034**
11. Meter Plug
    .0625" hole **50-8316**
    .0925" hole **50-8317**
12. Pinion Shaft (+.250" longer) *(includes #7, 9, 13)*
    1984-1999 S&S SG flywheels/SA crankcases ..... **N/A**
13. Pinion Shaft Key **50-8234**
14. Front Rod Bushing, 1941-1999 all S&S flywheels *24356-36A* **34-4005**
15. Rear Rod Bushing *24345-36A (each)* **34-4006**
16. Wristpin Bushing *24334-36* **34-4007**
17. Race and Bushing Set *(includes #14, 15, 16)* **34-4040**
18. Cage and Bearing Set (std.) *24346-87A, 24385-40B* **34-4010**
19. Crankpin *(includes #20, 21)*, late 1981 -1999 all S&S flywheels
    Standard *23961-80A* **34-2102**
    .001" OS *23974-87* **34-2103**
    .002" OS *23975-87* **34-2105**
    .003" OS **34-2106**
20. Crankpin Key, late 1981-1999 all S&S flywheels *11218*
    each **50-8222-S**
    5 pack **50-1009**
21. Crankpin Nut, late 1981-1999 all S&S flywheels *23967-54A, 23969-83, 23901-81, 23981-98* **34-2104**
22. Connecting Rod Assembly, 1984-'99 all big twins *(includes #14, 15, 16, 18, 19, 20, 21)*
    Heavy Duty *24281-80, 24281-83* **34-7013**



NOTES

S&S rods with their beefier than stock construction are slightly heavier than stock connecting rods. Therefore, rebalancing the flywheels is recommended when S&S rods are used in stock replacement applications. We realize that rebalancing is an inconvenience, but we did not want to sacrifice rod strength. In addition, given the variations in stock and aftermarket components available to engine builders, flywheel rebalancing is a desirable step in any major engine overhaul.

We recommend and sell only the pre-1990 big twin shaft. Since the S&S pinion shafts are of the earlier design, they will not accept the late style stock pinion gear, oil pump drive gear, gear spacer and pinion gear nut – to make it easier to install S&S flywheels.

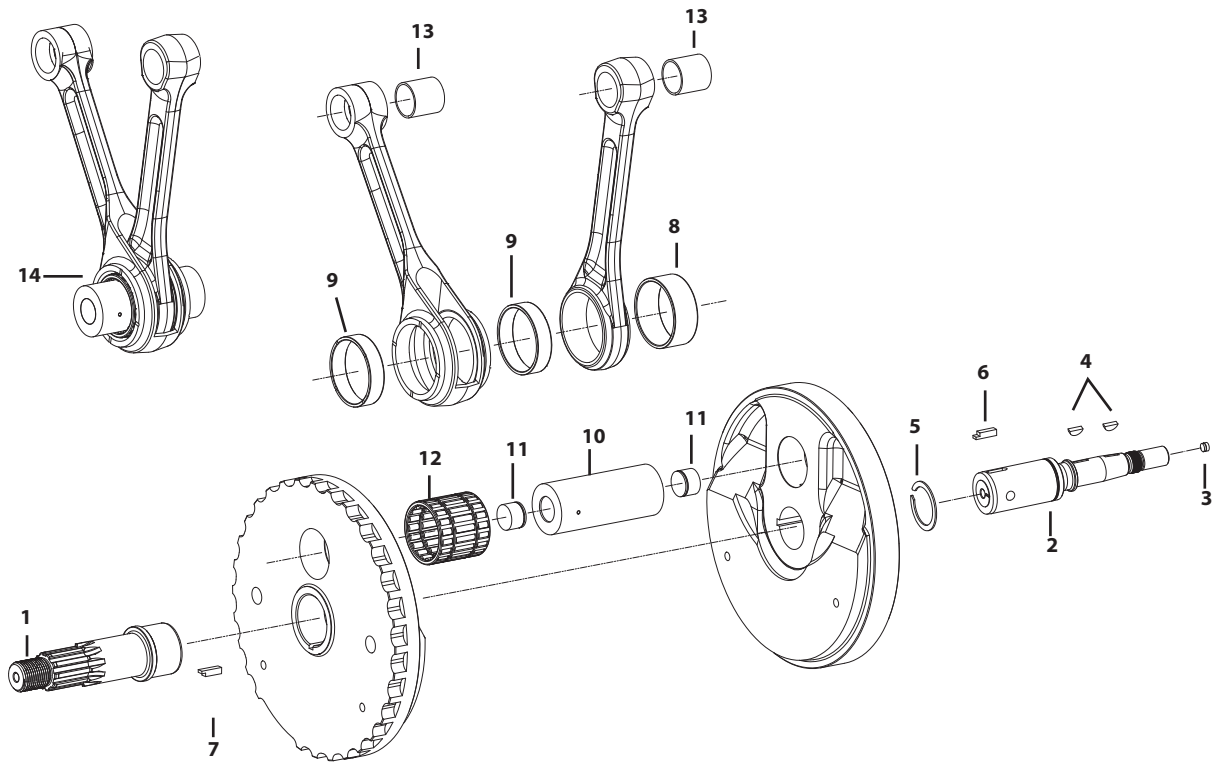
1989-'99 big twin engines: S&S offers a conversion package consisting of earlier style pinion gear, spacer, nut, and oil pump drive gear to fit the S&S pinion shaft. S&S offers pinion and oil pump drive gears to fit the S&S pinion shaft for Harley-Davidson® Sportster® models.

Crankpins must be measured prior to final honing of bearing races to ensure proper clearance. (Inquire about S&S flywheel rebuild program if adequate measurement equipment is not available.) Dimensions shown are nominal.

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

FLYWHEEL REPLACEMENT PARTS
FOR V111, V117 AND V124

1. Sprocket Shaft, 1984-'99 bt *(includes key)* **33-2009**
2. Pinion Shaft *(+.250" longer) (includes #7, 9, 13)*
   1984-1999 S&S SG flywheels/SA crankcases **33-2047**
3. Meter Plug
   .0625" hole ..... USA **50-8316**
   .0925" hole ..... USA 1,2 **50-8317**
4. Key, pinion & oil pump *11218* **50-8221-S**
   5 pack **50-1008**
5. Bearing Retaining Ring *11177A* **50-8057**
   5 pack **50-1004**
6. Pinion Shaft Key **50-8234**
7. Key **50-8227**
8. Front Rod Race ..... USA 3 **34-4008**
9. Rear Rod Race ..... USA 3 **34-4013**
10. Crankpin (std.) **106-6239**
11. Crankpin Plug *(each)* **106-5256**
    2 pack **50-8329-2**
12. Race/Bearing Set **340-0028**
13. Wristpin Bushing,
    1984-'99 bt , straight bushing ..... USA 3 **34-4012**
14. Connecting Rod Set
    1984-'99 bt, straight wristpin ends ..... **N/A**



NOTES

Due to different crankpin diameters, S&S® connecting rod assemblies cannot be used with stock Harley-Davidson® flywheels.

S&S flywheels for S&S V111, V117 AND V124 engines are pressed together as opposed to using the traditional tapered shafts and crankpin. Assembly and truing requires special equipment.

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STANDARD OIL PUMP KIT REPLACEMENT PARTS

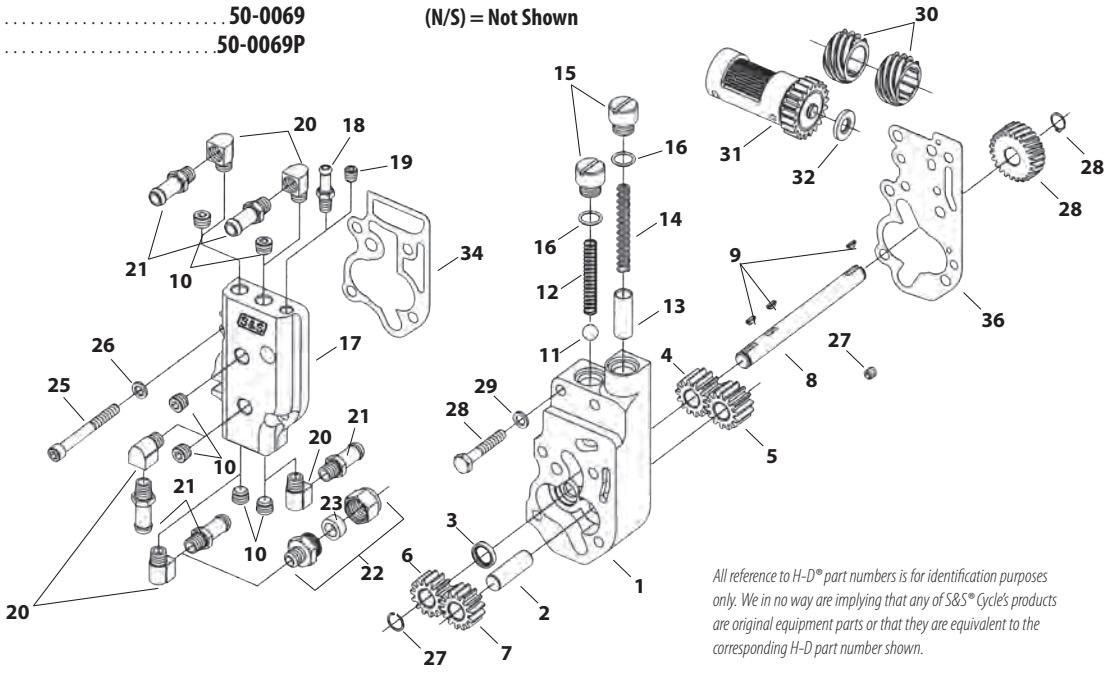
1. Pump body assembly
Fits 1984-'91 *31-6042* **31-6050**
Fits 1992-'99 *31-6043* **31-6051**
2. Shaft, idler *26327-68* ..... USA **31-6004**
3. Seal, drive shaft *26227-58* ..... USA **31-6005**
4. Gear, return drive *26315-68A* ..... USA **31-6013**
5. Gear, return idler *26317-68A* ..... USA **31-6014**
6. Gear, supply drive *26328-74, 26320-36* ..... USA **31-6015**
7. Gear. supply idler *26326-62A* ..... USA **31-6016**
8. Shaft, drive *26346-70* ..... USA 1,2,3 **31-6011**
9. Key, drive shaft *26347-15 (each)* **50-8220-S**
10 pack **50-8229**
10. Plug, 1/8"-27 *45830-48 (each)* **50-8331A**
10 pack **50-1015**
11. Check ball valve *8866, 8873* ..... USA 1,2,3 **50-8091**
12. Spring, check valve *26363-36, 26363-56, 26262-80 (each)* **31-6022**
10 pack **31-6092**
13. Relief valve *26400-82, 26400-82B* **31-6082**
14. Spring, relief valve *26207-83 (each)* **31-6018**
10 pack **31-6084**
15. Screw, check valve & relief valve cover *26263-80, 26362-36*
each **31-6021**
5 pack **31-7005**
16. O-ring *11105, 11273 (each)* **50-8008**
10 pack **50-8078**
17. Pump cover assembly
a. Pre-1992 *(Top or bottom fittings; accepts pressure gauge)*
31-6041 ..... **31-6059**
b. Pre-1992 *(Custom bottom fittings only) 31-6045* **31-6060**
c. 1992-'99 *(Universal)* **31-6061**
d. 1992-'99 *(Bottom fittings or central supply fitting)* **31-6062**
18. Fitting, front chain hose **50-8116**
19. Plug, pipe 1/16"-27 x 1/4" pipe ..... USA **50-8332**
20. Elbow, supply/return
26338-68A, 26561-81A, 26561-84A, 26338-68 ..... **106-2682**
5 pack **50-1007**
21. Fitting, supply/return hose ..... USA 1,2,3 **50-8115**
22. Return fitting, compression *63523-92, 63523-62*
..... USA 1,2,3 **50-8120**
23. Seal, tubing, 3/8" x 1/2" O.D. x 1/4" **50-8271**
24. Plug, 1/4"-20 *(each)* **50-0069**
2 pack **50-0069P**

25. Screws, mounting - 1984-'99
a. 1/4"-24 x 1-1/2" (HHCS) **50-0082**
b. 1/4"-24 x 2-1/4" (HHCS) *5430W* **50-0088**
c. 1/4" -20 x 1-1/2" (HHCS) **50-0080**
d. 1/4" -20 x 2-1/4" (SHCS) *4717A* **50-0078**
e. 1/4" -20 x 1-1/2" (SHCS) *4718A* **50-0079**
26. Washer, 1/4" *(each)* **50-7017**
12 pack **50-7013**
27. Retaining ring *695-36, 26348-36 (each)* **50-8058**
10 Pack **50-8106**
28. Retaining ring, external *11002 (each)* **50-8059**
10 Pack **50-8107**
29. Gear, pump drive, 24T *26345-73* **33-4230**
30. Gear, pinion shaft pump drive – 1984-'89
26349-73, 26349-73A **33-4232**
31. Gear, steel breather valve
Standard *25310-82A, 25313-77B, 25311-90* **33-4241**
+.030" **33-4242**
32. Shim, steel breather kit - *8 pack (includes one of each thickness)* .. **33-4249**
a. +.100" thick **33-4200**
b. +.110" thick *25320-79* **33-4201**
c. +.120" thick *25322-79* **33-4202**
d. +.130" thick *25325-79, 25320-82* **33-4203**
e. +.140" thick *25322-82, 25327-79* **33-4204**
f. +.150" thick *25325-82* **33-4205**
g. +.160" thick *25327-82* **33-4206**
h. +.170" thick **33-4207**
33. Gasket rebuild kit **(N/S)** Includes key and retaining ring
a. 1984-'91 ..... **31-6271**
b. 1992-'99 ..... **31-6273**
34. Master rebuild kit - **(N/S)**
Includes: gasket rebuild kit, seal, retaining ring, relief valve spring, check valve spring, check valve, ball, and cover screw o-rings
a. 1984-'91 ..... **31-6275**
b. 1992-'99 ..... **31-6278**
35. Drill jig, oil pump **(N/S)** **53-0013**

Oil pump mounting hardware kit (N/S)
1984-91 *(Includes # 25a,25b,25c,25d,26)* **31-6288**
1992-99 *(Includes # 25d,25e,26)* **31-6290**

Hardware Kit, Oilpump Cover (N/S)
1984-91 *(Includes #10,18,19,20,21,22)* **31-6283**
1992-99 *(Inlcudes #10,20,21,22)* **31-6286**

(N/S) = Not Shown



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HIGH VOLUME HIGH PRESSURE OIL PUMP REPLACEMENT PARTS

1. Pump body assembly
Fits 1984-'91 ..... **31-6097**
Fits 1992-'99 ..... **31-6078**
2. Shaft, idler **31-6080-S**
3. Seal, drive shaft *(each)* **31-6064-S**
4. Gear, return drive, HVHP **31-6075**
5. Gear, return idler, HVHP **31-6083**
6. Gear, supply drive, HVHP **31-6074**
7. Gear, supply idler, HVHP **31-6081**
8. Shaft, drive *26346-70* ..... USA 1,2,3 **31-6011**
9. Key, drive shaft *(each)* **50-8228-S**
9a. Key,Woodruff,.094" x .313" x .311",Steel *26347-15*
each **50-8220-S**
10 pack **50-8229**
10. Plug, ⅛"-27 *45830-48 (each)* **50-8331**
10 pack **50-1015**
11. Check ball valve *(H-D® #8866, 8873* ..... USA 1,2,3 **50-8091**
12. Spring, check valve *26363-36, 26363-56, 26262-80*
each **31-6022**
10 pack **31-6092**
13. Relief valve *26400-82, 26400-82B* **31-6082**
14. Spring, relief valve *26207-83 (each)* **31-6018**
10 pack **31-6084**
15. Screw, check valve & relief valve cover *26263-80, 26362-36*
each **31-6021**
5 pack **31-7005**
16. O-ring *11105, 11273 (each)* **50-8008**
10 pack **50-8078**
17. Pump cover assembly
1984-'91 (Universal) **31-6098**
1992-'99 (Universal) **31-6079**
1992-'99 (Standard Style) **31-6094**
18. Elbow, supply/return *26338-68A, 26561-81A, 26561-84A, 26338-68*
each **106-2682**
5 pack **50-1007**
19. Fitting, supply/return hose ..... USA 1,2,3 **50-8115**
20. Return fitting, compression *63523-92, 63523-62* ..... USA 1,2,3 **50-8120**
21. Seal, tubing ⅜" x ½" O.D. x ¼" **50-8271**

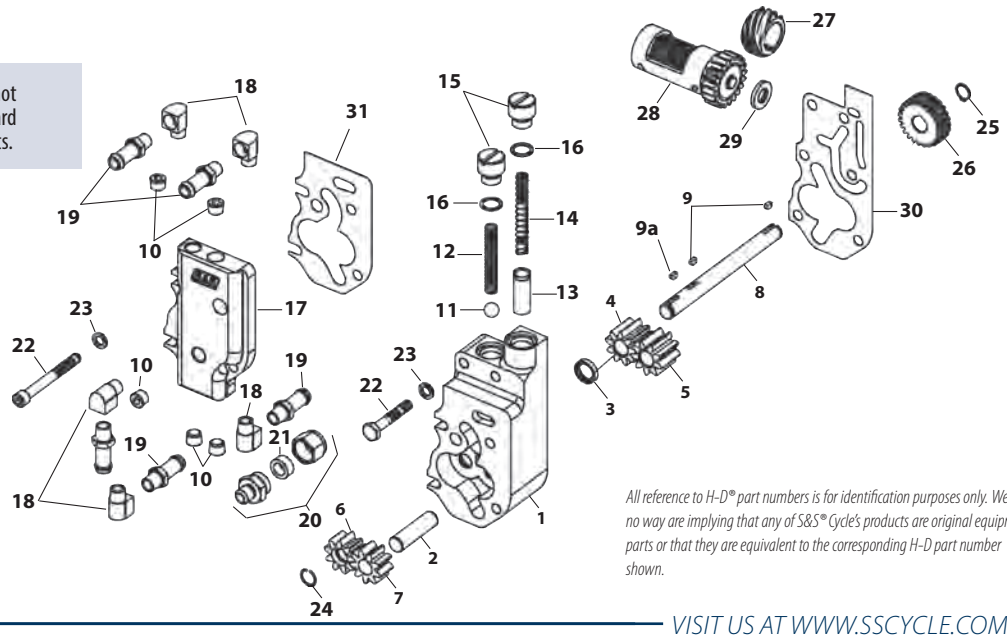
22. Screws, mounting
a. 1/4"-20 x 1-1/2" (SHCS) *4718A* **50-0079**
b. 1/4"-20 x 1-1/2" (HHCS) **50-0080**
c. 1/4"-20 x 2-1/2" (SHCS) **50-0086**
23. Washer, ¼" *(each)* **50-7017**
12 pack **50-7013**
24. Retaining ring *695-36, 26348-36 (each)* **50-8058**
10 Pack **50-8106**
25. Retaining ring, external *11002 (each)* **50-8059**
10 Pack **50-8107**
26. Gear, pump drive, 24T *26345-73* **33-4230**
27. Gear, pinion shaft pump drive 1954-'89
26349-73, 26349-73A **33-4232**
28. Gear, steel breather valve
Standard *25310-82A, 25313-77B, 25311-90* **33-4241**
+.030" **33-4242**
29. Shim, steel breather kit
8 pack *(Includes one of each thickness)* **33-4249**
+.100" thick **33-4200**
+.110" thick *25320-79* **33-4201**
+.120" thick *25322-79* **33-4202**
+.130" thick *25325-79, 25320-82* **33-4203**
+.140" thick *25322-82, 25327-79* **33-4204**
+.150" thick *25325-82* **33-4205**
+.160" thick *25327-82* **33-4206**
+.170" thick **33-4207**
30. Gasket rebuild kit
Includes key and retaining ring (N/S)
1984-'91 BT HVHP *31-6306* **31-6308**
1992-'99 BT HVHP **31-6299**
31. Master rebuild kit (N/S)
Includes gasket rebuild kit, seal, retaining ring,relief valve spring, check valve spring, check valve, ball, and cover screw o-rings.
1984-'91 BT HVHP **31-6309**
1992-'99 BT HVHP **31-6300**

Hardware Kit, Oilpump Cover (N/S)
(Includes # 10,18,19,20) **31-6285**
Oilpump Mounting Hardware Kit (N/S)
(Includes # 22a,22b,22c,23) **31-6301**

(N/S) = Not Shown

NOTE

HVHP oil pump gaskets are not interchangeable with standard S&S or stock oil pump gaskets.



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PERFORMANCE REPLACEMENT HEAD REPLACEMENT PARTS
FOR 1984-'99 BIG TWIN ENGINES

1. Cylinder head (See cylinder heads on PAGE 266)
2. Valve
- Intake – 1.900" diameter. . . . **90-2139**
- Exhaust – 1.575" diameter . . . **90-2026**

3. Valve seats
- Intake – 1.900" diameter. . . . **90-2138**
- Exhaust – 1.605" diameter . . . **90-2003**

4a. Valve guide – Cast - intake or exhaust
- Standard Diameter *.5625/.5620 18112-92* USA USA 1,2,3 . . . **90-2210**
- +.001" *Diameter .5635/.5630 18130-83C* USA **90-2211**
- +.002" *Diameter .5645/.5640 18133-83A, 18133-83D* USA **90-2212**
- +.003" *Diameter .5655/.5650 18131-83C* USA **90-2213**
- +.030" *Diameter .5925/.5920* USA **90-2219**

4b. Valve Guide - Powder Metal - Intake/Exhaust
- Standard . . . **900-0553**
- +.001 . . . **900-0554**
- +.002 . . . **900-0555**
- +.003 . . . **900-0556**

13. Head mount bolt - ⅜"-16 x 1¼" *4716W*
each . . . USA 1,2,3 **50-0168**

14. Flat washer - ⅜"
- Zinc *(each)* . . . USA 1,2,3 **50-7051**
- Chrome *(each)* . . . **50-7106-S**

15. Head bolt assembly – Includes head bolt washer. (See PAGE 268)

16. Head bolt washer
- .150" *(each)* . . . **50-0418-S**
- .250" *(each)* . . . **50-7091**

17. Exhaust port stud *16715-83 (each)* . . . **50-0493**
5 pack . . . **50-1028**

18. Lock washer - 5⁄16" . . . **50-7032**

19. Nut, HH - 5⁄16" -24 *7833, 7883* . . . **50-5023**

20. Exhaust pipe gasket *65324-83B, 65324-83A (each)* . . . **106-5029**
10 pack . . . **93-1072**

21. Thread conversion insert , ½"-13 to 5⁄16"-18 . . . **50-8151**

22. Intake manifold (See PAGE 270)

23. Screw, manifold mounting
- SH 5⁄16"-18 x 1" *3201WA, 2708* . . . **50-0101**
- HH - 5⁄16"-18 x 1" *3987 (each)* . . . **50-0108**

24. Washer, flat - 5⁄16" *6320, 70907-07, 6016, 6702* . . . **50-7034**

25. Flange, manifold mounting
- Front *27009-86A (each)* USA **16-0232**
- *5 pack* USA **16-0600**
- Rear *27010-86A (each)* USA **16-0233**
- *5 pack* USA **16-0601**
- Set of Two . . . **106-3516**

26. O-ring, manifold USA
- Stock manifolds *26995-86B, 26995-86A, 26992-99 (each)* . . . **16-0236**
- *10 pack* . . . **16-0244**
- S&S manifolds *(each)* . . . **16-0235**
- *10 pack* . . . **16-0243**

27. Head gasket, 1984-'99 big twin (No o-rings required)
3½" Bore
- .045" thick *16770-84D, 16770-84F (each)* . . . **93-1011-S**
- *10 pack* . . . **93-1024**
- .0625" thick *16770-84D, 16770-84F, 10773-85(each)* . . . **93-1313-S**
- *10 pack* . . . **93-1051**

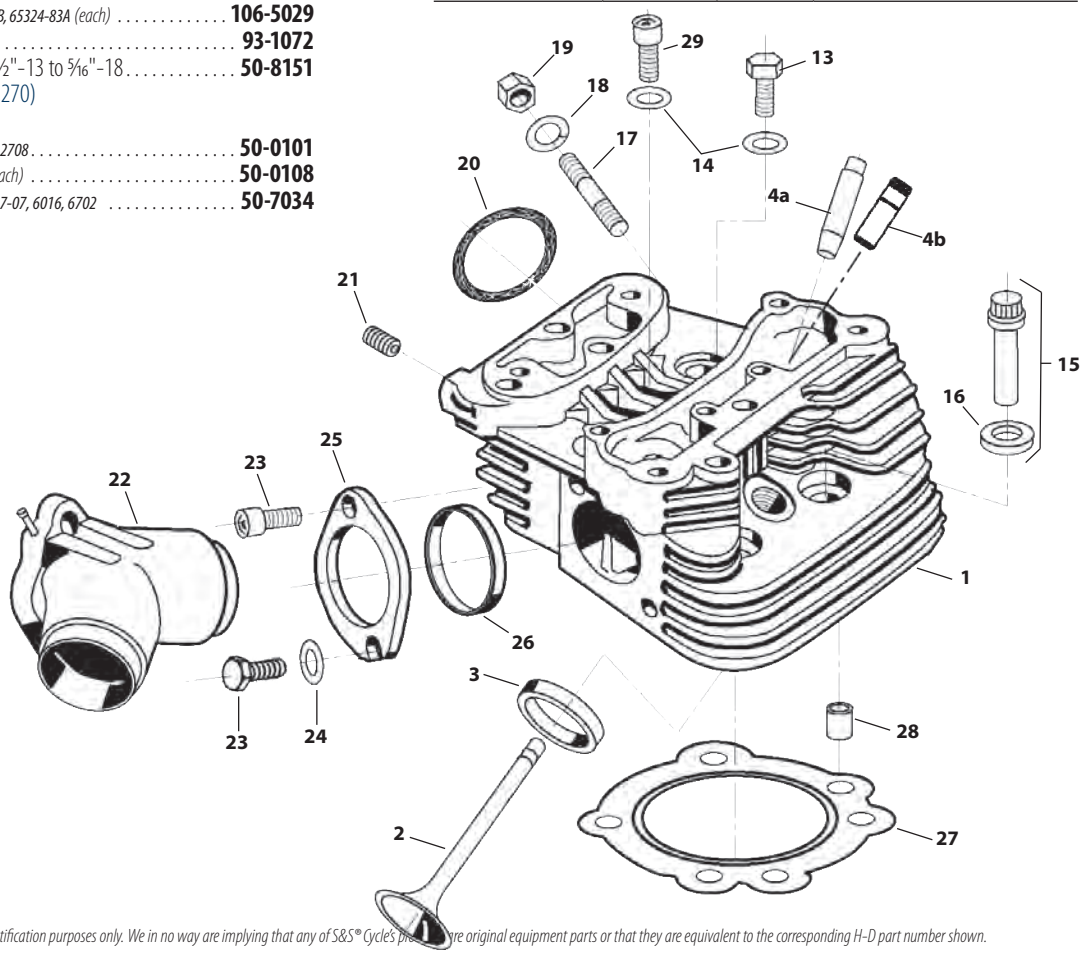
3⅝" Bore
- .045" thick *(each)* . . . **93-1037-S**
- *10 pack* . . . **93-1052**
- .062" thick *(each)* . . . **93-1016-S**
- *10 pack* . . . **93-1053**

28. Alignment dowel *16574-99A, 16573-83, 16573-83A (each)* . . . **50-8023**
10 pack . . . **50-8109**

29. Temp Sensor Hole Plug Screw, SHCS, ⅜"-16 x 1" *(each)* . . . **50-0161**

TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	3⅝"	**90-9502** USA 1
V-Series	1984-'99	3½"	**90-9507**



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SUPER STOCK™ CYLINDER HEADS REPLACEMENT PARTS
FOR S&S 4-1/8" V-SERIES

1. Cylinder head - All S&S 4⅛" bore (See PAGE 267)

2. Valve
- Intake
  - 2.000" diameter **90-2000**
  - 2.000" diameter +.085" stem length **90-2004**
- Exhaust
  - 1.605" diameter **90-2001**

3. Valve seat
- Intake - 2.000" diameter ..... USA 1,2,3 **90-2002**
- Exhaust - 1.605" diameter ..... USA 1,2,3 **90-2003**

4a. Valve guide -Cast - Intake/Exhaust *(see valve guide diameter chart)*
- Standard Diameter .5625/.5620 *18112-92* ..... USA 1,2,3 **90-2210**
- +.001" Diameter .5635/.5630 *18130-83C* ..... USA **90-2211**
- +.002" Diameter .5645/.5640 *18133-83A, 18133-83D* ..... USA **90-2212**
- +.003" Diameter .5655/.5650 *18131-83C* ..... USA **90-2213**
- +.030" Diameter .5925/.5920 ..... USA **90-2219**

4b. Valve Guide - Powder Metal - Intake/Exhaust
- Standard **900-0553**
- +.001 ..... **900-0554**
- +.002 ..... **900-0555**
- +.003 ..... **900-0556**

5. Head bolt assembly *(Includes head bolt washer)*
- 111" *(Includes washer .100")* **93-3030**
- 117" *(Includes washer .250")* **93-3037**
- 124" *(Includes washer .250")* **93-3037**

6. Head bolt washer
- .150" *(each)* **50-0418-S**
- .250" *(each)* **50-7091**

7. Exhaust port stud *16715-83 (each)* **50-0493**
- *5 pack* **50-1028**

8. Lock washer - 5⁄16" **50-7032**

9. Nut, flanged - 5⁄16"-24 *7593*
- Zinc *(each)* **50-5025-S**
  - *2 pack* **50-5025-2**
  - *5 pack* **50-1001**
- Chrome *(each)* **50-5030-S**

10. Exhaust pipe gasket *(each) 65324-83B, 65324-83A* **106-5029**
- *10 pack* **93-1072**

11. Intake manifold (See Manifolds on PAGE 270)

12. Manifold mounting screw
- SH - 5⁄16"-18 x ¾" *3275 (each)* **50-0302-S**
- HH - 5⁄16"-18 x 1" *3987 (each)* **50-0108**

13. Flat washer - 5⁄16" *6320, 70907-07, 6016, 6702* **50-7034**

14. Manifold mounting flange
- Front *27009-86A (each)* ..... USA **16-0232**
  - *5 pack* ..... USA **16-0600**
- Rear *27010-86A (each)* ..... USA **16-0233**
  - *5 pack* ..... USA **16-0601**
  - *Set of Two* **106-3516**

15. Manifold o-ring *(each)* **16-0235**
- *10 pack* **16-0243**

16. Head gasket - All S&S SSW+ – 4⅛" Bore, Micropore
- *each* **93-1047-S**
- *10 pack* **93-1073**

17. Alignment dowel, base and head *16595-99A (each)* **50-8177**
- *4 pack* **50-8177-4**

18. Plug, HH - 14mm *(Use when compression releases are not installed)*
- *each* **90-4916**
- *2 pack* **90-4916-2**

19. Washer, compression – 14mm – .507" x .705" x .047" **50-7094**

20. Head mount bolt ⅜"-16 x 1¼" *4716W* **50-0168**

21. Flat washer - ⅜" ..... USA 1,2,3 **50-7051**

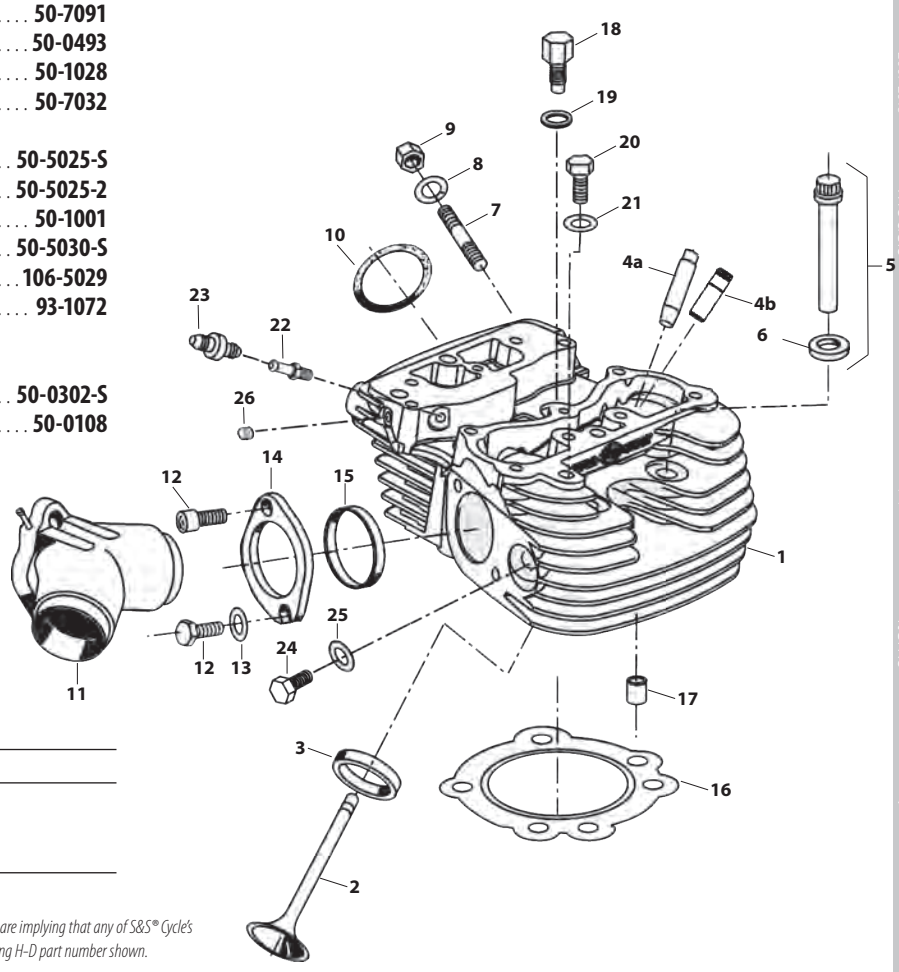
22. Vent hose fitting,
- Front, 1⁄16"-27 pipe ..... USA 3 **50-8117**
- Rear, ⅛"-27 pipe ..... USA 1,2,3 **50-8115**

23. Check Valve **50-8122**

24. Screw, HHC, 5⁄16-18 x ⅝" *(each)* **50-0106**

25. Washer, flat, .319" x .545" x .42" *(each)* **50-7026**

26. Plug, Pipe, ¾ Taper, 1⁄16-27 NPTF x .156" **50-8332**



TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	4⅛"	**90-9506** USA 3

All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

SUPER STOCK™ CYLINDER HEAD REPLACEMENT PARTS
FOR 1984-'99 BIG TWIN 3-5/8" TO 4" BORE

1. Cylinder head (See PAGE 266 & PAGE 267)

2. Valves
Intake
2.000" diameter **90-2000**
2.000" diameter+ .085" stem length **90-2004**
2.000" diameter+ .005" stem diameter **90-2029**
Exhaust
1.605" diameter **90-2001**
1.605" diameter,+.005" stem **90-2030**

3. Valve seats
Intake - 2.000" diameter ..... USA 1,2,3 **90-2002**
Exhaust - 1.605" diameter ..... USA 1,2,3 **90-2003**

4a. Valve guide - intake or exhaust
Standard Diameter .5625/.5620 *18112-92*
..... USA USA 1,2,3 **90-2210**
+.001" Diameter .5635/.5630 *18130-83C* ..... USA **90-2211**
+.002" Diameter .5645/.5640 *18133-83A, 18133-83D* ..... USA **90-2212**
+.003" Diameter .5655/.5650 *18131-83C* ..... USA **90-2213**
+.030" Diameter .5925/.5920 ..... USA **90-2219**

4b. Valve Guide - Powder Metal - Intake/Exhaust
Standard **900-0553**
+.001 ..... **900-0554**
+.002 ..... **900-0555**
+.003 ..... **900-0556**

5. Head mount bolt - ⅜"-16 x 1¼" *4716W*
each **50-0168**

6. Flat washer - ⅜"
Zinc *(each)* ..... USA 1,2,3 **50-7051**
Chrome *(each)* **50-7106-S**

7. Head bolt assembly – Includes head bolt washer (See PAGE 268)

8. Head bolt washer
.150" *(each)* **50-0418-S**
.250" *(each)* **50-7091**

9. Exhaust port stud *16715-83 (each)* **50-0493**
5 pack **50-1028**

10. Lock washer - 5/16" *(each)* **50-7032**

11. Nut, HH - 5/16" -24 *7833, 7883 (each)* **50-5023**

12. Exhaust pipe gasket *65324-83B, 65324-83A (each)* **106-5029**
10 pack **93-1072**

13. Thread conversion insert ½"-13 to 5/16"-18 ..... **50-8151**

14. Intake manifold (See PAGE 270)

15. Screw, manifold mounting
SH - 5/16"-18 x 1" *3201WA, 2708 (each)* **50-0101**
HH - 5/16"-18 x 1" *3987 (each)* **50-0108**

16. Washer, flat - 5/16" *6320, 70907-07, 6016, 6702(each)* **50-7034**

17. Flange, manifold mounting
Front *27009-86A (each)* ..... USA **16-0232**
5 pack ..... USA **16-0600**
Rear *27010-86A (each)* ..... USA **16-0233**
5 pack ..... USA **16-0601**
Set **106-3516**

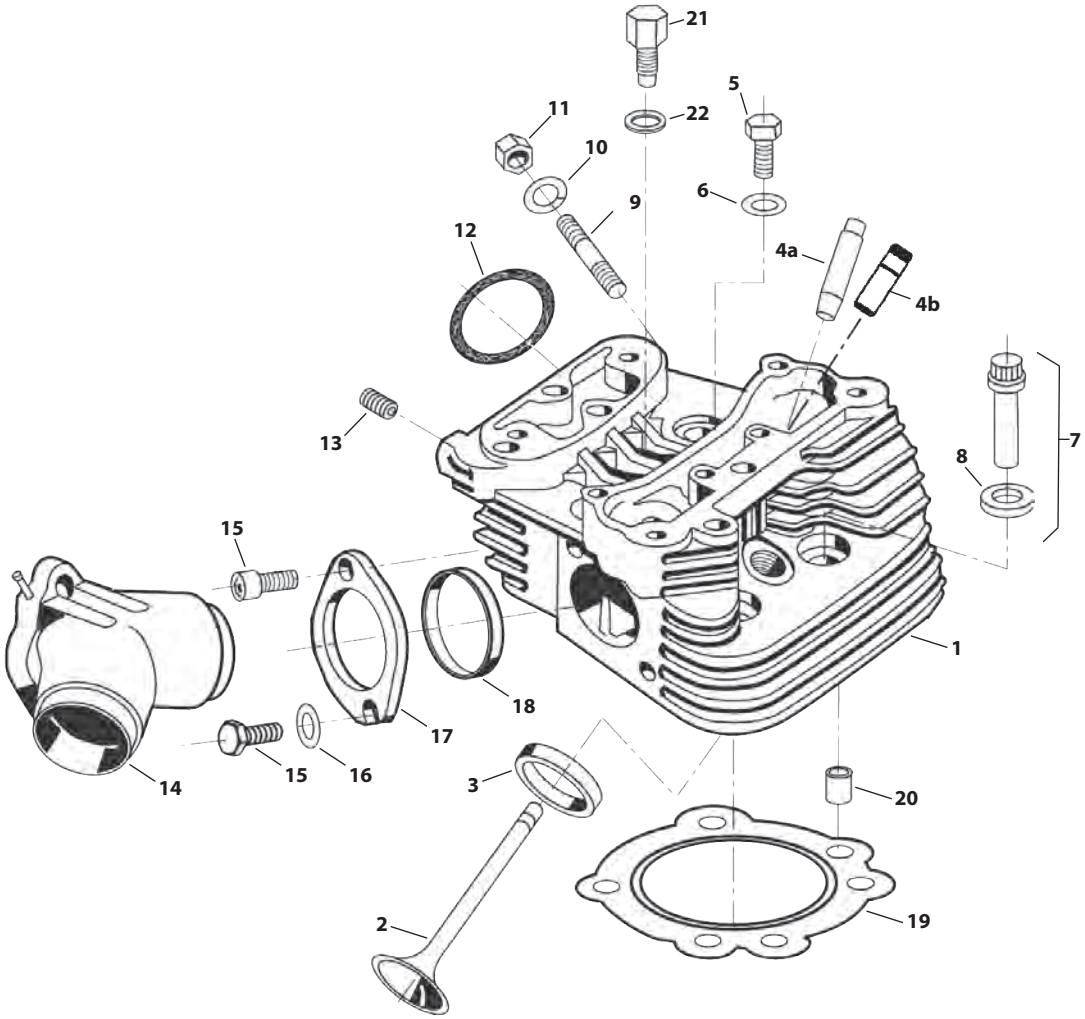
18. O-ring, manifold *(each)* **16-0235**
10 pack **16-0243**

19. Head gasket 3½" Bore
.045" thick (no o-rings required) *16770-84D, 16770-84F*
each **93-1011-S**
10 pack **93-1024**
.0625" thick (no o-rings required) *16770-84D, 16770-84F, 10773-85*
each **93-1313-S**
10 pack **93-1051**
3⅝" Bore .045" thick *(no o-rings required) (each)* **93-1037-S**
10 pack **93-1052**
.062" thick *(no o-rings required) (each)* **93-1016-S**
10 pack **93-1053**
4" Bore
.045" thick *(each)* **93-1040-S**
10 pack **93-1071**
.070" diameter *26432-76A* **50-8034-S**

20. Alignment dowel *16574-99A, 16573-83, 16573-83A (each)* **50-8023**
10 pack **50-8109**
Dowel pin - ¼" diameter x ½" - 4" bore *358, 366 (each)* **50-8022**
2 pack **50-8022-2**
5 pack **50-8105**

21. Plug, HH - 14mm *(each)* **90-4916**
2 pack **90-4916-2**

22. Washer, compression release- 14mm
.507" x .705" x .047" *(each)* **50-7094**



TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

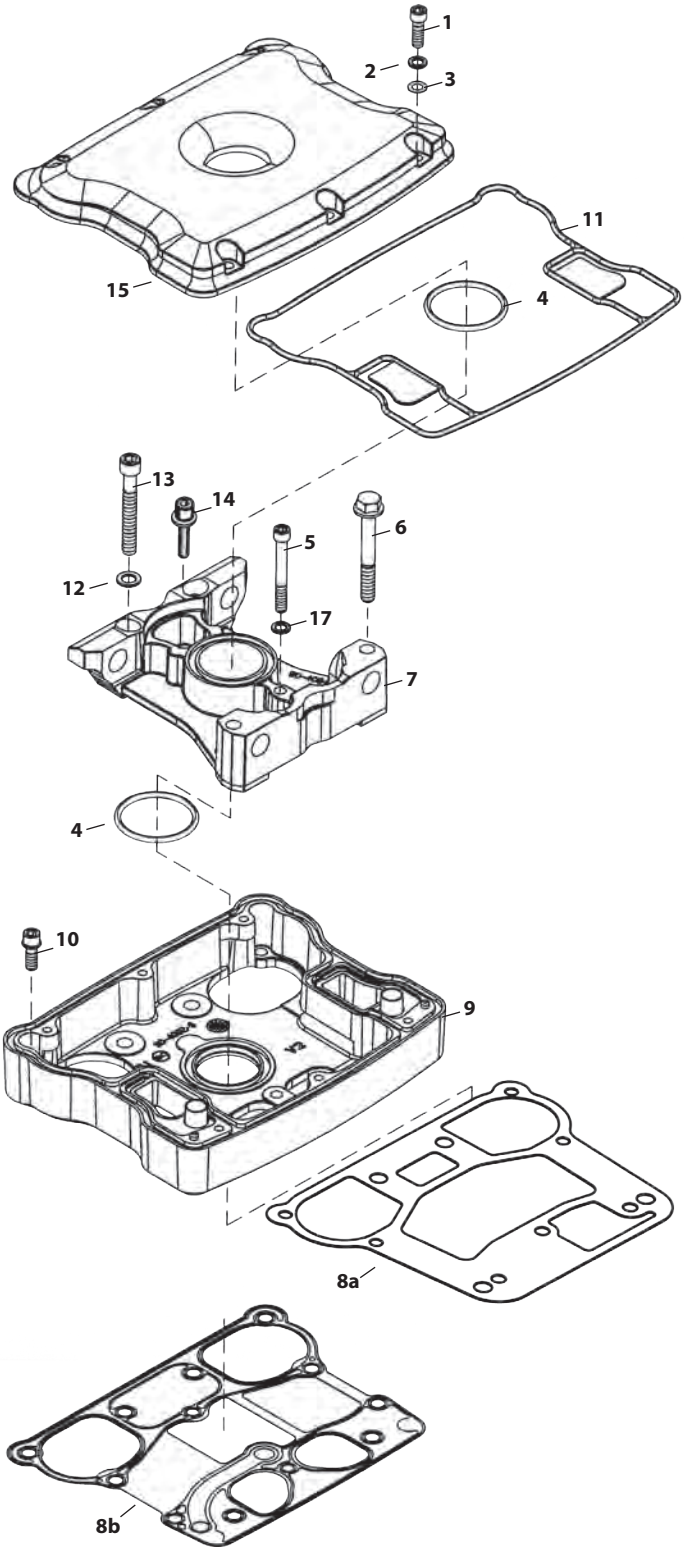
S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	4"	**90-9503** USA 2
V-Series	1984-'99	3 5⁄8"	**90-9502** USA 1

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DIE-CAST ROCKER COVER REPLACEMENT PARTS
FOR 1984-'99 BIG TWINS & S&S 4-1/8" BORE ENGINES

1. Screw, socket head ¼"-20 x ¾" *4069A (each)* **50-0067**
2. Washer, flat ¼" *(each)* **50-7017**
12 pack **50-7013**
3. Washer, rubber coated ¼" *(each)* **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. Seal, o-ring *(Included in gasket set see #16 below.)* **50-8044**
5. Screw, SH ¼"-20 x 2" *25794-36* **50-0013**
6. Screw, hex flange head 5⁄16"-18 x 2¼" *3501* **50-0123**
7. Support, rocker arm **90-4140**
8. Gasket, rocker housing, 1984-'99 bt
a. Gasket, Bottom, Rocker Cover, 1984-99 bt
each **900-0538**
2 pack **900-0592**
b. S&S 4⅛" Bore *16719-99B (each)* **90-4071-S**
2 pack **90-4071**
10 pack **90-4099**
9. Housing, rocker, chrome
1984-'99 bt **900-0790**
S&S 4⅛" Bore **900-4283**
10. Screw, 1984-'99 bt, SHCS ¼"-20 x 1" *4741A (each)* **50-0092-S**
4 pack **50-0092P**
S&S 4⅛" Bore, SHCS 5⁄16"-18 x 1" **50-0125-S**
11. Seal, rocker cover (Included in gasket set see #16 below.) **90-4079**
12. Washer, flat 5⁄16" *(each)* **50-7026**
13. Screw, SH 5⁄16"-18 x 2¼" *(each)* **50-0115-S**
14. Screw, socket head, ¼"-20 x 1" (S&S 4⅛" bore only) *4741A*
each **50-0092-S**
4 pack **50-0092P**
15. Cover, rocker, chrome **900-0706**
16. Gasket Set (N/S)
1984-'99 bt **90-4091**
S&S 4⅛" Bore **90-4111**
17. Washer, flat, .261"x.474"x.050" Annealed, Stainless Steel
each **50-7020**

(N/S) = Not Shown

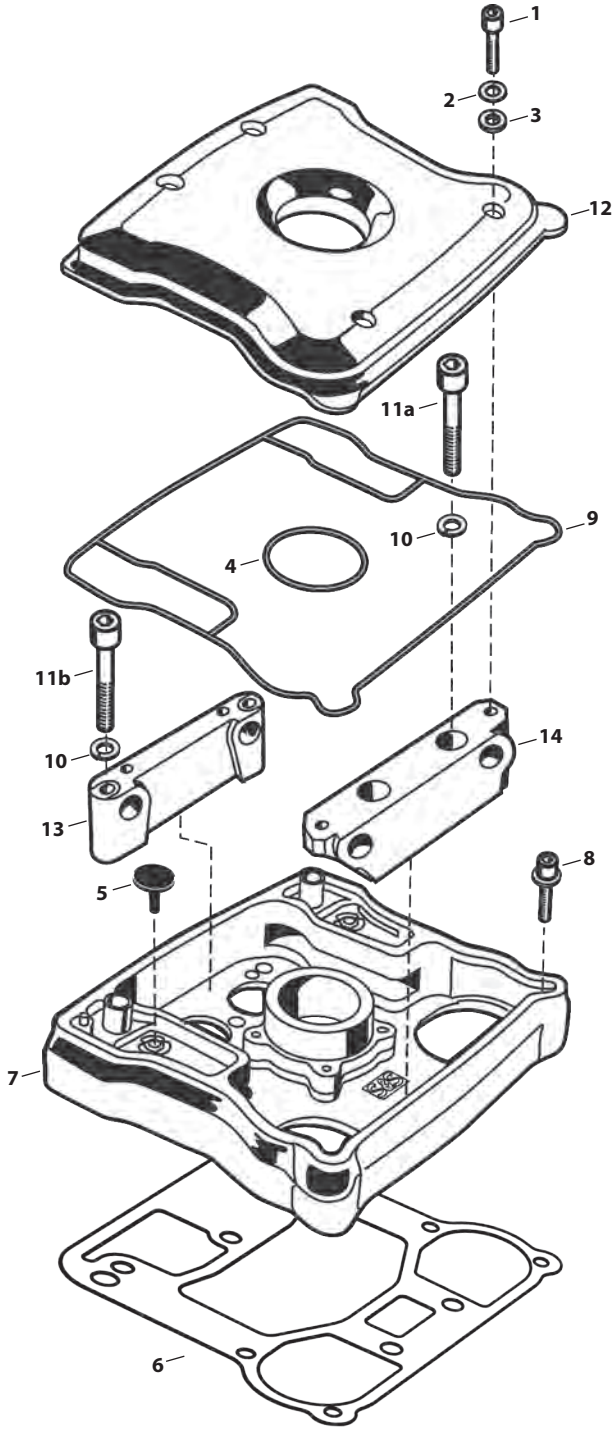


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BILLET ROCKER COVER REPLACEMENT PARTS
FOR 1984-'99 BIG TWIN ENGINES

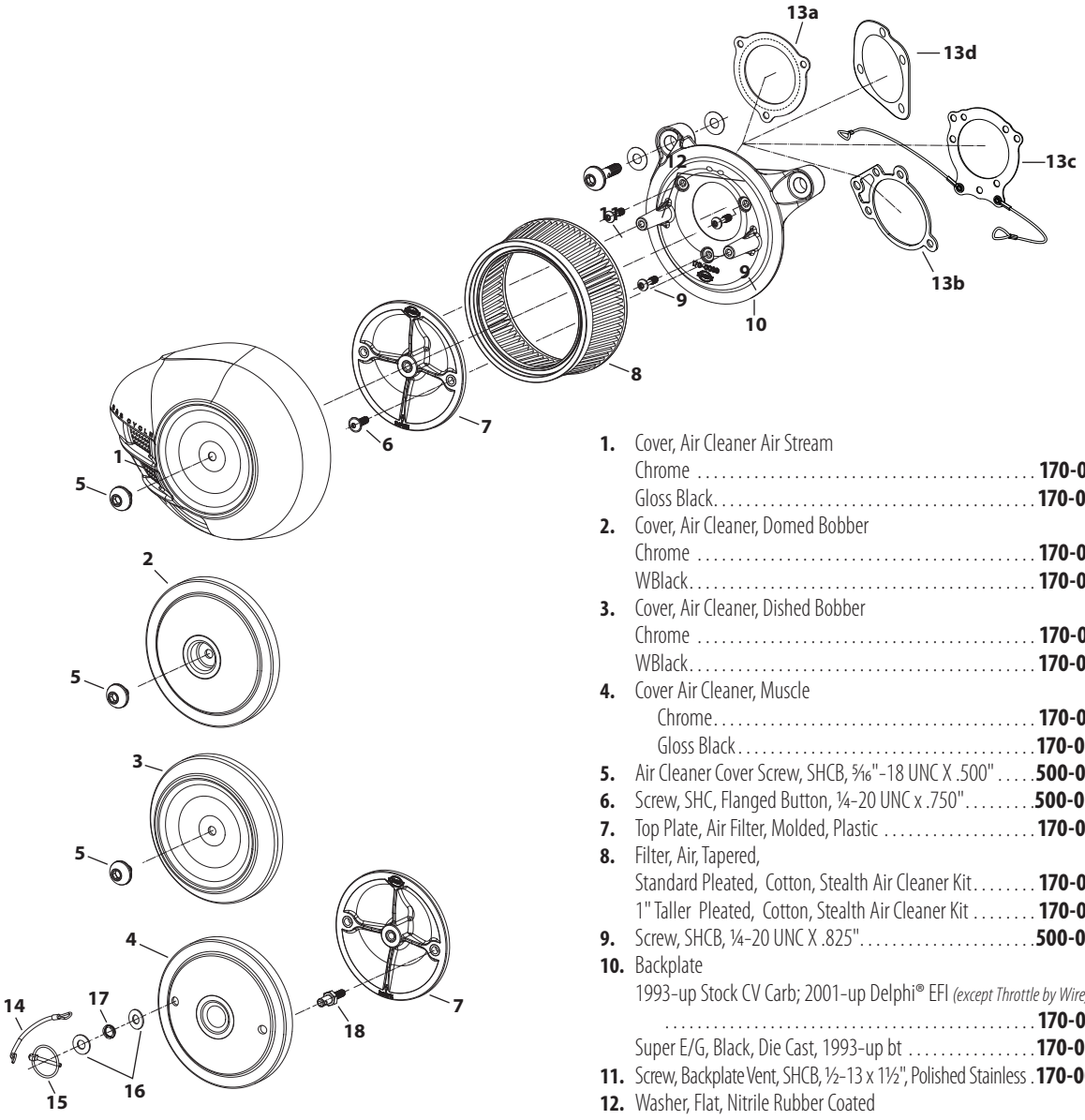
1. Screw, SH - ¼"-20 x ¾" *4069A (each)* **50-0067**
2. Washer, flat - ¼" *(each)* **50-7017**
12 pack **50-7013**
3. Washer, flat - ¼" rubber covered *(each)* **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. O-ring – 1⅜" I.D. x 1⅞" O.D. x ⅛" CS Viton ®
(Included in gasket set – See #16 below.)
5. Rocker cover umbrella valve cover – 1992-'99 big twin
(Included in gasket set. See #16 below.)
26856-89, 26856-89A **90-4030**
6. Gasket, Bottom, Rocker Cover, 1984-99 bt *(each)* **900-0538**
2 pack **900-0592**
7. Rocker cover base – billet
Chrome **90-4051**
Natural **90-4056**
8. Screw, SH w/washer – ¼"-20 x 1" *4741A (each)* **50-0092-S**
4 pack **50-0092P**
9. Rocker cover o-ring gasket – S&S billet rocker cover
(Included in gasket set. See #16 below.)
10. Washer, flat – 5⁄16" *(each)* **50-7026**
11. Bolt, rocker support – socket head
a. 5⁄16"-18 x 2-¼" (left support) .....
each **50-0115-S**
b. 5⁄16"-18 x 2-½" (right support) *876A*
each **50-0118**
12. Rocker cover top – billet
Chrome **90-4054**
13. Right rocker shaft support – billet **90-4053**
14. Left rocker shaft support – billet. **90-4052**
15. Rocker cover gasket set – S&S billet rocker cover – **(N/S)** . **90-4049**
16. Rocker cover hardware kit – **(N/S)** **90-4050A**

(N/S) = Not Shown



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STEALTH AIR CLEANER KIT REPLACEMENT PARTS



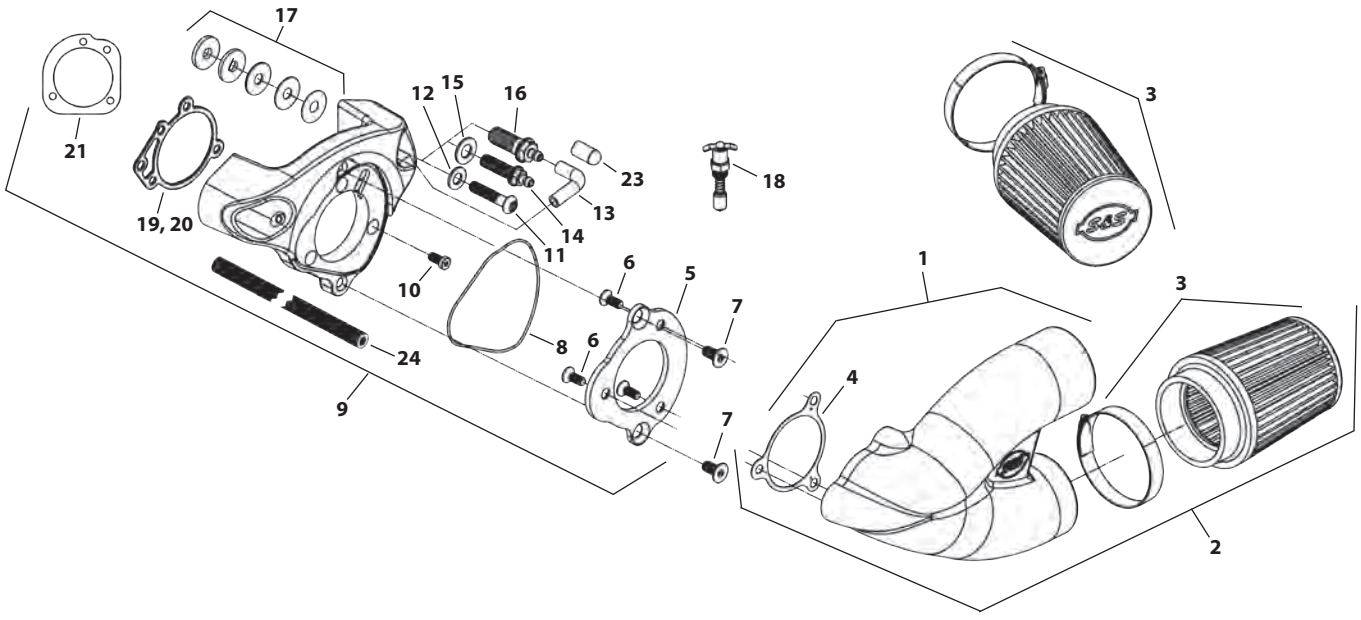
1. Cover, Air Cleaner Air Stream
   - Chrome **170-0118**
   - Gloss Black **170-0396**
2. Cover, Air Cleaner, Domed Bobber
   - Chrome **170-0120**
   - WBlack **170-0124**
3. Cover, Air Cleaner, Dished Bobber
   - Chrome **170-0119**
   - WBlack **170-0123**
4. Cover Air Cleaner, Muscle
   - Chrome **170-0172**
   - Gloss Black **170-0462**
5. Air Cleaner Cover Screw, SHCB, 5⁄16"-18 UNC X .500" **500-0051**
6. Screw, SHC, Flanged Button, ¼-20 UNC x .750" **500-0060**
7. Top Plate, Air Filter, Molded, Plastic **170-0026**
8. Filter, Air, Tapered,
   - Standard Pleated, Cotton, Stealth Air Cleaner Kit **170-0126**
   - 1" Taller Pleated, Cotton, Stealth Air Cleaner Kit **170-0127**
9. Screw, SHCB, ¼-20 UNC X .825" **500-0059**
10. Backplate
    - 1993-up Stock CV Carb; 2001-up Delphi® EFI *(except Throttle by Wire)* **170-0021**
    - Super E/G, Black, Die Cast, 1993-up bt **170-0049**
11. Screw, Backplate Vent, SHCB, ½-13 x 1½", Polished Stainless **170-0044**
12. Washer, Flat, Nitrile Rubber Coated
    - .520" x .880" x .024" BT 1993-'99 & xl 1991-'06 *(each)* **50-7055**
    - 10 pack **50-7057**
    - .380" x .880" x .024" BT 1999-'06 (each) **50-7054**
    - 10 pack **50-7059**
13. Gasket, Backplate
    - **a.** Throttle by Wire, .0625"Thick, 2008-up bt **160-0035**
    - **b.** Super E/G **106-1724**
    - **c.** Stock CV Carb & EFI Throttle Body, Throttle by Wire, Lanyard style, 1991-up xl/bt **170-0137**
    - **d.** Stock CV Carb & EFI Throttle Body, 1991-up xl/bt *(except Throttle by ... Wire) 29062-95B* **106-6022**
14. Lanyard, 6" Stainless Steel **500-0095**
15. Lynch Pin **500-0083**
16. Washer, Fender, Chrome Plated **500-0094**
17. Spring, Wave Washer, Stainless Steel **500-0093**
18. Screw, Hex, Hood-pin, ¼-20, UNC **500-0113**

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SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

1. Tuned Intake Kit, 2.19" Single Bore
   - Natural **106-4968**
   - Gloss Black **170-0453**
   - Chrome Plated **106-4970**
2. Tuned Intake Assembly, 2.19" Single Bore
   - Gloss Black **170-0454**
   - Chrome Plated **106-4967**
3. Air Filter, with Clamp
   Stainless Cap – Conical – 2 7/16" I.D. x 4"
   - Red *(each)* **17-1020**
   - Blue *(each)* **17-1023**
4. Gasket, Intake – Adapter Plate
   2.19" Single Bore Tuned Intake **17-1022**
5. Plate, Adapter, 2.19" Single Bore Tuned Intake
   Chrome Steel **17-1014**
6. FHSC 1/4-20 x 5/8" **50-0433**
7. FHSC 5/16-18 x 5/8" **50-0432**
8. O-Ring, Adapter Plate Bracket
   3 5/8" O.D. x 3 1/2" I.D. 1/16 CS, Viton® **50-0446**
9. Bracket Kit, 2.19" Single Bore Tuned Intake
   - Super E/G, S&S V124 - Chromed **106-4973**
   - Super E/G, 1984-'99 BT - Chromed **106-4974**
   - Single VFI, S&S V124 - Chromed **106-4976**
   - Single VFI, 1984-'99 BT - Chromed **106-4977**
   - Stock carb, Delphi® EFI, 1984-'99 BT - Chromed **106-4978**
10. Backplate Screw
    Screw, SHC, w/Threadlock, 1/4-20 x 1/2" **106-2084**
    10 pack **106-2105**
11. Screw, 5/16 -18 x 1 1/4, BHC, Chrome **50-0309-S**
12. Flat Washer 5/16" x 1/16" *6320, 70907-07, 6016, 6702* **50-7034**
13. Hose, Breather, 1/4" I.D., 90° **19-0178A**
14. Screw, Breather Fitting, 3/8 -16 x 1 1/4" **50-0436**
15. Washer, Flat, 3/8" x 13/16" x 1/16", Chrome **50-7106-S**
16. Screw, Breather Fitting, 1/2 -13 x 1.25 ..... **50-0435**
17. Shim Kit
    - a. 5/16" I.D. 1984-'92 BT **17-0314**
    - b. 1/2" I.D. 1993-'99 BT **17-0464**
18. Enrichment Device, S&S Super E & G carbs
    (Use in place of enrichment device on air cleaner backplate) **11-2084**
19. Gasket, Backplate - E/G/SBEFI **106-1724**
    10 pack **106-2328**
20. Gasket, S&S SBEFI 58mm **106-4662**
21. Gasket, Stock carb/Throttle Body *29062-95B* **106-6022**
22. Hardware Kit, 1984-'99 - (N/S)
    - Stock Carb & S&S Single Bore EFI **17-5098**
    - S&S Super E or G Carb **17-5099**
    - S&S 124 V-Series **500-0016**
23. Canister Purge Fitting Cap *(each)* **50-8266-S**
24. Breather Vent Hose **106-4982**

(N/S) = Not Shown





ACCESSORIES

Description		Part #
Air Filter Oil, 8 oz. Bottle	Red	106-1163
	Blue	106-1164
Nylon Air Filter Cover	*each*	106-0247
	2 pack	106-0248

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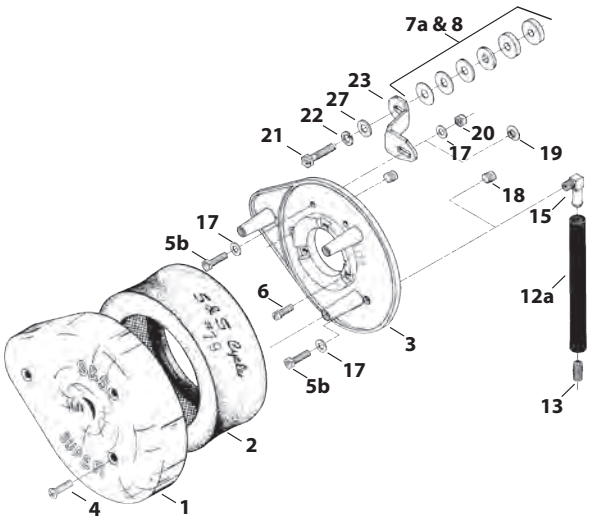
AIR CLEANER REPLACEMENT PARTS
FOR STOCK FUEL SYSTEMS

1. Air cleaner cover
Chrome **17-0078**
Black **17-0075**
2. Element **17-0079**
3. Backplate
BT 1966-'89 ..... **106-0907**
BT 1993-up **17-0003**
4. Cover screw 1305 *(each)* **50-0072**
3 pack **50-1052**
10 pack **50-0094**
Black *902 (each)* **50-0310-S**
3 pack **50-0310**
5. Screw HHCS ¼"-28 x ⅞" **50-0074**
6. Backplate screw
Zinc Plated *(each)* **106-2084**
10 pack **106-2105**
7. Shim kit
a. BT 1966-'89 *(Includes 2 each 5⁄16" x .018", 5⁄16" x .030", 5⁄16" x .048", 5⁄16" x .105" and 4 each 5⁄16" x .125")* **17-0314**
b. BT 1993-'99 *(Includes 2 each ½" x .018", ½" x .030", ½" x .048", ½" x .105", and 4 each ½" x .125")* **17-0464**
8. Replacement shims
BT 1966-'89
a. 5⁄16" x .018" *(each)* **50-7038**
b. 5⁄16" x .030" *(each)* **50-7039**
c. 5⁄16" x .048" *(each)* **50-7040**
d. 5⁄16" x .105" *(each)* **50-7041**
e. 5⁄16" x .125" *(each)* **50-7042**
BT 1993-up
f. ½" x .018" *(each)* **50-7085**
g. ½" x .030" *(each)* **50-7086**
h. ½" x .048" *(each)* **50-7087**
i. ½" x .105" *(each)* **50-7089**
j. ½" x .125" *(each)* **50-7090**
BT 1999-up, All 2002-up EFI BT
k. ⅝" x .025" *(each)* **50-7113**
10 pack **50-7110**
l. ⅝" x .050" *(each)* **50-7114**
10 pack **50-7111**
m. ⅝" x .075" *(each)* **50-7115**
10 pack **50-7112**
9. Shim, head vent - .62" I.D. x .80" O.D. x .175"
10. O-ring
a. (-014),.500" ID x .625" OD,Nitrile *(each)* **50-8270**
5 pack **50-8275**
b. (-012),.375" ID x .500" OD,Viton® *11110 (each)* **50-8006**
10 pack **50-8077**
11. Breather fitting (each) **17-0350**
2 pack **17-0355**
12. Crankcase breather vent hose
a. BT 1984-'92 ..... **17-0113**
b. BT 1993-'99 ..... **17-0339**
13. Vent hose connector,
BT 1984-'92 ..... **50-8111**
14. Vent hose, with angle cut **17-0365**
15. 90° Elbow fitting *(each)* **50-8110**
16. Hose fitting **17-0336C-S**
17. Flatwasher, ¼" *6194, 6245, 6703, 6736, 6228W, 6192 each* **50-7021**
18. Backplate plug, ⅛" -27 NPT *45830-48*
each **50-8331A**
10 pack **50-1015**
19. Plug, press-in clear plastic **50-8313**
20. Support bracket locknut - ¼"-28 x ⅞"
each **50-5010**
21. Support bracket screw - 5⁄16"-18 x 1¼" **50-0110**
22. Lockwasher, 5⁄16" **50-7032**
23. Support bracket, Air cleaner to head
BT 1984-'99 ..... **17-0311**
24. Rubber tubing - ¼" x ⅝" x 3' ..... **N/A**
25. Wire tie **(N/S)** **50-8003**
26. Hardware kit, air cleaner mounting **(N/S)**
BT 1984-'99 ..... **17-0244**
27. Washer, flat - ⅜" x ⅞" x .146"
each **50-7053**
28. Carb support bracket –
BT 1999-up & EFI Softail® 2001 ..... **17-0308**
29. Shim - ¼" x ¾" x .200" **50-7024**
30. Screw vent fitting
a. BT 1993-'99 ..... **17-0347**
b. BT 1999-up **17-0345**
31. Screw air cleaner backplate **17-0346**
32. Spring clamps **(N/S)** **50-8001**
33. Breather cap screw **17-0338**
34. Breather screw seal
a. BT 1993-'99, All 2002 EFI BT - Washer .520 *(each)* **50-7055**
10 pack **50-7057**
b. BT 1999-up, All 2002 EFI BT - Washer .380 *(each)* **50-7054**
10 pack **50-7059**

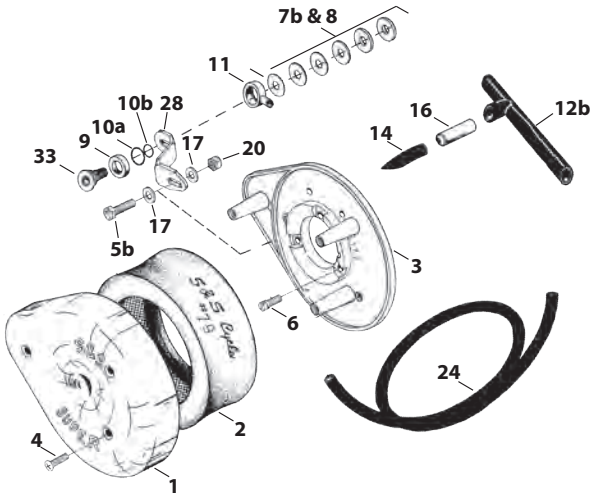
FI = fuel injected
(N/S) = Not Shown

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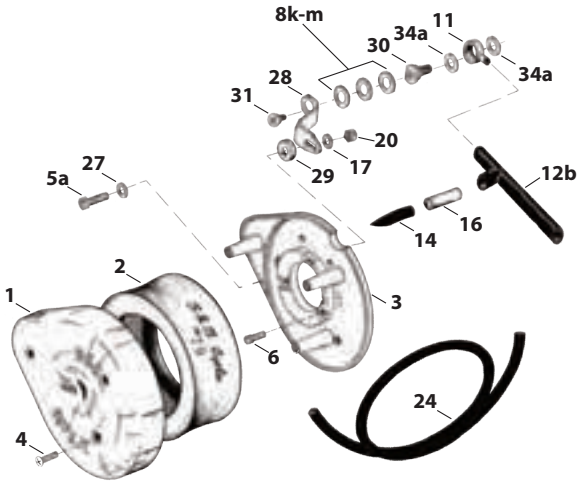
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1984-'89 BIG TWIN
(WITH BUTTERFLY CARBURETOR) 17-0108



1993-'99 BIG TWIN
(WITH CV CARBURETOR) (OBSOLETE) 17-0100



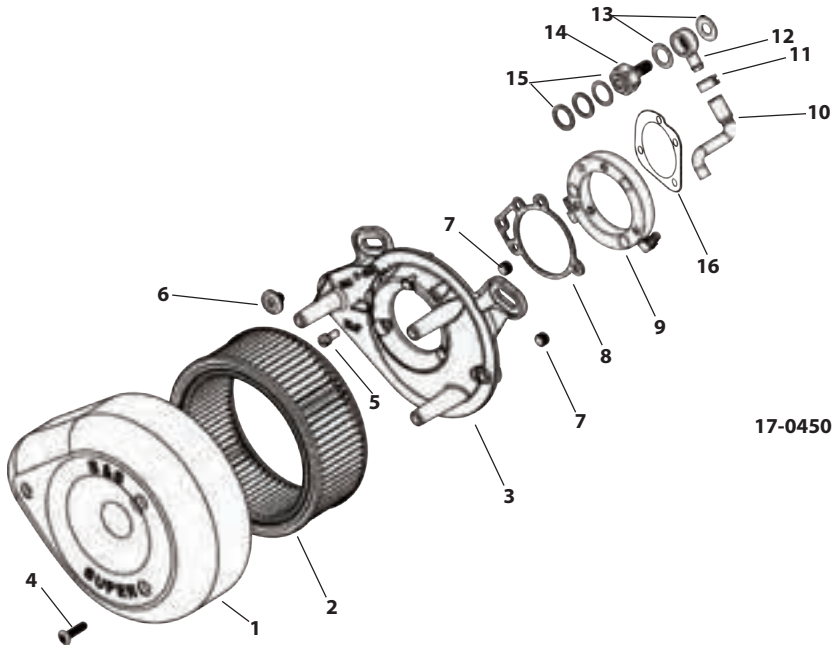
1993-'06 CARBURETED BIG TWIN MODELS,
2001 EFI SOFTAIL® MODELS, AND 2002-UP ALL EFI MODELS
(EXCEPT 2006-UP DYNA®) (OBSOLETE)
17-0117

CONTINUED

AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

1993-UP (EXCEPT 2008-UP TOURING MODELS) BT STOCK CV AND DELPHI® SINGLE BORE EFI

1. Air cleaner cover
Chrome **17-0378**
Gloss Black **170-0384A**
Slasher **17-0004**
2. Element, pleated **106-4722**
3. Backplate
1993-2007 BT **106-0907**
4. Cover screw *1305 (each)* **50-0072**
3 pack **50-1052**
10 pack **50-0094**
Black *902 (each)* **50-0310-S**
3 pack **50-0310**
5. Backplate screw
Zinc Plated *(each)* **106-2084**
10 pack **106-2105**
6. Screw, air cleaner backplate **17-0346**
7. Backplate plug ⅛"-27 *45830-48*
each **50-8331A**
10 pack **50-1015**
8. Gasket, backplate *(each)* **106-1724**
10 pack **106-2328**
9. Adaptor assembly
1993-'99 bt **106-0881**
10. Hose, vent, breather, formed,
.250" x .375" x 1.825", 1993-'07 BT **17-0364A**
11. Clamp, spring, 9⁄16" **50-8001**
12. Banjo fitting *(each)* **17-0350**
2 pack **17-0355**
13. Washer, silicone coated steel
1993-up BT, ½" *(each)* **50-7055**
10 pack **50-7057**
1999-up BT, ½" *(each)* **50-7054**
10 pack **50-7059**
14. Breather screw,
1993-'98 BT **106-0845**
1999-up BT **17-0348**
15. Replacement shims
⅝" x .025" *(each)* **50-7113**
10 pack **50-7110**
⅝" x .050" *(each)* **50-7114**
10 pack **50-7111**
⅝" x .075" *(each)* **50-7115**
10 pack **50-7112**
16. Backplate Gasket *29062-95B* **106-6022**



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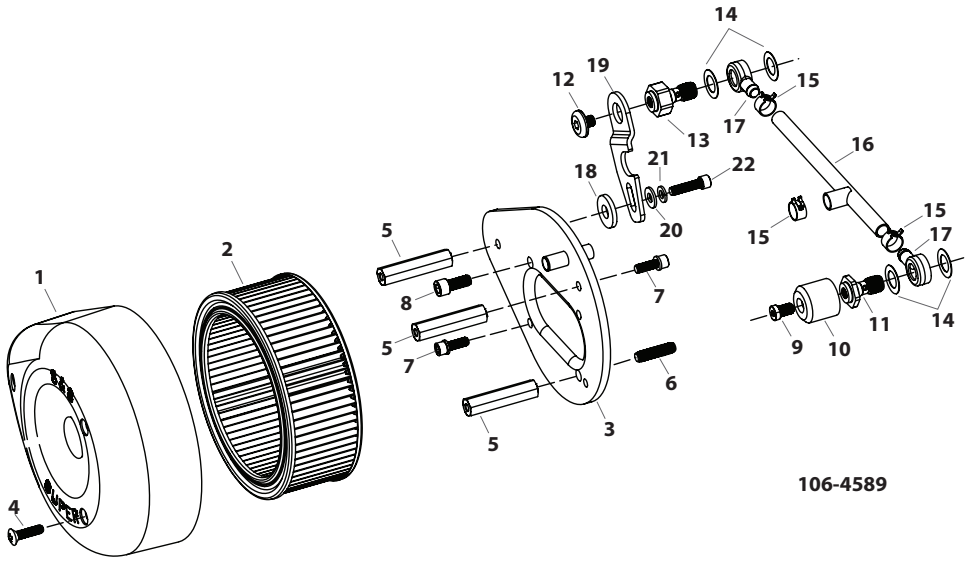
CONTINUED

AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

REPLACEMENT PARTS FOR S&S AIR CLEANER FOR MAGNETI MARELLI® EFI 1995-'01 BIG TWIN

1. Cover **17-0378**
2. Filter **106-4722**
3. Backplate, Assembly, Air Cleaner, Stock EFI, Magneti Marelli®, 1995-2001 ..... **N/A**
4. Screw, PHIL/OH ¼-20x1" *1305*
each **50-0072**
3 pack **50-1052**
10 pack **50-0094**
5. Spacer, ½" Hex, Threaded ..... **N/A**
6. Stud, Fully Threaded, ¼-20 x 1.25", Zinc Plated
1995-'98 ..... **N/A**
1999-'01 ..... **N/A**
7. SHCS, ¼-20 x ¾" SEMS *(each)* **50-0066**
8. Screw, SHCS,
1995-'98, ¼-20 x ¾", SEMS *4069A*
each **50-0067**
1999-'01, 5⁄16-18 x ¾" *3275*
each **50-0302-S**
9. Screw, LSHC 5⁄16-24, x ½" Stainless Steel
Front Head **106-2023**
10. Cover, Breather Screw, Front Head
Chrome, Aluminum **106-2022**
11. Screw, Backplate Vent, Front Head
1995-'98, ½-13 ..... **17-0347**
1999-01, 5⁄16-18 ..... **17-0345**
12. Screw, Backplate, Rear Head, Socket Panhead
5⁄16 - 24 x .360", Zinc, Alloy Steel **17-0346**
13. Screw, Breather, +.250" (Rear Head)
1995-'98, ½ -13 UNC. **106-0845**
1999-'01 ..... **17-0348**
14. Washer, glat, Nitrile Rubber Coated, Cold Rolled Steel
1995-'98, .520" x .880" x .024"
each **50-7055**
10 pack **50-7057**
1999-01, .380" x .880" x .024"
each **50-7054**
10 pack **50-7059**
15. Clamp Spring, 9⁄16" **50-8001**
16. Hose, Vent Breather,
Epichlorohydrin Polymer ..... USA 1,2 **17-0339**
17. Banjo Fitting *(each)* **17-0350**
2 pack **17-0355**
18. Spacer .406" x .975" x .250" *(each)* **50-7140-S**
19. Bracket, Support, Air Cleaner To Head
Nickel Plated **106-1285**
20. Washer, Flat, .281" x .625" x .080", Zinc, Steel
6192, 6228W, 6194, 6245, 6703, 6736 (each) **50-7021**
21. Washer, Lock, .250" *7035, 7036* **50-7019**
22. Screw, SHCS, ¼-20 x 1¼" *4740A, 3482A (each)* **50-0008**

N/A = No longer available



106-4589

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CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS
FOR S&S® SINGLE BORE EFI

1. Air Cleaner Cover
- Slasher *(slotted chrome)* **17-0004**
- Chrome **17-0378**
- Gloss Black *(includes black screws)* **170-0384A**

2. Element, pleated **106-4722**

3. Backplate SBFFI
- BT 1999-up **17-0120**
- S&S 4-⅛" bore engines **17-0380**

4. Screw, oval ¼-20 x *1305* *(each)* **50-0072**
- *3 pack* **50-1052**
- *10 pack* **50-0094**

5. Backplate screw
- Zinc Plated *(each)* **106-2084**
- *10 pack* **106-2105**
- Black *902* *(each)* **50-0310-S**
- *3 pack* **50-0310**

6. Pipe plug, ⅛, air cleaner backplate *(each)* **50-8331A**
- *10 pack* **50-1015**

7. Mounting bracket bolt, hex 5⁄16-18 x 1¼ **50-0110**

8. Flat washer, 5⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**

9. Shim, .850" x .325" x .400" ..... USA **50-7027**

10. Shim kit for 4⅛" bore **17-0314**
Individual shims:
- 5⁄16" x .018" *(each)* **50-7038**
- 5⁄16" x .030" *(each)* **50-7039**
- 5⁄16" x .048" *(each)* ..... USA **50-7040**
- 5⁄16" x .105" *(each)* **50-7041**
- 5⁄16" x .125" *(each)* **50-7042**

11. Screw, cable guide & air cleaner backplate
- 10-24 x ¼" *(each)* **50-0041**
- *10 pack* **50-0062**

12. Shims, individual
- ⅝ x ⅞ x .025 *(each)* **50-7113**
- *10 pack* **50-7110**
- ⅝ x ⅞ x .050 *(each)* **50-7114**
- *10 pack* **50-7111**
- ⅝ x ⅞ x .075 *(each)* **50-7115**
- *10 pack* **50-7112**

13. Breather Hardware for 1999-up BT **17-0455**
(not included in air cleaner kit)

14. Silicone washer, ½" ID *(each)* **50-7055**
- 10 pack **50-7057**

15. Silicone washer, ⅜" ID *(each)* **50-7054**
- *10 pack* **50-7059**

16. Screw, wide head, 5⁄16-24 x .36 ..... **17-0346**

17. Air cleaner hardware kit (N/S)
- BT 1999-up **17-0482**
- S&S 4-⅛" bore engines **17-0481**

18. Breather vent fitting
- BT 1993-'99 ..... **17-0347**

19. Breather fitting *(each)* **17-0350**
- *2 pack* **17-0355**

20. Check Valve **50-8122**

21. Hose, Vent Breather, Epichlorohydrin Polymer **17-0339**

22. Clamp Spring, 9⁄16" **50-8001**

23. Breather hardware for 4⅛" bore **31-2104**
(Not included in air cleaner kit)

24. Clamp,Spring, .660" **50-8076-S**

25. Hose one **50-8263-S**

26. Hose two **50-8262-S**

27. Clamp,Spring,.440" **50-8143-S**

28. Hose,Cut To Size,.1875" x 6",Black,Rubber **50-8142AS**

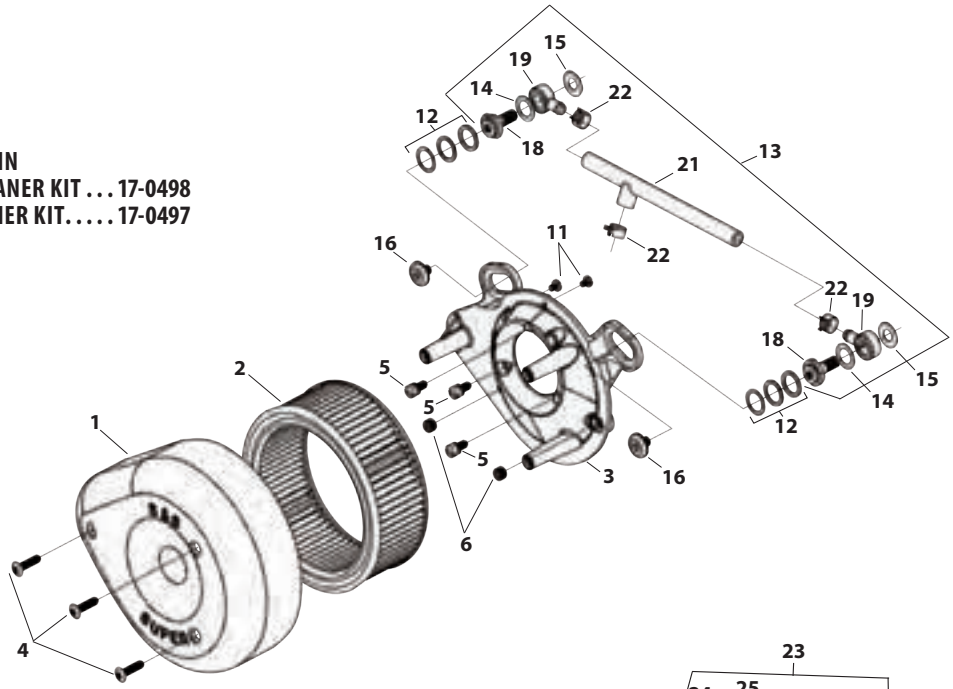
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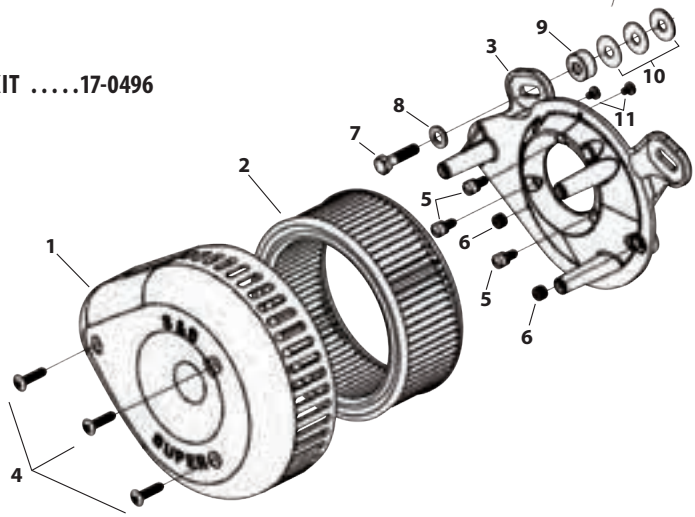
NOTE

Breather hardware not included in these air cleaner kits.

1995½ - '99 BIG TWIN
TEARDROP AIR CLEANER KIT . . . 17-0498
SLASHER AIR CLEANER KIT. 17-0497



S&S 4⅛" BORE ENGINES
SLASHER AIR CLEANER KIT 17-0496



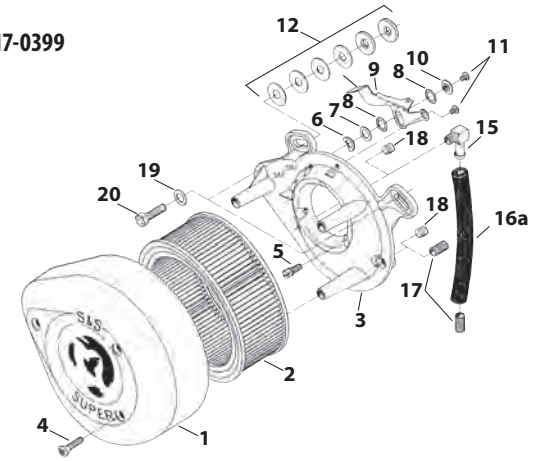
SUPER E & G AIR CLEANERS REPLACEMENT PARTS
FOR 1984-'99 BIG TWINS

1. Air cleaner cover –
Chrome **17-0378**
Gloss Black **170-0384A**
Slasher **17-0004**
2. Element, pleated **106-4722**
Element, pleated carbon **17-0375**
3. Backplate
BT 1993-'99 ..... USA 1,2 **17-0336**
BT 1984-'92, S&S 4⅛" bore Manufactured
Prior to 1-1-03 ..... **17-0380**
4⅛" Bore – Manufactured
After 1-1-03 ..... USA 3 **17-0387**
4. Cover screw *1305 (each)* **50-0072**
3 pack **50-1052**
10 pack **50-0094**
Black *902* **50-0310-S**
3 pack **50-0310**
TÜV style *(each)* **50-0347-S**
5. Backplate screw, Zinc *(each)* **106-2084**
10 pack **106-2105**
6. Fast idle friction washer *(each)* **50-7035**
10 pack **50-7058**
7. Fast idle steel washer *(each)* **50-7037**
10 pack **50-7061**
8. Fast idle nylon washer *(each)* **50-7036**
10 pack **50-7060**
9. Fast idle lever ..... USA 1,2,3 **17-0329**
10. Fast idle brass washer *(each)* **50-7007**
10 pack **50-7010**
11. Fast idle lever screw *(one required for current backplate) (each)* **50-0041**
10 Pack **50-0062**
12. Shim kit
BT 1984-'92 ..... **17-0314**
(Includes two each 5⁄16" x .018", 5⁄16" x .030", 5⁄16" x .048", 5⁄16" x .105", and four each 5⁄16" x .125")
BT 1993-'99 ..... **17-0464**
(Includes two each ½" x .018", ½" x .030", ½" x .048", ½" x .105", and four each ½" x .125")
13. Shims
a. BT 1984-'92, S&S 4⅛" Bore
5⁄16" x .018" (each) **50-7038**
5⁄16" x .030" (each) **50-7039**
5⁄16" x .048" (each) ..... USA **50-7040**
5⁄16" x .105" (each) **50-7041**
5/16" x .125" (each) **50-7042**
b. BT 1993-'99
⅝" x .025" *(each)* **50-7113**
10 pack **50-7110**
⅝" x .050" *(each)* **50-7114**
10 pack **50-7111**
⅝" x .075" *(each)* **50-7115**
10 pack **50-7112**
14. Elbow fitting *(each)* **50-8110**
15. Breather fitting *(each)* **17-0350**
2 pack **17-0355**
16. Crankcase breather hose
a. BT 1984-'92 ..... **17-0113**
b. BT 1993-'99 ..... USA 1,2 **17-0339**
17. Vent hose connector **50-8111**
18. Backplate plug ⅛"-27 *(each)* **50-8331A**
10 pack **50-1015**
19. Flatwasher – 5/16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**
20. Mounting bracket bolt – 5⁄16"-18 x 1¼"
1984-'92, S&S 4⅛" Bore **50-0110**
21. Wire tie **(N/S)** **50-8003**
22. Hose clamp **(N/S)** **50-8002**
23. Air cleaner assembly
Includes: Chrome cover, backplate, filter element, and hardware kit.
BT 1984-'92 ..... **17-0399**
BT 1993-'99 ..... **17-0404**
BT 1984-'05, 4⅛" Bore **17-0416**
24. Mounting hardware package (N/S)
Includes all parts needed to install following style air cleaners:
BT 1984-'92 ..... **17-0458**
BT 1993-'99 ..... **17-0436**
BT 1984-'05, 4⅛" Bore **17-0460**
25. Screw vent fitting, BT 1993-'99 ..... **17-0347**
26. Screw, air cleaner to head **17-0346**
27. Washer, .520" silicone coated steel, BT 1993-'99 *(each)* **50-7055**
10 pack **50-7057**
28. Shim, .850" x .325" x .400"
S&S 4⅛" Bore **50-7027**
29. Spring clamps **(N/S)** ..... USA **50-8001**
30. Thread insert 1/2"-13 to 5⁄16" -18 **(N/S)** *(Used on 1992 big twins)* **50-8151**
31. Breather conversion kit BT **(N/S)** **17-0486**
Convert early S&S air cleaners for 1993-'99 BT with o-ring breather fittings to new style breather hardware.

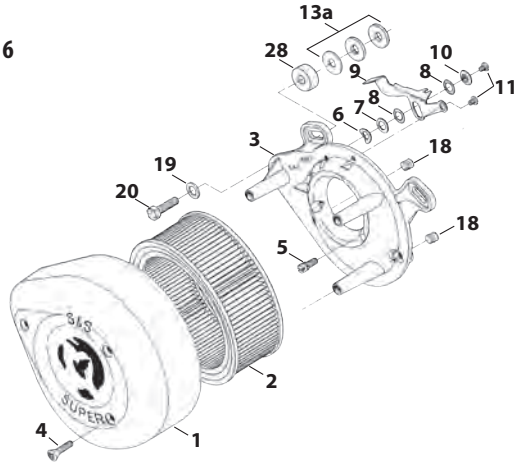
(N/S)= Not Shown

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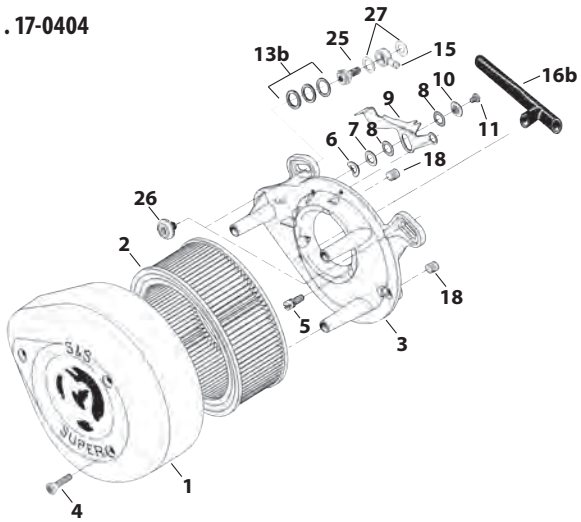
1984-'92 BIG TWIN..... 17-0399



1984-'05 BIG TWIN
4⅛" BORE 17-0416



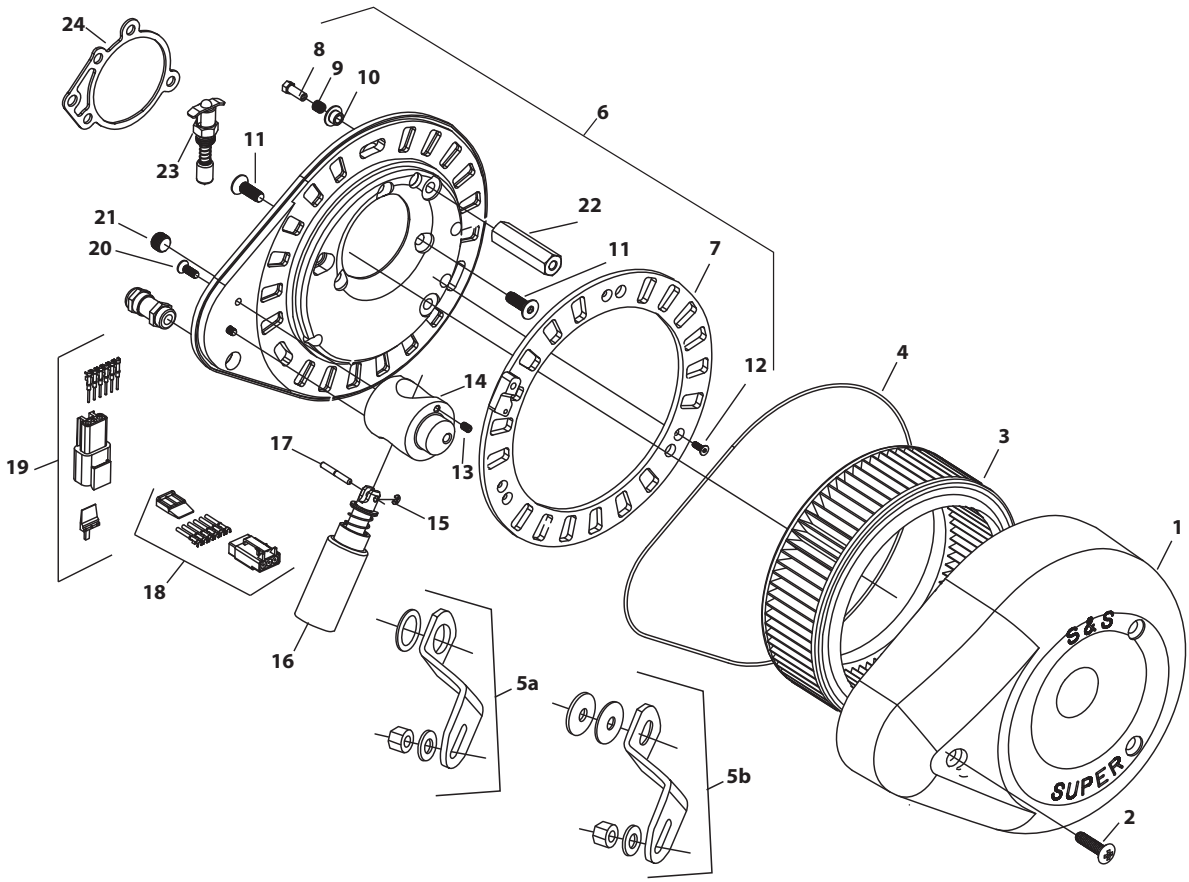
1993-'99 BIG TWIN 17-0404



CARB EXEMPT AIR CLEANER REPLACEMENT PARTS
FOR S&S SUPER E OR G CARBS

1. Cover, air cleaner teardrop, chrome **17-0378**
2. Screw, phil/oval head ¼ - 20 x 1 *1305 (each)* **50-0072**
   3 pack **50-1052**
   10 pack **50-0094**
3. Filter, air, sealed air cleaner **106-1451**
4. O-ring, 7.613" x 7.753" x .070" Viton® ..... **N/A**
5. Bracket Kit, head to backplate
   a. V96, V100, V113 ..... **106-5209**
   Includes:
   Bracket, V96, V100, V113 ..... **17-0308**
   Washer, Flat,.281" x .625" x .080",Zinc, Steel
   6192, 6228W, 6194, 6245, 6703, 6736 (each) **50-7021**
   Shim, .625" x .880" x .050", Stainless Steel *(each)* **50-7114**
   10 pack **50-7111**
   Nut, Lock, HH, Gr5, ¼-20 ..... **N/A**
   b. V111, V117, V124 ..... **106-5210**
   Includes:
   Bracket, V111, V117, V124 ..... **17-0311**
   Washer,Flat, .281" x .625" x .080", Zinc, Steel
   6192, 6228W, 6194, 6245, 6703, 6736 (each) **50-7021**
   Shim, .325" x 1" x .048", Stainless Steel **50-7040**
   Shim,.325" x 1" x .105",Stainless Steel **50-7041**
   Nut, Lock, HH, Gr5, ¼-20 ..... **N/A**
6. Backplate Assembly *(Backplate assembly includes #7-22)* **106-1450**
7. Valve assembly, backplate, sealed air cleaner ..... **N/A**
8. Pin, guide, stainless *(each)* **17-0086**
9. Spring, 5.2 lb/in .24" OD x .208" ID x .25 stainless *(each)* **50-0489**
10. Washer, flat with .18" step .192" x.500" x .030" *(each)* **106-5772**
11. Screw, FHSC, ¼-20 x ¾" zinc *(each)* **50-0491**
12. Screw, FHSC 5-40 x ⅜" stainless *(each)* **106-1098**
13. Screw, SHS set cup point, 8-32 x ¼" stainless *(each)* **106-1648**
14. Housing, solenoid, aluminum ..... **N/A**
15. Retaining ring, external E-type 3⁄32 shaft stainless **106-3391**
16. Solenoid assembly, pull dual coil 12v. ..... **N/A**
17. Pin, dowel, grooved .094" x 1" stainless **106-3275**
18. Connector, kit, style DTM, 3-position male **106-2595**
19. Connector, kit, style DTM, 3-position female ..... **N/A**
20. Screw, FHSC, 8-32 x ½", stainless *1601 (each)* **50-0353-S**
21. Plug, SH pipe, ⅛-27, NPT, zinc *45830-48 (each)* **50-8331A**
    10 pack **50-1015**
22. Stand-off ..... **N/A**
23. Enrichment device **11-2084**
24. Gasket, backplate *(each)* **106-1724**
    10 pack **106-2328**

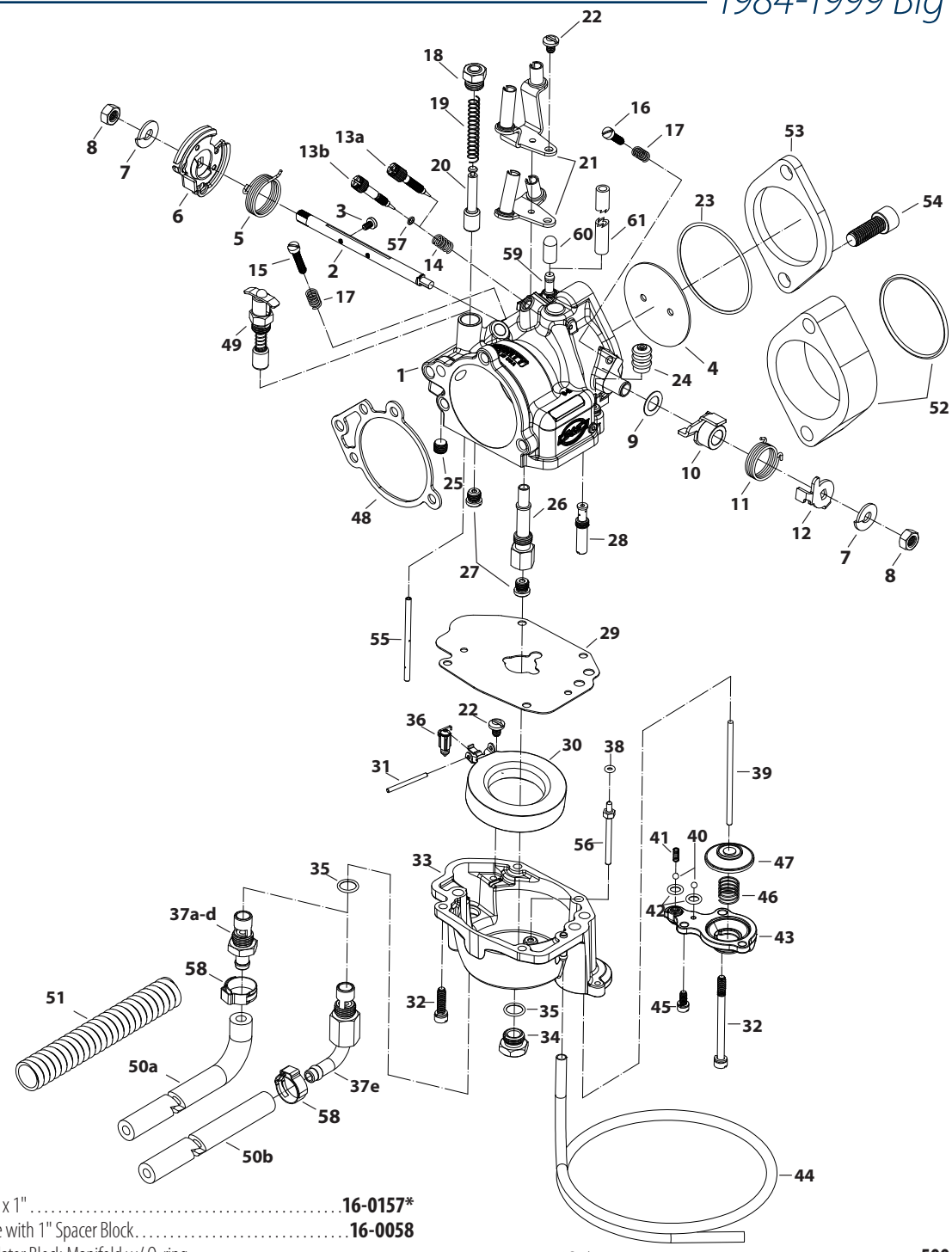
N/A = No longer available



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SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly
1⅞" Super E. **11-2381**
2⅛" Super G **11-2391**
2. Throttle shaft
1⅞" Super E – Includes two plate screws **11-2383**
2⅛" Super G – Includes two plate screws **11-2483**
3. Throttle plate screw *11-2045- (two required) (each)* **50-0055-S**
10 pack **50-0064**
4. Throttle plate
1⅞" Super E. **11-2055**
2⅛" Super G **11-2355**
5. Throttle return spring *(each)* **11-2382**
5 Pack **11-3502**
6. Throttle spool **11-2385**
7. Throttle shaft lock washer *(two required)* **50-7031**
8. Throttle shaft nut *(two required) (each)* **11-2350**
5 pack **11-2363**
9. Throttle shaft nylon washer *(each)* **50-7050**
10 pack **50-7072**
10. Pump actuator lever **11-2376**
11. Actuator spring *(each)* **11-2375-S**
5 pack **11-3501**
12. Pump actuator arm **11-2377**
13. Idle mixture screw
a. Idle mixture screw, brass *(each)* **11-2354**
5 pack **11-2378**
b. Idle mixture screw only
each **110-0003**
Idle mixture screw w/ 500-0036 o-ring
each **110-0068**
5 pack **110-0069**
14. Idle mixture screw spring *(each)* **11-2052**
10 Pack **11-2060**
15. Idle speed screw *(each)* **50-0038**
10 Pack **50-0150**
16. Pump adjustment screw *(each)* **50-0039**
10 Pack **50-0146**
17. Idle speed/pump adjuster spring *(each)* **11-2048**
10 Pack **11-2053**
18. Plunger nut *(each)* **11-2344**
5 pack **11-2372**
19. Plunger spring *(each)* **11-2340**
10 Pack **11-2359**
20. Fast idle plunger **11-2343**
21. Cable guide assembly with screw
Use with butterfly style cables **11-2339P**
Use with constant velocity style cables **11-2338P**
22. Cable clamp/float pin screw *(each)* **50-0041**
10 Pack **50-0062**
23. O-ring
1⅞" Super E *(each)* **50-8016**
10 Pack **50-8094**
2⅛" Super G *(each)* **50-8015**
10 Pack **50-8093**
24. Bellows seal *(each)* **11-2266**
5 pack **11-2279**
25. Bowl vent plug *(each)* **50-0105**
10 Pack **50-0151**
26. Main discharge tube **11-2085**
27. Main jet – See PAGE 274
28. Intermediate Jets – See PAGE 274
Series #94 fits all Super 1⅞", 2⅛", 2¼" gas carburetors.
29. Bowl gasket *(each)* **11-2386**
10 Pack **11-2387**
30. Float. **11-2187**
31. Float pin *(each)* **11-2369**
5 pack **11-2370**
32. Bowl screw
10-24 x ¾" - *Three required (each)* **50-0034**
10 Pack **50-0063**
10-24 x 2⅜" - *One required (each)* **50-0040**
10 Pack **50-0061**
33. Carb bowl *(only)* **11-2388**
Carb bowl complete assembly **11-2388P**
34. Bowl plug *(each)* **11-2090**
5 pack **11-2092**
35. Seat o-ring* *(required with part #11-2465 & #11-2466 only when replaces 360° style fuel inlet.)*
each **50-8009**
10 Pack **50-8095**
36. Needle
1⅞" Super E & 2⅛" Super G. **11-2195**
Racing only. **11-2197**
37. Seat - Includes O-ring #35
(Replaces obsolete seats 11-2347 and 11-2348)
a. 1⅞" E & 2⅛" G *(Uses part #11-2195 needle)* **11-2465**
b. Racing only *(Uses part #11-2197 needle)* **11-2466**
c. Racing only -threaded fuel inlet *(6AN .157" ID)*
(Uses part #11-2195 needle) **11-2395**
d. Permeation Compliant fuel inlet seat Super E or G
(Uses part #11-2195 needle) **106-2011**
38. Ejector nozzle o-ring *(each)* **50-8011**
10 Pack **50-8096**
39. Pump pushrod *(each)* **11-2373**
5 pack **11-2393**
40. Check ball - *(two required) (each)* **50-8090**
10 Pack **50-8125**
41. Check ball spring *(each)* **11-2374**
5 pack **11-2392**
42. Pump cap o-ring - *(two required) (each)* **50-8012**
10 Pack **50-8100**
43. Pump cap assembly **11-2389**
44. Overflow hose per 24" *27369-76 (each)* **19-0262-S**
5 pack **19-0263**
45. Pump cap screw 8-32 - *(two required) (each)* **50-0042**
10 Pack **50-0098**
46. Diaphram spring *(each)* **11-2275**
10 Pack **11-2278**
47. Diaphragm **11-2282**
48. Gasket, backplate *(each)* **106-1724**
10 Pack **106-2328**
49. Enrichment device *(Use with air horn only)* **11-2084**
50. Fuel line With 90° bend*19"
a. Fuel line With 90° bend*19" *(Use with part #11-2465 or #11-2466)*
USA 1,2,3. ..... **N/A**
b. Permeation Compliant straight, 311" x .563" x 17.5"
(Use with part #106-2011 , 90° seat) **190-0001**
51. Fuel line insulator – 12" USA 1,2,3 ..... **19-0172**
52. Spacer, Kit, w/ O-ring
1⅞" x 1" **16-0057***
2⅛" x 1" **16-0357***



2¼" x 1" **16-0157***
*Use with 1" Spacer Block **16-0058**

53. Insulator Block,Manifold,w/ O-ring
1⅞" x ¼" Super E **16-0491**
1⅞" x ⅜" Super E **16-0497**
2⅛" x ¼" Super G **16-0492**
2⅛" x ⅜" Super G **16-0498**
2¼" x ¼" Super D **16-0499**

54. Screw
1" x ⅜"-16 *(each)* **50-0161**
1¼" x ⅜"-16 *(each)* **50-0162**
10 Pack **50-0177**
1⅜" x ⅜"-16 *(each)* **50-0163**
5 pack **50-0178**
2" x ⅜"-16 *(each)* **50-0164**
5 pack **50-0185**

55. Tube,Fast Idle Pick-Up,Super E/G,.125" x 2.350",Brass **0381F**
56. Tube,Ejector Nozzle,Super E/G,Flared,Brass **106-6124**
57. O-ring, 3mm x 5mm x 1mm *(each)* **500-0036**
10 Pack **500-0148**
58. Clamp, ⅝" - ⅞" **50-8002**
59. Hose, Fitting straight, .040" **16-0134**
60. VOES Fitting Cap **50-8372**
61. VOES/Oil Return Hose **19-0395**

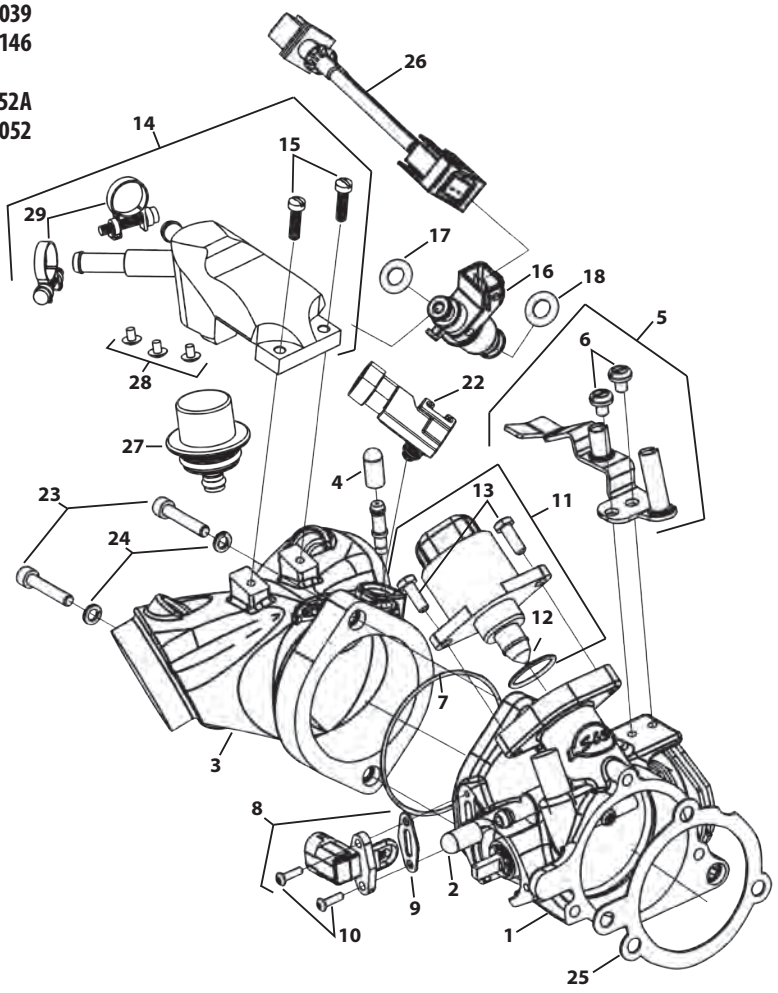
**360° banjo style fuel inlet fitting used on early S&S E&G carbs is no longer available. Replace with one of the inlet/seat fittings listed under #37 on this page. We highly recommend inlet/seat #106-2011.*

CARBURETOR REBUILD KITS
PAGE 274

SINGLE BORE EFI THROTTLE BODY AND RELATED REPLACEMENT PARTS

1. Throttle body
   52mm 1995-'99 ..... **16-5101**
   58mm 1995-'99 ..... **106-3954**
2. Cap, canister purge *(each)* **50-8266-S**
3. Manifold (See PAGE 271)
4. Cap, rubber, manifold, fitting **50-8372**
5. Throttle cable guide packet with hardware **55-5084**
6. Screw, cable guide & air cleaner backplate *(each)* **50-0041**
   10 Pack **50-0062**
7. O-ring, throttle body to manifold **50-7967-S**
8. Intake air temperature sensor packet with hardware
   27270-95 ..... **55-5041**
9. Gasket, IAT **16-5009-S**
10. Screw, M3, IAT **50-0357-S**
11. Idle air control motor SS EFI packet with hardware - 1995-'99
    27628-01, 27628-01A **55-5085**
12. O-ring, IAC **50-8149-S**
13. Screw, 10-24, IAC, 1995-'99
    each **50-0356-S**
14. Fuel rail kit
    1995-'99 *(Fuel inlet tube included) (N/S)* **16-5207**
15. Screw, rail, 1995-'99 *(each)* **50-0039**
    10 Pack **50-0146**
16. Fuel injector
    1 pack **55-5052A**
    2 pack **55-5052**
17. O-ring, injector top, black **50-8264-S**
18. O-ring, injector bottom, orange **50-8265-S**
20. Screw, TP sensor & fuel rail *(each)* **50-0358-S**
23. Screw, throttle body to manifold *(each)* **50-0359-S**
24. Washer, lock, .200" x .334" x .047", Stainless Steel
    Throttle body to manifold **50-7000**
25. Gasket, backplate
    52mm *(each)* **106-1724**
    10 Pack **106-2328**
    58mm *(each)* **106-4662**
26. Harness, injector adapter kit, 1995-'99 ..... **55-5074**
27. Pressure regulator, 1995-'99 ..... **16-5297**
28. Screw, pressure regulator, 6-32 x 3⁄16", 1995-'99 ..... **50-0279-S**
29. Clamps, Hose, ½" diameter, smooth, 1995-'99 ..... **50-8352**
30. Plug, assembly, MAP sensor hole, 1995-'99 (N/S) **50-8350**
31. O-ring, MAP plug, 1995-'99 (N/S) *(each)* **50-8133-S**

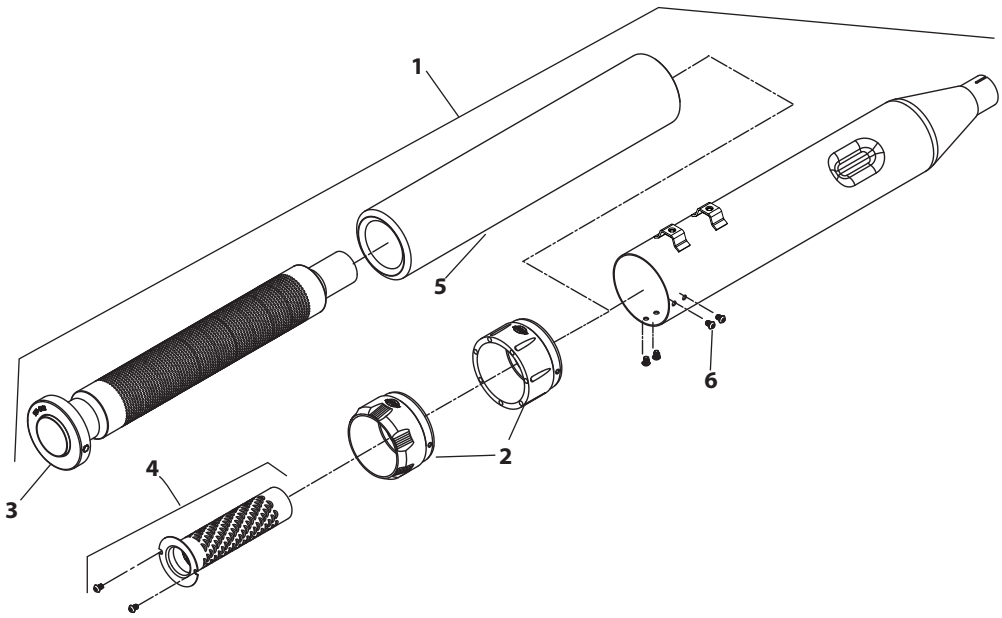
(N/S)= Not Shown



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Mk45 4½" MUFFLER REPLACEMENT PARTS

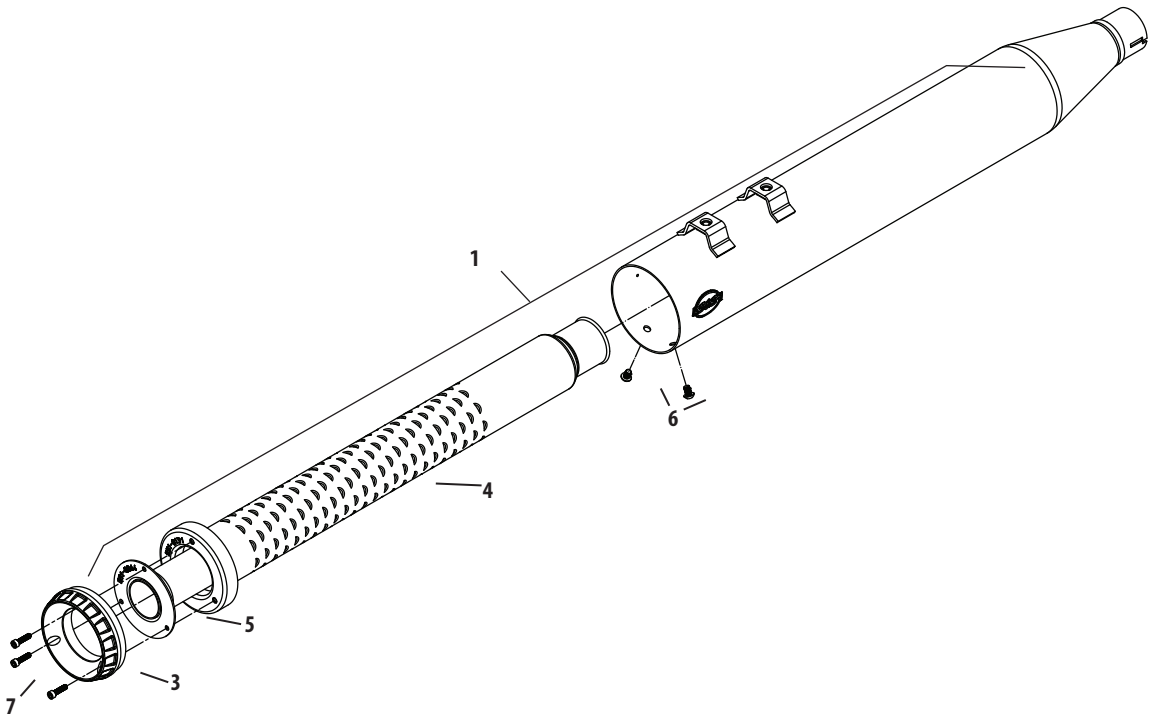
1. 4.5" Muffler Assembly
   - Left, Chrome **551-0020**
   - Right, Chrome **551-0021**
   - Left, Black **551-0022**
   - Right, Black **551-0023**
2. End Cap
   - Thruster, Chrome **550-0634A**
   - Thruster, Highlighted Machined **550-0629A**
   - Tracer, Chrome **550-0636A**
   - Tracer, Highlighted Machined **550-0632A**
3. Main Baffle Assembly, 4.5" Muffler **551-0007**
4. dB reducer **551-0226**
5. Insulation, 4.5" Muffler **551-0003**
6. Button Head Cap Screw, Stainless, ¼"-20X⅜" **500-0441**
7. Hardware Kit, Muffler Clamps And Screws (N/S) **551-0027**



GRAND NATIONAL 4" REPLACEMENT PARTS

1. 4" Muffler assembly with Grand National end cap
- Left, Chrome. **551-0055**
- Right, Chrome **551-0056**
- Left, Black. **551-0057**
- Right, Black **551-0058**

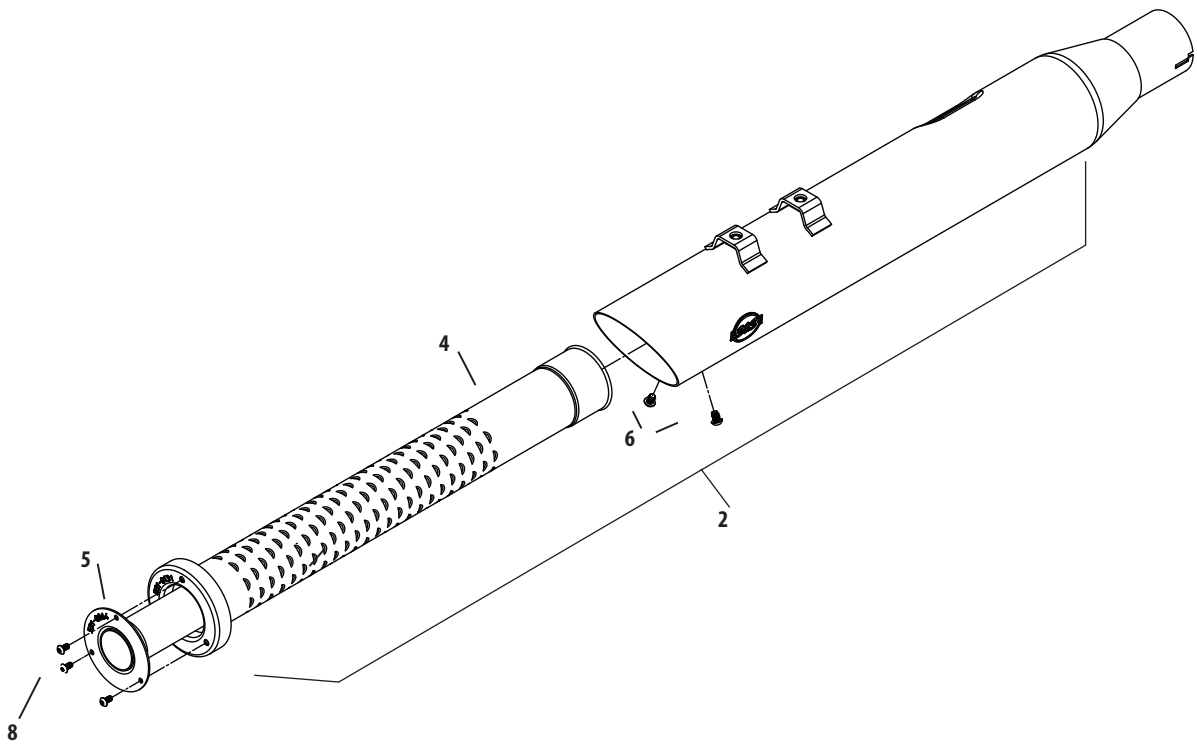
3. End Cap (Left and Right) **551-0188**
4. Main baffle assembly (Left and Right) **551-0053**
5. dB reducer baffle (Left and Right). **551-0063**
6. Button head cap screw, Stainless, ¼"-20x⅜" **500-0441**
7. Socket head cap screw, Stainless, 10-32x¾". **500-0569**
9. Hardware kit, muffler clamps and screws (N/S) **551-0027**



SLASH CUT 4" REPLACEMENT PARTS

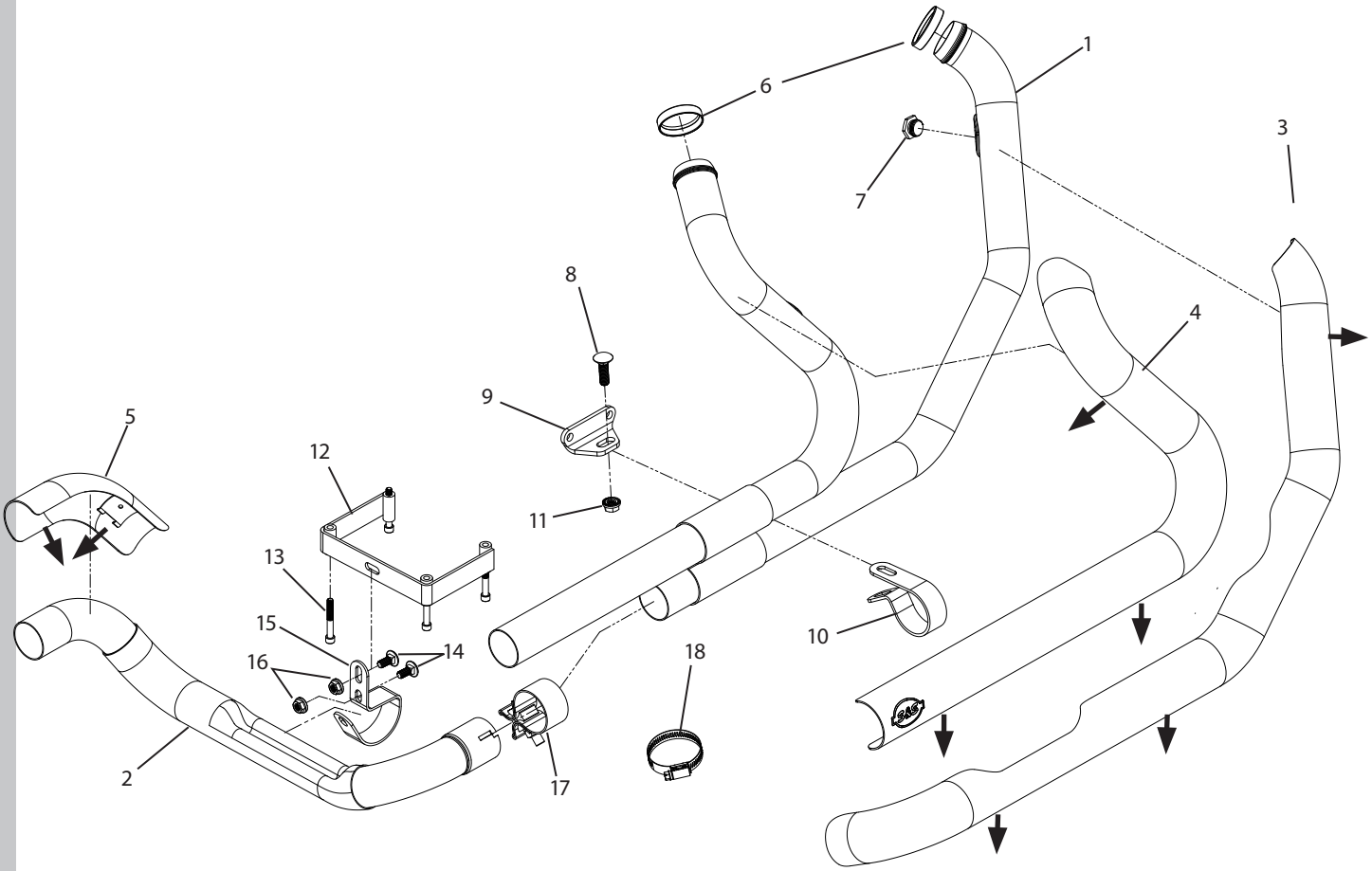
2. 4" Muffler assembly Slash Down
- Left, Chrome. **551-0059**
- Right, Chrome **551-0060**
- Left, Black. **551-0061**
- Right, Black **551-0062**

4. Main baffle assembly (Left and Right). **551-0053**
5. dB reducer baffle (Left and Right). **551-0063**
6. Button head cap screw, Stainless, 1/4"-20x3/8" **500-0441**
8. Button head cap screw, Stainless, 10-32x3/8" **500-0570**
9. Hardware kit, muffler clamps and screws (N/S) **551-0027**



POWER TUNE DUAL HEADER REPLACEMENT PARTS

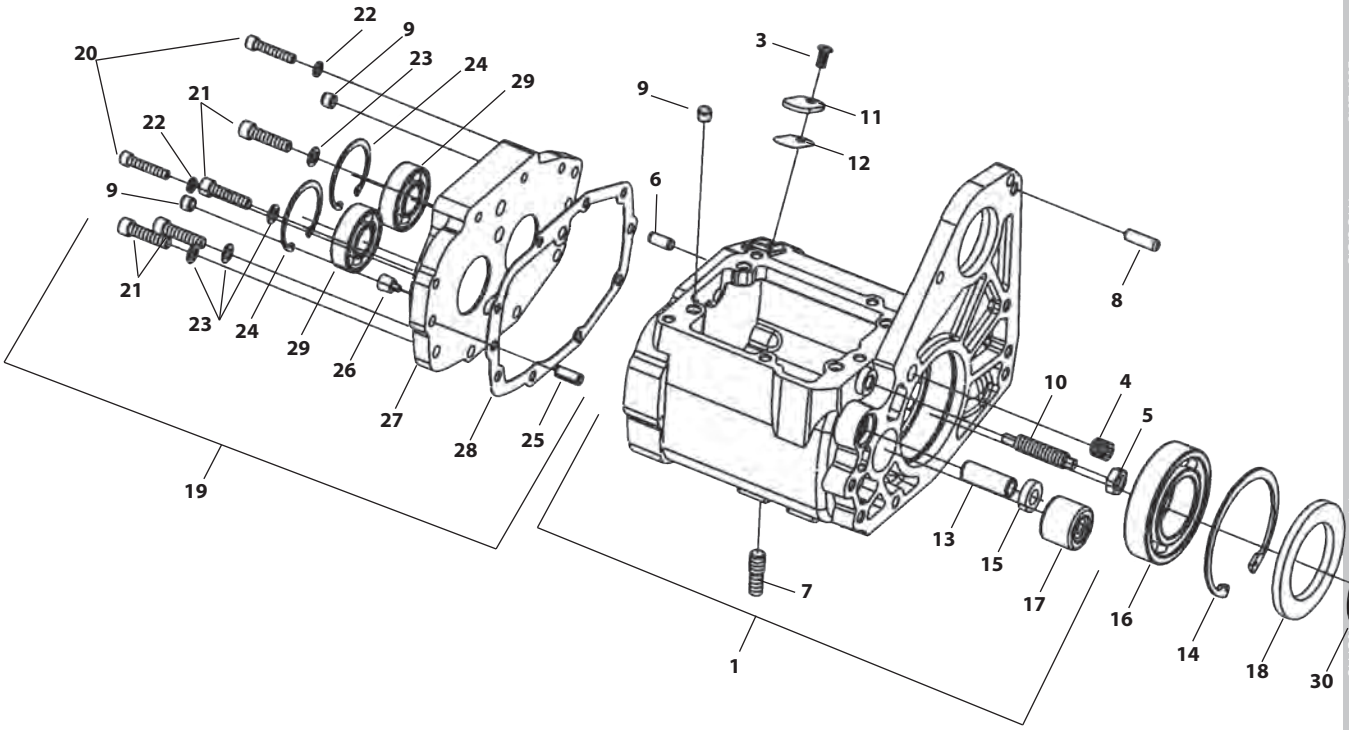
1. Pipe,Header,Power Tune Dual, Weldment,1999-2008 Touring *(1 Req)* **551-0083**
2. Tube,Crossover,Power Tune Dual,Weldment, 1995-2008 Touring *(1 Req)* **551-0077**
3. Shield,Front,Power Tune Dual,1995-2008 Touring *(1 Req)*
   - Chrome **551-0091**
   - Black **551-0092**
4. Shield,Rear,Power Tune Dual,1995-2016 Touring *(1 Req)*
   - Chrome **551-0103**
   - Black **551-0104**
5. Shield,Left,Power Tune Dual, 1995-2016 Touring *(1 Req)*
   - Chrome **551-0115**
   - Black **551-0116**
6. Gasket,Exhaust,Tapered,Stainless Steel, 1984-up bt, 1986-up xl ***65324-83B, 65324-83A*** *(2 Req)* **106-5029**
7. Plug,M18 x 1.5 Thread *(2 Req)* **551-0122**
8. Bolt,Carriage,⅜-16 x 1¼" *(1 Req)* **500-0553**
9. Bracket,Transmission,Side,Power Tune Duals, 1995-2008 Touring *(1 Req)* **551-0125**
10. Clamp,P-Style,Power Tune Dual,Side, 1995-2016 Touring *(1 Req)* **551-0119**
11. Nut,Flanged,Serrated,⅜-16 *(1 Req)* **500-0554**
12. Bracket,Assembly,Transmission,Pan, Power Tune Dual,1995-2008 Touring *(1 Req)* **551-0126**
13. Screw,SHC,¼-20 x 1⅞",Zinc Plated *(4 Req)* **500-0641**
14. Bolt,Carriage, 5⁄16-18 x ¾" *(2 Req)* **500-0555**
15. Clamp,P-Style,Crossover, Power Tune Dual Header,1995-2008 Touring *(1 Req)* **551-0120**
16. Nut, Flanged, Serrated, 5⁄16"-18 *(2 Req)* **50-5053-S**
17. Clamp,Muffler,Band Style *(1 Req)* **551-0028**
18. Clamp,Hose,Worm Drive,SAE #28 *(8 Req)* **551-0124**



NOTE - Install #18 heat shield clamps with screw heads pointing in direction shown by arrows. →

TRANSMISSION CASES REPLACEMENT PARTS
FOR 1986-'99 SOFTAIL® MODELS

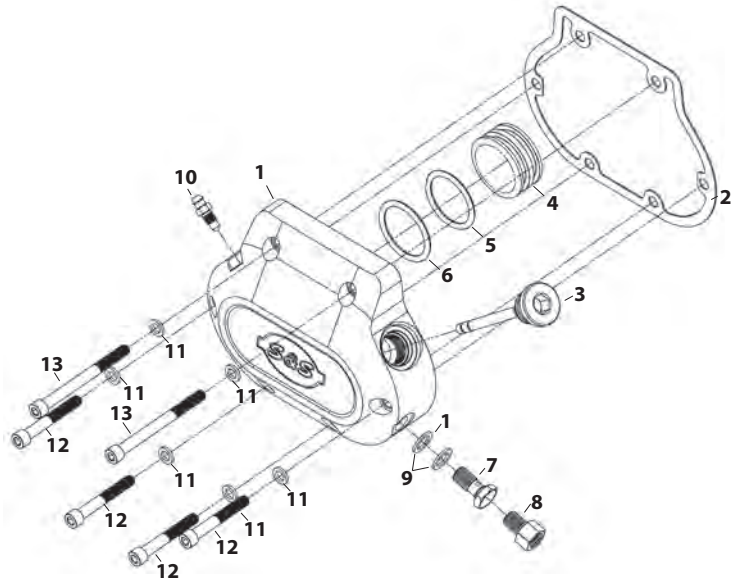
1. Transmission case assembly, 5-speed, rigid mount 1986-'99 Harley-Davidson® Softail® **560-0032**
2. Case only ..... **N/A**
3. Screw, socket buttonhead, ¼"-20 x ½" **50-0065**
4. Set-screw, sockethead, ½"-20 x ½" *(H-D® #3784)* **50-0203**
5. Nut, hex head, 7/16"-14 *(each)* **50-5044**
6. Pin, dowel, .308" diameter x .70" *375* **50-8029**
7. Stud, ⅜"-24, 7/16"-14 x 1.300" *11733A* **50-8084**
8. Pin, dowel, 5/16" diameter x 1" *337* **50-8171**
9. Pin, roll, ⅜" x .300" *609* **50-8173**
10. Screw, shift lever adjustment *33119-79B* **56-1002**
11. Cover, speedo sensor hole **56-1061**
12. Gasket, speedo sensor hole cover ..... **N/A**
13. Guide, shifter shaft, 5-speed rigid mount 1986-'99 BT *33114-79* **56-1067**
14. Ring, internal retaining, 3.734" O.D. x .109" tru-arc *11161, 11599* **50-8051**
15. Seal, oil - 1984-'99 BT *12045* **56-1064**
16. Bearing, transmission output shaft, 1984-'99 BT *8996A* **56-1280**
17. Bearing, transmission countershaft *8977* **56-3031**
18. Seal, oil *12067B* **56-3033**
19. Door assembly, transmission access, 5-speed 1986-'99 BT **56-1027**
20. Capscrew, sockethead ¼"-20 x 1¼" *4740A, 3482A*
    each **50-0008**
    10 pack **50-0153**
21. Capscrew, SH 5/16"-18 x 1¼" *3210A* **50-0121**
22. Washer, flat - ¼" x 7/16" x 1/16" *(each)* **50-7017**
    12 pack **50-7013**
23. Washer, flat - 5/16" x .545" x.042" *(each)* **50-7026**
    10 pack **50-7028**
24. Ring, internal retaining, 2.072" O.D. x .062" Tru-Arc *35021-89* **50-8053**
25. Pin, roll - 5/16" x ¾" *634 (each)* **50-8175**
    10 pack **106-3175**
26. Plug, magnetic - ⅛" -27 *739A* **50-8334**
27. Door, transmission access *35258-87C* Only 5-speed rigid mount 1986-'99 BT **56-1025**
28. Gasket, transmission access door *35652-79B, 35653-98A* **56-1026**
29. Bearing, transmission access door *8992A, 8998* **56-3026**
30. O-ring, Quad Seal *11165* **50-8045**



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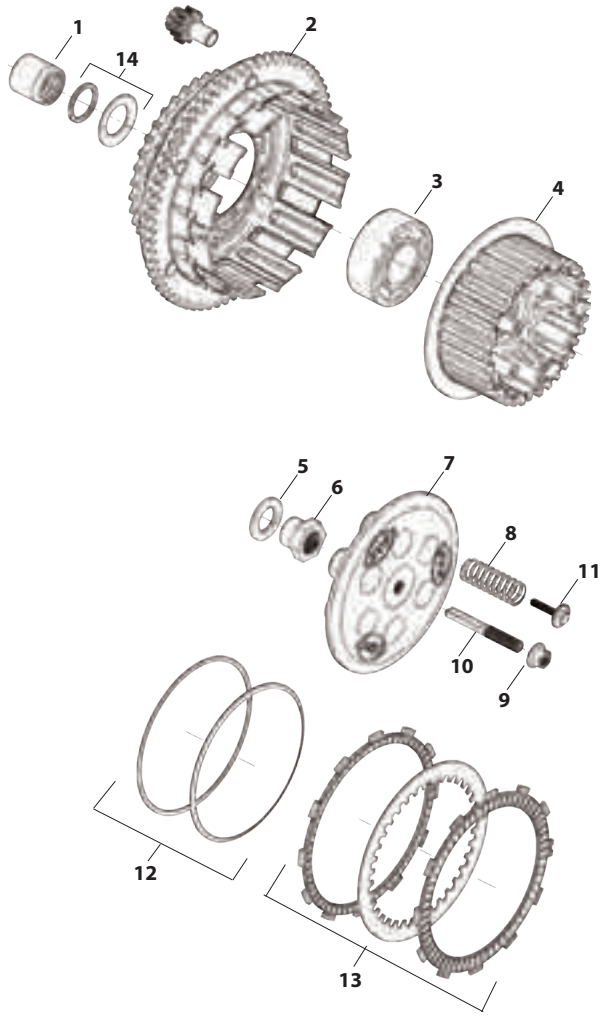
CHROME PLATED BILLET TRANSMISSION SIDE COVER
REPLACEMENT PARTS

1. Hydraulic Clutch Side Cover (Chrome Billet) ..... **N/A**
Cable Actuated (Chrome Billet) ..... **N/A**
2. Gasket Side Cover *(each)* ..... **N/A**
3. Dipstick Assembly ..... **N/A**
4. Piston, Hydraulic Clutch (Billet) ..... **N/A**
5. O-ring, 1 1/4 ID x 1/8 CS, Buna-N 70 *(each)* ..... **N/A**
6. O-ring, 1 1/4 ID x 1/8 CS, Viton ..... **N/A**
7. Banjo Bolt 3/8-24 x 3/4 ..... **N/A**
8. Adapter, Hydraulic Clutch Line ..... **N/A**
9. Crush Washer, Copper .400 ID x .590 OD x .050 ..... **N/A**
10. Valve, Bleed Fitting, 1/4-28 ..... **N/A**
11. Washer, Flat .260 x .420 x .06 Chrome **50-7017**
12 pack **50-7013**
12. Screw, Cap Hex SH 1/4-20 UNC x 1.75 Zinc ..... **N/A**
13. Screw, Cap Hex SH 1/4-20 UNC x 2.75 Zinc ..... **N/A**



HIGH PERFORMANCE CLUTCH REPLACEMENT PARTS

1. Race, inner primary bearing, 5/6 speed main shaft
All 1991-'05 BT and 2006 Harley-Davidson® Softail® models ..... USA **56-5089**
2. Basket,
Clutch, 36-tooth ..... USA **N/A**
Clutch, 37-tooth ..... USA **N/A**
3. Bearing, clutch (basket to hub) ..... USA **N/A**
4. Hub, clutch ..... USA **N/A**
5. Washer, thrust, 19.5 mm I.D. x 35.6 mm O.D. ..... **N/A**
6. Nut, mainshaft, clutch hub, ¾-18 UNS-2B ..... **N/A**
(Recommended early style mainshaft nut H-D® #37496-84)
(Recommended late style mainshaft nut H-D® #37496-90)
7. Plate, pressure - clutch
Mechanical (3-piece pushrod actuated) ..... USA **N/A**
8. Spring, pressure plate, clutch
Light duty, 334 lbs. *(6 pack)* ..... USA **N/A**
Standard, 370 lbs. ..... USA **N/A**
Heavy duty, 408 lbs. *(each)* ..... USA **56-5106-S**
6 pack ..... USA **56-5106**
9. Nut, flange, M10 x 1.25" ..... USA **N/A**
10. Screw, clutch adjuster, M10 x 1.25" ..... USA **N/A**
11. Bolt, special, M6 x 30, w/washer ..... USA **50-8413-S**
12. Jutter spring with seat ..... USA **N/A**
13. Clutch pack, 11 frictions, 10 steels ..... USA **56-5085-S**
14. Kit, shim, clutch inner race ..... USA **56-5090**
Shim, ⅝ speed main shaft
1.300" O.D. x .960" I.D. x .0075" *(36 gauge)* thick ..... USA **N/A**
1.300" O.D. x .960" I.D. x .0150" *(28 gauge)* thick ..... USA **N/A**
1.300" O.D. x .960" I.D. x .0240" *(24 gauge)* thick ..... USA **N/A**
1.300" O.D. x .960" I.D. x .0470" *(18 gauge)* thick ..... USA **N/A**





SECTION 5: SPORTSTER® & BUELL®

Performance Kits

883 to 1200cc Conversion Kit 333
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MINI TEARDROP STEALTH AIR CLEANER KITS

FEATURES AND BENEFITS

- 85% of original size
- Iconic look
- Machined openings around the rim add style and provide additional air flow
- Gloss Black or Chrome



CARB compliant EO #D-355-21

MINI TEARDROP STEALTH AIR CLEANER KITS

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21 WHEN USED ON 2007-2017 MODELS

Fitment	Fuel System	Finish	Part #
2007-'17 xl	Stock Bore Throttle Body	Chrome	**170-0439**
		Gloss Black	**170-0440**

MINI TEARDROP STEALTH AIR CLEANER KITS

Fitment	Fuel System	Finish	Part #
1991-2003 xl	S&S Super E/G,	Chrome	**170-0447**
		Gloss Black	**170-0448**
1991-2006 xl	Stock CV Carb	Chrome	**170-0449**
		Gloss Black	**170-0450**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

STEALTH AIR CLEANER KITS

FITMENT
- 1991-2006 Harley-Davidson® Sportster® models

FEATURES AND BENEFITS
- Pre-filter available - See page 329
- Air directional stinger cone in the filter
- Use with any of several S&S designed covers
- High flow (1" taller) filter kit available - See page 329


Airstream

STEALTH AIR CLEANER KITS W/CHROME AIRSTREAM COVER

Application	Fuel System	Part #
1991-'06 xl	Stock CV/EFI	**170-0053**
1991-'03 xl	S&S Super E & G Carbs	**170-0114**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.


Bobber-dished

STEALTH AIR CLEANER KITS W/CHROME BOBBER-DISHED COVER

Application	Fuel System	Part #
1991-'06t xl	Stock CV/EFI	**170-0094**
1991-'03 xl	S&S Super E & G Carbs	**170-0115**

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Bobber-domed

STEALTH AIR CLEANER KITS W/CHROME BOBBER-DOMED COVER

Application	Fuel System	Part #
1991-'06 xl	Stock CV/EFI	**170-0095**
1991-'03 xl	S&S Super E & G Carbs	**170-0116**

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Muscle

STEALTH AIR CLEANER KITS W/CHROME MUSCLE COVER

Application	Fuel System	Part #
1991-'06 xl	Stock CV/EFI	**170-0096**
1991-'03 xl	S&S Super E & G Carbs	**170-0117**

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STEALTH AIR CLEANER KITS*

Application	Fuel System	Part #
1991-'06 xl	Stock CV	**170-0093**
1991-'03 xl	S&S Super E & G Carbs	**170-0113**

**These kits do not contain covers –Use an S&S cover, see page 327 or use your stock cover.*

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CON'T NEXT PAGE

CON'T STEALTH AIR CLEANER KITS

CARB compliant EO #D-355-21



STEALTH AIR CLEANER KITS WITH AIR 1 COVER

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21 WHEN USED ON 2007-2017 MODELS

Application	Fuel System	Part #
2007-'17 xl	Stock EFI	**170-0492**



STEALTH AIR CLEANER KITS WITH TRI-SPOKE COVER

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21 WHEN USED ON 2007-2017 MODELS

Application	Fuel System	Part #
2007-'17 xl	Stock EFI	**170-0490**



STEALTH AIR CLEANER KITS WITH TORKER COVER

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21 WHEN USED ON 2007-2017 MODELS

Application	Fuel System	Part #
2007-'17 xl	Stock EFI	**170-0491**



STEALTH AIR CLEANER KITS WITH AIRSTREAM COVER

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21 WHEN USED ON 2007-2017 MODELS

Application	Fuel System	Finish	Part #
2007-'17 xl	Stock EFI	Chrome	**170-0493**
		Gloss Black	**170-0494**



STEALTH AIR CLEANER KITS WITH MUSCLE COVER

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21 WHEN USED ON 2007-2017 MODELS

Application	Fuel System	Finish	Part #
2007-'17 xl	Stock EFI	Chrome	**170-0495**
		Gloss Black	**170-0496**



STEALTH AIR CLEANER KITS* *EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21*

Application	Fuel System	Part #
2007-'17 xl	Stock EFI	**170-0302B**

**These kits do not contain covers – Use an S&S cover, see page 327 .*

NOTES

Fuel injection tuning is not required with this product. S&S offers fuel injection tuning products starting on page 362.

REPLACEMENT PARTS: SEE PAGE 371

STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW MINI TEARDROP

FITMENT

- All S&S Stealth Air Cleaners





STEALTH COVERS

Style	Finish	Part #
NEW FOR 2018 Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	NEW FOR 2018 Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**



Air 1



Tri-Spoke



Airstream



Muscle

SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT

- 1991-'16 Harley-Davidson® Sportster® (with stock CV carb or EFI, or S&S carb)

FEATURES AND BENEFITS

- Bolt-on performance – over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy





Billet adaptor brackets make single bore tuned induction compatible with many engines and motorcycles.

CARB compliant EO #D-355-21

SINGLE BORE TUNED INDUCTION SYSTEM KITS *EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21*

Fitment	Fuel System	Finish	Part #
2007-'17 XL	Stock EFI	Chrome Runner and Red Filters	**170-0311B**

SINGLE BORE TUNED INDUCTION SYSTEM KITS

Fitment	Fuel Delivery	Finish	Part #
1991-'06 XL	Stock CV	Chrome Runner and Red Filters	**170-0089**
CTO	Specify	Specify	**106-5337***

**Use the Configure to Order (CTO) part number to order different finish and filter color.*

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REPLACEMENT PARTS: SEE PAGE 374

CLASSIC TEARDROP AIR CLEANER KIT


17-0404

FITMENT
- 1986– 2017 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS
- Uniquely designed back plate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS
- Teardrop Air Cleaner Cover in Chrome or Gloss Black
- Filter
- Backing plate
- All mounting hardware

REPLACEMENT PARTS STARTING ON PAGE 372

CARB compliant EO #D-355-21

CLASSIC TEARDROP AIR CLEANER KITS FOR SPORTSTER® MODELS

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-21

Model	Finish	FUEL SYSTEM
		Stock EFI
2007-'17 xl	Chrome	**170-0306B**
	Gloss Black	**170-0307B**

CLASSIC TEARDROP AIR CLEANER KITS FOR SPORTSTER® AND BUELL® MODELS

Model	Finish	FUEL DELIVERY TYPE	
		Stock CV	Super E & G
2004-2016 xl	Chrome	**17-0448**	**17-0428**
	Gloss Black	**170-0182A**	–
1991-'06 HD® Carbureted xl	Chrome	**17-0448**	**17-0404**
	Gloss Black	**170-0182A**	–
1988-'90 xl	Chrome	–	**17-0399**
1986-'87 xl	Chrome	–	**17-0399**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTE

Fuel delivery (carbureted or EFI) may need to be modified to maintain the correct air and fuel mixture


17-0004


17-0378


170-0384A


17-0071

TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Classic Teardrop	Chrome	**17-0378**
	Gloss Black	**170-0384A**
Slasher Teardrop	Chrome	**17-0004**
Nostalgic Teardrop	Polished	**17-0071**

PRE-FILTERS

FITMENT

- S&S® Stealth Air Filters

FEATURES AND BENEFITS

- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard Stealth Air Filter	**170-0193**
1" Tall Stealth Air Filter	**170-0197**



170-0197

HIGH FLOW AIR FILTER KITS

FITMENT

- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS

- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS

- Wide filter
- Filter spacers



170-0127

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit *(includes spacers)*	Classic Teardrop	**17-0045**
	Stealth, 1" Taller	**170-0127 ***
1" Taller Filter Only	Classic Teardrop	**106-4724**
	Stealth	**170-0154**
Spacer	Classic Teardrop & Stealth, 1" Taller	**50-5009-S**

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17-0045

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	**106-4722**
	Stealth	**170-0126**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

PERFORMANCE KIT OVERVIEW
FOR HARLEY-DAVIDSON® SPORTSTER® & BUELL®



1250CC CONVERSION KIT
This is the largest big bore kit S&S offers for Harley-Davidson® Sportster® models, that can be bolted directly to stock crankcases. Quick and easy to install. Fast on the strip. Over 90 hp typical with S&S exhaust, cams, and CNC ported heads – Using the stock fuel system! (See page 332)



883 TO 1200CC CONVERSION KIT
Boost any 883cc Harley-Davidson® Sportster® to 1200cc. No machine shop? No problem, no machining is needed. Don't want to rebalance your stock 883cc flywheels? You don't need to since these pistons weigh the same as stock 883 pistons. Cylinder head modification is also not needed. The dished piston dome keeps compression down to a streetable 9.4:1 with stock 883cc heads. Installing this kit takes the same time as replacing a stock top end. It's just more fun when you're done. (See page 333)



HOOLIGAN KIT
Whether you're racing Hooligan flat-track or just want more power, the S&S Hooligan kits for 2000-'16 Harley-Davidson® Sportster® models will give you an edge on the competition. Boost that 883 to 1200cc. Already running a 1200? Bring it up to 1250cc. Bolt on big bore kits mean easy installation with no machining and no rebalancing. S&S bolt-in cams and premium tappets make the most of the added displacement. (See page 331)

HOOLIGAN KITS
FOR 2000-2018 HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT
- 2000-2018 Harley-Davidson® Sportster® models

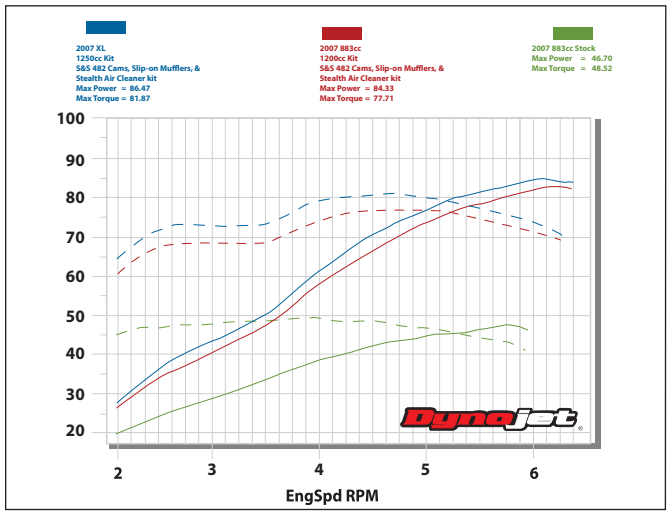
FEATURES & BENEFITS
- Easy installation – Bolt-on parts – no machining, no rebalancing
- Increase 883cc engines to 1200cc
- Increase 1200cc engines to 1250cc
- Use stock heads, pushrods, and fuel system*
- Available in wrinkle black or silver powder coat that matches stock finish

**For maximum performance gains use with S&S Stealth air cleaner and S&S Slip-on mufflers.*

HOOLIGAN KITS

Kit	Finish	Part #
883cc to 1200cc	WBlack	**910-0606**
883cc to 1200cc	Silver	**910-0607**
1200cc to 1250cc	WBlack	**910-0608**
1200cc to 1250cc	Silver	**910-0609**

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This dyno chart from our DynoJet® 250i chassis dyno, makes is easy to see why S&S Hooligan kits raise the fun factor and give you a competitive edge. The S&S 1200cc kit with stock 883 heads increases horsepower by 80% over the original stock 883cc engine. The 1250cc kit shown here had 1200 heads. Stock 883 heads cannot be used on the 1250cc kit. Even more power is available with the S&S CNC cylinder head porting service. Do you want to win, or are you just along for the ride?

NOTES
This kit is not compatible with the stock ignition.



1250cc CONVERSION KIT
FOR 1986-2018 1200cc HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT
- 1986-2018 1200cc Harley-Davidson® Sportster® models
- 1986-2018 883cc Harley-Davidson® Sportster® models

FEATURES & BENEFITS
- Forged pistons – coated piston skirts with measurement window
- Stock 1986 -2018 1200cc cylinders can be bored over to accept these pistons
- Pistons have larger than stock valve pockets – accepts up to 2.00" valves

OPTIONS
- Silver powder coat finish
- Wrinkle black (WBlack) powder coat finish

KIT CONTENTS
- S&S 1250cc pistons w/rings and wristpins
- S&S 3⅜" bore cylinders
- MLS head, base, and exhaust gaskets
- Assembly lube
- Instructions



910-0446

S&S® 1250cc CYLINDER AND PISTON CONVERSION KITS

Fitment	Piston Type	Compression Ratio	Finish	Part #
1986-2018 Sportster®	S&S Forged Flat top	10.3:1	Silver	**910-0433**
			WBlack	**910-0443**
	S&S Forged 5.5cc dome	11.2:1	Silver	**910-0436**
			WBlack	**910-0446**

**The cylinder fin profile does not perfectly match the fins on 2004 and later stock heads, but the difference is not considered to be objectionable. See Photos.*

Compression ratios given are with 60cc combustion chambers.

DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.

NOTES

Can not run stock 883 cylinder heads with this kit. 883 heads may be used if S&S CNC porting is performed. PN 909-0011

The cylinder fin profile does not perfectly match the fins on 2004 and later stock heads, but the difference is not considered to be objectionable. See photo.

S&S does not recommend boring 2004 and later 883cc cylinders from 3" to 3½" bore to increase engine displacement to 1200cc due to changes in factory cylinder and liner. A smaller O.D. liner and large chamfer on the bottom of the spigot make boring the 883 cylinder not possible. New cylinders are recommended.

This kit is not compatible with the stock ignition.



S&S cylinders match the fin profile on 1986–'03 cylinder heads. Although there is a slight difference in the fin profiles of S&S cylinders and stock 2004 –'18 cylinder heads (shown above), the look is generally not considered to be objectionable. You decide!

883 TO 1200cc CONVERSION KIT
FOR 1986-2018 883CC HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT
- 1986-2018*883cc Harley-Davidson® Sportster® models *(*See photos)*

FEATURES & BENEFITS
- Increase displacement from 883cc to 1200cc
- Save time because pistons are already fit to the cylinders – Ready to assemble out of the box!
- No machining
- No rebalancing of 883cc flywheels
- No cylinder head modifications
- Durable powder coat finish
- 9.6:1 Compression ratio
- Must be used with 883 heads

OPTIONS
- Silver powder coat finish
- Wrinkle black (WBlack) powder coat finish

KIT CONTENTS
- S&S 883-1200cc conversion pistons w/rings and wristpins
- S&S 106-5548 piston kit - 11.2cc dish volume
- S&S 3½" Bore Cylinders
- Cylinder head, base, and exhaust gaskets
- Assembly lube
- Instructions



910-0296



S&S cylinders match the fin profile on 1986–'03 cylinder heads. Although there is a slight difference in the fin profiles of S&S cylinders and stock 2004 –'18 cylinder heads (shown above), the look is generally not considered to be objectionable. You decide!

S&S® 883cc TO 1200cc CYLINDER AND PISTON CONVERSION KITS

Fitment	Finish	Part #
1986-2018 883cc Sportster®	Silver Powder coat	**910-0301**
	WBlack Powder coat	**910-0296**

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SIDEWINDER® BIG BORE KITS



FITMENT

- 1986-'03 Harley-Davidson® Sportster®
- 1994-'02 Harley-Davidson® Buell®

FEATURES AND BENEFITS

- Available in three displacements, for four-speed (1986-'90) and five-speed (1991-'03) models, and in natural aluminum and black powder coat finish.
- Requires that the crankcase cylinder spigot holes be bored to accept the larger cylinders
- Complete instructions are provided for this machining operation, and S&S has special tools available that simplify the crankcase boring procedure. See Section 11 in this catalog for more information

S&S® SIDEWINDER® BIG BORE KIT SPECIFICATIONS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Application	Stroke	Bore	Compression Ratio	Piston Type	Cylinder Length
79" Sportster**	1986 to 2003	3 13/16"	3 5/8"	ǂ	Forged	Stock

ǂ Compression ratio depends on cylinder head type used. If stock heads are used extensive cylinder head modifications must be performed, making compression ratios completely dependent on final combustion chamber volume.

SIDEWINDER® BIG BORE KITS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Stroke	Bore	Application	Part #
1295cc (79")**	3 13/16"	3 5/8"	1986 to 2003	**91-3002**

***This kit has stock height cylinders and will fit Buell® motorcycles.*

PARTS INCLUDED IN S&S® SIDEWINDER® BIG BORE KITS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Stroke	Kit Part #	Flywheel Assembly	Pistons	Cylinders	Gaskets		Head Bolt	Head Mount		Pushrods	Manifold
						Head	Base		Center	Front		
1295cc (79")	3 13/16"	**91-3002**		Forged	●	●	●					

NOTES

This kit is not compatible with the stock ignition.

SB100 ENGINES
FOR HARLEY-DAVIDSON® SPORTSTER®



FITMENT
- 1986–'03 Harley-Davidson® Sportster®

FEATURES AND BENEFITS
- Bolt-in replacement for stock engines
- "Square" motor configuration (equal bore and stroke) produces excellent torque, greatly increases engine life
- S&S Super G carburetor with Classic Teardrop air cleaner
- S&S high flow Super Stock® cylinder heads
- High strength supreme rods, S&S cylinders, and forged pistons
- Adjustable pushrods and pushrod cover assemblies
- Hydraulic tappets and S&S forged roller rocker arms
- S&S billet gear cover kit and billet aluminum rocker covers
- Now includes oil pump and oil filter mount

KIT CONTENTS
- Assembled SB100 engine
- Instructions

S&S® SB100 ENGINE SPECIFICATIONS

Displacement	Bore	Stroke	Cylinder Length	Camshaft	Piston Type	Compression Ratio	Fuel Delivery	Warranty Period
100"	4"	4"	4.420"	600	S&S forged	10.3:1	S&S Super G Carb	1 year parts only

COMPLETE SB100 ENGINES FOR SPORTSTER® MODELS

Application	Part #
SB100 for Sportster	**31-9891**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTES

Requires 1991-'03 style primary components and transmission. Will not accept 1986-'90 4 speed transmission, charging system or primary components.

Primary components, starter charging system, ignition system, and transmission components are not included.

CRANKCASES
FOR 1986-'03 SPORTSTER® AND BUELL®



FITMENT
- 1986-'03 Harley-Davidson® Sportster® and Buell®
- S&S SB-Series engines

FEATURES AND BENEFITS
- Super strong for high performance engines
- Crankcases come complete with all required bearings and hardware
- Replaceable tappet guides for all year groups

OPTIONS
- Super Stock Cases
  - Choice of cam geometry—1986-'90 (4-speed) or 1991-'99 (5-speed)
  - Available for stock and 3⅝" bore sizes
- Special Application (SA) Cases
  - Choice of cam geometry—1986-'90 (4-speed) or 1991-'99 (5-speed)
  - 3⅝" bore to 4½" bore
  - Up to 1" taller cylinder deck height
  - Machined for stock, big twin, or S&S 1.500" diameter sprocket shafts

KIT CONTENTS
- Crankcase assembly
- Billet tappet guides
- Bearings and hardware
- Transmission trapdoor
- Oil filter mounting bracket

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S DEGREE WHEEL, SEE PAGE 525

SUPER STOCK® CRANKCASES FOR HARLEY-DAVIDSON® SPORTSTER® & BUELL® MODELS

Cam Geometry	Stock Bore	3⅝" Bore
1991-'03	**31-1008***	**31-1009***
1986-'90	-	**31-1014**

All S&S crankcases use 5-speed transmission and primary components. These cases will not accept 4-speed transmissions or flywheel assemblies.
**Requires use of S&S cam cover gasket. (#31-2052). 1991-'03 cases require 1991-'96 gearcovers which are available from S&S.*
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SPECIAL APPLICATION CRANKCASES FOR 1986-'03 FOR HARLEY-DAVIDSON® SPORTSTER® & 1994-'02 BUELL® MODELS

Engine	Cam Geometry	4" Bore
Sportster/Buell	1986-'90	**31-1012** *31-1012NS*

- *All S&S crankcases use 5-speed transmission and primary components.*
  - *These cases will not accept 4-speed transmission.*
  - *Not compatible with stock flywheel assemblies.*
- *Since S&S Special Application crankcases are .500" wider than stock, they require part #33-2329 +.500" pinion shaft and S&S Special Application tappet guides.*
- *Requires use of S&S cam cover gasket. (Part #31-2099).*
  - *1991-'03 cases require 1991-'96 gearcovers.*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTES

If transmission and primary do not share the same lubricant, it is vital to ensure that both the primary and the transmission are filled with the correct lubricants.

REPLACEMENT PARTS: SEE PAGE 366

FLYWHEELS
FOR 1986-'99 HARLEY-DAVIDSON® SPORTSTER® AND 1994-'97 BUELL® MODELS

FITMENT
- 1986-'99 Harley-Davidson® Sportster®
- 1994-'97 Buell®
- S&S SB-Series engines

FEATURES AND BENEFITS
- CNC machined from heat-treated, closed die, steel forging
- Stronger than cast iron or late style steel flywheels
- 5-piece design – easily rebuilt with standard flywheel fixtures and tools
- Unassembled balanced flywheels are balanced by the static method

FLYWHEEL ASSEMBLIES FOR 1994-'97 BUELL® MODELS
S&S flywheels for two-cylinder 1994-'97 Buell models. Although similar to flywheels for Sportster® models, these flywheels are knife edged and lightened. This design offers these advantages:
- Knife edging is a proven design used in race motors to make the flywheels "shed" oil more quickly to reduce drag at high rpm.
- Knife edging and lightening increases effective crankcase volume and reduces the flywheel assembly weight by 2-4 lbs. Increased crankcase volume results in better oil control, effectively reducing friction and heat, as well as helping to control oil carry over. Reduced weight results in faster revving and higher top rpm capability.
- All S&S flywheels for Sportster and Buell models feature removable mainshafts for easy rebuilding. In addition, the S&S pinion shaft is the 1986-'87 splined design, which is much stronger than the stock pinion shaft, allowing the use of higher lift cams and stronger valve springs.

OPTIONS
- Stock replacement or stroker flywheels for high performance upgrade
- Available in a wide variety of styles and strokes
- Available balanced or unbalanced
- Available assembled or unassembled by special order

KIT CONTENTS
- Flywheels
- Pinion shaft and sprocket shaft
- Optional connecting rods



TRYING TO IDENTIFY AN S&S® FLYWHEEL? SEE FLYWHEEL I.D. CHART IN THE APPENDIX: PAGE 548

REPLACEMENT PARTS: SEE PAGE 365

NOTES

Lightened flywheels are not recommended for Sportster models with solid mounted engines due to increased vibration and loss of low rpm torque.

S&S pinion shafts for 1986-'03 Sportster® models are the splined 1986-'87 style.

Pinion and oil pump drive gears in 1988-'03 models must be replaced with early style gears. See page 343

Complete S&S Flywheel assemblies will fit up to 1999 model year engines. However, the flywheels are compatible with stock crankpins up to 1999 only.

Stock stroke flywheels are balanced to stock weight pistons

These flywheels will not fit 1998-up Buell® models.

REPLACEMENT FLYWHEEL ASSEMBLIES FOR HARLEY-DAVIDSON® SPORTSTER® MODELS

Year Group	Displacement	Stroke	Flywheel Diameter	Part #
1986-'90	1200cc (Stock)	3 13/16" (Stock)	7 7/8" (Stock)	**320-0052**
	S&S 89" SW Kit	4 5/16"	7 7/8" (Stock)	**32-3061**
1991-'99	1200cc (Stock)	3 13/16" (Stock)	7 7/8" (Stock)	**320-0053**
	S&S 89" SW Kit	4 5/16"	7 7/8" (Stock)	**32-3062**
Special Order*	Specify	Specify	Specify	**32-3014***

**Special Order Notes: Download the Special Order Form at sscycle.com/soforms*

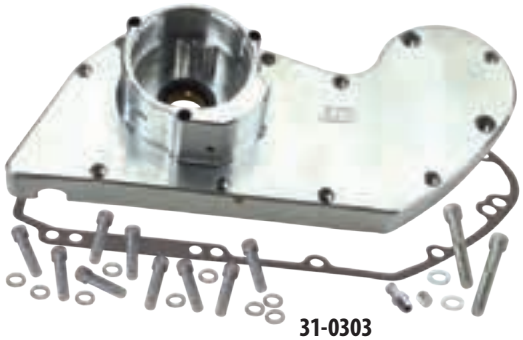
Application	Stroke	Flywheel Diameter	Part #	
Special Order For Buell*	Specify	Specify	**32-3014***	

**Special Order: Download the Special Order Form at sscycle.com/soforms*

BILLET GEARCOVERS
FOR SPORTSTER® AND BUELL® MODELS

BILLET GEARCOVER KITS – STANDARD

Bushing Style	Part #
1986-'90 style bushing	**31-0303**



31-0303

REPLACEMENT GASKETS

Product	Part #
Gearcover Gasket	**31-2052**
Cam Seal *11124*	**31-4051**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BILLET FILTER MOUNT

FITMENT
- 1986-'87 Harley-Davidson® Sportster®
- S&S SB-Series engines
- S&S crankcases for Sportster and Buell®

FEATURES AND BENEFITS
- Accepts stock oil pressure sending switch
- Machined for easy routing of an oil cooler
- Seals off cam chest, providing a convenient place to spin on an oil filter



106-3134

BILLET FILTER MOUNT

Fitment	Part #
1986-'87 Harley-Davidson® Sportster® S&S SB-Series engines S&S crankcases for Sportster and Buell®	**106-3134**

CYLINDERS WITH PISTONS KIT
- Cylinders with piston kits include fitted pistons and cylinders, head gaskets, base gaskets, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included



S&S® 4" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Piston Deck Height	COMPRESSION RATIO	
				Low Compression* Heads 85cc	High Compression* Heads 76cc
100"	4"	4.420"	1.200"	9.6:1	10.3:1

**91" and 100" engines for Sportster models typically use heads with 76cc chambers for high compression and 85cc chambers for low compression.*

4" BORE CYLINDERS WITH PISTONS FOR 100" KIT

Displacement	Description	Finish	Part #
100"	Cylinder with Piston Set	Natural	**91-3031**

CYLINDERS WITH PISTONS KIT con't



91-3208

S&S® 3⅝" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Piston Deck Height	COMPRESSION RATIO	
				S&S Super Stock® Heads - Low/Intermediate/High	Stock Heads
1458cc (89")	4⅝"	5.087"	1.200"	9.5/10.3/12.4	*
1688cc (103")	5"	5.750"		10.9:1/11.8:1/14.2:1	*

*Compression ratio will be determined by the combustion chamber modifications

3⅝" BORE CYLINDERS WITH PISTONS FOR 89" KIT

Displacement	CYLINDERS W/PISTONS (SET)			
	Low Compression (92-1080 series pistons)			Intermediate Compression (92-1120 series pistons)
	Natural	WBlack	MSRP	Natural
1458cc (89")	**91-3207**	–	–	**91-3208**



910-0433

S&S® 3⁹⁄₁₆" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Dome Volume	Piston Deck Height	Compression Ratio S&S Heads
1250cc	3¹³⁄₁₆"	4.650"	Flat Top	1.208"	10.3:1
			5.5cc		11.2:1

3⁹⁄₁₆" BORE CYLINDERS WITH PISTONS FOR 1250CC KIT

Displacement	Piston Type	Silver	WBlack
1250cc	S&S Forged Flat Top	**910-0433**	**910-0443**
	S&S Forged 5.5cc Domed	**910-0436**	**910-0446**

DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.



910-0301

S&S® 3½" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Piston Deck Height	COMPRESSION RATIO	
				S&S Heads	Stock Heads
1200cc	3¹³⁄₁₆"	4.650"	1.208"	10.5:1	9.6:1

3½" BORE CYLINDERS WITH PISTONS FOR 1200CC & 883CC KITS

Displacement	Natural	Silver	WBlack
1200cc, 1986-2003 Sportster®, 1994-'02 Buell® Models with S&S® Heads	**91-3014**	–	**91-3908**
883cc (conversion to 1200cc), 1986-2017*Sportster® models	–	**910-0301**	**910-0296**

*The cylinder fin profile does not perfectly match the fins on 2004 and later stock heads, but the difference is not considered to be objectionable. See Photos on page 333

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-3604***

*Special Order: Download the Special Order Form at sscycle.com/soforms

NOTE

Stock crankcases must be machined to accommodate the larger spigot diameter.

Combustion chamber modifications must be made to stock cylinder heads to reduce compression.

CYLINDERS

- Cylinder sets without pistons are bored slightly under normal size and are not honed.
- Include dowel pins



4" BORE CYLINDERS

Displacement		Natural
100"	Set	**91-3030**

3 3/16" BORE CYLINDERS

Displacement		Silver	WBlack
1200cc	Set	**910-0449**	**910-0452**

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3½" BORE CYLINDERS

Displacement		Natural	Silver	WBlack
1200cc	Set	**91-3010** USA	**910-0304**	**91-3904** USA

ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER **91-3604*** *Call for Pricing*
**Special Order: Download the Special Order Form at sscycle.com/soforms*

NOTES

Stock crankcases must be machined to accommodate the larger spigot diameter.

Combustion chamber modifications must be made to stock cylinder heads to reduce compression.

PISTON KITS

- Piston kits include set of pistons, rings, wristpins, and clips



92-1420

4" BORE FORGED PISTON KITS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"
100"	1.200"	4"	**92-1420**	**92-1421**	**92-1422**

Recommended piston fitment: Close: .0020"-.0025" Loose: .0032"-.0045"

3⅜" BORE FORGED PISTON KITS FOR STOCK HEADS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"	+.040"
1458cc (89")	1.200"	4 5/16"	**92-1940**	**92-1941**	**92-1942**	**92-1943**	**92-1944**
1688cc (103")	1.200"	5"					

Recommended piston fitment: Close: 0.0015"-0.0020" Loose: 0.0030"-0.0040"

3⅜" SUPER STOCK® FORGED LOW COMPRESSION PISTON KITS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"	+.040"
1458cc (89")	1.200"	4 5/16"	**92-1080**	**92-1081**	–	**92-1083**	**92-1084**
1688cc (103")	1.200"	5"					

3⅜" SUPER STOCK® FORGED MEDIUM COMPRESSION PISTON KITS

Displacement	Deck Height	Stroke	Standard	+.010"	+.020"	+.030"	+.040"
1458cc (89")	1.200"	4 5/16"	–	–	**92-1122**	–	–
1688cc (103")	1.200"	5"					

Recommended piston fitment: Close: 0.0023"- 0.0025" Loose: 0.0035"- 0.0045"

PISTON KITS con't

3⁹⁄₁₆" BORE FORGED PISTON KITS

Displacement	Dome Volume	Deck Height	Stroke	Standard
1250cc	Flat Top	1.207"	3 13⁄16"	**920-0070**
	5.5cc	1.207"	3 13⁄16"	**920-0071**

DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.

3½" BORE FORGED PISTON KITS

Cylinder Heads	Deck Height	Stroke	Standard	+.010"	+.020"
S&S® Super Stock®	1.1875"	3 13⁄16"	**92-2016**	**92-2017**	**92-2018**
Stock 883cc	1.207"		**106-5548**	**106-5549**	**106-5550**

Recommended piston fitment: Close: 0.0015"-0.0020" Loose: 0.0030"-0.0040"

REPLACEMENT PARTS FOR PISTONS

PISTON RINGS, CHROMOLY FACED

Bore	4"	3⅝"	3 9⁄16"	3½"	
				S&S® Heads	Stock 883cc Heads
Deck Height	1.200	1.200	-	1.1875"	1.207"
Standard	**94-1300X** USA 2	**94-1210X** USA 1	**940-0042***	**94-2216X** USA *21921-83*	**94-2206X** USA *22334-78A, 22334-78B, 21920-83*
+.005"	–	–	–	**94-22165X** USA *21921-83*	–
+.010"	**94-1301X** USA 2	**94-1211X** USA 1	–	**94-2217X** USA	**94-2207X** USA *22334-78A, 22334-78B, 21920-83*
+.020"	**94-1302X** USA 2	**94-1212X** USA 1	–	**94-2218X** USA	**94-2208X** USA *22336-78B, 21923-83*
+.030"	–	**94-1213X**	–	**94-2219X** USA	**94-2209X** USA *22336-78B, 21923-83*
+.040"	–	**94-1214X**	–	–	–
+.060"	–	**94-1216X**	–	–	–

**Clips and pins not available.*

WRISTPINS

Bore	Description	Part #
4"	Wristpin .792" x 2.825"	**94-9256** USA 1,2
3⅝"		
3½"		

KEEPERS

Bore	Description		Part #
4"	Keeper *22589-83A*	*each*	**94-9254-S**
3⅝"		*2 pack*	**94-9254-2**
3½"		*4 pack*	**94-9254**

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CAMSHAFTS

FITMENT

- 1986–'18 Harley-Davidson® Sportster®
- 1994-'02 Buell®

APPLICATIONS

S&S 482: Bolt in cam for 2004-'15 models only. Recommended for S&S 883 to 1250 conversion kits. Best performance gains 3500-6500 rpm. Compatible with stock valve springs and stock non-adjustable pushrods.

S&S 500: Bolt-in cams that provide excellent torque with stock or ported heads. Recommended for modified engines up to 89" displacement and 9.0:1 to 10.5:1 compression ratio. Will work in 89" to 100" engines with less than 9.0:1 compression. Normal clearancing checks recommended. 2000-6000 rpm. Works with stock valve springs and stock non-adjustable pushrods.

S&S 555: Recommended for 89"-100" engines with 9.5:1 to 11.5:1 compression ratio. Provides best performance from 3500-6500 rpm using ported stock heads or S&S heads. Requires adjustable pushrods, spring spacing or high lift valve springs, and normal clearance checks.

S&S 600: The standard cam included in 4" bore S&S engines. For engines larger than 89" with 9.5:1 to 10.5:1 compression ratio and S&S heads. Great addition to a S&S 103" Sidewinder® kit. Requires adjustable pushrods, crankcase clearancing and high lift valve springs. 3500-6500 rpm.

With the exception of the "bolt-in" 500 camshafts, S&S cams are high lift and are designed to take advantage of the extra flow of ported stock heads or S&S Super Stock® heads. Due to the high lift of these cams, high lift valve springs and minor clearancing is required for proper installation.



33-5082

S&S® CAMS SPECIFICATIONS FOR 1986-'15 SPORTSTER® AND 1994-'02 BUELL® MODELS

Cam Name	Valve Timing[1]		Valve Duration (°)		Valve Lift	Lift @ TDC[2]		Spring Spacing Required	Tappet[3] Type Required
	Intake	Exhaust	Intake	Exhaust		Intake	Exhaust		
	Open BTDC/Close ABDC	Open BBDC/Close ATDC							
S&S 482	22°/38°	43°/11°	240°	234°	.482"	.181"	.134"	No	Hydraulic
S&S 500	34°/50°	56°/28°	264°	264°	.500"	.241"	.212"	No	Solid or Hydraulic
S&S 555	33°/53°	53°/33°	266°	266°	.555"	.240"	.240"	Yes	Solid or Hydraulic
S&S 600	20°/55°	60°/20°	255°	260°	.600"	.194"	.184"	Yes	Solid or Hydraulic

[1]Timing designations is a function of zero lash @ 0.053" off base circle.
[2]TDC lifts are measured at the valve and are for reference only. Overlap valve lifts must be checked on assembled motor.
[3]Requires cam lobe clearancing when used in stock crankcases.

CAMS FOR 1986-'16 SPORTSTER® AND 1994-'02 BUELL® MODELS

Cam Name	Application	Part #
S&S 482	2000-'18	**330-0189**
S&S 500	1991-'18*	**33-5082**
	1986-'90	**33-5081**
S&S 555	1991-'18*	**33-5084**
S&S 600	1991-'18*	**33-5126**
	1986-'90	**33-5125**

**See Notes regarding pinion gears*

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NOTES

1991-'99 style pinion gear must be used with S&S® cams in 2000-'16 Sportster® models and 2000-'02 Buell® models with stock flywheels. See page 343.

2000-'03 Sportster models and 2000-'02 Buell models using S&S flywheels or pinion shafts require the use of '91-'99 style cams and S&S '86-'87 pinion gear and oil pump drive gear.

PINION GEARS

FITMENT
- 1986-'99 Sportster®
- 1994-'02 Buell®


33-4153


33-4163


33-4228

PINION GEARS FOR 1986-'87 SPORTSTER®
REQUIRED FOR ALL S&S FLYWHEEL ASSEMBLIES FOR 1986-'99 SPORTSTER AND 1991-'99 BUELL MODELS

Color Code	Size	HD® Part #	S&S® Part #
Blue	Biggest	*24056-86*	**33-4152**
Red	Average	*24057-86*	**33-4153**
White	Average	*24058-86*	**33-4154**
Green	Average	*24059-86*	**33-4155**
Yellow	Smallest	*24060-86*	**33-4156**

PINION GEARS FOR 1991-'99 SPORTSTER®
WITH STOCK FLYWHEEL ASSEMBLY

Color Code	Size	HD® Part #	S&S® Part #
Blue	Biggest	*24056-91*	**33-4162**
Red	Average	*24057-91*	**33-4163**
White	Average	*24058-91*	**33-4164**
Green	Average	*24059-91*	**33-4165**
Yellow	Smallest	*24060-91*	**33-4166**

Note: Can be used to install S&S cams in 2000-2013 Sportster® engines

PINION SHAFT COMPONENTS FOR 1986-'03 SPORTSTER® MODELS

Item Description	HD® Part #[1]	S&S® Part #
1986-'87 Style Pinion Gear Nut	*7913*	**33-4254**
1986-'87 Style Pinion Shaft Oil Pump Drive Gear	*26318-75*	**33-4228**

[1]Note: No longer available from Harley-Davidson®

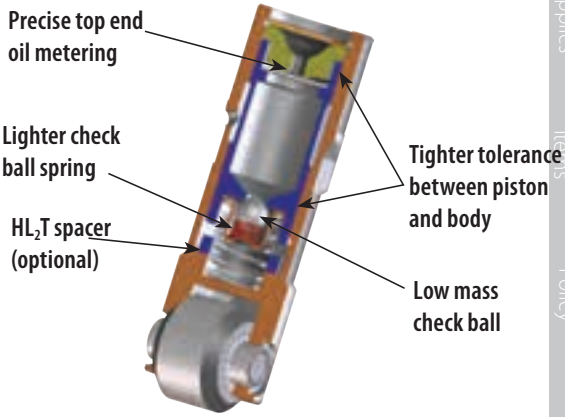
NOTE If the stock gear is unmarked and the size is unknown or you are scratch building an engine and have no gear, we recommend that you order a gear in the middle of the size range. These sizes were used more often and should provide adequate gear clearance under most circumstances. When in doubt, use a gear from the middle to the small side of the range because a combination of looser fitting smaller gears is less likely to cause binding and premature wear. Consult the chart for the size and appropriate part number required. If you wish to achieve optimum cam gear to pinion gear fit, consult your factory service manual for instructions on fitting these gears before making a selection. Some sizes, particularly those on and near the ends of each range, are available on a limited basis because they are the extremes.

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PREMIUM HIGH PERFORMANCE TAPPETS

FITMENT
- 2000-'18 Sportster® Models

FEATURES
- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates - fast pump up and superior high rpm performance
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring - enhances fast pump up and quiet operation
- 100% tested to ensure that leak down and top end oil flow are within specification





PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL_2T kit	**330-0174**
Set of 4 tappets without HL_2T kit	**330-0175**

HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT
- 1986-'90 Harley-Davidson® Sportster®
- 2000-'18 Sportster
- 2000-'02 Buell®

FEATURES AND BENEFITS
- Redesigned plunger assembly better withstands forces associated with heavy-duty valve springs and cams typically used in high-performance applications
- Revised metering device precisely controls oil delivery to top end, ensuring rapid lifter pump-up and reducing possibility of oil starvation to bottom end
- Each lifter body and plunger assembly is selective-fit and tested to ensure correct operation
- 1986-'90 (4-speed)
  - Larger inner bearing race reduces stresses to increase axle, bearing and roller life. The S&S inner bearing race is .123" larger in diameter than the "raceless" roller axles currently used by some manufacturers.
  - Improved inner race-roller design allows use of more and larger bearings to increase load – carrying surface area, further reducing stress and wear in the critical roller area.

OPTIONS
- Tappets for 1986-'90 four speed Sportster® models are available with the HL2T Limited Travel Kit for improved cold starts and high rpm valve timing accuracy.

KIT CONTENTS
- Four hydraulic tappets

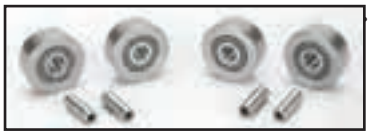


HIGH PERFORMANCE HYDRAULIC TAPPETS

Fitment	Description	Part #
2000-'18 Sportster® models 2000-'02 Buell® models	S&S Standard Tappet (HL_2T kit not installed)	**33-5350** USA
1991-'99 Sportster® models	*S&S Standard Tappet (HL_2T kit not installed)*	**330-0288** USA
1986-'90 Sportster® models	S&S Standard Tappet (HL_2T kit not installed)	**33-5352** USA
	S&S Standard Tappet (With HL_2T kit installed)	**33-5353** USA 1,2,3

NOTE S&S tappets with HL_2T Kit require the use of adjustable pushrods.
See page 346 for S&S adjustable pushrod options

HIGH QUALITY TAPPET ROLLER AND AXLE REPLACEMENT



High quality tappet roller and axle replacment kit for 1984-99 Harley-Davidson® big twin and 1986-90 Sportster® models. Kit includes rollers to rebuild 4 tappets.

HIGH QUALITY TAPPET ROLLER AND AXLE REPLACMENT KIT

Fitment	Part #
Kit includes rollers to rebuild 4 tappets.	**330-0378**

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL_2T)

FITMENT
- 1986-'03 Harley-Davidson® Sportster®
- 1994-'02 Buell®

FEATURES AND BENEFITS
- Positive valve train activation!
- More horsepower at higher RPMs
- Easier starting

KIT CONTENTS
- Set of four spacers



HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL_2T)

Fitment	Part #
1986–'03 Sportster® with stock or S&S® tappets (fits tappets with .612" I.D.)	**33-5338**

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TAPPET GUIDES

FITMENT
- 1986-'90 Harley-Davidson® Sportster®
- S&S Super Stock® crankcase
- S&S Special Application crankcase

FEATURES AND BENEFITS
- Unlike cast aluminum, billet has no internal voids or impurities
- No residual strain from thermal contraction or expansion means no cracking or changes in shape
- Simple to install upgrade that looks great
- Tappet guides for special application cases have correct pushrod angles for ½" camchest offset

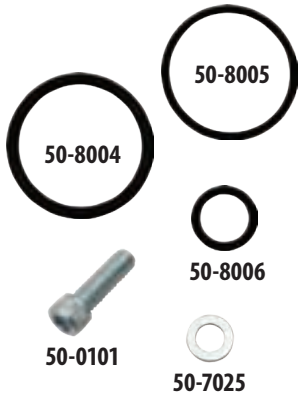
KIT CONTENTS
- Guides
- O-rings
- Installation hardware



NOTE 2000 and later Sportster models use the same tappet as 1999-up big twin engines. However, these tappets will not fit the S&S tappet guides for 1991-'99 models.

S&S® TAPPET GUIDE SETS FOR SPORTSTER®, SUPER STOCK®, AND SPECIAL APPLICATION CRANKCASES

Application	Set
1986-'90 Stock/S&S® Super Stock	**33-5375**
1986-'90 S&S Special Application	**33-5365**
1991-'99 S&S Super Stock	**33-5389**



REPLACEMENT PARTS FOR TAPPET GUIDES

Description		Part #
Tappet Guide O-ring Kit *Fits 1986-'90 Sportster models with stock or S&S crankcases and 1991-'99 Sportster models with S&S crankcases* ***1167A***		**50-8153**
Upper O-ring, 1" I.D. x 13⁄16" O.D .x 3⁄32" CS Viton® *11167*	*each*	**50-8004**
Lower O-ring, 1" I.D. x 1 1⁄8" O.D. x 1⁄16" CS Viton *11168A*	*each*	**50-8005**
Oil Passage O-ring, 3⁄8" I.D. x ½" O.D. x 1⁄16" CS 70 Buna *11110*	*each*	**50-8006**
	10 pack	**50-8077**
Screw, SHC, 5/16-18 x 1", Zinc *3201WA, 2708*	*each*	**50-0101**
Washer, Flat, .325" x .548" x .062", Zinc, Low Carbon Steel *6771*	*each*	**50-7025**

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QUICKEE ADJUSTABLE PUSHRODS

FITMENT
- 1991-'18 Harley-Davidson® Sportster®
- 1994-'02 Buell®

FEATURES AND BENEFITS
- Easy to install
- Adjustable to ensure consistent valve train operation under all conditions

KIT CONTENTS
- Pushrods
- Pushrod covers and keepers
- O-rings

NOTES

Quickee pushrods cannot be used in the S&S® SB-100 engine.

33-5355 adaptors, 93-4039 cover kit and 93-4101 keepers are needed when used on 1991-2003 applications.

REPLACEMENT PARTS: SEE PAGE 347

WATCH THE S&S PUSHROD INSTALLATION VIDEO AT SSCYCLE.COM/MEDIA/VIDEOS



930-0023

QUICKEE ADJUSTABLE PUSHRODS FOR 1991-'16 HARLEY-DAVIDSON® SPORTSTER® MODELS

Description	Part #
Complete Kit, for 2004-'18 xl	**930-0023**
Pushrod Set only, for 1991-'18 xl	**93-5122**

STANDARD ADJUSTABLE PUSHRODS

FITMENT
- 1986–'18 Harley-Davidson® Sportster®
- 1994-'02 Buell®

FEATURES AND BENEFITS
- Made out of 7/16" O.D. chromoly steel tubing for strength and durability
- Adjustable to ensure accurate valve train operation under all conditions
- Compatible with solid and hydraulic lifters
- Kit includes all pushrods, covers, keeper and o-rings

KIT CONTENTS
- Pushrods,
- Pushrod covers and keepers
- O-rings

NOTES

S&S pushrod sets are available separately for those who wish to use an aftermarket pushrod cover other than S&S.

33-5355 pushrod cover adaptors are required for 1991-'03 applications. See page 347

REPLACEMENT PARTS: SEE PAGE 347

WATCH THE S&S PUSHROD INSTALLATION VIDEO AT SSCYCLE.COM/MEDIA/VIDEOS



930-0024

STANDARD ADJUSTABLE PUSHRODS FOR 2004-'18 HARLEY-DAVIDSON® SPORTSTER® MODELS

Description	Part #
Complete Kit	**930-0024**
Pushrod Set only	**93-5022**

PUSHROD SETS FOR 1991-'03 SPORTSTER® AND 1994-'02 BUELL® MODELS

Displacement	Cylinder Length	Part #
883cc, 1200cc, 79"	4.650" (Stock)	**93-5022**
89"	5.087" (+0.437)	**93-5089**

PUSHROD SETS FOR 1986-'90 SPORTSTER® MODELS

Displacement	Cylinder Length	Part #
883cc, 1200cc, 79"	4.650" (Stock)	**93-5033**
89"	5.087" (+0.437)	**93-5022**

PUSHROD COVERS AND RELATED PARTS

FITMENT

- 1986–2018 Harley-Davidson® Sportster®
- 1994-'02 Buell®



PUSHROD REPLACEMENT PARTS

Item Description		Part #
S&S Pushrod Cover Kit* *(includes Top and bottom covers, Cover cap, Cover spring, Spring washers, and o-rings)*	Stock Height	93-4039*
	1" or more taller than stock	93-4038*
Cover Cap Washer *6762B*		50-7131
Bottom Cover Washer		50-7150
Top O-ring *11132A*		50-8039
Middle O-ring		50-8038
Bottom O-ring		50-8037
Top Cover		93-4016
Bottom Cover		93-4015
Cover Cap		93-4017
Cover Spring		93-4018
Pushrod O-ring Kit		93-4022
Ball End	Fits S&S adjustable with 5/16"-32 threads. *(Manufactured after 2-1-1996)*	93-5002
Adjusting Unit Locknut	Fits S&S adjustable pushrods with early stock 9/32"-32 threads	33-5333
	Fits S&S adjustable pushrods with 5/16"-32 threads. *(Manufactured after 2-1-1996)*	93-5003-S

**1991-'03 Sportster and 1994-'02 Buell models require S&S pushrod cover adaptor kit part #33-5355 to use two-piece pushrod covers.*

S&S pushrod cover adapters for five-speed Sportster models are designed to convert stock 1991-'03 crankcases to accept 1986-'90 style pushrod cover assemblies in order to allow access to adjustable pushrods. 2004-up Sportster models do not require these adapters.



PUSHROD COVER ADAPTER

Set of four	33-5355

S&S® PUSHROD COVER KEEPER SETS

Application		Length	Part #
2004-'18 Sportster® Pushrod covers	883cc & 1200cc	(2.600")	**93-4101**
1991-'03 Sportster and 1994-'02 Buell® with Stock Cases and S&S Adaptors	883cc & 1200cc	(2.600")	**93-4101**
	79"	(2.600")	**93-4101**
	89"	(3.000")	**93-4103**
1986-'90 Sportster with Stock or S&S Cases	883cc & 1200cc	(2.800")	**93-4115** USA *17950-86*
	79"	(2.800")	**93-4115** USA *17950-86*
	89"	(3.100")	**93-4104**
	100"	(3.000")	**93-4103**



93-4101

All S&S pushrod keepers are chromed steel except part #93-4109. Keeper #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length. Keepers are sold in sets of four.

S&S® CUSTOM LENGTH PUSHROD COVER KEEPER SETS

Length	Part #
2.400" *17950-48*	**93-4070** USA
2.500"	**93-4100**
2.600"	**93-4101**
2.800" *17950-86*	**93-4115** USA
2.900"	**93-4102**
3.000"	**93-4103**
3.100"	**93-4104**
3.200"	**93-4105**
3.330" *17949-40, 17950-66*	**93-4106** USA
3.500"	**93-4107**
3.625"	**93-4108**
4.250"	**93-4109***

**Custom extra long stainless steel 4.250", customer to cut to required length*

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

SIDEWINDER® .650" LIFT VALVE SPRINGS

FITMENT
- 1986-'18 Harley-Davidson® Sportster® with stock heads

FEATURES AND BENEFITS
- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS
- Valve keepers, top & bottom collars, springs, shims
- Valve guide seals *(not included in kit for 1999-'04 xl)*

S&S® .650" LIFT SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500



106-5909

S&S®.650" LIFT SPRING KIT

Description	Part #
1986-2003 (5⁄16" valve stems)	**900-0050**
2004-2018 (7mm stems)	**106-5909**

NOTE S&S recommends roller rocker arms be used with lifts over .585"

STREET PERFORMANCE .585" VALVE SPRINGS

FITMENT
- 1986-'18 Harley-Davidson® Sportster® / 1995-'02 Buell

FEATURES AND BENEFITS
- Dual springs reduce the risk of valve float
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"

KIT CONTENTS
- Valve Guide Seals, Springs, Top & Bottom Collars, Keepers, Shims

S&S® .585" LIFT SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.850"	135 lb.	325 lb.



900-0593

S&S® STREET PERFORMANCT .585" VALVE SPRING KIT

Description	Part #
1986-'03 Sportster® & 1995-'02 Buell® (5⁄16" valve stems)	**900-0593**
2004-'18 Sporsters® (7mm stems)	**900-0594**
S&S Super Stock Heads	**900-0595**

VALVE SPRING REPLACEMENT PARTS: SEE PAGE 382

FORGED ROCKER ARMS

FITMENT

- 1986–'18 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS

ROLLER ROCKER ARMS

- Extremely durable rollers reduce valve stem side thrusting with high lift cams
- Superior wear and fatigue resistance even in the most demanding applications
- ¾" long bushings provide 50% more bushing support area than ½" long bushings
- Ideal for cams of any lift

STANDARD ROCKER ARMS

- ¾" long bushings provide 50% more bushing support area than ½" long bushings
- An economical alternative for cams up to .585" lift

KIT CONTENTS

- 2 front and 2 rear rocker arms



900-4065A

S&S® FORGED ROLLER ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms USA 5	900-4065A

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.



900-4119A

S&S® STANDARD FORGED ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms USA	900-4119A

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4036

S&S® ROCKER ARM SHAFTS

Description	Part #
Set of 4 *17611-83B* USA	90-4036
Individual *17611-83B* USA USA 1,2,3	90-4006

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4104

REPLACEMENT PARTS FOR FORGED ROLLER ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm USA 1,2,3	900-4065FA
	Rear exhaust or front intake rocker arm USA 1,2,3	900-4065RA
Standard	Front exhaust or rear intake rocker arm *17375-83A* USA	900-4119FA
	Rear exhaust or front intake rocker arm *17360-83A* USA	900-4119RA
Roller	Rebuild kits (rebuilds 4 rocker arms)	90-4104
Roller & Standard	Rocker arm bushing (¾" long) USA 1,2,3	90-4014

NOTES

S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift.
Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CNC PORTED CYLINDER HEAD SERVICES

CNC PORTING SERVICE FEATURES AND BENEFITS

- CNC machined ports are consistent - repeatable performance increase
- High flow and high port velocity - great power without losing low RPM torque
- Assembled with performance valves and your choice of .585" or .650" lift springs ready to bolt-on
- Stock heads with S&S CNC porting are also available for outright sale in select models

XL CNC

- Available for 2004-'18 XL 883 and 1200cc engines
- Combustion chamber volume of 60cc - For stock compression in 1200cc engines
- 883 engines must to upgraded to 1200cc or greater
- Perfect for the S&S 1200cc and 1250cc kits.



909-0011

CNC PORTING SERVICE FOR SPORTSTER® MODELS

Description	Part #
CNC Porting Service - S&S Ports Your Heads	**909-0011**
CNC Ported Heads - Complete Set Sold Outright	**909-0011**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE.
Not legal for sale or use on any EPA pollution controlled motor vehicle.

S&S® CNC PORTING SERVICE – SPECIFICATION COMPARISON - HARLEY-DAVIDSON® SPORTSTER® MODELS

Heads	Valve Size		Max Valve Lift	Max TDC Lift		Port Flow		Chamber Volume
	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	
Stock	1.805	1.575	.585	–	–	218.2 cfm	186.7 cfm	60cc
CNC Ported by S&S	1.830	1.575	.650	.213	.215	249.3 cfm	206.0 cfm	60cc

**Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift. Heads tested are 2007-'13 style.*

Heads	COMPRESSION RATIO	
	1200cc	With .03 Head Gaskets
Stock 60cc	9.7	10:1
CNC Ported by S&S 60cc	9.7	10:1

***As a general rule of thumb, for every 1cc decrease in chamber volume equals a .1 increase in compression ratio.*

NOTES

For XL applications. S&S recommends for use with cam TDC lifts no greater than: .213" intake, .215" exhaust to achieve .050" valve to valve clearance.

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases, the customer will be notified and options will be reviewed. As an alternative, S&S heads or CNC ported stock heads are available for purchase.

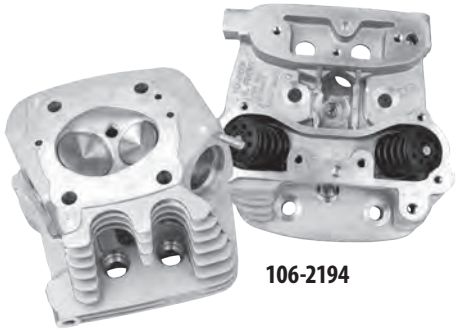
Due to variations in stock cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

CNC porting is not currently available for Harley-Davidson® CVO engines or Screamin' Eagle® cylinder heads.

SUPER STOCK® CYLINDER HEADS
FOR 4" BORE S&S ENGINES

FITMENT
- SB-Series for Harley-Davidson® Sportster® 1986-'03
- SB-Series for Buell® 1994-'02

FEATURES AND BENEFITS
- Machined for S&S manual or electric compression releases
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast-to-shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings
- Machined with S&S 4" cylinder stud pattern and '86-90 S&S SA pushrod hole locations



106-2194

KIT CONTENTS
- 2 fully assembled cylinder heads in Natural or Wrinkle Black (WBlack) with S&S .650" lift springs
- Threaded plugs to seal compression release holes if no compression releases are used

SUPER STOCK® HEAD KITS FOR 4" BORE S&S ENGINES

Application	Natural
1986-'03 Sportster® models	**106-2194**
1994-'02 Buell® models	**106-2297**

THESE KITS REQUIRES SPECIAL S&S PISTONS AND GASKETS. Order the required piston oversize and gaskets from the charts below.



92-1420

4" PISTON KITS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Oversize	Part #
Standard	**92-1420**
+0.010"	**92-1421**
+0.020"	**92-1422**

Kits include a set of pistons, rings, wristpins and keepers.



90-1909

4" BORE GASKET KIT FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Description	Part #
Head, Base, and Exhaust Gaskets	**90-1909**

REPLACEMENT PARTS: SEE PAGE 368

NOTE Due to expanded stud pattern, these heads will not fit on stock Sportster® Evolution® engines.

3-1/2" AND 3-5/8" SUPER STOCK® CYLINDER HEADS

FITMENT
- 1986–'03 Harley-Davidson® Sportster®
- 1994–'02 Buell® (heads require S&S Super stock pistons)

FEATURES AND BENEFITS
- Machined with a stock bolt pattern
- Larger, more open combustion chamber presents less resistance to air flow around the valves
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast-to-shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings



KIT CONTENTS
- Complete head assembly in Natural or Wrinkle Black (WBlack) with valves and S&S .650" lift springs

REPLACEMENT PARTS: SEE PAGE 368

ASSEMBLED S&S® SUPER STOCK® HEAD KITS

Application	Natural	WBlack
1991-'03 Sportster® models	**90-1310**	**90-1810**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

THESE KITS REQUIRES SPECIAL S&S PISTONS AND GASKETS. Order the required piston oversize and gaskets from the charts below.



3⅝" FORGED PISTON KITS FOR S&S® SUPER STOCK® HEADS

Oversize	Low Compression	Intermediate Compression
Standard	**92-1080**	–
+0.010"	**92-1081**	–
+0.020"	–	**92-1122**
+0.030"	**92-1083**	–
+0.040"	**92-1084**	–

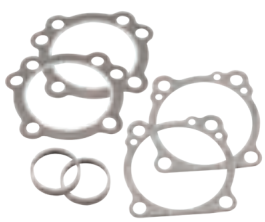
Piston kits include set of pistons, rings, wristpins, and clips. Recommended piston fit: Close: 0.0023"- 0.0025" Loose: 0.0035"- 0.0045"

FOR COMPRESSION RATIOS AND CYLINDER KITS SEE PAGE 338

3½" BORE FORGED PISTON KITS FOR S&S® SUPER STOCK® HEADS (10.5:1 COMPRESSION)

Oversize	Deck Height	Part #
Standard	1.1875"	**92-2016**
+0.010"		**92-2017**
+0.020"		**92-2018**

Piston kits include set of pistons, rings, wristpins, and clips. Recommended piston fit: Close: 0.0015"-0.0020" Loose: 0.0030"-0.0040"



90-1907

GASKET KITS FOR S&S® SUPER STOCK® CYLINDER HEADS

Bore Size	Part #
3½"	**90-1907**
3⅝"	**90-1908**

CYLINDER HEAD AND MOTOR MOUNTS

HEAD MOUNTS FOR SPORTSTER® MODELS

Two head mounts are required for 1986-'03 Harley-Davidson® Sportster® models. The center mount is a two-piece design for maximum flexibility. The front mount is one piece and available in two versions according to cylinder length. Machined from ¼" thick steel and provided in a semi-gloss black finish.

1986-'03 Sportster® Chassis



93-4055

CENTER MOUNT

Fits All Engines	**93-4055**

FRONT MOUNT

Stock to 5.087" Long Cylinders *16214-86, 16222-86*	**93-4056**

HEAD BOLTS WITH WASHERS

HEAD BOLT INFORMATION CHART

Length w/Washer	Washer Thickness	Head Bolt w/Washer	Washers Only
1.690"	.250"	**93-3028**	**50-7091**
1.840"	.150"	**93-3027**	**50-0418-S**
1.920"	.250"	**93-3036**	**50-7091**
2.070"	.150"	**93-3031** USA	**50-0418-S**
2.220"	.250"	**93-3038**	**50-7091**
2.370"	.150"	**93-3032**	**50-0418-S**
3.134"	.250"	**93-3029**	**50-7091**
3.284"	.150"	**93-3030** USA	**50-0418-S**
3.501"	.250"	**93-3037***	**50-7091**
3.651"	.150"	**93-3033***	**50-0418-S**

**Drilled & tapped deeper to allow shortening for custom lengths.*



93-3028

HEAD BOLT WASHERS

Thickness	Part #
.150"	**50-0418-S**
.250"	**50-7091**

HEAD BOLTS FOR 1986-2003 HARLEY-DAVIDSON® SPORTSTER® MODELS

Engine Displacement	Stroke	Cylinder Length	Cylinder Head Type	Short Bolt w/Washer	Long Bolt w/Washer	Head Bolt Kit
883/1100/1200cc S&S 79"	3 13/16"	4.650"	S&S 1986-'90 HD®	**93-3027**	**93-3030** USA	**93-3010** USA
			1991-Up HD®	**93-3027**	**93-3030** USA	**93-3010** USA
S&S 89"	4 5/16"	5.087"	S&S 1986-'90 HD®	**93-3038**	**93-3033**	**93-3013**
			1991-up HD®	**93-3032**	**93-3033**	**93-3013**
S&S 91"	3⅝"	4.230"	S&S®	**93-3028**	**93-3029**	**93-3011**
S&S 100"	4"	4.420"	S&S®	**93-3028**	**93-3029**	**93-3011**

CALCULATING CUSTOM HEAD BOLT LENGTHS SEE INSTRUCTIONS ON PAGE 551

Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.



CHROME HEAD BOLT COVERS

Set of 4	USA **50-0333**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BILLET ROCKER COVERS

FITMENT
- 1986–'03 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS
- OEM-style "umbrella" fittings are included with billet rocker boxes for 1993-'99 big twin engines with cylinder head venting
- S&S billet rocker covers are available in three finishes: show-quality chrome,or unfinished. Unfinished is ideal for powder coating and other custom cosmetic treatments
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame

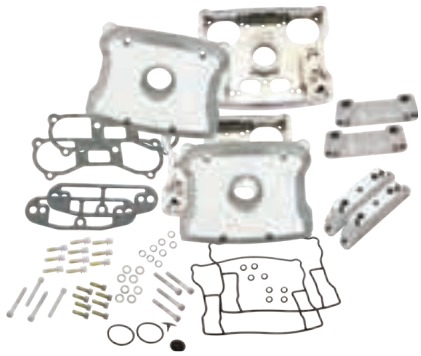
KIT CONTENTS
- Covers
- Gaskets
- O-rings
- Mounting hardware

BILLET ROCKER COVER KITS

Finish	Part #
Chrome	**90-4050** USA
Unfinished	**90-4055** USA

REPLACEMENT GASKET KIT

Description	Part #
Includes gaskets for two rocker covers	**90-4049**



90-4050

REPLACEMENT PARTS: SEE PAGE 370

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, PAGE 523

NOTES

The performance-oriented design of the billet rocker boxes permits valve lifts up to .710" with stock or S&S Super Stock® heads, and up to .810" with S&S Special Application heads. S&S roller rocker arms are recommended for high lift cams.

S&S billet rocker covers accept valve springs up to 1.660" O.D. without modification. Cylinder heads must be set up correctly for high-lift cams, and it remains the builder's responsibility to confirm all clearances.

Kits include front and rear cover assemblies with base and top cover, rocker shaft supports, gaskets and o-rings, and instructions

SUPER E & G COMPLETE CARBURETOR KITS

FITMENT
- 1986-'06 Harley-Davidson® Sportster®
- 1994-'02 Buell®

FEATURES AND BENEFITS
- Four fuel delivery ports – Better throttle response
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Adjustable accelerator pump for quick throttle response and easy starting
- Utilization of the factory dual cable system ensures safe operation
- Direct replacement and high quality fit and finish – less down time and better performance
- Variable position enrichment starting system

KIT CONTENTS
- FULL KIT (For engines with stock length cylinders)
  - Super E/G carburetor
  - S&S intake manifold (stock length)
  - Classic Teardrop air cleaner kit
  - Mounting hardware and gaskets
  - Instructions
- Partial Kit
  - Super E carburetor
  - Classic Teardrop air cleaner
  - Mounting hardware
  - Gaskets
  - Instructions

REPLACEMENT PARTS: SEE PAGE 380

11-0409





As the throttle plate opens, it exposes more of these holes to engine vacuum and delivers more fuel as rpm increases. When you run out of holes in the intermediate system, the main jet comes in and handles fuel delivery for the higher rpm.

SUPER E & G COMPLETE CARBURETOR KITS

Models	Super E
2004-'06 Sportster	**11-0470**
1991-'03 Sportster	**11-0409**
1986-'90 Sportster	**11-0408**

SUPER E PARTIAL KIT (NO MANIFOLD)

Models	Part #
1991-'03 Sportster	**11-0443**
1986-'90 Sportster	**11-0440**

SUPER E & G CARBURETOR ONLY

Fitment	Super E	Super G
All Years & Models	**11-0420**	**11-0421**

NOTES

Due to inadequate frame clearance, the taller throttle bracket cannot be used on 1986-'03 Harley-Davidson® Sportster® chassis. Therefore, these Sportster models require the installation of earlier butterfly style throttle cables. Kits for 2004-'06 Sportster models are compatible with stock throttle cables.

S&S® does not recommend polishing or chrome plating Super E & G carburetors. Our repair department has seen many carbs with plugged passages due to polishing compounds, and some carbs have been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only–S&S Super E & G carburetors shown in this catalog section are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

1998-up Buell® models require the use of 1996-'97 throttle assembly.

S&S throttle cables must be used for all Buell applications.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

BLACK SUPER E & G CARBURETORS



FEATURES AND BENEFITS
- Exclusive black coating – heat and chemical resistant
- Offered in standard venturi or increased venturi diameter – specially machined for 7% more flow

BLACK CARBURETORS FOR 1986-2006 XL MODELS

	Description	Part #
Increased venturi diameter *(7% more flow)*	Super E Carb	**110-0099**
	Super G Carb	**110-0100**
NEW FOR 2018 Standard venturi diameter	Super E Carb	**110-0133**
	Super G Carb	**110-0138**

DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.



NOTE

These black carb kits do not include air cleaners.
Air cleaner options are on page 374

RIGID CARB SUPPORT BRACKETS

FITMENT
- 1986-'03 Harley-Davidson® Sportster®, 1994-'02 Buell®

SUPPORT BRACKET, AIR CLEANER TO HEAD

Application	Stock Carb and S&S Air Cleaner	CV Carburetor, S&S Air Cleaner
	Part #	Part #
1986-'03 Sportster®	**17-0311**	–
1994-'02 Buell®	**17-0311**	**17-0309**



17-0311



17-0309

BREATHER CONVERSION KIT

FITMENT
- 1991- '03 Harley-Davidson® Sportster®

FEATURES AND BENEFITS
- Instead of o-rings, banjo fittings are sealed with durable silicon coated washers

BREATHER CONVERSION KIT

Fitment	Part #
Super E 17/8" Carb	**17-0487**



17-0487

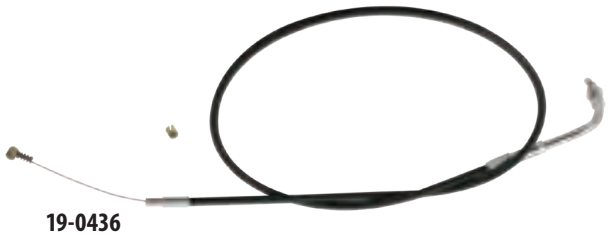
Breather conversion kit for XL engines updates earlier S&S® air cleaner kits for 1991-'03 Sportster® models to the latest breather hardware.

TWO CABLE THROTTLE ASSEMBLIES

Harley-Davidson® Sportster® models 1987-'03 originally fitted with a constant velocity (CV) carb require conversion to butterfly style throttle cables to work with the S&S butterfly type carburetor. The throttle cables shown in the chart below are designed for this application. S&S Super E carb kits for 2004-'06 Sportster models are designed to accept the stock throttle cables.

FITMENT

- 1986-'03 Harley-Davidson® Sportster®
- 1996-'02 Buell®



19-0436

S&S® THROTTLE CABLE APPLICATION CHART

Application	Fastening Method	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
1996-'03	Snap-in	36"	32"	**19-0436**	**19-0437**
1986-'95	Threaded	36"	32"	**19-0432**	**19-0433**
1996-up Custom	Snap-in	42"	38"	**19-0440**	**19-0441**
1986-'95	Threaded	42"	38"	**19-0446**	**19-0447**

**1998 and later required Harley-Davidson® throttle assembly #71831-96*

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	**106-3520**
Throttle Grip Clamp Set 1985-'95	**106-3519**
Top Throttle Grip Clamp only	**19-0222** USA
Bottom Throttle Grip Clamp only	**19-0220** USA
Throttle Grip Clamp Screw *(Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, and #19-0229)*	**50-0043**
Throttle Grip Set	**106-3521**
Right Hand Grip only	**19-0225** USA
Left Hand Grip only	**19-0226** USA
Cable Adjuster Fits S&S throttle assembly part #19-0229.	**19-0223**
Cable Adjuster Jam Nut Fits S&S throttle assembly part #19-0229	**19-0227**
Handlebar Spacing Sleeve 4" x 1" O.D. – converts ⅞" handlebars to 1" O.D.	**19-0235** USA



19-0235

106-3521



106-3520



106-3519



19-0223

50-0043

19-0227

NOTES

The chart on this page is used only when using throttle cable bracket part #11-2339. This bracket is standard on all S&S® Super E & G carburetor kits for Harley-Davidson® Sportster® models with the exception of the kit for 2004-'06 models.

1987-'03 Sportster® models originally fitted with a constant velocity (CV) carb require conversion to butterfly style throttle cables to work with the S&S butterfly type carburetor. S&S Super E carb kits for 2004-'06 Sportster models are designed to accept the stock throttle cables.

JETS & CARB REBUILD KITS
FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS

Description	Part #
S&S Carb Parts Kit *(Contains needed parts to maintain S&S Super E and G carburetors)*	**11-3103**
S&S Jet Kit *(Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)*	**11-3102**

JET PACKS

Description	Part #
Low Range Jet Pack – *For jetting most stock and moderate performance engines.*	
Includes one each intermediate jets *(.025", .0265", .028", .0295")* one each main jets *(.062", .064", .066", .068", .070", .072", .074")*	**11-7270**
High Range Jet Pack – *For jetting some stock and all performance engines*	
Includes one each intermediate jets *(.0295", .031", .032", .033")* and one each main jets *(.072", .074", .076", .078", .080", .082", .084")*	**11-7271**
Master Jet Pack – *For jetting all Super B, E, and G equipped engines*	
Includes one each intermediate jets *(.025", .0265", .028", .0295", .031", .032", .033")* and one each main jets *(.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084").*	**11-7272**

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION

Size	QTY	Part #	Size	QTY	Part #
.025	each	**11-0250**	.032	each	**11-0320**
	3 pack	**11-7107**		3 pack	**11-7112**
.0265	each	**11-0265**	.033	each	**11-0330**
	3 pack	**11-7108**		3 pack	**11-7113**
.028	each	**11-0280**	.036	each	**11-0360**
	3 pack	**11-7109**		3 pack	**11-7114**
.0295	each	**11-0295**	.040	each	**11-0400**
	3 pack	**11-7110**		3 pack	**11-7115**
.031	each	**11-0310**	Blank	each	**11-0000**
	3 pack	**11-7111**			

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1..... .025" 4..... .033"
2..... .028" 5..... .036"
3..... .031" 6..... .040"

NOTES

No returns or exchanges on jets.

Refer to Section 10: Racing for the S&S fuel and turbo carburetors.



11-3103



11-3102



11-7272



106-3517

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.070	each	11-4070	.110	each	11-4110
	5 pack	11-7235		5 pack	11-7255
.072	each	11-4072	.115	each	11-4115
	5 pack	11-7236		5 pack	11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

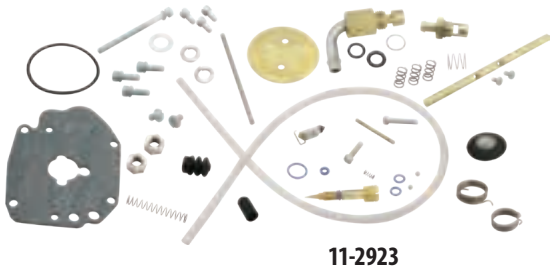
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT

Description	Part #
Super E	11-2923
Super G	11-2924



11-2923

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT

Description	Part #
Super E	11-2906
Super G	11-2907



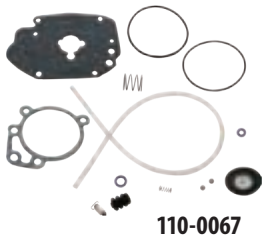
11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT

Description	Part #
Super E & G	110-0067



110-0067

ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



11-2918

MANIFOLD CONVERSION KITS

FITMENT
- 1986-'03 Harley-Davidson® Sportster®
- Can be used with S&S Super B and Super E carburetors, as well as stock carburetors with a two-bolt mounting pattern

FEATURES AND BENEFITS
- Increased airflow
- Eliminates the possibility of severe engine damage due to extreme lean conditions created by cracks in stock rubber manifolds

KIT CONTENTS
- Manifold
- Front and rear mounting flanges
- Manifold o-rings
- Aluminum spacer shims



16-1650

S&S® MANIFOLD CONVERSION KITS FOR SPORTSTER® MODELS

Year	Cylinder Length	Size No.	Part #
1986-'03	4.650"	341	**16-1650***

**Fits S&S ES, LS, Super B, Super E, Tillotson®, Bendix®, Keihin®*

NOTES

These manifolds may change the way a stock carburetor and air cleaner assembly fit. This means that these components may require shimming and/or a slight change in mount bracketing.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold.

REPLACEMENT PARTS MANIFOLD CONVERSION KIT

Description			Part #
Manifold			**16-1620**
Flanges	Front *27009-86A*	*each*	**16-0232** USA
		5 pack	**16-0600** USA
	Rear *27010-86A*	*each*	**16-0233** USA
		5 pack	**16-0601** USA
	Set (Front & Rear)		**106-3516**
O-rings		*each*	**16-0235**
		5 pack	**16-0243**
0.350" Spacers			**50-7044**

INTAKE MANIFOLDS

FITMENT
- 1986-'06 Harley-Davidson® Sportster®
- S&S carburetors and other carbs with the same mounting bolt pattern

FEATURES AND BENEFITS
- Increases airflow



16-1620



16-1519

S&S® MANIFOLDS FOR 2004-'06 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Cylinder Length	Size No.	S&S Super E
1200cc	Stock (4.650")	335	**16-1519***
Special Order**	Specify	–	**169-0003**

**Replacement for manifold supplied in S&S part #11-0470 Super E carb kit. 1⅞" bore.*
***Special Order: Download the Special Order Form at sscycle.com/soforms*

REPLACEMENT PARTS FOR MANIFOLDS

Description	Part #
Manifold Fitting VOES Rubber Cap, 3⁄16" I.D. x 5⁄16" O.D. x ½"	**50-8372**
Manifold Vacuum Fitting	**16-0136-S**



16-0136-S



50-8372

S&S® MANIFOLDS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

S&S Engine Kit Displacement	Cylinder Length	Size No.	Carburetor Type		
			S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G	Super D
883cc,1100cc, 1200cc, 79"	Stock (4.650")	341	**16-1620**	**16-2520**	
100"	4.420"	357		**16-2559**	
103"	5.750"	426		**16-2532**	
Special Order*	Specify	–	**169-0003**	**169-0004**	**169-0005**

Manifolds available in 1⅞", 2⅛", or 2¼" bore.
**Special Order: Download the Special Order Form at sscycle.com/soforms*

MANIFOLDS FOR 1994-'02 BUELL® MODELS

MANIFOLDS FOR 1994-'02 HARLEY-DAVIDSON® BUELL® MODELS

Engine Displacement	Cylinder Length	Syize Number	Super E Part #	Super G Part #
1200cc, 79"	Stock - 4.650"	341	**16-1520**	–
S&S SB100	4.420"	357	–	**16-2569**
Special Order*	Specify	–	**169-0003**	**169-0004**

**Special Order: Download the Special Order Form at sscycle.com/soforms*



16-1520

NOTES

S&S manifolds for Buell models are not interchangeable with manifolds for Harley-Davidson® Sportster® models as they position the carburetor about ¼" higher. This change in position will cause misalignment of mounting hardware.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold.

HIGH OUTPUT COILS



55-1576



55-1571

HIGH OUTPUT COILS

S&S High Output 3.0Ω Single Fire Coil	Part #
The perfect complement for S&S IST ignition systems. This single fire coil is actually two separate coils in a single package. Coil impedance is 3Ω per coil.	**55-1571**
S&S High Output 0.5Ω Single Fire Coil USA	**55-1576**
High output 0.5Ω single fire coil for S&S IST ignition. 55-1571	

DYNOJET® POWER VISION® TUNER

FITMENT

- 2007-'15 Sportster® models

FEATURES AND BENEFITS

- Flash tune all HD® models equipped with a Delphi®
- Does NOT require the user to interface with a computer in order to flash a tune. Change rev limit, idle speed, and other parameters directly from the device
- Display all H-D vehicle data as well as wide band AFR**and various calculated channels (such as Avg MPG)
- Customizable virtual gauges allow data to be monitored live, and/or logged while riding
- User defined visual alarms for any data channel
- AutoTune Basic and Pro – calculates and stores fuel trims to help you optimize fuel curve utilizing the factory O_2 sensors (Basic), or Dynojet's Wide Band 2 System (Pro)!
- Check and clear diagnostic codes
- Reset adaptive fuel trims and idle offset (with bike running)

The Power Vision Suite includes a highly flexible tuning/data logging device, as well as a productive tuning application (WinPV) that's user friendly compared to other products on the market.



WINPV SOFTWARE FEATURES

- Allows you to import Power Commander Maps
- Tuning parameters laid out in a clear, concise manner utilizing a 'tree view structure'
- A viewing mode for every type of user, beginners or professionals
- Individual tuning parameters are able to be saved as "value files." The value files can then be applied to other calibrations
- Compare, restore, and undo features
- Various math functions can be performed on any value
- Synchronized editing of front and rear VE and/or Spark tables
- Helpful tuning parameter descriptions
- Automatic update client ensures you have the latest tuning application, firmware, and tune file database

DYNOJET POWER VISION TUNER

Fitment	Part #
2007-'13 Sportster® models, Mfr P/N PV-1.	**550-0087**
2014-'15 Sportster® models, Mfr P/N PV-2.	**550-0111**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

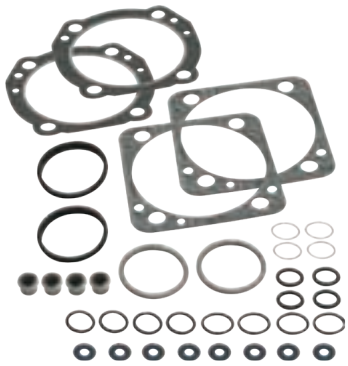
GASKETS

TOP END GASKET KITS FOR S&S SB-SERIES ENGINES 1986-'03

4"	**90-9503**
3⅝"	**90-9509**

CYLINDER HEAD, BASE & EXHAUST GASKET KITS FOR S&S SB-SERIES ENGINES 1986-'03

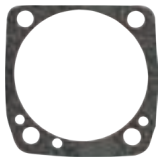
4"	.043" Micropore	**90-1909**
3⅝"	.045" Micropore	**90-1908**
3½"	.045" Micropore	**90-1907**
	.030" Layered Steel	**900-0532**



90-9503



93-1011-S



93-1039-S

HEAD GASKETS

4"	.043" Micropore	*each*	**93-1040-S**
		2 pack	**930-0087**
		10 pack	**93-1071**
3⅝"	.045" Micropore	*each*	**93-1037-S**
		2 pack	**930-0091**
		10 pack	**93-1052**
	.0625" Micropore	*each*	**93-1016-S**
		2 pack	**930-0097**
		10 pack	**93-1053**
3½"	.045" Micropore *16770-84D, 16770-84F*	*each*	**93-1011-S**
		2 pack	**930-0098**
		10 pack	**93-1024**
	.0625" Micropore *16770-84D, 16770-84F, 10773-85*	*each*	**93-1313-S**
		10 pack	**93-1051**
	.030" Layered Steel	*each*	**900-0530**
		2 pack	**900-0531**

BASE GASKETS AND O-RINGS

4"	.018" Micropore	*each*	**93-1031-S**
		2 pack	**930-0094**
		10 pack	**93-1067**
3⅝"	.018" Micropore	*each*	**93-1039-S**
3½"	.018" Micropore *16777-83A, 16774-86D*	*each*	**93-1038-S**

EXHAUST GASKETS

1986- 2003 Sportster Models *65324-83B, 65324-83A*	*each*	**106-5029**
	10 pack	**93-1072**

VALVE GUIDE SEALS

1986- 2003 Sportster Models	*each*	**900-0338**

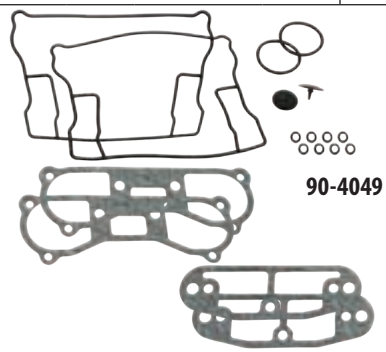
ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

S&S Billet

Gasket Kit		**90-4049**
O-ring, (-223), 1.625" ID x 1.875" OD, Viton®	*each*	**50-8044**
Seal, Umbrella Valve Cover *26856-89, 26856-89A*		**90-4030**
Gasket, Rocker Cover, S&S® Billet, O-ring, 1986-2003 xl		**90-4048**
Gasket, Bottom, Rocker Cover, 1986-2003 xl	*each*	**900-0538**
	2 pack	**900-0592**
Gasket, Kit, Rocker Box, 1986-'90 xl *17026-91A*		**900-0773**
Gasket, Kit, Rocker Box, 1991-2003 xl *17026-91A*		**900-0774**
Gasket, Kit, Rocker Box, 2004-'06 xl		**900-0775**
Gasket, Kit, Rocker Box, 2007-up xl		**900-0776**

LOWER END GASKETS AND SEALS

Gearcover gasket	*each*	**31-2052**
Camshaft Oil Seals, 1971 - up *11124*		**31-4051**



90-4049



106-5029



900-0338



31-4051

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

TAPPET GUIDE O-RINGS

1" I.D. x 13⁄16" O.D. x 3⁄32" CS *(upper)* *11167*	*each*	**50-8004**
1" I.D. x 1 1⁄8" O.D. x 1⁄16" CS *(lower)* *11168A*	*each*	**50-8005**
3⁄8" I.D. x 1⁄2" O.D. x 1⁄16" CS *(oil hole)* *11110*	*each*	**50-8006**
	10 pack	**50-8077**

PUSHROD O-RINGS

O-ring, Kit, Pushrod Cover, 1986-2003 xl		**93-4022**
Top O-ring *11293, 11157, 11101, 11190*	*each*	**50-8039**
Middle O-ring *11132A*	*each*	**50-8038**
Bottom O-ring *11145A*	*each*	**50-8037**

SPROCKET SHAFT SEAL

1991-'03 *35151-74A*	**31-4060**
1991-'03 S&S SA cases, BT style *12026B*	**31-4010**

FUEL SYSTEM GASKETS

Manifold Seals

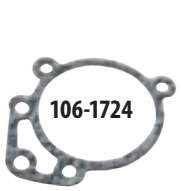
S&S Manifold O-ring	*each*	**16-0235**
	10 pack	**16-0243**
Stock Manifold O-ring *26995-86B, 26995-86A, 26992-99*	*each*	**16-0236**
	10 pack	**16-0244**
Cap, rubber, manifold, fitting		**50-8372**

CLASSIC TEARDROP AIR CLEANER

Back Plate gasket	*each*	**106-1724**
	10 pack	**106-2328**
Vent seal washers silicone coated steel 1⁄2"	*(each)*	**50-7054**
	10 pack	**50-7059**

STEALTH AIR CLEANER

Back Plate gasket		
Stock CV Carb & EFI Throttle Body,1991-up xl *29062-95B*		**106-6022**
Super E/G.	*each*	**106-1724**
	10 pack	**106-2328**
For Muscle air cleaner *(includes lanyards)*		**170-0137**
Vent seal washers Nitrile Rubber Coated, 520" x .880" x .024" xl 1991-'06	*each*	**50-7055**
	10 pack	**50-7057**




106-6022


17-1022


31-4060


16-0236


11-2386

Single Bore Tuned Induction System

Back Plate gasket

Gasket, Backplate - E/G/SBEFI	*each*	**106-1724**
	10 pack	**106-2328**
Gasket, S&S SBEFI 58mm		**106-4662**
Gasket, Stock carb/Throttle Body *29062-95B*		**106-6022**
Adaptor plate gasket		**17-1022**
Adaptor plate bracket o-ring	*each*	**50-0446**

CARBURETOR GASKETS

Bowl Gasket, Super E & G			**11-2386**
Pump cap o-ring - *(two required)*		*each*	**50-8012**
		10 Pack	**50-8100**
Idle Mixture Needle o-ring		*each*	**500-0036**
		10 pack	**500-0148**
Bellows Seal, Accelerator Pump			**11-2266**
Accelerator pump diaphram			**11-2282**
Manifold to carb orings various sizes	Super E	*each*	**50-8016**
		10 pack	**50-8094**
	Super G	*each*	**50-8015**
		10 pack	**50-8093**
Seat and bowl plug o-ring		*each*	**50-8009**
		10 pack	**50-8095**


11-2282


50-8012

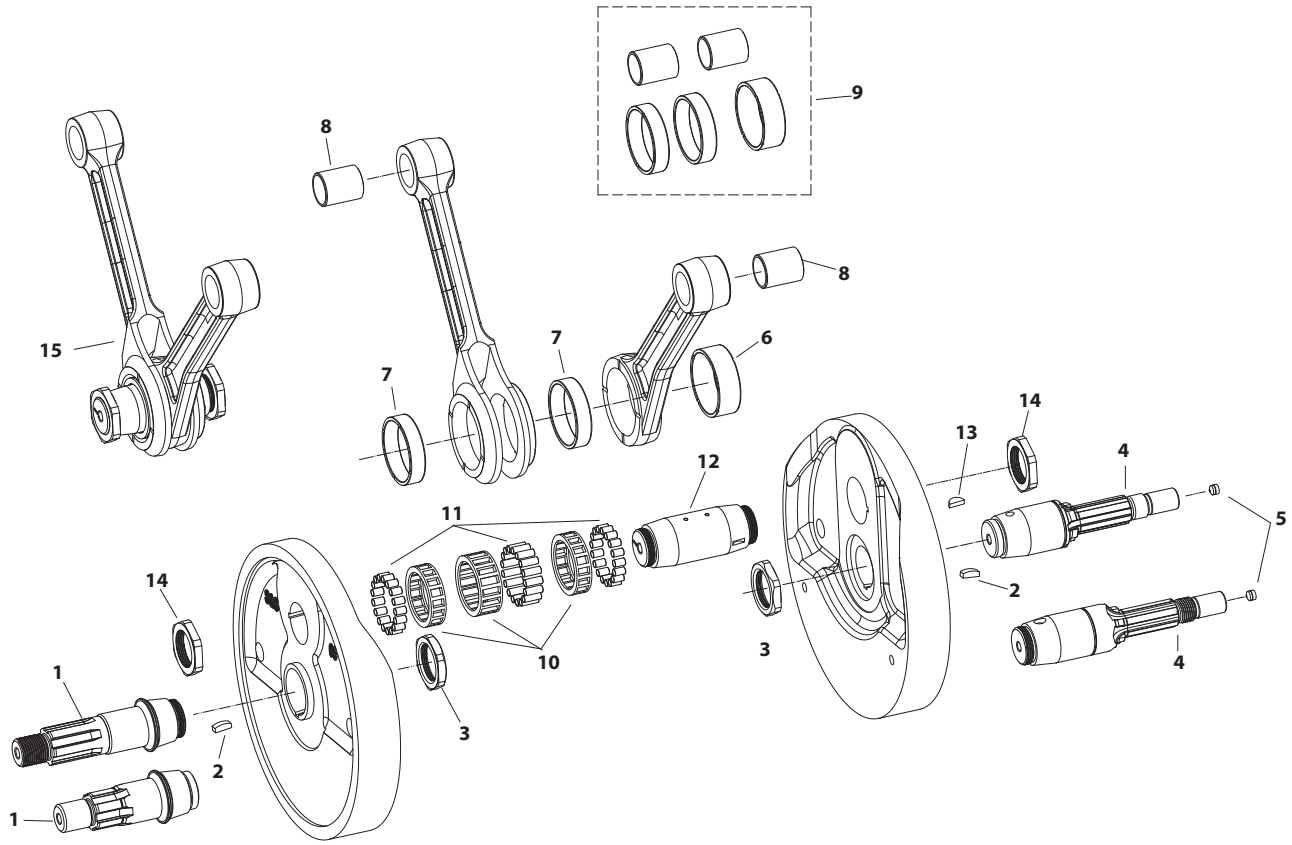

11-2266

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FLYWHEEL REPLACEMENT PARTS

1. Sprocket Shaft *(includes #2 & 3)*
   1986-1990 xl w/ S&S D/SB/SBD/SC/SCD/SCDR/SCR flywheels. **33-2302**
   1991-2003 xl w/ S&S D flywheels & 1994-1999 Buell **33-2303**
2. Key *(each)* **50-8224**
3. Nut **33-2331**
4. Pinion Shaft 1986-2003 xl *(includes #2, 3, 5)*
   w/S&S D/DR flywheels / 1994-1999 Buell **33-2325**
   w/S&S D/DR/DF flywheels - Special Application, +.500" **33-2329**
5. Meter Plug-
   .0625" hole **50-8316**
   no hole - Special application **50-8314**
6. Front Rod Race *24352-52A* **34-4505**
7. Rear Rod Race *24341-52A* **34-4506**
8. Wrist Pin Bushing
   .767" x .895" x .950" *24331-36*
   (for use with Heavy Duty Rods) **34-4507**
   .767" x .895" x 1.077" *24334-36*
   (for use with Supreme Rods) . . . . . USA[1,2] **34-4007**
9. Race and Bushing Set *(includes #6, 7, 8)*
   (for use with Heavy Duty Rods) **34-4540**
10. Alloy Bearing Cage Set **34-4520**
11. Bearing Set
    Standard *24354-87A* **34-4521**
12. Crankpin *(includes #13 &14)* Late 1981-1999 Sportster
    Standard *23960-80A* **34-2602**
    .001" OS *23948-87* **34-2603**
    .002" OS *23949-87* **34-2605**
13. Crankpin Key late 1981-1999 Sportster / 1994-1999 Buell *11218*
    each **50-8222-S**
    5 pack **50-1009**
14. Crankpin Nut **34-2504**
15. Connecting Rod Assembly- 1986-1999 Sportster / 1994-1999 Buell *(includes #9, 10, 11, 12, 13, 14)*
    Heavy Duty/6.926" rod length- for stock stroke engines
    24275-86A **34-7800**

ANY JOB IS EASY WITH THE RIGHT TOOLS
COMPLETE S&S FLYWHEEL REBALANCING KIT PAGE 520



NOTES

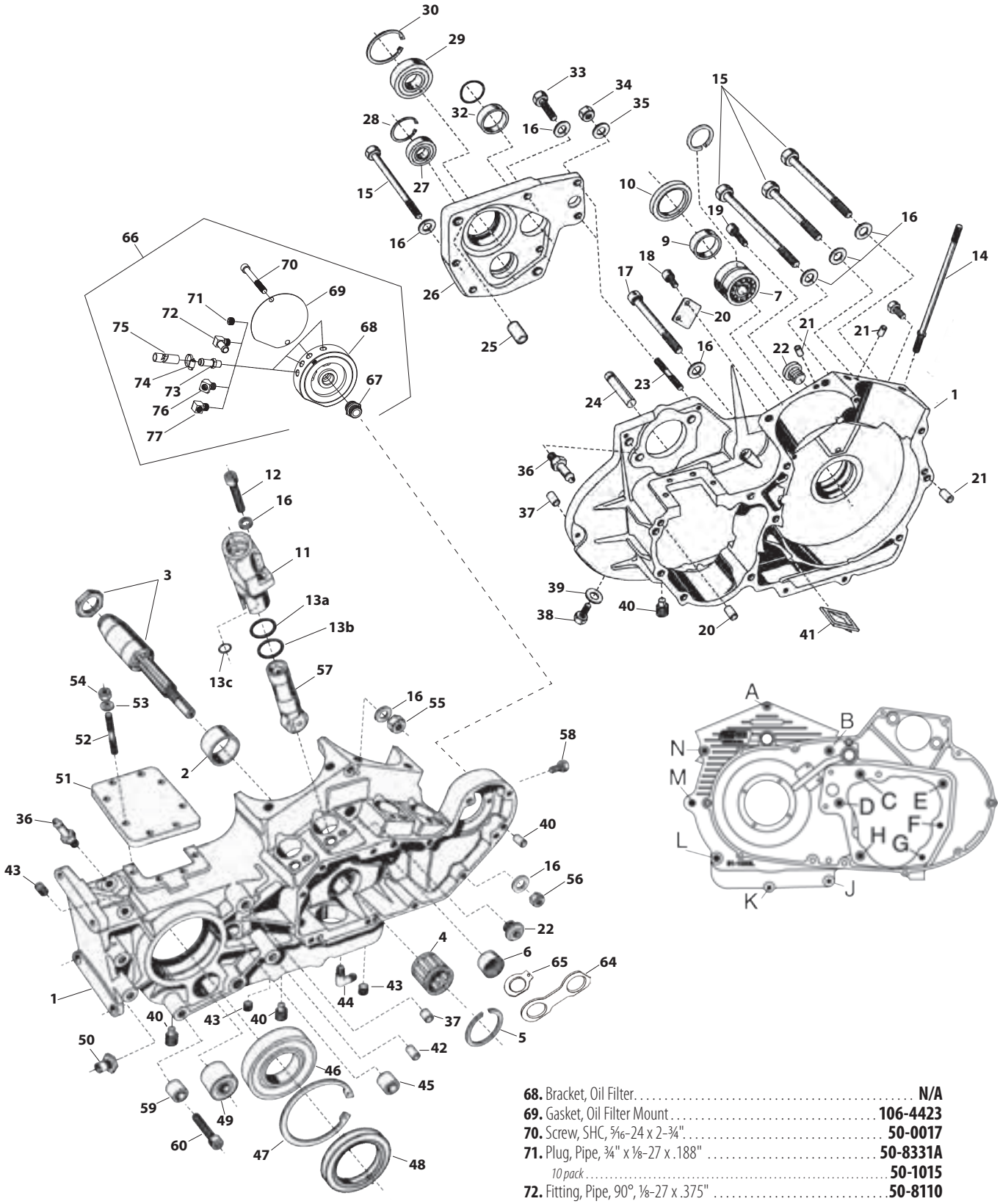
S&S® connecting rods, with their beefier than stock construction, are slightly heavier than stock connecting rods. Therefore, rebalancing the flywheels is recommended when S&S connecting rods are used in stock replacement applications. We realize that rebalancing is an inconvenience, but we did not want to sacrifice rod strength for convenience's sake. In addition, given the variations in stock and aftermarket components available to engine builders, flywheel rebalancing is a desirable step in any major engine overhaul. In some cases, stock flywheels will need to be relieved to clear the rods.

All S&S mainshafts for Harley-Davidson® Sportster® models are designed for use in flywheels with tapered mainshaft holes. 1986-later stock flywheels have mainshafts which are manufactured as an integral part of the flywheel.

S&S pinion shafts for 1986-'03 Sportster models are the splined 1986-'87 style. Pinion and oil pump drive gears in 1988-'03 models must be replaced with early style gears.

CRANKCASE REPLACEMENT PARTS
FOR SB100, 1986-'03 SPORTSTER® & 1994-'02 BUELL® MODELS

1. Crankcase assembly, half ..... **N/A**
2. Race, right main bearing - Standard 1991-'03 ..... **31-4050**
3. Pinion shaft assembly - Standard
1986-'03 xl/1994-'02 Buell..... **33-2325**
1986-up S&S SA only..... **33-2329**
4. Right main bearing assembly 1986-'03
Blue *24647-87* **31-4055**
Red *24650-87*..... **31-4056**
White *24659-87*..... **31-4057**
Green *24660-87*..... **31-4058**
5. Ring, main bearing retainer 1986-'03 *11177A*..... **50-8057**
5 pack..... **50-1004**
6. Cam needle bearing assembly – 1986-'03*9057*..... **31-4061**
7. Left Timken® main bearing assembly, 1991-'03 *24729-74, 48302-85*)
..... **31-4059**
8. Spacer, Left Main Bearing – 1974-'03 xl Fits stock diameter shaft.
.098" **31-4062**
.1015" - .1025" *9143*..... **31-4064**
.1035" - .1045" **31-4065**
.1055" - .1065" *9145*..... **31-4066**
.1075" - .1085" *9146*..... **31-4067**
.110" *9147*..... **31-4068**
.114" **31-4070**
9. Seal spacer, 1991-'03 xl..... **31-4034**
10. Seal, sprocket shaft oil, 1991-'03 xl *35151-74A* **31-4060**
11. Tappet guide assembly (See page 345)
12. Screw, SHC - 5⁄16"-18 x 1" *3201WA, 2708*..... **50-0101**
13. O-ring
13a. 1" I.D. x 13⁄16" O.D. x 3⁄32" CS (upper)*11167*..... **50-8004**
13b. 1" I.D. x 1 1⁄8" O.D. x 1⁄16" CS (lower) *11168A*..... **50-8005**
13c. 3⁄8" I.D. x 1⁄2" O.D. x 1⁄16" CS (oil hole) *11110*..... **50-8006**
10 pack..... **50-8077**
14. Cylinder stud 1991-'03 style *16832-86C* **31-2331-S**
8 pack..... **31-2331**
15. Bolt, case HH – See "Bolt Position Diagram"
(Position A)
S&S XL 1⁄4"-28 x 5 1⁄2" *(each)*..... **50-0090**
S&S SA XL 1⁄4"-28 x 6" *(each)*..... **50-0020**
(Position E, F, G, H)
S&S XL HHC 5⁄16"-18 x 4"..... **50-0102**
(Position J, K)
S&S XL 1⁄4"-20 x 3⁄4" **50-0022**
(Position L, M)
S&S XL 3⁄8"-24 x 5 1⁄2" *(5 pack)*..... **50-0170**
(Position N)
5⁄16"-18 x 3 1⁄2" *3427*..... **50-0117**
16. Washer, flat – See "Bolt Position Diagram".
(Position A, J, K)
1⁄4" x .474" x .050" *(each)* **50-7020**
(Position B, C, D, N) & Tappet guide
5⁄16" x .548" x 1⁄16" *(each)* **50-7025**
(Position E, F, G, H)
5⁄16" x 1 1⁄16" x 1⁄8"..... **50-7033**
(Position L, M)
3⁄8" x 7⁄8" x .146" *(each)*..... **50-7053**
17. Screw, SHC - 5⁄16"-18 x 3"
See "Bolt Location Diagram"
(Positions B, C, D, H)..... **50-0021**
18. Screw, SHC – 10-24 x 3⁄8" (Stator wires cover) *4091* **50-0023**
19. 10-24 x 1" (Stator) *2720* (each)..... **50-0044**
20. Cover, stator wires *29950-91* **31-2050**
21. Dowel pin - .250" diameter x 1⁄2" *358, 366*..... **50-8022**
2 pack..... **50-8022-2**
5 pack..... **50-8105**
22. Plug, timing hole - 1991-'03 *720*..... **31-2005**
23. Stud - 1⁄4"-20, 1⁄4"-28 x 1 1⁄4" 1991-up (shifter shaft)..... **50-8080**
24. Spring pin - 1991-'03 (Shifter spring) ..... **N/A**
25. Dowel pin - 1991-'03 (transmission door)
1⁄8" diameter x 1⁄2..... **50-8020**
.390" I.D. x .558" O.D. x 1⁄2" *16574-99A, 16573-83, 16573-83A* **50-8023**
10 pack **50-8109**
26. Transmission access door assembly..... **56-3025**
(Includes 1 ea. transmission access door, 50-8007, 56-3030.)
27. Bearing, transmission countershaft (LH) 1991-'03 *8992A, 8998*
..... **56-3026**
28. Ring, transmission countershaft bearing retainer, 1991-'03
35021-89 ..... **50-8053**
29. Bearing, transmission mainshaft (LH) 1991-'03
35030-89, 35030-89A..... **56-3027**
30. Ring, transmission mainshaft bearing retainer, 1991-'03
35038-84, 35038-89..... **50-8052**
31. O-ring - 32mm x 1.5mm CS, Shifter drum bushing **50-8007**
32. Bushing, shifter drum - unfinished – 1991-'03 *9187*
..... **56-3030**
33. Screw, HHC 5⁄16"-18 x 1 1⁄4" *(10 pack)*..... **50-0110**
34. Lock nut, hex 1⁄4"-28 *(each)* **50-5010**
35. Washer, flat 1⁄4" x 5⁄8" x 1⁄16" *6192, 6228W, 6194, 6245, 6703, 6736*
each..... **50-7021**
36. Fitting, hose – 1⁄8" -27 pipe male transmission vent
..... **50-8115**
37. Dowel pin - .309" I.D. x .430" O.D. x 1⁄2"
24754-75, 24754-75A..... **50-8018**
38. Screw, HHC - 1⁄4"-20 x 1⁄2", primary oil level *3728* **50-0014**
39. Washer, flat 1⁄4" x 5⁄8" x 1⁄32" copper, primary oil level *6114*
..... **50-7018**
40. Plug, drain
3⁄8"-18 NPT *Manufactured before 5-1-2000*..... **31-2006**
1⁄2"-20 thread – *(Includes o-ring.) Manufactured after 5-1-2000* **50-8335**
41. Reed valve assembly ,1991-'03 (Optional) **31-2051**
42. Dowel pin - 5⁄16" dia. x 1⁄2" ..... **N/A**
43. Plug, SH pipe, 1⁄4-27 *(each)*..... **50-8331A**
10 pack..... **50-1015**
44. Fitting, 90° - 1⁄8"-27 pipe male x 5⁄16" flared tube **50-8119**
45. Bearing, transmission shifter drum (RH) 1991-'03 ..... **56-3032**
46. Bearing, transmission output shaft 1991-up *8996A*..... **56-1280**
47. Ring, transmission output shaft bearing retainer,
109" x 3.734" tru-arc *11161, 11599* **50-8051**
48. Seal,Transmission Output Shaft
2.255" x 3.388" x .250,1995-'03 xl *12067B*..... **56-3033**
49. Bearing, transmission countershaft (RH) 1991-'03 ..... **56-3031**
50. Nut, press-in, 3⁄8"-24 - All 1991-'03 ..... **31-2048**
51. Cover, transmission inspection window 1991-up S&S SA cases only .**31-2055**
52. Stud - 5⁄16"-18, 5⁄16"-24 x 1.370" 1991-up S&S SA cases only..... **50-8081**
53. Washer, flat - 5⁄16" x 1 1⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**
54. Nut, hex - 5⁄16" -24 *7833, 7883* **50-5023**
55. Nut, hex - 1⁄4"-28 *7683*..... **50-5011**
56. Nut, hex - 3⁄8"-24 *7861* **50-5037**
57. Hydraulic tappet assembly (See page 344)
58. 3⁄8"-16 x 1⁄2" BHCS..... **N/A**
59. 5⁄16" x 3⁄4" .35 Shim **50-7044**
60. 1⁄4"-20 x 2" SHCS *25794-36* **50-0013**
61. Gasket, gearcover, S&S (N/S)..... **31-2052**
62. 45° hose fitting - 1⁄8" pipe male/female (Oil pump) (N/S) **50-8112**
63. Oil Pump,Assembly,Stock,1991-up xl (N/S)
26488-98, 26204-91A..... **106-5368**
64. Washer,Cam,Thrust,Double,.043",1958-'90 xl, .043"..... **N/A**
1985-'90 XL, .062" *25551-58*..... **33-5210**
65. Washer,Cam,Thrust, For S&S Cam Covers only, .062"..... **33-5211**
66. Bracket Kit, Oil Filter 1986-'90 xl **106-3134**
67. Fitting, Straight, 3⁄4-16 UNF 2A x 1" *26352-95A* **50-8197-S**



68. Bracket, Oil Filter. . . . . **N/A**
69. Gasket, Oil Filter Mount **106-4423**
70. Screw, SHC, 5⁄16-24 x 2-3⁄4" **50-0017**
71. Plug, Pipe, 3⁄4" x 1⁄8-27 x .188" **50-8331A**
10 pack **50-1015**
72. Fitting, Pipe, 90°, 1⁄8-27 x .375" **50-8110**
73. Fitting, Hose, Straight, 1⁄8-27 x .500" **50-8115**
74. Clamp, Hose, 5⁄8" - 7⁄8" **50-8002**
75. Hose, Oil Line Return, 375" x 12" . . . . . N/A
76. Fitting, Pipe, 45°, 1⁄8-27 x 1⁄8-27 . . . . . **50-8112**
77. Fitting, Pipe, 90°, Male/Female, 1⁄8-27 *26338-68, 26561-84A, 26561-81A, 26338-68A each* **106-2682**
5 pack **50-1007**

(N/S) = Not Shown

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

SUPER STOCK® CYLINDER HEAD REPLACEMENT PARTS
SPORTSTER® MODELS 3-5/8" TO 4" BORE

1. Cylinder head (See cylinders on page 368)
2. Valves
Intake
2.000" diameter **90-2000**
2.000" diameter + .085" stem length **90-2004**
Exhaust
1.605" diameter **90-2001**
3. Valve seats
Intake - 2.000" diameter **90-2002**
Exhaust - 1.605" diameter **90-2003**
4a. Valve guide - Cast- Intake or Exhaust
Standard *Diameter .5625/.5620 18112-92* **90-2210**
+.001" *Diameter .5635/.5630 18130-83C* **90-2211**
+.002" *Diameter .5645/.5640 18133-83A, 18133-83D* **90-2212**
+.003" *Diameter .5655/.5650 18131-83C* **90-2213**
+.030" *Diameter .5925/.5920* **90-2219**
4b. Valve guide -Powder Metal - Intake or Exhaust
Standard **900-0553**
+.001" **900-0554**
+.002" **900-0555**
+.003" **900-0556**
5. Head mount bolt - ⅜"-16 x 1¼" *4716W*
each **50-0168**
6. Flat washer - ⅜" **50-7051**
7. Head bolt assembly – Includes head bolt washer
(See headbolts on page 354)
8. Head bolt washer
.150" *(each)* **50-0418-S**
.250" *(each)* **50-7091**
9. Exhaust port stud *16715-83 (each)* **50-0493**
5 pack **50-1028**
10. Lock washer - 5⁄16" **50-7032**
11. Nut, HH - 5⁄16" -24 *7833, 7883* **50-5023**
12. Exhaust pipe gasket *65324-83B, 65324-83A*
each **106-5029**
10 pack **93-1072**
13. Thread conversion insert ½"-13 to 5⁄16"-18 ..... **50-8151**
14. Intake manifold (See manifolds on page 361)
15. Screw, manifold mounting
SH - 5⁄16"-18 x 1" *3201WA, 2708* **50-0101**
HH - 5⁄16"-18 x 1" *3987* (each) **50-0108**
16. Washer, flat - 5⁄16" *6320, 70907-07, 6016, 6702* **50-7034**
17. Flange, manifold mounting
Front *27009-86A* (each) **16-0232**
5 pack **16-0600**
Rear *27010-86A* (each) **516-0233**
5 pack **16-0601**
Set (Front & Rear) **106-3516**
18. O-ring, manifold *(each)* **16-0235**
10 pack **16-0243**
19. Head gasket
3½" Bore
.045" thick – (no o-rings required) *16770-84D, 16770-84F*
each **93-1011-S**
10 pack **93-1024**
.0625" thick – (No o-rings required *16770-84D, 16770-84F, 10773-85*
each **93-1313-S**
10 pack **93-1051**
3⅝" Bore
.045" thick – (no o-rings required) *(each)* **93-1037-S**
10 pack **93-1052**
.062" thick – (no o-rings required) *(each)* **93-1016-S**
10 pack **93-1053**
4" Bore
.045" thick *(each)* **93-1040-S**
10 pack **93-1071**
20. Alignment dowel *16574-99A, 16573-83, 16573-83A*
each **50-8023**
10 pack **50-8109**
Dowel pin - ¼" diameter x ½" - 4" bore *358, 366*
each **50-8022**
2 pack **50-8022-2**
5 pack **50-8105**
21. Plug, HH - 14mm *(each)* **90-4916**
2 pack **90-4916-2**
22. Washer, compression release- 14mm .507" x .705" x .047"
each **50-7094**

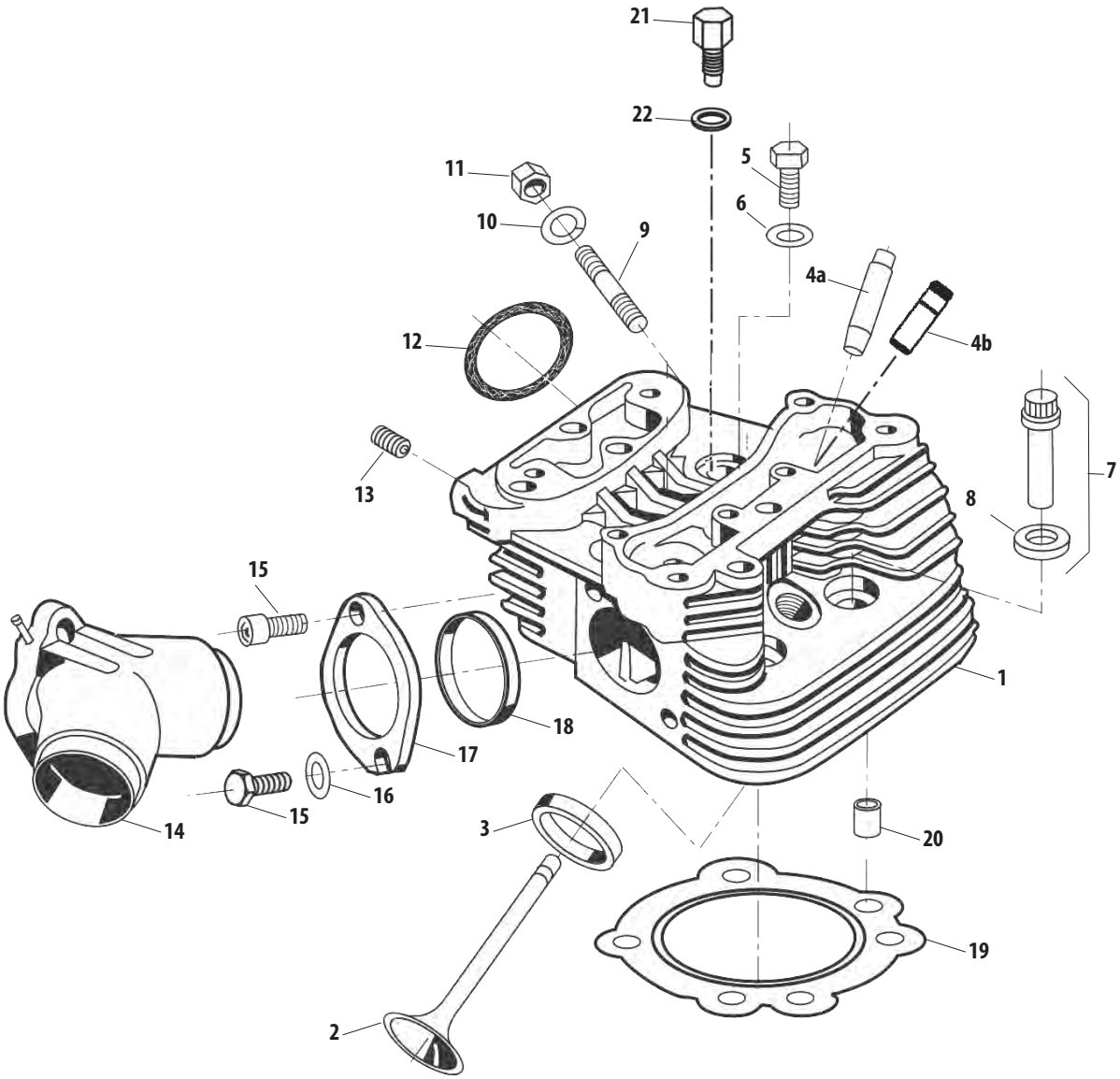
GASKET KITS

23. Rocker cover gasket kits, 1986-'03 xl
S&S Billet rocker cover, Rubber **(N/S)** **90-4049**
S&S Cast rocker cover, Rubber **(N/S)** **90-4091**
24. Pushrod cover o-ring kit **(N/S)**
1986-'90 XL **93-4022**
Includes 4 each:
Bottom *11145A (each)* **50-8037**
Middle *11132A (each)* **50-8038**
Top *11293, 11157, 11101, 11190 (each)* **50-8039**
25. Flat washer, bottom pushrod tube **(N/S)** **50-7150**
26. Top End Rebuild Kits for SB-Series Engines **(N/S)**
4" Bore **90-9503**
3⅝" Bore **90-9509**

(N/S) = Not Shown

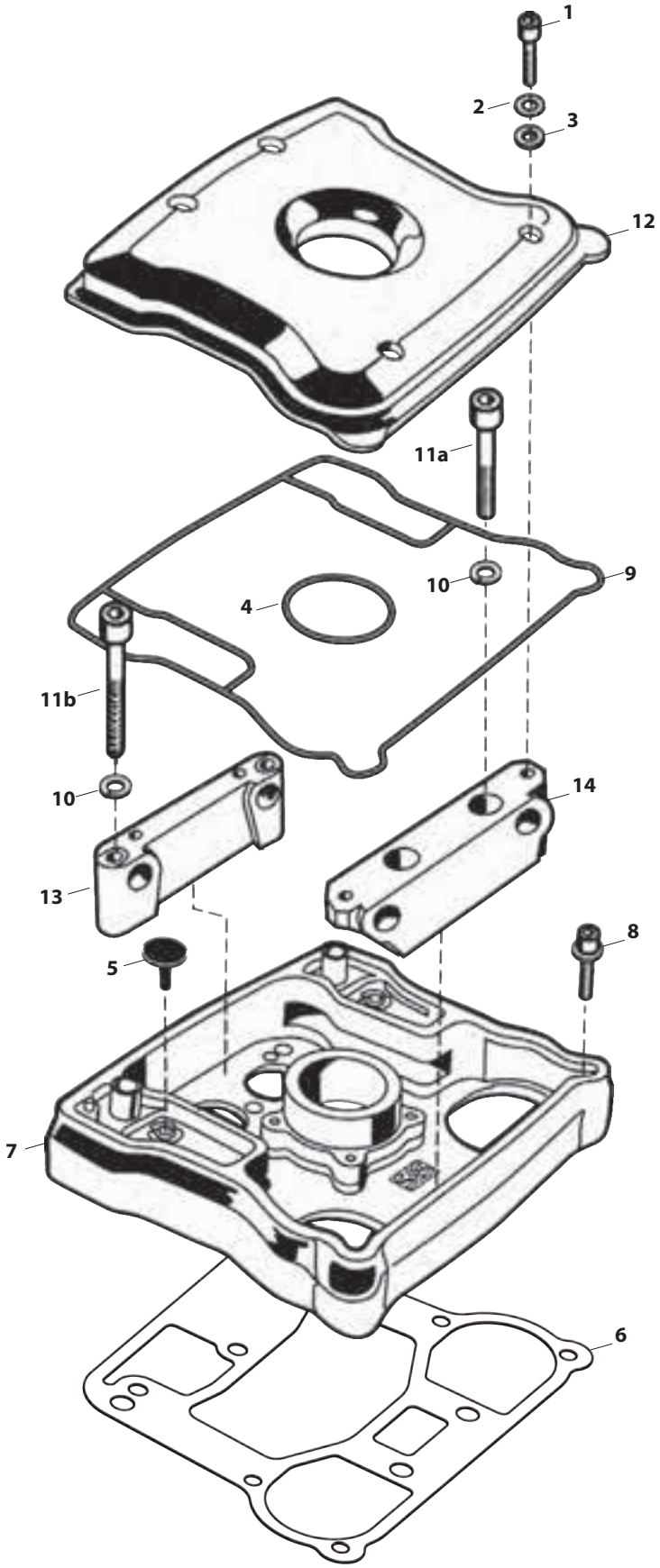
NOTE S&S heads for Harley-Davidson® Sportster® and Buell® models are similar but have different diameter front motor mount holes.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

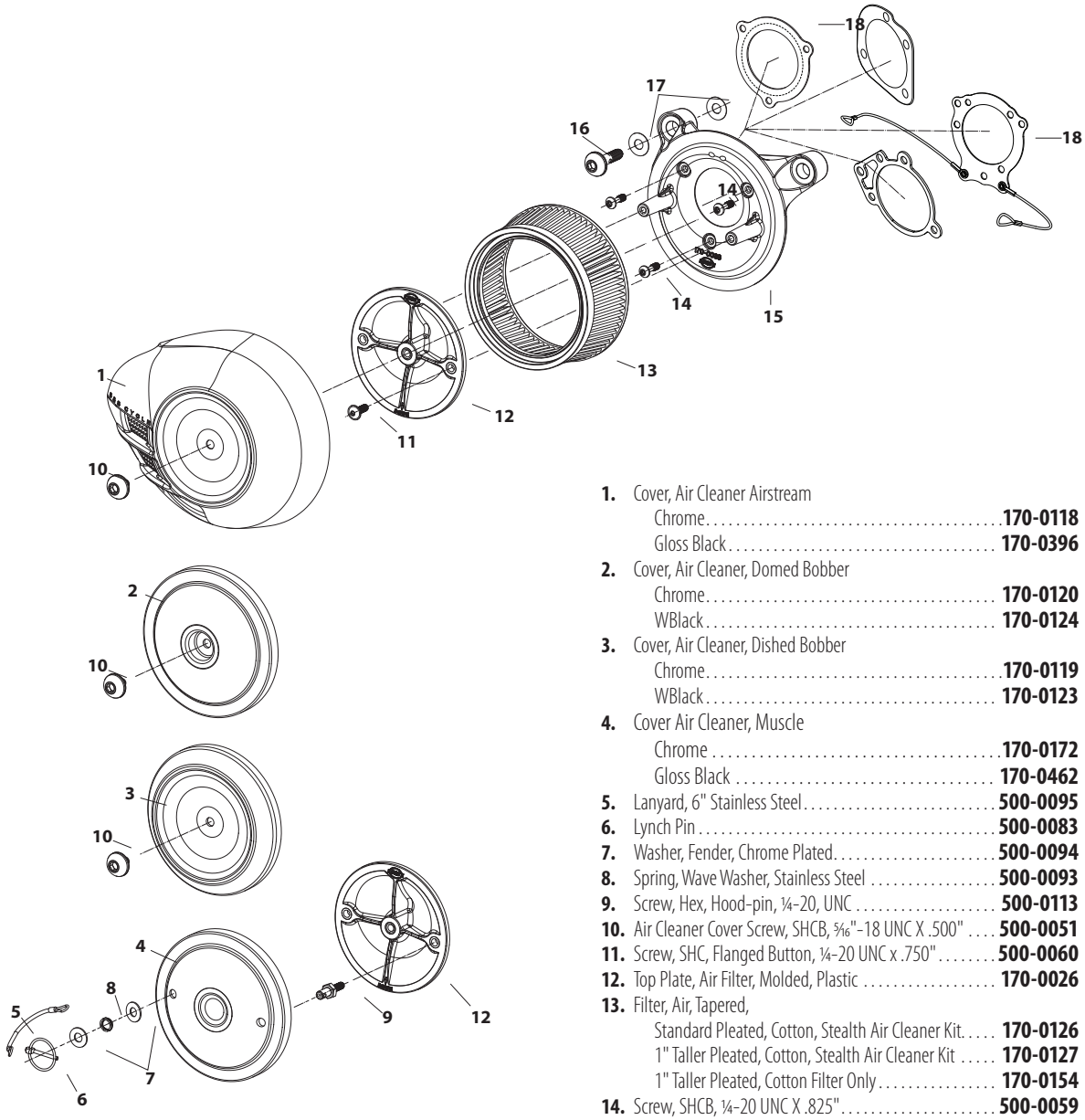

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BILLET ROCKER COVER REPLACEMENT PARTS
FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® & BUELL® MODELS

1. Screw, SH - ¼"-20 x ¾" *4069A (each)* **50-0067**
2. Washer, flat - ¼" *(each)* **50-7017**
12 pack **50-7013**
3. Washer, flat - ¼" rubber covered *(each)* **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. O-ring – 1⅝" I.D. x 1⅞" O.D. x ⅛" CS Viton ®
5. Rocker cover umbrella valve *26856-89, 26856-89A*
1990-up XL **90-4030**
6. Gasket, Bottom, Rocker Cover, 1986-2003
each **900-0538**
2 pack **900-0592**
7. Rocker cover base – billet
Chrome **90-4051**
Natural **90-4056**
8. Screw, SH w/washer – ¼"-20 x 1" *4741A*
(each) **50-0092-S**
4 pack **50-0092P**
9. Rocker cover o-ring gasket – S&S billet rocker cover
(Included in gasket set. See #16 below.)
10. Washer, flat – 5⁄16" *(each)* **50-7026**
11. Bolt, rocker support – socket head
11a. 5⁄16"-18 x 2¼" (left support) *(each)* **50-0115-S**
11b. 5⁄16"-18 x 2½" (right support) *876A (each)* **50-0118**
12. Rocker cover top – Billet Chrome **90-4054**
13. Right rocker shaft support – billet **90-4053**
14. Left rocker shaft support – billet. **90-4052**
15. Rocker cover gasket set – S&S billet rocker cover
(Not shown) **90-4049**



STEALTH AIR CLEANER REPLACEMENT PARTS



1. Cover, Air Cleaner Airstream
- Chrome **170-0118**
- Gloss Black **170-0396**

2. Cover, Air Cleaner, Domed Bobber
- Chrome **170-0120**
- WBlack **170-0124**

3. Cover, Air Cleaner, Dished Bobber
- Chrome **170-0119**
- WBlack **170-0123**

4. Cover Air Cleaner, Muscle
- Chrome **170-0172**
- Gloss Black **170-0462**

5. Lanyard, 6" Stainless Steel **500-0095**

6. Lynch Pin **500-0083**

7. Washer, Fender, Chrome Plated **500-0094**

8. Spring, Wave Washer, Stainless Steel **500-0093**

9. Screw, Hex, Hood-pin, ¼-20, UNC **500-0113**

10. Air Cleaner Cover Screw, SHCB, 5/16"-18 UNC X .500" **500-0051**

11. Screw, SHC, Flanged Button, ¼-20 UNC x .750" **500-0060**

12. Top Plate, Air Filter, Molded, Plastic **170-0026**

13. Filter, Air, Tapered,
- Standard Pleated, Cotton, Stealth Air Cleaner Kit **170-0126**
- 1" Taller Pleated, Cotton, Stealth Air Cleaner Kit **170-0127**
- 1" Taller Pleated, Cotton Filter Only **170-0154**

14. Screw, SHCB, ¼-20 UNC X .825" **500-0059**

15. Backplate
- Stock CV & EFI, Black, Die Cast, 1991-2016 xl **170-0048**
- Super E/G, Black, Die Cast, 1991-2003 xl **170-0050**

16. Screw, Backplate Vent, SHCB, ½-16 x 1½", Polished Stainless **170-0044**

17. Washer,Flat, ,Nitrile Rubber Coated, .380" x .880" x .024"
- *each* **50-7054**
- *10 pack* **50-7059**

18. Gasket,Backplate
- Stock CV Carb & EFI Throttle Body, 1991-2016 xl *(except Throttle by Wire)* **106-6022**
- Super E/G **106-1724**
- w/ lanyards for use with Muscle Cover **170-0137**

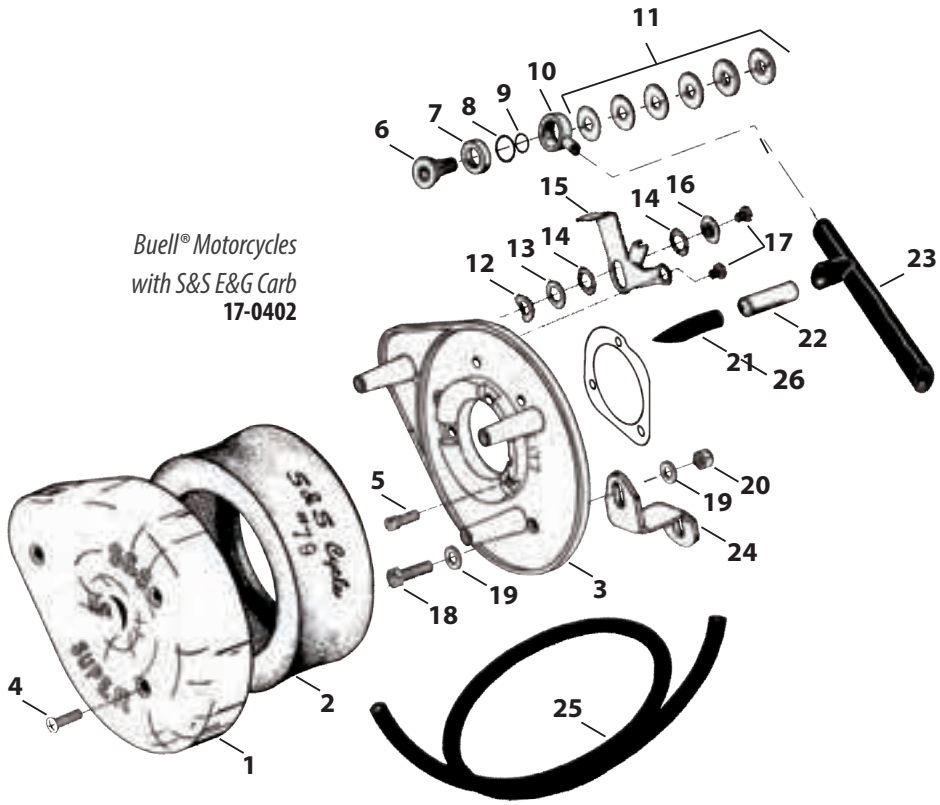
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CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS
FOR BUELL® MOTORCYCLES WITH STOCK OR S&S CARB

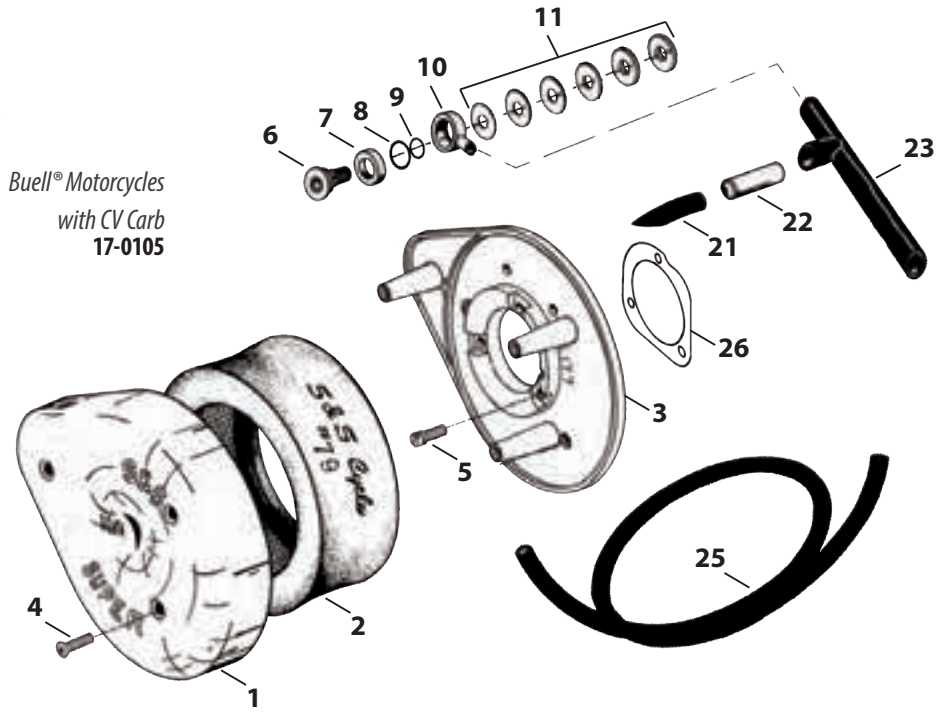
1. Air cleaner cover
Chrome **17-0078**
2. Air cleaner element **17-0079**
3. Air cleaner backing plate
Super E & G carburetors **17-0000**
Stock carburetors **17-0003**
4. Cover screw
Chrome *1305 (each)* **50-0072**
3 pack **50-1052**
10 pack **50-0094**
Black *902 (each)* **50-0310-S**
3 pack **50-0310**
5. Air cleaner backplate screw
For S&S Super E&G
Zinc Plated *(each)* **106-2084**
10 pack **106-2105**
6. Cap screw, breather & air cleaner mount **17-0338**
7. Shim, .620" I.D. x .800" O.D. x .185" *(each)* ..... **N/A**
8. O-ring ½" O.D. x ⅝" I.D. x 1⁄16" CS *(each)* **50-8270**
5 pack **50-8130**
9. O-ring ⅜" O.D. x ½" I.D. x 1⁄16" CS *11110 (each)* **50-8006**
10 pack **50-8077**
10. Breather fitting *(each)* **17-0350**
2 pack **17-0355**
11. Shim kit air cleaner backplate *(includes 4 each of .018",.030",.048")* . **17-0464**
Replacement Shims
½" x 1" x .018 *(each)* **50-7085**
½" x 1" x .030 *(each)* **50-7086**
½" x 1" x .048 *(each)* **50-7087**
½" x 1" x .105 *(each)* **50-7089**
½" x 1" x .125 *(each)* **50-7090**
12. Washer, friction, spring *(each)* **50-7035**
10 pack **50-7058**
13. Washer, flat .323" x ⅝" x 1⁄32" *(each)* **50-7037**
10 pack **50-7061**
14. Washer, flat, nylon .323" x ⅝" x .020" *(each)* **50-7036**
10 pack **50-7060**
15. Lever, fast idle, ... **17-0327**
16. Washer, flat w/step, brass *(each)* **50-7007**
10 pack **50-7010**
17. Screw, PH slotted 10-24 x ¼" *(each)* **50-0041**
10 pack **50-0062**
18. Screw, HH, cap, ¼"-28 x ⅞" **50-0074**
19. Washer, flat, .281" x .625" x .080" *6192, 6228W, 6194, 6245, 6703, 6736 each* **50-7021**
20. Locknut - ¼" -28 *(each)* **50-5010**
21. Hose, breather vent **17-0365**
22. Fitting, hose, Buell air cleaner **17-0336C-S**
23. Hose, breather ..... USA 1,2 **17-0339**
24. Bracket, carb support, air cleaner **17-0309**
25. Tubing, rubber - ⅜" x ⅝" x 3' ..... USA **N/A**
26. Gasket,Backplate,1991-up xl/bt *29062-95B* **106-6022**

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Buell® Motorcycles with S&S E&G Carb
17-0402



Buell® Motorcycles with CV Carb
17-0105



SINGLE BORE TUNED INDUCTION SYSTEM
REPLACEMENT PARTS

1. Tuned Intake Kit, 2.19" Single Bore
- Natural **106-4968**
- Gloss Black **170-0453**
- Chrome Plated **106-4970**

2. Tuned Intake Assembly, 2.19" Single Bore
- Gloss Black **170-0454**
- Chrome Plated **106-4967**

3. Air Filter, w/clamp, Stainless Cap – Conical – 2⅞" I.D. x 4"
- Red *(each)* **17-1020**
- Blue *(each)* **17-1023**

4. Gasket, Intake – Adapter Plate **17-1022**

5. Plate, Adapter, 2.19" Single Bore Tuned Intake
- Chrome Steel **17-1014**

6. FHSC ¼-20 x ⅝" *(each)* **50-0433**

7. FHSC ⅝-18 x ⅝" *(each)* **50-0432**

8. O-Ring, Adapter Plate Bracket
3⅝" O.D. x 3½" I.D. 1⁄16 CS, Viton *(each)* **50-0446**

9. Bracket Kit, 2.19" Single Bore Tuned Intake, Chrome
- Super E/G, 1986-'03 xl **106-4975**
- Stock CV & EFI, 1991-up xl **106-6026**

10. Backplate Screw
Screw, SHC, w/Threadlock, ¼-20 x ½" **106-2084**
10 pack **106-2105**

11. Screw, ⅝-18 x 1¼, BHC, Chrome *(each)* **50-0309-S**

12. Flat Washer ⅝" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**

13. Hose, Breather, ¼" I.D., 90° **19-0178A**

14. Screw, Breather Fitting, ⅜-16 x 1¼" **50-0436**

15. Washer, Flat, ⅜" x 1⅜" x 1⁄16", Chrome **50-7106-S**

16. Screw, Breather Fitting, ½-13 x 1.25 ..... **50-0435**

17. Shim Kit
- (a) ⅝" I.D. 1986-'90 xl **17-0314**
- (b) ½" I.D. 1991-up xl **17-0464**

18. Enrichment Device, S&S Super E & G carbs ..... USA **11-2084**
(Use in place of enrichment device on air cleaner backplate)

19. Gasket, Backplate - E/G/SBEFI *(each)* **106-1724**
10 pack **106-2328**

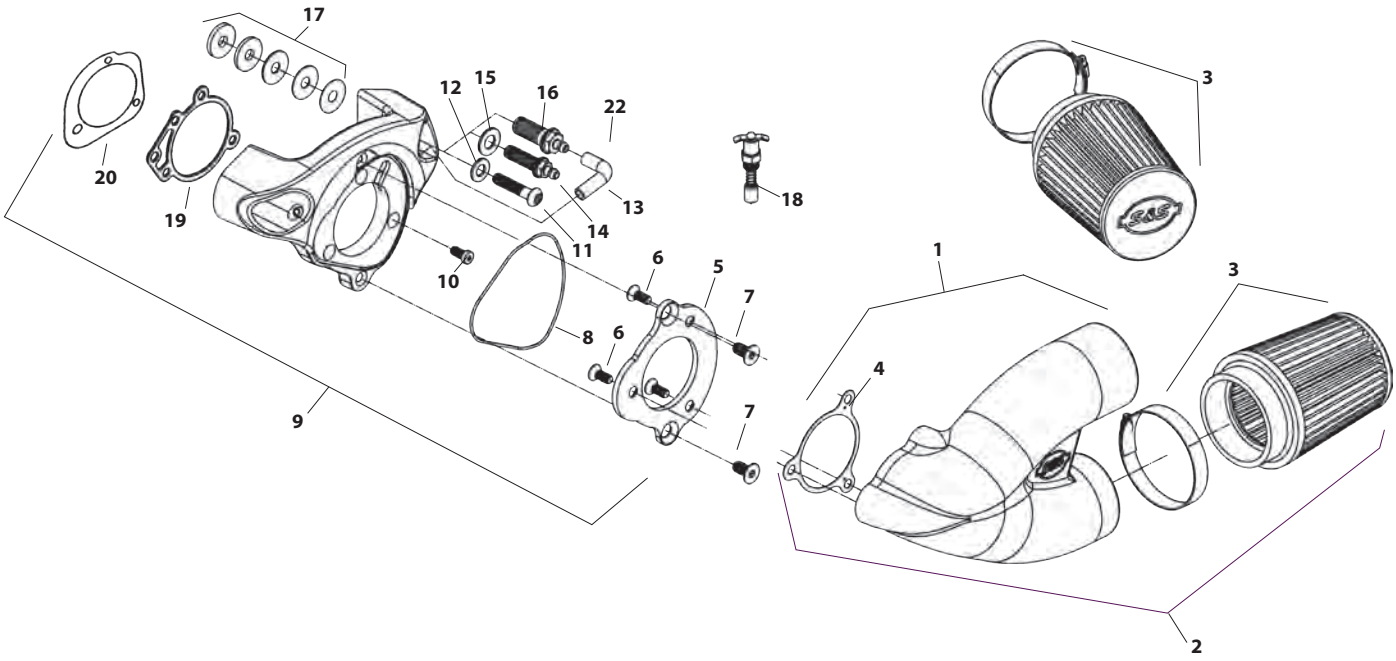
20. Gasket, Stock carb/Throttle Body *29062-95B* **106-6022**

21. Hardware Kit, 1986-'03 **(N/S)**
- Stock CV & EFI **500-0018**
- S&S Super E or G carb. **17-5099**

22. Cap,Canister Purge Fitting **50-8266-S**

23. Hose,Vent,Breather,Cut To Size,.313" x .438" x 24" **(N/S)** **106-4982**

(N/S) = Not Shown



ACCESSORIES

Description		Part #
Air Filter Oil, 8 oz. Bottle	Red	**106-1163**
	Blue	**106-1164**
Nylon Air Filter Cover	*each*	**106-0247**
	2 pack	**106-0248**



106-0248 **17-1020** **17-1023** **106-1163** **106-1164**

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CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS
FOR STOCK FUEL SYSTEMS

1. Air cleaner cover
- **1a.** Chrome **17-0078**
- **1b.** Chrome **17-0378**
- Black **170-0384A**
- Slasher **17-0004**

2. Element
- **2a.** Foam **17-0079**
- **2b.** Pleated **106-4722**

3. Backplate
- **3a.** XL 1966-'87 ..... **17-0180**
- **3b.** Backplate, 1991-2007 XL **106-0950**

4. Cover screw
- Chrome *1305 (each)* **50-0072**
- *3 pack* **50-1052**
- *10 pack* **50-0094**
- Black *902 (each)* **50-0310-S**
- *3 pack* **50-0310**

5. Screw
- **5a.** 1999-03 XL, HHCS ¼"-28 x 1-¼" ..... **N/A**
- **5b.** All Others, HHCS ¼"-28 x ⅞" **50-0074**

6. Backplate screw, Zinc Plated *(each)* **106-2084**
- *10 pack* **106-2105**

7. Shim kit, XL 1966-'87 ..... **17-0314**
(Includes 2 each 5⁄16" x .018", 5⁄16" x .030", 5⁄16" x .048", 5⁄16" x .105" and 4 each 5⁄16" x .125")
Replacement shims
- a. 5⁄16" x .018" *(each)* **50-7038**
- b. 5⁄16" x .030" *(each)* **50-7039**
- c. 5⁄16" x .048" *(each)* **50-7040**
- d. 5⁄16" x .105" *(each)* **50-7041**
- e. 5⁄16" x .125" *(each)* **50-7042**
- *2 pack* **50-7042P**

8. Replacement Shims
8a. 1991-up XL, & Buell® 1994-up
- ½" x .018 *(each)* **50-7085**
- ½" x .030" *(each)* **50-7086**
- ½" x .048" *(each)* **50-7087**
- ½" x .105" *(each)* **50-7089**
- ½" x .125" *(each)* **50-7090**

8b. 1999-03 XL
- ⅝" x .025" *(each)* **50-7113**
- *10 pack* **50-7110**
- ⅝" x .050" *(each)* **50-7114**
- *10 pack* **50-7111**
- ⅝" x .075" *(each)* **50-7115**
- *10 pack* **50-7112**

9. Breather Cap Screw **17-0338**

10. Shim, head vent - .62" I.D. x .80" O.D. x .175" *(each)* ..... **N/A**

11. Breather screw seal XL 1991-'03 Washer, .520 *(each)* **50-7055**
- *10 pack* **50-7057**

12. Breather fitting *(each)* **17-0350**
- *2 pack* **17-0355**

13. Crankcase breather vent hose
- **a.** XL 1986-'90 ..... **17-0113**
- **b.** XL 1991-'93 ..... USA 1,2 **17-0339**

14. Vent hose connector, XL 1986-'90 ..... **50-8111**

15. Vent hose, with angle cut **17-0365**

16. 90° Elbow fitting *(each)* **50-8110**

17. Hose fitting **17-0336C-S**

18. Flatwasher, ¼" *6192, 6228W, 6194, 6245, 6703, 6736 (each)* **50-7021**

19. Backplate plug, ⅛" -27 NPT *45830-48 (each)* **50-8331**
- *10 pack* **50-1015**

20. Plug, press-in clear plastic **50-8313**

21. Support bracket locknut - ¼"-28 x ⅞" *(each)* **50-5010**

22. Support bracket screw, 5⁄16"-18 x 1¼" **50-0110**

23. Lockwasher, 5⁄16" **50-7032**

24. Support Bracket
- **24a**. Air Cleaner to head 1986-90 XL **17-0311**
- **24b.** Air Cleaner to head 1991-03 XL **17-0308**

25. Rubber tubing - ¼" x ⅝" x 3' ..... USA **N/A**

26. Wire tie (N/S) **50-8003**

27. Washer, flat - ⅜" x ⅞" x .146" *(each)* **50-7053**

28. Shim - ¼" x ¾" x .200" **50-7024**

29. Screw Vent Fitting
- **29a.** XL 1993-99 ..... **17-0347**
- **29b.** XL 1999-up **17-0345**

30. Screw air cleaner backplate **17-0346**

31. Spring clamps **50-8001**

32. O-ring
- **32a.** (-014) .500"ID x .625" OD *(each)* **50-8270**
- *5 pack* **50-8130**
- **32b.** (-012) .375"ID x .500" OD *11110 (each)* **50-8006**
- *10 pack* **50-8077**

33. Gasket, backplate *(each)* **106-1724**
- *10 pack* **106-2328**

34. Adaptor assembly, 1991-up XL **106-1982**

35. Hose, vent, breather, formed, .250" x .375" x 1.330", 1991-2007 XL
- *each* **106-0161A**

36. Breather screw, 1991 XL **106-0845**

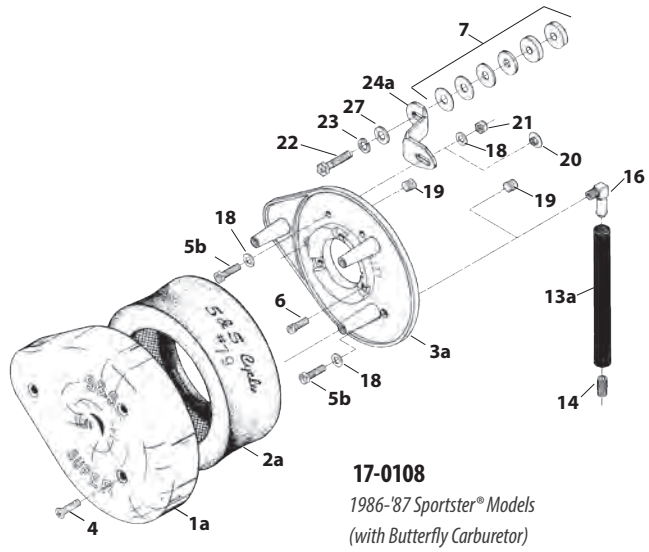
37. Washer, flat 5⁄16" x 11⁄16" x ⅛" **50-7033**

38. Nut, lock, HH, 5⁄16"-18 ..... **50-5021**

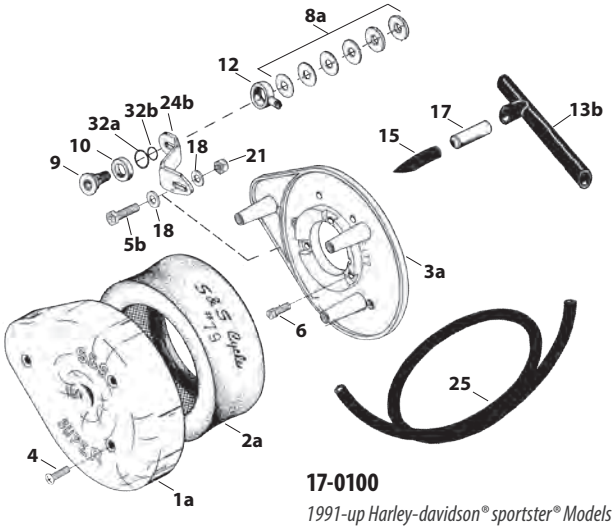
39. Bracket, support, air cleaner to head, xl, 1991-up
- Front **17-0305**
- Rear **106-1285**

N/S = Not Shown

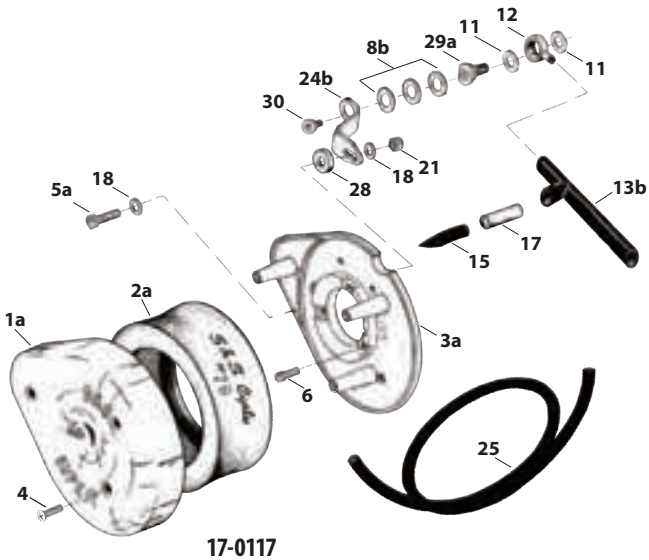
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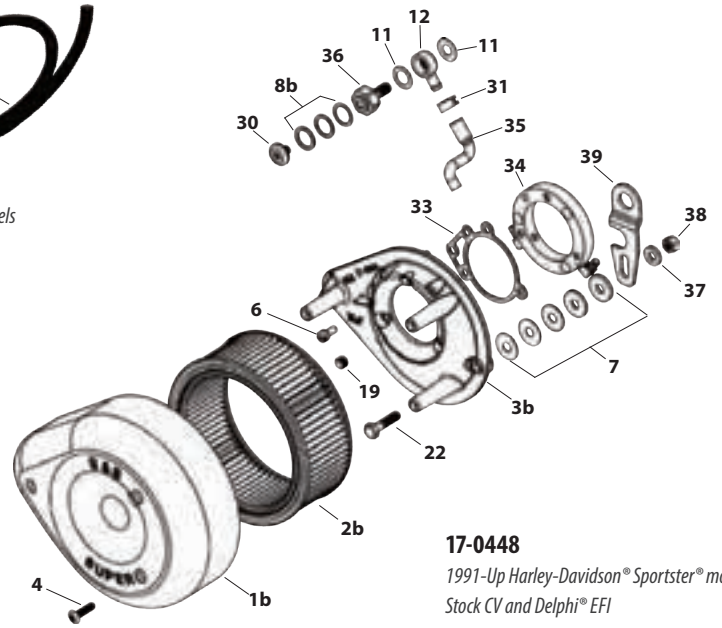
17-0108
1986-'87 Sportster® Models
(with Butterfly Carburetor)



17-0100
1991-up Harley-davidson® sportster® Models
(with CV carburetor) (Discontinued)



17-0117
1991-'03 Harley-Davidson® Sportster® Models
(Discontinued)



17-0448
1991-Up Harley-Davidson® Sportster® models
Stock CV and Delphi® EFI

SUPER E AND G AIR CLEANERS REPLACEMENT PARTS
FOR 1986-UP HARLEY-DAVIDSON® SPORTSTER® MODELS

1. Air cleaner cover
- Chrome **17-0378**
- Black **170-0384A**
- Slasher **17-0004**

2. Element, pleated **106-4722**
- Element, pleated carbon **17-0375**

3. Backplate
- XL 1957-'85 ..... **17-0330**
- XL 1991-'03 ..... USA 1,2 **17-0336**
- XL 1986-'90 *Manufactured prior to 1-1-03* **17-0380**
- XL 2004-'06 ..... **17-0361**

4. Cover screw
- Chrome *1305 (each)* **50-0072**
  - *3 pack* **50-1052**
  - *10 pack* **50-0094**
- Black *902 (each)* **50-0310-S**
  - *3 pack* **50-0310**

5. Backplate screw, Zinc Plated *(each)* **106-2084**
- *10 pack* **106-2105**

6. Fast idle friction washer *(each)* **50-7037**
- *10 pack* **50-7061**

8. Fast idle nylon washer *(each)* **50-7036**
- *10 pack* **50-7060**

9. Fast idle lever ..... USA 1,2,3 **17-0329**

10. Fast idle brass washer *(each)* **50-7007**
- *10 pack* **50-7010**

11. Fast idle lever screw (one required) **50-0041**
- *10 pack* **50-0062**

12. Shim kit
- XL 1986-'90 ..... **17-0314**
  (Includes two each 5⁄16" x .018", .030", .048", .105", and four each .125")
- XL 1991-2016 ..... **17-0464**
  (Includes two each 1⁄2" x .018", .030", .048", .105", and four each .125")

13. Shims,

a. XL 1986-'90
- 5⁄16" x .018" *(each)* **50-7038**
- 5⁄16" x .030" *(each)* **50-7039**
- 5⁄16" x .048" *(each)* **50-7040**
- 5⁄16" x .105" *(each)* **50-7041**
- 5⁄16" x .125" *(Use on BT 1936-'84 and XL 1957-'85 when insulator block is installed.)*
  each **50-7042**
  2 pack **50-7042P**

b. XL 1991-2016
- 5⁄8" x .025" *(each)* **50-7113**
  10 pack **50-7110**
- 5⁄8" x .050" *(each)* **50-7114**
  10 pack **50-7111**
- 5⁄8" x .075" *(each)* **50-7115**
  10 pack **50-7112**
- Shim, .515" x 1" x .125" *(each)* **50-7090**

14. Backplate mounting bolt – XL 1957-'85
- 5⁄16"-18 x 1" *3987 (each)* ..... USA **50-0108**
- 5⁄16"-24 x 3⁄4" *(Discontinued)* ..... **N/A**

15. Elbow fitting *(each)* **50-8110**

16. Breather screw
- Standard length **17-0338**

17. Breather screw o-ring – 5⁄8" O.D. *(each) 11140, 11273* **50-8270**
- *5 pack* **50-8130**

18. Breather screw o-ring – 1⁄2" O.D. *11110 each* **50-8006**
- *10 pack* **50-8077**

19. Breather screw washer **50-7119**

20. Breather fitting *(each)* **17-0350**
- *2 pack* **17-0355**

21. Crankcase breather hose
- a. XL 1978-'90 ..... **17-0113**
- b. XL 1991-'06 ..... USA 1,2 **17-0339**

22. Vent hose connector **50-8111**

23. Backplate plug 1⁄8"-27 *(each)* **50-8331A**
- *10 pack* **50-1015**

24. Locknut – 5⁄16"-18 *(Use with support bracket - see #26)* **50-5021**

25. Flatwasher – 5⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**

26. Support bracket
- XL 1957-'85 ..... **17-0393**
- XL 2004-2016 ..... **17-0305**

27. Mounting bracket bolt – XL 1957-'90 and 2004-'06 ..... **50-0110**

28. Lockwasher – 5⁄8" **50-7032**

29. Flatwasher – 5⁄16" x 1⁄8" **50-7033**

30. Wire tie (N/S) **50-8003**

31. Hose clamp (N/S) **50-8002**

32. Air cleaner assembly *(Includes: Chrome cover, backplate,filter element, and hardware kit)*
- XL 1957-'85 ..... **17-0400**
- XL 1986-'90 ..... **17-0399**
- XL 1991-'03 ..... **17-0404**

33. Mounting hardware package (N/S) *Includes all parts needed to install air cleaners:*
- XL 1957-'85 ..... **17-0441**
- XL 1986-'90 ..... **17-0458**
- XL 1991-'03 ..... **17-0439**

34. Screw vent fitting
- a. BT 1993-'99 ..... **17-0347**
- b. BT 1999-up **17-0345**

35. Screw, air cleaner to head **17-0346**

36. Washer, silicone coated steel, XL 1991-'06, .520" *(each)* **50-7055**
- *10 pack* **50-7057**

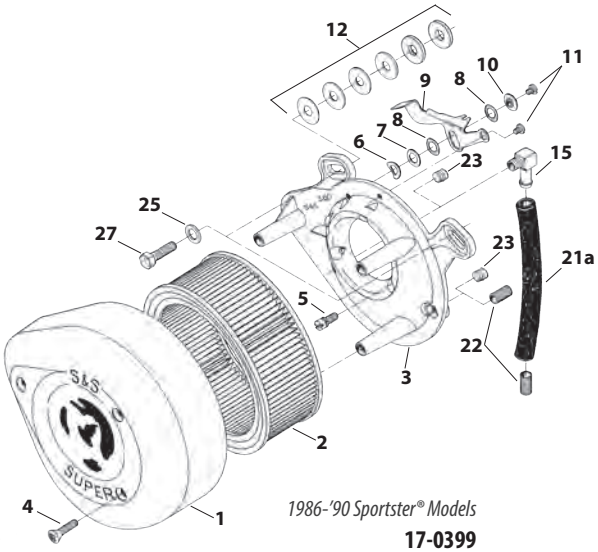
37. Spring clamps (N/S) **50-8001**

38. Breather conversion kit, XL 1 7⁄8" carbs (N/S) **17-0487**

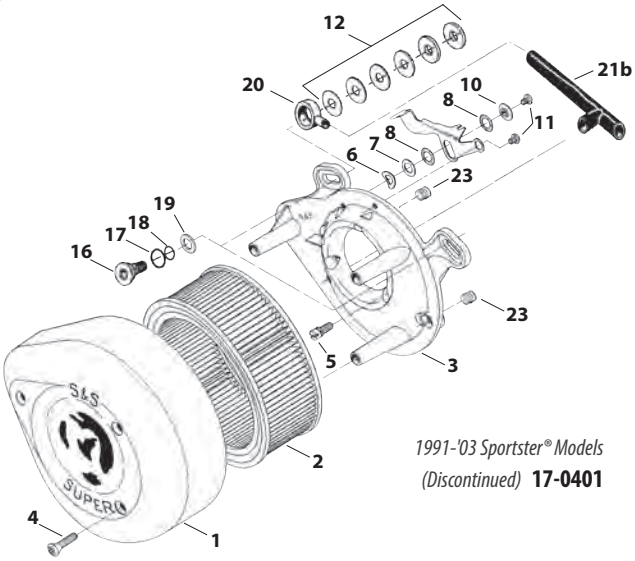
Convert early S&S air cleaners for 1991-'03 XL with o-ring breather fittings to new style breather hardware. XL kits include special insulator block, and manifold screws.

(N/S) = Not Shown

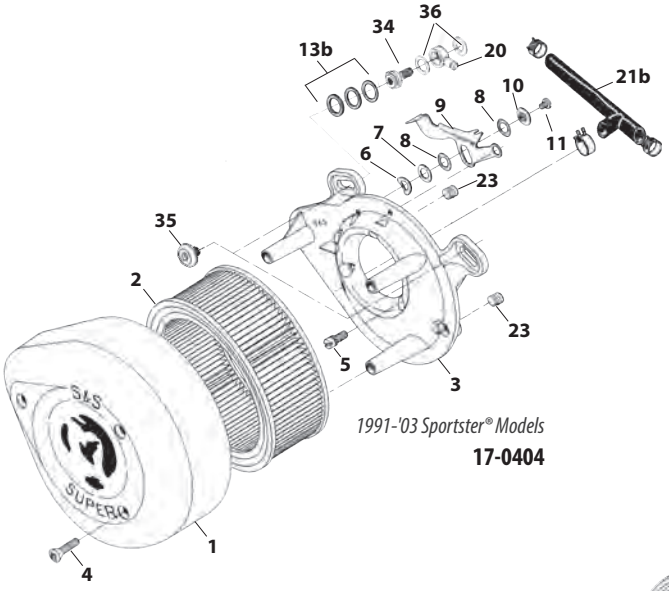
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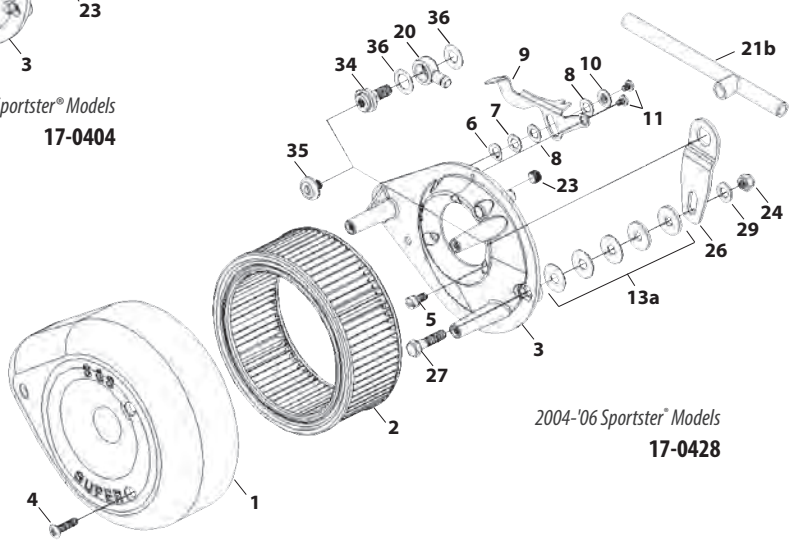
1986-'90 Sportster® Models
17-0399



1991-'03 Sportster® Models
(Discontinued) **17-0401**



1991-'03 Sportster® Models
17-0404

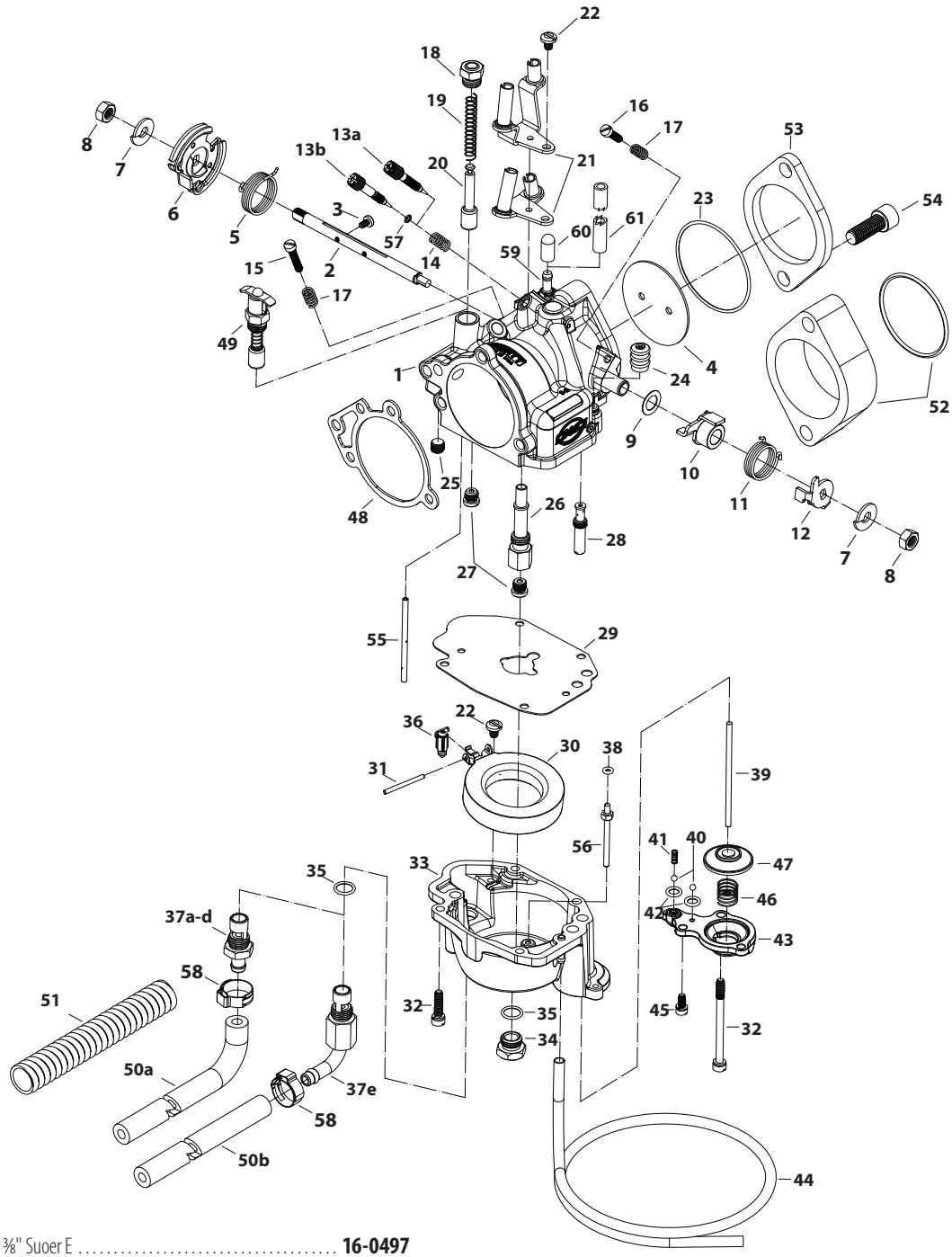


2004-'06 Sportster® Models
17-0428

SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly
1⅞" Super E. **11-2381**
2⅛" Super G **11-2391**
2. Throttle shaft
1⅞" Super E – Includes two plate screws **11-2383**
2⅛" Super G – Includes two plate screws **11-2483**
3. Throttle plate screw *11-2045- (two required) (each)* **50-0055-S**
10 pack **50-0064**
4. Throttle plate
1⅞" Super E. **11-2055**
2⅛" Super G **11-2355**
5. Throttle return spring *(each)* **11-2382**
5 Pack **11-3502**
6. Throttle spool **11-2385**
7. Throttle shaft lock washer *(two required)* **50-7031**
8. Throttle shaft nut *(two required) (each)* **11-2350**
5 pack **11-2363**
9. Throttle shaft nylon washer *(each)* **50-7050**
10 pack **50-7072**
10. Pump actuator lever **11-2376**
11. Actuator spring *(each)* **11-2375-S**
5 pack **11-3501**
12. Pump actuator arm **11-2377**
13. Idle mixture screw
a. Idle mixture screw, brass *(each)* **11-2354**
5 pack **11-2378**
b. Idle mixture screw only
each **110-0003**
Idle mixture screw w/ 500-0036 o-ring
each **110-0068**
5 pack **110-0069**
14. Idle mixture screw spring *(each)* **11-2052**
10 Pack **11-2060**
15. Idle speed screw *(each)* **50-0038**
10 Pack **50-0150**
16. Pump adjustment screw *(each)* **50-0039**
10 Pack **50-0146**
17. Idle speed/pump adjuster spring *(each)* **11-2048**
10 pack **11-2053**
18. Plunger nut *(each)* **11-2344**
5 Pack **11-2372**
19. Plunger spring *(each)* **11-2340**
10 Pack **11-2359**
20. Fast idle plunger **11-2343**
21. Cable guide assembly with screw
Use with butterfly style cables **11-2339P**
Use with constant velocity style cables **11-2338P**
22. Cable clamp/float pin screw *(each)* **50-0041**
10 Pack **50-0062**
23. O-ring
1⅞" Super E *(each)* **50-8016**
10 Pack **50-8094**
2⅛" Super G *(each)* **50-8015**
10 pack **50-8093**
24. Bellows seal *(each)* **11-2266**
5 Pack **11-2279**
25. Bowl vent plug *(each)* **50-0105**
10 pack **50-0151**
26. Main discharge tube **11-2085**
27. Main jet – See Chart on page 360
28. Intermediate Jets – See Chart on page 359
Series #94 fits all Super 1⅞", 2⅛", 2¼" gas carburetors.
29. Bowl gasket *(each)* **11-2386**
10 pack **11-2387**
30. Float. **11-2187**
31. Float pin *(each)* **11-2369**
5 Pack **11-2370**
32. Bowl screw
10-24 x ¾" - *Three required (each)* **50-0034**
10 Pack **50-0063**
10-24 x 2⅜" - *One required (each)* **50-0040**
10 Pack **50-0061**
33. Carb bowl *(only)*
..... **11-2388**
Carb bowl complete assembly
..... **11-2388P**
34. Bowl plug *(each)* **11-2090**
5 pack **11-2092**
35. Seat o-ring*
(required with part #11-2465 & #11-2466 only when replaces 360° style fuel inlet.)
each **50-8009**
10 pack **50-8095**
36. Needle
1⅞" Super E & 2⅛" Super G
..... **11-2195**
Racing only **11-2197**
37. Seat - Includes O-ring #35
(Replaces obsolete seats 11-2347 and 11-2348)
a. 1⅞" E & 2⅛" G *(Uses part #11-2195 needle)* **11-2465**
b. Racing only *(Uses part #11-2197 needle)* **11-2466**
c. Racing only -threaded fuel inlet (6AN .157" ID)
(Uses part #11-2195 needle) **11-2395**
d. Permeation Compliant fuel inlet seat Super E or G
(Uses part #11-2195 needle) **106-2011**
38. Ejector nozzle o-ring *(each)* **50-8011**
10 Pack **50-8096**
39. Pump pushrod *(each)* **11-2373**
5 Pack **11-2393**
40. Check ball - *(two required) (each)* **50-8090**
10 pack **50-8125**
41. Check ball spring *(each)* **11-2374**
5 Pack **11-2392**
42. Pump cap o-ring - *(two required) (each)* **50-8012**
10 Pack **50-8100**
43. Pump cap assembly **11-2389**
44. Overflow hose per 24" *27369-76*
(each) **19-0262-S**
5 Pack **19-0263**
45. Pump cap screw 8-32 - *(two required) (each)* **50-0042**
10 Pack **50-0098**
46. Diaphram spring *(each)* **11-2275**
10 pack **11-2278**
47. Diaphragm **11-2282**
48. Gasket, backplate *(each)* **106-1724**
10 pack **106-2328**
49. Enrichment device *(Use with air horn only)*. **11-2084**
50. Fuel line With 90° bend*19"
a. Fuel line With 90° bend*19" *(Use with part #11-2465 or #11-2466)*
..... **N/A**
b. Permeation Compliant straight, 311" x .563" x 17.5"
(Use with part #106-2011 , 90° seat) **190-0001**
51. Fuel line insulator–12". **19-0172**
52. Spacer, Kit, w/ O-ring
1⅞" x 1" **16-0057***
2⅛" x 1" **16-0357***
2¼" x 1" **16-0157**
*Use with 1" Spacer Block **16-0058**
53. Insulator Block,Manifold,w/ O-ring
1⅞" x ¼"Super E. **16-0491**

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1⅞" x ⅜" Suoer E **16-0497**
2 1/16" x ¼" Super G **16-0492**
2 1/16" x ⅜" Super G **16-0498**
2¼" x ¼" Super D **16-0499**

54. Screw
1" x ⅜"-16 *(each)* **50-0161**
1¼" x ⅜"-16 *(each)* **50-0162**
10 pack **50-0177**
1⅜" x ⅜"-16 *(each)* **50-0163**
5 pack **50-0178**
2" x ⅜"-16 *(each)* **50-0164**
5 pack **50-0185**
2004-'06 Top Carb to Manifold
1½" x ⅜"-16 ..... **50-0354-S**
2004-'06 Low Carb to Manifold
1½" x ⅜"-16 ..... **50-0351-S**

55. Tube,Fast Idle Pick-Up,Super E/G,.125" x 2.350",Brass **0381F**
56. Tube,Ejector Nozzle,Super E/G,Flared,Brass. **106-6124**
57. O-ring, 3mm x 5mm x 1mm *(each)* **500-0036**
10 pack **500-0148**
58. Clamp, ⅝" - ⅞" **50-8002**
59. Hose, Fitting straight, .040" **16-0134**
60. VOES Fitting Cap **50-8372**
61. VOES/Oil Return Hose. **19-0395**

**360° banjo style fuel inlet fitting used on early S&S E&G carbs is no longer available. Replace with one of the inlet/seat fittings listed under #37 on this page. We highly recommend inlet/seat #106-2011.*

CARBURETOR REBUILD KITS
SEE PAGE 360

VALVE SPRING REPLACEMENT PARTS

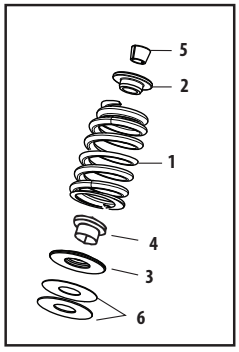
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .650" **106-5689**
2. Collar, Top, Steel **106-5690**
3. Collar, Bottom, Steel **106-5691**
4. Seal,Valve
   - S&S CNC Ported Heads & Stock w/7mm valve stem **106-5688**
   - S&S Super Stock Heads Stock w/5⁄16 valve stem
     - .420" Cast **900-0338**
     - .562" Powder Metal **900-0737**
5. Keeper, valve spring
   - S&S CNC Ported Heads & Stock w/7mm valve stem **106-5692**
   - S&S Super Stock Heads & Stock w/5⁄16 valve stem **90-2094-S**
6. Valve Spring Shim
   - .015" *(each)* **500-0013**
   - .030" *(each)* **500-0014**

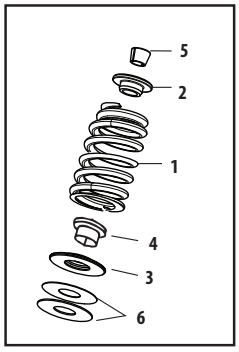
.585" Lift Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .585" **900-0444**
2. Collar, Top **900-0550**
3. Collar, Bottom
   - For Stock Heads w/7mm valve stem *(includes seal)* **900-0590**
   - For CNC Ported Heads w/7mm valve stem **900-0549**
   - For Super Stock Heads. **900-0600**
4. Seal, valve guide
   - For Stock Heads w/7mm valve stem *(includes bottom collar)* **900-0590**
   - For CNC Ported Heads w/7mm valve stem **106-5688**
   - For Super Stock Heads & Stock w/5⁄16 valve stem
     - .420" Cast **900-0338**
     - .562" Powdermetal **900-0737**
5. Keeper, valve spring
   - For Stock and CNC Ported Heads **106-5692**
   - For Super Stock Heads & Stock w/5⁄16 valve stem **90-2094-S**
6. Valve spring shim
   - For Stock and CNC Ported Heads
     - .015" **500-0013**
     - .030" **500-0014**
   - For Super Stock Heads & Stock w/5⁄16 valve stem
     - .015" **90-2086**
     - .030" **90-2087**

.650" Lift Sidewinder® Valve Springs



.585" Lift Valve Springs





SECTION 6: STREET® & STREET ROD™

Performance Parts

Air Cleaners 385

Exhaust 384

Replacement Parts 388

GRAND NATIONAL 4" SLIP-ON MUFFLER



FITMENT
- 2014–2017 Harley-Davidson® Street XG750, XG500, & Street Rod™

FEATURES AND BENEFITS
- 10% increase in HP & torque when coupled with S&S® Stealth Air Cleaner Kit
- Race inspired sound & stainless steel baffle
- Black ceramic finish matches stock header pipe
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

GRAND NATIONAL 4" SLIP-ON MUFFLER FOR 2014-2017 HD® STREET® XG750, XG500 & STREET ROD™

Description	Part #
Grand National 4" Slip-On for 2014-2017 HD Street XG750, XG500 & Street Rod	**550-0703**

*Qualified Manufacturer Declared Emissions Replacement Part on all 2014- 2017 Street Models

Grand National



REPLACEMENT PARTS: SEE PAGE 390

STEALTH AIR CLEANER KITS
2014–2018 STREET XG750 AND XG500



FITMENT
- 2014–2018 Street XG750 and XG500

FEATURES AND BENEFITS
- 6.7% more horsepower and 11.6% more torque *(AC and Stock Muffler)*
- Increased air flow 290 cfm vs. stock 110cfm
- Compatible with S&S Stealth air cleaner covers *(except Airstream)*

MINI TEARDROP STEALTH AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER 170-0374A WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22

Fitment	Fuel System	Finish	Part #
2014–2018 Street XG750 and XG500	Stock Bore	Chrome	**170-0445A**
		Gloss Black	**170-0446A**

CARB compliant EO #D-355-22

STEALTH AIR CLEANER KIT FOR 2014-2018 STREET XG750 & XG500

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22

Description	Part #
Stealth Air Cleaner Kit for Street	**170-0374A**



REPLACEMENT PARTS: SEE PAGE 388

STEALTH AIR CLEANER KITS
2017-'18 HARLEY-DAVIDSON® STREET ROD™ MODELS

CARB compliant EO #D-355-22

FITMENT
- 2017-'18 Harley-Davidson® Street Rod™

FEATURES AND BENEFITS
- High-strength synthetic polymer backplate — Designed to reduce heat transfer to intake air
- 210% increase in flow
- Pair with one of many covers *(cover not included; see next pagefor options)*
- Cooler, denser air allows for more efficient cylinder fill and better performance
- Pre-filters are available

MINI TEARDROP STEALTH AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER 170-0414A WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22

Fitment	Fuel System	Finish	Part #
2017-'18 Harley-Davidson® Street Rod™ XG750A	Dual Bore	Chrome	**170-0443A**
		Gloss Black	**170-0044A**

CARB compliant EO #D-355-22

STEALTH AC KIT FOR 2017-'18 HD® STREET ROD™

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22

Description	Part #
Stealth Air Cleaner Kit	**170-0414A**



REPLACEMENT PARTS: SEE PAGE 389

STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW MINI TEARDROP

FITMENT

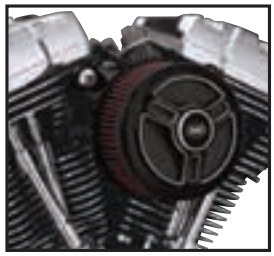
- All S&S Stealth Air Cleaners



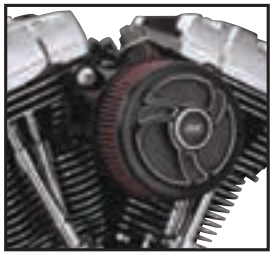




Air 1



Tri-Spoke



Torker



Bobber-dished



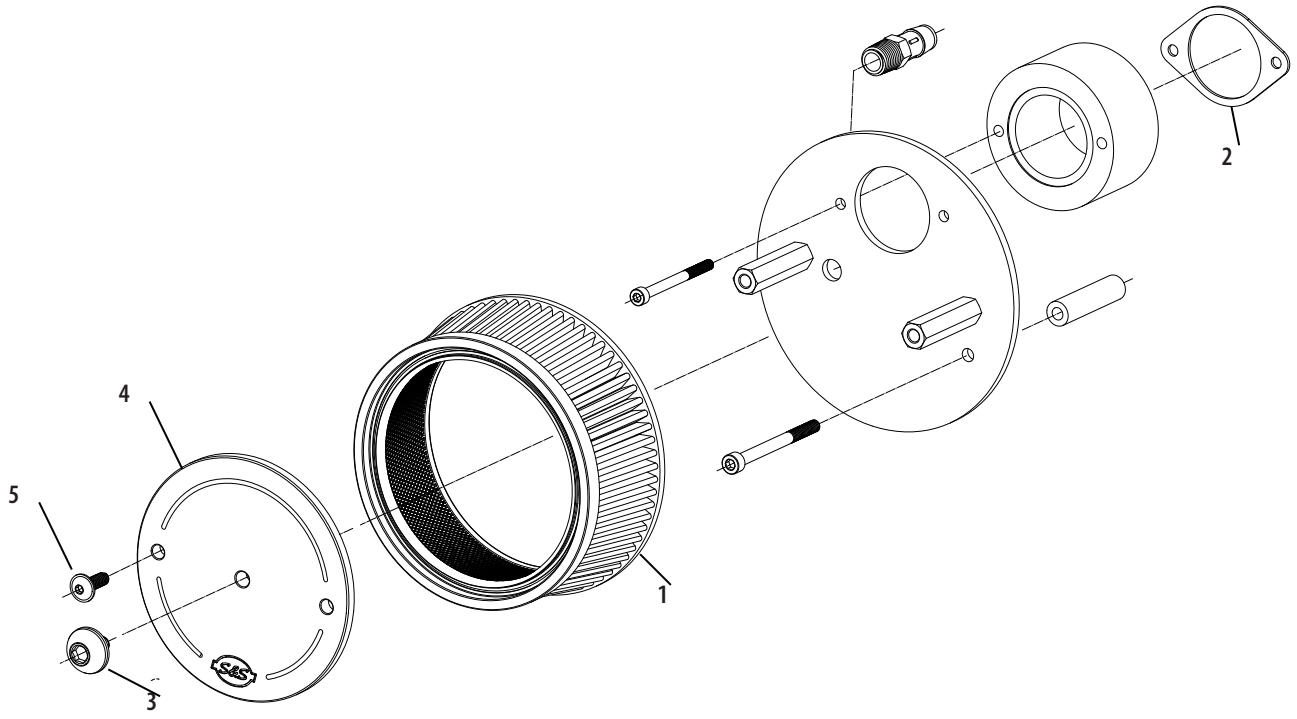
Airstream

STEALTH COVERS

Style	Finish	Part #
Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	NEW FOR 2018 Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**

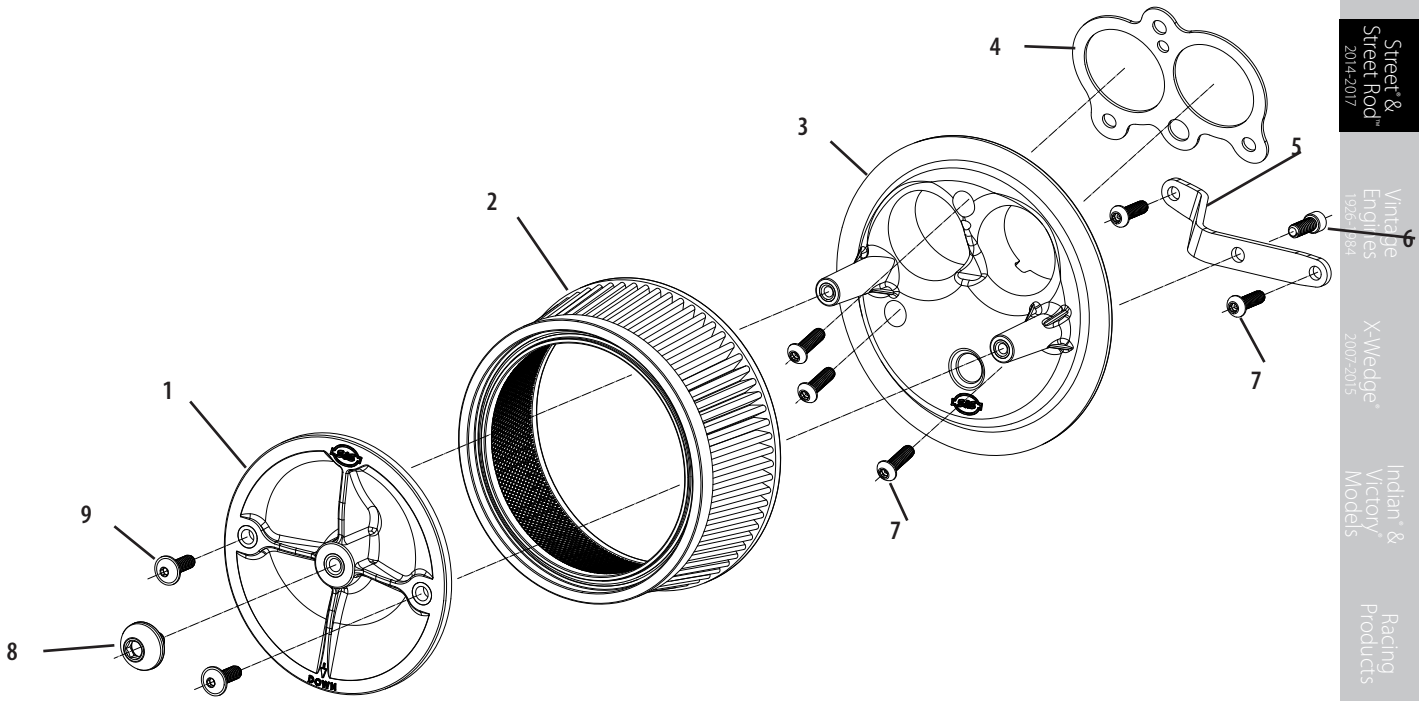
STEALTH AIR CLEANER KIT REPLACEMENT PARTS
FOR STREET® MODELS

1. Filter,Air,Tprd,StdPlt,5.500" x 6.000"..... **170-0126**
2. Gasket,Intake,1.720"..... **170-0371**
3. Screw,SHCB,5⁄16-18 x .500",Pol,Stnls Stl **500-0051**
4. Plate,Top,Air Filter,S&S® Logo,GlBlk **170-0379**
5. Screw,SHC,Flng Btn,1⁄4-20 UNC x .750" (2 Req)..... **500-0060**



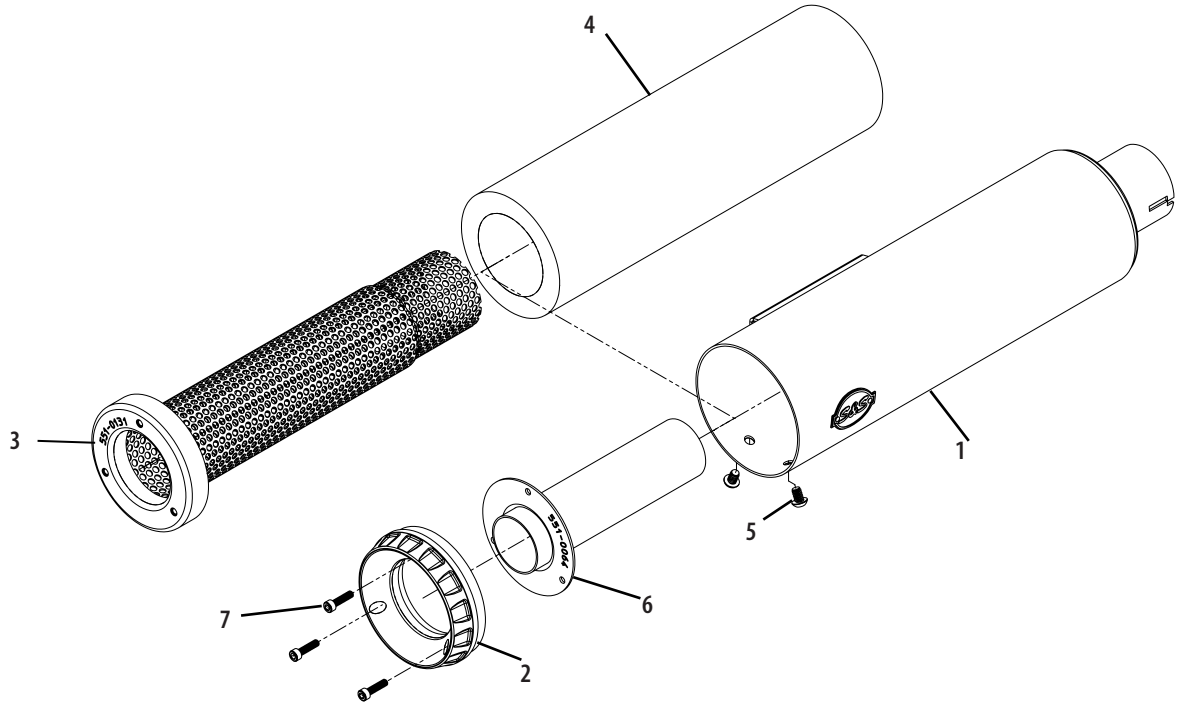
STEALTH AIR CLEANER KIT REPLACEMENT PARTS
FOR STREET ROD™ MODELS

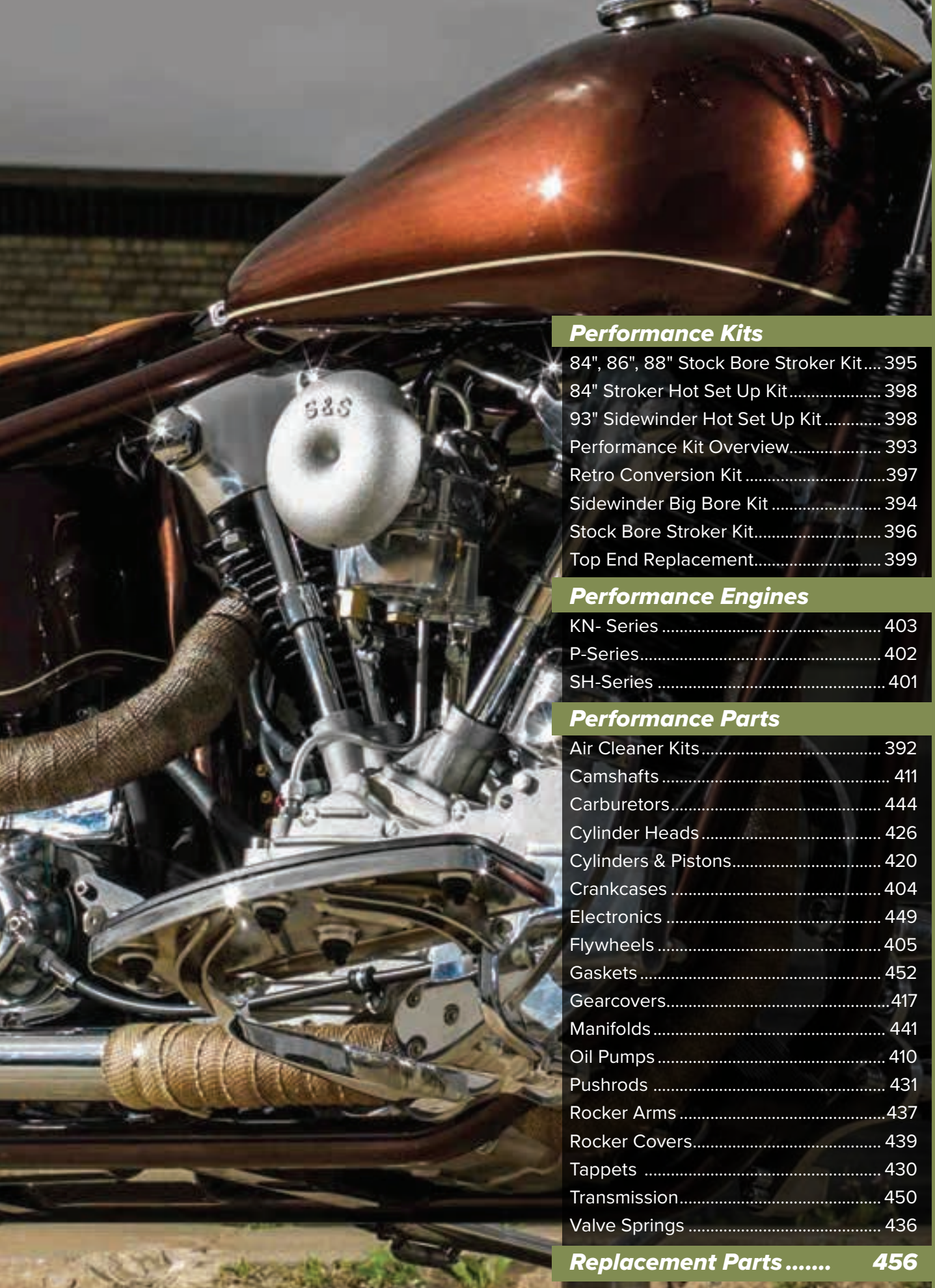
1. Top plate, filter, air, molded, plastic **170-0026**
2. Filter, air, tapered, standard, pleated, 5.50" X 6.00" **170-0126**
3. Backplate, air cleaner, dual bore, injection molded **170-0415**
4. Gasket, intake, dual bore, 2017 street rod **170-0404**
5. Bracket, backplate, powdercoated, black, 2017 Street Rod **170-0413**
6. Screw, SHC, ¼-20 UNC x ⅝", zinc, steel *3594* **50-0071**
7. Screw, BHC, M6 x 20mm, zinc. **50-8421-S**
8. Screw, SBHCS, ⁵⁄₁₆-18 UNC x .500", Polished, stainless **500-0051**
9. Screw, SHC, flanged button, ¼-20 UNC x .750" **500-0060**
10. Sealant, Loctite, #243, 5ml (Not Shown) **51-9003**



GRAND NATIONAL 4" MUFFLER REPLACEMENT PARTS

1. Muffler,Body (shown for placement only)..... **N/A**
2. End cap,4"..... **551-0188**
3. Baffle Assembly, 2014-2017 HD® Street®..... **551-0270**
4. Insulation,Muffler,Pillow Pack,13" x 11.5"..... **551-0276**
5. Screw,BHC,High Temp Lock Patch,1/4-20 x 3/8",Stainless Steel (2 Req)..... **500-0441**
6. Baffle, asm, muffler, 4"..... **551-0063**
7. SHCS,10-32 x .75" (3 Req)..... **500-0569**





SECTION 7: VINTAGE MODELS

Performance Kits

84", 86", 88" Stock Bore Stroker Kit.... 395
84" Stroker Hot Set Up Kit..... 398
93" Sidewinder Hot Set Up Kit..... 398
Performance Kit Overview..... 393
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Performance Engines

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Performance Parts

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UNIVERSAL STEALTH AIR CLEANER KIT
FOR 1936-'92 BIG TWINS AND 1957-'90 SPORTSTER® MODELS

FITMENT
- 1936-'92 bt case breathing engines equipped with a Super E or G carb
- 1957-'03 Sportster® models case breathing engines equipped with a Super E or G carb

FEATURES AND BENEFITS
- Increased performance
- Perfect addition with a performance exhaust system
- Filter element can be cleaned and reuse

KIT CONTENTS
- Backplate
- Air Filter
- All necessary mounting hardware
- Complete instructions

UNIVERSAL STEALTH AIR CLEANER KIT

Model	Part #
1936–'92 big twins, 1957–'90 Sportster® models	**170-0176**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



170-0176



170-0118

STEALTH COVERS

Style	Finish	Part #
NEW FOR 2018 Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	NEW FOR 2018 Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**



170-0210 **170-0206** **170-0214**



170-0121



170-0367 **170-0366**

CLASSIC TEARDROP AIR CLEANER KITS
FOR S&S AND STOCK CARBURETORS

FITMENT
- 1966-'84 big twins
- 1966-'85 Harley-Davidson® Ironhead Sportster®

FEATURES AND BENEFITS
- Increased air flow adds 2-5 horsepower *(more with performance exhaust and cams)*
- Easy installation
- S&S chrome teardrop air cleaner looks great

KIT CONTENTS
- Chrome teardrop cover
- Back plate
- Filter
- Mounting hardware
- Instructions



17-0199

CLASSIC TEARDROP AIR CLEANER KITS

Model Year and Engine Style	S&S L, HD® Tillotson®, Bendix®, Keihin®	Super E & G
Big Twin Models		
1966-'84 w/5 gl. tanks	**17-0199**	**17-0440**
1966-'84	**17-0199**	**17-0400**
Harley-Davidson® Ironhead Sportster® Models		
1966-'85	**17-0199**	**17-0400**

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REPLACEMENT PARTS: SEE 480

PERFORMANCE KIT OVERVIEW
FOR VINTAGE HARLEY-DAVIDSON® MODELS



91-9126

SIDEWINDER® BIG BORE KITS FOR 1966-'84 BIG TWINS

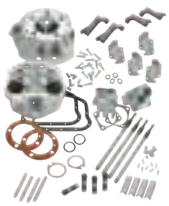
Sidewinder big bore/stroker kits are available in displacements from 88" to 103". The 3⅝" bore cylinders are coupled with strokes from 4¼" to 5" to yield the various displacements (See 394). The most popular and highly recommended Sidewinder Kit is the 93" (3⅝" bore X 4½" stroke). This is also available as a Hot Set Up Kit which includes everything you need to achieve the potential of the increased displacement (See 398).



32-2222

STOCK BORE STROKER KITS FOR 1936-'84 BIG TWINS AND IRONHEAD SPORTSTER®

Stock bore stroker kits were the original solution to attaining more cubic inches back in the day. They are still popular today because of they produce good power for less money. Stock bore strokers reuse most of the components of the stock engine, and don't require expensive crankcase machining so installation is also economical. Stroker kits are available for knuckles, pans, and shovels in 84" to 88" displacement. By far the 84" stroker is the most popular and is available as a Hot Set Up Kit. The Hot Set Up Kit comes with cam, carb pushrods, and valve springs that will allow you to take full advantage of the displacement increase (See 395). There is a 74" stroker for Ironhead Sportster that has been a favorite since the 1970s (See 396). Order the basic kit or configure your own Hot Set Up Kit with the CTO number.



106-1070

RETRO CONVERSION KIT FOR 1966-'84 BIG TWINS

Give your shovel the nostalgic look of a panhead, gain performance, and upgrade to modern 1984-'99 style hydraulic valve train with one simple to install kit. (See 397)



90-0098

TOP END REPLACEMENT KITS FOR 1966-'84 BIG TWINS

Restore that tired iron with a bolt-on Top End Replacement kit. Kit includes cylinders, pistons, cylinder heads and all gaskets and hardware. Available for 74" and 80" engines. (See 399)

SIDEWINDER® BIG BORE KITS
FOR 1966-'84 BIG TWIN ENGINES



FITMENT
- 1966-'84 big twins

FEATURES AND BENEFITS
- Increase displacement and power
- High strength cast iron cylinders with increased cooling fin area
- Stock like appearance – durable black powder coat finish
- Easy installation
- Long engine life, good dependability

S&S® SIDEWINDER® BIG BORE KIT SPECIFICATIONS FOR 1966-'84 BIG TWINS

Displacement	Bore	Stroke	Compression Ratio	Cylinder Length	Recommended Cam (Stock Valve Train*)	Recommended Cam (S&S Valve Train**)	Recommended Carb
88"	3⅝"	4¼"	7.5:1	5.330"	S&S 514	S&S 585	Super E
93"	3⅝"	4½"	8.5:1	5.405"	S&S 514	S&S 585	Super E
93" HC	3⅝"	4½"	9.1:1	5.363"	S&S 560S	S&S 600	Super E
96"	3⅝"	4⅝"	9.1:1	5.440"	S&S 560S	S&S 600	Super E
98"	3⅝"	4¾"	8.9:1	5.530"	S&S 560S	S&S 600	Super E
103"	3⅝"	5"	9.7:1	5.630"	S&S 560S	S&S 600	Super E or G

**1966-'84 style cams for valve train with stock style tappets*

***1984-'99 style cams for S&S valve train conversion kit with 1984-'99 style tappets*

COMPLETE S&S® SIDEWINDER® KITS FOR SHOVELHEAD ENGINES

Displacement	93"	93" HC	96"	98"	103"
1966-'69	–	–	**91-9133**	–	–
1970-'84	**91-9126**	**91-9130**	**91-9134**	**91-9138**	**91-9140**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.
These kits require manifolds, see 441.

84", 86", OR 88" STOCK BORE STROKER KI

FEATURES AND BENEFITS

- Increased displacement and power
- Economical – re-use most stock engine components
- Easy installation – like a stock engine rebuild
- Stock appearance

OPTIONS

- Displacement 84", 86", or 88"
- Cylinder Bore 3⅞" or 3½"

Optional parts available – cam, prefit cylinder and piston kits, cylinder heads, S&S retro conversion kit *(pan style heads and upgraded valve train),* and S&S valve train upgrade kit



32-2222

S&S® STOCK BORE STROKER KIT SPECIFICATIONS 1936-'84 BIG TWINS

Displacement	Bore	Stroke	Compression Ratio		Recommended Cam (Stock Valve Train)	Recommended Cam (S&S® Valve Train)	Recommended Carb
			HC	LC			
84"	3⅞"	4½"	8.4:1	7.3	S&S 450S	S&S 513	Super E
86"	3⅞"	4⅝"	9.4:1	8.1	S&S 514	S&S 585	Super E
88"	3⅞"	4¾"	10.8:1	9.1	S&S 565S	S&S 640	Super E

STOCK BORE STROKER KITS FOR KNUCKLEHEAD, PANHEAD, & SHOVELHEAD ENGINES

Displacement	84"	86"	88"
1936-'53	**32-2219**	**	**
1958-'64†	**32-2220**	**	**
1965-'69	**32-2221**	**	**
1970-'84	**32-2222**	**32-2108**	–
CTO	**106-5838**	**106-5838**	**106-5838**
Custom Flywheels	**32-2015**	**32-2015**	**32-2015**

**Includes .032" base plates.*
***Available through CTO part #106-5838*

†S&S does not offer a pinion shaft for 1954-'57 engines.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle..

THESE KITS REQUIRE SPECIAL S&S PISTONS. **SEE CHART.**

FORGED STOCK BORE STROKER PISTONS

Oversize	Standard	Low Compression
Standard (3⅞")	**106-5527**	**920-0073**
+.010"	**106-5528**	**920-0075**
+.020"	**106-5529**	**920-0077**
+.030"	**106-5530**	**920-0079**
+.040"	**106-5777**	**920-0081**
+.050"	**106-5778**	**920-0083**
+.060"	**106-5779**	**920-0085**
+.070"	**106-5780**	**920-0087**
+.080"	**106-5781**	**920-0089**
+.090"	**106-5782**	**920-0091**



106-5527

STOCK BORE STROKER KITS
FOR 1971-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER



32-3055

FITMENT
- 1972-'85 1000cc Ironhead Sportster models

FEATURES AND BENEFITS
- Economical – re-use most stock engine components
- More Power – longer stroke and larger displacement

OPTIONS
- Piston oversize
- S&S Super B or Super E carburetor
- S&S pushrods

S&S® STOCK BORE STROKER KITS SPECIFICATIONS – HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Displacement	Stroke	Bore	Compression Ratio	Piston Type*	Cylinder Length	Application
74"	4⅝"	3⅜₁₆"	9:1	Forged	Stock	Short Trips, Street, & Strip

**Order pistons separately. See chart below.*

STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Year	Part #
1977-'81	**32-3055**
Custom Flywheels	**32-3014**

Note - Order pistons separately. See chart below. .

THESE KITS REQUIRE SPECIAL S&S PISTONS. SEE CHART.



106-5542

STROKER PISTON KITS FOR 1972-'85 HARLEY-DAVIDSON® SPORTSTER® MODELS

Oversize	+.010	+.020	+.030	+.060
Part #	**106-5542**	**106-5543**	**106-5544**	**106-5791**

Piston Deck Height = .806". Piston kits include rings, wristpins and keepers. *Recommended Piston Fit: Close: .0030"-.0035" Loose: .0045"-.0055"*

NOTES

For the best performance, an S&S carburetor, performance cams, and performance exhaust are recommended.
Do to the increased displacement and compression, cams with longer duration are recommended for easier starting.
If replacing the pistons in a older 77" stroker engine, stroker plates are required, and all clearances must be checked.

RETRO CONVERSION KIT
FOR 1966-'84 BIG TWINS



FITMENT
- 1966-'84 big twins
- 1954-'65 big twins with shovel cylinders

FEATURES AND BENEFITS
- Gives a shovel engine the retro look of a pan
- S&S heads improve performance with increased air flow
- Quiet, dependable valve train with hydraulic tappets

OPTIONS
- Stock or 3⅝" bore
- Dual spark plugs available on 3⅝" bore heads
- Internal or external oil returns

RETRO CONVERSION KITS FOR 1954-1984 BIG TWINS

Application	Bore	Option	Part #
1966-'84 bt S&S SH-Series	Stock	Single Plug	**106-1070**
	3⅝"	Single Plug	**106-1071**
		Dual Plugs	**106-1078**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.
These kits have internal oil drains.

LATE STYLE CAM RECOMMENDATIONS FOR SHOVELHEAD ENGINES WITH RETRO CONVERSION KIT

Application	RPM Range	Compression Ratio	If You Used…	Then Use…	Generator Style	Alternator Style
74" - Stock 84" low compression	Low - Mid	8.5 and below	S&S 450 or Andrews® J or A	S&S 513	**106-6028**	**106-6027**
74" and 80" - Modified	Mid - High	8.5 - 9.5	S&S 514 or Andrews #3 or B	S&S 585	**33-5131**	**33-5109**
84" - 93"	Low - Mid	8.0 - 9.0	S&S 514	S&S 585	**33-5131**	**33-5109**
93" HC - 103"	Mid - High	9.0 - 10.0	S&S 495 or 560S	S&S 600	**33-5132**	**33-5058**
High Compression	High	Over 10.0	S&S® 495 or 565S	S&S® 640	-	**33-5108**

NOTES

The S&S Retro Conversion Kit requires that a 1984-'99 style cam be used to ensure correct valve timing due to the roller size on the late style tappets use in the kit.

1970-'77 stock engines will also require a 1978-'87 style pinion gear to mate with the late style cam gear.

1966-'69 engines or other engines with generator style crankcases will require a special generator style cam with 1984-'99 style lobes. See chart for recommendation.

1979-'84 o-ring style pushrod covers are required; S&S part #93-4040 or equivalent.

**REPLACEMENT PARTS:
SEE 468**

93" SIDEWINDER® HOT SET UP KIT®
FOR 1966-'84 BIG TWIN ENGINES



32-2266

FITMENT
- 1966-'84 big twin engines

FEATURES AND BENEFITS
- Yields 93 cubic inches with an approximate compression ratio of 8.5:1
- 4½" stroker flywheels assembled with mainshafts and rod
- 3⅜" bore cylinders and pistons
- S&S 514 cam kit, valve springs, adjustable chromoly pushrods
- S&S Super E carb kit

S&S® SIDEWINDER® HOT SET UP KIT SPECIFICATIONS FOR 1966-'84 BIG TWINS

Displacement	Bore	Stroke	Compression Ratio	Cylinder Length	Recommended Cam (Stock Valve Train*)	Recommended Cam (S&S Valve Train**)	Recommended Carb
93"	3⅜"	4½"	8.5:1	5.405"	S&S 514	S&S 585	Super E

CRANKCASES & CYLINDER HEADS MUST BE BORED TO ACCECPT S&S® SIDEWINDER BIG BORE CYLINDERS.

93" SIDEWINDER® HOT SET UP KIT® FOR 1966-'84 SHOVELHEAD ENGINES

Model Year	Kit Number
1966-'69	**32-2265**
1970-'72	**32-2266**
1973-'77	**32-2267**
1978-'84	**32-2268**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

84" STROKER HOT SET UP KIT®
FOR STOCK BORE PANHEAD AND SHOVELHEAD ENGINES



32-2289

FITMENT
- 1955-'65 & 1966–'84 Big Twin Engines

FEATURES AND BENEFITS
- Healthy increases in torque and horsepower
- No complicated machining

84" STROKER HOT SET UP KITS®
FOR STOCK BORE PANHEAD & SHOVELHEAD ENGINES

Model Year	Part #
1955*-'64	**32-2284**
1965	**
1966-'69	**32-2286**
1970-'77	**32-2287**
1978-'84	**32-2289**
CTO	**106-5838**

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**Note: 1955-'57 cases require modification to accept 1.250" Pinion Bearing*
***Available through CTO part #106-5838*

THESE KITS REQUIRES SPECIAL S&S PISTONS. SEE CHART.

FORGED STOCK BORE STROKER PISTON KITS

Oversize	Piston Kit
Standard	**106-5527**
+.010"	**106-5528**
+.020"	**106-5529**
+.030"	**106-5530**
+.040"	**106-5777**
+.050"	**106-5778**
+.060"	**106-5779**
+.070"	**106-5780**
+.080"	**106-5781**
+.090"	**106-5782**

Piston kits include two pistons, rings, wristpins, and keepers
Wristpin Deck Height: 1.100"

TOP END REPLACEMENT KITS
FOR 1966-'84 BIG TWIN ENGINES

FITMENT
- 1966–'84 Big Twin Engines

FEATURES AND BENEFITS
- Provide everything you need to replace the top end of a 74" or 80" shovelhead engine.
- S&S top end kits for shovelheads include a set of S&S Super Stock® cylinder heads, a pair of S&S® stock bore cylinders (3⅞" for 74" and 3½" for 80"), S&S 8:1 compression forged pistons, complete with rings and wristpins, manifold clamps, manifold seals, all required hardware, and gaskets.
- 74" top end kits include S&S 106-5495 series 3³¹⁄₃₂" stroke pistons and o-ring style cylinder heads.
- Top end kits for 80" engines include the S&S 106-5511 series 4¼" stroke pistons and rubber band style cylinder heads. Pistons are pre-fit to the cylinders



90-0098

TOP END REPLACEMENT KITS FOR STOCK DISPLACEMENT SHOVELHEAD ENGINES

Displacement	Model Year	Stroke	Compression	High Temp Gloss Finish Part #
74"	1966-'78	3³¹⁄₃₂	8:1	**90-0097**
80"	1979-'84	4¼"	8:1	**90-0098**

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Top it off with S&S billet rocker boxes.
See 439.

NOTES

74" engines have a stroke of 331/32", and 80" shovelhead engines have a 4¼" stroke, but the cylinder length for both engines is the same. The 74" piston is taller than the 80" piston; piston deck heights of the two pistons are designed for the same piston to head clearance in both engines. While it is possible to install an 80" top end on a 74" engine, this will result in very low compression and poor performance. A 74" top end will bolt to an 80" crankcase, but, the pistons will contact the cylinder head due to the combination of the taller 74" pistons and the longer stroke of the 80" flywheels. Therefore, it is important to correctly identify the stroke of the engine before ordering a top end kit.

ENGINE OVERVIEW

S&S offers performance engines in a variety of displacements for 1936-'84 Harley-Davidson® OHV big twins, that provide a vintage vibe and modern muscle. These engines have a deceptively stock appearance, but feature larger displacement and updated internal components for improved performance and reliability. Engineering grade cast iron cylinders are protected with a durable powder coat finish.

1966-'84 BIG TWINS

SH93 (93 CID)

An excellent upgrade option to replace a worn out Harley-Davidson® shovelhead engine, or to power a retro custom. The SH93 provides a significant increase in power over stock 74" or 80" engines, and since it runs well on pump gas, it's a great daily driver. Available with generator, alternator, or alt/gen crankcases.

SH93H (93 CID HIGH COMPRESSION)

The SH93H is a higher compression version of the SH93. It features dual plugged cylinder heads to control knock, and a more aggressive cam to take advantage of the higher compression. Alternator style crankcases only. Complete with S&S Super E Carb and ignition.

SH103 (103 CID)

The SH103 is the largest engine S&S offers for 1970-'84 chassis. This engine will require frame clearancing when installed in a stock chassis. Available with alternator style crankcases only. Complete with S&S Super E Carb and ignition.

1948-'65 BIG TWINS

P74 (74 CID)

The P74 engine is preferred by some riders as a replacement engine for bikes with stock drive train that may not be able to take the power of a larger engine. Timken® sprocket shaft bearing makes this engine more reliable. Available with generator style crankcases only. Complete with S&S Super E Carb and ignition.

P93 (93 CID)

An excellent upgrade option to replace a worn out Harley-Davidson® panhead engine, or to power a retro custom. The P93 provides a significant increase in power over stock 74" engines, and since it runs well on pump gas, it's a great daily driver. Available with generator, alternator, or alt/gen crankcases.

P93H (93 CID HIGH COMPRESSION)

The P93H is a higher compression version of the P93. It features dual plugged cylinder heads to control knock, and a more aggressive cam to take advantage of the higher compression. Alternator/generator style crankcases only. Complete with S&S Super E Carb and ignition.

P103 (103 CID)

The P103 is the largest engine S&S offers for 1970-'84 chassis. This engine will require frame clearancing when installed in a stock chassis. Available with alternator style crankcases only. Complete with S&S Super E Carb and ignition. Complete with S&S Super E Carb and ignition.

1936-'47 OHV BIG TWINS

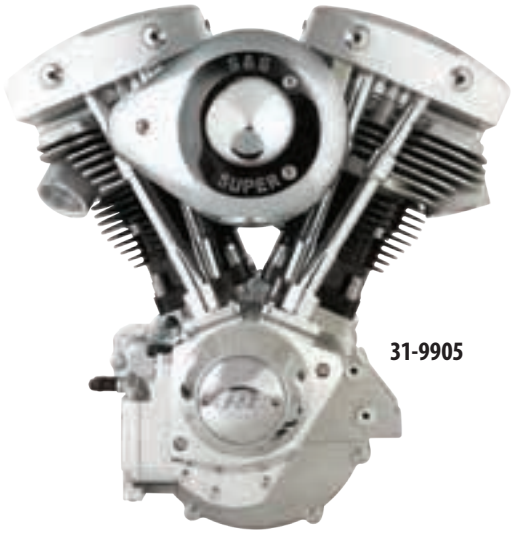
KN74 (74 CID)

The KN74 is a stock displacement engine favored by riders replacing an engine in a chassis with stock drive train that may not handle the increased power of a larger engine. Timken® sprocket shaft bearing makes this engine more reliable. Available with generator style crankcases only. Complete with S&S Super E Carb and ignition.

KN93 (93 CID)

An excellent upgrade option to replace a worn out Harley-Davidson® knucklehead engine, or to power a retro custom. The KN93 provides a significant increase in power over stock 74" or 61" engines, and since it runs well on pump gas, it's a great daily driver. Available with generator, alternator, or alt/gen crankcases.

SH-SERIES ENGINES
FOR 1966-'99 CHASSIS



31-9905

FITMENT
- 1966-'69 stock chassis electric start with alloy primary – flat side gearcover and flat timer cover- available through CTO
- 1970-'99 stock chassis with alternator style primary
- 1970-'99 alternator/generator and alternator custom versions custom bikes with 1970-'99 alternator style primary

FEATURES AND BENEFITS
- Natural crankcases and black powder coated cylinders
- S&S hydraulic valve train and roller rocker arms
- S&S Super Stock™ single fire ignition system
- 1966-'69 models have correct length sprocket shaft for stock primary and transmission
- Alternator and alternator/generator models have correct sprocket length sprocket shaft for 1970-up primary and transmission
- Alternator/generator engines include oil filter mounting bracket for generator location
- Two-year warranty

OPTIONS
- 93", 93" high compression, and 103" displacements
- Stock style generator, alternator/generator, or alternator crankcases

SH-SERIES ENGINE SPECIFICATIONS

Engine	Displacement	Bore	Stroke	Carb	Camshaft	Piston Type	Compression Ratio
SH93	93"	3⅜"	4½"	Super E	S&S 585	S&S Forged	8.5:1
SH93H	93"	3⅜"	4½"	Super E	S&S 600	S&S Forged	9.1:1
SH103	103"	3⅜"	5"	Super G	S&S 600	S&SForged	9.7:1

*NOTE: S&S® SH93H engine contains 1984-'99 style S&S cam and tappets. *SH103 will not fit stock chassis–not for everyone!*
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COMPLETE CARBURETED SH-SERIES ENGINES

Engine	Application	Style	Warranty	Billet Gearcover	Cast Gearcover
SH93	1970-'99 Chassis	Alternator	2 Years	**31-9905**	**31-9904**
	Custom	Alternator/Generator		–	**31-9917**
SH93H	1970-'99 Chassis	Alternator		**31-9908**	**31-9907**
SH103	1970-'99 Chassis	Alternator		**31-9919**	–
CTO	Specify	Specify		**319-0005**	**319-0005**

2 year warranty.
DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

P-SERIES ENGINES
FOR 1948-'99 CHASSIS

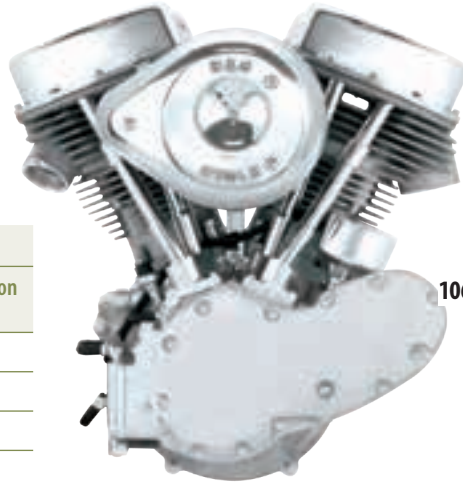
FITMENT
- Several versions are available:
- 1948-'64 stock chassis with tin primary – 4 rib gearcover and domed timer cover
- 1965 stock chassis electric start with alloy primary – flat side gearcover and flat timer cover (will fit 1966-'69 chassis)
- 1970-'99 Alternator/generator and alternator custom versions

FEATURES AND BENEFITS
- Vintage vibe – *Modern muscle*
- Natural crankcases and stock-looking silver powder coated cylinders
- S&S hydraulic valve train with roller rocker arms
- S&S billet timer and S&S Super Stock single fire ignition system
- 1948-'64 and 1965 models have correct length sprocket shaft for stock primary and transmission
- Alternator and alternator/generator models have correct sprocket length sprocket shaft for 1970-up primary and transmission
- Alternator/generator engines include oil filter mount for generator location
- 1966-'84 exhaust systems
- 1966-'84 intake ports with o-ring inlets
- Two-year warranty

OPTIONS
- 74", 93", 93" high compression, and 103" displacements
- Stock style generator, alternator/generator, or alternator crankcases



106-0819



106-0820

P-SERIES ENGINE SPECIFICATIONS

Engine	Displacement	Bore	Stroke	Carb	Camshaft	PistonType	Compression Ratio
P74	74"	3 7/16"	3 31/32"	Super E	S&S 513	S&S Forged	7.5:1
P93	93"	3 5/8"	4 1/2"	Super E	S&S 585	S&S Forged	8.5:1
P93H	93"	3 5/8"	4 1/2"	Super E	S&S 600	S&S Forged	9.1:1
P103	103"	3 5/8"	5"	Super G	S&S 600	S&S Forged	9.7:1

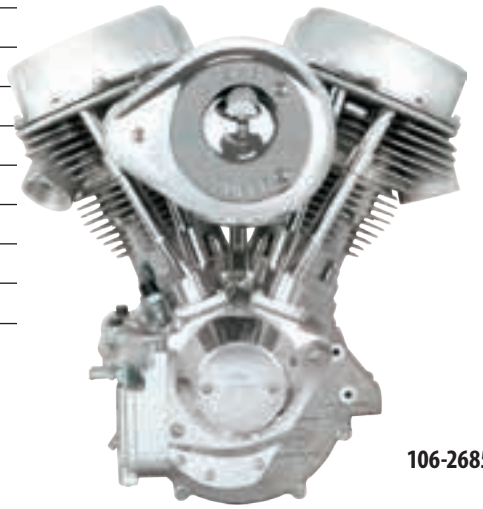
COMPLETE CARBURETED P-SERIES ENGINES

Engine	Application	Style	Warranty	Part #
P74	1948-'64 Chassis	Generator	2 Years	**310-0224**
P93	1948-'64 Chassis	Generator		**106-0819**
	1965-'69 Chassis	Generator		**106-0820**
	Custom 1970-'99	Alternator		**106-2685**
		Alternator/Generator		**106-0821**
P93H	Custom 1970-'99	Alternator/Generator		**106-0824**
P103	Custom 1970-'99	Alternator/Generator		**106-0827**
CTO		Specify		**319-0003**

P93H and P103 engines come with dual plugged cylinder heads. Alternator and alternator/generator engines require transmission with 1970-up length main shaft and custom exhaust.

1955-'64 style engines may be installed in 1948-'54 chassis if 1955-'64 inner primary tin cover is used.

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106-2685

KN-SERIES ENGINES
FOR 1936-'99 CHASSIS

FITMENT
- KN74
  - 1936-'99 chassis
- KN93
  - 1936-'47 stock chassis – will fit in 1948-'65 chassis with front motor mount spacer *(included)*
  - 1970-'99 Alternator/generator and alternator custom versions, custom bikes with 1970-'99 alternator style primary

FEATURES AND BENEFITS
- Natural crankcases and black powder coated cylinders and heads
- S&S Super E
- S&S valve train – solid lifters
- S&S Super Stock™ single fire ignition system and polished billet timer
- 1936-'47 models have correct length sprocket shaft for stock primary and transmission
- Alternator and alternator/generator models have correct sprocket length sprocket shaft for 1970-up primary and transmission
- Alternator/generator engines include oil filter mount for generator location
- Alternator style crankcase – allows the use of modern primary, transmission, clutch components and electrical system
- One-year warranty

KN-SERIES ENGINE SPECIFICATIONS

Engine	Displacement	Bore	Stroke	Carb	Camshaft	Piston Type	Compression Ratio
KN74	74"	3 7/16"	3 31/32"	Super E	S&S® 346	S&S Forged	7.5:1
KN93	93"	3 5/8"	4 1/2"	Super E	S&S® 420	S&S Forged	8.2:1
KN-Kone	93"	3 5/8"	4 1/2"	Super E	S&S® 420	S&S Forged	8.2:1


106-2560

KN-SERIES ENGINES

Description	Application	Style	Warranty	Part #
KN74	1936-'99 chassis	Generator	1 year	**310-0025**
KN93	1936-'47 stock chassis	Generator		**106-2161**
KN93	1970-'99 customs	Alternator/Generator		**106-2560**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTES

Alternator/generator cases have 1948-'99 style front motor mount. Will not fit stock knuckle frames.

Generator style engines have stock motor mounts for 1936-'47 style frames, but can be used in 1948-'99 style frames with front motor mount spacer, part #31-2017 (included). Alternator/generator cases require a transmission with 1970-up length mainshaft, and custom exhaust pipes must be fabricated.

Engines for 1936-'64 chassis with tin primary must use a 1954-'64 style inner primary cover.

S&S Super Stock generator style crankcases are available for stock 3 7/16" or 3 5/8" bore, but can be special ordered for bore sizes up to 3 13/16" and deck heights as much as 3/16" taller than stock.

1936-'54 must use the 1955-'64 style inner steel primary cover.

Since all S&S generator style crankcases use 1958 and later style main bearings, stock flywheel assemblies 1957 and earlier cannot be used in S&S crankcases. Flywheel assemblies must have 1958 and later pinion shaft with 1.250" diameter bearing, and a 1954 and later style sprocket shaft designed for a Timken® main bearing.

Generator style cases for 1936-'47 knucklehead engines are machined to supply oil to the heads from a boss located near the rear tappet guide or from a stock or S&S gearcover. Provision for oil scavenging from the heads in these crankcases is the same as stock, with passageways that connect the tappet guides to the crankcase breather gear.

Crankcases for 1948-'69 engines are machined with a provision to separate the oil supply to the top and bottom ends if an S&S oil pump is used. This feature lets you choose the 1972 and earlier stock "side oiling" system or the 1973 and later split oil system. The stock cast iron oil pump can be used for the "original look" and stock oiling system. If an S&S billet oil pump, part #31-6200 is used, the oiling system can be set-up as stock or updated to a split system.

1963-'65 panhead engines, with outside oil supply lines to the cylinder heads, must use the oil supply port located behind the rear tappet guide or the oil fitting toward the rear of the S&S gearcover. S&S generator style crankcases do not have the stock style "outside oiler" oil supply boss, so special oil supply lines will need to be fabricated.

SUPER STOCK® GENERATOR STYLE CRANKCASES
FOR 1936-'69 BIG TWIN ENGINES

FITMENT
- 1936-'47 knucklehead engines with tin primary
- 1948-'64 panhead engines with tin primary
- 1965-'69 panhead & generator shovelhead with alloy primary
- Custom – alternator/generator

FEATURES AND BENEFITS
- Pre-clearanced for strokes up to and including 5"
- Motor mounts on crankcases for knucklehead engines are machined to fit stock 1936-'47 frames. An adapter plate is included for 1948 and later style frames
- All cases are designed for late style generator (two brush type) with 5⁄16" mounting bolts to eliminate early generator cradle/mounting strap bosses for simplicity and economics
- Timken® sprocket shaft main bearing, in all years, instead of stock straight roller bearings – resulting in better flywheel assembly stability, placement, and longer engine life

KIT CONTENTS
- Crankcase assembly
- All required bearings and hardware for installation
- Assembly instructions



31-0010

REPLACEMENT PARTS: SEE 458

SUPER STOCK® GENERATOR CRANKCASES FOR 1936-'99 BIG TWIN

Crankcase Style	Stock Bore	3⅝" Bore	Notes
1984-'99 big twin – Alternator/Generator	–	**31-0022**	7
P-Series and SH-Series – Alternator/Generator	–	**31-0026**	7
1965-'69 Panhead or Shovelhead	**31-0010** *24519-65*	**31-0013**	1,4,6
1948-'64 Panhead	**31-0008** *24519-63, 24519-58, 24519-55*	**31-0009**	1,2,5
P-Series Replacement 1948-'64	–	–	1,5
P-Series Replacement 1965	**31-0008** *24519-63, 24519-58, 24519-55*	**31-0013**	1,6
KN Replacement Alternator/Generator	–	**106-4625**	1,7,8
KN Replacement Generator/Generator	**31-0006**	**106-4369**	1,3,5,8

Note: All S&S crankcases use Timken® style sprocket shaft bearings and 1958 & later pinion bearings. These cases will not accept stock 1957 & earlier flywheel assemblies.s

1. 1936-'69 style oil pump.
2. Machined for 1948-'62 panhead cylinder base oil feed.
3. Motor mounts are machined for stock 1936-'47 frames, adapter plate for 1948 & later style frames is included.
4. Includes primary scavenge port machining.
5. Machined for 1955-'64 tin primary.
6. Machined for 1965-'69 alloy primary.
7. Machined for 1970-up alloy primary.
8. Uses stock ¼-24 hardware.

NOTES

Engines for 1936-'64 chassis with tin primary must use a 1954-'64 style inner primary cover.

S&S Super Stock generator style crankcases are available for stock 3⅞" or 3⅝" bore, but can be special ordered for bore sizes up to 3 13⁄16" and deck heights as much as 3⁄16" taller than stock.

A special order sheet must be filled out for any special order crankcases. Ask your S&S Customer Support Representative or download special order forms from our website at www.sscycle.com/soforms

Since all S&S generator style crankcases use 1958 and later style main bearings, stock flywheel assemblies 1957 and earlier cannot be used in S&S crankcases. Flywheel assemblies must have 1958 and later pinion shaft with 1.250" diameter bearing, and a 1954 and later style sprocket shaft designed for a Timken® main bearing.

Generator style cases for 1936-'47 knucklehead engines are machined to supply oil to the heads from a boss located near the rear tappet guide or from a stock or S&S gearcover. Provision for oil scavenging from the heads in these crankcases is the same as stock, with passageways that connect the tappet guides to the crankcase breather gear.

Crankcases for 1948-'69 engines are machined with a provision to separate the oil supply to the top and bottom ends if an S&S oil pump is used. This feature lets you choose the 1972 and earlier stock "side oiling" system or the 1973 and later split oil system. The stock cast iron oil pump can be used for the "original look" and stock oiling system. If an S&S billet oil pump, part #31-6200 is used, the oiling system can be set-up as stock or updated to a split system.

1963-'65 panhead engines, with outside oil supply lines to the cylinder heads, must use the oil supply port located behind the rear tappet guide or the oil fitting toward the rear of the S&S gearcover. S&S generator style crankcases do not have the stock style "outside oiler" oil supply boss, so special oil supply lines will need to be fabricated.

SUPER STOCK® ALTERNATOR STYLE CRANKCASES
FOR 1970-'84 BIG TWIN ENGINES

FITMENT
- 1970-'84 big twins

FEATURES AND BENEFITS
- Available for stock, 3⅝", and 3 13/16" bore applications
- Compatible with stock 1970-up flywheel assemblies, primary covers and gearcovers
- Clearanced for 38 amp alternator stators
- Pre-clearanced for strokes up to and including 5"
- Complete with bearings and installation hardware

KIT CONTENTS
- Crankcase assembly
- All required bearings and hardware for installation
- Assembly instructions



31-0004

CARB compliant
EO #D-355-8

SUPER STOCK® ALTERNATOR CRANKCASES FOR 1970-'84 BIG TWIN

Crankcase Style	Finish	Stock Bore	3⅝" Bore	3⅝" Bore (Small Diameter)	3 13/16" Bore
1970-'84	Natural	**31-0003†**	**31-0004**		–
Special Order*	Specify	**31-0002***	**31-0002***	**31-0002***	**31-0002***

NOTES: 1981-'84 style oil pump. Includes primary scavenge port machining. Machined for 1970 & later alloy primary.
†Exempt from emissions tampering regulations under CARB EO# D-355-8 when used with stock bore cylinders
**Download the Special Order Form at sscycle.com/soforms*

SPECIAL ORDERS:
S&S Super Stock alternator crankcases can be special ordered for cylinder bore sizes up to 3 13/16" and deck heights as much as 3/16" taller than stock.

A special order sheet must be filled out for any special order crankcases. Ask your S&S Customer Support Representative or download special order forms from our website at www.sscycle.com/soforms

REPLACEMENT PARTS: SEE PAGE 456

FLYWHEELS
FOR 1937-'73 45" FLATHEAD ENGINES

FITMENT
- 1937-'52 W/WR models
- 1952-'53 KR & all K models (excluding KH)
- 1932-'73 G models

FEATURES AND BENEFITS
- 3 13/16" stroke
- Complete S&S connecting rod set – includes special crankpin, rods, bearings and cages
- Compatible with stock 45" KR rods or rods for 1957-"84 Sportster® models, when used with the special crankpin



WILL NOT FIT KH MODELS

FLYWHEELS FOR 1937-'73 45" FLATHEAD ENGINES

Description	Part #
S&S Replacement Flywheels For 45" Flathead *23925-37*	**32-3013**

**Special Order: Download the Special Order Form at sscycle.com/soforms*

TRYING TO IDENTIFY A SET OF S&S FLYWHEELS? SEE FLYWHEEL I. D. CHART ON PAGE 548

FLYWHEELS
FOR 1936-'84 BIG TWIN ENGINES



FITMENT
- 1936-'84 OHV big twins
- 1930-'48 flathead (side valve)
- KN, P, and SH-Series engines

FEATURES AND BENEFITS
- CNC machined from heat-treated, closed die, steel forging
- Stronger than cast iron or late style steel flywheels
- Available in a wide variety of styles and strokes
- Available balanced or unbalanced
- Unassembled balanced flywheels are balanced by the static method
- Assembled flywheels are dynamic balanced after assembly using our American-Hofmann® dynamic balancing machine (unless otherwise specified)
- 1930-'53 styles fit stock or S&S sprocket shafts
- 1954-'84 styles available for S&S sprocket shafts only

OPTIONS FOR SPECIAL ORDER
- Model year group
- Stroke
- Diameter
- Assembly and balancing
- Additional components – pinion shaft, sprocket shaft and connecting rods

FLYWHEELS FOR 1936-'84 BIG TWIN

Special Order	**32-2015***

**Special Order: Download the Special Order Form at sscycle.com/soforms*

FLYWHEELS
FOR 1957-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER®



FITMENT
- 1957-'85 Ironhead Sportster® models
- Fits OHV 900cc and 1000cc engines

FEATURES AND BENEFITS
- CNC machined from heat-treated, closed die, steel forging
- Stronger than cast iron or late style steel flywheels
- Available in a wide variety of styles and strokes
- Available balanced or unbalanced
- Unassembled balanced flywheels are balanced by the static method
- Assembled flywheels are dynamic balanced after assembly using our American-Hofmann® dynamic balancing machine (unless otherwise specified)

OPTIONS FOR SPECIAL ORDER
- Model year group
- Stroke
- Diameter
- Assembly and balancing
- Additional components – pinion shaft, sprocket shaft, connecting rods
- Available for S&S sprocket shafts only

FLYWHEELS FOR HARLEY-DAVIDSON® SPORTSTER® MODELS

Stroke, 7⅞" Diameter (Stock)	Part #
Special Order	**32-3014***

**Special Order: Download the Special Order Form at sscycle.com/soforms*

**TRYING TO IDENTIFY A SET OF S&S FLYWHEELS?
SEE FLYWHEEL I. D. CHART ON PAGE 548**

**ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S FLYWHEEL BALANCING KIT, SEE 520.
S&S FLYWHEEL ASSEMBLY FIXTURE &
TRUING SPANNER,
SEE PAGE 521**

REPLACEMENT FLYWHEELS
FOR S&S® VINTAGE ENGINES

FITMENT
- KN-Series Engines
- P-Series Engines
- SH-Series Engines

FEATURES AND BENEFITS
- Exact same parts used in S&S production engines



32-2226

REPLACEMENT FLYWHEEL ASSEMBLIES FOR KN-SERIES ENGINES 1936-'47

Engine	Stroke	Diameter	Part #
KN74	3 31/32"	8½"	**320-0014**
KN93 Alt/Gen	4½"	8½"	**106-4658**



32-2235

REPLACEMENT FLYWHEEL ASSEMBLIES FOR P-SERIES ENGINES 1954-'64

Engine	Stroke	Diameter	Part #
P74	3 31/32"	8½"	**320-0013**
P93, P93H - 1954-'64 Generator	4½"	8½"	**106-0806**
P93, P93H - 1965 Generator	4½"	8½"	**32-2224**
P93, P93H - Alternator/Generator	4½"	8½"	**32-2226**
P103 - Alternator/Generator	5"	8¼"	**32-2990**

REPLACEMENT FLYWHEEL ASSEMBLIES FOR SH-SERIES ENGINES 1966-'84

Engine	Stroke	Diameter	Part #
SH80 - Alternator	4¼"	8½"	**32-2235**
SH93, SH93H - Generator	4½"	8½"	**32-2224**
SH93, SH93H - Alternator/Generator	4½"	8½"	**32-2226**
SH103	5"	8¼"	**32-2990**

**TRYING TO IDENTIFY A SET OF S&S FLYWHEELS?
SEE FLYWHEEL I. D. CHART ON 548**

SPROCKET SHAFT ASSEMBLIES
FOR BIG TWIN ENGINES



33-2004



33-2003



33-2002



33-2001

TAPERED SPROCKET SHAFT ASSEMBLIES

1970-'99 Big Twin	
Fits S&S® SE or SL flywheels only	**33-2004**
1965-'69 Big Twin	
Fits S&S SE or SL flywheels only	**33-2003**
1955-'64 Big Twin	
Fits S&S SE or SL flywheels only	**33-2002**
1930-'54 Big Twin—Including UL SVBT	
Fits S&S E or Stock flywheels (*includes motor sprocket nut)* 24001-30	**33-2001**

REPLACEMENT PARTS FOR TAPERED SPROCKET SHAFT ASSEMBLIES

Sprocket Shaft Nut	
1930-'54	**33-2031**
1955-'84	**33-2033**
Sprocket Shaft Key	
1930-'54	**50-8224**
1955-'84	**50-8225-S**
Motor Sprocket Nut	
1930-'54 *(fits S&S® sprocket shafts only)*	**33-2032**

SPROCKET SHAFT ASSEMBLIES
FOR HARLEY-DAVIDSON® SPORTSTER® MODELS



33-2301



33-2302

SPROCKET SHAFT ASSEMBLIES

1977-'85 Sportster® Models	
Fits S&S D, SB, SBD, SC, SCD, SCDR, and SCR flywheels only	**33-2302**
1957-'76 Sportster Models	
Fits S&S SB flywheels only.	**33-2301**

REPLACEMENT PARTS FOR SPROCKET SHAFT ASSEMBLIES

Sprocket Shaft Nut	
Fits all S&S sprocket shafts for Sportster® models.	**33-2331**
Sprocket Shaft Key	
Key,.188" x .469",Steel	**50-8224**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

PINION SHAFT ASSEMBLIES
FOR BIG TWIN ENGINES



33-2024



33-2027



33-2021

PINION SHAFT ASSEMBLIES

Late 1981-'99 Big Twin – Tapered Pinion Shaft		
Stock length for S&S or stock big twin crankcases. Fits S&S BL, SL, SM or stock flywheels.		
Standard (1.250") Bearing Diameter	**33-2027**	
+.001" (1.251") Bearing Diameter	**33-2028**	
1958-Early '81 Big Twin – Tapered Pinion Shaft		
Fits S&S L, AL, SE, or stock flywheels *24006-54A, 24006-73*	**33-2024**	
1939-'53 Big Twin – Splined Pinion Shaft		
Fits S&S E or stock flywheels	**33-2021**	

REPLACEMENT PARTS FOR PINION SHAFT ASSEMBLIES

Pinion Shaft Nut	
1939-'81	**33-2031**
1981 & 1984	**33-2033**
Pinion Shaft Key	
1930-'81	**50-8224**
1981 & 1984	**50-8225-S**
Metering Plug	
No Hole	**50-8314**
.0625" Hole	**50-8316**
.0925" Hole	**50-8317**
Pinion & Oil Pump Drive Key	
1958-'81 & 1984	**50-8221-S**

PINION SHAFT ASSEMBLIES
FOR HARLEY-DAVIDSON® SPORTSTER® MODELS



33-2321



33-2322

PINION SHAFT ASSEMBLIES

1957-'76 Sportster Models	
Fits S&S B, SB, or stock flywheels.	
Standard *24005-57*	**33-2321**
1977-Early '81 Sportster Models	
Fits S&S B, BD, SB, SBD, or stock flywheels. Requires 1977-'86 main bearing.	**33-2322**

REPLACEMENT PARTS PINION SHAFT ASSEMBLIES

Pinion Shaft Key	
1957-'81	**50-8224**
1981-'85 *11218*	**50-8222-S**
Metering Plug	
1977-'85	**50-8316**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BILLET OIL PUMPS
FOR 1936-'84 OHV BIG TWINS

FITMENT
- Pumps are available for stock 1936-'84 big twin engines
- Custom engines using S&S crankcases

OPTIONS
- Pump only kits
- Pump with gears – ***includes drive gears, and breather gear***

FEATURES AND BENEFITS
- Same width oil supply and return gears as the stock Harley-Davidson® aluminum pump
- S&S pinion and oil pump drive shaft drive gears increase potential oil volume delivery by 25% over stock on 1972 and earlier engines
- S&S pumps for 1936-'67 engines used with the S&S oil pump drive gears deliver 33% more oil than the original cast iron pump
- Machined with an oil pressure relief bleed off passageway – ***relieves pressure build up on top of the valve to maintain consistent oil pressure***
- Oil pressure regulation bypass routes excess oil directly to the supply side of the pump – ***reduces the amount of oil returned to the tank, less foaming and cavitation***
- The standard pump cover allows total flexibility for oil system configuration with a number of oil feed and return options

KIT CONTENTS
- Complete oil pump assembly
- Mounting hardware, fittings and gaskets
- Instructions
- Pump with gear kits also include:
- Pinion shaft pump drive gear
- Oil pump drive shaft gear
- Breather gear



OIL PUMP KITS FOR 1936-'84 BIG TWIN ENGINES

Year/Crankcase	Without Gears & Shims	With Drive Gear, Breather Gear & Shim Kit
KN-Series** (Silver Powder Coated)	**106-4688**	–
1936-'47	**31-6200§**	–
1948-'53	**31-6200**	**31-6292**
1954-'69	**31-6200**	**31-6293**
1970-'77	–	**31-6294**
1978-'84	**31-6203§**	**31-6295**

**Requires 1973-'77 breather gear. **Uses a 28 lb pop-off spring to lower oil pressure at high RPM.*
§Universal cover with top and bottom oil feeds.

OIL PUMP COVER ONLY FOR 1936-'91 BIG TWINS

Description	Part #
Universal	**31-6059** *31-6041*
Custom	**31-6060** *31-6045*

REPLACEMENT PARTS: SEE PAGE 462

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CAMSHAFTS
FOR 1936-'47 OHV BIG TWINS



FITMENT
- 1936-'47 OHV big twins
- S&S® KN-Series engines

FEATURES AND BENEFITS
- Quality construction – Made in-house by S&S Cycle in Viola, WI
- Higher lift and increased valve timing for better performance

APPLICATIONS
KN346 Cam: This is a service part cam for 74" knuckle engines. The KN346 cam is ground to stock specifications.

KN420 Cam: This "high-lift" cam for modified knuckle engines features .420" valve lift and increased duration for larger engines up to 93" and compression ratio of up to 8.5:1. Special high-lift valve springs are required.

CAMS FOR 1936-'47 OHV BIG TWINS & KN-SERIES ENGINES

Cam Name	Part #
KN420	**106-2409**
KN346	**106-3676** *25522-36*

CAM SPECIFICATIONS FOR 1936-'47 OHV BIG TWINS AND KN-SERIES ENGINES

Cam Name	Cam Timing (Open/Close)		Cam Duration		Lobe Centerline		Max Valve Lift		Valve Lift @ TDC	
	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
KN420	31°/55°	60°/30°	266°	270°	102°	110°	.420"	.420"	.167"	.152"
KN346*	10°/51°	40°/12°	241°	232°	110.5°	104°	.346"	.346"	.085"	.100"

**Ground to stock specifications.*

NOTE

S&S can do a special order cam, please contact your S&S customer service representative for more information

CAMSHAFTS
FOR 1948-'84 BIG TWINS WITH STOCK VALVE TRAIN



FITMENT
- 1948-'69 engines with generator style crankcases
- 1970-'84 engines with alternator style crankcases
- Early SH-Series engines with stock style valve train

APPLICATIONS
S&S H-Grind: Service part for panhead and shovelhead engines. This grind is a dead-on reproduction of the stock cams used in 1948 to 1984 big twins. Perfect for repair and restoration of 74" and 80" engines. Available for generator engines with inner cam bushings or inner cam bearings, and for early and late alternator engines with different cam gear pitch diameters. Note that the front and rear cylinders have unique timing specs.

450S Cam: A bolt-in hydraulic cam for 74" and 80" shovelhead engines 1966-'79 and 1983-'84. (Can be used in 1981-'82 models if cylinder heads are updated to late style valve guides.) The 450S can also be used as a low end torque cam in modified shovelhead engines up to 88" with compression ratios of up to 8.5:1. Although designed for use with hydraulic tappets, the S&S 450S can be used with solid lifters. Use with solids will result in more valve train noise, slightly higher cylinder pressure, and slightly more torque. 1500-4500 rpm.

514 Cam: For 84" to 93" strokers with no greater than 9:1 CR – best gains occur in the mid range from 2500 to 5000 rpm where most riding is done. Relatively quiet and easier on the valve train than most other cams with lifts as high. Solid lifters or aftermarket hydraulic tappets are recommended, valve spring spacing and other normal clearancing checks required. 2500-5000 rpm.

560S Cam: For 88" to 103" engines between 9:1 to 10:1 CR – Excellent power across the rpm range. Not recommended for stock displacement or lower compression engines. Requires high lift valve springs and normal clearance checks. Solid lifters only. 3500-6000 rpm.

CAMSHAFTS FOR 1948-'84 BIG TWIN ENGINES

Cam Name	Model Year	Part #
Service Part H-Grind	1948-'57	**330-0164**
	1958-'69	**330-0170**
	1970-'77	**330-0165**
	1978-'84	**330-0166**
S&S 450S	1948-'69	**33-5062**
	1970-'77	**33-5063**
	1978-'84	**33-5064**
S&S 514	1948-'69	**33-5050**
	1970-'77	**33-5051**
	1978-'84	**33-5052**
S&S 560S	1948-'69	**33-5059**
	1970-'77	**33-5060**
	1978-'84	**33-5061**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTE
S&S can do a special order cam, please contact your S&S customer service representative for more information

CAM SPECIFICATIONS FOR 1948-'84 BIG TWIN ENGINES

Cam Name	Application	Model Year	Valve Timing[1] Open/Close		Valve Duration		Valve Lift[2]	Lift @ TDC[3]		Spring Spacing Required	Tappet[4] Type Required
			Intake	Exhaust	Intake	Exhaust		Intake	Exhaust		
			Open BTDC/ Close ABDC	Open BBDC/ Close ATDC							
Service Part H-Grind	Service part replacement cam for pan and shovel engines	1948-'84	0°/40° F 20°/33° R	53°/12° F 53°/12° R	220° F 233° R	245° F 245° R	.389" F .391" R	.076" F .076" R	.131" F .131" R	No Bolt-In	Hydraulic
S&S 450S	Engines up to 88" with up to 8.5:1 CR Good low and mid range torque	1948-'84	18°/38°	40°/18°	236°	238°	.475" Pan .453" Shovel	.158" Pan 151" Shovel	.152" Pan .145" Shovel	No Bolt-In	Hydraulic or Solid
S&S 514	80" to 96" engines with 8:1 to 9:1 CR Good mid range	1948-'84	23°/43°	43°/23°	246°	246°	.540" Pan .514" Shovel	.177" Pan .169" Shovel	.177" Pan .169" Shovel	Yes	Solid
S&S 560S	88" to 103" engines with 9:1 to 10.1:1 CR Strong power	1948-'84	20°/55°	60°/20°	255°	260°	.587" Pan .560" Shovel	.176" Pan .168" Shovel	.176" Pan .164" Shovel	Yes	Solid

[1]Timing designation is function of zero lash @ .053" off base circle.
[2]Pan and shovel lifts are determined by rocker arm ratio. Pan ratio is nominally 1.5":1 and shovel ratio is nominally 1.4:1. S&S rocker arms for shovels have 1.5:1 rocker arm ratio, so lift will be the same as pan lift.
[3]TDC lifts are measured at the valve and are for reference only. Overlap valve lifts must be checked on assembled motor.
[4]Cams specified for solid tappets may be used with modern high performance hydraulic tappets for shovelhead engines. Stock hydraulic tappets are not recommended. 1980-'81 engines require conversion to late style valve guides

CAMSHAFTS
FOR 1954-'84 BIG TWINS WITH S&S® VALVE TRAIN CONVERSION KIT

FITMENT
- 1954-'65 engines with S&S Head Update kit
- 1966-'84 engines with Hydraulic Conversion kit
- P-Series and SH-Series engines
- Custom generator style engines with 1984-'99 style top end


33-5131


106-6028

FEATURES AND BENEFITS
- Quality construction – Made in-house by S&S Cycle in Viola, WI
- Higher lift and increased valve timing for better performance
- Quiet, dependable hydraulic valve train when used with S&S Hydraulic Conversion kits

CAM SPECIFICATIONS FOR 1954-'84 BIG TWIN ENGINES REQUIRING 1984-'99 STYLE CAMS

Cam Name	Application	Valve Timing[1] Open/Close		Valve Duration		Valve Lift	Lift @ TDC[2]		Spring Spacing Required	Tappet Type Required
		Intake	Exhaust	Intake	Exhaust		Intake	Exhaust		
		Open BTDC/Close ABDC	*Open BBDC/Close ATDC*							
S&S 513	74" - 84" Stock or low compression	18°/38°	40°/18°	236°	238°	.472"	.163"	.187"	No	Hydraulic
S&S 585	74"- 80" engines 8.5:1 - 9.5:1 CR 84" - 93" engines up to 8:1 - 9:1 CR	20°/45°	60°/20°	245°	260°	.540"	.172"	.166"	Yes	Hydraulic
S&S 600	93" - 103" engines 9:1 - 10:1 CR	20°/55°	60°/20°	255°	260°	.554"	.177"	.170"	Yes	Hydraulic
S&S 631	High rpm cam for 93" - 103" engines 11:1+ CR	34°/61°	66°/29°	275°	275°	.581"	.359"	.204"	Yes	Solid or Hydraulic
S&S 640	93" - up engines 10:1 or greater compression	25°/60°	65°/20°	265°	265°	.590"	.205"	.192"	Yes	Hydraulic

[1]Timing designation is function of zero lash @ .053" off base circle.

[2]Lifts at TDC are measured at the valve and are for reference only. Overlap valve lifts must be checked on assembled motor. Lifts based on 1.5:1 Rocker Ratio

CAMSHAFTS FOR 1954-'84 BIG TWIN ENGINES REQUIRING 1984-'99 STYLE CAMS

Cam Name	Application	Generator Part #	Alternator Part #	Tappet Type Required
S&S 513	74" - 84" Stock or low compression	**106-6028**	**106-6027**	Hydraulic
S&S 585	74"- 80" engines 8.5:1 - 9.5:1 CR 84" - 93" engines up to 8:1 - 9:1 CR	**33-5131**	**33-5109**	Hydraulic
S&S 600	93" - 103" engines 9:1 - 10:1 CR	**33-5132**	**33-5058**	Hydraulic

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

LATE STYLE CAM RECOMMENDATIONS FOR PANHEAD AND SHOVELHEAD ENGINES

Application	RPM range	Compression Ratio	If you used…	Then Use	Generator	Alternator
74" – Stock 84" low compression	Low - Mid 1500-4500 rpm	8.5 and below	S&S® 450 or Andrews® J or A	S&S® 513	**106-6028**	**106-6027**
74" and 80" – Modified	Mid - High 3500-6000 rpm	8.5 - 9.5	S&S® 514 or Andrews #3 or B	S&S® 585	**33-5131**	**33-5109**
84" – 93"	Low - Mid 2500-5500 rpm	8.0 - 9.0	S&S® 514	S&S® 585	**33-5131**	**33-5109**
93" HC – 103"	Mid - High 3500-6000 rpm	9.0 - 10.0	S&S® 495 or 560S	S&S® 600	**33-5132**	**33-5058**
High Compression	High 3500-6500 rpm	Over 10.0	S&S® 495 or 565S	S&S® 640	-	**33-5108**

NOTES

In order to achieve stated timing specifications, these cams must be used in engines with 1984-'99 style tappets.

These cams should not be ordered as replacement parts for early S&S SH-Series engines, or for any shovelhead engine equipped with stock valve train. For replacement parts for these engines, select stock style cams and tappets.

S&S can do a special order cam, please contact your S&S customer service representative for more information

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PINION SHAFT GEAR KITS

FITMENT
- 1939-'89

FEATURES AND BENEFITS
- Contain all the components that need to be installed on the pinion shaft for the specified year group.
- Kits for 1939-'53 and 1954-'77 can be used in 1972 and earlier engines to speed up the oil pump by 25% for more potential oil volume, since S&S oil pump drive gears are of the 1973 and later 6-tooth design.

1939-'53 S&S® BIG TWIN STYLE PINION SHAFT GEAR KITS

Size	Color Code	Part #
Biggest	Orange	**106-3217**
	Black	**106-3218**
Average	Blue	**106-3220**
	Green	**106-3221**



106-3217

EARLY 1954-'77 S&S® BIG TWIN STYLE PINION SHAFT GEAR KITS

Size	Color Code	Part #
Smallest	White	**106-3214**
	Brown	**106-3215**
	Yellow	**106-3216**



106-3215

LATE 1977-'89* S&S® BIG TWIN STYLE PINION SHAFT GEAR KITS

Size	Color Code	Part #
Biggest	Yellow	**33-4185**
Average	Red	**33-4148**
	Blue	**33-4181**
Smallest	Black	**33-4180**

**Use this kit when installing an S&S® flywheel assembly in a 1990-'99 Engine*



33-4148

INDIVIDUAL COMPONENTS

Description	Part #
Pinion Shaft Gear Spacer Fits 1954-'89 big twin engine. USA 1,2,3	**33-4289**
Pinion Shaft Gear Nut *26349-54* Fits 1954-'89 big twin engine. USA 1,2,3	**33-4244**
S&S Upgrade Pinion Shaft Oil Pump Drive Gear 1939-'53 Big Twin – 6-Tooth. Requires S&S part #33-4230 or *26345-73*drive shaft drive gear. Fits 1939-'53 stock and S&S pinion shafts.	**33-4237**
Pinion Shaft Oil Pump Drive Gear *26349-73, 26349-73A* 1973-'89 – 6-Tooth. May be used in 1954-'72 engines, but requires S&S part #33-4230 or *26345-73* oil pump shaft drive gear. Fits 1954-'89 stock and 1958-'99 S&S pinion shafts.	**33-4232**
Oil Pump Drive Gear 24-Tooth Requires S&S part #33-4232, part #33-4237, or *26349-54* pinion shaft drive gear. Fits 1973 -'99 big twin engine. *26349-73, 26349-73A*	**33-4230**



33-4289



33-4244



33-4237



33-4232



33-4230

NOTE

All S&S Pinion Shaft Gear Kits must be used with 1973-'99 style 24-tooth oil pump drive shaft gear such as S&S part #33-4230.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

REPLACEMENT PINION GEARS



Mid
1954-'77



Early
1939-'53



Late
1977-'99

High quality S&S pinion gears are carefully machined, heat treated and then finish ground.

Three distinct year groups, in up to eight different color coded sizes for optimum gear lash, are available for big twin engines. S&S color codes match Harley-Davidson® color codes so that replacement is easy. Just pick the appropriate color S&S gear that matches the color on the damaged stock gear (see notes).

NOTES

If the stock gear is unmarked and the size is unknown or you are scratch building an engine and have no gear, we recommend that you order a gear in the middle of the size range. These sizes were used more often and should provide adequate gear clearance under most circumstances. When in doubt, use a gear from the middle to the small side of the range, because a combination of looser fitting smaller gears is less likely to cause binding and premature wear. Consult the chart for the size and appropriate part number required. If you wish to achieve optimum cam gear to pinion gear fit, consult your factory service manual for instructions on fitting these gears before making a selection. Some sizes, particularly those on and near the ends of each range, are available on a limited basis because they are the extremes.

BIG TWIN STYLE PINION GEAR SELECTION CHART

	1939-'53		1954-'77		1977-'89*	
	Color Code	Part #	Color Code	Part #	Color Code	Part #
Biggest	Orange	33-4101	Orange	33-4121	Orange	33-4141
	Black	33-4102	Black	33-4122	White	33-4142
	Red	–	Red	33-4123	Yellow	33-4143 USA3
Average	Blue	33-4104	Blue	33-4124	Red	33-4144 USA1
	Green	33-4105	Green	33-4125	Blue	33-4145
Smallest	–	–	White	33-4126	Green	33-4146
	–	–	Brown	33-4127	Black	33-4147
	–	–	Yellow	33-4128	–	–

Note - All S&S Pinion Shaft Gear Kits must be used with 1973-'99 style 24-tooth oil pump drive shaft gear such as S&S part #33-4230.
**Use this kit when installing an S&S flywheel assembly in a 1990-'99 engine.*

STEEL ROTARY BREATHER GEARS
FOR 1936-'84 BIG TWIN

FITMENT
- 1936-'84 OHV big twins

FEATURES
- All steel construction – superior dimensional stability, abrasion
- Welded-in screen
- Higher flow than stock
- Elongated breather pocket scavenge hole for increased suction

S&S exclusive BREATHER VALVE US PATENT 6,899,066

OPTIONS
- Standard diameter for replacement or new builds
- +.030" diameter for damaged engines
- Breather gear only kits
- Breather gear and shim kits



33-4250

BREATHER GEAR KITS FOR 1936-'99 BIG TWIN

Year of Camshaft	Standard Size	+.030" Oversize
1936-Early '47	**106-6010**	**106-6013**
1948-Early '77	**33-4253**	**33-4263**
Late 1977-'99	**33-4250**	**33-4260**



106-5070

BREATHER GEARS ONLY FOR 1936-'99 BIG TWIN

Year of Camshaft	Standard Size	+.030" Oversize
1936-Early '47	**106-5070** *25300-36*	**106-6012**
1948-Early '77	**33-4246** *25313-73*	**33-4247**
Late 1977-'99	**33-4241** *25310-82A, 25313-77B, 25311-90*	**33-4242**

BREATHER GEAR SPACING SHIM KIT

Description	Part #
Fits stock 1979-'82 and all S&S® steel breather gears. Includes one of each thickness: *.100", .110", .120", .130", .140", .150", .160", .170"*	**33-4249**



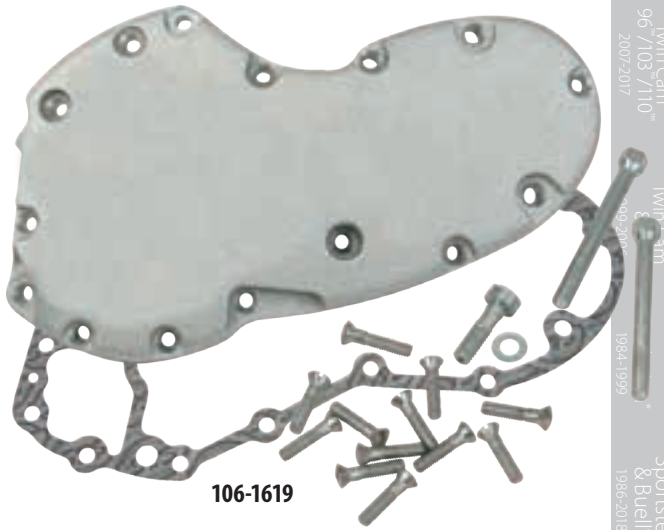
33-4249

GENERATOR STYLE GEARCOVERS
FOR 1936-'69 OHV BIG TWINS

FITMENT
- 1936-'62 and 1965-'69 OHV big twins
- Available for stock and S&S crankcases

FEATURES AND BENEFITS
- Cast gearcovers – stock appearance
- Bushings installed and sized – ready to install

KIT CONTENTS
- Gearcover assembly
- Gasket and hardware
- Instructions



106-1619

FOR STOCK CRANKCASES–CAST GENERATOR GEARCOVERS

Application	Hardware Type	Pinion Bushing I.D.	Distinguishing Characteristics	Part #
1940-early'48 OHV	¼"-24	11⁄16"	8 Ribs, w/tapped hole for top end oiling, ¼" gen mount holes*	**106-3198** *25216-48*
Late 1948-'53 OHV	¼"-24	11⁄16"	8 Ribs, w/o tapped hole top for end oiling, ¼" gen mount holes*	**106-3499**
1954-'62 OHV	¼"-24 and ¼"-20	9⁄16"	4 Ribs w/o stock outside oiler passage, 5⁄16" gen mount holes	**31-0240** *25216-58*
1965 OHV	¼"-24 and ¼"-20	9⁄16"	Smooth, w/outside oiler passage, 5⁄16" gen mount holes	**106-1619**
1966-'69 OHV	¼"-24 and ¼"-20	9⁄16"	Smooth w/o outside oiler passage, 5⁄16" gen mount holes w/o 12 o'clock boss	**106-1625**

**Generator mounting holes must be drilled to 5⁄16" for use with1958-later generators. Cast generator gearcovers come with countersunk hardware*

FOR S&S® CRANKCASES– CAST GENERATOR GEARCOVERS

Application	Hardware Type	Pinion Bushing I.D.	Distinguishing Characteristics	Part #
1940-'47 OHV	¼"-24 and ¼"-20	9⁄16"	8 Ribs, w/tapped hole for top end oiling , 5⁄16" gen mount holes	**106-3482**
1954-'64 OHV	¼"-24 and ¼"-20	9⁄16"	4 Ribs w/o stock outside oiler passage, 5⁄16" gen mount holes*	**31-0240** *25216-58*
1965-'69 OHV	¼"-24 and ¼"-20	9⁄16"	Smooth w/o outside oiler passage, 5⁄16" gen mount holes w/12 o'clock boss	**106-1627**

Cast generator gearcovers come with countersunk hardware.
**A tapped hole on top of the cover can be used to supply oil to the top end – similar to 1936-48 OHV big twins.*

NOTE

S&S does not offer a direct replacement cover for 1963-'64 engines with outside oilers. However, cover part #106-1619 is functionally compatible, but is not cosmetically correct for those year groups. Stock covers of the four ribbed design, and cover part #106-1619 is a flat-side design.

BILLET GEARCOVER
FOR KN-KONE ENGINE OR 1973-'92 BIG TWIN CUSTOM APPLICATIONS

FITMENT
- S&S® Vintage alternator style KN-Kone engines
- Custom applications on 1973-'92 engines and alternator style P & SH-Series engines

FEATURES AND BENEFITS
- Machined from billet aluminum
- Polished finish
- External oil supply port
- Compatible with point or electronic ignition systems

KIT CONTENTS
- Billet gearcover, Chrome billet ignition cover, All gaskets and hardware, Installation instructions



310-0244

BILLET GEARCOVER
FOR KN-KONE ENGINE OR 1973-'92 BIG TWIN CUSTOM APPLICATIONS

Description	Part #
Chrome Plated Billet Ignition Cover Only	31-0332

REPLACEMENT PARTS: SEE 465

BILLET GEARCOVERS
FOR 1973-'92 BIG TWINS

FITMENT
- 1973-'92 engines
- S&S alternator style SH-Series engines

FEATURES AND BENEFITS
- Machined from billet aluminum
- Available polished or chrome plated
- Compatible with points or electronic ignition systems

KIT CONTENTS
- Billet gearcover, Chrome billet ignition cover, All gaskets and hardware, Installation instructions



31-0335

BILLET GEARCOVERS FOR 1973-'92 BIG TWINS

Description	Part #
1973-'92 Polished	31-0335
1973-'92 Chrome	106-4211
Chrome Plated Billet Ignition Cover Only	31-0332

CAST GEARCOVERS
FOR 1973-'84 BIG TWINS

FITMENT
- 1973-'84 engines

FEATURES AND BENEFITS
- Flangeless
- Flanged with a chromed billet aluminum cover
- Machined from tough 356-T6 aluminum castings – the same material used to make S&S crankcases
- Inner cast aluminum cover and a decorative bolt-on outer cover
- Both versions will accept either points or electronic ignition systems

KIT CONTENTS
- Cast gearcover, Gaskets, Mounting Hardware



31-0203

CAST GEARCOVERS FOR 1973-84 BIG TWINS

Description	Part #
Natural–Billet Outer Cover	–
Natural–Flangeless Tall	31-0203
Wrinkle Black–Flangeless Tall	31-0299

CIRCUIT BREAKER DRIVE GEARS

GENERATOR CRANKCASE GEAR KIT FOR 1936-69 BIG TWIN ENGINES & CUSTOM ALT/GEN ENGINES

Description	Part #
Standard Clockwise Rotation.	**33-4226**
Reverse Counterclockwise Rotation.	**33-4227**

CIRCUIT BREAKER DRIVE GEAR ASSEMBLIES FOR 1936-69 BIG TWIN ENGINES

Description	Part #
Standard/Clockwise Rotation. *25850-36A*	**33-4215**
Counterclockwise/Reverse Rotation. Requires S&S #33-4208 circuit breaker gear.	**33-4209**

Shims not included



33-4226

CIRCUIT BREAKER GEARS FOR 1936-69 BIG TWIN ENGINES

Description	Part #
Standard Clockwise Rotation *32531-36*	**33-4217**
Reverse Counterclockwise Rotation Requires S&S #33-4209 circuit breaker gear assembly	**33-4208**
Roll Pin 7/64" Diameter *255*	**50-8025**
Roll Pin 1/8" Diameter	**50-8030**



33-4217

CIRCUIT BREAKER DRIVE GEAR SHAFT

Description	Part #
Fits 1936-'69 big twin engines. *25856-36*	**31-2037**



31-2039

IDLER GEAR SHAFT

Description	Part #
Fits 1936-'69 big twin engines *25791-36*	**31-2039**

BUSHING

Description	Part #
Fits all S&S® circuit breaker drive and idler gears for 1936-'69 big twin engines	**33-4214**



33-4214

IDLER GEAR ASSEMBLY

Description	Part #
Fits 1936-'69 big twin engines. (Shims not included.) *25775-36*	**33-4216**

CIRCUIT BREAKER DRIVE/IDLER GEAR SHIMS

Fits 1936-'69 big twin engines.

Description	Part #
.050" Thick	**33-4221**
.054" Thick	**33-4222**
.058" Thick	**33-4223**
.062" Thick	**33-4224**
.066" Thick	**33-4225**



33-4221

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CYLINDERS WITH PISTONS KIT
FOR 1966-'84 BIG TWINS AND P-SERIES ENGINES



FITMENT
- 1966-'84 shovel engines
- S&S® Vintage SH-Series and P-Series engines
- Cylinders will not fit OEM panhead engines

FEATURES AND BENEFITS
- High strength engineering-grade grey cast iron
- Excellent wear resistance
- Durable powder coat finish
- P-Series are silver powder coated

OPTIONS
- 3⅞", 3⅜", and 3½ bore
- Black or silver powder coat finish
- Available in sets or single front or rear cylinders
- Available fit with your choice of S&S pistons

CYLINDERS WITH PISTONS KIT

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
74" LC	3 31/32"	3 7/16"	5.330"	8.0:1	**91-9013**
74" HC	3 31/32"	3 7/16"	5.330"	9.0:1	**91-9012**
80" LC	4¼"	3½"	5.330"	8.0:1	**91-9024**
80" HC	4¼"	3½"	5.330"	9.0:1	**91-9023**
Special Order	Specify	Specify	Specify	Specify	**91-9307***

Cylinders with pistons include cylinders, piston kit, head bolts, base nuts, and head & base gaskets. All piston kits include rings, wristpins, and clips.Recomended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055" **Special Order: Download the Special Order Form at sscycle.com/soforms*

STOCK BORE STROKER CYLINDERS WITH PISTONS KIT

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
84"	4 ½"	3 7/16"	5.330"	8.4:1	**91-9017**
86"	4 5/8"	3 7/16"	5.330"	9.4:1	**91-9017**
88"	4 ¾"	3 7/16"	5.330"	10.8:1	**91-9017**
Special Order	Specify	Specify	Specify	Specify	**91-9307***

*Cylinders with pistons include cylinders, piston kit, head bolts, base nuts, and head & base gaskets. All piston kits include rings, wristpins, and clips. Recomended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055" *Special Order: Download the Special Order Form at sscycle.com/soforms*

3⅜" BORE STROKER CYLINDERS WITH PISTONS KIT

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
88"	4 ¼"	3 3/8"	5.330"	7.5:1	**91-9001**
93" LC	4 ½"	3 3/8"	5.405"	8.5:1	**91-9101**
93" HC	4 ½"	3 3/8"	5.363"	9.1:1	**91-9031**
96"	4 5/8"	3 3/8"	5.440"	9.0:1	**91-9401**
98"*	4 ¾"	3 3/8"	5.530"	8.9:1	**91-9201**
103"*	5"	3 3/8"	5.630"	9.7:1	**91-9302**
Special Order	Specify	Specify	Specify	Specify	**91-9307****

*Cylinders with pistons include cylinders, piston kit, head bolts, base nuts, and head & base gaskets. All piston kits include rings, wristpins, and clips. Recomended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055". *Small Diameter Flywheels* ***Special Order: Download the Special Order Form at sscycle.com/soforms*

NOTES

Cylinders for P-Series engines will not fit stock pan cylinder heads. They are machined with a stock shovel head bolt pattern.

Cylinders for P-Series engines do not have an internal oil feed passage for top end oiling. Not compatible with stock pan cases or heads.

CYLINDERS WITH PISTONS KIT
FOR 1936-'47 OHV BIG TWINS

FITMENT
- 1936-'47, 74", and 93" knuckle engines
- S&S® Vintage KN-Series engines

FEATURES AND BENEFITS
- High strength engineering-grade grey cast iron
- Excellent wear resistance
- Durable powder coat finish – high temp gloss black



106-2402

3⅞" & 3⅝" BORE CYLINDERS WITH PISTONS KIT FOR 1936-'47 OHV ENGINES

Piston Series	Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
74 LC Forged	74"	3³¹⁄₃₂"	3⅞"	5.530"	8:1	**106-4519**
3⅜" Forged	93"	4½"	3⅜"	5.625"	8.2:1	**106-2402**

Cylinders with pistons include cylinders, piston kit, and head & base gaskets. All piston kits include rings, wristpins, and clips. Recomended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055".

NOTES

S&S® cylinder heads for 1940-'47 OHV big twins are machined for 7⁄16-20 head bolts and are not compatible with stock 7⁄16-16 head bolts. If using S&S heads with 3⅞" bore cylinders, stock style hex head bolts for 1948-'65 big twins, part #106-4523 may be used. S&S 3⅜" bore cylinders require the use of S&S 1966-'84 style 12 point head bolts part #93-3024, due to clearance issues.

Stock 1930-'78 hex style base nut kit is available in cadmium plate, part #106-4522, for 3⅞" bore cylinders only. Stainless raised hex base nuts, part #93-3063-S, are required for 3⅜" bore cylinders.

CYLINDERS

3⅞", 3½", & 3⅜" BORE CYLINDERS FOR 1966-'84 BIG TWIN—GLOSS BACK

Displacement	Bore	Cylinder Sets
74", 84", 86", 88' Stock Bore Strokers	3⅞"	**91-9011**
80", 84"	3½"	**91-9021**
88"	3⅜"	**91-9000**
93"		**91-9100**
93"HC		**91-9030**
96"		**91-9400**
98" SD †		**91-9200**
103" SD †		**91-9300**
Special Order	Specify	**91-9307*****

*†Small Diameter Flywheels **Some early S&S 93" and 96" Sidewinder® Kits were sold with 5.530" length cylinders. Use 91-9200 for replacement cylinders.*
****Special Order: Download the Special Order Form at sscycle.com/soforms.*
Individual cylinders and cylinder sets without pistons are bored slightly under nominal size and are not honed. Individual cylinder assemblies and cylinder kits with pistons are honed to fit the pistons included.

3⅞" & 3⅜" BORE CYLINDERS FOR 1936-'47 OHV ENGINES—HIGH TEMP GLOSS BLACK

Displacement	Bore	Cylinder Sets
74"	3⅞"	**106-4512** *16492-41, 16483-41*
93"	3⅜"	**106-4655**

Cylinder set include cylinders, head gaskets, and base gaskets.

FORGED PISTON KITS
FOR 74" AND 80" 1936-'84 OHV ENGINES



FITMENT
- 74" pistons fit 1936-'78, 74" OHV engines
- 80" pistons fit 1979-'84, 80" big twin engines and may be used in mild stroker engines with 4¼" stroke flywheels

FEATURES AND BENEFITS
- Forged pistons for superior strength
- Modern alloys and piston skirt profiles for low noise and long engine life
- Dome volume
  - 74 LC = 46cc
  - 74 HC = 57cc
  - 80 LC = 41cc
  - 80 HC = 53cc
- Piston kits include set of pistons, rings, wristpins, and clips

OPTIONS
- 74" – 8:1 or 9:1 compression
- 80" – 8:1 or 9:1 compression

S&S will fit these pistons to your existing cylinders *(when purchasing new cylinders, pistons can be fit to them as an option)*

S&S STOCK BORE FORGED PISTON SPECIFICATION				
Displacement	Bore	Stroke	Compression Ratio	Piston Deck Height
74"	3 7/16"	3 31/32"	8:1 and 9:1	1.436"
80"	3½"	4¼"	8:1 and 9:1	1.270"
Recommended Piston Fit Close: .003" - .0035" Loose: .004" - .005"				

FORGED 74" PISTONS

Oversize	Deck Height	8:1 Compression		9:1 Compression
Standard (3 7/16")	1.436"	**106-5495** *22101-41, 22101-48*		**106-5503**
+.010"	1.436"	**106-5496** *22103-48, 22103-41*		**106-5504**
+.020"	1.436"	**106-5497** *22104-48, 22104-41*		**106-5505**
+.030"	1.436"	**106-5498** *22105-48, 22105-41*		**106-5506**
+.040"	1.436"	**106-5773** *22106-48, 22106-41*		**106-5775**

REPLACEMENT RINGS FOR 74"

Oversize	Part #
Standard (3 7/16")	**94-2200X** *22325-55B, 22355-53, 22355-48, 22355-41*
+.010"	**94-2201X** *22327-55B, 22357-48, 22357-41*
+.020"	**94-2202X** *22328-55B, 22358-53, 22358-48, 22358-41*
+.030"	**94-2203X** *22329-55B, 22359-48, 22359-41*
+.040"	**94-2204X** *22330-55B, 22360-48, 22360-41*

FORGED 80" PISTONS

Oversize	Deck Height	8:1 Compression		9:1 Compression
Standard (3½")	1.270"	**106-5511**		**106-5519**
+.010"	1.270"	**106-5512**		**106-5520**
+.020"	1.270"	**106-5513**		**106-5521**
+.030"	1.270"	**106-5514**		**106-5522**

REPLACEMENT RINGS FOR 80"

Oversize	Part #
Standard (3½")	**94-2206X** *22334-78A, 22334-78B, 21920-83*
+.010"	**94-2207X** *22335-78A, 22335-78B, 21922-83*
+.020"	**94-2208X** *22336-78B, 21923-83*
+.030"	**94-2209X** *22337-78B, 21924-83*

NOTES

Since many older motorcycles have been modified, be sure to confirm that your engine is still stock before ordering replacement pistons.

Using 80" pistons with 74" (3 31/32" stroke) flywheels will result in very low compression and poor performance. Using 74" pistons with 80" (4¼" stroke) flywheels will result in contact between piston and cylinder head, and potential engine damage.

REPLACEMENT WRISTPINS AND KEEPERS

Description		Part #
Wristpin .791" diameter		**106-6123**
Wristpin keeper, c-clip	*each*	**94-9254-S**
	4 pack	**94-9254**

FORGED STOCK BORE STROKER PISTONS
FOR 1936-'84 OHV ENGINES

FITMENT
- 84", 86", and 88" stroker engines for 1936-'84 OHV engines

FEATURES AND BENEFITS
- Forged pistons for superior strength
- Modern alloys and piston skirt profiles for low noise and long engine life
- Dome volume 50cc
- Piston kits include set of pistons, rings, wristpins, and clips

S&S will fit these pistons to your existing cylinders *(when purchasing new cylinders, pistons can be fit to them as an option)*



S&S FORGED STOCK BORE STROKER PISTON SPECIFICATIONS					
Displacement	Bore	Stroke	Compression Ratio		Piston Deck Height
			Standard	LC	
84"	3 7/16"	4 1/2"	8.1:1	7.3:1	1.100
86"	3 7/16"	4 5/8"	9.4:1	8.1:1	
88"	3 7/16"	4 3/4"	10.8:1	9.1:1	
Recommended Piston Fit Close: .003" - .0035" Loose: .004" - .005"					

FORGED STOCK BORE STROKER PISTONS

Oversize	Standard	Low Compression
Standard (3⁷⁄₁₆")	**106-5527**	**920-0073**
+.010"	**106-5528**	**920-0075**
+.020"	**106-5529**	**920-0077**
+.030"	**106-5530**	**920-0079**
+.040"	**106-5777**	**920-0081**
+.050"	**106-5778**	**920-0083**
+.060"	**106-5779**	**920-0085**
+.070"	**106-5780**	**920-0087**
+.080"	**106-5781**	**920-0089**
+.090"	**106-5782**	**920-0091**

REPLACEMENT RINGS FOR FORGED STOCK BORE STROKER PISTONS

Oversize	Part #
Standard (3⁷⁄₁₆")	**94-2200X** *22325-55B, 22355-53, 22355-48, 22355-41*
+.010"	**94-2201X** *22327-55B, 22357-48, 22357-41*
+.020"	**94-2202X** *22328-55B, 22358-53, 22358-48, 22358-41*
+.030"	**94-2203X** *22329-55B, 22359-48, 22359-41*
+.040"	**94-2204X** *22330-55B, 22360-48, 22360-41*
+.050"	**94-2205X**
+.060"	**94-2206X** *22334-78A, 22334-78B, 21920-83*
+.070"	**94-2207X** *22335-78A, 22335-78B, 21922-83*
+.080"	**94-2208X** *22336-78B, 21923-83*
+.090"	**94-2209X** *22337-78B, 21924-83*

NOTES

When ordering pistons for a shovel engine, please keep in mind that these pistons are sized by 3⁷⁄₁₆" standard bore for a 74" engine. If using 80" cylinders standard bore is 3½" or 3⁷⁄₁₆" +.060".

REPLACEMENT WRISTPINS AND KEEPERS

Description		Part #
Wristpin .791" diameter		**106-6123**
Wristpin keeper, c-clip	*each*	**94-9254-S**
	4 pack	**94-9254**

FORGED 3-5/8" BORE PISTONS
FOR 1936-'84 OHV ENGINES

FITMENT
- 88", 93", 96", 98" and 103" engines for 1936-'84 OHV big twins

FEATURES AND BENEFITS
- Forged pistons for superior strength
- Modern alloys and piston skirt profiles for low noise and long engine life
- Dome volume 30cc
- Piston kits include set of pistons, rings, wristpins, and clips

OPTIONS
- Available in 3⅜" Standard. +.010", .020", .030", and .060"oversizes



106-5535

S&S will fit these pistons to your existing cylinders *(when purchasing new cylinders, pistons can be fit to them as an option)*

S&S® 3⅜" BORE FORGED PISTON APPLICATION CHART

Displacement	Wristpin Deck Height	Stroke	Flywheel Diameter	Compression Ratio	Cylinder Length	
					SH-Series & P-Series Engines	KN-Series Engines
88"	1.260"	4¼"	8½"	7.5:1	5.330"	–
93"	1.260"	4½"	8½"	8.5:1	5.405"	5.625"
93" HC	1.260"	4½"	8½"	9.1:1	5.363"	–
96"	1.260"	4⅝"	8½"	9.1:1	5.440"	–
98"	1.260"	4¾"	8½"	8.9:1	5.530"	–
103"	1.260"	5"	8¼"	9.7:1	5.630"	–

FORGED 3⅜" BORE PISTON SETS FOR 1936-'84 OHV BIG TWINS

Oversize	Wristpin Deck Height	Part #
Standard (3⅜")	1.260"	**106-5535**
+.010"	1.260"	**106-5536**
+.020"	1.260"	**106-5537**
+.030"	1.260"	**106-5538**
+.060"	1.260"	**106-5789**

Recommended Piston Fit Close: .003" - .0035" Loose: .004" - .005"

REPLACEMENT RINGS FOR FORGED 3 ⅝ BORE PISTONS

Oversize	Part #
Standard (3⅜")	**94-1220X**
+.010"	**94-1221X**
+.020"	**94-1222X**
+.030"	**94-1223X**
+.060"	**94-1226X**

NOTES

Compression ratios will change when replacing existing pistons in S&S engines with this series of forged pistons. If higher compression is desired, we suggest shortening cylinders, or decking heads to achieve the desired compression ratio. A change of .060" will produce approximately 1 point of change in the compression ratio.

REPLACEMENT WRISTPINS AND KEEPERS

Description		Part #
Wristpin .791" diameter		**106-6123**
Wristpin keeper, c-clip	*each*	**94-9254-S**
	4 pack	**94-9254**

REPLACEMENT PISTONS
FOR UL CYLINDERS



920-0013

CAST PISTON KITS FOR UL CYLINDERS

Oversize	Part #
Standard (3⅞")	**920-0013** *(HD®#22216-30)*
+.010"	**920-0036** *22219-30*
+.020"	**920-0037** *22219-30*
+.030"	**920-0038** *22220-30*

REPLACEMENT RINGS FOR CAST PISTON KITS

Oversize	Part #
Standard (3⅞")	**940-0006**
+.010"	**940-0007**
+.020"	**940-0008**
+.030"	**940-0009**
+.040"	**940-0010**
+.060"	**940-0011**

REPLACEMENT FORGED STROKER PISTONS
FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER®

FEATURES AND BENEFITS

- 3⅜" bore stroker pistons are designed to be used in conjunction with S&S 4⅝" stroke flywheels to convert 1000cc Ironhead engines in 1972-'85 Harley-Davidson® Sportster® models to 1200cc (74") displacement.
- Can also be used to replace pistons in older S&S stroker engines with 4⅛", 4⅜", 4½", and 4¹³⁄₁₆" stroke flywheels. All clearances must be checked. See chart below for displacements and compression ratios. These pistons are normally used in stock Harley-Davidson® cylinders. No cylinders are available from S&S for Ironhead Sportster models.
- Piston kits include rings and keeper buttons.



106-5544

STROKER PISTONS SPECIFICATIONS FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Displacement	71"	72"	73"	74"	77" *
Stroke	4⅞"	4½"	4⅜"	4⅝"	4¹³⁄₁₆"
Cylinder Length	5.330"	5.330"	5.330"	5.330"	5.330"
Compression	7.5:1	8:1	8.5:1	9:1	9:1

**Requires ⅛" base plates and small diameter flywheels.*

STROKER PISTONS KITS FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Oversize	Deck Height	Part #
+.010	.806"	**106-5542**
+.020	.806"	**106-5543**
+.030	.806"	**106-5544**
+.060	.806"	**106-5791**

Recommended Piston Fit: Close: .0030"-.0035" Loose: .0045"-.0055"

REPLACEMENT MOLY FACED RINGS FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Oversize	Part #
+.010	**94-3201X**
+.020	**94-3202X**
+.030	**94-3203X**
+.040	**94-3204X**
+.060	**94-3206X**



94-9351

REPLACEMENT WRISTPINS AND BUTTONS

Description		Part #
Wristpin .791" diameter		**94-9350**
Keeper Buttons	*4 pack*	**94-9351**

NOTES

If replacing the pistons in a older 77" stroker engine, stroker plates are required, and all clearances must be checked.

SUPER STOCK™ CYLINDER HEADS
FOR 1966-'84 BIG TWIN ENGINES

FITMENT
- 1966-'84 big twins
- SH-Series engines

FEATURES AND BENEFITS
- Stock appearance and improved performance
- S&S .590" lift valve springs
- Fits stock intake manifolds and exhaust pipes
- Rocker cover fastened with 5/16"-18 hex-head cap screws

OPTIONS
- Stock bore or 3⅝" bore
- O-ring or rubber band style manifold
- Natural aluminum or wrinkle black powder coat finish (wblack)
- Dual spark plugs and/or external oil return lines by special order



90-1496

KIT CONTENTS
- Front and rear assembled cylinder heads complete with valves and .590" springs
- Head, rocker and exhaust gaskets
- Mounting hardware and instructions

REPLACEMENT PARTS: SEE 470

CYLINDER HEAD KITS FOR 1966-'84 BIG TWIN ENGINES

Engine Year and Type	Bore	Aluminum Finish	WBlack
1966-'78 (O-ring)	Stock	**90-1496**	**90-1596**
	3⅝"	**90-1497**	**90-1597**
	3⅝" Dual Plug	**90-1491**	–
1979-'84 (Band)	Stock	**90-1498**	**90-1598**
	3⅝"	**90-1499**	–
	3⅝" Dual Plug	**90-1488**	–
Special Order*	Specify	**90-1490***	**90-1490***

**Use this special order part number to order assembled or unassembled cylinder heads with spring options, and special finish. Front or rear heads available by special order. Download the Special Order Form at sscycle.com/soforms*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT CYLINDER HEADS
FOR P-SERIES ENGINES & RETRO CONVERSION KITS

FITMENT
- P-Series engines
- 1966-'84 big twins
- Valve train update kit – available through Special Order

FEATURES AND BENEFITS
- S&S .590" lift valve springs
- Late style valve chamber eliminates oil pooling
- Cooling channel between combustion chamber and rocker arms

OPTIONS
- Stock bore or 3⅝" bore
- Dual spark plug available for 3⅝" bore and special order
- Stock pan bolt pattern available through special order



106-0414

KIT CONTENTS
- Front and rear cylinder head complete with valves and springs
- Head, pan, and exhaust gaskets

REPLACEMENT PARTS: SEE 468

REPLACEMENT CYLINDER HEADS FOR S&S® P-SERIES ENGINES AND RETRO CONVERSION KITS

Description	Complete Kit (with Valves and Springs)
Stock Bore	**106-0414**
3⅝" Bore	**106-0417**
3⅝" Bore Dual Plug	**106-0420**

NOTE

These are not service part cylinder heads for panhead engines. They will not fit on stock panhead cylinders.

ALUMINUM CYLINDER HEADS
FOR 1937-'48 FLATHEAD SIDE-VALVE BIG TWIN ENGINES

FITMENT
- 1936 V model engines
- 1937-'48 U model engines

FEATURES AND BENEFITS
- Precision cast aluminum construction for better cooling
- Nine head bolt pattern

OPTIONS
- Available compression ratios: 5.5:1, 6:1, 6.25:1, and 7:1 (80")
- 14mm or 18mm spark plug hole

KIT CONTENTS
- Front and rear cylinder heads
- Copper head gaskets
- Head bolts NOT included

ALUMINUM CYLINDER HEADS FOR UL AND ULH MODELS

Description	Part #
Set *16671-36, 16661-40*	**106-2475***

**Special Order: Download the Special Order Form at sscycle.com/soforms*



106-2475

CYLINDER HEADS
FOR 1940-'47 OHV BIG TWIN ENGINES

FITMENT
- KN-Series engines
- 1940-'47 OHV big twins
- 1936-'39 with a manifold upgrade

FEATURES AND BENEFITS
- Made of engineering-grade grey iron – better heat dissipation, less sound transfer
- Durable stock-look black powder coat finish
- Counter bore for 61" cylinder fire ring
- Set up for o-ring manifold or late style port plumber fittings
- 1.940" intake and 1.750" exhaust valve
- Valve springs allow cams with up to .480" lift
- Compatible with stock or S&S valve cover "tins"

OPTIONS
- Fully assembled or unassembled
  - Fully assembled with valves, rocker arms, tins and housings complete
  - Guides installed for use with S&S® Vintage tins (valves ground)
  - Guides not installed for use with stock tins (valves not ground)
- 14mm or 18mm spark plug hole

CYLINDER HEADS

Description	Part #
Fully assembled heads	**106-4929***
Unassembled heads	**106-2403***

**Special Order: Download the Special Order Form at sscycle.com/soforms*



106-4929

REPLACEMENT PARTS: SEE 470

NOTE

Stock 1948-'65 head bolts can be used in stock bore applications and are available on page 428, big bore applications must use the S&S 12 point head bolt also found on page 428.

HEAD BOLT KITS FOR 1948-'84 BIG TWIN ENGINES

HEAD BOLT KITS FOR 1948-'84 BIG TWIN ENGINES

Description		Part #
1948-'84 Panhead & Shovelhead & 3⅝" Bore KN-Series Head Bolt Kit *6469HW* 7/16"-20 x 2⅜" 12 pt stainless steel bolt #93-3025 washers.		**93-3024**
Stock Bore KN-Series & Stock Panhead *16814-48* Head Bolt Kit 7/16"-20 x 2⅜" Hex cad plated bolt #106-4523 washers.		**106-4523**
Oil Bypass Plug *(Included with all S&S® stock bore shovelhead style cylinders)*	*each*	**93-1032-S**
	2 pack	**93-1032**



106-4523



93-3024

Shown: 1 bolt and washer. Kit includes 10 of each.

CYLINDER HEAD & MOTOR MOUNTS

CYLINDER HEAD AND MOTOR MOUNTS

Description	Part #
Complete Kit for 1948-'84 Big Twin – Fits panhead and shovelhead engines with cylinders up to 5.750" long *16852-67A, 16853-48*	**93-4057**
Screw,HHC,7/16-20 x 1-¼" *4726*	**50-0176**
Nut, Lock, HH, 7/16-20, Steel/Nylon *7825*	**50-5045**
Washer,Flat,.469" x .922" x .125",Zinc,Steel *6495HW*	**50-7064**



93-4057

CYLINDER BASE NUTS & STUDS

CYLINDER BASE NUTS AND STUDS

Fitment	Description		Part #
Cylinder Base Studs 1930-'84 Big Twin	Stock length base stud - Fits 61", 74", and 80" OHV and SV models 2.030" overall length. *16831-30, 16837-30*	*each*	**31-2328-S**
		8 pack	**31-2328**
	Extra long base stud - 5/16" longer than late stock studs 2.390" overall length *16837-78*	*each*	**31-2324-S**
		8 pack	**31-2324**
NOTE: This leaves approximately 1.400" above the base gasket surface with 1" of crankcase thread engagement			
Base Nuts 1930-'78 Big Twin (stock bore only)	Base Nut Kit - Cadmium plated, includes lock washers.	*8 pack*	**106-4522**
NOTE: This leaves approximately 1.400" above the base gasket surfaces with 1.125" of crankcase thread engagement.			
Base Nuts 1966-'84 Big Twin	Stainless 7/16" hex allows the use of box end wrench to tighten base nuts on S&S Sidewinder® cylinders for shovelhead engines. Requires .375" - .400" stud engagement – stud height may need to be adjusted.	*each*	**93-3063-S**
		8 pack	**93-3063**



31-2328-S



31-2324-S



93-3063-S



Showing one nut & washer. Kit includes 8 of each.

106-4522

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

HYDRAULIC VALVE TRAIN CONVERSION KIT
FOR SHOVELHEAD ENGINES

FITMENT
- 1966-'84 big twins
- 1953-'65 engines using shovel cylinders and P-Series heads or engines using P-Series valve train update kits

S&S exclusive TAPPET GUIDES US PATENT PENDING

FEATURES AND BENEFITS
- Quiet, dependable hydraulic valve train
- Through the pushrod or external oiling options
- Easy pushrod installation and removal
- Wide selection of late style cams to choose from

OPTIONS
- Kit for use with S&S roller rocker arms for oiling through pushrods
- Kit for use with stock style rocker arms for oiling through external oil line

KIT CONTENTS
- Polished billet tappet guides
- Four 1984-'99 style tappets w/HL_2T kit
- Set of Quickee Adjustable pushrods
- Pushrod cover keepers
- Required hardware and gaskets



33-5452

HYDRAULIC VALVE TRAIN CONVERSION KIT FOR SHOVELHEAD ENGINES

Description	Part #
For use with S&S roller rocker arms.	**33-5451**
For use with stock shovelhead style rocker arms	**33-5452**

REPLACEMENT PARTS

Description		Part #
Quickee Adjustable Pushrods for 74"- 103" Shovels	For S&S Rocker Arms *(oil through pushrods)*	**93-5123**
	For Stock Rocker Arms *(oil through external oil lines)*	**93-5134**
Billet Tappet Guides – Polished	Set	**33-5450**
	Front	**33-5450F**
	Rear	**33-5450R**
Tappets USA 1,2,3	Without HL2T Kit *(Set of four)* *18523-86A*	**33-5352**
	With HL2T Kit *(Set of four)*	**33-5353**

NOTES

1984-'99 cams must be used with this kit to ensure correct valve timing. These cams are not included with the kit. Refer to page 412 for S&S camshaft recommendations to be used with this kit. If sourcing cams from another manufacturer, note that timing specifications will be unchanged, but the actual lift will be about 9% lower than specified due to the difference in rocker arm ratio.

S&S billet tappet guides for shovelhead engines are similar in design to S&S tappet guides for 1984-'99 big twin engines. For that reason, they are not a direct replacement for stock parts, but must be used in conjunction with S&S tappets and cams for 1984-'99 big twin engines. Tappet bore geometry is corrected to compensate for the difference in pushrod angles between the engine types in order to maintain specified valve event timing. When selecting a cam, keep in mind that timing specifications will be the same as shown for 1984-'99 engines, but there will be about a 9% reduction in valve lift due to the lower shovelhead rocker arm ratio.

TAPPET ASSEMBLIES

FITMENT
- 1953-'84 bt

FEATURES AND BENEFITS
- Precision machined tappets complete with premium hydraulic units
- Save money by resusing worn stock tappet guides with +.003" oversize



330-0381

HYDRAULIC TAPPET ASSEMBLIES – 4 PACK

Standard	**330-0380**
+.003" Oversized	**330-0381**

HYDRAULIC TAPPET COMPONENTS

FITMENT
- 1953-'84 bt

FEATURES AND BENEFITS
- Same quality components used in S&S tappet assemblies
- Compatible with stock tappets



330-0377



330-0384

HYDRAULIC TAPPET COMPONENTS

Tappet Body – Standard	*each*	**330-0384**
Tappet Body - +.003"	*each*	**330-0385**
Hydraulic Insert	*each*	**330-0379**
Tappet Rollers*	*4 pack*	**330-0377**

**Fits 1929-'56 Side Valve bt, 1936-'84 OHV big twins, and 1957–'85 ironhead Sportster® models*

TAPPET GUIDES
FOR KNUCKLEHEAD ENGINES

FITMENT
- 1936-'47 knucklehead and S&S® KN-Engines

FEATURES AND BENEFITS
- Cast iron
- Mounting hardware and gaskets included



106-2410

TAPPET GUIDES FOR KNUCKLEHEADS
1936-47 KNUCKLEHEAD AND S&S® KN ENGINES

Description		Part #
Tappet, Set, Standard	*4 pack*	**106-2410**
Front only *18600-36*	*each*	**106-2665**
Rear only *18610-36*	*each*	**106-2666**

TAPPETS
FOR KNUCKLEHEAD ENGINES

FITMENT
- 1936-'47 knucklehead and S&S® KN-Engines

FEATURES AND BENEFITS
- Includes lifter body wrench flat
- Includes adjusting screw and nut



106-1819

TAPPETS FOR KNUCKLEHEADS

Description			Standard	+.005"
Tappet Set		*4 pack*	**106-1819**	**106-1820**
Tappet Assembly	Intake	*each*	**106-1815** *18491-36*	**106-1816**
	Exhaust	*each*	**106-1817** *18493-36*	**106-1818**

TAPPETS
FOR 1929-'73 SV BIG TWINS

FITMENT
- 1929-'73 SV Big Twins

FEATURES AND BENEFITS
- Made in the USA
- 100% CNC machined carbon nitrided 8018 steel
- High Quality IKO roller bearings
- Includes lifter body wrench flat to reduce stress to guide, tappet and bearing during adjustment
- Includes adjusting screw and nut



106-5879

TAPPETS FOR SIDE VALVE ENGINES FOR 1929-'73 SV BT

Description		+.005"
Tappet Set	*4 pack*	**106-5879**

QUICKEE ADJUSTABLE PUSHRODS

FEATURES AND BENEFITS
- Can be installed or removed from an assembled engine

WATCH THE S&S PUSHROD INSTALLATION VIDEO AT WWW.SSCYCLE.COM/VIDEOS



93-5123

QUICKEE ADJUSTABLE PUSHRODS

Application	Displacement	Part #
1966-'84 bt*(S&S Rocker Arms)	74"-103"	**93-5123**
1966-'84 bt*(Stock Rocker Arms)	74"-103"	**93-5134**

**S&S tappet guide, S&S 1984-'99 style tappets*

NOTES

S&S Quickee Adjustable pushrods are designed for use with 1984-up hydraulic tappets. They are not compatible with stock or aftermarket hydraulic tappets for shovelhead engines or most solid style tappets.

See page 429 for more information on S&S hydraulic valve train conversion kits, and see page 437 for more information on S&S roller rocker arms.

PUSHROD KITS
FOR 1966-'84 BIG TWIN ENGINES

FEATURES AND BENEFITS
- 7/16" Chromoly steel tubing for maximum strength
- Reduced pushrod flex for precise valve control at high rpm
- Solid lifter conversion kits replace troublesome hydraulic tappets

NOTE

If using S&S tappet guides for shovelhead engines, see S&S Quickee Adjustable pushrods.



93-5067

ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN WITH SOLID LIFTER ADAPTERS

INCLUDES ADAPTERS FOR CONVERTING 1953-'84 STYLE HYDRAULIC LIFTERS TO NON-ADJUSTABLE SOLIDS.

Cylinder Length	5.330" (Stock)	5.405" (+ 1/16")	5.530" (+ 3/16")	5.630" (+ 5/16")
Part #	**93-5067**	**93-5014**	**93-5015**	**93-5016**



93-5068

NON-ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN WITH ADJUSTABLE LIFTER ADAPTERS

INCLUDES ADAPTERS FOR CONVERTING 1953-'84 STYLE HYDRAULIC LIFTERS TO ADJUSTABLE SOLIDS. ADJUSTER SCREW IN THE LIFTER ADAPTERS.

Cylinder Length	5.330" (Stock)	Special Order
Part #	**93-5068**	**93-5062***

**Special Order: Download the Special Order Form at sscycle.com/soforms*

PUSHROD KIT ONLY—FOR SOLID LIFTERS WITH 1948-'52 SOLID ADJUSTABLE LIFTERS
- Fits 1966-'84, 74" & 80" Shovelhead Engines
- Includes four non-adjustable steel pushrods. (Pushrods are identical to those used in kit part #93-5068.)
- Recommended for all shovelhead and shovelhead top/panhead bottom engines with 1948-'52 style lifters.



93-5069

NON-ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN

Pushrods for use with 1948-'52 stock style solid adjustable lifters.

Cylinder Length	5.330" (Stock)
Part #	**93-5069**

**Special Order: Download the Special Order Form at sscycle.com/soforms*

SERVICE PART PUSHROD KIT WITH HYDRAULIC LIFTERS
- Fits 1966-'84, 74" & 80" Shovelhead Engines
- Includes four adjustable steel pushrods. Stock adjusting screws (not included) must be used in these pushrods.



93-5070

ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN

FOR HYDRAULIC LIFTERS. SERVICE PARTS FOR 1966-'84.

Cylinder Length	5.330" (Stock)
Part #	**93-5070** *17904-66*

**Special Order: Download the Special Order Form at sscycle.com/soforms*

PUSHROD KITS
FOR 1948-'65 BIG TWIN ENGINES

- Converts valve train to solid lifter operation
- Includes all parts needed for conversion

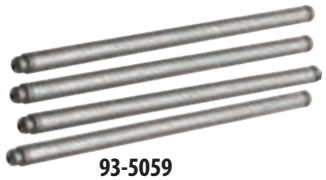

93-5058

PUSHROD KITS FOR 1948-'65 BIG TWIN NON-ADJUSTABLE PUSHRODS WITH ADJUSTABLE LIFTER ADAPTERS
INCLUDES ADAPTERS FOR CONVERTING 1953-'84 STYLE HYDRAULIC LIFTERS TO ADJUSTABLE SOLIDS.

Cylinder Length		Part #
5.205"	(Stock 61")	**93-5081**
5.330"	(Stock 74")	**93-5058**
5.405"	(+ 1/16")	**93-5082**
5.530"	(+ 3/16")	**93-5084**

SOLID LIFTER PUSHROD KIT – FOR 1948-'52, 61" & 74" PANHEAD ENGINES

- Converts stock 1948-'52 valve train to solid lifter operation.
- Requires stock 1948-'52 style adjustable lifters.
- Pushrods are identical to those used in kit part #93-5058. See above.


93-5059

NON-ADJUSTABLE PUSHROD KITS FOR 1948-'52 BIG TWIN PUSHRODS ONLY
SOLID LIFTER CONVERSION PUSHRODS FOR 1948-'52 STOCK ADJUSTABLE LIFTERS. SET OF FOUR

Cylinder Length		Part #
5.205"	(Stock 61")	**93-5029**
5.330"	(Stock 74")	**93-5059** *17905-53B*

SERVICE PART PUSHROD KIT – FOR 1953-'65 PANHEAD ENGINES WITH HYDRAULIC LIFTERS

- Includes four adjustable pushrods.

MUST USE ORGINAL ADJUSTING SCREW. (NOT SUPPLIED)

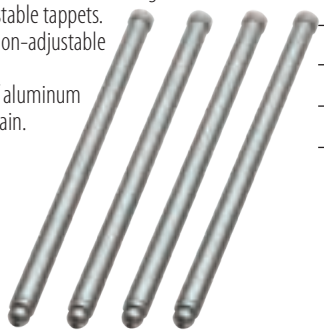

93-5091

ADJUSTABLE PUSHROD KITS FOR 1953-'65 BIG TWIN STOCK REPLACEMENT PUSHROD KITS
ADJUSTABLE PUSHROD KITS FOR HYDRAULIC LIFTERS.

Cylinder Length		Part #
5.330"	(Stock 74")	**93-5091**

PUSHROD KITS
FOR 1936-'47 BIG TWIN ENGINES

- Solid Lifter Pushrod Kit
- Fits 1936-'47, 61", 74" & 93" Knucklehead Engine
- Requires stock-style adjustable tappets.
- Includes four aluminum non-adjustable pushrods.
- The increase expansion of aluminum provides a quieter valve train.



PUSHROD KITS FOR 1936-'47 BIG TWIN NON-ADJUSTABLE PUSHRODS KITS
SOLID LIFTER PUSHRODS FOR 1948-'52 STOCK ADJUSTABLE LIFTERS.

Cylinder Length	Part #
5.530" (Stock 74")	**930-0008** *17905-36*
5.625" (KN93")	**930-0009**

TIME-SAVER ADJUSTABLE PUSHRODS



FEATURES AND BENEFITS

- Eliminates the need to disassemble the top end and remove the rocker arms to change pushrods or camshafts
- Reduce installation time by 75% - Hence the name Time Saver
- Larger 9mm diameter chrome moly tubing provides superior strength and minimizes pushrod flex
- Single adjuster end provides pushrod lengths from 9.5" to 11.5" for stock height and taller engines
- Kit includes set of four pushrods and installation instructions
- Not compatible with stock shovelhead hydraulic tappets, but will work with tappets having ⅜" diameter cup.

S&S® TIME-SAVER ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Set	**930-0052**

ADJUSTABLE CHROMOLY STEEL PUSHRODS



- Adjustable chromoly steel pushrods for 1966–'84 big twins
- Compatible with S&S or original equipment hydraulic tappets
- Set of four pushrods

ADJUSTABLE CHROMOLY STEEL PUSHRODS

Description	Part #
Pushrod Set	**930-0051**

SOLID LIFTER CONVERSION KIT
FOR 1953-'84 PANHEAD AND SHOVELHEAD ENGINES

- Hardened steel adapters, in place of stock hydraulic units in 1953-'84 lifters.
- Use with stock adjustable pushrods.

SOLID LIFTER CONVERSION KIT

Description	Part #
Kit includes four adapters.	**33-5348**
each	**33-5336**



PUSHROD COVERS & RELATED REPLACEMENT PARTS

S&S pushrod cover kits include all of the parts required for four pushrods, except keepers. Keepers are not included because of different length requirements of some engines, but are available separately. Pushrod covers and pushrod keepers are available for 1936-up big twin engines and 1986-'90 Harley-Davidson® Sportster® models. Consult the chart below for the pushrod keepers you require. Sold in kits of four assemblies; enough for one engine.



93-4040

PUSHROD COVER KITS

Includes top and bottom covers, cover cap, cover spring, and spring washer for four pushrods.

Description	Part #
1979-'84 big twin engines *(o-ring style bottom cover)*	**93-4040**
KN-Series & 1936-'47 OHV big twin engines *17939-36*	**106-3949**

NOTE

Keepers and o-ring kits are available but must be purchased separately.

PUSHROD COVER PARTS

Description	Part #
Top Cover 1966-up big twin *17935-66T, 17935-79B*	**93-4016**
Top Cover KN-Series &1936-'47 OHV big twin *17935-36*	**106-3850**
Bottom Cover 1979-'84 big twin	**93-4029-S**
Bottom Cover KN-Series & 1936-'47 OHV big twin *17983-40*	**106-3851**
Cover Cap 1936-up big twin, 1957-'90 Sportster® *17945-36B*	**93-4017**
Cover Spring 1936-up big twin, 1957-'90 Sportster® *17947-36*	**93-4018**
Cover Cap Washer *6762B*	**50-7131**
Bottom Cover Washer *6737*	**50-7150**
Pushrod O-ring Kit *(For o-ring style bottom cover)* *Includes parts for four pushrods: top, middle, bottom o-rings.*	**93-4041**
Top O-ring *11293, 11157, 11101, 11190*	**50-8039**
Middle O-ring *11132A*	**50-8038**
Bottom O-ring *11145A*	**50-8037**
Quad Seal *11133A*	**50-8064-S**
O-ring Square *17955-36*	**106-3849**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

KEEPER LENGTHS FOR STOCK HARLEY-DAVIDSON® ENGINES	
74" & 80" shovelhead	3.330"
74" panhead	2.375"
74" knucklehead	3.312"
Ironhead Sportster®	2.375"
Shovelheads-with S&S tappet guides	2.900" (Subtract .430" from stock length)



93-4105

PUSHROD COVER KEEPER SETS

FOR 1936-'99 BIG TWINS AND HARLEY-DAVIDSON® SPORTSTER® MODELS

Length	Description	Part #
2.400"		**93-4070** *17950-48*
2.500"	900/1000cc + 1/8"	**93-4100**
2.600"		**93-4101**
2.800"		**93-4115** *17950-86*
2.900"		**93-4102**
3.000"		**93-4103**
3.100"		**93-4104**
3.200"		**93-4105**
3.330"	74", KN74 , 80", 84", 86", 88", 93", KN93	**93-4106** *17949-40, 17950-66*
3.500"	96",98"	**93-4107**
3.625"	103"	**93-4108**
4.250"	Custom. Extra long stainless steel 4.250". Customer to cut to required length.	**93-4109**

Notes: Keepers are sold in sets of four. All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

REPLACEMENT PARTS FOR MANY OF THE COMPONENTS SUPPLIED IN S&S PUSHROD KITS ARE AVAILABLE SEPARATELY. IN SOME CASES THEY MAY BE USED AS DIRECT REPLACEMENTS FOR STOCK ITEMS.

PUSHROD RELATED REPLACEMENT PARTS

Description	Part #
Adjusting Unit Screw – 1936-'52 Style Fits stock 1936-'52 lifter with early stock 9/32"-32 threads. *18555-36*	**33-5332**
Adjusting Unit Sleeve	**33-5331**
Ball End for S&S Adjustable Pushrods Fits S&S adjustable with 5/16"-32 threads. (Manufactured after 2-1-1996)	**93-5002**
Solid Lifter Adapter for S&S Adjustable Pushrod Converts stock 1953-'84 hydraulic lifter to non-adjustable solid lifter. For use with S&S adjustable pushrods in shovelhead engines (same as unit supplied in kit #93-5067)	**33-5335**
Adjusting Unit Locknut Fits S&S adjustable pushrods with early stock 9/32"-32 threads	**33-5333**
Fits S&S adjustable pushrods with 5/16"-32 threads. (Manufactured after 2-1-1996)	**93-5003-S**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

HIGH-PERFORMANCE VALVE SPRING KITS
FOR 1948-'84 BIG TWIN ENGINES

.550" LIFT DOUBLE VALVE SPRING KIT

For 1948-'84 big twins with up to .550" lift.

- Includes 4 inner springs, 4 outer springs, 4 aluminum top collars and late 1981-'85 bottom covers
- Use with stock-style bottom collar, valve guides, valves with stock ⅜" stem, and stock keepers
- Compatible with thin-stem valves if thicker keepers *(that maintain correct valve stem-top collar engagement)* are used
- Late single bottom collars are available for use in S&S cylinder heads for shovels and stock late 1981-'85 heads

S&S® .550" VALVE SPRINGS SPECIFICATIONS – 1948-'84 BIG TWIN			
Lift	Installed Height	Seat Force	Force @ Max Lift
.550"	1.500"	150 lb.	343 lb.



90-2053

.550 LIFT VALVE SPRING KIT FOR 1948-'84 PANHEAD AND SHOVELHEAD ENGINES

Description	Part #
For 1948-'84 Panhead and Shovelhead Engines	**90-2053**
Bottom Collar – Late 1981-'84 *18222-81 (each)*	**90-2038**

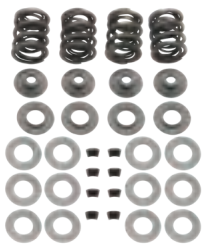
NOTE Panhead engines usually require clearancing between rocker cover and top collar.

.590" LIFT TRIPLE VALVE SPRING KIT

For 1981-'84 big twins and S&S SH and P Series heads with up to .590" lift.

- Includes 4 steel top collars, 4 bottom collars, 4 each outer, middle, and inner springs, shims, and 8 keepers
- Use with stock valve guides, stock valves with ⅜" stem, and stock keepers
- Compatible with thin-stem valves if thicker keepers (that maintain correct valve stem-top collar engagement) are used

S&S® .590" VALVE SPRINGS SPECIFICATIONS – 1981-'84 BIG TWIN			
Lift	Installed Height	Seat Force	Force @ Max Lift
.590"	1.480"	157 lb.	356 lb.



90-2063

.590 LIFT VALVE SPRING KIT FOR –1981-'84 BIG TWIN

Description	Part Number
For Late 1981-'84 and All S&S Cylinder Heads	**90-2063**

NOTE .590" spring kit is year-group specific because of different bottom collars supplied with early and late kits. S&S heads require late 1981-'84 style kit, part #90-2063. When ordering replacement valve springs for S&S cylinder heads for shovelhead engines, order the 1981-'84 style part #90-2063.

VALVE SPRING KIT
FOR 1936-'47 BIG TWINS

- Fits S&S KN-Series engines and stock 1936-'47 knucklehead engines
- Accommodates cams with valve lifts up to .480"
- Kit consists of inner and outer springs for four valves, spring collars, shims, and valve keepers.

S&S® .480" VALVE SPRINGS SPECIFICATIONS – 1936-'47 BIG TWIN

Lift	Installed Height	Seat Force	Force @ Max Lift
.480"	1.315"	160 lb.	310 lb.



900-0535



106-3637

.480" VALVE SPRINGS FOR 1936-'47 BIG TWINS

Description	Part #
S&S Valve Spring Kit for 1936-'47 OHV bt	**106-6398**

CAST IRON VALVE GUIDES FOR 1936-'47 OHV

Description	Part #
Standard	**106-3637** *18185-40, 18181-36*
+.002"	**106-3948** *18187-40, 18184-36*
+.004"	**106-3638**
+.008"	**106-3639**

REPLACEMENT PARTS FOR .480" VALVE SPRINGS

Description		Part #
Springs, valve, dual, .480"	*each*	**106-4362**
	4 pack	**900-0535**
Top collar, valve spring		**106-3828**
Keepers, valve spring, top collar	*each*	**90-2037-S**
	8 pack	**50-7165**
Bottom collar, valve spring		**106-3827**
Shim, valve spring .015"		**106-4549**
Bottom collar spacer		**106-5094**

NOTE

These springs will not fit over stock guides. Stock guides must be turned down or S&S® Vintage guides must be used.

ROLLER ROCKER ARMS
FOR 1966-'84 BIG TWIN ENGINES

FITMENT

- 1966-'84 big twins
- P-Series engines
- SH-Series engines

FEATURES AND BENEFITS

- 8620 steel heat treated forgings for maximum strength
- .750" rocker arm bushing for 50% more load bearing area than stock .500" bushings
- Roller tip reduces valve tip wear and side thrusting
- 1.5:1 rocker ratio
- Oil passage allows top end oiling through pushrods
- Compatible with stock or S&S billet rocker boxes



900-4320A

ROCKER ARMS FOR SHOVELHEAD ENGINES

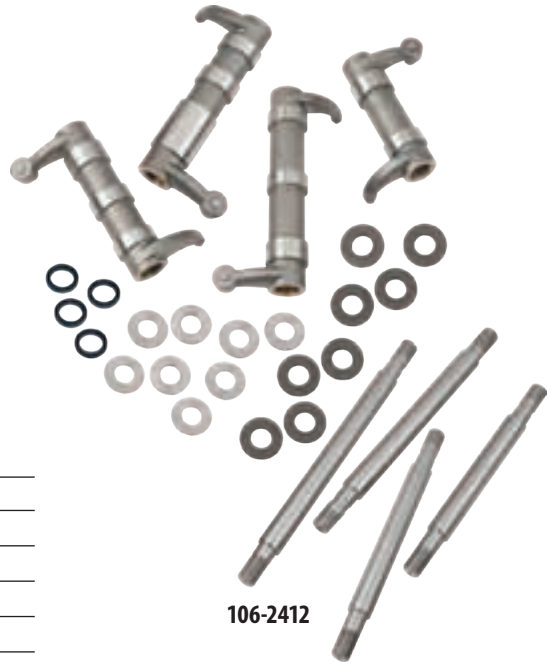
Description	Part #
Set *(includes two each front and rear rocker arms)*	**900-4320A**
Front exhaust or rear intake *17375-66A*	**900-4320FA**
Rear exhaust or front intake *17360-66A*	**900-4320RA**

REBUILD KIT S&S® ROLLER ROCKER ARMS

Rebuilds four rocker arms	**90-4321**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

ROCKER ARMS AND SHAFTS
FOR 1936-'47 OHV BIG TWINS


106-2412

FITMENT
- 1936-'47 OHV big twins
- Compatible with S&S® or stock tins
- Rocker arms are not compatible with stock rocker shafts

FEATURES AND BENEFITS
- High quality CNC machined
- 1:1 stock knuckle rocker arm ratio
- Improved oil control

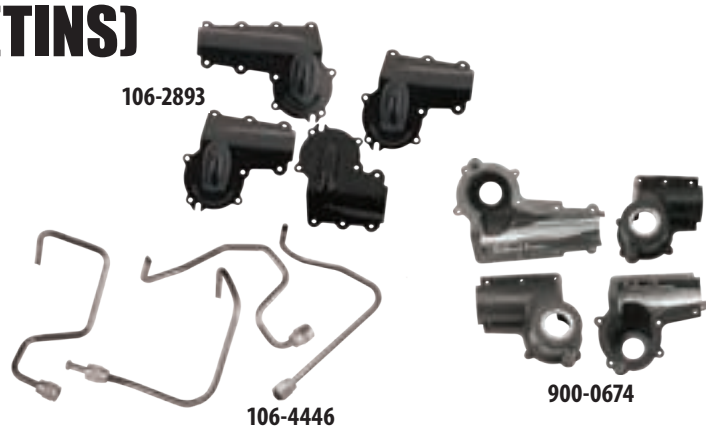
KIT CONTENTS
- Four rocker arms FE, FI, RI, and RE, Four rocker shafts, Washers and spacers

ROCKER ARMS AND SHAFTS FOR 1936-'47 OHV BIG TWINS

Description		Part #
Rocker Arms and Shaft Set *(includes hardware)*	*4 pack*	**106-2412**
Front Intake *(includes shaft and spacers)*	*each*	**106-2862**
Front Exhaust *(includes shaft and spacers)*	*each*	**106-2863**
Rear Intake *(includes shaft and spacers)*	*each*	**106-2864**
Rear Exhaust *(includes shaft and spacers)*	*each*	**106-2865**
Rocker Shaft Set *(includes spacers and hardware)*	*4 pack*	**106-2413**
Nut and Washer Kit, Rocker Shaft Left Side *7831*	*4 pack*	**106-3632**
Nut and O-Ring, Rocker Box, KN-Series *17447-36*	*each*	**106-4355**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

VALVE SPRING COVERS (TINS)
FOR KN-SERIES ENGINES


106-2893

106-4446

900-0674

FITMENT
- KN-Series engines

FEATURES AND BENEFITS
- Improved design for better oil scavenging and less leaking
- Die-cast lower covers can be removed without pressing out valve guides
- Improved oil return lines are easy to replace and service
- Relatively stock appearance

OPTIONS
- Chrome, silver powder coat and gloss black powder coat finishes

KIT CONTENTS
- Lower cover kit contains set of four lower covers and gaskets
- Top cover kits contain four top covers and gaskets
- Oil return lines must be purchased separately

VINTAGE VALVE SPRING COVER KITS

Description		Part#
Lower Cover Kit	Black anodized	**900-0674**
Top Cover Kit	Chrome	**106-2400**
	Gloss black	**106-2893**

OIL LINE RETURN 1936-'47 OHV BT (TINS ONLY)

CNC bent stainless steel for a perfect fit and long life

Description	Part #
Kit of 4	**106-4446**
Front Intake	**106-4447**
Front Exhaust	**106-4448**
Rear Intake	**106-4449**
Rear Exhaust	**106-4450**
Seal, Oil Return Line, 28" OD x .18" ID x 1", Rubber Hose	**106-4456**
Rocker arm cover gasket kit	**900-0493**

NOTE Requires the use of valve springs 106-6398 and Valve guides 106-3637 or corresponding oversizes. Stock rocker arms and shafts will require modifications to be used.

ROCKER ARM HOUSINGS
FOR 1936-'47 OHV ENGINES


900-0618

FITMENT
- Faithful reproductions of the stock "knuckles" for 1936-'47 OHV big twins.

FEATURES AND BENEFITS
- Excellent for stock replacement and restoration.
- Does not include hardware and fittings.

ROCKER ARM HOUSINGS FOR 1936-'47 OHV ENGINES

Description		Part #
Polished	Set	**900-0617**
	Front	**900-0618**
	Rear	**900-0619**
Natural	Set	**900-0622**
	Front	**900-0623**
	Rear	**900-0624**



OIL FEED LINE

Description	Part #
74" & 93"	**106-4670**

POLISHED BILLET ROCKER COVERS
FOR 1966-'84 BIG TWIN ENGINES


90-4305

FITMENT
- 1966-'84 shovelhead engines with stock or S&S cylinder heads
- SH- Series engines

FEATURES AND BENEFITS
- CNC machined from 6061-T6511 aluminum billet and polished to a show finish
- Two piece design for easy installation
- Some frames allow installation with engine in the frame
- Works with stock or S&S roller rocker arms
- Clearanced for valve lifts of up to .590" with S&S roller rocker arms
- Fastened to the heads with 5⁄16" bolts
- Simple and inexpensive straight rocker shafts

KIT CONTENTS
- Front and rear rocker box assemblies
- Rocker shafts
- Gaskets, seals and mounting hardware
- Installation instructions

POLISHED BILLET ROCKER COVERS FOR 1966-'84 BIG TWIN ENGINES

Description	Part #
Billet Rocker Cover Set for Shovelhead Engines	**90-4305**
Replacement Rocker Arm Shaft Set	**90-4351**

REPLACEMENT PARTS: SEE 472

CHROME PAN COVERS
FOR 1948-'65 BIG TWINS

CHROME PAN COVER

Description		Part #
Set *17500-48A*		**106-0919**
Replacement Parts		
D-ring Set *17507-51*		**106-0920**
Screw, SHCS 10-24 x ¾" *2674, 2675*		**106-0913**
Rocker arm cover gasket 1948-'65 bt *117541-48*	*each*	**900-0329**
	2 pack	**900-0339**


106-0919

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

INTAKE MANIFOLD O-RINGS AND CLAMPS

FITMENT

- Panhead, shovelhead, and Harley-Davidson® Ironhead Sportster® models

FEATURES AND BENEFITS

- Replace your flimsy and troublesome stock clamps
- ¾" wide and constructed of .020" thick stainless steel and use a curved 10-24 threaded "T"-bolt with plated steel aircraft hex locknut
- Sold individually—Two are required for each engine
- S&S intake manifold o-rings and rubberbands are made of special materials that resist destruction from the additives in today's fuel



16-0230



16-0231

1955-'78 BIG TWIN, 1957-'78 IRONHEAD SPORTSTER® MODELS, AND S&S KN, P, & SH SERIES ENGINES WITH O-RING STYLE CYLINDER HEADS

Description	Part #
O-ring *27060-55*	**50-8046**
10 Pack 27060-55	**50-8132**
Clamp for O-ring Style *27063-57*	**16-0230**

1979-'84 BIG TWIN, 1979-'85 IRONHEAD SPORTSTER® MODELS WITH RUBBERBAND STYLE CYLINDER HEADS

Description	Part #
Rubberband *27062-78*	**16-0238**
10 pack 27062-78	**16-0245**
Clamp for Band Style *27063-80, 27063-78*	**16-0231**

ELECTRONIC TIMERS

- Fits S&S and stock generator style cases and allows the use of S&S Super Stock™ or other late style electronic ignition systems. (Ignition sold separately).
- Requires reverse timing gears for use in generator style engines.
- The domed billet timer has a period correct look for 1964 and earlier engines.



55-1269

ELECTRONIC TIMERS

Description	Part #
Billet generator style electronic timer	**55-1269**
Domed	**106-4622**



106-4622

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

MANIFOLDS
FOR STOCK ENGINES, P-SERIES, SH-SERIES & KN-SERIES ENGINES

- Manifolds for 1955-'65 panhead engines with "o-ring" style cylinder heads are available in 1⅞" bore only.
- 1936-'54 knuckle and pan cylinder heads with "plumber" style intake mounting nipples must be converted to accept a 1955 to 1965 o-ring manifold.



16-1103

O-RING STYLE MANIFOLD FOR 1955-'65 BIG TWIN

Cylinder Length	Manifold Length (Between Ports)	S&S ES, LS, A, Super B, E – Tillotson®, Bendix®, Keihin®
Stock - 5.330"	2.975"	**16-1100**
5.392" – + 1/16"	3.025"	**16-1101**
5.455" – + 1/8"	3.075"	**16-1102**
5.517" – + 3/16"	3.125"	**16-1103**



16-1200

O-RING STYLE MANIFOLDS FOR 1966-'77 BIG TWINS

Stock or S&S Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G
74", 80", 84", 88"	Stock 5.330"	220	**16-1200** *27021-71A*	**16-2200**
93" HC	5.363"	222	**16-1201**	**16-2201**
93"	5.405"	225	**16-1223**	**16-2223**
96"	5.440"	228	**16-1202**	**16-2202**
98"	5.530"	235	**16-1204**	**16-2204**
103"	5.630"	242	**16-1206**	**16-2206**



16-2200

O-RING STYLE VOES MANIFOLD FOR KN-SERIES ENGINES

Engine Type	Cylinder Length	S&S ES, LS, A, Super B, E – Tillotson®, Bendix®, Keihin®
KN93	5.625"	**106-4530**
KN74	5.530"	**160-0008**

Equipped with a VOES fitting for use with the S&S Super Stock Ignition system. Heads must be set up with o-ring adaptor inserts part #106-4654 (2 required).



106-4530

O-RING STYLE MANIFOLDS WITH VOES FOR SH-SERIES AND P-SERIES ENGINES

Stock or S&S Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G
SH80	Stock - 5.330"	220	**16-1230**	–
SH93H, P93H	5.363"	222	**16-1231**	–
SH93, P93	5.405"	225	**16-1233**	–
SH103, P103	5.630"	242	–	**16-2236**



16-1230

O-RING STYLE MANIFOLDS FOR 1957-'78 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A, B, E, Tillotson®,Bendix®, Keihin®	Super G
900cc, 1000cc	Stock 5.330"	220	**16-1200** *27021-71A*	**16-2200**

MANIFOLDS CON'T



106-4654

ADAPTOR

Description	Part #
Converts stock "plumber" style heads to o-ring *(sold each, two required)*	**106-4654**

RUBBERBAND STYLE MANIFOLDS FOR 1978-'84 BIG TWINS



16-1300

Stock or S&S Engine Kit Displacement	Cylinder Length	Size	S&S ES, LS, Super A,B, E, Tillotson®, Bendix®, Keihin®	Super G
74", 80", 84", 88"	Stock 5.330"	220	**16-1300** *27021-78*	**16-2300**
93" HC	5.363"	222	**16-1301**	**16-2301**
93"	5.405"	225	**16-1323**	**16-2323**
96"	5.440"	228	**16-1302**	**16-2302**
98"	5.530"	235	**16-1304**	**16-2304**
103"	5.630"	242	**16-1306**	**16-2306**

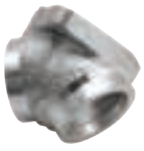
RUBBER BAND STYLE MANIFOLDS WITH VOES FITTING FOR 1983-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS



16-1400

Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A,B, E, Tillotson®, Bendix®, Keihin®	Super G
900cc, 1000cc	Stock 5.330"	220	**16-1400**	–

RUBBER BAND STYLE MANIFOLDS WITHOUT VOES FITTING FOR 1979-'82 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS



16-2300

Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A,B, E, Tillotson®, Bendix®, Keihin®	Super G
900cc, 1000cc	Stock 5.330"	220	**16-1300** *27021-78*	**16-2300**

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NOSTALGIC AIR CLEANER COVERS



FITMENT
- Super E carbs
- Teardrop air cleaner kits for stock carbs

NOSTALGIC AIR CLEANER COVER

Description	Part #
Polished, Super E & G	**17-0071**

NOTE

Super B and Super E & G air cleaner covers are not interchangeable. They each have a unique bolt pattern.

AIR HORN COVER



FITMENT
- S&S short air horns

FEATURES AND BENEFITS
- Sand casted just like the originals
- Really hard to tell them apart from the real deal

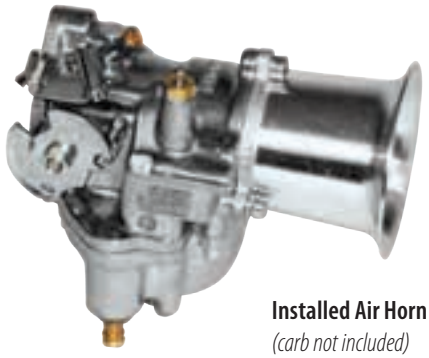
AIR HORN COVER

Description	Part #
For S&S short air horns	**17-0026**

AIR HORNS & AIR HORN CONVERSION KITS

SHORT AIR HORNS (2½")
- Fits S&S 1¾", 1⅞" L Series carbs and S&S 1⅞" Super A & B carbs
- Any stock carburetor with an identical air cleaner/air horn mounting pattern. These include Tillotson®, Bendix® or butterfly type Keihin®
- Available for S&S Super E & G carburetors

LONG AIR HORNS (4")
- Available for S&S Super E, G, & D carbs



Installed Air Horn
(carb not included)

KIT CONTENTS
Air Horn Kit:
- Air Horn
- Three mounting screws

Air Horn Conversion Kit:
- Air horn
- Three mounting screws
- Carb support bracket (bracket connects the center crankcase bolt to the bottom manifold carburetor mounting bolt)
- Two longer bottom carb to manifold mounting bolts
- Super E & G air horn conversion kit includes an enrichment device

AIR HORN SELECTION CHART

Description	Length	Super A & B	Super E & G	Super D	
Air Horn Conversion Kits	2½"	**17-0043**	**17-0484**	–	
	4"	–	**17-0485**	–	
Air Horn Only	2½"	**17-0042**	**17-0331**	–	
	4"	–	**17-0333**	**17-0141**	

NOTES

S&S recommends that air horns be used in racing applications only, as they do not provide the filtration required to protect the engine on a day-to-day basis.

Any installation of an air horn on an S&S carb in place of an air cleaner requires an S&S carb support bracket, part #16-0471, to securely fasten the carb to the engine. This bracket is included in the air horn conversion kits.

S&S recommends that the bowl vent plug at the bottom of carb body be removed when air horn is installed, as air horn may obstruct bowl vent in air cleaner mounting surface of the carb body.

SUPER E & G SHORTY CARBURETOR KITS

FITMENT
- 1936-'84 big twins
- 1957-'85 Harley-Davidson® Ironhead Sportster® *(except models with vertical magneto)*

FEATURES AND BENEFITS
- Four fuel delivery ports – *Better throttle response*
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Super E 1⅞" (47.6mm) bore – *for engines up to 100" displacement*
- Super G 2⅛" (52.4mm) bore – *for engines 100" or greater displacement*
- Adjustable enrichment starting system –*does not restrict air flow like a conventional choke*
- Adjustable accelerator pump
- S&S chrome Classic Teardrop air cleaner
- Two cable throttles required – *see notes*

OPTIONS
- Complete kits for engines requiring stock length manifolds
- Partial kits for engine requiring non-stock length manifolds *(order manifold separately)*
- Carb only kits for replacement and custom applications



11-0402

KIT CONTENTS
- Super E or G carburetor assembly
- Manifold for stock height engine
- Manifold seals and clamps
- S&S chrome Classic Teardrop air cleaner kit
- All gaskets, hoses, and required hardware for installation
- Complete installation and tuning instructions

REPLACEMENT PARTS: SEE PAGE 474

SUPER E AND G CARBURETOR KITS

Models	Super E Complete Kit *Manifold Included*	Super E Partial Kit *Manifold & Mounting Hardware Not Included*		Super G Complete Kit *Manifold Included*
	Standard Tanks	Standard Tanks	5 Gallon Tanks §	Standard Tanks
Big Twin Models				
1979-'84	**11-0411**	**11-0412**	**11-0418**	**11-0431**
1966-'78	**11-0402**	**11-0412**	**11-0418**	**11-0422**
1955-'65*	**11-0401**	**11-0412**	–	–
Harley-Davidson® Ironhead Sportster® Models				
1979-'85 ‡	**11-0406**	–	–	–
1957-'78 ‡	**11-0404**	–	–	–
Carb Only				
All Years	**11-0420**	–	–	**11-0421**

**Outside oil lines that feed heads on knucklehead and 1963-'65 panhead engines must be refabricated or use a 1" spacer block for additional clearance.*

‡ Does not fit engines equipped with vertical magneto.

§ Shovelhead engines equipped with .075" longer than stock cylinders in chassis with five gallon gas tanks require additional air cleaner cover to gas tank clearance. Kits in this column include an air cleaner cover clearanced to fit these engines.

NOTE: 1979-'80 engines may be equipped with either o-ring or band style heads. Check before ordering.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle..

NOTES

Stock motorcycles 1980 or earlier must be updated to a two cable pull open/pull closed throttle control system. A single cable pull open system cannot pull the throttle closed in case the throttle should accidentally stick in the open position. S&S offers high quality throttle cable kits in several lengths for this purpose. A press-on sleeve is also available to increase the diameter of the throttle grip area of 1972 and earlier handle bars to 1", allowing installation of modern throttle assemblies. See page 448 for throttle cables and press-on sleeves.

S&S "Shorty" carburetors will not fit Harley-Davidson® Ironhead Sportster® models with vertical magnetos due to clearance problems between the magneto and the carburetor.

Shovelhead engines with five gallon gas tanks and cylinders that are taller than stock require a special notched air cleaner cover to clear the gas tank. Since these taller engines also require a special length manifold, select a carb with a notched air cleaner cover without a manifold from the chart and refer to the manifolds starting on 441 to select the correct length manifold.

S&S does not recommend polishing or chrome plating Super E & G carburetors. Our repair department has seen many carbs with passages plugged with polishing compounds and some carbs that had been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only—S&S Super E & G carbs shown are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

BLACK SUPER E & G CARBURETORS

FEATURES AND BENEFITS

- Exclusive black satin Enduraguard® coating – heat and chemical resistant
- Increased venturi diameter! – specially machined for 7% more flow– See flow chart



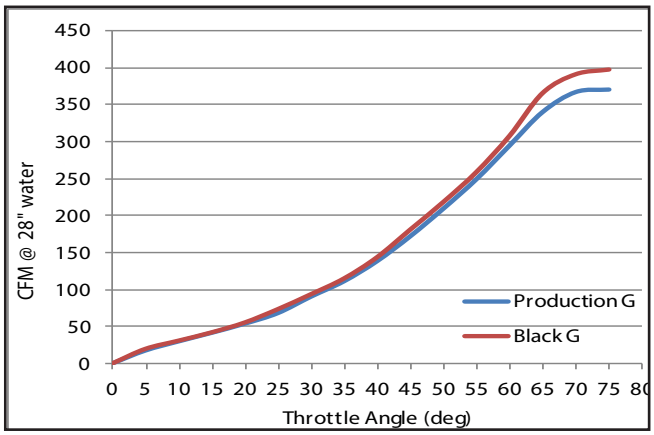
110-0099

BLACK CARBURETORS

Fitment	Description	Part #
1955-'84 big twins	Super E Carb	**110-0099**
1966-'84 big twins	Super E Carb	**110-0099**
	Super G Carb	**110-0100**

DISCLAIMER: LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY. FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.





Flow at WOT (wide open throttle) for the Black G carb increases 7% vs. the base S&S G carb

NOTE These black carb kits do not include air cleaners. Air cleaner options are available starting on page 392.

JETS & CARB REBUILD KITS
FOR S&S SUPER E & TG CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS

Description	Part #
S&S Carb Parts Kit *(Contains needed parts to maintain S&S Super E and G carburetors)*	**11-3103**
S&S Jet Kit *(Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)*	**11-3102**

JET PACKS

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines.	
Includes one each intermediate jets *(.025", .0265", .028", .0295")* and one each main jets *(.062", .064", .066", .068", .070", .072", .074")*	**11-7270**
High Range Jet Pack – For jetting some stock and all performance engines.	
Includes one each intermediate jets *(.0295", .031", .032", .033")* and one each main jets *(.072", .074", .076", .078", .080", .082", .084")*	**11-7271**
Master Jet Pack – For jetting all Super B, E, and G equipped engines.	
Includes one each intermediate jets *(.025", .0265", .028", .0295", .031", .032", .033")* and one each main jets *(.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084")*	**11-7272**

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION

Size	QTY	Part #	Size	QTY	Part #
.025	each	**11-0250**	.032	each	**11-0320**
	3 pack	**11-7107**		3 pack	**11-7112**
.0265	each	**11-0265**	.033	each	**11-0330**
	3 pack	**11-7108**		3 pack	**11-7113**
.028	each	**11-0280**	.036	each	**11-0360**
	3 pack	**11-7109**		3 pack	**11-7114**
.0295	each	**11-0295**	.040	each	**11-0400**
	3 pack	**11-7110**		3 pack	**11-7115**
.031	each	**11-0310**	Blank	each	**11-0000**
	3 pack	**11-7111**			

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1..... .025" 4..... .033"
2..... .028" 5..... .036"
3..... .031" 6..... .040"

NOTES

No returns or exchanges on jets.

Refer to Section 10: Racing for the S&S fuel and turbo carburetors.



11-3103



11-3102



11-7272



106-3517

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.068	each	11-4068	.110	each	11-4110
.070	each	11-4070			
	5 pack	11-7235		5 pack	11-7255
.072	each	11-4072	.115	each	11-4115
	5 pack	11-7236		5 pack	11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT (ONE JET EACH SIZE)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

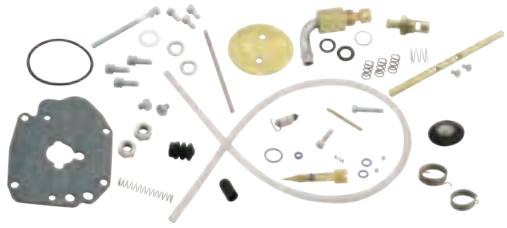
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT

Description	Part #	
Super E	11-2923	
Super G	11-2924	



11-2923

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT

Description	Part #
Super E	11-2906
Super G	11-2907



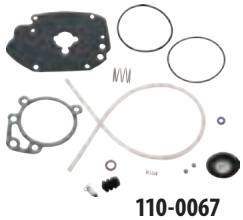
11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT

Description	Part #
Super E & G	110-0067



110-0067

ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



11-2918

THROTTLE CABLE ASSEMBLIES

EARLY STOCK STYLE TWO-CABLE THROTTLE ASSEMBLIES

- Designed to update 1981 and earlier chassis with 1" diameter handlebars for S&S Super E and G carbs or any other butterfly type carburetors with 1981-up stock style throttle linkage
- Cables are not interchangeable since they are specifically designed for the opening or closing side of throttle
- Kit contains throttle grips and both. Select kit with cable length desired. Cable measurement is from throttle grip to end of cable housing, barrel fittings are molded in place.



19-0448

EARLY STOCK STYLE TWO-CABLE THROTTLE

Description	Part #
Throttle Assembly with 36" Cables	**19-0450**
Throttle Assembly with 39" Cables	**19-0448**
Throttle Assembly with 42" Cables	**19-0482**
Throttle Assembly with 48" Cables	**19-0449**

S&S® THROTTLE CABLE APPLICATION CHART

Application	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
FX & FL models 1985 and earlier* big twins 1995 and earlier*	36"	32"	**19-0432**	**19-0433**
To 1995 Harley-Davidson® Softail® (FXSTC, FXST, FLSTC, FLSTF) 1986-'94 FXR, 1993-'95 Dyna®	39"	35"	**19-0434**	**19-0435**
To 1995 All FLT models	48"	44"	**19-0462**	**19-0463**
To 1995 custom application	42"	38"	**19-0446**	**19-0447**

**1980 and earlier must be converted to dual cable throttle assembly*

UNIVERSAL THROTTLE ASSEMBLY

- Used with early style S&S carburetors including Early Style, L Series, Super B, Super D, and Two-Throat
- Can also be used with any other carburetor which uses a screw clamp style throttle arm
- Threads on both cables are the same size so cables are interchangeable. One end of each cable has a molded ball end, and the other end is plain. Cable can be cut to length required. Fits 1" diameter handlebars.



19-0229

UNIVERSAL THROTTLE ASSEMBLY

Description	Part #
Universal 48" Throttle Assembly	**19-0229**
Universal Replacement Throttle Cable	**19-0224**

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	**106-3520**
Throttle Grip Clamp Set 1985-'95	**106-3519**
Top Throttle Grip Clamp only	**19-0222**
Bottom Throttle Grip Clamp only	**19-0220**
Throttle Grip Clamp Screw *(Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, and #19-0229)*	**50-0043**
Throttle Grip Set	**106-3521**
Right Hand Grip only	**19-0225**
Left Hand Grip only	**19-0226**
Cable Adjuster Fits S&S throttle assembly part #19-0229.	**19-0223**
Cable Adjuster Jam Nut Fits S&S throttle assembly part #19-0229	**19-0227**
Handlebar Spacing Sleeve 4" x 1" O.D. – converts ⅞" handlebars to 1" O.D.	**19-0235**

HI-4N PERFORMANCE IGNITION

FITMENT
- 1970-1984 big twins
- 1971-1985 Ironhead Sportster® Models

FEATURES AND BENEFITS
- One piece machined aluminum housing reduces vibration and improves heat dissipation and reliability
- Improved kick start algorithm designed to start as easily as points
- BCD switches with solid detent and legible marking allow easy and repeatable adjustments of mode, advance rate, and rev limit
- Single-fire and dual-fire function built into a single module
- Flexible wiring harness makes installation easier
- Initial timing marks allow precise adjustment and reinstallation
- Sensor covers integrated into housing to provide protection during installation



550-0502

S&S® HI-4N PERFORMANCE IGNITION

Fitment	Part #
Ignition only	**550-0501**
Kit Includes S&S® HI-4N Ignition, Single-Fire Coil, and 8.5mm double silicone, premium quality spark plug wires	**550-0502**

SUPER STOCK™ IGNITIONS

FITMENT
- S&S® SH-Series
- S&S KN-Series
- S&S P-Series

FEATURES & BENEFITS
- Modules can be set to kick-start or electric-start mode by an S&S dealer using the Super Stock diagnostic cable and software
- Electric-start mode allows the pre-ignition cranking to be set anywhere from 1 to 4 engine revolutions *(only available with current modules – earlier modules cannot be updated)*
- Pre-programmed ignitions are custom tailored for a specific S&S engine – no need for adjustments
- Single fire operation – requires a single fire coil for single spark plug applications
- Dual plugged applications require a pair of two tower coils or a single four tower coil
- Minimum 3.0Ω primary resistance
- Overload and short circuit protected
- VOES switches to less aggressive curve under load or hard acceleration
- 6300 rpm rev-limiter
- 24-hour break-in rev-limiter – prevents damage during break-in
- Data logging diagnostic capabilities



55-1352

S&S® SUPER STOCK® IGNITION MODULE AND KITS

Engine	Kit Part #	Module Part #
SH80	**55-1350**	**55-1340**
SH93/P93	**55-1351**	**55-1341**
SH93H/P93H/P74	**55-1352**	**55-1342**
SH103	–	**55-1343**
KN93/KN74	**106-3201**	**106-3200**

NOTES

S&S Super Stock ignition systems are available in complete ignition kits and as replacement modules. S&S single fire ignition coils are available separately.

Keep in mind that the curves are preset for a specific S&S engine, and that modules intended for one engine may not yield optimum results when used on another configuration.

Generator style engines require reverse timer gears and a special timer, designed to accept an electronic ignition. S&S offers two beautiful billet timers for this application.

S&S® SUPER STOCK® IGNITION KIT REPLACEMENT PARTS

Description		Part #
Pick-up Cup and Mounting Screw		**55-1247**
Connector Kit USA		**55-1249**
VOES Switch with Hardware USA		**55-1248**
VOES Hose, 9" USA	*each*	**19-0395**
	5 pack	**19-0398**
VOES Manifold Fitting		**16-0136-S**
VOES Hose Tee		**50-8124-S**
Optional Parts		
S&S Single Fire Coil (3.0Ω)		**55-1571**

5-SPEED TRANSMISSION CASE
FOR 1965-'85 4-SPEED BIG TWINS

FITMENT
- 1965-'85 big twin 4-speed chassis

FEATURES AND BENEFITS
- Update 4-speed bikes to 5-speed transmission
- CNC machined from 356-T6 aluminum castings
- Accepts most OEM and aftermarket parts designed for 1985-'99 big twin 5-speed transmissions
- These items available for purchase separately –see next page
- CNC-machined billet trap door with bearings and required hardware
- Special battery box/starter brackets
- Shift linkage required for 4-speed FX and FL models
- Footpeg adapter kit required for FX

KIT CONTENTS
- Transmission case assembly
- Required hardware
- Instructions



56-1051

4 TO 5-SPEED TRANSMISSION CASE KIT

Description	Part #
Basic Case Assembly Kit	**56-1051**

REPLACEMENT PARTS: SEE 484

NOTES

The S&S 4 to 5-speed transmission case is not compatible with the factory Harley-Davidson® primary belt drive used on 1980-'83 FXSB Sturgis models.

For applications that utilize an existing 4-speed driveline, a 1980 to early '84, 5-speed style chain-drive mainshaft and 1980 to early '84 style main drive gear must be used. These parts are compatible with the tapered I.D. clutch hub used on 4-speed big twins.

4 and 5-speed transmissions utilize the same 1:1 final drive ratio. As a result, the 5-speed gear set will not alter engine RPM at highway speeds. The additional gear narrows the gap between lower gears for improved acceleration and better performance in traffic.

This transmission case will fit earlier big twin frames. However, the engine sprocket shaft must be of the type used in 1970-later big twin style engines. The transmission case itself is compatible with HD® secondary (rear) belt drive if the correct mainshaft, main drive gear, inner primary cover, starter shaft, starter housing, and related parts are used. However, the builder may encounter other obstacles when converting a motorcycle with chain final drive to belt final drive.

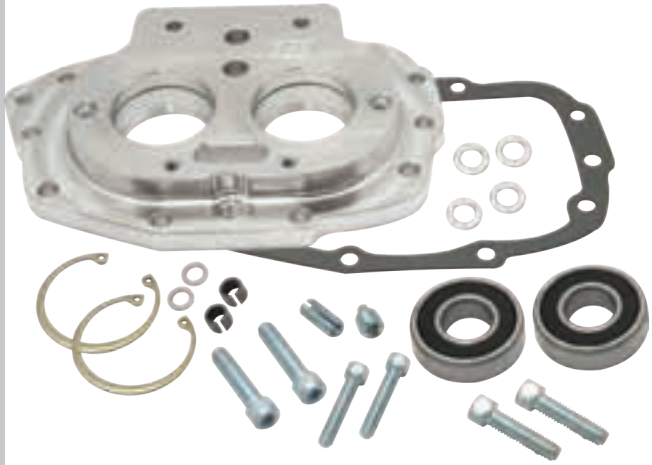
The purchaser's countershaft and shift fork shaft will require shortening.

A low contact-style countershaft gear must be used in this transmission case to match the 1980-'84 main drive gear required. Harley-Davidson® replaced low-contact gears with high-contact gears on 1994 international big twin models and 1995 U.S. models. Low and high contact gears may not be mixed.

S&S trap doors are of the 1987-'99 style. S&S recommends using this style trap door and end cover with the "ball and ramp" clutch actuator. The strength of the earlier, lever-type actuator is marginal for heavy clutch springs sometimes required in high-performance applications.

Most 4-speed big twin style engines utilize transmission-driven mechanical speedometers. This transmission case has no provision for speedometer drive, and must be used with a wheel-driven speedometer and speedometer drive. The existing wheel may require modification to accept the speedometer drive unit.

The clutch-actuator end of the 4-speed clutch cable is not compatible with the five-speed type clutch actuator. Options are to replace the existing clutch lever with an 1987-'99 style lever or purchase a custom cable with the correct ends from Barnett Tool and Engineering in Ventura, California. (Phone: 805-642-9435)



BILLET TRAP DOOR ASSEMBLY

Description	Part #
Billet Trap Door Assembly	**56-1027**

REPLACEMENT PARTS: SEE 484

RETRO KICK STARTER COVER KIT

FITMENT

- 1940-'86 big twin
  (year group authenticity is listed in the product descriptions below)

FEATURES AND BENEFITS

- Authentic detailing in cover casting
- Updates and improvements eliminate cracking problems of original covers
- Utilizes your stock hardware and filler plug, gasket included
- Heavy duty kicker boss with single bushing



106-6479-J7



106-6479-G6



106-6479-00

TRANSMISSION COVER KITS

Description	Part #
1948–'50 Big Twins J7 Date Code *33277-36, 33277-36A*	**106-6479-J7**
1940–'47 Big Twins The G6 cover duplicates the external shape for 1940–'47. The G6 cover has a stamped in part number just as the original. The G6 date code stands for June of 1946. G6 Date Code *33277-36, 33277-36A*	**106-6479-G6**
1940–'86 Big Twins The 00 cover has no part number or date code. It was created with the custom application in mind where authenticity isn't a must, or polishing or other finishes are desired. *33277-36, 33277-36A*	**106-6479-00**

REPLACEMENT PARTS

Description		Part #
Bushing	Lower, Clutch Arm *33290-38*	**106-6473**
	Upper, Clutch Arm *33291-36*	**106-6474**
Kicker Shaft		**106-6475**
Gasket *33295-36*		**560-0012**
Oil Seal/ Seal,1" OD x .75" Shaft x .125"		**106-6476**

GASKETS

REBUILD GASKET KITS FOR S&S® ENGINES & HOT SET UP KIT®

Description	Bore	Part #
SH-Series 1966-'84	3½"	**106-0407**
P-Series/SH-Series 1948-'84	3⅝"	**106-0408**
KN-Series 1936-'47	3⅝"	**106-2414**

TOP END GASKET KITS

Description	Bore	Part #
P Series/SH-Series 1966-'84	3⅝"	**90-9501**
P Series/SH-Series 1966-'84	3½"	**90-9500**

CYLINDER HEAD GASKET KITS

Description	Bore	Part #
P Series/SH-Series 1966-'84	3⅝"	**90-1918**
P Series/SH-Series 1966-'84	3½"	**90-1917**

HEAD GASKETS FOR S&S® P-SERIES AND SH-SERIES 1948-'84 (SHOVELHEAD BOLT PATTERN)

Description	Thickness	Bore		Part #
Copper	.032"	3⅝"	*each*	**93-1042**
			10 pack	**93-1062**
Copper *16770-66B*	.032"	3⁷⁄₁₆" & 3½"	*each*	**93-1041**
			10 pack	**93-1061**

HEAD GASKETS FOR S&S® SW FOR PAN/KNUCKLE (PANHEAD HEAD BOLT PATTERN)

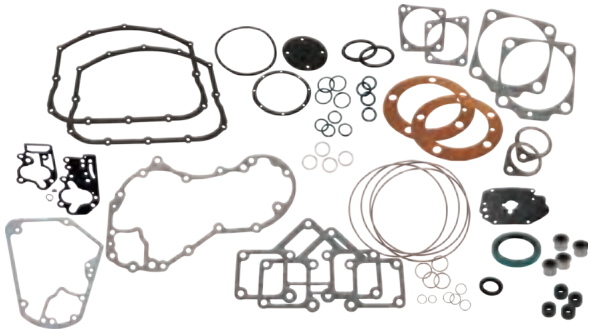
Description	Thickness	Bore		Part #
Composite	.032"	3⅝"	*each*	**93-1019**

HEAD GASKETS FOR KN-SERIES 1936-'47

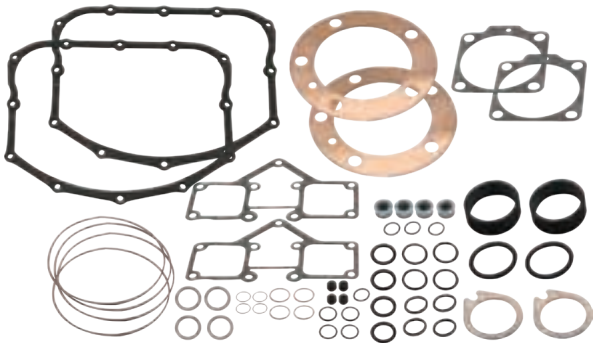
Description	Thickness	Bore		Part #
Copper	.032"	3⅝"	*each*	**106-2681**
			2 pack	**106-2432**
Copper	.032"	3⁷⁄₁₆"	*2 pack*	**106-2689**

HEAD GASKETS FOR FH-SERIES AND UL 1938-'48

Description	Thickness	Bore		Part #
Copper *16769-36*	.020"	3⁷⁄₁₆"	*2 pack*	**106-2669**



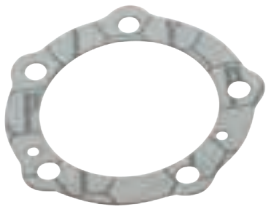
106-0408



90-9501



93-1042



93-1019



106-2681



106-2669

NOTES

While many of the gaskets in these kits will work for stock applications, some gaskets in the kits are specifically designed for S&S parts used in S&S engines.

Alternator style lower end kits include outer gaskets for both S&S flanged and flangeless gear covers. Not all gaskets will be used.

Oil pump gaskets provided in lower end gasket kits fit the standard pumps provided with S&S engines. If the crankcase of an engine was special ordered to accept a different type of oil pump, these gaskets may not fit.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BASE GASKETS FOR SH-SERIES 1966-'84

Description	Thickness	Bore	Part #	
Micropore	.018"	3⅝"	each	**93-1022-S**
			10 pack	**93-1069**
Micropore *16776-63*	.018"	3½"	each	**93-1023-S**
			10 pack	**93-1070**

BASE GASKETS FOR P-SERIES 1948-'65

Description	Thickness	Bore	Part #	
Micropore	.018"	3⅝"	each	**93-1022-S**
			10 pack	**93-1069**

BASE GASKET FOR S&S PAN/KNUCKLE SW 1936-'65

Description	Thickness	Bore	Part #	
Composite *16776-63*	.018"	3⅝"	each	**93-1023-S**
			10 pack	**93-1070**
Composite	.018"	3⅝"	each	**93-1022-S**
			10 pack	**93-1069**

BASE GASKETS FOR KN-SERIES 1936-'47

Description	Thickness	Bore	Part #	
Composite	.020"	3⅝"	each	**106-2690**
Composite *16774-21*	.020"	3⁹⁄₁₆" & 3⁷⁄₁₆"	each	**106-2692**

EXHAUST GASKETS

S&S SH-Series, P-Series, and 1966-'84 bt	each	**93-1004-S**

VALVE GUIDE SEALS

Fits S&S Heads for 1966-'84 bt and 1981-'84 stock cylinder heads *18000-81*	each	**90-2019**
	8 pack	**90-2157**

ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

Gasket Kit S&S Billet Rocker boxes 1966-84 bt		**90-4311**
O-ring,(-160),5.250" ID x 5.437" OD,Viton®	each	**50-7961-S**
O-ring,(-019),.812" ID x .937" OD,Viton®	each	**50-7962-S**
O-ring,.551" ID x .627" OD,Viton®	each	**50-7963-S**
O-ring,.374" ID x .473" OD,Viton®	each	**50-7965-S**
Gasket,Rocker Cover,1966-'84 bt *17540-69, 17540-69A*	each	**90-4040**
	10 pack	**90-4064**
Stock Rocker Boxes1966-'84 bt *17540-69, 17540-69A*	each	**90-4040**
	10 pack	**90-4064**
Rocker Arm Cover Gasket 1948-'65 bt *117541-48*	each	**900-0329**
	Set	**900-0339**
Rocker Arm Cover Gasket Kit 1936-'47 bt		**900-0493**
Gasket,Bottom,Valve Spring Covers,(Tins), Vulcanized Fiber,1936-'47 OHV bt		**106-2878**
Gasket,Set,Valve Spring Covers,KN-Series,(Tins)		**106-3166**
Seal,Oil,Rocker Arm,1936-'47 OHV bt,KN-Series *17475-38*		**106-3636**
O-ring,Square,.1875" *17955-36*		**106-3849**
O-ring,(-017),.676" ID x .816" OD,Black,Viton®		**50-0466**
O-ring,(-015),.562" ID x .068" OD,Black,Viton® *26432-76A*	each	**50-8034-S**
	2 pack	**50-8034**
O-ring,(-326),1.625" ID x 2" OD,Black,Viton® *27060-55*	each	**50-8046**
	10 pack	**50-8132**

LOWER END GASKETS AND SEALS

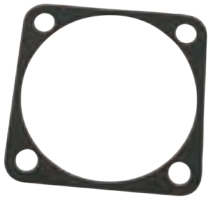
1970-'99 Big Twin Engine *25225-93A, 25225-93B, 25225-70C, 25257-80*	each	**31-2107**
	10 pack	**106-0232**
1936-'69 Big Twin Engine w/S&S Cases *25225-36A*		**31-2030**
1936-'69 Big Twin Engine w/Stock Cases *25225-36C*		**106-2072**

CAMSHAFT OIL SEALS FOR 1970-'99 BIG TWIN MODELS

Seal,Gearcover Cam,1" x 1.441" x .250" *83162-51*	each	**31-4022**



93-1022-S



106-2690



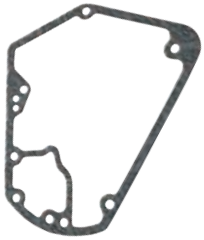
900-0329



90-4040



106-3166



31-2107

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

TAPPET GUIDE GASKETS

1948-'99 bt engines – Set *(Includes Front & Rear)* *18633-48*	*each*	**33-5302**
	10 pack	**33-5313**
Front *18634-48C*	*each*	**33-5302F**
	10 pack	**33-5313F**
Rear *18633-48B, 18633-48D*	*each*	**33-5302R**
	10 pack	**33-5313R**
1936-'47 OHV bt engines – Set *(Includes Front & Rear)* *18632-36*		**106-2563**



33-5302

PUSHROD O-RINGS

Pushrod O-Ring Kit 1979-'84 Big Twin		**93-4041**
Top O-Ring *11293, 11157, 11101, 11190*	*each*	**50-8039**
Middle O-Ring *11132A*	*each*	**50-8038**
Bottom O-Ring *11145A*	*each*	**50-8037**
Quad Seal *11133A*		**50-8064-S**
Washer, Bottom Pushrod Tube	*each*	**50-7050**
	10 pack	**50-7072**



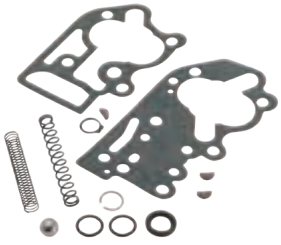
93-4041

SPROCKET SHAFT SEAL

1936-'99 Big Twin *12026B*	*each*	**31-4010**
	5 pack	**31-4110**

OIL PUMP GASKET KITS STANDARD S&S BILLET OIL PUMP 1936-'91

Gasket Rebuild Kit	**31-6271**
Master Rebuild Kit	**31-6275**
Oil Pump Drive Shaft Seal *26227-58*	**31-6005**



31-6275

FUEL SYSTEM GASKETS

Manifold Seals		
Rubberband – 1979-'84 BT and 1979-'85 XL *27062-78*	*each*	**16-0238**
	10 pack	**16-0245**
O-ring – 1955-'78 BT and 1957-'78 XL *27060-55*	*each*	**50-8046**
	10 pack	**50-8132**
Cap, rubber, manifold, fitting		**50-8372**



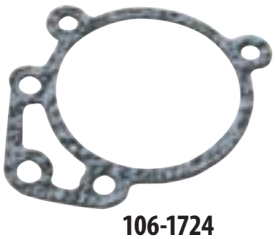
16-0238

CLASSIC TEARDROP AIR CLEANER GASKETS

Backplate gasket Super E	*each*	**106-1724**
	10 pack	**106-2328`**
Backplate gasket Super B	*each*	**17-0196**
	5 pack	**17-0197**

STEALTH AIR CLEANER GASKETS

Super E/G	*each*	**106-1724**
	10 pack	**106-2328**
Muscle Air Cleaner (includes lanyards)		**170-0137**



106-1724

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CARBURETOR GASKETS

Bowl Gasket	Super E & G	*each*	**11-2386**
		10 pack	**11-2387**
	Super B & D	*each*	**11-2086**
		10 pack	**11-2091**
	L Series	*each*	**11-2070**
Pump cap o-ring - (two required)		*each*	**50-8012**
		10 pack	**50-8100**
Idle Mixture Needle o-ring		*each*	**500-0036**
		10 pack	**500-0148**
Bellows seal Bellows Seal, Accelerator Pump		*each*	**11-2266**
		5 pack	**11-2279**
Accelorator pump diaphram		*each*	**11-2282**
Manifold to Carb/ Throttle Body O-Rings	Super E	*each*	**50-8016**
		10 pack	**50-8094**
	Super G	*each*	**50-8015**
		10 pack	**50-8093**
	Super B	*each*	**50-8013**
	L Series 1¾" or 1⅞"	*each*	**50-8013**
Seat and Bowl Plug O-Ring		*each*	**50-8009**
		10 pack	**50-8095**



11-2086



56-1026

TRANSMISSION GASKETS

Seal, quad, 1⁴⁹⁄₆₄" I.D. x 1⅞" O.D. x 1⁄₁₆" Buna *11165*	**50-8045**
Seal, inner primary - 4-speed BT	**56-5101**
Seal, oil shifter shaft - 1984-'99 BT *12045*	**56-1064**
Seal, oil *12067B*	**56-3033**
Gasket, transmission access door *35652-79B, 35653-98A*	**56-1026**

SUPER STOCK® CRANKCASE REPLACEMENT PARTS
FOR ALTERNATOR STYLE BIG TWIN ENGINES OF LESS THAN 4" CYLINDER BORE

1. Crankcase assembly, half ..... **N/A**

2. Race, right main bearing, All S&S BT
Standard *24599-93, 24599-58A, 24599-58B* **31-4004**
Clearanced for .798" lift 1984-'99 style cam w/ 1" base circle

3. Right main bearing assembly BT
White *24626-87A* **31-4005**
Green *24628-87A* **31-4016**
Red *24641-87A* **31-4017**
Blue *24643-87A* **31-4018**

4. Retaining ring, main bearing BT *11177A (each)* **50-8057**
5 pack **50-1004**

5. Cam needle bearing assembly BT
9058 ..... **31-4009**

6. Washer, cam lock - BT *25550-57A (each)* **33-5201**
5 pack **33-5213**

7. Cam thrust washer - BT
.050" *25550-36 (each)* **33-5200**
.055" *25551-36 (each)* **33-5202**
.060" *25552-36 (each)* **33-5203**
.065" *25553-36 (each)* **33-5204**
.070" *25554-36(each)* **33-5205**
.075" *25555-36 (each)* **33-5206**
.080" *25556-36 (each)* **33-5207**
.090" *25558-36 (each)* **33-5209**

8. Left Timken® main bearing assembly 1936-'99 S&S BT cases *9028* **31-4013**

9. Timken Main Bearing Spacers, 1969-up BT
Fits 1¼" stock diameter shaft.
.0995" - .1005" *9124* **31-4071**
.1015" - .1025" *9125* **31-4072**
.1035" - .1045" *9126* **31-4073**
.1055" - .1065" *9127* **31-4074**
.1075" - .1085" *9128* **31-4075**
.1195" - .1205" *9134* **31-4076**

10. Spacer, drive sprocket, 1965-'99 S&S BT cases *24002-70* **31-4011**

11. Spacer,Drive Sprocket,45A Charging System, 1.131" x 1.730" x .325",Fatigue Proof,1970-'99 bt *24008-97* **31-4033**

12. Seal, sprocket shaft oil 1936-'99 S&S BT cases
12026B (each) **31-4010**
5 pack **31-4110**

13. Bushing, oil pump shaft - All S&S BT cases Standard *24641-36* **31-4008**

14. Tappet guide assembly ..... **N/S**

15. Screw, 12 pt. DHH ¼" -20 x ⅞" *3770* **50-0068**
4 pack **50-0068P**

16. Gasket, tappet guide – 1948-'99 BT
Front *18634-48C(each)* **33-5302F**
10 pack front **33-5313F**
Rear *18633-48B, 18633-48D(each)* **33-5302R**
10 pack rear **33-5313R**
Set *18633-48 (each front & rear)* **33-5302**
10 pack set **33-5313**

17. Crankcase oil screen - 1948-'99 BT *24981-70, 24981-66 (each)* **31-2010**
5 pack **31-7008**

18. Crankcase oil screen spring - 1948-'99 BT *24982-66, 24982-70 (each)* **31-2011-S**

19. Cover screw o-ring - 1948-up S&S BT
11105, 11273(each) **50-8008**
10 pack **50-8078**

20. Cover screw - 1948-'99 S&S BT *26263-80, 26362-36*
each **31-6021**
5 pack **31-7005**

21. Cylinder stud
1984-up BT *16837-85C (each)* **31-2321-S**
8 pack **31-2321**
1984-up BT with +.500" cases *16832-86C*
each **31-2331-S**
8 pack **31-2331**

22. Crankcase Hardware
Alternator 1970-'99 and Alt/Gen Cases
Alignment Stud, ⅝" -24 x 5¾" *24806-36, 3506* **31-2003**
(Position 5 & 6)
Screw, HHCS, ⅝" -18 x 3½" *3427* **50-0117**
(Position 7)
Screw HHCS, ⅝" -24 x 5"
Zinc *3430* **50-0119**
Chrome *(each)* **50-0253-S**
(Position 8)
Screw HHCS, ¼" -28 x 5½" *(each)* **50-0090**
Screw HHCS, ¼" -28 x 5½" Chrome *(each)* **50-0252-S**

23. Nut, Hex - ¼"-28 *7683* **50-5011**

24. Washer, flat - ¼" x ⅜" x 1⁄16"
Zinc *6192, 6228W, 6194, 6245, 6703, 6736 (each)* **50-7021**
Chrome *(each)* **50-7104-S**

25. Nut, hex - ⅝"-24 zinc *7833, 7883* **50-5023**

26. Washer, flat - ⅝" x 1⅛" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**

27. Hardware Kits *(includes studs, screws, nut and washers)*
1984-up BT – manufactured after 6-1-08
Chrome **106-4913**
1970-'99 big twin
Zinc Plated **106-4908**
Chrome **106-4909**

28. Plug, timing hole *720* **31-2005**

29. Drain plug
Manufactured before 5-1-2000
a. ⅜"-18 NPT **31-2006**
Manufactured after 5-1-2000
b. ½"-20 thread **50-8335**

30. Fitting, ⅛" x ⅛" pipe, male/female **50-8112**

31. Oil pressure switch *26561-84*
(Includes: 1 each switch, nut, lock washer.) **31-2016**

32. Fitting, oil line - .375" x ⅛"-27 *62484-81* **31-2021**

33. Plug, SH pipe - ⅛"-27
each **50-8331A**
10 pack **50-1015**

34. Fitting, primary oil return *63533-65, 63533-41A* **31-2019**

35. Fitting, 45° hose – ¼" pipe male x ⅜" male hose **50-8113**

36. Plug, SH pipe, ¼"-18, 1965-'69 S&S BT *765* **50-8330**

37. Fitting, hose - ⅛"-27 pipe male **50-8115**

38. Dowel pin, .250" diameter x ½"
(1970-up S&S BT) *358, 366 (each)* **50-8022**
2 pack **50-8022-2**
5 pack **50-8105**

39. Screw, SHC - 10-24 x 1" (Stator) (N/S) *2720*
each **50-0044**

40. Screw, SHS - 10-24 x 5⁄16" - (Stator plug clamp) (N/S)
each **50-0045**

41. Gearcover ..... **N/A**

42. Gearcover gasket 1970-up S&S BT ..... **N/A**

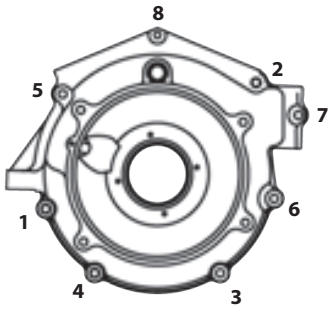
43. Gasket, CPS hole ..... **N/A**

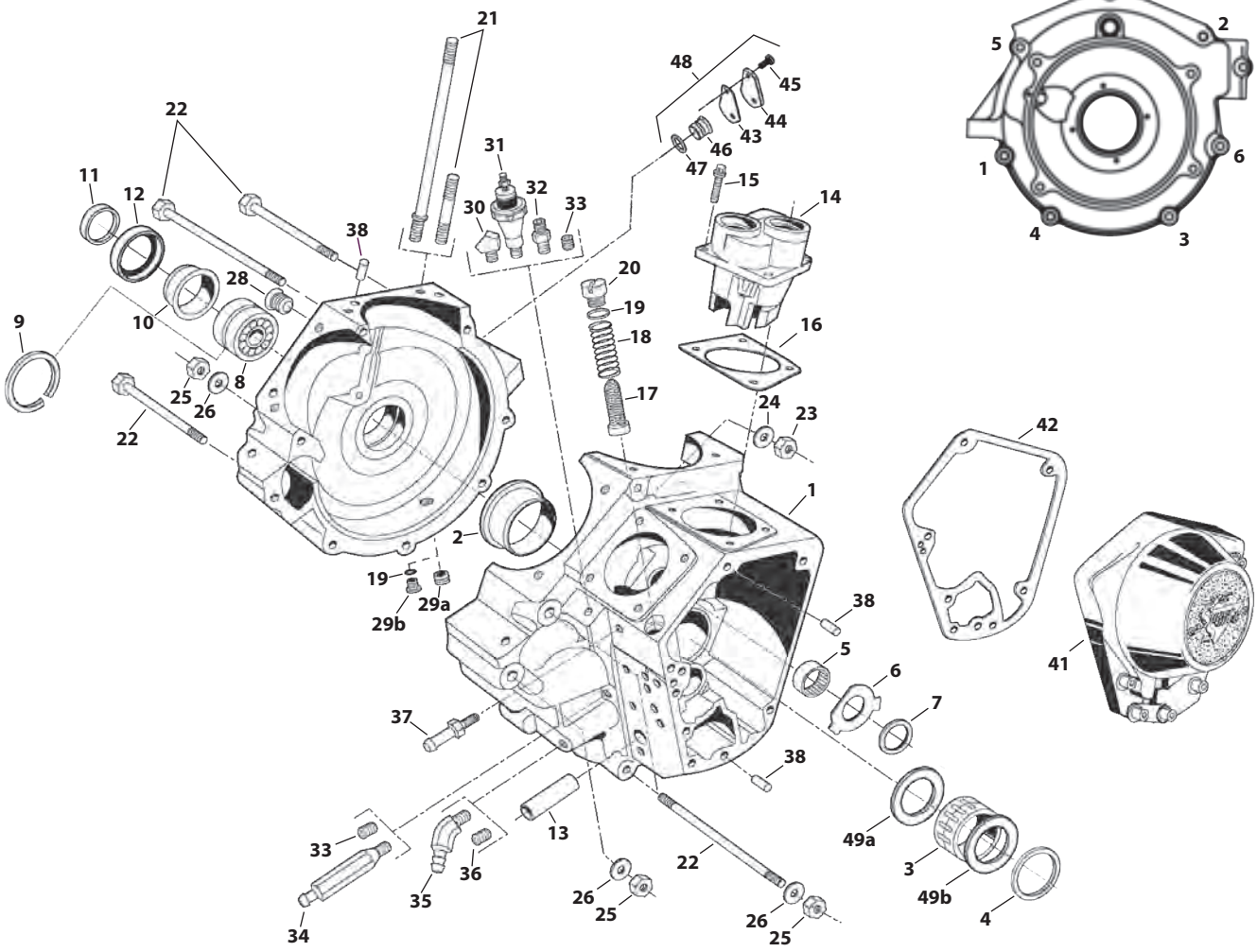
44. Cover, CPS hole **31-2056-S**

45. Screw, Torx, 8-32 x ⅜" *68042-99* **50-0054-S**

46. CPS hole plug **106-1189**

Bolt Position Diagram





47. O-ring *(each)* **50-8270**
5 pack **50-8275**
48. CPS hole plug kit **106-2997**
49. Washer,Right,Main Bearing,Thrust
a. 1.258" x 1.743" x .071",Steel **31-4038***
b. 1.258" x 1.743" x .051",Steel **31-4039***

**Thrust washers are normally used with 1958-'86 style bearings with loose rollers and drop in style cages, but can be used to position 1987-up bearings when used on early style flywheels.*

(N/S) = Not Shown
N/A = No longer available

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SUPER STOCK® CRANKCASE REPLACEMENT PARTS
FOR ALTERNATOR/GENERATOR STYLE BIG TWIN ENGINES OF LESS THAN 4" CYLINDER BORE

1. Crankcase assembly, half ..... **N/A**

2. Race, right main bearing, All S&S BT
- Standard *24599-93, 24599-58A, 24599-58B* ..... USA 1,2,3 **31-4004**
- *Clearanced for .798" lift 1984-'99 style cam w/1" base circle*

3. Right main bearing assembly BT
- White ***24626-87A*** **31-4005**
- Green *24628-87A* **31-4016**
- Red ***24641-87A*** **31-4017**
- Blue ***24643-87A*** **31-4018**

4. Retaining ring, main bearing BT ***11177A*** *(each)* **50-8057**
- *5 pack* **50-1004**

5. Cam needle bearing assembly
- *9058* ..... USA USA 1,2,3 **31-4009**

6. Washer, cam lock
- 1958-'99 bt ***25550-57A*** *(each)* ..... USA **33-5201**
- *5 pack* ..... USA **33-5213**

7. Cam thrust washer - BT
- .050" *25550-36 (each)* ..... USA **33-5200**
- .055" *25551-36 (each)* ..... USA **33-5202**
- .060" *25552-36 (each)* ..... USA **33-5203**
- .065" *25553-36 (each)* ..... USA **33-5204**
- .070" *25554-36 (each)* ..... USA **33-5205**
- .075" *25555-36 (each)* ..... USA **33-5206**
- .080" *25556-36 (each)* ..... USA **33-5207**
- .090" *25558-36 (each)* ..... USA **33-5209**

8. Left Timken® main bearing assembly 1936-'99
- S&S BT cases *9028* ..... USA 1,2,3 **31-4013**

9. Timken Main Bearing Spacers, 1969-up bt
Fits 1¼" stock diameter shaft.
- .0995" - .1005" *9124* **31-4071**
- .1015" - .1025" *9125* **31-4072**
- .1035" - .1045" ***9126*** **31-4073**
- .1055" - .1065" ***9127*** **31-4074**
- .1075" - .1085" ***9128*** **31-4075**
- .1195" - .1205" ***9134*** **31-4076**

10. Spacer, drive sprocket
- 1936-'64 S&S BT cases **31-4014**
- 1965-'99 S&S BT cases *24002-70* ..... USA 1,2,3 **31-4011**

11. Washer, Countersunk, ¼" x ½" **106-3848**

12. Seal, sprocket shaft oil 1936-'99 S&S BT cases
- *12026B (each)* ..... USA **31-4010**
- *5 pack* ..... USA **31-4110**

13. Bushing, oil pump shaft - All S&S BT cases
- Standard *24641-36* ..... USA 1,2,3 **31-4008**

14. Tappet guide, 1936-'47 OHV bt & S&S KN-Series
- Set **106-2410**
- Front *18600-36* **106-2665**
- Rear *18610-36* **106-2666**

Tappet Guide, S&S SH & P series and conversion kits only, uses V-Series lifters
- Set **33-5450**
- Front **33-5450F**
- Rear **33-5450R**

15. Screw
- 15a. Screw, 12pt, DHH, ¼"-20 x ⅞" *3770 (each)* **50-0068**
- *4 pack* **50-0068P**
- 15b. Screw,Slotted, Oval, ¼"-24 x ⅝" *2329* **106-3847**
- 15c. Screw,Slotted,Oval, ¼"-20 x ⅝" **500-0043**

16. Gasket, tappet guide – 1948-'99 BT
- Front ***18634-48C*** *(each)* ..... USA **33-5302F**
- *10 pack front* ..... USA **33-5313F**
- Rear *18633-48B, 18633-48D (each)* ..... USA **33-5302R**
- *10 pack rear* ..... USA **33-5313R**
- Set *(each front & rear) 18633-48B, 18633-48D* ..... USA **33-5302**
- *10 pack set* ..... USA **33-5313**

Gasket, tappet guide – KN 1936-'47 OHV
18632-36
- *(each)* **106-2561**
- *2 pack* **106-2563**

17. Crankcase oil screen - 1948-'99 BT *24981-70, 24981-66*
- *(each)* **31-2010**
- *5 pack* **31-7008**

18. Crankcase oil screen spring - 1948-'99 bt *24982-66, 24982-70*
- *(each)* **31-2011-S**

19. Cover screw o-ring - 1948-up S&S BT *(each)* **50-8008**
- *10 pack* **50-8078**

20. Cover screw - 1948-'99 S&S BT *26263-80, 26362-36*
- *(each)* **31-6021**
- *5 pack* **31-7005**

21. Cylinder stud
- 1936-'84 BT Standard *16831-30, 16837-30* ..... USA **31-2328-S**
- *8 pack* ..... USA **31-2328**
- 1936-'84 BT +5⁄16" longer ***16837-78*** **31-2324-S**
- *8 pack* **31-2324**

22. Crankcase Hardware
Hardware Kit
Alt/Gen Cases
- Alignment Stud, 5⁄16" -24 x 5¾" *24806-36, 3506* **31-2003**

(Position 1)
- Front Chain Oiler Bolt **106-4795**

(Position 5 & 6)
- Screw, HHCS, 5⁄16" -18 x 3½" **50-0117**

(Position 7)
- Screw HHCS, 5⁄16" -24 x 5" zinc *3430* **50-0119**
- Chrome *(each)* **50-0253-S**

(Position 8)
- Screw HHCS, ¼" -28 x 5½" *(each)* **50-0090**
- Screw HHCS, ¼" -28 x 5½" Chrome *(each)* **50-0252-S**

23. Nut, Hex - ¼"-28 *7683* **50-5011**

24. Washer, flat - ¼" x ⅝" x 1⁄16"
- Zinc *7035, 7036 (each)* **50-7021**
- Chrome *(each)* **50-7104-S**

25. Nut, hex - 5⁄16"-24 zinc *7833, 7883* **50-5023**

26. Washer, flat - 5⁄16" x 11⁄16" x 1⁄16"
6320, 70907-07, 6016, 6702 ..... **50-7034**

27. Plug, timing hole *720* ..... USA 2,3 **31-2005**

28. Drain plug,
- 28a. ⅜"-18 NPT Manufactured before 5-1-2000 ..... **31-2006**
- 28b. ½"-20 thread Manufactured after 5-1-2000 ..... **50-8335**

29. Fitting, ⅛" x ⅛" pipe, male/female **50-8112**

30. Oil pressure switch ***(HD® #26561-84)***
- *(Includes: 1 each switch, nut, lock washer)* ..... USA 2,3 **31-2016**

31. Dowel pin .375" diameter x ¾" 1936-'64 S&S BT **50-8017**

32. Fitting, oil line - .375" x ⅛"-27 *62484-81* **31-2021**

33. Plug, SH pipe - ⅛"-27 *(each)* **50-8331A**
- *10 pack* **50-1015**

34. Fitting, primary oil return *63533-65, 63533-41A* **31-2019**

35. Fitting, 45° hose – ¼" pipe male x ⅜" male hose ..... USA 1,2 **50-8113**

36. Plug, SH pipe, ¼"-18, 1965-'69 S&S BT
765 ..... USA USA 1,2,3 **50-8330**

37. Fitting, hose - ⅛"-27 pipe male ..... USA 1,2,3 **50-8115**

38. Dowel pin, .250" diameter x ½"
- *(1970-up S&S BT) 358, 366) (each)* **50-8022**
- *2 pack* **50-8022-2**
- *5 pack* **50-8105**

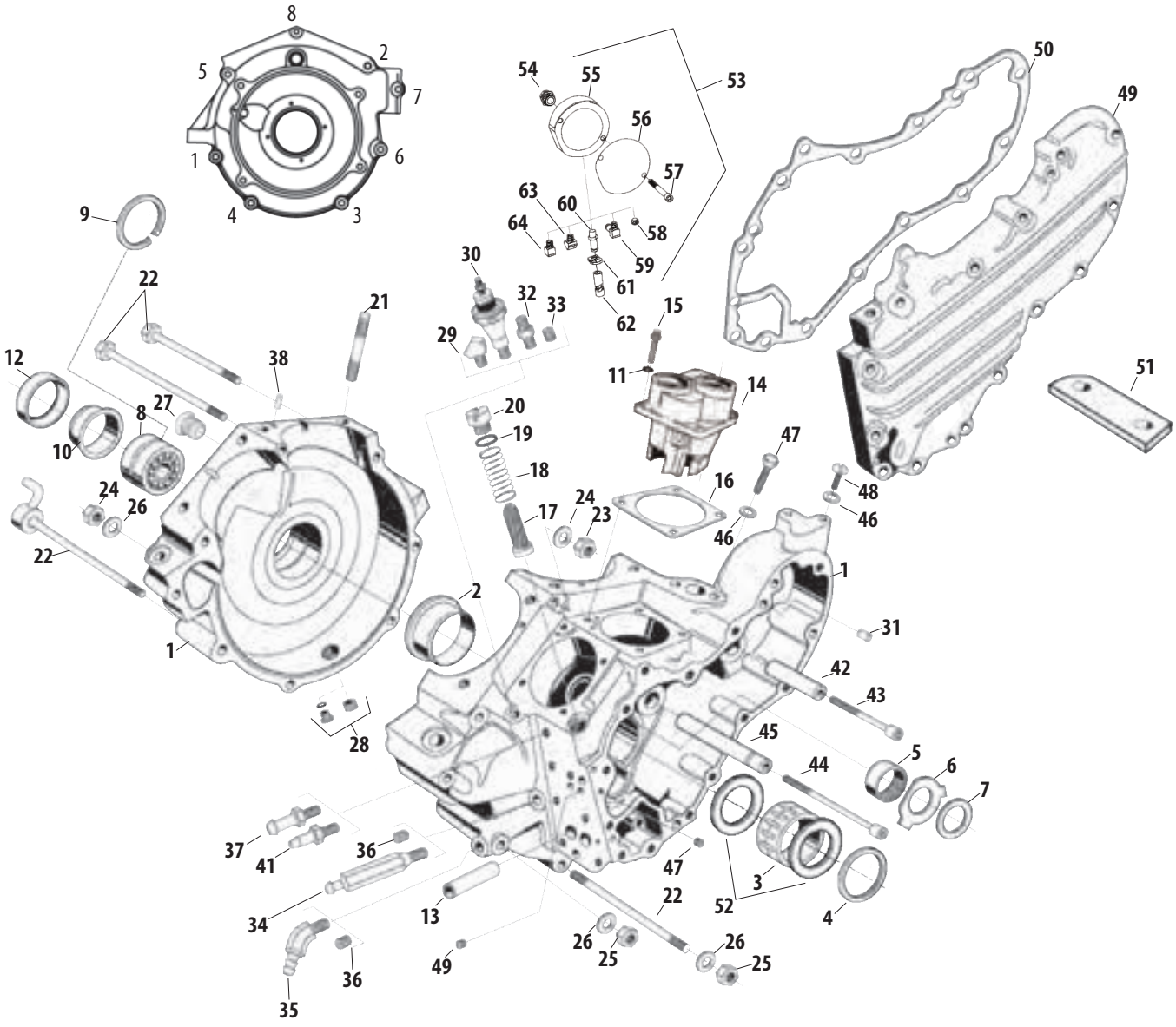
39. Screw, SHC - 10-24 x 1" *(Stator)* N/S *(HD® #2720) (each)* **50-0044**

40. Screw, SHS - 10-24 x 5⁄16" - *(Stator plug clamp)* N/S **50-0045**

41. Fitting, oil line *63533-15* **31-2018**

42. Idler gear shaft - 1936-'69 BT *25791-36* **31-2039**

BOLT POSITION DIAGRAM



43. Screw, SHC ¼"-20 x 2" (Idler gear shaft)
25794-36 ..... **50-0013**
44. Screw, SHC ¼" -20 x 3¼" (Circuit breaker drive gear shaft.)
1430 ..... **50-0012**
45. Shaft, circuit breaker drive gear , 1936-'69 BT
25856-36 ..... **31-2037**
46. Washer, lock - ¼" *7035, 7036* **50-7019**
47. Screw, HHC ¼" -20 x ½" 1936-'65
S&S BT timer *3728* **50-0014**
¼"-20 x 1" 1966-'69 S&S BT timer *2551W* **50-0018**
48. Screw, standard RH ¼"-20 x ½" *2759* **50-0015**
49. Gearcover (See 417)
50. Gearcover gasket 1936-'69 S&S BT *25225-36A* **31-2030**
51. Spacer, motor mount - 1936-'47 BT *24795-48* **31-2017**
52. Washer, Right, Main Bearing, Thrust
1.258" x 1.743" x .071",Steel **31-4038***
1.258" x 1.743" x .051",Steel **31-4039***
53. Bracket Kit, Oil Filter 1936-69 bt *(includes 56-66)* **106-3134**
54. Fitting, Straight, ¾-16 UNF 2A x 1" *26352-95A* **50-8197-S**
55. Bracket, Oil Filter ..... **N/A**
56. Gasket, Oil Filter Mount **106-4423**
57. Screw, SHC, 5⁄16-24 x 2-¾" **50-0017**
58. Plug, Pipe, ¾" x ⅛-27 x .188" **50-8331A**
10 pack **50-1015**
59. Fitting, Pipe, 90°, ⅛-27 x .375" **50-8110**
Fitting, Hose, Straight, ⅛-27 x .500" **50-8115**
60. Clamp, Hose, ⅝" - ⅞" **50-8002**
61. Hose, Oil Line Return, 375" x 12" ..... **N/A**
62. Fitting, Pipe, 45°, ⅛-27 x ⅛-27 ..... **50-8112**
63. Fitting, Pipe, 90°, Male/Female, ⅛-27
26338-68, 26561-84A, 26561-81A, 26338-68A **106-2682**
5 pack **50-1007**

**Thrust washers are normally used with 1958-'86 style bearings with loose rollers and drop in style cages, but can be used to position 1987-up bearings when used on early style flywheels*

(N/S) = Not Shown
N/A = No longer available

FLYWHEEL REPLACEMENT PARTS
FOR 1930-'84 BIG TWIN ENGINES

1. Sprocket Shaft
- 1930-1954 Including UL SVBT stock & S&S E flywheels (straight – roller bearing) *(includes #2, 3, 4)*
  - *24001-30* **33-2001**
  - *Note: This shaft uses the larger 55-later thread for added strength and includes the motor sprocket nut. The stock nut will not fit.*
- 1955-1964 S&S SE/SL flywheels *(includes #5 & 6)* (spline - Timkin®) **33-2002**
- 1965-1969 S&S SE/SL flywheels *(includes #5 & 6)* (spline - Timkin®) **33-2003**
- 1970-1999 S&S SE/SL flywheels *(includes #5 &6)* (spline - Timkin®) **33-2004**

2. Key **50-8224**
3. Sprocket Shaft Nut **33-2031**
4. Motor Sprocket Nut **33-2032**
5. Key **50-8225-S**
6. Sprocket Shaft Nut **33-2033**
7. Pinion Shaft
- 1939-1953 stock/ S&S E flywheels (spline) *(includes #8 & 12)*
  - Standard **33-2021**
- 1958-early 1981 stock & S&S L/AL/SE flywheels (tapered) *(includes #8, 12, 10, 14, 15)*
  - Standard *24006-54A, 24006-73* ..... USA **33-2024**
  - .001" OS ..... USA **33-2025**
- Late 1981-1984 stock/ S&S BL/SL/SM flywheels (tapered) *(includes #10, 14, 15, 9, 13)*
  - Standard ..... USA **33-2027**
  - .001" OS ..... USA **33-2028**

8. Key **50-8224**
9. Key *11218* **50-8222-S**
- *5 pack* **50-1009**

10. Pinion/Oil Pump Key **50-8221-S**
- *5 pack* **50-1008**

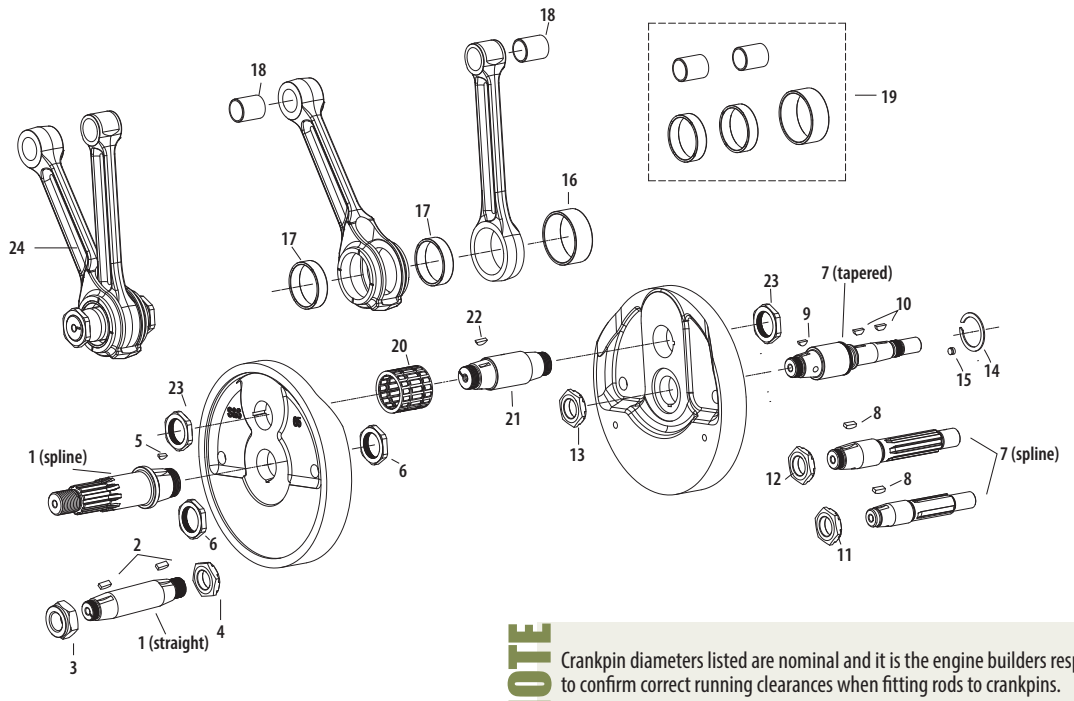
11. Pinion Shaft Nut **33-2359**
12. Pinion Shaft Nut **33-2031**
13. Pinion Shaft Nut ..... USA USA 1,2 **33-2034**
14. Bearing Retaining Ring 11177A **50-8057**
- *5 pack* **50-1004**

15. Meter Plug
- .0625" hole ..... USA **50-8316**
- .0925" hole ..... USA USA 1,2 **50-8317**
- no hole ..... USA USA 3 **50-8314**

16. Front Rod Race, 1941-1984 *24356-36A* ..... USA 1,2 **34-4005**
17. Rear Rod Race *24345-36A* ..... USA USA 1,2 **34-4006**
18. Wristpin Bushing *24334-36* ..... USA USA 1,2 **34-4007**
19. Race & Bushing Set *(includes #16, 17, 18)* ..... USA **34-4040**
20. Cage and Bearing Set, Standard *24346-87A, 24385-40B* ..... USA **34-4010**
21. Crankpin
- 1937-'53 EL / 1940-'48 UL/ULH models *(includes #22 & 23)**
  - Standard **34-2001**
  - **Stepped crankpin for 1936-'52 (61") engines with stock flywheels.*
- 1941-early 1981 *(includes #22 & 23)*
  - Standard ..... USA **34-2003**
  - .001" OS **34-2007**
  - .002" OS **34-2008**
- Late 1981-1984 *(includes #10 & 23)*
  - Standard **34-2102**
  - .001" OS **34-2103**
  - .002" OS **34-2105**
  - .003" OS **34-2106**
- Late 1981-1984 Special Retro Engine *(includes #9 & 23)*
  - Standard **34-2107**
- 1941 -early 1981 Special Retro Engine *(includes #9 & 23)* **34-2009**

22. Key **50-8223-S**
23. Crankpin Nut
- 1937-'53 EL / 1940-'48 UL/ULH models **34-2005**
- 1941-early 1981 & late 1981-1984 ..... USA USA 1,2 **34-2104**
- 1941-1984 Special Retro Engine **34-2006**

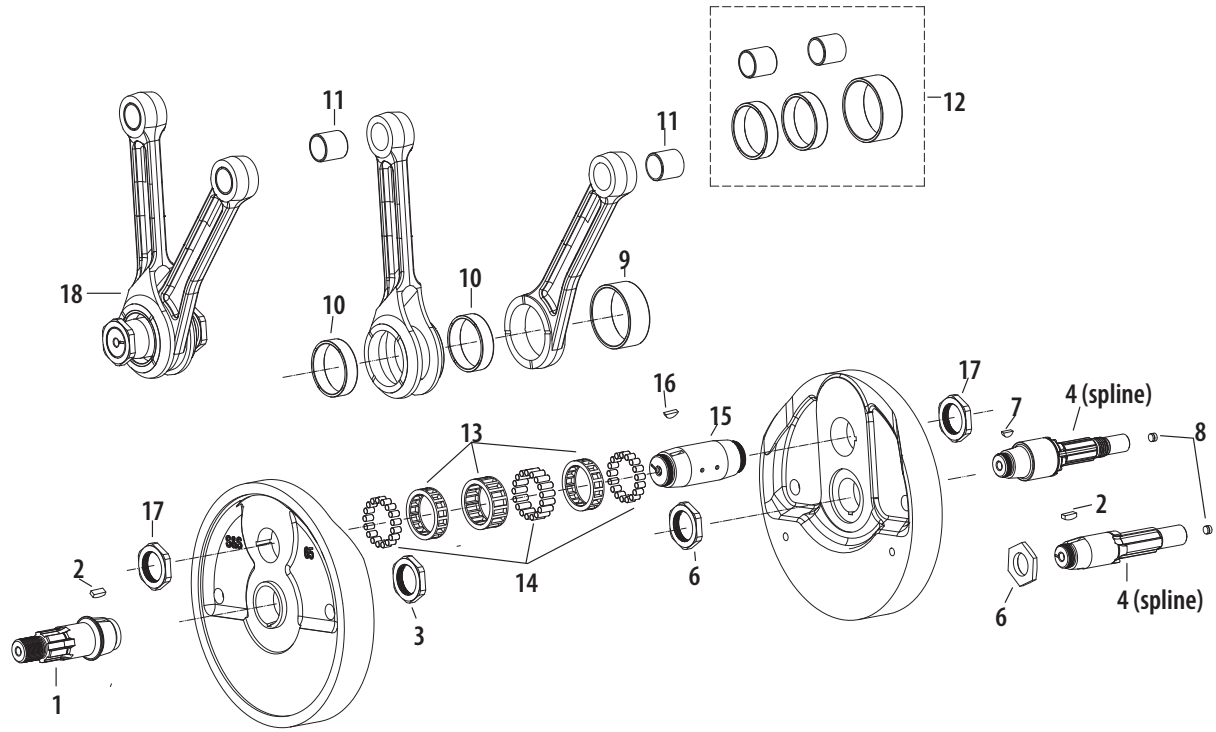
24. Connecting Rod Assembly,
- 1936-1952, Heavy Duty (Stepped crankpin) ..... USA **34-7003**
- 1941-1981, Heavy Duty ..... USA **34-7004**
- 1981-1984, Heavy Duty ..... USA **34-7011**



NOTE Crankpin diameters listed are nominal and it is the engine builders responsibility to confirm correct running clearances when fitting rods to crankpins.

FLYWHEEL REPLACEMENT PARTS
FOR 1957-'85 XL ENGINES

1. Sprocket Shaft (includes #2 & 3)
1957-1976 XL w/S&S SB flywheels **33-2301**
1977-1985 XL w/S&S D/SB/SBD/SCD/SC/SCDR/SCR flywheels **33-2302**
2. Key **50-8224**
3. Sprocket Shaft Nut **33-2331**
4. Pinion Shaft
Stock 1957-1976 XL and S&S B/SB flywheels (includes #5 & 6)
Standard **33-2321**
Stock 1977-early 1981 XL and S&S B/BD/SB/SBD/ flywheels (includes #5, 6, 8)*
Standard **33-2322**
*requires 1977-1986 main bearing
Stock late 1981-1985 XL and S&S C/SC/SCD/SCDR flywheels (includes #6, 7, 8)
6. Pinion Shaft Nut **33-2332**
7. Key **50-8222-S**
5 pack **50-1009**
8. Meter Plug - stock 1977-1985 XL and S&S B/BD/SB/SBD/C/S/SCD/SCDR flywheels
.0626" **50-8316**
9. Front Rod Race **34-4505**
10. Rear Rod Race (one) **34-4506**
11. Wrist Pin Bushing **34-4507**
12. Race & Bushing Set (includes #9, 10, 11)
1957-1985 XL (all stock) and all S&S rods **34-4540**
13. Alloy Bearing Cage Set **34-4520**
14. Bearing Set (std.) **34-4521**
15. Crankpin (std.)
1957-early 1981 XL w/ S&S connecting rods (includes #16 & 17)
Standard **34-2503**
Late 1981-1985 XL w/ S&S connecting rods (includes #7 & 17)
Standard **34-2602**
.001" OS **34-2603**
.002" OS **34-2605**
16. Crankpin Key **50-8223-S**
5 pack **50-1010**
17. Crankpin Nut **34-2504**
18. Connecting Rod Assembly
1957-early 1981 XL (stock bore) 7.440" rod length
Heavy Duty **34-7500**
Supreme **34-7710**
Late 1981-1985 XL (stock bore) 7.440" rod length
Heavy Duty **34-7510**
Supreme **34-7730**

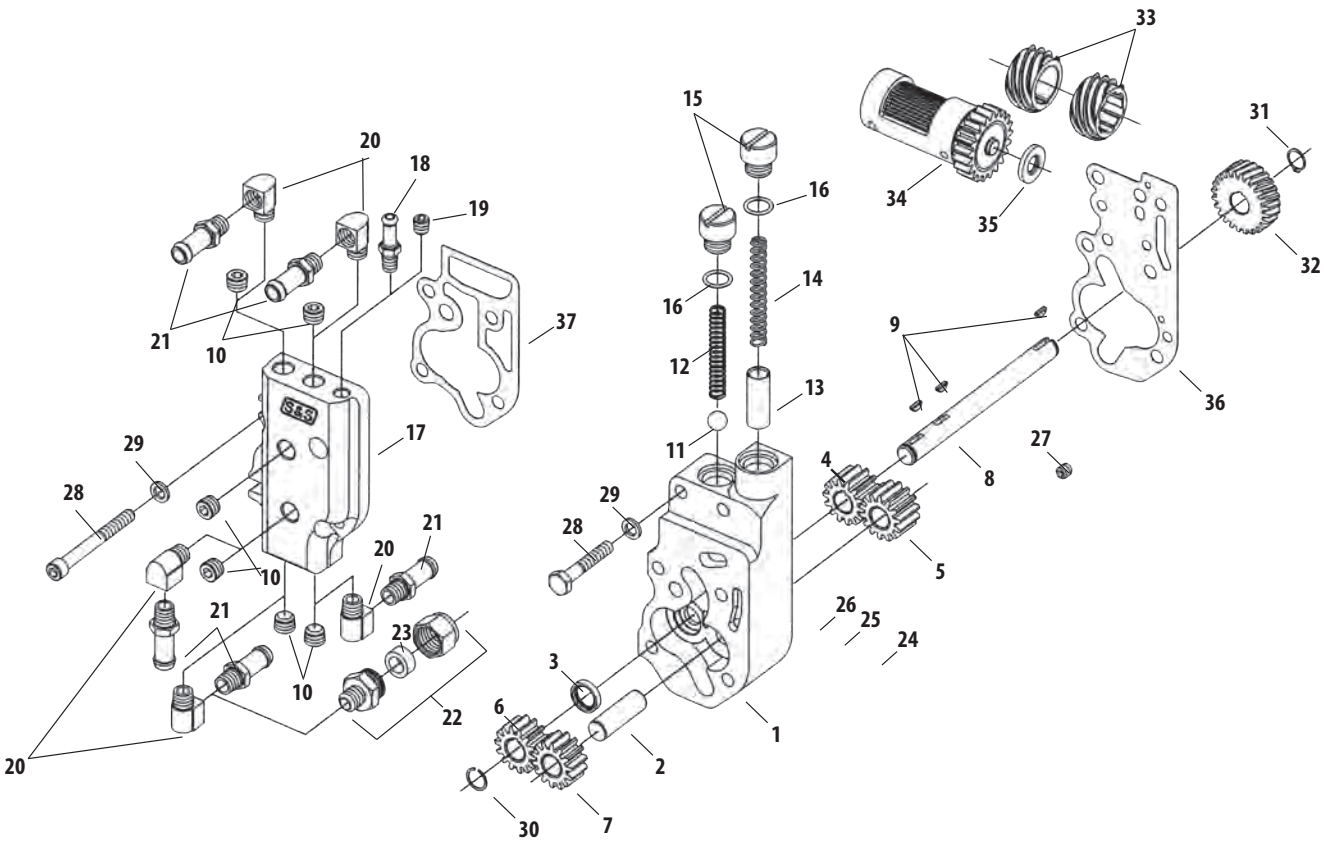


STANDARD BILLET OIL PUMP KIT REPLACEMENT PARTS

1. Pump body assembly
A. Fits 1936-'69 ..... **31-6048**
B. Fits 1965-'69 ..... **31-6049**
C. Fits 1970-'91 ..... **31-6050**
2. Shaft, idler ***26327-68*** ..... USA **31-6004**
3. Seal, drive shaft ***26227-58*** ..... USA **31-6005**
4. Gear, return drive ***26315-68A*** ..... USA **31-6013**
5. Gear, return idler 26317-68A ..... USA **31-6014**
6. Gear, supply drive ***26328-74, 26320-36*** ..... USA **31-6015**
7. Gear. supply idler ***26326-62A*** ..... USA **31-6016**
8. Shaft, drive ***26346-70*** ..... USA 1,2,3 **31-6011**
9. Key, drive shaft ***26347-15*** *each* **50-8220-S**
10 pack **50-8229**
10. Plug, ⅛"-27
each **50-8331A**
10 pack **50-1015**
11. Check ball valve ***8866, 8873*** ..... USA 1,2,3 **50-8091**
12. Spring, check valve ***26363-36, 26363-56, 26262-80***
each **31-6022**
10 pack **31-6092**
13. Relief valve ***26400-82, 26400-82B*** **31-6082**
14. Spring, relief valve ***26207-83***
each **31-6018**
10 pack **31-6084**
For S&S KN-Series engines *(each)* **106-4679**
15. Screw, check valve & relief valve cover
26263-80, 26362-36 *each* **31-6021**
5 pack **31-7005**
16. O-ring ***11105, 11273*** *(each)* **50-8008**
10 pack **50-8078**
17. Pump cover assembly
A. Pre-1992 (Top or bottom fittings; accepts pressure gauge.)
31-6041 ..... **31-6059**
B. Pre-1992 (Custom bottom fittings only.) ***31-6045*** **31-6060**
18. Fitting, front chain hose **50-8116**
19. Plug, pipe 1⁄16"-27 x ¼" pipe ..... USA 3 **50-8332**
20. Elbow, supply/return ***26338-68, 26561-84A, 26561-81A, 26338-68A***
each **106-2682**
5 pack **50-1007**
21. Fitting, supply/return hose ..... USA 1,2,3 **50-8115**
22. Return fitting, compression ***(HD® #63523-92)*** ..... USA 1,2,3 **50-8120**
23. Seal, tubing, ⅜" x ½" O.D. x ¼" Viton **50-8271**
24. Screw, chain oiler adjusting
63610-70, 63614-72, 26383-32 ..... **31-6026**
25. Locknut, chain oiler *each* ***7634, 7638*** **50-5000**
26. Washer, chain oiler adjuster ***(HD® #6156)***
each **50-7008**
27. Plug, ¼"-20 ..... **50-0069**
2 pack **50-0069P**
28. Screws, mounting
A. ¼"-24 x 1½" - 1936 -'78 (HHCS)
each **50-0082**
B. ¼"-24 x 2¼" - 1936 -'78 (HHCS) ***(HD#5430W)***
each **50-0088**
C. ¼"-20 x 1½" - 1979-'99 (HHCS) **50-0080**
D. ¼"-20 x 2¼" - 1979-'99 (SHCS) ***4717A*** **50-0078**
E. ¼-20 x 1-½" - 1979–'99 (SHCS) ***4718A*** **50-0079**
29. Washer, ¼" *(each)* **50-7017**
12 pack **50-7013**
30. Retaining ring ***#695-36, 26348-36*** *each* **50-8058**
10 Pack **50-8106**
31. Retaining ring, external 11002 *each* **50-8059**
10 Pack **50-8107**
32. Gear, pump drive, 24T ***26345-73*** **33-4230**
33. Gear, pinion shaft pump drive
A. 1939-'53 splined **33-4237**
B. 1954-'89 ***26349-73, 26349-73A*** **33-4232**
34. Gear, Steel breather valve
1936-Early 47
Standard ***25300-36*** **106-5070**
+.030" **106-6012**
1948-Early 77
Standard ***25313-73*** **33-4246**
+.030" **33-4247**
Late 1977-99
Standard ***25310-82A, 25313-77B, 25311-90*** **33-4241**
+.030" **33-4242**
35. Shim Steel Breather Kit
8 pack (Includes one of each thickness) **33-4249**
35a. .+.100" thick **33-4200**
35b. .+.110" thick ***25320-79*** **33-4201**
35c. +.120" thick ***25322-79*** **33-4202**
35d. +.130" thick ***25325-79, 25320-82*** **33-4203**
35e. +.140" thick ***25322-82, 25327-79*** **33-4204**
35f. +.150" thick ***25325-82*** **33-4205**
35g. +.160" thick ***25327-82*** **33-4206**
35h. +.170" thick. **33-4207**
36. Gasket rebuild kit (N/S) *Includes key and retaining ring.*
A. 1936-'91 ..... **31-6271**
37. Master rebuild kit - (N/S)
Includes: gasket rebuild kit, seal, retaining ring, relief valve spring, check valve spring, check valve, ball, and cover screw o-rings.
A. 1936-'91 ..... **31-6275**
38. Drill jig, oil pump (N/S) **53-0013**
39. Oil pump mounting hardware kit (N/S) **31-6288**
40. Hardware kit, oil pump cover (N/S) **31-6283**
41. Primary chain oiler screw kit (N/S) **31-6291**

(N/S) = Not Shown

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.


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GENERATOR STYLE GEARCOVER REPLACEMENT PARTS

1. Gearcover assembly – (See 417)

2. Gasket, Gear cover
- Stock crankcases, 1936-'69 ***25225-36C*** **106-2072**
- S&S crankcases, 1936-'69 ***25225-36A*** **31-2030**

3. Bushing, cam, 1936-'69 ***25581-36*** **31-4025**

4. Bushing, pinion shaft
- 1954-'72 ***25582-54A, 22582-73*** **31-4020**
- 1936-'53 ***25582-36*** **31-4029**

5. Screw, gear cover mounting
- Stock crankcases
  - Slotted countersunk, oval, ¼-24 x 1⅛", cadmium ***2341HW, 2341*** *each* **106-2013**
- S&S crankcases
  - SHCS ¼"-20 x ⅞" **50-0025**
  - Slotted countersunk ¼"-20 x 1⅛" **106-4732**

6. Washer (S&S crankcases only) .260" x .425" x .060 chrome
- *each* **50-7017**
- *12 pack* **50-7013**

7. Generator bolt
- Stock crankcases
  - HH countersunk, 5⁄16"-24 x 3¼" cadmium **106-2107**
  - Slotted countersunk oval ¼ "-24 x 3" ***(each)*** **106-3814**
- S&S crankcases
  - SHCS 5⁄16"-24 x 2¾" **50-0017**

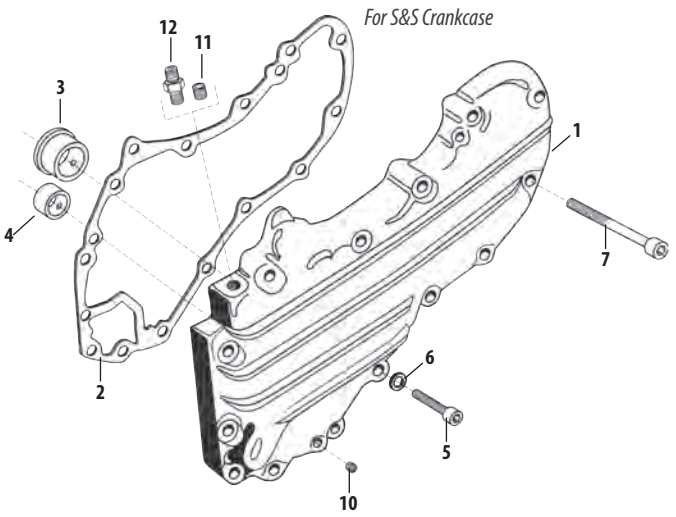
8. Oil passage screw, slotted hollow, includes nylon washer, 1963-'65 BT **106-2014**

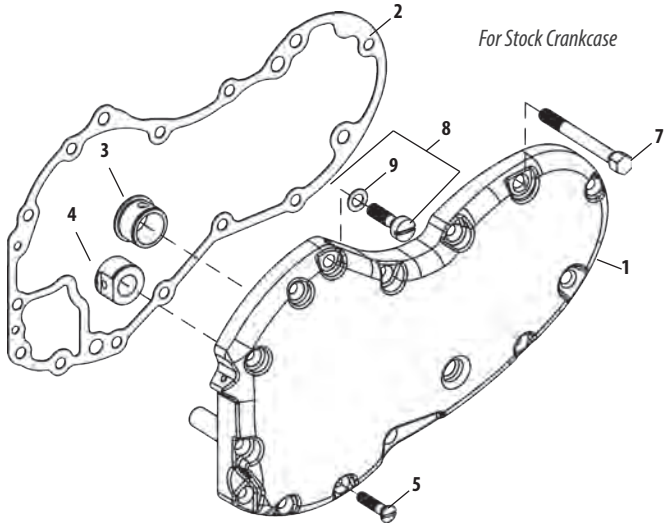
9. Washer, flat, 5⁄16" x 9⁄16" x .025" white nylon ..... **N/A**

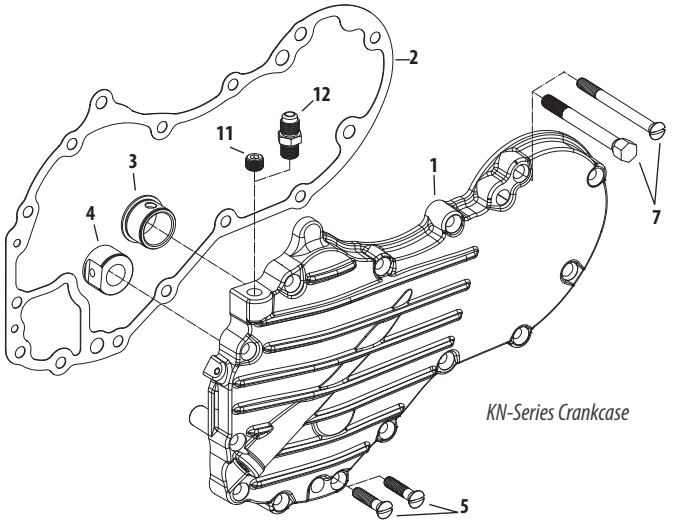
10. Screw, SHS – ¼"-20 x 3⁄16" **50-0024**
- *2 pack* **50-0024P**

11. Pipe plug, SH ⅛"-27 ***each*** **50-8331A**
- *10 pack* **50-1015**

12. Oil line fitting ***17330-42*** **106-4734**







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GEARCOVER KIT REPLACEMENT PARTS

1. Gearcover assembly – (See 418)

2. Gasket, gearcover
1970-'99 BT ***25225-93A, 25225-93B, 25225-70C, 25257-80***
each **31-2107**
10 pack **106-0232**

3. Outer Cover for Cast Gearcovers 1970-99 bt
3a. Flanged type - steel, chrome. ..... **N/A**
3b. Flanged type - billet **31-0241**
3c. Flangeless type - chrome **31-0238**
3d. Flangeless type - black ..... **N/A**

4. Gasket, outer cover - 1970-'99 BT
Flanged type *each* **31-0218**
5 pack **31-0256**
Flangeless type *each)* **31-0237**
5 pack **31-0261**

5. Ignition cover, inner - 1970-'99 BT
Flanged type ***32504-80*** **31-0215**
Flangeless type **31-0235**

6. Gasket, ignition cover - 1970-'99 BT
32591-80, 32591-70 *each* **31-0225**

7. Ignition cover, outer - 1970-'99 BT
Chrome, billet S&S Logo **31-0332**

8. Screw, RSH - 8-32 x ½" *(replaces stock rivets)*
Stainless Steel *each* **50-0048**
Chrome *each* **50-0266-S**

9. Screw, SH
10-24 x ⅜" - chrome for billet cover **50-0023**

10. Washer, flat .192" x 5⁄16" x .035"
each ***6150W*** **50-7009**

11. Screw, SH - Use in all positions
1970-'99 BT - ¼"-20 x 1¼" ***4740A, 3482A***
Zinc *each* **50-0008**
Chrome **50-0257-S**

12. Washer, flat
¼" x .474" x .050" *each* **50-7020**
¼" Flat washer, chrome, billet covers
each **50-7017**
12 pack **50-7013**

16. Wire harness clip ***38711-93*** **31-2029**

19. Cam bushing, gearcover
1970-'99 BT ***25581-70*** **31-4019**

20. Pinion shaft bushing, gearcover
1973-'99 BT ***25582-93, 25582-73*** **31-4031**

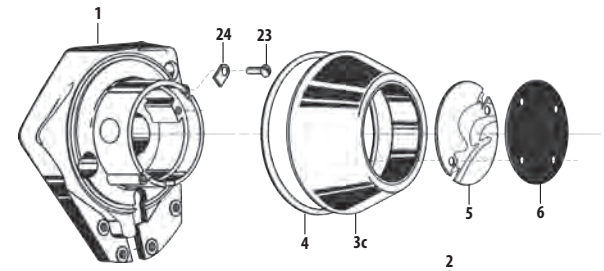
21. Gearcover oil seal 1970-'99 BT ***83162-51***
each **31-4022**

22. Screw, timing mechanism ***32606-82***
each **31-0224**
2 pack **31-0224P**

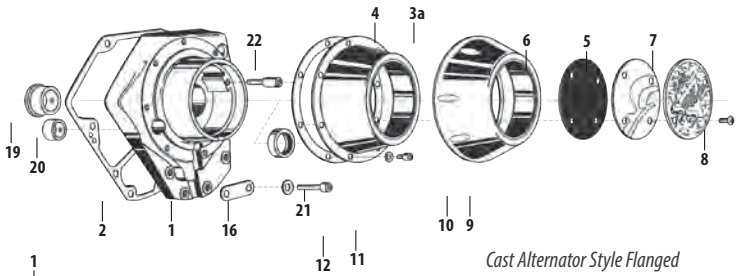
23. Screw, standard panhead 8-32 x ⅜" *each* **50-0004**

24. Clip, outer cover *each* **31-0233**

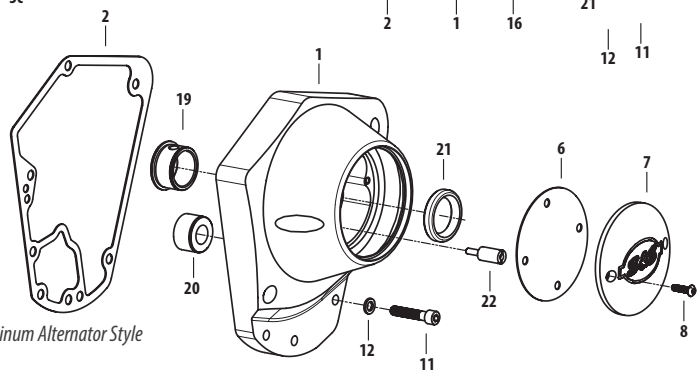
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Cast Alternator Style Flangeless



Cast Alternator Style Flanged Chrome or Billet Outer Cover



Billet Aluminum Alternator Style

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SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS
FOR 1966-'84 BIG TWIN ENGINES

1. Cylinder head (See page 426)

2. Valves
Intake
1.950" ***18075-80, 18075-81, 18078-80, 18078- 81, 18078-81*** **90-2015**
1.950" +.005" **90-2020**
Exhaust – 1948-'84 BT
1.720" ***18086-80, 18086-81, 18089-80, 18089-81*** **90-2022**
1.720" +.005" stem diameter **90-2031**

3. Valve seats
Intake – 1.940"
Standard ***18020-79, 18018-66, 18056-66B*** **90-2017**
+.002" oversize .... **N/A**
+.010" oversize **90-2117**
Exhaust – 1.750"
Standard ***18017-66, 18055-66B, 18010-79*** **90-2018**
+.002" oversize **90-2119**
+.010" oversize **90-2121**

4. Valve guide - cast - 1980-'84 BT
Intake or Exhaust
Standard *18017-66, 18055-66B, 18010-79* **90-2240**
+.001" ***18109-81A*** **90-2241**
+.002" ***18108-81A, 90-2232*** **90-2242**
+.003" ***18107-81A, 90-2233*** **90-2243**
+.004" ***18106-81A, 90-2234*** **90-2244**
+.006" ***(HD® #18110-81A)*** **90-2246**
+.060" **90-2249**

5. Valve guide seal – intake or exhaust
1981-'84 BT ***18000-81*** *each* **90-2019**
8 pack **90-2157**

6. Valve spring shim - Late 1981-'84 BT
.005" x .765" x 1.500" **50-7121**
.015" x .765" x 1.500" **50-7122**
.025" x .765" x 1.500" **50-7123**

7. Valve spring kit – Late 1981-'84
(Includes springs, top & bottom collars, keepers shims)
.590" lift - steel top collars **90-2063**

8. Valve spring keeper – intake or exhaust
1936-'84 BT ***18228-36*** *each* **90-2037-S**
8 pack **50-7165**

9. Screw, SH - 5/16"-18 x 1" ***(HD® #2708A)*** **50-0101**

10. Lock washer - 5/16" ***(HD® #7041)*** **50-7032**

11. Exhaust pipe gasket - 1966-'84 BT ***(HD® #653834-68A)*** **93-1004-S**

12. Head mount bolt - 7/16"-14 x 1¼" ***(HD® #3782)*** *each* **50-0171**

13. Flat washer - 7/16" x 15/16" x 1/8" ***(HD® #6495HW)*** **50-7064**

14. Rocker cover mounting screw - 1966-'84 BT
Hex head - 5/16"-18 x 1½" ***(HD® #2818)*** *each* **50-0109**
Hex head - 5/16"-18 x 2½" ***(HD® #3501)*** *each* **50-0104**

15. Flat washer - 5/16" ***6320, 70907-07, 6016, 6702*** **50-7034**

16. Rocker cover gasket 1966-'84 BT ***17540-69, 17540-69A***
each **90-4040**
10 pack **90-4064**

17. Intake manifold (See page 441)

18. Manifold seal
O-ring - 1955-'78 BT ***27060-55***
each **50-8046**
10 pack **50-8132**
Band - 1979-'84 BT ***27062-78***
each **16-0238**
10 pack **16-0245**

19. Manifold mounting clamp
O-ring type heads - 1955-'78 BT ***27063-57*** **16-0230**
Band type heads - 1979-'85 BT ***27063-80, 27063-78*** **16-0231**

20. Head bolt assembly, stainless - 1948-'84 BT
(Includes head bolt & washer.) ***6469HW***
10 pack **93-3024**
20a. Head Bolt, each **93-3024-S**
20b. Head bolt washer - 1936-'84 BT
(For part #90-3024, #90-3026 & #90-3040) **93-3025**

21. Head gasket, copper - 1966-'84 BT
3 7/16" & 3½" bore ***16770-66B*** *each* **93-1041**
10 pack **93-1061**
3⅜" bore *each* **93-1042**
10 pack **93-1062**

22. Fitting, oil return, 1/8"-27 pipe ***63533-65, 63533-41A*** **31-2019**

23. Plug, oil return, 1/8"-27 pipe *each* **50-8331A**
10 pack **50-1015**

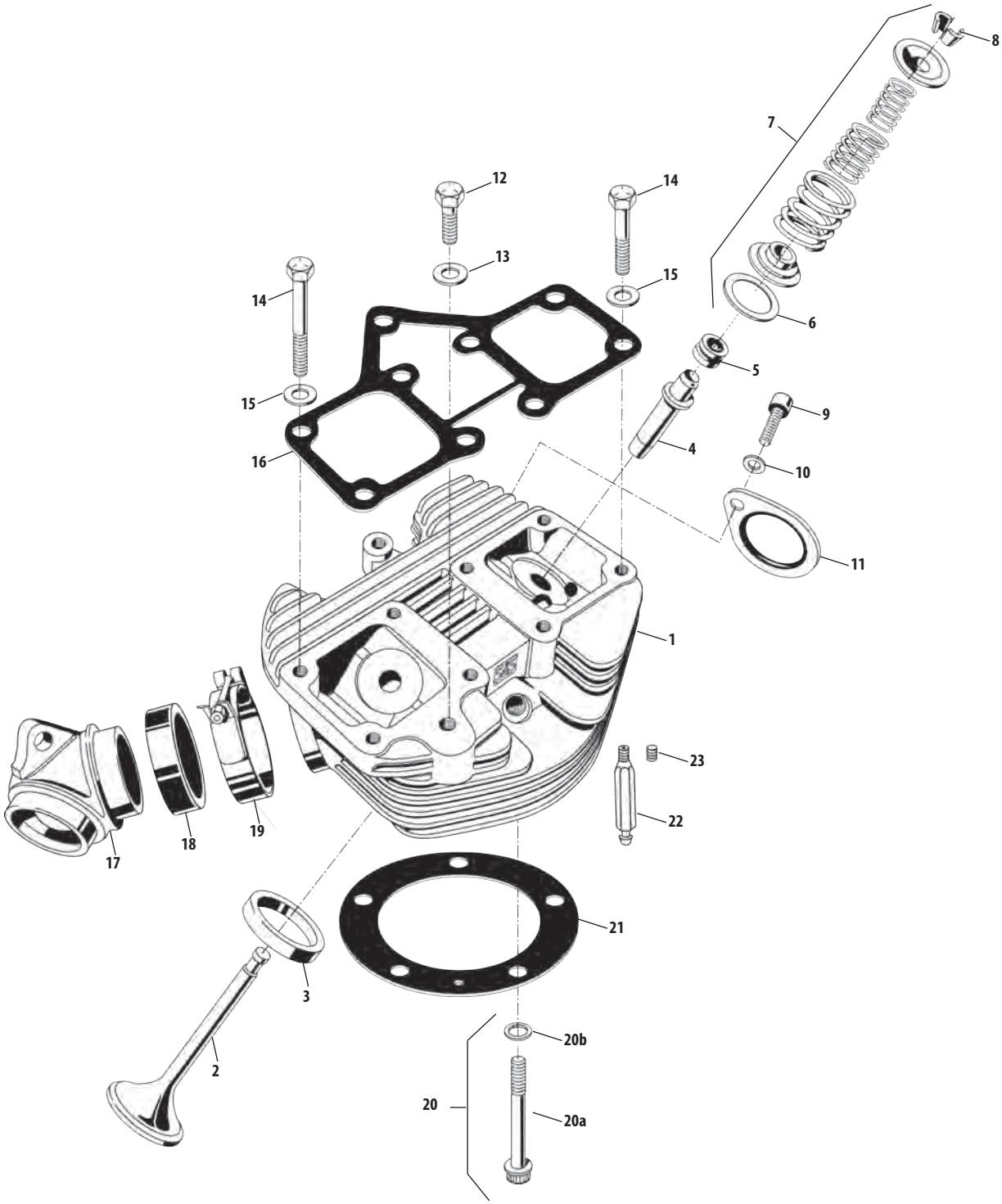
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TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

S&S Engine Family	Year Group	Bore Size	Part #
P Series/SH-Series	1966-'84	3⅜"	**90-9501**
P Series/SH-Series	1966-'84	3½"	**90-9500**

CYLINDER HEAD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

S&S Engine Family	Year Group	Bore Size	Part #
P Series/SH-Series	1966-'84	3⅜"	**90-1918**
P Series/SH-Series	1966-'84	3½"	**90-1917**



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CYLINDER HEAD REPLACEMENT PARTS
FOR P-SERIES ENGINES, PANHEAD CYLINDER HEAD AND VALVE TRAIN UPDATE KIT & SHOVELHEAD RETRO CONVERSION KIT

1. Cylinder head – (See 426)

2. Valves
Intake
1.950" *18075-80, 18075-81, 18078-80, 18078- 81, 18078-81* **90-2015**
1.950" +.005" **90-2020**
Exhaust – 1948-'84 bt
1.720" *18086-80, 18086-81, 18089-80, 18089-81* **90-2022**
1.720" +.005" stem diameter **90-2031**

3. Valve seats
Intake - 1.940"
Standard *18020-79, 18018-66, 18056-66B* **90-2017**
+.002" oversize ..... **N/A**
+.010" oversize **90-2117**
Exhaust - 1.750"
Standard *18017-66, 18055-66B, 18010-79* **90-2018**
+.002" oversize **90-2119**
+.010" oversize **90-2121**

4. Valve guide - cast - 1980-'84 bt
Intake or Exhaust (see valve guide diameter chart)
Standard **90-2240**
+.001" *18109-81A* **90-2241**
+.002" *18108-81A, 90-2232* **90-2242**
+.003" *18107-81A, 90-2233* **90-2243**
+.004" *18106-81A, 90-2234* **90-2244**
+.006" *(HD® #18110-81A)* **90-2246**
+.060" **90-2249**

5. Valve guide seal – intake or exhaust 1981-'84 bt *18000-81*
each **90-2019**
8 pack **90-2157**

6. Valve spring shim - Late 1981-'84 bt
.005" x .765" x 1.500" *each* **50-7121**
.015" x .765" x 1.500" *each* **50-7122**
.025" x .765" x 1.500" *each* **50-7123**

7. Valve spring kit – Late 1981-'84
(Includes springs, top & bottom collars, keepers shims)
.590" lift - steel top collars **90-2063**

8. Valve spring keeper - Intake or exhaust1936-'84 bt
each **90-2037-S**
8 pack **50-7165**

9. Top Collar, Steel, .590" **90-2057**

10. Inner Spring, .590" **90-2054**

11. Middle Spring, .590" **90-2055**

12. Outer Spring, .590" **90-2056**

13. Bottom Collar, Steel, .590" **90-2062**

14. Screw, SHCS, 5⁄16-18 x ¾" Zinc *3275* **50-0302-S**

15. Lock washer - 5⁄16" **50-7032**

16. Exhaust pipe gasket - 1966-'84 bt *each* **93-1004-S**

17. Intake manifold (See 441)

18. Manifold seal – O-ring - 1955-'78 bt *27060-55*
each **50-8046**
10 pack **50-8132**

19. Manifold mounting clamp O-ring type heads
1955-'78 bt *27063-57* **16-0230**

20. Head bolt assembly, stainless - 1948-'84 bt
(Includes head bolt & washer) 6469HW 10 Pack **93-3024**
a. Head Bolt,12 pt,7⁄16-20 X 2-3⁄8" x 1" TD *1324-S*
each **93-3024-S**
b. Head bolt washer - 1936-'84 bt, *each* **93-3025**

21. Head Gaskets
Head, Gasket, Copper - 1966-84bt
21a. 3 7⁄16"& 3½" Bore
each 16770-66B **93-1041**
10 pack **93-1061**
Head Gasket Kit **106-1095**
21b. 3 5⁄8"Bore
each **93-1042**
10 pack **93-1062**
Head Gasket Kit **106-1096**
Head Gasket, Composite - 1948-65 bt
21c. 3 5⁄8" Bore
each **93-1019**
Head Gasket, Copper - 1948-65 bt
21d. 3 7⁄16"& 3½" Bore
each 16770-48 ..... **106-5933**
Head Gasket Kit **106-5934**
21e. 3 5⁄8" Bore
each **106-5937**
Head Gasket Kit **106-5938**

22. Rocker arm support
Front intake/rear exhaust **106-0928**
Rear intake/front exhaust **106-0929**

23. Pin, ¼" diameter x ½" *each* **50-8022**
2 pack **50-8022-2**
5 pack **50-8105**

24. Gasket, rocker cover 1948-'65 bt *each* **900-0329**
Set 117541-48 ..... **900-0339**

25. Screw, SHC #10-24 x ¾" *2674, 2675 each* **106-0913**

26. Shaft, Rocker Arm, S&S P-Series **106-0915**
4 pack **106-0916**

27. Snap ring SHF-37 3⁄8" x .050" *each* **106-0917**

28. Roller rocker arm
Set **900-4320A**
Front exhaust/rear intake *17375-66A* **900-4320FA**
Rear exhaust/front intake *17360-66A* **900-4320RA**

29. Fitting, oil return, 1⁄8"-27 pipe *63533-65, 63533-41A* **31-2019**

30. Plug, oil return, 1⁄8"-27 pipe *each* **50-8331A**
10 pack **50-1015**

31. Flat washer, .192" x 5⁄16" x .035"
each **50-7009**

Not Shown:

32. Head mount bolt - 7⁄16"-14 x 1 1⁄4"
each **50-0171**

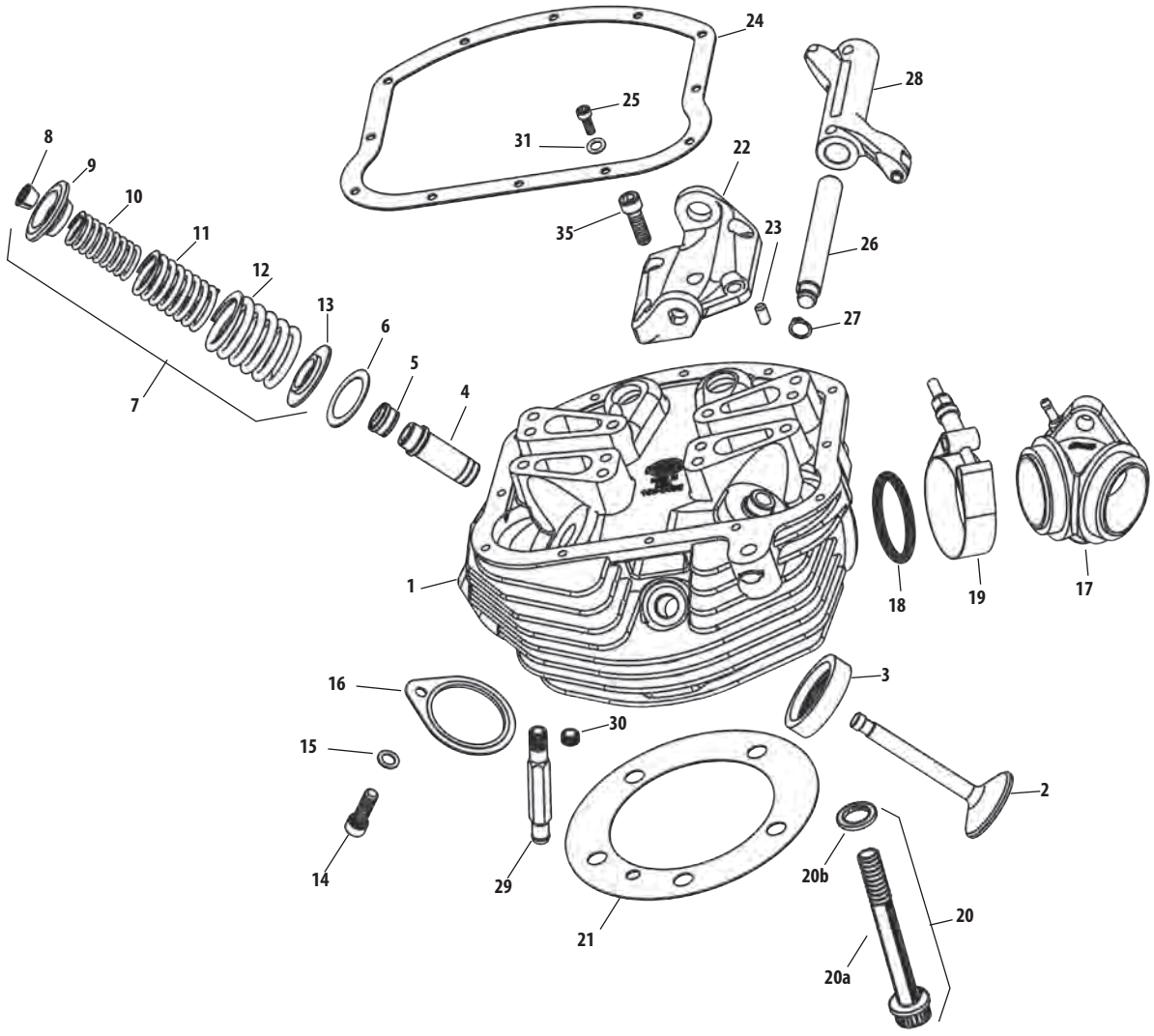
33. Flat washer - 7⁄16" x 15⁄16" x 1⁄8" *6495HW* **50-7064**

34. Cover, rocker arm, set, 1948-'65 bt *17500-48A* **106-0919**

35. Screw,SHC,5/16-18 x 1",Zinc,ASTM A574-92
3201WA, 2708 ..... **50-0101**

N/A= No longer available

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TOP END REBUILD GASKET KITS FOR S&S® ENGINES

S&S Engine Family	Year Group	Bore	Part #
P Series/SH-Series	1966-'84	3⅝"	**90-9501**
P Series/SH-Series	1966-'84	3½"	**90-9500**

VALVE GUIDE DIAMETERS FOR S&S® P AND SH SERIES ENGINES AND 1980-'84 BIG TWIN

Oversize	Diameter	Part #
Std.	.6250/.6245	**90-2240**
+.001 *18109-81A*	.6260/.6255	**90-2241**
+.002 *18108-81A, 90-2232*	.6270/.6265	**90-2242**
+.003 *18107-81A, 90-2233*	.6522/.6519	**90-2243**
+.004 *18106-81A, 90-2234*	.6290/.6285	**90-2244**
+.006 *18104-81A, 90-2236*	.6310/.6305	**90-2246**
+.060	.6850/.6845	**90-2249**

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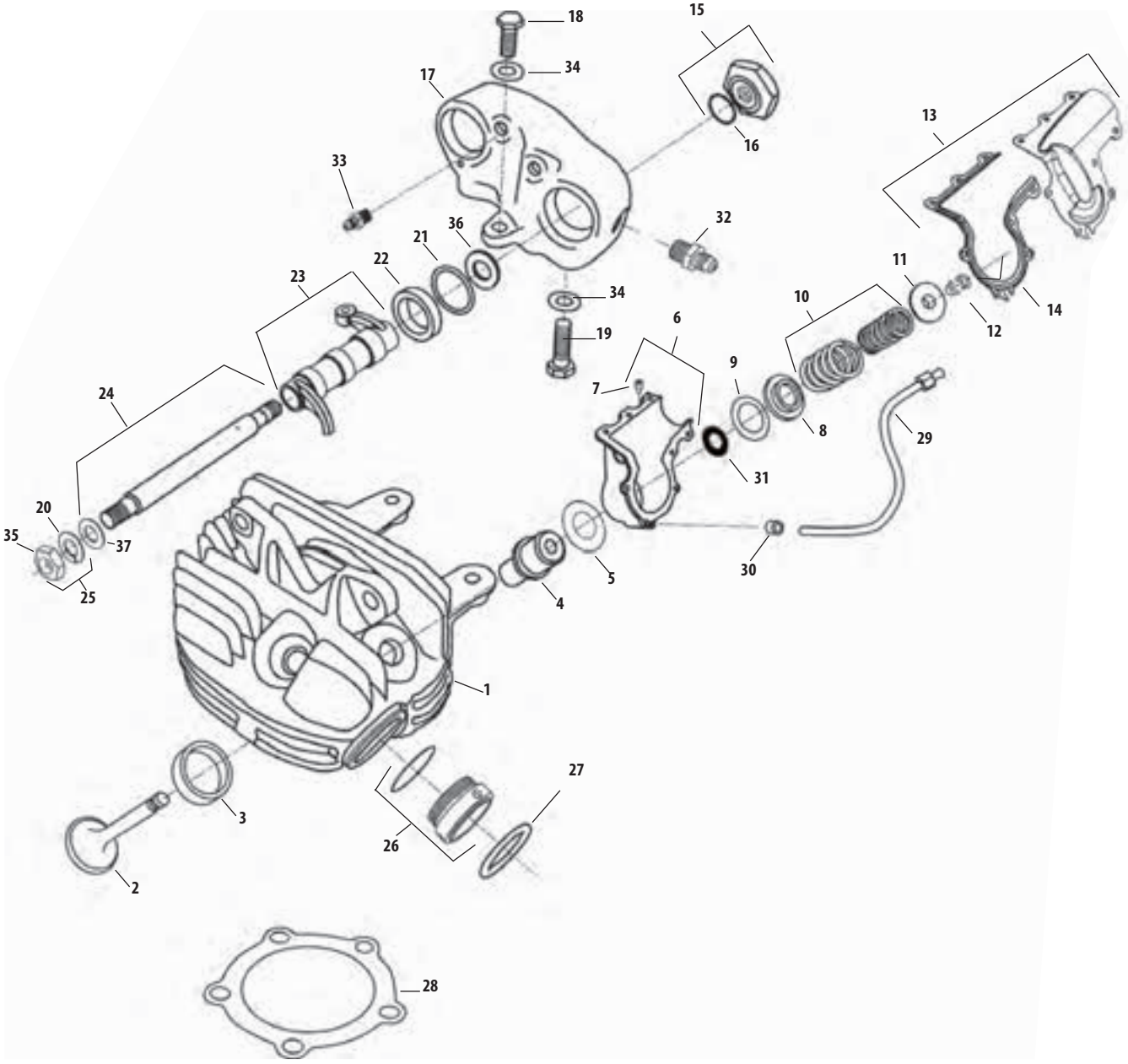
CYLINDER HEAD REPLACEMENT PARTS
FOR 1936-'47 KNUCKLEHEADS AND KN-SERIES ENGINES

1. Head, kit, .421" dual steel
For covers, gloss black
1936-'47 OHV BT; KN-Series **106-2403**
2. Valve
Intake, 1.940" **106-3630**
Exhaust, 1.750" **106-3629**
3. Valve seat
Intake, 1.940" **106-2821**
Intake/Exhaust, 1.750" **106-2822**
4. Valve guide, intake/exhaust for Stock (see valve guide diameter chart)
Standard *18185-40, 18181-36* **106-3637**
+.002" **106-3948**
+.004" **106-3638**
+.008" **106-3639**
Valve guide, intake/exhaust for S&S KN-Series
Standard **900-0526**
+.002" **900-0527**
+.004" **900-0528**
+.008" **900-0529**
5. Gasket, lower valve cover (tin), 1936-'47 OHV BT **900-0668**
6. Cover, kit, bottom, valve spring, (tins), black anodized,
(includes screws) 1938-'47 BT KN-Series **106-2401**
NOTE - bottom tins will not fit stock upper tins.
7. Screw, valve spring cover *3477* **106-3634**
NOTE - Valve spring components below are not interchangable with stock and must be used together.
8. Bottom collar, valve spring **900-0670**
9. Shim, valve spring .015" **106-4549**
10. Spring, kit, valve, dual, .421" **106-4362**
Springs only,1936-'47 OHV BT **900-0535**
11. Top collar, valve spring **106-3828**
12. Keepers, valve spring, top collar **90-2037-S**
8 Pack **50-7165**
13. Cover, kit, top, valve spring, (tins) 1938-'47 BT; KN-Series
Chrome **106-2400**
Gloss Black Powder coat **106-2893**
Silver Powder coat **106-4346**
NOTE - top tins will not fit stock bottom tins.
14. Gasket, kit, valve spring cover, top, S&S only **106-3166**
15. Nut, rocker shaft, with o-ring, chrome 1936-'47 OHV BT
17447-36 each **106-4355**
16. O-ring,(-017),.676" ID x .816" OD,Black, ... **50-0466**
17. Housing, rocker arm, (knuckles) ,1936-'47 OHV BT
Set, Polished **900-0617**
Front, Polished **900-0618**
Rear, Polished **900-0619**
Set, As Cast **900-0622**
Front, As Cast *(HD® #17300-36)* **900-0623**
Rear, As Cast *(HD® #17310-41, 17310-36)* **900-0624**
18. Screw, HHCS, ⅜-16 x 1"– Cadmium plated **106-4597**
19. Screw, HHCS, ⅜-16 x 1½"– Cadmium plated **106-4598**
20. Washer,Lock,7/16",Zinc **106-4357**
21. Washer, packing 1936-'47 OHV BT *17482-36* **106-4358**
22. Seal, rocker arm, 1936-'47 OHV BT *17475-38* **106-3636**
23. Rocker arm, non-roller, 1:1 ratio, 1936-'47 OHV BT; KN-Series
(Includes shaft kit) Set of four **106-2412**
Front Intake w/shaft **106-2862**
Front Exhaust w/shaft **106-2863**
Rear Intake w/shaft **106-2864**
Rear Exhaust w/shaft **106-2865**
24. Shaft, set, rocker arm, 1936-'47 OHV BT; KN Series
(Set of four, Includes spacers and hardware) **106-2413**
25. Nut kit, rocker arm *7831* **106-3632**
26. Adaptor, Manifold, conversion, plumber to o-ring **106-4654**
27. O-ring, manifold *27060-55 each* **50-8046**
10 pack **50-8132**
28. Gasket, set, head, KN-Series, Copper
3 5/8" bore *(each)* **106-2681**
2 pack **106-2432**
3 7/16" bore **106-2689**
29. Oil line, Return 1936-'47 OHV BT ***(S&S Tins Only)***
Kit of 4 ..... **106-4446**
Front Intake **106-4447**
Front Exhaust **106-4448**
Rear Intake **106-4449**
Rear Exhaust **106-4450**
30. Seal, Oil Return Line, FHP tins only
28" OD x .18" ID x 1", Rubber Hose **106-4456**
31. O-ring **900-0669**
32. Oil supply fitting, Cad Plated *17325-42* **106-4618**
33. Oil return fittings, Parkerized *17320-38* **106-4619**
34. Washer, Lock, .385" x .680" x .094",Zinc **50-7052**
35. Nut, Jam, 7/16-20, Zinc **106-4356**
36. Washer, Thrust, Stepped,.015" *17465-36* **106-4352**
37. Washer, Thrust, Stepped, .060" **106-4883**

Parts Not Shown:

38. Manifold, kit, o-ring, 1⅞", VOES, KN93 ..... **106-4530**
39. Gasket, kit, engine, KN-Series, with hardware **106-2414**
40. Pushrod, set, non-adjustable, KN93, steel
1936-'47 OHV BT **930-0009**
41. Cover keeper, kit, pushrod,
KN93 *17949-40, 17950-66* **93-4106**
42. Oil line, supply, "Y" feed, 1936-'47 OHV BT
Stock 74", KN74, KN93, S&S/Stock Carb **106-4670**
43. Bottom collar spacer – required when using S&S valve springs
with stock steel "tins" **106-5094**
44. Rocker arm cover gasket kit, 1936-'47 big twin **900-0493**

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VALVE GUIDE DIAMETERS FOR S&S KN SERIES ENGINES AND 1936-'47 OHV BIG TWIN

Oversize	Diameter	Part Number
Std.	.6442/.6439	**900-0526**
+.002	.6462/.6459	**900-0527**
+.004	.6482/.6479	**900-0528**
+.008	.6522/.6519	**900-0529**

BILLET ROCKER COVER REPLACEMENT PARTS
FOR 1966-'84 BIG TWIN ENGINES

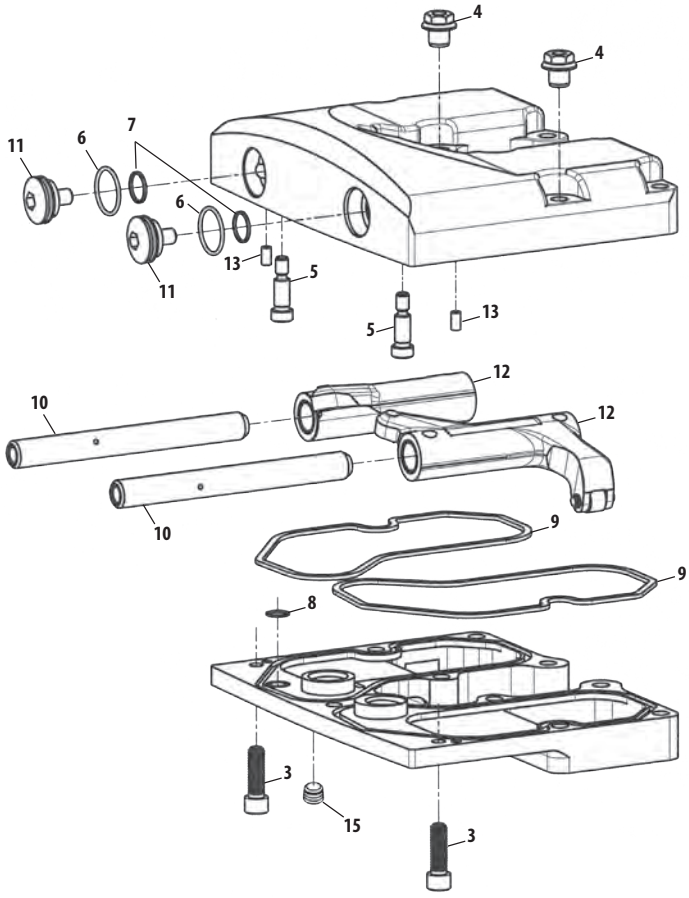
1. Rocker cover, assembly front ..... **N/A**
2. Rocker cover, assembly rear ..... **N/A**
3. Screw, SHS **50-0294-S**
4. Nut, HFH 5/16" UNC **50-8187-S**
5. Screw, SHS **50-0318-S**
6. O-ring, Viton® -019 each **50-7962-S**
7. O-ring, Viton 1.00 mm CS x 14.00mm **50-7963-S**
8. O-ring, front, Viton 1.00mm CS x 9.50mm ID **50-7965-S**
O-ring, rear, Viton 1.00mm CS x 11.00mm ID
10 pack **50-7966**
9. O-ring, Viton -160 ..... **50-7961-S**
10. Rocker shaft set (For S&S rocker covers only.)
Set **90-4351**
Individual **90-4350**
11. Plug, rocker arm shaft *(4 pack)* **50-8340**
12. Roller Rocker arm 1966-'84 big twin
Set **900-4320A**
Front *17375-66A* **900-4320FA**
Rear *17360-66A* **900-4320RA**
13. Dowel pin,.187" x .635",Steel **50-8031**
10 pack **50-1015**
14. Gasket kit, S&S billet rocker covers (Not Shown) **90-4311**
15. Plug, SH pipe - 1/8-27 ..... **50-8331A**
10 pack **50-1015**

ROCKER SHAFT AND OIL LINE SEALS
Rocker Shaft Seal

S&S SH-Series and 1966-'84 bt with stock rocker covers (N/S) ... **50-8073-S**

Oil Line Seal – S&S SH-Series and 1966-'84 bt using outside oil lines (N/S)
..... **50-8074-S**

(N/S) = Not Shown



NOTE

Since top cover and base are machined together, replacements are only sold as assemblies to prevent mismatch of polished surfaces.

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SUPER B CARBURETOR
REPLACEMENT PARTS

1.	Throttle return spring	**11-2082**
2.	Throttle plate screw	
	11-2045 each	**50-0055-S**
	10 pack	**50-0064**
3.	Throttle shaft	
	Comes with two throttle plate screws	**11-2083**
4.	Throttle shaft bushing	
	(For repair only)	**11-2134**
5.	Enrichment device	**11-2084**
6.	Carb body	**11-2081**
7.	Idle mixture screw *each*	**11-2354**
	5 pack	**11-2378**
8.	Idle mixture screw spring *each*	**11-2052**
	10 Pack	**11-2060**
9.	O-ring – 1⅞" *16-0056*	**50-8013**
10.	Throttle plate – 1⅞"	**11-2055**
11.	Throttle arm assemble two cable type	
	(includes #25,26,27,28)	**11-2148**
12.	Intermediate jet – See chart on page 446	
13.	Main discharge tube	**11-2085**
14.	Main jet – See chart See chart on page 447	
15.	Bowl gasket each	**11-2086**
	10 pack	**11-2091**
16.	Float	
	Wire type	**11-2187**
	Forked type	**N/A**
17.	Float retaining pin	**11-2069**
18.	Bowl	
	For wire type float	**11-2188**
	For forked type float	**N/A**
19.	Needle	
	For wire type float	**11-2195**
	For forked type	**11-2095**
20.	Seat – For wire or forked type float	**11-2065**
21.	Bowl plug *each*	**11-2090**
	5 pack	**11-2092**
22.	Bowl screw *each*	**50-0034**
	10 Pack	**50-0063**
23.	Spacer,Kit,Carb,1-⅞" x 1"	**16-0057***
	Spacer,Kit,Carb,2-1⁄16" x 1"	**16-0357***
	Spacer,Kit,Carb,2-¼" x 1"	**16-0157***
24.	Screw,	
	1" x ⅜"-16	**50-0161**
	1¼" x ⅜"-16	**50-0162**
	10 pack	**50-0177**
	1⅜" x ⅜"-16	**50-0163**
	5 pack	**50-0178**
	2" x ⅜"-16	**50-0164**
	5 pack	**50-0185**
25.	Spring,Idle/Accelerator Pump,Super B/D/E	**11-2048**
26.	Screw,SLTD FH,8-32 x ⅞",Zinc,Steel	**50-0038**
	10 pack	**50-0150**
27.	Screw,SLTD FH,8-32 x 5/8",Zinc,Steel	**50-0039**
	10 pack	**50-0146**
28.	Screw,SLTD FH,8-32 x 5⁄16",Zinc,Steel	**50-0030-S**
29.	Tube Fast Idle Pickup .125" x 2.350"	**0381F**

CARBURETOR REBUILD KITS

Master Rebuild Kit

Super B

(includes #1, 2, 3, 4, 7, 8, 9, 10, 15, 17, 19 ,20, 22, 25, 26, 27, & 28) **11-2914**

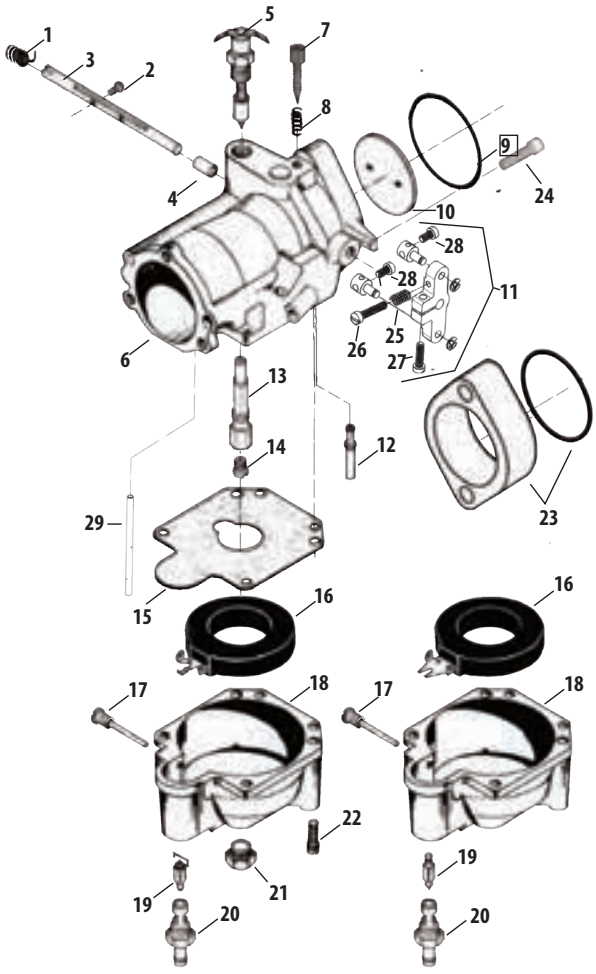
Body Rebuild Kit

Super A/B

11-2903

CARBURETOR KIT	
Fully-assembled carburetor	**11-0111**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



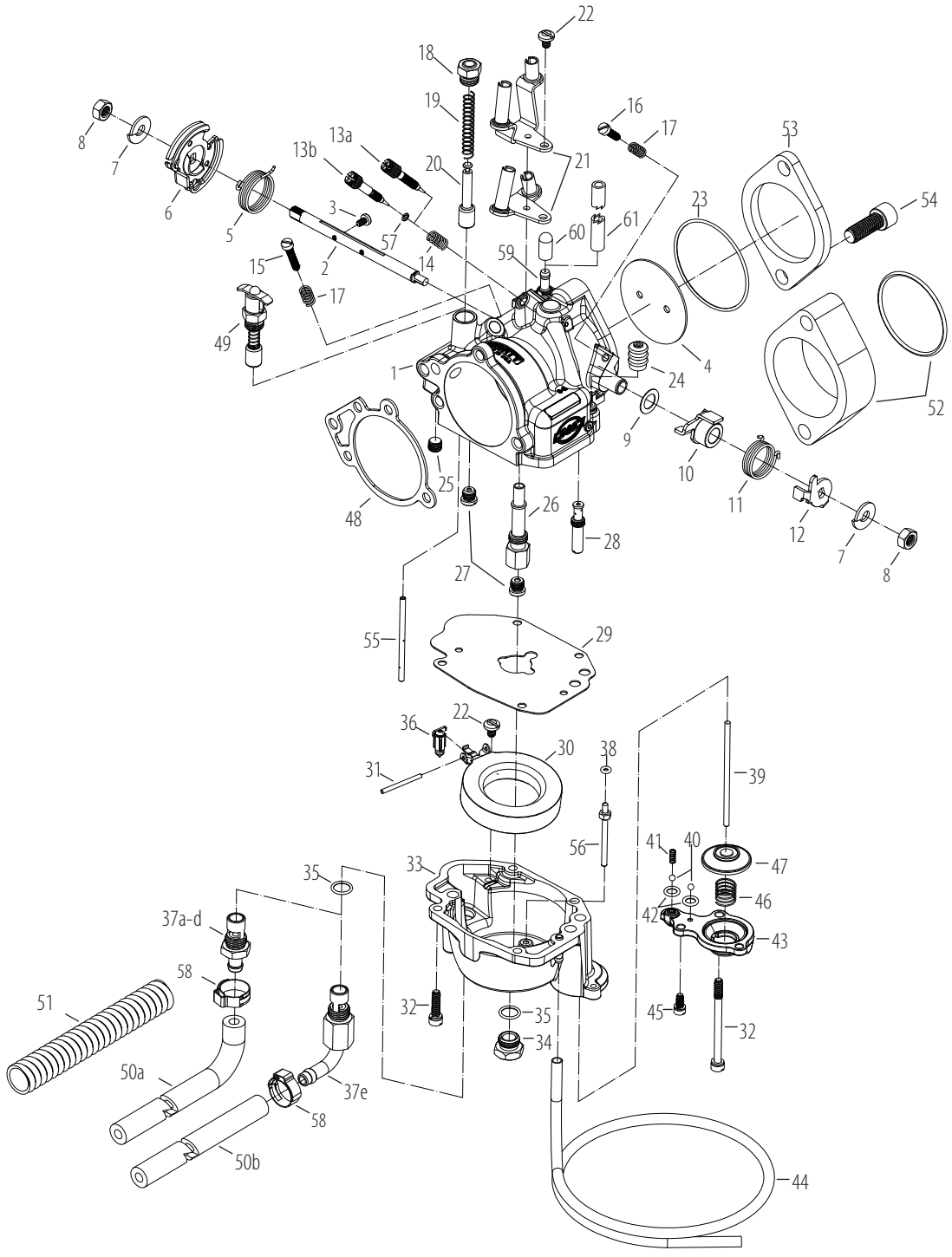
NOTE

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1 . . . . . .025"
2 . . . . . .028"
3 . . . . . .031"
4 . . . . . .033"
5 . . . . . .036"
6 . . . . . .040"

SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly
1⅞" Super E **11-2381**
2⅛" Super G **11-2391**
2. Throttle shaft
1⅞" Super E – Includes two plate screws **11-2383**
2⅛" Super G – Includes two plate screws **11-2483**
3. Throttle plate screw ***11-2045-*** *(two required) (each)* **50-0055-S**
10 pack **50-0064**
4. Throttle plate
1⅞" Super E **11-2055**
2⅛" Super G **11-2355**
5. Throttle return spring *(each)* **11-2382**
5 Pack **11-3502**
6. Throttle spool **11-2385**
7. Throttle shaft lock washer *(two required)* **50-7031**
8. Throttle shaft nut *(two required) (each)* **11-2350**
5 pack **11-2363**
9. Throttle shaft nylon washer *(each)* **50-7050**
10 pack **50-7072**
10. Pump actuator lever **11-2376**
11. Actuator spring *(each)* **11-2375-S**
5 pack **11-3501**
12. Pump actuator arm **11-2377**
13. Idle mixture screw
a. Idle mixture screw, brass *(each)* **11-2354**
5 pack **11-2378**
b. Idle mixture screw only
each **110-0003**
Idle mixture screw w/ 500-0036 o-ring)
each **110-0068**
5 pack **110-0069**
14. Idle mixture screw spring *(each)* **11-2052**
10 Pack **11-2060**
15. Idle speed screw *(each)* **50-0038**
10 Pack **50-0150**
16. Pump adjustment screw *(each)* **50-0039**
10 Pack **50-0146**
17. Idle speed/pump adjuster spring *(each)* **11-2048**
10 pack **11-2053**
18. Plunger nut *(each)* **11-2344**
5 Pack **11-2372**
19. Plunger spring *(each)* **11-2340**
10 Pack **11-2359**
20. Fast idle plunger **11-2343**
21. Cable guide assembly with screw
Use with butterfly style cables **11-2339P**
Use with constant velocity style cables **11-2338P**
22. Cable clamp/float pin screw *(each)* **50-0041**
10 Pack **50-0062**
23. O-ring
1⅞" Super E *(each)* **50-8016**
10 Pack **50-8094**
2⅛" Super G *(each)* **50-8015**
10 pack **50-8093**
24. Bellows seal *(each)* **11-2266**
5 Pack **11-2279**
25. Bowl vent plug *(each)* **50-0105**
10 pack **50-0151**
26. Main discharge tube **11-2085**
27. Main jet – See Chart on 447
28. Intermediate Jets – See Chart on 446
Series #94 fits all Super 1⅞", 2⅛", 2¼" gas carburetors.
29. Bowl gasket *(each)* **11-2386**
10 pack **11-2387**
30. Float **11-2187**
31. Float pin *(each)* **11-2369**
5 Pack **11-2370**
32. Bowl screw
10-24 x ¾" - *Three required (each)* **50-0034**
10 Pack **50-0063**
10-24 x 2⅜" - *One required (each)* **50-0040**
10 Pack **50-0061**
33. Carb bowl *(only)* **11-2388**
Carb bowl complete assembly **11-2388P**
34. Bowl plug *(each)* **11-2090**
5 pack **11-2092**
35. Seat o-ring* *(required with part #11-2465 & #11-2466 only when replaces 360° style fuel inlet.)*
each **50-8009**
10 pack **50-8095**
36. Needle
1⅞" Super E & 2⅛" Super G **11-2195**
Racing only **11-2197**
37. Seat - Includes O-ring #35
(Replaces obsolete seats 11-2347 and 11-2348)
a. 1⅞" E & 2⅛" G *(Uses part #11-2195 needle)* **11-2465**
b. Racing only *(Uses part #11-2197 needle)* **11-2466**
c. Racing only -threaded fuel inlet (6AN .157" ID)
(Uses part #11-2195 needle) **11-2395**
d. Permeation Compliant fuel inlet seat Super E or G.
(Uses part #11-2195 needle) **106-2011**
38. Ejector nozzle o-ring *(each)* **50-8011**
10 Pack **50-8096**
39. Pump pushrod *(each)* **11-2373**
5 Pack **11-2393**
40. Check ball - *(two required) (each)* **50-8090**
10 pack **50-8125**
41. Check ball spring *(each)* **11-2374**
5 Pack **11-2392**
42. Pump cap o-ring - *(two required) (each)* **50-8012**
10 Pack **50-8100**
43. Pump cap assembly **11-2389**
44. Overflow hose per 24" ***27369-76*** *(each)* **19-0262-S**
5 Pack **19-0263**
45. Pump cap screw 8-32 - *(two required) (each)* **50-0042**
10 Pack **50-0098**
46. Diaphram spring *(each)* **11-2275**
10 pack **11-2278**
47. Diaphragm **11-2282**
48. Gasket, backplate *(each)* **106-1724**
10 pack **106-2328**
49. Enrichment device *(Use with air horn only)* **11-2084**
50. Fuel line
a. Fuel line With 90° bend 19" *(Use with part #11-2465 or #11-2466)*
USA 1,2,3. ..... **190-0006**
b. Permeation Compliant straight, 311" x .563" x 17.5"
(Use with part #106-2011 , 90° seat) **190-0001**
51. Fuel line insulator – 12" USA 1,2,3 ..... **19-0172**
52. Spacer, Kit, w/ O-ring
1⅞" x 1" **16-0057***
2⅛" x 1" **16-0357***
2¼" x 1" **16-0157***
* Use with 1" Spacer Block **16-0058**
53. Insulator Block,Manifold,w/ O-ring
1⅞" x ¼" Super E **16-0491**
1⅞" x ⅜" Super E **16-0497**
2⅛" x ¼" Super G **16-0492**
2⅛" x ⅜" Super G. **16-0498**
2¼" x ¼" Super D **16-0499**
54. Screw
1" x ⅜"-16 *(each)* **50-0161**
1¼" x ⅜"-16 *(each)* **50-0162**



10 pack **50-0177**
1⅜" x ⅜"-16 *(each)* **50-0163**
5 pack **50-0178**
2" x ⅜"-16 *(each)* **50-0164**
5 pack **50-0185**

55. Tube,Fast Idle Pick-Up,Super E/G,.125" x 2.350",Brass **0381F**
56. Tube,Ejector Nozzle,Super E/G,Flared,Brass. **106-6124**
57. O-ring, 3mm x 5mm x 1mm *(each)*. **500-0036**
10 pack **500-0148**
58. Clamp, ⅝" - ⅞" **50-8002**
59. Hose, Fitting straight, .040" **16-0134**
60. VOES Fitting Cap **50-8372**
61. VOES/Oil Return Hose **19-0395**

CARBURETOR REBUILD KITS
SEE PAGE 447

L-SERIES MGL & MGAL GAS CARBURETOR
REPLACEMENT PARTS

1. Carb body assembly - MGL & MGAL 1⅞" ..... **N/A**
2. Throttle shaft *(includes 2 ea. #50-0055-S)* **11-2083**
3. Choke/throttle plate screw **50-0055-S**
10 pack **50-0064**
4. Throttle plate -1⅞" **11-2055**
5. Throttle return spring **11-2082**
6. Throttle arm assembly, 1 cable ..... **N/A**
7. Intermediate plug ..... **N/A**
9. Choke lever washer ..... **N/A**
13. Idle mixture screw **11-2354**
5 pack **11-2378**
14. Idle mixture screw spring **11-2052**
10 pack **11-2060**
18. Choke lever screw ..... **N/A**
19. Choke lever spring ..... **N/A**
20. Choke plate ..... **N/A**
23. O-ring - 1⅞" **50-8013**
26. Main discharge tube ..... **N/A**
27. Main jet - state size - see 447
28. Intermediate jet ..... **N/A**
29. Bowl gasket **11-2070**
30. Float - forked type or original brass type ..... **N/A**
31. Float retaining pin **11-2069**
32. Bowl screw - 10-24 x ¾" **50-0032**
33. Carb bowl assembly
Original type ..... **N/A**
Forked type ..... **N/A**
34. Bottom plug ..... **N/A**
36. Needle - forked type **11-2095**
37. Seat - forked/wire type **11-2065**
51. Choke shaft assembly ..... **N/A**
52. Throttle shaft bushing - for repair only **11-2134**
54. Lockwasher - #10 ..... **50-7000**
55. Intermediate air bleed ..... **N/A**
56. Spring,Idle/Accelerator Pump,Super B/D/E **11-2048**
10 pack **11-2053**
57. Screw,SLTD FH,8-32 x ⅞",Zinc,Steel **50-0038**
10 pack **50-0150**
58. Screw,SLTD FH,8-32 x ⅝",Zinc,Steel **50-0039**
10 pack **50-0146**
59. Screw,SLTD FH,8-32 x 5⁄16",Zinc,Steel **50-0030-S**

CARBURETOR REBUILD KITS

Body Rebuild Kit

MGL *(includes:#2,3,4,5,23,29,52)* **11-2906**
MGAL *(includes:#2,3,4,5,23,29,52)* **11-2900**

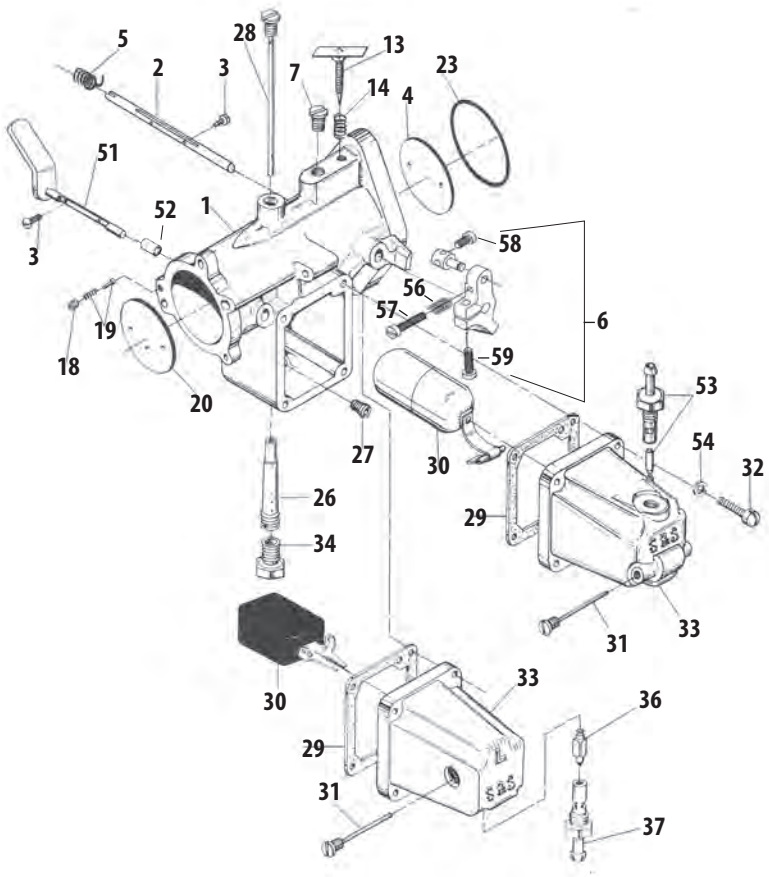
Master Rebuild Kit

MGL *(includes#2,3,4,5,13,14,23,29,31,36,37,52,56)* **11-2913**
MGAL *(includes#2,3,4,5,13,14,23,29,31,32,52,53,54,56,57,58,59)* ... **11-2911**

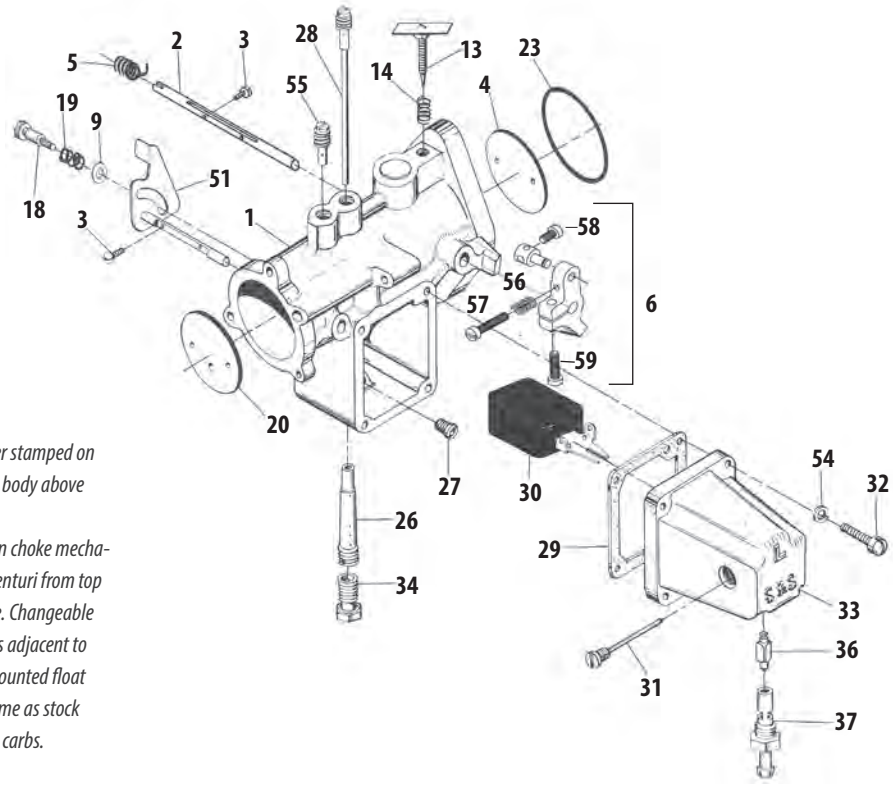
N/A = NO LONGER AVAILABLE
N/S = NOT SHOWN

NOTE

When ordering parts, please supply the carb serial number. To order a manifold or air cleaner assembly or any related parts, refer to the Manifold or Air Cleaner sections of this catalog.



L-Series MGAL Gas Carburetor
Years Produced: *1977 to 1978*
Size Produced: *1⅞" throat*
Identification Markings*: Serial number stamped on body below "S&S Cycle" - "MGAL" cast on body above "S&S Cycle"*
Distinguishing Characteristics: *Built-in choke mechanism – intermediate jet goes through venturi from top of carb down into main discharge tube. Side mounted float bowl – bowl vent/throttle cable housing boss cast on body above float bowl. Air cleaner mounting pattern same as stock Tillotson, Bendix, Keihin butterfly type carbs.*



L-Series MGL Gas Carburetor
Years Produced: *1980 to 1981*
Size Produced: *1⅞" throat*
Identification Markings: *Serial number stamped on body below "S&S Cycle" - "MG" cast on body above "S&S Cycle"*
Distinguishing Characteristics: *Built-in choke mechanism. Intermediate jet goes through venturi from top of carb down into main discharge tube. Changeable intermediate air bleed screws into boss adjacent to intermediate jet on top of carb. Side mounted float bowl. Air cleaner mounting pattern same as stock Tillotson, Bendix, Keihin butterfly type carbs.*

L-SERIES GAL & GBL GAS CARBURETOR
REPLACEMENT PARTS

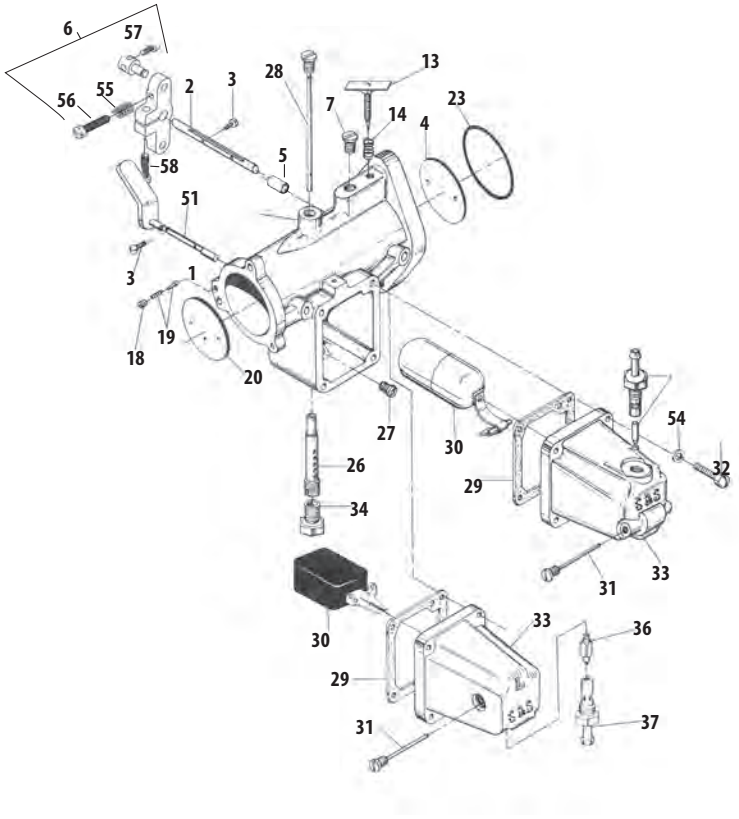
1. Carb body assembly - GAL 1⅞" or GBL 1¾" ..... **N/A**
2. Throttle shaft (includes 2 ea. #11-2045) **11-2083**
3. Choke/throttle plate screw **50-0055-S**
10 pack **50-0064**
4. Throttle plate
1⅞" (GAL) **11-2055**
1¾" (GBL) **11-2023**
5. Throttle shaft bushing - for repair only **11-2134**
6. Throttle arm assembly, 1 cable, reversible ..... **N/A**
7. Intermediate plug ..... **N/A**
13. Idle mixture screw **11-2354**
5 pack **11-2378**
14. Idle mixture screw spring **11-2052**
10 pack **11-2060**
18. Choke detent screw ..... **N/A**
19. Choke detent pin & spring ..... **N/A**
20. Choke plate ..... **N/A**
23. O-ring - 1⅞" **50-8013**
26. Main discharge tube ..... **N/A**
27. Main jet - state size - see447
28. Intermediate jet ..... **N/A**
29. Bowl gasket **11-2070**
30. Float - forked type or original brass type ..... **N/A**
31. Float retaining pin **11-2069**
32. Bowl screw - 10-24 x ¾" **50-0032**
33. Carb bowl assembly
Original type ..... **N/A**
Forked type ..... **N/A**
34. Bottom plug ..... **N/A**
36. Needle - forked type **11-2095**
37. Seat - forked/wire type **11-2065**
51. Choke shaft assembly ..... **N/A**

54. Lock washer - #10 ..... **50-7000**
55. Spring,Idle/Accelerator Pump,Super B/D/E **11-2048**
10 pack **11-2053**
56. Screw,SLTD FH,8-32 x ⅞",Zinc,Steel **50-0038**
10 pack **50-0150**
57. Screw,SLTD FH,8-32 x ⅝",Zinc,Steel **50-0039**
10 pack **50-0146**
58. Screw,SLTD FH,8-32 x 5⁄16",Zinc,Steel **50-0030-S**

CARBURETOR REBUILD KITS

Body Rebuild Kit
GAL1⅞" *(includes: #2,3,4,5,23,29,52)* **11-2900**
Master Rebuild Kit
GAL 1⅞" *(includes #3,4,13,14,23,29,31,32,52,53,54,55,56,57,58)* **11-2911**
GBL 1¾" *(includes #3,4,13,14,23,29,31,32,52,53,54,55,56,57,58)* ... **11-2912**

N/A = NO LONGER AVAILABLE
N/S = NOT SHOWN



L-Series GAL & GBL Gas Carburetors
Years Produced: *1972 to 1975*
Sizes Produced: *1¾" and 1⅞" throats*
Identification Markings: *serial number stamped on body below "S&S Cycle" – "GAL" means gas type with 1⅞" throat, late style - "GBL" means gas with 1¾" throat, late style*
Distinguishing Characteristics: *Built-in choke mechanism. Intermediate jet goes through venturi from top of carb down into main discharge tube. Side mounted float bowl. Air cleaner mounting pattern same as stock Tillotson, Bendix, Keihin butterfly type carbs*

NOTE

When ordering parts, please supply the carb serial number. To order a manifold or air cleaner assembly or any related parts, refer to the Manifold or Air Cleaner sections of this catalog.

EARLY STYLE GAS & FUEL CARBURETOR
REPLACEMENT PARTS

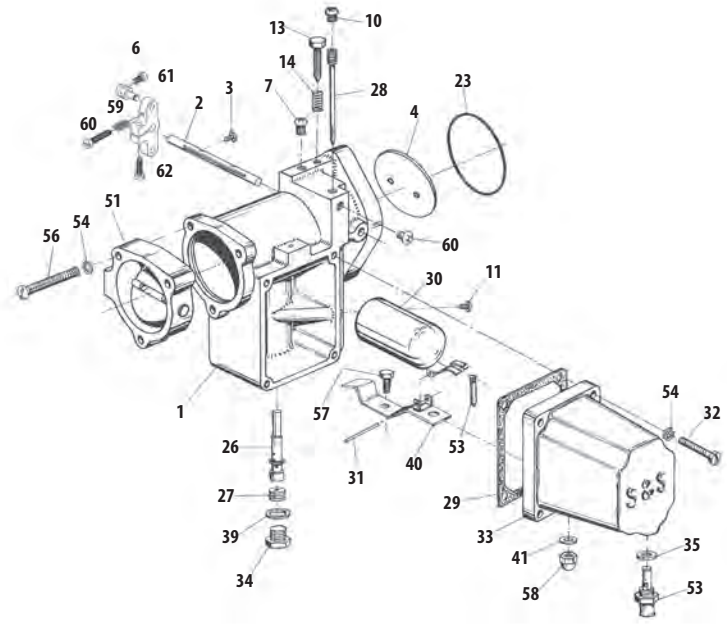
1.	Carb body assembly - F, FA 1 ⅞", FB 1 ¾" fuel & G, GA 1 ⅞", GB 1 ¾" gas	**N/A**
2.	Throttle shaft (includes 2 ea. #11-2045)	
	Gas	**11-2083**
	Fuel	**11-2184**
3.	Throttle plate screw	**50-0055-S**
	10 pack	**50-0064**
4.	Throttle plate	
	1¾" gas & fuel	**11-2023**
	1⅞" gas	**11-2055**
6.	Throttle arm assembly, 1 cable reversible	**N/A**
7.	Intermediate plug	**N/A**
10.	Intermediate jet plug	**N/A**
11.	Intermediate passage plug	**N/A**
13.	Idle mixture screw	**11-2354**
	5 pack	**11-2378**
14.	Idle mixture screw spring	**11-2052**
	10 pack	**11-2060**
23.	O-ring -1 ¾" or 1 ⅞"	**50-8013**
26.	Main discharge tube	**N/A**
27.	Main jet - gas or fuel	**N/A**
28.	Intermediate jet	**N/A**
29.	Bowl gasket	**11-2070**
30.	Float	**N/A**
31.	Float pin	**N/A**
32.	Bowl screw - 10-24 x ¾"	**50-0032**
33.	Carb bowl assembly	**N/A**
34.	Bottom plug	**N/A**
35.	Seat o-ring	**N/A**
39.	Fiber washer	**N/A**
40.	Float mounting bracket	**N/A**
41.	Washer - ¼"	**N/A**
51.	Choke assembly	**N/A**
52.	Throttle shaft bushing - for repair only N/S	**11-2134**
53.	Needle & seat assembly	
	Fuel	**N/A**
54.	Lockwasher - #10	**50-7000**
55.	Intermediate air bleed	**N/A**
56.	Air horn/choke mounting screw	**N/A**
57.	Float bracket bolt - ¼ -28 x ½"	**N/A**
58.	Nut - ¼ -28	**N/A**
59.	Spring,Idle/Accelerator Pump,Super B/D/E	**11-2048**
	10 pack	**11-2053**
60.	Screw,SLTD FH,8-32 x ⅞",Zinc,Steel	**50-0038**
	10 pack	**50-0150**
61.	Screw,SLTD FH,8-32 x ⅝",Zinc,Steel	**50-0039**
	10 pack	**50-0146**
62.	Screw,SLTD FH,8-32 x 5⁄16",Zinc,Steel	**50-0030-S**

CARBURETOR REBUILD KITS

Body Rebuild Kit

G/GA *(includes: #3, 4, 23, 29, 52)* **11-2900**

N/A = NO LONGER AVAILABLE
N/S = NOT SHOWN



Early Style Gas & Fuel CarburetorS

Years Produced: *Gas 1967 to 1971 , Fuel 1967 to 1974*

Sized Produced: *1⅞" and 1¾" throats*

Identification markings: *Serial number stamped on body below "S&S Cycle" - "G" or "GA" means gas type with 1⅞" throat - "GB" means gas with 1¾" throat - "F" or "FA" means fuel with 1⅞" throat - "FB" means fuel with 1¾" throat.*

NOTE - Some 1¾" carbs were bored out to 1⅞".

Distinguishing Characteristics: *Bolt-on choke assembly, gas type only. Side mounted float bowl. Air cleaner/air horn mounting pattern different from stock.*

NOTE

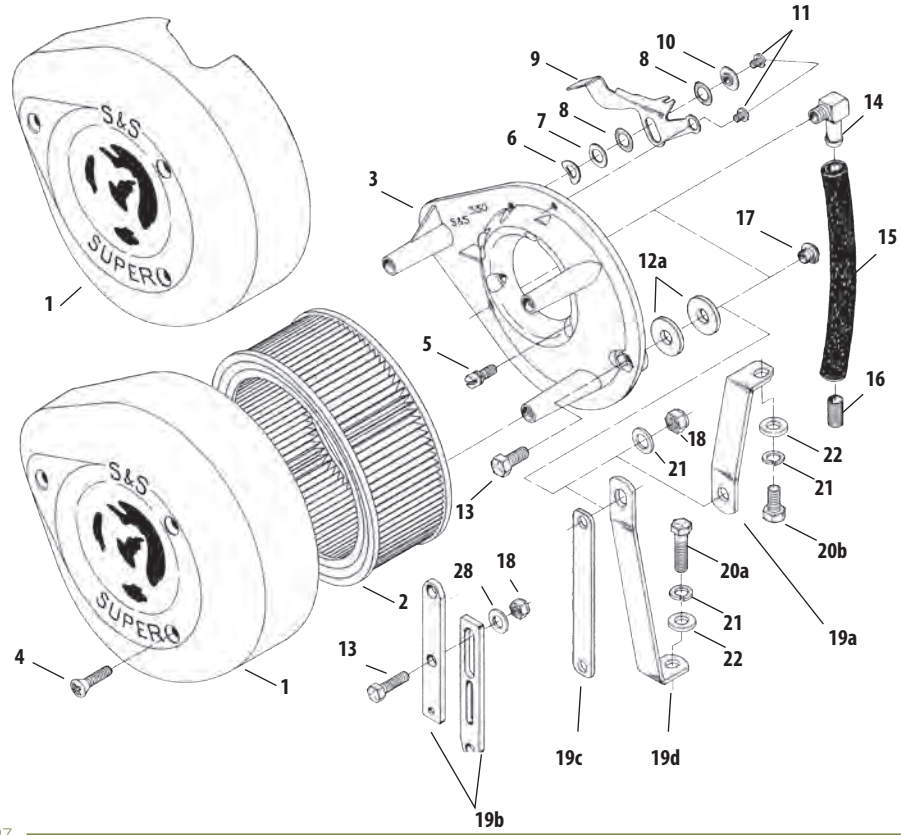
Some fuel carbs have been converted and are equipped with two float bowls.

When ordering parts, please supply the carb serial number. To order a manifold or air cleaner assembly or any related parts, refer to the Manifold or Air Cleaner sections of this catalog.

SUPER E & G AIR CLEANERS REPLACEMENT PARTS
FOR 1936-'84 BIG TWINS & 1957-'85 SPORTSTER® MODELS

1. Air cleaner cover – All
(Except shovelhead w/5 gallon tanks & cylinders + .075")
Chrome **17-0378**
Gloss Black **170-0384A**
Slasher **17-0004**
Shovelhead w/5 gallon tanks & cylinders +.075" **17-0372**
2. Element, pleated **106-4722**
Element, pleated carbon **17-0375**
3. Backplate
BT 1936-'84 ..... **17-0330**
4. Cover screw
Nickel *1305 (each)* **50-0072**
3 pack **50-1052**
10 pack **50-0094**
Black *902 (each)* **50-0310-S**
3 pack **50-0310**
Chrome *(each)* **50-0347-S**
5. Backplate screw
Zinc Plated *(each)* **106-2084**
10 pack **106-2105**
6. Fast idle friction washer *(each)* **50-7035**
10 pack **50-7058**
7. Fast idle steel washer *(each)* **50-7037**
10 pack **50-7061**
8. Fast idle nylon washer *(each)* **50-7036**
10 pack **50-7060**
9. Fast idle lever ..... USA 1,2,3 **17-0329**
10. Fast idle brass washer *(each)* **50-7007**
10 pack **50-7010**
11. Fast idle lever screw (one required for current backplate) *(each)* **50-0041**
10 Pack **50-0062**
12. Shims
5/16" x .125"
(Use on BT 1936-'84 when insulator block is installed.)
each **50-7042**
2 pack **50-7042P**
13. Backplate mounting bolt – BT 1936-'84
5/16"-18 x 1" *(each)* **50-0108**
5/16"-24 x 3/4" ***(Obsolete)*** ..... **N/A**
14. Elbow fitting *(each)* **50-8110**
15. Crankcase breather hose
a. BT 1978-'92 ..... **17-0113**
16. Vent hose connector **50-8111**
17. Backplate plug 1/8"-27 *(each)* **50-8331A**
10 pack **50-1015**
18. Locknut – 5/16"-1
(Use with support bracket - see #19) **50-5021**
19. Support bracket
a. BT 1966-'82 ..... **17-0392**
b. BT 1983-'84 *(includes #13, 18, 28)* **16-0471**
c. BT 1948-'65 ..... **16-0096**
d. XL 1957-'85 ..... **17-0393**
20. Mounting bracket bolt – big twin
a. IH XL 1957-'85 – 5/16"-18 x 1 1/4" *(each)* **50-0110**
b. 1966-'82 – 5/16"-18 x 5/8" *(each)* **50-0106**
21. Lockwasher – 5/16" **50-7032**
22. Flatwasher – 5/16" x 1/8" **50-7033**
23. Wire tie (N/S) **50-8003**
24. Hose clamp (N/S) **50-8002**
25. Air cleaner assembly
Includes:
Chrome cover, backplate, filter element, and hardware kit.)
BT 1936-'84/1957-'85 XL **17-0400**
BT 1966-'84 with five gallon tanks and cylinders .075" longer than stock **17-0440**
26. Mounting hardware package (N/S)
Includes all parts needed to install following style air cleaners:
BT 1936-'84 ..... **17-0441**
27. Spring clamps (N/S) **50-8001**
28. Washer,Flat,.344" x .688" x .065",Zinc,Steel *6320, 70907-07, 6016, 6702* **50-7034**

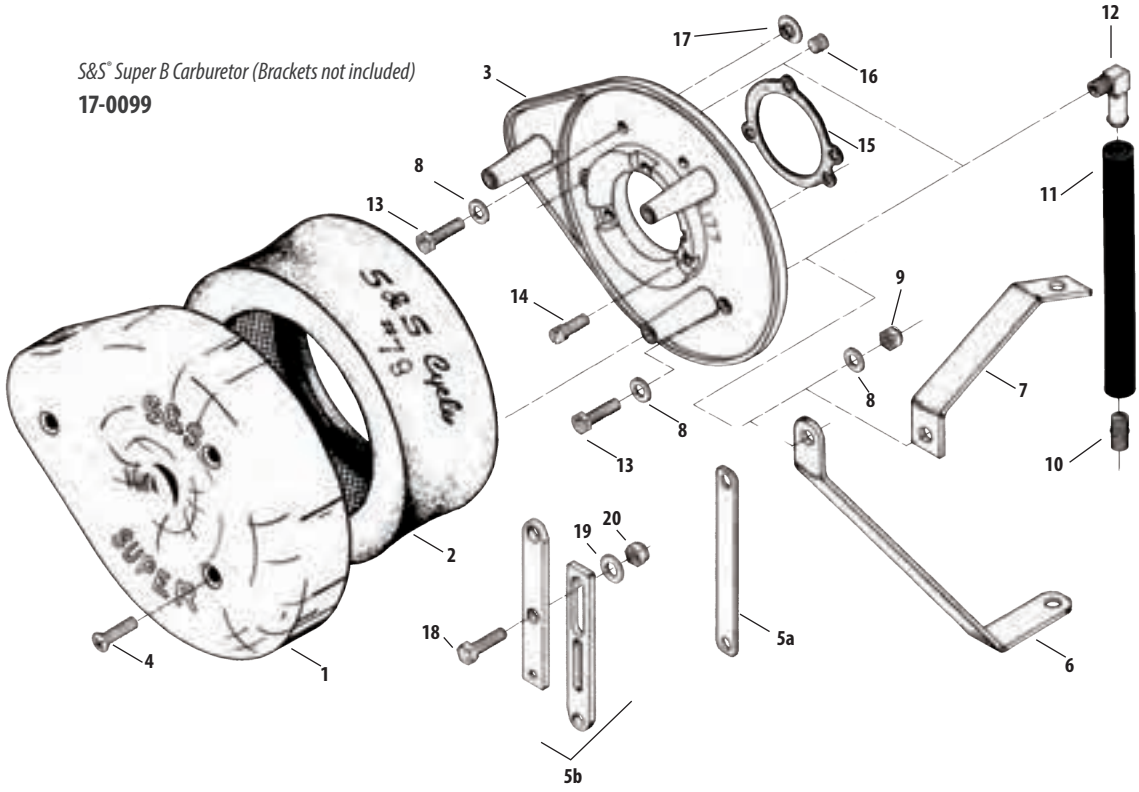
(N/S) = Not Shown
N/A= No longer available



SUPER B AIR CLEANER REPLACEMENT PARTS

1. Air cleaner cover
Chrome **17-0078**
Black **17-0075**
2. Air cleaner element **17-0079**
3. Air cleaner backing plate
Super B 1⅞" **17-0080**
4. Air cleaner cover screw
Chrome *1305 (each)* **50-0072**
3 pack **50-1052**
10 pack **50-0094**
Black *902 (each)* **50-0310-S**
3 pack **50-0310**
5. Support bracket
a. 1948-'65 panhead **16-0096**
b. 1983-'84 shovelhead **16-0471**
6. Air cleaner support bracket
1957-'85 XL **17-0093**
7. Air cleaner support bracket
1966-'82 BT **17-0092**
8. Washer,Flat,.281" x .625" x .080",Zinc *6194, 6245, 6703, 6736, 6228W, 6192 (each)* **50-7021**
9. Nut,Lock,HH,¼-28 UNC-2B x .328",Zinc *(each)* **50-5010**
10. Vent hose connector nipple **50-8111**
11. Vent hose - ⅜" I.D. x 6" **17-0113**
12. 90° elbow fitting *(each)* **50-8110**
13. Support bracket bolt – ¼"-28 x ⅞" **50-0074**
14. Backplate screw, Zinc Plated *(each)* **106-2084**
10 pack **106-2105**
15. Air cleaner gasket *(each)* **17-0196**
5 pack **17-0197**
16. Allen pipe plug - ⅛" -27
each **50-8331A**
10 pack **50-1015**
17. Plastic plug **50-8313**
18. Bolt,Hex Head,Gr5,5⁄16-18 x 1",Zinc *3987* **50-0108**
19. Washer,Flat,.344" x .688" x .065",Zinc,Steel
6320, 70907-07, 6016, 6702 ..... **50-7034**
20. Nut, Lock, HH, 5⁄16-18 UNC-2B x .359", Zinc **50-5021**

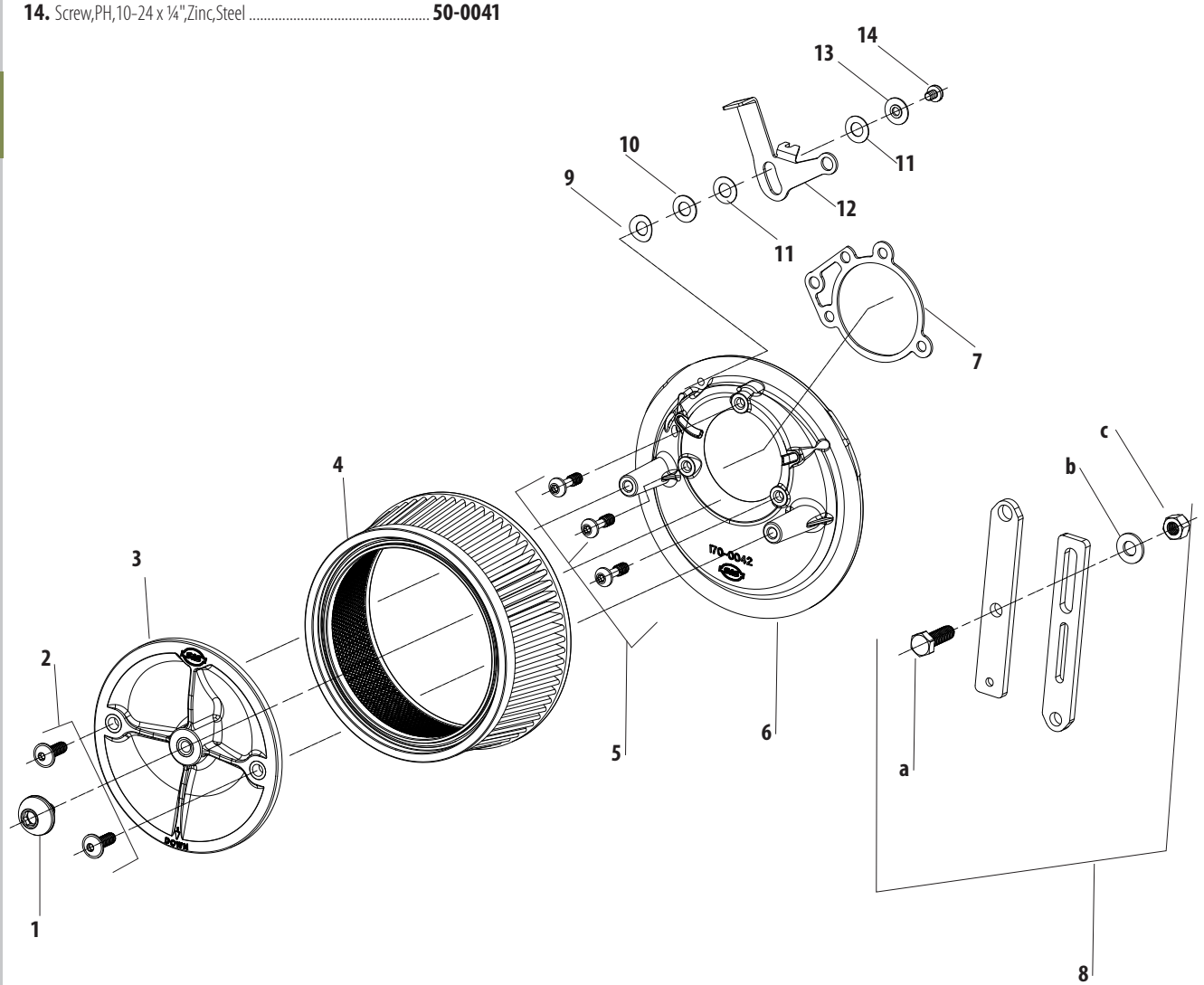
S&S® Super B Carburetor (Brackets not included)
17-0099



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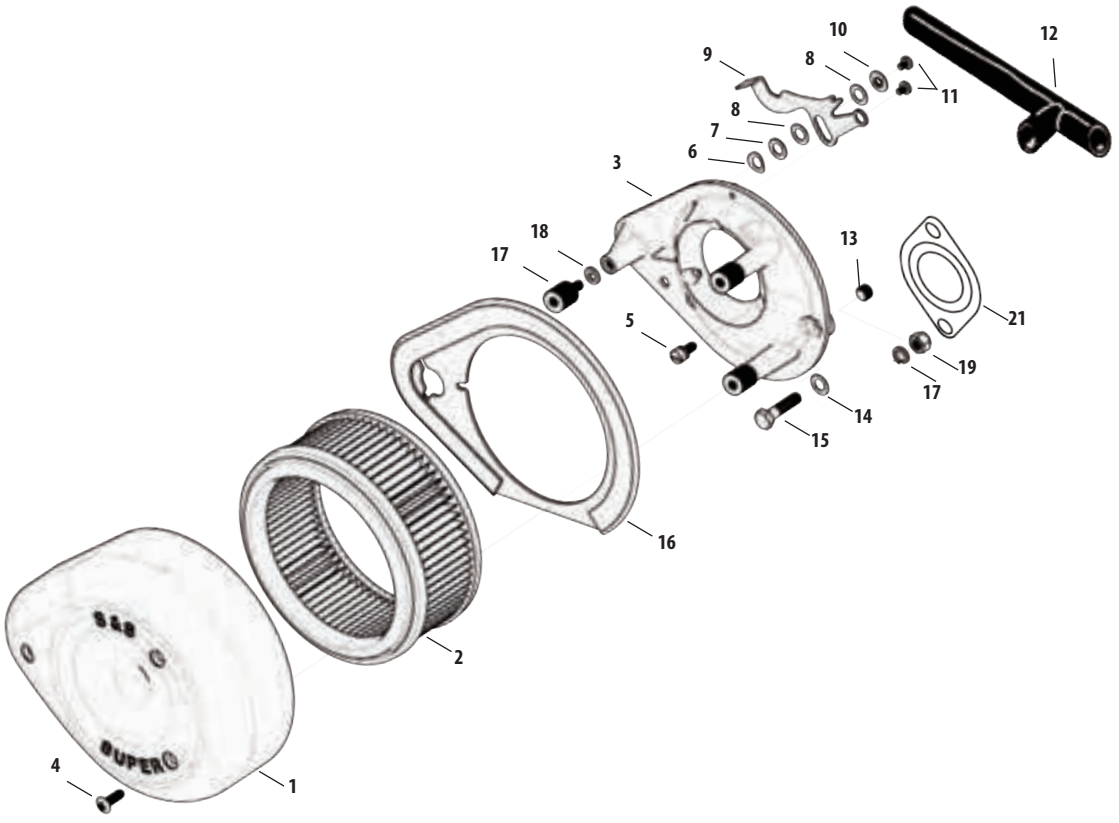
UNIVERSAL STEALTH AIR CLEANER
REPLACEMENT PARTS

1. Screw, SHCB, 5⁄16-18 x .500", Polished, Stainless Steel **500-0051**
2. Screw, SHC, Flanged Button, 1⁄4-20 UNC x .750"
(each) 2 required **500-0060**
3. Plate, Top, Air Filter, Molded, Plastic **170-0026**
4. Filter, Air, Standard Pleated **170-0126**
5. Screw, SHCB, 1⁄4-20 UNC X .825" *(each) 3 required* **500-0059**
6. Backplate, Air Cleaner, Super E/G, Powder coated, Black, Die Cast
1936-'92 bt, 1957-'90 xl **170-0179**
7. Gasket, Backplate, Super E/G, CV Adapter, .0625" **106-1724**
8. Bracket,Kit,Support,Carb,Case To Manifold,w/ Hardware,1966-99 bt, 1957-2003 xl
(includes 50-0108, 50-5021, & 50-7034) **16-0471**
a. Bolt,Hex Head,Gr5,5⁄16-18 x 1",Zinc **50-0108**
b. Washer,Flat,.344" x .688" x .065",Zinc,Steel **50-7034**
c. Nut,Lock,HH,5⁄16-18 UNC-2B x .359",Zinc,Steel/Nylon **50-5021**
9. Washer,Friction,Curved,.329" x .625" x .015",Zinc,Steel **50-7035**
10. Washer,Flat,.325" x .625" x .032",Zinc,Steel **50-7037**
11. Washer,Flat,.323" x .625" x .020",Nylon *(each) 2 required* **50-7036**
12. Lever, Enrichment, Super E/G, Short, Buell® **17-0327**
13. Washer,Flat,Stepped,.195" x .620" x .030",Brass **50-7007**
14. Screw,PH,10-24 x 1⁄4",Zinc,Steel **50-0041**



TÜV APPROVED SUPER E & G AIR CLEANER
REPLACEMENT PARTS

1. Air cleaner cover
Chrome **17-0378**
2. Element, pleated carbon – TÜV **17-0375**
3. Backplate
1955-'84 bt TÜV **17-0360**
1955-'84 bt, 1957-'85 IH XL **17-0330**
4. Cover screw
Nickel *1305 (each)* **50-0072**
3 pack **50-1052**
10 pack **50-0094**
Black *#902 (each)* **50-0310-S**
3 pack **50-0310**
Chrome *(each)* **50-0347-S**
5. Backplate screw
Zinc Plated *(each)* **106-2084**
10 pack **106-2105**
6. Fast idle friction washer *(each)* **50-7035**
10 pack **50-7058**
7. Fast idle steel washer *(each)* **50-7037**
10 pack **50-7061**
8. Fast idle nylon washer *(each)* **50-7036**
10 pack **50-7060**
9. Enrichment lever ..... USA 1,2,3 **17-0329**
10. Fast idle brass washer *(each)* **50-7007**
10 pack **50-7010**
11. Fast idle lever screw *(each)* **50-0041**
10 pack **50-0062**
12. Crankcase breather hose
TÜV 1970-'84 ..... **17-0113**
13. Backplate plug ⅛"-27
each **50-8331A**
10 pack **50-1015**
14. Flatwasher – 5⁄16" x 1⁄16" *6320, 70907-07, 6016, 6702* **50-7034**
15. Mounting bracket bolt *3987* –
5⁄16"-18 x 1" **50-0108**
16. Plate, air cleaner noise reducer **17-0389**
17. Rubber isolator mounts *(each)* **50-8510-S**
18. Shim, spacers, ½" OD x ¼" ID x .080" *(each)* **50-7971-S**
19. Locknut, HH, 5⁄16" -18 ..... **50-5021**
20. Spring clamps (N/S)* **50-8001**
21. Restrictor Plate ..... **N/A**
(N/S) = Not Shown

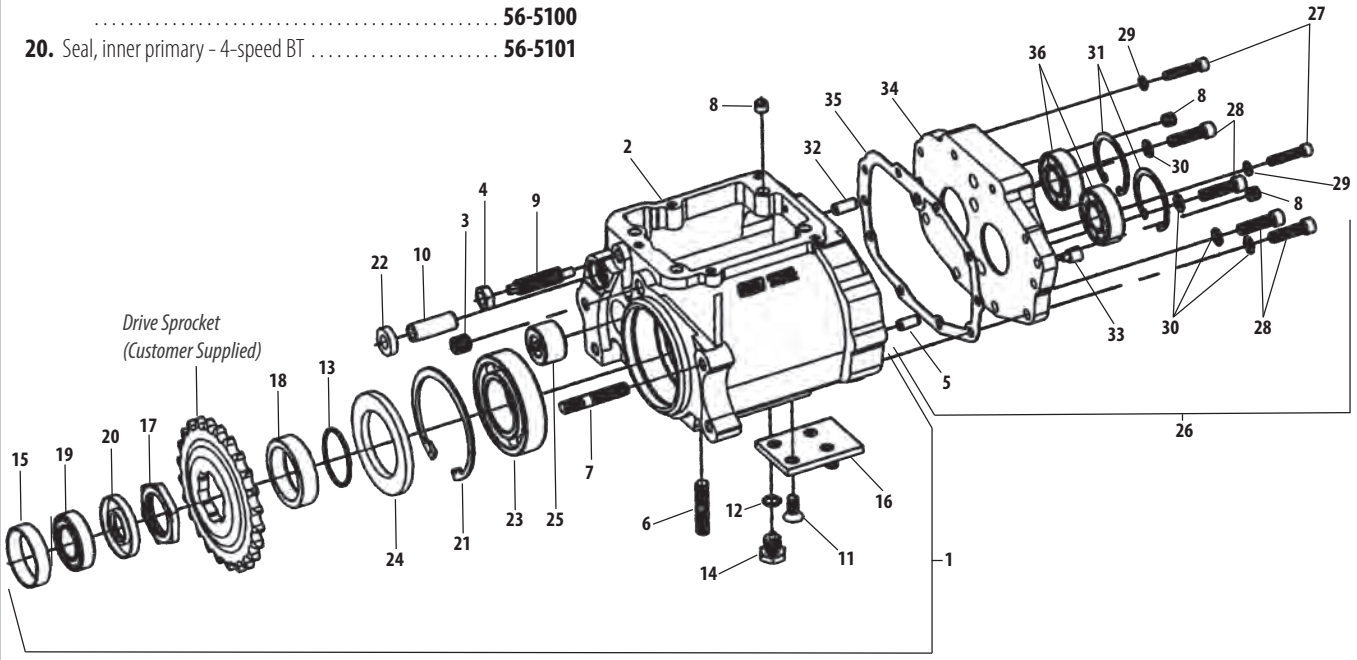


17-0445

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5-SPEED TRANSMISSION CASE REPLACEMENT PARTS
FOR 4-SPEED BIG TWIN CHASSIS

1. Transmission case assembly , 5-speed
1965-'84 4-speed BT **56-1051**
2. Transmission case only, 5-speed rigid mount
for 1965-'84 4-speed BT frame ..... **N/A**
3. Screw, SH ½"-20 x ⅜" **50-0202**
4. Nut, hex - 7/16"-14 *each* **50-5044**
5. Pin, dowel - .308" diameter x .70"
375 ..... **50-8029**
6. Stud - ⅜"-16; ⅜"-24 x 1 13/16" (4) (BT 5-speed) **50-8085**
7. Stud - ⅜"-16; ⅜"-24 x 2 5/16" (4) (5-speed BT) **50-8086**
8. Pin, Roll - ⅜" x .300" (4) *609* **50-8173**
9. Screw, shifter lever adjustment, 5-speed BT
33119-79B **56-1002**
10. Guide, shifter shaft - 5-speed rigid mount,
1986-'99 BT *33114-79* **56-1067**
11. Screw, SLTD FH, 5/16"-18 x ¾" (4) **50-0300**
12. O-ring, 7/16" I.D. x 9/16" O.D. x 1/16" Viton
11105, 11273 each **50-8008**
10 pack **50-8078**
13. Seal, quad, 1 49/64" I.D. x 1⅞" O.D. x 1/16" Buna
11165 ..... **50-8045**
14. Plug, ½"-20, magnetic
..... **50-8335**
15. Spacer, mainshaft adapter, 5-speed rigid mount
1965-'84 4-speed BT **56-1068**
16. Adapter, transmission mounting stud,
5-speed rigid mount/1965-'84 4-speed BT **56-1069**
17. Nut, transmission sprocket **56-3003**
18. Spacer, transmission sprocket,
1941-'92 BT **56-3004**
19. Bearing, inner primary (25mm x 47mm x 12mm)
..... **56-5100**
20. Seal, inner primary - 4-speed BT **56-5101**
21. Ring, internal retainer, 3.734" O.D. x .109" Tru-Arc
11161, 11599 ..... **50-8051**
22. Seal, oil shifter shaft - 1984-'99 BT
12045 ..... **56-1064**
23. Bearing, transmission output shaft, 1984-'99 BT
8996A **56-1280**
24. Seal, oil *12067B* **56-3033**
25. Bearing, transmission countershaft **56-3034**
26. Door assembly, transmission access
5-speed rigid mount, 1985-'99 BT **56-1027**
27. Capscrew, SH - ¼"-20 x 1¾" (2) *4740A, 3482A* **50-0008**
28. Capscrew, SH - 5/16"-18 x 1¼" (4)
3210A **50-0121**
29. Washer, flat - ¼" x 7/16" x 1/16" (2)
each **50-7017**
12 pack **50-7013**
30. Washer, flat - 5/16" x .545" x .042" (4) **50-7026**
31. Ring, internal retainer, 2.072" O.D. x .062" Tru-Arc (2)
35021-89 ..... **50-8053**
32. Dowel - 5/16" x ¾" *634 (each)* **50-8175**
33. Plug, magnetic - ⅛"-27 *739A* **50-8334**
34. Door, transmission access - 5-speed rigid mount
1985-'99 BT *35258-87C* **56-1025**
35. Gasket, transmission access door
35652-79B, 35653-98A **56-1026**
36. Bearing, transmission access door (2)
8992A, 8998 ..... **56-3026**



All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.



SECTION 8: X-WEDGE® ENGINES

Performance Engines

X-Wedge® 488

Performance Parts

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Oil Pump 489
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Tappets 492
Valve Springs 492

Replacement Parts ..496

STEALTH AIR CLEANER KITS

FITMENT
- S&S X-Wedge Engines

FEATURES AND BENEFITS
- Air directional stinger cone in the filter
- Can be used with any of several S&S designed covers
- Pre-filters and High flow (1" taller) filter kit available - See below



STEALTH AIR CLEANER KITS*

Application	Fuel System	Part #
X-Wedge	EFI	**170-0200**

**These kits do not contain covers – use a stock Twin Cam 88®, 96™ or 103™ cover or choose an S&S cover*

HIGH FLOW AIR FILTER KIT

Description	Part #
High Flow Air Filter Kit *(includes spacers)*, 1" Taller	**170-0127**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

FILTER REPLACEMENTS

Description	Fitment	Part #
Standard Filter Only	Stealth	**170-0126**
1" Taller Filter Only	Stealth	**170-0154**
Spacer	Stealth, 1" Taller	**50-5009-S**

STEALTH AIR CLEANER KIT COVERS

FITMENT
- All S&S Stealth Air Cleaners

STEALTH COVERS

Style	Finish	Part #
Mini	Chrome	**170-0367**
	Gloss Black	**170-0366**
Tri-Spoke	Gloss Black with Highlights	**170-0210**
Torker	Gloss Black with Highlights	**170-0206**
Air 1	Gloss Black with Highlights	**170-0214**
Airstream	Chrome	**170-0118**
	Gloss Black	**170-0396**
Muscle	Chrome	**170-0121**
	Gloss Black with Highlighted Logo	**170-0463**
Bobber-Dished	Chrome	**170-0119**
	WBlack	**170-0123**
Bobber-Domed	Chrome	**170-0120**
	WBlack	**170-0124**



Air 1



Tri-Spoke



Airstream



Muscle

PRE-FILTERS

FITMENT
- S&S® StealthAir Filters

FEATURES AND BENEFITS
- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard	**170-0193**
1" Tall	**170-0197**



170-0197

SINGLE BORE TUNED INDUCTION SYSTEM



FITMENT

- S&S X-Wedge® engines

FEATURES AND BENEFITS

- Bolt-on performance – over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy

SINGLE BORE TUNED INDUCTION SYSTEM KITS

Fitment	Fuel Delivery	Finish	Part #
CTO	Specify	Specify	**106-5337**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: SEE PAGE 500

AIR FILTER COVERS

- Water resistant and filters out large debris, allowing the filter media to stop small dirt particles from getting into your engine
- Washable nylon

HIGH FLOW REPLACEMENT FILTER

- High flow washable and reusable cotton media provides performance, protection, and economy
- Choice of red or blue – red filters come standard with all S&S Single Bore Tuned Induction kits
- Kit includes one filter and one clamp

AIR FILTER OIL

- Use after cleaning the cotton media – brings back the vibrance of your filter
- Designed for S&S air filters and is available in red or blue



ACCESSORIES

Description		Part #
Air Filter (each sold with clamp)	Red	**17-1020**
	Blue	**17-1023**
Air Filter Oil, 8 oz. Bottle	Red	**106-1163**
	Blue	**106-1164**
Nylon Air Filter Cover	*each*	**106-0247**
	2 pack	**106-0248**

X-WEDGE® PERFORMANCE ENGINES



FITMENT
- Custom X-Wedge chassis
- Performance engines for closed course competition or display vehicles
- 49 State and 50 State emissions compliant engines for the street.

FEATURES AND BENEFITS
- 117 or 132 cubic inch displacement
- 56° cylinder angle – reduced piston interference and less vibration
- Unique belt driven, three cam design – better pushrod angles and reduced noise
- Forged one-piece crankshaft with automotive style plain bearings
- Automotive style low mass rocker arms
- Gerotor style oil pump
- S&S closed loop fuel injection with knock sensing ignition
- Easy Start cams: 548 cams for 117" and 569 cams for 132"

S&S exclusive X-WEDGE ENGINE US PATENT 2005/0092290

OPTIONS
- Choice of silver powdercoat, wrinkle black (WBlack) powdercoat or polished finish
- 49-state or 50-state compliant versions (includes Full documentation and X117C includes an evaporative emissions hardware kit)

KIT CONTENTS
- Fully assembled engine
- Fuel injection and Ignition system

WATCH THE X-GLIDE VIDEOS AT www.sscycle.com/videos

SPECIFICATIONS S&S® X-WEDGE® PERFORMANCE ENGINES

Engine	Chassis Style	Displacement	Cylinder Angle	Bore	Stroke	Compression Ratio	Fuel System	Ignition
X117	S&S X-Wedge®	117"	56.25°	4⅛"	4⅜"	9.75:1	S&S Closed Loop Single Bore VFI	S&S VFI w/Knock Sensing

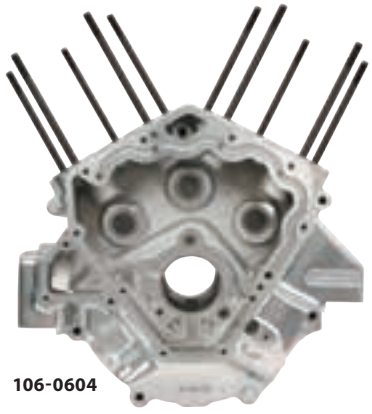
X-WEDGE® 49-STATE AND 50-STATE ENGINES

Engine	Certification	Warranty	Silver	WBlack	Polished
X117E	49-State	2 year	**31-8061**	**31-8060**	**31-8062**
X117C	50-State	2 year	**106-3753**	**106-3752**	**106-3754**

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Year Group	Bore Size	Part No
X-Wedge®	Custom	4⅜"	**106-1031**
X-Wedge®	Custom	4¼"	**106-1029**
X-Wedge®	Custom	4⅛"	**106-1030**

CRANKCASES



106-0604

FITMENT
- X-Wedge® engines

FEATURES AND BENEFITS
- Cylinder deck height of 6.125" and will accommodate 4⅛" up to 4⅜" bore cylinders without modification.

OPTIONS
- Silver powder coat, wrinkle black (WBlack) powder coat, or polished finish

KIT CONTENTS
- S&S crankcase, hardware, seals

CRANKCASE KITS FOR S&S X-WEDGE® ENGINES

Finish	Part #
Silver powder coat	**106-0604**
WBlack powder coat	**106-0605**
Full Polish	**106-0603**

NOTE S&S recommends using Permatex Right Stuff® for sealing crankcases.

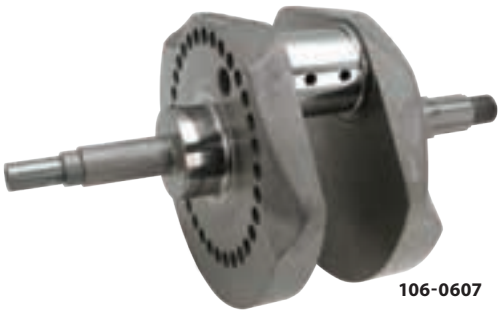
REPLACEMENT PARTS: SEE PAGE 496

CRANKSHAFTS

FITMENT
- X-Wedge® engines

FEATURES AND BENEFITS
- Crankshafts are machined and ready to assemble with standard bearings.

KIT CONTENTS
- Crank assembly includes rods


106-0607

CRANKSHAFTS FOR S&S® X-WEDGE® ENGINES

Engine	Stroke	Crankshaft Only	Crankshaft Assembly
X117/X132	4⅜"	**106-0607**	**106-0609**
X114/X121/X128	4¼"	**106-0606**	**106-0608**

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S CRANKSHAFT MAIN BEARING PROTECTOR FOR X-WEDGE®
SEE PAGE 522

CONNECTING RODS

FITMENT
- X-Wedge® engines

FEATURES AND BENEFITS
- These forged rods are 7.400" plain bearing, automotive style, with a two piece design, 2.200" journal diameter, and .927" wristpin diameter
- Since the front and rear rods are identical, rods are not sold in sets but are available individually
- Bearings are not included and must be purchased separately


106-0583

106-0569

CONNECTING RODS FOR X-WEDGE® ENGINES

Description	Part #
Connecting Rod Front or Rear	**106-0583**
Bearing Inserts Standard	**106-0569**
Bearing Cap Screws 12 pt, 7/16"-20 x 1.60"	**50-0346-S**

BELT COVERS

FITMENT
- Direct replacement for the belt cover on any X-Wedge engine



X-WEDGE® BELT COVERS

Chrome	**106-0587**

REPLACEMENT PARTS: SEE PAGE 497

OIL PUMP

FITMENT
- Direct replacement for the oil pump in any X-Wedge engine



X-WEDGE® OIL PUMP KIT

For X-Wedge Engines	**106-0680**

REPLACEMENT PARTS: SEE PAGE 502

CYLINDERS & PISTONS
FOR S&S® X114, X117 & X121 X-WEDGE® ENGINES



Pistons are sold seperately



91-7461

FITMENT
- X114, X117 & X121 X-Wedge engines

FEATURES AND BENEFITS
- The front and rear cylinders and pistons are interchangeable
- Cylinders can be honed to the specified size and any piston of the correct oversize will fit with the correct clearance.

OPTIONS
- Silver powder coat, wrinkle black (WBlack) powder coat, or polished finish

INDIVIDUAL CYLINDERS ONLY FOR S&S® X-WEDGE® ENGINES

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Silver	WBlack	Full Polished
117"	4.375"	4.125"	4.645"	9.75:1	**91-7461**	**91-7463**	**91-7465**
121"	4.25"	4.25"	4.645"	9.75:1	–	**91-7469**	**91-7471**

Pistons are sold seperately. See chart below.

FORGED INDIVIDUAL PISTONS FOR S&S® X-WEDGE® ENGINES

Displacement	Standard
114"	**106-0108**
117"	**106-0108**
121"	**106-0109A**

All individual pistons include one piston, rings, wristpin, and clips. Due to piston coating, piston measurements are not reliable. Bore cylinders to nominal diameter +/- .0005" for correct clearance.

REPLACEMENT WRISTPINS AND KEEPERS

Description		Part #
Wristpin	X114 & X117 & X121	**106-1000**
Keeper	All Displacements	**94-9278-S**

REPLACEMENT MOLY FACED RINGS FOR X-WEDGE PISTONS

Description		Standard
X114 & X117	*2 pack*	**106-0011**
X121	*1 pack*	**106-0709A**
	2 pack	**106-0012**

X-WEDGE® GASKETS & DOWELS

Description	Bore		Part #
Head Gasket	4⅜"	*each*	**93-1132**
	4¼"	*each*	**93-1131**
	4⅛"	*each*	**93-1130**
Base Gasket	All	*each*	**93-1120**
Dowel Pin .187" x .635"		*each*	**50-8031**

4-3/8" BORE CYLINDERS & PISTONS UPGRADES
FOR X-WEDGE® X128 AND X132 ENGINES

Increase the displacement of your X-Wedge engine with these bolt-on cylinder and piston kits. A ⅛" bore increase will take an X121 to X128, and a ¼" bore increase will take an X117 to X132! No changes to the crankcases or flywheels are required.



920-0004



910-0002

Pistons are sold seperately

FITMENT
- S&S X-Wedge® engines

FEATURES AND BENEFITS
- Bolt-on performance
- Increase displacement without crankcase modifications

OPTIONS
- Silver powder coat, wrinkle black (WBlack) powder coat or polished finish

4⅜" BORE CYLINDER ONLY SETS FOR S&S® X-WEDGE® ENGINES

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Silver	WBlack	Full Polished
132"	4.375"	4.375"	4.645"	10.3:1	**910-0002**	**910-0001**	**910-0003**

Cylinders are honed and ready for assembly. Cylinder sets include front and rear cylinders. Includes head and base gaskets. Pistons are sold seperately. See chart below.

FORGED PISTON SETS FOR S&S® X-WEDGE® ENGINES

Displacement	Standard	+.010"
128"	**920-0003**	**920-0006**
132"	**920-0002**	**920-0004**

All piston sets are for two pistons and include rings, wristpin, and clips. Due to piston coating, piston measurements are not reliable. Bore cylinders to nominal diameter +/- .0005" for correct clearance.

REPLACEMENT MOLY FACED RINGS FOR X-WEDGE PISTONS

Description		Standard
X128 & X132	*2 pack*	**94-4285X**

REPLACEMENT WRISTPINS AND KEEPERS

Description	Part #
Wristpin	**94-9277**
Keeper	**94-9278-S**

X-WEDGE® GASKETS

Description	Bore		Part #
Head Gasket	4⅜"	*each*	**93-1132**
Base Gasket	All	*each*	**93-1120**

CAM CHEST REPLACEMENT PARTS

CAM CHEST REPLACEMENT PARTS

Description	Part #
Cam sprocket, 38-tooth	**106-0740**
Belt, cam drive, 127-tooth, 30mm	**106-0571**
Belt tensioner, 30mm	**370-0007**
Pinion Update Kit	**370-0015**



106-0571



106-0740

CAM BEARING REPLACEMENT PARTS

CAM BEARING REPLACEMENT PARTS

Description	Part #
Inner Cam Bearing for S&S X-Wedge®	**31-4080**
Outer Cam Bearing for S&S X-Wedge®	**106-1424**



X-WEDGE® EASY START CAMS

RECOMMENDED APPLICATIONS FOR S&S X-WEDGE CAMS

548 CAMS – Stock replacement cams for X114, X117, and X121 engines. Emissions compliance is maintained when these cams are installed. Use with stock pushrods. Non-interference.

569 CAMS – Bolt-in performance upgrade cams for any displacement X-Wedge engine from 9.8:1 to 10.2:1 compression ratio. Use with stock pushrods. These cams are non-interference, but are not emissions compliant.

618 CAMS – Performance upgrade cams for any displacement X-Wedge engine from 9.8:1 to 10.2:1 compression ratio. The 618 cams can be installed as a bolt-in. The 618 cams are not non-interference cams, and are not emissions compliant. Due to the smaller diameter cam base circle, the X618 cams require a special, slightly longer pushrod set #930-0021, or billet aluminum rocker arm set #900-0213.



106-0577

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S CAM ALIGNMENT TOOLS
FOR X-WEDGE®, SEE PAGE 522

S&S® X-WEDGE® EASY START CAMS SPECIFICATIONS

Cam Name	Valve Timing (open/close)[1]		Valve Duration		Valve Lift[2]	Centerline		Lift@TDC[3]	
	Intake	Exhaust	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust
	Open BTDC/ Close ABDC	Open BBDC/ Close ATDC							
548	5°/55°	57°/0°	240°	237°	0.548"	115°	118.5°	0.136"	0.080"
569	9°/40°	47°/17°	229°	244°	0.569"	105.5°	104.5°	0.137"	0.179"
618	9°/43°	62°/23°	232°	264°	0.618"	107°	109°	0.140"	0.224"

[1]Timing designation is a function of zero lash @ 0.053" off base circle. [2]Valve lift is calculated from a 1.76:1 ratio rocker arm. [3]TDC lift is measured at the valve and is for reference only.

X-WEDGE® CAM KITS

548 (3 cams)	569 Easy Start (3 cams)	618 Easy Start (3 cams)
106-0577	**330-0047**	**330-0074**

COMPRESSION RELEASE 548 UPDATE KIT

(2 exhaust cams)	**106-3809**

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HIGH PERFORMANCE HYDRAULIC TAPPETS



HIGH PERFORMANCE HYDRAULIC TAPPETS

Tappet, Hydraulic, X-Wedge®	*each*	**37-0030**

NOTE

Tappets for S&S X-Wedge engines are not designed for use with S&S HL_2T limited travel kits.

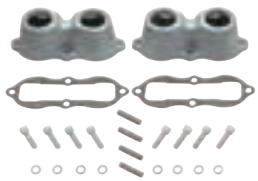
TAPPET COVERS

OPTIONS

- Silver powder coat, wrinkle black powder coat, or polished finish

KIT CONTENTS

- Two tappet guides, gaskets, dowel pins, and mounting hardware



106-0746

TAPPET COVER KITS FOR S&S® X-WEDGE®

Silver Powdercoat	**106-0746**
Wrinkle Black Powdercoat	**106-0747**
Polished	**106-0745**

REPLACEMENT PARTS

Gasket	*each*	**37-0006**

PUSHRODS

PUSHRODS FOR S&S® X-WEDGE®

Description	Part #
X-Wedge® Pushrod Sets – All displacements with stock rocker arms	
Stock Length (for use with 545, 548 and 569 cams)	**106-0699**



106-0699

SIDEWINDER® VALVE SPRINGS

FEATURES AND BENEFITS

585 Sidewinder Springs:

- Lower spring force results in reduced valve train noise, increased valve stability, and longer valve train component life
- Stock replacement in X-Wedge

KIT CONTENTS

- Valve keepers, springs, top collars, bottom collars, 0.015" and 0.030" shims



900-0595

S&S® SIDEWINDER® VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.585"	2.00"	85 lb.	264 lb.	5750

REPLACEMENT PARTS: SEE PAGE 498

SIDEWINDER® VALVE SPRING KITS

Description	Part #
.585" lift	**900-0595**

ROLLER ROCKER ARM KIT



FITMENT

- X-Wedge® engines – all displacements
- Works with any cam

FEATURES AND BENEFITS

- Automotive style billet aluminum rockers with roller tips and needle fulcrum bearings
- Increased cam lift
- Increase your ratio to 1.80 from the 1.76 stock
- Aluminum construction reduces weight
- Friction reducing bearings and rollers
- Allows for tappet adjustment

ROLLER ROCKER ARM KIT FOR S&S® X-WEDGE® ENGINES

S&S® Roller Rocker Arm Kit	**900-0213**

REPLACEMENT GASKETS

Rocker Cover Gaskets	*each*	**39-0010A**	
	2 pack	**106-0622**	

CNC PORTED CYLINDER HEADS

FITMENT

128" and 132" X-Wedge engines

FEATURES AND BENEFITS

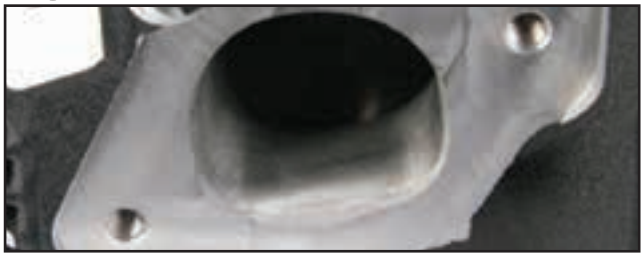
- CNC machined ports for a consistent performance increase from original heads
- Choice of two different chamber machinings (100cc or 103cc)
- Great throttle response, high velocity port without losing low RPM torque
- Assembled with performance valves and .650 springs

FINISH OPTIONS:

- Full polished, silver, wrinkle black powdercoat

SERVICE OPTIONS

- Buy New CNC, or...
- Rework Service
  - Heads sent to S&S
  - Get the same set of heads back with CNC machined ports & chambers
  - The best option for heads with a special cosmetic treatment
  - Allow 2 week turn-around
- Custom CNC Port Duplication
  - S&S can digitize your port design and machine it in your heads, ask an S&S customer service representative for details



Shown is an intake port from a CNC machined X-Wedge® cylinder head. Notice the detailed machining that gives our CNC ported heads the performance that your big-inch engine demands.



Digitized port shapes are faithfully reproduced in X-Wedge cylinder heads on our 5-Axis CNC machining center. Intake port, exhaust port and combustion chamber are all modified. This head will be assembled with new valves and high lift valve springs to complete the package.

CNC PORTING SERVICE FOR X-WEDGE® HEADS

Fitment	Part #	
128" and 132" X-Wedge engines	**106-6480**	

		Stock Heads	CNC Ported by S&S®
Valve Size	Intake	2.00"	2.2"
	Exhaust	1.605"	1.675"
Max "Free Spin" Valve Lift*		0.0580"	0.0580"
Port Flow	Intake	261.2 cfm	315 cfm
	Exhaust	190.8 cfm	215 cfm
Compression Ratio	128"	9.7:1	10:1
	132"	9.9:1	10.3
Cylinder Heads Decked		–	0.030"
Chamber Volume		104 cc	100 cc**

**"Free Spin" valve lift controlled by valve reliefs in piston. **After decking.*
Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift through radiused inlet.

INDIVIDUAL PARTS FOR X-WEDGE® CNC PORTED HEADS

Spring		**106-5689**
Intake Valve		**900-0275**
Exhaust Valve		**900-0276**
Valve Guide Seal		**900-0557**
Top Collar		**106-5690**
Bottom Collar		**106-3827**
Valve Keeper	*each*	**90-2094-S**
	8 pack	**50-7166**

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases customer will be notified and options reviewed. New CNC ported heads are available for purchase.

Due to variations in cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

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CYLINDER HEADS

FITMENT
- All X-Wedge engines

FEATURES AND BENEFITS
- .585" Street Performance springs
- Powder metal valve guides
- Completely assembled stock heads – ready to bolt-on

OPTIONS
- Silver powder coat, Wrinkle Black (WBlack) powder coat, or Full Polished Finish



106-0644

ASSEMBLED CYLINDER HEADS FOR S&S® X-WEDGE® ENGINES

Finish	Set
Silver	**106-0646**
WBlack	**106-0647**
Full Polished	**106-0644**

REPLACEMENT PARTS: SEE PAGE 498

HEAD BOLTS

Will fit any production X-Wedge engine regardless of displacement. 10 are required for complete replacement.



HEAD BOLT FOR S&S X-WEDGE ENGINES

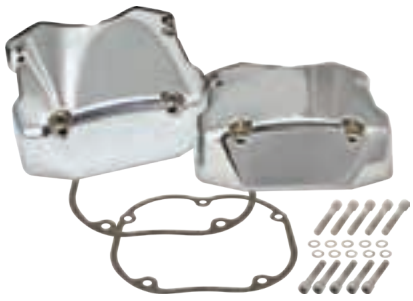
Description	Part #
Head bolt *(each)*	**93-3028-S**
Washer (.150") *(each)*	**50-0418-S**

ROCKER COVERS

FITMENT
- Fits all S&S X-Wedge engines

FEATURES AND BENEFITS
- OEM stock replacement – same as original equipment
- Covers are interchangeable for front or rear cylinder heads
- Die-cast aluminum with show chrome finish

KIT CONTENTS
- Rocker cover(s), mounting hardware, gasket(s)



106-0593

ROCKER COVERS FOR S&S® X-WEDGE®

Description	Part #
Single Rocker Cover (with hardware and gasket)	**106-0600**
Rocker Cover Set (with hardware and gaskets)	**106-0593**

REPLACEMENT PARTS: SEE PAGE 498

THROTTLE BODY

THROTTLE BODY	
58mm	**106-3960***
52mm	**106-3141**

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: SEE PAGE 501


106-3960

FUEL PUMP FOR FUEL INJECTED CUSTOM BIKES

FEATURES AND BENEFITS

- Mounts in nearly any tank
- Hollow mounting bolts secure the pump flange to the bottom of the tank and provide an outlet for wiring and pressurized fuel
- A fiber media filter, placed at the lowest point in the tank prevents contaminants from damaging the fuel pump

KIT CONTENTS

- Fuel pump, inlet hose, an in-tank filter, mounting hardware, and instructions


55-5089

S&S® IN-TANK FUEL PUMP SPECIFICATIONS			
Manufacturer	Pressure	Capacity	Current Draw
Walbro	4 Bar/58 PSI	45 Lt/Hr	5 Amps

NOTE

This is not a stock replacement pump for Harley-Davidson® motorcycles.

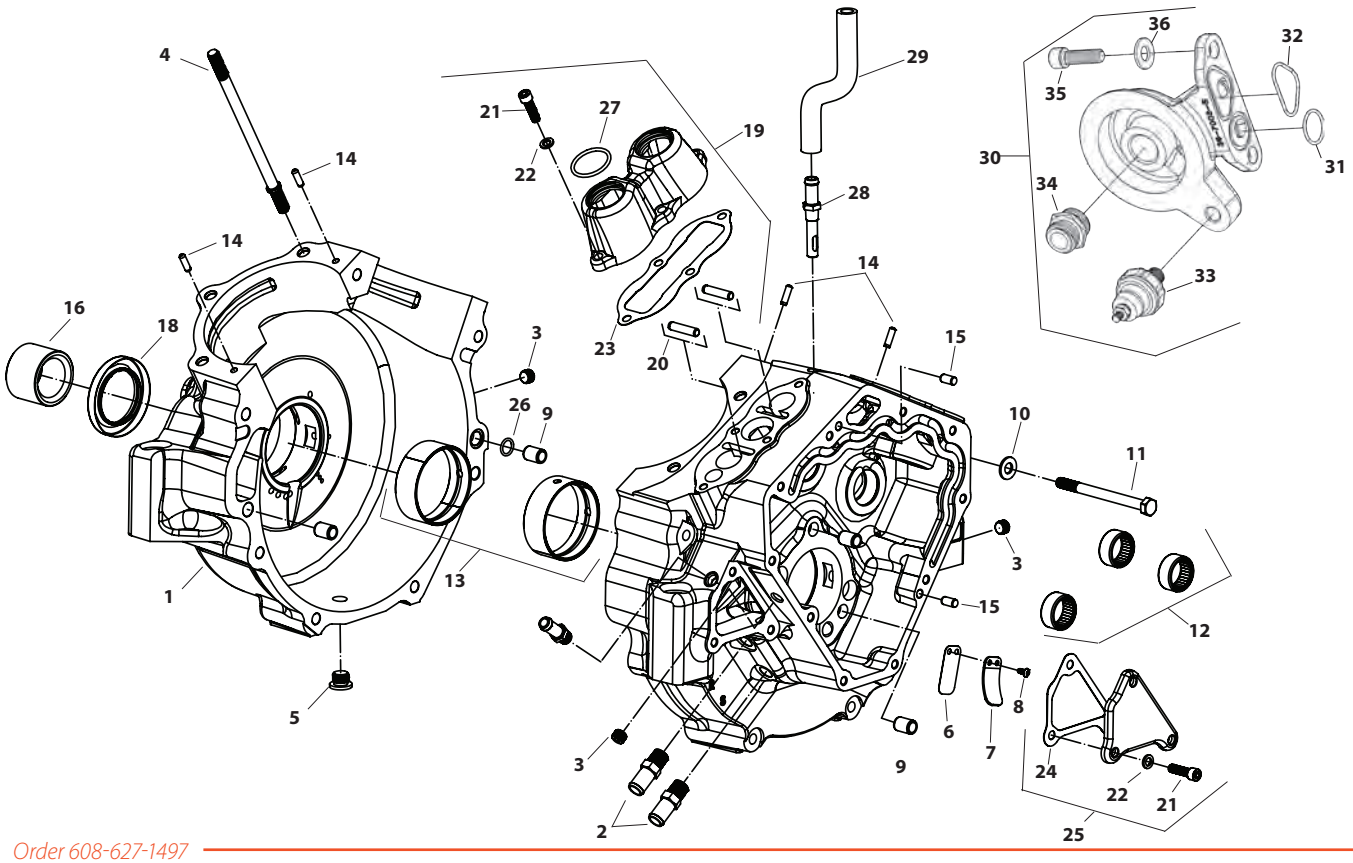
FUEL PUMP KIT	
For Fuel Injected Custom Bikes	**55-5089**

REPLACEMENT PARTS FOR FUEL PUMP	
Filter	**19-0458**
O-Ring Kit	**55-5094**

CRANKCASE REPLACEMENT PARTS
FOR S&S® X-WEDGE® ENGINES

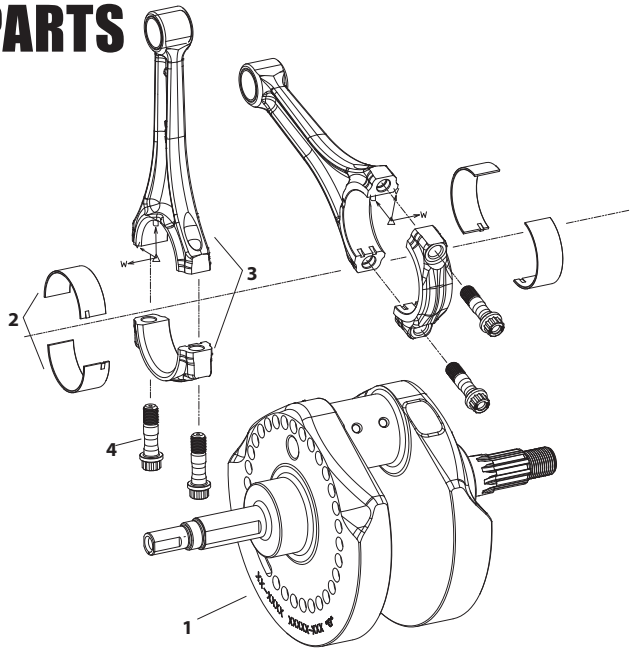
1. Crankcase Set - See page 488
2. Fitting, pipe, straight ¼-18 NPTF x 1.510 x ½, zinc **50-8158-S**
3. Plug ⅛-27 NPT with taper *(each)* **50-8331A**
   10 pack **50-1015**
4. Stud, cylinder base, 6.68", black oxide *(each)* **31-2321-S**
   8 pack **31-2321**
5. Transmission crankcase drain plugs with o-ring
   Plug, magnetic, SH, ½-20 ..... **50-8335**
6. Reed, breather valve, X-Wedge **36-7031**
7. Stop, breather reed valve, X-Wedge **36-7032**
8. Screw, BHS, 6-32 x 5⁄16", stainless steel **50-0060-S**
9. Pin, dowel, .438 diameter x .610 *(each)* **50-8177**
   4 pack **50-8177-4**
10. Washer, flat, 5⁄16 x 11⁄16 x 1⁄16 ..... **50-7034**
11. Screw, HHCS, 5⁄16-18 x 3¾", zinc **50-0011**
12. Bearing, assembly, inner, needle, cam, 1999-up BT **31-4080**
13. Bearing, main journal, standard, plain **34-8640-S**
14. Dowel pin, .187" x .635" *(each)* **50-8031**
15. Dowel pin, ¼" x ½" *(each)* **50-8022**
    2 pack **50-8022-2**
    5 pack **50-8105**
16. Spacer, charging system, 1.75" x 1.25" **106-0736**
17. Fitting, pipe, straight, male, chrome, steel, ⅛-27 NPTF x 1.344" x .375" *(each)* **50-8129-S**
18. Left main bearing oil seal 1970-up BT *(each)* **31-4010**
    5 pack **31-4110**
19. Tappet cover, set, X-Wedge
    Polished **106-0745**
    Silver **106-0746**
    Wrinkle black **106-0747**
20. Pin, dowel, .250" x 1.125" **50-8287**
21. Screw, SHCS, ¼-20 x ⅞"
    Bright zinc **50-0025**
    Chrome **106-0534**
22. Washer, flat, .260" x .425" x .060", chrome, steel *(each)* **50-7017**
    12 pack **50-7013**
23. Gasket, tappet cover, X-Wedge *(each)* **37-0006**
24. Gasket, reed pocket, X-Wedge *(each)* **36-0097**
25. Cover, reed pocket, X-Wedge
    Polished **106-0597**
    Silver **106-0598**
    Wrinkle blac **106-0599**
26. O-ring, oil feed line (-13), .437" I.D. x .565" O.D., Viton®
    each **50-8008**
    10 pack **50-8078**
27. O-ring, bottom, pushrod tube (-122), 1.112" I.D. Viton **50-7964-S**
28. Fitting, hose, straight, ⅛-27 NPTFx.500 ..... **50-8218-S**
29. Hose, vent, breather, .375" x .625" **106-3011**
30. Bracket, oil filter, X-Wedge
    Polished **106-0572**
    Silver **106-0573**
    Wrinkle black **106-0574**
31. O-ring, Viton, -017 ..... **50-0466**
32. O-ring, Viton, size -022 *(each)* **50-8005**
33. Switch, oil pressure, X-Wedge **106-0744**
34. Fitting, straight, ¾-16 UNF 2a **50-8197-S**
35. Screw, SHC, 5⁄16-18 x 1, zinc **50-0101**
36. Washer, flat, 5⁄16 x 11⁄16 x 1⁄16, zinc, steel **50-7034**

NOT SHOWN:
Crank position sensor **106-0734**



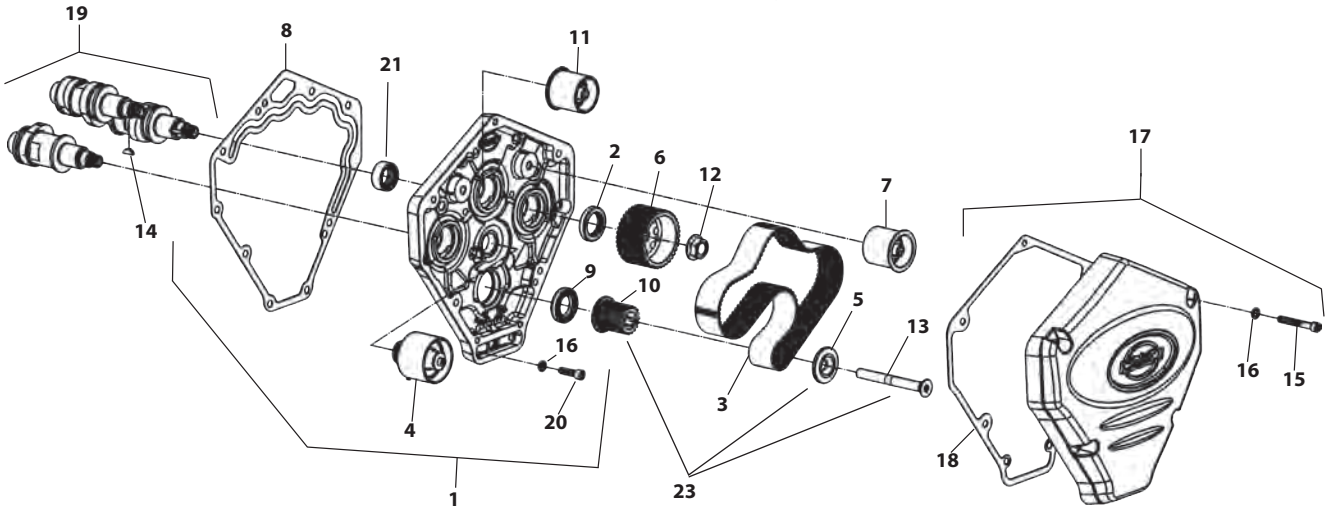
CRANKSHAFT REPLACEMENT PARTS
FOR X-WEDGE® ENGINES

1. Crankshaft Assembly *(includes #2, 3, 4)*
   All X-Wedge w/ 4⅜" stroke - X117/X132 ..... **106-0609**
   All X-Wdege w/ 4¼" stroke - X114/X121/X128 ..... **106-0608**
2. Bearing Insert *(4 pack)* **106-0569**
3. Connecting Rod *(each)* - front or rear **106-0583**
4. Bearing Cap Screw *(each)* **50-0346-S**



CAMS AND RELATED VALVE TRAIN COMPONENTS
REPLACEMENT PARTS

1. Cover, intermediate cam *(includes gasket and hardware)*
   Polished **106-0590**
   Silver **106-0591**
   Wrinkle black **106-0592**
2. Seal, cam cover/cam, .875" x 1.375" x .250", viton
   each **37-0230**
3. Belt, cam drive, 127 tooth, 30mm **106-0571**
4. Tensioner, belt, packaged, 30mm **370-0007**
5. Washer, pinion sprocket, flanged **500-0324**
6. Sprocket, cam, 38-tooth **106-0740**
7. Pulley, front, idler, 1.50" x 30mm **106-0696**
8. Gasket, intermediate cam cover **37-0097**
9. Seal, pinion, dual lip, 22mm x 35mm x 7mm **37-0044**
10. Sprocket, pinion, 19-tooth ..... **N/A**
11. Pulley, rear, idler, 1.50" x 30mm **106-0697**
12. Nut,Jam,HH,1/2-20,Zinc **500-0325**
13. Screw, torx, flat countersunk head, alloy steel
    ⅜-24 UNF x 3½" **500-0322**
14. Key, woodruff, .125" x .500" x .491", steel
    each **50-8223-S**
    5 pack **50-1010**
15. Screw, SHC, ¼-20 x 1¾", chrome **50-0488**
16. Washer, flat, .260" x .425" x .060", chrome, steel
    each **50-7017**
    12 pack **50-7013**
17. Cover, belt drive
    Chrome **106-0587**
18. Gasket, belt drive cover **106-0087**
19. Camshaft, kit, .548 ..... **106-0577**
    Camshaft, kit, .545 ..... **N/A**
20. Screw, SHCS, ¼-20 x ⅞" **50-0025**
21. Bearing, assembly, outer **106-1424**
22. Installation kit *(Not Shown)* **36-0481**
23. Pinion Update Kit **370-0015**



CYLINDER HEAD REPLACEMENT PARTS
FOR X-WEDGE® ENGINES

These are direct replacements for the heads included on engines used by our original equipment manufactures such as Big Dog Motor Cycle® and Big Bear Choppers®. The same heads are used in our X117 engines sold to our dealers and distributors.

1. Head, kit, .585", SW steel, X-Wedge
   - Full polished. . . . **106-0644**
   - Silver . . . **106-0646**
   - Wrinkle black . . . **106-0647**
2. Valve
   - Intake, 2" x 4.450", @ 1.943" gauge . . . **90-2000**
   - Exhaust, 1.605" x 4.428", @ 1.509" gauge . . . **90-2001**
3. Valve seat
   - Intake, 2.000" . . . **90-2002**
   - Exhaust, 1.605" . . . **90-2003**
4. Valve guide, intake/exhaust. . . . **106-2162**
5. Head bolt, kit, S&S heads, w/washer, 12 pt
   - ⅜-16 x 1.940" x .950" TD . . . **93-3028**
6. Washer, .515" x .900" x .150" . . . **50-0418-S**
7. Gasket, exhaust, stainless steel *(each)* . . . **106-5029**
   - *10 pack* . . . **93-1072**
8. Exhaust port stud 5⁄16" x 1.7" *(each)* . . . **50-0493**
   - *5 pack* . . . **50-1028**
9. Screw, SHCS, 5⁄16-18 x 1", zinc . . . **N/A**
10. Bolt, mounting, HH, grade 5, 5⁄16-18 x 1", zinc *(each)* . . . **50-0108**
11. Washer, flat, .344" x .688" x .065", zinc . . . **50-7034**
12. Flange, manifold, X-Wedge *(each)* . . . **16-0150**
13. Seal, manifold, 2.060" x 2.285" x .0240" *(each)* . . . **16-6601**
    - *10 pack* . . . **106-0676**
14. Sensor, kit, knock, IST, w/o bracket . . . **55-1096**
15. Sensor, temperature, cylinder head, 4⅛" . . . **55-1014**
16. Gasket, head, .043", graphite
    - 4⅛" *(each)* . . . **93-1130**
    - 4¼" . . . **93-1131**
    - 4⅜" *(each)* . . . **93-1132**
17. O-ring, (-220), 1.375" ID x 1.625" OD, viton *(each)* . . . **50-8245-S**
18. Pushrod cover, set, X-Wedge . . . **106-0698**
19. Stud, 5⁄16-24, 7⁄16-14 x 2.44" *(each)* . . . **50-0497**
20. Retainer, Set, alignment, rocker arm support . . . **106-0730**
21. Rocker arm, set, X-Wedge . . . **106-0716**
22. Nut,Lock,HH,Gr8,5⁄16-24 x 17⁄64", Zinc Plated, Steel *(each)* . . . **106-1749**
23. Washer, flat, .344" x .688" x .065", zinc . . . **50-7034**
24. O-ring, bottom, injector, .310" ID x .580"OD . . . **50-8265-S**
25. Fuel injector, assembly, style B, 31.3lbs/hr@58psi . . . **55-5005**
26. O-ring, top, injector, .290" ID x .570" OD . . . **50-8264-S**
27. Insulator, hold down, fuel injector *(each)* . . . **106-1303**
28. Clamp, front, hold-down, fuel injector . . . **106-0578**
30. Screw, SHC, ¼-20 x ⅞, zinc . . . **50-0025**
31. Valve, bleed, 1⁄16-27 NPT . . . **106-0755**
32. Fuel line, cut to size, 5⁄16" x 12", black, rubber *(each)* . . . **106-0159**
33. Fuel line, cut to size, 5⁄16" x 2.250", black, rubber *(each)* . . . **106-0157**
34. Clamp, Hose, Stepless® Ear,15.3mm . . . **106-2250**
35. Fitting, hose, tee, 5⁄16", black, glass filled, nylon *(each)* . . . **106-0409**
36. Rocker Cover Gasket *(each)* . . . **39-0010A**
    - *2 pack* . . . **106-0622**
37. Rocker Cover *(includes cover screw, washers and gasket(s))*
    - Front or Rear . . . **106-0600**
    - Set . . . **106-0593**
38. Washer,Flat,.319" x .545" x .042",Zinc,Steel *(each)* . . . **50-7026**
39. Screw, SHC, 5/16-18 x 1-7/8" Polished Chrome *(10 pack)* . . . **106-1058**

.585" Lift Street Performance Valve Springs

40. Spring, valve, Sidewinder .585" . . . **900-0444**
41. Collar, top, valve spring, .585", steel . . . **900-0550**
42. Collar, bottom, valve spring, conical, .585", steel *(each)* . . . **900-0600**
43. Valve keeper *(each)* . . . **90-2094-S**
    - *8 pack* . . . **50-7166**
44. Shim (for rebuild only)
    - .015" *(each)* . . . **90-2086**
    - *5 pack* . . . **50-7161**
    - .030" *(each)* . . . **90-2087**
    - *5 pack* . . . **90-2198**

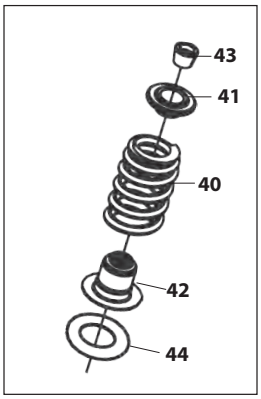
.650" Lift Sidewinder® Valve Springs

45. Spring, Valve .650" *(set of 4)* . . . **106-5927**
46. Collar, Top, Steel . . . **106-5690**
47. Collar, Bottom, Steel *(each)* . . . **106-3827**
48. Valve Keeper
    - *each* . . . **90-2094-S**
    - *8 pack* . . . **50-7166**
49. Shim
    - .015" *(each)* . . . **500-0013**
    - .030" *(each)* . . . **500-0014**

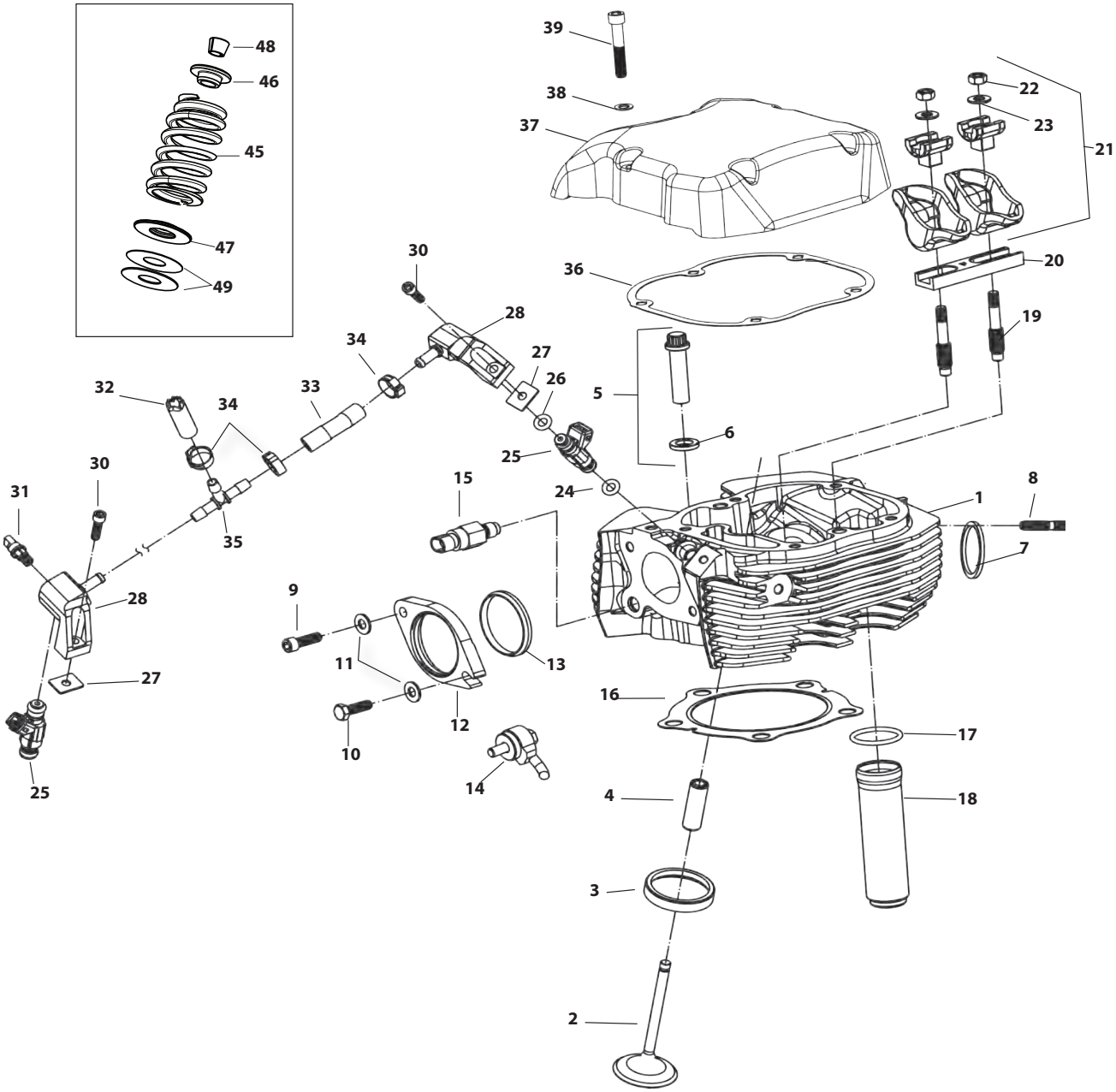
GASKET KITS

Description	Bore Size	Part #
Top End Rebuild Kit	4¼"	**90-9701**
	4⅛"	**106-1262**
Complete Engine Rebuild Kit	4⅛"	**106-1030**
	4¼"	**106-1029**
	4⅜"	**106-1031**

.585" Lift Street Performance Valve Springs

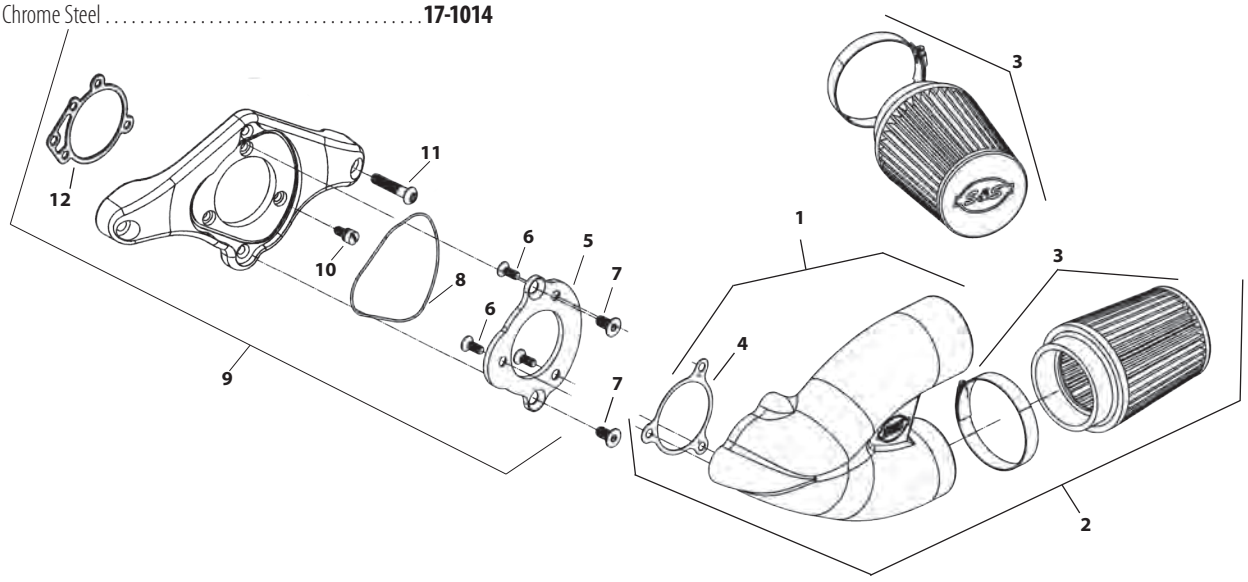


.650" Lift Sidewinder® Valve Springs



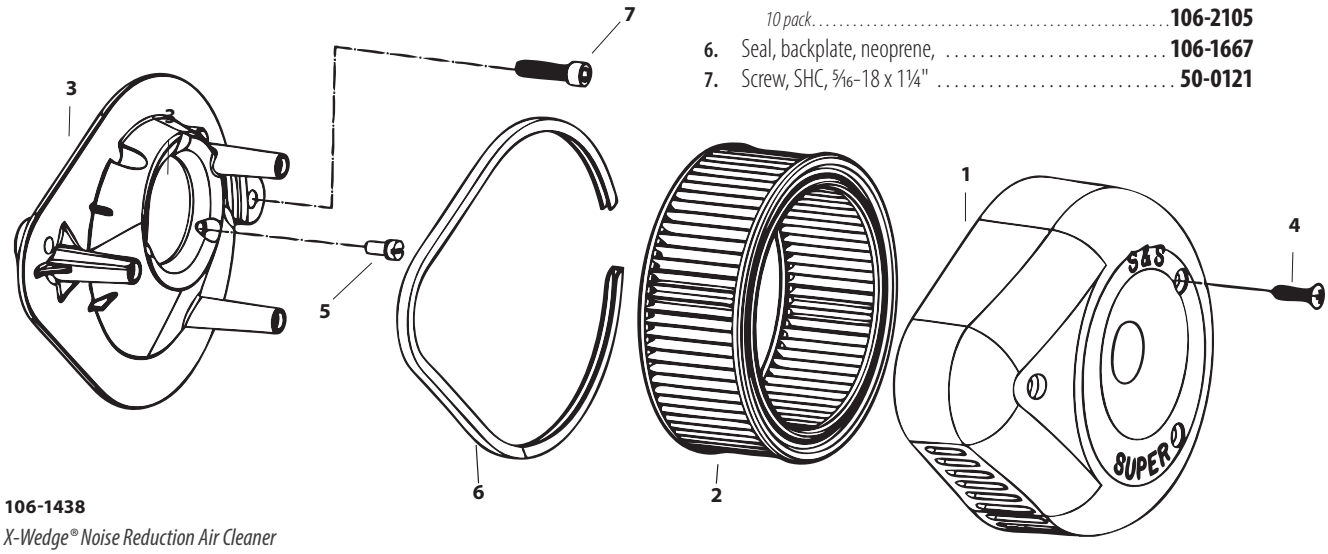
SINGLE BORE TUNED INDUCTION SYSTEM
REPLACEMENT PARTS

1. Tuned Intake Kit, 2.19" Single Bore
   - Wrinkle Black **106-4966**
   - Chrome Plated **106-4967**
2. Tuned Intake Assembly, 2.19" Single Bore
   - Natural **106-4968**
   - Wrinkle Black **106-4969**
   - Chrome Plated **106-4970**
3. Air Filter, with Clamp, Stainless Cap – Conical – 2⁷⁄₁₆" I.D. x 4"
   - Red *t* **17-1020**
   - Blue *(each)* **17-1023**
4. Gasket, Intake – Adapter Plate, 2.19" Single Bore Tuned Intake **17-1022**
5. Plate, Adapter, 2.19" Single Bore Tuned Intake
   - Chrome Steel **17-1014**
6. FHSC ¼-20 x ⅝" *(each)* **50-0433**
7. FHSC ⁵⁄₁₆-18 x ¾" *(each)* **50-0432**
8. O-Ring, Adapter Plate Bracket, 3⅝" O.D. x 3½" I.D. ⅛ CS, Viton®
   - *each* **50-0446**
9. Bracket Kit, S&S X-Wedge® **106-4972**
10. Backplate Screw LSHC Black Oxide (X-Wedge Only) **106-0817**
11. Screw, Button Head Cap Screw, ⁵⁄₁₆ -18 x 1½" Grade 5, Chrome
    - *each* **50-0309-S**
12. Gasket, Backplate *(each)* **106-1724**
    - *10 pack* **106-2328**
13. Filter oil, 8oz. bottle (N/S)
    - Red **106-1163**
    - Blue **106-1164**



TEARDROP AIR CLEANER REPLACEMENT PARTS
FOR S&S® X-WEDGE®

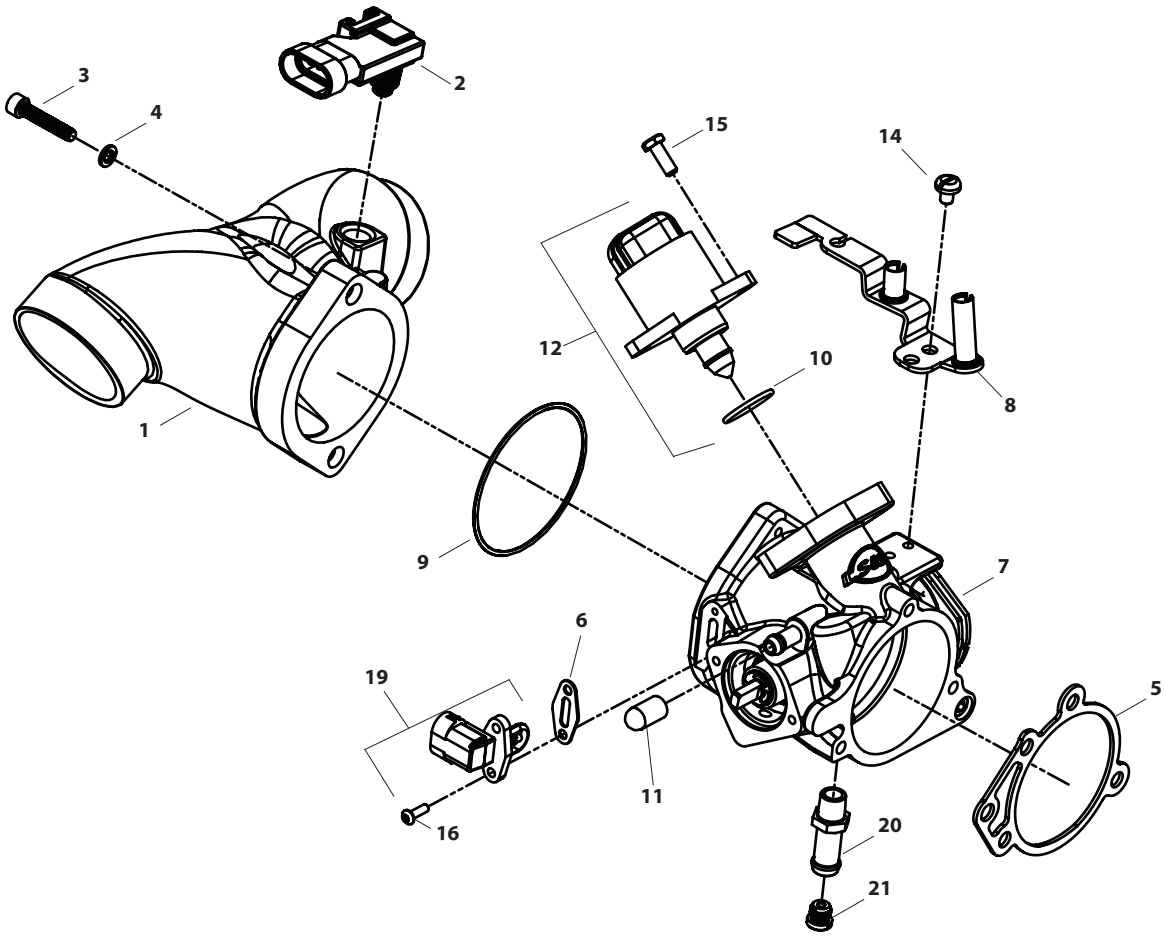
1. Air Cleaner Cover
   - Chrome, Slasher **17-0004**
2. Element, pleated **106-4722**
3. Backplate SBFFI **106-0568**
4. Screw, oval ¼-20 x 1 *(each)* **50-0072**
   - *3 pack* **50-1052**
   - *10 pack* **50-0094**
5. Backplate screw, Zinc Plated
   - *each* **106-2084**
   - *10 pack* **106-2105**
6. Seal, backplate, neoprene, ... **106-1667**
7. Screw, SHC, ⁵⁄₁₆-18 x 1¼" **50-0121**



106-1438
X-Wedge® Noise Reduction Air Cleaner

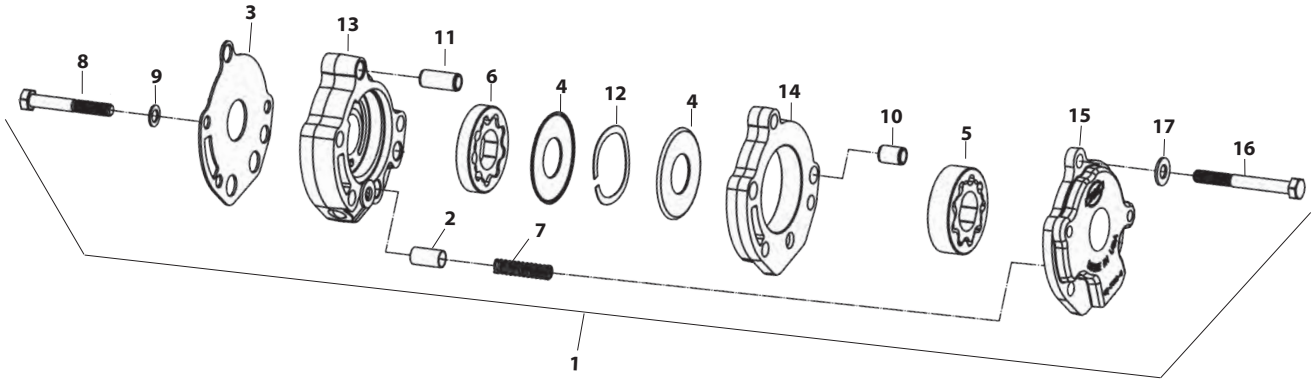
THROTTLE BODY AND RELATED REPLACEMENT PARTS
FOR X-WEDGE® ENGINES

1. Manifold, SBEFI, 2 1⁄16", X-Wedge
   Natural **106-0674**
2. Sensor kit, map, IST, w/VOES fitting **55-1037**
3. Screw, SHSC, 10-24 x 1" *(each)* **50-0359-S**
4. Washer, lock, .200" x .334" x .047",zinc, steel **50-7000**
5. Gasket, backplate, Super E & G
   52mm *(each)* **106-1724**
   10 pack **106-2328**
   58mm **106-4662**
6. Gasket, Air Temperature Sensor, S&S® VFI **16-5009-S**
7. Throttle body, assembly, single bore, w/tps, natural
   52mm **106-3141**
   58mm **106-3960**
8. Guide, throttle cable, w/hardware, X-Wedge **106-0634**
9. O-ring, (-036), 2.364" ID x 2.504" OD, nitrile **50-7967-S**
10. O-ring, (-018) .739" ID x .879" OD x .070, viton **50-8149-S**
11. Cap, canister purge fitting *(each)* **50-8266-S**
12. Motor, kit, idle air control, EFI **55-5085**
14. Screw, SLTD, PH, 10-24 x ¼ *(each)* **50-0041**
    10 pack **50-0062**
15. Screw, 10-24 x .500 trimmed HXHD m/s *(each)* **50-0356-S**
16. Screw, torx, m3 x 10mm, zinc, steel **50-0357-S**
19. Sensor, kit, temperature, intake air **55-5041**
20. Fitting, hose, straight, ⅛-27 NPTF x .375", w/ 5⁄16 T, zinc, steel
    each **106-2981**
21. Jet, Main, Series 72, .100" *(each)* **11-4100**
    5 pack **11-7250**



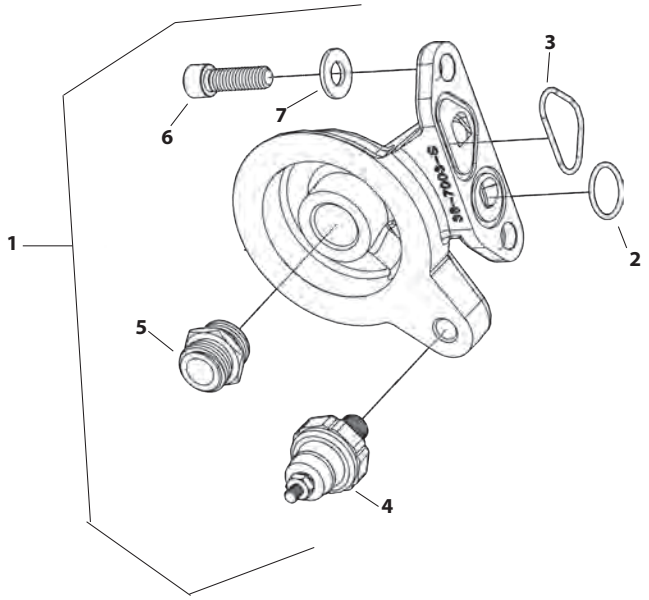
OIL PUMP REPLACEMENT PARTS
FOR X-WEDGE® ENGINES

1. Oil pump, kit, X-Wedge **106-0680**
2. Valve, pressure relief, X-Wedge **106-0774**
3. Plate, S&S oil pump, X-Wedge **106-0694**
4. Plate, divider, S&S oil pump, X-Wedge *(each)* **36-7005**
5. Rotor, set, oil pump return, X-Wedge **106-0717**
6. Rotor, set, oil pump supply, X-Wedge **36-7021-S**
7. Spring, relief valve, X-Wedge *(each)* **36-7041**
8. Screw, HHC, 5⁄16-18 x 2¼ *(each)* **50-0462**
9. Washer, flat, zinc, .319" *(each)* **50-7026**
10. Dowel pin, .437" diameter x .610" *(each)* **50-8177**
    4 pack **50-8177-4**
11. Dowel pin, .437" x 1" *(each)* **50-8284**
12. Spring, wave, 1.60" x 2" x .085" **106-0773**
13. Oil pump , body, supply, X-Wedge **106-0679**
14. Oil pump , body, return, X-Wedge *(Includes dowel pin #11)* **106-0678**
15. Cover, oil pump , return, X-Wedge **106-0596**
16. Screw, HHC, GR8, 5⁄16-18 x 3 ..... **106-1694**
17. Washer, flat, .344" x .688" x .065", zinc, steel **50-7034**



OIL FILTER BRACKET REPLACEMENT PARTS
FOR S&S® X-WEDGE® ENGINE

1. Bracket, oil filter, X-Wedge
   Polished **106-0572**
   Silver **106-0573**
   Wrinkle black **106-0574**
2. O-ring, Viton, -017 ..... **50-0466**
3. O-ring, Viton, size -022 *(each)* **50-8005**
4. Switch, oil pressure, packaged, X-Wedge **106-0744**
5. Fitting, straight, ¾-16 UNF 2a *(each)* **50-8197-S**
6. Screw, SHC, 5⁄16-18 x 1, zinc **50-0101**
7. Washer, flat, 5⁄16 x 11⁄16 x 1⁄16, zinc, steel **50-7034**





Performance Parts

Air Cleaner Kit for Indian® Models.....505
Air Cleaner Kit for Indian® Scout®, Indian® Scout® Sixty, & Victory® Octane™ 504
Air Cleaner Kits for Victory® Models 506

Replacement Parts 507

SECTION 9: INDIAN® & VICTORY®

STEALTHTWO AIR CLEANER KIT
FOR INDIAN® SCOUT®, INDIAN® SCOUT® SIXTY, AND VICTORY® OCTANE™

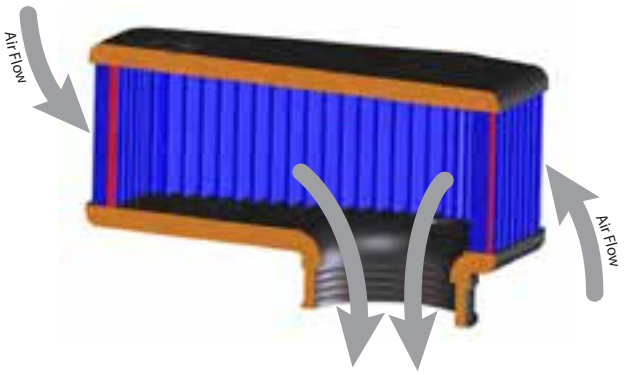
FITMENT

CARB compliant
EO #D-355-23

- 2015-2016 Indian® Scout®
- 2016 Indian® Scout® Sixty
- 2017 Victory® Octane™

FEATURES AND BENEFITS

- Bolt-on air cleaner assembly with high flow, washable filter media
- 127% increase in flow
- Simple one-piece construction
- Made in the USA
- Exempt from emissions tampering regulations under CARB EO# D-355-23



The S&S StealthTwo air cleaner features increased filter area and a radiused inlet. Together, they provide a smooth path for air to flow into the throttle body. Reduced turbulence! Increased flow! More power!

STEALTHTWO AIR CLEANER KIT

Fitment	Part #
2015-2016 Indian® Scout®, 2016 Indian® Scout® Sixty & 2017 Victory® Octane™	**170-0298C**

Exempt from emissions tampering regulations under CARB EO# D-355-23





AIR CLEANER KIT FOR INDIAN® MODELS

CARB compliant
EO #D-355-23



170-0227A

FITMENT

- 2014 - 2016 Indian® Chieftain®, Classic, Vintage & Roadmaster Models

FEATURES AND BENEFITS

- Increase of 5 hp when paired with performance mufflers and tuning
- High flow air filter provides:
  - 2x increase in surface area
  - 37% increase in airflow
  - High quality, washable cotton gauze filter
- Engineered to maintain leg clearance
- Billet aluminum for greater durability
- Show quality chrome billet cover options available

AIR CLEANER KIT FOR INDIAN® MODELS

FITMENT	Part #
All 2014-2016 Indian Models originally equipped with 1811cc Engines No Cover	170-0227C
All 2014-2016 Indian Models originally equipped with 1811cc Engines with S&S® Nostalgic Script Cover	170-0264C
All 2014-2016 Indian Models originally equipped with 1811cc Engines with S&S® Cycle Logo Cover	170-0295C

Exempt from emissions tampering regulations under CARB EO# D-355-23

PRE-FILTER

- Water resistant
- Prevents large debirs from prematurely clogging filter
- Washable nylon
- Promotes longer filter life
- Reduces the risk of water entering the intake system
- No tools required for installation

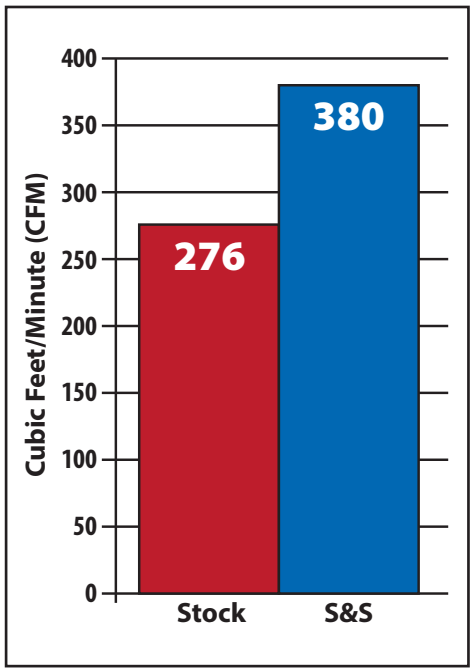
REPLACEMENT COVERS FOR S&S AIR CLEANER KIT FOR INDIAN® MODELS

FITMENT	Part #
S&S® Nostalgic Script, Chrome	170-0239
S&S® Cycle Logo, Chrome	170-0242

PRE-FILTER

FITMENT	Part #
Air Filter	170-0255

REPLACEMENT PARTS: SEE PAGE 507



The S&S Air Cleaner Kit provides 104 cfm (37.7%) more air than the stock air cleaner.*

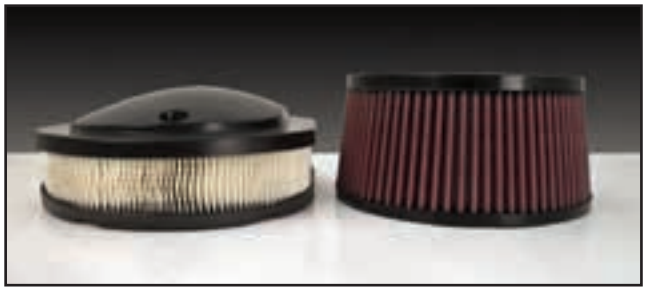
**Tests conducted on a Super Flow 1020 flow bench at 28 inches of water test pressure.*



170-0239 S&S® Nostalgic Script



170-0242 S&S® Cycle Logo



S&S High flow air filter provides 2x increase in surface area for a 37% increase in airflow.

AIR CLEANER KITS
FOR VICTORY® MODELS


41-0021

FITMENT
- Available for 2003-up Freedom® engines (not for Vision™, Cross Roads™, Cross Country™ or Touring Cruiser models)
- 50-state version fits 2006-'07

FEATURES AND BENEFITS
- Increased air flow for up to 20 more hp with performance exhaust
- Calibration card included in some kits – Allows Victory dealer to load an S&S tune file in stock ECU
- Washable gauze filter element
- Polished billet construction

OPTIONS
- Versions for 2003-'07 models, 2008-up models
- Available with calibration card for Victory dealers
- Available without calibration card (non- Victory dealers)

KIT CONTENTS
- Polished billet air cleaner housing
- Pleated gauze filter
- All required hardware
- Calibration card included in some kits
- S&S decal
- Instructions

AIR CLEANER KITS FOR VICTORY® MODELS

Product Description	Part #
2003-'07 (includes calibration card)	**41-0021**
2003-'07 (no calibration card)	**106-5130**
2008-'12 (except Vision, Cross Roads, Cross Country models) (includes calibration card)	**106-1319**
2008-'16 (except Vision, Cross Roads, Cross Country models)(No calibration card)	**106-5131**

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: SEE PAGE 508

NOTES

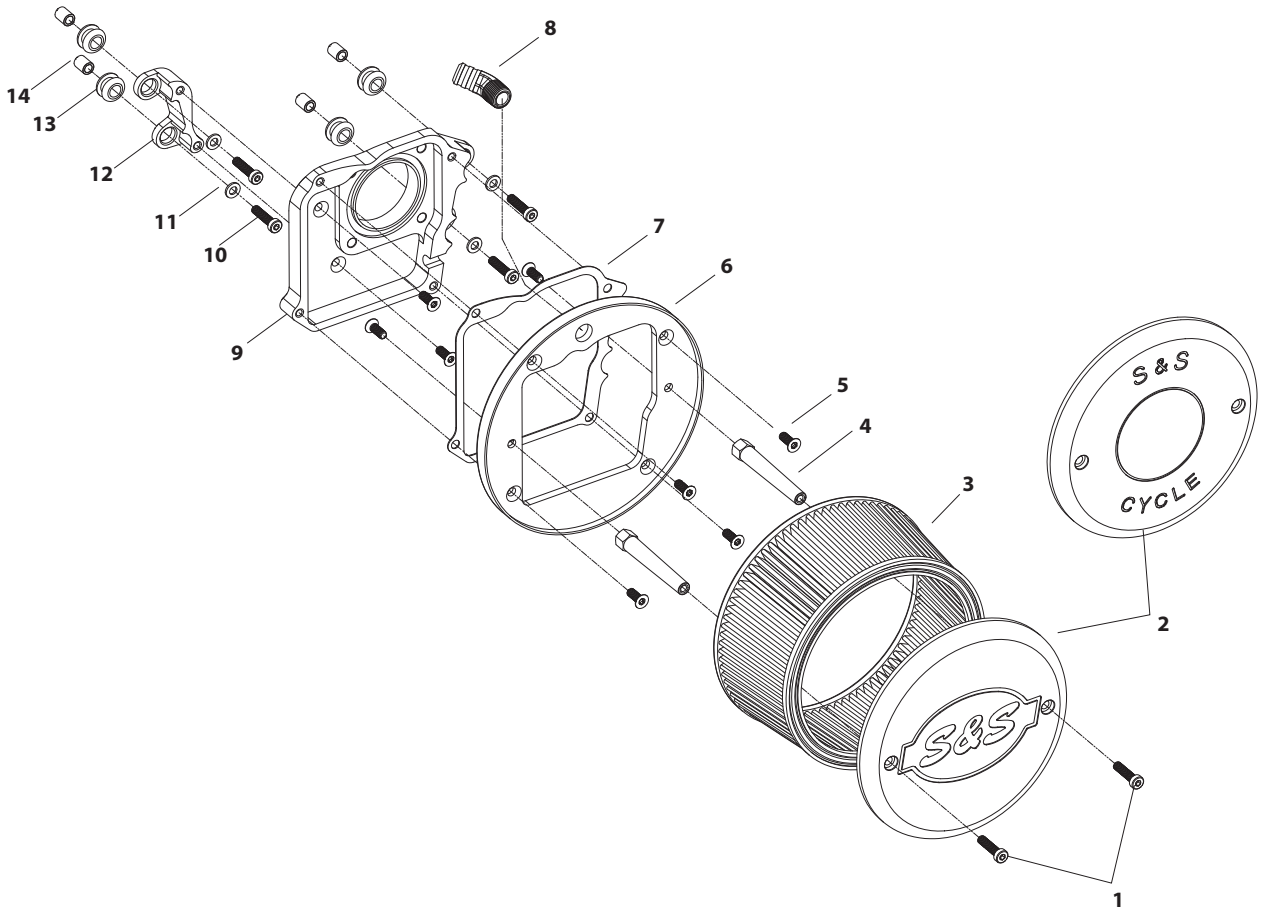
It should be noted that the calibration file for this kit was developed for use with the Victory Stage I Performance Slip-On mufflers and Victory Stage I Exhaust Systems. This tune file can only be accessed by a Victory dealer using the S&S Freedom® Performance Tuner software.

If the installer is not a Victory dealer, we recommend the Dynojet® Power Commander® for EFI tuning.

If a different exhaust is used or other engine modifications are performed, we recommend the Dynojet® Power Commander® for EFI tuning.

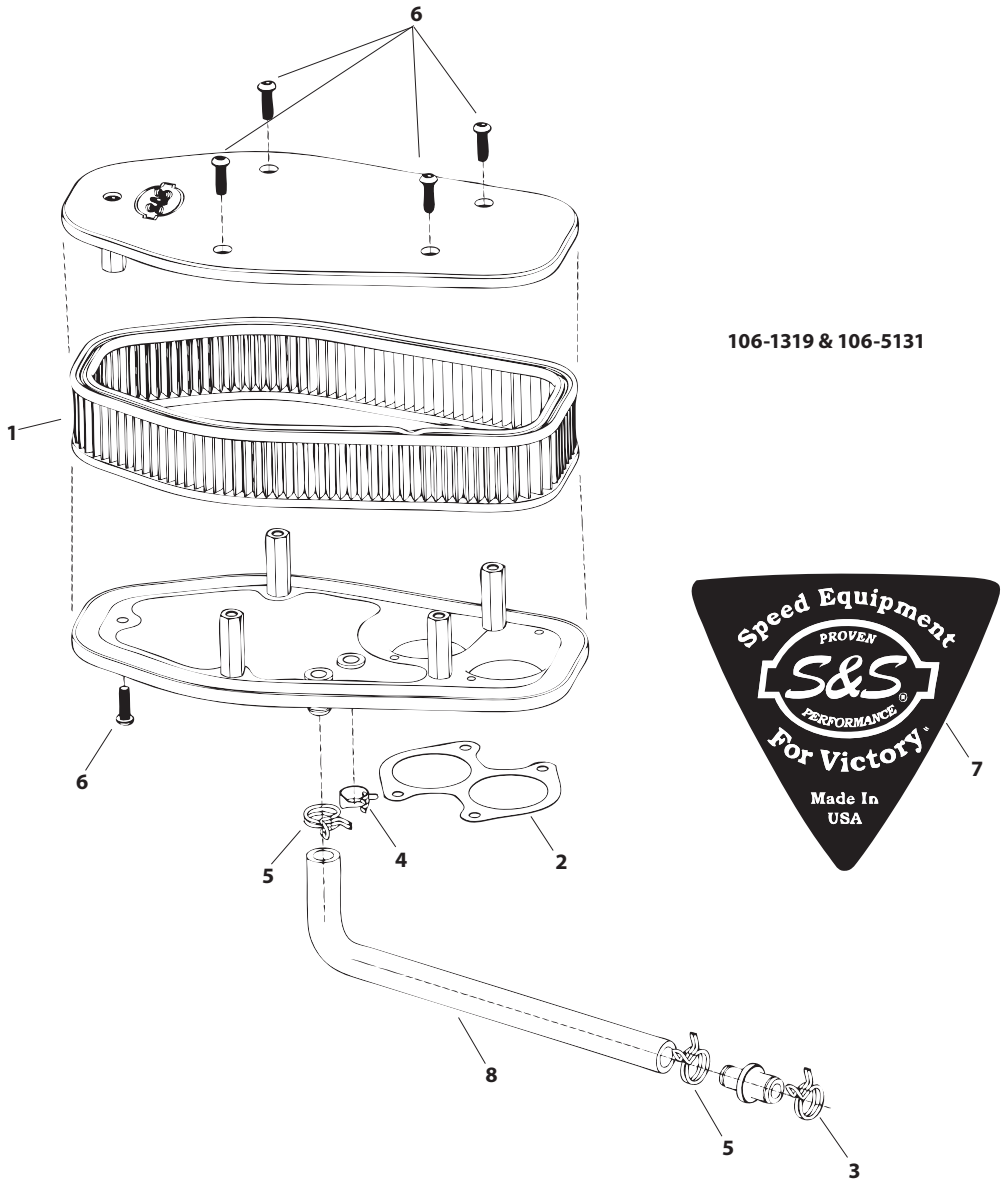
AIR CLEANER KIT REPLACEMENT PARTS
FOR INDIAN® MODELS

1. Screw, SHC Low Profile, 25mm, M6 x 1, Chrome ..... **N/A**
2. Cover, Air Cleaner
   S&S Logo **170-0242**
   S&S Nostaligic Script **170-0239**
3. Filter, Air, Tapered, Standard Pleated Cotton **170-0228**
4. Standoff, Air Filter **170-0232**
5. Screw, SHC, Flat, 16mm, M6 x 1, Zinc **500-0291**
6. Backplate, Air Filter Element **170-0230**
7. Gasket, Backplate **170-0233**
8. Fitting, 45°, 3/8" NPT x 5/8" Barb, Zinc Plated **500-0267**
9. Backplate, Throttle Body **170-0229**
10. Screw, SHC Low Profile, 25mm, M6 x 1, Zinc **500-0271**
11. Washer, Flat, M6, Zinc **500-0272**
12. Bracket, Backplate **170-0236**
13. Grommet, Backplate, Rubber **500-0269**
14. Spacer, Zinc **500-0270**



BILLET AIR CLEANER KIT REPLACEMENT PARTS
FOR 2008-UP VICTORY® MODELS

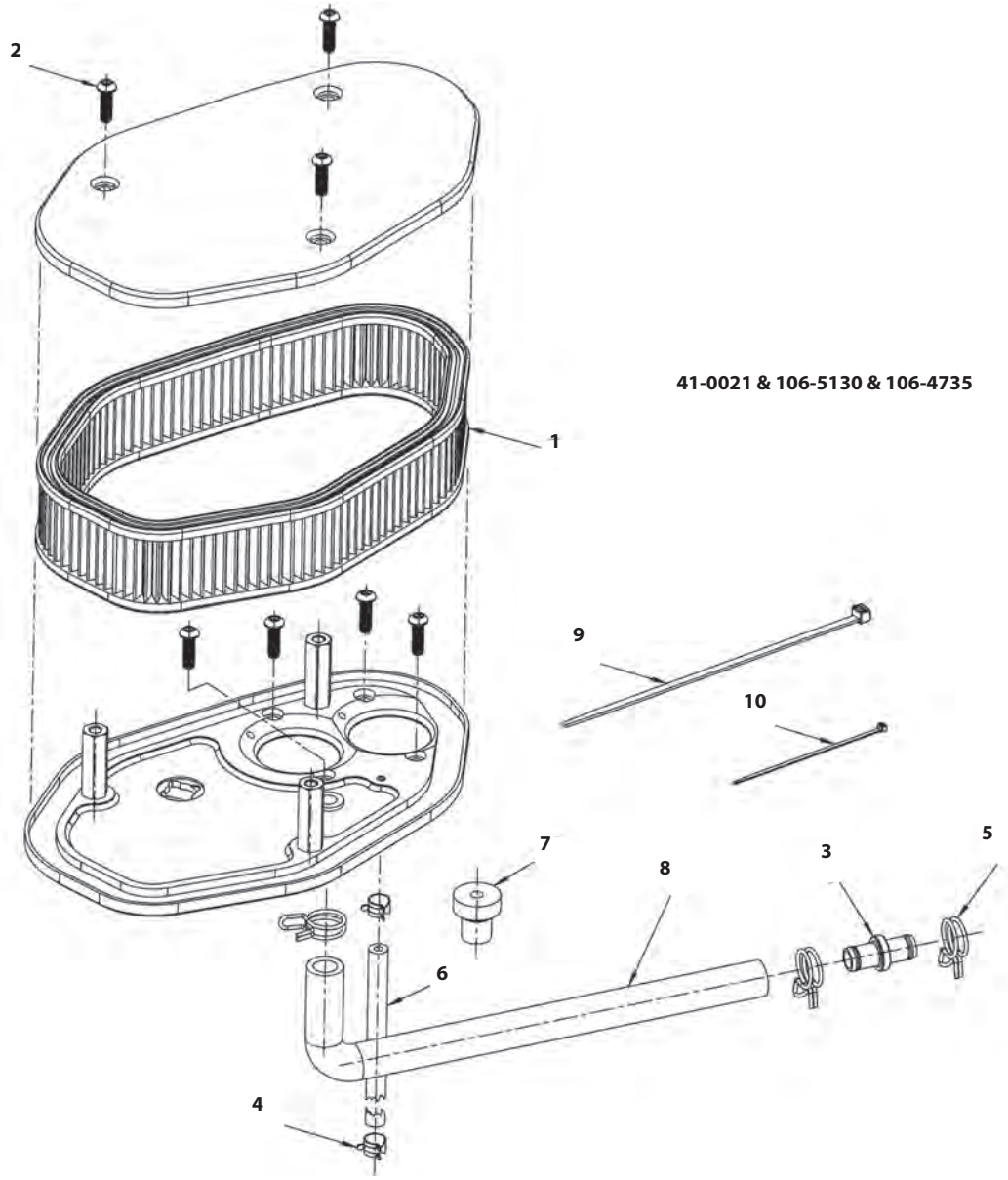
1. Air filter, 2008-up Victory® ..... **N/A**
2. Gasket, Backplate, 2008-up Victory *(each)* **106-1325**
3. Clamp, Spring, Double wire *(each)* **106-1327**
4. Clamp, Spring, .660" *(each)* **50-8076-S**
5. Clamp, Spring, Double wire **50-8156-S**
6. BHC Screw, M6 X 1 X 20 ..... **50-8421-S**
7. Decal, Speed Equipment, Black, Victory **106-1968**
8. Hose, Breather, Formed, .500" ..... **N/A**



106-1319 & 106-5131

AIR CLEANER KIT REPLACEMENT PARTS
FOR 2003-2007 VICTORY® MODELS

1. Filter element **41-0006**
2. SBHC Screw, M6X1 x 20 ..... **50-8421-S**
3. Breather hose union, .500" ID **41-0008**
4. Clamp, hose, spring, .440" DIA **50-8143-S**
5. Double wire spring clip **50-8156-S**
6. Hose, 3⁄16" ID x 12" ..... **N/A**
7. Spacer, coil mounting **41-0011**
8. Breather hose, formed ..... **N/A**
9. Wire tie, 8" Blk, Nylon *10006, 10065* **50-8346-S**
10. Wire tie **50-8003**





SECTION 10: RACING PRODUCTS

GET THE LATEST S&S RACING COMPONENT INFORMATION

This history of S&S Cycle is anchored in motorcycle racing, beginning with our founder George Smith and his legendary motorcycle, Tramp. For those drawn by the same pursuits, whether for the drag strip, the Salt Flats, the tracks, or the streets, S&S Cycle has the products and expertise needed to reach the top of the podium.

Due to the specialized nature of much of our racing product line, we encourage you to visit our website www.sscycle.com/racing-catalog for details on our offerings. Further information can be obtained by calling our dedicated professionals at 866-244-2673

DEALER SALES ONLY!

S&S does not sell technical products directly to retail consumers, and race engine components certainly fall into that category. S&S racing components are only available through S&S Dealers. S&S Racing Products are available through any authorized dealer, but here are some S&S dealers who specialize in racing: Karling Racing Engines, Kendall Johnson Customs, Sachs Race Bikes, Lozano Brothers Porting, Star Racing. Chris Rivas V-Twin Specialties, Mutant Motors By Wolf, 2 Boss Performance, LLC., and Gregg's Machine Service.

ARE YOU FAST ENOUGH? S&S® CYCLE INVITES YOU TO JOIN THE CLUB

HERE'S HOW YOU CAN JOIN SOME FAST COMPANY:

- First, go fast – after breaking in your engine according to the manufacturer's instructions.
- Next, provide the documentation listed below.
- Then, toss everything in an envelope and send it to S&S®.
- We'll send you an official 9- 10- or 11-Second club patch for your leathers, a certificate authorizing braggin' rights, and a free club t-shirt.

HERE'S WHAT WE NEED FROM YOU:

1. Proof that your street-ridden motorcycle (D.O.T. tires, full charging system, no wheelie bars or air shifts) equipped with S&S performance products, has turned an 11.99 or quicker quarter-mile time. We'll need an official timing slip from a sanctioned dragstrip dated after June 1, 2005 and signed by the timekeeper. (A good photocopy will do.) We don't care if you trailer the bike to the track, so long as it sees more action on the street than off. The registered owner must ride the motorcycle for the qualification pass.
2. A photograph of yourself and the motorcycle. Action shots are preferred if sharp and clear.
3. Join online: www.sscycle.com/go-fast-showcase/seconds-club

PLEASE NOTE

Tell us a little about yourself and your motorcycle. Include the model and year, a list of all engine and frame modifications, the type of exhaust, and tire brand and model. Be sure to mention all S&S products used!
Submitted materials may be used for promotional purposes.
Members will receive a certificate, club patch, and t-shirt, but no payment or other considerations.

JOIN ONLINE:
WWW.SSCYCLE.COM/GO-FAST-SHOWCASE/SECONDS-CLUB/



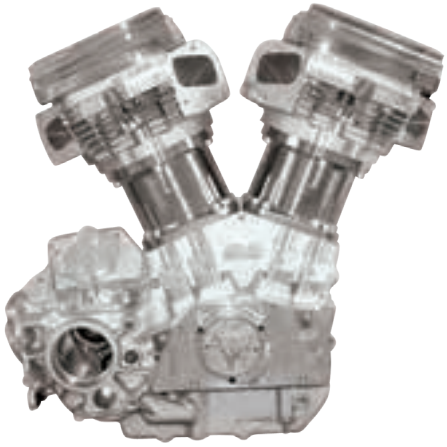
Please allow 4 weeks for processing.

PERFORMANCE ENGINES



S&S® PRO STOCK DOWNDRAFT BILLET ENGINE

- 60" displacement, 60° v-twin pushrod configuration
- Billet crankcases with integral transmission housing
- Billet steel Pro Stock style flywheel assembly
- Billet aluminum rods with 1.500" crankpin
- Billet Pro Stock cylinder heads
- S&S Iron Pro Stock cylinders
- Pro Stock VFI manifolds, throttle bodies
- Six-speed automatic transmission
- Turn-key includes ignition system, transmission, output sprocket, etc. assembled



S&S 160" CAST COMPLETE PRO STOCK ENGINES

- S&S cast square-port Pro Stock heads with 2.450" intake valves and 1.900" exhaust valves and S&S .800" lift valve springs
- S&S 4.800" bore finless 4142 chromoly steel cylinders
- "Pork chop" style S&S Pro Stock press together flywheels with a relatively short 4.375" stroke – includes 8.500" long S&S billet aluminum connecting rods
- The transmission cavity will accept a stock or aftermarket 1991-2003 style 5-speed transmission for a Harley-Davidson® Sportster® (a special access door is supplied)



S&S T126 4 3/8" BORE ENGINES FOR 1999–'06 BIG TWINS

- 4.375" bore x 4.1875" stroke
- Assembled
- Natural, Silver, Wrinkle Black, Gloss Black and Polished
- Available with Super D Carb or no induction *(order seperately)*
- S&S gear drive oil pump with polished cover
- 640 cam
- High flow B2 heads with 2.2" intake and 1.8" exhaust valves
- Chrome rocker covers
- .250" taller than stock Twin Cam 88®

CRANKCASES



S&S® 45° CAST PRO STOCK CRANKCASES

- Can accommodate cylinder spigot bores of up to 5.335"
- Cylinder deck heights are available as high as 1.750" taller than stock
- Cam chest is a modified 1986-'90 four-speed style and is offset .850" to allow larger bore sizes
- Requires a special S&S Pro Stock flywheel assembly which features a big twin style sprocket shaft, .850" longer than stock pinion shaft, and special big twin width connecting rods
- Must be used with special race frame



S&S SA CRANKCASE FOR SPORTSTER® AND BUELL® MODELS

- Can be ordered with spigot bore diameters from stock 3.680" to 4.630", and with crankcase deck heights up to 1.000" taller than stock
- Cam chest is offset .500" to allow for the larger bore sizes
- Cam chest may be machined for either 1986-'90 (four-speed) or 1991-'99 (five-speed) cam geometry



S&S SA BIG BORE CRANKCASES FOR 1999–'06 BIG TWIN "A" ENGINES

- Can be ordered for 4.375" to 4.800" bore engines
- Cam chest on the right side has been offset .375" — requires a special .375" longer pinion shaft
- Deck height can be machined to the stock height of 6.000" or as high as 7.125" from the crank center line — allows for more material and greater strength between the cylinder spigot bores
- Optional stock cam geometry – allows the engine builder to select from a wide variety of readily available cams
- Optional special rotated S&S cam geometry – improves the pushrod angles for more direct application of force to the rocker arms, hence more accurate valve actuation. (Cases machined for this option require specially ground cams. These cams are not currently available from S&S and must be special ordered from the cam manufacturer.



S&S SA ALTERNATOR STYLE CRANKCASE FOR 1984–'99 BIG TWIN ENGINES

- Can be ordered with spigot bore diameters from stock 3.680" to 4.630", and with crankcase deck heights up to 1.000" taller than stock
- Cam chest is offset .250" to allow for these larger bore sizes

FLYWHEELS

FOR CAST PRO STOCK ENGINES, FOR 1984-'12 BIG ENGINES, & SPORTSTER® RACING APPLICATIONS







CONNECTING RODS FOR RACING FLYWHEEL ASSEMBLIES

PRO-STOCK BILLET ALUMINUM, BIG TWIN SUPREME CONNECTING RODS, SPORTSTER® SUPREME CONNECTING RODS, & FORGED STEEL CONNECTING RODS





CONNECTING ROD PARTS

- Rod Bearing Assembly For S&S Connecting Rods – 1.500"
- Rod Bearing Cage Set For Big Twin Engines – Alloy
- Rod Bearing Set For Big Twin Engines – Alloy
- Sprocket Shaft and Crankpin*Nut For S&S Shafts – 1.250"
- S&S Crankpin Nut for 1.500" Crankpins For Sportster Models
- Sprocket Shaft Nut For 1.500" Diameter Shafts
- Bearing Cage Set for Sportster Engines Alloy 1.250" and 1.500"
- Bearing Set for Alloy CagesFor Sportster Models – 1.250" & 1.500"
- Flywheel Thrust Washers



CRANKPINS

PRO STOCK PRESS-IN, BIG TWIN CRANKPIN – PRESS-IN WELD-IN, BIG TWIN CRANKPIN – TAPERED, SPORTSTER® PRESS-IN WELD-IN, SPORTSTER® TAPERED



SPROCKET & PINION SHAFTS AND RELATED PARTS

SPROCKET: PRESS-IN

- Pro-Stock
- 1954–'64
- 1970–UP

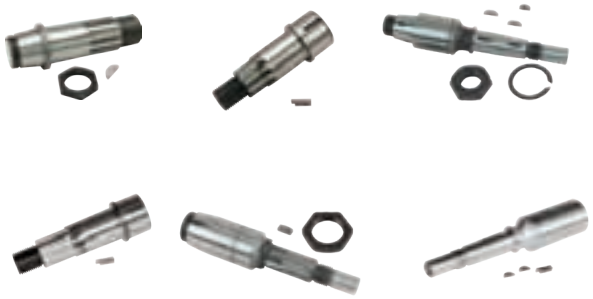
SPROCKET: TAPERED

S&S V-SERIES SA CASES

- Tapered & Press-In

PINION SHAFTS:

- Cast Pro-Stock
- Delkron 4-Cam
- S&S® T-Series SA Cases
- S&S® V-Series SA Cases
- S&S® Sportster® SA Cases



RACING CAMSHAFTS

FOR CAST PRO STOCK ENGINES

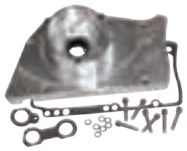


S&S® PRO STOCK CAMSHAFT SPECIFICATIONS								
Valve Timing Open/Close		Valve Duration		Valve Lift 1.625:1 Rocker Ratio	Centerline		Lift @ TDC	
Intake	Exhaust	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust
Adjustable	Adjustable	279°	298°	.800"	Adjustable	Adjustable	Adjustable	Adjustable

BILLET GEARCOVERS FOR SPORTSTER® AND BUELL® MODELS

- Available for 1986-'90 (four-speed) and 1991-'99 (five-speed) cam chests
- One gearcover features needle bearings instead of bushings for the outboard ends of the camshafts and one style uses stock style bushings
- Not recommended for engines with stock 1986-'90 crankcases as they have no provision for the four speed style crankcase breather.
- Hardware and special S&S gearcover gasket included





CYLINDERS & PISTONS

S&S FINLESS STEEL

- Machined from 4142 chromoly steel – 180,000 psi approx. tensile strength – a higher strength to weight ratio than that of competitive cast iron racing cylinders
- Replaceable sleeve made of ductile iron (superior wear resistance) allows worn or damaged cylinders to be rebuilt and reused

S&S FINNED ALUMINUM

- Developed for the S&S Pro Stock engines, but can be used in many other gasoline racing applications
- Machined from solid aluminum billets for maximum strength and improved heat dissipation
- Replaceable sleeve made of ductile iron (superior wear resistance) allows worn or damaged cylinders to be rebuilt and reused

PRO-STOCK PISTONS

- 4.800" & 4.600" Bore
- All Strokes

4⅛" & 4⅜" BORE PISTONS

- Various Over-Bore sizes
- Various Strokes

RINGS, WRISTPINS, KEEPERS AVAILABLE



CYLINDER HEADS

CAST PRO-STOCK

- Made from A206 grade aluminum alloy Available from minimal machined to fully machined versions
- Fully machined cylinder heads are made to customer specifications, and can be machined to fit the pushrod geometry of a number of crankcase styles and with a number of head bolt patterns
- CNC Ported

S&S® B2

- Various Combustion chambers
- CNC Ported oval intake ports bolt up to S&S Throttle Hog 70mm throttle bodies *(08-up touring only)*
- Stock style breather system – compatible with stock and aftermarket air cleaners
- Large 2.200" intake and 1.800" exhaust valves
- .660" lift S&S valve springs with titanium top collars
- Machined for stock sensors – EFI ready
- 4 1/8" Bore minimum
- Available in stock Twin Cam 88® bolt pattern





HEAD & BASE GASKETS, INTAKE & EXHAUST FLANGES AVAILABLE

NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED VEHICLES • FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE

TAPPETS & TAPPET GUIDES

BILLET PRO-STOCK STYLE, S&S® T-SERIES SA, S&S V-SERIES SA, HARLEY-DAVIDSON® SPORTSTER® MODELS





RACING PUSHRODS

- S&S offers steel pushrods for racing applications that require the utmost strength and rigidity.
- Available in sets of four non-adjustable pushrods with .375" diameter ball ends.
- These pushrods can be used in 1966-up big twin engines, Sportster® models, and S&S Pro Stock engines with adjustable solid tappets. Please specify pushrod length and whether you wish the ball ends to be installed.



1.725:1 RATIO ROCKER ARMS

- Additional valve lift can be obtained without increased tappet travel (cam lift)
- Forged from 8620 steel, then heat treated and shot peened for maximum strength and fatigue resistance
- Superior material and design makes them very strong and rigid – eliminating stress areas that cause other rocker arms to break
- Rocker shaft bushings in S&S rocker arms are ¾" long compared to the stock ½" long bushings – provides 50% more bearing support area to handle high spring loads




RACING VALVE SPRINGS

FOR MODIFIED HARLEY-DAVIDSON® 1984-UP BIG TWIN AND 1986-'03 SPORTSTER® MODELS

.660" LIFT TRIPLE VALVE SPRING KIT

- These springs can be set up for use with S&S 675 cams
- Typically used with cast iron guides
- 1.900" installed height
- 1.550" O.D. outer spring, middle spring is flat style and serves as a harmonic dampener
- Valve spring seat pressure equals 210 lbs
- Open pressure @ .660" is about 520 lbs
- Coil bind @ 1.175"



.720" LIFT TRIPLE VALVE SPRING KIT

- Typically used with bronze guides
- 1.975" installed height
- 1.570" O.D. outer spring
- Valve spring seat pressure 216 lbs
- Valve spring open pressure @ .720" is 540 lbs
- Coil bind @ 1.130"

.800" LIFT TRIPLE VALVE SPRING KIT

- SA version is for valves with 5⁄16" stem. Pro Stock valve spring kit accepts S&S 11⁄32" valve stem.
- Typically used with bronze guides
- 2.000" installed height
- 1.650" O.D. outer spring
- Valve spring seat pressure 285 lbs
- Valve spring open pressure @ .800" is 790 lbs
- Coil bind @ 1.140"

COLLARS, KEEPERS, AND SHIMS AVAILABLE

CARBURETORS

SUPER D 2¼" GAS CARBURETOR

- Available with standard 1.937" venturi or larger 2.150" venturi
- Features an enrichment starting system
- Recommended for use on large displacement racing engines (not recommended for most street applications) – Low rpm throttling and midrange response is poor on stock displacement engines
- Recommended for larger engines

SUPER D 2¼" ALCOHOL CARBURETOR

- Similar to the Super D gas carburetor but machined for alcohol use only
- Features an enrichment starting system.

SUPER D RACING CARBURETOR

- Designed for use with alcohol and nitromethane in gravity feed fuel systems only
- Two large .380" diameter inlets allow fuel to enter the bowl
- One conventional inlet, controlled by the float and needle, supplies fuel for lower rpm operation
- Auxiliary inlet is actuated by an adjustable cam on the throttle shaft to provide additional fuel at high rpm
- Bowl is fitted with an overflow fitting to prevent excess fuel entering the bowl from flooding the engine





SUPER D AIR CLEANER KITS

- S&S high flow air filter is approx. 1.25" taller than the filter in previous air cleaner kits – more clean air to your engine

AIR HORNS AND AIR HORN CONVERSION KITS

SHORT AIR HORNS (2½")

- Fits S&S 1¾", 1⅞" L Series carbs and S&S 1⅞" Super A & B carbs
- Any stock carburetor with an identical air cleaner/air horn mounting pattern. These include Tillotson®, Bendix® or butterfly type Keihin®
- Available for S&S Super E & G carburetors

LONG AIR HORNS (4")

- Available for S&S Super E, G, & D carbs



ADJUSTABLE BRACKET ASSEMBLY AVAILABLE

MANIFOLDS

ROUND PORT MANIFOLDS

- Manifold bore diameter must be specified.
- 2⅛" (2.063") minimum, 2⅞" (2.437") maximum.
- Round port may be ordered to fit either S&S SA cylinder heads or STD style large port racing cylinder heads. Port dimensions of manifolds ordered to fit S&S SA cylinder heads are 2.250" outside diameter and 1.875" inside diameter. Ports ordered to fit the STD style big port cylinder heads are machined to 2.312" outside diameter unless it is specified that the ports be left unmachined. The inside diameter of the port must be specified. 1.625" minimum, 2.220" maximum. Manifolds can also be ordered with inside diameter unmachined.
- The larger than stock outside diameter of the manifold ports necessitate the use of special S&S mounting flanges. S&S SA heads require special four-bolt flanges, and the STD style heads require special two-bolt flanges. Uses part #16-0246-S o-ring.

OVAL PORT MANIFOLDS

- The inside of the ports are left unmachined. The inside of the manifold ports are cast to an oval shape which may be worked to exactly match the port shape of the cylinder head.
- Port outside diameter is machined to 2.312", unless it is specified that the ports should be left unmachined.
- The larger than stock port outside diameter necessitates the use of special mounting flanges and a larger than stock mounting bolt pattern in the cylinder heads.



MOUNTING FLANGES & O-RINGS AVAILABLE



SECTION 11: TOOLS & SHOP SUPPLIES

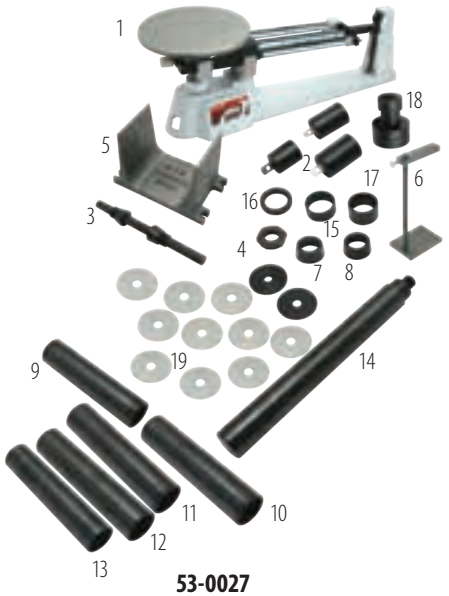
Anti-Rotation Bracket....526
Bearing Protector Tools....522
Boring Plate Kits....523
Cam Alignment Tools....522
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Main Bearing Installation Tool....522
Main Jet Tool....523
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Rocker Cover Wrench Set....523
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Tappet Block Alignment Tool....526
Top Dead Center Tool....523
Top End Tools....523
Touch Up Paint, Lubricant, Sealants....530
X-Wedge® Tools....522

FLYWHEEL BALANCING KITS

THE S&S® MASTER FLYWHEEL BALANCING KIT

Description	Part #
Designed to allow the average shop to rebalance stock and S&S flywheels accurately and quickly. Whether doing a stock rebuild or a performance upgrade using aftermarket parts, flywheel rebalancing is a desirable step in the engine building process. A complete set of detailed instructions is furnished with each kit. For flywheels with tapered crankpins only.	**53-0027**

Replacement Parts		
1. Balance,Triple Beam Platform		**N/A**
2. Replacement balance weight set, (1-500g 2-1000g)		**53-0021**
3. Balance shaft, 1936-'71 OHV BT and 1957-'71 XL		**53-0090**
4. Balance shaft nut *(each)*		**53-0092**
5. Balance stand *(each)*		**53-0088**
6. Rod support stand *(each)*		**53-0089**
7. Taper adapter, 1972-Early '81 BT *(each)*		**53-0086**
8. Taper adapter, Late 1981-'85 BT and S&S BL, SE, SL style *(each)*		**53-0087**
9. Shaft adapter, 1977-up XL driveside (screws on) *(each)*		**53-0093**
10. Shaft adapter, 1977-up XL camside (screws on) *(each)*		**53-0095**
11.Shaft adapter, 1955-'99 BT driveside (screws on) *(each)*		**53-0091**
12. Shaft adapter, 1958-'92 BT camside (LH, screws on) *(each)*		**53-0101**
13. Shaft adapter, 1993-'99 BT camside (RH, screws on) *(each)*		**53-0102**
14. Shaft adapter, counterweight *(each)*		**53-0099**
15. Collar spacer, 1970-'99 BT *(each)*		**53-0097**
16. Collar spacer, 1986-'90 driveside for XL - .280" *(each)*		**53-0098**
17. Collar spacer. 1991-up driveside for XL - .860" *(each)*		**53-0085**
18. Bob weight assembly, 1000 gram *(each)*		**53-0094**
Repair parts for 53-0094		
Screw SHC, ½"-13 x ¾"	*Each*	**50-0200**
Screw SHC, ½"-13 x 1¼"	*Each*	**50-0201**
19. Shims		
2.7 gram	*Each*	**53-0110**
5.4 gram	*Each*	**53-0105**
8.1 gram		**53-0115**
10.8 gram		**53-0120**
13.4 gram	*Each*	**53-0125**
50 gram		**53-0150**
100 gram *25566-06*		**53-0100**
20. Shim Kit Includes: Shims *(2 each)* 2.7, 5.4, 8.1, 10.8, and 13.4 grams & Shims *(1 each)* 50 grams and 100 grams		**53-0111**



53-0027

S&S® FLYWHEEL BALANCE KITS

Master Balance Kit Without Balance Scale	
Includes all parts in #53-0027, except balance & platform scales	**53-0028**
Triple Beam Platform Balance Scale	
(2610 grams\maximum) without weights	**53-0011**
Flywheel Balance Kit For 5-Piece Cranks	
For 5-Piece Crank	**53-0012**
Includes:	
3.Balance shaft	**53-0090**
4. Balance shaft nut	**53-0092**
5. Balance stand	**53-0088**
6. Rod support stand	**53-0089**
7. Taper adapter	**53-0086**
8. Taper adapter	**53-0087**
18. Bob weight 1000 gram	**53-0094**
19.Shims (See previous page for individual part numbers)	
Flywheel Balance Kit For 3-Piece Cranks	
For Harley-Davidson® Evolution® and Sportster® Models	**53-0015**
Includes:	
9. Driveside adapter sleeve for 1977-up Sportster	**53-0093**
10. Camside adapter sleeve for 1977-up Sportster	**53-0095**
11. Driveside adapter sleeve for 1955-'99 Big Twin	**53-0091**
12. Camside adapter for 1958-'92 Big Twin	**53-0101**
13. Camside adapter for 1993-'99 Big Twin	**53-0102**
14. Shaft counterweight	**53-0099**
15. Collar spacer for 1970-'99 Big Twin	**53-0097**
16. Collar spacer for 1986-'90 Sportster	**53-0098**
17. Collar spacer for 1991-up Sportster	**53-0085**

NOTE

These balancing kits will not work with Harley-Davidson® Twin Cam 88® engines, 2000-up Sportster models, or any flywheel assemblies which use pressed-in crankpins.



53-0015



53-0028



All Shims
53-0012

FLYWHEEL ASSEMBLY FIXTURE & TRUING SPANNER

- Includes a massive fixture to hold the flywheels, flywheel clamps and hardware to mount the flywheel to the fixture, and a spanner bar plate to be used with a length of steel pipe to fabricate a long spanner bar for truing adjustments.
- Allows the assembler to torque the mainshaft and crankpin nuts to our higher than stock torque specs. (We recommend using a torque multiplier.) Once the flywheels are assembled, the spanner bar (some assembly required) can be used to shift the flywheels in order to bring the mainshafts into true. This method is much easier, faster, and safer than hitting the flywheels with a lead or brass hammer to true the assembly.
- Works for stock and S&S flywheels for 1936-'99 big twin and 1957-'03 Sportster® models.



106-0552

FLYWHEEL ASSEMBLY FIXTURE	
Description	**Part #**
Includes clamps, plate, and hardware	**106-0552**
REPLACEMENT PARTS	
Flywheel Fixture Clamp	**106-0483**
Spanner Bar Plate	**106-0783**
Hardware Kit, Flywheel Fixture *(includes dowel pins, nuts and screws)*	**106-0782**

BEARING PROTECTOR TOOLS
FOR S&S® X-WEDGE® ENGINES

FEATURES AND BENEFITS

- Slips over the bearing surface of the X-Wedge crankshaft to prevent damage to the surface of the main bearing journal when mounting the crank on an S&S flywheel assembly fixture
- The flanged sleeve offers protection against scratches and dents
- It can also be used on the sprocket side of Victory® crankshafts
- Made of billet aluminum



106-2858



106-2859



1



2



3

Easy as 1-2-3! 106-2859 crankcase bearing protector installs in seconds, and not only protects the crankcase main bearing insert from the sharp surfaces on the sprocket shaft, but also guides the crankshaft into the bearing.

BEARING PROTECTOR TOOLS

Description	Part #
Crankshaft Main Bearing Protector	**106-2858**
Crankcase Main Bearing Insert Protector	**106-2859**

CAM ALIGNMENT TOOLS
FOR X-WEDGE® ENGINES

- Three dowel pins are used to position each of the three cam belt pulleys with alignment holes in the cam plate



106-0750

CAM ALIGNMENT TOOLS

Description		Part #
Cam Alignment Dowels	*3 pack*	**106-0576**
Cam Belt Tensioner Socket		**106-0750**

MAIN BEARING INSTALLATION TOOL
FOR X-WEDGE® ENGINES

- Consists of a bearing guide that holds the two plain bearing halves in position and a shouldered press tool that fits through the guide to press the new bearings into the crankcase
- The press tool is also used by itself to press old bearings out of the crankcase
- For cam and driveside bearings in X-Wedge engines
- A hydraulic or arbor press is required to install or remove bearings.



MAIN BEARING INSTALLATION TOOL FOR X-WEDGE® ENGINES

Main Bearing Installation Kit	**106-0718**

PRIMARY INNER BEARING RACE INSTALLATION TOOL

- Primary inner bearing race installation tool, with a roller thrust bearing that decreases the effort required to install a bearing race by 30%
- Attachment for the S&S Clutch Puller that allows easy removal of the primary inner bearing race
- All of these S&S tools are CNC machined from the finest 4140 tool steel and heat treated for maximum reliability and service life.



PRIMARY INNER BEARING RACE INSTALLATION TOOL

Inner Primary Bearing Race Installer	**56-5145**

TOP DEAD CENTER TOOL

- Easy to find the exact top dead center of any engine
- The best way to calibrate your degree wheel when dialing in cams or performing any number of checks and modifications based on the position of the crankshaft
- Available for engines with 14mm or 12mm spark plug holes.



53-0322



53-0040



53-0452



53-0045

S&S® TOP DEAD CENTER TOOL	
Description	**Part #**
14mm	**53-0321**
12mm	**53-0322**
S&S ROCKER COVER WRENCH SET	
Helpful in areas where the motorcycle frame may prevent the use of conventional tools.	**53-0040**
CONNECTING ROD CHECKING PINS	
These pins are used to check alignment of connecting rods and wristpin bushings with crankcase cylinder decks.	
.927"	**53-0004**
S&S COMPRESSION RELEASE SOCKET KIT	
Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.	**53-0045**
MAIN JET TOOL	
For changing main jets in all S&S carburetors using #72 series jets.	**53-0452**

NOTE

Rocker covers must be removed when installing S&S compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.

BORING PLATE KITS
FOR CYLINDER HEADS AND CRANKCASE

- Designed to simplify and reduce the time required to prepare crankcases and cylinder heads for S&S® Sidewinder® big bore kit installations
- Machined cast iron with precision ground working surfaces

BORING PLATE KIT FOR 1936-99 BIG TWIN AND 1986-'03 SPORTSTER® MODELS

Description	Part #
This boring plate kit has panhead and shovelhead head bolt patterns in one end. The other end is machined with the cylinder base patterns of 1936-'99 big twin engines, and 1986-'03 Harley-Davidson® Sportster models. Spacers are available for Evolution® engines which allow the cases to be bored without removing the cylinder studs (see below). Spacers are not included in this kit.	
Kit	**53-0006**
Boring plate (1)	**N/A**
Screw, 7/16" -20 x 1¼" Sockethead Cap	**50-0172**
SPACERS FOR EVOLUTION CRANKCASES	
Spacer part #53-0007 is required for 1986-'03 Sportster models. Spacers part #53-0007 and #53-0008 are both required for 1984-'99 big twin engines.	
3 11/16" tall	**53-0007**
⅞" tall	**53-0008**

BORING PLATE KIT FOR CRANKCASES & CYLINDERS FOR TWIN CAM 88® ENGINES

This boring plate kit is designed for boring stock crankcases of Harley-Davidson® Twin Cam 88® engines to accept S&S Super Sidewinder® 4" and 4⅛" bore cylinders with stock cylinder stud pattern. A spacer is included with the kit which allows the cases to be bored without removing the cylinder studs.	
Kit	**53-0035**
Boring plate	**53-0036**
Spacer, 3¾" tall	**53-0037**



53-0006



53-0007



53-0008



53-0035

CYLINDER TORQUE PLATE KITS

FITMENT

- S&S 4⅛" bore
- 4" bore 1999-up big twin
- 3⅝" 1984-'99 big twin
- Harley-Davidson® Sportster® models in 3⅝" and 4" bore
- S&S X-Wedge® 4⅛" bore and 4¼" bore*

FEATURES AND BENEFITS

- S&S torque plates can be used in conjunction with an S&S boring fixture and a conventional boring bar, and they can be readily adapted to a Sunnen® type honing machine.

KIT CONTENTS

- Head end plate
- Base end plate
- Four long grade 8 socket head cap screws (holds the assembly together and supplies the pressure)
- Stop arm (keeps the cylinder and plates from turning while honing)

**These torque plates are required to bore or hone X-Wedge cylinders. They have the X-Wedge five bolt pattern and are available for 4⅛" bore and 4¼" bore cylinders.*

CYLINDER TORQUE PLATE REPLACEMENT PARTS

(See chart for specific part numbers.)

1. Base end torque plate
2. Head end torque plate
3. Stop arm
4. Torque bolts
5. Vise tab
6. Tab bolt



S&S® CYLINDER TORQUE PLATE KITS AND REPLACEMENT PARTS

Bore Size	Case Bolt Pattern	Kit Part No.	Head End Plate	Base End Plate	Stop Arm	Bolt ⅜"-24 x 6"	Bolt 7/16"-20 x 6"	Bolt 7/16"-20 x 7"	Vise Tab	Tab Bolt 5/16"-18 x 1"
4⅛" - 4¼"	S&S® X-Wedge®	**106-0836**	**106-0837**	**106-0835**	**53-0014**	**106-0840**	–	–	**53-0034**	**50-0108**
4⅜" -4 7/16"	S&S 4⅜" Pattern	**53-0055**	**53-0056**	**53-0057**	**53-0014**	–	–	**50-0192**	**53-0034**	**50-0108**
4⅛"	Stock 1999-up Big Twin	**53-0054**	**106-3190**	**106-3191**	**53-0014**	–	–	**50-0192**	**53-0034**	**50-0108**
4⅛"	S&S 4⅛" Pattern	**53-0051**	**53-0052**	**53-0053**	**53-0014**	–	**50-0191**	–	**53-0034**	**50-0108**
3.927"-4"	Stock 1999-up Big Twin	**53-0048**	**53-0049**	**53-0050**	**53-0014**	–	–	**50-0192**	**53-0034**	**50-0108**
4"	S&S 4" Pattern	**53-0030**	**53-0031**	**53-0032**	**53-0014**	–	**50-0191**	**50-0192**	**53-0034**	**50-0108**
3⅝"	1984-'99 Big Twin	**53-0016**	**53-0017**	**53-0018**	**53-0014**	–	–	**50-0192**	**53-0034**	**50-0108**
3⅝"	1984-'03 Sportster®	**53-0016**	**53-0017**	**53-0018**	**53-0014**	–	–	**50-0192**	**53-0034**	**50-0108**

S&S Cylinder torque plate kits are intended for aluminum cylinders including 1984-'99 Harley-Davidson® Evolution® big twin engines, 1986-'03 Sportster models, and 1999-up Twin Cam 88® engines.

S&S® CYLINDER TORQUE PLATE KITS

Bore Size	Case Bolt Pattern	Part #
4⅛" - 4¼"	S&S® X-Wedge®	**106-0836**
4⅜" -4 7/16"	S&S 4⅜" Pattern	**53-0055**
4⅛"	Stock 1999-up Big Twin	**53-0054**
4⅛"	S&S 4⅛" Pattern	**53-0051**
3.927"-4"	Stock 1999-up Big Twin	**53-0048**
4"	S&S 4" Pattern	**53-0030**
3⅝"	1984-'99 Big Twin	**53-0016**
3⅝"	1984-'03 Sportster®	**53-0016**

S&S Cylinder torque plate kits are intended for aluminum cylinders including 1984-'99 Harley-Davidson® Evolution® big twin engines, 1986-'03 Sportster models, and 1999-up big twin engines.

HEAD END PLATE

Bore Size	Case Bolt Pattern	Part #
4¼"	S&S® X-Wedge®	**106-0837**
4⅜"	S&S 4⅜" Pattern	**53-0056**
4⅛"	Stock 1999-up Big Twin	**106-3190**
4⅛"	S&S 4⅛" Pattern	**53-0052**
4"	Stock 1999-up Big Twin	**53-0049**
4"	S&S 4" Pattern	**53-0031**
3⅝"	1984-'99 Big Twin	**53-0017**
3⅝"	1984-'03 Sportster®	**53-0017**

BASE END PLATE

Bore Size	Case Bolt Pattern	Part #
4¼"	S&S® X-Wedge®	**106-0835**
4⅜"	S&S 4⅜" Pattern	**53-0057**
4⅛"	Stock 1999-up Big Twin	**106-3191**
4⅛"	S&S 4⅛" Pattern	**53-0053**
4"	Stock 1999-up Big Twin	**53-0050**
4"	S&S 4" Pattern	**53-0032**
3⅝"	1984-'99 Big Twin	**53-0018**
3⅝"	1984-'03 Sportster®	**53-0018**

STOP ARM

Bore Size	Case Bolt Pattern	Part #
All	All	**53-0014**

BOLT ⅜"-24 X 6"

Bore Size	Bore Size	Part #
4¼"	S&S® X-Wedge®	**106-0840**

BOLT 7⁄16"-20 X 6"

Bore Size	Case Bolt Pattern		Part #
4⅛"	S&S® 4⅛" Pattern	*Each*	**50-0191**
		4 pack	**50-0191P**
4"	S&S 4" Pattern	*Each*	**50-0191**
		4 pack	**50-0191P**

BOLT 7⁄16"-20 X 7"

Bore Size	Case Bolt Pattern		Part #
4⅜"	S&S 4⅜" Pattern	*Each*	**50-0192**
		4 pack	**50-0192P**
4⅛"	Stock 1999-up Big Twin	*Each*	**50-0192**
		4 pack	**50-0192P**
4"	Stock 1999-up Big Twin	*Each*	**50-0192**
		4 pack	**50-0192P**
4"	S&S 4" Pattern	*Each*	**50-0192**
		4 pack	**50-0192P**
3⅝"	1984-'99 Big Twin	*Each*	**50-0192**
		4 pack	**50-0192P**
3⅝"	1984-'03 Sportster®	*Each*	**50-0192**
		4 pack	**50-0192P**

VISE TAB

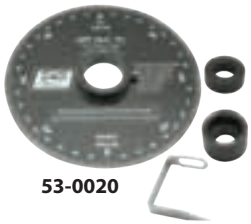
Bore Size	Case Bolt Pattern	Part #
All	All	**53-0034**

TAB BOLT 5⁄16"-18 X 1"

Bore	Case Bolt Pattern		Part #
All	All *3987*	*Each*	**50-0108**

DEGREE WHEEL KIT

- Multipurpose S&S® degree wheel can be used to do ignition timing, crankcase breather timing, cam degreeing, or you name it
- Designed to fit the sprocket shaft of any big twin or Harley-Davidson® Sportster® model simply by using the correct adapter provided
- Each kit also comes with a pointer which is held in place with the center crankcase bolt



53-0020

S&S DEGREE WHEEL KIT

Description	Part #
Kit	**53-0020**
Adapter for Sportster® models *(1 Each)*	**53-0023**
Adapter for big twin *(1 Each)*	**53-0024**
Pointer *(1 Each)*	**53-0025**
Degree wheel and main adapter assembly *(1 Each)*	**53-0026**

CRANKPIN NUT CLEARANCING GAUGES

- Designed to simplify and eliminate clearancing problems that may arise when installing stroker flywheels in stock big twin crankcases
- By painting the bosses to be clearanced and then placing the appropriate gauge on the main bearing race, the crankcases can be marked with a scribe in the proper hole for the stroke and style connecting rod crankpin nuts to be used—***quickly and precisely.***



S&S® CRANKPIN NUT CLEARANCING GAUGES

Description	Part #
1958-'99 Big Twin Gauge	**53-0005**

ANTI-ROTATION BRACKET

This handy bracket slides over the sprocket shaft splines of big twin engines and bolts to one of the primary bolt holes of the crankcase to keep the crank from rotating. It's like an extra set of hands while installing pistons and cylinders.



50-9870

Fitment	Part #
1970-2006 Big Twin (except '06 Dyna®)	**50-9870**
2007-up Big Twin, 2006 Dyna®	**530-0018**

CRANKCASE OIL PASSAGE DRILLING JIG

DRILL JIG IS USED TO DRILL . . .

- Primary chain oil supply passage from the breather valve gear cavity to the back side of the oil pump body on late generator and early alternator crankcases.
- Pressure relief passage from behind the main oil pressure valve to the gear cavity on alternator crankcases.
- Crankshaft and main bearings supply passage on generator crankcases.
- Crankshaft and main bearings supply passage on early alternator crankcases.



S&S CRANKCASE OIL PASSAGE DRILLING JIG

Description	Part #
The S&S crankcase oil passage drilling jig is used to perform crankcase drilling modifications when installing an S&S oil pump assembly on early big twin crankcases. Made of hardened steel for durability, this fixture enables the builder to do four modifications.	**53-0013**

TAPPET BLOCK ALIGNMENT TOOL

- Aligns tappet block so the tappet rollers run straight on the cam lobe to prevent camshaft wear



S&S® TAPPET BLOCK ALIGNMENT TOOL

Description	Part #
Tool, Tappet Guide, Alignment	**530-0014**

S&S® OIL



FEATURES AND BENEFITS

- Ultimate protection
- Superior lubrication for reduced engine wear and lower oil temperatures
- Provides consistent viscosity, and resists thermal breakdown and oxidation at elevated temperatures
- Includes a oil drain plug oring for convenience

S&S® OIL CHANGE KIT

Description	Part #
Harley-Davidson® big twin & Sportster® Models with Evolution® engines *(using OEM filter #63796-77A,63806-83, 63805-80A)*	**3601-0412**
Harley-Davidson® Twin Cam 88®/96™/103™/110™ engines *(using OEM filter #63798-99, 63731-99A)*	**3601-0413**
2017-2018 Harley-Davidson® Models with Milwaukee-Eight® engine	**3601-0492**

S&S® OIL

Description	Part #
20W50 Synthetic, 1 quart	**3601-0407**
20W50 Synthetic, 2.5 Gallon	**3601-0408**
Primary, Synthetic, 1 quart	**3603-0044**
80W140 Gear, Synthetic, 1 quart	**3604-0007**
Chain/Gear, Synthetic, 1 quart	**3604-0008**

OIL FILTERS



FEATURES AND BENEFITS

- Captures smaller particles than stock filters
- Low restriction to oil flow
- Direct bypass – bypass oil does not pass over dirty filter media
- Smaller diameter for easier installation
- Black or chrome finish

S&S® OIL FILTERS

Year Application	Micron Rating	QTY	Chrome	Black
1984-'99 Evolution®, 1986-'17 XL and 1991-'02 Buell®	30µ	*each*	**31-4102A**	**31-4101A**
		12 pack	**310-0240** *63796-77A*	**310-0239** *63805-80A*
1999-'17* Twin Cam 88®/96™/103™ and all X-Wedge®	10µ	*each*	**31-4104A**	**31-4103A**
		12 pack	**310-0242** *63798-99A*	**310-0241** *63731-99A*

** Contains an anti-drain back valve*

CHAMPION® SPARK PLUGS



55-1322

CHAMPION® SPARK PLUGS

Application	Size	QTY	Part No.
Twin Cam 88®/96™/103™, Sportster®, X-Wedge® & S&S 4⅛" bore engines	12mm Long Reach *Champion® #RA8HC*	*each*	**55-1320** *32317-86A, 32362-04*
		2 pack	**55-1322** *32317-86A, 32362-04*
Evolution®, Vintage Models (SH-Series, Iron XL, KN-Series, P-Series) & S&S 3⅝" & 4" bore engines	14mm Long Reach *Champion® #RN12YC*	*each*	**55-1321** *32342-04, 32311-83*
		2 pack	**55-1323** *32342-04, 32311-83*

JETS & CARB REBUILD KITS
FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS

Description	Part No.
S&S Carb Parts Kit *(Contains needed parts to maintain S&S Super E and G carburetors)*	**11-3103**
S&S Jet Kit *(Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)*	**11-3102**



11-3103

JET PACKS

Description	Part No.
Low Range Jet Pack – For jetting most stock and moderate performance engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295") one each main jets (.062", .064", .066", .068", .070", .072", .074").	**11-7270**
High Range Jet Pack – For jetting some stock and all performance engines.	
Includes one each intermediate jets (.0295", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084").	**11-7271**
Master Jet Pack – For jetting all Super B, E, and G equipped engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084").	**11-7272**



11-3102

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION

Size	QTY	Part No.	Size	QTY	Part No.
.025	each	**11-0250**	.032	each	**11-0320**
	3 pack	**11-7107**		3 pack	**11-7112**
.0265	each	**11-0265**	.033	each	**11-0330**
	3 pack	**11-7108**		3 pack	**11-7113**
.028	each	**11-0280**	.036	each	**11-0360**
	3 pack	**11-7109**		3 pack	**11-7114**
.0295	each	**11-0295**	.040	each	**11-0400**
	3 pack	**11-7110**		3 pack	**11-7115**
.031	each	**11-0310**	Blank	each	**11-0000**
	3 pack	**11-7111**			


11-7272

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1..... .025"
2..... .028"
3..... .031"
4..... .033"
5..... .036"
6..... .040"

NOTES

No returns or exchanges on jets.

Refer to Section 8: Racing for the S&S fuel and turbo carburetors.


106-3517

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION

Size	QTY	Part No.	Size	QTY	Part No.
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.068	each	11-4068	.110	each	11-4110
	5 pack	11-7234		5 pack	11-7255
.070	each	11-4070	.115	each	11-4115
	5 pack	11-7235		5 pack	11-7256
.072	each	11-4072	.120	each	11-4120
	5 pack	11-7236		5 pack	11-7257
.074	each	11-4074			
	5 pack	11-7237			
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT (One Jet Each Size)

Sizes	Part No.
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT

Description	Part No.
Super E	11-2923
Super G	11-2924

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT

Description	Part No.
Super E	11-2906
Super G	11-2907



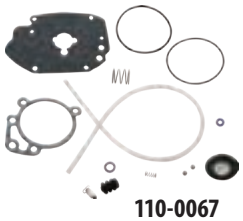
11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT

Description	Part No.
Super E & G	110-0067



110-0067

ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part No.
Super E & G	11-2918



11-2918

FUEL LINE KIT

Fuel Line Kit for Super E and G Carburetors p/n 190-0005

Fuel Line, Kit, Carb, Super E/G, Swivel Retrofit..... **190-0005**
Fuel Line,.311" x .563" x 17.5",SAE 30R14..... **190-0001**
(replacement fuel line only)



190-0005

TOUCH UP PAINT, LUBRICANT AND SEALANTS



106-3023



51-9001



51-9009



51-9000



51-9002



500-0143

TOUCH UP PAINT

Description	Part #
S&S touch up paint is included with each powdercoated S&S engine, but it's handy to have a spare! Keep one in the shop and one in your saddle bag. Sold in ½ oz. bottles with applicator cap.	
Wrinkle Black ½ oz. (used prior April 2009)*	**51-9001**
Wrinkle Black ½ oz, matte finish (used after April 2009)*	**510-0053**
Silver ½ oz	**106-3023**
Stone Gray ½ oz	**510-0350**

**NOTE: Wrinkle Black (51-9001) has a slightly glossy finish. Wrinkle Black (510-0053) has a matte finish with no gloss.*

LUBRICANT AND SEALANTS

Use what the pros use! S&S assembles a lot of engines and customers often ask what sealants and lubricants we use. We recommend and use the following:

Torco® Engine Assembly Lube	
Protect engine components during assembly and initial start up!	
4 oz. Bottle	**51-9000**
1 oz. Tube	**51-9002**
Gasgacinch® Gasket Sealer	
4 oz. (118ml) Can	**51-9009**
ThreeBond® Liquid Gasket 1194	
Great for sealing crankcases! 3.5 oz. (100g) Tube	**500-0143**

ENGINE STANDS

- An economical way to hold an engine on the work bench, for shipping, or for display
- Constructed of heavy gauge stamped steel with "S&S" laser cut in both ends
- Bullet proof, blue powder coat finish gives the stands a professional appearance that is suitable for display and protects them from corrosion and minor abrasions



S&S® ENGINE STANDS

Application	Part No.
S&S X-Wedge® Engines	**53-0147**
1936-'99 Big Twin Engines	**53-0141**
1999-Up Unbalanced Big Twin Engines	**53-0143**
1999-'06 Balanced Big Twin Engines	**53-0145**

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DEALER TRAINING AND CERTIFICATION PROGRAM

DEALER TRAINING AND CERTIFICATION FACILITY

We understand the importance of providing opportunities to advance our training programs and to offer more training courses and training dates to meet dealer needs. S&S is working hard to provide you with the training you need to be successful. Therefore we are proud and excited to announce our partnership with the PowerSport Institute. The PSI facility is not only a great location, it offers an opportunity for S&S to expand our training programs. PowerSport Institute is located outside of Cleveland in North Randall, Ohio. The accommodations are much improved with a variety of hotel and restaurants to choose from. The facility sits on 15 acres and is accessible from two major highways. The opportunity for S&S dealers to improve their already high degree of expertise has not changed. The courses have been enhanced with additional hands-on training and, of course, our many years of experience and knowledge of building high performance engines – passed on to you.



S&S DEALER CERTIFICATION LEVELS

Thoughout the entire process of our training, you have provided us valuable feedback and we listened. We have added additional training courses and increased the amount of hands-on training. Shown on the following pages are the levels of certification that S&S Dealers can achieve. There are both requirements and benefits for each level. Certification will be based on a number of qualifications, and education being one of them. Education will consist of distance learning via the internet, courses on DVD and training in formal classroom settings. Consideration for certification will also be based on geographical location (with respect to other certified dealers), the dealer's facility and equipment, and the reputation of the prospective certified dealer. Keep in mind that the education portion of the certification is vested in the trained technician, not the dealership.



S&S DEALER VFI CERTIFICATION

This course is re-designed to provide additional hands-on training tuning VFI equipped motorcycles utilizing S&S Pro Tune II software. To get you on track with the high-tech world of fuel injection, it takes a good understanding of EFI operation, component identification and function. Our on-line prerequisite course will help you transition into our three-day hands-on training and will accelerate your diagnostic and troubleshooting knowledge.

Phase 1 Prerequisite - Successful completion of on-line training

- History of Fuel Injection
- Fuel Injection Operation
- Component ID
- Successful Completion of On-line Test

Benefits – The S&S Cycle VFI three-day course will teach you:

- VFI Installation and Tuning
- S&S ProTune II Software Navigation and Function
- Tuning VFI in Basic and Advanced Levels including Live-Tune Mode for Base Fuel Injection Time
- Base Ignition Timing and Front and Rear Cylinder Fuel Adjustment
- Dyno Tuning a VFI equipped motorcycle, Troubleshooting and Diagnosing VFI Symptoms
- Making Corrections and Repairs
- Final Tuning the Corrected Vehicle
- Carburetion, fuel circuits and fuel diagnostic procedures
- Shorty series carburetors, installation and tuning
- Dyno tuning a shorty carburetor equipped motorcycle
- Ignition styles, modifications and tuning

BENEFITS OF TRAINING AND CERTIFICATION

Attending training and becoming certified at S&S Cycle brings you and your shop many rewards. It starts with your customers who ride S&S equipped bikes; they will know you are trained to provide them the best service possible. It is also very important that S&S will recognize your shop and promote you as a certified dealer on our website.

SIDEWINDER® CENTER

The Sidewinder class is a newly designed four day in-depth course that provides more hands-on training than ever before. Technicians will receive a solid understanding and hands-on training with S&S engines and S&S engine assembly techniques.

Phase 1 Prerequisite - Successful completion of on-line training

- Component identification
- Four stroke theory
- Precision measuring

This course introduces technicians to hands-on experience with S&S technology including:

- Disassemble S&S V and T series engines
- Inspect components for proper fitment
- Assemble S&S V and T series engines according to S&S factory procedures.
- Cylinder heads, pistons, rings, gaskets and cylinder modifications
- Selecting the correct camshaft, pushrods, rocker arms, valves and spring clearances
- Adjusting tappets in a running engine
- Oil, oil pumps, and oiling system design – installation and alignment





PRO TUNING CENTER CERTIFICATION

Receive Pro Tuning Center certification when both the VFI and Sidewinder classes are completed. Two trained technicians are required for a shop to maintain Pro Tuning Center certification, however special consideration may be given in certain circumstances.

NOTE S&S Cycle reserves the right to change, modify or alter any of the above programs. We cannot guarantee that all classes will be available at all times of the year.

CONTINUED
S&S® DEALER TRAINING AND CERTIFICATION PROGRAM

BENEFITS FOR CERTIFIED S&S® DEALERS

RECOGNITION

Dealers who have achieved any level of certification will be recognized on the Dealer Locator of the S&S website. This is an important consideration since the S&S website receives over a half million visits every month. We'd like to send some of that traffic your way, and it stands to reason that certified dealers will be more apt to attract customers on the Dealer Locator than dealers who are not certified.

DEALER CERTIFICATION	DEALER CERTIFICATION LEVELS
Standard S&S Dealer	A Standard S&S dealer is a dealer in good standing, who has not completed the required distance learning courses.
Authorized S&S Dealer	An Authorized S&S dealer is a dealer in good standing, who has completed the required distance learning courses.*
S&S Sidewinder Center	A Sidewinder Center is an S&S dealer in good standing, who has completed the Sidewinder Certification course.
S&S VFI Tuning Center	A VFI Tuning Center is an S&S dealer in good standing, who has completed the VFI Tuning Certification course.
S&S Pro Tuning Center	A Pro Tuning Center is an S&S dealer in good standing, who has completed both the VFI Tuning and Sidewinder Certification courses.

** Complete the Distance Learning Courses online. Sign up and register at www.ssdealer.com/signup*

DISCLAIMER

S&S Cycle reserves the right to change, modify or alter any of the above programs. We cannot guarantee that all classes will be available at all times of the year.

APPAREL

S&S® Flat Track Tee

- Black
- Pre-shrunk
- Super soft ring-spun 100% cotton
- Slimmer fit, order a size up for a more standard fit
- Water-based screenprint

S..... **510-0543**
M..... **510-0493**
L..... **510-0494**
XL..... **510-0495**
XXL..... **510-0496**
XXXL..... **510-0497**



S&S® Ladies Flat Track Racerback Tank

- Black
- Pre-shrunk
- Extremely soft, drapey style
- Water-based screenprint

S..... **510-0527**
M..... **510-0528**
L..... **510-0529**
XL..... **510-0530**



S&S® Sidewinder® Tee

- Black
- Pre-shrunk
- Super soft ring-spun 100% cotton
- Slimmer fit, order a size up for a more standard fit
- Water-based screenprint

S..... **510-0542**
M..... **510-0498**
L..... **510-0499**
XL..... **510-0500**
XXL..... **510-0501**
XXXL..... **510-0502**





S&S® T-143 Diagram Tee

- Grey
- Pre-shrunk
- Standard fit
- Classic style, heavier weight
- Water-based screenprint

S..... **510-0541**
M..... **510-0503**
L..... **510-0504**
XL..... **510-0505**
XXL..... **510-0506**
XXXL..... **510-0507**



S&S® Old School Script Tee

- Black
- Pre-shrunk
- Super soft ring-spun 100% cotton
- Slimmer fit, order a size up for a more standard fit
- Water-based screenprint

S..... **510-0539**
M..... **510-0513**
L..... **510-0514**
XL..... **510-0515**
XXL..... **510-0516**
XXXL..... **510-0517**



S&S® Ladies Old School V-Neck Tee

- Black
- Pre-shrunk
- Extremely soft, drapey style
- Water-based screenprint

S..... **510-0538**
M..... **510-0523**
L..... **510-0524**
XL..... **510-0525**
XXL..... **510-0526**

APPAREL CON'T

S&S® Classic Hoodie
- Black
- Standard fit

S..... **510-0544**
M..... **510-0545**
L..... **510-0546**
XL **510-0547**
XXL **510-0548**
XXXL..... **510-0549**


front

S&S® Windbreaker
- Black
- 100% nylon with waterproof coating
  (seams may not be waterproof)
- Antique brass snaps and eyelets
- Hip Length

S..... **510-0550**
M..... **510-0551**
L..... **510-0552**
XL **510-0553**
XXL **510-0554**
XXXL..... **510-0555**


back

S&S® Race Socks
- White
- One size fits most
- Durable and breathable
- Ideal for riding

510-0482



S&S® Trucker Hat
- Contents:100% Polyester/100% Nylon
- One Size Fits Most
- Thick, 6 mm sponge backing
- High quality foam trucker cap
- Plastic snap matching with trucker mesh
- Matching undervisor

510-0563



ACCESSORIES

1. *S&S® Cycle Logo Patch*
   3" **510-0194**
   6" **510-0193**

2. *S&S® Logo 6" Decal*
   3" **106-4459**
   6" **510-0195**

3. *S&S® Embossed Aluminum Sign*
   16.5" x 11"
   510-0192

4. *S&S® Teardrop Belt Buckle*
   Polished nickel white metal finish.
   510-0184

5. *S&S® Spark Plug Gauge Tool*
   510-0189



1



2



3


4


5

OWNER'S MANUALS & INSTRUCTION SHEETS

OUR OWNER'S MANUALS ARE AVAILABLE FOR FREE DOWNLOAD:
www.sscycle.com/tech-info/engine-owners-manuals

OUR INSTRUCTION SHEETS ARE AVAILABLE FOR FREE DOWNLOAD:
www.sscycle.com/tech-info/instructions-data/instruction-sheets



51-0161

FOR THE SHOP

S&S® LOGO DECAL

3" Blue/White S&S Logo (weatherproof)	**106-4459**

BANNERS

Printed on one side of water resistant reinforced vinyl. Features metal grommets on the top and bottom of hemmed edges for easy display.

BANNERS

S&S® Logo (42" x 30")	**51-0161**

S&S® COUNTER MAT

S&S® Counter Mat 26x17	**51-0196**

S&S® METAL SIGN

Features the blue S&S logo design. Measures 16" x 24"	**51-0194**

S&S® BUSINESS HOURS DECAL

For S&S Dealer windows. Displays business hours. Write-on/wipe off capability.

S&S® BUSINESS HOURS DECAL

Blue and white, 6" x 9"	**51-0211**



51-0211



51-0196

DEALER STOCKING PARTS KITS

S&S® DEALER CARB PARTS KIT

Contains replacement parts for S&S Super E and G carbs	**11-3103**

S&S® DEALER JET KIT

A complete jetting kit for all S&S Super gasoline carbs	**11-3102**



11-3102

SECTION 13: WARRANTY & COMPANY POLICY



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S&S® CYCLE, INC.

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Technical Support e-mail: sstech@sscycle.com • Technical Support Direct Phone: 608-627-8324

International Support email: isales@sscycle.com • International Support Direct Phone: 608-627-1508

www.sscycle.com

PUT YOUR CUSTOMER NUMBER HERE

Disclaimer

The names Harley®, Harley-Davidson®, H-D® and all trademarks owned by Harley-Davidson and its affiliated companies, and all H-D and Buell® part numbers and model designations are used for reference only. S&S Cycle is in no way associated with or authorized by Harley-Davidson Motor Co. to manufacture and sell any of the engine parts described in this catalog.

The installation of any S&S part may void or otherwise adversely affect your factory warranty. In addition, such installation and use may violate certain federal, state and local laws, rules and ordinances as well as other laws when used on motor vehicles operated on public highways, especially in states where pollution laws may apply.

Always check federal, state, and local laws before modifying your motorcycle.

It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk, and liability and all other obligations, duties and risks associated therewith. S&S parts are intended for the very experienced off-road rider only.

Sales

S&S parts are obtainable from many distributors and dealerships throughout the world. Please reference our Dealer Locator on the S&S website for an authorized Dealer near you.

In order to receive dealer prices, new customers must complete a Dealer Application through the S&S Customer Support Department.

In order to receive distributor prices, new customers must provide, in addition to all of the dealer requirements listed above, a copy of your dealer catalog and dealer price list for consideration. It is left to S&S' sole discretion as to whom it allows to distribute S&S products.

NOTE:
Distributors are authorized to sell to dealers only. Retail sales are prohibited.

Terms

Dealers and Distributors: UPS will no longer allow its drivers to collect cash for COD shipments.

S&S accepts Visa, MasterCard, and American Express

New Dealers and Distributors: For a period of six months following the acceptance of a completed Customer Application form, component orders for all new S&S customers shipped in the continental United States and abroad will be sent COD – payable with a money order or cashier's check at the time of delivery. A refused COD shipment will immediately set the account to prepaid. If customers prefer to avoid COD charges, orders may be prepaid by company check, money order, certified check, wire transfer or credit card. All complete and partial engine assembly orders for new S&S customers shipped in the continental United States and abroad will be sent prepaid by credit card, cashiers check, wire transfer, or money order.

Existing Dealers and Distributors: After six months as an S&S customer, dealers and distributors with a satisfactory payment and performance history may request company check or open account status from their Customer Support representative.

International: Any orders from outside the United States must be prepaid in United States funds. Freight charges may be prepaid by the customer or order may be shipped freight collect. S&S will fax an order acknowledgement that includes the customer's shipping preference each time an order is received. S&S will not place the order until the order acknowledgement form is signed and returned.

Telephone orders are left to S&S' discretion as to whether or not prepayment is required before the order is shipped.

Individuals: S&S requires that parts are purchased through a dealer; S&S will not ship a parts order to a retail customer. Credit card orders for apparel items may be placed online or by telephone.

Service Charges: S&S reserves the right to levy additional charges under the following circumstances:

Insufficient Funds: Any customer that has a check returned to S&S for lack of funds will be charged $25.00 and will be immediately placed on pre-paid status.

Past Due: Any account that is 30 days past due will be assessed a charge of 1.5% on the balance due for each month the account is in arrears. The account will be put on hold until it is current.

Duplicate Manufacturer's Statement of Origin (MSO): Any customer requesting a duplicate MSO will be charged $60.00 for each separate MSO required. Please be aware that a sworn affidavit must be completed and submitted to S&S before the duplicate MSO can be prepared.

MINIMUM ADVERTISED PRICE (MAP) POLICY

S&S Cycle will issue printed price lists indicating Manufacturer's Suggested Retail Pricing (MSRP) and maintain a current listing with effective date of MSRP on its internet website which can be amended at any time by S&S Cycle at its sole discretion. Any priced advertisement in any media such as but not limited to internet or similar electronic media, radio, television, flyers, posters, catalogs, mail order catalogs, magazines, e-mail newsletters, e-mail solicitations, coupons, mailers, inserts, newspapers, and public signage must be not less than the current MSRP as indicated on the printed price list or S&S internet website. Any pricing advertised that does not match or exceed that shown on the current printed price list or MSRP list on the S&S Cycle website will be a violation of this MAP policy and subject to enforcement procedures as identified later in this document.

Sales of any S&S products listed on the current price list through third party retailing (such as EBay and Amazon) is allowed providing the listed price is not below MSRP.

This MAP Policy applies only to advertised prices and does not apply to the actual price that S&S Cycle products are sold or offered for sale to an individual consumer within Reseller's location or over the telephone. Resellers are free to sell S&S Cycle products at any price they choose under these circumstances.

The inclusion in advertising of any free or discounted products with a product covered by this MAP Policy would be contrary to this MAP Policy if it has the effect of discounting the advertised price of the included S&S Cycle product below current MSRP as indicated on the S&S Cycle internet website or printed price list.

This MAP Policy does not establish maximum advertised prices. Resellers may offer S&S Cycle products at any price in excess of current MSRP.

Pricing listed on an internet site is considered an "advertised price" and must adhere to this MAP Policy. Once the pricing is associated with an intent to purchase (adding to shopping cart or order), the price becomes the selling price and is not bound by this MAP Policy. Statements such as "add to basket to see price," we will match any price,""call for price," or similar phrases are acceptable as long as the price advertised or listed for the products is not below current MSRP. In addition, discounts applied at checkout to the customer's entire order based on customers purchasing history with the Reseller, such as discounts for "frequent shoppers," do not violate this MAP Policy.

S&S Cycle reserves the right to offer promotions on certain products. In such an event, we reserve the right to modify or suspend this MAP Policy in whole or in part by notifying all Resellers of the nature and duration of the change. S&S Cycle further reserves the right to adjust the MSRP with respect to all or certain products at its sole discretion. Such changes shall apply equally to all resellers.

Enforcement Procedures:
S&S has included its MAP Policy Enforcement Procedures in the Dealer Agreement to ensure all dealers signing the "acknowledgement" page is aware of the severity in which S&S will deal with violators of this policy. Any determinations by S&S under these enforcement procedures shall be binding upon the violator.

First Offense:
Dealer will receive notification of the nature of the violation and will be given thirty (30) calendar days to remove the offending print advertisements from publication and distribution and three (3) business days to remove any offending electronic advertisements from web pages, internet sites, or other electronic media.

Second Offense:
Dealer will receive a notification and the account will be placed on a non-ship basis for thirty (30) days from the date of notice.

Third Offense:
Dealer will receive a notification and the account will be placed on a non-ship basis for sixty (60) days from the date of notice. •

Fourth Offense:
Dealer will receive a notification and the account will be placed on a non-ship basis indefinitely.

The administration of this MAP Policy and any determinations made under it are solely within S&S Cycle's discretion and authority. All questions about this MAP Policy should be in writing and directed via U.S. Mail to the Vice President of Sales, S&S Cycle Inc., 14025 County Highway G, Viola WI 54664. This policy is subject to change at S&S's sole discretion.

ORDERING AND RETURN POLICY

Ordering

Orders may be placed online or by telephone or email. Special forms for written orders are not necessary. Special order parts will require payment in full by certified check, credit card or wire transfer before the order is placed, and in most cases a special order form is also required. S&S® requires specific information when ordering parts. Refer to the appropriate section of the catalog that contains the parts you want to order for the required information.

How To Order By Fax, Mail or Email

Written orders should be mailed to:

S&S Cycle, Inc.
Customer Support Representative
14025 Cty. Hwy. G
Viola, WI 54664

Fax orders should be sent to: 608-627-1488
Email orders should be sent to your Customer Support Representative.
When placing an order by letter, fax, or email, please include the following information:

1. First and Last Name.
2. Customer Number.
3. Company Name.
4. Street Address, City, State, and Zip Code.
   (UPS will not deliver to a post office box.)
5. Phone Number where you can be reached between 8:00 a.m. and 5:00 p.m. Central Standard Time.
6. Shipping Preference. Customer must specify the method of shipment e.g. UPS one-day air, UPS two-day air, UPS ground, Federal Express, Truck, or U.S. Mail.
   NOTE: S&S ships most domestic and international orders via UPS.
7. Year and model of motorcycle for each kit ordered.
8. Information that is helpful in establishing the correct S&S part has been ordered. Examples of information to include are: engine displacement, bore and stroke, cylinder height, and existing modifications to the motor.
9. S&S part number and quantities required.
   NOTE: The customer is responsible for determining & ordering the appropriate part number.
10. Deposit applies only to individual customers or orders for special parts.

How To Order By Phone

When placing an order by phone please provide the information below:

1. Customer Number.
2. Name of person placing the order.
3. Company Name.
4. Street Address, City, State, and Zip Code. For dealers and distributors, S&S Customer Support Representative will verify current address against our computer listing each time an order is placed.
5. Shipping Preference. Customer will be asked to determine the method of shipment e.g. UPS one-day air, UPS two-day air, UPS ground, Federal Express, Truck, or U.S. Mail.
   NOTE: S&S ships most domestic and international orders via UPS.
6. S&S part numbers and quantities required. NOTE: The customer is responsible for determining and ordering the appropriate part number.
7. Information that is helpful in establishing the correct S&S part has been ordered. Examples of information to have available include: engine displacement, bore and stroke, cylinder height, and existing motor modifications.

Backorders

Through continual expansion of equipment and facilities, S&S is making an ongoing effort to improve parts availability, however, backorders cannot always be avoided.
Items not in stock at the time the initial order is shipped may be backordered for a period of up to 14 days. The customer may request to hold the backordered parts for a full 30 days or cancel them at an earlier date.
During the backorder period if the customer decides the parts are no longer needed, it is the customer's responsibility to notify S&S that the order should be cancelled.
Shipping charges and restocking fees will be applied to any backorders that are refused in the same way they are applied to other orders that are refused.

Refused Shipments

Orders that are refused or returned to S&S® for reasons such as insufficient funds or having no one available when the shipment is delivered are subject to a 20% restocking fee. The customer will then be put on Pre-Pay status and remain there for a minimum of 6 months. Upon review of transactions for that 6 month period, the customer may go back to COD status at the discretion of S&S Cycle, Inc.
In addition, the customer is liable for all shipping charges. Any restocking fees and shipping charges that total $50.00 or more must be paid before any additional orders will be accepted. Charges below $50.00 will be added to the customer's next purchase.

Prices

The prices for all S&S parts are FOB La Crosse, Wisconsin. S&S reserves the right to change prices and/or discounts without notice and to charge the prevailing prices at the time of shipment.

Special Orders

All special order parts must be paid for in full before the part will be released for production. In addition, the customer must complete special order sheet and sign a copy of the sales order to verify that the specifications are correct. Once production has started, the order may not be cancelled. Special order parts are not returnable if they are machined to the customer's specifications. * NOTE: Distributors of S&S Cycle, Inc. are not authorized to order Special Order items as this is a Race and Dealer only program.
There are three categories of special order parts:
Level 1: Special Order parts are parts that do not have special attributes that require additional engineering. An example of a level 1 part would be a special racing cylinder with a head bolt pattern that is in common usage and that S&S offers as a standard option.
Level 2: Special Order parts are unique parts that S&S has made in the past and has charged the customer for engineering and programming time on the first order. The original customer may order that part again for the cost of the part plus a small fee for loading the NC program. Any other customer who wants a similar part may either buy it from the original customer or may order it directly from S&S as a level three special order part.
Level 3: Special Order parts are special parts that S&S has never made before. An example of a level 3 part would be a special racing cylinder with a unique head bolt pattern. A customer ordering a level 3 part will be charged for the cost of the part plus any engineering time required to produce machining prints and for NC programming time.

Special Order Payment

Placement of a special order must include full payment of the total cost of the part and the labor charge to complete the modification. The order will not be released for production until payment is received. Special orders cannot be cancelled or returned. Modification of some standard parts may void the normal S&S Parts Warranty.

Returns

Shipments must be inspected by the customer immediately upon receipt to insure they are complete and undamaged. If damaged parts are discovered, an immediate claim must be made with the carrier. S&S must be notified within five (5) working days of the receipt of a shipment that has been determined to have shortages or contain incorrect or defective parts. It is advisable to phone S&S as soon as possible as issues can frequently be resolved more quickly over the phone.
The following requirements must be satisfied to receive credit, a refund, or to exchange merchandise.
1. Call S&S to obtain a Return Authorization (RA) number before the parts are returned. The RA number must be visible and clearly written on the container.
2. Return the parts to S&S within 10 days.
3. Package the parts to prevent any damage occurring during shipping. If parts being returned to S&S are damaged in transit because of inadequate packaging, they will be returned to the customer at the customer's expense. Repackaging parts using S&S containers does not always ensure the items are packaged properly. S&S original containers may be reused but good judgment must be applied to determine if additional protection is required.
4. All returns must be sent to S&S insured and prepaid. No CODs will be accepted.
5. All returns must be accompanied by a copy of the original invoice of purchase and a note explaining in sufficient detail the reason for the return. The Return Authorization number must be visible and clearly written on the container and the explanatory note.
6. Under no circumstances are damaged, altered, rusty, used or otherwise un-saleable parts eligible to be returned for credit. S&S will not issue an RA number for anything altered, used, unpackaged or deemed obsolete by S&S. S&S will also not issue an RA for anything invoiced over one year old.
Upon acceptance of the returned parts by S&S under the requirements described above, the customer will be charged a minimum restocking fee equal to 20% of the total value of the parts.

All returns must be shipped to:

S&S® Cycle Inc.
322 Causeway Blvd
La Crosse, Wisconsin 54603

Shipping

Domestic: S&S will ship most orders via UPS ground and will do so unless the customer requests another method. S&S will not ship by bus line but will ship via Federal Express or Truck at the customer's request.

Pre-Paid Shipping: Pre-payment of shipping charges by dealer allows them to receive S&S shipping rates, resulting in significant savings.
International: Due to high shipping and customs costs, it is recommended that international customers advise S&S of the carrier to be used, especially for a large order.
Orders that must be received quickly can be shipped by UPS-Waybill (three to four-day service) or UPS-Expedite (five to six-day service).

OBTAINING WARRANTY SERVICE

What Are The Procedures To Obtain Service Under This Warranty?

To obtain service under this warranty, the original Consumer Purchaser should immediately contact the dealer where the Engine was purchased. The dealer will then contact S&S® Cycle, Incorporated (the "Company") for a determination as to whether the defect in the Engine or part is covered by this warranty.

THE DEALER OR SERVICE PROVIDER MUST RECEIVE AUTHORIZATION FROM THE COMPANY BEFORE PROVIDING SERVICE UNDER THIS WARRANTY.

In the event that the Company determines the Engine or part must be returned to the Company for evaluation or service, the Company will provide the dealer with a Return Authorization Number to put on the shipping container for identification.

The original Consumer Purchaser or dealer must clean and properly package the Engine or part so as not to cause further damage and return the Engine or part, shipping costs prepaid, to the Company. The Return Authorization Number must be clearly visible on the outside of the shipping container. If the Engine or part must be cleaned prior to warranty inspection the cost of cleaning will be charged to the original Consumer Purchaser or dealer.

The original Consumer Purchaser or dealer must also send to the Company a detailed explanation of the relevant facts concerning the nature of the problem, the specific use of the Engine, and the circumstances giving rise to the defect or problem.

If it is not practicable to contact the dealer for warranty service, the original Consumer Purchaser may contact the Company at the following address, telephone number, fax number or e-mail address:

S&S® Cycle, Incorporated
Attention: Customer Support
14025 Cty Hwy G
Viola, Wisconsin 54664
Phone: 608-627-8324 • Fax: 608-627-1488
Email: sstech@sscycle.com • Direct Phone: 608-627-TECH (8324)

How Do State Laws Relate To This Warranty?

This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

Are There Other Warranties?

THE WARRANTIES STATED IN THIS WARRANTY REPLACE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF THE COMPANY WHETHER IN CONTRACT, WARRANTY, NEGLIGENCE OR OTHERWISE, TO THE EXTENT NOT PROHIBITED BY LAW.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

What Must The Original Consumer Purchaser Do To Qualify For Warranty Coverage?

Within thirty (30) days after the date of purchase of the Engine, the selling Dealer or Consumer Purchaser must return the completed Warranty Registration Form (included with the engine shipment), along with a copy of the invoice, evidencing such purchase to the Company. Upon receipt of the Owner's Warranty Card Registration Form by the Company, the MSO will be sent to the selling Dealer by the Company. The selling Dealer is responsible for forwarding the original MSO to the Consumer Purchaser. The Owner's Warranty Card will be sent by The Company to the Consumer Purchaser based on the information completed by the Selling Dealer within the returned Owner's Warranty Card Registration Form. The Owner's Warranty Card Registration Form should be returned to the Company at the following address by the selling Dealer:

S&S® Cycle, Incorporated
Attention: Customer Support
14025 Cty Hwy G
Viola, Wisconsin 54664
Phone: 608-627-8324 • Fax: 608-627-1488
Email: sstech@sscycle.com
Direct Phone: 608-627-TECH (8324)

THIS WARRANTY IS VOIDABLE AT THE COMPANY'S OPTION IF THE ORIGINAL SELLING DEALER DOES NOT RETURN TO THE COMPANY THE WARRANTY REGISTRATION FORM AND A COPY OF THE INVOICE WITHIN THIRTY (30) DAYS FROM THE DATE OF PURCHASE OF THE ENGINE.

LIMITED WARRANTY FOR COMPLETE FACTORY-ASSEMBLED ENGINES

Limited Warranty

S&S Cycle, Inc. (the "Company") warrants to the original purchaser that each new product manufactured and assembled by the Company will be free, under normal use and maintenance, from significant manufacturing defects in materials and workmanship for two (2) years (KN and T143 Engines one (1) year limited warranty), subject to the following exceptions, exclusions, obligations, and limitations. All warranty periods shall begin from the date of purchase by the original retail customer or one year from date of manufacture, whichever comes first.

Exceptions/Exclusions

The foregoing limited warranty is not assignable or transferrable and shall not apply: (1) to any engine, part, or component that is used for other than the intended commercial purpose (including, without limitation, any racing or similar competitive activities or where competition applications, such as a turbocharger, supercharger, or nitrous oxide is used with the engine); (2) where the engine, part, or component has been subject to misuse, negligent use or maintenance, improper storage or shipping, old or contaminated fuel left within the fuel systems, operation without adequate cooling or lubricants, or a failure to operate or maintain in accordance with the specifications published by the Company; (3) where the engine, part, or component has been involved in an accident, or has been altered in any way which, in the sole judgment of the Company, adversely affects performance, safety, structural integrity, or reliability; (4) to any engine, part, or component manufactured or furnished by a third party; (5) where any engine, part, or component is (i) assembled by the Company in accordance with the purchaser's specifications or (ii) used in conjunction with or otherwise attached to a part or component manufactured by a third party and with respect to which the Company has not pre-tested and approved the structural integrity, application, and use of such fully-assembled product; (6) to defects or damage caused by the user failing to cease operation of the engine, part, or component as soon as the defect is identified or suspected, or where the engine, part, or component has been used in vehicles for demonstration or development purposes; or (7) to normal wear and tear or to parts or components consumed/expended in the normal operation of the engine (including, without limitation, oil, fuel, spark plugs, lubricants, oil filters, air filters, or fuel filters). This limited warranty shall not apply to any defects in the engine, part, or components powder coat or chrome finish, when that option is selected, if the defects arise from or are caused by negligence of parties other than the Company, an accident, ordinary wear and tear, assembly or disassembly, power washing, natural occurrences (such as stone chips or salt and other substances used on streets and highways), bead blasting, improper maintenance including the use of any harsh cleaning agent, chemical solvent, or solvent. This limited warranty does not cover inconvenience or loss of use of the engine, part, or component, routine maintenance services or adjustments, or the cost of labor to remove, install, or service the engine, part, or component or any part contained therein. This limited warranty covers engine, part, or component and/or workmanship issues only, and not the equipment to which the engine, part, or component may be mounted or attached.

Remedies

As to valid warranty claims against the Company, the original purchaser's sole and exclusive remedy, and the Company's sole and exclusive obligation under this limited warranty, shall be, at the Company's option, replacement or repair of such defective engine, part, or component. The original purchaser shall notify the Company within ten (10) days after discovery of the alleged defect specifying in detail the nature of the defect. Failure to provide written notice within the ten (10) day period shall constitute a waiver of such warranty claim. Where warranty rights are claimed, all goods claimed to be defective shall be delivered to the Company with transportation charges prepaid, and the original purchaser's copy of the original invoice must be provided to the Company as evidence of the date of purchase.

Disclaimer/Limitation of Liability

EXCEPT AS SPECIFICALLY SET FORTH ABOVE, NO EXPRESS WARRANTY IS GIVEN BY THE COMPANY WITH RESPECT TO ANY ENGINES, PARTS, OR COMPONENTS. ANY WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS EXPRESSLY LIMITED TO THE DURATION OF THE LIMITED WARRANTY SET FORTH ABOVE. THE COMPANY MAKES NO OTHER EXPRESS WARRANTY. THE COMPANY SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE.

Some states and countries do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you, and you may have other rights which vary from state to state.

LIMITED WARRANTY STANDARD PARTS

Who Is Covered By This Warranty?
This warranty covers only the original Consumer Purchaser of these parts and is not transferable.

What Does This Warranty Cover?
S&S® Cycle, Incorporated (the "Company") warrants these parts to be free from defects in material and workmanship. If the parts become defective during the warranty coverage period, the Company will, at its option, repair or replace any, or all, defective parts. Repair or replacement of defective parts is the sole and exclusive remedy.

How Long Is The Warranty Coverage?
With the exception of electrical and electronic componenets, the warranty coverage remains in force for a period of twelve (12) months from the date that the original Consumer Purchaser buys the parts. Electrical and electronic components are covered by a warranty duration of six (6) months. However, warranty coverage will automatically terminate if the original Purchaser sells or otherwise transfers all or any portion of the purchased parts.

What Is Not Covered By This Warranty?
The Company shall not pay or be responsible for the cost of shipping the defective parts to the Company for service under this warranty, nor will the Company pay for the cost of labor to remove and/or replace the defective parts.

Moreover, the Company shall have no obligation under this warranty in the event that the parts become defective in whole or in part as a result of improper assembly, installation, break-in, maintenance, or use, or any other misuse or mistreatment of the parts, including, without limitation, operation of the parts with fuels, oils or lubricants not conforming to specifications published by the Company or continued operation of the parts after a defect or malfunction occurs or is identified or suspected.

The Company shall have no obligation under this warranty for defects in parts with a powdercoat finish, when that option is selected, if the defects are caused by, but not limited to, negligence of parties other than the Company; an accident; ordinary wear and tear; assembly or disassembly; power washing; natural occurrences like stone chips; bead blasting; improper maintenance including the use of any harsh cleaning agent, chemical or solvent; and salt or other substances used on streets and highways for maintenance and safety.

The Company provides touch-up paint with powdercoated parts. It is the customer's responsibility to repair minor finish damage to prevent or inhibit further deterioration.

It is the responsibility of the original Consumer Purchaser to cease operation as soon as a defect or malfunction is identified or suspected. The failure to cease operation once a defect or malfunction exists can cause substantial damage to the Company's parts that could otherwise be avoided.

In addition, the Company shall have no obligation under this warranty for parts defects caused by alteration including, but not limited to, polishing; powdercoating; painting; removing or reconfiguring any components; modification, repair, or unauthorized service.

The Company shall have no obligation under this warranty if the parts are used in racing or similar competitive activities. The Company shall have no obligation under this warranty when a competition application, including but not limited to a turbocharger, supercharger or nitrous oxide, is used with the Engine. Further, the Company shall have no obligation under this warranty for any parts that are included in a Competition Package Option offered by the Company since the Package is for use in racing and similar competitive activities.

THE COMPANY SHALL NOT BE LIABLE FOR AND DISCLAIMS ALL CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR SPECIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, THESE PARTS.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

VIDEO USAGE POLICY

Overview
S&S owns all copyright and other intellectual property rights in the videos it produces or distributes. However, S&S customers are welcome to use and share S&S videos within these guidelines provided.

Permissible uses
- Videos may only be used for non-commercial purposes or to promote the use or sale of S&S products.
- Videos may be embedded in external websites using video hosting service supplied embed (iframe) code.
- Videos can be added to a customer video hosting service account via playlists while still maintaining original exclusivity of uploaded videos by S&S.
- Reposting or uploading of S&S content is only permissible with written consent from S&S Cycle.
    - If consent is granted to repost/re-upload S&S content, customers may add annotations using functionality provided by video hosting services. This may include the customer's contact and ordering information which would be subject to approval by S&S to ensure branding is intact, prior to making it public. The video itself must remain unaltered.
    - S&S requires that at the beginning of each month, a report of view statistics per video be supplied to S&S.
- Links (url) to S&S YouTube™ channel or individual YouTube™ videos may be provided and shared by the customer via email, blog, website, social networks, or printed material.

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- Customers may not upload or repost any copyrighted materials owned by S&S to another video hosting service account or any website without written consent from S&S.
- Customers may not alter or modify any copyrighted materials owned by S&S.
- Videos may not be used in any way that is likely to disparage, dilute, tarnish, or otherwise harm the S&S brand.

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Through this Video Usage Policy, S&S is granting its customers a limited, revocable license to display or link to its videos. S&S may, at any time, and at its sole discretion, terminate this license, at which point any copying or display of its videos will be prohibited, unless otherwise specified in writing.



SECTION 14: APPENDIX & INDEX

Appendix

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IDENTIFICATION OF FLYWHEELS

S&S® flywheels are manufactured in sets only We do not sell individual right or left flywheels, nor do we recommend mixing flywheels This is because the manufacturing techniques and/or tooling changes periodically

To prevent mixing flywheels, as well as to identify each set, the right and left flywheels are stamped with identical serial numbers (see picture)



Serial Number Identification Information

Serial Number ID, B01810-3SLX , deciphered as follows:

(B01810) Serial Number: From this number, S&S can determine when the flywheels were made and sold, to whom they were sold, and how the flywheels were originally balanced

(3) Stroke Code: Determines the stroke of the flywheels In this case the stroke is 4¾"

(SL) Year Code: The year of the engine the flywheels were machined to fit and that the flywheels were machined to accept an S&S design sprocket shaft

(X) Diameter Code: Diameter of the flywheels In this case the diameter is 8¼"

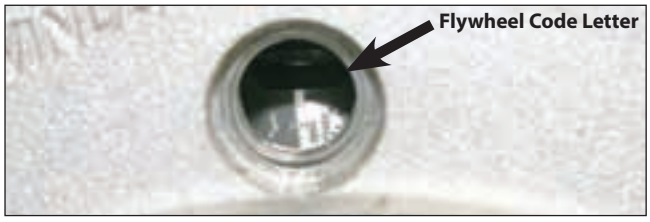
S&S® FLYWHEEL IDENTIFICATION CODES FOR 1936-UP BIG TWIN

Stroke Code	Stroke	Year Code	Engine Year	Sprocket Shaft	Pinion Shaft	Crankpin Type	Diameter Code	Flywheel Diameter
1	4⅜"	E	1936-'54	Stock	Stock	1941-'81	None	8½" (Stock)
2	4½"	L	1955-'71	Stock	Stock	1941-'81	A	8⅜"
3	4¾"	AL	1972-Early '81	Stock	Stock	1941-'81	X	8¼"
4	5"	SE	1955-Early '81	S&S	Stock	1941-'81		
5	4¼" (Stock 80")	BL	Late 1981-'99	Stock	Stock	1981-'99		
6	4⅝"	SL	Late 1981-'99	S&S	Stock	1981-'99		
9	Special order	SF	1999-up	Press In	Press In	Press In		
12	5¼"	SG	S&S 4⅛" Bore	Press In	Press In	Press In		
13	3½" (Stock 61")	SM	1995-'99 EFI	Press In	S&S	1981-'99		
14	3³¹⁄₃₂" (Stock 74")	Y	74"/80" Indian®	Stock	Stock	Stock		
16	5⅛"							
17	4"							
18	3⅝"							
19	4⅛"							
TA	3⅞"	Titan Special						
TB	4450"							

FLYWHEEL CODES:

Codes that pertain to the most common regular production flywheels have been listed. Many other codes for racing flywheels and special orders also exist. If you have a question about a set of S&S flywheels with codes different than those shown, contact an S&S technical assistant to properly identify what you have.

Flywheel ID codes that end with an "A" or an "X" designate flywheels with a smaller than stock diameter. Stock big twin flywheels measure 8½", and stock flywheels for Harley-Davidson® Sportster® models are 7⅞" in diameter. Typically, "A" means ⅛" smaller, and "X" means ¼" smaller. To verify the code, it is best to measure the flywheels



Serial numbers can be seen through the timing hole to identify the stroke of an assembled engine Keep in mind they will appear upside down in the hole

S&S® FLYWHEEL IDENTIFICATION CODES FOR HARLEY-DAVIDSON® SPORTSTER® & BUELL® MODELS

Stroke Code	Stroke	Year Code	Engine Year	Sprocket Shaft	Pinion Shaft	Crankpin Type	Rod Bearing Type	Diameter Code	Flywheel Diameter
1	4¹⁄₁₆"	None	1957-'76	Stock	Stock	Stock	Stock	None	7⅞" (Stock)
2	4³⁄₁₆"	B	1957-Early '81	Stock	Stock	Stock	Stock	A	7¾"
3	4⁵⁄₁₆"	SB	1957-Early '81	S&S	Stock	Stock	Stock	X	7⅝"
4	4⁷⁄₁₆"	BD	1957-Early '81	Stock		Stock	Stock		
6	4⅝"	SBD	1977-Early '81	S&S		Stock	Stock		
7	4¹³⁄₁₆"	C*	Late 1981-'85	Stock	Stock	Stock	Stock		
8	5"	SC	Late 1981-'85	S&S	Stock	Stock	Stock		
9	Special Order	SCD	Late 1981-'85	S&S		Stock	Stock		
11	4½"	SCR	Late 1981-'85	S&S	Stock	Stock	1987-Up		
12	5¼"	SCDR	Late 1981-'85	S&S		Stock	1987-Up		
15	3¹³⁄₁₆"	D	Late 1986-'03	S&S	S&S	S&S	S&S		
16	5⅛"	DR	Late 1986-'03	S&S	S&S	S&S	1987-Up		
17	4"	PS	S&S Prostock	Press In	Press In	Press In			
18	3⅝"	KRS	45" WR/KR	Stock	Stock	1957-'81 XL	1957-'81 XL		
19	4⅛"	YS	45" Indian	Stock	Stock	Stock	Stock		

** Obsolete – S&S no longer makes this design*

ORDERING S&S® MANIFOLDS

We make one style of manifolds for both Harley-Davidson® Evolution® and Twin Cam 88® engines to fit stock cylinder heads and S&S cylinder heads – meaning manifolds supplied in S&S carburetor kits can be used with stock or S&S Super Stock® cylinder heads. The only thing that you have to keep in mind is that due to the slightly larger port diameter, these manifolds must be used with S&S manifold seals.

Replacement & Special Order Intake Manifolds

Stock, S&S Engine or S&S Kit: To order a replacement manifold, refer to the manifold size chart for your particular engine type. Manifolds are listed for various sized carburetors and throttle bodies in the correct lengths for engines and kits offered by S&S .

Custom Engine: If the effective cylinder length is different from the standard offerings, a special manifold can be machined to your specifications. Order manifolds using the special order part numbers listed in the charts. Allow two weeks for delivery

Specifying Manifold Length

When ordering a special manifold, specify the length of the manifold required for your application. There are several methods to specify the length of a manifold:

Port-To-Port Distance: S&S Manifold Measuring Tools

The most accurate method for specifying length for a special order manifold:

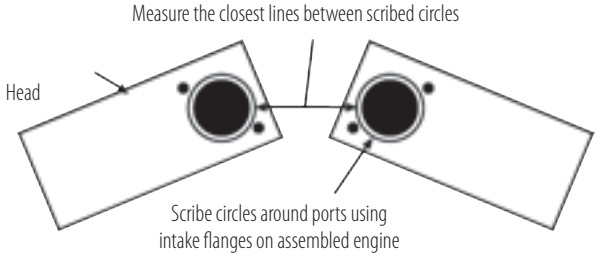
- Use the S&S Manifold Measuring Tools to measure port-center to port-center distance on an engine or an existing manifold.
- Specify whether the measurement was from an engine or from an existing manifold. (Manifold measurements will be approximately 030" shorter than engine measurements due to clearance normally built into the manifold).

Port-To-Port Distance: Flange Method

Another accurate method of specifying manifold length for special order is to measure the port-to-port distance on an assembled or mock-up engine :

- Assemble or mock-up the engine & install the intake flanges on heads
- Scribe a circle around the port using the mounting flange as a template The circle must be the same size as the ID of the flange. (It is recommended that front flange be installed upside down on the rear head and vice versa, to avoid inaccuracy in the circle diameter).
- Remove the flanges and measure the shortest distance between the scribed circles See Diagram 1

DIAGRAM 1 – FLANGE METHOD



NOTE: Circles must be the same size as flange ID

Effective Cylinder Length

Ordering a special manifold by effective cylinder length is commonly used since it does not require any special tools, however, this method will not account for machining inaccuracy in the cases or heads .

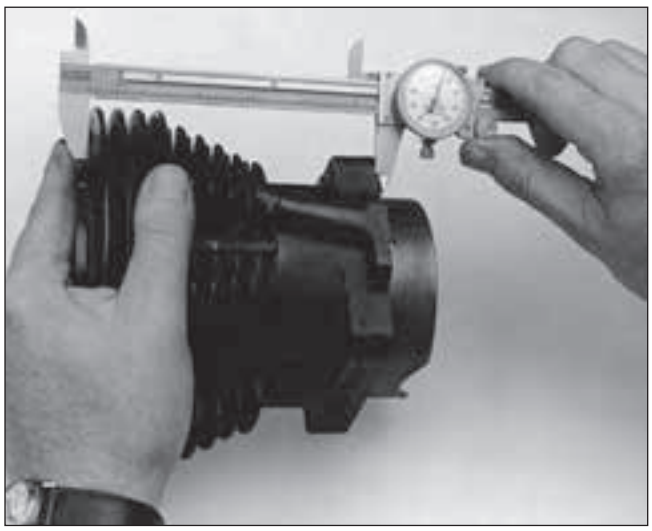
- Measure the cylinder length from gasket-surface to gasket-surface without the head and base gaskets in place. (A precision measuring instrument, such as a dial caliper, should be used to insure accurate results).
- If all components except the cylinder are stock, the actual cylinder length and the effective cylinder length are equal. However, if base plates will be used under the cylinders or if the crankcase deck height is taller than stock, the thickness of the base plates and any extra base gaskets, or the change in deck height must be added to the cylinder length to determine the effective cylinder length.
- If the cylinder heads have been decked to increase compression, the amount they have been shortened must be subtracted from the effective cylinder length.
- If the effective cylinder length is equal to or no more than 030" longer than the cylinder length listed for a specific manifold in a chart, that manifold will fit the engine.
- If the effective cylinder length is significantly different from any manifold that is available, the manifold must be special ordered. (When placing an order for a special manifold by effective cylinder length, you will be asked for actual dimensions of the cylinders and other components. S&S will calculate the effective cylinder length).

Manifold Size Number

Specifying the length of a special order manifold by size number has proven not to be a reliable method. Many manifolds ordered by this method have proved to be too long because the customer took a size number from a part that had been shortened and no longer matched the original specifications. Manifolds ordered by size number are not returnable because of fitment problems.

Manifolds For Panhead & Knucklehead Engines

Port-to-port measurement is easy since the ports are parallel to each other. On an assembled or mocked up engine, a measurement from head-to-head on opposite sides of each port should ideally be taken before the head bolts and base nuts are tightened. To insure that the ports are parallel, the heads and cylinders should be positioned so both measurements are equal. A precision measuring instrument, such as a dial caliper, should be used to ensure accurate results.



YEAR CODES FOR OUR SERIALIZED PRODUCTS

S&S serial numbers begin with the following manufacturing year codes Year codes coincide with S&S Cycle's fiscal year, which starts on Oct 1st of the previous calendar year A product with serial number beginning with the letter "A" was manufactured in fiscal year 1978, between 10-01-77 and 09-31-78, or in the fiscal year 2000

A 1978	R 1992	I .....NOT USED
B 1979	S..... 1993	J..... 2008
C..... 1980	T..... 1994	K 2009
D 1981	U 1995	L..... 2010
E 1982	V .....NOT USED	M..... 2011
F..... 1983	W..... 1996	N 2012
G 1984	X..... 1997	O .....NOT USED
H 1985	Y 1998	P 2013
I .....NOT USED	Z..... 1999	Q .....NOT USED
J..... 1986	A 2000	R 2014
K 1987	B 2001	S..... 2015
L..... 1988	C..... 2002	T..... 2016
M..... 1989	D 2003	U 2017
N 1990	E 2004	V .....NOT USED
O .....NOT USED	F..... 2005	W..... 2018
P 1991	G 2006	
Q .....NOT USED	H 2007	

OLDER S&S® CARBURETOR REPLACEMENT PARTS

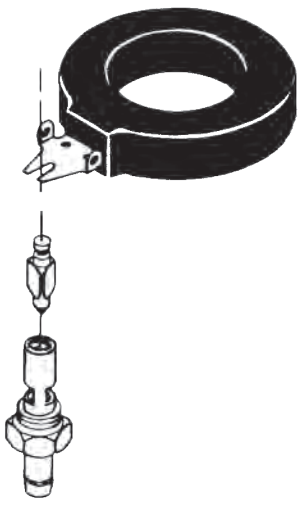
When ordering parts for older S&S carburetors, it is necessary to determine the correct style of float, needle and bowl S&S has used two different mechanisms to connect the float to the inlet needle

Forked Mechanism: OIder style that utilizes a forked float tang, which slides into a slot in the top of the needle

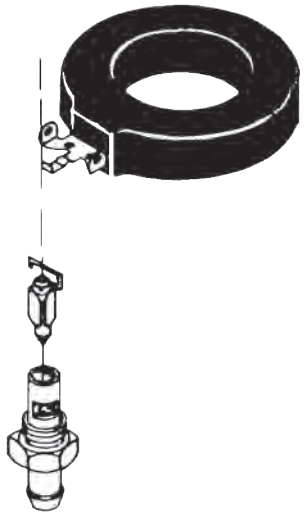
Wire Mechanism: Current style that features a needle with a wire hook which attaches to the tang of the float

Parts of differing styles may not be used together For example, although the carburetor bowls of the two styles look very similar, they are not interchangeable due to differences in the float retaining pin position Some parts are no longer available for carbs with forked style mechanisms If these parts must be replaced, the entire bowl assembly must be replaced with wire mechanism style components

FORKED TYPE MECHANISM (OBSOLETE)



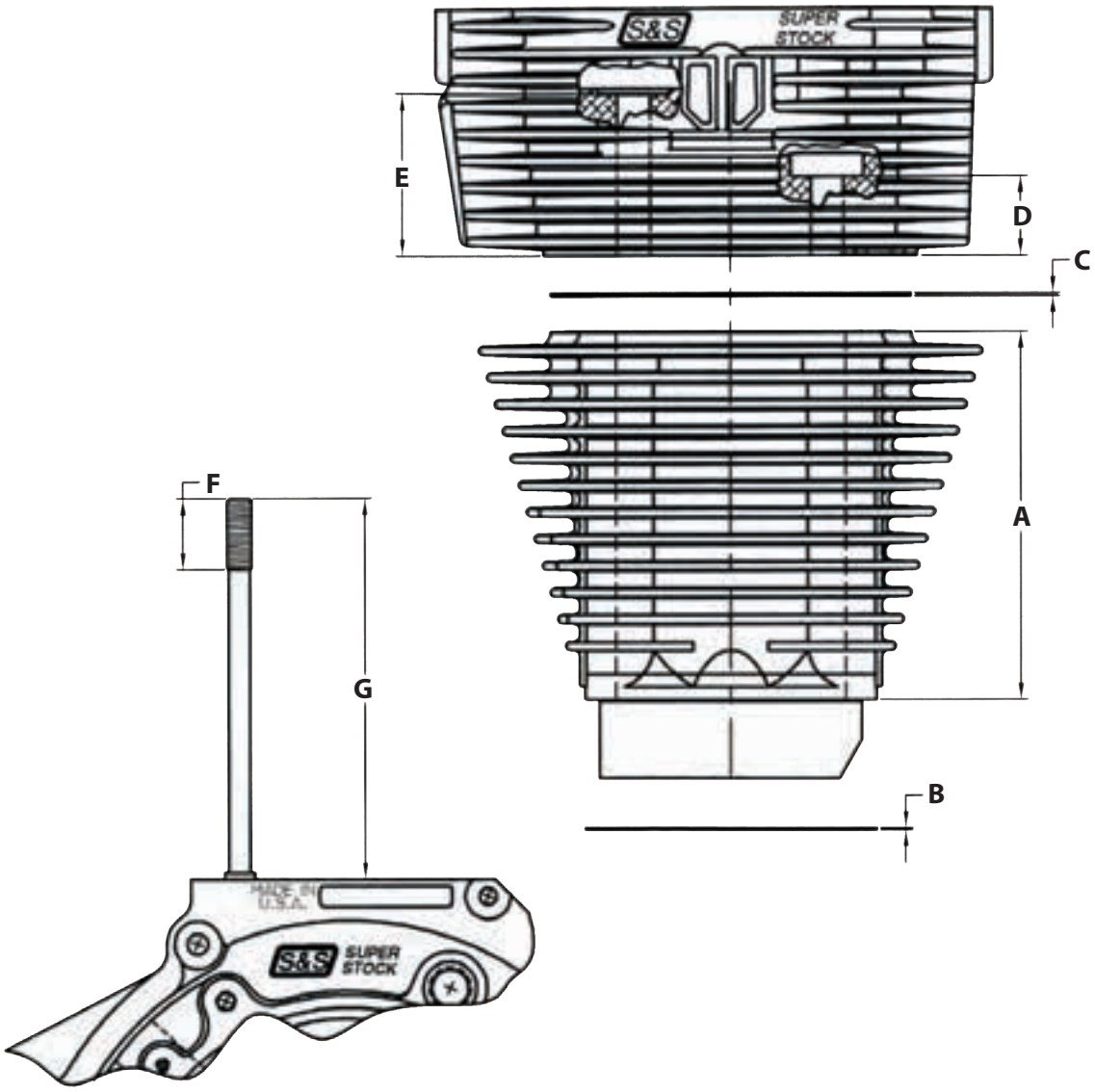
WIRE TYPE MECHANISM



CALCULATING CUSTOM HEAD BOLT LENGTHS

Add:

A	**Cylinder Length**
	(Gasket surface to gasket surface measurement)
+ B	**Base Gasket Thickness**
+ C	**Head Gasket Thickness**
+ D or E	**Cylinder Head Thickness**
	(Gasket surface to head bolt washer pad measurement:)
	D Short Side
	All S&S = 1.207"
	Late 1985-'90 Stock = 1.207"
	1991-up Stock = 1.405"
	E Long Side
	All S&S = 2.700"
	All Stock = 2.700"
+ F	**Desired thread engagement .563"**
	Usually 1½ times stud diameter - stock studs are ⅜"
Subtract:	
G	**Cylinder Stud Installed Height**
	(Crankcase deck to top of stud measurement)



A

AIR CLEANERS

AIR CLEANER KIT
- 2003-2015 VICTORY® MODELS 506
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1926-1984 VINTAGE 450
REPLACEMENT PARTS 484
CHROME PLATED BILLET TRANSMISSION SIDE COVER
1984-1999 BIG TWINS
REPLACEMENT PARTS 322
TRANSMISSION CASE REPLACEMENT PARTS
1984-1999 BIG TWINS 321
TRANSMISSION TOP COVER
1999-2006 BIG TWINS 183

V

VALVE SPRINGS
REPLACEMENT PARTS FOR ALL LIFTS
1984-1999 BIG TWINS 284
1999-2006 BIG TWINS 202
2007-2016 BIG TWINS 110
SPORTSTER® & BUELL® MODELS 382
SIDEWINDER® .585" Lift VALVE SPRINGS
X-WEDGE ENGINES 492
SIDEWINDER® .650" LIFT VALVE SPRINGS
1984-1999 BIG TWINS 264
1999-2006 BIG TWINS 165
2007-2016 BIG TWINS 76
SPORTSTER® & BUELL® MODELS 349
X-WEDGE ENGINES 492
STREET PERFORMANCE .585" LIFT VALVE SPRINGS
1984-1999 BIG TWINS 264
1999-2006 BIG TWINS 165
2007-2016 BIG TWINS 76
SPORTSTER® & BUELL® MODELS 349
VALVE SPRING COVERS
1929-1984 VINTAGE 438
VALVE SPRING KITS
1926-1984 VINTAGE 436, 437
FOR B2 HEADS 75
FOR B3 HEADS 75
MILWAUKEE-EIGHT® 20
RACING 517

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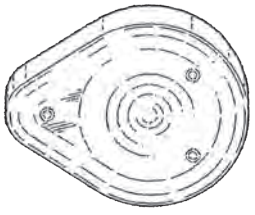
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Hot Set Up Kit	Center	Viola V-Twin



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