

Section 1

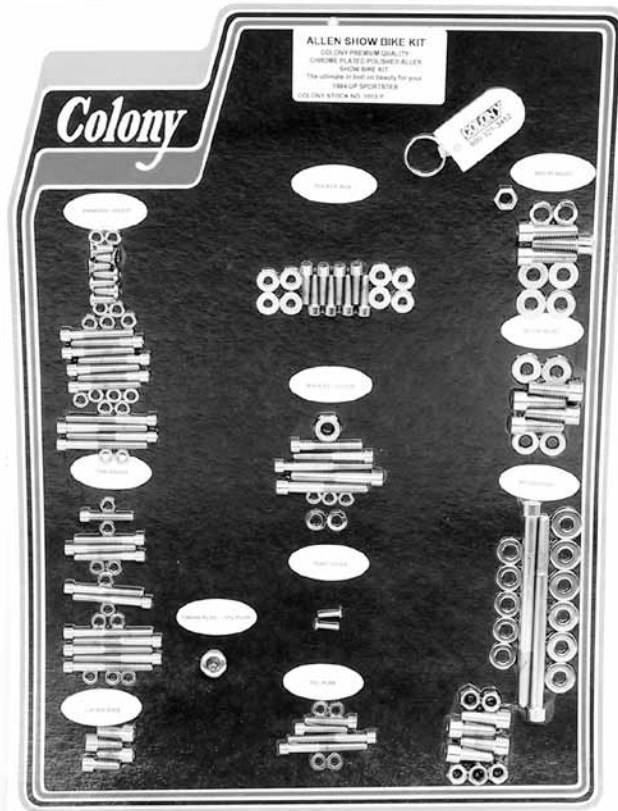
Twin Cam 1-35

Cam Cover	20-23
Cams	6-12
Colony Hardware	2, 3
Cylinder Kits	14, 24-27
Flywheel	14-17
Gaskets	38-40
Oil Pump	21
Pushrods/Covers	30-32
Pistons	24-28
Rocker Covers	36, 38
S&S Hot Set Up	15-16
S&S Motor Cases	5
S&S Motors	4
Valves & Rockers	33-35

Evolution Motor

Andrews	72, 89, 110
Breathers	62-63
Cam Covers & Parts	48-54
Crane	94, 98, 100
Cylinders	78-81, 116-117
Delkron	44
Flywheels	47, 66-67
Flywheel Case Parts	46-49
Gaskets Evo	101-105, XL ...125-126
Jims	51, 57-58, 61-62, 69, 74,76-77, 89, 92, 94, 98
KB Pistons	86
Lifter	73-77
Motors	41-42
Oil Pump	55-61
Pistons/ Rings	80-86
Pushrods/ Covers	87-91
Rocker Arms	99-100
Rocker Covers	101-102, 107-109
Rods/Components	68-69
S&S	41-43, 52, 55-56, 62-71,74-75, 77, 80-82, 87- 88, 92, 106
STD	44
Valves & Guides & Springs	92-99
XL, EVO Motor Parts	110-126
Wiseco	84-85

Twin Cam & Multi-Fit



Chrome Polished Allen Motor Show Bike Kits

Complete motor kit includes everything needed to mount the following: rocker box, primary cover, lifter base, transmission covers, oil pump, air cleaner, cam cover, point cover, timing plug, motor mounts (early XL motor mounts include spacers). Sportster kits also include fasteners for sprocket cover, rear master cylinder and generator. Twin Cam 88 kits also include fasteners for motor case and oil hose cover. Button head allens and flat head allens are used where necessary.

- 7951** Dyna Glide 2006-on
- 7950** Dyna Glide 1999-05
- 7949** Dyna Glide 1993-98
- 7948** Dyna Glide 1991-92
- 7954** Softail 2007-on
- 7947** Softail 2000-06
- 7946** Softail 1992-99
- 7945** Softail 1989-91
- 7944** Softail 1987-88
- 7943** Evo 4 speed 1984-86
- 7953** FLT 2007-on
- 7942** TC 88 FLT 1999-06
- 7941** FLT, FXR 1992-98
- 7940** FLT, FXR 1987-91
- 7939** Evo 5 speed 1985-86
- 7934** Sportster 1994-03
- 7933** Sportster 1991-93
- 7932** Sportster 1986-90
- 7952** VRSCA 2002-on



Colony Twin Cam Kits

All kits are polished allens except where noted by (*), which are button heads.

PCP Description

- 9948** Electrical panel cover mounting kit Dyna 1991-on
- 9776*** Handlebar lever mount and master cylinder cover screws BT 96-on
- 9932** Intake manifold to cylinder head mounting kit BT and XL 1995-on
- 9942** Lifter base screw kit TC 88, Dyna, FLT 1999-on, Softail 2000-on
- 9956** Motor case mounting kit TC 88, Dyna, FLT 1999-on, Softail 2000-on
- 9939** Oil adaptor screw kit TC 88 and FLT 1999-on
- 9950** Oil hose cover mounting kit TC 88, Dyna, FLT 1999-on
- 9954*** Point cover screws TC 88, Dyna, FLT 1999-on, Softail 2000-on
- 9959** Primary cover screw kit TC 88, FLT 1999-on
- 24470** Timing cover screw kit TC 88, Dyna, FLT 1999-on, Softail 2000-on
- 9935** Trans to motor mounting kit TC 88, Dyna, FLT 1999-on, Softail 2000-on
- 72046** Voltage regulator mounting kit Softail 2000-on
- 72116** Lower front motor mount all Softail 2000-on



Rocker Cover Screw Kit

Chrome plated 12 point screw, washers, and gaskets mount rocker covers on 1985-on FL,FX and 1986-on XL.

72280



Twin Cam & Multi-Fit

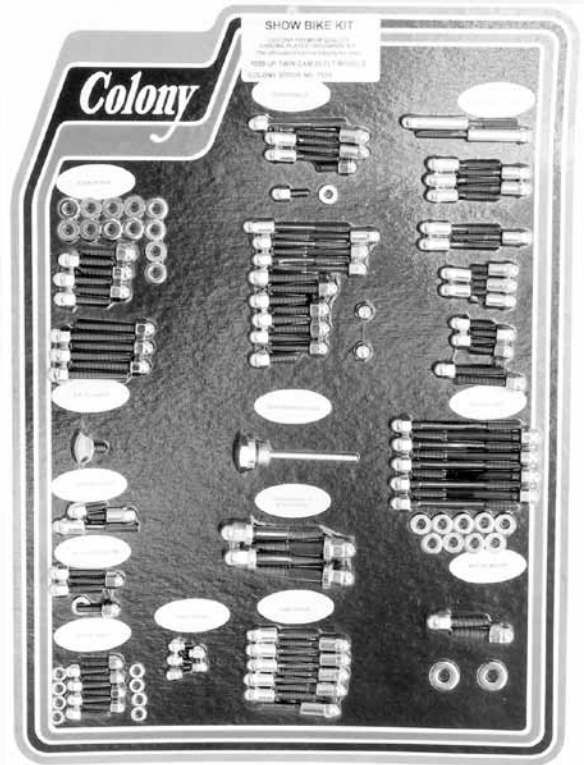


Colony Lower Motor Mount Kit

Complete kit for 2000-on Softail models features heat treated and plated bolts, locknuts and heavy duty washers.

PCP Finish

- 72116** Polished allen bolts
- 72117** Chrome cap bolts
- 72118** Cadmium cap bolts



Acorn TC Motor & Transmission Kits

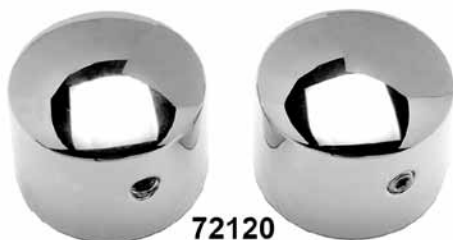
Chrome complete acorn style motor and transmission kits.

Complete Kits

- 7925** All Dyna 1999-on
- 7929** All FLT 1999-06

Individual Kits-Acorn

- 9957** Air cleaner all BT 1983-on
- 9945** Cam cover all 1999-on
- 9941** Lifter base all Dyna, FLT 1999-on, FXST 00-on
- 9955** Motor case all TC 1999-on
- 9938** Oil filter adapter kit all Dyna, FLT 1999-on
- 9949** Oil hose cover all Dyna, FLT 1999-on
- 9936** Motor mounting kit, front all Dyna 1991-on
- 9953** Point cover all 1999-on
- 8917** Primary cover Dyna 1989-05, FXST 1989-06
- 9958** Primary cover all FLT 1999-06
- 9943** Rocker box all 1999-on
- 9861** Transmission dipstick, custom all BT 87-on
- 9934** Trans to motor all 1999-06
- 9785** Trans shifter cover all Dyna 1991-on
- 8912** Trans side cover Dyna 91-06, FLT-ST 1987-06
- 9951** Trans shifter cover all FLT, Softail 1998-06

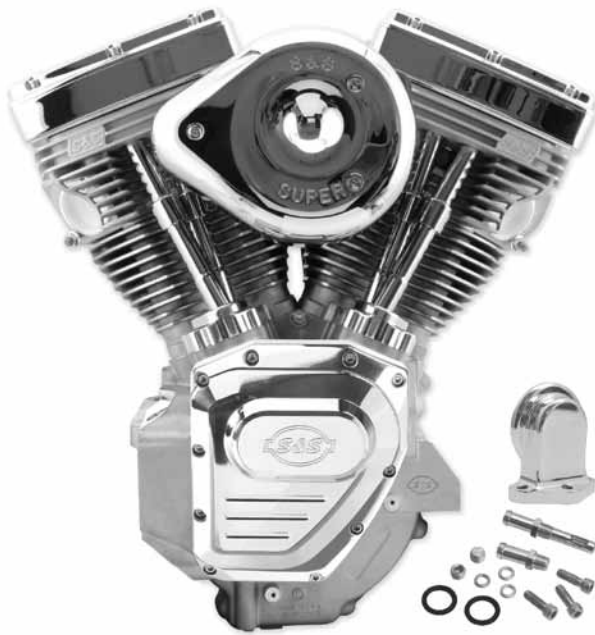


Colony Chrome Motor Mount Bolt Covers

Chrome plated covers add a smooth finished look when easily installed with a set screw. Sold in sets of 2.

- 72119** Softail 2000-on

S&S Twin Cam Motor



Carbureted with IST Ignition 1999-06

Engines for carbureted models all come with the S&S Super G carburetor with the slotted "Desparado" air cleaner cover for good looks and improved performance.

Engines equipped with the IST ignition are covered by an extended two year warranty by S&S because they are confident that the IST ignition will protect the engine from damage due to detonation. In addition, the IST Guardian "break in rev limit feature" is activated on IST modules sold with complete S&S engines. This feature protects the new engine from premature failure with a lower rev limit during break in. All engines include 4 quarts of Mobile oil and a filter.

124" TC Style Engine (Carb with IST) 1999-06 Natural TC "A" for stock mounting with IST ignition and 2 year warranty)

319894 Natural
319895 Black
319896 Polished

124" TC Style Engine for EVO 1984-99 (Carb with IST)

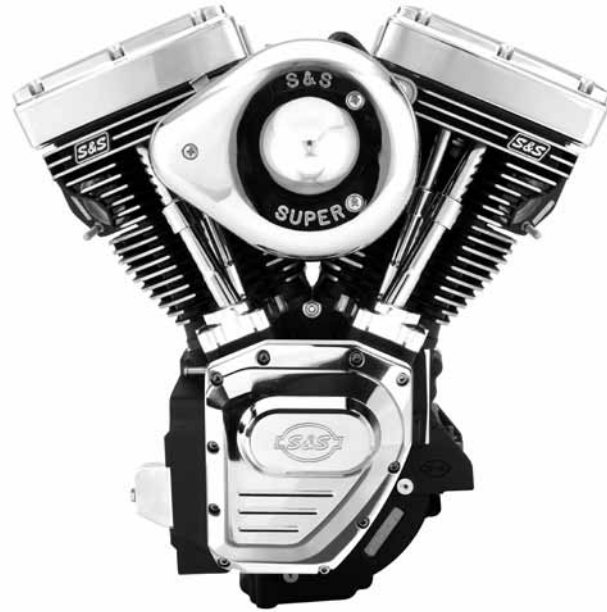
Natural TC "A" for EVO style mounting (1999-03 with IST ignition and 2 year warranty)

319709 Natural
319713 Black
319714 Polished

For Twin Cam and Evo Style Chassis

S&S Twin Cam style engines are available with two different motor mount styles. The first type has the stock Twin Cam rear motor mount. This style is for replacement use in an existing H-D chassis, and make it easy to get the performance you want from your Twin Cam motorcycle. Take the stock engine out and put an S&S engine in. It's that simple. This is a turn-key solution to the age old problem of making your bike go faster. The second type has an Evolution style rear motor mount and can be installed in any stock or aftermarket Evolution style chassis. This engine allows owners of Evolution style bikes to upgrade to a Twin Cam style power plant without buying a new bike. Maybe you've spent a lot of time and effort getting your bike the way you want it, but you'd like a Twin Cam style engine, you can keep the bike you've customized and have an updated engine too!

Notes: For installation in stock H-D chassis only. Balanced version not available. VFI and IST are not compatible with wiring in 2004 and later chassis. Carbureted engines include a G carb and available only with an S&S IST ignition system.



S&S Complete 124" Engines for Twin Cams

S&S introduces their first truly complete Twin Cam style 124" engine. We started with the super strong S&S Twin Cam style crankcases which feature extra section thickness in key stress areas and a Timken style sprocket shaft bearing for superior strength and load capacity. To that solid foundation we added S&S's legendary flywheels, connecting rods, .640 lift gear drive cams, S&S 4-1/8" bore cylinders and pistons, S&S cylinder heads, rocker arms, rocker covers, electric compression releases, and an S&S Super G carburetor. The new S&S Twin Cam style oil pump and tappets were added to complete the engine.

	Bore	Stroke	Cam	Piston	CR
TC and Evo	4-1/8"	4-5/8"	640GP	forged	10.8:1



S&S High Output Single Fire Coil

The perfect complement to S&S IST ignition systems. This single fire coil is actually two separate coils in a single package. Works well with any single fire ignition system. Coil impedance of 3 Ohms per coil. Not compatible with the S&S Variable Fuel Injection System.

551571

Notes:

Oil line installation kit #310424 is required for the installation in 1999-05 Dyna models. This kit includes a special transmission top cover and oil lines.

Oil line installation kit #310425 is required for installation in 2000-06 FLT models. Stock transmission top cover may be used.

S&S TC "A" Style Crankcases



Not Available for Twin Cam 88B or 2007-on TC 96 or TC-96B engines

Good news for performance enthusiasts who want large displacement Twin Cam style crankcases. S&S has two types of Twin Cam style crankcases available which are intended for two different applications. The first type of S&S crankcase is intended to replace the crankcases in existing Harley-Davidson motorcycles only. These crankcases have a rear motor mount that bolts directly to the stock transmission. The second type of S&S crankcase has an Evolution style rear motor mount and will bolt into stock or aftermarket Evolution style frames. The crankcases with Evolution style rear motor mounts use an Evolution style sprocket shaft seal which allows the use of a stock Evolution seal spacer. In addition, they are machined for an Evolution style charging system. Otherwise, the two cases are nearly identical. Both styles are available for stock bore, 4" bore and 4-1/8" bore engines, and are available in natural aluminum or black powdercoat finish.

Features:

Greater overall strength than stock crankcases, especially in the front motor mount, important for high performance applications.

All S&S Twin Cam style crankcases use strong dependable Timken style sprocket shaft bearings to stand up to the most demanding applications.

All passages between the crankcase cam support plate are o-ring sealed.

Compatible with most stock components. Use stock oil pump, cam support plate, gear cover, and Timken style sprocket shaft bearing, etc. See note above.

Cam chest has clearance for up to .675" lift cams and strokes to 5".

Includes the S&S Twin Cam style crankcase breather valve designed to eliminate oil carry-over and oil scavenging problems associated with Twin Cam engines.

Stock bore cases are perfect for replacement applications, 4" bore cases are a natural for use with S&S Super Sidewinder Hot Set Up kits, and 4-1/8" bore cases make really large displacement custom engines possible, and are available with the S&S cylinder stud pattern or with the stock cylinder stud pattern. 4-1/8" bore cases with stock stud pattern are ideal for the S&S 124" Hot Set Up Kit for stock crankcases.

312071



S&S Crankcase Breather Valve for Twin Cam

This valve helps to reduce crankcase pressure by reducing oil carry over problems. The use of this valve also can provide a slight increase in torque and horsepower through the midrange. Not available for Twin Cam 88B or Twin Cam 96B engines.

For Engines with Stock Oil Pump

312070 1999-02

312071 2003-on

Engines with S&S Oil Pump

312093 1999-02 stock crankcases

312094 2003-on Stock and all S&S crankcases



310424



S&S Twin Cam Style Stock Replacement Crankcases

1999-06 Models except 2006 Dyna.

Bore	Natural Finish	Black Finish
Stock	310171	310172
4"	310174	310175
4-1/8"	310180	310181
4-1/8"		310178 (S&S Stud Pattern)

S&S Twin Cam Style Crankcase For Evolution Chassis

Bore	Natural Finish	Black Finish
Stock	310133	310134
4"	310130	310131
4-1/8"	310127	310128

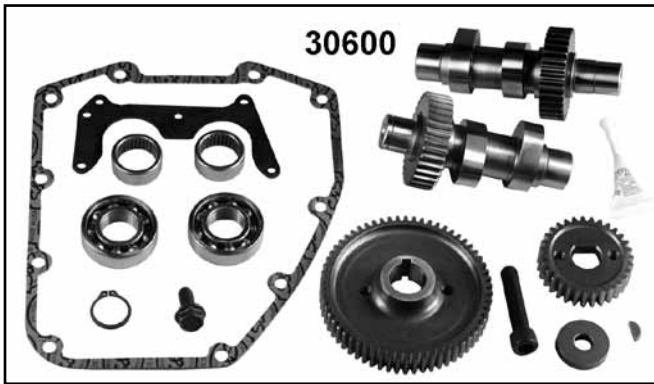
Notes: (Non Stocking Item)

Oil line installation kit #310424 is required for the installation in 1999-05 Dyna models. This kit includes a special transmission top cover and oil lines.

Oil line installation kit #310425 is required for installation in 2000-06 FLT models. Stock transmission top cover may be used.

Twin Cam

S&S Gear Drive Cams for 1999-on BT Engines with Stock Oil Pumps



Stock Spec Gear Drive Cams for 1999-06 BT... All You're Gaining is Piece of Mind!

Not everybody wants to go faster, but a lot of riders are concerned about the possibility of the stock cam chain drive in their 1999-06 Twin Cam 88 engine failing. The solution is to install a set of gear drive cams that has the same timing and lift specifications as the stock cam. Stock lift and timing allows bolt in installation. There is no need for carb jetting or EFI recalibration, and this stock lift cam set will not accelerate valve train wear like high lift cams do. Fits 1999-06 Harley-Davidson BT, except 2006 Dyna models.

Stock Spec Gear Drive Cams 1999-06, Except Dyna

- 30600** 475G Cam kit
- 30601** Cams with inner gears only

Application Information for S&S BT Camshafts

S&S offers a variety of cam grinds for 1999-on BT engines in chain drive and gear drive versions. With the exception of the "bolt-in" 475G and 510C/510G camshafts, S&S cams are high lift and were designed to take advantage of the extra flow of ported stock heads or S&S Super Stock cylinder heads. Due to the high lift of these cams, S&S adjustable pushrods and high performance valve springs are recommended. Not all grinds are available in the chain drive version.

- S&S 475G: bolt-in replacement to eliminate the stock cam drive chains on 1999-06 engines
- S&S 510C/G: bolt-in cam for 88", 95", 96" engines with compression ratios below 9.7:1. Primarily for stock heads that have not been ported.
- S&S 546G: Short duration emissions cam with very little overlap to reduce emissions of unburned hydrocarbons. It is intended as a replacement for S&S emissions certified engines
- S&S 570C/G: Designed for 88" to 96" engines with compression ratios between 9:1 and 10:1
- S&S 585C/G: Designed for 88" to 95" engines with compression ratios from 10 to 10.5:1 and 100" and 107" engines at 9.7:1 to 10.5:1 compression
- S&S 625C/G: Cam set designed for 95" or larger engine with compression ratios between 10.0 and 10.75:1
- S&S 640C/G: For engines of 95" or more with compression ratios between 10.5:1 and 11.5:1 (used in S&S 124" engines)
- S&S 675G: For 120" or larger engines with at least 11:1 compression ratio

S&S Gear Drive Cam Specifications									
Series	Valve Timing Open/Close		Valve Duration Open/Close		Valve Lift	Centreline		Lift @ TDC	
	Intake	Exh.	Intake	Exh.		Intake	Exh.	Intake	Exh.
475G (stock)	2/34	36/4	216	220	.475"	106	106	.060"	.060"
510C/510G	20/38	52/20	238	252	.510"	99	106	.187"	.178"
546G	5/55	52/5	240	237	.546"	115	113.5	.126"	.106"
570C/570G	20/40	55/20	240	255	.570"	100	107.5	.187"	.179"
585C/585G	20/45	60/20	245	260	.585"	102.5	110	.186"	.179"
625C/625G	20/55	60/20	255	260	.625"	107.5	110	.189"	.184"
640C/640G	25/60	65/25	265	270	.640"	107.5	110	.228"	.214"
675G	25/64	70/25	269	275	.675"	109.5	112.5	.235"	.205"

Note: These specifications apply to all S&S cams regardless if they are chain or gear driven. Not all S&S cams are available if geardrive and chaindrive versions.

S&S Gear Drive Cams for 1999-on BT Engines with Stock Oil Pumps

S&S Gear Drive Camshaft Kits for 1999-on BT Engines Meeting the Needs of High Performance Engines

The patented S&S gear drive cams are a must in order to achieve the full potential from high performance Harley-Davidson Twin Cam 88 engines. Since the chain drive system used in stock Twin Cam 88 engines is not adequate to accurately control valve action at high rpm when using high lift cams and high performance valve springs, a different system was needed. The S&S gear drive system was developed to improve performance and to eliminate potential engine damage caused by failure of the chain and tensioner system.

Improved Timing, Accuracy and Less Drag

S&S gear drive camshaft kits improve valve timing accuracy by eliminating the timing chain lash as well as variations caused by the loose fitting stock cam drive sprockets. All stock chain drive components are replaced with S&S gear drive cams and outer drive gears. This simple, effective solution reduces power loss by eliminating chain drag, and allows more aggressive cam profiles and increased valve spring force to be used.



Notes:

- Pinion shaft runout 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 gear cover. 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 gear cover gasket are required to complete installation. Gear drive cams for 1999-06 models require the use of ball bearing style cam bearing, not stock roller bearing as they have more internal clearance which can cause excessive gear lash and increased noise. The correct parts are provided in S&S cam installation kit #335163.
- 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. 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 Gear Drive Cams for 1999-on BT Engines with Stock Oil Pumps				
Cam	Complete Kits		Cams with Inner Gears	
	1999-06*	2006 Dyna 2007-on All	1999-06*	2006 Dyna 2007-on All
475G (stock)	30600	N/A	30601	N/A
510C/510G	335177	335266	335174	335246
546G	335230	N/A	335236	N/A
570C/570G	335178	335267	335166	335247
585C/585G	335179	335268	335168	335248
625C/625G	335180	335269	335170	335249
640C/640G	335181	335270	335172	335250

Note: Complete kits include all parts needed for installation.
 *except 2006 Harley-Davidson Dyna Models
 Although several cam grinds were used in stock engines from 1999-06, the timing specs for 475G cam is most similar to cams used in 1999-03 EFI engines.

Which S&S Gear Drive Cam Kit to Order?

- If updating from the stock chain drive system, it is easiest to order a complete kit, which includes camshafts with inner gears, an outer cam drive gear kit and a camshaft installation kit which includes the S&S cam bearing retainer plate.
- If replacing cams in an engine already equipped with S&S gear drive cams, order a cam with inner gears and reuse the existing outer gears. Separate purchase of a camshaft installation kit for appropriate model year is recommended.
- If installing a gear drive cam set without inner gears from another cam manufacturer, cam drive gear kit for appropriate model year provides the inner cam gears as well as an outer cam drive gear kit. Separate purchase of a camshaft installation kit for appropriate model year is recommended.

S&S Oversize and Undersize Replacement Gears

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

S&S Inner Cam Gears (Rear)

Oversize	Undersize	Fitment
73744*	73746**	1999-06 BT models except 2006 Dyna
73745	73747	2006 Dyna and 2007 BT

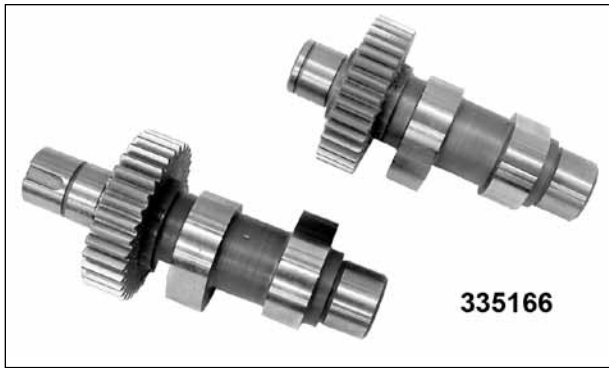
*2.2461/2.2471 Over pin measurement using .125" pins
 ** 2.2441/2.2451 Over pin measurement using .125" pins

S&S Pinion Gears

These gears may help eliminate gear noise.

PCP	Description	Over Pin (using .125" pin)
73742	Pinion gear, oversize	2.1360 / 2.1369
73743	Pinion gear, undersize	2.1342 / 2.1351

Twin Cam



S&S Twin Cam 88 Gear Drive Camshafts 1999-06 (except 2006 Dyna)

These cams increase valve timing accuracy in 1999-06 Twin Cam engines by eliminating timing chain lash and the loosely fit stock cam gears. The chain, chain guides and tensioner are eliminated which negates the possibility of these parts failing and damaging other parts. The kit also reverses the rear cam's direction of rotation, providing additional operating clearance between cam lobes. Cam kit includes inner gears only. Outer cam drive gear kit must be ordered separately. Some modifications are required to the stock gear cover and crank case on .625" and .640" lift cams.

S&S Gear Drive Cam Specifications										
PCP	Series	Valve Timing Open/Close		Valve Duration Open/Close		Valve Lift	Centreline		Lift @ TDC	
		Intake	Exh.	Intake	Exh.		Intake	Exh.	Intake	Exh.
335166	570G	20/40	55/20	240	250	.570"	100.0	107.5	.187"	.179"
335168	585G	20/40	60/20	245	260	.585"	102.5	110.0	.186"	.176"
335170	625G	20/55	60/20	255	260	.625"	107.5	110.0	.189"	.184"
335172	640G	20/60	60/25	265	265	.640"	107.5	107.5	.228"	.221"
334276	Outer cam drive gear kit									
935095	Adjustable pushrod set									
Note:										
335166 is designed for 88-95 cubic inch engines with a compression ratio below 10:1										
335168 is designed for 88-95 cubic inch engines with compression ratios from 10:1 to 10.75:1										
335170 is designed for engines of 95 cubic inches or more with compression from 10:1 to 10.75:1										
335172 is designed for engines of 95 cubic inches or more with compression from 10.5:1 to 11.5:1										



S&S TC Cam Gear Drive Kit

Includes front and rear inner cam gears, pinion gear and outercam gear. Fits BT 1999-06 (not 2006-* Dyna).
334275

S&S TC Camshaft Installation Support Kit

Kit includes replacement gear cover gasket, inner and outer cam bearings and retainer ring for gear drive cams.
335163

Twin Cam



How It Works

- 1** 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
- 2** The lobe holds the exhaust valve open slightly at cranking speed. This releases some of the compression, making the engine much easier to crank.
- 3** 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

Three Most Popular Grinds

Bolt-in cams were designed with a grind to provide low end torque for touring, a grind for maximum power and another for the best combination of torque and horsepower. Note: These cams were optimized for use with stock headpipes and performance slip-on mufflers.

551 Torque Cam

Optimized for a 2007-on 96 to 106 CID touring bike with slip-on mufflers and a 9.0 to 10.0:1 compression.

- Best bolt-in cam for Dressers
- Pulls hard from idle to 4000 RPM

583 Midrange Cam

Optimized for use as a great overall cam in the Softail, Dyna lines, but can be used in any 2007-on BT model.

- Strong low end torque and horsepower you can feel
- Strongest from 1500-5000 in a Softail/Dyna application

585 Horsepower Cam

Optimized for a 2007-on Softail or a 2006-on Dyna 96 to 106 CID with slip-on mufflers, high flow air filter and 9.0 to 10.5:1 compression

- Great results from 3000-6000 RPM

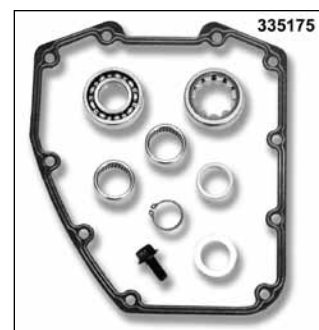
S&S Easy Start Cams

Start any Twin Cam engine regardless of displacement or compression, even those with a stock starter, without running down the battery. Available in chain or gear drive versions. Kits include cams, cam installation kit and gear drive kit, when required. Fully automatic, no buttons to push!

Twin Cam Easy Start Cams			
Years	2007-on	2007-on	1999-06
Drive	Chain	Gear	Gear
Series			
551	30620	30635	30605
570	30621	30636	30606
583	30622	30637	30607
585	30623	30638	30608
625	30624	30639	30609
640	30625	30640	30610
675	N/A	30641	30611

S&S Chain and Gear Drive Specifications for 1999-on Big Twins									
Cam	Valve Timing Open/Close		Valve Duration		Valve Lift	Centreline		Lift @ TDC	
	Int.	Exh.	Int.	Exh.		Int.	Exh.	Int.	Exh.
551	15°/20°	39°/18°	215°	237°	.550"	92.5°	100.5°	.163"	.179"
583	8°/5°	60°/22°	204°	262°	.583"	92.5°	109°	.131"	.199"
585	20°/5°	60°/20°	245°	260°	.585"	102.5°	102.5°	.186"	.179"

Note: These specifications apply to all S&S chain and gear driven cams.



S&S 510 Chain Drive Camshaft Set for TC 88 Carb Models Only 1999-06 (except 2006 Dyna)

Specifications:

	Lift	Duration	Open/Close	Centreline	TDC Lift
Int.	.510"	238	20/38	99	.187"
Exh.	.510"	252	52/20	106	.178"

Camshafts are intended for "hot street" applications-lighter motorcycles that can utilize significant power increases at 3000 RPM and above.

Recommend use of cam sprocket #288010.

335182 Cam set only

335175 Camshaft installation kit

Twin Cam

Note: All Andrews cams for TC88 models require the additional purchase of Andrews sprockets

Andrews Twin Cam 88 Gear Drive Camshafts

Andrews "G" series cams are designed for S&S gears to fit all Twin Cam engines 1999-2006, except 2006 DynaGlides.

Tests show a 4 horsepower gain over similarly equipped chain drive engines so more power gets to the rear wheel. Also gear drive cams do not have chain tensioner shoes to wear out. When deciding what cam to use in your 88 engine the most important consideration is the proper match between compression ratio and intake cam duration.

For best street performance, the static compression power should be around 175-180 PSI. Drag motors can handle still higher static pressures. Lower static pressure of 160 PSI are great for all around riding.



Touring and Performance Cams 1999-2006 (except '06 Dyna)

PCP#	Grind	Timing	Duration		Valve Lift@		Sprockets	Application
			.053	.020	Lift	TDC		
30067	12G	02/34	216	256	.474	.088	Stock	Bolt-in cam with similar specs to stock '06 Dyna cams. Slight power increase -no retuning necessary.
		37/05	220	259	.474	.110		
30072	21G	10/30	220	255	.498	.134	Stock	Bolt-in cam w/more torque for all around riding with heavy bikes. Intended for stock compression ratio and piston. Similar to #23 cam for EV80. (1700-5200 RPM)
		40/08	228	264	.498	.121		
Runs great with fuel injectors or carburetors								
30073	26G	11/35	226	262	.490	.138	Stock	Bolt-in cam for 88-95 inches- stock compression ratio. Great for 2 up touring, this cam will add torque and HP at lower and middle RPM ranges. (1800-5500 RPM)
		41/09	230	266	.490	.112		
Runs great with fuel injectors or carburetors								
30068	31G	10/46	236	272	.510	.131	Stock	Great cam for motors with 95+ inches and 10:1 CR. Lower TDC lift means easy installation. Similar to 37G but different timing. 2000-5800 RPM power range.
		52/08	240	276	.510	.120		
30069	32G	10/46	236	272	.510	.131	Hi-lift	Hi-lift version of 31G. Much more power through RPM range with 10:1+ CR.
30074	37G	18/38	236	272	.510	.174	Stock	Hot street cams for 88 or 95 inches. 80+ rear wheel HP possible with well tuned 88 motor; more with 95. Smooth idle, broad torque. (2200-5600 RPM). Stock to 9.5 CR.
		46/14	240	276	.510	.148		
Runs great with fuel injectors or carburetors								
30075	44G	21/41	242	279	.495	.182	Stock	For 88 or 95 inches and 9.25 CR or higher. Max torque and HP at mid and upper RPM. (2300-5800 RPM)
30076	50G	20/48	248	283	.510	.184	Stock	Easily installs in 95 inch motor with stock heads and 9.5 to 9.8 CR. (2400-6000 RPM)
		54/18	252	287	.510	.168		
30077	55G	22/46	248	283	.550	.197	Hi-Lift	Great cam for 95 inch engines with 9.8 to 10.2 CR. Max HP and torque at mid and upper RPMs. (2600-6200 RPM)
		52/20	252	292	.550	.181		
30078	60G	24/56	260	296	.560	.205	Hi-Lift	For well prepped 95-103 inchers with 10.0 to 10.5 CR, 100+ HP is within reach. (2700-6500+ RPM)
		58/22	260	296	.560	.205		
30079	59G	29/57	266	303	.590	.238	Hi-Lift	Great cam for 95" motors with 10:1 CR or higher. Max torque and HP at mid and upper RPM ranges. (2400-6400+ RPM).
		63/27	270	307	.590	.218		
30080	64G	30/62	272	307	.640	.262	Hi-lift	High lift cam for modified 95 inch motors with 10:1 CR or higher. Heads must be set for .700 lift and modified for max air flow. (3000-6500+ RPM)
		68/32	276	312	.640	.232		
The Following Three Cam Grinds Are Available for Gear Drive Systems Only!								
288067	67G	24/48	252	287	.570	.209	Hi-lift	Performance cams for 95-107+ inches, 10.0 to 10.8 CR with high flow head setup. (2600-6400+ RPM)
		58/22	260	297	.570	.187		
288059	59G	29/57	266	303	.590	.238	Hi-lift	Big for modified 95-116+ inch motors running 10:2 CR or higher. Max torque and HP (2700-6500+ RPM)
		63/27	270	307	.590	.218		
288064	64G	30/62	272	307	.640	.262	Hi-lift	Big cams for modified 95-116+ inch motors running 10:2 CR or higher. Heads must be set for .700 lift and modified for max air flow. (3000-6500+ RPM)
		66/30	276	312	.640	.232		

* timing and duration listed for .053 cam lift

Twin Cam

Note: All Andrews cams for TC88 models require the additional purchase of Andrews sprockets



Andrews Twin Cam 88 Chain Drive Cams

Want more power from your 88 engine? Andrews Products has eight proven Twin 88 grinds to get you there. More HP and torque for stock or modified engines is within easy reach. All cam grinds listed are designed for use with stock hydraulic lifters. For any bolt in cam grind, we recommend EZ install pushrods as they do not require removal of gas tanks or rocker boxes for installation.

S&S High Performance Valve Spring Kits

Kits fit stock style and S&S Super Stock Heads on 1984-on BT and 1986-on XL. O.D. of outer spring fits within stock spring compartment. Used with "no shoulder" style valve guides and special keepers fit stock 5/16" diameter stemmed valves and S&S collars only (these guides can be retrofitted to early BT V2 heads equipped with "shoulder" style valve guides). Features patented steel top collars specially drilled to lighten and allow oil to cool springs. Includes 4 of .015" and 4 of .030" shims. Kits are good for up to .630 lift

- 902077** Kit with steel top collars
- 902078** Kit with titanium top collars

Touring and Performance Cams Twin 88 1999-2006 (except 2006 DynaGlides)

PCP#	Grind	Timing	Duration		Valve Lift@		Spring	Application	
			.053	.020	Lift	TDC			
Stock	A	-02/38	216	257	.473	.072	Stock	Listed for comparison (stock engine output is approx. 62HP)	
	Carburetors	36/04	220	260	.473	.110			
Stock	B	02/34	216	257	.473	.087	Stock	Listed for reference. (stock engine output is approx. 62HP)	
	Injectors								
288121	TW21	10/30	220	255	.498	.134	Stock	Bolt-in cam with more torque for all around riding with heavy bikes, stock compression ratios and stock pistons. Similar to #23 cam for EV80. (1700-4800 RPM)	
		40/08	228	264	.498	.121			
			Great with fuel injector or carburetor.						
288126	TW26a	11/35	226	262	.490	.129	Stock	Bolt-in cam 88-95 inches and stock compression ratio. Great for two up touring, this cam will add torque and HP at lower and middle RPM ranges. (1800-5200 RPM)	
		41/09	230	266	.490	.112			
			Great with fuel injector or carburetor.						
288137	TW37b	14/42	236	272	.510	.151	Stock	Bolt-in cam grind with 80+ rear wheel HP. Smooth idle, broad torque band. (2200-5800 RPM)	
		48/12	240	276	.510	.140			
			Great with fuel injector or carburetor.						
288131	TW31S	10/46	236	272	.510	.151	Stock	Great cam for motors with 95 inches and a 9.8 to 10.2 CR. Lower TDC lift for easy installation. Similar to TW37 with different timing. (2000-5600RPM)	
		52/08	240	276	.510	.140			
			Great with fuel injector or carburetor.						
288144	TW44	21/41	242	279	.495	.182	Stock	For 88 and 95 inches, CR 9.5 to 10.2. Max. torque & HP at middle and upper RPM ranges. (2300-5800 RPM).	
		49/17	246	283	.495	.158			
288150	TW50	20/48	248	283	.510	.184	Stock	Easily installs in 95" motors w/stock heads and 9.5 to 9.8 CR. (2300 to 5800 RPM).	
		54/18	252	287	.510	.168			
288155	TW55	22/46	248	283	.550	.197	Hi-lift	Great cams for 95 inch engines with 9.8 to 10.2 CR. Max HP and torque at mid and upper RPMs. (2600-6200 RPM)	
		52/20	252	292	.550	.181			
288160	TW60a	24/56	260	296	.560	.205	Hi-lift	For well prepped 95-103 inchers with 10.2 to 10.5 CR and head work, 100+ HP is within reach. (2700-6500+ RPM).	
		58/22	260	296	.560	.205			

* timing and duration listed for .053 cam lift

ANDREWS

Camshafts for all 2007-10 96" Engines and 2006 Dyna Glides

Camshafts on all 2007-* Twin 96" and Dyna engines use roller chain drives instead of silent chains. Camshafts made for 1999-2005 engines will not fit the 2006 Dynas or the 2007 Twin 96" engines. 2006 Road Glides, Road Kings, ElectraGlides and all Softail models still run earlier silent chain drives. All of the cam grinds listed below are designed for use with stock hydraulic lifters. The Twin 96" bikes and 2006 Dynas will have the same performance characteristics as earlier bikes with similar cam grinds. Matching EZ-install pushrod kits are also available from Andrews Products. EZ-install pushrods do not require removal of gas tanks or rocker boxes when installing bolt-in camshafts.



Installation kit, gaskets & bearings

216902

PCP#	Grind	Timing (*)	.053	.020	Valve Lift	Lift @TDC	Spring	Application
Stock	Intake Exhaust	-3.5/40 41/-1.5	216.5 219.5	256 259	.474 .474	.087 .110	Stock	Stock '06 Dyna cam data listed for reference. All 2007 Twin 96" and 2006 Dynas are fuel injected only; no carbs.
216321	21H	10/30 40/08	220 228	255 264	.498 .498	.134 .121	Stock	Bolt-in cams: 88" and 96"- more torque for heavy bikes. Intended for stock compression ratios and pistons. Similar to #23 cam for EV80. 1700-4800 RPM
216326	26H	11/35 41/09	226 230	262 266	.490 .490	.138 .112	Stock	Bolt-in cams: 88" and 96"- stock compression ratio. Great for two up touring; this cam will add torque and HP at lower and middle RPM ranges. 1800-5200 RPM
216331	31H	10/46 52/08	236 240	272 276	.510 .510	.131 .120	Stock	Great cam for motors with 95+ inches and 10:1 CR. Lower TDC lift for easy installation. Similar to 37G cam but with different timing. 2000-5800 RPM
216332	32H	10/46 52/08	236 240	272 276	.570 .570	.131 .120	High Lift	High lift version of 31H. Much more power thru RPM range with 10:1+ compression pistons. (2800-5600 RPM)
216337	37H	18/38 46/14	236 240	272 276	.510 .510	.174 .148	Stock	Hot street cams for 88", 96" or 103". 80+ Rear wheel HP possible with well tuned motors, more with 96". Smooth idle, broad torque Stock to 9.5 CR. 2200-5600 RPM
216344	44H	21/41 49/17	242 246	279 283	.495 .495	.182 .158	Stock	For 88", 96" or 103" and a 9.5+ CR. Max torque and HP at mid and upper RPM. 2300-5800 RPM
216350	50H	20/48 54/18	248 252	283 287	.510 .510	.184 .168	Stock	Designed for easy installation in 96-103" motors w/stock heads and 9.5 to 9.8 CR. 2400-6000 RPM
216355	55H	22/46 58/22	248 252	283 292	.550 .550	.197 .181	Hi-Lift	Great cams for 95-103" engines with 9.8 to 10.2 CR. Max HP -torque at mid and upper RPMs. 2600-6200 RPM
216360	60H	24/56 58/22	260 260	296 296	.560 .560	.205 .192	Hi-Lift	For well prepped 95-103" with 10.0 to 10.5 CR, 100+ HP is within reach 2700-6500+ RPM

(*) Timing and duration listed for .053 cam lift

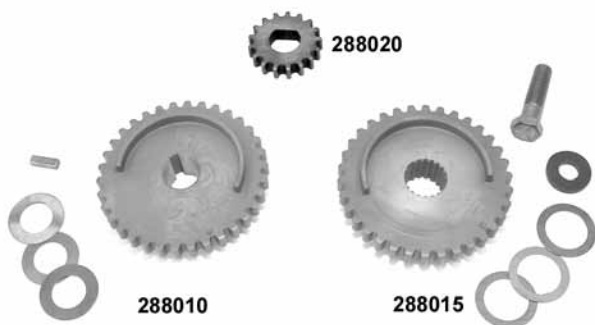
Twin Cam



Andrews TC Gear Drive Installation Kit 99-06
The gaskets and bearings shown are necessary to complete the installation of gear drive camshafts.
288901



Andrews Outer Drive Gear TC Cam Installation
This kit includes the crankshaft and cam drive gears for a gear drive installation. Both bolts for the gears are also included. 1999-06
288903



Andrews TC 88 Rear Cam Sprocket Kit 99-06
All Andrews Twin 88 cam kits require a heat treated 34T rear cam drive sprocket that replaces OEM 25563-99. Sprockets are made from heat treated alloy steel and are longer than stock providing greater stability. Includes a full length 3/16 drive key and 3 spacer shims that allow the installed length of new sprocket to be the same as the original stock sprocket plus spacer.

PCP	Description
288010	Keyed 34T cam sprocket kit
288015	Splined 34T cam sprocket kit
288020	17T Crank sprocket kit



Andrews Complete Drive Gear Cam Installation
This kit fits Twin Cams and includes all 4 cam drive gears with installation bolts. 1999-06
288908 Complete kit of crank and cam drive gears
288905 Two inner cam drive gears only



TC Outer Cam Bearings 1999-06
PCP Application
15746 Set of 2 outer bearings (8990A)
15629 Set of 2 Torrington inner bearings
15630 T/L set of 2 INA inner bearings (9198)



Chrome Maltese Cross Covers for Twin Cam

PCP	Cover	Type
59185	Derby	5 Hole
59187	Points	5 Hole



James Quick Change Cam Kit
79540 25244-99-K

Twin Cam



Twin Cam Cylinder Studs 1999-on

- 10847 16834-99A (4 pk)
- 312340 S&S (8 pk)
- 72083 Colony (8 pk)

Jims Twin Cam Stroker Kits (Not "B" Models)

The TC flywheel assemblies feature an integral pinion shaft, sprocket shaft, and crankpin for maximum stability and resistance to flywheel distortion. Each kit is press fit with Jims bullet proof H-beam forged connection rods, and pre balanced by Jims with Arias pistons. Like all Jims flywheel assemblies, forged blanks are used in replacement of conventional billet material and are fully machined on the latest CNC mills and lathes. Additionally, Jims offers these kits with cast aluminum cylinders. These cylinders are available with plain or black wrinkle finish and various bore sizes and stroke lengths. The combination of a 3 piece flywheel assembly, forged connecting rods and aluminum cylinders equates to an unbeatable performance package.

*All kits use 8-1/2" flywheels.

		CUBIC INCH CHART						
		STOCK 74			STOCK 80			
STROKE...		3 1/2	3.968	4 1/4	4 1/2	4 5/8	4 3/4	5.00
B	3 7/16	64.8	73.7	78.7	83.4	85.7	88.0	92.8
O	3 1/2	67.2	76.3	81.6	86.6	89.0	91.4	96.1
R	3 5/8	72.1	81.7	87.4	92.9	95.5	99.0	103.2
E	3 11/16	74.6	84.7	90.7	96.1	98.8	101.5	106.8
	3 7/8	79.9	90.6	97.0	102.8	103.7	108.5	114.2
	4.000	82.3	93.4	100.1	106.0	108.9	111.9	117.8
	4 1/8	87.9	99.7	106.8	113.0	116.1	119.3	125.6
	4 1/4	93.4	106.0	113.5	120.2	123.5	126.9	133.6
	4 1/2	99.2	112.6	120.5	127.6	131.1	134.7	141.8

- | PCP | Size | Stroke | Bore | Finish |
|-------|------|--------|--------|---------------|
| 58057 | 116" | 4-5/8" | 4" STD | Black wrinkle |
| 58058 | 116" | 4-5/8" | 4" STD | Plain |



Chrome Crank Sensor Cover

Includes mount screw.
44070 1999-on FXD-FLT

Sprocket Shaft Spacers

For BT models 1998-02

- | PCP | Years |
|-------|------------|
| 11828 | 1998-99 BT |
| 11829 | 1999-02 BT |



Twin Cam Bearings 2000-06

- | PCP | Application |
|-------|------------------------------|
| 15757 | R/cam with inner race (8983) |
| 15758 | R/S balance shaft |



S&S Hot Set Up Kits for TC Style Engines

Carb, cam and pushrod Hot Set Up are the most economical and the easiest to install. They are intended for 88" and 95" engines with stock cylinder heads and valve springs, and yield the most power per dollar spent. Both PCP #110025 and #110026 kits contain a Super E carburetor kit and an S&S pushrod kit. The difference between the two kits is that #110025 contains a 510C chain drive camshaft kit, while #110026 has the 510G gear drive camshaft kit. Gains of 20 hp have been measured with #110025 kit when installed with performance exhaust and ignition module.

Kit	Engine	Cam	Carburetor	Cam Drive
110025	88", 95"	510C	Super E	Chain
110026	88", 95"	510G	Super E	Gear



S&S TC Super Sidewinder Hot Set Up 116" Kit

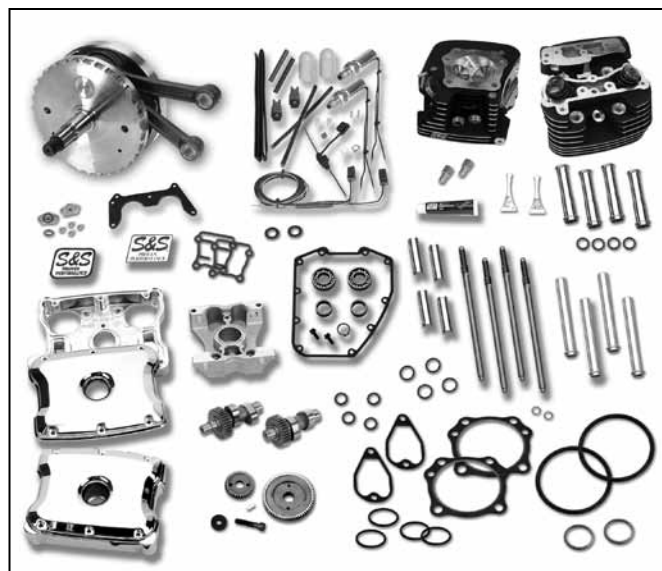
All 116" kits include S&S 4 5/8" stroker flywheel assemblies, 4" bore cylinders and pistons, S&S Super Stock Twin Cam style cylinder heads, compression releases, rocker covers, gear drive cam kit, chrome moly steel pushrods, and required gaskets. Purchase either a Super G or VFI system separately. Stock crankcases must be bored to accept the 4" big bore cylinders. Stock cylinder studs and stud pattern are retained.

1999-02 "A" style engines (w/o balancers)

Natural	Black	Stroke	C/Ratio	Cam
900156	900157	4 5/8"	10.4:1	625G

2000-02 "B" style engines

900158	900159	4 5/8"	10.4:1	625G
--------	--------	--------	--------	------



S&S 106" Hot Set Up Kit for TC 88 1999-06

Use this kit to gain performance on Twin Cam 88 and 88B engines. Kits allow you to build a 106" carbureted or fuel injected motor using your stock cylinders and without modifying your crankcase. Pistons and fuel system are sold separately. Kits include 4-1/2" stroke flywheels, a 585 gear drive cam kit with gears and high flowing Super Stock cylinder heads with 79cc combustion chambers. Kits also include rocker covers, electric compression releases, chrome moly pushrods, gaskets and seals. An S&S Super G or S&S Variable Fuel Injection System and either a set of S&S stroker pistons with 3-7/8" bore 9.8:1 CR or a piston and cylinder set must be purchased separately to complete the engine. Stock 88" cylinders can be bored from the stock 3-3/4" to 3-7/8". For those who prefer, S&S also offers 3-7/8" replacement cylinders.

PCP	Engine	Finish
900150	TC88	Silver
900151	TC88	Black powdercoat

900152	TC88B	Silver
900153	TC88B	Black powdercoat



S&S 92-1200 Series Pistons

PCP	Size
921200	STD
921204	+ .005
921201	+ .010
921202	+ .020
917046	95" Cylinder and piston kit w/natural finish
917047	95" Cylinder and piston kit w/black finish

S&S 124" Hot Set Up Kit for Twin Cams



Both kits are available in natural aluminum or black powder-coat finish, and include the following parts: S&S 4-1/8" bore cylinders and pistons, an S&S 4-5/8" stroke flywheel assembly for either Twin Cam or Twin Cam B engines, a set of S&S .640 gear drive cams, and all required hardware, gaskets and instructions.

To complete the engine an S&S Super G carburetor must be purchased separately.

S&S Super G Carb Kit for 124" Hot Set Up Kits 110531

S&S 124" Hot Set Up Kit for Twin Cams

The S&S 124" Hot Set Up kit for Twin Cams allows a Twin Cam owner to convert a stock 88" engine to 124" using the stock crankcases. There are several advantages to installing this kit as opposed to installing a complete 124" S&S engine. The first advantage is that you don't have to pay for a complete engine. Many of the stock engine components such as the crankcases, oil pump, cam cover, and tappets are reused, saving hundreds of dollars. Another consideration is that since the stock crankcases are used, the engine will retain the original serial numbers.

There are two versions available. The first, which is highly recommended, features S&S 91cc cylinder heads and a compression ratio of 10.8:1. This kit will provide the best performance and will be easier to start due to the S&S electric compression releases. The second version contains a dished piston designed to provide a 10.4:1 compression ratio with stock cylinder heads. While this kit is the most economical choice, the stock cylinder heads will not provide the level of performance, and may present starting difficulties due to the lack of compression releases.

124" Hot Set Up Kits for Twin Cams

Kits include S&S Super Stock cylinder heads.

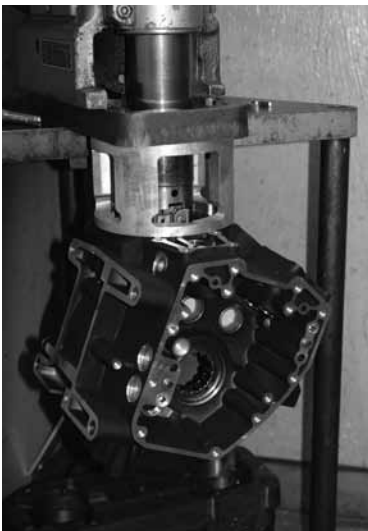
PCP	Engine	Finish
900130	Twin Cam	Natural
900132	Twin Cam	Black
900134	Twin Cam "B"	Natural
900136	Twin Cam "B"	Black

124" Hot Set Up Kits for Twin Cams

For models with stock cylinder heads.

PCP	Engine	Finish
900131	Twin Cam	Natural
900133	Twin Cam	Black
900135	Twin Cam "B"	Natural
900137	Twin Cam "B"	Black

Note: It is recommended to select a fuel system to match the type of fuel system presently on your motorcycle.



A simple operation will make stock crankcases accept 4-1/8" bore cylinders.



Timken Bearing Sleeve

Will convert 2003 and later TC-88 models from a roller bearing to a Timken tapered bearing. Bearing sold separately.
73753

Topline Crankshaft Bushing Twin Cam 1999-on

18613 25344-99 (each)





S&S 106" Stock Bore Stroker for Twin Cam "A"

This S&S 4-1/2" stroke flywheel assembly with S&S 3-7/8" bore pistons for a displacement of 106 cubic inches. This is a perfect upgrade for standard Twin Cam 88 and 88B engines with internal balancers. Installation of the kit does not require any special machining, other than fitting the pistons. **This kit requires special 92-1210 forged S&S stroker pistons that must be purchased separately.** Stock 88" cylinders can be bored from 3-3/4" to 3-7/8" to accommodate the S&S pistons or prefit S&S cylinder and piston kits are available. Engines with factory 95" kits require piston fitting only. Stock or S&S cylinder heads can be used. Fuel injected engines will require remapping of the fuel injection systems. With stock H-D heads the compression ratio is 10.1:1, with S&S 89cc heads the compression ratio is 9.8:1. This kit includes assembled flywheels and piston oilers only. Engines with strokes over 4" may require S&S piston oiling jets and piston to jet clearance notches in the piston skirt to avoid contact.

S&S Twin Cam Flywheel Assemblies

Available as complete assemblies only to fit TC 88 and TC 88B engines with Timken style sprocket shaft bearings. Will fit directly into stock H-D 1999-02 only TC style crankcases and in all S&S crankcases for Twin Cam style engines with no modifications. Complete flywheels can be used as stock replacement but individual pieces can not be used as direct stock replacement to rebuild stock flywheels. The kit features a smaller than stock 1.500" crankpin in order to allow the use of replaceable bearing races in the lower end of the connecting rod.

Displacement	Stroke	TC 88	TC 88B
88", 95", 100"	4"	322240	322241
106"	4-1/2"	322242	322243
107"	4-1/4"	322244	322245
116"	4-5/8"	322246	322247

Engine	Stroke	Bore	Cyl. Length	Application
106"	4-1/2"	3-7/8"	Stock	Trips

PCP	Model
322490	TC 88A 1999-06, except 2006 Dyna
322491	TC 88B 2000-06

Important Note:

S&S does not produce a set of flywheels that is a direct replacement for the 2003 and later Big Twin engines. Stock 2003-on engines use the same roller type bearing for the sprocket shaft that is used on the pinion shaft. However, S&S flywheels may be used in 2003-on engines with the installation of H-D bearing kit #24004-03A. These crankcases use a roller type bearing for the sprocket shaft. Verify that the bearing kit contains the 24604-00D or 24607-07 sprocket shaft bearing. Do **not** use #24604-00, 24604-00A, 24604-00B or 24604-00C bearing.

S&S TC Pinion Bearing

Fits 2001-02 Softails, 2001-on balanced stock Twin Cam 88B engines, all 2003-on stock engines and all Twin Cam style engines built with S&S crankcases. S&S does not recommend using this bearing in sprocket shaft applications in 2003-on engines.

314085



Complete 88" Flywheel Assembly-(USA Made)

Shipped complete and assembled as pictured but trueness must be checked before assembly of motor.

- 58048** 1999-06 FLT, Dyna, FLHR Twin Cam (23957-99E)
- 58051** 2002-06 Touring with thrust washer & inner race (23904-03)
- 58052** Touring 2007-on (23729-07)
- 58049** 2000-04 Softail Twin Cam B (23912-00A)
- 58050** 2005-06 Softail Twin Cam B (23971-03B)
- 58053** 2007-on 96" Softail Twin Cam B (23912-07)

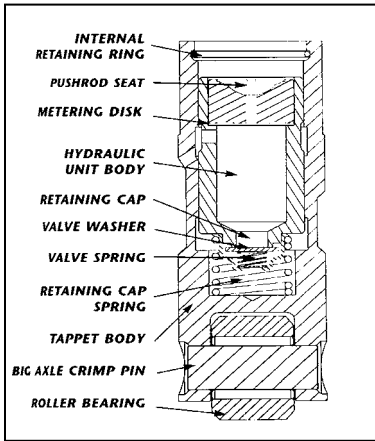
Left Bearing Kit

Fits 2003-on TC-88 left side crank shaft.

15761 (24003-03A)



Twin Cam



Jims Twin Cam Powerglide II Tappet

The next generation tappets from Jims for big power, big torque and increased spring weight, feature a hand honed hydraulic cavity for reduced valve train noise. Advantages of Powerglide II:

- billet body with premium hydraulic unit
- 30% increase in dynamic load capacities
- 10% increase in lubrication capacity for hydraulic unit & top end
- 100% increase in lubrication capacities for roller, cams, & cam bearings (increases cooling)

PCP Fitment

- 31641** TC 1999-on, XL, Buell 2000-on (STD O.D. .8420")
31642 Oversize +.001
31643 Oversize +.0015"
31648 Oversize +.005"



S&S High Performance Tappets for Twin Cam

These tappets are standard equipment in the S&S complete 124" Twin Cam engine and are a good choice for any stock or high performance application.

335351 Set

Crank Sensor 1999-on TC-88

29540 37207-01A



Hydrosolid Tappet

This tappet performs like a hydraulic tappet from start up to about 5500 rpm and then turns into a solid from 5600 rpm on. When solid it adds 3-6 more useable horsepower. When springs start to surge the tappet rollers start lofting off the back side of the cam and will not pump up allowing you valves to hit. Must use adjustable pushrods.

PCP Application

- 31647** TC, XL 2000-on OD .8425"
31650 1/4" longer TC, XL 2000-on OD .8425"



31650



Tappet Body BT 1999-on Twin Cam

29007 T/L 1999-on (18538-99B)



S&S Special Piston Cooling Jet Kit

Twin Cam engines with strokes greater than stock, require special piston cooling jets to avoid contact with pistons at the bottom of the stroke. S&S cooling jets provide an extra .150" of clearance between the jet and piston skirt compared with stock jets. These special jets are included in the S&S 107" and 116" Twin Cam Style Sidewinder kits, Hot Set Up kits and in the new S&S Super Sidewinder Plus Long Block Engines. S&S piston cooling jets are sold in kits of two jet assemblies with o-rings and screws.

312026

Twin Cam



Sonnax Twin Cam Rod Roller Kit
15801



S&S Twin Cam Connecting Rods 1999-on
Designed for use with S&S Twin Cam and Super Sidewinder Plus style flywheel assemblies. The set includes 1.500" diameter pressed in style crankpin, rod bearing assembly and front and rear connecting rods.
347405



Sprocket Shaft Seal Spacer
Replaces 24008-03 for Twin Cam 2003-06.
18014



Twin Cam Piston Pin Bushing
Twin Cam bushings are sold in pairs and have an O.D. of 1.020". Replaces 24316-99 on all Twin Cam models.
18637 T/L
31356 Jims



Main Bearing 2003-on
15521 24605-07 (each)

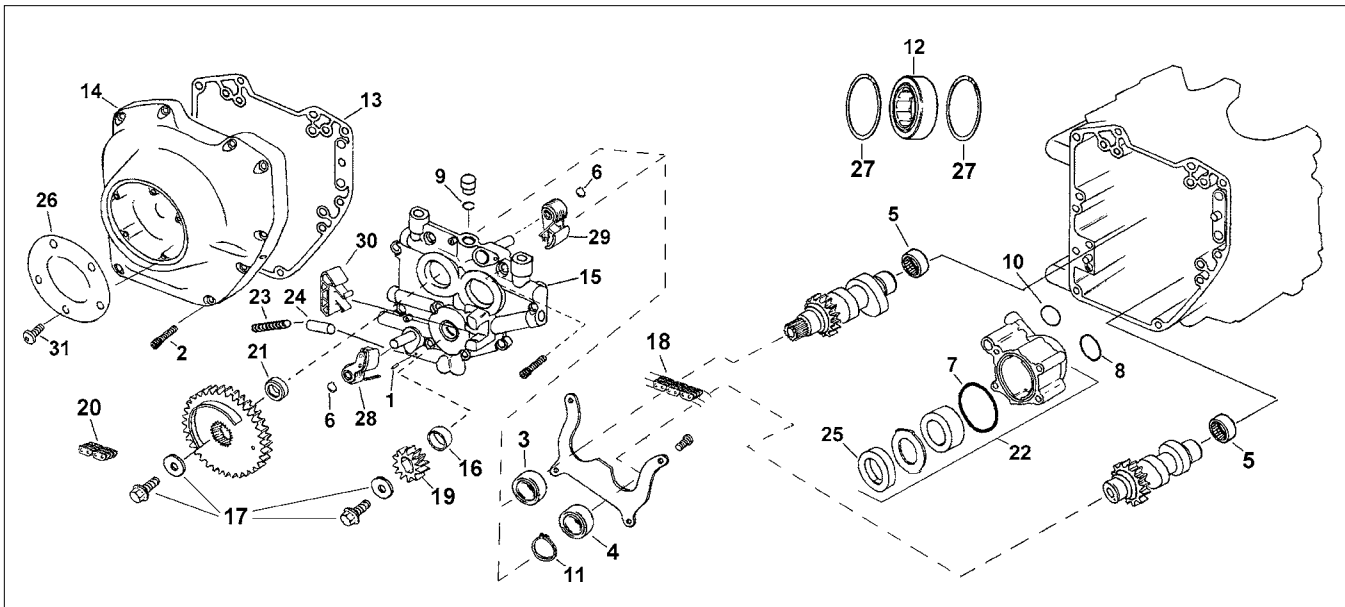


Drive Components
PCP Application
30035 Cam chain tensioner 1999-05 (39954-99)
30037 Secondary cam chain tensioner (39964-99)



T/L Cam Drive Components 2006-on
PCP Application
29146 Secondary cam drive chain (25683-06)
29147 Camshaft sprocket (25673-06)
29148 Primary cam drive chain (25675-06)
29170 Primary cam chain tensioner (39968-06)
29171 Secondary drive chain tensioner (39969-06)
29172 Cam support plate with bypass (25355-06)
29174 34T Cam drive sprocket (25728-06)

Twin Cam



PCP	OEM	Description	Year	U/M	PCP	OEM	Description	Year	U/M		
1	10103	601	Roll pin	99-05	10	20	29038	25610-99	Chain, primary drive	99-05	ea
2	9946	4740A	Chr/allen screws	99-*	kit	21	29148	25675-06	Chain, primary drive	06-*	ea
3	15757	8983	Outer cam bearing	99-05	ea	21	11899	25729-06	Cam drive spacer .100	06-*	5
4	15746	8990A	Outer cam bearing	99-05	ea		11900	25731-06	As above .110	06-*	5
5	15629	9198	Inner cam bearing	99-05	pair		11901	25736-06	As above .120	06-*	5
	15634	9215	Inner cam bearing	06-on	pair		11902	25736-06	As above .130	06-*	5
6	11016	11031	Retaining ring,	99-on	10		11903	25737-06	As above .140	06-*	5
7	14587	11286	O-ring, oil pump	99-*	10		11904	25738-06	As above .150	06-*	5
8	14591	11293	O-ring	99-*	10	22	29069	26035-99	Oil pump assembly	99-05	ea
9	14593	11298	O-ring, viton, plug	99-*	10		29149	26037-06	As above	06-*	ea
10	14594	11301	O-ring	99-*	10	23	13010	26210-99	Relief valve spring	99-*	10
11	11021	11494	Retaining ring	99-*	10	24	30113	26400-82B	Oil pump relief valve	99-*	ea
12	15747	24623-99C	R/S main bearing	1999	ea	25	29155	26464-99	Pressure, geo-rotor	99-05	ea
	15520	24604-00C	R/S main bearing	00-06	ea	26	45307	32679-99	Chrome sensor cover	99-*	ea
	15522	24605-07	R/S main bearing	07-*	ea	27	11111	35115-01	Retain/ring m/bearing	99-01	10
13	25938	25244-99A	Gasket, cam cover	99-*	5		11112	35114-02	As above	02-*	10
14	64808	25247-99	Chrome cam cover	99-00	ea	28	29158	39954-99	Prim/chain tensioner	99-05	ea
	64821	25369-01A	Chrome cam cover	01-08	ea		30035		Preston, as above	99-05	ea
	45475		Preston, as above	01-08	ea		29170	39968-06	Prim/chain tensioner	06-*	ea
15	29153	25267-99B	Cam support plate	99-05	ea		30036		Preston as above	06-*	ea
	29172	25355-06	As above	06-*	ea	29	29159	39964-99	Sec/chain tensioner	99-05	ea
16	18613	25344-99	Bushing, crankshaft	99-*	ea		30037		Preston, as above	99-05	ea
17	24101	25533-99A	Sprocket retension	99-05	kit		29171	39969-06	Sec/chain tensioner	06-*	ea
	24103	25566-06	Sprocket retension	06-*	kit		30038		Preston, as above	06-*	ea
18	29037	25607-99	Chain, secondary	99-05	ea	30	29160	39965-99	Chain guide	99-05	ea
	29146	25683-06	Chain, secondary	06-*	ea	31	9954	68042-99	Point cover screws	99-*	5
19	29154	25609-99	Sprocket, 17T	99-05	ea						
	29147	25673-06	Sprocket, 17T	06-*	ea						

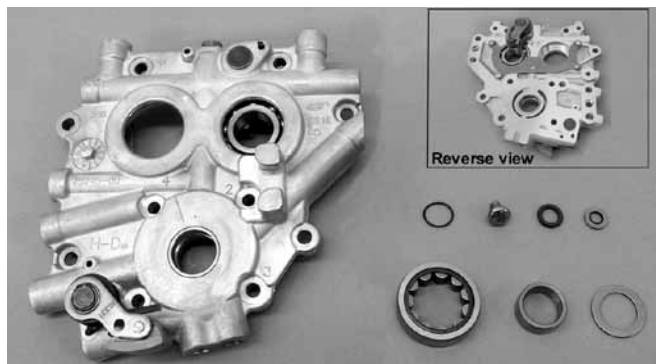
Tappet Oil Screen

Includes 24983-00 screen and 11301 o-ring for 2000-on Softail.

72284



Twin Cam



Outer Cam Support Plate BT 1999-on
 29153 25267-99B



Delkron Cam Support Plate for Twin Cam
 Features optimized oil passages for better oil distribution and high tolerance dowel locations for a more precise cam bore to bore location.
 32568



Sifton Twin Cam Super Pump
 Utilizes an oversized highly efficient geo rotor design. Provides a 40% increase in pump volume and 60% more scavenging volume. This high volume pump bolts into the stock location and includes o-rings and mounting hardware.
PCP **Application**
 21855 Hi Flow (+)



T/L Billet Cam Plate & High Volume Oil Pump Kit
 Kit includes billet cam support plate, oil pump assembly, bearing retainer plate and chain guide riser. Upgrades early model stock or large displacement performance Twin Cam engines. Stock on 2007-on Twin cam 96 models High flow rate/high scavenge rate oil pump improves the stock oiling system to increase oil flow to piston oil jets, cam chain tensioner, pinion shaft bearings and connecting rod bearings. Increased oiling results in lower engine operating temperatures and increased performance. Precision machined from 6061 aluminum and anodized for durability, kit comes preassembled with crankshaft bushing and oil pressure relief valve.
 29810 Touring 1999-06, Dyna 1999-05, Softail 2000-06 (25284-08)

TC-88 Oil Bypass Shim
 Machined shim assures proper spring pre load improving oil pressure and volume.
 73606



TC-88 Oil Pump Alignment Tool
 Tapered tool threads into the oil pump and perfectly aligns the pump to the cam plate. Use on all TC-88 engines.
 5894



T/L TC Oil Pump Assembly 1999-on
PCP **Years**
 29069 1999-05 (26035-99)
 29149 2006-on (26037-06)

Twin Cam



Chrome Cam Covers

These form fitting chrome steel covers fit over stock cam cases. No need to remove cam case or disturb cams or gears. Covers are held in place by existing screws.

45411 2000-on Big Twin

Twin Cam Chrome Timer Cover

45307 TC Cover (32679-99)
9953 Chr. acorn screw kit
9954 Chr. button head screw kit



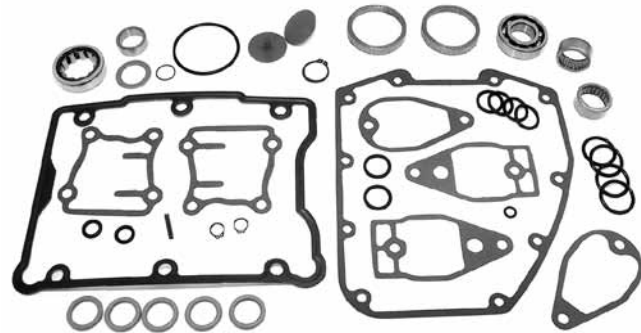
S&S Billet Twin Cam Style Gear Covers

Machined from solid aluminum billet and polished to a show finish, the S&S gear covers offer a distinctive look for your bike. The styling is identical to that of gear covers supplied in the S&S Twin Cam style oil pumps. **Note:** S&S billet gear covers are not compatible with 1999-01 model engines which require a cam position sensor in the gear cover.

316516

Twin Cam Chrome Cam Cover

PCP Application
64808 T/L 1999-00 FLT, FXD and 2000 FXST (25247-99)
45336 Preston, as above
64821 T/L 2001-09 FLT, FXD, FXST (25369-01A)
45475 Preston, as above
9945 Acorn screw washer kit
9946 Chrome knurled allen screw kit
24470 Chrome polished allen screw kit



TC Cam Service Kit

Includes all necessary parts for a cam service.

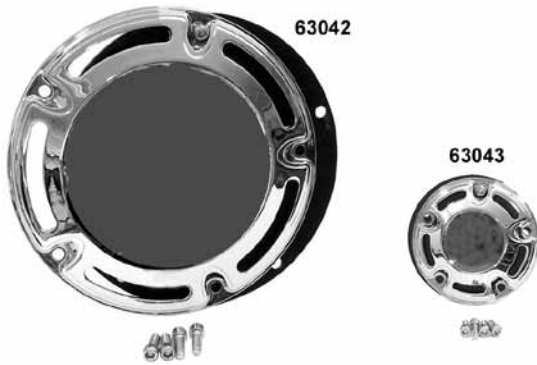
25933 T/L kit (17045-99C)



Oil Seal Sprocket Shaft

14078 1999-on (12068)

Twin Cam



T/L Chrome Slotted Timer Cover

The deep-dish chrome cover features stainless steel mounting hardware and a slotted design with black-out background.
63043 1999-06 Twin Cam models (32102-01)

T/L Chrome Slotted Derby Cover

This deep-dish chrome cover features stainless steel mounting hardware and a slotted design with black-out background that upgrades the appearance of any open primary system.
63042 1999-06 TC models except Touring (25345-01)



Chrome Maltese Cross Covers for Twin Cam

PCP	Cover	Type
59185	Derby	5 Hole
59187	Points	5 Hole



Chrome Skull Design Points Cover

45416 1999-on TC



All Out Flame Chrome Timing Cover

Features no visible mounting fasteners and a 3-D flame design. Available in offset or centre flame design to fit all Twin Cam models.

PCP	Type	Fit
59710	Offset	TC
59711	Centre	TC



Chrome Live To Ride Timing Cover

45062 1999-on TC



Chrome Billet Flying Wheel Point Cover

45417 1999-on Late TC (32559-99)

S&S TC Cylinder Kits



S&S 92-1210 Series Pistons and 3-7/8" Bore Twin Cam Style Cylinders

The 92-1210 series pistons are forged, 3-7/8" bore, Twin Cam style stroker pistons for use with stock HD or S&S Super Stock cylinder heads. These pistons are designed to be used in conjunction with 4-1/2" stroke flywheels to increase displacement of stock Twin Cam 88 engines to 106". Stock Twin Cam 88 cylinders may be bored from 3-3/4" to 3-7/8" or new 3-7/8" bore cylinders may be purchased. Cylinders are available in natural aluminum and black powdercoat finish. **No crankcase machining is required to install S&S 3-7/8" bore Twin Cam style cylinders.**

Displacement: 106"	Stroke: 4-1/2"
Bore: 3-7/8"	Cylinder Length: 4.937"
Compression for Stock heads: 10.1:1	
Compression for 89cc heads: 9.8:1	
Compression for 79cc heads 10.4:1	
Recommended piston fit for forged pistons:	
Close: .0020" - .0025"	
Loose: .0032" - .0045"	
Piston deck height: 1.270"	

Cylinders

Cylinder with piston kits include cylinders, piston kit, head gaskets, base gaskets and exhaust gaskets.

Item	Natural	Black
Cylinders only	917044	917045
Cylinders with pistons	917060	917061

Replacement Piston Kits

All piston kits include rings, wristpins and clips.

Piston Kits	Forged	Moly Rings
Standard	921210	941295
+ .005	921214	941299
+ .010	921211	941296
+ .020	921212	941297



S&S 4-1/8" Bore Twin Cam Style Cylinders and 92-1556 Series Pistons for 124" Engines

The 92-1556 series pistons are 4-1/8" bore pistons originally designed for the S&S Super Sidewinder Plus V2 style engine, may also be used in **4-1/8" bore Twin Cam style cases.**

Displacement: 124"	Stroke: 4-5/8"
Bore: 4-1/8"	Cylinder Length: 5.013"
Compression for Stock heads: 10.8:1	
Recommended piston fit for forged pistons:	
Close: .0020" - .0025"	
Loose: .0032" - .0045"	
Piston deck height: 1.050"	

Cylinders

Cylinder with piston kits include cylinders, piston kit, head gaskets, base gaskets and exhaust gaskets. These cylinders are designed to be used with the S&S 4-1/8" bore Twin Cam style crankcase. This crankcase has a 6" cylinder deck height.

Item	Natural	Black
Cylinders only	917076	917079
Cylinders with pistons	917096	917099

Replacement Piston Kits

All piston kits include rings, wristpins and clips.

Piston Kits	Forged	Moly Rings
Standard	921556	941400
+ .010	921557	941401
+ .020	921558	941402
+ .030	921559	941403



S&S TC Cylinder Studs

Used in S&S Twin Cam style crankcases.

312325	16834-99 (each)
312340	As above (8 pk)

S&S TC Cylinder Kits



S&S Twin Cam Pistons & 3-7/8" Cylinders-95"

The 92-1200 series pistons are forged 3-7/8" big bore Twin Cam style pistons for use with stock H-D or S&S Super Stock cylinder heads. These pistons are designed to increase displacement of stock Twin Cam 88 engines to 95" and have a 5.3cc "pop up" dome for a slight compression increase. S&S cylinders are available in natural aluminum and black powdercoat finish. No crankcase machining is required to install S&S 3-7/8" bore Twin Cam style cylinders. Cylinder kits include cylinders, piston kit, head gaskets, base gaskets, and exhaust gaskets. All piston kits include rings, pins and clips.

Features:

- 95" Displacement
- 4" Stroke with 3-7/8" Bore
- 4.937" Cylinder length
- 9.7:1 Stock compression
- 1.270" Piston deck height
- No assembly required

Natural	Black	Description
917044	917045	Cylinders only
917046	917047	Cylinders with pistons

Replacement 92-1200 Series Piston Kits

Forged Pistons	Moly Rings	Size
921200	941290	Standard
921204	941294	+.005
921201	941291	+.010
921202	941292	+.020

S&S 106" Big Bore Kits for 2007-on Big Twins

Use these kits for an easy way to get more displacement without rebalancing flywheels or boring the crankcases. Cylinders can be swapped out without boring or splitting the cases. S&S suggests that these 3.927" bore cylinders have the largest bore that can be safely used with stock spigot diameter. S&S cylinders are made from a strong material that performs better than stock cylinders and S&S does not recommend boring stock cylinders to fit the 3.927" pistons.

This kit yields excellent results with stock cylinder heads, but a performance cam is recommended to get the best performance and to make the engine easier to turn over and start-up. However, for the best performance and easiest starting, S&S recommends S&S cylinder heads which provide increased head flow and increased power. Additionally S&S heads are machined to accept S&S electric or manual compression releases for easy, reliable starting.

For most applications S&S recommends the S&S single bore EFI throttle body with a teardrop air cleaner or tuned induction. 2008-on Touring models will need to use the stock intake or Screamin' Eagle® 58mm throttle body and race tuner or Pro EFI Super Tuner.

Features:

- 106" Displacement
- 4-3/8" Stroke
- 3.927" Bore
- 10:1 CR using stock heads
- 9.7:1 CR using S&S 89cc heads
- Choice of silver or black wrinkle powdercoat to match stock

Kit	Finish
950008	Silver
950009	Black powdercoat

TC Cylinder Kits



S&S BT Evo 106" 3-7/8" Natural Cylinders
917044 Pairs



Jims Twin Cam Cylinders and Piston Kits

100" to 117" Cylinder and piston kits feature larger bore cylinder and pistons. Designed to be used with original Twin Cam flywheel sets and engine cases. Kits include a pair of Jims proven VHR technology black or silver cylinders that fit original OEM stud bolt pattern. Premium forged piston set with rings use .927" pins with Jims' piston jets (if required), per kit size. Complete instructions included. Order gaskets separately.

100" Alpha 1999-06, Beta 2000-06 w/HD Flywheels

- 4" Stroke
- 4" Bore
- 4.915" Cylinder length
- 9.56:1 compression with stock HD 85cc head

PCP Finish

- 31701 Black
- 31700 Silver

106" Alpha 1999-06, Beta 2000-06 w/HD Flywheels

- 4" Stroke
- 4.125" Bore
- 4.915" Cylinder length
- 10:1 compression with stock HD 85cc head

PCP Finish

- 31702 Black
- 31703 Silver

110" Alpha 2007-on with HD Flywheels

- 4.375" Stroke
- 4" Bore
- 5.018" Cylinder length
- 10:1 compression with stock HD 85cc head

PCP Finish

- 31704 Black
- 31705 Silver

117" Alpha 2007-on with HD Flywheels

- 4.375" Stroke
- 4.125" Bore
- 4.915" Cylinder length
- 10.5:1 compression with S.E. 95cc head

PCP Finish

- 31706 Black
- 31707 Silver

VT 95" TC-88 Big Bore Kits

Available in choice of black wrinkle or silver finish. These cylinder sets will increase TC-88 engines to 95 cubic inches. No crankcase machining required for installation. Cylinder kits include pistons prefitted to cylinders with head gaskets.

10.25:1 9:1

Cast	Forged	Finish
-	34836	Black
34837	34838	Silver

Sifton Cylinder Kits

9.3:1 10.5:1

Cast*	Forged	Finish
34839	34840	Black
34841	34842	Silver

* 9.3:1 Sifton cylinder kits have moly coated pistons



Colony Cylinder Base Stud Kit TC 1999-on

Heat treated alloy steel studs equal or surpass original equipment.

72083 Twin Cam 88 1999-on (8 pack)(16834-99)

Twin Cam



Topline Stock Finish TC Cylinder 1999-06

Each cylinder kit includes 1 piston with rings, pin and clips. Available in either silver or black finish. Each.

65223 Silver (16525-99)

65224 Black (16526-99)



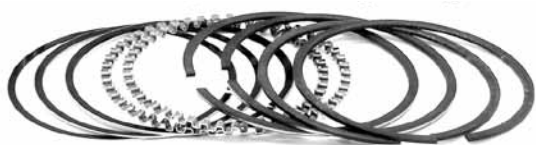
V-Twin TC Big Bore Cylinder & Piston Kit

Use these kits to increase Twin Cam engines to 95 cubic inches. No crankcase machining required for installation. Cylinder kits include pistons prefitted to cylinders and head gaskets.

PCP **Finish**

53072 Black

53073 Silver



Twin Cam Hastings Piston Ring Sets- Moly

Twin Cam rings are sold in sets to do 2 pistons (1 engine).

Moly Ring Size	Engine Type		
	88" TC	95" BB TC	96" TC 2007-on (1584cc)
STD	35271	35275	35279
.005	35272	35276	35280
.010	35273	35277	35281
.020	35274	35278	



Topline TC 95 BB Cast Piston Kits, 1999-06

Kits for carbureted models include two pistons, rings, clips, and pins. Available in flat top 9.3:1 compression ratio or a high compression 10.25:1 ratio.

9.3:1 **10.25:1** **Size**

65230 **65235** STD

65232 **65237** .010

79993 James gasket kit .046 head 99-04 (17052-99-X)

79998 James gasket kit .045 head 05-09 (17052-05-X)

25932 Head gaskets (pair) .055 for 1550cc (16787-99)



VT 107" TC-88 Big Bore Cylinder Kit

Requires case machining and includes a forged 10.5:1 piston kit. Choice of silver or black highlighted cylinders.

PCP **Item**

34804 Black Kit

34805 Silver Kit

35578 Piston only

25408 Top end gasket kit



Topline TC 88 Pistons

Each kit includes 1 piston, 1 set of rings, pin and clips.

PCP **Description**

65246 STD (21930-99)

65247 +.005 (21931-99)

65248 +.010 (21933-99)

Piston Service Components

11056 Lock ring (22097-99) (10 pk)

32357 Piston pin (22132-99) (each)

18637 Piston pin bushing (24316-99) (pair)

31356 Jims, as above (each)

Twin Cam



Wiseco Twin Cam 96 BB Piston Kit 2007-10

Kits include 9:1 compression reverse dome forged pistons, Hastings rings, retainer clips and chrome piston pins. Hastings rings have a .0472" top and 2nd ring and a .118" oil ring. 1691cc Big bore kit (103 cu. in.) fits Twin Cam 96 2007-10 and also fits Twin Cam 88 1999-06 with 4-3/8" Stroker Crank. **Recalibration and cylinder boring is required.** Skirt coated pistons have a dome volume of -11.5cc.

PCP	Displ.	Bore	Stroke
35926	1691cc	STD (3.875")	4.375"
35927	1695cc	.005 (3.880")	
35928	1700cc	.010 (3.885")	
35929	Cometic gasket kit (W5786)		

Valve pocket dimensions are measured from deck height:
Intake/Exhaust Pocket: Depth: -.205" Diameter: 2.150"



Wiseco TC88 Standard Bore Piston Kit

Piston kit fits 1999-06 88 cubic inch models and offers 10.5:1 compression and 4.000" stroke. Top ring is 1.5mm, 2nd ring is 1.5mm and oil ring is 3.0mm. **A Screamin' Eagle ignition module is required to use this kit.** Includes forged pistons, rings, circlips, and chrome piston pins.

PCP	Bore
35990	STD 3.750" (K2726)
35992	+ .010 3.760"
35993	+ .020 3.770"
35994	+ .030 3.780"
35995	Cometic gasket kit

S&S Manual Compression Release Kit

S&S manual compression releases are activated by a cable similar to a choke control. Before starting, the handle is pulled, which opens the compression releases. When the engine fires, the increased cylinder pressure automatically closes the compression releases. The S&S manual compression releases can be used with any style rocker covers.

904925	Manual
904915	Electric



Wiseco TC 88 BB Piston Kit to 95" 10.5:1 1999-06

.062 Top and second ring, .098 oil ring, 4" stroke. Screaming Eagle ignition module recommended, 95 cu in. cylinders required, for carb models only.

Cometic gasket included with these kits.

This kit requires cylinder boring and recalibration.

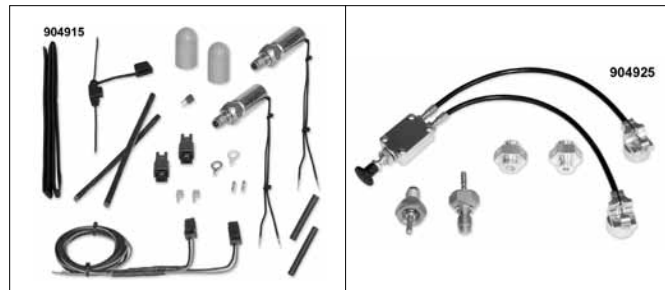
35880	STD (VT2709)
35881	.005
35882	.010
35883	.020
35884	.030
35929	Cometic gasket kit (W5786)



Wiseco TC88 Flat Top BB Piston Kit 1550CC

Piston kit fits 1999-06 95 cubic inch models and offers 9:1 compression and 4.000" stroke. Top ring is .059", 2nd ring is .059" and oil ring is .098". **Recalibration is required when these kits are used. Cylinder boring is required.** Kit includes forged pistons, rings, circlips, top end gasket kit and chrome piston pins. Cometic gasket kit included.

PCP	Bore
35896	STD 3.875" (VT2719)
35897	+ .005 3.880"
35898	+ .010 3.885"
35899	+ .020 3.895"
35929	Cometic gasket kit (W5786)



Twin Cam



T/L Chrome Cylinder Base Cover

Show quality chrome diecast cover finishes the left side of a Twin Cam engine and includes hardware for easy installation. Fits 1999-06 Touring models, Dyna 1999-05 with forward controls and 2000-06 Softail models. Will not fit with engine/trans top covers 66505-00, 66510-00 or 66513-00.

64277 32753-01



Chrome Lifter Block Covers TC Softail

Not for use with chrome interface cover OEM# 66510-00.

64233 18262-00



S&S Twin Cam Billet Tappet Covers

Fits stock and S&S Twin Cam style crankcases.

335601



Chrome Lifter Block Covers TC

Features hidden mounting hardware and fits Touring 1999-06 and Dyna 1999-05. Does not work with oil hose cover or engine/transmission interface top covers. Does not fit with top covers 66513-00 or 66505-00.

64221 18248-99 (66530-03)



Chrome Billet Lifter Bases

59868 TC models



TC Chrome Lifter Top Set 1999-on

Replaces 17964-99 front and 17966-99 rear.

30092

Twin Cam



Jims Twin Cam 88 Billet Lifter Covers

High tech lifter block covers for use on all TC 88 engines 1999-on. These covers are CNC machined from billet 6061-T6 aluminum and have a beautiful chrome finish. Use with Jims #31647 hydrosolid or #31649 Powerglide tappets.
31266



T/L Chrome Billet Lifter Covers

Billet aluminum lifter covers customize 1999-on TC models. Covers include chrome mounting hardware and gaskets.
64268 18088-02



292088

Andrews Twin Cam EZ-Install Pushrods

EZ-Install pushrods can be installed in an engine without removing fuel tanks or rocker boxes. Available in anodized aluminum and chrome moly tubing.

- 292188** 4 Aluminum pushrods
- 292088** 4 Chrome moly pushrods



Chrome Billet Pushrod Cover & Lifter Base Kit

30091 Fits Twin Cam models.



T/L Chrome Tappet Blocks

Fits all 1999-on Dyna and Touring models and 2000-on Softail models.

- 64005** Front (17964-99)
- 64006** Rear (17966-99)



TC-88 Quick Install Pushrods

This kit allows installation without removal of heads on TC engines 1999-on. Chrome moly construction provides superior strength.

- 66016** T/L (17997-99A)
- 34111** Sifton

Twin Cam



934039

S&S Pushrod Cover Kits

Includes top and bottom covers, cover cap, cover spring, and spring washer for four pushrods.

PCP Application

934039 TC 1999-on, Evo BT 1984-99 and XL 1986-90
934038 As above, for engines 1" or more taller than stock



S&S TC Adjustable Pushrods & Cover Kit

Chrome-moly pushrods allow for easy installation that does not require removal of the gas tank or rocker assemblies. Kit includes pushrods, gaskets, o-rings, retainer clips, and upper pushrod covers that have been designed to provide a more stable and rigid cover assembly.

935095 Kit
935096 Pushrods only



Jims Pro Lite Twin Cam Pushrods

Adjustable pushrods for Twin Cam 88 are made from aerospace quality heat treated aluminum with steel ends. Does not require disassembly of top end or removal of the cam. Pushrods work with stock or custom pushrod tubes. Pushrods have 24 threads per inch with 3/8" balls on both ends.

31179 All Twin Cam 88



Crane "Time-Saver" Adjustable Pushrod Set

7/16" Chrome moly pushrods are the strongest available. Adjust from 8.750" to 10.750". Can be installed with stock pushrod tubes.

34626 Twin Cam 1999-on (4-0031)

S&S Quickie Pushrods

The threaded adjuster screws into the pushrod until the threads disengage and the adjuster simply slides into the pushrod making installation or removal a snap. Once the pushrod is installed and adjusted the locknut prevents the adjuster from moving. The ball ends of the pushrods are drilled so that oil can flow through the pushrod.

PCP Application Displacement

935122 1999-on Twin Cam 88-124"

**Note: 1984-99 EVO style push rod covers are required for access to the Quickie push rod adjusters in Twin Cams

Twin Cam



Complete Pushrod Cover Kits

Visible parts are all chrome and includes upper covers, inner cover, and lower covers.

34107 1999-on TC



Chrome Billet Pushrod Cover Kit TC

These aluminum pushrods feature a groove design and beautiful chrome plating. Fits all 1999-on Twin Cams.

61072 18096-00A



Chrome Upper Pushrod Cover Kits (outer)

Each kit contains 4 chrome plated retaining clips, 4 chrome plated cups, 4 springs, 4 cork gaskets, and 4 steel washers. Exact duplicates.

9970 Twin Cam 88 1999-on (1-3/4" clips)



Chrome Lower Pushrod Cover Kits

These stock pushrod covers are beautifully plated duplicates of the Harley part. Available in sets of 4 with cork gaskets for Twin Cam 88 1999-on.

9968



Upper, Inner Pushrod Covers

9969 Twin Cam 88 1999-on



Twin Cam Chrome Billet Pushrod Cover Set

Includes chrome pushrod covers, seals and necessary o-rings. Fits Twin Cam and replaces 18096-00.

59260

Twin Cam



AV&V Stainless Steel Valves

These valves are heat treated and nitride processed for excellent wear resistance. These valves feature a 45 degree angle, cut below the lock groove to reduce stress in this area, as well as making valve seal installation easier.

Twin Cam Valves 1999-04

PCP	Valve	Head Diam.
31660	Exhaust	1.570"
31661	Intake	1.845"

Evolution BT Valves 1984-on

PCP	Valve	Head Diam.
31662	Exhaust	1.615"
31661	Intake	1.845"



AV&V Replacement Valve Guides for Evo and Twin Cam Models to 2004

These manganese bronze guides are stock length for direct stock replacement. Use with .530" valve seals. Same guide will fit intake or exhaust.

PCP	Oversize	O.D.	I.D.
31801	STD	.5625"	.308"
31802	.001"	.5635"	.308"
31803	.002"	.5645"	.308"
31804	.003"	.5655"	.308"
31805	.004"	.5665"	.308"
31806	.025"	.5875"	.308"



AV&V High Performance Valve Guides for Evo and Twin Cam Models to 2004

These manganese bronze guides have a shortened seal area and are tapered for use on high lift and high flow applications. Use with .530" valve seals.

Intake	Exhaust	Oversize	O.D.	I.D.
31756	31768	STD	.5625"	.308"
31757	31769	.001"	.5635"	.308"
31758	31770	.002"	.5645"	.308"
31759	31771	.003"	.5655"	.308"
31760	31772	.004"	.5665"	.308"
31761	31773	.005"	.5675"	.308"
31762	31774	.006"	.5685"	.308"
31763	31775	.008"	.5705"	.308"
31764	31776	.010"	.5725"	.308"
31765	31777	.012"	.5745"	.308"
31766	31778	.015"	.5775"	.308"
31767	31779	.025"	.5875"	.308"



AV&V Valve Seats

These valve seals are made from heat and wear resistant high quality alloy steel, and are manufactured with clear identification markings and radius edges for easy installation. These seats will resist intense valve pounding and effectively dissipate heat for constant valve sealing. These valve seats will increase in hardness during engine break-in period.

Exhaust and intake valves are made from the same material, choose size as needed. Machining may be required.

PCP	O.D.	I.D.	Thickness
31787	1.630"	1.180"	.385"
31789	1.757"	1.371"	.315"
31780	1.757"	1.410"	.430"
31788	1.880"	1.439"	.410"
31784	1.944"	1.570"	.400"
31781	2.008"	1.610"	.440"
31782	2.040"	1.590"	.420"
31790	2.068"	1.750"	.315"
31783	2.070"	1.610"	.460"
31785	2.135"	1.750"	.400"
31786	2.163"	1.750"	.455"

Twin Cam



Rowe 7mm TC Valves and Guides 2005-on Valves

PCP	Type	Size
32221	Intake	Std.
32222	Intake	+1/16" OS
32223	Intake	.100" OS
32224	Exhaust	Std.

Guides	Size
17700	Std.
17701	.001
17702	.002
17703	.004
17704	.006



Fluoro-Viton Valve Seals (5 packs)

Seals are made from a fluoro-viton polymer with teflon added to prevent valve to seal friction. A metal spring keeps constant seal to valve tension to prevent oil consumption. These seals are then bonded to a steel jacket that provides a secure fit to the guide. The internal ribs are designed to allow for installation without any tools, but hold secure after installation.

PCP	Stem	Guide
32276	6mm	.347 (hat style)
32275	7mm	.562 (hat style)
32274	5/16"	.420
32270	5/16"	.531
32269	3/8"	.531
32273	3/8"	.562
32272	3/8"	.625
32271	11/32"	.531



Valve Stem Keepers

Replaces 18260-02 for BT 2005-on and XL 2004-on.

30019 (4 pair)



Jims Compression Release Valves

These release valves make starting your engine effortless by venting cylinder compression with just the push of a button. These are indispensable when used with stroker kits, high compression engines and large displacement engines. Simply drill and tap each cylinder head and thread in the self-sealing release valves.

31283 Fits all BT and XL (10mm)



S&S Replacement Valves Evo and TC

Use 2.000" intake valve and 1.605" exhaust valve for all S&S 89cc TC cylinder heads and all S&S evolution cylinder heads.

PCP	Description
902000	2.000" Intake valve
902001	1.605" Exhaust valve
902029	Intake valve +.005" stem diameter for rebuilds
902030	Exhaust valve +.005" stem diameter for rebuilds

For A Greater Selection of Valves, Springs and Guides-See EVO Pages 1-92 to 1-99

Many Evo and TC models use the same parts and a greater selection of these pieces can be found with the Evo parts.

Twin Cam



S&S Standard Forged and Roller Rocker Arms

Forged steel for maximum strength. Roller tip reduces side thrusting on valve stem in high lift applications and .750" bushings provide 50% more load bearing area than stock. Recommended for cams of .585" lift or less. Fits evolution BT, XL and all TC engines. Set includes two each front and rear rocker arms.

- 904065** Roller arm set
- 904119** Standard forged arm set



Shafts sold separately

Sifton Roller Rocker Arm Set

Features drop forged construction with hardened steel roller. Fitted with bushings at shaft area. 4 Piece rocker set. Fits Evo and Twin Cam 88. Order shafts separately.

- | PCP | Application |
|--------------|--------------------------------|
| 32338 | Arm Set |
| 30300 | Rocker shaft (17611-83) (each) |



Jims Roller Rocker Arms

Precision, American made rocker roller arms are investment cast from purified, aircraft quality, 4340 chrome moly steel. Both stock and aftermarket rocker arms were analysed to determine a baseline for the design: 660 bronze bushings were retained and a bearing grade steel roller tip was integrated into the design. Rocker arms feature a segmented parabolic pushrod cup that reduces friction, wear, and improves roller tip oiling. Stock ratio of 1.625 will easily accommodate a .700" lift cam (at the valves). Replaces 17360-83 and 17375-83. Set of 4.

- 31251** BT 1984-on, XL 1986-99

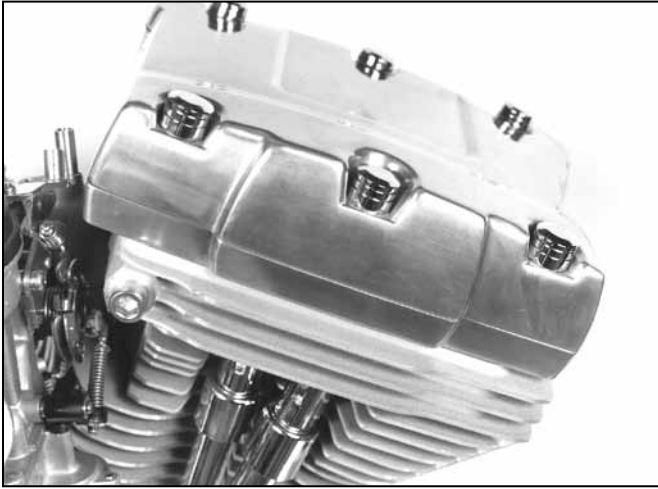


Crane Bushing Tip Roller Rocker Arm

Roller tip rocker arms have a bushing fulcrum for long term performance and reliability. These arms use the original equipment rocker arm shafts. Made from 4140 alloy steel and precision forged for greater strength, truer rocker arm ratio, and improved rocker geometry. Features oil metering system that fully lubricates the fulcrum and roller tip for cooler, smoother operation. Installs easily with no machining on your original rocker shafts. Set of 4.

- 34564** Twin Cam 88 1999-on with stock ratio

Twin Cam



Valve Cover Screw Cover Set TC88 1999-on

Screw covers are sold in packs of 4 and are grooved to match head bolt covers. Fits TC88 1999-on.

44045 43868-99



Forged Rocker Supports for TC-88

29470 17675-01B



Twin Cam Chrome Headbolt Cover

This attractive chrome cover hides the headbolts and spark-plugs on 1999-on Twin Cam models (except those with fairing lowers). Cover features a bar and shield emblem and is easy to install using included hardware.

64267 43858-00



73591



73592

Chrome Oil Line Fitting Set

Will screw into TC-88 engine case to allow use of 3/8" braided steel lines or 1/8" NPT thread for oil tanks and elbows. Built-in compression fitting so no need for clamps. Reusable 3 piece set.

PCP	Application
59055	3/4" NPT TC-88
73591	1/8" NPT
73592	1/4" NPT TC-88



59055



72262



72024

Headbolt Covers for TC and Evo

Chrome plated headbolt covers to hide dull 12 point headbolts on all late 1985-on FL, FX, XL. Simple installation with set screw. Set of 4.

- 72024** Custom hex dome style
- 72232** Smooth style
- 72262** Pike style

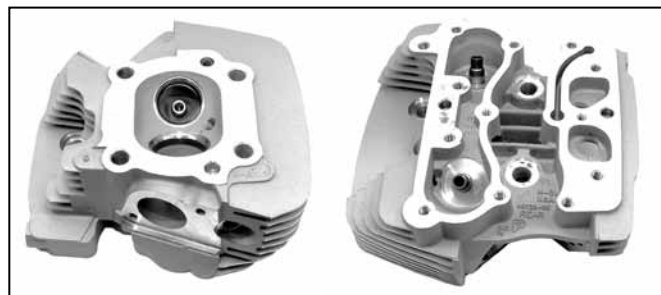
Twin Cam



Twin Cam 88 Chrome Engine Parts

Fits Dyna, FLT 1999-on and Softail 2000-on.

PCP	Description
64806	T/L Chrome upper rocker cover (17572-99)
45916	As above (pair)
64807	T/L Lower rocker housing (17573-99)
64005	Front tappet cover (17964-99)
64006	Rear tappet cover (17966-99)



Twin Cam Stock Style Heads

For BT 1999-04 in silver or black finish.

PCP	OEM	Description	Finish
65215	16716-99	Front head	Silver
65216	16717-99	Rear head	Silver
65217	16722-99	Front head	Black
65218	16724-99	Rear head	Black



Scorpion Head Bolt Covers for TC-88

Classy chrome covers are easy to install and are held in place with set screws. For added convenience spark plugs can be removed without removing covers.

PCP	Application
45264	TC-88 1999-2007



Headbolt Kits For Twin Cam- 8 Pack

Polished and chrome plated 12 point dome top headbolts.

72012	BT 1992-on, XL 1993-on (16480-92, 16478-85A)
-------	--

Twin Cam

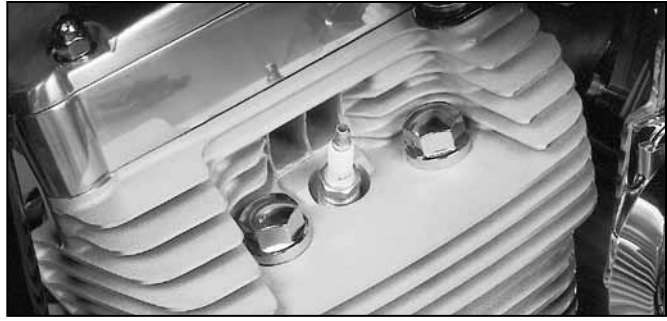


S&S Style Chrome Rocker Box Set TC

Fits TC-88 models for 2 heads.

59556 Rocker box set

25405 Gasket set



Headbolt Covers for Evo and Twin Cam

Chrome hex dome headbolt covers hide 12 point headbolts on all late 1985-on FL, FX, XL. Installs with set screw.

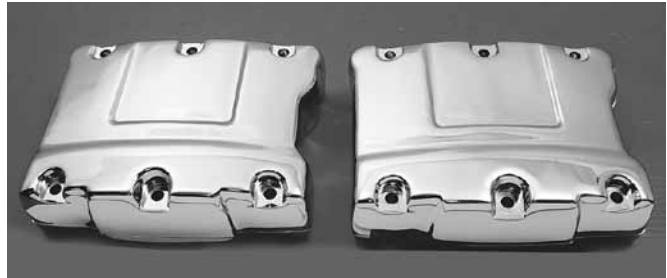
72024



TC Chrome Screw Set

Includes o-ring seals to mount upper rocker box cover on twin cam models.

24087



Chrome Billet TC-88 Rocker Box Kit

Fits 1999-on TC-88 models and will accept high lift cams.

45918 2 Pc Kit for 1 head



S&S Chrome Diecast Aluminum Cover Kits

These covers fit all Twin Cam and include bases and covers for both cylinders, one-piece rocker shaft support units, Viton o-rings and all hardware and gaskets required for installation. Exterior hardware is chrome plated.

904110 Twin Cam 88/95



79986

James Twin Cam Top End Gasket Kits

PCP	Year	Engine	Description
79986	1999-04	1450cc	Top end w/.045" head gaskets
79993	1999-04	1550cc	Top end w/.046" head gaskets
79994	1999-04	1450cc	Top end w/.036" head gaskets
79995	1999-04	1550cc	Top end w/.036" head gaskets

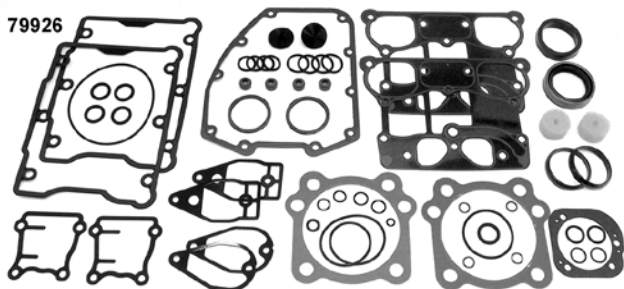


Radii Twin Cam Top Rocker Box Set

Fits 1999-on TC-88 models.

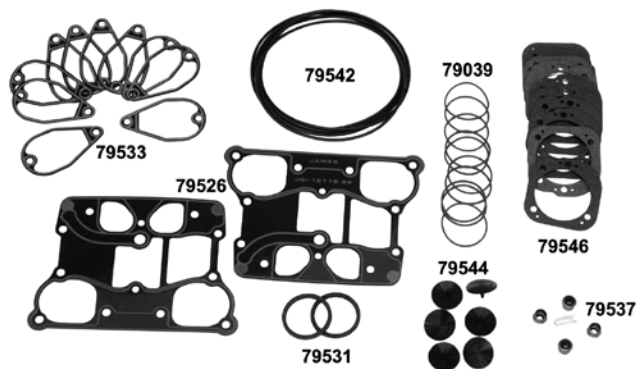
21792

Twin Cam



James Twin Cam Engine Gasket Kits

PCP	Year	Engine	Description
79987	1999-04	1450cc	Engine kit w/.046" head gaskets
79925	1999-04	1450cc	Engine kit w/.036" head gaskets
79926	1999-04	1550cc	Engine kit w/.046" head gaskets
79927	1999-04	1550cc	Engine kit w/.036" head gaskets



James Twin Cam Gaskets and Seals 1450cc

PCP	Description
14505*	O-ring, drain plug (11105) (10 pk)
14510*	O-ring, starter housing (11116) (10 pk)
79023	O-ring, filler plug (11132) (25 pk)
14520*	O-ring, speed sensor/piston cooling jets (11140) (10 pk)
79031	O-ring, lower pushrod cover (11145) (25 pk)
79033	O-ring, alternator (11147) (10 pk)
79039	Quad seal, left side spacer (11165) (10 pk)
79070	Oil seal, 5th gear m/shaft (blue) (12035-B) (5 pk)
79077	Oil seal, 5 spd shifter shaft (12045-DL) (5 pk)
79082	Oil seal, inner primary m/shaft (12052) (5pk)
79507	Oil seal, jackshaft (12066) (5 pk)
79508	Oil seal, transmission pulley (12067-A) (each)
79512	Oil seal, sprocket shaft (12068) (5 pk)
79526	Gasket, rocker housing to head (16719-99) (pair)
79527	Gasket, cyl/head stock bore (16775-99) (5 pk)
79528	Rocker cover gasket and seal set (17033-99)
79529	O-ring kit, induction module (17043-99)
79530	Gasket kit, head and base (17047-98)
79531	Gasket kit, exhaust (17048-98)
79986	Top end gasket set TC 88(17052-99)
79993	Top end gasket set .045 TC 95 (17052-99-X)
79987	Engine gasket set (17053-99)
79532	Gasket, top rocker cover (17386-99) (pr)
79533	Gasket, breather cover w/silicone (17591-99) (5 pk)
79535	Gasket, breather cover baffle (17592-99) (5 pk)
79537	Oil seal, valve guide kit (18001-83-B) (4 pk)
79538	Gasket, tappet cover w/silicone (18635-99) (10 pk)
79539	Gasket, cam cover w/silicone (25244-99) (5 pk)
79540	Cam gear quick change kit (25244-99-K)
79542	Seal, clutch inspection cover (25416-99) (5 pk)
79543	Gasket, trans oil cover w/silicone (26077-99) (10 pk)
79149	O-ring, case locating dowels (26432-76-A) (10 pk)
79544	Seal, umbrella valve rocker cover (26858-99) (6 pk)
79545	Seal, intake manifold (26992-99) (2 pk)
79546	Gasket, carb back plate (29062-95-B) (10 pk)
79547	Gasket, induction module to back plate (29368-99) (10 pk)
79548	Gasket, filter element EFI (29463-99) (10 pk)
79709	Transmission gasket set (33031-99)

*Not James

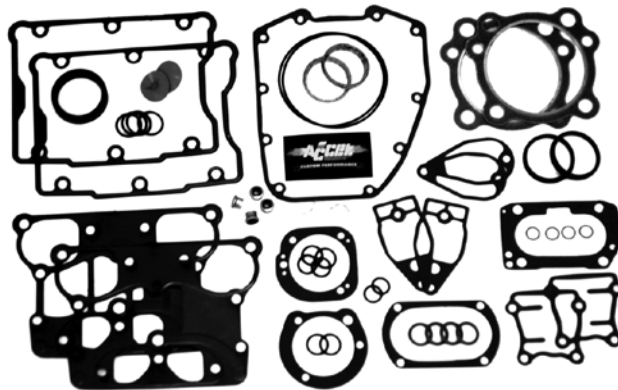
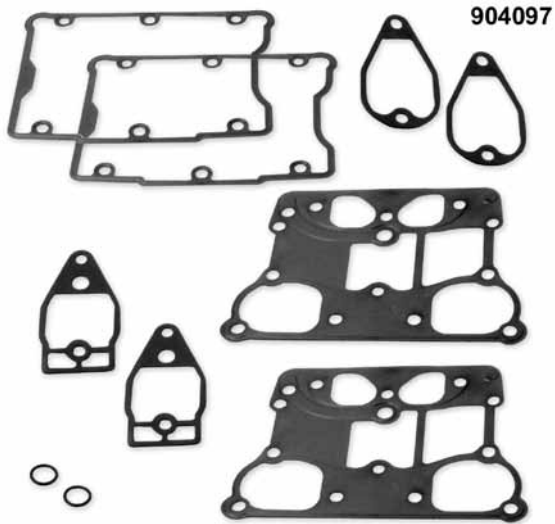


Chrome Snap Caps Bolt Cap Cover Kits

These bolt cover kits make any bike look great and are also great for custom builders. Beautifully designed and chromed, these caps easily install over the raw OE bolt heads on engine, transmission, primary and more. Each kit includes individually marked pieces that make identification and installation a breeze.

Model	Year	PCP	Kit Qty.
Touring	2009-on	21900	111
	2007-08	21901	75
	2009-on	21902	126
FL	1999-06	21904	83
Dyna	2006-on	21905	76
	1999-05	21906	86
	Twin Cam	21907	156
Softail	2007-on	21908	81
	2000-06	21909	87
	2009-on	21910	125
FLSTSB	2009-on	21912	175
TC-88	Engine	21913	79
XL	2004-on	21914	77
	1984-03	21915	74
	2004-on Engine	21916	63

Twin Cam

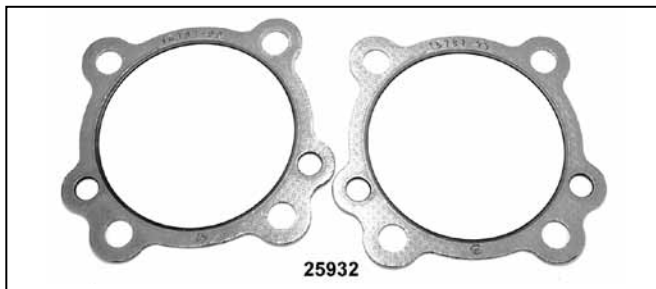
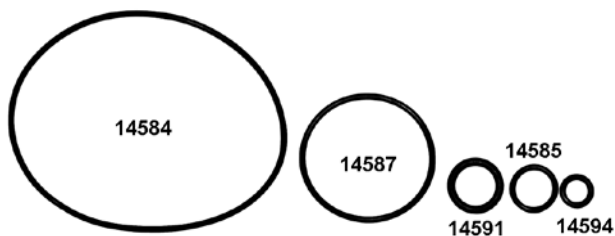


Accel Twin Cam Motor Gasket Kits

PCP Application
25539 Top end 1550cc big bore gasket kit all 1999-on

S&S Twin Cam Rocker Gasket Sets

- 904097 Stock rocker covers
- 904073 S&S billet style rocker covers
- 904111 S&S die cast style

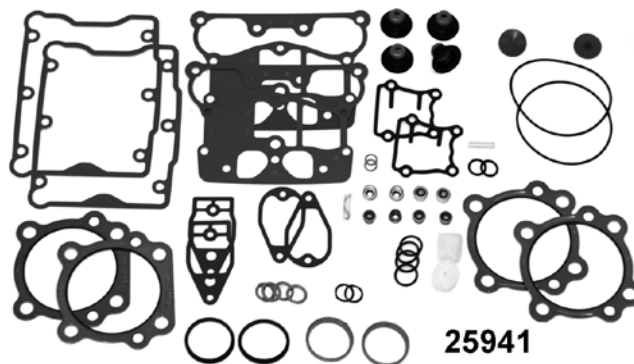
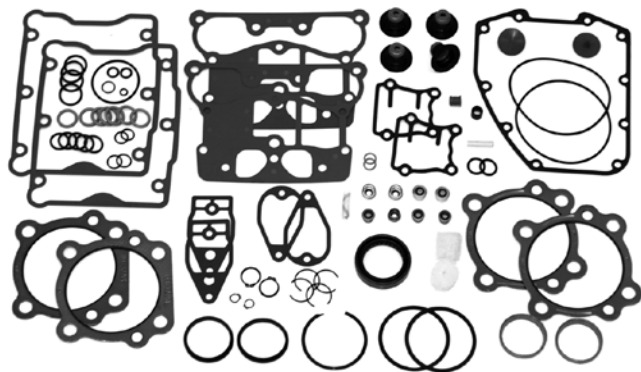


O-Rings Twin Cam 88 1999-on (10 pack)

- 14584 Cylinder base (11256)
- 14585 Rocker arm support (11270)
- 14586 Cylinder head locating dowel (11273)
- 14587 Oil pump outer (11286)
- 14588 Cam position sensor (11288)
- 14589 Crankshaft sensor (11289)
- 14590 Neutral switch (11290)
- 14591 Upper pushrod cover (11293)
- 14592 FLT fork air control (11297)
- 14593 Cam support plate plug (11298)
- 14594 Oil pump inner (11301)

Topline Twin Cam Gaskets

- | PCP | Description |
|-------|--|
| 25930 | Gasket, rocker housing (16719-99) (pr) |
| 25932 | .055 Graphite 1550cc head gasket (16787-99) (pr) |
| 25934 | Rocker cover (17386-99) (pr) |
| 25935 | Breather cover (17591-99) (10 pk) |
| 25936 | Breather baffle (17592-99) (10 pk) |
| 25937 | Lifter cover (18635-99) (10 pk) |
| 25938 | Cam cover (25244-99) (5 pk) |



Topline Twin Cam Complete Gasket Sets

Fits 1999-on FLT, 1999-on FXD, 2000-on FXST.
25940 17053-99B

Topline Twin Cam Top End Gasket Sets

Fits 1999-on FLT, 1999-on FXD, 2000-on FXST.
25941 17052-99B



S&S Two Piece Chrome Billet Rocker Covers

Fits 1984-on Evolution Big Twins, both vented out of crankcase or through the head types. Umbrella valves included for use with 1993-on cylinder heads. Kit includes complete front and rear cover assemblies, rocker shaft supports, gaskets and mounting hardware.

904050

S&S Super Sidewinder Plus Evolution Style Engines 124"

If you are looking for the most powerful Evolution style production engine available for the street, your search ends here. The S&S 124", 4-1/8" bore Super Sidewinder Plus engine is it. This engine will fit in a stock H-D frame, but the performance is anything but stock. We recommend this engine only for experienced riders who are seeking the ultimate in street performance. The S&S HVHP oil pump, S&S compression releases, piston cooling oil jets, chrome plated diecast rocker covers, and roller rocker arms are standard equipment in every SSW+ engine. That gives you performance, reliability and improved engine life.

All engines are available with ignition, chrome billet tappet guides, Super G carburetor and chrome gearcover.

By Special Order Only- S&S Intelligent Spark Technology knock sensing ignition. Engines purchased with S&S IST ignition carry an extra year of warranty from S&S because they are confident that this ignition will prevent damage to the engine due to knock or detonation or over revving during the break-in period. Engines with IST feature a special billet gear cover and are available only with billet tappet guides. Not recommended for kick start applications.

Specifications:

Bore	Stroke	Size	Camshaft	Piston	C.R.
4-1/8"	4-5/8"	124"	S&S 640	S&S Forged	10.8:1

S&S 124" Engines with Super G Carb

Assembled	Finish
319528	Natural aluminum with IST
319860	As above with Super Stock
319552	Black powdercoat with IST
319885	As above with Super Stock



S&S Super Stock Ignition Systems for Evos

This unit is primarily intended for complete S&S engines and is well suited to existing S&S engines that were not sold with an ignition system installed, S&S Sidewinder kits and S&S Hot Set Up kits that have the same configuration as a complete engine. The Super Stock module fits inside the cam cover under the ignition cover and features a pre-programmed module. Curves are preset for a specific S&S engine and modules intended for that engine may not yield optimum results when used on another configuration. Like the S&S IST Ignition, the Super Stock features a break-in rev limit function with a very low initial rev limit.

The Super Stock Ignition features single fire operation, 6300 rpm rev limiter, overload and short circuit protection and a minimum 3.0 primary resistance. Dual plugged applications require a pair of two tower coils or a single four tower coil. VOES retards timing under load or hard acceleration while 24 hr break in rev limiter prevents damage during break-in.

S&S Super Stock Ignition Kits and Replacement Modules

Kits include module with hardware, pick-up cup and mounting screw, VOES switch with hardware, and connectors.

Ignition Kit	Module Only	Application
551254	551244	S&S 96" Evolution
551255	551245	S&S 113" Evolution
551256	551246	S&S 124"

S&S EVO



S&S 96" Super Stock EVO Long Block Assembled Only with Billet Tappet Guides and Gear cover

The old timers at S&S remember when they started producing engine packages. Back then, the 96" 3 5/8" bore Evolution style engine was the "King". Everyone loved the 96" because it made great power, it was reliable, engine life was exceptional, and being essentially stock height, it fit well in a stock frame. If you are looking to replace a worn out stock EVO engine with something a bit more potent, you still can't beat a 96".

To make the 96 an even better value S&S has updated it with a 585 camshaft for even better performance and reliability. The 96" comes with chrome plated rocker covers, roller rocker arms, Super E carb and forged pistons for 10:1 compression.

- 319752** Aluminum finish with IST
- 319857** Aluminum finish with Super Stock
- 319753** Black finish with IST
- 319858** Black finish with Super Stock
- 319759** Polished finish with IST
- 319859** Polished finish with Super Stock

NOTE Motors listed here are a service offering, we do not have them in stock but delivery can usually be arranged in 2-3 weeks**

Clear Timing Plugs

Available in standard or long version.
Sold each

- | PCP | Type |
|--------------|-----------------------|
| 626 | Standard (96295-65TA) |
| 73653 | Long |
| 73654 | Hex |



S&S 113" 4" Bore Super Sidewinder Motor

The 113", 4" bore motor is not the biggest production engine that S&S offers but are still very popular because they have many features that riders and builders really like. The 113" is about .050" shorter than a stock Evo, which makes it easy to fit into any stock 1984-99 frame, and engine life and dependability are better than you might expect from an engine this large. Some standard features of the 113" that make it a good choice are: a 600 cam, forged pistons with 10:1 compression, chrome plated diecast rocker covers, roller rocker arms, electric compression releases, high volume/high pressure oil pump, a Super G carb, billet timing cover & billet gear cover.

- 319488** Aluminum finish with IST
- 319491** Aluminum finish with Super Stock
- 319489** Black finish with IST
- 319492** Black finish with Super Stock
- 319490** Polished finish with IST
- 319493** Polished finish with Super Stock

New S&S Complete Engine Warranty

Complete engines equipped with S&S Super Stock ignition system or Magneti Marelli style S&S variable fuel injection module:

- 2 Years on engines under 120"**
- 1 Year on engines over 120"**

Complete engines equipped with S&S IST ignition system or the Delphi style S&S variable fuel injection module:

- 3 Years on engines under 120"**
- 2 Year on engines over 120"**

Any warranty is Factory Direct Only

All cases warranted direct by manufacturer only



Timing Plugs

Acorn style plug fits all Harley Big Twin and Sportster timing plug holes and oil tanks with 5/18-18 drain holes.

1690

Acorn style plug with an oversize thread and one tap for rethreading the stripped out timing hole.

1758 Plug and tap

1759 Plug ONLY

Cap style plug fits all models for Harley Big Twin and Sportster timing plug holes and oil tanks with 5/18-18 drain holes.

2896 With 5/8 - 18" drain hole

5258 BT 1981-on 1/2-20 thread

New functional and custom design plug fits all models Harley Big Twin and Sportster timing plug holes and oil tanks with 5/18-18 drain hole.

3591 Chrome

5282 Cad

5283 Black oxide



Big Twin Case Chrome Trim

This trim fits between the cylinders on 1985-99 EVO by mounting to center case stud with the acorn nut included.

45066



Colony Allen Timing Plug all HD 1970-on

5/8-18 Thread. Sold each and replaces 720.

9402 Chrome

9403 Cad



S&S Engine Cases (For 8 1/2 Flywheels only)

1984-1991 Evo type for 1984-99 chassis with cast aluminum primary chain cover (requires aluminum oil pump OEM#26193-73 or S&S oil pump PC #316260)

Natural	Black	Description
310000	310052	Standard Bore
310001	310053	Big Bore 3-5/8"
310024	-	Big Bore 4"

1992-99 Evo type for 1984-99 chassis with cast aluminum primary chain cover (requires OEM#26050-92 oil pump or Revolution pump PC #29802)

Natural	Black	Description
310005	310055	Standard Bore
310077	310078	Big Bore 3-5/8"
310047	-	Big Bore 4"
-	310075	Big Bore 3-5/8" w/o sensor (for small diam. wheels)

All S&S Evo style alternator style crankcases for stock diameter flywheels manufactured after Oct 1, 2004 are machined for a crank position sensor. This allows the use of a stock EFI crank position sensor or an S&S crank position sensor for S&S Variable Fuel Injection (VFI) systems, or S&S Intelligent Spark Technology (IST) ignition systems. If no position sensor is used, the hole is covered with a small plate supplied with each set of cases. Crank position sensors must be used with flywheels with timing notches machined into the rim of the drive side flywheel

Big Twin Motor Mount Shims

Fit on front and rear 1936-99.

PCP	Thickness
13512	.015 (10 pack)
13514	.036 (5 pack)
13515	.048 (5 pack)



Big Twin EVO

All cases warranted direct by manufacturer only



STD Alternator Engine

These cases are made from "356-T6" aluminum alloy designed to handle flex-stress up to 38,000 PSI. They're machined on computer controlled equipment to hold the tight tolerances required. All cases are machined to accept cylinders and are notched for stroker flywheels. Comes with a manufacturer's statement of origin. STD sweats their inserts in with approximately .006" of press.

34918* 1992-99 Evolution case Big Bore

* must use 1992-99 HD pump or Preston #29802

34981



Delkron Crankcases and Accessories

34981 EV-2 BB Case only.3 5/8" big bore spigot hole
1992-99 Evo, requires 1992-on oil pump and front mounted oil filter



Velva-Ride Engine Stabilizer BT 1980-on

Features a stainless steel body, polished finish rod ends and a plunger with a urethane dampening which combine to act as a mini-shock absorber. Sold Each.

30055 Body polished with standard finish ends

40026 Body and ends (polished)



FLT-FXR Motor Mount Components

PCP	Description
29011	T/L Front mount, black (16207-79C)
40021	Front mount, black (16207-79B)
40022	As above chromed (16207-79B)
29010	Stabilizer link, zinc upper or lower FLT, FXR 80-on; upper on Dyna 91-94 (16219-79C)
40019	As above, chrome (16219-79B)
40020	Chrome upper stabilizer Dyna 1995-on (16258-95B)
21000	Front bracket 1980-06 BT Touring (4715979A)



Chrome Front Motor Mount Assembly

Fits 1980-99 FXR-FLT models and includes bracket, link iso mount and hardware.

59207



Motor Sprocket Nuts

PCP	Application (each)
12568	XL 1970-88 (40387-70)
12611	XL 1989-92 (7652)
12569	BT 1970-90 (40392-70)
12612	BT 1991-06 (40392-91)



Chrome Front Motor Mount Cover

Cover your front case with this attractive, chrome accessory that hides any casting imperfections.

45145 FXST 1984-on

45146 FXR 1984-94

Motor Case Hardware



9883



9854

Chrome Upper and Lower Motor Mount Kit

Complete stock motor mount kit features heat treated, plated bolts, locknuts and heavy duty washers.

9854 Softail 1984-99

Complete Colony Motor Case Kits

Kits contain all the necessary hardware to bolt together the Harley motor cases. Each kit is packaged for the specific application.

Big Twin 1979-95

PCP Style

5188 Acorn chrome

1804 Stock chrome

5189 Stock cad

Evo Big Twin 1996-99

9882 Acorn chrome

9883 Flanged nut style chrome

9884 Flanged nut style zinc

Twin Cam Big Twin 1999-on

9956 Polished allen

9955 Polished acorn

Big Twin Engine Stand

Perfect for Harley Engine repair. This bench stand works on all Big Twin engine cases 1936-99.

2831 96815-46



9859

Lower Motor Mount

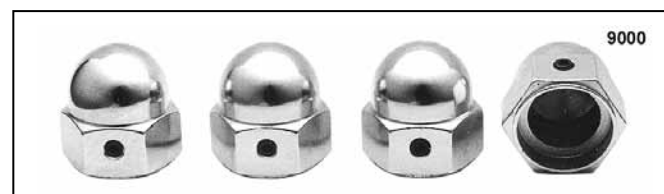
Lower motor mount features heat treated, plated bolts, locknuts and heavy duty washers. Fits 1988-06 FLT, FLHT, FXR, FXRS with rubber mounted motors.

9859 Chrome

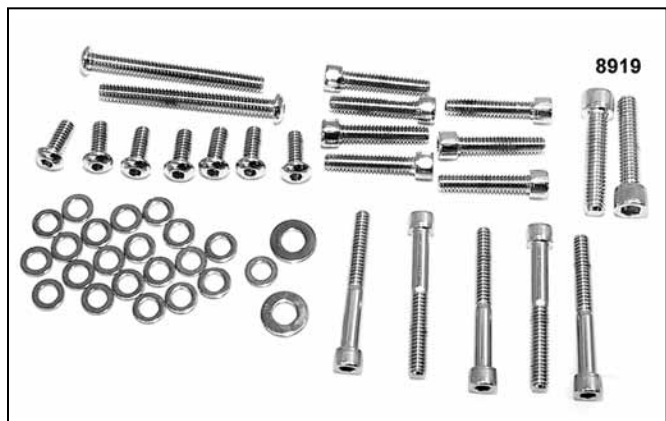
9860 Zinc



9002



9000



8919



8933

Chrome Colony Kits

Dash mounting kit 1986-94 FXR (except 88-on FXRS)

Head bolt covers (4 pieces)

Primary cover 1985-99 5 Speed (except 1989-on FXST)

Primary cover 1989-06 FXST

Rocker cover BT 1985-on, XL 1986-on (8 Screws, 3 washers)

Transmission shifter cover 1988-97 FX FL Evo

Transmission shifter cover 1980-86 BT 4 speed

Transmission shifter cover 1980-87 BT 5 speed FXST

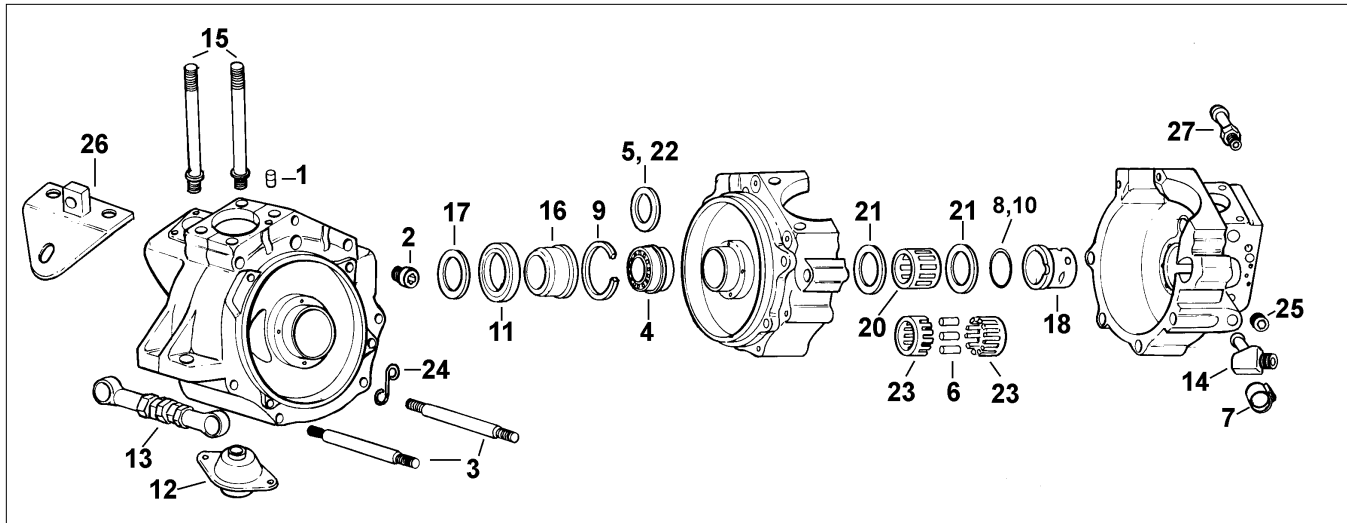
Transmission side cover 1980-86 BT 5 speed FXST

Transmission side cover 1987-06 FX, FL, FXST

Gold

Acorn	Acorn	Allen (Knurled)	Caps
	9014	9016 (Button)	9015
9001	9000		9002
	8914	8916	8915
	8917	8919	8918
		8931	8933
	8921	8907	8922
		8905	
	8910	8906	8911
		8908	
	8912	8909	8913

Crankcase BT Evo



PCP	OEM	Description	Year	U/M	PCP	OEM	Description	Year	U/M
1	10112	358 Dowel pin (2)	85-*	10 Pk	11811	24033-70	" .090	70-*	Each
2	10612	720 Timing hole plug	84-*	Each	11812	24034-70	" .120	70-*	Each
4	15500	9028 Bearing assembly	70-02	Each	11813	24035-70	" .150	70-*	Each
5	13540	9120 to Shim assortment 9134 16 sizes .0895-.1205	70-*	Set	11814	24036-70	" .180	70-*	Each
6	15050	9220A R/S Rollers STD (28)	58-86	Set	11815	24037-70	" .210	70-*	Each
	15051	9221A " " .0002	58-86	Set	18 1009	24599-58A	R/S Bushing STD	58-*	Each
	15052	9222A " " .0004	58-86	Set	31070	"	Jims bushing STD	58-*	Each
	15053	9223A " " .0006	58-86	Set	1171	24600-58A	R/S Bushing .002	58-*	Each
	15054	9224A " " .0008	58-86	Set	1010	24601-58A	R/S Bushing .005	58-*	Each
	15055	9225A " " .001	58-86	Set	31071	"	Jims +.010 bush	58-*	Each
	15056	9225A+2 " " .002	58-86	Set	1011	24601-58A	R/S Bushing .010	58-*	Each
7	16228	10080 Clamp oil line	84-86	10 Pk	20 15920	24650-58	R/S bearing STD	58-86	Kit
8	11007	11007 R/S Retaining ring	58-86	10 Pk	15860	24626-87	" " white/grey	87-*	Each
9	11039	11160 L/S Retaining ring	L83-*	5 Pk	15861	24628-87	" " green	87-*	Each
10	11043	11177A R/S Retaining ring	87-*	10 Pk	15862	24641-87	" " red	87-*	Each
11	14016	12026B Oil seal	70-98	5 Pk	15863	24643-87	" " blue	87-*	Each
	79067	12026B James oil seal	70-98	5 Pk	21 11816	24692-58	R/S Washer .070 (2)	58-86	Pair
12	40021	16207-79B Engine mount, front	80-*	Each	317003	"	S&S as above		5 Pk
13	29010	16219-79A Stabalizer link/lwr	80-*	Each	317004	"	As above .050		5 Pk
14	10509	16302-81 Fitting, crankcase	81-*	Each	22 11850	35850-84	L/S Spacer .010	70-*	5 Pk
	10510	16304-87 Fitting, crankcase	87-*	Each	11851	35851-84	" " .020	70-*	5 Pk
15	10816	16837-85A Stud, cylinder	L85-99	Each	11852	35852-84	" " .032	70-*	5 Pk
	10821	As above		4 Pk	11853	--	L/S " Assortment (.060 to .210)	70-*	6 Pk
16	11800	24002-70 Spacer	70-*	Each	23 10732	43578-35	R/S Bearing cage (2)	58-86	Each
17	11810	24032-70 " .060	70-*	Each	24 30050	45095-85	Retainer connector	85-*	5 Pk
					25 10545	45830-48	Plug case oil line	L84-*	5 Pk
					26 21000	47159-79A	Engine mount chr.	80-06	Each
					27 10575	63533-41	Fitting oil hose	L84-*	5 Pk



BT Pinion Gear Set Side Bearing Set 1987-99

Includes cages. Available in a 1 piece or 2 piece style.

1 Piece	2 Piece	OEM	Colour
15871	15861	24628-87A	Green STD
15872	15860	24626-87A	White/Grey +.0001
15873	15863	24643-87A	Blue +.0002
15874	15862	24641-87A	Red +.0003
	15864	24642-87A	Black +.0005
	15865	24644-87A	Yellow +.0010
	15866	24645-87A	Brown +.0015
	15867	24646-87A	Silver +.0020
18007	-	23928-87	Pinion shaft race, 87-on

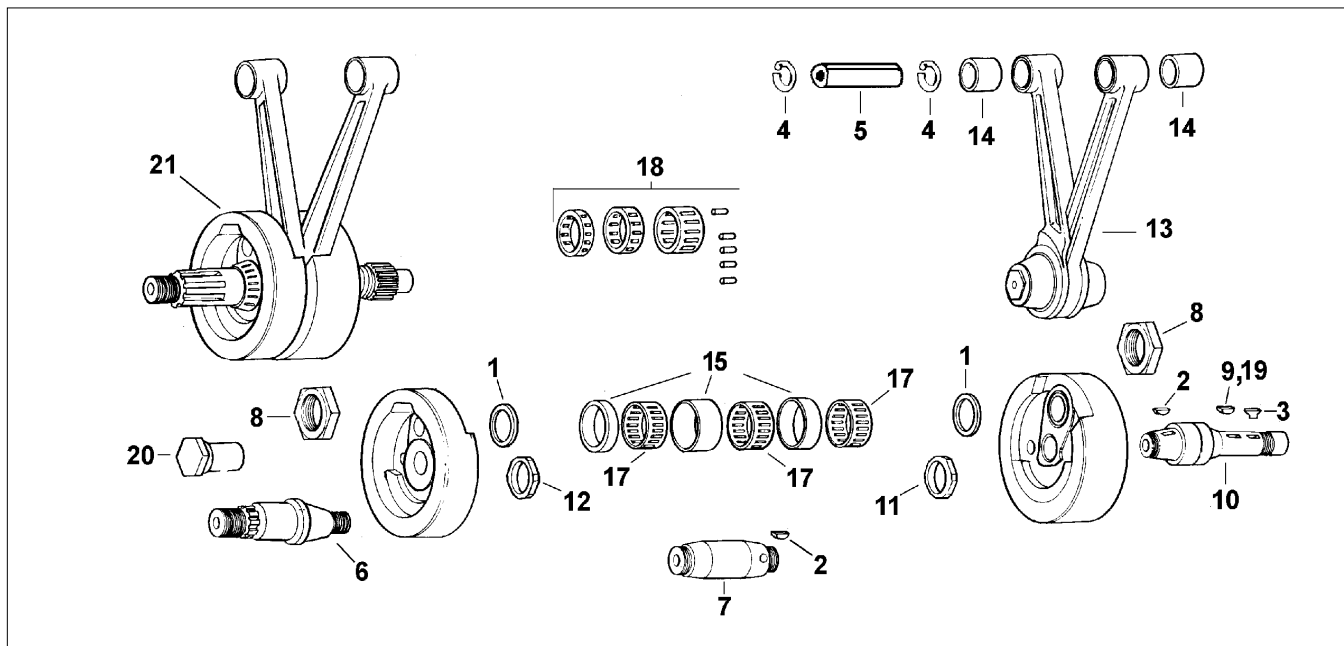


Pinion Bearing Sets

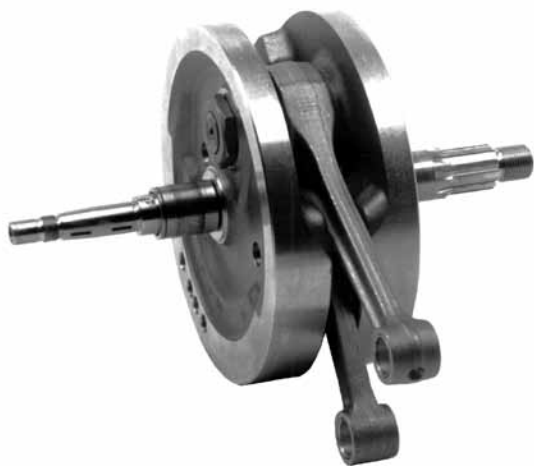
Bearing set for right side that includes rollers and cages.

15411 BT 74" & 80" 1958-86

Flywheels BT Evo



PCP	OEM	Description	Year	U/M	PCP	OEM	Description	Year	U/M	
1	11520	6506	Bronze washer (2)	70-99	11	12539	24016-80	Nut, gear shaft	L81-89	Each
	29027		T/L as above		12	12541	24017-80	Nut/sprocket shaft	L81-E85	Each
2	10301	11218	Key c/pin & pinion	L81-99	13	34004	24281-83	Rod assembly	L83-99	Each
3	10302	11219	T-Key, pinion	88-99	14	18597	24334-36	Bush, piston .002	36-98	Pair
4	11051	22589-83	Lock ring (4)	84-99		18509	24335-36	" " .010	36-98	Pair
5	32352	22719-85	Piston pin (2)	86-99		18637	24316-99	Pin bushing	99-on	Pair
6	3386	23909-80	Sprocket shaft	L81-E85	15	977	24345-36	Rod race, narrow (2)	36-99	Set
	31200		Jims as above				24356-36	" " wide (1)		
7	31140	23961-80A	Crank pin Jims 3 hole	L81-99		31049		Jims as above		
	32549		Eastern, as above	L81-99	17	10723	24366-71	Cages, narrow (2)	73-86	Set
	31156		Jims as above 3 hole	L81-99			24367-71	" wide (1)		
	32548	23975-87	USA crank pin .002	L83-99	18	15850	24385-40B	Rollers/cages STD	41-86	Set
8	12536	23969-83	Nut, crank pin (2)	L83-99		15800	24346-87A	Bearings and cages	87-99	Set
9	10306	23985-54	Key, pinion (2-'89)	54-99	19	10310	26348-15	Key, pinion	36-99	10Pk
10	1889	24006-83	Pinion shaft	L83-86	20	12569	40392-70	Nut, sprocket	70-90	Each
	31247		Jims as above	L81-86		12612	40392-91	As above, thru-hole	91-06	Each
	32502	24006-87	" " STD	87-88	21	58010	23906-78G	Flywheel assembly	78-86	Each
	31248		Jims as above	87-88		58011	23906-87A	As above	87-89	Each
	32503	24020-87	" " .001	87-88		58012	23906-90A	As above	90-92	Each
	32504	24021-87	" " .002	87-88		58013	23906-93B	As above	93-99	Each

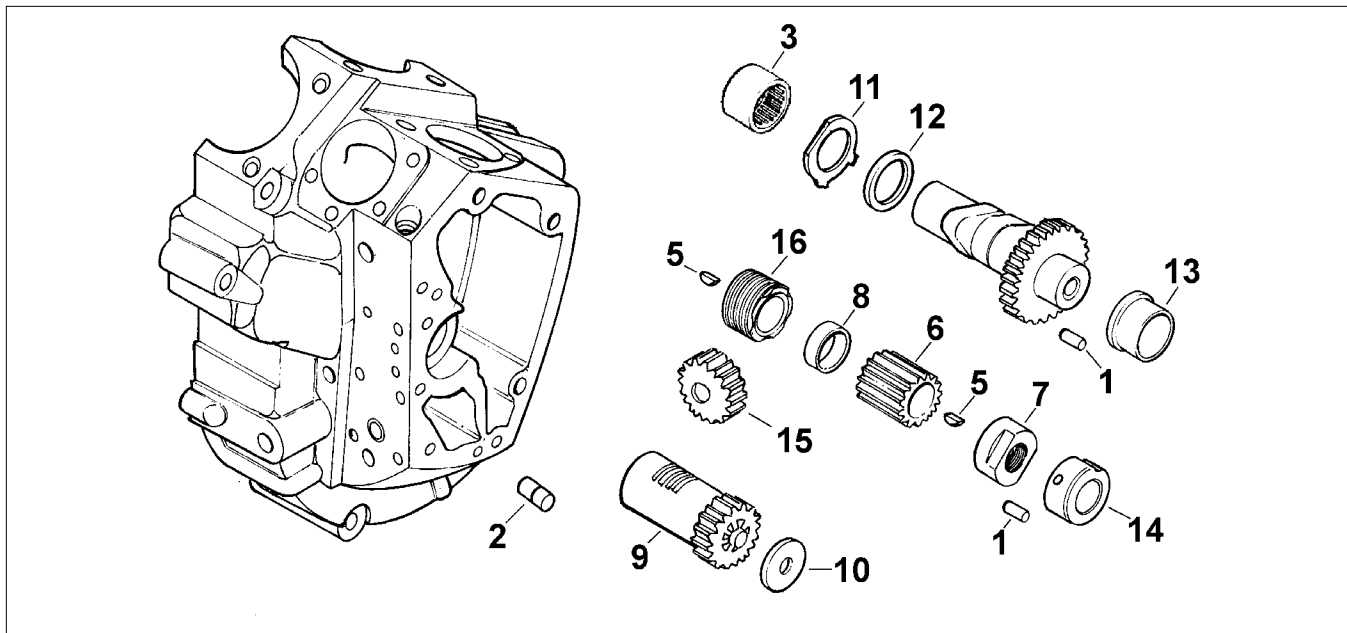


Complete 80" Flywheel Assembly-(USA Made)

4 1/4" stroke flywheel assembly for stock Big Twins 1978-on. Shipped complete and assembled as pictured but trueness must be checked before assembly of motor.

- 58010 1978-86 (23906-78G)
- 58011 1987-89 (23906-87A)
- 58012 1990-92 (23906-90A)
- 58013 1993-99 Evo (23906-93B)

BT Evo Cam Case



Big Twin Gear Case 1984-99

	PCP	OEM	Description	Year	U/M	PCP	OEM	Description	Year	U/M	
1	10155	275	Dowel pin (2)	57-on	10 Pk	11565	25326-82	" " .155	L82-*	5 Pk	
2	10112	358	Dowel pin (2)	41-on	10 Pk	11566	25327-82	" " .160	L82-*	5 Pk	
3	15607	9058	Cam bearing	58-99	Each	11567	25328-82	" " .165	L82-*	5 Pk	
5	10306	23985-54	Key, pinion	54-89	10 Pk	11568	-	Ass't of various sizes	L82-*	8 Pk	
	10302	11219	T-Key, pinion	90-99	10Pk	11	11529	25550-57	Lock washer, cam	58-*	5 Pk
6	31309	24240-78	Pinion gear, orange	77-89	Each	12	13522	25550-36	Cam washer .050	36-*	5 Pk
	31310	24041-78	Pinion gear, white	77-89	Each		13523	25551-36	" " .055	36-*	5 Pk
	31311	24042-78	Pinion gear, yellow	77-89	Each		13524	25552-36	" " .060	36-*	5 Pk
	31312	24043-78	Pinion gear, red	77-89	Each		13525	25553-36	" " .065	36-*	5 Pk
	31313	24044-78	Pinion gear, blue	77-89	Each		13526	25554-36	" " .070	36-*	5 Pk
	31314	24045-78	Pinion gear, green	77-89	Each		13521	25555-84	" " .045	36-*	5 Pk
	31315	24046-78	Pinion gear, black	77-89	Each		13528	25556-79	" " .080	36-*	5 Pk
	29016	24040-90	Pinion gear, orange	90-92	Each		13529	25557-79	" " .085	36-*	5 Pk
	29044	24042-90	Pinion gear, yellow	90-92	Each		13530	25558-79	" " .090	36-*	5 Pk
	29045	24043-90	Pinion gear, red	90-92	Each		13531	25559-79	" " .095	36-*	5 Pk
	29046	24044-90	Pinion gear, blue	90-92	Each		13532	-	" " .100	36-*	5 Pk
	29047	24045-90	Pinion gear, green	90-92	Each		13520	-	Ass't (.050-.095)		10Pk
	29048	24046-90	Pinion gear, black	90-92	Each	13	18513	25581-70	Cam bush cover STD	70-*	Each
	29086	24040-93	Pinion gear, orange	93-99	Each		18514	--	" " " .005	70-*	Each
	29087	24041-93	Pinion gear, white	93-99	Each		18629	" " " .010	70-*	Each	
	29088	24042-93	Pinion gear, yellow	93-99	Each	14	18518	25582-73	Pinion bush cover	L73-92	Each
	29089	24043-93	Pinion gear, red	93-99	Each		18639		As above +.005		Each
	29090	24044-93	Pinion gear, blue	93-99	Each		18601	25582-93	Pinion bushing STD	93-99	Each
	29091	24045-93	Pinion gear, green	93-99	Each		18602		As above +.005		Each
	29092	24046-93	Pinion gear, black	93-99	Each	15	2268	26345-73	Pump drive gear 24T	73-99	Each
7	12544	24023-54	Nut, pinion	54-89	Each	16	31351	26349-84	Pinion pump gear	L85-89	Each
	12542	24022-90	As above	90-92	Each		30125	26354-90	As above	90-92	Each
	31015		Jims, as above				30133	26354-93	As above	93-99	Each
	12613	7916A	As above	93-99	Each						
8	1193	24703-54	Spacer, pinion	54-89	Each						
	11534	24704-90	As above	90-92	Each						
9	30119	25310-82A	Breath valve, plastic	L77-99	Each						
10	11560	25320-82	Plastic washer .130	L82-*	5 Pk						
	11561	25321-82	" " .135	L82-*	5 Pk						
	11562	25322-82	" " .140	L82-*	5 Pk						
	11563	25323-82	" " .145	L82-*	5 Pk						
	11564	25325-82	" " .150	L82-*	5 Pk						



Jims Pinion Bushing

PCP	Application
31366	O/S BT 1973-92 (25582-80AB)
31367	BT 1993-99 (25582-93)
31368	BT 1993-99 .005

BT Nose Cone 1970-99



Cam Bushing Kit

BT kits include cam and gear shaft bushings/bearings with lock pins and thrust plate. XL kits include all cam and gear bushings/bearings, lock pins and shims. USA made.

BT Kits

15400 1993-99
15401 1973-92

XL Kits

15406 1991-96
15407 1986-90



29100 Ignition rotor cup, gold 1983-99 (32402-83) (requires OEM bolt #26113, not included)



29139 Ignition rotor cup Evo fuel injected models 1995-* (32456-95)



Ignition Wire Clamp BT 1987-92

16263 38713-87A (each)



31359



31360



31361

Jims BT Cam Cover Bushings

PCP Description (Each)

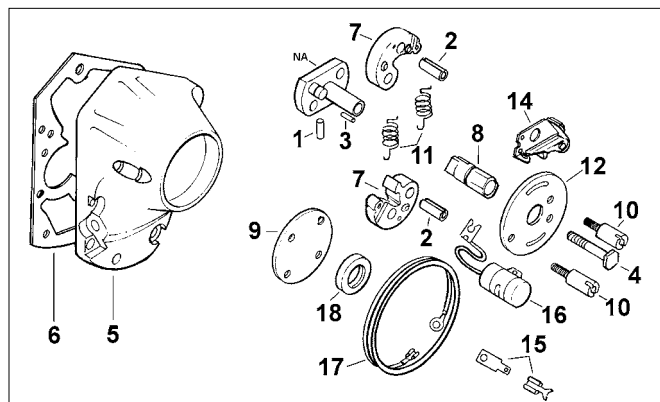
31359 BT 1970-99 STD
31360 BT 1970-99 .005 (25581-70)
31361 BT 1970-99 .9875 (25581-80AB)



16270

Crankcase Oil Screen

16270 24983-00 (each)



Big Twin Cam Cover (Points Ignition) 1970-78

	PCP	OEM	Description	Year	U/M
1	10127	615	Pin breaker plate	70-78	10 Pk
2	10183	620	Pin breaker weight	70-78	10 Pk
3	10115	623	Pin	70-78	10 Pk
4	2556	3570	Timer bolt	70-99	Each
5	45469	25268-84A	Chrome gear cover	73-92	Each
	45471	25256-93A	Chrome as above	93-99	Each
6	79280	25225-70B	Gasket, James .031	70-92	10 Pk
	79282	25225-70-X	Gasket, black w/silicone	70-92	5 Pk
	79283	25225-93	Gasket, paper, cam	93-99	10 Pk
	79285	25225-93-X	Gasket, black w/silicone	93-99	5 Pk
7	2555	32522-70	Advance weights	70-78	Pair
8	30052	32542-70A	Cam, breaker	70-78	Each
9	25109	32591-70	Gasket 2 hole	70-79	10 Pk
	25110	32591-80	Gaskets 4 hole	80-99	10 Pk
10	10844	32601-78	Stud timer cover	L72-E82	Pair
	10846	32606-82	" " "	L82-99	Pair
	10896	As above	Oversize 12/24 threads		Pair
11	12165	32605-70	Advance springs	70-78	10 Pk
12	3333	32618-70	Points plate, bare	70-78	Each
13	N/A	32629-70	Shaft & plate	70-E78	Each
14	724	32661-70	Points	70-78	10 Pk
16	727	32726-30A	Condensers	48-78	10 Pk
18	14074	83162-51	Oil seal cover	70-99	5 Pk



Ignition Wire Hold-Downs

Die-cast aluminum, chrome-plated ignition wire hold-downs neatly secure the ignition wire to the cam cover. They accept a socket head screw (not included). Sold each.

27530 Small wire hold-down for point-type ignitions

27531 Large wire hold-down for electronic-type ignitions.

BT Cam Case 1970-99



S.S. Competition Advance Mechanism-USA

Rivera Engineering's advance unit features: shaft and plate of stainless steel, advance weights that are heat treated and coated with high-tech, low friction polymers; stainless steel pins, and stainless steel washers. Replaces 32505-78A for 1970-99 mechanical advance applications.

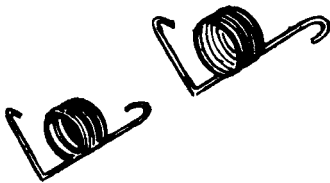
76009 Advance unit



Tuneable Advance Unit 1970-99

Unit features a stainless base, heat treated weights, cam bolt and colour coded springs that allows full advance at 1400, 2000, and 2600 RPM, depending on which springs are selected. Can be used with all ignitions, points, single or dual fire types which utilize an advance unit. Springs also available separately.

28127 Tuneable unit



Advance Weight Spring 1970-99

- | PCP | Description |
|--------------|---|
| 12165 | Black, stock OEM style springs, 1400 RPM (10 pack) |
| 13001 | Heavy advance weight springs for slightly modified stock low compression or mild Stroker. Helps solve minor idle problems, 2000RPM (pair) |
| 13002 | Severe duty weight springs for high compression and heavily modified engines. Also useful for engines experiencing pinging or erratic idling, 2600 RPM (pair) |



681

Advance Unit Assembly 1970-99

Replacement unit assembly for those worn out parts on the stock 1970-E78 models as a complete kit to convert late 1978 models electronic ignitions back to point style ignitions.

- 681** Complete Kit
4396 Points wire only

Rotor & Weight Assembly

Replaces frozen or worn hubs & weights on 1970-99 XL-FX-FL. Includes shaft, weights, springs and cam assembled.

30054 32505-78A



Needle Bearing Advance Unit 1970-99

Advance unit features redesigned weights which house full complement miniature needle bearings for perfect balance and centrifugal actuation. Unit includes base, cam, weights with installed needle bearings; and stock springs. Fits BT 1970-99, XL 1971-on and can be used with all ignitions, points, electronic, single, or dual types which utilize an advance unit. Springs available separately and allow full advance at RPMS listed.

28123 Complete unit

Timing Cover Screw Kit All Big Twins 1970-92

- 1748** Acorn Style
5353 Allen Style
24038 Stainless Steel



BT Cam Cover



Polished Billet Cam Cover, Big Twins 1993-99

Made by Jims from 7075-T651 aluminum with a tensile strength of almost triple the stock cast unit. This cam cover is right to the center line of the cam bushing and pinion bushing. This is a two piece construction, inner cover houses the cam bearing and seal. O-Rings are used with both covers to offer superior sealing. Two mounting bolts are all that show at final assembly.

31296 1993-99 (25254-93A)



BT Nose Cone Gear Covers

These covers fit Big Twin models 1973-on with end oiling models. Covers come with bushings installed and either chrome or polished finish. Includes seal.

PCP	Description
45469	1973-92 Chrome (25268-84A)
45470	1973-92 Polished
45471	1993-99 Evo Chrome
67400	1973-92 Chrome, U.S.A. (25268-84A)
67401	1973-92 Polished, U.S.A. (25258-80B)
67402	1993-99 Evo Chrome, U.S.A. (25256-93A)
67403	1993-99 Evo Polished, U.S.A.



Jims BT Chrome Cam Cover Kit

31269 BT 1993-99



Polished Chrome Timing Cover Screw Kit

8761 FX 1970-92, EVO

Colony Cam Cover Screws



Chrome Allen Style

PCP	Application
5353	Shovel and Evo 1970-92
9819	BT 1993-99 (no tTC 88)
9946	TC 88, Dyna, FLT 1999-on



Chrome Acorn Style

PCP	Application
1748	BT 1970-92
9820	BT 1993-99 (not TC 88)
9945	TC 88, Dyna, FLT 1999-on

Chrome Cap Style

PCP	Application
8466	BT 1970-92

BT Cam Cover



310203



310211

S&S Crankcase Gear Cover Kits 1973-99

Covers are machined from 356-T6 aluminum castings and feature a distinctively different from stock appearance. Kits include an inner gear cover and a decorative bolt-on outer cover. Will accept either points or an electronic ignition system.

Flange	Year
310211	1973-92
310212	1993-99
Flangeless	Year
310203	1973-92
310204	1993-99



Polished Billet Flame Points Cover

Radical flamed points cover features skull motif to fit BT 1970-99.

59707

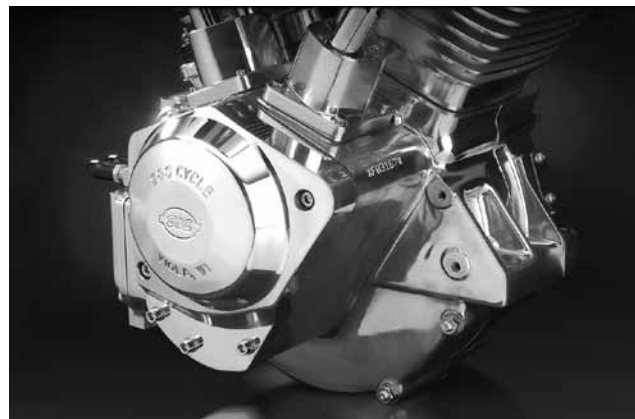


310335

S&S Polished Billet Gear Cover Kits 1973-92

The 1973-92 style polished gear covers fit stock 1973-92 engines and are now standard equipment on S&S polished evolution style engines. The 1973-92 gear covers have the required breather passage for engines that have the crankcase breather routed directly out of the crankcase. Chromed billet aluminum covers fit 1993-99 and are perfect for stock engines or any engines built with 1992-99 stock flywheel assemblies as they are machined to accommodate the larger stock pinion gear nut. The 1993-99 gear covers do not have the breather passage required for "case breathing" engines and should only be used with engines that have the crankcase breather routed through the cylinder heads. Kits include gear cover, ignition cover, gaskets and mounting hardware.

PCP	Description
310335	Complete kit 1973-92
310336	Complete kit 1993-99
310332	Ignition cover only



S&S Billet Gear Cover for Evo Style S&S Engines with Crank Position Sensor Ignition

This gear cover is intended for engines that make use of a notched flywheel and crank position sensor for ignition timing. It is not machined to accept an ignition system. Shorter than standard type gear covers, it is not subject to cam seal leaks, since the cam is entirely contained within the cover. Solid one piece polished cover is machined from billet aluminum and features the S&S logo. Direct replacement for gear covers supplied on S&S engines equipped with IST ignition or Variable Fuel injection.

310313

BT Cam Cover



45049



Chrome Cam Covers BT 70-92

Stamped steel covers completely enclose your cam and point covers like a second skin. Each cover includes all of the necessary mounting hardware.

- 45048 Riveted version (rivets are non-functional)
- 45049 Plain version

Chrome Nose Cone Cover

This cover slips over your existing nose cone and mounts up with the existing hardware.

- 45332 BT 1970-92



59171

45482

45483

Chrome Skull Design Cover

PCP	Type	Application
45482	Points	1970-98 BT
45483	Points	1971-on XL
59171	Derby	1970-98 BT
59172	Derby	1999-09 BT



Chrome Nose Cone Cover BT 1993-99

This steel cover slips over your existing cam cover with hardware included.

- 45051



Flame Covers

Chrome plated diecast designs for BT 1970-on.

PCP Description

- 45165 Points cover 1970-98
- 45523 Points cover 1999-on

59184



59186



Chrome Maltese Cross Covers

PCP	Cover	Type
59184	Derby	3 Hole BT
59185	Derby	5 Hole BT
59186	Points	2 Hole
59187	Points	5 Hole

Point Covers Multi-Fit



“Dome” Point Cover
A beautiful chrome die-cast point cover for all BT & XL 1970-99. Replaces 32584-88T.
3409



Live to Ride Point Covers

For all Harleys 1970-99. These highly detailed covers feature a three dimensional eagle emblem available in our chrome or our gold overlay version. Fits ALL Big Twins 1970-99 with Horizontal Holes

45112 Chrome (Away of Life)
45212 Gold Overlay (Eagle Spirit)

Fits ALL XL's '70-on w/Vertical Holes

45113 Chrome (Eagle Spirit)

Domed Points Cover

Fits side to side and top to bottom type points covers. Chrome plated with six non-functional buttonhead Allen Screws for that high-tech “racers only” look. Complete with hardware.

5486 XL's 1971-85, BT 1970-99 pre TC



44067



44068

Bird Design Point Covers

PCP Application

44067 XL 1971-on

44068 BT to 1999



3102

3102 Chromed Ribbed XL



59001

Spinner Points Cover 1970-99

Features a die-cast chrome “HOLY” cover which spins onto a backing plate. This backing plate may be painted for a flash of colour.

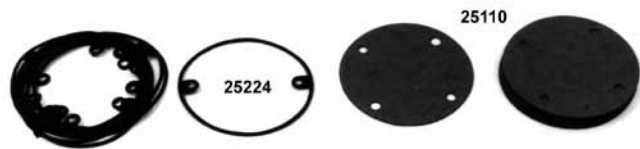
59001



Point Cover Allen Screws

Fits BT & XL 1970-On

PCP	Style	Length	Year
2864	Acorn	.400	70-99
5256	Cap	.400	70-99
8492	Gold Cap		70-99
5356	B/Head	.500	70-78
5357	B/Head	.600	79-99



Ignition Cover Gasket

Use on all 1970-99 Twins.

Preston	James	Type (10 pack)
25109		2-Hole (32591-70)
25110	79309	4-Hole (32591-80)
25224	-	2 Hole rubber

S&S Oil Pump



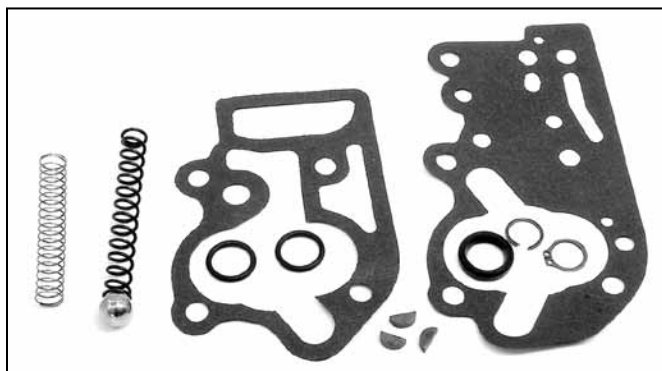
Standard Billet Oil Pump Kits

Note that some kits include a breather gear and shim kit with an oil pump assembly. Primary chain oiling is automatic and precise eliminating potential damage to the primary chain or dry clutch because of too little or too much oil.

Oil pump only kit includes supply gears, return gears, drive shaft, drive shaft keys, drive shaft snap rings, check ball, check ball spring, pressure valve, pressure valve spring, cover screws with o-rings, miscellaneous hose fittings, plugs, screws, paper gaskets, and mounting hardware with both early style 1/4"-24 and late style 1/4"-20 mounting bolts.

Caution:

Incorrect gear fit causes binding and premature wear or damage to gears which may also result in damage to other engine components.



S&S BT Billet Oil Pump Gasket Kits

S&S Oil Pump Gasket Kit

316271 1936-91 with paper gaskets

316273 1992-99 with paper gaskets



S&S BT Oil Pump Gasket Kit

Mylar gasket kit fits BT 1936-99.

316276 1992-99

316274 1936-91

S&S BT Oil Pump Kit Replacement Parts

Pump Body

316050 1973-91

316051 1992-99

Pump Cover 1992-99

316062 Standard

316063 Custom



Oil Pump Assembly Only

316203 1973-91 with universal cover

316206 1992-99

316205 1992-99 with universal cover

Oil Pump Assembly with Drive Gear, Breather Gear, Shims

316295 1978-91

316296 1992-99

Oil Pump w/Custom Cover, Without Gears

316204 1973-91

316207 1992-99

Oil Pump w/Custom Cover and Gears

316240 1978-91

316247 1992-99



S&S Oil Pump Master Rebuild

Fits all S&S pumps 1936-99

316275 Kit

BT Oil Pump



S&S High Volume/Pressure Billet Oil Pump

This pump was designed for the sidewinder plus long blocks. These engines feature piston cooling jets that spray oil on the underside of the pistons. The high volume/high pressure pump is recommended for any engine with 1992-99 style crankcases. These pumps feature a new tooth profile which provides increased supply and return oil volume. Supply gears are 9% wider than stock and return gears are 28% wider than stock to help prevent oil carry over. Even with wider gears the pump remains the same width as a stock pump. These pumps are available with or without breather gears and with a universal or standard cover. The standard cover has the feed and return lines in the 92-99 stock location. The universal cover is a custom cover that provides a number of feed and return options for the custom builder.

Oil Pump Only (no breather gears) 1992-99

- 316208** With universal cover
- 316209** With standard cover

Oil Pump with Breather Gears 1992-99

- 316302** With universal cover
- 316298** With standard cover

Oil Pump Only (no breather gears) 1984-91

- 316214** With universal cover

Oil pump Kit with Gears 1984-91

- 316307** With universal cover

S&S HVHP Oil Pump Rebuild Gasket Kit

High Volume High Pressure oil pump gasket kit includes key and retaining ring.

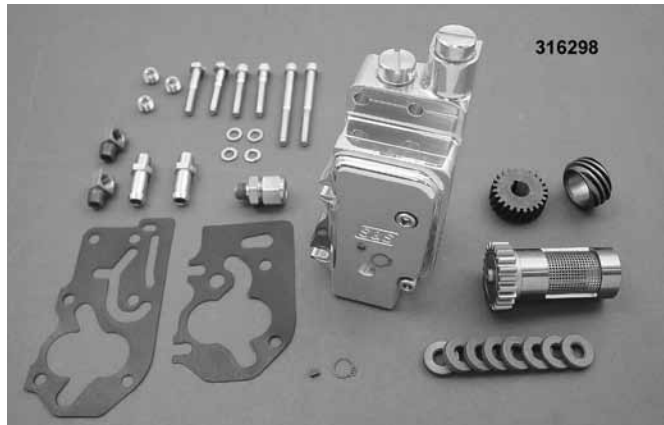
PCP	Application
316308	1984-91 BT
316299	1992-99 BT



Oil Pump Top Cover

Chrome plate fits the gap between engine and transmission on FLT, FLHT, FLHRC, FLHS, FLHR, FLTR 1993-98 models with ribbed or classic oil pump cover. Does not fit 1999-on Twin Cam engines. Replaces 66090-96A.

64201



BT Oil Pump Fitting Kit

PCP	Years	Type
73598	1984-91	Stock
73599	1970-91	Custom



Sifton Oil Pump BT 1992-99

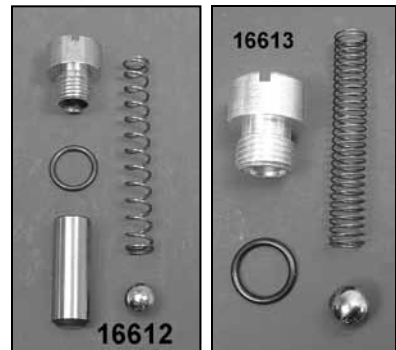
Features geo-rotor compact cad/cam design, modular billet aluminum construction, superior scavenging, increased feed flow rate which eliminates wet-sumping in crankcase.

21695

Oil Pump Valve Kits

PCP **Application**
16612 Relief valve/
 bypass
 (spring, plug, valve)

16613 Check valve
 1981-99
 (ball, spring, cap)



BT Oil Pump



Topline Oil Pump Assembly 1973-99

Complete late model pump includes all internal components for Big Twins. These are a replacement for 1973-99. Can be used on earlier models with case modification.

29800 1973-91 (26190-73)
29802 1992-99 (26053-92)



Jims Polished Billet Aluminum Oil Pump

CNC machined Flow Pro 1 pump will provide an increase in oil return (scavenge) volume over stock pumps. Provides increased horsepower by decreasing drag on the flywheels and other rotating parts. Choice of end cover for custom or stock oil line connection. Feed and return gears are matched to each body. Available for late 1973-present Evo BT 74" to 140" motors. 1981-on bolts on with no modification. 1973-1980 cases will require a simple drilling for oil drain hole by using JIMS #2286 drilling tool. No provisions for front or rear chain oiling.

31165 BT 1973-91 w/top feed and return
31167 BT 1973-91 w/bottom feed and return
31168 BT 1992-99 w/bottom feed and return
31166 BT 1992-99 w/top feed and return



BT Oil Pump Assembly

Features improved oil pump pressure regulation that will ensure correct oiling to all areas of BT engines 1973-on. Kit includes all necessary fittings, snap rings, keys, gaskets and mounting bolts. Can be used with either chain drive or belt drive models. **Note:** Available with breather which also includes drive gear gasket, breather gear and washers.

Pump Only	Pump W/ Breather	Year	Finish
30063	59564	1973-91	Polish
30064	59565	1973-91	Chrome
30065	59566	1992-99	Polish
30066	59567	1992-99	Chrome



Oil Pump Rebuild Kit

Includes all gaskets, seals, clips, keys, check ball for 1981-on FX-FL Big Twin.

Oil Pump Rebuild Kits

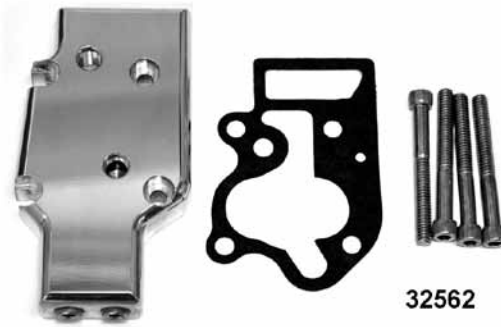
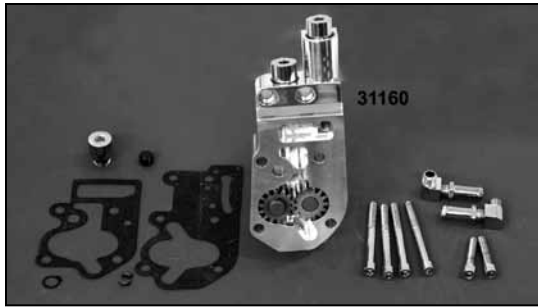
James	Fits	Material
79819	1981-91	Paper
79818	1981-91	Mylar
79820	1992-99	Paper
79837	1992-99	Metal gaskets



Colony Allen Plug Set

Fits BT 1981-99 chrome plated polished allen.
72074 3 Pack

BT Oil Pump



Delkron Oil Pump Cover

This oil pump cover fits all Delkron oil pump bodies, and is manufactured from the same 6061-T6 billet aluminum for added durability. Pump cover returns the oil from the pressure relief valve to the feed side preventing overload of the scavenger return gears.

32562 BT 1992-99

Jims Polished Billet Aluminum Oil Pump

CNC machined Flow Pro 1 pump will provide an increase in oil return (scavenge) volume over stock pumps. Provides increased horsepower by decreasing drag on the flywheels and other rotating parts. Feed and return gears individually matched to each body. Available for late 1973-on BT 74" to 140" motors. 1981-on bolts on with no modifications. Note: 1973-80 cases will require a simple drilling for oil drain hole. Use Jims #2286 drilling tool.

31159 Oil pump body BT 1973-91

31160 Oil pump body BT 1992-99



Sifton Oil Pump Pressure Relief Plunger Tool

This tool is designed to safely remove the pressure relief plunger from oil pump without damaging the oil pump bore. This tool can also be used in priming of the oil system before startup. Use on all BT with aluminum type oil pump.

26152



Billet Oil Pump Cover

Polished cover features late oil pressure relief to return excess oil to feed side of pump. Use with all aluminum oil pump bodies. No provision for front or rear chain oiling.

31161 BT 1973-91

31163 BT 1992-99



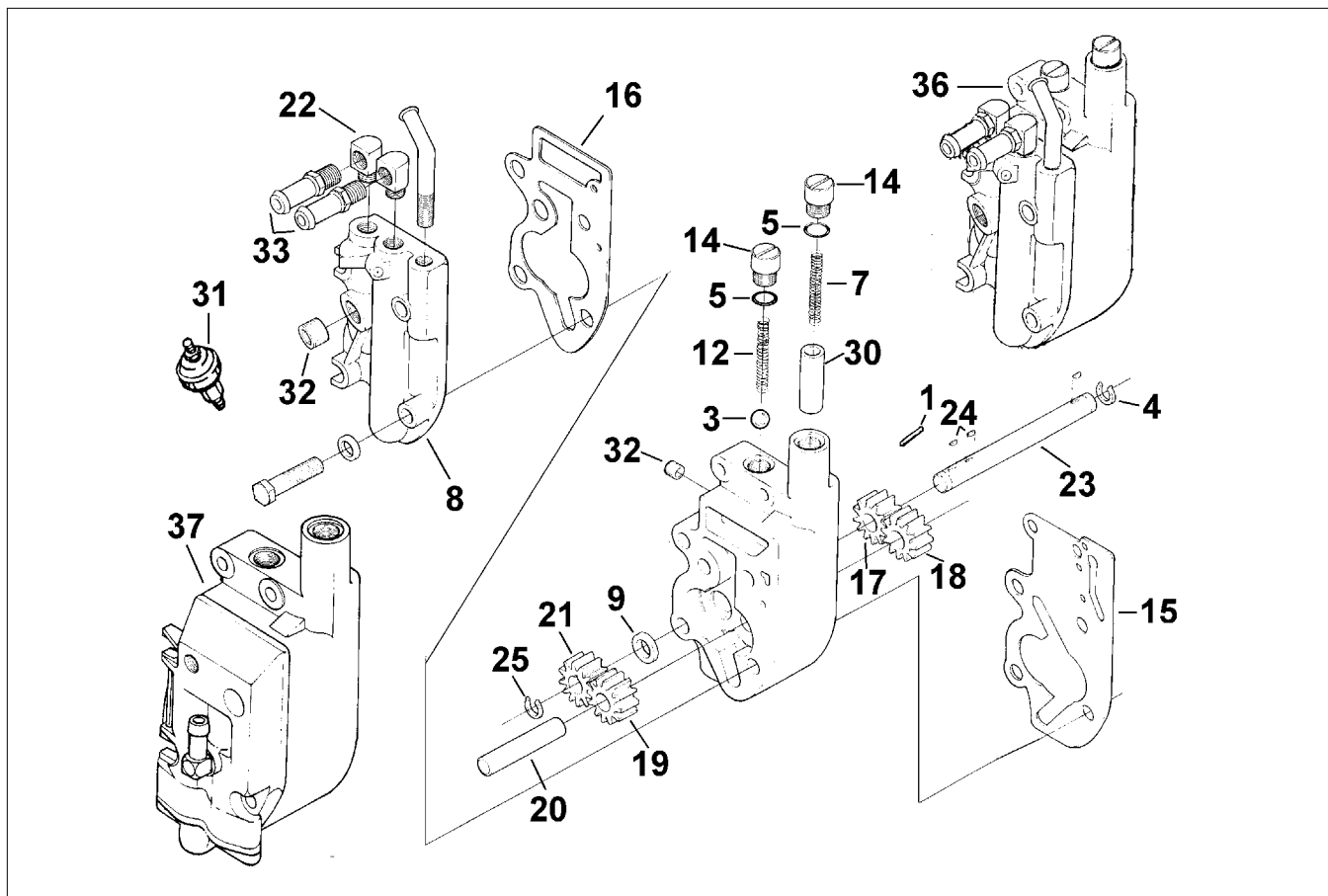
Billet Oil Pump Cover

Polished cover is designed to fit models not having the oil tank under transmission. Features late oil pressure relief to return excess oil to feed side of pump. Use with all aluminum oil pump bodies. No provision for front or rear chain oiling.

31162 BT 1973-91

31164 BT 1992-99

Oil Pump BT 1984-99



	PCP	OEM	Description	Year	U/M		PCP	OEM	Description	Year	U/M
1	10102	239	Pin valve stop	83-99	10Pk	19	30102	26326-62A	Drive idler gear	L62-99	Ea
3	15574	8873	Ball chk valve 3/8"	52-on	10Pk	20	30104	26327-68	Idler gear shaft	68-99	Ea
4	11003	11002	Retaining ring	68-99	10Pk	21	30106	26328-74	Drive gear	41-99	Ea
5	14505	11105	O-Ring chk valve (2)	79-99	10Pk	22	10520	26338-68	Elbow fitting (2)	68-92	5 pk
7	13132	26207-83	Relief valve spring	83-99	10Pk	23	1408	26346-70	Drive shaft	68-99	Ea
8	30109	26216-84	Cover, oil pump	84-92	Each	24	10310	26348-15	Key, drive shaft (3)	68-99	10pk
	30112	26270-92	Outer cover, oil pump	92-99	Each	25	11060	26348-36	Snap ring, shaft	36-99	10pk
9	14032	26227-58	Oil seal	68-99	5 Pk	30	30113	26400-82	Valve oil pump	82-99	Ea
12	13133	26262-80	Check valve spring	81-99	10Pk	31	5672	26561-84	Oil switch 5 speed	84-99	Ea
14	30111	26263-80	Plug check/relief	81-99	Each	32	10545	45830-48	Oil plug (2)	48-99	5 pk
15	79141	26273-80B	Gasket body paper	L80-91	10Pk	33	10575	63533-41	Fitting oil line (2)	41-99	5 pk
	79142	26273-92	Gasket body paper	92-99	10Pk	36	29800	26190-73	Oil pump assembly	73-91	Ea
16	79143	26276-80A	Gasket cover paper	L80-91	10Pk	37	29802	26053-92	Oil pump assembly	92-99	Ea
	79145	26276-92	Gasket cover paper	92-99	10Pk						
17	30100	26315-68A	Drive gear	68-99	Each						
18	30101	26317-68A	Idler gear	68-99	Each						



Chrome Oil Pump Covers for Big Twins

These chrome covers were designed to bolt-on to stock aluminum oil pumps, offering improved styling and ease of installation. They fit all Big Twins from 1968 to present and do a great job of enhancing the right side of the motorcycle.

- 45031** Fits all Big Twin models (except Dyna Glide™) **without** a fitting for the primary chain oiler 1968-91
- 45030** Fits all Big Twin models **with** a fitting for the primary chain oiler (except Dyna Glide™) 1968-91
- 45027** Fits all Big Twins 1992-99

BT Oil Pump



Colony Oil Pump Plugs

Oil Screen Plug

FL, FX 1981-99 with o-ring (26263-80).

9644 Chrome

9645 Cad

Oil Pump Check and Relief Valves

FL, FX 1981-99 with o-ring (26263-80).

9634 Chrome

9635 Cad



Tappet Oil Screen, Oil Pump Check Valve, Relief Valve Plug

Fits 1981-on Big Twins.

Replaces OEM P/N 26263-80

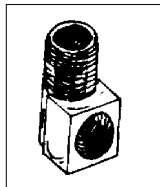
3583

Tappet Oil Screen, Oil Pump Check Valve, Relief Valve Plug Set

Complete set of 3 plugs fit 1981-on Big Twins.

Replaces OEM P/N 26263-80

3576



Oil Pump Fitting

Chrome 90 degree fitting for all 1968-92 Big Twins. Will also work on many custom applications. (26338-68)

10520 5 Pack



Pro Just Relief Cap

Without oiler for 1986-99 models.

30401



Accel Oil Pressure Switch

USA-made oil pressure switches with precision calibrated heavy duty contacts, plastic insulator and a bright finish. Fits Evo BT 1984-99 (not models w/electric oil pressure gauge).

5672 26561-84



Tappet Oil Screens (each)

3378 24981-70 1970-99

Oil Screen Springs for Tappet Oil

13127 24982-70 1970-99 (5 pk)



Colony BT Oil Tappet Screen/Spring 1970-99

Fits all 1970-99 BT and replaces OEM 24981-70 oil screen and OEM 24982-70 spring.

72146



Chrome Allen Screws

5337 BT 78-on

9762 FXST 92-99, Dyna, FLT 92-98

9774 XL 91-on



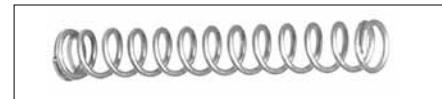
"Super-Pump" Spring Kit, 1972-91 Big Twin

Finally, an answer to low oil pump pressure on 1972-91 Big Twin oil pumps!

This kit consists of three separate colour-coded springs made from spring steel. Each spring applies more pressure on the relief valve plunger, thus controlling the output pressure of the oil pump. The average output pressure, (taken at road speed, 55-60 mph) would be as follows: Blue spring 20psi, Yellow spring 24psi, Red spring 28psi. At idle the pressure drops no lower than 10psi.

The customer can select the spring desired depending on weight of oil used, driving habits, climate, etc... Plus, springs are easily changed if one of these variables change. These springs work well on S&S and Rev-Tech pumps as well.

13260



Crane Oil Pump Relief Valve Spring

Increases engine oil pressure by 2-3 psi. Highly desirable for extended engine life. Fits 1936-98 "Big Twins"®, including Evolution®.

34548



Jims BT Oil Pump Shaft Kit

31193 1968-99

Chrome Tight Spot Oil Pump Fitting Set

Features a 5/16" allen socket for easy installation or removal. Includes 1/8" NPT nipples.

16329

BT Pinion Gear



Jims BT Oil Pump Drive Gears

Precision machined and heat treated.

- 31350** Jims 24T 1973-91 (26345-73)
- 31351** Jims L1985-89 (26349-84)
- 30153** Preston, as above



Topline BT EVO Pinion Gears 1993-99

- | PCP | Colour |
|--------------|--------------------|
| 29086 | Orange (24040-93) |
| 29087 | White (24041-93) |
| 29088 | Yellow (24042-93) |
| 29089 | Red (24043-93) |
| 29090 | Blue BT (24044-93) |
| 29091 | Green (24045-93) |
| 29092 | Black (24046-93) |



Topline BT EVO Pinion Gears 1990-92

- | PCP | Colour |
|--------------|-------------------|
| 29044 | Yellow (24042-90) |
| 29045 | Red (24043-90) |
| 29046 | Blue (24044-90) |
| 29047 | Green (24045-90) |
| 29048 | Black (24046-90) |



Topline BT 6 Tooth Pinion Drive Gear 1993-99

- 30133** 26354-93



Topline Pinion Pump Gear BT 1990-92

- 30125** 26354-90

BT Pinion Spacer 1990-92

- 11534** Each (24704-90)



Colony Oil Pump Mounting Kit

Chrome polished allen bolts for Evo 1978-91.

- 8747**

Custom



Chrome Acorn Style

- 1821** Big Twin 1978-91
- 9763** FXST 92-99, Dyna, FLT 92-98



Chrome Allen

- 5337** BT 78-on
- 9762** FXST 92-99, Dyna, FLT 92-98
- 9774** XL 91-on

OEM-Style



Stock OEM Style

- 5334** BT 1978-91 Chrome
- 9787** BT 1978-91 Zinc

BT Breather/Pinion



Jims Big Twin Pinion Gear 1977-89 (24040-78)

PCP	OEM	Size	Colour
31309	24040-78	1.4751-1.4756	ORANGE
31310	24041-78	1.4745-1.4751	WHITE
31311	24042-78	1.4737-1.4745	YELLOW
31312	24043-78	1.4729-1.4737	RED
31313	24044-78	1.4721-1.4729	BLUE
31314	24045-78	1.4715-1.4721	GREEN
31315	24046-78	1.4710-1.4715	BLACK

Jims Breather Valve Gear

Steel breather valve for Big Twins. Made from aerospace quality steel and CNC machined to highest standards for precise control of exhausting crank case pressure. Designed to replace stock plastic valve gear. Also available in +.030" oversize to correct a damaged breather valve hole.

PCP	Description
31254	BT L77-99 standard
31255	BT L77-99 +.030" oversize



Jims Breather Gear With Elongated Oil Hole

This steel breather gear has an elongated rear hole to aid in better crankcase flywheel cavity vacuum. Designed to replace the stock plastic breather valve gear.

31696 Fits late 1977-99 BT single cam only

Sifton Air Ramp

Fits S&S/Sifton breather gear on 1936-99 models to remove more air and oil from crankcase. Requires removal of oil screen for installation.

34021



S&S Big Twin Pinion Gears and Related Parts

Engine Year/ Pinion Shaft	Largest			Average			Smallest
1977-89	Orange	White	Yellow	Red	Blue	Green	Black
	334141	334142	334143	334144	334145	334146	334147

Related Items

24T Pump drive gear 1939-89		<p>Note: Gear sizes are listed from largest (orange) to smallest (black). This colour coding sequence is identical to stock H-D coding. When in doubt use a gear from the middle to the small side of the range. A combination of smaller gears should provide adequate gear under most circumstances. Both excessive and zero gear lash combinations cause engine noise, but no clearance or zero gear lash causes binding and premature wear.</p> <p>** Requires OEM 26345-73 oil pump drive shaft drive gear</p>
Pinion drive gear 1954-89	334232**	
Gear spacer 1954-89	334289	
Gear nut 1954-89	334244	
Keys 1954-89 (10 pk)	10306	

BT Breather



77101



4634

Crankcase Breather Assembly

Mount your breather in plain view instead of hiding it behind your engine or transmission case. Comes complete with a one-piece filter molded to a light weight chrome end cap, a chrome zinc die-cast mounting base with 5/16" inlet and a hose clamp. The hose clamp holds the filter to the base when the vent hose is installed.

- 77101** Complete assembly
- 4634** Replacement Filter ONLY (no chrome)
2" diameter x 1/2" height



334242



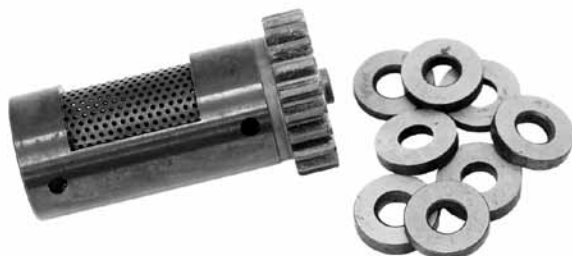
334250

S&S BT Steel Breather Gear and Valve Gear

Machined breather valve and gear by S&S. Designed to replace the stock steel or plastic OEM parts. Offered in stock duration only in stock O.D. and +.030 oversize (for use in worn or damaged breather holes). Washers are also available separately in sets

- | PCP | Description |
|----------------|--|
| 334241 | Gear only, Std size L1977-99 (25313-77A/B) |
| 334242 | Gear only, +.030 L1977-99 |
| 334250* | Valve gear kit, Std L1977-99 (25313-77A/B) |
| 334260* | Valve gear kit, +.030 L1977-99 |
| 334249 | Washer set, 8pc, all years |

***NOTE: Requires the use of 1977-on style and diameter cam and pinion gears; and steel spacing shims.**



ET Breather Kit BT 1978-85

30127



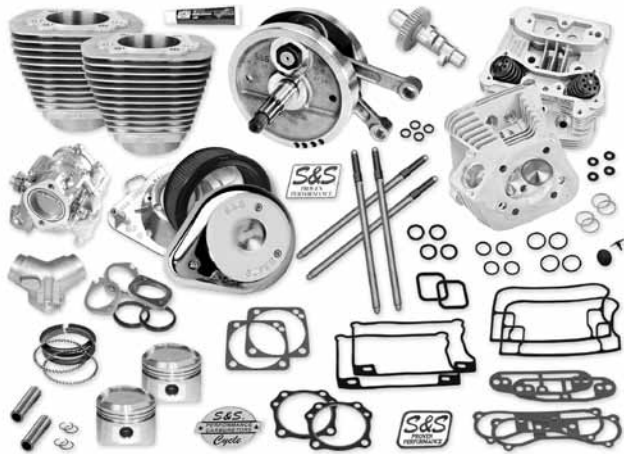
S&S Breather Reed Valve for BT Evo Engines

The functional part of the S&S breather reed valve consists of three steel reeds that are normally in the closed position. When the pistons travel downward in the cylinders, the air in the crankcase is compressed and pressure in the crankcase below the pistons increases. This pressure causes the reeds to open, allowing the air and oil mist in the crankcase to escape into the cam chest. When the pistons travel back upward in the cylinders, a vacuum is created in the crankcase that causes the reeds to close which prevents air from entering the crankcase. This results in greatly improved oil scavenging and the maintenance of a slight vacuum in the crankcase.

Installs easily, just insert into the breather valve cavity. Available in standard diameter to replace stock rotary style breather valve and also +.030" diameter for engines with heavily damaged breather bores.

- | PCP | Size |
|---------------|---------------------------|
| 312096 | Standard (1993-99) |
| 312100 | +.030" Oversize (1993-99) |

S&S EVO



S&S 96" EVO FLSS Hot Set Up Sidewinder Kit

Recommended for the serious performance enthusiast. Stock crankcases must be bored to 3-5/8" to accept big bore cylinders. The 96FLSS Hot Set Up yields 96 cubic inches at 10.2:1 compression ratio. Kit includes 4-5/8" stroker flywheels assembled with mainshafts and connecting rods; 3-5/8" bore Sidewinder cylinders and complete pistons, a 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 chrome moly pushrods, an HL2T kit, a Super E carb kit and installation instructions.

Kits with 10.2: CR.

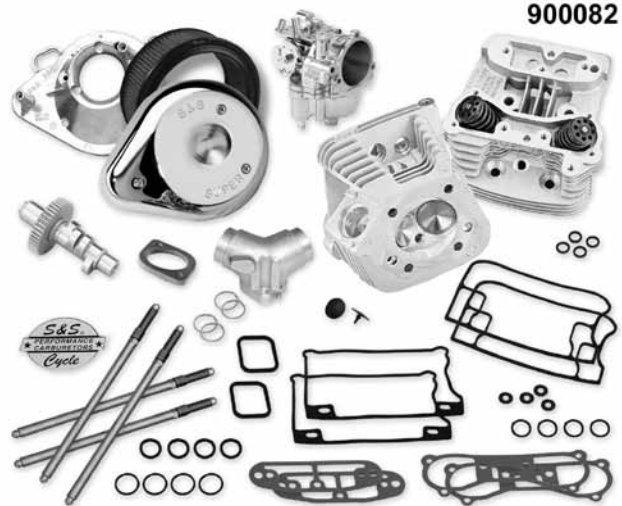
PCP	Years	Finish
900120	1984-92	Natural
900121	1984-92	Black
900122	1993-99	Natural
900123	1993-99	Black



S&S 96" EVO Sidewinder Kit for BT EVO

Designed for BT EVO 1984-99. These flywheels are assembled with heavy duty rods, balanced and trued. Includes series 1930 forged pistons, complete with rings, pins, retainers, gasket set and instructions. Note: Stock cases will require a crankcase boring operation to accept these cylinders. For 1990-99 models you must order #334148 pinion shaft conversion kit. Kits feature 96" with 3-5/8" bore, 4-5/8" stroke and a 9.75:1 compression ratio.

PCP	Finish
917660	Natural
917661	Black



900082

80FLSS 80" S&S EVO Hot Set Up

This high performance stock displacement V2 motor kit is easily installed providing unforgettable results. The new **S&S Super Stock** heads provide extra kick with a 25% higher flow than stock Big Twin Heads. Improved breathing and maximum combustion efficiency provide impressive performance gains from low end to top end. The 80FLSS installs easily because it is assembled like a top-end rebuild from dependable performance engineered components.

80FLSS 80 cubic inch kit includes: Super Stock Cylinder head kit with valves and springs installed, manifold without rings and flanges, top end gasket, a 561 cam, adjustable chrome moly pushrods, an HL2T kit, a Super E carb kit, assorted hardware, and installation instructions.

900082 With Super E 1993-99 (no pistons)
922026 Pistons STD forged, recessed dome 3-1/2" 10:1



990014

S&S 3-5/8" Superstock Evo Head Kits

Kits include a set of assembled heads clearanced for .631 lift. Kits also include S&S # 90-1060 3-5/8" forged, low compression standard pistons with rings, pins and clips, necessary gaskets, manifold and clamps.

S&S cylinders must be ordered for use with these kits.

990014	1984-92 LC
990015	1993-99 LC



S&S 89" BT Evo Stock Bore Hot Set Up Kit

For 1984-99 Evolution Big Twins with stock H-D cylinder heads. The Hot Set Up 89 produces significant performance increases at a reasonable cost and offers a number of options for future performance increases.

89 FL Hot Set Up kit yields 89 cubic inches with an approximate compression ratio of 9.25:1. Kit includes an 89" stroker with 4-5/8" stroker flywheels assembly, an S&S 561 cam kit, adjustable chrome moly pushrods, valve springs and a Super E carb kit. Note: 1977-89 style pinion shaft gears, spacer and nut are required when installing this kit. For installation in 1990-99 on scratch built engines, order S&S pinion shaft conversion kit #334148. This kit requires special S&S 92-2426 series pistons purchased separately.

PCP 89" Hot Set Up Kits

322088 1984-92
322078 1993-99

922426



S&S 92-2426 Series Pistons

Fits 89" BT V2 stock heads and offer 10:1 compression

PCP	Size
922426	STD
922425	+ .005
922427	+ .010
922428	+ .020
922429	+ .030
917211	Natural cylinder and piston kit
917711	Black cylinder and piston kit

S&S Two-Piece Socket Kit

Special S&S two piece compression release socket kit allows in-frame installation of S&S compression releases and protects wiring from damage during installation.

530045



S&S Cable Knob

Billet accessory knob for manual compression release.

508701



89" Hot Set Up 1984-99 Big Twin

89 FL Hot Set Up yields 89 cubic inches with an approximate compression ratio of 9-1/4:1 and includes an 89" Stroker kit with 4-5/8" balanced stroker flywheels and 3-1/2" bore complete pistons, mainshafts and rods assembled, a 561 cam kit, a Super E carb and installation instructions.

950018

**1990-99 applications will also require #334148.

904925



S&S Manual Compression Release Kit

S&S manual compression releases are activated by a cable similar to a choke control. Before starting, the handle is pulled, which opens the compression releases. When the engine fires, the increased cylinder pressure automatically closes the compression releases. The S&S manual compression releases can be used with any style rocker covers.

904925 Manual

904915 Electric

904915



S&S BT EVO



S&S Replacement Flywheels BT EFI 1995-98

4-1/4" and 4-5/8" stroke EFI flywheels for 1995-98 fuel injected BT are intended for use in stock replacement and fuel injected performance applications. The drive side flywheel features a pressed in sprocket shaft for improved rigidity. Standard tapered S&S crankpin and pinion shaft are used for ease of service. Notches on the drive side flywheel are compatible with stock EFI system as well as the new S&S Variable Fuel Injection (VFI) system.

PCP	Application
322145	4-1/4" EFI style flywheels
322146	4-5/8" EFI style flywheels



S&S Big Twin Sprocket Shaft Assembly 332004 1970-on S&S SE or SL flywheels



S&S 1981-89 Big Twin Pinion Shaft Assembly

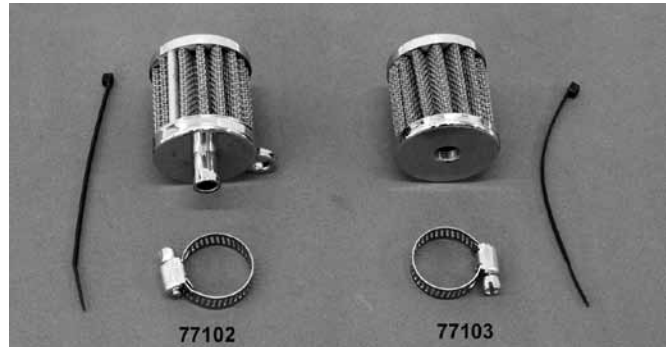
332027 Fits std size S&S BL, SL, or stock flywheels.
Replaces 24006-80, 24006-83, 24006-87
332028 As above, +.001 oversize. 1.251" (24020-87)



Chrome Billet Crankcase Breather

Includes 1/8" NPT fittings.

77106



Chrome Crankcase Breathers

PCP Application

77102 3/8"

77103 1/8" NPT





S & S Crankshaft Assemblies (Not EFI)

S&S flywheel kits are engineered from the strongest components for maximum potential engine life. Each kit is assembled with heavy duty rods, both shafts and is trued and ready to install.

4-1/4" Stroke (Stock) BT Evo 89"

950011* BT Evo 1984-89

950012 BT Evo 1990-99

4-1/2" Stroke BT Evo

950013* 1984-89

950014 1990-99

4-5/8" Stroke BT Evo

950015* 1984-89

950016 1990-99

*Note: Will fit 1973-84 BT is .001" oversize wrist pin is used



Pinion Shaft Conversion Package 1990-99

Kit includes 1977-89 pinion gear, 1954-89 pinion shaft oil pump drive gear, 1954-89 pinion shaft gear spacer, and 1954-89 pinion shaft gear nut. Average size (red)- fits S&S shaft 33-2024, 33-2029, or 1977-89 shaft.

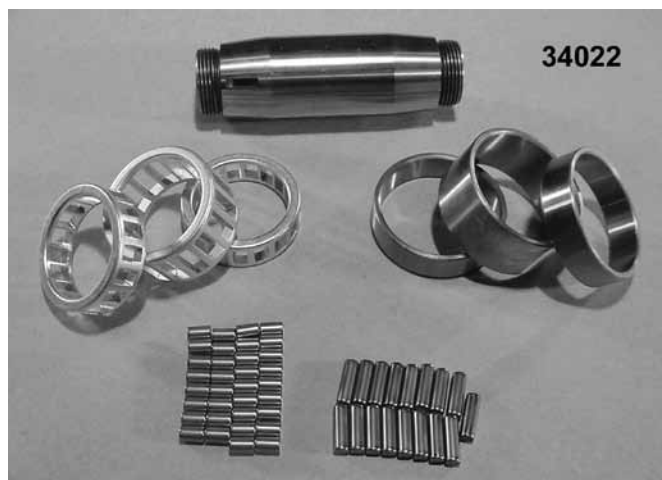
334148



S&S 89" BT EVO Kit, 4 5/8" Flywheels 9 1/4:1

Kit includes: flywheel, sprocket shaft with key and nut, and cast 3 1/2" standard bore pistons. 89" Stroker kit used with stock cylinder length. Good for trips with excellent engine life expectancy. Fits 1981-86.

322489 Kit as pictured .005 O.S.



BT 3 Hole Crank Pin Kit

Includes 3 hole crank pin, rod races, standard rod rollers and retainers.

PCP Application

34022 L1981-86



S&S Service Components

Flywheel Thrust Washers

322019 Replaces 6506 (each)

		CUBIC INCH CHART						
		STOCK 74		STOCK 80				
STROKE...		3 1/2	3.968	4 1/4	4 1/2	4 5/8	4 3/4	5.00
B O R E	3 7/16	64.8	73.7	78.7	83.4	85.7	88.0	92.8
	3 1/2	67.2	76.3	81.6	86.6	89.0	91.4	96.1
	3 5/8	72.1	81.7	87.4	92.9	95.5	99.0	103.2
	3 11/16	74.6	84.7	90.7	96.1	98.8	101.5	106.8
	3 7/8	79.9	90.6	97.0	102.8	103.7	108.5	114.2
	3 3/4	82.3	93.4	100.1	106.0	108.9	111.9	117.8
	4.000	87.9	99.7	106.8	113.0	116.1	119.3	125.6
	4 1/8	93.4	106.0	113.5	120.2	123.5	126.9	133.6
	4 1/4	99.2	112.6	120.5	127.6	131.1	134.7	141.8



S&S Shaft Assembly

PCP Application

332336 Pinion shaft +.001 XL
1986-on

Rod Components Multi-Fit



Wrist Pin Bushings

Sold in pairs. Bronze OEM type

PCP	Jims	OEM	Size	Fits
18637	31356	24316-99	STD	TC 1999-on
18644			STD	TC 1999-on
18645			.002	TC 1999-on
18646			.010	TC 1999-on
18507	31354	24334-36	STD	BT 1936-98
18597		N/A	.002	BT 1936-98
18508	31355	N/A	.005	BT 1936-98
18509		24335-36	.010	BT 1936-98
18504	31352	24331-36	STD	XL 1957-on
18598		N/A	.002	XL 1957-on
18505	31353	N/A	.005	XL 1957-on
18599		24332-36	.010	XL 1957-on

Crank Pins

Crank Pins available from U.S.A. makers, Eastern, Jims, OEM and Taiwan. American pins are made of 8620 steel, with .062 heat treat penetration.

Note: All crank pins have one or three oil holes.

PCP	OEM	Model	Holes/Brand
31140	23961-80A	BT L1981-99	3 Jims
31142	23961-80A	" new oil location	3 Jims AF
31151		(less end play)	3 Jims
31149		A Cut Above	3 Jims
31156	23974-87	BT Evo 87-99	3 Jims +.001
32548	23975-87	"	1 USA +.002
3412	23960-80A	XL L1981-up	3 Preston
31133	23960-80A	XL L1981-up	1 Jims
31134	23960-80A	XL L1981-up	3 Jims



342602

S & S Crank Pin

Includes 2 nuts and key.

PCP	Application
342102	1981-86 BT 1.249 OD and all S&S 1981-on (23961-80A)
342103	1987-on BT 1.250 OD (23974-87)
342602	XL 1981-on and S&S 1.249 OD (23960-80A)
342603	As above, 1.250 OD (23948-87)

Connecting Rod Roller Sets

Each set supplies enough rollers for alloy rod cages only.

Big Twins 1973-on

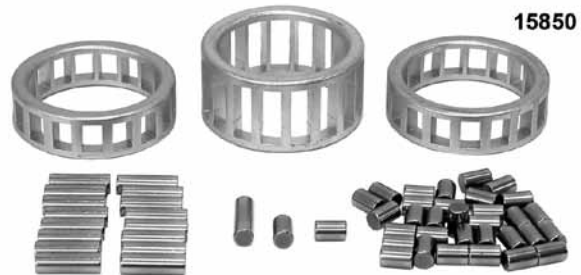
PCP	Size
15100	-0002 US
1040	STD
1041	0002 OS
1042	0004 OS
1043	0006 OS
1044	0008 OS
1045	001 OS
4113	002 OS
3548	003 OS



S&S Crankpin with Nuts BT 1981-99

PCP	Size
342102	(1.249)
342103	(1.250)
342105	(1.251)
342106	(1.252)

Note: Order by crank pin .O.D as required



Rod Bearing Sets with Cages

Set of cages fitted with standard size Torrington rollers for connecting rods. Cage material noted!

PCP	OEM	Cage	Model	Year
15850	24385-40B	Alloy	74 & 80	41-86
15800	24346-87A	Steel	BT	87-99



Preston Stock Replacement Rod Sets

Includes new rods, crank pin nuts, cages and standard rollers. Piston pin bushings are installed and honed for stock wrist pin.

PCP	Model
34004	L1983-99 BT Evo (24281-83)
34008	1986-03 XL (24275-86A)

Always check rod roller fitting before assembly



S&S Supreme Connecting Rods

Are made even stronger than our regular heavy duty rods and are recommended for **all** drag strip applications and any street situation where the **best** is warranted.

PCP	Model/cage	Years
347214	BT EVO (steel)	1984-99 .792 pin O.D.
347900	883-1200 .792 (alloy)	1986-99, also for engines with strokes greater than stock but less than 4 3/8 (typically used in 3 5/8 bore 89" & 4" bore 100" engines) (not for stock motors) 7.113" Rod length

S&S Regular Heavy Duty Connecting Rods

Recommended for any street application.

PCP	Model/cage	Years
347013	BT EVO (steel)	1984-99 .792 Pin O.D. 7.440"
347800	883-1200 (alloy)	1986-99 6.926" rods .792" Pin



Jims BT Connecting Rod Bearing Sets 41-99

Torrington rod bearings and steel cages. They will retro fit to 1941. Available in standard size only. When refitting rods use this bearing set with Jims oversize crankpins.

31169 24356-87A



S&S Alloy Rod Bearing Retainers BT 1941-99

Replacement roller type for Harley connecting rods.

344020 1941-99 BT (24366-71, 24367-71)



Connecting Rod Race Sets

Rod Races are designed for extreme pressure. Made from 52100 steel and hardened.

PCP	Model	Year	Jims
1102	Sportster	1954-E86t	
977	Big Twin	1936-99	31049



S&S BT Bearing Assembly

Steel cages and STD rollers for 1941-99 models.

344010

S&S EVO



S&S 1984-99 BT Evolution Cam Specification Chart

PCP	Cam	Application	Valve Timing Open/Close		Valve Duration		Valve Lift	Lift @ TDC		Spring Spacing Required	Tappet Type
			Intake	Exh.	Intake	Exh.		Intake	Exh.		
335124	510V	96" Bolt-in	20/28	52/20	238	252	.510	.187	.178	No	Hydraulic
335073	520	Engines to 96" w/8.5 to 10:1 CR. Good low end/mid range.	0/40	50/2	220	232	.520"	.086"	.094"	Yes	Hydraulic
335072	546	For 4" bore engines 9.1:1 to 10.1 CR.	5/55	52/5	240	234	.546"	.126"	.106"	Yes	Hydraulic
335076	561	Best cam for 80" to 96" engines. 9.5:1 to 10.5:1 CR.	32/40	50/26	252	256	.560"	.252"	.210"	Yes	Hydraulic
335057	563	103"+ street/race cam for 11:1+ CR. Strong top end, easy starting.	32/64	64/32	276	276	.560"	.250"	.220"	Yes	Solid or Hydraulic
335109	585V	80"-96" engines w/ 10.1:1 to 10.5:1 CR. Larger engines 9.5:1 to 10:1 CR.	20/45	60/20	245	260	.585"	.186"	.180"	Yes	Hydraulic
335058	600	80"-96" engines w/ 10.5:1 to 11:1 CR. Larger engines 10:1 to 10.5:1 CR.	20/55	60/20	255	260	.600"	.218"	.198"	Yes	Hydraulic
335080	631	Hottest cam for all high RPM engines. 11:1+ CR, 12:1+ for smaller engines.	34/61	66/29	275	275	.630"	.281"	.221"	Yes	Solid or Hydraulic
335108	640	Big inch engines 10.5 to 11.5:1. Supplied with 124" SSW+.	25/60	65/20	265	265	.640"	.222"	.192"	Yes	Hydraulic

Notes: Timing designation is function of zero lash @.053" off base circle.
 Lifts at TDC are measured at the valve and are for reference only.
 Overlap valve lifts must be checked on assembled motor.
 Minimum valve to valve clearance of .040" is recommended.
 All cams require spring spacing.



Sifton Cam Chest Kit BT 1987-99 Evo

Includes Sifton 140 cam.

21766



S&S 561 Cam

Works in all displacement Big Twin V2's with a variety of compression ratios, ideally suited for stock to 88" engines with up to 11 to 1 compression, 96" with 10 to 1 and 98" and larger engines with no greater than 9.5 to 1 compression. Moderate duration makes for great mid range performance where most riding is done. Valve spring spacing and normal clearancing checks required. Supplied in all S&S Hot Set Up Kits.

S&S 561 Master Cam Kit

Includes cam, springs, HL2T spacer kit, adjustable pushrods and instructions.

PCP	Description
335015	1986-99 w/titanium top collars
335076	Cam only



S&S 563 Cam

Best suited for 96" and larger BT V2 street and racing engines with higher compression ratios. Most effective on top end from about 4500 RPM on up. Good starting because of long duration. Valve spring spacing and other normal clearancing checks required.

S&S 563 Master Cam Kit

Includes cam, springs, HL2T spacer kit, adjustable pushrods and instructions.

PCP	Description
335025	1986-99 w/steel top collars
335057	Cam only



S&S 562 Cam

For all displacement Big Twin V2's with higher compression ratios where starting and some detonation problems exist. Longer duration provides best performance for stock to 3-5/8" bore engines in the 5500 to 6500 RPM range and larger bores such as 4" between 3500 and 5500 RPM. Valve spring spacing and other normal clearancing checks required.

S&S 562 Master Cam Kit

Includes cam, springs, HL2T spacer kit, adjustable pushrods and instructions.

PCP	Description
335019	1986-99 w/steel top collars
335021	1986-99 w/titanium top collars



S&S 502 Cam

For up to 93" Big Twins 1984-on with no greater than 9.5 to 1 compression. "Bolts-in" and works with stock or ported heads at 5000 RPM. About 13 horsepower gain (approximately 20%) over stock is realized on our test engine. Valve spring spacing not required. Other normal clearancing checks recommended.

S&S 502 Master Cam Kit

Includes cam, springs, HL2T spacer kit, adjustable pushrods and instructions.

PCP	Description
335009	1986-99 w/titanium top collars



Andrews Gauge Pins

212105	Gauge pins .105" diameter pins (pair)
212116	As above .108" diameter pins (pair)

ANDREWS



Evolution 80 Engine Cams 1984-99

Performance cams mean extra power for evolution engines. Hydraulic lifters are capable of 6000+RPM with stock springs and no valve float. Aluminum (T7) or chrome-moly pushrods (both fully adjustable) are available to match any of our camshafts. Aluminum pushrods are lighter while the chrome-moly steel pushrods are more rigid for high performance. Titanium spring collars will fit stock keepers and springs. E-Z install pushrods can be installed without removing fuel tanks or rocker boxes. Titanium spring collars will fit stock keepers and springs.

- 50% Lighter than stock
- More spring travel (+.050 over stock)

- 292215** E-Z install aluminum pushrods (set of 4)
- 292245** E-Z install chrome-moly steel pushrods (4)

293110 Titanium collars (set of 4)

Touring and Performance Cams

PCP#	Grind	Timing(*)	Duration		Valve Lift	Lift @ TDC	Springs	Application
			.053	.020				
Stock	(L)	01/37	218	266	.495	.091	Stock	Listed for reference. 1984-87 cam is 212 deg. int., 202 deg. exh., .472" lift on both valves.
88-91		53/-01	232	280	.495	.083		
Stock	(N)	02/30	208	250	.472	.070	Stock	Listed for reference. 'N' cam is close to 84-87 specs. California "C" cam is 178 deg. duration.
92-on (carbs)		31/-09	202	242	.472	.049		
291113	EV13	15/31	226	270	.485	.161	Stock	Bolt-in street/touring cam for heavy bikes. Much more low and mid-range power than either stk cam.
		45/13	238	280	.495	.148		
		(OK with fuel injectors or carburetors)						
291123	EV23	10/30	220	255	.498	.134	Stock	Mild bolt-in street/touring cam with more torque and HP for all around riding with stock comp. ratio. Similar to stock L cam but more output. Pulls from 1800-5200 RPM
		40/08	228	264	.498	.121		
		(OK with fuel injectors or carburetors)						
291127	EV27	20/36	236	270	.495	.182	Stock	Bolt-in street cam with fast open and close ramps. Similar timing to EV3 but designed to produce a very broad torque band. Pulls 2000 to 5500 RPM.
		44/16	240	274	.495	.166		
		(OK with fuel injectors or carburetors)						
291130	EV3	21/37	238	280	.495	.197	Stock	Bolt-in street cam for light bikes (FXRS, etc.). Lots more mid-range and upper end power. Smooth idle, 6000 RPM cam with stock head and springs.
		43/15	238	280	.495	.159		
		(OK with fuel injectors or carburetors)						
291146	EV46	25/41	246	283	.495	.207	Stock	Bolt-in performance cam with fast open and close ramps. Longer duration than EV3 but higher static comp. pressure for wide torque band to 6000+RPM
		49/17	246	283	.495	.163		
291151	EV51	28/44	252	286	.510	.233	Stock	Easy installation with longer duration for modified street engines with hydraulic lifters. Power range from 3000-6500 RPM.
		54/22	256	290	.510	.195		
291159	EV59	28/48	256	290	.560	.236	HI-LIFT	Upgraded EV57, fast ramps for modified 80" to 88" motors. Use with Andrews springs and collars. Very broad power band; 6000 RPM. OK for hyd. lifters.
		56/24	260	294	.560	.208		
291172	EV72	30/54	264	298	.560	.246	HI-LIFT	Upgraded EV7, for 92"+ street motors. Use with Andrews springs and titanium collars. Very broad power band, 2800-6000 RPM. OK for hyd. lifters.
		60/28	268	302	.560	.230		

(*) Timing

Lifter Base



Chrome Tappet Block Covers - Stamped Steel

They fit over stock units, maintaining the original contours. Each cover has a hidden slot in the back which permits it to be installed in minutes without removing your pushrods. These covers are held in place with a small amount of silicone adhesive which is provided. Four 12-point chrome screws are also included to replace the four zinc-plated OEM screws which protrude slightly through the holes in the covers. Sold in sets.

45040 Fits all Evolution® Big Twin models from 1984-99

45042 Fits all Sportster EVO 1986-90



Diecast BT EVO Tappet Covers - All Years

Chrome tappet guide block covers for BT EVO. Each cover has a slot which allows it to be installed without removing the pushrods. Simply lift pushrod lower covers and insert chrome covers. Designed as a press fit, but industrial sealant (not supplied) such as silicone is recommended.

45039 Set, as shown

5299 Chrome 12 point screws (if required) 1976-99



45267

Chrome Tappet Block Cover

Includes screws and fits BT Evo 1984-on.

45267



Colony Lifter Base Screw Kit

Polished allen bolts for BT 1976-99.

8726



Chrome Acorn Style

1788 Big Twin 1976-99

2632 Late Lifter Bases to Pre-1976

Cases 1/4-24 Thread

5503 XL 883/1100 1986-90

9765 XL 1991-94

9766 XL 1995-on



Chrome Lifter Block Bolt Caps for 1976-99 Big Twin

Our chrome lifter block bolt caps are finely machined from aluminum then plated with a chrome finish. They fit all 76-99 Big Twin models and install easily onto the stock 12-point mounting bolts, using a dab of clear silicone.

44001 (8 pack)



Chrome Allen Style

5315 Big Twin 1976-99



12 Point Style

5299 BT 1976-on Chrome 1/4-20

5300 BT 1976-on Cad 1/4-20

Lifter Base



Jims Evo Billet Tappet Blocks with Tappets

Made from 7075-T651 this kit features Big Axle Power Glide tappets. Accomodates a gross valve lift of .625" at the valves, leaving a clearance of .035" roller to block free play. If using a cam with higher lift, a simple modification is needed. Blocks will clear most small base circle cams having lift of .655" or more.

These tappet blocks are machined to the centre line of the cam and hold $\pm .002$ ". Also, the bores are held perpendicular to the mounting flange to a $\pm .0002$ ". Kit includes blocks, 4 big axle "Powerglide" tappets, gaskets and chrome screws.

PCP Description
31263 Kit with chrome blocks for use on BT 1984-on.



Jims BT Evo Tappet Block Kit

31261 With polished pushrod covers



Big Twin Evo Chrome Tappet Blocks

Nice quality set of billet style lifter blocks, chrome plated to fit Big Twins 1984-99.
32336



EVO Billet Chrome 7075-T651 Tappet Blocks

These tappet blocks are designed to accomodate a gross valve lift of .655" at the valves. This is about .350" at the tappets, leaving a clearance of .035" roller to block free play. Will clear most small base circle cams having a lift of .600" or more. Any cam over .550" lift needs to be checked and should have .035" to .045" roller to block clearance. If using a cam with a higher lift, a simple modification to the tappet block is required. Caution: you still need to follow manufacturers guide lines. Kit includes blocks, gaskets and chrome screws.

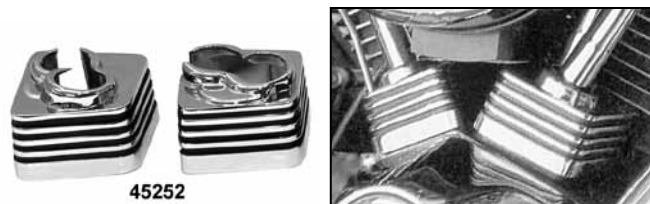
31264 Billet chrome tappet block kit.



S&S Big Twin Black Tappet Guide Set

Stock style black tappet guide set is cast from 356-T6 aluminum and is designed to be stronger, resist wear and last longer than stock. Set includes gaskets and mounting screws.
335324

Lifter Base



Evo Tappet Block Covers

Finned design coordinates with cylinders to completely cover tappet blocks. Installs with silicone adhesive and does not require the removal of tappet blocks.

PCP Description

45252 Chrome cover with black fins



S&S Polished Billet Tappet Blocks BT 1984-99

S&S polished tappet blocks are machined from solid aluminum billet providing superior quality and dimensional precision in a great looking product. This set can be used on engines with stock style crankcases, and for engines using S&S Special Application crankcases with .250" offset cam chest.

335323 Polished tappet block set



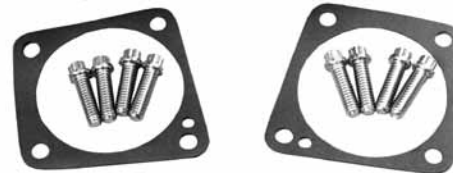
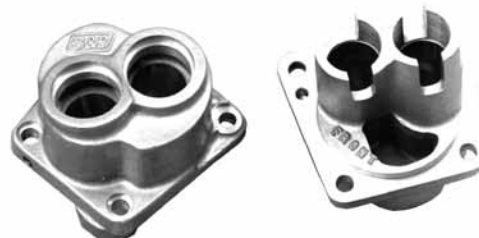
Sifton Lifter and Pushrod Assembly

Complete assembly includes 4 hydraulic lifter tappets, 4 hydraulic lifter units, 4 pushrods and lifter bases.

PCP Application

30033 Big Twin 1986-99, chrome

21706 As above with solids



Big Twin Evo Tappet Blocks

S&S tappet blocks are cast from 356-T6 aluminum and designed to be stronger, resist wear and last longer than stock. The clean looking, burnished aluminum finish matches S&S Super Stock crankcases and can readily be painted or polished as desired.

335301 As shown

335309 For engines using Special Application crankcases with .250" offset cam chest



Sifton Evo Performance Cam Kit

Includes cam E-Z install pushrods, chrome lifter bases and roller tappets. (.495 lift)

32337

Lifters



31644



29000

Jims Hydrosolid Tappet

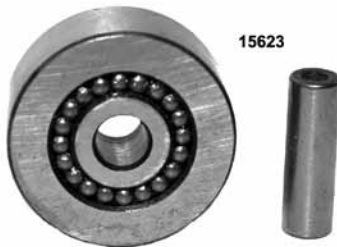
This tappet performs like a hydraulic tappet from start up to about 5500 rpm and then turns into a solid from 5600 rpm on. When solid it adds 3-6 more useable horsepower. When springs start to surge the tappet rollers start lofting off the back side of the cam and will not pump up allowing your valves to hit. Must use adjustable pushrods.

PCP Application

- 31644 BT 1984-99, XL 1986-90 OD .8425"
- 31645 As above +.002"
- 31647 Twin Cam 88 XL 2000-on OD .8425"
- 31650 1/4" longer Twin Cam 88 XL 2000-on OD .8425"

Tappet Lifter BT EVO 1986-99

- 29000 STD. T/L-USA (18523-86A)
- 29026 As above (4 pack)
- 30150 STD Sifton
- 30151 .002 Sifton
- 30152 .005 Sifton



15623



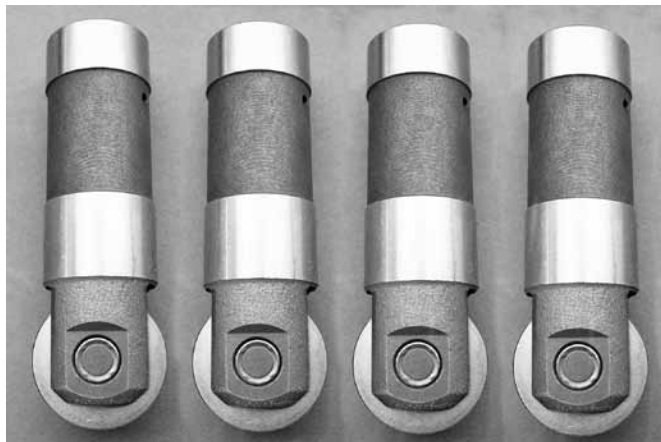
Tappet Roller Repair Kit BT EVO & XL 86-on

High quality tappet rollers & axles. Contains new roller assembly and roller pin.

- 15624 Roller kit for 4 tappets
- 15623 Roller kit for one tappet

Cast Tappet Blocks

PCP	OEM	Description	Year	U/M
29000	18523-86	Tappet with Roller	86-99	Each
15623	18534-86	Roller with Pin	86-99	Each
15624	--	Roller with Pin	86-99	Set
29001	18540-83A	Tappet Block/Rear	84-99	Each
29002	18542-83A	Tappet Block/Front	84-99	Each
79270	18633-48C	Gask., rear tappet .031	48-90	10 Pk
79273	18634-48B	James front tappet .031	48-90	10 Pk
79271	18633-48D	James rear tappet .020	91-99	10 Pk
79274	18634-48C	James front tappet .020	91-99	10 Pk



Sifton Hydraulic Tappet Unit Set

4 Tappet set features maxi-axle roller and pin design and a unique "no-bleed" integral pump unit. Pump design features full hydraulic action up to 5000 RPM, above that it acts like a solid unit.

- PCP Size
- 30140 STD
- 30141 .002



Jims Adjustable STD Tappet

- Fits Big Twin 1984-99 and XL 1986-90. Sold each.
- 31128 18523-86SA

Lifters



31619

Solid Tappet BT Evo 1984-99 and XL 1986-90

Must use adjustable pushrods. (109 grams)

Big Axle Size (STD O.D. .8425) Jims

31619	STD
31620	.002
31621	.005



31626

31127



Jims Power Glide Hydraulic Evo 1984-99 and XL 1986-90 (18523-86)

STD O.D. .8425. (149 grams)

Big Axle	Std	Size
31625		STD
31626	31127	.002
31627		.005



31622



Adjustable Solid Evo Tappet with Screw Nut BT 1984-99 and XL 1986-90.

Requires shorter pushrod available from Axtel. (126 grams)

Big Axle Size Jims

31622	STD
31623	.002
31624	.005



31631

Jims XL and Buell 1991-on Solid Tappets

Clearanced for about .700 lift. Use with adjustable pushrods. (123 grams)

Big Axle Size (STD O.D. .9035)

31631	STD
31632	.001
31633	.002
31634	.005



S&S Hydraulic Tappets

Tappets fit all BT V2 style and XL 1986-91 engines. These tappets feature a larger inner bearing race to reduce bearing stresses. A redesigned plunger assembly better withstands forces associated with heavy-duty valve springs and pushrods typical to high performance applications. Revised metering device precisely controls oil delivery to top end, insuring rapid lifter pump up and reducing the possibility of oil starvation to the bottom end.

335342	Each
335352	4 Pack



31639

Jims Billet Steel Power Glide Solid Tappet XL 1991-99 (18526-PG)

Clearanced for about .700 lift. (143 grams)

Big Axle	Size
31639	STD

TC Cylinders/Pistons



VT BT Evo 83" Bolt-On Cylinder Kit

Includes 10:1 compression Wiseco forged piston kit (Fitted),
No case boring required.

PCP	Finish
34826	Black
34827	Silver
35548	Piston set
35549	Ring set

The Sifton cylinders have a very thick, large O.D., "cast in" liner which has been proven to be an important factor in maintaining thermal stability which is the ability to retain cylinder bore dimension through repeated heat cycles.



Evolution Cylinder Oil Passage Drain Tubes

For stock bore size cylinders only. Each kit includes tap, hex wrench, and 2 drain tubes.

30123	Kit
30124	Replacement tubes only (pr)



VT 103" TC-96 Cylinder Kits for 2007-2010

Includes 9:1 or 10:1 Wiseco forged piston kit fitted to cylinder.

Black	Silver	CR
34800	34801	9:1
34802	34803	10:1
25407	-	Gasket kit



Sifton Racers Evo Stud Kit

Includes 8 inserts, drill tap and 8 chrome moly studs. Allows more torque to be applied which helps cure oil leaks and protects case threads during disassembly.

PCP	Description
59448	Complete shop kit
60104	8 Studs only
10052	8 Inserts only

TC Cylinders/Pistons



VT Cylinder and Piston Kits L1985-99 1340cc

Honed and pre-fitted with stock compression cast pistons and Hastings rings. They are ready to run and will require break-in as suggested in the appropriate shop manual. Sold in pairs for stock stroke only. Order gasket set separately

PCP	Finish	Compression
34820	Black	8.5:1
34821	Silver	8.5:1
34822	Silver	11:1



T/L EVO Cylinders 1984-99

Sold each and includes piston, rings and wrist pin.

PCP	Model	Description
65200	1340	USA, silver (16510-83A)
65209	1340	USA, black wrinkle (16512-86A)



BT Evo Cylinder 1984-99

These front & rear cylinders do not include pistons. Sold each

PCP	Finish
34812	Stock (16510-83)
34809	Black (16512-86A)



3-5/8" Big Bore Cylinder for 4-1/4" Stroke Evo

Forged pistons with Hastings rings are pre-fit in heavy wall cylinders. **Cylinder sets 3-5/8" and larger require case boring.**

PCP	Ratio	Piston	Finish
34828	9.25:1	Wiseco	Silver
34829	9.25:1	Wiseco	Black
34832	10.5:1	Sifton	Black
34833	10.5:1	Sifton	Silver
34834	9.25:1	Sifton	Black
34835	9.25:1	Sifton	Silver
34830	Silver cylinder (each)		
34831	Black cylinder (each)		



VT 93.4" Cylinder Kits

Includes Wiseco 9.5:1 compression piston set with rings pre-fit to new 3.75" cylinders. **Cases must be bored to accept this kit.**

PCP	Finish
34823	Silver
34824	Black

S&S Cylinders/Pistons



S&S 3-5/8" Bore V2 Big Twin Cylinders and 92-1900 and 92-1930 Series Pistons

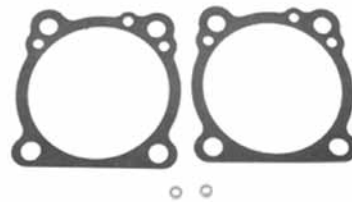
The 92-1900 and 92-1930 series pistons are forged, flat top, 3-5/8" big bore pistons used in S&S Sidewinder kits and engine kits for V2 engines with stock style cylinder heads. The 92-1900 series is used for 4-1/2" stroke BT engines with stock diameter (8-1/2") flywheels, and for 4-3/4" stroke BT engines with 8-1/4" diameter flywheels. The 92-1930 series is a modified version of 92-1900 which is clearanced for 4-5/8" stroke BT engines with stock 8-1/2" diameter flywheels. Replacement cylinders and cylinder kits with pistons are available for the Sidewinder kits and engine that S&S offers. Cylinders are available in natural and black powdercoat finish. **Stock crankcases must be machined to accommodate the larger spigot diameter.**

Displacement	88"	93"	96"	98" SD*	Forged Pistons Recommended Piston Fit: Close: .0015" - .0020" Loose: .0030" - .0040"		
Stroke	4-1/4"	4-1/2"	4-5/8"	4-3/4"			
Bore	3-5/8"	3-5/8"	3-5/8"	3-5/8"			
Cylinder Length	5.375"	5.500"	5.565"	5.625"			
Compression (stock heads)	9:1	9.5:1	9.75:1	10:1			
Cylinders only- natural	917000	917100	917200	917300			
Cylinders only- black	917500	917600	917700	917800			
Cylinders w/pistons- natural	917002	917102	917202				
Replacement Piston Kits	Forged	Forged	Forged	Forged	Rings Moly Faced	Wristpin Hard-ened	Keeper Clip
Standard Piston	921900	921900	921930	921900	941210	949256	949254
+ .010	921901	921901	921931	921901	941211		
+ .020	921902	921902	921932	921902	941212		
+ .030	921903	921903	921933	921903	941213		
+ .040	921904	921904	921934	921904	941214		
Piston Deck Height	1.200"	1.200"	1.200"	1.200"			
Notes: Cylinder with piston kits include cylinders, piston kit, head gaskets, base gaskets and exhaust gaskets. All piston kits include rings, wristpins and clips. *SD= small diameter flywheels.							

S&S Chrome Head Bolt Covers

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

500333 Set of 4



BT Evo Oil Fix Kit

Kit includes 2 cylinder base gaskets and 2 oil jet controls which regulate the oil coming from the head through the barrel and into the case, preventing the oil from touching the base gasket which may cause leaking.

25637 Kit

S&S Cylinders/Pistons



933010

S&S Head Bolt Kits for V2 BT Engines (8 pack)				
PCP	Engine	Stroke	Cyl. Length	Cylinder Head Type
933010	S&S 89", HD 80"	4-1/4"	5.550"	1988-90, 1991-on HD
	S&S 93" V2	4-1/4"	5.500"	



S&S 3-1/2" Bore V2 BT Evo Style Cylinders and 92-2420 Series Pistons

The 92-2420 series pistons are cast 3-1/2" bore stroker pistons designed for use with 4-5/8" stroke flywheels to convert stock 80" V2 Big Twin engines to 89". These pistons are normally used with stock HD cylinders, however cylinder and piston kits are available for engines that require new cylinders.



S&S Service Components

Cylinder Studs

- 312321** BT 1985-99 (16837-85C) (each)
60106 BT 1985-99 (16837-85C) (8 pack)



949254



949258

S&S Teflon Button Style Keepers

Keepers are available in different sizes (thickness) to control wrist end play that varies with bore size. Button style keepers must be fully supported by wrist pin hole. Sold as 4 pack.

3 5/8" Bore

- PCP Range (Series 1800, 1830)**
949258 STD to +.030
949259 +.040 to +.070

3 7/16" and 3 1/2" Bore (Series 2800-2900)

- PCP Range**
949251 STD to +.040
949252 +.050 to +.090

3 3/16" Bore (Series 3700)

- PCP Range**
949351 STD to +.070

"C" Style Piston Pin Clips (most other series)

- 949254** 4 Pack

Displacement	89"	Cast Pistons Recommended Piston Fit: Close: .0008" - .0013" Loose: .0020" - .0025"			
Stroke	4-5/8"				
Bore	3-1/2"				
Cylinder Length	5.550"				
Compression Stock Heads	9.25:1				
Compression 89cc Heads	9.8:1				
Compression 79cc Heads	10.4:1				
	Natural	Black			
Cylinders Only	917210	917710			
Cylinders w/Pistons	917211	917711			
Replacement Piston Kits	Cast	Moly Rings	Wristpin Hardened	Keeper Clip	
Standard	922426	942216	949256		949254
+.005	922425	942220			
+.010	922427	942217			
+.020	922428	942218			
+.030	922429	942219			
Notes: Cylinder with piston kits include cylinders, piston kit, head gaskets, base gaskets and exhaust gaskets. All piston kits include rings, wristpins and clips.					

S&S Head Bolt Washers

- PCP Thickness**
507096 .100" (5 pack)
507095 .250" (10 pack)



Pistons



T/L BT Stock Style Evo Pistons USA

PCP	OEM	Description (Sold for 1 cylinder)
65240	21940-83	Piston and rings STD
65241	21941-83	As above +.005"
65242	21942-83	As above +.010"
65243	21943-83	As above +.020"
65244	21944-83	As above +.030"



S&S 3-5/8" Forged Pistons for 4-1/4" to 4-5/8"

The S&S 92-1060 series pistons are forged 3-5/8" Evo big bore pistons designed for use with S&S V2 style Superstock cylinder heads. These kits are used in V2 BT style S&S Sidewinder kits and long block engines. The 92-1060 series is used for 4-1/4" and 4-1/2" and 4-5/8" stroke engines with stock diameter (8-1/2") flywheels.

Note:

4-1/4" = 88" with 9:1 compression and 5.375" cylinders

4-1/2" = 93" with 9.5:1 compression and 5.500" cylinders

4-5/8" = 96" with 9.75:1 compression and 5.565" cylinders

Piston deck height of 1.200"

PCP	Size
921060	STD
921061	+.010
921062	+.020
921063	+.030
921064	+.040
921066	+.060



T/L BT Evolution 1340 Cast Piston Kit

10:1 High compression piston kit for use with stock Evo 1340 cylinder heads. For race application only, kits include pistons, rings, clips and pins. Fits all 1984-99 Evo 1340 engines with stock cylinder heads. Note: always check piston to valve clearance with modified dome pistons and non-stock camshafts.

65253 .010 (22193-98)



S&S Evo 4" Forged Piston Kit for 113" Motor

PCP	Size
921410	STD
921411	+.010
921412	+.020



S&S 3-5/8" Evolution Ring Sets

Ring sets are sold for a complete engine. Top ring .062, 2nd ring .062 and oil ring .158.

PCP	Size
941210	STD
941211	+.010"
941212	+.020"
941213	+.030"
941214	+.040"

S&S 4" Evolution Ring Sets

Ring sets are sold for a complete engine.

PCP	Size
941300	STD
941301	+.010"
941302	+.020"
941303	+.030"

Pistons, Multi-Fit



1200 XL Evo 1988-03

Piston kits include 2 STD compression pistons with pins, clips and a **moly** ring set. Hastings rings are sold in sets for 2 pistons and are available in cast or moly styles with 1/16" (.062) compression rings.

Size	Piston Kit	Hastings Rings	
		Cast	Moly
STD	35870	35100	35260
.005	35871	35101	35261
.010	35872	35102	35262
.020	35873	35103	35263
.030	35874	35104	35264

Rowe Piston Ring Compressor

Necessary bands for 2-7/8" to 4-1/8".
26133



Wiseco XL High Performance 10.5:1 Piston Kit

Kits include forged pistons, Hastings rings, retainer clips and chrome piston pins. Hastings rings have a .062" top and 2nd ring and a .158" oil ring. Skirt coated piston has a dome volume of +3.63cc. **Fits 2004-10 Sportsters.**

PCP	CC Displ.	Bore	Stroke
35923	1200cc	STD (3.498")	3.812"
35924		.010 (3.508")	
35925		.020 (3.518")	
35930	Cometic top end gasket kit (W6378)		
Valve pocket dimensions are measured from deck height: Intake/Exhaust Pocket: Depth: -.167" Diameter: 2.100"			



BT EVO 1984-99 80" (3.500 OD) 8:1

Piston kits include 2 STD compression pistons with pins, clips and a **moly** ring set. Pistons sold each include a pin and clips only. Hastings rings are sold in sets for 2 pistons and are available in cast or moly styles with 1/16" (.062) compression rings.

Size	Piston Kit	Piston Each	Hastings Rings	
			Cast	Moly
STD	35600	35890	35100	35260
.005	35601	35891	35101	35261
.010	35602	35892	35102	35262
.020	35603	35893	35103	35263
.030	35604	35894	35104	35264
.040	35605	35895	35105	35265



Sportster Evolution 883

Piston kits include 2 STD compression pistons with pins, clips and a **moly** ring set. Pistons sold each include a pin and clips only. Hastings moly rings are sold in sets for 2 pistons with 1/16" (.062) compression rings.

Size	Piston Kit	Piston Each	Hastings Rings	
			Moly	
STD	35558	35860	35220	
.005	35559	35861	35221	
.010	35560	35862	35222	
.020	35561	35863	35223	
.030	35562	35864	35224	
.040	35563	35865	35225	

Compression Ratio

Sportster 900cc (3" Bore) Stock 9 to 1; Low (Not available)
Sportster 1000cc (3-3/16 Bore) Stock 9 to 1; Low 8.4 to 1
Harley 74: 1200cc (3-7/16" Bore) Stock 8.5 to 1; Low 7.5 to 1; High 10.0 to 1.
Harley 80" 1340cc (3.298 Bore) Stock 8 to 1; Low 7 to 1



Piston Pin Locks

11051 Snap ring Evo 1983-on (22589-83) (10 pk)

Wiseco Piston Kits

Wiseco's extensive R&D programs have revolutionized the power and performance of Wiseco's HD piston kits. All Wiseco pistons are forged for superior strength and dependability. Kits include forged pistons, rings, circlips and wrist pins.



XL 1200 Evo Flat Top 1988-03

9:1 compression with Hastings X Ring package: .062" top ring, .062" second ring and .158" oil ring. All XL Evo and Buell with stock heads.

PCP	Wiseco	Bore	Ring Set Per Engine
35855	K1660	STD	35260
35856	K1661	.010	35262
35857	K1662	.020	35263
35858	K1663	.030	35264
35859	K1664	.040	35265



Wiseco XL Domed Piston Kit 1988-03

Domed piston kit fits all Evo XL & Buell with stock 1200 heads through to 2003. This kit offers **10.5:1 compression** and a 3.812" stroke. Top ring is .062", 2nd ring is .062" and oil ring is .158". No cylinder head modification is required and top end gaskets are available separately. Kits include forged pistons, rings, circlips, and chrome wrist pins.

PCP	Bore
35980	STD 3.498"
35981	+ .010 3.503"
35982	+ .020 3.508"
35983	+ .030 3.518"
35984	+ .040 3.528"



Wiseco Wrist Pins (each)

35937 1340cc BT Evo 1985-99

Wiseco wrist pin circlips (pairs)

35933 All Wiseco pistons

NOTE: Hastings X rings and Wiseco XC rings are NOT interchangeable. Wiseco XC rings sold per cylinder.



XL 883 Evo Overbore to 1200cc 1986-10

Reverse dome, **9.5:1 compression** with Hastings X Ring package: .062" top ring, .062" second ring and .158" oil ring. No headwork required.

PCP	Wiseco	Bore	Ring Set Per Engine
35850	K1655	STD	35260
35851	K1656	.010	35262
35852	K1657	.020	35263
35853	K1658	.030	35264
35854	K1659	.040	35265



Wiseco Evo XL 883 to 1200 Piston Kit 1986-10

These kits offer **10:1 compression** and 3.812" stroke with no cylinder head modification required. Top ring is .062", 2nd ring is .062" and oil ring is .158". Kit includes forged reverse dome pistons, rings, circlips and chrome wrist pins.

35887	STD 3.498"
35888	+ .010 3.508"
35889	+ .020 3.518"



Wiseco XL 883 to 1200 Piston Kit 1986-10

This kit offers **8.5:1 compression** and 3.812" stroke with no cylinder head modification required. Top ring is .062", 2nd ring is .062" and oil ring is .158". Fits Evo 883 XL overbore to 1200cc (73 cu. in.) models. Kit includes forged reverse dome pistons, rings, circlips and chrome wrist pins. Skirt coated pistons have a dome volume of -13.7cc.

PCP	CC Displ.	Bore	Stroke
35845	1200cc	STD (3.498")	3.812"
35846	1207cc	.010 (3.508")	
35847	1214cc	.020 (3.518")	

Valve pocket dimensions are measured from deck height:
Intake/Exhaust Pocket: Depth: -.215" Diameter: 2.100"

Wiseco Piston Kits



Wiseco BT Evo 1984-99 (80 cu. in.)

8.5:1 compression with Hastings X Ring package. Will fit Screamin Eagle cylinder head with 9.75:1 compression.

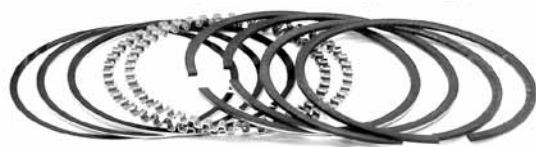
PCP	Wiseco	Bore	Ring Set Per Engine
35975	K1640	STD	35260
35976	K1641	.010	35262
35977	K1642	.020	35263
35978	K1643	.030	35264
35979	K1644	.040	35265



Wiseco BT Evo 1984-99 (80 cu. in.)

10:1 compression with Hastings X Ring package: .062" top ring, .062" second ring and .158" oil ring.

PCP	Wiseco	Bore	Ring Set Per Engine
35760	K1665	STD	35260
35761	K1675	.005	35261
35762	K1666	.010	35262
35763	K1667	.020	35263
35764	K1668	.030	35264
35765	K1669	.040	35265



Hastings Moly Piston Ring Set XL 2004-on Evo

XL 1200cc rings are sold in sets to do 2 pistons (1 engine).

Size	Hastings 2M5069
STD	35285
.005	35286
.010	35287

Bore: 3.498 (88.85mm)
Comp. Ring: 1.2mm Top ring
1.5mm 2nd ring
Oil Ring: 2.5mm



Wiseco BT Evo 3-5/8" B.B. 1984-99

Also fit thru 1997 stock stroke 4.250" (88 cu in.). 9.25:1 compression with Hastings X ring package .062" top ring, .062" second ring and .158" oil ring.

PCP	Wiseco	Bore	Ring Set Per Cylinder
35985	K1670	STD	35961
35986	K1671	.005	35962
35989	K1674	.030	35965



Wiseco BT Evo 3-5/8" B.B. 1984-99 Domed

Also fit thru 1997 stock stroke 4.250" (88 cu in.). 10:1 compression with Hastings X ring package .062" top ring, .062" second ring and .158" oil ring.

PCP	Wiseco	Bore	Ring Set Per Cylinder
35875	K1676	STD	35961
35876	K1677	.005	35962



Wiseco BT Evo Piston Kit 1984-99

Kits have 11:1 compression with 4.250" stroke for 80 cubic inch engines. Hasting X rings, top ring is .062", 2nd ring is .062" and oil ring is .158". Kits include forged pistons, rings, circlips and chrome piston pins.

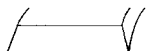
35966	STD 3.498"
35967	+ .005 3.503"
35968	+ .010 3.508"
35969	+ .020 3.518"
35972	+ .030 3.528"
35973	+ .040 3.538"

Hastings X-Rings

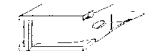
.062" Top Ring
Moly Filled Barrel Faced
Cast Iron Compression Ring



.062" Second Ring
Taper Faced Cast Iron
Second Ring



.158" Oil Ring
3 Piece Low Tension Oil Ring



KB Pistons

The Keith Black 390 Hypereutectic alloy is cast in a permanent steel mold which makes it possible to build a light weight piston. The durable Hypereutectic piston generates more power, uses less fuel, runs quiet and lasts longer than most other pistons. These pistons make loose, noisy, oil burning pistons obsolete. The low heat transfer of the alloy keeps the skirts cool so piston expansion is minimal. Test engines have been run with as little as .0005" piston-to-wall clearance. You can increase power and economy by the simple combination of a low heat transfer piston and high compression ring placement. The high ring placement alone reduces detonation and increases the top ring temperature. It is important to see the ring end gap instructions to avoid ring butting.

The KB piston will make maximum power at 2 to 4 degrees less total timing than conventional pistons. All KB piston sets are supplied with Hastings moly ring sets.



WHILE INVENTORY LASTS

Big Twin Evo 1984-99 (8.5:1, Flat Top, 4.250" Stroke)

PCP	OEM	Size
35720	KB258-30	.030
35721	KB258-40	.040

Big Twin Evo 1984-99 (9.5:1, Dome, 4.250" Stroke)

PCP	OEM	Size
35768	KB305-STD	STD

Big Twin Evo 1984-99 (10.5:1, .200 Dome, 4.250" Stroke)

PCP	OEM	Size
35722	KB266-STD	STD
35727	KB266-40	.040

Big Twin Evo 1984-99 (10.0:1, 3-5/8" Bore, 4-5/8" Stroke) 93-98"

PCP	OEM	Size
35783	KB298-20	.020
35784	KB298-30	.030
35785	KB298-40	.040

Big Twin Evo 1984-99 (10.0:1, Flat, 3-5/8" Bore, Stock Stroke) 88"

PCP	OEM	Size
35774	KB293-STD	STD
35777	KB293-20	.020
35778	KB293-30	.030

XL 1200cc 1988-03 (9.0:1, Flat, 3.812" Stroke)

PCP	OEM	Size
35710	KB264-STD	STD
35711	KB264-05	.005

XL 1200cc 1988-03 With high cams. (9.0:1, Flat, 3.812" Stroke)

PCP	OEM	Size
35750	KB295-30	.030

XL 883-1200cc Con- version 1986-on (9.0:1, Dish 3.812" Stroke)

PCP	OEM	Size
35729	KB272-05	.005
35730	KB272-10	.010

Special Clearance Requirements of KB Pistons

Suggested Piston to Wall Clearance

KB Pistons can be installed tighter than other performance pistons. A close-fitting piston rocks less, supports the ring better, and seals the engine for maximum power. When a loose fit engine is desired, the rigid skirt design of the KB piston allows the builder a choice without fear of piston damage. The chart shows minimum and realistic maximum loose fit clearance for KB pistons.

Special Notice on Top Ring End Gap

The KB pistons' unique thermal conductivity, ring location and varied end use requires special attention be paid to top ring gap. KB pistons make more power by reflecting heat energy back into the combustion process and, as a result, the top ring runs hotter and requires additional end clearance. Increasing ring end gap does not affect performance or oil control because normal end gaps are realized at operating temperatures. Failure to provide sufficient top ring end gap will cause a portion of the top ring land to break as the ring ends butt and lock tight in the cylinder. The broken piece may cause further piston or engine damage. Safe top ring end gaps can be found by multiplying the bore diameter by the appropriate ring end gap factor from the adjoining chart. Example: 3.5" bore "Street Normally Aspirated" = 3.5" bore x .0065 = .023" top ring end gap. Note: Second ring end gaps do not need extra clearance. As a general rule, retarding spark timing 2 to 4 degrees makes the best horsepower when KB pistons are used. Excessive spark advance, lean fuel mixture, or too much compression for the fuel and cam used will make heat sufficient to butt piston rings with as much as .060" ring end gap. Nitrous engines need a spark retard.

Application	Ring End Gap Factor	Piston-to-Wall Clearance	
		Aluminum	Cast Iron
Street Normally Aspirated	.0065"	.0075-.0015	.001-.0015
Street	.0080"	.0015-.0025	.002-.0025

S&S Pushrod Kits

S&S pushrods are engineered to help you obtain maximum horsepower through positive valve action and can be used in any stock replacement or high performance engine application. All chrome moly steel pushrods are made of 7/16" OD chrome moly steel tubing with pressed-in heat treated steel ends. This combination provides maximum strength and durability regardless of the performance application.

Important Note

It is recommended that an appropriate cam change be made when using solid lifter pushrods in late 1977-on engines. It is S&S's experience that excessive valve train noises are prevalent when a combination of solid lifter pushrods and the stock hydraulic cam is used.

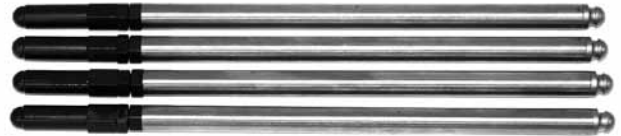


935076

S&S BT Evo Adjustable Pushrods

Features 7/16" O.D. chrome moly adjustable pushrods.

- 935076** BT 80" 1984-99
- 935020** As above +3/16"
- 935017** As above -3/16"
- 935018** As above -1/16"



S&S Adjustable Pushrod Conversion Kit

Evo kit includes 7/16" O.D. adjustable type chrome moly steel pushrods. These pushrods can be used in place of stock non adjustable type with hydraulic lifters or with solid lifters in any application.

PCP	Description
935033	XL 1986-90
935021	As above, +5/16"
935022	As above, +7/16"
935024	As above, +1.010"
935025	As above +1.100"
935022	XL 1991-03
935085	As above +5/16"
935089	As above, +7/16"
935086	As above, +.915"
935088	As above, +1.100"



Preston Adjustable BT Evo Pushrods 1984-99

Made from 7/16" diameter 4130 military specification chrome moly tubing with 9 x 1mm adjusters. Easy installation and removal without disassembling engine. (USA)

30060



Hydraulic Lifter Limited Travel Kit S&S

Designed to maximize the efficiency of the stock hydraulic tappets on all Evolution engines.

- 335338** Fits 1984-85
- 335339** Fits 1986-on



Jims Titanium Pushrods

Pushrods are machined out of a titanium alloy that is as strong as chrome moly but as light as aluminum. Easy to install without disassembly of top end or removal of cam and will work with new Jims taller cylinders. Pushrods have a 24 thread, 3/8" ball-end rocker and 3/8" ball-end tappet.

PCP	Application
31182	1991-on XL

Pushrod, Multi-Fit



Preston Evolution Pushrod Kit-USA

Evolution pushrod kit comes with four adjustable pushrods with instructions. Made of 7/16-OD aluminum tubing you may purchase solid lifter adaptor bushings separately. Be sure to order correct adaptors to fit proper year motor. Order by our part numbers.

PCP	Description
4826	Adjustable pushrod set to fit all BT (17900-84)
17517	Converter bushings to fit all late 1985-on 1340, 1986-88 XL883/1100/1200 (18507-85)
12529	Locknuts 9/32-32 to fit the above kits and other p/rod adj. screws using this thread (18570-38) (4pk)



V-Thunder Pushrod Kits

Made from .049 wall 4130 chrome moly steel to exacting tolerances for reliability. These rods fit stock or Velva Touch Lifter units. PCP# 30046 is a 2 piece style that can be installed or removed without disassembling heads

30045	BT Evo 1984-99
30041	Stroker
30046	BT Evo with stock block 1984-99
30048	TC-88 2000-on with stock bonds



Sifton Tapered Adjustable Pushrods

Manufactured from 4130 steel with hardened adjusters and ball ends. Designed to be installed without removing gas tank, rocker box or camshaft cover. Set of 4.

21809 Fits hydraulic or solid Evo Big Twin



Sifton Quick Install Pushrod Set

Pushrods are designed to be installed without the removal of rocker boxes or cylinder heads. Precision made from 4130 chrome moly tubing.

PCP	Application
30081	Evo BT 1984-99
30083	XL 1991-on

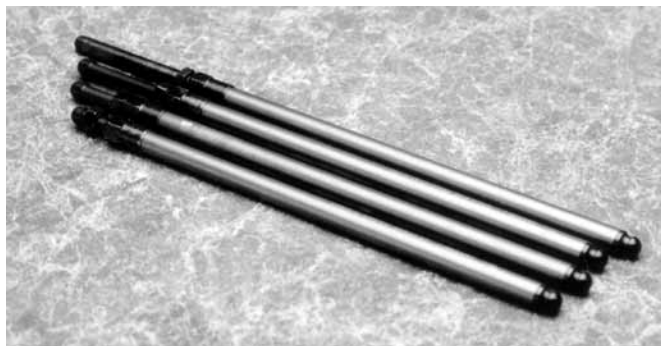


S&S Quickie Pushrods

The threaded adjuster screws into the pushrod until the threads disengage and the adjuster simply slides into the pushrod making installation or removal a snap. Once the pushrod is installed and adjusted the locknut prevents the adjuster from moving. The ball ends of the pushrods are drilled so that oil can flow through the pushrod.

PCP	Application	Displacement
935120	1984-99 BT	80-98"

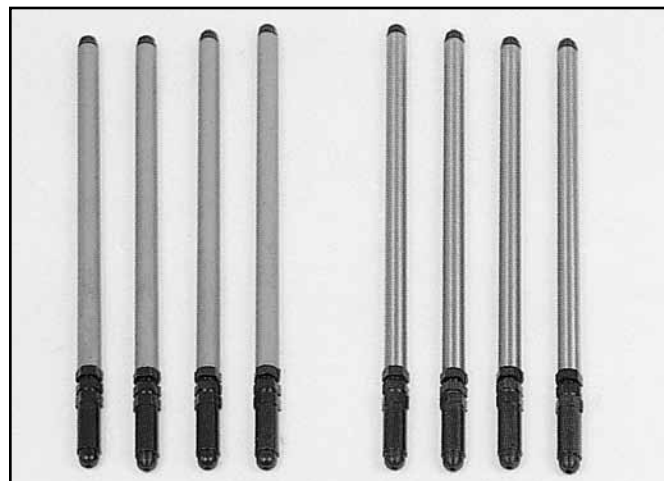
Pushrods



Jims Pro-Lite Evo Pushrods

Adjustable pushrods for Big Twins are made from aerospace quality heat treated aluminum with steel ends. Does not require disassembly of top end or removal of the cam. Pushrods will replace OEM 17921-83, 17924-83, 17927-83, 17930-83 and S&S 935076. Will work with .200 taller cycle in drive.

31178 BT Evo single cam 1984-99



Andrews Products adjustable pushrods are available for all Evolution engines. They are all stock diameter so there is no cover tube interference.

Aluminum Evolution Pushrods BT 1984-99

Fully adjustable and made from super light aluminum. A must for any cam change since the stock pushrods are not adjustable and therefore more difficult to reinstall.

292110 4 Aluminum pushrods and adjusters

Chrome-Moly Evolution Pushrods BT 1984-99

Fully adjustable pushrods are made from chrome-moly steel for maximum strength. Extra rigid, high strength construction for all out performance applications.

292140 4 Chrome-moly pushrods and adjusters

Evolution High Lift Springs (Multi-Fit)

When installed on Evo engines with titanium spring collars, cam lifts of .550+ can easily be accommodated. Installation does not require machining of heads.

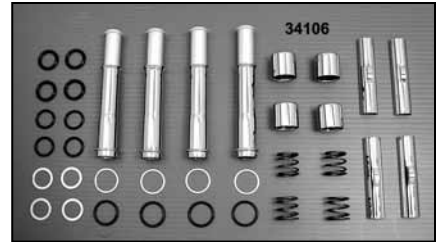
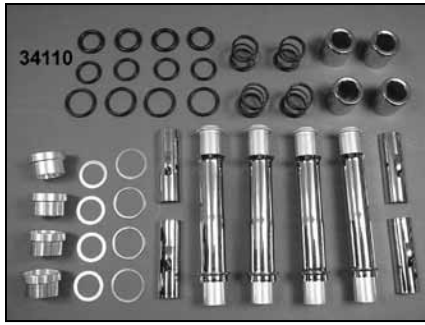
294150 4 Inner and outer springs

Evolution Titanium Upper Spring Collars (Multi-Fit)

For use on all Evolution 80 engines. They will provide .050" more spring travel over stock upper valve collars. These collars are stronger than stock parts, 50% lighter and install with stock keepers.

293110 4 Titanium upper spring collars

Pushrod Cover Kits, Multi-Fit



Complete Pushrod Cover Kits, Multi-Fit

All parts from top to bottom fit all V-Twin engines. Visible parts are all chrome and includes upper covers, inner cover, and lower covers.

PCP Fits

- 34106** Big Twin Evo's 1984-99
- 34107** TC-88 1999-on
- 34108** All Evo Sportsters 1985-89
- 34105** Adapts PCP #34108 to XL 1990-on
- 34109** Sportster 883, 1200, 1 piece design 1990-03
- 34110** As above, 16 piece design 1990-03



Chrome Billet Pushrod Cover Kit BT 1984-99

Pushrod cover kit includes all pieces and seals for complete installation on BT Evo models.

30049



BT Chrome Pushrod Cover Dress-Up Kit

Kit includes chrome lifter base covers for 1984-99 Evo.

59173



934039

S&S Pushrod Cover Kits

Includes top and bottom covers, cover cap, cover spring, and spring washer for four pushrods.

PCP Application

- 934039** TC 1999-on, BT Evo 1984-99 and XL 1986-90
- 934038** As above, for engines 1" or more taller than stock

Billet Chrome Evo Pushrod Cover Kit

59885 1984-99 Evo models

Push Rod Covers, Multi-Fit



Chrome Push Rod Cover Hardware 1936-on

PCP	Fits
73545	XL 1986-89 clips (17950-86) (4 pack)
13101	Spring (17947-36) (10 pack)
2002	Chrome cup (17945-36) (4 pack)
13557	Spring washer (6762B) (10 pack)



Pushrod Cover Kit

Lower pushrod covers and upper clips used when installing adjustable rushrods in Twin Cam motors. Requires the use of OEM springs, retainers and washer.
72148



Chrome Lower Pushrod Cover Kits

Stock pushrod covers are duplicates of the OEM part.
9202 BT Evo with 8 seals 1984-99



Upper Pushrod Cover Kits

Each kit contains 4 chrome plated retaining clips, 4 chrome plated cups, 4 springs, 4 cork gaskets, and 4 steel washers. Exact duplicates.

Chrome Plated (Outer)

1772	BT Evo (3-5/16" clips)
9865	BT Evo with S&S lifter blocks (3" clips)
9887	Sportster 1986-90 (2-13/16" clips)



Upper, Inner Pushrod Covers

1929	Quad Seal Style L1979-on
9213	Colony BT Evo 1984-99 (Quad)

Valve Springs Multi-Fit



Jims Valve Spring Kits BT 1984-04

PCP	Lift	Open #	OD	ID	Retainers
31170	.600	160	1.460	.700	Chrome-moly
31171	.600	160	1.460	.700	Titanium
31172	.675	184	1.510	.745	Chrome-moly
31173	.675	184	1.510	.745	Titanium



Valve Keeper Keys BT and XL

Split type, sold in 8 packs, enough for one engine.

PCP	Description
30013	Evo 1983-on & Twin Cam 1999-04 (18229-83)
34585	Crane 175# spring keepers



Colony Pushrod Cover Rubber Seal Kit

Fits all BT1984-on and includes 12 machined rubber seals.
9529



902078

S&S High Performance Valve Spring Kits

Kits fit stock style and S&S Super Stock Heads on 1984-04 BT and 1986-on XL. O.D. of outer spring fits within stock spring compartment. Used with "no shoulder" style valve guides and special keepers fit stock 5/16" diameter stemmed valves and S&S collars only (these guides can be retrofitted to early BT V2 heads equipped with "shoulder" style valve guides). Features patented steel top collars specially drilled to lighten and allow oil to cool springs. Includes 4 of .015" and 4 of .030" shims.

902077 Kit with steel top collars

902078 Kit with titanium top collars



T/L Spring Kit for all EVO and Twin Cam to 04

This kit includes steel lower collars, valve keepers, and titanium upper collars. For cams up to .575 lift and 6500 RPM. 155# installed spring pressure.(up to 180 # with shims supplied)

66017 18209-06

Valve Springs



Valve Spring Kits (Eastern)

Includes all springs, collars and keepers necessary for each application.

PCP	Model
32018	1340 E1985-04 (18201-83, 18202-83, 18219-83) XL 1986-on (18222-83A, 18229-83)

Note: Valve guide oil seals will require machining of valve guide and/or collar in order to re-establish overall valve guide height on all but the latest-style valve guides. Installation tools are available separately. Refer to service manual and valve guide specifications for modifications required.



EVO Valve Guide Oil Seals

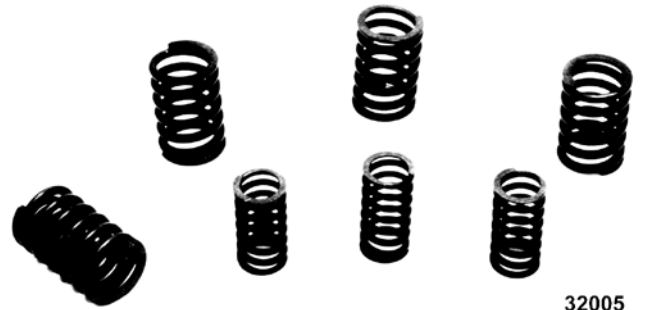
This will dry the combustion chamber and end smoking problems. Sold in 10 packs.

14000 Evo 883-1200 and BT 1984-on Evo



EVO Valve Guide Oil Seal Sets for one engine

4143 Sportster and Big Twin with one sleeve
Evolution 1984-04 (4 pack)



32005

Stock Valve Spring Kits

Each valve spring kit is manufactured from top quality materials. Heat treated with machined ground end for a perfect fit. Made in USA.

32005 1983-04 BT and 1986-on XL (18201-83, 18202-83)



13505

Valve Shims

Used on all Evolution Engines 1984-on

PCP	Fits
13505	Evolution .015" thick (20 pack)
13506	Evolution .030" thick (20 pack)



Crane Teflon Valve Stem Seals

Are made of teflon for maximum valve stem oil control. These seals wipe excess oil from valve stems by means of a unique spring loaded wiper assembly. Sold as a set of 4.

Machining Required!!

34521 BT 1984-on Evo
(3/8" valve guides must be cut to .531)
(5/16" valve guides must be cut to .531)

No Machining Required

34689 BT 1984-on Evo (set) for 5/16" stem .415" guide
O.D. seal O.D. .500"

Valve Springs

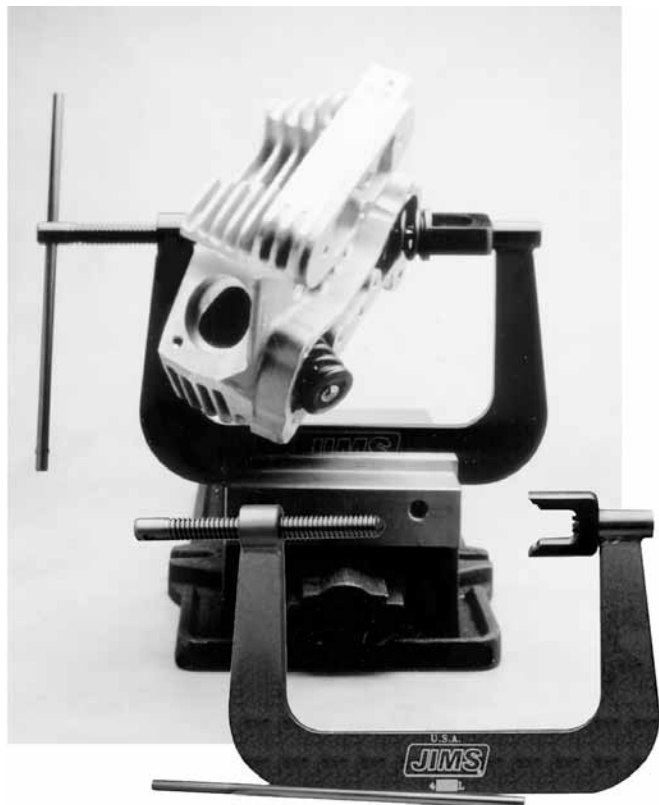
Crane EVO Valve Spring Sets

For BT Evo & TC to 2004 and available in precision wire and thermo-cool coated retainers. Made from aluminum or titanium. All springs have nominal inside .800 and 1.460 outside diameter and a coil bind height of 1.080". **Note #** is the symbol that denotes pounds.



PCP	Description	Seat Pressure & Application	Nominal Open Installed Height	Pressure & Height
34692	Steel	Springs (155#), steel retainer (5-1102)	155# @ 1.800	352# @ 1.280
34693	Titanium	Springs (155#), titanium retainer (5-1002)	155# @ 1.800	352# @ 1.280
34694*	Thermo Cool Kit	Thermo springs (155#), titanium retainers (5-1004)	155# @ 1.800	352# @ 1.280
34695	Steel	Springs (175#), steel retainers (5-1101)	175# @ 1.700	394# @ 1.180
34696	Titanium	Springs (175#), titanium retainers (5-1001)	175# @ 1.700	394# @ 1.180
34519*	Thermo Cool Kit	Thermo springs (175#), titanium retainers (5-1003)	175# @ 1.700	394# @ 1.180

Note:* Kits contain valve springs, upper and lower collars and valve locks. Others are springs and collars only.



Valve Spring Compressor Tool

Jims tool for removing or installing valves. Hardened ball bearing style tip at valve head end eliminates damage to valve. Can be clamped into vice and includes valve collar receiver for safer tool use.

31471 O.H.V. BT and XL including Twin Cam and all aftermarket heads (96600-36B)



Crane Evo H-11 Tool Steel Valve Springs-EVO

Premium steel springs are heat treated for strength and absolute reliability. Springs increase horsepower and rpm on virtually any application. These new springs also feature:

- Installed height of 1.8"-for use with up to .650" valve lift
- 1.460" Outside diameter
- 180/185 lbs. Seat pressure @ 1.150"
- 480/485 lbs. Open pressure @ 1.150"

34572

Evolution Valve Collars

61-74-80 OHV

PCP Application

30003 Lower 1984-on 1340 Evo (18222-83)

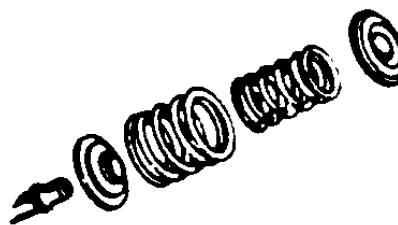
30006 Upper 1984-on 1340 Evo (18219-83)

Sportster 883-900-1000-1100-1200

PCP Application

30003 Lower 1986-on 883-1100 & 1200 (18222-83)

30006 Upper 1986-on 883-1100 & 1200 (18219-83)



AV&V Valve Springs



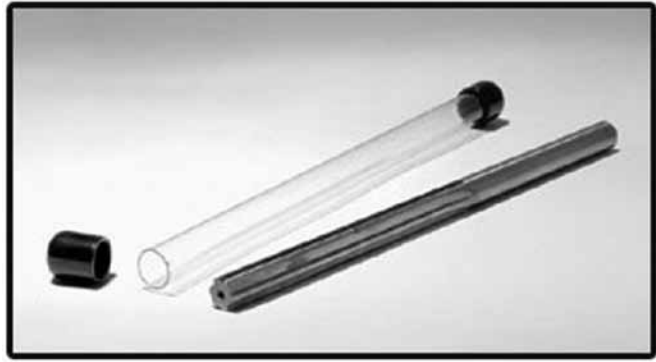
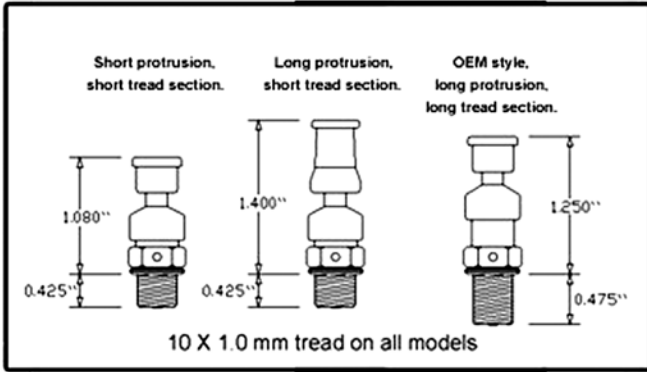
AV&V Valve Spring Kits 1984-04 (not 7mm stems)

Premium springs are manufactured without compromise from an ultra clean, high silicon and vanadium alloy wire; the best alloy available on the market for high lift and endurance applications. The chrome moly 4140 steel retainers are the strongest most durable retainers offered. High grade titanium retainers add strength and reduce weight allowing the spring pressure to operate more efficiently. This lets your motor accelerate quicker and produce more power. Springs feature a small O.D. of 1.460" so very little or no grinding is required to the inside of the rocker cover.

AV&V Selection Chart for up to .600" lift						
PCP	Nominal Diam. Inside-Outside	Retainer Type	Application	Seat Pressure & Initial Height	Nominal Open Pressure and Height	Coil Bind Height
34028	0.800" - 1.460"	Steel	Evo, Twin Cam	155# @ 1.800"	352# @ 1.280"	1.080
34029	0.800" - 1.460"	Steel	Evo, Twin Cam	175# @ 1.760"	394# @ 1.180"	1.080
34030	0.800" - 1.460"	Titanium	Evo, Twin Cam	175# @ 1.760"	394# @ 1.180"	1.080
34031*	0.800" - 1.460"	Steel	7mm, Twin Cam, Sportster	155# @ 1.800"	352# @ 1.280"	1.080
*Note: Smaller valve seals #34036 must be used with AV&V 7mm double spring conversion. PCP# 34028 and #34031 are recommended for up to .560" lift PCP# 34029 and # 34030 are recommended for up to .600" lift						
AV&V Selection Chart for up to .660" lift						
PCP	Nominal Diam. Inside-Outside	Retainer Type	Application	Seat Pressure & Initial Height	Nominal Open Pressure and Height	Coil Bind Height
34032	0.800" - 1.460"	Steel	Evo, Twin Cam	180-185# @ 1.800"	480-485# @ 1.150"	1.080
34033	0.800" - 1.460"	Titanium	Evo, Twin Cam	180-185# @ 1.800"	480-485# @ 1.150"	1.080



Release Valves and Seals



AV&V Solid Carbide Valve Guide Reamers

These unique reamers feature a 2" long pilot for a perfect alignment with the valve guide while reaming and are specially designed for use with manganese bronze material. Valve guides can be reamed to exact dimension without any taper in just a few seconds. These durable tools will last for hundreds of guides. When using AV&V valves and guides this one tool allows you to fit both intake and exhaust.

PCP	Diameter	Application
34044*	7mm +0.001"	Stock OEM valves
34045	0.3110"	Evo, Twin Cam
34046	0.3115"	Evo, Twin Cam
34047**	0.3120"	Evo, Twin Cam

*HD 7mm valves are .001" oversized, #34044 must be used to fit AV&V bronze guides to accept OEM valves
 ** Recommended size for all Evo and Twin Cam AV&V valves



AV&V Compression Release Valves (Pairs)

AV&V compression valves are available as a stock replacement and in short thread styles. Short thread valves are easy to install as you don't need to machine the heads as deeply as when using stock OEM style valves. All valves feature a high temperature resistant knob that comes in a charcoal colour to more closely match heads. 10 x 1.0mm threads.

PCP	Thread	Protrusion	Recommended Application
34041	Short	Short	Evo models
34042	Short	Long	Twin Cam
34043	Long	Long	Stock replacement



Fluoro-Viton Seals (5 Pack)

Seals are made from a fluoro-viton polymer with teflon added to prevent valve to seal friction. A metal spring keeps constant seal to valve tension to prevent oil consumption. These seals are then bonded to a steel jacket that provides a secure fit to the guide. The internal ribs are designed to allow for installation without any tools, but hold secure after installation.

PCP	Application	Stem	Guide
32276	V-Rod	6mm	.347
32275	Evo	7mm	.562
32274	Evo	5/16	.420



AV&V Viton Valve Seals (4 Pack)

Seals resist higher temperatures to offer superior sealing.

PCP	Application	Guide O.D.	I.D.
34035	V-Rod	8.5mm	6mm
34037	OEM style	0.562"	7mm
34038*	Evo, Twin Cam	0.420"	5/16"
34039	Evo, Twin Cam	0.530"	5/16"

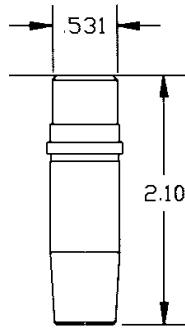
* Designed for shortened valve guide length due to the limited clearance between stock guides and upper spring coll

Valve Guides

Rowe Unhoned Small Bore Cast Iron Guides

Evolution with flange .300" shorter

Int./Exh.	Size
17590	STD
17591	.001
17592	.002
17593	.003



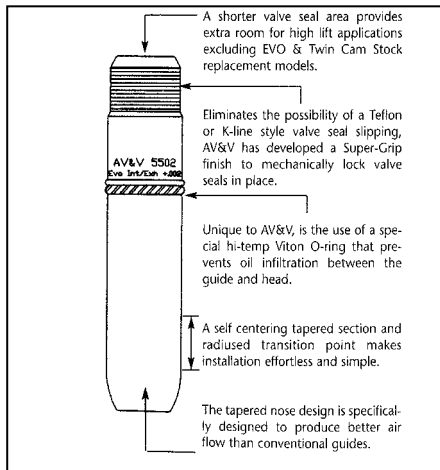
S&S Valve Guides

PCP	Description
902210	STD V2 Int/Exh
902211	+ .001 V2 Int/Exh
902212	+ .002 V2 Int/Exh
902213	+ .003 V2 Int/Exh
902219	+ .030 V2 Int/Exh



Rowe Valve Guides

Model	Size	Cast Iron		Ampco 45	
		Intake	Exh	Intake	Exh
Evo 1984-on	STD	17670	17680	17510	17510
BT and XL .5620	+ .001	17671	17681	17511	17511
	+ .002	17672	17682	17512	17512
	+ .003	17673	17683	17513	17513
	+ .004	17674	17684	17514	17514
	+ .005	17675	17685	17522	17522
	+ .006	17676	17686	17515	17515
	+ .008			17523	17523



AV&V High Performance Valve Guides for Evo and Twin Cam Models to 2004

These manganese bronze guides have a shortened seal area and are tapered for use on high lift and high flow applications. Use with .530" valve seals.

Intake	Exhaust	Oversize	O.D.	I.D.
31756	31768	STD	.5625"	.308"
31757	31769	.001"	.5635"	.308"
31758	31770	.002"	.5645"	.308"
31759	31771	.003"	.5655"	.308"
31760	31772	.004"	.5665"	.308"
31761	31773	.005"	.5675"	.308"
31762	31774	.006"	.5685"	.308"
31763	31775	.008"	.5705"	.308"
31764	31776	.010"	.5725"	.308"
31765	31777	.012"	.5745"	.308"
31766	31778	.015"	.5775"	.308"
31767	31779	.025"	.5875"	.308"



AV&V Valve Seats

These valve seats are made from heat and wear resistant high quality alloy steel, and are manufactured with clear identification markings and radius edges for easy installation. These seats will resist intense valve pounding and effectively dissipate heat for constant valve sealing. These valve seats will increase in hardness during engine break-in period.

Exhaust and intake valves are made from the same material, choose size as needed. Machining may be required.

PCP	O.D.	I.D.	Thickness
31787	1.630"	1.180"	.385"
31789	1.757"	1.371"	.315"
31780	1.757"	1.410"	.430"
31788	1.880"	1.439"	.410"
31784	1.944"	1.570"	.400"
31781	2.008"	1.610"	.440"
31782	2.040"	1.590"	.420"
31790	2.068"	1.750"	.315"
31783	2.070"	1.610"	.460"
31785	2.135"	1.750"	.400"
31786	2.163"	1.750"	.455"

AV&V High Performance Valve Guides for Evo and Twin Cam Models to 2004

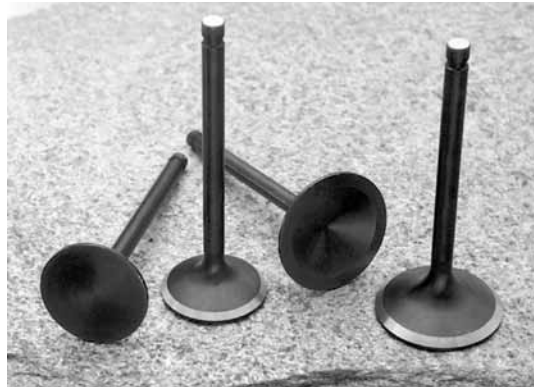
These manganese bronze guides are stock length for direct stock replacement. Use with .530" valve seals. Same guide will fit intake or exhaust.

PCP	Oversize	O.D.	I.D.
31801	STD	.5625"	.308"
31802	.001"	.5635"	.308"
31803	.002"	.5645"	.308"
31804	.003"	.5655"	.308"
31805	.004"	.5665"	.308"
31806	.025"	.5875"	.308"



Valves

Rowe Valves with Machined Heads



Rowe TC/EVO Machined Valves

High flow, forged one piece valves made from 21-4N stainless steel. Precision CNC machined with black melonite heat treating process (nitride), chromed or plain. Sold each.

Head Diam.

PCP	Rowe	Application	± .005
32231	700-13	Intake TC/EVO black	1.844
32234	700-12	Intake TC/EVO chromed	1.844
32226	700-11	Intake TC/EVO plain	1.844
32217	700-14	Intake TC/EVO -.040 shorter	1.844
32214	714-13	Intake TC/EVO +1/16 head -.048 shorter	1.900
32220	700-51	Intake TC/EVO +.100 head plain stem	1.944
32262	715-13	Exhaust Twin Cam black	1.570
32215	915-13	Exhaust Twin Cam black	1.610
32232	701-13	Exhaust EVO black	1.610
32236	701-12	Exhaust EVO chromed	1.610
32228	701-11	Exhaust EVO plain	1.610
32219	701-14	Exhaust EVO-.040 shorter	1.610

Jims Evo and Twin Cam Black Tulip Valves

Jims completes the quest for the ultimate valve train system with the addition of these high-performance valves. Designed to withstand extreme conditions, these valves are constructed from a forged one piece racing grade stainless steel alloy, and specially heat-treated and processed with nitride for superior wear resistance. A special micropolished 45 degree angle just below the lock groove prevents excessive stress on the valve, and makes valve seal installation easier.

Evo and Twin Cam valves represent the latest evolution in performance valves with their high-radius stem to valve transitions. Longer life and better flow was the emphasis in the development of these valves, and through extensive testing the valve contouring has been optimized for both aerodynamic and volume maximization with the longest life of a valve possible. Use on 1984-on Evo BT and 1999-on TC engines and most aftermarket performance heads.

PCP	Type	Head Diam.	Length	Stem Diam.	Profile
31651	Exhaust	1.610"	4.525"	.3106"	Dished
31652	Exhaust	1.570"	4.525"	.3106"	Dished
31653	Exhaust	1.610"	4.525"	.3106"	Flat
31654	Intake	1.900"	4.440"	.3108"	Dished
31655	Intake	1.940"	4.440"	.3108"	Dished
31656	Intake	2.020"	4.440"	.3108"	Dished

34565



Crane Valves

Crane's new friction fused performance valves are made from a combination of the finest alloy steels. These valves offer increased fuel/air flow, reduced expansion, improved valve seating.

Evolution Big Twin Engines 1984-99

PCP	OEM	Type	Head	Stem	Description
34565	18074-83	Int	1.850"	.3100"	Chrome
34566	18082-83	Exh	1.615"	.3095"	Chrome



Preston's BT Valves w/Forged Stems 1984-on

Hard Chrome

Head	Intake	Exhaust
STD	3467	32236

Rocker Arm Kits, Multi-Fit



S&S Roller Rocker Arms for BT and XL Evo

S&S roller rocker assemblies are made for BT cams with lifts up to .710" and XL up to .650". These assemblies feature aircraft grade steel, pressed-in bushings instead of needle bearings, and 1/2" diameter rollers for strength and longevity. Deep pushrod tip cups promote better pushrod retention at extreme valve angles when spring pressure and pushrod flex are at their greatest potential.

Note: That adjustable style pushrods must be used with S&S style roller rocker arms to obtain proper valve lash adjustment.

904065 Set of 4



AV&V Black Tulip and Chrome Tulip Valves

These superb valves feature the highest flow on the market. One piece valves are forged from a racing grade stainless steel alloy and are available in hard black or chrome finish. Each valve has a bearing quality hardened tip at the end of the stem to prevent premature wear with high lift applications. The Tulip Valve design also features a 45 degree angle below the lock groove to reduce the stress in this area and to facilitate the valve seal installation. Each valve is heat treated with a special process and the stem is centreless grinded to a microfinish for a longer life.



EVO & TC Rocker Arm Shafts

904006 S&S Replaces 17611-83

31198 Jims as above

30300 Preston as above-USA

Evolution BT and Twin Cam to 2004

PCP	Type	Head		Stem	
		Diam.	Length	Diam.	Finish
31791	Exhaust	1.570"	4.525"	.3106"	Black
31792	Exhaust	1.610"	4.525"	.3106"	Black
31793	Exhaust	1.610"	4.525"	.3106"	Chrome
31794	Intake	1.900"	4.440"	.3108"	Black
31795	Intake	1.900"	4.440"	.3108"	Chrome
31796	Intake	1.940"	4.440"	.3108"	Black
31797	Intake	1.940"	4.440"	.3108"	Chrome
31798	Intake	2.020"	4.440"	.3108"	Black

Evolution Sportster 883 to 1200 Conversion

PCP	Type	Head		Stem	
		Diam.	Length	Diam.	Finish
31799	Exhaust	1.480"	4.640"	.3106"	Black
31800	Intake	1.720"	4.560"	.3106"	Black



AV&V Stainless Steel Valves

These valves are heat treated and nitride processed for excellent wear resistance. These valves feature a 45 degree angle, cut below the lock groove to reduce stress in this area, as well as making valve seal installation easier.

Evolution BT Valves 1984-on

PCP	Valve	Head Diam.
31662	Exhaust	1.615"
31661	Intake	1.845"



Chrome Head and Spark Plug Cover 1986-99

Fits 1986-99 evolution models. Covers are held in place by supplied rubber inserts.

59703

BT Evo



Topline BT Evolution Cylinder Heads

USA made heads are available in plain or black wrinkle finish and include seats and guides. Sold each.

Front OEM	Rear OEM	Application
65202 16691-85C	65201 16690-85B	BT 84-91, plain
65205 16691-92B	65206 16690-92B	BT 92-99, plain
65207 16692-92A	65208 16696-92	BT 92-99, B/W



BT Evo Rocker Arm and Shaft Kit

Fits BT 1984-on and XL 1986-on models. Kit includes 2 (17375-83) rocker arms, 2 (17360-83) rocker arms and 4 (17611-83) shafts.

- 32333** Kit
- 30058** F/Int and R/Exh rocker arm (17360-83)
- 30059** R/Int and F/Exh rocker arm (17375-83)
- 30300** Shaft only, Preston (17611-83)
- 31198** As above, Jims



Jims Roller Rocker Arms

Precision, American made rocker roller arms are investment cast from purified, aircraft quality, 4340 chrome moly steel. Both stock and aftermarket rocker arms were analysed to determine a baseline for the design: 660 bronze bushings were retained and a bearing grade steel roller tip was integrated into the design. Rocker arms feature a segmented parabolic pushrod cup that reduces friction, wear, and improves roller tip oiling. Stock ratio of 1.625 will easily accommodate a .700" lift cam (at the valves). Replaces 17360-83 and 17375-83. Set of 4.

31251 BT 1984-on, XL 1986-03



Crane Bushing Tip Roller Rocker Arm

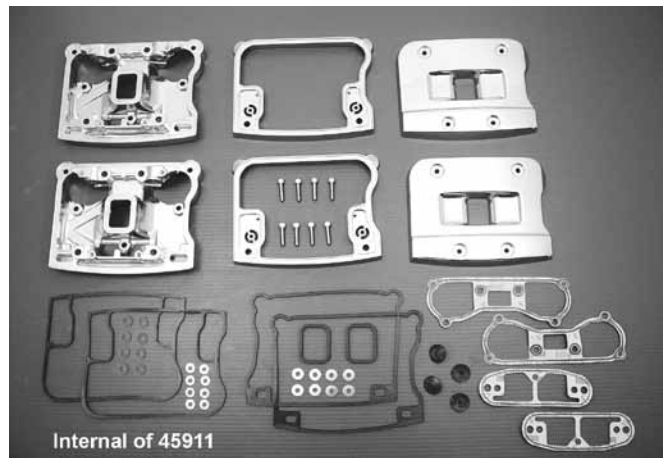
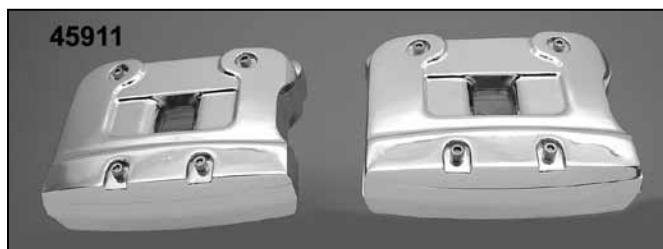
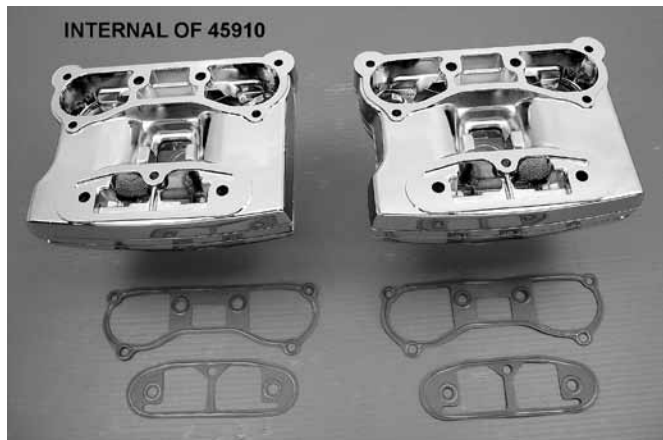
Roller tip rocker arms have a bushing fulcrum for long term performance and reliability. These arms use the original equipment rocker arm shafts. Made from 4140 alloy steel and precision forged for greater strength, truer rocker arm ratio, and improved rocker geometry. Features oil metering system that fully lubricates the fulcrum and roller tip for cooler, smoother operation. Installs easily with no machining on your original rocker shafts. Set of 4.

34564 Twin Cam 88 1999-on with stock ratio



Jims Rocker Arm Bushing (Must be Reamed)

- 31100** 17428-57 Stock replacement BT 66-on, XL 57-on (8 pack)
- 31102** 17428-83K Jims roller rocker bushings less mill slot **not to be used on Shovels or Ironhead XL I.D. .555"** (8 pack)



Preston Chrome BT Evo Rocker Cover Sets

Die cast, machined covers are polished and chromed. These covers have a slightly changed contour than stock around screw holes for a smoother look. Complete 6 piece set includes all necessary gaskets and chrome allens for installation for both heads.

PCP	Application
45910	BT 1984-99
45911	BT 1992-99



BT Evo Rocker Cover Kits

Die-cast aluminum covers have smooth rounded corners and recessed mounting screws. Kits are designed to accept stock or aftermarket rocker arms, shafts and can be used with early or late (umbrella) venting systems. Kits include gaskets and hardware.

45892 BT 1984-99

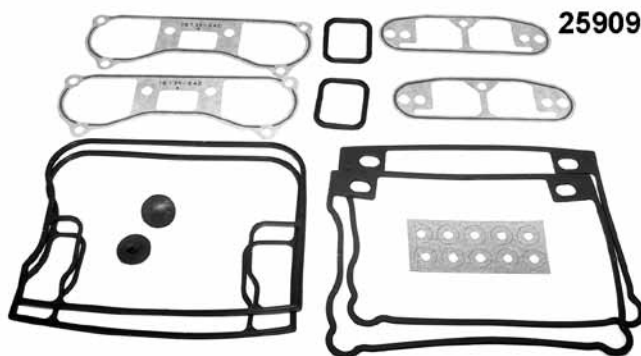


Topline BT Evo Rocker Cover Components

Chromed, sold each. Each motor will require 2 of each 1992-99

PCP	Description
64241	Outer rocker cover (17528-92)
64242	Cover spacer (17529-92)
64245	Lower rocker cover (17530-92)

1984-91	Description
64238	Outer rocker cover (17528-84A)
64239	Cover spacer (17529-84A)
64240	Lower rocker cover (17530-84B)



Topline Gaskets U.S.A.

BT Evo	Description
25904	Graphite head Evo .055 (16770-84D) (pr)
25908	Rocker kit 1984-91 (17038-90)
25924	R&L Steel 1 pce gasket (16800-84) (pr)
25909	Rocker kit (17042-92A)
25910	Lower rubber rocker cover (17355-84A) (5 pk)

BT Evo



S&S Chrome Diecast Aluminum Rocker Cover Kit

These covers fit all Evo engines. Kits include bases and covers for both cylinders, one-piece rocker shaft support units, Viton o-rings and all hardware and gaskets required for installation. Exterior hardware is chrome plated.

904095 Evo BT and XL



S&S Style Chrome Rocker Box Set 1984-99

Two piece set for two heads on 1984-99 Evo models.

59555 Rocker box set

25406 Gasket set



Jims Compression Release Valves

These release valves make starting your engine effortless by venting cylinder compression with just the push of a button. These are indispensable when used with stroker kits, high compression engines and large displacement engines. Simply drill and tap each cylinder head and thread in the self-sealing release valves.

31283 Fits all BT and XL



Chrome Rocker Box Top Cover with D-Ring

Fits 1984-91 BT models. Gaskets are sold separately.

59049



Chrome Head Bolt Covers

Covers fit BT 1986-99 and XL 1983-90.

44043 Grooved

44044 Smooth



Chrome Rocker Box Bolt Covers

Fits 1984-on Evolution 1340 and XL models.

29209 43943-01



T/L Chrome Headbolt / Spark Plug Cover

Use this chrome accessory to cover the headbolt to spark plug area. Installs quickly without tools on 1984-99 Evolution 1340 models except those equipped with Screamin Eagle evolution cylinder heads and 1983-03 Sportster.

64254 43835-98



James Genuine Metal Cylinder Base Gasket

Gasket has a steel base metal which has been coated on both sides with a specially formulated high temperature oil resistant rubber compound. Silicone beading around the inner and outer perimeter forms a seal on both sides of gasket. Pairs.

PCP Description

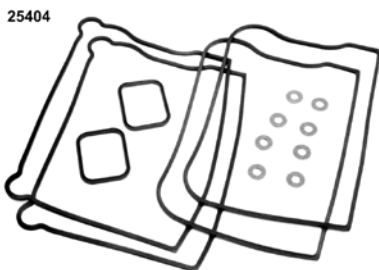
- 79240** BT Evo 1984-99 (16777-94)
- 79525** BT Evo 3-5/8" (16777-94S)
- 79228** XL Evo 1986-08 (16774-96)



HES Head-Base Gasket Sets

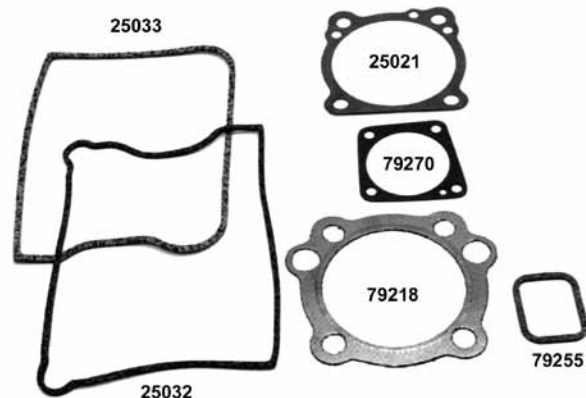
Feature .040 special copper head gaskets and .007" thick aluminum base gaskets, will not compress or torque, and have great detonation resistance. Kits include 2 head & 2 base gaskets.

- 25720** 1984-91 80" EVO
- 25721** 1986-91 XL EVO 1200

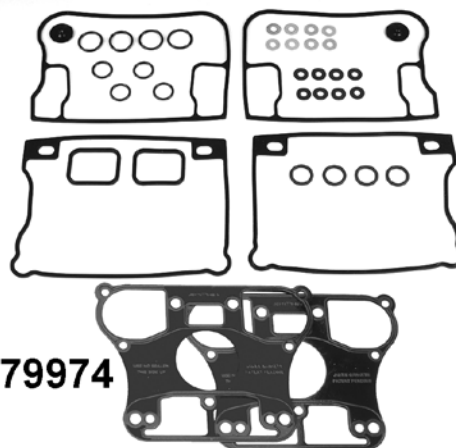


Silicone Rocker Box Gaskets for Evolution® Motors 1984-91

- PCP Fits**
- 25401** Lower Rocker Cover (17335-84B) (pair)
- 25402** Upper rocker cover (17356-84B) (pair)
- 25403** Inner rocker cover (17358-84B) (pair)
- 25404** Kit, 2 each of above (enough for 1 engine)



Jans	James	OEM	Item
	79218	16773-85	Head Gasket
25021	79226	16774-86A	Cyl. Base
	79227	16774-86AC	Coated cylinder base
14538		26432-76A	Stud O-Ring
	79366	16779-84-X	1 piece rocker w/silicone
	79219	16773-85T	.046 Blk head gasket (5pk)
	79506	16773-85TS	.046 BB w/silicone bead
25032	79249	17355-84	Lower Rocker, cork
25033	79252	17356-84	Upper Rocker, cork
	79255	17358-84	Centre Rocker, cork
	79256	17358-84-A	Centre top rubber 87-92
	79270	18633-48D	Rear Tappet
	79274	18634-48C	Front Tappet
25170		63858-49	Washer (drain plug)
14525		11145 (10)	Lower Push Rod Cover
14521		11157 (10)	Upper Push Rod Cover

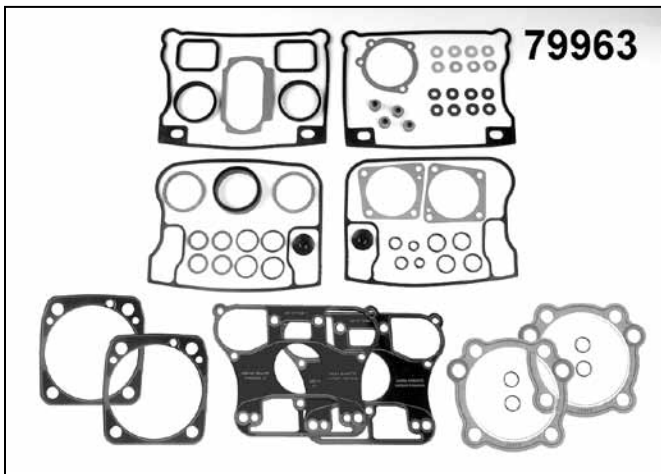
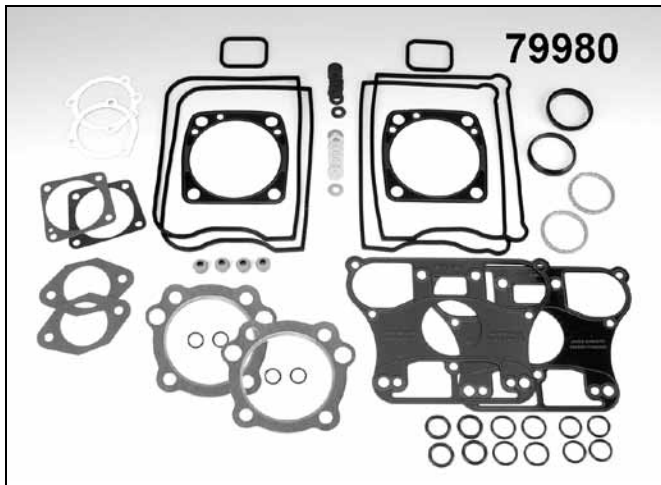


EVO Big Twin Rocker Cover Gasket Kits

These gasket kits include both rocker to head gaskets and your choice of **Molded O-Ring** or **Cork cover** gaskets with bolt seals and washers for two heads for models listed.

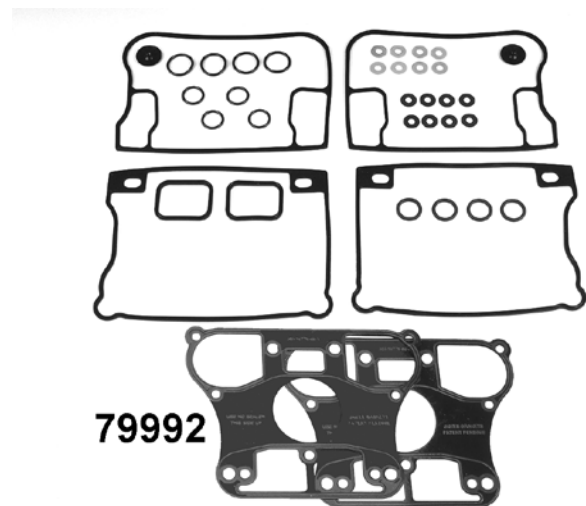
Jans	James	Type	Year
	79972	Cork	1984-91
25413	79973	O-Ring	1984-91
	79991	As above w/steel	
25415	79974	O-Ring	1992-99
	79992	As above, w/steel	

BT Evo



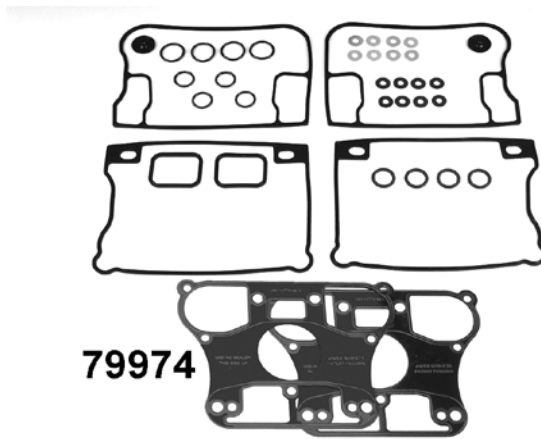
James Top End Gasket Kits Evo BT 1984-99

PCP	OEM	Description
79961	17033-83*	1984-91 (cork and teflon)
79980	17033-83-A	1987-91 (rubber & Teflon)
79984	17040-92	1992-99 (.045 & rubber rockers)
79963	17033-92	Big bore 1992-99 (.045 & rubber)



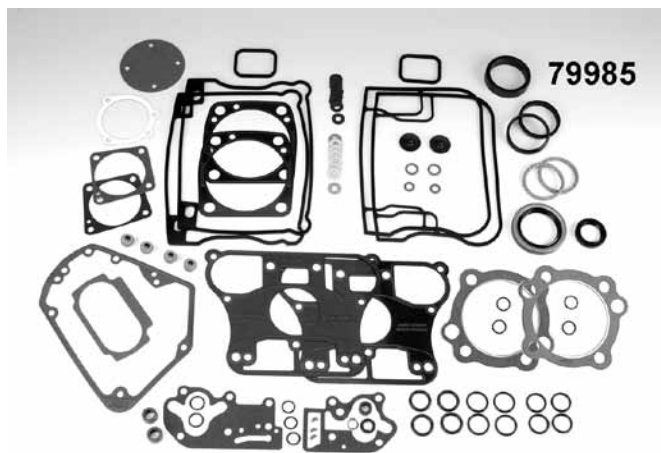
James Rocker Cover Gasket Kit

Includes coated steel base gaskets. Replaces 17042-92-X.
79992 Kit



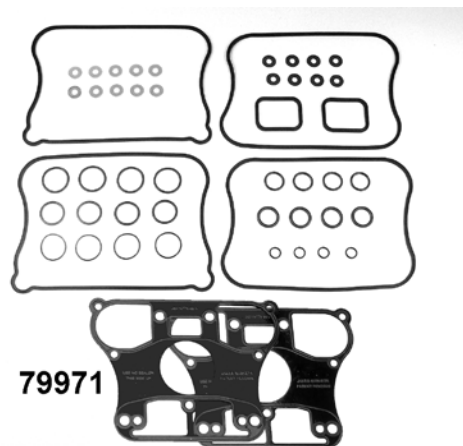
James Rocker Cover Gasket Kits

PCP	OEM	Description
79972	17033-83-R	1340cc 1984-91, cork
79973	17038-90	1340cc 1984-91, rubber
79974	17042-92	1340cc 1992-99, rubber



James Motor Gasket Kits

PCP	OEM	Description
79982	17035-83-B	1340cc 1984-91, rubber 4 & 5 speed
79985	17041-92-A	1340cc 1992-99, rubber



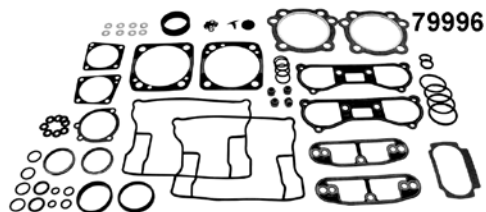
James Rocker Gasket Kit with Steel BT 84-91

79991 17038-90-X

Topline BT Gaskets

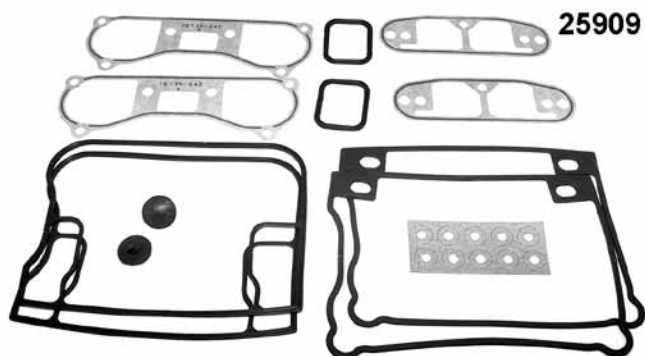


Steel 1 Piece Evo Rocker Box Lower Gaskets
25924 Pairs (16800-94)

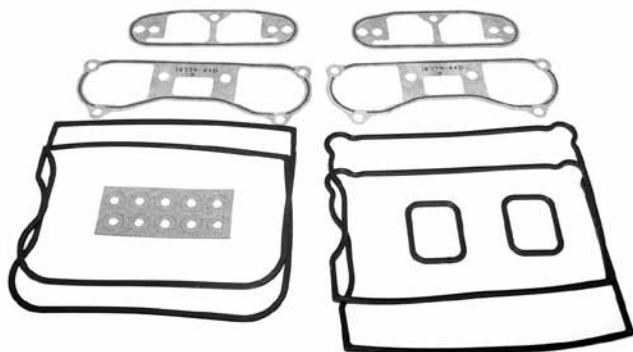
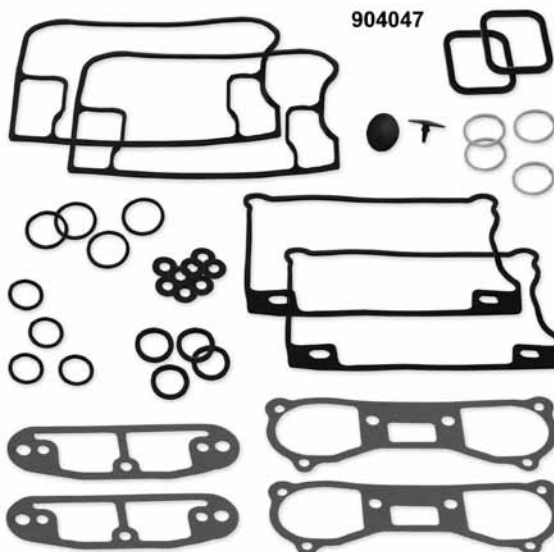


James Evo BT Top End Kits

Top end only kit w/.046" by 3-5/8" head gaskets for use on Evo BT with S&S rocker boxes.
79996



25909 17042-92A Rubber rocker box kit 1992-99

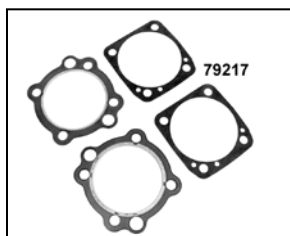
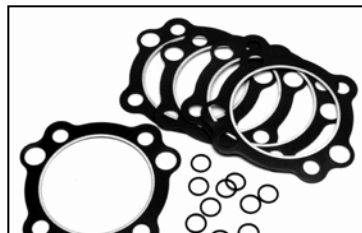


25908 17038-90 Rubber rocker box kit 1984-91
25910 17355-84A Rubber lower rocker 1984-91 (5 pack)

S&S Evo Rocker Cover Gasket Kits

Gasket kits for S&S rocker covers feature o-ring style seal between upper and lower cover.

PCP	Description
904046	1984-91 stock rubber (17038-90)
904047	1992-99 stock rubber (17042-92A)
904049	S&S billet, all BT & Sportster Evo
904091	S&S billet, all BT & Sportster Evo



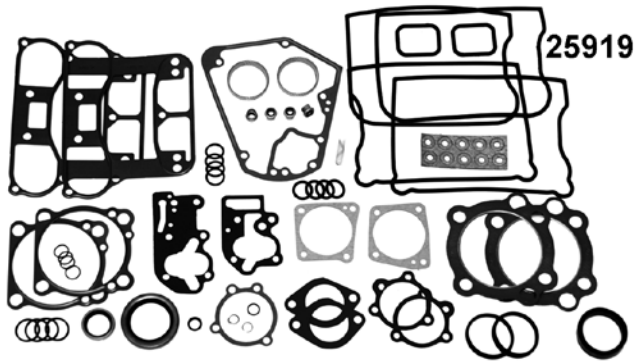
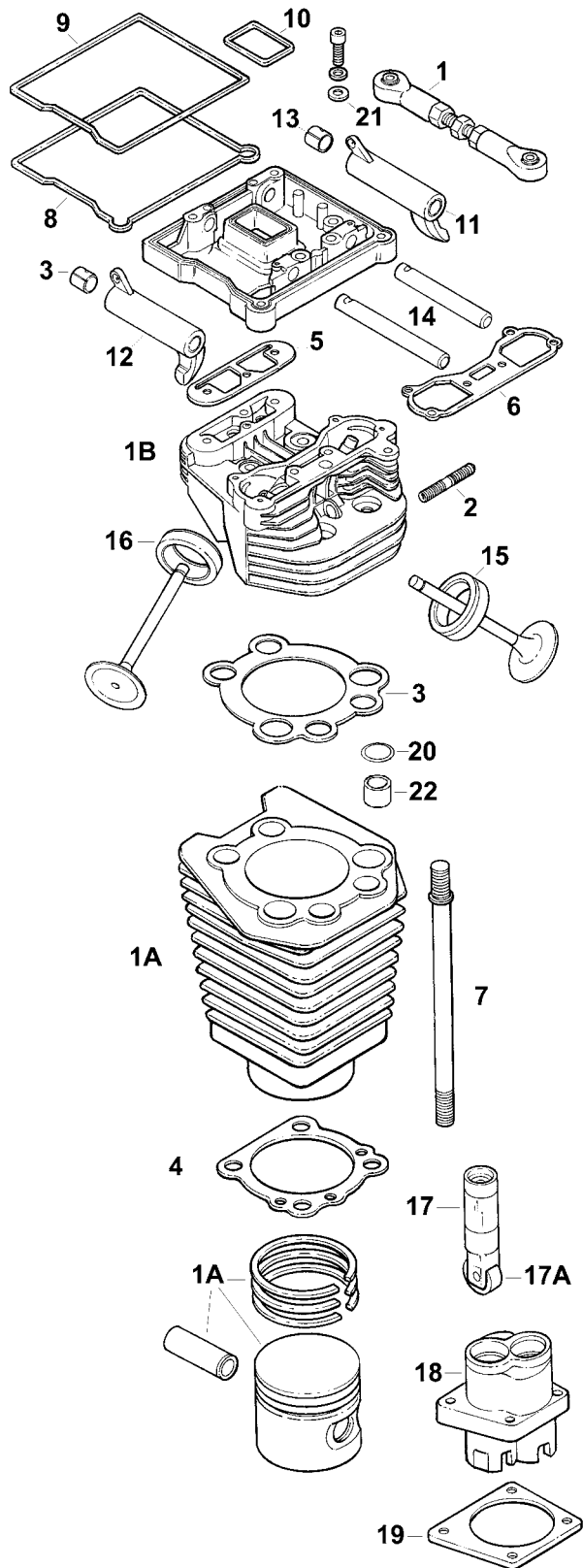
James Head Gasket 1984-99

79215	16770-84-A	.046" Head gasket and coated base with 4 blue o-rings (kit)
79216	16770-84-B	.048" Carbon graphite head gaskets with o-rings (5 pk)
79217	16770-86-S	3 5/8" .064" Blue teflon head gasket & .016" cylinder gasket kit with 4 red o-rings (kit)
79218	16773-85	.064" Black teflon head gaskets (5 pk w/10 o-rings)
79219	16773-85-T	.046" Black teflon head gasket with o-rings (5 pk)
79506	16773-85-TS	.046" 3 5/8" Head gasket with silicone (5 pk)
79553	16770-84-X	.036" Head gasket 1984-01 (2 pk)

BT Evo

Revolution Hard Parts

	PCP	OEM	Description	Year	U/M
1	29010	16219-79B	Stabalizer link, top (not FXST)	80-	Each
1A	65200	16510-83A	Cylinder & piston	85-*	Each
1B	65201	16690-85B	Rear head	85-91	Each
	65202	16691-85C	Front head	85-91	Each
2	10807	16715-83	Stud exhaust	85-*	5 Pk
3	79218	16773-85	Head gasket (2)	84-*	5 Pk
4	25021	16774-86A	Base gasket (2)	84-*	10 Pk
5/6	79366	1677-84X	1 pc rocker, paper	84-*	Pr
5/6	79581	16779-99X	As above steel	84-*	Pr
7	10816	16837-85C	Cylinder stud (8)	85-*	Each
	9424	16837-85B	Cylinder studs, Colony	85-*	8 Pk
8	25032	17355-84A	Rocker gskt/lwr,cork (2)	84-91	10Pk
9	25033	17356-84A	Rocker gskt/up,cork (2)	84-91	10Pk
10	79255	17358-84A	Cork gskt/ln (2)	84-91	10Pk
11	29004	17360-83	Rocker arm F/I, R/E	84-*	Each
12	29005	17375-83	Rocker arm R/I, F/E	84-*	Each
13	18503	17428-57	Bushing rocker (8)	66-*	4 Pk
14	30300	17611-83	Rocker shafts (4)	84-*	Each
	31198		Jims as above		Each
15	29006	18011-86	Exhaust seat STD (2)	84-*	Each
	29013	18134-83	Seat .005 (2)	84-*	Each
16	29008	18020-83	Intake seat STD (2)	84-*	Each
	29009	18134-83	Seat .005 (2)	84-*	Each
17	29000	18523-86	Tappet roller (4)	86-*	Each
17A	15623	-	Roller with pin (4)	86-*	Each
	15624	--	Roller set	86-*	Set
18	29001	18540-83B	Guide block rear	84-*	Each
	29002	18542-83B	Guide block front	84-*	Each
19	79270	18633-48C	R/Tappet gask .031	48-91	10Pk
	79271		As above .020	92-99	10Pk
	79273	18634-48C	F/Tappet gask .031	48-91	10Pk
	79274		As above .020	92-99	10Pk
20	14538	26432-76A	O-Ring	84-*	10Pk
21	25170	63858-49	Washer, screw	84-*	10Pk
22	18705	16573-83	Steel insert	84-*	5 Pk



Topline Evo Complete Gasket Sets

PCP	Application
25919	1984-91 FXST, FXR, FLT (17035-83B)
25920	1992-98 FLT, 1992-94 FXR, 1992-99 FXST, 1992-98 FXD (17041-92A)

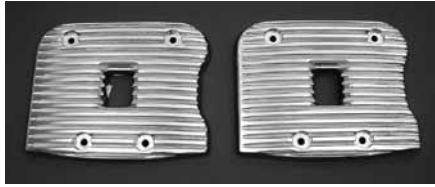
Topline Evo Top End Gasket Kits

PCP	Application
25921	1984-91 FXST, FXR, FLT (17033-83A)
25922	1992-98 FLT, 1992-94 FXR, 1992-99 FXST, 1992-98 FXD (17040-92A)



SEE THE GASKET SECTION FOR MORE GASKETS

BT Evo Rocker



EVO Finned Rocker Cover

Die cast aluminum. Besides looking great, these covers provide cooler oil running temperature due to the heat sink construction of the fins.

- 6840** Polished (1984-91)
- 6841** Chrome (1984-91)



Chrome "Legends" Rocker Cover Trim

These new "Legends" series chrome covers feature black painted slots that extend and enhance the finned appearance of the heads. Installs easily over existing cover without requiring any modification. Sold in pairs.

- 45242** BT 1984-99



Chrome Head Fin Covers

Covers top three fins on the right hand side of late model heads. Sold in pairs.

- 45463** BT 1984-on



Evo Rocker Box Screw Kit

Includes chrome allen screws and washers with copper sealing washers.

PCP Description

- 8931** Allen screw kit
- 20500** Sealing washer (6114) (10)
- 25170** Fibre washer (63858-49) (10)



Head Bolt/Spark Plug Covers For EVO 1986-99

These sets are diecast and chrome plated to cover the head bolt and spark plug base area. They are held in place by a rubber grommet which fits over the spark plug and a recess in the casting fitting over the 12 point head bolt, for a secure fit.

- 45072** Pair BT 1986-99



Rocker Box breather Upgrade 1992-99

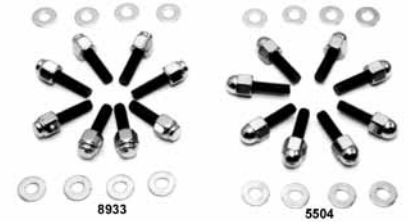
- 16326** Kit



Top Motor Mount to Cylinder Head Bracket Kit

Chrome top motor mount to cylinder head bracket mounting kit feature companion countersunk washers and flat head allen screws. Fits BT 1993-on and XL 1986-on.

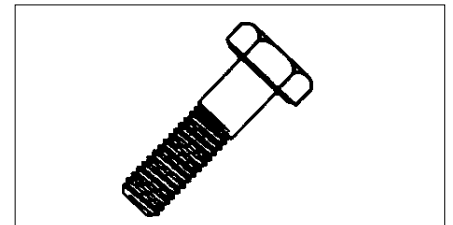
- 9967**



Colony Rocker Cover Screws

PCP Application

- 5504** XL 883/1100 1986-on acorn
- 8933** As above, cap



Evo Big Twin Lower Rocker Cover Mounting Hardware

This kit includes all correct bolts, allen screws and washers necessary for bolting the lower rocker cover to the cylinder head. Complete set for two heads.

- 24049** 1984-99

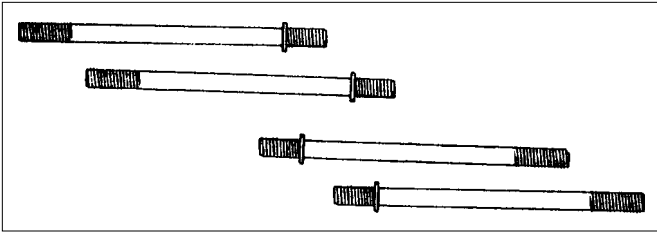


Colony Lower Rocker Box Mounting Kit

Stock replacement hardware for mounting both lower rocker boxes on Evo Big Twin and Sportsters.

- 72078**

EVO Cylinder Hardware



Evo Cylinder Head Studs

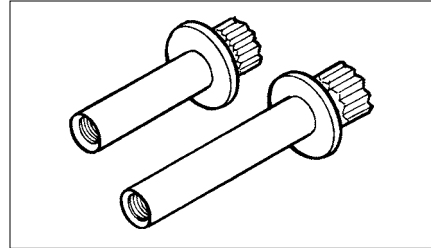
PCP	Fits
10816	T/L BT 1985-99 (16837-85C) (ea)
10821	As above (4 pack)
9424	Colony BT 1985-99 (16837-85A) (8 pk)
72083	Colony TC 1999-on (16834-99) (8 pk)
60104	Sifton BT 1984-99 (8 pk)
9507	Colony XL 1986-on (16832-86A) (8 pk)



Chrome Head Screw Set

Set includes 4 long and 4 short head screws. Washers sold separately.

24000 BT Evo 1983-84 (16478-83, 16480-83)



BT Evo Head Bolts

Headbolts from Revolution feature a stock style and finish.

12614 3.17" Long (4 Pk) (16478-85A)

12615 1.68" Long (4 Pk) (16480-85A)

S&S BT Evo Cylinder Studs 1985-99

60106	8 Pack
312321	Each



BT Evo Inserts

10052 8 piece kit



Headbolt Covers for Evo and Twin Cam

Chrome hex dome headbolt covers hide 12 point headbolts on all late 1985-on FL, FX, XL. Installs with set screw.

72024 Custom hex dome style

72232 Smooth style

72262 Pike style

Rocker Cover Screw Kit

Chrome plated 12 point screw, washers, and gaskets mount rocker covers on 1985-on FL,FX and 1986-on XL.

72280

BT Evo Rocker



"Tru-Seal" EV Rocker Box Cover Collar and Screw Kit

Kit includes 8 screws and sealing washers with built-in o-rings for a positive seal.

- 24557 Stainless steel
- 24558 Chrome



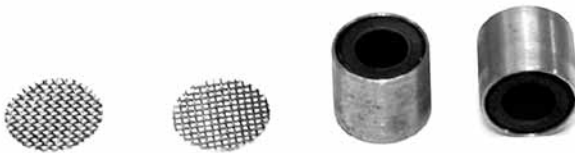
Colony Rocker Cover Screw Kit

Fits FX, FL 1985-on.
9788



Evo Headbolt Washers

Stock replacement washers for BT L85-91 and XL 1984-91.
72017 Chrome (16482-85)
72018 Cad



Sifton Evo Cylinder Drain Inner Filter

Use this filter to return top end oil. Features a stainless steel screen and a ceramic magnet that will stop ferrous debris from valve train wear and is effective at stopping broken valve spring material from entering engine oiling system through cylinder drain. The thin wall steel dowel protects the magnet and provides proper head to cylinder alignment.
17509



Custom Evo Rocker Cover Screw Kit

Chrome kits include flat head allen screws, low profile, companion countersunk washers and gaskets to mount rocker covers on FL-FX 1985-99 and XL 1986-on.

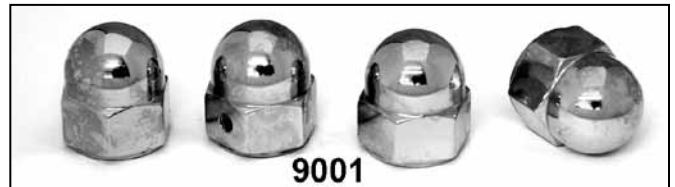
9833



Headbolt Kits Evo and Twin Cam- 8 Pack

Chrome plated 12 point dome top headbolts.

- 72011 BT 1985-91, XL 1986-92 (16480-85A, 16478-85A)
- 72012 BT 1992-on, XL 1993-on (16480-92, 16478-85A)



Head Bolt Covers

Fit over 12 point head bolts on 1986-up Evo 883-1100-1200 Sportster and 1985-up 1340 BT Evolution. Evo styles include 4 pieces for left side only.

PCP	Finish	Style	Model	Year
9000	Chrome	Acorn	Evo	1986-91
9001	Gold	Acorn	Evo	1986-91
9002	Chrome	Cap	Evo	1986-91
45035	Chrome	Dome	1340 & XL Evo	1986-on

XL Evo 1986-On

SPORTSTER EVOLUTION ENGINE CAMS



Andrews Products has a number of performance cam designs for EV Sportster engines. All of the cams listed below will run to 6500 RPM with stock hydraulic lifters. Since the stock lifters are such proven units, we continue to recommend that they not be changed to solids. Andrews Products EV Sportster cams have stock base circle sizes so stock (non-adjustable) pushrods can be used (except V9 or BV). Adjustable aluminum or chrome-moly-steel pushrods are also available. Note: the #2 cam drive gear used in 2000-on model year EV Sportster cams uses 46 teeth; the 1991-99 #2 cam gear has 36 teeth.

Note: 1991-on Sportster engines are considerably different than earlier EV Sportsters. Cam gears for earlier EV Sportsters will not fit 1991-on engines.

XL Cam Installation Notes:

Stock HD XL cams are colour coded for gear pitch size and custom fitted to individual engines for minimum gear tooth backlash. The HD service manual describes a detailed, involved procedure for checking cam gear backlash. The idea is to fit the 4 cam gears (and drive gear) with as little gear backlash as possible in order to reduce gear noise during operation.

Excessive cam gear backlash can cause clicking at idle or low RPM which may sound like lifters not properly adjusted. The noise is not damaging to the engine but may be esthetically objectionable. Cam gears which have NO backlash (over-sized gear teeth) will whine in operation and may cause localized gear tooth heating and damage. All Andrews Products EV XL cam gears are cut to specifications in middle of the size range. Resulting parts are designed to run in any EV XL engine with no problems due to tight running cam gear teeth.

However, there may be rare instances (in a specific engine) of gear clicking noise at low RPM that we cannot completely eliminate. It may be necessary to tolerate the noise.

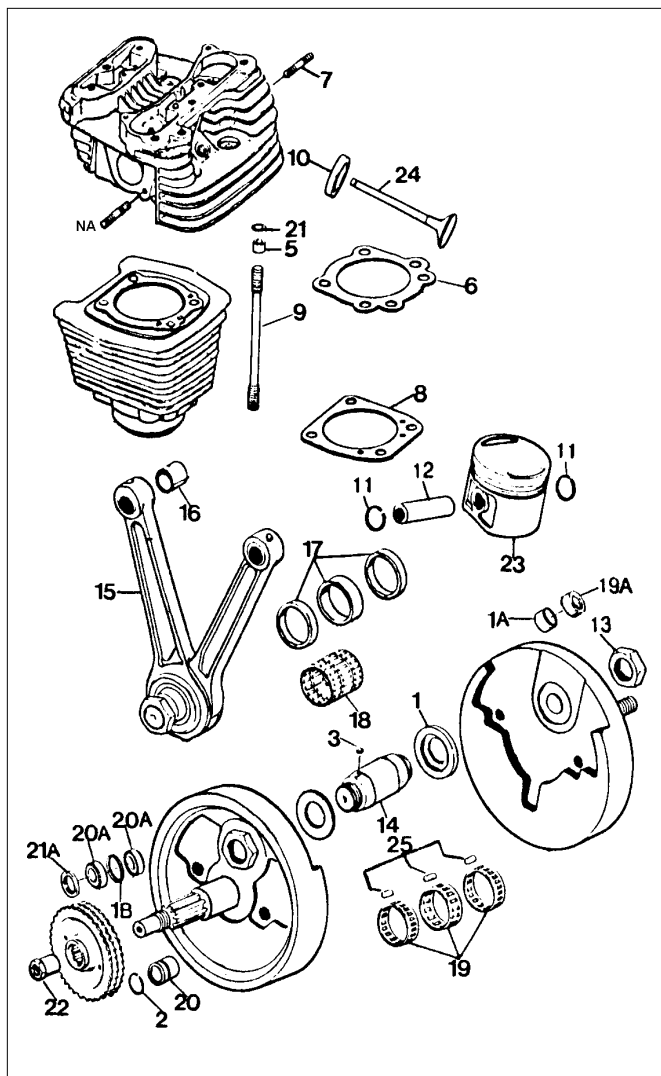
Touring and High Performance Cams

PCP#	Year	Grind	Timing(*)	Duration .053 .020		Max Lift	Lift TDC	Application
Stock	88-91	D	02/41	223	270	.458	.094	Listed for comparison
		D	41/02	223	270	.458	.094	(Note: 1985-87 exhaust cam lift is .414)
298120	86-90	V2	22/38	240	290	.465	.180	Bolt-in cam for stock 883, 1100 or 1200 engines.
298125	91-99	N2	46/18	244	290	.440	.155	More duration and lift means extra power thru RPM range. Stock springs and hydraulic lifters recommended. 2000-6000 RPM.
298130	00-on**	N2						
298140	86-90	V4	30/46	256	296	.490	.216	Street/drags: Stock or modified 883/1100/1200.
298145	91-99	N4	52/24	256	296	.490	.189	Slightly higher idle speed but stock springs-hydraulic lifters recommended. RPM range 2500-6500.
298150	00-on**	N4						
298180	86-90	V8	32/44	256	296	.490	.226	Modified 1100-1200, stroked 883's with stock springs and hydraulic lifters. Great mid-range power: 2000-6000 RPM.
298185	91-99	N8	56/28	264	302	.500	.212	Modified 1200s to 80 inches and or high comp. pistons. Same intake as N8 but more exhaust duration. Stock springs and hydraulic lifters recommended. RPM range: 2500-6500.
298190	00-on**	N8						
298160	86-90	V6	34/50	264	302	.500	.241	Med. lift cams for stroked engines from 80-88 inches. Broad torque range to 6000 RPM with hydraulics. Andrews springs, collars and pushrods required. (1991-on need long pushrods)
298165	91-99	N6	56/28	264	302	.500	.212	Hi-lift cams for 88+ inches. Andrews pushrods, springs and collars required. BV cams start easy and run strong; 2000-6000+ RPM with hydraulic lifters. (1991-on need long pushrods)
298170	00-on**	N6						
214210	86-90	V9	33/53	266	309	.555	.240	Med. lift cams for stroked engines from 80-88 inches. Broad torque range to 6000 RPM with hydraulics. Andrews springs, collars and pushrods required. (1991-on need long pushrods)
214215	91-99	N9	53/33	266	309	.555	.240	Med. lift cams for stroked engines from 80-88 inches. Broad torque range to 6000 RPM with hydraulics. Andrews springs, collars and pushrods required. (1991-on need long pushrods)
214219	00-on**	N9						
214265	86-90	BV	35/59	274	316	.590	.260	Hi-lift cams for 88+ inches. Andrews pushrods, springs and collars required. BV cams start easy and run strong; 2000-6000+ RPM with hydraulic lifters. (1991-on need long pushrods)
214268	91-99	NV	59/35	274	316	.590	.260	Hi-lift cams for 88+ inches. Andrews pushrods, springs and collars required. BV cams start easy and run strong; 2000-6000+ RPM with hydraulic lifters. (1991-on need long pushrods)
214272	00-on**	NV						

(*) Timing listed for .053 lift figures

** Model year 2000-on Sportster engines require a different #2 drive gear than 1991-99 engines

XL Evo 1986-On



	PCP	OEM	Description	Year	U/M
1	11521	6508	Flywheel washer	87-*	Pair
	29023	6508	USA, as above	87-*	Each
1A	18706	8881	Bearing race	87-*	Each
1B	13600	9142-9149	Shim asst. 100-.114	86-*	8 Pk
2	11043	11177A	Retaining ring	87-*	10Pk
3	10301	11218	Key, crank pin	86-*	10Pk
5	18705	16573-83	Insert/cyl. stud (2)	86-*	5 Pk
6	25000	16664-86	Head gasket XL883	86-08	10Pk
	25001	16665-86	Head gasket XL1100	86-87	Pair
	79218	16773-85	Head gasket XL1200	88-08	5 Pk
7	10807	16715-83	Stud, exh. port (4)	86-*	5 Pk
8	25021	16774-86A	Gasket cyl. base	86-*	10Pk
9	10915	16832-86B	Stud (8) cyl. base	86-*	Each
	9507	16832-86B	Stud for cylinder	86-*	8Pk
10	29006	18011-86	Exh. seat XL 1100	86	Each
	29012	18011-87	Exh. seat XL "-1200	87-*	Each
	29014	18012-87	Exh. seat XL 883	86-*	Each
	29008	18020-83	In. seat XL 1100	86	Each
	29015	18020-87	In. seat 1100-1200	87-*	Each
	29017	18021-87	In. seat XL 883	86-*	Each
11	11051	22589-83	Retain/ring piston	86-*	10Pk
12	32352	22719-85	Piston pin 883	86-98	Each
	32356	22765-88	Piston pin 1200	88-*	Each
13	12530	23901-81	Nut, crank pin (2)	86-*	Pair
14	3412	23960-80A	Crank pin STD	86-*	Each
15	29804	24275-86A	Connecting Rods	86-03	Set
16	18504	24331-36	Bush/piston pin STD	86-*	Pair
	18599	24332-36	Bush/piston pin .010	86-*	Pair
17	1102	24341-52A	Steel rod races	57-*	Set
		24352-52A			
18	15810	24354-87A	Rod bearing set	L86-*	Set
19	10720	24362-54A	Alloy rod cages	57-E86	Set
		24365-54A			
19A	15880	24647-87	2nd largest bear/pinion/blue	87-*	Each
	15881	24650-87	Largest " red	87-*	Each
	15882	24659-87	2nd smallest wh/gry	87-*	Each
	15883	24660-87	Smallest " green	87-*	Each
20	18703	24658-86	Bearing race M/S	86	Each
	18704	24658-87	Bearing race	87-*	Each
21	14538	26432-76A	'O' Rings, stud	86-*	10Pk
21A	14042	35151-74	Sprocket seal	74-99	5 Pk
22	12568	40387-70	Nut, engine shaft	70-88	Each



XL Cam Bushing Kit
15407 1986-90



Genuine Torrington Bearing Set XLS 1952-90
15632 4 Piece set

Sportster Oversized Valve Seats

Machining required.

PCP	Application	Valve	O.D.	I.D.	Thickness
31787	883-1200cc	Exhaust	1.630"	1.180"	.385"
31788	883-1200cc	Intake	1.880"	1.439"	.410"



XL Evo 1986-On



Sportster Oil Pump Assembly

These USA made oil pumps come complete with all gears as shown and fit models listed. (natural finish)

29051 1986-90 (26204-86)

29052 1991-on (not for XR1200) (26204-91)



Colony Motor Case Kit

Hardware has stock zinc finish and fits XL 1977-90.
9879



Sifton Evo XL Piston Oil Supply Squirter

Reduces cylinder temperature and engine damage by cooling pistons with extra oil supply. Increases horsepower by reducing friction between piston and cylinder wall. Note: Engine must be unassembled for installation.

73601 1986-99 Front or Rear

73602 2000-on Rear

73603 2000-on Front

XL Timing Plugs

Functional and custom design plug fits all models Harley Sportster timing plug holes and oil tanks with 5/18-18 drain hole.

Hex	Allen	Finish
3591	9402	Chrome
-	9960	Chrome (Oversize)
5282	9403	Cad
5283	-	Black oxide



XL Oil Pump Gear Shaft

These USA made oil pumps come complete with all gears as shown and fit models listed. (natural finish)

30146 1975-90 (26488-75)

30147 1991-97 (26488-91)

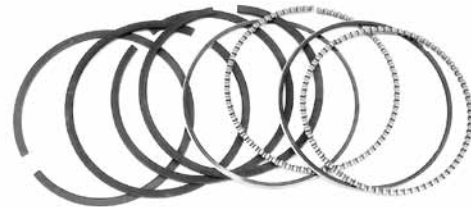
30148 1998-06 (26488-98)



T/L Chrome Headbolt / Spark Plug Cover

Use this chrome accessory to cover the headbolt to spark plug area. Installs quickly without tools on 1984-99 Evolution 1340 and Sportster models except those equipped with Screamin Eagle evolution cylinder heads.

64254 43835-98



Hastings Moly Piston Rings (2M6199) XL 1100cc

Fits Sportster EVO 1100cc 1986-87. For 3.350 DIA. pistons. Sold 1 set for 1 engine.

PCP	Size
35226	STD
35227	.005
35228	.010
35229	.020
35230	.030
35231	.040

XL Evo 1986-On



Sportster Cam Bushings (each)(3 used)

- 31369** Jims XL 1954-on STD (25586-37)
- 18519** Preston as above
- 31370** Jims XL 1954-on .005 (25586-37 +005)
- 18557** Preston as above
- 31371** Jims R/Int. XL 1957-90 (25588-57)
- 31372** Jims R/Int. XL 1957-90 +.005



Top Motor Mount to Cylinder Head Bracket

Chrome top motor mount to cylinder head bracket mounting kit feature companion countersunk washers and flat head allen screws. Fits BT 1993-on and XL 1986-on.
9967



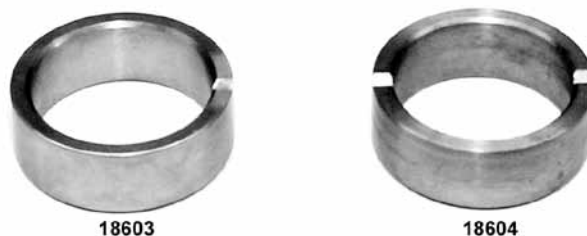
Colony Stock Acorn Lifter Base Screw Kit

- | PCP | Application |
|-------------|---------------------|
| 5503 | XL 883/1100 1986-90 |
| 9765 | XL 1991-94 |
| 9766 | XL 1995-on |



Pinion Bushing

- | PCP | Description |
|--------------|--------------------------------|
| 31376 | XL 1977-on STD (25593-74) Jims |
| 18527 | As above, Preston |



Rear Intake Cam Bushing XL 1991-on

- 31373** Sold each (25588-91) (Jims)
- 18603** As above Eastern
- 18604** As above +.005 (Jims)



S&S Pinion Shaft Assemblies XL 1986-on

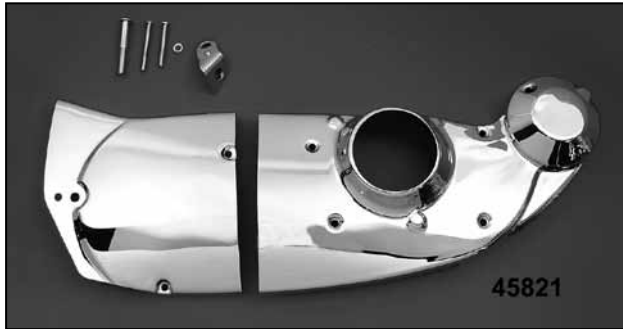
- 332325** Std size requires 1987-on main bearing. Fits S&S D or DR flywheels only.
- 332336** +.001 oversize requires 1987-on main bearing. Fits as above.



Colony Motor Mount Kit

- | PCP | Application |
|-------------|--|
| 5506 | Lower XL 883/1100 1986-on chrome acorn |
| 5507 | Upper XL 883/1100 1986-on chrome acorn |
| 9774 | XL 1991-on chrome allen |

XL Evo 1986-On



Custom Dress-Up Kit

Fits right side of XL models 1983-on. Includes chrome steel cam cover trim, chrome diecast sprocket cover, chrome master cylinder reinforcement bracket and hardware.

- 45808** Chain XL 1983-90
- 45809** Belt and chain XL 1991-03
- 45821** Belt, electric type 2004-on



Colony Stock Cam Cover Screw Kit

PCP	Application	Style
5501	XL 883/1100 1986-on	Chrome acorn
9751	XL 1986-03	Chrome allen knurled



Topline Chrome Cam Cover Trim 1996-03

This chrome plated cover fits over top of stock polished cover and includes mounting hardware.

64237 25216-98



Chrome Cam Cover

These form fitting Chrome steel covers fit over stock cam cases on 1971-on Sportster models.

No need to remove cam case or disturb cams or gears. Covers held in place by existing screws.

- 45045** 1983-90 Sportster
- 45102** 1991-03 XLH
- 45846** 2004-on

XL Evo 1986-On



45808



45809

XL Custom Dress-Up Kit

Kits for XL 1983-on models fit right side and includes chrome steel cam cover trim, sprocket cover, master cylinder reinforcement bracket, and hardware.

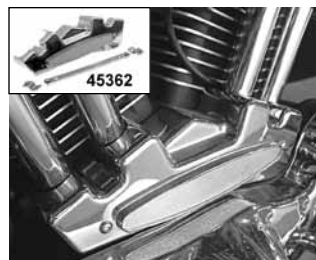
PCP	Year	Drive	Type
45808	1983-90	Chain	Electric
45809	1991-03	Belt or chain	Electric



T/L Sportster Chrome Tapper Cover

Use the polished stainless steel fasteners included to quickly and easily install the chrome cover over the stock cast aluminum tappets. Fits 1991-03 Sportster models except those using gearcase trim cover #25216-98.

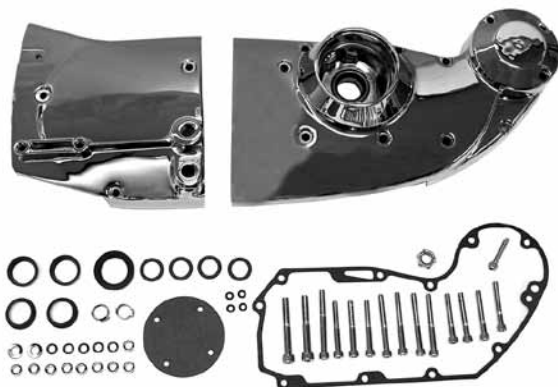
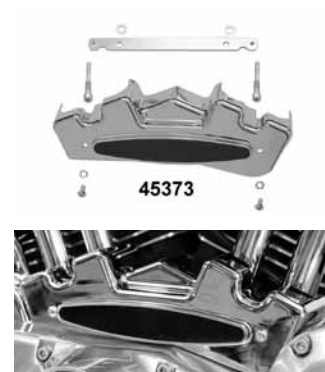
64252 32716-98



XL Tapper Block Cover

Chromed diecast cover fits from the pushrod tube base to the cam cover.

PCP	Years
45362	1991-03
45373	1991-03



Chrome Right Side Cam Cover/ Sprocket Cover Set 1991-on

Covers include gaskets and chrome allen screws for assembly.

90420	1991-03
90421	2004-on



XL Chrome Cylinder Base Cover

Provides a smooth, chrome cover for the area below the cylinder base on left side of engine.

PCP	Years
45364	2004-on (32729-07)



T/L Sportster Cylinder Base Cover

This cover quickly installs on the left side of a 1991-03 Sportster.

64253 32732-98

XL Evo 1986-On



1200cc XL Conversion Cylinder & Piston Set

Set includes 2 silver finished cylinders or black wrinkle with milled edge fin cylinders. Fitted Wiseco 10:1 piston and ring set with base and head gasket included. Order James Rocker Box Gasket Set separately. Will fit 883 and 1100cc models.

1986-03

53079 Silver finish

53080 Black finish

2004-on

53098 Silver finish

53099 Black finish



1200cc XL Conversion Cylinder and Piston Set

Set includes 2 silver finished cylinders or black wrinkle with milled edge fin cylinders. Fitted Wiseco or Sifton moly 9.5:1 reverse dome piston and ring set with base and head gasket included. Order James Rocker Box Gasket Set separately. Will fit 883 and 1100cc models 1986-03.

53070 Wiseco (silver)

53094 Sifton moly (silver)

79989 1986-90 Top rocker box gasket kit w/steel base

79990 1991-03 Top rocker box gasket kit w/steel base

79977 1991-03 Top rocker box gasket set w/rubber base



3-1/2 Bore Piston Kit XL 883 to 1200 1986-90

3-1/2" Bore Piston Kits is an easy and economical way of increasing the displacement and performance of the Evolution Sportster engine. By simply boring out the stock cylinders and refitting them with a set of our special pistons, a 1202 cc engine can be made. This is a gain of 319cc over stock for an 883 or 102 ccs for an 1100. Kit includes 2 pistons with rings, wrist pins and wrist pin locks and gaskets. Fits 1986-87 XL1100 and 1986-88 XL 883. **Important: XL 883 models REQUIRE EXTENSIVE HEAD WORK.**

PCP Item

6649 Complete top end kit

25618 Gasket update kit for 1990-03 XL



S&S Evo Stock Replacement Cylinder Sets

Stock replacement cylinders are offered in a natural aluminum finish. The bore is slightly undersized so standard piston can be fitted with minimal honing. Additional fin surface improves heat dissipation. Made with stock oil return passages for a simple stock-like installation.

913010 Stock length (4.650") Sportster

XL Evo 1986-On



Wiseco XL 883 to 1200 Piston Kit 1986-09

This kit offers 8.5:1 compression and 3.812" stroke with no cylinder head modification required. Top ring is .062", 2nd ring is .062" and oil ring is .158". Fits Evo 883 XL overbore to 1200cc (73 cu. in.). Kit includes forged reverse dome pistons, rings, circlips and chrome wrist pins. Skirt coated pistons have a dome volume of -13.7cc. Order gaskets separately.

PCP	CC Displ.	Bore	Stroke
35845	1200cc	STD (3.498")	3.812"
35846		.010 (3.508")	
35847		.020 (3.518")	

Valve pocket dimensions are measured from deck height:
Intake/Exhaust Pocket: Depth: -.215" Diameter: 2.100"



Topline EVO XL 1200cc Cylinders 1986-03

Use two of these cylinders to convert an 883cc or 1100cc to a 1200cc race application. No cylinder head machining is required when using with Sreamin' Eagle cylinder heads, or 883/1200 conversion piston kit. The only adjustment needed is to relieve the combustion chamber for proper combustion ratio. Cylinders are sold each and 2 are required to complete the conversion. Fits XL 883/1100 when used with XL 1200 pistons or our piston kit #65245.

PCP	Finish
65523	Silver (16554-92A)
65524	Black (16871-99Y)



Cylinder Base Stud Set

Alloy steel studs are heat treated with interference threads.
9507 XL Evo 1986-on (16832-86A) (8 pack)



Topline Forged 1200 Conversion Piston Kit

High compression piston kit for converting XL Evo 883 to 1200cc. Forged pistons have a dished design for use with stock 883 heads to increase compression ratio to 10:1. Kit includes pistons, rings, pins, circlips. Cylinders and gaskets must be purchased separately. For race applications only. Fits all 1986-03 XL 883 models with stock heads.

65249	STD
65250	.005
65251	.010



Topline XL Evo 1200CC Piston Kit

Aluminum alloy piston kit that allows conversion of XL 883 1986-03 and XL 1100 1986-87 to a full 1200cc. Note that if stock heads are used a template kit OEM #25629-88 will be required.

65245 16140-87

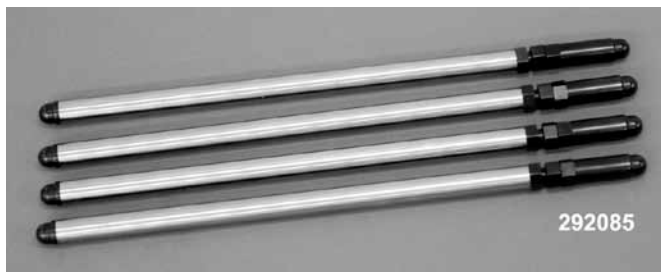


XL Evo Cylinders 1986-on

Sold each and are not hone for final fit. Cylinders are sold without pistons except PCP 65211 and 65213 which include piston, rings and wrist pin. All other items cylinders only.

PCP	Application	Finish
65211	883 1986-99	Cylinder kit, raw (16446-86B)
34813	883 1986-99	Silver, (16446-86B)
65213	1200 1988-03	Blk/wrinkle cylinder kit (16447-88A)
34819	1200 1988-03	Black wrinkle
34816	1200 1988-03	Silver
34814	1200 1988-03	Silver (16447-88)
34817	1200 2004-on	Silver
34818	1200 2004-on	Black wrinkle

XL Evo 1986-On



Andrews XL Adjustable Length Pushrods

PCP	Description
292020	4 aluminum pushrods 1986-90
292090	4 chrome-moly steel rods 1986-90
292030	4 aluminum pushrods 1991-03
292085	4 chrome-moly steel rods 1991-03



Andrews Fixed Length Pushrods 1991-on

292025	Aluminum pushrods (set of 4) 1991-on
292095	Chrome-moly steel pushrods (set of 4) 1991-on

Note: All 1991-on EV Sportster engines require non-adjustable pushrods.



Sifton Hydraulic Tappet Kit

Includes roller tappets and adjustable pushrod set.

PCP	Year
30159	1986-90
30160	1991-99
30161	2000-on



S&S Adjustable Pushrod Conversion Kit

Evolution kit includes 7/16" O.D. adjustable type chrome moly steel pushrods. These pushrods can be used in place of stock non adjustable type with hydraulic lifters or with solid lifters in any application.

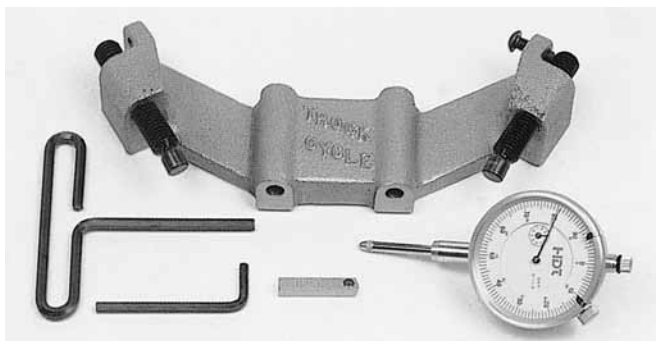
PCP	Application
935033	XL 1986-90
935021	As above + 5/16"
935022	As above + 7/16"
935024	As above + 1.010"
935025	As above + 1.100"
935022	XL 1991-03
935085	As above + 5/16"
935089	As above + 7/16"
935086	As above +.915"
935088	As above + 1.100"



Sifton Quick Install XL Pushrod Set

Pushrods are designed to be installed without the removal of rocker boxes or cylinder heads. Precision made from 4130 chrome moly tubing.

30083	XL 1991-03
-------	------------



Valve Travel Checker

The Trock EV valve checker is the easiest to use, most accurate tool available for measuring valve travel on all Evolution heads, (Sportster or EV 80). If you set up more than two pair of heads per year, this tool is worth owning. If valve guides or springs don't have proper clearance, a valve checker will pinpoint the problem quickly.

230090	Evolution valve checker
--------	-------------------------

XL EVO 1986-On



Pushrod Cover Kit

Complete kit includes upper, lower and inner pushrod covers to convert your 2004-on Sportster to early style removable pushrod covers.

72253



Colony Pushrod Cover Adaptor Kit

Adapts 1990-on Sportster lifter base to use the early style removable pushrod covers. Complete kit includes upper, lower, inner and adaptors.

72140



Pushrod Cover Conversion Kit

Complete kit includes upper, lower and inner pushrod covers to convert your 1991-2003 XL to the early style removable pushrod covers. Use PCP# 72254 adapter kit.

72255



XL Chrome Pushrod Cover Kit

Includes all pieces and seals.

34110 XL 1991-03



XL Billet Pushrod Cover and Mount Base Kit

Allows adjustable covers to be used on 1991-03 Sportster.

59479



XL Collapsible Pushrod Cover Set

Allow for ease of pushrod change or adjustment.

21836 2004-on

XL Evo 1986-On



Sportster Upper Pushrod Cover Kits 1986-90

Each kit contains 4 chrome plated retaining clips, 4 chrome plated cups, 4 springs, 4 cork gaskets and 4 steel washers.
9887 With chrome plated outers (2-13/16 clips)



Complete Pushrod Cover Kit

All parts from top to bottom fit all V-Twin engines. Visible parts are all chrome and each kit includes upper covers, inner cover and lower covers.

PCP Application

- | PCP | Application |
|--------------|-----------------------------------|
| 34108 | All Evo XL 1985-89 |
| 34105 | Adapts PCP# 34108 to XL 1990-03 |
| 34109 | XL 1200, 1 piece design 1990-03 |
| 34110 | As above, 16 piece design 1990-03 |



S&S Pushrod Cover Adaptor Set

Fits 1990-on.
335360



Pushrod Cover Conversion Adaptor Kit

These adaptors eliminate the need to remove the cylinder heads to access the pushrods by allowing installation of the early style removable pushrod covers and easy installation of adjustable pushrods. Fits 1991-2003 Sportster. Use with Colony's complete pushrod cover kit PCP# 72255 .
72254

XL Evo 1986-On



High Lift Evolution Springs

Used with titanium spring collars, cam lifts of .550+ can easily be accommodated. Installation does not require machining of heads.

294150 (4 inner and 4 outer springs)

Titanium Upper Spring Collars

Will fit all EVO XL engines. They are stronger than stock, +.050" more spring travel, 50% lighter and install with stock keepers.

293110 (4 titanium upper spring collars)



Crane Teflon Valve Stem Seals (4 pack)

Are made of teflon for maximum valve stem oil control. **Machining Required!!**

34521 BT 1984-on EVO and XL
(3/8" valve guides must be cut to .531)
(5/16" valve guides must be cut to .531)

No Machining Required

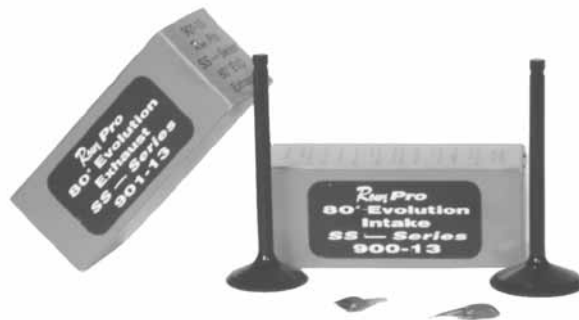
34689 BT 1984-on EVO (Set) for 5/16" stem
.415" guide O.D. seal O.D. .500"



Standard Valves-Forged

Model	Intake	Exhaust
Sportster 1986-on 883CC	32197 (18031-86)	32198 (18030-86)

BT Evo-TC-XL Guides, Valve Springs/Seals/Collars are the same and can be found in Evo area of the section



Rowe Machined Sportster EVO Valves

High flow, forged one piece valves made from 21-4N stainless steel. Precision CNC machined with black melonite heat treating process (nitride) or machined chrome. Sold each.

Evo 883 1986-2003

Head Diam.

PCP	Rowe	Application	± .005
32243	710-13	Intake black	1.585
32245	711-13	Exhaust black	1.350
32257	710-12	Intake chromed	1.585
32258	711-12	Exhaust chromed	1.350
32244*	710-23	Intake 883-1200 conversion	1.715
32246*	711-23	Exhaust, as above	1.480

*Note: Conversion valves for 1986-03 have .130 larger heads and .017 shorter stems

EVO 883 2004-on (7mm)

32265	712-13	Intake black	1.585
32266	713-13	Exhaust black	1.350

EVO 1200 1987-2003

32260	702-13	Intake black	1.715
32261	703-13	Exhaust black	1.478
32263	702-12	Intake black	1.715
32264	703-12	Exhaust chromed	1.478

EVO 1200 2004-*

32267	704-13	Intake black	1.585
32268	705-13	Exhaust black	1.350



Jims Evo XL 883 to 1200 Conversion Black Tulip Valves

PCP	Type	Head Diam.	Length	Stem Diam.	Profile
31658	Exhaust	1.480"	4.640"	.3106"	Dished
31659	Intake	1.720"	4.560"	.3108"	Dished

XL Evo 1986-On



Topline Chrome Sportster Rocker Covers

PCP	Description
64234	Inner rocker cover XLH 86-06 (17537-96C)
64235	Cover spacer XLH 91-03 (17538-96)
64236	Outer rocker cover XLH 1986-03 (17551-96)



Sportster Chrome Rocker Cover Kits

Die-cast aluminum covers include gaskets and hardware.

45894	1986-90 2 heads
45895	1991-03 1 head
45896	1991-03 2 heads
45903	2004-06 2 heads



Colony Rocker Cover Screw Kit

PCP	Application	Style
5504	XL 883/1100 1986-on	Acorn
8933	As above	Cap



Chrome XL EVO Rocker Cover Parts

Tops include allen screws and gaskets.

PCP	Application
45900	Top set 1986-03 (17501-86)
45898	Top cover & D-Ring kit 1986-90
45899	As above 1991-03
45902	Top covers only 2004-on (17551-04)
45904	Top cover & D-Ring kit 2004-on



XL Chrome Rocker Box Cover Set

Covers fit over rocker box assembly without disassembly of engine. Includes chrome allen screws.

45708	1986-07
-------	---------



61094



XL Chrome Finned Headbolt Bridge '04

This finned bridge fills the gap in your cylinder fins that occurs at the headbolt and spark plug area. This bridge covers both the headbolts and the spark plug with fins and has a stylish, round bar and shield emblem. Finned bridges are sold in pairs and include all necessary mounting hardware.

61094 Black (44296-04)



61099

T/L Chrome XL Lifter Covers 2004-07

High lustre polished chrome covers fit XL models.

61099 17994-04



61096

T/L Swingback Chrome Covers XL 2004-on

These modern stylish covers feature a curved design that gives the impression of motion. Each cover features an embedded contrasting black label and a lustrous chrome finish. Purchase the entire collection for a thoroughly put together look.

PCP Application

61096 Air cleaner cover, for models equipped w/Screamin Eagle (OEM# 29042-04A) high flow kit (29792-04)



T/L XL Chrome Outer Rocker Cover 2004

64282 17551-04



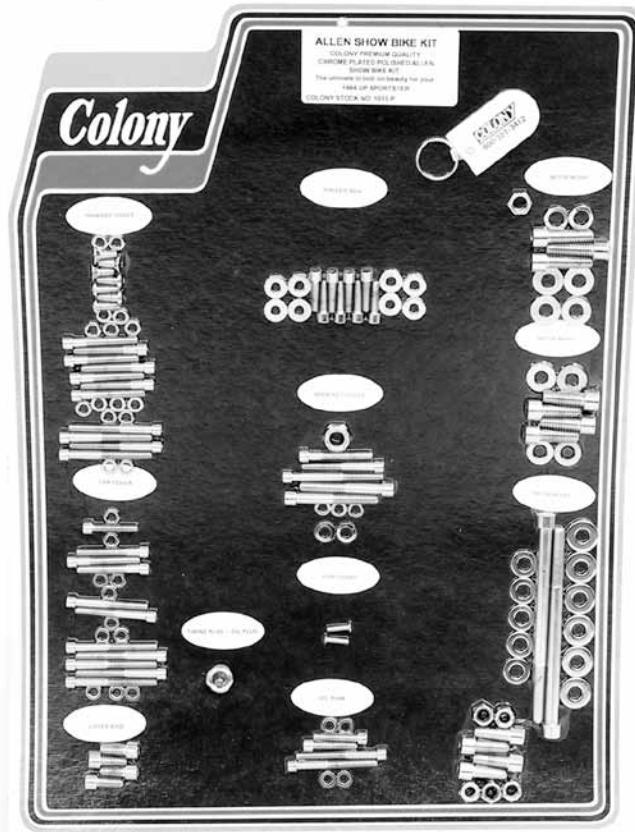
904095

S&S Chrome Aluminum Rocker Cover Kits

These diecast covers fit all Twin Cam and Evo engines. Kits include bases and covers for both cylinders, one-piece rocker shaft support units, Viton o-rings and all hardware and gaskets required for installation. Exterior hardware is chrome plated. Please note that cylinder heads must be correctly set up for high-lift cams. It remains the builder's responsibility to check all operating clearances.

904095 Evo BT and XL

XL EVO 1986-On



Chrome Polished Allen Motor Show Bike Kits

Complete motor kit includes everything needed to mount the following: rocker box, primary cover, lifter base, transmission covers, oil pump, air cleaner, cam cover, point cover, timing plug, motor mounts (early XL motor mounts include spacers). Sportster kits also include fasteners for sprocket cover, rear master cylinder and generator. Button head allens and flat head allens are used where necessary.

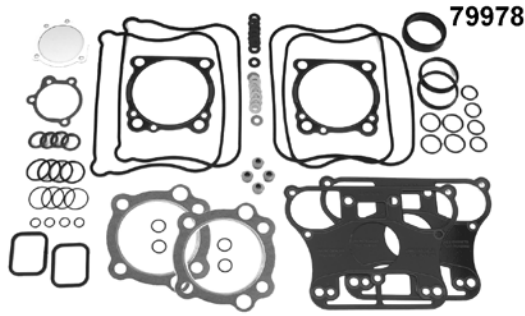
- 7934** Sportster 1994-03
- 7933** Sportster 1991-93
- 7932** Sportster 1986-90

Chrome Snap Caps Bolt Cap Cover Kits

These bolt cover kits make any bike look great and are also great for custom builders. Beautifully designed and chromed, these caps easily install over the raw OE bolt heads on engine, transmission, primary and more. Each kit includes individually marked pieces that make identification and installation a breeze.

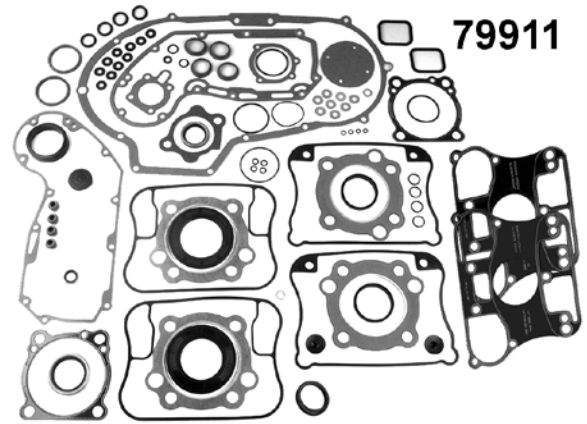
Model	Year	PCP	Kit Qty.
XL	2004-on	21914	77
	1984-03	21915	74
	2004-on Engine	21916	63

XL EVO 1986-On Gaskets



James Top End Gasket Kits-Evo

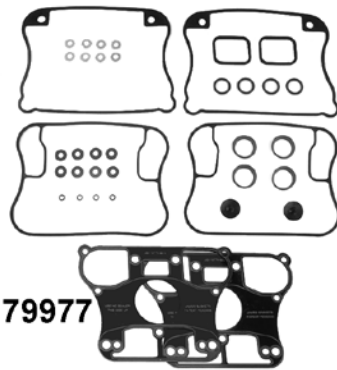
PCP	OEM	Description
79978	17032-86-B	XL 1200 1986-90 1200 (w/steel base)
79979	17032-91	XL 1200cc 1991-03 w/.045 h/gasket and metal rocker base



James Motor Gasket Kits-Evo

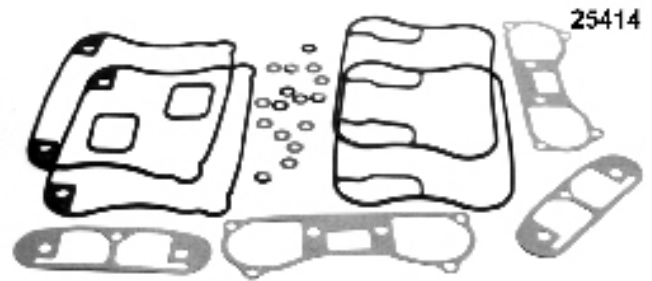
PCP	OEM	Description
79929*	17026-86	XL 1986-90 w/metal base & rocker
79911*	17026-91	XL 883cc 1991-03 w/rubber
79912	17026-91-MLS	XL 883/1200cc 1991-03 w/MLS head gasket, .020 RCM base and RCM rocker base

*Motor and transmission gasket and seal kit



James Rocker Cover Gasket Kits

PCP	OEM	Description
79971	17030-89	1986-90 w/rubber & paper rocker base
79989	17030-89-X	1986-90 w/steel rocker base
79977	17030-91	1991-03 w/rubber & paper base
79990	17030-91-X	1991-03 w/rubber & steel base



V-Twin Rocker Box Gasket Kits

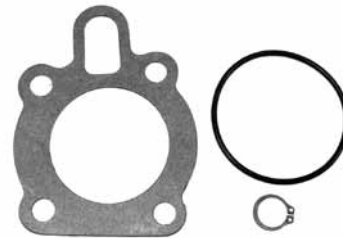
These gasket kits include both rocker to head gaskets and your choice of **Molded O-Ring** or **Cork cover** gaskets with bolt seals and washers for two heads for models listed.

PCP	Type	Year	Model
25412	Cork	1986-89	883 XL
25414	O-Ring	1991-03	883-1200 XL



James Oil Pump Gasket and Seal Kits

79814	1977-90
79928	1991-on



James XL Oil Pump Kits

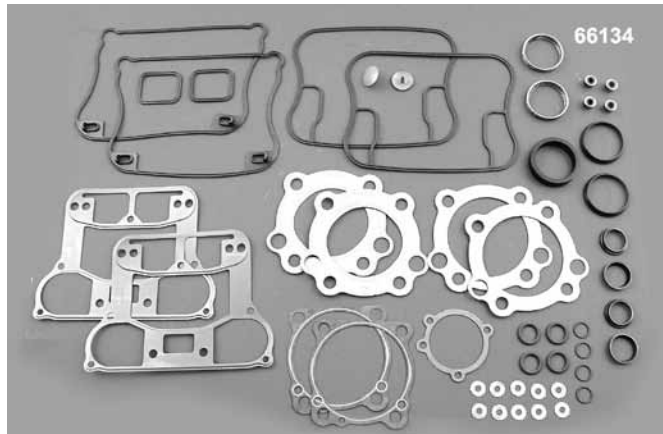
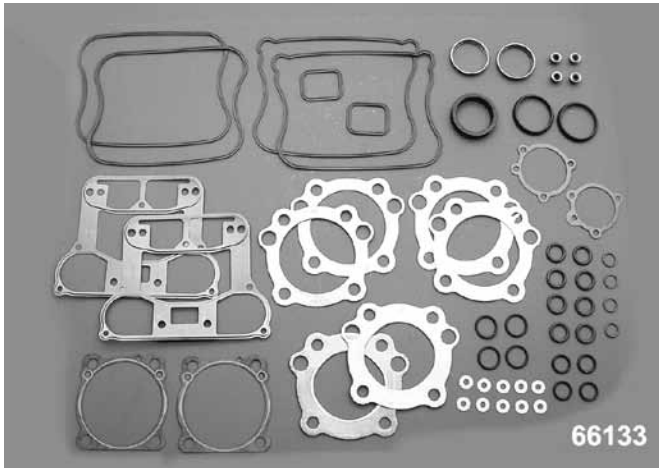
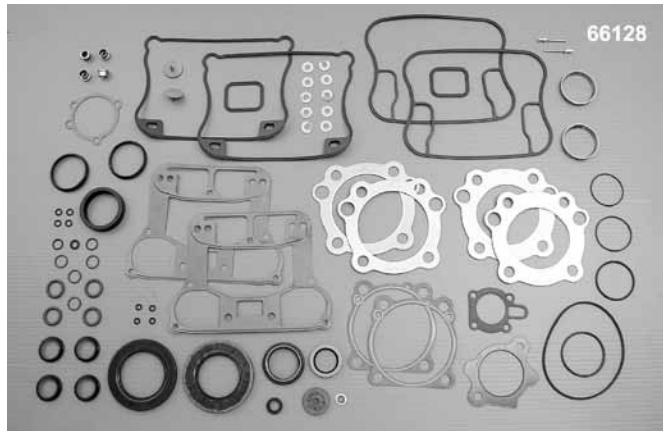
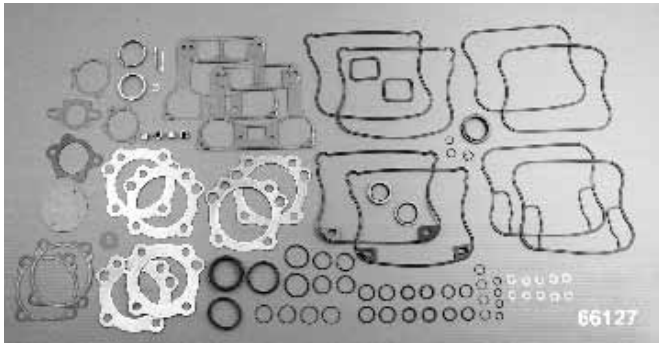
PCP	Year	Engine	Description
79928	1991-on	883cc 1200cc	Oil pump gasket and seal kit

Oil Pump Gasket XL

1989-on	
25244	26495-89 (10 pack)



XL Evo 1986-On



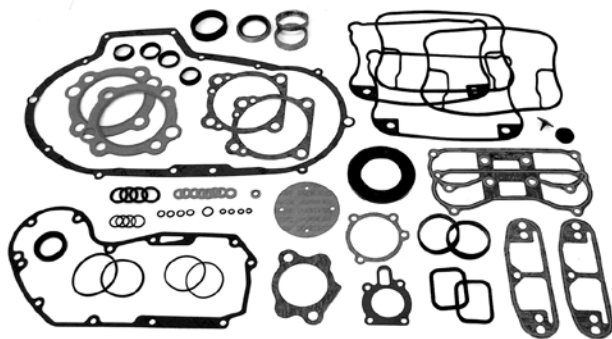
T/L XL Complete Gasket Sets

PCP	Application
66127	1986-90 (17026-86A)
66128	1991-03 (17026-91C)
66129	2004-on (17027-04)
Top End Kits	
66133	1986-90 (17032-86B)
66134	1991-03 (17032-91)
66135	2004-on (17049-04)

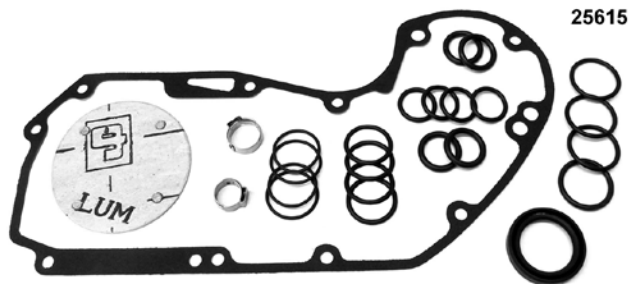


James XL Cam Cover Gaskets

PCP	Year	Engine	Description
79564	2000-09	883cc 1200cc	Paper cam gear cover gasket w/silicone (5 pk)



Athena Gasket XL 1991-03
For Sportster 1200 models 1991-03.
25301 17026-91A



Quick Change Cam Gear Gasket and Seal Kit
Fits XL and Evo motors. Includes both cork and quad seals for pushrods to fit all year range.
PCP Application
25615 1986-90
25616 1991-03