

# Heads Messed Up?

## CYLINDER HEAD & VALVE TRAIN UPDATE KIT

### For Panhead Engines

A lot of panhead engines aren't quite all there. Lots of times their heads are messed up, and they can't be fixed anymore. The new S&S Cylinder Head and Valve Train Update Kit not only replaces those messed up stock heads, but updates the valve train to dependable, late style, hydraulic tappets and rocker arms. As an added bonus, you get a performance increase to boot. All this and a nearly stock look! Fits 1953-'65 engines only, because earlier pan crankcases (1948-'52) did not deliver pressurized oil to the tappet guides. Oil pressure is required for hydraulic tappets. The heads included in this kit feature the same high flow port design as S&S heads for shovelhead engines and accept an o-ring shovel style intake manifold. The kit includes S&S forged roller rocker arms for shovel engines, which accept top end oiling through the pushrods. The kit also includes a set of S&S billet tappet guides and 1984-'99 style tappets, a set of S&S Quickee pushrods, pushrod covers, hardware and gaskets. Because late style tappets are used, 1984-'99 style cams must be also used. S&S offers generator style cams with 1984-'99 lobe grinds. Cam and manifold must be purchased separately. See chart on back.

#### Fitment

- 1953-'65 stock bore big twin engines
- 3 $\frac{5}{8}$ " bore and dual plugged heads are available by special order

#### Features

- Heads bolt directly to cylinders with stock panhead bolt pattern
- Increase performance and update valve train, while maintaining a relatively stock appearance
- High flowing ports using o-ring shovel style manifold
- Compatible with 1966-'69 exhaust systems

#### Top End Kit

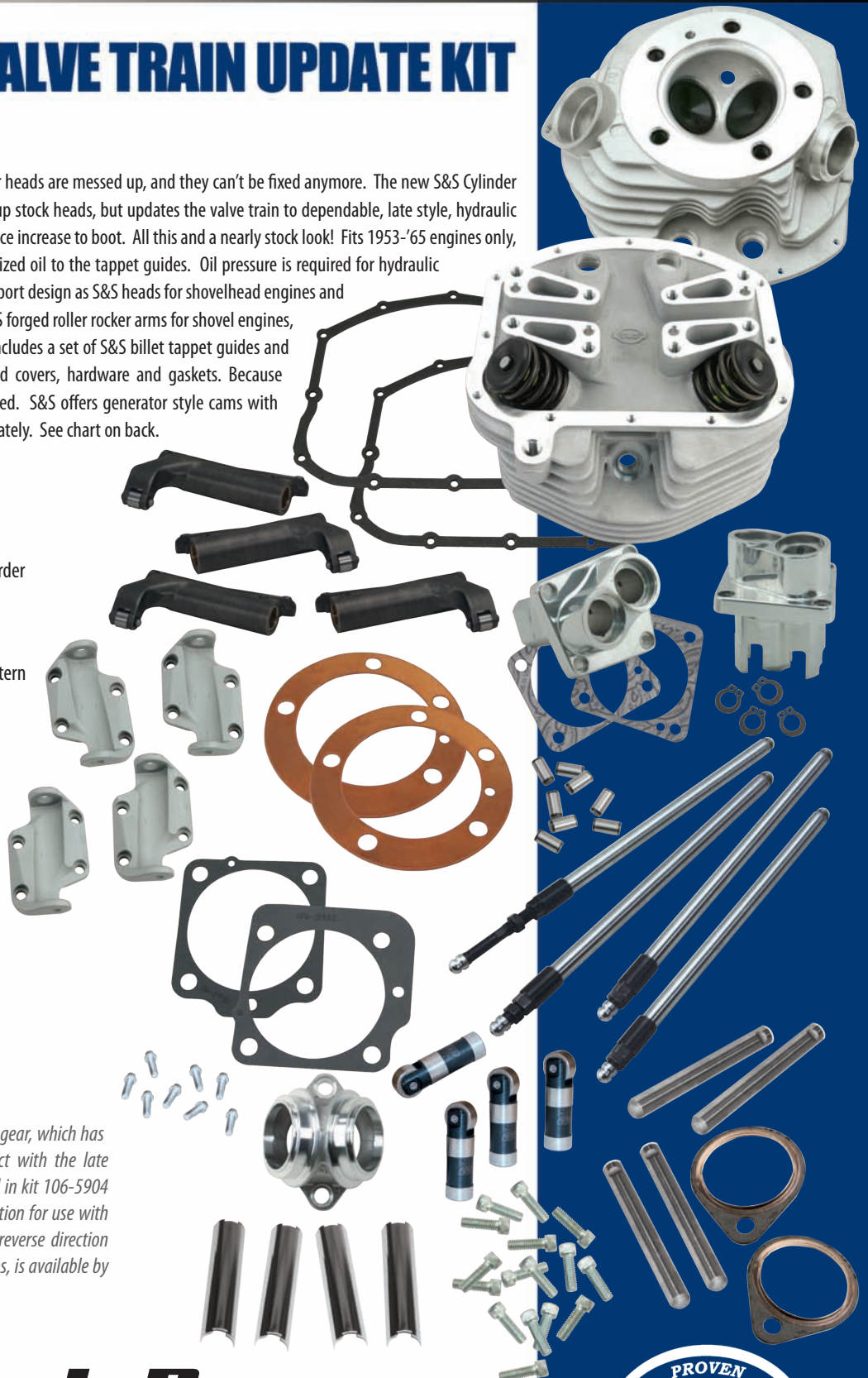
##### Made to Order

MSRP Call for Pricing ..... **106-6397**



33-4215

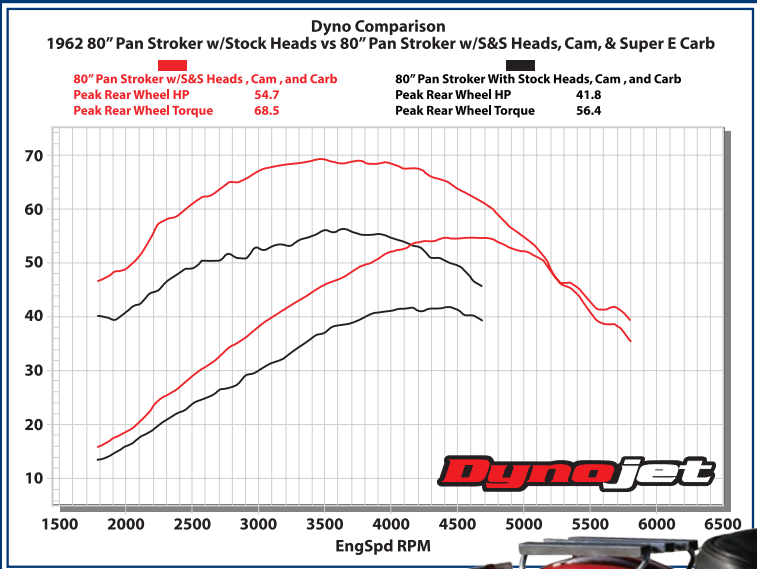
*This kit includes a special timer gear, which has been clearanced to avoid contact with the late style cam lobes. The gear included in kit 106-5904 turns the timer in the standard direction for use with stock timers and ignition systems. A reverse direction timer gear for electronic ignition systems, is available by special order.*



# Flathead Power<sup>®</sup>

By S&S<sup>®</sup> Cycle





The Dyno Jet® dynamometer shows that the S&S® Cylinder Head and Valve Train Update kit increases performance significantly. This 1962 80" stroker engine had stock heads, cam, and carb for the baseline run, and S&S heads, 513 cam, and a Super E Carb for the run shown in the upper set of curves. The peak horsepower was increased by almost 13 horsepower. That's over a 30% increase. Torque was increased by over 20%. That's Proven Performance®.



**LATE STYLE CAM RECOMMENDATIONS FOR PANHEAD AND GENERATOR SHOVELHEAD ENGINES**

Application	RPM range	Compression Ratio	If You Used	Then Use	Part No.
74" - Stock 84" low compression	Low - Mid	8.5 and below	S&S 450 or Andrews J or A	S&S 513G	<b>106-6028</b>
74" and 80" - Modified	Mid - High	8.5-9.5	S&S 514 or Andrews #3 or B	S&S 585G	<b>33-5131</b>
84"-93"	Low - Mid	8.0 to 9.0	S&S 514	S&S 585G	<b>33-5131</b>
93" HC to 103"	Mid - High	9.0-10.0	S&S 495 or 560S	S&S 600G	<b>33-5132</b>
High Compression	High	over 10.0	S&S 495 or 565S	S&S 640G	<b>106-4639</b>

**NOTES:**

- This is NOT a restoration kit. Parts in this kit are not compatible with stock components – must be used together as a kit.
- If used on an engine with aftermarket crankcases, the oiling system must be 1953-'65. Oil pressure must be delivered to the tappet guides.
- An S&S oil pump is recommended to provide more consistent oil pressure.
- Compatible with exhaust systems for 1966-'69 generator shovel engines.
- Must be used with camshafts for 1984-'99 valve train. S&S offers generator style cams with 1984-'99 lobe grinds. Cams must be purchased separately. See chart.
- Pre-clearanced timer gears are available in standard rotation (stock ignition) or reverse rotation (electronic ignition) versions. Kit #106-5904 includes a standard rotation gear. Either gear can be selected when ordering the special order part number. If you wish to change ignition systems, please order one of the following:
  - Standard/Clockwise Rotation. (H-D#25850-36A) ..... 33-4215
  - Reverse/Counterclockwise Rotation. (Requires S&S part #33-4208 circuit breaker gear) .... 33-4209
- If good stock pan cylinders are not available, we suggest using readily available shovel cylinders and retro top end kit for shovel engines #106-1070. 1953-'65 only.