

# INSTALLATION INSTRUCTIONS

## BIG GUN™ SIDE WINDER FOR 1986 - Present HARLEY SOFTAILS Model S2-166



### WARNING PLEASE READ BEFORE INSTALLATION!

- Read all instructions thoroughly and confirm that all listed components are available for installation.
- Adding a free flowing exhaust systems may require rejetting of the carburetor. Lean carburetor settings are a major factor causing exhaust discoloration and potential engine damage.
- Samson® exhaust systems are designed to fit and work with OEM frames and motors.
- After installation thoroughly clean the new exhaust system before starting the motor.

### REMOVAL PROCEDURE:

- Remove all existing heat shields. Remove the clamp on the crossover pipe, if so equipped.
- Remove the four flange nuts securing the exhaust to the cylinder heads.
- Remove the bolts holding the front and rear pipes to the exhaust mounting bracket.
- Remove the two bolts holding the mounting bracket to the frame. The mounting bracket is not needed to install this set of Samson® pipes.
- To remove the flanges from old exhaust pipes remove the snap ring from the exhaust and slide the flange off the pipe. (Note: the snap rings may be lodged in the groove in the flange. Carefully pry the snap ring from the flange.)
- Do not remove the exhaust gaskets unless you intend to replace them. We recommend replacement with Genuine James thick gaskets. Samson® part # A-144.

**CAUTION: WITH SOME EXHAUST DESIGNS GROUND CLEARANCE MAY BE REDUCED!**

### INSTALLATION PROCEDURE:

**NOTE: Do not tighten connections when first installing the system. To ensure proper fit and alignment all bolts and bracket are tightened at the end of the installation.**

- Install the flange and snap rings on the front and rear exhaust pipes.
  - Position the front pipe at the exhaust port and loosely tighten the pipe to the engine using two 1/2" flange nuts.
  - Using two 3/8" X 1-3/4" hex head bolts and two 3/8" washers, insert through the bottom mounting tabs, place two 1" chrome spacers between the mounting tabs and the frame. Loosely thread the bolts into the frame mounting holes.
  - Position the rear pipe and loosely attach it to the rear cylinder using two 1/2" flange nuts.
  - Mount four 5/16" X 3/4" carriage bolts, four 5/16" washers and four 5/16" Nylock nuts on the 4" chrome strap brackets.
  - Slide the head of the carriage bolts in the channel brackets on the rear side of both the front and rear pipes.
  - Tighten each bolt a little at a time starting with the strap bracket and work toward the front of the pipe. Check pipe alignment as you go.
- Reinstall O2 Sensors in the front and rear head pipes. If you do not wish to operate this system with the factory O2 Sensors you will need to consult your local dealer for tuning options as operation without these Sensors can result in engine damage. The Sensor thread size is 18mm x 1.5 pitch.

### TOOLS REQUIRED:

- 5/16" Combination wrench
- 9/16" Combination wrench
- 1/2" Combination wrench
- Ratchet, 6" extension and 1/2" swivel socket

### PARTS LIST:

Qty.	Description
1	2-1/4" Front exhaust pipe
1	2-1/4" Rear exhaust pipe
2	4" Chrome strap brackets
2	1" Chrome spacers
4	5/16" X 3/4" Carriage bolts
4	5/16" Chrome washers
4	5/16" Nylock nuts
2	3/8" X 1-3/4" Hex head bolts
2	3/8" Flat washer

### REMEMBER TO CLEAN THE PIPES BEFORE

