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Installation Instructions: S&S Power Tune Exhaust System **for 2004-Later Harley-Davidson® Sportster® Models** **(S&S PN 550-0379 and 550-0380)**

DISCLAIMER:

S&S parts are designed for high performance, closed course, racing applications and are intended for the very experienced rider only. The installation of S&S parts may void or adversely affect your factory warranty. In addition such installation and use may violate certain federal, state, and local laws, rules and ordinances as well as other laws when used on motor vehicles used on public highways, especially in states where pollution laws may apply. Always check federal, state, and local laws before modifying your motorcycle. It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other obligations, duties, and risks associated therewith.

The words Harley®, Harley-Davidson®, H-D®, Sportster®, Evolution®, and all H-D part numbers and model designations are used in reference only. S&S Cycle is not associated with Harley-Davidson, Inc.

SAFE INSTALLATION AND OPERATION RULES:

Before installing your new S&S part it is your responsibility to read and follow the installation and maintenance procedures in these instructions and follow the basic rules below for your personal safety.

- Gasoline is extremely flammable and explosive under certain conditions and toxic when breathed. Do not smoke. Perform installation in a well ventilated area away from open flames or sparks.
- If motorcycle has been running, wait until engine and exhaust pipes have cooled down to avoid getting burned before performing any installation steps.
- Before performing any installation steps disconnect battery to eliminate potential sparks and inadvertent engagement of starter while working on electrical components.
- Read instructions thoroughly and carefully so all procedures are completely understood before performing any installation steps. Contact S&S with any questions you may have if any steps are unclear or any abnormalities occur during installation or operation of motorcycle with a S&S part on it.
- Consult an appropriate service manual for your motorcycle for correct disassembly and reassembly procedures for any parts that need to be removed to facilitate installation.
- Use good judgment when performing installation and operating motorcycle. Good judgment begins with a clear head. Don't let alcohol, drugs or fatigue impair your judgment. Start installation when you are fresh.
- Be sure all federal, state and local laws are obeyed with the installation.
- For optimum performance and safety and to minimize potential damage to carb or other components, use all mounting hardware that is provided and follow all installation instructions.
- Motorcycle exhaust fumes are toxic and poisonous and must not be breathed. Run motorcycle in a well ventilated area where fumes can dissipate.

IMPORTANT NOTICE:

Statements in this instruction sheet preceded by the following words are of special significance.



WARNING

Means there is the possibility of injury to yourself or others.



CAUTION

Means there is the possibility of damage to the part or motorcycle.

NOTE

Other information of particular importance has been placed in italic type.

S&S recommends you take special notice of these items.

WARRANTY:

All S&S parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of twelve (12) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at S&S's option if the parts are returned to us by the purchaser within the 12 month warranty period or within 10 days thereafter.

In the event warranty service is required, the original purchaser must call or write S&S immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action.

A part that is suspect of being defective must not be replaced by a Dealer without prior authorization from S&S. If it is deemed necessary for S&S to make an evaluation to determine whether the part was defective, a return authorization number must be obtained from S&S. The parts must be packaged properly so as to not cause further damage and be returned prepaid to S&S with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by S&S and the part was found to be defective, repair, replacement or refund will be granted.

ADDITIONAL WARRANTY PROVISIONS:

- (1) S&S shall have no obligation in the event an S&S part is modified by any other person or organization.
- (2) S&S shall have no obligation if an S&S part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the S&S part.
- (3) S&S shall not be liable for any consequential or incidental damages resulting from the failure of an S&S part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in non-conforming condition, or for any other breach of contract or duty between S&S and a customer.
- (4) S&S parts are designed exclusively for use in Harley-Davidson® and other American v-twin motorcycles. S&S shall have no warranty or liability obligation if an S&S part is used in any other application.

Kit Contents:

Exhaust System Kit

- Header assembly
- Heat shields
- Header attachment bracket
- Exhaust port gaskets
- Oxygen sensor adapters
- 5/16" Serrated Flange Bolts
- 3/16" Threaded inserts
- Oxygen sensor plugs

End cap kit (packaged separately)

- 2 end caps
- 4 mounting screws
- Loctite® 262

Tools Needed:

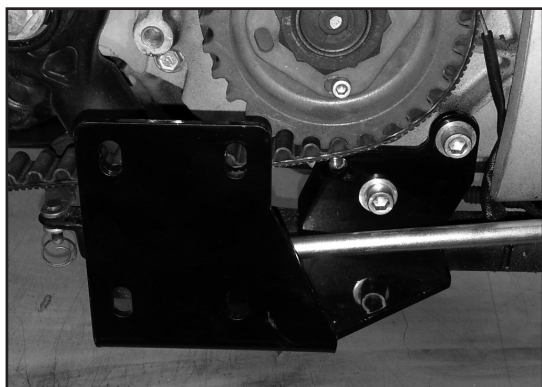
- 1/2" socket and ratchet with extensions
- 1/2" wrench
- 5/8" wrench
- 7/8" wrench
- 3/16" Allen wrench
- 3/8" Allen wrench
- Snap ring pliers
- T27 Torx socket

Removal of stock exhaust system:

1. Secure the motorcycle to prevent tipping during installation.
2. Remove the stock heat shields.
3. Unplug the front and rear oxygen sensors, if equipped.
4. Remove the bolts that hold the mufflers to the crossover tube bracket. This bracket will not be re-used.
5. Remove the carriage bolt that holds the rear head pipe clamp to the belt cover.
6. Remove the exhaust port flange nuts from each head pipe and set aside, these will be re-used.
7. Remove the exhaust pipe and muffler assembly.
8. Remove the circlips and flanges from the stock exhaust system using a snap ring pliers. These parts will be reused.
9. Inspect circlips for damage or deformation, replace if necessary.
10. Remove the stock oxygen sensors, if equipped. These will be re-used.
11. Remove the drive belt cover.
12. Disconnect the brake rod from the rear master cylinder. On 2004-'13 models use a T27 Torx socket to disconnect the brake rod from the bellcrank. On 2014-up models, remove the clip and pin connecting the brake rod to the master cylinder.
13. Remove the exhaust bracket from underneath the belt cover, this will not be re-used.
14. Remove the stock exhaust port gaskets.

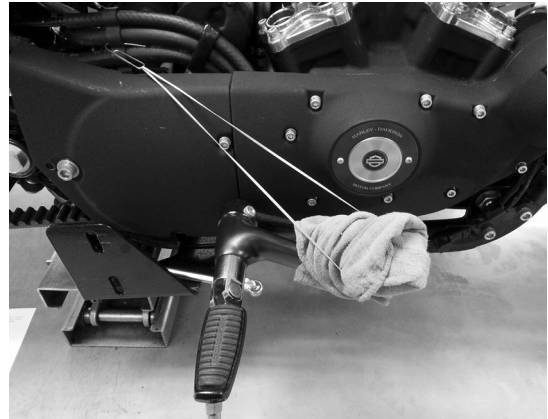
Installation of S&S Power Tune Sport Exhaust

1. Remove header and heat shields from protective foam packaging. Place them in a non-abrasive surface. Unpack the end cap kit.
2. Install the supplied mounting bracket to the motorcycle transmission (See Picture 1). Apply Loctite to the two 3/8" Allen head bolts that were previously removed. Torque to 32 ft*lbs. Make sure the brake actuation rod is placed through the bracket. and re-insert into the master cylinder.



Picture 1

3. Install the drive belt cover using the original hardware. Torque the 3/8" Allen head bolts to 32 ft*lbs and the 1/4" Allen head bolts 85-115 in*lbs. The stock rear exhaust pipe clamp, bracket, and carriage bolt are not needed with the new header.
4. Reconnect the brake rod to the rear master cylinder.
5. Install the supplied exhaust port gaskets taking care not to damage them.
6. Install the exhaust flanges and circlips onto the front and rear head pipe. On carbureted models, install oxygen sensor plugs.
7. Apply a small amount of anti-seize compound to the threads of the exhaust port studs. On motorcycles with mid controls, it may be necessary to move the brake pedal to make room for installation of the header. Wrap the pedal with a rag to prevent scraping the heat shield and use some means of holding the brake pedal in the upright position (See Picture 2).



Picture 2

8. Install the header by carefully inserting the rear head pipe and flange first then rotate the header forward and up to insert the front head pipe and flange.
9. Install the flange nuts to hold the header in place, but do not fully tighten yet.
10. Pull the header outward slightly and install the two threaded inserts to the to the slotted channels in the back of the header.
11. Push the header back toward the mounting bracket. .
12. Loosely install the flange bolts.
13. Tighten the exhaust port flange nuts followed by the mounting bracket flange nuts.
14. Sufficiently tighten the two flange bolts that hold hold the exhaust header to the bracket.
15. Apply a small amount of Loctite to the supplied screws and install the end caps to the ends of the heat shields (See Picture 3). Keep the remaining Loctite, it will be needed again in later steps



Picture 3

16. Using a marker, place a mark on the edge of the heat shield exactly at the middle of each heat shield hold down clip (**See Picture 4**, below left.) This is done to easily locate the clips in the heat shields at the time of assembling the heat shields onto the head pipe. Slide the heat shields over the header starting at the tail end of the header.



Picture 4

17. Install each hose clamp by feeding the tail end of the clamp into the heat shield clips. Take note of clamp screw head direction. The screw head must be accessible when the exhaust system is installed on the motorcycle. Do not fully tighten at this time.
18. Adjust alignment of the front and rear heat shields and tighten the clamps.
19. Apply a small amount of anti-seize compound to the threads of the oxygen sensors and adaptors then re-install. Be careful not to get any anti-seize compound on the tip of the sensor, as this may affect its functionality.
20. Reconnect the front and rear oxygen sensors, if equipped.
21. Install the pin and clip that connect the bracket actuator rod to the master cylinder.
22. Inspect the exhaust system and make sure there is sufficient space between the exhaust system and motorcycle accessories.
23. Thoroughly clean the exhaust system to remove any fingerprints or oil before the motorcycle is started

