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Installation Instructions: Update Kit for S&S Power Tune Dual Header Kit

(S&S PN 550-0540)

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.



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



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' 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.

ATTENTION INSTALLER (if other than owner):

Please forward this instruction sheet to the purchaser of this product. These instructions also contain valuable information necessary to the end user.

INTRODUCTION

These instructions describe the procedure for properly installing the Update Kit for S&S® Power Tune Duals. Review instructions carefully before beginning, as they contain important information. Please retain for future reference.

Installation of Exhaust System Update Kit PN 550-0540

Kit Contents:	Tools Needed:
Crossover pipe (1)	¼ " drive ratchet
Crossover pipe P-Clamp (1)	1/4" drive 1/2" socket
Transmission side bracket (1)	¼" drive ⅓6" socket
Transmission side P-Clamp (1)	1/4" drive 6" extension
1/4"-20x3/4" Hex head bolt (1)	³⁄16" Allen wrench
1/4" Washers (4)	¼" Allen wrench
1/4-20 Lock Nut (1)	⁵⁄16" Allen wrench
, ,	6mm Allen wrench
1/4-20 x 1 Socket head cap screw (4)	10mm Allen wrench
1/4-20 x 3/4 Socket head cap screw (2)	1/4" nut driver or flat screwdriver
%-16 x 1 Carriage bolt (1)	⅓6" box wrench
3%-16 Flanged lock nut (1)	½" box wrench
Loctite 243 (1)	%6" box wrench
	, 10 20% 111 211 211
	14mm box wrench
	15mm box wrench
	22mm box wrench

PROCEDURE

- Follow the procedures listed below to update the mounting system of the late model, 2009-up, Power Tune Dual header. The parts that will be re-used are the heat shields, heat shield clamps, crossover pipe Torca/Accuseal clamp and the header. The update kit contains all the other parts necessary to re-assemble.
- 1. Remove saddlebags.
- 2. Remove mufflers, save the 5%" bolts and muffler clamps (Harley-Davidson® states clamps are not reusable). Tip: Use anti seize on threads of used muffler clamps. If they clamp down securely they don't need to be replaced.
- 3. Remove right front floorboard and mounting brackets.
- 4. Remove heats shields and disconnect the oxygen sensors.
- Loosen the Torca/AccuSeal clamp that secures the crossover pipe to the header.
- 6. Remove the 5/16" bolts that hold the crossover pipe to the

- transmission oil pan bracket. These fasteners are no longer needed.
- 7. Remove the exhaust port flange nuts then remove the exhaust header. Save the 5/16-24 hex flange port nuts.
- 8. Remove the crossover pipe bracket that is bolted to the oil pan, this bracket and the fasteners are no longer needed. Located the provided ¼"-20x1" socket head cap screws, apply Loctite and and torque to 84-132 in*lbs.
- 9. The crossover pipe needs to be removed from the header. Securely hold the header (a bench vise works well) and remove the crossover pipe. Applying penetrating oil to the joint will aid in the removal.
- 10. Remove the oxygen sensor, retaining ring and exhaust flange from the rear head pipe.
- 11. Install the transmission side P-clamp onto the header as shown on the last page. It may be necessary to open the clamp in order to clear the port cap and oxygen sensor bung. Re-install the flange and retaining rings to the rear head pipe.
- 12. Remove the factory exhaust bracket from the side of the transmission. Locate the supplied bracket and install using the original $\frac{3}{6}$ " socket head bolts. Apply Loctite and torque to 13-18 ft*lb.
- 13. Install the header using saved 5/6-24 hex flange nuts. Seat front pipe first then rear. A firm pull rearward on the rear pipe, while keeping the front pipe seated, may be necessary to clear the rear head casting. Be careful not to damage gaskets. Do not fully tighten the flange nuts yet.
- 14. Use the provided ¾" carriage bolt and lock nut to secure the header P-clamp to the transmission side bracket. The P-clamp should sit on top of the bracket. Do not fully tighten yet.
- 15. Locate the crossover pipe, the P-clamp should already be installed as shown in the picture below. Do not tighten this ¼" bolt yet, as this will allow left-right adjustment of the P-clamp.
- 16. Install the supplied Torca/AccuSeal pipe clamp on the expanded end of the crossover pipe with the open end down and the nut facing out (cannot be installed later). Applying anti seize to the threads and under the nut.
- 17. Position the crossover pipe under the oil pan and slide its expanded end onto the end of the front header pipe. Do not fully tighten the Torca/Accuseal pipe clamp at this time.
- 18. Locate the provided ¼" socket head cap screws and ¼" flat washers, apply Loctite, and secure the crossover P-clamp to the back of the transmission. Torque screws to 84-132 in*lbs.
- 19. Locate the 5%" bolts and muffler clamps from Step 2, apply Loctite to the bolts and anti seize to the threads of the muffler clamps and install the mufflers. Muffler rear brackets should align side to side and up and down with the saddle bag support rear mounting brackets without stress.
- 20. Torque the port flange nuts evenly to 100-120in*lbs. To ensure there are no leaks and the system is properly aligned the front and rear port nuts must be evenly torqued

- 21. Tighten the Torca/Accuseal pipe clamp on the crossover pipe.
- 22. Tighten the lock nut and carriage bolt used on the transmission side P-clamp to 20-25 ft*lbs followed by tightening the ¼" bolt on the crossover pipe P-clamp. to 76 in*lbs.
- 23. Clean header pipes and crossover (see step 21).
- 24. Insert worm gear clamps into slots on the back side of the heat shields. All clamp screws except the upper two on the rear shield should be positioned so the screw heads can be accessed from the front or bottom of the headers. Tip: Insert clamps halfway into the slots and bend the ends outward to ease installation over header pipes.
- 25. Install heat shields. Connect and loosely tighten all worm gear clamps. Position screw heads for easiest access and tighten with a ¼" nut driver or screwdriver.
- 26. Reinstall front floorboard in lowest position.
- 27. Align and tighten the muffler and header/crossover clamps. Make sure the header/crossover clamp does not contact the frame.
- 28. Reconnect oxygen sensor electrical plugs.
- 29. Before operating motorcycle, clean pipes and mufflers with soap and water or window cleaner. Any grease or oil will permanently burn onto pipes. Dry thoroughly.

Carefully read the enclosed Important Notice sheet. Re-jetting and or recalibration may be required.

Check all mounting hardware to be sure it is tight before and after first operation of motorcycle. Periodically, check tightness of all mounting hardware.

USE AND CARE: Wash your accessories with the same care you use when washing your motorcycle. Use mild soap and water. DO NOT use abrasive chemicals or cleaners, or high pressure washers.

Cover ends of mufflers when washing motorcycle. Mufflers may internally corrode if saturated with water and allowed to sit.



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