

Instruction 510-0591C

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Installation Instructions: S&S Sidewinder 2-1 for 2007-'16 Harley-Davidson® Touring Models (550-0771B & 550-0772B)

DISCLAIMER:

Many 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. 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.

Exempt from emissions tampering regulations on 2007-2016 Harley-Davidson® touring models under CARB EO# K-010-34

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 an 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.

Tools Needed:

• ¼" drive ratchet	• 10mm Allen wrench
• ¼" drive ½" socket	• ⅝" nut driver or flat screwdriver
• ¼" drive ⅞" socket	• ⅞" box wrench
• ¼" drive 6" extension	• ½" box wrench
• ⅜" Allen wrench	• ⅝" box wrench
• ¼" Allen wrench	• 14mm box wrench
• ⅝" Allen wrench	• 15mm box wrench
• 6mm Allen wrench	• 22mm box wrench

Procedure:

NOTE - The following installation procedure assumes that a stock exhaust system is being removed. If the bike you are working on has something other than the factory exhaust system, you may need to source some of the fasteners listed below.

1. Remove Saddlebags
2. Remove mufflers
3. Remove right front floorboard and mounting brackets.
4. Remove heat shields and disconnect the oxygen sensors.

FOR 2007-'08 MODELS USE STEPS 5-9 BELOW:

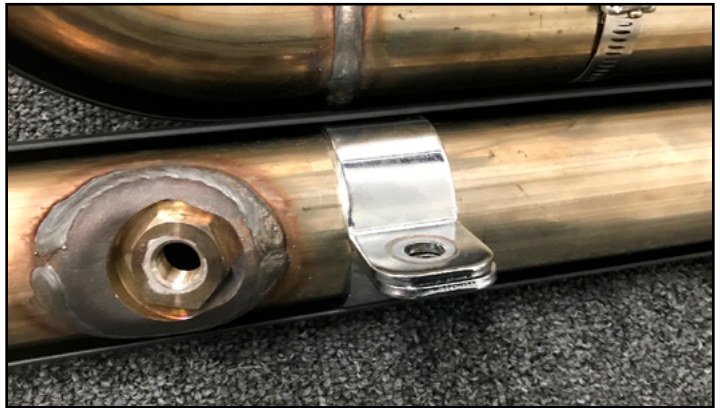
FOR 2009-2016 MODELS USE STEPS 11-15 BELOW:

5. Loosen the clamp on the rear head pipe near rear cylinder. Remove the left side section of the exhaust pipe.
6. Remove the nut and bolt securing the clamp that holds the header to the side of the transmission. Remove the nuts from the front and rear header flange at cylinder head. Remove rear cylinder portion of header first, then front cylinder portion.
7. Remove transmission housing bracket, do not re-install hardware at this time.
8. Remove rear crossover pipe support bracket from inner primary housing, tighten start bolts to 13-15 lb/ft.
9. Remove and save oxygen sensors, retaining rings and flanges from stock header.
10. Go to Step 16

FOR 2009-2016 MODELS USE STEPS 11-15 BELOW.

11. Remove the factory crossover pipe clamp and bracket from the back of the transmission. Re-install the ¼" socket head screws using threadlocker. The bracket and clamp may be discarded.
12. Remove the nut and bolt securing the header to the side of the transmission.
13. Remove the nuts from the front and rear header flange at the cylinder head. Remove header.
14. Remove transmission housing bracket, do not re-install hardware at this time.
15. Remove and save oxygen sensors, retaining rings and flanges from stock header.
16. Remove stock exhaust port gaskets. Install new supplied conical gaskets to avoid leaks (*HD® 65324-83B or S&S 106-5029 gaskets must be used for a proper seal*).
17. Install flanges and retaining rings on new exhaust header. Oxygen sensors and supplied adaptors should be installed at this time as required using anti-seize on all threads. (*550-0375 adaptor is used with 2010-2016 model oxygen sensors*).

18. Reuse the stock transmission bracket hardware to install the transmission support bracket. Use the longer support bracket (#14) for 1995-'06 models and the shorter support bracket (#13) for 2007-'16 models. Tighten the bolts to 15-18 lb./ft.
19. Install rear header heat shield, then connect and loosely tighten the hose clamps. Position screw heads according to part diagram arrows. Repeat the process for the front cylinder heat shield. Slide support clamp halves between header and heat shield. As shown in **Picture 1**.



Picture 1

20. Apply anti-seize to exhaust studs, and loosely install the new header using supplied ⅝"-24 flange nuts. Seat the rear pipe first then the front. Exert a firm pull forward on the front pipe, while keeping the rear pipe seated. Be careful not to damage exhaust port gaskets. Do not fully tighten the flange nuts yet. Align with transmission bracket and install carriage bolt (#15) through transmission bracket and support clamp halves. Loosely install flanged hex nut on transmission side clamp bracket (#13 or #14 depending on model year).
21. Locate two ⅝" flanged bolts (#22) and muffler clamp (#7). Apply threadlocker to the bolts and anti-seize to the threads of the muffler clamp and install the muffler at the rearmost position. Muffler bracket should align side to side and up and down with the saddlebag support rear mounting bracket without stress. Tighten the bracket bolts.
22. Tighten the transmission side mount bracket bolts and flanged nut to 15-18 lb/ft.
23. Torque the port flange nuts evenly to 100-120 lb/in. Torque nuts evenly to ensure there are no leaks.
24. Use a piece of cardboard or other protective material to protect muffler finish. Install collector heatshield. Slide collector heat shield forward to engage heat shield tabs with the header heat shields.
25. Set heat shield clearance gap to muffler by sliding muffler forward. Ensure that there is 0.080-0.125" clearance between heat shield and muffler body to maintain a gap between parts to prevent damage to coating. After determining final muffler position, tighten heat shield clamp to 100-120 lb-in. and tighten torca clamp to 42 lb-ft..
26. For 95-08 models, use the two identical spacers (#18) and the ½" bolts (#21). For 09-16 Models, use the unique spacers (#18 and #19) and ⅜" bolts (#20 and #21) while installing floorboard in lowest position.
27. Reconnect oxygen sensor electrical plugs.
28. Before operating motorcycle, clean pipes and muffler with soap and water or window cleaner. Any grease or oil will permanently burn onto pipes. Dry thoroughly.

29. 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.

EMISSIONS DEFECTS WARRANTY

The following is an explanation of the emission defects warranty on your new catalyst exhaust system or component. New aftermarket catalyst equipped exhaust components or systems must be designed, built, and equipped to meet stringent emissions standards. S&S must warrant the aftermarket catalyst equipped exhaust components or systems to meet these applicable requirements for the period of time listed below, provided there has been no abuse, neglect, or improper modification of your engine.

EMISSIONS DEFECTS WARRANTY COVERAGE

If this S&S aftermarket catalyst equipped exhaust is installed on a motorcycle within four years of the date that the motorcycle was first acquired by an ultimate purchaser, the emission defects warranty period is five (5) years or 30,000 kilometers (18,641 miles), whichever first occurs.

If this S&S aftermarket catalyst equipped exhaust is installed on a motorcycle more than four years after the date that the motorcycle was first acquired by an ultimate purchaser, the emissions defects warranty period is three (3) years or 15,000 kilometers (9,321 miles), whichever first occurs

If an emission critical part on your exhaust has been deemed by S&S to be defective, or have damaged an original part of the motorcycle, the part will be repaired or replaced by S&S. This is your EMISSIONS DEFECTS WARRANTY.

WHAT IS COVERED BY THIS EMISSION DEFECTS WARRANTY

The Emission Defects Warranty covers the following "warranted parts" only:

- Original equipment of the exhaust system or component purchased (void if tampered with or not in the original equipment configuration)
- If used on the above: clamps, tubing, sealing gaskets, and mounting hardware.

WHAT IS NOT COVERED BY THIS EMISSION DEFECTS WARRANTY

The following items are not covered by the S&S Cycle, Inc. Emission Defects Warranty:

- Malfunctions in any "warranted parts" caused by any of the following: abuse, misuse, unapproved modification or alteration, tampering, disconnection, or improper maintenance.
- Malfunctions when used with an engine that has been rendered emission non-compliant.
- Discoloration or other cosmetic defects.
- Repairs improperly performed or replacements improperly installed.
- Use in competitive racing or related events.
- Damage resulting from accident, acts of nature, or other events beyond the control of S&S.
- Repairs and services performed by anyone other than an authorized S&S dealer (except in the case of emergency as defined above).
- Loss of time, inconvenience, loss of use of the engine and donor vehicle, towing of the vehicle, or commercial loss and/or consequential damages.

OWNER'S WARRANTY RESPONSIBILITIES

You are responsible for ensuring instructions on the included warranty card are followed and the requested information is returned to S&S. Failure to provide this information could result in a delay of warranty coverage. S&S recommends that you retain all receipts covering purchase and installation of your catalyst equipped exhaust component.

You are responsible for presenting your motorcycle to an S&S dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

You should be aware that S&S may deny your warranty coverage if a part has failed due to abuse, neglect, or unapproved modifications to the exhaust or engine.

If you have any questions regarding your warranty rights and responsibilities, you should contact S&S Cycle, Inc., 14025 Cty Hwy G, Viola, WI 54664 or the California Air Resources Board, P.O. Box 8001, 9528 Telstar Avenue, El Monte CA, 91734-8001

ADDITIONAL WARRANTY TERMS

The warranty period begins on the date the exhaust is delivered to the ultimate purchaser, or on the date it is first installed.

S&S recommends that you go only to an authorized S&S dealer for repairs under this warranty. He/she has factory-trained mechanics and genuine S&S parts. However, in the case of an "emergency" (as define below), you could have repairs performed at any available service establishment or by the owner. An authorized S&S dealer not being reasonably available, or a part not being available within a reasonable time period (not to exceed 30 days from the time the motorcycle is initially presented to an S&S dealer for repair) constitutes an emergency. S&S will reimburse the owner for such repairs, including diagnosis, only if it is established that the repairs are covered under this emission warranty. S&S's parts reimbursement, however, will not exceed our suggested retail price for all warranted parts replaced and our labor reimbursement will be limited to our recommended time allowances for emission system repairs at the geographically appropriate hourly labor rate. To obtain reimbursement from S&S for such emergency repairs, you must keep all failed parts and original receipts, so you can present them to an authorized S&S dealer for his inspection. S&S recommends that you bring your vehicle to an authorized dealer for inspection to ensure that the emergency repairs were done properly.

The use of non-S&S replacement or approved aftermarket parts does not invalidate the existing warranty, if any, on this or other S&S components unless the non-S&S parts cause damage to warranted parts or result in the creation of an emission non-compliant vehicle. However, S&S ASSUMES NO LIABILITY UNDER THIS WARRANTY WITH RESPECT TO ANY PARTS WHICH ARE NOT GENUINE S&S PARTS, unless genuine S&S parts cause damage to non-genuine S&S parts.

Replacement Parts:

1. Header, assembly, 2:1, Sidewinder®, weldment, 2007-'16 touring models	551-0705	12. Gasket, exhaust, tapered, stainless steel	106-5029
2. Muffler, assembly, 2-1 Sidewinder, 50 State Chrome	551-0529D	13. Bracket, header mount, 2:1, powdercoated, black, 2007-'16 touring models (short)	551-0719
Black	551-0530D	14. Bracket, header mount, 2:1, powdercoated, black, 1995-'06 touring (long)	551-0786
3. Heat Shield Collector Chrome	551-0379	15. Bolt, Carriage, 3/8-16 x 1-1/4"	500-0553
Black	551-0381A	16. Nut, Flanged, Serrated, 3/8-16	500-0554
4. Heat shield, Front, 2:1, Chrome	551-0709	17. Nut, HSFH, 5/16-24 unf-2b x .283", Zinc, steel	50-5025-S
Black	551-0715A	18. Washer, spacer, floor board	551-0401
5. Heat shield, Rear, 2:1, Chrome	551-0712	Spacer, floorboard, 95-08 Touring	551-1131
Black	551-0717A	19. Spacer, floor board, powdercoated, black	551-0399
6. Clamp, header mount, 2:1, chrome plate, mild steel, 11 gauge,	551-0361	20. Screw, SHC, 3/8-16 x 1-3/4", zinc, steel	500-0789
7. Clamp, muffler, band style, 2.5"	551-0135	21. Screw, SHC, 3/8-16 x 2-3/4", zinc, steel	500-0790
8. Clamp, hose, worm drive, SAE #20 (qty. 3)	551-0527	Screw, SHC, 1/2-13 x 1-3/4"	500-1135
9. Clamp, hose, worm drive, SAE #40	551-0402	22. Screw, hh, flg, serrated, 5/16-18 x 1/2"	500-0744
10. Clamp, hose, worm drive, SAE #24 (qty. 3)	500-0791	23. End cap, Sidewinder 2:1	551-0395
11. Adapter, oxygen sensor, 12mm to 18mm, stainless steel	550-0375		

