



Installation Instructions: S&S Sidewinder 2-1 for 2017-'21 Harley-Davidson® Touring Models

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.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle

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



Picture 1



Picture 2

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.
5. Remove the factory crossover pipe clamp and bracket from the back of transmission. Only the ¼" socket head screws will be reused. The other parts are no longer needed.
6. Remove the exhaust port flange nuts and flange nut that secures the header to the side clamp. Remove the exhaust header. Save the ⅝"-24 hex flange nuts and the stock side clamp from the front pipe.
7. Remove and save oxygen sensors, retaining rings and exhaust flanges from old exhaust header.
8. Inspect exhaust port gaskets, if necessary install new conical gaskets supplied in the kit.

NOTE - New conical port gaskets (H-D 65324-83B) (S&S 106-5029) must be used to avoid leaks.

9. Locate the ¼" socket head screws from Step 5. Apply thread locker and install to the back of the transmission. No other parts are installed with these screws for the 2-1 exhaust system.
10. Install flanges and retaining rings on new exhaust header. Oxygen sensors and supplied adaptors should be installed at this time. Use anti-seize on all threads.
11. Use the 106-4401s supplied in the hardware kit (#17). Tighten the bolts to 15-18 lb./ft. The bracket will hold support clamp (shown with heat shields in **Picture 1**). See **Picture 2** for bracket mounting location.

12. 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.
13. Apply anti-seize to exhaust studs, and loosely install the new header using ⅝"-24 hex 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 gaskets. Do not fully tighten the flange nuts yet. Align with transmission bracket and install button head bolt (#10) through transmission bracket and support clamp halves. Loosely install flanged hex nut on factory side clamp mount.
14. Locate two ⅝" bolts and the muffler clamp. Apply thread locker to the bolts and anti-seize to the threads of the muffler clamp and install the muffler at the rearmost position. Muffler rear bracket should align side to side and up and down with the saddlebag support rear mounting bracket without stress. Tighten the ⅝" bracket bolts.
15. Torque the port flange nuts evenly to 100-120 in-lbs. To ensure there are no leaks and the system is properly aligned the front and rear port nuts must be evenly torqued.
16. Tighten the flanged nut on the side clamp to 15-18 ft-lb.
17. Use a piece of cardboard or other protective material to protect muffler finish. Install collector heat shield. Slide collector heat shield forward to lock front heat shield tabs onto the header heat shields.

18. Set heat shield clearance 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.
19. Reinstall front floorboard in lowest position, use supplied spacers.
20. Reconnect oxygen sensor electrical plugs.
21. 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.
22. 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.

Replacement Parts

1. Header, Assembly, Weldment, 2017-'18 M8 Touring.....	551-0367	10.Clamp, Muffler, Band Style, 2.5"	551-0135
2. Front Heat Shield		11.Clamp, Hose, Worm Drive, Sae #40	551-0402
Chrome	551-0385	12.Clamp, Hose, Worm Drive, Sae #20.....	551-0527
Black.....	551-0387A	13.Nut, Flanged, Serrated, 3/8-16.....	500-0554
3. Rear Heat Shield		14.Washer, Spacer, Floor Board	551-0400
Chrome	551-0391	15.Spacer, Floor Board, Powdercoated	551-0399
Black.....	551-0393A	16.Washer, Flat, .375" x .813" x .063", Zinc, Steel.	50-7051
4. Collector, Heat Shield, 2017-'18 M8 Touring		17.Screw, SHC, 5/16-18 x 1-1/2", Zinc Plated, ASTM A574-92A....	106-4401
Chrome	551-0379		
Black.....	551-0381A		
5. Clamp, Header Mount, 2 Into 1, Chrome Plate, Mild Steel, 11 Gauge, 2017-'18 M8 Touring	551-0361	Not Shown:	
6. Bracket, Header Mount, 2 into 1, Compact, Powdercoated, 2017-'21 M8 Touring.....	551-1802	Nut, HSFH, 5/16-24.....	50-5025-S
7. Screw, BHC, 3/8-16 X 1-1/4", Zinc, Steel.....	500-1581	Gasket, Exhaust, Tapered	106-5029
8. Adapter, Oxygen Sensor, 12mm To 18mm, Stainless Steel.....	550-0375		
9. Muffler, Assembly, 2 Into 1, Sidewinder—Race Only			
Chrome	551-0403		
Black.....	551-0394A		

