S&S° Cycle, Inc.



# Installation Instructions: Power Tune Duals for 1995–'08 Harley-Davidson® Touring Models

## **DISCLAIMER:**

NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES.

Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with a catalyst exhaust.

\*Qualified Manufacturer Declared Emissions Replacement part on the FL touring models listed below.

California Models: FL Touring Fuel Injected non-CVO Model Years 1995-2003 and 2007; CVO FL Touring Model Years 2000-2003

49 State Models: FL Touring Carbureted Model Years 1995-2005; FL Touring Fuel Injected non-CVO Model Years 1995-2005 and 2007-2008; CVO FL Touring Model Years 2000-2005

# 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.

#### **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.

Tools Needed:	Snap ring pliers
¼ " drive ratchet	<sup>5</sup> /16″ nut driver or flat screwdriver
1/4" drive 1/2" socket	‰" box wrench
¼" drive 7/16" socket	½" box wrench
1⁄4" drive 6" extension	‰" box wrench
¾6″ Allen wrench	14mm box wrench
¼" Allen wrench	15mm box wrench
⁵⁄16" Allen wrench	22mm box wrench
Pliers	

- Pliers
- 1. Unpackage the header kit and inspect for any damage or missing parts. Organize the components of the kit and compare to the parts list on the last page to ensure nothing is missing.
- 2. Remove saddlebags.
- 3. Remove mufflers.
- 4. Remove right front floorboard and mounting brackets.
- 5. Loosen the left side exhaust pipe clamp and remove left side head pipe.
- 6. Remove the bolt and nut from the clamp that holds the header to the bracket on the side of the transmission.
- 7. Disconnect oxygen sensors (2007-'08) models.
- 8. Loosen and remove the <sup>5</sup>/16-24 hex flange port nuts. It may be necessary to remove the heat shields to access the flange nuts on some models.
- 9. Remove the stock header. Remove the exhaust flanges and retainer rings, these will be used on the new header.
- 10. Remove the exhaust bracket that is mounted to the top of the starter, this bracket will not be needed. Replace screws.
- 11. Remove the exhaust bracket located on the right side of the transmission. The transmission end cover will need to be removed to access all of the fasteners (1995-'06). Replace transmission end cover and screws. Replace gasket if damaged.
- 12. Locate the provided angle bracket (see #9 on Page 4) in the hardware kit. Remove the two lowest 5/16" socket head cap screws on the side of the transmission. Apply Loctite to these screws and install the angle bracket, torque to 18 ft\*lb.
- 13. Remove the four ¼" socket head cap screws closest to the rear of the oil pan (leave the rear center screw in place). Locate the oil pan mounting bracket, the 4, ¼"-20 x 1%" socket head cap screws and one of the 5/16" carriage bolts. Loosely place the carriage bolt in the slot of the bracket with threaded end facing out as shown in **Picture 1**. Apply Loctite to the screws and install the bracket under the oil pan. See **Picture 1**. Note that the screws must be countersunk in the bracket. See **Picture 2**.
- 14. Torque the ¼" screws to 100 in\*lbs.



Picture 1



Picture 2

- 15. Remove and discard the old exhaust port gaskets. Install new gaskets provided in the kit.
- 16. Install the flanges and retaining rings on the new exhaust header. Install oxygen sensors or supplied plugs. Use anti-seize on the threads.
- 17. Install new header. Seat front pipe first then rear. A firm pull rearward on the rear header, while keeping the front header seated, may be necessary to clear the rear head casting. Be careful not to damage the gaskets. Install the saved 5%6"-24 hex flange nuts but do not fully tighten yet.
- 18. Locate the ¾" carriage bolt and hex flange nut and fasten the side P-clamp to the transmission bracket, do not fully tighten yet. Note: Both legs of the P-clamp should be under the transmission bracket.
- 19. Install the Torca Accuseal clamp on the expanded end of the crossover pipe with the bolt to the inside of the header and the nut facing down. See diagram.
- 20. Install the crossover pipe P-clamp onto the crossover pipe in the orientation shown in **Picture 3**. Use pliers to close the ends of the clamp. Loosely install the 5/16" carriage bolt and hex flange nut but do not fully tighten yet.



Picture 3

- 21. Position the crossover pipe under the oil pan and slide the expanded end onto the end of the front header pipe.
- 22. Locate the 5/16" hex flange nut and loosely fasten the crossover pipe P-clamp to the transmission bracket with the carriage bolt.
- 23. Apply anti-seize to the muffler clamp threads. Re-install mufflers.
- 24. Ensure the entire exhaust system is properly aligned and tighten all fasteners beginning at the mufflers and move forward to the head pipe flanges.
  - Muffler clamps and 3/8" hex flange nut are torqued to 25 ft\*lbs
  - 5/16" hex flange nuts are torqued to 18 ft\*lbs

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• Exhaust flange nuts are torqued to 100 in\*lbs.

#### CAUTION

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Caution: To ensure there are no leaks and the system is properly aligned, the front and rear exhaust flange nuts should be evenly torqued

- 25. Locate the heat shield clamps and place in the heat shield clips. Orient the screw heads as shown on the line drawing on **Page 4** so that they are easily accessible when the shields are installed. Install the shields and tighten the clamps.
- 26. Connect the oxygen sensor electrical connectors.
- 27. Install the right-side floor board in the lowest position.
- 28. Before operating the motorcycle, clean the heat shields and mufflers with soap and water or window cleaner. Any oil or fingerprints will permanently burn into the coating if not removed.
- 29. Use and Care: Wash the exhaust system with the same care you use when washing your motorcycle. Use mild soap and water. DO NOT use harsh chemicals, abrasive cleaners or high pressure washers.

#### **Powertune Dual Headers Replacement Parts**

1.	Pipe,Header,Power Tune Dual,Weldment, 1999-2008 Touring (1 Req)551-008	3
2.	Tube,Crossover,Power Tune Dual,Weldment, 1995-2008 Touring (1 Req)551-007	7
3.	Shield,Front,Power Tune Dual,1995-2008 Touring (1 Req) Chrome	
4.	Shield,Rear,Power Tune Dual,1995-2016 Touring (1 Req) Chrome	
5.	Shield,Left,Power Tune Dual, 1995-2016 Touring (1 Req) Chrome	
6.	Gasket,Exhaust,Tapered,Stainless Steel, 1984-up bt, 1986-up xl (2 Req)106-502	9
7.	Plug,M18 x 1.5 Thread (2 Req)	2
8.	Bolt,Carriage,¾-16 x 1¼" (1 Req)	3

<ol> <li>Bracket, Transmission, Side, Power Tune Duals, 1995-2008 Touring (1 Req)</li></ol>
10. Clamp,P-Style,Power Tune Dual,Side,1995-2016 Touring (1 Req)551-0119
11. Nut,Flanged,Serrated,¾-16 (1 Req)500-0554
12. Bracket,Assembly,Transmission,Pan, Power Tune Dual,1995-2008 Touring (1 Req)
13. Screw,SHC,¼-20 x 1‰",Zinc Plated (4 Req)500-0641
14. Bolt,Carriage, 5/16-18 x 3/4" (2 Req) 500-0555
15. Clamp,P-Style,Crossover, Power Tune Dual Header,1995-2008 Touring (1 Req)
16. Nut, Flanged, Serrated, 5/16"-18 (2 Req)
17. Clamp,Muffler,Band Style (1 Req)551-0569
18. Clamp, Hose, Worm Drive, SAE #20(8 Req)551-0527
19. Nut, HSFH,5/16-2450-5025-S



NOTE - Install #18 heat shield clamps with screw heads pointing in direction shown by arrows. 🔶