2017+ HD TOURING

Shorty 2-1 Part # 005-4870199



BILL OF MATERIALS

1	Muffler	005-487-M
1	Front Header	005-48701HF
1	Rear Header	005-48701HR
1	Front Heat Shield	005-487-HS1
1	Rear Heat Shield	005-487-HS2
2	O2 Sensor Plug Kit	005-92-22KIT
2	45mm Swivel Hook Spring	005-S45
5	Hose Clamp	005-64024
1	Spring Puller	005-SP
2	Harley 5/16 Clip Nut	005-10-516CN
2	5/16" x 3/4" Flange Bolt	005-FB51634
2	5/16" x 1 1/2" Flange Bolt	005-FB516112
1	Slash Cut Cone Muffler Mounting Bracket	005-487-B
1	TBR Sticker Kit	015-10212

INSTALLATION INSTRUCTIONS

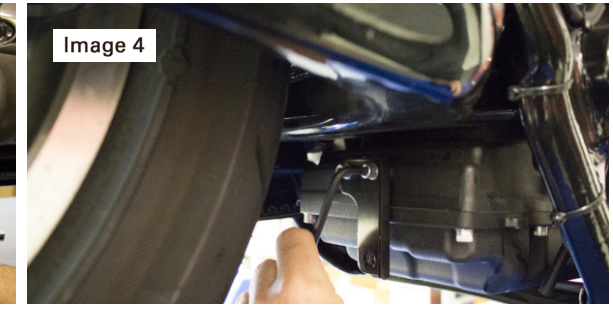
1. Make sure the motorcycle is completely cool before installation. Make sure the motorcycle is secure on a stand or service lift.
2. Remove both saddlebags, loosen the muffler clamps, and remove the muffler bracket bolts. (Reference images 1 & 2)



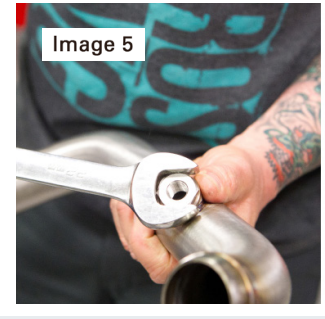


3. Remove the OEM mufflers and rubber mount brackets from the motorcycle.
4. Remove the OEM heat shields.
5. Remove the OEM crossover head pipe bracket, and loosen the OEM crossover head pipe clamp. (Reference images 3 & 4)

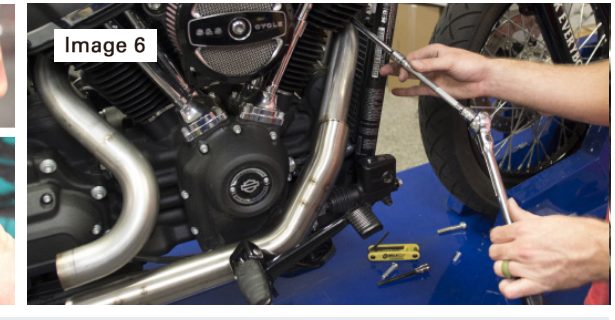




6. Now remove the OEM crossover and headers. Be careful to remove the O2 sensors as well.
7. Remove the right side floorboard rear bracket bolt to allow room for the new exhaust to be installed.
8. Remove the O2 sensors, clips, and flanges from the OEM headers and place the parts onto the TBR headers using the O2 sensor adapters. (Reference image 5)
9. Now loosely install the front and rear TBR headers. (Reference image 6)







IMPORTANT - PLEASE READ CAREFULLY: We recommend that this performance part be installed by a qualified motorcycle technician. If you have any doubts as to your ability to install this performance part, please consult with your local motorcycle dealer. Read all instructions first before starting installation. Make sure the motorcycle and exhaust system are completely cool before starting the installation. Also, make sure the bike is secure on a center stand or ideally a service lift during installation. Be sure to save all stock components for possible use later.

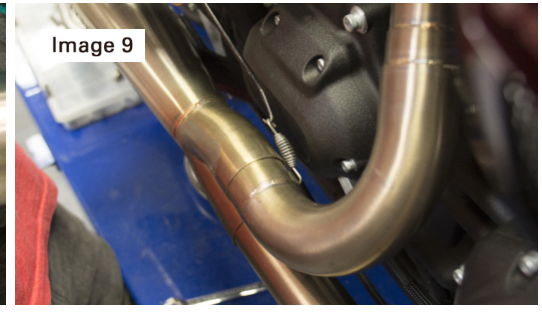
WARRANTY: Two Brothers Racing products are intended for closed course competition purposes only, and therefore are sold "as is" without warranty. Two Brothers Racing specifically disclaims any warranties of merchantability or fitness for a particular purpose and disclaims all responsibility for consequential and incidental damages or any other losses arising from the use of these products or parts.

10. Install the TBR bracket using the included 5/16" x 1 1/2" bolts. (Reference image 7)



11. Locate and install the included 5/16 clip nuts onto the TBR muffler. Then install the muffler onto the bike and use the included springs to secure it. (Reference images 8 & 9)





12. Now use the included 5/16" x 3/4" bolts to secure the muffler to the TBR bracket. The bolts will thread into the clip nuts you installed in step 11.

13. Install the TBR heat shields using the supplied hose clamps. (Reference Image 10)



14. Now reinstall the floorboard bracket.

15. Now begin to tighten the headers and muffler bracket. Start from the headers and work your way back to the muffler.

16. Plug the O2 sensors back in.

17. Double check your work to make sure everything is secure

18. Before you run the bike, clean off all fingerprints and dirt, as any oily residue will etch the metal and become somewhat permanent when the system gets hot. Run the bike and enjoy. It is normal for some white smoke to appear the first time you start the bike. This is packing/manufacturing oil from inside the pipe burning off. Check for gaps or leaks. If you find a leak, a little high temperature silicon sealant should fix it. After 50 to 100 miles, recheck all fasteners for tightness.

Care & Cleaning

Keep system free of dirt and moisture. Store in a cool, dry place. Make sure vehicle is completely cool before maintenance.

Stainless Header System: Polished stainless steel pipes will turn a light golden hue after a few heat cycles, this is a normal characteristic of high quality stainless steel. Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Titanium Header System: Polished titanium pipes will experience color shift ranging from deep blue/purple through amber after a few heat cycles. This is a normal characteristic of high quality titanium. Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Polished Aluminum Canisters: Use an aluminum or mag wheel polish to restore the bright finish to factory spec.

Brushed Aluminum Canisters: Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Carbon Fiber Canisters: Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth. Always make sure the fiberglass packing inside is in good condition and not burned out, as exhaust heat inside an empty canister will deteriorate the carbon fiber sleeve. TBR sells repack kits (Road - #005-10038, Offroad - #005-10038MX) that include everything you need to easily do it yourself.

Titanium Mufflers: For cleaning use a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth. Always make sure the fiberglass packing inside is in good condition and not burned out, as exhaust heat inside an empty canister will deteriorate the carbon fiber sleeve.
TBR sells repack kits (Road - #005-10038, Offroad - #005-10038MX) that include everything you need to easily do it yourself.

Repack all road canisters at the first signs of packing material deterioration. Part #005-10038
Repack all offroad canisters after every 10 hours of use. Part #005-10038MX

NEVER dyno test your bike with carbon fiber or titanium canisters installed - the intense heat and lack of cooling air can quickly burn through the canister material. Two Brothers Racing does not provide a warranty for burned canisters.



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