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## BROCK'S PERFORMANCE HARLEY-DAVIDSON® TOURING (86-16) EM2 FULL EXHAUST SYSTEM INSTALLATION INSTRUCTIONS

**The EM2 Full Exhaust System for the H-D Touring (86-16) is a high performance 2 into 1 exhaust system that replaces the stock head pipes, catalytic converter and muffler.**

### Step 1: Check Package Contents:

The EM2 system is shown right in (figure 1).

#### **The Package Contents Include:**

1. One (1) Head Pipe
2. One (1) Muffler
3. One (1) Muffler Tip
4. Three (3) Heat Shield Sections
5. One (1) Hardware Package  
(see figure 6 for contents)

**If any of the parts are missing, contact Brock's Performance.**



**Step 2:** Remove the right hand rider floorboard and support brackets. This will aid in the removal of the OEM exhaust along with the installation of the EM2 system.

**Step 3:** Remove and set aside the OEM exhaust system, but keep components nearby as some items may be used during installation of your new system. Inspect the existing exhaust gaskets and replace with new ones if necessary (not included). If you experience any difficulty while removing the OEM exhaust system, please refer to your service manual.

**Step 4:** Install the head pipe bracket (5) on the transmission cover utilizing the OEM bolts (figure 2). Then slide the head pipe clamp (6) over the lower head pipe.

**Step 5:** Remove the OEM head pipe flanges and circlips and install on your EM2 system. The recessed area of the flange will face the pipe inlet and then you will install the circlip. The use of snap-ring pliers will greatly aid this part of the install (figure 3).

**Step 6:** If you will be utilizing the OEM O2 sensors they can now be installed in the EM2 head pipes. Use the O2 bung plugs (13 & 14) to plug any unused O2 bungs. We recommend applying a small amount of anti-seize to the threads of O2 sensors and plugs.

**Step 7:** Insert the head pipes into the exhaust ports starting with the front cylinder. Then put the rear into position and slide the flanges up over the cylinder head studs. Snug the nuts on the flanges but do not fully tighten.

**Step 8:** Attach the head pipe clamp (6) to the head pipe bracket (5) using the stock carriage bolt, stock nut, and supplied washer (12) but do not fully tighten (figure 4).

**Step 9:** Place the muffler clamp assembly (1) over the end of the muffler and slide onto the head pipe collector. Using the supplied hex bolt & split lock washer (15 & 16) attach to the support bracket. Do not fully tighten (figure 5).

**Step 10:** Next you can install your chosen muffler tip using the muffler tip fastener assembly (17).

**Step 11:** Starting with the head pipe clamp, tighten the carriage bolt and then the head pipe flange bolts. Refer to your service manual for torque specs.

**Step 12:** If you are using an O2 sensor a zip tie (18) has been included to securely fasten your wire once connected.

**Step 13:** Install the head pipe heat shields using band clamp (2) for the smaller sections and band clamp (3) for the larger ones. Start from the front and work your ways back, making sure to keep everything aligned.

**Step 14:** Install the collector heat shield but do not completely tighten. Adjust the muffler as needed to achieve the proper clearance/look. Once you have it positioned, tighten the muffler mounting bolts, the muffler clamp and finally the collector heat shield. Tighten the muffler clamp to 38-43 ft-lb.

**Step 15:** Reinstall the right hand rider floorboard using (7) and (8), while placing (11) between the frame and support bracket. **Note: For 2008 models and earlier use (9) & (10).**



**Fig 6 - Hardware Package Contents:****Hardware Package Contents Include:**

1. Muffler Clamp Assembly x 1
2. Band Clamp (size 52) x 1
3. Band Clamp (size 28) x 3
4. Band Clamp (size 24) x 4
5. Head Pipe Bracket x 1
6. Head Pipe Clamp x 1
7. Socket Screw (3/8-16 x 3.5") x 1
8. Socket Screw (3/8-16 x 1.75") x 1
9. Large Spacer x 2 (2008 only)
10. Socket Screw (1/2-13 x 1.75") x 2 (2008 only)
11. Small Spacer x 2
12. Washer x1
13. O2 Bung Plug (18mm) x 2
14. O2 Bung Plug (12mm) x 2
15. Hex Bolt x 2
16. Split Lock Washer x 2
17. Muffler Tip Fastener Assembly (Button Head Bolt, Washer and Nut) x 3
18. Black Zip Tie x 1

**Caution: Failing to follow the steps below may result in damage to your bike!**

**DO NOT START BIKE UNTIL YOU HAVE ENSURED A MINIMUM ¼-INCH CLEARANCE BETWEEN THE EXHAUST COMPONENTS AND ALL BODYWORK/PARTS.**

Failure to ensure proper clearance may result in burned plastic. Brock's Performance exhaust systems are designed to provide appropriate clearances. If minimum clearances are not obtained, remove the springs on the exhaust system and adjust until proper clearance is achieved. **It is also recommended that the entire exhaust system be wiped down with rubbing alcohol to remove oil and fingerprints before starting the bike. This will help prevent tarnishing of the finish after the bike has been started and the exhaust is heated up.**

**CONGRATULATIONS! INSTALLATION IS COMPLETE.**



**All Brock's Performance products are designed for closed-course racetrack use ONLY!**

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