

### **TOOLS REQUIRED**

- 5/16" Box/ End Wrench
- 1/2" Box/End Wrench
- 1/4" Ratchet and 6" Extension
- 1/2" Socket 1/4" Drive
- 3/8" Ratchet with 9/16" Socket
- Flat Blade Screw Driver
- 3/16" Allen Wrench
- 5/16" Nut Drive
- Snap Ring Pliers
- Hi-Temp Silicone Sealer

ITEMS SUPPLIED		
Description		Qty
Front Header		1
Rear Header		1
Front Heat Shield		1
Rear Heat Shield		1
2 5/8" Barrel Clamp	16-00290	1
James Exhaust Gasket	20-00003	1pr
5/16-18' Nylok Nut	35-00005	2
5/16-18" x 5/8" Hex Bolt	35-00002	2
5/16" Flat Washer	35-00007	2
O2 Bung Blug 12mm		2
O2 Bung Plug 12mm O2 Bung Plug 18mm	35-00085BA	1
0	35-00084BA	1
2 1/4" Stainless Steel Clamp	16-00285	6
3" Stainless Steel Clamp	16-00295	1
½" Spacer	29-00028B	1
½" Front Floorboard Peg Spacer	29-00300B	1
3/8-16 x 3 1/4" Socket Head Bolt	35-00308	1
3/8-16 x 1 3/4" Socket Head Bolt	35-00306	1
Instructions & Warranty		

#### PLEASE NOTE

Our warranty applies only when the system is installed correctly and used for its intended purpose. Warranty does not apply when damage is the result of normal wear and tear, improper use, neglect or incorrect engine configuration. See warranty notice in box for more information.

# Installation Instructions

## HARLEY DAVIDSON FL 2009 - current 2 into 1 EXHAUST SYSTEM

Rev 9-23-2014

Thank you for buying a RINEHART exhaust system. We are committed to providing you a quality product that with the proper installation and care will last you for many years to come.

Please be sure to read the instructions fully and inspect all components of your new system before installation. If you do not have an understanding of how to remove your stock system, or how to install the RINEHART exhaust system you should seek the advice and/or skill of a professional mechanic. Please keep all OEM parts as some may be used for the installation of the RINEHART exhaust system. If you are installing the system and are not the owner, please return these instructions to the owner as they contain important information that may be required at a later date.

If you have questions pertaining to the installation, please contact our technical service department: 1.877.263.5216 or www.rinehartracing.com

Exhaust systems manufactured by Rinehart Racing are non-catalyst. A stock catalyst exhaust system cannot be replaced with a non catalyst exhaust system. Please verify the application with your dealer before purchase.

## **INSTALLATION INSTRUCTIONS**

## Disconnect negative battery terminal before starting any work.

- 1. Remove left and right saddlebags.
- 2. Remove right side front floorboard.
- 3. Remove OEM mufflers, keep right side muffler bracket, discard left side bracket and rubber grommet.
- 4. Loosen the exhaust clamp and remove the support clamp for the left exhaust pipe. The support clamp is located under the transmission pan.
- 5. Remove the left exhaust pipe.
- 6. Remove the transmission support clamp located on the right side of the motorcycle.
- 7. Loosen and remove the exhaust flange nuts and remove the OEM exhaust.
- 8. Carefully remove the O2 sensors from the OEM exhaust.
- 9. Carefully remove OEM exhaust flanges and retaining rings. Do not damage or distort the retaining rings. If possible use snap ring pliers. Replace damaged retaining rings.
- 10. Slide the exhaust flange and retainer rings onto the RINEHART exhaust headers. The machined recess should face the retainer ring.
- 11. Remove the OEM exhaust gaskets from the cylinder heads. It may be necessary to pry the exhaust gaskets from the head using a scribe or a small screwdriver. Do not damage the cylinder head!
- 12. Replace OEM exhaust gaskets with the supplied James Gaskets, make sure to seat the new gaskets into the cylinder head. Failure to use provided James Gaskets WILL alter the fitment of the system.
- 13. Install the Rinehart 2-1 header. Place in the front cylinder head first then the rear. It may be necessary to pull back slightly on the header to get it in the rear cylinder head. Leave the exhaust flange nuts finger tight.
- 14. Hand tighten the support tab located on the header to the transmission support bracket located on the right side of

#### **TUNING**

Adjustment of fuel injection is REQUIRED to optimize performance and minimize chrome discoloration. We recommend that adjustment of fuel injection be performed by QUALIFIED technicians on a dynamometer utilizing an Exhaust Gas Analyzer.

the motorcycle just below the transmission cover using the OEM 3/8 carriage bolt and nut.

- 15. Tighten the cylinder head exhaust flange nuts. Torque to 10-12ft lbs-ft.
- 16. Torque the transmission pan support bracket to 13-15ft lbs.
- 17. Install the heat shield clamps into the heat shield.
- 18. Install the heat shields starting with the rear pipe first, then the front pipe, and then the collector heat shield. Leave the collector heat shield loose, failure to do so may result in scratching the muffler! An extra set of hands is helpful to guide the muffler body onto the head pipe.
- 19. Slide the 2 5/8" barrel clamp over the inlet of the muffler. Note: Apply a bead of Permatex Ultra Copper High Temp Silicone Sealer to muffler inlet. Now slide the muffler body onto the header pipe, with the end cap screws toward the rear tire of the motorcycle. Install the 5/16-18" x 5/8" hex bolts (supplied) into the muffler mounting bracket and install through OEM bracket assembly. Install 5/16" x 18" locking nuts (supplied) and tighten. Torque 8-10ft lbs.
- 20. Torque the 2 5/8" barrel clamp to 8-10ft lbs.
- 21. Tighten the collector heat shield clamp.
- 22. Install the needed O2 sensor port plugs torque to manufacturer specifications.
- 23. Return the right front floor board to its stock mouting holes, place the 1/2" spacers between the frame and the floor board bracket. The peg spacer goes to the rear mount point and the round spacer is for the front mount. Secure using the provided 3/8-16 x 1 3/4" SHCS and 3/8 16 x 3 1/4" SHCS and OEM 3/8-16 lock nut.

<u>Important!</u> Wipe down complete system with glass cleaner *before* starting bike to remove any finger prints or dirt.

Note: Finger prints that are not removed before running will become permanently etched in the pipes.

Enjoy your new Rinehart System.

Check all fasteners after first ride and again at all service intervals.

# **CLEANING**

Never use harsh chemicals or any type of abrasive material to clean the chrome or ceramic coating on this exhaust system. We recommend using a soft non-abrasive cloth with a mild detergent such as liquid dish soap.

# **CONTACT US**

Rinehart Racing 1-877-264-8282 www.rinehartracing.com



