



### 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	Part #	Qty
2 into 1 Header and Muffler		1
Front Heat Shield		1
Rear Heat Shield		1
Collector Heat Shield		1
Dyna 2-1 Transmission Mounting Bracket	25-00230	1
2 5/8" Barrel Clamp	16-00290	1
James Exhaust Gasket	20-00003	1pr
2 3/4" Stainless Steel Clamp	16-00285	6
9/16" Alum. Spacer	29-00304	1
O2 Sensor 18mm Bung Plug	35-00084BA	1
5/16-18 x 3/4" Hex Head Bolt	35-00003	2
5/16-18 x 1.5" Hex Head Bolt	35-00009	3
3" Stainless Steel Clamp	16-00295	1
5/16-18 Nylok Nut	35-00005	2
5/16" Flat Washers	35-00007	5
Instructions & Warranty		1

### 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 2006 - 2013 DYNA 2-1 EXHAUST SYSTEM

Rev 9-23-14

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: 1.877.264.8282 or [www.rinehartracing.com](http://www.rinehartracing.com)

**This exhaust system is non-catalyst. A stock catalyst exhaust system cannot be replaced with a non-catalyst exhaust system in some states. Please verify the application with your dealer before purchase.**

### INSTALLATION INSTRUCTIONS

1. Remove the seat and locate the OEM rear O2 sensor connector. Disconnect the terminal (See Figure 1). Leave the rear O2 sensor in OEM pipe.
2. Disconnect the front O2 sensor connector.
3. Remove the OEM exhaust system along with the stock rear mounting bracket.
4. Remove the OEM exhaust flanges and cir-clips. Be careful as you will be re-using both the exhaust flanges and the cir-clips (replace damaged cir-clips). We recommend the use of snap ring pliers.
5. Install the OEM exhaust flanges and cir-clips on Rinehart systems.
6. Remove and discard the OEM style exhaust gaskets. It may be necessary to pry them out with a scribe or small screw driver. Use caution not to damage the cylinder heads.
7. Install new James Exhaust Gaskets (supplied) into the front and rear cylinder exhaust ports. Be sure the new gaskets are seated in the cylinder heads.
8. Remove the OEM mounting bracket studs from transmission case and Allen head bolts per Figure 1. You will not be using them.
9. Install the new mounting bracket and spacer. Use the 5/16-18 x 1.5" Hex bolts (supplied) Torque bolts to 13-15 ft. lbs.
10. If applicable, remove OEM O2 sensors from the OEM pipes and install in both front and rear Rinehart pipes. Torque to manufacturer specifications. Recommend using anti-seize on O2 sensor threads before installing. (Do not get any anti-seize on O2 sensor tips.) Otherwise, install bung plugs into O2 bungs on both front and rear pipes.
11. Install the new 2-1 header pipe. Place the front cylinder first and then the rear. It may be necessary to pull back slightly on the header to get the rear pipe in place.
12. Tighten the cylinder head exhaust flange nut. Torque to 10-12 ft.lbs.

## 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.

13. Install the heat shield clamps into the heat shields. See figures 3, 4, and 5 for clamp orientation. Arrows indicate clamp screw orientation.
14. 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. **Tech Tip: Use black electrical tape on the collector edge to prevent scratching the muffler.**
15. 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 the frame mounting bracket. Install 5/16" x 18" locking nuts and washers (supplied) and tighten. Torque 8-10ft lbs.
16. Torque the 2 5/8" barrel clamp to 8-10ft lbs.
17. Tighten the collector heat shield clamp.
18. Route O<sub>2</sub> sensor wires to their original connection points and plug into their respective mating connectors. Secure front wire to the frame with a nylon tie strap.
19. Tighten the right front floor board. Torque to 15 ft.lbs.

**Important!** 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 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](http://www.rinehartracing.com)

This Limited Warranty contains the sole express warranty made by Rinehart Racing ("Company") in connection with exhaust products sold by Company ("Product"). BY PURCHASING OR ACCEPTING THE PRODUCT, THE BUYER ACKNOWLEDGES THAT THE LIMITATION OF LIABILITY IS PART OF THE TERMS OF SALE, CONSTITUTES A BINDING AGREEMENT, AND MAY BE ENFORCED AGAINST YOU BY COMPANY. Any warranties, if separately provided in writing, are extended only to the Buyer whose name is shown on Company's invoice.

Rinehart Racing exhaust products are warranted against defects in material or workmanship for a period of 18 months from the date of the original invoice. This does not cover finishes such as plating or painted surfaces with discoloration or rust. Discoloration is not a warrantable item and is a result of improper fuel calibration. This warranty shall be limited to the repair or replacement of the defective part, which may be proven defective under normal use. Rinehart Racing will not warranty any product that has been abused, misused, improperly installed, or modified. Any part that is repaired or replaced under this warranty will, itself, be warranted only for the remainder of the warranty period of the original product being repaired or replaced. This warranty is non-transferable and is limited to the original retail purchaser.

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### Dyna 2-1 Mounting Bracket Attachment Points

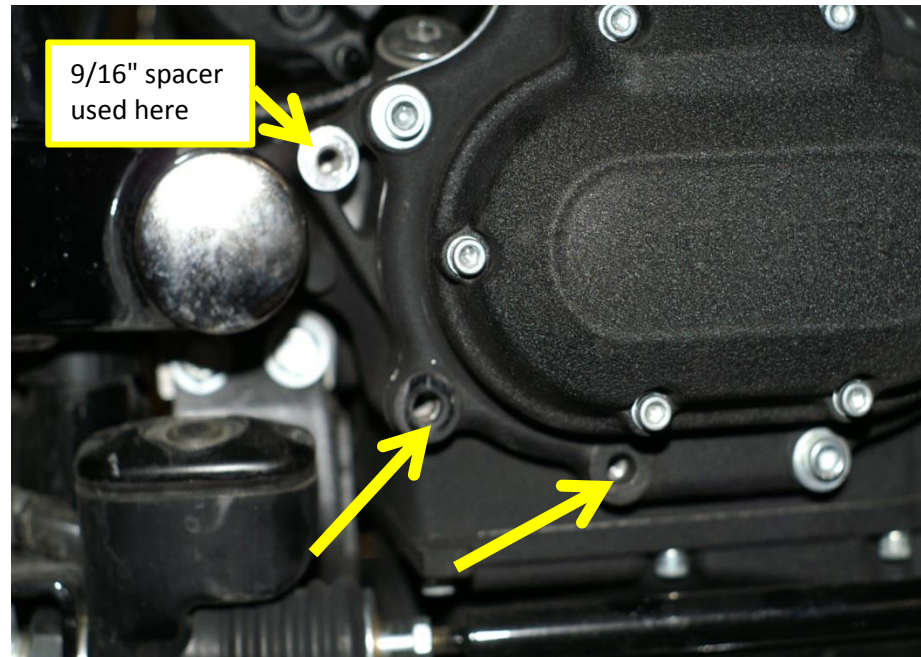


Figure 1

Figure 3

**Rear Heat Shield**  
Using 2 1/4 " clamps



Figure 4

**Front Heat Shield**  
Using 2 1/4 " clamps



Figure 5

**Collector Heat Shield**  
Using 2 1/2 " clamp

