

## ATTENTION INSTALLER (if other than owner):

Please forward this instruction sheet and the warranty card to the purchaser of this product. These instructions also contain valuable information necessary to the end user.

#### INTRODUCTION:

These instructions describe the procedure for properly installing *KHROME WERKS*® 2-1 Exhaust Headers and Mufflers on 2017-up FLHT, FLHR, FLHX or FLTR models. Review instructions carefully before beginning, as they contain important information. Please retain for future reference.

Particularly important information is distinguished in these instructions by the following notations:

**NOTE:** A NOTE provides key information to make

procedures easier or clearer.

CAUTION: A CAUTION indicates special procedures that must

be followed to avoid damage to the motorcycle or

accessories.

WARNING: A WARNING indicates special procedures that must

be followed to avoid injury or death to a motorcycle operator or person inspecting or repairing the

motorcycle.

All Models:

**NOTE:** This system may not be compatible with suspension stabilizers.

**NOTE:** Right side floorboard must be mounted in the lowest position.

WARNING Ground and cornering clearance may be reduced. Clearance will be reduced when bikes are fitted with shorter shocks.

## **TOOLS REQUIRED:**

 $1 - \frac{1}{4}$  "drive ratchet  $1 - \frac{5}{16}$ " nut driver or flat screwdriver

 $1 - \frac{1}{4}$ " drive 7/16" &  $\frac{1}{2}$ " sockets  $1 - \frac{7}{16}$ " box wrench  $1 - \frac{1}{4}$  "drive 6" extension  $1 - \frac{1}{2}$ " box wrench

 $\begin{array}{lll} 1-3/16" \text{ Allen} \$ \text{ wrench} & 1-9/16" \text{ box wrench} \\ 1-1/4" \text{ Allen} \$ \text{ wrench} & 1-14\text{mm box wrench} \\ 1-5/16" \text{ Allen} \$ \text{ wrench} & 1-15\text{mm box wrench} \end{array}$ 

1 – 6mm Allen® wrench 1 – 22mm box wrench

1 – 10mm ®Allen wrench Supplies: anti-seize..

### PROCEDURE:

- 1. Remove right front footboard.
- 2. Remove saddlebags.
- 3. Remove and save the two of the 5/16" bolts and washers from rear brackets on each muffler. Slide old mufflers off header pipes. Discard old mufflers and clamps.
- 4. Disconnect the O2 sensors. Remove heat shields, exhaust headers and crossover. Save the four 5/16"-24 hex flange port nuts.
- 5. Remove and save retaining rings, O2 sensors and exhaust flanges from old exhaust headers.

# INSTALLATION INSTRUCTIONS

2-1 THREE STEP EXHAUST SYSTEM For 2017-up FLHT, FLHX, FLHR, FLTR Mfg. p/n 200770, 200775, 201775 (See pkg. label for Dist. p/n)

6. Remove and discard exhaust port gaskets. Install supplied new conical gaskets.

<u>CAUTION:</u> Conical port gaskets must be used with KW exhaust headers to avoid leaks.

7. Install flanges (counterbore up) and retaining rings on new exhaust headers. 18mm or 12mm Oxygen sensors and/or supplied plugs/gaskets may be installed at this time. Use anti-seize on threads. Temporarily remove the transmission side cover and the 2 lower 5/16"-18 screws from the transmission side cover and install the supplied L-bracket with the existing screws. Torque the 5/16" screws to 22-25 ft-lbs. Reinstall the side cover.

8.install provided 3/8"- $16 \times 1.00$ " carriage bolt through both sides of the P-clamp that is on the head pipe.

- 9. Install new header system using saved 5/16"-24 hex flange nuts. 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 gaskets. Do not fully tighten nuts yet.
- 10. Install the provided 3/8"-16 x 1.00" carriage bolt through the L-bracket. The P-clamp sits on top of the Angle -bracket. Install the supplied 3/8"-16 flange nut. (see the illustration). Do not fully tighten until the Muffler is installed and the four port flange nuts are torqued to 100-120 inch lbs. Final torque the P-clamp nut to 22-25 ft lbs. This step aligns the system.

CAUTION: To ensure there are no leaks and the system is properly aligned the front and rear port nuts must be evenly torqued.

- 11. Install the supplied 2.50" (62.5mm) clamps on the muffler in the same position as the original clamps
- 12. Slide the muffler and Accuseal clamp onto the header. Ensure the muffler is pushed over the head pipe 3.5" deep to allow for the header to butt against the baffle, this will prevent the baffle from potential rattling or becoming damaged. **Note**: Take a tape measure and a sharpie. Measure from the end of the head pipe towards the front of the bike 3.5" and put a sharpie mark on the header. The front of the muffler must hit this mark. You may also hear the baffle hit the head pipe.

Install 5/16"-18 bolts and washers removed in step 3 and tighten. Align header pipe for best fit and tighten header "P" Clamp and port nuts. Do not tighten the muffler clamp until the heatshields are in place. (See Step 14)

- 13. Clean header pipes before installing heat shields. (See step 19).
- 14. Insert worm gear clamps into slots on the back side of the heat shields. All clamps screws except the lower clamp on the rear shield should be positioned so the screw heads can be accessed from the front or bottom of the headers.

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**Tip:** Insert clamps evenly into the slots and bend the ends outward to ease installation over header pipes. Lube clamp threads if shields are removed and reinstalled.

15. Install heat shields. Connect and loosely tighten all worm gear clamps. Align shields on header pipes for best fit. Straight portion of shields should appear parallel. Position small transition heat shield so it seats tightly against the front and rear shields. Position screw heads for easiest access and tighten with a 5/16" nut driver or screwdriver. Position the transition heat shield so it covers the weld on the front of the muffler. Transition heat shield should not contact muffler body.

<u>CAUTION:</u> Make sure no part of the exhaust system or shields contacts the frame or any component that is connected to the frame (except for the rear muffler brackets).

16. Position and orient the muffler clamp in the original position, making sure the clamps cover the rear edge of the clamping slots. Align and tighten the muffler clamp to 38-43 ft-lbs. Make sure header/muffler clamp does not contact frame.

<u>CAUTION:</u> Muffler clamp must be tight on the header pipes or damage may occur to either the header and or the mufflers. If clamps are stretched they will not torque properly and must be replaced.

- 16. Reinstall front floorboards with provided spacers in the lowest position.
- 17. Reconnect oxygen sensor electrical plugs.
- 18. Install the saddlebags
- 19. Before operating motorcycle, clean heat shields and muffler with soap and water or window cleaner. Any grease, oil and finger prints will permanently burn onto pipes. Dry thoroughly.

**USE AND CARE:** Wash your accessories with the same care you use when washing your motorcycle. Use mild soap and water. DO NOT use abrasive chemicals and cleaners, or high pressure washers. We have had success using the following products to polish and maintain our Black and Icon Chrome finishes: Wizards Mist n Shine and Turtle Wax Chrome Polish. Use per manufacturer's recommendations. Please contact us if you have further questions.

CAUTION: Carefully read the enclosed Important Notice sheet. Recalibration may be required depending on engine modifications.

WARNING: Check all mounting hardware to be sure it is tight before and after first operation of motorcycle. Periodically, check tightness of all mounting hardware and examine system for cracks.

**CAUTION:** Cover end of muffler when washing motorcycle. Muffler/headers may internally corrode if saturated with water and allowed to sit.

**NOTE:** This exhaust system is designed for use on closed course competition motorcycles only and does not conform to U.S. EPA noise and emission standards. This system is not a replacement for motorcycles equipped with factory installed catalytic convertor style. systems. NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES

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BOM			
ITEM	PART#	DESCRIPTION	QTY
1	200731	2-1 HEADERS WITH P-CLAMP	1
2	3463314	PORT GASKET	2
3	3463496	2.50" (63.5mm) ACCUSEAL CLAMP	1
4	200732	FRONT HEAT SHIELD, CHROME	1
5	200742	FRONT HEAT SHIELD, BLACK	1
6	201742	FRONT HEAT SHIELD, ECLIPSE	1
7	200733	REAR HEAT SHIELD, CHROME	1
8	200743	REAR HEAT SHIELD, BLACK	1
9	201743	REAR HEAT SHIELD, ECLIPSE	1
10	200734	TRANSITION H. SHIELD, CHROME	1
11	200743	TRANSITION H. SHIELD, BLACK	1
12	201743	TRANSITION H. SHIELD, ECLIPSE	1
13	390370	HEADER HEAT SHIELD CLAMP	6
14	390375	TRANSITION HEAT SHIELD CLAMP	1
15	209926	P-CLAMP ANGLE BRACKET	1
16	203070	HEADER P-CLAMP	1
17	421016	3/8"-16 x 1.00" CARRIAGE BOLT	1
18	420085	3/8-16 FLANGE NUT	1
19	299012	12mm O2 PLUG	2
20	209018	18mm O2 PLUG	2
21	420403	12mm O2 GASKET	2
22	420405	18mm O2 GASKET	2
23	204160	Ø4.5 X MUFFLER, CHROME	1
24	204260	Ø4.5 X MUFFLER, BLACK	1

