






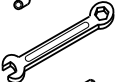



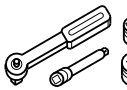
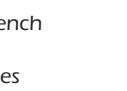

**MORE POWER : LESS NOISE**



Congratulations, you have purchased the finest exhaust system for your motorcycle on the market. Your Vance & Hines exhaust system is designed and crafted for maximum performance, a perfect fit, a great sound and unbeatable style.

Attention installer (if other than owner), please forward this instruction sheet to the owner of this product. These instructions contain valuable information to the end user.

**TOOLS  
REQUIRED**

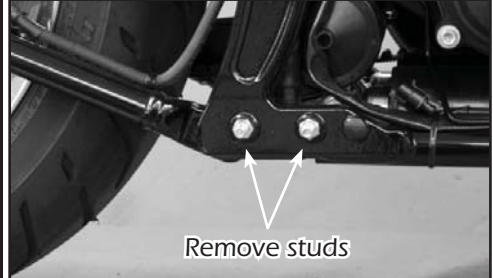
-  Flat blade screwdriver
-  #3 Phillips Head
-  5/16" Nutdriver
-  1/2", 9/16" & 14mm Combination wrenches
-  3/16" & 5/16" Allen wrench
-  T45 & T50 Torx wrenches
-  Snapping pliers
-  3/8" Ratchet, extensions
-  1/2" & 9/16" Sockets
-  3/4" Deep Socket

**READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION**

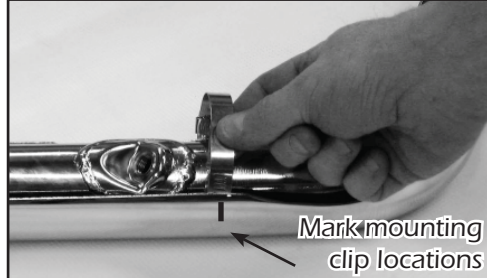
**STOCK EXHAUST  
SYSTEM REMOVAL**

1. Remove the seat, locate the rear O2 sensor connector and unplug the sensor from the harness. Remove the battery and feed the sensor cable end through the frame. NOTE: Pay attention to wire routing for re-installation. Refer to service manual for proper battery removal.
2. Unplug the front sensor (located behind the rectifier) from harness and feed the end of the wire through the frame, freeing it from motorcycle.
3. On FLSTC, FLSTF, and FLSTN (floorboard models), loosen the right hand floor board mounting bolts to gain clearance for exhaust removal and installation.
4. If equipped, unbolt the carriage bolt and clamp attached to the bracket under the right side transmission cover.
5. On FLSTF, FXS and FLSTN (foot peg models), you will need to remove the right side passenger footpeg and hanger, as this is attached to the exhaust mount bracket. Replace the passenger foot peg assembly using the 3/8" x 2 1/2" Allen bolt (supplied).
6. Loosen the heat shield clamps on both front and rear exhaust pipes.
7. Remove the two mounting nuts from each head pipe, located at the cylinder head.
8. Remove the nuts attaching the exhaust mount bracket to the frame.
9. Remove the entire exhaust system and set it aside.
10. Remove the two lower mounting studs from the frame using the 3/4" deep socket (Figure 1).
11. If equipped, remove the bracket from under the right side transmission cover.
12. Using 14mm wrench, carefully remove the O2 sensors from the stock header and save them for re-use with the new system.
13. Carefully remove exhaust port flanges and circlips from the stock exhaust system using snapping pliers. NOTE: Replace bent or damaged circlips.
14. Remove stock exhaust gaskets and replace them with the supplied exhaust gaskets NOTE: Replacement gaskets HD Screaming eagle #17048-98 or equivalent.

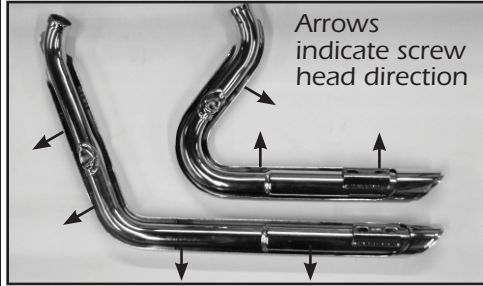
**FIGURE 1**



**FIGURE 2**



**FIGURE 3**



**FIGURE 4**



**FIGURE 5**



**FIGURE 6**



**VANCE & HINES EXHAUST SYSTEM INSTALLATION**

1. Remove head pipes and heat shields from protective packaging. Place each heat shield on a non-abrasive surface such as a blanket or carpet. Using a pencil only, mark outside edge of each heat shield to show location of hose clamp mounting clips (Figure 3).
2. Lay head pipes into head pipe heat shields (Figure 2) and loosely install the #20 hose clamps (supplied) into mounting clips (Figure 3). NOTE: Muffler heat shields will be tightened after pipes are on the motorcycle. Screw heads should be accessible when system is installed on motorcycle for adjustment purposes (Figure 4). Do not tighten at this time.
3. Apply a small amount of anti-seize compound to the threads of the O2 sensors removed from the stock head pipes and install them into the new head pipes. NOTE: Install O2 sensor with gray connector (short) in the front head pipe and the O2 sensor with black connector (long) into rear head pipe. Be careful not to get anti-seize on sensor tip, it may affect sensor function.
4. Install exhaust port flanges and circlips (from stock system) onto head pipes (Figure 4).
5. Attach mounting bracket 424-P using four 5/16"x5/8" flange bolts and two nut plates (supplied). Slide nut plates inside brackets that are welded to backside of each muffler (Figure 5). Leave them loose at this time. Use this procedure for mounting both upper and lower mufflers.
6. Install complete assembly into exhaust ports (rear port first). Use stock flange nuts, do not tighten at this time. Install two 3/8"x3/4" flange bolts (supplied) attaching exhaust bracket to the right side lower frame rail of motorcycle.
7. Tighten exhaust port flange nuts, bracket bolts and bolts mounting pipes to bracket while making sure pipes are parallel.
8. Tighten all hose clamps NOTE: Muffler bodies should protrude from heat shields by 1/4" (Figure 6).
9. Feed connector for the rear O2 sensor (Black) through the frame and under the seat. Re-install battery, plug the sensor into the stock wiring connector.
10. Feed connector for the front O2 (Gray) sensor through the frame and into the holder on the frame behind rectifier. Plug the sensor into the stock wiring connector.
11. Tighten the floor board mounting bolts on models so equipped.
12. Check for adequate clearance of all exhaust system components and motorcycle accessories prone to heat damage.
13. After installation and before starting the motorcycle, check all hardware for tightness and completely clean pipes and mufflers with warm soapy water and a clean soft cloth that will not leave a residue. NOTE: Any residue, oil, or fingerprints will stain the coating when the metal heats up.

**EXHAUST CARE - HELPFUL HINTS TO AVOID DISCOLORATION OF EXHAUST SYSTEM**

1. When installing a new set of coated pipes, make sure your hands are clean and free of oil. After installation, thoroughly clean pipes with warm soapy water and a soft cloth. Dry with clean towel to remove any residue (chrome wax / polish, glass cleaner, alcohol, ammonia, etc...) before starting the motorcycle.
2. Avoid long periods of idling as this can cause discoloration.
3. Intake leaks can cause the engine to run lean and overheat, this could lead to discoloration.
4. Make sure there are no exhaust leaks at the junction of the exhaust pipes and cylinder head. We recommend replacing gaskets if they are worn.

**VANCE & HINES OPTIONAL ACCESSORIES**

**FUELPAK**



**FUEL MANAGEMENT:**  
Take the guess work out of fuel injection with Fuelpak Fuel Management.  
Fuelpak is intended for racing or off-highway use only, and is not legal for sale or use in California on pollution-controlled vehicles.

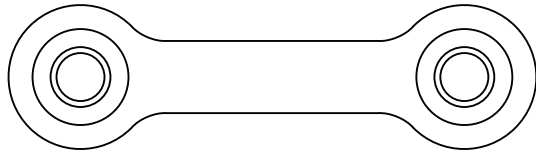
**QUIET BAFFLE**



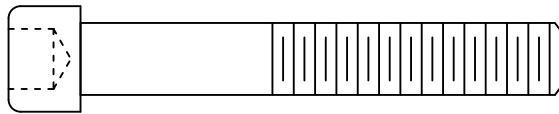
Quiet baffle P/N 21301 is available for this system. The quiet baffle will lower the sound level by 2-3db on average. Contact your local dealer to order.

PLEASE NOTE: Every effort is made for Vance & Hines Exhaust Systems to provide improved cornering clearance. However, due to design and space limitations on some motorcycle models, ground and cornering clearance may not be improved and in some cases may be reduced. Be sure to follow proper installation instructions.

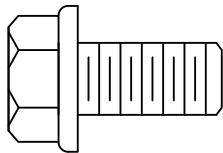
**PACKING LIST**



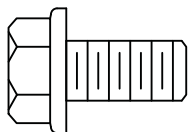
Nut plate x 2



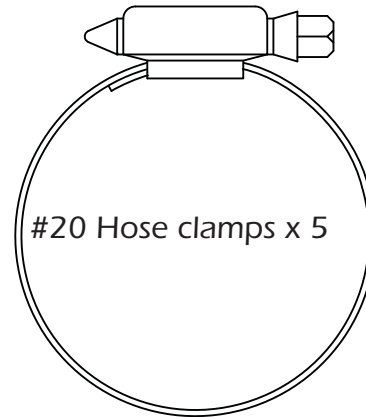
3/8" x 2-1/2" Allen bolt x 1



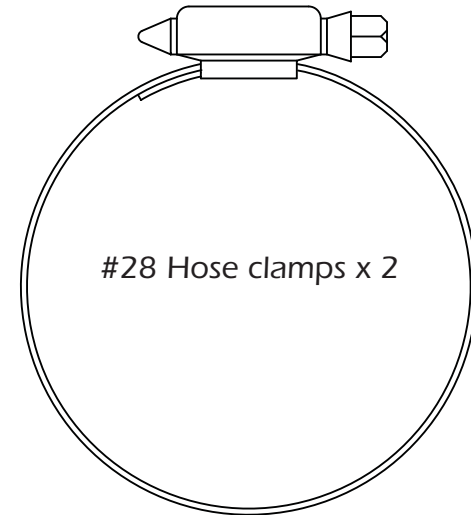
3/8" x 3/4" Flange bolts x 2



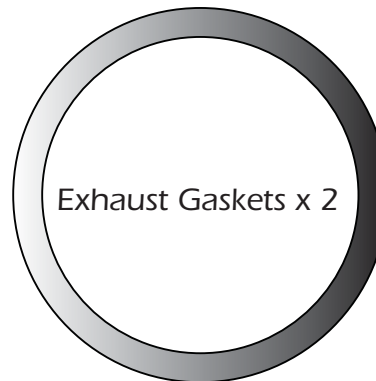
5/16" x 5/8" Flange bolts x 4



#20 Hose clamps x 5



#28 Hose clamps x 2



Exhaust Gaskets x 2

**PARTS NOT SHOWN:**

- 424-P Bracket x1
- D442FC Front head pipe x1
- D443FC Rear head pipe x1
- D477HP Front heat shield x1
- D478HP Rear heat shield x1

**MORE POWER : LESS NOISE**

**ALL PARTS SHOWN ARE ACTUAL SIZE**

**WARRANTY**

Vance & Hines exhaust systems are warranted against defects in material and workmanship for a period of 90 days from the date of purchase from an authorized dealer. This warranty does not cover discoloration of chrome finishes. This warranty is limited to the repair or replacement of a product proven to be defective from normal use. Vance & Hines exhaust systems are designed to fit and operate on OEM motor and chassis. This warranty does not cover any product subject to abuse, misuse, improper installation or modification.

## FUEL MANAGEMENT

**GET THE MOST OUT OF YOUR RIDING EXPERIENCE...**

AN AFTERMARKET EXHAUST SYSTEM IS ONLY YOUR FIRST STEP, NOW YOU NEED FUEL MANAGEMENT.

### **NOW YOU NEED FUELPAK.**

Your fuel injected Harley-Davidson® is equipped with an ECU (electronic control unit) that's programmed to deliver fuel to the motor based on an air/fuel ratio for a stock air filter and stock exhaust system. When you install a performance exhaust system, your airflow changes, so you need a fuel management system that adjusts your air/fuel ratio to match the changes. That fuel management system is Fuelpak. Fuelpak adds and takes away fuel, allowing for a more precise range of refinement in your air/fuel ratio. Get the perfect fuel management combination with your Vance & Hines exhaust system, get Fuelpak.

NOTICE: Fuelpak is intended for racing or off-highway use only, and is not legal for sale or use in California on pollution-controlled vehicles.



**MORE POWER : LESS NOISE**

Vance & Hines puts everything within reach.