

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. Please follow the installation instructions below and if you have any questions, please call our technical support line at (562) 926-5291.

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
- Snapping pliers
- 5/16" Nutdriver
- Ft/lb Torque Wrench
- 1/2", 9/16" & 7/8" or 22mm Combination wrenches
- 3/8" Ratchet, Extensions, 1/2" & 9/16" sockets
- T45 & T50 Torx wrenches

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

**STOCK EXHAUST
SYSTEM REMOVAL**

1. Remove both left and right saddlebags and set them aside.
2. Loosen the bolt from the pinch clamp on the front end of each muffler.
3. Remove the two 5/16" bolts that mount the muffler to the saddlebag supports. Repeat this step on the opposite muffler (save these parts, they will be re-used).
4. Remove the stock mufflers along with the sliding hangers and set them aside. NOTE: It may be necessary to use a penetrating lubricant to loosen the muffler from the head pipe.
5. Find and unplug the both O2 sensor wires from the wiring harness and remove the cable tie holding the front O2 sensor wire to the frame. Feed the end of the wires through the frame so they are free from the motorcycle. NOTE: Pay attention to wire routing for re-installation.
6. Remove the right hand floor board.
7. Remove both passenger floor boards.
8. Loosen the heat shield clamps on both front and rear exhaust pipes.
9. Loosen the rear head pipe clamp located behind the rear cylinder. Remove the section of head pipe which is connected to the left side muffler.
10. Remove the nut and carriage bolt holding the front head pipe to the bracket on the

- transmission housing.
11. Remove the two mounting nuts from each head pipe flange, located at the cylinder head. Carefully remove the head pipes and set them aside.
12. Carefully remove the exhaust port flanges and circlips from the stock exhaust system using snapping pliers. NOTE: If circlips look bent or twisted, replace them.
13. Using a 7/8" or 22mm wrench, carefully remove the O2 sensors from the stock head pipes and gently set them aside for later installation.
14. Remove the rear cylinder bracket by removing the starter mounting bolts. Install new bracket (stamped 422-P)(supplied) and torque to 13-16 Ft/lbs (Figure 1). NOTE: Twist breather hose down towards the left hand side to get it as far away from the head pipe as possible.
15. Remove mounting post from stock rear head pipe and re-install the stock mounting post so that the nut is accessible from the right side of motorcycle and saddle will support underside of exhaust pipe.
16. Replace the bracket on the transmission housing with new bracket (stamped 527-P) (supplied) and torque to 13-16 Ft/lbs (Figure 2).

FIGURE 1

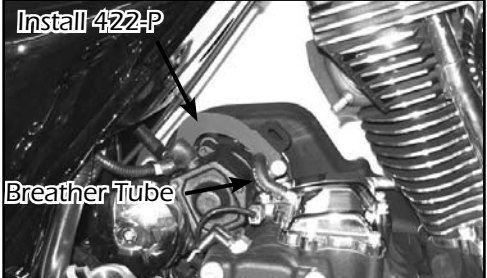


FIGURE 2

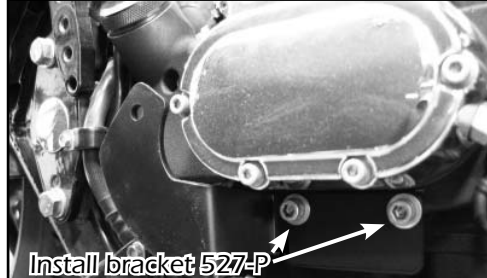


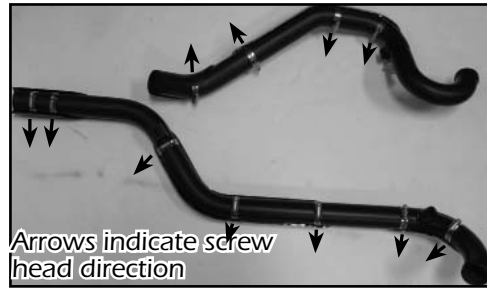
FIGURE 3



FIGURE 4

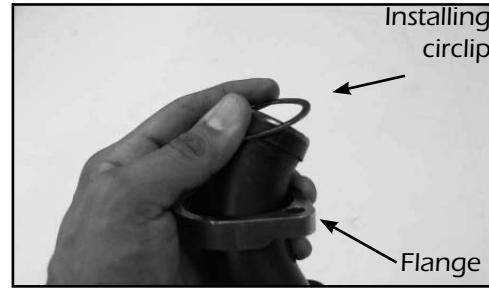


FIGURE 5



Arrows indicate screw head direction

FIGURE 6



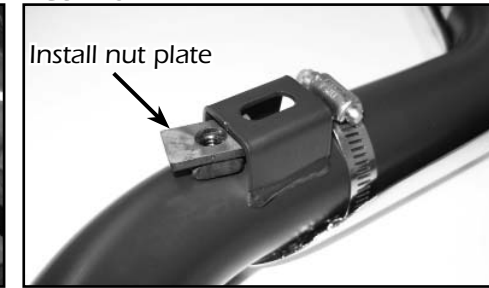
Installing circlip
Flange

FIGURE 7



Install T-Bolt on mounting post

FIGURE 8



Install nut plate

VANCE & HINES EXHAUST SYSTEM INSTALLATION

- 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 felt tip pen, mark outside edge of each heat shield to show location of mounting clips that hose clamps (supplied) will loop through (Figure 3).
- On the rear head pipe (R111FP) (supplied) carefully slide the black T-bolt clamp (supplied) up the pipe so it sits on the straight section of pipe closest to the cylinder head. When pipe is installed, clamp nut should hang under head pipe and point towards the engine (Figure 4).
- Install the chrome heat shields to head pipes and install each hose clamp by feeding tail end of clamps into heat shield clips. Take note of location of clamp screw head direction (Figure 5). Use care to avoid scratching the black finish.
- Apply a small amount of anti-seize compound to the threads of the oxygen sensors and install them into the new head pipes. NOTE: Be careful not to get anti-seize on sensor tip, it may affect sensor function.
- Install exhaust port flanges and circlips (from stock system) onto head pipes (Figure 6).
- Check the stock exhaust gaskets to be sure they are in good shape. If you have any doubts as to their condition, replace them. Recommended replacement exhaust port gaskets, Harley part number: 17048-98 or 65324-83A.
- Install rear head pipe assembly into exhaust port. Use stock flange nuts, do not tighten at this time.
- Slide T-bolt clamp (supplied) into position on pipe mounting post attached to bracket (422-P), do not tighten at this time (Figure 7).
- Using stock hardware, re-install left side muffler. Finger tighten.
- Install front head pipe assembly into exhaust port, using the stock flange nuts. Do not tighten at this time.
- Insert single nut plate into bracket on front head pipe (flat side facing away from pipe) and secure to bracket using 5/16" x 5/8 flange bolt (Figure 8). NOTE: Do not tighten at this time.
- Using stock hardware, re-install right side muffler. Finger tighten.
- Tighten the front and rear exhaust port flange nuts.
- Tighten 5/16" x 5/8 flange bolt securing front head pipe.
- Adjust the rear cylinder support bracket (if necessary) and tighten the securing nut. NOTE: This nut is difficult to reach and you may have to determine the mounting post location, remove the pipe and then tighten this nut.
- Tighten the two muffler clamps.
- Tighten the hose clamps securing the heat shields.
- Install the Black heat shields (R113HP - Right, R114HP - Left) to cover muffler clamps on each side using same process as chrome heat shields (Step 3).
- Plug the O2 sensor wires back into wiring harness routing wires away from hot areas of motorcycle. Use nylon cable tie (supplied) to replace removed tie on the front head pipe O2 sensor wire.
- Reinstall the right hand floor board.
- Reinstall both passenger floor boards. NOTE: Floorboards can be installed in three positions. Install both floorboards at the same height.
- Wipe any finger prints or oil off the exhaust system before starting your motorcycle.
- Be sure to tighten all hardware before starting your motorcycle.

EXHAUST CARE - HELPFUL HINTS TO AVOID DISCOLORATION OF EXHAUST SYSTEM

- When installing a new set of black 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 before starting the motorcycle. Do NOT use anything abrasive to clean pipes.
- Avoid long periods of idling as this can cause discoloration.
- Intake leaks can cause the engine to run lean and overheat, this could lead to discoloration.
- 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:

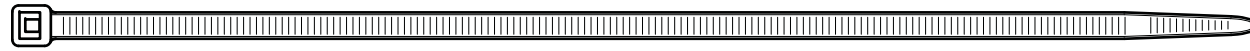
Take the guess work out of fuel injection with Fuelpak Fuel Management. Contact your local dealer or call (562) 921-0071 to order. Visit fuelpakfi.com for more information. Fuelpak is intended for racing or off-highway use only, and is not legal for sale or use in California on pollution-controlled vehicles.

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.

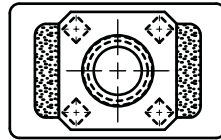
PACKING LIST

MORE POWER : LESS NOISE

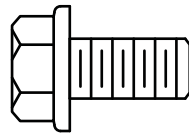
ALL PARTS SHOWN ARE ACTUAL SIZE



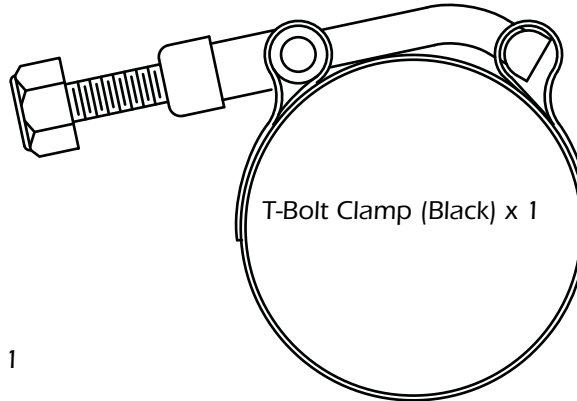
Nylon cable tie x 1



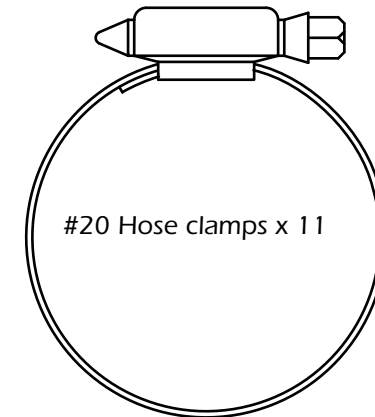
Nut plate x 1



5/16" x 5/8" Flange bolts x 1



T-Bolt Clamp (Black) x 1



#20 Hose clamps x 11

PARTS NOT SHOWN:

422-P	Starter Bracket 07-08	x1
527-P	Transmission Bracket 07-08	x1
R110FP	Front head pipe assembly	x1
R111FP	Rear head pipe assembly	x1
R110HC	Front cylinder heat shield	x1
R111HC	Front cylinder heat shield	x1
R112HC	Rear cylinder heat shield	x1
R113HP	Right muffler clamp heat shield	x1
R114HP	Left muffler clamp heat shield	x1

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 motors 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. For more information visit the tuning center at fuelpakfi.com

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.



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