**EXHAUST**REMOVAL

#### HARLEY-DAVIDSON® SOFTAIL STRAIGHTSHOT HS SLIP-ON INSTALLATION INSTRUCTIONS PART# 16831





Congratulations, <u>you have purchased the finest exhaust system</u> 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.

Flat Blade
Screwdriver

3/8" drive
ratchet

5/16" Nutdriver

9" Extension

7/16", 1/2"
Combination
Wrench

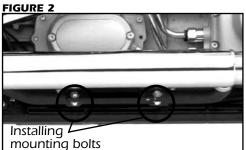
3/8", 7/16",
1/2" & 9/16"
Sockets

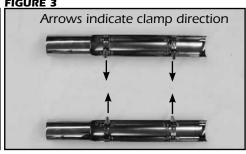
## **READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION**

- 1. Loosen heat shield clamps on both the front and rear exhaust pipes to allow for easier access to the exhaust flange nuts.
- 2. Loosen the clamps holding the mufflers onto the head pipes.
- 3. Loosen, but do not remove, the exhaust flange nuts (2 for each cylinder) from each flange located at the cylinder head.
- 4. Remové the Hex head flange bolts holding the muffler to the crossover bar.
- 5. Carefully lift the muffler off the crossover and remove mufflers by sliding them off each head pipe. NOTE: Assistance may be required.

6. Remove the stock exhaust clamps from the nose of each muffler (these will be re-used when installing the new mufflers.









- 1. Remove mufflers and heat shields from their protective packaging and place them on a non-abrasive surface such as a blanket, towel or carpet.
- Slide a nutplate inside the bracket that is welded to each of the muffler bodies. Using the supplied 5/16" x 5/8" flange head bolts, attach the mounting brackets (stamped 455-P) to the muffler bodies. Leave them loose at this time (Figure 1).
- 3. Slide stock exhaust clamps onto the nose of each muffler body. NOTE: Orient the clamp in a way that you can get to the nut after installaton.
- 4. Slide mufflers onto the head pipes.
- 5. Using 1/4" x 3/4" hex head bolts, washers and nuts (Supplied), attach the muffler brackets to the stock mounting pad. NOTE: Leave them loose at this time (Figure 2).
- 6. Tighten exhaust flange nuts on both the front and rear cylinders.
- 7. Align muffler and bracket so they sit level. Tighten the muffler mounting bolts then tighten the bracket mounting bolts.
- 8. Tighten the clamp holding the muffler onto the head pipe. Check orientation with stock head pipe heat shield to insure

- that you do not have interference between the clamp and stock heatshield.
- 9. Align head pipe heat shields and tighten the hose clamps.
- 10. Slide the hose clamps (Supplied) into the clips inside muffler heat shields, note direction of screwheads, they must be accessible after installation (Figure 3).
- 11. Slide heat shields onto muffler bodies so that the muffler is recessed 1" into the heat shield (Figure 4) and rotate so that the bottom edge of heat shield sits at the 6 o'clock position. Tighten hose clamps. NOTE: Muffler heat shield passes over the stock heat shield.
- 12. Check for clearance between all exhaust system components and accessories prone to heat damage.
- 13. Be sure to check and tighten all hardware before starting your motorcycle.

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

- . When installing a new set of chrome pipes, make sure your hands are clean and free of oil. After installation, thoroughly clean pipes with a soft cloth and cleaning solvent that will leave no residue (chrome wax / polish, glass cleaner, alcohol, ammonia, etc...) before starting the motorcycle.
- 2. 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

-UELPAK



FUEL MANAGEMENT:

Take the guess work out of fuel injection with Fuelpak Fuel Management, P/N 61001.

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



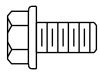
Quiet baffle P/N 21869 is available for this system. The quiet baffle will lower the sound level by 2-3db on average. Contact your local dealer to order.

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.

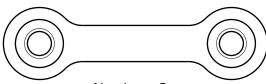
**ALL PARTS SHOWN ARE ACTUAL SIZE** 



## **PACKING LIST**



5/16" x 5/8" Flange Head Bolt x 4



Nutplate x 2



1/4" x 3/4" Hex Head Bolt x 4



1/4" Flat washer x 8



1/4" Lock Nut x 4

#### **PARTS NOT SHOWN:**

455-P Bracket x 2 D702RC Muffler Assembly x 2 D695HC Muffler Heat Shield x 2

### **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.

#### 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.

