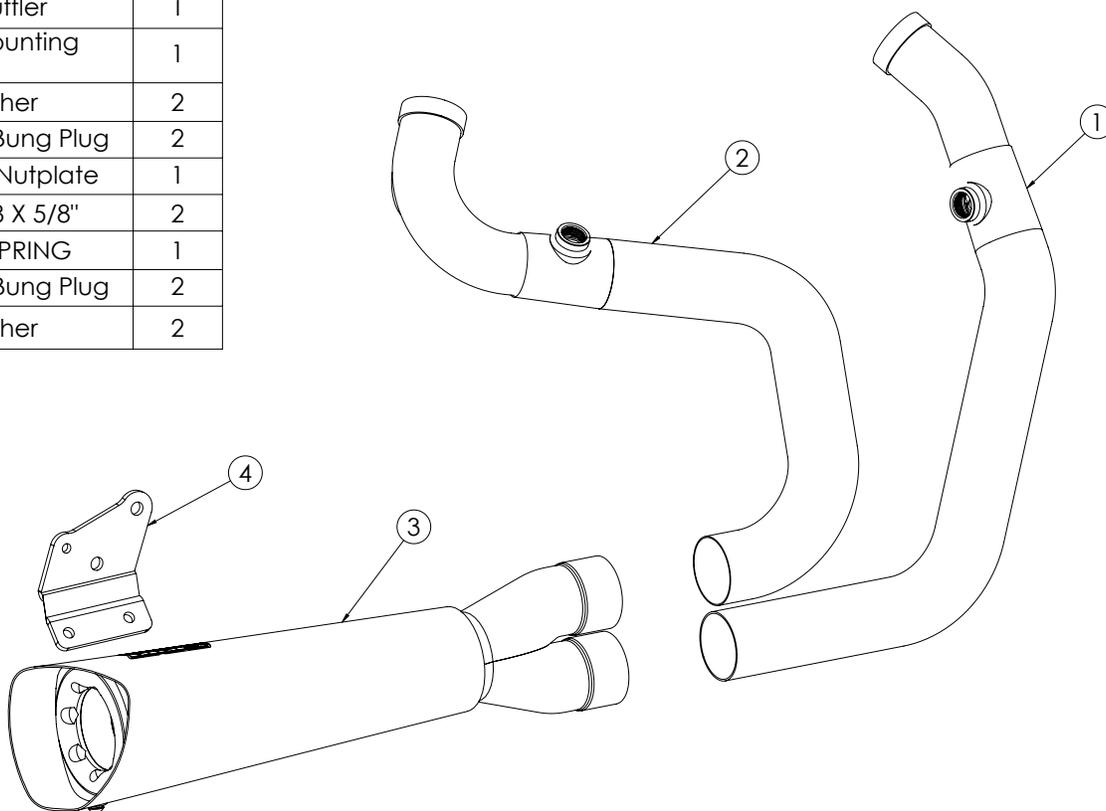


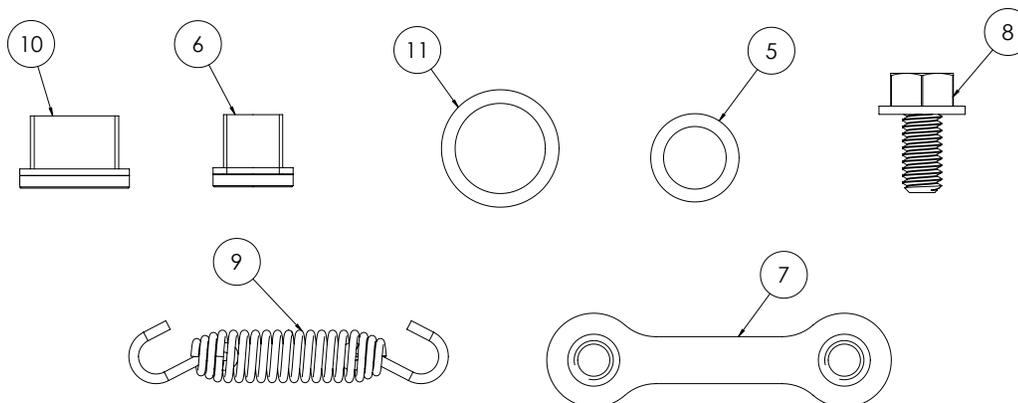
Congratulations, you have purchased the finest exhaust system available for your motorcycle. Your Vance & Hines exhaust is designed and crafted for performance, quality, and style. Please follow the instructions below, check exhaust system for missing or damaged parts and if you need any assistance please contact our technical support line (562) 921-7461.

### PARTS LIST

ITEM NO.	DESCRIPTION	QTY.
1	Front Head Pipe	1
2	Rear Head Pipe	1
3	Exhaust Muffler	1
4	Exhaust Mounting Bracket	1
5	12mm Washer	2
6	12mm O2 Bung Plug	2
7	Dog Bone Nutplate	1
8	FHS 5/16-18 X 5/8"	2
9	EXHAUST SPRING	1
10	18mm O2 Bung Plug	2
11	18mm Washer	2



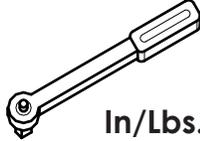
### HARDWARE



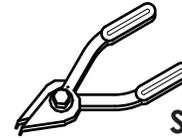
## TOOLS REQUIRED



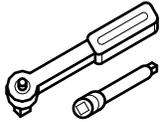
**Allen Wrenches:**  
3/16", 5/16", 10mm



**In/Lbs. Torque Wrench**



**Snap Ring Pliers**



**Ratchet & Extensions  
Sockets: 1/2", 9/16"  
Deep**



**Combination Wrench:**  
1/2", 7/8" or 22mm,  
14mm

## STOCK EXHAUST SYSTEM REMOVAL

1. Find and unplug the O2 sensor wires from the wiring harness. 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.
2. Loosen the heat shield clamps on both the front and rear exhaust pipes. This allows for easier access to the head pipe mounting nuts.
3. Remove the two head pipe mounting nuts from each flange, located at the cylinder head.
4. Remove the clamp bolt which mounts the rear head pipe to the belt drive cover bracket.
5. Remove the two bolts from each muffler body where they attach to the mounting bar. Carefully remove exhaust pipes from the motorcycle and set aside.
6. Remove the belt drive cover and take the bracket off the rear cover bolt, the bracket will not be reused.
7. Remove the e-clip from the brack rod lynchpin. Remove the right side rider foot controls.
8. Carefully remove the O2 sensors from the stock head pipes and save them for reuse with the new system.
9. Remove the three mounting bolts and washers attaching the exhaust mounting bar, save hardware for reuse.
10. Carefully remove exhaust port flanges and circlips from the stock exhaust system using snapping pliers. NOTE: Replace bent or damaged circlips.
11. Replace the exhaust gaskets with the supplied gaskets.

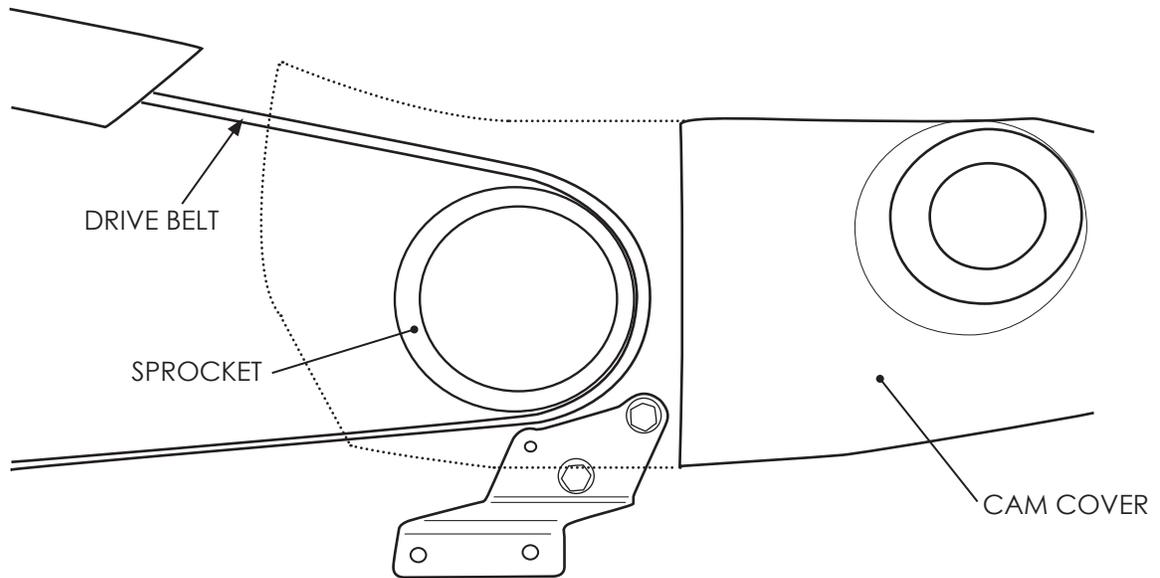
## VANCE & HINES EXHAUST INSTALLATION

1. Install and tighten supplied mounting bracket (4) using the stock washers and bolts. Torque to 30-33 Ft/Lbs.
2. Reinstall the drive belt cover. Torque the 3/8" bolt to 30/33 Ft/Lbs. and the 1/4" bolts to 80-120 In/Lbs.
3. Reinstall brake rod, brake rod lynchpin and e-clip. Reinstall the foot controls.
4. If running O2 sensors, install them at this time. Remove either the 12mm or 18mm O2 bung plugs and install the appropriate O2 sensor into the ports.
5. Install exhaust port flanges and circlip from stock system onto the Vance and Hines head pipes.
6. Using stock flange nuts, carefully install head pipes into exhaust ports, Do not tighten at this time.
7. Slide muffler assembly onto the head pipes.
8. Slip the nut plate into the bracket welded to the muffler body and attach the muffler body to the bracket using the two 5/16" x 3/4" flange head bolts (8).
9. Tighten the cylinder port exhaust flange nuts on front and rear cylinders.
10. Tighten the muffler mounting bolts.
11. Secure the muffler to the head pipes with the supplied springs.
12. Reconnect O2 sensors to the wire harness.
13. It may be necessary to adjust the brake pedal lever to avoid contact with the rear head pipe.
14. To adjust the brake pedal lever, first remove the brake rod lynchpin and e-clip. Then slide the boot off the master cylinder to allow access to the push rod. Holding the hex nut on the push rod, loosen the push rod collar.
15. Adjust the hex nut to approximately 2-1/16 (See Figure 2). Verify the brake pedal freeplay and the clearance to the rear head pipe under hard braking force.
16. Holding the hex nut in place, tighten the collar to 130-173 In-Lbs. Recheck to verify proper brake system functionality (See Figure 3). Reinstall the boot over the master cylinder spring and pushrod.
17. Be sure to tighten all hardware before starting motorcycle.

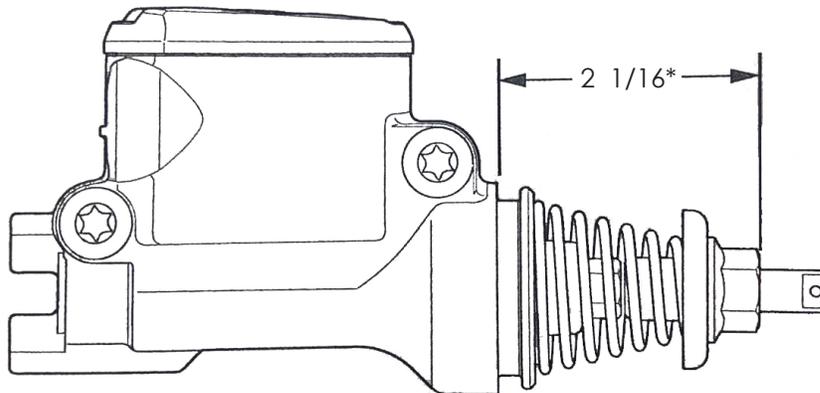
## EXHAUST CARE

1. When installing a new set of stainless steel 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.
3. Intake leaks can cause the engine to run lean and overheat, this could lead to discoloration.

**FIGURE 1 (REMOVE SPROCKET COVER)**

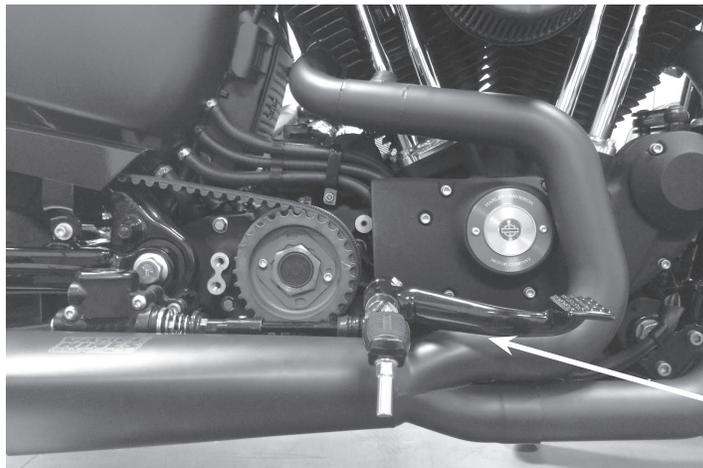


**FIGURE 2 (Master Cylinder)**



\*  $2 \frac{1}{16}$  is a approximation and should be used as a reference to clear the distance between the brake lever and rear head pipe. Refer to Harley-Davidson Sportster service manual for standard hex nut distance.

**FIGURE 3**



Make sure brake pedal lever has full throw.

## THE NEXT GENERATION OF FUEL MANAGEMENT IS HERE

The Fuelpak FP3 will revolutionize fuel management for all new Harley-Davidson models now using the HDLAN (CAN Bus) system. Connecting wirelessly by Bluetooth to iPhone or Android Smartphones, Fuelpak FP3 uses Flash technology to recalibrate engine parameters and mapping for Vance & Hines exhaust systems downloaded from the expansive library of calibrations developed by Vance & Hines.

- Smartphone App User Interface (iOS and Android)
- Recalibrates ECM by Flash Tuning
- Autotune Feature for Added Tuning Precision
- Displays Live Sensor Data
- App Links Direct to Customer Service Site

### FITMENT NOTES:

- FUELPAK FP3 IS COMPATIBLE WITH CAN BUS MODELS ONLY (TOURING, SOFTAIL, DYNA & SPORTSTER)
- FUELPAK FP3 IS NOT COMPATIBLE WITH V-ROD MODELS.
- MAPS ARE CURRENTLY AVAILABLE FOR: SPORTSTER, DYNA, SOFTAIL, TOURING AND TRIKE MODELS.
- MAPS FOR 110CI CVO MODELS COMING SOON.

### EMISSIONS NOTICE:

FUELPAK IS INTENDED FOR RACING USE ONLY, AND IS NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON POLLUTION-CONTROLLED VEHICLES.



### Emissions Notice:

In California, in order to meet Air Resources Board emissions requirements, certain aftermarket part applications have been identified as replacements, and others have received ARB Executive Orders. All other emissions related aftermarket parts are for competition use only. A list of replacement parts and EO parts, and corresponding fitment is provided at [vanceandhines.com/california](http://vanceandhines.com/california).

### Warranty:

All Vance & Hines products are warranted against defects in material and workmanship for a period of 90 days. This warranty does not cover discoloration or rust. This warranty shall be limited to the repair or replacement of the product, which may be proven defective under normal use. Vance & Hines will not warranty any system that has been abused, misused, improperly installed or modified.

Dealers or distributors are not authorized to make dispositions binding upon Vance & Hines. Vance & Hines will not be responsible for any labor charges incurred in removing or replacing any system under warranty. A return authorization number and a copy of the original purchase invoice must accompany all returns. Parts returned without a return authorization may be refused.

13861 ROSECRANS AVENUE  
SANTA FE SPRINGS, CA 90670  
SALES: (562) 921-5388  
TECHNICAL: (562) 926-5291  
FAX: (562) 802-0110

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