

# HARLEY-DAVIDSON® V-ROD MUSCLE 2 INTO 1 COMPETITION SERIES EXHAUST SYSTEM INSTALLATION INSTRUCTIONS PART# 75-116-4



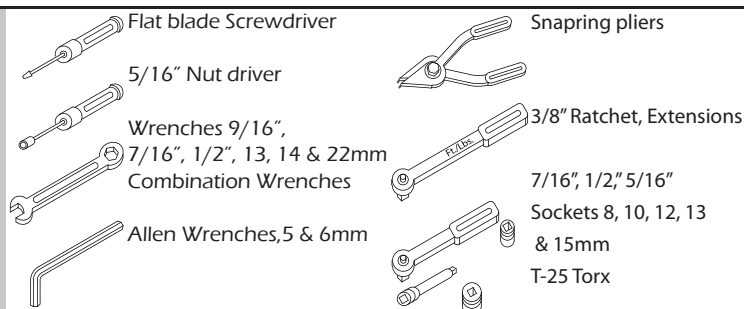
MORE POWER : LESS NOISE



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

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



## READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

**Note:** (Make sure key switch and handlebar run switch is in off position)

**Attention:** This exhaust system is for racing purposes only. Must use early model #65109-01 exhaust gaskets and **NOT** the Muscle #64971-09 exhaust gaskets.

### STOCK EXHAUST SYSTEM REMOVAL

1. To remove the stock mufflers loosen and remove the two nuts holding the muffler to the passenger foot-peg. Remove foot-peg and stud assembly from the rubber grommets and set aside. Loosen and remove the single nut towards rear of the muffler which holds the muffler to the round bar section of the foot-peg/exhaust bracket. Loosen the muffler clamp that holds the muffler to the head pipe. Loosen all heat shield clamps and remove heat shields from pipes. Pull muffler away from head pipe and set aside. Repeat for both sides.
2. Remove Foot-peg/exhaust bracket by removing the three allen bolts holding the bracket to the frame, set bracket aside. Repeat for both sides.
3. Remove rear pipe by removing the three allen screws that hold on the pulley/belt cover to gain access to exhaust flange nuts. Loosen and remove the two exhaust flange nuts. Loosen the crossover pipe clamp. Disconnect the O<sup>2</sup> sensor wire by following the wire to the connector underneath the seat. Unplug the connector and pull wire free from all clamps. Remove pipe and set aside.
4. Disconnect front O<sup>2</sup> sensor plug by removing the allen screw on bottom of the left side radiator cowl, pull downward at the bottom of the cowl to free from pin and then lift at the top of the cowl to free from another pin, set cowl

aside. Disconnect Plug and remember the wire routing for re-installation.

**Note:** Do not use excessive force on the cowl panel or damage may result.

5. Remove front cylinder pipe by loosening exhaust flange nuts. Carefully remove pipe from bike.
6. Remove the passenger peg from the original mounts using a snapping pliers, be careful to not overexpand the circlip.
7. Carefully remove the stock exhaust flanges and circlips from the front and rear head pipes. (If using a Power Commander install O<sup>2</sup> eliminator now and reinstall cowl panel.)

If the exhaust circlips are bent or twisted they should be replaced, Harley-Davidson part number #65045-01

Replace the stock exhaust gaskets with Harley-Davidson part number #65109-01



#### COMPETITION SERIES EXHAUST SYSTEM INSTALLATION

1. Locate left foot-peg mount (with spacer) D236MB install using one M8 x 25mm socket head cap screw and a M8 x 50mm socket head cap screw supplied. Use a medium strength loctite® and torque to 18 ft/lbs refer to (Figure 1), repeat for the right side refer to (Figure 2).
2. Reinstall the original passenger pegs removed earlier on to the new foot-peg mounts.
3. Identify front head pipe D227FB. Install the stock flange and circlip, install head pipe leaving the flange nuts hand tight.
4. Repeat the above step for the rear head pipe D228FB.
5. Install megaphone mounting bracket 676-P (with grommet) to the megaphone with two 5/16 flange bolts and dog bone nut plate supplied. First slide the dog bone nut plate inside the bracket welded to the back of the megaphone then attach and align bracket refer to (Figure 2), leave the bolts hand tight at this time.
6. Slip the megaphone/collector assembly onto the head pipes, secure the four springs supplied using the spring puller tool. Align megaphone mounting bracket install using the remaining M8 x 25mm socket head cap screw and a flat washer on each side of the grommet use a medium strength loctite® and torque to 18 ft/lbs.
7. Rotate the exhaust so there is adequate clearance in all places. Clearance at the clutch cover should be at least 1/4".
8. Tighten the cylinder head flange nuts for both the front and rear head pipes.

9. Tighten the two 5/16 flange bolts supporting the megaphone mounting bracket.
9. If using a Power Commander with O<sup>2</sup> eliminators tighten the O<sup>2</sup> plugs on the front and rear head pipes.
10. If using a fuel management system that requires the stock O<sup>2</sup> sensors remove them from the stock head pipes and install them on new head pipes. Due to O<sup>2</sup> sensors location it will be necessary to swap front and rear O<sup>2</sup> sensors. Reroute O<sup>2</sup> sensor with longer wire to the front cylinder refer to (Figure 3) and O<sup>2</sup> sensor with shorter wire to the rear cylinder refer to (Figure 4). On 2012 models the sensor will remain in the original location, refer to (Figure 6 & 7).
11. Make sure the oil line is not touching the front head pipe. If necessary, loosen the ties and rotate the oil line away from head pipe, re-tie the oil line to the fan mount refer to (Figure 5).
12. Clean all fingerprints from the exhaust using a contact cleaner (or other non flammable cleaner). Fingerprints will leave stains on the pipe once the motorcycle is started.
13. You are now ready to start the motorcycle.

**Note:** After initial ride it is recommended to re-torque the baffle screw to 8-10 lb. using a 5/32" allen wrench and retighten the cylinder head flange nuts.

For best results, we recommend fuel injection mapping for your new combination using a Fuelpak or Power Commander. Settings for the Fuelpak and some Power Commander maps are available on our website at [www.vanceandhines.com](http://www.vanceandhines.com)

FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4



FIGURE 5



FIGURE 6



FIGURE 7



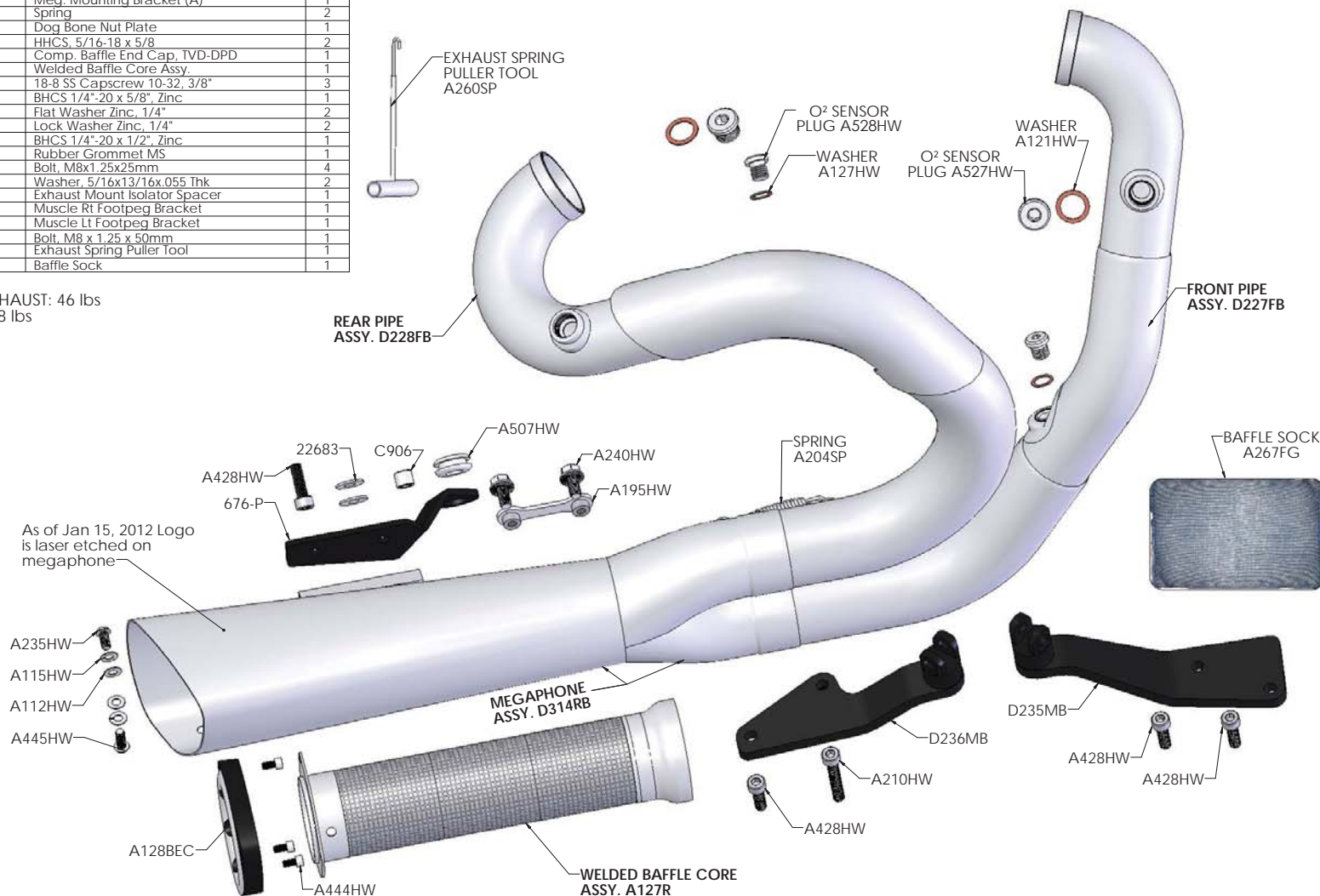
# HARLEY-DAVIDSON® V-ROD MUSCLE 2 INTO 1 COMPETITION SERIES EXHAUST SYSTEM INSTALLATION INSTRUCTIONS PART# 75-116-4



## PACKING LIST

75-116-4 PARTS LIST		
PART NO.	DESCRIPTION	QTY.
D227FB	Front Pipe Assy.	1
D228FB	Rear Pipe Assy.	1
A527HW	O <sup>2</sup> Sensor Plug 18mm, SS	2
A121HW	Washer, 24x18x1mm, Copper	2
A528HW	O <sup>2</sup> Sensor Plug 12mm, SS	2
A127HW	Washer, 16x12x1mm, Copper	2
A314RB	Megaphone	1
676-P	Meg. Mounting Bracket (A)	1
A204SP	Spring	2
A195HW	Dog Bone Nut Plate	1
A240HW	HHCS, 5/16-18 x 5/8	2
A128BEC	Comp. Baffle End Cap, TVD-DPD	1
A127R	Welded Baffle Core Assy.	1
A444HW	18-8 SS Capscrew 10-32, 3/8"	3
A445HW	BHCS 1/4"-20 x 5/8", Zinc	1
A112HW	Flat Washer Zinc, 1/4"	2
A115HW	Lock Washer Zinc, 1/4"	2
A235HW	BHCS 1/4"-20 x 1/2", Zinc	1
A507HW	Rubber Grommet M5	1
A428HW	Bolt, M8x1.25x25mm	4
22683	Washer, 5/16x13/16x.055 Thk	2
C906	Exhaust Mount Isolator Spacer	1
D235MB	Muscle Rt Footpeg Bracket	1
D236MB	Muscle Lt Footpeg Bracket	1
A210HW	Bolt, M8 x 1.25 x 50mm	1
A260SP	Exhaust Spring Puller Tool	1
A267FG	Baffle Sock	1

STOCK EXHAUST: 46 lbs  
75-116-4: 8 lbs



## WARRANTY

Vance & Hines products 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 products 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.