

# **INSTRUCTIONS**

94100521



## SCREAMIN' EAGLE MILWAUKEE-EIGHT STAGE 2 KIT

## GENERAL

## Kit Number

92500047A, 92500058A, 92500074A, 92500075A

## **Kit Contents**

See Figure 3 and Figure 4.

Refer to Table 1 and Table 2.

## Models

For model fitment information, see the Parts and Accessories (P&A) Retail Catalog or the Parts and Accessories section of www.harley-davidson.com.

Verify that the most current version of the instruction sheet is used. It is available at: h-d.com/isheets

Contact Harley-Davidson Customer Support Center at 1-800-258-2464 (U.S. only) or 1-414-343-4056.

## Installation Requirements

#### A WARNING

Rider and passenger safety depend upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333b)

See appropriate sections in service manual for special tools required to install this kit.

#### NOTE

This instruction sheet references service manual information. A service manual for the year and model motorcycle is required for this installation and is available from:

- · A Harley-Davidson dealer.
- H-D Service Information Portal, a subscription-based access available for most 2001 and newer models. For more information see Frequently ask questions about subscriptions.

These items are available at a Harley-Davidson dealership.

- **2017-2019 Models:** Separate purchase of Oil Pump Assembly kit (Part No. 62400247-Oil Cooled) or (Part No. 62400248-Twin Cooled) is required.
- Separate purchase of Cam Drive Retention kit (Part No. 25566-06).
- Separate purchase of Screamin Eagle High Flow Air Cleaner kit.

- Separate purchase of Cam Spacer kit (Part No. 25928-06) is recommended. This kit contains five different spacers to achieve proper sprocket alignment.
- Digital Technician II (DT II) is required for Electronic Control Module (ECM) calibration. Contact a Harley-Davidson dealer.

## PREPARE

#### A WARNING

When servicing the fuel system, do not smoke or allow open flame or sparks in the vicinity. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00330a)

- 1. If equipped, disarm security system. See owner's manual.
- 2. Raise rear wheel off ground. See service manual.
- 3. Remove main fuse. See service manual.

## REMOVAL

#### NOTE

When removing stock pushrods, do not cut pushrods using a method that creates metal debris (such as using a hacksaw or die grinder). Metal debris in engine causes severe damage.

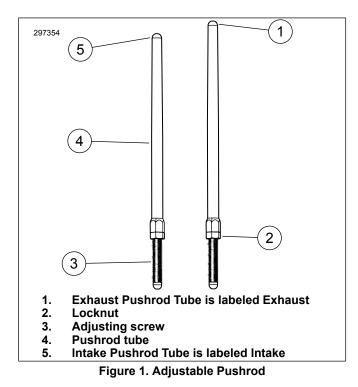
- 1. Remove cleaner assembly. See service manual.
- 2. Remove exhaust system. See service manual.
- 3. Remove Original Equipment (OE) pushrods.
- 4. Remove cam cover.
- 5. Remove front and rear cylinder spark plugs from left side of vehicle.
- 6. With vehicle in 5th gear, rotate rear wheel to rotate engine and align camshaft/crankshaft timing marks.
- 7. Using special tool lock camshaft and crankshaft. See service manual.

Special Tool: CRANKSHAFT/CAMSHAFT SPROCKET LOCKING TOOL (HD-47941)

- 8. Remove camshaft components and camshaft. See service manual.
- 9. Remove and inspect oil pump. See service manual.
  - a. It is recommended to install Oil Pump Cover with Seal (6) if it is not present.

## INSTALLATION

- 1. See Figure 4. Install oil pump. See service manual.
  - a. See Installation Requirements for oil pump information.
- 2. Inspect camshaft components and replace if necessary. See service manual.
- 3. Install camshaft and camshaft components. See service manual.
- 4. Verify camshaft to crankshaft timing marks are properly aligned.
- 5. With transmission in gear use rear wheel to turn engine over until both front cylinder tappets are at their lowest point.
- 6. See Figure 1. Loosen locknut on all of the pushrods and adjust them to their shortest length.



- 7. See Figure 2. Install intake pushrods into pushrod covers.
  - a. Replace O-rings, lower pushrod cover and spring cover keeper with new components supplied in kit.
  - b. Be sure adjuster end of pushrod is down.

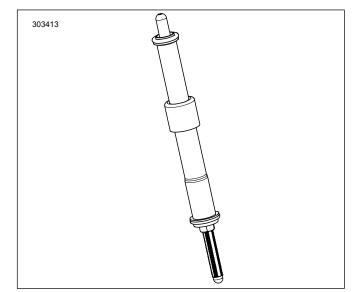


Figure 2. Pushrod Installed into Pushrod Cover

8. Insert pushrod (within the pushrod tube) into front cylinder head intake pushrod hole (hole closest to the cylinder) then slip adjuster end of pushrod into tappet block.

Pushrod adjustment must be made with engine cold.

NOTE

- 9. Adjust pushrods.
  - a. Adjust pushrod length to zero clearance by hand.
  - b. With pushrod adjusting screw kept from rotating with a wrench, slowly turn pushrod tube with a wrench, 2-1/2 complete turns clockwise (lengthening the pushrod) as viewed from bottom. (There is a dot on the flats of the pushrod tube that can be used as a reference.)
  - c. Hold adjusting screw and tighten locknut with wrench against pushrod tube. If pushrod turns with locknut use three open end wrenches, one to hold pushrod tube, one to hold adjusting screw and one to turn locknut.
  - d. Repeat steps 5 through step 9C for exhaust pushrod.

#### NOTE

Wait ten minutes before turning engine over after adjusting front or rear cylinder pushrods. This wait allows tappets to bleed down and prevents bending pushrods or valves. Pushrods should turn freely and valves must be on their seats (closed) before turning over engine.

- e. Wait ten minutes. With transmission in gear, use rear wheel to turn engine over until both rear cylinder tappets are at their lowest position.
- f. Repeat steps 5 through step 9D for rear cylinder.
- g. Install pushrod spring cap retainers on pushrod covers. Install spark plugs and return transmission to neutral.
- 10. Install camshaft cover. See service manual.

- 11. Install exhaust system. See service manual.
- 12. Install air cleaner assembly. See instruction sheet included with separately purchased Screamin' Eagle® (SE) high flow air cleaner kit.

## COMPLETE

NOTICE

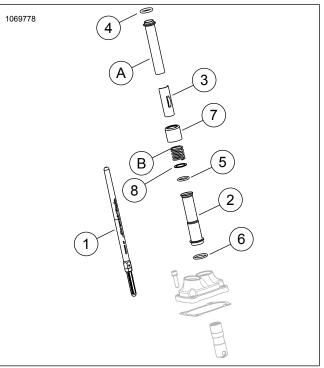
You must recalibrate the ECM when installing this kit. Failure to properly recalibrate the ECM can result in severe engine damage. (00399b)

- 1. Lower rear wheel off ground. See service manual.
- 2. If equipped, arm security system. See owner's manual.
- 3. Install main fuse. See service manual.
- 4. Verify vehicle is in neutral.
- 5. Run engine. Repeat several times to verify proper operation.
- Using special tool, recalibrate ECM.
  Special Tool: DIGITAL TECHNICIAN II (HD-48650)
- 7. Run engine. Repeat several times to verify proper operation.

## **BREAK-IN CAMSHAFT**

Refer to BREAK-IN RIDING RULES in owner's manual for instructions to break-in vehicle.

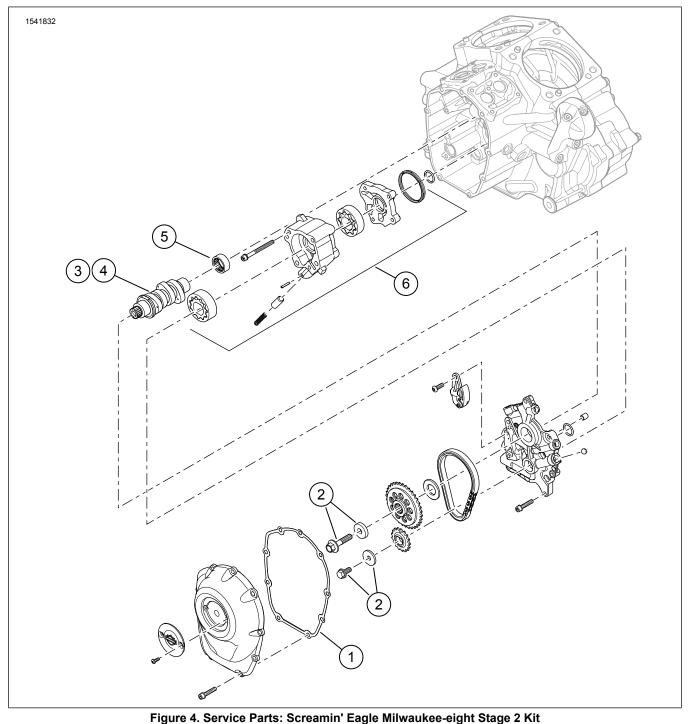
## SERVICE PARTS



#### Figure 3. Service Parts

#### Table 1. Service Parts Table

Item	Description (Quantity)	Part Number				
1	Pushrod assembly (Intake) (2)	Not Sold				
		Separately				
1	Pushrod assembly (Exhaust) (2)	Not Sold				
		Separately				
2	Pushrod cover, lower, chrome (4)	17938-83				
	Pushrod cover, lower, gloss black (4)	Not Sold				
		Separately				
3	Keeper, pushrod spring cover, chrome	Not Sold				
	(4)	Separately				
	Keeper, pushrod spring cover, gloss black					
	(4)					
4	O-ring, pushrod cover, upper (4)	11293				
5	O-ring, pushrod cover, lower (4)	11145A				
6	O-ring, pushrod cover, middle (4)	11132A				
7	Pushrod tube collar, chrome (4)	17945-36B				
	Pushrod tube collar, gloss black (set of	17900076				
	4)					
8	Washer (2)	6762D				
OE ite	OE items and above item 7 Pushrod tube collar, chrome					
(ONLY) reused during final assembly						
Α	Upper pushrod cover (2)					
В	Cover spring (2)					



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Table 2. Service Parts: Screamin' Ea	gle Milwaukee-eight Stage 2 Kit
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Item	Description (Quantity)	Part Number
1	Gasket, cam cover	25700370
	Camshaft drive sprocket retention kit	25566-06
3	Camshaft, SE8-447 (in Stage 2 Kit 92500047A, chrome / 92500074A, gloss black)	25400199
	Camshaft, SE8-462 (in Stage 2 Kit 92500058A, chrome / 92500075A, gloss black)	25400200
	Bearing, needle (1) (must be purchased separately, if needed)	9215
6	Oil pump assembly (must be purchased separately, if needed)	62400247 or 62400248