



INSTRUCTIONS

J06421

2020-03-23



SCREAMIN' EAGLE MILWAUKEE-EIGHT™ STAGE 4 KIT

GENERAL INFORMATION

Table 1. General Information

Kits	Suggested Tools	Skill Level ⁽¹⁾
92500060, 92500062, 92500064, 92500073, 92500076, 92500088	Safety Glasses, Torque Wrench	
<i>(1) Special tools or techniques required for installation</i>		

GENERAL

Models

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

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

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

Installation Requirements

Visit <https://serviceinfo.harley-davidson.com> for the latest instruction sheet.

⚠ 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)

These items are available at your local Harley-Davidson dealership.

- **2017-2018 Models with 107 Engine:** Separate purchase of Screamin' Eagle High Capacity Clutch Plate kit (Part No. 37000258) is required.
- **2017-2019 Models:** Separate purchase of Oil Pump Assembly kit (Part No. 62400247-Oil Cooled or 62400248-Twin Cooled) is required.
- Separate purchase of Screamin' Eagle High Flow Air Cleaner kit.
- Separate purchase of the Cam Drive Retention Kit (Part No. 25566-06) is required.
- Separate purchase of Cam Spacer Kit (Part No. 25928-06) is required.
- Kit requires ECM recalibration. Contact a Harley-Davidson dealership.

NOTE

This instruction sheet references service manual information. A service manual for your model motorcycle is required for this installation and is available from a Harley-Davidson dealer.

PREPARE

1. Set motorcycle upright. See service manual.
2. Disarm security system. See service manual.
3. Remove seat. See service manual.
4. Remove main fuse. See service manual.

⚠ 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)

5. Remove fuel tank. See service manual.
6. **Twin-Cooled:** Drain coolant system.

REMOVE

NOTE

The following steps are provided as an outline process. Follow procedures in service manual.

1. Remove air cleaner assembly.
2. Remove exhaust system.
3. Remove induction module.
4. Disconnect harness connections from cylinder head.
5. Remove oil coolant lines and manifolds from engine.
6. Remove rocker covers, rocker arms, pushrods, and pushrod tubes.



7. Remove cylinder heads, cylinder and pistons.
8. Remove lifter covers, anti-rotation devices and lifters.
9. Remove cam cover, cam plate and camshaft.
10. Remove inner cam bearing.
11. Remove clutch unless already equipped with a 10 plate clutch. See service manual.

INSTALL

NOTE

The following steps are provided as an outline process. Follow procedures in service manual.

1. Install clutch using 10 plate clutch. See instruction sheet J06246 and service manual.

NOTE

10-plate assist and slip clutch used in Milwaukee-eight vehicles has sufficient capacity to support this kit for most applications. Only install higher capacity springs if clutch slippage occurs. Higher capacity springs will increase clutch lever effort.

2. Install camshaft needle bearing (5).
3. See Figure 3. Install oil pump.
4. Install camshaft into engine.
5. Assemble cam plate and camshaft drive.
6. Verify camshaft to crankshaft timing marks are properly aligned.
7. Install lifters (provided in kit), anti-rotation device, lifter cover gaskets (provided in kit) and lifter covers.
8. Install pistons and cylinders provided in kit. Follow instructions provided with piston and cylinder kit.
9. Install cylinder heads using **new** flange nuts included with kit. Follow instructions provided with cylinder head kit.

NOTE

This kit uses a special head torque sequence.

10. Install pushrod tubes and pushrods using O-rings provided with kit.
11. With piston at approximately Bottom Dead Center (BDC) on power stroke, install rocker arms.
12. Alternately tighten screws to pull rocker shaft down evenly.
13. Install rocker covers.
14. Verify that camshaft to crankshaft timing marks are properly aligned.

15. Install cam cover and **new** gasket provided in kit.
16. Prepare induction module included with kit for installation. See instructions included with induction module.
17. Install high flow fuel injectors.
18. Install induction module.
19. Install coolant/oil manifold to cylinder heads.
 - a. Thoroughly clean ALL threadlocking material from threads of screws and threaded holes. See service manual.
 - b. Clean all debris from mating surfaces.
 - c. Install O-rings provided in kit
20. **Air-Cooled Touring models:** Install fan assisted oil cooler included in kit.
21. Install exhaust system. See service manual.
22. Install air cleaner assembly. See instruction sheet included with separately purchased SE high flow air cleaner kit.
23. Install emissions label provided in kit.
 - a. Locate the emissions label on the frame tube below the handlebars.
 - b. Place the **new** partial label from this kit over the top portion of the emissions label on the frame tube.
24. Install **new** product information label included in kit.
 - a. Locate the VIN label on the frame tube below the handlebars.
 - b. For 2017 Touring models only: Place **new** product information label included in kits 92500060, 92500062 and 92500064 below VIN label on frame tube.

COMPLETE

1. Install fuel tank. See service manual.
2. Install main fuse. See service manual.
3. **Twin-Cooled:** Fill coolant system and purge air. See service manual.
4. Install seat. After installing seat, pull up on the seat to verify that it is secure. See service manual.

NOTICE

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

5. Calibrate Electronic Control Module (ECM) with proper calibration for configuration. See dealer for details.

6. Run motorcycle until engine is at normal operating temperature. Repeat several times to verify proper operation.

7. See owner's manual for BREAK-IN RIDING RULES.

KIT CONTENTS

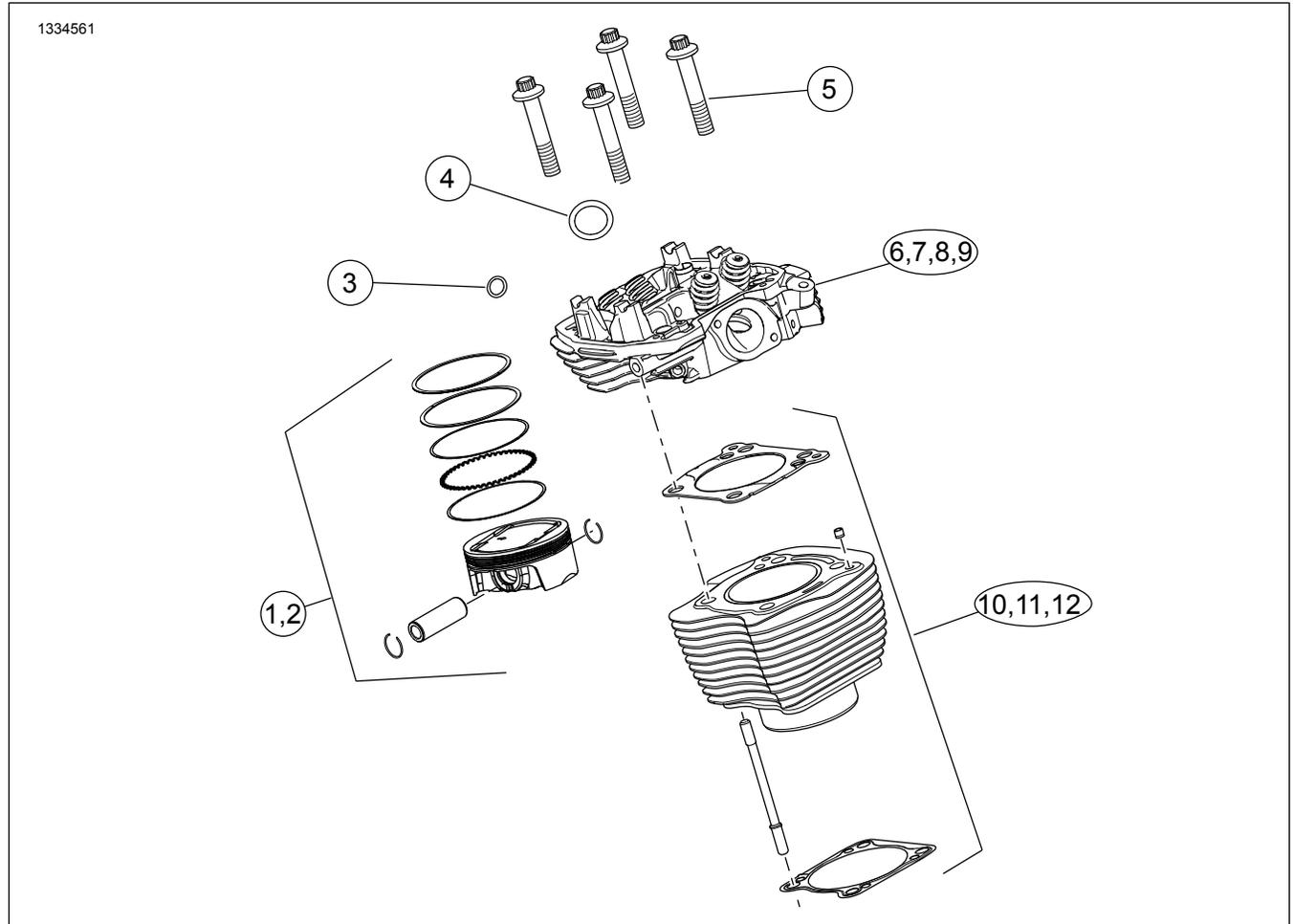


Figure 1. Kit Contents: Top End: Screamin' Eagle Milwaukee-Eight™ Stage 4 Components

Table 2. Kit Contents: Top End: Screamin' Eagle Milwaukee-Eight™ Stage 4 Components

<input checked="" type="checkbox"/>	Item	Qty	Description	Part No.	Notes
<input type="checkbox"/>	1	1	Piston kit, 114	21900084	
<input type="checkbox"/>	2	1	Piston kit, 117	21900087	
<input type="checkbox"/>	3	4	O-ring, coolant manifold	11900090	
<input type="checkbox"/>	4	2	Exhaust gasket	65324-83B	
<input type="checkbox"/>	5	4	Flange nut	10200303	
<input type="checkbox"/>	6	1	Cylinder head kit, air cooled (HOG black)	16500512	
<input type="checkbox"/>	7	1	Cylinder head kit, air cooled (black granite)	16500538	
<input type="checkbox"/>	8	1	Cylinder head kit, twin-cooled (HOG black)	16500379	
<input type="checkbox"/>	9	1	Cylinder head kit, twin-cooled (black granite)	16500527	
<input type="checkbox"/>	10	1	Cylinder kit (HOG black)	16800120	
<input type="checkbox"/>	11	1	Cylinder kit (black granite)	16800125	
<input type="checkbox"/>	12	1	Cylinder kit (HOG black non-highlighted)	16800174	

Notes:

- For Piston kit (1,2) components, see instruction sheet J07056
- For Cylinder kit (9,10,11) components see instruction sheet J06226
- For Cylinder head kit (5,6,7) components see instruction sheet J06401

NOTE

Verify all contents are present in the kit before installing or removing items from vehicle.

KIT CONTENTS

1017788

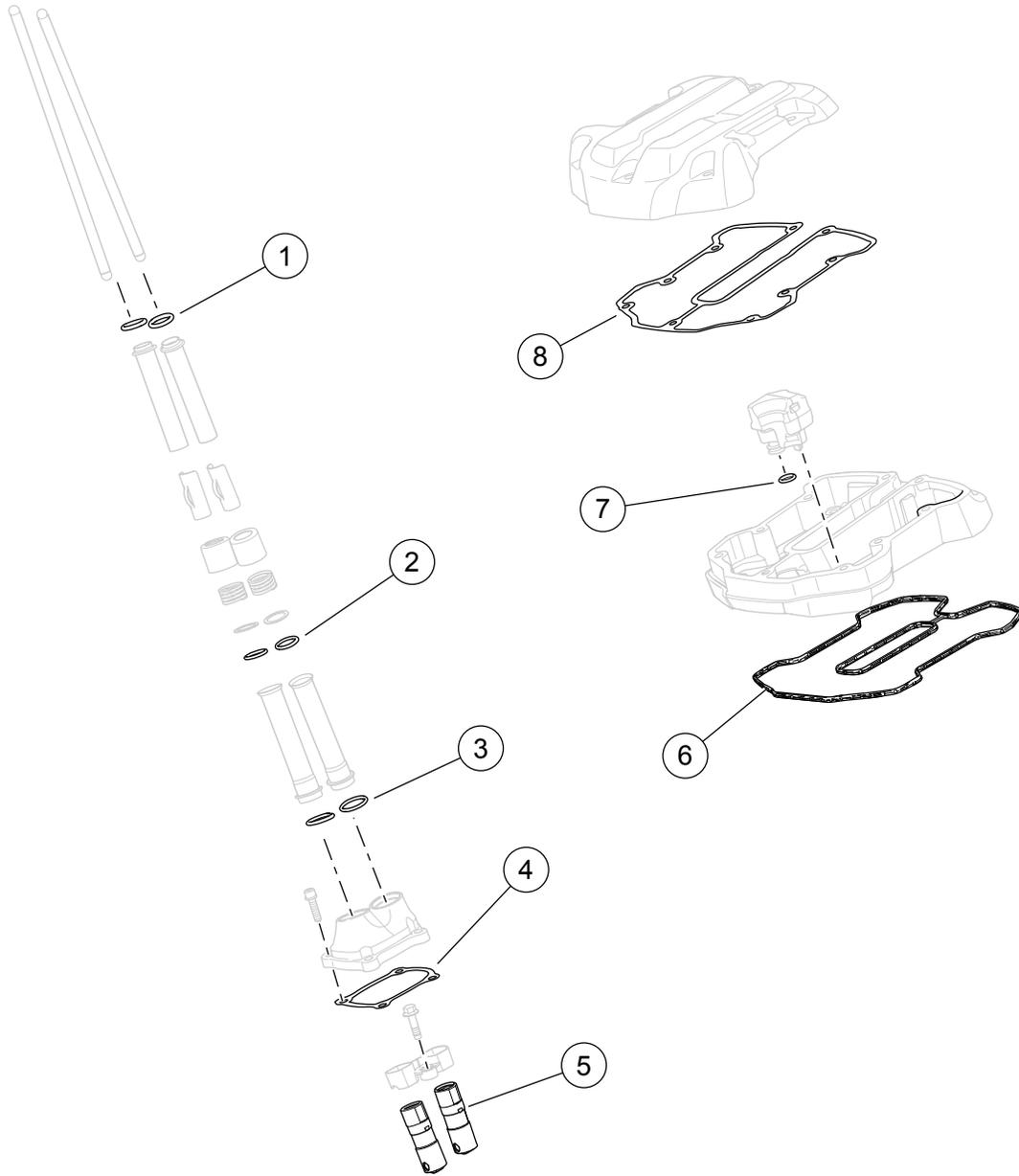


Figure 2. Kit Contents: Valve Train: Screamin' Eagle Milwaukee-Eight™ Stage 4 Components

Table 3. Kit Contents: Valve Train: Screamin' Eagle Milwaukee-Eight™ Stage 4 Components

<input checked="" type="checkbox"/>	Item	Qty	Description	Part No.	Notes
<input type="checkbox"/>	1	4	O-ring	11293	
<input type="checkbox"/>	2	4	O-ring	11132A	
<input type="checkbox"/>	3	4	O-ring	11145A	
<input type="checkbox"/>	4	2	Gasket, lifter cover	25700362	
<input type="checkbox"/>	5	1	Lifter kit, high capacity	18572-13	
<input type="checkbox"/>	6	2	Gasket, lower rocker cover	25700425	
<input type="checkbox"/>	7	2	O-ring, breather	11900116	
<input type="checkbox"/>	8	2	Gasket, upper rocker cover	25700372B	

NOTE

Verify all contents are present in the kit before installing or removing items from vehicle.

KIT CONTENTS

1334562

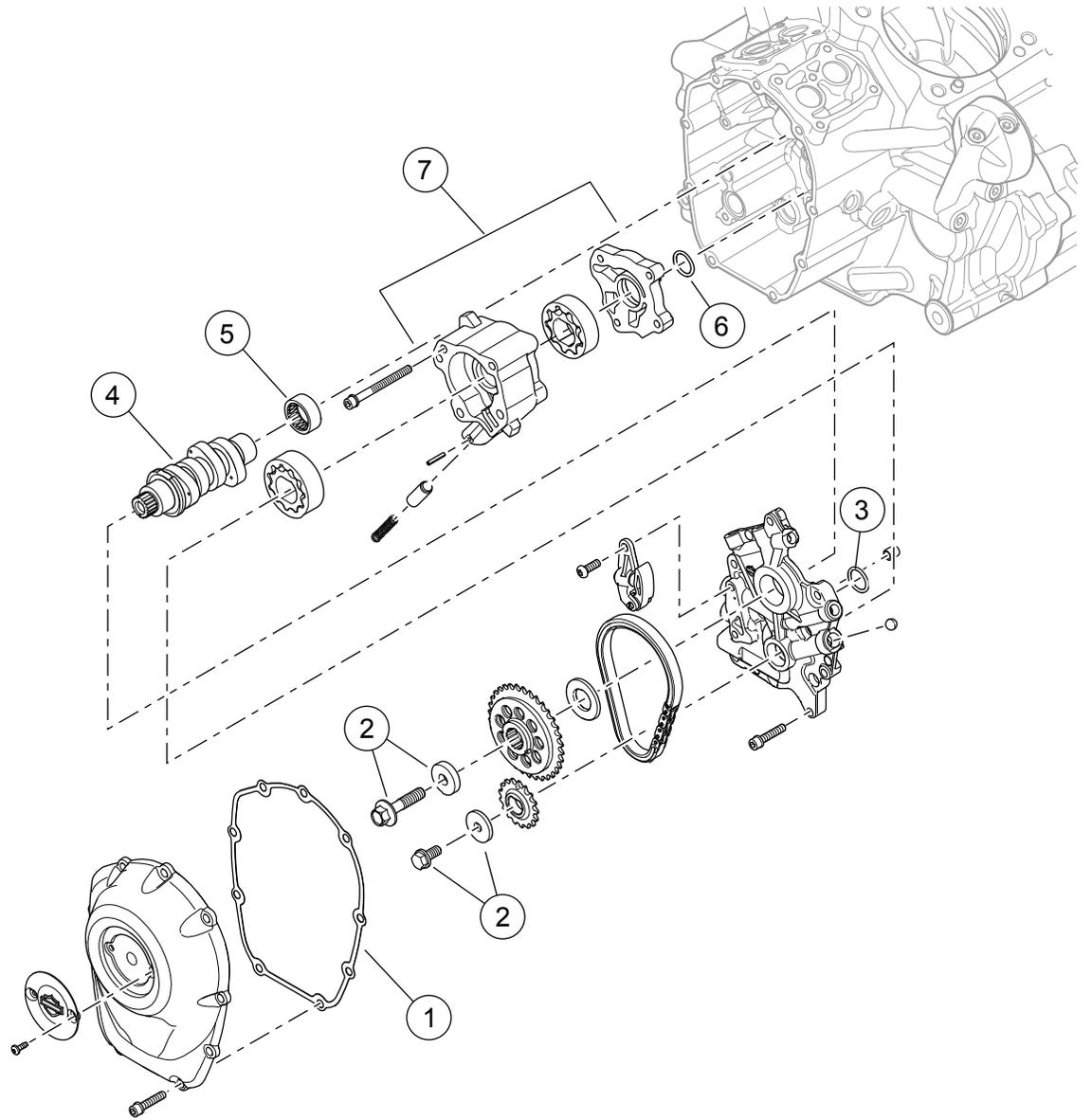


Figure 3. Kit Contents: Cam Compartment: Screamin' Eagle Milwaukee-Eight™ Stage 4 Components

Table 4. Kit Contents: Cam Compartment: Screamin' Eagle Milwaukee-Eight™ Stage 4 Components

<input checked="" type="checkbox"/>	Item	Qty	Description	Part No.	Notes
<input type="checkbox"/>	1	1	Gasket, cam cover	25700370	
<input type="checkbox"/>	2	1	Camshaft drive sprocket retention kit	25566-06	Purchase separately
<input type="checkbox"/>	3	1	O-ring, cam plate to oil pump	11900103	
<input type="checkbox"/>	4	1	Camshaft, SE8-515	25400201	
<input type="checkbox"/>	5	1	cam bearing	9298B	
<input type="checkbox"/>	6	1	O-ring, oil pump to crankcase	11293	
<input type="checkbox"/>	7	1	Oil pump (Oil cooled)	62400247	Purchased separately, if needed
<input type="checkbox"/>		1	Oil pump (Twin cooled)	62400248	Purchased separately, if needed
Items included but not shown					
<input type="checkbox"/>		1	Screamin' Eagle 64mm throttle body kit	27200040	
<input type="checkbox"/>		1	Screamin' Eagle high flow injection kit	27400040	
<input type="checkbox"/>		1	Partial emissions tune-up label	Not sold separately	
<input type="checkbox"/>		1	Product information label	Not sold separately	

NOTE

Verify all contents are present in the kit before installing or removing items from vehicle.