



# INSTRUCTIONS

-J01486

REV. 3-23-99

Kit Number 25446-99

## SCREAMIN' EAGLE TWIN-CAM 88 CAM DRIVE SPROCKET UPGRADE KIT

### General

This cam drive sprocket upgrade kit is designed for installation on all Twin Cam 88 engines equipped with Screamin' Eagle splined camshafts.

See *Service Parts page* for kit contents:

#### NOTE

A *Service Manual* for your motorcycle is available from your Harley-Davidson Dealer.

### ⚠ WARNING

The rider's safety depends on the correct installation of this kit. Follow the procedures listed in this Instruction Sheet and in the appropriate *Service Manual*. If the procedures are not within your capabilities, or if you do not have the correct tools, have your Harley-Davidson dealer perform the installation. Failure to follow procedures could result in death or serious injury.

### ⚠ WARNING

To avoid accidental start-up of vehicle and possible personal injury, disconnect the battery cables (negative cable first) before performing any of the following procedures. If the battery should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion resulting in death or serious injury.

### ⚠ WARNING

Gasoline is extremely flammable and highly explosive under certain conditions. Do not smoke or allow open flame or sparks anywhere in the area when draining or servicing the fuel system. Drain gasoline into approved gasoline container only. Failure to follow these instructions could result in death or serious injury.

### Installation Procedure

1. Obtain and install **new** Screamin' Eagle cams according to the instructions provided with the cams.
2. Apply a thin film of clean H-D 20W50 engine oil to the splines of the rear cam.
3. Install **new** (P/N 25716-99) splined sprocket to (drive) camshaft according to ENGINE, BOTTOM END Cam Support Plate, Removal and Disassembly/Assembly (Camshaft, Camshaft Bearings) instructions in applicable *Service Manual*. Use spacers, Item 2 listed on *Service Parts page* of this Instruction Sheet, in place of those listed in *Service Manual*.

#### NOTE

Verify alignment at crank and primary cam sprocket punch marks as described in *Service Manual*.

#### NOTE

Verify alignment at crank and primary cam sprocket faces. Use included spacers to maintain alignment at + or - 0.005"

4. Obtain **new** cam drive sprocket flange bolt (P/N 996), and **new** washer (P/N 6294).
5. Obtain **new** crank flange bolt (P/N 898A) and **new** flat washer (P/N 6278A).

#### NOTE

Sprocket flange bolt (P/N 996), washer (P/N 6294), crank flange bolt (P/N 898A) and flat washer (6278A) are included in *Twin Cam 88 Screamin' Eagle 203 cam and Stage 2 Performance kits*.

6. Install **new** flange bolts and washers as follows:
  - a. Ensure all threads are clean and free from oil then apply Loctite Primer 7649 (P/N 99813-97).
  - b. Apply Loctite High Strength Threadlocker 262 (red, P/N 94759-99), to threads of flange bolts.

### CAUTION

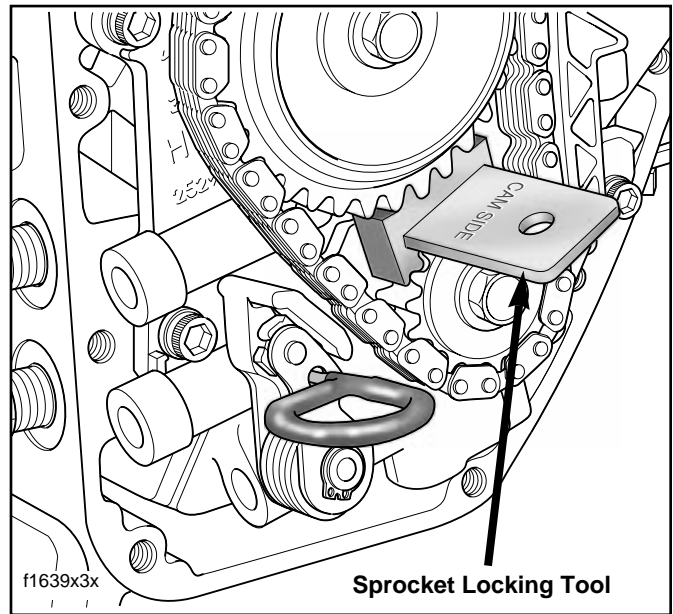
Failure to use Loctite 262 (Red) may result in a joint that will not maintain proper clamp load and may loosen under certain circumstances. If the joint becomes loose, engine damage could occur.

- c. Apply a thin film of clean H-D 20W50 engine oil to both sides of flat washers.
- d. Start flange bolt with flat washer to secure crank sprocket to end of crankshaft.
- e. Start flange bolt with flat washer to secure primary cam sprocket to end of camshaft.
- f. See Figure 1. Position CRANKSHAFT/CAMSHAFT SPROCKET LOCKING TOOL (HD-42314) between the crank and primary cam sprockets to prevent rotation. The handle of the tool is stamped "Crank" and "Cam" to ensure proper orientation.
- g. Tighten the crank and primary cam sprocket flange bolts to 15 ft-lbs (20.3 Nm).
- h. Loosen both flange bolts one full turn.
- i. Tighten the **crank** flange bolt to 24 ft-lbs (32.5 Nm) final torque.

- j. Tighten the primary **cam** sprocket flange bolt to 34 ft-lbs (46.0 Nm) final torque.
  - k. Remove the sprocket locking tool and follow instructions in Service Manual for unloading the primary cam chain tensioner.
7. Install the cam cover according to ENGINE, BOTTOM END, Cam Support Plate, Disassembly/Assembly instructions in applicable Service Manual.

**NOTE**

Replace original cam cover gasket with new cam cover gasket (P/N 25244-99).



**Figure 1. Crankshaft/Camshaft Sprocket Locking Tool  
(Part No. HD-42314)**



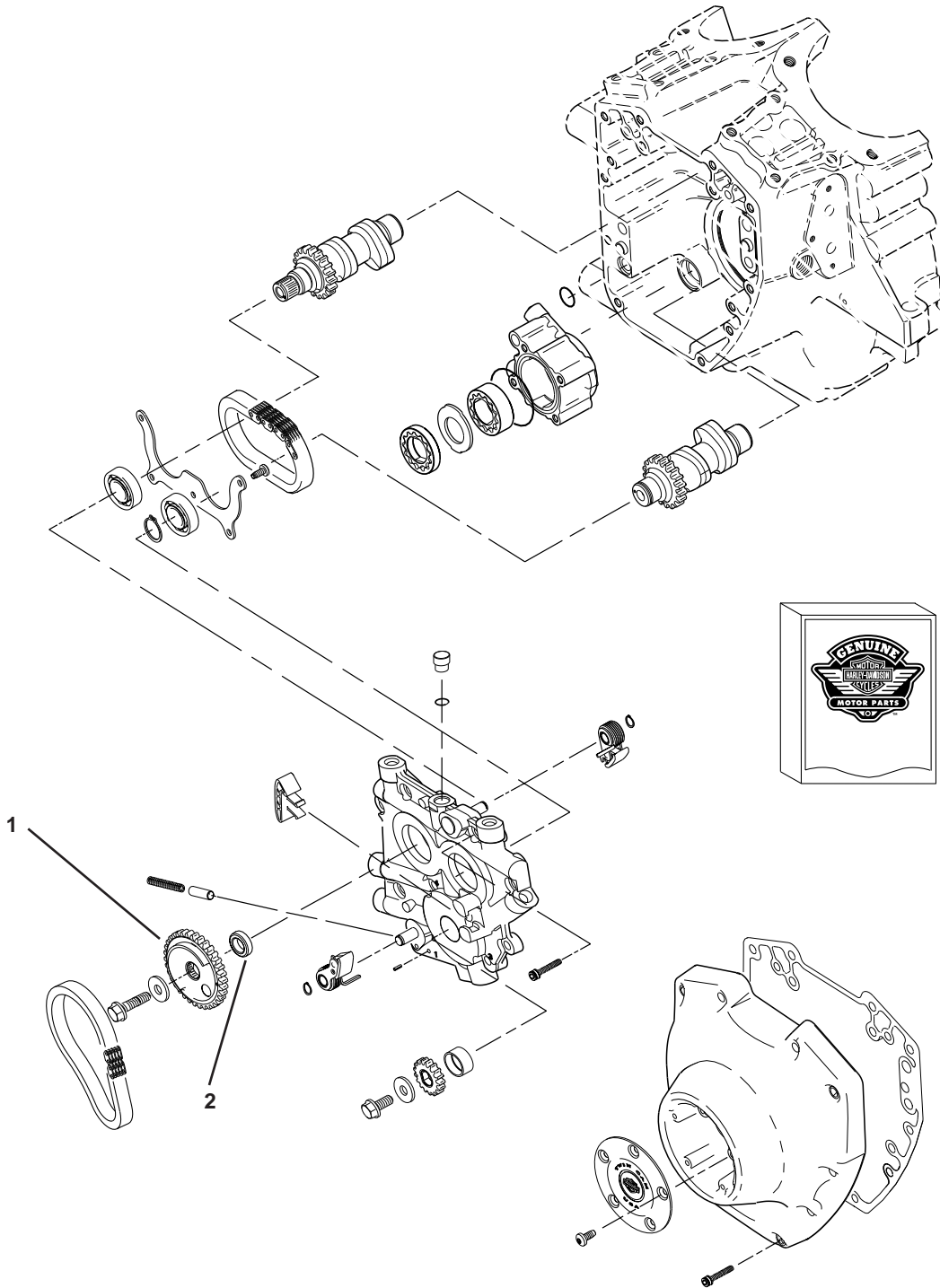
# Service Parts

Part No. 25446-99

Date 3/99

Twin Cam 88 Sprocket Upgrade Kit

io1337a-eps



Item	Description	Part No.	Item	Description	Part No.
1	Sprocket, cam drive, 34 tooth (1)	25716-99	2	Spacer (.230 thickness)	25722-99
				Spacer (.240 thickness)	25723-99
				Spacer (.250 thickness)	25721-99
				Spacer (.260 thickness)	25719-99
				Spacer (.270 thickness)	25717-99