



INSTRUCTIONS

-J04939

REV. 2009-03-30

MAINSHAFT SPROCKET AND PULLEY LOCKNUT SOCKET REMOVAL AND INSTALLATION TOOL

GENERAL

Kit Number

94137-09

Models

Used on all 1984 and later EVO and Twin Cam models with 5-speed transmissions and Screamin' Eagle 6-speed upgrade transmissions.

Additional Parts Required

A transmission sprocket locking tool for your model is required if the mainshaft locknut is to be removed with the transmission in the frame.

A service manual is available from a Harley-Davidson dealer.

WARNING

The rider's safety depends upon the correct installation of this kit. 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. (00308a)

Kit Contents

See Figure 4 and Table 1.

REMOVAL

1. Remove the primary cover, clutch assembly and primary chaincase.
2. Remove the two socket screws and the lock plate from the sprocket.
3. See Figure 1. Insert the handle of the sprocket locking tool **above** the pivot shaft.
4. Turn the thumb screw of the tool to lock the position of the tool on the sprocket.
5. See Figure 1. Thread the pilot (1) onto the mainshaft (left hand threads). The pilot is used to prevent the mainshaft wrench from slipping.
6. See Figure 2. Slide the mainshaft wrench over the pilot and onto the sprocket nut.
7. Using a breaker bar, loosen the sprocket nut by turning clockwise. As the nut is loosened the sprocket locking tool contacts the pivot shaft to prevent sprocket/mainshaft rotation.
8. Remove the pilot and sprocket nut.

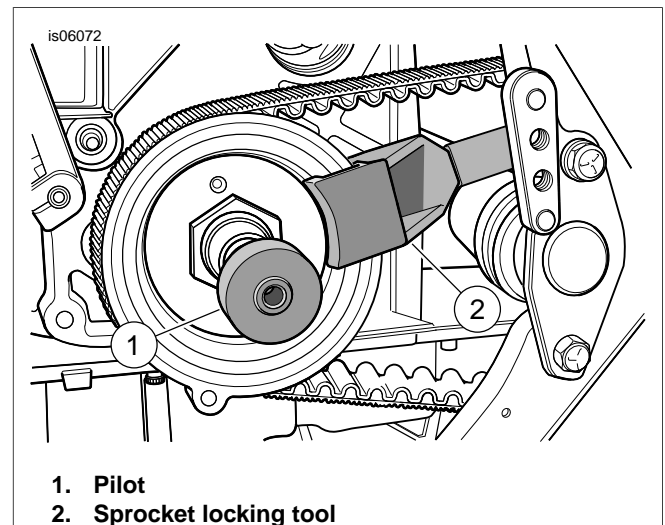


Figure 1. Install Pilot and Sprocket Locking Tool

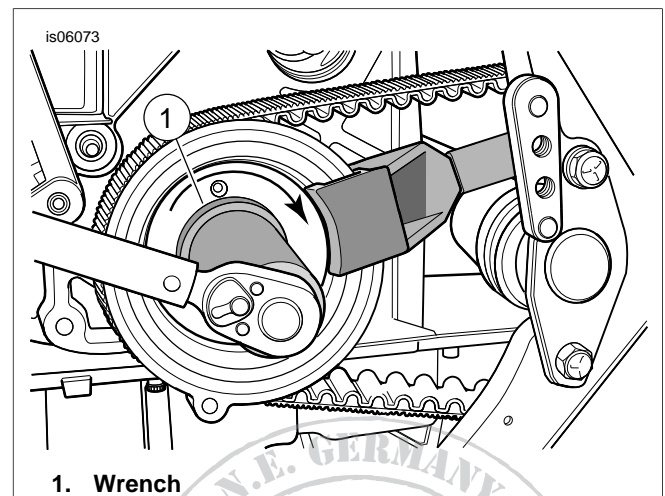


Figure 2. Install Wrench and Remove Sprocket Nut

INSTALLATION

NOTES

New sprocket nut: Smear a small quantity of clean engine oil on the inside face of the sprocket nut and the outside face of the sprocket. Limit the application to where the surfaces of the two parts contact each other.

Used sprocket nut: Apply Loctite 271 Threadlocker and Sealant - Red to the threads of the sprocket nut. Also smear a small quantity of Loctite or clean the inside face of the sprocket nut and the outside face of the sprocket. Limit the application to where the surfaces of the two parts contact each other.

1. Assemble the components and thread the sprocket nut on the main shaft.
2. See Figure 1. Insert the handle of the sprocket locking tool **below** the pivot shaft (for left-hand threaded models).
3. Install the pilot to the threaded end of the mainshaft.
4. Slide the mainshaft wrench over the pilot and onto the sprocket nut.
5. Tighten the sprocket nut to 100 ft-lbs (135.6 Nm). As the nut is tightened the handle of the sprocket locking tool contacts the pivot shaft to prevent sprocket/mainshaft rotation.
6. Reposition the sprocket locking tool and loosen the sprocket nut to remove the initial torque.
7. Reposition the sprocket locking tool and tighten the sprocket nut to the torque of 35 ft-lbs (47.5 Nm).
8. See Figure 3. Scribe a straight line on the transmission sprocket nut continuing the line over onto the transmission sprocket as shown in Figure 3. Tighten the sprocket nut an additional 35 to 45 degrees.
9. Install the socket lockplate. If the holes do not align with those in the sprocket, tighten the sprocket nut as necessary (up to the 45° maximum) until the sprocket and lockplate holes are in alignment. Never loosen the sprocket nut to align the lockplate holes.
10. Insert the socket head screws through the lockplate into the sprocket holes and tighten to 84-108 **in-lbs** (9.5-12.2 Nm).

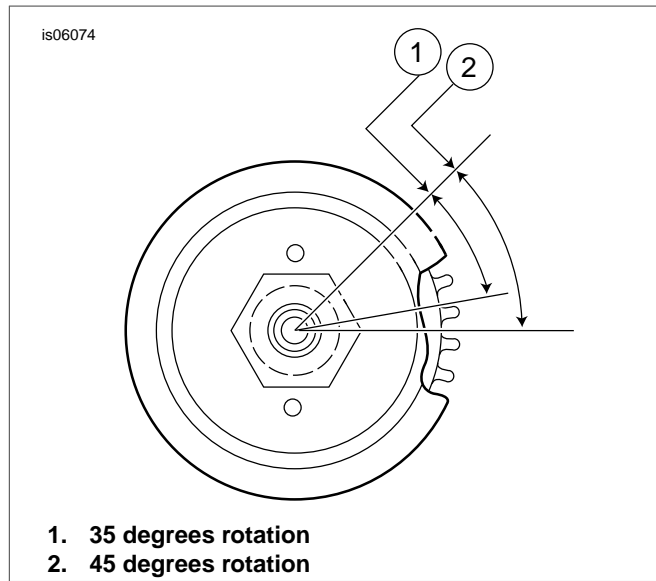


Figure 3. Tighten Transmission Sprocket Nut

SERVICE PARTS

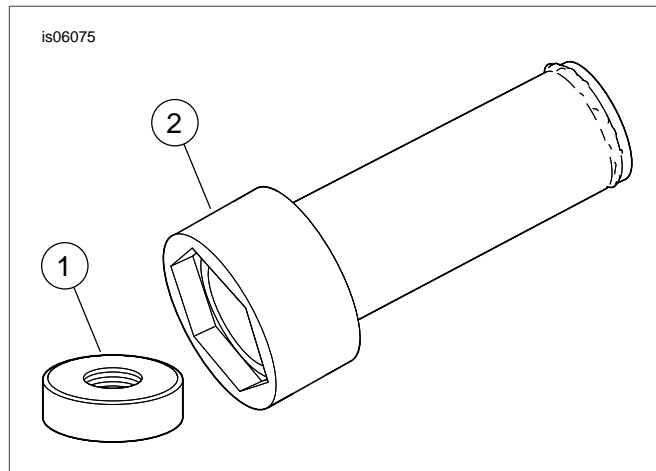


Figure 4. Service Parts: Mainshaft Sprocket Locknut Wrench and Pilot

Table 1. Service Parts

Item	Description (Quantity)	Part Number
1	Pilot	94660-37A-2H
2	Mainshaft wrench	Not Sold Separately

