

# SERVICE BULLETIN



M-1170

May 27, 2005

## COMPENSATING SPROCKET TORQUE PROCEDURE

### Purpose

This Bulletin documents a torque and turn-of-nut procedure for tightening the engine compensating sprocket. This procedure improves the clamp load on this assembly and replaces the present tighten-to-torque procedure.

### Motorcycles Affected

All 2003 through 2005 Touring, Softail, and Dyna model motorcycles including CVO models with Twin-Cam engines. Production vehicles began using this procedure May, 2005.

### Dealer Action

Update all service literature and notify service technicians. To assure this procedure is used, insert this Service Bulletin number in the TORQUE VALUES tables in Section 6.1 SPECIFICATIONS of the Service Manuals covering Touring, Softail and Dyna models for model years 2003 through 2005.

### Instructions

1. See Figure 1. Before installing the clutch, primary chain, compensating sprocket and shaft extension assembly do the following:

- a. Clean threads on engine sprocket shaft (1) and internal threads in sprocket nut (2) with LOCTITE 7649 CLEANER/PRIMER, Part No. 98968-99.

#### NOTE

*If a new sprocket nut, with lock-patch, is being installed the clean/prime of the internal threads is not needed. If the nut is being reused, clean the internal threads as specified in step a. above*

- b. Apply two drops of LOCTITE THREADLOCKER 262 (red) to the threads on the engine sprocket shaft.
  - c. Apply engine oil to the complete underside (3) of sprocket nut (2). This is the area that will contact the sprocket cover.
2. Follow the Service Manual procedure for installing the clutch, primary chain, compensating sprocket and shaft extension as an assembly.
  3. Install sprocket shaft nut and hand tighten. Follow the Service Manual procedure for installing the clutch hub mainshaft nut.

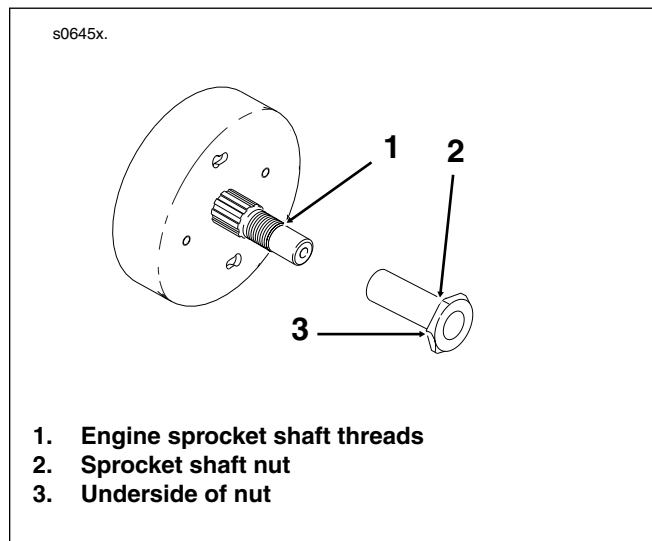


Figure 1. Compensating Sprocket Preassembly

4. See Figure 2. Tighten sprocket shaft nut to 75 ft-lbs (101.7 Nm).

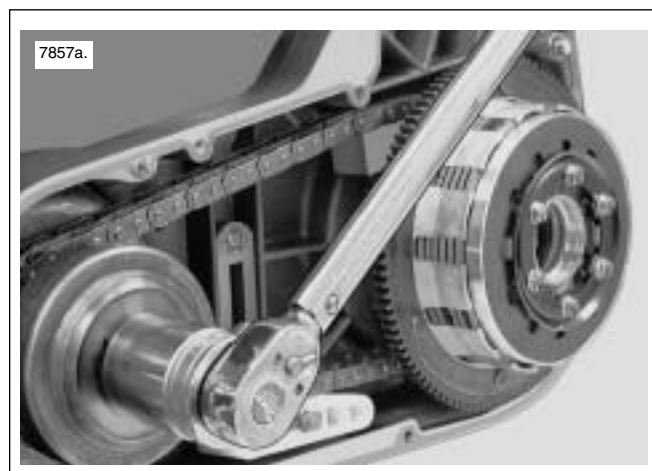


Figure 2. Tightening To 75 ft-lbs (101.7 Nm)

#### IMPORTANT NOTE

In the interest of preserving customer safety and satisfaction, always check for outstanding recalls whenever any motorcycle is brought into your dealership for either maintenance or service.

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO.1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO
INITIAL HERE									

©2005 HARLEY-DAVIDSON® MOTOR COMPANY

5. See Figure 3. Scribe a line (3) on the sprocket shaft nut (1). Continue the line on the sprocket cover (2) as shown.
6. Tighten the sprocket shaft nut an additional  $45^\circ$  to  $50^\circ$  ( $50^\circ$  MAXIMUM).

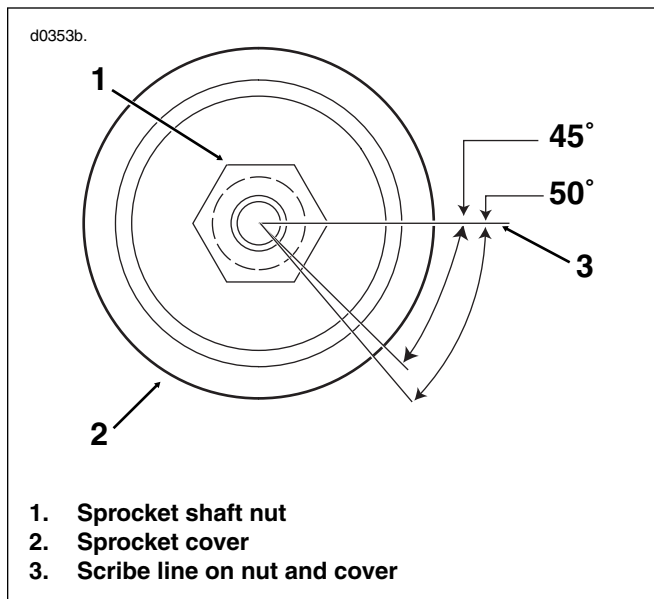


Figure 3. Turn-of-nut Final Tightening