

TELEDYNE CONTINENTAL ® AIRCRAFT ENGINE
SERVICE BULLETIN

Contains Important Information Pertaining to Your Aircraft Engine.
 Compliance Will Enhance Safety

Category 3

SB11-3

**Supersedes M89-5, M79-11,
 and M87-10**

**Technical Portions FAA
 Approved**

SUBJECT: Alternator and Drive Coupling Installation

PURPOSE: Provides information regarding alternator elastomer coupling and proper installation

COMPLIANCE: At alternator replacement/removal or the next time that maintenance affords access to the coupling.

MODELS AFFECTED: IO/TSIO520, IO/TSIO550, IOF/TSIOF550, TSIOL-550, and GTSIO520 Engines with Gear Driven Alternators

The gear driven alternators used on some of the affected engine models are equipped with a drive coupling P/N 646655 which has an elastomer section to help absorb torsional vibrations and provide a "shear" section. Earlier couplings equipped with a drive spring assembly are superseded with 646655 elastomer couplings. The spring couplings, 640933 and 640934 must be replaced with the 646655 elastomer couplings the next time that maintenance affords access to the coupling.

The proper installation of the coupling is necessary and the following items must be complied with.

1. Remove shipping spacer and washer from the alternator shaft and discard

WARNING

Installation of the drive coupling assembly on alternators with the shipping washer in place will cause interference with the face gear on the crankshaft and will result in damage to the engine and alternator.

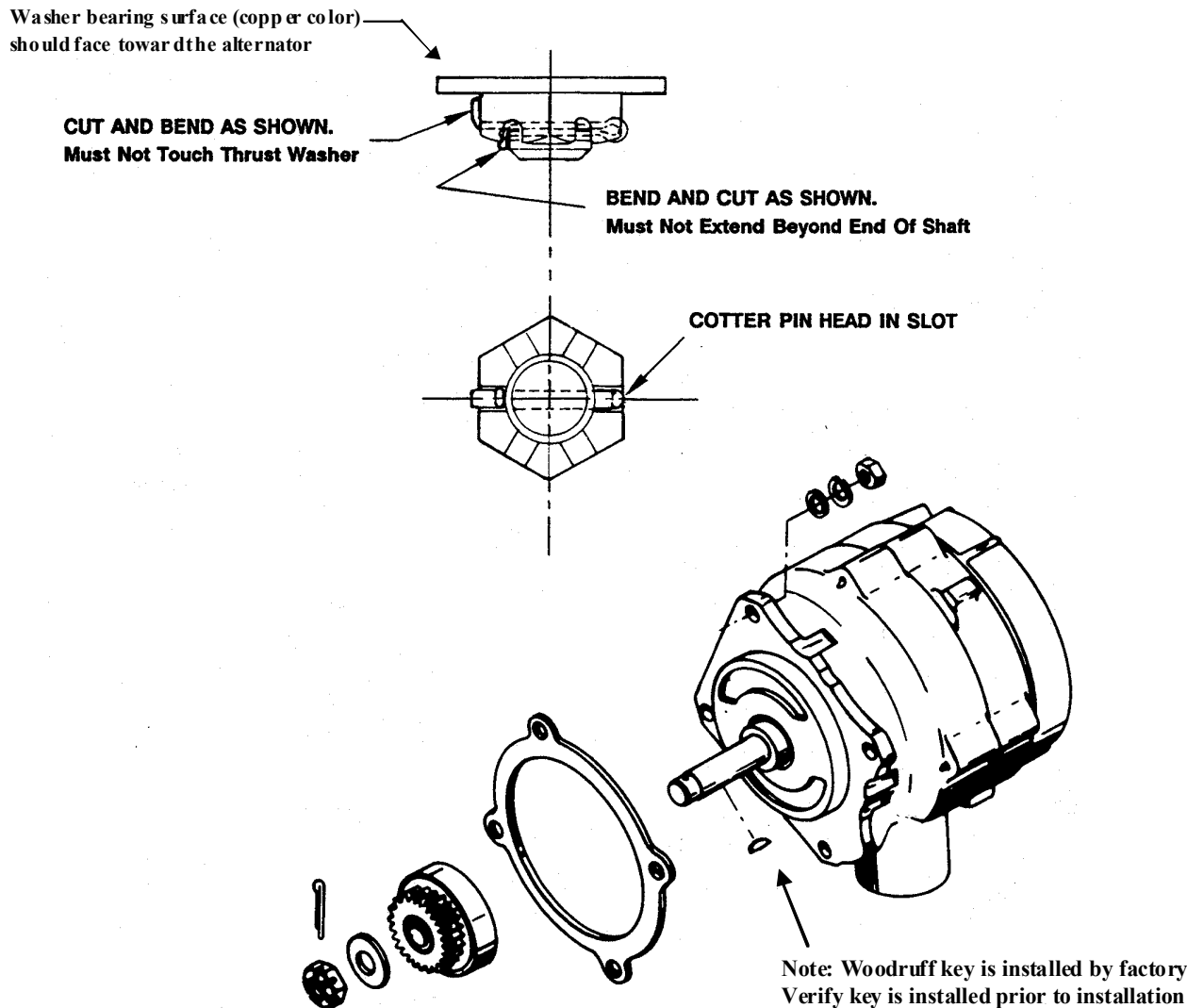
2. Install coupling assembly and washer. The washer is a special thrust washer and must be installed with the bearing surface (copper color) toward the alternator. Install nut and tighten to 300 in. lbs. torque. If slots in the nut do not align with the cotter pin hold in alternator shaft, the nut may be tightened further but not to exceed 450 in. lbs.
3. Do not back off nut to align holes. Install cotter pin as shown to insure clearance when alternator is installed in engine.

NOTE: The elastomer coupling can continue in service if a torque slippage check is completed. The torque required to slip the coupling elastomer when new must be 180 in. lbs. min. measured after 45 degrees of revolution at a rate of 1 to 2 degrees per second. Slippage

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must occur at outer diameter of elastomer with no apparent damage to the elastomer for coupling in service more than 25 hours the slippage torque must not drop below 140 in. lbs.

4. Insure that the alternator slips into the crankcase without binding and that the mounting flange is properly seated against the crankcase. Do not force the alternator into position as damage to the alternator and drive gears could result.
5. Install alternator gasket and alternator onto the engine. With the alternator pilot properly engaged in the pilot bore, run the attaching nuts up to the lug contact surfaces evenly and snug. Torque the nuts to 150-180 in. lbs. in diagonally opposite pairs.



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