

service bulletin

M84-5
Supersedes M80-8 Rev. 1

Technical Portions are
FAA-DER Approved

13 February, 1984

TO: Aircraft Manufacturers, Distributors, Dealers, Engine Overhaul Facilities, Owners and Operators of Teledyne Continental Motors' Aircraft Engines.

SUBJECT: GEAR DRIVEN ALTERNATOR INSPECTION PROCEDURE

MODELS

AFFECTED: All 520 Series Engines With Gear Driven Alternators

COMPLIANCE: Following any indication of alternator electrical system malfunction.

WARRANTY: The action required to comply with this service bulletin is covered by TCM Gold Medallion Warranty, subject to its terms and conditions. Warranty claims may be filed through any TCM distributor.

Following any indication of alternator electrical system malfunction, investigation of alternator related systems must be performed in conformance with airframe manufacturers' service or maintenance information prior to further operation. If investigation of airframe related systems fails to reveal the source of alternator electrical system malfunctions, the alternator installation inspection procedure must be performed as follows:

Remove the alternator from the engine and perform electrical checks in compliance with troubleshooting instructions contained in applicable airframe manufacturers' maintenance manual. Repair or replace the alternator as required. If no electrical malfunctions are isolated, inspect the alternator for signs of mechanical malfunctions in the following areas:

1. While holding the external hub of the driven gear coupling, manually apply torque to the gear. If slippage is evident, the alternator and hub assembly must be replaced.
2. While holding the alternator in a horizontal position, rotate the shaft in both directions. If the shaft does not turn freely, internal rotor rubbing or bearing distress conditions are indicated, the alternator and hub assembly must be replaced.
3. If bearing roughness or noticeable shaft displacements are detected when the shaft is manually rotated or pushed in any direction, the alternator and hub assembly must be replaced.
4. Visually inspect for damaged alternator driven gear. If the alternator driven gear is damaged, the alternator and hub assembly must be replaced.

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If any one of the above conditions are detected, inspect the oil filter and the interior of the engine through the alternator mount pad opening for signs of metal or rubber contamination. Visually inspect the engine face gear for distress. If no contamination or distress is noted, the engine may be returned to service with proper corrective action to resolve above conditions. However, if internal engine contamination is noted, remove the oil sump and clean thoroughly. Remove and completely clean the oil pump suction tube of any and all contamination. If the pickup tube cannot be completely cleaned, it should be replaced. If face gear distress is detected through the alternator mount pad opening, contact your nearest Teledyne Continental Service Representative for further instructions.