



DATE: November 29, 2011

AD #: 2011-25-51

Emergency airworthiness directive (AD) 2011-25-51 is sent to owners and operators of certain Continental Motors, Inc. (CMI) Models TSIO-520, TSIO-550-K, TSIOF-550K, and IO-550-N reciprocating engines.

Background

This emergency AD was prompted by 5 reports received of fractures in starter adapter shaft gears in certain part number (P/N) CMI starter adapters. This condition, if not corrected, could result in failure of the starter adapter gear shaft, leading to an inoperable oil scavenge pump and engine in-flight shutdown.

Relevant Service Information

We reviewed CMI Mandatory Service Bulletin (MSB) No. MSB11-4, dated November 23, 2011. The MSB describes the affected starter adapters, and describes what starter adapters are eligible for installation.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires replacing affected CMI starter adapters with starter adapters eligible for installation.

Differences Between This AD and the Service Information

The CMI Mandatory Service Bulletin (MSB) No. MSB11-4, dated November 23, 2011 requires reporting. This emergency AD does not.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This

regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2011-25-51 Continental Motors, Inc. (formerly Teledyne Continental Motors, Continental):
Directorate Identifier 2011-NE-41-AD.

(a) Effective Date

This Emergency AD is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

This emergency AD applies to Continental Motors, Inc. (CMI) TSIO-520-B, BB, D, DB, E, EB, J, JB, K, KB, N, NB, UB, VB; TSIO-550-K; TSIOF-550-K; IO-550-N (Turbo-normalized only; STC SE10589SC); with a starter adapter part number (P/N) 642085A17, 642085A19, 642085A20, 642085-1A1, and R-642085A17, installed, where the engine was manufactured between January 1, 2011 and November 20, 2011, or, where a replacement new or rebuilt starter adapter was purchased and installed between January 1, 2011 and November 20, 2011.

(d) Unsafe Condition

This AD was prompted by 5 reports received of fractures in starter adapter shaft gears in certain part number (P/N) CMI starter adapters. We are issuing this AD to prevent failure of the starter adapter gear shaft, leading to an inoperable oil scavenge pump and engine in-flight shutdown.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) For starter adapters with less than 75 hours of total time-in-service (TIS) at time of receipt of this AD, before further flight, replace the starter adapter with a starter adapter eligible for installation.

(2) For starter adapters with between 75 and 100 hours of total TIS, inclusive at time of receipt of this AD, within the next 10 hours of engine operation, or before exceeding 100 hours TIS, whichever occurs first, replace the starter adapter with a starter adapter eligible for installation.

(3) For starter adapters with more than 100 hours of total TIS at time of receipt of this AD, no further action is required.

(f) Definition

For the purpose of this AD, a starter adapter eligible for installation is:

(1) A starter adapter with one of the P/Ns listed in this AD that has a vibro-peened manufacturer code below the ink stamped P/N on the starter adapter, or

(2) A starter adapter with one of the P/Ns listed in this AD that has more than 100 hours total TIS.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Atlanta Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(h) Related Information

(1) For further information about this AD, contact: Anthony Holton, Aerospace Engineer, Atlanta Certification Office, FAA, Small Airplane Directorate, 1701 Columbia Avenue, Atlanta, GA 30337; phone: 404-474-5567; fax: 404-474-5567; e-mail: anthony.holton@faa.gov.

(2) CMI Mandatory Service Bulletin No. MSB11-4, dated November 23, 2011, pertains to this AD.

(3) For copies of the service information referenced in this AD, contact: Continental Motors, Inc., PO Box 90, Mobile, AL 36601; phone: 251-438-3411, or go to: <http://tcmlink.com/servicebulletins.cfm>. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA.

Issued in Burlington, Massachusetts, on November 29, 2011.

Peter A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.