DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-1156; Directorate Identifier 2009-NE-38-AD; Amendment 39-16309; AD 2010-11-04]

RIN 2120-AA64

Airworthiness Directives; Teledyne Continental Motors (TCM) 240, 346, 360, 470, 520, and 550 Series and Rolls-Royce Motors, Ltd. (R-RM) IO-240-A Reciprocating Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is superseding an existing emergency airworthiness directive (AD) 2009-24-52 that was sent previously to all known U.S. owners and operators of TCM 240, 360, 470, 520, and 550 series reciprocating engines. That AD requires before further flight, replacing certain part number (P/N) hydraulic lifters. This AD results from TCM reporting another occurrence of rapid wear on the face of hydraulic lifters, P/Ns 657913, 657915, and 657916, and from the need to expand the applicability of this AD to include the TCM 346 series reciprocating engines and the R-RM IO-240-A reciprocating engines. We are issuing this AD to prevent excessive hydraulic lifter wear, which can result in loss of engine power and loss of control of the airplane.

DATES: This AD becomes effective June 16, 2010. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of June 16, 2010. We must receive any comments on this AD by August 2, 2010.

ADDRESSES: Use one of the following addresses to comment on this AD.

- Federal eRulemaking Portal: Go to http://www.regulations.gov and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

Contact Teledyne Continental Motors, Inc., P.O. Box 90, Mobile, AL 36601; telephone (251) 438-3411, or go to: http://tcmlink.com/servicebulletins.cfm, for the service information identified in this AD.
SUPPLEMENTARY INFORMATION: On November 18, 2009, we issued emergency AD 2009-24-52, that applies to TCM 240, 360, 470, 520, and 550 series reciprocating engines. That AD requires determining if hydraulic lifters, P/Ns 657913, 657915, and 657916, are installed, and replacing those lifters before further flight. That AD resulted from TCM reporting three occurrences of rapid wear on the face of hydraulic lifters, P/Ns 657913, 657915, and 657916, at five, six, and 38-hours time-in-service (TIS), and from the need to add the TCM 550 series reciprocating engines to the applicability.

Actions Since AD 2009-24-52 was Issued

Since that AD was issued, we have received a report of excessive wear at one-hour TIS. We also determined that we need to expand the applicability of the AD to include the TCM 346 series engines and the R-RM IO-240-A reciprocating engines.

Relevant Service Information

We have reviewed and approved the technical contents of TCM Mandatory Service Bulletin (MSB) No. MSB09-8A, dated December 4, 2009, that describes procedures for inspecting and removing certain TCM engine hydraulic lifters.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other TCM 240, 346, 360, 470, 520, and 550 series and R-RM IO-240-A reciprocating engines of the same type design. We are issuing this AD to prevent excessive hydraulic lifter wear, which can result in loss of engine power and loss of control of the airplane. This AD requires replacing before further flight, hydraulic lifters, P/Ns 657913, 657915, and 657916. You must use the service information described previously to perform the actions required by this AD.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we have found that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send us any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "AD Docket No. FAA-2009-1156; Directorate Identifier 2009-NE-38-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor
union, etc.). You may review the DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

**Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**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.

**Regulatory Findings**

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment**

Under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

**PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:
Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13  [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:
2010-11-04 Teledyne Continental Motors (Formerly Continental and Rolls-Royce Motors, Ltd.): Amendment 39-16309. Docket No. FAA-2009-1156; Directorate Identifier 2009-NE-38-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 16, 2010.

Affected ADs

(b) This AD supersedes AD 2009-24-52.

Applicability

(c) This AD applies to all Teledyne Continental Motors (TCM) 240, 346, 360, 470, 520, and 550 series and Rolls-Royce Motors, Ltd. (R-RM) IO-240-A reciprocating engines with hydraulic lifters, part numbers (P/Ns) 657913, 657915, or 657916, installed. These engines are installed on, but not limited to, general aviation airplanes.

Unsafe Condition

(d) This AD results from TCM reporting another occurrence of rapid wear on the face of hydraulic lifters, P/Ns 657913, 657915, and 657916, and from the need to expand the applicability of this AD to include the TCM 346 series engines and the R-RM IO-240-A reciprocating engines. We are issuing this AD to prevent excessive hydraulic lifter wear, which can result in loss of engine power and loss of control of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed before further flight after the effective date of this AD, unless the actions have already been done.

Excluded Engines

(f) If your engine was manufactured or rebuilt before June 19, 2009, and you have not had any hydraulic lifters replaced after June 19, 2009, no action is required.

Determining P/N of Lifters

(g) If your engine was manufactured or rebuilt on or after June 19, 2009, or if any of your hydraulic lifters were replaced on or after June 19, 2009, and you can't determine the P/N of your hydraulic lifters from the engine records:

(2) Inspect the hydraulic lifters in each cylinder for P/Ns 657913, 657915, and 657916. Use TCM MSB No. MSB09-8A, dated December 4, 2009, Section I. Action Required, paragraphs 1. through 3. to determine the P/N of the lifters.

Replacing the Lifters

(h) If your engine has any affected hydraulic lifters, replace the hydraulic lifters using TCM MSB No. MSB09-8A, dated December 4, 2009, Step 2, paragraphs 2.a.1) through 2.b.4).

Installation Prohibition

(i) After the effective date of this AD, do not install any hydraulic lifters, P/Ns 657913, 657915, or 657916, into any TCM 240, 346, 360, 470, 520, or 550 series or R-RM IO-240-A reciprocating engine.

Alternative Methods of Compliance

(j) The Manager, Atlanta Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Special Flight Permits

(k) We will not approve any special flight permits.

Related Information

(l) Contact Anthony Holton, Aerospace Engineer, Atlanta Certification Office, FAA, Small Airplane Directorate, 1701 Columbia Avenue, College Park, GA 30337; e-mail: anthony.holton@faa.gov; telephone (404) 474-5567; fax (404) 474-5606, for more information about this AD.

Material Incorporated by Reference

(m) You must use Teledyne Continental Motors Mandatory Service Bulletin No. MSB09-8A, dated December 4, 2009, to perform the actions required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You can get a copy from Teledyne Continental Motors, Inc., P.O. Box 90, Mobile, AL 36601; telephone (251) 438-3411, or go to: http://tcmlink.com/servicebulletins.cfm. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on May 12, 2010.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.