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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0885; Directorate Identifier 2012-NE-18-AD; Amendment 39-17307; AD 2012-26-12]

RIN 2120-AA64

Airworthiness Directives; Thielert Aircraft Engines GmbH Reciprocating Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Thielert Aircraft Engines GmbH (TAE) TAE 125-02-99 and TAE 125-02-114 reciprocating engines. This AD requires inspection of the oil filler plug vent hole at the next scheduled maintenance or within 110 flight hours after the effective date of this AD. If chips are found to be blocking the vent hole, additional corrective action is required before next flight. This AD was prompted by an in-flight shutdown of an airplane equipped with a TAE 125-02-99 engine. We are issuing this AD to prevent engine in-flight shutdown or power loss, possibly resulting in reduced control of the airplane.

DATES: This AD becomes effective February 13, 2013. The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of February 13, 2013.

ADDRESSES: The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

FOR FURTHER INFORMATION CONTACT: Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: frederick.zink@faa.gov; telephone: 781-238-7779; fax: 781-238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on August 31, 2012 (77 FR 53154). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

An engine in-flight shutdown has been reported on an aeroplane equipped with a TAE 125-02-99 engine. The results of the investigation showed that this was due to blockage of the gearbox oil filling plug vent hole, which caused pressurisation in the gearbox, resulting in oil leakage and a slipping clutch. This condition, if not corrected, could result in further cases of engine in-flight shutdown and consequent loss of control of the aeroplane.

Further investigation revealed that the blockage to the oil cap vent was the result of a residual chip from machining the oil cap vent hole. The chip is from the manufacturing process and did not fall off the oil plug. This is not the result of material in the oil system causing the blockage. You may obtain further information including the affected gearbox serial number list by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD will affect about 45 engines installed on airplanes of U.S. registry. We also estimate that it will take about 2.5 hours per product to comply with this proposed AD. The average labor rate is \$85 per hour. Required parts will cost about \$30 per engine. Based on these figures, we estimate the cost of the AD to U.S. operators to be \$10,913.

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 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 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 regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

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 (phone: (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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 AD:



2012-26-12 Thielert Aircraft Engines GmbH: Amendment 39-17307; Docket No. FAA-2012-0885; Directorate Identifier 2012-NE-18-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective February 13, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Thielert Aircraft Engines (TAE) TAE 125-02-99 and TAE 125-02-114 reciprocating engines.

(d) Reason

This AD was prompted by an in-flight shutdown of an airplane equipped with a TAE 125-02-99 engine. We are issuing this AD to prevent engine in-flight shutdown or power loss, possibly resulting in reduced control of the airplane.

(e) Actions and Compliance

Unless already done, within 110 flight hours after the effective date of this AD, or at the next scheduled maintenance, whichever occurs first, do the following.

(1) Remove the oil filler plug and check for chips blocking the vent hole in accordance with TAE Service Bulletin (SB) TM TAE 125-1015 P1, Initial Issue, dated April 27, 2012.

(2) If chips are found during the inspection in paragraph (e)(1) of this AD, disassemble the gearbox and check the radial shaft sealing rings (at the clutch and the propeller shaft) for leakage. If leakage is noted, replace the gearbox before the next flight.

(f) Installation Prohibition

After the effective date of this AD, do not install a gearbox with a S/N listed in TAE SB TM TAE 125-1015 P1, Initial Issue, dated April 27, 2012, into any engine unless the oil filler plug has passed the inspection required by paragraph (e)(1) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19.

(h) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: frederick.zink@faa.gov; telephone (781) 238-7779; fax (781) 238-7199.

(2) Refer to MCAI Airworthiness Directive No. 2012-0112, dated June 22, 2012, and TAE SB TM TAE 125-1015 P1, Initial Issue, dated April 27, 2012 for related information.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Thielert Aircraft Engines GmbH (TAE) Service Bulletin TM TAE 125-1015 P1, Initial Issue, dated April 27, 2012.

(ii) Reserved.

(3) For TAE service information identified in this AD, contact Thielert Aircraft Engines GmbH, Platanenstrasse 14 D-09350, Lichtenstein, Germany, telephone: 37204-696-0; fax: 37204-696-2912; email: info@centurion-engines.com.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information 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 December 27, 2012.
Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.