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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0241; Product Identifier 2017-NE-09-AD; Amendment 39-19045; AD 2017-19-15]

RIN 2120-AA64

Airworthiness Directives; Technify Motors GmbH Reciprocating Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Technify Motors GmbH TAE 125-02 reciprocating engines. This AD requires replacement of the clutch with a dual mass flywheel. This AD was prompted by a loss of engine power in flight caused by oil leaking from the gearbox radial shaft sealing ring that contaminated the clutch. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD becomes effective October 31, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 31, 2017.

ADDRESSES: For service information identified in this final rule, contact Technify Motors GmbH, Platanenstrasse 14, D-09356 Sankt Egidien, Germany; phone: +49 37204 696 0; fax: +49 37204 696 29125; email: info@centurion-engines.com. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0241.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0241; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30,

West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Robert Green, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM was published in the Federal Register on May 5, 2017 (82 FR 21144). The NPRM proposed to correct an unsafe condition for the specified products. The mandatory continuing airworthiness information (MCAI) states:

> A temporary power loss occurred during flight on a TAE 125-02-powered aeroplane. Following investigation, it was determined that an improper lapping of the gearbox driveshaft led to insufficient sealing of the gearbox radial shaft sealing ring, eventually resulting in oil leakage and oil contamination of the clutch.
>
> This condition, if not detected and corrected, could lead to permanent engine power loss, possibly resulting in reduced control of the aeroplane.

You may obtain further information by examining the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0241.

Comments

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

Revision to Economic Estimate

We corrected the estimate of work hours from 0 in the NPRM to 4 in this final rule. This revision increases the estimate of the cost per product from $5,805 in the NPRM to $6,145 in this final rule. The total cost was correctly estimated at $24,580 in the NPRM and is therefore unchanged in this final rule.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed except for minor editorial changes and the minor revisions to the costs of compliance section noted above. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

Technify Motors GmbH has issued Service Bulletin (SB) No. SB TMG 125-1020 P1, Initial Issue, dated January 27, 2016. The SB describes procedures for replacing the clutch with a dual mass

flywheel. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 4 engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace clutch and gearbox	4 work-hours × $85 per hour = $340	$5,805	$6,145	$24,580

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

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),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) 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.

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 airworthiness directive (AD):

2017-19-15 Technify Motors GmbH: Amendment 39-19045; Docket No. FAA-2017-0241; Product Identifier 2017-NE-09-AD.

(a) Effective Date

This AD becomes effective October 31, 2017.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Technify Motors GmbH TAE 125-02-99 (commercial designation CD-135, formerly Centurion 2.0) and TAE 125-02-114 (commercial designation CD-155, formerly Centurion 2.0S) reciprocating engines with a gearbox serial number (S/N) listed in Figure 1 to paragraph (c) of this AD.

Figure 1 to Paragraph (c) of This AD–Gearbox S/Ns

00095	00107	00139	00160	00171	00172	00179	00189	00224
00327	00396	00432	00459	00481	00564	00688	00697	00884
00923	00957	01019	01048	01081	01082	01106	01125	01236
01237	01241	01245	01288	01311	01314	01351	01357	01361
01388	01418	01427	01487	01529	01534	01561	01598	01634
01655	01704	01711	01755	01762	01786	01844	01881	01883
01884	01887	01891	01893	01904	01928	01933	01935	01951
01977	01978	01986	02026	02040	02041	02127	02141	02167
02189	02228	02289	02298	02304	02314	02316	02354	02432

(d) Subject

Joint Aircraft System Component (JASC) Code 8510, Reciprocating Engine Front Section.

(e) Reason

This AD was prompted by a loss of engine power in flight caused by oil leaking from the gearbox radial shaft sealing ring that contaminated the clutch. We are issuing this AD to prevent failure of the clutch, loss of engine power in flight, and reduced control of the airplane.

(f) Compliance

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

(2) Within 55 flight hours after the effective date of this AD:

(i) Replace the clutch with a dual mass flywheel. Use Technify Motors Service Bulletin (SB) No. SB TMG 125-1020 P1, Initial Issue, dated January 27, 2016, to do the replacement.

(ii) Install a start phase monitoring system and software mapping in accordance with the requirements of FAA AD 2015-21-01 (80 FR 64314, October 23, 2015); and

(iii) Inspect the rear radial shaft sealing ring on the gearbox for oil leakage in accordance with Figures 2 and 3 of Technify Motors SB No. SB TMG 125-1020 P1, Initial Issue, dated January 27, 2016. If an oil leak is detected, replace the gearbox with a part eligible for installation before the next flight.

(g) Installation Prohibition

After the effective date of this AD:

(1) Do not install an engine that is equipped with a clutch and has an affected gearbox listed in Figure 1 to paragraph (c) of this AD;

(2) Do not install an affected gearbox on an engine unless it has passed the inspection required by paragraph (f)(2)(iii) of this AD; and

(3) Do not install a clutch on an engine previously modified in accordance with the requirements of paragraph (f)(2) of this AD or already incorporating a dual mass flywheel.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ECO Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Robert Green, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2017-0034, dated February 20, 2017, for more information. You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2017-0241.

(j) 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) Technify Motors GmbH Service Bulletin No. SB TMG 125-1020 P1, Initial Issue, dated January 27, 2016.

(ii) Reserved.

(3) For Technify Motors GmbH service information identified in this AD, contact Technify Motors GmbH, Platanenstrasse 14, D-09356 Sankt Egidien, Germany; phone: +49 37204 696 0; fax: +49 37204 696 29125; email: info@centurion-engines.com. You may view this referenced service information at FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(4) 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 September 13, 2017.
Robert J. Ganley,
Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.