



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9167; Directorate Identifier 2016-NE-20-AD]

RIN 2120-AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain General Electric Company (GE) GE90 turbofan engines. This proposed AD was prompted by a report of an engine and airplane fire. This proposed AD would require replacing affected fuel/oil lube/servo coolers (“main heat exchangers”) with a part eligible for installation. We are proposing this AD to prevent failure of a main heat exchanger, which could result in an engine fire.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215, phone: 513-552-3272; email: aviation.fleetsupport@ge.com. You may view this referenced service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

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-2016-9167; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: John Frost, Aerospace Engineer, Engine Certification Office, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7756; fax: 781-238-7199; email: john.frost@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this NPRM. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA- FAA-2016-9167; Directorate Identifier 2016-NE-20-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

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 we receive about this NPRM.

Discussion

We propose to adopt an AD for certain GE GE90-76B, GE90-85B, GE90-90B, GE90-94B, GE90-110B1, and GE90-115B turbofan engines with a main heat exchanger, part number (P/N) 1838M88P11 or 1838M88P13.

This proposed AD is prompted by a report of an airplane fire caused by a failed main heat exchanger. The incident investigation determined the cause to be an internal main heat exchanger tube separation, which resulted in leakage of fuel into the oil system, causing oil sump flooding that overwhelmed the scavenge and venting system. This condition, if not corrected, could result in failure of a main heat exchanger, which could cause an engine fire. To correct this unsafe condition, we propose to require replacing the main heat exchanger with a part not affected by this proposed AD or with a part that is repaired in accordance with the manufacturer's service information.

Related Service Information under 1 CFR part 51

We reviewed GE Service Bulletin (SB) GE90-100 SB 79-0034, Revision 03, dated August 5, 2016, and SB GE90 SB 79-0058, Revision 02, dated August 5, 2016. This service information describes procedures to replace and repair a main heat exchanger. These documents are distinct since they apply to different engine models.

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.

FAA’s Determination

We are proposing 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.

Proposed AD Requirements

This proposed AD would require replacing the affected main heat exchangers with a part eligible for installation.

Costs of Compliance

We estimate that this proposed AD affects 185 engines installed on airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace main heat exchanger	5 work-hours X \$85 per hour = \$425	\$7,000	\$7,425	\$1,373,625

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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 proposed regulation:

- (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, 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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

General Electric Company: Docket No. FAA-2016-9167; Directorate Identifier 2016-NE-20-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to General Electric Company (GE) GE90-76B, GE90-85B, GE90-90B, GE90-94B, GE90-110B1, and GE90-115B turbofan engines with a fuel/oil lube/servo cooler (“main heat exchanger”) part number (P/N) 1838M88P11 or 1838M88P13, with a serial number listed in paragraph 1.A of GE Service Bulletin (SB) GE90-100 SB 79-0034, Revision 03, dated August 05, 2016; or SB GE90 SB 79-0058, Revision 02, dated August 05, 2016.

(d) Subject

Joint Aircraft System Component (JASC) Code 7921, Engine Oil Cooler.

(e) Unsafe Condition

This AD was prompted by an engine and airplane fire. We are issuing this AD to prevent failure of a main heat exchanger, which could result in an engine fire.

(f) Compliance

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

(g) Required Actions

Within 12 months after the effective date of this AD, replace the main heat exchanger with a part eligible for installation.

(h) Definition

For purposes of this AD, a part eligible for installation is a main heat exchanger with a P/N and serial number not listed in paragraph (c) of this AD or a main heat exchanger repaired in accordance with the Accomplishment Instructions, paragraphs 3.C.(2) through 3.C.(7), of GE SB GE90-100 SB 79-0034, dated December 3, 2014; Revision 01, dated August 14, 2015; Revision 02, dated November 6, 2015; or Revision 03, dated August 5, 2016; or GE SB GE90 SB 79-0058, dated August 18, 2015; Revision 01, dated December 10, 2015; or Revision 02, dated August 05, 2016.

(i) Alternative Methods of Compliance (AMOCs)

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

(j) Related Information

(1) For more information about this AD, contact John Frost, Aerospace Engineer, Engine Certification Office, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7756; fax: 781-238-7199; email: john.frost@faa.gov.

(2) For service information identified in this AD, contact General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215, phone: 513-552-3272; email: aviation.fleetsupport@ge.com.

(3) You may view this referenced service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on November 16, 2016.

Colleen M. D'Alessandro,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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