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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-3585; Directorate Identifier 2015-NE-22-AD; Amendment 39-18384; AD 2015-28-01]

RIN 2120-AA64

Airworthiness Directives; Engine Alliance Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Engine Alliance (EA) GP7270 turbofan engines. This AD was prompted by the manufacturer informing us that the inspection criteria and repair procedures in the maintenance manual for aft bolt holes of the high-pressure compressor (HPC) cone shaft on the affected engines is incorrect. This AD requires inspection of the HPC cone shaft and repair of affected parts, if needed. We are issuing this AD to prevent failure of the HPC cone shaft, which could lead to uncontained engine failure and damage to the airplane.

DATES: This AD is effective March 1, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 1, 2016.

ADDRESSES: For service information identified in this AD, contact Engine Alliance, 400 Main St., East Hartford, CT 06108, M/S 169-10, phone: 800-565-0140; email: help24@pw.utc.com; Internet: sp.engineallianceportal.com. You may view this 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-2015-3585; 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 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: Kyle Gustafson, Aerospace Engineer, Engine & Propeller Directorate, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7183; fax: 781-238-7199; email: kyle.gustafson@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 certain EA GP7270 turbofan engines. The NPRM published in the Federal Register on October 1, 2015 (80 FR 59081). The NPRM was prompted by the manufacturer informing us that the inspection criteria and repair procedures in the maintenance manual for aft bolt holes of the HPC cone shaft, also referred to as the "HPC forward stubshaft," for the affected engines is incorrect. The NPRM proposed to require inspection of the HPC cone shaft and repair of affected parts, if needed. We are issuing this AD to prevent failure of the HPC cone shaft, which could lead to uncontained engine failure and damage to the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (80 FR 59081, October 1, 2015) and the FAA's response to each comment.

Request To Add Engine Models

EA requested that we expand the applicability to include the GP7272 and GP7277 engine models.

We disagree. There are no GP7272 or GP7277 engines in service nor have any been delivered. New engines would be delivered with corrected service information and would not be impacted by this AD. We did not change this AD.

Request To Change the Unsafe Condition Statement

EA requested that the unsafe condition statement be changed from "We are issuing this AD to prevent failure of the HPC cone shaft, which could lead to uncontained engine failure and damage to the airplane." to "We are issuing this AD to prevent a hazardous engine condition." The reason for this request is that no HPC cone shaft failures have occurred in the field.

We disagree. The unsafe condition statement describes the condition we are trying to prevent and is the justification for this AD. It does not describe what has occurred in the past. We did not change this AD.

Request To Change Various Paragraphs

EA requested that we revise the part nomenclature in the Applicability, Compliance, and Installation Prohibition paragraphs and in the unsafe condition statement to include both "cone shaft" and "forward stubshaft." The part is referenced as a "cone shaft" in this AD and engine and component manuals; however, it is referred to as a "forward stubshaft" in the service bulletins (SBs).

We disagree. The part nomenclature listed in the airworthiness limitations section and engine maintenance manual is "cone shaft." The Discussion section of this AD explains that the terms "cone

shaft" and "forward stubshaft" are synonymous. We consider including both terms throughout this AD unnecessary. We did not change this AD.

Request To Revise the Compliance

EA requested that the Compliance paragraph be revised to include the word "pits" when describing the inspection criteria.

We agree. We revised paragraph (e)(1) and (f)(1) of this AD from ". . . nicks, dents, and scratches . . ." to ". . . nicks, dents, pits, and scratches. . . ."

Request To Change the Compliance

EA requested that we replace "Do not reinstall the HPC cone shaft if the aft bolt hole has a nick, dent, or scratch that is greater than 0.002 inch in depth" in paragraph (e)(1) of this AD with "Comply with the Accomplishment Instructions in EA SB No. EAGP7-72-330 if the aft bolt hole has a nick, dent, pit, or scratch that is greater than the serviceable limit."

We disagree. The current engine manual has an approved repair procedure for damage that is more severe than the installation requirements of this AD. It is not necessary to restate what is already allowed by the engine manual. We did not change this AD.

Request To Change Service Information

EA requested that the phrase "or later" be used when referring to SBs.

We disagree. We are only authorized to mandate use of SBs that we have reviewed and which are published. Since future revisions of SBs are not yet published, we are not authorized to mandate their use. We did not change this AD.

Request To Change the Installation Prohibition

EA requested that we change the Installation Prohibition paragraph to read: "After the effective date of this AD, do not install an HPC cone shaft onto an engine: (1) that has accumulated more than 9,000 cycles since new that has not complied with this AD on an applicable part, and (2) has a nick, dent, or scratch in an HPC cone shaft aft bolt hole that is greater than the serviceable limit."

We disagree. The intent of the Installation Prohibition paragraph is to mandate the new serviceable limit of 0.002 inch for damage to the inner diameter of the bolt holes for the entire GP7270 fleet. Any parts with damage beyond this limit may be repaired using the approved procedures listed in the engine manual, provided that you include shot peening as required by paragraph (f)(2) of this AD. We did not change this AD.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information Under 1 CFR Part 51

EA has issued SB No. EAGP7-72-329, dated July 21, 2015 and SB No. EAGP7-72-330, dated July 21, 2015. The service information describes procedures for shotpeening the HPC forward stubshaft and inspecting the HPC forward stubshaft bolt-hole inner diameter respectively. 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 of this final rule.

Costs of Compliance

We estimate that this AD affects zero engines installed on airplanes of U.S. registry. The average labor rate is $85 per hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be $0.

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

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 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):

2015-28-01 Engine Alliance: Amendment 39-18384; Docket No. FAA-2015-3585; Directorate Identifier 2015-NE-22-AD.

(a) Effective Date

This AD is effective March 1, 2016.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Engine Alliance (EA) GP7270 turbofan engines with a high-pressure compressor (HPC) cone shaft, part number 382-100-907-0, installed.

(d) Unsafe Condition

This AD was prompted by the manufacturer informing us that the inspection and repair criteria in the maintenance manual for aft bolt holes of the HPC cone shaft on the affected engines is incorrect. We are issuing this AD to prevent failure of the HPC cone shaft, which could lead to uncontained engine failure and damage to the airplane.

(e) Compliance

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

(1) For HPC cone shafts with serial numbers listed in EA Service Bulletin (SB) No. EAGP7-72-330, dated July 21, 2015, inspect the inner diameter of the HPC cone shaft aft bolt holes for nicks, dents, pits, and scratches before accumulating 9,000 cycles since new (CSN). Do not reinstall the HPC cone shaft if the aft bolt hole has any nicks, dents, pits, or scratches that are greater than 0.002 inch in depth.

(2) For HPC cone shafts with serial numbers listed in EA SB No. EAGP7-72-329, dated July 21, 2015, shot peen the HPC cone shaft aft bolt holes before accumulating 9,000 CSN. Use paragraph 1 of the Accomplishment Instructions in EA SB No. EAGP7-72-329 to do the shot peening.

(f) Installation Prohibition

After the effective date of this AD, do not install an HPC cone shaft on any engine with the following:

(1) any nicks, dents, pits, or scratches in an HPC cone shaft aft bolt hole that is greater than 0.002 inch in depth; or

(2) any repair of an HPC cone shaft aft bolt hole that did not include shot peening.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, 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.

(h) Related Information

For more information about this AD, contact Kyle Gustafson, Aerospace Engineer, Engine & Propeller Directorate, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7183; fax: 781-238-7199; email: kyle.gustafson@faa.gov.

(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) Engine Alliance (EA) Service Bulletin (SB) No. EAGP7-72-329, dated July 21, 2015.

(ii) EA SB No. EAGP7-72-330, dated July 21, 2015.

(3) For EA service information identified in this AD, contact Engine Alliance, 400 Main St., East Hartford, CT 06108, M/S 169-10; phone: 800-565-0140; email: help24@pw.utc.com; Internet: sp.engineallianceportal.com.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, 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 January 13, 2016.
Gaetano Sciortino,
Acting Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.