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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0414; Product Identifier 2019-NE-15-AD; Amendment 39-19656; AD 2019-12-01]

RIN 2120-AA64

Airworthiness Directives; CFM International S.A. Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain CFM International S.A. (CFM) LEAP-1B21, -1B23, -1B25, -1B27, -1B28, -1B28B1, -1B28B2, -1B28B3, -1B28B2C, -1B28BBJ1, and -1B28BBJ2 model turbofan engines. This AD requires initial and repetitive inspections of the transfer gearbox (TGB) scavenge screens and, depending on the results of the inspection, possible removal of the engine from service. This AD was prompted by multiple reports of in-flight shutdowns (IFSDs) due to radial drive shaft (RDS) bearing failure. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective July 3, 2019.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of July 3, 2019.

The FAA must receive comments on this AD by August 2, 2019.

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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact CFM International Inc., Aviation Operations Center, 1 Neumann Way, M/D Room 285, Cincinnati, OH 45125; phone: 877-432-3272;

fax: 877-432-3329; email: aviation.fleetsupport@ge.com. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2019-0414.

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-2019-0414; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Christopher McGuire, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7120; fax: 781-238-7199; email: chris.mcguire@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA learned of five commanded IFSD events that occurred on certain CFM LEAP-1B model turbofan engines beginning in August 2018. CFM's investigations identified debris on the TGB scavenge screen, A-sump screen, and other screens. Subsequently, CFM determined that these IFSD events were the result of inadequate oil flow to the RDS bearing, which caused the RDS bearing cage to fail. This condition, if not addressed, could result in failure of one or more engines, loss of thrust control, and loss of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information Under 1 CFR part 51

The FAA reviewed CFM Service Bulletin (SB) LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019. The SB describes procedures for inspections of TGB scavenge screens and borescope inspection (BSI) of the RDS bearing. 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.

Other Related Service Information

The FAA reviewed CFM SB LEAP-1B-72-00-0256-01A-930A-D, Issue 003, dated May 17, 2019. The SB describes procedures for an optional BSI of the RDS bearing. CFM has cancelled this SB and transferred its content to CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019.

FAA's Determination

The FAA is issuing this AD because it 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.

AD Requirements

This AD requires initial and repetitive inspections of the TGB scavenge screens and, depending on the results of the inspection, possible removal of the engine from service.

Interim Action

The FAA considers this AD interim action. The manufacturer is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, the FAA might consider additional rulemaking.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule. The affected CFM LEAP-1B model turbofan engines experienced multiple RDS bearing cage failures in the last five months resulting in five IFSDs. The TGB scavenge screens must be inspected before accumulating between 100-250 flight hours since new on the RDS bearing or within 50 FHs after the effective date of this AD to prevent the failure of the RDS bearing, which could lead to in-flight shutdown of both engines, loss of thrust control, and loss of the airplane. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason stated above, the FAA finds 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, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2019-0414 and Product Identifier 2019-NE-15-AD at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

The FAA will post all comments received, without change, to http://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this final rule.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 136 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspect TGB scavenge screens	1 work-hour × $85 per hour = $85	$0	$85	$11,560

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.

The FAA is 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 associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

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, and

(2) Will not affect intrastate aviation in Alaska.

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):

2019-12-01 CFM International S.A.: Amendment 39-19656; Docket No. FAA-2019-0414; Product Identifier 2019-NE-15-AD.

(a) Effective Date

This AD is effective July 3, 2019.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all CFM International S.A. (CFM) LEAP-1B21, -1B23, -1B25, -1B27, -1B28, -1B28B1, -1B28B2, -1B28B3, -1B28B2C, -1B28BBJ1, and -1B28BBJ2 model turbofan engines with radial drive shaft (RDS) bearing, part number (P/N) 92D08200 or P/N 92D08201, installed.

(d) Subject

Joint Aircraft System Component (JASC) Code 7260, Turbine Engine Accessory Drive.

(e) Unsafe Condition

This AD was prompted by multiple reports of in-flight shutdowns (IFSDs) due to RDS bearing cage failure. The FAA is issuing this AD to prevent failure of the RDS bearing. The unsafe condition, if not addressed, could result in failure of one or more engines, loss of thrust control, and loss of the airplane.

(f) Compliance

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

(g) Required Actions

(1) Inspect the transfer gearbox (TGB) 1 and TGB2 scavenge screens in accordance with the Accomplishment Instructions, paragraph 5.A.(1), of CFM Service Bulletin (SB) LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019, as follows:

(i) For affected engines with engine serial number (ESN) 602499 and lower:

(A) After the RDS bearing accumulates 50 flight hours (FHs) since new but before accumulating 250 FHs since new, or within 50 FHs after the effective date of this AD, whichever occurs later, perform an initial inspection of the TGB1 and TGB2 scavenge screens.

(B) Thereafter, perform repetitive inspections of the TGB1 and TGB2 scavenge screens at intervals not exceeding 250 FHs since the last inspection.

(ii) For affected engines with ESN 602500 and higher:

(A) After the RDS accumulates 50 FHs since new but before accumulating 100 FHs since new, or within 50 FHs after the effective date of this AD, whichever occurs later, perform an initial inspection of the TGB1 and TGB2 scavenge screens.

(B) Thereafter, perform repetitive inspections of the TGB1 and TGB2 scavenge screens at intervals not exceeding 100 FHs since the last inspection.

(iii) Based on the results of these inspections, remove the engine from service or return the engine to service using the criteria in the Accomplishment Instructions, Paragraphs 5.A.(2) through 5.A.(5), of CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019.

(2) [Reserved]

(h) Optional Borescope Inspection (BSI)

(1) Once the RDS bearing has accumulated 1,000 FHs since new, you may perform a BSI of the RDS bearing in accordance with the Accomplishment Instructions, paragraphs 5.B.(1) through 5.B.(8), of CFM SB LEAP-1B-72-00-0222-01A-930A-D dated May 17, 2019. If the results of this BSI are "satisfactory" according to the criteria in the Accomplishment Instructions, paragraphs 5.B.(6)(g), of CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019, then you are not required to perform the repetitive inspections in paragraphs (g)(1)(i)(B) or (g)(1)(ii)(B) of this AD until the RDS bearing accumulates 4,250 FHs since new.

(2) [Reserved]

(i) Optional Terminating Action

(1) As an optional terminating action to the repetitive inspections required by paragraphs (g)(1)(i)(B) and (g)(1)(ii)(B) of this AD, you may perform a BSI of the RDS bearing in accordance with the Accomplishment Instructions, Paragraphs 5.B.(1) through 5.B.(8), of CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019 after the RDS bearing accumulates 3,750 FHs since new.

(i) If the results of the BSI are "satisfactory" using the criteria in Accomplishment Instructions, paragraph 5.B.(6)(g), of CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019, then you have met the repetitive inspection requirements of this AD and no further action is required.

(ii) If the results of the BSI are "unsatisfactory" using the criteria in Accomplishment Instructions, paragraph 5.B.(6)(g), of CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019, then you must continue the repetitive inspections required by paragraphs (g)(1)(i)(B) or (g)(1)(ii)(B) of this AD.

(2) [Reserved]

(j) Definition

For the purpose of this AD, "flight hours (FHs) since new" are the FHs accumulated on the RDS bearings on new engines delivered from production and on engines that have had the RDS bearing replaced during an engine shop visit.

(k) No Reporting Requirement

The reporting requirement in paragraph 5.A.(6) in CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019, is not required by this AD.

(l) Credit for Previous Actions

You may take credit for the inspections that are required by paragraph (g)(1) of this AD, if you performed those actions before the effective date of this AD using CFM SB LEAP-1B-72-00-0222-01A-930A-D, Issue 006, dated March 22, 2019, or an earlier revision. You may also take credit for the optional BSI in paragraphs (h)(1) or the optional terminating inspection in paragraph (i)(1) of this AD, if you performed that action before the effective date of this AD using CFM SB LEAP-1B-72-00-0256-01A-930A-D, Issue 002, dated May 6, 2019, or an earlier revision.

(m) 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 certification office, send it to the attention of the person identified in paragraph (n) 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.

(n) Related Information

For more information about this AD, contact Christopher McGuire, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7120; fax: 781-238-7199; email: chris.mcguire@faa.gov.

(o) 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) CFM Service Bulletin LEAP-1B-72-00-0222-01A-930A-D, Issue 007, dated May 17, 2019.

(ii) [Reserved]

(3) For CFM service information identified in this AD, contact CFM International Inc., Aviation Operations Center, 1 Neumann Way, M/D Room 285, Cincinnati, OH, 45125; phone: 877-432-3272; fax: 877-432-3329; email: aviation.fleetsupport@ge.com.

(4) You may view this service information at FAA, Engine & Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

(5) You may view this service information that is incorporated by reference 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 June 14, 2019.

Karen M. Grant,

Acting Manager, Engine & Propeller Standards Branch, Aircraft Certification Service.

[FR Doc. 2019-13022 Filed 6-17-19; 8:45 am]