[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0213; Product Identifier 2019-NE-03-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG 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 Rolls-Royce Deutschland Ltd & Co KG (RRD) model Tay 611-8C turbofan engines. This proposed AD was prompted by reports of low-pressure compressor (LPC) rotor blade retention lug failures. This proposed AD would limit the service life of the LPC rotor blades based on the number of dry-film lubricant (DFL) re-applications. We are proposing this AD to address the unsafe condition on these products.

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 Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, Blankenfelde-Mahlow, Germany; phone: +49 0 33-7086-4040; fax: +49 0 33-7086-51-4040; email: rrd.techhelp@rolls.royce. You may view this service information at the 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.

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-2019-0213; 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 NPRM, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Barbara Caufield, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7754; fax: 781-238-7199; email: barbara.caufield@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0213; Product Identifier 2019-NE-03-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

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2018-0055, dated March 12, 2018 (referred to after this as "the MCAI"), to address the unsafe condition on these products. The MCAI states:

> The airworthiness limitations for the Tay 611-8C engines, which are approved by EASA, are currently defined and published in the ALS. Among others, the ALS contains limitation(s) applicable to the maximum number of Dry Film Lubrication (DFL) treatments applied on fan blade retention lugs. These instructions have been identified as mandatory for continued airworthiness.
>
> Failure to accomplish these instructions could result in an unsafe condition.
>
> In addition to the ALS, RRD issued the NMSB to provide alternative methods to establish, in case this cannot be determined from the engine maintenance records, the number of DFL treatments that have been applied to an engine.

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-2019-0213.

Related Service Information under 1 CFR Part 51

We reviewed RRD Non-Modification Service Bulletin (NMSB) TAY-72-1835, Initial Issue, dated December 15, 2017. The service information describes procedures for marking the LPC rotor blades with a suffix code during the next scheduled LPC fan blade removal. 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

This product has been approved by Germany and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all the relevant information provided by EASA 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 a determination of the number of DFL re-applications that have been applied to the LPC rotor blades and, depending on the number of DFL re-applications, replacement of LPC rotor blades.

Differences Between this Proposed AD and the MCAI or Service Information

This proposed AD and EASA AD 2018-0055 do not include the RRD Tay 611-8 model turbofan engines in the Applicability section, while RRD NMSB TAY-72-1835, Initial Issue, dated December 15, 2017, does include this engine model. For the RRD Tay 611-8 engines, EASA has already approved the new limitation to the service life of the blade. In addition, RRD has revised the aircraft maintenance program, on the basis of which the operator or the owner ensures the continuing airworthiness of each operated

airplane (on which an affected engine is installed), to limit the number of DFL applications, as specified in this AD.

Costs of Compliance

We estimate that this proposed AD affects 12 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
Record Search to establish number of DFL applications	1.5 work-hours X $85 per hour = $127.50	$0	$127.50	$1,530

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replace LPC blade	2 work-hours X $85 per hour = $170	$11,270	$11,440

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

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):

Rolls-Royce Deutschland Ltd & Co KG: Docket No. FAA-2019-0213; Product Identifier 2019-NE-03-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 Rolls-Royce Deutschland Ltd & Co KG (RRD) Tay 611-8C turbofan engines, with low-pressure compressor (LPC) rotor blades, part number (P/N) JR58319, installed.

(d) Subject

Joint Aircraft System Component (JASC) Code, 7230 Turbine Engine Compressor Section.

(e) Unsafe Condition

This AD was prompted by reports of LPC rotor blade retention lug failures. We are issuing this AD to prevent failure of the LPC rotor blade. The unsafe condition, if not addressed, could result in loss of engine power in flight, and reduced control of the airplane.

(f) Compliance

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

(g) Required Actions

(1) Within 30 days after the effective date of this AD, determine the number of dry film lubrication (DFL) re-applications that were applied to each LPC rotor blade by reviewing the maintenance records. If a complete record of the total number of DFL re-applications is unavailable, count one DFL re-application for every 1,300 flight cycles of blade use.

(i) If the number of DFL re-applications is less than 13, mark the LPC rotor blade with a suffix code during the next scheduled LPC fan blade removal using the instructions in the Accomplishment Instructions, paragraph 3.B.(1)(c)[2] or 3.F.(1)(c)[2], as applicable, of RRD Non-Modification Service Bulletin TAY-72-1835, Initial Issue, dated December 15, 2017.

(ii) If the number of DFL treatments is 13 or more, replace the LPC rotor blade with a part eligible for installation before next flight.

(2) [Reserved]

(h) Installation Prohibition

After the effective date of this AD, do not install a LPC rotor blade on any engine unless it has been determined that the LPC rotor blade has less than 13 DFL re-applications and has been marked in accordance with paragraph (g)(1)(i) of this AD.

(i) 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 (j)(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.

(j) Related Information

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

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2018-0055, dated March 12, 2018, for more information. You may examine the EASA AD in the AD docket on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2019-0213.

(3) For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, Blankenfelde-Mahlow, Germany; phone: +49 0 33-7086-4040; fax: +49 0 33-7086-51-4040; email: rrd.techhelp@rolls.royce. You may view this referenced service information at the 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.

Issued in Burlington, Massachusetts, on April 30, 2019.

Robert J. Ganley,
Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.
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