[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-2538; Project Identifier MCAI-2023-01211-E]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2022-24-06, which applies to certain Rolls-Royce Deutschland Ltd & Co KG (RRD) Model BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 engines. AD 2022-24-06 requires initial and repetitive visual inspections of certain low-pressure compressor (LPC) rotor (fan) disks and replacement of any LPC rotor (fan) disk with cracks detected. AD 2022-24-06 also allows for modification of the engine in accordance with RRD service information as a terminating action to these inspections. Since the FAA issued AD 2022-24-06, the manufacturer published updated service information and revised the engine maintenance manual (EMM) to provide instructions for an improved ultrasonic inspection method, which prompted this AD. This proposed AD would require initial and repetitive visual inspections of certain LPC rotor (fan) disks and replacement of any LPC rotor (fan) disk with cracks detected and would allow modification of the engine as a terminating action to the inspections, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this NPRM 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 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.

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2024-2538; 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) any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

• For EASA material identified in this proposed AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu.

• You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

FOR FURTHER INFORMATION CONTACT: Barbara Caufield, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7146; email: barbara.caufield@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2024-2538; Project Identifier MCAI-2023-01211-E" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Barbara Caufield, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198. Any

commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2022-24-06, Amendment 39-22246 (87 FR 73919, December 2, 2022) (AD 2022-24-06), for certain RRD Model BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 engines. AD 2022-24-06 was prompted by an MCAI originated by EASA, which is the Technical Agent for the Member States of the European Union. EASA issued AD 2022-0110, dated June 15, 2022 (EASA AD 2022-0110), to correct an unsafe condition identified as cracks on certain LPC rotor (fan) disks.

AD 2022-24-06 requires initial and repetitive visual inspections of certain LPC rotor (fan) disks and replacement of any LPC rotor (fan) disk with cracks detected. The FAA issued AD 2022-24-06 to prevent failure of the LPC rotor fan or blade.

Actions Since AD 2022-24-06 was Issued

Since the FAA issued AD 2022-24-06, EASA superseded EASA AD 2022-0110 and issued AD 2022-0110R1, dated November 22, 2023 (EASA AD 2022-0110R1) (also referred to as the MCAI). The MCAI states that the manufacturer published updated service information and revised the EMM to provide instructions for an improved ultrasonic inspection method for certain LPC rotor (fan) disks.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2024-2538.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed EASA AD 2022-0110R1, which specifies procedures for initial and repetitive visual inspections of certain LPC rotor (fan) disks, and replacement of any LPC rotor (fan) disk with cracks detected. This material 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

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would retain all of the requirements of AD 2022-24-06. This proposed AD would require accomplishing the actions specified in the MCAI described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 586 engines installed on airplanes of U.S. registry.

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

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Inspect LPC compressor rotor (fan) disk	4 work-hours x $85 per hour = $340	$0	$340	$199,240

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. The agency has no way of determining the number of engines that might need these replacements:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Replace LPC compressor rotor (fan) disk	10 work-hours x $85 per hour = $850	$470,000	$470,850

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.

Regulatory Findings

The FAA 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 that the proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would 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:

a. Removing Airworthiness Directive 2022-24-06, Amendment 39-22246 (87 FR 73919, December 2, 2022); and

b. Adding the following new airworthiness directive:

Rolls-Royce Deutschland Ltd & Co KG: Docket No. FAA-2024-2538; Project Identifier MCAI-2023-01211-E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2022-24-06, Amendment 39-22246 (87 FR 73919, December 2, 2022) (AD 2022-24-06).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) Model BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 engines as identified in

European Union Aviation Safety Agency AD 2022-0110R1, dated November 22, 2023 (EASA AD 2022-0110R1).

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by reports of cracks on certain low-pressure compressor (LPC) rotor (fan) disks. The FAA is issuing this AD to prevent failure of the LPC rotor fan or blade. The unsafe condition, if not addressed, could result in high energy debris release, damage to the airplane, and reduced control of the airplane.

(f) Compliance

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

(g) Required Actions

Except as specified in paragraphs (h) and (i) of this AD: Perform all required actions within the compliance times specified in, and in accordance with, EASA AD 2022-0110R1.

(h) Exceptions to EASA AD 2022-0110R1

(1) Where EASA AD 2022-0110R1 requires compliance from its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2022-0110R1 requires compliance from "29 June 2022 [the effective date of the original issue of this AD]," this AD requires replacing that text with "January 6, 2023 (the effective date of AD 2022-24-06)."

(3) This AD does not require compliance with paragraph (7) of EASA AD 2022-0110R1. The actions required by paragraph 7 of EASA AD 2022-0110R1 were included in AD 2022-26-02, Amendment 39-22280 (87 FR 78846, December 23, 2022), and for this AD may be used for informational purposes.

(4) This AD does not adopt the "Remarks" paragraph of EASA AD 2022-0110R1.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022-0110R1 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, AIR-520 Continued Operational Safety 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 AIR-520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (k) of this AD and email to: 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.

(k) Additional Information

For more information about this AD, contact Barbara Caufield, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7146; email: barbara.caufield@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0110R1, dated November 22, 2023.

(ii) [Reserved]

(3) For EASA material identified in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; website: easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(4) You may view this material at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on November 20, 2024.

Peter A. White,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.

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