This document is scheduled to be published in the Federal Register on 06/14/2023 and available online at **federalregister.gov/d/2023-12697**, and on **govinfo.gov**

[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1211; Project Identifier MCAI-2022-01598-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 adopt a new airworthiness directive (AD) for all Rolls-Royce Deutschland Ltd & Co KG (RRD) Model BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 engines. This proposed AD was prompted by reports of malformed scallop edge geometry and surface conditions at the front flange scallops of affected low-pressure compressor (LPC) booster rotors. This proposed AD would require repetitive fluorescent penetrant inspections (FPIs) of the front flange scallops of the LPC booster rotor for any cracks, replacement or repair of the LPC booster rotor if necessary and, as an optional terminating action to the repetitive FPIs, a visual inspection for malformed scallop edge geometry and malformed surface conditions, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). 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-2023-1211; 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 service information that is proposed for IBR in this NPRM, 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. It is also available at regulations.gov under Docket No. FAA-2023-1211.

• You may view this service information 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: Sungmo Cho, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (781) 238-7241; email: Sungmo.D.Cho@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-2023-1211; Project Identifier MCAI-2022-01598-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 this 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 Sungmo Cho, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590.

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

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2022-0252, dated December 16, 2022 (EASA AD 2022-0252) (referred to after this as the MCAI), to correct an unsafe condition for all RRD Model BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 engines. The MCAI states that occurrences have been reported of finding malformed scallop edge geometry and surface conditions at the front flange scallops of certain LPC booster rotors. To address this unsafe condition, the manufacturer published service information that specifies procedures for inspecting the front flange scallops of the LPC booster rotors with accept and reject criteria. This condition, if not addressed, could lead to failure of the LPC booster rotor, resulting in release of high-energy debris, with consequent engine in-flight shutdown, and reduced control of the airplane.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2023-1211.

Related Service Information under 1 CFR Part 51

The FAA reviewed EASA AD 2022-0252, which specifies procedures for accomplishing repetitive FPIs (on-wing or in-shop) of the front flange scallops of the affected part and, if any cracks are detected, removing the engine from service and contacting the manufacturer for approved corrective actions. EASA AD 2022-0252 also specifies procedures for performing a visual inspection, taking photographs, and submitting photograph documentation of the LPC booster rotor front flange scallops for malformed scallop edge geometry and malformed surface conditions, including validation of the results from the manufacturer, as terminating action for the repetitive FPIs.

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 ADDRESSES.

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 described 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 require accomplishing the actions specified in the MCAI, except as discussed under "Differences Between this Proposed AD and the MCAI," and under Exceptions to EASA AD 2022-0252.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and CAAs to use this process. As a result, the FAA proposes to incorporate by reference EASA AD 2022-0252 in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0252 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions within the compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and

Compliance Time(s)" in EASA AD 2022-0252. Service information required by the EASA AD for compliance will be available at regulations.gov by searching for and locating Docket No. FAA-2023-1211 after the FAA final rule is published.

Differences Between this Proposed AD and the MCAI

Where paragraph (2) of EASA AD 2022-0252 specifies to contact RRD for approved corrective action(s) and accomplish those actions accordingly, this proposed AD would require replacement or repair of the LPC booster rotor.

Where paragraph (3) of EASA AD 2022-0252 specifies to contact RRD for approved corrective action(s) and accomplish those actions accordingly, this proposed AD would require replacement or repair of the LPC booster rotor.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 148 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**
FPI front flange scallops of the LPC booster rotor	5 work-hours x $85 per hour = $425	$0	$425	$62,900

The FAA estimates the following costs to do any necessary replacement, repair, or visual inspection that would be required based on the results of the proposed inspection. Operators have the option of performing a visual inspection of the affected LPC booster rotor as an optional terminating action for the repetitive FPIs. The agency has no way of determining the number of aircraft that might need this replacement, repair, or visual inspection:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Replace the LPC booster rotor	10 work-hours x $85 per hour = $850	$461,897	$462,747
Repair the LPC booster rotor	10 work-hours x $85 per hour = $850	$185,000	$185,850
Visual inspection and photograph documentation of the LPC booster rotor front flange scallops	7 work-hours x $85 per hour = $595	$0	$595
Send Accomplishment Form (Part C) and photographs to RRD	1 hour x $85 per hour = $85	$0	$85

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to take approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory if operators elect to perform the optional terminating action. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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 this 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 adding the following new airworthiness directive:

Rolls-Royce Deutschland Ltd & Co KG: Docket No. FAA-2023-1211; Project Identifier MCAI-2022-01598-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

None.

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) Model BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 engines.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by reports of malformed scallop edge geometry and surface conditions at the front flange scallops of affected low-pressure compressor (LPC) booster rotors. The FAA is issuing this AD to prevent failure of the LPC booster rotor.

The unsafe condition, if not addressed, could result in release of high-energy debris, with consequent engine in-flight shutdown, 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, European Union Aviation Safety Agency (EASA) AD 2022-0252, dated December 16, 2022 (EASA AD 2022-0252).

(h) Exceptions to EASA AD 2022-0252

(1) Where EASA AD 2022-0252 requires compliance from its effective date, this AD requires using the effective date of this AD.

(2) Where paragraph (2) of EASA AD 2022-0252 specifies to contact RRD for approved corrective action(s) and accomplish those actions accordingly, this AD requires replacement of the LPC booster rotor. In lieu of replacement of the affected LPC booster rotor, operators may repair the affected LPC booster rotor using a method approved by the Manager, International Validation Branch, FAA; or EASA; or RRD's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Where paragraph (3) of EASA AD 2022-0252 specifies to contact RRD for approved corrective action(s) and accomplish those actions accordingly, this AD requires replacement of the LPC booster rotor. In lieu of replacement of the affected LPC booster rotor, operators may repair the affected LPC booster rotor using a method approved by the Manager, International Validation Branch, FAA; or EASA; or RRD's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(4) This AD does not adopt the Remarks paragraph of EASA AD 2022-0252.

(5) Where the service information referenced in EASA AD 2022-0252 specifies to reject the engine if a crack is found, this AD requires replacement or repair of the LPC booster rotor.

(i) Reporting Requirement

Although the service information referenced in EASA AD 2022-0252 specifies to submit the Accomplishment Forms, Parts A and B, to the manufacturer, this AD does not include that requirement. If operators elect to perform the optional terminating action specified in Part C of the service information referenced in EASA AD 2022-0252, this AD requires submission of the Part C Accomplishment Form and photographic information to the manufacturer.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation 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 International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD and email 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.

(k) Additional Information

For more information about this AD, contact Sungmo Cho, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (781) 238-7241; email: Sungmo.D.Cho@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference 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) European Union Aviation Safety Agency AD 2022-0252, dated December 16, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0252, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu. You may find EASA AD 2022-0252 on the EASA website at ad.easa.europa.eu.

(4) You may view this service information 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.

(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, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on June 8, 2023.

Michael Linegang, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
[FR Doc. 2023-12697 Filed: 6/13/2023 8:45 am; Publication Date: 6/14/2023]