



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1652; Project Identifier MCAI-2022-01528-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 five airworthiness directives (ADs) for all Rolls-Royce Deutschland Ltd. & Co KG (RRD) Model RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-C-37 engines. The existing ADs require recalculating the cyclic life for certain engine life-limited rotating parts and replacing those parts that have exceeded their cyclic life limit within specified compliance times. Since the FAA issued those ADs the manufacturer has revised the engine time limits manual (TLM), introducing new and more restrictive instructions. This proposed AD would require revising the airworthiness limitations section (ALS) of the existing approved maintenance or inspection program, 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](https://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.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1652; 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, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For service information identified in this NPRM, 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 material on the EASA website at ad.easa.europa.eu. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1652.

- 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, 2200 South 216th Street, Des Moines, WA 98198; 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-2023-1652; Project Identifier MCAI-2022-01528-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 Sungmo Cho, 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 2003-17-15, Amendment 39-13290 (68 FR 51682, August 28, 2003) (AD 2003-17-15); AD 2013-19-17, Amendment 39-17599 (78 FR 61171, October 3, 2013); corrected November 14, 2013 (78 FR 68360) (AD 2013-19-17); AD 2013-19-18, Amendment 39-17600 (78 FR 61168, October 3, 2013) (AD 2013-19-18); AD 2015-17-21, Amendment 39-18254 (80 FR 65925, October 28, 2015) (AD 2015-17-21); and AD 2016-03-04, Amendment 39-18391 (81 FR 6755, February 9, 2016) (AD 2016-03-04) for RRD Model RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-C-37 engines. The FAA also issued AD 2004-19-04, Amendment 39-13798 (69 FR 56683, September 22, 2004); corrected September 30, 2004 (69 FR 58257) for Model RB211-22B, RB211-524, and RB211-535 series engines. Those ADs require recalculating the cyclic life for certain engine life-limited rotating parts and replacing those parts that have exceeded their cyclic life limit within specified compliance times, and revision of the engine TLM. The FAA issued those ADs to prevent failure of critical life-limited rotating engine parts, which could result in uncontained parts release, uncontained engine failure, damage to the engine, and damage to the airplane.

Actions Since the Previous ADs were Issued

Since the FAA issued AD 2003-17-15, AD 2004-19-04, AD 2013-19-17, AD 2013-19-18, AD 2015-17-21, and AD 2016-03-04; EASA, which is the Technical Agent for the Member States of the European Union, issued EASA AD 2022-0235, dated December 1, 2022 (EASA AD 2022-0235) (also referred to after this as the MCAI). The MCAI states that the manufacturer published a revised engine TLM introducing new or more restrictive tasks and limitations. These new or more restrictive tasks and limitations include updating declared lives of certain critical parts.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1652.

Related Service Information under 1 CFR Part 51

The FAA reviewed EASA AD 2022-0235, which specifies instructions for accomplishing the actions specified in the applicable engine TLM, including performing maintenance tasks, replacing life-limited parts, and revising the existing approved maintenance or inspection program, as applicable, by incorporating the limitations, tasks, and associated thresholds and intervals described in the engine TLM. 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 these same type design.

Proposed AD Requirements in this NPRM

This proposed AD would retain none of the requirements of AD 2003-17-15, AD 2013-19-17, AD 2013-19-18, AD 2015-17-21, and AD 2016-03-04. This proposed AD would require revising the existing approved maintenance or inspection program, as applicable, to incorporate more restrictive airworthiness limitations, as specified in EASA AD 2022-0235, except for any differences identified as exceptions in the regulatory text of this proposed AD and as discussed under "Differences Between this Proposed AD and the MCAI." This proposed AD would also terminate all requirements of AD 2004-19-04 for Model RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-C-37 engines only.

Differences Between this Proposed AD and the MCAI

Where paragraph (3) of EASA AD 2022-0235 specifies revising the approved Aircraft Maintenance Programme within 12 months after the effective date of EASA AD 2022-0235, this proposed AD would require revising the ALS of the existing approved maintenance or inspection program, as applicable, within 90 days after the effective date of this AD.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 468 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 |
|---|-------------------------------------|------------|------------------|------------------------|
| Revise the ALS of the existing approved maintenance or inspection program | 1 work-hours x \$85 per hour = \$85 | \$0 | \$85 | \$39,780 |

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 AD 2003-17-15, Amendment 39-13290 (68 FR 51681, August 28, 2003); AD 2013-19-17, Amendment 39-17599 (78 FR 61171, October 3, 2013); corrected November 14, 2013 (78 FR 68360); AD 2013-19-18,

Amendment 39-17600 (78 FR 61168, October 3, 2013); AD 2015-17-21, Amendment 39-18254 (80 FR 65925, October 28, 2015); and AD 2016-03-04, Amendment 39-18391 (81 FR 6755, February 9, 2016); and

b. Adding the following new airworthiness directive:

Rolls-Royce Deutschland Ltd & Co KG: Docket No. FAA-2023-1652; Project Identifier MCAI-2022-01528-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

(1) This AD replaces AD 2003-17-15, Amendment 39-13290 (68 FR 51682, August 28, 2003).

(2) This AD affects AD 2004-19-04, Amendment 39-13798 (69 FR 56683, September 22, 2004); corrected September 30, 2004 (69 FR 58257) (AD 2004-19-04).

(3) This AD replaces AD 2013-19-17, Amendment 39-17599 (78 FR 61171, October 3, 2013); corrected November 14, 2013 (78 FR 68360).

(4) This AD replaces AD 2013-19-18, Amendment 39-17600 (78 FR 61168, October 3, 2013).

(5) This AD replaces AD 2015-17-21, Amendment 39-18254 (80 FR 65925, October 28, 2015).

(6) This AD replaces AD 2016-03-04, Amendment 39-18391 (81 FR 6755, February 9, 2016).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd. & Co KG (RRD) Model RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-C-37 engines, all serial numbers.

(d) Subject

Joint Aircraft System Component (JASC) Code 7200, Engine (Turbine/Turboprop).

(e) Unsafe Condition

This AD was prompted by the manufacturer revising the engine Time Limits Manual and the life limits of certain critical rotating parts. The FAA is issuing this AD to prevent failure of critical rotating parts. The unsafe condition, if not addressed, could result in uncontained parts release, uncontained engine failure, damage to the engine, and damage to the airplane.

(f) Compliance

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

(g) Required Actions

Except as specified in paragraph (h) of this AD: Perform all required actions within the compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0235, dated December 1, 2022 (EASA AD 2022-0235).

(h) Exceptions to EASA AD 2022-0235

(1) Where EASA AD 2022-0235 defines the AMP as the Aircraft Maintenance Programme which contains the tasks on the basis of which the scheduled maintenance is conducted to ensure the continuing airworthiness of each operated engine, this proposed AD defines the AMP as the Aircraft Maintenance Program which contains the tasks of

which the operator or the owner ensures the continuing airworthiness of each operated airplane.

(2) Where EASA AD 2022-0235 refers to its effective date, this AD requires using the effective date of this AD.

(3) This AD does not require compliance with paragraph (1) and (2) of EASA AD 2022-0235.

(4) Where paragraph (3) of EASA AD 2022-0235 specifies revising the approved Aircraft Maintenance Programme within 12 months after the effective date of EASA AD 2022-0235, this proposed AD would require revising the ALS of the existing approved maintenance or inspection program, as applicable, within 90 days after the effective date of this AD.

(5) This AD does not adopt the “Remarks” paragraph of EASA AD 2022-0235.

(i) Provisions for Alternative Actions and Intervals

After performing the actions required by paragraph (g) of this AD, no alternative actions and associated thresholds and intervals, including life limits, are allowed unless they are approved as specified in the provisions of the “Ref. Publications” section of EASA AD 2022-0235.

(j) Terminating Action for AD 2004-19-04

Accomplishing the actions required by this AD terminates all requirements of AD 2004-19-04 for Model RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-C-37 engines only.

(k) 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 responsible Flight Standards 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 (1) 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.

(l) Additional Information

For more information about this AD, contact Sungmo Cho, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7241; email: sungmo.d.cho@faa.gov.

(m) 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) European Union Aviation Safety Agency AD 2022-0235, dated December 1, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0235, 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 service information 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 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 July 27, 2023.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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