



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2024-2014; Project Identifier MCAI-2024-00162-E; Amendment
39-22883; AD 2024-23-04]**

RIN 2120-AA64

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

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2023-21-08 for certain Rolls-Royce Deutschland Ltd & Co KG (RRD) Model Trent 1000 engines. AD 2023-21-08 required revisions to the airworthiness limitation section (ALS) of the operator's existing approved aircraft maintenance program (AMP). This AD was prompted by the manufacturer's revision of the time limits manual (TLM) to introduce new or more restrictive tasks, limitations, and associated thresholds and intervals for life-limited parts. This AD requires revisions to the ALS of the operator's existing approved AMP, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-2014; 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 mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- 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. 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. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-2014.

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:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2023-21-08, Amendment 39-22580 (88 FR 77889, November 14, 2023) (AD 2023-21-08). AD 2023-21-08 applied to certain RRD Model Trent 1000-A, Trent 1000-AE, Trent 1000-C, Trent 1000-CE, Trent 1000-D, Trent 1000-E, Trent 1000-G, and Trent 1000-H engines. AD 2023-21-08 required revisions to the ALS of the

operator's existing approved AMP as specified in EASA AD 2022-0259, dated December 20, 2022. The FAA issued AD 2023-21-08 to prevent the failure of critical rotating parts.

The NPRM published in the Federal Register on August 9, 2024 (89 FR 65270). The NPRM was prompted by EASA AD 2024-0062, dated March 6, 2024 (EASA AD 2024-0062) (also referred to as the MCAI), issued by EASA, which is the Technical Agent for the Member States of the European Union. The MCAI states that the manufacturer published a revised TLM introducing new or more restrictive tasks and limitations. These new or more restrictive tasks and limitations include updating Direct Accumulation Counting data files.

In the NPRM, the FAA proposed to retain none of the requirements of AD 2023-21-08. The NPRM proposed to require revising the ALS of the operator's existing approved AMP, as specified in EASA AD 2024-0062. The FAA is issuing this AD to prevent the failure of rotating parts.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-2014.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from The Boeing Company, who supported the NPRM without change.

Conclusion

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 reviewed the relevant data, considered the comment received, and determined that air safety requires adopting the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition

on these products. Except for minor editorial changes, this AD is adopted as proposed in the NPRM.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed EASA AD 2024-0062, which specifies instructions for accomplishing the actions specified in the applicable 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 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 the ADDRESSES section.

Differences Between this AD and the MCAI

Where EASA AD 2024-0062 specifies revising the approved AMP within 12 months after the effective date of EASA AD 2024-0062, this AD requires revising the ALS of the existing approved aircraft maintenance or inspection program, as applicable, within 30 days after the effective date of this AD.

Costs of Compliance

The FAA estimates that this AD affects 28 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
Revise the ALS	1 work-hours x \$85 per hour = \$85	\$0	\$85	\$2,380

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 has determined that 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,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) 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 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:

a. Removing Airworthiness Directive 2023-21-08, Amendment 39-22580 (88 FR 77889, November 14, 2023); and

b. Adding the following new airworthiness directive:

2024-23-04 Rolls-Royce Deutschland Ltd & Co KG: Amendment 39-22883; Docket No. FAA-2024-2014; Project Identifier MCAI-2024-00162-E.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2023-21-08, Amendment 39-22580 (88 FR 77889, November 14, 2023).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG Model Trent 1000-A, Trent 1000-AE, Trent 1000-C, Trent 1000-CE, Trent 1000-D, Trent 1000-E, Trent 1000-G, and Trent 1000-H engines.

(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 life limits of certain critical rotating parts. The FAA is issuing this AD to prevent the failure of critical rotating parts. The unsafe condition, if not addressed, could result in failure of critical rotating parts, which 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

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 2024-0062, dated March 6, 2024 (EASA AD 2024-0062).

(h) Exceptions to EASA AD 2024-0062

(1) Where EASA AD 2024-0062 refers to its effective date, this AD requires using the effective date of this AD.

(2) This AD does not require compliance with paragraphs (1), (2), (4), and (5) of EASA AD 2024-0062.

(3) Where paragraph (3) of EASA AD 2024-0062 specifies “Within 12 months after the effective date of this AD, revise the approved AMP,” for this AD, replace that text with “Within 30 days after the effective date of this AD, revise the airworthiness limitation section (ALS) of the existing approved engine maintenance or inspection program, as applicable.”

(4) The initial compliance time for doing the tasks specified in paragraph (3) of EASA AD 2024-0062 is on or before the applicable “limitations” and “associated

thresholds” as incorporated by the requirements of paragraph (3) of EASA AD 2024-0062 or within 30 days after the effective date of this AD, whichever occurs later.

(5) This AD does not adopt the “Remarks” paragraph of EASA AD 2024-0062.

(i) Provisions for Alternative Actions and Intervals

No alternative actions and associated thresholds and intervals, including life limits, are allowed for compliance with paragraph (g) of this AD unless they are approved as specified in the provisions of the “Ref. Publications” section of EASA AD 2024-0062.

(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, 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 2024-0062, dated March 6, 2024.

(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 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 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 12, 2024.

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