[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2026-0742; Project Identifier MCAI-2025-01337-E; Amendment 39-23361; AD 2026-10-21]

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) 2023-26-04 for all Rolls-Royce Deutschland Ltd & Co KG (RRD) Model Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3, Trent 1000-J3, Trent 1000-K3, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3, and Trent 1000-R3 engines. AD 2023-26-04 required initial and repetitive in-shop visual inspections of the intermediate-pressure stage 8 (IP8) and high-pressure stage 3 (HP3) air transfer tubes and front bearing housing IP8 air feed tubes for cracking, damage, or air leakage wear, and replacement, if necessary. Since the FAA issued AD 2023-26-04, the FAA has determined that a new set of initial and repetitive on-wing visual inspections of the IP8 and HP3 air transfer tubes for cracking, damage, or air leakage wear are necessary, and consequently the inspection interval for the repetitive in-shop visual inspections of front bearing housing IP8 air feed tubes may be increased. This AD requires initial and repetitive in-shop visual inspections of the IP8 and HP3 air transfer tubes and front bearing housing IP8 air feed tubes (with increased inspection interval) for cracking, damage, or air leakage wear, and replacement, if necessary. This AD also requires initial and repetitive on-wing visual inspections of the IP8 and HP3 air transfer

tubes for cracking, damage, or air leakage wear, and replacement, if necessary. 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 under Docket No. FAA-2026-0742; 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 European Union Aviation Safety Agency (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 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 under Docket No. FAA-2026-0742.

FOR FURTHER INFORMATION CONTACT: Alexis Whitaker, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (516) 228-

7309; email: alexis.j.whitaker@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2023-26-04, Amendment 39-22647 (89 FR 251, January 3, 2024) (AD 2023-26-04). AD 2023-26-04 applied to all RRD Model Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3, Trent 1000-J3, Trent 1000-K3, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3, and Trent 1000-R3 engines. AD 2023-26-04 required initial and repetitive in-shop visual inspections of the IP8 and HP3 air transfer tubes and front bearing housing IP8 air feed tubes for cracking, damage, or air leakage wear, and replacement, if necessary. The FAA issued AD 2023-26-04 to prevent failure of the IP8 and HP3 air transfer tubes and front bearing housing IP8 air feed tubes.

The NPRM was published in the *Federal Register* on February 6, 2026 (91 FR 5378). The NPRM was prompted by EASA AD 2025-0176, dated August 7, 2025 (EASA AD 2025-0176) (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 since EASA AD 2023-0087 was published, the manufacturer has issued service information to include initial and repetitive on-wing visual inspections of the IP8 and HP3 air transfer tubes, and an increase to the interval for the in-shop visual inspections of front bearing housing IP8 air feed tubes.

In the NPRM, the FAA proposed to continue to require initial and repetitive in-shop visual inspections of the IP8 and HP3 air transfer tubes and front bearing housing IP8 air feed tubes (with increased inspection interval) for cracking, damage, or air leakage wear, and replacement, if necessary. In the NPRM, the FAA also proposed to

require initial and repetitive on-wing visual inspections of the IP8 and HP3 air transfer tubes for cracking, damage, or air leakage wear, and replacement, if necessary.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2026-0742.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from two commenters. Commenters included the Airline Pilots Association, International (ALPA) and The Boeing Company (Boeing). All commenters supported the NPRM without change.

Conclusion

These products have been approved by the civil 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, that authority has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this 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. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed EASA AD 2025-0176, which specifies procedures for performing initial and repetitive on-wing and in-shop visual inspections of the IP8 and HP3 air transfer tubes and front bearing housing IP8 air feed tubes for cracking, damage, or air leakage wear, and replacement if necessary.

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.

Costs of Compliance

The FAA estimates that this AD affects four 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
On-wing inspection of air tubes	4 work-hours x $85 per hour = $340	$0	$340	$1,360
In-shop inspection of air tubes	4 work-hours x $85 per hour = $340	$0	$340	$1,360

The FAA estimates the following costs to do any replacements that would be required based on the results of the 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 IP8 air transfer tubes	2 work-hours x $85 per hour = $170	$7,600	$7,770
Replace HP3 air transfer tubes	2 work-hours x $85 per hour = $170	$11,900	$12,070
Replace front bearing housing IP8 air feed tubes	2 work-hours x $85 per hour = $170	$10,000	$10,170

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 2023-26-04, Amendment 39-22647 (89 FR 251, January 3, 2024); and

b. Adding the following new airworthiness directive:

2026-10-21 Rolls-Royce Deutschland Ltd & Co KG: Amendment 39-23361; Docket No. FAA-2026-0742; Project Identifier MCAI-2025-01337-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 2023-26-04, Amendment 39-22647 (89 FR 251, January 3, 2024).

(c) Applicability

This AD applies to all Rolls-Royce Deutschland Ltd & Co KG Model Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3, Trent 1000-J3, Trent 1000-K3, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3, and Trent 1000-R3 engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7500, Engine Bleed Air System.

(e) Unsafe Condition

This AD was prompted by a determination that a new set of on-wing initial and repetitive visual inspections of the intermediate-pressure stage 8 (IP8) and high-pressure stage 3 (HP3) air transfer tubes for cracking, damage, or air leakage wear are necessary, and consequently the inspection interval for the repetitive in-shop visual inspections of the front bearing housing IP8 air feed tubes may be increased. The FAA is issuing this

AD to prevent failure of the IP8 and HP3 air transfer tubes and front bearing housing IP8 air feed tubes. The unsafe condition, if not addressed, could affect the engine internal cooling and sealing flows, resulting in failure of the IP8 air transfer tubes, HP3 air transfer tubes, and front bearing housing IP8 air feed tubes, with consequent damage to the engine 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 paragraph (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 2025-0176, dated August 7, 2025 (EASA AD 2025-0176).

(h) Exceptions to EASA AD 2025-0176

(1) Where EASA AD 2025-0176 refers to its effective date, this AD requires using the effective date of this AD.

(2) This AD does not adopt the “Remarks” section of EASA AD 2025-0176.

(i) No Reporting Requirement

Although the service material referenced in EASA AD 2025-0176 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, 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 Alexis Whitaker, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (516) 228-7309; email: alexis.j.whitaker@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 2025-0176, dated August 7, 2025.

(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 material 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 May 22, 2026.

Lona C. Saccomando,
Acting Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
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