



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2026-4655; Project Identifier MCAI-2025-01553-E; Amendment 39-23376; AD 2026-12-06]

RIN 2120-AA64

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

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2020-05-01, which applied to 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 2020-05-01 required initial and repetitive borescope inspections (BSI) of the high-pressure turbine (HPT) blades. AD 2020-05-01 also required replacement of HPT blades with parts eligible for installation when the HPT blades fail inspection or reach the new life limit. Since the FAA issued AD 2020-05-01, RRD published updated service material introducing improved HPT blades and a combustion rear inner casing bypass case assembly, adding an acceptable method for installation of HPT blades, expanding the inspection area for BSIs of the HPT blade, adding limits for axial cracks of the HPT blades, reducing certain BSI thresholds, and removing a certain HPT blade life-limit. This AD requires performing initial and repetitive BSIs of the HPT blades for axial cracks and, depending on the results of the BSIs, this AD requires either performing additional BSIs or replacing the HPT blades.

This AD also adds an optional terminating action for the repetitive BSIs of the HPT blades. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 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 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD 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-2026-4655; 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 street address for Docket Operations is listed above.

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, 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-2026-4655.

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:

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments using a method listed under the ADDRESSES section. Include “Docket No. FAA-2026-4655; Project Identifier MCAI-2025-01553-E” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, 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 final rule 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 final rule.

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 AD 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 AD, 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 AD. Submissions containing CBI should be sent to Alexis Whitaker, 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 2020-05-01, Amendment 39-21102 (85 FR 13727, March 10, 2020) (AD 2020-05-01), for 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 2020-05-01 was prompted by an MCAI originated by EASA, which is the Technical Agent for the Member States of the European Union. EASA issued AD 2019-0099R2, dated September 6, 2019 (EASA AD 2019-0099R2), to correct an unsafe condition identified as premature failure of the HPT blades. AD 2020-05-01 required initial and repetitive BSIs of the HPT blades, and replacement of the HPT blades with parts eligible for installation when the HPT blades fail inspection or reach the new life limit. The FAA issued AD 2020-05-01 to prevent failure of the HPT blades.

Actions Since AD 2020-05-01 was Issued

Since the FAA issued AD 2020-05-01, EASA superseded EASA AD 2019-0099R2 and issued a series of ADs, each superseding the previous one, with the latest one being EASA AD 2025-0206R1, dated December 18, 2025 (EASA AD 2025-0206R1) (also referred to as the MCAI). Since EASA AD 2019-0099R2 was published, RRD published updated service material introducing improved HPT blades and an improved combustion rear inner casing bypass case assembly, and an additional acceptable method for installing HPT blades. RRD also published updated service material defining additional limits for axial cracks on the leading edge and convex surfaces of the HPT blades, reducing the inspections threshold, and removing certain life-limits for HPT blades. It was also determined that certain in-flight shutdown events do not represent an abnormal or unsafe condition for the remaining running engine, and certain engines should be excluded from the requirement to accomplish a BSI when the opposite engine was deliberately shut-down and automatically re-started immediately as part of a standard airplane acceptance test. The MCAI states that in-service experience has shown that the affected parts may deteriorate, despite being subject to the inspections and life-limits as specified in the current RRD Time Limits Manual, T-Trent-10RRT, Chapters 05-10 and 05-20. To address this potential unsafe condition, the MCAI requires performing initial and repetitive BSIs of the HPT blades for axial cracks and, depending on the results of the BSIs, the MCAI requires either performing additional BSIs or replacing the HPT blades. The MCAI also excludes certain engines from certain BSI requirements if that engine was deliberately shut-down and automatically re-started immediately as part of a standard airplane acceptance test. The MCAI also adds an optional terminating action for the repetitive BSIs of the HPT blades.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2026-4655.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed EASA AD 2025-0206R1, which defines additional limits for axial cracks on the leading edge and convex surfaces of the HPT blades, reduces the inspections threshold, specifies optional procedures for introducing improved HPT blades and an improved combustion rear inner casing bypass case assembly, and an additional acceptable method for replacing HPT blades, 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.

FAA's Determination

These products have been approved by the civil aviation authority (CAA) 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 is issuing this AD after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

AD Requirements

This AD requires accomplishing the actions specified in EASA AD 2025-0206R1 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD.

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 CAA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, EASA AD 2025-0206R1 is incorporated by reference in this AD. This AD requires compliance with

EASA AD 2025-0206R1 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this AD. Using common terms that are the same as the heading of a particular section in EASA AD 2025-0206R1 does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2025-0206R1. Material required by EASA AD 2025-0206R1 for compliance will be available at regulations.gov by under Docket No. FAA-2026-4655 after this AD is published.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

The FAA justifies waiving notice and comment prior to adoption of this rule because no domestic operators use this product. It is unlikely that the FAA will receive any adverse comments or useful information about this AD from any U.S. operator. Accordingly, notice and opportunity for prior public comment are unnecessary, pursuant to 5 U.S.C. 553(b). In addition, for the foregoing reason(s), the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

There are no costs of compliance with this AD because there are no engines with this type certificate on the U.S. Registry.

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

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, and

(2) Will not affect intrastate aviation in Alaska.

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 2020-05-01, Amendment 39-21102 (85 FR 13727, March 10, 2020); and

b. Adding the following new airworthiness directive:

2026-12-06 Rolls-Royce Deutschland Ltd & Co KG: Amendment 39-23376; Docket No. FAA-2026-4655; Project Identifier MCAI-2025-01553-E.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2020-05-01, Amendment 39-21102 (85 FR 13727, March 10, 2020) (AD 2020-05-01).

(c) Applicability

This AD applies to all Rolls-Royce Deutschland Ltd & Co KG (RRD) 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 model engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7250, Turbine Section.

(e) Unsafe Condition

This AD was prompted by the manufacturer identifying that the high-pressure turbine (HPT) blades may fail prematurely. The FAA is issuing this AD to prevent failure of the HPT blades. The unsafe condition, if not addressed, 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) 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 2025-0206R1, dated December 18, 2025 (EASA AD 2025-0206R1).

(h) Exceptions to EASA AD 2025-0206R1

(1) Where EASA AD 2025-0206R1 refers to October 6, 2025 (the effective date of EASA AD 2025-0206R1 at original issue), this AD requires using the effective date of this AD.

(2) Where EASA AD 2025-0206R1 refers to May 20, 2019 (the effective date of EASA AD 2019-0099), this AD requires using the effective date of March 25, 2020 (the effective date of AD 2020-05-01).

(3) This AD does not adopt the “Remarks” paragraph of EASA AD 2025-0206R1.

(i) No Reporting Requirement

Although the material referenced in EASA AD 2025-0206R1 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 the 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 2025-0206R1, dated December 18, 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, 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 June 4, 2026.

Brian Knaup,
Acting Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
[FR Doc. 2026-11965 Filed: 6/12/2026 8:45 am; Publication Date: 6/15/2026]