

address this condition, which if not addressed, could result in occupants seated in the right or center supernumerary seats sustaining an injury during an emergency landing.

**(f) Compliance**

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

**(g) Placard Installation**

Except as specified by paragraph (h) of this AD: At the applicable time specified in the “Compliance” paragraph of Boeing Special Attention Requirements Bulletin 767–25–0589 RB, dated February 25, 2022, do all applicable actions identified in, and in

accordance with, the Accomplishment Instructions of Boeing Special Attention Requirements Bulletin 767–25–0589 RB, dated February 25, 2022.

**Note 1 to paragraph (g):** Guidance for accomplishing the actions required by this AD can be found in Boeing Special Attention Service Bulletin 767–25–0589, dated February 25, 2022, which is referred to in Boeing Special Attention Requirements Bulletin 767–25–0589 RB, dated February 25, 2022.

**(h) Exception to Service Information Specifications**

Where the Compliance Time column of the table in the “Compliance” paragraph of Boeing Special Attention Requirements

Bulletin 767–25–0589 RB, dated February 25, 2022, uses the phrase “the original issue date of Requirements Bulletin 767–25–0589 RB,” this AD requires using “the effective date of this AD.”

**(i) Revision of Existing Airplane Flight Manual (AFM)**

Within 12 months after the effective date of this AD, revise Section 3.1 of the Normal Procedures Section of the existing AFM to include the information in figure 1 to paragraph (i) of this AD. This may be done by inserting a copy of figure 1 to paragraph (i) of this AD into the existing AFM.

**Figure 1 to paragraph (i): Flight deck occupancy (freighter airplane)**

(Required by AD 2023-12-23)

**FLIGHT DECK OCCUPANCY (Freighter Airplane)**

The following item should be briefed to all occupants other than flight crew members by the appropriate flight crew member, prior to pushback or engine start:

Occupant seat position for Taxi, Takeoff, and Landing as indicated by placards.

**(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 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 (k) of this AD. Information may be emailed to: [9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, AIR–520 Continued Operational Safety Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(k) Related Information**

For more information about this AD, contact Kumar Khatri, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206–231–3842; email: [kumar.r.khatri@faa.gov](mailto:kumar.r.khatri@faa.gov).

**(l) 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) Boeing Special Attention Requirements Bulletin 767–25–0589 RB, dated February 25, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110–SK57, Seal Beach, CA 90740–5600; telephone 562–797–1717; website [myboeingfleet.com](http://myboeingfleet.com).

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(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, [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on June 15, 2023.

**Michael Linegang,**

*Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.*

[FR Doc. 2023–14513 Filed 7–10–23; 8:45 am]

**BILLING CODE 4910–13–P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA–2023–0660; Project Identifier MCAI–2022–01561–E; Amendment 39–22474; AD 2023–12–16]**

**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 adopting a new airworthiness directive (AD) for certain Rolls-Royce Deutschland Ltd & Co KG (RRD) Model Trent 1000 engines. This AD was prompted by reports of excessive wear on the inner seal fins of certain high-pressure turbine (HPT) triple seals. This AD requires an inspection of the HPT triple seal for excessive wear and, depending on the results of the inspection, replacement of the HPT triple seal and the intermediate-pressure turbine (IPT) disk, 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 August 15, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 15, 2023.

**ADDRESSES:**

*AD Docket:* You may examine the AD docket at *regulations.gov* under Docket No. FAA-2023-0660; 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 the EASA AD identified in this final rule, 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 EASA AD 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-2023-0660.

**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:**

**Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain 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. The NPRM published in the **Federal Register** on April 7, 2023 (88 FR 20782). The NPRM was prompted by EASA AD 2022-0241, dated December 7, 2022, issued by EASA, which is the Technical Agent for the Member States of the European Union (EASA AD 2022-0241) (referred to after this as the MCAI). The MCAI states that occurrences have been reported of finding higher than expected levels of wear on the seal fins of certain HPT triple seals. The secondary air system is affected by the resulting increased turbine cooling air leakage, which changes the air flow around the IPT disk. The Modulated Air System (MAS) was designed to optimize cooling air flow and intended to be active only during cruise conditions, but the design did not account for a high level of seal wear. Rolls-Royce issued Non-Modification Service Bulletin Trent 1000 75-AK642, Initial Issue, dated November 30, 2020, to provide instructions for MAS deactivation, and consequently, EASA published EASA AD 2021-0009, dated January 8, 2021, specifying deactivation of the MAS control valves. Despite this, a significantly worn HPT triple seal under flight conditions, while MAS was activated prior to the above action, could have reduced the safety of flight.

In the NPRM, the FAA proposed to require accomplishing the actions specified in EASA AD 2022-0241 described previously, except for any

differences identified as exceptions in the regulatory text of this AD. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at *regulations.gov* under Docket No. FAA-2023-0660.

**Discussion of Final Airworthiness Directive**

**Comments**

The FAA received a comment from one commenter, The Boeing Company (Boeing). Boeing 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.

**Related Service Information Under 1 CFR Part 51**

The FAA reviewed EASA AD 2022-0241. EASA AD 2022-0241 specifies procedures for inspecting the HPT triple seal for excessive wear and, depending on the results of the inspection, replacing the HPT triple seal and the IPT disk. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in

**ADDRESSES.**

**Costs of Compliance**

The FAA estimates that this AD affects 4 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
Inspect HPT triple seal .....	1 work-hour × \$85 per hour = \$85 .....	\$0	\$85	\$340

The FAA estimates the following costs to do any necessary replacements that would be required based on the

results of the inspection. The agency has no way of determining the number of

aircraft that might need these replacements:

## ON-CONDITION COSTS

Action	Labor cost	Parts cost	Cost per product
Replace HPT triple seal and IPT disk .....	4 work-hours × \$85 per hour = \$340 .....	\$737,832	\$738,172

**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,
- (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 adding the following new airworthiness directive:

**2023–12–16 Rolls-Royce Deutschland Ltd & Co KG:** Amendment 39–22474; Docket No. FAA–2023–0660; Project Identifier MCAI–2022–01561–E.

**(a) Effective Date**

This airworthiness directive (AD) is effective August 15, 2023.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to certain 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, as identified in European Union Aviation Safety Agency (EASA) AD 2022–0241, dated December 7, 2022 (EASA AD 2022–0241).

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7240, Turbine Engine Combustion Section.

**(e) Unsafe Condition**

This AD was prompted by reports of excessive wear on the inner seal fins of certain high-pressure turbine (HPT) triple seals. The FAA is issuing this AD to prevent excessive wear on the inner seal fins of certain HPT triple seals. The unsafe condition, if not addressed, could lead to a temperature increase at the intermediate-pressure turbine (IPT) disk rim, possibly resulting in IPT disk failure and high energy debris release, with consequent damage to the airplane 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, EASA AD 2022–0241.

**(h) Exceptions to EASA AD 2022–0241**

(1) Where EASA AD 2022–0241 refers to its effective date, this AD requires using the effective date of this AD.

(2) This AD does not adopt the Remarks paragraph of EASA AD 2022–0241.

**(i) No Reporting Requirement**

Although EASA AD 2022–0241 specifies to submit inspection results 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 branch office, send it to the attention of the person identified in paragraph (k) of this AD and email to: [ANE-AD-AMOC@faa.gov](mailto: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, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238–7241; email: [sungmo.d.cho@faa.gov](mailto: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 2022–0241, dated December 7, 2022.

(ii) [Reserved]

(3) For EASA AD 2022–0241, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: [ADS@easa.europa.eu](mailto:ADS@easa.europa.eu); website: [easa.europa.eu](http://easa.europa.eu). You may find this material on the EASA website at [ad.easa.europa.eu](http://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. This material may be found in the AD docket at [regulations.gov](http://regulations.gov) by searching for and locating Docket No. FAA–2023–0660.

(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](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on June 13, 2023.

**Michael Linegang,**

*Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.*

[FR Doc. 2023-14596 Filed 7-10-23; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-0437; Project Identifier MCAI-2022-01358-E; Amendment 39-22480; AD 2023-12-21]

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) 2021-26-13, which applied to all Rolls-Royce Deutschland Ltd & Co KG (RRD) Model Trent 1000-A2, Trent 1000-AE2, Trent 1000-C2, Trent 1000-CE2, Trent 1000-D2, Trent 1000-E2, Trent 1000-G2, Trent 1000-H2, Trent 1000-J2, Trent 1000-K2, and Trent 1000-L2 engines. AD 2021-26-13 required revision of the engine Time Limits Manual (TLM) life limits of certain critical rotating parts and direct accumulation counting (DAC) data files. Since the FAA issued AD 2021-26-13, RRD has revised the TLM with more restrictive airworthiness limitations, including updated life limits for certain critical parts and updated DAC data files. This AD was prompted by the manufacturer revising the engine TLM life limits of certain critical rotating parts, updating the DAC data files, and updating certain maintenance tasks. This AD requires revising the existing approved maintenance or inspection program, as applicable, to incorporate more restrictive airworthiness limitations, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference (IBR). The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective August 15, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 15, 2023.

#### ADDRESSES:

**AD Docket:** You may examine the AD docket at [regulations.gov](http://regulations.gov) under Docket No. FAA-2023-0437; 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 service information identified in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: [ADS@easa.europa.eu](mailto:ADS@easa.europa.eu); website: [easa.europa.eu](http://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 in the AD docket at [regulations.gov](http://regulations.gov) under Docket No. FAA-2023-0437.

#### 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](mailto:sungmo.d.cho@faa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-26-13, Amendment 39-21872 (86 FR 72840, December 23, 2021), (“AD 2021-26-13”). AD 2021-26-13 applied to all RRD Model Trent 1000-A2, Trent 1000-AE2, Trent 1000-C2, Trent 1000-CE2, Trent 1000-D2, Trent 1000-E2, Trent 1000-G2, Trent 1000-H2, Trent 1000-J2, Trent 1000-K2, and Trent 1000-L2 engines. AD 2021-26-13 required operators to update the airworthiness limitations section (ALS) of their approved maintenance and inspection program by incorporating the latest revision of the engine TLM life limits of certain critical rotating parts and updating DAC data files for each affected model engine. The FAA issued AD 2021-26-13 to prevent the failure of critical rotating parts.

The NPRM published in the **Federal Register** on March 23, 2023 (88 FR

17426). The NPRM was prompted by EASA AD 2022-0210, dated October 17, 2022 (referred to after this as “the MCAI”), issued by EASA, which is the Technical Agent for the Member States of the European Union. The MCAI states the manufacturer published a revised 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 and updating DAC data files.

You may examine the MCAI in the AD docket at [regulations.gov](http://regulations.gov) under Docket No. FAA-2023-0437.

In the NPRM, the FAA proposed to require revising the existing approved maintenance or inspection program, as applicable, to incorporate more restrictive airworthiness limitations, as specified in EASA AD 2022-0210. The FAA is issuing this AD to address the unsafe condition on these products.

#### Discussion of Final Airworthiness Directive

##### Comments

The FAA received a comment from one commenter, The Boeing Company (Boeing). Boeing 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 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.

#### Related Service Information Under 14 CFR Part 51

The FAA reviewed EASA AD 2022-0210. EASA AD 2022-0210 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