

Airworthiness Directive

AD No.: 2025-0050

Issued: 26 February 2025

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I Part M.A.301, or Annex Vb Part M.A.301, as applicable, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I Part M.A.303, or Annex Vb Part M.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name: Type/Model designation(s):

ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG RB211 Trent 500 engines

Effective Date: 12 March 2025

TCDS Number(s): EASA.E.060

Foreign AD: Not applicable

Supersedure: This AD supersedes UK CAA AD G-2003-0005 dated 25 November 2003, EASA AD

2008-0042 dated 27 February 2008 and EASA AD 2008-0098 dated 21 May 2008.

ATA 05 – Time Limits / Maintenance Checks – Engine Time Limits Manual – Amendment

Manufacturer(s):

Rolls-Royce plc

Applicability:

RB211 Trent 553-61, Trent 556-61, Trent 553A2-61, Trent 556A2-61 and Trent 560A2-61 engines.

These engines are known to be installed on, but not limited to, Airbus A340-500 and Airbus A340-600 aeroplanes.

Definitions:

For the purpose of this AD, the following definitions apply:

The TLM: The Rolls-Royce RB211 Trent 500 engines Time Limits Manual (TLM) T-TRENT-5RR Revision 52 dated 07 February 2025, module 05-10-01-800-801 (Critical and Critical Group A Parts Lives) and module 05-20-01-800-801 (Critical Group A Parts Mandatory Inspections).

The AMP: The Aircraft Maintenance Programme (AMP) contains the tasks on the basis of which the scheduled maintenance is conducted to ensure the continuing airworthiness of each operated



aircraft. For RB211 Trent 500 engines installed on aircraft operated under EU regulations, the operator or the owner ensures compliance with the AMP as stipulated in Commission Regulation (EU) 1321/2014.

New and/or more restrictive tasks and limitations: This includes all tasks and limitations that are new and all tasks for which a threshold or interval was reduced, which were introduced into the TLM, as defined in this AD, since the previous TLM revision that is currently incorporated in the AMP.

Reason:

The airworthiness limitations and/or certification maintenance instructions for the RB211 Trent 500 engines, which are approved by EASA, are currently defined and published in the RB211 Trent 500 engines TLM document(s). These instructions have been identified as mandatory for continued airworthiness.

Failure to accomplish these instructions could result in an unsafe condition.

Previously EASA grandfathered and adopted UK CAA AD G-2003-0005, later issued EASA AD 2008-0042 and EASA AD 2008-0098 addressing unsafe conditions originating from potential failure of various rotating engine parts addressed by those ADs.

Since those ADs were issued, Rolls-Royce issued the TLM, as defined in this AD, incorporating life limits and maintenance tasks for affected parts addressed by those ADs.

For the reason described above, this AD supersedes UK CAA AD G-2003-0005 and EASA AD 2008-0098 which became obsolete after transferring the limitations and tasks from them into the TLM. This AD also supersedes EASA AD 2008-0042 where the Intermediate Pressure Compressor (IPC) Drums addressed by that AD were removed from service and the life limit applicable to those IPC Drums cancelled from the TLM.

This AD requires accomplishment of the actions and limitations specified in the TLM.

Required Action(s) and Compliance Time(s):

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Maintenance Tasks and Replacement of Life Limited Parts:

- (1) From the effective date of this AD, accomplish the following actions, as specified in the TLM, as applicable to engine model and configuration:
 - (1.1) Replace each component before exceeding the applicable life limit, and
 - (1.2) Within the thresholds and intervals, accomplish all applicable maintenance tasks.



Corrective Action(s):

(2) In case of finding discrepancies (as defined in the TLM) during accomplishment of any task as required by paragraph (1) of this AD, within the compliance time specified in the TLM, accomplish the applicable corrective action(s) in accordance with the applicable Rolls-Royce maintenance documentation. If no compliance time is identified in the TLM, accomplish the applicable corrective action(s) before next flight. If a detected discrepancy is not identified in the TLM, before next flight, contact Rolls-Royce for approved instructions and accomplish those instructions accordingly.

AMP Revision:

(3) Within 12 months after the effective date of this AD, revise the approved AMP by incorporating the limitations, tasks and associated thresholds and intervals described in the TLM, as applicable to RB211 Trent 500 engine model and depending on RB211 Trent 500 engine configuration.

Credit:

(4) If, before the effective date of this AD, the AMP has been revised to incorporate the maintenance tasks and life limitations as specified in the previous TLM revision, that action ensures the continued accomplishment of those tasks and limitations.

Consequently, for an RB211 Trent 500 engine installed on an aeroplane to which that AMP applies, it is acceptable to accomplish the new and/or more restrictive tasks and limitations as specified in the TLM, as applicable to RB211 Trent 500 engine model and depending on RB211 Trent 500 engine configuration, within the compliance times as specified in the TLM, to comply with paragraph (1) of this AD.

For that AMP, it is acceptable to incorporate the new and/or more restrictive tasks and limitations as specified in the TLM, as applicable to RB211 Trent 500 engine model and depending on RB211 Trent 500 engine configuration, into the AMP to comply with paragraph (3) of this AD.

Recording AD Compliance:

(5) When the AMP of an aircraft has been revised as required by paragraph (3) or (4) of this AD, as applicable, that action ensures continued accomplishment of the tasks and limitations as required by paragraphs (1) and (2) of this AD for that aircraft. Consequently, after revising the AMP, as required by paragraph (3) or (4) of this AD, as applicable, it is not necessary that accomplishment of individual action is recorded for demonstration of AD compliance on a continued basis.

Ref. Publications:

Rolls-Royce RB211 Trent 500 engines Time Limits Manual (TLM) T-TRENT-5RR Revision 52 dated 07 February 2025.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.



Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

- 2. This AD was posted on 11 February 2025 as PAD 25-033 for consultation until 25 February 2025. No comments were received during the consultation period.
- 3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
- 4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the <u>EU aviation safety reporting system</u>. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
- 5. For any question concerning the technical content of the requirements in this AD, please contact your designated Rolls-Royce representative, or download the publication from your Rolls-Royce Care account at https://customers.rolls-royce.com.

If you do not have a designated representative or Rolls-Royce Care account, please contact **Corporate Communications** at **Rolls-Royce plc**, P.O. Box 31, Derby, DE24 8BJ, United Kingdom Telephone +44 (0)1332 242424,

or

send an email through https://www.rolls-royce.com/contact-us/civil-aerospace.aspx identifying the correspondence as being related to **Airworthiness Directives**.

