Airworthiness Directive

AD No.: 2016-0193R2

Issued: 13 August 2026

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 ML.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 ML.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:
ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG

Type/Model designation(s):
RB211 Trent 900 engines

Effective Date: Revision 2: 27 August 2026
Revision 1: 07 March 2018
Original issue: 14 October 2016

TCDS Number(s): EASA.E.012

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2016-0193R1 dated 28 February 2018, original issue of which superseded EASA AD 2013-0240 issued 30 September 2013, including its Correction dated 04 October 2013.

ATA 72 – Engine – Low Pressure Turbine Exhaust Case and Support Assembly (Tail Bearing Housing) – Inspection / Replacement

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Manufacturer(s):
Rolls-Royce plc (RR)

Applicability:
RB211 Trent 970-84, 972-84 and 972E-84 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus A380 aeroplanes.

Definitions:
None.

Reason:
RR performed a re-analysis of the structural features of the Trent 900 low pressure turbine exhaust case and support assembly (also known as Tail Bearing Housing, or TBH). The result of this re-analysis indicated that the TBH may not retain full limit load capability in all fail-safe conditions. In

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addition, during previous inspections of Trent 900 TBH mounts and vanes, cracks were found in the outer annulus leading edge (LE) fillet of some vanes.

These conditions, if not detected and corrected, could lead to disconnection of the TBH structural ring from the mounts, possibly resulting in damage to, or reduced control of, the aeroplane.

To address this potential unsafe condition, RR published Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AG971 and NMSB RB.211-72-AH154, providing inspection instructions and criteria for replacement of parts.

Consequently, EASA issued AD 2013-0240, to require on-wing and in-shop inspections of the TBH structural features to detect cracks or damage and, depending on findings, the accomplishment of applicable corrective action(s).

After that AD was issued, further inspection results were analysed, and concluded that on-wing inspections of the Fail Safe Catcher are no longer necessary, but that in-shop inspections of the Central Male Catcher Run-out should be required. In addition, a modification (mod) of the TBH was developed by RR, available for in-service engines through Service Bulletin (SB) RB.211-72-J024, introducing a cutback of the LE profile through rework of existing parts, which reduces the stress and minimises the risk of cracking. An inspection regime for post-mod 72-J024 engines was therefore developed and RR published Alert NMSB RB.211-72-AJ101 accordingly. In addition, further analysis has shown that a TBH life limit is no longer necessary. In addition, RR developed mod 72-J055, made available for in-service engines through SB RB.211-72-J055, which introduces a TBH with increased strength capability, deleting the need for inspections.

Consequently, EASA issued AD 2016-0193 (later revised), partially retaining the requirements of EASA AD 2013-0240, which was superseded, deleting the TBH life limits previously imposed by that AD, changing certain inspection requirements, introducing repetitive inspections for post-SB 72-J024 engines, and specifying the (optional) terminating action. Additionally, service experience and analysis resulted in a change to the accept/reject criteria for the TBH. As part of this change, it has been decided to transfer the instructions of RR NMSB RB.211-72-AH154 for Top Core Vanes LE inspection into the Trent 900 Time Limits Manual (TLM).

Since 2016-0193R1 was issued, additional review indicated that for configuration of the Tail Bearing Housing Support Structure (TBHSS) corresponding to SB RB.211-72-J055 mod standard the Fluorescent Penetrant Inspection (FPI) was omitted in the applicable published maintenance instructions. Therefore, the risk exists that cracking, due to damage, manufacturing anomalies or corrosion, could remain undetected after incorporation of this SB. To address this possible unsafe condition, it was decided to reinstate this FPI requirement in the RB211 Trent 900 Time Limit Manual (TLM) T-TRENT-9RR at Revision 70 which is subject of EASA AD 2026-0164. It was also decided to transfer concurrently the mandatory inspections for the baseline and SB RB.211-72-J024 TBHSS configuration mod standards from NMSB RB.211-72-AG971 to RB211 Trent 900 Time Limit Manual T-TRENT-9RR at Revision 70.

For the reasons described above this AD is revised to remove inspections of Mount Lug Run-outs originally required to be accomplished in accordance with the instructions of the NMSB RB.211-72-AG971.

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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:

Note 1: Where, in this AD, reference is made to a RR SB or NMSB with an 'A' (Alert) in the number, it should be recognised that an earlier or later revision may not have that 'A'. This kind of change does not effectively alter the publication references for the purpose of this AD.

Note 2: The TBH affected by this AD are identified by Part Number (P/N):
- [DELETED]
- post-mod 72-J024: P/N KH45090, P/N KH46677 and P/N KH46678.

On-wing Inspections:

(1) Within the compliance times specified in Appendix 1 of this AD, as applicable to the TBH P/N, accomplish on-wing inspections of the TBH features in accordance with the instructions of the specified sections of the applicable RR Alert NMSB, as referenced in Appendix 1 of this AD.

In-shop Inspections:

(2) Within the compliance times specified in Appendix 2 of this AD, as applicable to the TBH P/N, accomplish in-shop inspections of the TBH features in accordance with the instructions of the specified sections of the applicable RR Alert NMSB, as referenced in Appendix 2 of this AD.

Corrective Action(s):

(3) [DELETED].

(4) [DELETED].

(5) [DELETED].

(6) [DELETED].

(7) [DELETED].

(8) If, during any on-wing inspection of a post-mod 72-J024 TBH (see Note 2 of this AD) as required by paragraph (1) of this AD, any crack is found on the TBH Mount Lug Forging LE or Cutback Areas, as applicable, in accordance with the criteria and within the compliance times defined in paragraph 3.A.(3) of RR Alert NMSB RB.211-72-AJ101, re-inspect the engine, or remove the engine from service, contact RR for approved corrective action instructions and, before release to service of that engine, accomplish those actions accordingly.

(9) If, during any in-shop inspection of a post-mod 72-J024 TBH (see Note 2 of this AD) as required by paragraph (2) of this AD, any crack is found on the TBH Mount Lug Forging LE or Cutback Areas, as applicable, before release to service, repair the engine in accordance with the instructions of section 3.B.(2) of RR Alert NMSB RB.211-72-AJ101.

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Credit:

(10) An engine where the TBH did not pass the original accept criteria as previously specified in NMSB RB.211-72-AH154, affecting certain cracks in the Top Core Vanes (vane 1 and 14) LE, may be released to service, provided the TBH of that engine passes the new accept criteria as specified in the RB211 Trent 900 TLM T-TRENT-9RR dated 23 February 2018 (or later).

Terminating Action:

(11) Accomplishment of corrective actions on an engine, as required by paragraph (8) or (9) of this AD, as applicable, does not constitute terminating action for the repetitive inspections required by paragraphs (1) and (2) of this AD for that engine.

(12) Modification of an engine in accordance with the instructions of RR SB RB.211-72-J055 constitutes terminating action for the repetitive inspections required by paragraph (1) and (2) of this AD for that engine, provided that, following modification, no affected TBH (see Note 2 of this AD) is installed on that engine.

(13) No actions are required by this AD for an engine that embodies RR mod 72-J055 in production, provided that, after entry into service, no affected TBH (see Note 2 of this AD) is installed on that engine.

Ref. Publications:

DELETED

Rolls-Royce Alert NMSB RB.211-72-AJ101 original issue dated 05 May 2016.

Rolls-Royce SB RB.211-72-J024 original issue dated 01 March 2016.

Rolls-Royce SB RB.211-72-J055 original issue dated 22 March 2016.

The use of later approved revisions of the above-mentioned documents 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. The original issue of this AD was posted on 13 June 2016 as PAD 16-088 for consultation until 27 June 2016, and republished on 17 August 2016 as PAD 16-088R1 for additional consultation until 31 August 2016. The Comment Response Document can be found in the EASA Safety Publications Tool, in the compressed (zipped) file attached to the record for this AD.

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

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a product, part or appliance not affected by this AD, can be reported to the EU aviation safety reporting system. 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 http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to **Airworthiness Directives**.

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Notes for the purpose of Appendix 1 and Appendix 2 of this AD:
Note A1: Since new = FC accumulated by the TBH since first installation on an engine.
Note A2: DELETED

Appendix 1 – TBH **On-wing** Inspections

Affected TBH P/N (see Note 2 of this AD) **– Feature**	**Applicable NMSB and Section**	**Alternative NMSB and Section** (see Note A2)	**Compliance Time**	
			Initial Inspection	**Interval** (not to exceed)
DELETED				
DELETED				1 000 FC
DELETED				
Post-mod 72-J024 TBH – Mount Lug Forging LE and Cutback Areas	RB.211-72-AJ101, Section 3.A	In-shop: RB.211-72-AJ101, Section 3.B	Before exceeding 1 000 FC since mod 72-J024 embodiment	

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Appendix 2 – TBH **In-shop** Inspections

Affected TBH P/N (see Note 2 of this AD) **– Feature**	**Applicable NMSB and Section**	**Alternative NMSB and Section** (see Note A2)	**Compliance Time**	
			Initial Inspection	**Interval** (not to exceed)
DELETED				
DELETED				
DELETED				1 000 FC
DELETED				
Post-mod 72-J024 TBH – Mount Lug Forging LE and Cutback Areas	RB.211-72-AJ101, Section 3.B	On-wing: RB.211-72-AJ101, Section 3.A	Before exceeding 1 000 FC since mod 72-J024 embodiment	

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