European Union Aviation Safety Agency

Airworthiness Directive

AD No.: 2007-0201R1

Issued: 16 October 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 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:	Type/Model designation(s):
ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG	RB211 Trent 700 series engines

Effective Date:	Revision 1: 23 October 2025 Original issue: 15 August 2007
TCDS Number(s):	EASA.E.042
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2007-0201 dated 01 August 2007 which superseded EASA AD 2006-0355.

ATA 72 – Engine – High Pressure and Intermediate Pressure Turbine Bearing Oil Vent Tubes – Inspection / Cleaning / Replacement

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

Applicability:
RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus A330 aeroplanes.

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

None.

Reason:
In October 2003 an uncontained multiple Intermediate Pressure (IP) turbine blade release occurred on an RB211 Trent 700 series engine. The blade release was the result of an overspeed of the IP turbine rotor that was initiated by an internal fire in the high pressure (HP) / intermediate pressure (IP) bearing chamber. Post-incident analysis established that blockage of the HP/IP turbine bearing

oil vent tube, due to oil coking, is a significant factor in the failure sequence. CAA UK AD G-2003-0016 (EASA Approval Number 2003-1866) was issued requiring a one-time inspection and cleaning of the HP/IP turbine bearing vent tube. CAA UK AD G-2004-0016 (EASA Approval Number 2004-6754) revised and superseded AD G-2003-0016 by introducing repetitive inspections/cleaning and some changes to the threshold lives. In April 2006 a vent pipe breach incident occurred on another engine, resulting in oil loss, in which it is suspected that carbon build up within the vent pipe was a contributing factor. This indicated that further measures were necessary to enhance the cleaning requirements in order to control carbon build-up. EASA AD 2006-0355 was issued, superseding CAA UK AD G-2004-0016 and introducing enhanced cleaning requirements.

Later, further analysis identified that previous intervention actions may have exacerbated the problem of carbon formation in the vent pipe. These intervention actions are believed to loosen carbon fragments which are subsequently released during engine running, leading to blockage downstream in the vent flow restrictor. The resultant reduced vent pipe flow then causes accelerated carbon to build up inside the pipe and increased likelihood of auto-ignition.

Consequently, EASA issued AD 2007-0201 to supersede AD 2006-0355 to include an additional inspection of the vent pipe restrictor, which should only be carried out after an engine run to high power, following the vent pipe cleaning procedure.

Since that AD was issued, RR issued the Non-Modification Service Bulletin (NMSB) RB211-72-AE302 Revision 11 (and subsequent revisions) removing the instruction to carry out a high-power ground run when the vent tubes are found clean, and no cleaning has been performed.

This AD is revised to introduce relief for engines which passed the HP/IP turbine internal and external oil vent tube inspection without carbon of a visible thickness and no loose deposits detected.

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:

VENT TUBE INSPECTIONS

A. On-Wing Compliance:

(1) For engines with a 05 module installed that are below the threshold life of 10 000 hours or 2 500 cycles since new (whichever occurs first), carry out the Action (part C. below) within 3 months after reaching the threshold life.

(2) For engines with a 05 module installed that has already exceeded the threshold life in (1) and have not previously undergone the Action (part C. below), carry out the Action within 1 month after 15 August 2007 [the effective date of the original issue of this AD].

Note 1: for the purposes of compliance with this AD, inspection/cleaning carried out previously in accordance with the superseded AD is deemed to be valid.

Note 2: All engines should have previously met this requirement in compliance with the superseded AD.

(3) Following return to service, repeat the Action below within the intervals previously established.

Note 3: Re-inspection intervals previously established in compliance with the superseded AD remain valid until this AD is accomplished.

B. In-Shop Compliance:
Carry out the Action (part C. below) for engines at every engine shop visit.

C. Action:
(1) Inspect, clean and replace (as necessary) the HP/IP turbine bearing internal and external oil vent tubes and bearing chamber (as necessary) and repeat to inspect the Vent Flow Restrictor (after either high power ground run, or between 1 and 25 cycles after inspection/cleaning) in accordance with the instructions of Section 3 'Accomplishment Instructions' of RR Alert NMSB RB211-72-AE302 Revision 5 (or later approved revision).

(2) Acceptance Criteria and Re-inspection Requirements for engines having category 3, 4, 5, 6, or loose deposits, of carbon detected, as defined in Table 1 or Table 2 of RR Alert NMSB RB211-72-AE302 Revision 5 (or later approved revision), as applicable, during any inspection as required by paragraph C.(1) or C.(3) of this AD, as applicable:

a) HP/IP turbine bearing internal oil vent tubes confirmed to be free of carbon by passing the RR cleaning tool (HU80298) through the full length may be returned to service and are subject to repeat interval of 6 400 hours or 1 600 cycles (whichever occurs first).

b) HP/IP turbine bearing internal oil vent tubes which contain blockage that prevents the RR cleaning tool (HU80298) from passing through the full length must be removed from service (with the engine) within 10 cycles after the inspection.

c) HP/IP turbine bearing external oil vent tubes (IPC ref 79-22-49, 10-100 and 10-500) which contain carbon of visible (by borescope inspection) thickness after cleaning may not be returned to service.

(3) If, during any inspection as required by paragraph C.(1) or C.(2) of this AD, as applicable, no carbon of a visible thickness (category 1 or 2, as defined in Table 1 or Table 2 of RR Alert NMSB RB211-72-AE302 Revision 5 (or later approved revision), as applicable, and no loose deposits are detected, accomplish the follow-on inspection at interval of 6 400 hours or 1 600 cycles (whichever occurs first).

Ref. Publications:
RR Trent 700 Alert NMSB RB.211−72−AE302 Revision 5 dated 22 May 2007, or Revision 6 dated 29 January 2009, or Revision 7 dated 30 April 2009, or Revision 8 dated 21 October 2009, or Revision 9 dated 16 June 2010, or Revision 10 dated 02 February 2011, or Revision 11 dated 23 March 2021, or Revision 12 dated 30 June 2021, or Revision 13 dated 12 October 2022, or Revision 14 dated 06 November 2023.

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. The original issue of this AD was posted on 15 June 2007 as PAD 07-099 for consultation until 28 June 2007. 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 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**.