Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 25-093

Issued: 26 June 2025

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.
All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:
ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG

Type/Model designation(s):
RB211 Trent 700 engines

Effective Date: [TBD - standard: 7 days after AD issue date]

TCDS Number(s): EASA.E.042

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2024-0102 dated 17 May 2024.

ATA 72 – Engine – Low Pressure Compressor Blades – Inspection

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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:

The NMSB: RR Alert Non-Modification Service Bulletin (NMSB) RB.211−72−AL191.

Where in this AD, reference is made to an RR modification (mod), Service Bulletin (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.

Affected part: Low pressure (LP) compressor blades, having Part Number (P/N) FK23411, FW23643, FW23741, FW23744, KH23403, KH23404 or P/N LV11570.

Serviceable part: An LP compressor blade eligible for installation on an engine which is new (never installed) or an affected part that accumulated at the time of installation less than 1 200 FC/SDC (see Note 1 of this AD) since the last inspection (see Note 2 of this AD) or since new, as applicable.

Note 1: The accumulated life, compliance time and intervals referenced in this AD are specified in Standard Duty Cycles (SDC) for Non-Standard Operations (NSO), and in-flight cycles (FC) for Standard Operations. Section 1.D of the NMSB contains details on how to determine the applicable SDC.

Note 2: The 'last inspection' referenced in this AD is an inspection accomplished in accordance with the instructions of RR NMSB RB.211-72-G702 or RB.211-72-G872 or RB.211-72-H311 or Alert NMSB RB.211-72-AH465 or RB211 Trent 700 Engine Manual (E-TRENT-1RR) Task 72-31-11 or Airbus A330 Aircraft Maintenance Manual Task 72-31-41.

Standard and Non-Standard Operations: Engine operations as defined in RB211 Trent 700 Time Limit Manual (T-Trent-1RR).

Groups:
Group 1 affected parts are those listed by a serial number (s/n) in Appendix 1 of the NMSB.

Group 2 affected parts are those having an s/n not listed in Appendix 1 of the NMSB, which accumulated more than 6 000 FC since the last C-scan inspection.

Group 3 affected parts are those having an s/n not listed in Appendix 1 of the NMSB, which have not been inspected in accordance with the C-scan inspection, and which accumulated on the effective date of this AD more than 6 000 FC (inclusive) since new.

Group 4 affected parts are those having an s/n not listed in Appendix 1 of the NMSB, which accumulated more than 2 400 FC (inclusive) but less than 6 000 FC since the last C-scan inspection.

Group 5 affected parts are those having an s/n not listed in Appendix 1 of the NMSB, which have not been inspected in accordance with the C-scan inspection, and which accumulated on the effective date of this AD more than 2 400 FC but less than 6 000 FC since new.

Group 6 affected parts are those having an s/n not listed in Appendix 1 of the NMSB, which accumulated less than 2 400 FC since the last C-scan inspection.

Group 7 affected parts are those having an s/n not listed in Appendix 1 of the NMSB, which have not been inspected in accordance with the C-scan inspection, and which accumulated on the effective date of this AD less than 2 400 FC since new.

Reason:
Occurrences have been reported of LP compressor partial aerofoil blade release events on RR Trent 700 engines. While primary containment of the released sections was achieved in each case, some of the releases did exhibit secondary effects that are considered to present a potential hazard.

This condition, if not detected and corrected, could lead to LP compressor blade release with possible consequent loss of the engine nose cowl, under cowl fires and forward projection of secondary debris, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

To address this potential unsafe condition, EASA issued AD 2012-0247, AD 2013-0060, AD 2014-0031, AD 2016-0141, AD 2017-0241, AD 2018-0188 (later revised) and 2024-0102, each superseding the previous one, to require repetitive ultrasonic inspections of the affected LP compressor blades.

Since EASA AD 2024-0102 was issued, RR developed improved ultrasonic inspection procedure and issued the NMSB, as defined in this AD.

For the reasons described above, this AD partially retains the requirements of EASA AD 2024-0102, which is superseded, modifies the population of the affected parts and requires accomplishment of the improved repetitive ultrasonic inspections.

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:

Inspection(s):

(1) Within the compliance time as defined in Table 1 of this AD, as applicable to Group of affected parts and, thereafter, at interval not to exceed the value as defined in Table 1 of this AD, as applicable, inspect each affected part in accordance with the instructions of the Section 3. A to 3.D of the NMSB.

Table 1 – Compliance Time and Interval
(See Note 1 and Note 2 of this AD)

Group	Compliance Time	Interval
1	Within 400 FC/SDC after the effective date of this AD or 1 200 FC/SDC after the last inspection, whichever occurs first	1 200 FC/SDC
2		
3		
4	Within 800 FC/SDC after the effective date of this AD or 1 200 FC/SDC after the last inspection, whichever occurs first	
5		
6	Within 1 200 FC/SDC after the last inspection or since new, as applicable	
7		

Corrective Action(s):

(2) If, during any inspection as required by paragraph (1) of this AD, any defect is found on an affected part that exceeds the applicable acceptance criteria as specified in the NMSB, before next flight, or before release to service of the engine, as applicable, replace that affected part with a serviceable part in accordance with the instructions of the NMSB.

Terminating Action:
(3) None.

Part(s) Installation:
(4) From the effective date of this AD, installation on any engine an affected part is allowed, provided that the part meets the conditions as required by paragraph (4.1) or (4.2) of this AD, as applicable, and that, following installation, the part is inspected as required by this AD.

(4.1) The affected part has not exceeded 1 200 FC (or SDC, for NSO) since new, or since the last inspection (see Note 2 of this AD), or since an inspection as specified in paragraph (1) of this AD, whichever occurred later.

(4.2) Prior to installation, the affected part has passed an ultrasonic inspection in accordance with the instructions of the NMSB.

Ref. Publications:

RR Alert NMSB RB.211−72−AL191 original issue dated 30 May 2025.

RR NMSB RB.211-72-G702 original issue dated 23 May 2011, or Revision 1 dated 15 January 2013.

RR NMSB RB.211-72-G872 original issue dated 03 April 2012, or Revision 1 dated 02 July 2012, or Revision 2 dated 08 March 2012, or Revision 3 dated 11 August 2015.

RR NMSB RB.211-72-H311 original issue dated 08 March 2013.

Rolls-Royce Alert NMSB RB.211-72-AH465 dated 15 July 2013, or Revision 1 dated 10 July 2015, or Revision 2 dated 11 May 2016, or Revision 3 dated 27 April 2017, or Revision 4 dated 03 October 2017, or Revision 5 dated 26 July 2018, or Revision 6 dated 29 November 2019, or Revision 7 dated 08 July 2020, or Revision 8 dated 16 January 2023, or Revision 9 dated 16 February 2024.

RB211 Trent 700 Engine Manual (E-TRENT-1RR).

RB211 Trent 700 Time Limit Manual (T-Trent-1RR).

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

Airbus A330 Aircraft Maintenance Manual.

Remarks:

1. This Proposed AD will be closed for consultation on 03 July 2025.

2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred

on a product, part or appliance not affected by this PAD, 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 PAD 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.

4. For any question concerning the technical content of the requirements in this PAD 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.