



# Notification of a Proposal to issue an Airworthiness Directive

**PAD No.:** 20-120

**Issued:** 12 August 2020

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):**

Trent XWB engines

**Effective Date:** [TBD - standard: 14 days after AD issue date]

**TCDS Number(s):** EASA.E.111

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 72 – Engine – Intermediate Pressure Compressor Rotor 1 Blades – Inspection

**Manufacturer(s):**

Rolls-Royce plc

**Applicability:**

Trent XWB-75, Trent XWB-79, Trent XWB-79B and Trent XWB-84 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus A350 aeroplanes.

**Definitions:**

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

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

**The NMSB:** Rolls-Royce Alert Non-Modification Service Bulletin (NMSB) TRENT XWB 72-AK632.

**The inspection NMSB:** Rolls-Royce NMSB TRENT XWB 72-K633.



**Affected part:** Intermediate pressure (IP) compressor Rotor 1 (R1) blades, having Part Number KH21559 (post-SB/mod 72-H408 standard).

**Serviceable part:** An affected part that is new (not previously installed), or that has not exceeded 2 300 engine flight cycles (EFC) since first installation on an engine; or an affected part that, prior to installation, has passed an inspection (no cracks found) in accordance with the instructions of the inspection NMSB.

**Reason:**

Occurrences have been reported of finding cracked IP compressor R1 blades on certain Trent XWB engines that were close to their first planned refurbishment shop visit.

This condition, if not corrected, could lead to blade failure and consequent engine in-flight shut-down (IFSD), possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition and avoiding dual engine IFSD, Rolls-Royce issued the inspection NMSB to provide inspection instructions and the NMSB to provide information on threshold and intervals.

For the reasons described above, this AD requires repetitive inspections of the affected parts and, depending on findings, accomplishment of applicable corrective action(s).

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

Required as indicated, unless accomplished previously:

**Inspection(s):**

- (1) Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 200 EFC, accomplish an on-wing or in-shop inspection of the blade root of each affected part in accordance with the instructions of the inspection NMSB.

Table 1 – Inspection Threshold (see Note 1 of this AD)

EFC Accumulated	Compliance Time
Less than 2 300 EFC	Before exceeding 2 300 EFC, or within 50 EFC after the effective date of this AD, whichever occurs later
2 300 EFC or more	Within 50 EFC after the effective date of this AD

Note 1: Unless indicated otherwise, the EFC specified in Table 1 of this AD are those accumulated by an affected part since first installation on an engine.

**Corrective Action(s):**

- (2) If, during any inspection are required by paragraph (1) of this AD, any affected part is found cracked, before next flight, or before release to service of the engine, as applicable, contact Rolls-Royce for approved corrective action instructions and accomplish those instructions accordingly.



**Credit:**

- (3) Inspection(s) and corrective action(s) on an engine, accomplished before the effective date of this AD in accordance with the instructions of Rolls-Royce NMSB TRENT XWB 72-AK612 or NMSB TRENT XWB 72-AK613, as applicable, are an acceptable method to comply with the initial requirements of paragraphs (1) and (2) of this AD for that engine.

**Terminating Action:**

- (4) None.

**Parts Installation:**

- (5) From the effective date of this AD, it is allowed to install on any engine an affected part, provided this is a serviceable part, as defined in this AD and that, following installation, the affected part is inspected as required by this AD.

**Ref. Publications:**

Rolls-Royce Alert NMSB TRENT XWB 72-AK632 original issue dated 07 August 2020.

Rolls-Royce NMSB TRENT XWB 72-K633 original issue dated 07 August 2020.

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

Rolls-Royce Alert NMSB TRENT XWB 72-AK612 original issue dated 09 July 2020.

Rolls-Royce Alert NMSB TRENT XWB 72-AK613 original issue dated 17 July 2020.

**Remarks:**

1. This Proposed AD will be closed for consultation on 09 September 2020.
2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto: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  
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or send an email through <https://www.rolls-royce.com/contact-us/civil-aerospace.aspx>  
identifying the correspondence as being related to **Airworthiness Directives**.

