



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 19-023

Issued: 14 February 2019

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 plc

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 – Low Pressure Turbine Rear Support Seal Panel – Replacement

Manufacturer(s):

Rolls-Royce plc (RR)

Applicability:

RR Trent XWB-75, XWB-79, XWB-79B and XWB-84 engines, all serial numbers (ESN).

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:

The NMSB: RR Alert Non-Modification Service Bulletin (NMSB) TRENT XWB 72-AJ994 Revision 1 dated 15 November 2018.

Where, in this AD, reference is made to an RR NMSB 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.



Affected part: Low pressure (LP) turbine rear support seal panel assemblies, identified as catalogue serial number (CSN) 72512301890, having a serial number (s/n) as listed in Appendix 1 of the NMSB. This appendix also lists the s/n of the modules 51, and ESN of the engines, in which these panels were originally installed.

Serviceable part: LP turbine rear support seal panel assemblies, identified as CSN 72512301890, having an s/n not listed in Appendix 1 of the NMSB.

Qualified shop visit: Level 3 shop visit (Refurbishment) of an engine equipped with an affected part, or Level 2 shop visit (Check and Repair) of a module 51 containing an affected part.

Reason:

The affected parts, as defined in this AD, are static parts, located behind the intermediate pressure (IP) turbine 2 disc, forming a seal between the IP and LP cavities through an interface with the rotating IP flying seal. It was recently determined that, on certain affected parts, insufficient fusion was achieved on the resistance welding during manufacturing.

This condition, if not corrected, could lead to air leakage through the LP seal panel, affecting the service lives of the IP turbine 2 and LP turbine 1 discs, possibly resulting in premature disc failure and high energy uncontained debris release from the engine, with consequent damage to, and reduced control of, the aeroplane.

To address this potential unsafe condition, RR identified the affected parts and published the NMSB, providing instructions to replace these affected parts.

For the reason described above, this PAD proposes to require replacement of affected parts. This PAD also proposes to prohibit installation of affected parts.

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

Required as indicated, unless accomplished previously:

Replacement:

- (1) During the next qualified shop visit after the effective date of this AD, or during the current shop visit, if, on the effective date of this AD, the engine or the module 51 is in a qualified shop visit as defined in this AD, replace each affected part with a serviceable part in accordance with the instructions of Section 3 of the NMSB.

Credit:

- (2) Replacement of each affected part with a serviceable part on an engine or module 51, as applicable, accomplished before the effective date of this AD in accordance with the instructions of the original issue of RR NMSB TRENT XWB 72-AJ994 is acceptable to comply with the requirements of paragraph (1) of this AD for that engine or module 51, as applicable.

Parts Installation:

- (3) From the effective date of this AD, do not install an affected part on any engine.



Ref. Publications:

RR Alert NMSB TRENT XWB 72-AJ994 original issue dated 05 September 2018, and Revision 1 dated 15 November 2018.

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

Remarks:

1. This Proposed AD will be closed for consultation on 14 March 2019.
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](#).
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**.

