



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 19-157

Issued: 15 August 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 DEUTSCHLAND Ltd & Co KG

Type/Model designation(s):

Trent XWB series engines

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

TCDS Number(s): EASA.E.111

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Front Engine Mount Support Structure – Inspection

Manufacturer(s):

Rolls-Royce plc

Applicability:

Trent XWB-75, Trent XWB-79, Trent XWB-79B and Trent XWB-84 engines, all engine 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: Rolls-Royce Alert Non-Modification Service Bulletin (NMSB) TRENT XWB 72–AK188.

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.



Reason:

The purpose of the engine mount is to position the engine relative to the pylon and to transfer all loads and rotational moments between the engine and pylon. The front engine mount support structure (EMSS) consists of the low pressure compressor (LPC) outlet guide vane (OGV) assembly and OGV outer mount ring assembly. Revised analysis of these parts, when the front engine mount (FEM) is engaged in the fail-safe condition, has now been undertaken using more advanced modelling techniques. This analysis predicts that, once the FEM is in the fail-safe condition, the most highly stressed LPC OGV has a life that could be substantially less than one shop visit interval.

This condition, if not detected and corrected, could lead to failure of the EMSS, possibly resulting in engine separation and reduced control of the aeroplane.

To address this potential unsafe condition, Rolls-Royce introduced inspections to protect against the FEM entering the failsafe condition following a failure of the OGV outer mount ring assembly lugs, and published the NMSB to provide instructions.

For the reason described above, this AD requires repetitive inspections of the OGV outer mount ring assembly lug fillet area 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 1 000 flight cycles (FC), accomplish an inspection of the OGV outer mount ring assembly in accordance with the Accomplishment Instructions of section 3.A (on-wing) or 3.B (in-shop) of section 3 of the NMSB.

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

ESN	FC accumulated	Compliance Time
ESN 21021, 21032, 21033, 21038, 21041, 21043, 21044, 21065, 21088 and 21188	Not applicable	Within 3 months after the effective date of this AD
All other ESN	1 700 FC or more	Within 300 FC or 8 months, whichever occurs first after the effective date of this AD
	Less than 1 700 FC	Before exceeding 2 000 FC

Note 1: Unless indicated otherwise, the FC specified in table 1 of this AD are those accumulated, on the effective date of this AD, by the engine since first installation on an aeroplane.



Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any discrepancy is detected, as specified in the NMSB, re-inspect within the applicable interval as specified in the NMSB, or, before next flight, or before release to service of the engine, as applicable, replace the OGV outer mount ring assembly, in accordance with the instructions of section 3.A (on-wing) or section 3.B (in-shop) of the NMSB.
- (3) If, during any re-inspection as required by paragraph (2) of this AD, any discrepancy is detected that indicates rejection of the OGV outer mount ring, as specified in the NMSB, before next flight, or before release to service of the engine, as applicable, replace the OGV outer mount ring assembly in accordance with the instructions of section 3.A (on-wing) or section 3.B (in-shop) of the NMSB.

Terminating Action:

- (4) None.

Ref. Publications:

Rolls-Royce Alert NMSB TRENT XWB 72-AK188 original issue dated 13 August 2019.

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 29 August 2019.
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.
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**.

