Airworthiness Directive

AD No.: 2023-0189R1

Issued: 26 November 2024

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:
AIRBUS S.A.S.

Type/Model designation(s):
A350 aeroplanes

Effective Date: Revision 1: 03 December 2024
Original issue: 07 November 2023

TCDS Number(s): EASA.A.151

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2023-0189 dated 31 October 2023.

ATA 36 – Pneumatic – Trent XWB Engine Bleed Air Supply System T-Duct – Replacement

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Manufacturer(s):
Airbus

Applicability:
Airbus A350-941 and A350-1041 aeroplanes, all manufacturer serial numbers (MSN).

Note: While the applicability of the SB, as defined in this AD, is limited to aeroplanes having installed Trent XWB-84 and Trent XWB-97 engines, this AD is also applicable to aeroplanes having installed any Trent XWB engine.

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

The SB: Airbus Service Bulletin (SB) A350-36-P033.

The VSB: Eaton (vendor) SB (VSB) RR03-11011-001-75-01.

The NMSB: Rolls-Royce (RR) Alert Non-Modification Service Bulletin (NMSB) TRENT XWB-36-AK870.

The NMSB has an ‘A’ (Alert) in the number, but a later revision may not have that ‘A’. This kind of change does not effectively alter the publication references.

Affected part: Engine Bleed Air System (EBAS) T-Duct having Part Number RR03-11011-001 and a serial number as listed in the APPENDIX 1 of the NMSB, except a part, which has passed (no defect found, or a defect was found and repaired) an inspection and has been re-identified in accordance with the VSB.

Serviceable part: EBAS T-Duct, eligible for installation, which is not an affected part; or an affected part, for which the flight cycles (FC) since new (first installation on an engine of an aeroplane) are known or can be determined (see Note 2 of this AD), and that has not exceeded the compliance time as defined in Table 1 of this AD.

Groups: Group 1 aeroplanes are those that have an affected part installed.
Group 2 aeroplanes are those that do not have an affected part installed.

Reason:

The affected part manufacturer, a sub-supplier to RR for engines Trent XWB bleed ducts, reported that certain EBAS T-Duct may have a non-conformance due to a quality escape not detected during the manufacturing process.

This condition, if not corrected, could cause cracking of the affected part with consequent air leakage, which could result in high-energy debris release (uncontained engine rotor failure), and/or in an engine uncontrolled fire, and thus subsequent loss of control of the aeroplane.

To address this potential unsafe condition, Airbus issued the SB, which refers to the NMSB, to provide instructions for the replacement of the affected parts, and a list of aeroplanes known to be close to the replacement Compliance Time, in order to prioritise logistic support. Consequently, EASA published AD 2023-0189, requiring replacement of affected parts with serviceable parts, and providing criteria for installation of affected parts.

Since that AD was issued, an inspection and, if required, a repair solution of the EBAS duct haves been developed and introduced through the VSB, which, if accomplished on a part, make the replacement requirement of this AD not applicable for that part.

For the reason described above, this AD is revised to update the definition of affected part.

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:

Replacement:

(1) For Group 1 aeroplanes: Within the compliance time as defined in Table 1 of this AD, as applicable depending on EBAS T-Duct criteria, replace each affected part with a serviceable part, as defined in this AD, in accordance, with the instructions of the SB.

Table 1 – Affected EBAS T-Duct Criteria

EBAS T-Duct Criteria	**Compliance Time** (see Notes 1 and 2 of this AD)
The affected part has only been installed on A350-900 aeroplanes, and the FC are known or can be determined	Before exceeding 5 700 FC
The affected part has been installed on A350-900 and A350-1000 aeroplanes, or it cannot be determined on which aeroplanes it has been installed; and the FC are known or can be determined	Before exceeding 5 700 FC
The affected part has only been installed on A350-1000 aeroplanes and the FC are known or can be determined	Before exceeding 8 200 FC
The FC accumulated by the affected part cannot be determined	Within 20 months after 07 November 2023 [the effective date of the original issue of this AD]

Note 1: The FC referred to in Table 1 of this AD are those accumulated by the affected part since new (first installation on an engine of an aeroplane).

Note 2: The NMSB provides instructions to determine the FC accumulated since new (first installation on an engine of an aeroplane) by an affected part.

Part Installation:

(2) For Group 1 and Group 2 aeroplanes: From 07 November 2023 [the effective date of the original issue of this AD] it is allowed to install an affected part on an engine of an aeroplane, provided that the affected part is a serviceable part. Following that installation, the aeroplane is effectively a Group 1, and that affected part must be replaced as required by paragraph (1) of this AD.

Ref. Publications:

Airbus Service Bulletin A350-36-P033 original issue dated 27 October 2023.

Rolls-Royce Alert NMSB TRENT XWB 36-AK870 original issue dated 29 September 2023, or Revision 1 dated 02 October 2024.

The use of later approved revisions of the above-mentioned documents 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication. All interested persons may send their comments, referencing the AD Number, to the E-mail address specified in below Remark 3, prior to 03 January 2025. Only if any comment is received

during the consultation period, a Comment Response Document will be published in the EASA Safety Publications Tool, in a compressed ('zipped') file, attached to the record for this AD.

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: : AIRBUS S.A.S. A350 XWB (1IAK), E-mail: continued-airworthiness.a350@airbus.com.