



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 25-050

Issued: 19 March 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:

AIRBUS S.A.S.

Type/Model designation(s):

A350 aeroplanes

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

TCDS Number(s): EASA.A.151

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2022-0040 dated 08 March 2022.

ATA 73 – Engine Fuel and Control – Hydro-Mechanical Unit – Replacement / Modification

Manufacturer(s):

Airbus

Applicability:

Airbus A350-1041 aeroplanes, all manufacturer serial numbers equipped with Rolls-Royce Trent XWB-97 engines.

Definitions:

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

The AOT: Airbus Alert Operators Transmission (AOT) A73P002-21.

The NMSB: Rolls-Royce Alert Non-Modification Service Bulletin (NMSB) TRENT XWB-73-AK747. 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.



The MSB: Rolls-Royce Modification Service Bulletin (MSB) TRENT XWB 73–L044, which refers to Rolls-Royce MSB G5020HMU-73-8499.

Affected part: Hydro-mechanical units (HMU) having Part Number G5020HMU02.

Serviceable part: An HMU which is not an affected part; or an affected part that has accumulated less than 2 000 engine hours since new (first installation on an aeroplane), or since last Combining Spill Valve (CSV) replacement, or since last overhaul (under specific conditions as listed in the NMSB).

Improved part: An HMU having P/N G5020HMU03 or any later approved P/N eligible for installation in accordance with Rolls-Royce instructions.

Groups: Group 1 aeroplanes are those that have an affected part installed.

Group 2 aeroplanes are those that do not have affected part installed. An A350 aeroplane that has embodied Airbus modification (mod) 120423 in production is a Group 2 aeroplane, provided that the aeroplane remains in that configuration.

Reason:

Rejected take-offs of A350-1000 aeroplanes were reported after the aeroplanes had experienced transient engine N1 shaft speed exceedance. Investigations revealed that the CSV of the engine HMU was slow to close due to piston wear. A worn CSV piston does not move fully and freely over its operating range, and, when it moves to fully closed position, an excess of fuel is sent to the fuel nozzles which eventually results in an N1 transient shaft overspeed.

A stuck CSV piston could significantly reduce engine thrust and, if combined with a loss of the second engine, could possibly result in reduced control of the aeroplane.

To address this potential unsafe condition, Airbus issued the AOT to provide instructions for replacement of the affected parts at reduced life limits.

Consequently, EASA AD 2022-0040 was issued to require replacement of affected parts before exceeding the reduced life limit.

Since that AD was issued, a new HMU was developed, embodied in production through Airbus mod 120423, and Rolls-Royce published the MSB providing instructions for replacement of the affected part by an improved part, as defined in this AD, as terminating action for life limit affected parts replacement.

For the reason described above, this AD retains the requirements of EASA AD 2022-0040, which is superseded, and requires the replacement of the affected parts by improved parts. This AD also prohibits (re)installation of an 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 / Life Limit:

- (1) For Group 1 aeroplanes: Before an affected part exceeds 7 500 engine hours (see Note 1 of this AD), replace that affected part with a serviceable part or an improved part, as defined in this AD, in accordance with the instructions of the AOT.

Note 1: The engine hours referred to in Paragraph (1) of this AD are those accumulated by the affected part since new (first installation on an aeroplane), or since last CSV replacement, or since last overhaul (under specific conditions as listed in the NMSB).

Modification / Replacement:

- (2) For Group 1 aeroplanes: Unless already accomplished as required by paragraph (1) of this AD, within 48 months after the effective date of this AD, replace each affected part with an improved part, as defined in this AD, in accordance with the instructions of the MSB (see Note 2 of this AD).

Note 2: After replacing of each affected part of an aeroplane with an improved part, that aeroplane is considered a Group 2.

Part(s) Installation:

- (3) For Group 1 aeroplanes: From 15 March 2022 [the effective date of EASA AD 2022-0040], it is allowed to install an affected part on an aeroplane, provided that the part is a serviceable part, and that, following installation, the affected part is replaced as required by paragraph (1) or (2) of this AD (see Note 3 of this AD), as applicable.

Note 3: Removal of an affected part from any engine of an aeroplane and subsequent reinstallation of that affected part on the same engine of that aeroplane, accomplished during a single maintenance visit, is not considered as 'installation' as specified in paragraph (3) of this AD.

- (4) Do not install an affected part on any aeroplane, as required by paragraph (4.1) or (4.2) of this AD, as applicable.

(4.1) For Group 1 aeroplanes: After replacement of each affected part with an improved part as required by this AD.

(4.2) For Group 2 aeroplanes: From the effective date of this AD.

Ref. Publications:

Airbus AOT A73P002-21 original issue dated 23 February 2022.

Rolls-Royce Alert NMSB TRENT XWB 73-AK747 original issue dated 22 February 2022.

Rolls-Royce MSB TRENT XWB 73-L044 dated 02 January 2024.



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

Remarks:

1. This Proposed AD will be closed for consultation on 16 April 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: AIRBUS A350 XWB (1IAK), E-mail: continued-airworthiness.a350@airbus.com.

