



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-027

Issued: 22 February 2021

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

Type/Model designation(s):

A380 aeroplanes

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

TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Supersedure: None

ATA 36 – Pneumatic – Cross-Bleed Ducts – Inspection / Replacement

Manufacturer(s):

Airbus

Applicability:

Airbus A380-841, A380-842 and A380-861 aeroplanes, all manufacturer serial numbers.

Definitions:

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

The inspection SB: Airbus Service Bulletin (SB) A380-36-8083.

The modification SB: Airbus SB A380-36-8060.

Affected part: Cross-bleed ducts, having Part Number (P/N) L3611505001000, P/N L3611505002000, or P/N L3611500400000.

Serviceable part: Cross-bleed ducts, P/N L3611513700000 and P/N L3611513800000.



Groups: Group 1 aeroplanes are those that have an affected part installed and, on the effective date of this AD, have accumulated less than 35 000 flight hours (FH) since Airbus date of manufacture.

Group 2 aeroplanes are those that have an affected part installed and, on the effective date of this AD, have accumulated 35 000 FH or more since Airbus date of manufacture.

Group 3 aeroplanes are those that do not have an affected part installed. An aeroplane on which Airbus modification (mod) 78093 has been embodied in production is a Group 3 aeroplane, provided the aeroplane remains in that configuration.

Airbus date of manufacture: The date of transfer of title (ownership) of the aeroplane upon delivery by Airbus to the first operator.

Reason:

Several occurrences were reported of finding cracks on cross-bleed ducts at the welding junction. Subsequent investigation results revealed that a misalignment of duct sub-parts during the welding process originated internal stresses in the joint, leading to cracks during operations. In some cases, this also resulted in titanium cover breaking and in bleed leaks being undetected.

This condition, if not detected and corrected, could lead to thermo-mechanical damage of the surrounding structure, particularly composite and aluminium parts, possibly resulting in reduced structural integrity of the aeroplane.

To address this potential unsafe condition, Airbus issued the inspection SB to provide instructions to inspect the affected parts and surrounding structure. Airbus also developed mod 78093, introducing an improved design of the affected parts, with a standard junction instead of the orbital welding, and published the modification SB providing instructions for retrofit installation.

For the reasons described above, this AD requires repetitive detailed inspections (DET) of each affected part and surrounding structure, and, depending on findings, accomplishment of applicable corrective action(s). This AD also requires replacement of each affected part with a serviceable part. Finally, this AD prohibits (re)installation of an affected part.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 aeroplanes: Before exceeding 36 500 FH since Airbus date of manufacture, or within 7 months after the effective date of this AD, whichever occurs first, accomplish a DET of each affected part and surrounding structure in accordance with the instructions of the inspection SB.
- (2) For Group 1 and Group 2 aeroplanes: Before exceeding the compliance time(s) as specified in Table 1 of this AD, and, thereafter, at intervals not to exceed 1 000 FH, accomplish a DET of each affected part and surrounding structure in accordance with the instructions of the inspection SB.



Table 1 – Cross-bleed Ducts Inspection

Group	Compliance Time
1	Before exceeding 36 500 FH since Airbus date of manufacture, or within 1 000 FH after the inspection as required by paragraph (1) of this AD, whichever occurs later
2	Within 1 500 FH or within 7 months, whichever occurs first after the effective date of this AD

Corrective Action(s):

- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any discrepancy, as defined in the inspection SB, is detected, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the inspection SB.

Modification:

- (4) For Group 1 and Group 2 aeroplanes: Within 21 months after the effective date of this AD, modify the aeroplane in accordance with the instructions of the modification SB.

Terminating Action:

- (5) Accomplishment of corrective action(s) on an aeroplane as required by paragraph (3) of this AD does not constitute terminating action for the repetitive inspections as required by paragraph (2) of this AD for that aeroplane.
- (6) Modification of an aeroplane as required by paragraph (4) of this AD constitutes terminating action for the inspections as required by paragraphs (1) and (2) of this AD for that aeroplane.

Part installation:

- (7) Do not install an affected part on any aeroplane, as required by paragraph (7.1) or (7.2) of this AD, as applicable.
- (7.1) For Group 1 and Group 2 aeroplanes: After modification of the aeroplane as required by paragraph (4) of this AD.
- (7.2) For Group 3 aeroplanes: From the effective date of this AD.

Ref. Publications:

Airbus SB A380-36-8060 original issue dated 03 July 2019.

Airbus SB A380-36-8083 original issue dated 18 December 2020.

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 22 March 2021.



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 SAS - EIANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-mail: account.airworth-A380@airbus.com.

