

## Airworthiness Directive

**AD No.:** 2021-0092

**Issued:** 30 March 2021

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, 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 agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

**Design Approval Holder's Name:**

AIRBUS

**Type/Model designation(s):**

A380 aeroplanes

**Effective Date:** 13 April 2021

**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 caused 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 initial and 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 one-time 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. If requested and appropriately substantiated, EASA can approve alternative methods of compliance for this AD.



2. This AD was posted on 22 February 2021 as PAD 21-027 for consultation until 22 March 2021. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the 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](mailto: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 SAS - EIANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-Mail: [account.airworth-A380@airbus.com](mailto:account.airworth-A380@airbus.com).

REVISED

