



Airworthiness Directive

AD No.: 2018-0221

Issued: 16 October 2018

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: 30 October 2018

TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Supersedure: None

ATA 57 – Wings – Aileron Actuator Fittings – Inspection

Manufacturer(s):

Airbus

Applicability:

Airbus A380-841, A380-842 and A380-861 aeroplanes, all manufacturer serial numbers, except aeroplanes that have embodied Airbus modification (mod) 66431 in production.

Definitions:

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

Affected part: Aileron actuator (jack) fittings, as installed on all aileron surfaces, left hand (LH) and right hand (RH), at inner, middle, and outer positions.

The inspection SB: Airbus Service Bulletin (SB) A380-57-8113.

The modification SB: Airbus SB A380-57-8107.

Reason:

During full-scale fatigue tests conducted on an A380 middle aileron, the six fasteners used at the lower junction of the outer actuator (jack) fitting were found broken, before the structure had reached the Design Service Goal (DSG). Failure of fasteners in these locations would affect the structural integrity of the aileron surface.



This condition, if not detected and corrected, could lead to in-flight detachment of an aileron surface, possibly resulting in reduced control of, and damage to, the aeroplane, or injury to persons on the ground.

Prompted by the results of the subsequent analysis, fatigue life limitations were defined for fasteners installed at the lower junction of both inner and outer actuator (jack) fittings of all ailerons. To address this unsafe condition, Airbus issued the inspection SB to provide inspection instructions. Airbus also developed mod 66431, installing reinforced aileron fittings with improved fastener diameter, material and fitting connection with the composite box of the aileron, and issued the modification SB accordingly to provide in-service (optional) modification instructions. Modification will allow an aeroplane to reach the DSG.

For the reasons described above, this AD requires repetitive (rototest) inspections of the affected parts and, depending on findings, accomplishment of applicable corrective action(s). This AD also provides an optional terminating action for the repetitive inspections.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Before exceeding 8 800 flight cycles (FC) or 64 700 flight hours (FH), whichever occurs first since aeroplane first flight, and, thereafter, at intervals not to exceed 8 800 FC or 64 700 FH, whichever occurs first, accomplish a rototest inspection of the lower flange fastener holes of each affected part in accordance with the instructions of the inspection SB.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, no crack is detected, before next flight, install new fasteners in accordance with the instructions of the inspection SB.
- (3) If, during any inspection as required by paragraph (1) of this AD, a crack is detected, before next flight, contact Airbus for approved corrective action instructions, and, within the compliance time specified therein, accomplish those instructions accordingly.

Terminating Action:

- (4) Installation of new fasteners on an aeroplane, as required by paragraph (2) of this AD, does not constitute terminating action for the repetitive rototest inspections as required by paragraph (1) of this AD for that aeroplane.
- (5) Modification of an aeroplane in accordance with the instructions of the modification SB constitutes terminating action for the repetitive rototest inspections as required by paragraph (1) of this AD for that aeroplane.

Ref. Publications:

Airbus SB A380-57-8107, original issue dated 02 July 2018.

Airbus SB A380-57-8113, original issue dated 02 July 2018.



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 06 September 2018 as PAD 18-123 for consultation until 04 October 2018. 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.
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](#).
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.

