



Airworthiness Directive

AD No.: 2016-0005

Issued: 07 January 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A310 aeroplanes

Effective Date: 21 January 2016

TCDS Number(s): EASA.A.172

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2014-0200R1 dated 19 September 2014.

ATA 57 – Wing – Wing Top Skin Panels – Inspection / Repair

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A310 aeroplanes, all certified models, all manufacturer serial numbers.

Reason:

Following scheduled maintenance, cracks were found around the wing top skin panels fastener holes at Rib 2, between Stringer (STG) 2 and STG14.

This condition, if not detected and corrected, could jeopardize the structural integrity of the aeroplane. The General Visual Inspection required by the existing applicable Airworthiness Limitation Items (ALI) tasks may not be adequate to detect these cracks.

To address this issue, Airbus developed an inspection programme based on repetitive detailed inspections (DET) to ensure that any visible cracks in the wing top skin panels 1 and 2 along Rib 2



are detected in time and repaired appropriately. EASA issued AD 2008-0211 to require implementation of this inspection programme.

After that AD was issued, Airbus improved the inspection programme with an ultrasonic inspection to allow earlier crack detection, to subsequently reduce the scope of potential repair action, and to extend the intervals of the repetitive inspections.

Consequently, EASA issued AD 2014-0200 (later revised), superseding AD 2008-0211, retaining its requirements, and to require supplementary repetitive ultrasonic inspections of the wing top skin panel 1 and 2 between STG2 and STG10 at Rib 2.

Since EASA AD 2014-0200R1 was issued, a widespread fatigue damage analysis concluded that the inspection programme has to be extended to include the wing top skin panels at Rib 3 attachments. For the reasons described above, this AD retains the requirements of EASA AD 2014-0200R1, which is superseded, and extends the inspection area to include Rib 3.

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

Required as indicated, unless accomplished previously:

- (1) Within the initial compliance time and, thereafter, at intervals defined in Table 1 of this AD, as applicable to aeroplane model and Average Flight Time (AFT), accomplish the actions specified in paragraphs (1.1) and (1.2) of this AD concurrently and in sequence in accordance with the instructions of Airbus Service Bulletin (SB) A310-57-2096 Revision 03:
 - (1.1) Accomplish a DET around the fastener holes in the wing top skin panels 1 and 2, along Rib 2 and Rib 3, between the front and rear spars on the left-hand (LH) and right-hand (RH) sides, and
 - (1.2) Accomplish an ultrasonic inspection around the fastener holes in the wing top skin panels 1 and 2, along Rib 2 and Rib 3, between STG2 and STG10 on the LH and RH sides.

Table 1 – Inspection threshold and intervals, whichever occurs first, flight hours (FH) or flight cycles (FC)

| Aeroplane Models / AFT (See Note 1) | Thresholds (since aeroplane first flight) | Intervals (not to exceed) |
|-------------------------------------|---|---------------------------|
| A310-200 | 37 400 FH 18 700 FC | 4 100 FH 2 000 FC |
| A310-300 (AFT < 4 hours) | 48 400 FH 17 300 FC | 5 600 FH 2 000 FC |
| A310-300 (AFT ≥ 4 hours) | 64 300 FH 12 800 FC | 7 500 FH 1 500 FC |

Note 1: For the purpose of this AD, the AFT should be established as follows for the determination of:

- The inspection threshold (TH), as the total accumulated FH, counted from take-off to touch-down, divided by the total accumulated FC at the effective date of this AD.



- The first inspection interval (INT), as the total accumulated FH divided by the total accumulated FC at the time of the TH inspection.
 - The second inspection INT onwards, as the FH divided by the FC accumulated between the last two inspections.
- (2) For an aeroplane already inspected before the effective date of this AD in accordance with the instructions of Airbus SB A310-57-2096 at revision 02 (DET and ultrasonic at Rib 2), the next inspection (DET and ultrasonic) after effective date of this AD must be accomplished at both Rib 2 and Rib 3 of that aeroplane at the next scheduled interval as defined in Table 1 of this AD, as applicable.
 - (3) For an aeroplane already inspected (DET only) before the effective date of this AD in accordance with the instructions of Airbus SB A310-57-2096 at original issue or Revision 01, the next inspection (DET and ultrasonic) after the effective date of this AD must be accomplished at both Rib 2 and Rib 3 of that aeroplane within the interval (since the last inspection) defined in Table 2 of this AD, as applicable. Thereafter, accomplish the actions as required by paragraph (1) of this AD on that aeroplane.
 - (4) If no ultrasonic equipment is available for the first or the next due inspection as required by paragraph (1) of this AD, as applicable, accomplish a DET as specified in paragraph (1.1) of this AD, as required by paragraph (4.1) or (4.2) of this AD, as applicable.
 - (4.1) For an aeroplane not inspected before the effective date of this AD: Within the initial compliance time defined in Table 1 of this AD.
 - (4.2) For an aeroplane already inspected before the effective date of this AD in accordance with the instructions of Airbus SB A310-57-2096 at original issue or Revision 01 or Revision 02: Within the interval (since the last inspection) as defined in Table 2 of this AD, as applicable.
 - (5) After inspecting an aeroplane as specified in paragraph (4) of this AD, within the intervals as defined in Table 2 of this AD, as applicable, accomplish a DET and an ultrasonic inspection on that aeroplane as specified in paragraphs (1.1) and (1.2) of this AD and, thereafter, accomplish the actions as required by paragraph (1) of this AD on that aeroplane.

Table 2 - Inspection intervals for aeroplanes already inspected in accordance with Airbus SB A310-57-2096 at original issue or Revision 01:

| Aeroplane Models (AFT) (See Note 1) | Intervals (whichever occurs first, FH or FC, since last inspection) |
|--|---|
| A310-200 | 3 500 FH 1 700 FC |
| A310-300 (AFT < 4 hours) | 4 600 FH 1 600 FC |
| A310-300 (AFT ≥ 4 hours) | 6 100 FH 1 200 FC |



- (6) If, during any inspection as required by this AD, as applicable, any cracks are found, before next flight, contact Airbus for approved repair instructions and accomplish those instructions accordingly.
- (7) Repair of an aeroplane, as required by paragraph (6) of this AD, in accordance with approved Airbus instructions, constitutes terminating action for the repetitive inspections required by paragraph (1) of this AD only for the repaired area(s) of that aeroplane. Such areas must subsequently be inspected in accordance with the inspection programme defined in the Airbus repair instruction document.

Ref. Publications:

Airbus SB A310-57-2096 original issue dated 06 May 2008, or Revision 01 dated 05 August 2010, or Revision 02 dated 05 March 2014, or Revision 03 dated 30 June 2015.

The use of later approved revisions of this document or these 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 25 November 2015 as PAD 15-143 for consultation until 23 December 2015. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS SAS – EIAW (Airworthiness Office) E-mail: continued.airworthiness-wb.external@airbus.com

