Airworthiness Directive

AD No.: 2020-0172

Issued: 03 August 2020

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):
A340 aeroplanes

Effective Date: 10 August 2020

TCDS Number(s): EASA.A.015

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2019-0297R1 dated 16 January 2020.

ATA 57 – Wings – Lower Skin Covers at Rib Bays – Inspection

Manufacturer(s):
Airbus, formerly Airbus Industrie

Applicability:
Airbus A340-541, A340-542, A340-642 and A340-643 aeroplanes, manufacturer serial numbers (MSN) as identified in the SB.

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

The AOT: Airbus Alert Operators Transmission (AOT) A57L014-19 Revision 01.

The SB: Airbus Service Bulletin (SB) A340-57-5048.

Affected areas: Rib Bays 3-4, 5-6, 7-8, 10-11 at stringer (STR) 20 and STR21 on left-hand (LH) and right-hand (RH) wings.

Airbus date of manufacture: The date of transfer of title (ownership) which is referenced in Airbus documentation at the time of first delivery to an operator.

Groups: Group 1 aeroplanes are MSN as specified in the SB, where they are defined as Configuration 001 aeroplanes.

Group 2 aeroplanes are MSN 0601, 0604, 0672 and 0744, defined as Configuration 002 aeroplanes in the SB.

The applicable RDAS: The individualised Repair Design Approval Sheet (RDAS) provided by Airbus for Group 2 aeroplanes on which any affected areas have been inspected and repaired before issuance of Airbus AOT A57L014-19 at original issue.

The first applicable repair: For Group 2 aeroplanes on which any affected area has been inspected and repaired before issuance of Airbus AOT A57L014-19 at original issue, the first applicable repair is the date of embodiment of the first repair (installation of the repair plate on the first repaired wing (LH or RH) at rib bays 3-4 at stringer 20 and 21), as specified in the applicable RDAS, as defined in this AD.

Reason:

Cracks were reported on A340-500 and A340-600 aeroplanes on the wing lower cover in rib bay 3-4 at STR20A and STR21A, both LH and RH sides. In some cases, the cracks resulted in fuel leaks. All affected aeroplanes are in post-mod 48487 configuration.

This condition, if not detected and corrected, could reduce the residual strength of the structure of the wing.

To initially address this potential unsafe condition, Airbus issued AOT A57L014-19 at original issue to provide inspection instructions. Consequently, EASA published AD 2019-0114 to require a one-time detailed visual inspection (DVI) and High Frequency Eddy Current (HFEC) inspection of the lower wing skin panels around fastener heads located on STR20A and STR21A, between Rib 3 and Rib 4 on LH and RH wings.

After that AD was issued, it was determined that the inspection was also needed for rib bays 5-6, 7-8 and 10-11 for both wings and Airbus developed a new inspection method (ultrasonic (US) inspection instead of HFEC). Consequently, Airbus published the AOT, as defined in this AD, expanding the area to be inspected. However, it was decided that only aeroplanes pre-AOT A57L014-19 at original issue had to be inspected by the AOT, as defined in this AD. Consequently, EASA issued AD 2019-0297 (later revised to exclude MSN 0601 from the Applicability), extending the area to be inspected for aeroplanes pre-AOT A57L014-19 at original issue, retaining the requirement for a one-time DVI and in addition requiring a US inspection of the lower wing skin panels around all fastener heads specified in the AOT, as defined in this AD.

Since EASA AD 2019-0297R1 was issued, Airbus published the SB, as defined in this AD, to provide instructions for repetitive special detailed inspection (SDI) of the affected areas, for all aeroplanes as identified in the SB.

For the reason described above, this AD partially retains the requirements of EASA AD 2019-0297R1, which is superseded, and requires accomplishment of the actions specified in the SB.

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

Required as indicated, unless accomplished previously:

Inspection [retained from EASA AD 2019-0297R1]:

(1) For Group 1 aeroplanes, except those on which the instructions of Airbus AOT A57L014-19 at original issue were accomplished, including corrective action(s), as applicable: Within the compliance times specified in Table 1 of this AD, accomplish a DVI of the external surface of the wing lower skin covers at all fastener hole locations (see Figures 5 and 6 of the AOT, as defined in this AD) at the affected areas, and a US inspection of specific fastener hole locations (see Figures 5, 6, 7 and 8 of the AOT, as defined in this AD) at the affected areas, in accordance with the instructions of the AOT, as defined in this AD.

Table 1 – Affected Areas DVI and US inspection

Compliance Time (whichever occurs later, **A** or **B**)	
A	Before exceeding 3 200 flight cycles (FC) or 19 600 flight hours (FH), whichever occurs first since Airbus date of manufacture
B	Within 12 months after 07 June 2019 [the effective date of EASA AD 2019-0114]

Repetitive Inspections:

(2) For Group 1 and Group 2 aeroplanes, except as specified in paragraph (3) of this AD: Within the compliance times specified in Table 2 of this AD, as applicable, and, thereafter, at intervals not to exceed 10 000 FH or 24 months, whichever occurs first, accomplish an SDI of the affected areas, in accordance with the instructions of the SB.

Table 2 – Initial SDI

Group	**Compliance Time**
1	Within 24 months or 1 600 FC or 10 000 FH, whichever occurs first after accomplishment of Airbus AOT Airbus AOT A57L014-19 at any revision
2	Within 24 months or 1 600 FC or 10 000 FH, whichever occurs first after embodiment of the first applicable repair, as defined in this AD

Alternative Action:

(3) For Group 1 and 2 aeroplanes: For stringer rib bays already repaired by plate or bush, following the instructions of the applicable RDAS, as defined in this AD, or any other RDAS for these bays, the post-RDAS applicable instructions must be accomplished (see also paragraph (6) of this AD).

Corrective Action(s):

(4) If, during the DVI and the US inspection, as required by paragraph (1) of this AD, any crack is detected, before next flight, contact Airbus for approved repair instructions and accomplish those instructions accordingly.

(5) If, during any SDI as required by paragraph (2) of this AD, any crack is detected, before next flight, contact Airbus for approved repair instructions and accomplish those instructions accordingly.

Terminating Action:

(6) Repair on an aeroplane of one (or more) of the affected areas, as defined in this AD, in accordance with the instructions of an RDAS, as required by paragraph (4) or (5) of this AD, as applicable, does not constitute terminating action for the repetitive SDI as required by paragraph (2) of this AD for the affected area(s) on that aeroplane, unless otherwise indicated in the approved RDAS instructions.

Ref. Publications:

Airbus AOT A57L014-19 original issue dated 07 May 2019, or Revision 01 dated 29 November 2019.

Airbus SB A340-57-5048 original issue dated 09 April 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 02 July 2020 as PAD 20-103 for consultation until 16 July 2020. 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 Programming and Continued Airworthiness 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. 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 – IIAL (Airworthiness Office), E-mail: airworthiness.A330-A340@airbus.com.