



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 18-127

Issued: 13 September 2018

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):

A330 and A340 aeroplanes

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

TCDS Numbers: EASA.A.004, EASA.A.015

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2017-0069 dated 25 April 2017.

ATA 57 – Wings – Centre Wing Box Fastener Holes at Frame 40 Vertical Web – Inspection / Modification

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342 and A330-343 aeroplanes, all manufacturer serial numbers (MSN), and

Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN,

except those on which Airbus Repair Instruction (RI) R57115092 has been embodied in service on both Right Hand (RH) and Left Hand (LH) sides.

Definitions:

For the purpose of this AD, the following definition applies:

The applicable Inspection SB: Airbus Service Bulletin (SB) A330-57-3114 Revision 01 (centre wing box (CWB) area to be inspected: below – see references in Table 1 of this AD), SB A330-57-3115



Revision 02 (above) and SB A330-57-3116 Revision 02 (below); or SB A340-57-4123 original issue (below), SB A340-57-4124 Revision 03 (above) and SB A340-57-4125 Revision 02 (below), as applicable.

The applicable Modification SB: Airbus SB A330-57-3129 Revision 01 and SB A340-57-4136 Revision 01, as applicable.

The applicable Optional Modification SB: Airbus SB A330-57-3130 (at any revision), SB A330-57-3131 (at any revision) and SB A330-57-3132 (at any revision), as applicable; or SB A340-57-4137 (at any revision), SB A340-57-4138 and SB A340-57-4139 (at any revision), as applicable.

Reason:

During accomplishment of A330 Airworthiness Limitation Item (ALI) task 57-11-04 on the rear fitting of the Frame (FR) 40 between stringers (STR) 38 and STR39 on both left-hand (LH) and right-hand (RH) sides of the fuselage, cracks were found on an adjacent hole. After reaming at second oversize of the subject hole, the crack was still present. As a result of a sampling inspection program, additional crack findings were reported on this adjacent hole on other A330 and A340 aeroplanes.

This condition, if not detected and corrected, could affect the structural integrity of the centre fuselage of the aeroplane.

Prompted by these findings, Airbus issued the applicable Inspection SB (at the time, all at original issue) to provide inspection instructions and, consequently, EASA issued AD 2014-0149 to require removal of the fasteners and repetitive Special Detailed Inspections (SDI) of fastener holes at FR40 vertical web above or below CWB lower panel reference on both LH and RH sides of the fuselage, and, depending on findings, accomplishment of the applicable corrective actions. That AD did not apply to aeroplanes on which Airbus modification (mod) 55792 or mod 55306 had been embodied in production.

After that AD was issued, Airbus published SB A330-57-3115 Revision 01 and SB A340-57-4124 Revision 02, which introduced revised thresholds and intervals for the repetitive inspections of the inside CWB (above bottom skin). In addition, for certain aeroplanes, Airbus developed mod 206051, introducing reinforcement of the structural integrity of the inside CWB (above bottom skin) area, and published the applicable Modification SB (both original issue), which avoided the need for repetitive inspections for the inside of the CWB for those aeroplane. Airbus also published SB A330-57-3116 Revision 01 and SB A340-57-4125 Revision 01, to include aeroplanes in post-mod 44360 and post-mod 49202 configuration for inspections of the outside CWB (below bottom skin), and introduced revised thresholds and intervals for the repetitive inspections of the outside CWB, and to provide an alleviation of the number of holes to be inspected. The repetitive inspection program for aeroplanes in pre-mod 44360 configuration remained unchanged.

Consequently, EASA issued AD 2017-0069, partially retaining the requirements of EASA AD 2014-0149, which was superseded, to require new repetitive inspections of the fastener holes at FR40 of the inside and the outside CWB (above and below bottom skin), and the implementation of the modification of the inside CWB.



Since that AD was issued, Airbus finalised an inspection program for A330-200F aeroplanes and published SB A330-57-3116 Revision 02, SB A330-57-3132 Revision 01 and SB A330-57-3129 Revision 01 accordingly. Airbus also published the applicable Modification SB, introducing a lower threshold for the modification, which allows operation to the Extended Service Goal (ESG) objective without any additional inspections. For the same reason, Airbus issued SB A330-57-3115 Revision 02, SB A330-57-4124 Revision 03, SB A330-57-3130 Revision 01 and SB A340-57-4137 Revision 01, for aeroplanes in post-mod 206050 configuration. Finally, it was determined that the lower threshold for embodiment of the applicable Modification SB must be counted from aeroplane first flight, not since Airbus mod 206049 implementation, as previously indicated.

For the reasons described above, this AD retains the requirements of EASA AD 2017-0069, which is superseded, extends the compliance time for A330-200F aeroplanes as no accomplishment instructions existed before, adds references to the latest Airbus SB revisions, introduces a window of embodiment for modification of the inside CWB, as well as a correction of the window of embodiment for the Optional Modification SB.

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

Required as indicated, unless accomplished previously:

Repetitive Inspections:

- (1) Before exceeding the thresholds as specified in the applicable Inspection SB, except as specified in paragraph (2) of this AD, depending on aeroplane configuration and utilisation, or within the compliance time specified in Table 1 of this AD, whichever occurs later, and, thereafter, at intervals not to exceed the values defined in the applicable Inspection SB, except as specified in paragraph (3) of this AD, depending on aeroplane configuration and utilisation, and in accordance with the instructions of the applicable Inspection SB, depending on aeroplane utilisation, configuration and area to be inspected (above or below), remove the fasteners and accomplish an SDI of the fastener holes at FR40 vertical web, on both LH and RH sides, of the affected CWB lower panel area.

Table 1 – Inspection Threshold

Aeroplane (configuration)	CWB Area	Compliance Time
A330 (pre-mod 44360), except A330-200F	Below	Within 2 400 flight cycles (FC) or 24 months, whichever occurs first after 27 June 2014 [the effective date of EASA AD 2014-0149]
A340 (pre-mod 44360)		Within 1 300 FC or 24 months, whichever occurs first after 27 June 2014 [the effective date of EASA AD 2014-0149]
A330 and A340 (post-mod 44360), except A330-200F	Below	Within 18 months after 23 May 2017 [the effective date of this EASA AD 2017-0069]
A330 and A340 (post-mod 44360 and pre-mod 55306), except A330-200F	Above	
A330-200F	Below	Within 24 months after the effective date of this AD



- (2) When it is determined that, on an aeroplane, no Repair Design Approval Sheet (RDAS) is found to exist for the FR40 area, it is acceptable to accomplish the first SDI before exceeding the applicable threshold, instead of 'before next flight', as specified in the applicable Inspection SB.
- (3) For post-mod 44360 aeroplanes and pre-mod 55306 aeroplanes that have previously been inspected (see paragraph (7) of this AD) as previously required by EASA AD 2014-0149, it is allowed to defer the next due inspection to 18 months after 23 May 2017 [the effective date of this EASA AD 2017-0069], provided the previous inspection interval, as applicable, depending on aeroplane configuration and utilisation, as defined in the previous revision of applicable Inspection SB, is not exceeded.

Corrective Action(s):

- (4) If, during any SDI as required by paragraph (1) of this AD, no crack is detected, before next flight, install new fasteners in transition fit, in accordance with the instructions of the applicable Inspection SB.
- (5) If, during any SDI as required by paragraph (1) of this AD, a crack is detected, accomplish the applicable actions (additional inspection followed by repetitive inspections) within the times specified in, and in accordance with the instructions of, the applicable Inspection SB, or, depending on findings, before next flight, contact Airbus to obtain an RDAS and accomplish that repair accordingly, including post-repair follow-on action(s), if any are specified in that RDAS.
- (6) If, during any SDI of a post-mod 44360 aeroplane, as required by paragraph (1) of this AD, a crack is detected only on the LH or RH side, as previously repaired by an Airbus RDAS, it is acceptable to partially apply the applicable Optional Modification SB (optional terminating action – see section 'Definitions' and paragraph (12) and (13) of this AD), on the opposite side, provided no RDAS was found to exist, as specified in the applicable Inspection SB, on that side.

Credit:

- (7) Inspection(s) and corrective action(s) on an aeroplane, accomplished before the effective date of this AD in accordance with the instructions Airbus SB A330-57-3114 original issue, or SB A330-57-3115 original issue or Revision 01, or SB A330-57-3116 original issue or Revision 01, or SB A340-57-4123 original issue, or SB A340-57-4124 original issue, or Revision 01, or Revision 02, or SB A340-57-4125 original issue, or Revision 01, as applicable, are acceptable to comply with the initial requirements of paragraphs (1), (4) and (5) of this AD, as applicable, for that aeroplane.
- (8) Inspection(s) and corrective action(s) and installation of fasteners on an aeroplane, accomplished before 23 May 2017 [the effective date of EASA AD 2017-0069] in accordance with the instructions of Airbus Technical Disposition Reference LR57D11023270, LR57D11023714, or LR57D11029170, or LR57D11029171, or LR57D11029172, or LR57D11029173, or LR57D11030740, or LR57D11030741, as applicable, are acceptable to comply with the initial requirements of paragraphs (1), (4) and (5) of this AD, as applicable, for that aeroplane.



Modification:

- (9) For aeroplanes in post-mod 55306 and pre-mod 205225 configuration, before exceeding the thresholds and not before reaching the lower limits as specified in Table 2 of this AD, as applicable, depending on short range (SR) or long range (LR) operation (see Note 1 of this AD), or within the applicable compliance time specified in Table 3 of this AD, whichever occurs later, modify the inside CWB (above bottom skin) in accordance with the instructions of the applicable Modification SB.

For an A330-300 or A340-300 aeroplane, on which the applicable Modification SB was embodied before reaching the lower threshold, as defined in Table 2 of this AD, within 12 months after the effective date of this AD, contact Airbus for additional instructions and, within the compliance time specified by Airbus, accomplish those instructions accordingly.

Note 1: The instructions provided by Airbus Operators Information Telex (OIT) 999.0086/11 can be used to determine whether an aeroplane is operated SR or LR.

Table 2 – Window of embodiment for CWB Modification (see Notes 1 and 2 of this AD)

Aeroplanes	Lower Threshold, not before (FH or FC, whichever occurs first)	Upper Threshold, before exceeding (FH or FC, whichever occurs first)
A330-200, except -200F	none	SR: 36 908 FH or 10 545 FC
		LR: 51 198 FH or 7 877 FC
A330-300	2 016 FC	SR: 32 475 FH or 9 941 FC
		LR: 52 115 FH or 7 702 FC
A330-200F	20 902 FH or 3 634 FC	25 833 FH or 8 611 FC
A340-300	25 399 FH or 5 036 FC	SR: 27 627 FH or 6 907 FC
		LR: 35 065 FH or 5 195 FC

Note 2: The flight hours (FH) and FC specified in Table 2 of this AD are those accumulated by the aeroplane since first flight.

Table 3 – Grace Period

Aeroplanes	Compliance Time
A330 and A340, except A330-200F	Within 18 months after 23 May 2017 [the effective date of EASA AD 2017-0069]
A330-200F	Within 18 months after the effective date of this AD

Related Actions:

- (10) Accomplishment on an aeroplane of the initial and repetitive inspections as required by this AD, cancels the need to accomplish Airworthiness Limitation Items (ALI) task 57-11-02 and task 57-11-04 for that aeroplane.
- (11) Modification of an aeroplane as required by paragraph (9) of this AD cancels the need to accomplish ALI task 57-11-02 for that aeroplane.



Terminating Action:

- (12) Modification of a post-mod 44360 aeroplane by multiple cold working in accordance with the instructions of the applicable Optional Modification SB, constitutes terminating action for the repetitive SDI as required by this AD for that aeroplane, provided this is accomplished within the compliance times specified in the applicable Inspection SB, depending on aeroplane configuration and on accumulated FH/FC at the time of Optional Modification SB embodiment.
- (13) Partial application (LH or RH side) of the applicable Optional Modification SB on an aeroplane, as specified in paragraph (6) of this AD, constitutes terminating action for the repetitive SDI as required by this AD for the modified LH or RH side of that aeroplane.

Ref. Publications:

Airbus SB A330-57-3114 original issue dated 12 March 2013, or Revision 01 dated 13 January 2017.

Airbus SB A330-57-3115 original issue dated 04 April 2013, or Revision 01 dated 23 November 2016, or Revision 02 dated 29 May 2018.

Airbus SB A330-57-3116 original issue dated 12 March 2013, or Revision 01 dated 23 November 2016, or Revision 02 dated 05 February 2018.

Airbus SB A330-57-3129 original issue dated 05 October 2016, or Revision 01 dated 21 September 2017.

Airbus SB A330-57-3130 original issue dated 23 November 2016, or Revision 01 dated 18 February 2018.

Airbus SB A330-57-3131 original issue dated 23 November 2016, or Revision 01 dated 13 February 2018.

Airbus SB A330-57-3132 original issue dated 23 November 2016, or Revision 01 dated 05 February 2018.

Airbus SB A340-57-4123 original issue dated 12 March 2013, or Revision 01 dated 13 January 2017.

Airbus SB A340-57-4124 original issue dated 04 April 2013, or Revision 01 dated 22 August 2013, or Revision 02 dated 23 November 2016, or Revision 03 dated 28 May 2018.

Airbus SB A340-57-4125 original issue dated 12 March 2013, or Revision 01 dated 23 November 2016, or Revision 02 dated 25 April 2018.

Airbus SB A340-57-4136 original issue dated 05 October 2016, or Revision 01 dated 27 September 2017.

Airbus SB A340-57-4137 original issue dated 23 November 2016, or Revision 01 dated 27 September 2017.



Airbus SB A340-57-4138 original issue dated 23 November 2016, or Revision 01 dated 13 February 2018.

Airbus SB A340-57-4139 original issue dated 23 November 2016.

Airbus OIT 999.0086/11 dated 9 November 2011.

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 11 October 2018.
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](#).
4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – EIAL (Airworthiness Office), E-mail: airworthiness.A330-A340@airbus.com.

