



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 17-014

Issued: 25 January 2017

Note: This Proposed Airworthiness Directive (PAD) 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.

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 2014-0149 dated 13 June 2014.

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.

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 LH and 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, EASA issued AD 2014-0149 to require removal of the fasteners and repetitive Special Detailed Inspection (SDI) of fastener holes at FR40 vertical web above or below Centre Wing Box (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 excluded certain aeroplanes from the Applicability, on which Airbus modification (mod) 55792 or mod 55306 had been embodied in production.

Since EASA AD 2014-0149 was issued, prompted by complementary fatigue analyses correlated with in-service findings, Airbus published Service Bulletin (SB) A330-57-3115 Revision 01 and SB A340-57-4124 Revision 02, applicable to post-mod 44360 and pre-mod 55306 configuration aeroplanes, which introduced revised thresholds and intervals for the repetitive inspections of the inside CWB (above bottom skin), and an alleviation of the number of holes to be inspected.

In addition, for aeroplanes in post-mod 44360, post-mod 55306 and pre-mod 205225 configuration, Airbus developed mod 206051, introducing reinforcement of the structural integrity of the inside CWB (above bottom skin) area, and published associated Airbus SB A330-57-3129 and SB A340-57-4136, as applicable, which avoids the need for required repetitive inspections for the inside of the CWB.

Finally, Airbus published SB A330-57-3116 Revision 01 and SB A330-57-4125 Revision 01, as applicable, to expand their Effectivity 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 remains unchanged.

For the reasons described above, this AD partially retains the requirements of EASA AD 2014-0149, which is superseded, and requires 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, as terminating of the repetitive SDI.

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

Required as indicated, unless accomplished previously:

Note 1: Airbus SB A330-57-3114 and SB A330-57-3115 Revision 01 and SB A330-57-3116 Revision 01, or SB A340-57-4123 and SB A340-57-4124 Revision 02 and SB A340-57-4125 Revision 01, as applicable, are hereafter referred to as “the applicable Inspection SB” in this AD.

Note 2: Airbus SB A330-57-3130 and SB A330-57-3131 and SB A330-57-3132; or SB A340-57-4137 and SB A340-57-4138; or SB A340-57-4139; (at any revision), as applicable, depending on aeroplane configuration, are hereafter referred to as “the applicable Optional Modification SB” in this AD.



Repetitive Inspections:

- (1) Before exceeding the threshold as specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed the values defined in, 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 Type (configuration)	CWB Area	Compliance Time (whichever occurs later, A or B)
A330 (pre-mod 44360)	Below	A: Before exceeding the threshold defined in the applicable Inspection SB, depending on aeroplane configuration and utilisation B: 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)		A: Before exceeding the threshold defined in the applicable Inspection SB, depending on aeroplane configuration and utilisation B: 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)	Below	A: Before exceeding the threshold defined in the applicable Inspection SB, depending on aeroplane configuration and utilisation
A330 and A340 (pre-mod 55306)	Above	B: Within 18 months after the effective date of this AD

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 transition fit, in accordance with the instructions of the applicable Inspection SB.
- (3) If, during any inspection, 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 a Repair Design Approval Sheet (RDAS) and accomplish that repair accordingly, including post-repair follow-on action(s), if any are specified in that RDAS.

If, during any inspection 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 Note 2 and paragraph (8) of this AD), on the non-repaired side.



Credit for Previous Action(s):

- (4) Inspection(s) and, depending on findings, 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 SB A330-57-3116 original issue, or SB A340-57-4123 original issue, or SB A340-57-4124 original issue or Revision 01, or SB A340-57-4125 original issue, as applicable, are acceptable to comply with the initial requirements of paragraphs (1), (2) and (3) of this AD, as applicable, for that aeroplane.

Inspection(s) and, depending on findings, corrective action(s) and installation of fasteners of an aeroplane, accomplished before the effective date of this AD 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), (2) and (3) of this AD, as applicable, for that aeroplane.

After the effective date of this AD, inspections, corrective actions and fastener replacements must be accomplished as required by this AD.

Modification:

- (5) For aeroplanes in post-mod 55306 and pre-mod 205225 configuration, before exceeding the thresholds as specified in Table 2 of this AD, as applicable, depending on short range (SR) or long range (LR) operation, or within 18 months after the effective date of this AD, whichever occurs later, modify the inside CWB (above bottom skin) in accordance with the instructions of Airbus SB A330-57-3129 or SB A340-57-4136, as applicable.

Table 2 – CWB Modification

Aeroplane Model	Compliance Time (flight hours (FH) or FC, whichever occurs first since aeroplane first flight)	Operation
A330-200	36 908 FH or 10 545 FC	SR
	51 198 FH or 7 877 FC	LR
A330-300	32 475 FH or 9 941 FC	SR
	52 115 FH or 7 702 FC	LR
A340-300	27 627 FH or 6 907 FC	SR
	35 065 FH or 5 195 FC	LR

Related Actions:

- (6) 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.
- (7) Modification of an aeroplane as required by paragraph (5) of this AD cancels the need to accomplish ALI Task 57-11-02 for that aeroplane.



Terminating Action:

- (8) Modification of a post-mod 44360 aeroplane by multiple cold working in accordance with the instructions of the applicable Optional Modification SB(s) (see Note 2 of this AD), constitutes terminating action for the repetitive SDI as required by this AD for that aeroplane.

Ref. Publications:

Airbus SB A330-57-3114 original issue dated 12 March 2013.

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

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

Airbus SB A330-57-3129 original issue dated 05 October 2016.

Airbus SB A330-57-3130 original issue dated 23 November 2016.

Airbus SB A330-57-3131 original issue dated 23 November 2016.

Airbus SB A330-57-3132 original issue dated 23 November 2016.

Airbus SB A340-57-4123 original issue dated 12 March 2013.

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.

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

Airbus SB A340-57-4136 original issue dated 05 October 2016.

Airbus SB A340-57-4137 original issue dated 23 November 2016.

Airbus SB A340-57-4138 original issue dated 23 November 2016.

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

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. This Proposed AD will be closed for consultation on 22 February 2017.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.



3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – EIAW (Airworthiness Office), E-mail: airworthiness.A330-A340@airbus.com.

