



## 適航指令發布單

### Airworthiness Directive Issuance Form

|   |  |                       |          |
|---|--|-----------------------|----------|
| 民航局 AD 編號<br>AD number  | CAA-2018-11-009A<br>修訂   | 發布日期<br>Date issued   | 2019/8/6 |
| 適用之航空產品<br>Applied to (models, serial numbers or part numbers, as applicable)   | 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.  |                       |          |
| 主旨摘要  | Wings - Centre Wing Box Fastener Holes at Frame 40 Vertical Web - Inspection / Modification  |                       |          |
| 民航局<br>CAA<br><input type="checkbox"/> 本國產品<br>Native products<br><input type="checkbox"/> 其他個案<br>Other  | 設計國民航主管機構<br>Original Authorities<br><div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> FAA<br/> <input checked="" type="checkbox"/> EASA<br/> <input type="checkbox"/> Brazil<br/> <input type="checkbox"/> Transport Canada Civil Aviation<br/> <input type="checkbox"/> DGAC             </div> <div style="width: 48%;"> <input type="checkbox"/> Germany LBA<br/> <input type="checkbox"/> CAA-NL<br/> <input type="checkbox"/> UK CAA<br/> <input type="checkbox"/> Japan CAB<br/> <input type="checkbox"/> CAA of Israel<br/> <input type="checkbox"/> Other _____             </div> </div> |                       |          |
|   | 設計國 AD 編號<br>Original AD number  | 2018-0249R1Correction |          |
|   | 1. 直接採用原 AD 之內容?(Is the original AD directly adopted?)<br><input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _<br>a. 生效日期另訂為(Re-specify the effective date as) : _____<br>b. 執行時限另訂為(Re-specify the compliance time or period as) : _____<br>2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?)<br><input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)  |                       |          |
| 備註<br>Note  | This AD revises EASA AD 2018-0249(CAA-2018-11-009) dated 16 November 2018, which superseded EASA AD 2017-0069 dated 25 April 2017.   |                       |          |
| 註： 1. AD 內容後附。<br>2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。<br>3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：<br><a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a><br>Note： 1. The AD text is enclosed.<br>2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval.<br>3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：<br><a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> |  |                       |          |



## Airworthiness Directive

**AD No.: 2018-0249R1**

**Issued: 31 July 2019**

**[Correction: 02 August 2019]**

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):

A330 and A340 aeroplanes

**Effective Date:** Revision 1: 30 August 2019  
Original issue: 30 November 2018

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

**Foreign AD:** Not applicable

**Revision:** This AD revises EASA AD 2018-0249 dated 16 November 2018, which superseded 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 definitions apply:



**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 (any revision), SB A330-57-3131 (any revision) and SB A330-57-3132 (any revision), as applicable; or SB A340-57-4137 (any revision), SB A340-57-4138 and SB A340-57-4139 (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), including rototests, 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 aeroplanes. 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 SDI (which include rototests) 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 A340-57-4124 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 SB A330-57-3130 or SB A340-57-4137, as applicable, 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 applicable Optional Modification SB.

This AD is revised to correct a typographical error in the Reason section, to clarify the conditions for partial embodiment of the Optional Modification SB, and the Lower Threshold specified in Table 2 of this AD. In addition, paragraphs (11) and (12) of this AD are deleted as the related ALI tasks no longer exist. Finally, an additional credit paragraph is introduced for certain EASA approved Alternative Method of Compliance (AMOC).

This AD is re-published to correct certain references to Notes.

#### **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 (grace period) specified in Table 1 of this AD (see Note 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, remove the fasteners and accomplish an SDI (including rototests) of the fastener holes at FR40 vertical web, on both LH and RH sides, of the affected CWB lower panel area in accordance with the instructions of the applicable Inspection SB.

Note 1: Table 1 (see below) provides grace periods for certain aeroplane configurations. Other aeroplane configurations have no grace period.



Table 1 – Inspection Threshold (Grace Period)

| <b>Aeroplane</b> (configuration)   | <b>CWB Area</b> | <b>Compliance Time</b>  |
|--|-----------------|---|
| A330 (pre-mod 44360),<br>except A330-200F                                | Below           | Within 2 400 flight cycles (FC) or 24 months,<br>whichever occurs first after 27 June 2014 [the<br>effective date of EASA AD 2014-0149] |
| A340 (pre-mod 44360)   |                 | Within 1 300 FC or 24 months, whichever occurs first<br>after 27 June 2014 [the effective date of EASA AD<br>2014-0149]                 |
| A330 and A340 (post-mod<br>44360), except A330-200F                      | Below           | Within 18 months after 23 May 2017 [the effective<br>date of EASA AD 2017-0069]   |
| A330 and A340 (post-mod<br>44360 and pre-mod<br>55306), except A330-200F | Above           |   |
| A330-200F  | Below           | Within 24 months after 30 November 2018 [the<br>effective date of this AD at original issue]  |

- (2) When it is determined that no Repair Design Approval Sheet (RDAS) is found to exist for the FR40 area on an aeroplane, it is acceptable to accomplish the first SDI on that aeroplane 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 (8) 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 the applicable Inspection SB, is not exceeded.

#### **Corrective Action(s):**

- (4) If, during any SDI (including rototests) 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 (including rototests) 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 (including rototests) on a post-mod 44360 aeroplane, as required by paragraph (1) of this AD, a crack is detected on fastener holes at FR40 vertical web, 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 (13) of this AD), on the other fastener holes at FR40 vertical web of that aeroplane, provided no RDAS, as specified in the applicable Inspection SB, was found to exist on any of these holes, and continue to accomplish post-repair follow-on action(s), on fastener holes at FR40 vertical web identified in that RDAS.

#### Modification:

- (7) For aeroplanes in post-mod 55306 and pre-mod 55792 configuration and for aeroplanes in post-mod 55792 and pre-mod 205225 configuration, within the applicable window of embodiment as specified in Table 2 of this AD, depending on short range (SR) or long range (LR) operation (see Note 2 of this AD), or within the applicable compliance time (grace period) 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 Airbus SB A330-57-3129 (original issue or Revision 01) or SB A340-57-4136 (original issue or Revision 01), as applicable, was embodied before reaching the applicable lower threshold as defined in Table 2 of this AD, within 12 months after 30 November 2018 [the effective date of this AD at original issue], contact Airbus for additional instructions and, within the compliance time specified by Airbus, accomplish those instructions accordingly.

Note 2: 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 2 and 3 of this AD)

| Aeroplanes             | Lower Threshold, not before (FH and FC) | 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 and 3 634 FC                  | 25 833 FH or 8 611 FC   |
| A340-300               | 25 399 FH and 5 036 FC                  | SR: 27 627 FH or 6 907 FC   |
|                        |   | LR: 35 065 FH or 5 195 FC   |

Note 3: 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

| <b>Aeroplanes</b>               | <b>Compliance Time</b>  |
|---------------------------------|---|
| 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 30 November 2018 [the effective date of this AD at original issue] |

**Credit:**

- (8) Inspection(s) and corrective action(s) on an aeroplane, accomplished before 30 November 2018 [the effective date of this AD at original issue] 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.
- (9) 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.
- (10) Modification of an aeroplane, before 30 November 2018 [the effective date of this AD at original issue] in accordance with the instructions of Airbus SB A330-57-3129 at original issue, or SB A340-57-4136 at original issue, as applicable, is acceptable to comply with the modification requirements of paragraph (7) of this AD, provided the modification was accomplished within the applicable window of embodiment as specified in Table 2 of this AD.

**Related Actions:**

- (11) DELETED.
- (12) DELETED.

**Terminating Action:**

- (13) Modification or partial modification on specific holes (see paragraph (6) of this AD) 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 (including rototests) as required by this AD for that aeroplane or for those holes, as applicable, 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 applicable Optional Modification SB embodiment.
- (14) DELETED – now covered by paragraph (13) of this AD.



**Credit:**

- (15) EASA AMOC approvals 10063801 and 10062534 to EASA AD 2017-0069 remain valid for compliance with the corresponding requirements of this revised AD. Any statement to the contrary in those approvals is hereby nullified.

**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. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This revised AD was posted for consultation on 25 April 2019 as PAD 19-074 for consultation until 09 May 2019. The original issue of this AD was posted on 13 September 2018 as PAD 18-127 and republished on 26 September 2018 as PAD 18-127R1 for consultation until 11 October 2018. All Comment Response Documents 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](mailto: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 – EIAL (Airworthiness Office), E-mail: [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com).

