



## Notification of a Proposal to issue an Airworthiness Directive

**PAD No.: 17-157**

**Issued: 07 November 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 Number(s):** EASA.A.004 and EASA.A.015

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes EASA AD 2016-0102 dated 01 June 2016, including its Correction dated 07 June 2016.

### ATA 53 – Fuselage – Fuselage Bulk Cargo Door Frames – Inspection / Repair

**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, A330-343 aeroplanes,

and A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes,

all manufacturer serial numbers (MSN) up to MSN 1779 inclusive, except those on which Airbus Service Bulletin (SB) A330-53-3275 or SB A340-53-4238 has been embodied.

**Reason:**

In the frame of the certification of the A330 Extended Service Goal exercise, it was identified that Tartaric Sulfuric Anodising (TSA) or Chromic Acid Anodising (CAA) surface treatment is present in some frame holes, from aeroplane MSN 0400 and later MSN, following production process modification. On bulk cargo door frames (FR) 67 and FR69 right hand (RH) side, the door fitting



attachment holes have this TSA or CAA treatment, which leads to a detrimental effect on fatigue behaviour.

This condition, if not detected and corrected, could lead to cracks in the primary structure, possibly resulting in in-flight loss of a bulk cargo door, consequent decompression and potential damage to, and reduced control of, the aeroplane.

To initially address this potential unsafe condition, Airbus issued Alert Operators Transmission (AOT) A53L012-16 to provide instructions to inspect the fuselage bulk cargo door frames at specific locations. Consequently, EASA issued AD 2016-0102, requiring repetitive non-destructive test (rototest and high-frequency eddy-current (HFEC)) inspection or visual detailed inspections (DET) of the affected areas, and, depending on findings, accomplishment of a repair.

Since that AD was issued, it was determined that only aeroplanes from MSN 0400 to MSN 1779 are affected by CAA or TSA surface treatment issue in the door fitting attachment holes. However, it was also determined that aeroplanes MSN 0001 to MSN 0399 are affected in the same attachment holes due to a fatigue issue, therefore the same inspections must also be accomplished on these aeroplanes. In addition, based on inspection results and calculation, Airbus redefined inspection thresholds and intervals, depending on aeroplane type, model and utilisation. Airbus published SB A330-53-3278 and SB A340-53-4239 providing the inspection instructions at the specific locations with extended inspection thresholds and intervals. Airbus also determined that the actions should not be required for A340-500 and -600 models, as for these aeroplanes, the unsafe condition would only develop beyond the Design Service Goal of these aeroplanes. Finally, Airbus developed modification (mod) 206409 and published associated SB A330-53-3275 and SB A340-53-4238, as applicable, as optional terminating action.

For the reasons described above, this AD supersedes EASA AD 2016-0102, expands the Applicability and requires redefined repetitive inspections of the holes at the upper and lower door support fittings of FR67 and FR69 RH and the holes at door latch fitting of FR69 RH. This AD also introduces an optional modification, which constitutes terminating action for the repetitive inspections as required by this AD.

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

Required as indicated, unless accomplished previously:

Note 1: Airbus SB A330-53-3278 and SB A340-53-4239, as applicable, are hereafter collectively referred to as 'the applicable SB' in this AD.

Note 2: Depending on utilisation of the aeroplane, either in short range (SR) or long range (LR) operation, the corresponding thresholds and intervals in flight cycles (FC) or flight hours (FH), as specified in Table 1 and Table 3 of this AD, must be applied. For more information, refer to the applicable SB, and Airbus Operator Information Telex (OIT) 999.086/11.

- (1) Before exceeding the thresholds specified in Table 1 of this AD, or within 200 FC (aeroplanes MSN 0001 to 0399) or 800 FC (aeroplanes MSN 0400 to 1779) after the effective date of this AD, as applicable, whichever occurs later, and, thereafter, depending on the area(s) inspected and the chosen inspection method as defined in Table 2 of this AD, at intervals not exceeding



the values specified in Table 3 of this AD, inspect the holes at the upper and lower door support fittings of FR67 and FR69 RH side and the holes at door latch fitting of FR69 RH side in accordance with the instructions of the applicable SB.

Table 1 – Initial Inspection (See notes 2 and 3 of this AD)

| Affected Aeroplanes                             | MSN             | Inspection Threshold (FC or FH, whichever occurs first) |                         |
|---|-----------------|---|-------------------------|
| A330 (except 200F),<br>A340-200 and<br>A340-300 | 0001 to<br>0399 | SR  | 27 100 FC or 83 900 FH  |
|   |                 | LR  | 23 600 FC or 133 100 FH |
|   | 0400 to<br>1779 | SR  | 16 000 FC or 49 500 FH  |
|   |                 | LR  | 13 900 FC or 78 600 FH  |
| A330-223F and<br>A330-243F                      | All             | 11 300 FC or 34 000 FH                                  |                         |

Note 3: FC and FH specified in Table 1 of this AD are those accumulated by the aeroplane since first flight.

Table 2 – Areas and Inspection Methods (See Note 4 of this AD)

| Action | Area(s) to be inspected                    | Inspection Method(s) |
|--------|--|----------------------|
| 1      | Any  | DET                  |
| 2      | Upper and lower door support fitting holes | rototest             |
|        | Latch fitting holes                        | HFEC                 |
| 3      | Upper door support fitting hole            | HFEC and ultrasonic  |

Note 4: The kind of inspection applied to an area, as specified in Table 2 of this AD, determines the inspection interval, i.e. the compliance time(s) for the next due inspection, as specified in Table 3 of this AD. Alternating between inspection methods, or intermixing, is allowed and for each area, the inspection interval (see Table 3 below) applies, depending on the method used during the latest inspection.

Table 3 – Inspection Intervals (See Note 2 of this AD)

| Action/<br>Area(s) | Affected Aeroplanes                           | Inspection Interval<br>(FC or FH, whichever occurs first) |                       |
|--------------------|---|---|-----------------------|
| 1                  | All   | 150 FH  |                       |
| 2                  | A330 (except -200F),<br>A340-200 and A340-300 | SR  | 3 300 FC or 10 300 FH |
|                    |   | LR  | 2 900 FC or 16 400 FH |
|                    | A330-223F and -243F                           | 2 700 FC or 8300 FH                                       |                       |
| 3                  | A330 (except -200F),<br>A340-200 and A340-300 | SR  | 1 700 FC or 6 100 FH  |
|                    |   | LR  | 1 400 FC or 8 400 FH  |
|                    | A330-223F and -243F                           | 1 700 FC or 5 200 FH                                      |                       |



**Corrective Action(s):**

- (2) If, during any inspection as required by paragraph (1) of this AD, as applicable, any discrepancy is detected, before next flight, contact Airbus for approved repair instructions and, within the compliance time(s) specified in those instructions, accomplish those instructions accordingly.

**Credit for previous action(s):**

- (3) Inspections and corrective actions on an aeroplane, accomplished before the effective date of this AD in accordance with the instructions of Airbus AOT A53L012-16 original issue or revision 1, are acceptable to comply with the initial inspection as required by this AD for that aeroplane.

**Terminating Action:**

- (4) Accomplishment of a repair on an aeroplane, as required by paragraph (2) of this AD, does not constitute terminating action for the inspections as required by this AD for that aeroplane, unless otherwise specified in the Airbus repair instructions.
- (5) Modification of an aeroplane in accordance with the instructions of Airbus SB A330-53-3275 or SB A340-53-4238 (removal of TSA or CAA in the final holes of the bulk door frames FR67 and FR69), as applicable, constitutes terminating action for the repetitive inspections required by paragraph (1) of this AD for that aeroplane.

**Ref. Publications:**

Airbus SB A330-53-3275 original issue dated 22 August 2017.

Airbus SB A330-53-3278 original issue dated 22 August 2017.

Airbus SB A340-53-4238 original issue dated 08 September 2017.

Airbus SB A340-53-4239 original issue dated 05 September 2017.

Airbus AOT A53L012-16 original issue dated 30 May 2016, or Revision 1 dated 09 March 2017.

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 05 December 2017.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – EIAL, E-mail: [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com).

