Airworthiness Directive

AD No.: 2024-0095

Issued: 30 April 2024

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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

AIRBUS DEFENCE AND SPACE S.A.

Modifications(s):

Conversion to MRTT / FSTA configuration

Effective Date:	14 May 2024
STC Number(s):	EASA Supplemental Type Certificates (STC) 10029272, 10063084, 10064192, 10034690 and 10035945
Foreign AD:	Not applicable
Supersedure:	None

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

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Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A330-202, A330-203 and A330-243 aeroplanes modified in accordance with EASA STC 10029272 (previously STC EASA.A.S.02790) (RAAF, RSAF and UAE) or 10063084 (GOS) or 10064192 (FAF) or 10034690 (FSTA STC 1) or 10035945 (FSTA STC 2), all manufacturer serial numbers (MSN) up to MSN 1779 inclusive, on which Airbus Service Bulletin (SB) A330-53-3275-00 (original issue) or SB A330-53-3275-01 (Revision 01) has been embodied in service, except those on which, during this SB embodiment, the specified roto test was accomplished (no defects found, or defects were corrected, as applicable) in accordance with the instructions of the above referenced SB.

Definitions:

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

The SB: Airbus Defence and Space (ADS) SB A330MRTT-53-0048 Revision 01.

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

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 attachment holes of some frames. From aeroplanes MSN 0400 to MSN 1779 inclusive, following production process sequence modification (surface treatment after drilling) on bulk cargo door frames (FR) 67 and FR69 right-hand (RH) side, the door fitting attachment holes have either CAA or TSA treatment, which leads to a detrimental effect on fatigue behaviour. It was also determined that, despite the fact that no surface treatment was applied in the attachment holes of MSN 0001 to MSN 0399 inclusive, the affected door fitting attachment holes of these aeroplanes are also affected by similar fatigue issue.

This condition, if not detected and corrected, could lead to undetected 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 address this potential unsafe condition, EASA issued AD 2016-0102, that required repetitive inspections of 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. This AD was superseded by EASA AD 2018-0005, which also introduced an optional modification as terminating action.

Due to possibly misleading instructions in Airbus' modification SB A330-53-3275, Airbus published SB A330-53-3303 to provide revised inspection instructions and consequently, EASA issued AD 2021-0233, requiring a one-time roto test inspection or, alternatively, repetitive inspection of the affected areas, and applicable corrective action(s).

Since that AD was issued, ADS has analysed the possible different impact of above-mentioned potential unsafe condition on affected A330 aeroplane models which are converted to an MRTT / FSTA version, and it was determined that the compliance times specified of Airbus SB A330-53-3303 needed to be adapted for these aeroplanes. Consequently, ADS published for A330 MRTT / FSTA aeroplanes the SB, as defined in this AD, which is in analogy with Airbus SB A330-53-3303 (Revision 02), but which contains different compliance times and inspection intervals, depending on aeroplane configuration.

For the reasons described above, this AD requires, in analogy with EASA AD 2021-0233, a one-time roto test inspection of certain holes or, alternatively, a detailed inspection (DET) of affected frames, or high frequency eddy current (HFEC) and ultrasonic inspection of certain holes, and a roto test inspection of certain other holes, followed by repetitive inspection of the affected areas, and, depending on findings, accomplishment of applicable corrective action(s), but with more stringent thresholds and inspection intervals. This AD also gives credit for inspections and corrective actions accomplished in accordance with the instructions of ADS SB A330MRTT-53-0048 at original issue or Airbus SB A330-53-3303 (any issue).

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Inspection(s):

(1) Within the compliance times specified in Table 1 of this AD, as applicable depending on aeroplane configuration, accomplish a roto test inspection of the holes at the upper and lower door support fittings of FR67 and FR69 RH side, and of the holes at door latch fitting of FR69 RH side in accordance with the instructions of the SB.

Table 1 – Inspection Threshold (see Note 1 and Note 3 of this AD)

Aeroplane Configuration	**Compliance Time [flight cycles (FC) or flight hours (FH)]** (**A**, **B** or **C**, whichever occurs later)	
A330-MRTT GOS and FAF	**A**	Before exceeding 6 672 FC or 16 680 FH, whichever occurs first
A330-MRTT RAAF, RSAF and UAE		Before exceeding 6 672 FC or 23 349 FH, whichever occurs first
A330-FSTA STC2		Before exceeding 6 672 FC or 15 669 FH, whichever occurs first
A330-FSTA STC1 2PT		Before exceeding 13 880 FC or 42 056 FH, whichever occurs first (see Note 3 of this AD)
A330-FSTA STC1 3PT		Before exceeding 9 415 FC or 28 527 FH, whichever occurs first (see Note 3 of this AD)
A330-MRTT (all)	**B**	Before exceeding 2 318 FC since embodiment of Airbus SB A330-53-3275 at original issue or Revision 01, as applicable
A330-FSTA STC2		
A330-FSTA STC1 2PT		Before exceeding 4 262 FC or 12 913 FH, whichever occurs first since embodiment of Airbus SB A330-53-3275 at original issue or Revision 01, as applicable (see Note 3 of this AD)
A330-FSTA STC1 3PT		Before exceeding 3 284 FC or 9 950 FH, whichever occurs first since embodiment of Airbus SB A330-53-3275 at original issue or Revision 01, as applicable (see Note 3 of this AD)
A330-MRTT (all)	**C**	Within 72 FC after 10 November 2021 [the effective date of EASA AD 2021-0233]
A330-FSTA STC2		
A330-FSTA STC1 2PT		Within 116 FC or 351 FH, whichever occurs first after 10 November 2021 [the effective date of EASA AD 2021-0233] (see Note 3 of this AD)
A330-FSTA STC1 3PT		Within 102 FC or 309 FH, whichever occurs first after 10 November 2021 [the effective date of EASA AD 2021-0233] (see Note 3 of this AD)

Note 1: Unless indicated otherwise, the FC and FH specified in Table 1 of this AD are those accumulated by the aeroplane since aeroplane date of manufacture (as defined in this AD).

(2) As an alternative to the inspection as required by paragraph (1) of this AD, as applicable, within the compliance times (thresholds) specified in Table 1 of this AD and, thereafter, at the intervals not to exceed the values as specified in Table 2 of this AD, which depend on the last accomplished inspection method and the aeroplane configuration, accomplish one of the inspections (1 or 2) defined in Table 2 of this AD in accordance with the instructions of the SB.

Table 2 – Inspection Intervals (see Note 2 of this AD)

Inspection Method and Related Inspection Area(s)		**Aeroplane Configuration**	**Inspection Interval** (FC or FH, whichever occurs first)
1	DET of the frame around the fittings from the visible side, i.e. looking forward for FR67, and looking aft for FR69	A330-MRTT (all)	129 FC
		A330-FSTA STC2	
		A330-FSTA STC1 2PT	150 FC or 454 FH (see Note 3 of this AD)
		A330-FSTA STC1 3PT	117 FC or 354 FH (see Note 3 of this AD)
2	HFEC and ultrasonic inspection of the upper door support fitting holes, and a roto test on the lower door support fitting holes, and a HFEC inspection on the door latch fittings at frame FR69	A330-MRTT GOS and FAF	1 204 FC or 3 010 FH
		A330-MRTT RAAF, RSAF and UAE	1 204 FC or 4 213 FH
		A330-FSTA STC2	1 204 FC or 2 828 FH
		A330-FSTA STC1 2PT	1 400 FC or 4 241 FH (see Note 3 of this AD)
		A330-FSTA STC1 3PT	1 092 FC or 3 308 FH (see Note 3 of this AD)

Note 2: The chosen inspection method, as specified in Table 2 of this AD, determines the inspection interval till next (repetitive) inspection, as applicable to aeroplane configuration, as specified in Table 2 of this AD. Alternating between inspection method or inter-mixing is allowed, whereby the chosen inspection (method) determines the inspection interval for the next due inspection, as specified in Table 2 of this AD, depending on aeroplane configuration.

Note 3: For A330-FSTA STC1 aeroplanes, in case of Change of Role, the transfer factors ($K_{mil\text{-}civ}$) for FC and FH as specified in Table 3 of this AD must be taken into consideration to determine the adapted values for the inspection thresholds in Table 1 of this AD and for the inspection intervals in Table 2 of this AD in accordance with the instructions of A330 FSTA STC1 Airworthiness Limitations Section Part 2, as applicable depending on aeroplane configuration.

Table 3 – Transfer Factors ($K_{mil-civ}$) for Compliance Times (FC and FH)

Aeroplane Configuration	To be Adapted Inspection Thresholds in Table 1 and Intervals in Table 3 of this AD	Transfer Factors	
		$K_{mil-civ}$ for FC	$K_{mil-civ}$ for FH
A330-FSTA STC1 2PT	under A in Table 1	1,4065	1,000
	under B in Table 1	1,2536	
	under C in Table 1	1,0870	
A330-FSTA STC1 3PT	under A, B and C in Table 1	1,0541	

Corrective Action(s):

(3) If, during an inspection as required by paragraph (1) or (2) of this AD, as applicable, no discrepancy is found, before next flight, install new (not previously installed) bushes on the latch fittings of FR69 in accordance with the instructions of the SB.

(4) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any discrepancies are found, before next flight, contact ADS for approved repair instructions and, within the compliance times specified therein, accomplish those instructions accordingly.

Credit:

(5) Inspection(s) and corrective action(s), accomplished on an aeroplane before the effective date of this AD, in accordance with the instructions of ADS SB A330MRTT-53-0048 at original issue or Airbus SB A330-53-3303 (at any issue), are acceptable to comply with the initial requirements of paragraph (1) or (2) of this AD, as applicable, for that aeroplane.

Terminating Action:

(6) Accomplishment on an aeroplane of a repair as required by paragraph (4) of this AD, does not constitute terminating action for the repetitive inspections as required by paragraph (2) of this AD for that aeroplane, unless otherwise specified in the approved ADS repair instructions.

(7) Accomplishment on an aeroplane of the roto test inspection as required by paragraph (1) of this AD (no discrepancy found) followed by installation of new bushes as required by paragraph (3) of this AD in accordance with the instructions of the SB, constitutes terminating action for the repetitive inspections as specified in paragraph (2) of this AD for that aeroplane.

Impact on other EASA AD:

(8) Accomplishment on an aeroplane of the requirements of this AD, constitutes compliance with EASA AD 2021-0233 for that aeroplane.

Ref. Publications:

ADS SB A330MRTT-53-0048 original issue dated 21 January 2022, or Revision 01 dated 29 January 2024.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Airbus SB A330-53-3303 original issue dated 12 July 2021, or Revision 01 dated 24 September 2021, or Revision 02 dated 07 June 2023.

Airbus SB A330-53-3275 original issue dated 08 September 2017, or Revision 01 dated 20 December 2018, or Revision 02 dated 28 April 2021.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 27 March 2024 as PAD 24-037 for consultation until 24 April 2024. No comments were received during the consultation period.

3. Enquiries regarding this AD should be referred to the EASA Safety 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 Defence and Space – Engineering Support – Service Engineering, Airbus Military Technical Assistance Center (AMTAC); Tel.: (+34) 91 600 7999, or E-mail: mtad.militaryderivatives@airbus.com.