


EASA	NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE	
	PAD No.: 15-101 Date: 28 July 2015 Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, 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 closing date indicated.	
Design Approval Holder's Name: AIRBUS		Type/Model designation(s): A330 and A340 aeroplanes
TCDS Number: EASA.A.004 and EASA.A.015		
Foreign AD: Not applicable		
Supersedure: This AD supersedes EASA AD 2011-0007R1 dated 14 February 2011 and EASA AD 2012-0274 dated 21 December 2012.		
ATA 52	Doors – Forward and Aft Cargo Compartment Doors – Inspection	
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, A340-313, A340-541, A340-542, A340-642 and A340-643 aeroplanes, all MSN, except those that have embodied Airbus modification (mod) 202702 <u>and</u> mod 202790 in production.	
Reason:	Several cases of cracked forward (FWD) and aft (AFT) cargo door frames, as well as loose, lost, or sheared rivets, have been reported by operators. Investigation showed that these findings are due to the low margins with respect to fatigue requirements for the AFT/FWD cargo door internal structure. Further analysis determined that the cargo door hook adjustment is a contributing factor to this issue. In case of a cracked or ruptured (FWD or AFT) cargo door frame, the loads will be transferred to the remaining structural elements. However, the secondary load path is able to sustain those loads only for a limited number of flight cycles (FC). This condition, if not detected and corrected, could lead to rupture of adjacent vertical frames and consequent reduced structural integrity of the FWD or AFT cargo door, possibly resulting in a cargo door failure, decompression of the	

	<p>aeroplane and injury to occupants.</p> <p>To initially address this potential unsafe condition, Airbus issued Service Bulletin (SB) A330-52-3043 and SB A340-52-4053 and consequently, DGAC France issued AD 2001-124(B) and AD 2001-126(B), requiring a special detailed inspection of A330 and A340 AFT cargo doors.</p> <p>Since those ADs were issued, prompted by new occurrences, Airbus issued Alert Operators Transmission (AOT) A330-52A3085, AOT A340-52A4092, AOT A330-52A3084, AOT A340-52A4091, AOT A330-A52L003-12, AOT A340-A52L004-12, AOT A330-A52L001-12 and AOT A340-A52L002-12, providing instructions to inspect the affected areas of both FWD and AFT cargo doors.</p> <p>Consequently, EASA issued AD 2011-0007 (later revised), and AD 2012-0274, to require repetitive detailed visual inspections of AFT and FWD cargo doors at specific frames and outer skin at all frame fork ends.</p> <p>Since these EASA ADs were issued, Airbus published SB A330-52-3087, SB A330-52-3095, SB A340-52-4095, SB A340-52-4101, SB A340-52-5020 and SB A340-52-5023, which took over the instructions of the above mentioned AOTs, and introduced revised thresholds and intervals. In addition, the inspection programme was expanded to apply to A340-500/-600 aeroplanes.</p> <p>Taking into account experience from inspections accomplished in accordance with the affected (listed above) Airbus SBs at original issue, Airbus issued Revision 01 of these SBs.</p> <p>This AD, which supersedes EASA AD 2011-0007R1 and EASA AD 2012-0274, requires for each FWD and AFT cargo door, a one-time inspection / adjustment of the hook gaps "U" and "V", repetitive detailed inspections (DET) of all frame fork areas, frame head areas and outer skin areas to detect loose / sheared / missing fasteners or cracks, and, depending on findings, accomplishment of applicable corrective action(s).</p> <p>In addition, this AD expands the Applicability to Airbus A340-500/-600 aeroplanes.</p> <p>It should be noted that additional inspections exist for the cargo doors, as specified in Airbus A330 ALS Part 2 task 523211-02-01 and task 523211-02-02 and in Airbus A340 ALS Part 2 Task 523211-02-01.</p>
Effective Date:	[TBD: 14 days after Final AD issue date]
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>FWD Cargo Compartment Doors:</p> <p>(1) Before exceeding 5 300 FC since first installation of the FWD cargo door on an aeroplane, or within the compliance time specified in Table 1 of this AD, whichever occurs later, and, thereafter, at intervals not to exceed 1 100 FC, accomplish a DET inspection of all frame forks areas, frame head areas and outer skin areas of the FWD cargo door, depending on inspection area, in accordance with the instructions of Airbus SB A330-52-3087 Revision 01, or SB A340-52-4095 Revision 01, or SB A340-52-5020 Revision 01, as applicable to aeroplane type and model.</p> <p>Concurrent with the first inspection as required by paragraph (1) of this AD, accomplish a one-time inspection of the FWD cargo door hook gaps "U" and "V" and, depending on findings, adjust the hook(s) in accordance with the instructions of Airbus SB A330-52-3087 Revision 01, or SB A340-52-4095 Revision 01, or SB A340-52-5020 Revision 01, as applicable to aeroplane type and model.</p> <p>(2) An inspection, accomplished before the effective date of this AD in accordance with the instructions of the original issue of Airbus SB A330-52-3087, or SB A340-52-4095, or SB A340-52-5020, as applicable, is</p>

acceptable to comply with the initial inspection as required by paragraph (1) of this AD, provided that the actions identified as 'additional work' in accordance with the instructions of Airbus SB A330-52-3087 Revision 01, or SB A340-52-4095 Revision 01, or SB A340-52-5020 Revision 01, as applicable to aeroplane type and model, are accomplished within 1 100 FC after that inspection.

AFT Cargo Compartment Doors:

- (3) Before exceeding 4 000 FC (for pre-mod – see Note 1 of this AD) or 12 000 FC (for post-mod – see Note 1 of this AD) since first installation of the AFT cargo door on an aeroplane, as applicable, or within the compliance time specified in Table 2 or Table 3 of this AD, as applicable, whichever occurs later, and, thereafter, at intervals not to exceed 550 FC, accomplish a DET inspection of all frame fork areas, frame head areas and outer skin area of the AFT cargo door, depending on inspection area, in accordance with the instructions of Airbus SB A330-52-3095 Revision 01, or SB A340-52-4101 Revision 01, or SB A340-52-5023 Revision 01, as applicable to aeroplane type and model.

Concurrent with the first inspection as required by this paragraph, accomplish a one-time inspection of the FWD cargo door hook gaps "U" and "V" and, depending on findings, adjust the hook(s) in accordance with the instructions of Airbus SB A330-52-3095 Revision 01, or SB A340-52-4101 Revision 01, or SB A340-52-5023 Revision 01, as applicable to aeroplane type and model.

Note 1: For the purpose of this AD, pre-mod A330 and A340-200/-300 aeroplanes are defined as not having Airbus mod 44852, or mod 44854 applied in production, or being in pre-SB A330-52-3044 or pre-SB A340-52-4054 configuration, as applicable. Post-mod A330 and A340-200/-300 aeroplanes are defined as having Airbus mod 44852 or mod 44854 applied in production, or modified in service through Airbus SB A330-52-3044, or SB A340-52-4054, as applicable.

- (4) An inspection, accomplished before the effective date of this AD in accordance with the instructions of the original issue of Airbus SB A330-52-3095, or SB A340-52-4101, or SB A340-52-5023, as applicable, is acceptable to comply with the initial inspection as required by paragraph (1) of this AD, provided that the actions identified as 'additional work' in accordance with the instructions of Airbus SB A330-52-3095 Revision 01, or SB A340-52-4101 Revision 01, or SB A340-52-5023 Revision 01, as applicable to aeroplane type and model, are accomplished within 550 FC after that inspection.

Corrective Actions for FWD and AFT Cargo Compartment Doors:

- (5) If, during any DET as required by paragraph (1) or (3) of this AD, as applicable, any discrepancy is detected, before next flight, accomplish the applicable correctives action(s) in accordance with the instructions of Airbus SB A330-52-3087 Revision 01, or SB A340-52-4095 Revision 01, or SB A340-52-5020 Revision 01, SB A330-52-3095 Revision 01, or SB A340-52-4101 Revision 01, or SB A340-52-5023 Revision 01, as applicable to cargo compartment door, aeroplane type and model.
- (6) Accomplishment of corrective actions on an aeroplane as required by paragraph (5) of this AD does not constitute terminating action for the repetitive DET as required by this AD for that aeroplane.

Condition for FWD cargo door installation:

- (7) From the effective date of this AD, before release to service of the aeroplane following a cargo door replacement or frame fork replacement, adjust the hooks of the affected cargo door(s) in accordance with the instructions of Airbus SB A330-52-3087 Revision 01, or SB A340-52-4095

	<p>Revision 01, or SB A340-52-5020 Revision 01, as applicable to aeroplane type and model.</p> <p>Condition for AFT cargo door installation:</p> <p>(8) From the effective date of this AD, before release to service of the aeroplane following a cargo door replacement or frame fork replacement, or following maintenance when all fasteners have been replaced, adjust the hooks of the affected cargo door(s) in accordance with the instructions of Airbus SB A330-52-3095 Revision 01, or SB A340-52-4101 Revision 01, or SB A340-52-5023 Revision 01, as applicable to aeroplane type and model.</p>
Ref. Publications:	<p>Airbus SB A330-52-3087 original issue dated 29 August 2013, or Revision 01 dated 09 July 2014.</p> <p>Airbus SB A340-52-4095 original issue dated 29 August 2013, or Revision 01 dated 09 July 2014.</p> <p>Airbus SB A340-52-5020 original issue dated 29 August 2013, or Revision 01 dated 09 July 2014.</p> <p>Airbus SB A330-52-3095 original issue dated 29 August 2013, or Revision 01 dated 28 July 2014.</p> <p>Airbus SB A340-52-4101 original issue dated 29 August 2013, or Revision 01 dated 03 October 2014.</p> <p>Airbus SB A340-52-5023 original issue dated 29 August 2013, or Revision 01 dated 28 July 2014.</p> <p>Airbus AOT A330-52A3084 original issue dated 19 December 2010.</p> <p>Airbus AOT A330-52A3085 original issue dated 20 December 2010.</p> <p>Airbus AOT A330-A52L001-12 original issue dated 20 December 2010.</p> <p>Airbus AOT A330-A52L003-12 original issue dated 03 December 2012.</p> <p>Airbus AOT A340-52A4091 original issue dated 20 December 2010.</p> <p>Airbus AOT A340-52A4092 original issue dated 20 December 2010.</p> <p>Airbus AOT A340-A52L002-12 original issue dated 03 December 2012.</p> <p>Airbus AOT A340-A52L004-12 original issue dated 03 December 2012. The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>
Remarks:	<ol style="list-style-type: none"> 1. This Proposed AD will be closed for consultation on 25 August 2015. 2. Enquiries regarding this PAD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu. 3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – EAL. E-mail: airworthiness.A330-A340@airbus.com.

Appendix

Note 2: For the purpose of this AD, as soon as a Cargo Door is inspected with any applicable SB specified in this AD, the previous inspections accomplished in accordance with any AOT can be disregarded for the determination of the compliance time for the initial inspection required by this AD.

Table 1 – FWD Cargo Door Inspection

Aeroplane Condition (on the effective date of this AD)	Compliance Time
Never inspected	Within 1 100 FC after the effective date of this AD, but without exceeding 6 400 FC since first installation of the FWD cargo door on an aeroplane
Inspected only in accordance with Airbus AOT A330-52A3085 or AOT A340-52A4092, as applicable	Within 1 100 FC after the last inspection, but without exceeding 10 600 FC since first installation of the FWD cargo door on an aeroplane
Inspected in accordance with Airbus AOT A330-52A3085 and in accordance with AOT A330-A52L003-12, and the last inspection was accomplished in accordance with A330-A52L003-12	within 1 100 FC after the last inspection in accordance with AOT A330-52A3085
Inspected in accordance with Airbus AOT A330-52A3085 and in accordance with AOT A330-A52L003-12, and the last inspection was accomplished in accordance with AOT A330-52A3085	within 1 100 FC after the last inspection in accordance with AOT A330-A52L003-12
Inspected in accordance with Airbus AOT A340-52A4092 and in accordance with AOT A340-A52L004-12, and the last inspection was accomplished in accordance with AOT A340-A52L004-12	within 1 100 FC after the last inspection in accordance with AOT A340-52A4092
Inspected in accordance with Airbus AOT A340-52A4092 and in accordance with AOT A340-A52L004-12, and the last inspection was accomplished in accordance with AOT A340-52A4092	within 1 100 FC after the last inspection in accordance with AOT A340-A52L004-12
Inspected in accordance with Airbus SB A330-52-3087, or SB A340-52-4095, or SB A340-52-5020 as applicable	See paragraph (2) of this AD

Table 2 – AFT Cargo Door Inspection for pre-mod Aeroplanes

Aeroplane Condition (on the effective date of this AD)	Compliance Time
Never inspected	Within 550 FC after the effective date of this AD, but without exceeding 4 550 FC since first installation of the AFT cargo door on an aeroplane
Inspected only in accordance with Airbus AOT A330-52A3084, or AOT A340-52A4091, as applicable	Within 550 FC after the last inspection, but without exceeding 15 800 FC since first installation of the AFT cargo door on an aeroplane
Inspected in accordance with Airbus AOT A330-52A3084 and in accordance with AOT A330-A52L001-12, and the last inspection was accomplished in accordance with AOT A330-A52L001-12	within 550 FC after the last inspection in accordance with AOT A330-52A3084
Inspected in accordance with Airbus AOT A330-52A3084 and in accordance with AOT A330-A52L001-12 and, the last inspection was accomplished in accordance with AOT A330-52A3084	within 550 FC after the last inspection in accordance with AOT A330-A52L001-12
Inspected in accordance with Airbus AOT A340-52A4091 and in accordance with AOT A340-A52L002-12, and the last inspection was accomplished in accordance with AOT A340-A52L002-12	within 550 FC after the last inspection in accordance with AOT A340-52A4091
Inspected in accordance with Airbus AOT A340-52A4091 and in accordance with AOT A340-A52L002-12, and the last inspection was accomplished in accordance with AOT A340-52A4091	within 550 FC after the last inspection in accordance with AOT A340-A52L002-12
Inspected in accordance with Airbus SB A330-52-3095, or SB A340-52-4101, as applicable	See paragraph (4) of this AD

Table 3 – AFT Cargo Door Inspection for post-mod Aeroplanes and for A340-500/-600 Aeroplanes

Aeroplane Condition (on the effective date of this AD)	Compliance Time
Never inspected	Within 550 FC after the effective date of this AD, but without exceeding 12 550 FC since first installation of the AFT cargo door on an aeroplane
Inspected in accordance with Airbus SB A330-52-3095, or SB A340-52-4101, or SB A340-52-5023, as applicable	See paragraph (4) of this AD