



Airworthiness Directive

AD No.: 2018-0024

Issued: 29 January 2018

Note: This Airworthiness Directive (AD) 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.

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 (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A319, A320, and A321 aeroplanes

Effective Date: 12 February 2018

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2016-0187 dated 19 September 2016

ATA 52 – Door – Forward and Aft Cargo Door Frame Forks – Inspection / Repair

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231 and A321-232 aeroplanes, manufacturer serial numbers (MSN) up to 0758 inclusive.

Definitions:

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

Affected door: a forward or aft cargo compartment door, having a part number (P/N) as listed in Appendix 1 of this AD, except those on which Airbus SB A320-52-1042 has been embodied, and those on which Airbus SB A320-52-1170 has been embodied on all frame forks as required by paragraph (3) of this AD.

Reason:

During full scale fatigue test, cracks were found on frame forks and outer skin on forward and aft cargo doors. To improve the fatigue behaviour of the frame forks, Airbus introduced modification (mod) 22948 in production, and issued inspection Service Bulletin (SB) A320-52-1032 and mod SB



A320-52-1042, both recommended. Since those actions were taken, further improved cargo compartment doors were introduced in production through Airbus mod 26213, on aeroplanes having MSN 0759 and up.

In the frame of the Widespread Fatigue Damage (WFD) study, it was determined that repetitive inspections are necessary for aft and forward cargo compartment doors on aeroplanes that are in pre-mod 26213 configuration. Failure to detect cracks would reduce the cargo door structural integrity.

This condition, if not detected and corrected, could lead to cargo door failure, possibly resulting in decompression of the aeroplane and injury to occupants.

To address this unsafe condition, Airbus issued SB A320-52-1171 to provide instructions for repetitive special detailed inspections (SDI). This SB was later revised to correct the list of affected cargo doors. Airbus also issued SB A320-52-1170, introducing a door modification which would allow terminating the repetitive SDI.

Consequently, EASA issued AD 2016-0187 to require repetitive SDI of the affected cargo doors and, depending on findings, the accomplishment of applicable repairs. That AD also included reference to SB A320-52-1170 as optional terminating action.

Since that AD was issued, further investigations linked to the WFD analysis highlighted that, to meet the WFD requirements, it is necessary to require embodiment of the terminating action modification.

For the reason described above, this AD retains the requirements of EASA AD 2016-0187, which is superseded, and requires modification of all affected cargo doors, which constitutes terminating action for the repetitive SDI required by this AD.

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

Required as indicated, unless accomplished previously:

Inspections:

- (1) Within the compliance time defined in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 3 000 flight cycles (FC), accomplish an SDI of all frame forks in beam 4 area of each affected door in accordance with the instructions of Airbus SB 320-52-1171 Revision 02.

A review of the aeroplane delivery or maintenance records is acceptable to identify whether an affected door is installed, provided that the cargo compartment door P/N can be conclusively determined from that review.



Table 1 – Inspection Threshold

Compliance Time (whichever occurs later, A , B , C , or D) – See Note 1 of this AD	
A	Before exceeding 37 500 FC since first installation of the door on an aeroplane
B	Within 900 FC after 03 October 2016 [the effective date of EASA AD 2016-0187], without exceeding 41 950 FC since first installation of the door on an aeroplane
C	Within 50 FC after 03 October 2016 [the effective date of EASA AD 2016-0187], for a door having reached or exceeded 41 900 FC since first installation on an aeroplane
D	Within 3 000 FC since last inspection in accordance with the instructions of Airbus SB A320-52-1032

Note 1: If no data, or only partial data, is available, operators may refer to the guidance specified in ALS Part 1 Section 1 chapter 5.2 (traceability) to determine the FC accumulated by a forward or aft cargo compartment door.

Corrective Actions:

- (2) If, during any SDI as required by paragraph (1) of this AD, any crack is detected on a door, accomplish the applicable corrective action(s) within the compliance time specified in, and in accordance with the instructions of, Airbus SB A320-52-1171 Revision 02.

Modification:

- (3) Before exceeding 56 300 FC and not before accumulating 21 700 FC since first installation of an affected door on an aeroplane (see Note 1 of this AD), modify the door in accordance with the instructions of Airbus SB A320-52-1170.

Credit:

- (4) Inspections and corrective actions, accomplished before 03 October 2016 [the effective date of EASA AD 2016-0187] in accordance with the instructions of Airbus SB A320-52-1171 original issue, are acceptable to comply with the initial requirements of paragraphs (1) and (2) of this AD, provided reference to the affected door P/N, as listed in Appendix 1 of this AD and in Revision 01 of Airbus SB A320-52-1171, has been made.
- (5) Inspections and corrective actions, accomplished before the effective date of this AD in accordance with the instructions of Airbus SB A320-52-1171 Revision 01, are acceptable to comply with the initial requirements of paragraphs (1) and (2) of this AD.

Terminating Action:

- (6) Accomplishment of corrective action(s) on an aeroplane, as required by paragraph (2) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (1) of this AD for that aeroplane.
- (7) Modification of all frame forks of all affected doors on an aeroplane as required by paragraph (3) of this AD, or in accordance with the instructions of Airbus SB A320-52-1042, constitutes terminating action for the repetitive SDI as required by paragraph (1) of this AD for that aeroplane, provided that, following modification, no affected doors are re-installed on that aeroplane.



- (8) Modification of an affected door on an aeroplane following damage findings on frame forks, accomplished not before accumulating 21 700 FC since first installation of that door on an aeroplane, in accordance with the instructions of Airbus SB A320-52-1170 and Airbus Repair Design Approval Sheet (RDAS) on all door frame forks, constitutes terminating action for the repetitive SDI required by paragraph (1) of this AD for that door on that aeroplane, provided that, following modification, no affected door is re-installed in that door position on that aeroplane.

Part Installation:

- (9) From 03 October 2016 [the effective date of EASA AD 2016-0187], it is allowed to install an affected door on an aeroplane, provided that door has accumulated less than 56 300 FC since first installation on an aeroplane (see Note 1 of this AD) and that, following installation, the affected door is inspected as required by paragraph (1) of this AD.

Ref. Publications:

Airbus SB A320-52-1032 original issue dated 16 August 1993, or Revision 01 dated 21 March 1994, or Revision 02 dated 10 February 1999.

Airbus SB A320-52-1042 original issue dated 16 August 1993, or Revision 01 dated 22 November 1993, or Revision 02 dated 14 January 1997.

Airbus SB A320-52-1170 original issue dated 05 September 2016.

Airbus SB A320-52-1171 original issue dated 29 October 2015, or Revision 01 dated 05 September 2016, or Revision 02 dated 10 April 2017.

The use of later approved revisions of or these 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 AD was posted on 28 July 2017 as PAD 17-104 for consultation until 25 August 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EIAS; Fax +33 5 61 93 44 51; E-mail: account.airworth-eas@airbus.com.



Appendix 1
Affected Cargo Doors P/N

Forward Cargo Doors P/N	Aft Cargo Doors P/N
D52371000000	D52371900000
D52371000002	D52371900002
D52371000004	D52371900004
D52371000006	D52371900008
D52371000008	D52371900010
D52371000010	D52371900012
D52371000012	D52371900014
D52371000014	D52371900016
D52371000016	D52371900018
D52371000018	D52371900022
D52371000022	

