Airworthiness Directive

AD No.: 2016-0146R2

Issued: 14 June 2021

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):

A321 aeroplanes

Effective Date: Revision 2: 14 June 2021
Revision 1: 26 July 2018
Original issue: 03 August 2016

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2016-0146R1 dated 26 July 2018.

ATA 53 – Fuselage - Frame 35 / Slidebox Junction – Inspection

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231 and A321-232 aeroplanes, all manufacturer serial numbers, except aeroplanes which have embodied Airbus modification (mod) 161341 in production.

Definitions:

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

The applicable inspection SB: Airbus Service Bulletin (SB) A320-53-1308, SB A320-53-1309, SB A320-53-1310, SB A320-53-1311, SB A320-53-1312 and SB A320-53-1313, as applicable.

The applicable pre-mod 155607 SB: Airbus SB A320-53-1345, SB A320-53-1346, SB A320-53-1347, SB A320-53-1348, SB A320-53-1349 and SB A320-53-1350, as applicable.

The applicable post-mod 155607 SB: Airbus SB A320-53-1427, SB A320-53-1428, SB A320-53-1429, SB A320-53-1430, SB A320-53-1431 and SB A320-53-1432, as applicable.

Reason:

Following the results of a new full-scale fatigue test campaign on the A321 airframe in the context of the A321 extended service goal, it was identified that cracks could develop on the fastener holes of frame (FR) 35.1, FR 35.2, and FR 35.3 between stringers (STR) 29 and STR 32 and at the FR 35.2 to Slidebox junction (Triform fitting), both left-hand (LH) and right-hand (RH) sides.

This condition, if not detected and corrected, could reduce the structural integrity of the fuselage.

Prompted by these findings, Airbus developed an inspection programme, published in the applicable inspection SB, as defined in this AD, where each SB contains instructions for a specific location, and EASA issued AD 2016-0146 to require repetitive special detailed inspections (SDI) of the affected frame locations and, depending on findings, accomplishment of a repair.

After that AD was issued, Airbus published the applicable pre-mod 155607 SB, as defined in this AD, providing in-service modification instructions which constitute terminating action for the repetitive inspections. It was also determined that the inspection instructions provided through the above-mentioned inspection programme did not apply to post-mod 161341 aeroplanes. Further AD action is expected for those aeroplanes when the applicable inspection instructions will be published. Consequently, EASA issued AD 2016-0146R1 to introduce reference to the optional terminating action and to reduce the Applicability.

Since that AD was issued, Airbus published the applicable post-mod 155607 SB, providing modification instructions.

For the reason described above, this AD is revised to add the optional modification of post-mod 155607 aeroplanes as a terminating action for the repetitive inspections. This revised AD also introduces editorial changes, not affecting the requirements, to update the AD to current writing standards.

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 5 300 flight cycles (FC), accomplish an SDI at the locations of FR 35 as specified in Table 2 of this AD, and in accordance with the instructions of the applicable Airbus SB as defined in Table 2 of this AD.

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

Accumulated FC	**Compliance Time** (whichever occurs later)
Less than 18 300 FC	Before exceeding 18 300 FC, or within 5 300 FC after 03 August 2016 [the effective date of the original issue of this AD]
18 300 FC or more	Before exceeding 23 600 FC, or within 2 100 FC after 03 August 2016 [the effective date of the original issue of this AD]

Note 1: Unless otherwise specified, the FC indicated in Table 1 of this AD are those accumulated by the aeroplane on 03 August 2016 [the effective date of the original issue of this AD] since its first flight.

Table 2 – Locations and Applicable Inspection SB and (Optional) Modification SB

Location	Inspection SB	Applicable Modification SB	
		Pre-mod 155607	Post-mod 155607
FR 35.1 LH side	A320-53-1308	A320-53-1348	A320-53-1430
FR 35.1 RH side	A320-53-1309	A320-53-1345	A320-53-1427
FR 35.2 LH side	A320-53-1310	A320-53-1349	A320-53-1431
FR 35.2 RH side	A320-53-1311	A320-53-1346	A320-53-1428
FR 35.3 LH side	A320-53-1312	A320-53-1350	A320-53-1432
FR 35.3 RH side	A320-53-1313	A320-53-1347	A320-53-1429

Corrective Action(s):

(2) If during any SDI as required by paragraph (1) of this AD, any crack is found, before next flight, contact Airbus for approved repair instructions and accomplish those instructions accordingly.

Terminating Action:

(3) Repair of an aeroplane as required by paragraph (2) of this AD does not constitute terminating action for the repetitive SDI as required by paragraph (1) of this AD for that aeroplane, unless specified otherwise in the instructions provided by Airbus.

(4) Modification of an aeroplane at the location as defined in Table 2 of this AD in accordance with the instructions of the applicable pre-mod 155607 SB or post-mod 155607 SB, as applicable, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane, at that location.

Ref. Publications:

Airbus SB A320-53-1308 original issue dated 04 November 2015, or Revision 01 dated 12 March 2019.

Airbus SB A320-53-1309 original issue dated 04 November 2015, or Revision 01 dated 12 March 2019.

Airbus SB A320-53-1310 original issue dated 04 November 2015, or Revision 01 dated 12 March 2019.

Airbus SB A320-53-1311 original issue dated 04 November 2015, or Revision 01 dated 12 March 2019.

Airbus SB A320-53-1312 original issue dated 04 November 2015, or Revision 01 dated 12 March 2019.

Airbus SB A320-53-1313 original issue dated 04 November 2015, or Revision 01 dated 12 March 2019.

Airbus SB A320-53-1345 original issue dated 23 November 2017, or Revision 01 dated 28 January 2021.

Airbus SB A320-53-1346 original issue dated 23 November 2017, or Revision 01 dated 28 January 2021.

Airbus SB A320-53-1347 original issue dated 23 November 2017.

Airbus SB A320-53-1348 original issue dated 23 November 2017, or Revision 01 dated 28 January 2021.

Airbus SB A320-53-1349 original issue dated 23 November 2017, or Revision 01, dated 31 May 2019.

Airbus SB A320-53-1350 original issue dated 23 November 2017.

Airbus SB A320-53-1427 original issue dated 05 July 2019.

Airbus SB A320-53-1428 original issue dated 05 July 2019.

Airbus SB A320-53-1429 original issue dated 05 July 2019.

Airbus SB A320-53-1430 original issue dated 05 July 2019.

Airbus SB A320-53-1431 original issue dated 05 July 2019.

Airbus SB A320-53-1432 original issue dated 05 July 2019.

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. The original issue of this AD was posted on 01 June 2016 as PAD 16-083 for consultation until 15 June 2016. The Comment Response Document 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 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 – Airworthiness Office – IIASA; E-mail: account.airworth-eas@airbus.com.