

Airworthiness Directive

AD No.: 2020-0005R1

Issued: 17 August 2023

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:

Type/Model designation(s):

AIRBUS S.A.S.

A318, A319, A320 and A321 aeroplanes

Effective Date: Revision 1: 24 August 2023

Original issue: 27 January 2020

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2020-0005 dated 13 January 2020.

ATA 53 – Fuselage – Windshield Central Lower Node Continuity Fittings – Inspection / Modification

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A318-111, A318-112, A318-121, A318-122, 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, all manufacturer serial numbers, except aeroplanes meeting one of the configuration criteria below:

- A318 aeroplanes on which Airbus modification (mod) 39195 was embodied in production, or Airbus Service Bulletin (SB) A320-00-1219 was embodied in service;
- A319 aeroplanes on which Airbus mod 28238, mod 28162 and mod 28342 (i.e. all three) were embodied in production.

Definitions:

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

Groups: Group 1 are A320 aeroplanes on which neither Airbus mod 22058 nor mod 21999 was embodied in production, nor Airbus SB A320-53-1329 embodied in service.



Group 2 are aeroplanes (any model) on which Airbus SB A320-53-1329 has not been embodied in service, and are not Group 1.

Group 3 aeroplanes are those on which Airbus SB A320-53-1329 was embodied in service before 29 400 flight cycles (FC) since aeroplane first flight.

Note 1: For aeroplanes on which Airbus SB A320-53-1329 was embodied in service after or at 29 400 FC, no further action is required up to the Publication Trigger (refer to Airworthiness Limitations Section (ALS) Part 2 paragraph 3.2).

Reason:

Two fatigue cracks on continuity fittings on left-hand (LH) and right-hand (RH) sides at the front windshield lower framing were reportedly found on an A319 aeroplane, on which Airbus mod 22058 had been embodied in production. Mod 22058, which is included in Airbus mod 21999, was introduced to improve the fatigue strength of the windshield front framing by increasing the thickness of framing flanges adjacent to the concerned fittings. Further analyses demonstrated that the damage tolerance and fatigue requirements of JAR 25.571 (b) are not met on aeroplanes in post-mod 22058 configuration.

This condition, if not detected and corrected, could lead to failure of windshield central frame lower node continuity fittings, possibly resulting in decompression of the aeroplane and injury to occupants.

To address this potential unsafe condition, Airbus issued instructions to accomplish repetitive high frequency eddy current (HFEC) inspections of the windshield central lower node continuity fittings, which are now included in the Airbus A320 family ALS Part 2, as Airworthiness Limitation Item (ALI) 531129. DGAC France and EASA issued several ADs, each one superseding the previous AD, to require compliance with ALS Part 2 (previously known as sub-section 9-2 of the MPD). Compliance with ALS Part 2 (Revision 09) is currently required by EASA AD 2022-0085, ALS Part 2 Variation 9.2 is required by EASA AD 2023-0008 and ALS Part 2 Variation 9.3 is required by EASA AD 2023-0151.

Since introduction of those HFEC inspections, numerous cracks have been found and reported. Consequently, Airbus issued SB A320-53-1331 to provide instructions for repetitive inspections of the central node windshield area, which replace the HFEC inspections specified in ALI task 531129. Airbus also published SB A320-53-1329 providing instructions to reinforce the windshield central post lower area. Consequently, EASA issued AD 2020-0005 to require repetitive inspections of the central node windshield area and includes reference to the reinforcement modification of that area as possible corrective action.

Since that AD was issued, Airbus issued several approved repair instructions, some of which include post-repair repetitive inspections for the repaired area, which allow terminating the repetitive inspections required by this AD.

For the reason described above, this AD is revised to include reference to certain repairs in accordance with Airbus repair instructions as terminating action for repetitive inspections required by this AD.



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

Required as indicated, unless accomplished previously:

Repetitive Inspection(s):

(1) Before exceeding the threshold as defined in Table 1 of this AD, and, thereafter, at intervals not to exceed the values defined in Table 1 of this AD, as applicable, accomplish an HFEC inspection of the windshield central lower node continuity fittings on both LH and RH sides, in accordance with the instructions of Airbus SB A320-53-1331.

After modification of a Group 1 or a Group 2 aeroplane in accordance with the instructions of Airbus SB A320-53-1329, subsequent inspections of that aeroplane must be accomplished as defined in Table 1 of this AD for Group 3 aeroplanes.

Aeroplane configuration	Threshold (A, B or C, whichever occurs later, as applicable)	Interval (not to exceed)
Group 1	 A) Before exceeding 36 000 FC since aeroplane first flight B) Within 8 300 FC since last ALI 531129 inspection C) Within the compliance time for reduced interval, as identified in the ALS Part 2 Revision 7 for ALI task 531129, without exceeding 13 500 FC since last ALI 531129 inspection 	8 300 FC
Group 2	A) Before exceeding 30 600 FC since aeroplane first flight B) Within 8 800 FC since last ALI task 531129 inspection	- 8 800 FC
Group 3	A) Before exceeding 30 600 FC since SB A320-53-1329 embodiment	

Table 1 – Initial and Repetitive HFEC Inspections

(2) For a windshield central lower node continuity fitting of an aeroplane that, before the effective date of this AD, has been inspected per ALI task 531129 and repaired in accordance with an Airbus repair instructions, accomplish the next inspections of that fitting in accordance with the instructions of, and within the compliance time as specified in, the Airbus repair instructions.

Corrective Action(s):

- (3) For Group 1 and Group 2 aeroplanes: If, during any inspection as required by paragraph (1) of this AD, any crack is detected, before next flight, modify the aeroplane in accordance with the instructions of Airbus SB A320-53-1329, or accomplish a repair in accordance with the instructions of Airbus SB A320-53-1331, as applicable, or contact Airbus for approved instructions and accomplish those instructions accordingly.
- (4) For Group 3 aeroplanes: If, during any inspection as required by paragraph (1) of this AD, any crack is detected, before next flight, contact Airbus for approved instructions and accomplish those instructions accordingly.



Terminating Action(s):

(5) Accomplishment on an aeroplane of a repair and post-repair initial and repetitive inspections, as applicable, in accordance with the instructions of an Airbus approved repair instructions, as required by paragraph (3) or (4) of this AD, as applicable, does not constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane, unless otherwise specified in the applicable Airbus repair instructions.

In the latter case, if the initial and repetitive post-repair inspections, as per Airbus approved repair instructions, are done on an aeroplane as intended, those constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.

Impact on ALS:

(6) Accomplishment of inspections on an aeroplane, as required by paragraph (1) of this AD, supersedes the inspection requirements of ALI task 531129 for that aeroplane.

Alternative Method of Compliance:

(7) Accomplishment of an inspection in accordance with ALI task 531129 on an aeroplane, within the threshold and intervals as defined in paragraph (1) of this AD, constitutes an acceptable method to comply with the requirements of paragraph (1) of this AD for that aeroplane for the next inspection due after 27 January 2020 [the effective date of this AD at original issue].

Reporting:

(8) Within 90 days after the accomplishment of each HFEC inspection as required by paragraph (1) of this AD, report the results, including no findings, to Airbus.

Ref. Publications:

Airbus Service Bulletin A320-53-1329 original issue dated 21 December 2018.

Airbus Service Bulletin A320-53-1331 original issue dated 14 January 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.
- The original issue of this AD was posted on 15 July 2019 as PAD 19-125 for consultation until 12
 August 2019. The Comment Response Document can be found in the <u>EASA Safety Publications</u>
 <u>Tool</u>, 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 <u>EU aviation safety</u>



<u>reporting system</u>. 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 – EIAS; Fax +33 5 61 93 44 51; E-mail: account.airworth-eas@airbus.com.