



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 23-058

Issued: 23 May 2023

Note: This Proposed Airworthiness Directive (PAD) 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.

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 date indicated.

Design Approval Holder's Name:

AIRBUS S.A.S.

Type/Model designation(s):

A318, A319, A320 and A321 aeroplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2016-0139 dated 14 July 2016.

ATA 53 – Fuselage – Crossbeam Splicing at Frames 16 and 20 – Inspection

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 on which Airbus modification (mod) 161255 was embodied in production;
- A318 aeroplanes on which Airbus mod 39195 was embodied in production, or Airbus Service Bulletin (SB) A320-00-1219 was embodied in service; and
- A319 aeroplanes on which Airbus mod 28238, mod 28162 and mod 28342 were embodied in production.



Definitions:

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

Affected area: The two upper rows of fasteners of the crossbeam splicing at Frame (FR) FR16 and FR20 on both left-hand (LH) and right-hand (RH) sides.

The SB: Airbus SB A320-53-1286 Revision 04.

Groups: Group 1 aeroplanes are those on which neither Airbus mod 20416 nor mod 21999 have been embodied in production. Group 2 aeroplanes are those on which Airbus mod 20416 or mod 21999 have been embodied in production.

Reason:

Following addition of new airworthiness limitation item (ALI) task 531110 in the Airworthiness Limitations Section (ALS) Part 2, revision dated April 2012, numerous findings have been reported of early cracks on the four holes of the crossbeam splicing at frame FR16 and FR20 on both, left-hand (LH) and right-hand (RH) sides.

This condition, if not detected and corrected, could affect the structural integrity of the airframe.

To allow an earlier crack detection, it was decided to transfer the repetitive inspections from ALI task 531110 to Airbus SB A320-53-1286 (original issue, later revised), including new recommended inspection thresholds. Consequently, EASA issued AD 2016-0139 to require repetitive special detailed inspections (SDI) of each affected area, and, depending on findings, accomplishment of applicable corrective action(s). That AD also provided, depending on aeroplane configuration, an optional terminating action for the repetitive inspections required by that AD.

Since that AD was issued, following further assessments, Airbus issued the SB, as defined in this AD, including instructions to inspect additional holes on Group 1 aeroplanes, and reducing the thresholds for Group 2 aeroplanes. The SB also provides an additional terminating action through the accomplishment of Airbus Repair Instruction (RI) R53112926 at issue E after a certain threshold.

For the reasons described above, this AD retains the requirements of EASA AD 2016-0139, which is superseded, introduces new thresholds for Group 2 aeroplanes, expands the inspection area for Group 1 aeroplanes, and adds a terminating action option.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 and Group 2 aeroplanes: Before exceeding the threshold and, thereafter, at intervals as defined in Table 1 or Table 2 of this AD, as applicable, accomplish an SDI of the affected area in accordance with the instructions of the SB.



Table 1 – SDI for Group 1 aeroplanes

Threshold (A, B or C, whichever occurs later)		Interval (not to exceed)
A	Before exceeding 36 800 flight cycles (FC) or 73 600 flight hours (FH), whichever occurs first since aeroplane first flight	27 400 FC or 54 800 FH, whichever occurs first
B	Within 27 400 FC or 54 800 FH, whichever occurs first since the last inspection per ALI task 531110-01-1, accomplished before 28 July 2016 [the effective date of EASA AD 2016-0139]	
C	Within 27 400 FC or 54 800 FH, whichever occurs first since the last inspection in accordance with the instructions of Airbus SB A320-53-1286 original issue, Revision 01, Revision 02 or Revision 03	

Table 2 – SDI for Group 2 aeroplanes

Threshold (A, B, C or D, whichever occurs later)		Interval (Not to exceed)
A	Before exceeding 31 200 FC or 62 400 FH, whichever occurs first since aeroplane first flight	12 900 FC or 25 800 FH, whichever occurs first
B	Within 12 900 FC or 25 800 FH, whichever occurs first since the last inspection per ALI task 531110-01-2 accomplished before 28 July 2016 [the effective date of EASA AD 2016-0139]	
C	Within 24 months after the effective date of this AD without exceeding 34 700 FC or 69 400 FH, whichever occurs first since aeroplane first flight	
D	Within 12 900 FC or 25 800 FH, whichever occurs first since the last inspection, in accordance with the instructions of Airbus SB A320-53-1286 original issue, Revision 01, Revision 02 or Revision 03	

- (2) For Group 1 aeroplanes that were inspected, before the effective date of this AD, in accordance with the instructions of SB A320-53-1286 original issue, Revision 01, Revision 02 or Revision 03, but were never previously inspected in accordance with ALI task 531110, within 72 months after the effective date of this AD, accomplish the additional work (inspections) in accordance with the instructions of the SB.

Corrective Action(s):

- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any crack is found, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the SB, or contact Airbus for approved corrective action instructions and accomplish those instructions accordingly.



Specific Requirements:

- (4) For aeroplanes on which, before 28 July 2016 [the effective date of EASA AD 2016-0139], Airbus RI R53112926 at issue A or B was accomplished on the frame and/or crossbeam at FR16 LH or RH, or at FR20 LH or RH, within 24 months after 28 July 2016 [the effective date of EASA AD 2016-0139], contact Airbus for approved repair instructions and accomplish those instructions accordingly.
- (5) For aeroplanes on which, before 28 July 2016 [the effective date of EASA AD 2016-0139], a repair with installation of EN6114 countersunk(s), valid within the EASA system, was applied on the frame and/or crossbeam at FR16 LH or RH, or at FR20 LH or RH, in the affected area, within 24 months after 28 July 2016 [the effective date of EASA AD 2016-0139], contact that design approval holder (DAH) for assessment and repair instructions, obtain EASA AMOC approval and accomplish those instructions accordingly, as applicable.
- (6) For an aeroplane that, before the effective date of this AD, has been inspected per ALL task 531110 or per SB A320-53-1286 original issue, Revision 01, Revision 02 or Revision 03, and repaired using Airbus approved instructions, accomplish the actions specified in paragraph (6.1) or (6.2) of this AD, as applicable:
 - (6.1) Accomplish subsequent inspections of each repaired fastener hole within the compliance times specified in, and in accordance with the instructions of the applicable approved instructions.
 - (6.2) Within the intervals as specified in Table 1 or Table 2 of this AD, as applicable, contact Airbus for approved instructions and accomplish those instructions accordingly.
- (7) For an aeroplane that, before the effective date of this AD, has been repaired in an affected area using Airbus approved instructions unrelated to ALL task 531110 or SB A320-53-1286 (at any revision), before exceeding the threshold as specified in Table 1 or Table 2 of this AD, as applicable, contact Airbus for approved instructions and accomplish those instructions accordingly.

Terminating Action:

- (8) For Group 2 aeroplanes: Modification of an aeroplane in accordance with the instructions of Airbus SB A320-53-1295 constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.
- (9) For Group 2 aeroplanes: Modification in accordance with the instructions of Airbus SB A320-53-1295 on an aeroplane of the fastener holes on which no damage or crack was detected (i.e. those holes that were not repaired) during the last inspection as required by paragraph (1) of this AD, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for those fastener holes on that aeroplane.
- (10) Accomplishment of corrective action(s) or specific requirements on an aeroplane, as required by paragraph (3), (4), (5), (6) or (7) 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 specified otherwise in the corrective action instructions.



Note 1: Airbus approved instructions, stating that it supersedes the ALI 531110 inspection requirements, also supersedes the inspection requirements of paragraph (1) of this AD for the specific area detailed in the Airbus approved instructions. For all other areas, the AD requirements remain applicable.

- (11) Repair of an aeroplane, accomplished (completely and without deviation) in accordance with the instructions of Airbus RI R53112926 at issue E or later, and accomplished after accumulating 18 400 FC since aeroplane first flight, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.
- (12) For aeroplanes on which, Airbus RI R53112926 at issue D, (completely and without deviation) was accomplished before the effective date of this AD, and after accumulating 18 400 FC since aeroplane first flight, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.
- (13) For aeroplanes on which, Airbus RI R53112926 at issue D or E (completely and without deviation) was accomplished before accumulating 18 400 FC since aeroplane first flight on the affected area, within 12 months after the effective date of this AD contact Airbus for approved repair instructions and accomplish those instructions accordingly.

Ref. Publications:

Airbus SB A320-53-1286 original issue dated 29 June 2015, or Revision 01 dated 22 December 2015, or Revision 02 dated 01 October 2018, or Revision 03 dated 08 June 2022, or Revision 04 dated 22 February 2023.

Airbus SB A320-53-1295 original issue dated 29 June 2015, or Revision 01 dated 27 September 2018, or Revision 02 dated 10 February 2020, or Revision 03 dated 19 May 2022.

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

Remarks:

1. This Proposed AD will be closed for consultation on 20 June 2023.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, 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 PAD 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.



4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – IIASA; E-mail: account.airworth-eas@airbus.com.

