



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 18-082

Issued: 18 June 2018

Note: This Proposed Airworthiness Directive (PAD) 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.

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

Type/Model designation(s):

A320 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 DGAC France AD 91-182-020(B) R2 dated 07 December 1994.

ATA 24 – Electrical Power – Wing Electrical Installation – Modification

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A320-211, A320-212 and A320-231 aeroplanes, all manufacturer serial numbers, except those on which Airbus modification (mod) 22626 has been embodied in production.

Reason:

Several cases of wire chafing were reported by operators, occurring in the trailing edge areas of zones 574 and 674 (both left-hand and right-hand wing) at the breakout of the electrical bundle from the conduit.

This condition, if not detected and corrected, could lead to a short circuit, possibly resulting in a fire in the concerned areas. It was also determined that this failure mode can also affect other wires installed on the wing, horizontal stabilizer and in the main landing gear (MLG) bays.



To address this unsafe condition, Airbus issued Service Bulletin (SB) A320-24-1044 to provide instructions for inspection of the wires to detect chafing or signs of overheating and SB A320-24-1045 introducing protective sleeves on electrical cables to prevent chafing.

Consequently, DGAC France issued AD 91-182-020(B) (later revised) to require those repetitive inspections, or applicable repairs depending on findings, and to install protective sleeves as terminating action for the repetitive inspections.

Since AD 91-182-020(B) R2 was issued, subsequent investigations identified, in those areas (zones 574 and 674), issues with the protective sleeves previously installed in production, through mod 22109, or in service through SB A320-24-1045.

Prompted by these findings, Airbus issued SB A320-92-1115, providing instructions for installation of a new protective sleeve on those cables localised in zones 574 and 674, and introduced in production (through mod 22626) new design electrical cables more resistant to chafing.

For the reasons described above, this AD partially retains the requirements of DGAC France AD 91-182-020(B) R2, which is superseded, and requires modification of the wing electrical installation.

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

Required as indicated, unless accomplished previously:

Partial Restatement of the requirements of DGAC France AD 91-182-020(B) R2:

Inspections:

- (1) Within 450 flight hours (FH) after 31 August 1991 [the effective date of DGAC France AD 91-182-020 at original issue], and, thereafter, at intervals not to exceed 450 FH, inspect the wires installed on the wing (zones 574 and 674 through panels 574 AB and 674 AB only) in accordance with the instructions of Airbus SB A320-24-1044 Revision 2.
- (2) Within 1 500 FH after 31 August 1991 [the effective date of DGAC France AD 91-182-020 at original issue] and, thereafter, at intervals not to exceed 3 500 FH, inspect the wires installed on the wing and horizontal stabilizer (except zones 574 and 674 through panels 574 AB and 674 AB), in accordance with the instructions of Airbus SB A320-24-1044 Revision 2.
- (3) Within 1 500 FH after 17 December 1994 [the effective date of DGAC France AD 91-182-020 at Revision 2], and, thereafter, at intervals not to exceed 3 500 FH, inspect the wires installed in the MLG bays in accordance with the instructions of Airbus SB A320-24-1044 Revision 3.

Corrective Actions:

- (4) If during any inspection as required by paragraph (2) or (3) of this AD, as applicable, any wire is found chafed or showing signs of overheating, before next flight, replace or repair the wire (this can be accomplished in accordance with the instructions of the Aircraft Maintenance Manual and Aircraft Wiring Manual), and protect the loom in accordance with the instructions of Airbus SB A320-24-1044 (temporary repair) at Revision 2 or 3, or SB A320-24-1045 at Revision 1, 2 or 3.



- (5) If, during any inspection as required by paragraph (2) or (3) of this AD, as applicable, any wire loom is found not correctly guided centrally into the conduit end fitting, or in contact with the edge of the conduit, or which might come in contact with the edge of the conduit end fitting during vibration in flight, as applicable, before next flight, re-align and protect the loom in accordance with the instructions of Airbus SB A320-24-1044 (temporary repair) at Revision 2 or 3, or Airbus SB A320-24-1045 at Revision 1, 2 or 3.

Terminating Action:

- (6) Modification of electrical cables on an aeroplane in accordance with the instructions of Airbus SB A320-24-1045 at Revision 3 constitutes terminating action for the repetitive inspections as required by paragraph (1), (2) and (3) of this AD for that aeroplane.

New requirements of this AD:

Corrective Action:

- (7) If, during any inspection as required by paragraph (1) of this AD, any wire is found chafed or showing signs of overheating, before next flight, replace or repair the wire (this can be accomplished in accordance with the instructions of the Aircraft Maintenance Manual and Aircraft Wiring Manual), and install protective sleeves on the electrical cables in accordance with the instructions of Airbus SB A320-92-1115.
- (8) If, during any inspection as required by paragraph (1) of this AD, any wire loom is found not correctly guided centrally into the conduit end fitting, or in contact with the edge of the conduit, or which might come in contact with the edge of the conduit end fitting during vibration in flight, as applicable, before next flight, install protective sleeves on the electrical cables in accordance with the instructions of Airbus SB A320-92-1115.

Credit:

- (9) Corrective actions accomplished on an aeroplane before the effective date of this AD in accordance with the instructions of Airbus SB A320-24-1044 (temporary repair) at Revision 2 or 3, or Airbus SB A320-24-1045 at Revision 1, 2 or 3, are acceptable to comply with the requirements of paragraph (7) and (8) of this AD for that aeroplane.

Modification:

- (10) Within 72 months after the effective date of this AD, unless already done as required by paragraph (7) or (8) of this AD, install protective sleeves on the electrical cables in zones 574 and 674 in accordance with the instructions of Airbus SB A320-92-1115.
- (11) After modification of an aeroplane as required by paragraph (10) of this AD, do not modify that aeroplane in zones 574 and 674 in accordance with the instructions of Airbus SB A320-24-1044 or Airbus SB A320-24-1045.

Terminating Action:

- (12) Modification of all protective sleeves on the electrical cables in zones 574 and 674 of an aeroplane in accordance with the instructions of Airbus SB A320-92-1115 constitutes terminating action for the inspections as required by paragraph (1) of this AD for that aeroplane.



Ref. Publications:

Airbus SB A320-24-1044 Revision 2 dated 30 March 1992, or Revision 3 dated 12 March 1993.

Airbus SB A320-24-1045 Revision 1 dated 23 August 1991, or Revision 2 dated 12 April 1992, or Revision 3 dated 10 June 1993, or Revision 4 dated 29 December 1994.

Airbus SB A320-92-1115 original issue, dated 11 April 2017.

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 16 July 2018.
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](#).
4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – EIAS; Fax +33 5 61 93 44 51; E-mail: account.airworth-eas@airbus.com.

