



Emergency Airworthiness Directive

AD No.: 2018-0149-E

Issued: 13 July 2018

Note: This Emergency 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:

LEONARDO S.p.A.

Type/Model designation(s):

A109S and AW109SP helicopters

Effective Date: 17 July 2018

TCDS Number(s): EASA.R.005

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2018-0120-E dated 29 May 2018.

ATA 24 – Electrical Power – Electrical Cables – Inspection / Modification

Manufacturer(s):

Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A., AgustaWestland S.p.A., Agusta S.p.A.

Applicability:

A109S helicopters, serial number (s/n) 22702, 22703, 22705 and 22706, and AW109SP helicopters, all s/n up to 22386 inclusive, except s/n 22375 and 22376.

Definitions:

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

The applicable SB: Leonardo Service Bulletin (SB) 109SP-120 and SB 109S-079, as applicable.

The applicable modification SB: Leonardo SB 109SP-122 and SB 109S-081, as applicable.

Reason:

An occurrence was reported on an AW109SP helicopter, experiencing fire ignition and smoke in the baggage compartment. Investigation result showed that this event was due to chafing of electrical wiring. Further analysis indicated that, due to similarity of design, the same event could occur on A109S helicopters.



This condition, if not detected and corrected, could lead to further events of fire in the baggage compartment, possibly resulting in loss of control of the helicopter.

Prompted by this occurrence, Leonardo issued the applicable SB, providing applicable instructions, and EASA issued Emergency AD 2018-0120-E, requiring modification of the affected baggage fairing assembly (fwd up), Part Number (P/N) 109-0344-31-101, and, pending that modification, a temporary amendment to the applicable Rotorcraft Flight Manual (RFM) and installation of a placard, prohibiting carrying any loads in the baggage compartment.

Since that AD was issued, another occurrence was reported of fire ignition and smoke in the baggage compartment, and Leonardo issued the applicable modification SB, providing instructions to prevent damage of electrical cable assemblies in the baggage compartment.

For the reason stated above, this AD retains the requirements of EASA AD 2018-0120-E, which is superseded, and additionally requires repetitive inspections of the affected baggage compartment electrical cable assemblies and, depending on findings, accomplishment of applicable corrective action(s). This AD also expands the Applicability by adding three s/n helicopters, and requires a modification, providing terminating action for the repetitive inspections required by this AD.

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

Required as indicated, unless accomplished previously:

Restatement of Requirements of EASA AD 2018-0120-E:

For all helicopters, except A109S, s/n 22705 and 22706, and AW109SP, s/n 22384:

RFM Amendment:

- (1) Before next flight after 31 May 2018 [the effective date of EASA AD 2018-0120-E], amend the limitation section of the applicable RFM in accordance with the instructions of Part I of the applicable SB, inform all flight crews and, thereafter, operate the helicopter accordingly.

Placard Installation:

- (2) Concurrently with the RFM amendment as required by paragraph (1) of this AD, install a placard on the inside of baggage door D8 in accordance with the instructions of Part I of the applicable SB.

Modification:

- (3) Within 15 flight hours (FH) after 31 May 2018 [the effective date of EASA AD 2018-0120-E], modify the affected baggage fairing assembly P/N 109-0344-31-101 in accordance with the instructions of Part II of the applicable SB.
- (4) Concurrently with modification of a helicopter as required by paragraph (3) of this AD, the RFM amendment and placard as required by paragraphs (1) and (2) of this AD are no longer necessary and can be removed from the helicopter.



Credit:

- (5) Alternative Methods of Compliance with any of the requirements of EASA AD 2018-0120-E, approved by EASA for a helicopter, are acceptable to comply with the corresponding requirements of paragraphs (1) to (4) of this AD, as applicable, for that helicopter.

New requirements of this AD:

For all helicopters:

Repetitive Inspections:

- (6) Within 5 FH after the effective date of this AD, and, thereafter, at intervals not to exceed 25 FH, inspect the baggage compartment electrical cable assemblies in accordance with the instructions of Part I of the applicable modification SB.

Corrective Action:

- (7) If, during any inspection as required by paragraph (6) of this AD, any discrepancy, as identified in the applicable modification SB, is found on a helicopter, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of Part I of the applicable modification SB.

Modification:

- (8) Within 200 FH after the effective date of this AD, modify the helicopter in accordance with the instructions of Part II of the applicable modification SB.

Terminating Action:

- (9) Modification of a helicopter as required by paragraph (8) of this AD constitutes terminating action for the repetitive inspections as required by paragraph (6) of this AD for that helicopter.

Ref. Publications:

Leonardo S.p.A. Helicopters SB 109S-079 original issue dated 28 May 2018, or Revision A dated 04 June 2018.

Leonardo S.p.A. Helicopters SB 109S-081 original issue dated 05 July 2018.

Leonardo S.p.A. Helicopters SB 109SP-120 original issue dated 28 May 2018, or Revision A dated 04 June 2018.

Leonardo S.p.A. Helicopters SB 109SP-122 original issue dated 05 July 2018.

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 results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.



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](#).
5. For any question concerning the technical content of the requirements in this AD, please contact: Leonardo S.p.A. Helicopters, Customer Support & Services, Product Support Engineering DPT, E-mail: aw109.mbx.aw@leonardocompany.com.

