



Emergency Airworthiness Directive

AD No.: 2016-0173-E

Issued: 24 August 2016

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):

A109, AW109, A119 and AW119 helicopters

Effective Date: 26 August 2016

TCDS Number(s): EASA.R.005

Foreign AD: Not Applicable

Supersedure: None

ATA 64 – Tail Rotor Drive – Blade Retention Bolts – Inspection / Replacement [Retirement Life Reduction]

Manufacturer(s):

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

Applicability:

A109E, A109K2, A109LUH, A109S, A119, AW109SP and AW119MKII helicopters, all serial numbers.

Reason:

During a pre-flight inspection of an A109E helicopter, a crack was detected on a tail rotor blade retention bolt, Part Number (P/N) 709-0160-57-101 (hereafter referred to as “the affected bolt” in this AD). Subsequent investigation did not identify the cause of the crack. It was also determined that bolts P/N 709-0160-**47**-101 are not affected.

This condition, if not detected and corrected, could lead to failure of the tail rotor, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, as a precautionary measure pending completion of the investigation, Leonardo issued Bollettino Tecnico (BT) 109SP-105, BT 109K-72, BT 109EP-149, BT 109L-087, BT 109S-072 and BT 119-080 (hereafter referred to as “the applicable BT” in this AD), as applicable to helicopter model, providing inspection instructions and to reduce the life limit of bolts P/N 709-0160-57-101.



For the reason stated above, this AD requires implementation of a reduced life limit for, and repetitive inspections of, the affected bolts.

This AD is considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

- (1) Before exceeding the life limit as listed in Table 1 of this AD, or within 25 flight hours (FH) after the effective date of this AD, whichever occurs later, replace each affected bolt with a serviceable bolt (see Note 1 of this AD) in accordance with the instructions of the applicable BT.

If the FH or landings accumulated by an affected bolt since first installation on a helicopter are unknown, within 25 FH after the effective date of this AD, replace that bolt with a serviceable bolt (see Note 1 of this AD) in accordance with the instructions of the applicable BT.

Table 1 – Reduced life limit

Helicopter models	Life Limit (since first installation on a helicopter)
A109E and A109K2	800 FH
A109LUH, A109S, A119, AW109SP and AW119MKII	3 200 landings

Note 1: For the purpose of this AD, a serviceable bolt is a bolt P/N 709-0160-47-101; or a bolt P/N 709-0160-57-101 that is new; or a bolt P/N 709-0160-57-101 that does not exceed the applicable life limit as listed in Table 1 of this AD and has passed an inspection in accordance with the instructions of the applicable BT.

- (2) Within 25 FH after the effective date of this AD, and, thereafter, at intervals not to exceed 200 FH, inspect each affected bolt in accordance with the instructions of the applicable BT.
- (3) If, during any inspection as required by paragraph (2) of this AD, a crack is found on an affected bolt, before next flight, replace that bolt with a serviceable bolt (see Note 1 of this AD) in accordance with the instructions of the applicable BT.
- (4) From the effective date of this AD, installation on a helicopter of an affected bolt is allowed, provided that bolt is serviceable (see Note 1 of this AD) and that, following installation, it is inspected as required by paragraph (2) of this AD, and replaced as required by paragraph (1) of this AD.

Ref. Publications:

Leonardo S.p.A. Helicopters BT 109SP-105 original issue, dated 19 August 2016.

Leonardo S.p.A. Helicopters BT 109K-72 original issue, dated 19 August 2016.



Leonardo S.p.A. Helicopters BT 109EP-149 original issue, dated 19 August 2016.

Leonardo S.p.A. Helicopters BT 109L-087 original issue, dated 19 August 2016.

Leonardo S.p.A. Helicopters BT 109S-072 original issue, dated 19 August 2016.

Leonardo S.p.A. Helicopters BT 119-080 original issue, dated 19 August 2016.

The use of later approved revisions of these 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. For any question concerning the technical content of the requirements in this AD, please contact: Leonardo S.p.A. Helicopters, Customer Support & Services
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