

Airworthiness Directive

AD No.: 2023-0159**Issued:** 10 August 2023

Note: This 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, 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:

LEONARDO S.p.A.

Type/Model designation(s):

A109 helicopters

Effective Date: 24 August 2023**TCDS Number(s):** EASA.R.005**Foreign AD:** Not applicable**Supersedure:** None

ATA 62 – Main Rotor – Main Rotor Blade Tip Caps – Inspection / Replacement

Manufacturer(s):

Leonardo S.p.A Helicopter Division, formerly Finmeccanica S.p.A. Helicopter Division, AgustaWestland S.p.A., Agusta S.p.A.

Applicability:

A109C, A109E, A109S and AW109SP helicopters, all serial numbers (s/n).

Definitions:

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

The ASB: Leonardo Alert Service Bulletin (ASB) 109-159, ASB 109EP-181, ASB 109S-116 or ASB 109SP-158, as applicable.

Affected part: Main rotor blade (MRB) assemblies, having a Part Number and a serial number (s/n) as identified in Appendix 1 of this AD, except those which have been repaired in accordance with the instructions of Part III of the ASB.

Serviceable part: Any MRB assembly that is not an affected part.

Groups: Group 1 are helicopters which have an affected part installed. Group 2 are helicopters which do not have an affected part installed.



Reason:

A quality escape has been reported on a batch of MRB, where the tip cap had been replaced following a procedure and using tools not in accordance with Leonardo Technical Publications. This non-conformity could lead to early debonding of the tip cap and ultimately to its detachment.

This condition, if not detected and corrected, could lead to loss of the MRB tip cap in flight, possibly resulting in loss of control of, and damage to, the helicopter, and/or injury to occupants.

To address this potential unsafe condition, Leonardo published the ASB, as defined in this AD, providing instructions for inspection and replacement of the affected parts, and instructions for in-shop repair of affected parts.

For the reason described above, this AD requires repetitive inspections of the affected parts, until replacement with serviceable parts. This AD also prohibits (re)installation of affected parts.

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

Required as indicated, unless accomplished previously:

Inspections:

- (1) For Group 1 helicopters: Within 25 flight hours (FH) after the effective date of this AD and, thereafter, at intervals not exceeding 25 FH, inspect each affected part in accordance with the instructions of Part I of the ASB.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any deficiency, exceeding the acceptable limits as identified in the ASB, is detected on an affected part, before next flight, replace that affected part with a serviceable part in accordance with the instructions of Part II of the ASB.

Part(s) Replacement:

- (3) For Group 1 helicopters: Unless already done as required by paragraph (2) of this AD, within 300 FH after the effective date of this AD, replace each affected part with a serviceable part in accordance with the instructions of Part II of the ASB.

Terminating Action(s):

- (4) Replacement of each affected part with a serviceable part on a helicopter, as required by paragraph (2) or (3) of this AD, as applicable, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that helicopter.

Part(s) Installation:

- (5) For Group 1 and Group 2 helicopters: From the effective date of this AD, do not install an affected part on any helicopter.



Ref. Publications:

Leonardo S.p.A. Helicopters ASB 109-159 original issue dated 02 August 2023.

Leonardo S.p.A. Helicopters ASB 109EP-181 original issue dated 02 August 2023.

Leonardo S.p.A. Helicopters ASB 109S-116 original issue dated 02 August 2023.

Leonardo S.p.A. Helicopters ASB 109SP-158 original issue dated 02 August 2023.

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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
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](#). 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: Leonardo S.p.A. Helicopters, E-mail: engineering.support.lhd@leonardocompany.com.



Appendix 1 – Affected Parts

Helicopter	Part Number	Serial Number
A109C, A109E	709-0103-01-111	A5-1581, A5-1949, A5-2283, EM0256, H77669, H92618, H92621, P844, P885, P912, Q1148, J66216, J66221 (see Note 1)
A109S, AW109SP	709-0104-01-111	1138, N72, N95, V84, V434, V486

Note 1: A letter 'M' could be present after the s/n. In any case, the MRB is still considered to be an affected part.

