



# Emergency Airworthiness Directive

**AD No.:** 2024-0084-E

**Issued:** 11 April 2024

Note: This Emergency Airworthiness Directive (AD) 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.

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):

AB139 and AW139 helicopters

**Effective Date:** 15 April 2024

**TCDS Number(s):** EASA.R.006

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 32 – Main Landing Gear – Main Landing Gear Shock Absorber – Inspection

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### Manufacturer(s):

Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation

### Applicability:

AB139 and AW139 helicopters, all serial numbers.

### Definitions:

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

**The EASB:** Leonardo Emergency Alert Service Bulletin (EASB) 139-783.

**Affected part:** Main landing gear (MLG) shock absorber assembly having Part Number (P/N) 3G3210V00333 or P/N 3G3210V01031 (vendor P/N 1654B0000-01 or P/N 1654C0000-01, respectively).

**Serviceable part:** An affected part that is new (never previously installed); or that has accumulated less than 7 000 landings since new; or that has accumulated less than 2 000 landings and less than 12 months since last inspection in accordance with the instructions of the EASB.



**Groups:** Group 1 helicopters are those that have an affected part installed. Group 2 helicopters are those that do not have an affected part installed.

**Reason:**

Occurrences of a broken eye end of the MLG shock absorber piston rod were reported. Subsequent investigation determined that the cause was fatigue cracking.

This condition, if not detected and corrected, could lead to structural failure of the main landing gear possibly resulting in damage to the helicopter and injury to occupants.

To address this potential unsafe condition, Leonardo issued the EASB providing inspection and replacement instructions.

For the reason described above, this AD requires repetitive Special Detailed Inspections (SDI) of each affected part using Ultrasonic Testing and, depending on findings, replacement.

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

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

**Repetitive Inspection(s):**

- (1) For Group 1 helicopters: Within the compliance time as defined in Table 1 of this AD, as applicable, and, thereafter, at intervals not exceeding the values as defined in Table 1 of this AD, as applicable, accomplish an SDI of each affected part in accordance with the instructions of the EASB.

Table 1 – Initial and Repetitive Inspections (see Note 1 and Note 2 of this AD)

| Affected Part Landings | Compliance Time   | Interval   |
|------------------------|---|--|
| Less than 7 000        | Within 100 flight hours (FH) after the affected part accumulated 7 000 landings | 2 000 landings or 12 months whichever occurs first |
| 7 000 to 9 999         | Within 100 FH after the effective date of this AD                               | 2 000 landings or 12 months whichever occurs first |
| 10 000 to 12 999       | Within 50 FH after the effective date of this AD                                | 2 000 landings or 12 months whichever occurs first |
| 13 000 or more         | Within 10 FH after the effective date of this AD                                | 2 000 landings or 12 months whichever occurs first |

Note 1: Unless specified otherwise the landings indicated in Table 1 of this AD, are those accumulated by an affected part since new.



Note 2: If the number of landings since new of an affected part is not known, it must be calculated by multiplying the FH accumulated by the affected part since new by a factor of 6.

**Corrective Action(s):**

- (2) If, during any inspection as required by paragraph (1) of this AD, discrepancies, as identified in the EASB, are detected on an affected part, before next flight, replace that affected part with a serviceable part in accordance with the instructions of the EASB.

**Terminating Action(s):**

- (3) Replacement of an affected part with a serviceable part, as defined in this AD, on a helicopter does not constitute a terminating action(s) for the repetitive inspections as required by paragraph (1) of this AD for that helicopter.

**Reporting:**

- (4) Within 10 days after accomplishment of any inspection as required by paragraph (1) of this AD, report the inspection results (including no findings) to Leonardo. This can be accomplished in accordance with the instructions of the EASB.

**Part(s) Installation:**

- (5) For Group 1 and Group 2 helicopters: From the effective date of this AD, it is allowed to install an affected part on a helicopter, provided that the part is a serviceable part, as defined in this AD.

Note 3: Removal of an affected part from a helicopter and subsequent reinstallation of that affected part on the same helicopter, at the same location, accomplished during a single maintenance visit, is not considered as 'installation' as specified in paragraph (5) of this AD.

**Ref. Publications:**

Leonardo EASB 139-783 original issue dated 10 April 2024.

The use of later approved revisions of the above-mentioned document 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](mailto: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](mailto:engineering.support.lhd@leonardocompany.com).

