Emergency Airworthiness Directive

AD No.: 2022-0182-E

Issued: 30 August 2022

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: 01 September 2022

TCDS Number(s): EASA.R.006

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2022-0152-E dated 26 July 2022.

ATA 64 – Tail Rotor – Duplex Bearings – Inspection / Replacement

ATA 67 – Rotor Flight Control – Tail Rotor Actuator – Inspection / Replacement

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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 ASB: Leonardo Emergency Alert Service Bulletin (ASB) 139-725 Revision A.

Affected part: Tail rotor duplex bearings (TRDB), having Part Number (P/N) 3G6430V00151, P/N 3G6430V00152 or P/N 3G6430V00153.

Affected TRA: Tail rotor actuators (TRA), having P/N 3G6730V00731 or P/N 3G6730V00732.

Affected assembly: Sliding control assemblies, having P/N 3G6430A02531.

Serviceable part: Any TRDB, eligible for installation, which is not an affected part; or an affected part that is new (never previously installed on a sliding control assembly).

Serviceable assembly: Any affected assembly, having a serviceable part installed; or any affected assembly having an affected part installed which has never been removed from that assembly, and which has accumulated less than 2 400 flight hours (FH) since new.

Groups: Group 1 helicopters are those that have an affected part installed that either has accumulated less than 2 390 FH since first installation on a helicopter and that has been removed and reinstalled on an affected assembly; or for which it cannot be determined whether the affected part has been removed and reinstalled on an affected assembly.
Group 2 helicopters are those that have an affected part installed, that has accumulated 2 390 FH or more since first installation on a helicopter.
Group 3 helicopters are those that have an affected part installed, that has accumulated less than 2 400 FH since first installation on a helicopter and that has NOT been removed and reinstalled on an affected assembly.
Group 4 helicopters are those that do not have an affected part installed.

Reason:

An occurrence was reported of finding a damaged TRDB on an AW139 helicopter. The investigation results determined that the bearing had been removed from a sliding control assembly and reinstalled on another sliding control assembly, even though Aircraft Maintenance Programme procedures do not allow reinstallation of a removed bearing.

This condition, if not detected and corrected, could lead to structural failure of an affected part, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, Leonardo issued ASB 139-725 original issue to provide inspection and replacement instructions. Consequently, EASA published Emergency AD 2022-0152-E to require repetitive inspections of each affected part and replacement with a serviceable part.

Since that AD was issued, it was determined that if, following inspection, any rotation of the affected TRA components is found, in addition to the replacement of the affected part, the affected TRA must also be replaced. Consequently, Leonardo issued the ASB, as defined in this AD, providing those additional replacement instructions.

For the reason described above, this AD retains the requirements of EASA AD 2022-0152-E, which is superseded, and in addition requires replacement of affected TRA.

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

Required as indicated, unless accomplished previously:

Inspections:

(1) For Group 1 helicopters: Before next flight after 28 July 2022 [the effective date of EASA AD 2022-0152-E], and, thereafter, at intervals not to exceed 10 FH, inspect the affected part in accordance with the instructions of section 3 PART I of the ASB.

(2) For Group 1 helicopters: Within 10 FH after 28 July 2022 [the effective date of EASA AD 2022-0152-E], and, thereafter, at intervals not to exceed 50 FH, inspect the affected part in accordance with the instructions of section 3 PART II of the ASB.

(3) For Group 2 helicopters: Before next flight after 28 July 2022 [the effective date of EASA AD 2022-0152-E], and, thereafter, at intervals not to exceed 5 FH, inspect the affected part in accordance with the instructions of section 3 PART III of the ASB.

Corrective Action(s):

(4) If, during any inspection as required by paragraph (1) of this AD, any discrepancy, as specified in section 3 PART I of the ASB is detected, before next flight, replace the affected part with a serviceable part and replace the affected TRA in accordance with the instructions of section 3 PART I of the ASB.

(5) If, during any inspection as required by paragraph (2) of this AD, any discrepancy, as specified in section 3 PART II of the ASB is detected, before next flight, replace the affected part with a serviceable part in accordance with the instructions of section 3 PART II of the ASB.

(6) If, during any inspection as required by paragraph (3) of this AD, any discrepancy, as specified in section 3 PART III of the ASB is detected, before next flight, replace the affected part with a serviceable part and replace the affected TRA in accordance with the instructions of section 3 PART III of the ASB.

(7) If, during any inspection as required by paragraph (1) or (3) of this AD, accomplished before the effective date of this AD, any rotation of the parts was found, before next flight after the effective date of this AD, replace the affected TRA in accordance with the instructions of the ASB

Replacement:

(8) For Group 1 helicopters: Unless already replaced as required by paragraph (4) or (5) of this AD, as applicable, within the compliance time(s) as specified in Table 1 of this AD, replace the affected part with a serviceable part in accordance with the instructions of section 3 PART IV of the ASB.

Table 1 – Affected Part Replacement

Compliance Time (**A** or **B**, whichever occurs later)	
A	Before the affected part accumulates 2 390 FH since first installation on a helicopter, or within 200 FH after the initial inspection as required by paragraph (2) of this AD, whichever occurs first
B	Within 10 FH after 28 July 2022 [the effective date of EASA AD 2022-0152-E]

(9) For Group 2 helicopters: Unless already replaced as required by paragraph (6) of this AD, within 10 FH after 28 July 2022 [the effective date of EASA AD 2022-0152-E], replace the affected part with a serviceable part in accordance with the instructions of section 3 PART IV of the ASB.

(10) For Group 3 helicopters: Before the affected part accumulates 2 400 FH since first installation on a helicopter, or within 10 FH after 28 July 2022 [the effective date of EASA AD 2022-0152-E], whichever occurs later, replace the affected part with a serviceable part in accordance with the instructions of section 3 PART IV of the ASB.

(11) Replacing the affected assembly on a helicopter with a serviceable assembly is an acceptable alternative method to comply with the requirements of paragraphs (4) to (10) of this AD, as applicable, for that helicopter.

Credit:

(12) Inspections and corrective actions, accomplished on a helicopter before the effective date of this AD in accordance with the instructions of Leonardo ASB 139-725 at original issue, are acceptable for compliance with paragraphs (1) to (6) of this AD for that helicopter.

Terminating Action:

(13) Replacement of an affected part on a helicopter as required by paragraph (4), (5), (6), (7), (8), (9) or (10) of this AD, as applicable, constitutes terminating action for the repetitive inspections as required by paragraphs (1) and (2) or (3) of this AD, as applicable, for that helicopter.

Reporting:

(14) If, during any inspection as required by paragraph (1), (2) or (3) of this AD, as applicable, discrepancies are detected, as identified in the ASB, within 30 days after that inspection, report the results to Leonardo. Using the Inspection Report form of the ASB is an acceptable method to comply with this reporting requirement.

Part(s) Installation:

(15) For Group 1, Group 2, Group 3 and Group 4 helicopters: From the effective date of this AD, it is allowed to install on a helicopter an affected part, provided it is a serviceable part, as defined in this AD.

(16) For Group 1, Group 2, Group 3 and Group 4 helicopters: From the effective date of this AD, it is allowed to install on a helicopter an affected assembly, provided it is a serviceable assembly, as defined in this AD.

Ref. Publications:

Leonardo Emergency ASB 139-725 original issue dated 25 July 2022 and Revision A dated 09 August 2022.

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.

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: cse.aw139.AW@leonardocompany.com.