

Airworthiness Directive

AD No.: 2022-0205**Issued:** 04 October 2022

Note: This 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: 18 October 2022**TCDS Number(s):** EASA.R.006**Foreign AD:** Not applicable**Supersedure:** This AD supersedes EASA AD 2022-0154 dated 01 August 2022.

ATA 64 – Tail Rotor – Damper Bracket – Inspection

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 (s/n).

Definitions:

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

Affected part: Tail rotor (TR) damper bracket assembly, having Part Number (P/N) 3G6420A06131 or P/N 4G6420A04432.

Serviceable part: Any TR damper bracket assembly that is not an affected part, as defined in this AD; or an affected part that is new.

The ASB: Leonardo Alert Service Bulletin (ASB) 139-724 Revision B.



Groups: Group 1 helicopters are those that have an affected part installed, with an s/n as specified in Table 1 of this AD.

Table 1 – Affected Part s/n

from 1 to 468 inclusive
from 470 to 629 inclusive
from 654 to 797 inclusive
from 803 to 918 inclusive
from 1036 to 1080 inclusive
from 1227 to 1386 inclusive
from 1452 to 1486 inclusive
any s/n starting with prefix “V”

Group 2 helicopters are those that have an affected part installed and are not Group 1.

Reason:

During scheduled inspections, some TR damper bracket assemblies were found cracked. Subsequent investigation revealed that the cracks originated from the outer edges of the TR damper bracket lug bores and were due to stress corrosion, initially assessed as resulting from a possible production discrepancy affecting certain serial numbers of the affected part.

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

To address this potential unsafe condition, Leonardo issued ASB 139-724 to provide inspection and replacement instructions for a limited batch of affected parts. Consequently, EASA published AD 2022-0154 requiring repetitive detailed visual inspections (DVI) of certain affected parts, and, depending on findings, replacement with a serviceable part.

Since that AD was issued, new occurrences were reported, where additional s/n of the affected part P/N 3G6420A06131, not included in the initial batch, were found cracked. Additionally, it has been determined that TR damper bracket assembly P/N 4G6420A04432 must also be inspected. Consequently, Leonardo issued the ASB, as defined in this AD, providing applicable instructions for all affected parts P/N 3G6420A06131, regardless of their serial number, and including TR damper bracket assembly P/N 4G6420A04432.

For the reason described above, this AD retains the requirements of EASA AD 2022-0154, which is superseded, amends the definition of the affected part, and requires the DVI for all affected parts.

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

Required as indicated, unless accomplished previously:

Inspections:

- (1) For Group 1 helicopters: Within 50 flight hours (FH) or within 2 months, whichever occurs first after 15 August 2022 [the effective date of EASA AD 2022-0154], and, thereafter, at intervals not to exceed 50 FH or 6 months, whichever occurs first, accomplish a DVI of the affected part in accordance with the instructions of section 3 of the ASB.



- (2) For Group 2 helicopters: Within 50 FH or within 2 months, whichever occurs first after the effective date of this AD and, thereafter, at intervals not to exceed 50 FH or 6 months, whichever occurs first, accomplish a DVI of the affected part in accordance with the instructions of section 3 of the ASB.

Corrective Action(s):

- (3) If, during any inspection as required by paragraphs (1) or (2) of this AD, any corrosion is found, before next flight, remove the corrosion in accordance with the instructions of section 3 of the ASB.
- (4) If, during any inspection as required by paragraph (1) or (2) of this AD, any cracks are found, or if the corrosion is still present after accomplishing the corrective action(s) as required by paragraph (3) of this AD, before next flight, replace the affected part with a serviceable part in accordance with the instructions of section 3 of the ASB.

Terminating Action:

- (5) Accomplishment of corrective actions on a helicopter, as required by paragraph (3) or (4) of this AD, as applicable, does not constitute terminating action for the repetitive DVI as required by paragraph (1) or (2) of this AD for that helicopter.

Reporting:

- (6) If, during any inspection as required by paragraph (1) or (2) of this AD, discrepancies are detected, as identified in the ASB, within 30 days after that inspection, report the results to Leonardo. The use of the Compliance Form of the ASB is an acceptable method to comply with this reporting requirement.

Part(s) Installation:

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

Ref. Publications:

Leonardo ASB 139-724 original issue dated 27 July 2022, Revision A dated 19 September 2022, and Revision B dated 29 September 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. 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@leonardo.com.

