Airworthiness Directive

AD No.: 2025-0038

Issued: 14 February 2025

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:

MECAER AVIATION GROUP S.p.A.

Type/Model designation(s):

NH-500D and AMD500N helicopters

Effective Date: 28 February 2025

TCDS Number(s): EASA.R.144

Foreign AD: Not applicable

Supersedure: None

ATA 67 – Rotors Flight Control – Pilot Interconnecting Cyclic Pitch Torque Tube Assembly – Inspection

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Manufacturer(s):

Breda Nardi Costruzione Aeronauti S.p.A. (NH-500D) and Agusta S.p.A. (AMD500N)

Applicability:

NH-500D helicopter, having serial number (s/n) BH13; and
AMD500N helicopter, having s/n 301.

Definitions:

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

Affected part: Pilot interconnecting cyclic pitch torque tube assembly, having Part Number (P/N) 369A7109-601, P/N 369H7133-501 or P/N 369N2618-601.

The SB: MECAER AVIATION GROUP (MAG) Service Bulletin (SB) BN-500-149 / BN-500N-038.

Reason:

An occurrence was reported of a fractured pilot interconnecting cyclic torque tube (torque tube) of an MD 369E helicopter, due to seized and damaged roller bearings in the torque tube assembly. It was determined that the damaged roller bearings seized, due to a combination of rust compounded with dried grease residue and an aggressive chemical environment, preventing the torque tube to

rotate freely, which resulted in additional torsional stress in the torque tube, that eventually caused the cracking. Due to fracturing of the torque tube, longitudinal control of the helicopter was impaired, and it was forced to make an emergency landing.

This condition, if not detected and corrected, could possibly result in loss of control of the helicopter.

Considering that the same torque tube assembly is also installed in NH-500D and AMD500N helicopters, MAG published the SB, as defined in this AD, to address this potential unsafe condition, providing instructions for inspection and functional checking of the complete torque tube assembly, its installation and surrounding areas, including the roller bearings, and for applicable corrective action(s).

For the reason described above, this AD requires repetitive inspections and functional checks of each affected part and its surrounding areas and, depending on findings, accomplishment of corrective action(s), as applicable.

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:

Inspections:

(1) Within 100 flight hours (FH) after the effective date of this AD and, thereafter, at intervals not to exceed 100 FH, accomplish a full-range freedom-of-movement functional check, also for binding or ratcheting, and an inspection for loosening, corrosion and/or degradation and cracks, of each affected part, including its roller bearings and its surrounding areas, in accordance with the instructions of the SB.

Corrective Action(s):

(2) If, during any inspection and test as required by paragraph (1) of this AD, any crack, corrosion, looseness of a retainer and/or rivets, binding or ratcheting is found, before next flight, accomplish the corrective action(s), as applicable, in accordance with the instructions of the SB.

Terminating Action:

(3) None.

Ref. Publications:

MAG SB BN-500-149 / BN-500N-038 original issue dated 04 December 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. This AD was posted on 08 January 2025 as PAD 25-009 for consultation until 05 February 2025.

No comments were received during the consultation period.

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: MECAER AVIATION GROUP S.p.A., Via dell'Artigianato, V Traversa, 1 63076 Centobuchi di Monteprandone (AP) - Italy; E-mail: caw@mecaer.com.