

Airworthiness Directive

AD No.: 2024-0168**Issued:** 22 August 2024

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:

AIRBUS HELICOPTERS

Type/Model designation(s):

AS 332 helicopters

Effective Date: 05 September 2024**TCDS Number(s):** EASA.R.002**Foreign AD:** Not applicable**Supersedure:** None**ATA 62 – Main Rotor – Swashplate Assembly – Modification****Manufacturer(s):**

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France, Aérospatiale.

Applicability:

AS 332 C, C1, L, L1, L2 helicopters, all serial numbers (s/n).

Definitions:

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

The ASB: AH Alert Service Bulletin (ASB) AS332-62.00.77.**Groups:** Group 1 are AS 332 L2 helicopters, all s/n, except those in post-modification (mod) 0743714 configuration.

Group 2 are helicopters which are not Group 1.

Reason:

An occurrence has been reported of rupture of the scissors link of the rotating swashplate assembly. It was established that the link broke because the ball joint-cups assembly was not free to turn.

Investigations identified the following findings:

- The cups and the ball joint, that are normally paired, were probably mixed/unpaired during overhaul.
- The cups and the ball joint assembly were probably not properly lubricated during last overhaul.
- As a contributing factor, the cups and the ball joint are made of tungsten carbide, whose failure mode can be a sudden seizure of the assembly rather than play, usually detected in case of different design.

This condition if not corrected, could lead to loss of connection between rotor shaft and rotating swashplate and, consequently, loss of control of the helicopter.

To address this potential unsafe condition AH developed mod 0728849 to replace the ball joint-cups assembly with a one-piece self-lubricated spherical-bearing and issued the ASB providing modification instructions for in service helicopters.

For the reason described above, this AD requires embodiment of that modification.

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:

Modification:

- (1) For Group 1 helicopters: Within 36 months after the effective date of this AD, replace the rotor shaft assembly with a rotor shaft assembly in post-mod 0743714 and post-mod 0728849 configuration. Replacing the rotor shaft assembly of a helicopter can be accomplished in accordance with the instructions of the applicable AS 332 Aircraft Maintenance Manual.
- (2) For Group 2 helicopters: Within 36 months since the effective date of this AD, modify the rotating swashplate assembly in accordance with instructions of the ASB.
- (3) For AS 332 C and AS 332 L helicopters: Before or concurrently with the modification as required by paragraph (2) of this AD for that helicopter, modify that helicopter in accordance with instructions of the AH SB 62.00.05.
- (4) For Group 2 helicopters: Replacing the Main Rotor Hub (MRH) assembly with an MRH assembly in post-mod 0728849 and post-mod 0743046 configuration is an acceptable method to comply with the requirements of paragraphs (2) and (3) of this AD, as applicable. Replacing the MRH assembly of a helicopter can be accomplished in accordance with the instructions of the applicable AS 332 Aircraft Maintenance Manual.

Part(s) Installation:

- (5) From the effective date of this AD, it is allowed to install a MRH assembly or a Rotor Shaft Assembly on a helicopter, as applicable, provided it is in post-mod 0728849 configuration.

Ref. Publications:

AH ASB AS332-62.00.77 original issue dated 23 July 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 24 July 2024 as PAD 24-094 for consultation until 21 August 2024. 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: Airbus Helicopters (Technical Support), Aéroport de Marseille Provence 13725 Marignane Cedex, France, Telephone +33 (0)4 42 85 97 97, Fax +33 (0)4 42 85 99 66, Web portal: <https://keycopter.airbushelicopters.com> > Technical Requests Management, E-mail: TechnicalSupport.Helicopters@airbus.com.

