



Airworthiness Directive

AD No.: 2022-0104

Issued: 09 June 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:

AIRBUS HELICOPTERS

Type/Model designation(s):

EC 225 LP helicopters

Effective Date: 23 June 2022

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Supersedure: None

ATA 62 – Main Rotor – Mast / Screws / Cover Plate – Replacement / Inspection / Oil Sample Analysis

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter

Applicability:

EC 225 LP helicopters, all manufacturer serial numbers (MSN).

Definitions:

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

Affected MRM: Main rotor mast (MRM) manufactured or overhauled, as applicable, on or before 23 May 2022.

Affected screw: MRM upper stops assembly screw, except those having "BC" marking on the screw head.

Serviceable screw: MRM upper stops assembly screw having Part Number (P/N) 22232BC100036L (these screws are marked with "BC" marking on the screw head).

Affected cover plate: MRM cover plate having P/N 332A31-3288-20.



Serviceable cover plate: Any MRM cover plate having P/N 332A31-3288-20 that is new (not previously installed).

The ASB: AH Alert Service Bulletin (ASB) EC225-62A016.

Groups: Group 1 helicopters are all MSN, except those that have an affected cover plate installed. Helicopters without an affected cover plate have a main rotor hub de-icing system installed (fully or partially).

Group 2 helicopters are those that have an affected MRM cover plate installed.

Reason:

An occurrence was reported of finding water in the oil of a main gearbox (MGB). Subsequent investigation identified that this event was caused by improper installation of the cover plate installed on top of the MRM. This allowed water to enter in the MRM and then inside the MGB, leading to development of severe corrosion. An additional report also indicated that screws with incorrect length were installed on the upper stops assembly of the MRM.

These conditions, if not detected and corrected, could lead to development of corrosion and degradation of the MGB and/or degradation of the upper stops assembly, possibly resulting in failure of a critical part and consequent loss of control of the helicopter.

To address these potential unsafe conditions, AH issued the ASB to provide instructions for inspection of the MRM upper stops assembly and cover plate; and for MGB oil sample analysis.

For the reasons described above, this AD requires inspection of the MRM, analysis of MGB oil sample and, depending on findings, accomplishment of applicable corrective action(s), including additional MGB inspection and replacement of the MGB, as necessary.

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

Required as indicated, unless accomplished previously:

Replacement:

- (1) For Group 1 and Group 2 helicopters: Within 55 flight hours (FH) or 30 days, whichever occurs first after the effective date of this AD, replace each affected screw with a serviceable screw in accordance with the instructions of the ASB.

Inspection:

- (2) For Group 2 helicopters: Within 55 FH or 30 days, whichever occurs first after the effective date of this AD, inspect the affected cover plate in accordance with the instructions of the ASB.

MGB Oil Sample Analysis:

- (3) For Group 2 helicopters: Within 110 FH or 3 months, whichever occurs first after the effective date of this AD, take and analyse an MGB oil sample in accordance with the instructions of the ASB. Thereafter, within 110 FH or 3 months after that initial oil sample, take and analyse another MGB oil sample in accordance with the instructions of the ASB. For helicopters where the last MGB drain or the last removal of the affected cover plate, as applicable, was



accomplished more than 3 months before the effective date of this AD, the repeat oil sample action is not required.

Corrective Action(s):

- (4) If, during the inspection as required by paragraph (2) of this AD, the affected cover plate is found not to be flat on two angles as defined in the ASB, before next flight, accomplish the actions as required by paragraphs (4.1) and (4.2) of this AD in accordance with the instructions of the ASB.
- (4.1) Replace the affected cover plate with a serviceable cover plate; and
- (4.2) Contact AH with a request to accomplish a detailed inspection (DET). The DET shall be accomplished by an authorised AH staff before next flight.
- (5) If, during any MGB oil analysis as required by paragraph (3) of this AD, more than 1 000 ppm (parts per million) of water is detected, before next flight, contact AH with a request to accomplish a DET in accordance with the instructions of the ASB. The DET shall be accomplished by an authorised AH staff before next flight.
- (6) If, during the DET of an MGB, as required by paragraph (4.2) or (5) of this AD, as applicable, any discrepancy is detected, as identified by AH qualified staff, before next flight, replace the MGB with a serviceable MGB in accordance with approved maintenance instructions.

Alternative Method:

- (7) Replacement of an MGB on a helicopter, as specified in paragraph (6) of this AD, is an acceptable alternative method to comply with the MGB oil sample analyses as required by paragraph (3) of this AD for that helicopter.

Parts Installation:

- (8) For Group 1 and Group 2 helicopters: From the effective date of this AD, do not install on any helicopter an affected screw, or an MRM with an affected screw installed.
- (9) For Group 1 and Group 2 helicopters: From the effective date of this AD, do not install an MRM cover plate on a helicopter, unless it is a serviceable cover plate (see Note 1 of this AD).

Note 1: Removal of an MRM cover plate from a helicopter and subsequent reinstallation of that part on the same helicopter, accomplished during a single maintenance visit, is not considered as 'install' as specified in paragraph (9) of this AD.

- (10) For Group 1 and Group 2 helicopters: From the effective date of this AD, it is allowed to install on any helicopter an MRM, provided that it is not an affected MRM, as defined in this AD; or an affected MRM that, before installation, has passed an inspection (no defects found, or defects corrected) in accordance with the instructions of the ASB.

Ref. Publications:

AH ASB EC225-62A016 original issue dated 23 May 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. This AD was posted on 25 May 2022 as PAD 22-065 for consultation until 08 June 2022. 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.

