

Airworthiness Directive

AD No.: 2019-0169

Issued: 16 July 2019

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, 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 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 175 B helicopters

Effective Date: 30 July 2019

TCDS Number(s): EASA.R.150

Foreign AD: Nor applicable

Supersedure: This AD supersedes AD 2019-0003 issued on 11 January 2019.

ATA 63 – Main Rotor Drive – Main Gearbox Top Sensor / Main Rotor Mast Lubrication System – Inspection

Manufacturer(s):

Airbus Helicopters (AH)

Applicability:

EC 175 B helicopters, all serial numbers (s/n).

Definitions:

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

Affected part: Any main gearbox (MGB) with a manufacturing date before 01 December 2018, except MGB having s/n M105, M109, M126, M138, M141, M143, M152, M154, M157, M159, M161, M166, M167 and M171.

Serviceable part: Any MGB which has a manufacturing date of 01 December 2018 or later, or an affected part which, before next flight following installation, has passed an inspection (no defects detected) in accordance with the instructions of the ASB.

The ASB: AH EC175 Emergency Alert Service Bulletin (ASB) 05A027 Revision 1.

Groups: Group 1 helicopters are those that have an affected part installed. Group 2 helicopters are those that do not have an affected part installed.

Reason:

Some uneventful occurrences were reported of foreign object debris (FOD), generated during the manufacturing and/or overhaul of MGB assemblies. Results of the technical investigation identified that FOD in the MGB may lead to a loss of lubrication of the mast bearing.

This condition, if not detected and corrected, could subsequently lead to mast bearing seizure, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, AH published the original issue of EC175 Emergency ASB 05A027 to provide inspection instructions. Consequently, EASA issued AD 2019-0003 to require repetitive inspections of the top sensor installed on the MGB and, depending on findings, accomplishment of applicable corrective action(s).

Since that AD was issued, AH developed an inspection of the main rotor (MR) mast bearing lubrication system for foreign objects. If the MR mast passes the inspection, that constitutes terminating action for the repetitive inspections. Accordingly, AH issued the ASB, as defined in this AD, to provide those inspection instructions.

For the reasons described above, this AD retains the requirement of EASA AD 2019-0003, which is superseded, and adds a one-time inspection of the mast bearing lubrication line and, depending on findings, accomplishment of applicable corrective action(s). Following that action, no further inspections are required by this AD.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 helicopters: Within 10 flight hours (FH) after 25 January 2019 [the effective date of AD 2019-0003], and, thereafter, at intervals not to exceed 10 FH, visually inspect the MGB top sensor of the affected part in accordance with the instructions of the ASB.
- (2) For Group 1 helicopters: Within 400 FH or 6 months, whichever occurs first after the effective date of this AD, inspect the MR mast lubrication system in accordance with the instructions of section 3.B.3 of the ASB.

Corrective Action(s):

- (3) If, during any inspection as required by paragraph (1) of this AD, the top sensor is not covered with an oil film, before next flight, replace the MGB and the main rotor mast assembly with serviceable parts in accordance with the instructions of the ASB.
- (4) If, during the inspection as required by paragraph (2) of this AD, any foreign objects are detected, before next flight, replace the MGB and the main rotor mast assembly with serviceable parts in accordance with the instructions of the ASB.



Credit:

- (5) Inspection(s) and corrective action(s) on a helicopter, accomplished before the effective date of this AD in accordance with the instructions of the original issue of EC175 Emergency ASB 05A027, are acceptable to comply with the initial actions required by paragraphs (1) and (2) of this AD for that helicopter.

Terminating Action:

- (6) Inspection and, depending on findings, correction of a helicopter as required by paragraphs (2) and (4) of this AD constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that helicopter.

Parts Installation:

- (7) For Group 1 and Group 2 helicopters: From 25 January 2019 [the effective date of EASA AD 2019-0003], it is allowed to install on any helicopter an MGB, provided that it is a serviceable part, as defined in this AD. Following installation on a helicopter of an affected part, as defined in this AD, repetitive inspections are required by paragraph (1) of this AD for that helicopter, pending inspection as required by paragraph (2) of this AD.

Ref. Publications:

AH EC175 Emergency ASB 05A027 original issue dated 19 December 2018, and Revision 1 dated 08 May 2019.

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 29 May 2019 as PAD 19-098 for consultation until 12 June 2019. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness 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](#).
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,
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