

Airworthiness Directive

AD No.: 2023-0148

Issued: 19 July 2023

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: 02 August 2023

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA Emergency AD 2019-0152-E dated 28 June 2019.

ATA 63 – Main Rotor Drive – Main Gearbox – Replacement
ATA 11 – Placards and Markings – ENG1 Training Idle Switch – Installation / Operational Restriction
Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France

Applicability:

EC 225 LP helicopters, all manufacturer serial numbers.

Definitions:

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

Group A affected MGB: Main gearboxes (MGB), having Part Number (P/N) 332A32-5001-XX, P/N 332A32-5002-XX or P/N 332A32-5003-XX equipped with main reduction gear module P/N 332A32-5011-XX, P/N 332A32-5012-XX or P/N 332A32-5013-XX (all) in post-mod 07-53016 configuration installed, where XX represents any dash number.

Group B affected MGB: MGB having P/N 332A32-5004-00 equipped with main reduction gear module P/N 332A32-5400-00.

Affected part: Right hand side free wheel shaft, having P/N 332A322191.20.

Serviceable MGB: An MGB having P/N 332A32-5001-XX, P/N 332A32-5002-XX or P/N 332A32-5003-XX equipped with main reduction gear module P/N 332A32-5011-XX, P/N 332A32-5012-XX or P/N 332A32-5013-XX (all) in pre-mod 07-53016 configuration, where XX represents any dash number; and any Group A or Group B affected MGB having an affected part installed, which has not exceeded 1 000 flight hours (FH) since new or since the last check accomplished by AH, as applicable.

The ASB: AH EC225 Emergency Alert Service Bulletin (ASB) 04A016 Revision 4.

Groups: Group 1 helicopters are those that have a Group A or Group B affected MGB installed. Group 2 helicopters are those that do not have any Group A nor Group B affected MGB installed.

Reason:

During overhaul of an affected MGB, wear was detected on ramps, and rollers cages on the affected part were found broken. The investigation to determine the root cause of the occurrence is still on-going.

This condition, if not corrected, could lead to reduced capacity to transfer one engine inoperative (OEI) power delivered by the right side engine following an event of in-flight shut down of the left side engine, resulting in reduced control of the helicopter.

To address this potential unsafe condition, AH issued Revision 1 of AH EC225 Emergency ASB 04A016 to provide instructions for replacement of the affected MGB and to introduce an operational restriction regarding training flights involving OEI. Consequently, EASA issued Emergency AD 2019-0152-E to require repetitive replacement of the affected MGB (for in-shop check of the affected part) and an operational limitation for OEI training flights by installing placards. That AD also introduced conditions for installing a replacement MGB on a helicopter.

Since that AD was issued, it was determined that an additional MGB design is potentially affected by the unsafe condition and AH issued the ASB, as defined in this AD.

For the reasons described above, this AD retains the requirements of EASA AD 2019-0152-E, which is superseded, and expands the required actions to MGB having P/N 332A32-5004-00 with main reduction gear module P/N 332A32-5400-00 (defined as Group B affected MGB) installed.

This AD is still considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

Determination:

- (1) For Group 1 helicopters: Within the compliance time defined in Table 1 of this AD, as applicable, determine the FH accumulated by the affected part since new or since the last check accomplished by AH, as applicable, in accordance with the instructions of the ASB.



Table 1 – FH Determination

Affected MGB Group	Compliance Time
Group A	Within 10 FH after 02 July 2019 [the effective date of EASA AD 2019-0152-E]
Group B	Within 50 FH after the effective date of this AD

MGB Replacement:

- (2) For Group 1 helicopters: Within the compliance time defined in Table 2 of this AD, as applicable, and, thereafter, before the affected part exceeds 1 000 FH since new or since the last check accomplished by AH, as applicable, replace the affected MGB with a serviceable MGB, as defined in this AD, in accordance with the instructions of Section 3 of the ASB.

Table 2 – MGB Replacement (see Note 1 of this AD)

Affected MGB Group	FH Accumulated	Compliance Time
Group A	990 FH or less	Before exceeding 1 000 FH
Group B	950 FH or less	
Group A	More than 990 FH	Within 10 FH after 02 July 2019 [the effective date of EASA AD 2019-0152-E]
Group B	More than 950 FH	Within 50 FH after the effective date of this AD

Note 1: The FH specified in Table 2 of this AD are those accumulated by the affected part since new (first installation on a helicopter), or since the last check accomplished by AH, as applicable.

Alternative Method of Compliance:

- (3) As an alternative to the MGB replacement as required by paragraph (2) of this AD, it is allowed to replace the affected part of the Group A or Group B affected MGB, as applicable, under supervision of qualified AH service staff in accordance with the instructions of the ASB.

Placard Installation:

- (4) For Group 1 helicopters: Within the compliance time defined in Table 1 of this AD, as applicable, install new placards on the cockpit instrument panel, in full view of both pilots, prohibiting the use of “ENG1 Training Idle” switch, in accordance with the instructions of Section 3 of the ASB.

Operational Restriction:

- (5) After installation of placards as required by paragraph (4) of this AD, accomplishment of an OEI training flight is allowed, provided that only the “ENG2 Training Idle” switch is used for that purpose.

Parts Installation:

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



- (7) For Group 2 helicopters: From the effective date of this AD, it is allowed to install a Group A or Group B affected MGB on a helicopter (which effectively becomes a Group 1 helicopter), provided that, before next flight after that installation, placards are installed on the cockpit instrument panel of that helicopter, in full view of both pilots, prohibiting the use of “ENG1 Training Idle” switch, in accordance with the instructions of Section 3 of the ASB.

Reporting:

- (8) Within 30 days after the effective date of this AD, send the result of the FH determination, as required by paragraph (1) of this AD, to AH. This can be accomplished in accordance with the instructions of the ASB.

Terminating Action:

- (9) For Group 1 helicopters: Installation on a helicopter of an MGB having P/N 332A32-5001-XX, P/N 332A32-5002-XX, or P/N 332A32-5003-XX equipped with main reduction gear module P/N 332A32-5011-XX, P/N 332A32-5012-XX or P/N 332A32-5013-XX in pre-mod 07 53016 configuration on a helicopter constitutes terminating action for the repetitive MGB replacements as required by this AD for that helicopter, provided that, following installation, the helicopter remains in that configuration. Following that installation, the helicopter effectively becomes Group 2 and the placards as required by paragraph (4) or (7) of this AD, as applicable, can be removed from that helicopter.

Credit:

- (10) FH determination, part replacement or placard installation on a helicopter, accomplished before the effective date of this AD in accordance with the instructions of AH EC225 Emergency ASB 04A016 at Revision 1, Revision 2 or Revision 3, as applicable, is acceptable to comply with the requirements, respectively, of paragraph (1), (2) or (4) of this AD for that helicopter.

Ref. Publications:

AH EC225 Emergency ASB 04A016 Revision 1 dated 28 June 2019, or Revision 2 dated 23 July 2019, or Revision 3 dated 05 August 2019, or Revision 4 dated 19 June 2023.

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 20 June 2023 as PAD 23-078 for consultation until 18 July 2023. 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), E-mail: TechnicalSupport.Helicopters@airbus.com, or visit Airbus World > Technical Request Management: <https://airbusworld.helicopters.airbus.com>.

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