



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 24-087

Issued: 15 July 2024

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

AIRBUS HELICOPTERS

Type/Model designation(s):

EC 225 LP helicopters

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2020-0264 dated 02 December 2020.

ATA 62 – Main Rotor – Mast – Inspection

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:

The ASB: AH Alert Service Bulletin (ASB) EC225-05A053 Revision 4.

Affected part: Main rotor (MR) mast assemblies, having Part Number (P/N) 332A31-3001-01M, P/N 332A31-3001-02M, P/N 332A31-3001-03M, P/N 332A31-3002-00M, P/N 332A31-3002-01M, or P/N 332A31-3002-02M; or, mast swashplate assemblies, having P/N 332A31-3032-00M, P/N 332A31-3032-01M, P/N 332A31-3032-03M, or P/N 332A31-3032-04M.

Serviceable part: Any MR mast assembly and mast swashplate assembly which is not an affected part; or an affected part which is new (never previously installed), or which has passed an inspection (no defects detected) in accordance with the instructions of the ASB.



Groups:

Group 1 helicopters are those that have an affected part installed, except MR mast assembly P/N 332A31-3001-03M and mast swashplate assemblies P/N 332A31-3032-03M and P/N 332A31-3032-04M.

Group 2 helicopters are those that have an affected part, P/N 332A31-3001-03M, installed.

Group 3 helicopters are those that have an affected part, P/N 332A31-3032-03M or P/N 332A31-3032-04M, installed.

FNC: Functional maintenance check (FNC) of the MR mast swashplate/mast swashplate assembly ball bearings in accordance with the instructions of Task 62-20-00-213, Sub-Task 62-20-00-213-091, of the AH EC225 Maintenance Manual.

Reason:

A manufacturing issue was reported, involving ceramic balls of the swashplate bearing of the MR mast or mast swashplate assembly. A defective ceramic ball could lead to potential premature spalling of the ball itself and of the swashplate bearing.

This condition, if not detected and corrected, could lead to loss of function of the bearing and overload of the MR mast scissors, possibly resulting in reduced control of the helicopter.

To address this unsafe condition, AH issued ASB EC225-05A053 (original issue) to provide inspection and replacement instructions. Consequently, EASA issued AD 2020-0079 to require repetitive inspections of the MR mast swashplate or mast swashplate assembly and, depending on findings, replacement of the affected part.

After that AD was issued AH identified additional MR mast swashplate assemblies affected by the swashplate bearing manufacturing deficiency and issued the ASB EC225-05A053 Revision 1 making the swashplate assembly inspection applicable to those additional MR mast swashplate assemblies. Consequently, EASA issued AD 2020-0264 retaining the requirements of EASA AD 2020-0079, which was superseded, and expanding the definition of affected parts by adding MR mast assemblies having P/N 332A31-3001-03M.

Since that AD was issued AH identified additional mast swashplate assemblies affected by the swashplate bearing manufacturing deficiency and issued the ASB to make the swashplate assembly inspection applicable to those additional mast swashplate assemblies and to improve the inspection instructions.

For the reasons described above, this AD retains the requirements of EASA AD 2020-0264, which is superseded, and expands the definition of affected parts by adding mast swashplate assemblies having P/N 332A31-3032-03M and P/N 332A31-3032-04M.

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



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:

Inspection(s):

- (1) Within the compliance time as specified in Table 1, Table 2, or Table 3 of this AD, as applicable, and, thereafter, at intervals not to exceed 150 flight hours (FH), inspect the swashplate assembly of the affected part in accordance with the instructions of paragraph 3 of the ASB.

Table 1 – Group 1 helicopters. Initial MR Mast Inspection (see Note 1 of this AD)

FH Accumulated on 15 April 2020 [the effective date of EASA AD 2020-0079]	Compliance Time(s)
100 FH or more	Before exceeding 1 100 FH, or within 50 FH after 15 April 2020 [the effective date of EASA AD 2020-0079], whichever occurs first
Less than 100 FH	Before exceeding 150 FH

Table 2 – Group 2 helicopters. Initial MR Mast Inspection (see Note 1 of this AD)

FH Accumulated on 16 December 2020 [the effective date of EASA AD 2020-0264]	Compliance Time(s)
100 FH or more	Before exceeding 1 100 FH, or within 50 FH after 16 December 2020 [the effective date of EASA AD 2020-0264], whichever occurs first
Less than 100 FH	Before exceeding 150 FH

Table 3 – Group 3 helicopters. Initial MR Mast Inspection (see Note 1 of this AD)

FH Accumulated on the effective date of this AD	Compliance Time(s)
100 FH or more	Before exceeding 1 100 FH, or within 50 FH after the effective date of this AD, whichever occurs first
Less than 100 FH	Before exceeding 150 FH

Note 1: Unless indicated otherwise, the FH specified in Table 1, Table 2 and Table 3 of this AD are those accumulated by the affected part since its first installation, or since its last FNC, as applicable.



Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD any discrepancy is detected, as defined in the ASB, before next flight, replace the affected part with a serviceable part in accordance with the instructions of paragraph 3 of the ASB.

Terminating Action(s):

- (3) None.

Credit:

- (4) Inspections and corrective action(s), accomplished on a helicopter before the effective date of this AD in accordance with the instructions of AH ASB EC225-05A053 at original issue, Revision 1, Revision 2 or Revision 3, are acceptable to comply with the initial requirements of paragraphs (1) and (2) of this AD for that helicopter.

Parts Installation:

- (5) From the effective date of this AD, it is allowed to install on any helicopter an affected part, provided it is a serviceable part, as defined in this AD, and that, following installation, it is inspected and, depending on finding(s), replaced as required by paragraphs (1) and (2) of this AD.

Ref. Publications:

AH ASB EC225-05A053 original issue dated 31 March 2020, or Revision 1 dated 30 November 2020, or Revision 2 dated 27 October 2021, or Revision 3 dated 11 January 2024, or Revision 4 dated 12 June 2024.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Remarks:

1. This Proposed AD will be closed for consultation on 12 August 2024.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, 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 PAD 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.
4. For any question concerning the technical content of the requirements in this PAD, please contact: Airbus Helicopters (Technical Support)
Web portal: <https://keycopter.airbushelicopters.com> Technical Requests Management, or TechnicalSupport.Helicopters@airbus.com

