



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-185

Issued: 22 December 2021

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):

AS 332 helicopters

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

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Supersedure: None

ATA 05 – Time Limits / Maintenance Checks – Airworthiness Limitations / Mechanical Part Torque Cycles – Re-calculation / Replacement

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France, Aerospatiale

Applicability:

AS 332 C, AS 332 C1, AS 332 L and AS 332 L1 helicopters, all manufacturer serial numbers.

Definitions:

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

The ASB: AH Alert Service Bulletin (ASB) AS332-01.00.76.

Affected part: Mechanical part(s) defined by Part Number (P/N) in Tables 2, 3, 4, 5 and 6 of section 4. 'Appendix' of the ASB; and mechanical part(s) defined by P/N in the Appendix of this AD.

Serviceable part: Affected part(s), as defined in this AD, for which the (re-)calculated service life (expressed in flight hours (FH) or torque cycles (TC), as applicable) has not exceeded the applicable service life limit defined in Tables 2, 3, 4, 5 and 6 of section 4. 'Appendix' of the ASB; or mechanical part(s), eligible for installation, which is/are not listed by P/N in Tables 2, 3, 4, 5 and 6 of section 4. 'Appendix' of the ASB, nor in the Appendix of this AD.



Groups: Group 1 helicopters are those that have one or more affected part(s) installed.

Group 2 helicopters are those that do not have an affected part installed. Group 3 helicopters are those that have an affected part installed which is defined by P/N in the Appendix of this AD.

Reason:

Following a review of the maintenance instructions, it has been determined that different methods are used to record the TC for certain parts which can be installed on AS 332 C, AS 332 C1, AS 332 L and AS 332 L1 helicopters compared to the methods used to record the TC on AS332 L2 and EC225 LP helicopters.

The method used on AS 332 C, AS 332 C1, AS 332 L and AS 332 L1 helicopters could lead to underestimate the TC accumulated by an affected part, exceeding its service life limit, possibly resulting in structural failure of that affected part and loss of control of the helicopter.

This condition, if not corrected, could lead to a potential unsafe condition. Consequently, AH issued the ASB, as defined in this AD, providing a methodology to establish or (re-)calculate the already recorded TC, as applicable, and the determined service life limits, expressed in TC, applicable to each affected part (in addition to the already established service life limits in FH).

For the reasons described above, this AD requires (re-)calculation of the TC of each affected part and, depending on the result of (re-)calculation, replacement with a serviceable part.

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

Required as indicated, unless accomplished previously:

(Re-)calculation of TC:

- (1) For Group 1 helicopters: Within 6 months after the effective date of this AD, (re-)calculate the TC accumulated by each affected part and update the helicopter Log-Cards in accordance with the instructions of paragraph 3.B.1 of the ASB.
- (2) After (re-)calculation of the TC as required by paragraph (1) of this AD, calculate the TC accumulated by each affected part on a continued basis in accordance with the instructions of paragraph 3.B.2.b of the ASB.

Replacement:

- (3) For Group 1 helicopters: Before exceeding the applicable (re-)calculated service life limit of each affected part, as specified in paragraph 3.B.2.a of the ASB and as defined by FH or TC in section 4. 'Appendix' of the ASB, as applicable, replace each affected part with a serviceable part. This can be accomplished in accordance with approved maintenance instructions.
- (4) For Group 3 helicopters: Within 6 months after the effective date of this AD, replace each mechanical part, having a P/N listed in the Appendix of this AD, with a serviceable part. This can be accomplished in accordance with approved maintenance instructions.

Operational Restriction:

- (5) For Group 1 helicopters: After the effective date of this AD, operation of an affected part defined by P/N in Table 6 of section 4. 'Appendix' of the ASB, is allowed, provided that the part



is used with an average frequency not exceeding 4 TC per FH between two overhauls or over the service life of the part, as applicable.

Part(s) Installation:

- (6) For Group 1, Group 2 and Group 3 helicopters: From the effective date of this AD, installation on a helicopter of an affected part, as defined in this AD, is allowed, provided that the TC for that affected part are (re-)calculated as required by this AD, and the part is a serviceable part, as defined in this AD.
- (7) Do not install on any helicopter an affected part defined by P/N in the Appendix of this AD, as required by paragraph (7.1) or (7.2) of this AD, as applicable:
 - (7.1) For Group 1 and 2 helicopters: From the effective date of this AD.
 - (7.2) For Group 3 helicopters: After replacement of that affected part as required by paragraph (4) of this AD.

Ref. Publications:

AH ASB AS332-01.00.76 original issue dated 16 December 2021.

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 19 January 2022.
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://airbusworld.helicopters.airbus.com> or
E-mail: support.technical-airframe.ah@airbus.com and
TechnicalSupport.Helicopters@airbus.com.



Appendix – Mechanical parts referred in paragraph (4) of this AD

Name	P/N
Main rotor shaft	330A31-1222-05
	330A31-1222-06
	330A31-1222-08
	330A31-1222-09
MGB support- Flexible mounting plate	330A38-0100-29
	330A38-0100-33

