



Airworthiness Directive

AD No.: 2019-0272R1

Issued: 18 November 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 120 B helicopters

Effective Date: Revision 1: 25 November 2019
Original issue: 01 November 2019

TCDS Number(s): EASA.R.508

Foreign AD: Not applicable

Revision: This AD revises EASA Emergency AD 2019-0272-E dated 30 October 2019.

ATA 65 – Tail Rotor – Tail Rotor Hub Body – Inspection / Replacement

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France

Applicability:

EC 120 B helicopters, all serial numbers.

Definitions:

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

Affected part: Tail rotor (TR) hub body, Part Number C642A0100103.

Serviceable part: Affected parts that are new (not previously installed on any helicopter), or have passed (no crack(s) detected) an inspection in accordance with the instructions of the ASB.

The ASB: AH EC 120 Emergency Alert Service Bulletin (ASB) 05A020.

Reason:

An occurrence was reported where, during an inspection of a TR hub body, a recurrent case of loss of tightening torque on several attachment bolts was found. Following analysis, it was concluded that loss of tightening torque can cause the development of cracks.



This condition, if not detected and corrected, can lead to loss of the TR drive, possibly resulting in the loss of yaw control of the helicopter.

To address this potential unsafe condition, AH issued the ASB, providing inspection and replacement instructions.

For the reason described above, EASA issued Emergency AD 2019-0272-E to require repetitive inspections of the affected parts and, depending on findings, accomplishment of applicable corrective action(s). That AD also required repetitive replacement of the associated attachment bolts, washers, and nuts.

Since that AD was issued, it was determined that crack propagation is linked to flight hours (FH) and not to calendar time. Consequently, this revised AD is issued to remove the 7 calendar days interval from the repetitive inspection. In addition, paragraph (4) of this AD is amended, replacing the “scheduled 1 000-FH inspection” replacement interval by a more flexible 1 000 FH interval (with non-cumulative margin of 100 FH).

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

Required as indicated, unless accomplished previously:

Inspection:

- (1) Within 15 FH or 7 days, whichever occurs first after 01 November 2019 [the effective date of the original issue of this AD], and, thereafter, at intervals not to exceed 15 FH, inspect each affected part in accordance with the instructions of section 3.B.2 of the ASB.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any crack is found, before next flight, replace the TR hub body with a serviceable part (as defined in this AD) and the bolts, washers and nuts with new parts, in accordance with the instructions of section 3.B.3 of the ASB, and accomplish a detailed inspection of the TR splined flange in accordance with the instructions of section 1.E.2 of the ASB.
- (3) If, during any inspection of the TR splined flange as required by paragraph (2) of this AD, the condition of the part exceeds the criteria as specified in the applicable Work Card, before next flight, replace the TR splined flange with a serviceable part in accordance with the instructions of section 3.B.4 of the ASB.

Replacement:

- (4) Within the compliance time as specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not exceeding 1 000 FH (see Note 1 of this AD), replace the bolts, washers and nuts with new parts in accordance with the instructions of the ASB.

Note 1: A non-cumulative tolerance of 100 FH may be applied to the compliance times specified in paragraph (4) of this AD to allow synchronization of the required inspections with other maintenance tasks, for which a noncumulative tolerance is already granted in the applicable Maintenance Manual.



Table 1 – Initial Replacement of Bolts, Washers and Nuts (see Note 2 of this AD)

FH Accumulated	Compliance Time
Less than 9 000 FH	During the next scheduled 1 000-FH inspection after the first inspection as required by paragraph (1) of this AD, without exceeding 9 000 FH
9 000 FH or more, or FH unknown	Within 15 FH or 7 days, whichever occurs first after 01 November 2019 [the effective date of the original issue of this AD]

Note 2: Unless indicated otherwise, the FH specified in Table 1 of this AD are those accumulated by the bolts since new (first installation on a helicopter).

Parts Installation:

(5) From 01 November 2019 [the effective date of the original issue 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.

Terminating Action:

(6) None.

Ref. Publications:

AH Emergency ASB EC120-05A020 original issue dated 29 October 2019, or Revision 1 dated 08 November 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
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 – Aéroport de Marseille Provence, 13725 Marignane CEDEX, France
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