

Airworthiness Directive

AD No.: 2020-0187

Issued: 21 August 2020

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 130 helicopters

Effective Date: 04 September 2020

TCDS Number(s): EASA R.008

Foreign AD: Not Applicable

Supersedure: None

ATA 64 – Tail Rotor – Blades – Inspection

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France

Applicability:

EC 130 B4 and EC 130 T2 helicopters, all serial numbers (s/n).

Definitions:

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

The ASB: AH Alert Service Bulletin (ASB) EC130 05A033.

Affected part: Tail rotor blades (TRB), obtained by forging, having Part Number (P/N) 350A33-3002-02, P/N 350A33-3002-03, P/N 350A33-3002-04 or P/N 350A33-3002-05.

Groups: Group 1 parts are affected parts having accumulated, on the effective date of this AD, less than 1 500 flight hours (FH) since first installation on a helicopter. Group 2 parts are affected parts having accumulated, on the effective date of this AD, 1 500 FH or more since first installation on a helicopter.

Serviceable part: An affected part that has been classified as Category A following a specific dimensional check in accordance with the instructions of paragraph 3.B.3 of the ASB; or a machined TRB, having P/N 350A33-3004-xx, where xx can have any numerical value.

Reason:

An accident was reported on an EC 130 B4 helicopter, in which the pilot experienced a sudden onset of vibration, followed by the loss of tail rotor control. A successful emergency landing was performed. The initial investigation results have shown that one TRB was broken and three other TRBs had a crack. All cracks initiated in the draining hole area at blade root section and have been identified as fatigue cracks. In the same area, geometrical non-conformities were also observed, the origin of which still has to be determined. The same TRBs can be installed on EC 130 T2 helicopters.

This condition, if not detected and corrected, may lead to crack initiation and consequent blade failure, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, AH issued the ASB to provide instructions to inspect the affected parts at the drain hole section, also establishing replacement criteria.

For the reasons described above, this AD requires, for certain TRB, a one-time inspection, and for other TRB, repetitive inspections and, depending on findings, accomplishment of applicable corrective action(s). This AD also requires a one-time dimensional check to verify TRB conformity. Finally, this AD prohibits rework, repair or modification of affected parts in the critical section.

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

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Before a Group 1 part exceeds 1 550 FH since its first installation on a helicopter, or within 12 months after effective date of this AD, whichever occurs first, accomplish a cleaning and an inspection of that affected part in accordance with the instructions of paragraph 3.B.1 and 3.B.2 of the ASB.
- (2) Before a Group 1 part exceeds 1 570 FH since its first installation on a helicopter, or within 12 months after effective date of this AD, whichever occurs first, accomplish a dimensional check of that affected part in accordance with the instructions of paragraph 3.B.3 of the ASB.
- (3) For Group 2 parts: Within 50 FH after the effective date of this AD, and, thereafter, at intervals not to exceed 20 FH, accomplish a cleaning and an inspection of that affected part in accordance with the instructions of paragraphs 3.B.1 and 3.B.2 of the ASB.
- (4) For Group 2 parts: Within 165 FH or 12 months, whichever occurs first after the effective date of this AD, accomplish a dimensional check of that affected part in accordance with the instructions of paragraph 3.B.3 of the ASB.



Corrective Action(s):

- (5) If, during any inspection as required by paragraph (1) or (3) of this AD, as applicable, any cracked affected part is detected, before next flight, replace that affected part with a serviceable part, as defined in this AD.
- (6) Following the dimensional check as required by paragraph (2) or (4) of this AD, as applicable, accomplish the action(s) as specified in Table 1 of this AD, as applicable.

Table 1 – Criteria and Corrective Action(s)

Criteria	Compliance Time and Action(s)
Crack detected	Before next flight, replace the affected part with a serviceable part
Category C part, i.e.: Remaining thickness < 0.1mm	
Category B part, i.e.: - Remaining thickness < 0.2mm and ≥ 0.1mm, or - Rib thickness < 2.2mm, or - Distance to shoulder > 4.7mm	At intervals not to exceed 20 FH, accomplish a cleaning and an inspection of the affected part in accordance with the instructions of paragraphs 3.B.1 and 3.B.2 of the ASB; and Replace the affected part with a serviceable part within 1 000 FH or 24 months, whichever occurs first after effective date of this AD.
Category A part, i.e.: - Remaining thickness ≥ 0.2mm and - Rib thickness ≥ 2.2mm and - Distance to shoulder ≤ 4.7mm	No further action

In-Service Rework, Repair, Modification:

- (7) From the effective date of this AD, do not accomplish any rework, repair or modification of an affected part in the area of the draining hole. For this purpose, the affected areas are defined in the Task 64-21-00, Chapter 6-21 of Aircraft Maintenance Manual with date code 2020.07.17 or later.

Terminating Action:

- (8) Accomplishment of a dimensional check of all affected parts on a helicopter as required by paragraph (4) of this AD constitutes terminating action for the repetitive inspections as required by paragraph (3) of this AD for that helicopter, provided the applicable corrective actions as required by paragraph (6) of this AD are accomplished on that helicopter.

Parts Installation:

- (9) 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.



Ref. Publications:

AH ASB EC130-05A033 original issued dated 10 August 2020.

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](#). 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 – Aéroport de Marseille Provence, 13725 Marignane Cedex, France, Telephone: +33 (4) 42 85 97 97, Fax: +33 (4) 42 85 99 66, E-mail: support.technical-airframe.ah@airbus.com, Web portal: <https://keycopter.airbushelicopters.com> > Technical Requests Management.

