

Emergency Airworthiness Directive

AD No.: 2019-0087-E

Issued: 24 April 2019

Note: This Emergency 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 DEUTSCHLAND GmbH

Type/Model designation(s):

EC135 and EC635 helicopters

Effective Date: 26 April 2019

TCDS Number(s): EASA.R.009

Foreign AD: Not applicable

Supersedure: None

ATA 67 – Rotors Flight Control – Main Rotor Actuator Single-Axis Actuators – Inspection / Replacement

Manufacturer(s):

Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH, Eurocopter España S.A.

Applicability:

EC135 P1, EC135 P2, EC135 P2+, EC135 P3, EC135 T1, EC135 T2, EC135 T2+, EC135 T3, EC635 P2+, EC635 P3, EC635 T1, EC635 T2+ and EC635 T3 helicopters, all variants, all serial numbers (s/n).

Definitions:

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

The applicable EASB: Airbus Helicopters Emergency Alert Service Bulletin (EASB) EC135-67A-039 Revision (Rev.) 1 and EASB EC135H-67A-011 Rev. 1, as applicable.

EASB Reference date: 29 March 2019.

Affected part: Longitudinal single-axis actuators, having Part Number (P/N) L673M20A1008 or P/N L673M30A2111; or collective single-axis actuators, having P/N L673M20A1012, P/N L673M30A1211, or P/N E673M30A1201; or lateral single-axis actuators, having P/N L673M20A1011

or P/N L673M30A2311 which, on the EASB reference date, have accumulated 6 years or more since manufacturing date, or since last overhaul, whichever occurred later.

Serviceable part:

- A single-axis actuator which is not an affected part; or
- an affected part which has passed an (in-shop) inspection (no defects found or repaired, as applicable) in accordance with the instructions of Section 3.B.3 of the applicable EASB; or
- an affected part which has been overhauled after the EASB reference date; or
- an affected part for which the compliance time for the replacement defined in Table 1 of this AD is not exceeded, as applicable.

Groups: Group 1 helicopters are those that have an affected part installed. Group 2 helicopters are those that do not have an affected part installed.

Reason:

An occurrence was reported of a hard landing by an AHD EC135 helicopter. Subsequent inspection identified that the tie bar inside the piston of the longitudinal single-axis actuator of the main rotor actuator (MRA) was ruptured and displaced.

This condition, if not detected and corrected, could lead to loss of control of the helicopter, possibly resulting in damage to the helicopter and/or injury to occupants.

Supporting the investigation, Airbus Helicopters (AH) issued the original issue of the applicable EASB providing instructions to accomplish a one-time visual inspection for corrosion of each single-axis actuator of the MRA, depending on its accumulated time in service since new or since last overhaul, and to report the inspection results. EASA issued Safety Information Bulletin (SIB) 2019-06, recommending accomplishment of those actions.

Since that SIB was issued, based on the reported information, AH published the applicable EASB, including follow-on instructions.

For the reasons described above, this AD requires a one-time inspection of the affected parts to detect corrosion, reporting of inspection results to AHD and, depending on findings, replacement of affected parts. This AD also provides criteria to allow installation of an affected part.

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:

- (1) For Group 1 helicopters: Within 3 days after the effective date of this AD, inspect each affected part in accordance with the instructions of Section 3.B.2 of the applicable EASB.



Reporting:

- (2) Within 7 days after the inspection as required by paragraph (1) of this AD, or within 7 days after the effective date of this AD, whichever occurs later, report the inspection results to AHD. This can be done in accordance with the instructions of the applicable ASB.

Part replacement:

- (3) For Group 1 helicopters: Within the applicable compliance time as identified in Table 1 of this AD, depending on the time accumulated by an affected part and the results of the inspection (corrosion found, as identified in the applicable EASB, or not) as required by paragraph (1) of this AD, replace each affected part with a serviceable part in accordance with the instructions of the applicable ASB.

Table 1 – Affected part replacement

Time Accumulated (see Note 1 of this AD)	Compliance time (after the effective date of this AD)	
	Corrosion detected	No corrosion detected
14 years or more	Within 7 days or 5 flight cycles, whichever occurs first	Within 14 days
12 years or more, but less than 14 years	Within 14 days	Within 1 month
10 years or more, but less than 12 years	Within 1 month	Within 3 months
8 years or more, but less than 10 years	Within 2 months	Within 6 months
6 years or more, but less than 8 years	Within 4 months	Within 12 months

Note 1: The time accumulated by an affected part, as indicated in Table 1 of this AD, determined on the EASB reference date, is the time in service since its manufacturing date, or since last overhaul, whichever occurred later.

Note 2: If a repair (Not an Overhaul) of the actuator can be confirmed by Log Card entry of the component, there is a possibility that the tie bar has been replaced. This can only be checked by AH / Liebherr. In case of positive feedback this repair date can then be used for age determination of the actuator.

Credit:

- (4) Inspections of affected parts on a helicopter, accomplished before the effective date of this AD in accordance with the instructions of the original issue of the applicable EASB, are acceptable to comply with the requirements of paragraph (1) of this AD for that helicopter.



Parts Installation:

- (5) For Group 1 and Group 2 helicopters: From the effective date of this AD, it is allowed to install on any helicopter a main rotor actuator, having an affected part installed, provided that, following installation, that affected part is inspected and replaced as required by this AD.

Ref. Publications:

AH ASB EC135-67A-039 original issue dated 08 April 2019, or Revision 01 dated 23 April 2019.

AH ASB EC135H-67A-011 original issue dated 08 April 2019, or Revision 01 dated 23 April 2019.

The use of later approved revisions of the above-mentioned documents 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. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
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 Deutschland GmbH, Industriestrasse 4, 86609 Donauwörth, Federal Republic of Germany, Telephone: + 33 (0)4 42 85 97 97;
Web portal: <https://keycopter.airbushelicopters.com> > Technical Request Management
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