



## Airworthiness Directive

**AD No.:** 2020-0105

**Issued:** 11 May 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 DEUTSCHLAND GmbH

### Type/Model designation(s):

EC135 and EC635 helicopters

**Effective Date:** 23 May 2020

**TCDS Number(s):** EASA.R.009

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes EASA Emergency AD 2019-0087-E dated 24 April 2019.

## 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 ASB:** Airbus Helicopters (AH) Alert Service Bulletin (ASB) EC135-67A-039 and ASB EC135H-67A-011, as applicable, both at Revision 2.

**The applicable inspection SB:** AH Service Bulletin (SB) EC135-67-040 and AH SB EC135H-67-012, as applicable.

**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.

**Part calendar age (A):** Time accumulated by an affected part, on 29 March 2019 (ASB reference date), since part manufacturing date, or since the “calendar age” date as listed in the Appendix of the applicable ASB (if available), as applicable.

**Part calendar age (B):** Time accumulated by an affected part, on 29 March 2019, since part manufacturing date, or since last overhaul accomplished before 26 April 2019 [the effective date of EASA AD 2019-0087-E], as applicable.

**Serviceable part:**

- A single-axis actuator which is not an affected part; or
- an affected part having accumulated less than 5 years since date of manufacturing; or
- an affected part, on which the tie bar was replaced during an overhaul less than 5 years before installation; or
- an affected part, which, less than 5 years before installation, passed an inspection (no defects found, or defect repaired, as applicable) in accordance with the instructions of the applicable inspection SB.

**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 reduced control of the helicopter, possibly resulting in a forced landing with consequent damage to the helicopter and/or injury to occupants.

Supporting the investigation, AH issued the original issue of the applicable ASB providing instructions to accomplish a one-time visual inspection for corrosion of each MRA single-axis actuator, 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.

After that SIB was issued, based on the reported information, AH published Revision 1 of the applicable ASB, including follow-on instructions, and EASA issued Emergency AD 2019-0087-E to require a one-time inspection of certain affected parts to detect corrosion, reporting of inspection results to AHD and, depending on findings, replacement of affected parts. That AD was considered an interim action.

Since that AD was issued, AH issued the applicable ASB, as defined in this AD, providing instructions applicable to all affected parts, including repetitive inspections or replacement.



For the reason stated above, this AD partially retains the requirements of EASA AD 2019-0087-E, which is superseded, requires repetitive inspections or replacement for all affected parts, and provides criteria to allow installation of affected parts.

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

Required as indicated, unless accomplished previously:

#### **Inspection:**

- (1) For Group 1 helicopters: Unless already done as required by EASA AD 2019-0087-E, within 14 days after the effective date of this AD, inspect each affected part having a part calendar age (B) of 6 years or more, in accordance with the instructions of Section 3.B.2 of the applicable ASB.

#### **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.

#### **Credit:**

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

#### **Repetitive Replacement / Inspection:**

- (4) For Group 1 helicopters: Within the applicable compliance time as identified in Table 1 of this AD, depending on part calendar age (A) of an affected part and the results of the inspection (corrosion found, as identified in the applicable ASB, or not) as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed 5 years (see Note 1 of this AD), replace each affected part with a serviceable part in accordance with the instructions of the applicable ASB, or accomplish an inspection of that affected part in accordance with the instructions of the applicable inspection SB.

Note 1: A non-cumulative tolerance of 6 months may be applied to the repetitive replacement/inspection interval specified in paragraph (4) of this AD to allow synchronization of the required replacements/inspections with other maintenance tasks, for which a non-cumulative tolerance is already granted in the applicable Maintenance Manual.



Table 1 – Affected Part Initial Replacement / Inspection

Part calendar age (A) (as defined in this AD)	Compliance time (after 26 April 2019 [the effective date of EASA AD 2019-0087-E], unless otherwise stated)	
	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
4 years or more, but less than 6 years	Within 5 months after the effective date of this AD	

- (5) For an affected part, the part calendar age (B) of which exceeds the part calendar age (A) (as defined in this AD), the initial part replacement/inspection as required by paragraph (4) of this AD can be deferred up to the compliance time as identified in Table 2 of this AD.

Table 2 – Affected Part Deferred Initial Replacement / Inspection

Part calendar age (A)	Compliance time (after the effective date of this AD)
10 years or more	Within 3 months
Less than 10 years	Within 6 months

#### Corrective Actions:

- (6) If, during any inspection as required by paragraph (4) or (5) of this AD, as applicable, any discrepancy is found on an affected part, as identified in the applicable inspection SB, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the applicable inspection SB, or replace that affected part with a serviceable part, as defined in this AD, in accordance with the instructions of the applicable ASB.

#### Parts Installation:

- (7) For Group 1 and Group 2 helicopters: From the effective date of this AD, it is allowed to install on any helicopter an MRA, having an affected part installed, provided that each installed affected part is a serviceable part, as defined in this AD, and that, following installation, each affected part is inspected or 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, or Revision 02 dated 30 March 2020.

AH ASB EC135H-67A-011 original issue dated 08 April 2019, or Revision 01 dated 23 April 2019, or Revision 02 dated 30 March 2020.

AH SB EC135-67-040 original issue dated 25 April 2019, or Revision 01 dated 10 May 2019.

AH SB EC135H-67-012 original issue dated 25 April 2019, or Revision 01 dated 10 May 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. This AD was posted on 22 April 2020 as PAD 20-065 for consultation until 06 May 2020. No comments were received during the consultation period.
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](mailto: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  
E-mail: [customersupport.helicopters@airbus.com](mailto:customersupport.helicopters@airbus.com).

