



## Airworthiness Directive

**AD No.:** 2019-0258

**Issued:** 18 October 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 DEUTSCHLAND GmbH

### Type/Model designation(s):

MBB-BK117 D-2 helicopters

**Effective Date:** 01 November 2019

**TCDS Number(s):** EASA.R.010

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 65 – Tail Rotor Drive – Titanium Bolts – Inspection / Replacement

---

### Manufacturer(s):

Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH

### Applicability:

MBB-BK117 D-2 helicopters, all serial numbers (s/n).

### Definitions:

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

**The ASB:** AHD Alert Service Bulletin (ASB) MBB-BK117 D-2-00A-001 Revision 1.

**Affected part:** Titanium (Ti) bolts, having Part Number (P/N) EN3740-060022F, if marked with manufacturer monogram "D"; or if the manufacturer monogram cannot be identified.

### Reason:

An occurrence has been reported of finding a broken Ti-bolt on a helicopter. Subsequent investigation results determined that an improper heat treatment process was accomplished on a certain batch of Ti-bolts, which can lead to hydrogen embrittlement of the affected parts, and identified the critical locations where these parts are installed on affected helicopters.

This condition, if not detected and corrected, could lead to rupture of an affected part installed in a critical location, possibly resulting in reduced control of the helicopter.



To address this potential unsafe condition, AHD issued ASB MBB-BK117 D-2-00A-001 (later revised), providing applicable instructions, and issued Service Information Notice (SIN) 3365-S-00 to provide additional information.

For the reasons described above, this AD requires a one-time inspection of Ti-bolts P/N EN3740-060022F installed on the aft connection of the ball bearing control and, depending on findings, accomplishment of applicable corrective action(s). This AD also prohibits (re)installation of affected parts.

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

Required as indicated, unless accomplished previously:

#### **Inspection(s):**

- (1) Within 50 flight hours or 3 months, whichever occurs first after the effective date of the AD, inspect (see Note 1 of this AD) each Ti-bolt P/N EN3740-060022F installed on the aft connection of the ball bearing control in accordance with the instructions of section 3.B.2 of the ASB.

Note 1: Helicopters having s/n 20311 and up have been delivered with serviceable parts installed. For these helicopters, a review of the maintenance records to determine that no affected part has been installed in service is an acceptable method in lieu of the inspection required by paragraph (1) of this AD.

#### **Part Replacement:**

- (2) If, during the inspection as required by paragraph (1) of this AD, an affected part is found installed, before next flight, contact AHD for approved instructions and accomplish those instructions accordingly.

#### **Parts Installation:**

- (3) From the effective date of this AD, do not install (see Note 2 of this AD) an affected part on any helicopter.

Note 2: Removing an affected part from a helicopter and, during the same maintenance visit, re-installing that part at the same location on the same helicopter, is not considered 'install' as specified in paragraph (3) of this AD.

#### **Ref. Publications:**

AHD ASB MBB-BK117 D-2-00A-001 Revision 1 dated 16 October 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](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).

