



Airworthiness Directive

AD No.: 2017-0037

Issued: 22 February 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

AIRBUS HELICOPTERS DEUTSCHLAND GmbH

Type/Model designation(s):

MBB-BK117 D-2 and D-2m helicopters

Effective Date: 08 March 2017

TCDS Number(s): EASA.R.010

Foreign AD: Not applicable

Supersedure: None

ATA 63 – Main Rotor Drive – Rotor Mast Nut and Helical Gear Support – Re-identification

Manufacturer(s):

Airbus Helicopters Deutschland GmbH (formerly Eurocopter Deutschland GmbH), Airbus Helicopters Inc. (formerly American Eurocopter LLC)

Applicability:

MBB-BK 117 D-2 and MBB-BK117 D-2m helicopters, all serial numbers (s/n).

Reason:

The rotor mast nut and the helical gear support of the main gearbox (MGB) of the MBB-BK117 D-2 and D-2m helicopters are life limited parts. The applicable life limits are listed in the Chapter 04 of the Maintenance Manual. The same parts, when installed on MBB-BK117 C-2 helicopters, are not life limited. Consequently, even if technically identical, these two parts have different Part Numbers (P/N), depending on the helicopter model on which they are (to be) installed.

It has been determined that on some MGB, eligible for installation on D-2 and D-2m helicopters, a rotor mast nut and/or helical gear support has been installed, having the P/N eligible for C-2 model helicopters. Furthermore, for some other MGB, equipped with the parts eligible for D-2 and D-2m helicopters, the helicopter delivery documents do not include reference to these two life limited MGB components.



This condition, if not corrected, could lead to failure to remove these parts from service before exceeding the applicable life limit, possibly resulting in an unsafe condition.

To address this potential unsafe condition, Airbus Helicopters (AH) issued Alert Service Bulletin (ASB) MBB-BK117 D-2-63A-001, providing instructions to re-identify the affected parts, and to update the maintenance logbook of the MGB.

For the reason described above, this AD requires replacement or re-identification of the affected parts, and implementation of the applicable life limits.

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

Required as indicated, unless accomplished previously:

Note 1: MGB having P/N D632K1001-051, and having a s/n listed in Table 1 of this AD, and that have a helical gear support P/N 117-12113-01 installed, are hereafter referred to as 'affected MGB' in this AD. Rotor mast nuts having P/N D632K1133-201 and unknown flight hours (FH), and rotor mast nuts, having P/N 117-12133-01, are hereafter collectively referred to as 'affected rotor mast nut' in this AD.

Table 1 - MGB s/n

D2-0001 up to D2-0108 inclusive, D2-0123, D2-0126, D2-0127, D2-0130 up to D2-0136 inclusive

Determination:

- (1) Within 30 days after the effective date of this AD, for each MGB having P/N D632K1001-051, and s/n listed in Table 1 of this AD, determine the FH, accumulated by the affected rotor mast nut (see Note 1 of this AD), since first installation on a helicopter. A review of maintenance records is acceptable to determine the FH of the rotor mast nut provided those records can be relied upon for that purpose.

Parts Installation:

- (2) From the effective date of this AD, do not install on any helicopter an affected rotor mast nut (see Notes 1, 2 and 3 of this AD).

Note 2: For the purpose of this AD, removal of a rotor mast nut from a helicopter and subsequent re-installation of that rotor mast nut on that same helicopter is an "installation" as specified in paragraph (2) of this AD.

Note 3: ASB MBB-BK117 D-2-63A-001 provides an acceptable method to re-identify a rotor mast nut P/N 117-12133-01 to P/N D632K1133-201.

- (3) From the effective date of this AD, do not install on any helicopter an affected MGB (see Note 1 of this AD) having more than 3708 FH since first installation on a helicopter.



Parts Replacement

- (4) Before exceeding 3708 FH since first installation on a helicopter, replace each affected rotor mast nut (see Note 1 of this AD) with a not affected rotor mast nut.
- (5) Before exceeding 3708 FH since first installation on a helicopter, replace each affected MGB (see Note 1 of this AD) with a not affected MGB.

Life Limit(s)

- (6) From the effective date of this AD, replace each part, as identified in Table 2 of this AD, before exceeding the FH limit, as specified in Table 2 of this AD, since first installation on a helicopter.

Table 2 – Life Limits

Part Name	P/N	Life Limit (do not exceed)
Rotor Mast Nut	D632K1133-201	30 000 FH
Helical Gear Support	D632K1113-201	29 500 FH

Aircraft Maintenance Program (AMP) Revision:

- (7) Revising the AMP, on the basis of which the operator or the owner ensures the continuing airworthiness of a helicopter, by incorporating the limitations as specified in Table 2 of this AD ensures (see Note 4 of this AD) continued accomplishment of the tasks as required by paragraph (3) of this AD for that helicopter. Consequently, after revising the AMP accordingly, it is not necessary that accomplishment of individual action is recorded for demonstration of AD compliance on a continued basis.

Note 4: For affected helicopters registered in Europe, complying with the approved AMP is required by Commission Regulation (EU) No [1321/2014](#), Part M.A.301, paragraph 3.

Ref. Publications:

AH ASB MBB-BK117 D-2-63A-001 original issue, dated 01 December 2016.

The use of later approved revisions of this 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. This AD was posted on 24 January 2017 as PAD 17-011 for consultation until 21 February 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters Deutschland GmbH, Industriestrasse 4,



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