EASA

AIRWORTHINESS DIRECTIVE

AD No.: 2015-0098



Date: 02 June 2015

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, 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 EU 748/2012, Part 21.A.3B. In accordance with 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 [EU 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

Type/Model designation(s):

AIRBUS HELICOPTERS DEUTSCHLAND GmbH

MBB-BK117 helicopters

TCDS Number: EASA.R.010

Foreign AD: Not applicable

Supersedure: None

ATA 90	Electrical Power – Ground Reference Connection – Retrofit / Rotorcraft Flight Manual – Amendment			
Manufacturer(s):	Airbus Helicopters Deutschland GmbH (AHD) (formerly Eurocopter Deutschland GmbH (ECD), Eurocopter Hubschrauber GmbH, Messerschmitt- Bölkow-Blohm GmbH).			
Applicability:	MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2 and MBB-BK117 C-1 helicopters, all serial numbers.			
Reason:	An occurrence was reported on a MBB-BK117 helicopter of an in-flight interruption of the grounding connection to the generator voltage regulator. The reason for this interruption was a break in the wire terminal attached at terminal E of the starter-generator. As a consequence, overvoltage occurred in the electrical power system and caused damage to the electronic equipment.			
	In addition, it was determined that the use of an outdated revision of the Rotorcraft Flight Manual (RFM) could, in case of overvoltage, lead to application of incorrect emergency procedures.			
	This condition, if not detected and corrected, could lead to loss of required electronic equipment, possibly resulting in loss of control of the helicopter.			
	To address this potential unsafe condition, ECD issued Alert Service Bulletin (ASB) ASB-MBB-BK117-90-118 Revision 02 to provide instructions for inspection and corrective action.			
	For the reasons described above, this AD requires repetitive inspections of the wire terminals and measurements of the resistance between starter-generator and generator voltage regulator and, in case discrepancies are found, replacement of the wire terminal. This AD also requires retrofit of the ground reference line and amendment of the RFM.			
Effective Date:	16 June 2015			

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Required Action(s)	Required as indicated, unless accomplished previously:				
and Compliance Time(s):	(1) Within 50 flight hours after the effective date of this AD and, thereafter, each time the starter-generator is removed and/or the wiring is disconnected from the starter-generator, accomplish a visual inspection of the wire terminals and a measurement of the resistance between starter-generator and generator voltage regulator in accordance with the instructions of ECD ASB-MBB-BK117-90-118 Revision 02.				
	(2) If, during any inspection or measurement as required by paragraph (1) of this AD, any discrepancy is found, before next flight, replace the wire terminal with a serviceable part in accordance with the instructions of ECD ASB-MBB-BK117-90-118 Revision 02.				
	(3) At the next periodical inspection, but no later than 6 months after the effective date of this AD, accomplish a retrofit of the ground reference line in accordance with the instructions of ECD ASB-MBB-BK117-90-118 Revision 02.				
	(4) Accomplishment on a helicopter of the retrofit as required by paragraph (3) of this AD constitutes terminating action for the repetitive inspections and measurements required by paragraph (1) of this AD for that helicopter.				
	(5) Concurrently with the retrofit as required by paragraph (3) of this AD, amend the RFM by inserting a copy of the Temporary Revision (TR) specified in Table 1 of this AD, as applicable to helicopter model, inform all flight crews and, thereafter, operate the helicopter accordingly.				
	Table 1 – Applicable RFM TR				
		RFM	TR No.		
		BK117 A-3	9		
		BK117 A-4	5		
		BK117 B-1	6		
		BK117 B-2	1		
		BK117 C-1	2		
		BK117 C-1C	1		
Ref. Publications:	ECD ASB-MBB-BK117-90-118 Revision 02 dated 04 May 2009.				
	The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.				
	BK117 A-3 RFM, TR 9, dated 22 September 2006.				
	BK117 A-4 RFM, TR 5, dated 22 September 2006.				
	BK117 B-1 RFM, TR 6, dated 22 September 2006.				
	BK117 B-2 RFM, TR 1, dated 22 September 2006.				
	BK117 C-1 RFM, TR 2, dated 22 September 2006.				
	BK117 C-1C RFM, TR 1, dated 22 September 2006.				
Remarks:	 If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 				
	 This AD was posted on 29 April 2015 as PAD 15-052 for consultation until 27 May 2015. No comments were received during the consultation period. 				
	 Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u>. 				
	 For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters Deutschland GmbH, Industriestrasse 4, 86607 Donauwörth, Federal Republic of Germany Telephone: + 49 (0)151 1422 8976; Fax: + 49 (0)906 71 4111 				