

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2010-0096 Date: 25 May 2010 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 EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable AD. 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].	
Type Approval Holder's Name : Eurocopter Deutschland GmbH	Type/Model designation(s) : MBB-BK117 C-2 helicopters
TCDS Number : EASA.R.010	
Foreign AD : Not applicable	
Supersedure: This AD supersedes EASA Emergency AD 2009-0158-E, dated 16 July 2009.	
ATA 04	Airworthiness Limitations – Tail Rotor Intermediate Gear Box (IGB) Bevel Gear – Reduced Life Limit
Manufacturer(s):	Eurocopter Deutschland GmbH, American Eurocopter LLC
Applicability:	Model MBB-BK117 C-2 helicopters, all serial numbers, if equipped with a Tail Rotor IGB that has a bevel gear Part Number (P/N) 4639 310 065 installed.
Reason:	During a recent review of the production documents for the bevel gears of the Intermediate Gear Box (IGB) for the Eurocopter Deutschland (ECD) MBB BK117 C-2 helicopter, it was discovered that certain production batch numbers have tooth foot fillets below the required minimum values that would ensure the approved life limits for this part. This condition, if not corrected, could lead to a significant reduction of the lifetime of IGB bevel gears, potentially resulting in failure of the IGB and consequent loss of control of the helicopter. For reasons described above, EASA published AD 2009-0123-E to require the implementation of a revised life limit on the affected bevel gears. That AD was subsequently superseded by EASA AD 2009-0158-E, which retained the requirements of AD 2009-0123-E and expanded the applicability as a result of further serial numbers (s/n) having been identified of affected bevel gears More recently, another four s/n bevel gears have been identified as affected by this unsafe condition. Consequently, the present AD retains the requirements of EASA AD 2009-0158-E, which is superseded, and adds those s/n by referencing the latest Revision of the ECD Alert Service Bulletin (ASB).
Effective Date:	08 June 2010

Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 30 days after the effective date of this AD, determine the s/n of the P/N 4639 310 065 bevel gear in accordance with the instructions of ECD ASB MBB BK117 C-2-04A-005. (2) If, as a result of the action as required by paragraph (1) of this AD, a bevel gear is found to be installed with a s/n as listed in Table 1 of ECD ASB MBB BK117 C-2-04A-005 at Revision 02, replace each affected bevel gear with a serviceable part, prior to or upon reaching the reduced life limit, in accordance with the instructions of ECD ASB MBB BK117 C-2-04A-005. (3) If the bevel gear installed on the helicopter has already exceeded the reduced life limit, only a single ferry flight (up to a maximum of 20 flight hours) to a maintenance facility is allowed, prior to replacement with a serviceable part, as required by paragraph (2) of this AD. (4) Compliance with the requirements of paragraph (2) of this AD can be demonstrated by: (4.1) Revising as follows, unless accomplished previously, the approved Aircraft Maintenance Programme from which the Operator or the Owner ensures the continuing airworthiness of each operated helicopter: Incorporate the reduced life limit specified in ECD ASB MBB BK117 C-2-04A-005 Revision 02; and (4.2) Complying with the approved Aircraft Maintenance Programme described in paragraph (4.1) of this AD. (5) After the effective date of this AD, do not install a bevel gear P/N 4639 310 065 with a s/n as listed in Table 1 of ECD ASB MBB BK117 C-2-04A-005 at Revision 02 on any helicopter, unless the helicopter is compliant with the requirements of this AD.
Ref. Publications:	ECD ASB MBB BK117 C-2-04A-005 Revision 02, dated 28 April 2010. 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. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: Eurocopter Deutschland GmbH, Industriestrasse 4, 86607 Donauwörth, Federal Republic of Germany Telephone: + 49 (0)151-1422 8976; Facsimile: + 49 (0)906-71 4111.