EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2010-0153 **Date: 27 July 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 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 [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 :	**Type/Model designation(s) :**
EUROCOPTER Deutschland GmbH	BO 105 helicopters

TCDS Number :	EASA.R.011
Foreign AD :	Not applicable
Supersedure :	None

ATA 05	**Time Limits / Maintenance Checks – Main Rotor Blades with Bolted Lead Inner Weight – Life Limitation**
Manufacturer(s):	Eurocopter Deutschland GmbH, Eurocopter Hubschrauber GmbH, Messerschmitt-Bölkow-Blohm GmbH
Applicability:	BO 105 C (variant CB-5), BO 105 D (variant DBS-5) and BO 105 S (variant CBS-5) helicopters, all serial numbers, if Main Rotor (M/R) Blades are installed with a Part Number (P/N) as listed in Eurocopter Deutschland (ECD) Alert Service Bulletin (ASB) BO105-10-121 Revision 1.
Reason:	Due to occurring centrifugal forces the lead inner weights of specific BO 105 M/R blades may be deformed during operation. Until recently, to remedy this problem the lead inner weights where the bulging had exceeded a defined scale were fixed by installing bolts as a repair measure. More recently, this procedure is no longer considered acceptable as an approved repair. During the life of a M/R blade with bolted lead inner weights, deformation behaviour is still likely but difficult to predict. This condition, if not detected and corrected, could cause M/R blade instability and possible blade failure, likely resulting in loss of control of the helicopter. Consequently, it has been determined that a life limit of 2 500 flight hours (FH) must be introduced for the affected M/R blades. For the reasons described above, this AD requires the implementation of the new life limit on all M/R blades which have had their lead inner weights fixed with bolts as a repair measure.
Effective Date:	10 August 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 whether M/R blades with bolted lead inner weights are installed on the helicopter, in accordance with the instructions of ECD Alert Service Bulletin (ASB) BO105-10-121 Revision 1. This determination can be accomplished through a maintenance records (e.g. log cards) check, provided those records are sufficiently accurate to be relied upon for that purpose.

(2) If, as a result of the determination as required by paragraph (1) of this AD, affected M/R blades are installed, within the time period indicated in Table 1 of this AD, as applicable, replace each M/R blade with a serviceable M/R blade in accordance with the instructions of ECD ASB BO105-10-121 Revision 1.

Table 1

Time accumulated, on the effective date of this AD, by the M/R blade since the repair with bolted lead inner weights:	**Compliance Time**
Less than 2 300 FH	Upon accumulating 2 500 FH since the repair with bolted lead inner weights
Between 2 300 FH and 3 000 FH	Within 200 FH after the effective date of this AD
More than 3 000 FH	Within 50 FH after the effective date of this AD

(3) If the flight hours, accumulated since the repair with bolted lead inner weights, cannot be determined, the total accumulated flight hours of the M/R blade has to be used to determine the compliance time, as specified in Table 1 of this AD.

(4) Thereafter, at intervals not to exceed 2 500 FH, replace each M/R blade with bolted lead inner weights with a serviceable M/R blade in accordance with the instructions of ECD ASB BO105-10-121.

Note: M/R blades that have been removed from the helicopter as a result of reaching or exceeding the life limit should be returned to ECD in accordance with the instructions of paragraph 3 of ECD ASB BO105-10-121.

(5) Compliance with the requirements of paragraph (4) of this AD can be demonstrated by:

(5.1) Revising as follows the approved aircraft maintenance programme for which the Operator or the Owner ensures the continuing airworthiness of each operated helicopter:

Incorporate the limitations contained in the ECD Maintenance Manual (MM) BO105, Chapter 101-15 Airworthiness Limitations at Revision 26, which contains the new 2 500 FH life limit for M/R blades with bolted lead inner weights.

and

(5.2) Complying with the approved aircraft maintenance programme described in paragraph (5.1) of this AD.

(6) From the effective date of this AD, do not install on any helicopter a M/R blade with bolted lead inner weights, having a P/N as specified in ECD

	ASB BO105-10-121 Revision 1, unless in compliance with the requirements of this AD.
Ref. Publications:	Eurocopter Deutschland ASB BO105-10-121 Revision 1. Eurocopter Deutschland MM BO105, Chapter 101-15 Airworthiness Limitations, Revision 26. The use of later approved revisions of these 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 June 2010 as PAD 10-062 for consultation until 20 July 2010. No comments were received during the consultation period. 2. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu. 3. 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 14 22 89 76, Facsimile: + 49 (0) 906 71-4111.