



**Airworthiness
Directive
D-2005-115**

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Eurocopter Deutschland

Effective Date: 15 March 2005

Affected:

Kind of aeronautical product: Helicopter
Manufacturer: Eurocopter Deutschland, Ottobrunn, Germany
Type: MBB-BK117
Models affected: A-1 thru C-1
Serial numbers affected: all
German Type Certificate No.: 3049

Subject:

Main Rotor System – Introduction of a life limit for main rotor blades with bolted lead inner weights

Reason:

During the flight of a BK117 severe vibrations suddenly occurred, whereupon the pilot immediately performed a safety landing. Upon performing a first visual inspection a cracked open blade trailing edge was detected. A subsequent inspection of the main rotor blade by Eurocopter Deutschland has shown that a part of a lead inner weight had loosened itself.

It was found out that the cause for this was a lead weight with extreme cavities in connection with the bolting of the lead inner weight. The bolting of the lead inner weights was hitherto performed as repair measure for main rotor blades with bulging in the area of the lead inner weights that had exceeded a defined scale. Nowadays, this procedure is no longer applied.

Therefore, for main rotor blades with bolted lead inner weights a life limit is introduced with this Airworthiness Directive.

Action / Compliance:

Within 4 weeks the log card must be checked for the entry and a visual inspection of the main rotor blades must be performed.

If a bolted main rotor blade is detected by the visual inspection or by an entry in the log card, the flight hours flown since the bolting of the lead inner weights must be determined.

If the visual inspection finds no sign of a bolted main rotor blade and if also no corresponding entry in the log card can be found, it must be assumed that it is a non-bolted blade. Make an entry in the log card.

Corresponding to the flight hours since bolting of the lead inner weights:

- bolted main rotor blades with less than 2300 Flight Hours (FH) must be replaced by reaching of 2500 FH at the latest
- bolted main rotor blades with 2300 FH up to and including 3000 FH must be replaced within the next 200 FH.
- bolted main rotor blades with more than 3000 FH must be replaced within the next 50 FH.

The actions must be done in accordance with the instructions of the referenced Service Bulletin.

Technical publication of the manufacturer:

Eurocopter Deutschland MBB-BK117 Alert Service Bulletin No. ASB-MBB-BK117-10-125 dated 14 February 2005 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland
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Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

Holders of affected aircraft registered in Germany have to observe the following:

Action has to be accomplished by the owner of the aircraft or an approved service station and to be checked and entered in the log book by a licensed inspector.

As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed.

An appeal to this notice may be raised within a period of one month following notification. Appeals are to be raised with the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig, in writing or for the purpose of drawing up minutes.

EASA-Approval

Approved by EASA under Approval-No. 2005-2215 on 15 March 2005.