



**Airworthiness
Directive
1999-284/2**

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

Eurocopter Deutschland

Effective Date: September 01, 1999

Affected:

Kind of aeronautical product:	Helicopter
Manufacturer:	Eurocopter Deutschland, München, Germany
Type:	MBB-BK-117
Models affected:	All
Serial numbers affected:	All
German Type Certificate No.:	3049

Subject:

Main Rotor System – Inspection and Replacement of Tension-Torsion-Strap

Reason:

The reason for this Airworthiness Directive was a main rotor blade separation with total loss of the helicopter in the USA on July this year.

The cause of the blade separation was a tension-torsion strap rupture in the main rotor head. The investigation is still running but the reason for the rupture is presently not fully cleared up.

Depending on inspection results of tension-torsion straps in service, further instructions will be given by the national authority. At present time the following actions must be performed in order to prevent further blade failures in flight.

Action / Compliance:

Before next flight: find out the total time of installation and the total number of flights completed by the tension-torsion straps up to now and replace or inspect them.

Note:

If the number of flights is unknown, carry out the following conversion to service life: 5 flights correspond to 1 flight hour.

1. Tension-torsion straps which have exceeded a total of 15 years installation time in the helicopter or have completed 25,000 flights, must be replaced immediately. A maximum of 5 additional flights are permitted for transfer to the service station for replacement (see also diagram in the ASB).
2. In the case of tension-torsion straps which have accumulated between 10 and 15 years installation time, the number of flights must be reduced from the maximum of 25,000 flights in linear form by 3000 flights for each respective year of installation time down to a minimum of 10,000 flights (see diagram in the ASB). Tension-torsion straps exceeding the respective reduction in the calculated number of flights are to be replaced immediately. A maximum of 5 additional flights are permitted for transfer to the service station for replacement of the tension-torsion straps.
3. Tension-torsion straps having accumulated following installation times in the helicopter, must be inspected in accordance with the Alert Service Bulletin, if the permissible number of flights (see 1. and 2.) has not been exceeded:
 - Installation time accumulated 10 to 11 years: Inspection within the next 6 weeks
 - Installation time accumulated 11 to 12 years: Inspection within the next 5 weeks
 - Installation time accumulated 12 to 13 years: Inspection within the next 4 weeks
 - Installation time accumulated 13 to 14 years: Inspection within the next 3 weeks
 - Installation time accumulated 14 to 15 years: Inspection within the next 2 weeks
4. In the case of tension-torsion straps which have been inspected in accordance with 3. of the AD, and for which no defects have been discovered, these tension-torsion straps can be used for a maximum of 500 further flights starting from the time of the inspection. They must then be replaced. However, this must not lead to their exceeding the permissible number of flights (see 1. and 2.).

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!

5. Until the announcement of any otherwise measures, tension-torsion straps are to be replaced every 10 years (after installation into the helicopter) or every 25,000 flights, whichever occurs first, following their first replacement in accordance with the Alert Service Bulletin.
6. In the case of tension-torsion straps which are in spares storage, provide them with new part number (in accordance with Alert Service Bulletin) at latest, during their installation into the main rotor head.

Technical publication of the manufacturer:

Eurocopter Deutschland Alert Service Bulletin (ASB) MBB-BK 117 No. ASB-MBB-BK 117-10-120 Revision 1 dated August 31, 1999 which becomes herewith part of this AD and must be obtained from Messrs.:

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Accomplishment and log book entry:

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

Note:

This AD supersedes the AD-No. 1999-284 dated August 06, 1999.

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

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

Instructions about Available Legal Remedies:

An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.