

LUFTFARTSVERKET
Hovedadministrasjonen
Luftfartsspeksjonen
Postboks 8124 Dep., 0032 Oslo
Telefon : 22 94 20 00
Telefax : 22 94 23 91
Tlgr. : CIVLAIR
Telex : 71032 enfb.n

LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY

EUROCOPTER
DEUTSCHLAND - 1

Med hjemmel om lov om luftfart av 11. juni 1993 kap. IV § 4-1 og kap. XV § 15-4, fastsetter Luftfartsverket følgende forskrift om luftdyktighet.

95-049 ENDRING AV GANGTIDER

Påbudet gjelder:

Eurocopter Deutschland GmbH MBB-BK 117 som har serienummer som listet i vedlagte kopi av LBA AD 95-242.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 95-242.

Tid for utførelse:

Til de tider som beskrevet i vedlagte kopi av LBA AD 95-242, med virkning fra denne LDP's gyldighetsdato.

Referanse:

LBA AD 95-242.

Gyldighetsdato:

01.08.95.



Luftfahrt-Bundesamt
-AD-Department-

Airworthiness Directive

*In case of any difficulty, reference should be made
to the German original issue*

Bilag til LDP 95-049

95-242 Eurocopter Deutschland GmbH

Date of issue: June 13, 1995

Affected helicopters:

German Type Certificate No.: 3049

Eurocopter Deutschland GmbH

MBB-BK 117

- Series: A-1, A-3, A-4, B-1 und B-2

- S/No.'s: 7001 up to 7250

- Series: C-1

- S/No.'s: a) 7500 up to 7507

b) 7500 up to 7509

c) 7500 up to 7520

Subject:

Life limited parts - changing life limitations and introducing new life limited parts.

Reason:

An extension of the certification of the MBB-BK117 helicopter model has been reason# for recalculating the life limitation of various parts. These calculations have been made on the basis of established methods of calculation and an assumed load spectrum. This has resulted in the following:

- life limit extensions
- life limit reductions
- introduction of new life limits.

Action:

Change entries in Accessory Replacement Record; replace parts if necessary; reidentify parts.

Compliance:

Use the Service Bulletins immediately and see the following compliance as noted in every Service Bulletin.

Technical publication of the manufacturer:

Eurocopter Deutschland BK 117 Alert Service Bulletins a) MBB-BK117-10-106 Revision 1 dated November 11, 1994; b) MBB-BK117-10-109 dated December 12, 1994 and c) MBB-BK117-10-110 dated December 12, 1994 which becomes herewith part of this AD and may be obtained from Messrs.

Eurocopter Deutschland GmbH
D/EL 1

D-81663 München
Federal Republic of Germany

Accomplishment and log book entry:

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

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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY

EUROCOPTER
DEUTSCHLAND-2

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets bemyndigelse av 25. mars 1994, fastsetter Luftfartsverket følgende forskrift om luftdyktighet.

96-023 UTFØRELSE AV SERVICE BULLETIN 105-80-118 REV.1.

Påbudet gjelder:

Eurocopter Deutschland GmbH MBB BO 105 C og BO 105 S med serienummer fra og med 161 og høyere.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 95-458.

Tid for utførelse:

Til de tider som angitt i vedlagte kopi av LBA AD 95-458, med virkning fra denne LDP's gyldighetsdato.

Referanse:

LBA AD 95-458.

Gyldighetsdato:

01.03.96.



Luftfahrt-Bundesamt
-AD-Department-

Airworthiness Directive

*In case of any difficulty, reference should be made
to the German original issue*

95-458 Eurocopter Deutschland GmbH

Date of issue: December 05, 1995

C o r r e c t i o n

Affected helicopters:

German Type Certificate No.: 3025

Eurocopter Deutschland GmbH

MBB BO 105 C and BO 105 S

- S/No's.: 161 and up, if equipped with special IFR equipment and voltage regulator
P/N 51565-000R

Subject:

Installation of Voltage Controller including Overvoltage Protection.

Reason:

The voltage regulators installed at present cannot prevent the failure of avionic instruments caused by probable generator overvoltage in the aircraft power supply.

In order to correct this defect, voltage regulators with overvoltage protection are to be retrofitted to all helicopters concerned. This retrofit action includes among other things the installation of two switches in the overhead panel so that each generator can be switched on again separately, after one generator had been switched off as a result of overvoltage.

Action:

Modification of Electrical Control Box 1 VE and Top Console

Compliance:

This AD is to be accomplished within the next 100 flight hours after the date the components are obtainable from the manufacturer, but not later than December 31st, 1996.

Technical publication of the manufacturer:

Eurocopter Deutschland BO 105 Alert Service Bulletin 105-80-118 Revision 1 dated November 29, 1995 which becomes herewith part of this AD and may be obtained from Messrs.

Eurocopter Deutschland GmbH
D/EL 1

D-81663 München
Federal Republic of Germany

Accomplishment and log book entry:

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

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EUROCOPTER DEUTSCHLAND GMBH

ALERT SERVICE BULLETIN BO 105

Date: September 15, 1995
Rev.1, November 29, 1995

No. ASB – BO 105–80–118

Subject: Optional equipment IFR – Installation of voltage regulators incorporating overvoltage protection

1. PLANNING

1.A. Effectivity

1.A.1. Helicopters Affected: All model BO 105 C and BO 105 S helicopters S/N 161 and up, equipped with optional IFR (according to FMS 11-2) and if fitted with voltage regulators P/N 1565-000R

1.A.2. Components Affected: Voltage regulator P/N 51565-000R

1.A.3. Spare Parts Affected: Voltage regulator P/N 51565-000R

1.B. Reason

Currently installed voltage regulators are incapable of preventing the failure of avionics equipment in the event of generator overvoltage in the aircraft electrical system.

To prevent such failures, all affected helicopters shall be retrofitted with voltage regulators incorporating overvoltage protection. This retrofit action includes the installation of two switches in the overhead panel by means of which generators shut off as a result of overvoltage can be switched on again individually.

1.C. Description

Modify main relay box 1VE; modify overhead panel; carry out functional test. (For procedure, refer to SB-BO 105-80-119.)

1.D. Compliance

This Alert Service Bulletin shall be accomplished within the next 100 flight hours after availability of required parts, but no later than December 31, 1996 whichever occurs first.

1.E. Approval

Under the authority of LBA-Approval No. I-EA2.

1.F. Manpower Requirement (refer to SB-BO 105-80-119)

1.G. Material, Cost and Availability

The required parts must be ordered from ECD, Dept. D/ZP31. If the parts are not immediately deliverable, estimated time of delivery will be sent by return mail.

1.H. Special Tools (refer to SB-BO 105-80-119)

1.I. Mass and Moment (refer to SB-BO 105-80-119)

1.J. Reference

Service Bulletin SB-BO 105-80-119

1.K. Other Publications Affected

After this Alert Service Bulletin has been accomplished, the helicopter may be operated only in conjunction with the BO 105 Flight Manual incorporating the modifications contained in this ASB.

The contents of this Alert Service Bulletin will be incorporated in the BO 105 Maintenance Manual and in the BO 105 Illustrated Parts Catalog, BO 105 Wiring Diagram Manual with one of the next revisions.

1.L. Electrical Load Data (not applicable)

2. ACCOMPLISHMENT INSTRUCTIONS

2.A. Inspections Required (not applicable)

2.B. Work Procedure

Perform procedural steps as described in Service Bulletin SB-BO 105-80-119 "2.B. Work Procedure".

2.C. Conclusions

Confirm the accomplishment of this ASB by making the following entry in the historical record of the helicopter: "**ASB-BO 105-80-118 accomplished**".

3. MATERIAL INFORMATION (refer to SB-BO 105-80-119)

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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY

EUROCOPTER
DEUTSCHLAND - 3

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets
bemyndigelse av 25. mars 1994, fastsetter Luftfartsverket følgende forskrift om luftdyktighet.

97-032A SPREKKONTROLL AV HALEBOM

Påbudet gjelder:

Eurocopter Deutschland MBB-BK 117.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 97-144/3.

Tid for utførelse:

Før første flyging, deretter gjentatte kontroller i h.h.t Eurocopter Deutschland Alert service Bulletin ASB-MBB-BK117-30-106 rev. 4.

Referanse:

LBA AD 97-144/3.

Gyldighetsdato:

1998-06-01.



**Airworthiness
Directive
1997-144/3**

Luftfahrt-Bundesamt
Airworthiness Directive Section
Lilienthalplatz 6
38108 Braunschweig
Federal Republic of Germany

Eurocopter Deutschland

Effective Date: May 11, 1998

Affected:

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

Subject:

Tail boom vertical fin - Inspection and repair of the tail boom

Reason/Action:

The reason for this AD is a fatal accident involving a helicopter MBB-BK 117. The accident had been caused by a failure of the vertical fin of the tail boom. According to the results of investigations conducted so far, the failure of the vertical fin was due to a fatigue rupture of the main spar and resulting further cracks in the left hand frame plate and in the skin on the left side. Finally, the loads occurring in the remaining structure of this area led to the abrupt failure of the vertical fin.

With this AD, an immediate inspection as well as repetitions of these inspections and a repair of the vertical fin will be introduced.

Compliance:

The first inspection must be performed before the next flight (if not already has been done in accordance with AD 97-144 or AD 1997-144/2).

Repetitive inspections and repair must be performed in accordance with Eurocopter Deutschland Alert Service Bulletin.

Technical publication of the manufacturer:

Eurocopter Deutschland Alert Service Bulletin ASB-MBB-BK117-30-106 Revision 4 dated December 19, 1997 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland GmbH
Postfach
D-81663 München
Federal Republic of Germany

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. 97-144/2 dated June 05, 1997.

Operators 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, Lilienthalplatz 6, 38108 Braunschweig.

Queries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, no. 0049 531/2355-254. Please note, that in case of any difficulty, reference should be made to the German issue!

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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY
EUROCOPTER
DEUTSCHLAND-4

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets bemyndigelse av 25. mars 1994, fastsetter Luftfartsverket følgende forskrift om luftdyktighet.

97-071 SPREKKONTROLL AV ROTORMASTFLENS

Påbudet gjelder:

Eurocopter Deutschland GmbH MBB BK 117, alle serienummer.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 97-276.

Tid for utførelse:

Til de tider som angitt i vedlagte kopi av LBA AD 97-276, med virkning fra denne LDP's gyldighetsdato.

Referanse:

LBA AD 97-276.

Gyldighetsdato:

01.10.97.



**Airworthiness
Directive
97-276**

Bilag til LDP 97-071

Luftfahrt-Bundesamt
Airworthiness Directive Section
Lilienthalplatz 6
38108 Braunschweig
Federal Republic of Germany

Eurocopter Deutschland

Effective Date: September 25, 1997

Affected:

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

Subject:

Main Transmission - visual inspection of rotor mast flange for cracks

Reason:

A rotor mast was found to have cracks of critical magnitude in the area of the flange. The cause of the cracks is being determined. In the meantime, the rotor mast flange must be subjected to an immediate visual crack inspection which is to be repeated at intervals until further notice.

Action:

Using a magnifying glass (at least 5-power magnification) perform visual inspection for cracks in the ribbed area of the rotor mast flange.

If any cracks were found, contact the ECD Customer Service prior to the next flight for advice on how to proceed

Please contact: ECD, Customer Service
Tel.: 090671 / 4444 or Fax: 090671 / 4111

In USA: Please contact AEC
Tel.: 214-641-3736 or Fax 214-641-3764

Compliance:

First inspection must be performed after the last flight of the day and then every 100 flight hours until further notice.

Technical publication of the manufacturer:

Eurocopter Deutschland Alert Service Bulletin ASB-MBB-BK 117-10-114 dated August 27, 1997 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland GmbH
Postfach

D-81663 München
Federal Republic of Germany

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.

LUFTFARTSVERKET
Hovedadministrasjonen
Luftfartsinspeksjonen
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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY
EUROCOPTER
DEUTSCHLAND-5

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets
bemyndigelse av 25. mars 1994, fastsetter Luftfartsverket følgende forskrift om luftdyktighet.

97-072 SPREKKONTROLL AV ROTORMASTFLENS

Påbudet gjelder:

Eurocopter Deutschland GmbH BO 105, alle serienummer.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 97-275.

Tid for utførelse:

Til de tider som angitt i vedlagte kopi av LBA AD 97-275, med virkning fra denne
LDP's gyldighetsdato.

Referanse:

LBA AD 97-275.

Gyldighetsdato:

01.10.97.



**Airworthiness
Directive
97-275**

Luftfahrt-Bundesamt
Airworthiness Directive Section
Lilienthalplatz 6
38108 Braunschweig
Federal Republic of Germany

Eurocopter Deutschland

Effective Date: September 25, 1997

Affected:

Kind of aeronautical product: Helicopter
 Manufacturer: Eurocopter Deutschland, Ottobrunn, Germany
 Type: BO 105
 Models affected: all
 Serial numbers affected: all
 German Type Certificate No.: 3025

Subject:

Main Transmission - visual inspection of rotor mast flange for cracks

Reason:

A rotor mast was found to have cracks of critical magnitude in the area of the flange. The cause of the cracks is being determined. In the meantime, the rotor mast flange must be subjected to an immediate visual crack inspection which is to be repeated at intervals until further notice.

Action:

Using a magnifying glass (at least 5-power magnification) perform visual inspection for cracks in the ribbed area of the rotor mast flange.

If any cracks were found, contact the ECD Customer Service prior to the next flight for advice on how to proceed

Please contact: ECD, Customer Service
 Tel.: 090671 / 4444 or Fax: 090671 / 4111

In USA: Please contact AEC
 Tel.: 214-641-3736 or Fax 214-641-3764

Compliance:

First inspection must be performed after the last flight of the day and then every 100 flight hours until further notice.

Technical publication of the manufacturer:

Eurocopter Deutschland Alert Service Bulletin ASB-BO 105-10-110 dated August 27, 1997 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland GmbH
 Postfach

D-81663 München
 Federal Republic of Germany

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.

LUFTFARTSVERKET
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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY
EUROCOPTER
DEUTSCHLAND-6

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets
bemyndigelse av 25. mars 1994, fastsetter Luftfartsverket følgende forskrift om luftdyktighet.

98-008 «MAIN GEAR/MAIN TRANSMISSION» - GANGTIDSBEGRENSET

Påbudet gjelder:

Eurocopter Deutschland MBB-BK 117, alle serienummer.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 97-350.

Tid for utførelse:

Til de tider som angitt i vedlagte kopi av LBA AD 97-350, med virkning fra denne LDP`s gyldighetsdato.

Referanse:

LBA AD 97-350.

Gyldighetsdato:

1998-02-01



**Airworthiness
Directive
97-350**

Luftfahrt-Bundesamt
Airworthiness Directive Section
Lilienthalplatz 6
38108 Braunschweig
Federal Republic of Germany

Eurocopter Deutschland

Effective Date: December 18, 1997

Affected:

Kind of aeronautical product: Helicopter
Manufacturer: Eurocopter Deutschland, Ottobrunn, Germany
Type: MBB-BK 117
Models affected: all
Serial numbers affected: 7001 up to 7250 and 7500 up to 7509
German Type Certificate No.: 3049

Subject:

Main gear / main transmission - Life Limited Part - Introduction of Life Limit on Bevel Gear P/N 117-12215-01

Reason:

The working life of the tail rotor (output) drive unit of the main transmission has been recalculated. This requires the introduction of a life limitation of 18500 h on the bevel gear P/N 117-12215-01.

Action:

Enter life limitation in Accessory Replacement Record and Historical Record „Main Transmission“.

Note: To obtain the replacement time entry, the installation (i.e. total operating time of part) to date must be determined. If it cannot be determined, the total operating time of the part shall be considered to be the operating time of the main transmission.

Compliance:

Action must be performed until December 31, 1997, if not already has been done.

Technical publication of the manufacturer:

Eurocopter Deutschland MBB-BK 117 Alert Service Bulletin No. ASB-MBB-BK 117-10-113 dated September 30, 1997 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland GmbH
Postfach

D-81663 München
Federal Republic of Germany

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.

LUFTFARTSVERKET
Hovedadministrasjonen
Luftfartsinspeksjonen
Postboks 8124 Dep.,
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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY
EUROCOPTER
DEUTSCHLAND-7

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets bemyndigelse av 25. mars 1994, fastsetter Luftfartsverket følgende forskrift om luftdyktighet.

99-076A KONTROLL/UTSKIFTING AV "TENSION-TORSION-STRAP"

Påbudet gjelder:

Eurocopter Deutschland GmbH BO 105, alle modeller som er listet i vedlagte kopi av LBA AD 1999-300/2.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 1999-300/2.

Tid for utførelse:

Til de tider som angitt i vedlagte kopi av LBA AD 1999-300/2, med virkning fra denne LDP's gyldighetsdato.

Referanse:

LBA AD 1999-300/2.

Gyldighetsdato:

1999-10-01



**Airworthiness
Directive
1999-300/3**

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

Eurocopter Deutschland

Effective Date: August 31, 1999

Affected:

Kind of aeronautical product: Helicopter
Manufacturer: Eurocopter Deutschland, München, Germany
Type: BO 105
Models affected: all BO 105

with exception of (see also Airworthiness Directive Number 1999-289 dated August 11, 1999):

BO 105 C
- Variant: BO 105 CB-5

BO 105 S
- Variant: BO 105 CBS-5
- Variant: BO 105 DBS-5

Serial numbers affected: All
German Type Certificate No.: 3025

Subject:

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

Affected components:

Main Rotor Head: P/N 105-141081 and 105-14104
Tension-Torsion Strap: P/N 2604067 and J17322-1

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 going on 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.

Reason for the revision of this AD: This AD specifies the Compliance more precisely in order to prevent misunderstanding and unites criterions determining a replacement of the tension-torsion strap in part 2.B. "Work-Procedure" of the Alert Service Bulletin (ASB).

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.

If the tension-torsion straps have previously been used in helicopters BO 105 CB-5, BO 105 CBS-5, BO 105 DBS-5 or BO 105 LS A-3 „SUPER LIFTER“, their previous number of flights must be multiplied by a conversion factor 1,6. The resulting new number of flights must be added to the number of flights that the tension-torsion straps has accumulated in the affected helicopter.

1. Tension-torsion straps which have exceeded a total of 18 years installation time in the helicopter or have completed 40,000 flights, must be replaced immediately. However, a maximum of 5 flights are permitted for transfer to the service station for replacement of the tension-torsion straps (see also the diagram area 4 of the ASB).
2. For tension-torsion straps with an installed service time of 10 or more years and an accumulated number of flights of 40,000 or less and for tension-torsion straps with an installed service time of 15 or more years and an accumulated number of flights of less than 16,000 flights (linear reduction of the permitted number of flights by 4,800 per year; see diagram area 2 of the ASB) must be inspected in accordance with the Alert Service Bulletin dependent upon the installation times listed below
 - 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
3. Tension-torsion-straps having accumulated between 10 and 18 years installation time and having completed less than 40,000 flights but more than the permissible number of flights (see part 2. of this AD and also the diagram-area 3) are to be inspected immediately in accordance with the ASB. A maximum of 5 additional flights are permitted for transfer to the service station for the inspection.
4. Tension-torsion-straps which have been inspected in accordance with part 2. and 3. of this AD, and by which no defects have been found, can be used for a maximum of 1000 further flights or for 1 further year, whichever occurs first, from the time of this inspection and must then be replaced. The permitted total number of flights and/or the permitted total number of years installation time (see part 1.) shall not be exceeded.
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 40,000 flights, whichever occurs first, following their first replacement in accordance with the Alert Service Bulletin.

Technical publication of the manufacturer:

Eurocopter Deutschland Alert Service Bulletin BO 105 No. ASB-BO 105-10-114 Revision 2 dated August 31, 1999 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland
P.O. Box

D-81663 München
Federal Republik of Germany

Phone: + 49 (0) 89 6000-9137
Fax: + 49 (0) 89 6000-6060

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. 1999-300/2 dated August 31, 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.

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1. tilsynsavdeling
Postboks 8050 Dep., 0031 Oslo
Besøksadresse:
Rådhusgata 2, Oslo
Telefon : 23 31 78 00
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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY
EUROCOPTER
DEUTSCHLAND - 8

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets
bemyndigelse av 25. mars 1994, fastsetter Lufthavnsstyrelsen følgende forskrift om luftdyktighet.

99-074B KONTROLL/UTSKIFTING AV "TENSION-TORSION-STRAP"

Påbudet gjelder:

Eurocopter Deutschland GmbH BO 105, alle modeller som er listet i vedlagte kopi av LBA AD 2000-270.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 1999-289/3.

Tid for utførelse:

Til de tider som angitt i vedlagte kopi av LBA AD 1999-289/3, med virkning fra denne LDP's gyldighetsdato.

Referanse:

LBA AD 1999-289/3.

Gyldighetsdato:

2001-05-09



**Airworthiness
Directive
1999-289/3**

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

Eurocopter Deutschland

Effective Date: April 05, 2001

Affected:

Kind of aeronautical product: Helicopter
Manufacturer: Eurocopter Deutschland, München, Germany
Type: BO 105
Models affected: BO 105 C
- Variant: BO 105 CB-5

BO 105 S
- Variant: BO 105 CBS-5
- Variant: BO 105 DBS-5
- Variant: BO 105 CBS-5 KLH

Serial numbers affected: All
German Type Certificate No.: 3025

Subject:

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

Affected components:

Main Rotor Head: P/N 105-141081, -141041, -141061, -141071 or -141045
Tension-Torsion Strap: P/N 2604067 and J17322-1

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 going on 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.

Reason for the revision of this AD: This AD specifies the Compliance more precisely in order to prevent misunderstanding and unites criterions determining a replacement of the tension-torsion strap in part 2.B. "Work-Procedure" of the Alert Service Bulletin (ASB).

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.

If the tension-torsion straps have previously been used at any time in BO 105 helicopters other than BO 105 CB-5, BO 105 CBS-5, BO 105 CBS-5 KLH, BO 105 DBS-5 or BO 105 LS A-3 „SUPER LIFTER“, the number of flights or installation time of these tension-torsion straps in these other helicopter configurations need only be calculated with a factor of 62,5 % (in comparison to the values for the BO 105 CB-5, BO 105 CBS-5, BO 105 DBS-5 or BO 105 LS A-3 „SUPER LIFTER“) which is to be added to the number of flights or installation time of BO 105 CB-5, BO 105 CBS-5, BO 105 CBS-5 KLH, BO 105 DBS-5 or BO 105 LS A-3 „SUPER LIFTER“.

1. Tension-torsion-straps which have completed less than 10 years installation time in the helicopter and less than 25000 flights, are to be replaced at the latest after completing 10 years installation time or 25,000 flights, whichever occurs first. If Tension-torsion-straps complete 10 years installation time before May 31, 2001, the

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!

permitted installation time may be exceeded by 6 weeks at the most.

2. 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 of the tension-torsion straps (see also diagram in the ASB).
3. In the case of tension-torsion straps which have accumulated between 10 and 15 years installation time in the helicopter, the number of flights must be calculated reduces 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.
4. 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
5. 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.).
6. In future, tension-torsion straps are to be replaced after having completed a lifetime of 10 years (after installation into the helicopter) or after completing 25,000 flights, whichever occurs first.
7. 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. The corresponding main rotor head is also to be given a new part number in accordance with the Alert Service Bulletin.
8. If tension-torsion-straps are removed or inspected before expiry of the lifetime period of 10 years or 25,000 flights and these same tension-torsion-straps are then reinstalled, all of the tension-torsion-straps of the main rotor head are to be reidentified with the new P/N in accordance with the Alert Service Bulletin. The corresponding main rotor head is also to be reidentified with a new P/N in accordance with the Alert Service Bulletin.
9. Valid only for BO 105 CBS-5 KLH:
If not already has been done: reidentify main rotor head and the tension-torsion-straps at the next convenient opportunity in accordance with the Alert Service Bulletin.

Technical publication of the manufacturer:

Eurocopter Deutschland Alert Service Bulletin BO 105 No. ASB-BO 105-10-113 Revision 3 dated November 10, 2000 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland
P.O. Box

D-81663 München
Federal Republik of Germany

Phone: + 49 (0) 89 6000-9137
Fax: + 49 (0) 89 6000-6060

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. 1999-289/2 dated September 01, 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.

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LUFTDYKTIGHETSPÅBUD (LDP)

MOTORDREVNE
LUFTFARTØY

EUROCOPTER
DEUTSCHLAND-9

Med hjemmel i lov av 11. juni 1993 nr. 101 om luftfart, kap. XV § 15-4 jf. kap. IV § 4-1 og Samferdselsdepartementets bemyndigelse av 25. mars 1994, fastsetter Luftfartstilsynet følgende forskrift om luftdyktighet.

2000-062 "AIR CONDITIONING SYSTEM"

Påbudet gjelder:

Eurocopter Deutschland GmbH EC 135, alle serienummer som er listet i vedlagte kopi av LBA AD 2000-270.

Påbudet omfatter:

Utfør tiltak som beskrevet i vedlagte kopi av LBA AD 2000-270.

Tid for utførelse:

Til de tider som angitt i vedlagte kopi av LBA AD 2000-270, med virkning fra denne LDP's gyldighetsdato.

Referanse:

LBA AD 2000-270.

Gyldighetsdato:

2000-08-22

