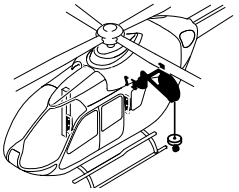
Valid for Version(s): T1, T2, T2+, T3, P1, P2, P2+, P3
635 T1, 635 T2+, 635 T3, 635 P2+, 635 P3

ALERT SERVICE BULLETIN

SUBJECT: **OPTIONAL EQUIPMENT - External Mounted Hoist**

Unintended detachment of hook assembly from the cable

For the attention of	
	



Revision No.	Date of issue
Revision 0	2017-08-02

Summary:

With this Alert Service Bulletin (ASB), Airbus Helicopters Deutschland (AHD) introduces a first time inspection and a repetitive inspection of the hook assembly. Each inspection includes the replacement of the retaining ring.

Compliance:

Compliance with this ASB is mandatory.

1 PLANNING INFORMATION

1.A EFFECTIVITY

1.A.1 Helicopters/installed equipment and parts

1. EC135, T1, T2, T2+, T3, P1, P2, P2+, P3, 635 T1, 635 T2+, 635 T3, 635 P2+, 635 P3, all S/N equipped with external mounted hoist.
2. For the affected external mounted hoists refer to Section 1.A of the Goodrich Service Bulletin 44301-10-17 Rev. 4.

1.A.2 Non-installed equipment and parts

Refer to Section 1.A of the Goodrich Service Bulletin 44301-10-17 Rev. 4.

1.B ASSOCIATED REQUIREMENTS

Not applicable.

1.C REASON

AHD was informed that a hook assembly, similar to what is installed on the EC135 had separated from the cable. This was caused by a combination of two independent failures including an internal retaining ring failure combined with the elastomeric energy absorber that had been deformed due to compression. This ASB introduces a first time inspection and a repetitive inspection of the hook assembly.
Each inspection requires the replacement of the retaining ring and the inspection of the energy absorber.
These measures are considered as an interim solution pending the availability of a corrective design solution.

1.D DESCRIPTION

Inspect the hook assembly. Replace the energy absorber if required. Replace the retaining ring.

1.E COMPLIANCE

1.E.1 Compliance at H/C manufacturer level

Helicopters/installed equipment and parts:

The inspection of the hook assembly and the replacement of the retaining ring must be accomplished i.a.w. Section 2 of the Goodrich Service Bulletin 44301-10-17 Rev. 4 before the first hoist mission, then at intervals of 180 days.

Non-installed equipment and parts:

Refer to helicopters/installed equipment and parts.

1.E.2 Compliance in service

Helicopters/installed equipment and parts:

The inspection of the hook assembly and the replacement of the retaining ring must be accomplished i.a.w. Section 2 of the Goodrich Service Bulletin 44301-10-17 Rev. 4 within the next 90 days, then at intervals of 180 days.

Non-installed equipment and parts:

The inspection of the hook assembly and the replacement of the retaining ring must be accomplished i.a.w. Section 2 of the Goodrich Service Bulletin 44301-10-17 Rev. 4 before the first hoist mission, then at intervals of 180 days.

1.F APPROVAL

Approval of this document:

The technical content of this document is approved under the authority of DOANo.EASA.21J.700

1.G MANPOWER

Refer to Section 1.F of the Goodrich Service Bulletin 44301-10-17 Rev. 4.

1.H WEIGHT AND BALANCE

No effect on weight and balance.

1.I POWER CONSUMPTION

Not affected.

1.J SOFTWARE UPGRADES/UPDATES

Not changed.

1.K REFERENCES

AMM EC135/EC635.

Refer to Section 1.L of the Goodrich Service Bulletin 44301-10-17 Rev. 4.

1.L OTHER AFFECTED PUBLICATIONS

Publications already updated:

Not affected.

Publications to be updated:

Not affected.

1.M INTERCHANGEABILITY OR MIXABILITY OF PARTS

Interchangeability:

Not affected.

Mixability:

Not affected.

2 MATERIAL INFORMATION

2.A MATERIAL: PRICE - AVAILABILITY - PROCUREMENT

Information on availability of required material kit SB-135-85A-069-2C will be provided by AHD, Dept. Spares Order Administration on request.

The retaining ring will be provided free of cost by AHD for the first inspection. The order must be placed at December 31, 2017 at the latest.
Material kits which are ordered outside the limits will be charged according to the ruling prices.

2.B LOGISTIC INFORMATION

Not applicable.

2.C MATERIAL REQUIRED PER HELICOPTER/COMPONENT

Material kits to be ordered for one hook assembly:

Material kit SB-135-85A-069-2C.

No.	Keyword	Qty	New P/N	Old P/N	Rem.
1	Retaining ring	1	MS16625-4075	MS16625-4075	A

A = The retaining ring can be sourced locally.

3 ACCOMPLISHMENT INSTRUCTIONS

3.A GENERAL

Not applicable.

3.B WORK STEPS

3.B.1 Preliminary steps

Energize the helicopter electrical system, refer to AMM, 24-00-00, 2-1.

3.B.2 Procedure

Refer to Section 2 of the Goodrich Service Bulletin 44301-10-17 Rev. 4.

3.B.3 Final steps

De-energize the helicopter electrical system, refer to AMM, 24-00-00, 2-1.

3.C COMPLIANCE CONFIRMATION

Compliance with this document:

Confirm accomplishment of this ASB by an entry in the log card of the external mounted hoist and in the historical record of the helicopter.

3.D OPERATING AND MAINTENANCE INSTRUCTIONS

Operating instructions:

Not applicable.

Maintenance instructions:

Not applicable.

4 APPENDIX

Goodrich Service Bulletin 44301-10-17 Rev. 4.

GOODRICH

SERVICE BULLETIN

Equipment/Furnishings - Rescue Hoist - System Safety

1. Planning Information

A. Effectivity

This Service Bulletin is applicable to the Rescue Hoists shown in the table below which use hook assemblies p/n 44301-420, and 44301-423.

HOOK P/N	HOIST P/N
44301-420	44301-10-2
44301-420	44301-10-5
44301-420	44301-10-6
44301-423	44301-10-10
44301-423	44301-10-11
44301-423	44301-10-12
44301-423	44301-10-13

B. Reason

To increase the level of safety in the hook assembly and reduce the chance that the hook assembly can separate from the hoist cable. This will be accomplished by periodic inspection of the hook assembly.

C. Description

It was observed that a hook separated from the cable. This was caused by a dual failure; an internal retaining ring failed and the elastomeric energy absorber (the bumper) took a compression set. The retaining ring can corrode in a salt-laden environment. This Service Bulletin provides instructions for the periodic inspection of hook components to prevent separation of the hook from the cable.

D. Compliance

Incorporation of this Service Bulletin shall be performed within 90 days of its release. This inspection shall be repeated every 180 days.

E. Approval

This Service Bulletin contains no modification information that revises the approved configuration. The work performed is in compliance with the existing FAA/EASA approved configuration.

F. Manpower

(1) The estimated amount of labor to accomplish the instructions of this Service Bulletin is 10 minutes.

(2) The work described in this Service Bulletin may be performed by personnel and facilities authorized to perform O-level hoist maintenance.

G. Material - Cost and Availability

(1) The following parts are required to accomplish the instructions of this Service Bulletin for each unit:

Table 1. Required Parts

NEW P/N	DESCRIPTION	OLD P/N	QTY	DISPOSITION
MS16625-4075	Retaining Ring	MS16625-4075	1	Replace
42305-290	Elastomeric Energy Absorber (bumper)	42305-290	1	Replace on condition per Figure 1.

(2) Material Availability

(a) Parts required for the implementation of this Service Bulletin can be sourced locally or provided by Airbus Helicopter.

H. Tooling - Price and Availability

None.

I. Weight and Balance

Not affected.

J. Electrical Load Data

Not affected.

K. Software Accomplishment Summary

Not applicable.

L. Reference

CMM 25-00-21-1

M. Other Publications Affected

None

2. Accomplishment Instructions

A. Apply power to the hoist and use the control pendant to reel out the cable approximately 3 ft. (1 m) to allow easy maintenance of the hook. Remove power from the hoist.

B. Within five minutes of reeling out the cable in step 2.A, measure the elastomeric energy absorber (bumper) to verify that it hasn't taken a permanent compression set (ref Figure 1).

C. If the bumper has taken a permanent compression set, install a new bumper, P/N 42305-290. Refer to CMM 25-00-21-1 for replacement instructions.

D. Remove the hook assembly (35, Figure 2) by removing the spring retainer (5) and unscrewing the hook carrier (10) from the body of the hook assembly and set aside.

E. Push the hoist cable into the cable hook retainer (15, Figure 2) and remove the seal cap (40) with attached o-ring (45).

F. Remove and discard the retaining ring (50).

G. If removed, install the spherical seat retainer ring (65, Figure 2) and the split cable retainer (60) on the swaged ball end of the rescue hoist cable. Use the rescue hoist cable to pull the spherical seat retainer ring (65) and the split cable retainer (60) into the lower disc (55). Make sure the assembly is bottomed out in the lower disc (55).

CAUTION: LOSS OF THE RETAINING RING CAN CONTRIBUTE TO SEPARATION OF THE HOOK FROM THE HOIST CABLE, POSSIBLY LEADING TO LOSS OF THE CABLE LOAD.

H. Install a new retaining ring (50, Figure 2). Visually inspect retaining ring (50) after installation to make sure it is securely installed in its retaining groove (see Figure 3).

I. Install the assembled seal cap (40, Figure 2) with o-ring (45) into the lower disc (55). Make sure the o-ring (45) is not damaged during installation.

J. Reinstall the hook by screwing the carrier into the retainer (15, Figure 2) and installing the spring retainer (5).

NOTE: The two parts of the carrier (10) and (15) are a matched set (MSL #). When reassembling the carrier, do not intermix components between hook assemblies.

K. Apply power to the hoist and reel in the hook to the home position. Remove power from the hoist.

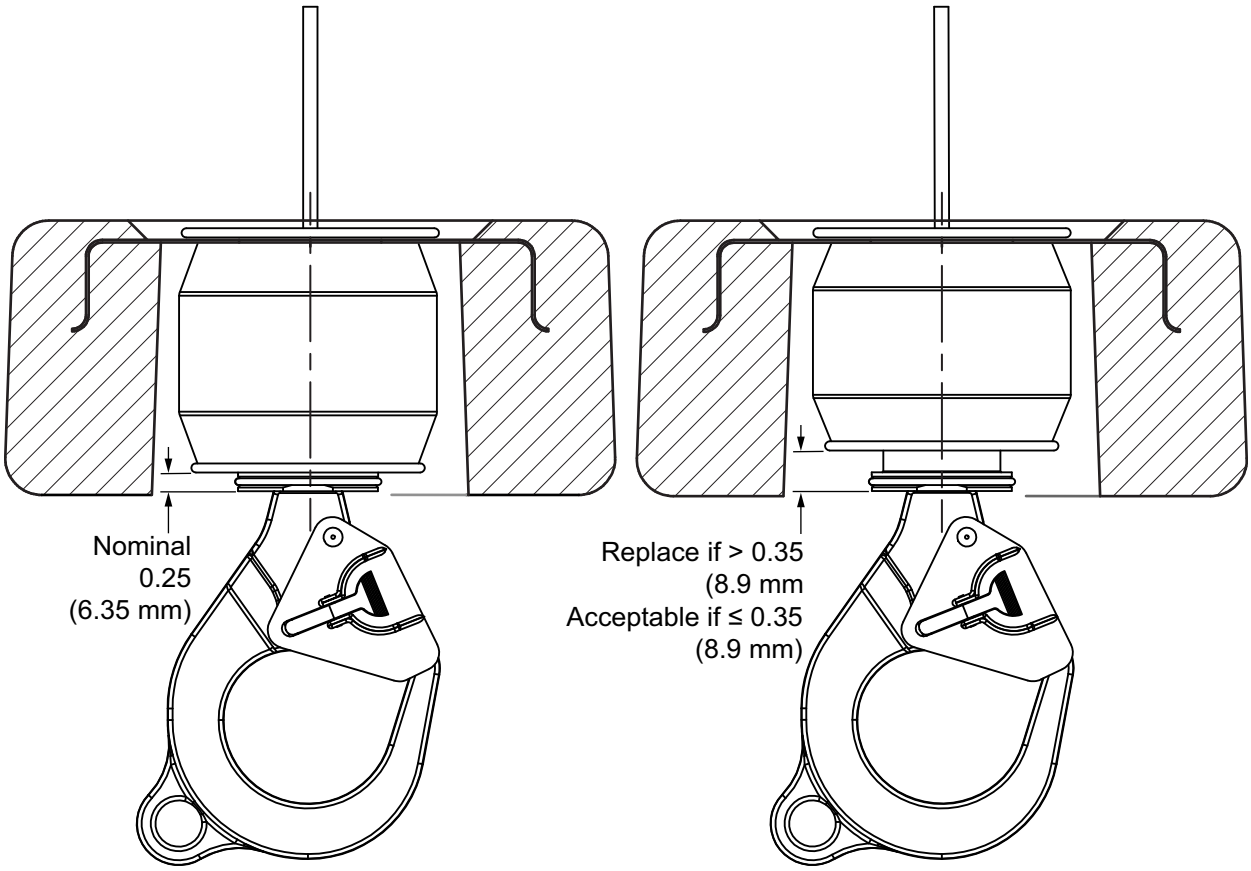
L. Make a log entry noting completion of the inspection task.

3. Point of Contact

A. For information about this Service Bulletin, contact your Goodrich Corporation Customer Support Representative at the address listed below:

Goodrich Corporation SIS-CA
2727 E Imperial Hwy
Brea, CA 92821
USA

Phone: (714) 984-1461



Nominal Hook and Bumper

Bumper has taken a compression set and must be replaced

D-LOK HOOK SHOWN AS AN EXAMPLE.
MEASUREMENT IS THE SAME FOR ALL HOOKS.

Figure 1. Hook bumper compression

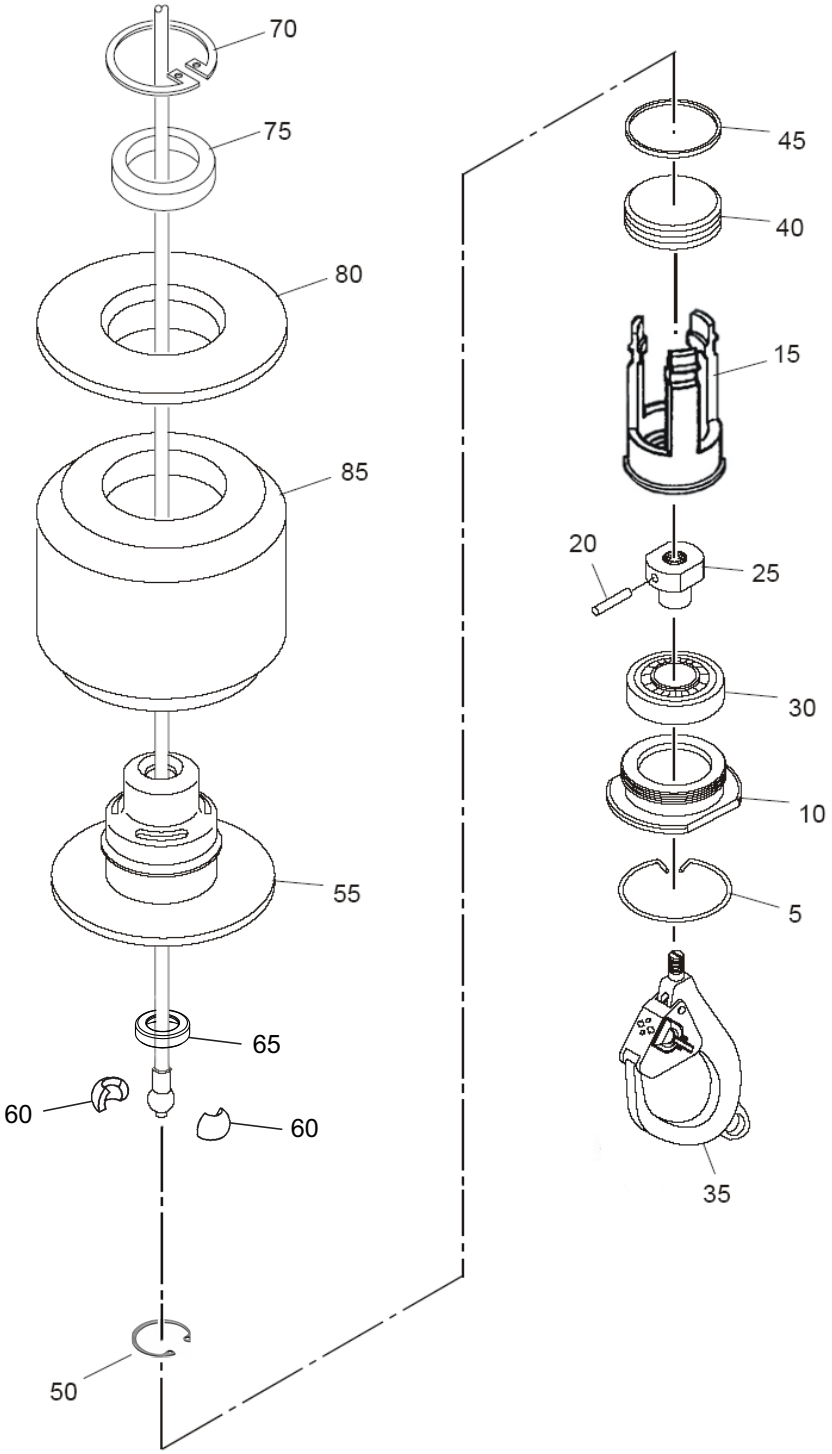


Figure 2. Hook Assembly 44301-420, -423

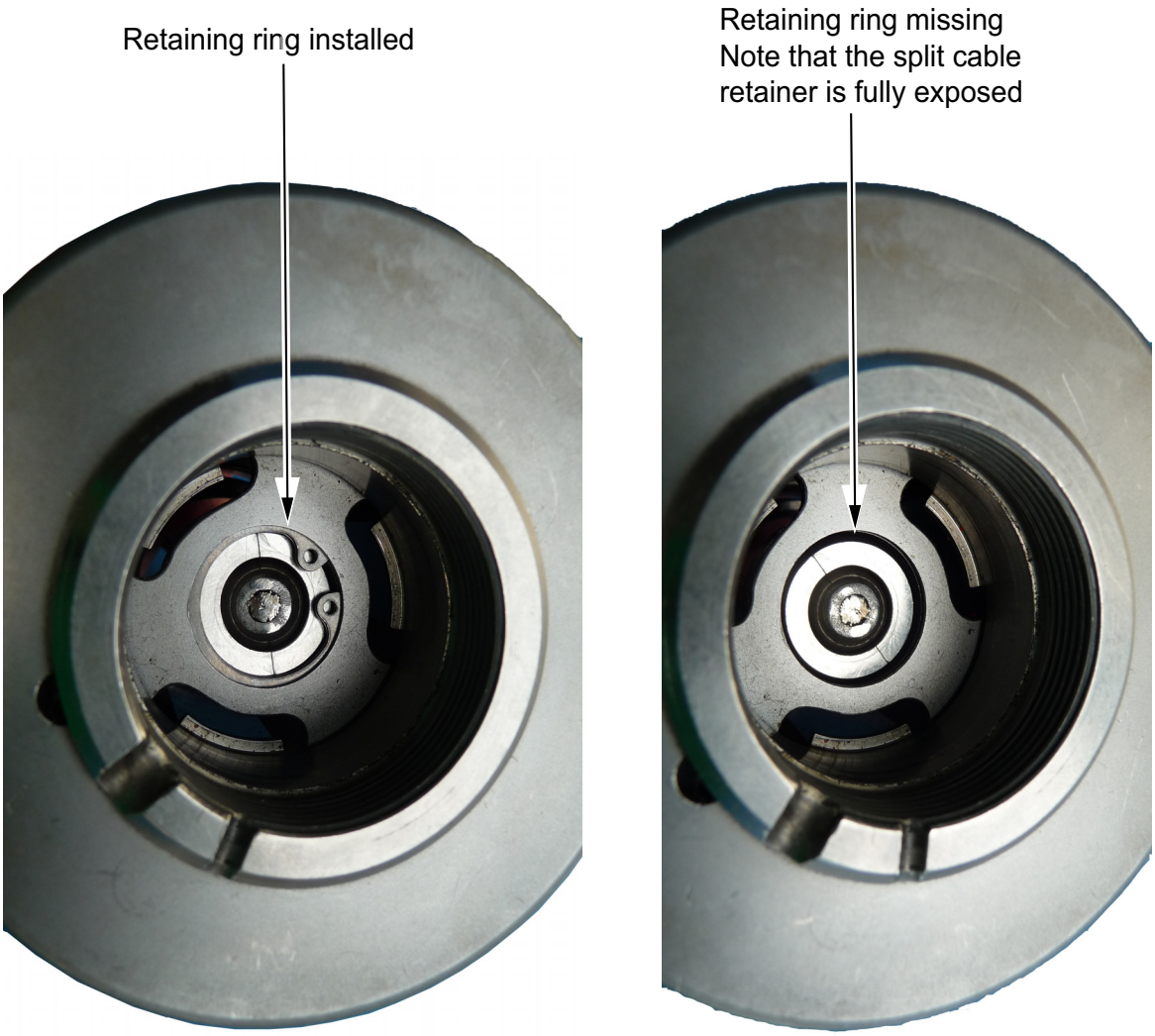


Figure 3. Location of retaining ring

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