EASA AD No.: 2013-0275R1

AD No.: 2013-0275R1 Date: 27 November 2013 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 EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the

This AD is issued in accordance with EU 748/2012, Part 21.A.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 IEC 2042/2003 Annex I. Part M.A.303I or agreed with the Authority of the State of Registry IEC 216/2008. Article 14(4) exemption1.

[EC 2042/2003 Annex I, Part I	M.A.303] or agreed with the Authority of the	State of Registry [EC 216/2008, Article 14(4) exemption].		
Design Approval Holder's Name:		Helicopter Type/Model designations:		
AGUSTAWESTLAND S.p.A.		AW109SP, AB/AW139 and AB412		
BELL HELICOPTER TEXTRON, Inc.		212, 214 and 412		
BELL HELICOPTER TEXTRON CANADA Ltd.		429 and 430		
EUROCOPTER		AS 365 N3, AS 332 and EC 225		
EUROCOPTER DEUTSCHLAND GmbH		MBB-BK 117 C-2, EC 135 and EC 635		
MD HELICOPTERS, Inc.		MD900		
SIKORSKY AIRCRAFT CORPORATION		S-61, S-76 and S-92		
TCDS Numbers:	Numbers: EASA.IM.R.001, EASA.R.002, EASA.R.005, EASA.R.006, EASA.R.009, EASA.R.010 and EASA.IM.R.506; USA 1H15, H1NE, H19NM, H4SW and H6SW; Canada H-88; Italy SO/A 157; and France No. 159			
Foreign AD:	Foreign AD: This AD is related to FAA AD 2013-06-51, dated 25 March 2013.			
Revision: This AD revises EASA AD 2013-0275 dated 20 November 2013, which superseded EASA AD 2013-0077R1, dated 27 March 2013.				
ATA 25 Equipment / Furnishing – Hoist – Test / Replacement				
Manufacturer(s):	AgustaWestland S.p.A., Bell Helicopter Textron Inc. (BHTI, formerly Bell Helicopters, Inc), Bell Helicopter Textron Canada Ltd (BHTC), Eurocopter (EC, formerly Eurocopter France, Aerospatiale), Eurocopter Deutschland GmbH (ECD), American Eurocopter (AEC), MD Helicopters, Inc. (MDHI), McDonnell Douglas Helicopter Systems (MDHS), Sikorsky Aircraft Corporation.			
Applicability:	This AD applies to the following helicopters, when equipped with a Goodrich hoist having a Part Number (P/N) as listed in Table 1 of this AD:			
	AgustaWestland AW109SP, AB139, AW139 and AB412 (all Models) helicopters, all serial numbers (s/n); BHTI 212, 214 and 412 helicopters, all Models, all s/n; BHTC 429 and 430 helicopters, all s/n; AS 365 N3, AS 332 L2 and EC225 LP helicopters, all s/n; ECD MBB-BK117 C-2, EC135 and EC 635 (all Models) helicopters, all s/n; MDHI MD900 helicopters, all s/n; and Sikorsky S-61 and S-76 (all Models) and S-92A helicopters, all s/n.			

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Reason:

During a maintenance check flight with a MBB-BK 117 C-2 helicopter, a dummy load of 552 lbs (250kg) was picked up in order to conduct a "maximum load cycle" on the rescue hoist. The cable reeled-out without further command of the operator, causing the test dummy load to impact the ground.

The results of further examinations on the subject hoist determined that the overload clutch had failed. The overload clutch design is common to all Goodrich externally mounted rescue hoists listed in Table 1 of this AD.

This condition, if not detected and corrected, could lead to further cases of inflight loss of the hoist load, possibly resulting in injury to persons on the ground or in a hoisting accident.

To address this unsafe condition, EASA issued Emergency AD 2013-0065-E to require identification of the installed hoist and, for affected hoist installations, a one-time load check test of the externally mounted hoist. The original AD was superseded by AD 2013-0077-E and then revised to 2013-0077R1 to adjust applicability and compliance time.

The investigation has identified that another uncommanded cable reel-out with loss of load occurred in 2007. An additional hoist also failed the overload test required by EASA AD 2013-0077. The cause for this failure has not yet been determined.

For the reasons described above, EASA AD 2013-0275 was issued, superseding EASA AD 2013-0077R1, to add operating restrictions, to require repetitive tests and to introduce a reduced time between overhauls for the affected hoists.

Revision 1 of this AD is issued to correct a Bell (BHTC) Alert Service Bulletin (ASB) number, make reference to design approval holders' ASBs published since EASA AD 2013-0275 was issued, and to revise Table 2 of the AD to take into account hoists that have been in storage, or are exchanged between helicopters.

This AD is still considered an interim action and further AD action may follow.

Effective Date:

Revision 1 (same as original issue): 04 December 2013

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

(1) Before the next hoist operation after the effective date of this AD, determine the P/N of the hoist installed on the helicopter. If a Goodrich hoist is installed with a P/N listed in Table 1 of this AD, accomplish the actions (hoist test), and, thereafter, at intervals not to exceed 6 months, or 300 cycles/400 hoist lifts, whichever occurs first, in accordance with approved instructions from the helicopter manufacturer (type certificate holder), or from the hoist installation design approval holder (supplemental type certificate holder), as applicable to installation and helicopter type/model (refer to Ref. Publications).

Table 1 – Affected Goodrich Hoists P/N

(all suffixes, unless specified)			
42315	42325	44301-10-1	
44301-10-2	44301-10-4	44301-10-5	
44301-10-6	44301-10-7	44301-10-8	
44301-10-9	44301-10-10	44301-10-11	
44311	44312	44314	
44315	44316	44318	

Note 1: Goodrich Alert Service Bulletin (ASB) No. 44301-10-15 contains information pertaining to the subject addressed by this AD.

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Note 2: Hoist cycles or lifts are defined in the aircraft maintenance instructions. Note 3: Whether cycles or lifts are being tracked as part of the aircraft maintenance instructions determines the applicable limits in this AD (cycles or lifts respectively).

(2) If, during any test as required by paragraph (1) of this AD, the hoist fails the test, deactivate the hoist and before next hoist operation, replace the hoist with a serviceable hoist, as defined in Table 2 of this AD.

Table 2 – Serviceable Goodrich Hoists

A hoist having a P/N not listed in Table 1 of this AD

A hoist having a P/N as listed in Table 1 of this AD, which has accumulated less than 24 months, or 1 200 hoist cycles / 1 600 hoist lifts since new, or since last overhaul

A hoist having a P/N as listed in Table 1 of this AD, which has accumulated less than 24 months, or 1 200 hoist cycles / 1 600 hoist lifts since the effective date of this AD

- (3) If a hoist test as required by paragraph (1) of this AD cannot be accomplished for lack of approved instructions from the helicopter manufacturer (type certificate holder), or from the hoist installation design approval holder (supplemental type certificate holder), before next hoist operation, remove or deactivate the hoist, or replace the hoist with a serviceable hoist, as defined in Table 2 of this AD.
- (4) Within 24 months, or 1 200 hoist cycles / 1 600 hoist lifts accumulated after the effective date of this AD, or at the next scheduled hoist overhaul, whichever occurs first, and, thereafter, at intervals not to exceed 24 months, or 1 200 hoist operating cycles / 1 600 hoist lifts, whichever occurs first, replace the hoist with a serviceable hoist, as defined in Table 2 of this AD.
- (5) From the effective date of this AD, it is allowed to install an affected Goodrich hoist, having a P/N as listed in Table 1 of this AD, on any helicopter, provided that it is a serviceable hoist, as defined in Table 2 of this AD and, prior to hoisting operation, the hoist has passed a test as required by paragraph (1) of this AD. Following installation, the repetitive actions required by this AD must be accomplished.
- 6) From the effective date of this AD, apply the following hoist operation limitations and inform all flight crew members and hoist operators accordingly:

Operation with extended cable and load on the hook:

- Maximum permissible bank angle in turn is 20°
- Warning: exceeding 15° of lateral pendulum angle / helicopter vertical axis can lead to clutch slippage

Installation of a placard with these limitations, in full view of the pilot(s) and hoist operator, is acceptable to comply with the requirement of paragraph (6) of this AD.

Ref. Publications:

ECD ASB No. MBB-BK117 C-2-85A-038, original issue dated 11 March 2013, or Revision 1 dated 20 November 2013.

ECD ASB No. EC135-85A-058, original issue dated 11 March 2013, or Revision 1 dated 20 November 2013.

Eurocopter ASB No. AS365-25.01.25, Revision 1 dated 25 June 2013, or Revision 2 dated 20 November 2013.

Eurocopter ASB No. AS332-25.02.70, Revision 1 dated 25 June 2013, or Revision 2 dated 20 November 2013.

EASA AD No.: 2013-0275R1 Eurocopter ASB No. EC225-25A133, Revision 1 dated 25 June 2013, or Revision 2 dated 20 November 2013. AgustaWestland BT 139-321, dated 15 March 2013. AgustaWestland BT 139-354, dated 21 November 2013. AgustaWestland BT 109SP-062, original issue dated 15 March 2013, or Revision B dated 21 November 2013. Bell Helicopter ASB No. 429-13-09 dated 22 March 2013. Bell Helicopter ASB No. 430-13-49 dated 22 March 2013. MD Helicopters SL900-078, dated 26 March 2013. The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD. Goodrich ASB No. 44301-10-15, Revision No. 2 dated 05 April 2013, or Revision 3 dated 19 November 2013. Remarks: If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD The original issue of this AD was posted on 04 October 2013 as PAD 13-155 for consultation until 01 November 2013. The Comment Response Document can be found at http://ad.easa.europa.eu. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA, E-mail: ADs@easa.europa.eu. For any question concerning the technical content of the requirements in this AD, please contact one of the following, as applicable to helicopter

(TC holder) or hoist installation approval (STC holder):

Goodrich Corporation, Sensors & Integrated Systems (SIS-CA) Brea, California 92821, United States of America (USA) Telephone: +1 714-984-1461

AgustaWestland S.p.A. Customer Support, Via del Gregge, 100 - 21015 Lonate Pozzolo (VA) - Italy Telephone + 39 0331 664600; Fax: + 39 0331 664684 E-mail: custsery@agustawestland.com.

Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, Texas 76101, USA. Telephone +1 817-280-3391, Fax +1 817-280-6466.

Bell Helicopter Textron Canada, Engineering Department, 12800 rue de l'Avenir, Mirabel, Québec J7J 1R4, Canada, Telephone +1 450-971-6500, Fax +1 450-437-6382.

Publications for both BHTI and BHTC types are available on the following website: http://www.bellcustomer.com/bulletins.cfm,

Eurocopter (STDI) - Aéroport de Marseille Provence 13725, Marignane Cedex, France.

Telephone +33 (0) 4 42 85 97 97, Fax +33 (0) 4 42 85 99 66 E-mail: Directive.technical-support@eurocopter.com.

Eurocopter Deutschland GmbH, Industriestrasse 4, 86607 Donauwörth. Germany. Telephone: + 49 (0)151-1422 8976.

MD Helicopters Inc., Attn: Customer Support Division, 4555 East McDowell Road, Mail Stop M615, Mesa, Arizona 85215-9734, USA. Telephone +1-800-388-3378, fax +1-480-346-6813, or on the Web at http://www.mdhelicopters.com.

Sikorsky Aircraft Corporation, Commercial Product Support, 6900 Main Street, P.O. Box 9729, Stratford, Connecticut 06497-9129, USA; telephone: +1 203-416-4299, E-mail: sikorskywcs@sikorsky.com.