EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2014-0201 **Date: 08 September 2014** 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 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 [EC 2042/2003 Annex I, Part 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.	AW 109SP, AB/AW 139 and AB 412
BELL HELICOPTER TEXTRON, Inc.	212, 214 and 412
BELL HELICOPTER TEXTRON CANADA Ltd.	429 and 430
AIRBUS HELICOPTERS	AS 365 N3, AS 332 and EC 225
AIRBUS HELICOPTERS 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:	EASA.IM.R.001, EASA.R.002, EASA.R.005, EASA.R.006, EASA.R.009, EASA.R.010, EASA.R.105 and EASA.IM.R.506; USA 1H15, H1NE, H19NM, H4SW and H6SW; Canada H-88; and Italy A 157.
Foreign AD:	This AD is related to FAA AD 2013-06-51 dated 25 March 2013.
Supersedure:	This AD supersedes EASA AD 2013-0275R1 dated 27 November 2013.

ATA 25	**Equipment / Furnishings – Hoist – Test / Replacement**

Manufacturer(s):	AgustaWestland S.p.A., Bell Helicopter Textron Inc. (BHTI, formerly Bell Helicopters, Inc), Bell Helicopter Textron Canada Ltd (BHTC), Airbus Helicopters (AH, formerly Eurocopter, Eurocopter France, Aerospatiale), Airbus Helicopters Deutschland GmbH (AHD, formerly Eurocopter Deutschland GmbH), 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; AHD MBB-BK117 C-2, EC135 and EC 635 (all Models) helicopters, all s/n; MDHI MD900 helicopters, all s/n; and Sikorsky S-61 (all Models), S-76 (all Models) and S-92A helicopters, all s/n.

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 in-flight 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. Since EASA AD 2013-0077R1 was issued, the investigation identified that another uncommanded cable reel-out with loss of load had 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. Prompted by these findings, EASA issued AD 2013-0275 (later revised), retaining the requirements of EASA AD 2013-0077R1, which was superseded, requiring implementation of operating restrictions, repetitive tests and introducing a reduced time between overhauls for the affected hoists. Since EASA AD 2013-0275R1 was issued, other hoists have failed the required load check. The investigation also determined that a stack-up of production tolerances, in combination with operational factors, could result in degraded performance of the clutch. For the reasons described above, this AD retains the requirements of EASA AD 2013-0275R1, which is superseded, and requires closer monitoring of the clutch through enhanced load checks and, in case of a partial peel out, removal of the hoist. This AD is still considered an interim action and further AD action may follow.
Effective Date:	19 September 2014
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 60 days 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 an initial hoist load check/test 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.

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 (except 44318-11-103)

Note 1: Goodrich Alert Service Bulletin (ASB) No. 44301-10-18 contains information pertaining to the subject addressed by this AD.

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

(2) Within the time interval, or hoist operating cycles/hoist lifts specified in the approved instructions from the type certificate holder, or from the supplemental type certificate holder, as applicable, whichever occurs first after the initial load check as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed the values (calendar time, or hoist operating cycles/hoist lifts, whichever occurs first) as specified in those same instructions, as applicable, accomplish a hoist load check/test in accordance with the instructions for on-going testing.

(3) If, during any hoist load check/test as required by paragraph (1) or (2) 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, with an overload clutch assembly 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, with an overload clutch assembly which has accumulated less than 24 months, or 1 200 hoist cycles/1 600 hoist lifts since 04 December 2013 [the effective date of EASA AD 2013-0275]

(4) If a hoist test as required by paragraph (1) or (2) 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), as applicable, before next hoist operation, remove or deactivate the hoist.

(5) Within 24 months, or 1 200 hoist operating cycles/1 600 hoist lifts accumulated after 04 December 2013 [the effective date of EASA AD 2013-0275], 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, noting the installation requirements of paragraph (6) of this AD.

(6) 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 specified in paragraph (1) of this AD. Following installation, the repetitive actions required by this AD must be accomplished.

(7) From 04 December 2013 [the effective date of EASA AD 2013-0275], 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 (7) of this AD. Alternatively, insertion of revised pages, if included in approved instructions from the type certificate holder, or from the supplemental type certificate holder, as applicable, into the applicable Flight Manual (Supplement) is acceptable to comply with the requirement of paragraph (7) of this AD. (8) From the effective date of this AD, if a partial peel out occurs as described in the approved instructions from the type certificate holder, or from the supplemental type certificate holder, as applicable, before next flight, remove or deactivate the hoist or, before next hoist operation, replace the hoist with a serviceable hoist, noting the installation requirements of paragraph (6) of this AD.
Ref. Publications:	AHD ASB No. MBB-BK117 C-2-85A-038, Revision 2 , dated 08 September 2014. AHD ASB No. EC135-85A-058, Revision 2, dated 08 September 2014. AH ASB No. AS365-25.01.25, Revision 3, dated 08 September 2014. AH ASB No. AS332-25.02.70, Revision 3, dated 08 September 2014. AH ASB No. EC225-25A133, Revision 3, dated 08 September 2014. AgustaWestland BT 139-390, dated 08 September 2014. AgustaWestland BT 109SP-077, dated 08 September 2014. The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD. Goodrich ASB No. 44301-10-18, dated 05 September 2014.
Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 16 July 2014 as PAD 14-116 for consultation until 16 August 2014. The Comment Response Document can be found at http://ad.easa.europa.eu. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. 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: custserv@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 at http://www.bellcustomer.com/bulletins.cfm, Airbus Helicopters (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@airbus.com.

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