



A Textron Company

ALERT SERVICE BULLETIN

430-13-49  
22 March 2013

**MODEL AFFECTED:** 430

**SUBJECT:** GOODRICH EXTERNAL HOIST

**HELICOPTERS AFFECTED:** Serial number 49001 through subsequent with Goodrich 42325 series hoist system installed.

**COMPLIANCE:** See attached bulletin

**DESCRIPTION:**

The purpose of this bulletin is to achieve complete distribution of the attached vendor bulletin to the current affected model distribution list on record by Bell Helicopter.

**APPROVAL:**

See attached bulletin

**CONTACT INFO:**

For any questions regarding this bulletin, please contact:

Goodrich Corporation  
Sensors & Integrated Systems  
Brea, CA 92821  
Phone: 714-984-1461



# ALERT SERVICE BULLETIN

Equipment/Furnishings - Load Check Inspection - Safety and Reliability

1. Planning Information

A. Effectivity

This Alert Service Bulletin and the information it contains is applicable to all part numbers and serial numbers of the hoists listed in Table 1. These hoists are manufactured by Goodrich Sensors & Integrated Systems, Brea, CA. The only allowable exception to the compliance requirements of this ASB is for any hoist that has never been installed on an aircraft and has been in storage for less than 24 months.

TABLE 1.

Hoist Family	Test Load Lb (kg)	Serial Number Effectivity
42315	950-1050 (430-477)	00001 thru 00652
42325	950-1050 (430-477)	00001 thru 00197
44301-10-4, -7, -9	950-1050 (430-477)	00001 thru 00670
44301-10-1, -2, -5, -6, -8, -10, -11	835-925 (380-420)	00001 thru 00670
44311	950-1050 (430-477)	00001 thru 00158
44312	950-1050 (430-477)	00001 thru 00209
44314	950-1050 (430-477)	00001 thru 00026
44315	950-1050 (430-477)	00001 thru 00034
44316	950-1050 (430-477)	00001 thru 00247 *
44318	950-1050 (430-477)	00001 thru 00012
* Hoists previously converted from -101 to -104 will have a serial number beginning with "2"		

B. Reason

Goodrich has received information from an Operator reporting an issue with a rescue hoist system. According to the information reported to Goodrich, during a flight check the hoist lost the ability to hold the load at maximum rated capacity, causing the test load to strike the ground. The information reported to Goodrich further stated that after the aircraft

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TRANSMITTAL OF TECHNICAL DATA (EAR)

These Commodities, Technology or Software are controlled by the U.S. Export Administration Regulations (EAR). ECCN: 9E991

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landed, the hoist cable could be manually extracted from the hoist using a load of less than 20 pounds. Goodrich has examined the subject hoist, has confirmed the failure, and has determined that the overload clutch failed. The behavior seen in the effected hoist has never been seen in any other hoist, beginning with the fleet introduction in 1989. Taking this fleet experience into account, this event is unique to Goodrich, but it is being closely monitored in cooperation with EASA and the FAA.

C. Description

The overload clutch design is common to all externally-mounted rescue hoists. Due to the nature of the reported incident, Goodrich is requiring the following inspection and operational check procedure be performed to allow operators to check the rescue hoists in their fleets and to ensure that they remain in a serviceable condition.

D. Compliance

The actions in this Alert Service Bulletin shall be performed within thirty (30) days of the release date of this document. Hoists which are in storage do not need to meet this 30 day requirement, but will need to be tested IAW this document before their next operation. Record the performance of this ASB in the hoist log and send an email to [ASB.SIS-CA@utas.utc.com](mailto:ASB.SIS-CA@utas.utc.com) indicating the hoist part number, serial number, test load, and the results of the test.

If the hoist fails the test, the hoist shall be considered non-airworthy and the test result email will be forwarded to Goodrich Customer Service which will contact the operator with an RMA to return the failed hoist for maintenance.

E. Approval

This service bulletin contains no modification information that revises the FAA approved configuration.

F. Manpower

(1) The estimated amount of labor to accomplish the instructions of this Alert Service Bulletin for Rescue Hoist Assembly is 1 hour, as follows:

Perform cable conditioning lift	30 minutes
Perform load test	30 minutes

(2) The inspection described in this Alert Service Bulletin shall be performed by the operator.



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G. Material — Cost and Availability

None.

H. Tooling - Price and Availability

None.

I. Weight and Balance

Not affected.

J. Electrical Load Data

Not affected.

K. Software Accomplishment Summary

None.

L. Reference

None.

M. Other Publications Affected

None.

2. Accomplishment Instructions

Goodrich requires that the hoist and aircraft be inspected in accordance with the requirements of the Goodrich Component Maintenance Manual (CMM) and the aircraft's Aircraft Maintenance Manual (AMM).

Upon successful completion of these inspections, Goodrich requires that a "Load Check" be performed to ensure that the hoist overload clutch does not operate with a load attached to the hook. This Load Check consists of raising, controlling, and lowering a weight with the hoist while the aircraft is on the ground.

The following load check operations ensure that the rescue hoist system is in a safe and operational condition for service:

- A. To prevent the cable from being pulled between wraps on the outer layer of the cable drum, perform a cable conditioning lift before performing the load check. Cable conditioning can be accomplished by utilizing the following procedure:



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- (1) From a hovering aircraft, fully extend the hoist cable to the down limit stop.
- (2) Reel in a load of approximately 500 lbs (227 kg), up to the maximum of the hoist rated capacity for of the full length of cable.

**NOTE:** Alternate methods of performing the load check can be used in lieu of the procedure below. Any alternate procedure can only be used if pre-approved by the airframe manufacturer.

- B. Park the aircraft and supply external power to the aircraft. Assure that the wheels are chocked or the parking brake is set.
- C. If the hoist is mounted to a movable boom, operate the boom to move the hoist as far out as required to lift the load without interfering with the aircraft. Extend the hoist cable (OUT) to the ground.

**WARNING:** Use of this procedure with a light helicopter has the potential to tilt over the aircraft when the boom is fully extended or the helicopter is in a very light configuration.

- D. Attach a weight of 880 lbs (400 kg) to the hoist cable hook. Locate the weight directly under the hoist to minimize the fleet angle and hence the lateral forces on the hoist and cable.
- E. Begin to slowly and carefully retract the hoist cable (IN) to lift the weight off the ground. While the cable is being retracted by the hoist, observe the hoist's performance to verify that the cable reels in a controlled manner.
- F. Stop retracting the hoist cable so that the weight is held suspended by the hoist. If a higher load is called for in accordance with Table 1, gently apply the additional load without imparting any shock loads. With the hoist in the stopped condition, observe the hoist's performance to verify that the load is being held secure and the load remains off the ground for a period of one (1) minute.
- G. After holding the load for one (1) minute, slowly extend the hoist cable (OUT) to lower the weight to the ground.
- H. Disconnect the load weight from the hoist cable hook.
- I. Inspect the first 30 feet (10 meters) of the cable for damage and size in accordance with the CMM. Fully retract the hoist cable.
- J. Load check complete.
- K. Perform the daily post-flight inspections required by both the Goodrich CMM and the aircraft AMM.



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L. Marking

- (1) Document the incorporation of this ASB on the Hoist Log Card or maintenance record.

M. Point of Contact

Goodrich Corporation,  
Sensors & Integrated Systems (SIS-CA)  
Brea, CA 92821  
Phone: 714-984-1461

3. Material Information

None