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SERVICE BULLETIN

N° **139-679**

**EMERGENCY ALERT**

**DATE:** August 5, 2021

**REV. :** /

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**TITLE**

**ATA 25 - HOIST RATED LOAD CHECK**

**REVISION LOG**

First Issue

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An appropriate entry should be made in the aircraft log book upon accomplishment.  
If ownership of aircraft has changed, please, forward to new owner.

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# **1. PLANNING INFORMATION**

## **A. EFFECTIVITY**

- All hoists P/N 3G2591V00331 (Vendor P/N BL-20200-421), P/N 3G2591V02931 (Vendor P/N BLH-20200-431-1), P/N 3G2591V02932 (Vendor P/N BLH-20200-431-2) and P/N 3G2591V01431 (Vendor P/N BL-20200-422) that have replaced the hoist cable (Vendor P/N BL-6260 or Vendor P/N BL-9149-8, as applicable) without having performed, at the issue date of the Service Bulletin, the “rated load check” according to the instructions of Breeze Flight Line Operation and Maintenance Manual TD-03-008 or TD-08-002 or TD-03-009, as applicable.
- All hoists P/N 3G2591V00331 (Vendor P/N BL-20200-421), P/N 3G2591V02931 (Vendor P/N BLH-20200-431-1), P/N 3G2591V02932 (Vendor P/N BLH-20200-431-2) and P/N 3G2591V01431 (Vendor P/N BL-20200-422) installed on the helicopter after having been kept in stock for more than one year, that do not have performed, at the issue date of the Service Bulletin, the “rated load check” according to the instructions of Breeze Flight Line Operation and Maintenance Manual TD-03-008 or TD-08-002 or TD-03-009, as applicable.

## **B. COMPLIANCE**

Before the next use of the hoist P/N 3G2591V00331 (Vendor P/N BL-20200-421), P/N 3G2591V02931 (Vendor P/N BLH-20200-431-1), P/N 3G2591V02932 (Vendor P/N BLH-20200-431-2) or P/N 3G2591V01431 (Vendor P/N BL-20200-422).

## **C. CONCURRENT REQUIREMENTS**

N.A.

## **D. REASON**

This Service Bulletin is issued in order to prescribe the “rated load check” of the hoists P/N 3G2591V00331, P/N 3G2591V02931, P/N 3G2591V02932 or P/N 3G2591V01431.

## **E. DESCRIPTION**

This Service Bulletin prescribes the “rated load check” to hoists Breeze P/N 3G2591V00331 (Vendor P/N BL-20200-421), P/N 3G2591V02931 (Vendor P/N BLH-20200-431-1), P/N 3G2591V02932 (Vendor P/N BLH-20200-431-2) or P/N 3G2591V01431 (Vendor P/N BL-20200-422) for those helicopters that have

replaced the hoist cable, or that have installed a hoist kept in stock for more than one year, without having performed the mentioned check.

The check is composed of two consecutive tests, both performed in hovering condition, where two loads are tested, one of 300 lb (136 kg) and the other of 600 lb (272 kg).

## **F. APPROVAL**

The technical content of this Service Bulletin is approved under the authority of DOA nr. EASA.21.J.005. For helicopters registered under other Aviation Authorities, before applying the Service Bulletin, applicable Aviation Authority approval must be checked within Leonardo Helicopters customer portal.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives. If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

## **G. MANPOWER**

To comply with this Service Bulletin one (1) MMH is deemed necessary.

MMH are based on hands-on time and can change with personnel and facilities available.

## **H. WEIGHT AND BALANCE**

N.A.

## **I. REFERENCES**

### **1) PUBLICATIONS**

N.A.

### **2) ACRONYMS & ABBREVIATIONS**

AMP	Aircraft Maintenance Publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
lb	Pound
MMH	Maintenance Man Hours

P/N          Part Number

### **3) ANNEX**

Annex A    Rescue hoist system - Rated load - Operation test

## **J. PUBLICATIONS AFFECTED**

N.A.

## **K. SOFTWARE ACCOMPLISHMENT SUMMARY**

N.A.

## **2. MATERIAL INFORMATION**

### **A. REQUIRED MATERIALS**

#### **1) PARTS**

N.A.

#### **2) CONSUMABLES**

N.A.

#### **3) LOGISTIC MATRIX**

N.A.

### **B. SPECIAL TOOLS**

N.A.

### **C. INDUSTRY SUPPORT INFORMATION**

N.A.

### **3. ACCOMPLISHMENT INSTRUCTIONS**

#### **NOTE**

The rated load test requires testing of the hoist on the helicopter, in a hover, with the hoist cowlings installed.

#### **NOTE**

The following step is applicable only to hoist P/N 3G2591V00331 (Vendor P/N BL-20200-421) and P/N 3G2591V01431 (Vendor P/N BL-20200-422).

1. With reference to Annex A step 2, perform the rated load check of the rescue hoist P/N 3G2591V00331 or P/N 3G2591V01431, as applicable.

#### **NOTE**

The rated load test requires testing of the hoist on the helicopter, in a hover, with the hoist cowlings installed.

#### **NOTE**

The following step is applicable only to hoists P/N 3G2591V02931 (Vendor P/N BLH-20200-431-1) and P/N 3G2591V02932 (Vendor P/N BLH-20200-431-2).

2. With reference to Annex A step 3, perform the rated load check of the rescue hoist P/N 3G2591V02931 or P/N 3G2591V02932, as applicable.
3. In case of test not passed and/or other findings, contact Product Support Engineering ([engineering.support.lhd@leonardocompany.com](mailto:engineering.support.lhd@leonardocompany.com)).
4. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
5. Send the attached compliance form to the following mail box:

[engineering.support.lhd@leonardocompany.com](mailto:engineering.support.lhd@leonardocompany.com)

As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

# **ANNEX A**

## **RESCUE HOIST SYSTEM - RATED LOAD - OPERATION TEST**

## Safety Conditions

### **WARNING**

Be careful when you do the operational check procedure of the rescue hoist system. Injury to the persons can occur if you do not obey the safety precautions that follow:

- Keep your hands, cloths and body away from the components that are in movement.
- Always wear protective goggles and gloves when you work on the hoist.
- Only approved persons can stay near the helicopter during the operations on the rescue hoist.

Do not touch the electric motor during the operation. This can cause injuries to persons.

### **CAUTION**

The cable contamination by dirt or sand will cause damage or incorrect operation of the rescue hoist.

## ***Procedure***

### **Note**

1. The rated load test of the rescue hoist must be done with the rescue hoist gearbox at ambient temperature.
2. One pilot is necessary to do the rated load test in flight and one approved person is necessary as responsible of the operation of the rescue hoist. One other person is necessary to do the ground operations.
3. You must lift the dummy load with the rescue hoist during hover flight.

- 1 To do the rated load test, go to:
  - [K0067] and [K0068] [step 2](#)
  - [K0069] [step 3](#).
- 2 **[K0067] and [K0068] Rated load test (in-flight)**
- 2.1 Put the [Dummy load \(136 kg \(300 lb\)\) \(ZZ-00-00\)](#) in a free, open and safe area.
- 2.2 Tell the pilot to flight and hover the helicopter at approximately 15.24 m (50 ft) above the dummy load. Refer to the Rotorcraft Flight Manual.



- 2.3 Tell the pilot to close the following circuit breaker on the circuit breaker panel (6, [Figure 1](#)):
- HOIST CONTR
  - HOIST PWR.
- 2.4 Tell the pilot to set the PWR switch (10) on the hoist control panel (9) to ON.
- 2.5 Unwind the hoist cable (3) of the hoist (1).
- 2.6 Connect the hook (2) of the hoist (1) to the dummy load with a [Belt \(ZZ-00-00\)](#) of the appropriate load rating.
- 2.7 Tell the pilot to increase hover altitude to approximately 77.72 m (255 ft) above ground level. Refer to the Rotorcraft Flight Manual.
- 2.8 Tell the pilot or the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, setting the direction/speed control thumb-wheel (5) to DOWN position on the control pendant (4).
- 2.9 Make the hoist cool down for 30 seconds.
- Note**  
Make sure that the minimum speed of the cable is 1.07 m/s (210 fpm) when using the hoist operator pendant at full deflection and the cable is on the top layer.
- 2.10 Tell the pilot or the hoist operator to wind up the hoist cable (3) of the hoist (1) until 3.048 m (10 ft) of cable is left out, the dummy load connected by setting the direction/speed control thumb-wheel (5) to UP position on the control pendant (4).
- 2.11 Tell the pilot or the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).
- 2.12 Make the hoist cool down for 30 seconds.
- Note**  
Make sure that the maximum speed of the cable is 1.52 m/s (300 fpm) when using the hoist operator pendant at full deflection and the cable is on the top layer.
- 2.13 Tell the pilot or the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, setting the direction/speed control thumb-wheel (5) to DOWN position on the control pendant (4) until the cable stops.
- 2.14 Tell the pilot or the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).
- 2.15 Make the hoist cool down for 30 seconds.
- 2.16 Do again the [step 2.10](#) thru [step 2.15](#).
- Note**  
Make sure that the minimum speed of the cable is 1.07 m/s (210 fpm).

- 2.17 Tell the pilot or the hoist operator to wind up the hoist cable (3) of the hoist (1) until 3.048 m (10 ft) of cable is left out, with the dummy load connected by setting the direction/speed control thumb-wheel (5) to UP position on the control pendant (4).
- 2.18 Tell the pilot or the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).
- 2.19 Make the hoist cool down for 30 seconds.
- Note**  
Current values must not exceed 155 amps for the motor and 5 amps for the control circuit at 25 VDC minimum.
- 2.20 If the speed requirements of the hoist cable (3) are not in the limits, repeat [step 2.8](#) thru [step 2.19](#) checking that current and voltage values.
- 2.21 Tell the pilot or the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, for approximately 15.24 m (50 ft).
- 2.22 Tell the pilot to decrease hover altitude until the dummy load touches the ground.
- 2.23 Disconnect the hook (2) of the hoist (1) from the dummy load.
- 2.24 Put the [Dummy load \(272 kg \(600 lb\)\) \(ZZ-00-00\)](#) in a free, open and safe area.
- 2.25 Tell the pilot to flight and hover the helicopter above the dummy load. Refer to the Rotorcraft Flight Manual.
- 2.26 Connect the hook (2) of the hoist (1) to the dummy load with a [Belt \(ZZ-00-00\)](#) of the appropriate load rating.
- 2.27 Tell the pilot to increase hover altitude to approximately 77.72 m (255 ft) above ground level. Refer to the Rotorcraft Flight Manual.
- 2.28 Tell the pilot or the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected by setting the direction/speed control thumb-wheel (5) to DOWN position on the control pendant (4).
- 2.29 Make the hoist cool down for 30 seconds.
- Note**  
Make sure that the minimum speed of the cable is 0.66 m/s (130 fpm) when using the hoist operator pendant at full deflection and the cable is on the top layer.
- 2.30 Tell the pilot or the hoist operator to wind up the hoist cable (3) of the hoist (1) until 3.048 m (10 ft) of cable is left out, with the dummy load connected, setting the direction/speed control thumb-wheel (5) to UP position on the control pendant (4).
- 2.31 Tell the pilot or the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).

- 2.32 Make the hoist cool down for 30 seconds.
- Note**  
Make sure that the maximum speed of the cable is 1.52 m/s (300 fpm).
- 2.33 Tell the pilot or the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, setting the direction/speed control thumb-wheel (5) to DOWN position on the control pendant (4) until the cable stops.
- 2.34 Tell the pilot or the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).
- 2.35 Make the hoist cool down for 30 seconds.
- 2.36 Do again the [step 2.30](#) thru [step 2.35](#).
- Note**  
Make sure that the minimum speed of the cable is 0.66 m/s (130 fpm) when using the hoist operator pendant at full deflection and the cable is on the top layer.
- 2.37 Tell the pilot or the hoist operator to wind up the hoist cable (3) of the hoist (1) until 3.048 m (10 ft) of cable is left out, with the dummy load connected by setting the direction/speed control thumb-wheel (5) to UP position on the control pendant (4).
- 2.38 Tell the pilot or the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).
- 2.39 Make the hoist cool down for 30 seconds.
- Note**  
Current values must not exceed 155 amps for the motor and 5 amps for the control circuit at 25 VDC minimum.
- 2.40 If the speed requirements of the hoist cable (3) are not in the limits, repeat [step 2.28](#) thru [step 2.39](#) checking that current and voltage values.
- 2.41 Tell the pilot or the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, for approximately 15.24 m (50 ft).
- 2.42 Tell the pilot to decrease hover altitude until the dummy load touches the ground.
- 2.43 Disconnect the hook (2) of the hoist (1) from the dummy load.
- 2.44 Fully wind up the hoist cable (3) of the hoist (1).
- 2.45 Tell the pilot to land and stop the engines. Refer to the Rotorcraft Flight Manual.
- 2.46 If the current values in [step 2.40](#) are in the correct limits, check the temperature of external surface of the large drum flange. It must not exceed 94 °C (200 °F).
- 2.47 Make the helicopter safe for maintenance. Refer to [39-A-00-20-00-00A-120A-A](#).

3 **[K0069] Rated load test (in-flight)**

**Note**

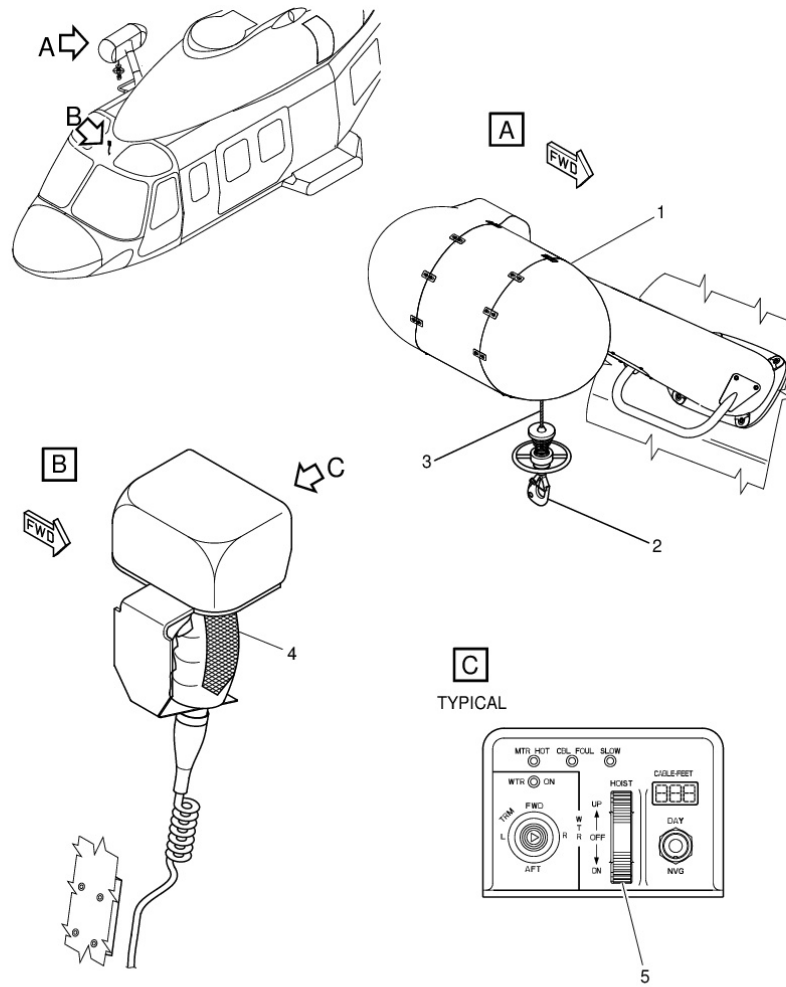
The tolerance of the dummy load is  $\pm 27$  kg (50 lbf).

- 3.1 Put the **Dummy load (136 kg (300 lb)) (ZZ-00-00)** in a free, open and safe area.
- 3.2 Tell the pilot to flight and hover the helicopter at approximately 15.24 m (50 ft) above the dummy load. Refer to the Rotorcraft Flight Manual.
- 3.3 Tell the pilot to close the following circuit breaker on the circuit breaker panel (6, **Figure 1**):
  - HOIST CONTR
  - HOIST PWR.
- 3.4 Tell the pilot to set the PWR switch (10) on the hoist control panel (9) to ON.
- 3.5 Unwind the hoist cable (3) of the hoist (1).
- 3.6 Connect the hook (2) of the hoist (1) to the dummy load with a **Belt (ZZ-00-00)** of the appropriate load rating.
- 3.7 Tell the pilot to increase hover altitude to approximately 92.96 m (305 ft) above ground level. Refer to the Rotorcraft Flight Manual.
- 3.8 Tell the pilot to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, setting the hoist control switch (8) to DN position on the collective stick (7).
- 3.9 Make the hoist cool down for 30 seconds.
- 3.10 Tell the pilot to wind up the hoist cable (3) of the hoist (1) until 3.048 m (10 ft) of cable is left out, with the dummy load connected, setting the hoist control switch (8) to UP position on the collective stick (7).
- 3.11 Make the hoist cool down for 30 seconds.
- 3.12 Tell the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, setting the direction/speed control thumb-wheel (5) to DOWN position (full speed) on the control pendant (4) until the cable stops.
- 3.13 Tell the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).
- 3.14 Make the hoist cool down for 30 seconds.
- 3.15 Tell the hoist operator to wind up the hoist cable (3) of the hoist (1) until 3.048 m (10 ft) of cable is left out, with the dummy load connected, setting the direction/speed control thumb-wheel (5) to UP position (full speed) on the control pendant (4).

- 3.16 Tell the hoist operator to set the direction/speed control thumb-wheel (5) to OFF position on the control pendant (4).
  - 3.17 Make the hoist cool down for 30 seconds.
  - 3.18 Tell the pilot or the hoist operator to unwind the hoist cable (3) of the hoist (1), with the dummy load connected, for approximately 15.24 m (50 ft).
  - 3.19 Tell the pilot to decrease hover altitude until the dummy load touches the ground.
  - 3.20 Disconnect the hook (2) of the hoist (1) from the dummy load.
- Note**  
The tolerance of the dummy load is  $\pm 27$  kg (50 lb).
- 3.21 Put the [Dummy load \(272 kg \(600 lb\)\) \(ZZ-00-00\)](#) in a free, open and safe area.
  - 3.22 Do again [step 3.2](#) thru [step 3.7](#) and [step 3.12](#) thru [step 3.20](#).
  - 3.23 Fully wind up the hoist cable (3) of the hoist (1).
  - 3.24 Tell the pilot to land and stop the engines. Refer to the Rotorcraft Flight Manual.
  - 3.25 Make the helicopter safe for maintenance. Refer to [39-A-00-20-00-00A-120A-A](#).

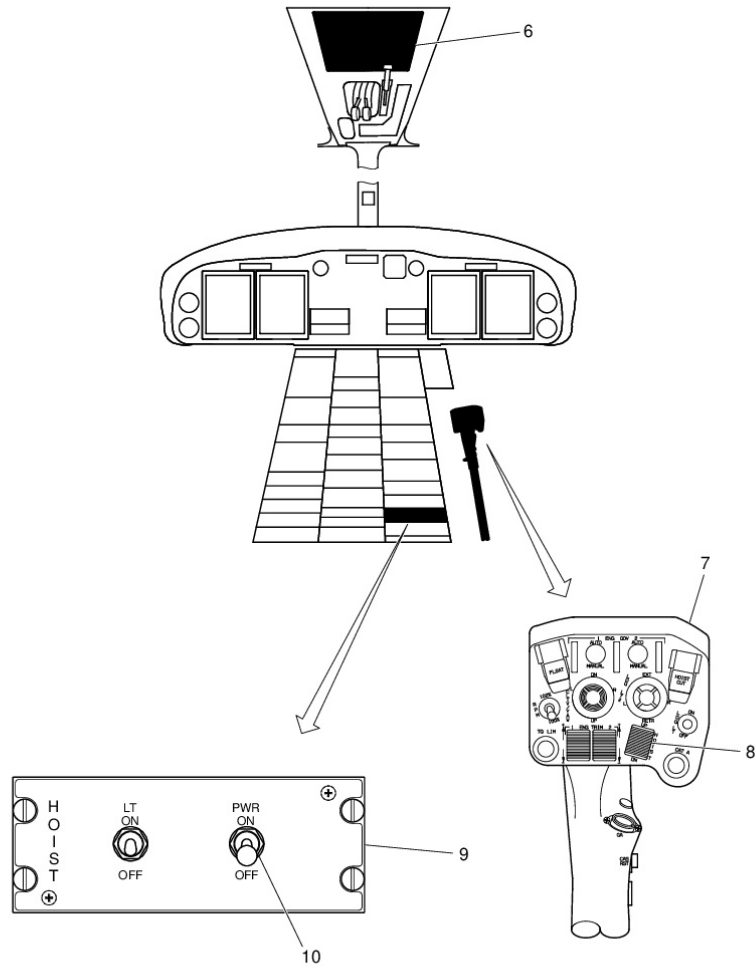
### ***Requirements After Job Completion***

- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.



ICN-39-A-259100-G-00001-33345-A-001-01

Figure 1 (Sheet 1 of 2) Rescue hoist system - Rated load - Operation test



ICN-39-A-259100-G-00001-33346-A-001-01

Figure 1 (Sheet 2 of 2) Rescue hoist system - Rated load - Operation test

Please send to the following address:  <b>LEONARDO S.p.A.</b> <b>CUSTOMER SUPPORT &amp; SERVICES - ITALY</b>  <b>PRODUCT SUPPORT ENGINEERING &amp; LICENSES DEPT.</b> Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988	<b>SERVICE BULLETIN COMPLIANCE FORM</b>	Date:
Number:		
Revision:		

Customer Name and Address:	Telephone:
	Fax:
	B.T. Compliance Date:

Helicopter Model	S/N	Total Number	Total Hours	T.S.O.

Remarks:

**Information:**

We request your cooperation in filling this form, in order to keep out statistical data relevant to aircraft configuration up-to-date. The form should be filled in all its parts and sent to the above address or you can communicate the application also via Technical Bulletin Application Communication Section placed in Leonardo AW Customer Portal - MyCommunications Area. We thank you beforehand for the information given.