No. EC155-05-040

Civil version(s): B, B1

SERVICE BULLETIN

PROTECTIVE MEASURE

TIME LIMITS – MAINTENANCE CHECKS - Electrical hoist
Introduction of complementary maintenance of the electrical hoist

For the attention of


Revision No.	Date of issue
Revision 0	2022-10-26

Summary:

The function of this Service Bulletin is to provide subsequent clean and check periodic inspections after you perform the ALERT SERVICE BULLETIN No. 25A157 (Complementary maintenance of the electrical hoist).

Compliance:

Airbus Helicopters recommends that you comply with this Service Bulletin.

1. PLANNING INFORMATION

1.A. EFFECTIVITY

1.A.1. Helicopters/installed equipment or parts

Helicopters with electrical hoist 76378-**XXX** (where XXX means all reference) and that received the application of the ALERT SERVICE BULLETIN No. 25A157 (Complementary maintenance of the electrical hoist).

1.A.2. Non-installed equipment or parts

Electrical hoist P/N 76378-**XXX.**

1.B. ASSOCIATED REQUIREMENTS

Before you comply with this Service Bulletin, comply first with the ALERT SERVICE BULLETIN No. 25A157.

1.C. REASON

During hoist training, the hoist P/N 76368-240-D has been found jammed by end-user, due to premature wear of the winding screw and the guide pin that prevents the guide pin to change direction when requested. Wear of both parts is caused by presence of sand in the lubricating grease.

The ALERT SERVICE BULLETIN No. 25A157 has been issued to provide complements to 2nd level maintenance operations to prevent damage to the winding screw and guide pin due to pollution for the hoist P/N 76378-**XXX**.

In addition, this Service Bulletin provides complementary check and cleaning of the electrical hoist P/N 76378-**XXX**.

1.D. DESCRIPTION

This Service Bulletin completes the check and the cleaning of the hoist P/N 76378-**XXX**.

1.E. COMPLIANCE

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

Not applicable.

1.E.2. Compliance in service

Helicopters/installed equipment or parts:

It is the operator who does the work on the helicopter.

NOTE 1

The definition of the climatic conditions is given in the Master Servicing Manual (MSM).

1.E.2.a. For helicopters which operate under saline and/or sandy and/or dusty weather conditions

After you complied with the ALERT SERVICE BULLETIN No. 25A157, comply with paragraph 3.B. of this Service Bulletin at the next last flight of the day (ALF), from receipt of revision 0 of this Service Bulletin, issued on the date indicated in the page footer.

Then,

Comply with paragraph 3.B. of this Service Bulletin at each ALF.

NOTE 2

Maintenance operations are already planned for hoist at each after last flight of the day for helicopters which operate under saline and/or sandy and/or dusty weather conditions. The procedure given in this Service Bulletin is to be performed in addition to the current maintenance already performed at each after last flight of the day.

1.E.2.b.For helicopters which do not operate under any weather condition given in paragraph 1.E.2.a.

After you complied with the ALERT SERVICE BULLETIN No. 25A157, comply with paragraph 3.B. of this Service Bulletin at the next periodic maintenance check without you exceed 50 Hoist Cycles (HC) or 6 months (M) (the first limit you meet is applicable), from receipt of revision 0 of this Service Bulletin, issued on the date indicated in the page footer.

Then,

Comply with paragraph 3.B. of this Service Bulletin at each 50 HC or 6M (the first limit you meet is applicable).

WARNING

IF HOIST OPERATIONS ARE CONTINUED WITH A SEVERELY DAMAGED CABLE, A CABLE JAM OR A MISWRAP, THE CABLE COULD MISWRAP OR JAM WITHIN THE HOIST.
THIS COULD CAUSE THE CABLE TO BREAK.

NOTE 3

The procedure given in this Service Bulletin is to be performed in addition to the current maintenance already performed at each 50 HC or 6M (the first limit you meet is applicable).

Non-installed equipment or parts:

Before the installation of the hoist on the helicopter, comply with the instructions of paragraph 3. of this Service Bulletin.

1.F. APPROVAL

Approval of modifications:

Not applicable.

Approval of this document:

The technical information contained in this Service Bulletin Revision 0 was approved on October 25, 2022 under the authority of EASA Design Organization Approval No. 21J.700 for civil version helicopters subject to an Airworthiness Certificate.

1.G. MANPOWER

Airbus Helicopters recommends that the personnel who will do this Service Bulletin have this qualification:

Qualification: 1 Mechanical Technician.

The man-hours are an estimate given for information only and for a standard helicopter configuration.

Estimated Man-hours: 20 minutes for one Mechanical Technician for the complementary maintenance.

The helicopter downtime is an estimate given for information only and for a standard helicopter configuration.

The estimate of the helicopter downtime is: half an hour for the additional periodic maintenance.

1.H. WEIGHT AND BALANCE

Not applicable.

1.I. POWER CONSUMPTION

Not applicable.

1.J. SOFTWARE UPGRADES/UPDATES

Not applicable.

1.K. REFERENCES

These documents are necessary to comply with this Service Bulletin.

Service Bulletin (SB):
SB: 763XX-25-12: Additions to 2nd level maintenance operations to prevent damage to the winding screw due to pollution

Information Notice (IN):
IN: 3785-I-00: Introduction of the digital Service Bulletin reporting service SB Insight

1.L. OTHER AFFECTED PUBLICATIONS

Not applicable.

1.M. PART INTERCHANGEABILITY OR MIXABILITY

Not applicable.

2. EQUIPMENT OR PARTS INFORMATION

2.A. EQUIPMENT OR PARTS: PRICE - AVAILABILITY - PROCUREMENT

Not applicable.

2.B. LOGISTIC INFORMATION

Not applicable.

2.C. EQUIPMENT OR PARTS REQUIRED PER HELICOPTER/COMPONENT

Not applicable.

2.D. EQUIPMENT OR PARTS TO BE RETURNED

Not applicable.

3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

Not applicable.

3.B. WORK STEPS

Comply with the Goodrich Service Bulletin No. 763XX-25-12, refer to Appendix 4.A.

3.C. RECORD OF COMPLIANCE

Compliance with this document:

- Record the full compliance with this Service Bulletin, with the revision number, in the helicopter documents.

- Record compliance with this Service Bulletin (see IN 3785-I-00 for instructions):
  QR code and hypertext link

NOTE

The recording of compliance with Service Bulletins in the SB Insight tool does not replace the recording in the helicopter documents.

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3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Not applicable.

4. APPENDIX

4.A. GOODRICH SERVICE BULLETIN No. 763XX-25-12

Goodrich Actuation Systems *FA3T1*

DIVISION HOIST AND WINCH, 13, AVENUE DE L'EQUILLETTE - SAINT-OUEN-L'AUMONE - BOITE POSTALE 7100 - 95056 CERGY PONTOISE CEDEX FRANCE - Tel. 33134320300

SERVICE BULLETIN

EQUIPMENT / FURNISHING: Additions to 2nd level maintenance operations to prevent damage to the winding screw due to pollution.

1. Planning information

A. Effectivity

This Service Bulletin applies to:

- Hydraulic hoists families 76365 and 76368.
- Electric hoists families 76375 and 76378.

B. Concurrent requirements

Not applicable

C. Reason

A 76368-240-D hoist jam occurred due to premature wear of the winding screw caused by the presence of sand in the lubricating grease. Wear on the threads of the screw weakened the tips at the intersection of the left and right threads and, as a result, one of the tips bent - see Figure 1.

Localization of tips at the intersection of the left and right threads of a winding screw

Figure 1

This Service Bulletin is edited to provide additions to second level maintenance CMM to prevent damage to the winding screw due to pollution.

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DIVISION HOIST AND WINCH, 13, AVENUE DE L'EGUILLETTE - SAINT-OUEN-L'AUMONE - BOITE POSTALE 7100 - 95056 CERGY PONTOISE CEDEX FRANCE - Tel. 33134326300

SERVICE BULLETIN

D. Description

This Service Bulletin provides

- The definition of severe atmospheric conditions applicable to the hoists mentioned in paragraph 1.A - see paragraph 3.A. of this Service Bulletin.
- Additions to the list of periodic maintenance operations, chapter CHECK, concerning cleaning after the last flight of the day in severe weather conditions, as well as for checking and lubricating the winding screw - see paragraph 3.B. of this Service Bulletin.
- Additions, in chapter CLEANING, of the cleaning of the cable-guide device and the winding screw - see paragraph 3.C. of this Service Bulletin.
- An addition for verification of the absence of pollution on the cable guide device and the winding screw during the check after the last flight of the day, chapter CHECK - see paragraph 3.D. of this Service Bulletin.
- The modification of paragraph « Lubrication of the winding screw » in « Verification and lubrication of the winding screw », chapter CHECK - see paragraph 3.E. of this Service Bulletin.

NOTA: The winding screw and the guiding fork will have to be replaced systematically during overhaul. These replacements will be confirmed at the next hoist overhaul through inscription on the hoist Log Card of application of the depot level maintenance SB 763XX-25-08-3. Further, these replacements may have a financial impact on the cost of the overhaul.

E. Compliance

This Service Bulletin to be applied by the operator provides additional recommendations for daily and periodical maintenance.

F. Approval

The technical information contained in this Equipment Manufacturer's Service Bulletin was approved by Airbus Helicopters under the prerogatives of EASA Design Organisation Approval No. 21J.700 only for the Airbus Helicopters helicopter range concerned.

G. Manpower

The time for additional daily maintenance is estimated between 5 minutes and 20 minutes (if additional cleaning and winding screw lubrication are required).

The time for additional periodic maintenance is estimated to 30 minutes.

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H. Weight and balance

Not applicable.

I. Electrical load data

Not applicable.

J. Software accomplishment summary

Not applicable.

K. References

The 2nd level Component Maintenance manuals:

- CMM 25-64-98 for hoists systems of families 76365 and 76368,
- CMM 25-64-99 for hoists systems of families 76375 and 76378, excluded 76375-300, 76375-200, 76378-300 and 76378-200,
- Instruction and Maintenance Manual (IMM) 712763 for hoists systems 76375-300 and 76378-300, and in association with SB 76378-300-25-03 for hoists 76375-200 and 76378-200.

L. Publication affected

- The 2nd level Component Maintenance manuals listed in paragraph 1.K of this Service Bulletin.
- The 3rd level Component Maintenance manuals:
  - 25-62-25,
  - 25-69-06,
  - 25-69-09,
  - 25-69-10,
  - 25-69-62,
  - 25-69-72.

M. Interchangeability or intermixability of parts

(1) Interchangeability

Not applicable.

(2) Intermixability

Not applicable.

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2. Material information

A. Material – Price and availability

(1) Material to be purchased

None.

(2) Material to be supplied by the operator

None.

B. Industry support information

Not applicable.

C. Material necessary for each equipment

Not applicable.

D. Material necessary for each spare

Not applicable.

E. Re-identified parts

Not applicable.

F. Tooling – price and availability

- STARNET or isopropyl alcohol
- Grease AIR4217 (NATO G-353)

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3. Accomplishment instructions

A. Definition of applicable severe atmospheric conditions, to be added to paragraph 2.A. (3), chapter CHECK of CMM 25-64-98 and 25-64-99, and at the beginning of paragraph 5.1, chapter MAINTENANCE AND SERVICING of IMM 712763:

- **Sandy and/or dusty atmosphere**

  Sand wind and/or landing on sandy ground of the aircraft on which the hoist is installed.

- **Saline atmosphere**

  When the aircraft on which the hoist being installed is based on a boat or at more than 50% of its time within one kilometer of the coast, or when it performs more than 50% of its time in low-level maritime overflight (less than 1000 feet).

- **Tropical and humid atmosphere**

  Combination of high ambient temperature and high humidity (from + 28 °C (+ 82.8 °F) and 75 % relative humidity).

The use of a hoist in severe atmospheric conditions has for effect to reduce the Operating Time Limit (OTL) of the cable installed on the hoist, as already stipulated in the Maintenance Program:

- As soon as a cable is used in severe atmospheric conditions, the remaining time of use is divided by 2.

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B. Addition to paragraph 2.B, List of the maintenance operations required by the Maintenance Schedule (MS), chapter CHECK of CMM 25-64-98 and 25-64-99

Pre Modification:

PERIODICITY	CHAPTER Paragraph	COMPONENT (S)	INSTRUCTION
** After last flight of the day if special operating conditions	CLEANING § 1.A.(1), (2), (3) and (6)	Cable	Cable washing after the last flight of the day when hoisting has been performed in marine and/or sandy and/or dust and/or tropical and damp atmosphere
According to MS	CHECK § 4.B	Hoist	Lubrication of the winding screw

Post Modification:

PERIODICITY	CHAPTER Paragraph	COMPONENT (S)	INSTRUCTION
** After last flight of the day if saline weather conditions	CLEANING CHECK	Hoist, including the cable	Cleaning per - § 1.A., chapter CLEANING of current CMM, - §.3.C.(3) of this SB. Verification of absence of pollution per §.3.D. of this SB. If pollution, cleaning per §.3.C.(1) and 3.C(2), lubrication per § 3.E.(3) of this SB.
** After last flight of the day if sandy and/or dust weather conditions	CLEANING	Hoist, including the cable	Cleaning per - § 1.A., chapter CLEANING of current CMM. - § 3.C. of this SB. Lubrication per § 3.E.(3) of this SB
According to MS	CHECK § 4.B	Winding screw	Verification and lubrication of the winding screw (per § 3.E. of this SB)

(**) When the Maintenance Schedule recommends this check according with a special procedure, the indications of the Maintenance Schedule take precedence.

Note: As a reminder, verification and lubrication of the winding screw is to be performed at 50 cycles or 6 months, whichever comes first.

For IMM 712763, at chapter MAINTENANCE AND SERVICING.

- These maintenance additions after the last fly of the day will be included in paragraph 5.1.
- Modification in paragraph 5.3.2 of « Maintenance Schedule »: the periodicity of lubrication of the cable-guide is modified from 100 cycles to 50 cycles or 6 months, whichever comes first – the title becoming « Verification and lubrication of the winding screw ».

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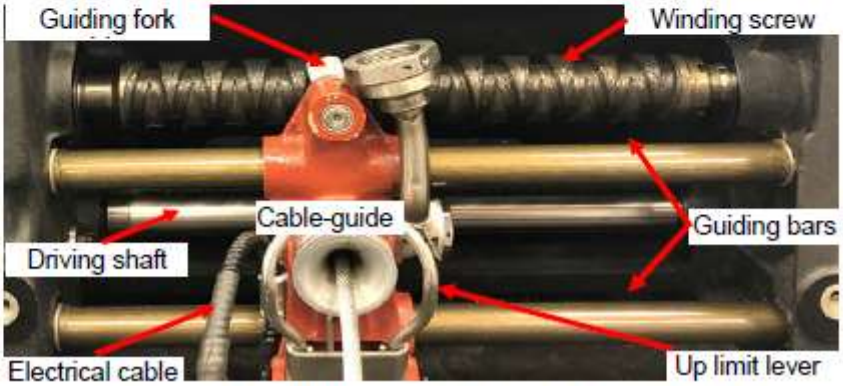
C. Addition to the chapter CLEANING of CMM 25-64-98 and 25-64-99, and to the paragraph 5.1, chapter MAINTENANCE AND SERVICING of IMM 712763

(1) Cleaning of cable-guide device and winding screw – see figures 2 and 3.

Clean metallic components other than the ball bearings with a non-metallic brush and/or a lint-free cloth using Starnet or isopropyl alcohol.

Clean especially the winding screw, the guiding fork, the cable-guide, the guiding bars and the driving shaft.



Cable-guide area including winding screw and guiding fork
Figure 2

Move the cable-guide, reeling out up to 5 m (16.4 ft) of cable in order to completely clean the winding screw. Make sure there is no more grease, sand or dust deposit.

In particular, ensure the complete cleaning of guiding fork inversion areas on the winding screw – see figure 3.

Guiding fork inversion areas
(inducing the reversal of direction of displacement of the cable guide)
Figure 3

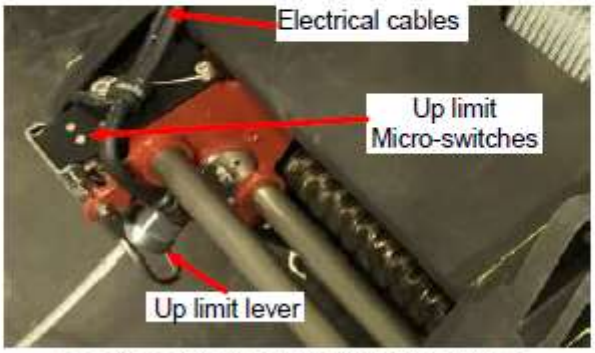
Note: Do not use compressed air, even at low pressure.

If there is any doubt about damaged (bent, broken or worn) tips on the winding screw, check in accordance with paragraph 3.E.(2) of this Service Bulletin.

If there no doubt on the condition of the winding screw, lubricate in accordance with paragraph 3.E.(3) of this Service Bulletin.

(2) Cleaning of electrical components – see figure 4

Clean with a lint-free cloth soaked in isopropyl alcohol the electrical cables and the external portion of the two up limit micro-switches which are located at the interface level with the up limit lever.



Location of the two up limit micro-switches
Figure 4

(3) General rinsing of the hoist

Rinse the hoist with clear, cold water, avoiding greased parts and electrical components.

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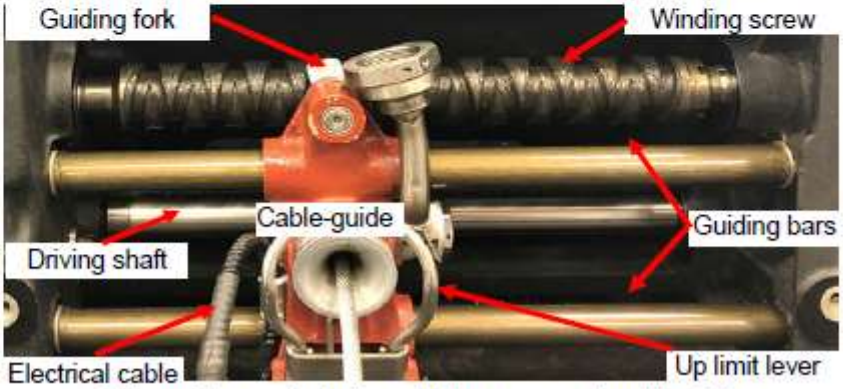
D. Addition for verification of the absence of pollution on the cable guide device and the winding screw to paragraph 3.C, "Check after the last flight of the day", chapter CHECK of CMM 25-64-98 and 25-64-99, and to paragraph 5.1, chapter MAINTENANCE AND SERVICING of IMM 712763

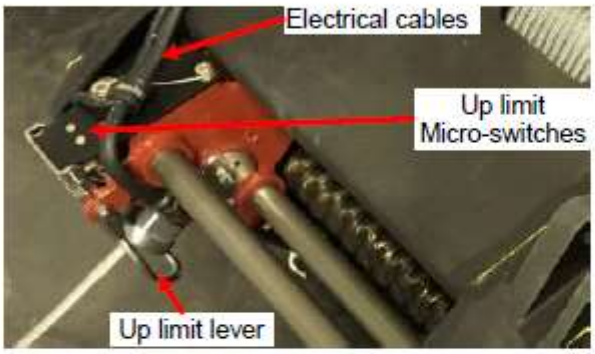
(1) Check for pollution deposits (salt, sand, dust or other particles) on the hoist, in particular on the winding screw, the guiding fork, the cable-guide, the guiding bars and the driving shaft – see Figure 5.



Cable-guide area including winding screw and guiding fork
Figure 5

If there is pollution, clean up in accordance with paragraph 3.C.(1) of this Service Bulletin.

(2) Check for pollution deposits on the electrical cables and the two up limit micro-switches which are located at the interface level with the up limit lever – see figures 5 and 6.



Location of the two up limit micro-switches
Figure 6

If there is pollution, clean up in accordance with paragraph 3.C.(2) of this Service Bulletin.

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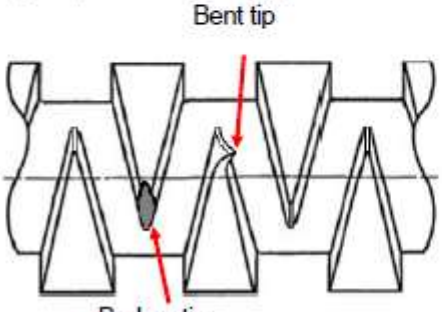
E. Modification of paragraph 4.B, « Lubrication of the winding screw », chapter CHECK of CMM 25-64-98 and 25-64-99, in « Verification and lubrication of the winding screw ».

Modification of paragraph 5.2.3.3, « Lubrication », chapter MAINTENANCE AND SERVICING of IMM 712763, in « Verification and lubrication ».

(1) Clean the winding screw and guiding fork in accordance with paragraph 3.C.(1) of this Service Bulletin.

(2) Check the winding screw

Check for damaged (bent, broken or worn) tips on the winding screw - see figure 7.



Example of a winding screw with damaged tips
Figure 7

This check of all the tips is to be performed over the entire length of the winding screw

- By checking from one side of the winding screw to the other side by rotating half a turn of the winding screw by reeling out or reeling in about 1 m (3.28 ft) of cable;
- By checking specially at the inversion areas of the guiding fork – see figure 8;

Guiding Guide fork inversion areas
(inducing the reversal of travel direction of the cable guide)
Figure 8

- Also in the area under the guiding fork (see figure 5) after reeling out about 5 m (16.4 ft) of cable to move the cable-guide (on side and the other side by turning the winding screw half a turn).

If there is one or several bent, broken or worn tips on the winding screw, the hoist must be sent for repair to Goodrich Actuation Systems, Hoist & Winch, requesting first a RMA (*) at Desk-customer.Stouen@collins.com).

(*) It is reminded that a RMA is a standard Return Material Authorization request in order to assure that identification of the material, a clear reason for return as well as logistic information are given.

(3) Lubrication of the winding screw – see Figure 9

CAUTION : COAT GREASE MODERATELY ON THE WINDING SCREW (SEE FIG. 9). DO NOT APPLY GREASE TO THE CABLE AND SURROUNDING PARTS OF THE EXTRACTING DEVICE, IN PARTICULAR ON THE EXTRACTING ROLLERS.

Lubricate the winding screw with about 1 cm^3 (0.06 in^3) of grease AIR 4217 (NATO G-353), using a brush. Roll up 5 meters of cable to move the cable guide to evenly apply the grease on the threads of the entire winding screw – see figure 9.

Correct application of grease to the winding screw

Figure 9

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4. Appendix

A. Modification table