Kawasaki

KSB-117-483

DATE: 2023-12-8

SERVICE BULLETIN

Kawasaki BK117

TITLE: Inspection of Rescue Winch System Hook Damper

1. EFFECTIVITY

(1) Helicopter Affected:

Model	Mfg. Serial No.
KAWASAKI-BK117 C-2	All (Helicopters equipped with the Rescue Winch System)

(2) Parts Affected:

Part Number	Part Name	Remarks
44307-480-1	Hook Damper	Including spare parts.

2. PURPOSE

When disassembling the hook damper for the rescue winch system, damage (galling) was found on the threads of the hook and the nut.

This damage occurred at the time of hook damper assembly when excessive torque was applied while aligning the hole for the spring pin nut with the hook groove. Using the rescue winch system in this state may lead to the hook falling off.

This Serve Bulletin prescribes an inspection for the threads of the hook and the nut.

3. CATEGORY

MANDATORY

4. COMPLIANCE

(1) Rescue Winch Systems Installed on Helicopters

a. Initial inspection

An inspection of the hook and nut threads, and as necessary, hook and nut replacement must be accomplished in accordance with section 9 of this Service Bulletin before the next rescue winch system operation.

b. Recurring inspection

An inspection of the hook and nut threads, and as necessary, hook and nut replacement must be accomplished in accordance with section 9 of this Service Bulletin each time the hook is assembled and/or disassembled.

(2) Spare Parts

A visual inspection must be accomplished in accordance with section 9 before installation on a helicopter, or within one year after receipt of this KSB, whichever comes first.

5. JCAB APPROVAL

Approved by JCAB.

6. LOGBOOK AND LOG CARD ENTRIES

Make an entry in the aircraft Logbook and on the Rescue Winch System Log Card stating that work in accordance with KSB-117-483 has been accomplished.

7. MAN-HOUR REQUIRED

Approximately 2 man-hours (for reference only) will be required.

8. WEIGHT AND BALANCE CHANGE

None.

9. ACCOMPLISHMENT INSTRUCTIONS

(1) Hooker Damper Disassembly

a. Disassemble the hook damper in accordance with CMM25-00-21-1.
b. Temporarily mark the position of the hook (1) and the nut (2).
c. Apply Ardrox 396/1 E8 water-displacing corrosion inhibitor around and on top of the nut (2), and then let the nut sit for 5 minutes.

WARNING IF 150 NM OR MORE OF TORQUE IS REQUIRED TO REMOVE THE NUT (2, FIGURE 1), REPLACE BOTH THE HOOK (1) AND THE NUT (2).

WARNING TOUCHING HIGH-TEMPERATURE PARTS MAY LEAD TO INJURY. DO NOT TOUCH HIGH-TEMPERATURE PARTS.

NOTE If the nut (2) cannot be easily removed, it is acceptable to heat the hook (1) threads (4) and the nut (2) threads (5) up to a maximum of 200°C.

d. Remove the nut (2) using less than 150 Nm of torque.
   (a) If the nut (2) cannot be removed using less than 150 Nm of torque, replace both the hook (1) and the nut (2), and then proceed to step (3).
   (b) If the nut (2) can be removed using less than 150 Nm of torque, proceed to step (2).

(2) Inspection of the Threads
   a. Clean the hook (1) threads (4) and the nut (2) threads (5).
   b. Use a magnifying glass (recommended magnification: 10x) to inspect the hook (1) threads (4) and the nut (2) threads (5).
   c. If damage is found, replace both the hook (1) and the nut (2), and then proceed to step (3).
   d. Install the nut (2) on the hook (1) and tighten by hand. When tightening, verify that the nut turns freely without resistance or catching.
   e. If the nut (2) cannot be easily installed on the hook (1), replace both the hook (1) and the nut (2).

(3) Hook Assembly
   a. Verify that there are no abnormalities on the hook (1), nut (2), or spring pin (3). Replace as necessary.
   b. Clean the hook (1) threads (4) and the nut (2) threads (5).
   c. Install the nut (2) on the hook (1) and tighten by hand. When tightening, verify that the nut turns freely without resistance or catching.
   d. If the nut (2) cannot be easily installed on the hook (1), replace both the hook (1) and the nut (2), and then perform steps a. to c. again.
   e. Apply several drops of CM6218 adhesive to the hook (1) threads (4) and the nut (2) threads (5).

NOTE Apply the minimum torque necessary to align the hook (1) groove with the nut (2) hole.

   f. Tighten the nut (2) to a torque value between 15 and 80 Nm until the hook (1) groove and the nut (2) hole align, and then install the spring pin (3).

WARNING THE TORQUE VALUE MUST NOT EXCEED 124 NM.

NOTE If the hook (1) and the nut (2) have been replaced, there will not be a temporary marking.

g. If the spring pin (3) cannot be installed, tighten the nut (2) to a torque value between 80 and 124 Nm until the hook (1) groove and the nut (2) hole align at the position marked in 9 (1) b., and then install the spring pin (3).

NOTE If replacing the hook (1) and the nut (2), it is necessary to also inspect for thread (4 and 5) damage.

h. If it was not possible to align the hook (1) groove and the nut (2) hole using less than 124 Nm of torque, replace the hook (1) and the nut (2), and then perform steps a. to g. again.

i. Remove the marking made in 9 (1) b. from the hook (1) and the nut (2).

(4) Close Up

a. Assemble the hook damper in accordance with CMM 25-00-21-1.

b. Clean the work area.

c. Complete this Service Bulletin by making an entry in the Logbook and on the Rescue Winch System Log Card stating that the inspection has been accomplished in accordance with KSB-117-483.

10. PARTS AND MATERIAL INFORMATION

(1) Required Parts for One Helicopter

Part Number	Part Name	Qty	Remarks
42315-488	Hook	1	In accordance with inspection results.
44307-461	Nut	1	In accordance with inspection results.
MS39086-494	Spring Pin	1	In accordance with inspection results.

(2) Required Materials for One Helicopter

Specification	Nomenclature	Qty	Remarks
-	Ardrox 396/1 E8 Water-Displacing Corrosion Inhibitor	As required	Use of equivalent product acceptable.
CM6218	Adhesive	As required	Loctite 243. Use of equivalent product acceptable.

NOTE: CM part numbers indicate consumable material CM numbers in the MAINTENANCE MANUAL.

(3) Parts to be Removed

Part Number	Part Name	Qty	Remarks
42315-488	Hook	1	In accordance with inspection results.
44307-461	Nut	1	In accordance with inspection results.
MS39086-494	Spring Pin	1	In accordance with inspection results.

11. SPECIAL TOOLS REQUIRED

None required.

12. REFERENCE TECHNICAL DATA

KAWASAKI BK117C-2 AIRCRAFT MAINTENANCE MANUAL (AMM)
GOODRICH RESCUE HOIST SYSTEM 25-00-21-1
GOODRICH COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST 25-00-29-1

13. AVAILABILITY OF KIT

Information on availability of the parts and materials required for the accomplishment of this Service Bulletin is provided on request by KHI MRO Civil Business Section II.

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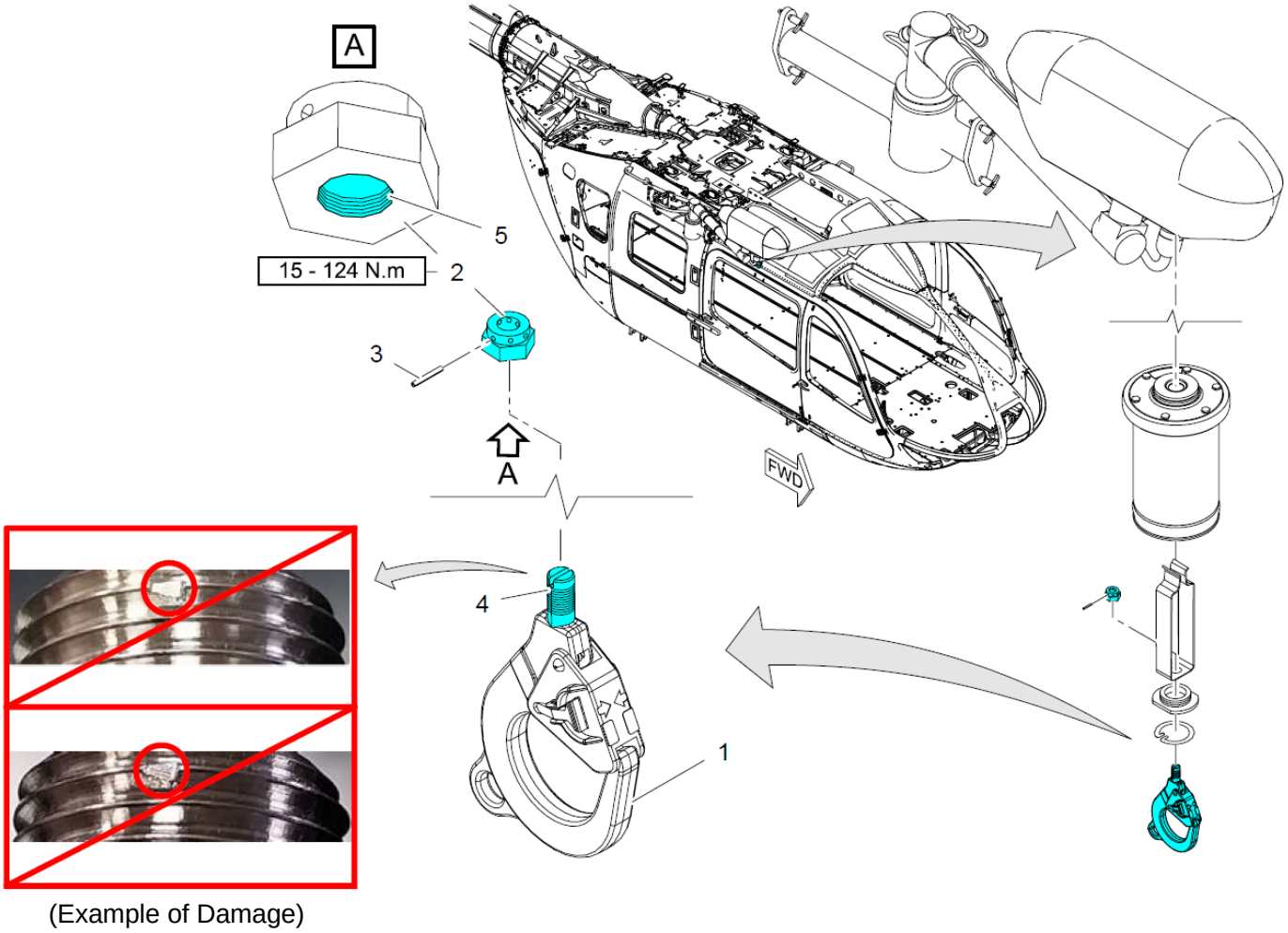

(Example of Damage)

Figure 1 Hook Damper