

Bell Helicopter **TEXTRON**

A Subsidiary of Textron, Inc.

Nov 08, 2006

INFORMATION LETTER 222-06-21
222U-06-16
230-06-12

TO: All Owners/Operators of Bell 222 Series and 230 Helicopters

SUBJECT: Breeze-eastern rescue hoist and cargo winch maintenance concept. Bell 222 Series and 230 Helicopters equipped with a Breeze-Eastern rescue hoist and cargo winch.

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

See an attached copy of the supplier bulletin approval.

Breeze-Eastern

A DIVISION OF
TransTechnology Corporation

700 Liberty Avenue
Union NJ, 07083 USA

SERVICE INFORMATION LETTER

CAGE CODE 08484

SIL01 Maintenance

Revision B, 10/03/06, Page 1 of 5

Breeze-Eastern Rescue Hoist and Cargo Winch Maintenance Concept (Includes Time Between Overhaul Definition)

SUBJECT: Breeze-Eastern has modified its maintenance concept for Rescue Hoists and Cargo Winches to reflect revised government aviation authority requirements, as well as current industry and military standards.

Note: This Service Information Letter replaces CAB-100-45, "Recommended Intervals For Planned Maintenance of Breeze-Eastern Hoists And Winches" in its entirety.

INFORMATION.

A. Reason.

Revisions made to the Federal Aviation Regulations (FAR), specifically FAR 27, "Airworthiness Standards: Normal Category Rotorcraft," and FAR 29, "Airworthiness Standards: Transport Category Rotorcraft," as well as the corresponding European Aviation Safety Agency (EASA) Certification Specifications (CS), CS-27, "Small Rotorcraft," CS-29, "Large Rotorcraft," mandate a stringent set of design requirements on the handling of external loads, both human and non-human. B

To meet the FAR / EASA requirements for helicopter type certification the commercial helicopter manufacturers require an additional in depth level of detail in analyses, test, inspection, and maintenance.

Although the military is not bound by the commercial FAR's and EASA CS's, their design requirements on the handling of external loads, both human and non-human *are as stringent*, if not more stringent, than the civil aviation authorities. B

Therefore, Breeze-Eastern is adopting and implementing a maintenance concept that will meet the changing / evolving requirements for safe Rescue Hoist and Cargo Winch design, operation, and maintenance. I

B. Effectivity.

This Service Information Letter pertains to all Rescue Hoist and Cargo Winch Systems manufactured by Breeze-Eastern.

NOTICE: This Service Information Letter contains BREEZE-EASTERN, A DIVISION OF TRANSTECHNOLOGY CORPORATION, proprietary data that shall not be duplicated, used, or disclosed - in whole or in part - for any purpose other than to ensure compliance with this submittal by the recipient, and all other end users, and is subject to return upon request. The recipient shall have the right to duplicate, use or disclose the data to the extent provided in the contract. This restriction does not limit the recipient's right to use information contained in this data if it is properly obtained from another source without restriction.

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C. Maintenance Concept Description.

Breeze-Eastern has revised its maintenance concept to three (3) levels of established maintenance. They encompass both commercial and military definitions as defined below.

NOTE: All maintenance actions for Breeze-Eastern Rescue Hoists or Cargo Winches shall be accomplished in accordance with applicable Breeze-Eastern manuals and technical documentation. Furthermore, it is required that all maintenance requiring new components be accomplished utilizing Breeze-Eastern Federal Aviation Administration (FAA) / European Aviation Safety Agency (EASA) approved parts. Any and all actions taken by the owners / operators / maintenance facilities that deviate from Breeze-Eastern recommended procedures contained herein, or actions taken utilizing parts, or procedures not prescribed by Breeze-Eastern, shall not be the responsibility of Breeze-Eastern.

Definitions.

1. Organizational / Flight Line Level:

Maintenance at this level consists of preventative maintenance, visual inspection, and scheduled maintenance of the system, corrective maintenance for fault isolation, removal and replacement of the hardware that can be performed at the organization or flight line "within the shadow of the aircraft."

2. Intermediate / Hangar Level:

Maintenance actions that cannot be accomplished at the Organizational / Flight Line Level of maintenance will require removal of the system, or component, to a hangar workshop / bench.

Examples where removal is required are access restrictions due to cowling, or helicopter, interface, and alternate power or testing needs not available on the flight line etc.

(Note: For certain export controlled items (ITAR), intermediate, or depot-level repair, and maintenance information may be exported to a location outside the United States only under a Technical Assistance Agreement approved specifically for that purpose).

3. Depot Level / FAA - EASA Certified Repair Station:

Maintenance at the Depot Level consists of Line Replaceable Unit (LRU) / Weapons Replaceable Assembly (WRA) repair, or overhaul, to return the unit to a fully operational condition.

At this level, the units may be tested prior to disassembly, disassembled, inspected, repaired / overhauled, and reassembled. After completion of assembly, the unit is acceptance tested.

At the Depot Level a functional test rig, as well as some special fixtures may be required.

(Note: For certain export controlled items (ITAR), intermediate, or depot-level repair, and maintenance information may be exported to a location outside the United States only under a Technical Assistance Agreement approved specifically for that purpose).

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D. Breeze-Eastern Maintenance Services.

Breeze-Eastern has revised its available maintenance services as defined in the following information.

1. Scheduled Maintenance:

Breeze-Eastern's maintenance action at this level is to perform scheduled maintenance on a Hoist or Winch System, returned by operators who do not have the capability, or who do not want to attempt, to accomplish these maintenance actions on their own.

2. Repair / Unscheduled Maintenance:

Breeze-Eastern's maintenance action at this level is to go to the repair level necessary to return the Hoist or Winch System to service. It will include functional testing, as well as any Breeze-Eastern mandated improvements that are known to enhance the performance and / or safety of the assembly.

3. Overhaul:

Breeze-Eastern's maintenance action at this level is to bring the Hoist or Winch System to a zero time / zero cycles condition regarding its overhaul status (see Table 1). The unit is completely disassembled and the torque path / load critical parts are inspected to engineering design criteria. Consumable, wear parts, and mandated parts are replaced, or reworked, in accordance with customer instructions / contract. The unit is reassembled, and acceptance tested, prior to being returned to service.

Overhaul Interval:

NOTE: If operators consistently operate at excessive utilization rates, operate in adverse environmental conditions, etc. it is the *operator's responsibility* to increase the scope, and frequency of all Hoist, or Winch, maintenance actions to ensure safe operation of the equipment.

More frequent inspections can be made, but inspections cannot be accomplished less frequently.

Breeze-Eastern's Hoist / Winch Time Between Overhaul (TBO) period is either five (5) years, or two thousand (2,000) cycles from date of manufacture, whichever comes first, or ten (10) years two thousand (2,000) cycles from date of manufacture, whichever comes first. Refer to Table 1 for the applicable Hoist / Winch Time Between Overhaul (TBO) period.

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NOTE: A Hoist, or Winch, cycle is defined as reeling out the cable from full-in to full-out, and then reeling back to full-in.

Table 1. Breeze-Eastern's Hoist / Winch Time Between Overhaul (TBO) Period.

| Hoist / Winch PN | Cycles | Years | Note(s) |
|--|--------|-------|-------------|
| All Cargo Winches | 2000 | 10 | (1) |
| All BL-29900's | 2000 | 10 | (2) |
| BL-10300-16X Series | 2000 | 10 | (2) and (3) |
| BL-10300-59-4 | 2000 | 10 | (2) and (3) |
| BL-20200-400-2 | 2000 | 10 | (2) |
| BL-20200-41X Series and higher within the 41X, 42X, etc. Series of Rescue Hoists only. | 2000 | 10 | (2) and (3) |
| BL-27100 Series | 2000 | 10 | (2) and (3) |
| All others | 2000 | 5 | (3) |

If incorporated, a Hoist or Winch cycle is defined by the cycle counter. If a Hoist, or Winch, does not have a cycle counter, then tracking of the number of cycles is dependent on the operator's records / usage logs.

Note(s):

- (1) With the exception of those cargo winches used in hoisting operations (5 year TBO).
- (2) With a 10 year overhaul period, an oil change is recommended every 5 years.
- (3) If the part number is not listed in Table 1 then the TBO is 5 years or 2000 cycles.

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E. Breeze-Eastern Maintenance Contacts.

Operators are encouraged to coordinate all scheduled maintenance / repair / overhaul work with Breeze-Eastern, or authorized Breeze-Eastern Service Centers. Breeze-Eastern is a Federal Aviation Administration FAR Part 145 and EASA Part 145 approved Repair Station. Please contact Breeze-Eastern Customer Services below:

Breeze-Eastern
Attention: Customer Services
700 Liberty Avenue
Union, NJ 07083-8198 USA

Phone: Local calls use 908-206-3901, or 908-206-3891.

In the USA (except New Jersey) and Canada call toll free 1-800-929-1919.

Fax: 908-688-6495

E-Mail Address: customer.services@breeze-eastern.com

Web Site: www.breeze-eastern.com.