



**ONBOARD SYSTEMS
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SERVICE BULLETIN

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Model affected: Bell 206L/407, 206 A/B, Eurocopter AS350/355, MD 369, Robinson R-22/44, Schweizer 269C

Subject: Cargo Hook stress corrosion cracks.

Helicopters Affected: All aircraft with Onboard Systems part number 528-010-00 Cargo Hook, Serial Number 026-391 inclusive and all affected hooks in spares.

Compliance: Mandatory.

Description: Under certain combinations of conditions, the subject hooks can experience stress corrosion cracking at the attach lugs. The condition occurs when salt water migrates under the bushing flanges at the attach lugs. The chlorides in the salt water attack the intergranular structure of the aluminum where tensile stresses are present from the press fit of the bushing and cause cracks to form. The cracks will start at the bushed hole and propagate outward through the attach lug. One known incidence of this has occurred in the field. In that incidence the hook had been in service for 1.5 years on a MD500 in a salt water environment. A crack was visually observed in one of the attach lugs by the operator and removed from service. Subsequent investigation revealed exfoliation corrosion and corrosion cracking around the attach lugs with salt present in the cracks.

This bulletin requires a two step action:

1. Visual inspection to see if cracks or corrosion are present around the attach lugs. This must be accomplished before further hook use and daily prior to external load operations until item 2 is accomplished.
2. Replacement of the side plates with improved design at the next scheduled overhaul.

Approval: The engineering design aspects of this bulletin are FAA/DER approved.

Manpower: Approximately .1 man-hour will be required to perform the daily inspection. No a Man-hours are based on hands-on time and may vary with personnel and facilities available. If the hook is already disassembled for scheduled inspection or overhaul, the kit installation will take no additional time. No machining operations are required. Installation consists of removing and replacing parts.



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Required Material: The following material is required for accomplishment of this bulletin and may be obtained from Onboard Systems:

232-026-01 Frame Assy

Special Tools: none

Weight and Balance: Not affected

Electrical Load Data: Not affected

References: TBD

Accomplishment Instructions Part One

1. This instruction is to be accomplished daily prior to external load operations. It is not required when the helicopter is not used for external load operations.
2. Visually inspect around attach lugs for cracks and corrosion. If cracks or corrosion is detected the hook must be removed from service and the part 2 instructions must be accomplished prior to use.

Accomplishment Instructions Part Two:

1. This instruction is to be accomplished if cracks or corrosion are discovered in Part One or at the next scheduled overhaul, whichever comes first.
2. Prepare helicopter for maintenance and disconnect main battery.
3. Remove the P/N 528-010-00 hook from the suspension system. Refer to appropriate maintenance manual instructions.
4. Perform overhaul per manual instructions, except remove Part Number 232-026-00 Frame Assy and replace with P/N 232-026-01 Frame Assy. The P/N 232-026-00 Frame Assy consists of the side frames with all the bearings and bushings installed. The updated frame assy is made from a more corrosion resistant aluminum.
5. Complete overhaul procedure and ATP per maintenance manual instructions.
6. Stamp or clearly vibro-engrave the serial number plate with "SB1" after the part number to identify that the service bulletin has been complied with.
7. Reassemble hook onto suspension system and reinstall suspension onto aircraft per maintenance manual instructions. Check manual and electrical release rigging.
8. Make logbook entry.

