Bell Helicopter
A Textron Company

ALERT SERVICE BULLETIN **212-11-143**

PSL 7000000181

10 October 2011

Revision B, 5 October 2016

MODEL AFFECTED: **212**

SUBJECT: **EMERGENCY FLOTATION SYSTEM TUBE ASSY 412-073-820-101, REPLACEMENT OF.**

HELICOPTERS AFFECTED: **Serial number 30503 through 30603, 30611 through 30999, 31101 through 31311, 32101 through 32142, and 35001 through 35103 equipped with emergency float kits installed per Service Instruction BHT-212-SI-25**

[Tubes 412-073-820-101 or 212-706-042 flotation system kits shipped from a Bell Helicopter Supply Center after the release date of the bulletin Revision A, dated July 28, 2016 are not affected.]

COMPLIANCE: Within the next 300 flight hours or 90 days, whichever occurs first, after the date of issuance as indicated on this bulletin.

DESCRIPTION:

The original release of this Alert Service Bulletin (ASB) mandated a tube assembly 412-073-820-101 inspection and introduced clearer instructions to install the tube assembly. This was the result of an investigation following a tube failure during the emergency flotation system 2 year inflation test.

Since the initial release, Bell Helicopter recently found that a manufacturing defect of the subject tube may cause the flotation system to malfunction. Due to the fact that the defect is difficult to inspect, Revision A of this bulletin mandates the removal and replacement of all tube assemblies 412-073-820-101 presently in the field. Concurrently, with the release of this bulletin, all the inspection criteria introduced by the initial bulletin will be removed, revised, and incorporated into the applicable Service Instructions. In order to improve clarity, Revision B of this bulletin introduces a

better description of what tubes and flotation system kits are affected. Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

The engineering design aspects of this bulletin are FAA approved for FAA certified helicopters as listed in the applicable Type Certificate Data Sheet. For non FAA certified helicopters, the engineering design aspects of this bulletin are Bell Helicopter Engineering approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Medium Helicopters
Tel: 450-437-6201 / 1-800-363-8028 / psemedium@bh.com

MANPOWER:

Approximately 6.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

Owners/Operators of Bell helicopters who comply with the instructions in this bulletin will be eligible to receive a replacement tube, as applicable, listed in the bulletin. Bell Helicopter has recently introduced enhancements to the VISTA portal which allocates specific warranty entitlement for a helicopter by serial number. The Product Service Letter (PSL) number, which will be listed below the bulletin number on the introduction page, is going to be a required field when submitting a claim for replacement parts, labor, and/or freight. If you receive an ASB or TB that does not have a PSL number, then there is no warranty entitlement for that bulletin.

Labor entitlement: $380.00 USD

To receive parts, labor, under warranty:

- Comply with the instructions contained in this bulletin no later than the applicable date in the Compliance Section.
- If there is a PSL number identified in the bulletin, you will be required to enter this PSL number which will validate warranty entitlement for the selected helicopter. Please make sure that you use the Bulletin tab on the warranty section in VISTA to file your claim.

NOTE: Customers who fail to comply with the instructions in this bulletin before the compliance date will not be eligible for the special warranty listed above.

MATERIAL:

Required Material:
The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty
412-073-820-101	Tube Assembly	1

Consumable Material:
The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty (Note)	Reference *
2400-10529-00	Anti-seize compound	A/R	C-440

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-212-MM, Maintenance Manual
BHT-212-SI-25, Emergency Floats

PUBLICATIONS AFFECTED:

BHT-212-SI-25, Emergency Floats

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.

a. Make sure the external electrical power is removed from the helicopter.

b. Disconnect the helicopter battery.

WARNING

The float cylinder is under high pressure. Precautionary measures must be taken to avoid accidental discharge of the float cylinder.

c. Using safety kit P/N 28023168, or acceptable alternate, prepare the valve assembly on the float cylinder for maintenance by installing the safety pin through the cap and the piston pin hole. Make sure the Faraday cap or shorting spring is installed on the squib (Figure 1). Note that, for this application, the non-thrusting safety plug shown in Figure 1 is not required.

2. Gain access to the tube 412-073-820-101. Removal of the left chin bubble is recommended. Refer to the maintenance manual for removal and installation instructions.

3. Remove and discard the tube assembly 412-073-820-101 from the helicopter.

-NOTE-

It may be required to loosen the float bottle retention clamps in order to rotate the bottle to achieve proper alignment when installing the new tube 412-073-820-101. Make sure the float bottle is secured in accordance with the applicable Service Instruction after adjustments have been made.

4. Install the new tube assembly 412-073-820-101 in accordance with the applicable Service Instruction and in conjunction with the following:

   a. Lubricate the shoulder of the sleeves, threads, and seat of the mating fittings with anti-seize compound (C-440) (Figure 2).

   b. Acceptable axial and angular alignment is achieved when the tube end can be brought adjacent to the mating fitting and the nut can be fully engaged by hand without preloading the tube.

c. Tighten the nut at both ends by hand until a sharp rise in friction is noted. From this point, with a wrench, tighten each nut an additional 1/6 to 1/3 turn (1 to 2 flats). This will meet the final recommended torque and will set the final crimp of the sleeves on the tube.

5. Remove the safety kit from the float cylinder valve assembly.

6. Connect the battery.

7. Make an entry in the helicopter logbook and historical service records indicating compliance with this Alert Service Bulletin.

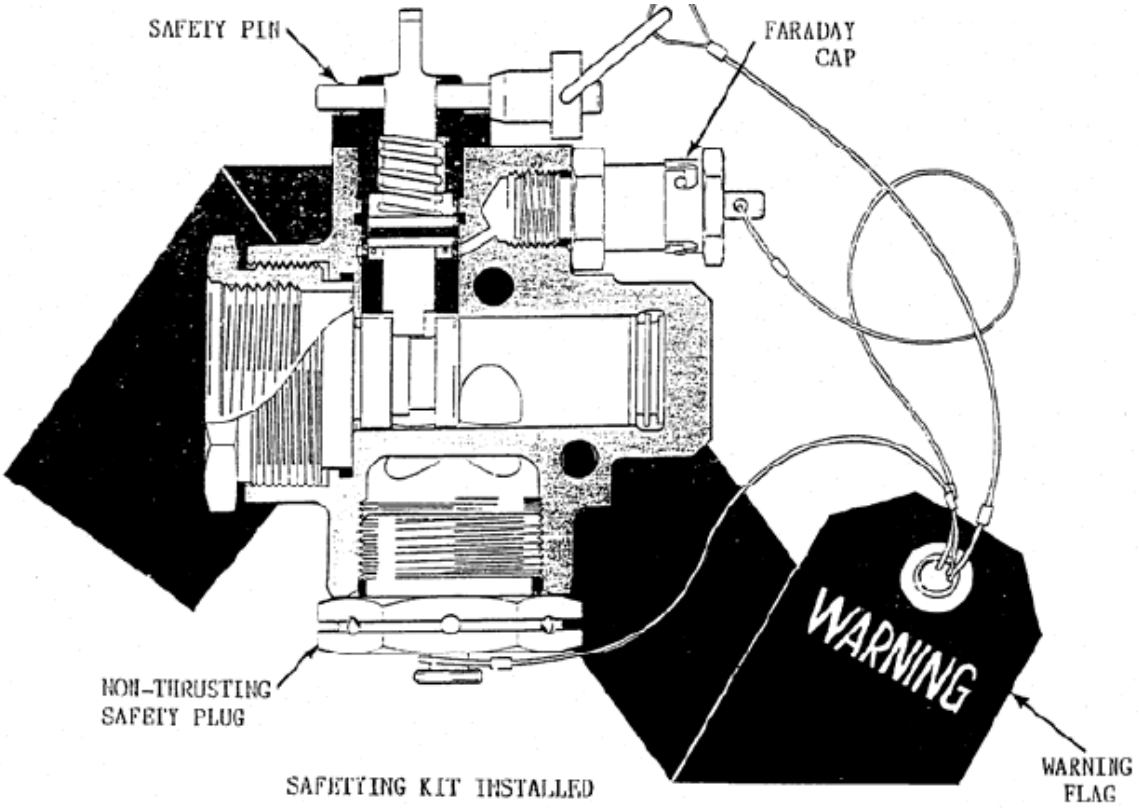

Figure 1 - Safety Kit

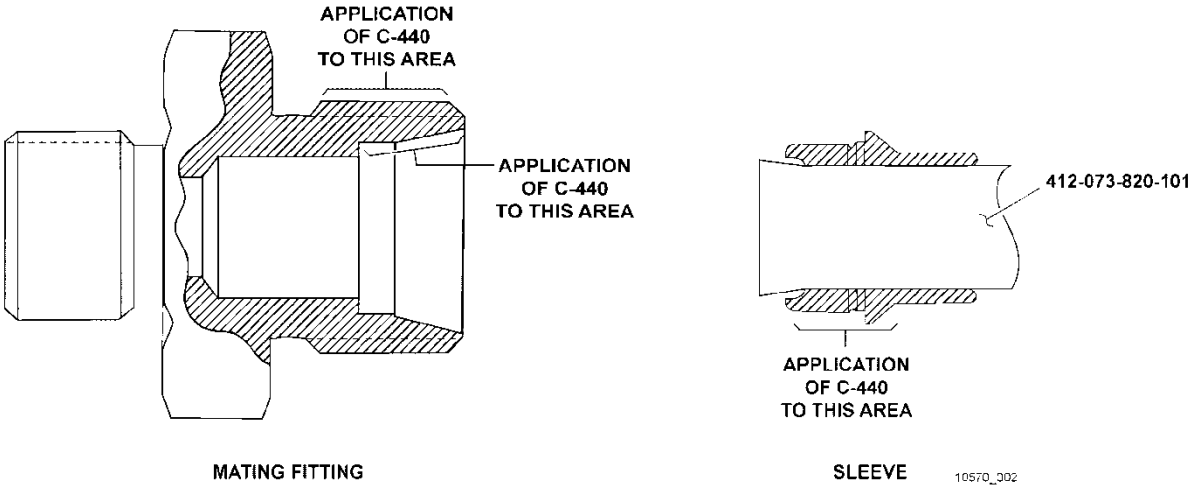

Figure 2 - Application of Anti-seize Compound (C-440)