



A Textron Company

## **ALERT SERVICE BULLETIN**

**407-21-124**

**PSL 791**

1 February 2022

**MODEL AFFECTED:** 407

**SUBJECT:** FUEL SYSTEM STANDPIPE ASSEMBLY 407-062-032-103, ONE-TIME INSPECTION AND REWORK OF.

**HELICOPTERS AFFECTED:** Serial numbers 54832 through 54931, 54933 through 54939, and 54942 through 54954.

[Serial numbers 54932, 54940, 54941, and 54955 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

**COMPLIANCE:** Within the next 300 flight hours or 6 months, whichever occurs first following the release date of this bulletin.

### **DESCRIPTION:**

Bell has been made aware of a quality escape from our current supplier of the fuel system standpipe assembly 407-062-032-103. Some standpipes may have been delivered with sharp edges at the internal weld joints (Figure 1). If not corrected, this could lead to fuel quantity system wiring damage and loss of, or erratic, fuel quantity indication.

This bulletin provides instructions for a one-time inspection of the internal welds of the fuel system standpipe, and if sharp edges exist, rework procedures are included to correct the condition. Standpipe assemblies shipped from a Bell Supply Center after the release date of the bulletin are not 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 Transport Canada Civil Aviation (TCCA) approved.

ASB 407-21-124

Page 1 of 6

Approved for public release.

## CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering  
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

## MANPOWER:

Approximately 10 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 non prorated replacement part as applicable, listed in the **MATERIAL** section of the bulletin. The [www.mybell.com](http://www.mybell.com) portal allocates specific warranty entitlement for an aircraft by serial number. The Product Service Letter (PSL) number which will be listed below the bulletin number on the introduction page will be a required field when submitting a claim on the BULLETINS tab 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.

Part entitlement: Fuel quantity harness assembly 407-079-112-101A (only if damaged and deemed unserviceable).

- This will be evaluated on a case-by-case basis (with photos documenting damage).

Labor entitlement: \$950.00

To receive parts and 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 it will be required to enter this PSL number which will validate warranty entitlement for the selected helicopter. Please ensure to use the BULLETINS tab when filling the claim.
- If a replacement fuel harness assembly is not required, exclude it from the claim order.

## NOTES:

- Customers who fail to comply with the instructions in this bulletin before **1 August 2022** will not be eligible for the special warranty listed above.
- A user guide on how to submit a claim can be found here: [How to Submit PSL Bulletin Claims](#).

## MATERIAL:

### Required Material:

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

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
407-062-032-103	Standpipe Assembly	1 (1)
407-079-112-101A	Fuel Quantity Harness Assembly	1 (2, 3)

### NOTES:

1. Only required if owner/operator does not have the capability to perform rework of defective parts. A replacement standpipe will **not** be covered under Warranty, only the man-hour labor to rework non-conforming parts is covered under Warranty.
2. Only required if damage is found following inspection of the fuel quantity harness assembly and determined to be unserviceable.
3. The 407-079-112-101A is a synthetic part that differs from the 407-079-112-101 (9, BHT-407-IPB, Figure 95-24A). The difference is that the harness will include the insulated heat shrink tubing over the harness wires that are called to be installed as part of the electrical installation (407-075-210). This synthetic part is being provided for ease of performing the ACCOMPLISHMENT INSTRUCTIONS of this bulletin, but once installed to the helicopter will be equivalent to the 407-079-112-101.

### 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 Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>	<u>Reference *</u>
2100-00345-00	Chemical Film Material	1 QT (1)	C-100
2100-06673-00	Isopropyl Alcohol	1 GAL (1)	C-385
Commercial	Low Lint Cleaning Cloth	A/R	C-516
N/A	Aluminum Oxide Abrasive Cloth or Paper (320 Grit or finer)	1 Sheet (1)	Commercial

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

**NOTE 1:** Quantity indicated is the format that the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less.

### SPECIAL TOOLS:

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

407-MM, Maintenance Manual, Chapter 28.  
BHT-407-IPB, Illustrated Parts Breakdown, Chapter 95.  
BHT-ALL-SPM, Standard Practice Manual, Chapter 3.

**PUBLICATIONS AFFECTED:**

None affected.

**ACCOMPLISHMENT INSTRUCTIONS:**

1. Prepare the helicopter for maintenance.
2. Using the Fuel Cell Interconnect Removal procedures ([DMC-407-A-28-20-00-15A-520A-A](#)) remove components and wiring to the extent required to remove the fuel system standpipe (17, Figure 2 of [DMC-407-A-28-20-00-15A-520A-A](#)) from the aft fuel cell.
3. Inspect interior of fuel system standpipe for evidence of sharp edges of the two internal weld joints (Figure 1).
  - a. If no sharp edges are present, go to step 4.
  - b. If sharp edges are present, lightly deburr edges of weld joints using aluminum oxide abrasive cloth or paper (commercial) (Figure 2). Make sure not to exceed 0.015 inch (0.38 mm) depth into the tube material at a 45 degree angle to the weld joints.
  - c. Using a clean cloth (C-516) dampened with isopropyl alcohol (C-385), remove all sanding residue.
  - d. Touch up bare metal surfaces with chemical film material (C-100) (BHT-ALL-SPM, Chapter 3, and Paragraph 3-16). Go to step 4.
4. Fully remove fuel quantity harness assembly ([DMC-407-A-28-40-00-10A-520A-A](#)).
5. Inspect fuel quantity harness assembly ([DMC-407-A-28-40-00-10A-280A-A](#)).
  - a. If there is no damage go to step 6.

b. If damage is noted, submit photos of the damage and location of the damage to Product Support Engineering (PSE) at [productsupport@bellflight.com](mailto:productsupport@bellflight.com) for review and disposition.

(1) If the disposition of the fuel quantity harness assembly is that it is serviceable go to step 6. Exclude the fuel quantity harness assembly from the PSL Bulletin Warranty Claim.

(2) If the disposition is that the fuel quantity harness assembly is unserviceable, submit the PSL Bulletin Warranty Claim to include the fuel quantity harness assembly.

(a) Discard damaged fuel quantity harness assembly and install serviceable fuel quantity harness assembly in step 6.

-NOTE-

In step 6, for verification of any fuel leaks, do not add more fuel than the minimum quantity of fuel that is required to perform the Fuel Quantity Gauging System Calibration Procedure ([DMC-407-A-95-65-10-01A-273A-A](#)) in step 8.

6. Using the Fuel Cell Interconnect Installation Procedures ([DMC-407-A-28-20-00-15A-720A-A](#)) install all removed components and wiring removed in steps 2 and 4.

7. Perform a verification of the Fuel Signal Conditioner Quantity Circuits Built-In-Test ([DMC-407-A-95-65-10-03A-130B-A](#)). Make sure all LEDs identified in Table 1 are ON. If not, perform troubleshooting to rectify condition.

-NOTE-

Step 8 is only required to be performed if the fuel quantity harness assembly was required to be replaced in step 5.

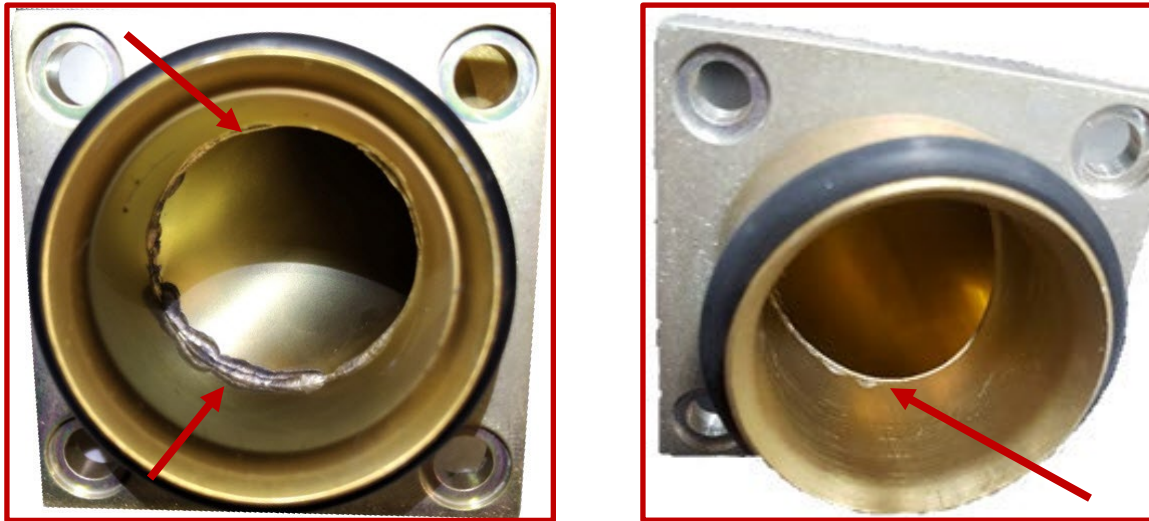
-NOTE-

In step 8, when required to fill fuel cells until full, perform additional fuel leak check at the fuel cell interconnect, the fuel transfer pump assembly, and the fuel boost pump.

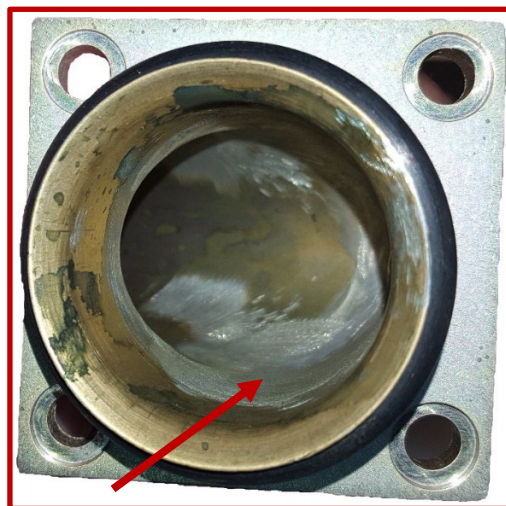
8. Perform the Fuel Quantity Gauging System Calibration Procedure ([DMC-407-A-95-65-10-01A-273A-A](#)).

9. Perform Fuel System Operational Check ([DMC-407-A-28-00-00-00A-320A-A](#)).

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



**Figure 1 – Examples of Non-Conforming Internal Welds Joints**



**Figure 2 – Example of Internal Weld Joint After Deburring**