

TECHNICAL BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

No. 407-03-50

Date 11-25-03

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DATE
REV

MODEL AFFECTED: 407

SUBJECT: FUEL TUBE ASSEMBLY P/N 407-062-045-101,
INTRODUCTION OF.

HELICOPTERS AFFECTED: Model 407 helicopters serial number 53000
through 53579.

[Model 407 helicopters serial number 53580 and
subsequent will have the intent of this bulletin
accomplished prior to delivery]

COMPLIANCE: At Customer's Option.

DESCRIPTION:

Bell Helicopter has been made aware of a chaffing problem between clamping assemblies and wiring following the accomplishment of the **ASB 407-01-42 (AFT FUEL CELL INSPECTION OF AND AFT FUEL CELL STANDPIPE REPLACEMENT OF)**. This bulletin is to introduce a new tube assembly to rectify this chaffing problem as well as to provide the instructions on how to modify the old tube assembly to the new configuration.

Part I of this bulletin will provide the instructions on how to remove the old tube assembly P/N 407-062-034-101 and replace it with the new tube assembly P/N 407-062-045-101.

Part II of this bulletin will provide the instructions how to modify the old tube assembly P/N 407-062-034-101 into a tube assembly P/N 407-062-045-101 and replace it.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada approved.

MANPOWER:

Approximately 3.0 man-hours are required to complete either Part I or Part II of this bulletin. If this bulletin is accomplished in conjunction with the 12 or 24-month inspections of the fuel system, there are no additional man-hour requirements.

MATERIALS:

Required Material:

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

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
407-062-045-101	Tube Assembly	1
MS29513-270 *	Packing	1

* Required to complete both Part I and II of this bulletin.

Consumable Material:

The following material is required to accomplish Part II of this bulletin, however this material is considered consumable (bench stock) material and may not require ordering depending on the operators consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
MIL-C-81706 1 QT	Chemical Film Material (Alodine 1200 or 1201)	As required.	C-100
#1FLUID4OZ ULTRACHEM	Ultrachem Assy. Fluid #1	As required.	C-024

- NOTE -

The "C" REF. NO. above is a cross-reference found in the Standard Practices Manual (BHT-ALL-SPM).

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-407-MM Maintenance Manual
Chapter 12 - Servicing
Chapter 28 – Fuel
Chapter 96 – Electrical

BHT-ALL-SPM
Chapter 3 – Corrosion Control and Protective Coverings/Coatings
Chapter 13 – Consumable Materials

PUBLICATIONS AFFECTED:

BHT-407-IPC Illustrated Parts Breakdown
Chapter 28 - Fuel

ACCOMPLISHMENT INSTRUCTIONS:

PART I – Fuel Tube Assembly Replacement.

1. Disconnect battery (BHT-407-MM, Chapter 96).

- NOTE -

Prior to de-fueling the helicopter, ensure you understand and follow the General Servicing Instructions and CAUTION and WARNING statements in the Fuel System Servicing section of Chapter 12 of the 407 Maintenance Manual.

2. De-fuel the helicopter (BHT-407-MM, Chapter 12).
3. Remove fuel boost pump assembly from aft fuel cell (BHT-407-MM, Chapter 28 and 96). Use tool M81714/69-01 to disconnect electrical connectors 1J10 / 1P10 and 1J11 / 1P11. Refer to Figure 1.
4. Disconnect fuel feed line P/N 70-061V000V444A from the fuel boost pump assembly.
5. Remove clamping that is retaining the fuel tube assembly 407-062-034-101.

- NOTE -

Keep the removed hardware for re-installation in the steps to follow.

6. Remove fuel tube assembly P/N 407-062-034-101.

7. Install fuel tube assembly P/N 407-062-045-101.
8. Install clamping assembly removed in step 5.
9. Apply Ultrachem Assembly Fluid #1 (C-024) to new packing MS29513-270 and install on fuel boost pump assembly.
10. Connect fuel feed line P/N 70-061V000V444A to the fuel boost pump assembly.
11. Install fuel boost pump assembly to the aft fuel cell (BHT-407-MM, Chapter 28).
12. Perform Fuel System Operational Check (BHT-407-MM, Chapter 28).
13. Connect battery (BHT-407-MM, Chapter 96)
14. Make an entry in the helicopter log book to show that this Technical Bulletin has been completed.

PART II – Modification of Fuel Tube Assembly 407-062-034-101 into 407-062-045-101

1. Disconnect battery (BHT-407-MM, Chapter 96).

- NOTE -

Prior to de-fueling the helicopter, ensure you understand and follow the General Servicing Instructions and CAUTION and WARNING statements in the Fuel System Servicing section of Chapter 12 of the 407 Maintenance Manual.

2. De-fuel the helicopter (BHT-407-MM, Chapter 12).
3. Remove fuel boost pump assembly from aft fuel cell (BHT-407-MM, Chapter 28 and 96). Use tool M81714/69-01 to disconnect electrical connectors 1J10 / 1P10 and 1J11 / 1P11. Refer to Figure 1.
4. Disconnect fuel feed line P/N 70-061V000V444A from the fuel boost pump assembly.
5. Remove clamping that is retaining the fuel tube assembly 407-062-034-101.

- NOTE -

Keep the removed hardware for re-installation in the steps to follow.

6. Remove fuel tube assembly P/N 407-062-034-101.
7. Cut 1.0 inch off the end (opposite end to the B-nut) of the fuel tube assembly 407-062-034-101, using an appropriate hacksaw and blade (or equivalent).
8. Deburr the cut end and treat exposed metal with Chemical Film Material (C-100) as per instructions in BHT-ALL-SPM, Chapter 3.
9. Re-identify fuel tube assembly with a permanent ink marker (or equivalent) as 407-062-045-101.

- NOTE -

Ensure that prior to installing the modified tube assembly 407-062-045-101 that the Chemical Film Material (C-100) is dry and adhered correctly as well as the permanent ink markings.

10. Install modified fuel tube assembly P/N 407-062-045-101.
11. Install clamping assembly removed in step 5.
12. Apply Ultrachem Assembly Fluid #1 (C-024) to new packing MS29513-270 and install on aft fuel boost pump assembly.
13. Connect fuel feed line P/N 70-061V000V444A to the fuel boost pump assembly.
14. Install fuel boost pump assembly to the aft fuel cell (BHT-407-MM, Chapter 28).
15. Connect battery (BHT-407-MM, Chapter 96).
16. Perform Fuel System Operational Check (BHT-407-MM, Chapter 28).
17. Make an entry in the helicopter log book to show that this Technical Bulletin has been completed.

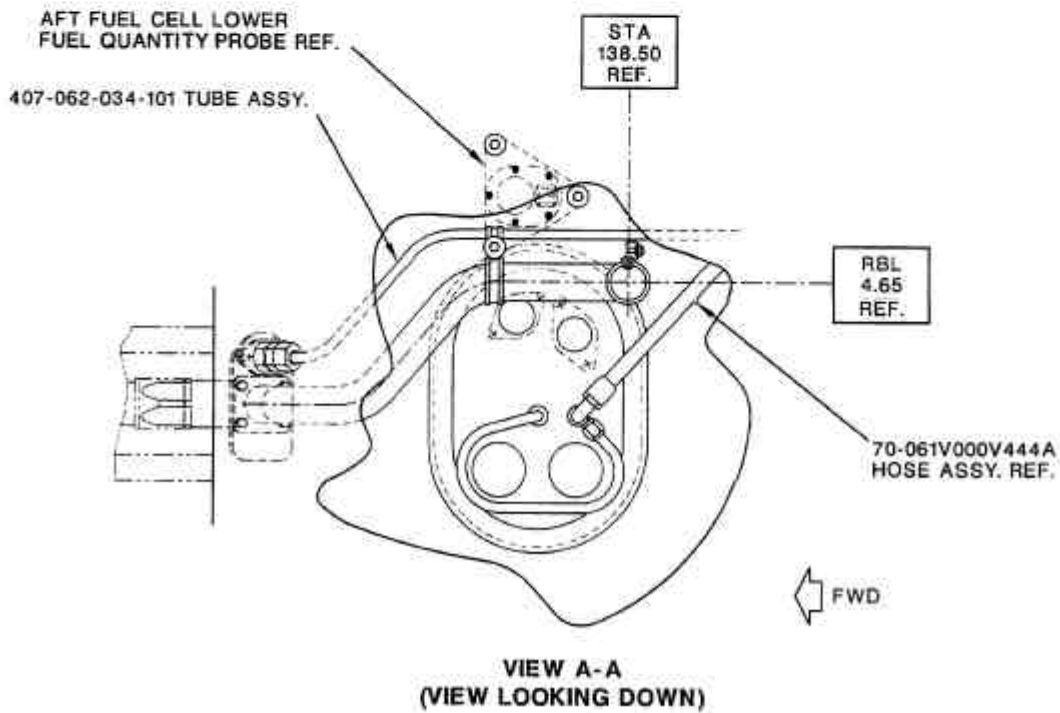
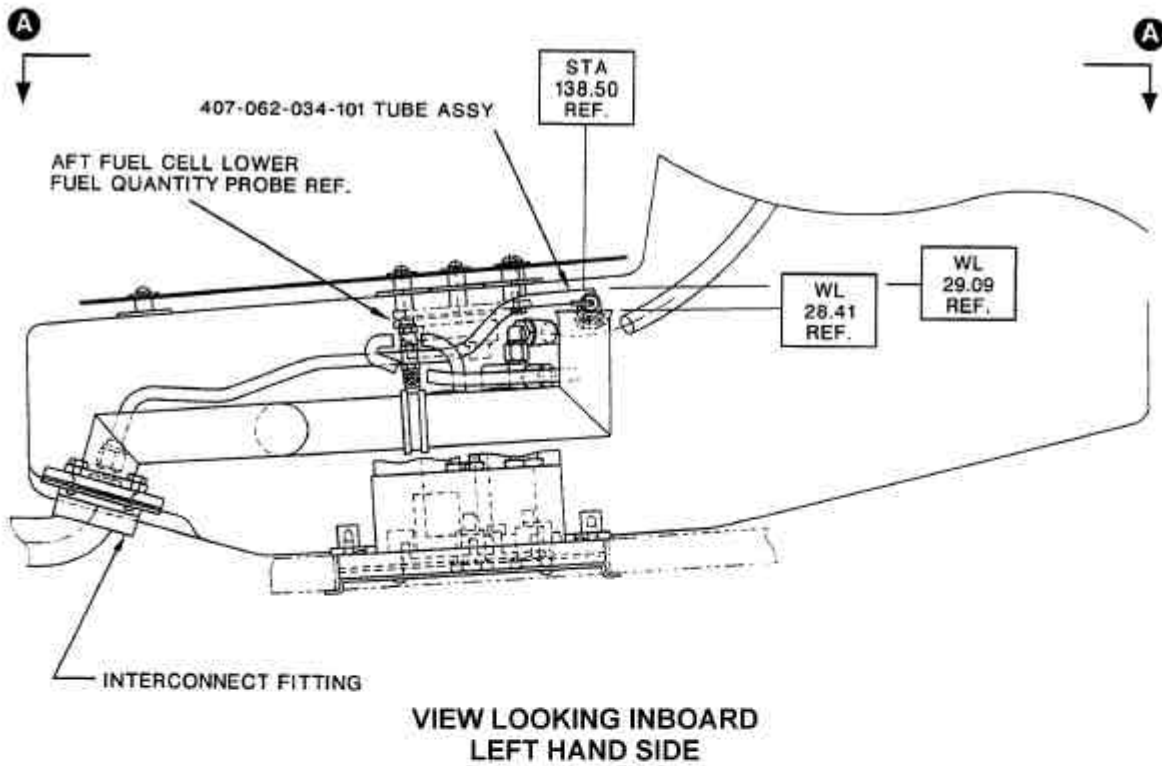


Figure 1 – Aft Fuel Cell Area