

TECHNICAL BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

No. 407-03-40

Date March 18, 2003

Page No 1 of 8

DATE
REV

MODEL AFFECTED: 407

SUBJECT: SPARE TAILBOOM ASSEMBLY P/N: 407-030-801-201, /-203, ADDITION OF MISSING SPACER P/N 407-023-800-137

HELICOPTERS AFFECTED: Model 407 helicopters serial number 53000 through 53554, which had the original tailboom replaced by a spare taiboom assembly P/N 407-030-801-201 or 407-030-801-203.

Tailboom assembly 407-030-801-201 with serial number BP1403,

-or-

Tailboom assembly 407-30-801-203 with one of the following serial number: BP1399, BP1400, BP1407, BP1408, BP1409, BP1410, BP1413, BP1419, BP1421, BP1422, BP1423, BP1425, BP1426, BP1427, BP1428, BP1429, BP1436, BP1437, BP1442, BP1444, BP1446, BP1453, BP1456, BP1457, BP1494, BP1495, BP1496, BP1498, BP1499, BP1500, BP1505, BP1506, BP1509, BP1510, BP1511, BP1512, BP1513, BP1514, BP1515, BP1516, BP1518, BP1519, BP1520, BP1521 and serial number 53531.

[Model 407 helicopters serial number 53000 and subsequent, which had the original tailboom, installed at the factory are not affected by this bulletin].

COMPLIANCE: Recommended at the next 300 hours scheduled inspection, or when the upper L/H horizontal stabilizer support screws are removed.

DESCRIPTION:

BHT was informed that spacers P/N: 407-023-800-137 were not supplied along with spare 407 tailbooms P/N: 407-030-801-201 and -203 when delivered from spares.

This bulletin gives instructions for the installation of the spacer P/N 407-023-800-137 for tailbooms listed in the helicopters affected block.

The spacer is to provide additional thickness to the left hand horizontal stabilizer support, at the flange that mates with the horizontal stabilizer. It also helps to prevent the screws from bottoming out into attachment inserts while maintaining commonality of screws and to ensure proper clamp up of the horizontal stabilizer.

PART I of this bulletin gives instructions to determine if your tailboom assembly matches one of the tailbooms listed in the [helicopters affected] block

PART II of this bulletin gives instructions to install the missing spacer P/N: 407-023-800-137 on to the affected tailbooms.

APPROVAL:

The engineering design aspects of this Technical Bulletin are Transport Canada approved.

MANPOWER:

Approximately 1.0 man-hour is required to complete this bulletin. Man-hour is based on hands-on time, and may vary with personnel and facilities available.

MATERIALS:

Required Material:

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

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
407-023-800-137	Spacer	1

Consumable Material:

The following material is required to accomplish 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>Reference</u>
MIL-PRF-81733	Sealant	C-392 (Note 1)
Acetone	Acetone (per Q-A-51)	C-316 (Note2)
MIL-P-85582, TY1, CL2	Primer	C-204 (Note 3)
MIL-C-81706	Chem Film	C-100

Note:

1. Formerly MIL-S-81733
2. As an alternative, use Methyl Ethyl Ketone (C-309)
3. As an alternative, use MIL-P-23377

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Negligible.

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-407-MM-5, Maintenance Manual
Chapter 53, Fuselage

BHT-ALL-SPM, Reissue, 20 August 1999

PUBLICATIONS AFFECTED:

BHT-407-MM-5, Maintenance Manual
Chapter 53, Fuselage

BHT-407-IPB, Rev. 01, 09 February 2000
Chapter 53, Fuselage

ACCOMPLISHMENT INSTRUCTIONS:

PART I: Identification of affected tailboom assemblies.

1. Refer to BHT-407-MM-5 Chapter 53. Remove the two driveshaft covers from the tailboom assembly.
2. Verify the tailboom assembly part number and serial number engraved on the original BHT identification plate located on upper tailboom skin, at approximately B.S. 130.00:
 - a. If the tailboom assembly part number and serial number do not match the numbers listed in the [HELICOPTERS AFFECTED] block, this bulletin is complete. Refer to BHT-407-MM-5 Chapter 53. Install the two driveshaft covers. Make an entry in the helicopter Historical Records (HR) to show that this bulletin is completed.
 - b. If the tailboom assembly part number and serial number match the numbers listed in [HELICOPTERS AFFECTED] block, continue with Part II.

PART II: Installation of spacer P/N 407-023-800-137


1. Refer to Figure 1, Detail B. Remove screws (1) and washers (2) (qty. 8 each) and aft screw, nut and washer (6,7 and 2) from the upper left stabilizer support (3) and the stabilizer (4) and examine for condition. Replaced damaged hardware as required.

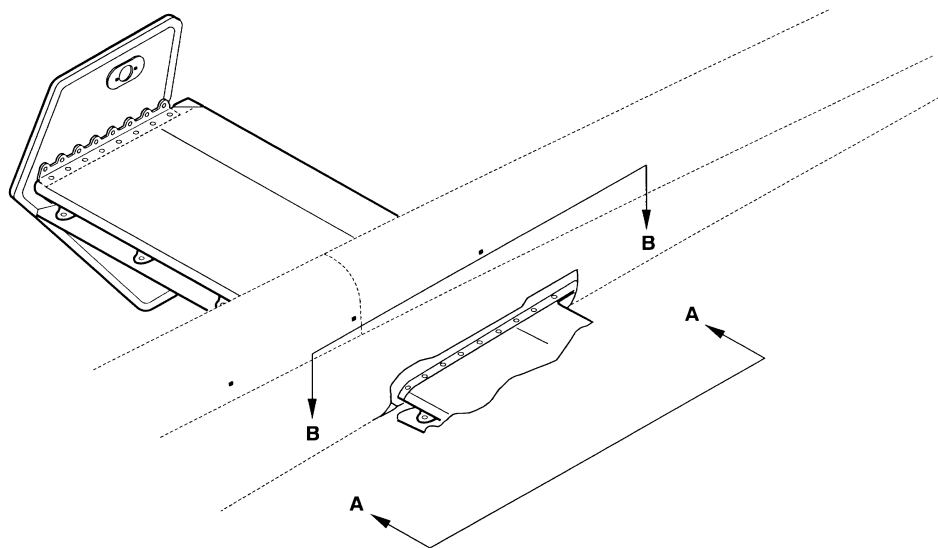
-NOTE-

It is not necessary to remove paint on the upper surface of the stabilizer support (3).

CAUTION

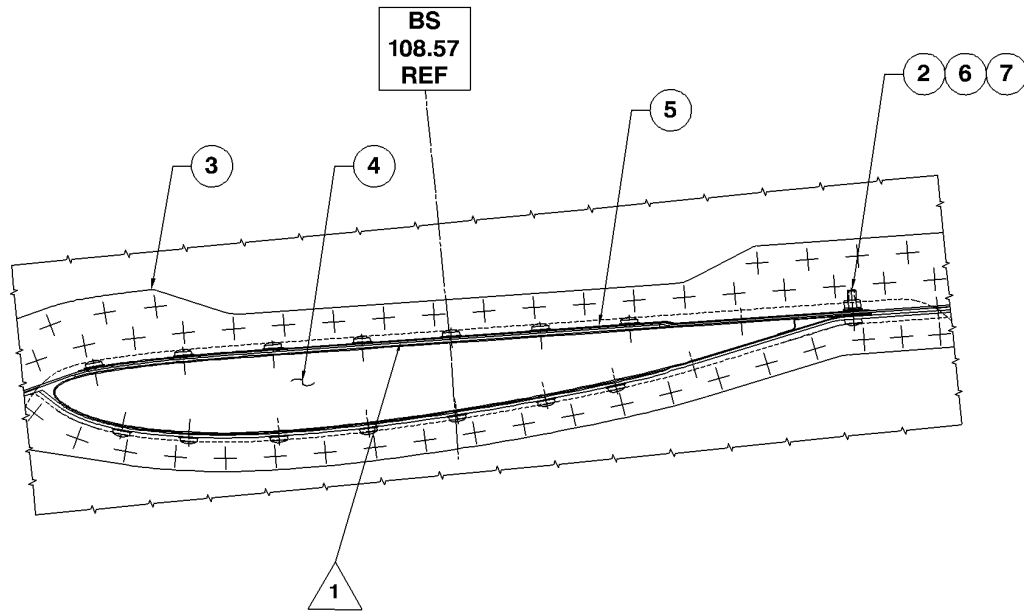
DO NOT SOAK PARTS WITH CLEANER (M.E.K., ACETONE, ETC.). DO NOT EXPOSE BARE METAL.

2. Use a cloth moistened with Acetone (C-316) and clean the upper surface of the stabilizer support (3).
3. Put the spacer (5) in position on the upper surface of the stabilizer support as shown in Figure 1, Detail B. Hold this position while you mark with a fine tip felt pen, the center of 9 holes that will be in line with the center of each insert in the stabilizer (4).
4. Remove the spacer (5).
5. Use a #40 drill (0.098 inch (2.49 mm) diameter) to pilot drill the centerline of each of the marks made earlier on the spacer (5)
6. Increase (qty 9) holes to final size (0.218/0.224 inch (5.537/5.689mm) diameter), in the spacer (5). Deburr all holes.
7. Finish all bare metal surfaces using Chem Film (C-100) and primer (C-204)
8. Coat the faying surface of the spacer (5) that will mate with the upper surface of stabilizer support (3) with a thin layer of sealant (C-392). Install spacer using screws (1) and washers (2) (qty. 8 each) and aft screw, nut and washer (6,7 and 2).
9. Tighten  the screws (1) and nut (7) attaching the stabilizer (4) to support (3).
10. Ensure that no void exists in sealant squeeze-out and allow to cure.
11. Refinish paint as required.
12. Make an entry in the helicopter Historical Records (HR) to show that this bulletin is completed.



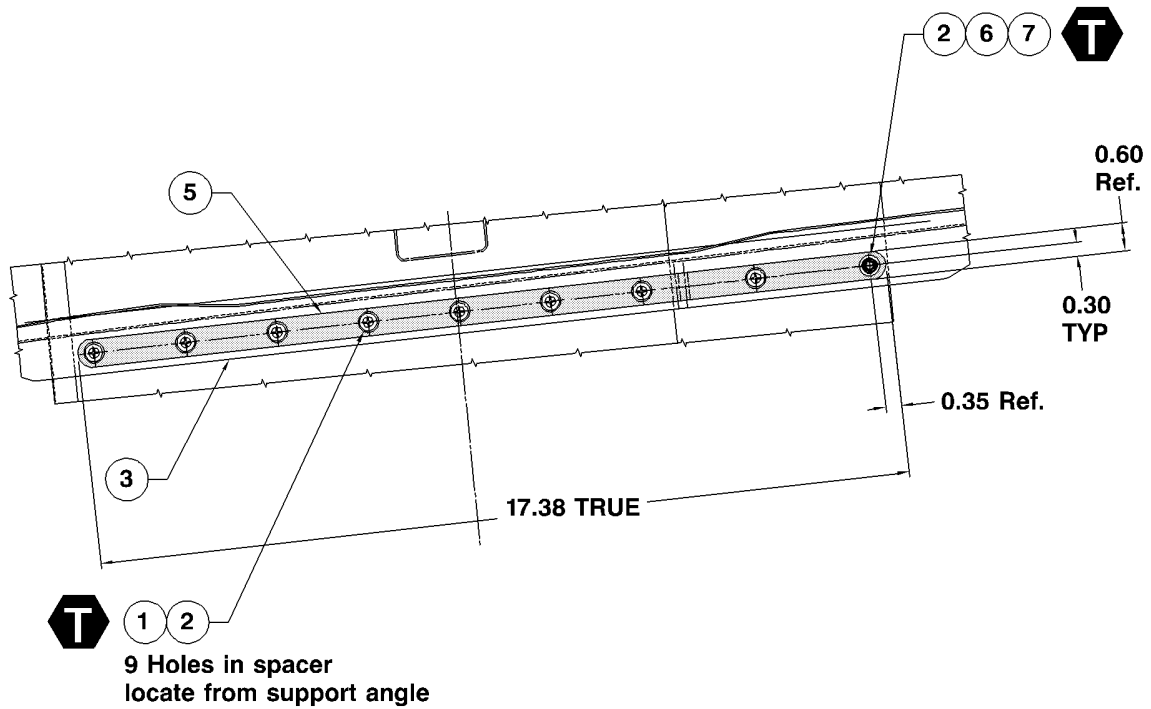
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Figure 1. Installation of spacer P/N 407-023-800-137 (sheet 1 of 3).



DETAIL A

Figure 1. Installation of spacer P/N 407-023-800-137 (sheet 2).



DETAIL B

LEGEND

- 1. Upper stabilizer screw (MS27039-1-05) (Qty 8)
- 2. Washer NAS1149D0316K (Qty 9)
- 3. Stabilizer support (Ref)
- 4. Horizontal stabilizer (Ref)
- 5. Spacer 407-023-800-137
- 6. Aft screw (MS27039-1-10) (Qty 1)
- 7. Nut (MS21042L3) (Qty 1)

S SEALANT (C-392) MIL-PRF-81733

T TORQUE TO 20 TO 25 IN-LBS (2.3 TO 2.8 Nm)

NOTE:

1 Coat the faying surface of the spacer with sealant MIL-PRF-81733 (C-392).

Figure 1. Installation of spacer P/N 407-023-800-137 (sheet 3).