



A Textron Company

TECHNICAL BULLETIN

206-13-204

26 April 2013

Revision A, 14 October 2014

**MODEL AFFECTED:** 206A/B and TH-67 Series

**SUBJECT:** ENGINE LEGS INSTALLATION IMPROVEMENT

**HELICOPTERS AFFECTED:** 206A/B serial numbers 4 through 4690.  
TH-67 serial numbers 5101 through 5313.

**COMPLIANCE:** Recommended at next engine removal.

**DESCRIPTION:**

This bulletin is issued to notify operators of the most recent engine legs installation procedure on Model 206A/B and TH-67 helicopters. Complying with this bulletin provides optimal correlation between the engine and the structure, along with a dual locking device. This installation update clarifies torque application and will standardize the helicopter fleet. The recently revised BHT-206A/B-SERIES-IPB Figure 71-13 (Rev 8, dated April 19, 2013) reflects the information contained in this bulletin. Revision A changes the CAUTION note applicable to the inspection of the engine mount holes on the airframe and clarifies the washers to be used under the head of the bolts NAS144A.

**APPROVAL:**

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

**CONTACT INFO:**

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Light Helicopters

Tel: 450-437-2862 / 1-800-363-8023 / [pselight@bh.com](mailto:pselight@bh.com)

**MANPOWER:**

One man-hour is required to complete this bulletin if performed during engine removal. This estimate is based on hands-on time, and may vary with personnel and facilities available.

**WARRANTY:**

There is no warranty credit applicable for parts or labor associated with this bulletin.

**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.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Notes</u>
NAS6604DXX	Bolt	A/R	1
NAS144A-XX	Bolt	A/R	1
NAS1149F0432P	Washer	A/R	1
NAS1149F0463P	Washer	A/R	1
MS14144L4	Nut	A/R	
MS20002C4	Washer	A/R	2

**Notes:**

1. Length of bolts and quantity of washers to be determined at installation.
2. Chamfered washer to be used under head of bolt NAS144A-XX

**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.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Reference *</u>
MIL-C-16173 GR2	CPC	A/R	C-104

**Note:** Use C-172 or C-561 as alternates.

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

**SPECIAL TOOLS:**

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

BHT-206A/B-SERIES-IPB, Illustrated Parts Breakdown  
BHT-206A/B-SERIES-MM, Maintenance Manual

**PUBLICATIONS AFFECTED:**

BHT-206A/B-SERIES-MM, Maintenance Manual

**ACCOMPLISHMENT INSTRUCTIONS:****CAUTION**

Engine leg shims are of varying thickness. They are specific by helicopter serial number and location. For any shim that is removed, mark the location. If the shims are damaged and you cannot determine the dimensions, contact Product Support Engineering to obtain a copy of the production shim record for your helicopter (or retrieve it from the helicopter records). The production shim record will be accurate as long as the helicopter has not had any structural damage, repairs, or alterations that required re-shimming. Bond loose shims to the structure using adhesive (C-317).

1. At next engine removal, completely remove 206-061-101/206-062-101-XXX, 206-061-102/206-062-102-XXX, and 206-061-103/206-062-103-XXX leg assemblies from the helicopter.
2. Discard existing hardware, unless bolts NAS6604DXX and/or NAS144A-XX were already used and determined to be in serviceable condition. A new nut shall be used at each installation.

**CAUTION**

Airframe structural holes (Qty 6) shall be inspected for condition prior to reinstalling the engine legs. No cracks are permitted. Product Support Engineering shall be contacted if a crack is found or if other damage exists.

-NOTE-

For steps 3, 4, and 5, NAS1149F0432P and/or NAS1149F0463P washers shall be used under the applicable nut at reinstallation to ensure proper thread engagement and that no threads are in contact with the engine leg or mount. One washer under the head is required. A combination of one, two, or three washers under the nut is permitted. The shank of the bolts shall receive a light coat of corrosion preventive compound (C-104) (or equivalent) for corrosion protection.

3. Reinstall 206-061-103/206-062-103-XXX engine legs using NAS6604DXX bolts (head pointing OUTBOARD), NAS1149F0432P or NAS1149F0463P washers (see above mentioned note), 206-061-105-003 shims and MS14144L4 nut (Figure 1). Do not torque the nuts at this stage.

NAS6604D4: Use with shim .000 to .052 inch (0.00 to 1.32 mm)  
NAS6604D5: Use with shim .053 to .115 inch (1.34 to 2.92 mm)  
NAS6604D6: Use with shim .116 to .177 inch (2.94 to 4.49 mm)  
NAS6604D7: Use with shim .178 to .190 inch (4.52 to 4.82 mm)

4. Reinstall 206-061-101/206-062-101-XXX engine legs using chamfered washers MS20002C4 under head of NAS144A-XX bolts (head DOWN), NAS1149F0432P or NAS1149F0463P washers (see above mentioned note), 206-061-105-001 shims and MS14144L4 nut (Figure 1). Do not torque the nuts at this stage.

NAS144A-13: Use with shim .000 to .059 inch (0.00 to 1.50 mm)  
NAS144A-14: Use with shim .060 to .120 inch (1.52 to 3.05 mm)  
NAS144A-15: Use with shim .121 to .182 inch (3.07 to 4.62 mm)  
NAS144A-16: Use with shim .183 to .190 inch (4.64 to 4.82 mm)

5. Reinstall 206-061-102/206-062-102-XXX engine legs using NAS6604DXX bolts (head pointing FWD), NAS1149F0432P or NAS1149F0463P washers (see above mentioned note), 206-061-105-001 shims and MS14144L4 nut (Figure 1). Do not torque the nuts at this stage.

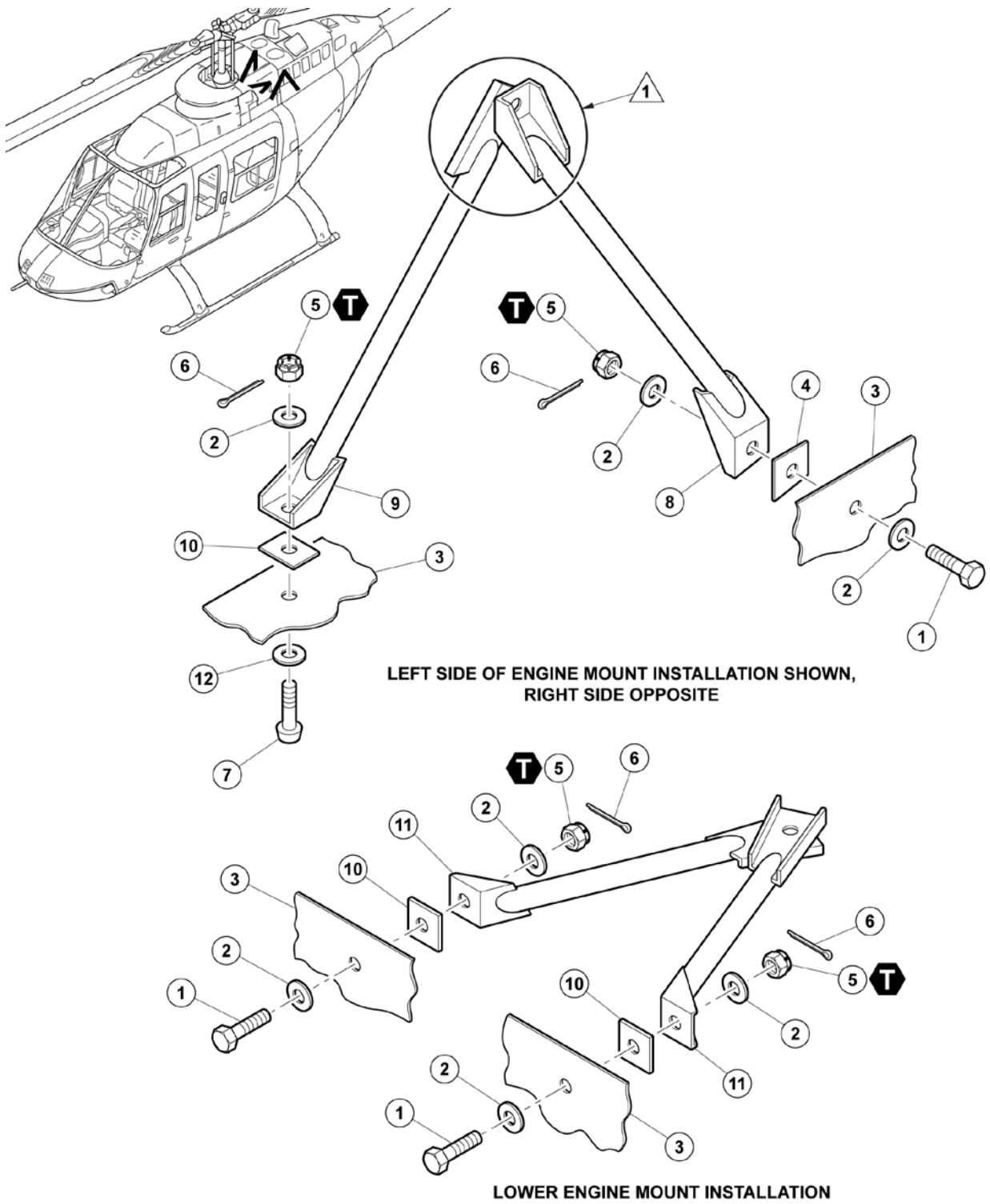
NAS6604D9: Use with shim .000 to .050 inch (0.00 to 1.27 mm)  
NAS6604D10: Use with shim .051 to .113 inch (1.29 to 2.87 mm)  
NAS6604D11: Use with shim .114 to .175 inch (2.89 to 4.44 mm)  
NAS6604D12: Use with shim .176 to .190 inch (4.47 to 4.82 mm)

6. Complete engine installation following the BHT-206A/B-SERIES-MM, Maintenance Manual instruction. Refer to Figure 1 of this bulletin for the required torque at specific locations. Install the cotter pin following torque application.

-NOTE-

If, for any reason, this TB is not accomplished, operators must be aware that the required torque at each leg to structure attachment point shall be performed respecting the NUT specifications as described below (BHT-206A/B-SERIES-IPB):

- a. NAS679A4: 70 inch-pounds (no cotter pin)
  - b. MS21042L4: 90 inch-pounds (no cotter pin)
  - c. MS17825-4: 25 to 35 inch-pounds (with cotter pin)
  - d. MS14144L4 (preferred): 50 to 70 inch-pounds (with cotter pin)
7. Make an entry in the helicopter logbook and historical service records indicating compliance with this Technical Bulletin.



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Figure 1 - Sheet 1 of 2

1. NAS6604DXX Bolt
2. NAS1149F0432P or NAS1149F0463P Washer
3. Helicopter's structure
4. 206-061-105-003 Shim
5. MS14144L4 Nut
6. MS24665-153 Cotter Pin
7. NAS144A-XX Bolt
8. 206-061-103/206-062-103-XXX Engine Leg (L/H & R/H, AFT)
9. 206-061-101/206-062-101-XXX Engine Leg (L/H & R/H, FWD)
10. 206-061-105-001 Shim52
11. 206-061-102/206-062-102-XXX Engine Leg (L/H & R/H, BOTTOM)
12. MS20002C4 washer (chamfered)



50 TO 70 IN-LBS  
(5.7 TO 7.9 Nm)

**NOTE**



Refer to the BHT-206A/B-SERIES-MM-9 and TB 206-82-76D for permitted options of installation.

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**Figure 1 - Sheet 2 of 2**