

**TECHNICAL BULLETIN**  
**Bell Helicopter** **TEXTRON**  
A Subsidiary of Textron Inc.

**NO** 407-00-22

**DATE** 03-01-00

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<b>DATE</b>
<b>REV.</b>

**MODELS AFFECTED:** 407

**SUBJECT:** **IMPROVED MAIN ROTOR PITCH HORN,  
FLOATING BUSHING 407-010-116-101 –  
INTRODUCTION OF.**

**HELICOPTERS AFFECTED:** 407 helicopters S/N 53000 through 53414.

[Helicopters S/N 53415 and subsequent will have the intent of this bulletin completed before delivery.]

**COMPLIANCE:** At the option of the operator, but it is recommended that this Bulletin be accomplished at the next main rotor pitch link removal/installation.

**DESCRIPTION:**

An improved floating bushing has been developed to replace the existing 204-010-495-107 floating bushing that is installed in the main rotor pitch horn.

The 204-010-495-107 floating bushing has a flanged end that can cause damage to the pitch horn if it is not installed correctly. The replacement 407-010-116-101 floating bushing does not have a flanged end and can be installed in either direction in the pitch horn. This removes the possible cause of damage to the pitch horn because of an incorrect installation of the bushing.

The floating bushing 407-010-116-101 is the direct replacement for the old floating bushing 204-010-495-107.

When you replace the 204-010-495-107 bushing with the new 407-010-116-101 bushing, you must replace all four bushings.

7851 60540

**APPROVAL:**

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

**MANPOWER:**

No additional man-hours are required to install the new style floating bushings at the next main rotor pitch link removal/installation.

**MATERIAL:**

**Required Material:**

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>	<u>QUANTITY</u>
407-010-116-101	Floating bushing	4

**Consumable Material:**

The material that follows is necessary to complete this Bulletin. However, this material is consumable (bench stock) material and does not require ordering depending on the operator's consumable material stock levels. This material can be obtained through your Bell Helicopter Textron Supply Center.

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>	<u>REFERENCE NO.</u>
MIL-C-16173,GR2 6OZ	Corrosion preventive compound (C-104)	1
MIL-C-16173,GR1 2OZ	Corrosion preventive compound (C-101)	1
MS24665-155	Cotter pin	4

**SPECIAL TOOLS:**

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

BHT-407-MM-6, Rev. 6, 14 April 1998.

Chapter 62, Main Rotor.

ASB 407-99-25, 06 February 1999.

MAIN ROTOR PITCH HORN 407-010-103-101 AND ATTACHING  
HARDWARE, ONE TIME INSPECTION OF.

**PUBLICATIONS AFFECTED:**


BHT-407-MM-6, Rev. 6, 14 April 1998.

Chapter 62, Main Rotor.

BHT-407-IPB, Rev. 4, 01 May 1998.

Chapter 62, Main Rotor.

**ACCOMPLISHMENT INSTRUCTIONS:**

1. Remove the cotter pin (7), the nut (6), and the washers (2) from the bolt (1).
2. Remove the bolt (1) and the washer (2) from the pitch horn (5) and the pitch link (4).
3. Remove the old floating bushing (8, Detail A) from the pitch horn (5).
4. Install the new floating bushing (3, Detail B) in pitch horn (5).
5. Apply Corrosion Preventive Compound Grade 2 (C-104, BHT-ALL-SPM) to the bolt shank.
6. Install the bolt (1) with washer (2) through the pitch horn (5) and the pitch link (4).
7. Install the washers (2) and the nut (6) . Apply torque and safety with the cotter pin (7).
8. Apply Corrosion Preventive Compound Grade 1 (C-101, BHT-ALL-SPM) to the bolt head (1), the washers (2), the nut (6), and the exposed threads.

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9. Make an entry in the Helicopter Historical Records (HR) to show that this bulletin is completed.
10. Make an entry in the record of Technical Bulletins in the Maintenance Manual.



### LEGEND

1. Bolt (NAS6605D38)
2. Washer (NAS1149F0563P)
3. Floating bushing, new (407-010-116-101)
4. Pitch link (Ref.)
5. Pitch horn (407-010-103-101)
6. Nut (MS14144L5)
7. Cotter pin (MS24665-155)
8. Floating bushing, old (204-010-495-107)



90 TO 110 IN-LBS  
(10.2 TO 12.4 Nm)

### NOTES

1. The recommended installation torque range and maximum permitted torque are given. Add the tare torque to the given torque value.
2. Before you install the bolt, apply corrosion preventive compound (C-104, BHT-ALL-SPM) to the bolt shank only. Remove all unwanted compound. After you install the bolt and tighten and safety the nut, apply corrosion preventive compound (C-101, BHT-ALL-SPM) to the bolt head, exposed threads and nut. Refer to BHT-407-MM-8, Paragraph 67-9.
3. When you torque the nut, make sure you can align it for the installation of the cotter pin. To prevent the nut from becoming thread bound on the bolt shank, you can use a quantity of two washers under the nut. The washer under the nut can be a thick (NAS1149F0563P) or a thin (NAS1149F0532P). You must always put the thin washer next to the nut.
4. You can damage the nut if you torque the nut more than the given values while you align it for the cotter pin. Replace the nut if you think it is damaged.