

ALERT SERVICE BULLETIN

Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

NO. 222-99-85
DATE 12/16/99
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DATE
REV

MODEL AFFECTED: 222 and 222B

SUBJECT: TAIL ROTOR PITCH CHANGE BEARINGS P/N 222-312-753-103, INSPECTION OF; AND TAIL ROTOR BLADE ATTACHING HARDWARE, REPLACEMENT OF

HELICOPTERS AFFECTED: Model 222 Serial Number 47006 through 47089
Model 222B Serial Number 47131 through 47156

COMPLIANCE: At the next scheduled inspection after receipt of this bulletin.

DESCRIPTION:

Bell Helicopter has received reports of cracked bearings, P/N 222-312-753-103, installed in tail rotor blade assemblies. Investigation revealed that the cracks in the pitch change bearings were the result of stress corrosion cracking caused by loss of torque of the tail rotor blade attaching bolts/nuts.

This bulletin provides instructions for an initial bearing inspection, inspection and replacement of tail rotor blade attaching hardware, and includes a temporary revision to the maintenance and component repair & overhaul manuals for recurring bearing inspection and revised torque check intervals.

APPROVAL:

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

MANPOWER:

Approximately 1 man-hour is required to accomplish this bulletin. Man-hours are based on hands-on time and may vary with personnel and facilities available.

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.

7851 05192 REV 1108

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
PCR 67	Nut	4
140-007-29S30A3	Chamfered washer	A/R

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-222/222B-MM-1, Chapter 65
BHT-222 CR&O-3, Chapter 64

PUBLICATIONS AFFECTED:

BHT-222/222B-MM-1, Chapter 65
BHT-222 CR&O-3, Chapter 64

ACCOMPLISHMENT INSTRUCTIONS:

1. Verify that the tail rotor blade attaching bolts/nuts are torqued to 30 to 33 ft-lbs. Refer to BHT-222-CR&O-3.
2. Without removing the tail rotor blades from the tail rotor hub assembly, thoroughly clean the exposed areas around the pitch change bearings. Refer to BHT-222/222B-MM-1.

- NOTE -

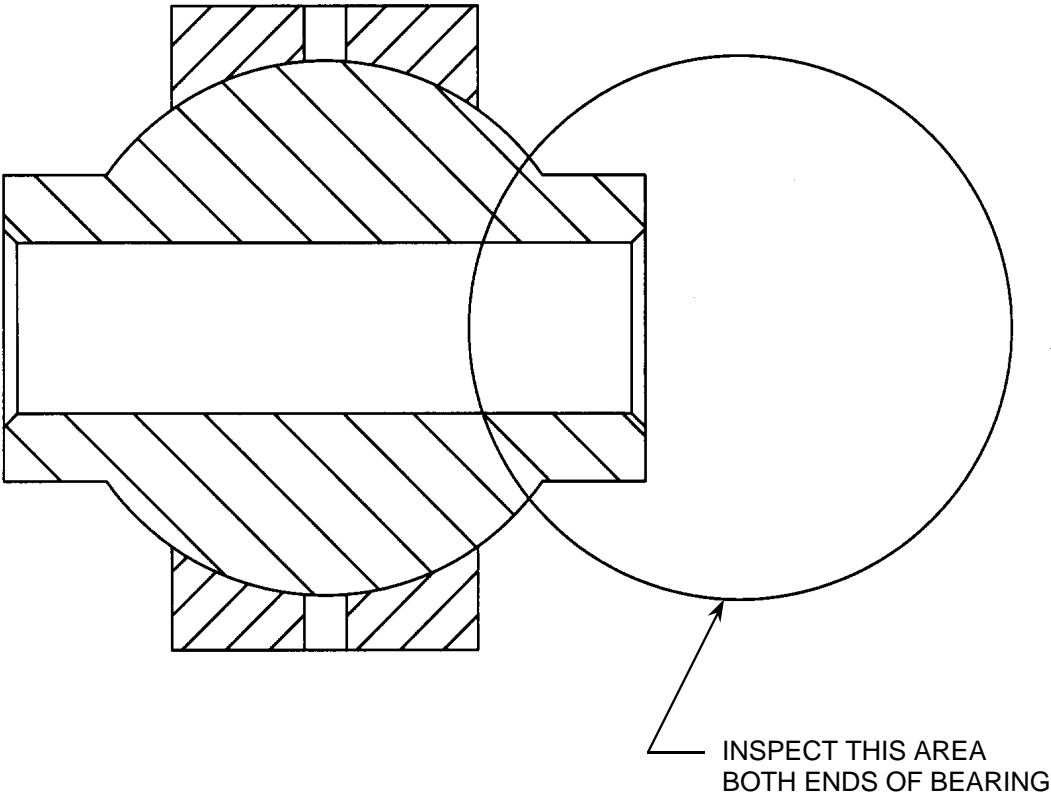
Inspection of the bearings should be accomplished with the blade bolts/nuts torqued per step 1.

3. Visually inspect each bearing inner member neck area (full 360 degrees) for cracks. Refer to figure 1. If crack(s) are found in a bearing, the replacement of both bearings in that blade are required. Refer to BHT-222-CR&O-3.

- NOTE -

Record and identify the hardware package at each position for reference at re-assembly in order to maintain tail rotor hub and blades assembly balance. Remove and replace hardware one bolt at a time.

4. Remove existing tail rotor blades attaching nuts.
5. Visually inspect chamfered washers P/N 140-007-29S30A3 installed in direct contact with the outboard surface of the yoke for deformation. Deformed washers must be replaced. Refer to BHT-222-CR&O-3.
6. Install new tail rotor blade attaching nuts P/N PCR 67. Refer to BHT-222-CR&O-3.
7. Insert BHT-222/222B-MM Revision 1, and Temporary Revision Dated 03 December 99 in the maintenance manual and BHT-222-CR&O-3 Temporary Revision Dated 03 December 99 in the component repair & overhaul manual.
8. Insert BHT-222-IPB or BHT-222B-IPB Temporary Revision dated 03 December 99 in the applicable Illustrated Parts Breakdown Manual.
9. Make an entry in the historical records indicating compliance with this bulletin.



BEARING
222-312-753-103

FIGURE 1