

ALERT SERVICE BULLETIN

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

NO. 222-01-90

DATE 05-18-01

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DATE

REV

MODEL AFFECTED: 222 and 222B

SUBJECT: ROTATING RING ASSEMBLY P/N 222-010-403-005, -113 AND -117. INSPECTION OF

HELICOPTERS AFFECTED: Model 222 helicopters serial number 47008 through 47089, 222B helicopters serial number 47131 through 47156 and all spare rotating ring assemblies P/N 222-010-403-005, -113 and -117 with drive pins P/N 230-010-402-101 and/or -103 installed.

Rotating ring assemblies P/N 222-010-403-117 with " TI XXX " serial number are not affected by this bulletin.

COMPLIANCE: At the first scheduled 50 hour inspection after receipt of this bulletin

DESCRIPTION:

Following the release of Alert Service Bulletin 222-99-84, which requested a recurring torque check of the drive pins P/N 222-010-455-003 every 150 hours of operation, Bell Helicopter introduced, with Technical Bulletin 222-89-124 Rev. B, a replacement drive pin P/N 230-010-402-101.

Bell Helicopter has received several field reports indicating interference between the new pin P/N 230-010-402-101 and the rotating ring drive pin bore. Investigation revealed that the radius at the inboard surface of the rotating ring drive pinhole might be inadequate. This bulletin provides instructions to inspect the drive pin to rotating ring joint. In addition, this bulletin introduces a revision to the BHT-222-CR&O manual requesting verification of the rotating ring drive pin hole radius prior to the installation of the drive pins into the rotating ring.

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AN APPROPRIATE ENTRY SHOULD BE MADE IN THE AIRCRAFT LOG BOOK UPON ACCOMPLISHMENT
IF OWNERSHIP OF AIRCRAFT HAS CHANGED PLEASE FORWARD TO NEW OWNER

APPROVAL:

Not required

MANPOWER:

Approximately .5 man-hour is required to complete this bulletin and does not include the time for removal and inspection of the Swashplate Assembly. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

Owners / Operators of 222 helicopters who comply with the instructions outlined in this bulletin will receive a special prorated warranty credit for the replacement ring contained in the "Required Material" section of this bulletin. This credit will be based upon a straight proration of hours used to the retirement life of 5000 hours. (example: if 2500 hours are used on the ring then 50% credit will be allowed).

To receive this credit:

- Purchase the required parts from an approved BHTI supply source.
- Comply with the instructions contained in this bulletin no later than one year from bulletin issue.
- Submit a completed malfunction report to BHTI Warranty no later than 30 days after completion of this bulletin.

-NOTE-

Customers who fail to comply with the instruction in this bulletin after one year from bulletin issue are **not** eligible for the special warranty credit provisions listed above.

MATERIAL:

No material required

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-222/222B-MM-1 Maintenance Manual
BHT-222-CR&O-2 Component Repair and Overhaul Manual.
Alert Service Bulletin 222-99-84, Swashplate drive pins inspection.
Technical Bulletin 222-89-124 Rev. B, Swashplate and levers assemblies configuration.

PUBLICATIONS AFFECTED:

BHT-222-CR&O-2 Component Repair and Overhaul Manual.

ACCOMPLISHMENT INSTRUCTIONS:

-NOTE-

This inspection is not required for rotating ring assemblies P/N 222-010-403-117 with "TI XXX" serial numbers.

-NOTE-

This inspection is required for rotating ring assemblies P/N 222-010-403-117 which may have been upgraded per Technical Bulletin 222-89-124 Rev. B

1. Review aircraft and component records to determine if new drive pins P/N 230-010-402-101 and/or -103 were/are installed in rotating ring P/N 222-010-403-005, -113 or -117. If new drive pins P/N 230-010-402-101 and/or -103 are found installed, proceed with step 2. If the old style pins P/N 222-010-455-003 are found installed, no further inspection is required.

2. If new drive pins P/N 230-010-402-101 and/or -103 were found installed, proceed as follows:
 - A) Remove Swashplate Assembly from the aircraft. Refer to BHT-222/222B-MM-1.
 - B) Disassemble Swashplate Assembly. Refer to BHT-222-CR&O-2.
 - C) Remove both drive pins P/N 230-010-402-101 and/or -103 from rotating ring assembly. Refer to BHT-222-CR&O-2.

CAUTION

The radius at the inboard surface of the rotating ring drive pin hole must be within specified limits to prevent interference with the radius of the drive pin.

- D) Using a radius gauge, measure the radius at the inboard surface of the rotating ring drive pin hole. The radius should be 0.060 to 0.090 inch. If the radius is not within limits, the rotating ring assembly including the drive pins must be removed from service and scrapped.
- E) If the radius is found within limits, re-install the drive pins into the rotating ring and re-assemble the Swashplate Assembly. Refer to BHT-222-CR&O-2.
- F) Re-install Swashplate Assembly on the aircraft. Refer to BHT-222/222B-MM-1.
- G) Make an entry in the historical records indicating compliance with this bulletin.