

ALERT SERVICE BULLETIN

204B-16-71  
PSL 7000000201  
14 December 2016

**MODEL AFFECTED:** 204B

**SUBJECT:** TAIL ROTOR YOKE 204-011-722-005 CHROMATE CONVERSION COATING

**HELICOPTERS AFFECTED:** Serial numbers 2001 through 2070 and 2196 through 2199.

**COMPLIANCE:** **Part I:** Within the next 60 days after the date of issuance, as indicated on this bulletin, and every 180 days thereafter until accomplishment of **Part II**.

**Part II:** At the next scheduled removal of the tail rotor grip assemblies but no later than 20 November 2018.

**DESCRIPTION:**

Bell Helicopter found that the chromate conversion coating applied on some tail rotor yokes does not conform to the approved released Engineering. The affected tail rotor yokes are listed in Table 1 of the Accomplishment Instructions. Unless rectified, this non-conformity may diminish the corrosion protection. This ASB mandates that the affected yokes be visually inspected and the chromate conversion coating reapplied. Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

**APPROVAL:**

The engineering design aspects of this bulletin are FAA approved.

**CONTACT INFO:**

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Medium Helicopters  
Tel: 450-437-6201 / 1-800-363-8028 / psemedium@bh.com

**MANPOWER:**

Approximately 10.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

**WARRANTY:**

Owners/operators of Bell helicopters who comply with the instructions in this bulletin will be eligible to receive credited labor hours listed in the bulletin. Bell Helicopter has recently introduced enhancements to the VISTA Portal, which allocates specific warranty entitlement for a helicopter by serial number. The Product Service Letter (PSL) number, which will be listed below the bulletin number on the introduction page, is going to be a required field when submitting a claim for replacement parts, labor, and/or freight. If you receive an ASB or TB that does not have a PSL number, then there is no warranty entitlement for that bulletin.

Labor entitlement: Yes     \$950.00 USD

To receive labor under warranty:

- Comply with the instructions contained in this bulletin no later than the applicable date in the Compliance Section.

If there is a PSL number identified in the bulletin, you will be required to enter this PSL number, which will validate warranty entitlement for the selected helicopter. Please make sure that you use the Bulletin tab on the warranty section in VISTA to file your claim.

-NOTE-

Customers, who fail to comply with the instructions in this bulletin before 20 November 2018, will not be eligible for the special warranty listed above.

**MATERIAL:****Required Material:**

Not affected.

**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 (Note)</u>	<u>Reference *</u>
2110-07015-00	Solvent, Degreaser	A/R	C-304
2100-08437-00	Cadmium Plating, Brush-on	A/R	C108

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

**SPECIAL TOOLS:**

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

BHT-204B-IPB, Illustrated Parts Breakdown  
 BHT-204B-M&O, Maintenance and Overhaul Manual  
 BHT-ALL-SPM, Standard Practices Manual

**PUBLICATIONS AFFECTED:**

None affected.

**ACCOMPLISHMENT INSTRUCTIONS:**

**Table 1- Affected Tail Rotor Yokes serial numbers**

ECFS000144	ECFS000152	ECFS000153	ECFS000154
ECFS000155	ECFS000156	ECFS000157	ECFS000158
ECFS000159	ECFS000160	ECFS000161	

**Part I: Detailed visual inspection**

1. Prepare the helicopter for maintenance.
2. Gain access to the tail rotor hub and blade assembly.
3. Carry out a detailed visual inspection of the exposed areas of the tail rotor yoke for corrosion using a strong light source and a 3X magnifying glass. Refer to the BHT-204B-M&O, Figure 6-22 for damage and repair limits if corrosion is found.

4. If there are no signs of corrosion, make an entry in the helicopter and component historical service records to indicate findings and that **Part I** of this bulletin has been accomplished.
5. Accomplish **Part I** until **Part II** can be accomplished, as indicated in the Compliance Section of this bulletin.

## **Part II: Removal and application of chromate conversion coating**

1. Prepare the helicopter for maintenance.
2. Remove the tail rotor hub and blade assembly from the helicopter (BHT-204B-M&O, Section 6).
3. Gain access to the tail rotor yoke 204-011-722-005 by disassembling the tail rotor hub and blades (BHT-204B-M&O, Section 6).
4. Clean the yoke with solvent (C-304) and dry with filtered compressed air.

-NOTE-

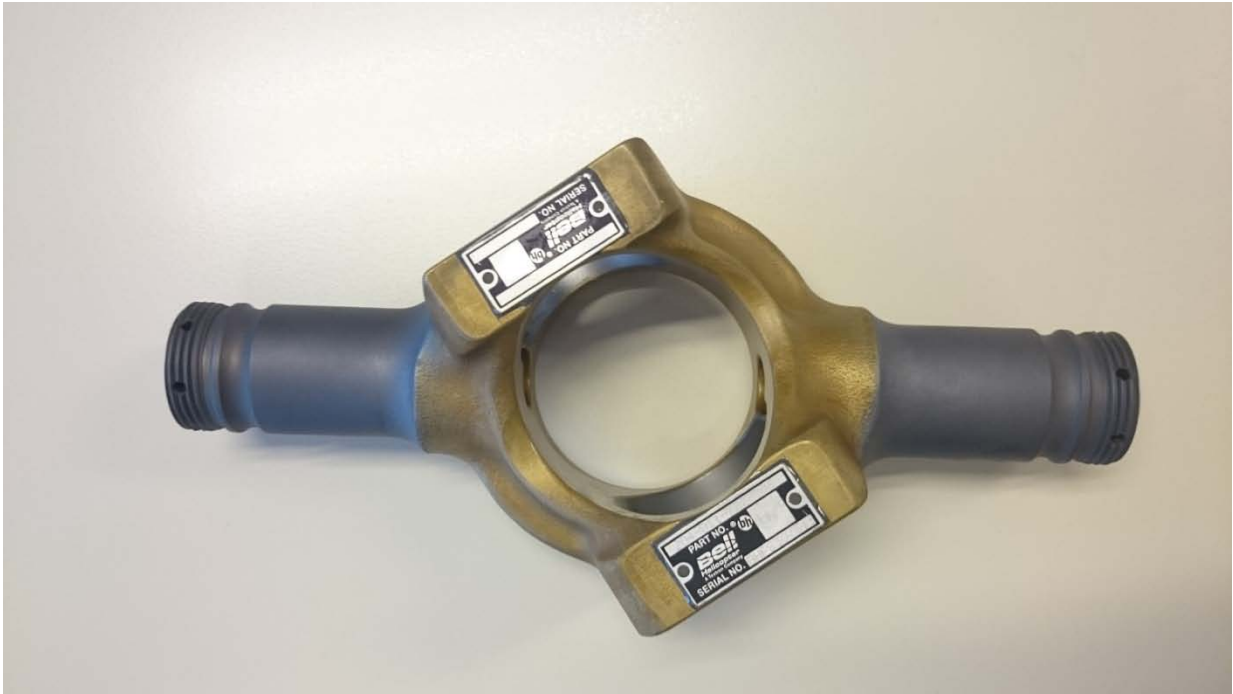
The chromate conversion coating on the cadmium plated area is bronze iridescent to light brown in color. Pay particular attention not to remove the cadmium plating when abrading the conversion coating. Removal of the cadmium plating will require brush plating of the affected areas. Removal of the data tags is not required to accomplish the rework.

5. Remove the chromate conversion coating from the cadmium plated areas by wet abrading with a Scotchbrite pad (C-407) and mild soap or detergent (C-355).
6. Rinse the exposed cadmium plated area with clean water and dry with filtered air.

-NOTE-

The cadmium plated surface must be clean (water break-free) for the conversion coating to react and give full coverage. If the conversion coating did not take (react) in the isolated areas or on the complete part, the cadmium was not sufficiently cleaned or the cadmium was removed. If the cadmium plating was inadvertently removed, the affected area(s) will require brush cadmium plating (BHT-ALL-SPM).

7. Apply the chromate conversion coating (BHT-ALL-SPM, Chapter 3, Paragraph 3-18). Do not apply the chromate conversion coating in the trunnion bores or on the yoke spindles. For an example of the chromate conversion-coated areas, refer to Figures 1 and 2.
8. Once the chromate conversion coating has been reapplied successfully, the tail rotor hub and blade can be reassembled (BHT-204B-M&O, Section 6).
9. Make an entry in the helicopter and component historical service records to indicate that **Part II** of this bulletin has been accomplished as a terminating action to this bulletin.



**Figure 1. Conversion Coating Application Areas**



**Figure 2. Conversion Coating Application Areas**