

**ALERT SERVICE BULLETIN**

**Bell Helicopter** **TEXTRON**

A Subsidiary of Textron Inc.

**NO.** 204B-02-57

**DATE** June 20, 2002

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**DATE**

**REV**

**MODEL AFFECTED:** 204B

**SUBJECT:** 1200 HOUR SPECIAL INSPECTION  
REQUIREMENTS FOR MAIN ROTOR HUB PINS  
P/N 204-012-104-001 / -003 / -005.

**HELICOPTERS AFFECTED:** All Model 204B Helicopters

**COMPLIANCE:** An interim 1200 hour NDT inspection is to be accomplished on pins P/N 204-012-104-001 / -003 / -005. This inspection should coincide with the next strap change or the next scheduled main rotor hub overhaul.

**DESCRIPTION:**

Examination of various Bell Helicopter publications has revealed a requirement to clarify Main Rotor Hub Strap Pin P/N 204-012-104-001 / -003 / -005 inspection requirements. Main Rotor Strap Pins are to be NDT inspected at 1200 hours total time in service and retired at 2400 hours.

**APPROVAL:**

The engineering design aspects of this bulletin are FAA/DER approved.

**MANPOWER:**

Approximately 1 man-hour is required to complete this NDT inspection when it is accomplished at the main rotor strap change or at the main rotor hub schedule overhaul. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

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**MATERIAL:**

**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>Quantity</u>	<u>Reference</u>
TT-N-95,TYII 1GAL Alternate	Aliphatic Naptha	A/R	C-305
ASTM D740 Alternate	Methyl-Ethyl-Ketone	A/R	C-309
ACETONE GALLON	Acetone	A/R	C-316
299-947-100TY2CL2G50	Magnobond 6398 or EA934NA	A/R	C317
	Abrasive Pad	A/R	C-407

**SPECIAL TOOLS:**

Refer to BHT-204B-M&O Manual.

**WEIGHT AND BALANCE:**

Not affected

**ELECTRICAL LOAD DATA:**

Not affected

**REFERENCES:**

BHT-204B-IPB Illustrated Parts Breakdown  
BHT-204B-M&O Maintenance & Overhaul Manual

**PUBLICATIONS AFFECTED:**

BHT-204B-M&O Maintenance & Overhaul Manual  
Supercedes ASB 204-77-1

**ACCOMPLISHMENT INSTRUCTIONS:**

1. Remove 4 pins P/N 204-012-104-001 / -003 / -005 from the main rotor hub assembly. Refer to BHT-204B-M&O, section II.
2. Inspect pins by magnetic particle method.
3. The pins must be inspected by all of the following steps using wet continuous method. Used of fluorescent coated particles with ultraviolet light is mandatory. The length of any indication shall be determined by residual method of magnetization.

**-NOTE-**

If ac magnetic particle inspection equipment is used, use 60 percent of dc amperes specified.

- a. Remove washers from each end of pins.
  - b. Thoroughly degrease pin.
  - c. Place pin longitudinally between contact heads of machine. Pass 1000 amperes of dc current through pin.
  - d. Completely inspect pin for indications.
  - e. Place pin in coil such that longitudinal axis is perpendicular to plane of coil. Magnetize pin using 15,000 ampere-turns.
  - f. Completely inspect pin for indications.
4. Acceptance criteria.
    - a. Magnetic particle indications interpreted as cracks are not acceptable and pin must be scrapped.

**-NOTE-**

If any strap pins are found cracked, the mating strap fitting must also be scrapped.

**CAUTION**

If the pins are replaced with new ones at the interim inspection, the fittings must also be replaced. The removed

fitting will be serviceable again once the NDT inspection determined that the mating pin is not cracked.

Likewise, if the pins are replaced because they are time expired, but the fittings are not and are to be reinstalled, the removed fittings will be determined serviceable only when the NDT inspection of the removed mating pins has confirmed that the pins are not cracked.

5. After completion of inspection demagnetize pin and check with pocket field indicator or compass to assure demagnetization.
6. Clean ends of pin and two NAS1149D0816J washers using a abrasive pad (C-407) and MEK (C-309) or Acetone (C-316) or Aliphatic Naphtha (C-305). Wipe dry with a clean cloth.
7. Bond one NAS1149D0816J washer to each end of pin. Use adhesive (C-317) to bond washers. Allow adhesive to cure for 24 hours at room temperature or for 30 minutes at a temperature of 145 to 180<sup>0</sup> F (63 to 82<sup>0</sup> C).
8. Re-assemble main rotor hub assembly. Refer to BHT-204B-M&O, section II.
9. Make an entry in the Helicopter Historical Records (HR) to show that the main rotor hub pins have been inspected in accordance with this Alert Service Bulletin.