# URGENT

### TB 1-1520-210-20-62

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

## ALL UH-1 SERIES AIRCRAFT, MANDATORY CHANGEOUT OF UH-1 MAIN ROTOR PITCH HORN ATTACHMENT BOLTS

Headquarters, Department of the Army, Washington, D. C. 2 August 2002

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#### NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

#### 1. Priority Classification. URGENT.

a. Aircraft in Use. Upon receipt of this TB, make the following entry on the DA Form 2408–13–1. Enter a **Red HORIZONTAL DASH** //-// status symbol with the following statement: "Inspect Main Rotor Pitch Horn Attachment Bolts IAW TB 1–1520–210–20–62) within the next 50 flight hours, but NLT 27 September 2002." Clear the **RED HORIZONTAL DASH** //-// entry when the procedures IAW paragraphs 8 and 9 are completed. The affected aircraft shall be inspected as soon as practical but not later than 27 September 2002. Commanders who are unable to comply with the requirements of this TB within the time frame specified will upgrade the affected aircraft status symbol to a **RED** //**X**//.

**b.** Aircraft in Depot Maintenance. Depot Commanders will not issue aircraft until they are in compliance with this TB.

**c.** Aircraft Undergoing Maintenance. Commanders and Facility Managers will not issue aircraft until they are in compliance with this TB.

#### d. Aircraft In Transit.

- (1) Surface/Air Shipment. Same as paragraph 1.a.
- (2) Ferry Status. Same as paragraph 1.a.
- e. Maintenance Trainers. Not applicable.

f. Component/Parts in Stock at All Levels (Depot and Others) Including War Reserves. Upon receipt of this TB, Depot and Materiel Activity Commanders will ensure the materiel condition tags of all items in all condition codes listed in paragraph 6 is annotated to read: "TB 1–1520–210–20–62 not complied with." Dispose of item in paragraph 7.

(1) Wholesale Stock. Report receipt of this TB IAW paragraph 14.c.(1). Upon receipt of this TB, Depot and Materiel Activity Commanders will ensure all serviceable items (Condition Codes //A//, //B//, //C//, //D//, and //E// listed in paragraph 6 is placed in Condition Code //J// and tagged with a suspended tag/label – Materiel, DD Form 1575/DD Form 1575–1. Do not remove original condition tags. Report compliance with this TB IAW paragraph 14.d.(1). Dispose of item in paragraph 7.

(2) Retail Stock. Report receipt of this TB IAW paragraph 14.c.(2). Upon receipt of this TB, Commanders and Facility Managers maintaining retail stock at installation level and below shall contact the supported aviation unit to perform the procedures required IAW paragraphs 8 and 9 on suspect materiel. Dispose of discrepant materiel IAW paragraph 10. Report compliance with this TB IAW paragraph 14.d.(2).

**g.** Components/Parts in Work. (Depot Level and Others). Depot and other Maintenance Activity Commanders will ensure items listed in paragraph 6 are not issued until they are in compliance with this TB. Dispose of item in paragraph 7.

**2.** Task/Inspection Suspense Date. Complete the inspection IAW paragraph 8 within the next 50 flight hours but NLT 27 September 2002 and report IAW paragraph 14.b..

3. TAMMS Reporting Compliance Suspense Date. Not applicable.

#### 4. Summary of Problem.

**a.** Bell Helicopter has informed the Army that they have investigated a few incidents where one of the main rotor grip pitch horn attachment bolts failed. The investigation revealed that the bolts failed in fatigue due to low torque or corrosion. The Army has experienced one known recent failure of this bolt. A new bolt, Part Number NAS6606H27, which will prevent future failures, has been approved to replace the current bolt.

#### b. For Manpower/Downtime and Funding Impacts. See paragraph 12.

**c.** The Purpose of this TB is to require a one-time change-out of the current main rotor pitch horn attachment bolts with a new bolt.

#### 5. End Items to be inspected. All UH–1H/V series aircraft.

#### 6. Assembly Components to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Main Rotor Hub Assembly	204-012-101-141	1615-01-270-2982

#### 7. Parts to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Machine Bolt	AN6H22A	5306-00-638-5765

**8. Inspection Procedures.** Inspect Main Rotor Hub Assembly for installation of AN6H22A bolts attaching pitch horn. If installed, replace bolt in accordance with paragraph 9.

#### 9. Corrective Procedures.

#### CAUTION

One at a time, remove and replace the pitch horn attachment bolts (AN6H22A).

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When removing the pitch horn attachment bolts, do not allow the main rotor blades to rotate on the pitch–change axis. Use Grip Positioning Link (T41), to prevent rotation of blades and damage to the TT straps.

#### NOTE

TM 55–1520–210–23–1, Figure 5.2, page 5–3, shows the bolt head on the right. Figure 5–27, page 5–54.47 shows the bolt head on the left. Figure 5–27 is the preferred position that facilitates the attachment of the Grip Positioning Link without removing the bolt and distributing the Pitch Change Link.

- a. Attach the Grip Positioning Links (T-41) per TM 55-1520-210-23-1, Figure 5.2.
- b. Remove lockwire that secures the AN6H22A pitch horn attachment bolts.

**c.** Remove the upper pitch horn attachment bolts (item 79) and washers (item 80) securing the pitch horn to the main rotor grip, Figure 138, TM 55–1520–210–23P–1.

d. Discard bolts (item 79), AN62H22A.

#### NOTE

#### Do not apply CPC to the threads.

- e. Coat shank of new bolts, NAS6606H27, with CPC (C87).
- f. Install the new upper bolts and washers. Torque 160 to 190 inch lbs.
- g. Repeat the above procedure for the lower pitch horn attachment bolts.
- h. Secure bolts with lockwire.
- i. Remove Grip Positioning Link.
- j. Reinstall nut. Torque 200 to 250 inch-pounds.
- k. Install cotter pin.

#### 10. Supply/Parts and Disposition.

a. Parts Required. Items cited in paragraphs 12.c. will be required to replace defective items.

**b.** Requisitioning Instructions. Replacement bolts are not currently available in the supply system. Obtain NAS6606H27 bolts from one of the following suppliers:

(1) Fastener Dimensions. 9403 104th Street, Ozone Park, New York, NY 11416, phone (718) 847–6321. Fax (718) 817–8414.

(2) HC Pacific, 19844 Quiroz Court, Walnut, CA 91789, phone (909) 598–0509. Fax (909) 598–1411.

c. Bulk and Consumable Materials.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
CPC	MIL-C-16173, Grade 2	8030-00-244-1297
Zinc Chromate Primer	TT-P-1757	8010-00-297-0593

d. Disposition. Dispose of removed parts/components using normal Supply procedures.

e. Disposition of Hazardous Material. Not applicable.

**11.** Special Tools, Jigs and Fixtures Required. Not applicable.

#### 12. Application.

**a. Category of Maintenance.** AVUM. Aircraft downtime will be charged to AVUM maintenance. Report aircraft non-mission capable maintenance (NMCM) while undergoing inspection and correction IAW this TB.

#### b. Estimated Time Required.

- (1) Total of 6 man-hours using 2 persons.
- (2) Total of 3 hours downtime for one end item

c. Estimated Cost Impact to the Field. (All hardware will be included and confirmed during prototype.)

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER	QTY	COST EA.	TOTAL COST
Bolt	NAS6606H27	5306-01-385-6139	4	\$33.56	\$134.24
TOTAL COST PER AIRCRAFT \$134.24					

d. TB/MWOs to be Applied Prior to or Concurrently with this Inspection. Not applicable.

**e.** Publications which Require Change as a Result of this Inspection. TM 55–1520–210–23P–1 shall be changed to reflect this TB. A copy of this TB shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

#### 13. References.

- a. DA PAM 738-751, 15 Mar 99.
- **b.** TM 55-1520-210-23-1.
- **c.** TM 55–1520–210–23P–1.

#### 14. Recording and Reporting Requirements.

a. The Following Forms are Applicable and are to be Completed in Accordance with DA Pamphlet 738-751, dated 15 March 1999:

#### NOTE

Unit Level Logistics System–Aviation (ULLS–A) users will use applicable electronic "E" forms.

(1) DA Form 2408–5, Equipment Modification Record.

(2) DA Form 2408–5–1, Equipment Modification Record (Component).

- (3) DA Form 2408–13, Aircraft Status Information Record.
- (4) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
- (5) DA Form 2408–14, Uncorrected Fault Record.
- (6) DA Form 2408–15, Historical Record for Aircraft.
- (7) DA Form 2408-16, Aircraft Component Historical Record.
- (8) DA Form 2408–18, Equipment Inspection List.
- (9) DA From 2410, Component Removal and Repair/Overhaul Record.

(10) DD Form 1574/DD Form 1574–1, Serviceable Tag/Label – Materiel (Color Yellow). Annotate Remarks Block with "Inspect serviceable IAW TB 1–1520–210–20–62."

(11) DD Form 1575/DD Form 1575–1, Suspended Tag/Label– Materiel (Color Brown). Annotate Remarks Block with "Suspended IAW TB 1–1520–210–20–62."

(12) DD Form 1576/DD Form 1576–1, Test/Modification Tag/Label – Materiel (Color Blue). Annotate Authority Block with "TB 1–1520–210–20–62".

(13) DD Form 1577/DD Form 1577–1, Unserviceable (CONDEMNED) Tag Label – Materiel (Color Red). Annotate Remarks Block with "Condemned IAW TB 1–1520–210–20–62 and mutilated IAW TM 1–1500–328–23."

(14) DD Form 1577–2/DD Form 1577–3, Unserviceable (Reparable) Tag/Label – Materiel (Color Green). Annotate Remarks Block with "Unserviceable IAW TB 1–1520–210–20–62".

#### 15. Weight and Balance. Not applicable.

#### 16. Points of Contact:

**a.** Technical point of contact for this TB is: Mr. Darrell Hutson, AMSAM-RD-AE-I-D-U, DSN 645-0663, or Commercial (256) 955-0663. Datafax is DSN 897-3818 or Commercial (256) 313-3818. E-mail is <darrell.hutson@UH.redstone.army.mil>.

**b.** Logistical point of contact for this TB is Mr. Charles Elkins, SFAE-UH-U, DSN 645-0073 or Commercial (256) 955-0073. Datafax is DSN 897-3762 or Commercial (256) 313-3762. E=mail is: <charlie.elkins@UH.redstone.army.mil>.

c. Wholesale Materiel Point of Contract (Spares). Not applicable.

**d.** Forms and Records point of contact for this TB is Ms. Ann Waldeck, AMSAM–MMC–MA–NM, DSN 746–5564 or Commercial (256) 876–5564. Datafax is DSN 746–4904 or Commercial (256) 876–4904. E-mail is <ann.waldeck@redstone.army.mil>.

e. Safety points of contact for this TB is Mr. Frank Roseberry, (SAIC), AMSAM–SF–A, DSN 788–8631 or Commercial (256) 842–8631. Datafax is DSN 897–2111 or Commercial (256) 313–2111. E-mail is <frank.roseberry@redstone.army.mil>.

f. Foreign Military Sales recipients requiring clarification of action advised by this TB should contact: Mr. Ronnie W. Sammons, Security Assistance Management, AMSAM-SA-CS-NF, DSN 897-6856 or Commercial (256) 313-6856. Datafax is DSN 897-6630 or Commercial (256) 313-6630. E-mail is <ronnie.sammons@redstone.army.mil>

g. After hours contact the AMCOM Command Operations Center (COC) DSN 897–2066/2067 or Commercial (256) 313–2066/2067.

**17. Reporting of Errors and Recommending Improvements.** You can improve this TB. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, US Army Aviation and Missile Command, ATTN: AMSAM–MMC–MA–NP, Redstone Arsenal, Alabama 35898–5000. A reply will be furnished to you. You may also send in your comments electronically to our E-mail address at <2028@redstone.army.mil>, or by datafax at DSN 788–6546 or commercial (256) 842–6546. Instructions for sending a DA Form 2028 by E-mail may be found at the back of most Technical Manuals.

By Order of the Secretary of the Army:

Official:

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DISTRIBUTION: To be distributed in accordance with Initial Distribution No. (IDN) 314062, requirements for TB 1–1520–210–20–62.