

# URGENT

\*TB 1-1520-248-20-51

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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### ONE TIME INSPECTION FOR DIRECTIONAL CONTROL TUBE CHAFING ALL OH-58D HELICOPTERS

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Headquarters, Department of the Army, Washington, D. C.  
12 June 2000

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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UNTIL RESCINDED OR SUPERSEDED.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 Technical Bulletin (TB) the condition status symbol of the cited aircraft will be changed to a red horizontal dash (—). The red horizontal dash (—) entry shall state: "Inspect Directional Control Tube for chafing in accordance with TB 1-1520-248-20-51 within the next Progressive Phase Maintenance (PPM) interval following the current PPM interval, but not later than 22 December 2000". The red horizontal dash (—) may be cleared when the inspection in paragraph 8. is completed. Affected aircraft shall be inspected as soon as practical but no later than 22 December 2000. Failure to comply with requirements of this TB within the time frame will cause the status symbol to be upgraded to a red (X).

b. Aircraft in Depot Maintenance. Aircraft will not be issued until compliance with this TB has been completed.

c. Aircraft Undergoing Maintenance. Same as paragraph 1. a.

d. Aircraft in Transit.

(1) Surface/Air Shipment. Same as paragraph 1. a.

(2) Ferry Status. Same as paragraph 1. a.

e. Maintenance Trainers (Category A and B). Comply no later than 22 December 2000.

f. Component/Parts in Stock Including War Reserves at All Levels (Depot and Others). Not applicable.

g. Components/Parts in work (Depot Level and Others). Not applicable.

**2. Task/Inspection Suspense Date.** Within the next PPM interval following current PPM interval, but not later than 22 December 2000; and report in accordance with paragraph 14. b.

**3. Reporting Compliance Suspense Date.** Report compliance in accordance with paragraph 14. a. no later than 16 June 2000.

\*This TB supersedes OH-58-00-ASAM-04 251846z May 00.

**4. Summary of Problem.**

a. A category 1 Quality Deficiency Report (QDR) has been received that indicated a control tube had been subject to severe chafing at the point where it passed through a hole in the main cabin roof beam. The investigation showed that the tail rotor control tube (TM 1-1520-248-23P, 15 Dec. 94, Item 72, Figure 218, or TM 1-1520-248-23P, 3 Mar. 00, Item 86, Figure 255) had severe chafing to the section approximately seven inches from the aft end. An investigation determined that all the control components were correctly manufactured and installed. Further investigation determined that the access hole through which the tube passes was not located correctly according to the drawing. There were no obvious indications of binding or dragging by the pilots. This one time inspection is required to determine if any additional aircraft may have the same discrepancy.

b. For manpower/downtime and funding impacts, see paragraph 12.

c. The purpose of this TB is to perform a one time inspection for chafing of the directional control tube.

**5. End Items to be Inspected.** All OH-58D series Aircraft.

**6. Assembly Components to be Inspected.** Not applicable

**7. Parts to be Inspected.**

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Connecting Link, Rigid	206-001-020-33	3040-00-129-6142

**8. Inspection Procedures.**

a. Primary Method of Inspection:

(1) Remove directional control tube in accordance with Task 11-5-23, TM 55-1520-248-23-5 (12 Jan. 88) or Task 11-4-24, TM 1-1520-248-23-5 (28 Feb. 00).

(2) Visually inspect directional control tube for indications of chafing.

(3) If there indications of chafing, proceed with corrective actions in paragraph 9.

(4) If there are no indications of chafing:

(a) Reinstall directional tube in accordance with Task 11-5-23, TM 55-1520-248-23-5 (28 Jan. 88) or Task 11-4-24, TM 1-1520-248-23-5 (28 Feb. 00).

(b) During reinstallation note minimum clearance between directional control tube and structural elements; report clearance in accordance with paragraph 14. b.

(c) Inspection is complete. The red horizontal dash (—) will be cleared and compliance with TB 1-1520-248-20-51 will be noted.

b. Alternate method of inspection (borescope), these procedures may be used in lieu of paragraph 8. a. above; only if proper equipment and trained personnel are available.

**NOTE**

Necessary equipment would consist of a 90 degree broadview head due to enclosed area. A flexible camera extension will be needed to see both sides of the tube. Some rigid tubing may be required to help hold the extension firmly in place. A video monitor, if available will help reduce eyestrain. Plenty of cleaning material and solution for camera lens will be necessary to correct blurred views due to dirt and oil in the inspection area.

(1) Gain access to inspection area. It will be necessary to remove Mast Mounted Sight (MMS) processor and power supply from MMS shelf.

(2) Inspect front of control tube from right side of aircraft through front access area of throttle cable.

(3) Inspection can be completed from:

- (a) Right side of aircraft going through front access area for throttle cable.
- (b) Middle MMS standpipe access area through tail rotor control tube cover each end.
- (c) Back through tail rotor bellcrank access area.

(4) Use a second person to move control pedals slowly to view clearances and potential chafing areas. Note minimum clearance between control tube and structural elements and report in accordance with paragraph 14. b.

(5) If chafing is indicated or suspected, proceed to correction procedures in paragraph 9.

(6) If there are no indications of chafing:

- (a) Reinstall components removed to conduct inspection.
- (b) Red horizontal dash (—) will be cleared and compliance with TB 1-1520-248-20-51 will be noted.

c. Report results of inspections in accordance with paragraph 14. b.

**9. Corection Procedures.** If chafing is found during inspection procedures in accordance with either paragraph 8.a. or 8.b., modification of cabin roof beam is authorized in accordance with the following instructions.

a. Remove directional control tube in accordance with Task 11-5-23, TM 55-1520-248-23-5 (12 Jan. 88), or Task 11-4-24, TM 1-1520-248-23-5 (28 Feb. 00)

b. Hole may be enlarged in area of contact using a round dowel at least one inch in diameter with sanding media attached at one end.

(1) Ensure repaired area edge distance between hole and edge of frame is greater than or equal to 0.27 inches. Edge clearance is most critical at outboard side of hole.

(2) Inspect completed repair to ensure no sharp edges or nicks exist that would create stress risers.

c. Ensure all sandings and debris are removed.

d. Apply MIL-C-81706, Chemical Conversion Material (TM 55-1520-248-23-6, 12 Jan. 88, Appendix D, Item 26, or TM 1-1520-248-23-6, 28 Feb. 00, Appendix D, Item 57) and two coats MIL-P-23377, Epoxy Primer (TM 55-1520-248-23-6, 12 Jan. 88, Appendix D, Item 13, or TM 1-1520-248-23-6, 28 Feb. 00, Appendix D, Item 98) or equivalent to affected area.

e. Install new directional control tube.

(1) Operate directional control system to extreme left and right positions several times.

(2) Remove new directional control tube and inspect for chafing.

f. If there is no indication of interference:

(1) Reinstall new directional control tube and complete remaining installation instructions per appropriate TM.

(2) The red horizontal dash (—) will be cleared and compliance with TB 1-1520-248-20-51 will be noted.

g. If interference is still occurring, contact Technical Point of Contact in paragraph 16. a.

## 10. Supply/Parts and Disposition.

a. Parts Required. Items cited in paragraph 7 may be required to replace unserviceable items.

b. Requisitioning Instructions. Requisition replacement parts using normal supply procedures.

c. Bulk and Consumable Materials. Not Applicable.

d. Disposition. Hold discrepant parts/components pending disposition instructions from Logistical Point of Contact in paragraph 16. b.

e. Disposition of Hazardous Material. In accordance with Environmental Protection Agency Directives as implemented by your servicing Environmental Coordinator (AR 200-1).

**11. Special Tools, Jigs, and Fixtures Required.** As required.

**12. Applications.**

- a. Category of Maintenance. AVUM. Aircraft downtime will be charged to AVUM.
- b. Estimated Time Required.
  - (1) For inspection in accordance with paragraph 8. a.
    - (a) Total of 65 man hours using one person.
    - (b) Total of 65 hours downtime for one end item.
  - (2) For inspection in accordance with paragraph 8. b.
    - (a) Total of eight man hours using two persons.
    - (b) Total of four man hours downtime for one end item.
- c. Estimated Cost Impact of Stock Fund Items to the Field.

NOMENCLATURE	PART NUMBER/ NATIONAL STOCK NUMBER	QTY.	COST EACH	TOTAL \$
Connecting Link, Rigid	206-001-020-33	1	\$ 185.00	\$ 185.00
	3040-00-129-6142			

Maximum total cost per aircraft = \$ 185.00

- 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. Not applicable.

**13. References.**

**NOTE**

Revised manuals are currently being provided to the field. However, since older manuals may still be in use, both sets of manuals are being referenced.

- a. TM 1-1520-248-23P, 15 Dec. 94
- b. TM 1-1520-248-23P, 3 Mar. 00
- c. TM 55-1520-248-23-5, 12 Jan. 88
- d. TM 1-1520-248-23-5, 28 Feb. 00
- e. TM 55-1520-248-23-6, 12 Jan. 88
- f. TM 1-1520-248-23-6, 28 Feb. 00
- g. DA PAM 738-751, 15 Mar. 99

**14. Recording and Reporting Requirements.**

- a. Reporting Compliance Suspense Date (Aircraft). Upon entering requirements of this TB on DA Form 2408-13-1 on all subject MDS aircraft, forward a priority message, datafax or E-Mail to Commander, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL. 35898-5000, in accordance with AR 95-1. Datafax number is DSN897-2111 or (256) 313-2111. E-Mail address is safeadm@redstone.army.mil. The report will cite this TB number, date of entry in DA Form 2408-13-1, the aircraft mission design series and serial numbers of aircraft in numerical order.

b. Task/Inspection Reporting Suspense Date (Aircraft). Upon completion of inspection, all units will forward a priority message (E-Mail preferred) to Commander, AMCOM, ATTN: AMSAM-DSA-ASH-L (SSg. Timothy Hardin), DSN 645-7934 or (256) 955-7934, datafax DSN 645-7125 or (256) 955-7125. E-Mail timothy.hardin@redstone.army.mil. Report will cite this TB, date of inspection, all aircraft serial numbers, aircraft and component hours, and results of the inspection to include if chafing was present, location of chafing on tube, and minimum clearance noted. Inspection and reports will be completed no later than 14 days after Task/Inspection Suspense Date.

c. Report Message Receipt (Spares). Not applicable.

d. Task/Inspection Reporting Suspense Date (Spares). Not applicable.

e. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 Mar. 99.

#### NOTE

ULLS-A users will use applicable E forms.

(1) DA Form 2408-13, Aircraft Status Information Record.

(2) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.

(3) DA Form 2408-15, Historical Record for Aircraft.

(4) DD Form 1577-2/DD Form 1577-3, Unserviceable (Reparable) Tag/Label - Material (Color Green). Annotate remarks with "Unserviceable in accordance with TB 1-1520-248-20-51".

**15. Weight and Balance.** Not applicable.

#### 16. Points of Contact.

a. Technical point of contact is Mr. Kevin Cahill, AMSAM-RD-AE-I-D-O, DSN 645-9544 or (256) 955-9544, datafax DSN 645-9536 or (256) 955-9536. E-Mail kevin.cahill@redstone.army.mil.

b. Logistical point of contact is SSg. Timothy Hardin, AMSAM-DSA-AS-ASH-L, DSN 645-7934 or (256) 955-7934, datafax DSN 645-7125 or (256) 955-7125. E-Mail timothy.hardin@redstone.army.mil.

c. Forms and records point of contact is Ms. Ann Waldeck, AMSAM-MMC-RE-FF, DSN 746-5564 or (256) 876-5564, datafax DSN 764-4904. E-Mail waldeck-ab@redstone.army.mil.

d. Safety points of contact are:

(1) Primary Mr. Harry Trumbull (SAIC), AMSAM-SF-A, DSN 897-2095 or (256) 313-2095, datafax DSN 897-2111 or (256) 313-2111. E-Mail harry.trumbull@redstone.army.mil.

(2) Alternate Mr. Ron Price, AMSAM-SF-A, DSN 788-8636 or (256) 842-8636, datafax DSN 897-2111. E-Mail ron.price@redstone.army.mil.

e. Foreign Military Sales recipients requiring clarification of action advised by this TB should contact CW5 Joseph L. Wittstrom, Security Assistance Manager, AMSAM-SA, DSN 897-0410 or (256) 313-0410. E-Mail wittstromjl@redstone.army.mil. or Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0408 or (256) 313-0408. datafax DSN 897-0411 or (256) 313-0411. E-Mail sammonsrw@redstone.army.mil. Huntsville, AL is Greenwich Mean Time minus six hours.

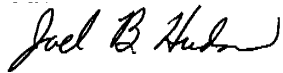
f. After hours contact AMCOM Command Operations Center (COC) DSN 897-2066/7 or commercial (256) 313-2066/7.

TB 1-1520-248-20-51

**By Order of the Secretary of the Army:**

**Official:**

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