

URGENT

*TB 1-1520-237-20-246

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MAINTENANCE MANDATORY, RCS CSGLD-1860 (R1), ALL H-60 SERIES AIRCRAFT, INITIAL AND RECUR- RING INSPECTION OF THE CONTROL ROD JAMNUT

Headquarters, Department of the Army, Washington, D. C.
22 FEBRUARY 2002

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

1. **Priority Classification. URGENT**

NOTE

IAW AR 95-1, para 6-6a/6-14a, MACOM Commanders may authorize temporary exception from message requirements. Exception may only occur when combat operations or matter of life or death in civil disasters or other emergencies are so urgent that they override the consequences of continued aircraft operation.

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 The Control rod Jamnuts, IAW TB 1-1520-237-20-246 within the next 10 flight hours, but not later than 22 February, 2002." Clear the Red Horizontal Dash // - // entry when the procedures IAW para 8 and 9 are completed. The affected aircraft shall be inspected as soon as practical, but NLT 22 February, 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 Maintenance Facility.

(1) Aircraft in AVUM, AVIM or Depot - Same as Paragraph 1.a..

(2) Aircraft At Contractor Facility – Inspect DD 250 aircraft prior to those aircraft departing for ferry to final destination.

c. Aircraft in Transit.

(1) Surface/Air Shipment – Inspect at the next 10 hour/14 day inspection, but NLT 14 days of arrival at final destination.

(2) Ferry Status – Inspect upon arrival at final destination.

* This TB supersedes USAAMCOM Aviation Safety Action Message (ASAM), 071600Z FEB 02, UH-60-02-ASAM-02.

d. Maintenance Trainers (Category A and B). Same as paragraph 1.a..

e. Component/Parts in Stock at All Levels (Depot Level and Others), including War Reserves. Upon receipt of this message, Depot and Materiel Activity Commanders will ensure the Materiel Condition Tags of all items in all condition codes listed in paragraphs 6 and 7 are annotated to read: "TB 1-1520-237-20-246, Inspection of Control Rod Jamnuts, not complied with.

(1) Wholesale Stock. Report receipt of this TB IAW paragraph 14.b.(1) NLT 12 February 2002. Upon receipt of this TB, depot and materiel activity commanders will ensure all items in condition codes //A//, //B//, //C//, //D//, and //E//, listed in para 7, are 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 message IAW paragraph 14.b.(2) NLT 22 February 2002.

(2) Retail Stock. Report receipt of this TB IAW paragraph 14.c.(1) NLT 12 February 2002. 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 para 8 and 9 on suspect materiel. Dispose of discrepant materiel IAW para 10.. Report compliance with this TB IAW para 14.c.(2) NLT 22 February 2002.

f. Components/Parts in Work (Depot Level and Others). Depot And other maintenance activity commanders will ensure items listed in para 6 and 7 are not issued until they are in compliance with this TB.

2. Task/Inspection Suspense Date. Complete the inspection requirements of paragraph 8 within the next 10 flight hours, but NLT 22 February, 2002 and report IAW paragraph 14.a.(2) NLT 26 February 2002.

3. TAMMS Reporting Compliance Suspense Date. Report compliance IAW paragraph 14.a.(1) NLT 15 February 2002.

4. Summary of Problem -

a. During a recent UH-60 main rotor rigging procedure, adjustments were being made to the pitch/trim input control pushrod. During final installation, the rod end jamnut (P/N 70400-02267-102) broke in half while being torqued. Subsequent analysis revealed the threads were improperly machined (undersize). Analysis also revealed the specimen nut displayed properties consistent with 7075-T6 aluminum, and nuts manufactured by the vendor were not coated with primer as required. During its first installation, the specimen nut may have had excessive force applied as a result of the non-conforming threads. Although the primary cause in this failure was static overload, 7075-T6 aluminum is also prone to stress corrosion cracking while under preload.

b. Manpower/downtime and funding impacts – See paragraph 12.

c. The purpose of this TB is to -

(1) Conduct an initial and recurring inspection for cracked control rod jamnuts.

(2) Require a publications change for the preventive maintenance services, 10 hr/14 day (30 hr/42 day) inspection checklist (PMS-1) for affected assemblies.

(3) Purge from retail and wholesale stock all nuts, plain hexagon, p/n 70400-02267-102, manufactured under cage code 1BER9.

5. End Items to be inspected. All H-60 aircraft.

6. Assembly Components to be Inspected.

ACFT	NOMENCLATURE	PART NO.	NSN
All	Rod Assy, Adj, Coll.	70400-02264-059	1680-01-159-4618
All	Rod Assy, Adj, Longit	70400-02264-058	1680-01-159-4614
ALL	Rod Assy, Adj, Yaw	70400-02264-060	3040-01-159-4621

ALL	Pushrod Assy, Adj, Yaw	70400-02264-061	1680-01-159-4623
60A/L	Rod Assy, Adj, Lat	70400-02264-062	3040-01-116-4719
60A/L	Rod Assy, Adj,	70400-02264-064	3040-01-085-4284
60K	Connect Link, Rig, Lat	70400-22264-045	1680-01-159-4631
60K	Pushrod Assy, Adj, Lat	70400-22264-047	3040-01-158-6090

7. Parts to be Inspected. -

NOMENCLATURE	PART NUMBER	NSN
Nut, Plain Hexagon	70400-02267-102	5310-01-100-2063

8. Inspection Procedures.

- a. Open/remove main rotor pylon sliding cover.

CAUTION

Careful removal of corrosion preventive compound (CPC) from the jamnut may be required to properly conduct this visual inspection. Use non-metallic scraper for removal of CPC and extreme care not to inflict scratches on the jamnut during this process.

NOTE

There is no requirement to remove the control rod(s) to conduct this inspection. Use of an inspection mirror for the underside surface of each jamnut is recommended.

- b. Using a non-metallic scraper, remove CPC and visually inspect each (collective, longitudinal, lateral and yaw) control rod jamnut (P/N 70400-02267-102) fore and aft of the boost servo assemblies as listed in paragraph 6. for visible cracks. The jamnut locations are provided in TM 1-1520-237-23P-4 (figure 49), or TM 1-1520-250-23P-2 (fig 439).

- (1) If no cracks are found on any of the control rod jamnuts, proceed to para 9.a..
- (2) If any cracks are found or suspected, proceed to para 9.b..
- (3) If inspection criteria is not met, proceed to paragraph 9.b..

- c. Recurring Inspection - A recurring inspection of the control rod jamnuts will be required at each 30 hour/42 day PMS-1 IAW paragraph 12.e. of this TB. The removal of the CPC from the jamnuts is not required to complete the recurring inspections.

9. Correction Procedures.

- a. If no cracks are found -
- (1) Re-apply CPC as required.
 - (2) Re-install/close main rotor pylon sliding cover.
 - (3) Clear the red horizontal dash // - // entry required IAW para 1.a..
- b. If a cracked jamnut is found or suspected -

NOTE

Prior to removal of the control rod assembly, contact the Technical POC in para 16.a.. If the control rod is not required for further analysis, it may be re-installed in the aircraft.

- (1) Remove and replace the affected control rod assembly IAW TM 1-1520-237-23-6 (paragraphs 11-4-77 and 78, 11-4-80 and 81, 11-4-84 and 85), or TM 1-1520-250-23-5 (paragraphs 11.25.9 and 10, 11.25.12 and 13, 11.25.16 and 17).

(2) Dispose of the suspect control rod and cracked nut IAW paragraph 10.d.(1) of this TB.

(3) Clear the red horizontal dash // - // entry required by paragraph 1.a..

c. Retail or wholesale stockage facilities will note the cage code is not stamped on the jamnut. The only means of identifying the cage code is if the jamnut is still in the original packing. The cage code is on the packing.

(1) Purge from stock all nuts, plain hexagon, P/N 70400-02267-102, manufactured under cage code 1ber9.

(2) Purge from stock all nuts, plain hexagon, P/N 70400-02267-102, where the cage code cannot be determined.

(3) Report compliance to wholesale poc IAW paragraph 16.c..

10. Supply/Parts and Disposition.

a. Parts required - Items cited in paragraphs 6 and 7 may be required to replace defective items.

b. Requisition instructions - Requisition replacement parts using normal supply procedures. All requisitions shall use project code (CC 57-59) "X1M" (X-Ray One Mike).

NOTE

Project code "X1M" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of message actions.

c. Bulk and Consumable Materials.

NOMENCLATURE	PART NUMBER	NSN
LOCKWIRE	MS20995NC32	9525-00-803-3044
LOCKWIRE	MS20995C20	9525-00-221-2650
LOCKWIRE	MS20995C32	9505-01-054-2676

d. Disposition -

(1) Aircraft In Use - Submit assembly with a cracked jamnut as a category 1 QDR exhibit for additional analysis. Contact Technical Point Of Contact listed in paragraph 16.a. for final disposition instructions.

(2) Retail/Wholesale Stock - Demilitarize/mutilate IAW TM 1-1500-328-23 any part/component which does not meet inspection criteria.

e. Disposition Of Hazardous Material - N/A.

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

12. Application.

a. Category of Maintenance. AVUM for inspection and correction requirements. Aircraft downtime will be charged to AVUM.

b. Estimated Time Required.

(1) Time to Complete Inspection -

(a) Total of 1 man-hour using 1 person.

(b) Total of 1 hour downtime for one end item.

(2) Time For Repair/Replacement -

(a) Total of 4 man-hours using 2 persons.

(b) Total of 12 hours downtime for one end item to remove and replace all six control rods.

Downtime does not include time required for required MOC/test flight.

c. Estimated cost impact to the field.

NOMENCLATURE	PART NO./NSN	QTY.	COST EA.	TOTAL
NUT, PLAIN HEXAGON	70400-02267-102 5310-01-100-2063	6	\$11.23	\$67.38
ROD ASSY, ADJ, COLL	70400-02264-059 1680-01-159-4618	1	\$725.27	\$725.27
ROD ASSY, ADJ, LONGIT	70400-02264-058 1680-01-159-4614	1	\$736.26	\$736.26
ROD ASSY, ADJ, YAW	70400-02264-060 3040-01-159-4621	1	\$426.57	\$426.57
ROD ASSY, ADJ, YAW	70400-02264-061 1680-01-159-4623	1	\$798.20	\$798.20
ROD ASSY, ADJ, LAT (H-60A/L ONLY)	70400-02264-062 3040-01-116-4719	1	\$813.19	\$813.19
CONNECT LINK, RIG, LAT (H-60A/L ONLY)	70400-02264-064 3040-01-085-4284	1	\$833.17	\$833.17
ROD ASSY, ADJ, LAT (H-60K ONLY)	70400-22264-045 1680-01-159-4631	1	\$1690.70	\$1690.70
CONNECT LINK, RIG, LAT (H-60K ONLY)	70400-22264-047 3040-01-158-6090	1	\$1505.96	\$1505.96

Total Cost per Aircraft (H-60A/L) = \$4400.04

Total Cost per Aircraft (H-60K) = \$5950.34

d. TB/MWOs to be applied prior to or concurrently with this inspection. N/A

e. Publications which require change as a result of this inspection.

The following publications shall be changed to reflect this message. A copy of this TB shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

(1) TM 1-1520-237-PMS-1, Technical Manual, Preventive Maintenance Services, 10 hour/14 day inspection checklist, change sequence number 6.4 (30 hour/42 day) as follows - Change "inspect flight control rods, bellcranks, and supports for cracks, wear, distortion, and security of attachment" to read "inspect flight control rods, Jamnuts, bellcranks, and supports for cracks, wear, distortion, and security of attachment. Inspect for looseness between the control tube body and jamnuts by moving the control rod assembly in any direction".

(2) TM 1-1520-250-PMS-1, Technical Manual, Preventive Maintenance Services, 10 hour/14 day inspection checklist, change sequence 6.4 (30 hour/42 day) as follows - Change "inspect flight control rods, bellcranks, mixing unit components and supports for cracks, wear, distortion, and security of attachment" to read - "inspect flight control rods, jamnuts, bellcranks, mixing unit components and supports for cracks, wear, distortion, and security of attachment. Inspect for looseness between the control tube body and jamnuts by moving the control rod assembly in any direction".

13. References.

- a. DA PAM 738-751, 15 March 1999
- b. TM 1-1520-237-23-1, 29 May 1998
- c. TM 1-1520-237-23-6, 29 May 1998
- d. TM 1-1520-237-23P-4, 27 November 2000

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- e. TM 1-1520-250-23-1, 28 July 2000
- f. TM 1-1520-250-23-5, 28 July 2000
- g. TM 1-1520-250-23P-2, 28 July 2000
- h. TM 1-1520-328-23, 30 July 1999

14. Recording and Reporting Requirements.

a. Aircraft:

(1) TAMMS Reporting Compliance Suspense.

Tamms Reporting Compliance Suspense - Upon entering requirements of this TB on DA Form 2408-13-1 for all affected aircraft, commanders will forward a priority message, fax or email to CDR, AMCOM, ATTN: AM-SAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898-5000, IAW AR 95-1, NLT date specified in paragraph 3.. Fax number is DSN 897-2111 or (256) 313-2111. Email 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.

(2) Task/Inspection Reporting Suspense.

Task/Inspection Reporting Suspense - upon completion of inspection, commanders will forward a priority message to the Logistical Point Of Contact IAW paragraph 16.b.. The report will cite this TB number, date of inspection, aircraft serial number, and results of the inspection. Inspection and reports will be completed NLT date specified in paragraph 2..

b. Wholesale Spare Parts/Assemblies. -

(1) Reporting Message Receipt - Depot and materiel activity commanders will report receipt of this TB by email or fax to the Wholesale Materiel (Spares) Point Of Contact listed in paragraph 16.c. NLT date specified in paragraph 1.e.(1) Provide local point of contact.

(2) Task/inspection Reporting Suspense - Depot and materiel activity commanders will provide a DD Form 1225 to the Wholesale Materiel Point Of Contact (Spares) listed in paragraph 16.c. NLT date specified in paragraph 1.e.(1). Provide an estimate of the cost reimbursable funding required to move serviceable items on hand listed in paragraph 7. to a work area, unpack the materiel, repack the materiel after inspection by AMCOM inspectors, and to return the materiel to storage, as appropriate. Report, by original serviceable condition code, the quantity of materiel placed in condition code // J //. Report by email or fax and provide local point of contact.

c. Retail Spare Parts/Assemblies.

(1) Reporting Message Receipt - Commanders and facility managers will report receipt of this TB by email or fax to the Logistical Point Of Contact listed in paragraph 16.b. NLT date specified in paragraph 1.e.(2). Provide local point of contact.

(2) Task/Inspection Reporting Suspense - Commanders and facility managers will report inspection results to the Logistical Point Of Contact in paragraph 16.b. NLT date specified in paragraph 1.e.(2). Report the quantity inspected by condition code and the resulting condition code. Report by email or datafax and provide local point of contact.

d. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 March 1999.

NOTE

ULLS-A users will use applicable "E" forms.

- (1) DA Form 2408-5-1, Equipment Modification Record (Expandable Pin)
- (2) DA Form 2408-13, Aircraft Status Information Record
- (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record
- (4) DA Form 2408-15, Historical Record For Aircraft

(5) DD Form 1575/DD Form 1575-1, Suspended Tag/Label – Materiel (Color Brown). Annotate remarks block with "Suspended IAW TB 1-1520-237-20-246."

(6) DD Form 1577/DD Form 1577-1, Unserviceable (Condemned) Tag/Label – Materiel (Color Red). Annotate Remarks Block with "Unserviceable IAW TB 1-1520-237-20-246."

15. Weight and Balance. N/A.

16. Points of Contact.

a. Technical point of contact is Mr. Roger Clark, AMSAM-RD-AE-I-D-U, DSN 897-2350 ext 9715, comm 256-705-9715, Fax 256-705-9896, email roger.clark@rdec.redstone.army.mil.

b. Logistical point of contact is Mr. Joe Hoover, AMSAM-DSA-UH-L, DSN 645-7898 or (256) 955-7898, datafax is DSN 897-3778 or (256)313-3778. Email is "joe.hoover@uh.redstone.army.mil"

c. Wholesale Materiel POC (Spares) is MS. Melody Melendy, AMSAM-MMC-AV-UB, DSN 897-1190 or (256) 313-1190, Fax is dsn 897-4769. Email is "melody.melendy@redstone.army.mil"

d. Forms and Records Point Of Contact is Ms. Ann Waldeck, AMSAM-MMC-MA-NM, DSN 746-5564 or (256) 897-5564, Datafax is DSN 746-4904 or (256) 876-4904. Email is "ann.waldeck@redstone.army.mil".

e. Safety points of contact are:

(1) Primary – Mr. Harry Trumbull (SAIC), AMSAM-SF-A, DSN 897-2095 or (256) 313-2095, Fax is DSN 897-2111 or (256) 313-2111. Email is "harry.trumbull@redstone.army.mil".

(2) Alternate – Mr. Ron Price, AMSAM-SF-A, DSN 788-8636 or (256) 842-8636, datafax is DSN 897-2111 or (256) 313-2111. Email is "ron.price@redstone.army.mil".

f. Foreign Military Sales recipients requiring clarification of action advised by this TB should contact:

(1) Primary: Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-6856 or (256) 313-6856. Datafax is DSN 897-6630 or (256) 313-6630. Email "ronnie.sammons@redstone.army.mil".

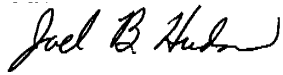
g. After hours contact AMCOM Command Operations Center (COC) DSN 897-2066/7 or (256) 313-2066/7.

17. Reporting of Errors and Recommended 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, AL 35898-5000. A reply will be furnished directly to you. You may also submit your recommended changes by email directly to 2028@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual."

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By Order of the Secretary of the Army:

Official:



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
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ERIC K. SHINSEKI
General, United States Army
Chief of Staff

DISTRIBUTION:

To be distributed in accordance with Initial Distribution Number (IDN) 314032 requirements for TB 1-1520-237-20-246.

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" <whomever@avma27.army.mil>

To: 2028@redstone.army.mil

Subject: DA Form 2028

1. **From:** Joe Smith
2. **Unit:** home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** MO
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub no:** 55-2840-229-23
9. **Pub Title:** TM
10. **Publication Date:** 04-JUL-85
11. **Change Number:** 7
12. **Submitter Rank:** MSG
13. **Submitter FName:** Joe
14. **Submitter MName:** T
15. **Submitter LName:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem: 1**
18. **Page:** 2
19. **Paragraph:** 3
20. **Line:** 4
21. **NSN:** 5
22. **Reference:** 6
23. **Figure:** 7
24. **Table:** 8
25. **Item:** 9
26. **Total:** 123
27. **Text:**

This is the text for the problem below line 27.