# **URGENT**

\*TB 1-1520-248-20-65

# DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

# FOR ENGINE TO TRANSMISSION DRIVESHAFT ALL OH-58D HELICOPTERS

Headquarters, Department of the Army, Washington, D. C. 20 May 2002

#### REPORTING OF ERRORS AND RECOMMENDED IMPROVEMENTS

You can improve this manual. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028–2 located in back of this manual, directly to: Commander, U.S. Army Aviation and Missile Command, ATTN: AMSAM–MMC–MA–NP. Redstone Arsenal, AL. 35898–5000. A reply will be furnished to you. You may provide DA Form 2020 information to AMCOM via e–mail, fax, or the World Wide Web. Our fax number is: DSN 788–6546 or commercial 256–842–6546. Our e–mail address: 2028@ redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028. For the World Wide Web use: https://amcom2028.redstone.army.mil.

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

#### NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

## 1. Priority Classification. URGENT.

a. Aircraft in Use. Upon receipt of this Technical Bulletin (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 driveshaft assembly IAW OH–58–02–ASAM–07 (TB 1–1520–248–20–65) within the next 20 flight hours, but NLT 30 May 2002." Clear the red horizontal dash //–// entry when the procedures IAW paragraph 8 and 9 are completed. The affected aircraft shall be inspected as soon as practical but no later than 30 May 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.
  - (1) Aircraft in AVUM, AVIM or Depot Level Maintenance -- same as paragraph 1.a.
- (2) Aircraft at Contractor Facility will inspect DD 250 aircraft prior to those aircraft departing for ferry to final destination.

<sup>\*</sup>This TB supersedes OH-58-02-ASAM-07, 15 May 2002.

#### TB 1-1520-248-20-65

- c. Aircraft in Transit.
  - (1) Surface/Air Shipment -- Within 20 hours/14 days of arrival.
  - (2) Ferry Status -- Inspect at final destination.
- d. Maintenance Trainers (Category A and B) -- Same as paragraph 1. a.
- e. Component/Parts in Stock at all levels (Depot and others) including War Reserves at All Levels (Depot and Others) --- N/A.
- 2. Task/Inspection Suspense Date Complete the inspection IAW paragraph 8 within the next 20 flight hours but NLT 30 May 2002 and report IAW paragraph 14.a.(2) NLT 4 June 2002.
- 3. TAMMS Reporting Compliance Suspense Date -- Report compliance IAW paragraph14.a.(1) NLT 4 June 2002.
- 4. Summary of Problem --
- a. The U.S. Army has received deficiency reports on the driveshaft assembly used between the engine and transmission. These deficiency reports noted loose bolts and cracking at the holes in the flexure plates.
  - b. Manpower/downtime and funding impacts -- see paragraph 12.
  - c. The purpose of this TB is to --
- (1) Perform a records search to determine the time since new (TSN) and time since overhaul (TSO) for the drive-shaft assembly.
  - (2) Inspect the driveshaft and verify the engine to transmission alignment.
- (3) Announce that effective 1 June 2003 the time between overhaul (TBO) interval for the driveshaft will be reduced from 2400 hours to 1600 hours.
- 5. End Items to be Inspected -- All OH-58D aircraft.
- 6. Assembly Components to be Inspected --

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Driveshaft Assembly	406-040-300-105/SKCP2485-3	1615–01–185–9047
Driveshaft Assembly	406-040-300-107/SKCP2485-5	1615-01-466-4797

- 7. Parts to be Inspected -- N/A.
- 8. Inspection Procedures --
- a. Review aircraft time change DA Form 2408–16 to determine the total time since new (TSN) and time since overhaul (TSO) for the items listed in paragraph 6.

#### **CAUTION**

The special tool (P/N SKSP1404–1) identified in paragraph 11 and the maintenance manual is the only tool authorized for the removal and replacement of the driveshaft. No other tool is authorized. Any other method of compressing the shaft can damage the flex frames and initiate cracking.

- b. Remove the driveshaft from the aircraft in accordance with (IAW) task 6-2-1 of TM 1-1520-248-23.
- c. Verify the alignment of the engine to the transmission IAW task 4–7–4 of TM 1–1520–248–23. Make corrections if the alignment is out of specification.

- d. Perform a one time inspection of the driveshaft IAW task 6–2–2 of TM 1–1520–248–23. If the driveshaft fails inspection, contact the logistics POC listed at paragraph 16.b.
  - e. Proceed to paragraph 9.

#### 9. Correction Procedures --

- a. If the driveshaft passes the inspection of paragraph 8.d., task 6-2-2 of TM 1-1520-248-23, reinstall serviceable driveshafts IAW task 6-2-1 of TM 1-1520-248-23.
- b. Effective 1 June 2003 the TBO of the components listed in paragraph 6 will be 1600 hours. Until 1 June 2003 all driveshafts have a TBO of 2400 hours. For aircraft with driveshafts exceeding 1600 hours replace the driveshaft as soon as possible but not later than 2400 hours or 1 June 2003.
- c. A new task will be added to TM 1–1520–248–23–3 for "on aircraft" inspection of the driveshaft. The task number will be 6–2–3.
- d. The current PMS task will be revised in TM 1–1520–248–PPM to provide the on–aircraft inspection criteria. A task will be added to the PMS between 5.11 and 5.12 for the right side. Task 11.15, 14.2, and 14.36 will be revised as follows

#### **CAUTION**

No hand tools will be used for inspection of hardware.

#### NOTE

Rotation of blades may be necessary for complete inspection of driveshaft.

Inspect Installation hardware for security and damaged threads. Visually inspect driveshaft for scratches, nicks, dents, and corrosion. Inspect flexframes for nicks, cracks and security. Inspect flexframe hardware for condition and security – physically attempt to rotate flexframe by hand. Refer to task 6–2–3.

- e. Clear the original write up IAW paragraph 1.a. of this TB.
- f. The service/retirement life of the items in paragraph 6 is 4800 hours. The service/retirement life does not change as a result of this message.

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

- a. Parts Required. Items cited in paragraph 12.c. may be required to replace defective items.
- b. Requisitioning Instructions. Requisition replacement parts using normal supply procedures. All requisitions shall use project code (CC 57–59) "X1S" (X–ray–one Sierra).

#### NOTE

Project code "X1S" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of TB actions.

c. Bulk and Consumable Materials.

Nomenclature	Part Number	NSN	QTY	
Bolt	NAS 6604-5	5306-01-130-8993	12	
Nut	MS 21042L4	5310-00-807-1475	12	
Washer	AN 960-416L	5310-00-167-0835	24	

#### TB 1-1520-248-20-65

d. Disposition. All turn-in documents must include project code (CC 57-59) "X1S" (X-ray-one Sierra).

#### 11. Special Tools, Jigs, and Fixtures Required. --

Toolset, Driveshaft	P/N SKSP1404-1	NSN 4920-01-471-7266
Set, Alignment, Transmission-to-Engine	P/N T103315-101	NSN 4920-01-186-6907

#### 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 message. Report aircraft non-mission capable supply (NMCS) while waiting for parts IAW this message.
  - b. Estimated time required --
    - (1) Time to complete inspection --
      - (a) Total of 12 man-hours using 2 persons.
      - (b) Total of 6 hours downtime for one end item.
    - (2) Time for repair/replacement --
      - (a) Total of 12 man-hours using 2 persons.
      - (b) Total of 6 hours downtime for one end item.
  - c. Estimated Cost Impact to the Field.

NOMENCLATURE	PART NUMBER NATIONAL STOCK NUMBER	QTY	COST EACH	TOTAL \$		
Driveshaft Assembly	406-040-300-107/SKCP2485-5 1615-01-466-4797	1	\$6,110.88	\$6,110.88		
Bolt	NAS 6604-5 5306-01-130-8993	12	\$ .30	\$ 3.60		
Nut	MS 21042L4 5310-00-807-1475	12	\$ .12	\$ 1.44		
Washer	AN 960-416L	24	\$ .02	\$ .48		
Total cost per aircraft = \$6,116.40						

d. TB/MWOs to be Applied Prior to or Concurrently with this Inspection -- N/A.

#### 13. Reference.

- a. DA PAM 738-751, 15 March 1999.
- b. TM 1-1520-248-23, 28 February 2000
- c. TM 1-1520-248-PPM, 31 December 2001

#### 14. Recording and Reporting Requirements.

a. Aircraft ---

e. Publications Which Require Change as a Result of This Inspection. TM 1–1520–248–23 and TM 1–1520–248–PPM (PMS) 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.

- (1) 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, datafax or e–mail to Commander, U.S. Army Aviation and Missile Command, ATTN: AMSAM–SF–A (SOF Compliance Officer), Redstone Arsenal, AL 35898–5000, IAW AR 95–1, NLT date specified in paragraph 3. Datafax number is DSN 897–2111 or (256) 313–2111. E–mail address is safeadm@redstone.army.mil. The report will cite this message and 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 upon completion of inspection, Commanders will forward a priority message to the logistical point of contact listed in paragraph 16.b. The report will cite this TB number, date of inspection, aircraft serial number, aircraft and component hours (TSN/TSO), and results of the inspection. Inspection and reports will be completed NLT date specified in paragraph 2.
  - b. Wholesale Spare Parts/Assemblies -- N/A.
  - c. Retail Spare Parts/Assemblies -- N/A.
  - d. The following forms are applicable and are to be completed IAW 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 (Main Driveshaft Assembly).
- (2) DA Form 2408–13, Aircraft Status Information Record.
- (3) DA Form 2408–13–1, Aircraft Inspection and Maintenance Record.
- (4) DA Form 2408–16, Aircraft Component Historical Record.
- (5) DA Form 2410, Component Removal and Repair/Overhaul Record. (Required to show removal, inspection and re-installation).
- (6) DD Form 1577–2/DD Form 1577–3, Unserviceable (Reparable) Tag/Label Material (Color Green). Annotate remarks block with "Unserviceable IAW OH–58–02–ASAM–07 (TB 1–1520–248–20–65)".
- 15. Weight and Balance -- N/A.

#### 16. Points of Contact --

- a. Technical point of contact for this TB is Mr. Martin Ohrenberg, AMSAM-RD-AE-I-D-O, DSN 897-2350 ext 9847 or commercial (256) 705-9847. Datafax number is DSN 897-2350 ext 9918 or commercial (256) 705-9918. E-mail address is martin.ohrenberg@rdec.redstone.army.mil.
- b. Logistical point of contact for this TB is Ms. Ann Snodgrass, SFAE-AV-AS-ASH-L, DSN 645-7528 or (256) 955-7528, datafax DSN 645-7125. E-mail address is ann.snodgrass@redstone.army.mil.
- c. Wholesale materiel point of contact (spares) is Mr. Tom Fitzgerald, AMSAM–MMC–AV–SOA, DSN 897–1391 or (256) 313–1391, datafax DSN 788–6758. E–mail is thomas.fitzgerald@redstone.army.mil.
- d. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAM–MMC–MA–NM, DSN 746–5564 or (256) 876–5564, datafax DSN 746–4904 or (256) 876–4904. E-mail address is ann.waldeck@redstone.army.mil.
  - e. Safety Points of Contact are --
- (1) Primary -- Mr. Frank Rosebery (SAIC), AMSAM-SF-A, DSN 788-8631 or (256) 842-8631, datafax DSN 897-2111 or (256) 313-2111. E-mail address is frank.rosebery@redstone.army.mil.
- (2) Alternate Mr. Ron Price, AMSAM–SF–A, DSN 788–8636 or (256) 842–8636, datafax DSN 897–2111 or (256) 313–2111. E–mail address is ron.price@redstone.army.mil.
- f. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact Mr. Ronnie W. Sammons, AMSAM–SA–CS–NF, DSN 897–6856 or (256) 313–6856, datafax DSN 897–6630 or (256) 313–6630. E–mail address is ronnie.sammons@redstone.army.mil.

# TB 1-1520-248-20-65

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

By Order of the Secretary of the Army:

Official:

**ERIC K. SHINSEKI**General, United States Army

Chief of Staff

**JOEL B. HUDSON** 

Joel B. Hulm

Administrative Assistant to the Secretary of the Army 0213606

## **DISTRIBUTION:**

To be distributed in accordance with Initial Distribution Number (IDN) 314053, requirements for TB 1–1520–248–20–65.

# These are the instructions for sending an electronic 2028

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

Address: 4300 Park
 City: Hometown

5. *St:* MO6. *Zip:* 77777

7. Date Sent: 19-OCT-93

8. *Pub no:* TB 1–1520–248–20–65

9. *Pub Title:* Inspection and Overhaul Interval Change for Engine to Transmission Driveshaft

10. Publication Date: 30 May 2002

Change Number:
 Submitter Rank: MSG
 Submitter FName: Joe
 Submitter MName: T
 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.

PIN: 079986-000