

# URGENT

TB 1-1520-240-20-113

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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### INSPECTION OF FORWARD AND AFT TRANSMISSIONS GEAR/BEARING ASSEMBLIES FOR ALL CH-47D, MH-47D AND MH-47E AIRCRAFT

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Headquarters, Department of the Army, Washington, D. C.  
01 September 1999

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#### NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

#### 1. Priority Classification. Urgent

a. Aircraft in Use. Safety of Flight message CH-47-SOF-99-02 placed all H-47 series aircraft on a red //X// condition status symbol. The red //X// imposed by CH-47-SOF-99-02 may be cleared on some aircraft if the inspection procedures of paragraph 8 and the correction procedures of paragraph 9 of this message are complied with. Aircraft which remain on red //X// will be maintained in flyable storage with the following restrictions - perform ground run UPS at ground idle, with flat blade pitch and neutral flight controls.

b. Aircraft in Depot Maintenance. Same as paragraph 1a.

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

d. Aircraft in Transit.

(1) Surface/Air Shipment. Same as paragraph 1a. Prior to first flight on arrival.

(2) Ferry Status.

(a) Same as paragraph 1a.

(b) Those aircraft that have a DD 250 and are at Boeing Helicopters will be inspected prior to ferry to final destination.

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

f. Component/Parts in Stock at All Levels (Depot and Others) including War Reserves: Upon receipt of this TB the material condition tags of all items in all condition codes listed in paragraphs 6 and 7 shall be annotated to read "SOF CH-47-99-03, Inspection of H-47 Aircraft Forward and Aft Transmissions Gear/Bearings Assemblies Not Complied With."

**TB 1-1520-240-20-113**

(1) Wholesale Stock. Report receipt of this TB in accordance with paragraph 14c(1). Upon receipt of this TB all serviceable items (condition codes //A//, //B//, //C//, //D//, and //E//) listed in paragraphs 6 and 7 located in wholesale depot storage shall be placed in condition code //D// and tagged with a test/modification tag/label – material, DD Form 1576/1576-1. Do not remove original condition tags. Report compliance with this TB in accordance with paragraph 14d(1).

(2) Retail Stock. Upon receipt of this TB commanders and others maintaining retail stock at installation level and below shall place all serviceable items listed in paragraph 6 in condition code //D// and tag with a test/modification tag/label – material, DD Form 1576/DD Form 1576-1. Do not remove original condition tags.

g. Components/Parts in Work (Depot Level and Others. Items listed in paragraphs 6 and 7 in work will not be issued until compliance with this TB.

**2. Task/Inspection Suspense Date.** Within 10 days from date of this TB.

**3. Reporting Compliance Suspense Date.** No later than 14 September 1999 in accordance with paragraph 14a of this TB..

**4. Summary of the Problem.**

a. Five cracked second stage planetary gears/bearing assemblies were found. The cracks were not detected by the required non-destructive testing procedure at time of manufacture. These gear/bearing assemblies are located in the forward and aft transmissions. The manufacturers of these also make the first stage planetary gear/bearing assemblies. This message is the first in a series listing inspection requirements that must be accomplished, beginning at the depot level.

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

c. The purpose of this TB is to identify transmissions which have had all gear/bearing assemblies inspected and have been reidentified by an "MG" serial number suffix. Transmissions with a "MG" serial number suffix are considered serviceable.

**5. End Items to be Inspected.** All H-47 series aircraft.

**6. Assembly Components to be Inspected.**

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
TRANSMISSION, FORWARD	145D1300 – ALL	1615-01-317-6446
		1615-01-312-5162
		1615-00-296-3090
		1615-01-306-6971
		1615-01-216-3827
TRANSMISSION, AFT	145D2300 – ALL	1615-01-315-4071
		1615-01-327-1297
		1615-01-296-3091
		1615-01-307-4842
		1615-01-216-3829

**7. Parts to be Inspected.**

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
GEAR/BEARING ASSY	145DS010-8	3110-01-353-7369
GEAR/BEARINGASSY	145DS010-5	3110-01-228-1647

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
GEAR/BEARING ASSY	145DS010-3	N/A
GEAR/BEARING ASSY	145DS011-6	3020-01-114-9550
GEAR/BEARING ASSY	145DS011-8	3110-01-232-7708
GEAR/BEARING ASSY	145DS011-9	3110-01-350-3674

## 8. Inspection Procedures.

- a. Forward and Aft Transmission: N/A

### NOTE

Currently there are no transmissions issued that have the "MG" suffix to the serial number. All existing transmissions will require depot level inspection and reidentification in accordance with this SOF.

- b. All gear/bearing assemblies identified in paragraph 7 shall be reinspected at depot level using approved magnetic particle inspection (MPI) procedures in accordance with paragraph 9.

## 9. Correction Procedures.

- a. Transmissions identified with a "MG" serial number suffix are considered serviceable. If two serviceable transmissions are installed on same aircraft, the red "X" status symbol required by reference 13 may be cleared.

- b. Transmissions not identifiable with a "MG" serial number suffix are considered unserviceable at this time and shall remain on aircraft pending follow-up instructions.

- c. All gear/bearing assemblies identified in paragraph 7 shall be reinspected at a depot repair facility using approved Magnetic Particle Inspection (MPI) procedures. Gear/bearing assemblies which are rejected at overhaul for any reason, shall be tagged/labeled with DD Form 1577 / DD Form 1577-1 and retained for future investigation.

## 10. Supply/Parts and Disposition.

- a. Parts Required. N/A.
- b. Requisitioning Instructions. Transmissions will be requisitioned/distributed as they become available in accordance with Army priorities. Requisitioning guidance will be provided in future correspondence.
- c. Bulk and Consumable Materials. N/A.
- d. Disposition. N/A.
- e. Disposition of Hazardous Material. N/A.

## 11. Special Tools and Fixtures Required. N/A.

## 12. Application.

- a. Category of Maintenance. Continue reporting aircraft downtime in accordance with CH-47-SOF-99-02 (Depot Maintenance).
- b. Estimated Time Required for Inspection. N/A.
- c. Estimated Cost Impact to the Field. N/A.
- 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.
- (1) TM 55-1520-240-23 Series
  - (2) TM 1-1520-252-23 Series

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(3) DMWR 55-1615-321

(4) DMWR 55-1615-324

**13. References.** CH-47-SOF-99-02.

### **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 DSN 897-2111 or commercial (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). N/A.

c. Reporting Message Receipt (SPARES). N/A.

d. Task/Inspection Reporting Suspense Date (SPARES).

(1) Materiel in Wholesale Depot Storage. Report compliance with this message to the Wholesale Material point of contact (SPARES) listed in paragraph 16c within 7 days of the date of this TB on DD Form 1225. Provide the cost of compliance with this TB to include an estimate of the cost reimbursable funding required to move serviceable items on hand listed in paragraphs 6 and 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 //D//. Report by e-mail or datafax and provide local point of contact.

(2) Materiel in Retail Storage. N/A.

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 1576 / DD Form 1576-1, Test/Modification Tag/Label - Material (Color BLue) (Annotate remarks block with "Test/Modifications Required In Accordance With CH-47-99-03").

(5) DD Form 1577 / DD Form 1577-1, Unserviceable (Condemned) Tag/Label - Materiel (Color Red) (Annotate remarks block with "Condemned In Accordance With CH-47-99-03").

**15. Weight and Balance.** N/A.

### **16. Points of Contact.**

a. Technical point of contact for this TB is Mr. Matt Wesselschmidt, AMSAM-AR-E-I-C-H, DSN 897-3380 or commercial (256) 313-3380, datafax is (256) 313-4348. e-mail is "wesselschmidt-ml@redstone.army.mil".

b. Logistical point of contact for this TB is Mr. Bill Olson, SFAE-AV-CH-L, DSN 897-3379 or commercial (256) 313-3379, datafax is (256) 313-4348. E-mail is "olsonw@peoavn.redstone.army.mil".

c. Wholesale Materiel point of contact (SPARES) is Mr. Ed Holter, AMSAM-MMC-VS-UC, DSN 897-1125 or commercial (256) 313-1125, datafax is DSN 897-1558. E-mail is "holter-ec@redstone.army.mil".

d. Forms and Records point of contact for this TB is Ms. Ann Waldeck, AMSAM-MMC-RE-FF, DSN 746-5564 or commercial (256) 876-5564, datafax is DSN 746-4904. E-mail is "waldeck-ab@redstone.army.mil".

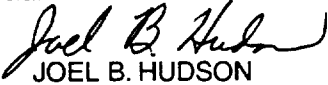
e. Safety point of contact for this TB is Mr. Robert D. Brock, AMSAM-SF-A, DSN 788-8632 or commercial (256) 842-8632. E-mail is "bob.brock@redstone.army.mil". The alternate point of contact is Mr. Howard Chilton, AMSAM-SF-A, DSN 897-2068 or commercial (256) 313-2068, datafax is DSN 897-2111 or commercial (256) 313-2111. E-mail is "howard.chilton@redstone.army.mil".

f. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact CW5 Joseph L. Wittstrom, Security Assistance Management, AMSAM-SA, DSN 897-0681, or commercial (256) 313-0681. E-mail is "wittstromjl@redstone.army.mil" or Mr. Ronnie Sammons, AMSAM-SA-CS-NF, DSN 897-0869 or commercial (256) 313-0869, datafax is DSN 897-0411 or commercial (256) 313-0411. E-mail is "sammonsrw@redstone.army.mil". Huntsville, AL is GMT minus 6 hours.

g. After hours contact the AMCOM COMMAND OPERATIONS CENTER (COC) DSN 897-2066/7 or commercial (256) 313-2066/7.

By Order of the Secretary of the Army:

Official:

  
JOEL B. HUDSON  
*Administrative Assistant to the  
Secretary of the Army*  
9924301

ERIC K. SHINSEKI  
*General, United States Army  
Chief of Staff*

DISTRIBUTION:

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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: <ls-lp-@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.

PIN: 077515-000