

URGENT

\*TB 1-1520-240-20-102

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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ONE TIME INSPECTION FOR AFT TRANSMISSIONS  
WITH SUSPECTED IMPROPERLY SHIMMED INPUT  
PINION GEAR ASSEMBLY  
ALL CH-47D, MH-47D, AND MH-47E AIRCRAFT

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Headquarters, Department of the Army, Washington, D. C.  
21 May 1998

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**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**THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.**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) the condition status symbol of the cited aircraft will be changed to a **red -**. The **red-** may be cleared when the inspection of paragraph 8 below is completed. The affected aircraft shall be inspected as soon as practical, but no later than the task/inspection suspense date. Failure to comply with the 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. Same as paragraph 1a.

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

d. Aircraft in Transit.

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

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

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

f. Component/Parts in Stock Including War Reserves at All Levels (Depot and Others).

(1) Wholesale Stock. Wholesale stock has been inspected for suspect transmissions.

(2) Retail Stock. Report receipt of this TB in accordance with paragraph 14c(2). Upon receipt of this TB, Commanders and others maintaining retail stock at installation level and below shall contact the supported aviation unit to perform the inspection required by paragraph 8. Report compliance with this TB in accordance with paragraph 14d(2).

\*This TB supersedes USAAMCOM Message 141621Z MAY 98 CH-47-98-04 (SOF).

g. Component/Parts in Work (Depot and Others). Items listed in paragraph 6 in work will not be issued until compliance with this TB is complete. Report compliance with this TB in accordance with paragraph 14d(2).

**2. Task/Inspection Suspense Date.** The task/inspection suspense date shall be within the next 10 flight hours or 14 days from the date of issuance of the ASAM, whichever comes first.

**3. Reporting Compliance Suspense Date.** No later than 5 June 1998 per paragraph 14a of this TB.

**4. Summary of the Problem.**

a. Detailed investigation has identified 23 aft transmissions that have been overhauled with improper shimming of the input shaft. This deficiency causes excessive vibration of the transmission and premature wear of the input pinion gear and its mating gear. The shimming procedure has been corrected by tool modification, and all aft transmissions overhauled after 8 December 1997 are not considered suspect. The reference message/memorandum in paragraph 13 was sent in attempt to locate these specific transmissions and expedite the process. It had some success in locating some of the 23 transmissions. This TB requires a visual check of the transmission data plate.

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

c. The purpose of this TB is to require a one time inspection of all aft transmissions with the purpose of finding suspect improperly shimmed aft transmission and to provide time since overhaul of transmission, aircraft serial number, and transmission serial number. A serial number listing of the suspect aft transmissions are listed in paragraph 8.

**5. End Items to be Inspected. All CH/MH-47D/E aircraft.**

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

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Aft Transmission Assy	145D2300-3	1615-01-216-3829
Aft Transmission Assy	145D2300-4	1615-01-307-4842
Aft Transmission Assy	145D2300-5	1615-01-296-3091
Aft Transmission Assy	145D2300-7	1615-01-315-4071

**7. Parts to be Inspected. N/A.**

**8. Inspection Procedures.**

**NOTE**

**Units that have performed a visual serial number inspection of aft transmissions data plate per the message given in paragraph 13 may enter this TB or ASAM CH-47-98-ASAM-04 as having been complied with on the aircraft records.**

a. Visually inspect all aft transmissions for the following serial numbers:

A9-022	A9-035	A9-036	A9-046	A9-052
A9-055FO	A9-058	A9-088FO	A9-105FO2	A9-122
A9-127	A9-129FO	A9-132	A9-140FO	A9-161
A9-216	A9-253FO	A9-260FO	A9-291	A9-375
A9-513	A9-572	A9-605		

**NOTE**

**The data plate on the transmission must be checked to verify correct serial number. Aircraft record checks alone are not sufficient and will not be used.**

b. Once corrected by depot maintenance, these serial numbered transmissions will be identified with a "BG" on the overhaul metal CAL/data plate. Also DA Forms 2410 reflecting a overhaul date of 8 December 1997 will indicate the transmission shimming problem has been corrected.

**9. Correction Procedures.** Contact the logistical point of contact listed in paragraph 16b in accordance with paragraph 14b. Negative reports are required.

**10. Supply/Parts and Disposition.**

a. Parts Required. Items cited in paragraph 6 may be required to replace defective items.

b. Requisitioning Instructions. Contact logistical point of contact in paragraph 16b for requisitioning instructions. All requisitions shall use project code (cc 57-59) 'XDZ', 'X-RAY-DELTA-ZULU.'

**NOTE**

**Project code XDZ", "X-RAY-DELTA-ZULU" is required to track and establish a database of stock fund expenditures incurred by the field as a result of SOF actions.**

c. Bulk and Consumable Materials. N/A.

d. Disposition. Hold in stock, or if installed, continue using on aircraft any discrepant part/component pending disposition instructions from the logistical point of contact in paragraph 16b.

e. Disposition of Hazardous Material. N/A.

**11. Special Tools, Jigs, and Fixtures Required.** N/A.

**12. Application.**

a. Category of Maintenance. AVUM.

b. Estimated Time Required.

- (1) Total of .5 man-hours using one person.
- (2) No downtime required.

c. Estimated Cost Impact of Stock Fund Items to the Field. N/A.

d. TB/MWOs to be Applied with This Inspection. N/A.

e. Publications Which Require Change as a Result of This Inspection. N/A.

**13. References.** Message, PEOAVN, 8 Jan 98, Subject: Search for CH-47 Aft Transmissions, CH-47 PM Memo 98-01.

**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 35898-5222 in accordance with AR 95-1. Datafax number is DSN 897-2111 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, units will forward a priority message to the logistical POC in paragraph 16b. The report will cite this TB number, date of inspection, aircraft serial number, suspect transmission serial number, TSO of suspect transmission, along with local POC and telephone number. Inspection and reports will be completed no later than five days after the task/inspection suspense date. A negative report is required.

## c. Reporting Message Receipt (Spares).

(1) Material in Wholesale Depot Storage. N/A.

(2) Material in Retail Storage. Report receipt of this message by e-mail or datafax to the logistical point of contact listed in paragraph 16b within 7 days from the date of this message. Provide local point of contact.

## d. Task/Inspection Reporting Suspense Date (Spares).

(1) Material in Wholesale Depot Storage. N/A.

(2) Material in Retail Storage. Report compliance with this TB by e-mail or datafax to the logistical point of contact in paragraph 16b within 14 days of the date of this message. The report will cite this TB number, date of inspection, suspect transmission serial numbers, TSO of suspect transmission, along with point of contact and telephone number. A negative report is required.

e. The following forms are applicable and are to be completed in accordance with DA PAM 738-751, 15 June 1992:

**NOTE**

**For units using ULLS-A, use applicable "E" forms.**

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

(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) DA Form 2408-16, Aircraft Component Historical Record.

(6) DA Form 2410, Component Removal and Repair/Overhaul Record.

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

**16. Points of Contact.**

a. Technical point of contact for this TB is Mr. Larry Wieschhaus, AMSAM-AR-E-I-C-H, DSN 897-4296 or commercial (256) 313-4296. Datafax is DSN 897-4348. E-mail is wieschhausl@avrdecr.redstone.army.mil.

b. Logistical point of contact for this TB is Mr. Norm Huston, SFAE-AV-CH-L, DSN 897-4289 or commercial (256) 313-4289. E-mail is hustonn@peoavn.redstone.army.mil.

c. The wholesale materiel point of contact (Spares) for this TB is Mr. Ed Holter, AMSAM-MMC-VSUC, DSN 897-1125 or (256) 313-1125. Datafax is 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@exchange 1.redstone.army.mil.

e. Safety point of contact for this TB is Mr. Howard Chilton, AMSAM-SF-A, DSN 897-2068 or commercial (256) 313-2068. Datafax is DSN 897-2111. E-mail is chilton-hl@redstone.army.mil. Alternate point of contact is Mr. Teng Ooi, AMSAM-SF-A, DSN 897-2094 or (256) 313-2094. Datafax is DSN 897-2111. E-mail is ooi-tk@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 (256) 313-0681. E-mail is wittstrom-jl@redstone.army.mil or Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0869 or (256) 313-0869. Datafax is DSN 897-0411 or (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.

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-LS-LP, Redstone Arsenal, AL 35898-5230. You may also submit your recommended changes by e-mail directly to [ls-lp@redstone.army.mil](mailto:ls-lp@redstone.army.mil). Instructions for sending an electronic 2028 may be found at the back of this manual. A reply will be furnished directly to you.

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

Official:

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*General, United States Army*  
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04645

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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.

