

**URGENT**

**DEPARTMENT OF THE ARMY TECHNICAL BULLETIN**

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**ONE TIME INSPECTION OF  
ENGINE TRANSMISSIONS RECORDS FOR  
SUSPECT GEARS AND REPLACEMENT OF  
SUSPECT TRANSMISSIONS OF ALL  
CH-47D, MH-47D AND MH-47E SERIES AIRCRAFT**

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**Headquarters, Department of the Army, Washington, D. C.  
15 February 2000**

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

**NOTE**

**THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.**

**1. Priority Classification. Urgent**

**NOTE - See AR 95-1, paragraph 6-6A, for exception authority of Major Commanders.**

a. Aircraft in Use. Upon receipt of this Technical Bulletin the condition status symbol of the cited aircraft will be changed to a red horizontal dash //-. The red horizontal dash //- entry shall state "Inspect aircraft engine transmission historical record DA Form 2408-16 in accordance with Safety of Flight message SOF CH-47-00-04 (TB 1-1520-240-20-117) in accordance with the task inspection suspense date, but no later than 4 FEB 00". The red horizontal dash //- may be cleared when the inspection in accordance with paragraph 8 and correction procedures in accordance with paragraph 9 are completed. Failure to comply with requirements of this message within the specified time frame will cause the status symbol of the affected aircraft 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. For aircraft away from home station, where flight is required to return to the nearest secured maintenance facility or home station, contact the technical point of contact in paragraph 16a for instructions prior to conducting any flight operations.

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

(2) Ferry Status. Same as paragraph 1a. Those aircraft that have a DD 250 and have a DD 250 and are at Boeing Helicopter and/or Summit Aviation will be inspected prior to ferry to final destination.

This TB supersedes USAAMCOM Message 27 JAN 00 CH-47-00-04

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 Technical Bulletin the material condition tags of all items in all condition codes listed in paragraph 6 shall be annotated to read "SOF CH-47-00-04, inspection of aircraft records for suspect engine transmission gears" not complied with.

(1) Wholesale Stock. Report receipt of this Technical Bulletin in accordance with paragraph 14c(1). Upon receipt of this Technical Bulletin all serviceable items (condition codes //A//, //B//, //C//, //D//, and //E// listed in paragraph 6 located in Wholesale Depot Storage shall be placed in condition code //J// and tagged with a suspended tag/label -material, DD Form 1576/DD Form 1576-1. Do not remove original condition tags. Report compliance with this message in accordance with paragraph 14d(1).

(2) Retail Stock. Report receipt of this message in accordance with paragraph 14c(2). Upon receipt of this message commanders and others maintaining retail stock at installation level and below shall contact the supported aviation unit perform the inspection required by paragraph 8 and the correction procedures of paragraph 9 on discrepant materiel. Disposition of discrepant materiel will be in accordance with paragraph 10. Report compliance with this message in accordance with paragraph 14d(2).

g. Components/Parts in Work (Depot Level and Others). Items listed in paragraph 6 in work will not be issued until compliance with this Technical Bulletin.

**2. Task/inspection Suspense Date.** Prior to next flight.

**3. Reporting Compliance Suspense Date.** No later than 17 Feb 2000 in accordance with paragraph 14a of this Technical Bulletin (TB).

**4. Summary of the Problem.**

a. During Boeing Helicopters overhaul of International CH-47 Engine Transmissions (part number 145D6300), three instances of cracked gears have been found. These cracks have been found in the bevel gearshaft (part number 145D6301 and spiral gearshaft (part number 145D6302). None of these cracks have resulted in an engine transmission failure.

b. Subsequent inspection of unserviceable US Army engine transmissions at Corpus Christi Army Depot has found three additional gears with cracks.

c. For manpower/downtime and funding impacts see paragraph 12.

d. The purpose of this Technical Bulletin is to identify and remove from service high risk engine transmissions.

**5. End Items to be inspected.** All CH-47D, MH-47D, and MH-47E Aircraft.

**6. Assembly Components to be inspected.**

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Engine Transmission	145D68300-2	1615-01-119-3373
Engine Transmission	145D6300-3	1615-01-146-5273
Engine Transmission	145D6300-6	1615-01-271-0663
Engine Transmission	145D6300-7	1615-01-271-7601
Engine Transmission	145D6300-8	1615-01-320-6787
Engine Transmission	145D6300-9	1615-01-315-4070
Engine Transmission	145D6300-10	1615-01-319-3959
Engine Transmission	145D6300-11	1615-01-315-9364
Engine Transmission	145D6300-12	1615-01-395-6839
Engine Transmission	145D6300-13	1615-01-395-6840

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Engine Transmission	145D6300-14	1615-01-464-7113
Engine Transmission	145D6300-15	1615-01-464-5563

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

**8. Inspection Procedures.**

a. Conduct records check of the engine transmission DA Form 2408-16, to determine the serial numbers of the bevel gearshaft (part number 145D6301) and spiral gearshaft (part number 145D6302).

b. If either the bevel gearshaft or spiral gearshaft serial number prefix is //P//, proceed to paragraph 9. If neither the bevel gearshaft or spiral gearshaft number prefix is //P// on both engine transmissions, the red horizontal dash //-// may be cleared. In the event that the prefix cannot be determined by a record check, contact the logistical point of contact in paragraph 16b for instructions.

**9. Correction Procedures.**

a. Any engine transmission that has a bevel gearshaft or spiral gearshaft serial number prefix of //P// is immediately unserviceable. When an engine transmission is considered unserviceable, the following actions shall be taken:

(1) The red horizon dash //-// shall be cleared and a red //X// entry added. The red //X// entry shall state "Replace engine transmission in accordance with Safety of Flight CH-47-00-04.

(2) Contact logistic point of contact of this Technical Bulletin for disposition instructions.

b. Aircraft which are placed on a red //X// will be maintained in flyable storage. Report aircraft on a red //X// condition status symbol as non mission capable supply (NMCS).

c. Repeat the paragraph 8 inspection procedure for all replacement engine transmissions before installation to verify serviceability.

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

a. Parts Required. Items cited in paragraph 6 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) "XGE" (X-RAY-GOLF-ECHO)

**NOTE**

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

c. Bulk and Consumable Materials. NA.

d. Disposition. Hold any discrepant part/component pending disposition instructions from logistical point of contact in paragraph 1b.

e. Disposition of Hazardous Material. In accordance with Environmental Protection Agency directives as implemented by your serving environmental coordinator (AR 200-1).

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

**12. Application.**

a. Category of Maintenance. AVUM. Aircraft downtime will be charged to AVUM.

b. Estimated Time Required.

(1) Total of 0.5 man-hours using 1 person.

(2) Total of 0.5 hours downtime for one end item.

c. Estimated Cost Impact to the Field. \$41,497.71 per engine transmission.

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. TM 55-1520-240-23 and TM 1-1520-252-23 shall be changed to reflect this Technical Bulletin. A copy of this Technical Bulletin shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

### 13. References.

a. TM 55-1520-240-23.

b. TM 1-1520-25-23.

### 14. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft). Upon entering requirements of this Technical Bulletin 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 SOF CH-47-00-04, 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 Commander, AMCOM, ATTN: Bill Olson, SFAE-AV-CH-L The report shall cite SOF CH-47-00-04, date of inspection, aircraft serial number, aircraft and component hours, and results of the inspection. Inspection and reports will be completed no later than 17 February 2000.

c. Reporting Message Receipt (SPARES).

(1) Report receipt of this Technical Bulletin by e-mail or datafax to the Wholesale Materiel (SPARES) point of contact listed in paragraph 16c within 3 working days from the date of this Technical Bulletin. Provide local point of contact.

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

d. Task/inspection Reporting suspense Date (SPARES).

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

(2) Materiel in Retail Storage. Report compliance with this Technical Bulletin to the logistical point of contact in paragraph 16 within 14 days of the date of this Technical Bulletin. Report the quantity inspected by condition code and the resulting condition code. Report by e-mail or datafax and provide local point of contact.

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 2408-5-1, Equipment Modification Record (Engine Transmission).

(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. (Only if the engine transmission is replaced).

(7) DD Form 1574/DD Form 1574-1, Serviceable Tag/Label - Materiel (color yellow). (Annotate remarks block with "Inspected serviceable in accordance with SOF CH-47-00-04").

(8) DD Form 1575/DD Form 1575-1, Suspended Tag/Label - Materiel (color brown). (Annotate remarks with Suspended in accordance with SOF CH-47-00-04).

(9) DD Form 1577-2/DD Form 1577-3, Unserviceable (repairable) Tag/Label - Materiel (color green). (Annotate remarks block with "Unserviceable in accordance with SOF CH-47-00-04).

**15. Weight and Balance . NA**

**16. Points of Contact.**

a. Technical point of contact for this Technical Bulletin is Mr. James M. Wilson, AMSAM-RD-AE-I-P-C, DSN 897-3337 or commercial (256) 313-3337, datafax is DSN 897-4348. E-mail is "james.il-son@redstone.army.mil".

b. Logistical point of contact for this Technical Bulletin is Mr. Bill Olson, SFAE-AV-CH-L, DSN 897-3379 or commercial (25 313-3379, datafax is DSN 897-4348. E-mail is "olsonw@peoavn.redstone.army.mil".

c. Wholesale materiel point of contact (SPARES) is M. Edward Holter, AMSAM-MMC-VS-UC, DSN 897-1507 or commercial (256) 313-1507, datafax is DSN 897-1106. E-mail is "hoter-ec@redstone.army.mil".

d. Forms and records point of contact for this Technical Bulletin is Ms. Ann Wadeck, AMSAM-MMC-RE-FF, DSN 746-5564 or commercial (256 876-5564, datafax is DSN 746-4904. E-mail is "waldeckab@redstone.army.mil".

e. Safety point of contact for this Technical Bulletin 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 Technical Bulletin should contact: CW5 Joseph L. Wittstrom, Security Assistance Management, AMSAM-SA, DSN 897-0410 or commercial (256) 313-0410. E-mail is "willstromjl@redstone.army.mil" or Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0408 or commercial (256) 313-0408, datafax is DSN 897-0411 or commercial (256) 313-0411. E-mail is ammonsrw@redstone.army.mil". Huntsville, AL is GMT minus 6hrs.

g. After hours contact the AMCOM Command Operations Center (COC) DSN 897-20667 or commercial (256) 313-2066/7.

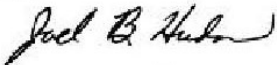
**17. Reporting of Errors and Recommending Improvements.** You can improve this Technical Bulletin. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and blank Forms directly to: Commander, 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". A reply will be furnished directly to you.

By Order of the Secretary of the Army:

Official:

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



JOEL B. HUDSON  
*Administrative Assistant to the*  
*Secretary of the Army*  
0003303

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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.

