

# URGENT

TB 1-1520-240-20-148

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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### INSPECTION OF COMBINING TRANSMISSIONS ON ALL CH-47D, CH-47F AND MH-47D AIRCRAFT

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Headquarters, Department of the Army, Washington, D. C.  
26 June 2002

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#### NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

#### NOTE

In accordance with AR 95-1, paragraph 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.

#### 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 combining transmission in accordance with CH-47-02-06 (TB 1-1520-240-20-148) prior to next engine start, but no later than 25 June 2002." Clear the red horizontal dash **//-** entry when the procedures in accordance with paragraph 8 are completed. Commanders who are unable to comply with the requirements of this Technical Bulletin 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 1a.

(2) Aircraft at Contractor Facility - Boeing will inspect DD 250 aircraft prior to those aircraft departing for ferry to final destination.

c. Aircraft in Transit - same as paragraph 1a.

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

e. Component/Parts in Stock at all levels (depot and others) including War Reserves - upon receipt of this message, depot and materiel activity commanders will ensure the materiel condition tags of all items

## TB 1-1520-240-20-148

in all condition codes listed in paragraph 6 are annotated to read: "CH-47-02-06 (TB 1-1520-240-20-148) inspection of combining transmission not complied with."

(1) Wholesale Stock – Upon receipt of this message, depot and material activity commanders will ensure all items in condition codes //A//, //B//, //C//, //D//, and //E//, listed in paragraph 6, are placed in condition code //J// and tagged with a suspended tag/label - material, DD Form 1575/DD Form 1575-1. Do not remove original condition tags.

(2) Retail Stock – Report receipt of this message in accordance with paragraph 14c(1) no later than 21 June 2002. Upon receipt of this message, commanders and facility managers maintaining retail stock at installation level and below shall contact the supported aviation unit to perform the procedures required in accordance with paragraphs 8 and 9 on suspect materiel. Dispose of discrepant materiel in accordance with paragraph 10. Report compliance with this message in accordance paragraph 14c(2) no later than 25 June 2002

f. Components/Parts in Work (depot level and others) - depot and other maintenance activity commanders will ensure items listed in paragraph 6 are not issued until they are in compliance with this message.

**2. Task/Inspection Suspense Date.** Complete the inspection in accordance with paragraph 8 prior to next engine start but no later than 25 June 2002 and report in accordance with paragraph 14A(2) no later than 28 June 2002.

**3. TAMMS Reporting Compliance Suspense Date.** Report compliance in accordance with paragraph 14a(1) no later than 25 June 2002.

#### 4. Summary of the Problem.

a. A unit reported that after experiencing a debris screen latch, they found plastic type debris in the combining transmission oil filter. Analysis of the debris revealed that it was plastic media. It has been determined that this material is the result of the use of plastic media blast procedure by CCAD to remove surface coatings from the housing assemblies. This procedure can leave particles inside the transmission that could interfere with necessary oil flow.

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

c. The purpose of this Technical Bulletin is to:

(1) Conduct records check and visual inspection of all combining transmissions.

(2) Remove specific serial numbered combining transmissions from service

(3) Inspect combining transmissions overhauled at CCAD between 28 June 2000 through 17 June 2002 for presence of plastic media blast particles.

**5. End Items to be inspected.** CH-47D/CH-47F/MH-47D aircraft.

#### 6. Assembly Components to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Combining Transmission Assy	145D5300-ALL	ALL

#### 7. Parts to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Element, Filter, Fluid	145DS023-6	1650-01-117-8026
Element, Filter, Fluid	145DS514-4	1650-01-116-2945
Element, Filter, Fluid	145DS514-7	1650-01-116-4771
Filter, Assembly	145DS523-2	4330-01-114-0918

**8. Inspection Procedures.**

**NOTE**

Supplemental information for this message can be viewed at  
“www.redstone.army.mil/sof/suppl/c47s0206.pdf”.

a. Conduct records review (DA Form 2408-16 and DA Form 2408-5-1) and visual inspection (serial number verification) of all combining transmissions prior to next engine start.

**NOTE**

One-time flights are not authorized for the following serial numbered combining transmissions without written authorization from the technical point of contact. One-time flight authorizations may be approved dependent upon special inspection results as directed by the technical point of contact.

b. The following serial numbered combining transmissions are considered unserviceable: A8-017, A8-066, A8-069, A8-117, A8-125, A8-152, A8-161, A8-173, A8-197, A8-232, A8-267, A8-363, A8-403, A8-463, A8-563, A8-583, A8-654, A8-685. If the serial number is contained in the preceding list, clear the entry from paragraph 1a and make the following entry on the DA form 2408-13-1. Enter a red //X// status symbol with the following statement: “Combining transmission unserviceable IAW CH-47-02-06 (TB 1-1520-240-20-148)”. Proceed to paragraph 9a.

**NOTE**

For aircraft away from home station, a one-time flight, not to exceed four hours, with intermediate stops, is authorized to return to the nearest secured maintenance facility/home station that will facilitate inspection/repairs. This authorization does not apply to the serial numbered combining transmissions listed in paragraph 8b.

c. For combining transmissions not listed above, if last overhaul was performed at CCAD and was overhauled between 28 June 2000 and 17 June 2002, conduct visual inspection of the main, auxiliary, inlet screen, and engine transmission oil filters on the combining transmissions for plastic media blast particles.

(1) If plastic media blast particles are found, the combining transmission is considered unserviceable. Proceed to paragraph 9a.

(2) If no plastic media blast particles are found, the inspection is complete. Proceed to paragraph 9b.

d. If last overhaul was not performed at CCAD or was performed at CCAD prior to 28 June 2000, combining transmission is considered serviceable.

e. Combining transmissions overhauled by CCAD after 17 June 2002 are considered serviceable and not affected by this message.

**9. Correction Procedures.**

a. If the combining transmission is considered unserviceable in accordance with paragraph 8 of this message, proceed as follows –

(1) Replace combining transmission in accordance with appropriate TM prior to next engine start.

(2) Replace 2 (two) filters (TM 55-1520-240-23P, figure 194, item 2) prior to installation of the new combining transmission.

**NOTE**

Normal procedures require filters and packings to be replaced when removed. This message authorizes a one-time re-use after inspection of the filter and packing.

b. If no plastic media blast particles are found, the inspection is complete. Reinstall filters and clear the red horizontal dash //–// entry from paragraph 1a.

## TB 1-1520-240-20-148

c. If last overhaul was not performed at CCAD or was performed at CCAD prior to 28 June 2000 or after 17 June 2002, clear the red horizontal dash //--// entry.

### 10. Supply/Parts and Disposition.

#### NOTE

HQDA-ADCS-G-3 will prioritize units and repair parts distribution.

- a. Parts Required. Items cited in paragraph 12c 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) "X1X" (X-RAY-ONE-X-RAY).

#### NOTE

Project code "X1X" is required to track and establish a database of stock fund expenditures incurred by the field as a result of message actions.

- c. Bulk and Consumable Materials.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Element, Filter, Fluid	145DS023-6	1650-01-117-8026
O-ring	M83248/1-134	5331-00-167-5122
Element, Filter, Fluid	145DS514-4	1650-01-116-2945
Element, Filter, Fluid	145DS514-7	1650-01-116-4771
O-ring	M83248/1-112	5331-00-166-1060
O-ring	M83248/1-116	5331-00-166-1068
O-ring	M83248/1-122	5331-00-167-5111
Gasket	145DS025-11	5330-01-115-3764
Filter, Assembly	145DS523-2	4330-01-114-0918

d. Disposition. Dispose of removed parts/components using normal supply system. All turn-in documents must include project code (CC 57-59) "X1X" (X-RAY-ONE-X-RAY).

e. Disposition of Hazardous Material. In accordance with environmental protection agency directives as implemented by your servicing environmental coordinator (AR 200-1).

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

### 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 in accordance with this message.

- b. Estimated Time Required.

- (1) Time to complete records check – Total of 0.5 man-hours using 1 person.
- (2) Time to complete visual inspection –
  - (a) Total of 6 man-hours using 1 person.
  - (b) Total of 6 hours downtime for one end item.
- (3) Time for repair/replacement –
  - (a) Total of 30 man-hours using 5 persons.
  - (b) Total of 6 hours downtime for one end item.

c. Estimated Cost Impact to the Field.

NOMENCLATURE	PART NUMBER/ NATIONAL STOCK NUMBER	QUANTITY	COST EACH	TOTAL \$
Transmission, Mechanical, Helicopter	145D5300-20 1615-01-464-3974	1	\$342,630.00	\$342,630.03
Total cost per aircraft = \$342,630.03				

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. N/A.

**13. References.**

- a. DA PAM 738-751, 15 Mar 99
- b. TM 55-1520-240-23
- c. TM 55-1520-240-23P

**14. Recording and Reporting Requirements.**

a. Aircraft –

(1) TAMMS Reporting Compliance Suspense – Upon entering requirements of this Technical Bulletin on DA Form 2408-13-1 for all effected aircraft, Commanders will 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, no later than date specified in paragraph 3. Datafax number is DSN 897-2111 or commercial (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 16b. The report will cite this message and TB number, date of inspection, aircraft and component serial number, aircraft and component hours, and results of the inspection. Inspection and reports will be completed no later than date specified in paragraph 2.

b. Wholesale Spare Parts/Assemblies – N/A.

c. Retail Spare Parts/Assemblies –

(1) Reporting Message Receipt - Commanders and facility managers will report receipt of this message by e-mail or datafax to the logistical point of contact listed in paragraph 16b no later than date specified in paragraph 1e(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 16b no later than date specified in paragraph 1e(2). Report the quantity inspected by condition code and the resulting condition code. Report by e-mail 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 Mar 1999:

**NOTE**

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

- (1) DA Form 2408-5-1, Equipment Modification Record (Combining Transmission).
- (2) DA Form 2408-13, Aircraft Status Information.
- (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.

## TB 1-1520-240-20-148

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

(5) DA Form 2410, Component Removal and Repair/Overhaul Record (only if combining transmission is replaced).

(6) DD Form 1575/DD Form 1575-1, Suspended Tag/Label – Material (color brown). Annotate remarks block with “Suspended IAW CH-47-02-06 (TB 1-1520-240-20-148).”

(7) DD Form 1577-2/1577-3, Unserviceable (repairable) Tag/Label – Material (color green). Annotate remarks block with unserviceable IAW CH-47-02-06 (TB 1-1520-240-20-148).”

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

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

a. Technical points of contact for this TB is Mr. Steve Prosize, AMSAM-RD-AE-I-P-C. DSN 897-2350 extension 9851 or (256) 705-9851. E-mail is “steve.prosize@rdec.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, fax is DSN 897-4348 or commercial (256) 313-4348. E-mail is “william.olson@peoavn.redstone.army.mil”.

c. Wholesale Materiel point of contact (SPARES) is Gail Miles, AMSAM-MMC-AV-CA, DSN 897-1455 or (256) 313-1455, fax is DSN 897-1106. E-mail is “gail.miles@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 commercial (256) 876-5564, fax is DSN 746-4904. E-mail is “ann.waldeck@redstone.army.mil”.

e. Safety points of contact are ;

(1) Primary – Mr. Randall Rushing (SAIC), AMSAM-SF-A, DSN 897-2092 or commercial (256) 313-2092, datafax is DSN 897-2111 or commercial (256) 313-2111. E-mail is “randall.rushing@redstone.army.mil”.

(2) Alternate – Mr. Russell Peusch, AMSAM-SF-A, DSN 788-8632 or commercial (256) 842-8632, fax is DSN 897-2111 or commercial (256) 313-2111. E-mail is “russell.peusch@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-AS-UT, DSN 897-0407 or commercial (256) 313-0407, Data-fax is DSN 897-0411 or commercial (256) 313-0411. E-mail is “ronnie.sammons@redstone.army.mil”.

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

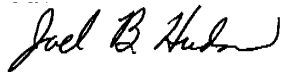
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