

URGENT

*TB 1-2840-229-20-12

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

REVISION OF TB 1-2840-229-20-11, MANDATORY REPLACEMENT OF HIGH PRESSURE FUEL FITTING ON ALL UH-1 AND AH-1 SERIES AIRCRAFT FOR T53-L-13B ENGINES

Headquarters, Department of the Army, Washington, D.C.

15 January 1998

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NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR
SUPERSEDED

NOTE

This TB supersedes TB 1-2840-229-20-11 (UH-1-97-ASAM-30 AND
AH-1-97-ASAM-02) Mandatory Replacement of High Pressure Fuel
Fitting on All UH-1 and AH-1 Series Aircraft for T53-L-13B Engines.

1. Priority Classification. URGENT.

- a. **Aircraft in Use.** Upon receipt of this TB, the condition status symbol of the cited aircraft will be changed to a **red horizontal dash**. The **red horizontal dash** may be cleared when the inspection of paragraph 8. 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.** Aircraft will not be issued until compliance with this TB has been completed.
- c. **Aircraft Undergoing Maintenance.** Aircraft may be released prior to compliance with this TB. The aircraft must still meet the task inspection suspense date.

***This TB supersedes TB 1-2840-229-29-11, 24 March 97, and USAATCOM Aviation Safety Action Messages UH-1-97-ASAM-04,221400Z May 97 and AH-1-97-ASAM-04 221400Z May 97.**

d. Aircraft In Transit.

(1) **Surface/Air Shipment.** Within 25 hours or 60 days of arrival.

(2) **Ferry Status.** Inspect at final destination.

e. Maintenance Trainers (Category A and B). N/A.

f. Component/Parts in Stock including War Reserves at All Levels (Depot and Others). Upon receipt of this TB, the materiel in condition code A listed in paragraph 6. shall be placed in condition code D and retagged with a DD Form 157611576-1 Test/Modification Tag/Label-Materiel (blue color). The authority block must reference the inspection required per this TB. Do not remove serviceable tags. AMCOM will dispatch a maintenance team to the depots to inspect/repair and comply with TAMMS-A requirements. This command will coordinate with depot on maintenance team.

2. Task/Inspection Suspense Date. Within 150 hours after receipt of this TB, or 01 Dec 97, whichever occurs first.

3. Reporting Compliance Suspense Date. No later than 11 April 1997 per paragraph 14.a. of this TB.

4. Summary of Problem.

a. This TB supersedes TB 1-2840-229-20-11 (UH-1-97-ASAM- and AH-1-97-ASAM-02) to provide additional task compliance time to preclude widespread grounding because of the depletion of replacement parts. An evaluation of the risk of extending the compliance interval has been accomplished. It has been determined the level of risk has not increased by extending the compliance time.

NOTE

Original TB 1-2840-229-20-11 was a result of cracking in four of the nine aluminum High Pressure Fuel Fittings installed. Because the part numbers for all nine fittings are the same, all nine fittings need to be changed. This action will eliminate the possibility of incorrect installation of the fittings during future maintenance.

b. For Manpower/Downtime and Funding Impacts See Paragraph 12.

c. The purpose of this TB is to require a one-time replacement of the Aluminum High Pressure Fuel Fittings on those aircraft where these fittings have not yet been replaced with stainless steel fittings, and to provide additional part numbers and compliance time.

5. End items to be Inspected. All those UH-1HN and AH-1 series aircraft which have not had High Pressure Fuel Fittings changed.

6. Assembly Components Affected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
T53-L-138	1-000-060-22 1-000-060-23	2840-00-134-4803 2840-00-621-1860
Fuel Control, Main	106500A1 (TA-7) 100770A4 (TA-7)	2915-01-216-9779 2915-01-005-9197

7. Parts to be inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Nipple, Tube	MS24392D4	4730-00-834-9560
Alternate Hardware:		
Union, Flared Tube	AN8154D	

8. Inspection Procedures.

a. The current nipple is used in the following five (5) locations on the T53 engine (reference TM 1-2840-260-23P, Figure 2, Item 11; Figure 4, Item 11; Figure 31, Item 8; Figure 47, Item 25 and Figure 51, Item 6): Airbleed Hose (1 each); IGV Actuator (2 each); Accessory Drive Gearbox (1 each); fuel lines (1 each); and Main Fuel Control/Overspeed Governor (4 each).

b. Implement replacement per paragraph 9.

9. Correction Procedures.

NOTE

The approved item name is Tube Nipple. TM 55-2840-229-23 uses the item name Union. Both terms are the same in intent.

NOTE

Do not remove to replace the nipples. Cap all fittings and hoses to prevent contamination.

a. Remove the current MS24392D4 nipple (5 locations as referenced in paragraph 8.a.) in accordance with TM 55-2840-229-23. Removal and replacement of the Bleed Band High Pressure Fitting at the Fuel Control will be difficult. The clearance between the hex of the fitting and the surrounding housing is insufficient to allow a standard socket or wrench to be used. Remove this fitting as follows:

(1) Disconnect the wiring bundle aft of the Fuel Control and move it out of the way.

(2) Remove the Fuel Hose (Figure 47, Item 18).

(3) Modify a thin wall 11/16 inch, 3/8 inch drive 12-point socket by grinding or turning the outside diameter, removing just enough material to allow it to fit onto the fitting and clear the surrounding housing. The approximate final dimensions will be an 0.915 inch diameter and a 0.100 inch length. Other methods of tool modifications are authorized as long as a modified tool fully engages the nipple hex.

(4) An alternative method of removal of the fitting is to use a pair of locking pliers (vice grips) on the threads of the aluminum fitting.

b. Install stainless steel nipples (identified below) and preformed packing (P/N MS83248/1-904, NSN 5330-00-020-0203). Torque nipple (all locations) to 55 to 65 in-lbs.

NSN	PART NUMBER(S)
4730-00-684-6912	MS24392J4
4730-00-875-8264	AN815-4J
4730-00-974-6379	AN815-4K, AN815-4S, MS24392K4, MS24392S4
4730-01-065-8423	AN815-4J

10. Supply/Parts and Disposition.

a. **Parts Required.** Items cited in paragraph 9.b. will 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) XDF.

NOTE

Project Code XDF is required to track and establish a data base of stock fund expenditures incurred by the field as a result of SOF actions.

NOTE

Due to the limited supply of fittings, units shall verify existing requisitions with sister units to confirm if additional fittings are available without depleting current stock.

c. **Bulk and Consumable Materials.** One 11/16 inch, 3/8 inch drive 12-point socket modified per paragraph 9.a.(3).

d. **Disposition.** Dispose of removed parts/components in accordance with normal supply procedures.

e. **Disposition of Hazardous Material.** N/A.

11. Special Tools, Jigs and Fixtures Required. Modified tool as specified in paragraph 9.a.(3).

12. Application.

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

b. Estimated Time Required.

(1) Total of 6 manhours using 1 person.

(2) Total of 6 hours downtime for one end item.

c. **Estimated Cost impact of Stock Fund items 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. The following publications shall be changed to reflect this TB. A copy of this TB shall be inserted in the appropriate manuals as authority to implement the change until the printed change is received.

- a. TM 1 -2840-260-23P
- b. TM 55-2840-229-23
- c. DMWR 1-2840-113
- d. DMWR 55-2915-335

13. References.

- a. TM 1 -2840-260-23P
- b. TM 55-2840-229-23
- c. DMWR 1-2840-113
- d. DMWR 55-2915-335

14. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft). In accordance with AR 95-1, upon entering requirements of this TB on DA Form 2408-13-1 for all subject MDS Aircraft, forward a priority message, datafax or E-mail to CDR, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer). Datafax number is DSN 897-2111 or (205) 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 Compliance Suspense Date (Wholesale Spares). N/A.

d. Task/Inspection Reporting Suspense Date (Wholesale Spares). N/A.

e. The following forms are applicable and are to be completed IAW DA Pamphlet 736-751, 15 Jun 92.

- (1) DA Form 2408-4, Uncorrected Fault Record.
- (2) DA Form 2408-5-1, Equipment Modification Record.
- (3) DA Form 2408-13, Aircraft Status Information Record.
- (4) DA Form 2408-13-1) Aircraft Inspection and Maintenance Record.

15. Weight and Balance. N/A.

16. Points of Contact.

a. Logistical POC for UH-1 aircraft is Mr. Charles Elkins, AMSAM-DSA-UH-U, DSN 645-0073 or (205) 955-0073. Datafax is DSN 645-6590 or (205) 955-6590. E-mail is <elkins-ce@redstone.army.mil>.

b. Technical points of contact for this TB are Mr. Ralph Vemmer, AMSAM-AR-E-I-B, DSN 645-0663 or (205) 955-0663, datafax DSN 645-6590 or (205) 955-6590, E-mail <vemmer-rc@redstone.army.mil or Mr. Mark Heitert, AMSAM-AR-EPE, DSN 897-4968 or (205) 313-4968, datafax (205) 313-4961, E-mail <heitertm@redstone.army.mil>.

c. Forms and Records POC for this TB is Ms. Ann Waldeck, AMSAM-MMC-RE-F DSN 876-5564 or (205) 876-5564. Datafax is DSN 746-4904 or (205) 876-4904. E-mail is <waldeck-ab@redstone.army.mil>.

d. Safety POC for this TB is Mr. Robert Brock, AMSAM-SF-A, DSN 788-8632 or (205) 842-8632. Datafax is DSN 897-2111 or (205) 313-2111. E-mail is cbrock-rd@redstone.army.mil>.

e. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0869 or (205) 313-0869. Datafax is DSN 897-0411 or (205) 313-0411. E-mail is <sammons-rw@redstone.army.mil> (Huntsville is GMT minus 6 hrs).

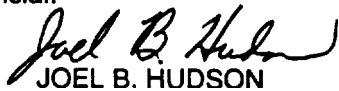
f. After hours contact AMCOM command operations center (COC) DSN 897-2066/2067 or (205) 313-2066/2067.

17. Reporting of Errors and Recommending improvements. You can help improve this TB. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, U.S. Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, Alabama 35898-5230. A reply will be furnished to you.

You may also send in your comments electronically to our E-mail address: <is-lp@redstone.army.mil> or by datafax: commercial (205) 842-6546 or DSN 788-6546.

By Order of the Secretary of the Army:

Official:



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03865

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DISTRIBUTION:

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RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

SOMETHING WRONG WITH PUBLICATION

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

BE EXACT PIN-POINT WHERE IT IS

PAGE NO.

PARA-GRAPH

FIGURE NO.

TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

THE METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 lb.
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
its	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
ometers per Liter	Miles per Gallon	2.354
ometers per Hour	Miles per Hour	0.621



PIN: 076096-000