

URGENT

*TB 1-1520-240-20-86

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

TO INSPECT THE BOND LINES ON THE 114P8079-2
AND 114P8079-3 STRAP ASSEMBLIES FOR
LOOSENESS AROUND THE EDGES
FOR
ALL CH-47D, MH-47D, AND MH-47E AIRCRAFT

Headquarters, Department of the Army, Washington, D.C.
30 JULY 1996

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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THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.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 Horizontal Dash "-"**. The **Red Horizontal Dash "-"** 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 -

(a) Same as paragraph 1a.

(b) Those aircraft that have a DD250 and are at Boeing Helicopter Company 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 materiel condition tags of all items in all condition codes listed in paragraph 6 shall be annotated to read "TB 1-1520-240-20-86, Inspection of Bond Lines on Strap Assembly. Not complied with.

*This TB supersedes USAATCOM Message 091405Z July 1996 (CH-47-96-ASAM-07)

(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 paragraph 6 located in wholesale depot storage shall be placed in condition code "J" and tagged with a suspended tag/label - materiel, DD Form 1576/DD Form 1576-1. Do not remove original condition tags. Report compliance with this TB in accordance with paragraph 14d(1).

(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 and the correction procedures of paragraph 9 on discrepant materiel. Report compliance with this TB in accordance with paragraph 14d(2).

2. Task/Inspection Suspense Date - This inspection/repair be performed at next scheduled maintenance.

3. Reporting Compliance Suspense Date - No later than 30 July 1996 per paragraph 14a of this TB.

4. Summary of the Problem.

a. Following a phase maintenance inspection, the MH-47E prototype experienced a compressor stall of the No. 2 engine. The silicone rubber pad (P/N 114P8073-27) from the strap assembly (P/N 114P8079-3) had been ingested into the engine with subsequent engine failure. The strap assembly was removed and returned to Boeing Helicopter Company for analysis. The results of that analysis showed that a polysulfide sealant (PRO-SEAL 890) had been used on the strap assembly instead of the prescribed adhesive.

b. For Manpower/Downtime and Funding Impacts - See paragraph 12.

c. The purpose of this TB is to conduct a visual inspection to determine if the proper adhesive has been used on the subject strap assembly and corrective procedures are provided if the assembly fails the visual inspection.

5. End Items to be Inspected - All CH-47D, MH-47D, and MH-47E aircraft. MH-47E aircraft which have previously done this inspection and corrective action during the course of the original investigation, may record compliance with this TB.

6. Assembly Components to be Inspected -

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Strap Assembly, LH	114P8079-2	2945-01-033-8220
Strap Assembly, RH	114P8079-3	2945-01-033-8219

7. Parts to be Inspected -

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Cushion, Fairing	114P8073-27	None assigned

8. Inspection Procedures -

a. Prepare the aircraft for safe ground maintenance.

b. Open the engine work platforms.

c. Remove the engine air inlet screens. (Reference TM 55-1520-240-23, Task 4-65 for CH-47D/MH-47D, or TM 1-1520-252-23, Task 4-26 for MH-47E).

d. Inspect the bond lines on the 114P8079-2 and 114P8079-3 strap assemblies for looseness around the edges. The edges should be securely adhered and should not lift up. If the strap assemblies pass the inspection, reinstall the inlet screens on the aircraft and the inspection is complete. If strap assemblies fail the inspection, proceed to paragraph 9 for corrective action.

9. Correction Procedures -

- a. Remove existing silicone rubber pad from the strap assembly.
- b. Fabricate a new pad from silicone rubber BMS1-23, dimensions 0.25 inch thick X 1.0 inch wide X 24.0 inches long.
- c. Prepare the aluminum strap for bonding as follows:
 - (1) Abrade the surface using scotchbrite or 180 grit sandpaper.
 - (2) Solvent wipe the surface using acetone.
 - (3) Prime the surface by brushing or spraying with a thin coat of SS4004 or RTV 1200 primer.

NOTE

If the primer turns cloudy or milky, it should not be used.

- (4) Allow the primer to air dry for 30 minutes minimum and four hours maximum.
- d. Prepare the silicone rubber pad for bonding as follows:
 - (1) A parting agent on molded parts is usually embedded in the rubber. Wipe the bond surface with acetone, methyl-ethyl-ketone, or aliphatic naphtha then sand the part to remove the parting agent using 180 grit sandpaper.
 - (2) Remove the sanding debris by wiping with acetone, methyl-ethyl-ketone, or aliphatic naphtha.
- e. Bond the new pad to the strap as follows:
 - (1) Apply a uniform layer of RTV 102 adhesive over both mating surfaces.
 - (2) Join the mating surfaces as soon as possible after adhesive application. Exposure to the air for more than a few minutes will cause the adhesive to form a skin which interferes with adhesion.
 - (3) Apply sufficient pressure to ensure complete contact but not so much as to squeeze out an excessive amount of adhesive. A bond line thickness of 15 MILS gives the best results.
 - (4) Allow the adhesive to cure for a minimum of 24 hours at 75 + 50F. A minimum of 20 percent relative humidity is required.

10. Supply/Parts and Disposition -

- a. Parts Required - Items cited in paragraphs 6 and 7 may be required to replace defective items.
- b. Requisitioning Instructions - Requisition replacement parts through normal supply channels using normal supply procedures. All requisitions shall use project code "XCB" per this TB.

NOTE

Project code "XCB" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of this TB.

- c. Bulk and Consumable Materials -

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Silicone Rubber	BMS1-23	9320-00-505-0298
Silicone Adhesive	RTV 102	9320-01-075-4814
Adhesive Primer	RTV 1200	8040-01-356-9085
Adhesive Primer	SS4004	8040-00-870-0877
Scotchbrite		None assigned
Sandpaper (180 Grit)		None assigned
Solvent	P-D-680, Type II	6850-00-285-8011

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Cloth, Cleaning	CCC-C-46A	8305-00-753-2967
Acetone	O-A-51	6810-00-184-4796
Methyl-ethyl-ketone	TT-M-261	6810-00-281-2785
Naphtha, Aliphatic, Type II	TT-N-95	6810-00-238-8117

- d. Disposition - Dispose of removed parts/components in accordance with normal supply procedures.
- e. Disposition of Hazardous Materiel - N/A.

11. Special Tools, Jigs 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 one person for the inspection.
 - (2) Total of 0.5 hours downtime for one end item.
 - (3) Total of six man-hours using one person to perform the specified strap assembly repair.
- c. Estimated cost impact of stock fund items to the field - \$600.
- 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. TM 55-1520-240-23.
- b. TM 1-1520-252-23.

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, ATCOM, ATTN: AMSAT-R-X (SOF Compliance Officer), per AR 95-3. Datafax number is DSN 693-2064 or commercial (314) 263-2064. E-Mail address is "amsatrx@emh4.stl.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) - For aircraft which failed the strap bond line inspection, units will forward a priority message to: Commander, ATCOM, ATTN: AMSAT-R-ECC. The report will cite this TB number, date of inspection, aircraft serial number, and description of results of the inspection. Inspection and reports will be completed no later than 10 days after task/inspection suspense date.
- c. Reporting Compliance Suspense Date (Spares) -
 - (1) Materiel in Wholesale Depot Storage. Report receipt of this TB 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 TB. Provide local point of contact.
 - (2) Materiel in Retail Storage. Report receipt of this TB by E-mail or datafax to logistical point of contact listed in paragraph 16b within 7 days from the date of this TB. Provide local point of contact.
- d. Task/Inspection Reporting Suspense Date (Spares) -
 - (1) Materiel In Wholesale Depot Storage - Report compliance with this TB to the wholesale materiel point of contact (spares) listed in paragraph 16c within 7 days of the date of this TB. 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 ATCOM inspectors, and to return the materiel to storage. Report, by original serviceable condition code, quantity of materiel placed in condition code "J". Report by E-mail or datafax on and provide local point of contact.

(2) Materiel in Retail Storage - Report compliance with this TB to the logistical point of contact in paragraph 16b within 14 days of the date of this TB. 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 June 1992 -

- (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.

15. Weight and Balance - N/A.

16. Points of Contact -

a. Technical points of contact for this TB are Mr. Larry Wieschhaus, AMSAT-R-ECC, DSN 693-6678 or commercial (314)263-6678.

b. Logistical point of contact for this TB is Mr. Norm Huston, AMCPM-CH-L, DSN 693-1415 or commercial (314)263-1415.

c. Wholesale Materiel point of contact (spares) for this TB is Mr. Hal Barnes, AMSAT-I-SACA, DSN 693-6031 or commercial (314)263-6031 and Data Fax DSN 693-6022 or commercial (314)263-6022.

d. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAT-I-MDM, DSN 490-2318 or commercial (314)260-2318.

e. Safety point of contact for this TB is Mr. Jim Wilkens. AMSAT-R-X, DSN 693-2258 or commercial (314)263-2258.

f. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact CW5 Jay Nance/Mr. Ron Van Rees, AMSAT-I-IAF, DSN 693-3826/-3659 or commercial (314)263-3826/-3659.

g. After hours contact ATCOM Command Operations Center (COC) DSN 693-2066/-2067 or commercial (314)263-2066/-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 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 Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you. You may also submit your recommended changes by E-mail directly to <mpmt%/avma28@st-louis-emh7.army.mil>. A reply will be furnished directly to you.

By Order of the Secretary of the Army:

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