

# URGENT

TB 1-1520-240-20-110

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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### EXTENSION FOR REPLACEMENT OF THE AFT LANDING GEAR LINK ASSEMBLIES THAT ARE SUSCEPTIBLE TO STRESS CORROSION CRACKING FOR ALL CH-47D, MH-47D AND MH-47E AIRCRAFT

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Headquarters, Department of the Army, Washington, D. C.  
21 May 1999

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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THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.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 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 message 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 – Same as paragraph 1a.

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

f. Component/Parts in Stock at all Levels (Depot and Others) Including War Reserves – N/A.

g. Component/Parts in Work (Depot Level and Others) – N/A

2. **Task/Inspection Suspense Date.** Within next 10 flight hours/14 days.

3. **Reporting Compliance Suspense Date.** No later than 14 May 1999 in accordance with paragraph 14a of this TB.

#### 4. Summary of the Problem.

a. Several instances have been reported of failed aft landing gear drag links. The investigation revealed the cause to be stress corrosion cracking. New drag links are now made from a material which is not susceptible to stress corrosion cracking.

This TB supersedes USAAMCOM Message 221518Z APR 99 CH-47-99-ASAM-05.

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(1) AMCOM issued TB 1-1520-240-20-80 (CH-47-96-ASAM-01) to inspect and identify aft drag links which had either a "3" or "5" stamped or painted on them. The drag links identified with a "3" were made of a material which is susceptible to stress corrosion cracking and were required to be replaced by 6 Nov 97. The drag links identified with a "5" were made of a material which is not susceptible to the same stress corrosion cracking failure mode and were not required to be replaced.

(2) AMCOM issued TB 1-1520-240-20-100 (CH-47-98-ASAM-02) to extend the operational life and allow continued use of the aft landing gear drag links identified with a "3" until 30 April 99. The risk for this extension was determined to be medium. Roll-on landings of aircraft with links identified with a "3" were restricted in accordance with TB 1-1520-240-20-100 (CH-47-98-ASAM-02).

(3) After conducting a thorough review of past accidents, it had been determined the likelihood of a rotor blade/fuselage strike was improbable if a landing gear drag link failure occurred during a roll-on landing. As a result, AMCOM issued TB 1-1520-240-20-101 (CH-47-98-ASAM-05) to rescind the roll-on landing restriction imposed by TB 1-1520-240-20-100 (CH-47-98-ASAM-02).

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

c. The purpose of this TB is to extend the final replacement date of the aft landing gear drag links identified with a "3" from 30 April 1999 to 31 October 2000. A system safety risk assessment has been written to identify the additional risk associated with this extension.

**5. End Items to be Inspected.** All H-47 series helicopters.

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

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Aft Landing Gear Assembly	114L2329-2	1620-00-107-4529
Aft Landing Gear Assembly	114L2329-3	1620-00-107-4529

**7. Parts to be Inspected.** – N/A

**8. Inspection Procedures.**

a. Check the aircraft records (DA Forms 2408-13-1, 2408-14, 2408-15) to determine if replacement of the aft landing gear drag link assembly, P/N 114L2329 is required in accordance with TB 1-1520-240-20-80 (CH-47-96-ASAM-01).

b. If replacement is required, see paragraph 9 for further instruction.

c. If replacement of the aft landing gear drag link assembly is not required, no further action is required.

**9. Correction Procedures.** If replacement of the aft landing gear drag link assembly is required in accordance with TB 1-1520-240-20-80 (CH-47-96-ASAM-01), perform the following.

a. Annotate in the appropriate records that replacement of the aft landing gear drag link assembly is required by 30 October 2000 in accordance with this ASAM.

b. All replacement drag links received from the DLA supply system are made of the stress corrosion cracking resistant material and are to be marked with paint or permanent marker identifying them with a "5" when installed on the aircraft.

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

a. Parts Required – Items cited in paragraph 6 may be required to replace defective items. The following hardware may also be required to replace the drag link assembly:

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Pin, Cotter	MS24665-378	5315-00-899-4118
Washer, Flat	AN960-616L	5310-00-167-0837
Pin, Cotter	MS24665-447	5315-00-239-8030
Nut, Castellated	MS21025-28	5310-00-838-0264
Washer, Flat	114L2378-1	5310-00-880-4518
Pin, Fulcrum	114L2356-1	5315-00-868-9794
Nut, Self-locking	MS21083N6	5310-00-926-1852
Bolt, Machine	AN6-37A	5306-00-275-9560
Nut, Plan Castellated	AN310-16	5310-00-167-1294
Washer, Flat	114L2054-1	5310-00-865-9359
Pin, Trunnion	114L2353-1	5315-00-869-0719

b. Requisitioning Instructions. Requisition replacement parts through normal supply channels using normal supply procedures. All requisitions shall use project code "XBN", "X-RAY-BRAVO-NOVEMBER" per this TB.

#### NOTE

Project code "XBN", "X-RAY-BRAVO-NOVEMBER", is required to track and establish a data base of stock fund expenditures incurred by the field as a result of SOF actions.

c. Bulk and Consumable Materials – N/A.

d. Disposition. Dispose of removed parts/components in accordance with normal supply procedures. A QDR is not required.

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.** N/A.

**12. Application.**

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

b. Estimated Time Required. Total of 0.25 man-hours using 1 person for records inspection.

c. Estimated Cost Impact 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 – N/A.

**13. References.**

a. TB 1-1520-240-20-80 (CH-47-96-ASAM-01).

b. TB 1-1520-240-20-100 (CH-47-98-ASAM-02).

c. TB 1-1520-240-20-101 (CH-47-98-ASAM-05).

**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 35898-5000, in accordance with AR 95-1. Datafax number is DSN 897-2111 or (256) 313-2111. E-Mail address is "safe-adm@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.

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- b. Task/inspection reporting suspense date (aircraft) – N/A.
- c. Reporting message receipt (SPARES) – N/A.
- d. Task/inspection reporting suspense date (SPARES) – N/A.
- e. The following forms are applicable and are to be completed in accordance with DA PAM 738-751, 15 Jun 92:

### NOTE

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

- (1) DA Form 2408-13, Aircraft Status Information Record.
- (2) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
- (3) DA Form 2408-14, Uncorrected Fault Record.
- (4) DA Form 2408-15, Historical Record for Aircraft.
- (5) DA Form 1577/DD Form 1577-1, Unserviceable (Condemned) Tag/Label – Materiel (Color Red). Annotate remarks block with "Condemned in accordance with CH-47-99-ASAM-05 and Mutilated in accordance with TM 1-1500-328-23."

**15. Weight and Balance.** – N/A.

### 16. Points of Contact.

- a. Technical point of contact for this TB is Mr. Matt Wesselschmidt, AMSAM-AR-E-I-C-H, DSN 897-4286 or (256) 313-4286, datafax is DSN 897-4348 or (256) 313-4348. E-mail is "wesselschmidt-ml@avrdecr.redstone.army.mil".
- b. Logistical point of contact for this TB is Mr. Bill Olson, SFAE-AV-CH-L, DSN 897-4304 or (256) 313-4304, datafax is DSN 897-4348 or (256) 313-4348. E-mail is "olsonw@peoavn.redstone.army.mil".
- c. Wholesale materiel point of contact (SPARES) is Mr. Jeffery Moore, AMSAM-MMC-DLA, DSN 788-6403 or (256) 842-6403, datafax is DSN 645-0192. E-mail is "moore-jl@exchange1.redstone.army.mil".
- d. Forms and records point of contact for this message is Ms. Ann Waldeck, AMSAM-MMC-RE-FF, DSN 746-5564 OR (256) 876-5564, datafax is DSN 746-4904 or (256) 876-4904. E-mail is "waldeck-ab@redstone.army.mil".
- e. Safety point of contact for this TB is Mr. Bob Brock, AMSAM-SF-A, DSN 788-8632 or (256) 842-8632, datafax is DSN 897-2111 or (256) 313-2111. E-mail is "bob.brock@redstone.army.mil".
- f. Foreign military sales 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 "wittstromjl@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 hrs.
- g. After hours contact AMCOM Command Operations Center (COC) DSN 897-2066/7 or (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 sub-

mit your recommended changes by E-Mail directly to "ls-lp-@redstone.army.mil". A reply will be furnished directly to you.

TB 1-1520-240-20-110

By Order of the Secretary of the Army:

Official:

  
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Secretary of the Army

05727

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Distribution:

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**TB 1-1520-240-20-110**

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.

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



