ROUTINE

*TB 1-1520-237-20-213

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MAINTENANCE MANDATORY RCS CSGLD-1860 (R1), ALL H-60 AIRCRAFT INSPECTION AND PREVENTIVE MAINTENANCE ON THE RIGHT SIDE CROSSFEED BREAKAWAY VALVE

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

30 AUGUST 1999

NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

1. Priority Classification. Routine.

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 // - // 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 requirements of this Technical Bulletin within the time frame specified will cause the status symbol to be upgraded to a Red " X ".

b. Aircraft in Depot Maintenance. Same as paragraph 1a. Aircraft will not be issued until compliance with this TB has been completed.

c. Aircraft Undergoing Maintenance. . Same as paragraph 1a

d. Aircraft in transit.

(1) Surface/Air shipment. Prior to first flight or within 14 days of arrival.

(2) Ferry status. Same as paragraph 1a. Inspect at final destination.

*This TB supersedes USAAMCOM Aviation Safety Action Message 281626 JUL 99, UH60-99-ASAM-10

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. N/A

g. Components/Parts in work (Depot Level and others. N/A.

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

3. Reporting Compliance Suspense Date. No later than 18 August 1999 per paragraph 14.a of this TB.

4. Summary of Problem.

a. There have been several instances of failure and subsequent fuel leakage from the P/N 70307-03006-103 breakaway valve installed on the number two crossfeed line. Analysis of failed and non-failed values revealed that the valve on this line is subject to bending forces generated during installation and aggravated by the cyclic hydraulic pounding when the boost pump is turned on. Due to installation differences, the valve on the number one line does not experience the same fatiguing forces. Until a permanent fix that eliminates the installation bending moments is fielded, a time change schedule for this valve on this crossfeed line must be established.

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

c. The purpose of this TB is to:

(1) Accomplish a one time inspection of the number two crossfeed fuel line breakaway valve;
(2) Implement a replacement schedule of the number two crossfeed fuel line breakaway valve;
(3) Revise the installation and removal procedures in the technical manuals;
(4) And establish a finite life of 1500 hours for valves installed on the number two crossfeed line.

5. End Items to be inspected. All H-60 Aircraft.

6. Assembly Components to be inspected. N/A

7. Parts to be inspected.

Nomenclature	**Part No.**	**NSN**
Valve, self-sealing	70307-03006-103	1680-01-102-6007

NOTE

Only the valve installed on the number two crossfeed line (right side) is affected by this TB.

8. Inspection Procedures.

a. Inspect the six month maintenance file to see if any breakaway valve on the number two crossfeed line has been replaced. Determine the number of hours that the breakaway valve on the number two crossfeed line has been in service. If there is no record of replacing the valve, use the aircraft hours.

b. Inspect both crossfeed fuel hose assemblies to verify that the appropriate part numbers are installed as specified in TM 1-1520-237-23P (1 NOV 98), or TM 1-1520-250-23P-2 (30 AUG 96). Hose assembly (P/N SS30DN15F206000 (20 inches long) should be installed on the number one crossfeed line (breakaway valve for this line is on the left hand side of the aircraft) and hose P/N SS30DN15F242000 (24 inches long) should be installed on the number two crossfeed line (breakaway valve for this line is on the right hand side of the aircraft). If the hose assemblies are in any other configuration on the aircraft, contact the technical point of contact in paragraph 16A before continuing with the inspection.

c. Implement the paragraph 9C change to PMS-1.

d. If the valve has over 1500 hours, check for leakage as follows:

(1) With aircraft outdoors, apply external or APU Electrical power.

(2) If environmentally required, place catch pans under #2 engine fuel drain.

(3) Place #2 engine fuel selector to crossfeed. #1 engine fuel selector remains at off.

(4) Turn on #1 fuel boost pump.

(5) Place #2 engine power control lever to lockout until fuel flows from drain.

(6) Return power control levers to off, fuel selectors to off, boost pump to off, and remove electrical power.

(7) Inspect #2 crossfeed breakaway valve for leaks. Verify by wiping hand/rag on bottom side of valve. No leakage is allowed.

e. If leakage is found, replace the valve immediately using the removal and installation procedures in paragraph 9. Dispose of defective valve IAW paragraph 10D. Report IAW paragraph 14B.

f. If no leakage is found, annotate the appropriate records to replace the number two crossfeed breakaway valve IAW the following schedule using the removal and installation procedures in paragraph 9.

(1) If the valve has 2000 hours or more, annotate the DA Form 2408-13-1 to replace at the next scheduled 100 hour inspection or PMS II, whichever occurs first. Report results IAW paragraph 14B.
(2) If the valve has more than 1000 hours or more, annotate the DA Form 2408-13-1 to replace at the next scheduled 100 hour inspection or PMS II, whichever occurs first. Report results IAW paragraph 14B.

9. Correction Procedures.

a. Remove: Use this procedure in lieu of the removal procedure provided in TM 1-1520-237-23, paragraph 10-4-26.1 or TM 1-1520-250-23, paragraph 10.4.11.1 and applies to both the left and right hand fuel breakaway valves.

(1) Turn off all electrical power.
(2) Open engine cowling.
(3) Remove oil cooler compartment left/right side access door from helicopter (TM 1-1520-237-23, paragraph 2-4-122, or TM 1-1520-250-23, paragraph 2.34)
(4) Loosen, but do not remove, clamps where the number one and number two crossfeed fuel hoses cross.

(5) Loosen, but do not disconnect fuel hose where it connects to the check valve (P/N 70307-03043-101).
(6) Disconnect fuel hose from crossfeed breakaway valve and use an appropriate container to catch fuel.
(7) Plug hose and discard packing.
(8) Remove nuts, washers, cross feed beakaway valve, and gasket from fuel selector valve.

b. Install: Use this Procedure in lieu of the installation procedure provided in TM 1-1520-237-23, paragraph 10-4-26.2 or TM 1-1520-250-23, paragraph 10.4.11.2.

CAUTION

Under no circumstances is a breakaway valve previously installed on the number two crossfeed fuel line (right side) of an aircraft to be installed on a different aircraft or be re-installed on the left side (crossfeed line number one).

(1) Turn off all electrical power.

(2) Install gasket on crossfeed breakaway valve.

NOTE

The crossfeed breakaway valve should rotate freely on the fuel selector valve.

(3) Install crossfeed breakaway on fuel selector value with washers and nuts, but only tighten nuts finger tight at this time.

(4) Lubricate packing with petrolatum (FED SPEC W-P-236, NSN 9150-00-250-0926).

(5) Install packing on crossfeed breakaway valve.

(6) Unplug and connect fuel hose to crossfeed breakaway valve. Tighten fitting hand tight.

NOTE

Allow crossfeed breakaway valve and fuel hose to rotate freely on fuel selector valve. Valve and hose should assume a neutral position which will eliminate/reduce preload condition on the breakaway valve.

NOTE

While performing steps 7 through 9, avoid preloading crossfeed breakaway valve while tightening couplings and hardware. Avoid changing breakaway valve positions/orientation during the remainder of the installation process.

(7) Tighten and torque B-nut on check valve end of fuel hose to 460-500 inch pounds.

(8) Torque nuts on crossfeed breakaway valve at fuel selector valve to 43-47 inch-pounds. Avoid changing breakaway valve position/orientation.

(9) Adjust clamps where left and right side fuel hoses cross and retighten. (no torque valve).

(10) If the oil cooler lines were clamped to the fuel hose. Secure them to prevent chafing.

(11) Prime fuel system and check for leakage IAW TM 1-1520-237-23, paragraph 10-4-1 or TM 1-1520-250-23, paragraph 10.1.

(12) Make sure area is clean and free of foreign material.

(13) Install oil cooler compartment door IAW TM 1-1520-237-23, paragraph 2-4-122, or TM 1-1520-250-23, paragraph 2.34.

(14) Close engine cowling and latch.

(15) Upon replacement of breakaway fuel valve on the number two crossover line, make an entry on DA FORM 2408-18 to schedule replacement of the new valve when 1500 flight hours have been accured on the new installation. ULLS-A users will use one of their 800 inspection number. Make an entry on the aircraft 2408-15 quoting this TB number and put the date and aircraft total time in the entry for historical purposes.

c. Change to 10 hour/14 day inspection procedure: add the following inspection to TM 1-1520-237-PMS-1, after paragraph 6.23 and to TM 1-1520-250-PMS-1, paragraph 6.26: “inspect number 2 crossfeed breakaway fuel valve (right side) for security and leakage.”

10. Supply/Parts and Disposition.

a. Parts Required.

Nomenclature	**Part No.**	**NSN**
Valve, self-sealing	70307-03006-103	1680-01-102-6007

b. Requisitioning Instructions. Contact logistical point of contact in paragraph 16b prior to requisitioning replacement parts using normal supply procedures. All requisitions shall use project code (CC 57-59) “XFP” (X-ray-foxtrot-papa). If a task/inspection report by the unit has not been received by the logistical POC, that units’ requisitions will be given lower priority than requisitions from units reporting in compliance with the instructions of the TB.

NOTE

Project Code "XFP", is required to track and establish a database of stock fund expenditures incurred by the field as a result of /SOF actions.

c. Bulk and Consumable Material. N/A.

d. Disposition. All turn-in documents must include project code (CC 57-59) XFP.

(1) Leaking valves: submit a cat 1 deficiency report and wait for disposition instructions.
(2) Valves that not leaking when removed: DE-MIL IAW TM 1-1500-328-23.

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

11. Special Tools, Jigs and Fixtures Required. N/A

12. Application.

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

b. Estimated Time Required.

(1) Inspection.

(a) Total of 2 man-hours using one person.
(b) Total of 1 hour downtime for one end item.

(2) Correction

(a) Total of 6 man-hours using 1 person.
(b) Total of 6 hours downtime for one end item.

c. Estimated cost impact of stock fund items to the field:

Nomenclature	Part Number	NSN	QUANTITY
Valve, Self-sealing	70307-03006	1680-01-102-6007	1
TOTAL COST PER AIRCRAFT = $725.89			

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.

(1) TM 1-1520-237-23
(2) TM 1-1520-237-PMS-1
(3) TM 1-1520-250-23
(4) TM 1-1520-250-PMS-1

These manuals shall be changed to reflect this TB. A copy of this TB shall be inserted in the appropriate TM as authority to implement change until the printed change is received.

13. References.

TM 1-1520-237-23
TM 1-1520-237-PMS-1
TM 1-1520-250-23
TM 1-1520-250-PMS-1
TM 1-1500-328-23
TM 1-1520-237-23P
TM 1-1520-237-23P

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 Mission Design Series (MDS) aircraft, forward a priority message, Datafax or e-mail to Commander, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer) Redstone Arsenal in accordance with per 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 this Technical Bulletin 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). Upon completion of inspection, units will forward a priority message to: logistical POC listed in paragraph 16B. The report will cite the TB, date of inspection, aircraft serial number, aircraft hours, and results of the inspection. Inspection and reports will be completed No later than 15 June 1999. Negative reports are required. Reports must be received by the logistical POC to insure priority for requisitions.

c. Reporting Compliance Suspense Date (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 March 99.

NOTE

ULLS-A users use appropriate E form.

(1) DA Form 2408-13, Aircraft Status Information Record.
(2) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
(3) DA FORM 2408-13-2, Related Maintenance Actions Record.
(3) DA Form 2408-14, Uncorrected Fault Record.
(4) DA FORM 24-8-15, Historical Record for Aircraft.
(5) DA FORM 2408-18, Scheduled Special Inspections and Maintenance Actions.
(6) DD Form 1577/DD Form 1577-1, unserviceable condemned Tag/label -- Material (color red). (Annotate remarks block with 'condemned in accordance with TB 1-1520-237-20-213 and mutilated per 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. Greg Kirchhoffer, AMSAM-AR-E-I-C-U, DSN 645-0668 or commercial 256-955-0648. E-MAIL IS greg.kirchoffer@redstone.army.mil. Datafax is DSN 645-6590 or (256) 955-6590. Alternate phone number is DSN 645-4914 or commercial (256) 313- 4914.

b. Logistical point of contact for this TB is Mr. Joe Hoover, AMSAM-DSA-UH-L, DSN 645-7898 or commercial 256-955-7898. Datafax is DSN 645-6590. E-mail is joe.hooover@uh.redstone.army.mil.

c. Forms and Records point of contact for this TB is Ms. Ann Waldeck, AMSAM-MMC-RE-FF, DSN 746-5564 or Commercial (205) 876-5564. Datafax is 746-4904. E-mail is waldeck-ab@redstone.army.mil.

d. Wholesale Materiel (SPARES) point of contact (POC) is Mr. Ricardo Rochelle, Defense Supply Agency Richmond, DSN 695-3978 or (804) 279-3978, Datafax is DSN 695-5565, email is rrochelle@dscr.dla.mil.

e. Safety Point of contact for this TB is Mr. Ron Price, ASAM-SF-A, DSN 788-8636 or commercial 256-842-8620, Datafax is 256-313-2111. E-mail is ronprice@redstone.army.mil.

f. Foreign Military Sales (FMS), Recipients requiring clarification of action advised by this TB should contact CW5 Joseph L. Wittstrom, security assistance management, AMSAM-SA, DSN 897-0681 or commercial 256-313-0681. Email is wittstromjl@redstone.army.mil or Mr. Ronnnie 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 is GMT minus 6 HRS.

g. After hours, contact AMCOM Command Operations Center (COC), DSN 897-2066/7 or Commercial (205) 313-2066/7.

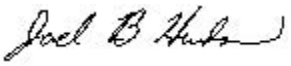
17. Reporting of Errors and Recommending Improvements. You can help improve this TB. If you find any mistakes or it you know of a way to improve these procedures, Please let us know. You may

submit your recommended changes by E-mail directly to ls-lp@redstone.army.mil. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual.

By Order of the Secretary of the Army:

ERIC K. SHINESKI
General, United States Army
Chief of Staff

Official:



JOEL B. HUDSON
Administratrtive Assistant to the
Secretary of the Army
9921401

DISTRIBUTION:
To be distributed in accordance with IDN 313822 requirements TB 1-1520-237-20-213.

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.

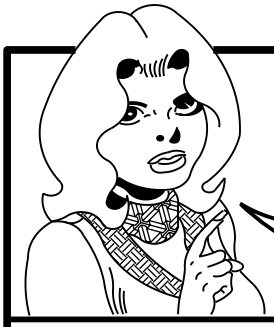
From: "Whomever" <whomever@avma27.army.mil>
To: <mpmt%avma28@st–louis–emh7.army.mil>

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



SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)
PFC John DOE
CO A 3rd Engineer Bn
Ft. Leonardwood, MO 63108

DATE SENT 22 August 1992

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 1-1520-250-10	15 June 1992	Operator's Manual MH60K Helicopter

BE EXACT...PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO
6	2-1 a		
B1		4-3	

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

In line 6 of paragraph 2-1a the manual states the engine has 6 cylinders. The engine on my set only has 4 cylinders. Change the manual to show 4 cylinders.

Callout 16 on figure 4-3 is pointed at a bolt. In key to figure 4-3, item 16 is called a shim - Please correct one or the other

PRINTED NAME. GRADE OR TITLE. AND TELEPHONE NUMBER
JOHN DOE, PFC (268) 317-7111

SIGN HERE John Doe
JOHN DOE

TEAR ALONG PERFORATED LINE

DA FORM 1 JUL 79 **2028-2**

PREVIOUS EDITIONS ARE OBSOLETE

DRSTS-M Overprint 1, 1 Nov 80

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

AK2534
SA

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS 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:

PRINTED NAME. GRADE OR TITLE. AND TELEPHONE NUMBER

SIGN HERE

TEAR ALONG PERFORATED LINE

DA FORM 1 JUL 79 **2028-2**

PREVIOUS EDITIONS ARE OBSOLETE

DRSTS-M Overprint 2, 1 Nov 80

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

AK2533
SA

TEAR ALONG PREFORATED LINE

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD 314

U.S. MAIL

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

COMMANDER
US ARMY AVIATION SYSTEMS COMMAND
ATTN: AMSAT−I−MP
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120−1798

AA7278
SA