URGENT

TB 1-1520-238-20-126

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

INITIAL AND RECURRING INSPECTION OF THE FIRE EXTINGUISHER CHECK VALVES FOR CORROSION FOR ALL AH–64 AIRCRAFT

Headquarters, Department of the Army, Washington, D.C.
11 April 2002

NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

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 the fire extinguisher check valves for corrosion IAW AH–64–02–ASAM–05 (TB 1–1520–238–20–126) within the next 125 flight hours, but NLT 2 September 2002.” Clear the red horizontal dash //–// entry when the procedures IAW paragraphs 8 and 9 are completed. The affected aircraft shall be inspected as soon as practical but no later than 2 September 2002. Commanders who are unable to comply with the requirements of this message within the time frame specified will upgrade the affected aircraft status symbol to a red //X//.

b. Aircraft in Maintenance Facility.

(1) Aircraft in AVUM, AVIM, or Depot – Commanders and facility managers will not issue aircraft until they are in compliance with this message.

(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.

(1) Surface/Air Shipment. Same as paragraph 1a.

(2) Ferry Status. 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. N/A.

This TB supersedes USAAMCOM Message 042000Z Apr 02 (AH–64–02–ASAM–05) and TB 1–1520–238–20–119.

f. Components/Parts in Work (Depot Level and Others). N/A.

2. **Task/Inspection Suspense Date.** Complete the inspection IAW paragraph 8 within the next 125 flight hours, but NLT 2 September 2002.

3. **Reporting Compliance Suspense Date**. Report compliance IAW paragraph 14a(1) NLT 12 April 2002.

4. **Summary of the Problem.**

a. AH−64−01−ASAM−06 was issued to require an initial and recurring inspection of the fire extinguisher check valves for corrosion. Subsequent reports from the field indicate that, during normal maintenance inspections, check valves with the required corrosion prevention compound (CPC), fluid film, applied are being found gummed up. It has been determined that the required CPC will become gummy when exposed to high humidity or moisture. If the CPC becomes gummy, the check valve ball may not completely seal when the fire bottles are used.

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

c. The purpose of this TB is to −

(1) Supercede the requirements in AH−64−01−ASAM−06 (TB 1−1520−238−20−119).

(2) Perform an initial inspection of the fire extinguisher system check valves and apply CPC, MIL−C−81309 Type II, to eliminate gumming of the check valves.

(3) Perform a recurring inspection of the check valves and fire bottle outlet ports.

5. **End Items To Be Inspected**. All AH−64 series aircraft.

6. **Assembly Components To Be Inspected.**

Nomenclature	Part Number	NSN
Fire Extinguisher System Assy	7−311620010	N/A

7. **Parts To Be Inspected**.

Nomenclature	Part Number	NSN
Valve, Stop−Check	7−117210003	4820−01−170−1280
Extinguisher, Fire	30205000−2	4210−01−393−5792

8. **Inspection Procedures**.

a. Initial Inspections −

(1) Inspect the check valves within the next 125 flight hours, but NLT 2 September 2002 as follows −

(a) Remove the three fire extinguisher system check valves IAW paragraph 12.42, TM 1−1520−238−23 for the AH−64A, and the IETM for the AH−64D.

(b) Submerse two way check valve in acetone long enough to remove any old CPC. If required, use a soft brush to help remove any CPC.

(c) Inspect the check valve ball for pitting, and rapidly move the check valve side to side to ensure unrestricted movement.

(d) If ball is pitted and/or seized to the valve, install a new valve IAW paragraph 9a.

(e) If ball moves unrestricted and there is no pitting observed, inspect for corrosion. If corrosion is noted, clean the valve in corrosion removing compound (NSN 6850−00−551−9577) as follows −

1. Submerse two way check valve in corrosion removing compound (NSN 6850−00−551−9577) for a maximum of 30 minutes. Agitate valve in fluid to remove excess corrosion and evaporation residue.

2. If required, use a soft brush to remove corrosion and evaporation residue.

NOTE

After corrosion has been removed, inspect inside of the valve for pitting, paying special attention to the ball seats and check ball. If pitting exists in either area, replace IAW paragraph 9a.

3. After the two way check valve has been cleaned of all corrosion, flush entire valve with clean water and allow to air dry. Use of compressed air to expedite dry time is permitted.

(f) Inspect the three threaded portions on each valve using a 10X magnifier. If cracks are noted, correct IAW paragraph 9a.

(g) Following the above inspection steps, if no pitting, corrosion, evaporation residue, or cracking is noted, install valve IAW paragraph 9b.

(2) Inspect the Fire Bottle Outlet Ports at the next phase number 2 or 4, whichever occurs next, as follows –

(a) Remove tube assemblies part number 7–311620503 and part number 7–311620504 IAW paragraph 12.38, TM 1–1520–238–23 for the AH–64A, and the IETM for the AH–64D. Refer to figure 668, items 26 and 27, TM 1–1520–238–23P, for the AH–64A for the location of these tubes on the IETM for the AH–64D.

(b) Inspect inside the fire bottle cartridge housing vertical outlet ports for evidence of pitting, corrosion, or evaporation residue.

(c) If pitting or evaporation residue is found, correct IAW paragraph 9c.

(d) If no pitting or residue is noted, correct IAW paragraph 9d.

b. Recurring Inspections – Clear the write–up for the recurring inspection on the DA Form 2408–18 required IAW AH–64–01–ASAM–06 (TB 1–1520–238–20–119). Enter a new write–up on the DA Form 2408–18 for the recurring inspections. These recurring inspections will be completed until the phase maintenance inspection checklists have been updated. ULLS–A units will use this message as authority to use their 800 inspection numbers for these inspections.

(1) Fire Extinguisher Check Valves – At every phase inspection, complete the inspection for corrosion of all three check valves as required IAW paragraph 8a(1).

(2) Fire Bottle Outlet Ports – At each phase inspection numbers 2 and 4, complete the inspection of the fire bottle outlet ports required IAW paragraph 8a(2).

9. Correction Procedures.

a. If it has been determined the check valve or check valve ball is unserviceable IAW paragraph 8a(1) of this message –

(1) Dispose of the unserviceable component IAW paragraph 10d.

(2) Reinstall a new check valve IAW paragraph 9b.

b. Check valve reinstallation procedures –

(1) Apply Corrosion Prevention Compound (CPC), MIL–C–81309 Type II, to inside of two way check valve.

(2) When the entire internal section of the valve has been coated, drain excess fluid from the valve.

(3) Reinstall the check valve IAW TM 1–1520–238–23, paragraph 12.42 for the AH–64A and the IETM for the AH–64D.

c. If pitting or residue is noted on the outlet port –

(1) Clean with cotton swab dipped in corrosion removing fluid.

(2) Swab vertical outlet ports with cotton swabs soaked in water and allow to air dry.

(3) Reinstall IAW paragraph 9d.

d. Fire bottle outlet port reinstallation –

(1) Apply CPC, MIL–C–81309 Type II, to inside of vertical outlet ports with cotton swab.

(2) Reinstall tube assemblies part number 7–311620503 and part number 7–311620504 IAW paragraph 12.39, TM 1–1520–238–23 for the AH–64A, and the IETM for the AH–64D.

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

a. Parts Required – Items cited in paragraph 7 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) “X0T” (X–ray Zero Tango).

NOTE

Project code “X0T” 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 –

Nomenclature	Part Number	NSN
Corrosion resistant fluid	MIL–C–10578	6850–00–551–9577
Corrosion prevention compound	MIL–C–81309, Type II	8030–00–938–1947
Acetone	ASTM D329	6810–00–184–4796

d. Disposition – Demilitarize/Mutilate IAW TM 1–1500–328–23 any part/component which does not meet inspection criteria.

e. Disposition of Hazardous Material – IAW 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 –

(1) To inspect the check valves and vertical outlet ports – total of 1.5 man–hours using 1 person.

(2) To clean and install the check valves – total of 1.5 man–hours using 1 person.

(3) To clean the vertical outlet ports – total of 0.5 man–hour using 1 person.

(4) Total of 3.5 hours downtime for one end item.

c. Estimated Cost Impact to the Field – Parts common to all AH–64 series aircraft:

Nomenclature	Part No./NSN	QTY	Cost Ea.	Total
Valve, Stop–Check	7–117210003/ 4820–01–170–1280	3	$261.34	$784.02
Extinguisher, Fire	30205000–2/ 4210–01–393–5792	2	$2002.00	$4004.00

Total approximate cost per aircraft = $4788.02

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 – A copy of this TB shall be inserted in the appropriate publication, or filed with appropriate IETM, as authority to implement the change until the printed change or updated ITEM is received.

(1) Interactive Electronic Technical Manual (IETM): TM 1–1520–Longbow/Apache IETM, CD No. 1, version 3.1.2, dated Jan 02, CD date 1 Dec 01 or subsequent.

(2) TM 1–1520–238–PM – Phased Maintenace Inspection Checklist for Army AH–64A Helicopter, 30 Jun 94.

(3) TM 1–1520–238–23, Aviation Unit and Intermediate Maintenance Manual for AH–64A Apache Attack Helicopter, 16 May 94.

13. **References.**

a. DA PAM 738–751, 15 Mar 1999, Functional Users Manual for the Army Maintenance Management System – Aviation (TAMMS–A).

b. Interactive Electronic Technical Manual (IETM): TM 1–1520– Longbow/Apache IETM, CD No. 1, version 3.1.2, dated Jan 02, CD date 1 Dec 01 or subsequent.

c. TM 1–1520–238–PM, Phased Maintenance Inspection Checklist for Army AH–64A Helicopter, 30 Jun 94.

d. TM 1–1520–238–23, Aviation Unit and Intermediate Maintenance Manual for AH–64A Apache Attack Helicopter, 16 May 1994.

e. TM 1–1520–238–23P, Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List for AH–64A Apache Attack Helicopter, 27 March 1995.

f. TM 1–1500–328–23 – Aeronautical Equipment Maintenance Management Policies and Procedures, 30 July 1999.

14. **Recording and Reporting Requirements**.

a. Aircraft –

(1) Reporting Compliance Suspense – Upon entering requirements of this TB on DA Form 2408–13–1 for all effected aircraft, commanders will forward a priority message, datafax or e–mail to: CDR, AMCOM, ATTN: AMSAM–SF–A (SOF Compliance Officer), Redstone Arsenal, AL 35898–5000, IAW AR 95–1, NLT date specified in paragraph 3. Datafax number is DSN 897–2111 or (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 – N/A.

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

c. Retail Spare Parts/Assemblies – N/A.

d. The following forms are applicable and are to be completed IAW DA PAM 738–751, 15 Mar 1999 –

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 2408–15, Historical Record for Aircraft.

(4) DA Form 2408–18, Equipment Inspection List.

(5) DD Form 1577/DD Form 1577–1, Unserviceable (Condemned) Tag/Label – Materiel (Color Red). Annotate remarks block with “Condemned IAW AH–64–02–ASAM–05 (TB 1–1520–238–20–126) and mutilated IAW TM 1–1500–328–23.”

(6) DD Form 1577−2/DD Form 1577−3, Unserviceable (Reparable) Tag/Label − Materiel (Color Green). Annotate remarks block with “Unserviceable IAW AH−64−02−ASAM−05 (TB 1−1520−238−20−126).”

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

16. **Points of Contact**.

a. Technical point of contact is Mr. Andy Fabery, AMSAM-RD−AE−I−P−A, (256) 705−9825, datafax is (256) 705−9918. E-mail is “Andrew.Fabery@rdec.redstone.army.mil”.

b. Logistical points of contact are −

(1) Primary − Mr. Steve Hayes, SFAE-AV-AAH-LF, DSN 897-4245 or (256) 313-4245, datafax is DSN 897-4343 or commercial (256) 313-4343. E−mail is “Steve.Hayes@peoavn.redstone.army.mil”.

(2) Alternate − Mr. Mike Sharp, SFAE−AV−AAH−LF, DSN 897−4236 or (256) 313−4236, datafax is DSN 897-4343 or commercial (256) 313-4343. E−mail is “Mike.Sharp@peoavn.redstone.army.mil”.

c. Wholesale point of contact is Mr. Paul Hughes, DSCR−XBD, DSN 695−6328 or commercial (804) 279−6328. Datafax is DSN 695−5695 or commercial (804) 279−5695. E−mail is “PHughes@dscr.dla.mil”.

d. Forms and Records point of contact is Ms. Ann Waldeck, AMSAM−MMC−MA−NM, DSN 746−5564 or commercial (256) 876−5564. Datafax is DSN 746−4904 or commercial (256) 876−4904. E−mail is “Ann.Waldeck@redstone.army.mil” .

e. Safety points of contact are −

(1) Primary − Mr. Harry Trumbull (SAIC), AMSAM−SF−A, DSN 897−2095 or commercial (256) 313−2095. Datafax is DSN 897−2111 or commercial (256) 313−2111. E−mail is “Harry.Trumbull@redstone.army.mil”.

(2) Alternate − Mr. Joseph Creekmore, AMSAM-SF-A, DSN 897-2090 or commercial (256) 313-2090. Datafax is DSN 897-2111 or commercial (256) 313-2111. E-mail is “Joseph.Creekmore@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-CS-NF, DSN 897-6656 or commercial (256) 313-6656, datafax is DSN 897−6630 or commercial (256) 313−6630. E-mail is “Ronnie.Sammons@redstone.army.mil”.

g. After hours, contact the AMCOM Command Operations Center (COC) DSN 897-2066/7 or commercial (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 the following address: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5230. You may also submit your recommended changes by e-mail directly to “2028@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:

Official:

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Chief of Staff

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From: "Whomever" <whomever@avma27.army.mil>
To: <2028@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).

PIN: 075767-000