

URGENT

TB 1-1520-240-20-127

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MANDATORY INSPECTION FOR INSTALLATION OF MA-16 INERTIA REELS, PART NUMBER 015-870145-3-16, ON ALL CH-47D, MH-47D AND MH-47E AIRCRAFT

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

6 November 2000

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

1. Priority Classification. Urgent

NOTE

In accordance with AR 95-1, paragraph 6-6A, MACOM Commanders may authorize temporary exception from the requirements of this ASAM.

Exception may only occur when combat operations or matter of life or death in civil disasters or other emergencies are so urgent that they override the consequences of continued aircraft operation.

a. Aircraft in Use. Upon receipt of this Technical Bulletin, make the following entry on the DA Form 2408-13-1. Enter a red horizontal dash //--// status symbol with the following statement: "Inspect for MA-16 inertia reels part number 015-870145-3-16 in accordance with CH-47-01-ASAM-01 (TB 1-1520-240-20-127) within the next 10 flight hours but no later than 26 OCT 00." Clear the red horizontal dash //--// entry when the procedures in accordance with paragraph 8 are completed. The affected aircraft shall be inspected as soon as practical but no later than 26 OCT 00. Commanders who are unable to comply with the requirements of this Technical Bulletin within the time frame specified will upgrade the affected aircraft status symbol to a red //X//.

b. Aircraft in Depot Maintenance. Depot Commanders will not issue H-47 aircraft until they are in compliance with this Technical Bulletin. This includes H-47 aircraft undergoing refurbishment at Corpus Christi Army Depot (CCAD).

c. Aircraft Undergoing Maintenance. Commanders and Facility Managers will not issue H-47 aircraft until they are in compliance with this Technical Bulletin.

This TB supersedes USAAMCOM Message 111717Z OCT 00 CH-47-01-ASAM-01.

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- d. Aircraft in Transit.
 - (1) Surface/Air Shipment. Same as paragraph 1a.
 - (2) Ferry Status.
 - (a) Install MA-16 inertia reels part number 015-870145-3-16 at final destination.
 - (b) Boeing Helicopters will install MA-16 inertia reels part number 015-870145-3-16 on DD 250 aircraft prior to these H-47 aircraft departing for 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. N/A.
- g. Components/Parts in Work (Depot Level and Others). N/A.

2. Task/Inspection Suspense Date. Complete the inspection in accordance with paragraph 8 within the next 10 flight hours but no later than 26 OCT 00 and report in accordance with paragraph 14b.

3. Reporting Compliance Suspense Date. Report compliance in accordance with paragraph 14a no later than 01 NOV 00.

4. Summary of the Problem.

a. The inertia reels function in concert with the crew restraint harness to minimize flailing injuries to aircrew personnel in the event of an aircraft mishap. Based upon sampling tests at Fort Rucker of various inertia reels, an estimated 24 percent of the old MA-6 and MA-8 inertia reels failed to automatically lock in low forward velocity crashes as required by MIL-R-8236F. Additional sampling tests conducted by the Navy revealed that 50 percent of the old MA-6 and MA-8 inertia reels tested failed to lock during high velocity forward crashes. Clearly, older design inertia reels do not afford the maximum degree of protection from flailing injuries, thereby increasing the risk of serious injuries in survivable helicopter accidents.

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

c. The purpose of this Technical Bulletin is to –

(1) Inspect for and mandate the replacement of older design MA-6/MA-8 inertia reels in H-47 aircraft with the new MA-16 (P/N 015-870145-3-16) inertia reels.

(2) Replacement of MA-6/MA-8 inertia reels is required no later than 15 June 01.

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

6. Assembly Components to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Inertia Reel	0101383-01	1680-00-780-2121
Inertia Reel	015-870145-3-6	1680-01-776-8278
Inertia Reel	015-870145-3-8	1680-01-437-0394
Inertia Reel	015-870145-3-16	1680-01-437-0396

7. Parts to be Inspected. N/A.

8. Inspection Procedures.

a. Locate the inertia reel on the back of the pilots/copilots seats, TM 55-1520-240-23P, Figure 44, Item No. 49 or TM 1-1520-252-23P, Figure 2-25, Item No. 47.

b. If the part number is 015-870145-3-16, the inertia reel is serviceable. The red horizontal dash //--// will be cleared and compliance with this message and TB 1-1520-240-20-127 will be noted.

c. If the part number is anything other than 015-870145-3-16, the inertia reel is obsolete and must be replaced. Proceed to correction procedure in paragraph 9.

9. Correction Procedures.

a. The red horizontal dash //--// status symbol will be cleared and a red diagonal “ / ” status symbol with the following entry shall be made on the DA Form 2408-13-1 “Install MA-16 inertia reels, P/N 015-870145-3-16 no later than 15 June 2001.”

b. Prepare the aircraft for safe ground maintenance.

c. Remove unserviceable older design (clevis style) MA-6 (P/N 015-870145-3-6 or MA-8 (P/N 015-870145-3-8) inertia reels. Refer to TM 55-1520-240-23, Task 2-117 or TM 1-1520-252-23, Task 2-110 (remove).

d. Install new design (banjo style) MA-16 (P/N 015-870145-3-16) inertia reels. Refer to TM 55-1520-240-23, Task 2-122 or TM 1-1520-252-23, Task 2-110 (install).

e. Due to the configuration of the P/N 015-870145-3-16 inertia reel, it will be necessary to replace P/N AN3-6A bolt, machine (refer to TM 55-1520-240-23P, Figure 44, Item No. 44, or TM 1-1520-252-23P, Figure 2-25, Item No. 42) with P/N NAS6603-30 bolt, hex head, NSN 5306-01-325-3841. The required P/N NAS6603-30 bolt will be packaged with the new P/N 015-870145-3-16 inertia reel.

NOTE

The new 015-870145-3-16 inertia reel requires cable (28 inch), P/N 920070-7, NSN 1680-01-414-4867, and handle, P/N 950017-3, NSN 1680-01-437-0398, the CH-47 PM has been alerting units to order the cable and handle over the proceeding 2 years. If the cable and handle are not on hand requisition in accordance with paragraph 10.

f. After completion of the above correction procedure, the red diagonal slash “ / ” status symbol entry will be cleared and compliance with this message and TB 1-1520-240-20-127 will be noted and reported in accordance with paragraph 14b.

10. Supply/Parts and Disposition.

a. Parts Required. Part number 015-870145-3-16 cited in paragraph 6, and parts cited in paragraph 9e note above will be required to replace the older design unserviceable inertia reels.

b. Requisitioning Instructions. Both P/N 015-870145-3-16 inertia reels, with P/N NAS6603-30 bolts in the same package, will be provided by the aircrew integrated systems project managers office (SFAE-AV-LSE). Provide the logistical point of contact listed in paragraph 16b with your local point of contact, DODAAC, and quantity required. Parts noted in paragraph 9e and note must be requisitioned using normal requisitioning procedures with project code “X09” (xray-zero-nine).

NOTE

Project code “X09”, 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. Demilitarize/mutilate in accordance with TM 1-1500-328-23 any inertia reel which does not meet inspection criteria.

e. Disposition of Hazardous Material. N/A.

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

12. Application.

a. Category of Maintenance. AVUM. Aircraft downtime will be charged to AVUM. Report aircraft non-mission capable maintenance (NMCM) while undergoing inspection and correction in accordance with this Technical Bulletin.

b. Estimated Time Required-

(1) For inspection -

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- (a) Total of 1 man-hour using 1 person.
- (b) Total of 0 hours downtime for one end item.
- (2) For replacement per inertia reel –
 - (a) Total of 2 man-hours using 1 person.
 - (b) Total of 2 hours downtime for one end item.
- c. Estimated Cost Impact to the Field.

NOMENCLATURE	PN/NSN	QUANTITY	COST EACH	TOTAL
Cable (28 inch)	920070-7/ 1680-01-414-4867	2 EA.	\$237.85	\$475.70
Handle	950017-3/ 1680-01-437-0398	2 EA.	\$254.84	\$509.68

TOTAL COST PER AIRCRAFT = \$985.38

- 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 – TM 55-1520-240-23, TM 55-1520-240-23P, TM 1-1520-252-23, and TM 1-1520-252-23P shall be changed to reflect this Technical Bulletin. A copy of this Technical Bulletin shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

13. References.

- a. DA PAM 738-751, 15 MAR 99.
- b. TM 55-1520-240-23P.
- c. TM 55-1520-240-23.
- d. TM 1-1520-252-23P.
- e. TM 1-1520-252-23.
- f. TM 1-1500-328-23.

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 MDS aircraft, Commanders will 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 commercial (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.

b. Task/Inspection Reporting Suspense Date (Aircraft). Upon completion of inspection, Commanders will forward a priority message to the logistics point of contact in paragraph 16b. The report will cite this message and TB number, date of inspection, aircraft serial number, aircraft and component hours, and results of the inspection. Inspection and reports will be completed no later than 27 OCT 00.

- c. Reporting Message Receipt (SPARES). N/A.
- d. Task/Inspection Reporting Suspense Date (SPARES).
- e. The following Forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 Mar 99.

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) DD Form 1577/DD Form 1577-1, Unserviceable (condemned) Tag/Label – Materiel (color red). Annotate remarks block with "Condemned in accordance with CH-47-01-ASAM-01 (TB 1-1520-240-20-127) and mutilated in accordance with TM 1-1500-328-23."

15. Weight and Balance. N/A.

16. Points of Contact.

a. Technical points of contact are –

(1) Inertia Reels – Ms. Sue Ference, SFAE-AV-LSE, DSN 897-4253 or commercial (256) 313-4253, datafax is DSN 897-4346. E-mail address is "sue.ference@peoavn.redstone.army.mil".

(2) H-47 Aircraft – Mr. Larry Wieschhaus, DSN 897-3341 or commercial (256) 313-3341, datafax is DSN 897-4348. E-mail address is "larry.wieschhaus@redstone.army.mil".

b. Logistical point of contact is Mr. Bill Olson, SFAE-AV-CH-L, DSN 897-3379 or commercial (256) 313-3379, datafax is 897-4348. E-mail is "william.olson@peoavn.redstone.army.mil".

c. Wholesale Materiel point of contact (SPARES) is Ms. Joan Davis-Adams, DSCR-JAS, DSN 695-6714 or commercial (804) 279-6714, datafax is DSN 695-6604. E-mail is "jdavisadams@dscr.dla.mil".

d. Forms and Records point of contact is Ms. Ann Waldeck, AMSAM-MMC-RE-FF, DSN 746-5564 or commercial (256) 876-5564, datafax is DSN 746-4904. E-mail is "ann.waldeck@redstone.army.mil".

e. Safety points of contact are –

(1) Primary – Mr. Frank Roseberry (SAIC), AMSAM-SF-A, DSN 788-8631 or commercial (256) 862-8631, datafax is DSN 897-2111 or commercial (256) 313-2111. E-mail is "frank.roseberry@redstone.army.mil".

(2) Alternate – Mr. Russell Peusch, AMSAM-SF-A, DSN 788-8632 or 897-2091, or commercial (256) 842-8632 or (256) 313-2091, datafax is DSN 897-2111 or commercial (256) 313-2111. E-mail is "rus-sel.peusch@redstone.army.mil".

f. Foreign Military Sales recipients requiring clarification of action advised by this Technical Bulletin should contact–

(1) CW5 Joseph L. Wittstrom, Security Assistance Management, AMSAM-SA, DSN 897-0410 or commercial (256) 313-0410. E-mail is "wittstromjl@redstone.army.mil"

(2) Mr. Ronnie Sammons, AMSAM-SA-CS-NF, DSN 897-0408 or commercial (256) 313-0408, datafax is DSN 897-0411 or commercial (256) 313-0411. E-mail is "sammonsrw@redstone.army.mil". Huntsville, AL is GMT minus 5 hours.

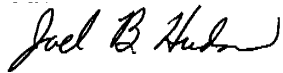
g. After hours contact the AMCOM COMMAND OPERATIONS CENTER (COC) DSN 897-2066/7 or commercial (256) 313-2066/7.

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By Order of the Secretary of the Army:

Official:

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



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
0031304

DISTRIBUTION:

To be distributed in accordance with Initial Distribution Number (IDN) 313952, requirements for TB 1-1520-240-20-127.

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

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 dekagram = 10 grams = .35 ounce
 1 hectogram = 10 dekagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

Temperature (Exact)

°F Fahrenheit temperature 5/9 (after subtracting 32) Celsius temperature °C

PIN: 078612-000