# **URGENT**

TB 1-1520-238-20-105

# DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

# ONE TIME INSPECTION FOR MAIN ROTOR BLADE ATTACHMENT PIN ALL AH-64 AIRCRAFT

Headquarters, Department of the Army, Washington, D. C. 3 March 2000

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

#### NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL 3 March 2004 UNLESS SOONER RESCINDED OR SUPERSEDED.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 //–// entry shall state "Visually inspect the Main Rotor Blade Attachment Pin IAW TB 1–1520–238–20–105 prior to next flight. The red horizontal dash //–// may be cleared when the inspection of paragraph 8 is completed. The affected aircraft shall be inspected as soon as practical but no later than (NLT) prior to next flight. 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. Aircraft will not be issued until compliance with this TB has been completed.
  - c. Aircraft Undergoing Maintenance. Same as para 1a
  - d. Aircraft in Transit.
    - (1) Surface/Air Shipment. Upon arrival at final destination NLT prior to next flight.
    - (2) Ferry Status.
      - (a) Same as para 1a.
  - (b) Those aircraft that have a DD 250 and are at Boeing will be inspected prior to ferry to final destination.
  - e. Maintenance Trainers (Category A and B). Same as paragraph 1.a above.
- f. Component/Parts in Stock Including War Reserves at All Levels (Depot and Others). Upon receipt of this TB, the materiel condition tags of all items in all condition codes listed in para 7 shall be annotated to read (TB 1–1520–238–20–105), "Inspection of the Main Rotor Blade Attachment Pin not complied with".

This TB supersedes USAATCOM Safety of Flight Message 181743Z Feb. 00 (AH-64-00-05).

# TB 1-1520-238-20-105

- (1) Wholesale Stock -N/A
- (2) Retail Stock Report receipt of this TB IAW para 14c(2). Upon Receipt of this message Commanders and others maintaining retail stock at installation level and below shall contact the supported aviation unit to perform the inspection required by para 8 and the correction procedures of para 9 on discrepant materiel. Disposition of discrepant materiel will be IAW para 10. Report compliance with this TB IAW para 14d(2)
- g. Component/Parts in Stock Including War Reserves at All Levels (Depot and Others). Items listed in para 7 in work will not be issued until compliance with this TB..
- **2**. **Task/Inspection Suspense Date.** Complete the inspection IAW para 8 prior to next flight and report IAW para 14b as applicable .
- 3. Reporting Compliance Suspense Date. Report compliance IAW para 14.a NLT 13 March 2000.
- 4. Summary of the Problem.
- a. Engineering analysis indicates that the retirement life for all Main Rotor Blade Attachment Pins needs to be reduced. Specified pins manufactured by Avibank may not provide the proper fit which will result in a significant fatigue life degradation.
  - b. For manpower/downtime and funding impacts, see paragraph 12.
  - c. The purpose of this TB is to inspect all Main Rotor Blade Attachment Pins to establish the following:
- (1) Establish a new retirement life of 824 hours for specified Avibank Main Rotor Blade Attachment Pins (vendor part number 53460–3 or 53460–13).
- (2) Replace Avibank Main Rotor Blade Attachment Pins with vendor part numbers 53460–3 or 53460–13 that exceed the new retirement life of 824 hours.
  - (3) Reduce retirement life for all other pins to 6310 hours.
- **5**. **End Items to be inspected**. All AH-64 Army aircraft.
- 6. Assembly Components to be Inspected. N/A.
- 7. Parts to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER		
Pin, Blade, Main Rotor	7-211411185/-3/-13	1615-01-164-3917		

# 8. Inspection Procedures.

a. Visually inspect all Main Rotor Blade Attachment Pins IAW reference C, Figure 290, Item 4, TM 1–1520–238–23, or IETM. The vendor part number is ink stamped on the cam handle of the pin. Perform a records check to determine the number of hours for all pins. For pins that exceed the retirement life listed in para 8b, replace IAW para 9a.

#### NOTE

If vendor part number can not be identified, the part will replaced IAW para 9a.

b. The new retirement life for authorized pins is as follows and will be added to the ISAQ and TM-

Vendor	Vendor P/N	New Retirement Life Hours
Adjustable Bushing Corp.	ABC- 6652	6310
Shur-Lok	SL 54005	6310
Avibank	ADP236-5	6310
Avibank	ADP236-15	6310
Avibank	53460-3	824
Avibank	53460-13	824



Avibank pins with vendor number 53460 is not authorized for use regardless of the number or hours.

# NOTE

Units will track the pin on the DA Form 2410–16 by listing the pin using the vendor part number.

# 9. Correction Procedures.

- a. If the new retirement life for the vendor part number listed in 8b is exceeded, or if the vendor part number can not be determined, remove IAW reference B, para 5.3, TM 1–1520–238–23, or IETM and replace with an authorized pin. dispose of the discrepant parts IAW para 10d.
- b. If the new retirement life for the vendor part number listed in 8b is not exceeded, update the appropriate historical records to reflect the new retirement life.

# 10. Supply/Parts and Disposition.

- a. Parts Required. Items cited in para 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 (CC 57–59) "XCI" (X–Ray–Charlie–India).

#### NOTE

Project code "XCI" 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. N/A.
- d. Disposition- Demilitarize/Mutilate 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, 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) To conduct visual inspection-
    - (a) Total of 0.5 man-hours using 1 person to inspect all 8 pins on one aircraft.

- (b) Total of 0.5 hours downtime for one aircraft.
- (2) To replace pin-
  - (a) Total of 1.0 man-hours using 3 persons to replace 1 pin.
  - (b) Down time will be determined by number of pins to be replaced per aircraft.
- c. Estimated Cost Impact of Stock Fund Items to the Field.

NOMENCLATURE	PART NUMBER/ NATIONAL STOCK NUMBER	QTY.	COST EACH	TOTAL \$	
Pin, Blade, Main Rotor	7–211411185/–3/–13/ 1615–01–164–3917	8	\$199.00	\$1592.00	
Maximum total cost per aircraft = \$1592.00					

- 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) Interactive Electronic Technical Manual (IETM): TM 1–1520–Longbow/Apache IETM, CD No. 1, Version 3.1.2, Data 19 Nov. 98, CD Date 1 Dec 98 or subsequent.
- (2) TM 1–1520–238–23, Aviation Unit and Intermediate Maintenance Manual for AH–64A Apache Attack Helicopter, 16 May 94.
- (3) TB 1–1500–341–01, Aircraft Components Requiring Maintenance Management and Historical Data Reports.

## 13. References.

- a. Interactive Electronic Technical Manual (IETM): TM 1–1520–Longbow/Apache IETM, CD No. 1, Version 3.1.2, Data 19 Nov. 98, CD Date 1 Dec 98 or subsequent.
- b. TM 1–1520–238–23, Aviation Unit and Intermediate Maintenance Manual for AH–64A Apache Attack Helicopter, 16 May 94.
- c. TM 1–1500–238–23P, Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List for AH–64A Apache Attack Helicopter, 27 March 95.

# 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, AM-COM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, Al 35898–5000 IAW AR 95-1. Datafax number is DSN 897-2111 or commercial (256) 313-2111. E-Mail address is "SAFEADMS@RED-STONE.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) No special report of the results of this inspection is required.
  - c. Reporting compliance suspense date (spares) N/A.
  - d. Task/Inspection reporting suspense date (spares)-
    - (1) Materiel in Wholesale Depot Storage N/A.
- (2) Materiel in Retail Storage– Report receipt of this TB by E-mail or Datafax to the Logistical Point of Contact listed in para 16B within 14 days from the date of this message. Report quantity inspected by condition code and the resulting condition code. Report by E-mail or datafax. Provide local Point of Contact.

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 2408-5–1, Equipment Modification Record (Main Rotor Blade, Attach Pin).
- (2) DA Form 2408-13, Aircraft Status Information Record.
- (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
- (4) DA Form 2408-15, Historical Record for Aircraft.
- (5) DA Form 2408-16, Aircraft Component Historical Record.
- (6) DA Form 2410, Component Removal and Repair Overhaul Record (Only if pin is replaced).
- (7) DA Form 1574/ DD Form 1575–1 Serviceable Tag/Label–Material (Color Yellow). Annotate remarks block with "Inspected Serviceable IAW AH–64–00–05 not complied with."
- (8) DD Form 1577/DD Form 1577–1, Unserviceable (Condemned) Tag/Label– Material (Color Red).
- 15. Weight and Balance. N/A.

# 16. Points of Contact.

- a. Technical point of contact for this TB is Mr. Andy Fabery, AMSAM-RD-AR-E-I-P-A, DSN 897-4802 or commercial (256) 313-4802. Datafax is DSN 897-4923 or (256) 313-4923 E-mail is Andre.Fabery@redstone.army.mil.
- b. Logistical point of contact for this TB is Mr.Jim Mason, SFAE-AV-AAH-LF, DSN 897-4242 or commercial (256) 313-4343. E-mail is MasonJ@peoavn.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 (256) 876-5564, Datafax is DSN 746-4904 or commercial (256) 876-4904, E-mail is waldeck-ab@redstone.army .mil.
- d. Safety point of contact for this TB is Mr. Howard Chilton. AMSAM-R-X, DSN 897-2068 or commercial (256) 313-2068, Datafax is DSN 897-2111 or commercial (256) 313-2111, E-mail is chilton-hl@redstone.army.mil.
- e. 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, E-mail is wittstrom-jl@redstone.army.mil. or Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0869 or commercial (256) 313-0869, Datafax is DSN 897-0411 or commercial (256) 313-0411, E-mail is sammons-rw@redstone.army.mil. Huntsville, Al is GMT minus 6 hours.
- f. After hours contact AMCOM Command Operations Center (COC) DSN 897-2066/7 or commercial (256) 313-2066/7.

# TB 1-1520-238-20-105

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 submit your recommended changes by E–mail directly to Is–Ip@Redstone.Army.Mil. Instructions for sending an electronic 2028 may be found at the back of this manual. A reply will be furnished directly to you.

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

Address: 4300 Park
 City: Hometown

5. *St:* MO6. *Zip:* 77777

*Date Sent:* 19-OCT-93
 *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: 219. 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.

By Order of the Secretary of the Army:

Official: Joel B Huls ERIC K. SHINSEKI General, United States Army Chief of Staff

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

0006001

# Distribution:

To be distributed in accordance with Initial Distribution Number (IDN) 313892, requirements for TB 1-1520-238-20-105.

# RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

	SOMETHING WRONG WITH PUBLICATION  FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)  THENJOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.  DATE SENT							
	UBLICAT	TON NUMBE	ER			PUBLICATION D	ATE	PUBLICATION TITLE
╏┠╌	E EXAC PAGE NO.	T PIN-PC PARA- GRAPH	FIGURE NO.	TABLE NO.				AT IS WRONG DONE ABOUT IT.
PF	RINTED I	NAME, GRA	DE OR TITL	E AND TELE	EPHONE NU	JMBER	SIGN HE	ERE

DA 1 JUL 79 2028-2

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

# THE METRIC SYSTEM AND EQUIVALENTS

#### **'NEAR MEASURE**

Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches

1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches

1 Kilometer = 1000 Meters = 0.621 Miles

# **YEIGHTS**

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces

1 Kilogram = 1000 Grams = 2.2 lb.

1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

# LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces

1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

### **SQUARE MEASURE**

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches

1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet

1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

# **CUBIC MEASURE**

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

#### **TEMPERATURE**

 $5/9(^{\circ}F - 32) = ^{\circ}C$ 

212° Fahrenheit is evuivalent to 100° Celsius

90° Fahrenheit is equivalent to 32.2° Celsius

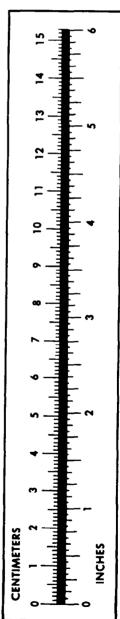
32° Fahrenheit is equivalent to 0° Celsius

 $9/5C^{\circ} + 32 = {\circ}F$ 

# **APPROXIMATE CONVERSION FACTORS**

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	
Cubic Feet	Cubic Meters	
Cubic Yards	Cubic Meters	
Fluid Ounces	Milliliters	
nts	Liters	
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	
Pound-Feet	Newton-Meters	
Pounds per Square Inch	Kilopascals	
Miles per Gallon	Kilometers per Liter	
Miles per Hour	Kilometers per Hour	
•		

TO CHANGE	то	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	
Kilometers	Miles	
Square Centimeters	Square Inches	
Square Meters	Square Feet	
Square Meters	Square Yards	1 196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	
Cubic Meters	Cubic Feet	
Cubic Meters	Cubic Yards	
Milliliters	Fluid Ounces	
Liters	Pints	
Liters	Quarts	
'ers	Gallons	
.ms	Ounces	
.ograms	Pounds	
Metric Tons.	Short Tons	
Newton-Meters	Pounds-Feet	
Kilopascals	Pounds per Square Inch .	
ometers per Liter	Miles per Square Inch .	9 254
meters per Hour	Miles per Gallon	
miecers per mour	Miles per Hour	U.OZI



PIN: 077877-000