

URGENT

TB 1-1520-238-20-78

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

RETIREMENT LIFE CHANGE
FOR MAIN ROTOR DRIVE SHAFT
P/N 7-211350021 FOR
ALL AH-64 AIRCRAFT

Headquarters, Department of the Army, Washington, D. C.
1 July 1996

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

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 1.a.

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

d. Aircraft in Transit.

(1) Surface/Air Shipment. Within 10 hours/14 days of arrival.

(2) Ferry Status. Inspect at final destination.

e. Maintenance Trainers (Category A, B, and Others). Same as paragraph 1 .a above.

f. Component/Parts in stock at all levels (Depot and others) including war reserves. Upon receipt of this TB the material condition tags of all items in condition codes listed in paragraph 7 below shall be annotated to read AH-64-96-02, retirement life change for main rotor drive shaft not complied with.

(1) Material located in all warehouse depots including all satellite wholesale depots and war reserve depots, report receipt of this message in accordance with paragraph 14c(1). Upon receipt of this message depot commanders and others maintaining wholesale stock shall ensure that serviceable material (condition codes A, B, and C) listed in paragraph 7 is placed in condition code J and tagged with a suspended tag/label, material DD Form 1576/1576-1. Annotate the remarks block with TB1-1520-238-20-78, retirement life change for main rotor drive shaft not complied with. Do not remove the existing material condition tags. Report compliance with this message in accordance with paragraph 14.d (1).

This TB supersedes USAATCOM Aviation Safety Of Flight Message 10197Z June 96, AH-64-96-02.

(2) Material located in installation/unit storage, report receipt of this message in accordance with paragraph 14c(2). Upon receipt of this TB commanders and others maintaining retail stock shall contact the supported aviation organization to perform, on all items listed in paragraph 7, the inspection required by paragraph 8 and to perform the correction procedures of paragraph 9 on discrepant material. Report compliance with this TB in accordance with paragraph 14.d(2).

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

3. Reporting Compliance Suspense Date. No later than 15 July 1996 per paragraph 14.a of this TB. This publication is effective until 1 July 1998 unless sooner rescinded or superseded.

4. Summary of the Problem.

a. The current interim statement of air worthiness qualification (ISAQ) and TM 1-1520-238-23 lists a retirement life of 5400 hours for the Fenn main rotor drive shaft. This part now has a reduced interim retirement life of 1750 hours based on engineering review of test data.

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

c. The purpose of this TB is to inspect all AH-64 aircraft for drive shafts manufactured by Fenn and to change the aircraft time change DA Form 2408-16 to reflect the interim fatigue life.

5. End Items to be Inspected. All AH-64 Aircraft.

6. Assembly Components to be Inspected. N/A.

7. Parts to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Main Rotor Drive Shaft	7-211350021	3040-01-161-1212
Main Rotor Drive Shaft	7-211350021-3	3040-01-161-1212

8. Inspection Procedures.

a. Check the DA Form 2408-16 to verify the serial number of the drive shaft installed on the aircraft. Aircraft containing Fenn parts with serial numbers 0052220001 through 005220357, from 1103 through 1111, and FM0253 through FM0263 are affected by this TB.

b. At the next phase maintenance inspection, the drive shaft should be physically inspected to verify the manufacturing source to ensure the appropriate corrective action was taken.

9. Correction Procedures.

a. If a main rotor drive shaft is identified per paragraph 8, annotate aircraft records (DA Form 2408-16), reducing the current retirement life of 5400 hours to an interim life of 1750 hours.

b. Any aircraft which has a Fenn manufactured drive shaft which has exceeded 1750 hours will immediately be placed on a circle **red //X//** and restricted to ground run. The aircraft will be maintained in flyable storage until receipt of the replacement shaft. All others identified, that have not exceeded the new interim life of 1750 hours will follow the same procedure when the Fenn main rotor drive shaft reached its new interim life.

10. Supply/Parts and Disposition.

a. Parts Required. Items cited in paragraph 7 may be required to replace retired items.

b. Requisitioning Instructions. Requisition replacement parts through normal supply channels using normal supply procedures. All requisitions shall use project code "XB7" per this TB.

NOTE

Project code "XB7" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of ASAM/SOF actions.

c. Bulk and Consumable Materials. N/A.

- d. Disposition. Dispose of locally.
- e. Disposition of Hazardous Material. N/A.

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 to remove and replace drive shaft.
 - (1) Total of 4 man-hours using 2 persons.
 - (2) Total of 2 hours downtime for one end item.
- c. Estimated Cost Impact of Stock Fund Items to the Field.

NOMENCLATURE	PART NUMBER/ NATIONAL STOCK NUMBER	QUANTITY	COST EACH	TOTAL \$
Main Rotor Drive Shaft	7-211350021 3040-01-161-1212	1	\$ 14,654.00	\$ 14,654.00
Maximum total cost per aircraft = \$ 14,654.00				

- 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. TM 1-1520-238-23-1 shall be changed to reflect this TB. A copy of this TB shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

13. References.

- a. TM 1-1520-238-23-1, Aviation Unit and Intermediate Maintenance Manual, dated 16 May 1994.
- b. ISAQ, 9 June 1993, Interim Statement of Air worthiness Qualification, AH-64A Helicopter.

14. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft). Upon entering requirements of this TB on DA Form 2408-13-1, forward a priority message, datafax or E-Mail to Commander, ATCOM, ATTN: AMSAT-R-X (SOF Compliance Officer), per AR 95-3. Datafax number is DSN 693-2064 or commercial (314) 263-2064. E-Mail address is "AMSATRXS@ST-LOUIS-EMH4.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. The following forms are applicable and are to be completed in accordance with DA PAM 738-751, 15 June 1992:

- (1) DA Form 2408-5-1, Equipment Modification Record, (Main Rotor Drive Shaft).
- (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 (complete if drive shaft is replaced).

c. Reporting Compliance Suspense Date (spares).

(1) Material in wholesale depot storage. Report receipt of this TB to the wholesale material (spares) point of contact listed in paragraph 16.c within 3 working days from the date of this TB.

(2) Material in retail storage. Report receipt of this TB to the logistical point of contact listed in paragraph 16.b within 7 working days from the date of this TB.

d. Task/Inspection Reporting Suspense Date (spares).

(1) Material in wholesale depot storage. Report compliance with this TB to the wholesale material point of contact (spares) listed in paragraph 16.c within 7 working days of the date of this TB. Provide an estimate of the cost reimbursable funding required to move the items listed in paragraph 7 to a work area, unpack the material, repack the material after inspection by ATCOM inspectors, and to return the material to storage. Report the serial numbers, by original serviceable condition code of all material placed in condition code J.

(2) Material in retail storage. Report compliance with this TB to the logistical point of contact in paragraph 16.b within 14 days of the date if this TB. Report the quantity inspected by condition code. Report the serial numbers of all material requiring correction.

15. Weight and Balance. N/A.

16. Points of Contact.

a. Technical point of contact for this TB is Mr. Ken Wegrzyn, AMSAT-R-EIA, DSN 693-9875/1679 or commercial (314)263-9875/1679.

b. Logistical point of contact for this TB is Mr. Jim Mason or Mr. John Patton, SFAE-AV-AAH-LF, DSN 693-1946/0876 or commercial (314)263-1946/0876.

c. Wholesale material point of contact (Spares) for this message is Mr. Tullas Samples, AMSATI-SAAA, DSN 693-5969 or commercial (314)263-5969 and Fax DSN 693-5936.

d. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAT-I-MDM, DSN 490-2318 or commercial (314)260-2318.

e. Point of contact for this TB is Mr. Jim Wilkins. AMSAT-R-X, DSN 693-2258 or commercial (314)263-2258.

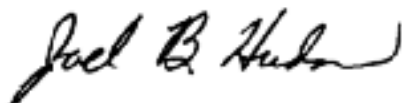
f. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact Mr. Ron Van Rees, AMSAT-I-IAF, DSN 693-3659/3826 or commercial (314)263-3659/3826.

g. After hours contact ATCOM Command Operations Center (COC) DSN 693-2066/7 or commercial (314)263-2066/7.

17. Reporting of Errors and Recommending Improvements. You can help 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 Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you. You may also submit your recommended changes by E-mail directly to <mpmt%avma28@st-louis-emh7.army.mil>. A reply will be furnished directly to you.

By Order of the Secretary of the Army:

Official:



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
01880

DENNIS J. REIMER
General, United States Army
Chief of Staff

DISTRIBUTION:

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By Order of the Secretary of the Army:

Official:


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THE METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURE

1 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

WEIGHTS

1 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

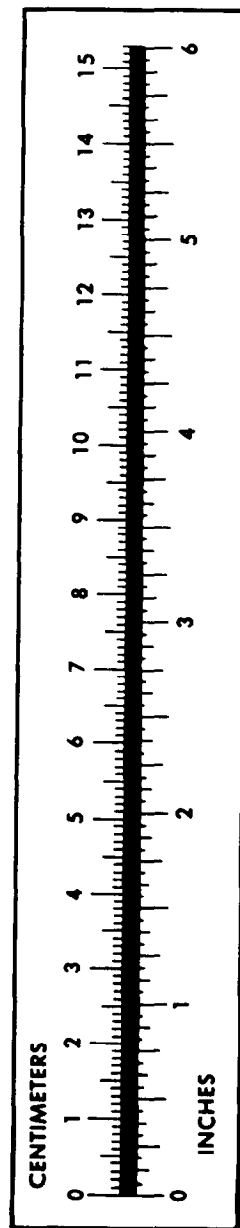
TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
its	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
ometers per Liter	Miles per Gallon	2.354
ometers per Hour	Miles per Hour	0.621



PIN: 074834-000