

**URGENT**

**\*TB 1-1520-250-20-4**

**DEPARTMENT OF THE ARMY TECHNICAL BULLETIN**

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**ALL H-60 AIRCRAFT  
REPLACEMENT OF ALL SPINDLE ASSEMBLIES WITH  
THE SPINDLE RETAINING ROD  
P/N 70102-08102-102/103**

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**Headquarters, Department of the Army, Washington, D. C.  
30 August 1996**

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

**NOTE**

**THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.**

**1. Priority Classification. Urgent**

a. Aircraft in Use. Upon receipt of this Technical Bulletin (TB), the condition status symbol of cited aircraft will be changed to a red horizontal dash "-". The red horizontal dash "-" may be cleared when the inspection of paragraph 8. is completed and subsequent correction per paragraph 9 is accomplished on affected assemblies. The affected aircraft will be inspected no later than the task/inspection suspense date. Failure to comply with requirements of this TB 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. Same as paragraph 1 .a.

(2) Ferry Status. Same as paragraph 1.a.

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

f. Component/Parts in Stock Including War Reserves at All Levels (Depot and Others). Upon receipt of this TB the material condition tags of all items in all condition codes listed in paragraph 6. shall be annotated to read UH-60-96-ASAM-07, one time inspection of spindle assemblies not complied with.

(1) Wholesale Stock. Report receipt of the TB in accordance with Paragraph 14.c.(1). Upon receipt this TB all serviceable items (conditions codes "A", "B", "C", "D", and "E") listed in paragraph 6. Located

\*This TB supersedes USAATCOM Aviation Safety Action Message 201419Z, AUG 96, UH-60-96-ASAM-07.

in wholesale depot storage shall be placed in condition code "J" and tagged with a suspended tag/label. Materiel, DD form 1576/DD Form 1576-1. Do not remove original condition tags. Report compliance with this TB in accordance with 14.d.(1).

(2) Retail Stock. Report receipt of this TB in accordance with paragraph 14.c.(2). Upon receipt of this TB commanders and others, maintaining retail stock at installation level and below, shall contact the supported aviation unit to perform the inspection required by paragraph 8. and the correction procedures of paragraph 9. on discrepant materiel. Disposition of discrepant materiel will be in accordance with paragraph 10. Report compliance with this TB in accordance with paragraph 14.d.(2).

g. Components/parts in work (Depot Level and Other). Items listed in paragraph 6. in work will not be issued until compliance with this TB.

**2. Task/Inspection Suspense Date.** Review aircraft records within 10 hours/14 days. Removal of spindle assemblies with suspect retention rods shall be accomplished immediately upon inspection results, if the total flight hours on spindle retention rod is 1100 hours or greater. Spindle assemblies that have a suspect retention rod installed that has not reached the 1100 hour retirement life shall be replaced at a maximum of one calendar year from the date of this TB, regardless to whether or not the retention rod reaches the reduced retirement life of 1100 hours. By no means shall the 1100 hour retirement life be overflowed in this one year time frame.

**3. Reporting Compliance Suspense Date.** No later than 20 September 1996 per paragraph 14.a. of this TB.

**4. Summary of the Problem.**

a. The spindle retention rod, P/N 70102-08102-102/103 manufactured by the Purdy corporation has recently completed the required engineering testing. The results indicate that the endurance strength is not equivalent to that of a original equipment manufactured component and shall have a reduced retirement life of 1100 hours. Therefore, all subject retention rods manufactured by the Purdy corporation shall be removed from service immediately if the total flight hours on spindle retention rod is 1100 hours or greater. Spindle assemblies that have a suspect retention rod installed that has not reached the 1100 hour retirement life shall be replaced at a maximum of one calendar year from the date of this TB regardless to whether or not the retention rod reaches the reduced retirement life of 1100 hours. By no means shall the 1100 hour retirement life be overflowed in this one year time frame.

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

c. The purpose of this TB is to remove from service, all spindle assemblies listed in paragraph 6 below with the Purdy corporation manufactured spindle retention tie rod installed, P/N 70102-08102-102/103

**5. End Items to be Inspected.** All H-60 series helicopters.

**6. Assembly Components to be Inspected.**

<b>NOMENCLATURE</b>	<b>PART NUMBER</b>	<b>NATIONAL STOCK NUMBER</b>
Spindle Assembly	70102-08200-056	1615-01-374-7203
	70102-08200-055	N/A
	70102-08200-063	1615-01-370-4918
	70102-08200-054	1615-01-372-9604
	70102-08200-053	N/A
	70102-08200-044	1615-01-214-6602
	70102-08200-043	N/A
	70102-08200-042	1615-01-209-1759
	70102-08200-041	N/A
	70070-10030-041	N/A

<b>NOMENCLATURE</b>	<b>PART NUMBER</b>	<b>NATIONAL STOCK NUMBER</b>
	70070-10030-042	1615-01-331-2480
	70070-10030-045	N/A
	70070-10030-045	1615-01-249-4107
Spindle Assembly	70070-10030-044	1615-01-353-4884
	70083-10001-045	N/A
	70102-08200-046	N/A
	70102-08200-051	N/A
	70102-08200-052	N/A
	70102-08200-061	N/A
	70102-08200-062	N/A

**7. Parts to be Replaced.** N/A.

**8. Inspection Procedures.**

a. On all H-60 aircraft, check aircraft records for installed spindle retention rods, P/N 70102-08102-102/103 with serial numbers falling within the range of 33129-3 through 33129-242 in spindle assemblies. If the specified retention rod is not installed, the inspection is complete.

b. If the specified retention rod identified in paragraph 8.a. is installed, the report identified in paragraph 14b is required to be completed and forwarded to the POC listed in paragraph 16.b.

**9. Correction Procedures.** Replace all spindle assemblies listed in paragraph 6. that have retention rods P/N 70102-08102-102/103 installed that are manufactured by the Purdy corporation, cage 15152, serial numbers 33129-3 through 33129-242. Replacement of suspect assemblies shall be accomplished immediately if the total flight hours on spindle retention rod is 1100 hours or greater. Spindle assemblies that have a suspect retention rod installed that has not reached the 1100 hour retirement life shall be replaced at a maximum of one calendar year from the date of this TB regardless to whether or not the retention rod reaches the reduced retirement life of 1100 hours. Update block 6J for the rod on the spindle assembly DA Form 2408-16 with the new retirement life. Make an entry on the DA Form 2408-18 for each spindle requiring rod replacement on calendar year from the date of this TB. Include the spindle assembly serial number in the entry. ULLS-A users, add the revised retirement life of the affected retention rods in the master component file using a configuration code of 39. Add the one year replacement time of the affected retention rods as an 800 inspection in the master inspection file. By no means shall the 1100 hour retirement life be overflowed in this one year time frame.

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

a. Parts Required. Items cited in paragraph 6. may be required to replace defective items.

b. Requisitioning Instructions. Requisition replacement parts through normal supply channels using normal supply procedures. All requisitions must include project code (CC57-59) XDA per this TB. Project code 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 removed parts/components using normal supply procedures. All turn-in documents must include project code (CC57-59) XDA.

e. Disposition of Hazardous Material. N/A.

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

**12. Application.**

- a. Category of Maintenance. AVUM.
- b. Time Required to identify the specified retention rod.
  - (1) Total of .25 man-hours using 1 person.
  - (2) Total of .25 hours downtime for one end item.
- c. Estimated Cost Impact of Stock Fund Items to the Field. The spindle assemblies listed in paragraph 6 are \$8072.00 each, 4 are required per aircraft at a total cost per aircraft of \$32288.00.
- 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. N/A.

**13. References.** TM 1-1520-250-23.

**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, 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@emh4.st-louis.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). Upon completion of inspection, units will forward priority message to: Commander, ATCOM, ATTN: SFAE-AV-BH-L the logistical point of contact in paragraph 16.b. The report will cite the following information: aircraft tail number, aircraft total time since new (TSN), main rotor spindle assembly part number, main rotor spindle assembly serial number, main rotor spindle assembly time since new (TSN), main rotor spindle assembly time since overhaul, main rotor spindle assembly time since last installation, main rotor retaining rod serial number, main rotor retaining rod time since new, unit designation and DODAAC, point of contact for unit with commercial phone number. Inspection and reports will be completed no later than 15 days after task/inspection suspense date.

c. Reporting TB Receipt (Spares)

(1) Material in wholesale depot storage. Report receipt of this TB by E-Mail or datafax to the wholesale materiel (spares) point of contact listed in paragraph 16.c. within 3 working days from the date of this TB. Provide local point of contact.

(2) Materiel in retail storage. Report receipt of this TB by E-Mail or datafax to the logistical point of contact listed in 16.b. within 7 days from the date of this TB. Provide local point of contact.

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

(1) Material in wholesale depot storage. Report compliance with this TB to wholesale materiel point of contact (spares) listed in paragraph 16.c. within 7 days of the date of this TB. Include an estimate of the cost reimbursable funding required to move serviceable items on hand listed in paragraph 6. to a work area, unpack the materiel, repack the materiel after inspection by ATCOM inspectors, and return the materiel to storage. Report on DD Form 1225, by original serviceable condition code, the quantity of materiel placed in condition code "J". Report by datafax and provide local point of contact.

(2) Materiel in retail storage. Report compliance with this TB to logistical point of contact in paragraph 16.b. within 14 days of the date of this TB. Report the quantity inspected by condition code and the resulting condition code. Report by E-Mail or datafax and provide local point of contact.

e. The following forms are applicable and are to be completed in accordance with DA PAM 738-751, dated 15 June 92:

- (1) DA Form 2408-5-1, Aircraft Modification Record (Main Rotor Spindle Assembly).

- (2) DA Form 2408-13, Aircraft Status Information Record.
- (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
- (4) DA Form 2408-16, Aircraft Component Historical Record (Main Rotor Spindle Assembly).
- (5) DA Form 2410, Component Removal and Repair/Overhaul Record (If spindle assembly replacement is required).
- (6) DA Form 2408-18, Equipment Inspection List.

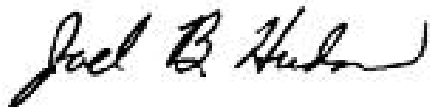
**15. Weight and Balance. N/A.**

**16. Points of Contact.**

- a. Technical point of contact for this TB is Mr. Dan Kardell, AMSAT-R-ECU, DSN 693-1687 or commercial (314)263-1687.
- b. Logistical point of contact for this TB is Mr. Joe Hoover, SFAE-AV-BH-L, E-Mail address is hooverj@peo2.stl.army.mil, DSN 693-0484 or commercial (314)263-0484, fax extension 1898.
- c. Wholesale materiel point of contact (spares) for this TB is Mr. Val Buchmiller, AMSAT-I-SABA, E-Mail address is vbuchmil@stl.army.mil, DSN 693-6059, commercial (314) 263-6059, fax extension 6050.
- 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. Safety point of contact for this TB is Mr. Jim Wilidns, 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 693-7844 or commercial (314)263-7844. Datafax is (314)263-2917.
- g. After hours contact ATCOM Command Operations Center (COC) DSN 693-2066/2067 or commercial (314)263-2066/2067.

By Order of the Secretary of the Army:

Official:



JOEL B. HUDSON  
Administrative Assistant to the  
Secretary of the Army  
02165'

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

DISTRIBUTION:

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**These are the instructions for sending an electronic 2028**

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.





## 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 decigram = .035 ounce  
 1 decagram = 10 grams = .35 ounce  
 1 hectogram = 10 decagrams = 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
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