

URGENT

TB 1-1520-237-20-194

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

ONE TIME INSPECTION OF MAIN ROTOR SPINDLE SPHERICAL ELASTOMERIC BEARING FOR EXISTENCE OF INNER SLEEVE BEARING (TEFLON COATED) P/NSB 5203-202 ALL H-60 AIRCRAFT

Headquarters, Department of the Army, Washington, D. C.
11 June 1997

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THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.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 the cited aircraft will be changed to a red horizontal "-". The red horizontal "-" 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 TB 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 and corrective actions completed.

c. Aircraft Undergoing Maintenance. Aircraft will not be released until compliance with this TB has been completed.

d. Aircraft in Transit.

(1) Surface/Air Shipment. Prior to first flight or within 14 days of arrival.

(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. Upon receipt of this TB the material condition tags of all items, in all condition codes, listed in paragraphs 6 and 7 shall be annotated to read, "(TB number, short/abbreviated title of TB) not complied with".

(1) Wholesale Stock. N/A.

This TB supersedes USSAATCOM Aviation Safety Action Message 051517Z JUN 97, UH60-97-ASAM-13.

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(2) Retail Stock. Report receipt of this TB in accordance with (IAW) paragraph 14.c. 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 corrective procedures of paragraph 9 on discrepant material. Disposition of discrepant material will be IAW paragraph 10. Report compliance with this TB IAW paragraph 14.d.(2)

g. Components/Parts in Work (Depot Level and Others) - Items listed in paragraphs 6 and 7 in work will not be issued until compliance with this TB.

2. Task/inspection Suspense Date. Within next 10 flight hours/14 days.

3. Reporting Compliance Suspense Date. No later than 26 Jun 97 per paragraph 14.a of this TB.

4. Summary of the Problem.

a. Spherical elastomeric bearing assemblies, vendor P/N SB7001-048 (previous configuration of current item 12, Figure 329 of the referenced TM), procured under a spares contract initially did not include the sleeve bearing, P/N SB5203-102. Two instances of the elastomeric spindle bearing assembly being installed onto the aircraft without the sleeve bearing have been found. Lack of the sleeve bearing will cause early failure of the elastomeric bearing and spindle assembly because of the excessive play, in addition to the direct contact of the elastomeric bearing to the spindle. The contract has been updated and new bearing assemblies are now delivered with the sleeve bearing installed. Provisioning and Technical Manuals reflect the currently procured assembly in addition to requiring inspection for and installation of the sleeve bearing if necessary.

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

c. The purpose of this TB is to require a one time inspection of the main rotor spindle bearings, P/N SB7001-048, for missing teflon sleeve bearings, P/N SB5203-202.

5. End items to be inspected. All H-60 series aircraft.

6. Assembly Components to be inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Spindle Bearing Assy	70102-08100-044	161581-082-9250
Spindle Bearing Assy	70102-08100-056	1615-01-116-4181

7. Parts to be inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Bearing, Elastomeric	SB7001-048	1615-01-161-4373

8. Inspection Procedures. Visually verify the existence of the sleeve bearing P/N SB5203-202, within every elastomeric bearing, P/N SB7001-048.

a. Special Tools. Contact the local LAR or the logistical point of contact (POC) identified in paragraph 16.b. for a "special" feeler gauge to accomplish the on-aircraft inspection.

NOTE

Only the "special" feeler gauge from your local LAR or the logistical POC should be used for this inspection

b. Inspection. On Aircraft.

WARNING

Prepare aircraft for maintenance. Turn off all electrical and hydraulic power to the aircraft.

CAUTION

Make certain that the "special" feeler gauge is inserted between the inner face (inner diameter) of the spindle bearing (TM 1-1520-237-23P, Figure 329, item 12, P/N SB7001-048) and the outer diameter of the journal bearing (inner bearing ring) (TM 1-1520-237-23P, Figure 330, item 30, P/N SB5203-104) and not between the inner face (diameter) of the journal bearing and the spindle liner assy (Figure 330, item 42, P/N 70102-08216-041/1045). For the above, MH-60 users shall refer to the -237 series technical manual pending the update of the -250 manual.

(1) With the blade resting on the droopstop, look under the bladecuff and find the outboard end of the spherical elastomeric spindle bearing. Identify the gap between the aluminum inner diameter (face) of the spindle bearing and the outer diameter of spindle journal bearing. Fully insert the 0.030 inch thick plastic portion of the "special" feeler gauge into this gap at the nine (9) O'Clock position. If the "special" feeler gauge cannot be inserted into this gap, remove the suspect spindle assembly IAW TM 1-1520-237-23-3, paragraph 5.4.1.2., or TM 1-1520-250-23-3, paragraph 5.3.1.1 and proceed to paragraph 9, correction procedures.

(2) Attempt to slide (rotate down) the "special" feeler gauge to the six (6) O'Clock position. If the "special" feeler gauge cannot be rotated down to the six O'Clock position, the journal bearing may have excessive wear or the sleeve bearing (P/N SB5203-202) may be missing and the suspect spindle assembly must be removed from the aircraft to visually verify existence of sleeve bearing, P/N SB5203-202. If the "special" feeler gauge cannot be slid down the gap to the six O'Clock position, remove the spindle assembly IAW TM 1-1520-237-23-3, paragraph 5.4.1.2., or TM 1-1520-250-23-3, paragraph 5.3.1.1 and proceed to paragraph 9, correction procedures.

NOTE

Drag on the "special" feeler gauge is not reason for inspection failure.

(3) If the "special" feeler gauge is free to slide down to the six O'Clock position, then the inspection is complete.

c. Inspection. Retail Stock. Visually verify existence of P/N SB5203-202 sleeve bearing in every spindle bearing, P/N SB7001-048. Tag as appropriate and correct IAW paragraph 9-b. if sleeve bearing is not installed. If sleeve bearing is installed, the inspection is complete.

9. Correction Procedures.

a. Any on-aircraft assemblies found to be without the sleeve bearing are to be reported either via e-mail, fax or telephone to the logistical POC, paragraph 16.b. Information to be reported includes aircraft S/N, time since last phase and install hours. The spindle assembly and the spindle bearing shall be replaced in accordance with TM 1-1520-237-23-3, paragraph 5.5 or TM 1-1520-250-23-3, paragraph 5.3. Dispose of parts IAW paragraph 10.d. If the sleeve is installed, inspect IAW TM 1-1520-237-23-3, paragraph 5.5 or TM 1-1520-250-23-3, paragraph 5.3.

b. Any Retail Stock Insert sleeve bearing using normal maintenance procedures IAW TM 1-1520-237-23-3, paragraph 5.5.3 or TM 1-1520-250-23-3, paragraph 5.3 and mark tag appropriately.

10. Supply/Parts and Disposition.

a. Parts Required. Spindle assy (P/N 70102-08200-056, NSN 1615-01-374-7203) and spindle bearing assy (P/N 70102-08100-044, NSN 1615-01-082-9250) may be required to replace defective items. Bearing sleeve (P/N SB5203-202, NSN 3120-01-083-3265) may be required for installation into new spindle bearing assemblies in retail stock.

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- b. Requisitioning Instructions. Requisition replacement parts using project code "XDI" (X-ray - Delta - India).
- c. Bulk and Consumable Materials. N/A.
- d. Disposition. Demil and dispose of parts/components using normal supply procedures.
- e. Disposition of Hazardous Material. N/A.

11. Special Tools, Jigs and Fixtures Required. As required per this TB.

12. Application.

- a. Category of Maintenance. AVUM. Aircraft downtime will be charged to AVUM maintenance.
- b. Estimated Time Required. Inspection of one aircraft.
 - (1) Total of 1.0 man-hours using 1 person.
 - (2) Total of 1.0 hours downtime for one aircraft.
- c. Estimated Cost Impact of Stock Fund Items to the Field. \$10665 (spindle assy and spindle bearing assy).
- 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.

- a. TM 1-1520-237-23
- b. 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 mission design series (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.stl.army.mil". The report will cite this TB number, date of entry in DA Form 2408-13-1, the aircraft MDS and serial numbers of aircraft in numerical order.
- b. Task/Inspection Reporting Suspense Date (Aircraft). Upon completion of inspection, units will forward a priority message to the logistical POC in paragraph 16.b. The report will cite this TB number, date of inspection, aircraft serial number, aircraft hours, and results of the inspection. Reports will be completed no later than 10 calendar days after task/inspection suspense date.
- c. Reporting Message Receipt (Spares). Materiel in retail storage. Report receipt of this TB by E-mail or datafax to the logistical POC listed in paragraph 16.b. within 7 days of the date of the superseded message. Provide local POC.
- d. Task/Inspection Reporting Suspense Date (Spares).
 - (1) Materiel in Wholesale Depot Storage. N/A.
 - (2) Materiel in Retail Storage. Report compliance with this TB to the logistical POC in paragraph 16.b. within 14 days of the the date of the superseded message. Report the quantity inspected by condition code. Report by e-mail or datafax and provide local POC.
- e. 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 (Spindle Bearing Assy).
 - (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 (required if spindle bearing assy is replaced).

(6) DA Form 2410, Component Removal and Repair/Overhaul Record (required if spindle bearing assy is replaced).

15. Weight and Balance. N/A.

16. Points of Contact.

a. Technical point of contact for this TB is Mr. William Brooks, AMSAT-R-ECU, DSN 693-1688 or commercial (314)263-1688, e-mail is "brooksw@stl.army.mil".

b. Logistical point of contact for this TB is Mr. Joe Hoover, SFAE-AV-BH-L, DSN 693-0484 or commercial (314)263-0484, datafax DSN 693-1898 or commercial (314) 263-1898. E-mail is "hooverj@peo2.stl.army.mil".

c. Wholesale material point of contact (spares) is Ida Payden, AMSAT-I-SABA, DSN 693-6045 or commercial (314) 263-6045, datafax is DSN 693-6050. E-mail is "rpayden@stl.army.mil

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, datafax is DSN 693-1836. E-mail is "awaldeck@dmh1.stl.army.mil".

e. Safety point of contact for this TB is Mr. Dave Scott, AMSAT-R-X, DSN 693-2045/2085 or commercial (314)263-2045/2085. Datafax is DSN 693-2064. E-mail is "scottd@stl.army.mil

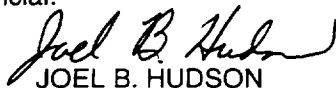
f. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact CW5 Jay Nance or Mr. Ron Van Rees, AMSAT-D-S, DSN 693-7844/3216 or commercial (314) 263-7844/3216, datafax is DSN 693-2917. (St. Louis is GMT-5 hours)

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 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. 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:



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Secretary of the Army

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Chief of Staff

DISTRIBUTION:

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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.

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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. Tab/e: 8
25. Item: 9
26. Total: 123
27. **Text:**

This is the text for the problem below line 27.