ROUTINE

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MAINTENANCE MANDATORY
ONE TIME INSPECTION OF THE MAIN ROTOR SPINDLE BEARING ASSEMBLY P/N 70102-08100-044/056, FOR EXISTENCE OF SLEEVE BEARING P/N SB5203-202

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

8 DECEMBER 1998

NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

1. Priority Classification. Routine.

a. Aircraft in use. Upon receipt of this technical bulletin 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 buts no later than the Task/inspection suspense date. Failure to comply requirements of this Technical Bulletin within the time frame specified will cause the status symbol to be upgraded to a Red X".

b. Aircraft in Depot Maintenance. Aircraft will not be released until compliance with this TB has been 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 para 1a.

*This T supersedes USAAMCOM Aviation Safety Acton Message 0718 DEC 98, UH60-99-ASAM-05

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

f. Component/Parts in stock including war reserves

(1) Wholesale Stock. N/A.

(2) Retail Stock. Report receipt of this TB lAW paragraph 14c(2). Upon receipt of this TB Commanders and others maintaining retail stock as installation level and below shall contact the supported aviation unit to perform the inspection required by paragraph 8 and the correction procedures on paragraph 9 on discrepant material. Report compliance with this TB IAW paragraph 14d (2).

g. Components/Parts in work (Depot Level and others. N/A.

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

3. Reporting Compliance Suspense Date. No later than 30 November 9 per paragraph 14.a of this TB.

4. Summary of Problem.

a. Spindle bearing assemblies procured under a spares contract initially did not include the sleeve bearing P/N SB5203-202. Two instances of the spindle bearing assembly installation onto aircraft without the sleeve bearing were found. UH-60-97-ASAM-13 (TB 1-1520-237-20-194) was issued to locate and remove any additional assemblies without the sleeve bearing. Six months after the inspection was completed, two more spindle bearings assemblies without the required sleeve bearings were found installed on aircraft. This TB is being published to ensure that no more instances of assemblies without bearings installed are in the H-60 fleet.

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 spindle bearing assembly, P/N 70102-08100-044/056, for the existence of the sleeve bearing, P/N SB5203-202.

5. End Items to be inspected. H-60 Series Aircraft.

6. Assembly Components to be inspected.

Nomenclature	Pa No.	NSN
SPINDLE BEARING ASSY	70102-08100-044	1615-01-082-9250
SPINDLE BEARING ASSY	70102-08100-056	1615-01-116-4181

7. Parts to be inspected. N/A.

Nomenclature	Part No.	NSN
INNER BEARING RING	SB5203-104	3110-01-114-1001
SLEEVE BEARING	SB5203-202	3120-01-083-3265
ELASTOMERIC BEARING	SB7001-048	1615-01-161-4373

8. Inspection Procedures. Verify the existence of the sleeve bearing, P/N SB5203-202, within every spindle assembly, P/N 70102-08100-0441056

a. Inspection on aircraft.

WARNING

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

(1) With the blade resting on the dropstop, look under the bladecuff and find the outboard end of the spindle bearing assembly, P/N 70102-08100-044/056.

(2) Visually identify a gap between the inner diameter of the aluminum spindle bearing assembly and the outer diameter of the inner-bearing ring, PM SB5203-104.

NOTE

This is not the gag that exists between the inner diameter of the spindle bearing assembly and the outer diameter of the spindle shaft. A cross-section illustration of the spindle assembly and the gap relative to the parts described in this TB can be found on the FY 99 ASAM page of the BlackHawk PM website, "http.www.uhpo.redstone.army.mil".

(3) Confirm that a gap of consistent width is visible around the left side (from approximately the five o'clock position to the one o' Clock position) of the inner bearing ring. Use of a light and mirror may be necessary.

(4) If no gap exists at the six O'clock and/or twelve O'clock position or gap cannot be confirmed, the sleeve bearing P/N S85203-202, may be missing and the feeler gauge check must be performed.

b. A special feeler gauge is needed to accomplish this inspection. Contact the local LAR or the logistical POC identified in paragraph 16b for a feeler gauge. For assistance to accomplish the on-aircraft inspection contact the local ILAR or Sikorsky representative.

NOTE

Make sure that the feeler gauge is inserted between the inner diameter of the spindle bearing assembly, P/N 70102-08100-044/056, and the outer diameter of the inner bearing ring P/SB5203-104, and not between the inner diameter of the spindle bearing assembly and the outer diameter of the spindle shaft (reference illustration posted on Blackhawk PM website). MH-60 users shall refer to TM 1-1520-237-23 series technical manuals pending the update of TM 1-1520-250-23 manual.

(1) With the blade resting on the droopstop, look under the bladecuff and find the outboard end of the spindle bearing assembly, P/N 70102008100-044/056. Identify the gap between the aluminum inner diameter of the spindle bearing assembly and the outer diameter of the innerbearing ring, PM S85203-104. Fully insert the plastic portion of the feeler gauge into this gap at the nine O'clock position. If the feeler gauge cannot be inserted into this gap, contact the local LAR or the Sikorsky representative before proceeding to the correction procedure of paragraph 9.

(2) Once the feeler gauge is in the (9) O'clock position, attempt to slide (rotate down) the feeler gauge to the six (6) O'clock position. If the feeler gauge cannot be rotated down to the six O'clock position easily, the inner bearing ring, P/ S85203-104 may have excessive wear or

the sleeve bearing, P/N SB5203-202, may be missing. Contact the local LAR or the Sikorsky representative before proceeding to the correction procedure of paragraph 9.

NOTE

Slight drag on the feeler gauge is not reason for inspection failure.

(3) If the feeler gauge is free to slide down to the six o'clock position then the bearing, P/N SB5203-202 is installed and inspection is complete.

c. Inspection-Retail Stock. Visually verify existence of sleeve bearing, P/N SB5203-202, in every spindle assemble, P/N 70102-08100-044/056 and elastomeric bearing P/N SB7001-048. Tag as appropriate and correct lAW 9b. If sleeve bearing is installed, the inspection is complete.

9. Correction Procedures.

a. On-aircraft - remove the suspect spindle assembly lAW TM 1-1520-237-23 or TM 1-1520-250-23. Visually verify existence of sleeve bearing, P/N SB5203-202, in the spindle bearing assembly, P/N 70102-08100-044/056. Submit a category 1 QDR using normal procedures. The spindle bearing assembly, and rotor head spindle. Must be replaced if the aircraft has operated without the sleeve bearing installed. Replace in accordance with TM 1-1520-237-23 or TM 1-1520-250-23. Dispose of parts lAW paragraph 10d. If the sleeve exists in the assembly; then inspect, repair, replace and reinstall components as appropriate lAW with TM 1-1520-237-23 or TM 1-1520-250-23. Report the results of the inspection in accordance with 14b.

b. Retail Stock - Insert sleeve bearing using normal maintenance procedures IAW TM 1-1520-237-23 paragraph 5.5.4 and mark, tag appropriately.

10. Supply/Parts and Disposition.

a. Parts Required.

(1) On aircraft - spindle-bearing assembly, (P/N 70102-08100-044, NSN 1615-01-082-9250) and rotary head spindle (P/N 70102-08200-069, NSN 1615-010442-6926) may be required to replace defective items.

(2) Retail Stock - bearing sleeve (P/N S85203-202, NSN 3120-01-083-3265) may be required for installation into new spindle bearing assemblies.

b. Requistioning Instructions. Requisition replacement parts using project code "XDI" (X-RAY-DELTA-INDIA) per this TB.

NOTE

Project Code "XDI" (X-RAY-DELTA-INDIA), is required to track and establish a database of stock fund expenditures incurred by the field as a result of ASAMS/SOF actions.

c. Bulk and Consumable Material. N/A.

d. Disposition. Demil and dispose of parts/components lAW TM 1-1500-328-23.

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. As required per this TB and TM 1-1520-237-23

12. Application.

a. Category of Maintenance. AVUM/AVIM. Aircraft downtime will be charged to AVUM maintenance.

b. Estimated Time Required.

(1) Inspection of one aircraft.

(a) Total of 0.5 man-hours using one person.
(b) Total of 0.5 hours downtime for one end item.

(2) Removal/Installation of main rotor spindle bearing assembly.

(a) Total of 8 man-hours using 2 persons.
(b) Total of 8 hours downtime for one aircraft.

c. Estimated cost impact of stock fund items to the field:

Nomenclature	Part No.	QUANTITY COST EA.
ROTARY HEAD ASSY	70102-08200-069	$7,406.51
BEARING, SLEEVE	SB5203-202	$134.03
SPINDLE BEARING ASSY	70102-08100-044	$10,369.54

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 1-1520-237-23

TM 1-1520-250-23

TM 1-1500-237-328-23

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 Mission Design Series (MDS) aircraft, forward a priority message, Datafax or e-mail to Commander, AMCOM, ATIN: AMSAM-SF-A (SOF Compliance Officer), per AR 95-3. Datafax Number is DSN 788-8643 or Commercial (205) 842-8643. E-mail address is safeadm@redstone.army.mil. The report will cite this Technical Bulletin 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 later than 30 days after the date of this TB. Report the results of this inspection to the logistical POC listed 16. B. Negative reports a required.

c. Reporting Compliance Suspense Date (Spares). N\A.

d. Task/Inspection Reporting Suspense Date (Spares). 15 days from the date of this TB.

e. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 Jun 92.

(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) DA Form 2408-5-1, Equipment Modification Record (SPINDLE BEARING ASSEMBLY).

(5) DA Form 2408-16, Aircraft Component Historical Record. (REQUIRED IF SPINDLE BEARING ASSEMBLY IS REPLACED.

(6) DA Form 2410, Component Removal and Repair/Overhaul Record. REQUIRED IF SPINDLE BEARING ASSEMBLY IS REPLACED.

15. Weight and Balance. N/A.

16. Points of Contact.

a. Technical point of contact for this TB is Mr. Jay Merkel, AMSAM-AR-E-I-C-U, DSN 897-4914 or commercial 256-313-4914. E-MAIL IS amsam-ar-eicu@redstone.army.mil. Datafax is DSN 897-4923 or (256) 313-4923. Alternate phone number is DSN 645-0750 or commercial (258) 955-0750.

b. Logistical point of contact for this TB is Mr. Joe Hoover, AMSAM-DSA-UH-L, DSN 645-7898 or commercial 256-955-7898. Datafax is DSN 645-6590. E-mail is hoover-jl@redstone.army.mil.

c. Forms and Records point of contact for this TB is Ms. Ann Waldeck, AMSAM-MMC-RE-FF, DSN 876-5564 or Commercial (205) 876-5564. Datafax is 746-4904. E-mail is waldeck-ab@redstone.army.mil.

d. Wholesale Materiel (SPARSES) point of contact (POC) is Mr. Dan Delao AMSAM-MMC-UB, DSN 897-1303 or (256) 313-1303, DATA FAX IS DSN 897-1572. Email is delao-dt@exchange1.redstone.army.mil.

e. Safety Point of contact for this TB is Mr. Ed Goad, ASAM-SF-A, DSN 897-2095 or commercial 256-842-8620, Datafax is 205-842-8643. E-mail is scott-dc@ccsmpt.redstone.army.mil.

f. Foreign Military Sales (FMS), Recipients requiring clarification of action advised by this TB should contact Mr. Ronnie Sammons, AMSAM-SA-CS-NF, DSN 897-0869 or commercial 256-313-0869. Datafax is 256-313-0411. E-mail is sammons-rw@redstone.army.mil.

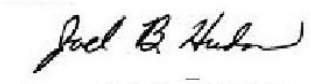
g. After hours, contact AMCOM Command Operations Center (COC), DSN 897-2066/7 or Commercial (205) 313-2066/7.

17. Reporting of Errors and Recommending Improvements. You can help improve this TB. If you find any mistakes or it you know of a way to improve these procedures, Please let us know. You may submit your recommended changes by E-mail directly to ls-lp@redstone.army.mil. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual.

By Order of the Secretary of the Army:

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

Official:



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