

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

**INSPECTION OF TAIL ROTOR HUB ASSEMBLY
FOR SEALANT BETWEEN GRIP AND GPIP ADAPTER NUT
(UH-1B/C/M/D/H, AH-1G AND TH-1G AIRCRAFT)**

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

26 February 1974

TB 55-1500-206-30-2, 20 March 1973, is changed as follows:

Page 6. Paragraph 11 is superseded as follows:

11. Recording and Reporting the Inspection.

Record and report accomplishment of the inspection in accordance with the procedures prescribed in TM 38-750. The following forms are applicable: DA Form 2408-13 (Aircraft Inspection and Maintenance Record); DA Form 2407 (Maintenance Request) and DA form 2408-5 (Equipment Modification Record, Tail Rotor Hub).

By Order of the Secretary of the Army:

Official:

VERNE L. BOWERS

*Major General, United States Army
The Adjutant General*

CREIGHTON W. ABRAMS

*General, United States Army
Chief Staff*

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31 (qty rqr blocks no. 342, 34, 352, and 38 cumulative for all blocks) Organizational Maintenance Requirements for UH-1B, UH-1C, UH-1D and 1H, and AH-1G aircrafts.

TB 55-1500-206-30-2
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INSPECTION OF TAIL ROTOR HUB ASSEMBLY
FOR SEALANT BETWEEN GRIP AND GRIP ADAPTER NUT
(UH-1B/C/M/D/H, AH-1G AND TH-1G AIRCRAFT)

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

20 March 1973

1. Purpose.

To provide protection against ingestion of moisture into grips of the (204-011-801) Tail Rotor Hub Assemblies, thereby retarding corrosion. This action is in response to data generated via TB 55-1500-206 -30-3 dated 20 Jun 72. An analysis of this data indicated that the Army did not have fatigue cracking and/or corrosion fatigue cracking problems. It was felt however, that a corrosion retarder was in order as corrosion was discovered.

2. Priority Classification Normal.

a. Equipment in use. Equipment in use will be inspected the next time the tail rotor hub assembly is removed for its 100 hour re-balance.

b. Equipment in depot supply or maintenance. Equipment in depot supply or maintenance will be assembled using the new techniques prior to issue but not later than three months after time compliance date of this TB.

c. Propositioned stock. Equipment which is propositioned against a war reserve requirement will be inspected during cyclic maintenance but not later than four months from the time compliance date.

3. End Items to be Inspected.

MODEL	SERIAL NUMBER
UH-1B	55-4461
	58-2078
	60-3546 through 60-3619
	61-686 through 61-803
	62-4606 through 62-4613
	62-1872 through 62-2105
	62-4566 through 62-4605

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MODEL	SERIAL NUMBER
UH-1B (Cont.)	62-12515 through 62-12555 63-8500 through 63-8683 63-8685 through 63-8738 63-12903 through 63-12952 63-13086 through 63-13089 63-13586 through 63-13593 64-13902 through 64-14100
UH-1C/M	63-8684 64-14101 through 64-14191 65-9416 through 65-9564 65-12738 through 65-12744 65-12772 66-0491 through 66-0745 66-15000 through 66-15245
UH-1D/H	60-6028 through 60-6034 62-2106 through 62-2113 62-12351 through 62-12372 63-8739 through 63-8859 63-12956 through 63-13002 64-13492 through 64-13901 65-9566 through 65-10135 65-12773 through 65-12776 65-12847 through 65-12852 66-12857 through 65-12895 66-746 through 66-1210 66-16000 through 66-17144 66-8574 through 66-8677 67-17145 through 67-17859 67-18411 through 67-18413 67-18558 through 67-18577 67-19475 through 67-19537 68-15214 through 68-15778 68-16050 through 68-16628 69-15000 through 69-15959 69-16606 69-16650 through 69-16679 69-16692 through 69-16732 70-15700 through 70-15874 70-15913 through 70-15932 70-16200 through 70-16496 70-16515 through 70-16518 71-20000 through 71-20339 72-21465

MODEL	SERIAL NUMBER
AH-1G/TH-1G	66-15246 through 66-15357 66-15493 66-15500 67-15453 67-15450 through 67-15869 68-15000 through 68-15218 68-17020 through 68-17118 69-16410 through 69-16447 70-15936 through 70-16105 71-20983 through 71-21039

4. Assemblies to be Inspected.

The following items whether, installed or in stock will be inspected:

<u>Nomenclature</u>	<u>Federal Stock Number</u>	<u>Part Number</u>
Tail Rotor Hub	1615-178-8531	204-011-801-3
	1615-176-1797	204-011-801-11
	1615-135-0294	204-011-801-5
	1615-133-6872	204-011-801-9

5. Parts to be Inspected.

Not applicable.

6. Application.

- a. *Time Compliance Date.* Time compliance period begins 4 May 1973.
- b. *Category of Maintenance.* Direct Support Maintenance Activities.
- c. *Applied By.* Rotor and Propeller Repairman MOS 68E.
- d. *Time Required.*

(1) Total of two additional manhours over and above the normal manhours. Hub must air dry for 48 hours before use.

(2) Normally hub and blade assemblies are removed and replaced on a rotational basis; therefore, total downtime should not change from the present downtime experienced during the one-hundred hour tail rotor rebalance. If a unit must take a particular hub off, seal the unit, balance and reinstall the same tail rotor hub and blade assembly, then the total downtime would be 54 hours, including the 48 hour air dry requirement.

- e. *Publications which require change as result of this TB:*

TM 55-1520-221-20

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TM 55-1520-221-34

TM 55-1520-210-20

TM 55-1520-210-34

TM 55-1520-219-20

TM 55-1520-219-34

TM 55-1520-220-20

TM 55-1520-220-34

7. Supply Parts.

The following parts will be requisitioned when required:

<u>Quantity</u>	<u>Nomenclature</u>	<u>Federal Stock Number</u>	<u>Part Number</u>	<u>Source</u>
1	Sealing Compound	8030-723-2746	EC1675 TYPE B	GSA
		OR		
2	Sealing Compound	8030-753-5006	25003-1B2	GSA
1	Nozzle Caulking Gun	5120-801-0949	220542	GSA

8. Special Tools, Jigs and Fixtures Required.

Not applicable.

9. Inspection Procedure.

Visually inspect the hub assembly for a head of sealant between the grip and grip adapter nut. If no sealant is apparent, the following must be accomplished:

a. Hub and blade removal and disassembly:

(1) Remove tail rotor hub and blade assembly in accordance with the organizational maintenance manual.

(2) Remove blades from grips and disassemble hubs in accordance with instructions in DS and GS Maintenance Manuals.

(3) Clean all parts using P-D-680, Type 1 and a bristle brush.

b. Hub reassembly procedures:

{1} Seal corks on inboard side of yoke spindles, using sealing compound.

(2) Apply a generous bead of sealing compound to the inside diameter of the radius ring (between radius ring and yoke and spindle OD). Position radius ring onto yoke spindle.

(3) Install thrust bearings (with thrust sides inboard) apex identification facing outboard, onto the yoke spindle. Use a third thrust bearing as a tool to set the radius ring properly. Put the third bearing on the spindle and then torque the spindle nut to 200 inch pounds. Back nut off.

CAUTION

Be careful to keep shim bearings and radius rings on same spindle as determined below.

(4) Reference the DS and GS Maintenance Manual for correct procedure on figure shims required to obtain .002 to .004 pinch fit on thrust bearings and accomplish same.

CAUTION

Avoid getting sealing compound on seal.

(5) Coat the threads of the grip adapter nuts with sealing compound and position on each spindle of yoke.

(6) Complete hub build up per DS and GS Maintenance Manual except for installation of grips.

CAUTION

Do not over do this filling of the thread relief notch. Just barely filling the notch is adequate. Too little is better than too much. Sealing compound must not be allowed to squeeze out into bearing area.

(7) Run a bead of sealing compound into the thread relief notch which is just below the last thread of the grip. A very sparing amount of sealing compound on the last thread or two of the grip is beneficial.

(8) Install grips per installation instructions in DS and GS Maintenance Manuals. When filling grip cavity with lubricant prior to assembly, be sure to keep grease out of the sealing compound and grip thread area.

(9) Wipe off excessive sealing compound leaving only enough to provide an external fillet or bead around the adapter nut grip interface.

(10) Allow 48 hours for sealant to air dry before using hub and blade assembly.

(11) Install proper tail rotor blades on hub. Purge lubricate the grips and balance per DS and GS Maintenance Manual.

10. Weight and Balance Data.

Not applicable.

11. Recording and Reporting the Inspection.

Record and report accomplishment of the inspection in accordance with the procedures prescribed in TM 38-750. The following forms are applicable: DA Form 2408-18 (Aircraft Inspection and Maintenance Record); DA Form 2407 (Maintenance Request) and DA Form 2408-15 (Historical Record for Aircraft).

12. Reporting of Improvements.

Report of errors, omissions and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to the Commander, US. Army Aviation Systems Command, ATTN: AMSAV-M, PO Box 209, St. Louis, Missouri 63166.

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