

# NORMAL

\*TB 1-1520-243-20-15

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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### INSPECTION AND REPLACEMENT OF A SELECT NUMBER OF MAIN ROTOR TT STRAP PINS, FOR ALL AH-1 AND UH-1M SERIES AIRCRAFT

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Headquarters, Department of the Army, Washington, D. C.  
30 September 1991

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#### NOTE

THIS PUBLICATION WILL REMAIN EFFECTIVE INDEFINITELY UNLESS  
CANCELLED OR SUPERSEDED.

#### 1. Priority Classification. NORMAL.

a. Aircraft in Use. Upon receipt of this 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 and paragraph 9 below are 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. Same as paragraph 1a.

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

d. Aircraft in Transit.

(1) Surface/Air Shipment. Same as paragraph 1a.

(2) Ferry Status. Inspected at final destination.

(3) Aircraft in transit from Southwest Asia (SWA) will be inspected upon receipt of aircraft at their **home port**. For further information contact the logistical POC for AH-1 in paragraph 15.

e. Maintenance Trainers (All Categories). Same as paragraph 1a.

\* This TB supersedes USAAVSCOM Message 031745Z, April 1991 (AH-1-91-ASAM-07/UH-1-91-ASAM-06).

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f. Component/Parts in Stock Including War Reserves Including ASL/PLL at all Levels (Depot and others). Upon receipt of this TB all items listed in paragraphs 6 and 7 below shall be placed in condition code "J" and retagged with a Materiel Condition Tag/Label – Suspended (Brown Tag) DD Form 1575 or Label DD Form 1575-1. The remarks block must reference inspection required per this TB. Upon completion of the required inspection, items will be retagged either Serviceable (Yellow Tag) DD Form 1574 or Unserviceable/Reparable (Green Tag) DD Form 1577-2 dependent upon the results.

**NOTE**

Depots that do not have the capability to inspect the subject assemblies in accordance with this TB, contact the Logistical Point of Contact. Do not issue until this TB has been complied with and you have been notified of compliance.

**2. Task/Inspection Suspense Date.**

a. Aircraft. Within next 10 flight hours/14 calendar days, whichever occurs first.

(1) Inspect aircraft and component records for subject pins/main rotor hubs. If pin serial number (S/N) is not recorded in block C, DA Form 2408-16, main rotor hub shall be disassembled to identify pins.

(2) Pins identified in paragraph 8 will have finite life reduced to 300 hours in block J, DA Form 2408-16 for the main rotor hub of only the serial numbered pins listed in this TB.

(3) Compute replacement due at hours, block K, DA Form 2408-16.

(4) Pins that have exceeded adjusted replacement times will be replaced before further flight.

b. Serviceable main rotor hubs in stock at all levels will be inspected and tagged as to condition per paragraph 13e.

(1) AVUM/AVIM. Within 15 days after receipt of this TB

(2) Depot. Within 15 days after receipt of this TB contact depot production, POC in paragraph 15 for disposition instructions for main rotor hubs with subject pins installed or pin S/N not recorded in block C, DA Form 2408-16.

c. Unserviceable main rotor hubs at all levels will be identified and tagged as to condition per paragraph 13e.

(1) AVUM/AVIM. Within 60 days after receipt of this TB.

(2) Depot. Prior to return to serviceable status in condition code "B" or "A".

d. Uninstalled pins at all levels will be inspected and tagged as to condition per paragraph 13e within 15 days after receipt of this TB.

**3. Reporting Compliance Suspense Date.** Within 15 working days of the date of this TB per paragraph 13a.

**4. Purpose.** Inspect aircraft main rotor hub and pin records for below listed S/N pins and limit their service. Also, remove these identified pins from uninstalled assemblies/stock.

**5. End Items to be Inspected.** All AH-1 and UH-1M model aircraft.

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

Nomenclature	Part No.	NSN
Hub Assembly Main	540-011-101-25	1615-01-014-6007
Hub Assembly Main	540-011-101-23	1615-01-017-9926
Hub Assembly Main	540-011-101-127	None Assigned
Hub Assembly Main	540-011-101-129	1615-01-300-5539
Hub Assembly Main	540-011-101-131	1615-01-299-8099

**7. Parts to be Inspected.**

Nomenclature	Part No.	NSN
Pin	<b>540-011 -112-5</b>	<b>5315-00-891-8383</b>
Pin	<b>540-011 -112-7</b>	<b>5315-00-891-8384</b>

**8. Inspection Procedures.** The historical records on aircraft,/serviceable and unserviceable main rotor hubs and pins in stock are to be inspected.

NOTE

If one or more pins are found, installed or uninstalled, proceed to paragraph 9. If the pin installed or unstalled is found to be serviceable, that assembly/pin is to be annotated per paragraph 13 that it has complied with TB 55-1520-243-20-15 and it is cleared of this TB.

For the S/N(s) strap pin P/N 540-011-112-5.

- EAFS-1 thru EAFS-8
- EAFS-10 thru EAFS-42
- EAFS-59
- EAFS-68
- EAFS-69
- EAFS-70
- EAFS-72
- EAFS-73
- EAFS-76
- EAFS-81
- EAFS-82
- EAFS-88
- EAFS-91
- EAFS-95
- EAFS-97

- |          |          |          |
|----------|----------|----------|
| EAFS-99  | EAFS-149 | EAFS-198 |
| EAFS-103 | EAFS-152 | EAFS-199 |
| EAFS-104 | EAFS-163 | EAFS-200 |
| EAFS-110 | EAFS-165 | EAFS-210 |
| EAFS-117 | EAFS-170 | EAFS-212 |
| EAFS-120 | EAFS-171 | EAFS-217 |
| EAFS-128 | EAFS-172 | EAFS-222 |
| EAFS-131 | EAFS-175 | EAFS-228 |
| EAFS-139 | EAFS-177 | EAFS-230 |
| EAFS-142 | EAFS-188 | EAFS-231 |
| EAFS-143 | EAFS-191 | EAFS-234 |
| EAFS-147 | EAFS-192 | EAFS-235 |
|          |          | EAFS-237 |
|          |          | EAFS-242 |

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Strap pin P/N 540-011 -112-7 S/N(s)

EAFS-42	EAFS-55
EAFS-44	EAFS-56
EAFS-45	EAFS-57
EAFS-46	EAFS-59
EAFS-47	EAFS-60
EAFS-48	EAFS-62
EAFS-49	EAFS-65
EAFS-51	EAFS-66
EAFS-52	EAFS-67
EAFS-53	

A number of the above pins have been installed in the following main rotor hub assemblies P/N 540-011-101-25

**S/N(s)**

A-FS-531 thru A-FS-533  
A-FS-537 thru A-FS-542  
A-FS-545 thru A-FS-550  
A-FS-553  
A-FS-562 thru A-FS-565  
A-FS-573  
A-FS-575 thru A-FS-576  
A-FS-578 thru A-FS-584  
A-FS-587 thru A-FS-589  
A-FS-590

**9. Correction Procedures.**

**NOTE**

Teardown of main rotor hubs for pin replacement is to be performed IAW the applicable technical manuals.

- a. Pins on Aircraft. Pins cited S/N(s) found installed in aircraft, shall be removed from service IAW the task/suspense of paragraph 2. Refer to paragraph 10.d.
- b. Pins in Stock. Unserviceable pins installed and found **in** stock are to be removed from service. Refer to paragraph 10.d.
- c. Pins on Main Rotor Hubs. Main rotor hubs in supply, either serviceable or unserviceable, found to have unserviceable pins, shall have those pins removed from service. Refer to paragraph 10.d.

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

- a. Parts Required. Items cited in paragraphs 6 and 7 may be required to replace **defective** items.
- b. Requisitioning Instructions. Requisition replacement parts through normal supply channels using normal supply procedures.
- c. Bulk and Consumable Materials. Not applicable, if pin replace is not required. If one or more pins are to be replaced, refer to paragraph 12c.
- d. Disposition. Unserviceable pins shall be returned to nearest location listed below. The outside of the container shall be marked "(QDR Exhibits)." Do not issue or place in stock. Mark with NSN and contract number, if available and forward to either Commander, Defense Depot Memphis, ATTN: Receiving, Memphis, TN. 38115 or Commander, Defense Construction Supply Center, ATTN: Receiving, 3990 East Broad Street, Columbus, OH. 43216.
- e. Disposition of Hazardous Material. In accordance with protective agency directives as implemented by your servicing environmental coordinator (AR 200- 1).

**11. Special Tools, Jigs, and Fixtures Required.** Not applicable.**12. Application.**

- a. Category of Maintenance. AVUM. Aircraft downtime will be charged to AVUM.
- b. Time Required.
  - (1) To inspect
    - (a) Total of 1/2 manhours using 1 person.
    - (b) Total of **0** hours downtime for one end item.
  - (2) To replace pin where necessary
    - (a) Total of 8 manhours using 2 persons.
    - (b) Total of 4 hours downtime, if installed on aircraft, for one end item.

c. Estimated Cost Impact of Stock Fund Items to the Field, if it is Necessary to Replace One or More Pins.

<b>Nomenclature</b>	<b>Part No./NSN</b>	<b>Quantity</b>	<b>Cost Ea.</b>	<b>Total</b>
Bolt, Machine	AN4H23 5306-00-180-2706	2	\$ 0.28	\$ 0.56
Nut, Self-Locking	MS21245L14 5310-00-445-5336	4	\$ 4.02	\$ 16.08
Nut, Self-Locking	MS21245L20 5310-00-445-5337	4	\$ 12.13	\$48.52
Nut, Self-Locking	MS21045L8 5310-00-857-5562	4	\$ 0.04	\$ 0.16
Nut, Self-Locking	MS17825-4 5310-00-961-8390	2	\$ 0.66	\$ 1.32
Pin. Cotter	MS24665-134 5310-00-839-5820	2	\$ 0.01	\$ 0.02
Seal, Plain Encas	540-011-159-1 5330-00-903-1051	1	\$21.90	\$21.90
Seal, Plain Encas	540-011-168-3 5330-00-929-1046	2	\$110.00	\$220.00
Shim	120-008C58E29 5365-00-856-4682	4	\$ 1.86	\$ 7.44
Ring, Retaining	RST125CD 5365-00-921-5497	8	\$ 0.23	\$ 1.84

**NOTE**

The cost per aircraft is \$317.84 plus the cost of one or more pins as indicated below.

Pin	540-011-112-5/ 5315-00-891-8383	1	\$139.13	\$139.13
Pin	540-011-112-7/ 5315-00-891-8384	1	\$66.32	\$66.32

Two pins of each part number are on each main rotor hub assembly. One or up to four pins may need replacement, if the aircraft records indicate. The total cost per aircraft depends on how many unserviceable pins are found, plus the bulk and consumable items.

d. TB/MWOs to be Applied Prior to or Concurrently with this Inspection. Not applicable.

e. Publications Which Require Change as a Result of this Inspection. Not applicable.

### 13. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft). Upon entering requirements of this TB on DA Form 2408-13, forward a priority message, Datafax or E-Mail to Commander, AVSCOM, ATTN: AMSAV-XSOF (SOF Compliance Officer), per AR 95-3. Datafax number is DSN 693-2064 or Commercial 314/263-2064. E-Mail address is "AMSAVXSOF (At Sign) ST-LOUIS-EMH4.ARMY. MIL". The report will cite this TB number, date of entry in DA Form 2408-13, the aircraft mission design series and serial numbers of aircraft in numerical order.

b. Task/Inspection Reporting Suspense Date (Aircraft). Report required only if subject unserviceable pin(s) are found. Upon completion of inspection, units will forward a priority message to: Commander, AWSCOM ATTN: AMCPM-CO-L, to the POC listed in paragraph 15b.(1), preferably by datafax. The report will cite this TB number, date of inspection, aircraft serial number, aircraft and component hours, part number (P/N) and S/N(s) of unserviceable pins and results of the inspection. Inspection and reports will be completed no later than 10 days after task/inspection suspense date.

c. Reporting Compliance Suspense Date (Spares). Report required only if subject unserviceable pin(s) are found. Depot commanders and others holding assets referenced in paragraph 6 and/or paragraph 7 shall contact Commander AVSCOM, ATTN: AMCPM-CO-L to the POC listed in paragraph 15b.(1), preferably by datafax, confirming message receipt.

d. Task/inspection Reporting Suspense Date (Spares). Report required only if subject unserviceable pin(s) are found. After compliance with the inspection criteria of this TB, depot commanders and others holding stock shall forward a priority message report of results of this inspection to logistical POC below in paragraph 15b.(1), preferably by datafax, NLT 15 days after completion of the inspection. The report shall include quantity on hand, quantity which passed inspection, quantity which failed inspection and P/N(s) and S/N(s) of unserviceable pins.

e. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 January 88.

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

(2) DA Form 2408-13, Aircraft Inspection and Maintenance Record.

(3) DA Form 2408-15, Historical Record for Aircraft

(4) DA Form 2408-16, Aircraft Component Historical Record.

(5) DA Form 2410, Component Removal and Repair/Overhaul Record.

(6) DD Form 1574 (Yellow Tag) for in stock items that are determined to be Serviceable. (Mark inspected Serviceable in accordance with this TB.)

(7) DD Form 1575 (Brown Tag) for in stock items in Suspended status awaiting inspection. (Mark Suspended in accordance with this TB.)

(8) DD Form 1577 (Red Tag) Unserviceable (Condemned) for in stock items that are determined to be Unserviceable. (Mark Unserviceable in accordance with this TB.)

(9) DD Form 1577-2 (Green Tag) Unserviceable (Reparable) for in stock items that are determined to be Reparable. (Mark Unserviceable in accordance with this TB.)

**14. Weight and Balance.** Not applicable.

**15. Points of Contact.**

a. Technical Point of Contact for this TB for:

(1) AH-1 Mr. Frank Barhorst/Charles C. Thomas, AMSAV-EIH, DSN 693-1624 or Commercial 314/263-1624.

(2) UH-1 Mr. Ralph Vemmer/Mr. Fred Kershaw, AMSAV-ECH, DSN 693-1683 or Commercial 314/263-1683.

b. Logistical Point of Contact for this TB for:

(1) AH-1 CW4 Bob Estes, AMSAV-CO-L, DSN 693-1550 or Commercial 314/263-1550 for voice. The datafax number is DSN 693-1485 or Commercial 314/263-1485.

(2) UH-1 Mr. Charles Elkins, AMCPM-UH-1, DSN 693-3763, or Commercial 314/263-3763.

(3) Depot Production Mr. Charles Smith, AMSAV-SBB, DSN 693-1569, or Commercial 314/263-1569 for voice. The datafax number is DSN 693-2624 or Commercial 314/263-2624.

c. Forms and Records Point of Contact for this TB is Mr. Bob Biter, AMSAV-MPPD, DSN 693-1955 or Commercial 314/263-1955.

d. Point of Contact for this TB is Mr. Roger H. Heidenreich, AMSAV-XSOF, DSN 693-9089 or Commercial 314/263-9089.

e. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact Mr. Ron Van Rees, AMSAV-IOA, DSN 693-2626 or Commercial 314/263-2626.

f. After hours contact AVSCOM Command Operations Center (COC) DSN 693-2066/7 or Commercial 314/263-2066/7.

**16. Reporting of Errors and Recommending Improvements.** You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know, Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commander, U.S. Army Aviation Systems Command, ATTN: AMSAV-MC, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished to you.

**By Order of the Secretary of the Army:**

Official:

PATRICIA P. HICKERSON  
*Colonel, United States Army*  
*The Adjutant General*

GORDON R. SULLIVAN  
*General, United States Army*  
*Chief of Staff*