

URGENT

*TB 1-1520-240-20-159

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MANDATORY MAINTENANCE FOR ALL VERTICAL HINGE PIN BEARINGS ON ALL CH-47D, CH-47F, MH-47D AND MH-47E AIRCRAFT

Headquarters, Department of the Army, Washington, D.C.
5 August 2005

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

NOTE

This message is effective until rescinded or superseded.

NOTE

This message is issued IAW AR 95-1 and has not been transmitted to units subordinate to addressees. Addressees will immediately retransmit this message to all subordinate units, activities or elements affected or concerned. MACOMS will immediately verify this transmission to the AMCOM SOF Compliance Officer (AMSAM-SF-A, safeadm@redstone.army.mil).

NOTE

MACOM commanders may authorize temporary exception from message requirements IAW AR 95-1, Chapter 6. Exception may only occur when combat operations or matter of life or death in civil disasters or other emergencies are so urgent that they override the consequences of continued aircraft operation.

NOTE

Commanders unable to comply with the requirements of this message within the time frame specified will change the affected aircraft status symbol to a Red //X//.

1. Summary

1.1. Background - Twenty four vertical hinge pin upper bearings have been found that were marked incorrectly as vertical hinge pin lower bearings. The DA Form 2410 for these parts correctly identified them as upper bearings, but the parts themselves and their packaging were marked as lower bearings. Additionally, 20 of the bearings had corrosion on the inner diameter vertical hinge pin mating surface. The upper bearing inner diameter is larger than the lower bearing inner diameter. The bearing manufacturer has isolated the problem to one set of 78 bearings. As many as 54 mislabeled bearings could still be installed or in stock.

* This TB 1-1520-240-20-159 supersedes, MSG DTG 211930Z July 2005 CH-47-05-ASAM-03.

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1.2. Message Purpose:

1.2.1. Require a serial number records check of upper and lower vertical hinge pin bearings.

1.2.2. Remove discrepant bearings from service and the supply system.

2. End Items Affected - All H-47 Series Aircraft.

3. Assemblies/Components/Parts Affected

3.1. Suspect/Discrepant Assemblies/Components/Parts:

NOMENCLATURE	PN	NSN
Vertical Hinge Pin Upper Bearing	114RS214-6	3110-00-455-6179

3.2. Additional Assemblies/Components/Parts to be inspected:

NOMENCLATURE	PN	NSN
Vertical Hinge Pin Lower Bearing	114RS214-5	3110-00-455-6188
Head, Rotary Wing FWD	145R2003-10	1615-01-391-4398
Head, Rotary Wing AFT	145R2004-20	1615-01-391-4399

NOTE

When complying with the requirements of this message, complete forms and records entries IAW DA PAM 738-751. ULLS-A units will use appropriate "E" forms.

4. Initial TAMMS (The Army Maintenance Management System) Compliance Requirements

4.1. Upon receipt of this message, make the following entry on the DA Form 2408-13-1. Enter a Red Horizontal Dash // status symbol with the following statement: "Comply with requirements of CH-47-05-ASAM-03 before [####.#] aircraft hours, but NLT 4 August 2005." Calculate [####.#] as current aircraft flight hours plus 10 hours.

NOTE

The TAMMS Compliance Reporting form is available at "www.redstone.army.mil/sof/tamms.xls" (use lower case letters only) or may be obtained from the units servicing LAR. Alternate forms may be approved by the AMCOM SOF Compliance Officer.

NOTE

The TAMMS Compliance Report only confirms the unit has made the initial logbook entry for assigned aircraft. TAMMS Compliance Reports will include aircraft serial numbers (in numerical order), date of entry on DA Form 2408-13-1, unit address, local POC name and phone number.

4.2. TAMMS Compliance Report - Submit TAMMS Compliance Report via priority email to "safeadm@redstone.army.mil" NLT 28 Jul 05 IAW AR 95-1. If email is not available, the report may be faxed to: SOF Compliance Officer at DSN 897-2111 or (256) 313-2111.

5. Task/Inspection Compliance Reporting Requirements

NOTE

The Task/Inspection Reporting Form is available at "www.redstone.army.mil/sof/log.xls" (use lower case letters only) or may be obtained from the units servicing LAR. This report will cite the message number, date of inspection, aircraft serial number, aircraft hours, component serial number, component hours, and results of the inspection.

5.1. Aircraft - Submit Task/Inspection Compliance Report for this message to Log POC NLT 6 Aug 05.

5.2. Retail Stock (Installation level and below) - Report receipt of this message to Log POC NLT 25 Jul 05. Provide unit POC, address and phone number. Submit Task/Inspection Compliance Report for this message to Log POC NLT 6 Aug 05.

5.3. Wholesale stock (Including Depot Stock, Depot Maintenance and Single Stock Fund) - Report receipt of this message to Wholesale Bearing POC listed in para 13.3.1. NLT 25 Jul 05. Provide local POC, address and phone number. Report compliance with this message IAW para 8 to Wholesale Bearing POC NLT 6 Aug 05. DLA stock has been inspected and no report of Wholesale Stock from DLA is required for this ASAM.

6. Special Provisions To Message Requirements (Aircraft)

6.1. Aircraft in AVIM or Depot level maintenance - Commanders, facility managers and contractors will not issue aircraft until they are in compliance with this message.

6.2. Aircraft at Contractor Facility - DD 250 aircraft will be in compliance with this message prior to departure.

6.3. Aircraft in Transit:

6.3.1. Surface/Air Shipment - Comply with message requirements within 10 aircraft hours/14 days of arrival.

6.3.2. Ferry Status/Aircraft away from home station - Comply with message requirements within 10 aircraft hours/14 days of arrival.

6.4. Maintenance Trainers (CAT A and B) - Comply with message requirements NLT 21 Sep 05.

7. Technical Procedures/Instructions -

7.1. Inspect aircraft historical records, DA Forms 2408-16 (FWD/AFT Rotor Head Assy), for the serial numbers of the six (6) upper and six (6) lower pitch varying housing vertical hinge pin bearings. If any of the bearings have serial numbers in the range N33900-N33977 perform the following:

7.1.1. If discrepant bearings were installed as upper bearings change the aircraft status on the DA Form 2408-13-1 to a red //X// status with the following entry: "Replace SN ____ Discrepant vertical hinge pin bearings IAW CH-47-05-ASAM-03." Disposition the bearings IAW para 10.4. Replace all bearings removed from the aircraft by installing new bearings (with serial numbers outside the range N33900-N33977) IAW TM 55-1520-240-23-4 Task 5-39 or TM 1-1520-252-23-5 Tasks 5-49.

7.1.2. If discrepant bearings were installed as lower bearings, the bearings and rotor head are unserviceable. Change the aircraft status on the DA Form 2408-13-1 to a Red //X// with the following entry: "Replace SN ____ Discrepant vertical hinge pin bearings and suspect rotor head IAW CH-47-05-ASAM-03." Disposition the bearings and rotor head IAW para 10.4. Replace rotor head IAW TM 55-1520-240-23-4 Task 5-8 and 5-9, TM 1-1520-252-23-5 Task 5-9 and 5-10. Replace all bearings removed from the aircraft by installing new bearings (with serial numbers outside the range N33900-N33977) IAW TM 55-1520-240-23-4 Task 5-39 or TM 1-1520-252-23-5 Tasks 5-49.

7.2. Clear the initial entry from para 4.1. and note compliance on DA Form 2408-5-1 (Rotor Head Assy).

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8. Procedures/Instructions For Assemblies/Components/Parts In Work Or In Stock (At All Levels Including War Reserves) - Annotate the serviceability tag with: "CH-47-05-ASAM-03, Vertical Hinge Pin Upper Bearing, not complied with". Do not remove original condition tags.

8.1. Items in Retail Stock - Commanders and facility managers that maintain retail stock at installation level and below will complete the following procedures:

8.1.1. Report message receipt to Log POC IAW para 5.

8.1.2. Suspend issue of affected items until in compliance with message requirements.

8.1.3. Contact the supported aviation unit, as required, to perform the procedures required on affected items.

8.1.4. Comply with inspection and correction procedures as required to return items to serviceable stock.

8.1.5. Submit a Task/Inspection report to Log POC IAW para 5.

8.2. Items in Single Stock Fund and in work (Overhaul/Repair Facility) - Comply with inspection and correction procedures as required to return items to serviceable stock.

8.2.1. Depot, unit and other maintenance activity commanders will ensure items listed in para 3 are not issued until they are in compliance with this message.

8.2.2. Submit Task/Inspection Compliance Report to Wholesale POC IAW para 5.3.

8.3. Items in Wholesale Stock - N/A. DLA stock has been inspected and no report of Wholesale Stock from DLA is required for this ASAM.

9. Special Tools And Fixtures Required - Units should have these special tools on hand:

NOMENCLATURE	PN	NSN
TOOL KIT, POWERTRAIN REPAIRER'S (T273)	SC518099CLB13	5180-01-375-6928
PULLER ASSY, BEARING (T102)	114G1236-1	5120-00-879-3710
DRIFT, SOFT ALUMINUM	1/2 X 1/2 X 1/2 INCHES	
HEATER GUN (T319)	M83521/5-01	4920-01-215-0985
PULLER, BEARING AND SEAL (T10)	114E5814-7	5120-00-917-1020

10. Supply/Parts (Requisition/Disposition)

10.1. Parts required:

NOMENCLATURE	PN/NSN	QTY	COST EA.	TOTAL \$
BEARING, UPPER	114RS214-6	12	\$3,295.20	\$39,542.40
	3110-00-455-6179			
BEARING, LOWER	114RS214-5	12	\$3,295.20	\$39,542.40
	3110-0-455-6188			
HEAD,	145R2003-10	1	\$293,483.00	\$293,483.00
ROTARY WING FWD	1615-01-391-4398			

HEAD,	145R2004-20	1	\$276,395.00	\$276,395.00
ROTARY WING AFT	1615-01-391-4399			

Total cost per aircraft = \$648,962.80

(if all 12 bearings plus Rotor head (if required) are replaced)

10.2. Bulk and consumable materials:

NOMENCLATURE	PN	NSN
STRIPS, TEMPERATURE INDICATING (E413.2)	MODEL 110-4	6685-01-477-7443
PENCIL, MARKING (E270.1)	24402	7510-00-465-0994
PAPER TAG (E264)	A-A-1266	8135-00-292-2345
GLOVES, ANTI-CONTACT (E184.1)	MIL-G-87066	8415-01-147-6263
GLOVES, KEVLAR (E187)	MIL-M-11199	8415-01-092-0039
CLOTH, CLEANING (E120)	CCC-C-46	8305-00-753-2967
SOLVENT, DEGREASING, TYPE III (E471)	MIL-PRF-680	6850-01-474-2320
OIL, LUBRICATING (E254)	MIL-PRF-7808	9150-00-782-2627
OIL, LUBRICATING (E253)	MIL PRF-23699	9150-00-955-7099
OIL, LUBRICATING (E254.1)	DOD-L85734	9150-01-209-2684

10.3. Requisitioning instructions - Requisition replacement parts using normal supply procedures. All requisitions shall use Project Code (CC 57-59) "X3C" (X-ray-Three-Charlie).

NOTE

Project Code "X3C" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of message actions.

10.4. Disposition of discrepant parts/components - Unit will submit a CAT 1 QDR. Hold part(s) as a QDR exhibit and wait for QDR disposition instructions. If instructed to dispose of using normal supply procedures, all turn-in documents must include Project Code (CC 57-59) "X3C" (X-ray-Three-Charlie).

10.5. Disposition of hazardous material - IAW Environmental Protection Agency directives as implemented by your servicing environmental coordinator (AR 200-1).

11. Maintenance Application

11.1. Category of maintenance - AVUM.

11.2. Estimated time required:

11.2.1. Time to complete inspection - Total of 1 man-hour using 1 person with no "Not Mission Capable Maintenance" (NMCM) time per end item.

NOTE

The time stated below does not include time for Maintenance Operational Checks or Maintenance Test Flights, if required.

11.2.2. Time for bearing replacement - Total of 10 man-hours using 2 persons with 5 hours "Not Mission Capable Maintenance" (NMCM) time per end item.

11.2.3. Time for Rotor Head replacement - Total of 123 man-hours using 6 persons with 20.5 hours NMCM time per end item.

12. Publication Requirements

12.1. References:

12.1.1. AR 95-1.

12.1.2. AR 200-1.

12.1.3. DA PAM 738-751.

12.1.4. TM 1-55-1520-240-23, Aviation Unit and Aviation Intermediate Maintenance Manual, CH-47D Helicopter.

12.1.5. TM 1-1520-252-23, Aviation Unit and Aviation Intermediate Maintenance Manual, MH-47E Helicopter.

12.2. Publication changes - TM 1-1520-240-23-1, Overhaul and Retirement Schedule, task 1-91, the following "NOTE" will be added as Note H: "The following Vertical Pin Bearings, PN 114R214-5, with a serial number range of (N33900 thru N33977) will NOT be used. If installed, contact SFAE-AV-CH-CS, DSN 897-0721 or (256) 313-0721. Fax is 897-4726 or (256) 313-4726." For TM 1-1520-252-23-1, Overhaul and Retirement Schedule, Task 1-99, the following "NOTE" will be added as Note F: "The following Vertical Pin Bearings, PN 114R214-5, with a serial number range of (N33900 thru N33977) will NOT be used. If installed, contact SFAE-AV-CH-CS, DSN 897-0721 or (256) 313-0721. Fax is 897-4726 or (256) 313-4726."

13. Points Of Contact

13.1. Technical POCs are:

13.1.1. Primary - Mr. Neil Sutherland, AMSRD-AMR-AE-C, DSN 897-3382 or (256) 313-3382. Fax is 897-4726 or (256) 313-4726. Email is "Neil.Sutherland@peoavn.redstone.army.mil".

13.1.2. Alternate - Mr. Tim Rickmeyer, AMSRD-AMR-AE-C, DSN 645-6485 or (256) 955-6485. Fax is 897-4726 or (256) 313-4726. Email is "Timothy.Rickmeyer@peoavn.redstone.army.mil".

13.2. Logistical POCs are:

13.2.1. Primary - Mr. Bill Olson, SFAE-AV-CH-L, DSN 897-0721 or (256) 313-0721. Fax is 897-4726 or (256) 313-4726. Email is "William.Olson@peoavn.redstone.army.mil".

13.2.2. Alternate - CW4 Hank Rexing, SFAE-AV-CH-L, DSN 897-0720 or (256) 313-0720. Fax is 897-4726 or (256) 313-4726. Email is "Hank.Rexing@us.army.mil".

13.3. Wholesale Materiel POC (spares):

13.3.1. Bearings - Ms. Sharon Whitt, DLS, DSN 695-4323 (804) 279-4323. Fax is DSN 279-5695. Email is "Sharon.Whitt@dla.mil".

13.3.2. Rotary wing head - Mr. Phil Batey, AMSAM-MMC-AV-CA, DSN 897-3369 or (256) 313-3369. Fax is DSN 897-4348. Email is "Phillip.Batey@us.army.mil".

13.4. Forms and records POCs are:

13.4.1. Primary - Ms. Ann Waldeck, AMSAM-MMC-MA-NM, DSN 746-5564 or (256) 876-5564. Fax is DSN 746-4904 or (256) 876-4904. Email is "Ann.Waldeck@us.army.mil".

13.4.2. Alternate - Ms. Sibyl Johnson, AMSAM-MMC-MA-NM, DSN 788-6696 or (256) 842-6696. Fax is DSN 746-4904 or (256) 876-4904. Email is "Sibyl.Johnson@redstone.army.mil".

NOTE

A listing of published safety messages can be viewed at "<https://ams14.redstone.army.mil/safety/sof/index.html>". This is a secured website which requires an Army Knowledge Online (AKO) ("www.us.army.mil") ID and password.

13.5. Safety POCs are:

13.5.1. Primary - Mr. Frank Rosebery (SAIC), AMSAM-SF-A, DSN 788-8631 or (256) 842-8631. Fax is DSN 897-2111 or (256) 313-2111. Email is "James.Rosebery@us.army.mil".

13.5.2. Alternate - Mr. Russell Peusch, AMSAM-SF-A, DSN 788-8632 or (256) 842-8632. Fax is DSN 897-2111 or (256) 313-2111. Email is "Russell.Peusch@us.army.mil".

13.6. Foreign military sales POC is Mr. Ronnie W. Sammons, AMSAM-SA-AS-UT, DSN 897-0875 or (256) 313-0875. Fax is DSN 897-0411 or (256) 313-0411. Email is "Ronnie.Sammons@us.army.mil".


13.7. After hours, contact the AMCOM Operations Center (AOC) DSN 897-2066/7 or (256) 313-2066/7.

14. Reporting of Errors and Recommending Improvements.

You can help improve this publication. 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 and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5000. You may also submit your recommended changes by E-Mail directly to 2028@redstone.army.mil or by fax (256) 842-6546/DSN 788-6546. A reply will be furnished directly to you. Instruction for sending an electronic 2028 may be found at the back of this publication.

By Order of the Secretary of the Army:

Official:


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*Administrative Assistant to the
Secretary of the Army*
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PETER J. SCHOOMAKER
*General, United States Army
Chief of Staff*

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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@wherever.army.mil>

To: 2028@redstone.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.

PIN: 082628-000