URGENT

*TB 1-1520-240-20-106

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

ONE TIME INSPECTION OF
LAG DAMPENERS
FOR
ALL CH-47D, MH-47D, AND MH-47E AIRCRAFT

Headquarters, Department of the Army, Washington, D. C.
4 March 1999

NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

1. Priority Classification. Urgent.

a. Aircraft in Use. Upon receipt of this 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 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 message 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 ASAM has been completed.

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

d. Aircraft in Transit.

(1) Surface/Air Shipment Prior to first flight.

(2) Ferry Status. lnspect at final destination. Those aircraft that have a DD 250 and are at Boeing Helicopters will be inspected prior to ferry to final destination.

e. Maintenance Trainers (Category A and B). Comply within 30 days of the date time group of this message.

f. Component/Parts in Stock at All Levels (Depot and Others) including War Reserves. Upon receipt of this messsage the material condition of all items in all condition codes listed in paragraph 6 shall be annotated to read “CH-47-99-ASAM-01, Lag Dampener Adjustment, not complied with”.

*This TB supercedes USAAMCOM Message 081929Z FEB 99 CH-47-99-ASAM-01.

(1) Wholesale Stock N/A.

(2) Retail Stock. Upon receipt of this message 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 correction procedures of paragraph 9 on discrepant materiel. Disposition of discrepant materiel will be in accordance with paragraph 10.

g. Component/Parts in Work (Depot Level and Others). Items listed in paragraph 6 which are in work will not be issued until compliance with this message is complete.

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

3. Reporting Compliance Suspense Date. No later than 3 Mar 99 IAW paragraph 14A of this message.

4. Summary of the Problem.

a. An investigation of cracked rod ends on blade lag dampeners with elastromeric bearings revealed that the rod ends had been adjusted to the length applicable to the older, teflon rod end bearings. Improper adjustment increases fatigue stresses which can cause the banjo portion of the rod end assembly to crack. The lag dampeners were not properly identified by part number 114H6800-11 as required upon application of MWO 1-1520-240-50-64 or upon maintenance action. The maintenance manuals require different adjustment lengths for the 9 and 11 lag dampeners. Without the correct part number identified on the part, incorrect adjustment lengths may have been applied to the lag dampeners.

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

c. The purpose of this message is to:

(1) Perform a one-time inspection of lag dampeners with elastomeric bearings for improper adjustment.

(2) Emphasize that the correct rod end adjustment is applied during maintenance actions of all dampeners.

5. End Items to be Inspected. All CH-47D, MH-47D and MH-47E aircraft.

6. Assembly Components to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Lag Dampener Assembly	114H6800-5	1650-01-106-9510
Lag Dampener Assembly	114H6800-9	1650-01-315-1725
Lag Dampener Assembly	114H6800-11	1650-01-371-2475

7. Parts to be Inspected. N/A

8. Inspection Procedures.

a. Prepare aircraft for safe ground maintenance.

b. Inspect each of the six (6) rotor lag dampener assemblies for outboard elastomeric rod end bearings. If the dampener has teflon bearings on both ends and is identified as 114H6800-5 it is serviceable. No further action is required for this dampener assembly.

NOTE

The following are approved dampener bearing configurations. These configurations can be mixed on rotor heads.

Inboard Bearings	Outboard Bearings
Elastomeric	Elastomeric
Elastomeric	Teflon
Teflon	Elastomeric
Teflon	Teflon

c. Inspect each lag dampener assembly with outboard elastomeric rod end bearings to determine if a 1/4 inch thick jam nut is installed. If a 1/4 inch thick jam nut is installed on the elastomeric rod end bearing refer to paragraph 8D below. If a 1/2 inch thick jam nut is installed on the elastomeric rod end bearing, the lag dampener is unserviceable. Refer to paragraph 9A and 9B for correction procedure.

d. If the 1/4 inch thick jam nut is instailed on the elastomeric bearing, measure the distance from the rod end to the notched end of the piston in accordance with TM 55-1520-240-23-4, task 5-89, paragraph 2. This is dimension 'A".

NOTE

MH-47E users may use TM 55-1520-240-23-4 to perform this inspection since it allows the measure ment to be taken without removing the bolt.

e. If dimension "A" is between 3.345 inch and 3.435 inch the lag dampener is improperly adjusted and it is unserviceable. Refer to paragraphs 9A and 9B for correction procedures.

WARNING

Do not readjust the rod end assembly. Rod ends which have operated in this condition are fatigued. They will be removed from service and will be demilitarized in accordance with paragraph 10.

f. If the dimension "A" is between 3.095 inch and 3.185 inch the rod end adjustment is correct, and the dampener is serviceable. If it is not refer to paragraph 9B. The lag dampener should be identified as part number 114H6800-11. If it is not refer to paragraph 9C.

9. Correction Procedures.

a. Remove the lag dampener.

b. Replace the lag dampener with a serviceable lag dampener or replace the rod end, tang washer, and jam nut with the parts listed in paragraph 10A in accordance with TM 55-1520-240-23-4, task 5-89 or TM 1-1520-252-23-4, task 5-131.

WARNING

P/N 114H6800-9 configuration lag dampener shall not be installed on H-47 series aircraft. Loss of or damage to aircraft may result.

c. Change the data plate of any lag dampeners that are identified as 114H6800-9 to 114H6800-11 only after the lag dampener has been adjusted to the correct length and has the correct parts identified in paragraph 10A installed.

10. Supply/Parts and Disposition.

a. Parts Required. Either replace defective lag dampeners with P/N 114H6800-11 NSN 1650-01-371-2475 configuration or correct in accordance with paragraph 9B above using the following parts only:

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Rod End Assembly	234RS202-2	3120-01-313-9375
Nut, Jam	NAS1423-14	5310-00-245-4568
Washer, Rod End	145R2010-1	5310-01-399-2322

b. Requisitioning instructions. Requisition replacement parts using normal supply procedures. All requisitions shall use project code (CC 57-59) "XFE", "X-RAY-FOXTROT-ECHO".

NOTE

Project code "XFE", "X-RAY-FOXTROT-ECHO'" is required to track and establish a database of stock fund expenditures incurred by the field as a result of SOF actions.

c. Bulk and Consumable Materials. N/A

d. Disposition. Demilitarize/mutilate IAW TM 1-1500-328-23 any rod end assembly which was removed lAW paragraph 8 above for failure to meet inspection criteria.

e. Disposition of Hazardous Material.

11. Special Tools and Fixture Required. N/A

12. Application.

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

b. Estimated Time Required for Inspection of Aircraft.

(1) Total of 1 man-hour using 1 person.

(2) Total of 1 hour downtime for one end item.

c. Estimated Cost Impact to the Field.

NOMENCLATURE	PART NUMBER/ NATIONAL STOCK NUMBER	QUANTITY	COST EACH	TOTAL $
Lag Dampener Assy	114H6800-11 1650-01-371-2475	6	$8,889.10	$53,334.60
Rod End Assy	234RS202-2 3120-01-313-9375	6	$ 670.71	$ 4,024.26
Nut, Jam	NAS1423-14 5310-00-245-4568	6	S 3.53	$ 21.18
Washer, Rod End	145R2010-1 5310-01-399-2322	6	$ 44.23	$ 265.38
Total cost per aircraft = $53,334.60 for Dampener Replacement Total cost per aircraft = $4,310.82 for Rod End Replacement				

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. TM 1-1520-252-23-4 and TM 55-1520-240-23-4 shall be changed to reflect this message. A copy of this message shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

(1) Reference 13A, Task 5-89, 2A shall be changed to read "On shock absorbers 114H6800-5 (Teflon rod end bearings outboard) dimension "A" shall be 3.345 inch to 3.435 inch."

(2) Reference 13A, Task 5-89, Step 2B shall be changed to read "On shock 114H6800-11 (elastomeric rod end bearings outboard) dimension "A" shall be 3.095 inch to 3.185 inch."

NOTE

Dimensions "A" of Task 5-89 cannot be altered to obtain dimensions required by Task 5-90.

(3) Reference 13A, Task 5-90, Step 7B, note shall be changed to read "If fixture 114G1306-1 or 114G1306-7 is not available, shock absorbers may be adjusted by measuring from center holes of bearings. With elastomeric bearings the measurement should be 18.390 inch, plus or minus 0.005 inch. without elastomeric bearings the measurement should be 18.642 inch plus or minus 0.005 inch. Make adjustments in accordance with Step 8.

13. References.

a. TM 55-1520-240-23-4

b. TM 1-1520-252-23-4

14. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft). Upon entering requirements of this message on DA Form 2408-13-1 on all subject MDS aircraft, forward a messege, datafax or e-mail to CDR, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898-5222, in accordance with AR 95-1. Datafax number is DSN 897-2111 or (256) 313-2111. E-mail address is "safeadm@redstone.army.mil". The report will cite this message 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). N/A

c. Reporting Message Receipt (Spares). N/A

d. Task/Inspection Reporting Suspense Date (Spares). N/A

e. The following forms are applicable and are to be completed in accordance with DA PAM 738-751, 15 June 1992:

NOTE

ULLS-A users will use applicable "E" forms.

(1) DA Form 2408-13, Aircraft Status Information Record.

(2) DA Form 2408-13-1, Aircraft lnspection and Maintenance Record.

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

(4) DA Form 1577/DD Form 1577-1, unserviceable (condemned tag/label - materiel (color red). Annotate remarks block with "CONDEMNED IN ACCORDANCE WITH CH-47-99-ASAM-01 and MUTILATED IN ACCORDANCE WITH TM 1-1500-328-23."

15. Weight and Balance. N/A

16. Points of Contact.

a. Technical point of contact for this TB is Mr. Matt Wesselschmidt, AMSAM-AR-E-I-C-H, DSN 897-4286 or commercial (256) 313-4286/4284, datafax is DSN 897-4348 or E-mail is wessellschmidt-ml@avrdecr.redstone.army.mil.

b. Logistical point of contact for this message is Mr. Norm Huston, SFAE-AV-CH-L, DSN 897-4289 or commercial (256) 313-4289, datafax is DSN 897-4348 or (256) 313-4348. E-mail is hustonn@peoavn.redstone.army.mil.

c. Wholesale materiel point of contact (Spares). N/A

d. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAM-MMC-RE-FF, DSN 746-5564 or commercial (256) 876-5564. Datafax is DSN 746-4904 or (256) 876-4904. E-mail is waldeck-ab@redstone.army.mil.

e. Safety point of contact for this message is Mr. Robert D. Brock, AMSAM-SF-A, DSN 788-8632 or (256) 842-8632, datafax is DSN 897-2111 or (265) 313-2111. E-mail is brockrd@redstone.army.mil.

f. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this message should contact: CW5 Joseph L. Wittstrom, Security Assistance Management, AMSAM-SA, DSN 897-0681 or (256) 313-0681. E-mall is wittstrom-jl@redstone.army.mil or Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0869 or (256) 313-0869. Datafax is DSN 897-0411 or (256) 313-0411. E-mail is sammons-rw@redstone.army.mil. (Huntsville, AL is GMT minus 6 hours.)

g. After hours, contact the AMCOM Command Operations Center (COC) DSN 897-2066/7 or commercial (256) 313-2066/7.

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) directedly to: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, AL 35898-5230. You may also submit your recommended changes by e-mail directly to ls-lp@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual. A reply will be furnished directly to you.

By order of the Secetary of the Army:

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

Official:

JOEL B. HUDSON
Administrative Assistant to the Secretary of the Army
05297

DISTRIBUTION:
To be distributed in accordance with initial distribution number (IDN) 313814, requirements for TB 1-520-240-20-106.

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@avma27.army.mil>
To: ls-lp@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.