## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

# REPLACEMENT OF UNDAMPED

#### GAS GENERATOR ROTOR/STATOR ASSEMBLIES

#### FOR ALL UH-60A AND EH-60A AIRCRAFT

#### WITH T700-GE-700 ENGINES

# Headquarters, Department of the Army, Washington, D. C. 30 October 1996

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

### NOTE THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

#### 1. Priority Classification. Urgent

a. Aircraft in Use. Upon receipt of this Technical Bulletin (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 below is completed. The affected aircraft shall be inspected as soon as practical but no later than the task/inspection suspense date.

- b. Aircraft in Depot Maintenance. N/A.
- c. Aircraft Undergoing Maintenance. Same as paragraph 1.a.
- d. Aircraft in Transit.
  - (1) Surface/Air Shipment. Prior to first flight.
  - (2) Ferry Status. Inspect at final destination.
- e. Maintenance Trainers (Category A and B). N/A.
- f. Component/Parts in Stock Including War Reserves at All Levels (Depot and Others). N/A.
- 2. Task/Inspection Suspense Date. Within 10 hours/14 days.
- 3. Reporting Compliance Suspense Date. No later than 15 November 1996 per paragraph 14.a. of this TB.
- 4. Summary of the Problem.

a. ATCOM and the Utility Helicopters PMO have been directed to change-out all undamped gas generator rotor/stator assemblies in T700-GE-700 engines installed in the field. The change-out will be accom

This TB supersedes USAATCOM Message 251455Z October 1996 (UH-60-97-ASAM-03).

plished on site by a General Electric Co. field team. In order to accomplish this change-out in at timely manner, it is necessary to identify all undamped gas generator rotor/stator assemblies currently installed so that a schedule can be finalized for the field team. Also at this time, all damped gas generator rotor/stator assemblies with damped used blades that have been operated without dampers need to be identified in order to assess the remaining risk in the fleet.

- b. For manpower/downtime and funding impacts, see paragraph 12.
- c. The purpose of this TB is to identify the remaining undamped and damped gas generator rotor/stator assemblies damped with used blades installed in T700-GE-700 engines in the field.
- 5. End Items to be Inspected. Engine historical records.
- 6. Assembly Components to be Inspected. N/A.
- 7. Parts to be Inspected. N/A.
- 8. Inspection Procedures. Inspect engine historical records to determine the part number of the gas generator rotor/stator assembly installed in the engines and determine if the blades in damped assemblies have been run without dampers. See reference 13.a. to determine above information.
- 9. Correction Procedures. A General Electric field team will replace all undamped gas generator rotor/stator assemblies starting 1 November 1996, with completion scheduled for 15 March 1997. It is critical that all undamped gas generator rotor/stator assemblies be identified and reported to the Logistics Point of Contact for this TB.
  - a. Units will be notified as to when they are scheduled as soon as possible to prevent possible scheduling problems.
  - b. Due to the large number of field sites and the short period of time to accomplish the change-out, it is critical that the affected engines be removed and made available as soon as the field change-out team arrives on site.
  - c. Owning units will be required to:
    - (1) Ensure availability of engines per established schedule.
    - (2) Remove specific engines from aircraft (no disassembly of engines required by the units).
    - (3) Place engines in transport adapters and move them to the field team location.
    - (4) Assign a dedicated unit tech-inspector to complete required forms and record changes in paragraph 14.e.
    - (5) Provide a point of contact and ship to address, including building number, for parts and tools to be used by the field team.
    - (6) Secure the parts and tools pending arrival of the team.
    - (7) Provide a sheltered working area for the field team to perform the change-out.
    - (8) Reinstall the engines in the aircraft after the change-out and perform all required maintenance checks and maintenance test flights.
    - (9) Apply RTV/tape to torque overspeed and NP sensor connectors IAW TM 55-2840-248-23.
    - (10) Units will be responsible for necessary hardware for reinstallation of engines after replacement of undamped gas generator rotor/stator assemblies. The following is a list of parts that may be required on a limited basis:

NOMENCLATURE	NSN	PART NUMBER	FIGURE	ITEM
Cotter Pin	5315-00-241-7330	293-1014P19	297	52
Inbd Strut	1560-01-158-5815	70305-02105-043	308	11

NOMENCLATURE	NSN	PART NUMBER	FIGURE	ITEM
Aft Strut	1560-01-158-5816	70305-02106-043	308	15
Link Aft Mount	1560-01-142-8265	70305-02107-102	297	53
Aft Mount Spt	1560-01-133-2696	70305-02115-103	308	30
Inbd Strut Mt	3040-01-081-2779	70305-02119-042	308	8
Bearing, Spt	3120-01-161-4074	70305-22800-101	308	23, 33
Stud, Shoulder	5307-01-313-5868	70361-08003-101	284	14
Washer	5310-01-187-4716	70361-0801-3-101	284	15
Shear Bolt	5306-01-098-7212	7418-8-19	297	48
Washer	5310-00-141-1795	AN960-41 6	284	11
Washer	5310-00-167-0835	AN960-416L	284	12
Washer	5310-00-167-0803	AN960C516	308	2
Washer	5310-00-167-0814	AN960C516L	308	4
Washer	5310-00-167-0804	AN960C616	284	19
Washer	5310-00-183-4355	AN960C616L	284	17
Washer	5310-00-167-0806	AN960C816	297	49
Slotted Nut	5310-01-107-1232	MS0634-14	297	51
Washer	5310-00-595-7078	MS20002C5	308	3
Washer	5310-00-149-9146	MS20002C6	284	18
Nut	5310-00-844-4872	MS21043-4	284	10
Washer	5310-01-057-5689	MS21206C4	284	13
Nut	5310-00-537-3920	MS21225-5	308	5
Cotter Pin	5315-00-234-1864	MS24665-302	284	20
Nut	5310-00-031-1129	MS9364-12	284	21
Shear Bolt	5306-00-639-2288	NAS464P5-1 2	308	1
Shear Bolt	5306-01-173-9284	NAS6706DU26	284	16
Washer	5310-01-092-8154	SS510103C08	297	50
Nut, Clamp	5310-00-415-4875	Z1200J-048	284	7

d. The field change-out team will provide the following parts on an as needed basis:

NOMENCLATURE	NSN	PART NUMBER
Seal	2840-01-094-5668	4046T39P01
Seal	2840-01-089-0556	3033T35P04
Bolt	5306-01-092-2096	J643P20A
S-1 Nozzle Seal	5330-01-125-9923	4068T87P01
Tube Assy	4710-01-193-4366	5051T01G02
Tube Assy	4710-01-219-8714	5044T97G02
OBP Seal	5330-01-230-6972	5043T32G02
S-1 Nozzle Assy	2840-01-193-3349	5043T24G14

NOMENCLATURE	NSN	PART NUMBER
Bolt	5306-00-523-2860	J643P10
Nut	5310-01-099-6537	J490P048
Packing	5330-01-166-1025	M83248/1 -026
GG Rotor/Stator	2840-01-342-9017	6055T20G03/G05

#### 10. Supply/Parts and Disposition.

- a. Parts Required. N/A.
- b. Requisitioning Instructions. N/A.
- c. Bulk and Consumable Materials. N/A.
- d. Disposition. N/A.

#### **11. Special Tools, Jigs and Fixtures Required.** N/A.

#### 12. Application.

- a. Category of Maintenance. AVUM.
- b. Time Required.
  - (1) Total of .5 man-hours using 1 person.
  - (2) Total of .5 hours downtime for one end item.
- c. Estimated Cost Impact of Stock Fund Items to the Field. N/A.
- 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.

- a. UH-60-95-ASAM-08.
- b. TM 1-1520-237-23.
- c. TM 1-1520-237-23P.
- d. TM 55-2840-248-23.
- e. TM 55-2840-248-23P.
- f. TB 1-2840-248-20-2.

#### 14. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft). Upon entering requirements of this TB on DA Form 2408-13-1 on all subject MDS aircraft, forward a priority message, datafax or E-Mail to Commander, ATCOM, ATTN: AMSAT-R-X (SOF Compliance Officer), per AR 95-3. Datafax number is DSN 693-2064 or commercial (314) 263-2064. E-Mail address is "AMSATRXS@EMH4.ARMYMIL". The report will cite this TB 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). Upon completion of inspection, units will forward a priority message to the Logistical POC listed in paragraph 16.b. The report will cite the TB number, date of inspection, aircraft serial number, engine serial number, GG rotor serial number, and indicate undamped or damped with used blades. Inspection and reports will be completed no later than the task/inspection suspense date.

c. Reporting Compliance Suspense Date (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:
  - (1) DA Form 2408-5-1, Equipment Modification Record (Matched Rotor/Stator Assembly).
  - (2) DA Form 2408-13, Aircraft Status Information Record.
  - (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
  - (4) DA Form 2408-13-2, Related Maintenance Actions Record.
  - (5) DA Form 2408-13-'3, Aircraft Technical Inspection Worksheet.
  - (6) DA Form 2408-15, Historical Record for Aircraft.

(7) DA Form 2408-16-1, History Recorder, Component, Module Record. Complete DA Form 2408-16-1 per reference 13.f., pages 51 and 66.

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

(a) Complete a DA Form 2410 for removal, repair and installation of each engine per reference 13.f., pages 9 thru 19. Use Failure Code SMI.

(b) Complete a DA Form 2410 for removal, repair and installation of each matched rotor/stator per reference 13.f., pages 9 thru 19. Use Failure Code MW3.

(c) Complete DA Form 2410 to document NSN/PN/Serial Number change of an uninstalled item (matched rotor/stator assembly) per reference 13.f., pages 25 thru 30.

(d) All DA Forms 2410 completed for each engine and the installed matched rotor/stator assembly should be stapled together and mailed to Commander, USAATCOM, ATTN: AMSAT-1-MDO, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798.

#### **15. Weight and Balance.** N/A.

#### 16. Points of Contact.

a. Technical point of contact for this TB is Mr. Dick Hazelwood, AMSAT-R-EPE, DSN 693-1145, or commercial (314) 263-1145.

b. Logistical point of contact for this TB is Mr. Dave Lizotte, SFAE-AV-BH-L, DSN 693-0485, or commercial (314) 263-0485. Datafax is DSN 693-1898 or commercial (314) 263-1898. E-mail is LIZOTTE@PEO2.STL.ARMY.MIL.

c. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAT-1-MDM, DSN 490-2318 or commercial (314) 260-2318.

d. Safety point of contact for this TB is Mr. Jim Wilkins, AMSAT-R-X, DSN 693-2258 or commercial (314) 263-2258.

e. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact CW5 Jay Nance or Mr. Ron Van Rees, AMSAT-D-S, DSN 693-7844/3216 or commercial (314) 263-7844/3216. Datatax is 2917.

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

**17. Reporting of Errors and Recommending Improvements.** You can help 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) directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-1-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you. You may also submit your recommended changes by E-mail directly to

<mpmt/oavma28@st-louis-emh7.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:

B HL Official:

JOEL B. HUDSON Administrative Assistant to the Secretary of the Army 02688

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

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31-E, block no. 3627, requirements for TB 1-2840-248-20-19.

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" <whomover@avma27.army.mil>
- To: <mpmtO/oavma28@st-louis-emh7.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.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS					
	2.11	$\mathbf{N}$		Somet	THING WRONG WITH PUBLICATION
	THENJOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.				
PUBLICAT	PUBLICATION NUMBER PUBLICATION DATE PUBLICATION TITLE				DATE PUBLICATION TITLE
BE EXAC	t pin-po	DINT WHEF	RE IT IS		
BE EXACT PIN-POINT WHERE IT IS   PAGE PAGE   NO. PAGE   PAGE PAGE   NO. PAGE   PAGE PAGE   NO. PAGE   PAGE PAGE   NO. PAGE   PAGE PAGE					
PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER SIGN HERE				SIGN HERE	
<b>DA</b> 150	IL 79 20	28-2		EVIOUS EDITIONS E OBSOLETE.	P.SIF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

PIN: 075208-0000