#### DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

# SANDY ENVIRONMENT AND/OR COMBAT OPERATIONS FOR GAS TURBINE ENGINE (AUXILIARY POWER UNIT-APU) MODEL T-62T-2B

# Headquarters, Department of the Army, Washington, D. C. 15 April 2003

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

## **NOTE**

## This publication is effective until rescinded or superseded.

- 1. **Purpose.** This technical bulletin is to be used as guidance while operating Army Auxiliary Power Units (APUs) in a sandy environment and/or during combat operations.
- 2. **Priority Classification**. This technical bulletin is classified as URGENT.

Equipment in Use (Including Equipment in Supply or Maintenance Activities Below Depot Level and Equipment in Administrative Storage). Equipment in use will be inspected as soon as practicable.

3. End Items to be Inspected.

Nomenclature	Part Number	NSN
T-62T-2B Engine	160150-100	2835-01-092-2037

- 4. Modules (Components, Assemblies, and Subassemblies) to be Inspected. Not applicable.
- **5. Parts to be Inspected.** Refer to paragraph 9.
- 6. Application.
  - a. Level of Maintenance. AVUM/AVIM.
  - b. Applied by. AVUM/AVIM.
  - c. Tune Required. Not applicable.
- d. Additional Information. These instructions are for use only in a sandy environment and/or during combat operations.

- 7. Supply Kits, Parts, and Disposition.
  - a. Parts Required to Accomplished Technical Bulletin.

Nomenclature	Part Number	NSN			
Barrier Filter Hook	PSF31 BH6X28 MIL-F-21840	2945-01-328-9679 8315-01-066-5854			
Pile	MIL-F-21840/ V1000-20	8315-00-960-2504 8315-00-935-0505			

- b. Parts Disposition. Not applicable.
- c. Expendable Supplies. Not applicable.
- 8. Special Tools, Jigs and Fixtures Required. Not applicable.
- 9. Inspection Procedures.

## NOTE

The T-62T-2B APU may be operated with the emergency barrier filter P/N PSF31BH6X28. The barrier wrap filter shall be used to minimize engine sand ingestion in a sandy environment and/or during combat operations.

## **WARNING**

Operating the APU with a clogged inlet filter can result in insufficient pressure across the APU labyrinth seal. This will cause the seal to leak resulting in oil starvation of the APU bearings and subsequent catastrophic failure of the unit.

a. Inspect the APU inlet screen for serviceability in accordance with TM 55-2835-205-23, Task 2-2.

# NOTE

Pressure gradient across the barrier filter will cause an improperly installed (loose) screen to collapse into the air inlet housing.

# NOTE

Housing supports should be located at the 4, 8, and 12 o'clock positions.

b. Wrap the barrier filter (white side out) around the inlet screen. The barrier filter is longer than the T-62T-2B inlet screen because it was designed for the Black Hawk APU Model T-62T-40- 1. Overlap the ends (approximately 1 to 2 inches). Attach the velcro directly to the material. DO NOT PULL TIGHT. Stretching the filter will reduce its effectiveness. Place the overlap section of the filter directly over one of the housing supports. This shall give additional support to the screen because of the lack of air flow where the velcro connects. Work filter under the fuel lines.

# **CAUTION**

# Extreme care must be taken during removal of the barrier wrap filter to prevent trapped particles from falling into the APU inlet.

- c. The barrier wrap filter shall be removed and replaced not to exceed 5 aircraft hours.
- d. A daily visual inspection of the APU barrier filter installation is required to ensure that clogging does not occur. Clogging shall be corrected by filter removal and replacement prior to further flight operations.
- 10. Special Tools, Jigs, Test Measurement and Diagnostic Equipment (TMDE). Not applicable.
- 11. Quality Assurance Requirements. As applicable.
- 12. Recording and Reporting of Work Accomplished.
- a. Record and Reports Forms. The following forms are applicable and are to be completed in accordance with DA Pamphlet 738-751, 15 March 1999.
  - (1) DA Form 2408-5-1, Equipment Modification Record (Component).
  - (2) DA Form 2408-13, Aircraft Status Information Record.
  - (3) DA Form 2480-13-1, Aircraft Inspection and Maintenance Record.
  - (4) DA Form 2408-13-2, Related Maintenance Actions Record.
  - (5) DA Form 2408-18, Equipment Inspection List.
  - b. Marking Equipment. Not applicable.
  - c. Identification. Not applicable.

#### 13. Points of Contact.

For immediate engineering assistance in complying with this Technical Bulletin, contact Joseph A Gibson, AMCOM T-62T APU Project Engineer, AMSAM-RD-AE-P, DSN 897-2350 - 5303 or Commercial (256) 319-5303. For immediate assistance for recording and reporting information with this Technical Bulletin, contact AMSAM-RD-AE-I-P-C, DSN 693-1955 or Commercial (256) 705-9866.

## 14. 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 and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5000. A reply will be furnished to you. You may also provide DA Form 2028 information to AMCOM via e-mail, fax, or the World Wide Web. Our fax number is: DSN 788-6546 or Commercial 256-842-6546. Our e-mail address is: 2028@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this TB immeadiately preceding the hard copy 2028. For the World Wide Web use: https://amcom2028.redstone.army.mil.

15. Engineering Change Proposal (ECP) Number. Not Applicable

By Order of the Secretary of the Army:

Official:

ERIC K. SHINSEKI General, United States Army Chief of Staff

Jul B Hul

Administrative Assistant to the Secretary of the Army

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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.

"Whomever" <whomever@wherever.army.mil> From:

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:** TB

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:** 

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# RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS

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Use Part II (reverse) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/ Supply Manuals (SC/SM)

DATE

8/30/02

TO: (Forward to proponent of publication or form)(Include ZIP Code)

Commander, U.S. Army Aviation and Missile Command

ATTN: AMSAM-MMC-MA-NP Redstone Arsenal, AL 35898

FROM: (Activity and location)(Include ZIP Code)

MSG, Jane Q. Doe 1234 Any Street

Nowhere Town, AL 34565

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