DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

SANDY ENVIRONMENT AND/OR COMBAT OPERATIONS FOR GAS TURBINE ENGINE (AUXILIARY POWER UNIT-APU) MODEL T-62T-40-1

Headquarters, Department of the Army, Washington, D. C. 28 April 1995

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This publication is effective until rescinded or superseded.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 ROUTINE.

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-40- 1 Engine	116305-100	2835-01-083-9978
_	116305-200	2835-01-166-9129
	116305-300	2835-01-267-8229
	116305-200	2835-01-369-5606
	116305-302	2835-01-369-2818

- 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. Time 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	PSF31BH6X28	2945-01-328-9679	

- 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-40-1 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 heavy sand and dust environment.

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 55-2835-208-23, 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. Attach the velcro. 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, June 1992.
 - (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 Mark Woltjen, ATCOM T-62T APU Project Engineer, AMSAT-R-EPE, DSN 693-0318 or Commercial (314) 263-0318. For immediate assistance for recording and reporting information with this Technical Bulletin, contact AMSAT-I-MDO, DSN 693-1955 or Commercial (314) 263-1955.

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 Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished to you.

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

By Order of the Secretary of the Army:

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