

ARMY AIR FORCE

TM 1-2840-248-23 T.O. 2J-T700-6

TECHNICAL MANUAL

AVIATION UNIT AND INTERMEDIATE
MAINTENANCE MANUAL

ENGINE, AIRCRAFT

TURBOSHAFT

MODELS T700-GE-700
T700-GE-701
T700-GE-701C

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AVIATION UNIT AND INTERMEDIATE
MAINTENANCE MANUAL

ENGINE, AIRCRAFT, TURBOSHAFT
MODELS T700-GE-700, T700-GE-701 AND T700-GE-701C

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual, 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 manual immediately preceding the hard copy 2028. For the World Wide Web use: <https://amcom2028.redstone.army.mil>.

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CHAPTER 1

ENGINE GENERAL

1-1. CHAPTER OVERVIEW.

This chapter contains general information, equipment descriptions and instructions regarding support equipment, servicing of engine upon receipt, preventive maintenance checks, troubleshooting, general maintenance, and engine testing.

Data peculiar to engine models T700-GE-700, T700-GE-701, and T700-GE-701C is identified throughout the manual as follows:

NOTE

Data common to all engine models is not identified.

<u>Engine Model</u>	<u>Identification</u>
T700-GE-700	(T700)
T700-GE-701	(T701)
T700-GE-701C	(T701C)
T700-GE-700 and T700-GE-701	(T700, T701)
T700-GE-700 and T700-GE-701C	(T700, T701C)
T700-GE-701 and T700-GE-701C	(T701, T701C)

1-2. CHAPTER INDEX.

This chapter is divided into the following eight sections:

<u>Section</u>	<u>Title</u>	<u>Para- graph</u>
I	General Information	1-3
II	Equipment Capabilities and Features	1-21
III	Repair Parts; Special Tools; Test, Measurement, and Diagnostic Equipment (TMDE); and Support Equipment	1-43
IV	Service Upon Receipt	1-46
V	Preventative Maintenance Checks and Services	1-61
VII	Troubleshooting (Engine Installed in Aircraft)	1-71
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IX	Engine Test in Mobile or Fixed Facilities	1-211

Section I. GENERAL INFORMATION

1-3. SCOPE.

1-4. Maintenance of Army aviation equipment is performed at three levels: Aviation Unit Maintenance (AVUM), Aviation Intermediate Maintenance (AVIM), and Depot Maintenance.

1-5. (T700) Repair parts, special tools, and support equipment are listed in Repair Parts and Special Tools List (RPSTL) TM 55-2840-248-23P.

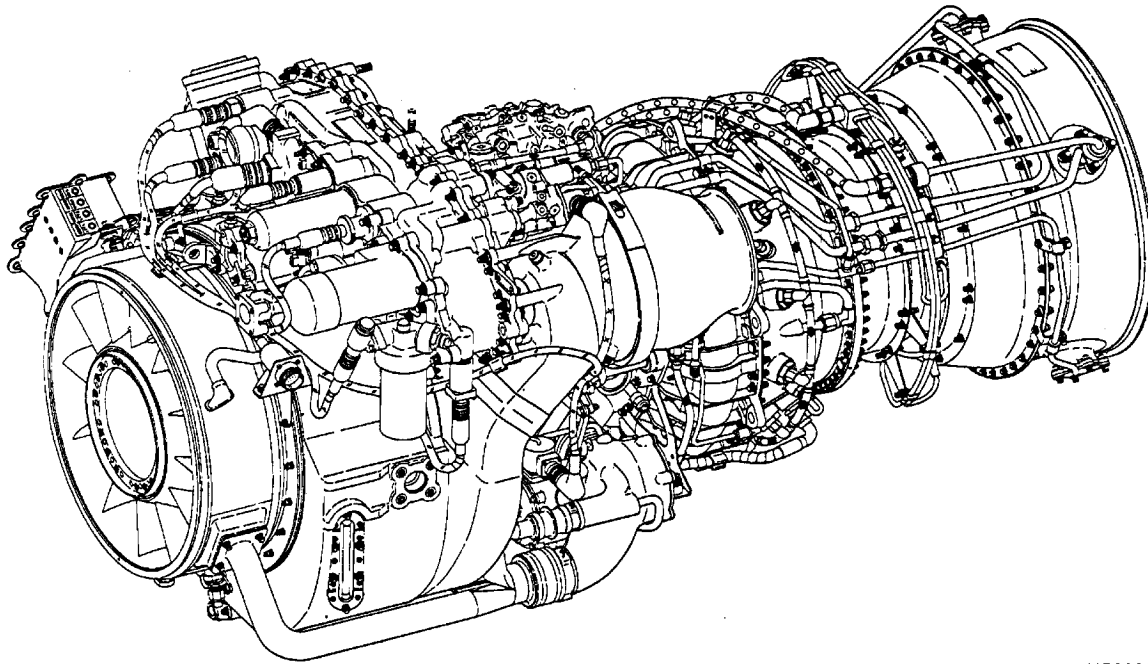
1-6. (T701) Repair parts, special tools, and support equipment are listed in Repair Parts and Special Tools List (RPSTL) TM 55-2840-238-23P.

1-7. (T701C) Repair parts, special tools, and support equipment are listed in Repair Parts and Special Tool List (RPSTL) TM 55-2840-258-23P.

1-8. MAINTENANCE CONCEPT.

1-9. (T700) Under the modular maintenance concept, the T700-GE-700 turboshaft engine (fig. 1-1) is divided into four modules (fig. 1-2):

- Accessory Section Module (Accessory Gearbox)
- Cold Section Module (Compressor Section)
- Hot Section Module (Combustion Section)
- Power Turbine Module (Power Turbine)



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Figure 1-1. T700-GE-700 and T700-GE-701C Turboshaft Engine (Typical)

1-10. (T701, T701C) Under the modular maintenance concept, the T700-GE-701 and T700-GE-701C turboshaft engines (fig. 1-3) or (fig. 1-1) are divided into four modules (**T701**) (fig. 1-4) or (**T701C**) (fig. 1-2):

- Accessory Section Module (Accessory Gearbox)
- Cold Section Module (Compressor Section)
- Hot Section Module (Combustion Section)
- Power Turbine Module (Power Turbine)

1-11. The engine can be disassembled into the four modules. There are no special tools required to disassemble and assemble the engine at AVUM and at AVIM levels of maintenance.

1-12. The engine has several line replaceable units (LRU's). An LRU is a part which can be removed and replaced at AVUM level, with another like-part. See paragraph 1-27 for a list of LRU's.

1-13. The maintenance tasks, assigned to each level of maintenance, are listed in the Maintenance Allocation Chart (MAC) in Appendix B.

1-14. MAINTENANCE FORMS, RECORDS, AND REPORTS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DAPAM 738-751. The Army Maintenance Management System (TAMMS).

1-15. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Procedures for destroying Army materiel to prevent enemy use are listed in TM 750-244-1-5.

1-16. ADMINISTRATIVE STORAGE.

Instructions are provided in Section VII of this chapter.

1-17. QUALITY ASSURANCE/QUALITY CONTROL (QA/QC).

Refer to FM 1-411 for information about quality assurance and quality control.

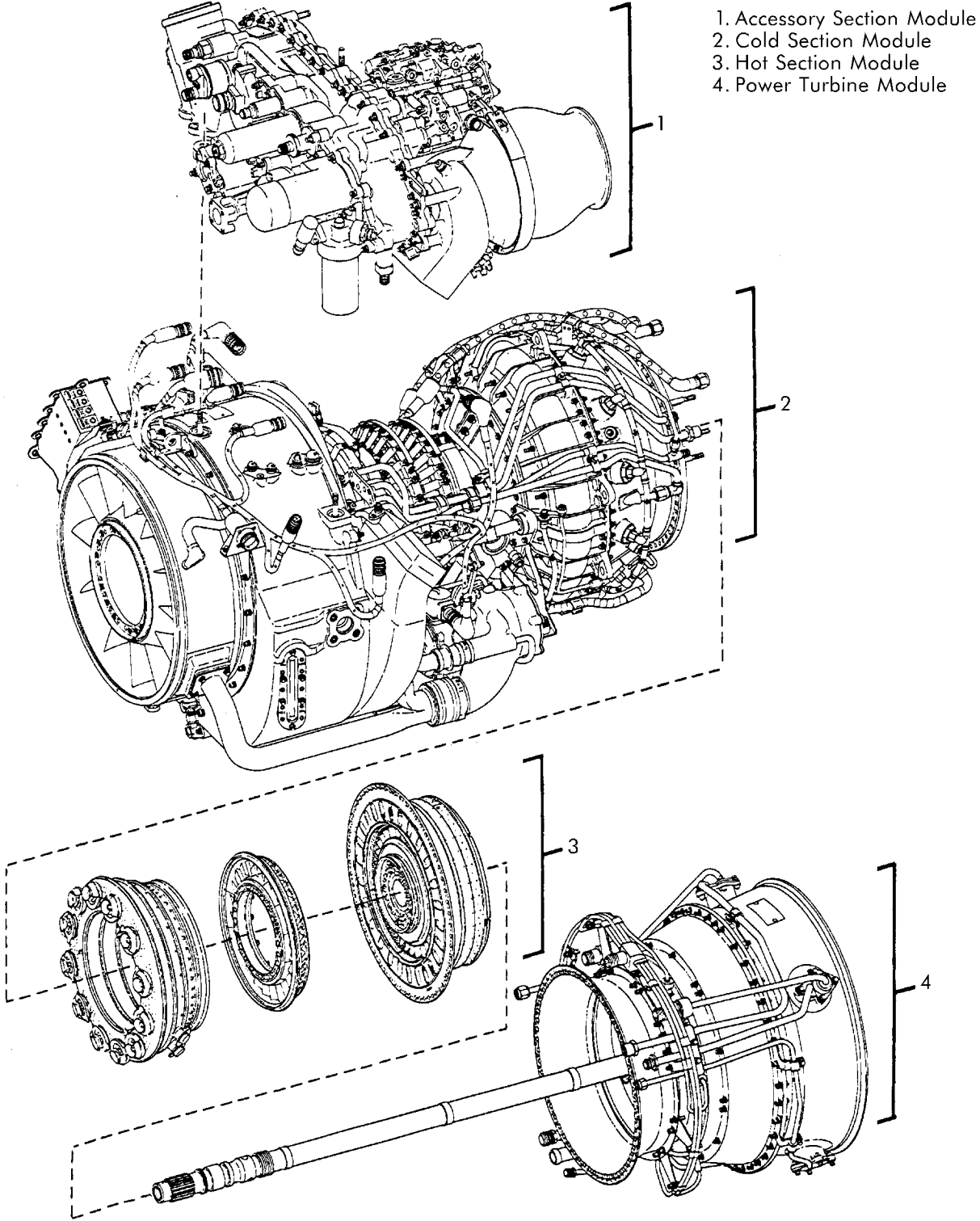


Figure 1-2. (T700, T701C) Engine Modules (Typical)

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