

TECHNICAL MANUAL

**OPERATOR'S, UNIT, INTERMEDIATE DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND
SPECIAL TOOLS LISTS)**

**POWER UNIT
PU-405A/M (NSN 6115-00-394-9577)
MEP-004A 15 KW 60 HZ GENERATOR SET
M200A1 2-WHEEL, 4-TIRE, MODIFIED
TRAILER**

This manual supersedes Chapter 2 of TM 5-6115-594-14&P, 25 September 1984.

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

13 JUNE 1988

TECHNICAL MANUAL 5-6115-625-14&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 13 June 1988

**Operator's, Unit, Intermediate, Direct Support and General Support
Maintenance Manual (Including Repair Parts and Special Tools Lists)**

for

POWER UNIT, PU-405A/M

(NSN 6115-00-394-9577)

MEP-004 15 KW 60 HZ GENERATOR SET

M200A1 2-WHEEL, 4-TIRE, MODIFIED TRAILER

Approved for public release; distribution is unlimited.

Page

CHAPTER 1.	INTRODUCTION	
Section I.	General	1-1
Section II.	Description and Data	1-2
CHAPTER 2.	OPERATING INSTRUCTIONS	
Section I.	Operating Procedures	2-1
Section II.	Operation of Auxiliary Equipment	2-1
Section III.	Operation Under Unusual Conditions	2-1
CHAPTER 3.	OPERATOR/CREW MAINTENANCE INSTRUCTIONS	
Section I.	Consumable Operating and Maintenance Supplies	3-1
Section II.	Lubrication instructions	3-1
Section III.	Preventive Maintenance Checks and Services (PMCS)	3-1
Section IV.	Troubleshooting	3-19
Section V.	Operator/Crew Maintenance	3-19
CHAPTER 4.	UNIT MAINTENANCE	
Section I.	Service Upon Receipt of Equipment	4-1
Section II.	Movement to a New Worksite	4-6
Section III.	Repair Parts, Special Tools, Special Test, Measurement and Diagnostic Equipment(TMDE)	4-7
Section IV.	Lubrication instructions	4-7
Section V.	Preventive Maintenance Checks and Services	4-8
Section VI.	Troubleshooting	4-13
Section VII.	Radio Interference Suppression	4-13
Section VIII.	Maintenance of Power Unit Trailer	4-13

This manual supersedes Chapter 2 of TM 5-6115-594-14&P dated 25 September 1984.

	Page
CHAPTER 5.	INTERMEDIATE (FIELD), DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE INSTRUCTIONS
Section I.	introduction 5-1
Section II.	Maintenance of Power Unit Trailer 5-1
Section III.	Generator Set 5-2
CHAPTER 6.	TEST AND INSPECTION AFTER REPAIR
Section I.	General Requirements 6-1
Section II.	Inspection 6-1
Section III.	Operational Tests 6-1
APPENDIX A.	REFERENCES A-1
APPENDIX B.	COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LIST B-1
APPENDIX C.	MAINTENANCE ALLOCATION CHART C-1
APPENDIX D.	UNIT, INTERMEDIATE (FIELD) (DIRECT SUPPORT AND GENERAL SUPPORT) AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST D-1

LIST OF ILLUSTRATIONS

Figure	Title	Page
1-1	Power Unit, Curbside Front, Three-Quarter View	1-3
1-2	Power Unit, Roadside Rear, Three-Quarter View	1-3
4-1	Power Unit Packed for Shipment.. . . .	4-1
4-2	Unpacking Power Unit	4-3
4-3	Installing Power Unit	4-5
4-4	External Fuel Line Connection	4-6
4-5	Fuel Can Bracket Replacement	4-14
4-6	Accessory Box Replacement	4-15
4-7	Fire Extinguisher Bracket Replacement	4-15
4-8	Front Steps Replacement	4-17
4-9	Rear Steps Replacement	4-19
4-10	Fender Replacement	4-21
4-11	Personnel Platform Replacement	4-22
5-1	Accessory Box Repair	5-1
5-2	Power Unit Markings	5-2
5-3	Detaching Generator Set From Trailer	5-3
5-4	Lifting Generator Set	5-4
B-1	Components of End Item	B-2
B-2	Basic Issue Items	B-3
D-1	Generator Set	D-10
D-2	Trailer Body	D-12
D-3	Accessory Box	D-16
D-4	Front Steps	D-18
D-5	Rear Steps	D-20
D-6	Fenders	D-22
D-7	Personnel Platform	D-24
D-8	Handbrakes	D-26
D-9	Adapter Assembly	D-28

LIST OF TABLES

Number	Title	Page
3-1	Consumable Operating and Maintenance Supplies	3-1
3-2	Operator/Crew Preventive Maintenance Checks and Services (MCS)	3-4
4-1	Unit Preventive Maintenance Checks and Services (PMCS)	4-9

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope. This manual is for use in operating and maintaining the Power Unit, PU-405A/M. The PU-405A/M is a mobile power unit used to supply power to any system or equipment requiring up to 15 KW of 50/60 Hz input operating power. In addition to operating instructions and operator, unit, and intermediate direct support and general support maintenance procedures, this manual contains a Repair Parts and Special Tools List for the power unit.

1-2. Limited Applicability. Some portions of this publications are not applicable to both services. These portions are prefixed to indicate the service to which they pertain: (A) for Army, and (F) for Air Force. Portions not prefixed are applicable to both services.

1-3. Maintenance Forms and Records.

- a. (A) Maintenance forms and records used by Army personnel are prescribed by DA Pam 738-750.
- b. (F) Maintenance forms and records used by Air Force personnel are prescribed in AFM66-1 and the applicable 00-20 Series Technical Orders.

1-4. Reporting of Errors. Reporting of errors and omissions and recommendations for improvement of this publication by the individual user is encouraged. Reports should be submitted as follows:

- a. (A) Army – DA Form 2028 directly to: Commander, US Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO, 63120-1798.
- b. (F) Air Force – AFTO Form 22 directly to: Commander, Sacramento Air Logistics Center, ATTN: MMEDT, McClellan Air Force Base, CA, 95652, in accordance with TO-00-5-1.

1-5. Reporting Equipment Improvement Recommendations (EIR). EIR's will be prepared using SF 368 Product Quality Deficiency Report. Instructions for preparing EIR's are provided in DA Pam 738-750, The Army Maintenance Management System. EIR's should be mailed directly to: Commander, US Army Troop Support Command, ATTN: AMSTR-QX, 4300 Goodfellow Boulevard, St. Louis, MO, 63120-1798.

1-6. Levels of Maintenance Accomplishment.

- a. (A) Army users shall refer to the Maintenance Allocation Chart (MAC) for tasks and levels of maintenance to be performed.
- b. (F) Air Force users shall accomplish maintenance at the user level consistent with their capability in accordance with policies established in AFM 66-1.

1-7. (A) Destruction of Army Materiel. Destruction of Army materiel to prevent enemy use shall be in accordance with TM 750-244-3.

1-8. Administrative Storage.

- a. Army equipment placed in administrative storage will have preventive maintenance performed in accordance with the PMCS tables before storage. When equipment is removed from storage, PMCS will be performed to ensure operational readiness.
- b. (F) For administrative storage procedures for Air Force equipment, refer to TO 35-1-4, Processing and Inspection of Aerospace Ground Equipment for Storage and Shipment.

1-9. Preparation for Shipment and Storage.

(F) Air Force - Refer to TO 35-1-4 for component of end item generator sets and TO 38-1-5 for installed engine.

Section II. DESCRIPTION AND DATA

1-10. Description. Power Unit PU-405A/M (figures 1-1 and 1-2) is made up of one Tactical Utility Generator Set, DOD Model MEP-004A, mounted on a modified M200A1 trailer. The generator set is a liquid-cooled, diesel engine-driven unit with a load capacity of 15 KW at 50/60 Hz. The trailer is a two-wheeled unit with dual tires mounted. The trailer has a 2-1/2-ton carrying capacity. The modifications to the basic trailer provide stowage for the accessories and all equipment necessary for mobile operation as well as providing a work platform for the operator and maintenance personnel.

1-11. Tabulated Data. The tabulated data provides operator and unit level personnel with the dimensions and weights for Power Unit, PU-405A/M. These specifications are computed from the combined dimensions and weights of the generator set and trailer as modified for use with the power unit. Specifications of the individual components can be found in their respective technical publications. For additional information concerning Generator Set, DOD Model MEP-004A, refer to TM 5-6115.464-12 and - 34. For additional information on the M200A1 trailer, refer to TM 9-2330-205-14&P. The tabulated data also includes the location and content of all data plates unique to the power unit.

a. Identification and Instruction Plates.

(1) *Identification Plate.*

(a) *Location.* This plate is located on the front roadside frame between the trailer body and the drawbar ring.

(b) *Content.*

US
POWER UNIT
PU 405A/M
KW 15
HERTZ 50/60
NSN 6115-00-394-9577

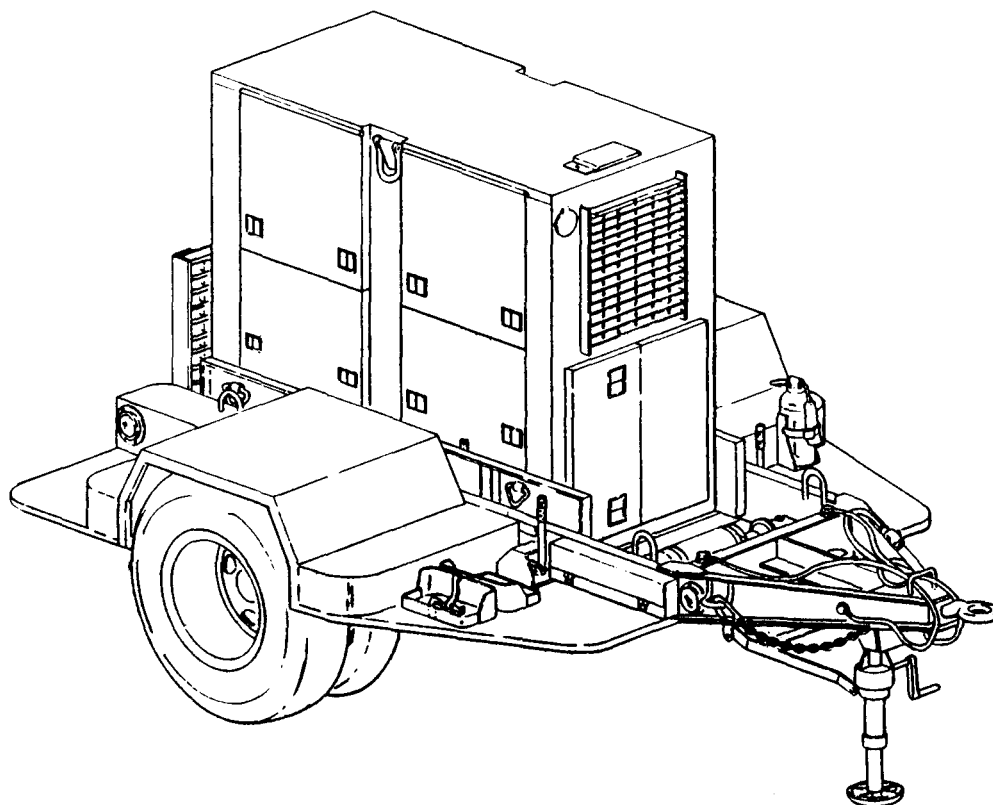


Figure 1-1. Power Unit, Curbside Front, Three-Quarter View.

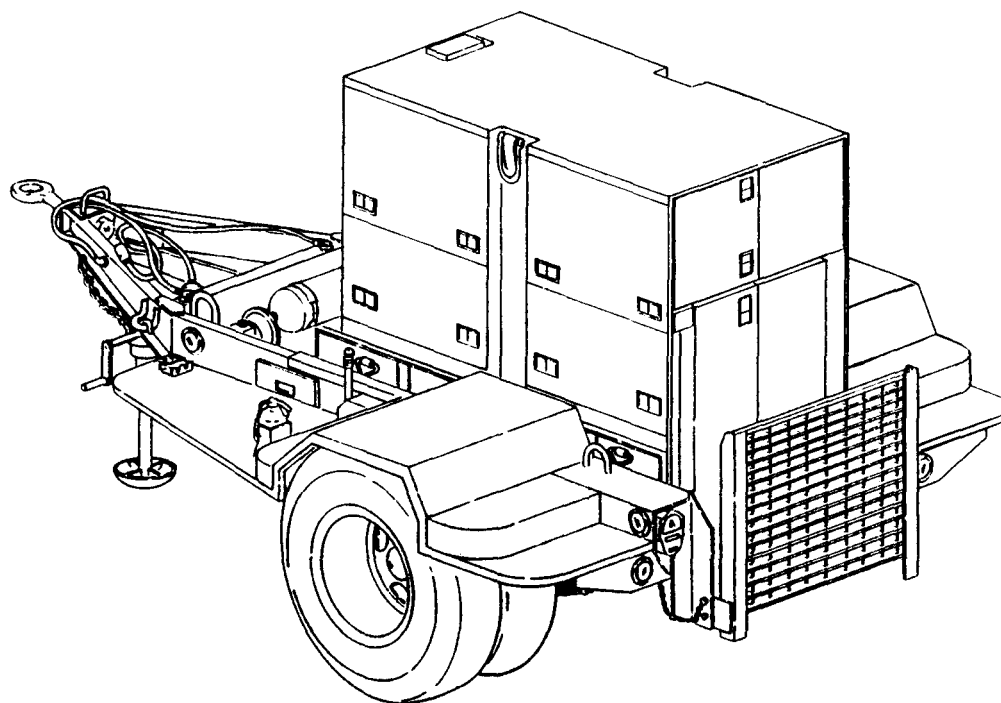


Figure 1-2. Power Unit, Roadside Rear, Three-Quarter View.