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# **DEPARTMENT OF DEFENSE HANDBOOK**

## **STANDARD FAMILY OF MOBILE ELECTRIC POWER GENERATING SOURCES**

### **GENERAL DESCRIPTION INFORMATION AND CHARACTERISTICS DATA SHEETS**



**This handbook is for guidance only.  
Do not cite this document as a requirement.**

**AMSC N/A**

**FSC 6115**

**MIL-HDBK-633A****FOREWORD**

1. This handbook is approved for use by the Department and Agencies of the Department of Defense.
2. This Military Handbook provides information on standard mobile electric power sources for use by all Departments and Agencies of the Department of Defense (DoD).
3. Preparation of this document has been authorized by the Department of Defense Directive 4120.11, Standardization of Mobile Electric Power (MEP) Generating Sources, April 13, 2004, which assigns to the Project Manager, Mobile Electric Power the responsibility for establishing the Department of Defense (DoD) Standard Family of Mobile Electric Power Generating Sources (MEPGS). This MEP handbook revises the Standard Family by the deletion of Military Standard gasoline engine-driven generator sets, the addition of the 2 kW Military Tactical Generator (MTG), the MEP-501A (DC) and the MEP-531A (AC), and the replacement of the 3 kW - 60 kW Standard Family of Diesel Engine Driven (DED) models by Tactical Quiet Generators (TQG). These present and proposed MEPGS and their associated trailer mounted configurations are included in **APPENDIX A** The Auxiliary Power Units (APU) MEP-952A and MEP-903A, which have been added to the Standard Family in accordance with guidance provided in SARD-ZCS Memorandum, are in **APPENDIX B**. The power distribution systems are in **APPENDIX C**.

The following are extracts from DoD Directive 4120.11: (Additional information on this policy can be found at: <http://www.dtic.mil/whs/directives/corres/pdf/412011p.pdf>).

#### “4. POLICY

4.1. It is DoD policy to:

4.1.1. Establish, maintain, and provide a DoD standard family of MEP generating Sources for maximum DoD Component use.

4.1.2. Implement the standardization policies of DoD Instruction 5000.2 (reference (b)) on MEP generating sources through the establishment of common military operational requirements, design and development, procurement, logistic support, and operational use by:

4.1.2.1. Planning and coordinating the DoD development, engineering, and product improvement efforts. The requirements will be satisfied to the maximum practicable extent through the use of nondevelopmental items, in accordance with Part 6, Section L of reference (b).

4.1.2.2. Ensuring the availability of standard MEP generating sources that will meet DoD-wide needs with the required electrical performance, reliability, maintainability, durability, and versatility by the most cost-effective means.

4.1.2.3. Reducing diversification of MEP generating sources entering the DoD supply system, thus minimizing logistic support without compromising mission accomplishment of the DoD Components.

4.1.2.4. Standardizing, to the maximum extent practicable, the electrical output characteristics of the MEP generating sources, consistent with military systems and equipment needs under MIL-HDBK-633 (reference (c)).”

#### 4. Fuel Standardization Policy

DoD Directive 4140.25, Subject: DoD Management Policy for Energy Commodities and Related Services establishes DoD bulk Petroleum Management Policy. The fuel standardization policy, paragraph 4.2 of the DOD Directive 4140.25, follows:

“4.2. Fuel Standardization. The Combatant Commanders shall develop plans to minimize the types of fuels required in joint operations. The Military Services shall design and

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procure weapon systems, support equipment, and vehicles. The Military Services will also qualify new systems to use readily available commercial-type fuels. Standard fuels approved by the Defense Standardization Program are listed in the Department of Defense Specifications and Standards under Federal Supply Group 91 listed in the ASSIST database. Primary fuel support for land-based air and ground forces in all theaters (overseas and in the Continental United States) shall be accomplished using a single kerosene-based fuel, in order of precedence: JP-8, commercial jet fuel (with additive package), or commercial jet fuel (without additives), as approved by the Combatant Commander. Fuel support for ground forces may also be accomplished using commercially available diesel fuel when supplying jet fuel is not practicable or cost effective. Primary fuel support for sea-based aircraft shall be a high-flash kerosene-based fuel, designated JP-5. In overseas theaters where the predominant fuel requirement is in support of the Navy, JP-5 may be substituted for JP-8, as approved by the Combatant Commander. Conventionally powered ships shall use a distillate-type fuel, designated F-76 for propulsion. Military Sealift ships may use commercial marine fuels for propulsion. The type of fuel designated for the battlefield shall be specified by the Combatant Commander depending on fuel availability and equipment to be used within the theater. To the maximum extent practical, no new combat support or combat service support equipment or vehicles requiring gasoline-type fuels shall be acquired or developed unless the support concept is to supply fuel as a packaged product."

5. Beneficial comments (recommendations, additions, deletions) and any pertinent data, which may be of use in improving this document, should be addressed to DEPARTMENT OF THE ARMY, DOD PROJECT MANAGER - MOBILE ELECTRIC POWER, 5809 DELAFIELD ROAD BLDG 324, FORT BELVOIR, VA 22060-5809. Since contact information can change you may want to verify the currency of this address information using the ASSIST Online database at : <http://assist.daps.dla.mil>.

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**MIL-HDBK-633A****1. SCOPE**

1.1 General. This handbook provides detailed information on the physical and electrical characteristics and logistical data on the DoD approved Standard Family of Mobile Electric Power Generating Sources. This handbook is a catalog of all PM-MEP mobile power source products for use by all Departments and Agencies of the DoD. This handbook is for guidance only and cannot be cited as a requirement.

1.2 Application. The handbook has been prepared for use by all Departments and Agencies of the DoD in selecting engine-driven generator sets and ancillary equipment for applications requiring mobile sources of electric power and to assist the Project Manager, Mobile Electric Power (PM-MEP) in effecting management and standardization of such sources of power within the DoD. The engine-driven generator sets listed herein are the only mobile sets authorized for procurement. DoD components with mobile electric power requirements within the range of 0.5 kW through 1.1 megawatt, whose needs cannot be satisfied by one of the listed generator sets, must obtain deviation approval from the PM-MEP before taking any procurement action. Special instructions on the preparation and submittal of deviations are contained in the Logistics Joint Operating Procedures AR 700-101, AFI 63-110(I), NAVFACINST 4120.12, MCO 11310.8C, DLAR 4120.16 titled Management and Standardization of Mobile Electric Power Generating Sources. Online versions are available at: [http://www.apd.army.mil/pdf/files/r700\\_101.pdf](http://www.apd.army.mil/pdf/files/r700_101.pdf).

**2. APPLICABLE DOCUMENTS**

2.1 General. The documents listed below are not necessarily all of the documents referenced herein, but are the ones necessary to understand the information provided by this handbook.

2.2 Government documents.

2.2.1 Specifications and standards. The following specifications and standards form a part of this document to the extent referenced herein. Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or from the Standardization Document Order Desk, 700 Robbins Avenue, building 4D Philadelphia, PA 19111-5094.

**DEPARTMENT OF DEFENSE****STANDARDS**

|              |                                                                                                                                                   |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| MIL-STD-461  | REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT                                          |
| MIL-STD-705  | GENERATOR SETS, ENGINE-DRIVEN, METHODS OF TESTS AND INSTRUCTIONS                                                                                  |
| MIL-STD-1332 | DEFINITIONS OF TACTICAL, PRIME, PRECISE AND UTILITY TERMINOLOGIES FOR CLASSIFICATION OF THE DOD MOBILE ELECTRIC POWER ENGINE GENERATOR SET FAMILY |

**SPECIFICATIONS**

|               |                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------|
| MIL-DTL-53072 | CHEMICAL AGENT RESISTANT COATING (CARC) SYSTEM APPLICATION PROCEDURES AND QUALITY CONTROL INSPECTION |
| MIL-DTL-22992 | CONNECTORS, PLUGS AND RECEPTACLES, ELECTRICAL, WATERPROOF, QUICK DISCONNECT, HEAVY DUTY TYPE         |

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2.2.2 Other Government publications. The following other Government publication forms a part of this document to the extent specified herein. This document can be downloaded at the following link: <http://www.globalsecurity.org/military/library/policy/army/fm/5-424/index.html>.

ARMY FIELD MANUALS

FM 5-424

THEATER OF OPERATIONS ELECTRICAL MANUALS

### 3. DEFINITIONS

3.1 General. The following acronyms and definitions are used in this handbook .

3.2 Acronyms used in this handbook . Defined acronyms follow:

- a. ABCA - American, British, Canadian, Australian (Quadripartite subset of NATO).
- b. DED - Diesel Engine Driven.
- c. DoD - Department of Defense.
- d. DSN - Defense Switched Network (formerly AUTOVON). A military telephone system.
- e. MTBEFF – Mean Time Between Essential Function Failure.
- f. GED - Gasoline Engine Driven.
- g. GS - General Support.
- h. GTED - Gas Turbine Engine Driven.
- i. LIN - Line Item Number. A six character identifier of a generic nomenclature, where the generic nomenclature is the family name of an item or group of items whose physical traits and functional abilities are sufficiently alike to be issued to meet the same operational requirements. A LIN generally includes several National Stock Numbers.
- j. NATO - North Atlantic Treaty Organization.
- k. NSN - National Stock Number. A unique identifier for stocking an item.
- l. OEM - On Equipment Material.
- m. PICA - Primary Inventory Control Activity. See 3.21
- n. PU/PP - Power Unit/Power Plant. See 3.19 and 3.20.
- o. RMS - Root Mean Square. An averaging method. For a sine wave  $RMS = .707 \text{ Peak}$ .
- p. SSN - Standard Study Number. A federal budget identifier for procuring an item.
- q. STANAG - Standardization Agreement (of NATO).
- r. QSTAG - Quadripartite Standardization Agreement (of ABCA).

3.3 Accessory box. An accessory box is an aluminum or steel box mounted to the PU/PP trailer which contains items necessary for the set-up, operation, or maintenance of the unit. These items include: ground rods, a sledge hammer or ground rod driver/puller, technical manuals and fuel can adapters, which are referred to as ancillary equipment.

3.4 Bandwidth. Bandwidth is the distance between two lines drawn parallel to the axis of chart movement, one each passing through the center points of maximum and minimum trace excursion respectively during any steady-state electrical load condition. Bandwidth may refer to voltage, frequency or speed and is expressed as a percentage of rated voltage, frequency or speed.

3.5 Camouflage pattern. A three-color pattern designed to disrupt the silhouette or outline of a piece of equipment making it difficult to distinguish the equipment from its surroundings.

3.6 Classification. See MIL-STD-1332 for classification of sets as to type, class, and mode.

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3.7 Deviation Factor. The deviation factor of a voltage waveform is the ratio of the maximum difference between corresponding ordinates of the voltage waveform and of the equivalent sine wave to the maximum ordinate of the equivalent sine wave when the waves are superimposed in such a way as to make this maximum difference as small as possible.

3.8 Dip. Voltage dip is the decrease in voltage resulting from sudden application of load to a generator set. It is measured from the mean of the observed steady-state voltage band prior to the load change to the minimum voltage excursion. Voltage dip includes the effects of voltage regulation, whereas undershoot does not.

3.9 Failure. The inability of an item to perform within previously specified limits.

3.9.1 Relevant Failure. A relevant failure is any malfunction the operator cannot remedy by normal adjustment action using the set controls and equipment and which causes or may cause any or all of the following: inability to commence operation, cessation of operation or degradation of performance capability of the system/subsystem below designated levels, serious damage to system/subsystem by continued operation; or serious personnel hazard.

3.9.2 Non-relevant Failures. Any failure not used to compute set/unit reliability such as:

- a. Failures which do not prevent the set/unit from meeting the specified power output requirement, e.g., a panel light burns out.
- b. Failures caused by operator error where proper procedures are documented in technical manuals, instruction plates mounted on the set/unit or both; e.g., use of improper lubricant.
- c. Secondary failures caused by failures in the powered equipment or other occurrences in the environment when integral protection is not provided against such equipment failure or occurrence, e.g., explosion or fire.
- d. Failures which may be corrected by normal operator functions, e.g., readjustment of voltage after the 4-hour long-term stability period.
- e. Failures because of characteristics of the load, e.g., waveform distortion caused by saturated inductors.
- f. Failures because of design deficiencies when subsequent testing demonstrates that the design deficiency has been corrected.
- g. Secondary failures caused by primary failure because of a design deficiency when subsequent testing demonstrates that the design deficiency has been corrected.
- h. Failures resulting from operating items beyond requirements, e.g., if ball joints scheduled for replacement at 2500 hours are run to failure to determine mean life, failures after 2500 hours are non-relevant failures.

3.10 Harmonic. A harmonic is a component of a periodic quantity which is an integral multiple of the fundamental frequency. For example, a component of frequency which is twice the fundamental frequency is called the second harmonic. For an AC generator set, the magnitudes (in percent of fundamental component amplitude) of any harmonics present may not exceed the "individual harmonic" value specified for the set.

3.11 Hertz. Hertz (Hz) is the international unit of frequency.

3.12 Mean Time Between Failure (MTBF). For exponentially distributed failures, the Mean Time Between Failure (MTBF) is the reciprocal of the failure rate. Observed MTBF is equal to the total operating time of the equipment divided by the number of relevant failures. Observed MTBF is a point estimate. Upper and lower confidence limits can be established for a given test plan.

3.13 Mobile Electric Power Generating Sources (MEPGS). All mobile, electric power generating sources, 920-kilowatt (kW) and smaller, which are skid mounted, wheel mounted, or man-portable that are complete equipment assemblages or part of an assemblage, and that are capable of independently producing electric power when operating on diesel, gasoline, or other fuel from integral or remotely located fuel sources. MEPGS that have been incorporated into the DoD Standard Family are identified in this military handbook .

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3.14 Observed Steady-State Band. The observed steady-state band is the actual bandwidth determined by test of the voltage, frequency or speed. The observed steady-state band is differentiated from the prescribed steady-state band in that the prescribed steady-state band is the maximum bandwidth permitted by the specification.

3.15 Overshoot. Overshoot is the surge increase in speed, frequency or voltage above the mean of the observed steady-state band resulting from a sudden decrease in electrical load on a generator set. Overshoot is specified as a percentage of the rated speed, frequency or voltage.

3.16 Paralleling. The electrical connection of two or more electrical power generating sources in order to meet a power demand greater than that supplied by any single unit.

3.17 Phase Balance Voltage. Phase balance voltage is the difference in percent of voltage between the phases of a multi-phase generator set when the set is operating at rated voltage, rated frequency, and no load.

3.18 Power Factor. The power factor is a ratio, between zero and one, used to correct the apparent power (volts x amps) to the actual power. A phase difference between the voltage and the current, caused by capacitive and/or inductive loads, reduces the power consumption since the peak voltage no longer multiplies the peak current and vice versa.

3.19 Power Plant (PP). A trailer mounted generator set configuration consisting of two generator sets, one or two trailers, a switch box and usually an accessory box (with hammer, ground rods, and puller) and a fire extinguisher on each trailer. Details are provided in Characteristics Sheet.

3.20 Power Unit (PU). A trailer mounted generator set configuration consisting of one generator set, one trailer and usually an accessory box (with hammer, ground rods, and puller) and a fire extinguisher. Details are provided in Characteristics Sheet.

3.21 Primary Inventory Control Activity (PICA). The activity within DoD designated as responsible for the functions of procurement, cataloging, depot maintenance, and disposal on an item basis.

3.22 Rated load. The condition resulting when a generator set is operating at rated frequency, rated voltage, rated current, and rated power factor as specified on the generator name plate. It is normally stated as a given kilowatt value at a given power factor.

3.23 Reconnectable. A reconnectable generator set has provisions for reconnecting the generator phase windings from single phase to three phase and from low voltage to high voltage depending on the size and type of generator set.

3.24 Recovery Time. Recovery time is the elapsed time from the time the frequency trace leaves the prescribed steady-state band until the trace returns to and remains within the prescribed steady-state band as a result of a load change. The same definition applies to voltage and frequency recovery time.

3.25 Regulation. Frequency regulation is the maximum difference between the no-load value of frequency, and the value at any load up to and including rated load. This difference is expressed as percentage of the rated frequency. The voltage regulation is expressed similarly except that the Root Mean Square (RMS) value of voltage is used.

3.26 Ripple Voltage. Ripple voltage is the alternating component in the output voltage of a DC generator.

3.27 Rise. Voltage rise is the surge in voltage resulting from sudden removal of load from a generator set. It is measured from the mean of the observed steady-state voltage band prior to the load change to maximum voltage excursion. Voltage rise includes the effects of voltage regulation, whereas overshoot does not.

3.28 Stability. Frequency stability describes the tendency of the frequency to remain at a constant value. Generally, the instantaneous value of frequency is not constant but varies randomly above and below a mean value. Stability may be described as either short-term or long term depending upon the length of time that the frequency is observed. Another term, bandwidth, describes the limits of these variations. Voltage stability is described similarly.

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3.29 Steady-State. Steady-state is the operating condition, at constant load, after transients have settled out.

3.30 Type Classified for Army Use. Type Classification (TC) is a process by which the Army identifies the degree of acceptability of a material item for Army use. The TC is the Army's implementation of the DoD requirement that an item is "approved for service use" before expending procurement funds. The types of classification categories are: Limited Procurement (LP), Standard (STD), and Generic.

3.31 Undershoot. Undershoot is the surge decrease in speed, frequency, or voltage below the mean of the observed steady-state band resulting from a sudden increase in electrical load on a generator set. Undershoot is specified as a percentage of the rated speed, frequency, or voltage.

3.32 Voltage Modulation. The peak value of a voltage waveform may vary with time. Voltage modulation is the difference in the absolute value of the peak voltage readings stated as a percentage of average absolute peak voltage.

#### 4. GENERAL REQUIREMENTS

##### 4.1 Safety.

4.1.1 Grounding. Electrical power generating and distribution systems must be properly grounded to prevent hazards to operators and using personnel. Techniques for grounding power generating systems are included in FM 5-424, Electric Power Generation in the Field. A three-piece sectional ground rod is available in the DoD supply system that can be used to obtain an adequate ground under most soil conditions.

4.1.2 Fire Protection. Adequate fire protection must be provided in the area in which the generator set will be used. Fire extinguisher, NSN: 4210-00-270-4512, is recommended.

4.1.3 Noise Protection. Adequate hearing protection must be utilized in the vicinity of most operating generator sets. Prolonged exposure to the high intensity noise produced by some operating generator sets can cause permanent hearing damage or complete loss of hearing. Operation of the TQG and other quiet generators does not require hearing protection as long as the acoustic covers are not opened or removed.

4.2 Delivered condition. Details of delivered condition, operating supplies, optional equipment, and accessories are contained in the applicable Appendix. Trailer mounted configurations are delivered with more accessories including the fire extinguisher and an additional set of ground rods.

4.2.1 Camouflage Patterns. Most items covered by this handbook are delivered with either a three color (green, brown, black) camouflage pattern or painted desert sand, as required. Some exceptions exist and some items may be painted a solid green while other items may be painted flight line yellow.

4.2.2 Chemical Agent Resistant Coating (CARC). Chemical Agent Resistant Coating (CARC), applied in accordance with MIL-DTL-53072, is the finish now required for all Army equipment. CARC, a polyurethane finish, is designed to be resistant to Nuclear, Biological, and Chemical (NBC) agents and allow easy clean up and decontamination. In addition, CARC will not be affected by the chemical agent decontamination chemicals which would remove most other paints.

##### 4.2.3 Skid sets.

a. Safety Items. Production generator sets may or may not be delivered with fire extinguishers, ground rods or ground rod slide hammer/puller. Units may obtain a 5 pound carbon dioxide fire extinguisher (NSN 4210-00-270-4512), 3-foot-sections of ground rod (NSN 5975-00-878-3791) and a ground rod slide hammer/puller (NSN 5120-01-013-1676).

b. Batteries. All 3 kW through 840 kW generator sets use Optima batteries. The 2 kW set has no battery and is rope started and also has a starting motor powered through a NATO slave receptacle. The 100 and 200 kW TQG sets use 12V starved electrolyte batteries.

c. Auxiliary Fuel Line. A 25 foot auxiliary fuel line is furnished with the 5 kW through 200 kW diesel engine driven generator sets. Fuel lines for the other sets may be ordered or fabricated on site in accordance with drawing 69-668, titled, Auxiliary Fuel Line, see Figure 1.

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d. Ether starting aid. The 15 kW through 200 kW diesel engine driven generator sets may be equipped with an internal ether starting aid for temperatures below 40 °F. Ether bottles may be obtained as NSN 2910-00-209-4997.

e. Paralleling cables. Paralleling cables are provided with sets sizes 15 through 750 kW. Sets can only be paralleled to the same model.

f. Power output terminals. Power output terminals consist of split-lug terminals with captive nuts. A series of standard power output receptacles (MIL-DTL-22992) are available through the supply system. The Power Distribution and Illumination System, Electrical (PDISE) interfaces to the power output terminals via a pigtail connection. The old 15-200 kW DoD generator sets have two (2) panels that can be used for mounting the standard receptacles needed by the user.

4.2.4 Trailer mounted sets. The trailer mounted sets (Power Units and Power Plants (PUPP)) are delivered with one or more fire extinguishers, ground rods, ground rod driver/puller, and 8 pound hammer. Several trailers are used in Power Unit and Power Plant configurations. Details have been included in the appropriate appendices.

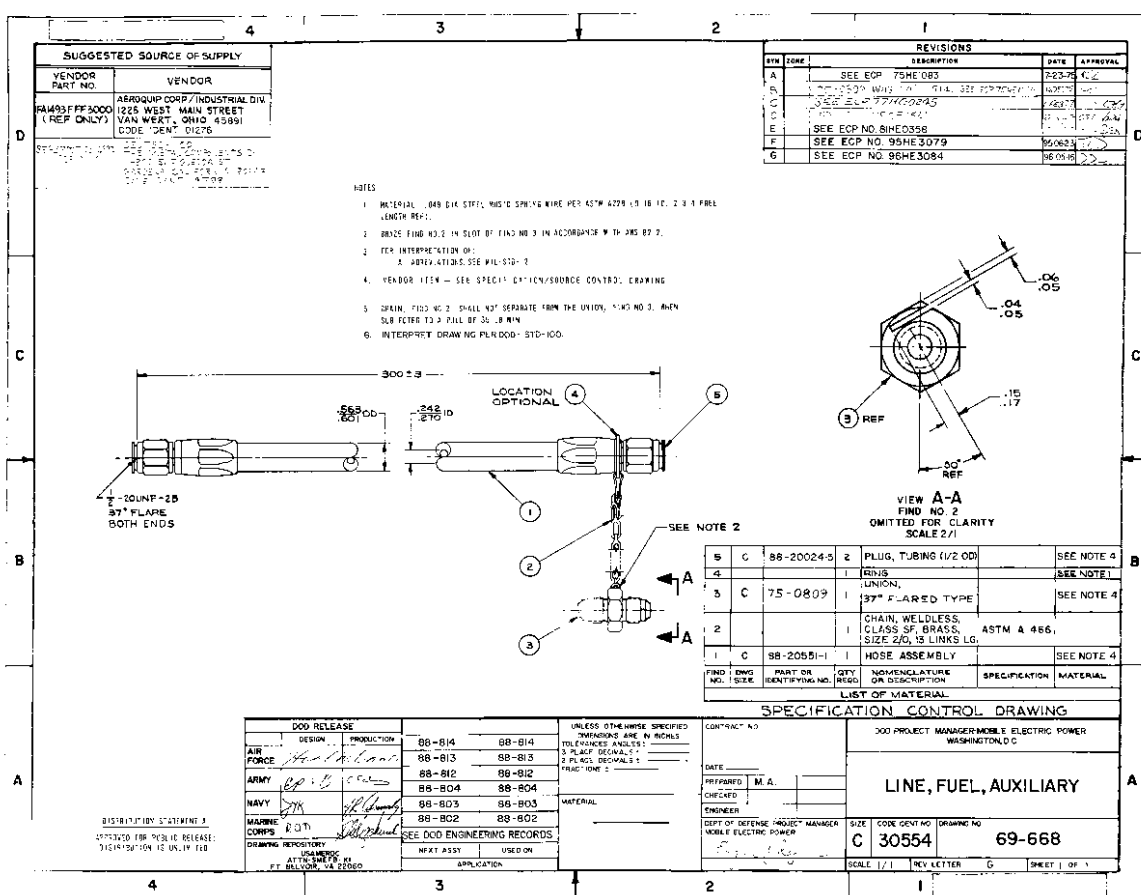


Figure 1 Auxiliary Fuel Line

## 5. DETAILED REQUIREMENTS.

5.1 Data Sheets. Detailed data on DoD standard family engine generator sets and associated items are contained in the Data Sheets of APPENDIX A through **APPENDIX C.**

5.1.1 Item Description. Data contained in the sheets provide adequate physical description and performance characteristics to permit selection of the item best suited for a specific application. In addition, photographs and outlined drawings are included to facilitate application planning.

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5.1.2 Parametric Values. The parametric values cited within these data sheets are the maximum allowable limits over the specified environmental range. Specified parametric values were determined using the test procedures delineated in MIL-STD-705, Generator Sets, Engine-Driven, Methods of Tests and Instructions. For a more complete description, see applicable specifications, drawings, and referenced documents.

## 6. ITEMS OF NOTE

6.1 Purpose. This military handbook is a catalog of PM-MEP products. This document is not to be used for procurement purposes.

6.2 Supersession Data: MIL-HDBK-633A supersedes MIL-HDBK-633.

6.3 National Stock Numbers (NSN). National Stock Numbers for mobile electric power generator sets and associated equipment are provided in [Tables: I, II, A-I, B-I and C-I](#), and in the individual data sheets.

6.4 MEPGS Program Status. Current information on the DoD MEPGS program is available on the PM-MEP website: <http://www.pm-mep.army.mil>. To determine the availability of desired generator sets or associated equipment and to assure proper and timely acquisition of MEPGS, users of this handbook are advised to contact PM-MEP at:

Project Manager - Mobile Electric Power  
5850 Delafield Road, Bldg 324  
Fort Belvoir, Virginia 22060-5809  
Phone: (703)704-3162, DSN: 654-3162  
Fax:(703)704-3257, DSN: 654-3257  
Website: <http://www.pm-mep.army.mil>  
Email: See website

6.5 Mobile Electric Power Generating Source Development Program. A Mobile Electric Power Generating Source (MEPGS) development program is managed by the DoD Project Manager - Mobile Electric Power. The Advanced Medium Mobile Power Sources (AMMPS) program, which covers power sources in the 5 to 60 kW range, is presently in development. This program, which utilizes emerging and innovating technology, is expected to produce quieter, more efficient and lighter weight generator set in the FY 2011-2013 timeframe. If users of this handbook cannot find a suitable generator set within the DoD Mobile Electric Power Engine-Driven Generator Standard Family as presented in this Handbook, they are advised to contact the PM-MEP (see Para 6.4). The PM-MEP office can obtain status of any development program(s) and determine if a suitable power source will be available when needed.

6.6 Items not Army Type-Classified. Army Type-Classification (see 3.30) is a procedure described by AR 70-1 to designate Army materiel acquisition status. Some mobile electric power generating sources included in this document have not been Type-Classified for Army use and are identified by "Not Type-Classified for Army Use." These items have been approved for use by another service. Other items, such as the Auxiliary Power Units (APUs), have been Army type-classified as part of a larger system and are not separately fielded. These items are identified by "Not Separately Type-Classified."

6.7 Cross reference. Table I provides a cross reference of the figure numbers to the model number, item descriptions, NSN, LIN, SSN, and page number. Table I is listed by generator size within the three appendices. Table II provides this information ordered by model number.

6.8 Subject term (key word) listing.

Auxiliary Power  
Generator  
Generator set  
Power Plant  
Power Unit  
Power Distribution

## MIL-HDBK-633A

Table I Cross Reference by Generator Size

| FIG          | MODEL            | ITEM DESCRIPTION                                                                        | NSN              | LIN    | SSN    | Page |
|--------------|------------------|-----------------------------------------------------------------------------------------|------------------|--------|--------|------|
| Figure A-1   | MEP-501A         | 2 kW MTG, 28 VDC, DED, Tubular Frame                                                    | 6115-01-435-1567 | G36169 | M59400 | 16   |
| Figure A-1   | MEP-501A         | 2 kW MTG, 28 VDC, DED (First Buy)                                                       | 6115-21-912-0392 | G36169 | M59400 | 16   |
| Figure A-1   | MEP-531A         | 2 kW MTG, 60 Hz, DED, Tubular Frame                                                     | 6115-01-435-1565 | G36237 | M59400 | 16   |
| Figure A-1   | MEP-531A         | 2 kW MTG, 60 Hz, DED (First Buy)                                                        | 6115-21-912-0393 | G36237 | M59400 | 16   |
| Figure A-2   | MEP-831A         | 3 kW TQG, 60 Hz, DED, Skid Mtd                                                          | 6115-01-285-3012 | G18358 | M59400 | 18   |
| Figure A-2   | MEP-832A         | 3 kW TQG, 400 Hz, DED, Skid Mtd                                                         | 6115-01-287-2431 | G74847 | M59400 | 18   |
| Figure A-3   | PP-AN/MJQ-42     | 3 kW TQ Power Plant, 60 Hz, TRLMTD                                                      | 6115-01-322-8583 | Z13645 | R62700 | 21   |
| Figure A-4   | PP-AN/MJQ-43/43A | 3 kW TQ Power Plant, 60 Hz, TRLMTD                                                      | 6115-01-322-8582 | Z13713 | R62700 | 21   |
| Figure A-5   | MEP-802A         | 5 kW TQG, 60 Hz, DED, Skid Mtd                                                          | 6115-01-274-7387 | G11966 | M53500 | 22   |
| Figure A-5   | MEP-812A         | 5 kW TQG, 400 Hz, DED, Skid Mtd                                                         | 6115-01-274-7391 | G12102 | M53500 | 22   |
| Figure A-6   | PU-797A          | 5 kW TQ Power Unit, 60 Hz, TRLMTD                                                       | 6115-01-413-3820 | G42238 | R62700 | 24   |
| Figure A-7   | PP-AN/MJQ-35A    | 5 kW TQ Power Plant, 60 Hz TRLMTD                                                       | 6115-01-414-9697 | P28083 | R62700 | 25   |
| Figure A-8   | PP-AN/MJQ-36     | 5 kW TQ Power Plant, 60 Hz TRLMTD                                                       | 6115-01-313-4215 | P28151 | R62700 | 26   |
| Figure A-9   | MEP-803A         | 10 kW TQG, 60 Hz, DED, Skid Mtd                                                         | 6115-01-275-5061 | G74711 | M53500 | 27   |
| Figure A-9   | MEP-813A         | 10 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-274-7392 | G74779 | M53500 | 27   |
| Figure A-10  | PU-798A          | 10 kW TQ Power Unit, 60 Hz, TRLMTD                                                      | 6115-01-413-3818 | G42170 | R62700 | 30   |
| Figure A-11  | PU-799A          | 10 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-413-3819 | G53403 | R62700 | 31   |
| Figure A-12  | PP-AN/MJQ-37     | 10 kW TQ Power Plant, 60 Hz, TRLMTD                                                     | 6115-01-299-6035 | P42262 | R62700 | 32   |
| Figure A-13  | PP-AN/MJQ-38     | 10 kW TQ Power Plant, 400 Hz, TRLMTD                                                    | 6115-01-313-4214 | P42330 | R62700 | 33   |
| Figure A-14  | MEP-804B         | 15 kW TQG, 50/60 Hz, DED, Skid Mtd                                                      | 6115-01-530-1458 | G12170 | M53500 | 34   |
| Figure A-14  | MEP-814B         | 15 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-529-9494 | G12238 | M53500 | 34   |
| Figure A-15  | PU-800A          | 15 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-565-0929 | G78203 | R62700 | 36   |
| Figure A-16  | PU-801B          | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-565-0874 | G78374 | R62700 | 37   |
| Figure A-17  | PU-802A          | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-565-1576 | G53778 | R62700 | 38   |
| Figure A-18  | PP-AN/MJQ-39B    | 15 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-565-0701 | P42614 | R62700 | 39   |
| Figure A-19  | PP-AN/MJQ-48B    | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-565-0691 | Z01012 | R62700 | 40   |
| Figure A-20  | MEP-805B         | 30 kW TQG, 50/60 Hz, DED, Skid Mtd                                                      | 6115-01-461-9335 | G74575 | M53500 | 41   |
| Figure A-20  | MEP-815B         | 30 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-462-0290 | G74643 | M53500 | 41   |
| Figure A-21  | PU-803B          | 30 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-470-6376 | G35851 | R62700 | 44   |
| Figure A-22  | PU-804B          | 30 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-471-1507 | G35919 | R62700 | 45   |
| Figure A-23  | PP-AN/MJQ-40B    | 30 kW TQ Power Plant, 50/60 Hz TRLMTD                                                   | 6115-01-474-3783 | P42126 | R62700 | 46   |
| Figure A-24  | MEP-806B         | 60 kW TQG, 50/60 Hz, DED, Skid Mtd                                                      | 6115-01-462-0291 | G12034 | M53500 | 47   |
| Figure A-24  | MEP-816B         | 60 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-462-0292 | G18052 | M53500 | 47   |
| Figure A-25  | PU-805B          | 60 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-471-1508 | G78306 | R62700 | 50   |
| Figure A-26  | PU-806B          | 60 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-471-1506 | G17406 | R62700 | 51   |
| Figure A-27  | PP-AN/MJQ-41B    | 60 kW TQ Power Plant, 50/60 Hz, TRLMTD                                                  | 6115-01-474-3776 | P42194 | R62700 | 52   |
| Figure A- 28 | PP-AN/MJQ-1612   | Power Plant, TQG, 60 kW, 400 Hz, TRLMTD                                                 | 6115-01-349-1536 |        | M510   | 42   |
| Figure A- 29 | PP-AN/MJQ-1632   | Power Plant, TQG, 60 kW, 50/60 Hz, TRLMTD                                               | 6115-01-346-0157 |        | M510   | 52   |
| Figure A-30  | MEP-807A         | 100 kW TQG, 50/60 Hz, DED, Skid Mtd                                                     | 6115-01-296-1463 | Z47502 | M54400 | 54   |
| Figure A-31  | PU-807A          | 100 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                  | 6115-01-471-7088 | G17664 | M54400 | 58   |
| Figure A-32  | MEP-809A         | 200 kW TQG, 50/60 Hz, DED, Skid Mtd                                                     | 6115-01-296-1462 | G1752B | M54400 | 59   |
| Figure A-33  | PU-809A          | 200 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                  | 6115-01-471-7085 | G26345 | M54400 | 62   |
| Figure A-34  | PU-810A          | 840 kW PU, 50/60 Hz, DED, WHLMTD (AF)                                                   | 6115-01-486-4033 | N/A    | N/A    | 63   |
| Figure A-35  | PU-810B          | 840 kW PU, 50/60 Hz, DED, TRLRMTD                                                       | 6115-01-486-4032 |        |        | 63   |
| FIG          | MODEL            | ITEM DESCRIPTION                                                                        | NSN              | LIN    | SSN    | Page |
| Figure B- 1  | MEP-952          | 5 kW, 28 VDC, DED/APU                                                                   | 6115-01-317-2139 |        |        | 68   |
| Figure B- 2  | MEP-903A         | 10 kW, 60 Hz, DED/APU                                                                   | 6115-01-431-3062 |        |        | 70   |
| FIG          | MODEL            | ITEM DESCRIPTION                                                                        | NSN              | LIN    | SSN    | Page |
| Figure C- 1  | MEP-362A         | 10 kW, 28VDC, GTED, Aircraft Support Unit, Integral wheel mount                         | 6115-01-161-3992 |        |        | 74   |
| Figure C- 2  | MEP-356A         | 60 kW, 400 Hz; 2 kW, 28VDC; Pneumatic, Self Propelled, GTED, Aviation Ground Power Unit | 6115-00-420-8486 |        |        | 76   |
| Figure C- 3  | MEP-357A         | 72 kW, 400 Hz; 21 kW, 28VDC; Self Propelled, DED, Aviation Support Unit                 | 6115-00-110-1859 |        |        | 78   |

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Table II Cross Reference ordered by model number

| FIG          | MODEL            | ITEM DESCRIPTION                                                                        | NSN              | LIN    | SSN    | Page |
|--------------|------------------|-----------------------------------------------------------------------------------------|------------------|--------|--------|------|
| Figure C- 2  | MEP-356A         | 60 kW, 400 Hz; 2 kW, 28VDC; Pneumatic, Self Propelled, GTED, Aviation Ground Power Unit | 6115-00-420-8486 |        |        | 76   |
| Figure C- 3  | MEP-357A         | 72 kW, 400 Hz; 21 kW, 28VDC; Self Propelled, DED, Aviation Support Unit                 | 6115-00-110-1859 |        |        | 78   |
| Figure C- 1  | MEP-362A         | 10 kW, 28VDC, GTED, Aircraft Support Unit, Integral wheel mount                         | 6115-01-161-3992 |        |        | 74   |
| Figure A-1   | MEP-501A         | 2 kW MTG, 28 VDC, DED, Tubular Frame                                                    | 6115-01-435-1567 | G36169 | M59400 | 16   |
| Figure A-1   | MEP-501A         | 2 kW MTG, 28 VDC, DED (First Buy)                                                       | 6115-21-912-0392 | G36169 | M59400 | 16   |
| Figure A-1   | MEP-531A         | 2 kW MTG, 60 Hz, DED, Tubular Frame                                                     | 6115-01-435-1565 | G36237 | M59400 | 16   |
| Figure A-1   | MEP-531A         | 2 kW MTG, 60 Hz, DED (First Buy)                                                        | 6115-21-912-0393 | G36237 | M59400 | 16   |
| Figure A-5   | MEP-802A         | 5 kW TQG, 60 Hz, DED, Skid Mtd                                                          | 6115-01-274-7387 | G11966 | M53500 | 22   |
| Figure A-9   | MEP-803A         | 10 kW TQG, 60 Hz, DED, Skid Mtd                                                         | 6115-01-275-5061 | G74711 | M53500 | 27   |
| Figure A-14  | MEP-804B         | 15 kW TQG, 50/60 Hz, DED, Skid Mtd                                                      | 6115-01-530-1458 | G12170 | M53500 | 34   |
| Figure A-20  | MEP-805B         | 30 kW TQG, 50/60 Hz, DED, Skid Mtd                                                      | 6115-01-461-9335 | G74575 | M53500 | 41   |
| Figure A-24  | MEP-806B         | 60 kW TQG, 50/60 Hz, DED, Skid Mtd                                                      | 6115-01-462-0291 | G12034 | M53500 | 47   |
| Figure A-30  | MEP-807A         | 100 kW TQG, 50/60 Hz, DED, Skid Mtd                                                     | 6115-01-296-1463 | Z47502 | M54400 | 54   |
| Figure A-32  | MEP-809A         | 200 kW TQG, 50/60 Hz, DED, Skid Mtd                                                     | 6115-01-296-1462 | G1752B | M54400 | 59   |
| Figure A-5   | MEP-812A         | 5 kW TQG, 400 Hz, DED, Skid Mtd                                                         | 6115-01-274-7391 | G12102 | M53500 | 22   |
| Figure A-9   | MEP-813A         | 10 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-274-7392 | G74779 | M53500 | 27   |
| Figure A-14  | MEP-814B         | 15 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-529-9494 | G12238 | M53500 | 34   |
| Figure A-20  | MEP-815B         | 30 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-462-0290 | G74643 | M53500 | 41   |
| Figure A-24  | MEP-816B         | 60 kW TQG, 400 Hz, DED, Skid Mtd                                                        | 6115-01-462-0292 | G18052 | M53500 | 47   |
| Figure A-2   | MEP-831A         | 3 kW TQG, 60 Hz, DED, Skid Mtd                                                          | 6115-01-285-3012 | G18358 | M59400 | 18   |
| Figure A-2   | MEP-832A         | 3 kW TQG, 400 Hz, DED, Skid Mtd                                                         | 6115-01-287-2431 | G74847 | M59400 | 18   |
| Figure B- 2  | MEP-903A         | 10 kW, 60 Hz, DED/APU                                                                   | 6115-01-431-3062 |        |        | 70   |
| Figure B- 1  | MEP-952          | 5 kW, 28 VDC, DED/APU                                                                   | 6115-01-317-2139 |        |        | 68   |
| Figure A- 28 | PP-AN.MJQ-1612   | Power Plant, TQG, 60 kW, 400 Hz, TRLMTD                                                 | 6115-01-349-1536 |        | M510   | 52   |
| Figure A- 29 | PP-AN/MJQ-1632   | Power Plant, TQG, 60 kW, 50/60 Hz, TRLMTD                                               | 6115-01-346-0157 |        | M510   | 52   |
| Figure A-7   | PP-AN/MJQ-35A    | 5 kW TQ Power Plant, 60 Hz TRLMTD                                                       | 6115-01-414-9697 | P28083 | R62700 | 25   |
| Figure A-8   | PP-AN/MJQ-36     | 5 kW TQ Power Plant, 60 Hz TRLMTD                                                       | 6115-01-313-4215 | P28151 | R62700 | 26   |
| Figure A-12  | PP-AN/MJQ-37     | 10 kW TQ Power Plant, 60 Hz, TRLMTD                                                     | 6115-01-299-6035 | P42262 | R62700 | 32   |
| Figure A-13  | PP-AN/MJQ-38     | 10 kW TQ Power Plant, 400 Hz, TRLMTD                                                    | 6115-01-313-4214 | P42330 | R62700 | 33   |
| Figure A-18  | PP-AN/MJQ-39B    | 15 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-565-0701 | P42614 | R62700 | 39   |
| Figure A-23  | PP-AN/MJQ-40B    | 30 kW TQ Power Plant, 50/60 Hz TRLMTD                                                   | 6115-01-474-3783 | P42126 | R62700 | 46   |
| Figure A-27  | PP-AN/MJQ-41B    | 60 kW TQ Power Plant, 50/60 Hz, TRLMTD                                                  | 6115-01-474-3776 | P42194 | R62700 | 52   |
| Figure A-3   | PP-AN/MJQ-42     | 3 kW TQ Power Plant, 60 Hz, TRLMTD                                                      | 6115-01-322-8583 | Z13645 | R62700 | 21   |
| Figure A-4   | PP-AN/MJQ-43/43A | 3 kW TQ Power Plant, 60 Hz, TRLMTD                                                      | 6115-01-322-8582 | Z13713 | R62700 | 21   |
| Figure A-19  | PP-AN/MJQ-48B    | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-565-0691 | Z01012 | R62700 | 40   |
| Figure A-6   | PU-797A          | 5 kW TQ Power Unit, 60 Hz, TRLMTD                                                       | 6115-01-413-3820 | G42238 | R62700 | 24   |
| Figure A-10  | PU-798A          | 10 kW TQ Power Unit, 60 Hz, TRLMTD                                                      | 6115-01-413-3818 | G42170 | R62700 | 30   |
| Figure A-11  | PU-799A          | 10 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-413-3819 | G53403 | R62700 | 31   |
| Figure A-15  | PU-800A          | 15 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-565-0929 | G78203 | R62700 | 36   |
| Figure A-16  | PU-801B          | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-565-0874 | G78374 | R62700 | 37   |
| Figure A-17  | PU-802A          | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-565-1576 | G53778 | R62700 | 38   |
| Figure A-21  | PU-803B          | 30 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-470-6376 | G35851 | R62700 | 44   |
| Figure A-22  | PU-804B          | 30 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-471-1507 | G35919 | R62700 | 45   |
| Figure A-25  | PU-805B          | 60 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                   | 6115-01-471-1508 | G78306 | R62700 | 50   |
| Figure A-26  | PU-806B          | 60 kW TQ Power Unit, 400 Hz, TRLMTD                                                     | 6115-01-471-1506 | G17406 | R62700 | 51   |
| Figure A-31  | PU-807A          | 100 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                  | 6115-01-471-7088 | 617664 | M54400 | 58   |
| Figure A-33  | PU-809A          | 200 kW TQ Power Unit, 50/60 Hz, TRLMTD                                                  | 6115-01-471-7085 | G26345 | M54400 | 62   |
| Figure A-34  | PU-810A          | 840 kW Power Unit, 50/60 Hz, DED, WHLMTD (AF)                                           | 6115-01-486-4033 | N/A    | N/A    | 63   |
| Figure A-35  | PU-810B          | 840 kW Power Unit, 50/60 Hz, DED, TRLRMTD                                               | 6115-01-486-4032 |        |        | 63   |

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MIL-HDBK-633A  
APPENDIX A  
PRESENT STANDARD FAMILY OF MEPGS

## A.1 SCOPE

**A.1.1 Scope.** This Appendix identifies the current and soon to be fielded members of the DoD Standard Family of MEPGS to include trailer mounted configurations (Power Units and Power Plants). Data contained in this Appendix is provided to assist both field operation and materiel developer personnel to select the power generation source that will best meet their needs. DoD Directive 4120.11 requires DoD activities to use these power sources.

**A.1.2 Appendix Organization.** This Appendix is a compilation of characteristics data sheets arranged by power rating capacity (see [Table A- I](#)).

Table A- I Guide to Characteristics Data Sheets of APPENDIX A

| FIG          | MODEL NO.        | ITEM DESCRIPTION                              | NSN              | LIN    | SSN    | Page |
|--------------|------------------|-----------------------------------------------|------------------|--------|--------|------|
| Figure A-1   | MEP-501A         | 2 kW MTG, 28 VDC, DED, Tubular Frame          | 6115-01-435-1567 | G36169 | M59400 | 16   |
| Figure A-1   | MEP-501A         | 2 kW MTG, 28 VDC, DED (First Buy)             | 6115-21-912-0392 | G36169 | M59400 | 16   |
| Figure A-1   | MEP-531A         | 2 kW MTG, 60 Hz, DED, Tubular Frame           | 6115-01-435-1565 | G36237 | M59400 | 16   |
| Figure A-1   | MEP-531A         | 2 kW MTG, 60 Hz, DED (First Buy)              | 6115-21-912-0393 | G36237 | M59400 | 16   |
| Figure A-2   | MEP-831A         | 3 kW TQG, 60 Hz, DED, Skid Mtd                | 6115-01-285-3012 | G18358 | M59400 | 18   |
| Figure A-2   | MEP-832A         | 3 kW TQG, 400 Hz, DED, Skid Mtd               | 6115-01-287-2431 | G74847 | M59400 | 18   |
| Figure A-3   | PP-AN/MJQ-42     | 3 kW TQ Power Plant, 60 Hz, TRLMTD            | 6115-01-322-8583 | Z13645 | R62700 | 20   |
| Figure A-4   | PP-AN/MJQ-43/43A | 3 kW TQ Power Plant, 60 Hz, TRLMTD            | 6115-01-322-8582 | Z13713 | R62700 | 21   |
| Figure A-5   | MEP-802A         | 5 kW TQG, 60 Hz, DED, Skid Mtd                | 6115-01-274-7387 | G11966 | M53500 | 22   |
| Figure A-5   | MEP-812A         | 5 kW TQG, 400 Hz, DED, Skid Mtd               | 6115-01-274-7391 | G12102 | M53500 | 22   |
| Figure A-6   | PU-797A          | 5 kW TQ Power Unit, 60 Hz, TRLMTD             | 6115-01-413-3820 | G42238 | R62700 | 24   |
| Figure A-7   | PP-AN/MJQ-35A    | 5 kW TQ Power Plant, 60 Hz TRLMTD             | 6115-01-414-9697 | P28083 | R62700 | 25   |
| Figure A-8   | PP-AN/MJQ-36     | 5 kW TQ Power Plant, 60 Hz TRLMTD             | 6115-01-313-4215 | P28151 | R62700 | 26   |
| Figure A-9   | MEP-803A         | 10 kW TQG, 60 Hz, DED, Skid Mtd               | 6115-01-275-5061 | G74711 | M53500 | 28   |
| Figure A-9   | MEP-813A         | 10 kW TQG, 400 Hz, DED, Skid Mtd              | 6115-01-274-7392 | G74779 | M53500 | 28   |
| Figure A-10  | PU-798A          | 10 kW TQ Power Unit, 60 Hz, TRLMTD            | 6115-01-413-3818 | G42170 | R62700 | 30   |
| Figure A-11  | PU-799A          | 10 kW TQ Power Unit, 400 Hz, TRLMTD           | 6115-01-413-3819 | G53403 | R62700 | 31   |
| Figure A-12  | PP-AN/MJQ-37     | 10 kW TQ Power Plant, 60 Hz, TRLMTD           | 6115-01-299-6035 | P42262 | R62700 | 32   |
| Figure A-13  | PP-AN/MJQ-38     | 10 kW TQ Power Plant, 400 Hz, TRLMTD          | 6115-01-313-4214 | P42330 | R62700 | 33   |
| Figure A-14  | MEP-804B         | 15 kW TQG, 50/60 Hz, DED, Skid Mtd            | 6115-01-530-1458 | G12170 | M53500 | 34   |
| Figure A-14  | MEP-814B         | 15 kW TQG, 400 Hz, DED, Skid Mtd              | 6115-01-529-9494 | G12238 | M53500 | 34   |
| Figure A-15  | PU-800A          | 15 kW TQ Power Unit, 400 Hz, TRLMTD           | 6115-01-565-0929 | G78203 | R62700 | 36   |
| Figure A-16  | PU-801B          | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD         | 6115-01-565-0874 | G78374 | R62700 | 37   |
| Figure A-17  | PU-802A          | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD         | 6115-01-565-1576 | G53778 | R62700 | 38   |
| Figure A-18  | PP-AN/MJQ-39B    | 15 kW TQ Power Unit, 400 Hz, TRLMTD           | 6115-01-565-0701 | P42614 | R62700 | 39   |
| Figure A-19  | PP-AN/MJQ-48B    | 15 kW TQ Power Unit, 50/60 Hz, TRLMTD         | 6115-01-565-0691 | Z01012 | R62700 | 40   |
| Figure A-20  | MEP-805B         | 30 kW TQG, 50/60 Hz, DED, Skid Mtd            | 6115-01-461-9335 | G74575 | M53500 | 42   |
| Figure A-20  | MEP-815B         | 30 kW TQG, 400 Hz, DED, Skid Mtd              | 6115-01-462-0290 | G74643 | M53500 | 42   |
| Figure A-21  | PU-803B          | 30 kW TQ Power Unit, 50/60 Hz, TRLMTD         | 6115-01-470-6376 | G35851 | R62700 | 44   |
| Figure A-22  | PU-804B          | 30 kW TQ Power Unit, 400 Hz, TRLMTD           | 6115-01-471-1507 | G35919 | R62700 | 45   |
| Figure A-23  | PP-AN/MJQ-40B    | 30 kW TQ Power Plant, 50/60 Hz TRLMTD         | 6115-01-474-3783 | P42126 | R62700 | 46   |
| Figure A-24  | MEP-806B         | 60 kW TQG, 50/60 Hz, DED, Skid Mtd            | 6115-01-462-0291 | G12034 | M53500 | 48   |
| Figure A-24  | MEP-816B         | 60 kW TQG, 400 Hz, DED, Skid Mtd              | 6115-01-462-0292 | G18052 | M53500 | 48   |
| Figure A-25  | PU-805B          | 60 kW TQ Power Unit, 50/60 Hz, TRLMTD         | 6115-01-471-1508 | G78306 | R62700 | 50   |
| Figure A-26  | PU-806B          | 60 kW TQ Power Unit, 400 Hz, TRLMTD           | 6115-01-471-1506 | G17406 | R62700 | 51   |
| Figure A-27  | PP-AN/MJQ-41B    | 60 kW TQ Power Plant, 50/60 Hz, TRLMTD        | 6115-01-474-3776 | P42194 | R62700 | 52   |
| Figure A- 28 | PP-AN.MJQ-1612   | Power Plant, TQG, 60 kW, 400 Hz, TRLMTD       | 6115-01-349-1536 |        | M510   | 54   |
| Figure A- 29 | PP-AN/MJQ-1632   | Power Plant, TQG, 60 kW, 50/60 Hz, TRLMTD     | 6115-01-346-0157 |        | M510   | 53   |
| Figure A-30  | MEP-807A         | 100 kW TQG, 50/60 Hz, DED, Skid Mtd           | 6115-01-296-1463 | Z47502 | M54400 | 56   |
| Figure A-31  | PU-807A          | 100 kW TQ Power Unit, 50/60 Hz, TRLMTD        | 6115-01-471-7088 | G17664 | M54400 | 58   |
| Figure A-32  | MEP-809A         | 200 kW TQG, 50/60 Hz, DED, Skid Mtd           | 6115-01-296-1462 | G1752B | M54400 | 60   |
| Figure A-33  | PU-809A          | 200 kW TQ Power Unit, 50/60 Hz, TRLMTD        | 6115-01-471-7085 | G26345 | M54400 | 62   |
| Figure A-34  | PU-810A          | 840 kW Power Unit, 50/60 Hz, DED, WHLMTD (AF) | 6115-01-486-4033 | N/A    | N/A    | 64   |
| Figure A-35  | PU-810B          | 840 kW Power Unit, 50/60 Hz, DED, TRLRMTD     | 6115-01-486-4032 |        |        | 64   |

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## A.2 APPLICABLE DOCUMENTS

A.2.1 This section is not applicable to this appendix.

## A.3 DEFINITIONS

A.3.1 Use definitions of basic document.

## A.4 GENERAL DESCRIPTIONS

A.4.1 Item Descriptions.

A.4.1.1 Military Tactical Generator (MTG). The MTG is a 2 kW diesel engine driven generator set used to meet user requirements of less than 3 kW power. The MTG was introduced into the US military system through the DoD Foreign Comparative Test (FTC) program. It is small, light weight, relatively quiet, and available in 60 Hz, 120V, single phase, and in 28 VDC versions.

A.4.1.2 Tactical Quiet Generator (TQG). The TQGs are reliable, quiet, and light weight diesel engine driven generator set in the 3 kW to 200 kW range. The TQGs incorporate commercial components engineered to meet military requirements and are procured in large quantities so they are relatively inexpensive.

A.4.1.3 Deployable Power Generation and Distribution System (DPGDS). A Quiet Prime Power Generator, a component of the Deployable Power Generation and Distribution System (DPGDS), replaces the 500 kW and 750 kW Military Standard generator sets. The DPGDS is diesel engine driven and generates 750 kW, 3 phase, 3800/4160 V, 50/60 Hz power.

A.4.1.4 Trailers. Several trailers are used in Power Unit and Power Plant MEPGS systems depending on size, weight and configuration.

a. Light Tactical Trailer (LTT)/ High Mobility Trailer (HMT). The LTT is a 1-1/4 ton trailer designed to match the cross country mobility of the High Mobility Multipurpose Wheeled Vehicle (HMMWV) while carrying a full payload. The HMT was the previous version of the LTT. Some PUPPs have been fielded with the HMT. Existing models of the PUPPs using the LTT or the HMT are designated as "A" Models.

b. M116A3. The M116A3 is a one ton trailer (3/4 ton modified to carry the extra weight of a generator set and its associated hardware). The mobility is sufficient to allow lower speed access to areas accessible to a HMMWV.

c. M103A3. The M103A3 is a 1-1/2 ton trailer modified to carry the extra weight of a generator set and its associated hardware.

d. M200A1. The M200A1 is a 2-1/2 ton trailer modified to carry the extra weight of a generator set and its associated hardware. The trailer is now configured with single radial tires in lieu of the dual bias tires although both configurations are presently in the field.

e. M1061A1. The M106A1 is a 5 ton trailer.

A.4.2 Delivered condition.A.4.2.1 Skid sets.

a. Safety Items. Production generator sets may or may not be delivered with fire extinguishers, ground rods or ground rod slide hammer/puller. Units may obtain needed items. See [Table A- II](#) for details.

b. Batteries. Battery information is included in [Table A- II](#). The 2 kW Military Tactical Generator has no battery. It may be started manually or by external 24 VDC electrical power via the NATO slave connector.

c. Auxiliary Fuel Line. A 25 foot auxiliary fuel line is furnished with the 5 kW through 200 kW diesel engine driven generator sets. Fuel lines for the other sets may be ordered (see [Table A- II](#)) or fabricated on site in accordance with drawing 69-668 (see [Figure 1](#)).

d. Ether starting aid. Sets greater than 15 kW are equipped with an integral ether starting aid for temperatures below 40 °F. Ether bottles may be obtained as NSN 2910-00-209-4997.

e. Paralleling cables. Sets greater than 15 kW and above are designed for parallel operation as well as single set operation. Sets are supplied with a paralleling cable for interconnection of the voltage

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regulators and governor systems of the sets to be paralleled. Additional details on parallel operation are contained in the generator set manuals and FM 5-424, Electrical Power Generation in the Field.

f. Power output terminals. Power output terminals consist of split-lug terminals with captive nuts. The Power Distribution and Illumination System, Electrical (PDISE) interfaces to the power output terminals via a pigtail connection. In addition, a series of standard power output receptacles (MIL-DTL-22992) are available through the supply system and the US Army Missile Command (MICOM) has a series of missile system receptacles for the 15 kW through 60 kW DoD generator sets.

g. NATO slave receptacle. A NATO slave receptacle is provided with all generator sets listed in this Appendix. The slave receptacle can be used to start the generator set from an external 24 VDC power source.

h. Convenience receptacle. A convenience receptacle is provided on all 60 Hz generator sets in this Appendix.

A.4.2.2 Trailer mounted sets. The trailer mounted sets (Power Units and Power Plants) are normally delivered with ground kit (ground rods, connectors, ground terminal), ground rod driver/puller, 8 pound hammer, and a fire extinguisher per trailer. See [Table A- II](#) for details.

A.4.3 Winterization Kit. A fuel burning winterization kit can be installed inside the TQG sets to extend the starting and operation temperature down to -50 °F. The kit NSNs and application can be found in [Table A- II](#) that follows and in the Characteristics Data Sheets.

Table A- II Batteries and Auxiliary Equipment

| Batteries           |                                                     |                  |                    |
|---------------------|-----------------------------------------------------|------------------|--------------------|
| Model               | Description                                         | Nsn              | Application        |
| Concord             | Starved-Electrolyte – 24 Volt                       | 6140-01-374-8502 | 3 kW TQG           |
| 2HN                 | Lead-Acid – 12 Volt                                 | 6140-00-057-2553 | 5 kW TQG           |
| 6TL                 | Lead-Acid – 12 Volt                                 | 6140-01-210-1964 | 15 kw - 60 kW TQG  |
| Optima d51r         | Starved Electrolyte – 12 Volt                       | 6140-01-529-7226 | 5 kW TQG           |
| Optima 800s         | Starved-Electrolyte – 12 Volt                       | 6140-01-374-2243 | 10 kW TQG          |
| Optima 800s         | Starved-Electrolyte – 12 Volt                       | 6140-01-378-8232 | 15, 30,60 kW TQG   |
| Optima 8050-160     | Starved-Electrolyte – 12 Volt                       |                  | 100 and 200 kW TQG |
|                     | Adapter For Optima                                  | 6160-01-453-0858 |                    |
| Grounding items     |                                                     |                  |                    |
| Model               | Description                                         | Nsn              | Application        |
|                     | Ground Rod Kit (Includes Rod, Connectors, Terminal) | 5975-00-828-3791 | TQG, PU, PP        |
|                     | Ground Rod (3 Ft Sec)                               | 5975-00-249-6798 | TQG, PU, PP        |
|                     | Driver/Puller (Slide Hammer)                        | 5120-01-013-1676 | PU, PP             |
|                     | Hammer, 8 Pound                                     | 5120-00-251-4489 | PU, PP             |
| Fuel handling items |                                                     |                  |                    |
| Model               | Description                                         | Nsn              | Application        |
|                     | Auxiliary Fuel Line                                 | 4720-00-021-3320 | TQG, PU, PP        |
|                     | Fuel Container/Drum Adapter                         | 2910-00-066-1235 | PU, PP             |
|                     | 5 Gal Fuel Can                                      | 7240-00-222-3088 | PU, PP             |
|                     | Spout                                               | 7240-00-177-6154 | PU, PP             |
| Fire extinguisher   |                                                     |                  |                    |
| Model               | Description                                         | Nsn              | Application        |
| A-A-1106            | 5 lb CO <sub>2</sub> Fire Extinguisher              | 4210-00-270-4512 | All                |
| Optional equipment  |                                                     |                  |                    |
| Model               | Description                                         | Nsn              | Application        |
|                     | Winterization Kit                                   | 6115-01-476-8973 | 5kW TQGs           |
|                     | Winterization Kit                                   | 6115-01-477-0564 | 10kW TQGs          |
|                     | Winterization Kit                                   | 6115-01-477-0566 | 15kW TQGs          |
|                     | Winterization Kit                                   | 6115-01-474-8354 | 30kW TQGs          |
|                     | Winterization Kit                                   | 6115-01-474-8244 | 60kW TQGs          |

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A.5 DETAILED DESCRIPTIONS

A.5.1 Detailed Descriptions. Details of skid and trailer-mounted sets are contained in [Figure A-1](#) through [Figure A-35](#) CHARACTERISTICS DATA SHEETS. See [Table A-1](#) Guide to Characteristics Data Sheets of APPENDIX A

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## 2 kW Military Tactical Generator Set

| 2 kW Military Tactical Generator Set                 |                                                                                                                                                                                                     |                                  |                                          |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------|
| Identification Data                                  |                                                                                                                                                                                                     |                                  |                                          |
| Description                                          | 2 kW MTG Set, 60 Hz, DED, Tubular Frame                                                                                                                                                             |                                  | 2 kW MTG Set, 28 VDC, DED, Tubular Frame |
| Model                                                | MEP-531A                                                                                                                                                                                            |                                  | MEP-501A                                 |
| NSN (first buy)                                      | 6115-21-912-0393                                                                                                                                                                                    |                                  | 6115-21-912-0392                         |
| NSN                                                  | 6115-01-435-1565                                                                                                                                                                                    |                                  | 6115-01-435-1567                         |
| LIN                                                  | G36237                                                                                                                                                                                              |                                  | G36169                                   |
| SSN                                                  | M59400                                                                                                                                                                                              |                                  | M59400                                   |
| Physical Characteristics                             |                                                                                                                                                                                                     |                                  |                                          |
| Dimensions LWH (in)                                  | 30 x16 x 22 (Cube: 6 ft <sup>3</sup> )                                                                                                                                                              |                                  |                                          |
| Wet Weight (lbs)                                     | MEP-531A: 158                                                                                                                                                                                       |                                  | MEP-501A: 138                            |
| Engine                                               | Yanmar L48AE-DEG Diesel, 1 cylinder/4 stroke, 4.2 horsepower @ 3600 RPM, air cooled, 24 VDC start from NATO slave receptacle, recoil pull starter.                                                  |                                  |                                          |
| Instrumentation                                      | Voltmeter, ammeter, hour meter, frequency meter (AC only).                                                                                                                                          |                                  |                                          |
| Fuels                                                | Diesel DL-1, DL-2 and JP-8                                                                                                                                                                          |                                  |                                          |
| Fuel Capacity                                        | Fuel tank: 1.6 gal.                                                                                                                                                                                 |                                  |                                          |
| Performance Characteristics                          |                                                                                                                                                                                                     |                                  |                                          |
| Power Rating                                         | 2kW, 1.0 pf @4000 ft/95°F. 110% Max power; derate: 1.3%/328 ft from 4000 to 8000ft                                                                                                                  |                                  |                                          |
| Environmental Capability                             | -40°F to 120°F, rain, humidity, altitude, sand/ dust, rail transport, -65°F cold storage, salt spray, fungus, 15° incline                                                                           |                                  |                                          |
| Protective Devices                                   | Trip circuit breaker for overload/short circuit. Automatic shutdown for low oil pressure.                                                                                                           |                                  |                                          |
| Fuel consumption                                     | 0.33 gph @ rated load.                                                                                                                                                                              |                                  | 0.33 gph @ rated load.                   |
| Human Factors                                        | MIL-STD-1474: 4 soldier portable: operable in chemical/arctic clothing.                                                                                                                             |                                  |                                          |
| Noise                                                | 79 dBA @ 7 meters (23 ft).                                                                                                                                                                          |                                  |                                          |
| Reliability (MTBF)                                   | 818 hr                                                                                                                                                                                              |                                  | 490 hr                                   |
| Maintenance Ratio                                    | 0.033 – organization;                                                                                                                                                                               |                                  | 0.008 – direct support.                  |
| Electrical Characteristics                           |                                                                                                                                                                                                     |                                  |                                          |
| Voltage Connection                                   | 120 V, 1 phase, 2 wire                                                                                                                                                                              |                                  | 28 VDC, 2 wire                           |
| Voltage adj. Range                                   | 114 to 126 V                                                                                                                                                                                        |                                  | 26.6 – 32.0 V                            |
| Freq. adj. Range                                     | ±5.5%                                                                                                                                                                                               |                                  | N/A                                      |
| Electrical                                           | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brush type 2 pole alternator, solderless connectors, AC alternator: Mechron Power, DC Alternator: Balmar. |                                  |                                          |
| Electrical Performance                               |                                                                                                                                                                                                     |                                  |                                          |
| Electric Power Quality                               |                                                                                                                                                                                                     | AC Voltage                       | Frequency                                |
| Regulation                                           |                                                                                                                                                                                                     | 4%                               | 5.6%                                     |
| Voltage modulation                                   |                                                                                                                                                                                                     | 2%                               |                                          |
| Short term steady state stability (30 sec)           |                                                                                                                                                                                                     | 2% bandwidth                     | 3% bandwidth                             |
| Long term steady state stability (4 hr)              |                                                                                                                                                                                                     | 4% bandwidth                     | 3% bandwidth                             |
| Application of rated load (transient), recovery time |                                                                                                                                                                                                     | 30% dip, 3 sec,                  | 8% undershoot, 4 sec                     |
| Rejection of rated load (transient), recovery time   |                                                                                                                                                                                                     | 30% rise, 3 sec                  | 10% overshoot, 5 sec                     |
| Motor load                                           |                                                                                                                                                                                                     | not rated                        |                                          |
| Max waveform deviation factor                        |                                                                                                                                                                                                     | 16%                              |                                          |
| Individual waveform harmonic                         |                                                                                                                                                                                                     | 15%                              |                                          |
| DC ripple                                            |                                                                                                                                                                                                     |                                  | 7%                                       |
| EMI                                                  |                                                                                                                                                                                                     | Meets MIL-STD-461C Not Protected |                                          |
| EMP                                                  |                                                                                                                                                                                                     | Not protected.                   |                                          |
| Optional Equipment                                   |                                                                                                                                                                                                     |                                  |                                          |
| Description                                          | NSN                                                                                                                                                                                                 | Weight (lbs)                     | Effect on Dimensions (in)                |
| Auxiliary Fuel System                                | See TM 9-6115-673-13&P                                                                                                                                                                              |                                  |                                          |
| Technical Manuals                                    |                                                                                                                                                                                                     |                                  |                                          |
| Description                                          | Army                                                                                                                                                                                                | Air Force                        | Marine Corps                             |
| Operator, Unit, DS/GS, Parts                         | TM 9-6115-673-13&P                                                                                                                                                                                  | TO 35C2-3-512-1                  | None                                     |

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MEP-501A, 28 VDC



MEP-531A, 120 V, 60 Hz  
has an additional meter (frequency) and a  
convenience receptacle

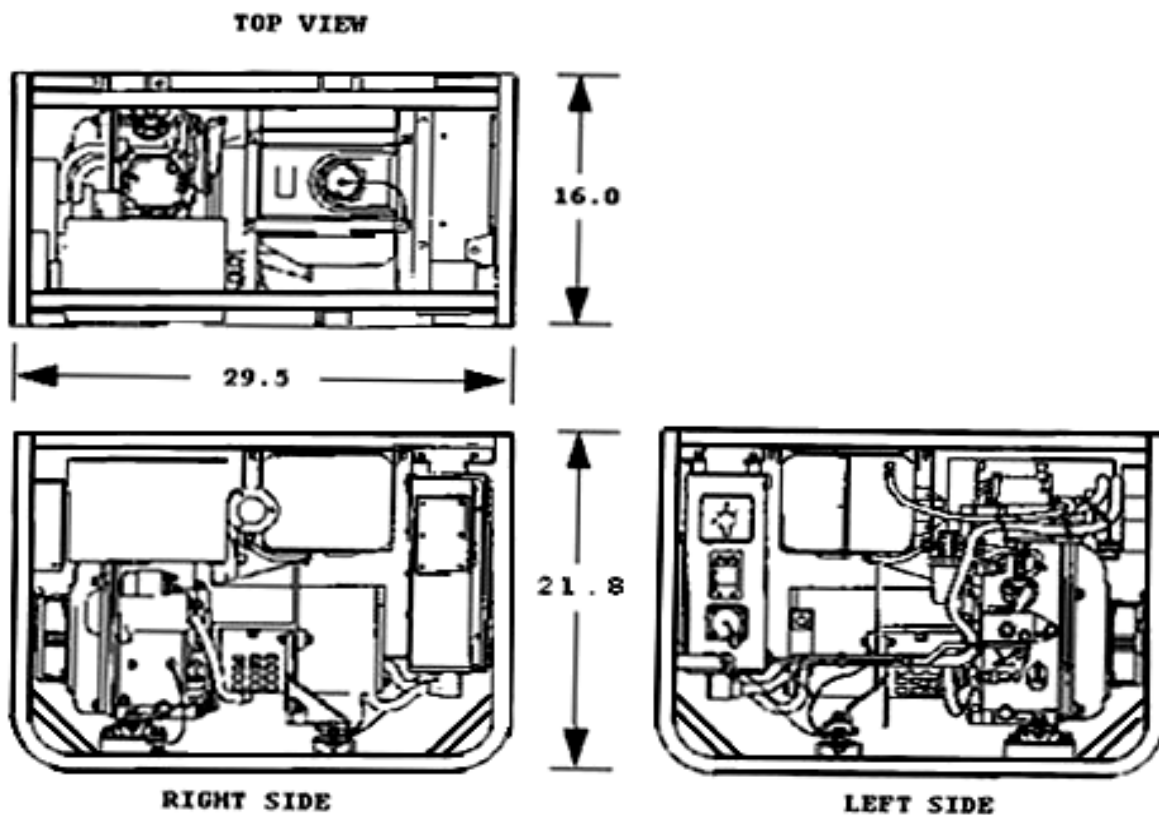


Figure A-1 2 kW Military Tactical Generator Set

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## 3 kW Tactical Quiet Generator Set (TQG)

| 3 kW Tactical Quiet Generator Set (TQG)            |                                                                                                                                             |                        |                                 |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------|
| Identification Data                                |                                                                                                                                             |                        |                                 |
| Description                                        | 3 kW TQG Set, 60 Hz, DED, Skid Mtd                                                                                                          |                        | 3 kW TQG, 400 Hz, DED, Skid Mtd |
| Model                                              | MEP-831A                                                                                                                                    |                        | MEP-832A                        |
| NSN                                                | 6115-01-285-3012                                                                                                                            |                        | 6115-01-287-2431                |
| LIN                                                | G18358                                                                                                                                      |                        | G74847                          |
| SSN                                                | M59400                                                                                                                                      |                        | M59400                          |
| Trailer mounted configurations                     | PP-AN/MJQ-42: <a href="#">Figure A-3</a><br>PP-AN/MJQ-43, PP-AN/MJQ-43A: <a href="#">Figure A-4</a>                                         |                        | None                            |
| Physical Characteristics                           |                                                                                                                                             |                        |                                 |
| Dimensions LWH (in)                                | 35 x 28 x 27 (Cube:15 ft <sup>3</sup> )                                                                                                     |                        |                                 |
| Weight (lbs)                                       | 326 (full tank + battery), 272 (1 hr fuel, no battery)                                                                                      |                        |                                 |
| Engine                                             | Yanmar L70AE-D/DE Diesel, 1 cylinder/4 stroke, 6.7 hp @ 3600 RPM (variable speed), rope and 24 VDC start, air-cooled.                       |                        |                                 |
| Instrumentation                                    | Emergency stop, Fuel level, Hour meter, Voltmeter, Load meter, Battle short, AC interrupt, Fault indicators                                 |                        |                                 |
| Fuels                                              | Diesel DL-1, DL-2; Jet Fuel JP-8                                                                                                            |                        |                                 |
| Fuel Capacity                                      | Fuel tank: 4.0 gal                                                                                                                          |                        |                                 |
| Performance Characteristics                        |                                                                                                                                             |                        |                                 |
| Power Rating                                       | 3 kW, 0.8 pf @ 1000 ft/107°F. 110% max power.                                                                                               |                        |                                 |
| Environmental Capability                           | -25°F to 120°F, rain, humidity, altitude, sand/dust, transportation, 9 inch drop, vibration, cold storage, salt spray, fungus, 15° incline. |                        |                                 |
| Protective Devices                                 | Engine High Temp, Low Oil Pressure, No Fuel, Overvoltage, Overload, Short Circuit                                                           |                        |                                 |
| Fuel consumption                                   | 0.33 gph @ rated load                                                                                                                       |                        |                                 |
| Human Factors                                      | MIL-STD-1474. Man portable.                                                                                                                 |                        |                                 |
| Noise                                              | 72 dBA @ 7 m (23 ft.)                                                                                                                       |                        |                                 |
| Reliability (MTBF)                                 | 500 hr @ 80% Lower Confidence Level (LCL)                                                                                                   |                        |                                 |
| Maintenance ratio                                  | less than 0.05                                                                                                                              |                        |                                 |
| Electrical Characteristics                         |                                                                                                                                             |                        |                                 |
| Connection                                         | 120/240V, 1ph, 3 wire                                                                                                                       | 120V, 1ph, 2 wire      |                                 |
| Voltage Adj Range                                  | 228 – 252 V                                                                                                                                 | 114 – 126 V            |                                 |
| Frequency Adj Range                                | 3%                                                                                                                                          |                        |                                 |
| Electrical                                         | Fermont Permanent Magnet Variable Speed Generator, TRC Corp Solid State Inverter (60Hz and 400Hz).                                          |                        |                                 |
| Electrical Performance                             |                                                                                                                                             |                        |                                 |
| Electric Power Quality                             |                                                                                                                                             | AC Voltage             | Frequency                       |
| Regulation                                         |                                                                                                                                             | 4%                     | 3%                              |
| Modulation                                         |                                                                                                                                             | 2.5%                   |                                 |
| Short term steady state stability (30 sec)         |                                                                                                                                             | 2% bandwidth           | 4% bandwidth                    |
| Long term steady state stability (4 hr)            |                                                                                                                                             | 4% bandwidth           | 4% bandwidth                    |
| Application/rejection of rated load, recovery time |                                                                                                                                             | 30% dip/rise, 3 sec    | 4% under/5% over, 4 sec/6 sec   |
| Motor load                                         |                                                                                                                                             | Not rated              |                                 |
| Max waveform deviation factor                      |                                                                                                                                             | 7%                     |                                 |
| Individual waveform harmonic                       |                                                                                                                                             | 4%                     |                                 |
| EMI                                                |                                                                                                                                             | Meets MIL-STD-461C     |                                 |
| EMP                                                |                                                                                                                                             | HAEMP IAW MIL-STD-2169 |                                 |
| Optional Equipment                                 |                                                                                                                                             |                        |                                 |
| Description                                        | NSN                                                                                                                                         | Weight (lbs)           | Effect on Dimensions (in)       |
| None                                               |                                                                                                                                             |                        |                                 |
| Technical Manuals                                  |                                                                                                                                             |                        |                                 |
| Description                                        | Army                                                                                                                                        | Air Force              | Marine Corps                    |
| Operator, Unit, DS                                 | TM 9-6115-639-13&P                                                                                                                          | TO 35C2-3-386-51W/IPB  | TM 10155A-OI/1                  |
| RPSTL                                              | TM 9-6115-639-13&P                                                                                                                          | TO 35C2-3-386-51W/IPB  | TM 10155A-OI/1                  |
| Engine Maint Manual                                | TM9-2815-257-24                                                                                                                             | TO 38G1-128-2          | TM 10155A/2815-24/3             |
| Engine RPSTL                                       | TM9-2815-257-24P                                                                                                                            | TO 38G1-128-4          | TM 10155A/2815-24P/4            |

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MEP-831A (60 Hz) has convenience outlet and fault protection  
Radii: Access door = 25.4", Output Terminal door = 10.0", Control Panel door = 8.5".

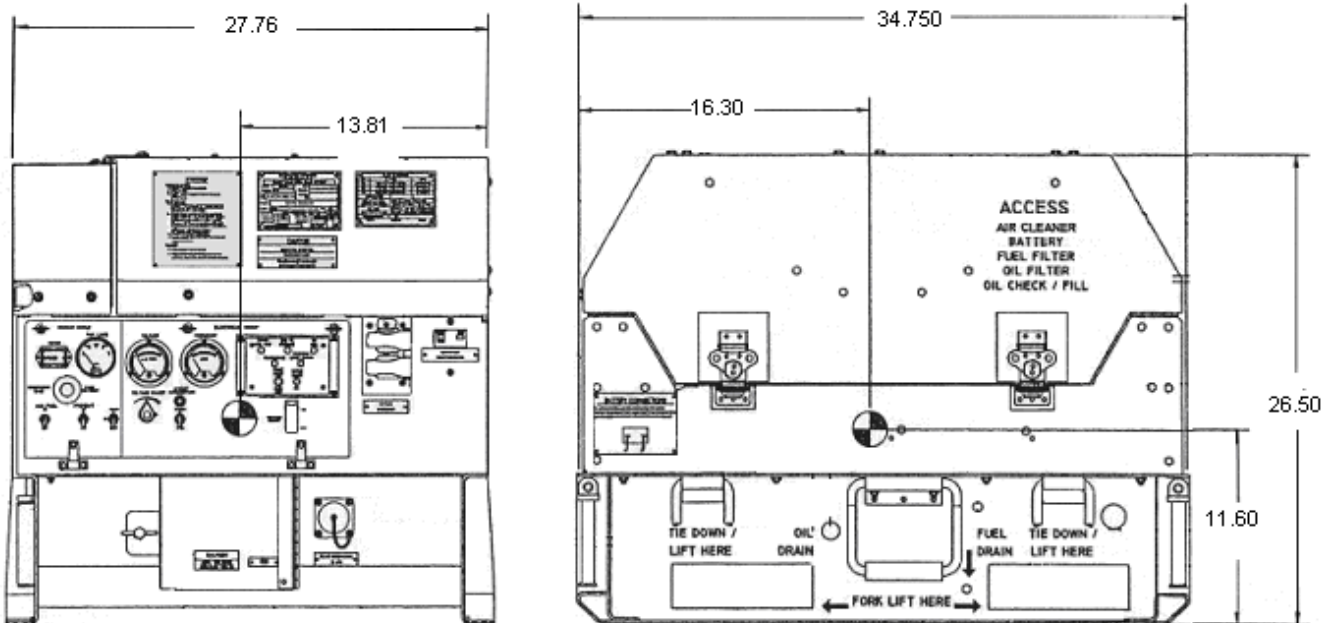


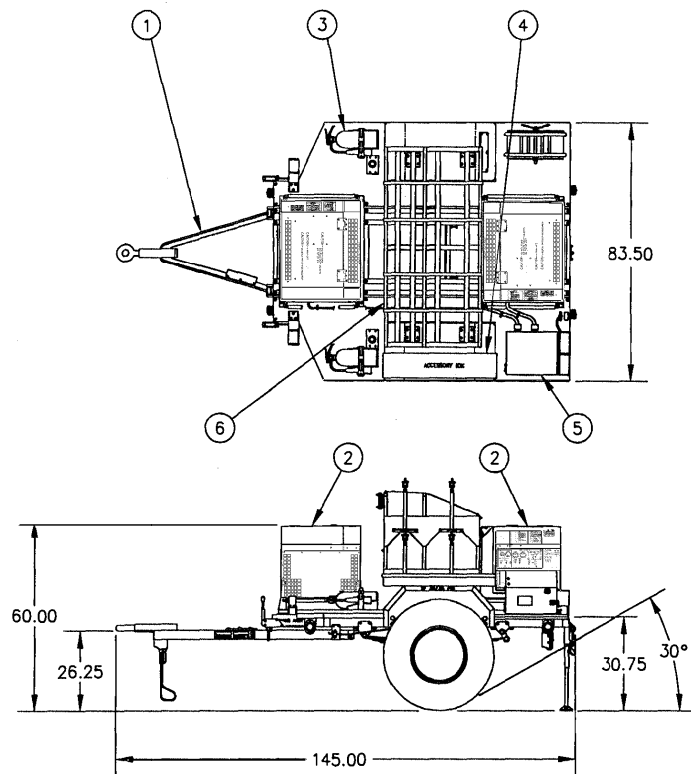
Figure A-2 3 kW Tactical Quiet Generator Set

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**3 kW Tactical Quiet Power Plant, 60 Hz, TRLMTD**

| Identification Data      |                                    |        |                 |                              |                   |
|--------------------------|------------------------------------|--------|-----------------|------------------------------|-------------------|
| Description              | 3 kW TQ Power Plant, 60 Hz, TRLMTD |        |                 | Camouflage: 97403-13226E7477 |                   |
| Model                    | NSN                                | LIN    | SSN             | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-42             | 6115-01-322-8583                   | P42466 | R62700          | TA-13229E5720                | MIL-P-53132/2     |
| Tech. Manual             | Operator, Unit and Direct Support  |        |                 | TM 9-6115-658-13&P           |                   |
| Physical Characteristics |                                    |        |                 |                              |                   |
| Model                    | Dimensions:LWH (in) & Cube(ft³)    |        | Ship Cube (ft³) | Wet weight (lbs)             | Ship Weight (lbs) |
| PP-AN/MJQ-42             | 145 x 84 x 76 & (533)              |        | 533             | 2900                         | 2412              |



N/MJQ-42

| FIND | COMPONENT                                     | QTY | IDENTIFIER       |
|------|-----------------------------------------------|-----|------------------|
| 1    | Modified 1 ton trailer, M116A3                | 1   | 97403-13230E6832 |
| 2    | TQ Generator set, DED, 3 kW, 60. Hz, MEP-831A | 2   | 6115-01-285-3012 |
| 3    | Fire extinguisher, 5 lb., A-A-1106            | 2   | 4210-00-270-4512 |
| 4    | Accessory box                                 | 1   | 97403-13229E7946 |
| 5    | Switch box                                    | 1   | 97403-13230E6950 |
| 6    | Rack Assembly (includes cable reel)           | 1   | TBD              |

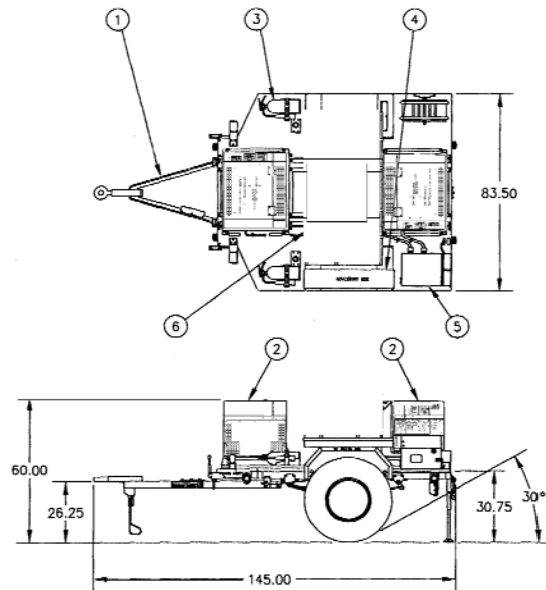
Figure A-3 PP-AN/MJQ-42

MIL-HDBK-633A

APPENDIX A

**3 kW Tactical Quiet Power Plant, 60 Hz, TRLMTD**

| Identification Data                                     |                                                  |        |                              |                              |                   |
|---------------------------------------------------------|--------------------------------------------------|--------|------------------------------|------------------------------|-------------------|
| Description                                             | 3 kW TQ Power Plant, 60 Hz, TRLMTD               |        |                              | Camouflage: 97403-13226E7477 |                   |
| Model                                                   | NSN                                              | LIN    | SSN                          | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-43                                            | 6115-01-322-8582                                 | P42534 | R62700                       | TA-13229E5730                | MIL-P-53132/1     |
| PP-AN/MJQ-43A*                                          | 6115-01-322-8582                                 | P42534 | R62700                       | TA-13229E5730                | MIL-P-53132/1     |
| Technical Manual                                        | Operator, Unit and Direct Support                |        |                              | TM 9-6115-658-13&P           |                   |
| *An "A" Model will use the Light Tactical Trailer (LTT) |                                                  |        |                              |                              |                   |
| Physical Characteristics                                |                                                  |        |                              |                              |                   |
| Model                                                   | Dimensions: LWH (in) & (Cube) (ft <sup>3</sup> ) |        | Ship Cube (ft <sup>3</sup> ) | Wet weight (lbs)             | Ship Weight (lbs) |
| PP-AN/MJQ-43                                            | 135 x 86 x 60 & (421)                            |        | 421                          | 2212                         | 2187              |
| PP-AN/MJQ-43A                                           | 135 x 86 x 60 & (421)                            |        | 421                          | 2212                         | 2187              |



| FIND | COMPONENT                                     | QTY | IDENTIFIER       |
|------|-----------------------------------------------|-----|------------------|
| 1    | Light Tactical Trailer (LTT) (A Model)        | 1   | 97403-13230E6565 |
| 1    | Modified 1 ton trailer, M116A3 (shown)        | 1   | 97403-13230E6832 |
| 2    | TQ Generator set, DED, 3 kW, 60. Hz, MEP-831A | 2   | 6115-01-285-3012 |
| 3    | Fire extinguisher, 5 lb., A-A-1106            | 2   | 4210-00-270-4512 |
| 4    | Accessory box                                 | 1   | 97403-13229E7946 |
| 5    | Switch box                                    | 1   | 97403-13230E6950 |

Figure A-4 PP-AN/MJQ-43 and PP-AN/MJQ-43A

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**5 kW Tactical Quiet Generator Set (TQG)**

| Identification Data                          |                                                                                                                                                                                                                                                |                                 |                                |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------|
| Description                                  | 5 kW TQG, 60 Hz, DED, Skid Mtd                                                                                                                                                                                                                 |                                 | 5 kW TQG, DED, 400Hz, Skid Mtd |
| Model                                        | MEP-802A                                                                                                                                                                                                                                       |                                 | MEP-812A                       |
| NSN                                          | 6115-01-274-7387                                                                                                                                                                                                                               |                                 | 6115-01-274-7391               |
| LIN                                          | G11966                                                                                                                                                                                                                                         |                                 | G12102                         |
| Specification                                | MIL-DTL-53133/1                                                                                                                                                                                                                                |                                 | MIL-DTL-53133/2                |
| SSN                                          | M53500                                                                                                                                                                                                                                         |                                 | M53500                         |
| Trailer mounted configurations               | PU- 797A: <a href="#">Figure A-6</a> ; AN/MJQ- 35A: <a href="#">Figure A-7</a> and; AN/MJQ-36: <a href="#">Figure A-8</a>                                                                                                                      |                                 | None                           |
| Physical Characteristics                     |                                                                                                                                                                                                                                                |                                 |                                |
| Dimensions LWH (in)                          | 51 x 32 x 37 (Cube:34 ft <sup>3</sup> )                                                                                                                                                                                                        |                                 |                                |
| Wet Weight (lbs)                             | 888                                                                                                                                                                                                                                            | 911                             |                                |
| Engine                                       | Onan DN2M Diesel, 2 cylinder/4 stroke, 11.0hp @1800 RPM, 24VDC start, liquid-cooled.                                                                                                                                                           |                                 |                                |
| Instrumentation                              | Hour meter, voltmeter, frequency, amps (% RL), oil pressure, fuel, coolant temp, battery amps, emergency stop, battle short                                                                                                                    |                                 |                                |
| Fuels                                        | Diesel DL-1, DL-2; Jet Fuel JP-8                                                                                                                                                                                                               |                                 |                                |
| Fuel Capacity                                | Fuel tank: 5 gallons                                                                                                                                                                                                                           |                                 |                                |
| Performance Characteristics                  |                                                                                                                                                                                                                                                |                                 |                                |
| Power Rating                                 | 5kW, 0.8 pf @ 4000ft/120°F; 110% Max Power; De-rate: 3.5%/1000 ft from 4000 to 8000 ft                                                                                                                                                         |                                 |                                |
| Environmental Capability                     | -25°F (-50°F with Winterization Kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage: -60°F, salt spray, fungus, 15° incline.                                                                                      |                                 |                                |
| Protective Devices                           | Automatic shut down with emergency bypass for low oil pressure, coolant high-temp, no fuel, and over-voltage.                                                                                                                                  |                                 |                                |
| Fuel Consumption                             | 0.57 gph @ rated load.                                                                                                                                                                                                                         | 0.56 gph @ rated load.          |                                |
| Human Factors                                | MIL-STD-1474.                                                                                                                                                                                                                                  |                                 |                                |
| Noise                                        | 70 dBA @ 7 meters (23 ft).                                                                                                                                                                                                                     |                                 |                                |
| Reliability (MTBF)                           | 486 hr @ 80% LCL                                                                                                                                                                                                                               | 479 hr @ 80% LCL                |                                |
| Maintenance Ratio                            | less than 0.05                                                                                                                                                                                                                                 |                                 |                                |
| Electrical Characteristics                   |                                                                                                                                                                                                                                                |                                 |                                |
| Connection                                   | 120/240V, 1ph, 3 wire                                                                                                                                                                                                                          | 120V, 1ph, 2 wire               | 120/208V, 3ph, 4 wire          |
| Voltage Adj Range                            | 228 –252 V                                                                                                                                                                                                                                     | 114 – 126 V                     | 205 –220 V                     |
| Frequency Adj Range                          | ±3%                                                                                                                                                                                                                                            |                                 |                                |
| Electrical                                   | Drip-proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary exciter, solderless connectors, 60Hz: Onan alternator, 4 pole; 400Hz: Onan alternator, 24 pole. Convenience receptacle on 60Hz set. |                                 |                                |
| Electrical Performance                       |                                                                                                                                                                                                                                                |                                 |                                |
| Electric Power Quality                       |                                                                                                                                                                                                                                                | AC Voltage                      | Frequency                      |
| Regulation                                   |                                                                                                                                                                                                                                                | 3%                              | 3%                             |
| Modulation                                   |                                                                                                                                                                                                                                                | 2.5%                            |                                |
| Short term steady state stability (30 sec)   |                                                                                                                                                                                                                                                | 2% bandwidth                    | 2% bandwidth                   |
| Long term steady state stability (4 hr)      |                                                                                                                                                                                                                                                | 4% bandwidth                    | 3% bandwidth                   |
| Appl./rejection of rated load, recovery time |                                                                                                                                                                                                                                                | 20% dip/rise, 3 sec             | 3% under/4% over, 3 sec        |
| Motor load                                   |                                                                                                                                                                                                                                                | 35% dip, 5 sec to 95% init volt |                                |
| Max waveform deviation factor                |                                                                                                                                                                                                                                                | 6% (1 phase); 5% (3 phase)      |                                |
| Individual waveform harmonic                 |                                                                                                                                                                                                                                                | 3% (1 phase); 2% (3 phase)      |                                |
| EMI                                          |                                                                                                                                                                                                                                                | Meets MIL-STD-461C, Part 9      |                                |
| EMP                                          |                                                                                                                                                                                                                                                | HAEMP IAW MIL-STD-2169          |                                |
| Optional Equipment                           |                                                                                                                                                                                                                                                |                                 |                                |
| Description                                  | NSN                                                                                                                                                                                                                                            | Tech Bulletin                   | Effect on Dimensions (in)      |
| Winterization kit                            | 6115-01-476-8973                                                                                                                                                                                                                               | TB 9-6115-641-13                | None (internal)                |
| Technical Manuals                            |                                                                                                                                                                                                                                                |                                 |                                |
|                                              | Army                                                                                                                                                                                                                                           | Air Force                       | Marine Corps                   |
| Operator                                     | TM 9-6115-641-10                                                                                                                                                                                                                               | TO 35C2-3-456-11                | None                           |
| Unit, DS, GS                                 | TM 9-6115-641-24                                                                                                                                                                                                                               | TO 35C2-3-456-12                |                                |
| RPSTL                                        | TM 9-6115-641-24P                                                                                                                                                                                                                              | TO 35C2-3-456-14                |                                |
| Engine Maintenance                           | TM 9-2815-252-24                                                                                                                                                                                                                               | TO 38G1-92-2                    |                                |
| Engine Parts                                 | TM 9-2815-252-24P                                                                                                                                                                                                                              | TO 38G1-92-4                    |                                |
| Lube Order                                   | LO 9-6115-641-12                                                                                                                                                                                                                               |                                 |                                |
| Warranty                                     | TB 9-6115-641-24                                                                                                                                                                                                                               |                                 |                                |

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MEP-802A or MEP-812A

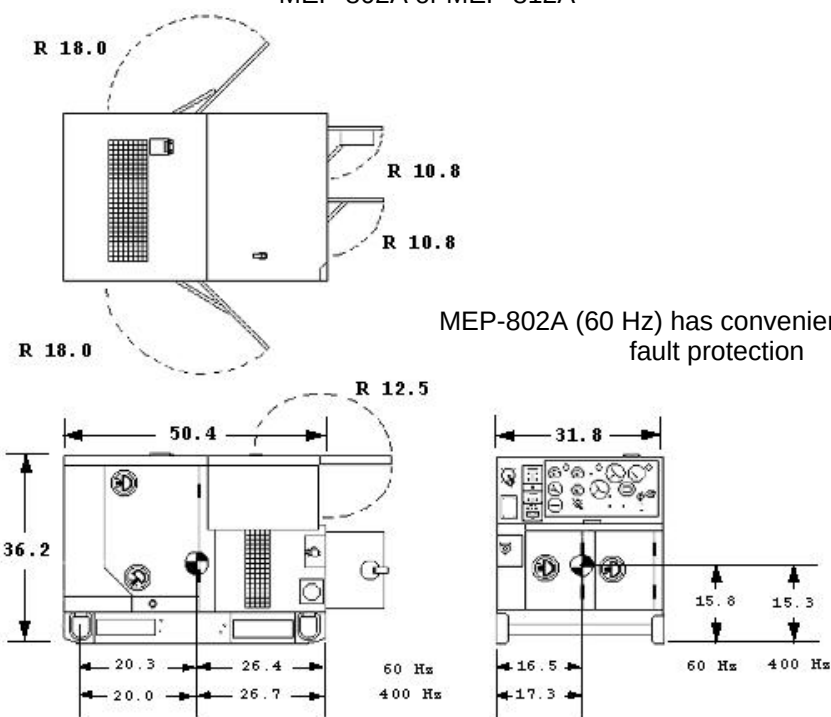


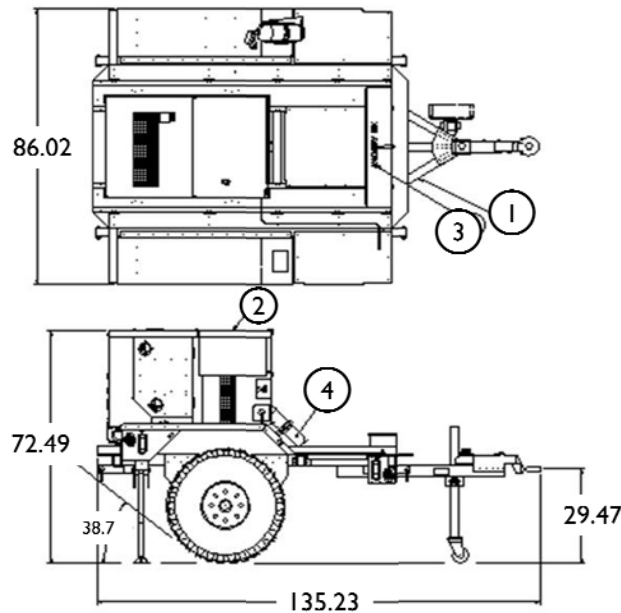
Figure A-5 5 kW Tactical Quiet Generator Set

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APPENDIX A

## 5 kW TQ Power Unit, 60 Hz, TRLMTD

| Identification Data                             |                                    |                              |        |                              |                   |
|-------------------------------------------------|------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | TQ POWER UNIT, 5 kW, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1608 |                   |
| Model                                           | NSN                                | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-797A                                         | 6115-01-413-3820                   | G42238                       | R62700 | TA-13230E6520                |                   |
| Technical Manual                                | Operator, Unit and Direct Support  |                              |        | TM 9-6115-659-13&P           |                   |
| Physical Characteristics                        |                                    |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                    | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 135 x 86 x 72 & (483)                           |                                    | 483                          |        | 2320                         | 2360              |



| FIND | COMPONENT                                    | QTY | IDENTIFIER       |
|------|----------------------------------------------|-----|------------------|
| 1    | Light Tactical Trailer (PU-797A)             | 1   | 97403-13230E6565 |
| 2    | TQ Generator set, DED, 5 kW, 60 Hz, MEP-802A | 1   | 6115-01-274-7387 |
| 3    | Accessory box                                | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106           | 1   | 4210-00-270-4512 |

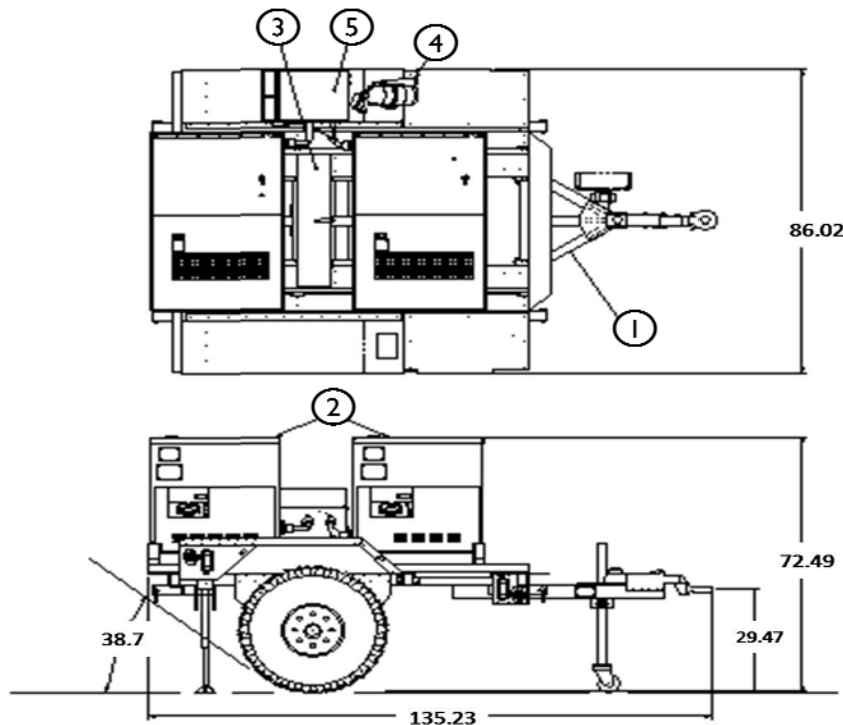
Figure A-6 PU-797A

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APPENDIX A

## 5 kW TQ Power Plant, 60 Hz, TRLMTD

| Identification Data                               |                                     |                              |        |                              |                   |
|---------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                       | TQ POWER PLANT, 5 kW, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1609 |                   |
| Model                                             | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-35A                                     | 6115-01-414-9697                    | P28083                       | R62700 | TA-13230E6560                |                   |
| Technical Manual                                  | Operator, Unit and Direct Support   |                              |        | TM 9-6115-659-13&P           |                   |
| Physical Characteristics                          |                                     |                              |        |                              |                   |
| Dimensions (LWH (in)) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 135 x 86 x 72 & ( 483)                            |                                     | 483                          |        | 3223                         | 3140              |



| FIND | COMPONENT                                    | QTY | IDENTIFIER       |
|------|----------------------------------------------|-----|------------------|
| 1    | Light Tactical Trailer (LTT) (PP-AN/MJQ-35A) | 1   | 97403-13230E6565 |
| 2    | TQ Generator set, DED, 5 kW, 60 Hz, MEP-802A | 2   | 6115-01-274-7387 |
| 3    | Accessory box                                | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106           | 1   | 4210-00-270-4512 |
| 5    | Switch box                                   | 1   | 97403-13230E6535 |

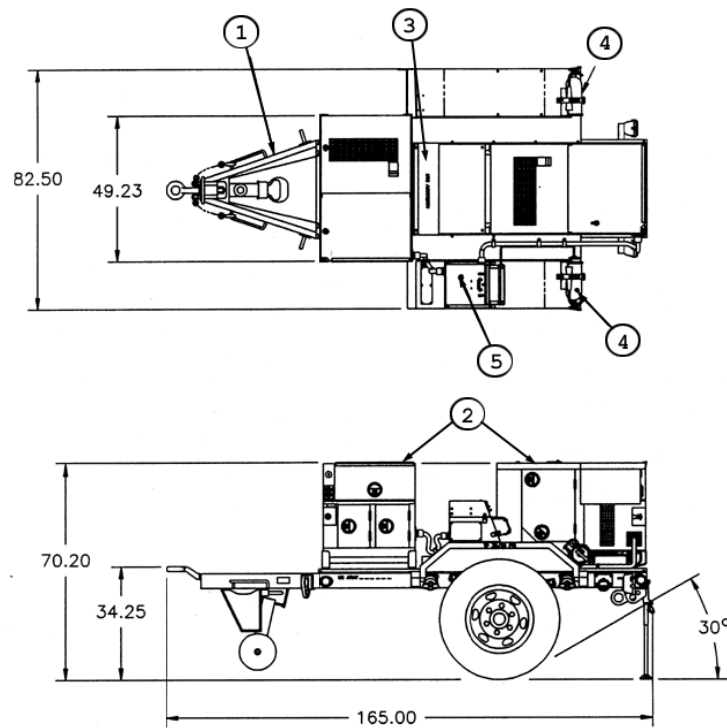
Figure A-7 PP-AN/MJQ-35A

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APPENDIX A

## 5 kW TQ Power Plant, 60 Hz, TRLMTD

| Identification Data                             |                                     |                              |        |                              |                   |
|-------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | TQ POWER PLANT, 5 kW, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1610 |                   |
| Model                                           | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-36                                    | 6115-01-313-4215                    | P28151                       | R62700 | TA-13229E5660                | MIL-P-53132/4     |
| Technical Manual                                | Operator, Unit and Direct Support   |                              |        | TM 9-6115-659-13&P           |                   |
| Physical Characteristics                        |                                     |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 83 x 71 & (562)                           |                                     | 562                          |        | 3785                         | 3985              |



| FIND | COMPONENT                                    | QTY | IDENTIFIER       |
|------|----------------------------------------------|-----|------------------|
| 1    | 1-1/2 Ton modified trailer, M103A3           | 1   | 97403-13229E5825 |
| 2    | Generator set, TQ DED, 5 kW, 60 Hz, MEP-802A | 2   | 6115-01-274-7387 |
| 3    | Accessory box                                | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106           | 2   | 4210-00-270-4512 |
| 5    | Switch box                                   | 1   | 97403-13230E6535 |

Figure A-8 PP-AN/MJQ-36

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## MIL-HDBK-633A

## APPENDIX A

## 10 kW Tactical Quiet Generator Set (TQG)

| Identification Data                          |                                                                                                                                                                                                        |                                 |                                                                                   |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------|
| Description                                  | 10 kW TQG, 60 Hz, DED, Skid Mtd                                                                                                                                                                        |                                 | 10 kW TQG, 400 Hz, DED, Skid Mtd                                                  |
| Model                                        | MEP-803A                                                                                                                                                                                               |                                 | MEP-813A                                                                          |
| NSN                                          | 6115-01-275-5061                                                                                                                                                                                       |                                 | 6115-01-274-7392                                                                  |
| LIN                                          | G74711                                                                                                                                                                                                 |                                 | G74779                                                                            |
| Specification                                | MIL-DTL-53133/3                                                                                                                                                                                        |                                 | MIL-DTL-53133/4                                                                   |
| SSN                                          | M53500                                                                                                                                                                                                 |                                 | M53500                                                                            |
| Trailer mounted configurations               | PU-798A: <a href="#">Figure A-10</a><br>PP-AN/MJQ-37: <a href="#">Figure A-12</a>                                                                                                                      |                                 | PU-799A: <a href="#">Figure A-11</a><br>PP-AN/MJQ-38: <a href="#">Figure A-13</a> |
| Physical Characteristics                     |                                                                                                                                                                                                        |                                 |                                                                                   |
| Dimensions LWH (in)                          | 62 x 32 x 37 (Cube:41 ft <sup>3</sup> )                                                                                                                                                                |                                 |                                                                                   |
| Wet Weight (lbs)                             | 1182                                                                                                                                                                                                   | 1220                            |                                                                                   |
| Engine                                       | Diesel, Onan model: DN4M-1, 4 cycle, 22 horsepower @ 1800 RPM, 24 VDC start, Liquid cooled.                                                                                                            |                                 |                                                                                   |
| Instrumentation                              | Hour meter, voltmeter, frequency, amps (% RL), oil pressure, fuel, coolant temp, battery amps, emergency stop, battle short.                                                                           |                                 |                                                                                   |
| Fuels                                        | Diesel DL-1, DL-2; Jet Fuel JP-8                                                                                                                                                                       |                                 |                                                                                   |
| Fuel Capacity                                | Fuel tank: 9 gallons                                                                                                                                                                                   |                                 |                                                                                   |
| Performance Characteristics                  |                                                                                                                                                                                                        |                                 |                                                                                   |
| Power Rating                                 | 10kW, 0.8 pf @ 4000 ft/120°F; 110% Max Power; De-rate: 3.5%/1000 ft from 4000 to 8000 ft                                                                                                               |                                 |                                                                                   |
| Environmental Capability                     | -25°F (-50°F with Winterization Kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage: -60°F, salt spray, fungus, 15° incline.                                              |                                 |                                                                                   |
| Protective Devices                           | Automatic shut down with emergency bypass for low oil pressure, coolant high-temp, no fuel, and over-voltage.                                                                                          |                                 |                                                                                   |
| Fuel Consumption                             | 0.97 gph @ rated load.                                                                                                                                                                                 | 1.00 gph @ rated load.          |                                                                                   |
| Human Factors                                | MIL-STD-1474.                                                                                                                                                                                          |                                 |                                                                                   |
| Noise                                        | 70 dBA @ 7 meters (23 ft).                                                                                                                                                                             |                                 |                                                                                   |
| Reliability (MTBF)                           | 771 hr @ 80% LCL                                                                                                                                                                                       | 527 hr @ 80% LCL                |                                                                                   |
| Maintenance Ratio:                           | less than 0.05                                                                                                                                                                                         |                                 |                                                                                   |
| Electrical Characteristics                   |                                                                                                                                                                                                        |                                 |                                                                                   |
| Connection                                   | 120/240V, 1ph, 3 wire                                                                                                                                                                                  | 120V, 1ph, 2 wire               | 120/208V, 3ph, 4 wire                                                             |
| Voltage Adj Range                            | 228 –252 V                                                                                                                                                                                             | 114 – 126 V                     | 205 –220 V                                                                        |
| Frequency Adj Range                          | ±3%                                                                                                                                                                                                    |                                 |                                                                                   |
| Electrical                                   | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Onan synchronous rotating field generator: 60 Hz: 4 pole alternator, 400 Hz: 24 pole. |                                 |                                                                                   |
| Electrical Performance                       |                                                                                                                                                                                                        |                                 |                                                                                   |
| Electric Power Quality                       |                                                                                                                                                                                                        | AC Voltage                      | Frequency                                                                         |
| Regulation                                   |                                                                                                                                                                                                        | 3%                              | 3%                                                                                |
| Modulation                                   |                                                                                                                                                                                                        | 1%                              |                                                                                   |
| Short term steady state stability (30 sec)   |                                                                                                                                                                                                        | 2% bandwidth                    | 2% bandwidth                                                                      |
| Long term steady state stability (4 hr)      |                                                                                                                                                                                                        | 4% bandwidth                    | 3% bandwidth                                                                      |
| Appl./rejection of rated load, recovery time |                                                                                                                                                                                                        | 20% dip/rise, 3 sec             | 3% under/4% over, 3 sec                                                           |
| Motor load                                   |                                                                                                                                                                                                        | 35% dip, 5 sec to 95% init volt |                                                                                   |
| Max waveform deviation factor                |                                                                                                                                                                                                        | 6% (1 phase); 5% (3 phase)      |                                                                                   |
| Individual waveform harmonic                 |                                                                                                                                                                                                        | 3% (1 phase); 2% (3 phase)      |                                                                                   |
| EMI                                          |                                                                                                                                                                                                        | Meets MIL-STD-461C Part 9       |                                                                                   |
| EMP                                          |                                                                                                                                                                                                        | HAEMP IAW MIL-STD-2169          |                                                                                   |
| Optional Equipment                           |                                                                                                                                                                                                        |                                 |                                                                                   |
| Description                                  | NSN                                                                                                                                                                                                    | Tech Bulletin                   | Effect on Dimensions (in)                                                         |
| Winterization kit                            | 6115-01-477-0564                                                                                                                                                                                       | TB9-6115-642-13                 | None (internal)                                                                   |
| Technical Manuals                            |                                                                                                                                                                                                        |                                 |                                                                                   |
|                                              | Army                                                                                                                                                                                                   | Air Force                       | Marine Corps                                                                      |
| Operators                                    | TM 9-6115-642-10                                                                                                                                                                                       | TO 35C2-3-455-11                | TM 09247A/09248A-10/1                                                             |
| Unit, DS, GS                                 | TM 9-6115-642-24                                                                                                                                                                                       | TO 35C2-3-455-12                | TM 09247A/09248A-24/2                                                             |
| RPSTL                                        | TM 9-6115-642-24P                                                                                                                                                                                      | TO 35C2-3-455-14                | TM 09247A/09248A-24P/3                                                            |
| Lube Order                                   | LO 9-6115-642-12                                                                                                                                                                                       |                                 | LI 09247A/09248A-12                                                               |
| Warranty TO                                  | TB 9-6115-642-24                                                                                                                                                                                       |                                 | SI 09247A/09248A-24                                                               |
| Engine Maintenance                           | TM 9-2815-253-24                                                                                                                                                                                       | TO 38G1-93-2                    | TM 2815-24/3                                                                      |
| Engine Parts                                 | TM 9-2815-253-24P                                                                                                                                                                                      | TO 38G1-93-4                    | TM 2815-24P/1                                                                     |

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MEP-803A or MEP-813A

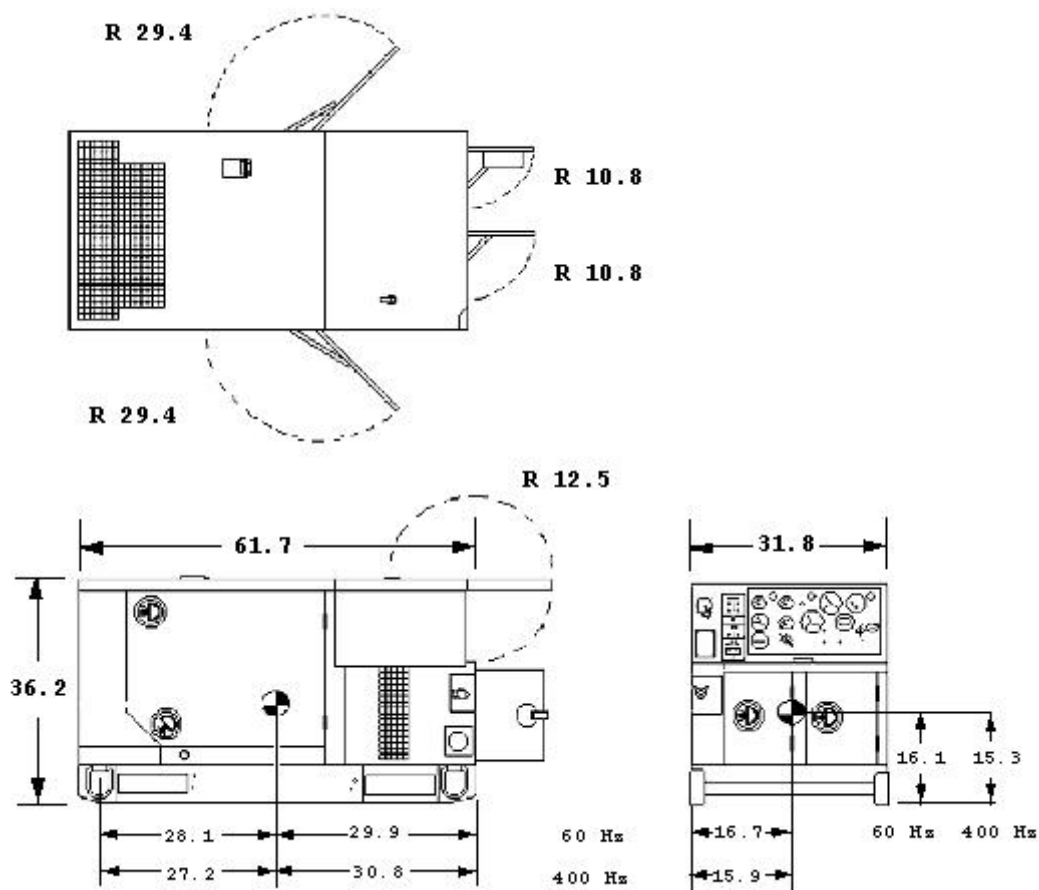


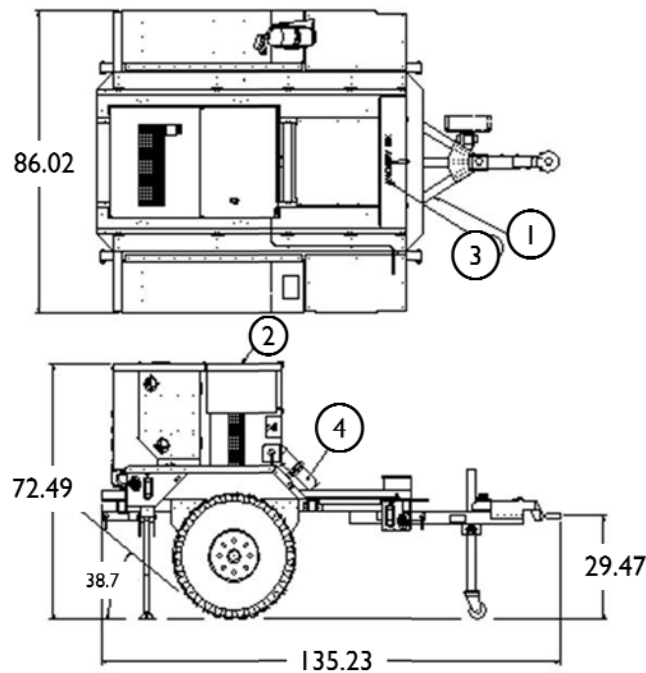
Figure A-9 10 kW Tactical Quiet Generator set

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APPENDIX A

**10 kW TQ Power Unit, 60 Hz, TRLMTD**

| Identification Data                             |                                    |                              |        |                              |                   |
|-------------------------------------------------|------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 10 kW TQ POWER UNIT, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1611 |                   |
| Model                                           | NSN                                | LIN                          | SSN    | ASSMEBLY                     | SPEC              |
| PU-798A                                         | 6115-01-413-3818                   | G42170                       | R62700 | TA-13230E6530                |                   |
| Technical Manual                                | Operator, Unit and Direct Support  |                              |        | TM 9-6115-660-13&P           |                   |
| Physical Characteristics                        |                                    |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                    | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 135 x 86 x 72 & (483)                           |                                    | 483                          |        | 2554                         | 2480              |



| FIND | COMPONENT                                     | QTY | IDENTIFIER       |
|------|-----------------------------------------------|-----|------------------|
| 1    | Light Tactical Trailer (LTT) (PU-798A)        | 1   | 97403-13230E6565 |
| 2    | TQ Generator set, DED, 10 kW, 60 Hz, MEP-803A | 1   | 6115-01-275-5061 |
| 3    | Accessory box                                 | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106            | 1   | 4210-00-270-4512 |

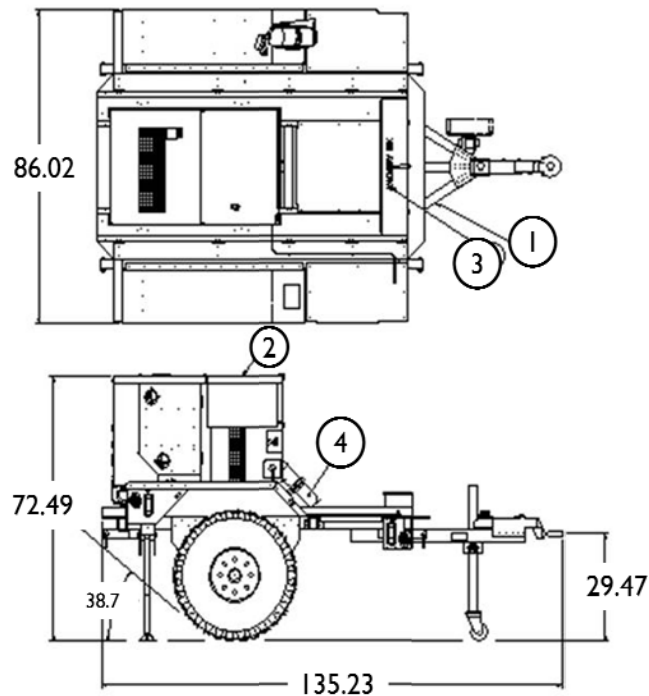
Figure A-10 PU-798A

MIL-HDBK-633A

APPENDIX A

## 10 kW TQ Power Unit, 400 Hz, TRLMTD

| Identification Data                  |                                     |                 |        |                              |                   |
|--------------------------------------|-------------------------------------|-----------------|--------|------------------------------|-------------------|
| Description                          | 10 kW TQ POWER UNIT, 400 Hz, TRLMTD |                 |        | Camouflage: 97403-13228E1611 |                   |
| Model                                | NSN                                 | LIN             | SSN    | ASSEMBLY                     | SPEC              |
| PU-799A                              | 6115-01-413-3819                    | G53403          | R62700 | TA-13230E6540                |                   |
| Technical Manual                     | Operator, Unit and Direct Support   |                 |        | TM 9-6115-660-13&P           |                   |
| Physical Characteristics             |                                     |                 |        |                              |                   |
| Dimensions LWH (in) and (Cube) (ft³) |                                     | Ship Cube (ft³) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 135 x 86 x 72 & (483)                |                                     | 483             |        | 2585.                        | 2510              |



| FIND | COMPONENT                                      | QTY | IDENTIFIER       |
|------|------------------------------------------------|-----|------------------|
| 1    | Light Tactical Trailer (LTT) (PU-799A)         | 1   | 7403-13230E6565  |
| 2    | TQ Generator set, DED, 10 kW, 400 Hz, MEP-813A | 1   | 6115-01-274-7392 |
| 3    | Accessory box                                  | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 1   | 4210-00-270-4512 |

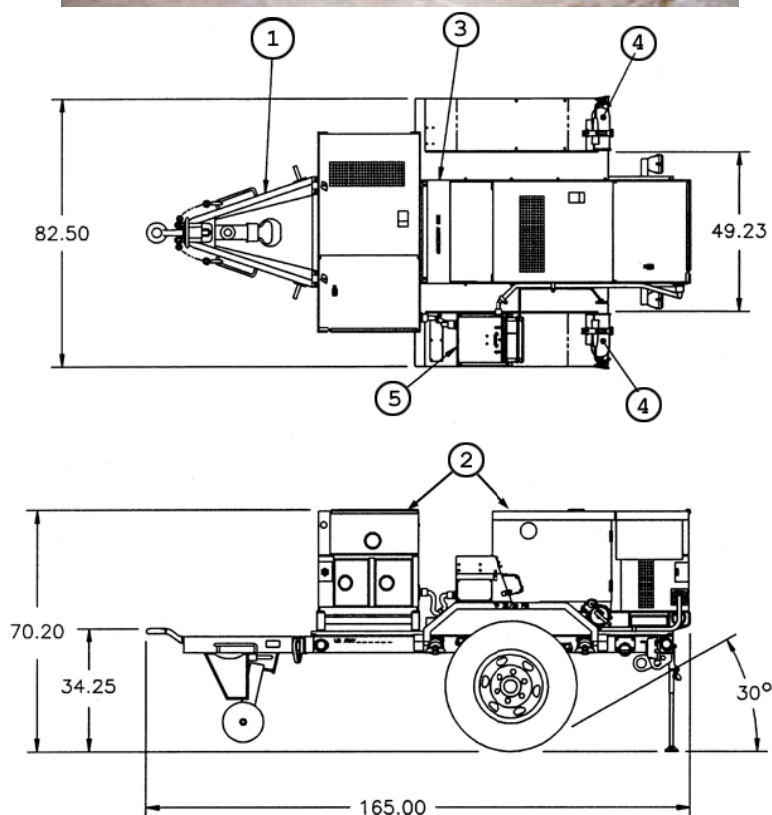
Figure A-11 PU-799A

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APPENDIX A

## 10 kW TQ Power Plant, 60 Hz, TRLMTD

| Identification Data                             |                                     |                              |        |                              |                   |
|-------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 10 kW TQ POWER PLANT, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1612 |                   |
| Model                                           | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-37                                    | 6115-01-299-6035                    | P42262                       | R62700 | TA-13229E5670                | MIL-P-53132/6     |
| Technical Manual                                | Operator, Unit and Direct Support   |                              |        | TM 9-6115-660-13&P           |                   |
| Physical Characteristics                        |                                     |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 83 x 71 & (554)                           |                                     | 554                          |        | 4334                         | 4540              |



| FIND | COMPONENT                                     | QTY | IDENTIFIER       |
|------|-----------------------------------------------|-----|------------------|
| 1    | 1-1/2 Ton modified trailer, M103A3            | 1   | 97403-13229E5825 |
| 2    | TQ Generator set, DED, 10 kW, 60 Hz, MEP-803A | 2   | 6115-01-275-5061 |
| 3    | Accessory box                                 | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106            | 2   | 4210-00-270-4512 |
| 5    | Switch box                                    | 1   | 97403-13230E6535 |

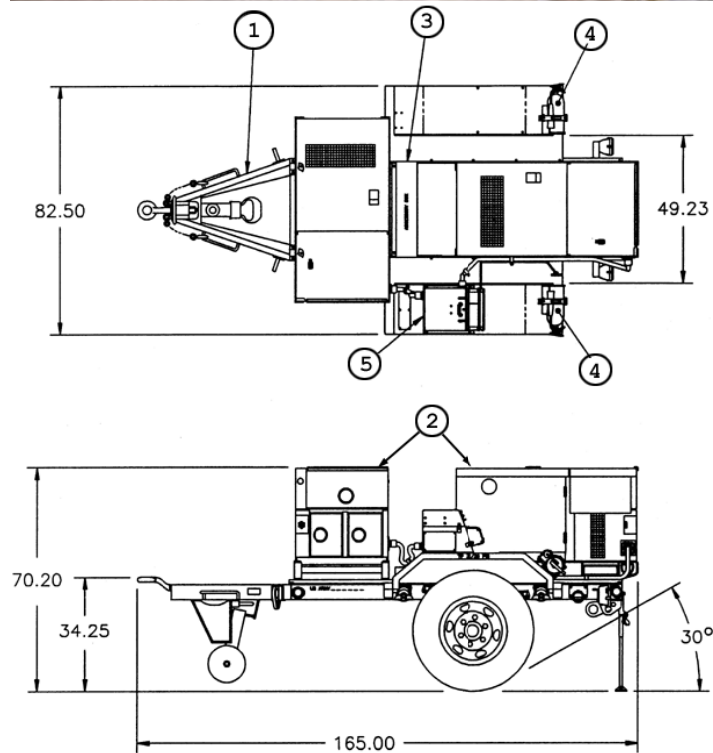
Figure A-12 PP-AN/MJQ-37

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APPENDIX A

**10 kW TQ Power Plant, 400 Hz, TRLMTD**

| Identification Data                             |                                      |                              |        |                              |                   |
|-------------------------------------------------|--------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 10 kW TQ POWER PLANT, 400 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1612 |                   |
| Model                                           | NSN                                  | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-38                                    | 6115-01-313-4214                     | P42330                       | R62700 | TA-13229E5680                | MIL-P-53132/7     |
| Technical Manual                                | Operator, Unit and Direct Support    |                              |        | TM 9-6115-660-13&P           |                   |
| Physical Characteristics                        |                                      |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                      | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 83 x 71 & (562)                           |                                      | 562                          |        | 4500                         | 4350              |



| FIND | COMPONENT                                      | QTY | IDENTIFIER       |
|------|------------------------------------------------|-----|------------------|
| 1    | 1-1/2 Ton modified trailer, M103A3             | 1   | 97403-13229E5825 |
| 2    | TQ Generator set, DED, 10 kW, 400 Hz, MEP-813A | 2   | 6115-01-274-7392 |
| 3    | Accessory box                                  | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 1   | 4210-00-270-4512 |
| 5    | Switch box                                     | 1   | 97403-13230E6535 |

Figure A-13 PP-AN/MJQ-38

## MIL-HDBK-633A

## APPENDIX A

## 15 kW Tactical Quiet Generator Set (TQG)

| Identification Data                                |                                                                                                                                                     |                                 |                                                                                    |                     |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------|---------------------|
| Description                                        | 15 kW TQG, 50/60 Hz, DED, Skid Mtd                                                                                                                  |                                 | 15 kW, TQG, 400 Hz, DED, Skid Mtd                                                  |                     |
| Model                                              | MEP-804A<br>MEP-804B                                                                                                                                |                                 | MEP-814A<br>MEP-814B                                                               |                     |
| NSN                                                | 6115-01-274-7388                                                                                                                                    |                                 | 6115-01-274-7393                                                                   |                     |
| Re-Engine                                          | B model 6115-01-530-1458                                                                                                                            |                                 | B model 6115-01-529-9494                                                           |                     |
| LIN                                                | G12170<br>B model G12170                                                                                                                            |                                 | G12238<br>B model G12238                                                           |                     |
| Specification                                      | MIL-DTL-53133/5                                                                                                                                     |                                 | MIL-DTL-53133/6                                                                    |                     |
| SSN                                                | M53500                                                                                                                                              |                                 | M53500                                                                             |                     |
| Trailer mounted configurations                     | PU-801B: <a href="#">Figure A-16</a><br>PU-802A: <a href="#">Figure A-17</a><br>PP-AN/MJQ-48B: <a href="#">Figure A-19</a>                          |                                 | PU-800A: <a href="#">Figure A-15</a><br>PP-AN/MJQ-39B: <a href="#">Figure A-18</a> |                     |
| Physical Characteristics                           |                                                                                                                                                     |                                 |                                                                                    |                     |
| Dimensions LWH (in)                                | 70 x 36 x 55 (Cube: 77 ft <sup>3</sup> )                                                                                                            |                                 |                                                                                    |                     |
| Wet Weight (lbs)                                   | 2124                                                                                                                                                |                                 | 2238                                                                               |                     |
| Engine                                             | Yanmar - Model:4TNV84T-DFM 4 Cycle, Liquid Cooled, 4 Cyl, 3.31 Inch Bore, 40 BHP @ 1800 RPM, 24 VDC starter,                                        |                                 |                                                                                    |                     |
| Instrumentation                                    | Hour meter, voltmeter, frequency, amps (% RL), oil pressure, fuel, coolant temp, battery amps, emergency stop, battle short.                        |                                 |                                                                                    |                     |
| Fuels                                              | Diesel DL-1, DL-2; Jet Fuel JP-8.                                                                                                                   |                                 |                                                                                    |                     |
| Fuel Capacity                                      | Fuel tank: 14 gallons.                                                                                                                              |                                 |                                                                                    |                     |
| Performance Characteristics                        |                                                                                                                                                     |                                 |                                                                                    |                     |
| Power Rating                                       | 15 kW (12.5 kW @ 50 Hz), 0.8 pf @ 4000 ft/120 °F; 110% Max Power; De-rate: 3.5%/1000 ft from 4000 to 8000 ft                                        |                                 |                                                                                    |                     |
| Environmental Capability                           | -25°F (-50°F W/kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage: -60°F, salt spray, fungus, 15° incline.            |                                 |                                                                                    |                     |
| Protective Devices                                 | Automatic shut down with emergency bypass for low oil pressure, coolant high-temperature, no fuel, over-speed, and over-voltage.                    |                                 |                                                                                    |                     |
| Fuel Consumption                                   | 1.44 gph @ rated load.                                                                                                                              |                                 | 1.75 gph @ rated load.                                                             |                     |
| Human Factors                                      | MIL-STD-1474.                                                                                                                                       |                                 |                                                                                    |                     |
| Noise                                              | 70 dBA @ 7 meters (23 ft).                                                                                                                          |                                 |                                                                                    |                     |
| Reliability (MTBF)                                 | 594 hr @ 80% LCL                                                                                                                                    |                                 | 377 hr @ 80% LCL                                                                   |                     |
| Maintenance Ratio                                  | less than 0.05                                                                                                                                      |                                 |                                                                                    |                     |
| Electrical Characteristics                         |                                                                                                                                                     |                                 |                                                                                    |                     |
| Connection                                         | 120/208V, 3ph, 4 wire                                                                                                                               | 240/416V, 3ph, 4 wire           | Freq adj range                                                                     |                     |
| Volt adj range (50Hz)                              | 190 – 213 V                                                                                                                                         | 380 – 426 V                     | 48 - 52 Hz                                                                         |                     |
| Volt adj range (60Hz)                              | 197 - 240 V                                                                                                                                         | 395 - 480 V                     | 58 - 62 Hz                                                                         |                     |
| Volt adj range (400Hz)                             | 197 - 229 V                                                                                                                                         | 395 - 458 V                     | 390 - 420 Hz                                                                       |                     |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, brushless Marathon/Lima generator. |                                 |                                                                                    |                     |
| Electrical Performance                             |                                                                                                                                                     |                                 |                                                                                    |                     |
| Electric Power Quality                             | AC Voltage                                                                                                                                          |                                 | Frequency                                                                          |                     |
|                                                    | 50/60 Hz                                                                                                                                            | 400 Hz                          | 50/60 Hz                                                                           | 400 Hz              |
| Regulation                                         | 1%                                                                                                                                                  |                                 | 0.25%                                                                              |                     |
| Modulation                                         | 1%                                                                                                                                                  |                                 |                                                                                    |                     |
| Short term steady st stability (30 sec)            | 1% bandwidth                                                                                                                                        |                                 | 0.5% bandwidth                                                                     |                     |
| Long term steady state stability (4 hr)            | 2% bandwidth                                                                                                                                        |                                 | 1% bandwidth                                                                       |                     |
| Application/rejection of rated load, Recovery time | 15% dip/rise, 0.5 sec                                                                                                                               | 12% dip/rise, 0.5 sec           | 4% und/ over, 2 sec                                                                | 1.5%und/over, 1 sec |
| Motor load                                         | 30% dip, .7 sec to 95% init volt                                                                                                                    | 25% dip,.7 sec to 95% init volt |                                                                                    |                     |
| Max waveform deviation factor                      | 5%                                                                                                                                                  |                                 |                                                                                    |                     |
| Individual waveform harmonic                       | 2%                                                                                                                                                  |                                 |                                                                                    |                     |
| EMI                                                | Meets MIL-STD-461C Part 9                                                                                                                           |                                 |                                                                                    |                     |
| EMP                                                | HAEMP IAW MIL-STD-2169                                                                                                                              |                                 |                                                                                    |                     |

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## APPENDIX A

| Optional Equipment |                   |                  |                           |
|--------------------|-------------------|------------------|---------------------------|
| Description        | NSN               | Tech Bulletin    | Effect on Dimensions (in) |
| Winterization kit  | 6115-01-477-0566  | TB 9-6115-643-13 | None (internal)           |
| Technical Manuals  |                   |                  |                           |
|                    | Army              | Air Force        | Marine Corps              |
| Operators          | TM 9-6115-643-10  | TO 35C2-3-455-21 | None                      |
| Unit, DS, GS       | TM 9-6115-643-24  | TO 35C2-3-455-22 |                           |
| RPSTL              | TM 9-6115-643-24P | TO 35C2-3-455-24 |                           |
| Engine Maintenance | TM 9-2815-254-24  | TO 38G1-94-2     |                           |
| Engine Parts       | TM 9-2815-254-24P | TO 38G1-94-4     |                           |
| Lube Order         | LO 9-6115-643-12  |                  |                           |
| Warranty           | TB 9-6115-643-24  |                  |                           |



MEP-804A, MEP-804B, MEP-814A or MEP-814B

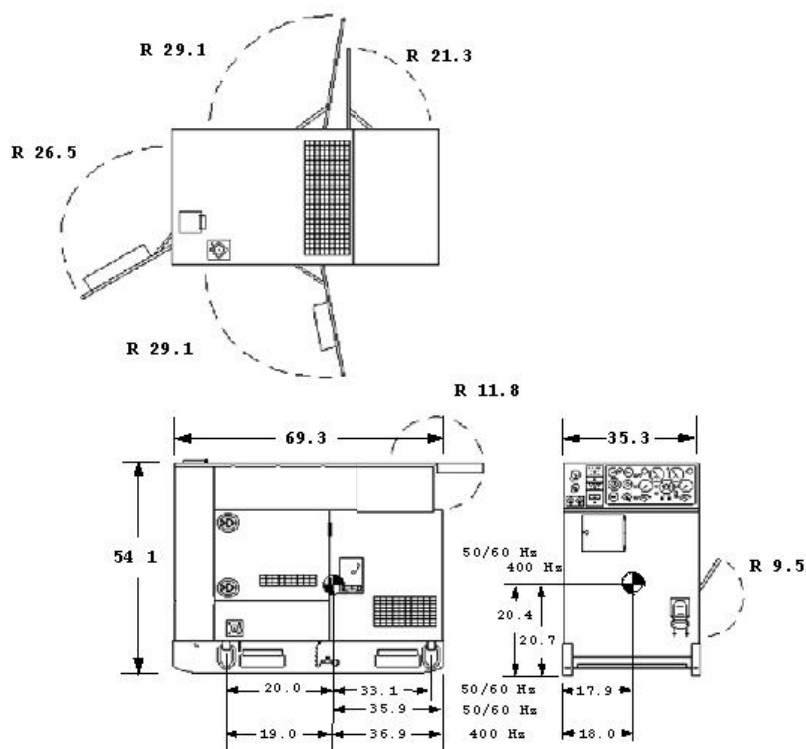


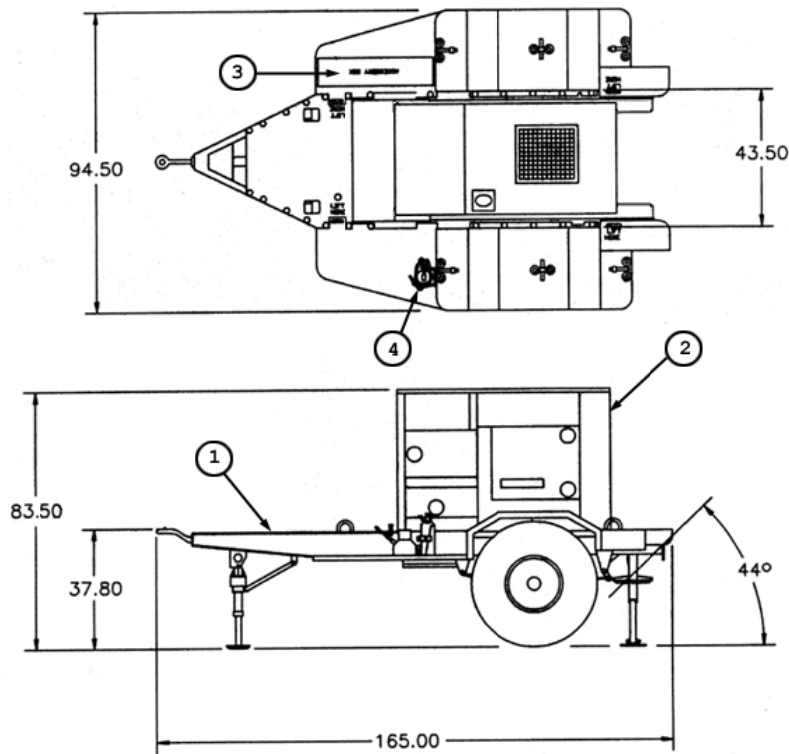
Figure A-14 15 kW Tactical Quiet Generator Set-

MIL-HDBK-633A

APPENDIX A

## 15 kW TQ Power Unit, 400 Hz, TRLMTD

| Identification Data                             |                                     |                              |        |                              |                   |
|-------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 15 kW TQ POWER UNIT, 400 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1614 |                   |
| Model                                           | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-800A                                         | 6115-01-565-0929                    | G78203                       | R62700 | TA-97-2111                   | MIL-P-53132       |
| Technical Manual                                | Operator, Unit and Direct Support   |                              |        | TM 9-6115-661-13&P           |                   |
| Physical Characteristics                        |                                     |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 95 x 84 & (761)                           |                                     | 761                          |        | 4975                         | 4855              |



| FIND | COMPONENT                                      | QTY | IDENTIFIER       |
|------|------------------------------------------------|-----|------------------|
| 1    | 2 1/2 Ton modified Trailer, M200A1             | 1   | 97403-13229E9623 |
| 2    | TQ Generator set, DED, 15 kW, 400 Hz, MEP-814B | 1   | 6115-01-274-7393 |
| 3    | Accessory box                                  | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 1   | 4210-00-270-4512 |

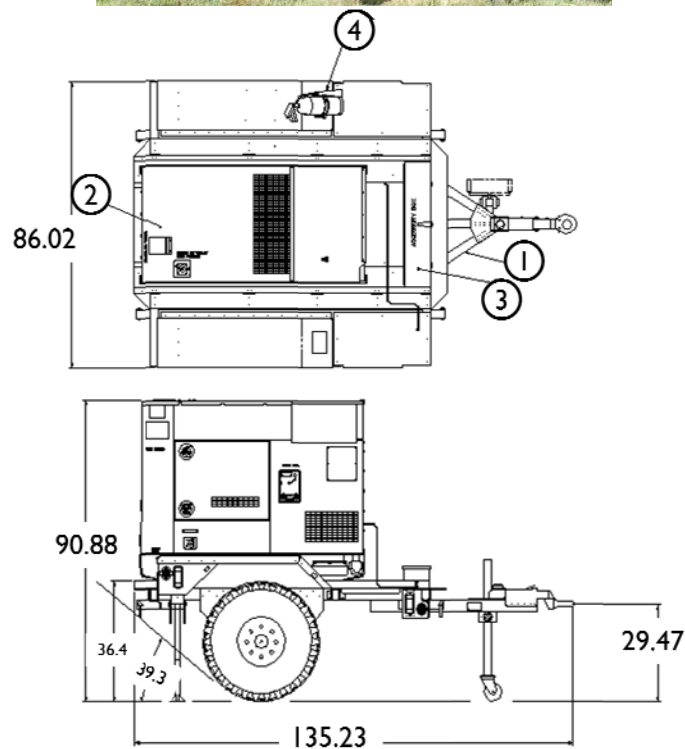
Figure A-15 PU-800A

MIL-HDBK-633A

APPENDIX A

## 15 kW TQ Power Unit, 50/60 Hz, TRLMTD

| Identification Data                             |                                       |                              |        |                              |                   |
|-------------------------------------------------|---------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1613 |                   |
| Model                                           | NSN                                   | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-801B                                         | 6115-01-565-0874                      | G78374                       | R62700 | TA-97-2003                   | MIL-P-53132/12    |
| Technical Manual                                | Operator, Unit and Direct Support     |                              |        | TM 9-6115-661-13&P           |                   |
| Physical Characteristics                        |                                       |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                       | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 135 x 86 x 91 & (611)                           |                                       | 611                          |        | 3516                         | 3400              |



| FIND | COMPONENT                                        | QTY | IDENTIFIER       |
|------|--------------------------------------------------|-----|------------------|
| 1    | Light Tactical Trailer (LTT) (PU-801B)           | 1   | 97403-13230E6565 |
| 2    | TQ Generator Set, DED, 15 kW, 50/60 Hz, MEP-804B | 1   | 6115-01-274-7388 |
| 3    | Accessory box                                    | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106               | 1   | 4210-00-270-4512 |

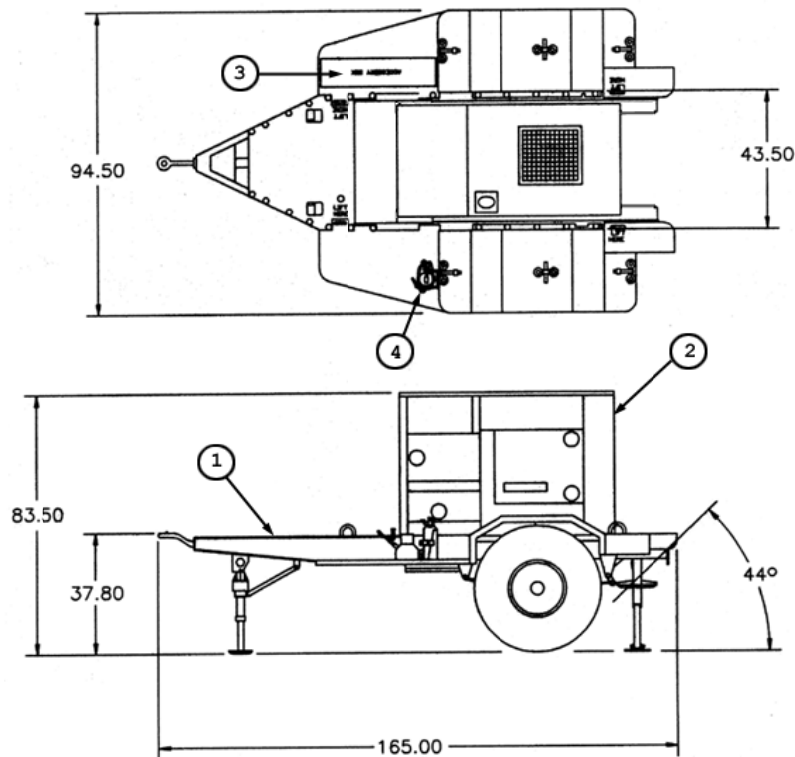
Figure A-16 PU-801B

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APPENDIX A

**15 kW TQ Power Unit, 50/60 Hz, TRLMTD**

| Identification Data                             |                                       |                              |        |                              |                   |
|-------------------------------------------------|---------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1614 |                   |
| Model                                           | NSN                                   | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-802A                                         | 6115-01-565-1576                      | G53778                       | R62700 | TA-97-2101                   | MIL-P-53132/13    |
| Technical Manual                                | Operator, Unit and Direct Support     |                              |        | TM 9-6115-661-13&P           |                   |
| Physical Characteristics                        |                                       |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                       | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 95 x 84 & (754)                           |                                       | 754                          |        | 5040                         | 4920              |



| FIND | COMPONENT                                  | QTY | IDENTIFIER       |
|------|--------------------------------------------|-----|------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1         | 1   | 97403-13229E9632 |
| 2    | TQ Gen set, DED, 15 kW, 50/60 Hz, MEP-804B | 1   | 6115-01-274-7388 |
| 3    | Accessory box                              | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106         | 1   | 4210-00-270-4512 |

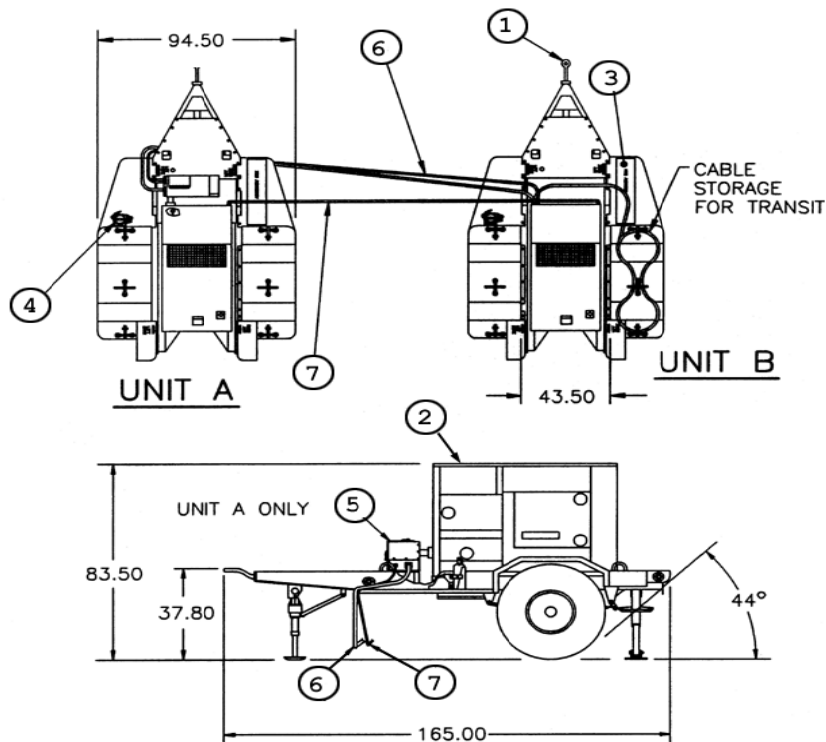
Figure A-17 PU-802A

MIL-HDBK-633A

APPENDIX A

**15 kW TQ Power Plant, 400 Hz, TRLMTD**

| Identification Data                  |                                     |                 |        |                              |                              |
|--------------------------------------|-------------------------------------|-----------------|--------|------------------------------|------------------------------|
| Description                          | 15kW TQ POWER PLANT, 400 Hz, TRLMTD |                 |        | Camouflage: 97403-13228E1614 |                              |
| Model                                | NSN                                 | LIN             | SSN    | ASSEMBLY                     | SPEC                         |
| PP-ANMJQ-39B                         | 6115-01-565-0701                    | P42614          | R62700 | TA-97-3104                   | MIL-P-53132                  |
| Technical Manual                     | Operator, Unit and Direct Support   |                 |        | TM 9-6115-661-13&P           |                              |
| Physical Characteristics             |                                     |                 |        |                              |                              |
| Dimensions (LWH (in)) & (Cube) (ft³) |                                     | Ship Cube (ft³) |        | Wet Weight (lbs)             | Ship Weight (lbs)            |
| 165 x 95 x 84 & (754) each           |                                     | 754 each        |        | Unit A: 4863<br>Unit B: 4893 | Unit A: 4765<br>Unit B: 4765 |



| FIND | COMPONENT                                | QTY | IDENTIFIER         |
|------|------------------------------------------|-----|--------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1       | 2   | 97403-13229E9632   |
| 2    | TQ Gen set, DED, 15 kW, 400 Hz, MEP-814B | 2   | 6115-01-529-9494   |
| 3    | Accessory box                            | 2   | 97403-13229E7946   |
| 4    | Fire extinguisher, 5 lb., A-A-1106       | 2   | 4210-00-270-4512   |
| 5    | Switch box (unit A)                      | 1   | 97403-13229E5795-1 |
| 6    | Cable assembly (unit B)                  | 1   | 97403-13229E5674   |
| 7    | Paralleling cable assembly,              | 2   | 30554-88-22209     |

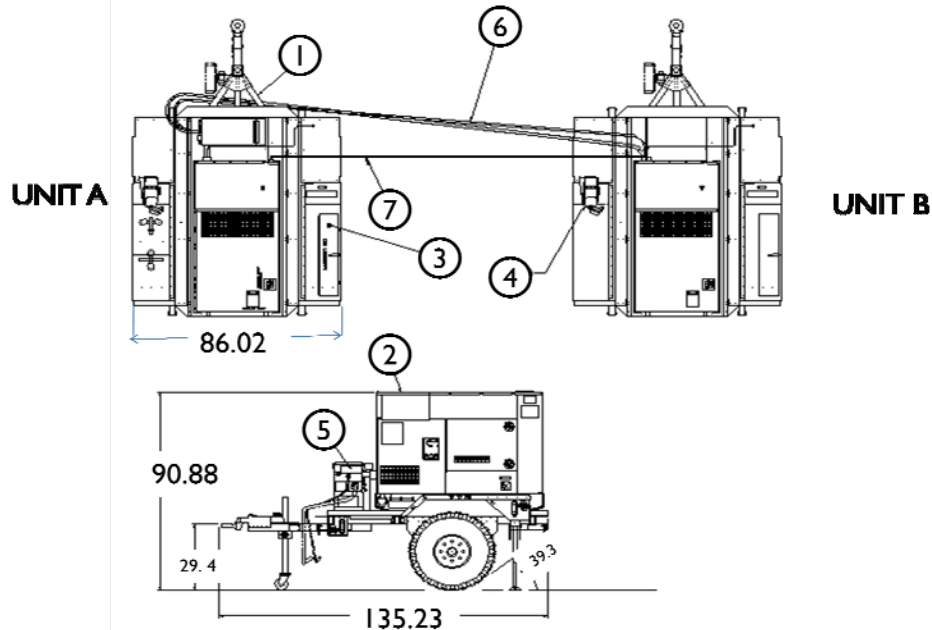
Figure A-18 PP-AN/MJQ-39B

MIL-HDBK-633A

APPENDIX A

**15 kW TQ Power Plant, 50/60 Hz, TRLMTD**

| Identification Data                  |                                       |                 |        |                              |                              |
|--------------------------------------|---------------------------------------|-----------------|--------|------------------------------|------------------------------|
| Description                          | 15kW TQ POWER PLANT, 50/60 Hz, TRLMTD |                 |        | Camouflage: 97403-13228E1728 |                              |
| Model                                | NSN                                   | LIN             | SSN    | ASSEMBLY                     | SPEC                         |
| PP-AN/MJQ-48B                        | 6115-01-565-0691                      | Z01012          | R62700 | TA-97-3003                   | MIL-P-53132                  |
| Technical Manual                     | Operator, Unit and Direct Support     |                 |        | TM 9-6115-661-13&P           |                              |
| Physical Characteristics             |                                       |                 |        |                              |                              |
| Dimensions (LWH (in)) & (Cube) (ft³) |                                       | Ship Cube (ft³) |        | Wet Weight (lbs)             | Ship Weight (lbs)            |
| 135 x 86 x 91 & (611) each           |                                       | 611 each        |        | Unit A: 3570<br>Unit B: 3570 | Unit A: 3470<br>Unit B: 3470 |



| FIND | COMPONENT                                  | QTY | IDENTIFIER         |
|------|--------------------------------------------|-----|--------------------|
| 1    | Light Tactical Trailer (LTT) AN/MJQ-48A    | 2   | 97403-13230E6565   |
| 2    | TQ Gen set, DED, 15 kW, 50/60 Hz, MEP-804A | 2   | 6115-01-274-7388   |
| 3    | Accessory box                              | 2   | 97403-13229E7946   |
| 4    | Fire extinguisher, 5 lb., A-A-1106         | 2   | 4210-00-270-4512   |
| 5    | Switch box (unit A)                        | 1   | 97403-13229E5795-1 |
| 6    | Cable assembly (unit B)                    | 1   | 97403-13229E5674   |
| 7    | Paralleling cable assembly,                | 2   | 30554-88-22209     |

Figure A-19 PP-AN/MJQ-48B

MIL-HDBK-633A  
APPENDIX A

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## MIL-HDBK-633A

## APPENDIX A

## 30 kW Tactical Quiet Generator Set (TQG)

| Identification Data                                 |                                                                                                                                                                          |                                  |                                      |                    |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------|--------------------|
| Description                                         | 30 kW TQG, 50/60 Hz, DED, Skid Mtd                                                                                                                                       |                                  | 30 kW TQG, 400 Hz, DED, Skid Mtd     |                    |
| Model                                               | MEP-805B                                                                                                                                                                 |                                  | MEP-815B                             |                    |
| NSN                                                 | 6115-01-461-9335                                                                                                                                                         |                                  | 6115-01-462-0290                     |                    |
| LIN                                                 | G74575                                                                                                                                                                   |                                  | G74643                               |                    |
| Specification                                       | MIL-DTL-53133/7                                                                                                                                                          |                                  | MIL-DTL-53133/8                      |                    |
| SSN                                                 | M53500                                                                                                                                                                   |                                  | M53500                               |                    |
| Trailer mounted configurations                      | PU-803B, <a href="#">Figure A-21</a><br>PP-AN/MJQ-40B, <a href="#">Figure A-23</a>                                                                                       |                                  | PU-804B, <a href="#">Figure A-22</a> |                    |
| Physical Characteristics                            |                                                                                                                                                                          |                                  |                                      |                    |
| Dimensions LWH (in)                                 | 80 x 36 x 55 (Cube: 88 ft <sup>3</sup> )                                                                                                                                 |                                  |                                      |                    |
| Wet Weight (lbs)                                    | 3040                                                                                                                                                                     |                                  | 3060                                 |                    |
| Engine                                              | John Deere - Model: 4045TF151 4 cyl Turbo Diesel, 92 hp @ 1800 RPM, 24 VDC starter, liquid cooled. EPA certified.                                                        |                                  |                                      |                    |
| Instrumentation                                     | Digital Display                                                                                                                                                          |                                  |                                      |                    |
| Fuels                                               | Diesel DL-1, DL-2; Jet Fuel JP-8. Fuel tank: 23 gallons.                                                                                                                 |                                  |                                      |                    |
| Performance Characteristics                         |                                                                                                                                                                          |                                  |                                      |                    |
| Power Rating                                        | 30 kW (25 kW @ 50 Hz), 0.8 pf @ 4000 ft/120°F; 110% Max Power; De-rate: 3.5%/1000 ft from 4000 to 8000 ft                                                                |                                  |                                      |                    |
| Environmental Capability                            | -25°F (-50°F W/kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage: -60°F, salt spray, fungus, 15° incline.                                 |                                  |                                      |                    |
| Protective Devices                                  | Automatic shut down with emergency bypass for low oil pressure, coolant high temperature, low fuel, over-speed, and over-voltage.                                        |                                  |                                      |                    |
| Fuel Consumption                                    | 2.7 gph @ rated load.                                                                                                                                                    |                                  | 3.0 gph @ rated load.                |                    |
| Human Factors                                       | MIL-STD-1474                                                                                                                                                             |                                  |                                      |                    |
| Noise                                               | 70 dBA @ 7 meters (23 ft).                                                                                                                                               |                                  |                                      |                    |
| Reliability (MTBF)                                  | 1638 hr @ 80% LCL                                                                                                                                                        |                                  | 679 hr @ 80% LCL                     |                    |
| Maintenance Ratio                                   | less than 0.05                                                                                                                                                           |                                  |                                      |                    |
| Other                                               | Remote Control Capable                                                                                                                                                   |                                  |                                      |                    |
| Electrical Characteristics                          |                                                                                                                                                                          |                                  |                                      |                    |
| Connection                                          | 120/208V, 3ph, 4 wire                                                                                                                                                    | 240/416V, 3ph, 4 wire            | Frequency adj range                  |                    |
| Volt adj range (50Hz)                               | 190 – 213 V                                                                                                                                                              | 380 – 426 V                      | 48 - 52 Hz                           |                    |
| Volt adj range (60Hz)                               | 197 - 240 V                                                                                                                                                              | 395 - 480 V                      | 58 - 62 Hz                           |                    |
| Volt adj range (400Hz)                              | 197 - 229 V                                                                                                                                                              | 395 - 458 V                      | 390 - 410 Hz                         |                    |
| Electrical                                          | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Marathon Electric synchronous rotating field generator. |                                  |                                      |                    |
| Electrical Performance                              |                                                                                                                                                                          |                                  |                                      |                    |
| Electric Power Quality                              | AC Voltage                                                                                                                                                               |                                  | Frequency                            |                    |
|                                                     | 50/60 Hz                                                                                                                                                                 | 400 Hz                           | 50/60 Hz                             | 400 Hz             |
| Regulation                                          | 1%                                                                                                                                                                       |                                  | 0.25%                                |                    |
| Modulation                                          | 1%                                                                                                                                                                       |                                  |                                      |                    |
| Short term steady state stability (30 sec)          | 1% bandwidth                                                                                                                                                             |                                  | 0.5% bandwidth                       |                    |
| Long term steady state stability (4 hr)             | 2% bandwidth                                                                                                                                                             |                                  | 1% bandwidth                         |                    |
| Application./rejection of rated load, recovery time | 15% dip/rise , 0.5 sec                                                                                                                                                   | 12% dip/rise, 0.5 sec            | 4% und/over 2 sec                    | 1.5%und/over 1 sec |
| Motor load                                          | 30% dip,.7 sec to 95% init volt                                                                                                                                          | 30% dip, .7 sec to 95% init volt |                                      |                    |
| Max waveform deviation factor                       | 5%                                                                                                                                                                       |                                  |                                      |                    |
| Individual waveform harmonic                        | 2%                                                                                                                                                                       |                                  |                                      |                    |
| EMI                                                 | Meets MIL-STD-461C, Part 9                                                                                                                                               |                                  |                                      |                    |
| EMP                                                 | HAEMP IAW MIL-STD-2169                                                                                                                                                   |                                  |                                      |                    |
| Optional Equipment                                  |                                                                                                                                                                          |                                  |                                      |                    |
| Description                                         | NSN                                                                                                                                                                      | Tech Bulletin                    | Effect on Dimensions (in)            |                    |
| Winterization kit                                   | 6115-01-474-8354                                                                                                                                                         | TB9-6115-644-13                  | None (internal)                      |                    |

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## APPENDIX A

## Technical Manuals

|                    | ARMY              | Air Force        | Marine Corps           |
|--------------------|-------------------|------------------|------------------------|
| Operators, DS, GS  | TM 9-6115-671-14  | TO 35C2-3-446-32 | TM 09249A/09246A-14    |
| RPSTL              | TM 9-6115-671-24P | TO 35C2-3-446-34 | TM 09249A/09246A-24P/3 |
| Engine Maintenance | TM 9-2815-259-24  | TO 38BG1-125-2   | TM 09249A/09246A-24    |
| Engine Parts       | TM 9-2815-259-24P | TO 38BG1-125-4   | TM 09249A/2815-24P/4   |
| Lube Order         | LO 9-6115-644-12  |                  |                        |
| Warranty           | TB 9-6115-671-24  |                  |                        |



MEP-805B or MEP-815B

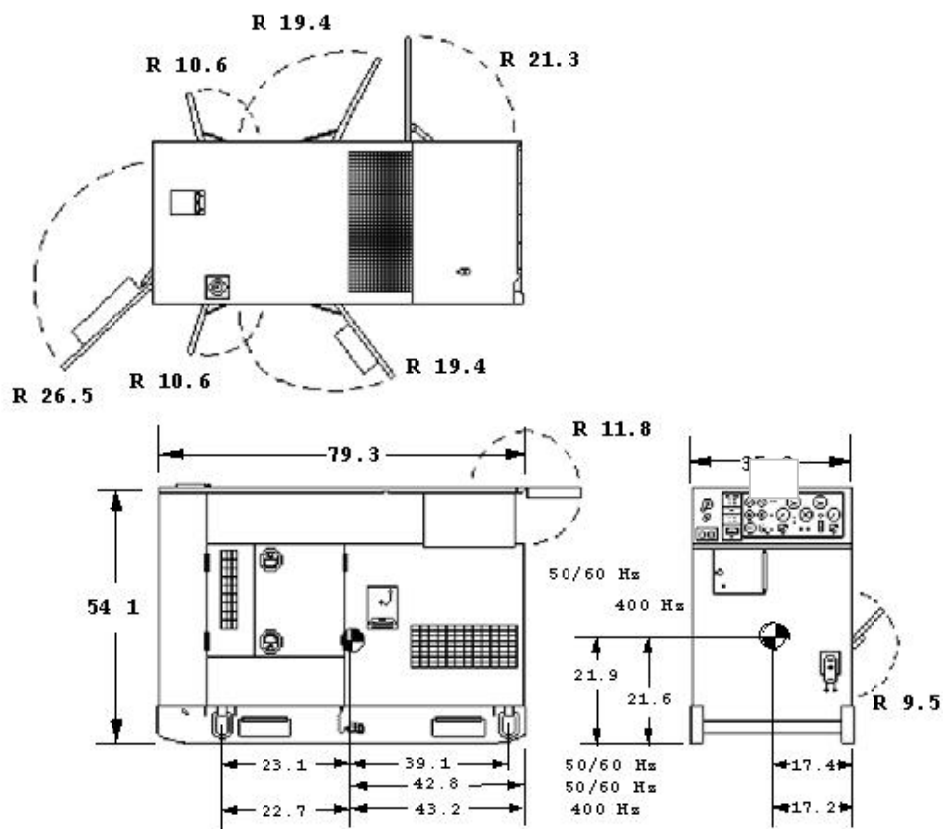


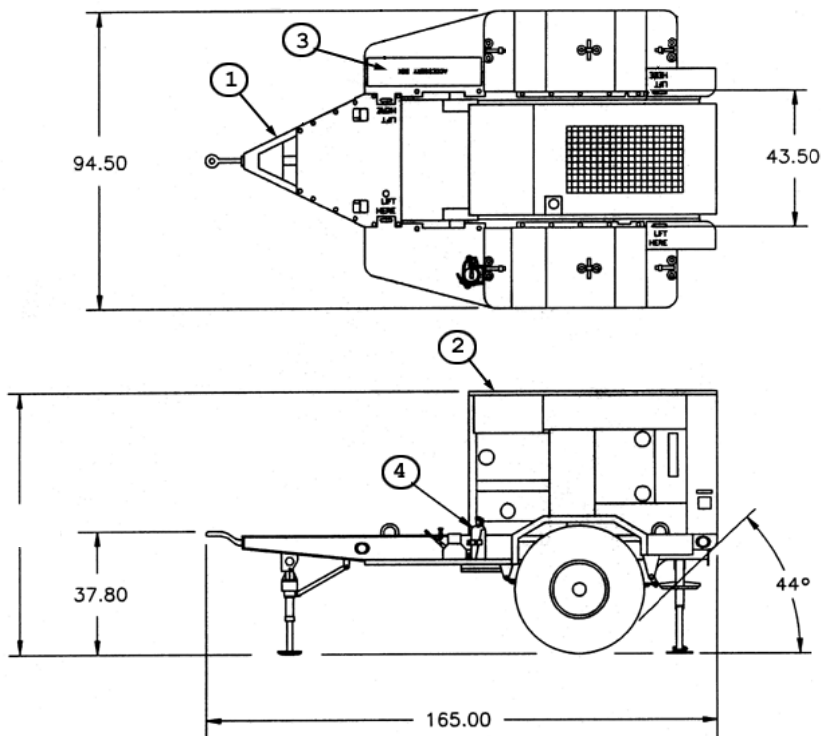
Figure A-20 30 kW Tactical Quiet Generator Set (re-engine)

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APPENDIX A

## 30 kW TQ Power Unit, 50/60 Hz, TRLMTD

| Identification Data                |                                       |                 |                  |                              |                |
|------------------------------------|---------------------------------------|-----------------|------------------|------------------------------|----------------|
| Description                        | 30 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                 |                  | Camouflage: 97403-13228E1615 |                |
| Model                              | NSN                                   | LIN             | SSN              | ASSEMBLY                     | SPEC           |
| PU-803B                            | 6115-01-470-6376                      | G35851          | R62700           | TA-13230E6849                | MIL-P-53132/15 |
| Technical Manual                   | Operator, Unit and Direct Support     |                 |                  | TM 9-6115-662-13&P           |                |
| Physical Characteristics           |                                       |                 |                  |                              |                |
| Dimensions LWH (in) & (Cube) (ft³) |                                       | Ship Cube (ft³) | Wet Weight (lbs) | Ship Weight (lbs)            |                |
| 165 x 95 x 85 & (763)              |                                       | 763             | 5525             | 5320                         |                |



| FIND | COMPONENT                                  | QTY | IDENTIFIER       |
|------|--------------------------------------------|-----|------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1         | 1   | 97403-13229E9632 |
| 2    | TQ Gen set, DED, 30 kW, 50/60 Hz, MEP-805B | 1   | 6115-01-461-9335 |
| 3    | Accessory box                              | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106         | 1   | 4210-00-270-4512 |

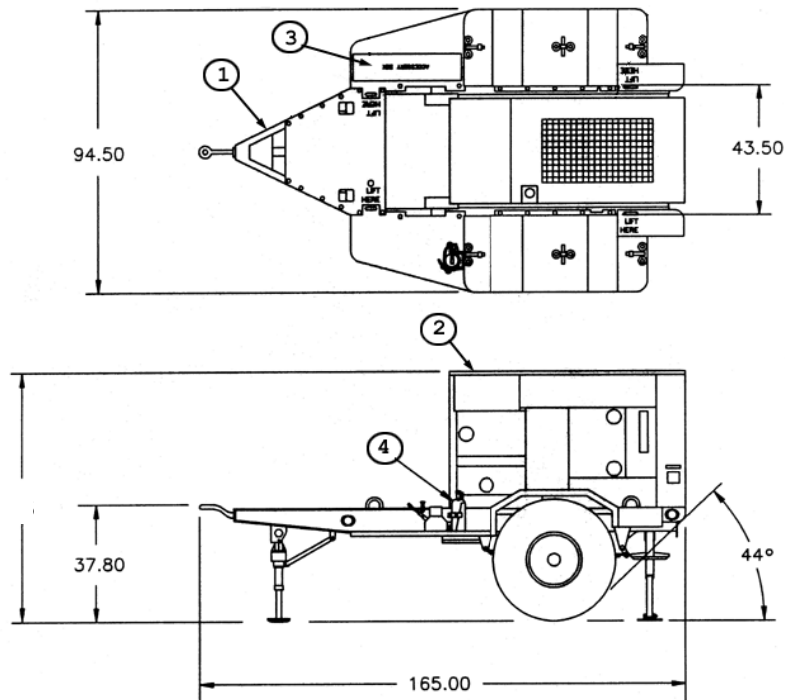
Figure A-21 PU-803B

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APPENDIX A

## 30 kW TQ Power Unit, 400 Hz, TRLMTD

| Identification Data                             |                                     |                              |        |                              |                   |
|-------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 30 kW TQ POWER UNIT, 400 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1615 |                   |
| Model                                           | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-804B                                         | 6115-01-471-1507                    | G35919                       | R62700 | TA-13230E6850                | MIL-P-53132/16    |
| Technical Manual                                | Operator, Unit and Direct Support   |                              |        | TM 9-6115-662-13&P           |                   |
| Physical Characteristics                        |                                     |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 95 x 85 & (763)                           |                                     | 763                          |        | 5545                         | 5340              |



| FIND | COMPONENT                                      | QTY | IDENTIFIER       |
|------|------------------------------------------------|-----|------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1             | 1   | 97403-13229E9632 |
| 2    | TQ Generator set, DED, 30 kW, 400 Hz, MEP-815B | 1   | 6115-01-462-0290 |
| 3    | Accessory box                                  | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 1   | 4210-00-270-4512 |

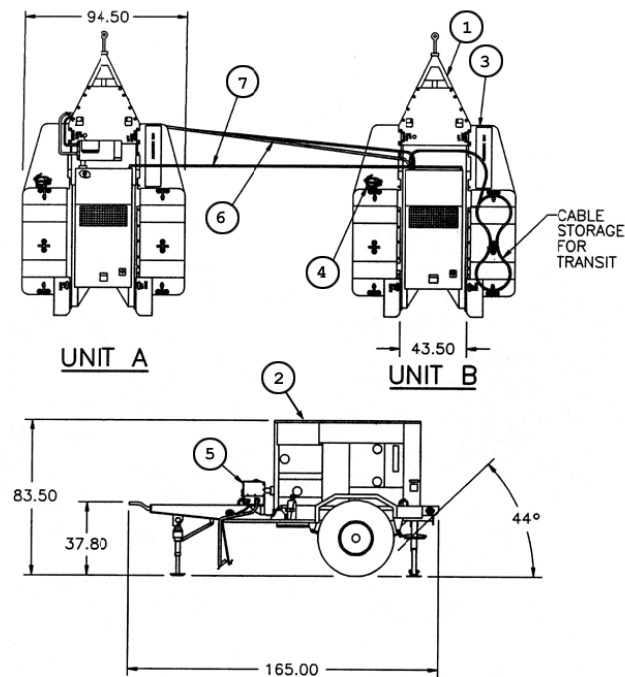
Figure A-22 PU-804B

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APPENDIX A

## 30 kW TQ Power Plant, 50/60 Hz, TRLMTD

| Identification Data                |                                        |                 |        |                              |                              |
|------------------------------------|----------------------------------------|-----------------|--------|------------------------------|------------------------------|
| Description                        | 30 kW TQ POWER PLANT, 50/60 Hz, TRLMTD |                 |        | Camouflage: 97403-13228E1615 |                              |
| Model                              | NSN                                    | LIN             | SSN    | ASSEMBLY                     | SPEC                         |
| PP-AN/MJQ-40B                      | 6115-01-474-3783                       | P42126          | R62700 | TA-13230E6853                | MIL-P-53132/14               |
| Technical Manual                   | Operator, Unit and Direct Support      |                 |        | TM 9-6115-662-13&P           |                              |
| Physical Characteristics           |                                        |                 |        |                              |                              |
| Dimensions LWH (in) & (Cube) (ft³) |                                        | Ship Cube (ft³) |        | Wet Weight (lbs)             | Ship Weight (lbs)            |
| 165 x 95 x 85 & (763) each         |                                        | 763 each        |        | Unit A: 5590<br>Unit B: 5590 | Unit A: 5390<br>Unit B: 5390 |



| FIND | COMPONENT                                       | QTY | IDENTIFIER         |
|------|-------------------------------------------------|-----|--------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1              | 2   | 97403-13229E9632   |
| 2    | TQ Generator set, DED, 30kW, 50/60 Hz, MEP-805B | 2   | 6115-01-461-9335   |
| 3    | Accessory box                                   | 2   | 97403-13229E7946   |
| 4    | Fire extinguisher, 5 lb., A-A-1106              | 2   | 4210-00-270-4512   |
| 5    | Switch box (unit A)                             | 1   | 97403-13229E5795-2 |
| 6    | Cable assembly ( unit B)                        | 1   | 97403-13229E5738   |
| 7    | Paralleling cable assembly                      | 2   | 30554-88-22209     |

Figure A-23 PP-AN/MJQ-40B

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APPENDIX A

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## MIL-HDBK-633A

## APPENDIX A

## 60 kW Tactical Quiet Generator Set (TQG)

| Identification Data                                 |                                                                                                                                                                     |                                     |                                                                                                        |                       |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------|
| Description                                         | 60 kW TQG, 50/60 Hz, DED, Skid Mtd                                                                                                                                  |                                     | 60 kW TQG, 400 Hz, DED, Skid Mtd                                                                       |                       |
| Model                                               | MEP-806B                                                                                                                                                            |                                     | MEP-816B                                                                                               |                       |
| NSN                                                 | 6115-01-462-0291                                                                                                                                                    |                                     | 6115-01-462-0292                                                                                       |                       |
| LIN                                                 | G12034                                                                                                                                                              |                                     | G18052                                                                                                 |                       |
| Specification                                       | MIL-DTL-53133/9                                                                                                                                                     |                                     | MIL-DTL-53133/10                                                                                       |                       |
| SSN                                                 | M53500                                                                                                                                                              |                                     | M53500                                                                                                 |                       |
| Trailer mounted configurations                      | PU-805B, <a href="#">Figure A-25</a> ; PP-AN/MJQ-41B, <a href="#">Figure A-27</a> ; PP-AN/MJQ-1612B, <a href="#">Figure A- 28</a>                                   |                                     | PU-806B, <a href="#">Figure A-26</a><br><a href="#">PP-AN/MJQ-1632B</a> , <a href="#">Figure A- 29</a> |                       |
| Physical Characteristics                            |                                                                                                                                                                     |                                     |                                                                                                        |                       |
| Dimensions LWH (in)                                 | 87 x 36 x 59 (Cube: 106 ft <sup>3</sup> )                                                                                                                           |                                     |                                                                                                        |                       |
| Wet Weight (lbs)                                    | 4200                                                                                                                                                                | 4240                                |                                                                                                        |                       |
| Engine                                              | John Deere 6068T151 6 cylinder, 4 cycle Turbo Diesel, 134 horsepower @ 1800 RPM, 24 VDC starter, liquid cooled, electronic governor. EPA certified                  |                                     |                                                                                                        |                       |
| Instrumentation                                     | Digital controls                                                                                                                                                    |                                     |                                                                                                        |                       |
| Fuels                                               | Diesel DL-1, DL-2; Jet Fuel JP-8. Fuel tank: 43 gallons.                                                                                                            |                                     |                                                                                                        |                       |
| Performance Characteristics                         |                                                                                                                                                                     |                                     |                                                                                                        |                       |
| Power Rating                                        | 60kW (50kW @ 50Hz), 0.8 pf@ 4000ft/120°F; 110% Max Power; De-rate: 3.5%/1000ft fm 4000 - 8000ft                                                                     |                                     |                                                                                                        |                       |
| Environmental Capability                            | -25°F (-50°F With Winterization Kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage: -60°F, salt spray, fungus, 15° incline.           |                                     |                                                                                                        |                       |
| Protective Devices.                                 | Automatic shut down with emergency bypass for low oil pressure, coolant high-temperature, low fuel, over-speed, and over-voltage                                    |                                     |                                                                                                        |                       |
| Fuel Consumption                                    | 4.7 gph @ rated load.                                                                                                                                               | 4.9 gph @ rated load.               |                                                                                                        |                       |
| Human Factors                                       | MIL-STD-1474.                                                                                                                                                       |                                     |                                                                                                        |                       |
| Noise                                               | 70 dBA @ 7 meters (23 ft).                                                                                                                                          |                                     |                                                                                                        |                       |
| Reliability (MTBF)                                  | 606 hr @ 80% LCL                                                                                                                                                    | 542 hr @ 80% LCL                    |                                                                                                        |                       |
| Maintenance Ratio                                   | less than 0.05                                                                                                                                                      |                                     |                                                                                                        |                       |
| Electrical Characteristics                          |                                                                                                                                                                     |                                     |                                                                                                        |                       |
| Connection                                          | 120/208V, 3ph, 4 wire                                                                                                                                               | 240/416V, 3ph, 4 wire               | Freq adj range                                                                                         |                       |
| Volt adj range (50 Hz)                              | 190 – 213 V                                                                                                                                                         | 380 – 426 V                         | 48 - 52 Hz                                                                                             |                       |
| Volt adj range (60 Hz)                              | 197 - 240 V                                                                                                                                                         | 395 - 480 V                         | 58 - 62 Hz                                                                                             |                       |
| Volt adj range (400Hz)                              | 197 - 229 V                                                                                                                                                         | 395 - 458 V                         | 390 - 410 Hz                                                                                           |                       |
| Electrical                                          | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Marathon (60Hz)/Lim (400Hz) a brushless generator. |                                     |                                                                                                        |                       |
| Electrical Performance                              |                                                                                                                                                                     |                                     |                                                                                                        |                       |
| Electric Power Quality                              | AC Voltage                                                                                                                                                          |                                     | Frequency                                                                                              |                       |
|                                                     | 50/60 Hz                                                                                                                                                            | 400 Hz                              | 50/60 Hz                                                                                               | 400 Hz                |
| Regulation                                          | 1%                                                                                                                                                                  |                                     | 0.25%                                                                                                  |                       |
| Modulation                                          | 1%                                                                                                                                                                  |                                     |                                                                                                        |                       |
| Short term steady state stability (30 sec)          | 1% bandwidth                                                                                                                                                        |                                     | 0.5% bandwidth                                                                                         |                       |
| Long term steady state stability (4 hr)             | 2% bandwidth                                                                                                                                                        |                                     | 1% bandwidth                                                                                           |                       |
| Application/rejection of rated load , recovery time | 15% dip/rise<br>0.5 sec                                                                                                                                             |                                     | 4% und/over<br>2 sec                                                                                   | 1.5%und/over<br>1 sec |
| Motor load                                          | 30% dip, .7 sec to<br>95% init volt                                                                                                                                 | 25% dip, .7 sec to<br>95% init volt |                                                                                                        |                       |
| Max waveform deviation factor                       | 5%                                                                                                                                                                  |                                     |                                                                                                        |                       |
| Individual waveform harmonic                        | 2%                                                                                                                                                                  |                                     |                                                                                                        |                       |
| EMI                                                 | Meets MIL-STD-461C Part 9                                                                                                                                           |                                     |                                                                                                        |                       |
| EMP                                                 | HAEMP IAW MIL-STD-2169                                                                                                                                              |                                     |                                                                                                        |                       |
| Optional Equipment                                  |                                                                                                                                                                     |                                     |                                                                                                        |                       |
| Description                                         | NSN                                                                                                                                                                 | Tech Bulletin                       | Effect on Dimensions (in)                                                                              |                       |
| Winterization kit                                   | 6115-01-496-7710                                                                                                                                                    | TB9-6115-645-13                     | None (internal)                                                                                        |                       |
| Technical Manuals                                   |                                                                                                                                                                     |                                     |                                                                                                        |                       |
| Description                                         | ARMY                                                                                                                                                                | Air Force                           | Marine Corps                                                                                           |                       |
| Operators, DS, GS                                   | TM 9-6115-672-14                                                                                                                                                    | TO 35C2-3-444-32                    | TM 09244A/09245A-14                                                                                    |                       |
| RPSTL                                               | TM 9-6115-672-24P                                                                                                                                                   | TO 35C2-3-444-34                    | TM 09244A/09245A-24P/3                                                                                 |                       |
| Engine Maintenance                                  | TM 9-2815-260-24                                                                                                                                                    | TO 38G1-126-2                       | TM 09244A/09245-24                                                                                     |                       |
| Engine Parts                                        | TM 9-2815-260-24P                                                                                                                                                   | TO 38G1-126-4                       | TM 09244A/2815-24P/4                                                                                   |                       |
| Lube Order                                          | LO 9-6115-645-12                                                                                                                                                    |                                     |                                                                                                        |                       |
| Warranty                                            | TB 9-6115-672-24                                                                                                                                                    |                                     |                                                                                                        |                       |

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MEP-806B or MEP-816B

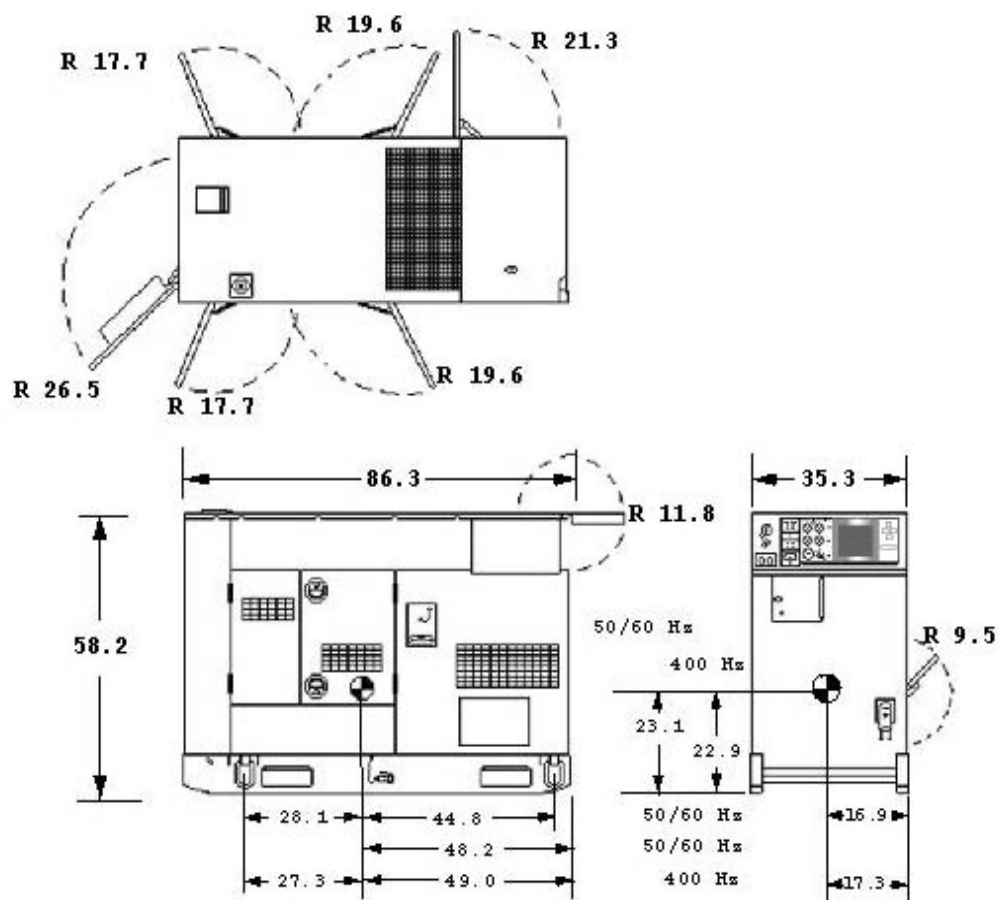


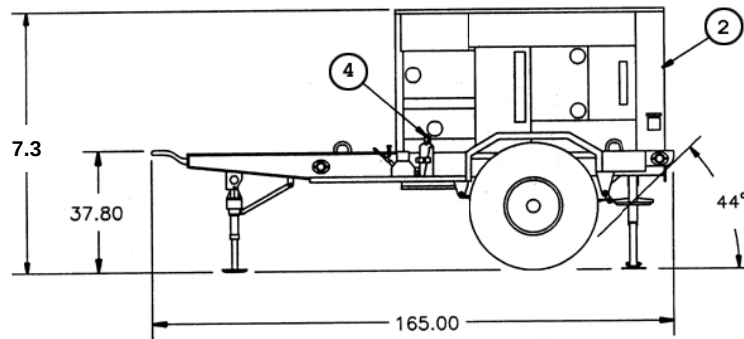
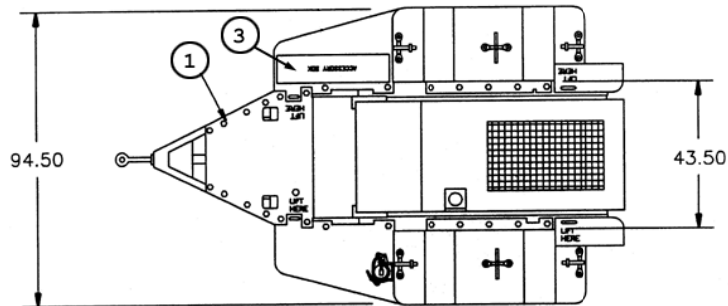
Figure A-24 60 kW Tactical Quiet Generator Set (re-engine)

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APPENDIX A

## 60 kW TQ Power Unit, 50/60 Hz, TRLMTD

| Identification Data                             |                                       |                              |        |                              |                   |
|-------------------------------------------------|---------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 60 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1616 |                   |
| Model                                           | NSN                                   | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-805B                                         | 6115-01-471-1508                      | G78306                       | R62700 | TA-13230E6851                | MIL-P-53132/18    |
| Technical Manual                                | Operator, Unit and Direct Support     |                              |        | TM 9-6115-663-13&P           |                   |
| Physical Characteristics                        |                                       |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                       | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 95 x 88 & (788)                           |                                       | 788                          |        | 6820                         | 6460              |



| FIND | COMPONENT                                  | QTY | IDENTIFIER       |
|------|--------------------------------------------|-----|------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1         | 1   | 97403-13229E9632 |
| 2    | TQ Gen set, DED, 60 kW, 50/60 Hz, MEP-806B | 1   | 6115-01-462-0291 |
| 3    | Accessory box                              | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106         | 1   | 4210-00-270-4512 |

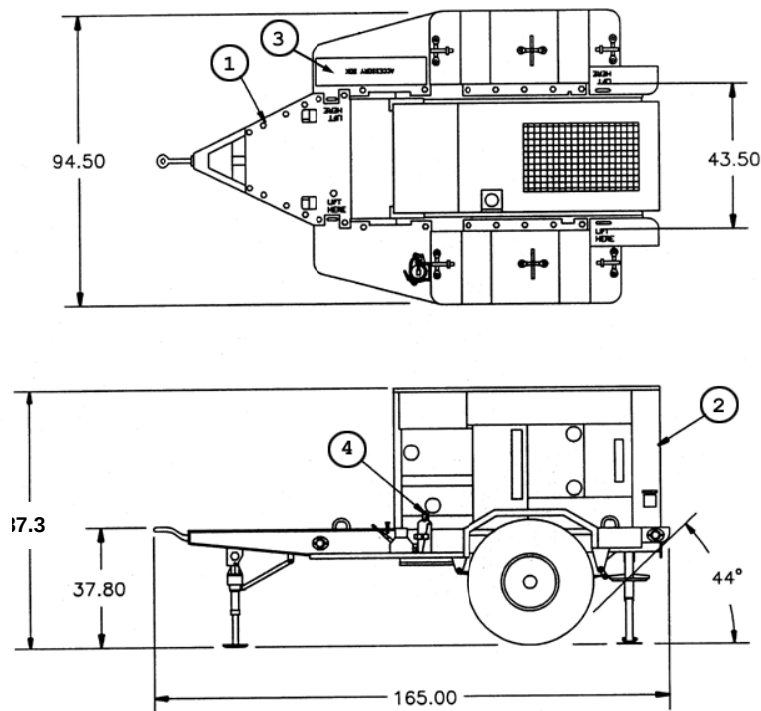
Figure A-25 PU-805B

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APPENDIX A

## 60 kW TQ Power Unit, 400 Hz, TRLMTD

| Identification Data                             |                                     |                              |        |                              |                   |
|-------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 60 kW TQ POWER UNIT, 400 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1616 |                   |
| Model                                           | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-806B                                         | 6115-01-471-1506                    | G17406                       | R62700 | TA-13230E6852                | MIL-P-53132/19    |
| Technical Manual                                | Operator, Unit and Direct Support   |                              |        | TM 9-6115-663-13&P           |                   |
| Physical Characteristics                        |                                     |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 95 x 88 & (788)                           |                                     | 788                          |        | 6860                         | 6500              |



| FIND | COMPONENT                                      | QTY | IDENTIFIER       |
|------|------------------------------------------------|-----|------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1             | 1   | 97403-13229E9632 |
| 2    | TQ Generator set, DED, 60 kW, 400 Hz, MEP-816B | 1   | 6115-01-462-0292 |
| 3    | Accessory box                                  | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 1   | 4210-00-270-4512 |

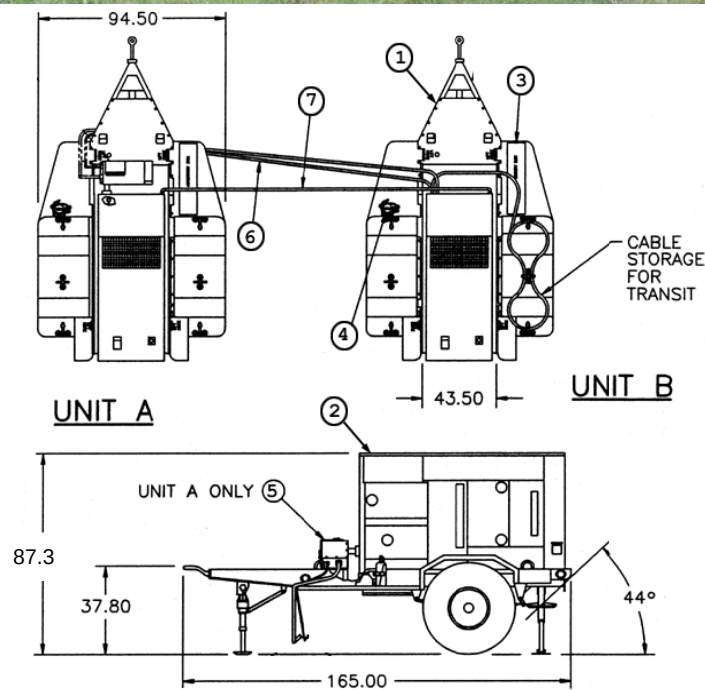
Figure A-26 PU-806B

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APPENDIX A

## 60 kW TQ Power Plant, 50/60 Hz, TRLMTD

| Identification Data                             |                                        |                              |        |                              |                              |
|-------------------------------------------------|----------------------------------------|------------------------------|--------|------------------------------|------------------------------|
| Description                                     | 60 kW TQ POWER PLANT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1616 |                              |
| Model                                           | NSN                                    | LIN                          | SSN    | ASSEMBLY                     | SPEC                         |
| PP-AN/MJQ-41B                                   | 6115-01-474-3776                       | P42194                       | R62700 | TA-13230E6854                | MIL-P-53132/17               |
| Technical Manual                                | Operator, Unit and Direct Support      |                              |        | TM 9-6115-663-13&P           |                              |
| Physical Characteristics                        |                                        |                              |        |                              |                              |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                        | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs)            |
| 165 x 95 x 88 & (788) each                      |                                        | 788 each                     |        | Unit A: 6880<br>Unit B: 6900 | Unit A: 6440<br>Unit B: 6460 |



| FIND | COMPONENT                                      | QTY | IDENTIFIER         |
|------|------------------------------------------------|-----|--------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1             | 2   | 97403-13229E9632   |
| 2    | TQ Generator set, DED, 60 kW, 400 Hz, MEP-806B | 2   | 6115-01-462-0292   |
| 3    | Accessory box                                  | 2   | 97403-13229E7946   |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 2   | 4210-00-270-4512   |
| 5    | Switch box (unit A)                            | 1   | 97403-13229E5795-3 |
| 6    | Cable assembly (unit B)                        | 1   | 97403-13229E5741   |
| 7    | Paralleling cable assembly                     | 2   | 30554-88-22209     |

Figure A-27 PP-AN/MJQ-41B

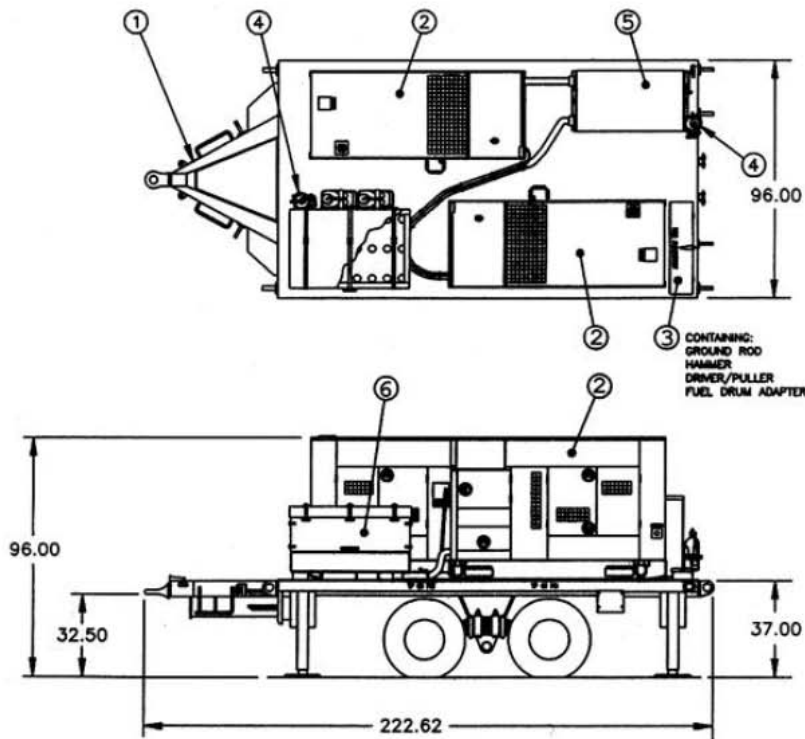
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APPENDIX A

**PP-AN/MJQ-1612, TQ POWER PLANT, DED, 60kW, 50/60 Hz, TRLMTD AIR FORCE POWER PLANT**

NOT TYPE CLASSIFIED FOR ARMY USE

| Identification Data                             |                                               |                              |      |                              |                   |
|-------------------------------------------------|-----------------------------------------------|------------------------------|------|------------------------------|-------------------|
| Description                                     | TQ POWER PLANT, DED, 60kW, 50/60Hz, TRLMTD AF |                              |      | Camouflage: 97403-13228E1617 |                   |
| Model                                           | NSN                                           | LIN                          | SSN  | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-1612                                  | 6115-01-349-1536                              |                              | M510 | TA-13229E9635                |                   |
| Technical Manual                                |                                               |                              |      |                              |                   |
| Physical Characteristics                        |                                               |                              |      |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                               | Ship Cube (ft <sup>3</sup> ) |      | Wet Weight (lbs)             | Ship Weight (lbs) |
| 222.6 x 96.0 x 96.0 & (1187)                    |                                               | 1172                         |      | 14700                        | 15800             |



| COMPONENT                                  | QTY | FIND | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| AF Trailer Generator Assembly, M1061A1     | 1   | 1    | 2330-01-573-0985 |
| TQ Gen set, DED, 60 kW, 50/60 Hz, MEP-806B | 2   | 2    | 6115-01-462-0291 |
| Accessory box                              | 1   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106         | 2   | 4    | 4210-00-270-4512 |
| Switch box                                 | 1   | 5    | 97403-13230E4550 |
| Cable storage box                          | 1   | 6    | 97403-13230E4580 |

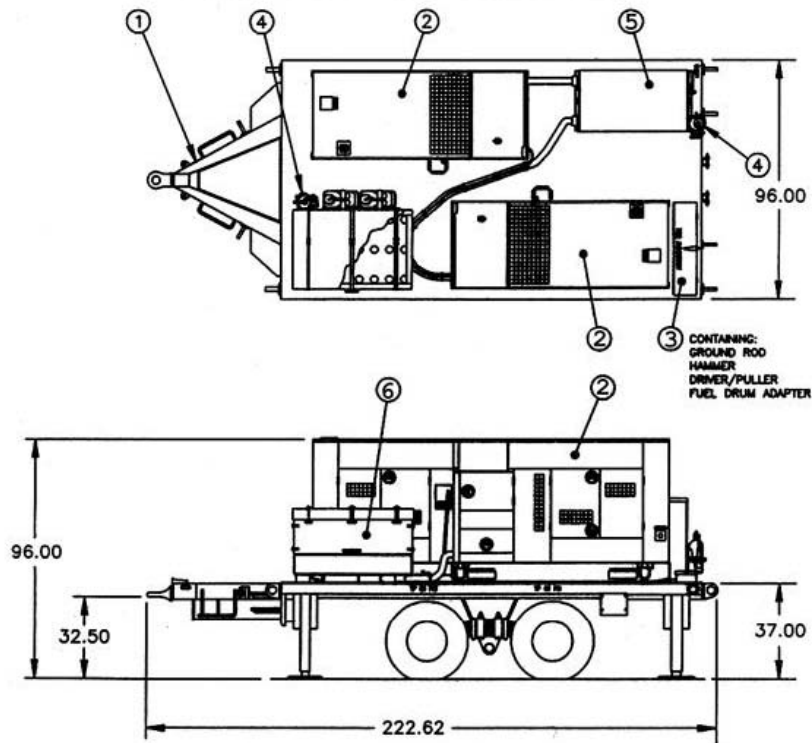
Figure A- 28 PP-AN/MJQ-1612

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**PP-AN/MJQ-1632, TQ POWER PLANT, DED, 60kW, 400 Hz, TRLMTD AIR FORCE POWER PLANT -  
NOT TYPE CLASSIFIED FOR ARMY USE**

| Identification Data                |                                                |                 |      |                              |                   |
|------------------------------------|------------------------------------------------|-----------------|------|------------------------------|-------------------|
| Description                        | TQ POWER PLANT, DED, 60kW, 400 Hz,TRLMTD AF PP |                 |      | Camouflage: 97403-13228E1617 |                   |
| Model                              | NSN                                            | LIN             | SSN  | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-1632                     | 6115-01-346-0157                               |                 | M510 | TA-13230E4595                |                   |
| Technical Manual                   |                                                |                 |      |                              |                   |
| Physical Characteristics           |                                                |                 |      |                              |                   |
| Dimensions LWH (in) & (Cube) (ft³) |                                                | Ship Cube (ft³) |      | Wet Weight (lbs)             | Ship Weight (lbs) |
| 222.6 x 96.0 x 96.0 & (1187)       |                                                | 1172            |      | 14700                        | 15800             |



| COMPONENT                                      | QTY | FIND | IDENTIFIER       |
|------------------------------------------------|-----|------|------------------|
| AF Trailer Generator Assembly, M1061A1         | 1   | 1    | 2330-01-573-0985 |
| TQ Generator set, DED, 60 kW, 400 Hz, MEP-816B | 2   | 2    | 6115-01-462-0292 |
| Accessory box                                  | 1   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106             | 2   | 4    | 4210-00-270-4512 |
| Switch box                                     | 1   | 5    | 97403-13230E4550 |
| Cable storage box                              | 1   | 6    | 97403-13230E4580 |

Figure A- 29 PP-AN/MJQ-1632

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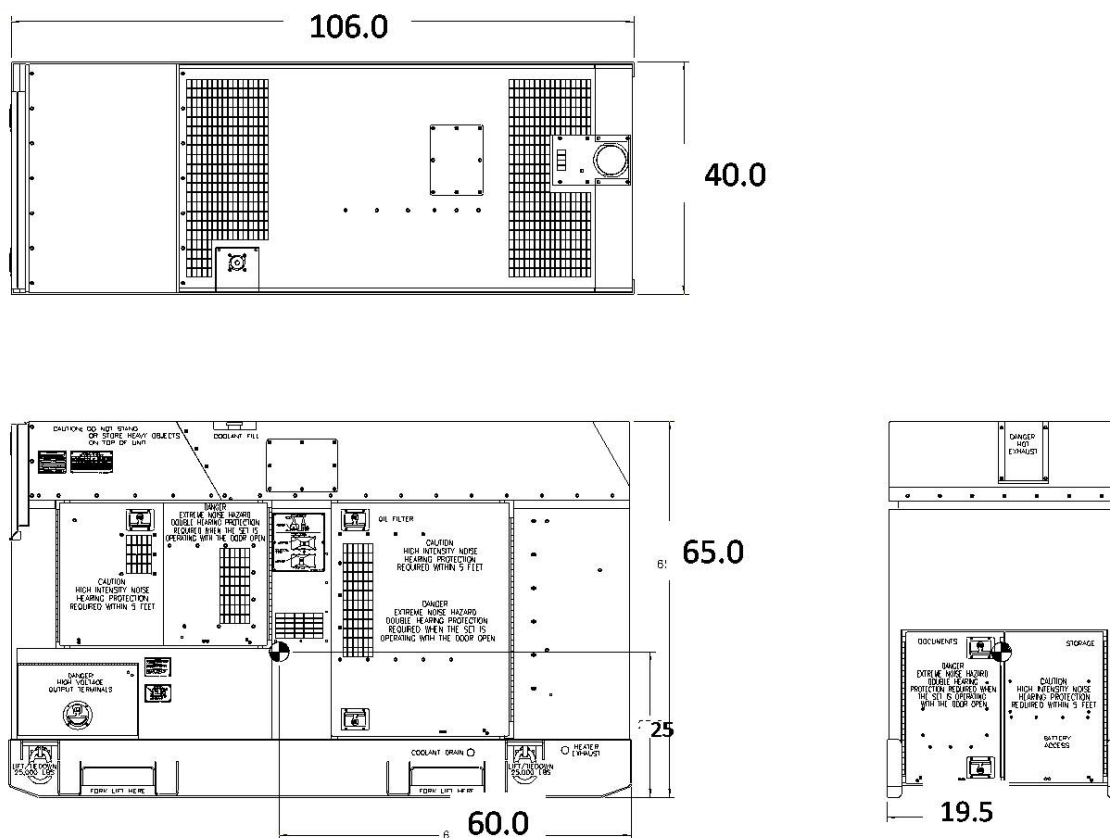
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## MIL-HDBK-633A

## APPENDIX A

**100 kW Tactical Quiet Generator Set (TQG)**

| Identification Data                                |                                                                                                                                                   |                                 |                           |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------|
| Description                                        | 100 kW TQG, 50/60 Hz, DED, Skid Mtd                                                                                                               |                                 |                           |
| Model                                              | MEP-807A                                                                                                                                          |                                 |                           |
| NSN                                                | 6115-01-296-1463                                                                                                                                  |                                 |                           |
| LIN                                                | G17596                                                                                                                                            |                                 |                           |
| SSN                                                | M54400                                                                                                                                            |                                 |                           |
| Trailer Mounted Conf.                              | PU-807A, <a href="#">Figure A-31</a>                                                                                                              |                                 |                           |
| Physical Characteristics                           |                                                                                                                                                   |                                 |                           |
| Dimensions LWH (in)                                | 106 x 40 x 65 (Cube: 160 ft <sup>3</sup> )                                                                                                        |                                 |                           |
| Wet Weight (lbs)                                   | 6100                                                                                                                                              |                                 |                           |
| Engine                                             | Caterpillar – Model: 3126B 4 cyl Turbo Diesel, 282 hp @ 1800 RPM, 24 VDC starter, liquid cooled, electronic governor, EPA certified               |                                 |                           |
| Instrumentation                                    | Digital Display                                                                                                                                   |                                 |                           |
| Fuels                                              | Diesel DL-1, DL-2; Jet Fuel JP-8.                                                                                                                 |                                 |                           |
| Fuel Capacity                                      | Fuel tank: 66 gallons                                                                                                                             |                                 |                           |
| Performance Characteristics                        |                                                                                                                                                   |                                 |                           |
| Power Rating                                       | 60 Hz: 100 kW, 0.8 pf @ 4000 ft/95°F, 50 Hz: 83.3 kW, 0.8 pf @ 4000 ft/95°F                                                                       |                                 |                           |
| Environmental Capability                           | -25°F to 120°F, rain, humidity, altitude, sand/ dust, transportation, cold storage: -60°F, salt spray, fungus, 15° incline.                       |                                 |                           |
| Protective Devices                                 | Over-speed, High temp, Low oil pressure, Low fuel, Under-voltage, Over-voltage, Short circuit, Overload, Reverse power, Diagnostics               |                                 |                           |
| Fuel Consumption.                                  | 7.8 gph @ rated load                                                                                                                              |                                 |                           |
| Human Factors                                      | MIL-STD-1474.                                                                                                                                     |                                 |                           |
| Noise                                              | 70/68 dBA @ 7 meters (23 ft).                                                                                                                     |                                 |                           |
| Reliability (MTBOMF)                               | 1250 hr                                                                                                                                           |                                 |                           |
| Maintenance Ratio                                  | 0.026 max                                                                                                                                         |                                 |                           |
| Electrical Characteristics                         |                                                                                                                                                   |                                 |                           |
| Connection                                         | 120/208V, 3ph, 4 wire                                                                                                                             | 240/416V, 3ph, 4 wire           | Freq adj range            |
| Volt adj range (50 Hz)                             | 190 – 213 V                                                                                                                                       | 380 – 426 V                     | 48 - 52 Hz                |
| Volt adj range (60 Hz)                             | 197 - 240 V                                                                                                                                       | 395 - 480 V                     | 58 - 62 Hz                |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Synchronous. brushless generator |                                 |                           |
| Electrical Performance                             |                                                                                                                                                   |                                 |                           |
| Electric Power Quality                             |                                                                                                                                                   | AC Voltage                      | Frequency                 |
| Regulation                                         |                                                                                                                                                   | 3%                              | 3%                        |
| Modulation                                         |                                                                                                                                                   | 1%                              |                           |
| Short term steady st stability (30 sec)            |                                                                                                                                                   | 2% bandwidth                    | 2% bandwidth              |
| Long term steady state stability (4 hr)            |                                                                                                                                                   | 4% bandwidth                    | 3% bandwidth              |
| Application/rejection of rated load, recovery time |                                                                                                                                                   | 20% dip/30%rise, 3 sec          | 4% under/over, 4 sec      |
| Motor load                                         |                                                                                                                                                   | 40% dip, 5 sec to 95% init volt |                           |
| Max waveform deviation factor                      |                                                                                                                                                   | 5%                              |                           |
| Individual waveform harmonic                       |                                                                                                                                                   | 2%                              |                           |
| EMI                                                |                                                                                                                                                   | Meets MIL-STD-461               |                           |
| EMP                                                |                                                                                                                                                   | HAEMP IAW MIL-STD-2169          |                           |
| Optional Equipment                                 |                                                                                                                                                   |                                 |                           |
| Description                                        | NSN                                                                                                                                               | Weight (lbs)                    | Effect on Dimensions (in) |
| Winterization kit                                  | TBD                                                                                                                                               | TBD                             | None (internal)           |
| Technical Manuals                                  |                                                                                                                                                   |                                 |                           |
| Description                                        | ARMY                                                                                                                                              | Air Force                       | Marine Corps              |
| Operators                                          | TM 9-6115-729-10                                                                                                                                  | 35 C2-3-519-1                   | TM07464C-10/1             |
| Unit, DS, GS                                       | TM 9-6115-729-24& P                                                                                                                               | 35 C2-3-519-2                   | TM07464C-24/2             |
| Engine Maintenance                                 |                                                                                                                                                   |                                 |                           |
| Engine Parts                                       |                                                                                                                                                   |                                 |                           |
| Lube order                                         |                                                                                                                                                   |                                 |                           |
| Warranty                                           |                                                                                                                                                   |                                 |                           |



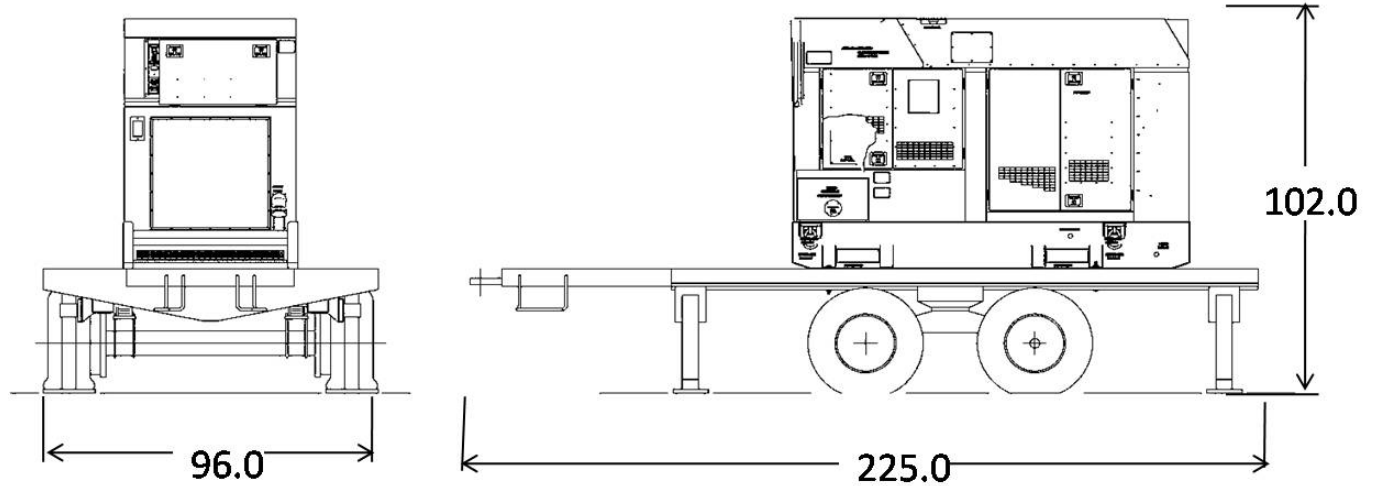
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**100 kW TQ Power Unit, 50/60 Hz, TRLMTD**

| Identification Data                             |                                        |                              |        |                              |                   |
|-------------------------------------------------|----------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 100 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1717 |                   |
| Model                                           | NSN                                    | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-807A                                         | 6115-01-471-7088                       | G1752B                       | M54400 | TA-0116-1910                 |                   |
| Technical Manual                                | Operator, Unit and Direct Support      |                              |        |                              |                   |
| Physical Characteristics                        |                                        |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                        | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 225 x 96 x 102 & (1275)                         |                                        | 1275                         |        | 11620                        | 11620             |



| FIND | COMPONENT                                   | QTY | IDENTIFIER       |
|------|---------------------------------------------|-----|------------------|
| 1    | 5 Ton modified trailer, M1061A1             | 1   | 97403-13230E4570 |
| 2    | TQ Gen set, DED, 100 kW, 50/60 Hz, MEP-807A | 1   | 6115-01-296-1463 |
| 3    | Accessory box                               | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106          | 1   | 4210-00-270-4512 |

Figure A-31 PU-807A

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## APPENDIX A

## 200 kW Tactical Quiet Generator Set

| Identification Data                               |                                                                                                                                                    |                       |                           |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------|
| Description                                       | 200 kW TQG, 50/60 Hz, DED, Skid Mtd                                                                                                                |                       |                           |
| Model                                             | MEP-809A                                                                                                                                           |                       |                           |
| NSN                                               | 6115-01-296-1462                                                                                                                                   |                       |                           |
| LIN                                               | G17664                                                                                                                                             |                       |                           |
| SSN                                               | M54400                                                                                                                                             |                       |                           |
| Trailer Mounted Conf.                             | PU-809A, <a href="#">Figure A-33</a>                                                                                                               |                       |                           |
| Physical Characteristics                          |                                                                                                                                                    |                       |                           |
| Dimensions LWH (in)                               | 114 x 50 x 75 (Cube: 250 ft <sup>3</sup> )                                                                                                         |                       |                           |
| Wet Weight (lbs)                                  | 9300                                                                                                                                               |                       |                           |
| Engine                                            | Caterpillar – Model: C-12 4 cyl Turbo Diesel, 395 hp @ 1800 RPM, 24 VDC starter, liquid cooled, electronic governor, EPA certified                 |                       |                           |
| Instrumentation                                   | Digital Display                                                                                                                                    |                       |                           |
| Fuels                                             | Diesel DL-1, DL-2; Jet Fuel JP-8.                                                                                                                  |                       |                           |
| Fuel Capacity                                     | Fuel tank: 128 gallons                                                                                                                             |                       |                           |
| Performance Characteristics                       |                                                                                                                                                    |                       |                           |
| Power Rating                                      | 60 Hz: 200 kW, 0.8 pf @ 4000 ft/95°F, 50 Hz: 167 kW, 0.8 pf @ 4000 ft/95°F                                                                         |                       |                           |
| Environmental Capability                          | -25°F to 120°F, rain, humidity, altitude, sand/ dust, transportation, cold storage: -60°F, salt spray, fungus, 15° incline.                        |                       |                           |
| Protective Devices                                | Over-speed, High temp, Low oil pressure, Low fuel, Under-voltage, Over-voltage, Short circuit, Overload, Reverse power, Diagnostics                |                       |                           |
| Fuel Consumption                                  | 13.9 gph @ rated load                                                                                                                              |                       |                           |
| Human Factors                                     | MIL-STD-1474.                                                                                                                                      |                       |                           |
| Noise                                             | 70/68 dBA @ 7 meters (23 ft).                                                                                                                      |                       |                           |
| Reliability (MTBOMF)                              | 600 hr minimum, 850 hr objective                                                                                                                   |                       |                           |
| Maintenance Ratio                                 | TBD                                                                                                                                                |                       |                           |
| Electrical Characteristics                        |                                                                                                                                                    |                       |                           |
| Connection                                        | 120/208V, 3ph, 4 wire                                                                                                                              | 240/416V, 3ph, 4 wire | Frequency adj range       |
| Volt adj range (50 Hz)                            | 190 – 213 V                                                                                                                                        | 380 – 426 V           | 48 - 52 Hz                |
| Volt adj range (60 Hz)                            | 197 - 240 V                                                                                                                                        | 395 - 480 V           | 58 - 62 Hz                |
| Electrical                                        | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, synchronous, brushless generator. |                       |                           |
| Electrical Performance                            |                                                                                                                                                    |                       |                           |
| Electric Power Quality                            | AC Voltage                                                                                                                                         |                       | Frequency                 |
|                                                   | 50/60 Hz                                                                                                                                           |                       | 50/60 Hz                  |
| Regulation                                        | 3%                                                                                                                                                 |                       | 3%                        |
| Modulation                                        | 1%                                                                                                                                                 |                       |                           |
| Short term steady state stability (30 sec)        | 2% bandwidth                                                                                                                                       |                       | 2% bandwidth              |
| Long term steady state stability (4 hr)           | 4% bandwidth                                                                                                                                       |                       | 3% bandwidth              |
| Application/rejection of rated load recovery time | 30% dip/rise, 3 sec                                                                                                                                |                       | 4% under/over, 4 sec      |
| Motor load                                        | 40% dip, 5 sec to 95% init volt                                                                                                                    |                       |                           |
| Max waveform deviation factor                     | 5%                                                                                                                                                 |                       |                           |
| Individual waveform harmonic                      | 2%                                                                                                                                                 |                       |                           |
| EMI                                               | Meets MIL-STD-461                                                                                                                                  |                       |                           |
| EMP                                               | HAEMP IAW MIL-STD-2169                                                                                                                             |                       |                           |
| Optional Equipment                                |                                                                                                                                                    |                       |                           |
| Description                                       | NSN                                                                                                                                                | Weight (lbs)          | Effect on Dimensions (in) |
| Winterization kit                                 | TBD                                                                                                                                                | TBD                   | None (internal)           |
| Technical Manuals                                 |                                                                                                                                                    |                       |                           |
| Description                                       | ARMY                                                                                                                                               | Air Force             | Marine Corps              |
| Operators                                         | TM9-6115-730-10                                                                                                                                    | 35C2-3-520-1          | NONE                      |
| Unit, DS, GS                                      | TM 9-6115-730-24& P                                                                                                                                | 35C2-3-520-2          |                           |
| Engine Maintenance                                |                                                                                                                                                    |                       |                           |
| Engine Parts                                      |                                                                                                                                                    |                       |                           |
| Lube order                                        |                                                                                                                                                    |                       |                           |
| Warranty                                          |                                                                                                                                                    |                       |                           |

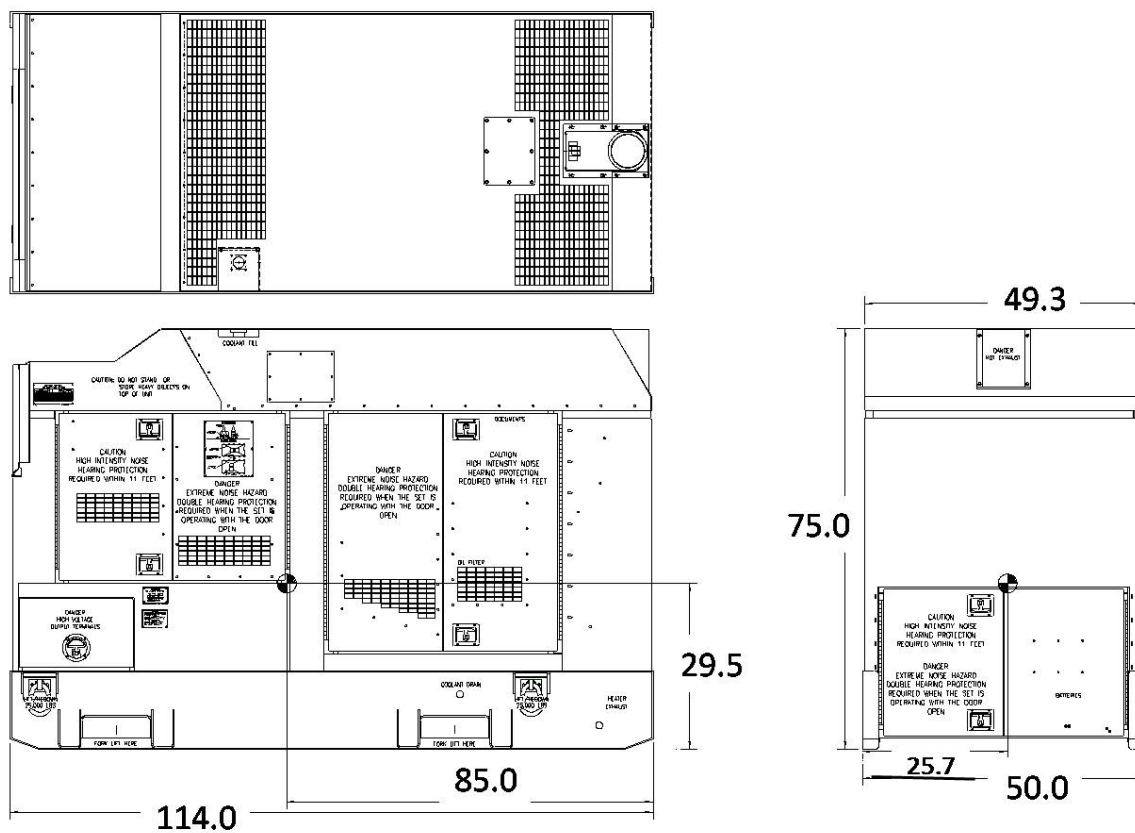


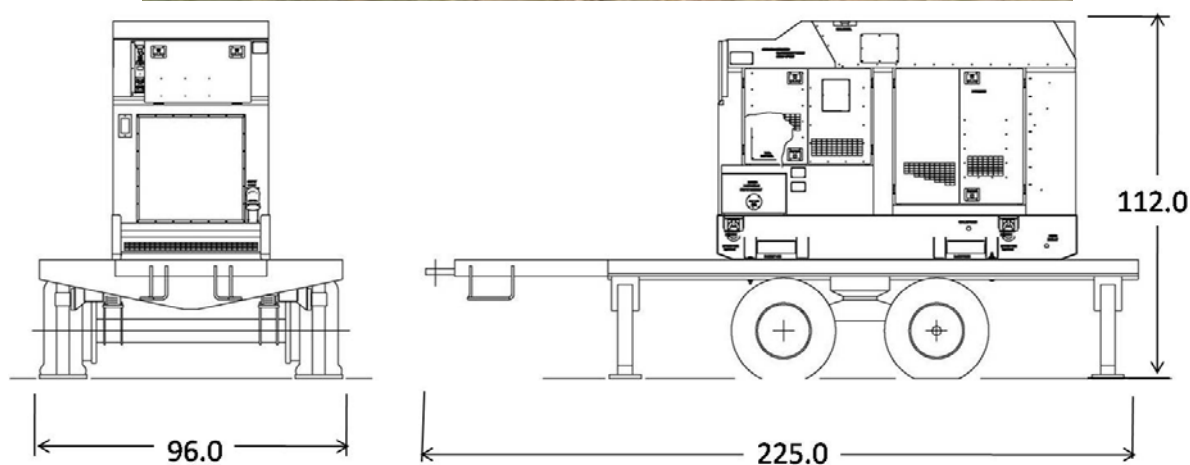
Figure A-32 200 kW Tactical Quiet Generator Set -

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APPENDIX A

**200 kW TQ Power Unit, 50/60 Hz, TRLMTD**

| 200 kW TQ POWER UNIT, 50/60 Hz, TRLMTD          |                                        |                              |        |                              |                   |
|-------------------------------------------------|----------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Identification Data                             |                                        |                              |        |                              |                   |
| Description                                     | 200 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1718 |                   |
| Model                                           | NSN                                    | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-809A                                         | 6115-01-471-7085                       | G26345                       | M54400 | TA-0116-2910                 |                   |
| Technical Manual                                | Operator, Unit and Direct Support      |                              |        |                              |                   |
| Physical Characteristics                        |                                        |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                        | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 225 x 96 x 112 & (1400)                         |                                        | 1400                         |        | 14780                        | 14780             |



| FIND | COMPONENT                                   | QTY | IDENTIFIER       |
|------|---------------------------------------------|-----|------------------|
| 1    | 5 Ton modified trailer, M1061A1             | 1   | 97403-13230E4570 |
| 2    | TQ Gen set, DED, 200 kW, 50/60 Hz, MEP-809A | 1   | 6115-01-296-1462 |
| 3    | Accessory box                               | 1   | 97403-13229E7940 |
| 4    | Fire extinguisher, 5 lb., A-A-1106          | 1   | 4210-00-270-4512 |

Figure A-33 PU-809A

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APPENDIX A  
**840 kW Power Unit**

| Identification Data                                                                                                                                                                                   |                                                                                                                                                          |                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Description                                                                                                                                                                                           | 840 kW Power Unit, 50/60 Hz, DED                                                                                                                         |                                                                 |
| Model                                                                                                                                                                                                 | MEP-PU-810A (C-130 transport)                                                                                                                            | MEP-PU-810B (Highway transport)                                 |
| NSN                                                                                                                                                                                                   | 6115-01-486-4033                                                                                                                                         | 6115-01-486-4032                                                |
| LIN                                                                                                                                                                                                   | Not Applicable: Air Force Unit                                                                                                                           | Z00221                                                          |
| SSN                                                                                                                                                                                                   |                                                                                                                                                          |                                                                 |
| Trailer mounted Configurations                                                                                                                                                                        | Unit is wheel mounted<br><a href="#">Figure A-34</a>                                                                                                     | Integral Highway trailer mounted<br><a href="#">Figure A-35</a> |
| Physical Characteristics                                                                                                                                                                              |                                                                                                                                                          |                                                                 |
| Dimensions LWH (in)                                                                                                                                                                                   | 254 x 96 x 102 (Cube: 1440 ft <sup>3</sup> )                                                                                                             | 264 x 96 x 130 (Cube: 1902 ft <sup>3</sup> )                    |
| Wet Weight (lbs)                                                                                                                                                                                      | 25600 (Dry)                                                                                                                                              | 28580 (Dry)                                                     |
| Engine                                                                                                                                                                                                | Diesel (2), 692 x 2 horsepower @ 1800 RPM, Model: Caterpillar 3456EPG, 24 VDC starter.                                                                   |                                                                 |
| Instrumentation                                                                                                                                                                                       | Voltmeter, frequency meter, ammeter, hour-meter, oil pressure, battery charging ammeter.                                                                 |                                                                 |
| Fuels                                                                                                                                                                                                 | Diesel DL-1, DL-2; Jet Fuel JP-8.                                                                                                                        |                                                                 |
| Fuel Capacity                                                                                                                                                                                         | Fuel tank: 120 gallons (day tank)                                                                                                                        |                                                                 |
| Performance Characteristics                                                                                                                                                                           |                                                                                                                                                          |                                                                 |
| Power Rating                                                                                                                                                                                          | 840 kW (60 Hz), <span style="background-color: yellow;">???</span> kW (50 Hz), 0.8 pf lagging @ 4000 ft/125°F                                            |                                                                 |
| Environmental Capability                                                                                                                                                                              | -25°F to 125°F for system. Rain, humidity, altitude, sand/dust, Air, road, rail transportable, vibration, cold storage, salt spray, fungus, 15° incline. |                                                                 |
| Protective Devices                                                                                                                                                                                    | Automatic shut down with emergency bypass for low oil pressure, coolant high-temperature, and over-voltage, time over-current.                           |                                                                 |
| Fuel Consumption                                                                                                                                                                                      | 60 gph @ rated load.                                                                                                                                     |                                                                 |
| Human Factors                                                                                                                                                                                         | MIL-STD-1474.                                                                                                                                            |                                                                 |
| Noise                                                                                                                                                                                                 | 85 dBA @ 7 meters (23 ft).                                                                                                                               |                                                                 |
| Reliability (MTBOMF)                                                                                                                                                                                  | Greater than 650 hrs                                                                                                                                     |                                                                 |
| Maintenance Ratio                                                                                                                                                                                     |                                                                                                                                                          |                                                                 |
| Electrical Characteristics                                                                                                                                                                            |                                                                                                                                                          |                                                                 |
| Connection                                                                                                                                                                                            | Voltage adjustment range                                                                                                                                 | Freq adj range                                                  |
| 2400/4160 V, 3 phase, 4 wire (60 Hz)                                                                                                                                                                  | 3720 – 4400 V                                                                                                                                            | ±3%                                                             |
| 2200/3800 V, 3 phase, 4 wire (50 Hz)                                                                                                                                                                  | 3400 – 4000 V                                                                                                                                            | ±3%                                                             |
| Electrical Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, permanent magnet pilot excited, two Caterpillar SR4B 50/60 Hz generators. |                                                                                                                                                          |                                                                 |
| Electrical Performance                                                                                                                                                                                |                                                                                                                                                          |                                                                 |
| Electric Power Quality                                                                                                                                                                                | AC Voltage                                                                                                                                               | Frequency                                                       |
| Regulation                                                                                                                                                                                            | 3%                                                                                                                                                       | 3%                                                              |
| Modulation                                                                                                                                                                                            | 1%                                                                                                                                                       |                                                                 |
| Short term steady st stability (30 sec)                                                                                                                                                               | 2% bandwidth                                                                                                                                             | 1% bandwidth                                                    |
| Long term steady state stability (4 hr)                                                                                                                                                               | 2% bandwidth                                                                                                                                             | 2% bandwidth                                                    |
| Application/rejection of rated load, recovery time                                                                                                                                                    | 30% dip/rise, 2 sec                                                                                                                                      | 3% under/5% over, 4 sec/6 sec                                   |
| Motor load                                                                                                                                                                                            | N/A                                                                                                                                                      |                                                                 |
| Max waveform deviation factor                                                                                                                                                                         | 5%                                                                                                                                                       |                                                                 |
| Individual waveform harmonic                                                                                                                                                                          | 3%                                                                                                                                                       |                                                                 |
| EMI                                                                                                                                                                                                   | Meets MIL-STD-461                                                                                                                                        |                                                                 |
| EMP                                                                                                                                                                                                   | HAEMP IAW MIL-STD-2169                                                                                                                                   |                                                                 |
| Optional Equipment                                                                                                                                                                                    |                                                                                                                                                          |                                                                 |
| Description                                                                                                                                                                                           | NSN                                                                                                                                                      | Weight (lbs)                                                    |
| Winterization kit                                                                                                                                                                                     |                                                                                                                                                          |                                                                 |
| Effect on Dimensions (in)                                                                                                                                                                             |                                                                                                                                                          |                                                                 |
| None (internal)                                                                                                                                                                                       |                                                                                                                                                          |                                                                 |
| Technical Manuals                                                                                                                                                                                     |                                                                                                                                                          |                                                                 |
| Description                                                                                                                                                                                           | ARMY                                                                                                                                                     | Air Force                                                       |
| Deployment & Operation                                                                                                                                                                                | TM 9-6115-484-14                                                                                                                                         | TO 35C2-3-518-1                                                 |
| Parts Manual                                                                                                                                                                                          | TM 9-6115-484-24P                                                                                                                                        | TO 35C2-3-518-4                                                 |
| Marine Corps                                                                                                                                                                                          |                                                                                                                                                          |                                                                 |
| none                                                                                                                                                                                                  |                                                                                                                                                          |                                                                 |

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APPENDIX A



PU-810A (C-130 Transportable)

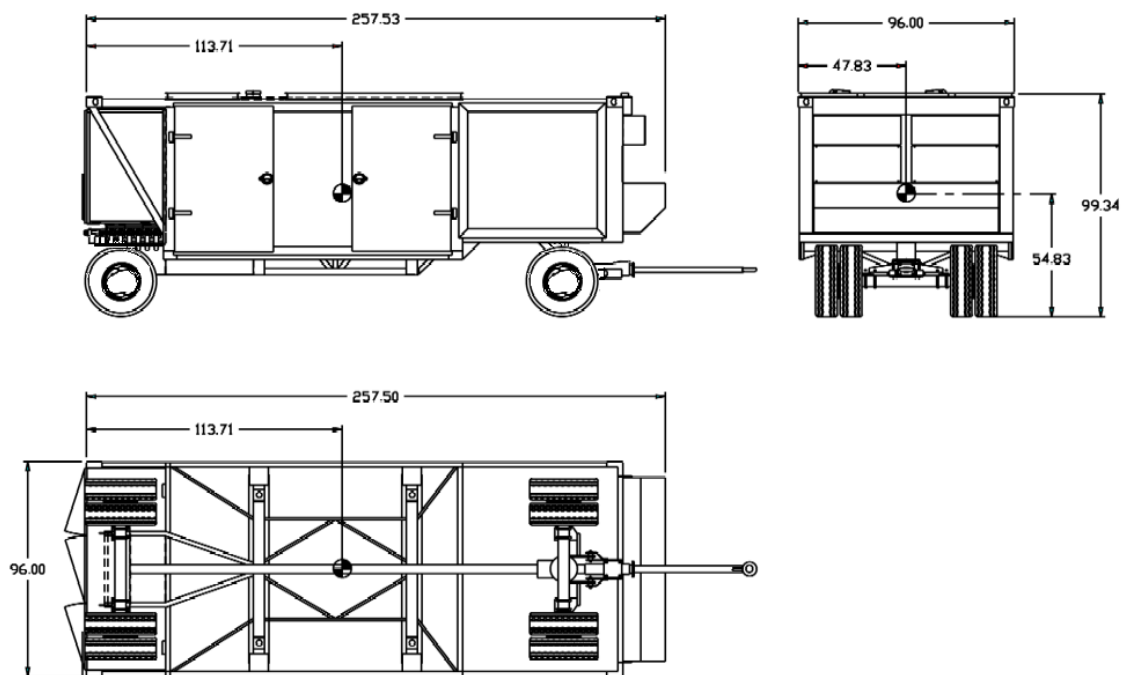


Figure A-34 PU-810A

MIL-HDBK-633A  
APPENDIX A

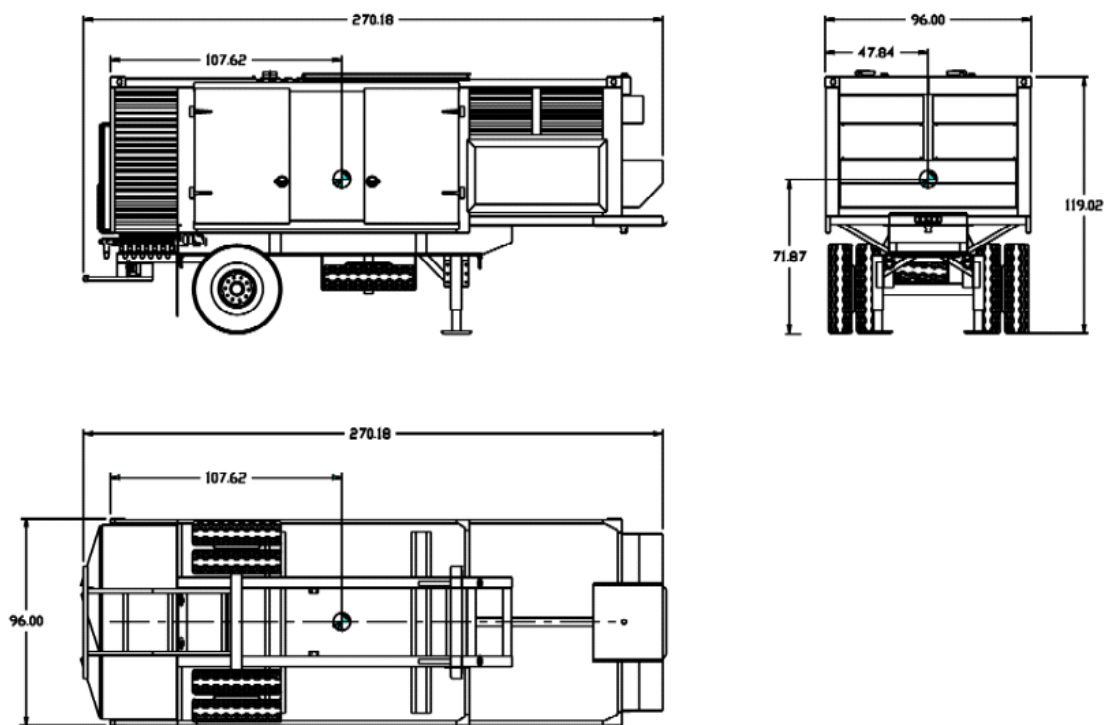


Figure A-35 PU-810B

**MIL-STD-633F****APPENDIX B****STANDARD FAMILY OF AUXILIARY POWER UNITS (APU)****B.1 SCOPE**

**B.1.1 Scope.** This Appendix identifies the current Auxiliary Power Unit (APU) members of the DoD Standard Family of MEPGS. Data contained in this Appendix is for information only and is provided to assist both field operation and materiel developer personnel to select the power generation source that will best meet their needs. The APUs are not separately fielded items but are part of a vehicle or shelter system. DoD activities are to utilize these power sources to the maximum extent practicable per DoD DIRECTIVE 4120.11.

**B.1.2 Appendix Organization.** This Appendix is a compilation of characteristics data sheets (see [Table B- I](#) Guide to CHARACTERISTICS DATA SHEETS of APPENDIX B) arranged by power rating capacity.

**Table B- I Guide to CHARACTERISTICS DATA SHEETS of APPENDIX B**

| MODEL NO. | ITEM DESCRIPTION      | NSN              | FIG         | PAGE |
|-----------|-----------------------|------------------|-------------|------|
| MEP-952   | 5 kW, 28 VDC, DED/APU | 6115-01-317-2139 | Figure B- 1 | 68   |
| MEP-903A  | 10 kW, 60 Hz, DED/APU | 6115-01-431-3062 | Figure B- 2 | 70   |

**B.2 APPLICABLE DOCUMENTS****B.3 DEFINITIONS**

**B.3.1 Auxiliary Power Unit (APU).** An Auxiliary Power Unit (APU) is a power source consisting of a self-contained engine and generator, including remote controls, capable of producing electrical power when connected to its host's source of fuel and starting power.

**B.4 GENERAL DESCRIPTIONS****B.4.1 Item Descriptions.**

**B.4.1.1 5 kW 28 VDC Auxiliary Power Unit (APU).** The 5 kW 28 VDC APU is a newly developed diesel engine driven replacement for the 4.2 kW gasoline engine driven APU used on M577 Armored Personnel Carriers. The 4.2 kW APUs are noisy, unreliable, difficult to maintain and require an additional fuel (gasoline), not used by other equipment, to be brought to the battlefield. The new 5 kW 28 VDC APU eliminates these problems. More importantly, the 5 kW 28 VDC APU also provides power to the M1068 tracked vehicle, which houses the communications, intelligence and command and control computer suite, a lynch pin in the Army's Force XXI strategy. The APU utilizes a standard NATO slave receptacle to connect to a DC power system. The APU is usually started by the power provided via the NATO slave receptacle, but has a hand crank to start the set if batteries are not charged or available.

**B.4.1.2 10 kW, 60 Hz Auxiliary Power Unit (APU).** The 10 kW, 60 Hz, 120/240 volt APU was a joint development effort among the Army project managers; Project Manager, Mobile Electric Power (PM, MEP), PM, Joint Tactical Area Communication System (PM, JTACS), PM, Platforms (previously the PM, Standard Integrated Command Post System (PM, SICPS)), and PM, Air Defense Command and Control Systems (PM, ADCCS). The differing rail and tunnel dimensions between the SICPS shelter and the JTACS shelter cause the SICPS APU to be slightly modified (rail and muffler) for the JTACS application. Electrical generation hardware and performance of the JTACS APU are identical to the SICPS APU. The 10 kW APU has a remotely located control panel, usually mounted inside the shelter, which interfaces through the shelter utility tunnel.

**B.5 DETAILED DESCRIPTIONS**

**B.5.1 Detailed Descriptions.** Details of these Auxiliary Power Units are contained in the CHARACTERISTICS DATA SHEETS of [Figure B- 1](#) and [Figure B- 2](#)

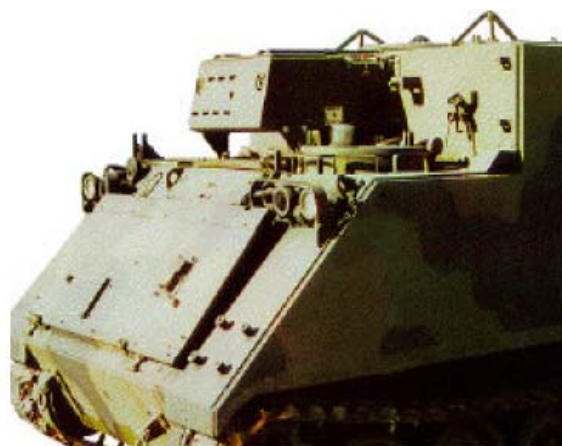
MIL-HDBK-633A  
APPENDIX B**5 kW, 28VDC, DED, Auxiliary Power Unit (APU)**

(Army Unique - Not Separately Type Classified)

| <b>Identification data</b>                                               |                                                                                                                                                                                                       |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nomenclature                                                             | APU, 5 kW, DED, 28VDC                                                                                                                                                                                 |
| APU                                                                      | MEP-952A                                                                                                                                                                                              |
| NSN                                                                      | 6115-01-317-2139                                                                                                                                                                                      |
| LIN                                                                      |                                                                                                                                                                                                       |
| SSN                                                                      |                                                                                                                                                                                                       |
| Used with M557 Armored Personnel Carrier and the M1068 Tracked carriers. |                                                                                                                                                                                                       |
| <b>Physical Characteristics</b>                                          |                                                                                                                                                                                                       |
| Dimensions LWH (in)                                                      | 34.5 x 30.5 x 17.0 (housed APU for external mounting) (Cube: 11.4 ft <sup>3</sup> )                                                                                                                   |
| Wet Weight (lbs)                                                         | 550 (includes housing)                                                                                                                                                                                |
| Engine                                                                   | Farymann - Diesel, 13.2 hp @ 3000 rpm, Air cooled, Electronic governor, Starter: 28 VDC (from NATO slave receptacle) and hand crank (provided). No belts or pulleys.                                  |
| Fuels                                                                    | Diesel DL-1, DL-2 and jet fuel JP-8 and Jet A-1. Provided with quick disconnect fuel line.                                                                                                            |
| Instrumentation                                                          | Start/prime & run/off switch, emergency stop, volt/current meter (with switch). Local and remote switch for remote operation. Indicators for power on, high eng temp, low oil, preheat on. Lamp test. |
| <b>Performance Characteristics</b>                                       |                                                                                                                                                                                                       |
| Electric Power Rating                                                    | 5 kW (180 amps, 28 VDC), from -25°F to 4000 ft/95°F, derate 17% @ 8000 ft/95°F.                                                                                                                       |
| Environmental Capability                                                 | -25°F to 120°F, rain, humidity, sand/dust, cold storage -65°F, salt spray, fungus. Operable at inclines up to 27°.                                                                                    |
| Protective Devices                                                       | Automatic shut down with emergency bypass for low oil pressure, engine overtemp.                                                                                                                      |
| Fuel Consumption                                                         | 0.42 gal/hour.                                                                                                                                                                                        |
| Noise                                                                    | 70 dBA @ 7 meters (23 ft).                                                                                                                                                                            |
| Human Factors                                                            | MIL-STD-1474.                                                                                                                                                                                         |
| <b>Electrical Characteristics</b>                                        |                                                                                                                                                                                                       |
| Voltage Connection:                                                      | 28VDC, NATO slave receptacle.                                                                                                                                                                         |
| Electrical                                                               | Uses a Bradley M2/M3, Alternator. Brushless, solid state rectifier, solid state regulator. Capable of 280 amps @ 3000 rpm.                                                                            |
| EMI                                                                      | Suppressed to MIL-STD-461 limits.                                                                                                                                                                     |
| EMP                                                                      | Protected.                                                                                                                                                                                            |
| <b>Electrical Performance</b>                                            |                                                                                                                                                                                                       |
| Electric Power Quality                                                   | DC Voltage                                                                                                                                                                                            |
| Regulation                                                               | 4%                                                                                                                                                                                                    |
| Short term steady state stability (30 sec)                               | 2% bandwidth                                                                                                                                                                                          |
| Long term steady state stability (4 hr)                                  | 2% bandwidth                                                                                                                                                                                          |
| Application/Rejection of rated load, recovery time                       | 30% dip/rise, 1 sec                                                                                                                                                                                   |
| Rejection of rated load (transient), recovery time                       | 40% dip/rise, 0.5 sec                                                                                                                                                                                 |
| DC ripple                                                                | 5.5%                                                                                                                                                                                                  |
| Voltage adjustment range                                                 | 23 - 35 V                                                                                                                                                                                             |
| <b>Optional Equipment</b>                                                |                                                                                                                                                                                                       |
| None                                                                     |                                                                                                                                                                                                       |
| <b>Technical Manuals</b>                                                 |                                                                                                                                                                                                       |
| OPERATORS, UNIT, DS, and GS :                                            | ARMY: TM 9-6115-664-14                                                                                                                                                                                |

MIL-HDBK-633A  
APPENDIX B

5 kW, 28VDC, DED, Auxiliary Power Unit (APU)  
Photos of Prototype



MEP-952A on M557  
(Power connector side)

MEP-952A on M557

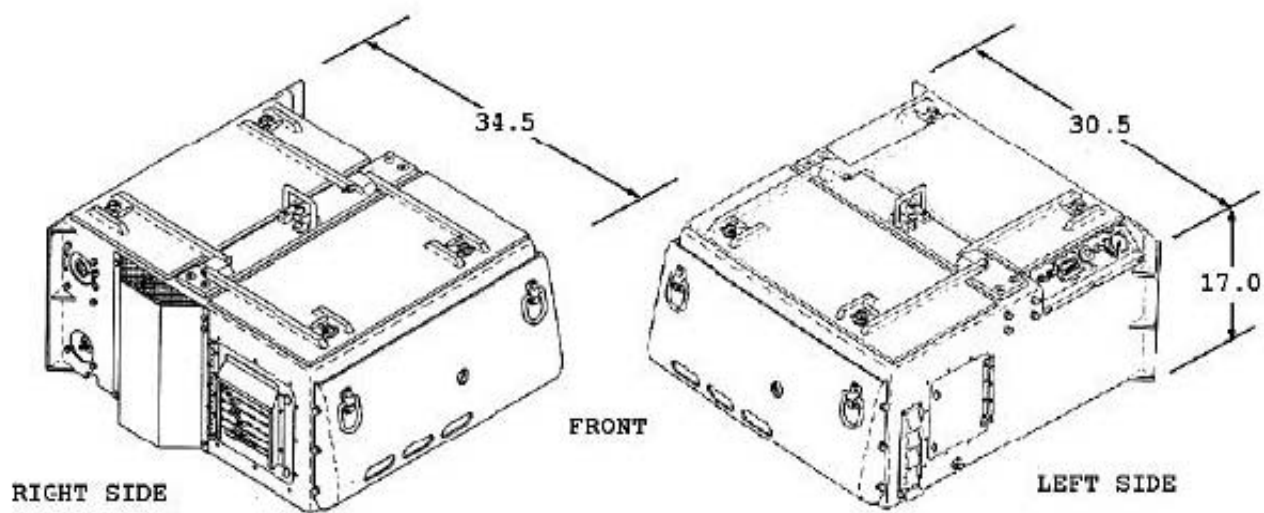


Figure B- 1 5 kW, 28VDC, DED, Auxiliary Power Unit

MIL-HDBK-633A  
APPENDIX B

**10 kW, 60 Hz, DED, Auxiliary Power Unit (APU)**

(Not Separately Type Classified)

| Identification Data                                             |                                                                                                                                                                                                           |                           |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Nomenclature                                                    | APU, 10 kW, DED, 60 Hz                                                                                                                                                                                    |                           |
| APU                                                             | MEP-903A                                                                                                                                                                                                  |                           |
| NSN                                                             | 6115-01-431-3062                                                                                                                                                                                          |                           |
| LIN                                                             |                                                                                                                                                                                                           |                           |
| SSN                                                             |                                                                                                                                                                                                           |                           |
| Configuration                                                   | Used with SICPS shelter.                                                                                                                                                                                  |                           |
| Physical Characteristics                                        |                                                                                                                                                                                                           |                           |
| Dimensions LWH (in)                                             | 36 x 26.5 x 27.7 (Cube:15.3 ft <sup>3</sup> )                                                                                                                                                             |                           |
| Weight (lbs)                                                    | Wet: 460 lb on rail for shelter tunnel insertion                                                                                                                                                          |                           |
| Engine                                                          | Kubota turbocharged diesel, 22.8 hp @ 3600 rpm, liquid cooled, Electronic governor, Starter: 28 VDC (from vehicle). No belts or pulleys. 20 amp battery charger.                                          |                           |
| Fuels                                                           | Diesel DL-1, DL-2 and jet fuel JP-8 and Jet A-1. Uses vehicle fuel via quick disconnect fuel line.                                                                                                        |                           |
| Instrumentation                                                 | Start/stop/preheat switch, volt meter, frequency meter, battery charging ammeter, percent load. Indicator for power on and malfunction indicator energizes appropriate fault lamp.                        |                           |
| Performance Characteristics                                     |                                                                                                                                                                                                           |                           |
| Electric Power Rating                                           | 10 kW, 60 Hz @ .8 pf from -25°F to 120°F, 4000 ft/95 °F. Derate 3.5% per 1000 ft above 4000 ft up to 8000 ft.                                                                                             |                           |
| Environmental Capability                                        | (when housed in shelter tunnel) -25°F to 120°F, rain, humidity, sand/dust, -60°F cold storage, salt spray, fungus.                                                                                        |                           |
| Protective Devices                                              | Automatic shut down with emergency bypass for overspeed, low oil pressure, low fuel (day tank), high coolant temperature, overvoltage, undervoltage, short circuit, overload, AC interrupt, battle short. |                           |
| Fuel Consumption                                                | 0.?? gal/hour.                                                                                                                                                                                            |                           |
| Noise                                                           | 70 dBA @ 7 meters (23 ft).                                                                                                                                                                                |                           |
| RAM (MTBOMF)                                                    | 400 hr.                                                                                                                                                                                                   |                           |
| Human Factors                                                   | MIL-STD-1474.                                                                                                                                                                                             |                           |
| Electrical Characteristics                                      |                                                                                                                                                                                                           |                           |
| Voltage Connection                                              | 120V, 1 phase, 2 wire                                                                                                                                                                                     | 120/240V, 1 phase, 3 wire |
| Voltage Adj. Range                                              | 114 - 126                                                                                                                                                                                                 | 228 - 252                 |
| Frequency Adj. Range                                            | +3%                                                                                                                                                                                                       | +3%                       |
| Electrical                                                      | Alternator: brushless, solid state regulator, 2 pole, 3600 rpm, sealed bearings. Shelter has standard power outlets.                                                                                      |                           |
| EMI                                                             | Suppressed to MIL-STD-461 limits                                                                                                                                                                          |                           |
| EMP                                                             | HAEMP protected                                                                                                                                                                                           |                           |
| Electrical Performance                                          |                                                                                                                                                                                                           |                           |
| Electric Power Quality                                          | Voltage                                                                                                                                                                                                   | Frequency                 |
| Regulation (max)                                                | 3%                                                                                                                                                                                                        | 3%                        |
| Modulation (max)                                                | 3%                                                                                                                                                                                                        |                           |
| Short term steady state stability (30 sec)                      | 2% bandwidth                                                                                                                                                                                              | 2% bandwidth              |
| Long term steady state stability (8 hr)                         | 4% bandwidth                                                                                                                                                                                              | 3% bandwidth              |
| Application, rejection of rated load (transient), recovery time | 20% dip, 30% rise, 1 sec                                                                                                                                                                                  | 3% under/over , 3 sec     |
| Motor load (low power factor), recovery time                    | 40% dip ,5 sec                                                                                                                                                                                            |                           |
| Max waveform deviation factor                                   | 6%                                                                                                                                                                                                        |                           |
| Individual waveform harmonic                                    | 2%                                                                                                                                                                                                        |                           |
| Optional Equipment                                              |                                                                                                                                                                                                           |                           |
| None                                                            |                                                                                                                                                                                                           |                           |
| Technical Manuals                                               |                                                                                                                                                                                                           |                           |
| OPERATORS, UNIT, DS, and GS                                     |                                                                                                                                                                                                           | ARMY: TM 9-6115-670-14&P  |

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APPENDIX B



10 kW APU and control panel  
removed from shelter. –  
rear view --



10 kW APU ready to slide  
into shelter.  
- front view -

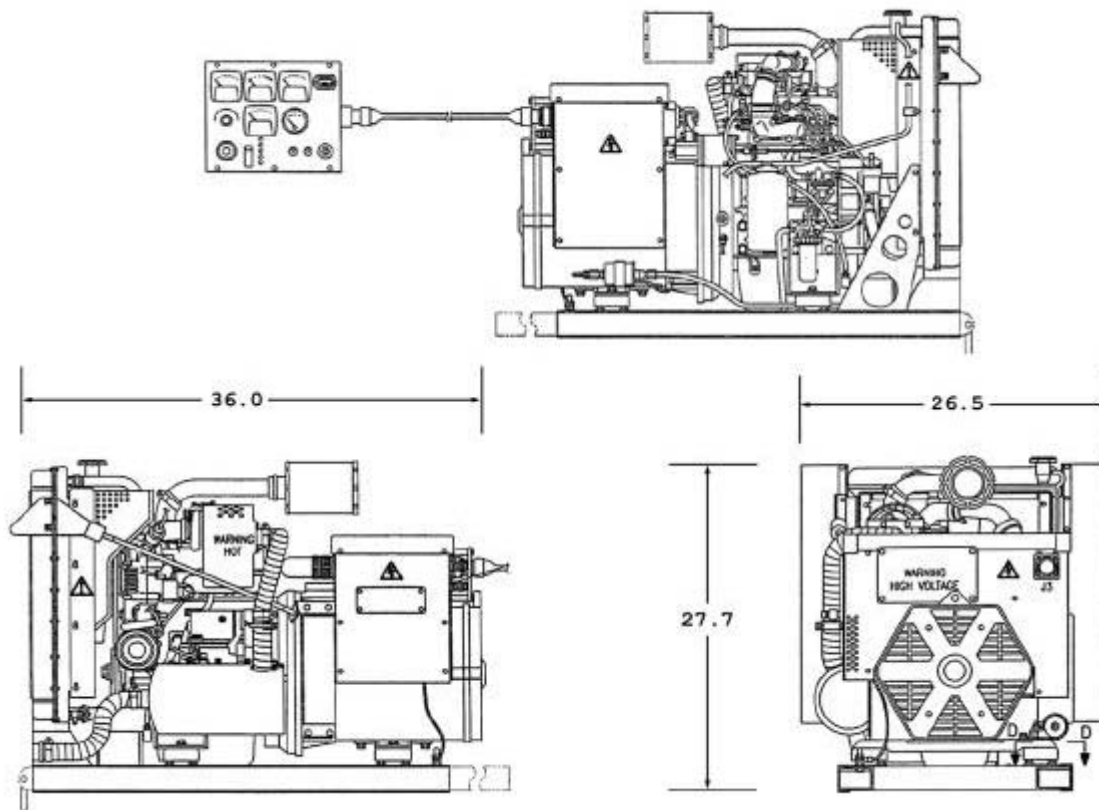


Figure B- 2 MEP-903A

MIL-HDBK-633A  
APPENDIX B

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**MIL-HDBK-633A  
APPENDIX C**

**STANDARD FAMILY OF AVIATION GROUND POWER UNITS**

**C.1 SCOPE**

**C.1.1 Scope.** This Appendix identifies the current members of the DoD Standard Family of MEPGS for aviation ground power support. Data contained in this Appendix is for information only and is provided to assist both field operation and materiel developer personnel to select the power generation source that will best meet their needs. DoD activities are to utilize these power sources to the maximum extent practicable per DoD DIRECTIVE 4120.11.

**C.1.2 Appendix Organization.** This appendix is a compilation of characteristics data sheets (see [Table C- I](#) Guide to CHARACTERISTICS DATA SHEETS of APPENDIX C) arranged by power rating capacity.

**Table C- I Guide to CHARACTERISTICS DATA SHEETS of APPENDIX C**

| MODEL NO. | ITEM DESCRIPTION                                                                        | NSN              | FIG         | PAGE |
|-----------|-----------------------------------------------------------------------------------------|------------------|-------------|------|
| MEP-362A  | 10 kW, 28VDC, GTED, Aircraft Support Unit, Integral wheel mount                         | 6115-01-161-3992 | Figure C- 1 | 74   |
| MEP-356A  | 60 kW, 400 Hz; 2 kW, 28VDC; Pneumatic, Self Propelled, GTED, Aviation Ground Power Unit | 6115-00-420-8486 | Figure C- 2 | 76   |
| MEP-357A  | 72 kW, 400 Hz; 21 kW, 28VDC; Self Propelled, DED, Aviation Support Unit                 | 6115-00-110-1859 | Figure C- 3 | 78   |

**C.2 APPLICABLE DOCUMENTS**

This section is not applicable to this Appendix.

**C.3 DEFINITIONS**

**C.3.1** Use definitions of basic document.

**C.4 GENERAL DESCRIPTIONS**

**C.4.1 Item Descriptions.**

**C.4.1.1 10 kW 28 VDC Start Cart (MEP-362A).** The 28 VDC start cart is a wheeled aviation ground support generator set used to start and service aircraft (primarily helicopters) utilizing 28 volt direct current. The start cart is gas turbine engine powered. Power is provided via a standard 28 VDC aircraft connection.

**C.4.1.2 60 kW, 400 Hz, and pneumatic Aircraft Ground Support Unit.** This self propelled unit provides electrical and pneumatic (bleed air) power to start and service aircraft by the USAF. The unit is gas turbine engine powered.

**C.4.1.3 72 kW, 400 Hz; 21 kW 28 VDC Aircraft Ground Support Power Unit.** This unit is an integral trailer mount, AC & DC power unit to start and service aircraft by the Navy. The unit is diesel engine driven. The unit has AC & DC power cable retracting reels and a parking brake.

**C.4.2 Delivered condition.**

**C.4.2.1 Safety Items.** The items of this Appendix are delivered with fire extinguishers. Aircraft ground support generators and the connected aircraft should have a single common ground.

**C.4.3 NATO slave receptacle.** A NATO slave receptacle can be used to start the generator set from an external 24 VDC power source.

**C.5 DETAILED DESCRIPTIONS**

**C.5.1 Detailed Descriptions.** Detailed descriptions are contained in the CHARACTERISTICS DATA SHEETS of [Figure C- 1](#) through [Figure C- 3](#).

MIL-HDBK-633A  
APPENDIX C**10 kW, 28 VDC, GTE, Aircraft Support Unit**

| Identification Data                            |                                                                                                                                                                  |                  |                  |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| Nomenclature                                   | GEN SET, 10kW, GTE, 28VDC                                                                                                                                        |                  |                  |
| Model Number                                   | MEP-362A                                                                                                                                                         |                  |                  |
| NSN                                            | 6115-01-161-3992                                                                                                                                                 |                  |                  |
| LIN                                            | G38140                                                                                                                                                           |                  |                  |
| SSN                                            |                                                                                                                                                                  |                  |                  |
| Physical Characteristics                       |                                                                                                                                                                  |                  |                  |
| Dimensions LWH (in)                            | 89.0 x 71.0 x 49.0 (Cube: 179 ft <sup>3</sup> )                                                                                                                  |                  |                  |
| Weight (lbs)                                   | Dry: 960                                                                                                                                                         | Wet: 1175        |                  |
| Mobility                                       | All weather frame and housing, wheel mounted, parking brake. A 40 foot power cable is provided.                                                                  |                  |                  |
| Engine                                         | Gas Turbine, 50300 rpm (12000 at gearbox), Tiernay Turbines Model:101800-1, 28 VDC starter.                                                                      |                  |                  |
| Fuels                                          | JP-8, Jet-A. Fuel tank: 32 gallons,.                                                                                                                             |                  |                  |
| Instrumentation                                | On/off switch, hourmeter, voltmeter, output current meter, battery charging meter.                                                                               |                  |                  |
| Performance Characteristics                    |                                                                                                                                                                  |                  |                  |
| Electric Power Rating                          | 10 kW @ 125°F/MSL, 107°F/5000 ft, 95°F/8000 ft.                                                                                                                  |                  |                  |
| Environmental Capability                       | -65°F to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage - 65°F, salt spray, fungus.                                                    |                  |                  |
| Protective Devices                             | Automatic shut down with emergency bypass for low fuel, low oil pressure, engine overtemp, overspeed, overload, overvoltage, generator overtemp and undervoltage |                  |                  |
| Fuel Consumption                               | 8 gal/hour                                                                                                                                                       |                  |                  |
| Noise                                          | Not specified.                                                                                                                                                   |                  |                  |
| Human Factors                                  | MIL-STD-1474.                                                                                                                                                    |                  |                  |
| Electrical Characteristics                     |                                                                                                                                                                  |                  |                  |
| Voltage Connection:                            | 28VDC, 2 wire with ground                                                                                                                                        |                  |                  |
| Electrical                                     | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, generator: Teledyne Brown, model 481-007.                              |                  |                  |
| EMI                                            | Suppressed to MIL-STD-461 limits.                                                                                                                                |                  |                  |
| EMP                                            | HEAMP protected.                                                                                                                                                 |                  |                  |
| Electrical Performance                         |                                                                                                                                                                  |                  |                  |
| Electric Power Quality                         |                                                                                                                                                                  | DC Voltage       |                  |
| Regulation                                     |                                                                                                                                                                  | 4%               |                  |
| Short term steady state stability (30 sec)     |                                                                                                                                                                  | 2% bandwidth     |                  |
| Long term steady state stability (4 hr)        |                                                                                                                                                                  | 2% bandwidth     |                  |
| Application of rated load (transient) recovery |                                                                                                                                                                  | 30% dip 1 sec    |                  |
| Rejection of rated load (transient) recovery   |                                                                                                                                                                  | 40% rise 0.5 sec |                  |
| DC ripple                                      |                                                                                                                                                                  | 5.5%             |                  |
| Optional Equipment                             |                                                                                                                                                                  |                  |                  |
| None                                           |                                                                                                                                                                  |                  |                  |
| Technical Manuals                              |                                                                                                                                                                  |                  |                  |
| Army                                           | Air Force                                                                                                                                                        | Marine Corps     | Navy             |
| TM 5-6115-612-12                               |                                                                                                                                                                  |                  | AG-320B0-OMM-000 |
| TM 5-6115-612-34                               |                                                                                                                                                                  |                  | AG-320B0-MME-000 |
| TM 5-6115-612-24P                              | TO 35C2-3-471-4                                                                                                                                                  | TM 6115-24P/1    | AG-320B0-IPE-000 |

MIL-HDBK-633A  
APPENDIX C

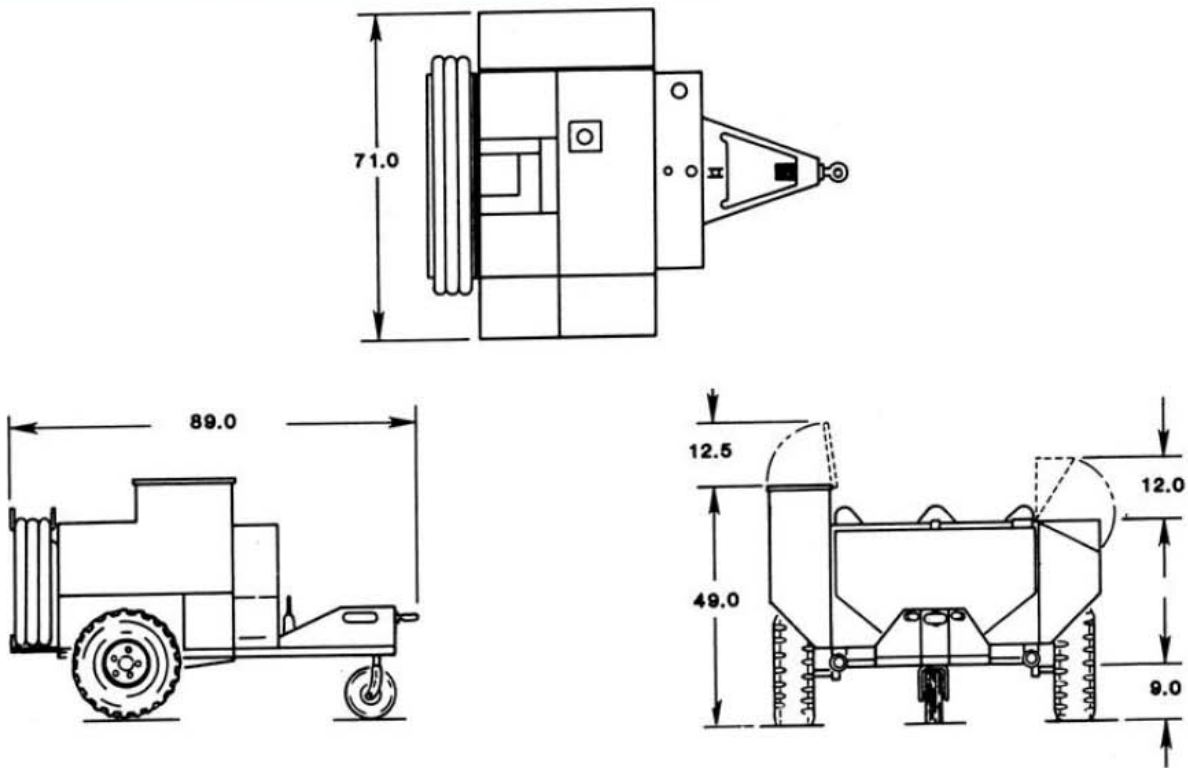


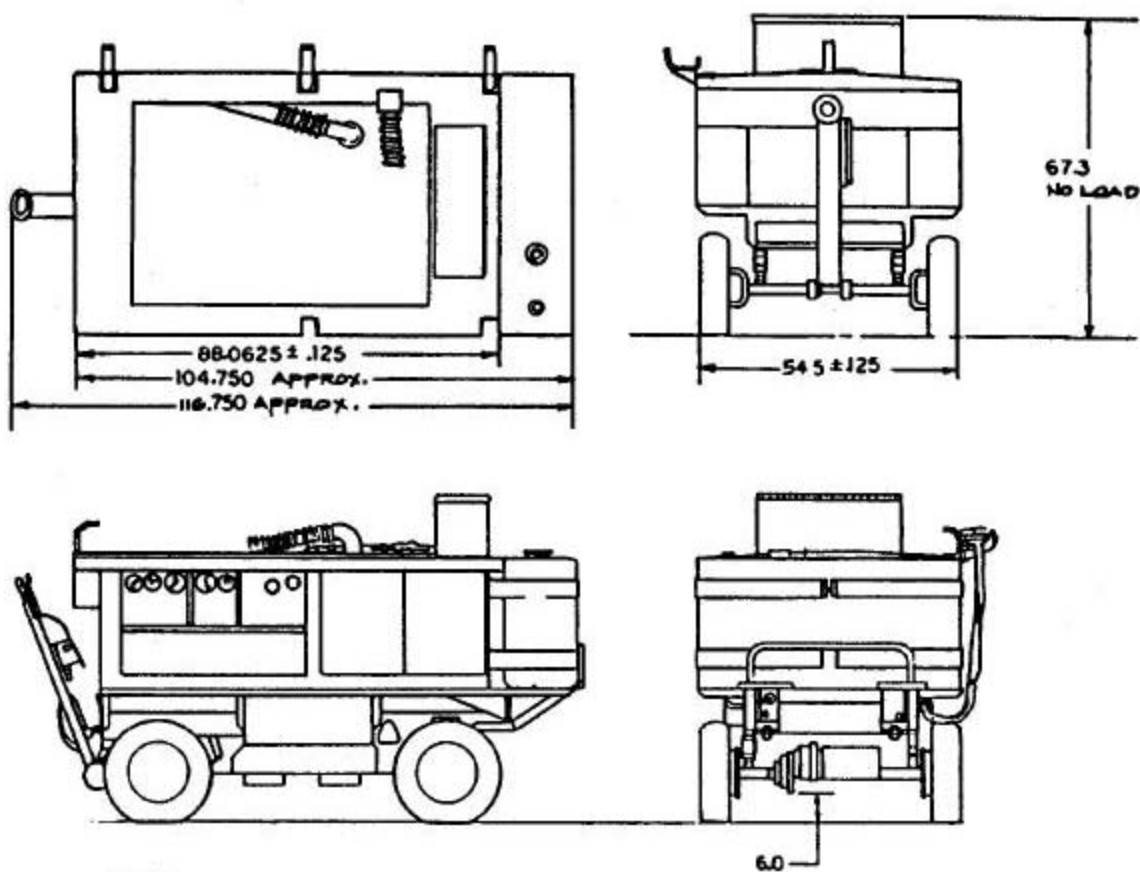
Figure C- 1 MEP-362A

MIL-HDBK-633A  
APPENDIX C

**60kW Aircraft Ground Support Unit**  
(Air Force Unit, Not Type Classified for Army use)

| Identification Data                                |                                                                                                                                                                                  |                                        |                          |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------|
| Nomenclature                                       | Gen Set, 60kW, GTE, 400 Hz, pneumatic, self propelled                                                                                                                            |                                        |                          |
| Model Number                                       | MEP-356A                                                                                                                                                                         |                                        |                          |
| NSN                                                | 6115-00-420-8486                                                                                                                                                                 |                                        |                          |
| LIN                                                |                                                                                                                                                                                  |                                        |                          |
| SSN                                                |                                                                                                                                                                                  |                                        |                          |
| Physical Characteristics                           |                                                                                                                                                                                  |                                        |                          |
| Weight (lbs)                                       | Dry: 2800                                                                                                                                                                        | Wet: 3940                              |                          |
| Dimensions LWH (in)                                | 116.75 x 54.5 x 67.3 (Cube: 247 ft³)                                                                                                                                             |                                        |                          |
| Engine                                             | Gas turbine, 177 horsepower @ 42,000 rpm, bleed air, 24 VDC starter.                                                                                                             |                                        |                          |
| Fuel                                               | JP-8, Jet-A. Fuel tank: 190 gallons.                                                                                                                                             |                                        |                          |
| Mobility                                           | Fully enclosed, electrically self propelled, wheel mounted, AC power cable, pneumatic hose, parking brake.                                                                       |                                        |                          |
| Instrumentation                                    | Hour meter, AC/DC voltmeter, frequency meter, battery charging ammeter & voltmeter, fuel level, tachometer.                                                                      |                                        |                          |
| Pneumatic                                          | Flow rate: 150 – 4 pounds/minute. Pressure: 51 – 2 psia @ 385°F                                                                                                                  |                                        |                          |
| Performance Characteristics                        |                                                                                                                                                                                  |                                        |                          |
| Electric Power Rating                              | 60 kW, 0.8 power factor @ 5000 ft/125°F                                                                                                                                          |                                        |                          |
| Environmental Capability                           | -65°F to 125°F, rain, humidity, altitude, sand/dust, transportation, -65°F cold storage, salt spray, fungus.                                                                     |                                        |                          |
| Protective Devices                                 | Short circuit, AC overvoltage/undervoltage, AC under-frequency, low oil pressure, high temperature, overspeed.                                                                   |                                        |                          |
| Fuel Consumption                                   | 33 gal/hr (41 w/ bleed air).                                                                                                                                                     |                                        |                          |
| Reliability (MTBF)                                 | 478 Hr. specified.                                                                                                                                                               |                                        |                          |
| Noise                                              | 93 dBA @ 25 feet.                                                                                                                                                                |                                        |                          |
| Human Factors                                      | MIL-STD-1474.                                                                                                                                                                    |                                        |                          |
| Electrical Characteristics                         |                                                                                                                                                                                  |                                        |                          |
| Voltage Connection:                                | 3 phase: 115/200 V - 4 wire, 60 foot cable: 400 Hz convenience outlet, DC: 28 V - 2 wire (propulsion and utility only, not for aircraft), 28 VDC slave receptacle.               |                                        |                          |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Separate AC brushless rotary exciters:? pole (AC), x pole (DC). |                                        |                          |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                                                                |                                        |                          |
| EMP                                                | not protected.                                                                                                                                                                   |                                        |                          |
| Electrical Performance                             |                                                                                                                                                                                  |                                        |                          |
| Electric Power Quality                             |                                                                                                                                                                                  |                                        |                          |
| Condition                                          |                                                                                                                                                                                  | Voltage                                | Frequency                |
| Short term steady state stability                  |                                                                                                                                                                                  | not rated                              | 0.5 % bandwidth          |
| Long term steady state stability                   |                                                                                                                                                                                  | not rated                              | not rated                |
| Application of rated load (transient) , recovery   |                                                                                                                                                                                  | 25% dip, 0.25 sec                      | 1% undershoot, 0.4 sec   |
| Rejection of rated load (transient), recovery time |                                                                                                                                                                                  | 25% rise, 0.25 sec                     | 0.25% overshoot, 1.5 sec |
| Max waveform deviation factor                      |                                                                                                                                                                                  | not rated                              |                          |
| Individual waveform harmonic                       |                                                                                                                                                                                  | 2%                                     |                          |
| Motor load                                         |                                                                                                                                                                                  | not rated                              |                          |
| Mobility                                           |                                                                                                                                                                                  | Wheel mounted, electric self-propelled |                          |
| Optional Equipment                                 |                                                                                                                                                                                  |                                        |                          |
| None                                               |                                                                                                                                                                                  |                                        |                          |
| Technical Manuals                                  |                                                                                                                                                                                  |                                        |                          |
| Air Force                                          | TO 35C2-3-372-11                                                                                                                                                                 | TO 35C2-3-13                           | TO 35C2-3-14             |

MIL-HDBK-633A  
APPENDIX C



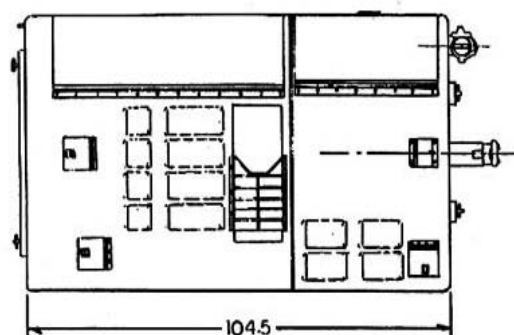
NOTE:  
DIMENSIONS ARE IN INCHES.

Figure C- 2 MEP-356A

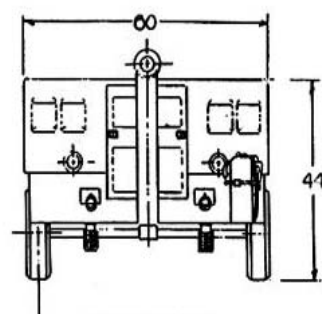
MIL-HDBK-633A  
APPENDIX C**Aircraft Ground Support Power Unit**  
(Navy Unit, Not Type Classified for Army use)

| Identification Data                                |                                                                                                                                                                                                                                        |                       |                  |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|
| Nomenclature                                       | Gen Set, 72 kW, DED, 400 Hz; 21 kW, 28 VDC                                                                                                                                                                                             |                       |                  |
| Model Number                                       | MEP-357A                                                                                                                                                                                                                               |                       |                  |
| NSN                                                | 6115-00-110-1859                                                                                                                                                                                                                       |                       |                  |
| LIN                                                |                                                                                                                                                                                                                                        |                       |                  |
| SSN                                                |                                                                                                                                                                                                                                        |                       |                  |
| Physical characteristics                           |                                                                                                                                                                                                                                        |                       |                  |
| Weight (lbs)                                       | Dry: 7000                                                                                                                                                                                                                              | Wet: 7200             |                  |
| Dimensions LWH(in)                                 | 116.75 x 60.0 x 44.0 (Cube: 178 ft <sup>3</sup> )                                                                                                                                                                                      |                       |                  |
| Mobility                                           | Fully enclosed integral trailer mount, AC & DC power cable with retracting reels; parking brake; running lights.                                                                                                                       |                       |                  |
| Engine                                             | Diesel, 215 horsepower @ 1846 rpm, Detroit Diesel Co., 24 VDC starter.                                                                                                                                                                 |                       |                  |
| Fuels                                              | DL-1, DL-2, marine diesel. Emergency: JP-5, JP-8. Fuel tank: 30 gallons.                                                                                                                                                               |                       |                  |
| Instrumentation                                    | On/off switch, hour, AC/DC volt, frequency, AC/DC ammeter, hourmeter, oil pressure, coolant temperature, fuel level, tachometer.                                                                                                       |                       |                  |
| Performance Characteristics                        |                                                                                                                                                                                                                                        |                       |                  |
| Power Rating                                       | 72 kW, 400 Hz, @ 0.8 power factor and 21 kW 28VDC @ MSL/125 °F.                                                                                                                                                                        |                       |                  |
| Environmental Capability                           | -25°F to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage: -45°F, salt spray, fungus.                                                                                                                          |                       |                  |
| Fuel Consumption.                                  | 6.7 gal/hours at rated load                                                                                                                                                                                                            |                       |                  |
| Protective Devices                                 | Low fuel, high coolant temperature, DC overvoltage, AC overvoltage/undervoltage overfrequency/underfrequency, engine overspeed low oil pressure. Fault indicators for above. Thermal and magnetic overload protection.                 |                       |                  |
| Noise                                              | 87 dBA @ 25 feet.                                                                                                                                                                                                                      |                       |                  |
| Human Factors                                      | MIL-STD-1474.                                                                                                                                                                                                                          |                       |                  |
| Reliability (MTBOMF)                               | 250 hr. (specified)                                                                                                                                                                                                                    |                       |                  |
| Electrical Characteristics                         |                                                                                                                                                                                                                                        |                       |                  |
| Voltage Connection:                                | 400 Hz, 3 phase: 115/200 V - 4 wire, DC: 28 V - 2 wire.                                                                                                                                                                                |                       |                  |
| <b>Adjustment Range</b>                            | <b>Voltage</b>                                                                                                                                                                                                                         | <b>Frequency</b>      |                  |
| 115/200 V, 3 ph, 4 wire                            | 105-125 V                                                                                                                                                                                                                              | 380-440 Hz            |                  |
| 28 VDC                                             | 23-35 V                                                                                                                                                                                                                                |                       |                  |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, static exciter generator 24 VDC power supply with 750 and 1000 amp current limits. Marathon/Lima brushless generator. |                       |                  |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                                                                                                                      |                       |                  |
| EMP                                                | Not protected.                                                                                                                                                                                                                         |                       |                  |
| Electrical Performance                             |                                                                                                                                                                                                                                        |                       |                  |
| <b>Electric Power Quality</b>                      | <b>AC Voltage</b>                                                                                                                                                                                                                      | <b>DC Voltage</b>     | <b>Frequency</b> |
| Regulation (max)                                   | 1%                                                                                                                                                                                                                                     | 0.5 VDC               | 1%               |
| Modulation (max)                                   | 1%                                                                                                                                                                                                                                     |                       |                  |
| Short term steady state stability (30 sec)         | 1%                                                                                                                                                                                                                                     | 2%                    | 0.5%             |
| Long term steady state stability (4 hr)            | 1%                                                                                                                                                                                                                                     | 2%                    | 1%               |
| Application/rejection of rated load, recovery time | 25% dip/rise, 0.4 sec                                                                                                                                                                                                                  | 13% dip/rise, 0.5 sec | nr , 1 sec       |
| Motor load                                         | nr                                                                                                                                                                                                                                     |                       |                  |
| Max waveform deviation factor                      | nr                                                                                                                                                                                                                                     |                       |                  |
| Individual waveform harmonic                       | 2%                                                                                                                                                                                                                                     |                       |                  |
| DC ripple voltage                                  |                                                                                                                                                                                                                                        | 1.5 volts             |                  |
| Optional Equipment                                 |                                                                                                                                                                                                                                        |                       |                  |
| Winterization system:                              |                                                                                                                                                                                                                                        |                       |                  |
| Technical Manuals                                  |                                                                                                                                                                                                                                        |                       |                  |
| Navy                                               | OPERATORS:                                                                                                                                                                                                                             | NAVAIR 19-45-20       |                  |

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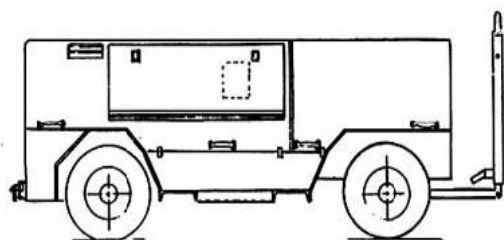


TOP VIEW

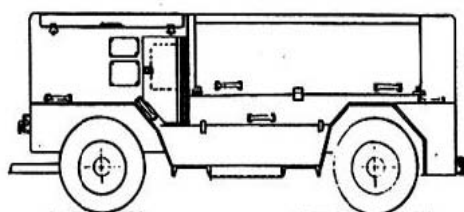


FRONT VIEW

NOTE: ALL DIMENSIONS ARE IN INCHES.



SIDE VIEW-RH



SIDE VIEW-LH

Figure C- 3 MEP-357A

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**APPENDIX D****POWER DISTRIBUTION AND ILLUMINATION SYSTEM, ELECTRICAL (PDISE)****D.1. SCOPE**

D.1.1. Scope. This Appendix provides information on the Power Distribution and Illumination System, Electrical (PDISE) and the original Distribution and Illumination System, Electrical (DISE) which was developed for the Deployable Medical System (DEPMEDS).

D.1.2. Appendix Organization. This Appendix is a compilation of characteristics data sheets (see [Table D- I](#)) arranged by number of phases, current rating per phase and finally lights and receptacles.

**Table D- I. Guide to CHARACTERISTICS DATA SHEETS of APPENDIX D**

| MODEL NO. | ITEM DESCRIPTION                            | NSN              | FIG         | PAGE |
|-----------|---------------------------------------------|------------------|-------------|------|
| M200      | 200 amp/phase Feeder Sys - 3 Phase-DEPMEDS  | 6150-01-208-9755 | Figure D- 2 | 84   |
| M200 A/P  | 200 amp/phase Feeder Sys - 3 Phase          | 6150-01-308-5672 | Figure D- 2 | 84   |
| M100      | 100 amp/phase Feeder Sys - 3 Phase- DEPMEDS | 6150-01-208-9754 | Figure D- 3 | 85   |
| M100 A/P  | 100 amp/phase Feeder Sys - 3 Phase          | 6150-01-308-5671 | Figure D- 3 | 85   |
| M40       | 40 amp/phase Dist Sys - 3 Phase-DEPMEDS     | 6150-01-208-9753 | Figure D- 4 | 86   |
| M40 A/P   | 40 amp/phase Dist Sys - 3 Phase             | 6150-01-307-9446 | Figure D- 4 | 86   |
| M60       | 60 amp Dist Sys - 1 Phase                   | 6150-01-307-9445 | Figure D- 5 | 87   |
| M60 A/P   | 60 amp Dist Sys - 1 Phase-DEPMEDS           | 6150-01-208-9752 | Figure D- 5 | 87   |
| M46       | Electrical Kit, Utility Receptacle          | 6150-01-208-9751 | Figure D- 6 | 88   |

**D.2. APPLICABLE DOCUMENTS**

This section is not applicable to this Appendix.

**D.3. DEFINITIONS** Acronyms used in this Appendix:

- DISE - Distribution and Illumination System, Electrical: see D.4.1.1 below.
- PDISE - Power Distribution and Illumination System, Electrical: see D.4.1.1 below.
- DEPMEDS - Deployable Medical System - A mobile hospital system.
- GF - Used in this Appendix to indicate circuit breaker is a ground fault protection type.

**D.4. GENERAL DESCRIPTIONS****D.4.1. Item Descriptions.**Figure D- 1 Power Distribution and Illumination System, Electrical (PDISE) Family

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D.4.1.1. Power Distribution and Illumination System, Electrical (PDISE). The PDISE (and the original DISE used with DEPMEDS) is a set of man portable, reliable, modular, quick to assemble standardized electrical distribution system components. The PDISE provides power networks which can reduce the number of generator sets needed at a field location. The PDISE is not an end item (i.e. does not have an NSN), but a family of 5 end items, consisting of two feeder systems, two distribution systems and a utility receptacle and lighting system (each with an independent NSN), and associated auxiliary equipment. These items consist of cabling and circuit protection components which can be optimized (see [D.4.2](#)) to meet unique user applications. The [APPENDIX D](#) feeder systems and the 3-phase distribution system will subdivide and distribute 60 Hz, 3 phase, 120/208 volt power from a single power source to multiple 60 Hz, 120 volt, 1 phase or 120/208 volt, 3 phase equipment users within shelters and various unit complexes. The 60 amp single phase distribution system will distribute power from a 60 Hz, 120 V single phase generator set to multiple single phase users. The feeder and distribution system components interface with DoD standard MEPGS from 5 kW to 200 kW, as well as other power sources and components. Military standard connectors, receptacles and cabling supplemented with some hospital grade commercial receptacles are used throughout the systems. Cables for different phase and power ratings have unique connectors to prevent improper connections. The only exceptions are the pigtail cable, which is the primary interface to a generator set, and the universal adapter (see [Figure D- 8](#)). Extreme care should be taken to insure that the proper power characteristics are being provided by the pigtail connection or universal adapter.

D.4.1.2. Feeder System. The PDISE/DISE has two feeder systems, a 200 amp per phase system (M200) and a 100 amp per phase system (M100). Each system consists of a feeder center (circuit breaker box with military standard input and output connectors) with appropriate military standard connectors and military standard cabling that distributes the power from a 3-phase generator set to one or more 3 phase distribution systems.

D.4.1.3. Distribution System. The PDISE/DISE has two distribution systems. A three phase, 40 amp/phase distribution system (M40) consists of a housed circuit breaker system used to distribute 120/208 V, 3 phase power from a feeder system or smaller (5 kW -15 kW generator sets) to any 120/208 V, 3 phase loads and to 120V single phase loads. The single phase, 120 V, 60 amp (M60) distribution system was developed for applications which require up to 7.2 kW single phase power from a single phase generator set. It does not interface with either feeder system or the 40 amp distribution system. Both distribution systems interface with the utility receptacle and illumination kit.

D.4.1.4. Utility receptacle and illumination kit. The PDISE utility receptacle and illumination kit (M46) is a set of power cords, light sets and duplex boxes that can be connected to the feeder system to provide power and light to where it is needed. The PDISE utility receptacle and illumination kit has no self protection and should only be used with one of the PDISE distribution systems (i.e. M40 or M60). The PDISE utility receptacle and illumination kit provides internal tent and shelter wiring and lighting. The utility receptacles consist of hospital grade 120 volt "wall outlet" 20-ampere commercial receptacles.

D.4.1.5. Differences between systems. The primary difference between the PDISE and DISE systems is the circuit breakers. The PDISE uses hydraulic-magnetic circuit breakers and the DISE uses Thermal-magnetic circuit breakers. This difference also modifies the interior of the feeder and distribution centers but not the exteriors. In addition, the DISE utilizes ground fault protection circuit breakers on many of the 20 amp, single phase outputs.

### D.4.2. Utilization Considerations.

D.4.2.1. Application Planning. This Appendix is not a substitute for proper training and detailed manuals, but does provide information on the size and types of PDISE hardware to assist planners. The number and types of power generating sources available and the details of the users power requirements, such as where and how much power is needed, will be the driving factors in determining which and how many PDISE components are required. The PDISE system is flexible and no single solution is a "best" solution. Some possible component quantities are given in [Table D- II](#). A typical application is [APPENDIX D](#) presented in [Figure D- 7](#). The basis of issue for PDISE may not necessarily be one kilowatt of PDISE capability for each kilowatt of generator set capability. PDISE may be issued

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based on the user's load dispersion needs. It should be recognized that in some applications the PDISE total power capability can be much less than the generator set kW rating and in others, it can be much greater, but in all cases it should disburse the power to where the user needs it within a 100 foot radius of the generator set (300 feet when using the M100 and M200 to feed power to the M40).

**D.4.2.2. Safety.** Grounding of a PDISE is through the mobile electric power generating source. Care must be taken to insure that an adequate and proper neutral to ground connection is provided at this point. The system neutral should only be connected to ground at this single point or ground currents (faults) can be created. If connection is made to a grounded shelter, care must be taken to insure that the neutral is not connected to ground at the shelter. All warning and caution notices as described in the manuals and posted on the hardware are intended to prevent serious injury or death. As previously noted, the system has unique connectors which can not be interconnected. The only exceptions are the pigtail cable which is the primary interface to a generator set and the universal adapter (see [D.4.1.1](#)). Extreme care should be taken to insure that the pigtail connection to the generator or within the universal adapter is made properly.

**D.4.2.3. Voltage Drop Considerations.** The voltage drop, caused by resistance in the cabling, will limit the distance to which the power can be distributed. Generally, full rated power can be distributed about 100 feet from a distribution center and up to 200 feet from a Feeder system for a total of about 300 feet. [Table D- III](#) provides voltage drops for various cable size and length combinations. The voltage drops tabulated are for rated current. Since voltage drops are proportional to the current, 50% of rated would produce 50% of the drop listed in the table.

**D.4.2.4. Auxiliary Equipment.** Since application of PDISE can vary greatly, additional components may have to be added to the system. A table of Auxiliary equipment is provided at [Table D- IV](#). These items may be used to tailor the PDISE to the user's requirements. The universal adapter, item 26 of [Table D- IV](#), is of particular value and is shown in [Figure D- 8](#). It is designed to connect electrical equipment, with a connection not supported by PDISE, to PDISE. It consists of a box with a three-phase 40/60 ampere input connector (for connection to the proper distribution center) and five terminals (for connecting the user's equipment with a user supplied cable). The universal adapter also enables users not having the required connectors for the 40 and 60 ampere outlets on the 100M and 200M Feeder systems, or the feed-thru on the 40 ampere Distribution system, to hook up to PDISE. Also note that a pneumatic crimping tool has been supplied to all direct support maintenance units in the Army. The pneumatic crimping tool gives the units the capability to repair damaged cables and connectors. Its use saves time and cost of ordering new cables.

**D.4.2.5. Phase Balance.** Phase balance must be considered when connecting single phase loads to a 3-phase generator. If a phase is unbalanced by more than 10% it can cause damage to the power generation source. The phase connections of the PDISE feeder and distribution centers are given in [Table D- V](#).

### D.5. DETAILED DESCRIPTIONS

**D.5.1. Detailed Descriptions.** Detailed descriptions are contained in the CHARACTERISTICS DATA SHEETS of [Table D- I](#) through [Table D- V](#). Data common to all PDISE components are contained in [Table D- VI](#).

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**200 Amp per Phase Feeder System - 3 Phase**

Used to distribute 3 phase power from 60, 100 and 200 kW generator sets.

|                  | <b>PDISE</b>                                                                                           | <b>DISE</b>                                      |
|------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Model            | M200 A/P Electrical Feeder System                                                                      | M200 Electrical Feeder System                    |
| Description      | 120/208V, 3 phase, 200 amp/phase.<br>Includes feeder center, pigtail, feeder cable and carrying straps | Same but for DEPMEDS                             |
| NSN              | 6150-01-308-5672                                                                                       | 6150-01-208-9755                                 |
| LIN              | F55488                                                                                                 | same                                             |
| SSN              | R45500                                                                                                 | same                                             |
| Weight (lbs)     | 140                                                                                                    | same                                             |
| Circuit breakers | hydraulic-magnetic                                                                                     | Thermal-magnetic w/ground fault on 20 amp output |
| Dimensions       | 33.5"x 23.0"x 20.4", (9.1 ft <sup>3</sup> )                                                            | same                                             |



Figure D- 2 200 Amp per Phase Feeder System - 3 Phase

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**100 Amp per Phase Feeder System - 3 Phase**

Used to distribute 3 phase power from 30, 60, 100 and 200 kW generator sets.

|                  | <b>PDISE</b>                                                                                        | <b>DISE</b>                                      |
|------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Model            | M100 A/P Electrical Feeder System                                                                   | M100 Electrical Feeder System                    |
| Description      | 120/208 V, 3 phase, 100 amp/ ph. Includes feeder center, pigtail, feeder cable and carrying straps. | Same but for DEPMEDS                             |
| NSN              | 6150-01-308-5671                                                                                    | 6150-01-208-9754                                 |
| LIN              | F55487                                                                                              | same                                             |
| SSN              | R45400                                                                                              | same                                             |
| Weight (lbs)     | 77                                                                                                  | same                                             |
| Circuit breakers | hydraulic-magnetic                                                                                  | Thermal-magnetic w/ground fault on 20 amp output |
| Dimensions       | 24.3"x 22.4"x 20.4", ( 6.4 ft <sup>3</sup> )                                                        | same                                             |



1



2

**1- Electrical Feeder Center:** 3-phase 120/208 V, 100 amp/ph, LIN F55621, NSN 6150-01-308-5671, Part Number 13226E7029, 1 ea

**2 – Service/Feeder Cable:** 50-ft (15.2m), 100-amp, 8-pin, NSN 6150-01-256-6304, Part Number 13226E7024, 2 ea

**3 – Cable Carrying Strap,** NSN 6150-01-256-6299, Part Number 13226E5825, 8 ea



4

**4 – Pigtail Cable:** 4-ft (1.2 m), 100-amp, 200-amp, 8-pin, NSN 6150-01-256-6300, Part Number 13226E7020, 1 ea

Figure D- 3 100 Amp per Phase Feeder System - 3 Phase

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**40 Amp per Phase Distribution System - 3 Phase**

Used to distribute power from 10 through 200 kW AC generator sets.

|                  | <b>PDISE</b>                                                                                                               | <b>DISE</b>                                           |
|------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Model            | M40 A/P Electrical distribution System                                                                                     | M40 Electrical Distribution System                    |
| Description      | 120/208 V, 3 phase, 40 amp/phase. Includes distribution center, cables, carrying straps, receptacles and storage container | Same but for DEPMEDS                                  |
| NSN              | 6150-01-307-9446                                                                                                           | 6150-01-208-9753                                      |
| LIN              | F55485                                                                                                                     | same                                                  |
| SSN              | R45300                                                                                                                     | same                                                  |
| Weight (lbs)     | 55                                                                                                                         | same                                                  |
| Circuit breakers | hydraulic-magnetic                                                                                                         | Thermal-magnetic & ground fault on some 20 amp output |
| Dimensions       | 24.3"x 21.8"x 16.1", (4.9 ft <sup>3</sup> )                                                                                | same                                                  |



1



2



4

**1 – Distribution Center:** 3-phase, 120/208 V, 40-amp/ph, LIN F55485, NSN 6150-01-307-9446, Part Number 13226E7028, Dist Ctr Part Number 13229E6345, 1 ea

**2 – Service/Feeder Cable:** 100-ft (30.48m), 40/60-amp, 3-pin, NSN 6150-01-247-4761, Part Number 13226E7023-2, 1 ea

**3 – Cable Carrying Strap,** NSN 6150-01-256-6299, Part Number 13227E5825, 16 ea

**4 - Pigtail Cable:** 4-ft (1.2m), 40/60-AMP, 3-pin, NSN 6150-01-256-6301, part Number 13226E7019, 1 ea



**Transit and Storage Container,** NSN 6150-01-256-6298, Part Number 13227E5830, 1 ea  
Packaging List, Part Number 13227E5826

**Box Receptacle,** 120 V, 20-amp, NSN 6150-01-251-9125, Part Number 13226E7040, 1 ea

**Extension Cable,** 25-ft (7.6 m), 20-amp, 3-pin, NSN 6150-01-250-0044, Part Number 13226E7032-2, 3 ea

**Extension Cable,** 50-ft (15.2 m), 20-amp, 3-pin, NSN 6150-01-250-3643, Part Number 13226E7032-1, 3 ea

**Utility Light,** PN# 13226E7043, 2 ea

**Light Bulb Container,** PN# 132275829, 3 ea  
Blue, 40 Watt, PN# W-L-101/68, 3 ea  
White, 75 Watt, PN# W-L-101/85, 3 ea

Figure D- 4 40 Amp per Phase Distribution System - 3 Phase

Photo is of Three Phase Family of PDISE components and includes 200 and 100 amp feeder centers and 40 amp distribution center.

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**60 Amp Distribution System - Single Phase**

Used to distribute single phase power from 5 through 15 kW AC generator sets and single phase output from feeder systems.

|                  | <b>PDISE</b>                                                 | <b>DISE</b>                                           |
|------------------|--------------------------------------------------------------|-------------------------------------------------------|
| Model            | M60 A/P Electrical Distribution System                       | M60 Electrical Distribution System                    |
| Description      | 120 V, 1 phase, 60 amp dist center and associated components | Same but for DEPMEDS                                  |
| NSN              | 6150-01-307-9445                                             | 6150-01-208-9752                                      |
| LIN              | F55553                                                       | same                                                  |
| SSN              | R45200                                                       | same                                                  |
| Weight (lbs)     | 45                                                           | same                                                  |
| Circuit breakers | hydraulic-magnetic                                           | Thermal-magnetic w/ground fault on some 20 amp output |
| Dimensions       | 24.3"x 21.8"x 15.5", (4.7 ft <sup>3</sup> )                  | same                                                  |

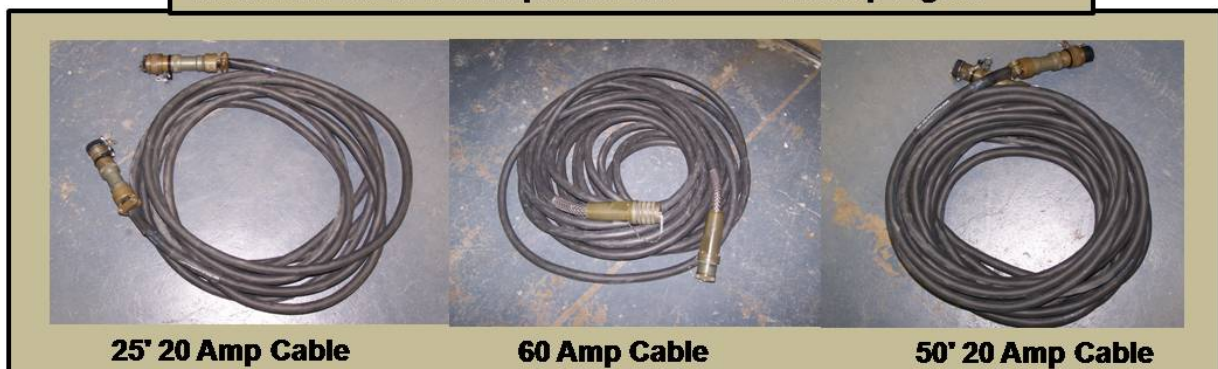
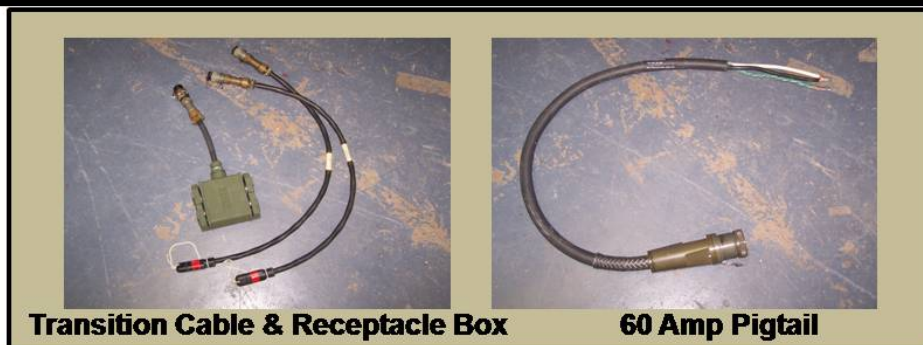


Figure D- 5 60 Amp Distribution System - 1 Phase

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**Utility Receptacles and Lighting Set**

Used to distribute single phase power to lighting and electrical receptacles from distribution systems.

|              | <b>PDISE and DISE</b>                                  |
|--------------|--------------------------------------------------------|
| Model        | M46 Electrical Utility Kit                             |
| Description  | Extension cords, utility receptacles and lighting sets |
| NSN          | 6150-01-208-9751                                       |
| LIN          | U89185                                                 |
| SSN          | R62800                                                 |
| Weight (lbs) | 85                                                     |
| Dimensions   | 16.0"x 16.0" x 26.0", (3.9 ft <sup>3</sup> )           |



- 1 – Transit and Storage Container**, LIN U89185, NSN 6150-01-208-9751, Part Number 13229E6362, 1 ea
- 2 - Receptacle Box**: 120 V, 20-amp, NSN 6150-01-251-9125, part Number 13226E7040, 6ea
- 3 – Cable Securing Strap**, NSN 6150-01-250-0045, Part Number 13226E7044, 6 ea
- 4 – Support Rope Assembly**, 53-h (1.2m), NSN 6150-01-256-6302, Part Number 13226E7041, 2 ea
- 5 – Light Bulb Kit**: NSN 6150-01-264-2068, Part Number 13227E5829, 3 ea  
40 W, **Blue**, NSN 6240-00-617-1 744, Part Number W-L-I 01/68, 3 ea  
75 W, **White**, NSN 6240-00-689-8504, Part Number 40A/B-120V, 3 ea



- 6 – Utility Light**, 120 V, dual socket, incandescent, NSN 6230-01-247-4784, Part Number 13226E7043, 2 ea
- 7 – Extension Cables**, NSN 6150-01-247-4766, Part Number 13226E7032-3, 6 ea
- 8 – Branch Circuit Cable Assembly**: 24-h (7.3m), 20-amp, 3-pin, NSN 6150-01-251-9124, Part Number 13226E7034, 2 ea
- 9. Fluorescent Utility Light** : NSN 6230-01-465-8931, 2 ea, Part Number: 13230E7018

Figure D- 6 Utility Receptacles and Lighting Set

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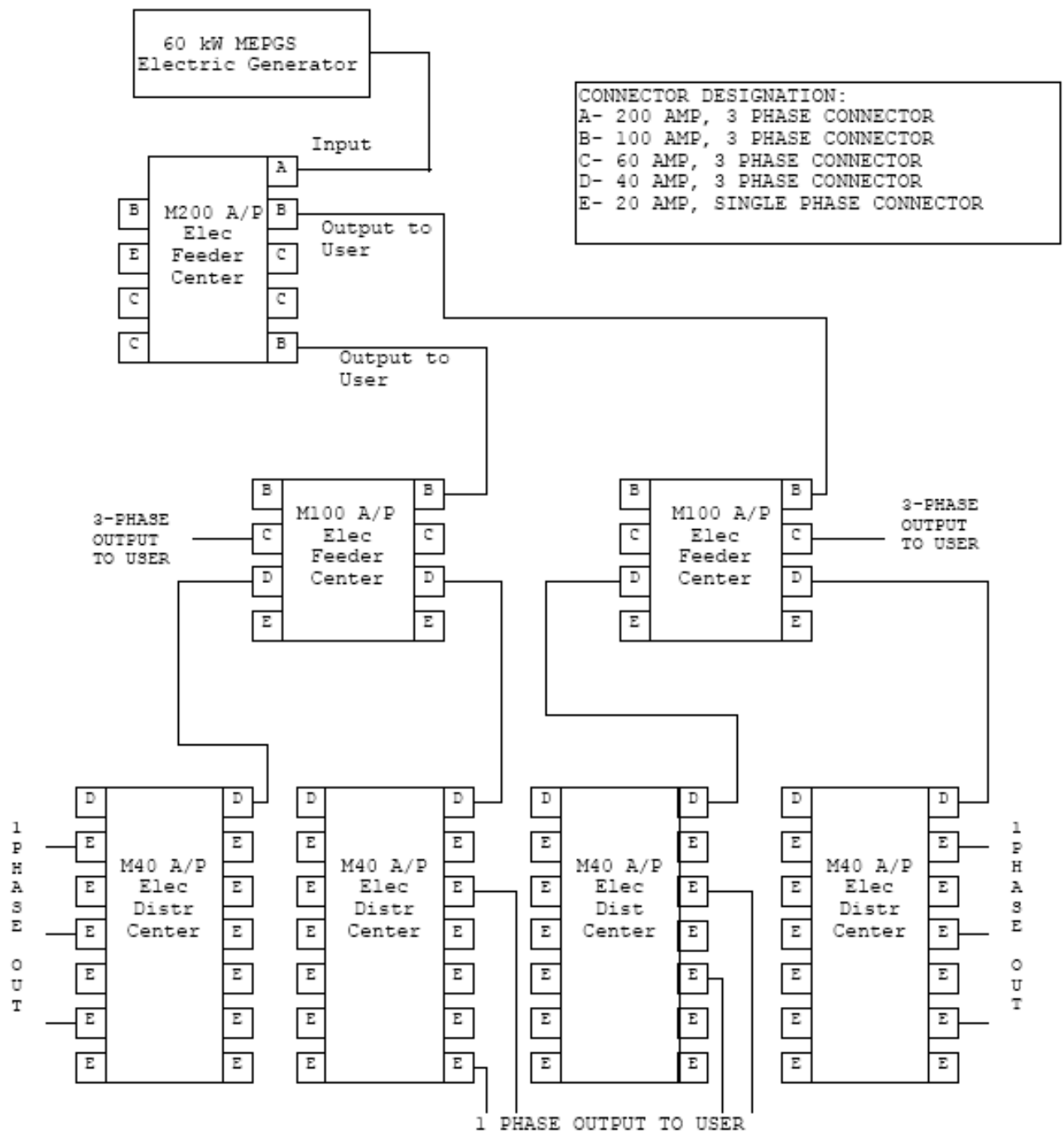


Figure D- 7 Sample of a possible distribution arrangement

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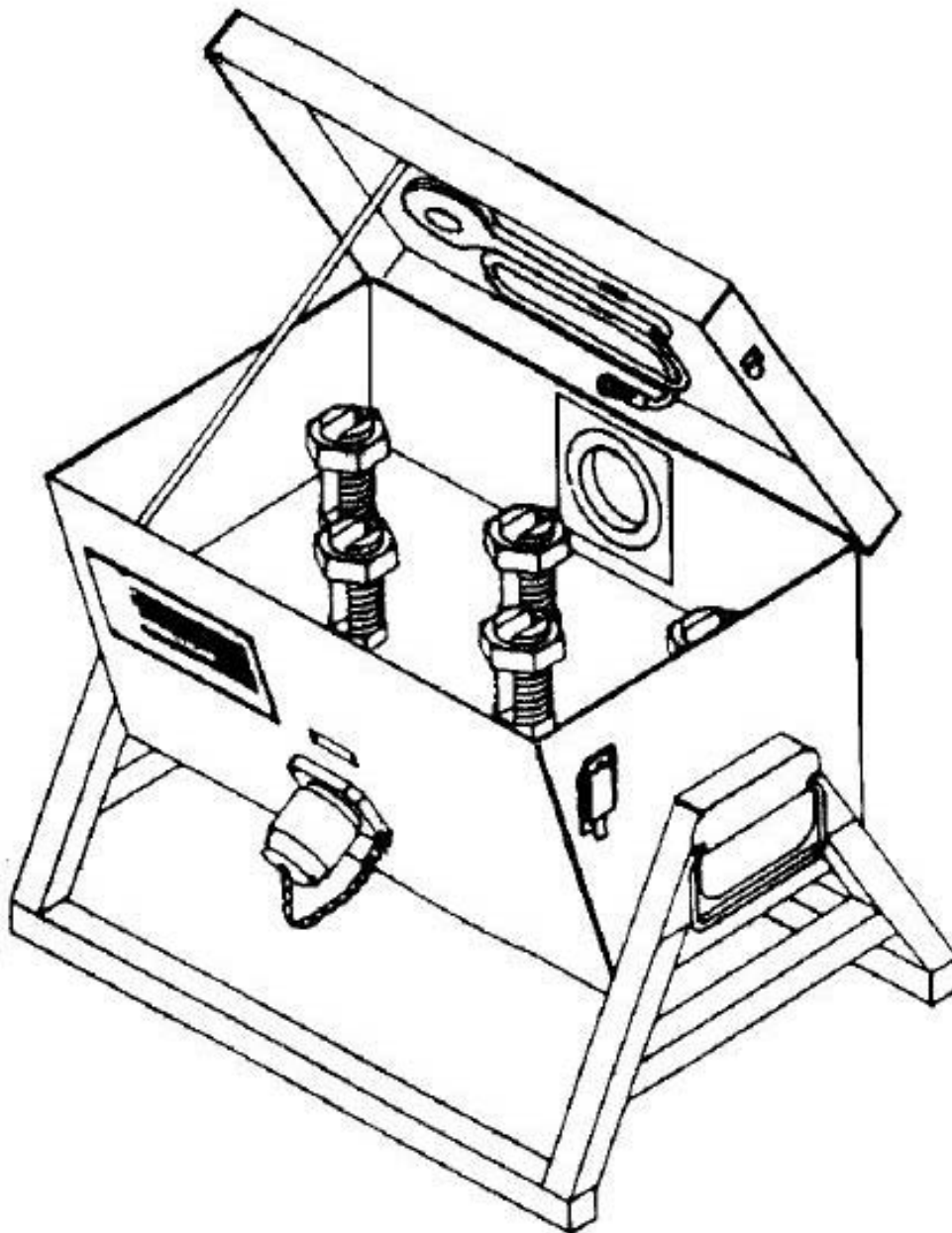


Figure D- 8 Universal Adapter

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Table D- II Some PDISE - generator applications

| Generator<br>kW | M200/<br>M200A/P | M100/<br>M100A/P | M40/<br>M40A/P | M60/<br>M60A/P | M46 | # of phases |
|-----------------|------------------|------------------|----------------|----------------|-----|-------------|
| 5               |                  |                  |                | 1              | 3   | 1           |
| 10              |                  |                  |                | 1              | 3   | 1           |
| 10              |                  |                  | 1              |                | 6   | 3           |
| 15              |                  |                  |                | 3              | 9   | 1           |
| 15              |                  |                  | 1              |                | 6   | 3           |
| 30              |                  |                  | 2              |                | 12  | 3           |
| 30              |                  | 1                | 1              |                | 6   | 3           |
| 60              |                  | 2                | 4              |                | 24  | 3           |
| 60              | 1                | 2                | 2              |                | 12  | 3           |
| 100             |                  | 3                | 6              |                | 36  | 3           |
| 100             | 2                | 4                | 8              |                | 48  | 3           |
| 200             | 3                | 6                | 12             |                | 72  | 3           |

(Possible quantities of PDISE components shown)

Table D- III Approximate voltage losses at rated amperage\*

|                             | Cable length in feet |       |       |       |        |        |
|-----------------------------|----------------------|-------|-------|-------|--------|--------|
| Rated amperage/no. of pins  | 15                   | 25    | 50    | 100   | 200    | 300    |
| 200 amp/8 pin cables (3-ph) | 1 V                  | 1.6 V | 3.2 V | 6.4 V | 12.8 V | 19.2 V |
| 100 amp/8 pin cables (3-ph) | 0.4 V                | 0.7 V | 1.4 V | 2.8 V | 5.6 V  | 8.4 V  |
| 60 amp/5 pin cables (3-ph)  | 0.5 V                | 0.9 V | 1.6 V | 3.5 V | 6.4 V  | 10.5 V |
| 40 amp/5 pin cables (3-ph)  | 0.3 V                | 0.6 V | 1.1 V | 2.3 V | 4.4 V  | 6.9 V  |
| 60 amp/4 pin cables (1-ph)  | 0.5 V                | 0.9 V | 1.7 V | 3.4 V | 6.8 V  | 10.2 V |
| 20 amp/3 pin cables (1-ph)  | 1.1 V                | 1.8 V | 3.6 V | 7.2 V | 14.4 V | 21.6 V |

\* actual voltage drop will be affected by temperature and the quality of the connection made when mating the connectors (dirt, corrosion, and oil affect pin resistance).

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Table D- IV Auxiliary equipment

|    | <b>Extras of existing PDISE components Item Description</b> | <b>Weight lb</b> | <b>NSN</b>       |
|----|-------------------------------------------------------------|------------------|------------------|
| 1  | Branch circuit cable, 8 ft, 20 amp, 3 pin                   | 2                | 6150-01-250-5644 |
| 2  | Branch circuit cable, 16 ft, 20 amp, 3 pin                  | 4                | 6150-01-256-6297 |
| 3  | Branch circuit cable, 24 ft, 20 amp, 3 pin                  | 6                | 6150-01-251-9124 |
| 4  | Cable carrying strap                                        | negligible       |                  |
| 5  | Cable securing strap                                        | negligible       |                  |
| 6  | Container, transit and storage                              |                  | 6150-01-256-6298 |
| 7  | Duplex receptacle, 120 V, 20 amp                            |                  | 6150-01-251-9125 |
| 8  | Extension cable, 3.5 ft, 20 amp, 3 pin                      | 0.7              | 6150-01-258-1253 |
| 9  | Extension cable, 15 ft, 20 amp, 3 pin                       | 3                | 6150-01-247-4766 |
| 10 | Extension cable, 25 ft, 20 amp, 3 pin                       | 5                | 6150-01-250-0044 |
| 11 | Extension cable, 50 ft, 20 amp, 3 pin                       | 10               | 6150-01-250-3643 |
| 12 | Florescent light, 4 ft, 120 V, single tube                  |                  | 6150-01-250-0046 |
| 13 | Container, light bulb kit, 2-bulb                           |                  | 6150-01-256-2068 |
| 14 | Pigtail cable, 4 ft, 40/60 amp, 5 pin                       | 5                | 6150-01-256-6301 |
| 15 | Pigtail cable, 4 ft, 60 amp, 4 pin                          | 4                | 6150-01-247-4778 |
| 16 | Pigtail cable, 4 ft, 100 amp, 8 pin                         | 17               | 6150-01-256-6300 |
| 17 | Pigtail cable, 4 ft, 200 amp, 8 pin                         | 28               | 6150-01-247-4768 |
| 18 | Rope support assembly, 53 ft                                |                  | 6150-01-256-6302 |
| 19 | Service/feeder cable, 25 ft, 40/60 amp, 5 pin               | 27               | 6150-01-247-4780 |
| 20 | Service/feeder cable, 25 ft, 200 amp, 8 pin                 | 136              | 6150-01-247-4782 |
| 21 | Service/feeder cable, 50 ft, 40/60 amp, 5 pin               | 53               | 6150-01-247-4781 |
| 22 | Service/feeder cable, 50 ft, 60 amp, 4 pin                  | 48               | 6150-01-256-6303 |
| 23 | Service/feeder cable, 50 ft, 100 amp, 8 pin                 | 100              | 6150-01-256-6304 |
| 24 | Service/feeder cable, 100 ft, 40/60 amp, 5 pin              | 105              | 6150-01-247-4779 |
| 25 | Service/feeder cable, 100 ft, 60 amp, 4 pin                 | 96               | 6150-01-247-4793 |
| 26 | Universal adapter                                           |                  | 5975-01-247-4791 |
| 27 | Utility light, 120 V, dual socket, incandescent             |                  | 6230-01-247-4784 |
| 28 | Interface cable, 40/60 amp, 5-ton expando van               |                  | 6150-01-250-3564 |
| 29 | Interface cable, 20 amp, general illumination lighting set  |                  | 6150-01-256-4290 |
| 30 | Cable carrying strap (double), 200 amp                      |                  |                  |
| 31 | Fluorescent Utility Light                                   |                  | 6230-01-465-8931 |

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Table D- V Connector to phase links

| Center                                                | Connector:                                  | Phase | A<br>L1 | B<br>L2 | C<br>L3 | N |
|-------------------------------------------------------|---------------------------------------------|-------|---------|---------|---------|---|
| <b>200 amp feeder center - M200 A/P &amp; M200</b>    |                                             |       |         |         |         |   |
| J-1                                                   | 200 amp input (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-4                                                   | 100 amp output (120/208 V, 3 phase)         |       | x       | x       | x       | x |
| J-5                                                   | 100 amp output (120/208 V, 3 phase)         |       | x       | x       | x       | x |
| J-6                                                   | 20 amp output (120 V, 1 phase)(GF on M200)* |       |         | x       |         | x |
| J-7                                                   | 60 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-8                                                   | 60 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-9                                                   | 60 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-10                                                  | 60 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-11                                                  | 100 amp output (120/208 V, 3 phase)         |       | x       | x       | x       | x |
| <b>100 amp feeder center - M100 A/P &amp; M100</b>    |                                             |       |         |         |         |   |
| J-1                                                   | 100 amp input (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-2                                                   | 100 amp output (120/208 V, 3 phase)         |       | x       | x       | x       | x |
| J-3                                                   | 60 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-4                                                   | 40 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-5                                                   | 40 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-6                                                   | 60 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-7                                                   | 20 amp output (120 V, 1 phase)(GF on M100)  |       |         |         | x       | x |
| J-8                                                   | 20 amp output (120 V, 1 phase)(GF on M100)  |       | x       |         |         | x |
| <b>40 amp distribution center - M40 A/P &amp; M40</b> |                                             |       |         |         |         |   |
| J-1                                                   | 40 amp input (120/208 V, 3 phase)           |       | x       | x       | x       | x |
| J-2                                                   | 40 amp output (120/208 V, 3 phase)          |       | x       | x       | x       | x |
| J-3                                                   | 20 amp output (120 V, 1 phase)(GF on M40)   |       |         |         | x       | x |
| J-4                                                   | 20 amp output (120 V, 1 phase)              |       |         |         | x       | x |
| J-5                                                   | 20 amp output (120 V, 1 phase)(GF on M40)   |       |         | x       |         | x |
| J-6                                                   | 20 amp output (120 V, 1 phase)              |       |         | x       |         | x |
| J-7                                                   | 20 amp output (120 V, 1 phase)(GF on M40)   |       | x       |         |         | x |
| J-8                                                   | 20 amp output (120 V, 1 phase)              |       | x       |         |         | x |
| J-9                                                   | 20 amp output (120 V, 1 phase)(GF on M40)   |       |         |         | x       | x |
| J-10                                                  | 20 amp output (120 V, 1 phase)              |       |         |         | x       | x |
| J-11                                                  | 20 amp output (120 V, 1 phase)(GF on M40)   |       |         | x       |         | x |
| J-12                                                  | 20 amp output (120 V, 1 phase)              |       |         | x       |         | x |
| J-13                                                  | 20 amp output (120 V, 1 phase)(GF on M40)   |       | x       |         |         | x |
| J-14                                                  | 20 amp output (120 V, 1 phase)(GF on M40)   |       | x       |         |         | x |
| <b>60 amp distribution center - M60 A/P &amp; M60</b> |                                             |       |         |         |         |   |
| J-1                                                   | 60 amp input (120 V, 1 phase)               |       | x       |         |         | x |
| J-2                                                   | 60 amp output (120 V, 1 phase)              |       | x       |         |         | x |
| J-3                                                   | 20 amp output (120 V, 1 phase)(GF on M60)   |       | x       |         |         | x |
| J-4                                                   | 20 amp output (120 V, 1 phase)              |       | x       |         |         | x |
| J-5                                                   | 20 amp output (120 V, 1 phase)(GF on M60)   |       | x       |         |         | x |
| J-6                                                   | 20 amp output (120 V, 1 phase)              |       | x       |         |         | x |
| J-7                                                   | 20 amp output (120 V, 1 phase)(GF on M60)   |       | x       |         |         | x |
| J-8                                                   | 20 amp output (120 V, 1 phase)              |       | x       |         |         | x |

\* GF - ground fault protection.

Table D- VI Common characteristics of PDISE/DISE

|                          |                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Capability | -25°F to 120°F, rain, humidity, sand/dust, cold storage -65°F, salt spray, fungus. Note any special procedures in the manual.        |
| Human Factors            | MIL-STD-1474. Man portable and operable in 4 hours after arrival at site.                                                            |
| Auxiliary Equipment:     | Extra DISE/PDISE components may be requisitioned on an as required basis to meet particular needs. See <a href="#">Table D-III</a> . |
| Technical Manuals:       | OPERATOR, UNIT and DIRECT SUPPORT MAINT: ARMY: TM 9-6150-226-13<br>REPAIR PARTS AND SPECIAL TOOLS LIST: TM 9-6150-226-23P            |

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**APPENDIX D**

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**MIL-HDBK-633A****APPENDIX E****STANDARD MEPGS AND ASSOCIATED POWER UNITS AND POWER PLANTS NO LONGER  
PROCURABLE BUT REMAIN IN INVENTORY****E.1 SCOPE**

**E.1.1 Scope.** This Appendix identifies members of the DoD Standard Family of MEPGS that are no longer procurable but remain supportable. Also included are standard trailer mounted (Power Unit (PU)/Power Plant (PP)) configurations of these items. Data contained in this Appendix is for information only and is provided to assist both field operation and materiel developer personnel to select the power generation source that will best meet their needs. Procurable MEPGS from [APPENDIX A](#) are preferred to the sets identified in this Appendix but if the items of Appendix A are unavailable then these power sources may be used to meet power needs. DoD activities are to utilize these power sources to the maximum extent practicable per DoD DIRECTIVE 4120.11.

Table E- I Guide to CHARACTERISTICS DATA SHEETS of APPENDIX E

| MODEL NO.  | ITEM DESCRIPTION                                 | NSN              | FIG          | PAGE |
|------------|--------------------------------------------------|------------------|--------------|------|
| MEP-019A   | 0.5 kW, 400 Hz, GED, Tactical Utility unmodified | 6115-00-940-7862 | Figure E- 1  | 98   |
| MEP-015A   | 1.5 kW, 60 Hz, GED, Tactical Utility unmodified  | 6115-00-889-1446 | Figure E- 2  | 100  |
| MEP-025A   | 1.5 kW, 28 VDC, GED, Tactical Utility unmodified | 6115-00-017-8236 | Figure E- 2  | 100  |
| MEP-016A   | 3 kW, 60 Hz, GED unmodified                      | 6115-00-017-8237 | Figure E- 3  | 102  |
| MEP-016C   | 3 kW, 60 Hz, GED, modified                       | 6115-01-143-3311 | Figure E- 3  | 102  |
| MEP-021A   | 3 kW, 400 Hz, GED, Tactical Utility unmodified   | 6115-00-017-8238 | Figure E- 3  | 102  |
| MEP-021C   | 3 kW, 400 Hz, GED, Tactical Utility modified     | 6115-01-175-7321 | Figure E- 3  | 102  |
| MEP-026A   | 3 kW, 28 VDC, GED, Tactical Utility unmodified   | 6115-00-017-8239 | Figure E- 3  | 102  |
| MEP-026C   | 3 kW, 28 VDC, GED, Tactical Utility modified     | 6115-01-175-7320 | Figure E- 3  | 102  |
| MEP-016B   | 3 kW, 60 Hz, DED, TU, without ASK                | 6115-01-150-4140 | Figure E- 4  | 104  |
| MEP-701A   | 3 kW, 60 Hz, DED with ASK                        | 6115-01-234-5966 | Figure E- 4  | 104  |
| AN/MJQ-32  | Power Plant, DED, 3 kW, 60 Hz TRLMTD             | 6115-01-280-2300 | Figure E- 5  | 106  |
| AN/MJQ-33  | Power Plant, DED, 3 kW, 60 Hz TRLMTD             | 6115-01-280-2301 | Figure E- 6  | 107  |
| MEP-017A   | 5 kW, 60 Hz, GED, Tactical Utility               | 6115-00-017-8240 | Figure E- 7  | 108  |
| MEP-022A   | 5 kW, 400 Hz, GED, Tactical Utility              | 6115-00-017-8241 | Figure E- 7  | 108  |
| MEP-002A   | 5 kW, 60 Hz, DED, Tactical Utility               | 6115-00-465-1044 | Figure E- 8  | 110  |
| PU-751/M   | Generator Set, DED, 5 kW, 60 Hz, TRLMTD          | 6115-00-033-1373 | Figure E- 9  | 112  |
| PU-797     | Generator Set TQG, 5 kW, 60 Hz TRLMTD            | 6115-01-332-0741 | Figure E- 10 | 113  |
| AN/MJQ-16  | Power Plant, DED, 5 kW, 60 Hz TRLMTD             | 6115-00-033-1395 | Figure E- 11 | 114  |
| AN/MJQ-35  | Power Plant, TQG, 5 kW, 60 Hz TRLMTD             | 6115-01-313-4216 | Figure E- 12 | 115  |
| MEP-003A   | 10 kW, 60 Hz, DED, Tactical Utility              | 6115-00-465-1030 | Figure E- 13 | 116  |
| MEP-112A   | 10 kW, 400 Hz, DED, Tactical Utility             | 6115-00-465-1027 | Figure E- 13 | 116  |
| PU-753/M   | Generator Set, DED, 10 kW, 60 Hz, TRLMTD         | 6115-00-033-1389 | Figure E- 14 | 118  |
| PU-798     | 10 kW TQ Power Unit, 60 Hz, TRLMTD               | 6115-01-319-9032 | Figure E- 15 | 119  |
| PU-799     | 10 kW TQ Power Unit, 400 Hz, TRLMTD              | 6115-01-313-4283 | Figure E- 16 | 120  |
| AN/MJQ-18  | Power Plant, DED, 10 kW, 60 Hz TRLMTD            | 6115-00-033-1398 | Figure E- 17 | 121  |
| AN/MJQ-25  | Power Plant, DED, 10 kW, 400 Hz TRLMTD           | 6115-01-153-7742 | Figure E- 18 | 122  |
| MEP-018A   | 10 kW, 60 Hz, GED, Tactical Utility              | 6115-00-889-1447 | Figure E- 19 | 123  |
| MEP-023A   | 10 kW, 400 Hz, GED, Tactical Utility             | 6115-00-926-0843 | Figure E- 19 | 123  |
| MEP-004A   | 15 kW, 50/60 Hz, DED, Tactical Utility           | 6115-00-118-1241 | Figure E- 20 | 125  |
| MEP-113A   | 15 kW, 400 Hz, DED, Tactical Precise             | 6115-00-118-1244 | Figure E- 20 | 125  |
| PU-405A/M  | Gen Set, DED, 15 kW, 50/60 Hz, TRLMTD            | 6115-00-394-9577 | Figure E- 21 | 127  |
| PU-732/M   | Generator Set, DED, 15 kW, 400 Hz, TRLMTD        | 6115-00-260-3082 | Figure E- 22 | 128  |
| PU-800     | 15 kW TQ POWER UNIT, 400 Hz, TRLMTD              | 6115-01-317-2137 | Figure E- 23 | 129  |
| PU-801     | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD            | 6115-01-319-9033 | Figure E- 24 | 130  |
| PU-801A    | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD            | 6115-01-413-3821 | Figure E- 25 | 131  |
| PU-802     | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD            | 6115-01-317-2138 | Figure E- 26 | 132  |
| AN/MJQ-15  | Power Plant, DED, 15 kW, 400 Hz TRLMTD           | 6115-00-400-7591 | Figure E- 27 | 133  |
| AN/MJQ-39  | 15kW TQ POWER PLANT, 400 Hz, TRLMTD              | 6115-01-299-6034 | Figure E- 28 | 134  |
| AN/MJQ-48  | 15kW TQ POWER PLANT, 50/60 Hz, TRLMTD            | 6115-01-540-8433 | Figure E- 29 | 135  |
| AN/MJQ-48A | 15kW TQ POWER PLANT, 50/60 Hz, TRLMTD            | 6115-01-540-9465 | Figure E- 30 | 136  |
| MEP-005A   | 30 kW, 50/60 Hz, DED, Tactical Utility           | 6115-00-118-1240 | Figure E- 31 | 137  |
| MEP-114A   | 30 kW, 400 Hz, DED, Tactical Precise             | 6115-00-118-1248 | Figure E- 31 | 137  |

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| MODEL NO.  | ITEM DESCRIPTION                           | NSN              | FIG          | PAGE |
|------------|--------------------------------------------|------------------|--------------|------|
| PU-406B/M  | Gen Set, DED, 30 kW, 50/60 Hz, TRLMTD      | 6115-00-394-9576 | Figure E- 32 | 139  |
| PU-760/M   | Generator Set, DED, 30 kW, 400 Hz, TRLMTD  | 6115-00-394-9581 | Figure E- 33 | 140  |
| PU-803     | TQ PU,DED,30kW, 50/60Hz,TRLMTD             | 6115-01-317-2136 | Figure E- 34 | 141  |
| PU-804     | TQ POWER UNIT, DED,30kW,400Hz, TRLMTD      | 6115-01-317-2135 | Figure E- 35 | 142  |
| AN/MJQ-10A | Power Plant, DED, 30 kW, 50/60 Hz TRLMTD   | 6115-00-394-9582 | Figure E- 36 | 143  |
| AN/MJQ-40  | TQ Power Plant,DED, 30kW,50/60 Hz,TRLMTD   | 6115-01-299-6033 | Figure E- 37 | 143  |
| MEP-006A   | 60 kW, 50/60 Hz, DED, Tactical Utility     | 6115-00-118-1243 | Figure E- 38 | 144  |
| MEP-115A   | 60 kW, 400 Hz, DED, Tactical Precise       | 6115-00-118-1253 | Figure E- 38 | 144  |
| PU-650B/G  | Gen Set, DED, 60 kW, 50/60 Hz, TRLMTD      | 6115-00-258-1622 | Figure E- 39 | 147  |
| PU-707A/M  | Generator Set, DED, 60 kW, 400 Hz, TRLMTD  | 6115-00-394-9573 | Figure E- 40 | 148  |
| PU-805     | TQ POWER UNIT,DED,60kW,50/60Hz,TRLMTD      | 6115-01-317-2134 | Figure E- 41 | 149  |
| PU-806     | TQ POWER UNIT, DED, 60kW,400 Hz,TRLMTD     | 6115-01-317-2133 | Figure E- 42 | 150  |
| AN/MJQ-12A | Power Plant, DED, 60 kW, 50/60 Hz TRLMTD   | 6115-00-257-1602 | Figure E- 43 | 151  |
| AN/MJQ-41  | TQ Power Plant,DED,60kW,50/60Hz,TRLMTD     | 6115-01-303-7896 | Figure E- 44 | 151  |
| MEP-007B   | 100 kW, 50/60 Hz, DED, Tactical Utility    | 6115-01-036-6374 | Figure E- 45 | 153  |
| PU-495B/G  | Gen Set, DED, 100 kW, 50/60 Hz, TRLMTD     | 6115-01-134-0165 | Figure E- 46 | 155  |
| MEP-108A   | 200 kW, 50/60 Hz, DED, Tactical Precise    | 6115-00-935-8729 | Figure E- 47 | 156  |
| MEP-009A   | 200 kW, 50/60 Hz, DED, Tactical Utility    | 6115-00-133-9104 | Figure E- 47 | 156  |
| MEP-009B   | 200 kW, 50/60 Hz, DED, Tactical Utility    | 6115-01-021-4096 | Figure E- 48 | 158  |
| AN/MJQ-11A | Power Plant, DED, 200 kW, 50/60 Hz, TRLMTD | 6115-00-394-9583 | Figure E- 49 | 160  |
| MEP-029A   | 500 kW, 50/60 Hz, DED, Tactical Utility    | 6115-01-030-6085 | Figure E- 50 | 161  |
| MEP-012A   | 750 kW, 50/60 Hz, DED, PU                  | 6115-01-143-3850 | Figure E- 51 | 163  |
| MEP-208A   | 750 kW, 50/60 Hz, DED, PU                  | 6115-00-450-5881 | Figure E- 52 | 165  |

E.1.1 **Appendix Organization.** This Appendix is a compilation of characteristics data sheets (see [Table E- I](#)) arranged by power rating capacity. Within a power rating, standard skid mounted power generating sources are listed first followed by standard trailer mounted variants.

## E.2 APPLICABLE DOCUMENTS

This section is not applicable to this Appendix.

## E.3 DEFINITIONS

E.3.1 Use definitions of basic document.

## E.4 GENERAL DESCRIPTION

### E.4.1 General.

E.4.1.1 Gasoline engine-driven (GED) generator sets. Gasoline engine-driven generator sets were developed in the 0.5 to 10 kW power range. Since gasoline is no longer a logistics fuel that will be supported on the modern battlefield, these sets have been phased out as diesel fueled units become available to replace them.

E.4.1.2 Diesel engine-driven (DED) generator set. There are no planned additional procurements for diesel engine-driven generator sets listed in this Appendix. They have been replaced by the generator sets being procured and/or developed as listed in APPENDIX A.

E.4.1.3 Trailer mounted configurations. Several trailers are used in Power Unit and Power Plant MEPGS systems depending on size, weight and configuration. The PU/PPs of this Appendix have been phased out as sufficient quantities of units from APPENDIX A become available. A list of trailers follows.

a. M116A3. The M116A3 is a 3/4 ton trailer modified to carry the extra weight of a generator set and its associated hardware. The mobility is sufficient to allow lower speed access to areas accessible to a HMMWV.

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b. M103A4. The M103A4 is a 1-1/2 ton trailer modified to carry the extra weight of a generator set and its associated hardware.

c. M200A1. The M200A1 is a 2-1/2 ton trailer modified to carry the extra weight of a generator set and its associated hardware.

E.4.2 Delivered condition.

This information is provided as a historical record. These items are not longer available.

E.5 DETAILED DESCRIPTIONS

E.5.1 Detailed Descriptions. Detailed descriptions are contained in the CHARACTERISTICS DATA SHEETS of [Figure E- 1](#) through [Figure E- 52](#).

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**0.5 kW, GED, 400 Hz Generator Set**

| Identification Data                                |                                                                                                                                                 |                       |                               |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------|
| Description                                        | 0.5 kW, GED, 400 Hz Generator Set                                                                                                               |                       |                               |
| Model Number                                       | MEP-019A                                                                                                                                        |                       |                               |
| NSN                                                | 6115-00-940-7862                                                                                                                                |                       |                               |
| LIN                                                | J43027                                                                                                                                          |                       |                               |
| Configuration                                      | Tubular frame skid.                                                                                                                             |                       |                               |
| Physical Characteristics                           |                                                                                                                                                 |                       |                               |
| Dimensions LWH (in)                                | 19.6 x 17.0 x 17.0 (Cube: 3 ft <sup>3</sup> )                                                                                                   |                       |                               |
| Dry Weight (lbs)                                   | 85                                                                                                                                              |                       |                               |
| Engine                                             | 1 cylinder gasoline, 1.5 hp @ 3428 RPM, rope start, air cooled.                                                                                 |                       |                               |
| Fuels                                              | Automotive gasoline, emergency - aviation gasoline                                                                                              |                       |                               |
| Fuel Capacity                                      | 1 gal                                                                                                                                           |                       |                               |
| Instrumentation                                    | Voltmeter                                                                                                                                       |                       |                               |
| Performance Characteristics                        |                                                                                                                                                 |                       |                               |
| Power Rating                                       | 0.5 kW @ 1.0 pf from -25°F to 125°F/MSL, 107°F/5000 ft, 95°F/8000 ft.                                                                           |                       |                               |
| Environmental Capability                           | rain, humidity, altitude, sand/dust, transportation, 3 foot drop, vibration, 65°F cold storage, salt spray, fungus. Operable at incline to 15%. |                       |                               |
| Protective Devices                                 | None                                                                                                                                            |                       |                               |
| Fuel Consumption                                   | 0.25 gal/hour @ rated load.                                                                                                                     |                       |                               |
| Human Factors                                      | MIL STD1474.                                                                                                                                    |                       |                               |
| Noise                                              | Man portable. 76 dBA @ 25 ft.                                                                                                                   |                       |                               |
| Reliability (MTBF)                                 | 250 hr (specified).                                                                                                                             |                       |                               |
| Electrical Characteristics                         |                                                                                                                                                 |                       |                               |
| Voltage Connection:                                | 120 V, 400 Hz, 1 phase, 2 wire.                                                                                                                 |                       |                               |
| Adjustment Range                                   | 114 V to 126 V                                                                                                                                  |                       |                               |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary exciter.                             |                       |                               |
| Electrical Performance                             |                                                                                                                                                 |                       |                               |
| Electric Power Quality                             |                                                                                                                                                 | Voltage               | Frequency                     |
| Short term steady state stability (30 sec)         |                                                                                                                                                 | 2% bandwidth          | 4% bandwidth                  |
| Long term steady state stability (4 hr)            |                                                                                                                                                 | 2% bandwidth          | 4% bandwidth                  |
| Application/rejection of rated load, recovery time |                                                                                                                                                 | 30% under/over, 2 sec | 3% under/5% over, 4 sec/6 sec |
| Max waveform deviation factor                      |                                                                                                                                                 | 8%                    |                               |
| Individual waveform harmonic                       |                                                                                                                                                 | 5%                    |                               |
| Regulation                                         |                                                                                                                                                 | 4%                    | 3%                            |
| EMI                                                | Suppressed to MIL-STD-461 limits..                                                                                                              |                       |                               |
| EMP                                                | Not protected                                                                                                                                   |                       |                               |
| Optional Equipment                                 |                                                                                                                                                 |                       |                               |
| Description                                        | NSN                                                                                                                                             | Weight (lbs)          | Effect on Dim.(in)            |
| Canvas cover                                       | 6115-00-990-8770                                                                                                                                | 4                     | negligible                    |
| Spark Arrester kit                                 | 2990-01-032-0755                                                                                                                                |                       | none                          |
| Technical Manuals:                                 |                                                                                                                                                 |                       |                               |
| Army                                               | Air Force                                                                                                                                       | Marine Corps          | Navy                          |
| TM5-6115-329-14                                    | TO35C2-3-440-1                                                                                                                                  | TM 81283-14           | P-8-611E                      |
| TM5-2805-256-14                                    | TO35C2-102-2                                                                                                                                    | SL-4-81283B           |                               |
| TM5-2805-256-24P                                   | TO35C2-102-4                                                                                                                                    |                       |                               |
| LO 5-2805-256-12                                   |                                                                                                                                                 |                       |                               |

MIL-HDBK-633A  
APPENDIX E



MEP-019A

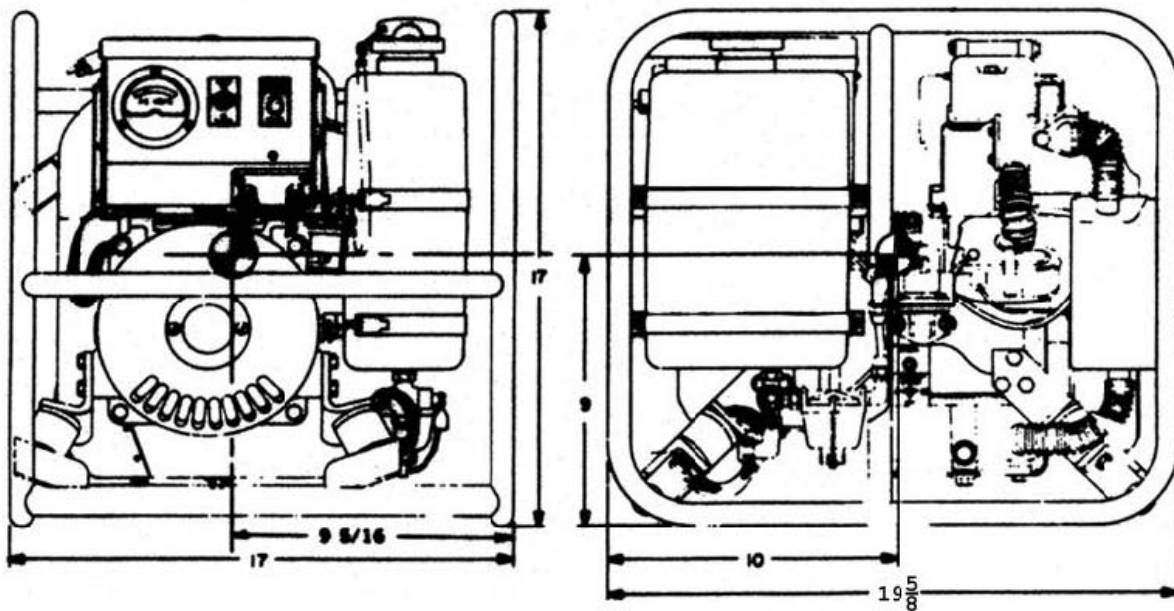


Figure E- 1 0.5 kW, GED, 400 Hz Generator Set

**MIL-HDBK-633A  
APPENDIX E**

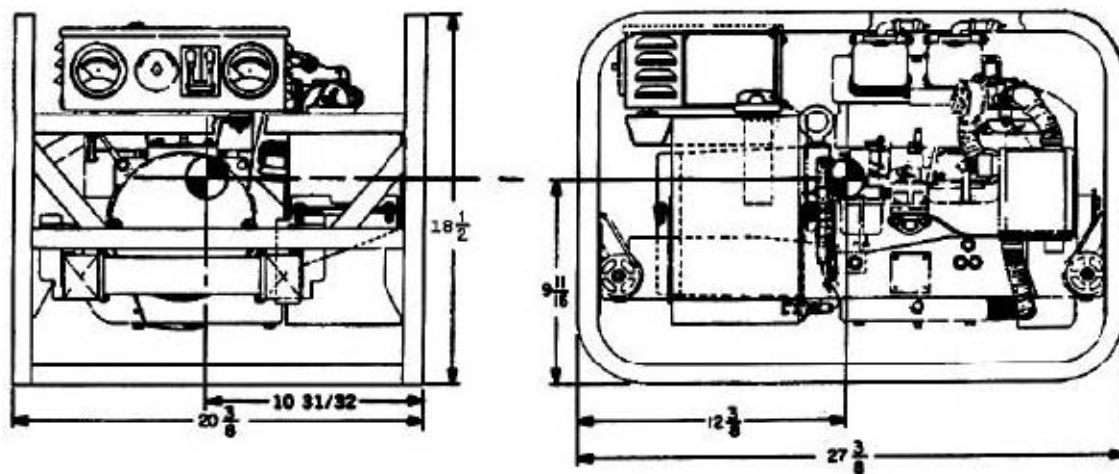
**1.5 kW, GED, Generator Set**

| Identification Data                                |                                                                                                                                                    |                              |                                       |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------|
| Nomenclature                                       | 1.5 kW, 60 Hz, GED, Tactical Utility                                                                                                               |                              | 1.5 kW, 28 VDC, GED, Tactical Utility |
| Model Number                                       | MEP-015A                                                                                                                                           |                              | MEP-025A                              |
| NSN                                                | 6115-00-889-1446                                                                                                                                   |                              | 6115-00-017-8236                      |
| LIN                                                | J43918                                                                                                                                             |                              | J44056                                |
| Configuration                                      | Tubular frame skid, lifting attachments provided.                                                                                                  |                              |                                       |
| Physical Characteristics                           |                                                                                                                                                    |                              |                                       |
| Dimensions LWH (in)                                | 27.3 x 20.3 x 18.5. (Cube: 6 ft <sup>3</sup> ).                                                                                                    |                              |                                       |
| Dry Weight (lbs)                                   | 125                                                                                                                                                | 125                          |                                       |
| Engine                                             | 2 cylinder gasoline, 3 hp @ 3600 RPM, rope start, air cooled.                                                                                      |                              |                                       |
| Fuels                                              | Automotive gasoline, emergency - aviation gasoline;                                                                                                |                              |                                       |
| Fuel Capacity                                      | 1.5 gal.                                                                                                                                           |                              |                                       |
| Instrumentation                                    | AC: voltmeter, frequency meter, DC: ammeter, voltmeter.                                                                                            |                              |                                       |
| Performance Characteristics                        |                                                                                                                                                    |                              |                                       |
| Electric Power Rating                              | 1.5 kW @ 1.0 pf from -25°F to: 125°F/MSL, 107°F/ 5000 ft, 95°F/8000 ft.                                                                            |                              |                                       |
| Environmental Capability                           | rain, humidity, altitude, sand/dust, transportation, 3 foot drop, vibration, cold storage: - 45°F, salt spray, fungus. Operable at incline to 15%. |                              |                                       |
| Protective Devices                                 | DC: Overload, short circuit.                                                                                                                       |                              |                                       |
| Fuel Consumption                                   | 0.54 gal/hour @ rated load.                                                                                                                        |                              |                                       |
| Human Factors                                      | MIL-STD-1474. Man portable.                                                                                                                        |                              |                                       |
| Noise                                              | 78 dBA @ 25 ft.                                                                                                                                    |                              |                                       |
| Reliability (MTBF)                                 | 250 hr (specified).                                                                                                                                |                              |                                       |
| Electrical Characteristics                         |                                                                                                                                                    |                              |                                       |
| Connection                                         | 120V, 1 ph, 2 wire                                                                                                                                 | 240V, 1 ph, 2 wire           | 28 VDC, 2 wire                        |
| Voltage Adj Range                                  | 114 to 126 V                                                                                                                                       | 228 to 252 V                 | 26.6 - 29.4 V                         |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary exciter.                                |                              |                                       |
| Electrical Performance                             |                                                                                                                                                    |                              |                                       |
| Electric Power Quality                             | AC Voltage                                                                                                                                         | Frequency                    | DC Voltage                            |
| Short term steady state stability (30 sec)         | 2% bandwidth                                                                                                                                       | 4% bandwidth                 | 2% bandwidth                          |
| Long term steady state stability (4 hr)            | 2% bandwidth                                                                                                                                       | 4% bandwidth                 | 2% bandwidth                          |
| Application/rejection of rated load, recovery time | 30% dip/rise, 2 sec                                                                                                                                | 3% dip/5% rise, 4 sec/ 6 sec | 30%dip/40%rise, 2 sec                 |
| Max waveform deviation factor                      | 8%                                                                                                                                                 |                              |                                       |
| Individual waveform harmonic                       | 5%                                                                                                                                                 |                              |                                       |
| DC ripple                                          |                                                                                                                                                    |                              | 5.5%                                  |
| Regulation                                         | 4% - 120 V 5% - 240 V                                                                                                                              | 3%                           | 4%                                    |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                                  |                              |                                       |
| EMP                                                | Not protected.                                                                                                                                     |                              |                                       |
| Optional Equipment                                 |                                                                                                                                                    |                              |                                       |
| Description                                        | NSN                                                                                                                                                | Weight (lbs)                 | Effect on Dim.(in)                    |
| Canvas cover                                       | 6115-00-941-1655                                                                                                                                   | 5                            | negligible                            |
| Spark arrester kit                                 | 2990-01-032-0755                                                                                                                                   |                              | none                                  |
| Technical Manuals                                  |                                                                                                                                                    |                              |                                       |
| Army                                               | Air Force                                                                                                                                          | Marine Corps                 | Navy                                  |
| TM5-6115-323-14                                    | TO35C2-3-385-1                                                                                                                                     | SL4-07609A/07610A            | P-8-612E                              |
| TM5-6115-323-15                                    | TO35C2-3-385-11                                                                                                                                    | TM 81283-14                  |                                       |
| TM5-6115-323-24P                                   | TO35C2-3-385-4                                                                                                                                     | SL4-81283B                   |                                       |
| TM5-2805-257-14                                    | TO38G2-103-2                                                                                                                                       |                              |                                       |
| TM5-2805-257-24P                                   | TO38G2-103-4                                                                                                                                       |                              |                                       |

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APPENDIX E



MEP-015A



MEP-025A

Figure E- 2 1.5 kW, GED, Generator Set

**MIL-HDBK-633A  
APPENDIX E**

**3 kW, GED, Generator Set (Diesel conversion kit is available to Reserves)**

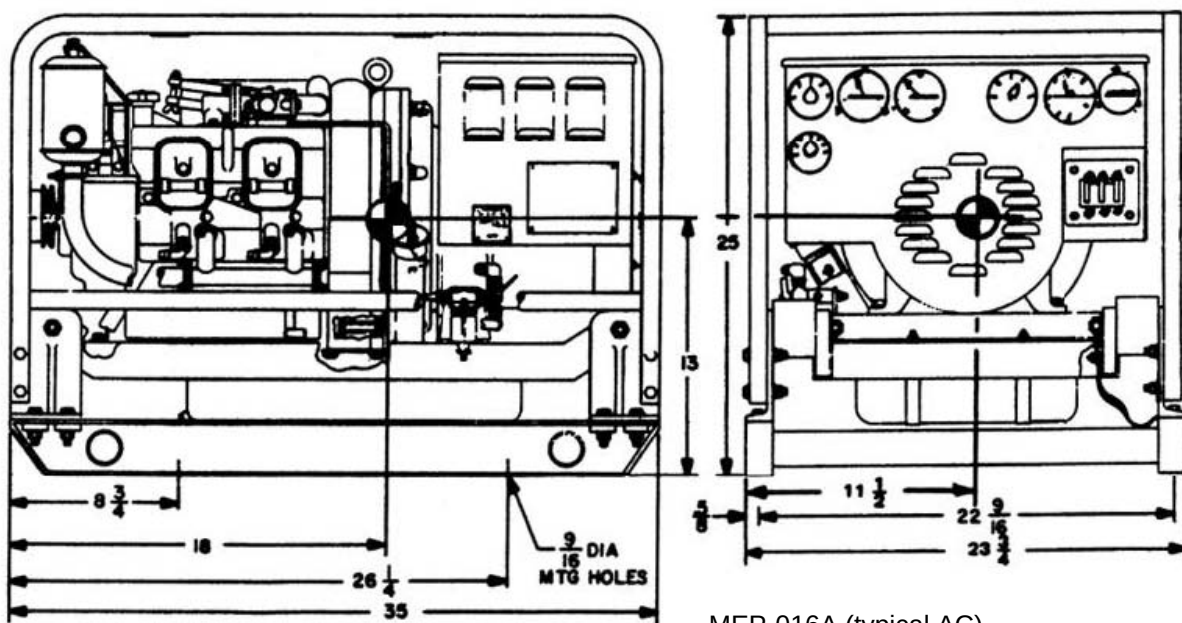
| Identification Data                               |                                                                                                                                                  |                              |                           |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------|
| Nomenclature                                      | 3 kW, 60 Hz, GED, TU                                                                                                                             |                              | 3 kW, 60 Hz, GED, TU mod  |
| Model Number                                      | MEP-016A                                                                                                                                         |                              | MEP-016C                  |
| NSN                                               | 6115-00-017-8237                                                                                                                                 |                              | 6115-01-143-3311          |
| LIN                                               | J45699                                                                                                                                           |                              | J45699                    |
| Nomenclature                                      | 3 kW, 400 Hz, GED, TU                                                                                                                            |                              | 3 kW, 400 Hz, GED, TU mod |
| Model Number                                      | MEP-021A                                                                                                                                         |                              | MEP-021C                  |
| NSN                                               | 6115-00-017-8238                                                                                                                                 |                              | 6115-01-175-7321          |
| LIN                                               | J45836                                                                                                                                           |                              | J45836                    |
| Nomenclature                                      | 3 kW, DC, GED, TU                                                                                                                                |                              | 3 kW, DC, GED, TU mod     |
| Model Number                                      | MEP-026A                                                                                                                                         |                              | MEP-026C                  |
| NSN                                               | 6115-00-017-8237                                                                                                                                 |                              | 6115-01-143-3311          |
| LIN                                               | J46110                                                                                                                                           |                              | J46110                    |
| Configuration                                     | Tubular frame skid, lifting attachments provided.                                                                                                |                              |                           |
| Physical characteristics                          |                                                                                                                                                  |                              |                           |
| Dimensions LWH(in)                                | 35.0 x 23.8 x 25.0. (Cube: 12 ft <sup>3</sup> )                                                                                                  |                              |                           |
| Weight (lbs)                                      | 285                                                                                                                                              | 285                          |                           |
| Engine                                            | 4 cylinder gasoline, 6 hp @ 3600 RPM, rope start, air cooled.                                                                                    |                              |                           |
| Fuels                                             | Automotive gasoline, (emergency - aviation gasoline);                                                                                            |                              |                           |
| Fuel Capacity                                     | 3.6 gal                                                                                                                                          |                              |                           |
| Performance Characteristics                       |                                                                                                                                                  |                              |                           |
| Electric Power Rating                             | 3kW (AC @0.8 pf) from -25°F (-65°F with Winterization kit) to: 125°F/MSL, 107°F/5000 ft, 95°F/8000 ft.                                           |                              |                           |
| Instrumentation                                   | Voltmeter, frequency meter, ammeter, hourmeter.                                                                                                  |                              |                           |
| Environmental Capability                          | rain, humidity, altitude, sand/dust, 3 foot drop, transportation, vibration, -65°F cold storage, salt spray, fungus. Operable at incline to 15%. |                              |                           |
| Protective Devices                                | Short circuit.                                                                                                                                   |                              |                           |
| Fuel Consumption                                  | 0.84 gal/hour @ rated load..                                                                                                                     |                              |                           |
| Human Factors                                     | MIL-STD-1474. Man portable.                                                                                                                      |                              |                           |
| Noise                                             | 79 dBA @ 25 ft.                                                                                                                                  |                              |                           |
| Reliability( MTBF)                                | 250 hr specified.                                                                                                                                |                              |                           |
| Electrical Characteristics                        |                                                                                                                                                  |                              |                           |
| Connection                                        | 120/208V, 3ph, 4 wire                                                                                                                            | 120/240V, 1ph, 3 wire        | 28 VDC, 2 wire            |
| Voltage Adj Range                                 | 197 - 218 V                                                                                                                                      | 228 -252 V                   | 26.6 - 29.4               |
| Frequency Adj Range                               | -3%                                                                                                                                              |                              |                           |
| Electrical                                        | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary exciter.                              |                              |                           |
| Electrical Performance                            |                                                                                                                                                  |                              |                           |
| Electric Power Quality                            | AC Voltage                                                                                                                                       | Frequency                    | DC Voltage                |
| Short term steady state stability (30 sec)        | 2% bandwidth                                                                                                                                     | 1% bandwidth                 |                           |
| Long term steady state stability (4 hr)           | 2% bandwidth                                                                                                                                     | 2% bandwidth                 | 2% bandwidth              |
| Application/Rejection of rated load recovery time | 30%dip/rise, 2 sec                                                                                                                               | 3%dip/ 5% rise, 4 sec/ 6 sec | 30%dip/40%rise, 2 sec     |
| Max waveform deviation factor                     | 6%-1ph; 5%-3ph                                                                                                                                   |                              |                           |
| Individual waveform harmonic                      | 3%                                                                                                                                               |                              |                           |
| Ripple                                            |                                                                                                                                                  |                              | 5.5%                      |
| Regulation                                        | 4% (5% @ 240V)                                                                                                                                   | 3%                           | 4%                        |
| EMI                                               | Suppressed to MIL-STD-461 limits.                                                                                                                |                              |                           |
| EMP                                               | HAEMP protected.                                                                                                                                 |                              |                           |
| Optional Equipment                                |                                                                                                                                                  |                              |                           |
| Description                                       | NSN                                                                                                                                              | Weight (lbs)                 | Effect on Dim.(in)        |
| Spark arrester kit                                | 2990-01-032-7384                                                                                                                                 |                              | none                      |
| Canvas cover (wint kit)                           | 6115-00-941-1655                                                                                                                                 | 5                            | negligible                |
| Torch (wint kit)                                  | 4520-00-710-4341                                                                                                                                 |                              | negligible                |
| Diesel conversion kit*                            | 2815-01-440-4426                                                                                                                                 | negligible                   | none                      |
| * Avail. to US Army Reserves.                     |                                                                                                                                                  |                              |                           |

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| Technical Manuals |                |              |              |
|-------------------|----------------|--------------|--------------|
| Army              | Air Force      | Marine Corps | Navy         |
| TM5-6115-271-14   | TO35C2-3-386-1 |              |              |
| TM5-6115-271-15   | TO35C2-3-386-4 | SL-4-06926A  |              |
| TM5-2805-203-14   | TO38G2-90-1    |              |              |
| TM5-2805-203-24P  | TO38G2-90-14   | SL-4-03522B  | P-8-613E-24P |
| LO5-2805-203-12   |                |              |              |



MEP-026C (typical DC)



MEP-016A (typical AC)

Figure E- 3 3 kW, GED, Generator Set

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APPENDIX E**

**3 kW, DED, 60 Hz Generator Set**

| Identification Data                                |                                                                                                                        |                          |                                                                                        |          |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------|----------|
| Nomenclature                                       | Gen Set, DED, 3kW, 60 Hz                                                                                               |                          | w/Acoustic Suppression Kit (ASK)                                                       |          |
| Model Number                                       | MEP-016B                                                                                                               |                          | MEP-701A                                                                               |          |
| NSN                                                | 6115-01-150-4140                                                                                                       |                          | 6115-01-234-5966                                                                       |          |
| LIN                                                | G54041                                                                                                                 |                          | G54041                                                                                 |          |
| SSN                                                |                                                                                                                        |                          |                                                                                        |          |
| Trailer mounted configurations                     |                                                                                                                        |                          | PP-AN/MJQ-32, <a href="#">Figure E- 5</a><br>PP-AN/MJQ-33, <a href="#">Figure E- 6</a> |          |
| Configuration                                      | Tubular frame skid or housed in ASK. Lifting & tie down.                                                               |                          |                                                                                        |          |
| Physical Characteristics                           |                                                                                                                        |                          |                                                                                        |          |
| Dimension LWH (in)                                 | 35.0 x 23.8 x 25.0 (Cube 12 ft <sup>3</sup> )                                                                          |                          | 44.0 x 28.5 x 30.0 (Cube:20 ft <sup>3</sup> )                                          |          |
| Weight (lbs)                                       | Dry 468                                                                                                                | Wet: 526                 | Dry: 532                                                                               | Wet: 590 |
| Engine                                             | Diesel, 8 horsepower @ 3600 RPM, 24 Volt starter, air cooled, mechanical governor, auxiliary fuel pump.                |                          |                                                                                        |          |
| Fuels                                              | Diesel: DL-1, DL-2 and Jet fuel: JP-8, Jet A-1.                                                                        |                          |                                                                                        |          |
| Instrumentation                                    | Hourmeter, voltmeter, frequency meter, load meter.                                                                     |                          |                                                                                        |          |
| Performance Characteristics                        |                                                                                                                        |                          |                                                                                        |          |
| Electric Power Rating                              | 3 kW @ 0.8 pf from -25°F to 125°F/MSL, 107°F/ 5000 ft, 95°F/8000 ft.                                                   |                          |                                                                                        |          |
| Environmental Capability                           | -25°F to 125°F, rain, humidity, altitude, sand/dust, transportation, -65°F cold storage, salt spray, fungus.           |                          |                                                                                        |          |
| Protective Devices                                 | Automatic shut down with emergency bypass for low fuel, low oil, overspeed, and overload.                              |                          |                                                                                        |          |
| Fuel Consumption                                   | 37 gal/hour @ rated load. Fuel capacity: 4.5 gal.                                                                      |                          |                                                                                        |          |
| Human Factors                                      | MIL-STD-1474. Operable in arctic and NBC clothing.                                                                     |                          |                                                                                        |          |
| Noise                                              | 75 dBA @ 7 meters (23 ft)w/ Acoustic Suppression Kit (ASK).                                                            |                          |                                                                                        |          |
| Reliability (MTBF)                                 | 350 hr (specified).                                                                                                    |                          |                                                                                        |          |
| Electrical Characteristics                         |                                                                                                                        |                          |                                                                                        |          |
| Connection                                         | 120/208V, 3 ph, 4 wire                                                                                                 | 120/240V, 1 ph, 3 wire   | 120V, 1 ph, 2 wire, convenience recept                                                 |          |
| Voltage Adj Range                                  | 197 - 218 V                                                                                                            | 228 -252 V               | 114 - 126 V                                                                            |          |
| Frequency Adj Range                                |                                                                                                                        | -3%                      |                                                                                        |          |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary alternator. |                          |                                                                                        |          |
| Electrical Performance                             |                                                                                                                        |                          |                                                                                        |          |
| Electric Power Quality                             |                                                                                                                        | Voltage                  | Frequency                                                                              |          |
| Short term steady state stability (30 sec)         |                                                                                                                        | 2% bandwidth             | 1% bandwidth                                                                           |          |
| Long term steady state stability (4 hr)            |                                                                                                                        | 2% bandwidth             | 2% bandwidth                                                                           |          |
| Application/rejection of rated load, recovery time |                                                                                                                        | 30% dip, 2 sec           | 3% / 5% , 4 sec/ 6 sec                                                                 |          |
| Max waveform deviation factor                      |                                                                                                                        | 6% (1 ph); 5% (3 ph)     |                                                                                        |          |
| Individual waveform harmonic                       |                                                                                                                        | 3% (1 & 3 ph)            |                                                                                        |          |
| Regulation                                         |                                                                                                                        | 4% (5% @ 240V)           | 3%                                                                                     |          |
| Optional Equipment                                 |                                                                                                                        |                          |                                                                                        |          |
| Description                                        | NSN                                                                                                                    | Weight (lbs)             | Effect on Dim.(in)                                                                     |          |
| Acoustic suppression kit                           | 6115-01-271-1584                                                                                                       | 64                       | L+8, W+4, H+3                                                                          |          |
| Diesel upgrade kit*<br>* Available to USMC.        | 1730-01-418-0970                                                                                                       | negligible               | none                                                                                   |          |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                      |                          |                                                                                        |          |
| EMP                                                | Not protected.                                                                                                         |                          |                                                                                        |          |
| Technical Manuals                                  |                                                                                                                        |                          |                                                                                        |          |
| Army                                               | Air Force                                                                                                              | Marine Corps             | Navy                                                                                   |          |
| TM5-6115-615-12                                    | TO35C2-3-386-31                                                                                                        | TM 05926B/06509B-12      | NAVFAC P-8-646-12                                                                      |          |
| TM5-6115-615-34                                    | TO35C2-3-386-32                                                                                                        | TM 05926B/06509B-34/3    | NAVFAC P-8-646-34                                                                      |          |
| TM5-6115-615-24P                                   | TO35C2-3-386-34                                                                                                        | SL-4-05926B/06509B-24P/2 | NAVFAC P-8-646-24P                                                                     |          |

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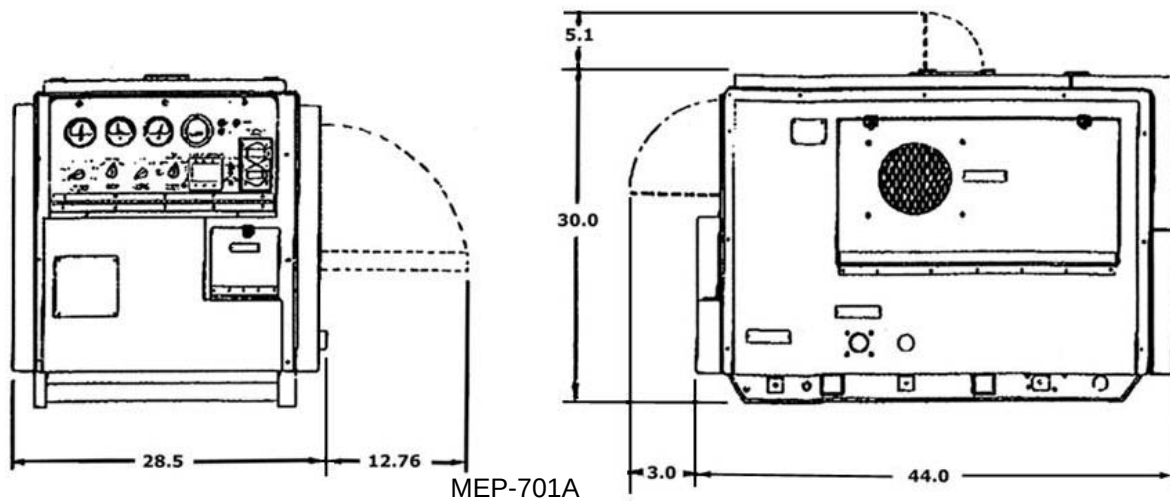


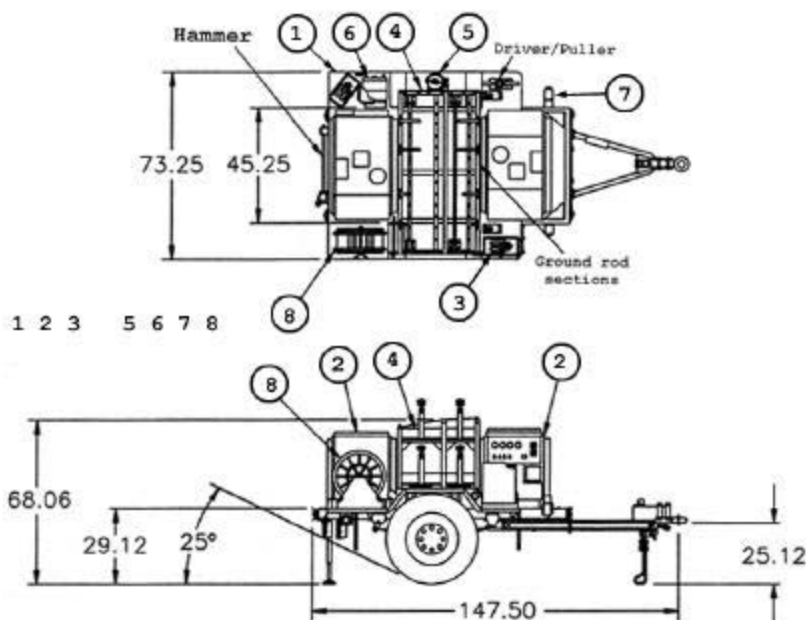
Figure E- 4 3 kW, DED, 60 Hz Generator Set

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-32, POWER PLANT, DED, 3kW, 60 Hz, TRLMTD**

Replaced by PP-AN/MJQ-42

| Identification Data                                      |                                      |            |                         |                              |                |
|----------------------------------------------------------|--------------------------------------|------------|-------------------------|------------------------------|----------------|
| Description                                              | POWER PLANT, DED, 3kW, 60 Hz, TRLMTD |            |                         | Camouflage: 97403-13226E7478 |                |
| <b>Model</b>                                             | <b>NSN</b>                           | <b>LIN</b> | <b>SSN</b>              | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PP-AN/MJQ-32                                             | 6115-01-280-2300                     | Z75718     | M548                    | TA-13228E9895                | Not procurable |
| Physical Characteristics                                 |                                      |            |                         |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>    |            | <b>Wet Weight (lbs)</b> | <b>Ship Weight (lbs)</b>     |                |
| 147.5 x 73.3 x 68.1                                      | 450                                  |            | 3160                    | 2720                         |                |



| COMPONENT                                 | QTY   | FIND | IDENTIFIER       |
|-------------------------------------------|-------|------|------------------|
| 3/4 Ton modified Trailer, M116A2          | 1     | 1    | 97403-13228E9896 |
| Generator set, DED, 3 kW, 60 Hz, MEP-701A | 2     | 2    | 6115-01-234-5966 |
| Fuel can, 5 gallon                        | 2     | 3    |                  |
| Stowage rack assembly                     | 1     | 4    | 97403-13228E9902 |
| Fire extinguisher, 5 lb., A-A-1106        | 1     | 5    | 4210-00-270-4512 |
| Switch box, 97403-13205E5079-3 (old)      | 1     | 6    | 97403-13229E5765 |
| Support masts                             | 1 ea. | 7    | 97403-13228E9872 |
| Cable reel, RC-435/4                      | 1     | 8    | MIL-R-55566      |

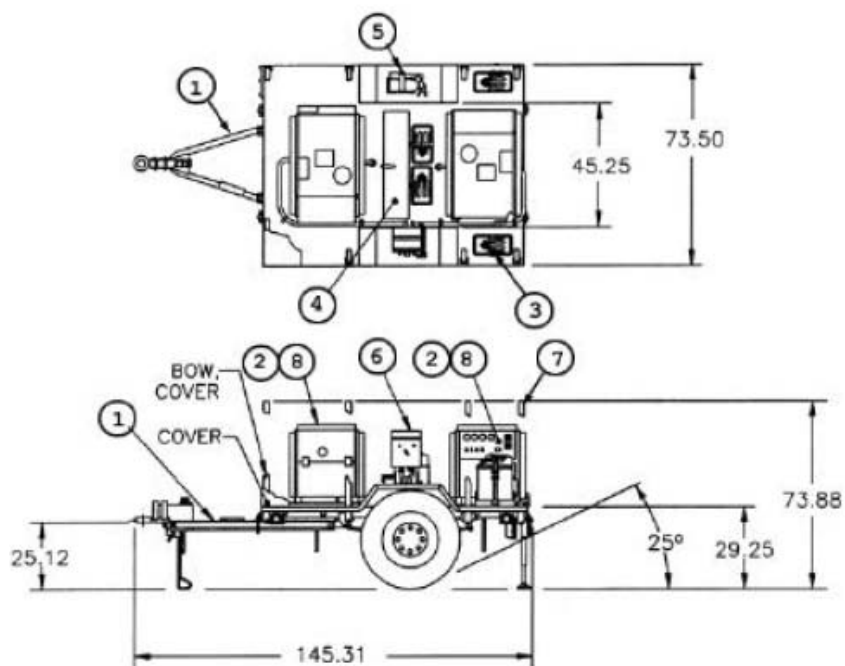
Figure E- 5 PP-AN/MJQ-32

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-33, POWER PLANT, DED, 3kW, 60 Hz, TRLMTD**

Replaced by PP-AN/MJQ-43

| Identification Data                                      |                                      |            |                         |                              |                |
|----------------------------------------------------------|--------------------------------------|------------|-------------------------|------------------------------|----------------|
| Description                                              | POWER PLANT, DED, 3kW, 60 Hz, TRLMTD |            |                         | Camouflage: 97403-13226E7478 |                |
| <b>Model</b>                                             | <b>NSN</b>                           | <b>LIN</b> | <b>SSN</b>              | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PP-AN/MJQ-33                                             | 6115-01-280-2301                     | Z13577     | M506                    | TA-13229E2300                | Not procurable |
| Physical Characteristics                                 |                                      |            |                         |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube(ft<sup>3</sup>)</b>     |            | <b>Wet Weight (lbs)</b> | <b>Ship Weight (lbs)</b>     |                |
| 145.3 x 73.5 x 73.9                                      | 390                                  |            | 2840                    | 2850                         |                |



| COMPONENT                                 | QTY   | FIND | IDENTIFIER       |
|-------------------------------------------|-------|------|------------------|
| 3/4 Ton modified Trailer, M116A2          | 1     | 1    | 97403-13228E9896 |
| Generator set, DED, 3 kW, 60 Hz, MEP-701A | 2     | 2    | 6115-01-234-5966 |
| Fuel can, 5 gallon                        | 2     | 3    |                  |
| Accessory box                             | 1     | 4    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106        | 1     | 5    | 4210-00-270-4512 |
| Switch box, 97403-13205E5079-4 (old)      | 1     | 6    | 97403-13229E5765 |
| Support masts                             | 1 ea. | 7    | 97403-13228E9872 |
| Acoustic Suppression Kit                  | 2     | 8    | incl w/MEP-701A  |

Figure E- 6 PP-AN/MJQ-33

**MIL-HDBK-633A  
APPENDIX E**

**5 kW, GED, Generator Set**

| Identification Data                                |                                                                                                                                            |                       |                                 |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------|
| Nomenclature                                       | 5 kW, 60 Hz, GED, TU                                                                                                                       |                       | 5 kW, 400 Hz, GED, TU           |
| Model Number                                       | MEP-017A                                                                                                                                   |                       | MEP-022A                        |
| NSN                                                | 6115-00-017-8240                                                                                                                           |                       | 6115-00-017-8241                |
| LIN                                                | J47068                                                                                                                                     |                       | J48713                          |
| Configuration                                      | Tubular frame skid, lifting attachments provided.                                                                                          |                       |                                 |
| Physical Characteristics                           |                                                                                                                                            |                       |                                 |
| Dimensions LWH (in)                                | 39.8 x 30.0 x 25.0 (Cube: 17 ft <sup>3</sup> )                                                                                             |                       |                                 |
| Weight (lbs)                                       | 488                                                                                                                                        | 479                   |                                 |
| Engine                                             | 2 cylinder gasoline, 10 hp @ 3600(60 Hz)&3428(400 Hz) RPM, rope and 24 VDC start, air cooled.                                              |                       |                                 |
| Fuels                                              | Automotive gasoline, (emergency - aviation gasoline);                                                                                      |                       |                                 |
| Fuel Capacity                                      | 5.0 gal.                                                                                                                                   |                       |                                 |
| Instrumentation                                    | Voltmeter, frequency meter, ammeter, hourmeter, oil pressure gage, battery charging ammeter.                                               |                       |                                 |
| Performance Characteristics                        |                                                                                                                                            |                       |                                 |
| Electric Power Rating                              | 5 kW @ 0.8 pf from -25°F (-65°F with Winterization kit) to 125°F/MSL, 107°F/5000 ft, 95°F/8000 ft.                                         |                       |                                 |
| Environmental Capability                           | Rain, humidity, altitude, sand/dust, transportation, 3 foot drop, vibration, cold storage, salt spray, fungus. Operable at incline to 15°. |                       |                                 |
| Protective Devices                                 | Short circuit, low oil pressure.                                                                                                           |                       |                                 |
| Fuel Consumption                                   | 1.4 gal/hour @ rated load.                                                                                                                 |                       |                                 |
| Human Factors                                      | MIL-STD-1474. Man portable.                                                                                                                |                       |                                 |
| Noise                                              | 82 dBA @ 25 ft.                                                                                                                            |                       |                                 |
| Reliability (MTBF)                                 | 250 hr (specified).                                                                                                                        |                       |                                 |
| Electrical Characteristics                         |                                                                                                                                            |                       |                                 |
| Connection                                         | 120/208V, 3ph, 4 wire                                                                                                                      | 120/240V, 1ph, 3 wire | 120V, 1ph, 2 wire               |
| Voltage Adj Range                                  | 197 - 218 V                                                                                                                                | 228 -252 V            | 114 - 126 V                     |
| Frequency Adj Range                                | -3%                                                                                                                                        |                       |                                 |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary exciter.                        |                       |                                 |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                          |                       |                                 |
| EMP                                                | HAEMP protected.                                                                                                                           |                       |                                 |
| Electrical Characteristics                         |                                                                                                                                            |                       |                                 |
| Electric Power Quality                             |                                                                                                                                            | AC Voltage            | Frequency                       |
| Short term steady state stability (30 sec)         |                                                                                                                                            | 2% bandwidth          | 1% bandwidth                    |
| Long term steady state stability (4 hr)            |                                                                                                                                            | 2% bandwidth          | 2% bandwidth                    |
| Application/rejection of rated load, recovery time |                                                                                                                                            | 30% dip/rise, 2 sec   | 3% under/ 5% over, 4 sec/ 6 sec |
| Max waveform deviation factor                      |                                                                                                                                            | 6%-1ph; 5%-3ph        |                                 |
| Individual waveform harmonic                       |                                                                                                                                            | 3%                    |                                 |
| Regulation                                         |                                                                                                                                            | 4% (5% @ 240V)        | 3%                              |
| Optional Equipment                                 |                                                                                                                                            |                       |                                 |
| Description                                        | NSN                                                                                                                                        | Weight (lbs)          | Effect on Dim.(in)              |
| Spark arrester kit                                 | 2990-01-032-0757                                                                                                                           |                       | none                            |
| Canvas cover (wint kit)                            | 6115-00-945-7545                                                                                                                           | 5                     | negligible                      |
| Torch (wint kit)                                   | 4520-00-710-4341                                                                                                                           |                       | negligible                      |
| Technical Manuals                                  |                                                                                                                                            |                       |                                 |
| Army                                               | Air Force                                                                                                                                  | Marine Corps          | Navy                            |
| TM5-6115-332-14                                    | TO35C2-3-424-1                                                                                                                             |                       | P-8-614-14                      |
| TM5-6115-332-24P                                   | TO35C2-3-424-24                                                                                                                            |                       |                                 |
| TM5-2805-258-14                                    | TO38G2-89-21                                                                                                                               | TM-03523B-14          |                                 |
| TM5-2805-258-24P                                   | TO38G2-89-34                                                                                                                               | SL-4-035-32B          |                                 |

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APPENDIX E

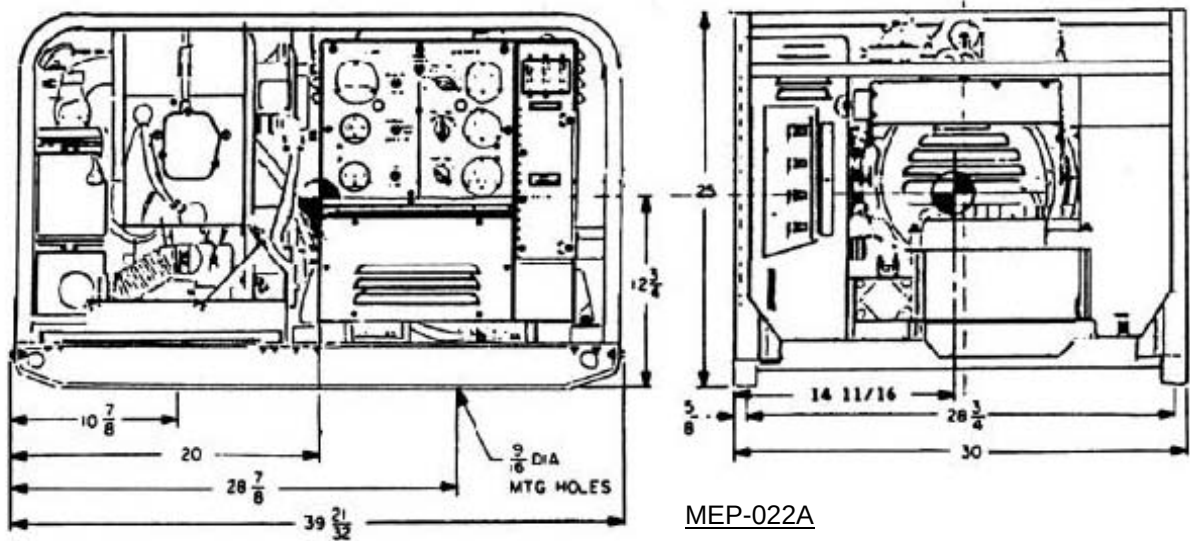


Figure E- 7 5 kW, GED, Generator Set

**MIL-HDBK-633A  
APPENDIX E**

**5 kW, DED, 60 Hz Generator Set**

| Identification Data                                                                                                               |                                                                                                                                                                         |                                   |                       |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------|
| Nomenclature                                                                                                                      | Gen Set, DED, 5 kW, 60 Hz                                                                                                                                               |                                   |                       |
| Model Number                                                                                                                      | MEP-002A                                                                                                                                                                |                                   |                       |
| NSN                                                                                                                               | 6115-01-465-1044                                                                                                                                                        |                                   |                       |
| LIN                                                                                                                               | J35813                                                                                                                                                                  |                                   |                       |
| SSN                                                                                                                               | M535                                                                                                                                                                    |                                   |                       |
| Trailer mounted configuration                                                                                                     | PU-751/M, <a href="#">Figure E- 9</a> , PU-797, <a href="#">Figure E- 10</a><br>PP-AN/MJQ-16, <a href="#">Figure E- 11</a> , PP-AM/MJQ-35, <a href="#">Figure E- 12</a> |                                   |                       |
| Configuration                                                                                                                     | Skid mounted, fork lift guides provided.                                                                                                                                |                                   |                       |
| Physical Characteristics                                                                                                          |                                                                                                                                                                         |                                   |                       |
| Dimensions LWH (in)                                                                                                               | 50.6 x 32.0 x 37.0 (Cube: 35 ft <sup>3</sup> )                                                                                                                          |                                   |                       |
| Weight (lbs)                                                                                                                      | 930                                                                                                                                                                     |                                   |                       |
| Engine                                                                                                                            | 2 cylinder Diesel, 9.0 horsepower @ 1800 RPM, 24 Volt starter.                                                                                                          |                                   |                       |
| Fuels                                                                                                                             | Diesel: DL-1, DL-2 and Jet fuel: JP-8, Jet A-1.                                                                                                                         |                                   |                       |
| Fuel Capacity                                                                                                                     | 6.75 gal.                                                                                                                                                               |                                   |                       |
| Performance Characteristics                                                                                                       |                                                                                                                                                                         |                                   |                       |
| Electric Power Rating                                                                                                             | 5 kW @ 0.8 pf from -25°F (-65°F w/ wint kit) to 125°F/MSL, 107°F/ 5000 ft; 4.5 kW to 95°F/8000 ft.                                                                      |                                   |                       |
| Environmental Capability                                                                                                          | -25°F to 125°F, rain, humidity, altitude, sand/ dust, transportation, cold storage, salt spray, fungus.                                                                 |                                   |                       |
| Human Factors                                                                                                                     | MIL-STD-1474. Operable in arctic and NBC clothing.                                                                                                                      |                                   |                       |
| Noise                                                                                                                             | 79 dBA @ 25 feet.                                                                                                                                                       |                                   |                       |
| Protective Devices                                                                                                                | Overload, short circuit, low oil pressure, high temp.                                                                                                                   |                                   |                       |
| Fuel Consumption                                                                                                                  | 0.57 gal/hour @ rated load                                                                                                                                              |                                   |                       |
| Reliability (MTBF)                                                                                                                | 500 hr (specified).                                                                                                                                                     |                                   |                       |
| Instrumentation                                                                                                                   | Hourmeter, voltmeter, frequency meter, ammeter, oil pressure gage, battery charging ammeter.                                                                            |                                   |                       |
| Electrical Characteristics                                                                                                        |                                                                                                                                                                         |                                   |                       |
| Connection                                                                                                                        | 120/208V, 3 ph, 4 wire                                                                                                                                                  | 120/240V, 1 ph, 3 wire            | 120V, 1 ph, 2 wire    |
| Volt Adj Range                                                                                                                    | 205 V - 220 V                                                                                                                                                           | 228 V - 252 V                     | 114 V - 126 V         |
| Frequency Adj Range                                                                                                               | -3%                                                                                                                                                                     |                                   |                       |
| Electrical Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary alternator. |                                                                                                                                                                         |                                   |                       |
| Electrical Performance                                                                                                            |                                                                                                                                                                         |                                   |                       |
| Electric Power Quality                                                                                                            |                                                                                                                                                                         | Voltage                           | Frequency             |
| Short term steady state stability (30 sec)                                                                                        |                                                                                                                                                                         | 2% bandwidth                      | 2% bandwidth          |
| Long term steady state stability (4 hr)                                                                                           |                                                                                                                                                                         | 4% bandwidth                      | 3% bandwidth          |
| Application/Rejection of rated load, recovery time                                                                                |                                                                                                                                                                         | 20% dip/20% rise, 3 sec           | 3% und/4% over, 3 sec |
| Max waveform deviation factor                                                                                                     |                                                                                                                                                                         | 6% (1 ph); 5% (3 ph)              |                       |
| Individual waveform harmonic                                                                                                      |                                                                                                                                                                         | 3%                                |                       |
| Motor load                                                                                                                        |                                                                                                                                                                         | 35% dip, 5 sec recovery           |                       |
| Regulation                                                                                                                        |                                                                                                                                                                         | 3%                                | 3%                    |
| EMI                                                                                                                               |                                                                                                                                                                         | Suppressed to MIL-STD-461 limits. |                       |
| EMP                                                                                                                               |                                                                                                                                                                         | Not protected                     |                       |
| Optional Equipment                                                                                                                |                                                                                                                                                                         |                                   |                       |
| Description                                                                                                                       | NSN                                                                                                                                                                     | Weight (lbs)                      | Effect on Dim.(in)    |
| Aux fuel burning wint kit                                                                                                         |                                                                                                                                                                         | 350 max                           | 41 x 40 x 26          |
| Technical Manuals                                                                                                                 |                                                                                                                                                                         |                                   |                       |
| Army                                                                                                                              | Air Force                                                                                                                                                               | Marine Corps                      | Navy                  |
| TM5-6115-548-12                                                                                                                   | TO35C2-3-456-1                                                                                                                                                          | TM 05682C-12                      | NAVFAC P-8-622-12     |
| TM5-6115-548-34                                                                                                                   | TO35C2-3-456-2                                                                                                                                                          | TM 05682C-34                      | NAVFAC P-8-622-34     |
| TM5-6115-548-24P                                                                                                                  | TO35C2-3-456-4                                                                                                                                                          | SL-4-05682C                       | NAVFAC P-8-622-24P    |
| LO5-6115-584-12                                                                                                                   |                                                                                                                                                                         |                                   |                       |

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MEP-002A

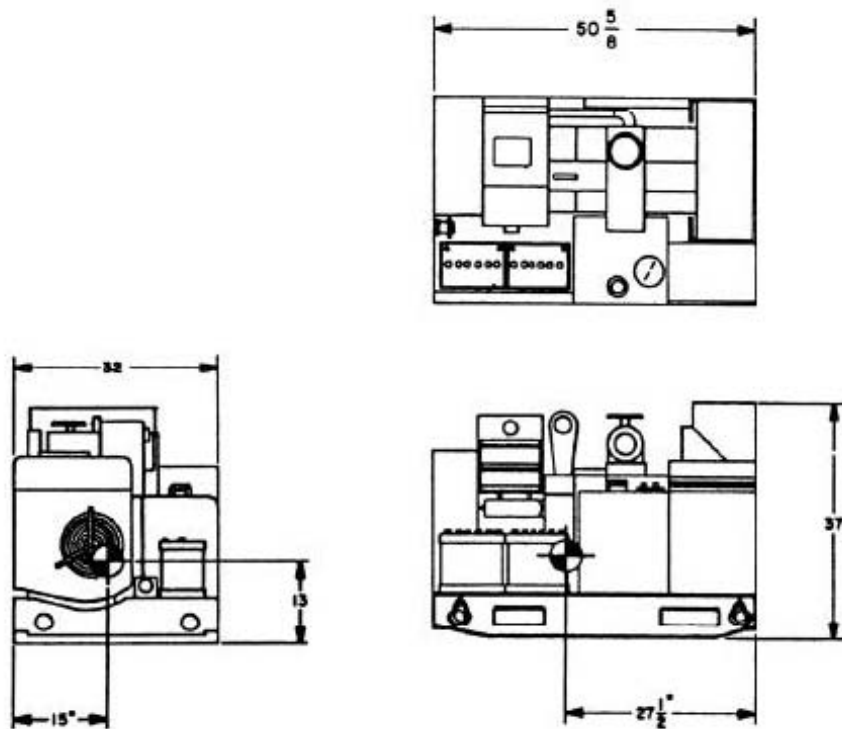
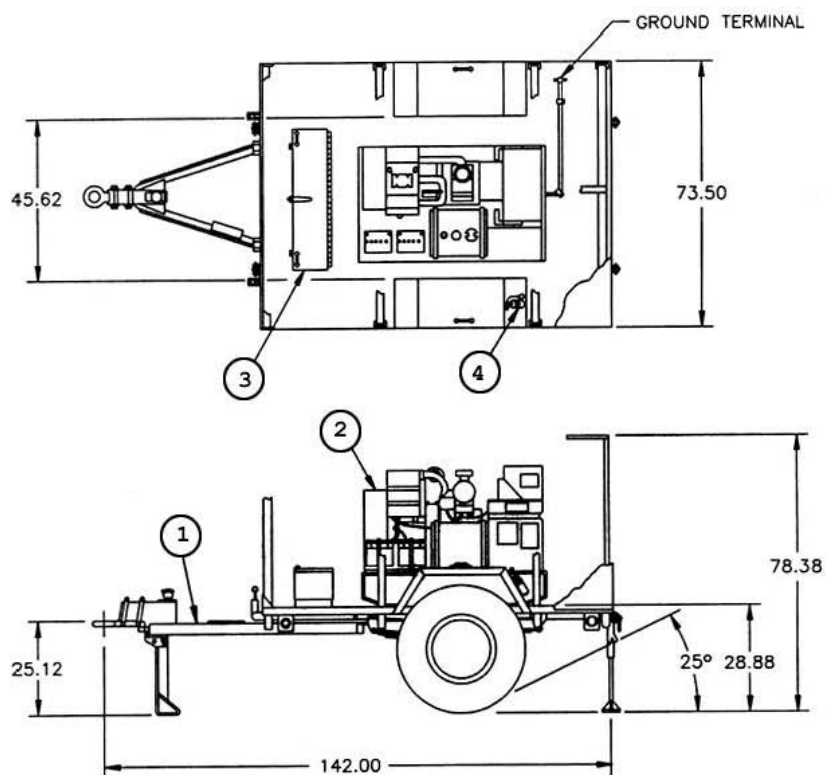


Figure E- 8 5 kW, DED, 60 Hz Generator Set

**MIL-HDBK-633A  
APPENDIX E**

**PU-751/M, POWER UNIT, DED, 5 kW, 60 Hz, TRLMTD**

| Identification Data                                      |                                      |            |                         |                              |                |
|----------------------------------------------------------|--------------------------------------|------------|-------------------------|------------------------------|----------------|
| Description                                              | POWER UNIT, DED, 5 kW, 60 Hz, TRLMTD |            |                         | Camouflage: 97403-13226E7510 |                |
| <b>Model</b>                                             | <b>NSN</b>                           | <b>LIN</b> | <b>SSN</b>              | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PU-751/M                                                 | 6115-00-033-1373                     | G37273     | M565                    | TA-13221E7323                | Not procurable |
| Physical Characteristics                                 |                                      |            |                         |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>    |            | <b>Wet Weight (lbs)</b> | <b>Ship Weight (lbs)</b>     |                |
| 142.0 x 73.5 x 78.4                                      | 412                                  |            | 2644                    | 2720                         |                |



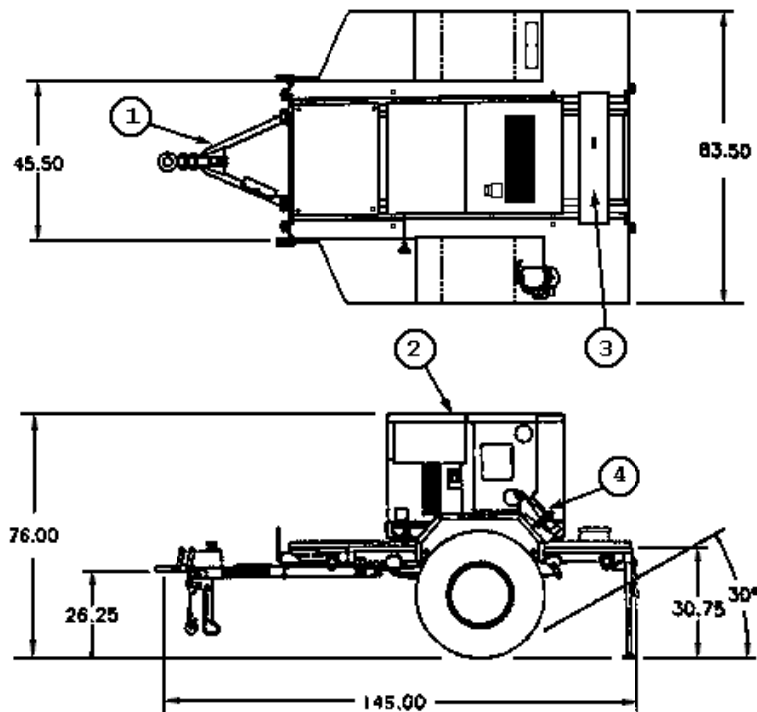
| COMPONENT                                 | QTY | FIND | IDENTIFIER       |
|-------------------------------------------|-----|------|------------------|
| 3/4 Ton modified Trailer, M116A2          | 1   | 1    | 97403-13221E7325 |
| Generator set, DED, 5 kW, 60 Hz, MEP-002A | 1   | 2    | 6115-01-465-1044 |
| Accessory box                             | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106        | 1   | 4    | 4210-00-270-4512 |

Figure E- 9 PU-751/M

**MIL-HDBK-633A  
APPENDIX E**

**5 kW TQ Power Unit, 60 Hz, TRLMTD**

| Identification Data                             |                                    |                              |        |                              |                   |
|-------------------------------------------------|------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | TQ POWER UNIT, 5 kW, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1608 |                   |
| Model                                           | NSN                                | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-797                                          | 6115-01-332-0741                   | G42238                       | R62700 | TA-13229E5705                | not procurable    |
| Technical Manual                                | Operator, Unit and Direct Support  |                              |        | TM 9-6115-659-13&P           |                   |
| Physical Characteristics                        |                                    |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                    | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 145 x 84 x 76 & (535)                           |                                    | 535                          |        | 2320                         | 2360              |



| FIND | COMPONENT                                    | QTY | IDENTIFIER       |
|------|----------------------------------------------|-----|------------------|
| 1    | Modified 1 ton trailer, M116A3               | 1   | 97403-13229E5757 |
| 2    | TQ Generator set, DED, 5 kW, 60 Hz, MEP-802A | 1   | 6115-01-274-7387 |
| 3    | Accessory box                                | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106           | 1   | 4210-00-270-4512 |

Figure E- 10 PU-797

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-16, POWER PLANT, DED, 5 kW, 60 Hz, TRLMTD**

| Identification Data                                      |                                       |                                   |            |                              |                          |
|----------------------------------------------------------|---------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | POWER PLANT, DED, 5 kW, 60 Hz, TRLMTD |                                   |            | Camouflage: 97403-13226E7506 |                          |
| <b>Model</b>                                             | <b>NSN</b>                            | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PP-AN/MJQ-16                                             | 6115-01-033-1395                      | P41832                            | M538       | TA-13220E4455                | Not procurable           |
| Physical Characteristics                                 |                                       |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                       | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 171.1 x 83.0 x 98.0                                      |                                       | 614                               |            | 5308                         | 5160                     |

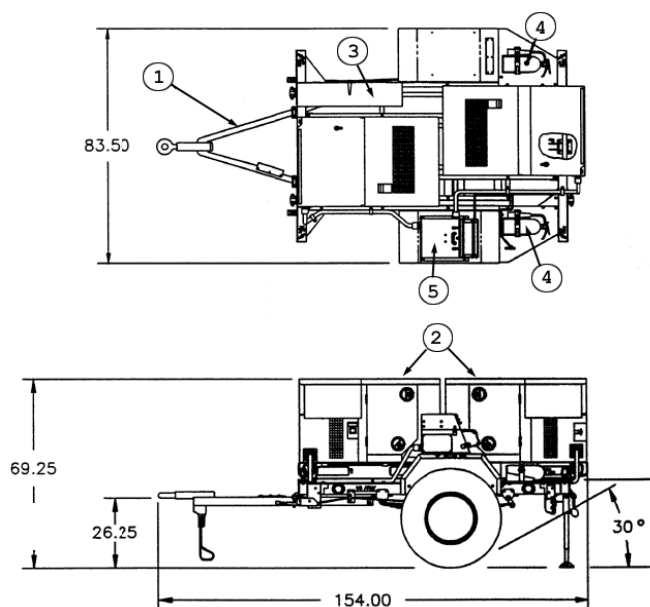
| COMPONENT                                 | QTY | FIND | IDENTIFIER       |
|-------------------------------------------|-----|------|------------------|
| 1-1/2 ton flatbed trailer, M103A3/A4      | 1   | 1    | 97403-13226E5858 |
| Generator set, DED, 5 kW, 60 Hz, MEP-002A | 2   | 2    | 6115-01-465-1044 |
| Accessory box                             | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106        | 2   | 4    | 4210-00-270-4512 |
| Switch box, 97403-13212E3601 (old)        | 1   | 5    | 97403-13229E6535 |

Figure E- 11 PP-AN/MJQ-16

**MIL-HDBK-633A  
APPENDIX E**

**5 kW TQ Power Plant, 60 Hz, TRLMTD**

| Identification Data                               |                                     |                              |        |                              |                   |
|---------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                       | TQ POWER PLANT, 5 kW, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1609 |                   |
| Model                                             | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PP-AN/MJQ-35                                      | 6115-01-313-4216                    | P28083                       | R62700 | TA-13229E5650                | not procurable    |
| Technical Manual                                  | Operator, Unit and Direct Support   |                              |        | TM 9-6115-659-13&P           |                   |
| Physical Characteristics                          |                                     |                              |        |                              |                   |
| Dimensions (LWH (in)) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 154 x 84 x 74 & (553)                             |                                     | 553                          |        | 3183                         | 3100              |



| FIND | COMPONENT                                 | QTY | IDENTIFIER       |
|------|-------------------------------------------|-----|------------------|
| 1    | Modified 1 ton trailer, M116A3            | 1   | 97403-13229E5757 |
| 2    | Generator set, DED, 5 kW, 60 Hz, MEP-802A | 2   | 6115-01-274-7387 |
| 3    | Accessory box                             | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106        | 1   | 4210-00-270-4512 |
| 5    | Switch box                                | 1   | 97403-13230E6535 |

Figure E- 12 PP-AN/MJQ-35

**MIL-HDBK-633A  
APPENDIX E**

**10 kW, DED, Generator Set**

| 10 kW, DED, Generator Set                          |                                                                                                                                                  |                         |                                                    |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------------------------|
| Identification Data                                |                                                                                                                                                  |                         |                                                    |
| Nomenclature                                       | Gen Set, DED, 10kW, 60 Hz                                                                                                                        |                         | Gen Set, DED, 10kW, 400 Hz                         |
| Model Number                                       | MEP-003A                                                                                                                                         |                         | MEP-112A                                           |
| NSN                                                | 6115-00-465-1030                                                                                                                                 |                         | 6115-01-465-1027                                   |
| LIN                                                | J35825                                                                                                                                           |                         | G35981                                             |
| SSN                                                | M529                                                                                                                                             |                         | M565                                               |
| Trailer mounted configurations                     | PU-753M, Figure E- 14, PU-798,Figure E- 15<br>PP-AN/MJQ-18, Figure E- 17                                                                         |                         | PU-799, Figure E- 16<br>PP-AN/MJQ-25, Figure E- 18 |
| Physical Characteristics                           |                                                                                                                                                  |                         |                                                    |
| Dimensions LWH (in)                                | 50.6 x 32.0 x 37.0 (Cube: 35 ft <sup>3</sup> )                                                                                                   |                         | 50.6 x 32.0 x 37.0 (Cube: 35 ft <sup>3</sup> )     |
| Weight (lbs):                                      | 1240                                                                                                                                             |                         | 1325                                               |
| Engine                                             | 4 cylinder Diesel, 20 hp @ 1800/2000 RPM, air cooled, 24 Volt starter.                                                                           |                         |                                                    |
| Fuels Diesel:                                      | DL-1, DL-2 and Jet fuel: JP-8, Jet A-1.                                                                                                          |                         |                                                    |
| Fuel Capacity                                      | 12.5 gal.                                                                                                                                        |                         |                                                    |
| Instrumentation                                    | Hourmeter, voltmeter, frequency meter, ammeter, oil pressure gage, battery charging ammeter.                                                     |                         |                                                    |
| Performance Characteristics                        |                                                                                                                                                  |                         |                                                    |
| Electric Power Rating                              | 10 kW @ 0.8 pf from -25°F (-65°F with winterization kit) to 125°F/MSL, 107°F/ 5000 ft, 9 kW to 95°F/8000 ft.                                     |                         |                                                    |
| Environmental Capability                           | -25°F(-65°F w/wint kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage, salt spray, fungus. Noise 77 dBA @ 25 feet. |                         |                                                    |
| Protective Devices                                 | Overload, short circuit, low oil pressure, high temp.                                                                                            |                         |                                                    |
| Fuel Consumption                                   | 1.09 gal/hour @ rated load.                                                                                                                      |                         |                                                    |
| Human Factors                                      | MIL-STD-1474. Operable in arctic and NBC clothing                                                                                                |                         |                                                    |
| Reliability (MTBF)                                 | 500 hr (specified).                                                                                                                              |                         |                                                    |
| Electrical Characteristics                         |                                                                                                                                                  |                         |                                                    |
| Connection                                         | 120/208V, 3 ph, 4 wire                                                                                                                           | 240V, 1 ph, 3 wire      | 120V, 1 ph, 2 wire                                 |
| Voltage Adj Range                                  | 205 V to 220 V                                                                                                                                   | 228 V to 252 V          | 114 V to 126 V                                     |
| Frequency Adj Range                                | -3% - 60 Hz; -4% - 400 Hz                                                                                                                        |                         |                                                    |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary alternator.                           |                         |                                                    |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                                |                         |                                                    |
| EMP                                                | none                                                                                                                                             |                         |                                                    |
| Electrical Performance                             |                                                                                                                                                  |                         |                                                    |
| Electric Power Quality                             |                                                                                                                                                  | Voltage                 | Frequency                                          |
| Short term steady state stability (30 sec)         |                                                                                                                                                  | 2% bandwidth            | 2% bandwidth                                       |
| Long term steady state stability (4 hr)            |                                                                                                                                                  | 4% bandwidth            | 3% bandwidth                                       |
| Application/rejection of rated load, recovery time |                                                                                                                                                  | 20% dip/rise, 3 sec     | 3% under/4% over, 3 sec                            |
| Max waveform deviation factor                      |                                                                                                                                                  | 6% (1 ph); 5% (3 ph)    |                                                    |
| Individual waveform harmonic                       |                                                                                                                                                  | 3% (1 ph); 2% (3 ph)    |                                                    |
| Motor load                                         |                                                                                                                                                  | 35% dip, 5 sec recovery |                                                    |
| Regulation                                         |                                                                                                                                                  | 3%                      | 3%                                                 |
| Optional Equipment                                 |                                                                                                                                                  |                         |                                                    |
| Description                                        | NSN                                                                                                                                              | Weight (lbs)            | Effect on Dim.(in)                                 |
| Aux fuel burning wint kit                          |                                                                                                                                                  | 350 max                 | 41 x 40 x 26                                       |
| Technical Manuals                                  |                                                                                                                                                  |                         |                                                    |
| Army                                               | Air Force                                                                                                                                        | Marine Corps            | Navy                                               |
| TM5-6115-585-12                                    | TO35C2-3-455-1                                                                                                                                   | TM 05684C-12            | NAVFAC P-8-623-12                                  |
| TM5-6115-585-34                                    | TO35C2-3-455-2                                                                                                                                   | TM 05684C-34            | NAVFAC P-8-623-34                                  |
| TM5-6115-585-24P                                   | TO35C2-3-455-4                                                                                                                                   | SL-4-05684C             | NAVFAC P-8-623-24P                                 |

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MEP-003A or MEP-112A

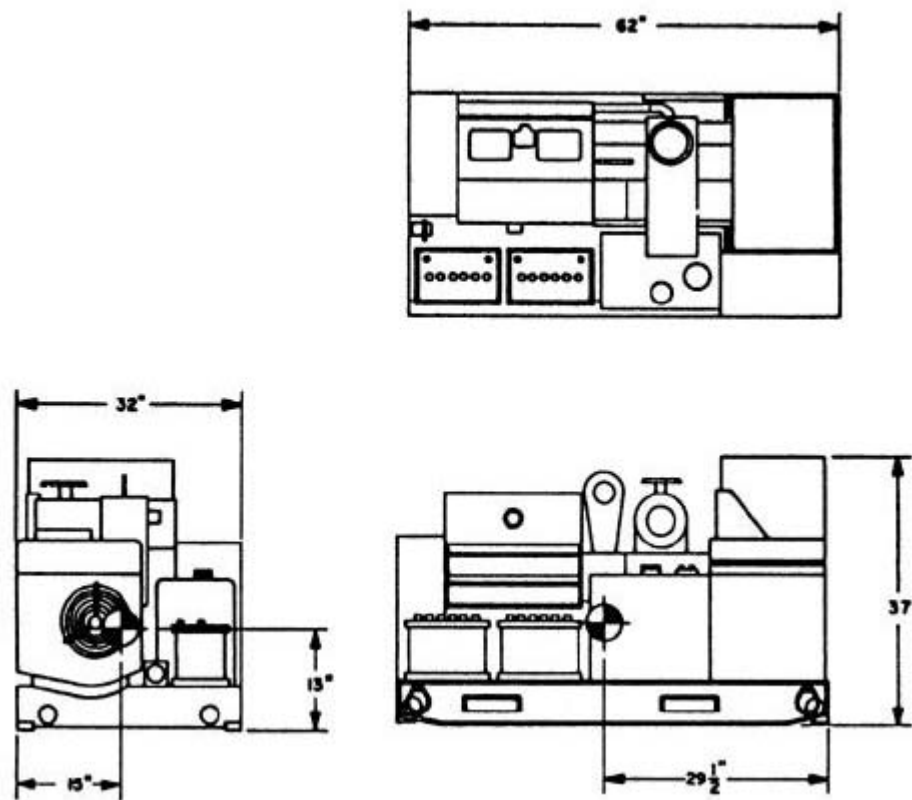
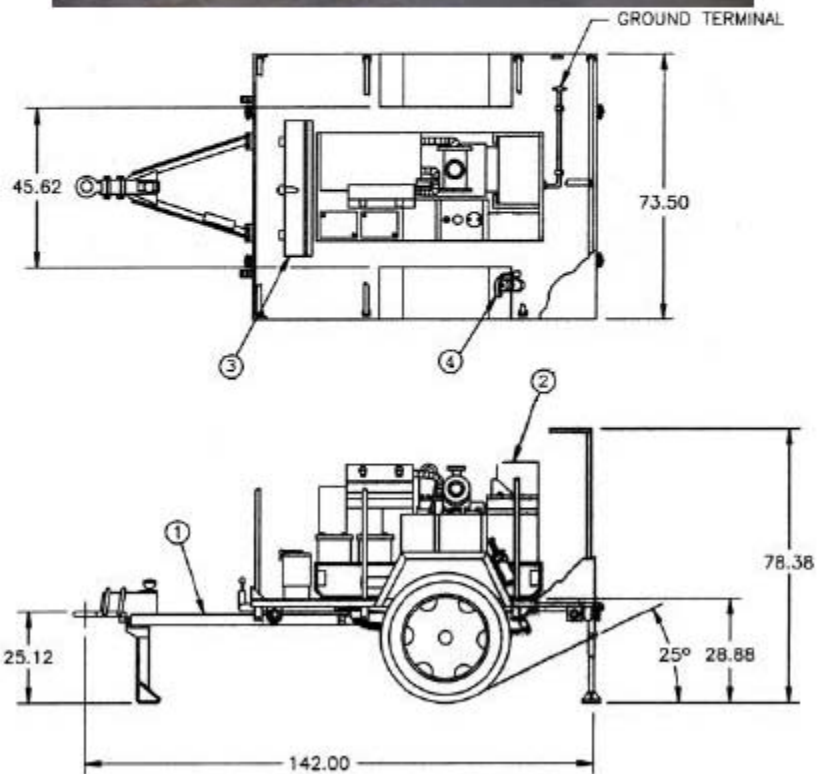


Figure E- 13 10 kW, DED, Generator Set

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APPENDIX E**

**PU-753/M, POWER UNIT, DED, 10kW, 60 Hz, TRLMTD**

| Identification Data                                      |                                      |            |                         |                              |                |
|----------------------------------------------------------|--------------------------------------|------------|-------------------------|------------------------------|----------------|
| Description                                              | POWER UNIT, DED, 10kW, 60 Hz, TRLMTD |            |                         | Camouflage: 97403-13226E7508 |                |
| <b>Model</b>                                             | <b>NSN</b>                           | <b>LIN</b> | <b>SSN</b>              | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PU-753/M                                                 | 6115-00-033-1389                     | G40744     | M567                    | TA-13221E7330                | Not procurable |
| Physical Characteristics                                 |                                      |            |                         |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>    |            | <b>Wet Weight (lbs)</b> | <b>Ship Weight (lbs)</b>     |                |
| 142.0 x 73.5 x 78.4                                      | 412                                  |            | 3040                    | 3060                         |                |



| COMPONENT                                  | QTY | find | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| 3/4 Ton modified Trailer, M116A2           | 1   | 1    | 97403-13221E7325 |
| Generator set, DED, 10 kW, 60 Hz, MEP-003A | 1   | 2    | 6115-00-465-1030 |
| Accessory box                              | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106         | 2   | 4    | 4210-00-270-4512 |

Figure E- 14 PU-753/M

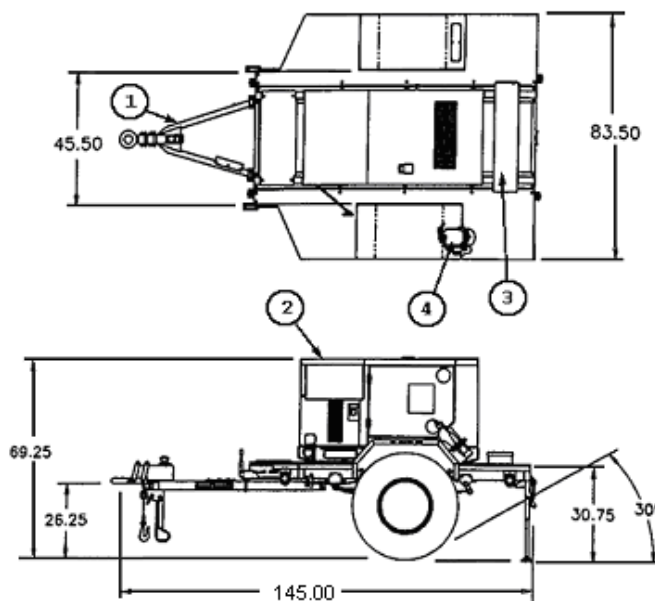
**MIL-HDBK-633A  
APPENDIX E**

**10 kW TQ Power Unit, 60 Hz, TRLMTD**

| Identification Data                             |                                    |                              |        |                              |                   |
|-------------------------------------------------|------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 10 kW TQ POWER UNIT, 60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1611 |                   |
| Model                                           | NSN                                | LIN                          | SSN    | ASSMEBLY                     | SPEC              |
| PU-798                                          | 6115-01-319-9032                   | G42170                       | R62700 | TA-13229E5715                | not procurable    |
| Technical Manual                                | Operator, Unit and Direct Support  |                              |        | TM 9-6115-660-13&P           |                   |
| Physical Characteristics                        |                                    |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                    | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 145 x 84 x 76 & (535)                           |                                    | 535                          |        | 2454                         | 2380              |



PU-798



(Change "145.00" to "147.00")

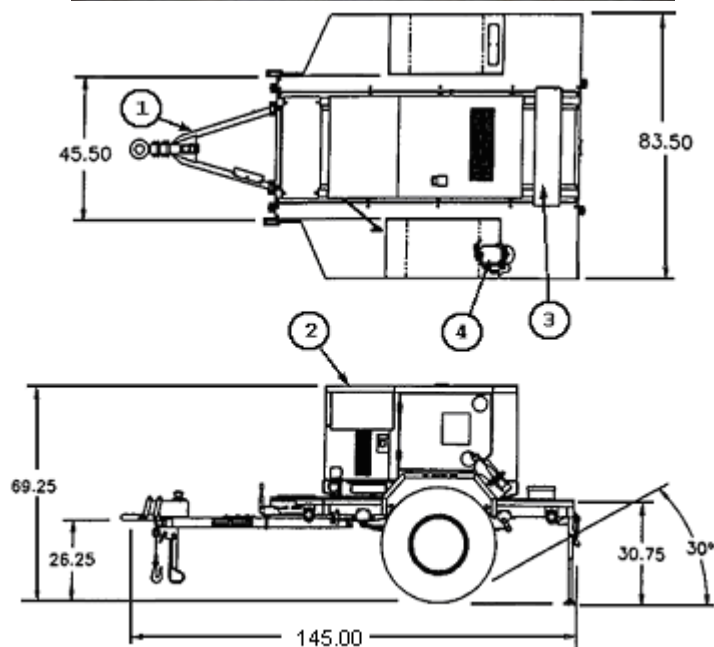
| FIND | COMPONENT                                     | QTY | IDENTIFIER       |
|------|-----------------------------------------------|-----|------------------|
| 1    | 1 Ton modified Trailer, M116A3 (shown)        | 1   | 97403-13229E5757 |
| 2    | Generator set, TQ DED, 10 kW, 60 Hz, MEP-803A | 1   | 6115-01-275-5061 |
| 3    | Accessory box                                 | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106            | 1   | 4210-00-270-4512 |

Figure E- 15 PU-798

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**10 kW TQ Power Unit, 400 Hz, TRLMTD**

| Identification Data                             |                                     |                              |        |                              |                   |
|-------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 10 kW TQ POWER UNIT, 400 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1611 |                   |
| Model                                           | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-799                                          | 6115-01-313-4283                    | G53403                       | R62700 | TA-13229E5725                | not procurable    |
| Technical Manual                                | Operator, Unit and Direct Support   |                              |        | TM 9-6115-660-13&P           |                   |
| Physical Characteristics                        |                                     |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 145 x 84 x 76 & (535)                           |                                     | 535                          |        | 2485                         | 2410              |



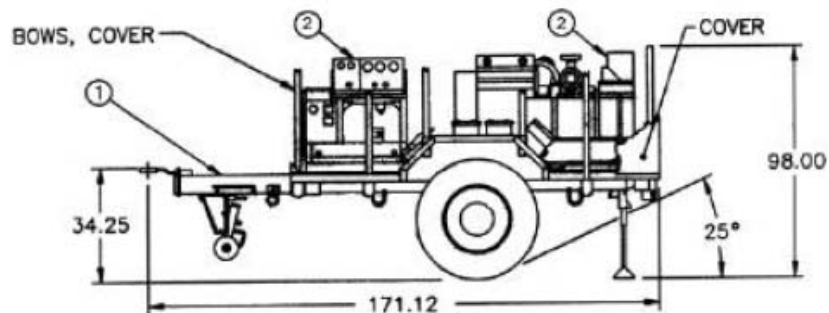
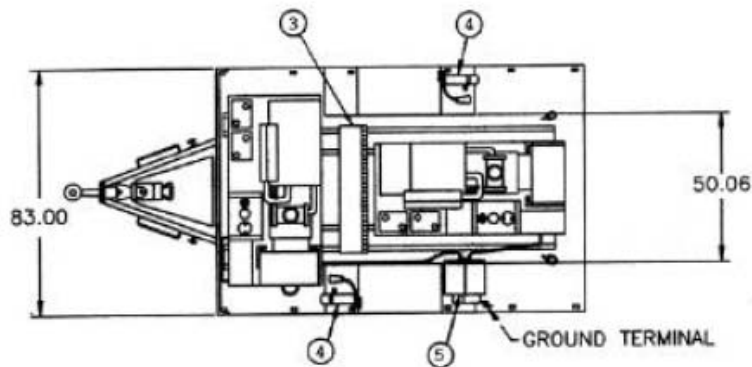
| FIND | COMPONENT                                      | QTY | IDENTIFIER       |
|------|------------------------------------------------|-----|------------------|
| 1    | Modified 1 ton trailer, M116A3                 | 1   | 97403-13229E5757 |
| 2    | TQ Generator set, DED, 10 kW, 400 Hz, MEP-813A | 1   | 6115-01-274-7392 |
| 3    | Accessory box                                  | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 1   | 4210-00-270-4512 |

Figure E- 16 PU-799

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**PP-AN/MJQ-18, POWER PLANT, DED, 10kW, 60 Hz, TRLMTD**

| Identification Data                                      |                                       |            |                                   |                              |                          |
|----------------------------------------------------------|---------------------------------------|------------|-----------------------------------|------------------------------|--------------------------|
| Description                                              | POWER PLANT, DED, 10kW, 60 Hz, TRLMTD |            |                                   | Camouflage: 97403-13226E7504 |                          |
| <b>Model</b>                                             | <b>NSN</b>                            | <b>LIN</b> | <b>SSN</b>                        | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PP-AN/MJQ-18                                             | 6115-00-033-1398                      | P28015     | M540                              | TA-13220E4465                | Not procurable           |
| Physical Characteristics                                 |                                       |            |                                   |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                       |            | <b>Ship Cube (ft<sup>3</sup>)</b> | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 171.1 x 83.0 x 98.0                                      |                                       |            | 614                               | 5930                         | 5900                     |



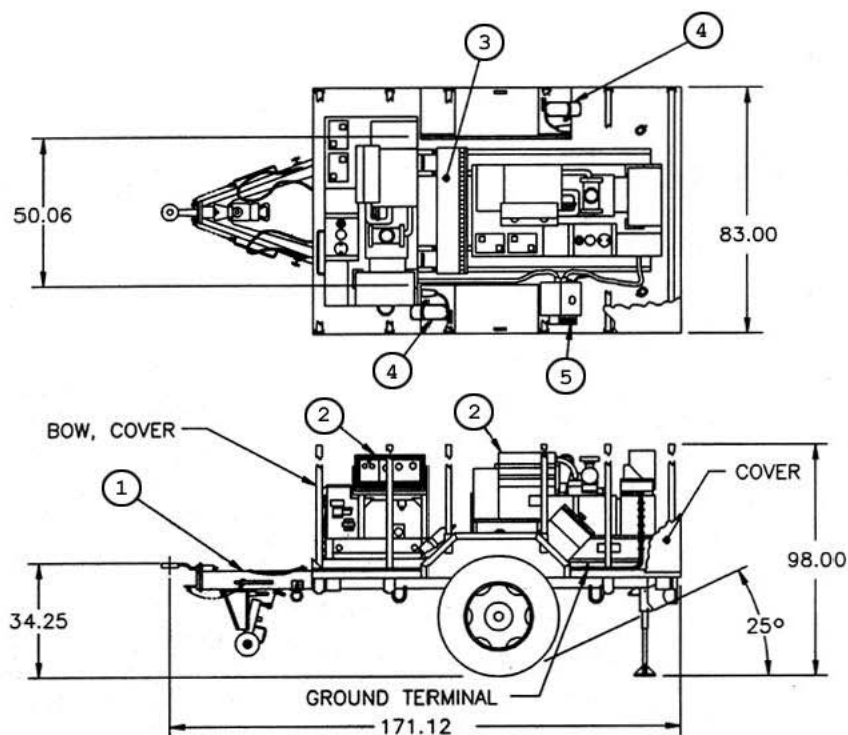
| COMPONENT                                  | QTY | FIND | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| 1-1/2 ton flatbed trailer, M103A3/A4       | 1   | 1    | 97403-13226E5858 |
| Generator set, DED, 10 kW, 60 Hz, MEP-003A | 2   | 2    | 6115-00-465-1030 |
| Accessory box                              | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106         | 2   | 4    | 4210-00-270-4512 |
| Switch box, 97403-13226E5859 (old)         | 1   | 5    | 97403-13229E6535 |

Figure E- 17 PP-AN/MJQ-18

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**PP-AN/MJQ-25, POWER PLANT, DED, 10kW, 400 Hz, TRLMTD**

| Identification Data                                      |                                        |                                   |            |                              |                          |
|----------------------------------------------------------|----------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | POWER PLANT, DED, 10kW, 400 Hz, TRLMTD |                                   |            | Camouflage: 97403-13226E7512 |                          |
| <b>Model</b>                                             | <b>NSN</b>                             | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PP-AN/MJQ-25                                             | 6115-01-153-7742                       | P42364                            | M523       | TA-13226E5860                | Not procurable           |
| Physical Characteristics                                 |                                        |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                        | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 171.1 x 83.0 x 98.0                                      |                                        | 614                               |            | 5980                         | 5960                     |



| COMPONENT                                   | QTY | FIND | IDENTIFIER       |
|---------------------------------------------|-----|------|------------------|
| 1-1/2 ton flatbed trailer, M103A3/A4        | 1   | 1    | 97403-13226E5858 |
| Generator set, DED, 10 kW, 400 Hz, MEP-112A | 2   | 2    | 6115-01-465-1027 |
| Accessory box                               | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106          | 2   | 4    | 4210-00-270-4512 |
| Switch box                                  | 1   | 5    | 97403-13226E5859 |

Figure E- 18 PP-AN/MJQ-25

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**10 kW, GED, Generator Set**

| Identification Data                                |                                                                                                                                                   |                       |                                                |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------|
| Nomenclature                                       | 10 kW, 60 Hz, GED, TU                                                                                                                             |                       | 10 kW, 400 Hz, GED, TU                         |
| Model Number                                       | MEP-018A                                                                                                                                          |                       | MEP-023A                                       |
| NSN                                                | 6115-00-889-1447                                                                                                                                  |                       | 6115-00-926-0843                               |
| LIN                                                | J49398                                                                                                                                            |                       | J49466                                         |
| Configuration                                      | Tubular frame skid, lifting attachments provided.                                                                                                 |                       |                                                |
| Physical Characteristics                           |                                                                                                                                                   |                       |                                                |
| Dimensions LWH (in)                                | 57.0 x 30.0 x 28.4 (Cube: 28 ft <sup>3</sup> )                                                                                                    |                       | 51.0 x 30.0 x 27.0 (Cube: 24 ft <sup>3</sup> ) |
| Weight (lbs)                                       | 850                                                                                                                                               |                       | 650                                            |
| Engine                                             | 4 cylinder gasoline, 20 hp @ 3600(60 Hz) & 3428(400 Hz) RPM, rope and 24 VDC start, air cooled.                                                   |                       |                                                |
| Fuels                                              | Automotive gasoline, emergency - aviation gasoline                                                                                                |                       |                                                |
| Fuel Capacity.                                     | 5.0 gal                                                                                                                                           |                       |                                                |
| Instrumentation                                    | Voltmeter, frequency meter, ammeter, hourmeter, oil pressure gage, battery charging ammeter.                                                      |                       |                                                |
| Performance Characteristics                        |                                                                                                                                                   |                       |                                                |
| Electric Power Rating                              | 10 kW @ 0.8 pf from -25°F (-65°F with winterization kit) to 125°F/MSL, 107°F/ 5000 ft, 95°F/8000 ft.                                              |                       |                                                |
| Environmental Capability                           | Rain, humidity, altitude, sand/dust, transportation, 3 foot drop, vibration, cold storage: -45°F, salt spray, fungus. Operable at incline to 15%. |                       |                                                |
| Protective Devices                                 | Short circuit, low oil pressure.                                                                                                                  |                       |                                                |
| Fuel Consumption                                   | 2.4 gal/hour @ rated load.                                                                                                                        |                       |                                                |
| Human Factors.                                     | MIL-STD-1474                                                                                                                                      |                       |                                                |
| Noise                                              | 82 dBA @ 25 ft.                                                                                                                                   |                       |                                                |
| Reliability (MTBF)                                 | 250 hr (specified)                                                                                                                                |                       |                                                |
| Electrical Characteristics                         |                                                                                                                                                   |                       |                                                |
| Connection                                         | 120/208V, 3ph, 4 wire                                                                                                                             | 120/240V, 1ph, 3 wire | 120V, 1ph, 2 wire                              |
| Voltage Adj Range                                  | 197 V - 218 V                                                                                                                                     | 228 V -252 V          | 114 V - 126 V                                  |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary exciter.                               |                       |                                                |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                                 |                       |                                                |
| EMP                                                | None.                                                                                                                                             |                       |                                                |
| Electrical Performance                             |                                                                                                                                                   |                       |                                                |
| Electric Power Quality                             |                                                                                                                                                   | AC Voltage            | Frequency                                      |
| Short term steady state stability (30 sec)         |                                                                                                                                                   | 1% bandwidth          | 1% bandwidth                                   |
| Long term steady state stability (4 hr)            |                                                                                                                                                   | 1% bandwidth          | 2% bandwidth                                   |
| Application/rejection of rated load, recovery time |                                                                                                                                                   | 20% dip/rise, 2 sec   | 3% under/5% over, 4 sec/6 sec                  |
| Motor load; recovery time                          |                                                                                                                                                   | 40% dip; 4 sec        |                                                |
| Max waveform deviation factor                      |                                                                                                                                                   | 6%-1ph; 5%-3ph        |                                                |
| Individual waveform harmonic                       |                                                                                                                                                   | 2%                    |                                                |
| Regulation                                         |                                                                                                                                                   | 3%; 4% - 240V 3 wire  | 3%                                             |
| Optional Equipment                                 |                                                                                                                                                   |                       |                                                |
| Description                                        | NSN                                                                                                                                               | Weight (lbs)          | Effect on Dim.(in)                             |
| Spark arrester kit                                 | 2990-01-032-3750                                                                                                                                  |                       | none                                           |
| Canvas cover (wint kit)                            | 6115-00-066-4933                                                                                                                                  | 10                    | negligible                                     |
| Torch (winterization kit)                          | 4520-00-710-4341                                                                                                                                  |                       | negligible                                     |
| Technical Manuals                                  |                                                                                                                                                   |                       |                                                |
| Army                                               | Air Force                                                                                                                                         | Marine Corps          | Navy                                           |
| TM5-6115-275-14                                    | TO35C2-3-452-1                                                                                                                                    |                       | P-8-615-14                                     |
| TM5-6115-275-24P                                   | TO35C2-3-452-24                                                                                                                                   |                       | P-8-615-24P                                    |
| TM5-2805-259-14                                    | TO38G2-89-41                                                                                                                                      | TM-03524B-14          |                                                |
| TM5-2805-259-24P                                   | TO38G2-89-54                                                                                                                                      | SL-4-035-24B          |                                                |

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MEP-018A

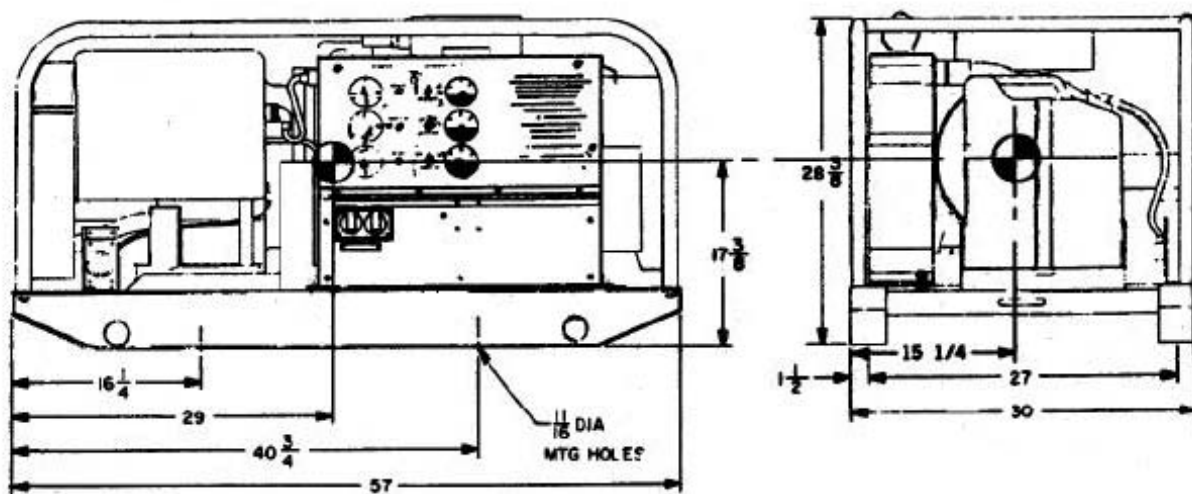


Figure E- 19 10 kW, GED, Generator Set

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**15 kW DED Generator set**

| 15 kW DED Generator Set                    |                                                                                                                                                                                                                                |              |              |                                                                                                                                                |           |           |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Identification Data                        |                                                                                                                                                                                                                                |              |              |                                                                                                                                                |           |           |
| Nomenclature                               | Gen Set, DED, 15 kW, 50/60 Hz                                                                                                                                                                                                  |              |              | Gen Set, DED, 15 kW, 400 Hz                                                                                                                    |           |           |
| Model Number                               | MEP-004A                                                                                                                                                                                                                       |              |              | MEP-113A                                                                                                                                       |           |           |
| NSN                                        | 6115-00-118-1241                                                                                                                                                                                                               |              |              | 6115-00-118-1244                                                                                                                               |           |           |
| LIN                                        | J35835                                                                                                                                                                                                                         |              |              | J36006                                                                                                                                         |           |           |
| SSN                                        | M549                                                                                                                                                                                                                           |              |              | M526                                                                                                                                           |           |           |
| Trailer mounted configurations             | PU-405A/M; Figure E-21;PU-801, <a href="#">Figure E- 24</a> ; PU-801A, <a href="#">Figure E- 25</a> ;PU-802; <a href="#">Figure E- 26</a> ; AN/MJQ-48, <a href="#">Figure E- 29</a> ; AN/MJQ-48A, <a href="#">Figure E- 30</a> |              |              | PU-732/M; Figure E-22; PU-800, <a href="#">Figure E- 23</a> ;AN/MJQ-15; <a href="#">Figure E- 27</a> ; AN/MJQ-39, <a href="#">Figure E- 28</a> |           |           |
| Physical Characteristics                   |                                                                                                                                                                                                                                |              |              |                                                                                                                                                |           |           |
| Dimension LWH (in)                         | 69.8 x 35.8 x 54.6 (Cube: 75 ft <sup>3</sup> )                                                                                                                                                                                 |              |              | 69.8 x 35.8 x 54.6 (Cube: 75 ft <sup>3</sup> )                                                                                                 |           |           |
| Weight (lbs)                               | 2450                                                                                                                                                                                                                           |              |              | 2500                                                                                                                                           |           |           |
| Engine                                     | 4 cylinder Diesel, 41 hp @ 1500/1800 RPM (50/60 Hz), liquid cooled, 24 Volt starter.                                                                                                                                           |              |              | 4 cylinder Diesel, 45 hp @ 2000 RPM (400 Hz) liquid cooled, 24 Volt starter                                                                    |           |           |
| Fuels Diesel:                              | DL-1, DL-2 and Jet fuel: JP-8, Jet A-1.                                                                                                                                                                                        |              |              |                                                                                                                                                |           |           |
| Fuel Capacity                              | 15 gal.                                                                                                                                                                                                                        |              |              |                                                                                                                                                |           |           |
| Instrumentation                            | Hourmeter, voltmeter, frequency meter, ammeter, wattmeter, oil pressure, battery charge, fault indicating system, water temp, fuel.                                                                                            |              |              |                                                                                                                                                |           |           |
| Performance Characteristics                |                                                                                                                                                                                                                                |              |              |                                                                                                                                                |           |           |
| Electric Power Rating                      | 15kW, 60Hz (12.5kW, 50Hz) @ 0.8 pf from -25°F (-65°F w/wint kit) to 125°F/MSL; 107°F/ 5000 ft.                                                                                                                                 |              |              |                                                                                                                                                |           |           |
| Environmental Capability                   | -25°F to 125°F, rain, humidity, altitude, sand/dust, transportation, -65°F cold storage, salt spray, fungus.                                                                                                                   |              |              |                                                                                                                                                |           |           |
| Protective Devices                         | Overload, over voltage, short circuit, reverse power, low oil pressure, high temp., low fuel, overspeed.                                                                                                                       |              |              |                                                                                                                                                |           |           |
| Fuel Consumption                           | 1.5 gal/hour @ rated load                                                                                                                                                                                                      |              |              |                                                                                                                                                |           |           |
| Human Factors                              | MIL-STD-1474.                                                                                                                                                                                                                  |              |              |                                                                                                                                                |           |           |
| Noise                                      | 80 dBA @ 25 feet.                                                                                                                                                                                                              |              |              |                                                                                                                                                |           |           |
| Reliability (MTBF)                         | 670 hr (50/60 Hz),                                                                                                                                                                                                             |              |              | 370 hr (400 Hz) (specified).                                                                                                                   |           |           |
| Electrical Characteristics                 |                                                                                                                                                                                                                                |              |              |                                                                                                                                                |           |           |
| Connection                                 | 120/208V, 3 phase, 4 wire                                                                                                                                                                                                      |              |              | 240/416V, 3 phase, 4 wire                                                                                                                      |           |           |
| Frequency                                  | 50 Hz                                                                                                                                                                                                                          | 60 Hz        | 400 Hz       | 50 Hz                                                                                                                                          | 60 Hz     | 400 Hz    |
| Voltage Adj Range                          | 190 - 213                                                                                                                                                                                                                      | 380 - 426    | 197 - 240    | 395 - 480                                                                                                                                      | 197 - 229 | 395 - 458 |
| Frequency Adj Range                        | -50%                                                                                                                                                                                                                           | 390-420 Hz   | -50%         | 390-420 Hz                                                                                                                                     |           |           |
| Electrical                                 | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary alternator.                                                                                                         |              |              |                                                                                                                                                |           |           |
| EMI.                                       | Suppressed to MIL-STD-461 limits                                                                                                                                                                                               |              |              |                                                                                                                                                |           |           |
| EMP.                                       | Not protected                                                                                                                                                                                                                  |              |              |                                                                                                                                                |           |           |
| Electrical Performance                     |                                                                                                                                                                                                                                |              |              |                                                                                                                                                |           |           |
| Electric Power Quality                     | 50/60 Hz                                                                                                                                                                                                                       |              | 400 Hz       |                                                                                                                                                |           |           |
|                                            | Volt                                                                                                                                                                                                                           | Frequency    | Volt         | Frequency                                                                                                                                      |           |           |
| Short term steady state stability (30 sec) | 2% bandwth                                                                                                                                                                                                                     | 2% bandwth   | 1% bandwth   | 0.5% bw                                                                                                                                        |           |           |
| Long term steady state stability (4 hr)    | 4% bandwth                                                                                                                                                                                                                     | 3% bandwth   | 2% bandwth   | 1% bandwth                                                                                                                                     |           |           |
| Applic./reject.of rated load/recovery      | 20% /3 sec                                                                                                                                                                                                                     | 3%/4% /3 sec | 12% /0.5 sec | 1.5% /1 sec                                                                                                                                    |           |           |
| Max waveform deviation factor              | 5%                                                                                                                                                                                                                             |              | 5%           |                                                                                                                                                |           |           |
| Individual waveform harmonic               | 2%                                                                                                                                                                                                                             |              | 2%           |                                                                                                                                                |           |           |
| Motor load                                 | 40% dip                                                                                                                                                                                                                        |              | 25% dip      |                                                                                                                                                |           |           |
| Recovery                                   | 5 sec                                                                                                                                                                                                                          |              | 0.7 sec      |                                                                                                                                                |           |           |
| Regulation                                 | 3%                                                                                                                                                                                                                             | 2-3% (adj)   | 1%           | 0.25%                                                                                                                                          |           |           |
| Optional Equipment                         |                                                                                                                                                                                                                                |              |              |                                                                                                                                                |           |           |
| Description                                | NSN                                                                                                                                                                                                                            | Weight (lbs) |              | Effect on Dim.(in)                                                                                                                             |           |           |
| Fuel burning winterization kit             | 6115-00-463-9083                                                                                                                                                                                                               | 45           |              | Internal                                                                                                                                       |           |           |
| Electrical winterization kit               | 6115-00-463-9085                                                                                                                                                                                                               | 40           |              | internal                                                                                                                                       |           |           |
| Aux fuel burning wint kit                  | 6115-00-463-9098                                                                                                                                                                                                               | 350          |              | 41 x 40 x 26 (Aux)                                                                                                                             |           |           |
| Aux electrical winterization kit           | 6115-00-463-9099                                                                                                                                                                                                               | 260          |              | 36 x 27 x 19 (Aux)                                                                                                                             |           |           |
| Remote control box                         | 6115-00-420-8490                                                                                                                                                                                                               | 8            |              | internal                                                                                                                                       |           |           |
| Load bank                                  | 6115-00-291-9201                                                                                                                                                                                                               | 104          |              | L+9                                                                                                                                            |           |           |
| Wheel mounting kit                         | 6115-00-463-9094                                                                                                                                                                                                               | 564          |              | L+8, W+32, H+9                                                                                                                                 |           |           |
| Auto load tranf panel 60 Hz                | 6115-00-471-7932                                                                                                                                                                                                               | 825          |              | 44 x 19 x 42 (Aux)                                                                                                                             |           |           |
| Paralleling cable                          | 6140-00-197-4934                                                                                                                                                                                                               | 4            |              | negligible                                                                                                                                     |           |           |
| Precise relay assembly                     | 6115-00-368-8202                                                                                                                                                                                                               |              |              | internal                                                                                                                                       |           |           |
| Spark arrester kit                         | 2990-01-032-0756                                                                                                                                                                                                               | 7.5          |              | L+12                                                                                                                                           |           |           |

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| Technical Manuals: |                |              |                    |
|--------------------|----------------|--------------|--------------------|
| Army               | Air Force      | Marine Corps | Navy               |
| TM5-6115-464-12    | TO35C2-3-445-1 | TM 07523A-12 | NAVFAC P-8-624-12  |
| TM5-6115-464-34    | TO35C2-3-445-2 | TM 07523A-34 | NAVFAC P-8-624-34  |
| TM5-6115-464-24P   | TO35C2-3-445-4 | SL-4-07523A  | NAVFAC P-8-624-24P |
| LO-5-6115-464-12   |                |              |                    |



MEP-004A or MEP-113A

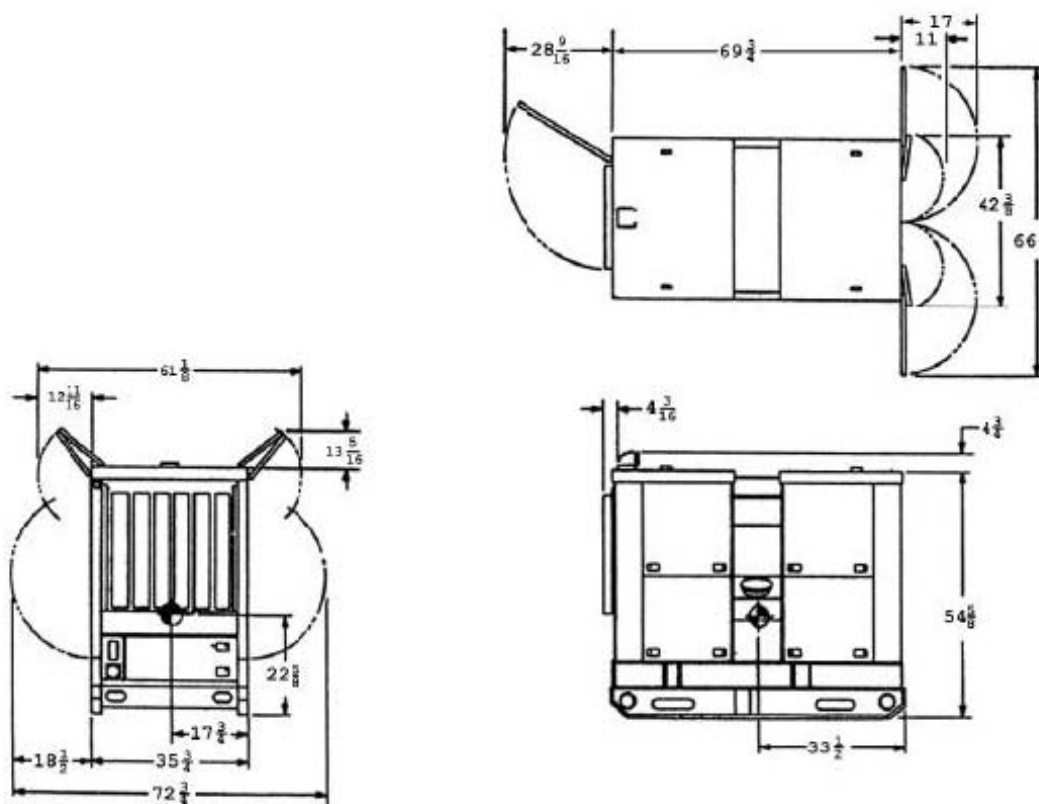
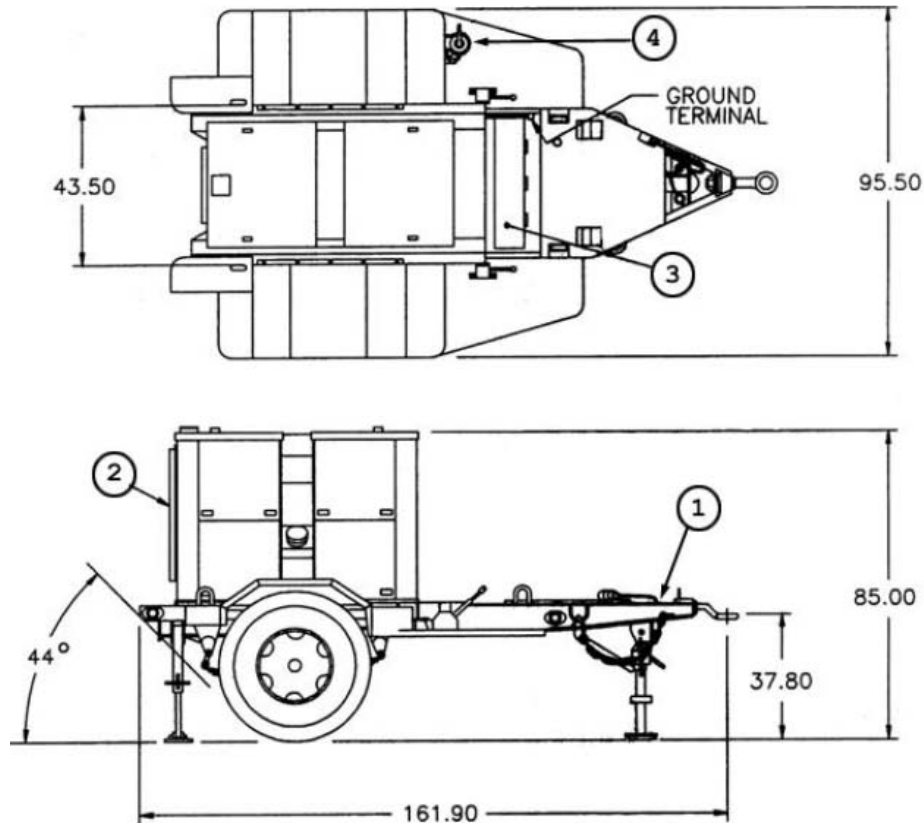


Figure E- 20 15 kW, DED, Generator Set -

**MIL-HDBK-633A  
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**PU-405A/M, POWER UNIT, DED, 15 kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                          |                                   |            |                              |                          |
|----------------------------------------------------------|------------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | POWER UNIT, DED, 15 kW, 50/60 Hz, TRLMTD |                                   |            | Camouflage: 97403-13226E7154 |                          |
| <b>Model</b>                                             | <b>NSN</b>                               | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-405A/M                                                | 6115-00-394-9577                         | J35492                            | M500       | TA-13220E6322                | Not procurable           |
| Physical Characteristics                                 |                                          |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                          | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 161.9x 95.5 x 85.0                                       |                                          | 800                               |            | 5970                         | 5860                     |



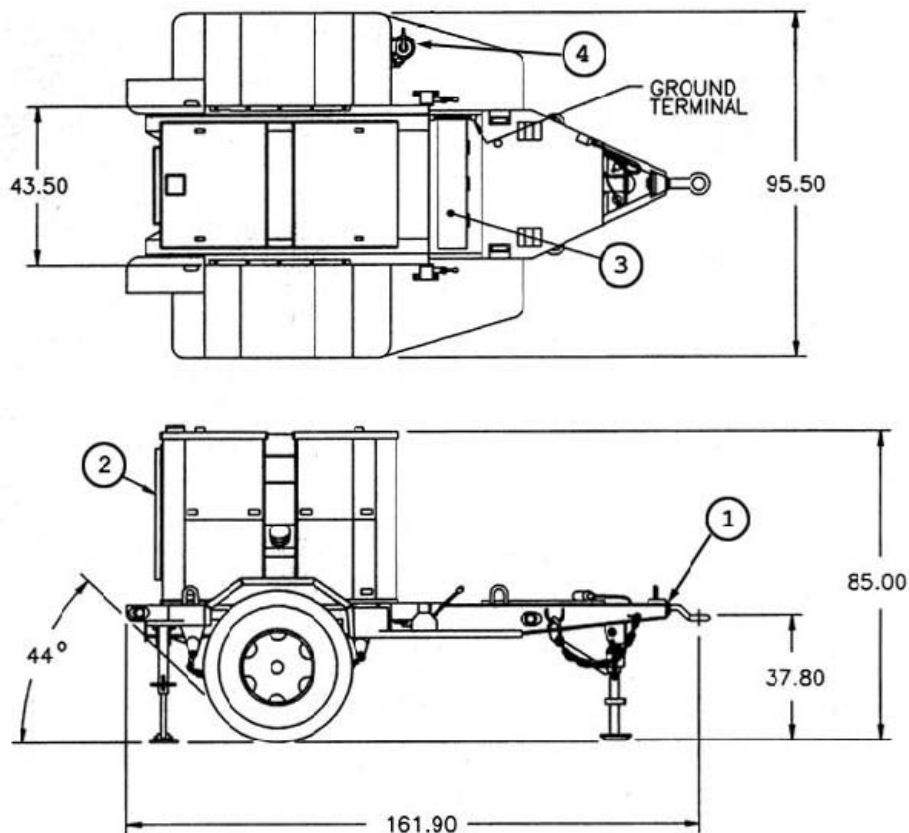
| COMPONENT                                  | QTY | FIND | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified Trailer, M200A1         | 1   | 1    | 97403-13214E1257 |
| Generator set, DED, 15 kW, 60 Hz, MEP-004A | 1   | 2    | 6115-00-118-1241 |
| Accessory box                              | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb, A-A-1106          | 1   | 4    | 4210-00-270-4512 |

Figure E- 21 PU-405A/M

**MIL-HDBK-633A  
APPENDIX E**

**PU-732/M, POWER UNIT, DED, 15 kW, 400 Hz, TRLMTD**

| Identification Data                                      |                                        |                                   |            |                              |                          |
|----------------------------------------------------------|----------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | POWER UNIT, DED, 15 kW, 400 Hz, TRLMTD |                                   |            | Camouflage: 97403-13226E7154 |                          |
| <b>Model</b>                                             | <b>NSN</b>                             | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-732/M                                                 | 6115-00-260-3082                       | G36074                            | M521       | TA-13220E6645                | Not procurable           |
| Physical Characteristics                                 |                                        |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                        | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 161.9 x 95.5 x 85.0                                      |                                        | 800                               |            | 6080                         | 5900                     |



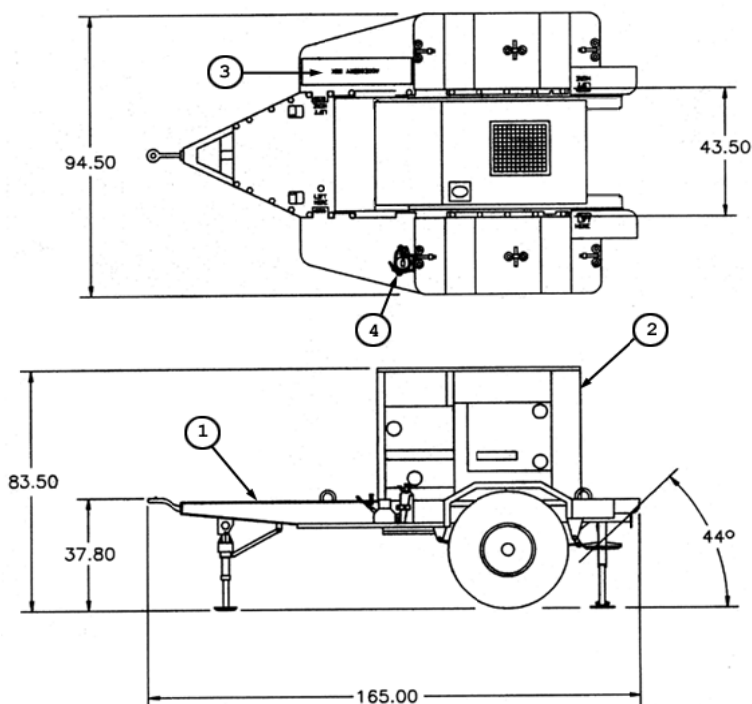
| COMPONENT                                   | QTY | FIND | IDENTIFIER       |
|---------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified Trailer, M200A1          | 1   | 1    | 97403-13214E1257 |
| Generator set, DED, 15 kW, 400 Hz, MEP-113A | 1   | 2    | 6115-00-118-1244 |
| Accessory box                               | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106          | 1   | 4    | 4210-00-270-4512 |

Figure E- 22 PU-732/M

**MIL-HDBK-633A  
APPENDIX E**

**15 kW TQ Power Unit, 400 Hz, TRLMTD**

| Identification Data                             |                                     |                              |        |                              |                   |
|-------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 15 kW TQ POWER UNIT, 400 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1614 |                   |
| Model                                           | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-800                                          | 6115-01-317-2137                    | G78203                       | R62700 | TA-13229E5735                | not procurable    |
| Technical Manual                                | Operator, Unit and Direct Support   |                              |        | TM 9-6115-661-13&P           |                   |
| Physical Characteristics                        |                                     |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 95 x 84 & (761)                           |                                     | 761                          |        | 4975                         | 4855              |



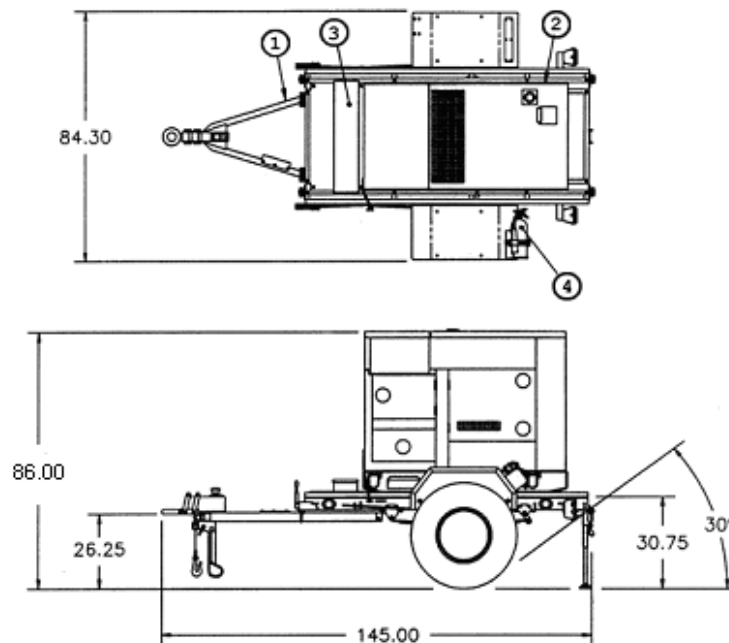
| FIND | COMPONENT                                      | QTY | IDENTIFIER       |
|------|------------------------------------------------|-----|------------------|
| 1    | 2 1/2 Ton modified Trailer, M200A1             | 1   | 97403-13229E9623 |
| 2    | TQ Generator set, DED, 15 kW, 400 Hz, MEP-814A | 1   | 6115-01-274-7393 |
| 3    | Accessory box                                  | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106             | 1   | 4210-00-270-4512 |

Figure E- 23 PU-800

**MIL-HDBK-633A  
APPENDIX E**

**15 kW TQ Power Unit, 50/60 Hz, TRLMTD**

| Identification Data                             |                                       |                              |        |                              |                   |
|-------------------------------------------------|---------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1613 |                   |
| Model                                           | NSN                                   | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-801                                          | 6115-01-319-9033                      | G78374                       | R62700 | TA-13229E5640                | not procurable    |
| Technical Manual                                | Operator, Unit and Direct Support     |                              |        | TM 9-6115-661-13&P           |                   |
| Physical Characteristics                        |                                       |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                       | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 145 x 85 x 86 & (613)                           |                                       | 613                          |        | 3416                         | 3300              |



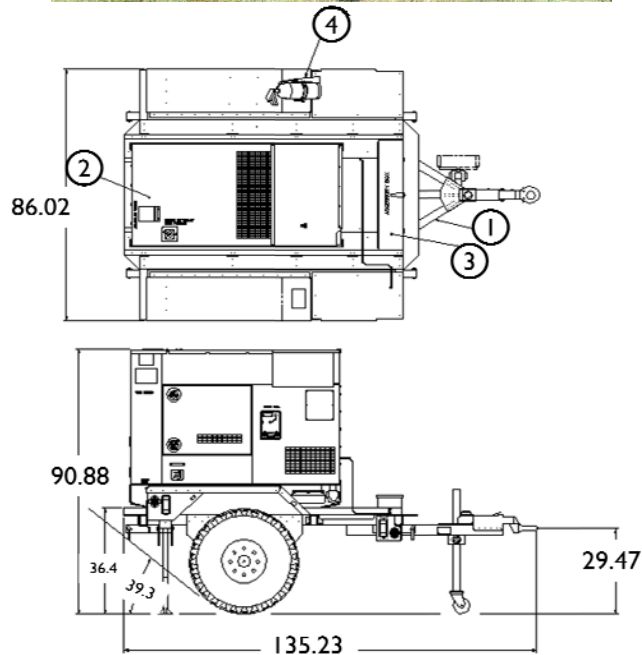
| FIND | COMPONENT                               | QTY | IDENTIFIER       |
|------|-----------------------------------------|-----|------------------|
| 1    | Modified 1 ton trailer, M116A3          | 1   | 97403-13229E5757 |
| 2    | TQG set, DED, 15 kW, 50/60 Hz, MEP-804A | 1   | 6115-01-274-7388 |
| 3    | Accessory box                           | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106      | 1   | 4210-00-270-4512 |

Figure E- 24 PU-801

**MIL-HDBK-633A  
APPENDIX E**

**15 kW TQ Power Unit, 50/60 Hz, TRLMTD**

| Identification Data                             |                                       |                              |        |                              |                   |
|-------------------------------------------------|---------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1613 |                   |
| Model                                           | NSN                                   | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-801A                                         | 6115-01-413-3821                      | G78374                       | R62700 | TA-13230E6560                | not procurable    |
| Technical Manual                                | Operator, Unit and Direct Support     |                              |        | TM 9-6115-661-13&P           |                   |
| Physical Characteristics                        |                                       |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                       | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 135 x 86 x 91 & (611)                           |                                       | 611                          |        | 3516                         | 3400              |



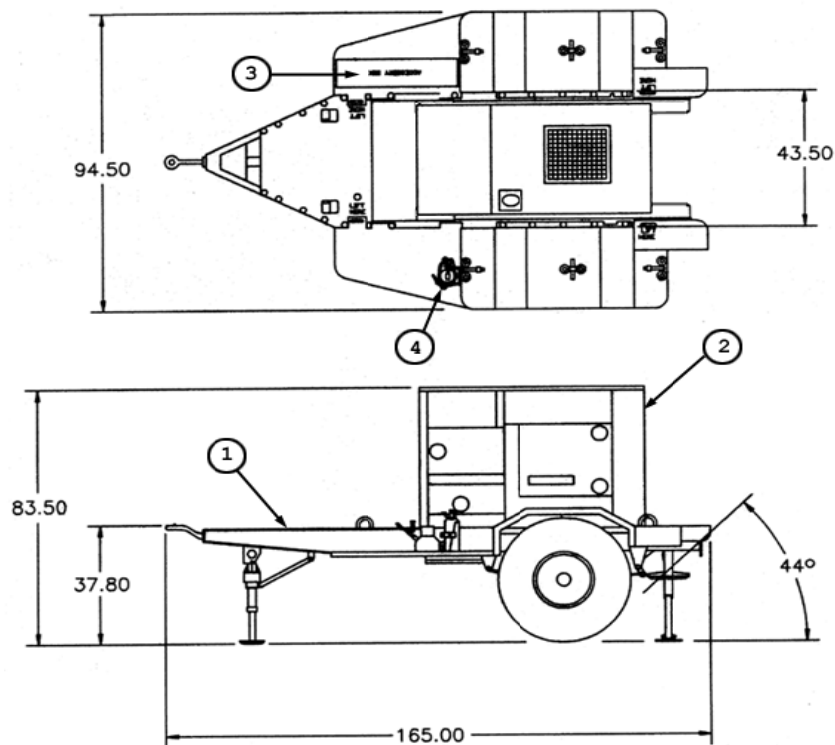
| FIND | COMPONENT                               | QTY | IDENTIFIER       |
|------|-----------------------------------------|-----|------------------|
| 1    | Light Tactical Trailer (LTT) (PU-801A)  | 1   | 97403-13230E6565 |
| 2    | TQG set, DED, 15 kW, 50/60 Hz, MEP-804A | 1   | 6115-01-274-7388 |
| 3    | Accessory box                           | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106      | 1   | 4210-00-270-4512 |

Figure E- 25 PU-801A

**MIL-HDBK-633A  
APPENDIX E**

**15 kW TQ Power Unit, 50/60 Hz, TRLMTD**

| Identification Data                |                                       |                 |        |                              |                   |
|------------------------------------|---------------------------------------|-----------------|--------|------------------------------|-------------------|
| Description                        | 15 kW TQ POWER UNIT, 50/60 Hz, TRLMTD |                 |        | Camouflage: 97403-13228E1614 |                   |
| Model                              | NSN                                   | LIN             | SSN    | ASSEMBLY                     | SPEC              |
| PU-802                             | 6115-01-317-2138                      | G53778          | R62700 | TA-13229E5740                | not procurable    |
| Technical Manual                   | Operator, Unit and Direct Support     |                 |        | TM 9-6115-661-13&P           |                   |
| Physical Characteristics           |                                       |                 |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft³) |                                       | Ship Cube (ft³) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165 x 95 x 84 & (754)              |                                       | 754             |        | 5040                         | 4920              |



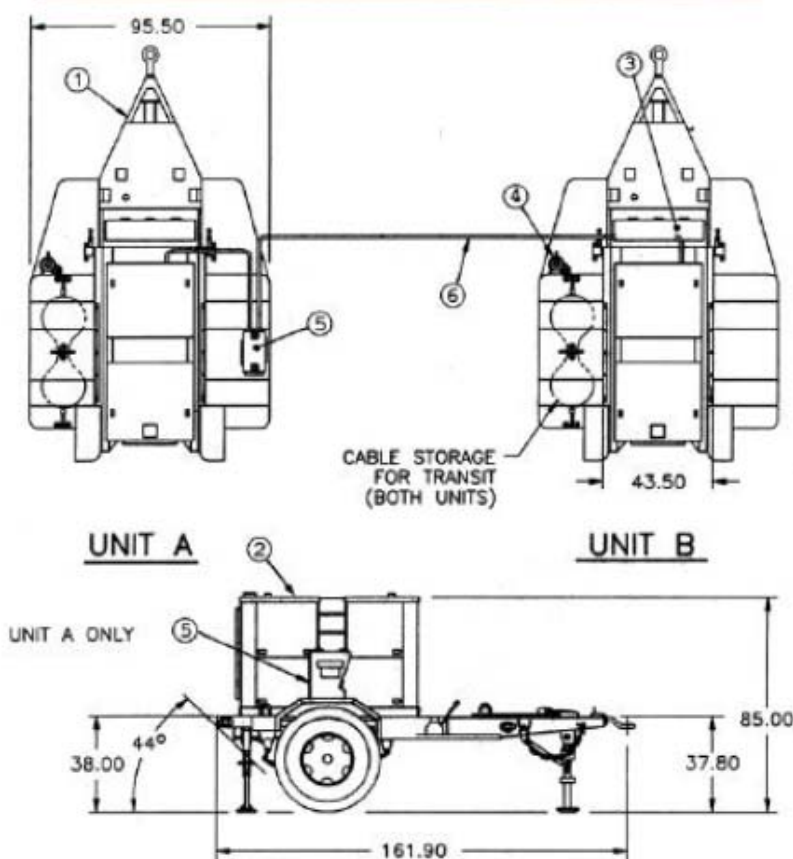
| FIND | COMPONENT                                  | QTY | IDENTIFIER       |
|------|--------------------------------------------|-----|------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1         | 1   | 97403-13229E9632 |
| 2    | TQ Gen set, DED, 15 kW, 50/60 Hz, MEP-804A | 1   | 6115-01-274-7388 |
| 3    | Accessory box                              | 1   | 97403-13229E7946 |
| 4    | Fire extinguisher, 5 lb., A-A-1106         | 1   | 4210-00-270-4512 |

Figure E- 26 PU-802

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-15, POWER PLANT, DED, 15 kW, 400 Hz, TRLMTD**

| Identification Data                             |                                         |        |                              |                              |                |
|-------------------------------------------------|-----------------------------------------|--------|------------------------------|------------------------------|----------------|
| Description                                     | POWER PLANT, DED, 15 kW, 400 Hz, TRLMTD |        |                              | Camouflage: 97403-13226E7154 |                |
| Model                                           | NSN                                     | LIN    | SSN                          | ASSEMBLY                     | SPEC           |
| PP-AN/MJQ-15                                    | 6115-00-400-7591                        | P28075 | M563                         | TA-13220E8042                | not procurable |
| Physical Characteristics                        |                                         |        |                              |                              |                |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) | Ship Cube (ft <sup>3</sup> )            |        | Wet Weight (lbs)             | Ship Weight (lbs)            |                |
| 161.9x95.5x85.0<br>(each of two units)          | 800<br>(each unit)                      |        | Unit A: 6180<br>Unit B: 6155 | Unit A: 6020<br>Unit B: 6000 |                |



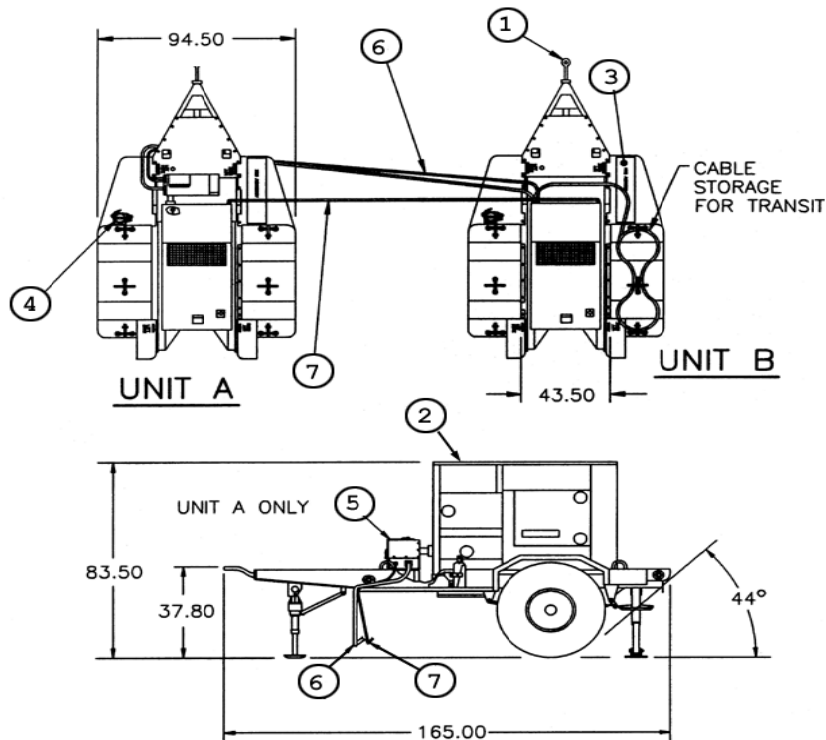
| COMPONENT                                   | QTY | FIND | IDENTIFIER       |
|---------------------------------------------|-----|------|------------------|
| 2-1/2 ton flatbed trailer, M200A1           | 2   | 1    | 97403-13214E1257 |
| Generator set, DED, 15 kW, 400 Hz, MEP-113A | 2   | 2    | 6115-00-118-1244 |
| Accessory box                               | 2   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106          | 2   | 4    | 4210-00-270-4512 |
| Switch box (unit A), 97403-13220E6400 (old) | 1   | 5    | 97403-13229E5795 |
| Cable assembly                              | 1   | 6    | 97403-13220E6427 |

Figure E- 27 PP-AN/MJQ-15

**MIL-HDBK-633A  
APPENDIX E**

**15 kW TQ Power Plant, 400 Hz, TRLMTD**

| Identification Data                               |                                     |                              |        |                              |                              |
|---------------------------------------------------|-------------------------------------|------------------------------|--------|------------------------------|------------------------------|
| Description                                       | 15kW TQ POWER PLANT, 400 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1614 |                              |
| Model                                             | NSN                                 | LIN                          | SSN    | ASSEMBLY                     | SPEC                         |
| PP-AN/MJQ-39                                      | 6115-01-299-6034                    | P42614                       | R62700 | TA-13229E5690                | not procurable               |
| Technical Manual                                  | Operator, Unit and Direct Support   |                              |        | TM 9-6115-661-13&P           |                              |
| Physical Characteristics                          |                                     |                              |        |                              |                              |
| Dimensions (LWH (in)) & (Cube) (ft <sup>3</sup> ) |                                     | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs)            |
| 165 x 95 x 84 & (754) each                        |                                     | 754 each                     |        | Unit A: 4863<br>Unit B: 4893 | Unit A: 4765<br>Unit B: 4765 |



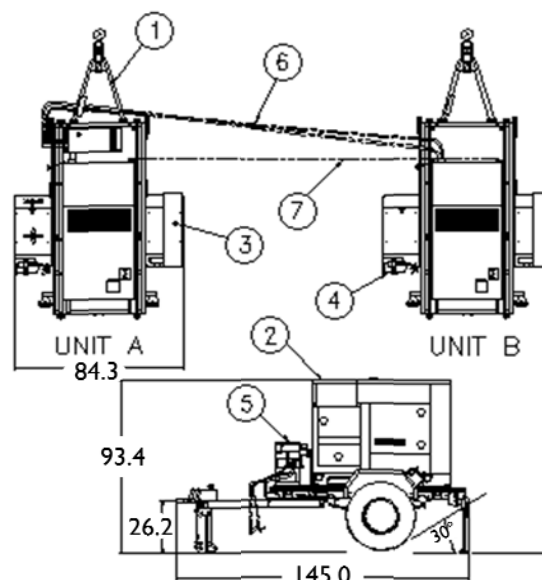
| FIND | COMPONENT                                | QTY | IDENTIFIER         |
|------|------------------------------------------|-----|--------------------|
| 1    | 2-1/2 Ton modified trailer, M200A1       | 2   | 97403-13229E9632   |
| 2    | TQ Gen set, DED, 15 kW, 400 Hz, MEP-814A | 2   | 6115-01-274-7393   |
| 3    | Accessory box                            | 2   | 97403-13229E7946   |
| 4    | Fire extinguisher, 5 lb., A-A-1106       | 2   | 4210-00-270-4512   |
| 5    | Switch box (unit A)                      | 1   | 97403-13229E5795-1 |
| 6    | Cable assembly (unit B)                  | 1   | 97403-13229E5674   |
| 7    | Paralleling cable assembly,              | 2   | 30554-88-22209     |

Figure E- 28 PP-AN/MJQ-39

**MIL-HDBK-633A  
APPENDIX E**

**15 kW TQ Power Plant, 50/60 Hz, TRLMTD**

| Identification Data                               |                                       |                              |        |                              |                              |
|---------------------------------------------------|---------------------------------------|------------------------------|--------|------------------------------|------------------------------|
| Description                                       | 15kW TQ POWER PLANT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1613 |                              |
| Model                                             | NSN                                   | LIN                          | SSN    | ASSEMBLY                     | SPEC                         |
| PP-AN/MJQ-48                                      | 6115-01-540-8433                      | P01012                       | R62700 | TA-13230E7015                | not procurable               |
| Technical Manual                                  | Operator, Unit and Direct Support     |                              |        | TM 9-6115-661-13&P           |                              |
| Physical Characteristics                          |                                       |                              |        |                              |                              |
| Dimensions (LWH (in)) & (Cube) (ft <sup>3</sup> ) |                                       | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs)            |
| 135 x 86 x 91 & (611) each                        |                                       | 611 each                     |        | Unit A: 3570<br>Unit B: 3570 | Unit A: 3470<br>Unit B: 3470 |



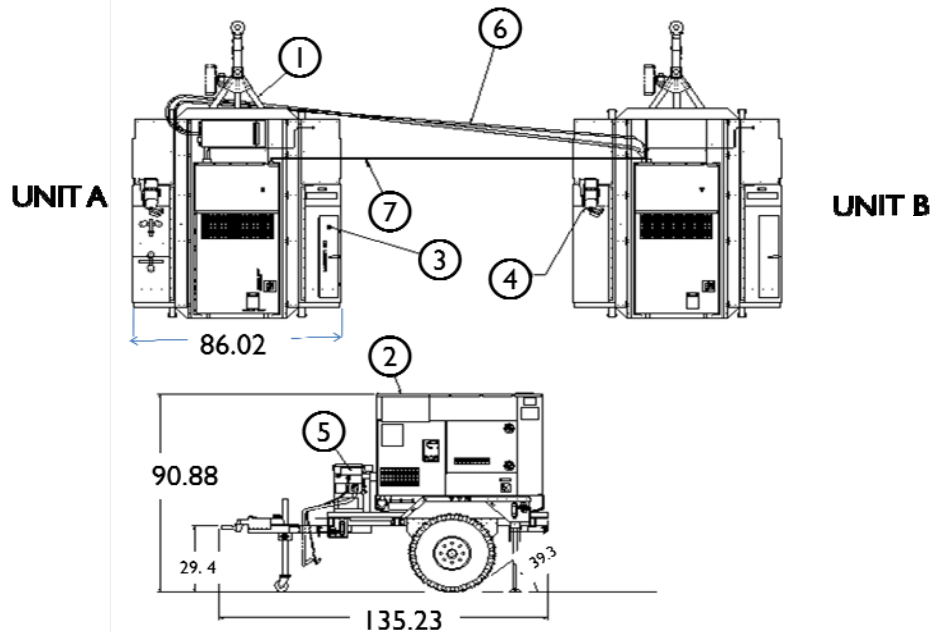
| FIND | COMPONENT                                  | QTY | IDENTIFIER         |
|------|--------------------------------------------|-----|--------------------|
| 1    | M116A3 Trailer AN/MJQ-48                   | 2   | 97403-13230E6829   |
| 2    | TQ Gen set, DED, 15 kW, 50/60 Hz, MEP-804A | 2   | 6115-01-274-7388   |
| 3    | Accessory box                              | 2   | 97403-13229E7946   |
| 4    | Fire extinguisher, 5 lb., A-A-1106         | 2   | 4210-00-270-4512   |
| 5    | Switch box (unit A)                        | 1   | 97403-13229E5795-1 |
| 6    | Cable assembly (unit B)                    | 1   | 97403-13229E5674   |
| 7    | Paralleling cable assembly,                | 2   | 30554-88-22209     |

Figure E- 29 PP-AN/MJQ-48

**MIL-HDBK-633A  
APPENDIX E**

**15 kW TQ Power Plant, 50/60 Hz, TRLMTD**

| Identification Data                               |                                       |                              |        |                               |                               |
|---------------------------------------------------|---------------------------------------|------------------------------|--------|-------------------------------|-------------------------------|
| Description                                       | 15kW TQ POWER PLANT, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1614  |                               |
| Model                                             | NSN                                   | LIN                          | SSN    | ASSEMBLY                      | SPEC                          |
| PP-AN/MJQ-48A                                     | 6115-01-540-9465                      | P01012                       | R62700 | TA-13230E7016                 | not procurable                |
| Technical Manual                                  | Operator, Unit and Direct Support     |                              |        | TM 9-6115-661-13&P            |                               |
| Physical Characteristics                          |                                       |                              |        |                               |                               |
| Dimensions (LWH (in)) & (Cube) (ft <sup>3</sup> ) |                                       | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)              | Ship Weight (lbs)             |
| 135 x 86 x 91 & (611) each                        |                                       | 611 each                     |        | Unit A: 3570,<br>Unit B: 3570 | Unit A: 3470,<br>Unit B: 3470 |



| FIND | COMPONENT                                  | QTY | IDENTIFIER         |
|------|--------------------------------------------|-----|--------------------|
| 1    | Light Tactical Trailer (LTT) AN/MJQ-48A    | 2   | 97403-13230E6565   |
| 2    | TQ Gen set, DED, 15 kW, 50/60 Hz, MEP-804A | 2   | 6115-01-274-7388   |
| 3    | Accessory box                              | 2   | 97403-13229E7946   |
| 4    | Fire extinguisher, 5 lb., A-A-1106         | 2   | 4210-00-270-4512   |
| 5    | Switch box (unit A)                        | 1   | 97403-13229E5795-1 |
| 6    | Cable assembly (unit B)                    | 1   | 97403-13229E5674   |
| 7    | Paralleling cable assembly,                | 2   | 30554-88-22209     |

Figure E- 30 PP-AN/MJQ-48A

**MIL-HDBK-633A  
APPENDIX E**

**30 kW, DED, Generator Set**

| Identification data                          |                                                                                                                                                                           |               |                 |                                                                                  |                   |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|----------------------------------------------------------------------------------|-------------------|
| Nomenclature                                 | Gen Set, DED, 30 kW, 50/60 Hz                                                                                                                                             |               |                 | Gen Set, DED, 30 kW, 400 Hz                                                      |                   |
| Model Number                                 | MEP-005A                                                                                                                                                                  |               |                 | MEP-114A                                                                         |                   |
| NSN                                          | 6115-00-118-1240                                                                                                                                                          |               |                 | 6115-00-118-1248                                                                 |                   |
| LIN                                          | J36109                                                                                                                                                                    |               |                 | J36725                                                                           |                   |
| SSN                                          | M532                                                                                                                                                                      |               |                 | M501                                                                             |                   |
| Trailer Mounted Configurations               | PU-406B/M; <a href="#">Figure E- 32</a> ;<br>PU-803, <a href="#">Figure E- 34</a> ; AN/MJQ-10A;<br><a href="#">Figure E- 36</a> ; AN/MJQ-40, <a href="#">Figure E- 37</a> |               |                 | PU-760/M; <a href="#">Figure E- 33</a> ;<br>PU-804, <a href="#">Figure E- 35</a> |                   |
| Physical Characteristics                     |                                                                                                                                                                           |               |                 |                                                                                  |                   |
| Dimensions LWH (in)                          | 79.3 x 35.8 x 54.6 (Cube: 90 ft <sup>3</sup> )                                                                                                                            |               |                 | 79.3 x 35.8 x 54.6 (Cube:90 ft <sup>3</sup> )                                    |                   |
| Weight (lbs)                                 | 2850                                                                                                                                                                      |               |                 | 3000                                                                             |                   |
| Engine                                       | 6 cylinder Diesel, 57 hp @ 1800 RPM (60 Hz), liquid cooled, 24 Volt starter.                                                                                              |               |                 | 6 cylinder Diesel, 64 hp @ 2000 RPM (400 Hz), liquid cooled, 24 Volt starter     |                   |
| Fuels                                        | Diesel: DL-1, DL-2 and Jet fuel: JP-8, Jet A-1.                                                                                                                           |               |                 |                                                                                  |                   |
| Fuel Capacity                                | 26 gal.                                                                                                                                                                   |               |                 |                                                                                  |                   |
| Instrumentation                              | Hourmeter, voltmeter, frequency meter, ammeter, wattmeter, oil pressure gage, battery charging ammeter, fault indicating system, temperature, fuel.                       |               |                 |                                                                                  |                   |
| Performance Characteristics                  |                                                                                                                                                                           |               |                 |                                                                                  |                   |
| Electric Power Rating                        | 30 kW, 60/400 Hz (25 kW, 50 Hz) @ 0.8 pf from -25°F (-65°F with winterization kit) to 125°F/MSL, 107°F/5000 ft.                                                           |               |                 |                                                                                  |                   |
| Environmental Capability                     | -25°F(-65°F with winterization kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage, salt spray, fungus.                                      |               |                 |                                                                                  |                   |
| Protective Devices                           | Overload, over voltage, short circuit, reverse power, low oil pressure, high temperature, low fuel, overspeed.                                                            |               |                 |                                                                                  |                   |
| Fuel Consumption                             | 3 gal/hour @ rated load                                                                                                                                                   |               |                 |                                                                                  |                   |
| Human Factors                                | MIL-STD-1474. Operable in arctic and NBC clothing.                                                                                                                        |               |                 |                                                                                  |                   |
| Noise                                        | 80 dBA @ 25 feet.                                                                                                                                                         |               |                 |                                                                                  |                   |
| Reliability (MTBF)                           | 50/60 Hz: 670 hr (spec);                                                                                                                                                  |               |                 | 400 Hz: 370 hr (spec).                                                           |                   |
| Electrical Characteristics                   |                                                                                                                                                                           |               |                 |                                                                                  |                   |
| Voltage Con:                                 | 120/208 V, 3 phase, 4 wire; 240/416 V, 3 phase, 4 wire.                                                                                                                   |               |                 |                                                                                  |                   |
| Operating Frequency                          | 50 Hz                                                                                                                                                                     |               | 60 Hz           |                                                                                  | 400 Hz            |
| Connection                                   | 120/208V                                                                                                                                                                  | 240/416V      | 120/208V        | 240/416V                                                                         | 120/208V 240/416V |
| Voltage Adj Range                            | 190 213                                                                                                                                                                   | 380 426       | 197 240         | 395 480                                                                          | 197-229 395 458   |
| Electrical                                   | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary alternator.                                                    |               |                 |                                                                                  |                   |
| Electrical Performance                       |                                                                                                                                                                           |               |                 |                                                                                  |                   |
| Electric Power Quality                       | 50/60 Hz                                                                                                                                                                  |               | 400 Hz          |                                                                                  |                   |
|                                              | Volt                                                                                                                                                                      | Frequency     | Volt            | Frequency                                                                        |                   |
| Regulation                                   | 3%                                                                                                                                                                        | 2-3% (adj)    | 1%              | 0.25%                                                                            |                   |
| Short term steady state stab (30 sec)        | 2%                                                                                                                                                                        | 2%            | 1%              | 0.5%                                                                             |                   |
| Long term steady state stab (4 hr)           | 4%                                                                                                                                                                        | 3%            | 2%              | 1%                                                                               |                   |
| Application/rejection of rated load/rec.time | 20% / 3 sec                                                                                                                                                               | 3% /4% /3 sec | 12% /0.5 sec    | 1.5% /1 sec                                                                      |                   |
| Motor load/recovery time                     | 40% dip /5 sec                                                                                                                                                            |               | 25% dip/0.7 sec |                                                                                  |                   |
| Max waveform deviation factor                | 5%                                                                                                                                                                        |               | 5%              |                                                                                  |                   |
| Individual waveform harmonic                 | 2%                                                                                                                                                                        |               | 2%              |                                                                                  |                   |
| EMI                                          | Suppressed to MIL-STD-461 limits.                                                                                                                                         |               |                 |                                                                                  |                   |
| EMP                                          | none                                                                                                                                                                      |               |                 |                                                                                  |                   |
| Optional Equipment                           |                                                                                                                                                                           |               |                 |                                                                                  |                   |
| Description                                  | NSN                                                                                                                                                                       | Weight (lbs)  |                 | Effect on Dim.(in)                                                               |                   |
| Fuel burning winterization kit               | 6115-00-463-9083                                                                                                                                                          | 45            |                 | internal                                                                         |                   |
| Electrical winterization kit                 | 6115-00-463-9085                                                                                                                                                          | 40            |                 | internal                                                                         |                   |
| Aux fuel burning winterization kit           | 6115-00-463-9098                                                                                                                                                          | 350           |                 | 41 x 40 x 26 (Aux)                                                               |                   |
| Aux electrical winterization kit             | 6115-00-463-9099                                                                                                                                                          | 260           |                 | 36 x 27 x 19 (Aux)                                                               |                   |
| Remote control box                           | 6115-00-420-8490                                                                                                                                                          | 8             |                 | internal                                                                         |                   |
| Load bank                                    | 6115-00-463-9088                                                                                                                                                          |               |                 | L+9                                                                              |                   |
| Wheel mounting kit                           | 6115-00-463-9094                                                                                                                                                          | 564           |                 | L+8 W+32 H+9                                                                     |                   |
| Auto load tranf panel 60 Hz                  | 6115-00-471-7932                                                                                                                                                          | 825           |                 | 44 x 19 x 42 (Aux)                                                               |                   |
| Paralleling cable                            | 6140-00-197-4934                                                                                                                                                          | 4             |                 | negligible                                                                       |                   |
| Precise relay assembly                       | 6115-00-368-8202                                                                                                                                                          |               |                 | internal                                                                         |                   |

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|                          |                  |                     |                    |
|--------------------------|------------------|---------------------|--------------------|
| Spark arrester kit       | 2990-01-032-0756 | 7.5                 | L+12               |
| <b>Technical Manuals</b> |                  |                     |                    |
| <b>Army</b>              | <b>Air Force</b> | <b>Marine Corps</b> | <b>Navy</b>        |
| TM5-6115-465-12          | TO35C2-3-446-1   | TM 06858B/06859D-12 | NAVFAC P-8-625-12  |
| TM5-6115-465-34          | TO35C2-3-446-2   | TM 06858B/06859D-34 | NAVFAC P-8-625-34  |
| TM5-6115-465-24P         | TO35C2-3-446-4   | SL-4-06858B/06859P  | NAVFAC P-8-625-24P |
| LO-5-6115-465-12         |                  | LO-06858A-06859A-12 |                    |



MEP-005A or MEP-114A

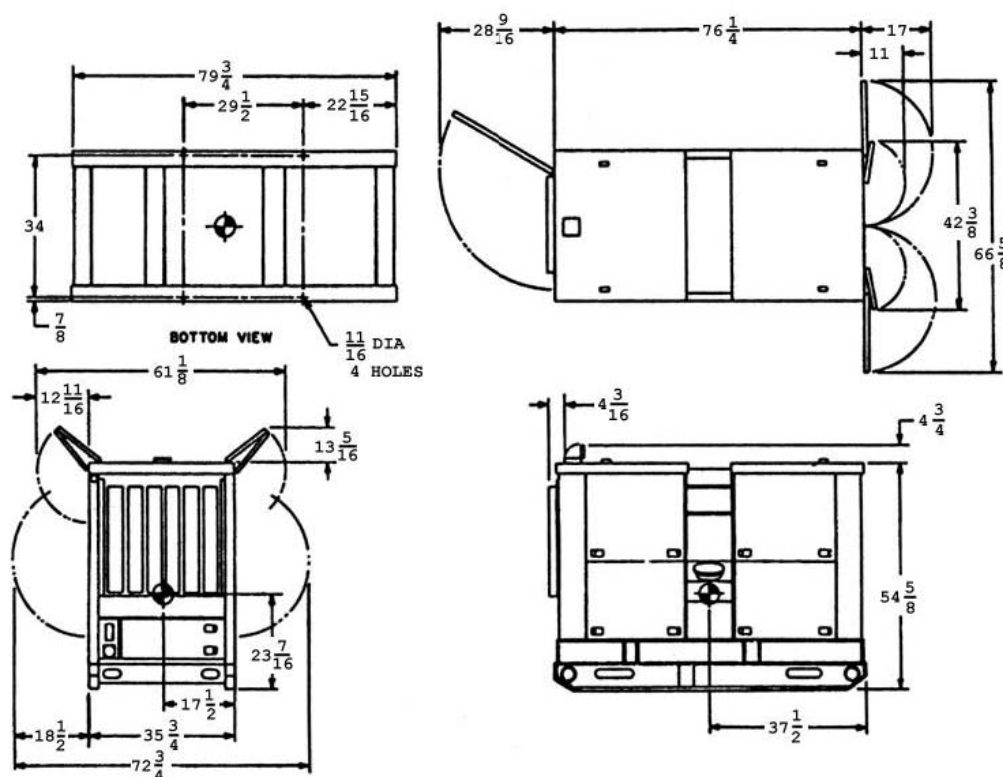
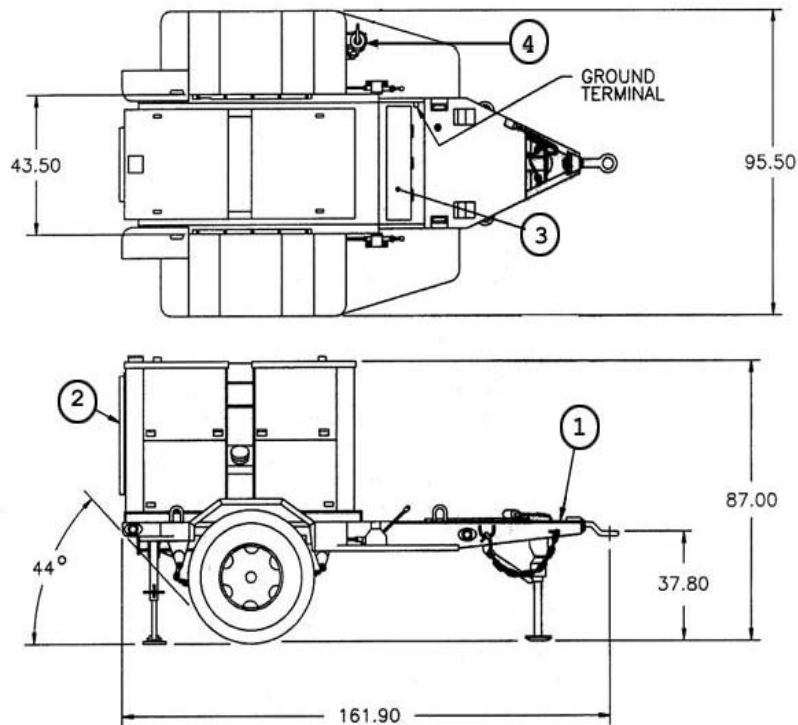


Figure E- 31 30kW, DED, Generator Set

**MIL-HDBK-633A  
APPENDIX E**

**PU-406B/M, POWER UNIT, DED, 30 kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                          |                                   |            |                              |                          |
|----------------------------------------------------------|------------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | POWER UNIT, DED, 30 kW, 50/60 Hz, TRLMTD |                                   |            | Camouflage: 97403-13226E7492 |                          |
| <b>Model</b>                                             | <b>NSN</b>                               | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-406B/M                                                | 6115-00-394-9576                         | J36383                            | M543       | TA-13220E6325                | not procurable           |
| Physical Characteristics                                 |                                          |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                          | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 161.9 x 95.5 x 87.0                                      |                                          | 818                               |            | 6530                         | 6380                     |



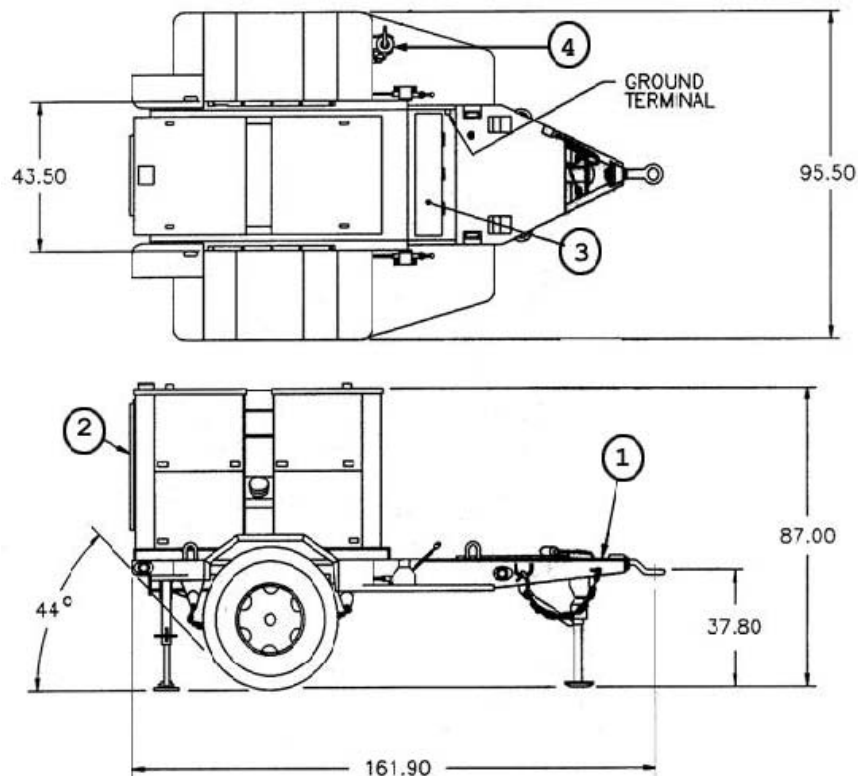
| COMPONENT                                  | QTY | FIND | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified Trailer, M200A1         | 1   | 1    | 97403-13214E1257 |
| Generator set, DED, 30 kW, 60 Hz, MEP-005A | 1   | 2    | 6115-00-118-1240 |
| Accessory box                              | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106         | 1   | 4    | 4210-00-270-4512 |

Figure E- 32 PU-406B/M

**MIL-HDBK-633A  
APPENDIX E**

**PU-760/M, POWER UNIT, DED, 30 kW, 400 Hz, TRLMTD**

| Identification Data                                      |                                        |                                   |            |                              |                          |
|----------------------------------------------------------|----------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | POWER UNIT, DED, 30 kW, 400 Hz, TRLMTD |                                   |            | Camouflage: 97403-13226E7492 |                          |
| <b>Model</b>                                             | <b>NSN</b>                             | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-760/M                                                 | 6115-00-394-9581                       | G53871                            | M595       | TA-13220E6341                | not procurable           |
| Physical Characteristics                                 |                                        |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                        | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 161.9 x 95.5 x 87.0                                      |                                        | 818                               |            | 6680                         | 5380                     |



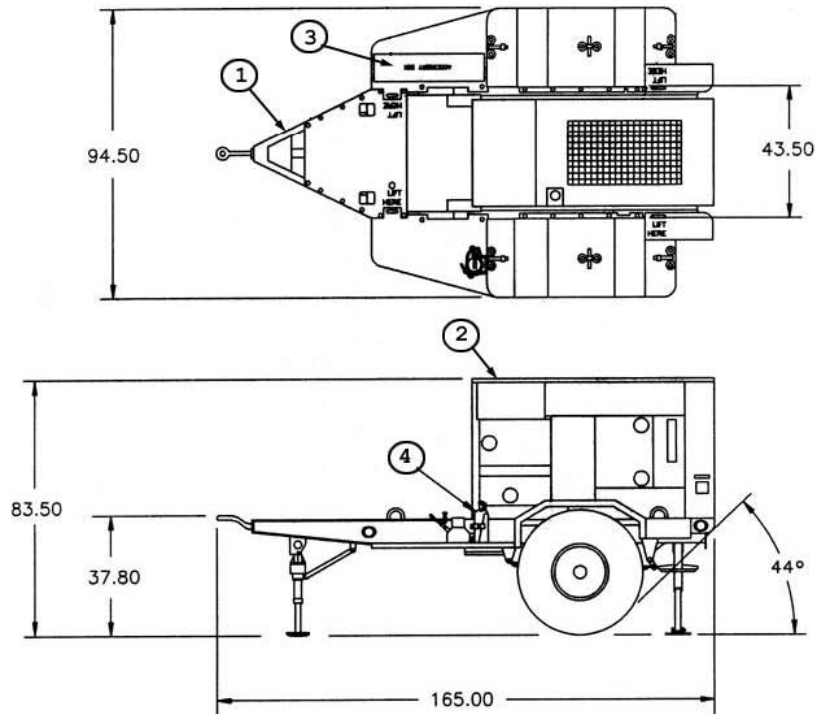
| COMPONENT                                   | QTY | FIND | IDENTIFIER       |
|---------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified Trailer, M200A1          | 1   | 1    | 97403-13214E1257 |
| Generator set, DED, 30 kW, 400 Hz, MEP-114A | 1   | 2    | 6115-00-118-1248 |
| Accessory box                               | 1   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106          | 1   | 4    | 4210-00-270-4512 |

Figure E- 33 PU-760/M

**MIL-HDBK-633A  
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PU-803, TQ POWER UNIT, DED, 30kW, 50/60 Hz, TRLMTD

| Identification Data                             |                                            |                              |        |                              |                   |
|-------------------------------------------------|--------------------------------------------|------------------------------|--------|------------------------------|-------------------|
| Description                                     | TQ POWER UNIT, DED, 30kW, 50/60 Hz, TRLMTD |                              |        | Camouflage: 97403-13228E1615 |                   |
| Model                                           | NSN                                        | LIN                          | SSN    | ASSEMBLY                     | SPEC              |
| PU-803                                          | 6115-01-317-2136                           | G35851                       | M54300 | TA-13229E5745                | not procurable    |
| Physical Characteristics                        |                                            |                              |        |                              |                   |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) |                                            | Ship Cube (ft <sup>3</sup> ) |        | Wet Weight (lbs)             | Ship Weight (lbs) |
| 165.0 x 94.5 x 83.5                             |                                            | 770                          |        | 5900                         | 6380              |



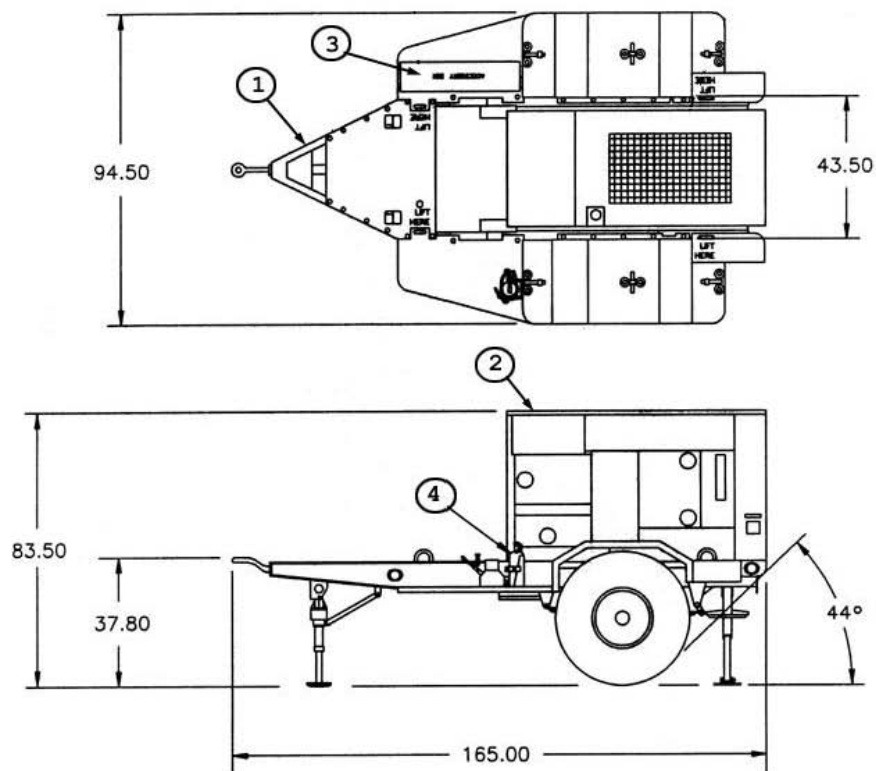
| COMPONENT                                  | QTY | FIND | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified trailer, M200A1         | 1   | 1    | 97403-13214E1257 |
| TQ Gen set, DED, 30 kW, 50/60 Hz, MEP-805A | 1   | 2    | 6115-01-274-7389 |
| Accessory box                              | 1   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106         | 1   | 4    | 4210-00-270-4512 |

Figure E- 34 PU-803

**MIL-HDBK-633A  
APPENDIX E**

PU-804, TQ POWER UNIT, DED, 30kW, 400 Hz, TRLMTD

| Identification Data                                      |                                          |                                   |            |                              |                          |
|----------------------------------------------------------|------------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | TQ POWER UNIT, DED, 30kW, 400 Hz, TRLMTD |                                   |            | Camouflage: 97403-13228E1615 |                          |
| <b>Model</b>                                             | <b>NSN</b>                               | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-804                                                   | 6115-01-317-2135                         | G35919                            | M59500     | TA-13229E5750                | not procurable           |
| Physical Characteristics                                 |                                          |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                          | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 165.0 x 94.5 x 83.5                                      |                                          | 770                               |            | 5730 .                       | 5930                     |



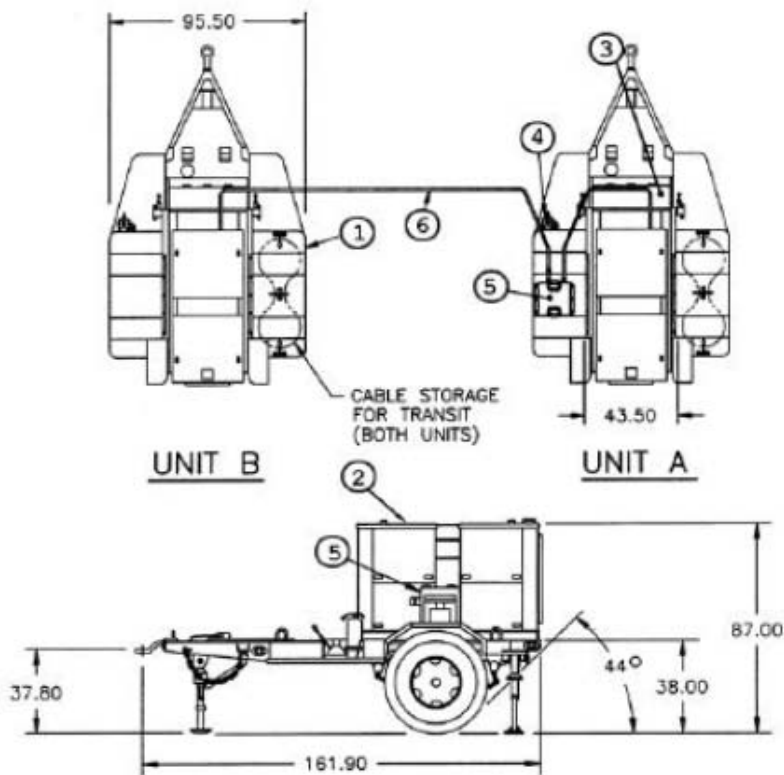
| COMPONENT                                      | QTY | FIND | IDENTIFIER       |
|------------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified trailer, M200A1             | 1   | 1    | 97403-13214E1257 |
| TQ Generator set, DED, 30 kW, 400 Hz, MEP-815A | 1   | 2    | 6115-01-274-7394 |
| Accessory box                                  | 1   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106             | 1   | 4    | 4210-00-270-4512 |

Figure E- 35 PU-804

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-10A, POWER PLANT, DED, 30 kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                           |            |                              |                              |                |
|----------------------------------------------------------|-------------------------------------------|------------|------------------------------|------------------------------|----------------|
| Description                                              | POWER PLANT, DED, 30 kW, 50/60 Hz, TRLMTD |            |                              | Camouflage: 97403-13226E7492 |                |
| <b>Model</b>                                             | <b>NSN</b>                                | <b>LIN</b> | <b>SSN</b>                   | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PP-AN/MJQ-10A                                            | 6115-00-394-9582                          | P27819     | M519                         | TA-13220E6335                | not procurable |
| Physical Characteristics                                 |                                           |            |                              |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>         |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b>     |                |
| 161.9x95.5x87.0 (each)                                   | 818 (each unit)                           |            | Unit A: 6630<br>Unit B: 6620 | Unit A: 6480<br>Unit B: 6420 |                |



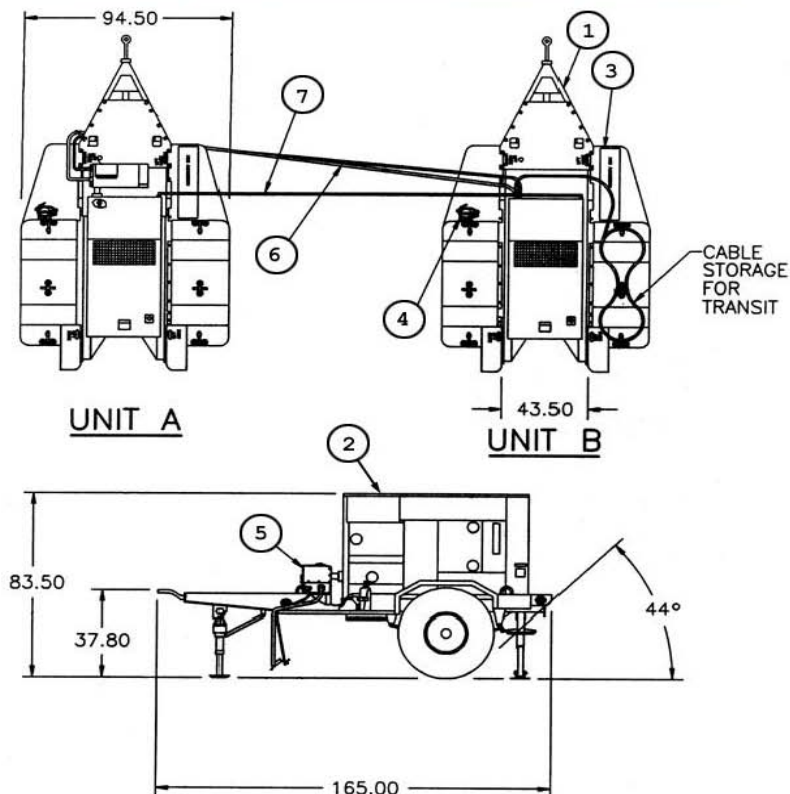
| COMPONENT                                     | QTY | FIND | IDENTIFIER       |
|-----------------------------------------------|-----|------|------------------|
| 2-1/2 ton flatbed trailer, M200A1             | 2   | 1    | 97403-13214E1257 |
| Generator set, DED, 30 kW, 50/60 Hz, MEP-005A | 2   | 2    | 6115-00-118-1240 |
| Accessory box                                 | 2   | 3    | 97403-13226E7737 |
| Fire extinguisher, 5 lb., A-A-1106            | 2   | 4    | 4210-00-270-4512 |
| Switch box (unit A), 97403-13229E6780 (old)   | 1   | 5    | 97403-13229E5795 |
| Cable assembly                                | 1   | 6    | 97403-13220E7718 |

Figure E- 36 PP-AN/MJQ-10A

**MIL-HDBK-633A  
APPENDIX E**

AN/MJQ-40, TQ POWER PLANT, DED, 30kW, 50/60 Hz, TRLMTD

| Identification Data                                      |                                             |            |                              |                              |                |
|----------------------------------------------------------|---------------------------------------------|------------|------------------------------|------------------------------|----------------|
| Description                                              | TQ POWER PLANT, DED, 30kW, 50/60 Hz, TRLMTD |            |                              | Camouflage: 97403-13228E1615 |                |
| <b>Model</b>                                             | <b>NSN</b>                                  | <b>LIN</b> | <b>SSN</b>                   | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| AN/MJQ-40                                                | 6115-01-299-6033                            | P42126     | M51900                       | TA-13229E5700                | not procurable |
| Physical Characteristics                                 |                                             |            |                              |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>           |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b>     |                |
| 165.0x94.5x83.5 (each)                                   | 770 (2x)                                    |            | Unit A: 5700<br>Unit B: 5740 | Unit A: 6700<br>Unit B: 6740 |                |



| COMPONENT                                        | QTY | FIND | IDENTIFIER       |
|--------------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified trailer, M200A1               | 2   | 1    | 97403-13214E1257 |
| TQ Generator set, DED, 30 kW, 50/60 Hz, MEP-805A | 2   | 2    | 6115-01-274-7389 |
| Accessory box                                    | 2   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106               | 2   | 4    | 4210-00-270-4512 |
| Switch box (unit A)                              | 1   | 5    | 97403-13229E5795 |
| Cable assembly (unit B)                          | 1   | 6    | 97403-13229E5738 |
| Paralleling cable assembly                       | 2   | 7    | 30554-88-22209   |

Figure E- 37 PP-AN/MJQ-40

**MIL-HDBK-633A  
APPENDIX E**

**60 kW, DED, Generator Set**

| Identification Data                       |                                                                                                                                                                     |             |                 |                                                                                |                    |           |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|--------------------------------------------------------------------------------|--------------------|-----------|
| Nomenclature                              | Gen Set, DED, 60kW, 50/60 Hz                                                                                                                                        |             |                 | Gen Set, DED, 60kW, 400 Hz                                                     |                    |           |
| Model Number                              | MEP-006A                                                                                                                                                            |             |                 | MEP-115A                                                                       |                    |           |
| NSN                                       | 6115-00-118-1243                                                                                                                                                    |             |                 | 6115-00-118-1253                                                               |                    |           |
| LIN                                       | J38301                                                                                                                                                              |             |                 | J38506                                                                         |                    |           |
| SSN                                       | M531                                                                                                                                                                |             |                 |                                                                                |                    |           |
| Trailer Mounted Configurations            | PU-650B/G; <a href="#">Figure E- 39</a> ; PU-805, <a href="#">Figure E- 41</a> ; AN/MJQ-12A; <a href="#">Figure E- 43</a> ; AM/MJQ-41, <a href="#">Figure E- 44</a> |             |                 | PU-707A/M; <a href="#">Figure E- 40</a> ; PU-806, <a href="#">Figure E- 42</a> |                    |           |
| Physical Characteristics                  |                                                                                                                                                                     |             |                 |                                                                                |                    |           |
| Dimensions (LWH)(in)                      | 87.0 x 36.0 x 59.0 (Cube: 101 ft <sup>3</sup> )                                                                                                                     |             |                 | 87.0 x 36.0 x 59.0 (Cube: 101 ft <sup>3</sup> )                                |                    |           |
| Weight (lbs)                              | 4240                                                                                                                                                                |             |                 | 4400                                                                           |                    |           |
| Engine                                    | 6 cylinder Diesel, 167 hp @ 1800 RPM (60 Hz), liquid cooled, 24 Volt starter.                                                                                       |             |                 | 6 cylinder Diesel, 180 hp @ 2000 RPM (400 Hz), liquid cooled, 24 Volt starter. |                    |           |
| Fuels Diesel:.                            | DL-1, DL-2 and Jet fuel: JP-8, Jet A-1.                                                                                                                             |             |                 |                                                                                |                    |           |
| Fuel Capacity                             | 55 gal.                                                                                                                                                             |             |                 |                                                                                |                    |           |
| Instrumentation                           | Hourmeter, voltmeter, frequency meter, ammeter, wattmeter, oil pressure gage, battery charging ammeter, fault indicating system, temperature, fuel.                 |             |                 |                                                                                |                    |           |
| Performance Characteristics               |                                                                                                                                                                     |             |                 |                                                                                |                    |           |
| Electric Power Rating                     | 60 kW, 60 or 400 Hz; 50 kW, 50 Hz @ 0.8 pf from -25°F (-65 F with winterization kit) to 125°F/MSL, 107°F/5000 ft.                                                   |             |                 |                                                                                |                    |           |
| Environmental Capability                  | -25°F(-65°F with winterization kit) to 125°F, rain, humidity, altitude, sand/dust, transportation, cold storage, salt spray, fungus                                 |             |                 |                                                                                |                    |           |
| Protective Devices                        | Overload, over voltage, short circuit, reverse power, low oil pressure, high temperature, low fuel, overspeed                                                       |             |                 |                                                                                |                    |           |
| Fuel Consumption                          | 6 gal/hour @ rated load                                                                                                                                             |             |                 |                                                                                |                    |           |
| Human Factors                             | MIL-STD-1474. Operable in arctic and NBC clothing.                                                                                                                  |             |                 |                                                                                |                    |           |
| Noise                                     | 86 dBA @ 25 feet.                                                                                                                                                   |             |                 |                                                                                |                    |           |
| Reliability (MTBF)                        | 50/60 Hz: 500 hr (spec);                                                                                                                                            |             |                 | 400 Hz: 450 hr (spec)                                                          |                    |           |
| Electrical Characteristics                |                                                                                                                                                                     |             |                 |                                                                                |                    |           |
| Connection                                | 120/208V, 3 phase, 4 wire                                                                                                                                           |             |                 | 240/416V, 3 phase, 4 wire                                                      |                    |           |
| Frequency                                 | 50 Hz                                                                                                                                                               | 60 Hz       | 400 Hz          | 50 Hz                                                                          | 60 Hz              | 400 Hz    |
| Voltage Adj Range                         | 190 - 213                                                                                                                                                           | 197 - 240   | 197 - 229       | 380 - 426                                                                      | 395 - 480          | 395 - 458 |
| Electrical                                | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary alternator.                                              |             |                 |                                                                                |                    |           |
| Electrical Performance                    |                                                                                                                                                                     |             |                 |                                                                                |                    |           |
| Electric Power Quality                    | 50/60 Hz                                                                                                                                                            |             | 400 Hz          |                                                                                |                    |           |
|                                           | Volt                                                                                                                                                                | Frequency   | Volt            | Frequency                                                                      |                    |           |
| Short term steady state stability(30 sec) | 2%                                                                                                                                                                  | 2%          | 1%              | 0.5%                                                                           |                    |           |
| Long term steady state stability (4 hr)   | 4%                                                                                                                                                                  | 3%          | 2%              | 1%                                                                             |                    |           |
| Applic./rejec.of rated load/recovery time | 20% /3 sec                                                                                                                                                          | 3%/4%/3 sec | 12% /0.5 sec    | 1.5%/1sec                                                                      |                    |           |
| motor load /recovery                      | 40% dip/ 5 sec                                                                                                                                                      |             | 25% dip/ 0.7sec |                                                                                |                    |           |
| Max waveform deviation factor             | 5%                                                                                                                                                                  |             | 5%              |                                                                                |                    |           |
| Individual waveform harmonic              | 2%                                                                                                                                                                  |             | 2%              |                                                                                |                    |           |
| Regulation                                | 3%                                                                                                                                                                  | 2-3% (adj)  | 1%              | 0.25%                                                                          |                    |           |
| EMI                                       | Suppressed to MIL-STD-461 limits.                                                                                                                                   |             |                 |                                                                                |                    |           |
| EMP                                       | Not protected.                                                                                                                                                      |             |                 |                                                                                |                    |           |
| Optional Equipment                        |                                                                                                                                                                     |             |                 |                                                                                |                    |           |
| Description                               | NSN                                                                                                                                                                 |             | Weight (lbs)    |                                                                                | Effect on Dim.(in) |           |
| Fuel burning winterization kit            | 6115-00-407-8314                                                                                                                                                    |             | 45              |                                                                                | Internal           |           |
| Electrical winterization kit              | 6115-00-455-7693                                                                                                                                                    |             | 40              |                                                                                | Internal           |           |
| Aux fuel burning winterization kit        | 6115-00-463-9098                                                                                                                                                    |             | 350             |                                                                                | 41 x 40 x 26 (Aux) |           |
| Aux electrical winterization kit          | 6115-00-463-9099                                                                                                                                                    |             | 260             |                                                                                | 36 x 27 x 19 (Aux) |           |
| Remote control box                        | 6115-00-420-8490                                                                                                                                                    |             | 8               |                                                                                | Internal           |           |
| Load bank                                 | 6115-00-407-8322                                                                                                                                                    |             | 272             |                                                                                | H+15               |           |
| Wheel mounting kit                        | 6115-00-463-9092                                                                                                                                                    |             | 564             |                                                                                | L+8 W+32 H+9       |           |
| Auto load tranf panel 60 Hz               | 6115-00-471-7932                                                                                                                                                    |             | 825             |                                                                                | 44 x 19 x 42 (Aux) |           |
| Paralleling cable                         | 6140-00-197-4934                                                                                                                                                    |             | 4               |                                                                                | negligible         |           |
| Precise relay assembly 60Hz               | 6115-00-276-7622                                                                                                                                                    |             |                 |                                                                                | internal           |           |

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|                            |                  |                     |                    |
|----------------------------|------------------|---------------------|--------------------|
| Auto standby panel, 400 Hz | 6115-00-463-9096 | 825                 | 44 x 19 x 42 (Aux) |
| <b>Technical Manuals</b>   |                  |                     |                    |
| <b>Army</b>                | <b>Air Force</b> | <b>Marine Corps</b> | <b>Navy</b>        |
| TM5-6115-545-12            | TO35C2-3-444-1   | TM 00038G-12        | P-8-626-12         |
| TM5-6115-545-34            | TO35C2-3-444-2   | TM 00038G-34        | P-8-626-34         |
| TM5-6115-545-24P           | TO35C2-3-444-4   | SL-4-00038G         | P-8-626-24P        |
| LO-5-6115-545-12           |                  |                     |                    |

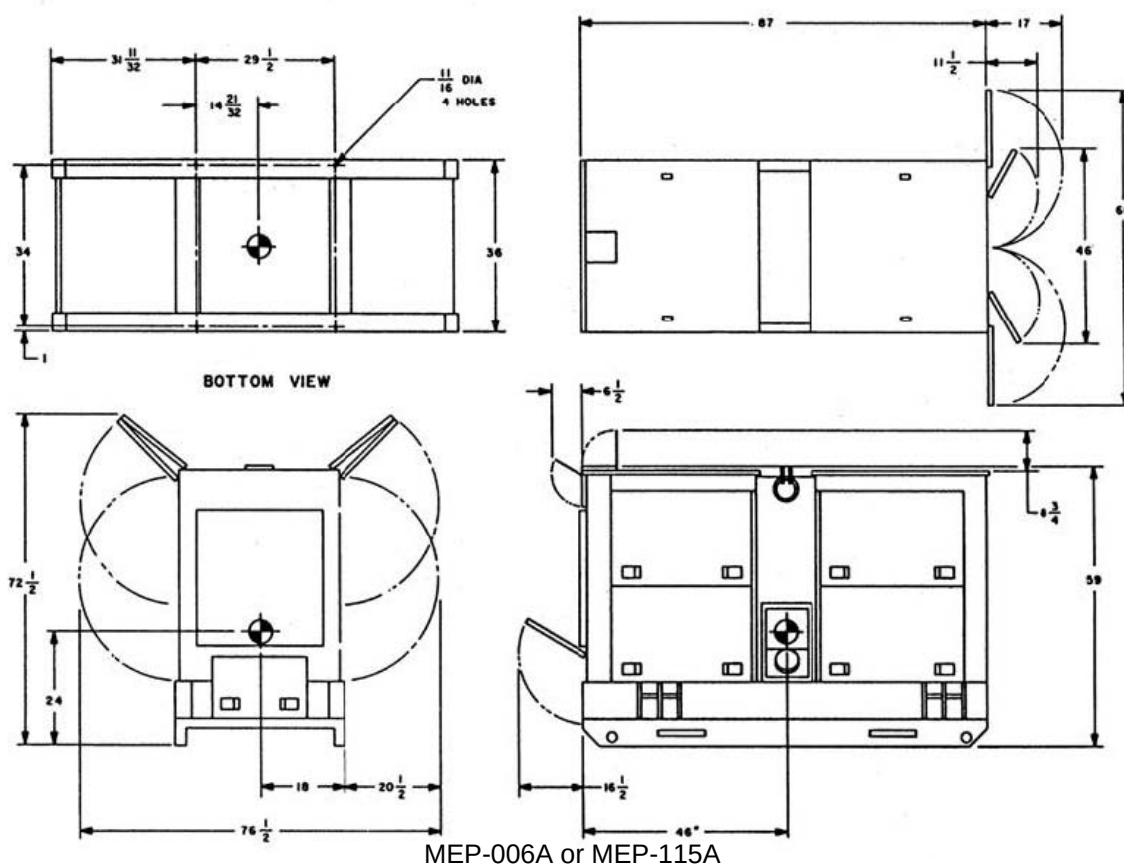
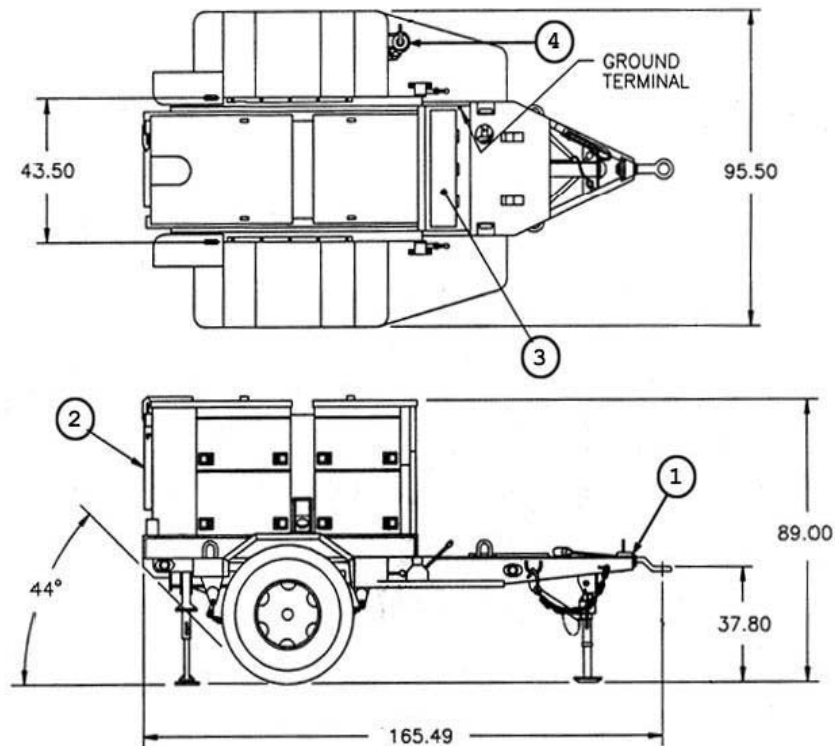


Figure E- 38 60kW, DED Generator Set

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APPENDIX E**

**PU-650B/G, POWER UNIT, DED, 60kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                                |                                   |            |                              |                          |
|----------------------------------------------------------|------------------------------------------------|-----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | <b>POWER UNIT, DED, 60kW, 50/60 Hz, TRLMTD</b> |                                   |            | Camouflage: 97403-13226E7494 |                          |
| <b>Model</b>                                             | <b>NSN</b>                                     | <b>LIN</b>                        | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-650B/G                                                | 6115-00-258-1622                               | J35629                            | M509       | TA-13220E4454                | not procurable           |
| Physical Characteristics                                 |                                                |                                   |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                                | <b>Ship Cube (ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 165.5 x 95.5 x 89.0                                      |                                                | 837                               |            | 8100                         | 7800                     |



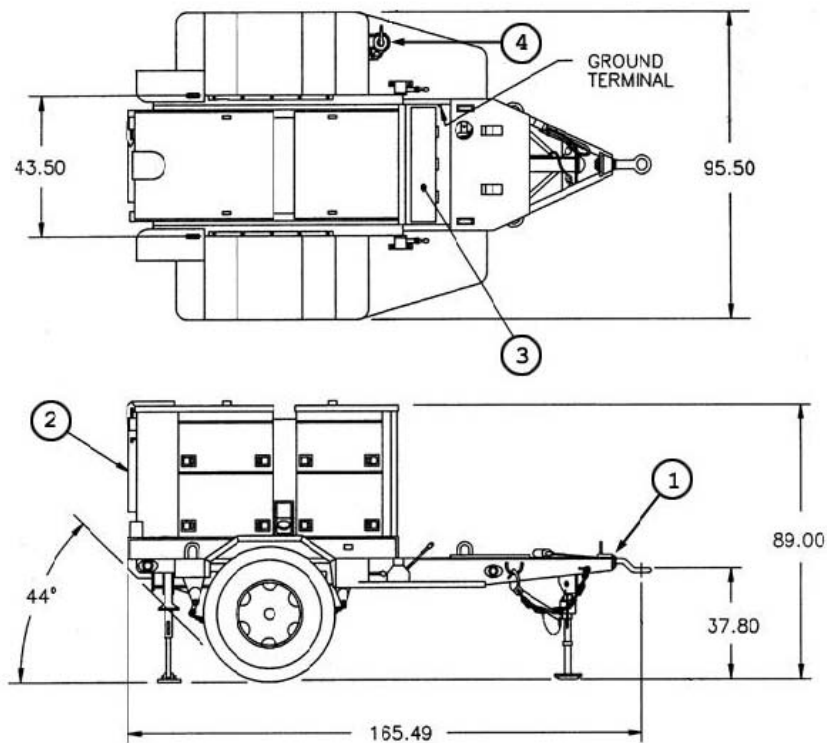
| COMPONENT                                  | QTY | FIND | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified Trailer, M200A1         | 1   | 1    | 97403-13214E1257 |
| Generator set, DED, 60 kW, 60 Hz, MEP-006A | 1   | 2    | 6115-00-118-1243 |
| Fire extinguisher, 5 lb., A-A-1106         | 1   | 3    | 4210-00-270-4512 |
| Accessory box                              | 1   | 4    | 97403-13226E7737 |

Figure E- 39 PU-650B/G

**MIL-HDBK-633A  
APPENDIX E**

**PU-707A/M, POWER UNIT, DED, 60kW, 400 Hz, TRLMTD**

| Identification Data                                      |                                       |            |                         |                              |                |
|----------------------------------------------------------|---------------------------------------|------------|-------------------------|------------------------------|----------------|
| Description                                              | POWER UNIT, DED, 60kW, 400 Hz, TRLMTD |            |                         | Camouflage: 97403-13226E7494 |                |
| <b>Model</b>                                             | <b>NSN</b>                            | <b>LIN</b> | <b>SSN</b>              | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PU-707A/M                                                | 6115-00-394-9573                      | G52886     | M510                    | TA-13220E6332                | not procurable |
| Physical Characteristics                                 |                                       |            |                         |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube(ft<sup>3</sup>)</b>      |            | <b>Wet Weight (lbs)</b> | <b>Ship Weight (lbs)</b>     |                |
| 165.5 x 95.5 x 89.0                                      | 837                                   |            | 8200 .                  | 7800                         |                |



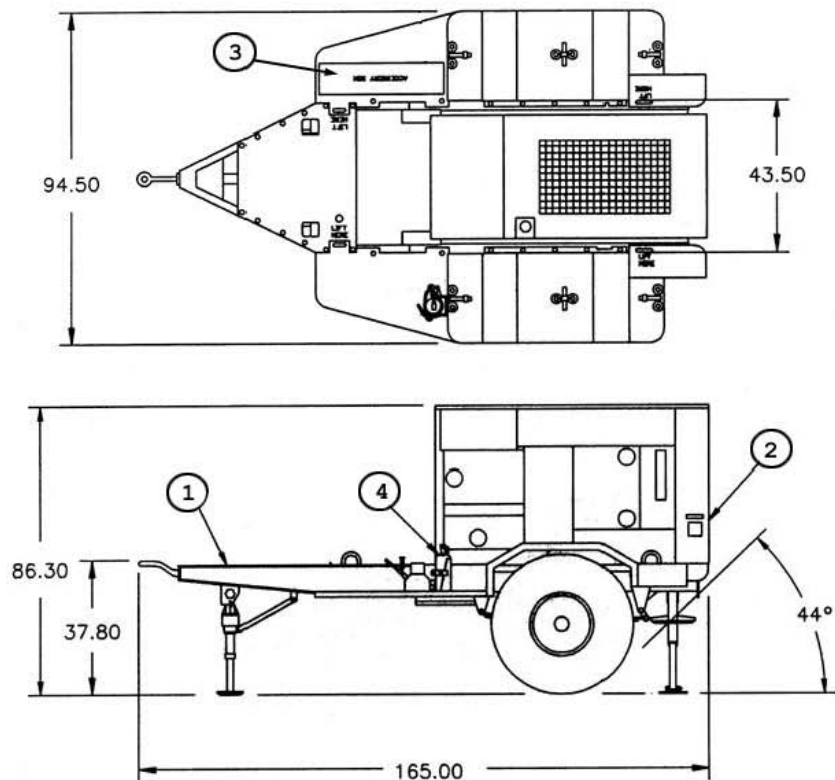
| COMPONENT                                   | QTY | FIND | IDENTIFIER       |
|---------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified Trailer, M200A1          | 1   | 1    | 97403-13214E1257 |
| Generator set, DED, 60 kW, 400 Hz, MEP-115A | 1   | 2    | 6115-00-118-1253 |
| Fire extinguisher, 5 lb., A-A-1106          | 1   | 3    | 4210-00-270-4512 |
| Accessory box                               | 1   | 4    | 97403-13226E7737 |

Figure E- 40 PU-707A/M

**MIL-HDBK-633A  
APPENDIX E**

**PU-805, TQ POWER UNIT, DED, 60kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                            |                                  |            |                              |                          |
|----------------------------------------------------------|--------------------------------------------|----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | TQ POWER UNIT, DED, 60kW, 50/60 Hz, TRLMTD |                                  |            | Camouflage: 97403-13228E1616 |                          |
| <b>Model</b>                                             | <b>NSN</b>                                 | <b>LIN</b>                       | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-805                                                   | 6115-01-317-2134                           | G78306                           | M50900     | TA-13229E5755                | not procurable           |
| Physical Characteristics                                 |                                            |                                  |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                            | <b>Ship Cube(ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 165.0 x 94.5 x 86.3                                      |                                            | 770                              |            | 6720                         | 6920                     |



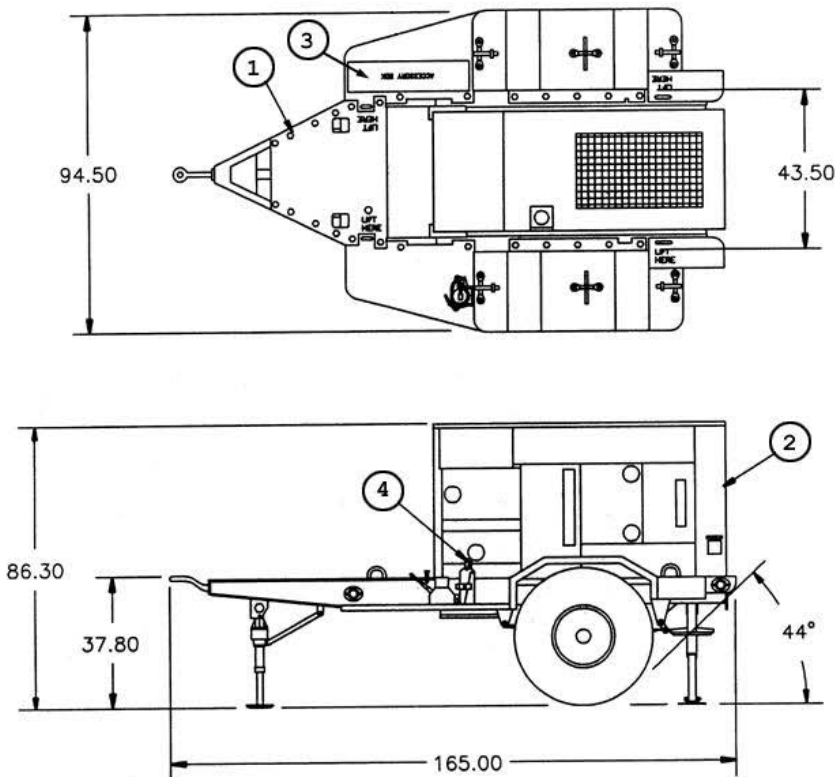
| COMPONENT                                  | QTY | FIND | IDENTIFIER       |
|--------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified trailer, M200A1         | 1   | 1    | 97403-13214E1257 |
| TQ Gen set, DED, 60 kW, 50/60 Hz, MEP-806A | 1   | 2    | 6115-01-274-7390 |
| Accessory box                              | 1   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106         | 1   | 4    | 4210-00-270-4512 |

Figure E- 41 PU-805

**MIL-HDBK-633A  
APPENDIX E**

**PU-806, TQ POWER UNIT, DED, 60kW, 400 Hz, TRLMTD**

| Identification Data                                      |                                          |                                  |            |                              |                          |
|----------------------------------------------------------|------------------------------------------|----------------------------------|------------|------------------------------|--------------------------|
| Description                                              | TQ POWER UNIT, DED, 60kW, 400 Hz, TRLMTD |                                  |            | Camouflage: 97403-13228E1616 |                          |
| <b>Model</b>                                             | <b>NSN</b>                               | <b>LIN</b>                       | <b>SSN</b> | <b>ASSEMBLY</b>              | <b>SPEC</b>              |
| PU-806                                                   | 6115-01-317-2133                         | G17460                           | M51000     | TA-13229E5760                | not procurable           |
| Physical Characteristics                                 |                                          |                                  |            |                              |                          |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> |                                          | <b>Ship Cube(ft<sup>3</sup>)</b> |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b> |
| 165.0 x 94.5 x 86.3                                      |                                          | 770                              |            | 6815                         | 7015                     |



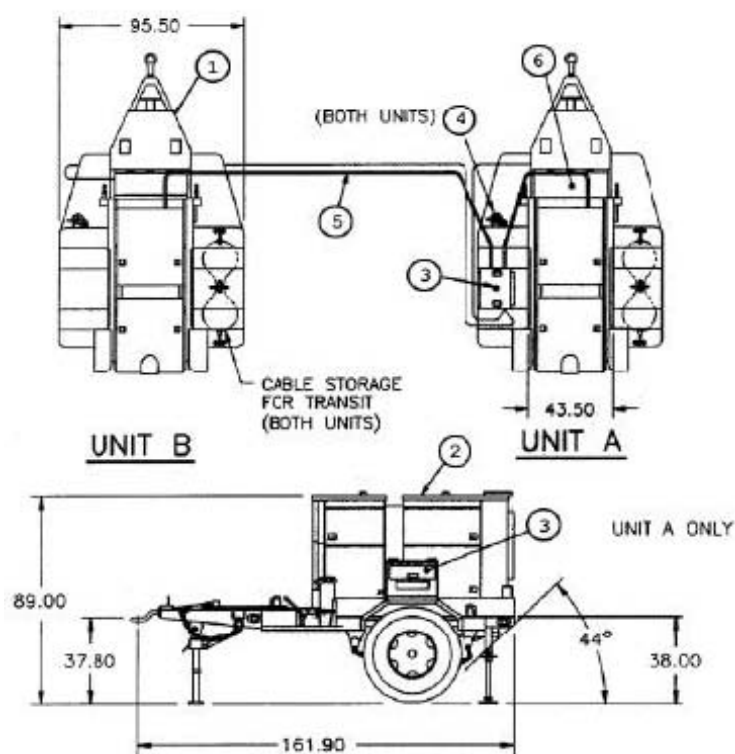
| COMPONENT                                      | QTY | FIND | IDENTIFIER       |
|------------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified trailer, M200A1             | 1   | 1    | 97403-13214E1257 |
| TQ Generator set, DED, 60 kW, 400 Hz, MEP-816A | 1   | 2    | 6115-01-274-7395 |
| Accessory box                                  | 1   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106             | 1   | 4    | 4210-00-270-4512 |

Figure E- 42 PU-806

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-12A, POWER PLANT, DED, 60kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                          |            |                              |                              |                |
|----------------------------------------------------------|------------------------------------------|------------|------------------------------|------------------------------|----------------|
| Description                                              | POWER PLANT, DED, 60kW, 50/60 Hz, TRLMTD |            |                              | Camouflage: 97403-13226E7494 |                |
| <b>Model</b>                                             | <b>NSN</b>                               | <b>LIN</b> | <b>SSN</b>                   | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PP-AN/MJQ-12A                                            | 6115-00-257-1602                         | P27823     | M511                         | TA-13221E7350                | not procurable |
| Physical Characteristics                                 |                                          |            |                              |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>        |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b>     |                |
| 161.9 x 95.5 x 87.0 (each of 2 units)                    | 818 (each unit)                          |            | Unit A: 6630<br>Unit B: 6620 | Unit A: 6480<br>Unit B: 6420 |                |



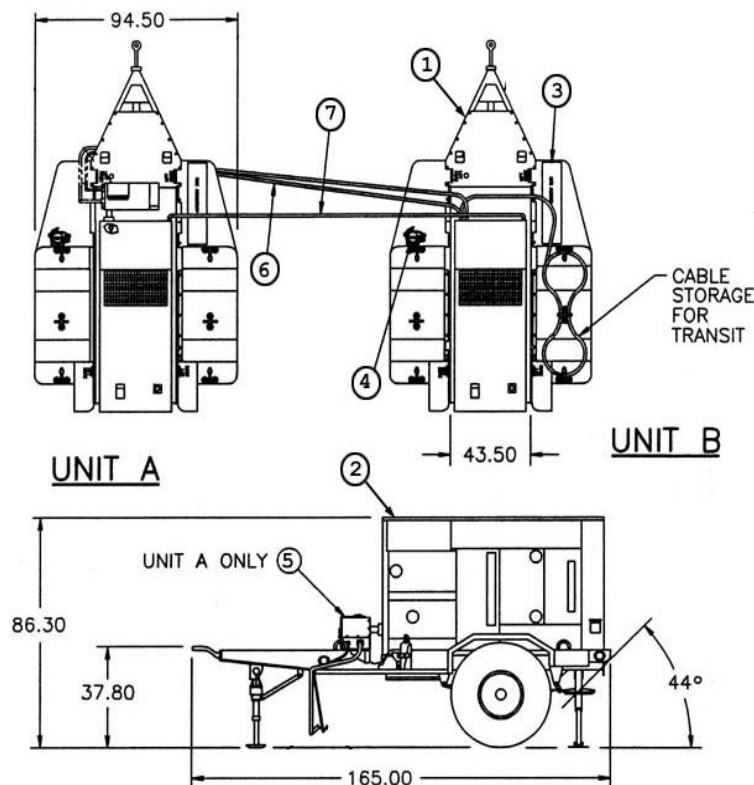
| COMPONENT                                     | QTY | FIND | IDENTIFIER       |
|-----------------------------------------------|-----|------|------------------|
| 2-1/2 ton flatbed trailer, M200A1             | 2   | 1    | 97403-13214E1257 |
| Generator set, DED, 60 kW, 50/60 Hz, MEP-006A | 2   | 2    | 6115-00-118-1243 |
| Switch box (unit A), 97403-13229E6776 (old)   | 1   | 3    | 97403-13229E5795 |
| Fire extinguisher, 5 lb., A-A-1106            | 2   | 4    | 4210-00-270-4512 |
| Cable assembly                                | 1   | 5    | 97403-13226E7626 |
| Accessory box                                 | 2   | 6    | 97403-13226E7737 |

Figure E- 43 PP-AN/MJQ-12A

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-41, TQ POWER PLANT, DED, 60kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                             |            |                              |                              |                |
|----------------------------------------------------------|---------------------------------------------|------------|------------------------------|------------------------------|----------------|
| Description                                              | TQ POWER PLANT, DED, 60kW, 50/60 Hz, TRLMTD |            |                              | Camouflage: 97403-13228E1616 |                |
| <b>Model</b>                                             | <b>NSN</b>                                  | <b>LIN</b> | <b>SSN</b>                   | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PP-AN/MJQ-41                                             | 6115-01-303-7896                            | P42194     | M51100                       | TA-13229E5710                | not procurable |
| Physical Characteristics                                 |                                             |            |                              |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>           |            | <b>Wet Weight (lbs)</b>      | <b>Ship Weight (lbs)</b>     |                |
| 165.0 x 94.5 x 86.3 (2x)                                 | 770 (2x)                                    |            | Unit A: 6695<br>Unit B: 6745 | Unit A: 7695<br>Unit B: 7745 |                |



| COMPONENT                                      | QTY | FIND | IDENTIFIER       |
|------------------------------------------------|-----|------|------------------|
| 2-1/2 Ton modified trailer, M200A1             | 2   | 1    | 97403-13214E1257 |
| TQ Generator set, DED, 60 kW, 400 Hz, MEP-806A | 2   | 2    | 6115-01-274-7390 |
| Accessory box                                  | 2   | 3    | 97403-13229E7946 |
| Fire extinguisher, 5 lb., A-A-1106             | 2   | 4    | 4210-00-270-4512 |
| Switch box (unit A)                            | 1   | 5    | 97403-13229E5795 |
| Cable assembly (unit B)                        | 1   | 6    | 97403-13229E5741 |
| Paralleling cable assembly                     | 2   | 7    | 30554-88-22209   |

Figure E- 44 PP-AN/MJQ-41

**MIL-HDBK-633A  
APPENDIX E**

**100 kW Diesel Engine Driven Generator**

| 100 kW Diesel Engine Driven Generator              |                                                                                                                                                                           |                         |                           |                                |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------|--------------------------------|
| Identification Data                                |                                                                                                                                                                           |                         |                           |                                |
| Nomenclature                                       | Gen Set, 100 kW, DED, 50/60 Hz                                                                                                                                            |                         |                           |                                |
| Model Number                                       | MEP-007B                                                                                                                                                                  |                         |                           |                                |
| NSN                                                | 6115-01-036-6374                                                                                                                                                          |                         |                           |                                |
| LIN                                                | J38712                                                                                                                                                                    |                         |                           |                                |
| SSN                                                | M544                                                                                                                                                                      |                         |                           |                                |
| Physical Characteristics                           |                                                                                                                                                                           |                         |                           |                                |
| Dimensions LWH (in)                                | 106.0 x 40.0 x 65.0 (Cube: 159 ft <sup>3</sup> .)                                                                                                                         |                         |                           |                                |
| Weight (lbs)                                       | dry: 6680                                                                                                                                                                 | wet: 7500               | shipping: 8400            |                                |
| Engine                                             | 6 cylinder Diesel, 217 hp @ 1800 RPM, 24 VDC starter. Liquid cooled.                                                                                                      |                         |                           |                                |
| Fuels                                              | Diesel: DL-1, DL-2 and Jet fuel: JP-8, Jet A-1                                                                                                                            |                         |                           |                                |
| Fuel Capacity                                      | Fuel tank: 91 gallons                                                                                                                                                     |                         |                           |                                |
| Instrumentation                                    | On/off switch, hour, volt, frequency, ammeter, wattmeter, oil pressure, coolant temperature, battery charging ammeter, fuel level and fault indication.                   |                         |                           |                                |
| Performance Characteristics                        |                                                                                                                                                                           |                         |                           |                                |
| Electric Power Rating                              | 100 kW, 60 Hz or 83.3 kW, 50 Hz @ 0.8 pf from -25°F (-65°F with winterization kit) to 125°F/MSL, 107°F/5000 ft.                                                           |                         |                           |                                |
| Environmental Capability                           | -25°F to 125°F, rain, humidity, altitude, sand/ dust, transportation, -65°F cold storage, salt spray, fungus.                                                             |                         |                           |                                |
| Protective Devices                                 | Short circuit, overvoltage, overload, reverse power, low oil pressure, high temperature, low fuel, and overspeed.                                                         |                         |                           |                                |
| Fuel Consumption                                   | 8.5 gal/hour                                                                                                                                                              |                         |                           |                                |
| Human Factors                                      | MIL-STD 1474                                                                                                                                                              |                         |                           |                                |
| Noise                                              | 85 dBA @ 25 ft.                                                                                                                                                           |                         |                           |                                |
| Reliability (MTBF)                                 | 680 hr. (specified)                                                                                                                                                       |                         |                           |                                |
| Electrical Characteristics                         |                                                                                                                                                                           |                         |                           |                                |
| Connection                                         | 120/208V, 3 phase, 4 wire                                                                                                                                                 |                         | 240/416V, 3 phase, 4 wire |                                |
| Frequency                                          | 50 Hz                                                                                                                                                                     | 60 Hz                   | 50 Hz                     | 60 Hz                          |
| Voltage Adj Range                                  | 190 - 213                                                                                                                                                                 | 197 - 240               | 380 - 426                 | 395 - 480                      |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Brushless rotary exciter. Capable of parallel operation. |                         |                           |                                |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                                                         |                         |                           |                                |
| EMP                                                | Not protected                                                                                                                                                             |                         |                           |                                |
| Electrical Performance                             |                                                                                                                                                                           |                         |                           |                                |
| Electric Power Quality                             |                                                                                                                                                                           | Volt                    |                           | Frequency                      |
| Regulation                                         |                                                                                                                                                                           | 1%                      |                           | 0.25% (adj)                    |
| Short term steady state stab (30 sec)              |                                                                                                                                                                           | 1%                      |                           | 0.5%                           |
| Long term steady state stab (4 hr)                 |                                                                                                                                                                           | 2%                      |                           | 1%                             |
| Application/Rejection of rated load, recovery time |                                                                                                                                                                           | 15% dip rise<br>0.5 sec |                           | *4% @ 75% rated<br>2 sec load. |
| Max waveform deviation factor                      |                                                                                                                                                                           | 5%                      |                           |                                |
| Individual waveform harmonic                       |                                                                                                                                                                           | 2%                      |                           |                                |
| Motor load / recovery                              |                                                                                                                                                                           | 30% dip / 0.7 sec       |                           |                                |
| Optional Equipment                                 |                                                                                                                                                                           |                         |                           |                                |
| Description                                        | NSN                                                                                                                                                                       | Weight (lbs)            | Effect on Dim.(in)        |                                |
| Winterization Kit (fuel)                           | 6115-00-xxx-xxxx                                                                                                                                                          |                         | internal                  |                                |
| Winterization Kit (elect)                          | 6115-00-xxx-xxxx                                                                                                                                                          |                         | internal                  |                                |
| Winterization Kit, Aux, Fuel                       | 6115-00-463-9098                                                                                                                                                          | 350                     | 41 x 40 x 26              |                                |
| Winterization Kit, Aux, Elect                      | 6115-00-463-9098                                                                                                                                                          | 260                     | 36 x 27 x 19              |                                |
| Remote Control Box                                 | 6115-00-420-8490                                                                                                                                                          | 8                       | internal                  |                                |
| Load Bank                                          | 6115-00-463-9086                                                                                                                                                          | 370                     | H+19                      |                                |
| Wheel Mounting Kit                                 | 6115-00-463-9089                                                                                                                                                          | 580                     | H+13, L+9, W+30           |                                |
| Panel, Auto, load transfer, 60Hz                   | 6115-00-477-7932                                                                                                                                                          | 825                     | 44 x 19 x 42              |                                |
| Technical Manuals                                  |                                                                                                                                                                           |                         |                           |                                |
| Army                                               | Air Force                                                                                                                                                                 | Marine Corps            | Navy                      |                                |
| TM5-6115-600-12                                    | TO35C2-3-442-1                                                                                                                                                            | TM-07464-12             | P-8-628-12                |                                |
| TM5-6115-600-34                                    | TO35C2-3-442-2                                                                                                                                                            | TM-07464-34             | P-8-628-34                |                                |
| TM5-6115-600-24P                                   | TO35C2-3-442-4                                                                                                                                                            | SL-4-07464G             | P-8-628-24P               |                                |
| LO-5-6115-600-12                                   |                                                                                                                                                                           |                         |                           |                                |

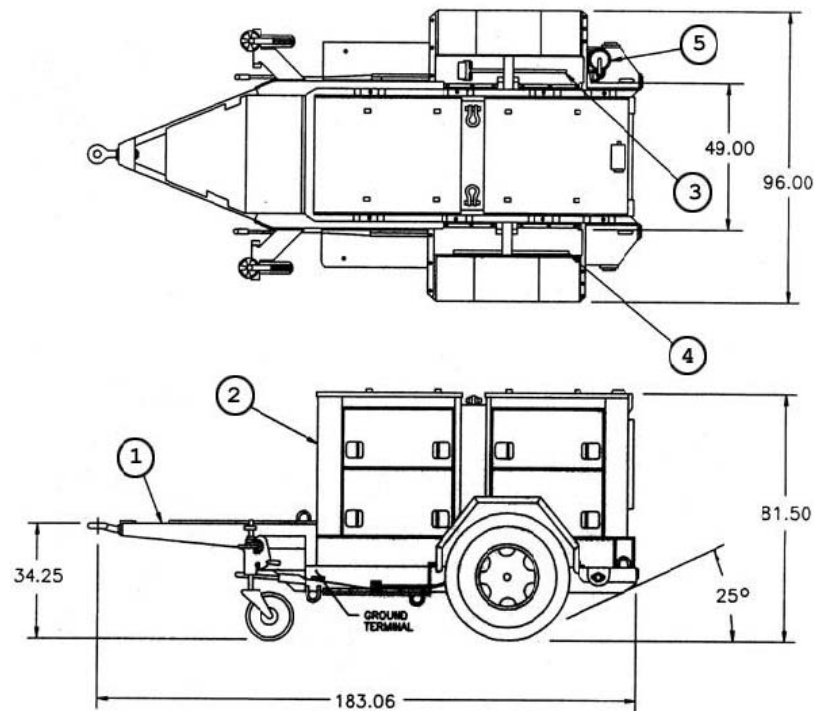
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Figure E- 45 100 kW Diesel Engine Driven Generator

**MIL-HDBK-633A  
APPENDIX E**

**PU-495B/G, POWER UNIT, DED, 100 kW, 50/60 Hz, TRLMTD**

| Identification Data                                      |                                           |            |                         |                              |                |
|----------------------------------------------------------|-------------------------------------------|------------|-------------------------|------------------------------|----------------|
| Description                                              | POWER UNIT, DED, 100 kW, 50/60 Hz, TRLMTD |            |                         | Camouflage: 97403-13226E7490 |                |
| <b>Model</b>                                             | <b>NSN</b>                                | <b>LIN</b> | <b>SSN</b>              | <b>ASSEMBLY</b>              | <b>SPEC</b>    |
| PU-495B/G                                                | 6115-01-134-0165                          | J35801     | M547                    | TA-13226E1340                | not procurable |
| Physical Characteristics                                 |                                           |            |                         |                              |                |
| <b>Dimensions LWH (in) &amp; (Cube) (ft<sup>3</sup>)</b> | <b>Ship Cube (ft<sup>3</sup>)</b>         |            | <b>Wet Weight (lbs)</b> | <b>Ship Weight (lbs)</b>     |                |
| 183.1 x 96.0 x 81.5                                      | 855                                       |            | 10650                   | 10400                        |                |



| COMPONENT                                      | QTY | FIND | IDENTIFIER       |
|------------------------------------------------|-----|------|------------------|
| 3-1/2 Ton modified Trailer, M353               | 1   | 1    | 97403-13220E6330 |
| Generator set, DED, 100 kW, 50/60 Hz, MEP-007B | 1   | 2    | 6115-01-036-6374 |
| 8 lb engineers hammer                          | 1   | 3    | 5120-00-251-4489 |
| Ground rod, 9 ft                               | 1   | 4    | 5975-00-296-5324 |
| Fire extinguisher, 5 lb., A-A-1106             | 1   | 5    | 4210-00-270-4512 |

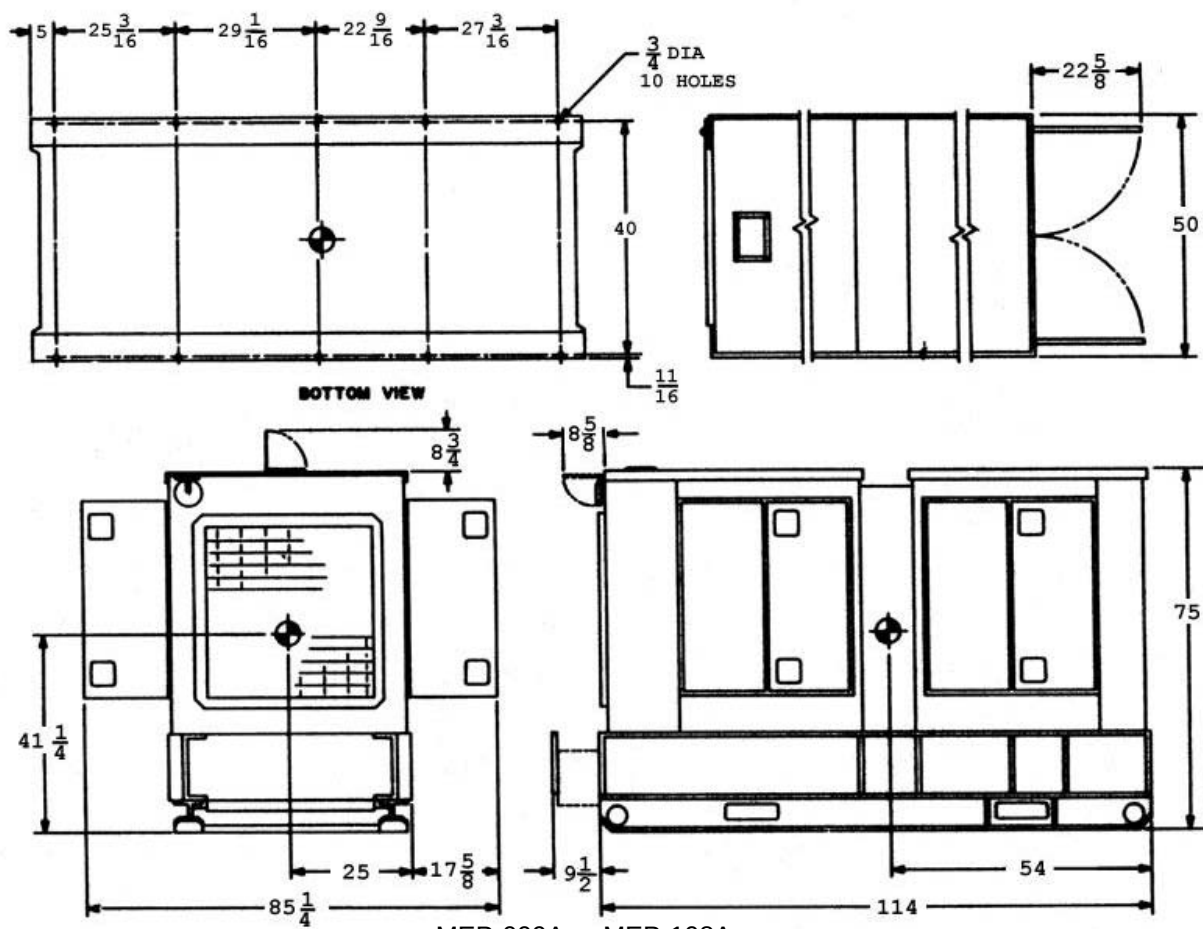
Figure E- 46 PU-495B/G

**MIL-HDBK-633A  
APPENDIX E**

**200 kW, DED, Generator Set**

| 200 kW, 60 Hz, Generator Set                      |                                                                                                                                     |                 |                               |                 |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------|-----------------|
| Identification Data                               |                                                                                                                                     |                 |                               |                 |
| Nomenclature                                      | Gen Set, DED, 200 kW, 50/60 Hz                                                                                                      |                 | Gen Set, DED, 200kW, 50/60 Hz |                 |
| Model Number                                      | MEP-009A                                                                                                                            |                 | MEP-108A                      |                 |
| NSN                                               | 6115-00-133-9104                                                                                                                    |                 | 6115-00-935-9729              |                 |
| LIN                                               | J40158                                                                                                                              |                 | J40150                        |                 |
| SSN                                               | M504                                                                                                                                |                 | M504                          |                 |
| TRLMTD Configuration                              | AN/MJQ11                                                                                                                            |                 |                               |                 |
| Physical Characteristics                          |                                                                                                                                     |                 |                               |                 |
| Dimensions LWH (in)                               | 114 x 50 x 75 (247 ft3)                                                                                                             |                 | 114 x 50 x 75 (247 ft3)       |                 |
| Weight (lbs)                                      | 10260                                                                                                                               |                 | 10350                         |                 |
| Engine                                            | 6 cylinder Diesel, 344hp @ 1800RPM (60Hz), 296hp @ 1500RPM (50Hz), liquid cooled, 24Volt starter.                                   |                 |                               |                 |
| Fuels                                             | Diesel: DL-1, DL-2; Jet fuel: JP-8, Jet A-1.                                                                                        |                 |                               |                 |
| Fuel Tank                                         | 130 gal.                                                                                                                            |                 |                               |                 |
| Instrumentation                                   | Hourmeter, voltmeter, frequency meter, ammeter, wattmeter, oil pressure, battery charge, fault indicating system, temp, fuel level. |                 |                               |                 |
| Performance Characteristics                       |                                                                                                                                     |                 |                               |                 |
| Electric Power Rating                             | 200 kW, 60 Hz or 167 kW, 50 Hz @ 0.8 power factor from -25°F (-65°F with winterization kit) to 125°F/MSL, 107°F/5000 ft.            |                 |                               |                 |
| Fuel Comsuption                                   | 10 gph @ rated load                                                                                                                 |                 | 16 gph @ rated load           |                 |
| Protective Devices                                | Overload, over voltage, short circuit, reverse power, low oil pressure, high temperature, low fuel, overspeed.                      |                 |                               |                 |
| Reliability (MTBF)                                | 520 hr specified                                                                                                                    |                 | 480 hr specified              |                 |
| Electrical Characteristics                        |                                                                                                                                     |                 |                               |                 |
| Connection                                        | 120/208V, 3 phase, 4 wire                                                                                                           |                 | 240/416 V, 3 phase, 4 wire    |                 |
| Operating Frequency                               | 50 Hz                                                                                                                               | 60 Hz           | 50 Hz                         | 60 Hz           |
| Voltage Adj Range                                 | 190 to 213                                                                                                                          | 197 to 240      | 380 to 426                    | 395 to 480      |
| Electrical                                        | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, brushless rotary alternator               |                 |                               |                 |
| Electrical Performance                            |                                                                                                                                     |                 |                               |                 |
| Electric Power Quality                            | MEP-009A                                                                                                                            |                 | MEP-108A                      |                 |
|                                                   | Volt                                                                                                                                | Frequency       | Volt                          | Frequency       |
| Regulation                                        | 3%                                                                                                                                  | 2-3% (adj)      | 1%                            | 0.25%           |
| Short term steady state stab (30 sec)             | 2%                                                                                                                                  | 2%              | 1%                            | 0.5%            |
| Long term steady state stab (4 hr)                | 4%                                                                                                                                  | 3%              | 2%                            | 1%              |
| Application/Rejection of rated load recovery time | 20%/20%,<br>3 sec                                                                                                                   | 3%/4%,<br>3 sec | 15%/15%,<br>0.5 sec           | 4%/4%,<br>2 sec |
| Max waveform deviation factor                     | 5%                                                                                                                                  |                 | 5%                            |                 |
| Individual waveform harmonic                      | 2%                                                                                                                                  |                 | 2%                            |                 |
| Motor load                                        | 40% dip                                                                                                                             |                 | 30% dip                       |                 |
| Recovery                                          | 5 sec                                                                                                                               |                 | 0.7 sec                       |                 |
| EMI                                               | Suppressed to MIL-STD-461 limits.:                                                                                                  |                 |                               |                 |
| EMP                                               | Not protected.                                                                                                                      |                 |                               |                 |
| Optional Equipment                                |                                                                                                                                     |                 |                               |                 |
| Description                                       | NSN                                                                                                                                 | Weight (lbs)    | Effect on Dim.(in)            |                 |
| Fuel burning winterization kit                    | 6115-00-403-3761                                                                                                                    | 85              | internal                      |                 |
| Electrical winterization kit                      | 6115-00-489-7285                                                                                                                    | 45              | internal                      |                 |
| Aux fuel burning winterization kit                | 6115-00-463-9098                                                                                                                    | 350             | 41 x 40 x 26 (Aux)            |                 |
| Aux electrical winterization kit                  | 6115-00-463-9099                                                                                                                    | 260             | 36 x 27 x 19 (Aux)            |                 |
| Remote control box                                | 6115-00-420-8490                                                                                                                    | 8               | Internal                      |                 |
| Load bank                                         | 6115-00-403-3762                                                                                                                    | 580             | H+23                          |                 |
| Auto load tranf panel, 60 Hz                      | 6115-00-471-7932                                                                                                                    | 825             | 44 x 19 x 42 (Aux)            |                 |
| Paralleling cable, 009A                           | 6140-00-197-4934                                                                                                                    | 4               | negligible                    |                 |
| Precise relay assembly, 009A                      | 6115-00-199-1616                                                                                                                    |                 | internal                      |                 |
| Technical Manuals                                 |                                                                                                                                     |                 |                               |                 |
| Army                                              | Air Force                                                                                                                           | Marine Corps    | Navy                          |                 |
| TM5-6115-458-12                                   | TO35C2-3-443-1                                                                                                                      | TM 07536A-12    | NAFAC P-8-629-12              |                 |
| TM5-6115-458-34                                   | TO35C2-3-443-2                                                                                                                      | TM 07536A-35    | NAFAC P-8-629-34              |                 |
| TM5-6115-458-24P                                  | TO35C2-3-443-4                                                                                                                      | SL-4-07536      | NAFAC P-8-629-24P             |                 |

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APPENDIX E



MEP-009A or MEP-108A

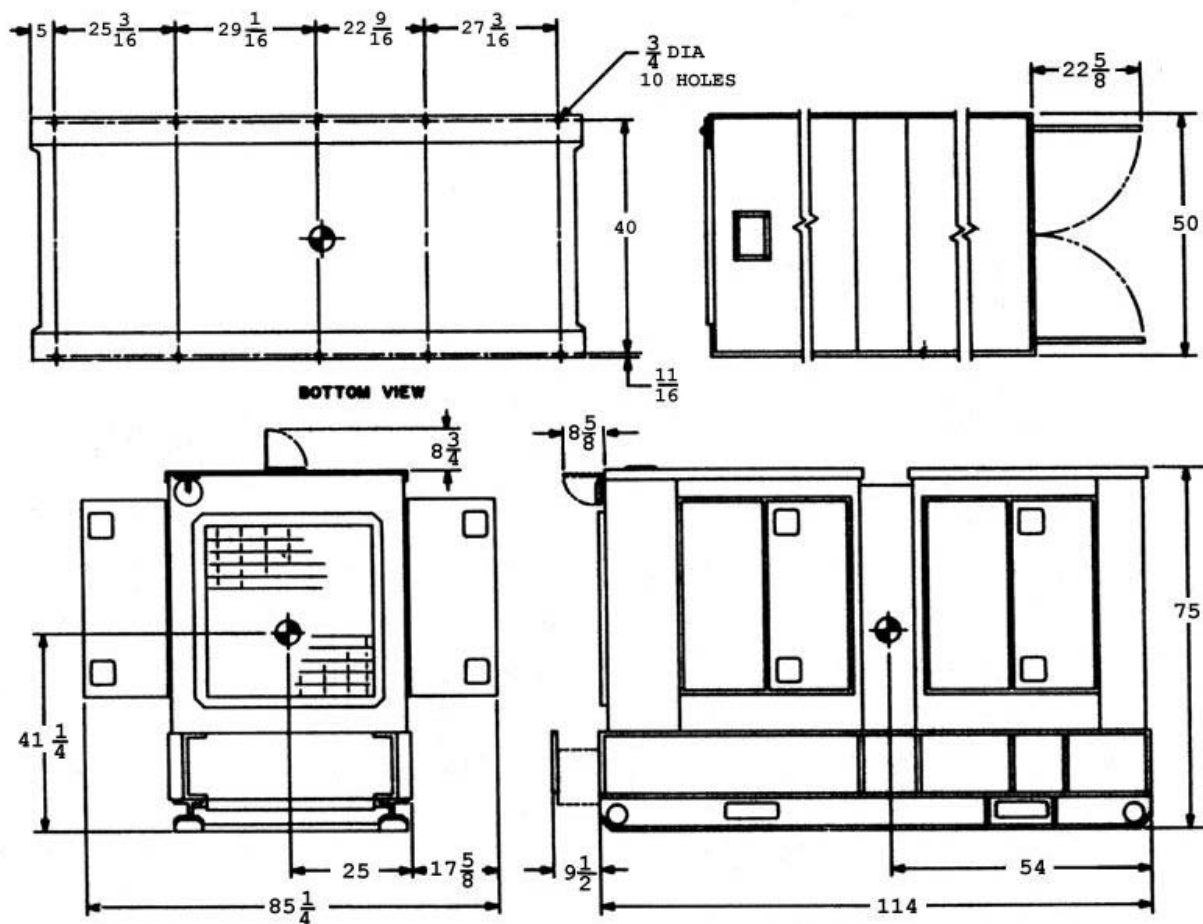
Figure E- 47 200 kW, DED, Generator Set

**MIL-HDBK-633A  
APPENDIX E**

**200 kW Diesel Engine Driven Generator**

| 200 kW Diesel Engine Driven Generator      |                                                                                                                                                                           |                        |                           |                    |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|--------------------|
| Identification Data                        |                                                                                                                                                                           |                        |                           |                    |
| Nomenclature                               | Gen Set, 200 kW, DED, 50/60 Hz                                                                                                                                            |                        |                           |                    |
| Model Number                               | MEP-009B                                                                                                                                                                  |                        |                           |                    |
| NSN                                        | 6115-01-051-4096                                                                                                                                                          |                        |                           |                    |
| LIN                                        | J40158                                                                                                                                                                    |                        |                           |                    |
| SSN                                        | M504                                                                                                                                                                      |                        |                           |                    |
| TRLMTD Configuration                       | AN/MJQ-11A; <a href="#">Figure E- 49</a>                                                                                                                                  |                        |                           |                    |
| Physical Data                              |                                                                                                                                                                           |                        |                           |                    |
| Dimensions LWH (in)                        | 114 x 50 x 75 (Cube: 247 ft <sup>3</sup> )                                                                                                                                |                        |                           |                    |
| Weight (lbs)                               | Dry: 10500                                                                                                                                                                |                        | Wet: 11500                |                    |
| Engine                                     | Diesel, 340 horsepower @ 1800 RPM (60 Hz), 290 horsepower @ 1500 RPM (50 Hz), 24 VDC starter, liquid cooled.                                                              |                        |                           |                    |
| Fuels                                      | Diesel: DL-1, DL-2; Jet fuel: JP-8, Jet A-1.                                                                                                                              |                        |                           |                    |
| Fuel Tank                                  | 130 gallons                                                                                                                                                               |                        |                           |                    |
| Instrumentation                            | Hourmeter, voltmeter, frequency meter, ammeter, Wattmeter, oil pressure, coolant temperature, battery charging ammeter, fuel level and fault indication                   |                        |                           |                    |
| Performance Characteristics                |                                                                                                                                                                           |                        |                           |                    |
| Electric Power Rating                      | 200 kW, 60 Hz (167 kW, 50 Hz) @ 0.8 pf from -25°F (-65°F with winterization kit) to 125°F/MSL, 107°F/5000 ft.                                                             |                        |                           |                    |
| Environmental Capability                   | -25°F to 125°F, rain, humidity, altitude, sand/dust, transportation, -45°F cold storage, salt spray, fungus                                                               |                        |                           |                    |
| Protective Devices                         | Short circuit, overvoltage, overload, reverse power, low oil pressure, high temperature, low fuel, and overspeed                                                          |                        |                           |                    |
| Fuel Consumption                           | 16 gal/hour                                                                                                                                                               |                        |                           |                    |
| Human Factors                              | MIL-STD-1474.                                                                                                                                                             |                        |                           |                    |
| Noise                                      | 93 dBA @ 25 ft.                                                                                                                                                           |                        |                           |                    |
| Reliability (MTBF)                         | 468 hr specified                                                                                                                                                          |                        |                           |                    |
| Electrical Characteristics                 |                                                                                                                                                                           |                        |                           |                    |
| Connection                                 | 120/208V, 3 phase, 4 wire                                                                                                                                                 |                        | 240/416V, 3 phase, 4 wire |                    |
| Frequency                                  | 50 Hz                                                                                                                                                                     | 60 Hz                  | 50 Hz                     | 60 Hz              |
| Voltage Adj Range                          | 190 - 213                                                                                                                                                                 | 197 - 240              | 380 - 426                 | 395 - 480          |
| Electrical                                 | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Brushless rotary exciter. Capable of parallel operation. |                        |                           |                    |
| EMI                                        | Suppressed to MIL-STD-461 limits.                                                                                                                                         |                        |                           |                    |
| EMP                                        | Not protected                                                                                                                                                             |                        |                           |                    |
| Electrical Performance                     |                                                                                                                                                                           |                        |                           |                    |
| Electric Power Quality                     |                                                                                                                                                                           | Volt                   |                           | Frequency          |
| Regulation                                 |                                                                                                                                                                           | 1%                     |                           | 0.25%              |
| Short term steady state stab (30 sec)      |                                                                                                                                                                           | 1% bandwidth           |                           | 0.5% bandwidth     |
| Long term steady state stab (4 hr)         |                                                                                                                                                                           | 2% bandwidth           |                           | 1% bandwidth       |
| Applic./Rejec. of rated load/recovery time |                                                                                                                                                                           | 15%, 0.5 sec           |                           | 4%, 2 sec          |
| Max waveform deviation factor              |                                                                                                                                                                           | 5%                     |                           |                    |
| Individual waveform harmonic               |                                                                                                                                                                           | 2%                     |                           |                    |
| Motor load                                 |                                                                                                                                                                           | 30% dip, 0.7 sec recov |                           |                    |
| Optional Equipment                         |                                                                                                                                                                           |                        |                           |                    |
| Description                                | NSN                                                                                                                                                                       | Weight (lbs)           |                           | Effect on Dim.     |
| Fuel burning winterization kit             | 6115-01-xxx-xxxx                                                                                                                                                          |                        |                           | internal           |
| Electrical winterization kit               | 6115-01-xxx-xxxx                                                                                                                                                          |                        |                           | internal           |
| Wheel kit                                  | 2530-01-221-8306                                                                                                                                                          | 8                      |                           | H+                 |
| Technical Manuals                          |                                                                                                                                                                           |                        |                           |                    |
| Army                                       | Air Force                                                                                                                                                                 | Marine Corps           |                           | Navy               |
| TM5-6115-614-12                            | TO35C2-3-443-1                                                                                                                                                            | TM 07536A-12           |                           | NAVFAC P-8-645-12  |
| TM5-6115-614-34                            | TO35C2-3-443-2                                                                                                                                                            | TM 07536A-35           |                           | NAVFAC P-8-645-34  |
| TM5-6115-614-24P                           | TO35C2-3-443-14                                                                                                                                                           | SL-4-07536-25B         |                           | NAVFAC P-8-645-24P |

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APPENDIX E



MEP-009B

Figure E- 48 200 kW Diesel Engine Driven Generator

**MIL-HDBK-633A  
APPENDIX E**

**PP-AN/MJQ-11\* POWER PLANT, DED, 200 kW, 50/60 Hz, TRLMTD**

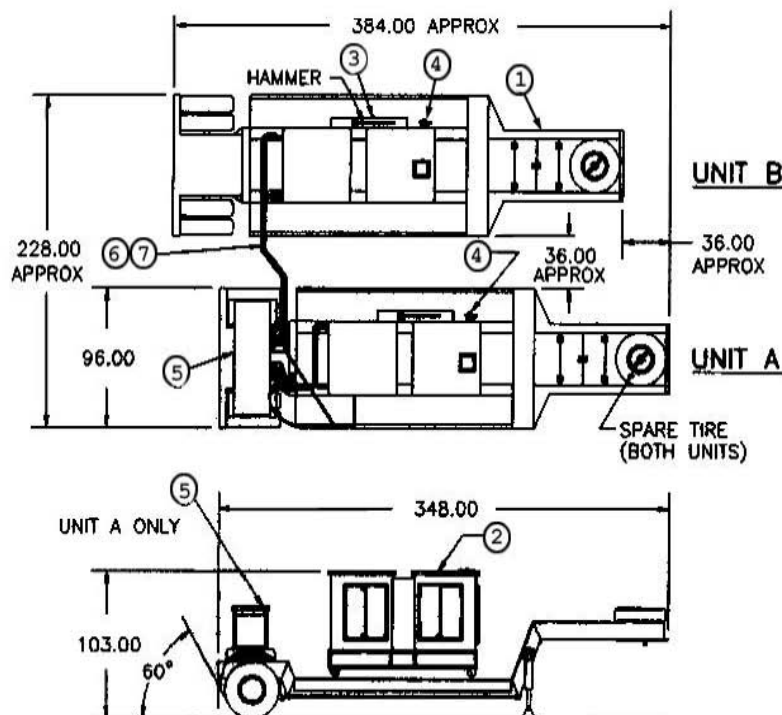
| Identification Data                             |                                            |        |                                |                                |                |
|-------------------------------------------------|--------------------------------------------|--------|--------------------------------|--------------------------------|----------------|
| Description                                     | POWER PLANT, DED, 200 kW, 50/60 Hz, TRLMTD |        |                                | Camouflage:                    |                |
| Model                                           | NSN                                        | LIN    | SSN                            | ASSEMBLY                       | SPEC           |
| PP-AN/MJQ-11*                                   | 6115-00-134-8485                           | P27821 | M527                           | TA-13220E6338                  | not procurable |
| Physical Characteristics                        |                                            |        |                                |                                |                |
| Dimensions LWH (in) & (Cube) (ft <sup>3</sup> ) | Ship Cube (ft <sup>3</sup> )               |        | Wet Weight (lbs)               | Ship Weight (lbs)              |                |
| 348 x 96 x 103 & (1991)(each unit)              | 1991 (each unit)                           |        | Unit A: 20740<br>Unit B: 20000 | Unit A: 19920<br>Unit B: 19160 |                |

\* PP-AN/MJQ-11A, NSN 6115-00-394-9585, uses MEP-009B in lieu of MEP-009A



UNIT A

UNIT B



| COMPONENT                                                                     | QTY | FIND | IDENTIFIER                        |
|-------------------------------------------------------------------------------|-----|------|-----------------------------------|
| Semi trailer, commercial                                                      | 2   | 1    |                                   |
| Generator set, DED, 200 kW, 50/60 Hz, MEP-009A or MEP-009B (in PP-AN/MJQ-11A) | 2   | 2    | 6115-01-051-4096 6115-00-133-9104 |
| Accessory box                                                                 | 2   | 3    |                                   |
| Fire extinguisher, 5 lb., A-A-1106                                            | 2   | 4    | 4210-00-270-4512                  |
| Distribution box (unit A)                                                     | 1   | 5    | 97403-13226E2180                  |
| Cable assembly                                                                | 1   | 6    | 97403-13218E5088                  |
| Cable assembly                                                                | 1   | 7    | 97403-13218E5089                  |

Figure E- 49 AN/MJQ-11A

**MIL-HDBK-633A  
APPENDIX E**

**500 kW Diesel Engine Driven Generator**

| 500 kW Diesel Engine Driven Generator              |                                                                                                                                                                                                                                                     |                                   |                           |                      |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------|----------------------|
| Identification Data                                |                                                                                                                                                                                                                                                     |                                   |                           |                      |
| Nomenclature                                       | Gen Set, 500 kW, DED, 50/60 Hz                                                                                                                                                                                                                      |                                   |                           |                      |
| Model Number                                       | MEP-029A                                                                                                                                                                                                                                            |                                   | MEP-029B                  |                      |
| NSN                                                | 6115-01-030-6085                                                                                                                                                                                                                                    |                                   | 6115-01-318-6302          |                      |
| LIN                                                | G40424                                                                                                                                                                                                                                              |                                   |                           |                      |
| SSN                                                | M577                                                                                                                                                                                                                                                |                                   |                           |                      |
| Physical Characteristics                           |                                                                                                                                                                                                                                                     |                                   |                           |                      |
| Dimensions LWH (in)                                | 219 x 88 x 120 (Cube: 1338 ft <sup>3</sup> )                                                                                                                                                                                                        |                                   |                           |                      |
| Weight (lbs)                                       | Dry: 32550 ;                                                                                                                                                                                                                                        |                                   | Wet: 34050                |                      |
| Engine                                             | 12 cylinder Diesel, 830 horsepower @ 1800 RPM (60 Hz), 690 horsepower @ 1500 RPM (50 Hz), 24 VDC starter, liquid cooled.                                                                                                                            |                                   |                           |                      |
| Fuels                                              | Diesel: DL-1, DL-2. Emergency: Jet fuel: JP-8, Jet A-1.                                                                                                                                                                                             |                                   |                           |                      |
| Fuel Tank                                          | 117 gallons.                                                                                                                                                                                                                                        |                                   |                           |                      |
| Instrumentation                                    | Voltmeter, frequency meter, ammeter, hourmeter, kilowattmeter, oil pressure, oil temperature, coolant temperature, battery charging ammeter, fuel level, 50/60 Hz clock.                                                                            |                                   |                           |                      |
| Performance Characteristics                        |                                                                                                                                                                                                                                                     |                                   |                           |                      |
| Electric Power Rating                              | 500 kW, 60 Hz (417 kW, 50 Hz) @ 0.8 pf from 3°F to 125°F/ MSL; 400 kW(334 kW) @ 0.8 pf to 107°F/5000 ft; 375 kW(313 kW) @ 0.8 pf to 95°F/8000 ft. Housing kit and built in electric engine preheat system extends lower temperature limit to -25°F. |                                   |                           |                      |
| Environmental Capability                           | 32°F to 125°F, rain, humidity, altitude, sand/ dust, transportation, -65°F cold storage, salt spray, fungus.                                                                                                                                        |                                   |                           |                      |
| Protective Devices                                 | Overvoltage, short circuit, overload synchronizing check relay, reverse power, low oil pressure, high coolant temp, high oil temp, low fuel, and overspeed, annunciator alarm System                                                                |                                   |                           |                      |
| Fuel Consumption                                   | 37 gal/hour                                                                                                                                                                                                                                         |                                   |                           |                      |
| Human Factors                                      | MIL-STD-1474.                                                                                                                                                                                                                                       |                                   |                           |                      |
| Noise                                              | Housed:86 dBA @ 25 ft.                                                                                                                                                                                                                              |                                   | Unhoused: 89 dBA @ 25 ft. |                      |
| Reliability (MTBF)                                 | 500 hr (specified).                                                                                                                                                                                                                                 |                                   |                           |                      |
| Electrical Characteristics                         |                                                                                                                                                                                                                                                     |                                   |                           |                      |
| Voltage Connection                                 | 120/208V, 3 phase, 4 wire                                                                                                                                                                                                                           |                                   | 240/416V, 3 phase, 4 wire |                      |
| Operating Frequency                                | 50 Hz                                                                                                                                                                                                                                               | 60 Hz                             | 50 Hz                     | 60 Hz                |
| Volt Adj Range                                     | 190 to 213                                                                                                                                                                                                                                          | 197 to 250                        | 380 to 426                | 395 to 500           |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Brushless rotary exciter. Capable of parallel operation. Circuit breaker.                                                          |                                   |                           |                      |
| Electrical Performance                             |                                                                                                                                                                                                                                                     |                                   |                           |                      |
| Electric Power Quality                             |                                                                                                                                                                                                                                                     | Volt                              |                           | Frequency            |
| Short term steady state stab (30 sec)              |                                                                                                                                                                                                                                                     | 1% bandwidth                      |                           | 0.5% bandwidth       |
| Long term steady state stab (4 hr)                 |                                                                                                                                                                                                                                                     | 2% bandwidth                      |                           | 1% bandwidth         |
| Application/rejection of rated load, recovery time |                                                                                                                                                                                                                                                     | 20%dip/30%rise, 3 sec             |                           | 4%, 4 sec            |
| Max waveform deviation factor                      |                                                                                                                                                                                                                                                     | 5%                                |                           |                      |
| Individual waveform harmonic                       |                                                                                                                                                                                                                                                     | 2%                                |                           |                      |
| Regulation                                         |                                                                                                                                                                                                                                                     | 2%                                |                           | 0.25% isoc; 0-3% adj |
| EMI                                                |                                                                                                                                                                                                                                                     | Suppressed to MIL-STD-461 limits. |                           |                      |
| EMP                                                |                                                                                                                                                                                                                                                     | None.                             |                           |                      |
| Optional Equipment                                 |                                                                                                                                                                                                                                                     |                                   |                           |                      |
| Description                                        | NSN                                                                                                                                                                                                                                                 | Weight (lbs)                      | Effect on Dim.(in)        |                      |
| Housing kit                                        | 6115-01-070-7550                                                                                                                                                                                                                                    | 1950                              | negligible                |                      |
| Remote control module                              | 6115-01-070-7553                                                                                                                                                                                                                                    | 371                               | 33.8x23.5x58.8 (Aux)      |                      |
| Auto control module                                | 6115-01-275-7912                                                                                                                                                                                                                                    | 267                               | 30.8x13.3x66.4 (Aux)      |                      |
| Remote control cable                               | 6115-01-087-4127                                                                                                                                                                                                                                    | 150                               | None. Cable is 1000 ft    |                      |
| Technical Manuals                                  |                                                                                                                                                                                                                                                     |                                   |                           |                      |
| Army                                               | Air Force                                                                                                                                                                                                                                           | Marine Corps                      | Navy                      |                      |
| TM5-6115-593-12                                    | TO-35C2-3-463-1                                                                                                                                                                                                                                     |                                   |                           |                      |
| TM5-6115-593-34                                    | TO-35C2-3-463-2                                                                                                                                                                                                                                     |                                   |                           |                      |
| TM5-6115-593-24P                                   | TO-35C2-3-463-4                                                                                                                                                                                                                                     |                                   |                           |                      |

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APPENDIX E

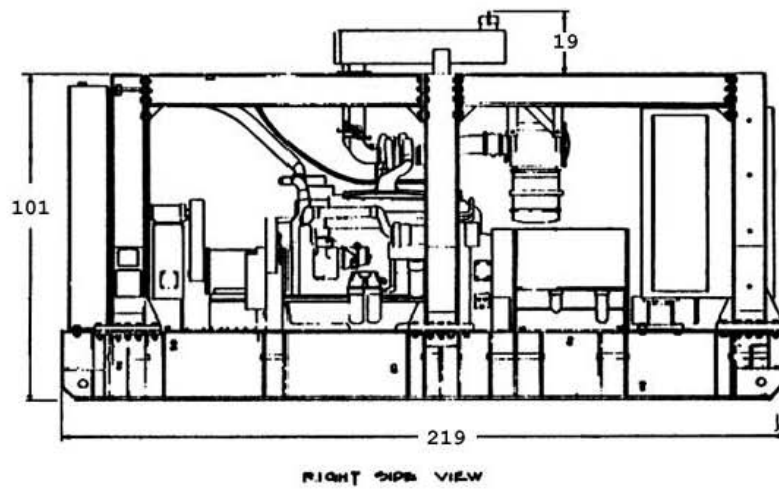
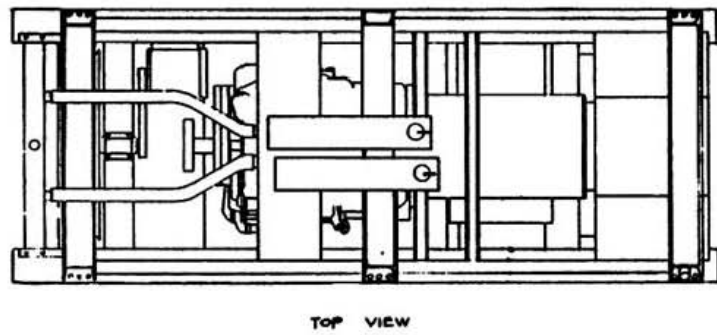
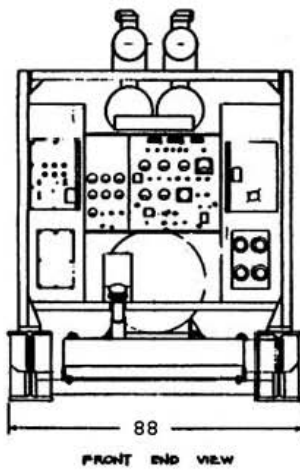
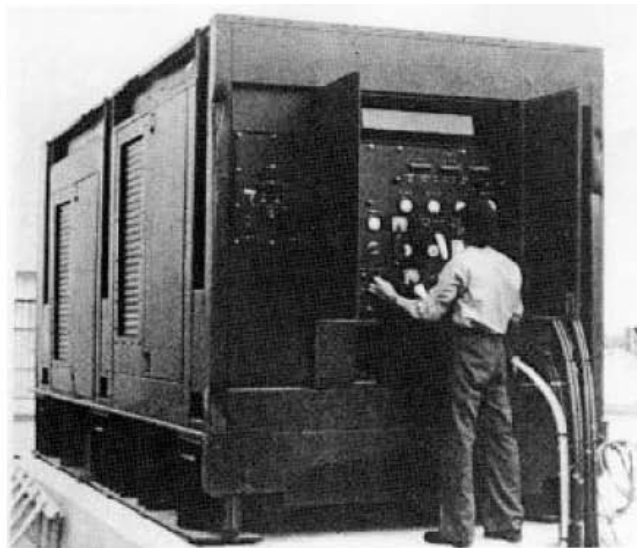


Figure E- 50 500 kW DED Generator, MEP-029A, MEP-029B

**MIL-HDBK-633A  
APPENDIX E**

**750 kW Diesel Engine Driven Generator**

| 100 kW Diesel Engine Driven Generator              |                                                                                                                                                                                            |                                   |                    |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------|
| Identification Data                                |                                                                                                                                                                                            |                                   |                    |
| Nomenclature                                       | Gen Set, 750 kW, DED, 50/60 Hz, Prime Power, Housed, Wheel Mounted                                                                                                                         |                                   |                    |
| Model Number                                       | MEP-012A                                                                                                                                                                                   |                                   |                    |
| NSN                                                | 6115-00-143-3850                                                                                                                                                                           |                                   |                    |
| LIN                                                | J                                                                                                                                                                                          |                                   |                    |
| SSN                                                | M                                                                                                                                                                                          |                                   |                    |
| Physical Characteristics                           |                                                                                                                                                                                            |                                   |                    |
| Dimensions LWH (in)                                | 241 x 96 x 101 (Cube:1353 ft <sup>3</sup> )                                                                                                                                                |                                   |                    |
| Weight (lbs)                                       | Dry: 24500                                                                                                                                                                                 | Wet : 25374                       |                    |
| Engine                                             | 12 cylinder, turbocharged Diesel, 1235 hp @ 1800 RPM (60 Hz), 1030 hp @ 1500 RPM (50 Hz), liquid cooled, 24 VDC starter.                                                                   |                                   |                    |
| Fuels                                              | Diesel: DL-1, DL-2. Emergency: Jet fuel: JP-8, Jet A-1.                                                                                                                                    |                                   |                    |
| Fuel Tank                                          | 42 gallons.                                                                                                                                                                                |                                   |                    |
| Instrumentation                                    | Voltmeter, frequency meter, ammeter, hourmeter, kilowattmeter, oil pressure, oil temperature, coolant temperature, battery charging ammeter, fuel level, 50/60 Hz clock.                   |                                   |                    |
| Performance Characteristics                        |                                                                                                                                                                                            |                                   |                    |
| Electric Power Rating                              | 750 kW, 60 Hz (625 kW, 50 Hz) @ 0.8 pf from -25°F to 125°F/MSL, 90°F/1500 ft; 600 kW(500 kW) to 107°F/5000 ft.                                                                             |                                   |                    |
| Environmental Capability                           | -25°F to 125°F, rain, humidity, altitude, sand/ dust, transportation, -65°F cold storage, salt spray, fungus.                                                                              |                                   |                    |
| Mobility:                                          | Maximum speed: 10 MPH on unimproved/20 MPH on improved roads.                                                                                                                              |                                   |                    |
| Protective Devices                                 | Overvoltage, short circuit, overload synchronizing check relay, reverse power, low oil pressure, high coolant temp, high oil temp, low fuel, and overspeed, annunciator alarm System.      |                                   |                    |
| Fuel Consumption                                   | 55 gal/hour.                                                                                                                                                                               |                                   |                    |
| Human Factors                                      | MIL-STD-1474.                                                                                                                                                                              |                                   |                    |
| Noise Housed:                                      | 85 dBA @ 25 ft.                                                                                                                                                                            |                                   |                    |
| Electrical Characteristics                         |                                                                                                                                                                                            |                                   |                    |
| Connection                                         | 2200/3800V, 3 phase, 4 wire                                                                                                                                                                | 2400/4160V, 3 phase, 4 wire       |                    |
| Frequency                                          | 50 Hz                                                                                                                                                                                      | 60 Hz                             |                    |
| Voltage Adj Range                                  | 3240 to 3960                                                                                                                                                                               | 3745 to 4574                      |                    |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Brushless rotary exciter. Capable of parallel operation. Circuit breaker. |                                   |                    |
| Electrical performance                             |                                                                                                                                                                                            |                                   |                    |
| Electric Power Quality                             |                                                                                                                                                                                            | Volt                              | Frequency          |
| Regulation                                         |                                                                                                                                                                                            | 2%                                | 0-5% adjustable    |
| Short term steady state stability (30 sec)         |                                                                                                                                                                                            | 1%                                | 0.5%               |
| Long term steady state stability (4 hr)            |                                                                                                                                                                                            | 2%                                | 1%                 |
| Application/Rejection of rated load, recovery time |                                                                                                                                                                                            | 20%dip/rise; 3 sec                | 3%dip/4%rise 4 sec |
| Max waveform deviation factor                      |                                                                                                                                                                                            | 5%                                |                    |
| Individual waveform harmonic                       |                                                                                                                                                                                            | 2%                                |                    |
| EMI                                                |                                                                                                                                                                                            | Suppressed to MIL-STD-461 limits. |                    |
| EMP                                                |                                                                                                                                                                                            | Not protected                     |                    |
| Optional Equipment:                                |                                                                                                                                                                                            |                                   |                    |
| none                                               |                                                                                                                                                                                            |                                   |                    |
| Technical Manuals                                  |                                                                                                                                                                                            |                                   |                    |
| Army                                               | Air Force                                                                                                                                                                                  | Marine Corps                      | Navy               |
| TM9-6115-622-12                                    | TO35C2-3-474-1                                                                                                                                                                             | TM6115-12/10                      | NAVFAC P8-635-12   |
| TM9-6115-622-34                                    | TO35C2-3-474-2                                                                                                                                                                             | TM6115-34/                        | NAVFAC P8-635-34   |
| TM9-6115-622-24P                                   | TO35C2-3-474-4                                                                                                                                                                             | TM6115-24/                        | NAVFAC P8-635-24P  |

**MIL-HDBK-633A**  
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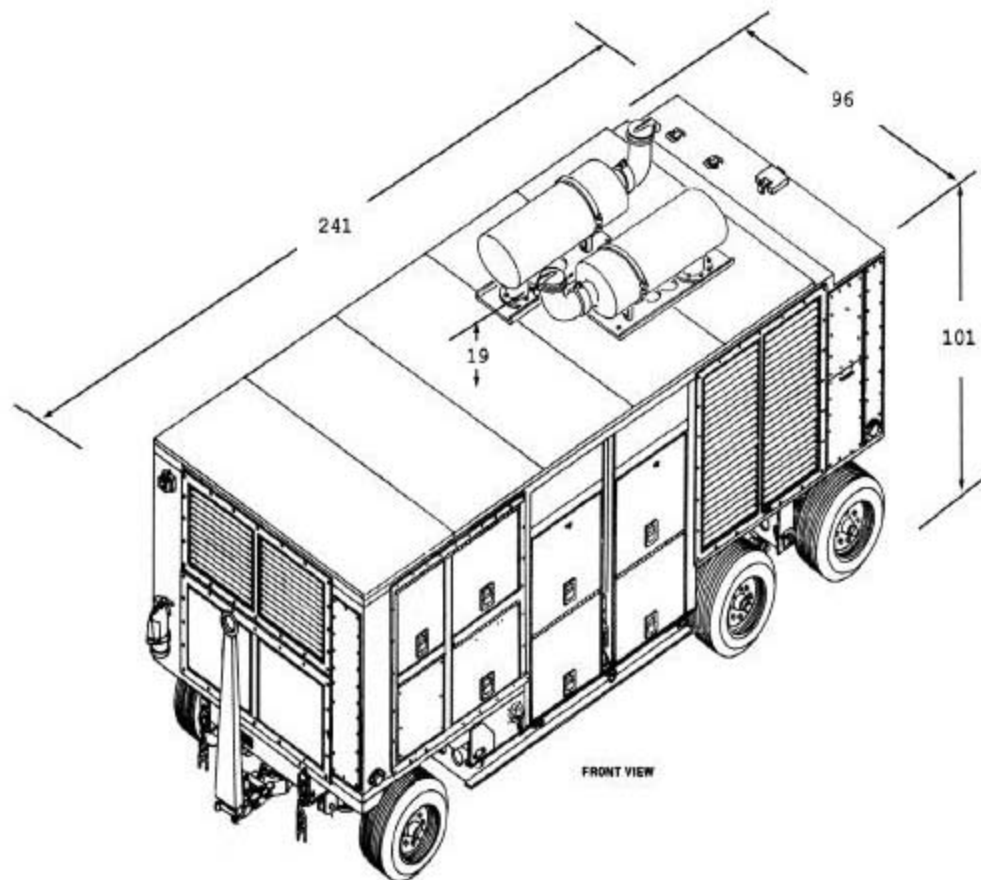


Figure E- 51 750 kW DED Generator, MEP-012A

**MIL-HDBK-633A  
APPENDIX E**

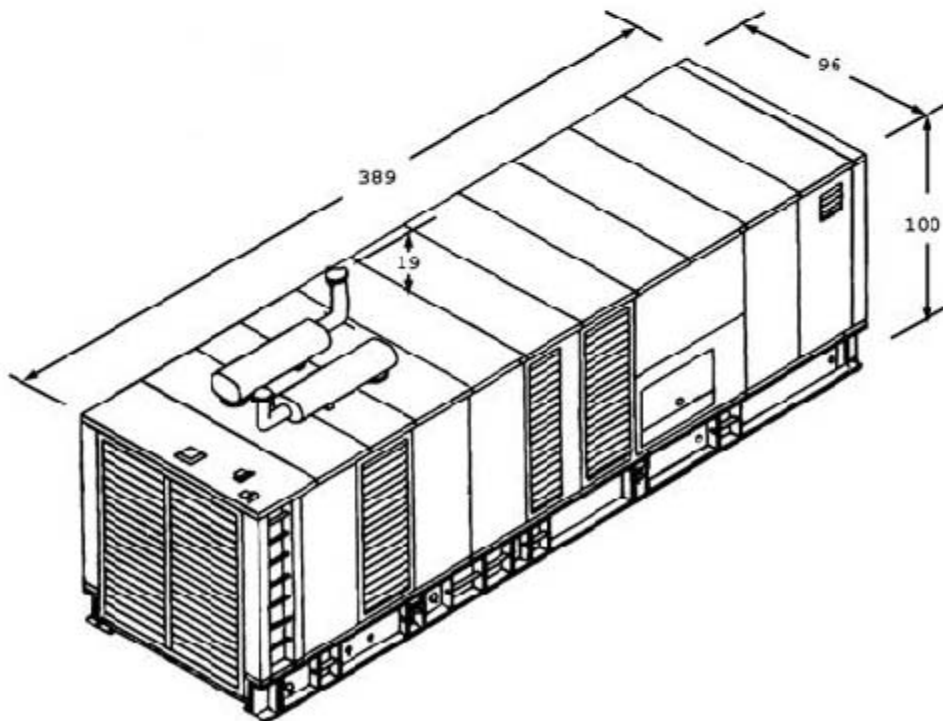
**750 kW Diesel Engine Driven Generator Set**

| Identification Data                                |                                                                                                                                                                                            |                             |                        |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|
| Nomenclature                                       | Gen Set, 750 kW, DED, 50/60 Hz, Housed, Prime Power                                                                                                                                        |                             |                        |
| Model Number                                       | MEP-208A                                                                                                                                                                                   |                             |                        |
| NSN                                                | 6115-00-450-5881                                                                                                                                                                           |                             |                        |
| LIN                                                | J30093                                                                                                                                                                                     |                             |                        |
| SSN                                                | M564                                                                                                                                                                                       |                             |                        |
| Physical Characteristics                           |                                                                                                                                                                                            |                             |                        |
| Dimensions LWH (in)                                | 330 x 96 x 100 (with 24 ft <sup>2</sup> control room)(Cube: 1850 ft <sup>3</sup> )                                                                                                         |                             |                        |
| Wet Weight (lbs)                                   | 39600                                                                                                                                                                                      |                             |                        |
| Engine                                             | 12 cylinder, turbocharged Diesel, 1235 hp @ 1800 RPM (60 Hz), 1030 hp @ 1500 RPM (50 Hz), liquid cooled, 24 VDC starter.                                                                   |                             |                        |
| Fuels                                              | Diesel:DL-1, DL-2; Jet fuel: JP-8, Jet A-1                                                                                                                                                 |                             |                        |
| Fuel Tank                                          | 134 gallons..                                                                                                                                                                              |                             |                        |
| Instrumentation                                    | Voltmeter, frequency meter, ammeter, hourmeter, kilowattmeter, oil pressure, oil temperature, coolant temperature, battery charging ammeter, fuel level, 50/60 Hz clock                    |                             |                        |
| Performance Characteristics                        |                                                                                                                                                                                            |                             |                        |
| Electric Power Rating                              | 750 kW 60 Hz (625 kW, 50 Hz) @ 0.8 pf from 25°F to 125°F/MSL, 90°F/1500 ft; 600 kW(500 kW) to 107°F/5000 ft; 563 kW(469 kW) to 95°F/8000 ft.                                               |                             |                        |
| Environmental Capability                           | -25°F to 125°F, rain, humidity, altitude, sand/ dust, transportation, -65°F cold storage, salt spray, fungus.                                                                              |                             |                        |
| Protective Devices                                 | Overvoltage, short circuit, overload synchronizing check relay, reverse power, low oil pressure, high coolant temp, high oil temp, low fuel, and overspeed, annunciator alarm system.      |                             |                        |
| Fuel Consumption                                   | 55 gal/hour                                                                                                                                                                                |                             |                        |
| Human Factors                                      | MIL-STD-1474.                                                                                                                                                                              |                             |                        |
| Noise                                              | 85 dBA @ 25 ft, housed (89 dBA unhoused).                                                                                                                                                  |                             |                        |
| Reliability (MTBF)                                 | 1200 hr (specified).                                                                                                                                                                       |                             |                        |
| Electrical Characteristics                         |                                                                                                                                                                                            |                             |                        |
| Connection                                         | 2200/3800V, 3 phase, 4 wire                                                                                                                                                                | 2400/4160V, 3 phase, 4 wire |                        |
| Frequency                                          | 50 Hz                                                                                                                                                                                      | 60 Hz                       |                        |
| Voltage Adj Range                                  | 3240 To 3960                                                                                                                                                                               | 3745 To 4574                |                        |
| Frequency Adj Range                                | 48 - 52                                                                                                                                                                                    | 58 - 62                     |                        |
| Electrical                                         | Drip proof generator enclosure, fungus & moisture treated, solid state voltage regulator, solderless connectors, Brushless rotary exciter. Capable of parallel operation. Circuit breaker. |                             |                        |
| Electrical Performance                             |                                                                                                                                                                                            |                             |                        |
| Electric Power Quality                             | Volt                                                                                                                                                                                       | Frequency                   |                        |
| Regulation                                         | 2%                                                                                                                                                                                         | 0-5% adjustable             |                        |
| Short term steady state stab (30 sec)              | 1%                                                                                                                                                                                         | 0.5%                        |                        |
| Long term steady state stab (4 hr)                 | 2%                                                                                                                                                                                         | 1%                          |                        |
| Application/Rejection of rated load, recovery time | 20%dip/30%rise, 3 sec                                                                                                                                                                      | 3%dip/4%rise, 4 sec         |                        |
| Max waveform deviation factor                      | 5%                                                                                                                                                                                         |                             |                        |
| Individual waveform harmonic                       | 2%                                                                                                                                                                                         |                             |                        |
| EMI                                                | Suppressed to MIL-STD-461 limits.                                                                                                                                                          |                             |                        |
| EMP                                                | None.                                                                                                                                                                                      |                             |                        |
| Optional Equipment                                 |                                                                                                                                                                                            |                             |                        |
| Description                                        | NSN                                                                                                                                                                                        | Weight-lb                   | Effect on Dim.(in)     |
| Remote control module                              | 6115-00-xxx-xxxx                                                                                                                                                                           | 371                         | stored in control room |
| Remote control cable                               | 6115-00-xxx-xxxx                                                                                                                                                                           | 150                         | None-Cable is 1000 ft  |
| Technical Manuals                                  |                                                                                                                                                                                            |                             |                        |
| Army                                               | Air Force                                                                                                                                                                                  | Marine Corps                | Navy                   |
| TM9-6115-604-12                                    |                                                                                                                                                                                            |                             | NAVFAC P-8-633-12      |
| TM9-6115-604-34                                    |                                                                                                                                                                                            |                             | NAVFAC P-8-633-34      |

**MIL-HDBK-633A  
APPENDIX E**

TM9-6115-60424P

NAVFAC P-8-633-24P

Figure E- 52 750 kW DED Generator, MEP-208A

**MIL-HDBK-633A**  
CONCLUDING MATERIAL

Custodians:  
Army-CR4  
Navy-YD  
Air Force-99

Preparing activity  
ARMY-CR4  
(Project 6115-2009-003)

Review Activities:  
Army - CE,MI,  
NAVY-AS,EC,MC  
Air Force -11  
DLA - GS

NOTE: These activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST database at: <http://assist.daps.dla.mil>.