TECHNICAL MANUAL

OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

POWER PLANT AN/MJQ-10A (NSN 6115-00-394-9582) (2) MEP-005A 30 KW 60 HZ GENERATOR SETS (2) M200A1 2-WHEEL, 4-TIRE, MODIFIED TRAILERS

Approved for public release; distribution is unlimited

* This manual supersedes Chapter 8 of TM 5-6115-594-14&P dated 25 September 1984.

HEADQUARTERS, DEPARTMENT OF THE ARMY

5 OCTOBER 1989

CHANGE

NO. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 1 July 1996

Operator, Unit, Direct Support and
General Support Maintenance Manual
(Including Repair Parts and Special Tools List)

POWER PLANT
AN/MJ-10OA (NSN 61100-394-9582)
(2) MEP-005A 30 KW 60 HZ
GENERATOR SETS
(2) M200A1 2-WHEEL, 4-TIRE,
MODIFIED TRAILERS

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B-3 and B-4	B-3 and B-4

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CHANGE
NO. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 5December 1990

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Remove pages	Insert pages
3-13 and 3-14	3–13 and 3–14
D-35 through D–38	D–35 through D–38

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The Adjutant Genera/

DISTRIBUTION:
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5 SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK

1. DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL
2. IF POSSIBLE, TURN OFF THE ELECTRICAL POWER
3. IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH, OR LIFT THE PERSON TO SAFETY USING A DRY WOODEN POLE OR A DRY ROPE OR SOME OTHER INSULATING MATERIAL
4. SEND FOR HELP AS SOON AS POSSIBLE
5. AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION

WARNING

All specific cautions and warnings contained in this manual shall be strictly adhered to. Otherwise, severe injury, death and/or damage to the equipment may result.

HIGH VOLTAGE

is produced when this power plant is in operation.

DEATH

or severe burns may result if personnel fail to observe safety precautions. Do not operate this power plant until the ground terminal stud has been connected to a suitable ground. Disconnect the battery ground cable on the generator set before removing and installing components on the engine or in the electrical control panel system. Remove all rings, watches, and other jewelry when performing maintenance on this equipment. Loose fitting clothing should be secured to prevent it catching moving parts. Do not attempt to service or otherwise make any adjustments, connections or reconnection of wires or cables until generator set is shut down and completely de-energized.

DANGEROUS GASES

Batteries generate explosive gas during charging: therefore, utilize extreme caution. Do not smoke, or use open flame in the vicinity of the generator set when servicing batteries.

Exhaust discharge contains noxious and deadly fumes. Do not operate power plant generator sets in enclosed areas unless exhaust discharge is properly vented to the outside.

To avoid sparking between filler nozzle and fuel tank, always maintain metal to metal contact between filler nozzle and fuel tank when filling generator set fuel tank.

Do not smoke or use open flame in the vicinity of the power plant while refueling generator sets.

LIQUIDS UNDER HIGH PRESSURE

are generated as a result of operation of the power plant generator set. Do not expose any part of the body to a high pressure leak in the fuel injection system.

NOISE

Operating noise level of the generator sets can cause hearing damage. Ear protectors, as recommended by the medical or safety officer, must be worn when working near this power plant.

WARNING

Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes and prolonged exposure of skin to cleaning solvent. Wash exposed skin thoroughly. Dry cleaning solvent (PD-680) used to clean parts is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 100°F to 138°F (38° C to 59° C).

TECHNICAL MANUAL

NO. 5-6115-627-14&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C.,

Operator, Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools List) for POWER PLANT, AN/MJQ-10A (NSN 6115-00-394-9582) (2) MEP-005A 30 KW 60 HZ GENERATOR SETS (2) M200A1 2-WHEEL, 4-TIRE, MODIFIED TRAILERS

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*This manualsupersedes Chapter 8 of TM 5-6115-594-4&P dated 25 September 1984.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. **Scope.** This manual is for your use in operating and maintaining the Power Plant, AN/MJQ-10A. The AN/MJQ-10A is a mobile power plant used to supply power to any system or equipment requiring up to 30 KW of 60 Hz input operating power. In addition to operating instructions and operator, unit, direct support and general support maintenance procedures, this manual contains a Repair Parts and Special Tools List for the power plant.

1-2. **Maintenance Forms and Records.** Maintenance forms and records used by Army personnel are prescribed by DA Pam 738-750.

1-3. **Reporting of Errors.** Reporting of errors and omissions and recommendations for improvement of this publication by the individual user is encouraged. Reports should be submitted on a DA Form 2028 directly to: Commander, US Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO, 63120-1798.

1-4. **Reporting Equipment Improvement Recommendations (EIR).** EIR'S will be prepared using SF 368 Product Quality Deficiency Report. Instructions for preparing EIR's are provided in DA Pam 738-750, The Army Maintenance Management System. EIR's should be mailed directly to: Commander, US Army Troop Support Command, ATTN: AMSTR-QX, 4300 Goodfellow Boulevard, St. Louis, MO, 63120-1798.

1-5. **Levels of Maintenance Accomplishment.** Army users shall refer to the Maintenance Allocation Chart (MAC) for tasks and levels of maintenance to be performed.

1-6. **Destruction of Army Material.** Destruction of Army materiel to prevent enemy use shall be in accordance with TM 750-244-3.

1-7. **Administrative Storage.**

a. Placement of equipment in administrative storage should be for short periods of time when a shortage of maintenance effort exists. Items should be in mission readiness within 24 hours or within the time factors as determined by the directing authority. During the storage period appropriate maintenance records will be kept.

b. Before placing equipment in administrative storage, current maintenance services and equipment serviceable criteria (ESC) evaluations should be completed, shortcomings and deficiencies should be corrected, and all modification work orders (MWO'S) should be applied.

c. Storage site selection. Inside storage is preferred for items selected for administrative storage. If inside storage is not available, trucks, vans, conex containers and other containers may be used.

1-8. **Preparation for Shipment and Storage.** Refer to TB 740-97-2.

Section II. DESCRIPTION AND DATA

1-9. **Description.** Power Plant AN/MJQ-10A is made up of two PU-406B/M power units. Each power unit is, in turn, made up of one Tactical Utility Generator Set, DOD Model MEP-005A, mounted on a modified M200A1 trailer. These generator sets are liquid-cooled, diesel engine-driven units, each with a load capacity of 30 KW at 60 Hz. The trailers are two-wheeled units with dual tires mounted. Each trailer has a 2 1/2-ton carrying capacity. The modifications to the basic trailers provide storage for the accessories and all equipment necessary for mobile operation as well as providing a work platform for the operator and maintenance personnel. Output from the power plant is applied to the system or equipment being powered through a switch box. The AN/MJQ-10A is supplied with a 5-wire configuration switch box. Figures 1-1 and 1-2 illustrate the power plant.

1-10. Tabulated Data. The tabulated data provides operator and unit level personnel with the dimensions and weights for Power Plant, AN/MJQ-10A. These specifications are computed from the combined dimensions and weights of the two power units that make up the power plant. Specifications for a single PU-406B/M power unit can be found in TM 5-6115-626-14&P. For additional information concerning Generator Set DOD Model MEP-005A, refer to TM 5-6115-465-12, -34, and -24P. For additional information on the M200A1 trailer, refer to TM 9-2330-205-14&P. The tabulated data also includes the location and content of all data plates unique to the power unit.

a. Identification, Infomation, and Warning Plates.

(1) *Modification identification plate.*

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

(b) *Content.*

MODIFIED FOR POWER PLANT AN/MJQ-10A
NSN 6115-00-394-9582
UNIT A (or B, as applicable)

(2) *Identification plate.*

(a) Location. This plate is located on front roadside frame between trailer body and Iunette.

(b) Content.

U.S.
POWER UNIT
PU-406B/M KW 30 HERTZ 50/60
NSN 6115-00-394-9576

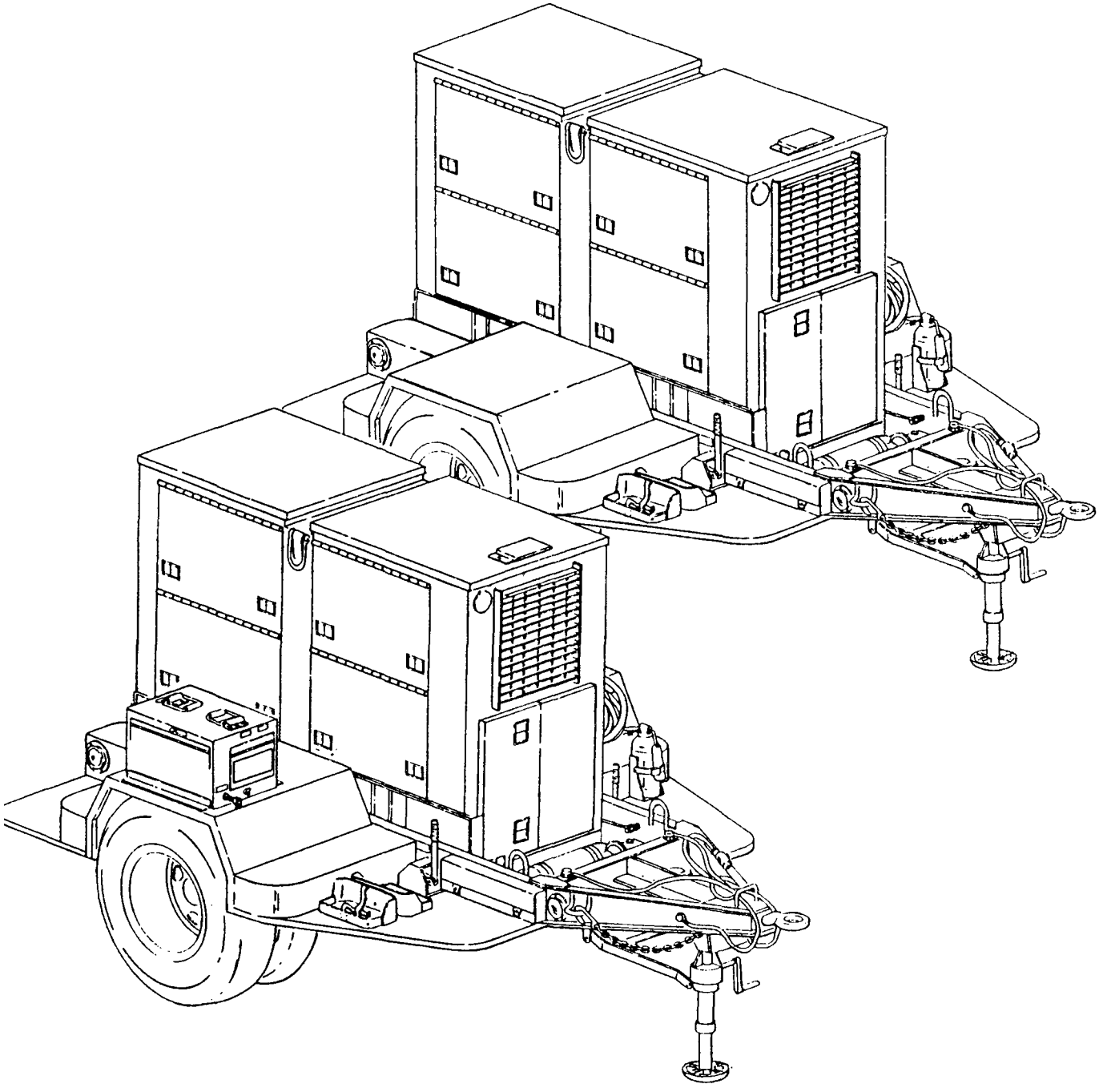

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Figure 1-1. Power Plant, Curbside Front, Three-Quarter View.

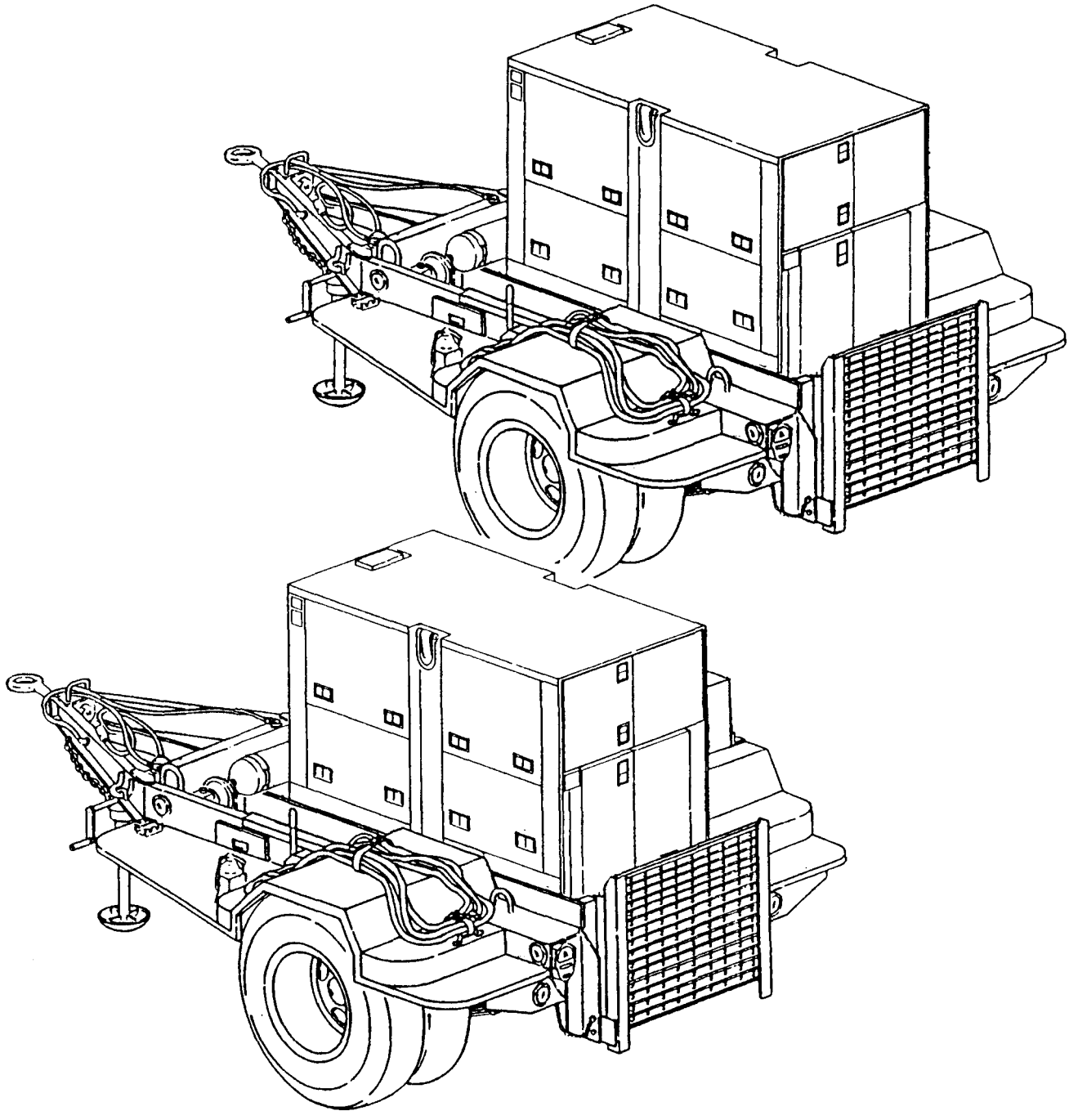

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Figure 1-2. Power Plant, Roadside Rear, Three-Quarter View.

(3) *Identification plate.*

(a) Location. This plate is located below ground stud above roadside front step.

(b) Content.

GROUND TERMINAL

(4) *Wiring diagram designation plate.*

(a) Location. This plate is located inside switch box access cover.

(b) Contents. (See figure 4-14).

(5) Identification plate.

(a) Location. This plate is located on connector side of switch box.

(b) Content.

SWITCH BOX
NSN 6110-01-264-2069

(6) *Instruction Plate.*

(a) Location. This plate is located on the outside of switch access door, under generator indicator lights.

(b) Content.

OPERATING INSTRUCTIONS

A. PRIOR TO OPERATION, READ INSTRUCTION MANUAL FURNISHED WITH THE POWER UNIT (GENERATOR SET), INCLUDING APPLICABLE REVISION SHEETS.

B. INSURE GENERATOR CIRCUIT BREAKERS AND SWITCH BOX SWITCHES ARE IN THE “OFF” POSITION.

C. TO OPERATE ONE UNIT, THIS PROCEDURE SHOULD BE FOLLOWED:

1. CONNECT ALL NECESSARY CABLES TO THE GENERATOR AND SWITCH BOX ASSEMBLY.

2. BRING GENERATOR UP TO RATES SPEED, VOLTAGE AND FREQUENCY.

3. CLOSE GENERATOR CIRCUIT BREAKER.

4. MOVE SWITCH BOX SWITCH, CORRESPONDING TO GENERATOR USED, TO “ON” POSITION.

5. SWITCH BOX OUTPUT TERMINALS SHOULD NOW HAVE POWER (REF TB1).

D. TO OPERATE TWO UNITS IN PARALLEL, THIS PROCEDURE SHOULD BE FOLLOWED:

1. CONNECT ALL NECESSARY CABLES TO GENERATORS AND SWITCH BOX ASSEMBLY.

2. BRING FIRST GENERATOR INTO OPERATION ACCORDING TO THE PROCEDURE OUTLINED IN INSTRUCTIONS B AND C.

3. BRING SECOND GENERATOR UP TO RATED SPEED, VOLTAGE AND FREQUENCY.

4. CLOSE CIRCUIT BREAKER ON SECOND GENERATOR.

5. MOVE SWITCH BOX SWITCH, CORRESPONDING TO THE SECOND GENERATOR, TO "ON" POSITION.

6. THE PARALLELING OPERATING SHOULD BE COMPLETE.

E. TO STOP OPERATION OF UNIT(S), THIS PROCEDURE SHOULD BE FOLLOWED:

1. MOVE SWITCH BOX SWITCH, CORRESPONDING TO THE APPLICABLE GENERATOR(S) STOPPED, TO "OFF" POSITION.

2. OPEN CIRCUIT BREAKERS ON GENERATOR(S) TO BE STOPPED.

(7) *Instruction plate.*

(a) Location. This plate is located on the outside of load terminal access door.

(b) Content.

DANGER
HIGH VOLTAGE

(8) *Identification plate.*

(a) Location. This plate is located on the connector side of switch box above ground stud E1.

(b) Content.

GROUND TERMINAL

(9) *Instruction plate.*

(a) Location. This plate is located on connector side of switch box above connectors J3 and J4 (parallel cable inputs).

(b) Content.

PARALLELING CAPABILITY FOR
PRECISE GENERATOR SETS ONLY

(10) Designation plate.

(a) *Location.* This plate is located on load terminal side of switch box next to indicator lamp.

(b) Content.

OUTPUT

(11) *Designation plate.*

(a) Location. This plate is located on circuit breaker side of switch box above indicator lamp DS2.

(b) Content.

PILOT LIGHT
GEN NO. 1
INPUT

(12) *Designation plate.*

(a) Location. This plate is located on circuit breaker side of switch box above indicator lamp DS3.

(b) Content.

PILOT LIGHT
GEN NO. 2
INPUT

(13) *Designation plate.*

(a) Location. This plate is located on connector side of switch box above connector J1.

(b) Content.

POWER CABLE
GEN NO. 1
INPUT

(14) *Designation plate.*

(a) Location. This plate is located on connector side of switch box above connector J2.

(b) Content.

POWER CABLE
GEN NO. 2
INPUT

(15) Designation plate.

(a) Location. This plate is located on connector side of switch box above connector J3.

(b) Content.

PARALLEL CABLE
GEN NO. 1
INPUT

(16) Designation plate.

(a) Location. This plate is located on connector side of switch box above connector J4.

(b) Content.

PARALLEL CABLE
GEN NO. 2
INPUT

(17) *Designation plate.*

(a) Location. This plate is located on circuit breaker side of switch box above ground stud E2.

(b) Content.

AC GROUND

b. Tabulated Data for Power Plant.

Overall Length	166 3/8 inches (423.6 centimeters)
Overall Width	95 1/2 inches (242.6 centimeters)
Overall Height	84 inches (213.4 centimeters)
Net Weight (empty)	11,940 pounds (5414 kilograms)
Net Weight (filled)	12,640 pounds (5650 kilograms)
Shipping Weight	12,360 pounds (5604 kilograms)
Cubage	1,606 cubic feet (45.4 cubic meters)

1-11. **Differences Between Models.** There are no differences between models, serial numbers, or serial number groups applicable to this equipment.

CHAPTER 2

OPERATING INSTRUCTIONS

Section I. OPERATING PROCEDURES

2-1. **Power Plant Operating Procedures.** The typical mission for any mobile power generating equipment can be described in three steps or phases. In the first phase, the power plant is towed to the worksite and installed by unit level technicians (paragraph 4-2). In the second phase of the mission, the operator starts the generator sets, runs them to power a system or equipment, and eventually shuts them down. In the final phase, the power plant is dismantled, packed up and either moved to a new worksite or returned to standby status (paragraph 4-3). This final phase is also accomplished by unit level technicians.

a. Generator Set Operating Procedures.

WARNING

Do not operate power plant generator set(s) until they are properly grounded (paragraph 4-2, b.) Serious injury or death by electrocution can result from operating an ungrounded generator set.

Operating noise level of generator can cause hearing damage. Ear protectors, as recommended by medical or safety officer, must be worn when working near power plant.

CAUTION

To avoid damage to equipment, make certain of voltage, frequency, and phase requirements of load connected to power plant.

NOTE

Before starting generator set, do your Before PMCS as described in table 3-2.

Detailed procedures for prestarting, starting, operating, and shutting down the power plant generator sets are found in TM 5-6115-465-12 and on the Operating Instructions data plates found on the equipment. Refer to the data plate, located inside the right hand control panel door, to start and run the generator sets. Monitor and adjust power output as required during operation. At the end of the mission shut down the generator sets in accordance with the operating instructions on the data plate.

b. Switch Box Operating Procedures. Start and stop generator sets in accordance with paragraph 2-1, a., when instructed to do so in the following procedures.

CAUTION

Close all doors on generator sets except doors over control panels and louvers

(1) Set circuit breakers on both power plant generator sets to OFF position.

(2) Set both switches on switch box to OFF position.

(3) Start one power plant generator set and bring generator up to rated speed, voltage, and frequency.

(4) Set generator set circuit breaker to ON position.

(5) Set associated switch on switch box to ON position.

NOTE

When the power plant generator set in operation must be shut down, follow steps (6) thru (10) to continue to supply power to system or equipment being powered.

(6) Start second power plant generator set and bring up to rated speed, voltage, and frequency.

(7) Set generator circuit breaker to ON position.

(8) At switch box, set switch associated with first generator set to OFF position.

(9) Set switch box switch associated with second generator set to ON position.

(10) Shut down first power plant generator set.

c. *Trailer Operatina Procedures.* Refer to TM 9-2330-205-14&P for specific operating procedures for the M200A1 trailer.

Section II. OPERATION OF AUXILIARY EQUIPMENT

2-2. **Operation of Auxiliary Equipment.** There is no auxiliary equipment supplied with the power plant.

Section III. OPERATION UNDER UNUSUAL CONDITIONS

2-3. **Operation Under Unusual Conditions.** When operating the power plant under unusual conditions. such as extremes in temperature or difficult terrain, there are steps that must be taken to protect the equipment.

a. Refer to TM 5-6115-465-12 for special procedures when operating the generator set under unusual conditions.

b. Refer to TM 9-2330-205-14&P for special procedures when operating the trailer under unusual conditions.

CHAPTER 3

OPERATOR/CREW MAINTENANCE INSTRUCTIONS

Section I. CONSUMABLE OPERATING AND MAINTENANCE SUPPLIES

3-1. **Consumable Supplies.** Consumable supplies used in the maintenance and operation of the power plant are listed in Table 3-1.

Table 3-1. Consumable Operating and Maintenance Supplies.

(1) Component application	(2) National stock number	(3) Description	(4) Qty required for initial operation	(5) Qty required 8 hours operation	(6) Notes
General Cleaning	6850-00-664-5685	Solvent, Drycleaning, PD-680	1 quart	As required	
Personnel Platform	9150-00-186-6681	Oil, Lubricating, OE/HDO-30	1 quart	As required	
	9150-00-402-4478	Oil, Lubricating, OEA	1 quart	As required	
Electrical Wiring		Solder	1 roll	As required	

Section II. LUBRICATION INSTRUCTIONS

3-2. **General.** Detailed instructions for the lubrication of the major components of the power plant are contained in the applicable Lubrication Orders (LO's). Refer to DA Pam 25-30 to ensure the latest editions of the LO's are used.

3-3. **Generator Lubrication.** Refer to TM 5-6115-465-12 for generator set Lubrication Order.

3-4. **Trailer Lubrication.** There are no operator/crew lubrication requirements for the power plant trailers.

Section III. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

NOTE

The PMCS chart in this section contains all necessary Operator/Crew preventive maintenance checks and services for this equipment.

3-5. General. The preventive maintenance checks and services listed in Table 3-2 are grouped according to stages of equipment operation or time intervals. Using the following as a guide, do the checks and services at the intervals shown.

a. Before you operate, perform your before (B) PMCS. Observe all CAUTIONS and WARNINGS.

b. While you operate, perform your during (D) PMCS. Observe all CAUTIONS and WARNINGS.

c. After you operate, be sure to perform your after (A) PMCS.

d. Do (W) PMCS weekly.

e. Do (M) PMCS monthly.

f. If equipment fails to operate, refer to Section IV Troubleshooting. If the problem cannot be corrected, see paragraph 3-8, Reporting Deficiencies.

3-6. **Purpose of PMCS Table.** The purpose of the PMCS table is to provide a systematic method of inspecting and servicing the equipment. In this way, small defects can be detected early before they become a major problem causing the equipment to fail to complete its mission. The PMCS table is arranged with the individual PMCS procedures listed in sequence under assigned intervals. The most logical time (before, during, or after operation) to perform each procedure determines the interval to which it is assigned. Make a habit of doing the checks and services in the same order each time and anything wrong will be seen quickly. See paragraph 3-7 for an explanation of the columns in table 3-2.

3-7. **Explanation of Columns.** The following is a list of the PMCS table column headings with a description of the information found in each column.

a. Item No. This column shows the sequence in which the checks and services are to be performed, and is used to identify the equipment area on the Equipment Inspection and Maintenance Worksheet, DA Form 2404.

b. Interval. This column shows when each check is to be done.

c. Item to be Inspected. This column identifies the general area or specific part where the check or service is to be done.

d. Procedures. This column lists the checks or services to be done and explains how to do them.

e. Equipment is Not Ready/Available If. This column lists conditions that make the equipment unavailable for use because it is unable to perform its mission or because it would represent a safety hazard. Do not accept or operate equipment with a condition in the "Equipment is Not Ready/Available If" column.

3-8. **Reporting Deficiencies.** If you discover any problem with the equipment during PMCS or while operating it that you are unable to correct, it must be reported. Refer to DA Pam 738-750 and report the deficiency using the proper forms.

3-9. **Special Instructions** Preventive maintenance is not limited to performing the checks and services listed in the PMCS table. Covering unused receptacles, stowing unused equipment and other routine procedures such as equipment inventory, cleaning components, and touch-up painting are not listed in the PMCS table.

These are things you should do any time you see they need to be done. If a routine check is listed in the PMCS table it is because other operators have reported problems with this item. Take along tools and cleaning cloths needed to perform the required checks and services. Use the information in the following paragraphs to help you identify problems at any time.

a. Routine Inspections. Use the following information to help identify potential problems before and during checks and services.

WARNING

Drycleaning solvent PD-680 is both toxic and flammable. Wear safety goggles and gloves and use in a well-ventilated area. Avoid prolonged breathing of vapors and avoid skin contact. Do not use near open flame or excessive heat. Flash point of solvent is 100°F to 138°F (38°C to 59°C). If you become dizzy while using PD-680, get fresh air immediately and get medical aid. If PD-680 contacts eyes, flush with water and get medical aid immediately.

(1) Keep it clean. Dirt, grease, and oil get in the way and may cover up a serious problem. Use drycleaning solvent PD-680, to clean metal surfaces. Use soap and water to clean rubber or plastic parts and material.

(2) Bolts, nuts, and screws. Check them all to make sure they're not loose, missing, bent, or broken. Don't try to check them all with a tool, but look for chipped paint, bare metal, or rust around bolt heads. If you find one loose, tighten it or report it to unit maintenance.

(3) Welds. Look for loose or chipped paint, rust, or gaps where parts are welded together. If a broken weld is found, report it to higher level of maintenance.

(4) Electrical wires, connectors, terminals and receptacles. Look for cracked or broken insulation, bare wires, and loose or broken connectors. Tighten loose connectors and make sure the wires are in good condition. Examine terminals and receptacles for serviceability.

(5) Hoses and fluid lines. Look for wear, damage, and leaks. Make sure clamps and fittings are tight. Wet spots and stains around a fitting or connector can mean a leak. If a leak comes from a loose connector, tighten it. If something is broken or worn out, report it to unit maintenance.

b. Leakage Definitions. It is necessary for you to know how fluid leakage affects the status of your equipment. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your equipment. Learn and be familiar with them. When in doubt, NOTIFY YOUR SUPERVISOR!

Leakage Definitions:

Class I	Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
Class II	Leakage of fluid great enough to form drops but not enough to cause drops to drip from item being checked/inspected.
Class III	Leakage of fluid great enough to form drops that fall from the item being checked/inspected.

CAUTION

Equipment operation is allowable with minor leakage (Class I or II) of any fluid except fuel. Of course, consideration must be given to the fluid capacity in the item being checked/inspected. When in doubt, notify your supervisor.

When operating with Class I or II leaks, continue to check fluid level more often than required in the PMCS. Parts without fluid will stop working and/or cause equipment damage.

Class III leaks should be reported to your supervisor or unit maintenance.

NOTE

If the equipment must be kept in continuous operation, check and service only those items that can be checked and serviced without disturbing operation. Make the complete checks and services when the equipment can be shut down.

Within designated interval, these checks are to be performed in the order listed.

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS).

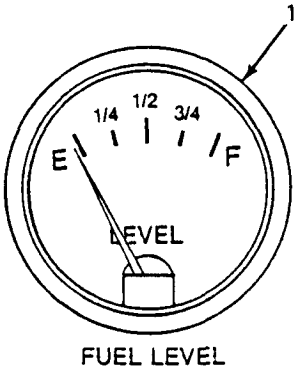
B – Before D – During A – After W – Weekly M – Monthly

Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
						WARNING Before performing any maintenance that requires climbing on or under trailer, set trailer handbrakes, chock wheels, and lower rear leveling jacks. Injury to personnel could result from trailer suddenly rolling or tipping. **NOTE** This PMCS table lists the checks and services as performed on a single power unit. These procedures must be duplicated on each of the two power units that make up the AN/MJQ-10A. Perform weekly as well as before PMCS if you are the assigned operator but have not operated the equipment since the last weekly inspection, or if you are operating the equipment for the first time.	

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B - Before D - During A - After W - Weekly M - Monthly

Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
1	•		•			GENERATOR SET EXTERIOR	
						a. Check on, around, and beneath generator set for fuel or oil and coolant leaks.	A Class Ill coolant or lubrication oil leak or any class fuel leak is detected.
						b. Check that generator set ground is properly installed and grounding connections are tight.	Not properly grounded.
						c. Manually open and close radiator louver doors to check for proper operation.	
2	•					FUEL GAGE Check fuel gage (1) for sufficient fuel for continuous operation.	



FUEL LEVEL

4875-003

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B - Before D - During A – After W- Weekly M – Monthly

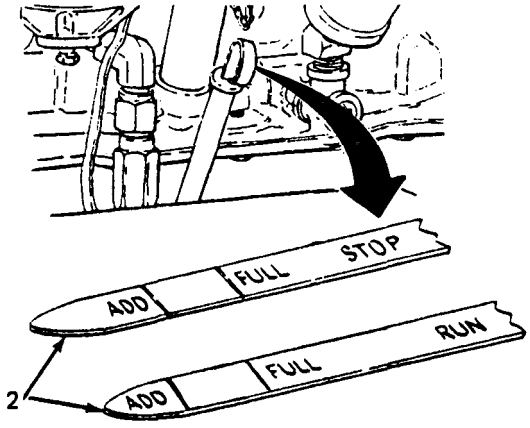
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
3	•	•	•			ENGINE OIL LEVEL Check oil filler dipstick (2) for proper oil level. Add oil as required.  4875-004	
4				•		COOLANT LEVEL Check level of fluid in cooling system. Proper level is 2 inches below overflow pipe. Add coolant as required.	
5	•					ACCESSORIES Check that the following accessories are not missing.	
						a. Sledge hammer	
						b. Fire extinguisher	Fire extinguisher is missing.
						c. Slide Hammer	
						d. Ground rods	Ground rods are missing.
						e. Fuel Drum Adapter	

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS)(cont).

B - Before D – During A – After W – Weekly M – Monthly

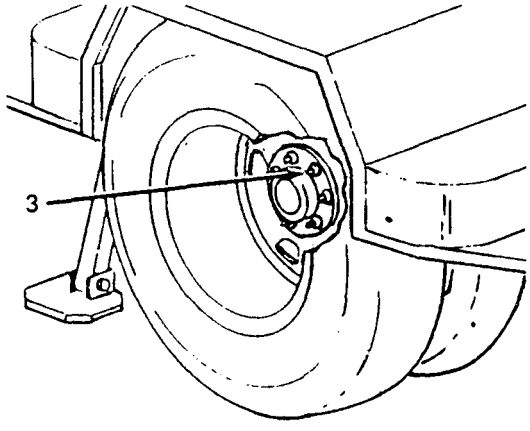
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
6	•					BRACKETS Check fire extinguisher and fuel can mounting brackets for loose hardware and broken fittings.	
7	•					TIRES a. Check for cuts, foreign objects, or unusual tread wear. Remove any stones from between the treads. b. Check that tire pressure is 35 psi (241.22 kPa) when tires are cool.	One tire is flat, missing, or unserviceable.
8	•					WHEELS Check for wheel damage and loose or missing stud nuts (3).  4875-005	One wheel is damaged. One stud nut is loose or missing.
9	•					LUNETTE Check lunette (4) for insecure mounting and obvious damage.	Lunette is loose or bent.
10	•					INTERVEHICULAR CABLE Check cable (5) and connector for cuts and breaks.	Intervehicular cable is broken or missing.

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B – Before D – During A – After W – Weekly M – Monthly

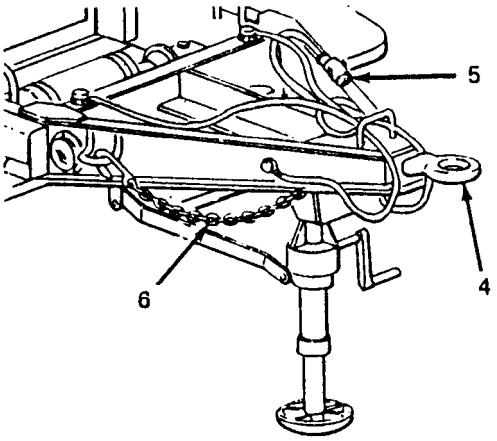
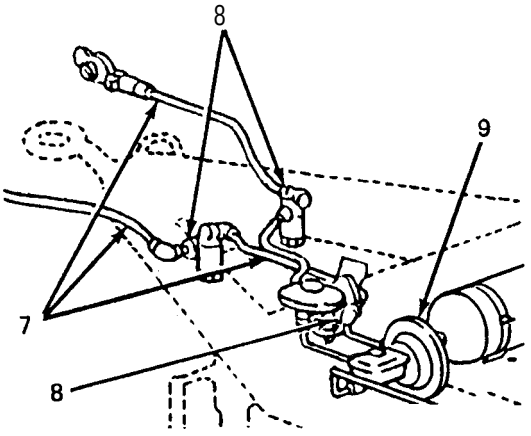
Item no.	Interval B	D	A	**W**	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
11	•					**SAFETY CHAINS** Check safety chains (6) for insecure mounting and obvious damage.  4875-006	Safety chains are missing or unsecured.
12	•					AIR HOSES, FITTINGS AND BRAKE AIR CHAMBER Check air hoses (7), fittings (8) and brake air chamber (9) for signs of damage or leaks.  4875-007	Damage or leaks are detected.

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B – Before D – During A – After W – Weekly M – Monthly

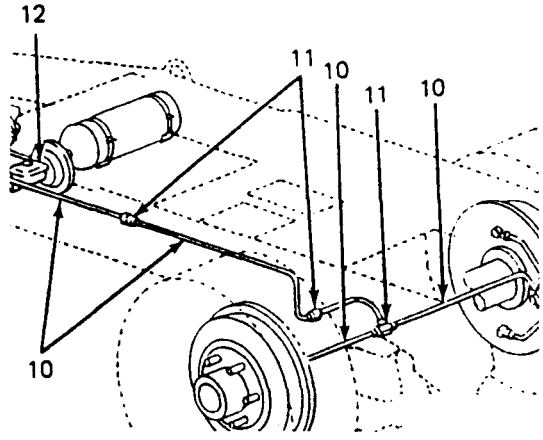
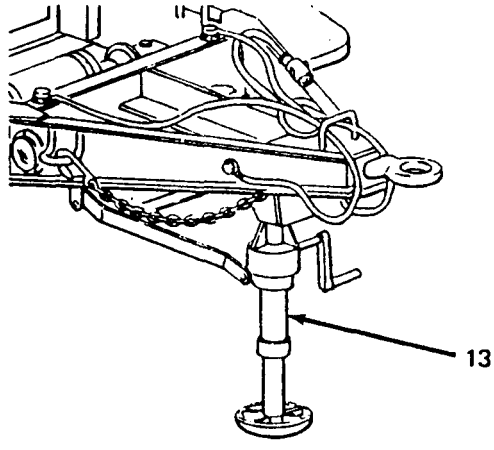
ITEM no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
13	•		•			HYDRAULIC HOSES, FITTINGS AND MASTER CYLINDER Check brake system hoses (10) and fittings (11) and master cylinder (12), and check under vehicle for signs of brake fluid leaks.  4875-008	A class III brake fluid leak is detected.
14		•				LANDING LEG Check condition of landing leg (13).  4875-009	There is indication that leg might collapse.

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B – Before D – During A - After W - Weekly M - Monthly

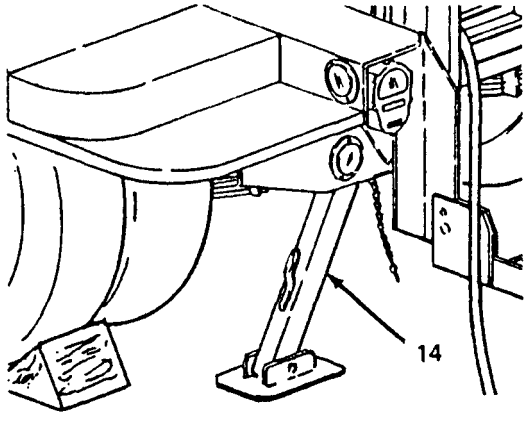
Item no.	Interval					Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
	B	D	A	W	M		
15		•				LEVELING JACK Check condition of leveling jack (14).  4875-010	There is indication that a jack might collapse.
16	•					LIGHTS a. With Intervehicular cable connected to towing vehicle, operate vehicle light switch through all settings and check lights (15). NOTE An assistant is required while checking brake lights. b. Step on brake pedal and check brake lights (15).	Lights are not functioning properly.

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B – Before D - During A - After W – Weekly M – Monthly

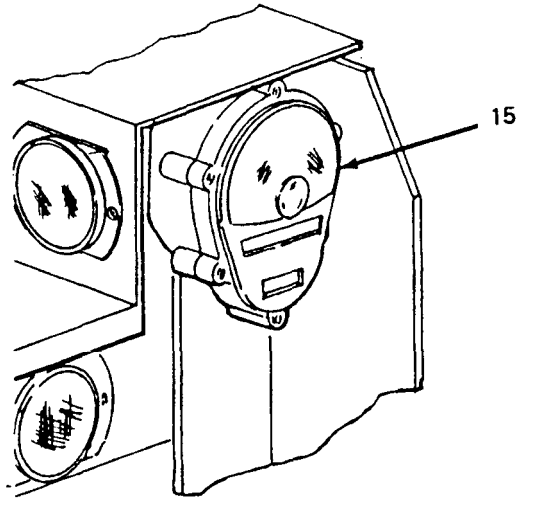
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
16	•					LIGHTS (cont)  4875-011	
17	•					BRAKE SYSTEM Test brake system by hooking trailer to towing vehicle and applying brakes.	Service brakes fail to operate.
18		•				TRAILER OPERATION a. Be alert for any unusual noises while towing trailer. Stop and investigate any unusual noises. b. Ensure that trailer is tracking/following correctly behind towing vehicle with no side pull.	
19		•				GENERATOR SET GAGES AND INSTRUMENTS a. Check that air cleaner condition indicator (16) does not indicate a clogged air cleaner. Press-to-test. b. Check that battery charging ammeter (17) is in green area during normal operation.	Light remains on during operation. Battery indicator not in green area.

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B – Before D - During A – After W – Weekly M – Monthly

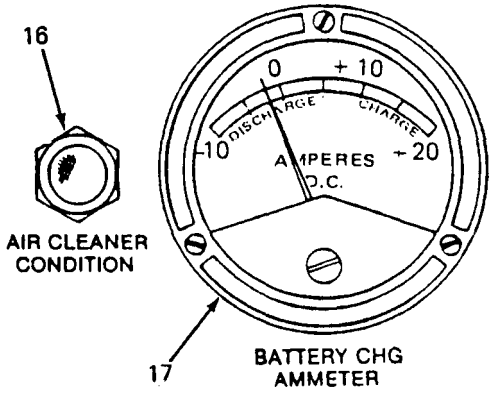
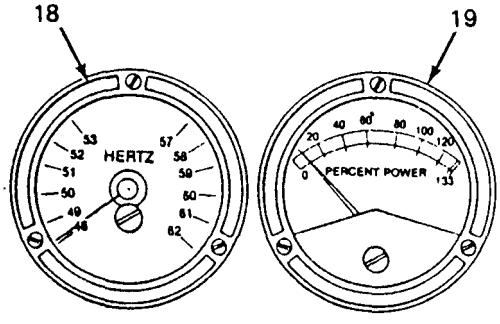
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
19		•				GENERATOR SET GAGES AND INSTRUMENTS (cont)	
						 4875-012	
						c. Check that frequency meter (18) indicates 60 Hz (red line) when generator is operating under load.	Correct frequency cannot be maintained.
						d. Check that kilowatt meter (19) reading does not exceed 100%.	
						 4875-013	
						e. Check that A.C. ammeter (20) reading does not exceed 100% of rated current or more than 5% load difference between phases.	No indication when load is applied.

Table 3–2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont.)

B - Before **D –During** **A – After** **W – Weekly** **M – Monthly**

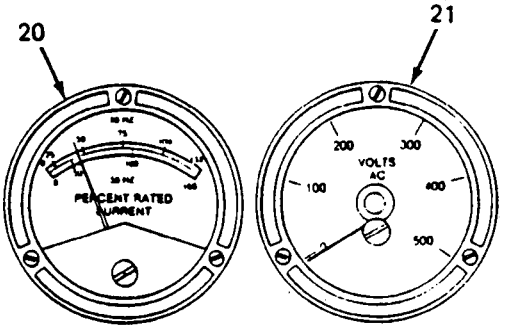
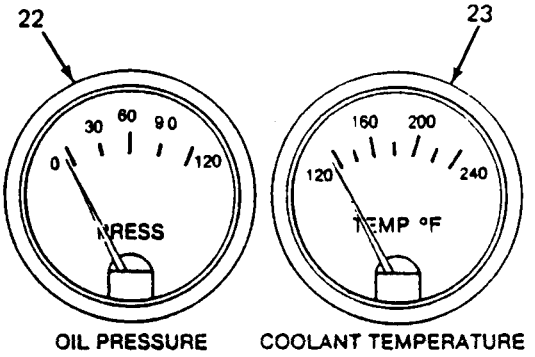
Item No.	Interval B	D	A	W	M	Item to be Inspected Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
19		•				GENERATOR SET GAGES AND INSTRUMENTS (cont.)	
						f. Check that A.C. voltmeter (21) indicates desired output voltage as determined by load connections and amps–volts selector switch.	Desired voltage cannot be obtained and maintained.
						 4875-014	
						g. Check engine oil pressure gage (22) for 20 to 55 psi indication	Oil pressure drops below 20 psi.
						h. Check coolant temperature gage (23) for 170° to 200 °F (76.7 to 93.3 °C) indication.	Temperature exceeds 200 °F (93.3 °C).
						 4875-01f	

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B - Before D - During A – After W- Weekly M - Monthly

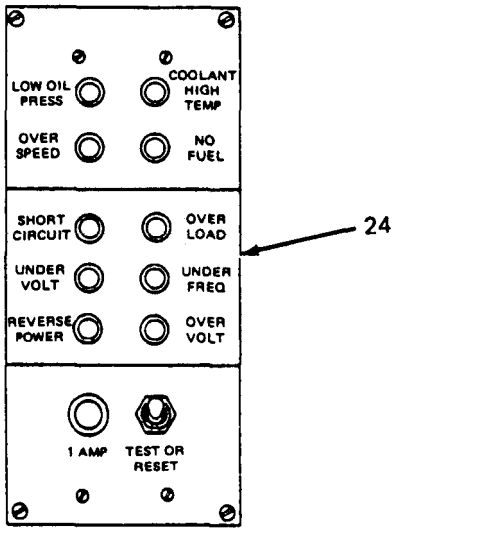
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
19		•				GENERATOR SET GAGES AND INSTRUMENTS (cont) i. Check that all lights on fault indicator panel (24) are out during operation. Check bulb operation with TEST or RESET switch on panel.  4875-016	Fault light will not go out when switch is set to TEST or RESET position, then released. All bulbs should be lit when switch is in TEST or RESET position.
20			•			FUEL TANK a. Fill tank (25) upon completion of operation, NOTE Fuel system temperature must be above freezing when draining water and sediment. b. Open drain (26) and drain water and sediment from fuel tank into a suitable container. Allow to drain until fuel runs clean.	

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B – Before D – During A – After W – Weekly M – Monthly

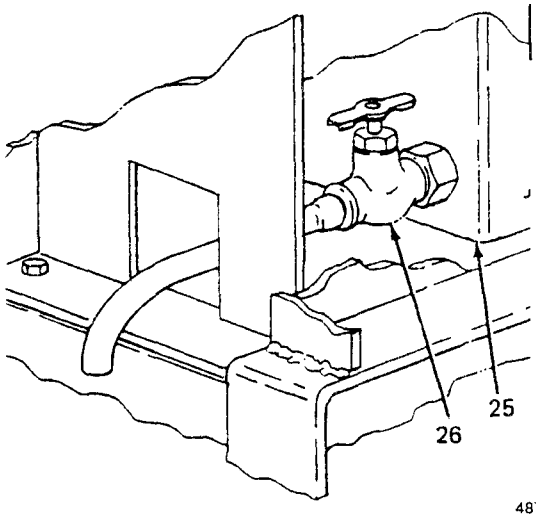
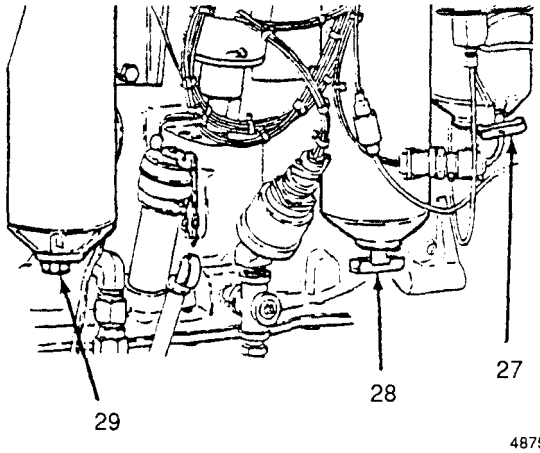
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
20			•			FUEL TANK (cont)  4875-017	
21			•			FUEL STRAINER AND FILTERS Drain water and sediment from strainer (27), primary (28) and secondary (29) filters into a suitable container. Allow to drain until fuel runs clean.  4875-018	
22			•			BATTLE SHORT INDICATOR LIGHT Push in on lens housing. Light (30) should illuminate. If not, replace bulb.	

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B - Before D – During A – After W – Weekly M – Monthly

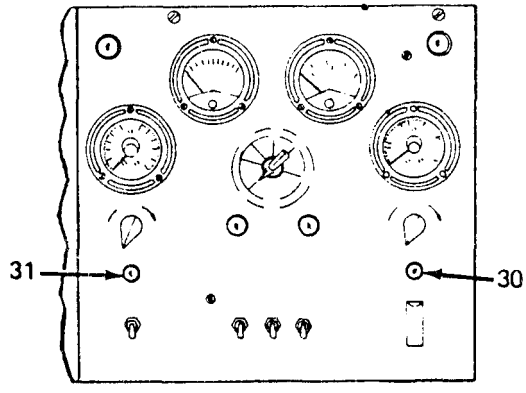
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
23			•			CIRCUIT BREAKER INDICATOR LIGHT Push in on lens housing. Light (31) should illuminate. If not, replace bulb.  4875-019	
24			•			BRAKE DRUMS AND HUBS **WARNING** A defect in the operation of the brakes or hub can cause these parts to get hot enough to cause serious burns. Use extreme caution when attempting to detect heat in this area. Feel drums and hubs for overheating.	Brakes or hub are dragging or binding.
25			•			AIR RESERVOIR Open draincock (32) to drain moisture from air reservoir (33) and close when finished.	

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B - Before D - During A – After W – Weekly M – Monthly

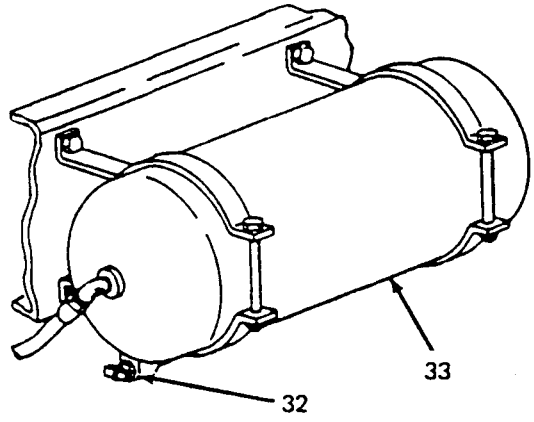
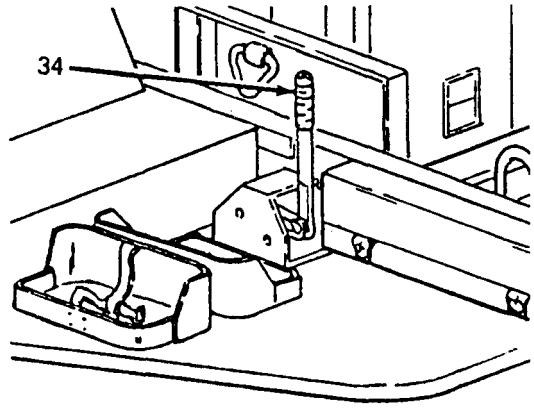
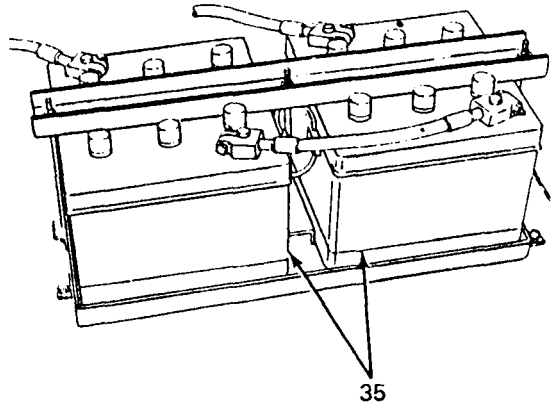
Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
25			•			AIR RESERVOIR (cont)  4875-020	
26			•			HANDBRAKES With trailer hooked to towing vehicle, set handbrakes (34). Move trailer slightly to see if handbrakes hold wheels. Adjust as required.  4875-021	Handbrakes cannot be adjusted.

Table 3-2. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (cont).

B - Before D - During A – After W – Weekly M – Monthly

Item no.	Interval B	D	A	W	M	Item to be inspected. Procedure: check for and have repaired, filled, or adjusted as needed	Equipment is not ready/available if:
27				•		REFLECTORS Check for damaged or missing reflectors.	
28				•		BATTERIES Check battery (35) electrolyte level. Level should be about 3/4 inch above top of plates. Add water if level is low. Use clean water (distilled water if available).  4875-022	
29					•	FIRE EXTINGUISHER Inspect and weigh fire extinguisher. (See paragraph 3-11.)	
30					•	TRAILER FRAME Inspect entire chassis frame for damage, cracks, and broken welds.	Frame is obviously broken or cracked.

Section IV. TROUBLESHOOTING

3-10. **Power Plant Troubleshooting.** There are no troubleshooting procedures authorized at operator level for the power plant end item. Troubleshooting procedures for the individual generator sets and trailers are contained in their respective technical manuals referenced below.

a. *Generator Set Troubleshooting.* Refer to TM 5-6115-465-12 for troubleshooting procedures applicable to the generator set.

b. *Trailer Troubleshooting.* Refer to TM 9-2330-205-14&P for troubleshooting procedures applicable to the trailer.

Section V. OPERATOR/CREW MAINTENANCE

3-11. **Fire Extinguisher Maintenance.** The AN/MJQ-10A Power Plant is equipped with two 5 lb CO_2 fire extinguishers. Maintenance is limited to weighing the fire extinguishers monthly to insure that they are sufficiently charged. Fully charged, each fire extinguisher weighs 13 Ibs. Send the unit to specialized activity for recharging if it weighs 12.5 lb or less.

CAUTION

Do not attempt to verify readiness of a fire extinguisher by partially discharging unit. Any discharge of contents will require refilling.

CHAPTER 4

UNIT MAINTENANCE

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

4-1. **Inspecting and Servicing Equipment.** The power plant is unpacked, inspected, and serviced as described in the following paragraphs. Unpacked equipment must be checked against the Equipment Packing List to ensure completeness. Discrepancies must be reported in accordance with instructions in DA Pam 738-750.

a. Unpacking Power Plant. (See figures 4-1 and 4-2.) The two power units that make up the AN/MJQ-10A power plant are identical except for the addition of the switch box installed on the curbside fender of one of the units. Therefore, the unpacking procedures are typical for both. Each generator set is packed in place on its respective trailer. Before beginning the unpacking procedure, locate and remove Depreservation Guide.

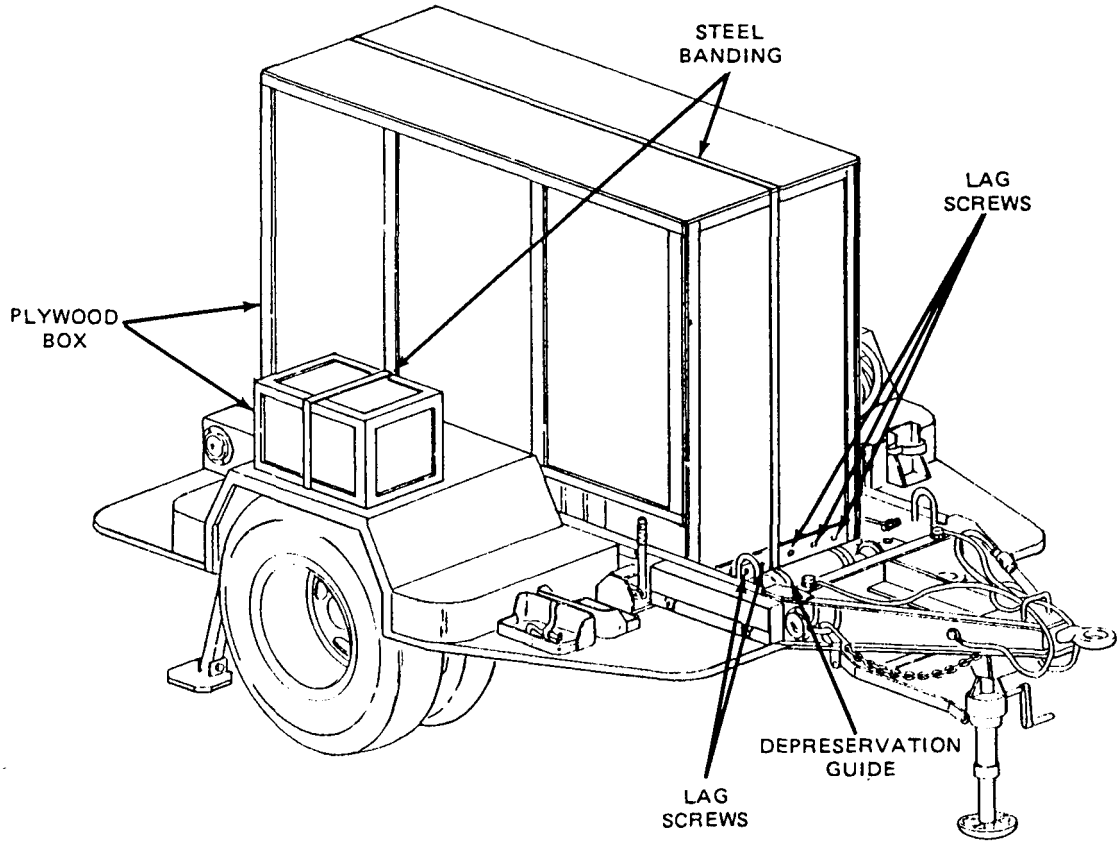


Figure 4-1. *Power Unit B, with Switch Box, Packed for Shipment.*

WARNING

The steel banding used in packaging of power unit has sharp edges. Care should be taken when cutting and handling banding to avoid injury to personnel.

(1) Remove steel banding around plywood box(es) covering generator set and, when unpacking unit B, the switch box.

(2) Remove lag screws securing plywood box cover over generator set and lift off cover.

(3) Remove wooden wedges and spacers from around generator set base. Loosen switch box attaching hardware and remove any steel banding remaining beneath switch box.

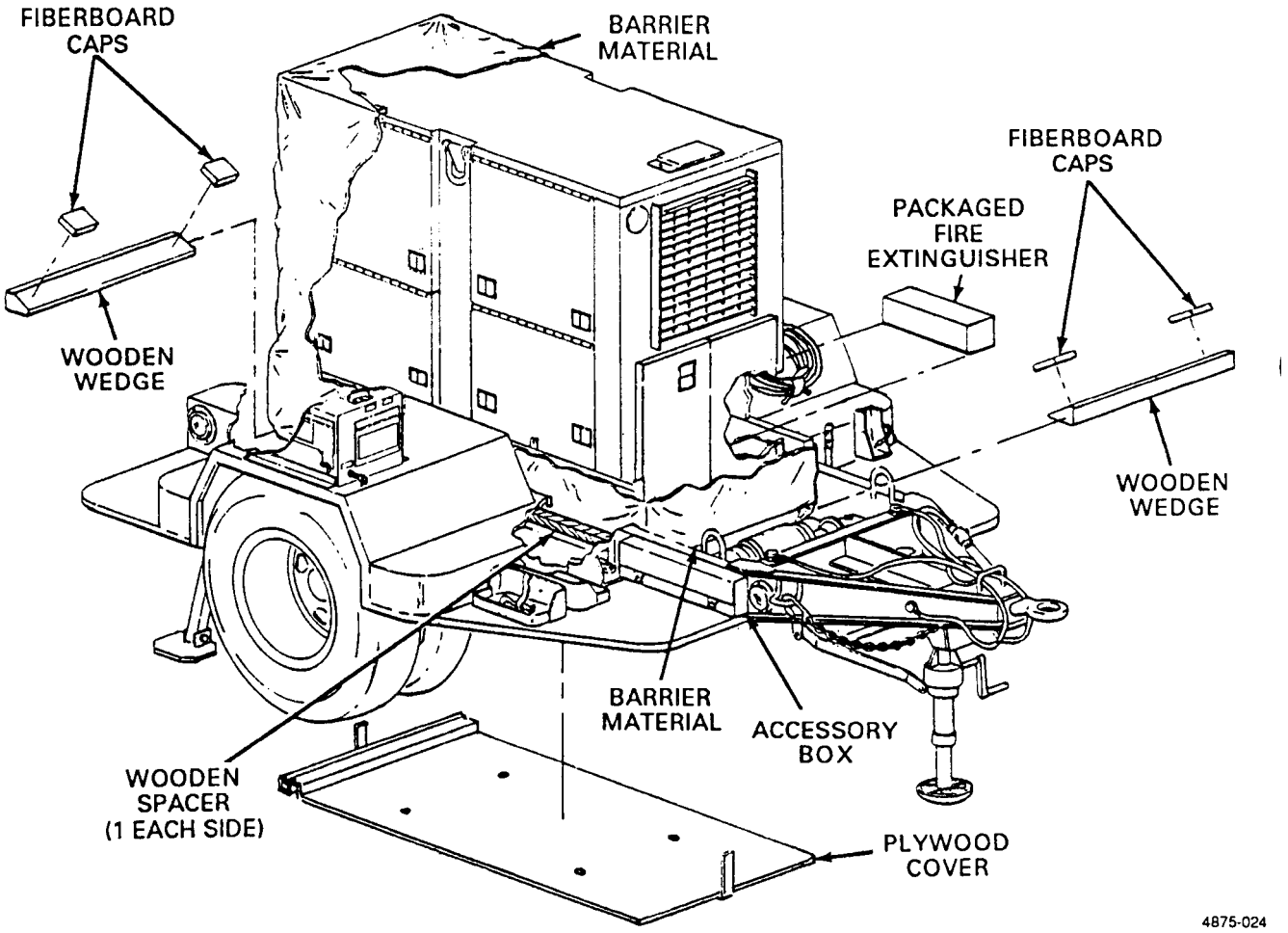


Figure 4-2. Unpacking Power Plant - Power Unit B Shown.

(4) Remove and save package of technical manuals secured to barrier material.

(5) Remove four sets of attaching hardware and drop plywood cover under trailer.

(6) Remove barrier material and fiberboard caps from generator set.

(7) Remove packaged fire extinguisher from within generator set enclosure. Unpack and secure fire extinguisher in bracket on front roadside step.

(8) Remove steel banding around accessory box, unpack and inventory contents.

(9) Refer to DA Form 2258, Depreservation Guide for Vehicles and Equipment, packed with power unit and follow instructions given for putting unit into service.

(10) Stow technical manuals in box on inside of generator set enclosure rear curbside door.

(11) Stow all authorized accessories in the accessory box.

(12) Remove all tape and packing film from trailer air hoses and intervehicular cable.

b. Inspection and Servicing of Generator Set. Refer to Service Upon Receipt of Material in TM 5-6115-465-12 for initial inspection and servicing procedures.

c. Inspection and Servicing of Trailers. Refer to Service Upon Receipt of Materiel in TM 9-2330-205-14&P for initial inspection and servicing procedures.

4-2. **Installation.** (See figure 4-3.) Installation of the power plant at a worksite involves positioning both the power unit trailers and the switch box, and grounding the equipment.

a. Positioning Power Plant. Position the power plant on the worksite as follows:

(1) Select an area as level as possible to install power plant and position both power units.

(2) Set handbrakes and lower landing legs on both trailers.

(3) Chock both sets of dual wheels on each trailer.

(4) Lower both rear leveling jacks on each trailer and secure leveling jacks with lockpins. Extend lower tubes on leveling jacks by stepping on hinged pads.

WARNING

Remove fire extinguishers and fuel cans from power units when power plant is in operation. This will insure that in the event of fire, extra fuel will not be involved and extinguisher will remain accessible.

(5) Locate fuel cans and fire extinguishers on ground halfway between two power units.

(6) Remove switch box from fender of power unit B and stow attaching hardware in accessory box.

(7) Position switch box assembly on ground halfway between two power units.

(8) Connect one ground wire to GROUND TERMINAL stud on front, roadside frame of each power unit trailer. Connect opposite end of both ground wires to GROUND TERMINAL stud on switch box.

(9) Unstrap and remove power cables from fenders of both power units.

NOTE

When performing step 10, note that the power cables, the individual wires in the cables, and the generator set load terminals are all marked for identification. Make certain these markings correspond when connecting power cables.

(10) Connect power cable to each generator set load terminal board as follows:

(a) White wire to load terminal L0.

(b) Black wire to load terminal L1.

(c) Red wire to load terminal L2.

(d) Blue wire to load terminal L3.

(11) Connect both power cables to switch box.

WARNING

Do not operate power plant until both power units have been properly grounded (paragraph 4-2, b.). Serious injury or death by electrocution can result from operating an ungrounded power plant.

CAUTION

To avoid damage to equipment, make certain of voltage, frequency, and phase requirements of load being connected to power plant.

(12) Connect power plant switch box to system or equipment to be powered. Refer to TM 5-6115-465-12 and generator set load terminal board data plate. Data plate is located on inside of generator enclosure door nearest load terminals.

(13) Remove quick-release pins securing both power unit personnel platforms and lower platforms.

(14) On both power units, open control panel doors and the two doors immediately below the control panels.

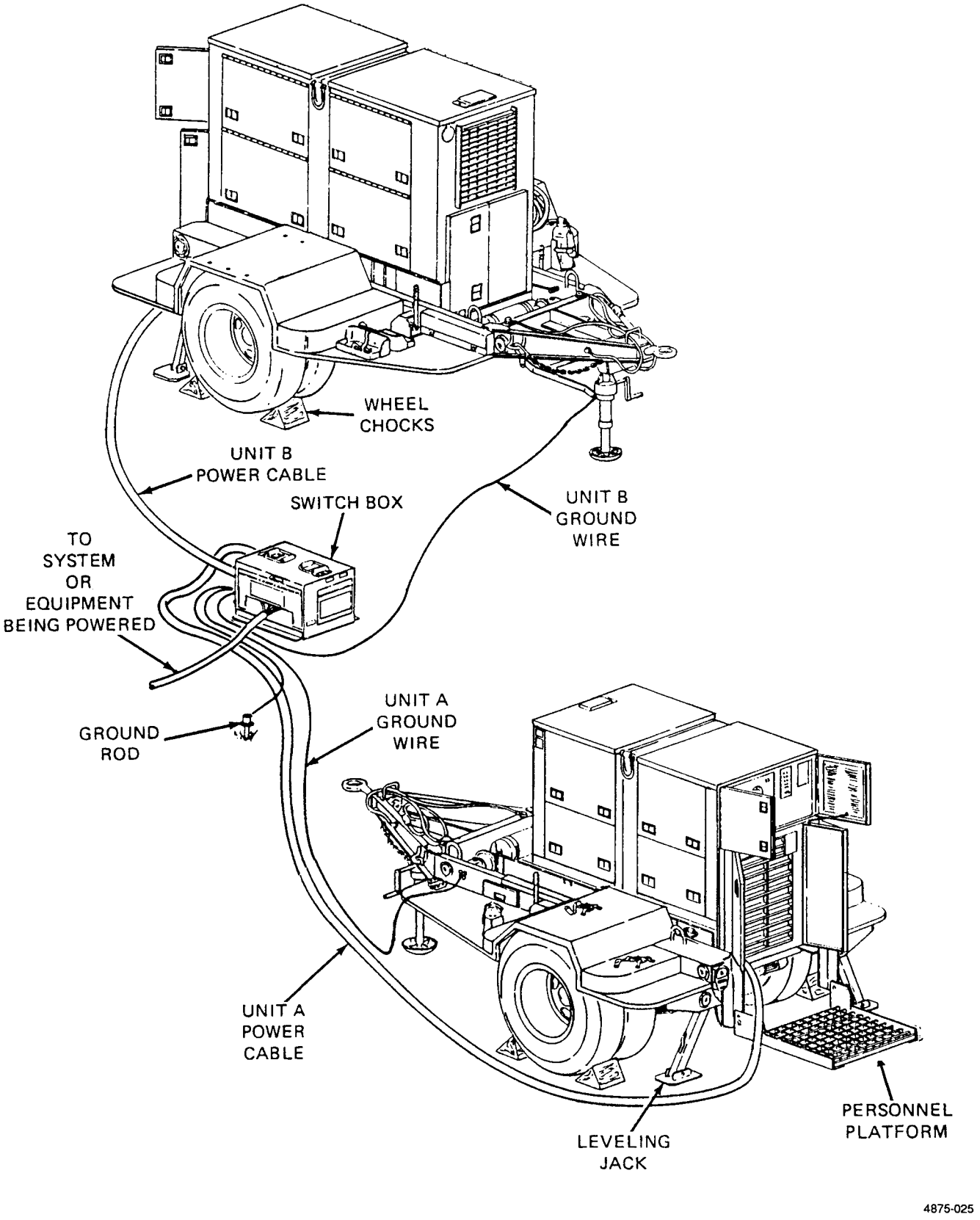


Figure 4-3. Power Plant Installation.

b. *Grounding.* Check that individual power unit generator sets are grounded to GROUND TERMINAL studs on their respective trailer frames. Using ground wire supplied with power plant, connect GROUND TERMINAL lug on switch box to a suitable ground as described below. The following sources of good ground are listed in order of preference.

NOTE

As a substitute for the supplied ground wire, any copper wire of a least No. 6 AWG may be used.

(1) *Underground water system.* Ground power plant to one of the accessible pipes in an underground water system. Make certain underground pipe is made of metal and there is no insulation, such as a water meter, between ground wire and earth.

(2) *Ground rod.* Drive ground rod a minimum of eight feet into earth. A ground rod must have a minimum diameter of 5/8-inch if solid, or 3/4-inch if pipe.

NOTE

It may be necessary to saturate the area around ground rod with water if soil conditions are dry.

(3) *Ground plate.* Ground power unit to a metal plate buried four feet deep. Ground plate should cover a minimum area of nine square feet.

c. *External Fuel Line Connection.* (See figure 4-4.) Either or both of the power units that make up the power plant can be fueled from an external source. The external source could be a five-gallon fuel can or 55 gallon drum. This eliminates the need for frequent refilling of a generator's fuel tank during long intervals of operation.

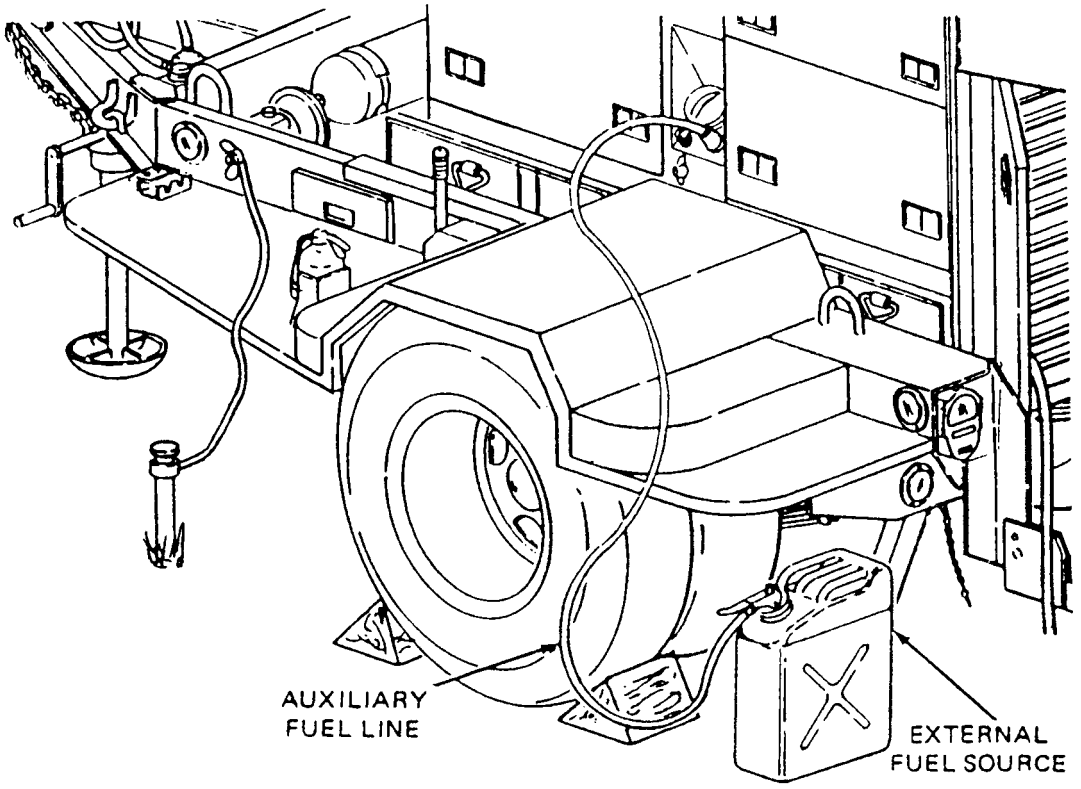
(1) Remove fuel can adapter and fuel pickup tube from storage locations on power unit and assemble by threading pickup tube into adapter.

(2) Thread one end of auxiliary fuel line onto fuel can adapter fitting and tighten.

(3) Connect free end of auxiliary fuel line to AUXILIARY FUEL CONNECTION. This connection is located next to the fuel filler above the trailer roadside fender.

(4) Insert fuel can adapter in external fuel source and secure by pressing down on lever.

(5) Set FUEL SELECTOR VALVE beneath fuel filler to AUXILIARY position.



4875-026

Figure 4-4. External Fuel Line Connection.

Section II. MOVEMENT TO A NEW WORKSITE

4-3. **Dismantling for Movement.** Because the power plant is designed to be mobile, a minimum amount of effort is required to relocate to a new worksite. Procedures are as follows:

a. Disconnect power plant from system or equipment being powered.

b. Disconnect ground cables from source of ground and GROUND TERMINAL stud on switch box. Roll up cables and store in accessory boxes.

c. Using slide hammer, remove ground rods. Disassemble, clean, and stow ground rods in accessory boxes.

d. Disconnect power plant from external fuel sources, if applicable.

e. Disconnect ground wires between switch box and GROUND TERMINAL studs on power units. Roll up ground wires and store in accessory boxes.

f. Disconnect power cables from both power units and from switch box. Roll up cables and secure each to roadside fender of respective power unit using straps provided.

g. Close switch box access door and cap connectors. Position switch box on curbside fender of power unit B and secure with hardware provided.

h. Stow any remaining authorized equipment in accessory box.

i. Secure fire extinguishers and fuel cans in their respective mounting brackets.

j. Close all doors on the generator set enclosures.

k. On each power unit, swing personnel platform up into traveling position and secure with two platform anchor quick-release pins.

WARNING

Use care when releasing spring-loaded lower tube of leveling jacks. The lower tube will return to retracted position with considerable force and can cause injury.

l. Retract lower tubes of leveling jacks. Swing leveling jacks up into traveling position and secure with lockpins.

m. Remove wheel chocks.

n. Attach power units to towing vehicles. Refer to TM 9-2330-205-14&P.

o. Release trailer handbrakes on both power units.

4-4. **Reinstallation After Movement.** After movement to a new worksite, install power plant in accordance with paragraph 4-2.

Section III. REPAIR PARTS, SPECIAL TOOLS, SPECIAL TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE)

4-5. **Tools and Equipment.** There are no special tools or equipment required to maintain the AN/MJQ-10A . power plant.

4-6. **Maintenance Repair Parts.** Repair parts and equipment for maintenance of this power plant are listed and illustrated in the repair parts and special tools list in Appendix D of this manual.

Section IV. LUBRICATION INSTRUCTIONS

4-7. **General.** Detailed instructions for the lubrication of the major components of the power plant are contained in the applicable Lubrication Orders (LO's). Refer to DA Pam 25-30 to ensure that the latest editions of the L.O.'S are used. This section contains lubrication instructions that are not included in the Lubrication Orders.

4-8. **Generator Lubrication.** Refer to TM 5-6115-465-12 for generator set Lubrication Order.

4-9. Trailer Assembly Lubrication.

a. *Trailer Lubrication.* Refer to TM 9-2330-205-14&P for trailer Lubrication Order.

b. *Personnel Platform Lubrication.* The personnel platform is a modification to the standard M200A1 trailer and, as such, does not appear in the associated LO. Lubricate the personnel platform semiannually as follows:

WARNING

Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes and prolonged exposure of skin to cleaning solvent. Wash exposed skin thoroughly. Dry cleaning solvent (PD-680) used to clean parts is potentially dangerous to personnel and property. Do not smoke or use near open flame or excessive heat. Flash point of solvent is 100°F to 138°F (38°C to 59°C).

(1) Using PD-680, or equivalent, clean area to be lubricated.

(2) Apply OE lubricating oil to personnel platform pivot points and to platform anchor quick-release pins.

Section V. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

NOTE

The PMCS chart in this section contains all necessary unit preventive maintenance checks and services for this equipment.

4-10. **General.** The trailer assemblies and generator sets must be inspected and serviced systematically to insure that the power plant is ready for operation at all times. Inspection will allow defects to be discovered and corrected before they result in serious damage or failure. Table 4-1 contains a tabulated list of preventive maintenance checks and services to be performed by unit maintenance personnel. All of the unit PMCS on the trailers is scheduled to be performed semiannually or annually. Unit PMCS on the generator sets is scheduled monthly or on a per-hours-of-operation basis. The running time meters on the control panels are used to determine the operating time of the generator sets. Using the following as a guide, do the checks and services at the intervals shown. Observe all CAUTIONS and WARNINGS.

a. For PMCS performed on an operating time basis, perform your hourly (H) PMCS as close as possible to the time intervals indicated.

NOTE

For units in continuous operation, perform PMCS before starting operation if continuous operation will extend service interval past that which is shown.

b. Perform your monthly (M) PMCS every month or 100 hours of generator set operating time.

c. Do your semiannual (S) PMCS once every six months.

d. Do your annual (A) PMCS once every year.

e. If you discover a problem with the equipment, refer to Section VI, Troubleshooting. If you cannot correct the problem, refer to paragraph 4-12, Reporting Deficiencies.

4-11. **Explanation of Columns.** The following is a list of the PMCS table column headings with a description of the information found in each column.

a. *Item No.* This column shows the sequence in which to do the checks and services, and is used to identify the equipment area on the Equipment Inspection and Maintenance Worksheet, DA Form 2404.

b. *Interval.* This column shows when each check is to be done.

c. *Item to be Inspected.* This column identifies the general area or specific part where the check or service is to be done.

d. *Procedures.* This column lists the checks or service you have to do and explains how to do them.

4-12. **Reporting Deficiencies.** If you discover any problem with the equipment during PMCS that you are unable to correct, it must be reported. Refer to DA Pam 738-750 and report the deficiency using the proper forms.

Table 4-1. Unit Preventive Maintenance Checks and Services (PMCS).

H - Hours of operation (As indicated) | M – Monthly (100 hours) | S – Semiannually (500 hours) | A – Annually (1000 hours)

Item no.	Interval H	M	S	A	Item to be inspected	Procedures
						WARNING Before performing any maintenance that requires climbing on or under trailer, set trailer handbrakes, chock wheels, and lower rear leveling jacks. Injury to personnel could result from trailer suddenly rolling or tipping. NOTE This PMCS table lists the checks and services as performed on a single power unit. These procedures must be duplicated on each of the two power units that make up the AN/MJQ-10A.
1		•			Generator Set Exterior	Inspect generator set for fuel and oil leaks, loose or missing components and hardware, and unusual wear or deterioration. Clean generator set.

Table 4-1. Unit Preventive Maintenance Checks and Services (PMCS)(cont).

H - Hours of operation (As indicated) | M – Monthly (100 hours) | S – Semiannually (500 hours) | A – Annually (1000 hours)

Item no.	Interval H	M	S	A	Item to be inspected	Procedures
2		•			Fuel Strainer and Filters	NOTE Fuel system must be above freezing temperature when draining water and sediment from strainer, filters, and tank. Open drains on fuel strainer, and primary and secondary fuel filters. Drain water and sediment into a suitable container. Allow to drain until fuel runs clean.
3		•			Fuel Tanks	Open drains on main fuel tank and day tank. Drain water and sediment into a suitable container. Allow to drain until fuel runs clean.
4			•		Fuel Pumps	Clean or replace, as necessary, fuel strainer in bottom of fuel pump.
5	100				Batteries	Perform a hydrometer test on batteries every 100 hours. Refer to TM 5-6115-465-12 for test procedures.
6	100				V-Belts	Inspect for worn, frayed, oil soaked, or cracked belts. Check adjustment. Proper adjustment for fan belt is a deflection of 1/2 inch with application of 12-14 lb pressure midway between fan and accessory drive pulley.
7	100				Fuel Filters	Replace filter elements every 100 hours of operation.
8	300				Fuel Strainers	Clean fuel strainer every 300 hours of operation.
9	300				Lubricating Oil and Filters	Change lubricating oil and filter every 300 hours of operation or six months.

Table 4-1. Unit Preventive Maintenance Checks and Services (PMCS) (cont).

H – Hours of operation (As indicated) | M - Monthly (100 hours) | S - Semiannually (500 hours) | A – Annually (1000 hours)

Item no.	Interval H	M	S	A	Item to be inspected	Procedures
10	300				Breather and Breather Tube	Inspect for damage. Clean breather and tube at oil change interval.
11		•			Air Cleaner	Inspect air cleaner element. Clean or replace as required.
12			•		Taillights	Replace any broken or cracked lenses or defective bulbs.
13			•		Intervehicular Cable	Check for cuts, breaks, frayed wires, or damaged plug.
14			•		Lunette	Check security of mounting. Inspect ring for excessive wear.
15			•		Safety Chains	Inspect for broken links or missing chain(s).
16			•		Reflectors	Replace any cracked, broken, or missing reflectors.
17			•		Data Plates and Markings	Make sure data plates are legible and securely mounted. Replace illegible data plates.
18			•		Landing Leg	Inspect landing leg and brace for bent or broken parts.
19			•		Leveling Jacks	Inspect leveling jacks for bent or broken parts.
20			•		Suspension Assemblies	a. Inspect shackles, bearings, pins, leaf springs and spring eyes for damage or broken parts. b. Inspect mounting brackets for cracks or loose or missing hardware.
21			•		Axle	a. Check for damaged axle tube. b. Check for loose or missing U-bolts or nuts.

Table 4-1. Unit Preventive Maintenance Checks and Services (PMCS) (cont).

H – Hours of operation (As indicated) | M – Monthly (100 hours) | S - Semiannually (500 hours) | A – Annually (1000 hours)

Item no.	Interval H	M	S	A	Item to be inspected	Procedures
22			•		Wheels and Tires	a. Check serviceability of tires as indicated in TM 9-2610-200-24.
						b. Tighten wheel stud nuts to 450 to 500 ft-lb (611 to 678 N•m).
23			•		Brakes	a. Inspect brake linings for wear. Replace if brake shoe lining is less than 1/8-inch (3.2 mm) thick.
			•			b. Inspect brake adjusting screw, retaining screw, retaining pins, springs, and clips for corrosion and wear.
			•			c. Inspect hydraulic wheel cylinders for leaks.
				•		d. Adjust brakes.
24				•	Wheel Bearings	Clean and repack wheel bearings.
25			•		Hydraulic Brake Hoses and Fittings	Inspect for dents, cracks, loose connections and leaks.
26			•		Air Hoses and Fittings	Inspect for dents, cracks, loose connections and leaks.
27			•		Brake Master Cylinder	Check fluid level. Fill to 1/2 inch from top.
			•		Trailer - Road Test	Perform road test paying special attention to items that were repaired or adjusted, in accordance with TM 9-2330-205-14&P.

Section VI. TROUBLESHOOTING

4-13. **General.** Troubleshooting procedures for components unique to the power plant end item are given in paragraph 4-14. Troubleshooting information for the individual generator sets and trailers are contained in their respective manuals referenced below:

a. *Generator Set Troubleshooting*. Refer to TM 5-6115-465-12 for troubleshooting procedures applicable to the generator set.

b. *Trailer Troubleshooting*. Refer to TM 9-2330-205-14&P for troubleshooting procedures applicable to the trailers.

4-14. **Power Plant Troubleshooting.** Table 4-2 contains troubleshooting information for locating and correcting operating troubles which may develop in components unique to the power plant end item. Each malfunction is followed by a list of tests or inspections which will help determine probable cause and corrective actions to take. Perform the tests/inspections and corrective actions in the order listed. This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or cannot be corrected by listed corrective actions, notify your supervisor.

Table 4-2. Troubleshooting.

Malfunction Test or Inspection Corrective Action

1. POWER IS ABSENT AT SWITCH BOX LOAD TERMINAL(S) WHEN ONE PARTICULAR POWER UNIT IS SELECTED.

Step 1. Check if associated generator set circuit breaker is set to ON position.

If circuit breaker is in OFF position, reset to ON position.

Step 2. Verify associated generator set output is as desired. Check generator output at load terminals.

If power is absent at generator set load terminals, troubleshoot generator set. (Refer to TM 5-6115-465-12.)

Step 3. Perform continuity check on associated power cable.

If cable is defective, replace cable or notify higher level of maintenance for repair.

Step 4. Perform continuity check on associated switchbox connector.

If connector is defective, notify higher level of maintenance.

Step 5. Perform continuity check on associated switch.

If switch is defective, notify higher level of maintenance.

Table 4-2. Troubleshooting (cont).

Malfunction Test or Inspection Corrective Action
2. POWER IS ABSENT AT ONE OR MORE SWITCH BOX LOAD TERMINALS WHEN EITHER POWER UNIT IS SELECTED. Step 1. Check load terminal(s) for looseness or damage. a. If terminal is loose, tighten. b. If terminal is damaged, notify higher level of maintenance. Step 2. Inside switchbox, check wires associated with inoperative terminal(s) for looseness or broken wire terminals. a. Tighten loose connections. b. Notify higher level of maintenance if repair or replacement is required.
3. ONE OR MORE INDICATOR LAMPS DO NOT LIGHT WHEN POWER IS APPLIED BY POWER PLANT THROUGH SWITCH BOX. Step 1. Check bulb(s). Replace bulb(s) if defective (para. 4-29). Step 2. Inspect wires associated with inoperative indicator. Check wire terminals for looseness. a. Tighten loose connections. b. Notify higher level of maintenance if repair or replacement is required. Step 3. Perform continuity check on indicator housing. If indicator housing is defective, notify higher level of maintenance.

Section VII. RADIO INTERFERENCE SUPPRESSION

4-15. General Methods Used to Attain Proper Suppression. Essentially, suppression is attained by providing a low resistance path to ground for stray currents. The methods used include shielding ignition and high-frequency wires, grounding the frame with bonding straps, and using filtering systems.

4-16. **Radio Interference Suppression Components.** All component parts on the power plant end item, whose primary or secondary function is radio interference suppression, are on the generator sets. Refer to TM 5-6115-465-12 for location of radio interference suppression components.

Section VIII. MAINTENANCE OF POWER PLANT TRAILERS

4-17. **General.** This section of the manual contains unit level maintenance procedures for components of the M200A1 trailer added when the trailer is used as part of the AN/MJQ-A10A power plant. These components are not covered in the overall trailer maintenance manual. For all other unit maintenance procedures on the trailer, refer to TM 9-2330-205-14&P.

WARNING

Before performing any maintenance that requires climbing on or under trailer, set trailer handbrakes, chock both wheels, and lower rear leveling jacks. Injury to personnel could result from trailer suddenly rolling or tipping.

4-18. **Fuel Can Bracket Replacement.** (See figure 4-5.) There are four fuel can brackets supplied with the AN/MJQ-10A. Two brackets are mounted on top of the curbside front steps on each power unit. Replacement procedures described below are typical for all.

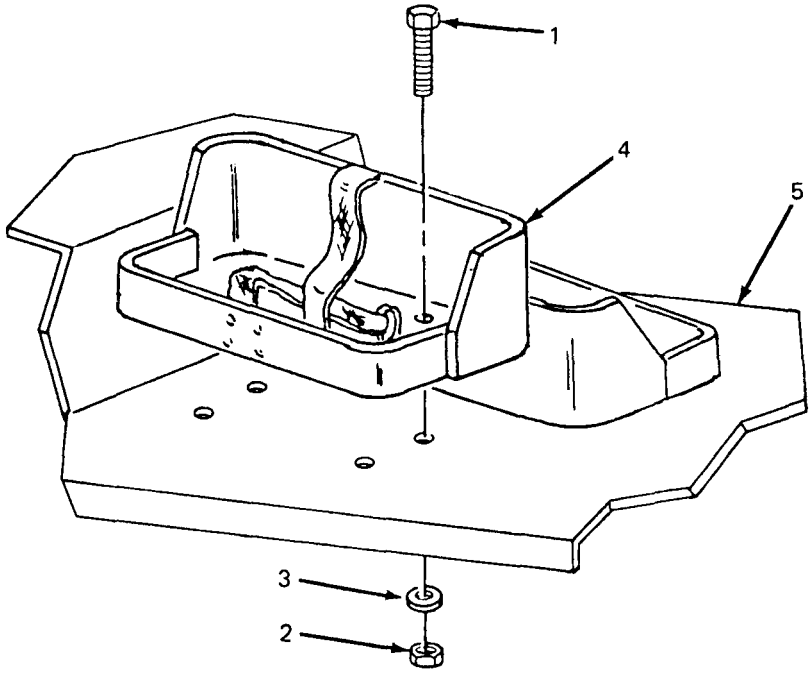


Figure 4-5. Fuel Can Bracket Replacement.

a. Removal.

(1) Remove four screws (1, figure 4-5), four nuts (2) and four flat washers (3) securing bracket (4) to step (5).

(2) Remove bracket (4) from step (5).

b. Installation.

(1) Position fuel can bracket (4) on step (5).

(2) Insert four screws (1) down through bracket (4) and through step (5).

(3) Install one washer (3) and one nut (2) on each screw (1). Tighten hardware to secure bracket (4).

4-19. **Accessory Box Replacement.** (See figure 4-6.) The accessory boxes are mounted to the trailer frames at the curbside front steps. Replacement procedures are typical.

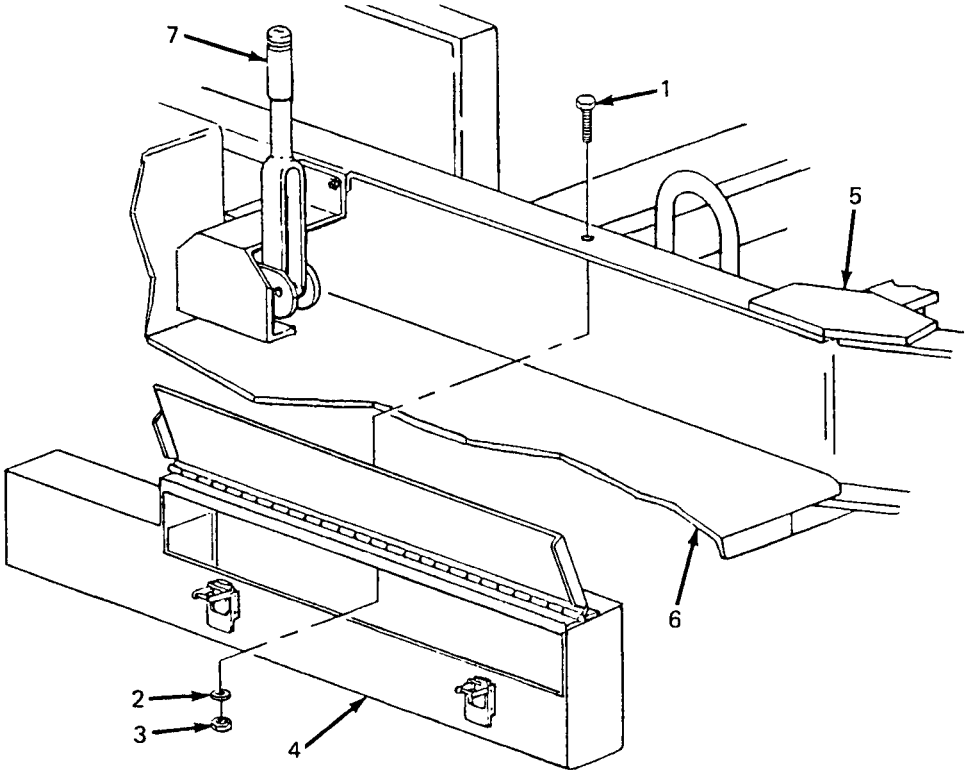


Figure 4-6. *Accessory Box Replacement.*

a. *Removal.*

(1) Remove three screws (1, figure 4-6), three flat washers (2), and three nuts (3) securing accessory box (4) to trailer frame (5).

(2) Slide accessory box (4) forward and off front step (6).

b. *Installation.*

(1) Position accessory box (4) on front trailer step (6) with narrow end between handbrake lever (7) and trailer frame (5).

(2) Lift accessory box (4) so that top of box contacts lip of trailer frame (5).

(3) Insert three screws (1) down through trailer frame (5) into accessory box (4).

(4) Install one nut (3) and one washer (2) on each screw(1) and tighten.

4-20. **Fire Extinguisher Bracket Replacement.** (See figure 4-7.) The fire extinguishers supplied with the power plant are carried in brackets mounted on the front roadside steps of the trailers.

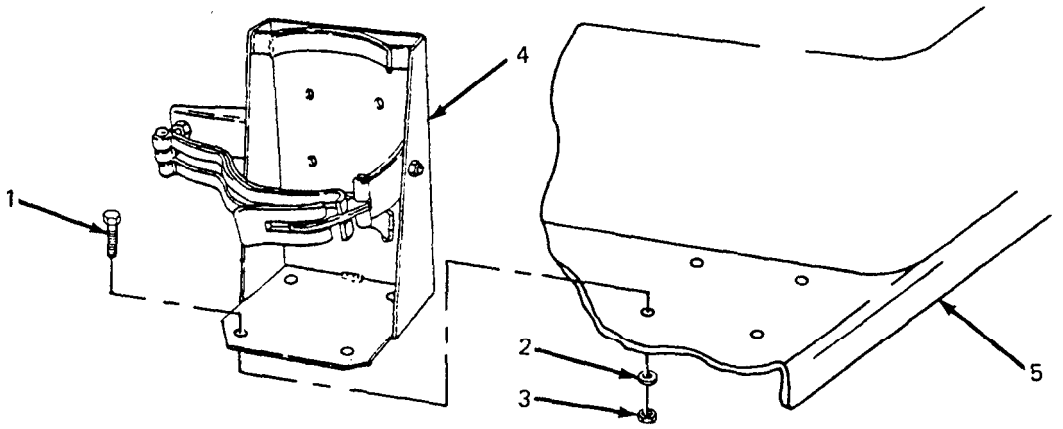


Figure 4-7. Fire Extinguisher Bracket Replacement.

a. *Removal.*

(1) Remove four screws (1, figure 4-7), four flat washers (2), and four nuts (3) securing bracket (4) to step (5).

(2) Remove bracket (4) from step (5).

b. Installation.

(1) Position fire extinguisher bracket (4) on step (5).

(2) Insert four screws (1) down through bracket (4) and through step (5).

(3) install one flat washer (2) and one nut (3) on each screw (1). Tighten hardware to secure bracket (4).

4-21. **Front Step Replacement.** (See figure 4-8.) The roadside and curbside front steps on both trailers are symmetrical. Replacement procedures are the same except where noted in the steps below.

a. Removal.

NOTE

When removing roadside front step, omit steps (1) and (2).

(1) Remove fuel can brackets (paragraph 4-1 18a).

(2) Remove accessory box (paragraph 4-1 9a).

(3) Remove cotter pin (1, figure 4-8) and clevis pin (2) securing handbrake cable (3) to handbrake lever mechanism (4).

(4) Remove two screws (5), two flat washers (6) and two nuts (7) securing handbrake (8) to trailer frame (9).

(5) Remove two screws (10), two flat washers (11) and two nuts (12) securing handbrake cable bracket (13) to front step (14). Push handbrake cable clevis through hole in front step.

NOTE

There are two screws, flat washers, and nuts securing handbrake bracket to front step. It is only necessary to remove one set of attaching hardware to remove front step from trailer frame.

(6) Remove screw (15), flat washer (16), and nut (17) directly beneath pivot point of handbrake lever (4).

(7) Remove seven screws (18) 14 flat washers (19) and seven nuts (20) securing front step (14) to front edge of fender (21).

(8) Remove two screws (22), one screw (23) and one screw (24), four flat washers (25) and four nuts (26) securing front step (14) to edge of trailer frame (9).

(9) Remove three screws (27), three flat washers (28) and three nuts (29) securing front step (14) to trailer cross braces (30) and remove front step and spacers (31).

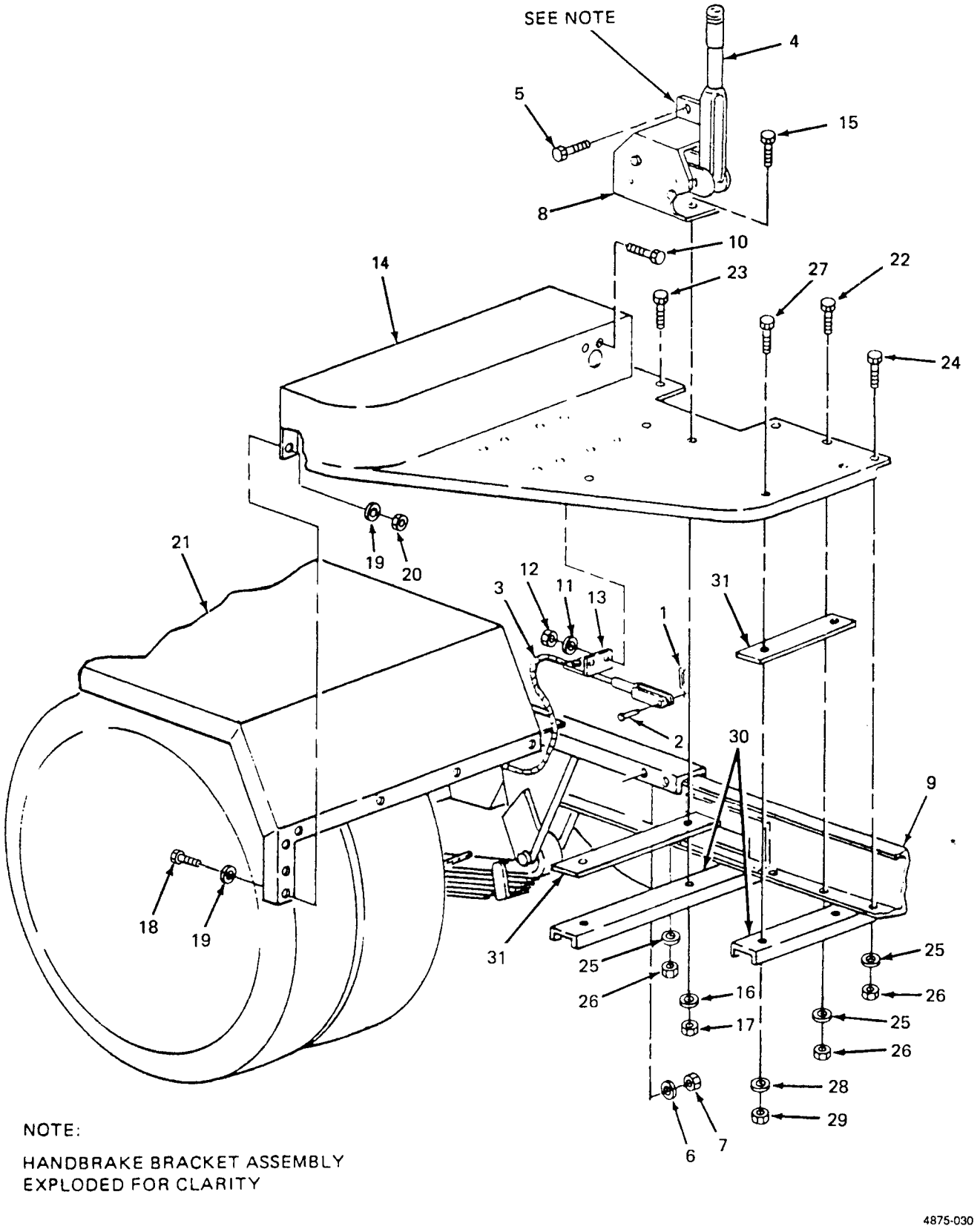


Figure 4-8. Front Step Replacement.

b. Installation.

NOTE

Three different length screws are used to mount the front step. Screws with index numbers (5), (10), (18) and (22) in figure 4-8 are one inch long. Screw with index number (23) is 1-1/4 inch long. Screws with index numbers (15), (24) and (27) are 1-3/4 inch long. Observe lengths and locations when installing hardware.

(1) Position spacers (31) and front step (14) on cross braces (30) and trailer frame (9). Insert clevis on handbrake cable (3) through hole in front step (14).

(2) Insert four screws (22, 23 and 24) through front step (14) and trailer frame (9).

(3) Insert three screws (27) through front step (14) and trailer cross braces (30).

(4) Working under step, install one flat washer (28) and one nut (29) on each screw (27) securing front step (14) to cross braces (30) and install one flat washer (25) and one nut (26) on each screw (22, 23 and 24) securing step to trailer frame (9). Tighten seven sets of hardware.

(5) Secure front step (14) to fender (21) with seven screws (18), 14 flat washers (19) and seven nuts (20).

(6) Insert screw (15) through handbrake bracket (8), front step (14) and cross brace (30). Install flat washer (16) and nut (17) on screw from underneath and tighten.

(7) Insert two screws (5) with flat washers (6) through handbrake bracket (8) and trailer frame (9). Install one nut (7) on each screw and tighten.

(8) Insert two screws (10) through front step (14) and handbrake cable bracket (13). Install one flat washer (11) and one nut (12) on each screw and tighten.

(9) Position clevis on handbrake cable (3) on handbrake lever mechanism (4). Insert clevis pin (2) and secure with cotter pin (1).

NOTE

When installing roadside front step, omit steps (10) and (11).

(10) Install accessory box (paragraph 4-29 b).

(11) Install fuel can brackets (paragraph 4-18, b).

4-22. **Rear Step and Bracket Replacement.** (See figure 4-9.) The roadside and curbside rear steps on both trailers are symmetrical, and replacement procedures are the same for all.

a. Removal

(1) Remove two screws (1, figure 4-9), two flat washers (2) and two nuts (3) securing rear step bracket (4) and platform anchor (5) to trailer frame (6) under taillight (7).

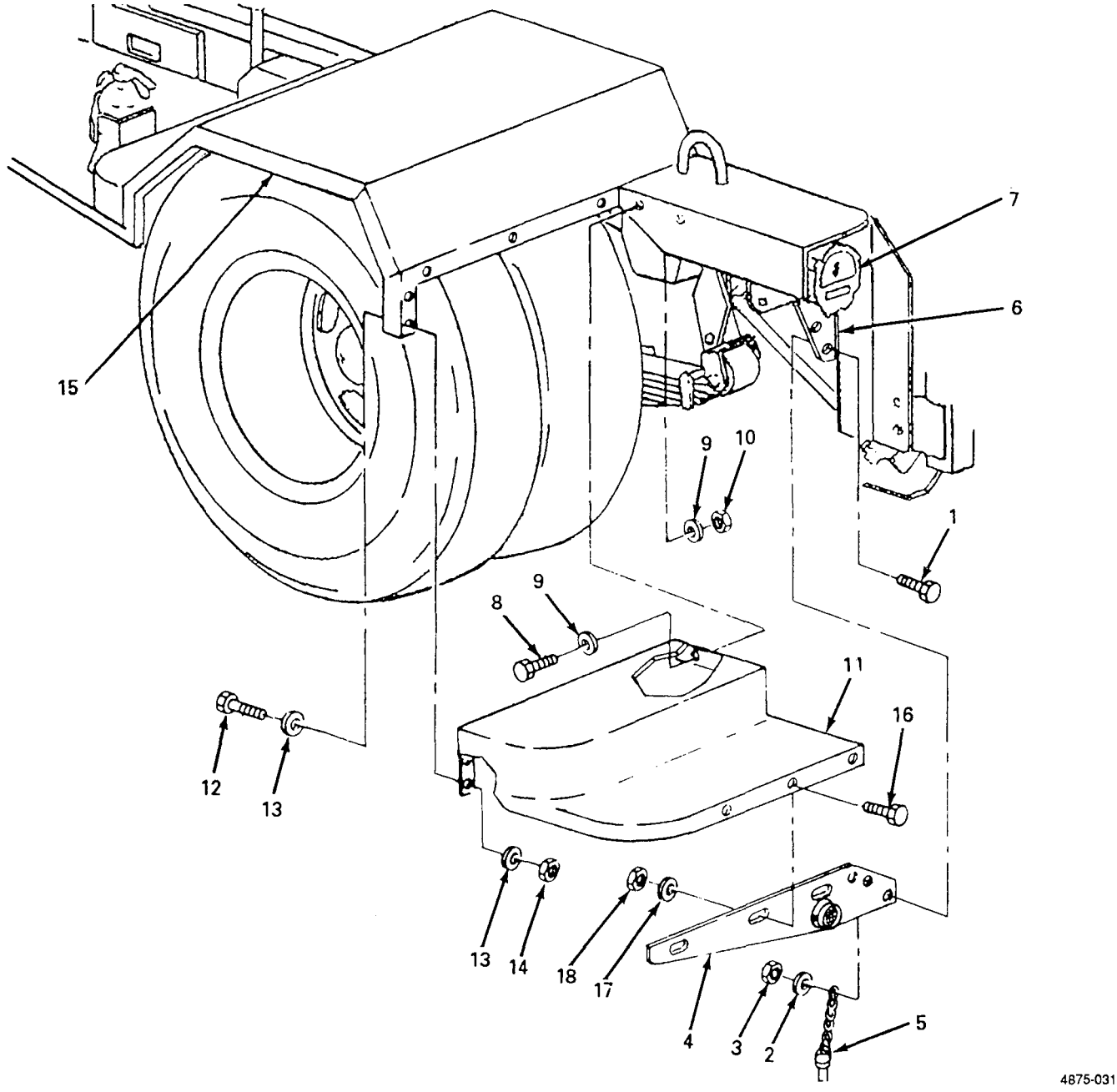


Figure 4-9. Rear Step and Bracket Replacement.

(2) Remove two screws (8), four flat washers (9) and two nuts (10) securing rear step(11) to trailer frame (6).

(3) Remove five screws (12), ten flat washers (13) and five nuts (14) securing rear step (11) to fender (15). Remove rear step from trailer.

NOTE

If rear step bracket must be straightened or replaced, do step (4). Remove and retain reflector for installation on new or repaired bracket.

(4) Remove three screws (16), three flat washers (17) and three nuts (18). Separate rear step bracket (4) from step (11).

b. Installation.

(1) If rear step bracket (4) was removed from step (11), align bracket and step (11) and install three screws (16), three flat washers (17) and three nuts (18).

(2) Position rear step (11) on trailer frame (6).

(3) Secure rear step (11) to trailer frame (6) with two screws (8), four flat washers (9) and two nuts (10).

(4) Secure rear step (11) to fender (15) with five screws (12), ten flat washers (13) and five nuts (14).

(5) Align two mounting holes in rear step bracket (4) with holes in trailer frame (6) under taillight (7) and insert two screws (1).

(6) Slide S-hook at chain end of platform anchor (5) onto threaded end of lower screw (1) inside trailer frame (6).

(7) Install one flat washer (2) and one nut (3) on each screw (1) and tighten.

4-23. **Fender Replacement.** (See figure 4-10.) The fenders on the trailer assemblies are symmetrical, and replacement procedures are the same for all.

a. Removal.

(1) Remove five screws (1, figure 4-10), ten flat washers (2) and five nuts (3) securing fender (4) to trailer frame (5).

WARNING

There are five sets of hardware securing fender to rear step and seven sets of hardware securing fender to front step. This hardware should be removed in sequence from trailer frame outward. In this way, last two screws on front and rear lower fender edge will support fender until you are out from underneath.

(2) Remove six screws (6), 12 flat washers (7) and six nuts (8) securing fender (4) to front step (9). Leave one outside set of hardware in place.

(3) Remove four screws (10), eight flat washers(11) and four nuts (12) securing fender (4) to rear step (13). Leave one outside set of hardware in place.

WARNING

Support fender while removing remaining two sets of hardware. When hardware is removed, fender will drop.

(4) Remove one screw (6), two flat washers (7) and one nut (8) securing fender (4) to front step (9).

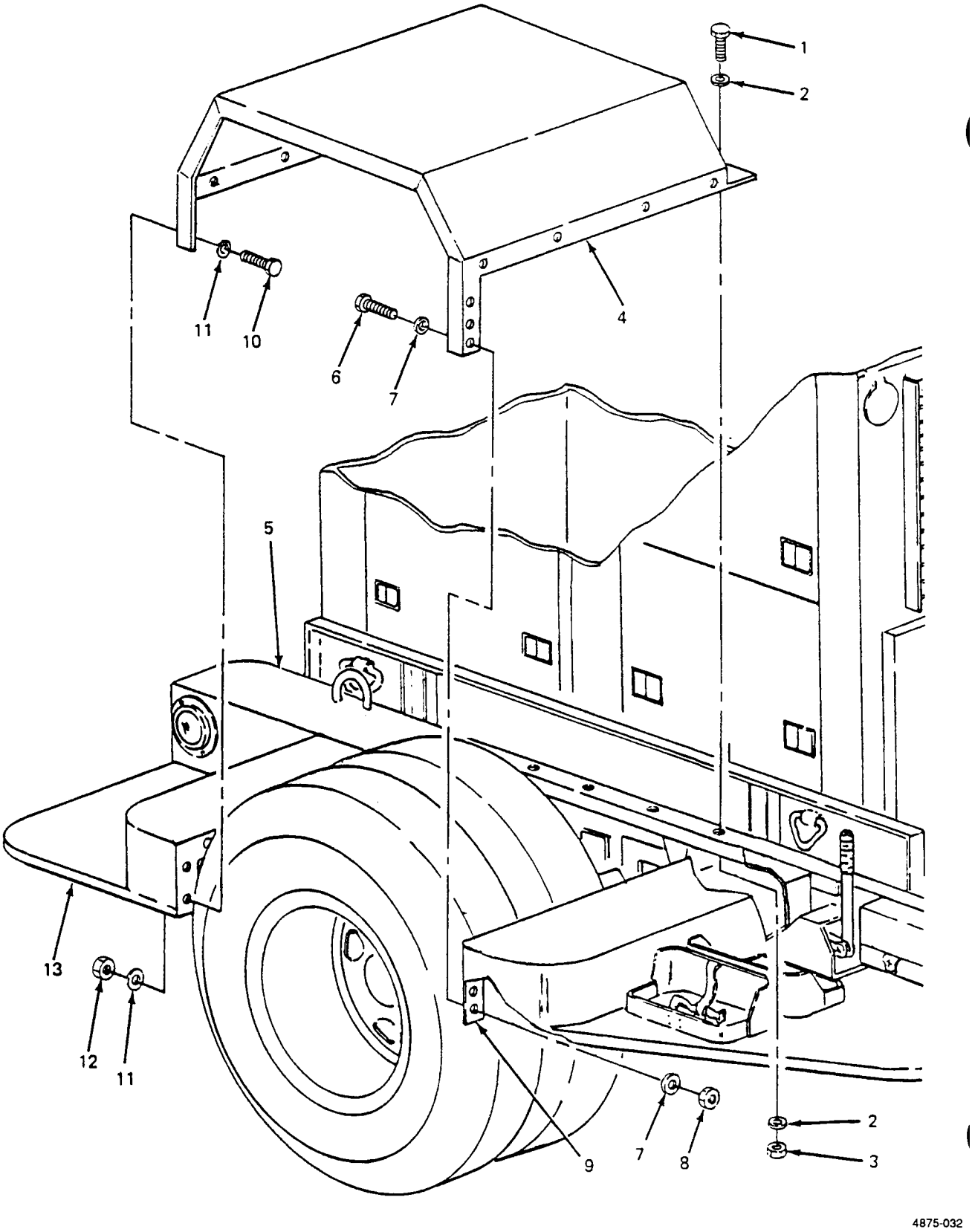


Figure 4-10. Fender Replacement.

(5) Remove one screw (10), two flat washers (11) and one nut (12) securing fender (4) to rear step (13).

(6) Remove fender (4).

b. Installation.

(1) Position fender (4) on trailer.

(2) Insert one screw (10) with flat washer(11) through lower outside edge of fender (4) into rear step (13), and insert one screw (6) with flat washer (7) through lower outside edge of fender (4) into front step (9).

(3) Install one washer (11) and one nut (12) on screw (10), and one washer (7) and one nut (8) on screw (6). Tighten hardware.

(4) Insect five screws (1) with flat washers (2) down through fender (4) into trailer frame (5).

(5) Working under fender, install one flat washer (2) and one nut (3) on each screw (1) and tighten.

(6) Insert six screws (6) with flat washers (7) through fender (4) into front step (9). Install one washer (7) and one nut (8) on each screw (6) and tighten.

(7) Insert four screws (10) with flat washers (11) through fender (4) into rear step (13). Install one washer (11) and one nut (12) on each screw (10) and tighten.

4-24. **Personnel Platform Replacement.** (See figure 4-11). This platform is mounted on the rear of each trailer to facilitate access to generator set controls and indicators.

a. Removal.

(1) Remove two screws (1, figure 4-11), four flat washers (2) and two self-locking nuts (3) securing platform (4) to mounting brackets (5).

WARNING

Support platform while removing anchors. When anchors are removed, platform will drop.

(2) Remove two platform anchors (6) by pushing in on button on head of pin while pulling pin out of mounting hole.

(3) Remove three screws (7) three flat washers (8) and three self-locking nuts (9) from each mounting bracket (5) and take mounting brackets off of trailer frame (10).

b. Installation.

NOTE

If mounting brackets have not been removed, omit step (1).

(1) Position each mounting bracket (5) on trailer frame (10). Insert three screws (7) through frame into each bracket. Install one washer (8) and one self-locking nut (9) on each screw and tighten.

(2) Holding platform (4) in vertical position, position platform on mounting brackets (5) so that holes in platform line up with holes in brackets and install platform anchors (6) in upper mounting hole on each side of platform.

(3) Secure platform (4) to brackets (5) with two screws (1), four flat washers (2) and two nuts (3).

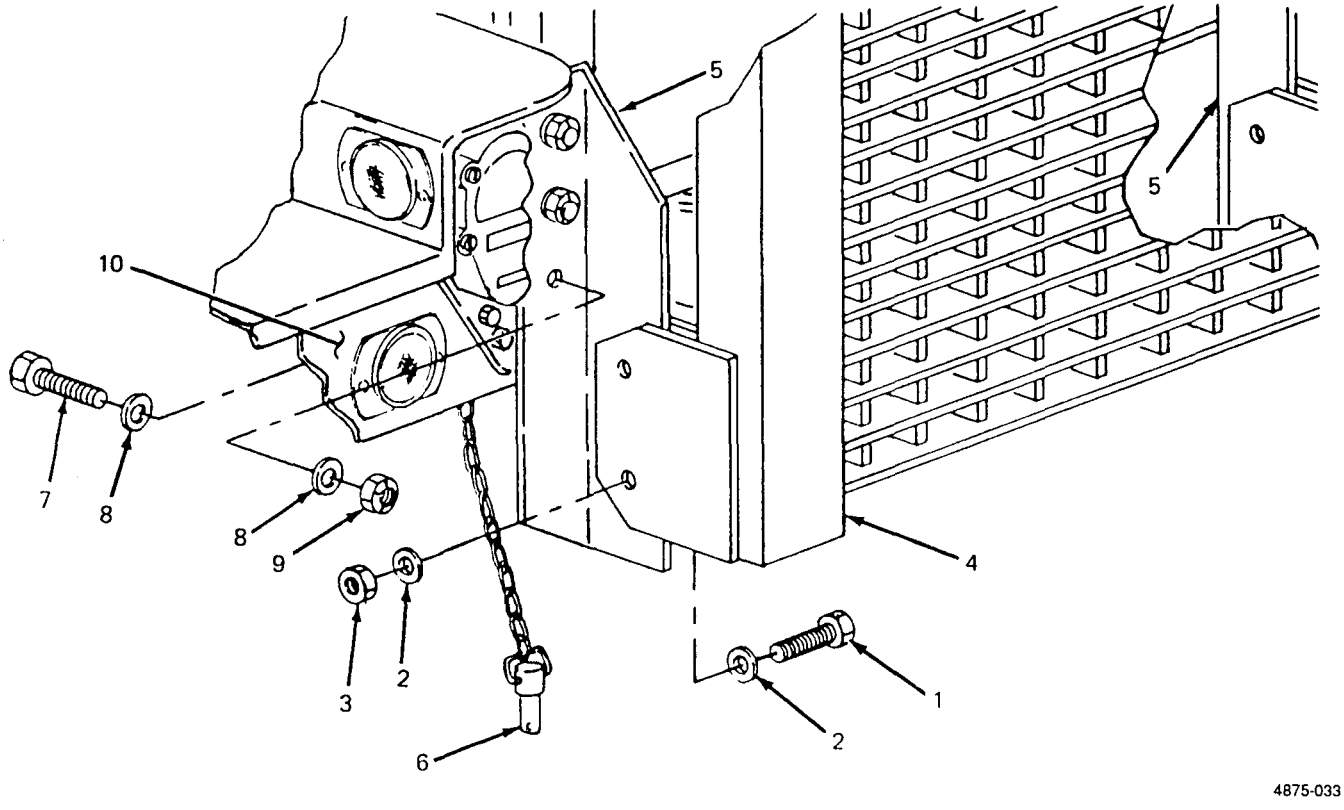


Figure 4-11. Personnel Platform Replacement.

4-25. **Holddown Strap Replacement.** (See figure 4-12.) Three holddown straps are provided on the roadside fender of each power unit. These straps are used to secure the power cables when the power plant is in transit. Replacement procedure is typical.

a. Removal.

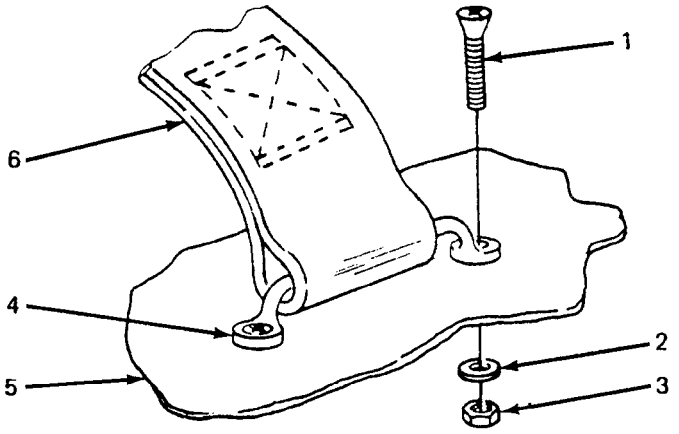
(1) Remove two screws (1, figure 4-12), two washers (2), and two nuts (3) securing strap fastener loop (4) to trailer (5).

(2) Slide holddown strap (6) off strap fastener loop (4).

b. Installation.

(1) Slide holddown strap (6) onto strap fastener loop (4).

(2) Position strap fastener loop (4) on trailer body (5) and secure with two screws (1), two washers (2), and two nuts (3).



4875-034

Figure 4-12. Holddown Strap Replacement.

Section IX. MAINTENANCE OF ELECTRICAL SYSTEM

4-26. **General.** This section of the manual contains unit level maintenance procedures for electrical components that are unique to the AN/MJQ-10A power plant. Specifically, this includes the switch box and the power cables.

4-27. **Cable Testing.** A continuity test is used to detect opens or shorts in the power plant power cables. The two cables differ from each other only in length. The following test procedure is typical for both.

a. Set multimeter controls to prepare unit for continuity testing.

NOTE

The contacts in the connector end of cable are labeled A, B, C, N, and G1 thru G4. The individual colored wires at the other end of cable are labeled L0, L1, L2, L3, and GEN GND.

b. Touch one probe to contact A in connector and touch remaining probe to black wire labeled L1. Multimeter must indicate continuity. If it does not, cable is open.

c. With first probe still in contact A, touch remaining probe to wires labeled L2, L3, L0, and GEN GND. Multimeter must not indicate continuity. If it does, cable is shorted.

d. Refer to figure 4-13, and repeat steps b. and c. at connector contacts B, C, and N. In each case, continuity must exist between corresponding points and only between corresponding points.

e. Connect one multimeter probe to GEN GND lug on cable and touch remaining probe to G1, G2, G3, and G4. Continuity must be indicated on each contact.

f. If continuity test detects any opens or shorts in cable, refer cable to higher level of maintenance.

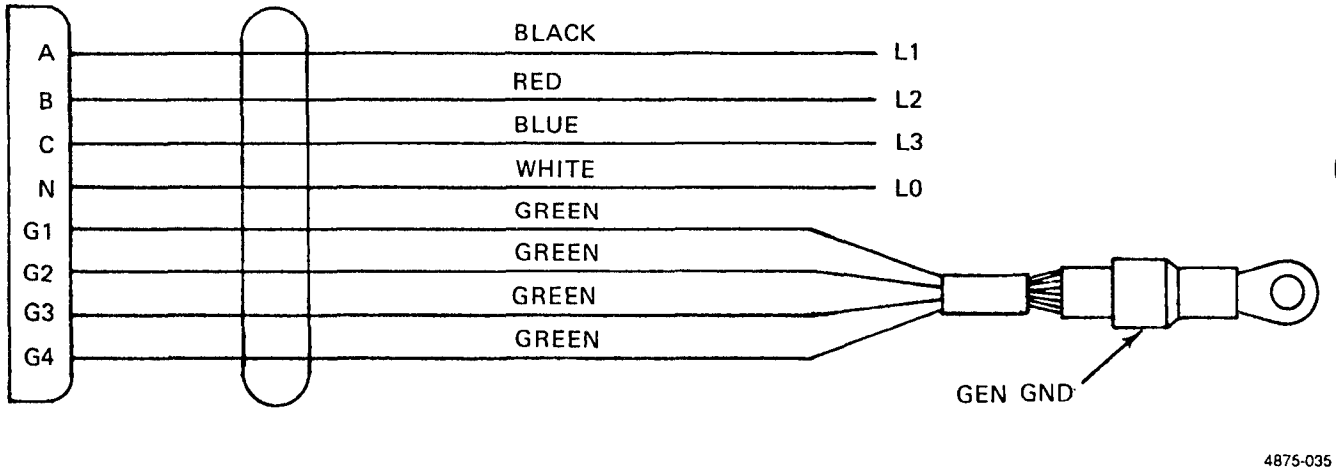


Figure 4-13. Power Cable Wiring Diagram.

4-28. **Switch Box Testing.** The power plant switch box assembly is tested by performing a series of continuity checks on the component parts and internal wiring.

NOTE

All internal switch box wiring is labeled for identification with reference designations of its points of connection. If labeling has been removed, or is illegible, tag wires for identification before removing them.

a. Switch Testing. The switch box contains two three-pole, single-throw switches. Testing procedures are typical for both.

WARNING

To avoid risk of injury or death by electrocution, do not remove switch box access cover while either power unit is still connected to switch box.

(1) Remove 24 screws, 24 lockwashers, and 24 flat washers securing access cover to switch box and remove cover.

(2) Set multimeter controls to prepare unit for continuity testing.

(3) Set switch being tested to ON position.

NOTE

Observe that the switch terminals are arranged in two rows of three terminals each. Each terminal is paired with the one directly above or below it. There is one pair of terminals for each pole of the switch.

(4) Select any pair of terminals associated with same pole of switch. Touch one multimeter test probe to each terminal. Multimeter must indicate continuity.

(5) Repeat step (4) on both remaining poles of switch.

(6) If multimeter does not indicate continuity across all three poles of switch, switch is defective. Refer switch to higher level of maintenance.

b. Connector Testing. The switch box has four male cable connectors. The larger connectors, J1 and J2, are the power input connectors. Together with their associated wiring, they comprise the switch box cable assemblies. This procedure tests the entire cable assembly. The connectors each have eight pins.

WARNING

To avoid risk of injury or death by electrocution, do not remove switch box access cover while either power unit is still connected to switch box.

NOTE

Observe that pins on power input connectors are labeled A, B, C, N and G1 through G4.

(1) Remove 24 screws, 24 lockwashers, and 24 flat washers securing access cover to switch box and remove cover.

(2) Set multimeter controls to prepare unit for continuity testing.

(3) Touch one multimeter test probe to pin A in connector being tested and touch remaining probe to terminal A1 on associated switch. Multimeter must indicate continuity. If it does not, there is an open in connector or associated wire.

(4) With first probe still in contact with pin A, touch remaining probe to all other pins in connector. Multimeter must not indicate continuity. If it does, connector is shorted.

(5) Repeat steps (3) and (4) for pins B, C, and N. Multimeter must indicate continuity only between these pins and switch terminals B1, C1, and TB1 L0 terminal, respectively.

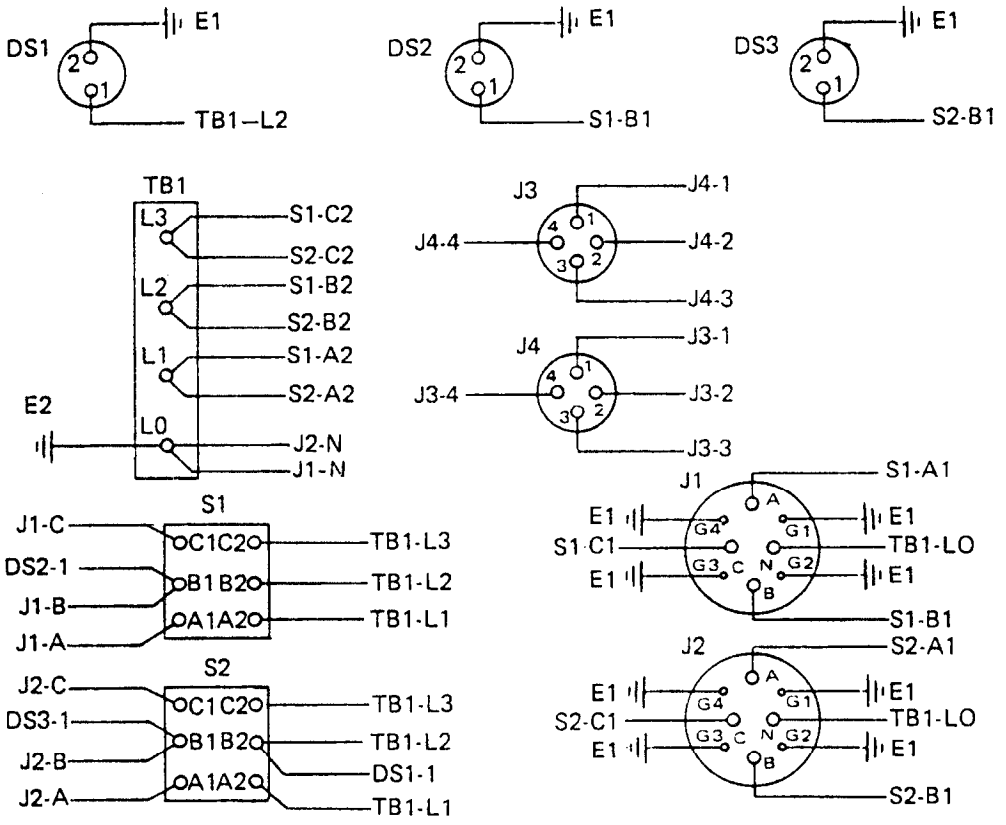
(6) Touch one multimeter test probe to ground stud E1 on connector side of switch box. Touch remaining probe to pins G1, G2, G3, and G4, in turn. Multimeter must indicate continuity on each pin.

(7) If continuity test detects any opens or shorts, connector cable assembly is defective.

c. Wiring Test. (Refer to wiring diagram, figure 4-14.) The internal switch box wiring is tested by performing a continuity check(s) on suspect wires or connections.

WARNING

To avoid risk of injury or death by electrocution, do not remove switch box access cover while either power unit is still connected to switch box.



COMPONENTS REFERENCE LIST		
REF DES	PART NO.	DESCRIPTION
DS1, 2, 3	13214E1391	LIGHT, INDICATOR, WEATHERTIGHT
E1	13214E1223	STUD, GROUND
J1	13226E7719-1	CABLE ASSEMBLY
J2	13221E7719-2	CABLE ASSSEMBLY
J3, J4	13220E8144	CONNECTOR, RECEPTACLE, ELECTRICAL
S1, S2	13220E8143	SWITCH
TB1	MS39347-5	TERMINAL, OUTPUT (4)
E2	MS3947-5	GND TERMINAL

4875-036

Figure 4-14. Switch Box Wiring Diagram.

NOTE

All internal switch box wiring is labeled for identification with reference designations of its points of connection. If labeling has been removed, or is illegible, tag wires for identification before removing them.

(1) Remove 24 screws, 24 lockwashers, and 24 flat washers securing access cover to switch box and remove cover.

(2) Before testing wires, make sure there are no loose connections or broken terminals. Tighten any loose connections and refer broken terminals to higher level of maintenance.

(3) Set multimeter controls to prepare unit for continuity testing.

(4) Refer to wiring diagram (figure 4-14) and test continuity of suspect wires between origin and destination specified in diagram.

4-29. **Indicator Light Lens and Lamp Replacement.** (See figure 4-15) There are three indicator lights on the switch box. Only the lens and lamp may be replaced at unit level maintenance. Replacement procedures are the same for all three.

a. Unscrew lens (1, figure 4-15) from housing (2). Lamp (3) will come off together with lens.

b. Pull lamp (3) out of lens (1).

c. Insert new lamp (3) into lens (1).

d. Screw lens (1) into housing (2).

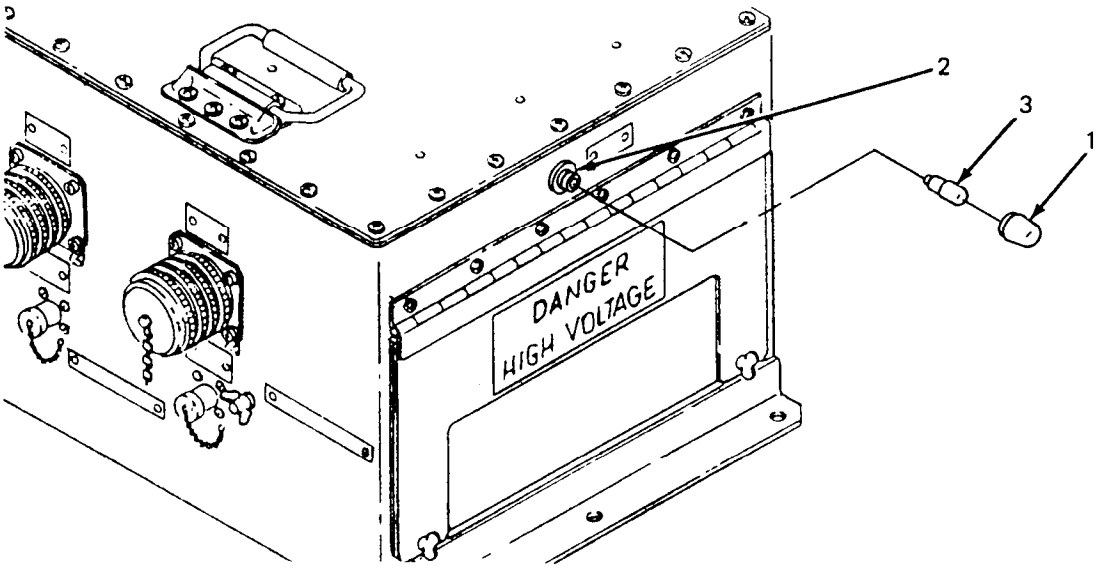


Figure 4-15. Indicator Light Lens and Lamp Replacement.

4-30. **Switch Box Assembly Replacement.** (See figure 4-16)

a. Removal.

(1) Working underneath fender (1, figure 4-1 6), remove one nut (2) and one Iockwasher (3) from each of six screws (4).

(2) Working on top of fender (1), remove six screws (4) and six flat washers (5) attaching switch box assembly (6) to fender.

(3) Lift switch box assembly (6) off fender (1).

b. Installation.

(1) Position switch box assembly (6) on fender(1) so that mounting holes line up.

(2) Insert six screws (4) with one flat washer (5) each down through switch box flanges and through fender (1).

(3) Working under fender (1), install one Iockwasher (3) and one nut (2) on each screw (4)

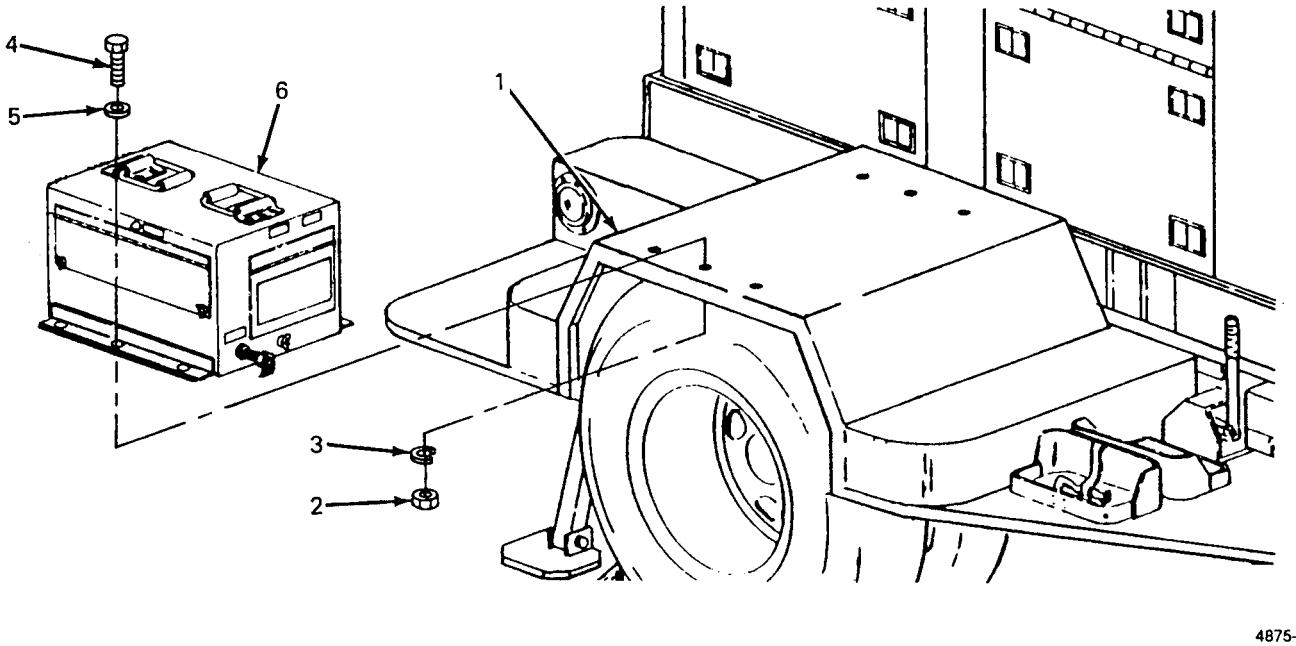


Figure 4-16. Switch Box Assembly Replacement.

CHAPTER 5

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE INSTRUCTIONS

Section I. INTRODUCTION

5-1. **General.** This chapter contains Direct Support and General Support level maintenance procedures for components of the M200A1 trailer added when the trailer is used as part of the AN/MJQ-10A power plant. These components are not covered in the overall trailer maintenance manual. For all other direct and general support maintenance procedures on the trailer, refer to TM 9-2330-205-14&P. For direct and general support maintenance procedures on the generator set, refer to TM 5-6115-465-34.

WARNING

Before performing any maintenance that requires climbing on or under trailer, set trailer handbrakes, chock wheels and lower rear leveling jacks. Injury to personnel could result from trailer suddenly rolling or tipping.

Section II. MAINTENANCE OF POWER PLANT TRAILER

5-2. **Step and Fender Repair.** Repair of the front and rear steps and the fenders is limited to straightening, weldinq and repainting. If required, repaint in accordance with MIL-T-704 and MIL-C-46168.

5-3. **Accessory Box Repair.** (See figure 5-1.) The accessory boxes are repaired by replacing the latch and strike assemblies. The boxes themselves may be straightened, welded and repainted. If required, repaint in accordance with MIL-T-704 and MIL-C-46168. Replace latch and strike assemblies as follows:

a. Grind off or drill out solid rivets (1, figure 5-1) securing latch and strike assembly (2) to accessory box (3).

b. Position new latch and strike assembly (2) on accessory box (3) and secure with solid rivets (1).

c. Touch up with paint as required.

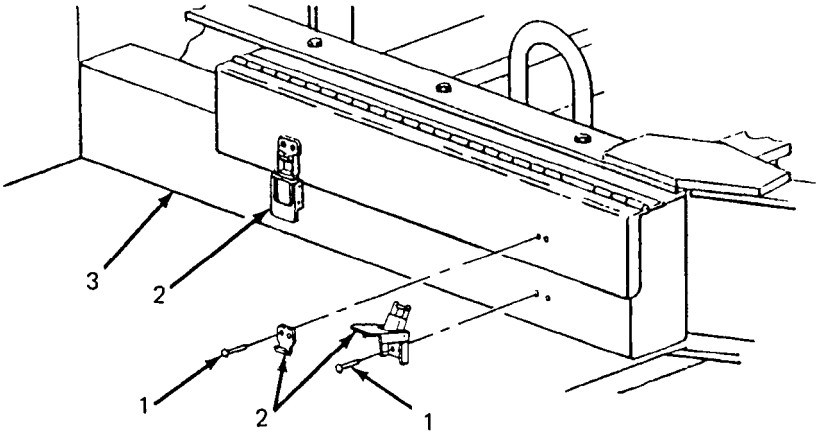


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Figure 5-1. Accessory Box Repair.

5-4. **Marking.** (See figure 5-2.) The power unit four-digit registration number, preceded by the prefix "VA" and the words "U.S. ARMY", is marked in three places on each power unit trailer. Marking is done in accordance with MIL-STD-642. On the fender, over each wheel, "T.P. 35 PSI" is marked in 1.00 ±.12 inch high characters in accordance with MIL-STD-130. Figure 5-2 shows the approximate location of markings on one power unit of the power plant. Markings are typical of both power units. If required, touch-up painting of the base color shall be done in acordance with MIL-T-704 and MIL-C-46168.

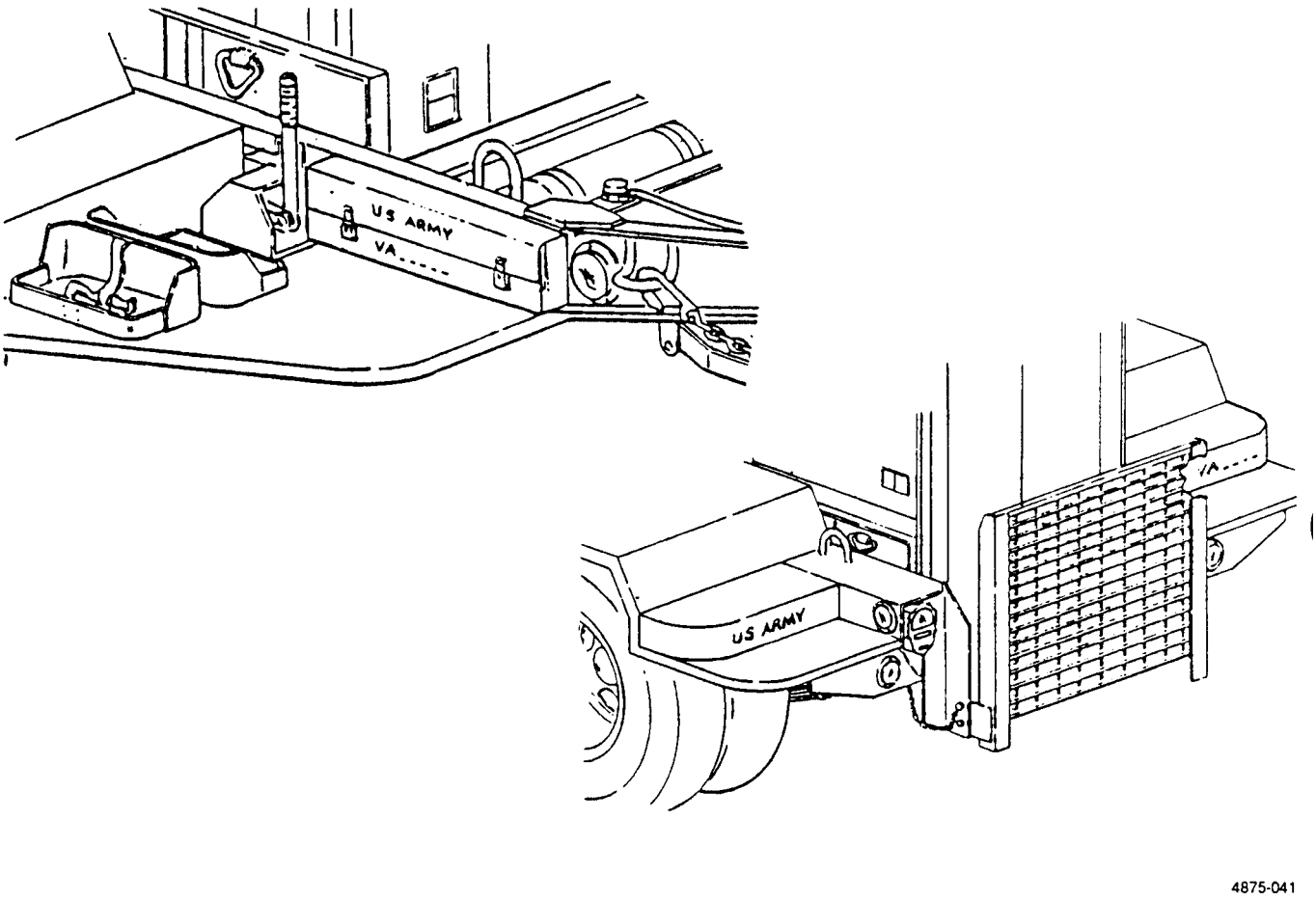

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Figure 5-2. Power Plant Markings.

Section III. GENERATOR SET

5-5. **Generator Set Replacement.** (See figures 5-3 and 5-4).

a. *Removal.*

(1) Disconnect ground wire (1, figure 5-3) from generator set (2) to GROUND TERMINAL stud (3) on trailer.

NOTE

Two center mounting screws on each side can be reached through cutouts in trailer frame under each fender. The beveled washers (5) may have been welded in place.

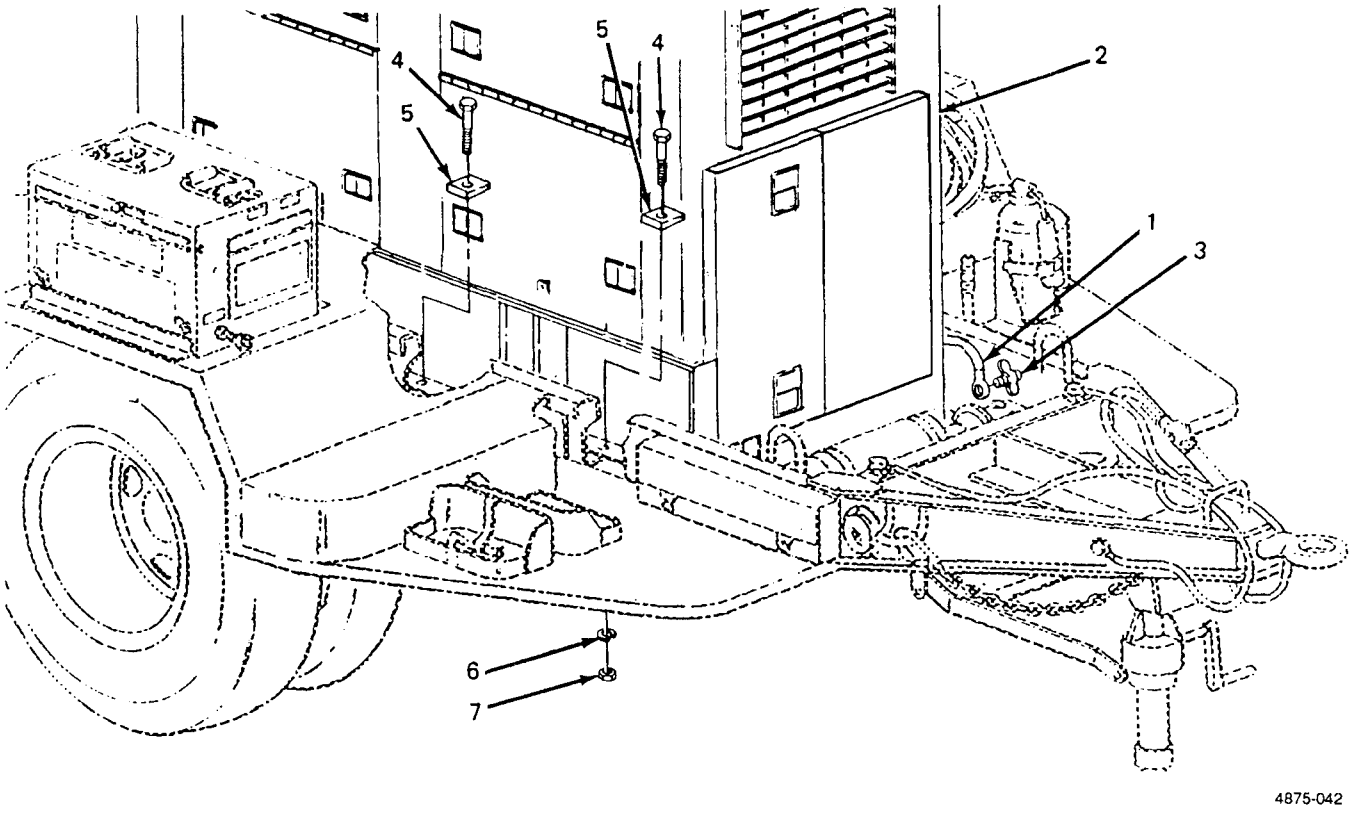


Figure 5-3. Detaching Generator Set from Trailer.

(2) Remove eight screws (4), eight beveled washers (5), eight lockwashers (6) and eight nuts (7) securing generator set (2) to trailer.

WARNING

When lifting generator set, use lifting equipment with a minimum lifting capacity of 3500 lb. Do not stand under generator while it is being lifted. Do not permit generator set to swing. Failure to observe these precautions can cause injury to personnel or damage to equipment.

(3) Attach lifting equipment with a minimum lifting capacity of 3500 lb (1, figure 5-4) to both lifting eyes (2) on top edges of generator set (3). Insert a rope (4) through each of four tiedown rings (5) on generator set.

(4) With one person at each rope to steady and guide generator set (3), lift generator set off of trailer.

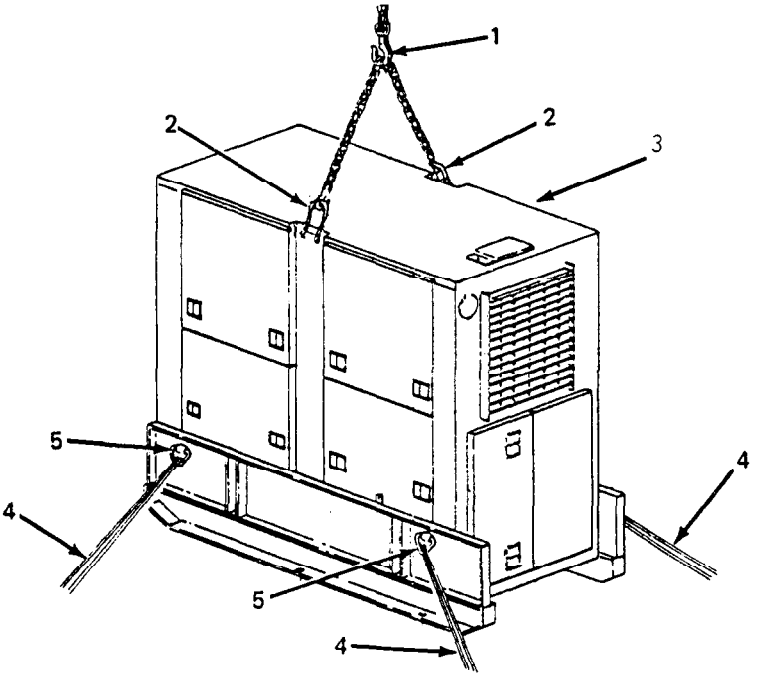


Figure 5-4. Lifting Generator Set.

b. *Installation.*

WARNING

When lifting generator set, use lifting equipment with a minimum lifting capacity of 3500 lb. Do not stand under generator while it is being lifted. Do not permit generator set to swing. Failure to observe these precautions can cause injury to personnel or damage to equipment.

(1) Attach lifting equipment with a minimum lifting capacity of 3500 lb (1, figure 5-4) to lifting eyes (2) on top edges of generator set (3). Insert a rope (4) through each of four tiedown rings (5) on generator set.

(2) With one person at each rope to steady and guide generator set (3), lift generator set and carefully lower it onto trailer.

NOTE

Two center mounting screws on each side can be reached through cutouts in trailer frame under each fender.

(3) Insert eight screws (4, figure 5-3) with beveled washers (5) down through generator set skids into trailer.

(4) Working under trailer install one lockwasher (6) and one nut (7) on each screw (4).

(5) Position beveled washers (5) so that screw heads are parallel to tops of washers. While holding beveled washers in position, tighten hardware.

(6) Connect generator set ground wire (1) to trailer GROUND TERMINAL stud (3).

Section IV. MAINTENANCE OF ELECTRICAL SYSTEM

5-6. **Power Cable Repair.** The power plant cables are repaired by resoldering or replacing loose or damaged contacts inside the connector. A soldered contact can be unsoldered and a new one installed in its place. If, however, the damaged contact is crimped onto the wire, or if the wire is broken, the contact must be cut off. When one wire in the cable has been cut or broken, all wires must be cut to the same length and new contacts soldered on each. Refer to TB SIG 222 and TM 55-1500-323-25.

a. Removal.

NOTE

Cable grip nut is left hand threaded. Turn clockwise to loosen.

(1) Unscrew cable grip nut (1, figure 5-5) from housing (2).

(2) Slide cable grip nut (1), packing gland (3) and collar (4) up cable (5) away from housing (2).

(3) Remove three screws (6) and three washers (7) and separate housing (2) from plug shell (8).

(4) Remove spacer (9) and insert (10) from plug shell (8).

(5) Remove contact(s) (11) being repaired or replaced from spacer (9) and insert (10). Unsolder contact(s) (11) from wire(s) (12).

NOTE

If contact is crimped onto wire, or if wire is broken, do steps (6) through (8).

(6) Cut contacts (11) off wires (12).

(7) Strip back cable jacket to expose more of individual wires.

(8) Cut wires to equal length. Strip and tin wires in accordance with procedures given in technical manuals referenced above.

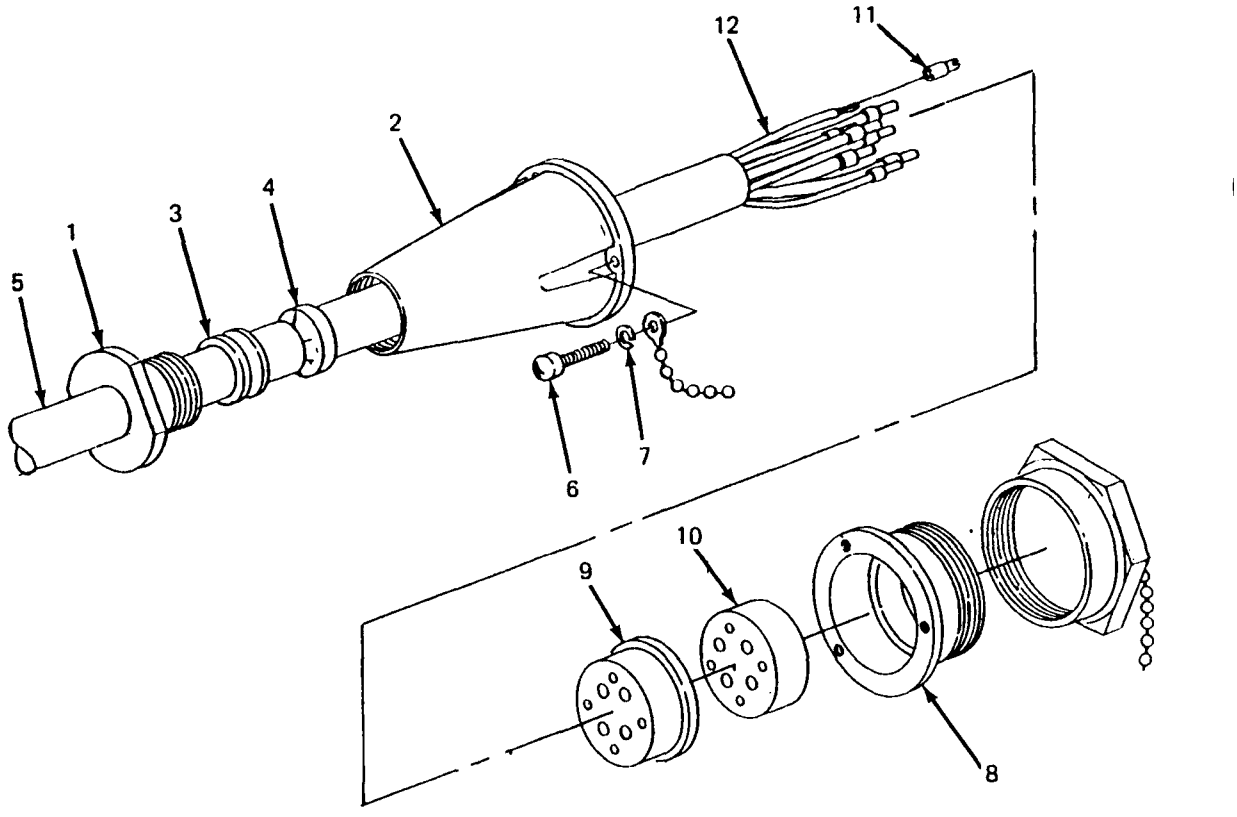


Figure 5-5. *Power Cable Repair.*

b. Installation.

(1) Solder replacement contact(s) (11) on wire(s) (12).

(2) Align and insert contact(s) (11) into spacer (9) until contacts are fully seated.

(3) Align insert (10) with plug shell (8) so key on insert matches keyway in plug shell and push insert into shell until it seats.

(4) Align contacts (11) with corresponding holes in insert (10) and slide contacts into insert until spacer (9) is flush against insert.

(5) Slide housing (2) up against plug shell (8) and secure with three screws (6) and three washers (7).

(6) Slide collar (4) and packing gland (3) up cable (5) into housing (2).

(7) Tighten cable grip nut (1) against housing (2).

(8) Test cable for continuity (paragraph 4-27).

5-7. **Switch Box Repair.** The power plant switch box assembly is repaired by replacing defective components or by repairing individual wires within the switch box. Replacement of switches, connectors and load terminals and repair and replacement of the indicator lights is authorized at direct support level maintenance.

NOTE

All internal switch box wiring is labeled for identification with reference designations of its points of connection. If labeling has been removed, or is illegible, tag wires for identification before removing them.

a. *Switch Replacement.* (See figure 5-6.)

(1) *Removal.*

WARNING

To avoid risk of injury or death by electrocution, do not remove switch box access cover while either power unit is still connected to switch box.

(a) Remove 24 screws (1, figure 5-6), 24 lockwashers (2) and 24 flat washers (3) securing access cover (4) to switch box (5) and remove cover.

(b) Remove six nuts (6) and six lockwashers (7) securing wires (8) to switch (9) and slide wire terminals off threaded posts on switch.

(c) Remove six screws (10), six lockwashers (11) and six flat washers (12) securing switch (9) to switch box (5) and remove switch.

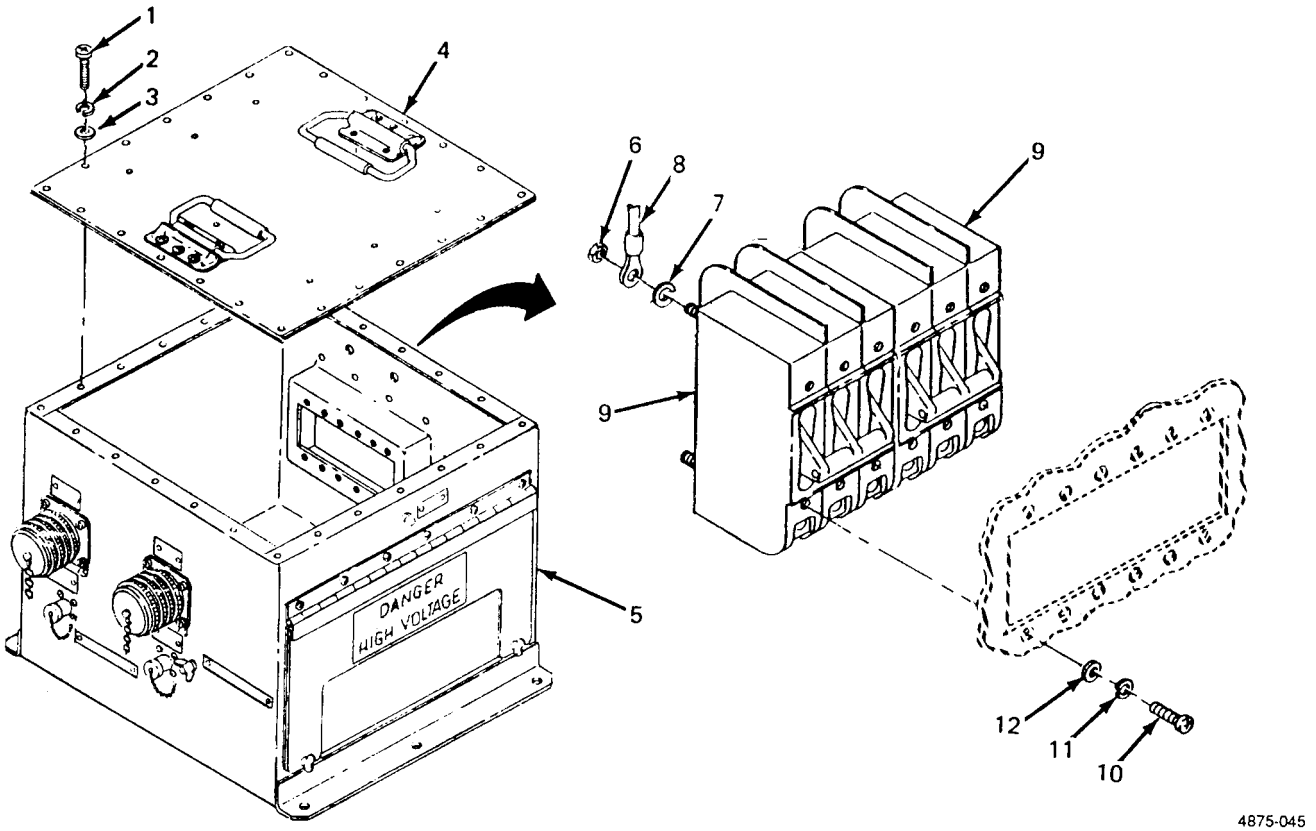


Figure 5-6. Switch Replacement.

(2) *Installation.*

(a) Position switch (9) in switch box (5), making certain it is right side up, and secure with six screws (10), six flat washers (12) and six lockwashers (11).

(b) Install six wires (8) on switch (9) and secure each with one nut (6) and one lockwasher (7).

(c) Position access cover (4) on switch box (5) and secure with 24 screws (1), 24 lockwashers (2) and 24 flat washers (3).

b. Connector Replacement. (See figure 5-7.) A damaged or defective connector is replaced by replacing the entire connector cable assembly.

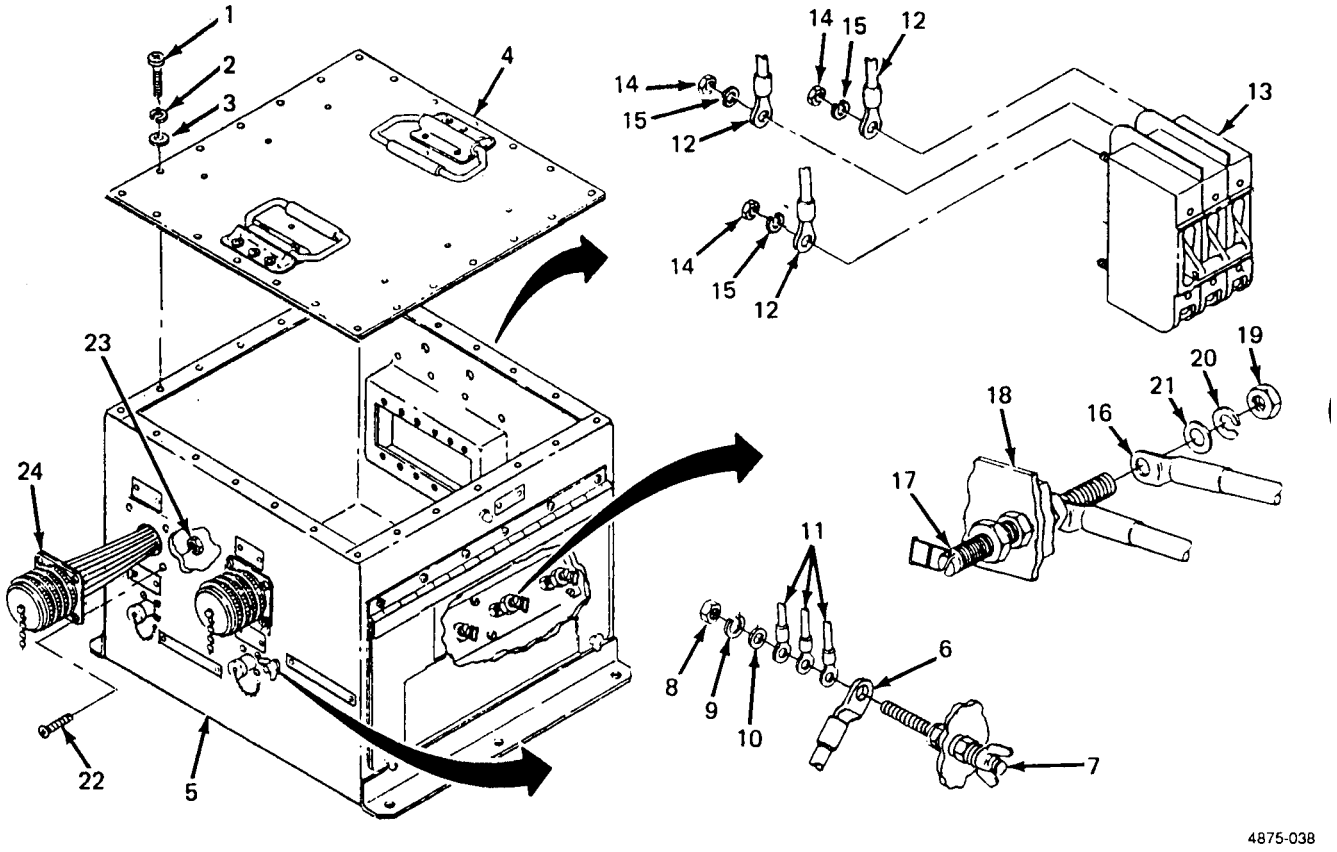


Figure 5-7. Connector Replacement.

WARNING

To avoid risk of injury or death by electrocution, do not remove switch box access cover while either power unit is still connected to switch box.

(1) *Removal.*

(a) Remove 24 screws (1, figure 5-7), 24 Iockwashers (2), and 24 flat washers (3) securing access cover (4) to switch box (5) and remove cover.

(b) Disconnect connector cable assembly ground wire (6) from ground stud E1 (7) by removing nut (8), Iockwasher (9), flat washer (10), and three electrical leads (11).

(c) Disconnect each of three connector cable assembly wires (12) from terminals of associated switch (13) by removing one nut (14) and one Iockwasher (15).

(d) Disconnect connector cable assembly neutral wire (16) from load terminal L0 (17) on insulator TB1 (18) by removing nut (19), Iockwasher (20) and flat washer (21).

(e) Remove four screws (22) and four self-locking nuts (23) securing connector flange (24) to switch box (5). Carefully remove connector and associated wiring from switch box.

(2) *Installation.*

(a) Feed connector cable assembly wires through mounting hole in switch box (5).

(b) Position connector body in mounting hole and secure with four screws (22) and four nuts (23). Use screw in lower right-hand corner of flange (24) to secure connector cap retaining chain (25).

NOTE

When reconnecting wires, refer to figure 4-14

(c) Fasten each of three connector cable assembly wires (12) to terminals of associated switch (13) with one nut (14) and one Iockwasher (15).

(d) Fasten cable assembly ground wire (6) to ground stud E1 (7) with nut (8), Iockwasher (9) and flat washer (10). Make sure electrical leads (11) are reinstalled and positioned as shown in figure 5-7.

(e) Fasten cable assembly neutral wire (16) to load terminal L0 (17) with flat washer (21), Iockwasher (20) and nut (19).

(f) Position access cover (4) on switch box (5) and secure with 24 screws (1), 24 Iockwashers (2), and 24 flat washers (3).

c. *Load Terminal Replacement.* (See figure 5-8.) The switch box load terminals provide electromechanical connection points between the system or equipment being powered and the power plant. In addition to the four output terminals, the switch box utilizes a fifth load terminal as AC GROUND.

WARNING

To avoid risk of injury or death by electrocution, do not remove switch box access cover while either power unit is still connected to switch box.

(1) Removal.

(a) Remove 24 screws (1, figure 5-8),24 lockwashers (2), and 24 flat washers (3) securing access cover (4) to switch box (5) and remove cover.

(b) Remove one nut (6), one lockwasher (7) and one flat washer (8), and remove associated wires (9) from load terminal (10).

(c) Remove one flat washer (11) and one nut (12) and remove load terminal (10) from terminal board (13).

(2) *Installation.*

(a) Install load terminal (10) in terminal board (13) and secure with flat washer (11) and nut (12).

(b) Install associated wires (9) on load terminal (10) and secure with flat washer (8), lockwasher (7), and nut (6).

(c) Position access cover (4) on switch box (5) and secure with 24 screws (1), 24 lockwashers (2), and 24 flat washers (3).

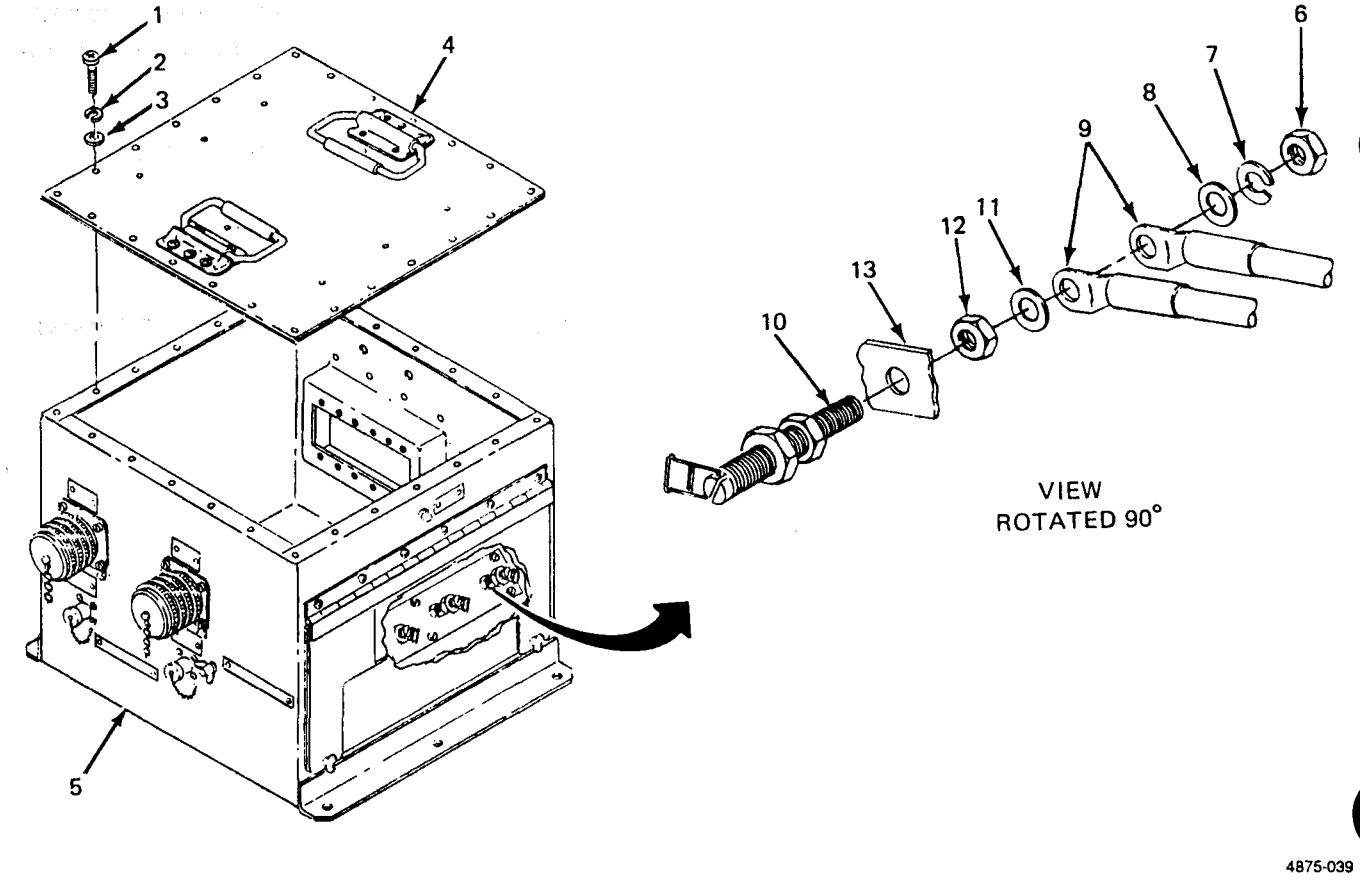


Figure 5-8. Load Terminal Replacement.

d. Indicator Light Repair and Replacement. (See figure 5-9) The switch box assembly has three indicator lights. Repair and replacement procedures are the same for all three. Repair at direct support level maintenance consists of replacement of the housing.

(1) *Removal and disassembly.*

(a) Remove 24 screws (1, figure 5-9), 24 lockwashers (2) and 24 flat washers (3) securing access cover (4) to switch box (5) and remove cover.

(b) Working inside switch box (5), unsolder electrical leads (6) from housing terminals (7).

(c) Remove nut (8) and internal tooth lockwasher (9) (part of housing) from threaded end of housing (10).

(d) Push indicator light housing (10) out of side of switch box (5).

(e) Unscrew lens and lamp (11) from flanged end of housing (10).

(2) *Assembly and installation.*

(a) Screw lens and lamp (11) into housing (10).

(b) Push threaded end of housing (10) through side of switch box (5) until flanged end is seated against outside surface of switch box (5). Make sure O-ring (12) (part of housing) is seated snugly in hole in switch box to assure watertightness.

(c) Install lockwasher (9) and nut (8) on threaded end of housing (10) inside switch box (5) and tighten against inside of switch box.

(d) Solder ends of electrical leads (6) onto housing terminals (7).

(e) Position access cover (4) on top of switch box (5) and fasten with 24 screws (1), 24 lockwashers (2) and 24 flat washers (3).

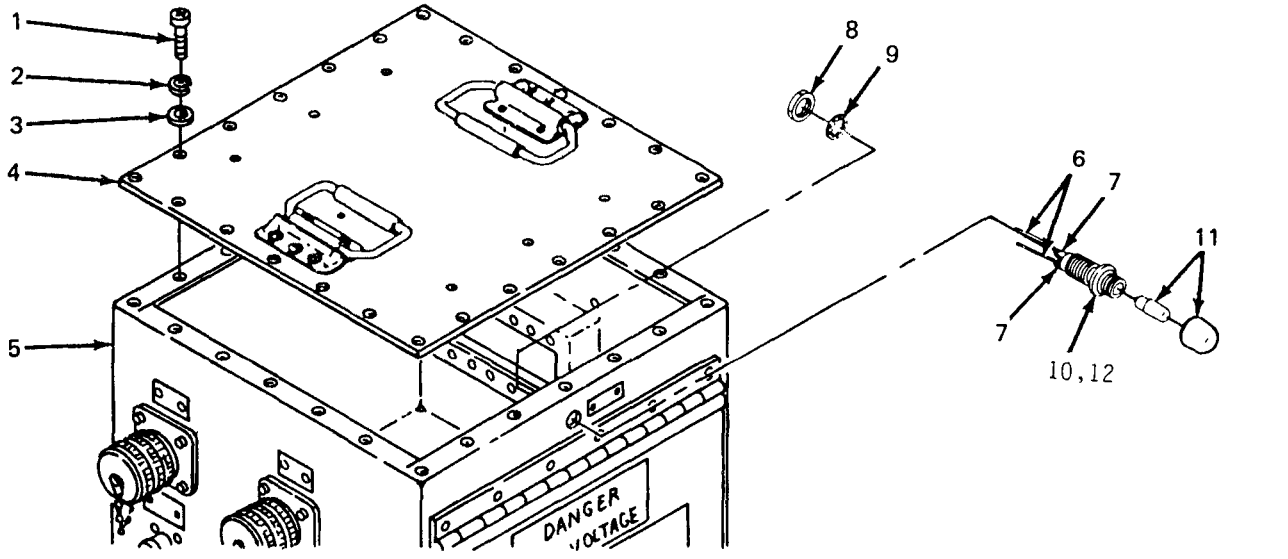


Figure 5-9. Indicator Light Repair and Replacement.

e. Wiring Repair. The switch box wiring is repaired by tightening or replacing loose or damaged terminals. The repair parts and special tools list in this manual lists part numbers for the terminals. The replacement terminals are soldered onto the wires in accordance with procedures given in TB SIG 222 and TM 55-1500-323-25.

CHAPTER 6

TEST AND INSPECTION AFTER REPAIR

Section I. GENERAL REQUIREMENTS

6-1. **General Requirements.** The activity performing the repair is responsible for the performance of all applicable tests and inspections specified in the technical manuals referenced below. Activities performing maintenance on any component of the power plant must perform those tests and inspections required by the applicable component or system repair instruction.

Section II. INSPECTION

6-2. **Generator Set Inspections.** Refer to TM 5-6115-465-12 and -34 for inspections required following repair of the generator sets.

6-3. **Trailer Inspections.** Refer to TM 9-2330-205-14&P for inspections required following repair of the trailers.

Section III. OPERATIONAL TESTS

6-4. Generator Set Operational Tests. Refer to TM 5-6115-465-12 and -34 for operational tests required to verify satisfactory performance of the generator sets.

6-5. **Trailer Operational Tests.** Refer to TM 9-2330-205-14&P for operational tests required to verify satisfactory performance of the trailers.

APPENDIX A

REFERENCES

A-1. **Scope.** This appendix lists all pamphlets, forms, technical manuals, specifications and miscellaneous publications referenced in this manual.

A-2. Forms and Records.

Recommended Changes to Publications and Blank Forms . . . . . DA Form 2028
Depreservation Guide for Vehicles and Equipment . . . . . DA Form 2258
Equipment Inspection and Maintenance Worksheet . . . . . DA Form 2404
Maintenance Request . . . . DA Form 2407
Consolidated Index of Army Publications . . . . DA PAM 25-30
The Army Maintenance Management System (TAMMS) . . . . . DA PAM 738-750
Product Quality Deficiency Report SF368

A-3. Military Specifications.

Chemical Agent Resistant Aliphatic Polyurethane Coating MIL-C-46168
Identification Marking of U.S. Military Property MIL-STD-130
Identification Marking of Combat and Tactical Transport MIL-STD-642
Treatment and Painting of Materiel. MIL-T-704

A-4. Technical Manuals.

Operator's and Organizational Maintenance Manual for Generator Set,
Diesel Engine Driven, Tactical Skid Mtd., 30 KW, 3 Phase, 4 Wire, 120/208
and 240/416V (DOD Model MEP-005A) Utility Class, 50/60 Hz
(NSN 6115-00-118-1240), (Model MEP-104A) Precise Class, 50/60 Hz
(6115-00-118-1247) and (Model MEP-114A) Precise Class, 400 Hz
(6115-00-118-1248) . . . . TM 5-6115-465-12
Organizational, Direct Support and General Support Maintenance Repair
Parts and Special Tools List (Including Depot Maintenance Repair Parts
and Special Tools List) for Generator Sets, Diesel Engine Driven, Tactical
Skid Mounted, 30 KW, 3 Phase, 4 Wire, 120/208 and 240/416 Volts,
DOD Models MEP-005A, Utility Class, 50/60 Hz, (NSN 6115-00-118-1240),
MEP-104A, Precise Class, 50/60 Hz (6115-00-118-1247), MEP-114A,
Precise Class, 400 Hz (6115-00-118-1248) . . . . TM 5-6116-465-24P
Intermediate (Field) (Direct and General Support) and Depot Level
Maintenance Manual for Generator Set, Diesel Engine Driven,
Tactical Skid Mtd., 30 KW, 3 Phase, 4 Wire, 120/208 and 240/416V;
DOD Models MEP-005A, Utility Class, 50/60 Hz (NSN 6115-118-1240),
MEP-104A, Precise Class, 50/60 Hz (6115-118-1247) and MEP-114A,
Precise Class,400 Hz (6115-118-1248). . . . . .. TM 5-6115-465-34
Installation Practices for Aircraft Electric and Electronic Wiring (TO-1 -1A-14) . . . . . TM 55-1500-323-25
Procedures for Destruction of Equipment to Prevent Enemy Use
(Mobility Equipment Command) . . . .TM 750-244-3

Operator's Organizational, Direct Support and General Support Maintenance Manual Including Repair Parts and Special Tools List for Chassis, Trailer, Generator, 2-1/2 Ton, 2-Wheel M200A1 (NSN 2330-00-331-2307) . . . . . TM 9-2330 -205-14&P
Organizational, Direct Support, and General Support Care Maintenance and Repair of Pneumatic Tires and inner Tubes... . . . . TM9-2610-200-24

A-5. **Technical Bulletins.**

Solder and Soldering (TO 31-3-64) . . . . TB SIG 222
Preservation of USAMECOM Mechanical Equipment for Shipment and Storage . . . . TB 740-97-2

APPENDIX B

COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Section I. INTRODUCTION

B-1. **Scope.** This appendix lists components of end item and basic issue items for the power plant to help you inventory items required for safe and efficient operation.

B-2. **General.** The Components of End Item and Basic Issue Items lists are divided into the following sections:

a. Section II. Components of End Item. This listing is for informational purposes only, and is not authority to requisition replacements. These items are part of the end item, but are removed and separately packaged for transportation or shipment. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Illustrations are furnished to assist you in identifying the items.

b. Section III. Basic Issue Items. These are the minimum essential items required to place the power plant in operation, to operate it, and to perform emergency repairs. Although shipped separately packaged, BII must be with the power plant during operation and whenever it is transferred between property accounts. The illustrations will assist you with hard-to-identify items. This manual is your authority to request/requisition BII, based on TOE/MTOE authorization of the end item.

B-3. **Explanation of Columns.** The following provides an explanation of columns found in the tabular listings:

a. Column (1). Illustration Number (Illus No.). This column indicates the number assigned to the item.

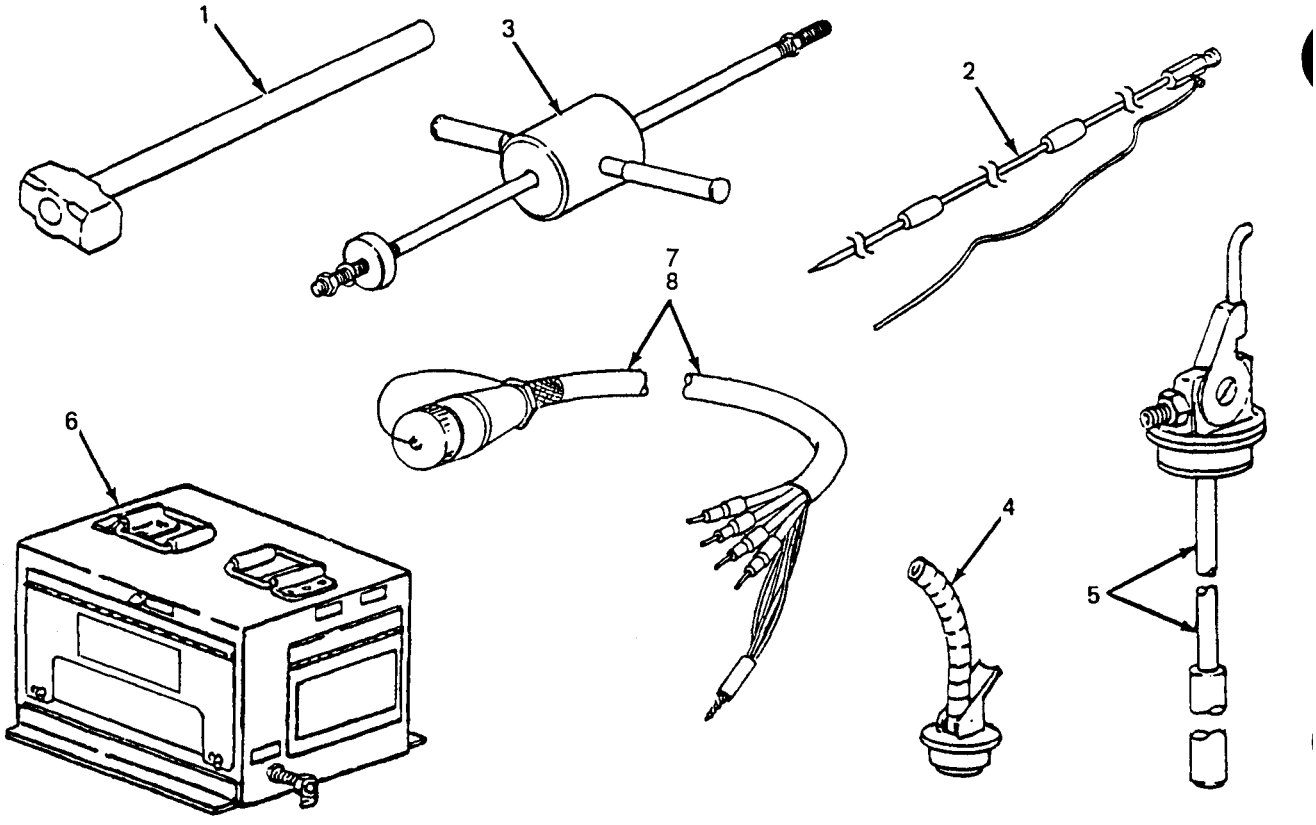
b. Column (2). National Stock Number. Indicates the National stock number assigned to the item.

c. Column (3). Description. Indicates the federal item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the FSCM (in parentheses) followed by the part number. If item needed differed for different models of this equipment, the model would be shown under the “Usable on Code” heading in this column. The Usable on Code is not applicable for this equipment.

d. Column (4), Unit of Measure (U/M). Indicates the measure used in performing the actual operational/ maintenance function. This measure is expressed by a two-character alphabetical abbreviation (eg, ea, in, pr).

e. Column (5). Quantity Required (Qty Req'd). Indicates the quantity of the item authorized to be used with/on the equipment.

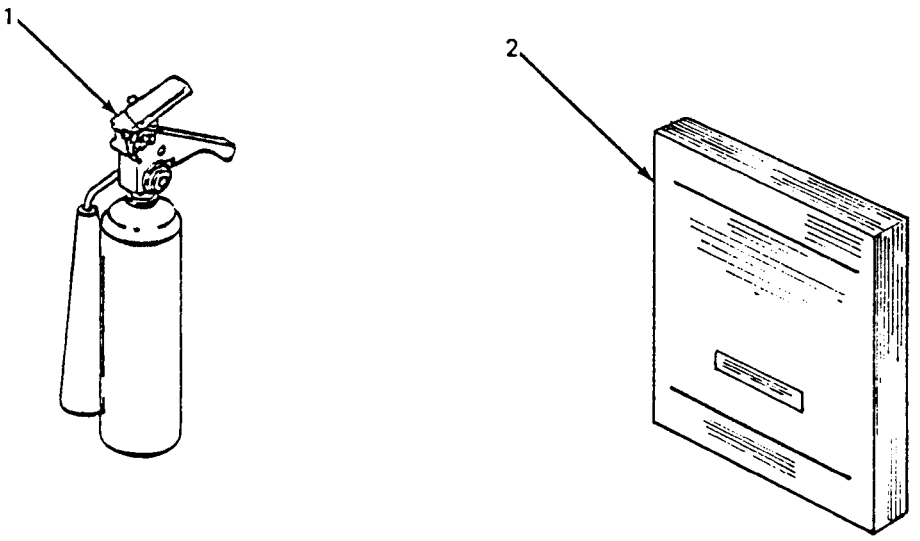
Section II. COMPONENTS OF END ITEM



4875-046-1

(1) Illus Number	(2) National Stock Number	(3) Description (FSCM) and part number	Usable on code	(4) U/M	(5) Qty rqr
1	5120-00-251-489	Hammer, Hand, Engineers 8 lb. (3.6 kg) (81348) GGG-H-86		ea	2
2	5975-00-878-3791	Rod, Ground, Driven, Sectional 9 ft (2.7 m) (81348) MIL-R-11461		ea	2
3	5120-01-013-1676	Hammer, Slide (97403) 13226E7741		ea	2
4	7240-00-177-6154	Spout, Can, Flexible (81349) MIL-S-1285		ea	1
5	2910-00-066-1235	Adapter Assy, Fuel Drum (97403) 13214E7541		ea	1
6	6110-01-264-2069	Switch Box (97403) 13226E6292		ea	1
7		Cable Assembly (97403) 13226E7718-1		ea	1
8	-	Cable Assembly (97403) 13226E7718-2		ea	1

Section III. BASIC ISSUE ITEMS



4875-046-2

(1) Illus no.	(2) National stock number	(3) Description FSCM and part number	Usable on code	(4) U/M	(5) Qty req'd
1	4210-00-270-4512	Extinguisher, Fire, Hand, (2.3 kg) (81348) O-E-910		ea	2
2		Manual, Technical TM 5-6115-627-14&P		ea	1

APPENDIX C

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

C-1. General.

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels.

b. Section II designates overall responsibility for the performance of maintenance functions on the identified end item or component. The implementation of the maintenance functions upon the end item or component will be consistent with the assigned maintenance functions.

c. Section III lists the tools and test equipment required for each maintenance function as referenced from Section II.

d. Section IV contains supplemental instructions, explanatory notes and/or illustrations required for a particular maintenance function.

C-2. Explanation of Columns in Section II.

a. Group Number. Column 1. The assembly group is a numerical group assigned to each assembly in a top down breakdown sequence. The applicable assembly groups are listed on the MAC in disassembly sequence beginning with the first assembly removed in a top down disassembly sequence.

b. Assembly Group. Column 2. This column contains a brief description of the components of each assembly group.

c. Maintenance Functions. Column 3. This column lists the various maintenance functions (A through K) and indicates the lowest maintenance category authorized to perform these functions. The symbol designations for the various maintenance categories are as follows:

C - Operator or crew
O - Unit maintenance
F - Direct support maintenance
H – General support maintenance
D - Depot maintenance

The maintenance functions are defined as follows:

A – Inspect. To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.

B – Test. To verify serviceability and to detect electrical or mechanical failure by use of test equipment.

C – Service. To clean, to preserve, to charge, and to add fuel, lubricants, cooling agents, and air. If it is desired that elements, such as painting and lubricating, be defined separately, they maybe so listed.

D – Adjust. To rectify to the extent necessary to bring into proper operating range.

E - Aline. To adjust specified variable elements of an item to bring to optimum performance.

F - Calibrate. To determine the corrections to be made in the readings of instruments or test equipment used in precise measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.

G - Install. To setup for use in an operational environment such as emplacement, site, or vehicle.

H - Replace. To replace unserviceable items with serviceable like items.

I – Repair. Those maintenance operations necessary to restore an item to serviceable condition through correction of material damage to a specific failure. Repair may be accomplished at each category of maintenance.

J - Overhaul. Normally, the highest degree of maintenance performed by the Army in order to minimize time work in process is consistent with quality and economy of operation. It consists of that maintenance necessary to restore an item to completely serviceable condition as prescribed by maintenance standard in technical publications for each item of equipment. Overhaul normally does not return an item to like new, zero mileage, or zero hour condition.

K – Rebuild. The highest degree of material maintenance. It consists of restoring equipment as nearly as possible to new conditions in accordance with original manufacturing standards. Rebuild is performed only when required by operational considerations or other paramount factors and then only at the depot maintenance category. Rebuild reduces to zero the hours or miles of the equipment, or component thereof, has been in use.

d. Symbols. The uppercase letter placed in the appropriate column indicates the lowest level at which that particular maintenance function is to be performed.

e. Tools and Equipment. Column 4. This column is provided for referencing by code, the special tools and test equipment, (Section III) required to perform the maintenance functions (Section II).

f. Remarks. Column 5. This column is provided for referencing by code, the remarks (Section IV) pertinent to the maintenance functions.

C-3. **Explanation of Columns in Section III.**

a. Reference Code. This column consists of a number and a letter separated by a dash. The number references the T and TE requirements column on the MAC. The letter represents the specific maintenance function the item is to be used with. The letter is representative of columns A through K on the MAC.

b. Maintenance Category. This column shows the lowest level of maintenance authorized to use the special tool or test equipment.

c. Nomenclature. This column lists the name or identification of the tool or test equipment.

d. ToolNumber. This column lists the manufacturer's code and part number, or National Stock Number of tools and test equipment.

C-4. **Explanation of Columns in Section IV.** Section IV, Remarks, is not applicable.

Section II. MAINTENANCE ALLOCATION CHART

(1)	(2)	(3) Maintenance functions											(4)	(5)
		A	B	C	D	E	F	G	H	I	J	K		
Group no.	Assembly group	Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild	Tools and equipment	Remarks
01	GENERATOR SET	O 0.2		C 2.0					F 3.0				1, 7	See TM 5-6115-465-12,-34 for generator set maintenance.
02	ELECTRICAL SYSTEM													
0201	Power Cables	C 0.1	O 0.3						C 0.1	F 1.0			1, 2, 4, 5	
0202	Switch Box	C 0.1	O 0.5						O 0.5	F 2.0			1, 2, 4, 5	
	Switch		O 0.3						F 1.0				1, 2	
	Connector	C 0.1	O 0.3						F 0.5				1, 2	
	Load Terminals								F 0.5				1	
	Wiring	O 0.2	O 0.5						F 0.5	F 1.0			1, 2, 4	
	Indicator Lights	O 0.2	O 0.5						F 1.0	O 0.1 F 1.0			1, 2, 4, 5	
03	ACCESSORIES													
	Sledge Hammer	C 0.1							C 0.1					
	Fire Extinguisher	C 0.1							C 0.1					
	Slide Hammer	C 0.1							C 0.1					
	Ground Rods	C 0.1							C 0.1					
04	TRAILER ASSEMBLY	C 0.5	O 1.0	C 0.5										See TM 9-2330-205-14&P for trailer assembly maintenance.
	Accessory Box								O 0.5	F 2.0			1, 3, 6	
	Fuel Can/Fire Extinguisher Brackets	C 0.1							O 0.5				1	

(1)	(2)	(3) Maintenance functions											(4)	(5)
		A	B	C	D	E	F	G	H	I	J	K		
Group no.	Assembly group	Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild	Tools and equipment	Remarks
04 (cont)	Steps/Platforms	C 0.1							O 1.0	F 2.0			1	
	Fenders								O 1.0	F 2.0			1	
	Reflectors	C 0.1							O 0.5				1	
	Data Plates								O 0.2				1, 3, 6	
	Leveling Jacks	C 0.1												
	Lighting	C 0.1	O 0.3											
	Handbrake	C 0.1												

Section lll.TOOLS, TEST AND SUPPORT EQUIPMENT REQUIREMENT

Reference code	Maintenance category	Nomenclature	NSN
1	O	General Mechanic's Automotive Tool Kit	5180-00-177-7033
2	O	Multimeter, AN/PSM-45	6625-01-139-2512
3	O	Drill, l/4-inch	5130-00-807-3009
4	F	Tool Kit, Electrical Connector Repair	5180-00-879-9336
5	F	Soldering Iron	3439-00-618-6623
6	O	Riveter, Blind Head, G749	5120-00-148-5847
7	F	Hoist	

APPENDIX D

UNIT, DIRECT SUPPORT AND GENERAL SUPPORT AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

D-1. **Scope.** This manual lists repair parts and special tools required for the performance of unit, intermediate (field) (direct and general support) and depot maintenance of the power plant.

D-2. **General.** The Repair Parts and Special Tools List is divided into the following sections:

a. *Repair Parts - Section II.* A list of repair parts authorized for the performance of maintenance at the unit, intermediate (field) (direct and general support) and depot level in figure and item number sequence.

b. *Special Tools. Test and Support Equipment - Section III.* A list of special tools, test and support equipment authorized for the performance of maintenance at the unit, intermediate (field) (direct and general support) and depot level.

c. *National Stock Number and Reference Number Index - Section IV.* A list of National stock numbers in numerical sequence, followed by a list of reference numbers appearing in all the listings, in alphanumeric sequence, cross-referenced to the illustration figure number and item number.

d. *Reference Designator Index - Section V.* The reference Designator Column includes all assigned reference designators arranged first in alphabetical order, second in numerical order. Opposite each symbol is listed the figure and item number of the part in Section II and the reference number.

D-3. **Explanation of Collumns.** The following provides an explanation of columns in the tabular lists in Sections II and III.

a. *Illustrations. (Column 1).* This column is divided as follows:

(1) *Figure number.* Indicates the figure number of the illustration on which the item is shown.

(2) *Item number.* Indicates the number used to identify the item on the illustration.

b. Source, Maintenance and Recoverability Codes (SMR). (Column 2).

(1) *Source codes.*

GENERAL: Source Codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

Code	Definition
PA	Item procured and stocked for anticipated or known usage.
PB	Item procured and stocked for insurance purposes because essentially dictates that a minimum quantity be available in the supply systems.
PC	Item procured and stocked and which otherwise would be coded PA except that it is deteriorative in nature.
PD	Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfittings. Not subject to automatic replenishment.
PE	Support equipment procured and stocked for initial issue or outfittings to specified maintenance repair activities.
PF	Support equipment which will not be stocked but which will be centrally procured on demand.
PG	Item procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item peculiar to the equipment which because of probable discontinuance or shutdown of production facilities would prove uneconomical to reproduce at a later time.
KD	An item of depot overhaul/repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul or repair.
KF	An item of maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at unit or intermediate levels of maintenance.
KB	Item included in both a depot overhaul/repair kit and a maintenance kit.
MO	Item to be manufactured or fabricated at unit level.

Code	Definition
MF	Item to be manufactured or fabricated at general supporl maintenance levels.
MD	Item to be manufactured or fabricated at depot maintenance level.
AO	Item to be assembled at unit level.
AF	Item to be assembled at direct support maintenance levels.
AH	Item to be assembled at general support maintenance levels.
AD	Item to be assembled at depot maintenance level.
XA	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
XB	Item is not procured or stocked. If not available through salvage, requisition.
XC	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.
XD	A support item that is not stocked. When required, item will be procured through normal supply channels.

(2) *Maintenance codes:* GENERAL: Maintenance Codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The Maintenance Codes are in the third and fourth position of the Uniform SMR Code Format.

(a) Use (third position): The Maintenance Code entered in the third position indicates the lowest level maintenance level authorized to remove, replace, and use the support item. The Maintenance Code entered in the third position indicates one of the following levels of maintenance.

Code	Application/Explanation
O	Support item is removed, replaced, used at the unit level of maintenance.
F	Support item is removed, replaced, used at direct support level.
H	Support item is removed, replaced, used general support level.

Code	Definition
D	SupporI items that are removed, replaced, used at depot only: Depot, Mobile Depot and Specialized Repair Activity.

(b) Repair (fourth position): The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions).

Code	Application/Explanation
O	The lowest maintenance level capable of complete repair of the support item is the unit level.
F	The lowest maintenance level capable of complete repair of the support item is direct support level.
H	The lowest maintenance level capable of complete repair of the support item is general support level.

Code	Definition
D	The lowest maintenance level capable of complete repair of the support item is the depot level: Depot, Mobile Depot, and Specialized Repair Activity.

Code	Application/Explanation
L	Repair restricted to designated Specialized Repair Activity.
Z	Nonreparable. No repair is authorized.
B	No repair is authorized. The item may be reconditioned by adjusting, lubricating, etc., at the user level. No parts or special tools are procured for the maintenance of this item.

(3) *Recoverability codes:* GENERAL: Recoverability Codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the uniform SMR Code Format as follows:

Recoverability Codes	Definition
Z	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in column 3.
O	Reparable item. When uneconomically reparable, condemn and dispose at unit level.
F	Reparable item. When uneconomically reparable, condemn and dispose at direct support level.
H	Reparable item. When uneconomically reparable, condemn and dispose at general support level.

Recoverability Codes	Definition
D	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.
L	Reparable item. Repair, condemnation and disposal not authorized below depot/Specialized Repair Activity level.
A	Item requires special handling or condemnation procedure because of specific reasons (i.e., precious metal content, high-dollar value, critical material or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. *National Stock Number (Column 4).* Indicates the National Stock Number assigned to the item and will be used for requisitioning purposes.

d. *Description (Column 5).* Indicates the Federal item name and any additional descriptions of the item required. The abbreviation "w/e" when used as a part of the nomenclature, indicates that the National Stock Number includes all armament, equipment, accessories and repair parts issued with the item. A part number or other reference number is followed by the applicable five digit Federal Supply Code for Manufacturer in parentheses. If two reference numbers and Federal Supply Codes for Manufacturer are listed, the first listing refers to the Department of Defense Drawing Number, the second listing refers to the actual part manufacturer. Items that are included in kits and sets are listed below the name of the kit or set with the quantity of each item in the kit or set indicated in the quantity incorporated in unit column.

e. *Unit of Measure (U/M) (Column 6).* Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr. etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

f. *Quantity Incorporated in Unit (Column 7).* Indicates the quantity of the item used in the assembly group. A "V" appearing in this column in lieu of a quantity indicates that a definite quantity cannot be indicated (e.g., shims, spacers, etc.).

D-4. Special Information.

a. Identification of Usable On Codes for this manual is not applicable.

b. Army unit maintenance personnel will extract the items which they require from Section II, 3rd or 4th position of column 2 of the intermediate direct and general support RPSTL. Parts which are manufactured or assembled at a higher level than that authorized to install the part are indicated by the use of higher level code in the source column.

c. *Stockage Information.* Army stockage is demand based in accordance with AR 710-2. Repair parts listed in this publication represent those authorized for use at indicated maintenance levels and will be requisitioned on an as-required basis until stockage is justified in accordance with AR 710-2.

d. In the parts list, some items are indented to show that they area component of the item under which they are indented.

D-5. How to Locate Repair Parts.

a. *When National Stock Number or Reference Number is Unknown:*

(1) Using the table of contents, determine the functional group; i.e., batteries and related parts, exhaust and breather pipes, within which the repair part belongs. This is necessary since illustrations are prepared for functional groups.

(2) Find the illustration covering the functional group to which the repair part belongs.

(3) Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(4) Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. *When National Stock Number or Reference Number is Known:*

(1) Using the Index of National Stock Numbers and Reference Numbers, find the pertinent national stock number or reference number. This index is in ascending NSN sequence followed by a list of reference numbers in alphanumeric sequence, cross-referenced to the illustration figure number and item number.

(2) After finding the figure and item number, locate the figure and item number in the repair parts list.

D-6. **Use of the Reference Designator Index Section.** This Section (Section V) is used when the reference designator is known or identified by other technical manuals supporting this equipment. The reference number is given in this section. If description or location is desired, note the figure and item number. Turn to Section II to the noted figure and item number. The location of the part and description is given in this listing.

D-7. Abbreviations.

Abbreviations	Explanation
Not Applicable	

D-8. Federal Supply Codes for Manufacturers.

Code	Manufacturer
Not Applicable	

D-9. **Recommendation for Maintenance Publication Improvements.** Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted directly to: Commander, US Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798.

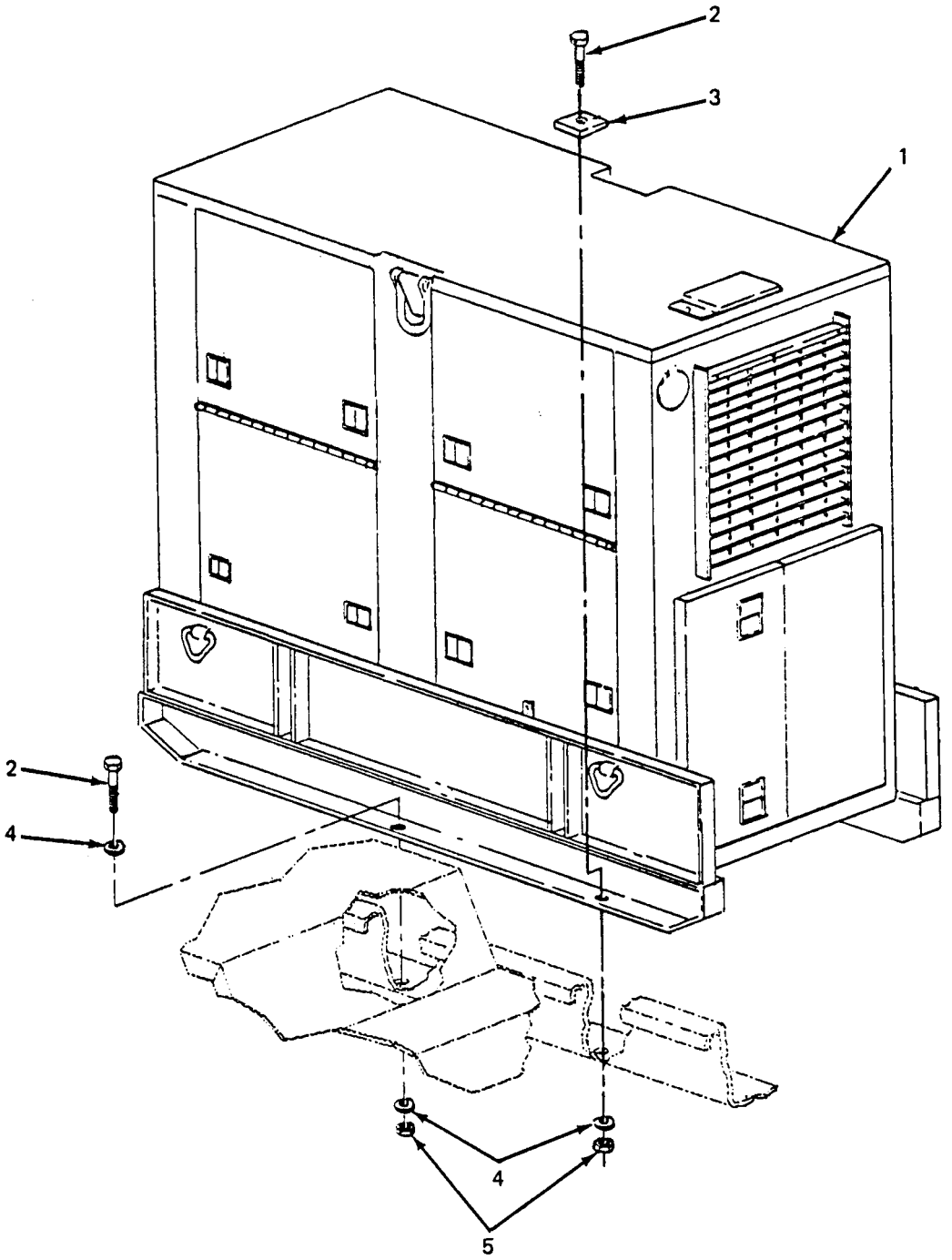


Figure D-1. Generator Set.

(1) ILLUSTRATION		(2) SMR CODE				(3) USMC		(4)	(5) DESCRIPTION		(6)	(7)	(8)
A FIG NO.	B ITEM NO.	A ARMY	B AIR FORCE	C NAVY	D USMC	A SSI	B REPL FACTOR	NATIONAL STOCK NUMBER	REF NUMBER & MFR CODE	USABLE ON CODE	U/M	QTY INC IN UNIT	USMC QTY PER EQUIP
									GROUP 01 - GENERATOR				
D-1	1	PDOFH						6115-00-118-1240	GENERATOR SET,DIESEL MEP-005A 97403		EA	2	
D-1	2	PAOZZ						5305-00-724-7222	SCREW,CAP,HEX MS90728-164 96906		EA	8	
D-1	3	PAOZZ						5310-01-185-0586	WASHER,BEVELED 13206E4482-3 97403		EA	4	
D-1	4	PAOZZ						5310-01-823-8803	WASHER,FLAT MS27183-21 96906		EA	8	
D-1	5	PAOZZ						5310-00-269-4040	NUT,SELF-LOCKING MS51922-49 96906		EA	8	

1, 2
3 THRU 6

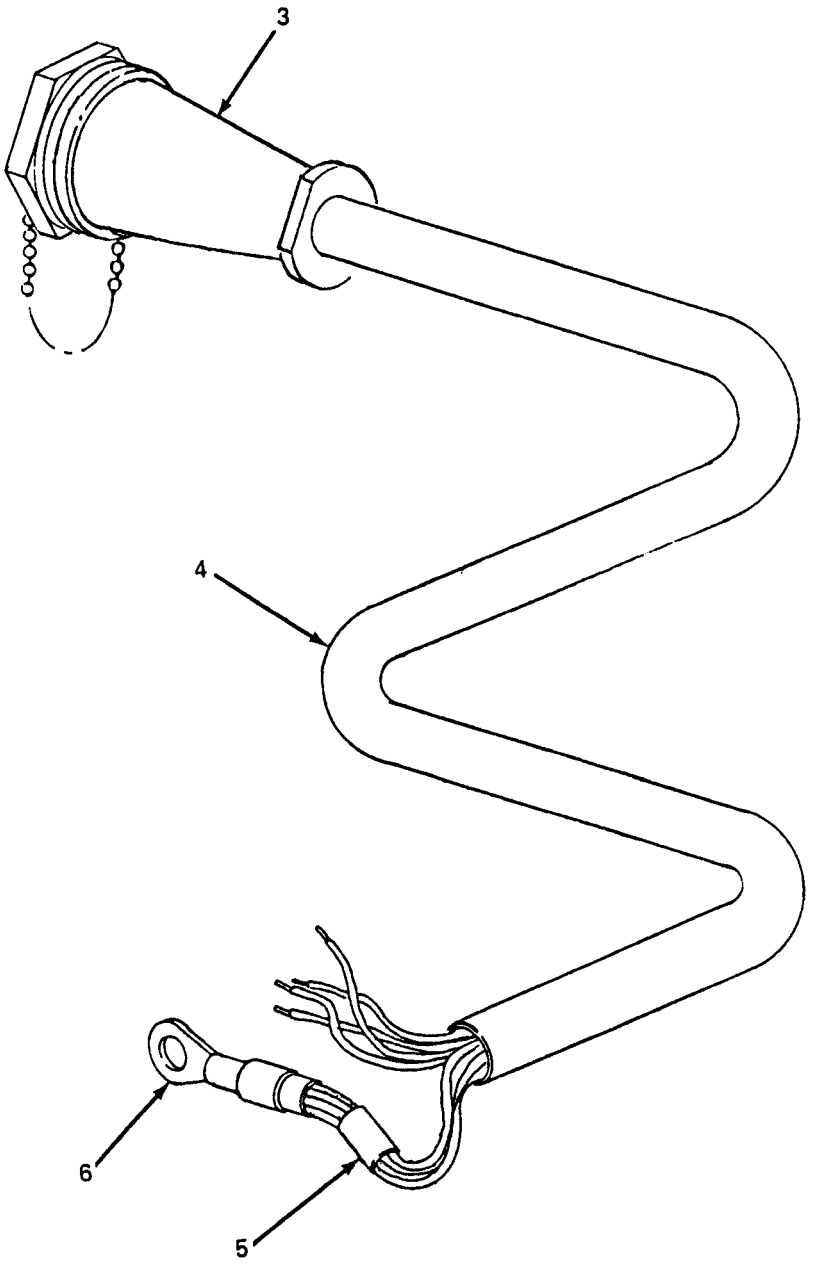


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Figure D-2. Power Cable.

(1) ILLUS-TRATION A FIG NO.	(1) ILLUS-TRATION B ITEM NO.	(2) SMR CODE A ARMY	(2) SMR CODE B AIR FORCE	(2) SMR CODE C NAVY	(2) SMR CODE D USMC	(3) USMC A SSI	(3) USMC B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	(5) USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									GROUP 02 - ELECTRICAL SYSTEM 0201 - POWER CABLES				
D-2	1	PAOFF							CABLE ASSY 13226E7718-1 97403		EA	1	
D-2	2	PAOFF							CABLE ASSY 13226E7718-2 97403		EA	1	
D-2	3	PAFZZ						5935-01-191-9166	.CONNECTOR,PLUG MS90557-44413S 96906		EA	1	
D-2	4	PAFZZ						6145-01-038-5963	.CABLE CO-04HDF(4/1-4/8R) 81349		FT	V	
D-2	5	PAFZZ							.SLEEVING,INSULATION M23053/5-109-5 81349		EA	V	
D-2	6	PAFZZ						5940-00-115-5006	.TERMINAL,LUG M25036-133 96906		EA	1	

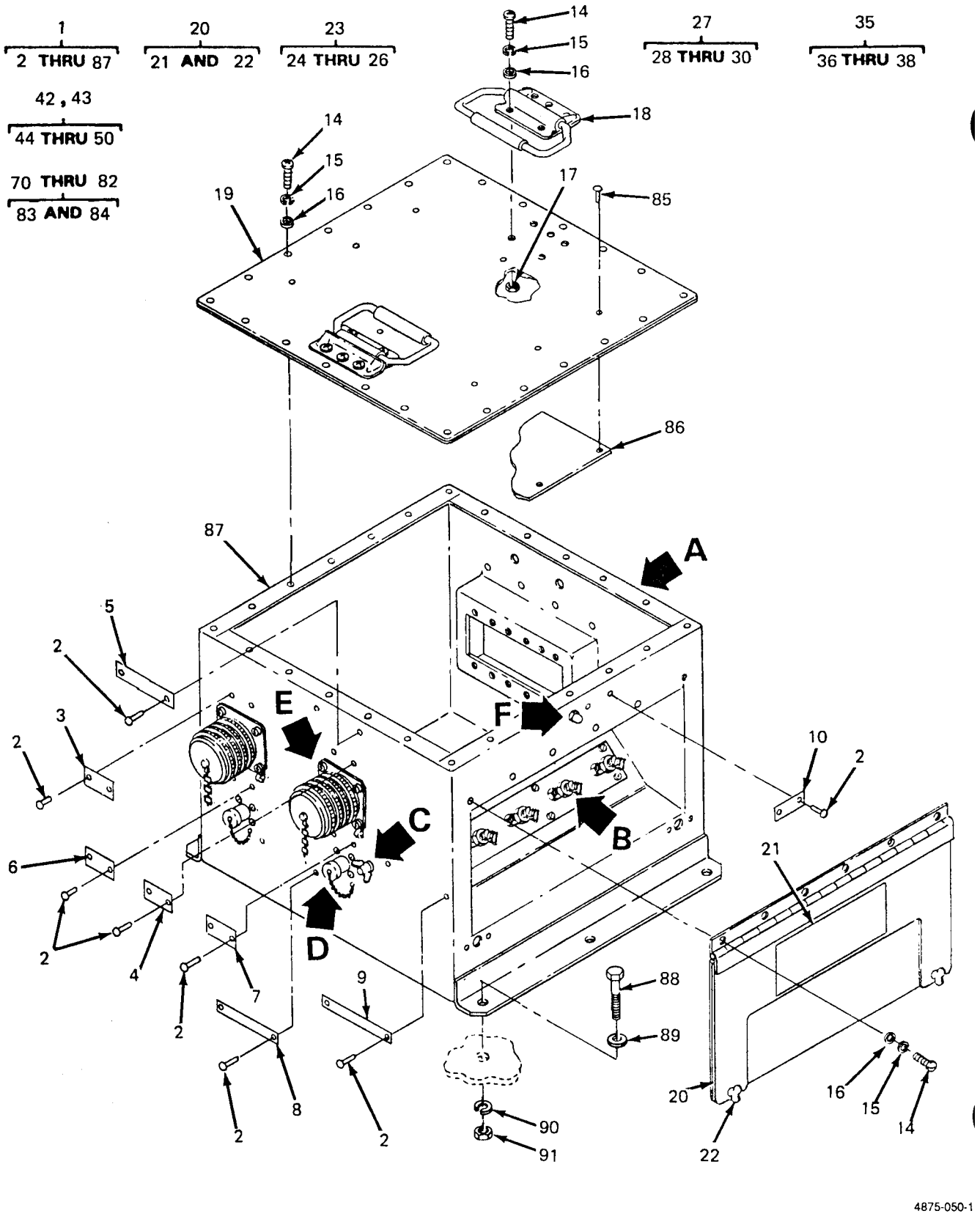


Figure D-3. Switch Box Assembly (Sheet 1 of 3).

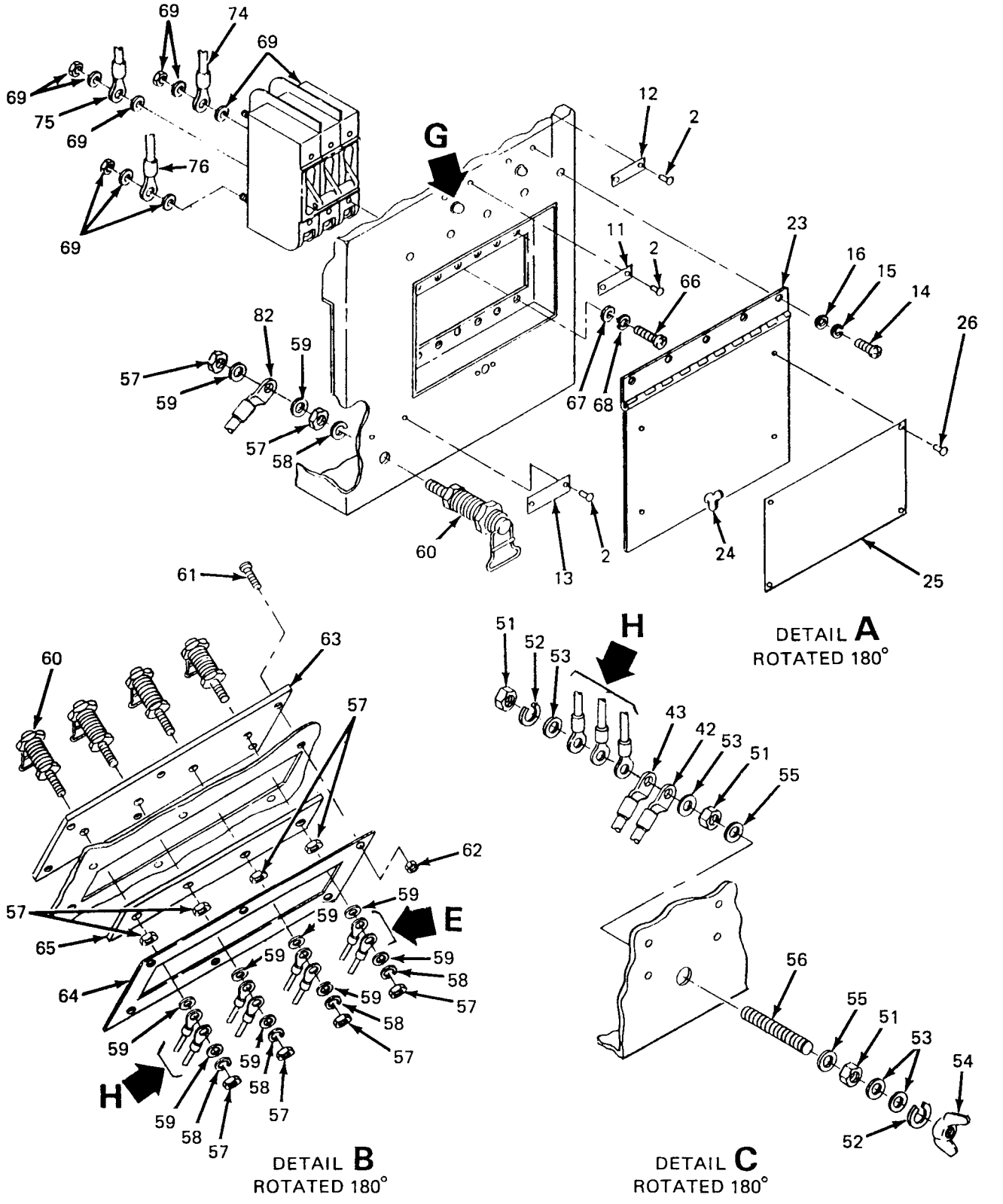


Figure D-3. Switch Box Assembly (Sheet 2 of 3).

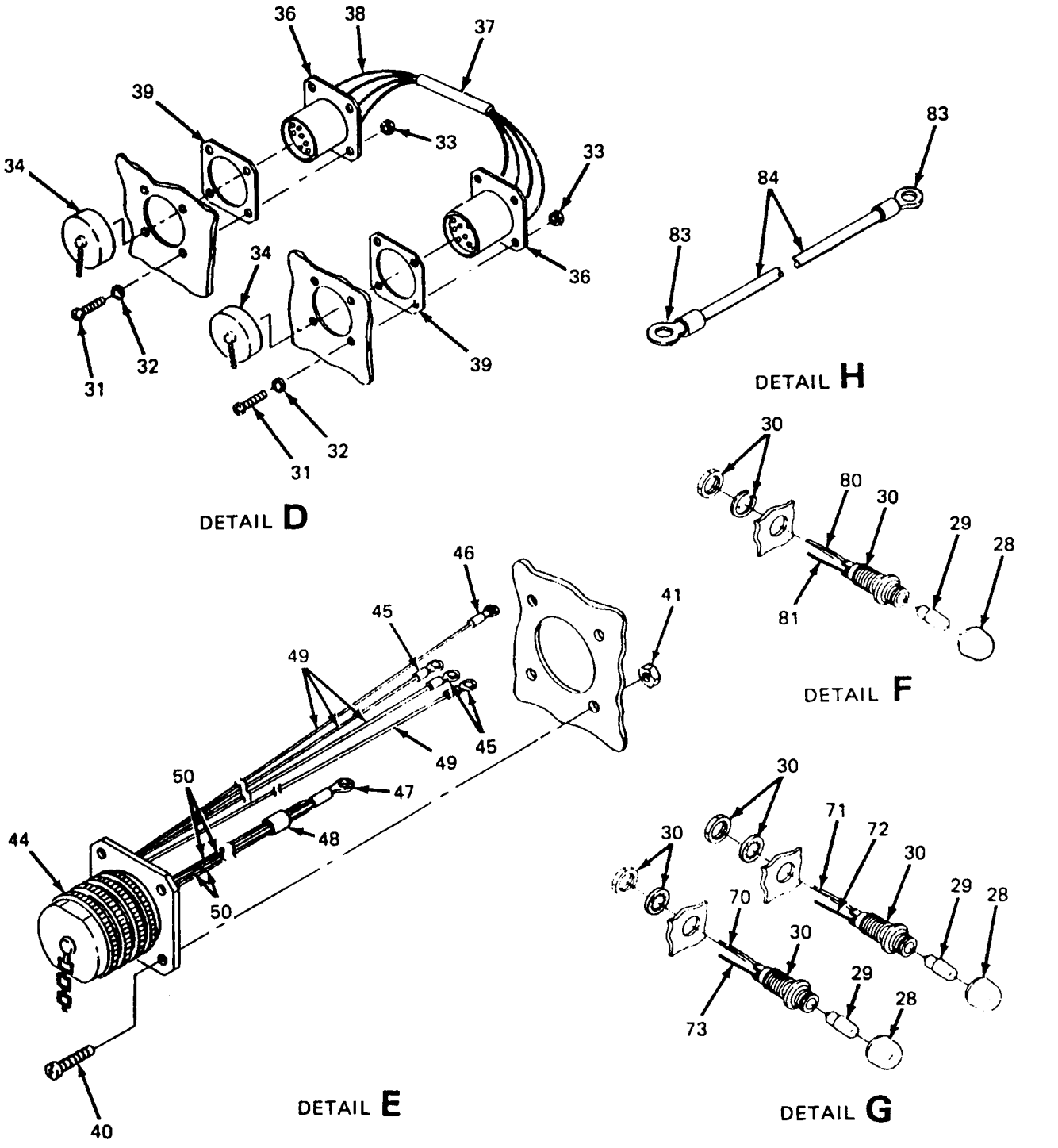


Figure D-3. Switch Box Assembly (Sheet 3 of 3).

(1) ILLUSTRATION A FIG NO.	B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									0202 - SWITCH BOX ASSY				
D-3	1	PAOFF						6110-01-264-2069	SWITCH BOX ASSY 13226E6292 97403		EA	1	
D-3	2	PAFZZ						5320-00-956-5737	.RIVET MS16535-54 96906		EA	22	
D-3	3	MDFZZ							.PLATE,DESIGNATION 13214E1361 97403		EA	1	
D-3	4	MDFZZ							.PLATE,DESIGNATION 13214E1362 97403		EA	1	
D-3	5	MDFZZ							.PLATE,IDENTIFICATION 13216E7536 97403		EA	1	
D-3	6	MDFZZ							.PLATE,DESIGNATION 13214E1363 97403		EA	1	
D-3	7	MDFZZ							.PLATE,DESIGNATION 13214E1364 97403		EA	1	
D-3	8	MDFZZ							.PLATE,INSTRUCTION 13221E7371 97403		EA	1	
D-3	9	MDFZZ						9905-01-179-7336	.PLATE,IDENTIFICATION 13217E2005 97403		EA	1	
D-3	10	MDFZZ							.PLATE,DESIGNATION 13214E1357 97403		EA	1	
D-3	11	MDFZZ							.PLATE,DESIGNATION 13214E1360 97403		EA	1	
D-3	12	MDFZZ							.PLATE,DESIGNATION 13214E1359 97403		EA	1	
D-3	13	MDFZZ							.PLATE,INFORMATION 13226E5889-1 97403		EA	1	
D-3	14	PAOZZ						5305-00-993-1848	.SCREW,MACHINE MS35207-265 96906		EA	44	
D-3	15	PAOZZ						5310-00-045-3296	.LOCKWASHER MS35338-43 96906		EA	44	
D-3	16	PAOZZ						5310-00-014-5850	.WASHER,FLAT MS27183-42 96906		EA	44	
D-3	17	PAOZZ						5310-00-934-9751	.NUT,PLAIN MS35650-302 96906		EA	10	
D-3	18	XDFZZ						5340-00-801-2957	.HANDLE MS18012-5 96906		EA	2	
D-3	19	XBFZZ							.COVER,SWITCH BOX 13220E6324 97403		EA	1	
D-3	20	XBFZZ							.DOOR,ACCESS 13228E1201 97403		EA	1	
D-3	21	PAFZZ							..PLATE,WARNING 13216E7603 97403		EA	1	

(1) ILLUSTRATION A FIG NO.	(1) ILLUSTRATION B ITEM NO.	(2) SMR CODE A ARMY	(2) SMR CODE B AIR FORCE	(2) SMR CODE C NAVY	(2) SMR CODE D USMC	(3) USMC A SSI	(3) USMC B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									0202 - SWITCH BOX ASSY(CONT)				
D-3	22	PAFZZ							..FASTENER,PANEL,WING HEAD MIL-F-5591,TYPE III, CLASS B	81349	EA	2	
D-3	23	XBFZZ							.DOOR,SWITCH ACCESS 13228E1202		EA	1	
D-3	24	PAFZZ							..FASTENER,PANEL,WING HEAD MIL-F-5591,TYPE III, CLASS B	81349	EA	1	
D-3	25	MDFZZ							..PLATE,INSTRUCTION 13220E8148	97403	EA	1	
D-3	26	PAFZZ						5320-00-068-6926	..RIVET MS20613-3P4	96906	EA	4	
D-3	27	PAOOO						6210-01-160-8026	.LIGHT,INDICATOR(DS1,DS2,DS3) 13214E1391	97403	EA	3	
D-3	28	PAOZZ							..LENS,CLEAR 181-0937-003	72619	EA	3	
D-3	29	PAOZZ							..LAMP G9B (GR)	58224	EA	3	
D-3	30	PAFZZ							..HOUSING 181-8836-09-553	72619	EA	3	
D-3	31	PAFZZ						5305-00-983-6730	.SCREW,MACHINE MS35206-218	96906	EA	8	
D-3	32	PAFZZ						5310-00-543-2410	.LOCKWASHER MS35338-40	96906	EA	8	
D-3	33	PAFZZ						5310-00-934-9739	.NUT,PLAIN MS35649-242	96906	EA	8	
D-3	34	PAFZZ						5935-00-175-8419	.COVER,CONNECTOR MS25043-18DA	96906	EA	2	
D-3	35	PAFFF						6150-01-263-3570	.CABLE ASSY(W3) 13220E8144	97403	EA	1	
D-3	36	PAFZZ						5935-00-801-6617	..CONNECTOR,RECEPTACLE (J3,J4) MS3102R18-4P	96906	EA	2	
D-3	37	PAFZZ							..SLEEVING,INSULATION MIL-I-23053/2	81349	FT	V	
D-3	38	PBFZZ							..WIRE,ELECTRIC M5086/1-16-9	96906	FT	V	
D-3	39	PAFZZ						5330-00-508-0753	.GASKET,RUBBER MS52000-6	96906	EA	2	
D-3	40	PAFZZ						5305-00-993-1851	.SCREW,MACHINE MS35207-267	96906	EA	8	
D-3	41	PAFZZ						5310-00-877-5797	.NUT,SELF-LOCKING MS21044N3	96906	EA	8	
D-3	42	MFFFF							.CABLE ASSEMBLY (W1) 13220E7719-1	97403	EA	1	

(1) ILLUS-TRATION A FIG NO.	(1) B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									0202-SWITCH BOX ASSY(CONT)				
D-3	43	MFFFF							.CABLE ASSEMLBY (W2) 13220E7719-2 97403		EA	1	
D-3	44	PAFZZ							..CONNECTOR,RECEPTACLE (W1J1 AND W2J2) MS90588C-44413P 96906		EA	2	
D-3	45	PAFZZ						5940-00-115-5025	..TERMINAL,LUG(TO SWITCH TERMINALS) MS25036-129 96906		EA	6	
D-3	46	PAFZZ						5940-00-113-9833	..TERMINAL,LUG (TO TB1-LO) MS25036-131 96906		EA	2	
D-3	47	PAFZZ						5940-00-557-4345	.TERMINAL,LUG(TO E1) MS25036-118 96906		EA	2	
D-3	48	PAFZZ							..SLEEVE,INSULATION M23053/5-109-5 96906		EA	V	
D-3	49	PAFZZ						6145-00-578-6597	..WIRE,SIZE 1 (TO SWITCH AND TB1) M5086/2-1-9 96906		FT	V	
D-3	50	PAFZZ						6145-00-284-0657	..WIRE,SIZE 8 (TO E1) M5086/2-8-9 96906		FT	V	
D-3	51	PAOZZ						5310-01-026-5824	.NUT,PLAIN,HEX MS16203-39 96906		EA	3	
D-3	52	PAOZZ						5310-00-184-8971	.LOCKWASHER MS35338-103 96906		EA	2	
D-3	53	PAOZZ						5310-01-004-9129	.WASHER,FLAT AN961-616S 81352		EA	4	
D-3	53	PAOZZ						5310-00-187-2413	.WASHER,FLAT AN961-616T 81352		EA	4	
D-3	54	PAOZZ						5310-00-543-4717	.NUT,PLAIN,WING MS35425-28 96906		EA	1	
D-3	55	PAOZZ						5310-00-913-9776	.LOCKWASHER MS35335-91 96906		EA	2	
D-3	56	PAOZZ						5307-00-227-1741	.STUD (E1) 13214E1223 97403		EA	1	
D-3	57	PAFZZ						5310-00-216-1123	.NUT,PLAIN,HEX MS16203-79 96906		EA	10	
D-3	58	PAFZZ							.LOCKWASHER MS35338-118 96906		EA	5	
D-3	59	PAFZZ						5310-01-188-1690	.WASHER,FLAT AN961-816S 81352		EA	3	
D-3	59	PAFZZ						5310-00-465-2719	.WASHER,FLAT AN961-816T 81352		EA	3	
D-3	60	PBFZZ						5940-00-237-2703	.TERMINAL,POST (LO,L1,L2,L3,E2) MS39347-5 96906		EA	5	
D-3	61	PAOZZ						5305-00-068-0502	.SCREW,CAP MS90725-6 96906		EA	6	
D-3	62	PAOZZ						5310-00-088-1251	.NUT,SELF-LOCKING MS51922-1 96906		EA	6	

(1) ILLUSTRATION		(2) SMR CODE				(3) USMC		(4)	(5) DESCRIPTION		(6)	(7)	(8)
A FIG NO.	B ITEM NO.	A ARMY	B AIR FORCE	C NAVY	D USMC	A SSI	B REPL FACTOR	NATIONAL STOCK NUMBER	REF NUMBER & MFR CODE	USABLE ON CODE	U/M	QTY INC IN UNIT	USMC QTY PER EQUIP
									0202-SWITCH BOX ASSY(CONT)				
D-3	63	PAFZZ							.BOARD,TERMINAL (TB1) 13220E8145 97403		EA	1	
D-3	64	PAFZZ						5330-01-173-3652	.GASKET 13205E5042 97403		EA	1	
D-3	65	PAFZZ						5970-01-189-4894	.PANEL,INSULATOR 13205E5041 97403		EA	1	
D-3	66	PAFZZ						5305-00-984-4988	.SCREW,MACHINE MS35306-228 96906		EA	12	
D-3	67	PAOZZ						5310-00-082-1404	.WASHER,FLAT MS27183-6 96906		EA	12	
D-3	68	PAFZZ						5310-00-045-4007	.LOCKWASHER MS35338-41 96906		EA	12	
D-3	69	PAFZZ						5930-01-164-3827	.SWITCH (S1,S2) 13220E8143 97403		EA	2	
D-3	70	MFFFF							.LEAD,ELECTRICAL (W4) 13220E8146-1 97403		EA	1	
D-3	71	MFFFF							.LEAD,ELECTRICAL (W5) 13220E8146-2 97403		EA	1	
D-3	72	MFFFF							.LEAD,ELECTRICAL (W6) 13220E8146-3 97403		EA	1	
D-3	73	MFFFF							.LEAD,ELECTRICAL (W7) 13220E8146-4 97403		EA	1	
D-3	74	MFFFF							.LEAD,ELECTRICAL (W8) 13220E8146-5 97403		EA	1	
D-3	75	MFFFF							.LEAD,ELECTRICAL (W9) 13220E8146-6 97403		EA	1	
D-3	76	MFFFF							.LEAD,ELECTRICAL (W10) 13220E8146-7 97403		EA	1	
D-3	77	MFFFF							.LEAD,ELECTRICAL (W11) 13220E8146-8 97403		EA	1	
D-3	78	MFFFF							.LEAD,ELECTRICAL (W12) 13220E8146-9 97403		EA	1	
D-3	79	MFFFF							.LEAD,ELECTRICAL (W13) 13220E8146-10 97403		EA	1	
D-3	80	MFFFF							.LEAD,ELECTRICAL (W14) 13220E8146-11 97403		EA	1	
D-3	81	MFFFF							.LEAD,ELECTRICAL (W15) 13220E8146-12 97403		EA	1	
D-3	82	MFFFF							.LEAD,ELECTRICAL (W16) 13220E8146-13 97403		EA	1	

(1) ILLUS-TRATION A FIG NO.	B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									0202-SWITCH BOX ASSY(CONT)				
D-3	83	PAFZZ						5940-00-143-4793	..TERMINAL,.375 STUD SIZE (W6,W7 AND W14 AT E1) MS25036-110 96906		EA	3	
								5940-00-557-4339	..TERMINAL,.250 STUD SIZE (W8 THRU W13 AT SWITCH TERMINAL) MS25036-126 96906		EA	6	
								5940-00-113-9831	..TERMINAL,.500 STUD SIZE (W8 THRU W13 AT TB1,W16 AT LO AND E2 MS25036-128 96906		EA	8	
								5940-00-230-0515	..TERMINAL,.250 STUD SIZE (W4 AND W5 AT SWITCH TERMINAL) MS25036-154 96906		EA	2	
									..TERMINAL, .500 STUD SIZE (W15 AT TB1) MS25036-155 96906		EA	1	
D-3	84	PAFZZ						6145-00-578-6596	..WIRE,SIZE 2 (W8 THRU W13,W16) M5086/2-2-9 96906		FT	V	
									..WIRE,SIZE 2 (W4 THRU W7,W14,W15) M5086/1-16-9 96906		FT	V	
D-3	85	PAFZZ						5320-00-959-0139	.RIVET MS16535-55 96906		EA	6	
D-3	86	MDFZZ							.PLATE,WIRING DIAGRAM 13226E6295 97403		EA	1	
D-3	87	PAFFF							.BOX,SWITCH 13226E6294 97403		EA	1	
D-3	88	PAOZZ						5305-00-269-3213	.SCREW,CAP,HEX MS90725-62 96906		EA	6	
D-3	89	PAOZZ						5310-00-080-6004	.WASHER,FLAT MS27183-14 96906		EA	6	
D-3	90	PAOZZ						5310-00-637-9541	.LOCKWASHER MS35338-46 96906		EA	6	
D-3	91	PAOZZ						5310-00-732-0558	,NUT,PLAIN,HEX MS51967-8 96906		EA	6	

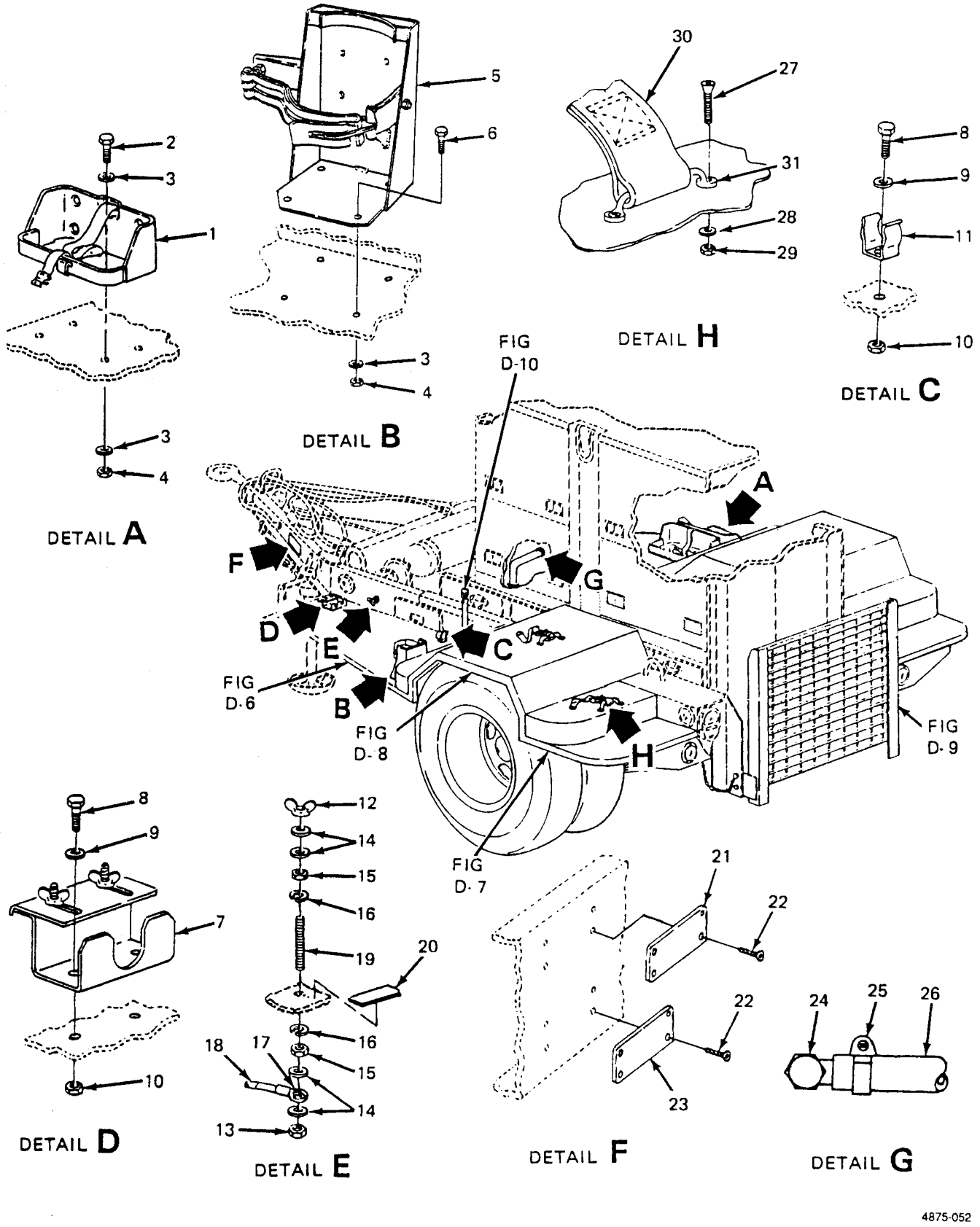


Figure D-4. Trailer Body.

(1) ILLUSTRATION		(2) SMR CODE				(3) USMC		(4)	(5) DESCRIPTION		(6)	(7)	(8)
A FIG NO.	B ITEM NO.	A ARMY	B AIR FORCE	C NAVY	D USMC	A SSI	B REPL FACTOR	NATIONAL STOCK NUMBER	REF NUMBER & MFR CODE	USABLE ON CODE	U/M	QTY INC IN UNIT	USMC QTY PER EQUIP
									GROUP 04-TRAILER 04-BODY				
D-4	1	PAOZZ							BRACKET ASSEMBLY,LIQUID CONTAINER MS53052-1 96906		EA	2	
D-4	2	PAOZZ						5305-00-269-3213	SCREW,CAP,HEX MS90725-62 96906		EA	8	
D-4	3	PAOZZ						5310-00-080-6004	WASHER,FLAT MS27183-14 96906		EA	20	
D-4	4	PAOZZ						5310-00-087-4652	NUT,SELF-LOCKING MS51922-17 96906		EA	12	
D-4	5	PAOZZ						4210-00-223-4857	BRACKET,FIRE EXTINGUISHER 13214E1235 97403		EA	1	
D-4	6	PAOZZ						5305-00-984-5691	SCREW,MACHINE MS35206-311 96906		EA	4	
D-4	7	PAOZZ						5340-00-999-6277	BRACKET ASSEMBLY 13214E1214 97403		EA	1	
D-4	8	PAOZZ						5305-00-068-0502	SCREW,CAP,HEX MS90725-6 96906		EA	3	
D-4	9	PAOZZ						5310-00-809-4058	WASHER,FLAT MS27183-10 96906		EA	3	
D-4	10	PAOZZ						5310-00-088-1251	NUT,SELF-LOCKING MS51922-1 96906		EA	3	
D-4	11	PAOZZ						5304-00-914-2578	CLIP,SPRING 13214E1213-1 97403		EA	1	
D-4	12	PAOZZ						5310-00-543-4717	NUT,PLAIN,WING MS35425-28 96906		EA	1	
D-4	13	PAOZZ						5310-00-584-7995	NUT,PLAIN,HEX MS16203-27 96906		EA	1	
D-4	14	PAOZZ						5310-01-004-9129	WASHER,FLAT AN961-616S 81352		EA	4	
D-4	14	PAOZZ						5310-00-187-2413	WASHER,FLAT AN961-616T 81352		EA	4	
D-4	15	PAOZZ						5310-00-026-5824	NUT,PLAIN,HEX MS16203-39 96906		EA	2	
D-4	16	PAOZZ						5310-00-022-8847	LOCKWASHER MS35333-110 96906		EA	2	
D-4	17	PAFZZ						5940-00-115-4992	TERMINAL,LUG MS20659-110 96906		EA	2	
D-4	18	PAFZZ							WIRE,NO.6 QQ-W-343 81348		FT	V	
D-4	19	PAOZZ						5307-00-227-1741	STUD 13214E1223 97403		EA	1	
D-4	20	MDFZZ						9905-01-085-7703	PLATE,IDENTIFICATION 13205E4918 974103		EA	1	

(1) ILLUS-TRATION A FIG NO.	B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									04-BODY (CONT)				
D-4	21	MDFZZ							PLATE,IDENTIFICATION 13216E7604-38 97403		EA	1	
D-4	22	PAFZZ						5305-00-253-5615	SCREW,DRIVE MS21318-21 96906		EA	8	
D-4	23	MDFZZ							PLATE,IDENTIFICATION,MODIFICATION 13218E4119-5 97403		EA	1	
D-4	24	PAOZZ						4730-00-809-9703	ELBOW,PIPE TO HOSE MS24519-9 96906		EA	1	
D-4	25	PAOZZ						4730-00-908-3193	CLAMP MS35842-12 96906		EA	1	
D-4	26	PAOZZ							HOSE MIL-H-6000 81349		EA	1	
D-4	27	PAOZZ						5305-00-984-7342	SCREW,MACHINE MS35191-274 96906		EA	6	
D-4	28	PAOZZ						5310-00-014-5850	WASHER,FLAT MS27183-42 96906		EA	6	
D-4	29	PAOZZ						5310-00-877-5797	NUT,SELF-LOCKING MS21044N3 96906		EA	6	
D-4	30	PAOZZ						6115-01-280-0063	STRAP ASSY 13218E5091 97403		EA	3	
D-4	31	PAOZZ						5340-00-229-0340	LOOP,STRAP FASTENER MS51939-3 96906		EA	3	

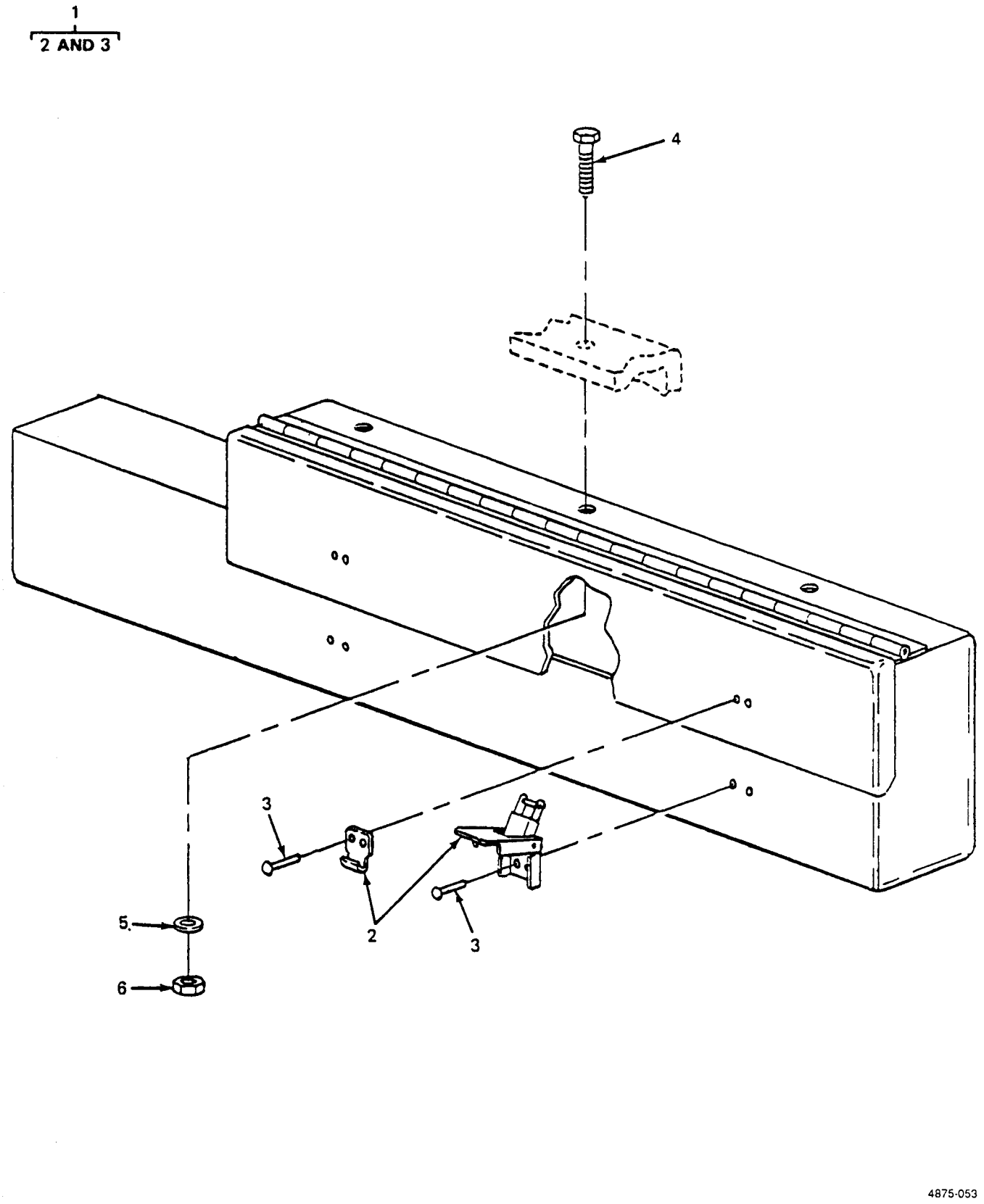


Figure D-5. Accessory Box.

(1) ILLUS-TRATION		(2) SMR CODE				(3) USMC		(4)	(5)	(6)	(7)	(8)
A FIG NO.	B ITEM NO.	A ARMY	B AIR FORCE	C NAVY	D USMC	A SSI	B REPL FACTOR	NATIONAL STOCK NUMBER	REF NUMBER & MFR CODE	USABLE ON CODE	U/M	QTY INC IN UNIT	USMC QTY PER EQUIP
									04 - ACCESSORY BOX				
D-5	1	XBOFF						2450-00-903-3503	ACCESSORY BOX 13214E1256 97403		EA	1	
D-5	2	PAFZZ						5340-00-975-2126	.LATCH AND STRIKE ASSEMBLY MS18015-1 96906		EA	2	
D-5	3	PAFZZ						5320-00-753-3830	.RIVET MS20613-4P5 96906		EA	8	
D-5	4	PAOZZ						5306-00-225-8498	SCREW,CAP,HEX MS90725-33 96906		EA	3	
D-5	5	PAOZZ						5310-00-087-7493	WASHER,FLAT MS27183-13 96906		EA	3	
D-5	6	PAOZZ						5310-00-984-3806	NUT,SELF-LOCKING MS51922-9 96906		EA	3	

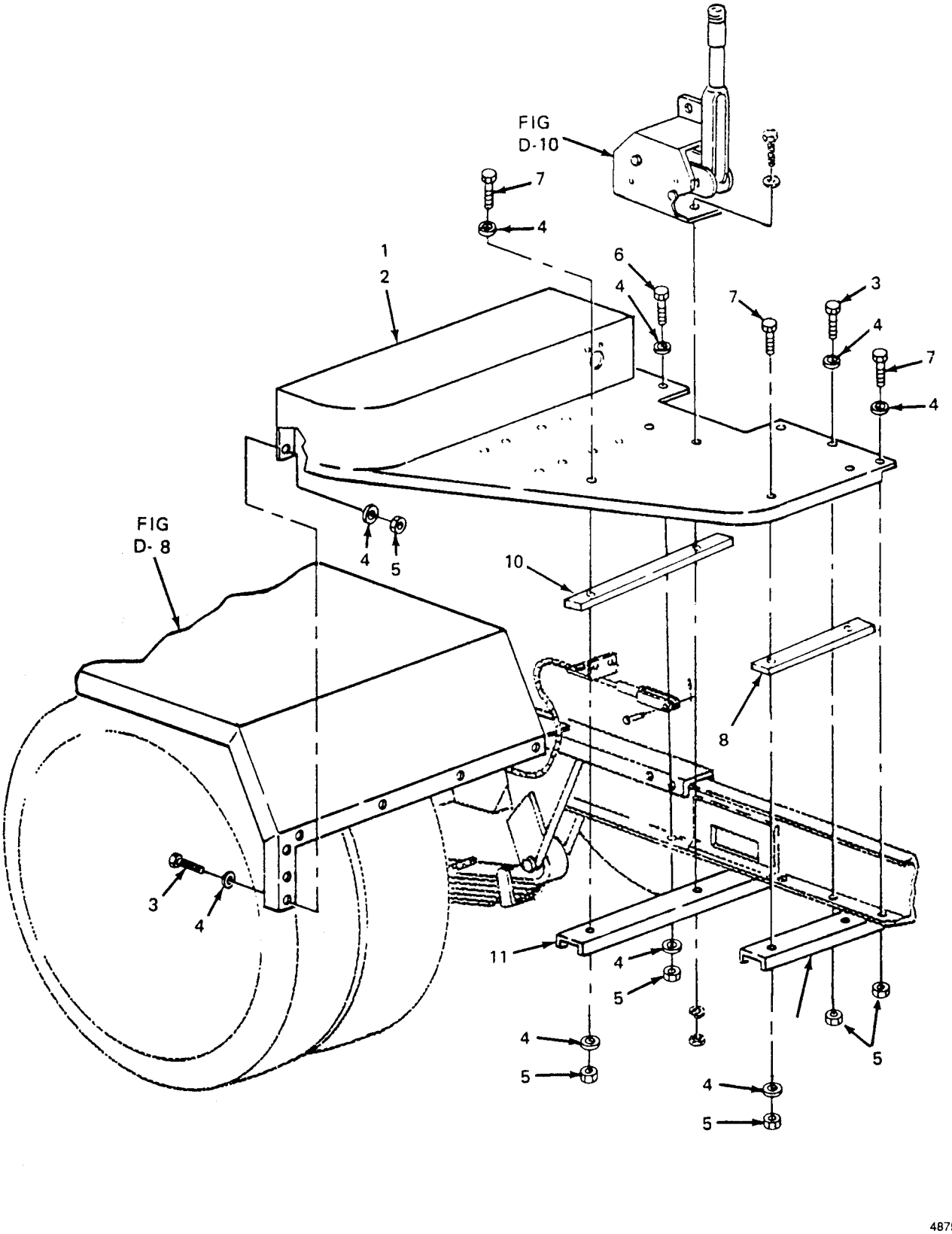


Figure D-6. Front Steps.

SECTION II

(1) ILLUSTRATION A FIG NO.	B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									04 - FRONT STEPS				
D-6	1	XBOFF						2330-01-150-9864	STEP,FRONT,CURBSIDE 13214E1461 97403		EA	1	
D-6	2	XBOFF						2510-01-196-4682	STEP,FRONT,ROADSIDE 13214E1462 97403		EA	1	
D-6	3	PAOZZ						5306-00-225-8499	SCREW,CAP,HEX MS90725-34 96906		EA	9	
D-6	4	PAOZZ						5310-00-081-4219	WASHER,FLAT MS27183-12 96906		EA	30	
D-6	5	PAOZZ						5310-00-984-3806	NUT,SELF-LOCKING MS51922-9 96906		EA	15	
D-6	6	PAOZZ						5305-00-225-9081	SCREW,CAP,HEX MS90725-36 96906		EA	1	
D-6	7	PAOZZ						5306-00-225-8503	SCREW,CAP,HEX MS90725-39 96906		EA	5	
D-6	8	PBOZZ						5365-00-944-2692	SPACER 13214E1267-1 97403		EA	1	
D-6	9	XBOZZ							CHANNEL 13214E1268 97403		EA	1	
D-6	10	PBOZZ						5365-00-945-5998	SPACER 13214E1267-2 97403		EA	1	
D-6	11	XBOZZ							CHANNEL 13214E1463 97403		EA	1	

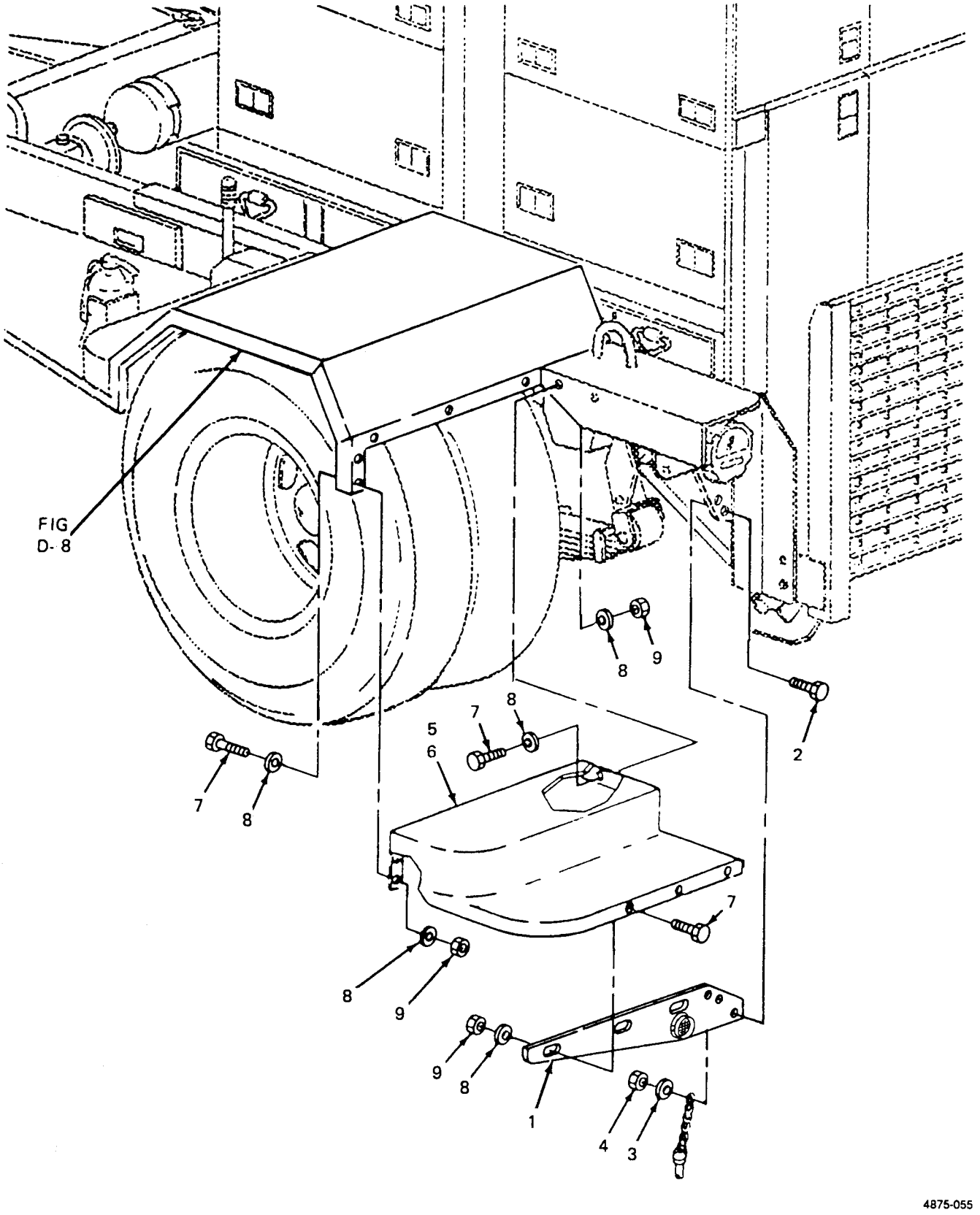


Figure D-7. Rear Steps.

(1) ILLUSTRATION		(2) SMR CODE				(3) USMC		(4)	(5) DESCRIPTION		(6)	(7)	(8)
A FIG NO.	B ITEM NO.	A ARMY	B AIR FORCE	C NAVY	D USMC	A SSI	B REPL FACTOR	NATIONAL STOCK NUMBER	REF NUMBER & MFR CODE	USABLE ON CODE	U/M	QTY INC IN UNIT	USMC QTY PER EQUIP
									04 - REAR STEPS				
D-7	1	PBOZZ						5340-01-B75-8820	BRACKET,STEP,REAR 13214E1309-1 97403		EA	1	
D-7	2	PAOZZ						5305-00-269-3213	SCREW,CAP,HEX MS90725-62 96906		EA	2	
D-7	3	PAOZZ						5310-00-080-6004	WASHER,FLAT MS27183-14 96906		EA	2	
D-7	4	PAOZZ						5310-00-087-4652	NUT,SELF-LOCKING MS51922-17 96906		EA	2	
D-7	5	XBOFF						2510-01-N73-0729	STEP,REAR,ROADSIDE 13214E1261 97403		EA	1	
D-7	6	XBOFF						2510-01-N73-0794	STEP,REAR,CURBSIDE 13214E1259 97403		EA	1	
D-7	7	PAOZZ						5306-00-225-8499	SCREW,CAP,HEX MS90725-34 96906		EA	10	
D-7	8	PAOZZ						5310-00-081-4219	WASHER,FLAT MS27183-12 96906		EA	20	
D-7	9	PAOZZ						5310-00-984-3806	NUT,SELF-LOCKING MS51922-9 96906		EA	10	

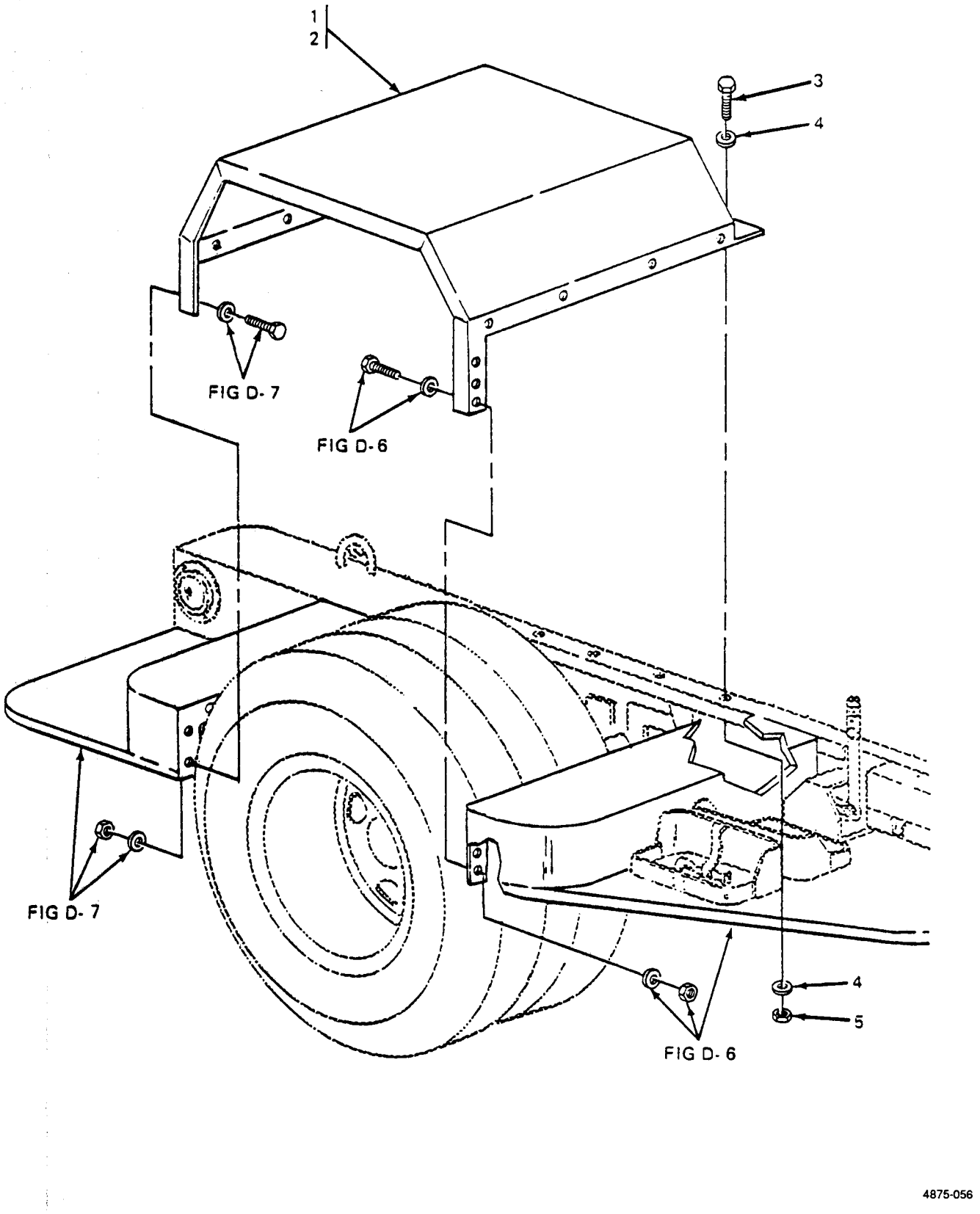
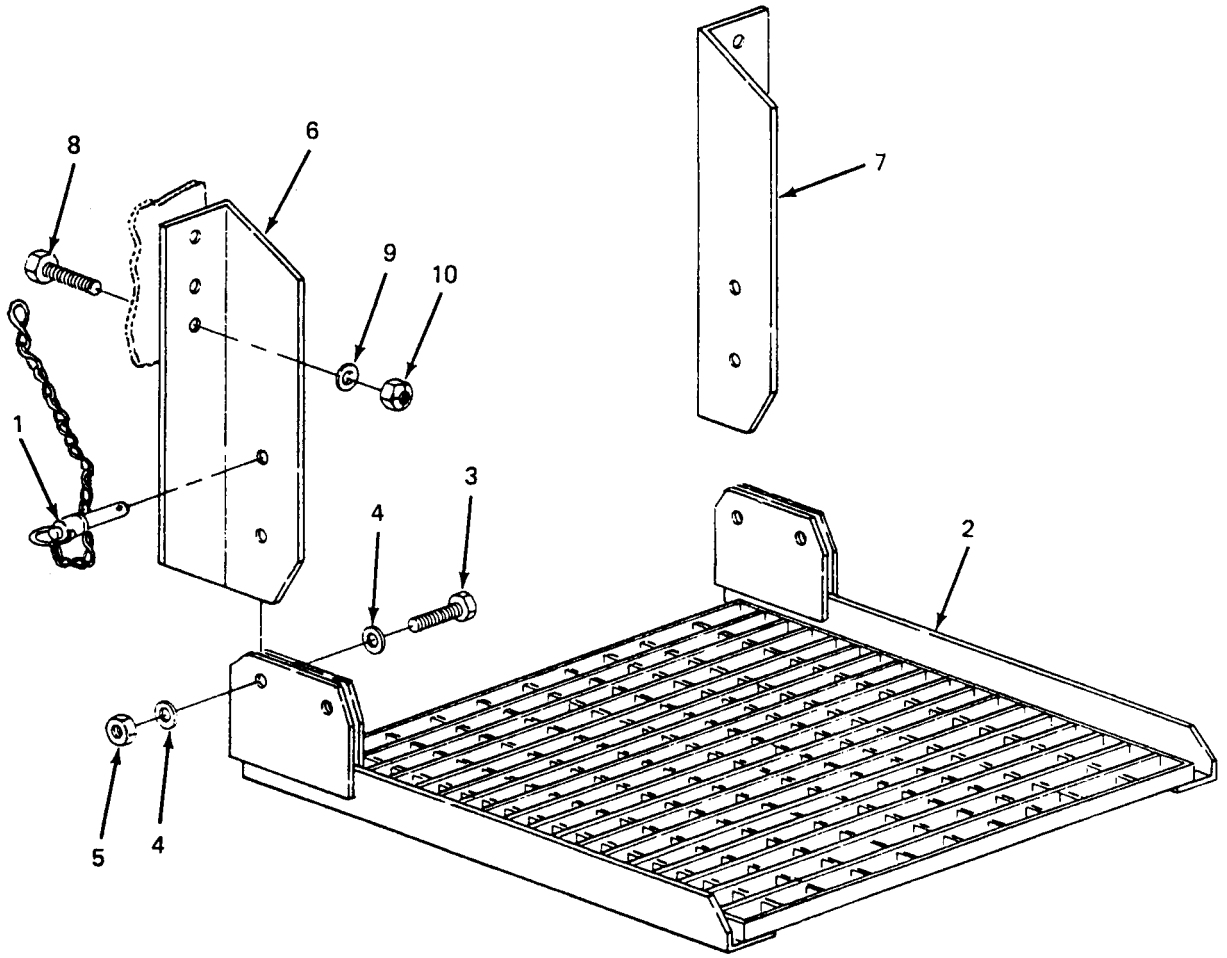


Figure D-8. Fenders.

(1) ILLUS-TRATION A FIG NO.	B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									04 - FENDERS				
D-8	1	XBOFF						2510-01-213-3242	FENDER,ROADSIDE 13214E1264 97403		EA	1	
D-8	2	XBOFF						2510-01-195-4273	FENDER,CURBSIDE 13214E1263 97403		EA	1	
D-8	3	PAOZZ						5306-00-225-8500	SCREW,CAP,HEX MS90725-35 96906		EA	5	
D-8	4	PAOZZ						5310-00-081-4219	WASHER,FLAT MS27183-12 96906		EA	10	
D-8	5	PAOZZ						5310-00-984-3806	NUT,SELF-LOCKING MS51922-9 96906		EA	5	



4875-057

Figure D-9. Personnel Platform.

(1) ILLUSTRATION A FIG NO.	B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									04 - PERSONNEL PLATFORM				
D-9	1	PAOZZ						5340-01-156-6142	ANCHOR,PLATFORM 13214E1303 97403		EA	2	
D-9	2	XBOZZ						2510-00-926-3517	PLATFORM,PERSONNEL 13214E1298 97403		EA	1	
D-9	3	PAOZZ						5305-00-939-9204	SCREW,CAP,HEX MS90725-187 96906		EA	4	
D-9	4	PAOZZ						5310-00-809-8533	WASHER,FLAT MS27183-23 96906		EA	8	
D-9	5	PAOZZ						5310-00-067-6356	NUT,SELF-LOCKING MS51922-57 96906		EA	4	
D-9	6	PBOZZ						5340-00-087-7676	BRACKET,LEFT 13214E1299 97403		EA	1	
D-9	7	XBFZZ						5340-00-999-6441	BRACKET,RIGHT 13214E1300 97403		EA	1	
D-9	8	PAOZZ						5305-00-042-6417	SCREW,CAP,HEX MS90725-113 96906		EA	6	
D-9	9	PAOZZ						5310-00-809-5998	WASHER,FLAT MS27183-18 96906		EA	6	
D-9	10	PAOZZ						5310-00-225-6993	NUT,SELF-LOCKING MS51922-33 96906		EA	6	

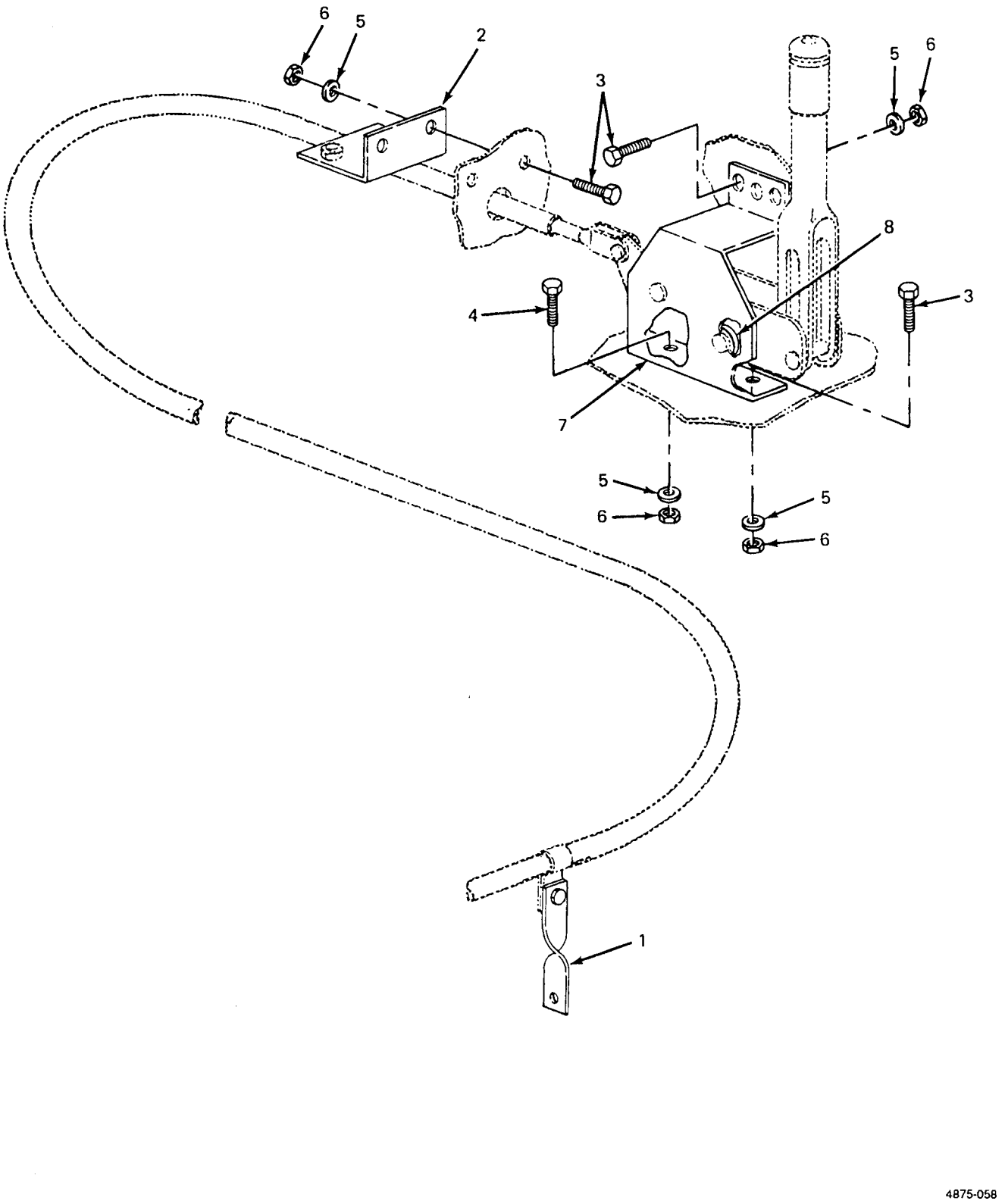


Figure D-10. Handbrakes.

(1) ILLUS-TRATION A FIG NO.	B ITEM NO.	(2) SMR CODE A ARMY	B AIR FORCE	C NAVY	D USMC	(3) USMC A SSI	B REPL FACTOR	(4) NATIONAL STOCK NUMBER	(5) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(6) U/M	(7) QTY INC IN UNIT	(8) USMC QTY PER EQUIP
									04 - TRAILER FRAME				
D-10	1	PAOZZ						6115-01-B76-2084	STRAP,BRAKE CABLE 13214E1271 97403		EA	1	
D-10	2	XBOZZ						5340-00-761-7280	BRACKET,BRAKE CABLE 13214E1270 97403		EA	1	
D-10	3	PAOZZ						5306-00-225-8499	SCREW,CAP,HEX MS90725-34 96906		EA	5	
D-10	4	PAOZZ						5306-00-225-8500	SCREW,CAP,HEX NS90725-35 96906		EA	1	
D-10	5	PAOZZ						5310-00-081-4219	WASHER,FLAT MS27183-12 96906		EA	10	
D-10	6	PAOZZ						5310-00-984-3806	NUT,SELF-LOCKING MS51922-9 96906		EA	6	
D-10	7	PBFZZ						5340-01-226-5766	BRACKET,BRAKE 13214E1269 97403		EA	1	
D-10	8	PBOZZ						5365-00-989-3304	SPACER 13214E1272 97403		EA	2	

SECTION III. SPECIAL TOOLS, TEST AND SUPPORT EQUIPMENT
NOT APPLICABLE

SECTION IV. NATIONAL STOCK NUMBER AND REFERENCE NUMBER INDEX

NSN	FIGURE NO.	ITEM NO.	NSN	FIGURE NO.	ITEM NO.
2330-01-150-9864	D-6	1	5310-00-014-5850	D-3	16
2510-00-N73-0794	D-7	6		D-4	28
2450-00-903-3505	D-5	1	5310-00-022-8847	D-4	16
2510-00-926-3517	D-9	2	5310-00-026-5824	D-3	51
2510-01-N73-0729	D-7	5		D-4	15
2510-01-195-4273	D-8	2	5310-00-045-3296	D-3	15
2510-01-196-4682	D-6	2	5310-00-045-4007	D-3	68
2510-01-213-3242	D-8	1	5310-00-067-6356	D-9	5
4210-00-223-4857	D-4	5	5310-00-080-6004	D-3	89
4730-00-809-9703	D-4	24		D-4	3
4730-00-908-3193	D-4	25		D-7	3
5305-00-914-2578	D-4	11	5310-00-081-4219	D-6	4
5305-00-042-6417	D-9	8		D-7	8
5305-00-068-0502	D-3	61		D-8	4
	D-4	8		D-10	5
5305-00-225-9081	D-6	6	5310-00-082-1404	D-3	67
5305-00-253-5615	D-4	22	5310-00-087-4652	D-4	4
5305-00-269-3213	D-3	88		D-7	4
	D-4	2	5310-00-087-7493	D-5	5
	D-7	2	5310-00-088-1251	D-3	62
5305-00-939-9204	D-9	3		D-4	10
5305-00-983-6730	D-3	31	5310-00-184-8971	D-3	52
5305-00-984-4988	D-3	66	5310-00-187-2413	D-3	53
5305-00-984-5691	D-4	6		D-4	14
5305-00-984-7342	D-4	27	5310-00-216-1123	D-3	57
5305-00-993-1848	D-3	14	5310-00-225-6993	D-9	10
5305-00-993-1851	D-3	40	5310-00-269-4040	D-1	5
5306-00-225-8498	D-5	4	5310-00-465-2719	D-3	59
5306-00-225-8499	D-6	3	5310-00-543-2410	D-3	32
	D-7	7	5310-00-543-4717	D-3	54
	D-10	3		D-4	12
5306-00-225-8500	D-8	3	5310-00-584-7995	D-4	13
	D-10	4	5310-00-637-9541	D-3	90
5306-00-225-8503	D-6	7	5310-00-732-0558	D-3	91
5307-00-227-1741	D-3	56	5310-00-809-4058	D-4	9
	D-4	19	5310-00-809-5998	D-9	9

NSN	FIGURE NO.	ITEM NO.	NSN	FIGURE NO.	ITEM NO.
5310-00-809-8533	D-9	4	5365-00-945-5998	D-6	10
5310-00-877-5797	D-3	41	5365-00-989-3304	D-10	8
	D-4	29	5930-00-164-3827	D-3	69
5310-00-913-9776	D-3	55	5935-00-175-8419	D-3	34
5310-00-984-3806	D-5	6	5935-00-801-6617	D-3	36
	D-6	5	5935-01-191-9166	D-2	3
	D-7	9	5940-00-113-9831	D-3	83
	D-8	5	5940-00-113-9833	D-3	46
	D-10	6	5940-00-115-4992	D-4	17
5310-00-934-9739	D-3	33	5940-00-115-5006	D-2	6
5310-00-934-9751	D-3	17	5940-00-115-5025	D-3	45
5310-01-185-0586	D-1	3	5940-00-143-4793	D-3	83
5310-01-188-1690	D-23	59	5940-00-230-0515	D-3	83
5310-01-823-8803	D-1	4	5940-00-237-2703	D-3	60
5320-00-068-6926	D-3	26	5940-00-557-4339	D-3	83
5320-00-753-3830	D-5	3	5940-00-557-4345	D-3	47
5320-00-956-5737	D-3	2	5970-01-189-4894	D-3	65
5320-00-959-0139	D-3	85	6110-01-264-2069	D-3	1
5330-00-508-0753	D-3	39	6115-01-876-2084	D-10	1
5330-01-173-3652	D-3	64	6115-01-280-0063	D-4	30
5340-00-087-7676	D-9	6	6145-00-284-0657	D-3	50
5340-00-229-0340	D-4	31	6145-00-578-6596	D-3	84
5340-00-761-7280	D-10	2	6145-00-578-6597	D-3	49
5340-00-801-2957	D-3	18	6310-01-004-9129	D-3	53
5340-00-975-2126	D-5	2		D-4	14
5340-00-999-6277	D-4	7	6145-01-038-5963	D-2	4
5340-00-999-6441	D-9	7	6150-01-263-3570	D-3	35
5340-01-875-8820	D-7	1	6210-01-160-8026	D-3	17
5340-01-156-6142	D-9	1	9905-01-085-7703	D-4	20
5340-01-226-5766	D-10	7	9905-01-179-7336	D-3	9
5365-00-944-2692	D-6	8			

REFERENCE NUMBER	FSCM	FIG. NO.	ITEM NO.	REFERENCE NUMBER	FSCM	FIG. NO.	ITEM NO.
AN961-616S	81352	D-3	53	MS27183-14	96906	D-3	89
		D-4	14			D-4	3
AN961-616T	81352	D-3	53			D-7	3
		D-4	14	MS27183-18	96906	D-9	9
AN961-816S	81352	D-3	59	MS27183-21	96906	D-1	4
AN961-816T	81352	D-3	59	MS27183-23	96906	D-9	4
CO-04HDF(4/1-4/8R)	81349	D-2	4	MS27183-42	96906	D-3	16
G9B (GR)	58224	D-3	29			D-4	28
MIL-F-5591, TYPE III,	81349	D-3	22	MS27183-6	96906	D-3	67
CLASS B		D-3	24	MS3102R18-4P	96906	D-3	36
MIL-H-6000	81349	D-4	26	MS35191-274	96906	D-4	27
MIL-I-23053/2	81349	D-3	37	MS35206-218	96906	D-3	31
MS16203-27	96906	D-4	13	MS35206-311	96906	D-4	6
MS16203-39	96906	D-3	51	MS35207-265	96906	D-3	14
		D-4	15	MS35207-267	96906	D-3	40
MS16203-79	96906	D-3	57	MS35306-228	96906	D-3	66
MS16535-54	96906	D-3	2	MS35333-110	96906	D-4	16
MS16353-55	96906	D-3	85	MS35335-91	96906	D-3	55
MS18012-5	96906	D-3	18	MS35338-103	96906	D-3	52
MS18015-1	96906	D-5	2	MS35338-118	96906	D-3	58
MS20613-3P4	96906	D-3	26	MS35338-40	96906	D-3	32
MS20613-4P5	96906	D-5	3	MS35338-41	96906	D-3	68
MS20659-110	96906	D-4	17	MS35338-43	96906	D-3	15
MS21044N3	96906	D-3	41	MS35338-46	96906	D-3	90
		D-4	29	MS35425-28	96906	D-3	54
MS21318-21	96906	D-4	22			D-4	12
MS24519-9	96906	D-4	24	MS35649-242	96906	D-3	33
MS25036-110	96906	D-3	83	MS35650-302	96906	D-3	17
MS25036-118	96906	D-3	47	MS35842-12	96906	D-4	25
MS25036-126	96906	D-3	83	MS39347-5	96906	D-3	60
MS25036-128	96906	D-3	83	MS51922-1	96906	D-3	62
MS25036-129	96906	D-3	45			D-4	10
MS25036-131	96906	D-3	46	MS51922-17	96906	D-4	4
MS25036-133	96906	D-2	6			D-7	4
MS25036-154	96906	D-3	83	MS51922-33	96906	D-9	10
MS25036-155	96906	D-3	83	MS51922-49	96906	D-1	5
MS25043-18DA	96906	D-3	34	MS51922-57	96906	D-9	5
MS27183-10	96906	D-4	9	MS51922-9	96906	D-5	6
MS27183-12	96906	D-6	4			D-6	5
		D-7	8			D-7	9
		D-8	4			D-8	5
		D-10	5			D-10	6
MS27183-13	96906	D-5	5	MS51939-3	96906	D-4	31

REFERENCE NUMBER	FSCM	FIG. NO.	ITEM NO.	REFERENCE NUMBER	FSCM	FIG. NO.	ITEM NO.
MS51967-8	96906	D-3	91	13214E1267-1	97403	D-6	8
MS52000-6	96906	D-3	39	13214E1267-2	97403	D-6	10
MS53052-1	96906	D-4	1	13214E1268	97403	D-6	9
MS90557-44413S	96906	D-2	3	13214E1269	97403	D-10	7
MS90588C-44413P	96906	D-3	44	13214E1270	97403	D-10	2
MS90725-113	96906	D-9	8	13214E1271	97403	D-10	1
MS90725-187	96906	D-9	3	13214E1272	97403	D-10	8
MS90725-33	96906	D-5	4	13214E1298	97403	D-9	2
MS90725-34	96906	D-6	3	13214E1299	97403	D-9	6
		D-7	7	13214E1300	97403	D-9	7
		D-10	3	13214E1303	97403	D-9	1
MS90725-3	96906	D-8	3	13214E1309-1	97403	D-7	1
		D-10	4	13214E1357	97403	D-3	10
MS90725-36	96906	D-6	6	13214E1359	97403	D-3	12
MS90725-39	96906	D-6	7	13214E1360	97403	D-3	11
MS90725-6	96906	D-3	61	13214E1361	97403	D-3	3
		D-4	8	13214E1362	97403	D-3	3
MS90725-62	96906	D-3	88	13214E1363	97403	D-3	6
		D-4	2	13214E1364	97403	D-3	7
		D-7	2	13214E1391	97403	D-3	17
M23053/5-109-5	96906	D-2	5	13214E1461	97403	D-6	1
		D-3	48	13214E1462	97403	D-6	2
M5086/1-16-9	96906	D-3	38	13214E1463	97403	D-6	11
		D-3	84	13216E7536	97403	D-3	5
M5086/2-1-9	96906	D-3	49	13216E7603	97403	D-3	21
M5086/2-8-9	96906	D-3	50	13216E7604-38	97403	D-4	21
M5086/2-2-9	96906	D-3	84	13217E2005	97403	D-3	9
QQ-W-343	81348	D-4	18	13218E4119-5	97403	D-4	23
181-0937-003	72619	D-3	28	13218E5091	97403	D-4	30
181-8836-09-553	72619	D-3	30	13220E6324	97403	D-3	19
13205E4918	97403	D-4	20	13220E7719-1	97403	D-3	42
13205E5041	97403	D-3	65	13220E7719-2	97403	D-3	43
13205E5042	97403	D-3	64	13220E8143	97403	D-3	69
13206E4482-3	97403	D-1	3	13220E8144	97403	D-3	35
13214E1213-1	97403	D-4	11	13220E8145	97403	D-3	63
13214E1214	97403	D-4	7	13220E8146-1	97403	D-3	70
13214E1223	97403	D-3	56	13220E8146-10	97403	D-3	79
		D-4	19	13220E8146-11	97403	D-3	80
13214E1235	97403	D-4	5	13220E8146-12	97403	D-3	81
13214E1256	97403	D-5	1	13220E8146-13	97403	D-3	82
13214E1259	97403	D-7	6	13220E8146-2	97403	D-3	71
13214E1261	97403	D-7	5	13220E8146-3	97403	D-3	72
13214E1263	97403	D-8	2	13220E8146-4	97403	D-3	73
13214E1264	97403	D-8	1	13220E8146-5	97403	D-3	74

SECTION IV. NATIONAL STOCK NUMBER AND REFERENCE NUMBER INDEX (CONT)

REFERENCE NUMBER	FSCM	FIG. NO.	ITEM NO.	REFERENCE NUMBER	FSCM	FIG. NO.	ITEM NO.
13220E8146-6	97403	D-3	75	13226E6292	97403	D-3	1
13220E8146-7	97403	D-3	76	13226E6294	97403	D-3	87
13220E8146-8	97403	D-3	77	13226E6295	97403	D-3	86
13220E8146-9	97403	D-3	78	13226E7718-1	97403	D-2	1
13220E8148	97403	D-3	25	13226E7718-2	97403	D-2	2
13221E7371	97403	D-3	8	13228E1201	97403	D-3	20
13226E5889-1	97403	D-3	13	13228E1202	97403	D-3	23

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

WILLIAM J. MEEHAN, II
Brigadier General, United States Army
The Adjutant General

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To be distributed in accordance with DA Form 12-25A, Operator, Unit, Direct Support and General Support Maintenance requirements for Generator Set, Diesel Engine Driven, Trailer Mounted.

U.S. GOVERNMENT PRINTING OFFICE: 1989-654-030/00367

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)
PFC JOHN DOE
COA, 3d ENGINEER BN
FT. LEONARDWOOD, MO 63108

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 5-6115-627-14&P	5 October 1989	Power Plant AN/MJQ-10A NSN 6115-00-394-9582)

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARAGRAPH	FIGURE NO	TABLE NO
6	2-1 a		
B1		4-3	
125	line 20		

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

In line 6 of paragraph 2-1a the manual states the engine has 6 Cylenders. The engine on my set only has 4 Cylenders. Change the manual to show 4 Cylenders.

Callout 16 on figure 4-3 is pointing at a bolt. In key to figure 4-3, item 16 is called a shim - Please correct one or the other.

I ordered a gasket, item 19 on figure B-16 by NSN 2910-00-762-3001. I got a gasket but it doesn't fit. Supply says I got what I ordered, so the NSN is wrong. Please give me a good NSN

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER
JOHN DOE, PFC (268) 317-7111

SIGN HERE John Doe
JOHN DOE

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DRSTS-M Overprint 1, 1 Nov 80

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OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

COMMANDER
U S ARMY TROOP SUPPORT COMMAND
ATTN: AMSTR-MCTS
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ST. LOUIS, MO 63120-1798

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PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .035 ounce
1 dekagram = 10 grams = .35 ounce
1 hectogram = 10 dekagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

Temperature (Exact)

°F Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 066808-000