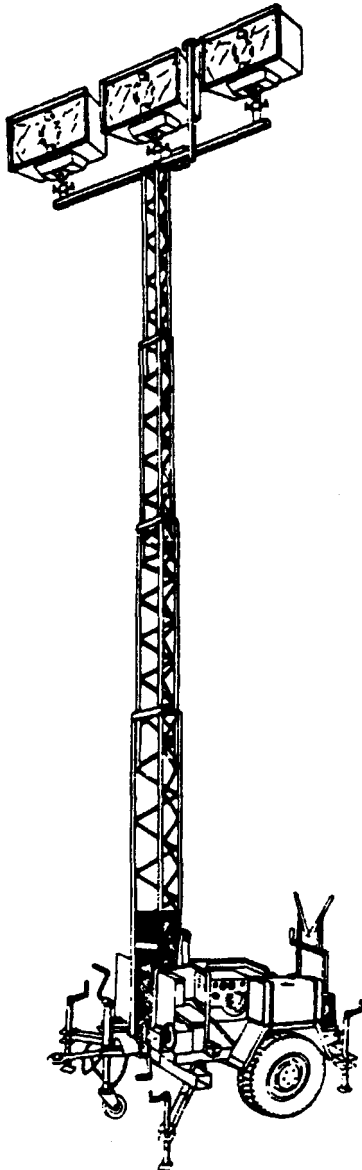


TECHNICAL MANUAL

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



FLOODLIGHT SET,
TRAILER MOUNTED
HIGH-LITE
CORPORATION
MODEL HLT-3K-5K-MIL
SERIAL NUMBERS
6301A THRU 6909A
(NSN) 6230-01-056-5238

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This manual supersedes TM 5-6230-210-13&P dated 15 September 1982, including all changes.

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

TM 9-6230-210-13&P
C1

CHANGE

NO. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 1 July 1997

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

FLOODLIGHT SET,
TRAILER MOUNTED
HIGH-LITE
CORPORATION
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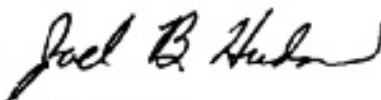
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i and ii
1-1 and 1-2
C-29 through C-32
C-49 and C-50
C-53 and C-54
C-61 and C-62

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i and ii
1-1 and 1-2
C-29 through C-32
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C-53 and C-54
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2. Retain this sheet in front of manual for reference purposes.

By Order of the Secretary of the Army:

Official



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
03425

DENNIS J. REIMER
General, United States Army
Chief of Staff

DISTRIBUTION:

To be distributed in accordance with DA Form 12-25-E, block no. 0817, requirements for TM 9-6230-210-13&P.

WARNING

Gasoline used to power the generator set is explosive. DO NOT refuel during operation. Avoid open flame near gas tank filler neck. Keep cap on gas tank except during refueling. Keep metal to metal contact when refueling.

WARNING

Explosive gases are present in storage batteries. DO NOT permit smoking, sparks, or open flame in the area when servicing batteries. An explosion could occur. DO NOT charge batteries in poorly ventilated areas.

WARNING

Floodlights may become dangerously hot during operation. DO NOT TOUCH. Perform maintenance only after floodlights have cooled.

WARNING

High voltage power (480V) is applied to tower when circuit breaker is ON. High voltage is generated when generator set is operating. DO NOT repair or service equipment when generator set is operating. DO NOT OPERATE the floodlight set until it has been properly grounded. Electrical defects in the load lines or equipment can cause death by electrocution when contact is made with an ungrounded system.

WARNING

Dry cleaning solvent, P-D-680, used to dean parts is potentially dangerous to personnel and property. Avoid repeated or prolonged skin contact. DO NOT use near open flame or excessive heat. FLASH POINT of solvent is 100° -138°F (38° -59°C).

WARNING

Operation of this equipment presents a noise hazard to personnel in the area. The noise level exceeds the allowable limits for unprotected personnel. Wear ear muffs or ear plugs which were fitted by a trained professional.

WARNING

DO NOT operate the floodlight set when wind velocity exceeds 50 miles per hour. The floodlight set is not constructed to withstand wind velocities which exceed this limit.

DEATH OR SERIOUS personal injury could occur if you fail to observe this warning.

WARNING

Front outriggers must be set at a 45° angle at all times during operation of the floodlight set.

WARNING

DO NOT permit smoking, sparks or open flame when servicing battery. DO NOT charge batteries in poorly ventilated areas.

WARNING

FIRST AID

For artificial respiration, refer to FM 21-11.

TECHNICAL MANUAL
NO. 9-6230-210-13&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 30 September 1995

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

FLOODLIGHT SET,
TRAILER MOUNTED
HIGH-LITE
CORPORATION
MODEL HLT-3K-5K-MIL
SERIAL NUMBERS
6301A THRU 6909A
(NSN) 62301-0 56-5238

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. You may also submit your recommended changes by E-mail directly to <mpmt/%avma28@st-louis-emh7.army.mil>. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

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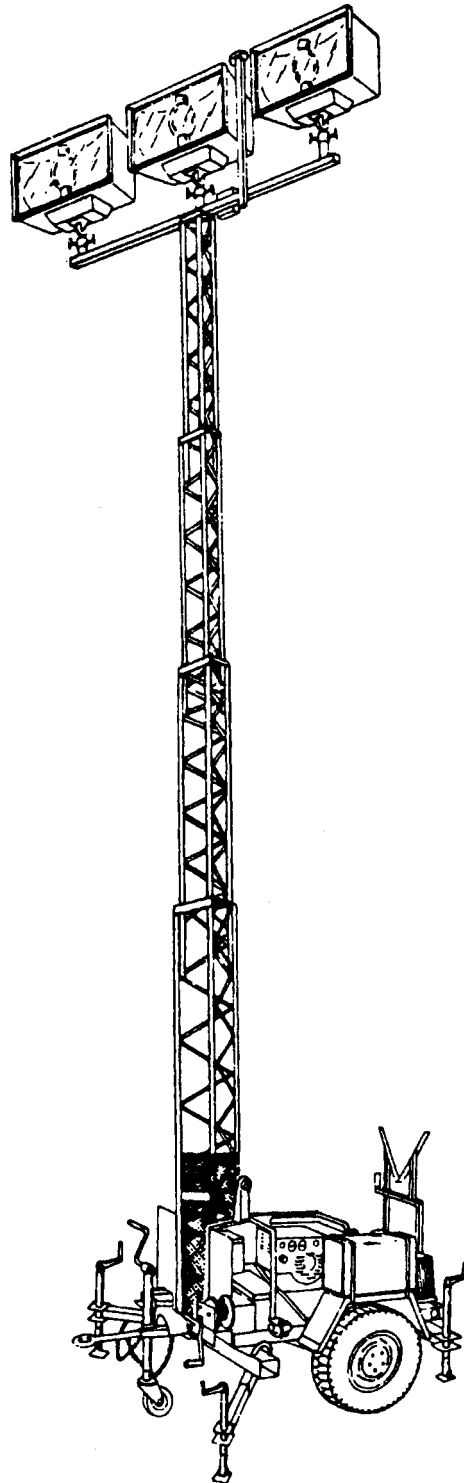


Figure 1-1. Floodlight Set With Tower Extended

CHAPTER 1 INTRODUCTION

SECTION I. GENERAL INFORMATION

1.1 SCOPE.

a. **Type of Manual.** Operator, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List.

b. **Model Number and Equipment Name.** Model HLT-3K-5K-MIL, Floodlight Set.

c. **Purpose of Equipment.** The floodlight set provides 300,000 lumens of illumination for adequate area and point lighting for construction, maintenance, or emergency service. The set also provides illumination for service support activities at construction or maintenance field locations.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, The Army Maintenance Management System (TAMMS); or AR 700-138, Army Logistics Readiness and Substantiality.

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Destruction of Army equipment to prevent use shall be in accordance with TM 750-244-3.

1-4. PREPARATION FOR STORAGE AND SHIPMENT.

Refer to Section VI, Chapter 4, Unit Maintenance Instructions.

1-5. QUALITY ASSURANCE (QA) PROCEDURES.

Any critical procedure or parts of procedures in this TM which require quality assurance inspections are identified by "(QA)" written after the applicable step.

1-6. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR).

If your equipment needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at: Commander, U.S. Army Aviation and Troop Command, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798, ATTN: AMSAT-I-MP. We will send you a reply.

1-7. LIST OF ABBREVIATIONS.

ac	Alternating current
amp	Ampere
awg	American wire gage
BT	Battery

C	Centigrade
CB	Circuit Breaker
cm	Centimeter
cu	Cube
dc	Direct Current
DS	Floodlight
F	Fahrenheit
ft	Foot/feet
GP	Generator Panel
HID	High Intensity Discharge
Hz	Hertz
JB	Junction Box
kg	Kilogram
Kph	Kilometers per hour
kW	Kilowatt
L	Lamp Ballast
lb	Pound (s)
lg	Length
m	Meter
mph	Miles per hour
P	Plug
RWL	Red Warning Light
SPST	Single Pole Single Throw
Sq.Ft	Square Foot (Feet)
TS	Terminal Strip
UL	Universal Laboratory
V	Volts
vac	Volts alternating current
w	Watt (s)

1.8 CORROSION PREVENTION AND CONTROL (CPC).

a. Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements made to prevent the problem in future items.

b. While corrosion is typically associated with rusting of metal products, it can also include deterioration of other materials, such as rubber, plastic, or treated canvas. Unusual cracking, softening, swelling or breaking of the materials may be a corrosion problem.

c. If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Using key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem.

d. The form should be submitted to the address specified in DA Pam 738-750.

SECTION II. EQUIPMENT DESCRIPTION AND DATA

1.9 EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

a. Characteristics . The Model HLT-3K-5K-MIL Floodlight Set provides light for construction, maintenance, and other service and support activities in order to continue their mission during the hours of darkness. The floodlight is shown in Figure 1-1. The set provides adequate area and point lighting for construction, maintenance, or emergency service and service supported activities at construction or maintenance field locations.

b. Capabilities and Features.

- (1) Trailer mounted.
- (2) Ground portable.
- (3) Quickly operable.
- (4) Air transportable.

(a) US Air Force and Canadian Royal Air Force cargo aircraft. The US Air Force has certified the Floodlight Set for air transport on C-5, C-130, and C-141 aircraft.

(b) US Army rotary wing aircraft. The Floodlight Set is air transportable as internal cargo aboard the CH-47 and CH-54 helicopters.

- (5) Gasoline fueled generator set.
- (6) Compact.
- (7) Furnishes lighting for an area up to six acres (24,160 sq meters) with 300,000 Lumens at the source.

1.10 LOCATION AND DESCRIPTION OF MAJOR Components.

Figure 1-2 illustrates the location and description of the major components for the Model HLT-3K-5K-MIL Trailer Mounted Floodlight Set.

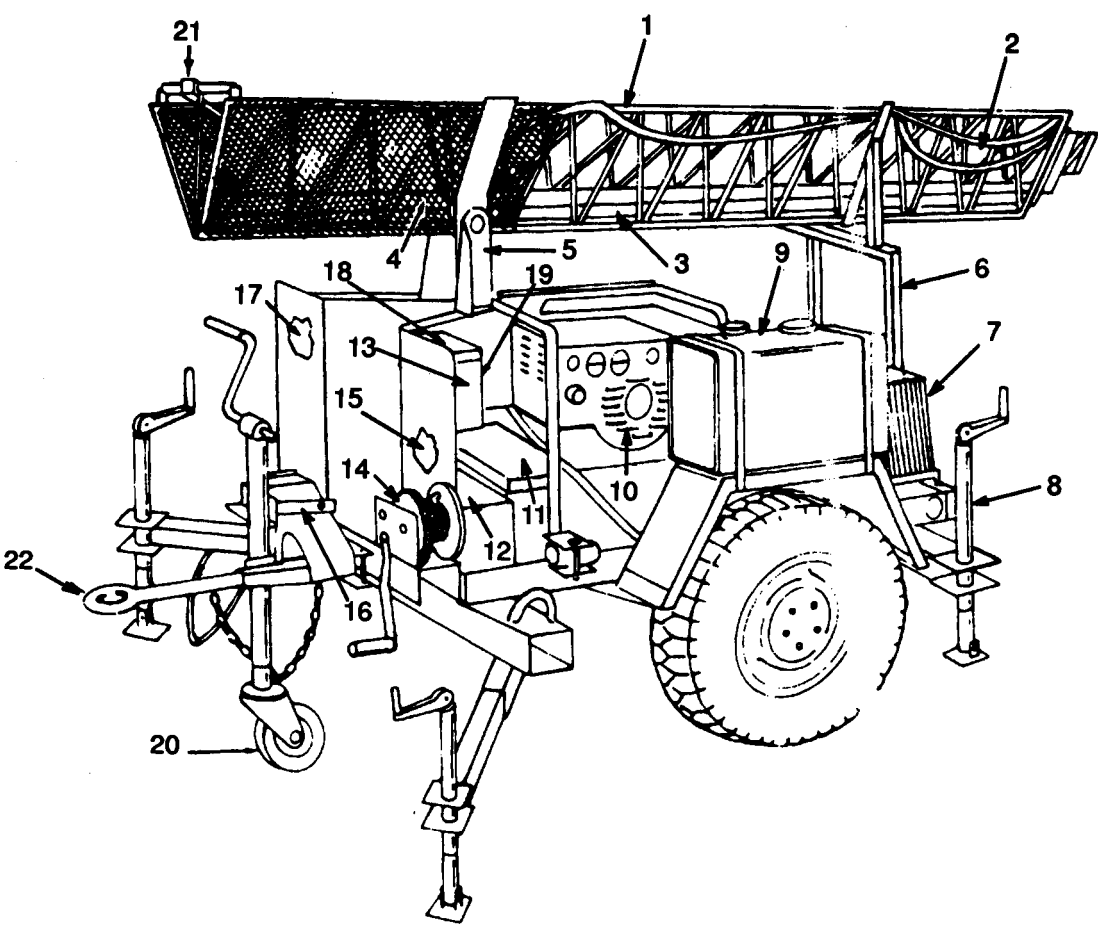


Figure 1-2. Location and Description of Major Components.

LEGEND

- 1 TELESCOPING TOWER. PROVIDES MEANS FOR RAISING FLOODLIGHTS.
- 2 TOWER CORD. PROVIDES POWER SOURCE FOR FLOODLIGHTS.
- 3 RED WARNING LIGHT. PROVIDES WARNING AND CLEARANCE LIGHT FOR AIRCRAFT.
- 4 LIGHT BAR. PROVIDES MOUNTING SOURCE FOR FLOODLIGHTS.
- 5 TOWER PIVOT HINGE. ALLOWS TOWER SECTIONS TO BE RAISED OR LOWERED INTO POSITION.
- 6 TOWER CRADLE ASSEMBLY PROVIDES STORAGE RACK FOR TOWER SECTIONS IN HORIZONTAL POSITION.
- 7 FLOODLIGHT. PROVIDES SOURCE OF ILLUMINATION.
- 8 LEVELING JACK. PROVIDES MEANS FOR LEVELING FLOODLIGHT SET.
- 9 FUEL TANK. HOLDS SUPPLY OF GASOLINE TO OPERATE GENERATOR SET.
- 10 GENERATOR SET. PROVIDES NECESSARY ELECTRICAL CURRENT TO OPERATE FLOODLIGHT SET.
- 11 BATTERY. POWER SOURCE FOR RED WARNING LIGHT.
- 12 LAMP BALLAST. PROVIDES OPERATING POWER TO EACH OF THE FLOODLIGHTS.
- 13 CONTROL PANEL. CONTAINS FOUR SINGLE POLE CIRCUIT BREAKERS WHICH PROVIDE INDEPENDENT CONTROL AND CIRCUIT PROTECTION FOR THE FLOODLIGHT CIRCUITS, BATTERY CHARGER, AND DUPLEX RECEPTACLE. THE PANEL ALSO CONTAINS AN ON/OFF TOGGLE SWITCH TO CONTROL THE RED WARNING BEACON LIGHT, A TRICKLE CHARGER TO RECHARGE BATTERY, AND A DUPLEX RECEPTACLE MOUNTED ON THE SIDE OF THE PANEL.
- 14 WINCH. PROVIDES MEANS FOR RAISING AND LOWERING TELESCOPING TOWER.
- 15 IDENTIFICATION PLATE. FLOODLIGHT SET. SEE PARAGRAPH 2.
- 16 TILT LOCKBAR. LOCKS TOWER IN PLACE WHEN IN VERTICAL POSITION.
- 17 INSTRUCTION PLATE. GIVES OPERATING AND ASSEMBLY INSTRUCTIONS FOR FLOODLIGHT SET. SEE PARAGRAPH 2.
- 18 DUPLEX RECEPTACLE. PROVIDES CONNECTION FOR ADDITIONAL POWER CABLES.
- 19 WIRING DIAGRAM. SHOWS HOW TO WIRE FLOODLIGHT SET. SEE PARAGRAPH 2.
- 20 CASTER WHEEL. PROVIDES MEANS FOR SUPPORTING AND GUIDING THE LIGHT SET.
- 21 EXTENSION LOCKBAR. LOCKS TOWER SECTIONS TOGETHER WHEN FULLY RETRACTED.
- 22 TOW BAR. USED TO TOW THE TRAILER. THE TOW BAR CAN BE PLACED IN THE UPPER POSITION OF THE ADJUSTABLE LUNETTE FOR TOWING BY A 2 1/2-TON TRUCK, OR IN ONE OF THE TWO LOWER POSITIONS FOR TOWING BY A 1 1/4-TON TRUCK.

1.11 EQUIPMENT DATA.

Refer to Table 1-1 for Floodlight Set equipment data.

Table 1-1. Equipmnt Data for Floodlight Set, Model HLT-3K-5K-MIL.

Manufacturer	High-Lite Corporation
Model	HLT-3K-5K-MIL
Overall Dimensions-Towing Position	
Length	145-inches (368.3 cm)
Height	78-inches (198.1 cm)
Width	61-inches (154.9 cm)
Overall Dimensions-Tower Removed:	
Length	107-inches (271.7 cm)
Height	50-inches (127.0 cm)
Width	61-inches (154.9 cm)
Height with mast extended.	37-feet, 9.5-inches (138.3 m)
Width with outriggers extended	109-inches (approximately) (276.86 cm)
Power Requirement	3kW, 120V, 60Hz input is required
Weight-dry (less generator set)	1653-lbs. (750.5 kg)
Weight-shipping (less generator set, tower, and floodlights)	1275-lbs (578.9 kg)
Weight with generator set and full fuel tank	2025-lbs. (919.3 kg)
Shipping displacement	390-cu.ft. (10.9 cu m)
Floodlights:	
Watts	1000 ea.
Lumen output	100,000 ea.
Weight	40-lbs. ea. (18.2 kg)
Fuel tank capacity	12.87-gal. (48.7 liters)
Fuel	Gasoline, MILG-3506

SECTION III. PRINCIPLES OF OPERATION

1.12 PRINCIPLES OF OPERATION.

a. The floodlight set operates from the 120-volt, single-phase terminals on the engine-generator set. For operation with a 3-kW generator set, the floodlight set is connected to terminals L1 and L2 of the generator output terminal board or generator panel (GP). The black wire and green wire in the main power cable (cable from the control panel to the generator panel) are connected to one terminal, and the white wire is connected to the other terminal.

b. Activation of CB1, 15-amp (A) single pole single throw (SPST) circuit beaker, applies power to the duplex receptacle and battery trickle charger. The charger applies the 12-volt operating power to the RED WARNING LIGHT TOGGLE SWITCH (S) and battery. Toggle Switch (S) applies power to the RED WARNING LIGHT (RWL).

- c. Three circuit breakers (CB), apply 120-vac 25-amps to Ballast (L) through the Control Panel Terminal Strip (TS). The output of each ballast transformer applies operating power to each of the floodlights (DS) the tower junction box (JB) and twist lock plugs and receptacles (P).
- d. The floodlight set is capable of being operated on external power by disconnecting the control box/generator set capable and connecting a No. 10, 100-foot (30.5 meter), two conductor cable to the control box.
- e. The schematic wiring diagram for the floodlight set is shown in Figure 1-3.

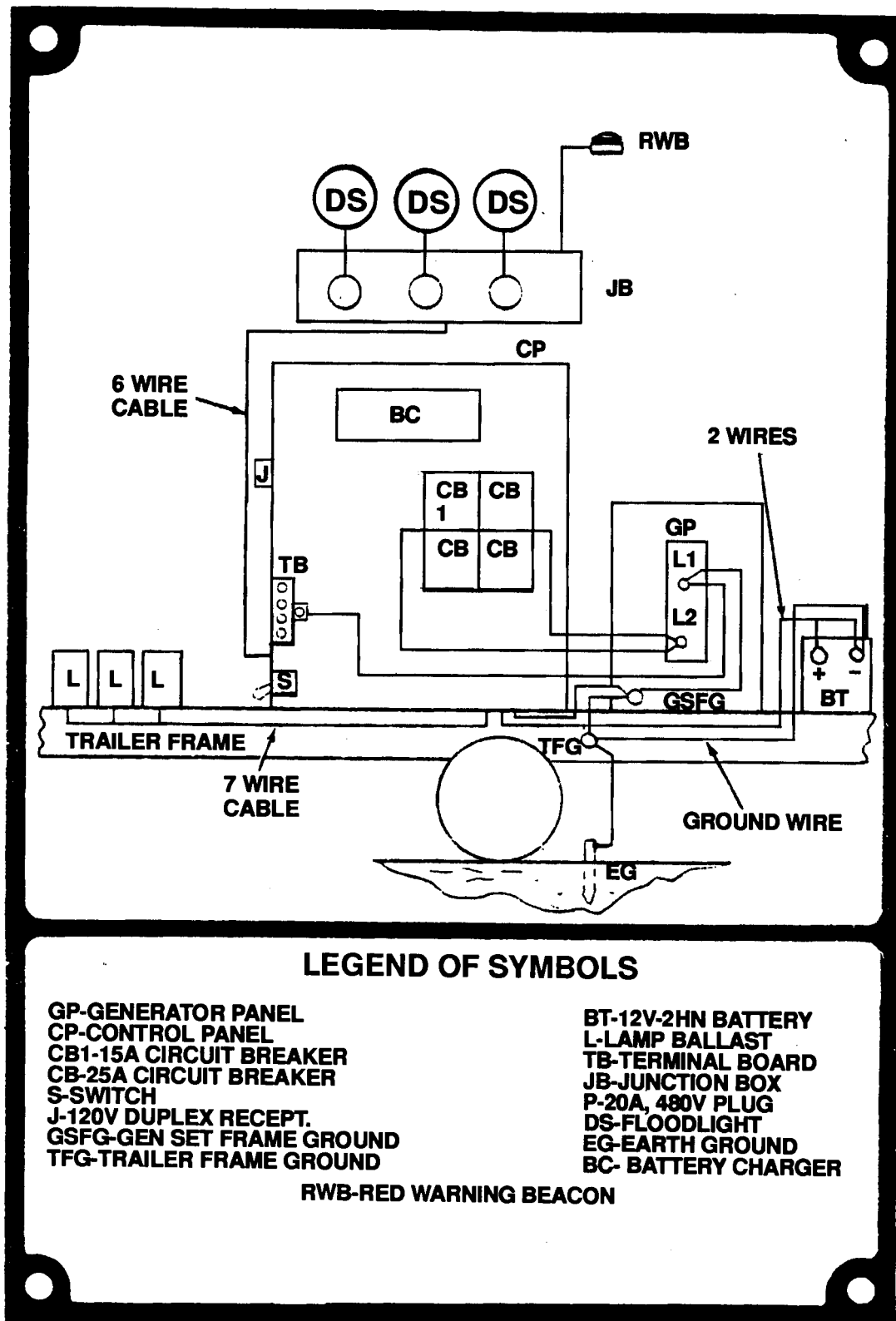


Figure 1-3. Schematic Wiring Diagram.

CHAPTER 2

OPERATING INSTRUCTIONS

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SECTION I. DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS

2.1 GENERAL.

a. The instructions in this section are for the information and guidance of personnel responsible for the operation of the Floodlight Set. See Figure 2-1 for descriptions of the operator's controls and indicators.

b. The operator must know how to perform every operation of which the equipment is capable. This section contains information on controls and indicators needed to operate the Floodlight Set.

2.2 OPERATOR CONTROLS AND INDICATORS.

Figure 2-1 includes operator controls and indicators illustrated and described.

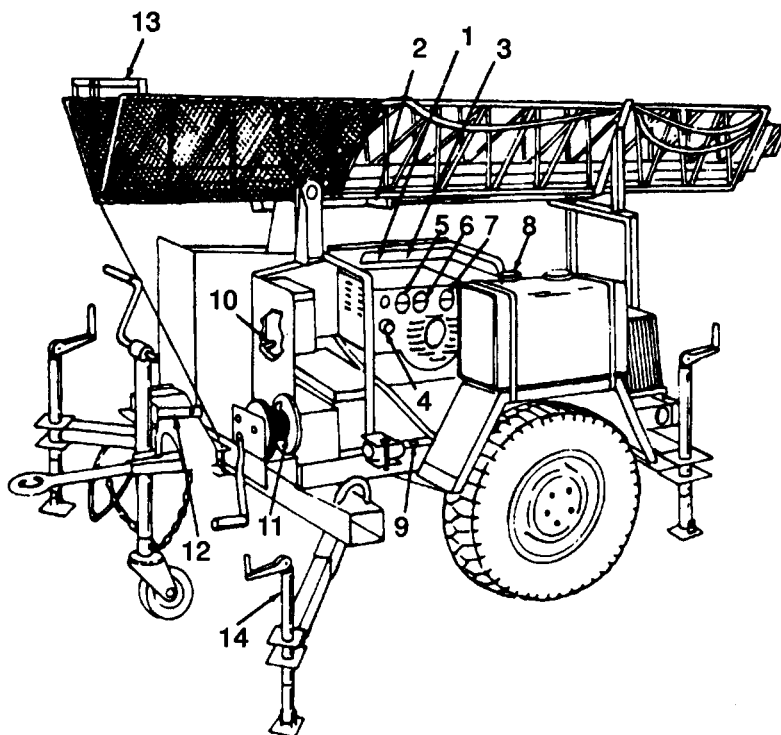


Figure 2-1. Operator Controls and Indicators.

LEGEND

- 1 CHOKE. CONTROL ON CARBURETOR ALLOWS OPERATOR TO ADJUST FUEL MIX FOR COLD STARTING. (NOTE: LOCATED ABOVE STARTING PULLEY)
- 2 RED WARNING LIGHT. WARNING AND CLEARANCE LIGHT FOR AIRCRAFT.
- 3 ENGINE STOP. SWITCH THAT STOPS ENGINE. (NOTE: LOCATED ABOVE STARTING PUMP.
- 4 VOLTAGE ADJUSTMENT. TURN KNOB CLOCKWISE TO INCREASE VOLTAGE, COUNTER-CLOCKWISE TO DECREASE VOLTAGE.
- 5 VOLTMETER. INDICATES OUTPUT VOLTAGE. NORMAL READING IS 120, 206, OR 240 VOLTS (RED LINE).
- 6 60 HZ METER. INDICATES FREQUENCY. NORMAL READING IS 60 CYCLES (RED LINE).
- 7 LOADMETER. READING NOT TO EXCEED 100 PERCENT (RED LINE).
- 8 FUEL GAUGE. NEEDLE INDICATES E (EMPTY), 1/4, 1/2, 3/4, AND F (FULL).
- 9 LEVELING BUBBLE. BUBBLE INDICATES PLANE OF FLOODLIGHT SET.
- 10 TOGGLE SWITCH. TURNS ON RED MARKER LIGHT.
- 11 WINCH. PROVIDES MEANS FOR RAISING AND LOWERING TELESCOPE TOWER.
- 12 TILT LOCKBAR. LOCKS TOWER IN PLACE WHEN IN VERTICAL POSITION.
- 13 EXTENSION LOCKBAR. LOCKS TOWER SECTIONS TOGETHER WHEN FULLY RETRACTED.
- 14 LEVELING JACKS. PROVIDES MEANS FOR LEVELING FLOODLIGHT SET.

SECTION II. OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

2.3 GENERAL

Preventive Maintenance Checks and Services (PMCS) means systematic caring, inspecting, and servicing of equipment to keep it in good condition and to prevent breakdowns. As the Floodlight Set operator, your mission is to

- a. Be sure to perform your PMCS each time you use the equipment. Always do your PMCS in the same order, so it gets to be a habit. Once you've had some practice, you'll quickly spot anything wrong.
- b. Do your BEFORE (B) PMCS just before you use the Floodlight Set. Pay attention to WARNINGS, CAUTIONS, and NOTES.
- c. Do your DURING (D) PMCS while you use the Floodlight Set. During operation means to check the equipment and its related components while it is being used. Pay attention to WARNINGS, CAUTIONS, and NOTES.
- d. Do your AFTER (A) PMCS right after using the Floodlight Set. Pay attention to WARNINGS, CAUTIONS, and NOTES.
- e. Do your WEEKLY (W) PMCS once a week.
- f. Do your MONTHLY (M) PMCS once a month.

g. Use DA Form 2404 (Equipment Inspection and Maintenance Worksheet) to record any faults that you discover either before, during, or after operation, unless you can fix them. You DO NOT need to record faults that you fix.

h. Be prepared to assist unit maintenance when they lubricate the Floodlight Set. Perform any other services when required by unit maintenance.

2.4 PMCS PROCEDURES.

a. Your Preventive Maintenance Checks and Services, Table 2-1, lists inspections and care required to keep you Floodlight Set in good operating condition. It is set up so you can make your BEFORE(B) OPERATION checks as you walk around the equipment.

b. The "ITEM NO." column is used to record the results of checks/services on DA Form 2404.

c. The "INTERVAL" column of Table 2-1 tells you when to do a certain check or service.

d. The "PROCEDURE" column of Table 2-1 tells you how to do required checks and services. Carefully follow these instructions. If you do not have tools, or if the procedure tells you to, notify your supervisor.

NOTE

Terms "ready/available" and "mission capable" refer to same status: Equipment is on hand and ready to perform its combat missions. (See DA Pam 738-750.)

e. The "NOT FULLY MISSION CAPABLE IF:" column in Table 2-1 tells you when your Floodlight Set is monishing capable and why the Set cannot be used.

f. If the equipment does not perform as required, refer to Chapter 3, Section II, Operator Troubleshooting.

g. If anything looks wrong and you can't fix it, write it on your DA Form 2404 IMMEDIATELY and report it to your supervisor.

h. When you check for "operating condition," you look at the component to see if its serviceable.

2.5 CLEANING AGENTS.

WARNING

- DO NOT use diesel fuel, gasoline, or benzene (benzol) for cleaning.
- DO NOT SMOKE when using cleaning solvent. NEVER USE IT NEAR AN OPEN FLAME. Be sure there is a fire extinguisher nearby and use cleaning solvent only in well ventilated places. Flash point of solvent is 138° F (60°C)
- USE CAUTION when using cleaning solvents. Cleaning solvents evaporate quickly and can irritate exposed skin if solvents contact skin. In cold weather, contact of exposed skin with cleaning solvents can cause frostbite.

NOTE

Only use those authorized cleaning solvents or agents listed in Appendix F

Cleaning Rust, Corrosion, and Foreign Material From Metal Parts. When cleaning metal parts, use cleaning solvent. Then apply a thin coat of lubricating oil to the cleaned parts.

2.6 LEAKAGE DEFINITIONS FOR OPERATOR PMCS.

a. General. It is necessary for you to know how leakage affects the use of your equipment. Following are types/classes of leakage an operator needs to know to be able to determine the operational status of the Floodlight Set. Learn these leakage definitions and remember - when in doubt, notify your supervisor.

CAUTION

- Equipment operation is allowable with minor leakages (Class I or II). Of course, consideration must be given to how much leakage is allowable and still keep your equipment in operation. When in doubt, notify your supervisor.
- When operating with Class I or II leaks, only do so until proper repair be affected.
- Class III leaks should be immediately reported to your supervisor.

b. Class I. Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops..

c. Class II. Leakage of fluid great enough to form drops, but not enough to cause drops to drip from area being checked/inspected.

d. Class III. Leakage of fluid great enough to form drops that from item being checked/inspected.

NOTE

If the equipment must be kept in continuous operation, do only the procedures that can be done without disturbing operation. Make complete checks and services when the equipment is shut down.

Table 2-1. Operator Preventive Maintenance Checks and Services

Item No.	Interval	Location	Procedure	Not Fully Mission Capable If:
		Item to Check/Service		
1	Before	Floodlight Assembly	Inspect for burned out bulbs and damage to lens or housing	Lens is cracked or broken. Bulb is burned out or won't light. Housing is cracked or broken.
2	Before	Red Warning Light	Inspect for broken or missing lens, burned out bulbs, damaged or defective power cable.	Bulb(s) are burned out. Power cable is defective. Lens is missing or broken.
3	Before	Wiring, plugs, and connectors	Inspect cables and wires for damaged insulation or cuts, and damaged plugs or connectors.	Cable and wires are cut in two. Insulation damaged, allowing for possible shorting. Plugs or connectors have bent contacts or broken insulators.
4	Before	Tower cabling	Inspect for crimped or frayed cables.	Cable is crimped or frayed.
5	Before	Winch	Inspect for loose mountings, secure cable attachments, and proper operating of ratchet pawl and brakes.	Mounting hardware loose or missing. Ratchet pawl does not operate freely. Brake does not hold tower load. Cable is not securely attached.

Table 2-1. Operator Preventive Maintenance Checks and Services - continued

Item No.	Interval	LOCATION	Procedure	Not Fully Mission Capable if:
		Item to Check/Service		
6	Before	Fuel tank, lines and connectors	Inspect for damage, proper fuel level, or fuel leakage.	Fuel tank damaged or empty. Lines or connectors have Class III leaks.
7	Before	Leveling jacks	Inspect for damage and proper operation.	Jack fails to raise or fewer floodlight set.
8	Before	Ground rod	Inspect for damaged threads, missing or broken sections, missing ground or or cable damp.	Sections have damaged threads. Sections are broken or missing. Ground cable or damp is loose or missing.
9	During	Fuel tank, lines, and connectors	Inspect for damage, proper fuel level, or fuel leakage.	Fuel tank damaged or empty. Lines or connectors have Class III leakage.
10	Weekly	Battery	Inspect for damage, secure mounting, corrosion, loose terminals, end proper water level.	Water level is low. Terminals are loose or corroded. Battery hold down is broken, loose, or missing.

SECTION III. OPERATION UNDER USUAL CONDITIONS

2.7 ASSEMBLY AND PREPARATN FOR USE.

WARNING

- **DO NOT** operate floodlight Set in winds exceeding 50 miles per hour (80.45 kph). Refer to Table 2-2 for a guide in determining wind velocity.
- Front outriggers must be set at the 45° angle while operating.
- When unit is operating on a slope, front of unit must face downhill.

Table 2-2. Beaufort Scale

BEAUFORT NUMBER	DESCRIPTION	MILES PER HOUR	DESCRIPTION
0	Calm	Less than 1	Calm; smoke rises vertically.
1	Light air	1 - 3	Direction of wind shown by wind vanes.
2	Light breeze	4 - 7	Wind felt on face; leaves rustle; ordinary vane moved by wind.
3	Gentle breeze	8-12	Leaves and small twigs in constant motion; wind extends light flag.
4	Moderate breeze	13-18	Raises dust and loose paper; small branches are moved.
5	Fresh breeze	19-24	Small trees in leaf begin to sway; crested wavelets form on inland waters.
6	Strong breeze	25-31	Large branches in motion; telegraph wires whistle; umbrellas used with difficulty.
7	Moderate gale (or near gale)	32-28	Whole trees in motion; difficulty in walking against wind.
8	Fresh gale (or gale)	39-46	Breaks twigs off trees; generally impedes progress.
9	Strong gale	47-54	Slight structural damage occurs; chimney pots and slates removed.
10	Whole gale (or storm)	55-63	Trees uprooted; considerable structural damage occurs.
11	Storm (or violent storm)	64-72	Very rarely experienced; accompanied by widespread damage.
12	Hurricane★	73-136	Devastation occurs.

★ The U.S. uses 74 statute MBA as the speed criterion for hurricanes.

a. Site Selection.

- (1) The ground should be level and free from projecting roots and rocks. When such a spot is not available, a place can often be leveled and cleared. In woods, moss and rocks can be used to level the ground.

NOTE

Drainage can be improved by trenching around the equipment and digging an outlet ditch to divert water in the desired direction.

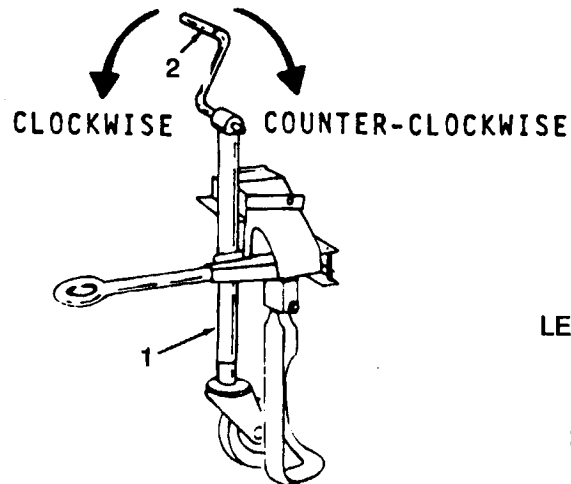
- (2) The ground should be high enough for good drainage.
- (3) The site should be protected from wind as much as possible.
- (4) During hot weather, when possible, select a site that will provide ample shade.
- (5) The Floodlight Set should be placed far enough from rivers and lakes so that it will be above the high water mark.
- (6) Locate the equipment away from dead trees or trees with large dead branches.
- (7) In mountainous terrain, do not place equipment in canyons or next to dry creek beds. flood with rushing torrents of water in a very short time.

b. Removing Floodlight Set From Towing Vehicle

- (1) Place floodlight Set in selected site.

WARNING

Two persons will be needed to lift the trailer tongue from the towing pintle.



LEGEND

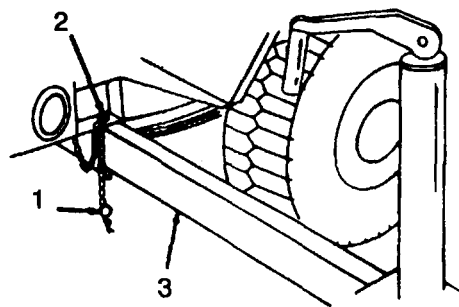
- 1 CASTER WHEEL
- 2 HANDLE

- (2) Lower caster wheel (1) by turning handle (2) in a clockwise direction.
- (3) Refer to TM 9-2330-251-14 for instructions to disconnect the trailer from the towing vehicle.

CAUTION

If the towing vehicle is a 2 1/2-ton truck the tower tilt lock bar may have been removed in order to place the tow bar in the upper position of the adjustable lunette. Be sure that the tower tilt lock bar is installed before attempting to raise the tower.

c. Installing Rear Outrigger.

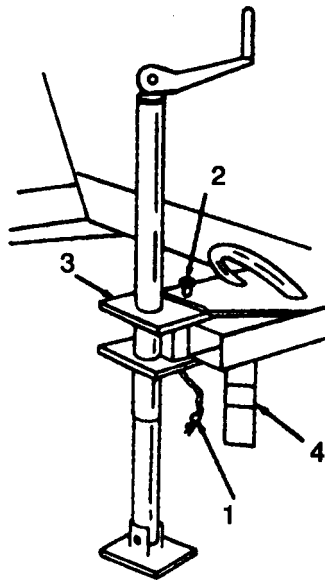


LEGEND

- 1 CLIP
- 2 PIN
- 3 OUTRIGGER

- (1) Remove spring clip (1) from rear outrigger safety pin (2).
- (2) Remove safety pin (2).
- (3) Pull straight out on outrigger (3) until second safety pin guide hole comes into view [(approximately 24-inches (61 cm))] and reinstall safety pin.
- (4) Reinstall spring clip (1) into safety pin.
- (5) Extend other rear outrigger in same manner.

d. Installing Front Outrigger.

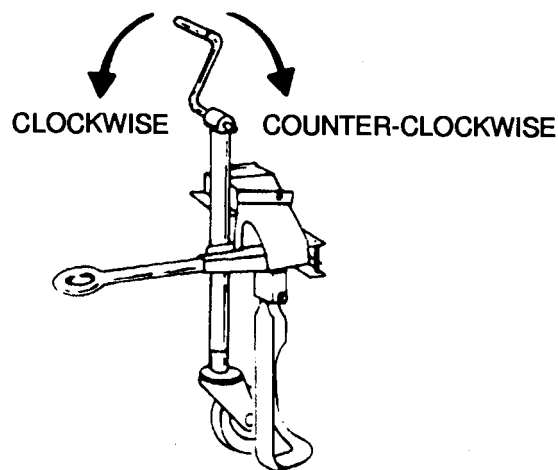


LEGEND

- 1 CLIP
- 2 PIN
- 3 OUTRIGGER
- 4 BRACKET

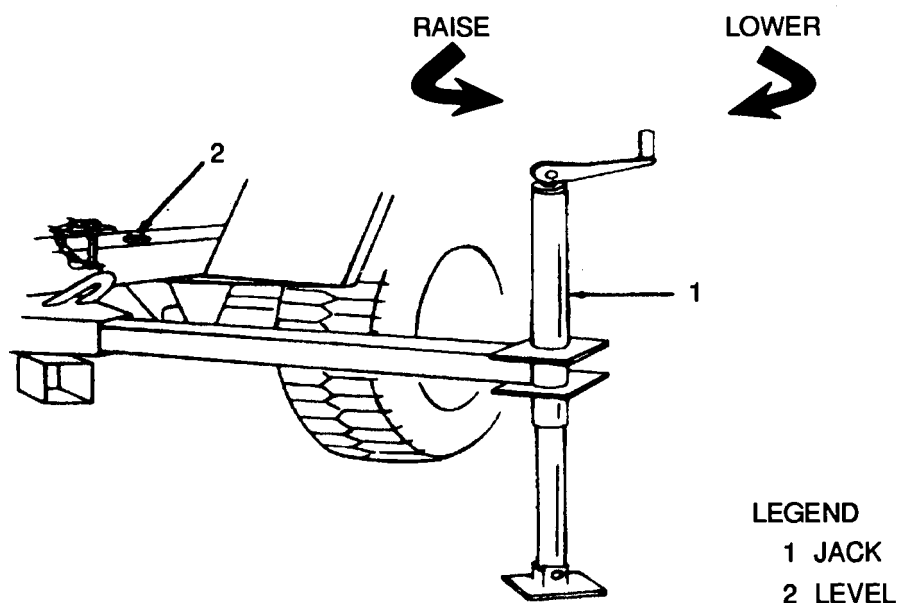
- (1) Remove spring clip (1) from front outrigger safety pin (2).
- (2) Remove safety pin (2).
- (3) Remove outrigger (3) and insert into 45° angle mounting bracket (4) and reinstall safety pin (2).
- (4) Reinstall spring clip (1) into safety pin (2).
- (5) Install other front outrigger in same manner.

e. Lowering Jacks.



- (1) Lower jack foot pads by turning jack handle in clockwise direction.
- (2) See TM9-2330-251-14 to raise landing leg.
- (3) Raise caster wheel by turning handle counter-clockwise.

f. Leveling Unit.

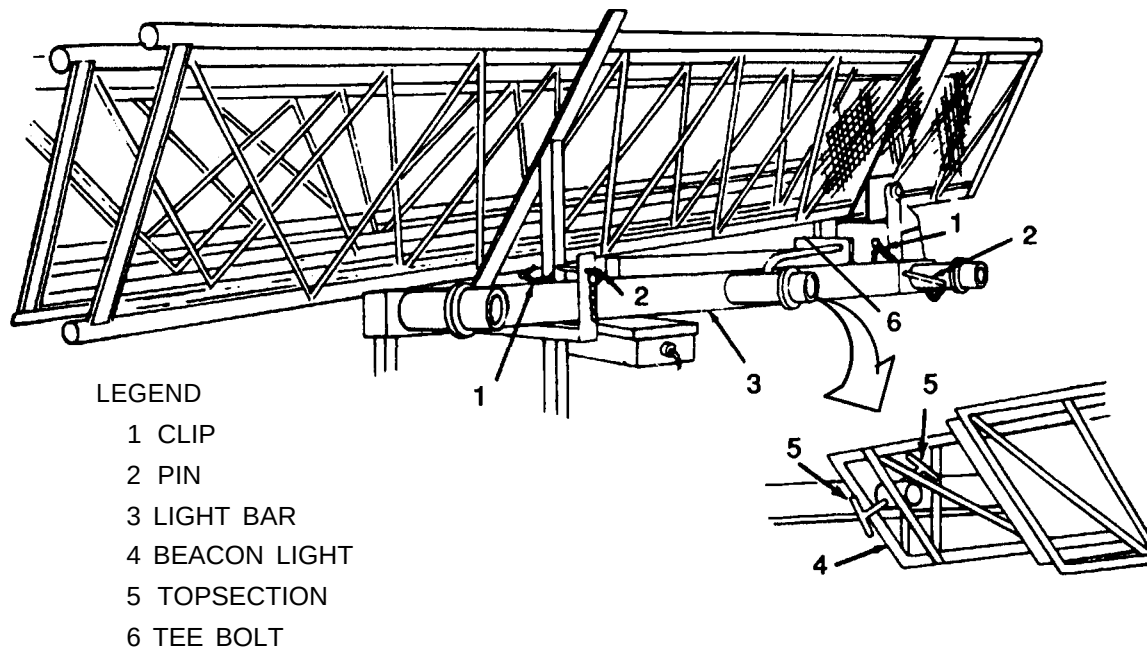


NOTE

Operate handle in a clockwise direction to lower; counter-clwkwise to raise.

Adjust jacks (1) as necessary to position bubble in center of level (3)

g. Installing Light Bar.



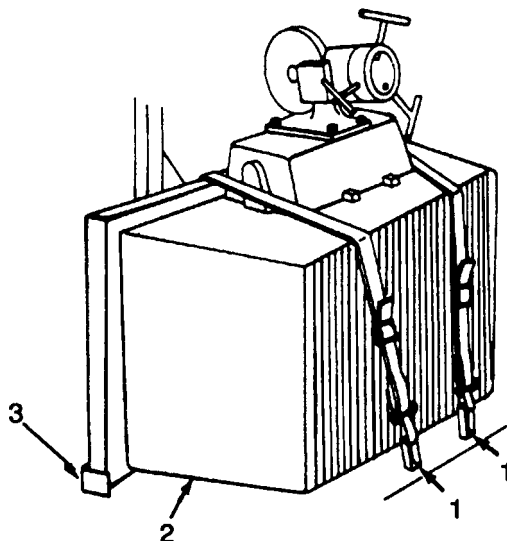
- (1) Remove spring dips (1) from safety pins (2) securing light bar (3).
- (2) Remove safety pins.
- (3) Remove light bar (3) and position in place on top section (4) of tower.
- (4) Secure by tightening the two tee bolts (5).

NOTE

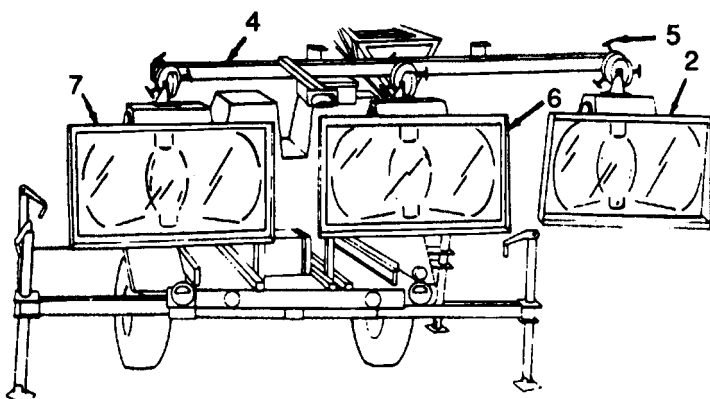
Red warning light is attached to light bar.

- (5) Plain Red Warning Beacon light (6) in the vertical position.

h. Installing Floodlights.



(1) Release latches (1) securing floodlight (2) in storage rack (3).



LEGEND

- 1 LATCH
- 2 FLOODLIGHT
- 3 STORAGE RACK
- 4 LIGHT BAR
- 5 TEE BOLTS
- 6 FLOODLIGHT
- 7 FLOODLIGHT
- 8 AIMING BOLT

(2) Remove floodlight (2) from storage rack (3) and position in place on light bar (4).

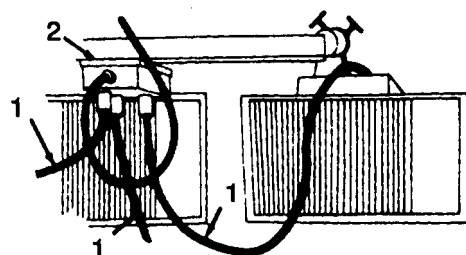
(3) Secure by tightening the three tee bolts (5).

(4) Install other two floodlights (6 and 7) in the same manner.

(5) To aim floodlights to desired location, loosen aiming bolt (8) and move light to desired position.

(6) Tighten aiming bolt (8).

i. Installing Power Cords.



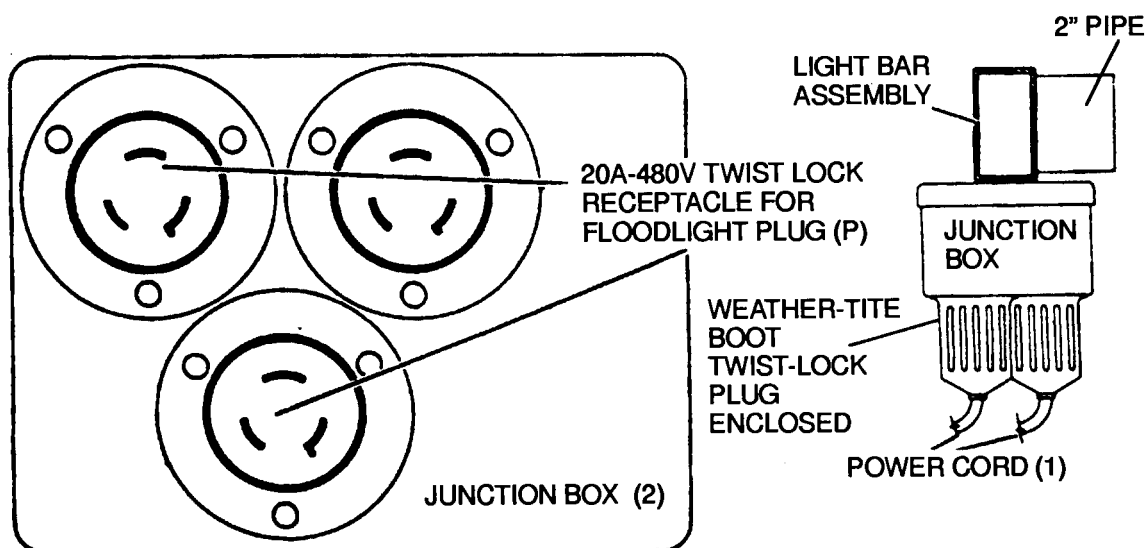
LEGEND

1 POWER CORD

2 JUNCTION BOX

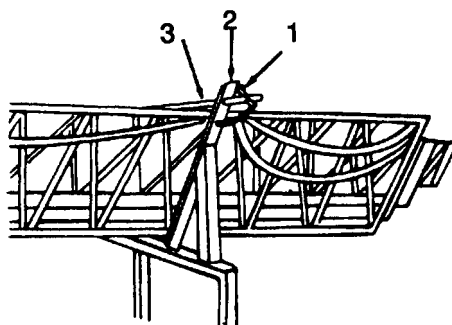
NOTE

Power cords have twist-lock plugs.



Insert power cord (1) into junction box (2).

j. Elevating Tower.



LEGEND

1 CLIP

2 CLEAT

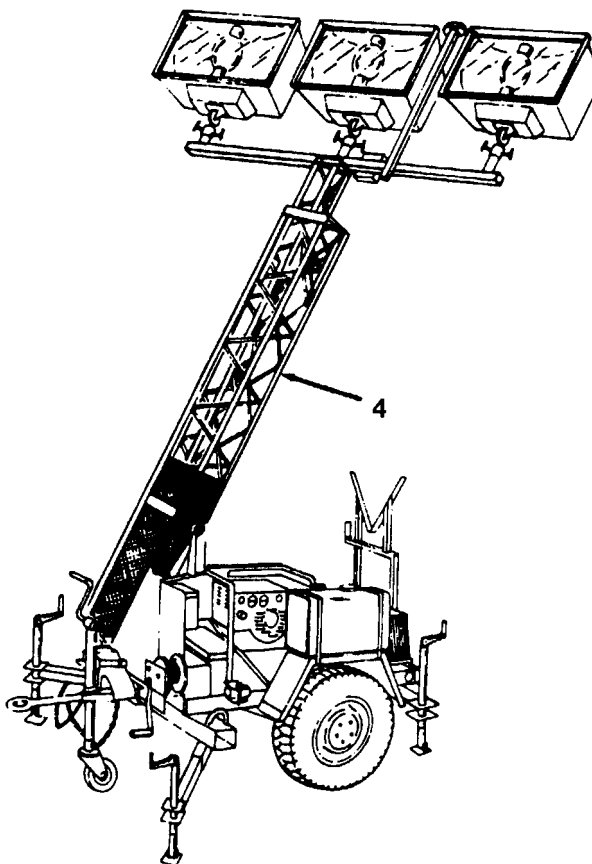
3 CRADLE

4 TOWER

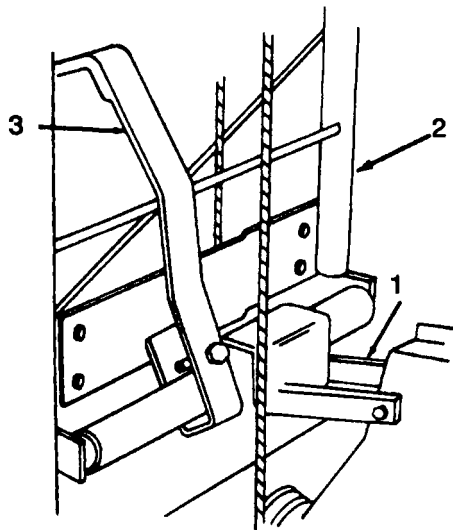
WARNING

Insure that extension lockbar is set before raising tower. Check overhead clearance before raising tower.

- (1) Remove spring dip (1) from tower cradle cleat (2).
- (2) Remove tower cradle cleat (2) from tower cradle (3).
- (3) Winch the tower (4) to the vertical position.



- (4) Set tilt lockbar (1) on crossbar at base of tower.



LEGEND

- 1 TILT LOCKBAR
- 2 TOWER SECTIONS
- 3 EXTENSION LOCKBAR

NOTE

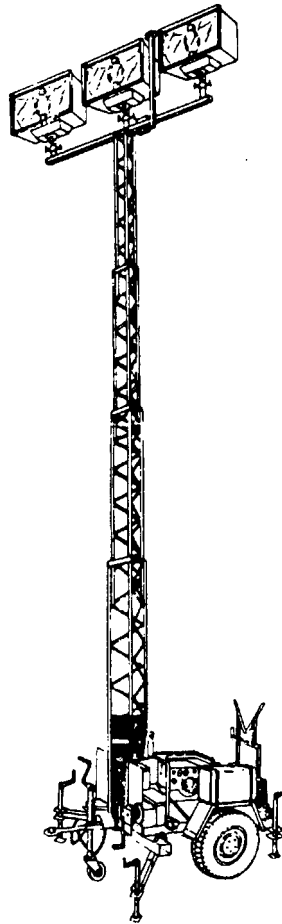
Do not remove extension lockbar

- (5) Release extension lockbar (3) from tower sections (2).

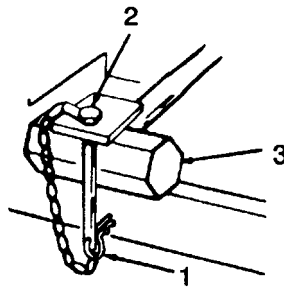
WARNING

Check overhead clearance before extending tower to full operating height.

- (6) Winch tower to full operating height. Readjust leveling jacks if necessary to level unit.



k. Grounding the Floodlight Set.

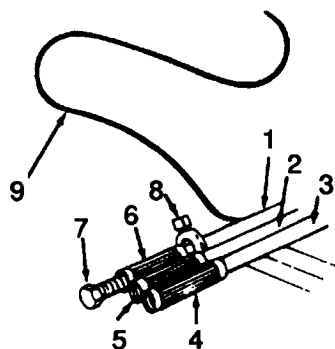


LEGEND

- 1 SPRING CLIP
- 2 SAFETY PIN
- 3 HAMMER

(1) Remove spring clip (1) and safety pin (2) securing hammer.

(2) Remove hammer (3) from storage position.



LEGEND

- 1 GROUND ROD SECTION
- 2 GROUND ROD SECTION
- 3 GROUND ROD SECTION
- 4 COUPLING
- 5 COUPLING
- 6 COUPLING
- 7 DRIVING NUT
- 8 GROUNDING CLAMP
- 9 GROUNDING WIRE

- (3) Remove ground rod section (1, 2, and 3) from storage position.
- (4) Insert grounding rod assembly into the ground with hammer as follows:
 - (a) Install one coupling (4, 5, or 6) on rod (1, 2, or 3).
 - (b) Install driving nut (7) into open end of coupling.
 - (c) Plain pointed end of rod in ground approximately 2- to 3-feet (0.61 to 0.915 meters) from Floodlight Set.
 - (d) Pound rod until bottom of coupling is level with the surface of ground.
 - (e) Remove driving nut.
 - (f) Assemble another rod to open end of coupling, hand tight only.
 - (g) Assemble coupling to free end of rod, hand tight only.
 - (h) Assemble driving nut in open end of coupling.
 - (i) Drive rod up to bottom of coupling.
 - (j) Remove driving nut.
 - (k) Assemble last rod to open end of coupling.
 - (l) Assemble last coupling to free end of rod.
 - (m) Assemble driving nut to open end of coupling.
 - (n) Drive rod in until coupling is approximately 1-foot (0.31 meters) above surface of ground.
 - (o) Remove coupling from rod.

- (p) Place grounding clamp (8) over rod and tighten (finger tight only) to rod, approximately 6-inches(15 cm) down from end of rod. Then replace coupling.
- (q) Attach grounding wire (9) to damp with wire between rod and screw of damp, and tighten screw.
- (r) Attach grounding lug located at other end of grounding wire to Floodlight Set.
- (s) Replace hammer in storage rack and install safety pin and spring dip.

WARNING

Use extreme care when hooking up to external power. HIGH VOLTAGE may be encountered.

I. Instructions for Wiring the Floodlight Set to Operate On External Power.

- (1) Disconnect and remove the control box/generator set cable.
- (2) Connect jumper wire (No. 10 AWG) from left circuit breaker terminal to right circuit breaker terminal.

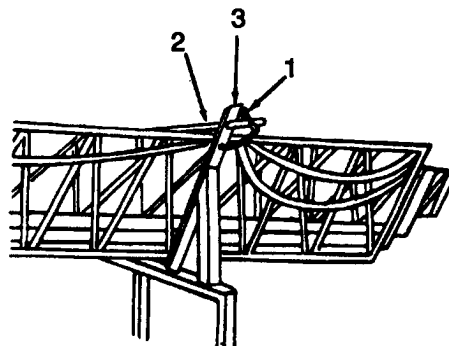
NOTE

Wire should be long enough to go around circuit breaker rather than across the top.

- (3) Using a 2-conductor No. 10, 100-Ft. (30.5 m) cable, insert one end into control box. Hole is provided on side of control box below the duplex receptacle.
- (4) Connect black wire to right circuit breaker terminal.
- (5) Connect white wire to terminal on extreme left side of control box. (Same terminal used for white wire in generator set cable).
- (6) Other end of cable is connected to external power source.

2.8 OPERATING PROCEDURES.

a. Floodlight Set Operation.

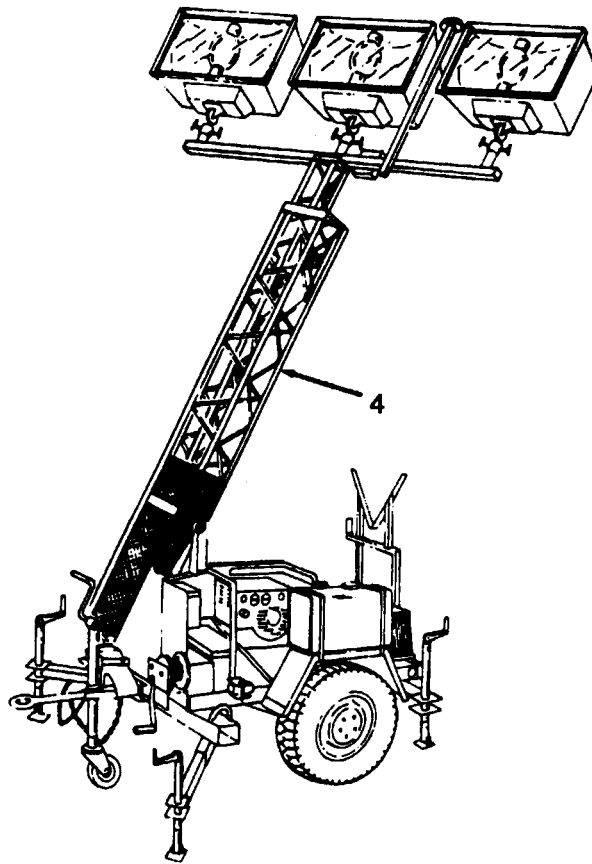


LEGEND

- 1 SPRING CLIP
- 2 CRADLE CLEAT
- 3 CRADLE
- 4 TOWER

- (1) Remove spring dip (1) from tower cradle cleat (2).

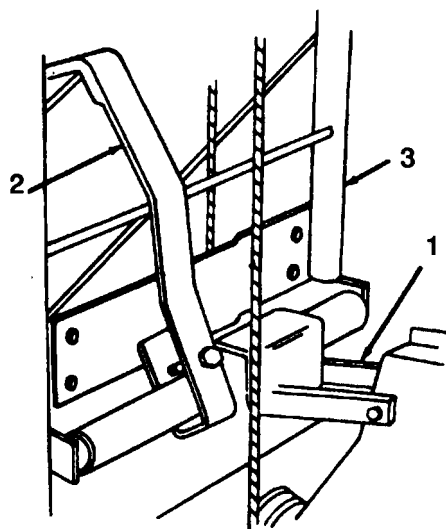
(2) Remove tower cradle cleat (2) from tower cradle (3).



WARNING

Check overhead clearance before raising tower.

(3) Winch the tower (4) to the vertical position.



LEGEND

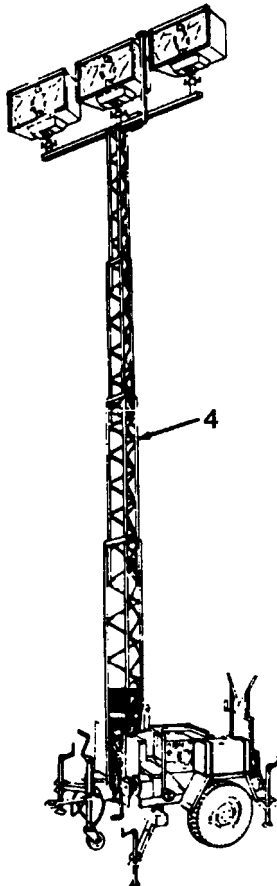
- 1 TILT LOCKBAR
- 2 EXTENSION LOCKBAR
- 3 TOWER SECTIONS
- 4 TOWER

(4) Push down on tilt lockbar (1) to lock tower sections.

NOTE

Do not remove extension lockbar.

(5) Release the extension lockbar (2) from tower sections (3).



WARNING

Check overhead clearance before raising tower to fully extended height

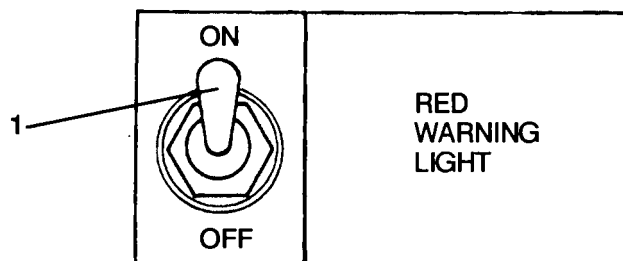
(6) Winch tower (4) to fully extended height.

(7) Refer to TM 9-6115-271-14, start generator set, and turn ON.

NOTE

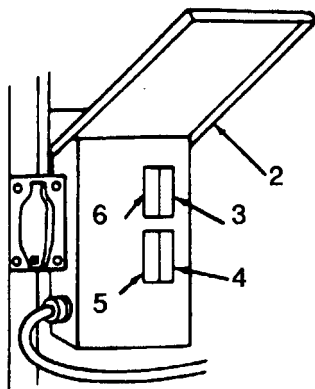
- **DO NOT** turn on lights until generator set has reached proper operating temperature.
- Switch is located on left side of control panel.

(8) Place red warning light switch (1) in the **ON** position.



LEGEND

- 1 RED WARNING LIGHT SWITCH
- 2 OUTER COVER
- 3 CIRCUIT BREAKER
- 4 CIRCUIT BREAKER
- 5 CIRCUIT BREAKER
- 6 CIRCUIT BREAKER



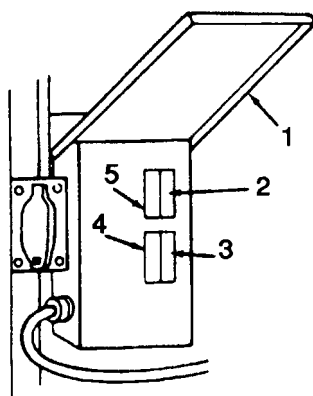
(9) Lift up outer cover (2) on control panel.

CAUTION

When turning circuit breakers **ON**, allow a 5 second interval on each floodlight to allow generator set to stabilize.

(10) Place circuit breakers (3, 4, 5 and 6) in the **ON** position.

b. Shutdown Procedures.



LEGEND

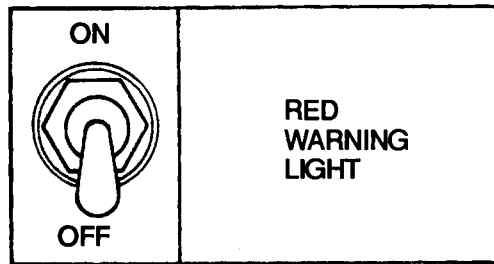
- 1 OUTER COVER
- 2 CIRCUIT BREAKER
- 3 CIRCUIT BREAKER
- 4 CIRCUIT BREAKER
- 5 CIRCUIT BREAKER

NOTE

When floodlights are turned off, they will not relight until they have cooled.

(1) Lift up outer cover (1) on control panel.

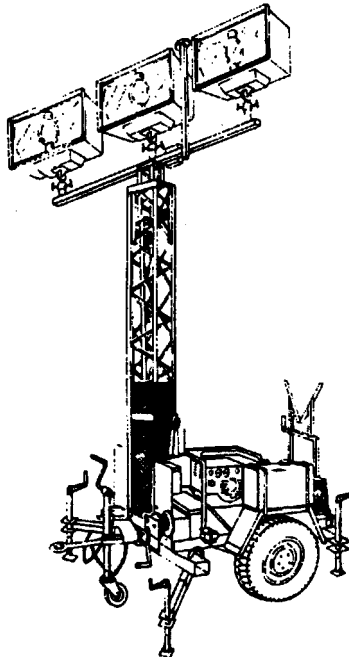
- (2) Place floodlight circuit breakers (2,3,4, and 5) in the **OFF** position.



NOTE

Switch is located on side of control panel.

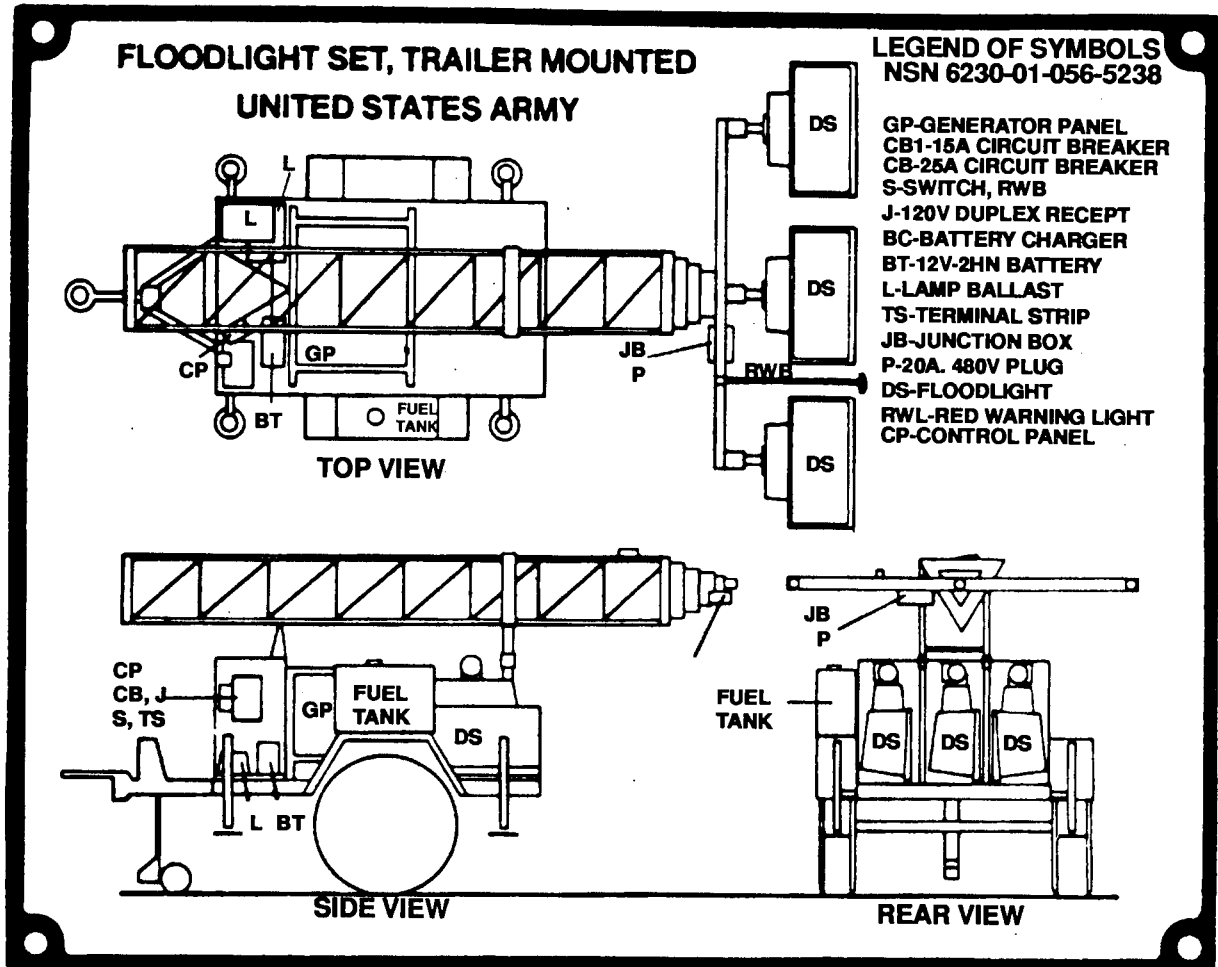
- (3) Place red warning light switch in the **OFF** position.
- (4) Refer to TM 9-6115-271-14 and conduct shutdown procedures for generator set.



- (5) Lower tower to minimum vertical height.

2.9 DECALS AND INSTRUCTION PLATES.

a. Schematic Diagram Plate. Located on the right side of the splash panel as viewed from the rear of the Floodlight Set.



b. Operating Instructions. Located on the upper left hand portion of the splash panel as viewed from the rear of the Floodlight Set.

Floodlight Set, Trailer Mounted U.S. Army

N.S.N. 6230-01-056-5238

ASSEMBLY INSTRUCTIONS

1. Attach hinge point to tower support on splash panel
2. Attach tower cradle to tower and support bar at rear of trailer, and install tower.
3. Thread cable around tower base, through pulley at base of tower support and secure on winch shaft.
4. Attach light bar and red warning beacon in storage position on tower.
5. Attach generator to channel on trailer bed.
6. Remove 3 each floodlights from sates and secure in brackets at rear of trailer.
7. Wire tower power cable to circuit breaker and generator matching terminals.

OPERATING INSTRUCTIONS

1. Extent outrigger jacks level unit.
2. Attach light bar to top of tower and install red warning beacon.
3. Remove floodlights from storage rack and attach to light bar and aim.
4. Attach floodlight and beacon power leads to light bar junction box.
5. Release tower cradle cleat.
6. Winch tower to vetical position, insert lock bar, & remove extension lock bar.

7. **Warning: Check overhead clearance.**
8. Winch tower to full operating height.
9. Readjust jacks if necessary to level unit.
10. Set ground rod.
11. Turn engine generator set ON.
12. Turn red warning beacon switch to ON.
13. Turn floodlight switches to ON allowing 5 seconds interval on each floodlight.

SHUT DOWN PROCEDURES

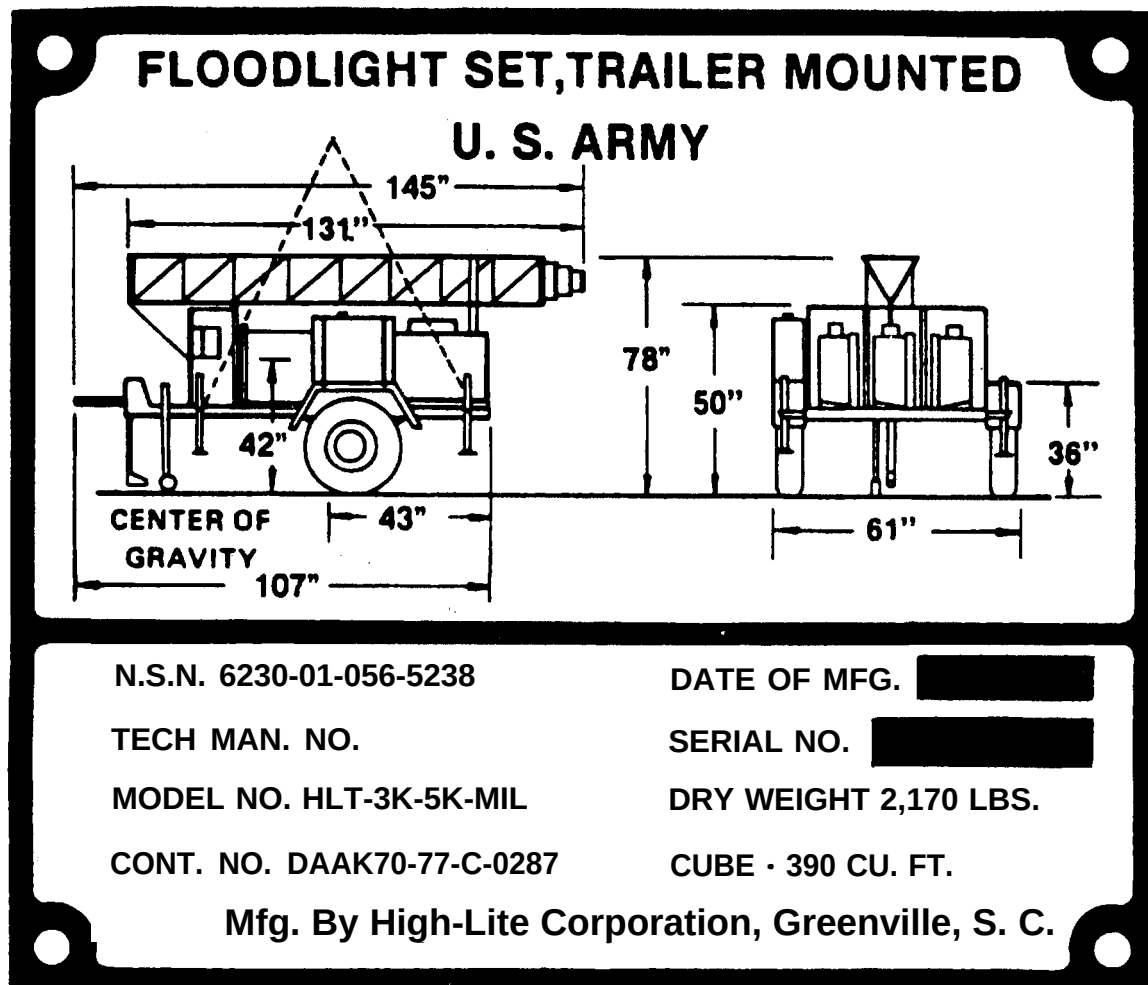
1. Turn floodlight and red warning beacon switches to OFF.
2. Turn engine generator set OFF.
3. Retract tower to minimum vertical height.
4. Attach extension locking bar.
5. Release tilt lock bar.
6. Lower tower to horizontal position.
7. Secure tower cradle cleat.
8. Unplug power leads.
9. Remove red warning beacon and stow.
10. **Warning: Be careful of hot fixtures.**
11. Remove floodlights after sting & stow.
12. Remove light bar and stow.
13. Retract outrigger jacks and secure.
14. Remove ground rod and stow.

c. Warning Plate. Located on the upper left hand portion of the splash panel as viewed from the rear of the Floodlight set.

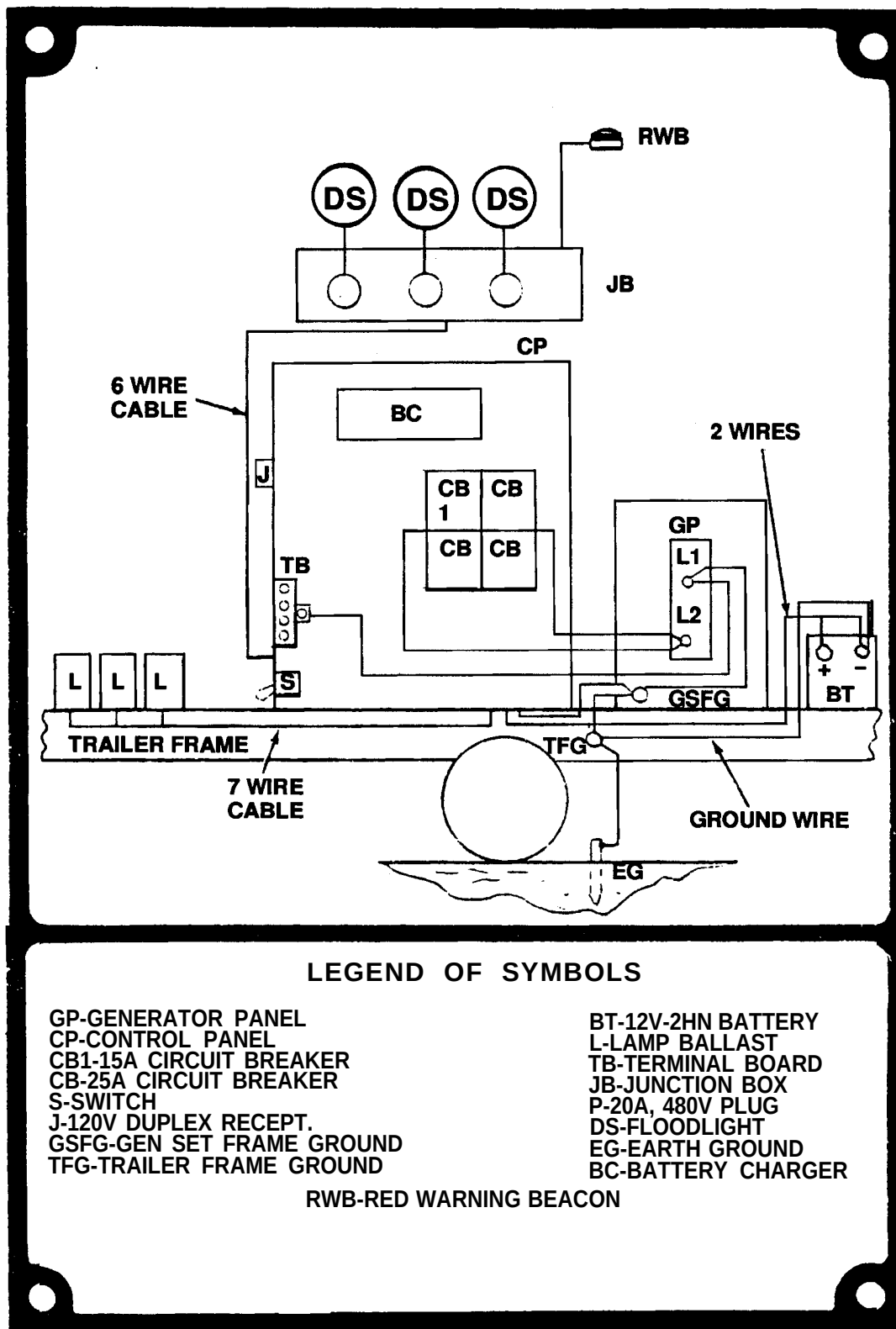
WARNING NOTES

- SET OUTRIGGERS BEFORE RAISING TOWER.
- ALWAYS CHECK OVERHEAD CLEARANCE.
- DO NOT REPAIR OR SERVICE UNIT WHILE ENGINE GENERATOR SET IS RUNNING.
- GROUND UNIT BEFORE OPERATING.
- DO NOT FILL FUEL TANK WHILE ENGINE GENERATOR SET IS RUNNING.

d. Identification Plate. Located on the lower left hand portion of the splash panel as viewed from the rear of the Floodlight Set.



e. Schematic Wiring Diagram. Located on the control panel front cover.



- f. Generator Set Data. Refer to TM 9-6115-271-14.

2.10 OPERATION OF AUXILIARY EQUIPMENT.

- a. Refer to TM 9-2805-258-14 for information on the operation of the MIL Standard Engine.
- b. Refer to TM 9-6115-271-14 for information on the operation of the 3kW Generator Set.
- c. Refer to TM 9-2330-251-14 for information on the operation of the Trailer.

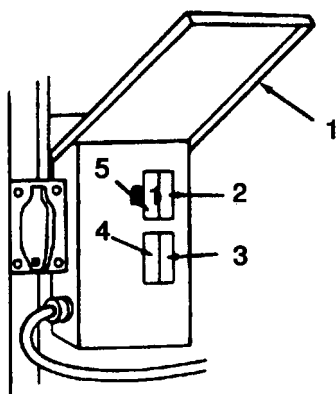
2.11 PREPARATION FOR MOVEMENT.

- a. Removing Floodlight Set From Operation.

(1) Disconnecting power.

(a) Lift up outer cover (1) on control panel.

(b) Place floodlight circuit breakers (2, 3, 4, and 5) in the OFF position.



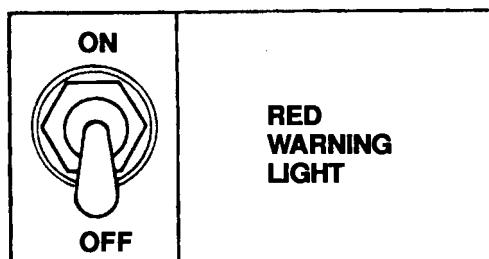
LEGEND

- 1 OUTER COVER
- 2 CIRCUIT BREAKER
- 3 CIRCUIT BREAKER
- 4 CIRCUIT BREAKER
- 5 CIRCUIT BREAKER

NOTE

Switch is located on side of control panel.

- (c) Plain red warning light switch to the **OFF** position.

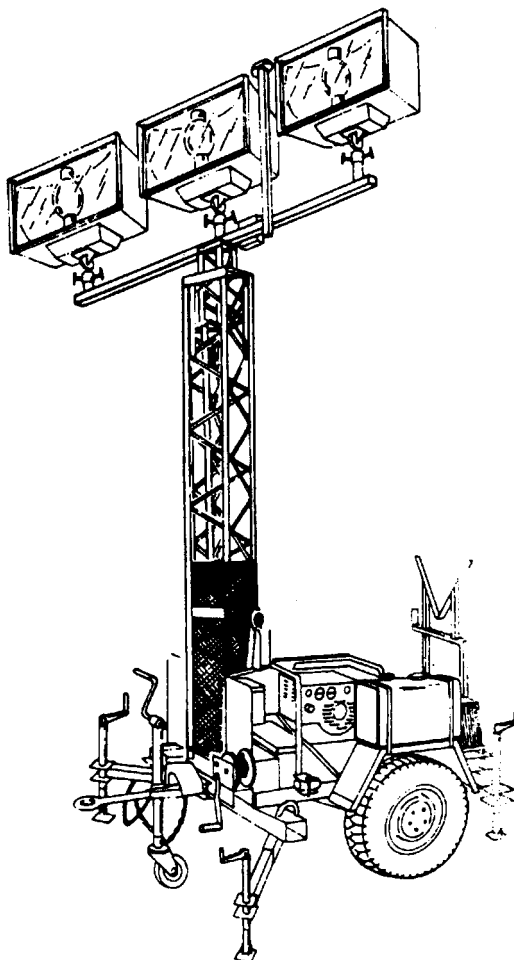


OFF

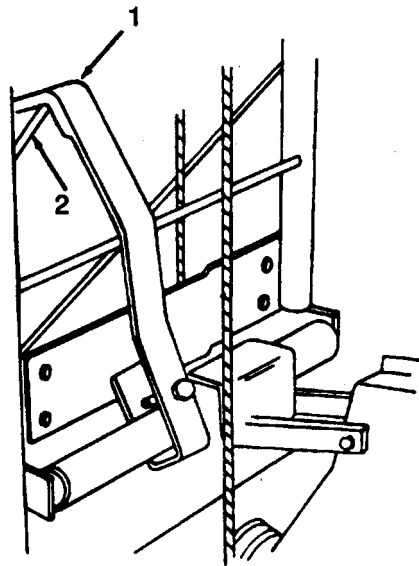
- (2) Shutdown of generator set. Refer to TM 9-6115-271-14 for shutdown procedures.
- (3) Lowering tower.
 - (a) Lower tower to minimum vertical height.

WARNING

Lockbar must be hooked around reinforcing rod to be in the locked position. Visually inspect to insure lockbar is engaged over rod. This prevents tower from free falling into a horizontal position.

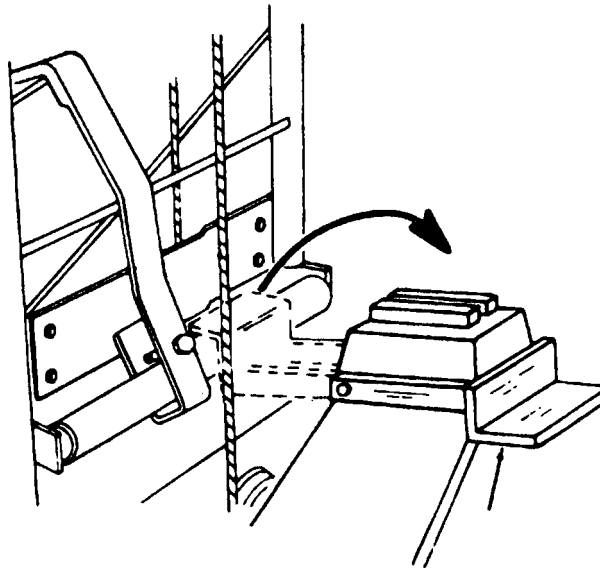


- (b) Attach extension lockbar (1) around reinforcing rod (2) to hold tower sections together.



LEGEND
 1 EXTENSION
 LOCKBAR
 2 REINFORCING
 R O D

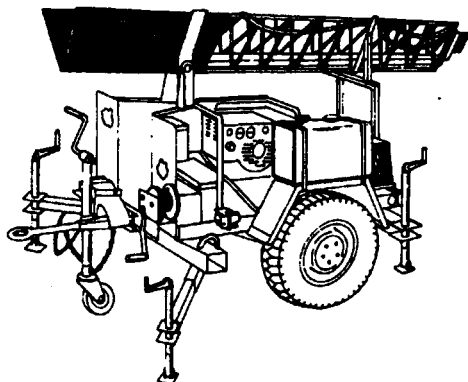
(c) Release tilt (1) and place in a horizontal position (2).



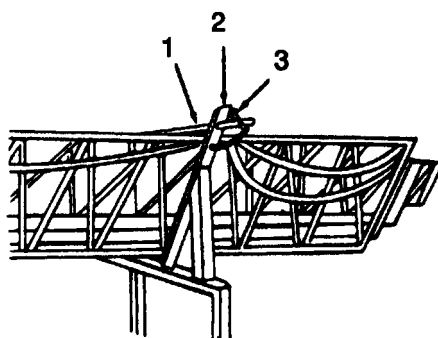
(d) Turn winch handle approximately one full turn counter-clockwise.

(e) Push tower to start tower toward horizontal position.

(f) Lower tower to horizontal position.



(9) Insert tower cradle cleat (1) into tower cradle (2).

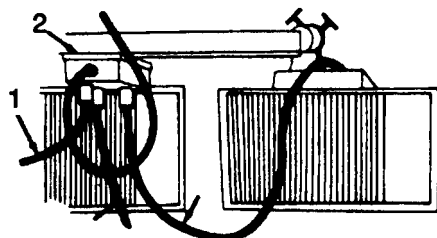


LEGEND

- 1 CRADLE CLEAT
- 2 TOWER CRADLE
- 3 SPRING CLIP

(h) Install spring dip (3) into cleat (1) to secure.

b. Dismantling Floodlights.

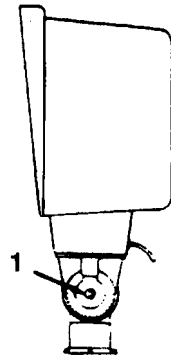


LEGEND

- 1 CABLE
- 2 JUNCTION BOX

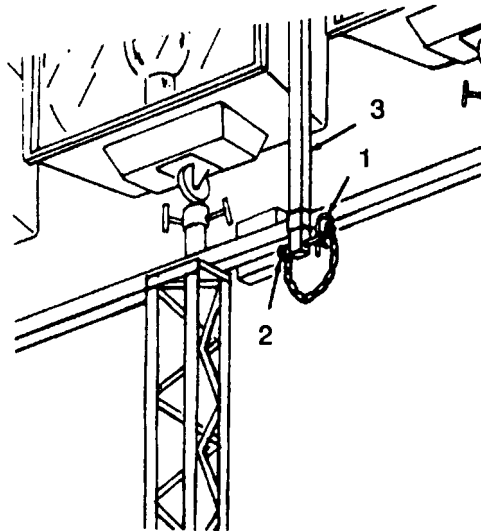
(1) Unplug power cable (1) from junction box(2).

(2) Wrap power cable around slip fitters on lights.



LEGEND
1 AIMING BOLT

- (3) Loosen vertical aiming bolt (1) and allow lights to swing down into vertical position. Retighten vertical aiming bolt.
- (4) Remove spring clip (1) and safety pin (2) from bracket (3).

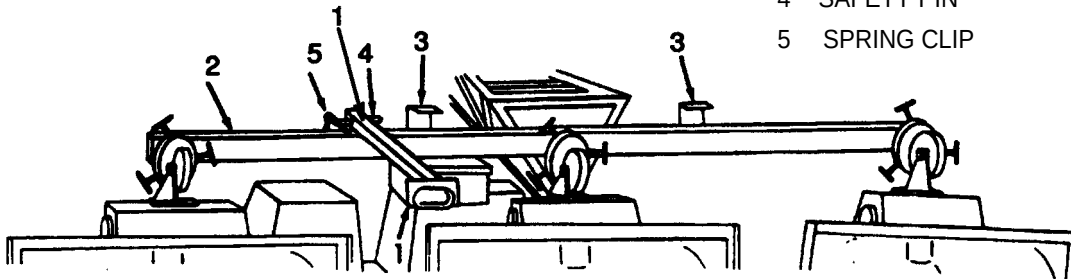


LEGEND
1 SPRING CLIP
2 SAFETY PIN
3 BRACKET

- (5) Remove red warning light (1) from light bar (2).
- (6) Insert red warning light into brackets (3).

LEGEND

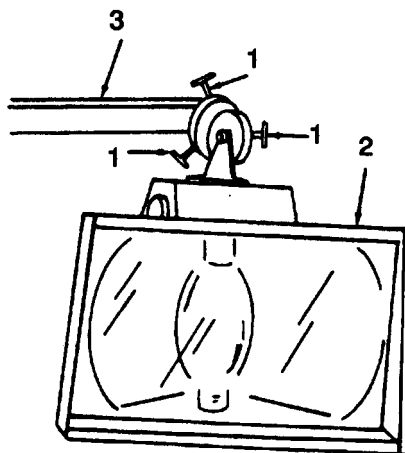
- 1 RED WARNING LIGHT
- 2 LIGHT BAR
- 3 BRACKET
- 4 SAFETY PIN
- 5 SPRING CLIP



(7) Insert safety pin (4) into red warning light (1) and secure with spring clip (5).

WARNING

Allow floodlights to cool before removing. Handling hot floodlights may cause serious personal injury.

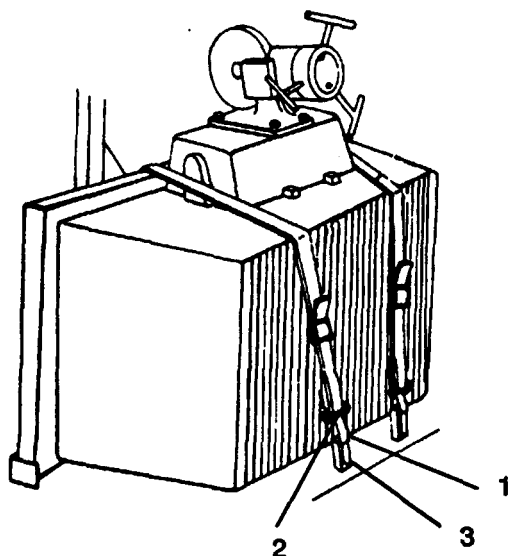


LEGEND

- 1 BOLT
- 2 FLOODLIGHT
- 3 BAR

(8) Loosen three tee bolts (1) securing floodlight (2) to light bar (3).

(9) Remove floodlight (2) and place in storage rack.



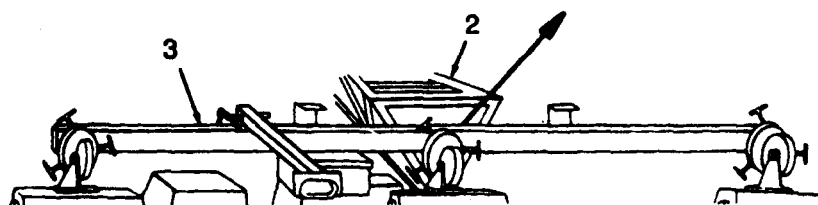
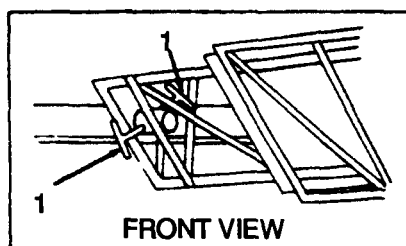
LEGEND

- 1 LATCH
- 2 BUCKLE
- 3 LATCH

(10) Insert end of latch (1) into webbing buckles (2).

(11) Push down on latch (3) to secure.

(12) Remove and stow other two floodlights in the same manner.

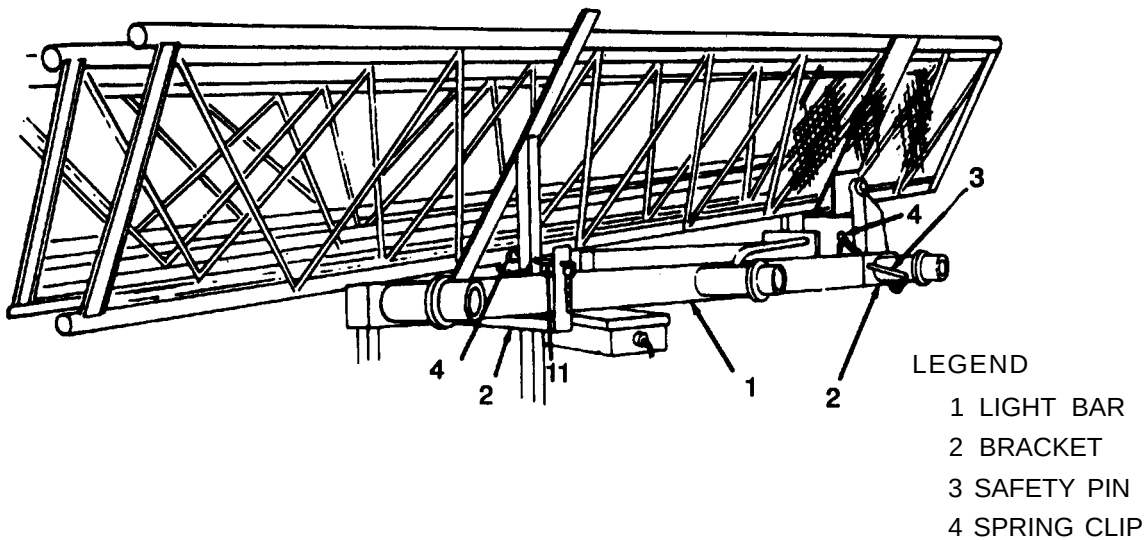


LEGEND

- 1 TEE BOLT
- 2 TOP SECTION
- 3 LIGHT BAR

(13) Loosen two tee bolts (1) securing light Bar (3) to top section (2) of tower.

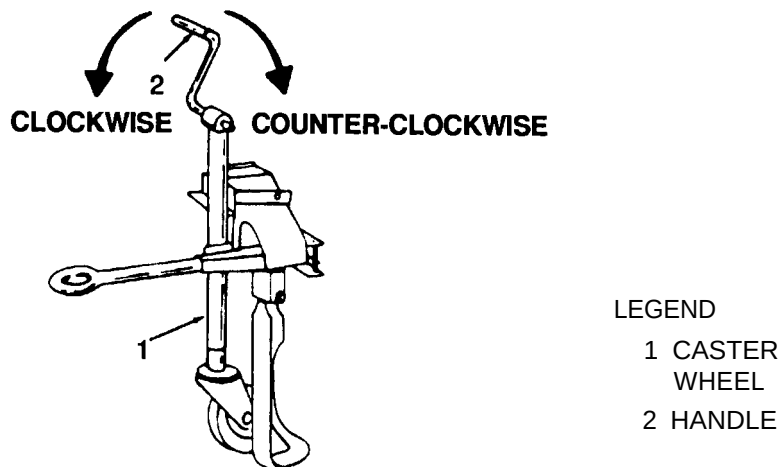
(14) Remove light bar (9) and place in storage brackets (10).



(15) Insert two safety pins (3) into storage brackets (2).

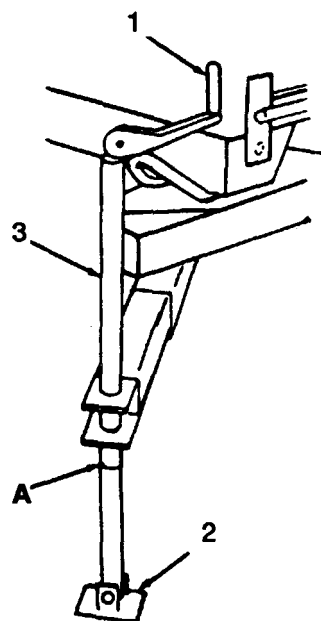
(16) Insert spring clips (4) into safety pins.

c. Outrigger Removal.



(1) Lower caster wheel (1) by turning handle (2) in a clockwise direction.

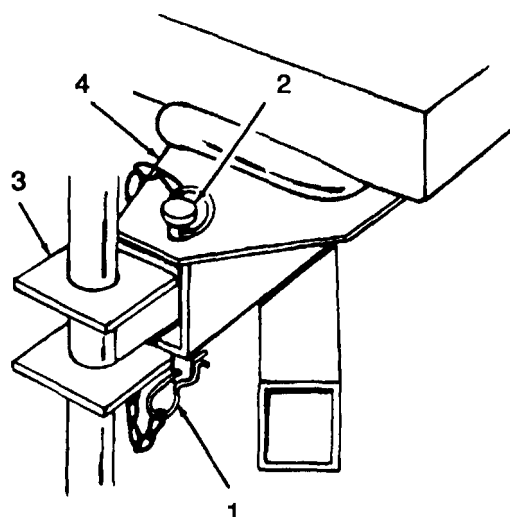
(2) See TM 9-2330-251-14 and lower landing leg.



- LEGEND
- 1 HANDLE
 - 2 PAD
 - 3 JACK

(3) Turn jack handle (1) in a counter-clockwise direction to retract leveling jack foot pads (2) to point A on leveling jacks (3).

(4) Front outriggers.



- LEGEND
- 1 SPRING CLIP
 - 2 SAFETY PIN
 - 3 OUTRIGGER
 - 4 CHANNEL

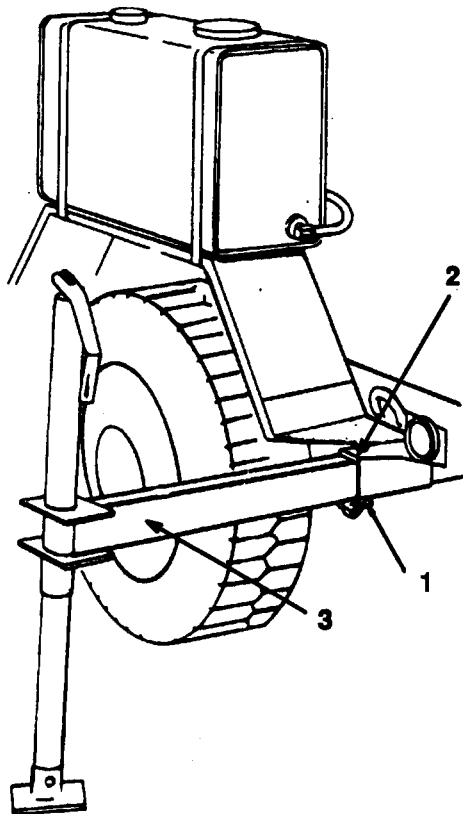
(a) Remove spring clip (1) and safety pin (2) securing the front outrigger (3).

(b) Remove outrigger and stow in 90° mounting channel (4).

(c) Install safety pin (2) in outrigger (3). Install spring clip (1) in safety pin (2).

(d) Install the other front outrigger in same manner.

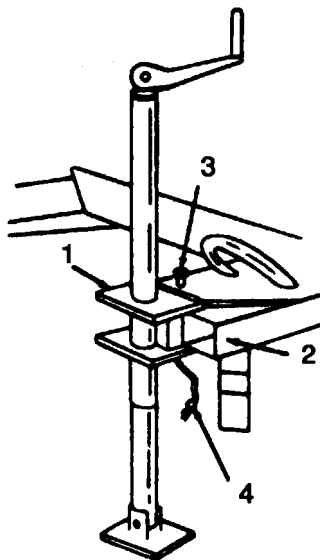
(5) Rear outriggers.



LEGEND

- 1 SPRING CLIP
- 2 SAFETY PIN
- 3 OUTRIGGER

(a) Remove spring clip (1) and safety pin (2) securing rear outrigger (3).



LEGEND

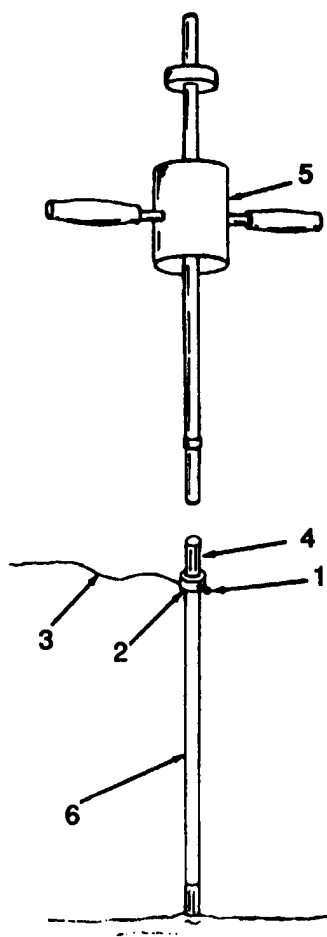
- 1 OUTRIGGER
- 2 CHANNEL
- 3 SAFETY PIN
- 4 SPRING CLIP

(b) Slide outrigger (1) into mounting channel (2).

(c) Install safety pin (3) in outrigger (1). Install spring clip (4) into safety pin (3).

(d) Install other rear outrigger in same way.

d. Ground Rod Removal.



LEGEND

- 1 SCREW
- 2 GROUNDING CLAMP
- 3 GROUNDING WIRE
- 4 COUPLING
- 5 GROUND ROD PULLER
- 6 ROD SECTION

(1) Loosen screw (1) in grounding (2) and remove grounding wire (3) and clamp (2).

(2) Remove coupling (4) from rod section.

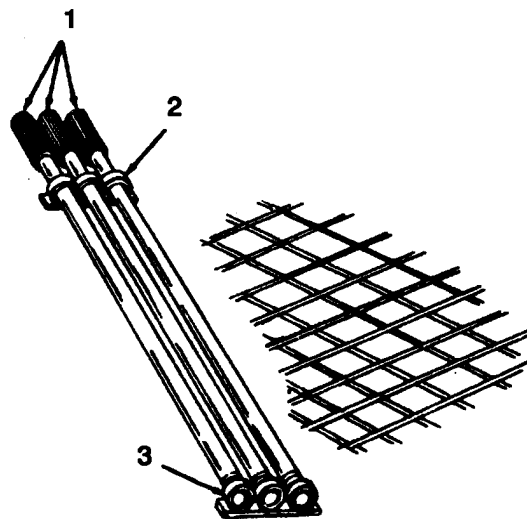
(3) install ground rod puller (5) on rod section (6).

(4) Pull upon handle of ground rod puller until coupling shows on next rod section.

(5) Remove ground rod puller.

(6) Remove other two rod sections in same manner.

(7) Insert each section (1) through hole in storage bracket (2) and screw into threaded storage bracket (3).



LEGEND

- 1 SECTION
- 2 STORAGE BRACKET
- 3 THREADED STORAGE BRACKET

- (8) See TM 9-2330-251-14 and attach trailer to towing vehicle.
- (9) Raise caster wheel by turning handle in counter-clockwise direction.

SECTION IV. WEATHER UNDER UNUSUAL CONDITIONS

2.12 UNUSUAL ENVIRONMENT/CONDITIONS.

a. Operation in Extreme Cold [Below 0°F (-18°C)].

(1) Fuel system.

- (a) Keep the fuel tank as full as possible at all times to prevent condensation.
- (b) Drain and service the fuel filter more often than under normal conditions. Refer to TM 5-2805258-14 for your gasoline engine.

(2) Floodlight set.

CAUTION

Do not bend or kink wiring as it becomes brittle with extreme cold.

Remove any ice or snow which may have accumulated on the tower, engine, generator, or wiring.

b. Operation In Extreme Heat.

- (1) Generator set. Refer to TM 9-6115-271-14.
- (2) Gasoline engine. Refer to TM 9-2805-258-14.

(3) Trailer. Refer to TM 92-2330-251-14

c. Operation In Dusty Or Sandy Areas.

- (1) Protection. Shield the generator set from dust. Take advantage of natural barriers which offer protection from dust and sand.
- (2) Lubrication. Clean all lubrication points before applying lubricants. Clean area around oil filler cap before inspecting and adding oil. Lubricate more frequently than specified in LO 5-6230-210-12 to prevent excessive wear. The lubrication interval should be shortened according to prevailing conditions.
- (3) Fuel. Prevent sand from entering fuel while servicing the fuel tank. Service fuel tank strainer prior to adding fuel.

d. Operation Under Rainy Or Humid Conditions.

- (1) Fuel. Keep the fuel tank as full as possible to prevent condensation.
- (2) Electrical system. Humid conditions can cause corrosion and deterioration of electrical components. Keep electrical components and wiring clean and dry.

e. Operation In Salt Water Areas.

- (1) General. Wipe the floodlight set and generator set with a clean cloth dampened with clean, freshwater at frequent intervals. Use care not to contaminate the fuel supply or damage the electrical system with water.

Lubrication. Lubricate more frequently than specified in LO 5-6230-210-12.

Preservation. Paint all exposed non-polished surfaces. Coat exposed parts of polished steel or other ferrous material with standard issue rust-proofing material if available or cover with one light coat of grease.

CHAPTER 3

OPERATOR MAINTENANCE INSTRUCTIONS

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SECTION I. LUBRICATION INSTRUCTIONS

3.1 GENERAL

Lubrication instructions are contained in LO 5-6230-210-12.

SECTION II. TROUBLESHOOTING PROCEDURES

3.2 INTRODUCTION.

a. This table lists common malfunctions that you may find your equipment. Perform the inspections and corrective actions in the order they appear in the table.

b. This table cannot list all the malfunctions that may occur, all the inspections needed to find the fault, or all of the corrective actions needed to correct the fault. If the equipment malfunction is not listed or actions not listed to correct the fault, notify your supervisor.

c. Refer to TM 9-2805-258-14 to troubleshoot your generator set.

d. Refer to TM 9-6115-271-14 to troubleshoot your generator set.

e. Refer to TM 9-2330-251-14 to troubleshoot your trailer.

3.3 TROUBLESHOOTING.

Table 3-1. Operator Troubleshooting Table

MALFUNCTION 1. Engine Will Not Start.

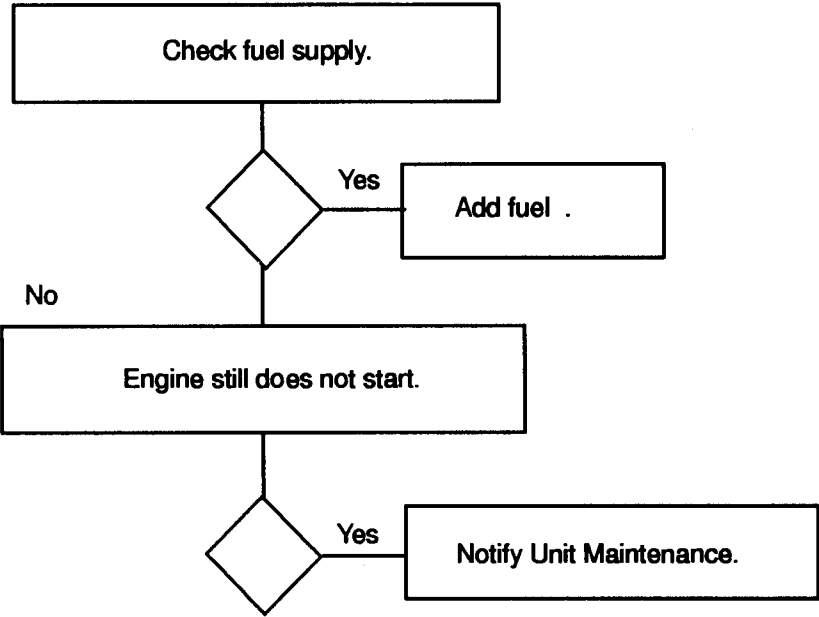
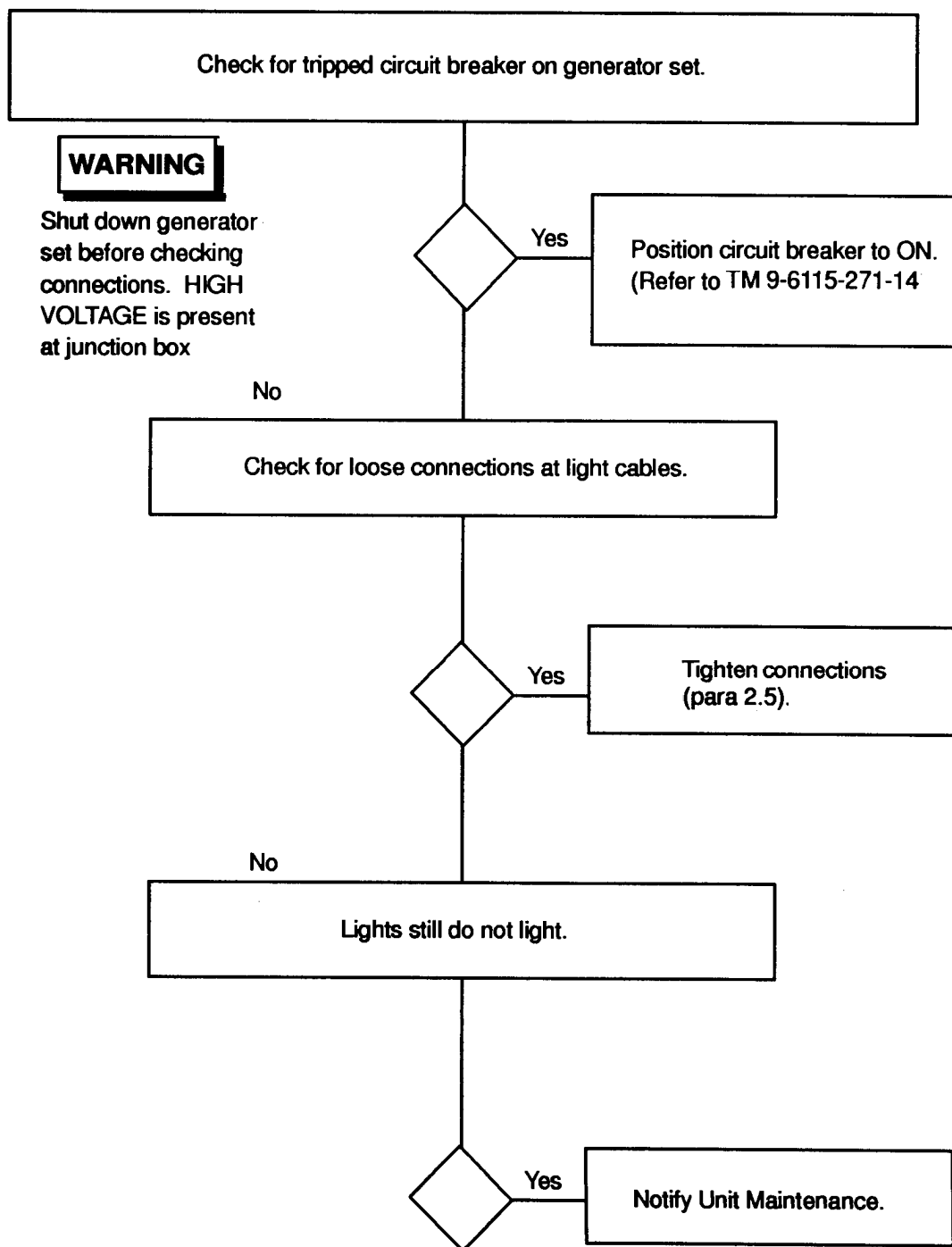
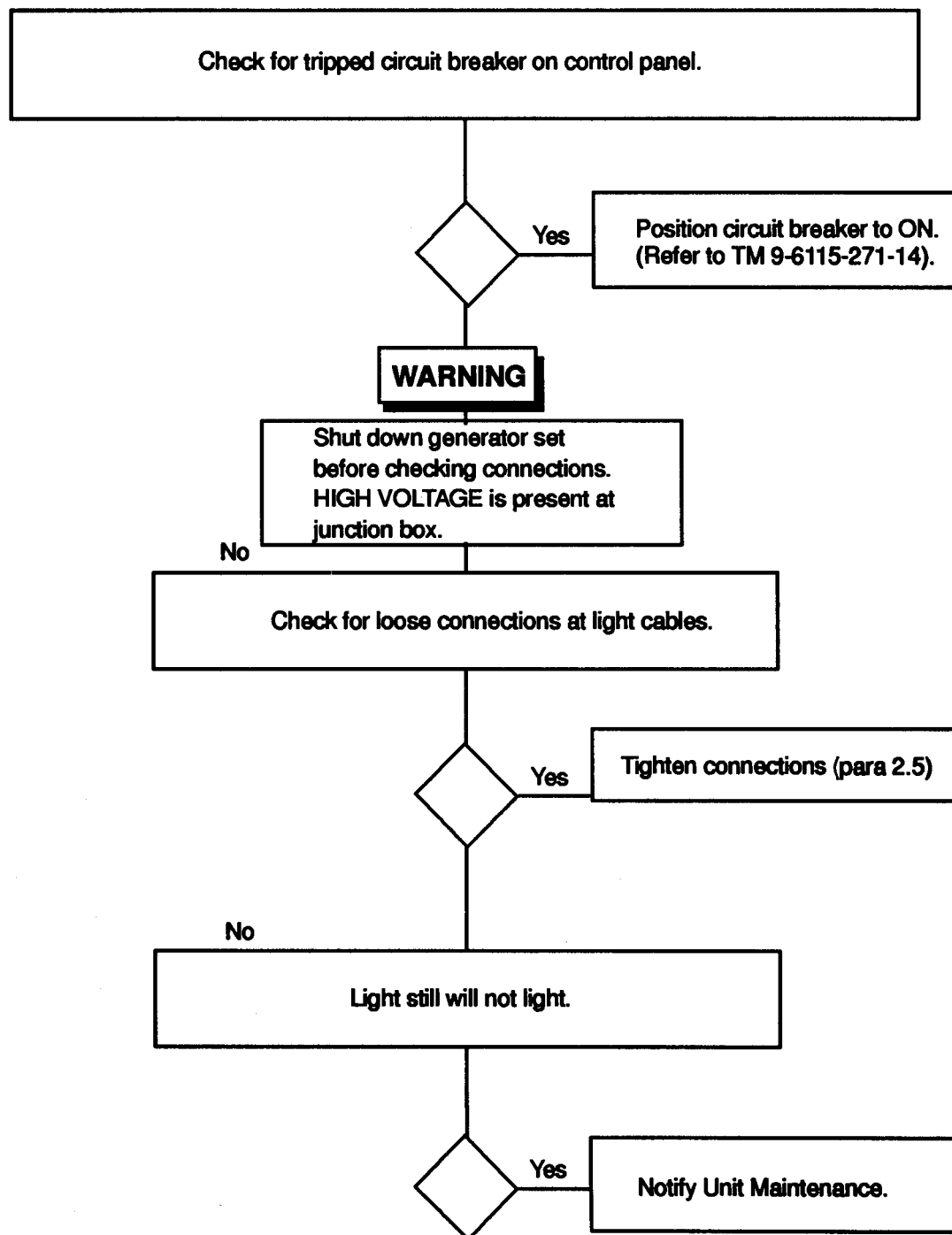


Table 3-1. Operator Troubleshooting Table - continued

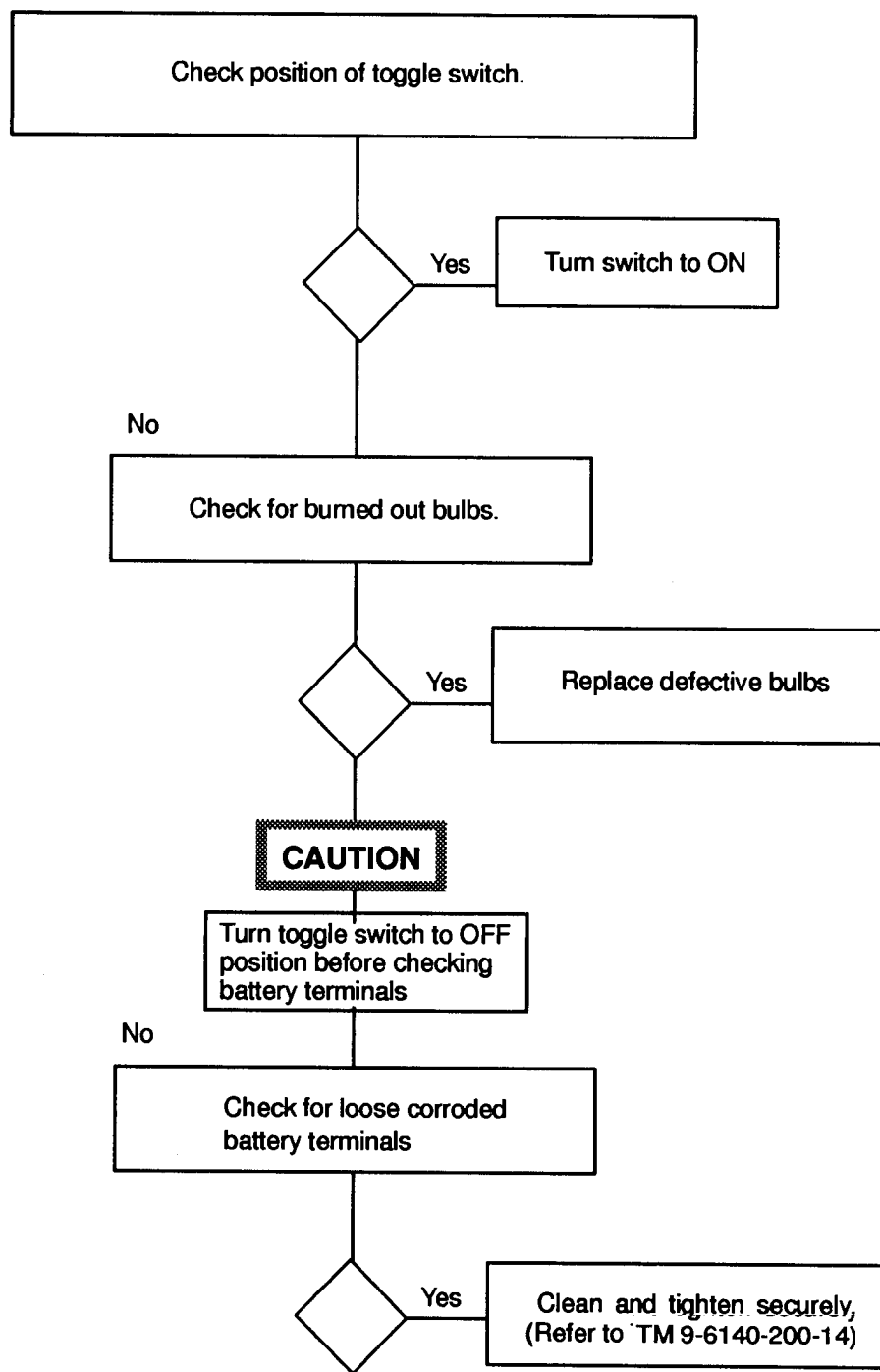
MALFUNCTION 2. All Floodlights Will Not Light.

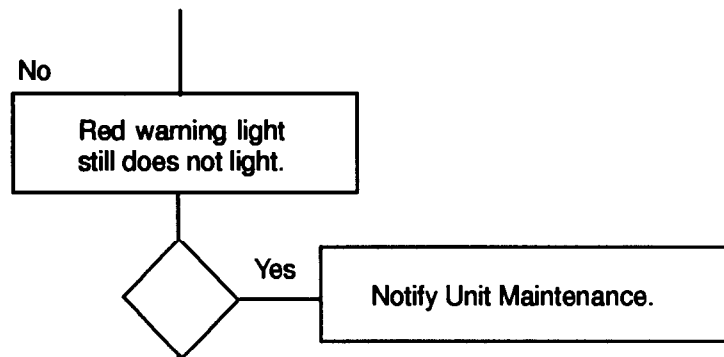


MALFUNCTION 3. One Floodlight Will Not Light.

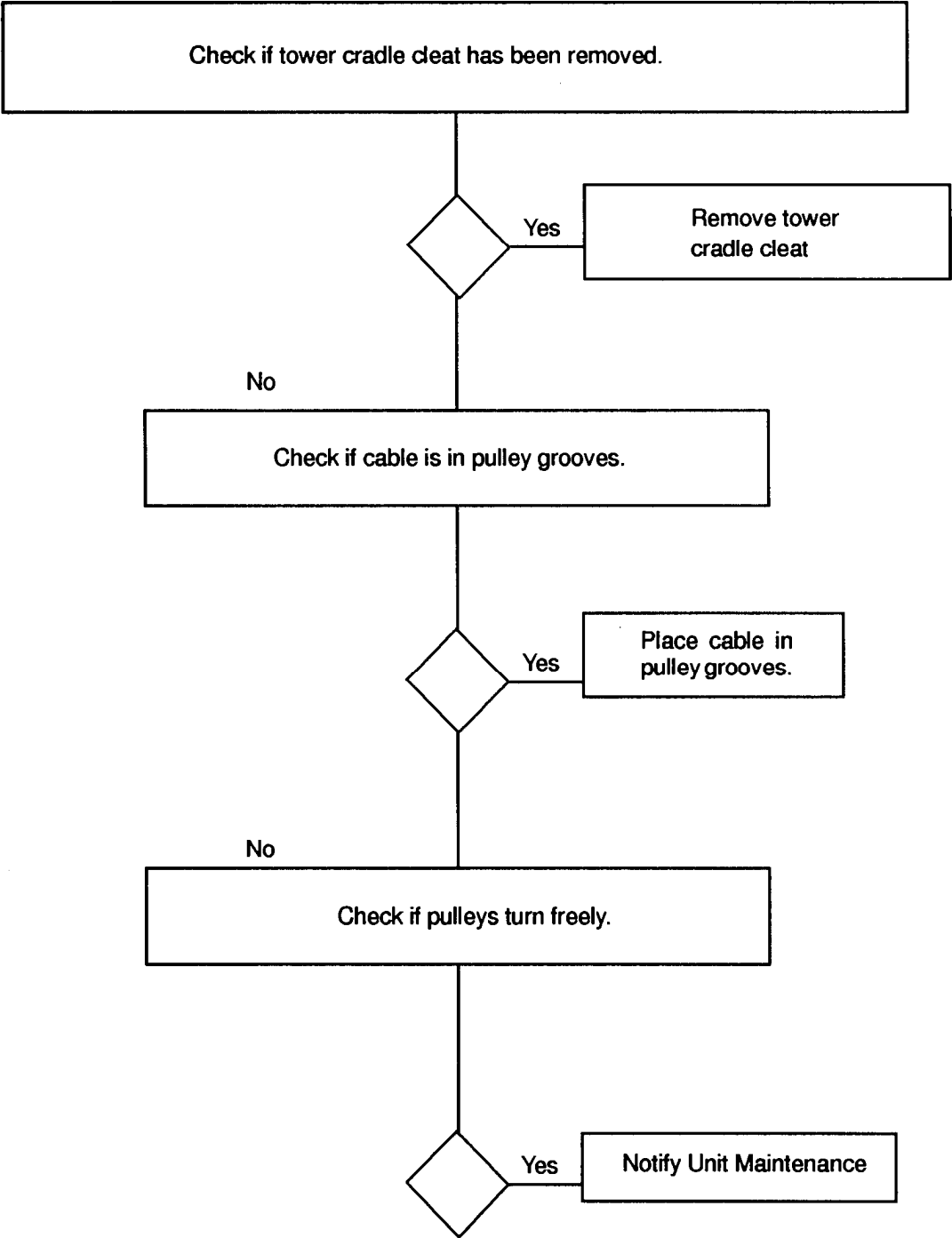


MALFUNCTION 4. Red Warning Light Will Not Light.

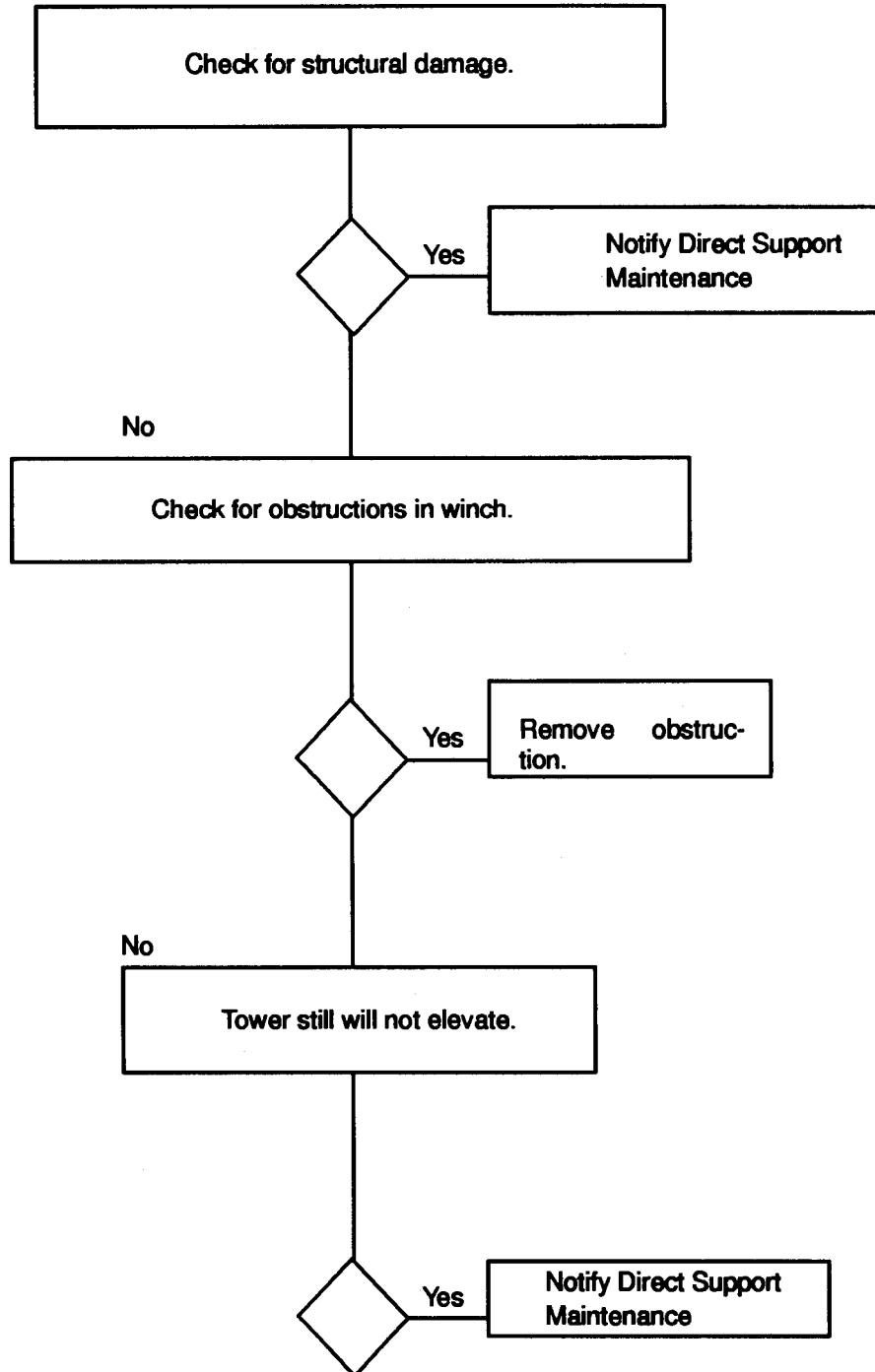




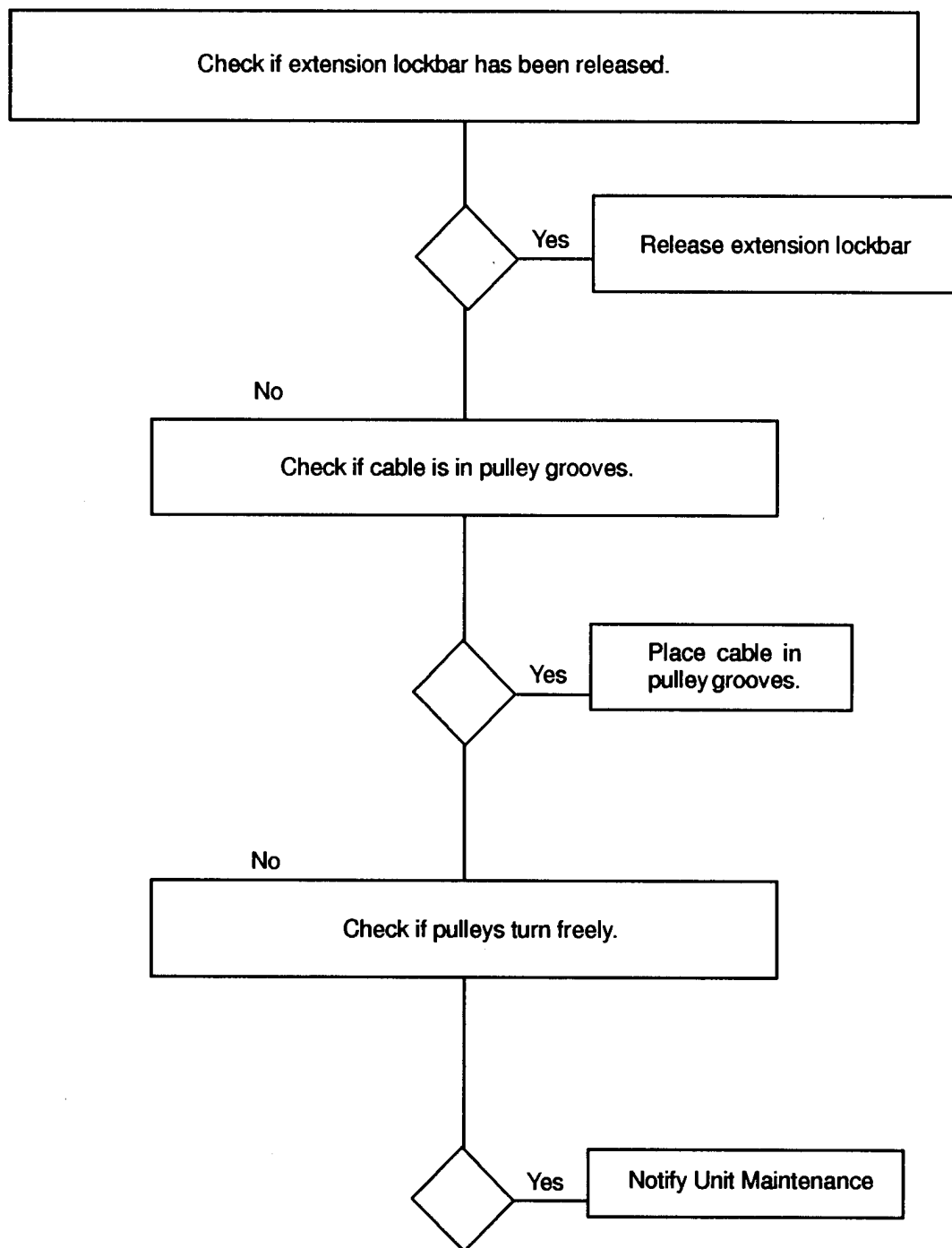
MALFUNCTION 5. Tower Cannot Be Raised to Vertical Position.



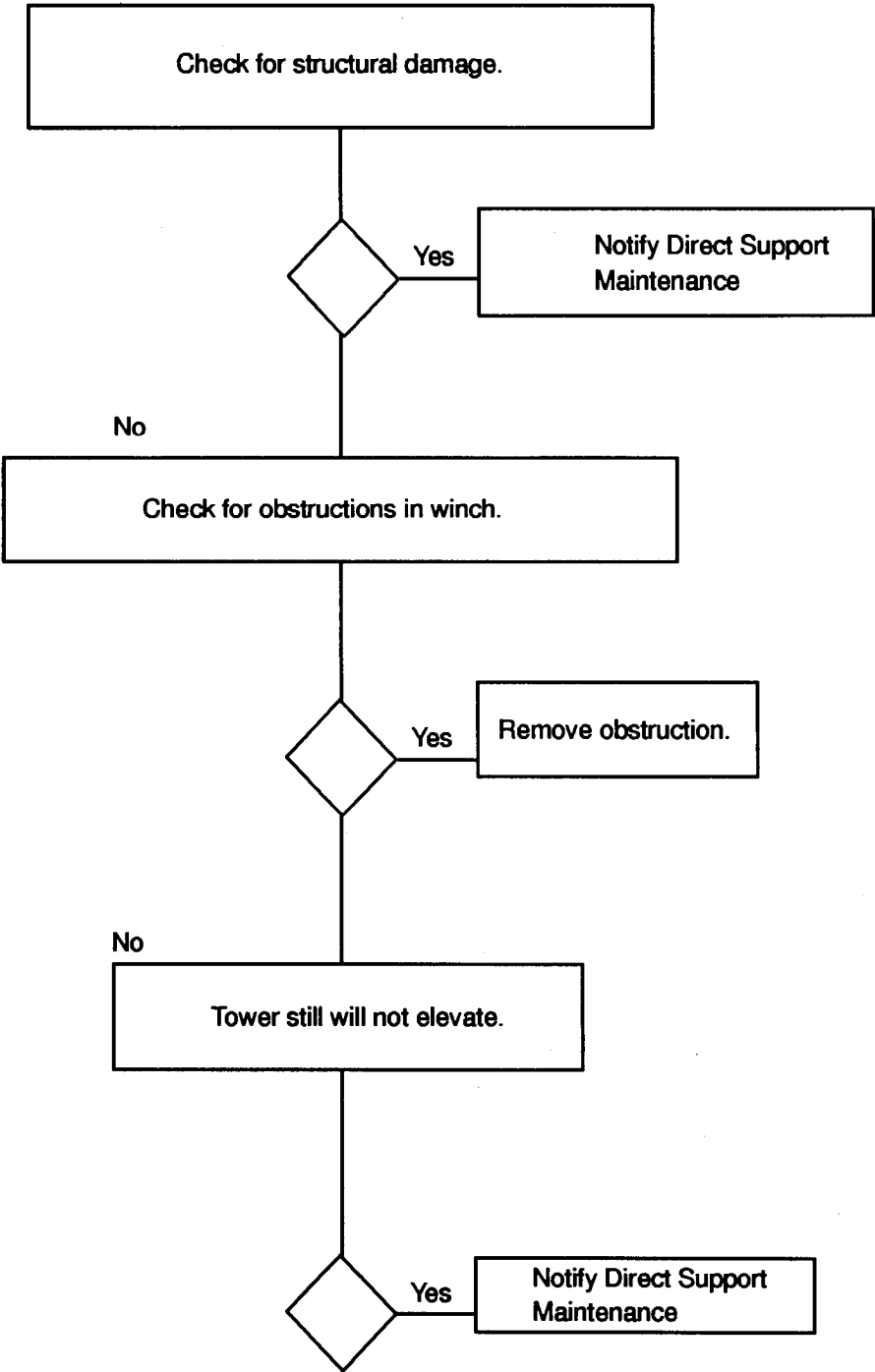
MALFUNCTION 5. Tower Cannot Be Raised to Vertical Position - continued.



MALFUNCTION 6. Tower Cannot Be Extended.



MALFUNCTION 6. Tower Cannot Be Extended - continued.



SECTION III. OPERATOR'S MAINTENANCE PROCEDURES

3.4 FLOODLIGHT ASSEMBLY.

This task covers: a. Service b. Replace

INITIAL SETUP

Materials/Parts

Soap (item 20, appx E)
Water
Rags (item 18, appx E)

Equipment Condition

Tower in horizontal position (para 2.7)

General Safety Instructions

WARNING

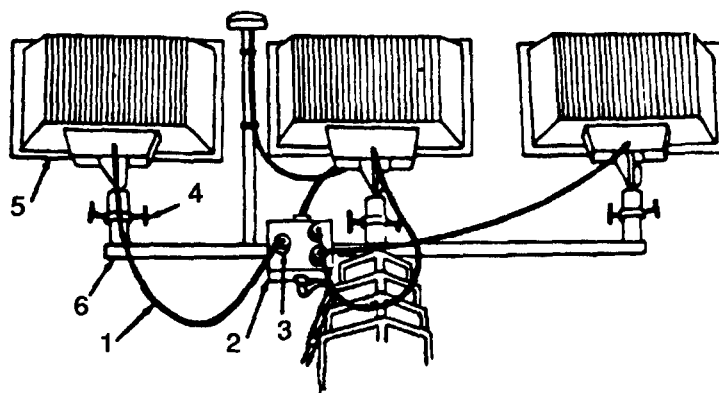
HIGH VOLTAGE

Personnel Required

MOS 63B Lightweight Vehicle and Power Generation
Mechanic

Disconnect power supply before servicing. High voltage is carried in floodlight assembly. Electrical shock could seriously injure you and may even cause death.

SERVICE



LEGEND

- 1 POWER CORD
- 2 JUNCTION BOX
- 3 PLUG
- 4 TEE BOLT
- 5 FLOODLIGHT
- 6 LIGHT BAR

CAUTION

DO NOT use acid or caustic compounds to clean lens or reflectors. Equipment damage could result.

- a. Disconnect power cord (1) from junction box (2) by removing plug (3).
- b. Loosen three T-bolts (4) and remove floodlights (5) from light bar (6). Place on flat surface.
- c. Service floodlight assembly by cleaning lenses. Use clean rags, soap, and water to clean lenses. Dry thoroughly.

- d. Promotion floodlights (5) on light bar (6) and tighten T-bolts (4).
- e. Reconnect power cord (1) to junction box (2) with plug (3).

3.5 BATTERY

This task covers: a. Service

INITIAL SETUP

Tools

Syringe (Item 22, appx E)

Materials/Parts

Distilled water (item 6, appx E)

Personnel Required

MOS 63B Lightweight Vehicle and Power Generation
Mechanic

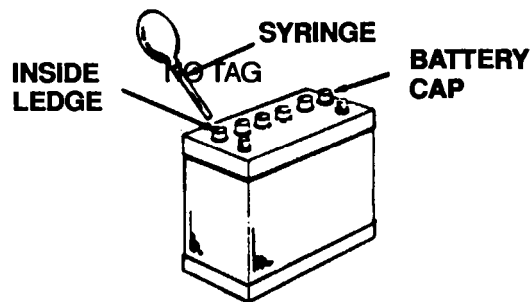
General Safety Instructions

WARNING

EXPLOSIVE AND FLAMMABLE HAZARD

Batteries give off extremely flammable gases. DO NOT service near open flame and DO NOT smoke while servicing battery. The gases could ignite causing serious personal injury.

SERVICE



CAUTION

Do not overfill battery cells. Acid spilled from the battery may damage unit.

NOTE

- The 6TN and 6TL batteries can be mixed or matched. However, maintenance-free batteries cannot be mixed or matched with military batteries. The 6TN and/or the 6TL batteries will perform properly in hot weather as long as electrolyte levels are carefully monitored. If the electrolyte expands and causes the level to rise, some fluid must be removed. If the level becomes too low due to evaporation, distilled drinking water (excluding mineral water) may be used if distilled water is not available.
- Electrolyte (NSNs 6810-00-249-9354 and 6810-00-843-1640) has a specific gravity of 1.280 and should be used in these batteries. DO NOT adjust the electrolyte in wet batteries to a lower specific gravity.

- a. Remove six caps from battery.
- b. Using a syringe, add enough distilled water to fill each cell to ledge only.
- c. Reinstall six caps.

3.6 RED WARNING LIGHT LENSES AND LAMPS.

This task covers: a. Replace

INITIAL SETUP

Tools

Flat Tip Screwdriver, 4-inch (Item 7, sect III, appx B)

Equipment Condition

Warning light installed on light bar in stowed position (para 2-11).

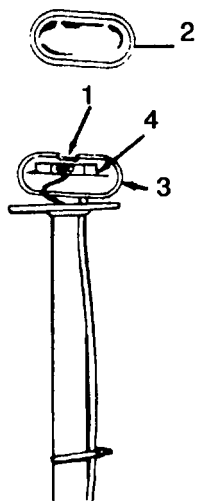
Materials/Parts

Lenses (Appendix C)
Lamp (Appendix C)

Personnel Required

MOS 63B Lightweight Vehicle and Power Generation

REPLACE



LEGEND

- 1 NOTCH
- 2 LENS
- 3 SOCKET
- 4 LAMP

- a. Insert tip on screwdriver into notch (1) on light socket (3).
- b. Gently snap lens (2) out of socket.
- c. Remove lamps (4) by pulling straight out of sockets.
- d. Install new lamps (4) by pushing straight into sockets.
- e. Install lens by pushing straight into light socket (3) until lens snaps into place.

3.7 FUEL TANK

This task covers: a. Service

INITIAL SETUP

Materials/Parts

Cleaning solvent P-D-680 (item 21, appx E)
Rags (item 18, appx E)
Bucket (item 4, appx E)

Equipment Condition

Generator set shutdown and engine cool (para 2-11).

General Safety Instructions

WARNING

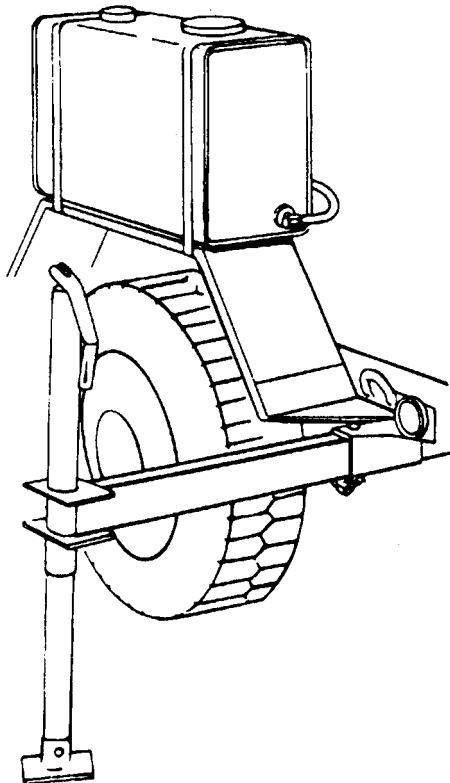
Personnel Required

MOS 63B Lightweight Vehicle and Power Generation
Mechanic

FLAMMABLE AND TOXIC SUBSTANCE HAZARD

Cleaning solvent P-D-680 used to clean parts is potentially dangerous to personnel and property. Avoid repeated or prolonged skin contact. DO NOT use near open flame or excessive heat. Flash mint of solvent is 100° to 138°F (38° to 59°C).

SERVICE



CAUTION

Ensure that cap is on the fuel tank before cleaning to avoid contaminating fuel.

Clean outer surface of fuel tank with a dean rag dampened in cleaning solvent P-D-680 and dry thoroughly with a clean rag.

3.8 FUEL TANK CAP.

This task covers: a. Replace

INITIAL SETUP

Tools

Pliers, slip joint, straight nose, 8-inch (item 8, sect III, appx B)

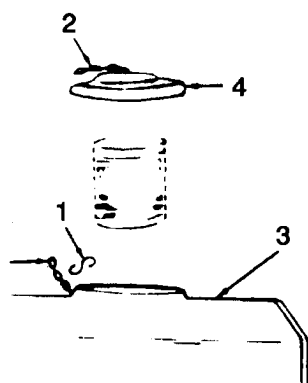
Personnel Required

MOS 63B Lightweight Vehicle and Power Generation Mechanic

Materials/Parts

Cap, fuel tank (Appendix C)

REPLACE



LEGEND

- 1 CHAIN LINK
- 2 CHAIN
- 3 FUEL TANK
- 4 CAP

CAUTION

Cover fuel tank opening when cap is removed to avoid dropping foreign objects into fuel tank.

- a. Using pliers, open chain link (1) and disconnect chain (2) from fuel tank (3).
- b. Turn cap (4) one-quarter turn counter-clockwise and remove.
- c. Place cap (4) on tank (3) and turn one-quarter clockwise to lock into place.
- d. Reconnect chain (2) to tank and close chain link (1) with pliers to secure.

3.9 FUEL TANK STRAINER.

This task covers: a. Service b. Replace

INITIAL SETUP

Materials/Parts

Cleaning solvent P-D-680 (item 21, appx E)

Rags (item 18, appx E)

Strainer, fuel tank (appx C)

Bucket (item 4, appx E)

Personnel Required

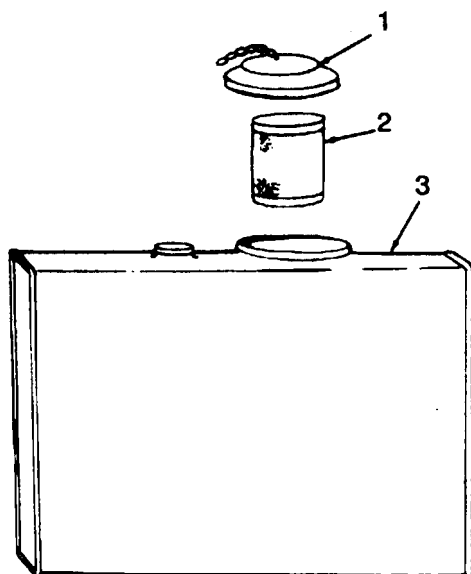
MOS 63B Lightweight Vehicle and Power Generation Mechanic

General Safety Instructions

WARNING

Cleaning solvent P-D-680 used to clean parts is potentially dangerous to personnel and equipment. Avoid repeated or prolonged skin contact. DO NOT use near open flame or excessive heat. Flash point of solvent is 100° to 138° F, (38° to 59°C).

SERVICE



LEGEND

1 CAP

2 STRAINER

3 FUEL TANK

CAUTION

Cover fuel tank opening while cap and strainer are removed to avoid dropping foreign objects into tank.

- a. Remove fuel tank cap (1) by turning one-quarter counter-clockwise.
- b. Remove strainer (2).
- c. Wash strainer in cleaning solvent P-D-680. Agitate to help release any embedded matter. Air dry thoroughly.
- d. Install strainer (2) into place in fuel tank (3).
- e. Position fuel tank cap (1) in place and turn one quarter clockwise to lock.

REPLACE

Replace unserviceable strainer with a serviceable item from stock

3.10 GROUND ROD.

This task covers: a. Replace b. Repair

INITIAL SETUP

Tools

Flat tip screwdriver, 4-inch (item 7, sect III, appx B)

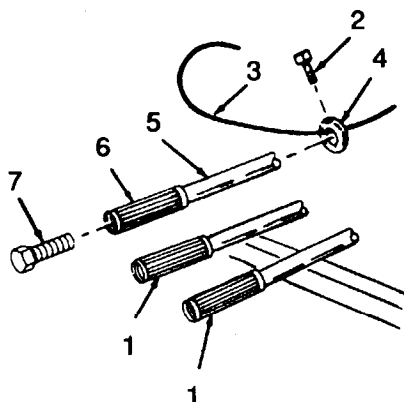
Equipment Condition

Ground rod removed (para 2-11).

Personnel Required

MOS 63B Lightweight Vehicle and Power Generator
Mechanic

REPLACE



LEGEND

- 1 COLLAR
- 2 SETSCREW
- 3 GROUND WIRE
- 4 CLAMP
- 5 ROD SECTION
- 6 COLLAR
- 7 DRIVE HEAD STUD

- a. Unscrew collar (1) from rod and remove.
- b. Loosen setscrew (2) and remove ground wire (3).
- c. Slide clamp (4) from rod (5).
- d. Unscrew and remove drive head stud (7) from collar (6).
- e. Replace unserviceable components with serviceable items from stock.
- f. Screw drive head stud (7) into collar (1).
- g. Slide clamp (4) over rod section (5).

NOTE

Be sure ground wire protrudes through clamp approximately 1/2-inch (1.27 cm).

- h. Insert ground wire (3) into clamp and tighten setscrew (2).

- i. Screw collar (6) onto rod section (5).

REPAIR

Repair of the ground rod consists of replacing damaged, broken, or otherwise unserviceable parts and components with serviceable items from stock.

3.11 LEVEL

This task covers: a. Service b. Replace

INITIAL SETUP

Tools

Ratchet, 1/4-inch drive (item 9, sect III, appx B)

Flat tip screwdriver, 4-inch (item 7, sect III, appx B)

Personnel Required

MOS 63B Lightweight Vehicle and Power Generation Mechanic

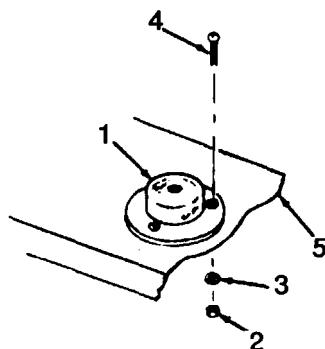
Materials/Parts

Soap (item 20, appx E)

Water

Rags (item 18, appx E)

SERVICE



LEGEND

- 1 LEVEL
- 2 NUT
- 3 WASHER
- 4 SCREW
- 5 TRAILER BED

- a. Clean level (1) glass using a dean rag dampened in a soap and water solution.

REPLACE

- a. Remove nuts (2), washers (3), and slotted head screws (4).
- b. Remove level (1) from trailer bed (5).
- c. Replace unserviceable level with a serviceable item from stock.
- d. Position level (1) in place on trailer bed.

CAUTION

DO NOT overtighten. Overtightening may crack or break level glass.

- e. Install level, using slotted head screws (4), washers (3), and nuts (2), and tighten.

CHAPTER 4

UNIT MAINTENANCE INSTRUCTIONS

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SECTION I. REPAIR PARTS; TOOLS; SPECIAL TOOLS; TEST MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT

4.1 COMMON TOOLS AND EQUIPMENT.

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE), CTA 50-970, or CTA 8-100, as applicable to your unit.

4.2 SPECIAL TOOLS. TMDE, AND SUPPORT EQUIPMENT.

No special tools or equipment are required for maintenance of the Floodlight Set.

4.3 REPAIR PARTS.

Repair parts are listed and illustrated in Appendix C of this manual.

SECTION II. SERVICE UPON RECEIPT

4.4 SITE AND SHELTER REQUIREMENTS.

Refer to paragraph 2.7 for site selection and requirements. There are no shelter requirements for this equipment.

4.5 SERVICE UPON RECEIPT OF MATERIEL

a. Unpacking.

(1) When either a new or used Floodlight Set is received, it must be uncrated and inspected to make certain all items are accounted for and in serviceable condition.

(2) If any component or part of the Floodlight Set is packed in a reusable container of special design, avoid damage to the container when unpacking. Check with your supply officer and reenter the empty container into the supply system in accordance with AR 746-1.

(3) Unpacking auxiliary equipment.

(a) Refer to TM 9-2805-258-14 for additional information on unpacking the MIL Standard Engine.

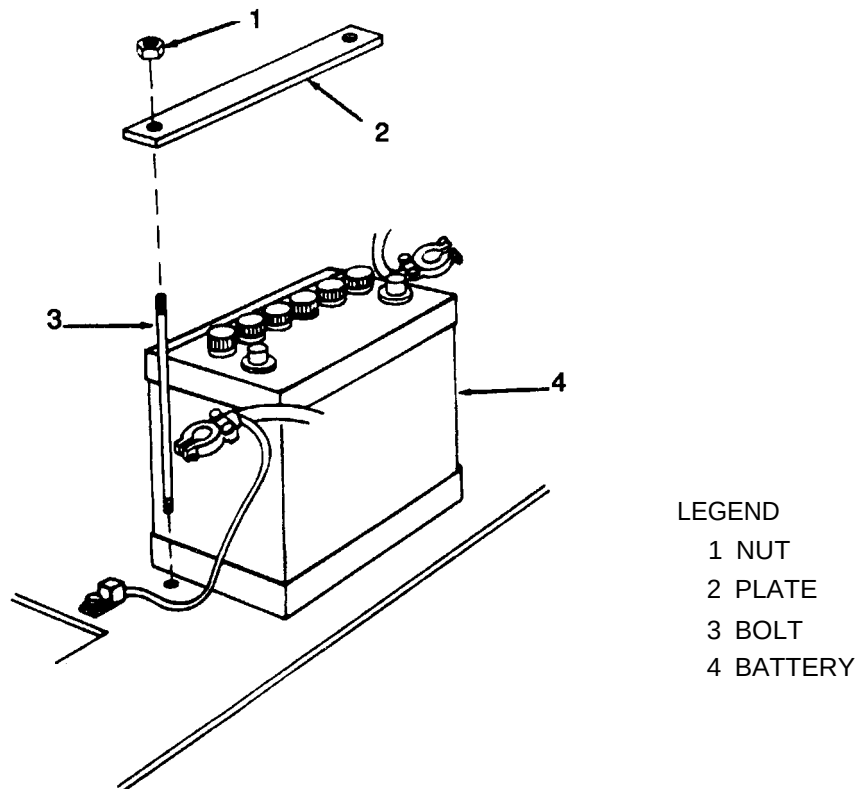
(b) Refer to TM 5-6115-271-14 for additional information on unpacking the 3kW Generator Set.

(c) Refer to TM 9-2330-251-14 for additional information on unpacking the Trailer.

(4) Under normal conditions, one soldier, MOS 63B, can unpack the Floodlight Set in (3) hour(s).

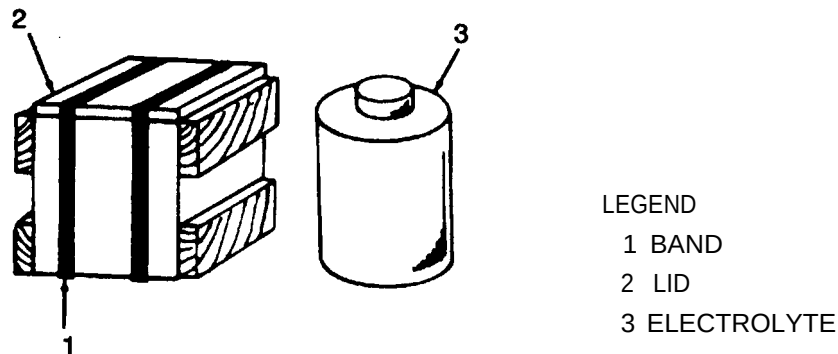
(5) The floodlight Set will be shipped to your unit in several containers. Check that below listed parts are accounted for and complete.

- (a) Oil drain hose
 - (b) Tower (4 sections)
 - (c) Power cable
 - (d) Engineer's hammer
 - (e) Saddle assembly
 - (f) Ground rod
 - (g) Tower cradle assembly
 - (h) Light bar
 - (i) Red warning light
 - (j) Miscellaneous small parts and mounting hardware
 - (k) TM 9-6230-210-13&P
- (6) Unpacking the Floodlight Set.
- (a) Battery removal.



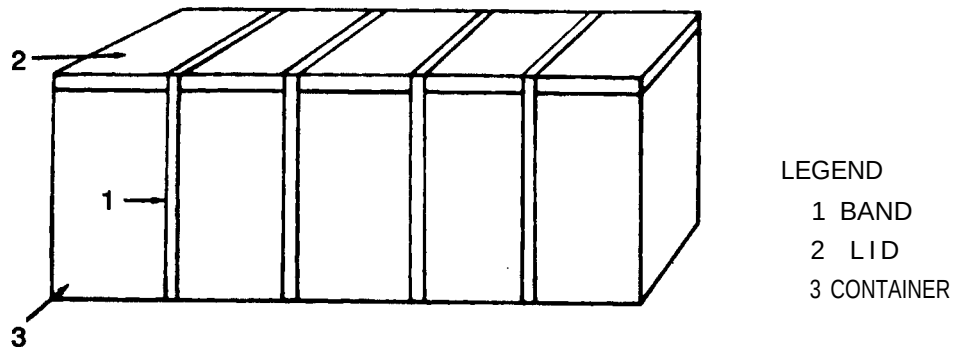
- 1 Remove two nuts (1) from holddown plate (2).
- 2 Remove hoedown plate (2).
- 3 Unscrew and remove bolt (3) toward the outside of the trailer.
- 4 Remove the battery (4) from the trailer bed.

(b) Unpacking battery electrolyte.



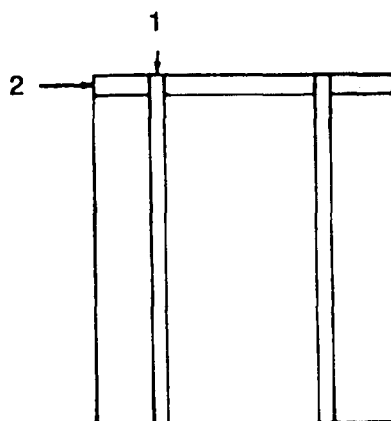
- 1 Cut steel bands (1) from box containing electrolyte.
- 2 Pry off container lid (2) using screwdriver.
- 3 Remove electrolyte (3) from container and place near battery for later use.

(c) Unpacking saddle assembly, tower cradle assembly, and all related parts.



- 1 Cut bands (1) from shipping container (3).
- 2 Remove lid (2) from container (3) using pry bar and hammer.
- 3 Unpack contents.

(d) Unpacking floodlight assemblies.



LEGEND

1 STEEL BANDS

2 LID

1 Cut steel bands (1) from each of the three shipping containers.

2 Remove lids (2).

b. Checking Unpacked Equipment.

(1) Upon receipt of the Floodlight Set, check the condition of the shipping materials. Check each pallet, box, and container to determine if the contents are adequately packaged to prevent damage. Also check to see if matings on the containers are legible.

(2) Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF 364, Report of Discrepancy.

(3) Check the equipment against the packing slips to see if the shipment is complete. Report all discrepancies in accordance with the instructions of DA Pam 738-750 or DA Pam 738-751 as applicable.

c. Processing Unpacked Equipment.

(1) The following tools are required to process the equipment.

(2) All processing of unpacked equipment will be conducted by an MOS 63B technician.

WARNING

Electrolyte is "ACID" and highly corrosive. Wear rubber gloves, face shield, and apron and handle with extreme care while filling the battery with electrolyte. DO NOT permit smoking or an open flame nearby while servicing battery.

(3) Electrolyte is used in processing the battery.

4.6 INSTALLATION INSTRUCTIONS.

a. Tools and materials. Tool and materials required for installation areas follows:

(1) Tools.

(2) Materials.

Table 4-1 contains the necessary hardware to mount the Generator Set.

Table 4-1. Generator Set Mounting Hardware

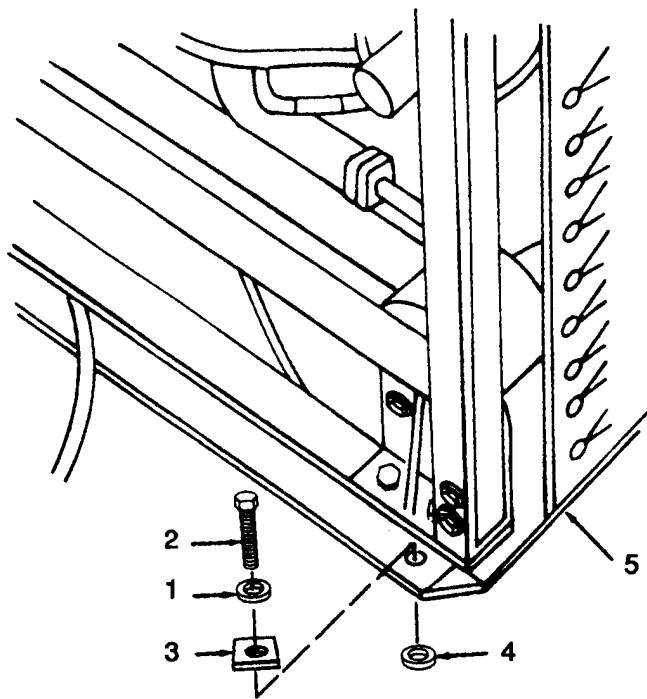
REF NO.	PART	QTY
1	WASHER, FLAT Round, 1/2, screw size	4
2	SCREW, CAP, HEXAGON HEAD: 1/2-13 X 1-3/4 MS90725-114 (96906)	4
3	WASHER, BEVELED 13206E4482-2 (97403)	4
4	SPACER 13212E3554 (97403)	4

b. Assembly of equipment.

(1) Generator Set.

NOTE

The generator set is mounted directly behind the splash panel in a horizontal position with the engine end facing the protective screen.



LEGEND

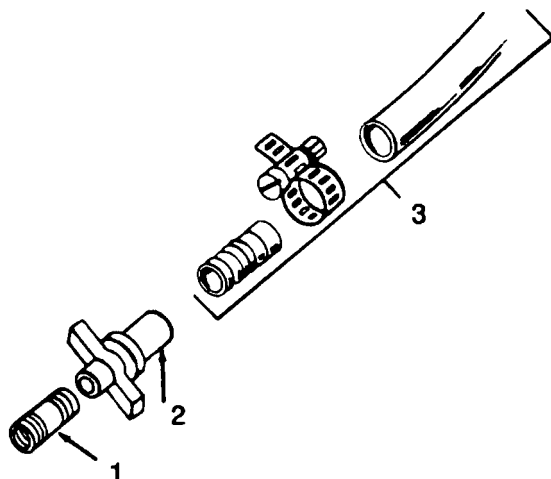
- 1 WASHER
- 2 SCREW
- 3 BEVELED WASHER
- 4 SPACER
- 5 GENERATOR SET

(a) Position generator set (5) in place on trailer bed.

NOTE

Refer to Table 4-1 for listing for listing of parts required.

(b) Install to trailer with four flat washers (1), screws (2), beveled washers (3), and spacers (4).



LEGEND

- 1 NIPPLE
- 2 DRAIN COCK
- 3 HOSE ASSEMBLY

(c) Install nipple (1) into oil pan.

(d) Install drain cock (2) on nipple.

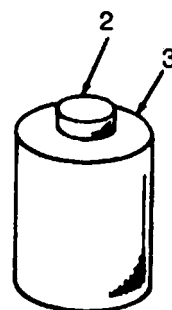
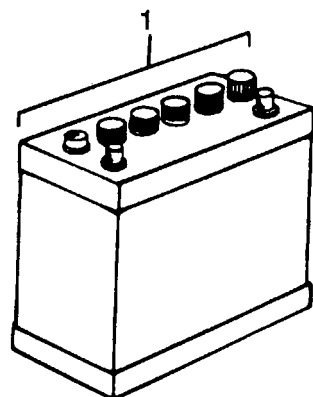
(e) Install hose assembly (3).

(2) Battery.

WARNING

Electrolyte is "ACID" and highly corrosive. Wear rubber gloves, face shield, and apron, and handle with extreme care while servicing battery. DO NOT permit smoking or an open flame nearby while servicing battery.

(a) Remove battery fill caps (1).



LEGEND

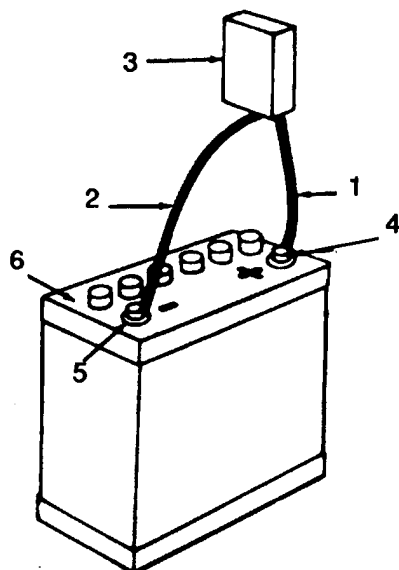
- 1 BATTERY CAP
- 2 CAP
- 3 BOTTLE

(b) Remove cap (2) from electrolyte bottle (3).

CAUTION

Do not overfill. Electrolyte can spill onto surface of battery or trailer and cause corrosion.

- (c) Carefully fill each well with electrolyte ONLY UP TO THE BOTTOM EDGE OF EACH WELL HOLE. Replace cap (2) on bottle (3).
- (d) Install battery fill caps (1) finger tight only.

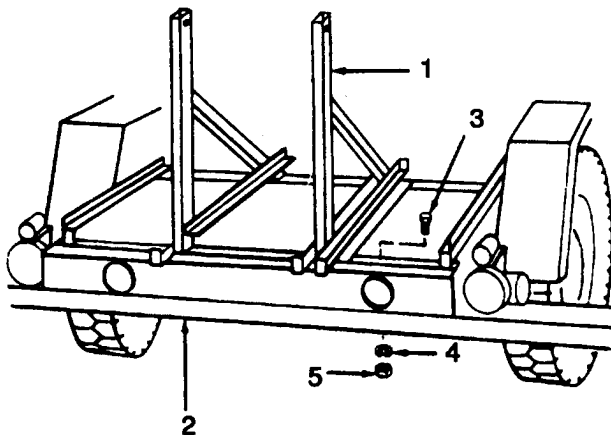


LEGEND

- 1 RED WIRE
- 2 BLACK WIRE
- 3 CONTROL BOX
- 4 POSITIVE POST
- 5 NEGATIVE POST
- 6 BATTERY

- (e) Connect positive terminal (red wire) (1) coming out of control box (3) to positive post (+) (4) on battery (6).
- (g) Connect negative terminal (black wire) (2) coming out of control box (3) to negative post (-) (5) on battery (6).

- (3) Saddle assembly and tower cradle.

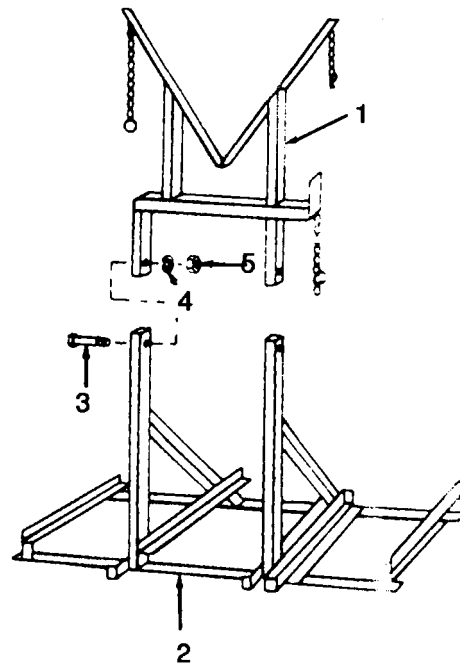


LEGEND

- 1 SADDLE ASSEMBLY
- 2 TRAILER BED
- 3 SCREW
- 4 LOCKWASHER
- 5 NUT

(a) Position saddle assembly (1) in place on trailer bed (2).

(b) Install using ten screws (3), washers (4), and nuts (5).



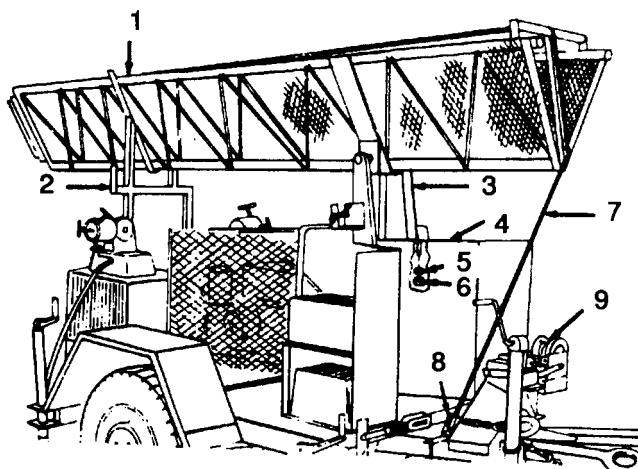
LEGEND

- 1 TOWER CRADLE ASSEMBLY
- 2 SADDLE ASSEMBLY
- 3 SCREW
- 4 LOCKWASHER
- 5 NUT

(c) Insert tower cradle (1) into saddle assembly (2).

(d) Install with two screws (3), lockwashers (4), and nuts (5).

(4) Tower assembly.



LEGEND

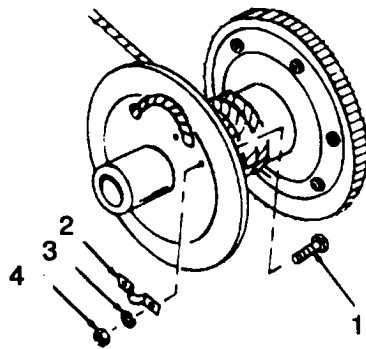
- 1 TOWER ASSEMBLY
- 2 CRADLE ASSEMBLY
- 3 PIVOT HINGE
- 4 SPLASH PANEL
- 5 WASHER
- 6 NUT
- 7 CABLE
- 8 PULLEY
- 9 PINION SHAFT

- (a) Lower tower assembly (1) into position in tower cradle (2) and align pivot hinge (3) with mounting holes on splash panel (4).
- (b) Secure assembly with lockwashers (5) and nuts (6).

NOTE

Bolts are welded to pivot hinge.

- (c) Thread cable (7) through pulley (8) at base of tower support.
- (d) Wrap cable from beneath the pinion shaft (9) a minimum of three wraps.



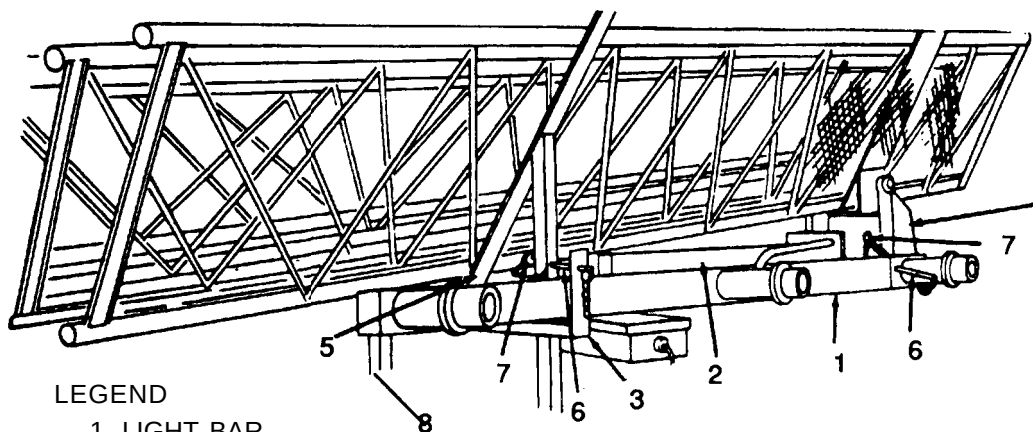
LEGEND

- 1 CARRIAGE BOLT
- 2 KEEPER
- 3 WASHER
- 4 NUT

NOTE

Be sure that the carriage bolt heads are on the inside of the drum.

- (e) From inside of drum, thread the cable through one round hole in the drum side, until it extends 1-inch (2.54 cm) past the two square holes. Then clamp the cable to the outside of the drum with carriage bolts (1), rope keeper (2), lockwashers (3) and nuts (4).
- (5) Light bar and red warning light.



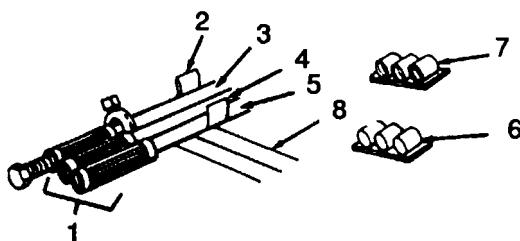
LEGEND

- 1. LIGHT BAR
- 2 RED MARKER LIGHT
- 3 STORAGE BRACKET
- 4 PIVOT HINGE ASSEMBLY
- 5 CRADLE ASSEMBLY
- 6 PIN
- 7 SAFETY CLIP
- 8 TRAILER BED

(a) Position light bar (1) and red warning light (2) in storage bracket (3) on tower pivot hinge assembly (4) and cradle assembly (5).

(b) Insert ground rods into bracket (6), and screw into threaded bracket (7), mounted on trailer bed (8).

(6) Ground rod.



LEGEND

- 1 GROUND ROD ASSEMBLY
- 2 TAPE
- 3 GROUND ROD
- 4 GROUND ROD
- 5 GROUND ROD
- 6 BRACKET
- 7 THREADED BRACKET
- 8 TRAILER BED

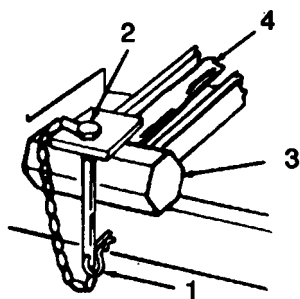
(a) Remove tape (2) from ground rod assembly (1), holding ground rods (3, 4, 5) together.

(b) Insert ground rod into bracket (6), and screw into threaded bracket (7), mounted trailer bed (8)

NOTE

Threaded bracket is located on bottom left of trailer as viewed from curb side.

(7) Hammer.



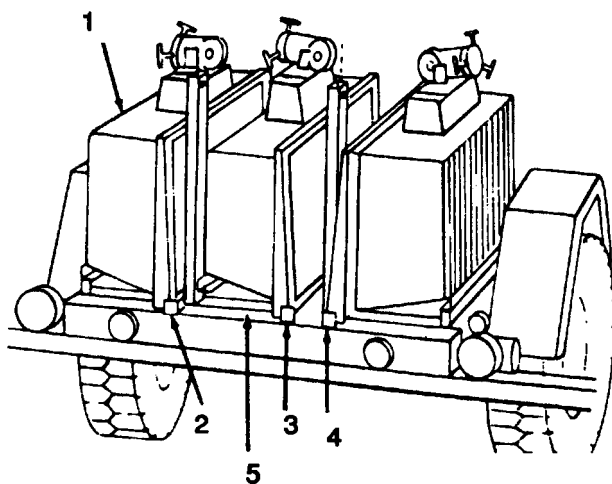
LEGEND

- 1 SPRING CLIP
- 2 PIN
- 3 HAMMER
- 4 CHANNEL

(a) Remove spring clip (1) and pin (2), and slide hammer (3) into channel (4).

(b) Install pin to secure hammer.

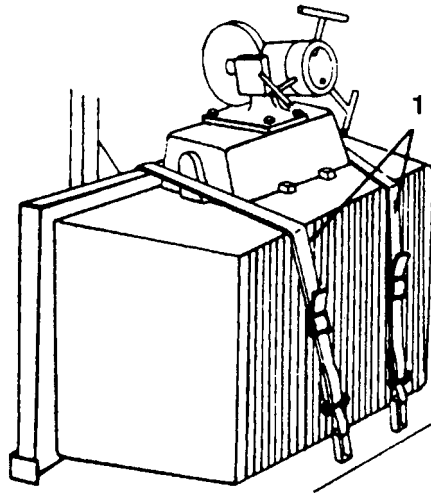
(8) Floodlight assemblies.



LEGEND

- 1 FLOODLIGHT ASSEMBLY
- 2 BRACKET
- 3 BRACKET
- 4 BRACKET
- 5 SADDLE ASSEMBLY

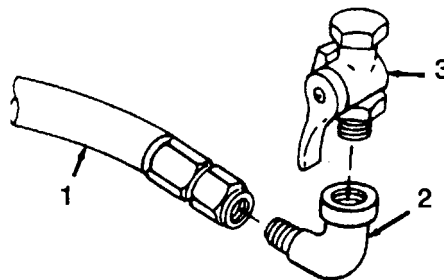
(a) Place floodlight assemblies (1) in brackets (2, 3, and 4) on saddle assembly (5).



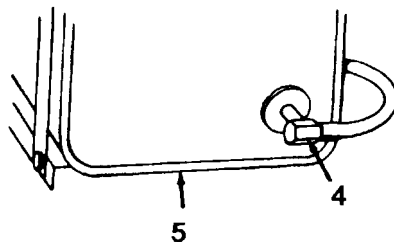
LEGEND
1 WEBBING STRAP

(b) Secure with webbing straps (1).

(9) Fuel line.



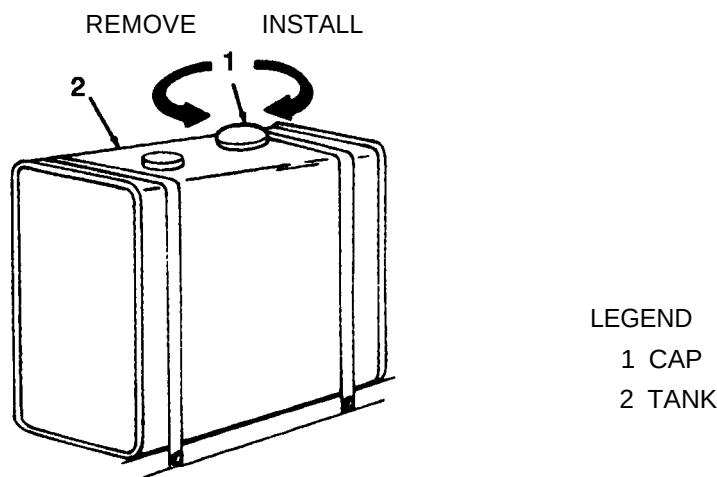
LEGEND
1 FUEL LINE
2 ELBOW
3 VALVE
4 FUEL LINE
5 TANK



(a) Connect fuel line (1) to elbow (2) at base of fuel selector valve (3).

(b) Connect other end of fuel line (4) to fuel tank (5).

(10) Filling fuel tank.



(a) Remove fuel tank cap (1) by turning 1/4 turn counter-clockwise.

WARNING

When handling gasoline, always provide a metal-to-metal contact between the container and the fuel tank. This will prevent a spark from being generated, as gasoline flows over the metallic surfaces.

(b) Fill tank (2) with gasoline.

(c) Place cap on tank and turn 1/4 turn clockwise to lock.

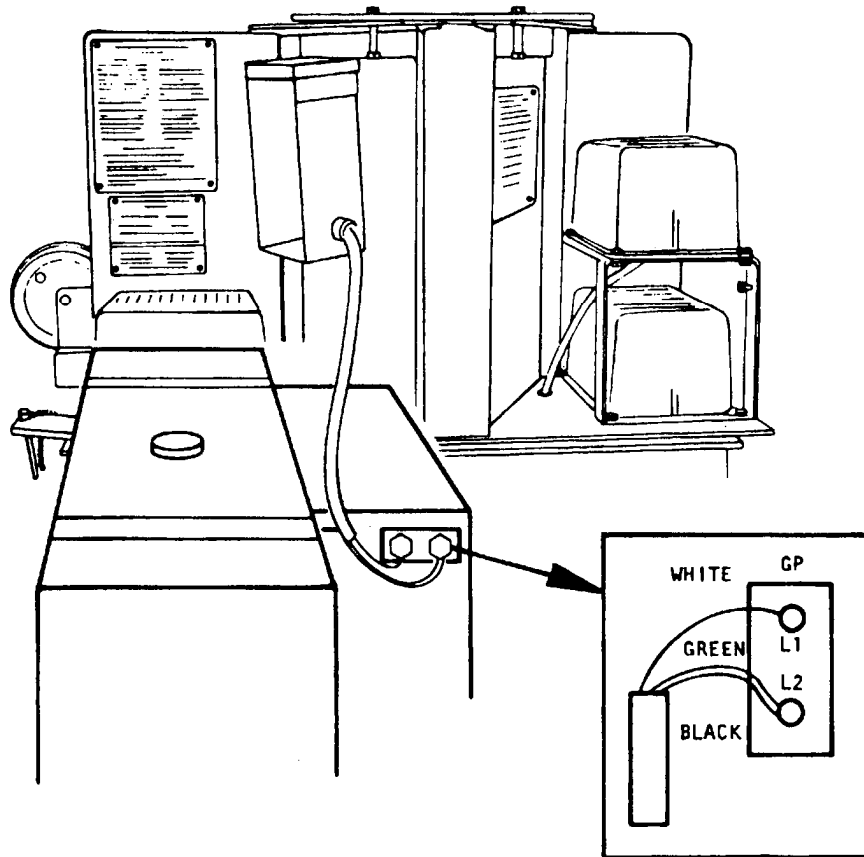
(11) Tower power cable.

(a) Refer to schematic wiring diagram and install power cable to control panel and generator set.

NOTE

The Floodlight Set operates from the 120-volt single-phase terminals on the engine-generator set.

(b) For operation with a 3kW generator set, the floodlight set is connected to terminals L1 and L2 of the generator output terminal board or generator panel (GP). The black wire and green wire in the main power cable (cable from the control panel to the generator panel) shall be soldered together and connected to terminal L2, and the white wire is connected to terminal L1.



(c) Insert power cable into spring dips on tower.

SECTION III. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

4.7 GENERAL.

Preventive Maintenance Checks and Services (PMCS) means systematic caring, inspecting, and servicing of equipment to keep it in good condition and to prevent breakdowns. As the Floodlight Set technician, your mission is to:

- a. Be sure to perform your PMCS each time you use the equipment. Always do your PMCS in the same order, so it goes to be a habit. Once you've had some practice, you'll quickly spot anything wrong.
- b. Do your BEFORE (B) PMCS just before you use the Floodlight Set. Pay attention to WARNING, CAUTIONS, and NOTES.
- c. Do your DURING (D) PMCS while you use the Floodlight Set. During operation means to check the equipment and its related components while it is being used. Pay attention to WARNINGS, CAUTIONS, and NOTES.
- d. Do your AFTER (A) PMCS right after using the Floodlight Set. Pay attention to WARNINGS, CAUTIONS, and NOTES.
- e. Do your WEEKLY (W) PMCS once a week.

- f. Do your MONTHLY (M) PMCS once a month.
- g. Use DA Form 2404 (Equipment Inspection and Maintenance Worksheet) to record any faults that you discover either before, during, or after operation, unless you can fix them. You DO NOT need to record faults that you fix.

4.8 PMCS PROCEDURES.

- a. Your Preventive Maintenance Checks and Services, Table 4-2, lists inspections and care required to keep you Floodlight Set in good operating condition. It is setup so you can make your BEFORE(B) OPERATION checks as you walk around the equipment.
- b. The "ITEM NO." column is used to record the results of checks/services on DA Form 2404.
- c. The "INTERVAL" column of Table 4-2 tells you when to do a certain check or service.
- d. The "Procedure" column of Table 4-2 tells you how to do required checks and services. Carefully follow these instructions. If you do not have tools, or if the procedure tells you to, notify your supervisor.

NOTE

Terms "ready/available" and "mission capable" refer to same status: Equipment is on hand and ready to perform its combat missions. (See DA Pam 738-750.).

- e. The "NOT MISSION CAPABLE IF" column in Table 4-2 tells you when your Floodlight Set is nonmission capable and why the Set cannot be used.
- f. If the equipment does not perform as required, refer to Unit Maintenance Troubleshooting.
- g. If anything looks wrong and you can't fix it, write it on your DA Form 2404 IMMEDIATELY and report it to your supervisor.
- h. When you check for "operating condition," you look at the component to see if its serviceable.

4.9 CLEANING AGENTS.

WARNING

- DO NOT use diesel fuel, gasoline, or benzene (benzol) for cleaning.
- DO NOT SMOKE when using cleaning solvent. NEVER USE IT NEAR AN OPEN FLAME. Be sure there is a fire extinguisher nearby and use cleaning solvent only in well ventilated places. Flash point of solvent is 138° F (60° C).
- USE CAUTION when using cleaning solvents. Cleaning solvents evaporate quickly and can irritate exposed skin if solvents contact skin. In cold weather, contact of exposed skin with cleaning solvents can cause frostbite.

NOTE

Only use those authorized cleaning solvents or agents listed in Appendix E.

Cleaning Rust, Corrosion, and Foreign Material From Metal Parts. When cleaning metal parts, use cleaning solvent. Then apply a thin coat of lubricating oil to the cleaned parts.

4.10 LEAKAGE DEFINITIONS FOR UNIT PMCS.

a. General. It is necessary for you to know how leakage affects the use of your equipment. Following are types/classes of leakage an operator needs to know how to be able to determine the operational status of the Floodlight Set. Learn these leakage definitions and remember -- when in doubt, notify your supervisor.

CAUTION

- Equipment operation is allowable with minor leakages (Class I or II). Of course, consideration must be given to how much leakage is allowable and still keep your equipment in operation. When in doubt, notify your supervisor.
- When operating with Class I or II leaks, only do so until proper repair can be affected.
- Class III leaks should be immediately reported to your supervisor.

b. Class I. Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops..

c. Class II. Leakage of fluid great enough to form drops, but not enough to cause drops to drip from area being checked/inspected.

d. Class III. Leakage of fluid great enough to form drops that fall from item being checked/inspected.

Table 4-2. Unit Preventive Maintenance Checks and Services

Item No.	Interval	Location of Item to Check/Service	Procedure	Not Mission Capable If:
1	Quarterly	Floodlight Assembly	Inspect for cracked or broken lenses, burned out or loose bulbs, damaged or defective power cable, cracked or broken housing, and loose or broken lamp socket.	
2	Quarterly	Tower	Inspect for defective pulleys, crimped or frayed cable, cracked or broken welds, distorted sections, and loose or missing safety stops.	
3	Quarterly	Tower Tilt Lockbar	Inspect for cracked or broken welds and secure mounting.	
4	Quarterly	Extension Lockbar	Inspect for stripped threads, bent or twisted mounting bolts, and proper engagement.	
5	Quarterly	Control Panel	Inspect for loose mounting, loose electrical connections, evidence of overheating, loose mounting of components, and loose, missing, or illegible identification plates.	
6	Quarterly	Ballast Boxes	Inspect for cracked or broken housing, loose or missing mounting hardware, evidence of overheating.	

Table 4-2. Unit Preventive Maintenance Checks and Services - continued

Item No.	Interval	Location of Item to Check/Service	Procedures	Not Mission Capable If:
7	Quarterly	Splash Panel	Inspect for loose or missing hardware and cracked or broken welds..	
8	Quarterly	Generator Mounting Hardware	Inspect for loose, missing, or stripped threads on mounting hardware.	

SECTION IV. UNIT TROUBLESHOOTING PROCEDURES

4.11 GENERAL

a. This table lists common malfunctions that you may find with your equipment. Perform the inspections and corrective actions in the order they appear in the table.

b. This table cannot list all the malfunctions that may occur, all the inspections needed to find the fault, or all of the corrective actions needed to correct the fault. If the equipment malfunction is not listed or actions not listed to correct the fault, notify your supervisor.

c. Refer to TM 9-2805-258-14 to troubleshoot your gasoline engine.

d. Refer to TM 9-6115-271-14 to troubleshoot your generator set.

e. Refer to TM 9-2330-251-14 to troubleshoot your trailer.

f. Table 4-3, Unit Troubleshooting Table is presented as flow diagrams for each malfunction listed. Each diagram provides the troubleshooting procedures and corrective actions required to return the Floodlight Set to mission capable readiness.

SYMPTOM INDEX

MALFUNCTION	TROUBLESHOOTING PROCEDURE
RED WARNING LIGHT	1
Will not light	
FLOODLIGHT	2
Will not light	
LAMPS	3
Blinking	
Dim	
TOWER	4
Will not elevate	

Table 4-3. Unit Troubleshooting Table

MALFUNCTION 1. Red Warning Light Does Not Light.

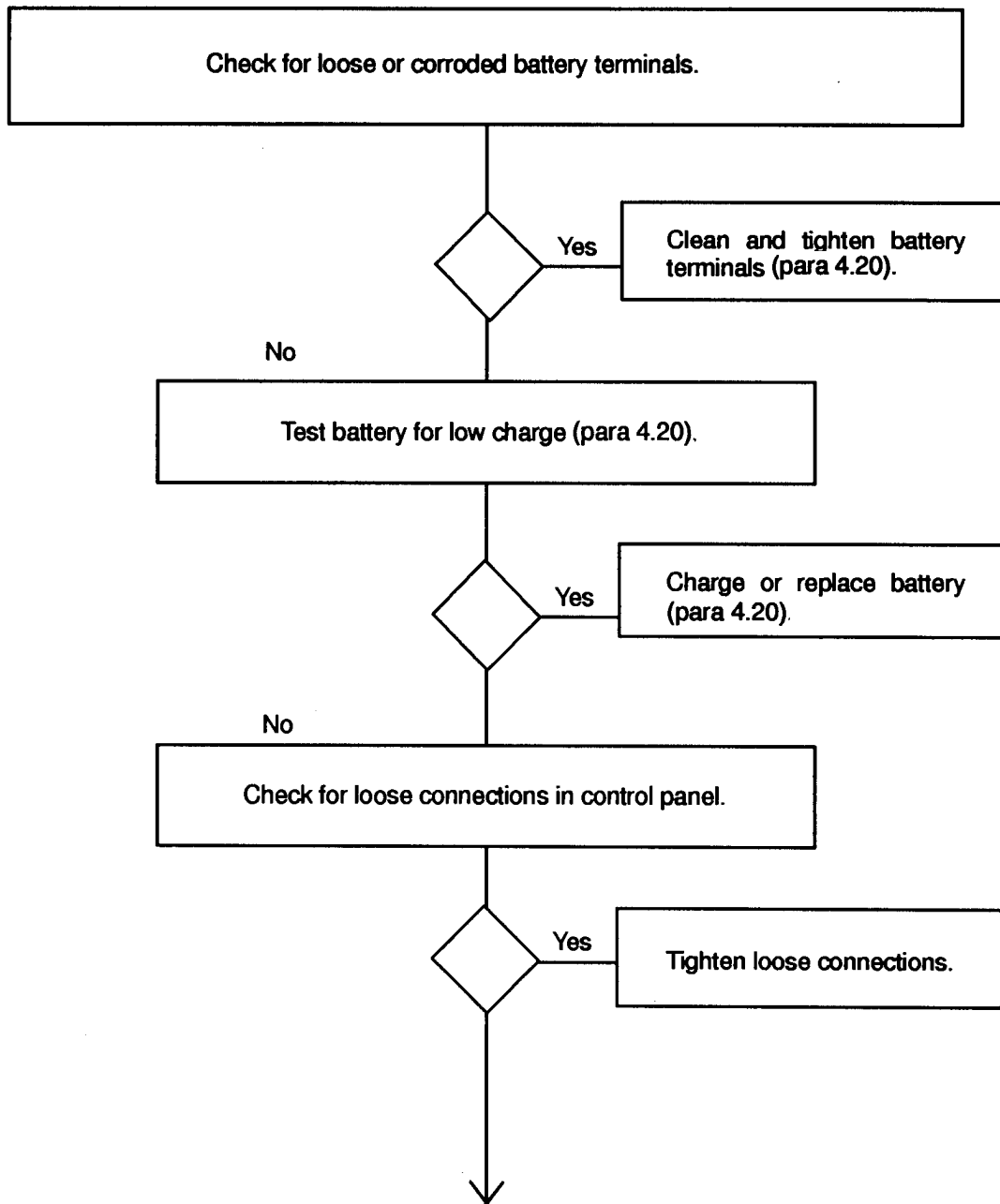
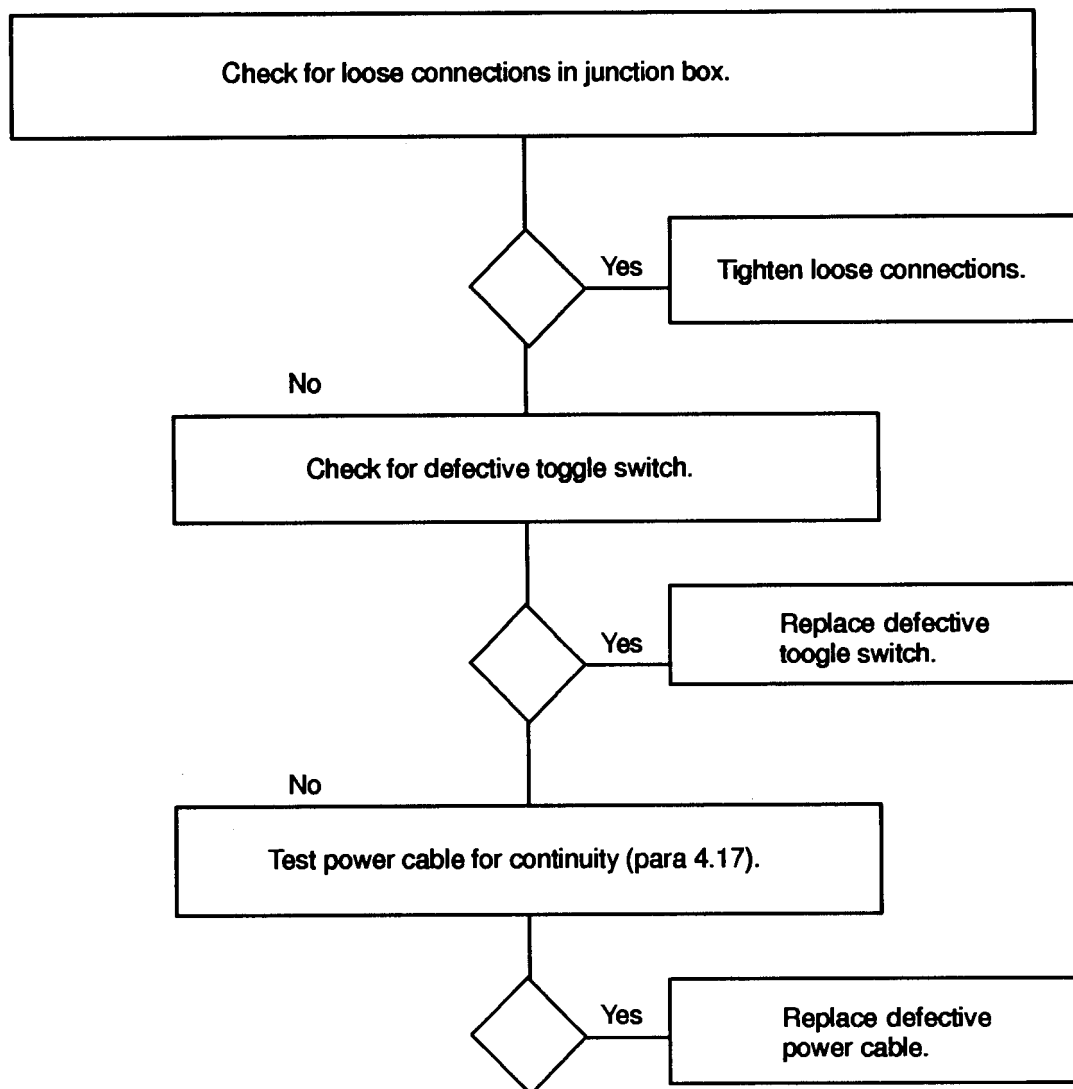
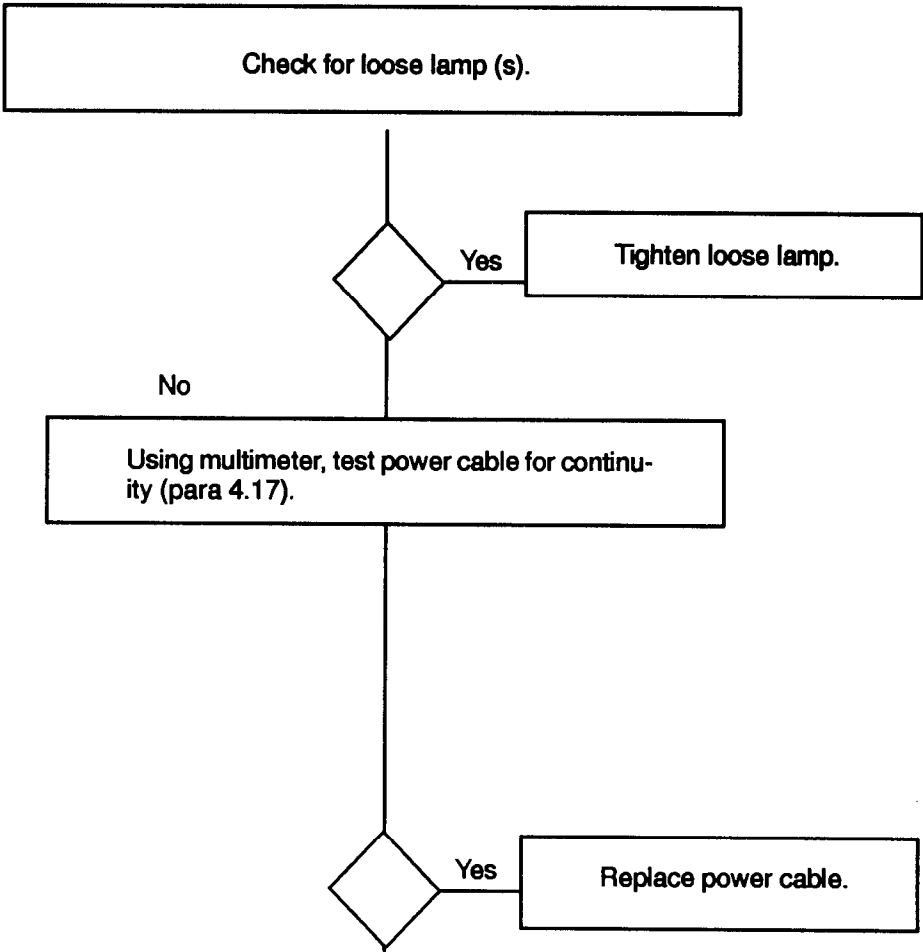


Table 4-3. Unit Troubleshooting Table- continued

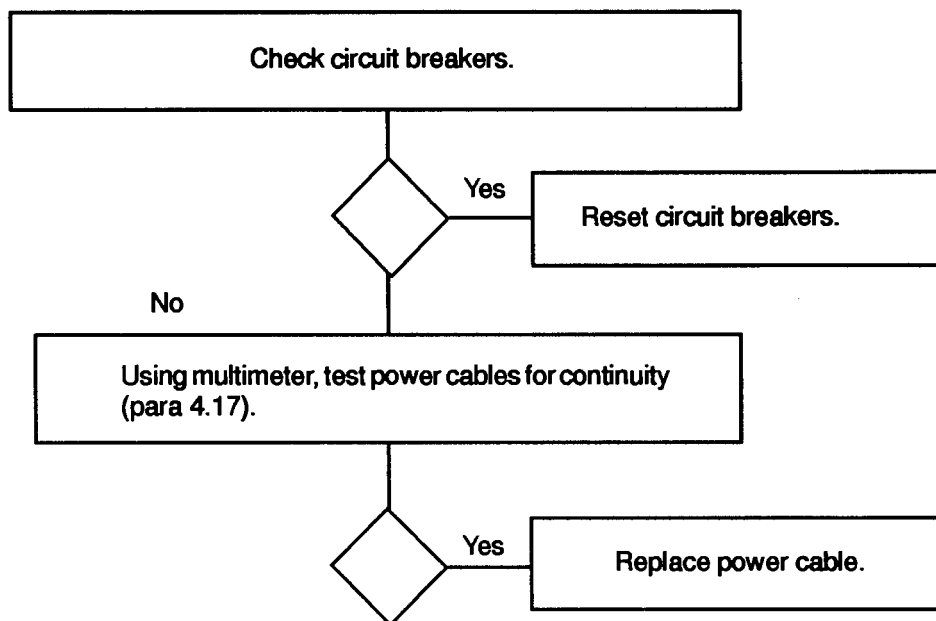
MALFUNCTION 1. Red Warning Light Does Not Light- continued.



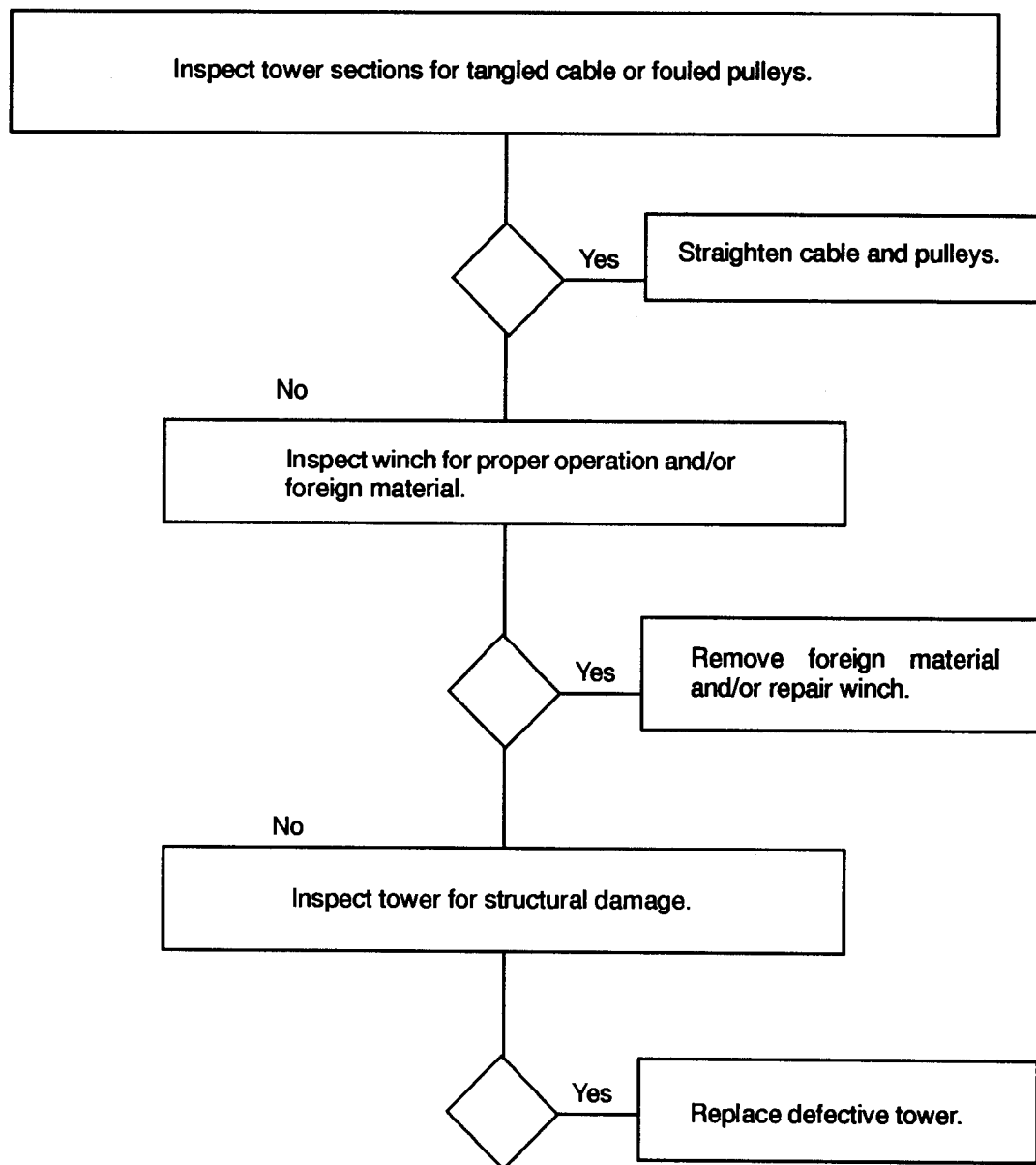
MALFUNCTION 2. Floodlights Will Not Light.



MALFUNCTION 3. Tower Will Not Elevate.



MALFUNCTION 4. Tower Will Not Elevate.



SECTION V. UNIT MAINTENANCE PROCEDURES

4.12 GENERAL

Unit maintenance personnel shall perform the maintenance functions described in this section as authorized by the Maintenance Allocation Chart (Appendix B).

MAINTENANCE OF THE FLOODLIGHT SET

4.13 FLOODLIGHT ASSEMBLY.

This task covers: a. Service b. Replace c. Repair

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Equipment Condition

Tower in horizontal position (para 2.7)

Material/Parts

Bucket (item 4, appx E)

Soap (item 20, appx E)

Rags (item 18, appx E)

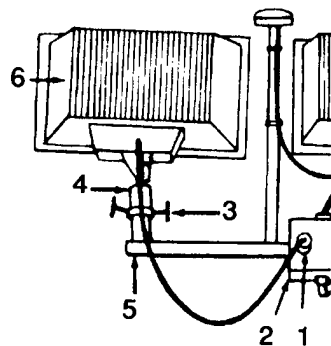
Personnel Required

MOS 63B Lightweight Vehicle Mechanic

SERVICE

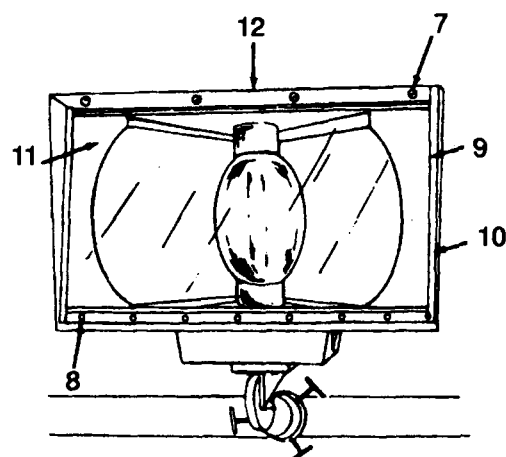
Clean lens using a dean rags and a warm soap and water solution. Rinse with dear water and dry thoroughly with a dean rag.

REPLACE



- LEGEND
- 1 PLUG
 - 2 JUNCTION BOX
 - 3 TEE BOLT
 - 4 SLIPFITTER
 - 5 LIGHT ASSEMBLY
 - 6 LIGHTBAR

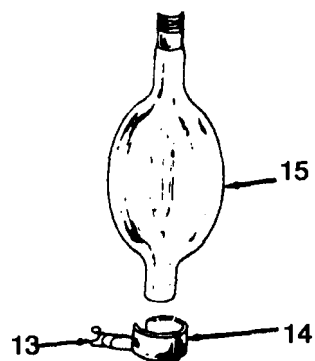
- a. Remove connector plug (1) from junction box (2).
- b. Loosen three T-bobs (3) in slipfitter (4).
- c. Remove light assembly (5) from light bar (6). Place light assembly on flat surface.



LEGEND

- 7 SCREW
- 8 SCREW
- 9 LENS
ASSEMBLY
- 10 FRAME
- 11 LENS
- 12 FLOODLIGHT

- d. Remove four screws (7).
- e. Remove eight cross-recessed head screws (8) from hinge.
- f. Remove lens assembly (9) from floodlight (12).
- g. Remove frame (10) from lens (11).

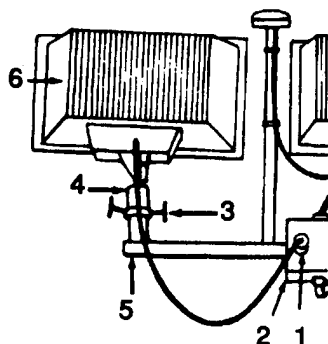


LEGEND

- 13 CLIP
- 14 STABILIZER
- 15 LAMP

- h. Release spring dip (13) on stabilizer (14) and open stabilizer.
- i. Unscrew and remove lamp (15) from socket.
- j. Replace parts determined to be unserviceable.
- k. Install lamp (15) in socket.
- l. Close stabilizer (14) and secure to lamp by latching spring dip (13).
- m. Install lens (11) in frame (10).

- n. Secure lens assembly (9) to floodlight (10) with eight cross-recessed head screws (8) and four slotted head screws (7).



LEGEND

- 1 PLUG
- 2 JUNCTION BOX
- 3 TEE BOLT
- 4 SLIPFITTER
- 5 LIGHT ASSEMBLY
- 6 LIGHTBAR

- o. Position floodlight assembly on lightbar (6).
- p. Secure by tightening three T-bolts (3).
- q. Plug into junction box (2).
- r. Elevate tower (para 2-7).
- s. Perform operational check (para 2-8).

4.14 TOWER.

This task covers: a. Inspect b. Repair

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)
Arc Welder (item 4, sect III, appx B)
Torch Outfit (item 15, sect III, appx B)

Equipment Condition

Tower in horizontal position (para 2.7)
Floodlights removed (para 2.11)
Light bar removed (para 2.11)

Materials/Parts

Safety Glasses (appx D)
Gloves (item 9, appx E)
Cribbing (item 5, appx E)
Cloth Tape (item 24, appx E)

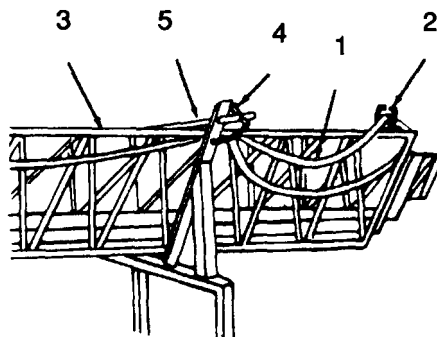
Personnel Required

MOS 63B Lightweight Vehicle Mechanic
MOS 44B Welder

INSPECT

Inspect tower sections for broken or cracked welds.

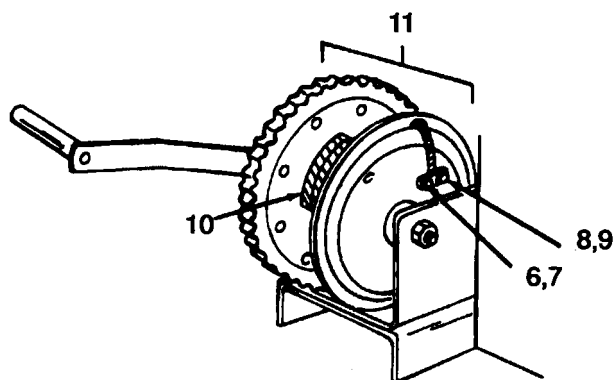
REPAIR



LEGEND

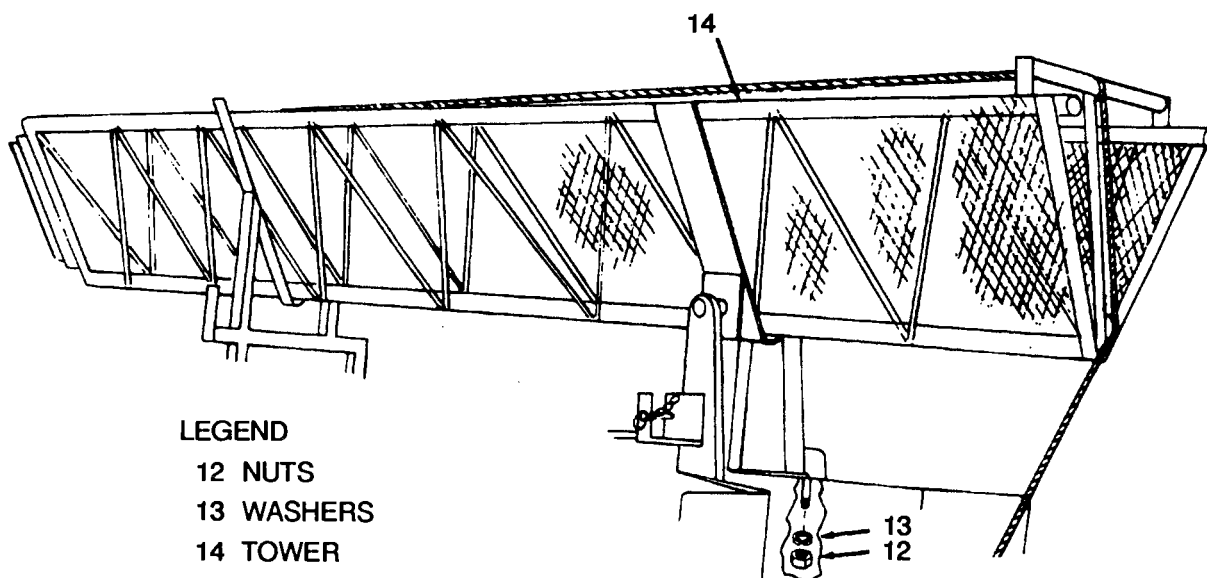
- 1 POWER CABLE
- 2 CLIP
- 3 TOWER
- 4 SPRING CLIP
- 5 CRADLE CLEAT

- a. Remove power cable (1) from dips (2) on side of tower (3).
- b. Remove spring dip (4) from cradle cleat, and remove cradle cleat (5).



- LEGEND
- 6 NUT
 - 7 WASHSER
 - 8 BOLT
 - 9 KEEPER
 - 10 CABLE
 - 11 DRUM ASSEMBLY

- c. Disconnect winch cable (10) from drum assembly (11) by removing two nuts (6), washsers (11), blts (8), and one keeper (9).



- LEGEND
- 12 NUTS
 - 13 WASHERS
 - 14 TOWER

NOTE

Bolts are welded to each half of pivot hinge.

- d. Remove four nuts (12) and washers (13).
- e. Coil the tower cable and secure it with cloth tape.
- f. Secure inside tower (14).

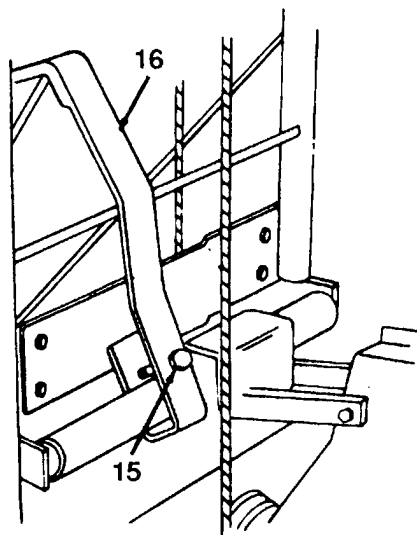
WARNING

Tower weighs approximately 250-lbs (113.4 kg). Use extreme care when lifting.

NOTE

- Prior to removing tower assembly from trailer, obtain suitable cribbing on which to place tower.
- Four personnel will be required to lift tower off trailer if lifting device is not available.

g. Using a suitable lifting device, lift tower assembly off trailer and place on cribbing.

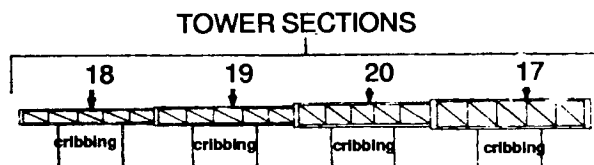


LEGEND
15 BOLT
16 EXTENSION
LOCKBAR

h. Remove bolt (15) and lockbar (16).

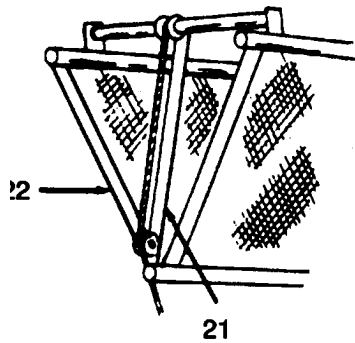
NOTE

Use cribbing to support each section.



LEGEND
17 TOWER SECTION
18 TOWER SECTION
19 TOWER SECTION
20 TOWER SECTION

- i. Extend tower sections (17, 18, 19, and 20) to fully extended position by pulling straight out.
- j. Remove cable (para 4.20).



LEGEND

21 CABLE GUIDE

22 BASE SECTION

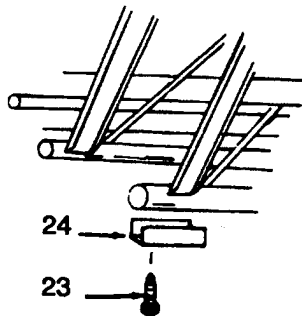
WARNING

Wear safety glasses when welding.

k. Remove cable guide and bar (21) from base section (22) using a welding torch to cut welds.

NOTE

One each stop is located on each of the three tower sections (21, 22, and 23).



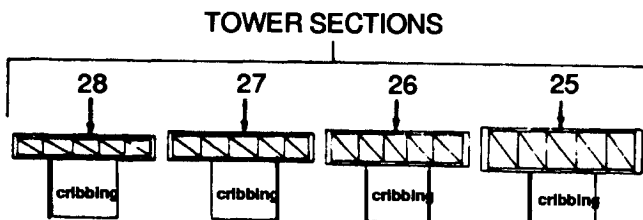
LEGEND

23 SCREW

23 SAFTEY STOP

I. Remove hex head screws (23). Remove three safety stops (24).

m. Remove two T-bolts from top towers-ion.



LEGEND

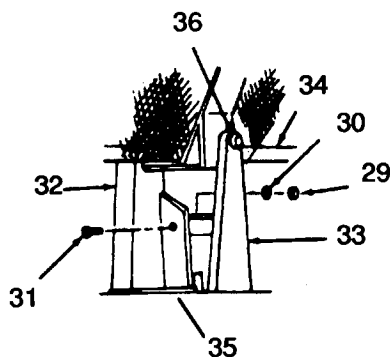
25 BASE SECTION

26 TOWER SECTION

27 TOWER SECTION

28 TOWER SECTION

n. Withdraw tower sections through bottom of base section (25) in the following order: Top section (26), next-to-top section (27), and next-to-bottom section (28).



LEGEND

- 29 NUT
- 30 WASHER
- 31 SCREW
- 32 HINGE HALF
- 33 HINGE HALF
- 34 BASE SECTION
- 35 PIVOT HINGE
- 36 HINGE PIN

- o. Remove nut (29), washer (30), and capscrew (31).
- p. Remove hinge halves (32 and 33) from base section (34).
- q. Replace damaged tower sections or parts with a serviceable like item.
- r. Place hinge halves (32 and 33) on hinge pin (36).
- s. Secure, using capscrew (31), washer (30), and nut (29).

NOTE

Leave tower sections extended until cable is installed.

- t. Inset next-to-bottom section (28) into base section (25).
- u. Install safety stop (24) using two hex head screws (23).
- v. Insert next-to-top section (27) into next-to-bottom section (28).
- w. Install safety stop (24) using two hex head screws (23).
- x. Insert top section (26) into next-to-top section (27).
- y. Install safety stop (24) using two hex head screws (23).
- z. Install two T-bobs in top tower section.

WARNING

Wear safety glasses when welding.

- aa. Re-weld cable guide and bar (21) to base section (22).
- ab. Spot paint disturbed areas.

WARNING

Wear gloves when handling cable to avoid cuts from loose cable strands.

- ac. Install cable (para 4.20).

- ad. Install extension lockbar (16) on base section with bolt (15).
- ae. Slide tower sections (20, 19, and 18) into base section (17) and secure extension lockbar (16).

WARNING

Tower weighs approximately 250-lbs. (113.4 kg). Use suitable lifting device or serious personal injury could result. Four personnel will be required to lift tower assembly onto trailer if suitable lifting device is not available.

- af. Using suitable lifting device, lift tower assembly (14) off cribbing and lower into position on trailer.

CAUTION

Wrap end of cable with tape to seal any sharp edges.

- ag. Thread cable (10) around pulley mounted on trailer frame.
- ah. Thread three wraps of cable (10) from beneath the pinion shaft.
- ai. Thread cable through round hole until it extends 1-inch (2.54 cm) past the two square holes.

CAUTION

Be sure bolt heads are on the inside of the drum.

- aj. Secure cable (10) to outside of drum (11), using two bolts (8), one keeper (9), two washers (7), and nuts (6).
- ak. Install cradle cleat (5) and install spring dip (4) on cradle cleat.
- al. Install power cable (1) into dips (2) on side of tower (3).
- am. Install lightbar (para 2.7).
- an. Install floodlights (para 2.7).
- ao. Inspect cable for proper alignment in tower and perform operational check.

4.15 TOWER TILT LOCKBAR.

This task covers: a. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

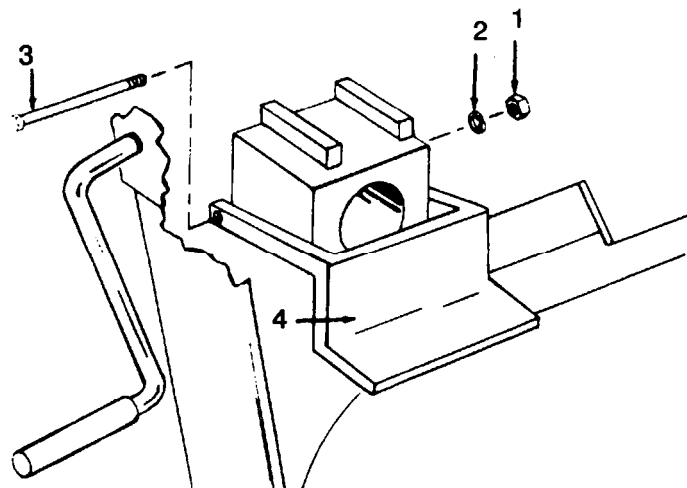
Personnel Required

MOS 63B Lightweight Vehicle Mechanic

Equipment Condition

Tower in horizontal position (para 2.7).

REPLACE



LEGEND

- 1 NUT
- 2 WASHER
- 3 BOLT
- 4 LOCKBAR

- a. Remove nut (1), lockwasher (2), and bolt (3).
- b. Remove tower tilt lockbar (4) from bracket on front of trailer.
- c. Replace unserviceable tower tilt lockbar with a serviceable item from stock.
- d. Install tower tilt lockbar (4) on bracket at front of trailer.
- e. Install bolt (3), lockwasher (2), and nut (1) and tighten.

4.16 EXTENSION LOCKBAR.

This task covers: a. Replace

INITIAL SETUP

Tools

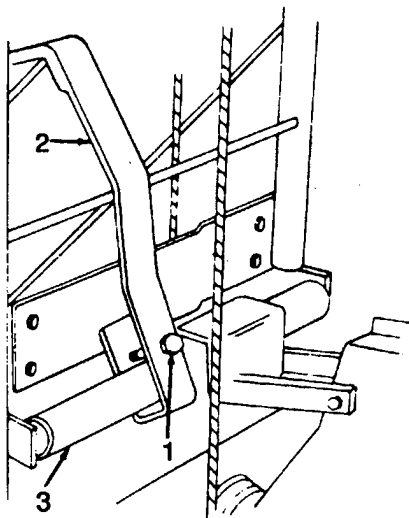
Lightweight Mechanics Tool Kit (item 1, sect III, appx B) MOS 63B Lightweight Vehicle Mechanic

Personnel Required

Equipment Condition

Tower in horizontal position (para 2.7).

REPLACE



LEGEND

- 1 BOLT
- 2 EXTENSION
LOCKBAR
- 3 BASE SECTION

- a. Remove bolt (1).
- b. Remove extension lockbar (2) from base section (3).
- c. Replace an unserviceable extension lockbar with a serviceable item from stock.
- d. Position extension lockbar (2) in place on base section (3).
- e. Install bolt (1).

4.17 RECEPTACLES, JUNCTION BOX

This task covers: a. Replace b. Test

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sec III, appx B)

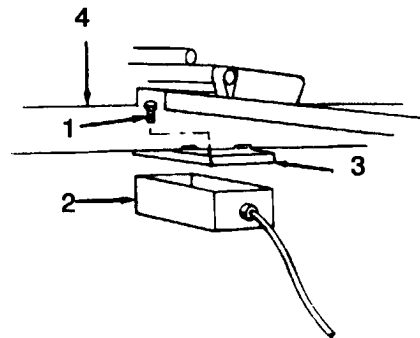
Equipment Condition

Tower in horizontal position (para 2.7).

Floodlights removed (para 2.11).

Lightbar removal (para 2.11).

REPLACE



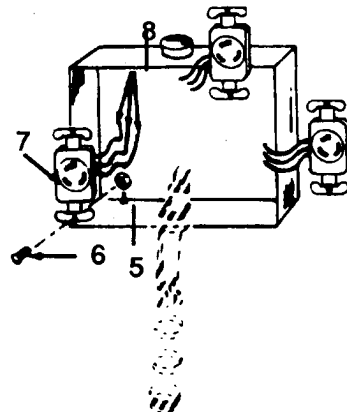
LEGEND

- 1 ASSEMBLED SCREW
- 2 JUNCTION BOX
- 3 COVER
- 4 LIGHTBAR

NOTE

Cover (3) is welded to lightbar (4).

- a. Remove four assembled screws (1).
- b. Remove junction box (2).



LEGEND

- 5 NUT
- 6 SCREW
- 7 RECEPTABLE
- 8 LEAD

- c. Remove nut (5), screw (6), and receptacle (7).
- d. Tag and identify three leads (8) on receptacle.
- e. Loosen three screws and remove leads (8).
- f. Remove other two receptacle in the same manner.
- g. Replace unserviceable receptacles with serviceable items from stock.
- h. Install leads (8) to receptacle (7).
- i. Remove tags.
- j. Install receptacle (7) in junction box (2).
- k. Install two screws (6) and nuts (5) and tighten.
- l. Install remaining receptacles in the same manner.
- m. Install junction box (2) on rover (3) with large power cable on tower side.
- n. Install four assembled screws (1) and tighten.
- o. Install lightbar (para 2.7).
- p. Install floodlights (para 2.7).

TEST

Perform operational test (para 2.8).

4.18 WINCH.

This task covers: a. Service b. Replace c. Repair

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Equipment Condition

Tower in horizontal position (para 2.7).

Materials/Parts

Grease, MILG-10924, Type GAA (item 11, appx E)

Rope Keeper Kit (appx C)

Ratchet Kit (appx C)

Pinion Shaft Gear Kit (appx C)

Tape (item 25, appx E)

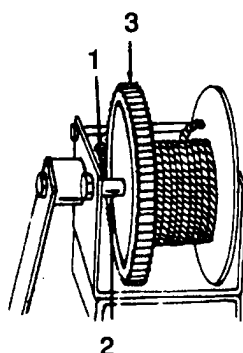
Rags (item 18, appx E)

Oil, MIL-L-21404, Type OE/HD030 (item 14, appx E)

Personnel Required

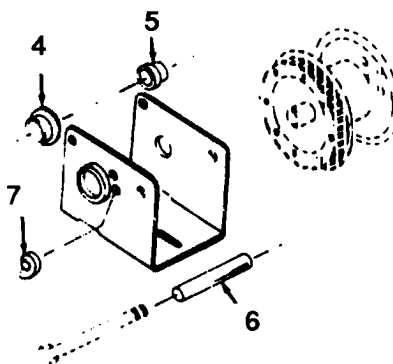
MOS 63B Lightweight Vehicle Mechanic

SERVICE



LEGEND

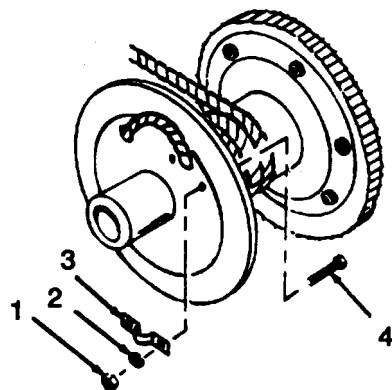
- 1 RATCHET
- 2 SHAFT GEAR
- 3 DRUM GEAR
- 4 BUSHING
- 5 BUSHING
- 6 DRUM SHAFT
- 7 PAWL



- a. Apply a film of clean grease to ratchet gear (1), pinion shaft gear (2), and drum gear (3).

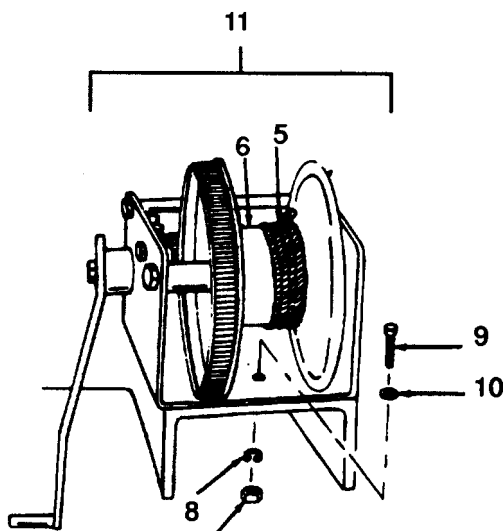
- b. Wet bushings (4 end 5), both ends of drum shaft (6), and ratchet pawl (7) with dean oil.

REPLACE



LEGEND

- 1 NUT
- 2 WASHER
- 3 ROPE KEEPER
- 4 BOLT
- 5 CABLE
- 6 DRUM ASSEMBLY
- 7 NUT
- 8 LOCKWASHER
- 9 BOLT
- 10 FLATWASHER
- 11 WINCH



- a. Remove two nuts (1), washers (2), bolts (4), and one rope keepr (3).

WARNING

Wrap end of cable with tape to seal any sharp edges. Personal injury could result.

- b. Remove cable (5) from drum assembly (6).
- c. Remove three nuts (7), lockwashers (8), bolts (9), and one flatwasher (10).
- d. Remove winch (11).
- e. Replace unserviceable winch with serviceable item from stock.

- f. Position winch (11) in place.

NOTE

Flatwasher is installed on side of winch with one hole.

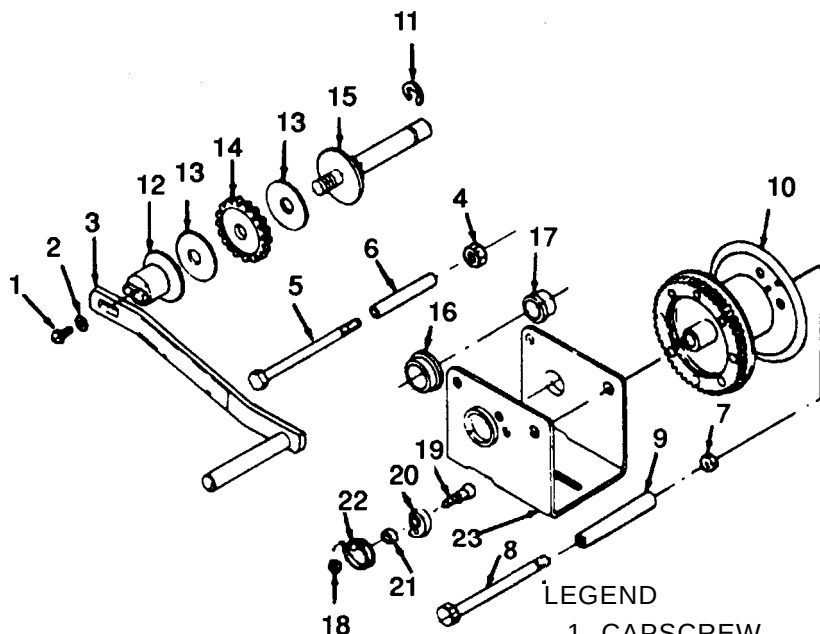
- g. Install one flatwasher (10), three bobs (9), lockwashers (8), and nuts (7).

WARNING

Wrap end of cable with tape to seal any sharp ends. Serious injury could result.

- h. Thread three wraps of cable (5) from underneath the drum (6).
- i. Thread theme through the round hole until it extends 1-inch (2.54 cm) past the two square holes.
- j. Secure cable (5) to outside of drum (6) by installing two bolts (4), lockwashers (2), nuts (1), and one rope keeper (3).

REPAIR



LEGEND

1 CAPSCREW	13 BRAKE DISC
2 FLATWASHER	14 RATCHET GEAR
3 HANDLE	15 PINION SHAFT
4 NUT	ASSEMBLY
5 CAPSCREW	16 BUSHING
6 SPACER	17 BUSHING
7 LOCKNUT	18 LOCKNUT
8 SPECIAL	19 RATCHET BOLT
CAPSCREW	20 PAWL
9 FRAME SPACER	21 SPACER
10 DRUM ASSEMBLY	22 SPRING
11 RETAINING RING	23 FRAME
12 BRAKE NUT	
ASSEMBLY	

NOTE

Remove grease from ratchet gear, pinion shaft gear, and drum gear with a clean rag.

- Remove capscrew (1), flatwasher (2), and handle (3).
- Remove locknut (4), capscrew (5), and spacer (6).
- Remove locknut (7), special capscrew (8), and frame spacer (9).
- Remove drum assembly (10).
- Remove retaining ring (11) from pinion shaft assembly (15).

NOTE

Measure the brake discs for wear. If they are worn to less than 1/16-inch (0.5188 cm) thick, replace both discs.

- f. Unscrew and remove brake nut assembly (12), brake discs (13), ratchet gear (14), pinion shaft assembly (15), and bushings (16 and 17).
- g. Remove locknut (18), ratchet bolt (19), pawl (20), spacer (21), and spring (22) from frame (23).

NOTE

If repair cannot be accomplished with parts contained in the parts kits, replace the winch assembly.

- h. Replace defective parts.
- i. Install bushing (17), pinion shaft assembly (15), brake disc (13), ratchet gear (14), other half of brake disc (13), brake nut assembly (12), and bushing (16) in frame (23).
- j. Install retaining ring (11) on pinion shaft assembly (15).
- k. Install pawl (20), spacer (21), and spring (22) onto ratchet bolt (19). Then install assembled parts to frame with nut (18) and tighten the nut.
- l. Install drum assembly (10), frame spacer (9), special capscrew (8), and locknut (7) and tighten.
- m. Install spacer (6), capscrew (5), locknut (4) and tighten.
- n. Install handle (3), flatwasher (2), capscrew (1) and tighten.
- o. Service winch (see above).

4.19 WINCH CABLE AND PULLEYS.

This task covers: a. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Equipment Condition

Tower removed (para 4.14).

Materials/Parts

Tape (item 24, appx E)

Rags (item 18, appx E)

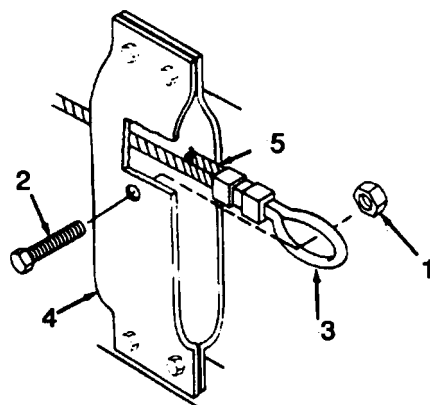
Gloves (item 9, appx E)

Grease, MILG-18458 (item 12, appx E)

Personnel Required

MOS 63B Lightweight Vehicle Mechanic

REPLACE



LEGEND

- 1 NUT
- 2 BOLT
- 3 THIMBLE
- 4 BRACKET
- 5 CABLE

- a. Remove self-lidng nut (1) and bolt (2).

NOTE

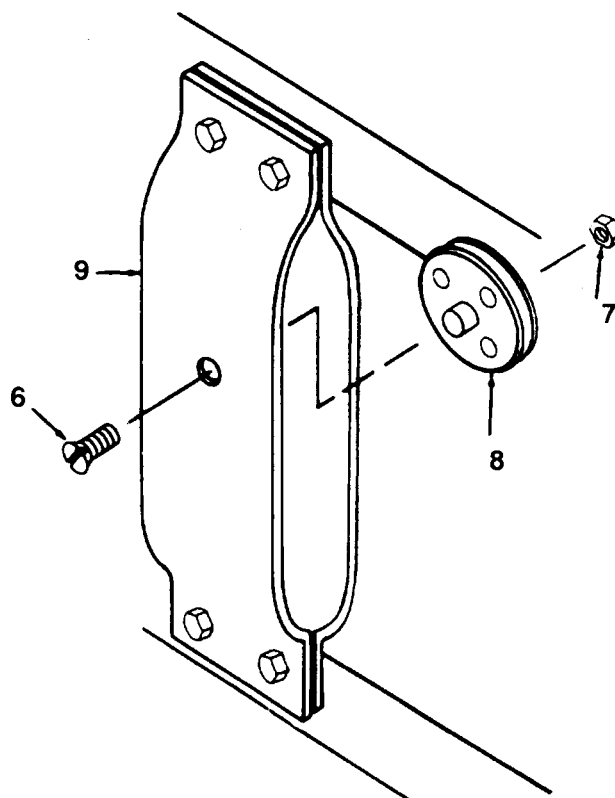
Cable thimble is located at base of tower section.

- b. Remove thimble (3) from mounting bracket (4).

WARNING

Wear gloves when removing cable. Serious injury could occur.

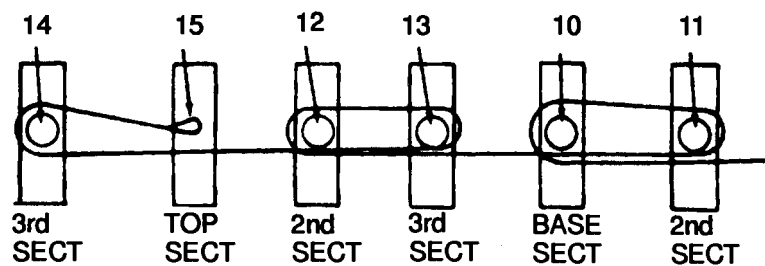
- c. Remove cable (5) from tower section.



LEGEND

- 6 CAPSCREW
- 7 NUT
- 8 PULLEY
- 9 BRACKET

- d. Remove self-locking nut (7) and socket head screw (6).
- e. Withdraw pulley (8) from bracket (9).
- f. Replace defective pulley or winch cable with a serviceable item from stock.
- g. Install pulley (8) on mounting bracket (9).
- h. Install socket head capscrew (6) and self-locking nut (7) and tighten.



LEGEND

- 10 PULLEY
- 11 BOTTOM PULLEY
- 12 TOP PULLEY
- 13 BOTTOM PULLEY
- 14 TOP PULLEY
- 15 CABLE

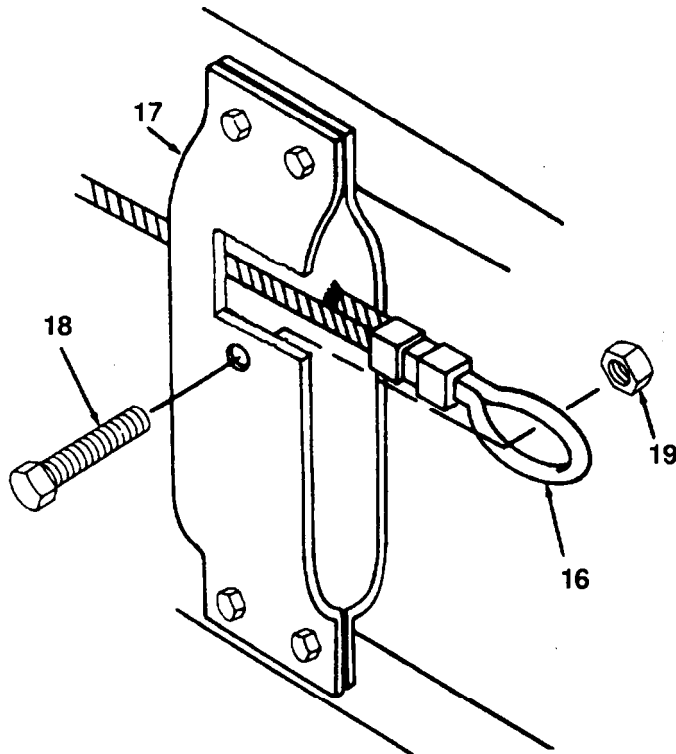
WARNING

Wear gloves when handling cable to avoid cuts.

NOTE

Wipe cable with clean rag and apply grease MIL-G-18458 before installing.

- i. Thread cable (15) around pulley (10) at top of base section.
- j. Thread cable (15) around bottom pulley (11) of second section. Thread cable around top pulley (12) of second section.
- k. Thread cable (15) around bottom pulley (13) of third section. Thread cable around top pulley (14) of third section.



LEGEND

- 16 THIMBLE
- 17 BRACKET
- 18 BOLT
- 19 SELF-LOCKING
G-NUT

- l. Install cable thimble (16) in bracket (17) at base of fourth section with bolt (18) and self-locking nut (19) and tighten.
- m. Install tower (para 4.14).
- n. Perform operational tests (para 2.8).

4.20 POWER CABLE.

This task covers: a. Test b. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)
Multimeter (item 2, sect III, appx B)

Equipment Condition

Tower in horizontal position (para 2.7).
Lightbar removed (para 2.11).
Floodlights removed (para 2.11).

Materials/Parts

Tags (item 23, appx E)

Personnel Required

MOS 63B Lightweight Vehicle Mechanic

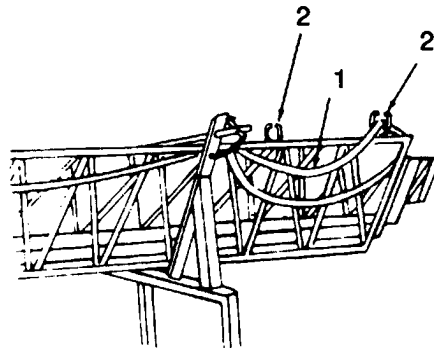
TEST

NOTE

Set multimeter on RX1 setting.

Test six wires in power cable for continuity. Continuity should read 0 Ohms.

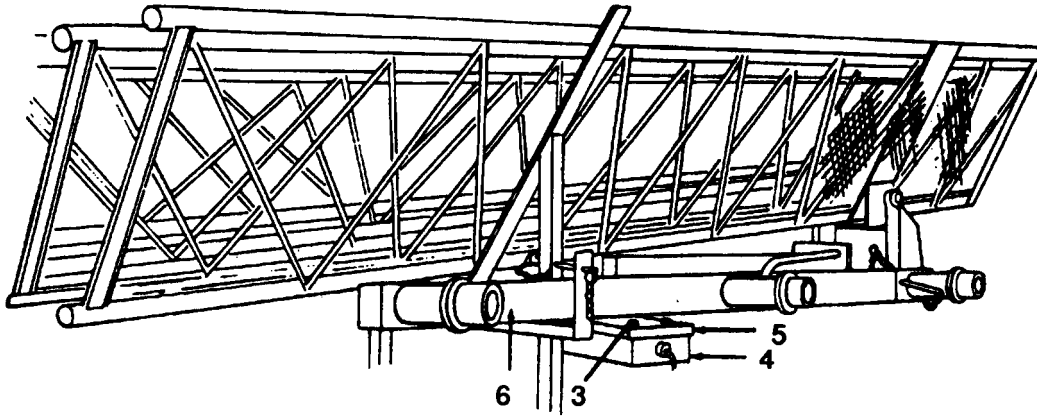
REPLACE



LEGEND

- 1 POWER CABLE
- 2 SPRING CLIPS

a. Remove power cable (1) from spring dips (2) on tower.



LEGEND

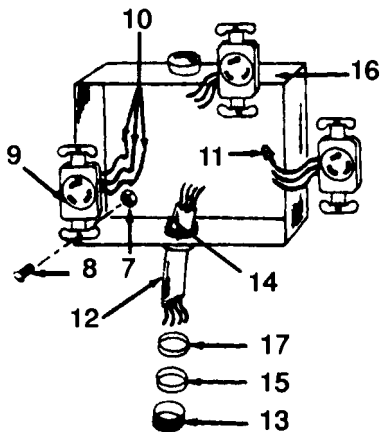
- 3 ASSEMBLED SCREW
- 4 JUNCTION BOX
- 5 COVER
- 6 LIGHT BAR

b. Remove four assembled screws (3).

NOTE

Cover (5) is welded to lightbar (6).

c. Remove junction box (4).



LEGEND

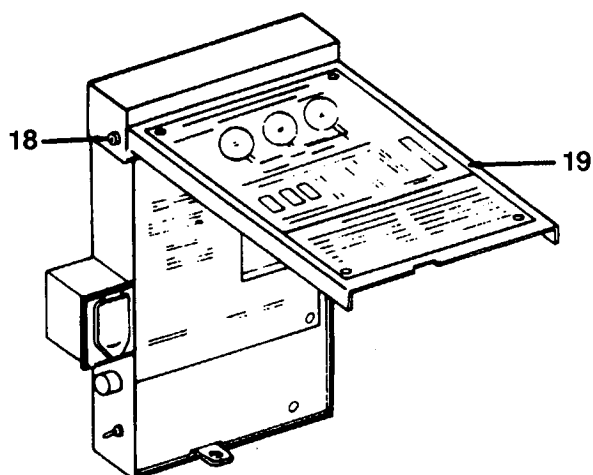
- 7 NUT
- 8 SCREW
- 9 RECEPTACLES
- 10 LEADS AND SCREWS
- 11 WIRE NUTS
- 12 POWER CABLE
- 13 CAP
- 14 CONNECTOR
- 15 METAL WASHER
- 16 JUNCTION BOX
- 17 RUBBER WASHER

d. Remove nut (7), screw (8), and receptacle (9).

e. Tag and identify three leads from the power cable to the receptacle (9).

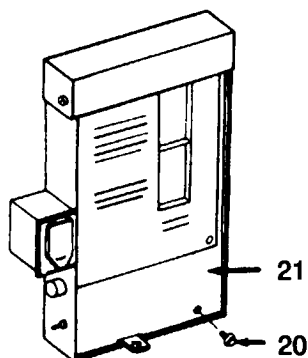
f. Loosen terminal screws (10) and disconnect leads.

- g. Tag and remove blue, green, and white leads from power cable (12) to wire nuts (11).
- h. Unscrew (13) from connector (14) and remove beveled rubber washer (17) from junction box.
- i. Remove power cable (12) from junction box (16).
- j. Remove beveled rubber washer (17), metal washer (15), and cap (13) from power-e (12).



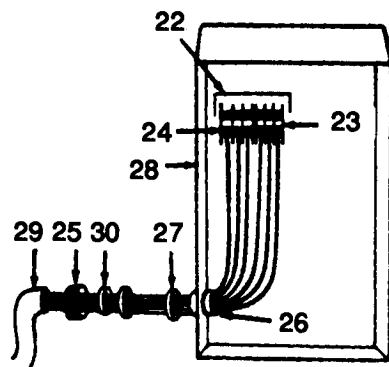
LEGEND
 18 ASSEMBLED
 SCREW
 19 OUTER COVER

- k. Remove two assembled screws (18) and remove control panel outer cover (19).



LEGEND
 20 ASSEMBLED
 SCREW
 21 INNER COVER

- l. Remove assembled screw (20) and remove control panel inner cover (21).



LEGEND

- 22 LEAD
- 23 TERMINAL STRIP
- 24 SCREWS (6)
- 25 CAP
- 26 ELECTRICAL CONNECTOR
- 27 WASHER (RUBBER)
- 28 CONTROL PANEL
- 29 POWER CABLE
- 30 WASHER (METAL)

- m. Tag and identify six leads (22) from the power cable to terminal strip (23).
- n. Loosen six screws (24) and remove leads.
- o. Unscrew cap (25) from electrical connector (26) and remove beveled rubber washer (27) from control panel (28).
- p. Withdraw power cable (29) and remove beveled rubber washer (30) and cap (25) from power cable (29).
- q. Replace defective parts.
- r. Place cap (25), metal washer (30), and beveled rubber washer (27) over end of power cable (29).
- s. Insert power cable into control panel (28).
- t. Install six leads on terminal strip (23) and tighten screws (24).
- u. Remove tags.
- v. Secure power cable to control panel by tightening cap (25) onto connector (26).
- w. Install control panel inner cover (21) and secure with assembled screw (20).
- x. Install control panel outer cover (19) and secure with two assembled screws (18).
- y. Place cap (13), metal washer (15), and beveled rubber washer (17) over end of power cable (12).
- z. Insert power cable into junction box (16).

NOTE

Remove tags after next two steps are completed.

- aa. Connect blue, green, and white leads and screw on wire nuts (11).
- ab. Connect remaining three leads from power cable to receptacle.
- ac. Tighten terminal screws (10).

ad. Install three receptacles (9).

ae. Install six screws (8) and nuts (7) and tighten.

af. Tighten cap onto connector.

ag. Install junction box (4) to cover (5) on lightbar (6) and secure with four assembled screws (3)

ah. Install power cable (1) onto spring clip (2) on tower.

4.21 TOGGLE SWITCH AND CIRCUIT BREAKERS.

This task covers: a. Replace b. Test

INITIAL SETUP

Tools

General Mechanics Tool Kit (item 5, sect III, appx B)

Multimeter (item 2, sect III, appx B)

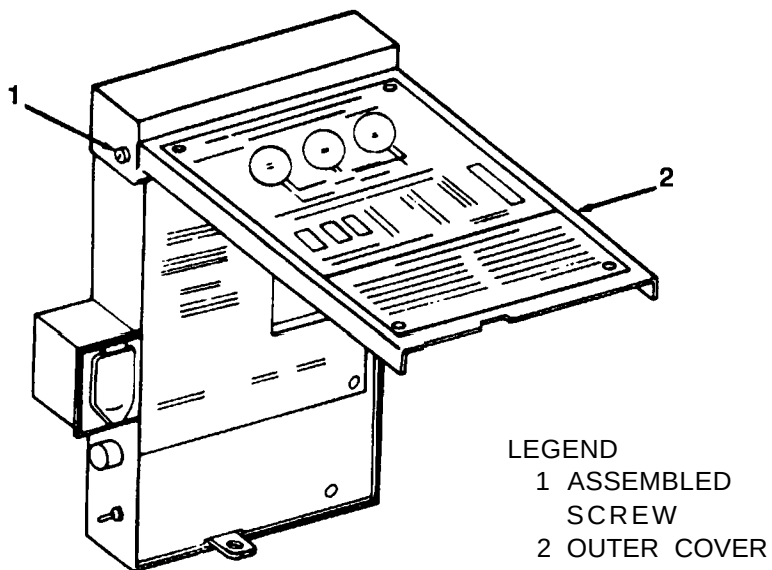
Personnel Required

MOS 63B Lightweight Vehicle and Power Generation
Mechanic

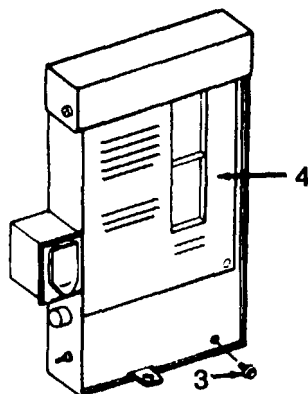
Materials/Parts

Tags (item 23, appx E)

REPLACE

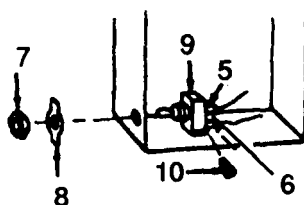


- a. Remove two assembled screws (1).
- b. Remove control panel outer cover (2).



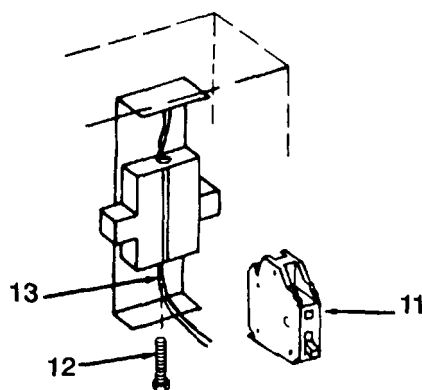
- LEGEND
- 3 ASSEMBLED
SCREW
 - 4 INNER COVER

- c. Remove assembled screw (3).
- d. Remove control panel inner cover (4).



- LEGEND
- 5 LEAD
 - 6 LEAD
 - 7 LOCKNUT
 - 8 NAMEPLATE
 - 9 SWITCH
 - 10 SCREW

- e. Tag and identify leads (5 and 6).
- f. Remove locknut (7) and plate (8).
- g. Remove switch (9).
- h. Loosen two screws (10).
- i. Remove two leads.



- LEGEND
- 11 CIRCUIT
BREAKER
 - 12 SCREW
 - 13 LEAD

NOTE

Pull out and tip up to remove circuit beaker.

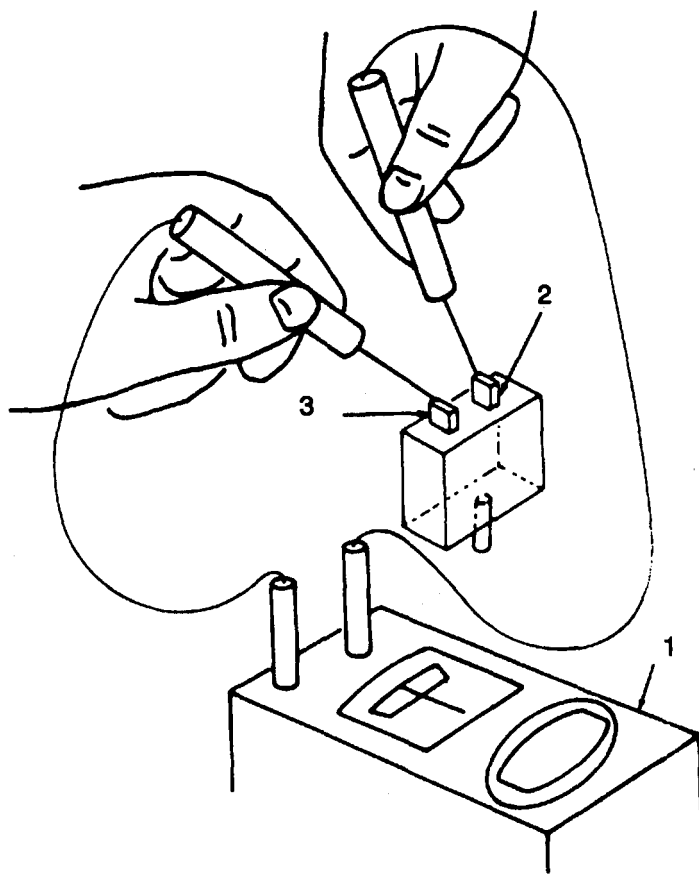
- j. Remove circuit breaker (11).
- k Tag and identify lead.
- l. Loosen screw (12) and remove lead (13).
- m. Remove remaining circuit breakers in the same manner.
- n. Replace defective parts with serviceable items from stock
- o. Install lead and remove tag.
- p. Tighten screw.

NOTE

Tilt upwards to engage over bar; then push down to engage in spring clip.

- q. Install all circuit breakers.
- r. Install two leads on toggle switch and remove tags.
- s. Tighten two screws.
- t. Install switch (9) in panel.
- u. Place plate (8) over protruding end of switch.
- v. Install locknut (7) and tighten.
- w. Install control panel inner cover (4) on control panel and secure with assembled screw (3).
- x. Install control panel outer cover (2) on control panel and secure with two assembled screws (1).
- y. Perform operational check (para 2.8).

TEST



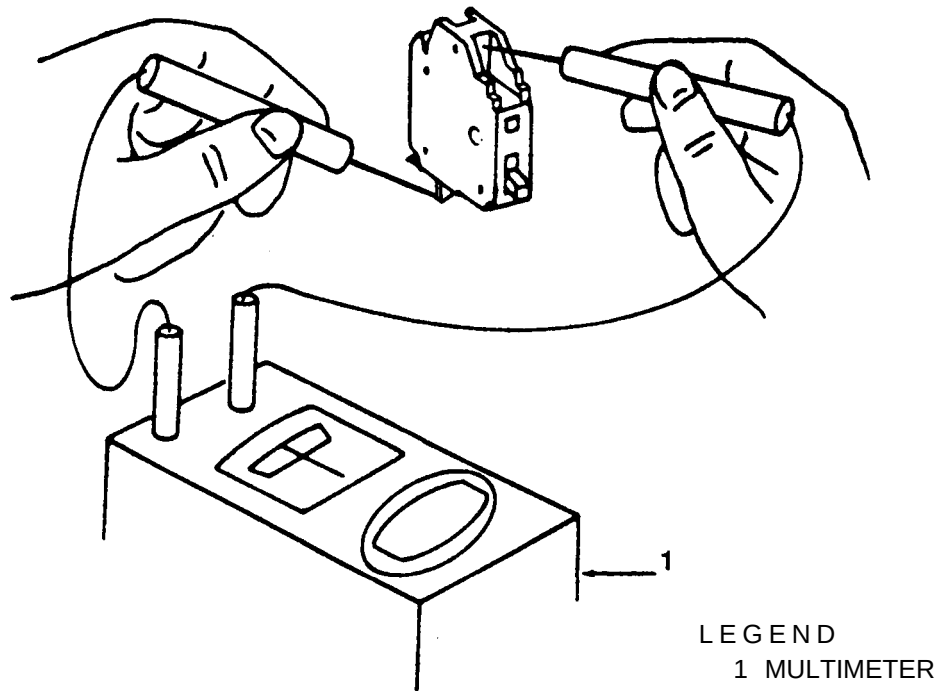
LEGEND

- 1 MULTIMETER
- 2 TEST POINT
- 3 TEST POINT

z. Set multimeter (1) to RX1 scale to test toggle switch.

aa. Connect test probes to test points (2 and 3).

ab. RX1 cable should read 0 Ohms when switch is ON; infinity when OFF.



ac. Set multimeter (1) to RX1 scale to test circuit breaker.

ad. Connect test probes to test points.

ae. RX1 scale should read 0 Ohms when breaker in ON; infinity when OFF.

4.22 RECEPTACLES.

This task covers: a. Replace

INITIAL SETUP

Tools

Lightweight Mechanic Tool Kit (item 1, sect III, appx B)

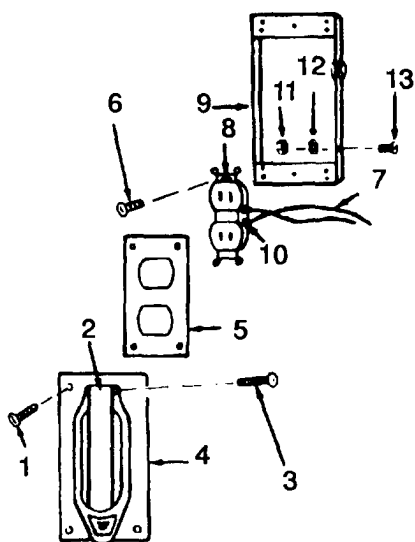
Personnel Required

MOS 63B Lightweight Vehicle Mechanic

Materials/Parts

Tags (item 23, appx E)

REPLACE



LEGEND

- 1 SCREW
- 2 DOOR
- 3 SCREW
- 4 COVER
- 5 GASKET
- 6 SCREW
- 7 LEAD
- 8 RECEPTABLE
- 9 BOX
- 10 SCREW
- 11 NUT
- 12 WASHER
- 13 SCREW

- a. Remove four screws (1).
- b. Open door (2) and remove screw (3).
- c. Remove cover (4) and gasket (5).
- d. Remove two screws (6).

NOTE

Withdraw receptacle far enough to tag and disconnect leads.

- e. Pull receptacle (8) from box (9).

- f. Tag and identity two leads (7).
- g. Loosen two screws (10) and remove leads.
- h. Remove receptacle (8).
- i. Remove nut (11), lockwasher (12), and screw (13).
- j. Replace unserviceable receptacle with serviceable item from stock.
- k. Install (9) to control panel with screw (13), lockwasher (12), and nut (11) and tighten.
- l. Install two leads (7) and remove tags.
- m. Tighten two screws (10).
- n. Install receptacle (8) in box.
- o. Install two screws (6) and tighten.
- p. Install gasket (5) in place.
- q. Install cover (4) over gasket.
- r. Install screw (3), tighten, and close door (2).
- s. Install four screws (1) and tighten.
- t. Perform operational check (para 2.8).

4.23 BATTERY, BATTERY TERMINALS, AND WIRES.

This task covers: a. Test b. Service c. Replace

INITIAL SETUP**Tools**

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Equipment Condition

Outer and inner control panels removed (para 4.21).

Materials/Parts

Bicarbonate of Soda (item 3, appx E)

Rags (item 18, appx E)

Tags (item 23, appx E)

Rubber Gloves (item 10, appx E)

TEST

Refer to TM 9-6140-200-14 and test battery per instructions.

SERVICE

- a. Refer to TM 9-6140-200-14 and clean the battery and terminals per instructions.

CAUTION

Wear rubber gloves when removing excess water from cleaned area. Corrosion from battery is acid.

NOTE

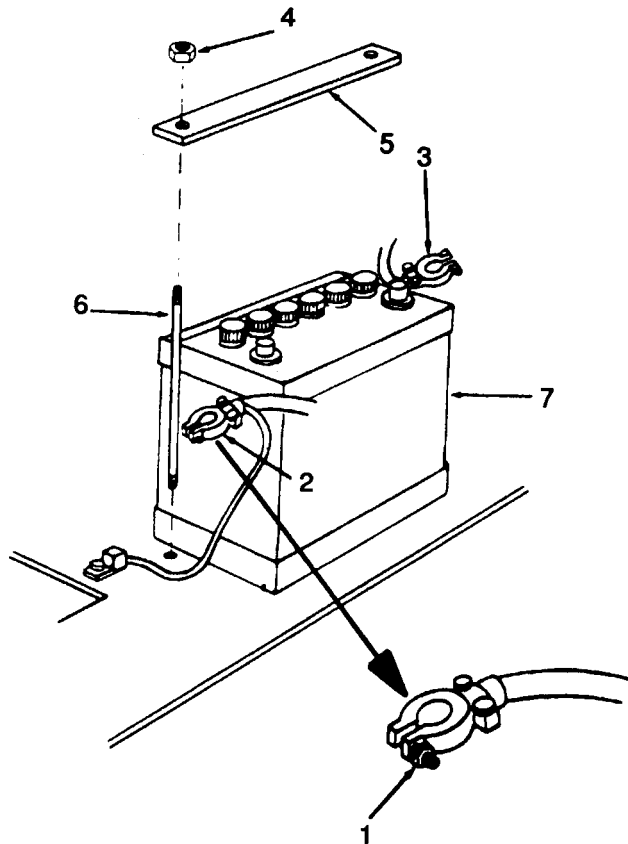
Two or three applications maybe required to thoroughly clean corrosion from area.

- b. Using a solution of bicarbonate of soda and water, flush any battery corrosion from area.
- c. Thoroughly dry area with dean rags to remove excess water.
- d. Spot paint cleaned area as necessary.

CAUTION

- The 6TN and 6TL batteries can be mixed or matched. However, maintenance-free batteries cannot be mixed or matched with military batteries. The 6TN and/or the 6TL batteries will perform properly in hot weather as long as electrolyte levels are carefully monitored. If the electrolyte expands and causes the level to rise, some fluid must be removed. If the level becomes too low due to evaporation, distilled water (excluding mineral waters) may be used if distilled water is not available.
- Electrolyte (NSNs 6810-00-249-9354 and 6810-00-843-1640) has a specific gravity of 1.280 and should be used in these batteries. DO NOT adjust the electrolyte in wet batteries to a lower specific gravity

REPLACE

**LEGEND**

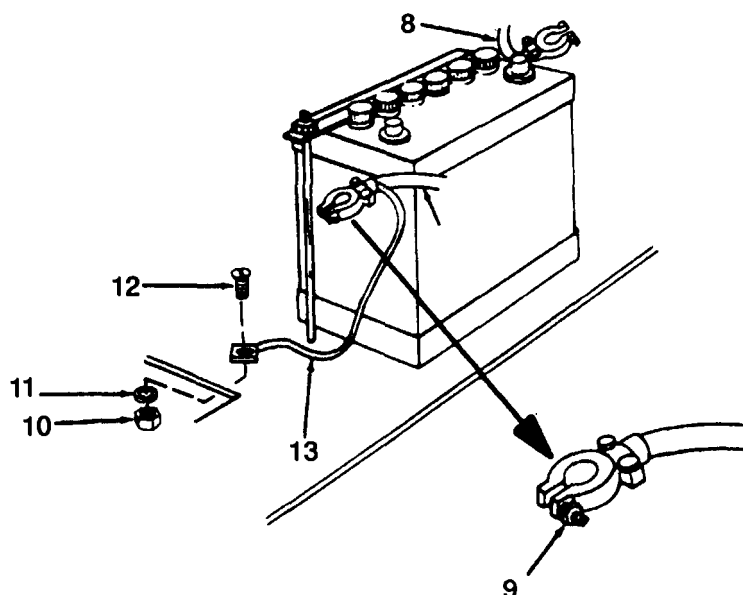
- 1 NUT
- 2 LEAD
- 3 LEAD
- 4 NUT
- 5 PLATE
- 6 BOLT
- 7 BATTERY

- a. Loosen nuts (1) and remove leads (2 and 3) from terminals.
- b. Remove two nuts (4).
- c. Remove holddown plate (5).

NOTE

Only the bolt toward the outside of the trailer needs to be removed if the battery is being removal.

- d. Unscrew two bolts (6) and remove battery (7) from trailer.

**LEGEND**

- 8 LEAD
- 9 NUTS
- 10 NUT
- 11 WASHER
- 12 SCREW
- 13 WIRE

- e. Tag and identify two battery cable leads (8) connected to the battery.
- f. Loosen two nuts (9) and remove leads.
- g. Remove nut (10), washer (11), and screw (12).
- h. Remove ground wire (13).
- i. Replace an unserviceable battery with a serviceable item from stock.
- j. Install two leads (8) on battery charger and secure with two nuts (9).
- k. Install ground wire (13) and secure with screw (12), washer (11), and nut (10).
- l. Position battery (7) in place.
- m. Install holddown bolts (6).
- n. Install holddown plate (5).
- o. Install two nuts (4) and tighten.

CAUTION

Insure that the terminal with ONE wire attached is placed on the positive post, and that the terminal with TWO wires attached is placed on the negative post. Reversing the location of the terminals may damage the battery charger.

- p. Insure that the terminal with ONE wire (lead (3)) attached is placed on the positive-t, and that the terminal with TWO wires (lead (2)) attached is placed on the negative post. Reversing the location of the terminals may damage the battery charger.
- q. Tighten nuts (1).
- r. Coat terminals with corrosion preventive compound.
- s. Install inner and outer control panel covers (para 4.21).

4.24 RED WARNING LIGHT

This task covers: a. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)
Crimping tool, insulated (item 11, sect III, appx B)

Equipment Condition

Tower in horizontal position (para 2.7)

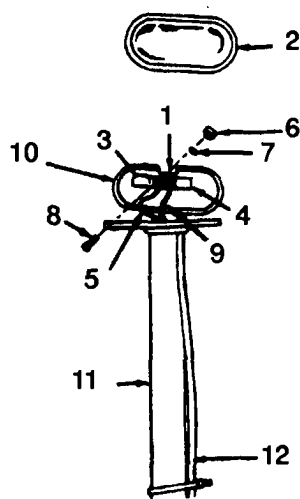
Materials/Parts

Terminal (appx C)

Personnel Required

MOS 63B Lightweight Vehicle Mechanic

REPLACE



LEGEND

- 1 NOTCH
- 2 LENS
- 3 BULB
- 4 BULB
- 5 LEAD
- 6 NUT
- 7 WASHER
- 8 SCREW
- 9 LEAD
- 10 HOUSING
- 11 LIGHT BAR
- 12 POWER CABLE

- a. Insert tip of flat tip screwdriver in notch (1) and gently pry up to remove lens (2).
- b. Remove bulbs (3 and 4) by pulling straight out.
- c. Disconnect lead (5).
- d. Disconnect lead (9) by removing nuts (6), washers (7), and screws (8).
- e. Remove power cable (12) from housing (10).
- f. Remove housing from tight bar (11).
- g. Replace unserviceable red warning light with a servicable item from stock.

- h. Insert power cable (12) into housing (10).
- i. Position housing (10) in place on light bar (11).
- j. install lead (9) on contact and install housing to light bar using two screws (8), washers (7), and nuts (6) and tighten.
- k. Reconnect lead (5).
- l. Install bulbs (3 and 4) in sockets.
- m. Install lens (2).

4.25 FUEL TANK.

This task covers: a. Service b. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Personnel Required

MOS 63B Lightweight Vehicle Mechanic

Materials/Parts

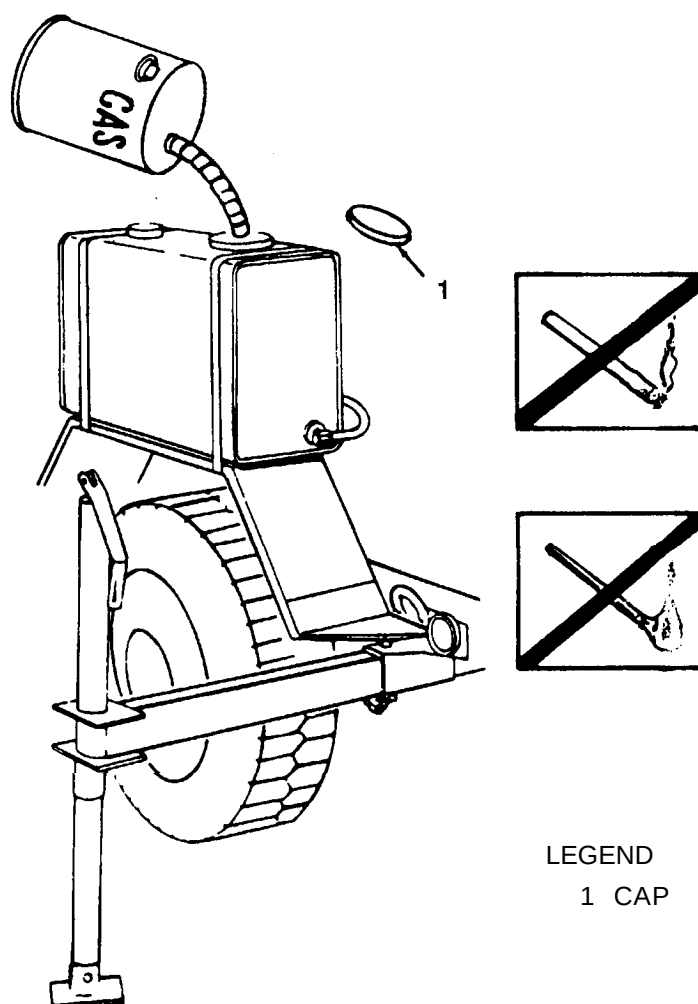
Gasoline (item 8, appx E)

Funnel (item 7, appx E)

Flexible Hose (appx C)

Bucket (Item 4, appx E)

SERVICE

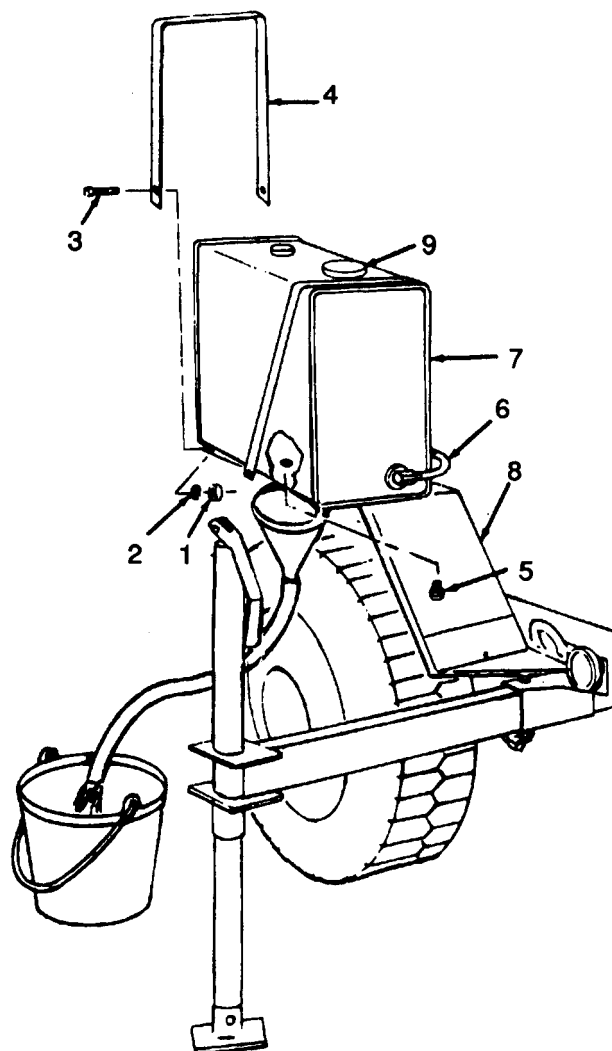


WARNING

When filling tank, maintain metal-to-metal contact. DO NOT smoke or use open flame when filling tank. Serious personal injury could result from failure to observe the warning.

- a. Remove fuel tank cap (1).
- b. Fill fuel tank.
- c. Install cap (1) on fuel tank.

REPLACE



LEGEND

- 1 NUT
- 2 LOCKWASHER
- 3 SCREW
- 4 STRAP
- 5 PIPE PLUG
- 6 FUEL LINE
- 7 FUEL TANK
- 8 FENDER
- 9 CAP

- a. Remove four nuts (1), lockwashers (2), and screws (3).

- b. Remove retaining straps (4).

NOTE

Two personnel are required to perform following step.

- c. Lift up back end of fuel tank and swing out over fender until drain plug clears outside of fender.

NOTE

Use a flexible hose approximately 3-feet (0.915 m) long, a funnel and a suitable bucket to catch ad fuel drained from the fuel tank

- d. Remove drain (5) from bottom of fuel tank and drain fuel.
- e. Disconnect fuel line (6) and remove from tank.
- f. Remove fuel tank (7) from fender (8).
- g. Replace an unserviceable fuel tank with a serviceable item from stock.
- h. Install drain plug (5) in bottom of fuel tank.

CAUTION

Insure that the drain plug is in the hole cut in the fender to avoid damage to drain plug.

- i. Install fuel tank (7) on fender (8).
- j. Install tow retaining straps (4).
- k. Install four screws (3), lockwashers (2), and nuts (1) and tighten.
- l. Reconnect fuel line (6) into fuel tank and tighten.

4.26 FUEL TANK GAUGE.

This task covers: a. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect- III, appx B)
Gasket Cutter (item 12, sect III, appx B)

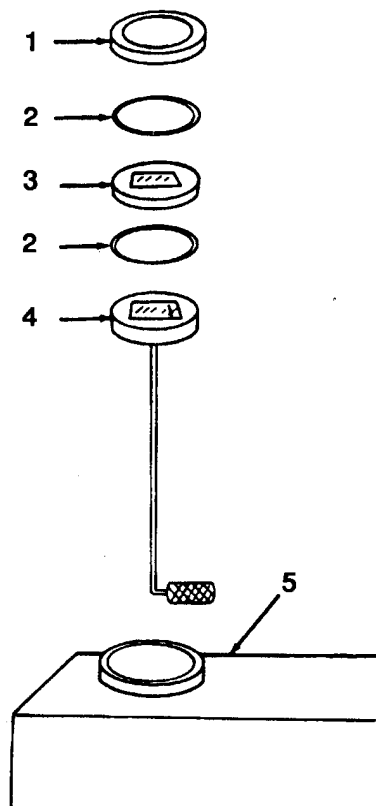
Personnel Required

MOS 63B Lightweight Vehicle Mechanic

Materials/Parts

Gasket Material (Bulk appx C)

REPLACE



LEGEND

- 1 CAP
- 2 GASKET
- 3 LENS
- 4 GAUGE
- 5 FUEL TANK

WARNING

DO NOT smoke or use open flame in vicinity of fuel tank when gauge is removed

- a. Unscrew and remove gauge cap (1).

- b. Remove two gaskets (2) and lens (3) from cap.
- c. Lift out gauge (4) from fuel tank (5).
- d. Replace unserviceable parts with serviceable items from stock.
- e. Install gauge (4) in tank (5).
- f. Install gasket (2) in cap.
- g. Install lens (3) underneath gasket.
- h. Install cap (1) on fuel tank.

4.27 FUEL LINE.

This task covers: a. Inspect b. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Equipment Condition

Fuel Tank Drained (para 4.25)

Materials/Parts

Bucket (item 4, appx E)

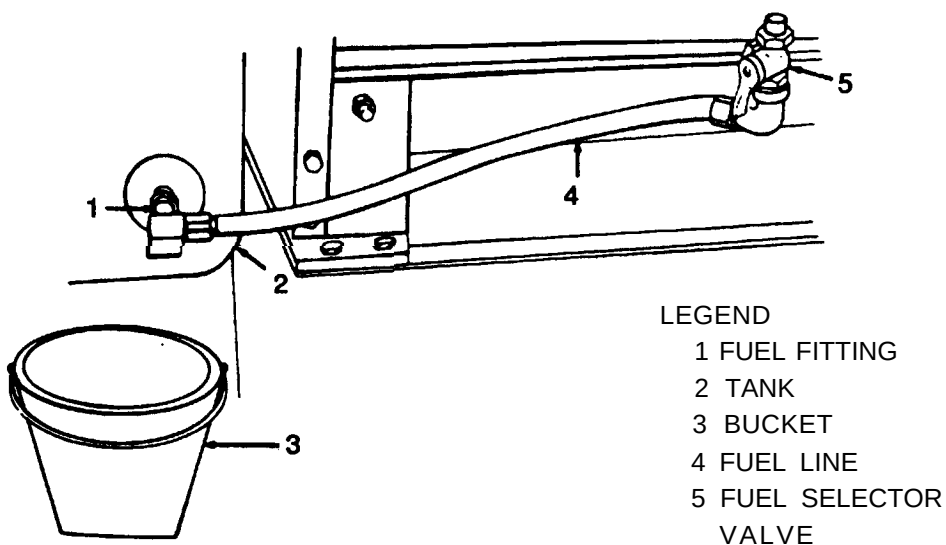
Personnel Required

MOS 63B Lightweight Vehicle Mechanic

INSPECT

Inspect fuel line for evidence of deterioration and leakage.

REPLACE



WARNING

DO NOT smoke or use open flame in vicinity of fuel tank.

- a. Disconnect fuel fitting (1) from tank (2) and allow fuel to drain. Remove bucket (3).
- b. Disconnect other end of fuel line (4) from fuel selector valve (5) on engine.

- c. Remove fuel line (1).
- d. Replace an unserviceable fuel line with a serviceable item from stock.
- e. Connect end of fuel line with straight fitting (4), to fuel selector valve (5) on engine.
- f. Connect other end of fuel line to fuel tank (2).

WARNING

When filling fuel tank maintain metal-to-metal contact. DO NOT smoke or use open flame when filling tank.

- g. Fill fuel tank (para 4.22).

4.28 LEVELING JACKS.

This task covers: a. Service b. Replace

INITIAL SETUP

Tools

Lightweight Mechanic Tool Kit (item 1, sect III, appx B)

Equipment Condition

Jack extended as far as possible.

Materials/Parts

Cleaning solvent, P-D-680 (item 21, appx E)

Oil (MIL-L-2104 Type OE/HDO 30) (item 14, appx E)

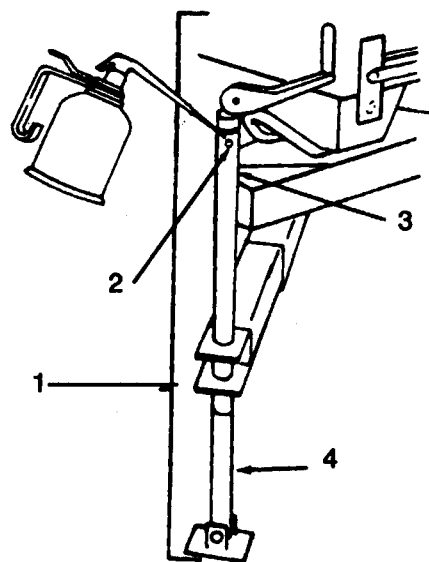
Oil can (Item 16, appx E)

Rags (Item 18, appx E)

Personnel Required

MOS 63B Lightweight Vehicle Mechanic

SERVICE



LEGEND

- 1 LEVELING JACK ASSEMBLY
- 2 OIL HOLE
- 3 JACK
- 4 INNER RAM

WARNING

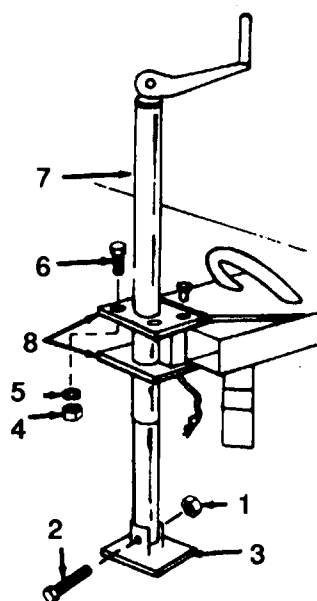
Cleaning solvent P-D-680 used to clean parts is potentially dangerous to personnel and equipment. Avoid repeated or prolonged skin contact. DO NOT use near open flame or excessive heat. Flash point of solvent is 100°- 138° F (38°-59°C).

a. Clean leveling jack (1) using rags dampened in cleaning solvent. Dry thoroughly.

b. INSE-tip of oil can spout into oil hole (2) at top of jack (3).

- c. Operate handle of oil can two or three times to lubricate jack assembly (1).
- d. Lubricate entire length of outside surface of inner ram (4) with oil.
- e. Lubricate three remaining jacks in the same manner.

REPLACE



LEGEND

- 1 NUT
- 2 BOLT
- 3 FOOT
- 4 NUT
- 5 WASHER
- 6 BOLT
- 7 JACK
- 8 OUTRIGGER

- a. Remove nut (1) and bolt (2).
- b. Remove foot (3).
- c. Remove two nuts (4) three lockwashers (5) and bolts (6).
- d. Lift leveling jack (7) to remove from outrigger (8).
- e. Remove remaining jacks in the same manner.
- f. Replace unserviceable leveling jacks with serviceable items from stock.
- g. Install leveling jack (7) through hole on end of outrigger.
- h. Install two bolts (6), lockwashers (5), and nuts (4) in outer hole and tighten.
- i. Install lockwasher (5) and bolt (6) in inner hole and tighten,
- j. Install foot (3) on jack.
- k. Install bolt (2) and nut (1) and tighten.
- l. Install remaining jacks in same manner.

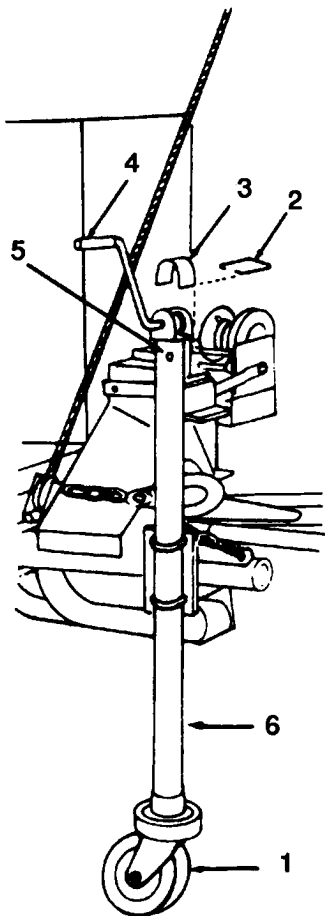
4.29 CASTER WHEEL.

This task rovers: a. Service b. Replace

INITIAL SETUP

Tools	Equipment Condition
Ligghtweight Mechanics Tool Kit (item 1, sec III, appx B)	Jack extended as far as possible.
Materials/Parts	Personnel Required
Cleaning solvent P-D-80 (item 21, appx E)	MOS 63B Lightweight Vehicle Mechanic
Grease MIL-C-10924 (item 11, appx E)	
Oil (MIL-L-2104 Type OE/HDO 30) (item 14, appx E)	

SERVICE

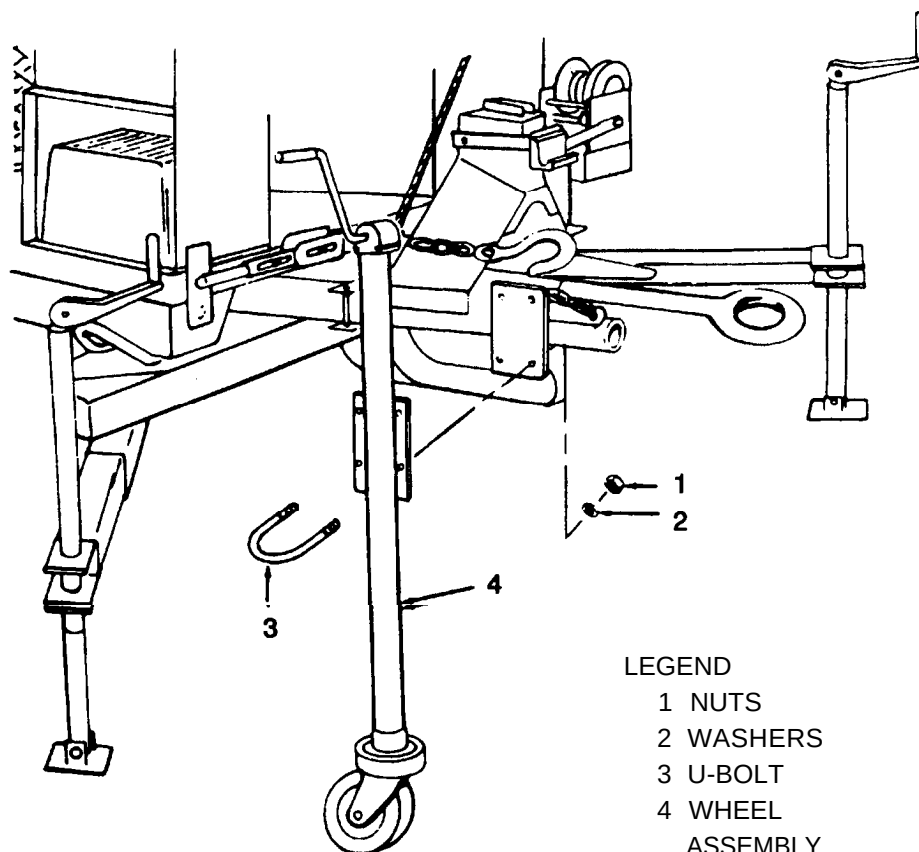


- LEGEND
- 1 CASTER WHEEL
 - 2 SPRING CLIP
 - 3 COVER
 - 4 HANDLE
 - 5 OIL HOLE
 - 6 INNER RAM

WARNING

Cleaning solvent P-D-680 used to clean parts is potentially dangerous to personnel and equipment. Avoid repeated or prolonged skin contact. DO NOT use near open flame or excessive heat. Flash point of solvent is 100° - 138° F (36° - 59° C).

- a. Clean caster wheel (1), using cloth dampened in cleaning solvent P-D-680. Dry thoroughly.
- b. Remove spring dip (2) by inserting a flat tip screwdriver between spring clip and cover and twist screwdriver.
- c. Remove cover (3).
- d. While turning handle (4), apply grease to gears.
- e. Install rover.
- f. Insert tip of oil can spout into hole (5) near top of caster wheel.
- g. Operate handle of oil can two or three times to lubricate caster wheel assembly.
- h. Lubricate entire length of outside surface of inner ram (6) with oil.

REPLACE

- a. Remove four nuts (1), lockwashers (2), and two U-bolts (3).
- b. Remove caster wheel assembly (4).
- c. Replace unserviceable caster wheel assemblies with serviceable items from stock.
- d. Position caster wheel assembly (4) in place and install two U-bolts (3), four lockwashers (2), and nuts (1) and tighten.

4.30 GENERATOR MOUNTING HARDWARE.

This task covers: a. Replace

INITIAL SETUP

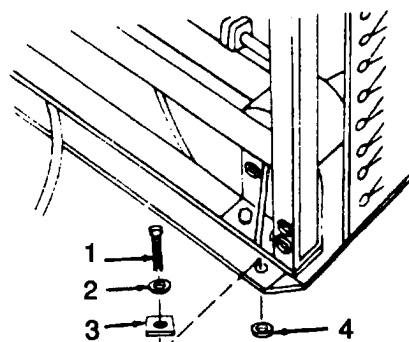
Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Personnel Required

MOS 63B Lightweight Vehicle Mechanic

REPLACE

**LEGEND**

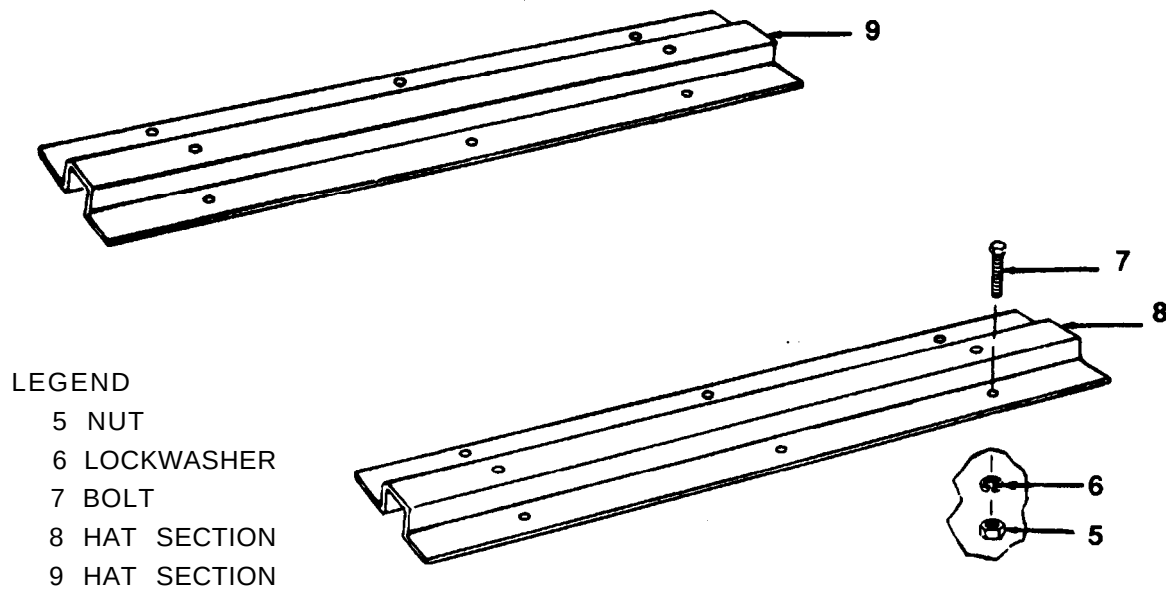
- 1 BOLT
- 2 LOCKWASHER
- 3 BEVELED
WASHER
- 4 SPACER

- a. Remove four bolts (1), lockwashers (2), and beveled washers (3).

WARNING

The generator set is heavy. Be sure to have a suitable lifting device on hand to remove the generator set. Serious injury could result.

- b. Using a suitable lifting device, remove the generator set.
- c. Remove spacers (4).



LEGEND

- 5 NUT
- 6 LOCKWASHER
- 7 BOLT
- 8 HAT SECTION
- 9 HAT SECTION

- d. Remove six nuts (5), lockwashers (6), and end bobs (7).
- e. Remove hat section (8).
- f. Remove remaining hat sections (9) in the same manner.
- g. Replace unserviceable hardware mounting parts with serviceable items from stock.
- h. Install hat section (9).
- i. Install six bolts (7), lockwashers (6), and nuts (5) and tighten.
- j. Install other hat section (8) in the same manner.
- k. Install spacers (4) on hat sections.
- l. Using a suitable lifting device, install generator set on top of hat sections.
- m. Install four beveled washers (3), lockwashers (2), and bolts (1) and tightening.

4.31 OIL DRAIN HOSE

This task covers: a. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

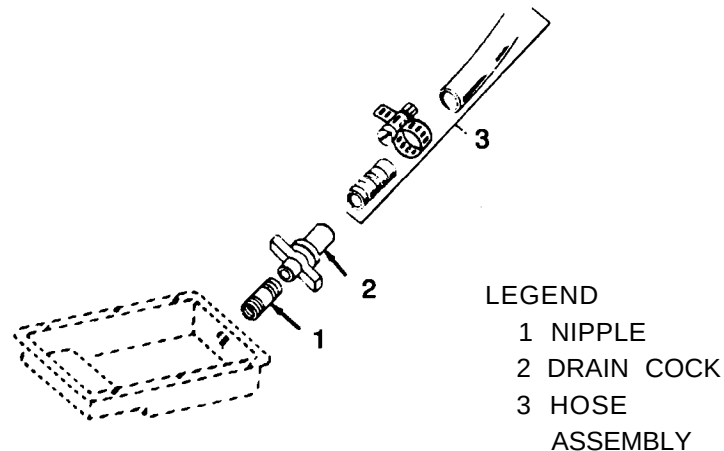
Personnel Required

MOS 63B Lightweight Vehicle Mechanic

Materials/Parts

Hose (appx C)

REPLACE



- a. Unscrew and remove hose assembly (3).
- b. Remove draincock (2) from nipple (1).
- c. Remove pipe nipple (1) from oil pan.
- d. Replace unserviceable hose, nipple, or damp with serviceable items from stock.
- e. Install nipple (1) into oil pan.
- f. Install the draincock (2) on nipple.
- g. Install hose assembly (3).

4.32 BATTERY CHARGER.

This task rovers: a. Replace

INITIAL SETUP

Tools

Lightweight Mechanics Tool Kit (item 1, sect III, appx B)

Equipment Condition

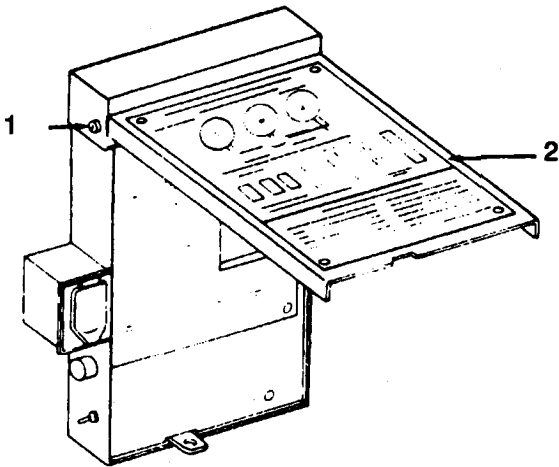
Battery removed (para 4-23).

Materials/Parts

Tags (item 23, appx E)

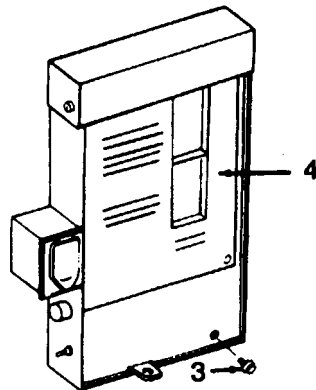
Personnel Required

MOS 52D Power Generation Repairman



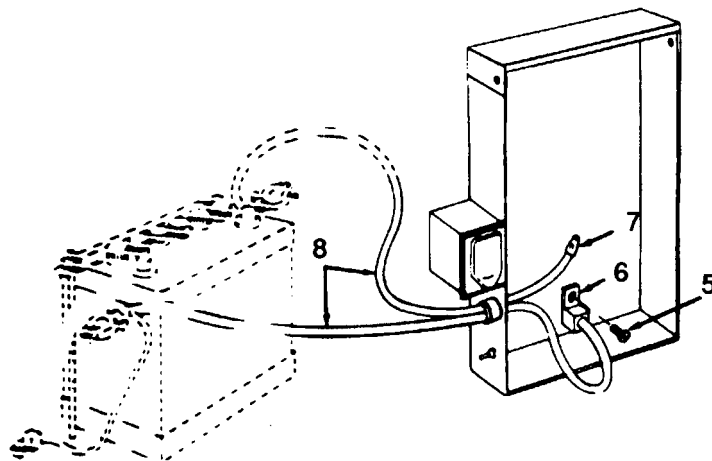
- LEGEND
- 1 ASSEMBLED SCREW
 - 2 OUTER COVER

- a. Remove two assembled screws (1).
- b. Remove control panel outer rover (2).



LEGEND
 3 ASSEMBLED
 SCREW
 4 INNER COVER

- c. Remove assembled screw (3).
- d. Remove control panel inner cover (4).

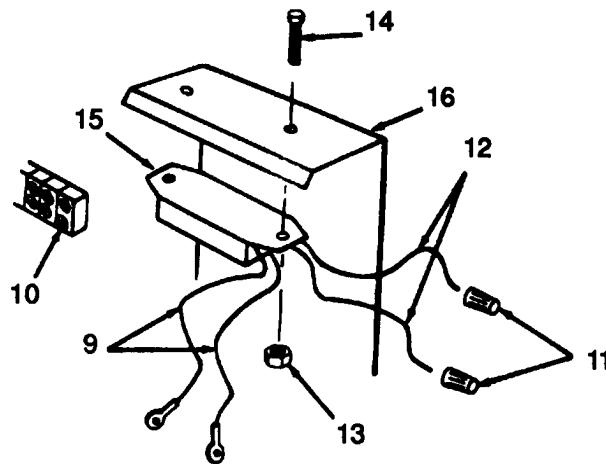


LEGEND
 5 SCREW
 6 GROUND BUS
 7 WIRE NUT
 8 BATTERY
 CABLE

NOTE

Do not remove screw (5) from ground bus.

- e. Loosen screw (5) on ground bus (6).
- f. Remove wire nut (7) on positive battery cable (8).



LEGEND

- 9 BLACK WIRES
- 10 SCREW
- 11 NUTS
- 12 RED WIRES
- 13 NUTS
- 14 SCREWS
- 15 BATTERY CHARGER
- 16 CONTROL BOX

- g. Tag two red wires and two black wires.
- h. Loosen terminal screw (10) on terminal strip and remove black wires (9).
- i. Remove two wire nuts (11) and remove red wires (12).
- j. Remove two nuts (13) and sinews (14).
- k. Remove battery charger(15) from control box (1 6).
- l. Replace unserviceable battery charger with a serviceable item from stock.
- m. Install batter charger (15) in control panel.
- n. Install two sinews (14) and nuts (13) and tighten.
- o. Connect two red wires (12) and install wire nuts (11). Remove tags.
- p. Install two black wires (9) and tighten terminal screws (10). Remove tags.
- q. Install positive battery cable (8) and wire nut (7).
- r. Tighten screw (5) on ground bus (6).
- s. Install control panel inner cover (4) on control panel and secure with assembled screw (3).
- t. Install control panel outer cover (2) on control panel and scare with two assembled screws (1).
- u. Install battery (para 4.23).

SECTION VI. PREPARATION FOR STORAGE AND SHIPMENT

4.33 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 (MWOs) 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.

CHAPTER 5

DIRECT SUPPORT MAINTENANCE

		PAGE
Section I	Repair Parts; Tools; Special Tools; Test, Measurement, and Diagnostic Equipment; and Special Tools	5-1
5.1	Common Tools and Equipment	5-1
5.2	Special Tools, TMDE, and Support Equipment	5-1
5.3	Repair Parts	5-1
Section II	Direct Support Maintenance Procedures	5-2
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5.5	Control Panel	5-3
5.6	Data Plates	5-9
5.7	Splash Panel	5-12
5.8	Ballast Box	5-16

SECTION I. REPAIR PARTS; TOOLS, SPECIAL TOOLS; TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT

5.1 COMMON TOOLS AND EQUIPMENT.

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE), CTA 50-970 or CTA 8-100, as applicable to your unit.

5.2 SPECIAL TOOLS, TMDE AND SUPPORT EQUIPMENT.

No special tools, TMDE, or support equipment is required for maintenance of the Floodlight Set.

5.3 REPAIR PARTS.

Repair parts are listed and illustrated in Appendix C.

SECTION II. DIRECT SUPPORT MAINTENANCE PROCEDURES

5.4 TOWER ASSEMBLY.

This task covers: a. Inspect b. Repair

INITIAL SETUP

<u>Tools</u>	<u>Equipment Condition</u>
Master Mechanics Tool Kit (item 3, sect III, appx B)	Tower removed (para 4.14)
Welding Set (item 6, sect III, appx B)	Tower disassembled para 4.14)
<u>Materials/Parts</u>	<u>Personnel Required</u>
Welding Rods (item 25, appx E)	MOS 52D Power Generation Repairman

INSPECT

Inspect the tower sections for washed or broken welds and distortions.

REPAIR

- a. Weld cracked or broken welds in tower sections. Grind smooth. Spot paint as necessary.
- b. If tower section (s) are damaged beyond repair, replace tower sections.
- c. Assemble tower (para 4.1 4).
- d. Install tower (para 4.14).

5.5 CONTROL PANEL

This task covers: a. Repair

INITIAL SETUP

Tools

Master Mechanics Tool Kit (item 3, sect III, appx B)
Welding Set (item 6, sect III, appx B)

Materials/Parts

Welding Rods (item 25, appx E)
Paint, MIL-E-52798 (item 17, appx E)
Tags (item 23, appx E)

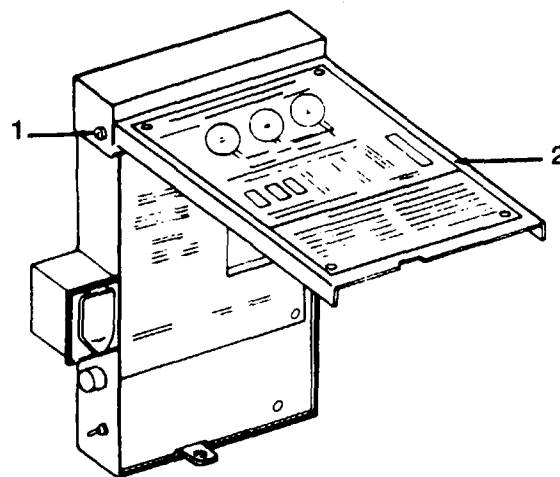
Equipment Condition

Battery removal (para 4.23).
Battery charger removal (para 4.32).
Circuit breakers removal (para 4.21).
Duplex receptacle removal (para 4.17).
Toggle switch removal (para 4.21).

Personnel Required

MOS 52D Power Generation Repairman

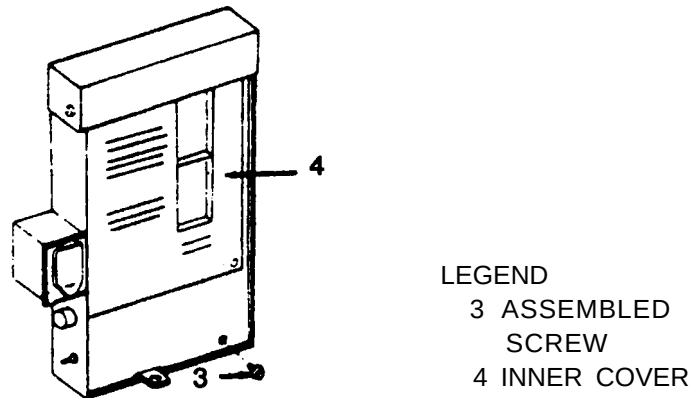
REPAIR



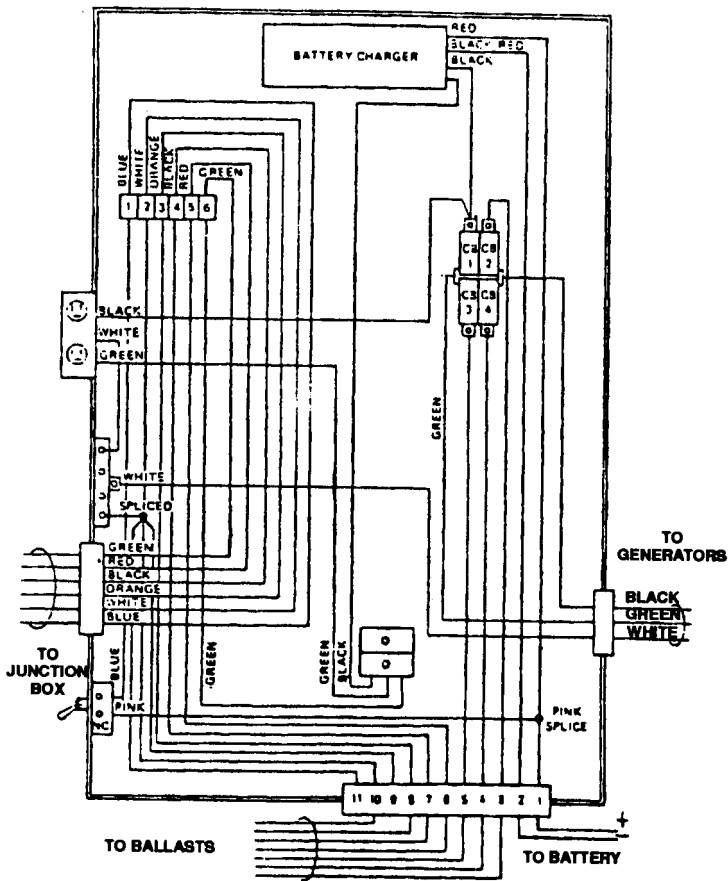
LEGEND

- 1 ASSEMBLED
SCREW
- 2 OUTER COVER

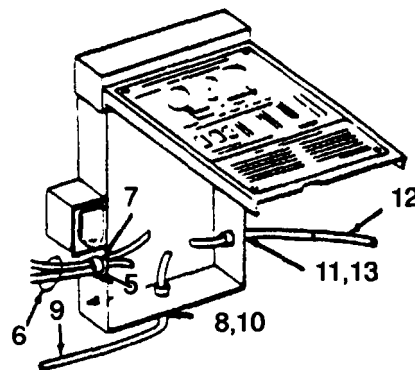
- a. Remove two assembled screws (1).
- b. Remove control panel outer cover (2).



c. Remove assembled screw (3) and remove control panel inner rover (4).



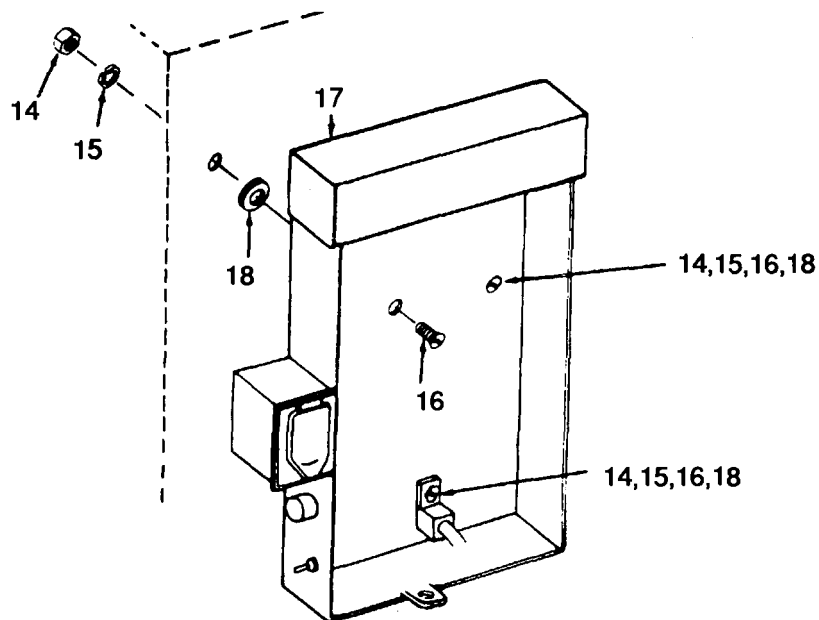
d. Tag and identify internal wiring and then disconnect.



LEGEND

- 5 COLLAR
- 6 TOWER CABLE
- 7 CONNECTOR
- 8 COLLAR
- 9 BALLAST BOX CABLE
- 10 CONNECTOR
- 11 COLLAR
- 12 GENERATOR POWER CABLE
- 13 CONNECTOR

- e. Unscrew collar (5) and withdraw tower power cable (6) from connector (7).
- f. Unscrew collar (8) and withdraw ballast box cable (9) from connector (10).
- g. Unscrew collar (11) and withdraw generator power cable (12) from connector (13).



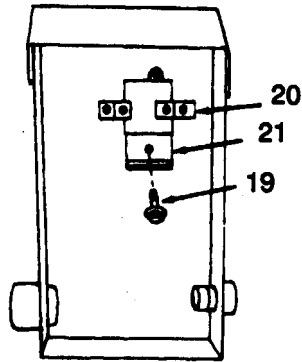
LEGEND

- 14 NUT
- 15 WASHES
- 16 SCREW
- 17 CONTROL PAN-EL
- 18 SPACER

NOTE

Ground lug will come loose when top nut is removed.

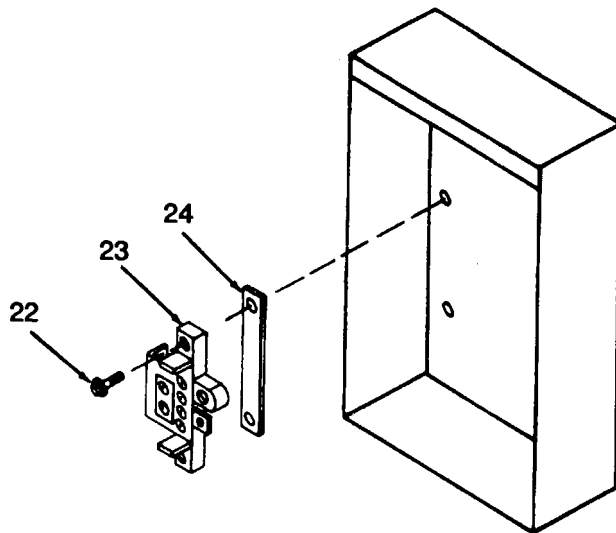
- h. Remove three nuts (14), washers (15), and screws (16).
- i. Remove control panel (17).
- j. Remove three spacers (18).



LEGEND
19 ASSEMBLED
SCREW
20 MOUNTING
PLATE
21 INSULATION
PLATE

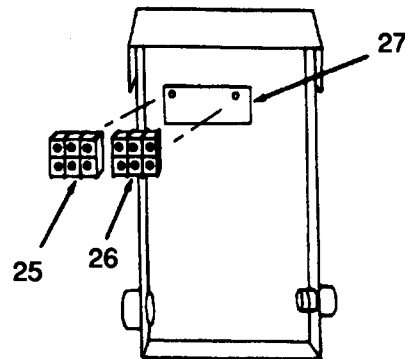
k. Remove two assembled screws (19).

1. Remove circuit breaker mounting plate (20) and installation plate (21).



LEGEND
22 ASSEMBLED
SCREW
23 TERMINAL STRIP
24 INSULATION
PLATE

m. Remove two assembled screws (22), terminal strip (23), and insulation plate (24).



LEGEND

- 25 TERMINAL SECTION
- 26 TERMINAL SECTION
- 27 MOUNTING PLATE

NOTE

Terminal sections snap out from plate.

- n. Remove terminal sections (25 and 26) from mounting plate (27).
- o. Use hammer to straighten dents in the control panel.
- p. Weld cracks and spot paint as necessary.
- q. If control panel is determined to be unserviceable, replace it with a serviceable item from stock.
- r. Install toggle switch (para 4.21).
- s. Install battery charger (para 4.32).
- t. Snap terminal sections (25 and 26) into place on mounting plate (27).
- u. Install installation plate (24) and terminal strip (23) and secure with two assembled screws (22).
- v. Position insulation plate (21) and mounting plate (20) in place and secure with two assembled screws (19).
- w. Install three screws (16) through splash panel.
- x. Install three spacers (18).
- y. Install control panel (17).
- z. Install ground lug on bottom screw. (Not called out on illustration).
- aa. Install three screws (16), lockwashers (15), and nuts (14) and tighten.
- ab. Install circuit breakers (para 4.21).
- ac. Install duplex receptacle (4.17).
- ad. Insert cable (12) through connector (13) and tighten collar (11).

- ae. Insert cable (9) through connector (10) and tighten collar (8).
- af. Insert cable (6) through connector (7) and tighten collar (5).
- ag. Connect internal wiring and remove tags.
- ah. Install inner rover (4) on control panel and secure with assembled screw (3).
- ai. Install outer rover (2) on control panel and secure with two assembled screws (1).
- aj. Install battery (para 4.23).

5.6 DATA PLATES.

This task covers: a. Inspect b. Replace

INITIAL SETUP

Tools

Master Mechanics Tool Set (item 3, sect III, appx B)

Personnel Required

MOS 52D Power Generation Repairman

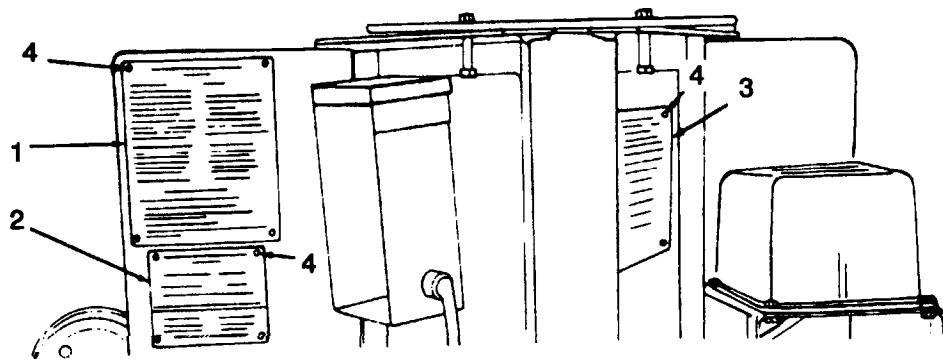
Matetials/Parts

Rivets (item 19, appx E)

INSPECT

Inspect data plates for legibility, loose mounting, or missing rivets.

REPLACE



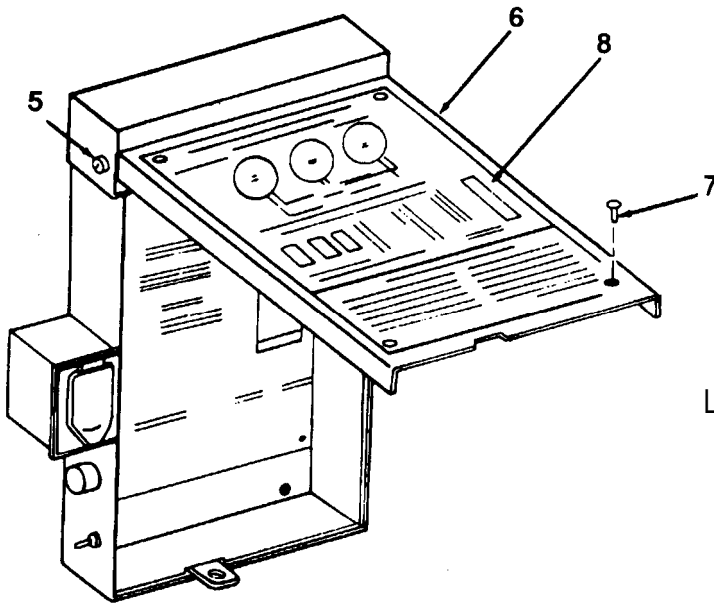
LEGEND

- 1 DATA PLATE
- 2 DATA PLATE
- 3 DATE PLATE
- 4 RIVET

NOTE

Three data plates are located on the splash panel.

- a. Using hammer and chisel, sheer off four rivet heads (4) and remove data plates (1, 2, and 3).

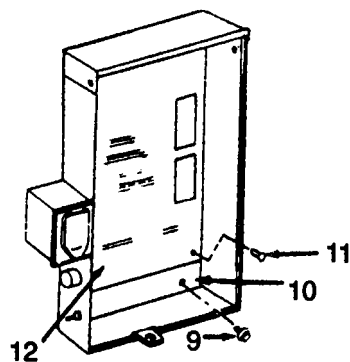


LEGEND
 5 ASSEMBLED
 SCREW
 6 OUTER COVER
 7 RIVET
 8 DATA PLATE

NOTE

Two data plates are located on control bead.

- b. Remove two assemblies screws (5).
- c. Remove cover (6).
- d. Using hammer and chisel, sheer off four rivet heads (7).
- e. Remove outer cover data plate (8).



LEGEND
 9 ASSEMBLED
 SCREW
 10 INNER COVER
 11 RIVET
 12 DATA PLATE

- f. Remove assembled screw (9).
- g. Remove cover (10).

- h. Using hammer and chisel, sheer off four rivet heads (11).
- i. Remove inner cover data plate (12).
- j. Replace damaged or illegible data plate with a serviceable like item.
- k. Install data plate (12) on inner cover (10)
- l. Using fret tool, install four rivets (11).
- m. Install inner cover (10) on control box.
- n. Install assembled screw (9) and tighten.
- o. Install data plate (8) on outer cover (6).
- p. Using rivet tool, install four rivets (7).
- q. Install outer cover (6) on control box.
- r. Install two assembled screws (5) and tighten.
- s. Install data plates (1, 2, and 3) on splash panel with four rivets (4) in each data plate. Use rivet tool to install rivets.

5.7 SPLASH PANEL

This task covers: a. Replace b. . Repair

INITIAL SETUP

Tools

Master Mechanics Tool Set (item 3, sect III, appx B)
Arc Welder (item 4, sect III, appx B)
Crimping Tool (item 11, sect III, appx B)

Personnel Required

MOS 52D Power Generation Repairman

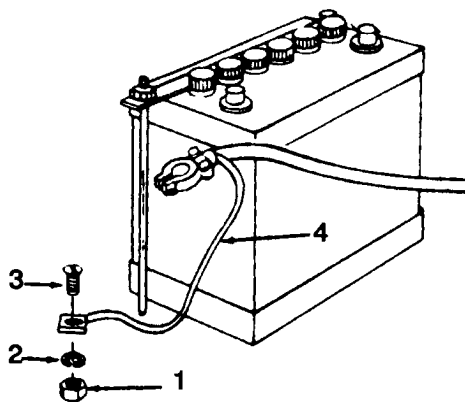
Materials/Parts

Paint MIL-E-52798 (item 17, appx E)
Welding rod (item 25, appx E)

Equipment Condition

Three data plates mounted on splash panel removed (para 5.6)
Ballast cable removed from control panel (para 5.8).
Generator power cable disconnected from generator set.
Control panel removed from splash panel (para 5.5).
Battery removed (para 4.20).
Winch removed (para 4.15).

REPLACE

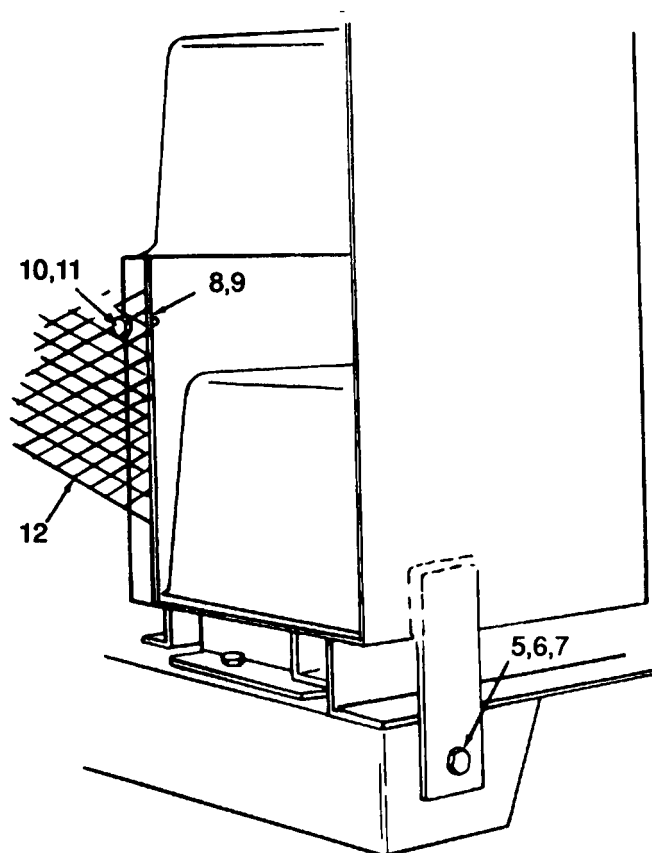


LEGEND

- 1 NUT
- 2 WASHER
- 3 SCREW
- 4 GROUND WIRE (BATTERY)

a. Remove nut (1), washer (2), and screw (3).

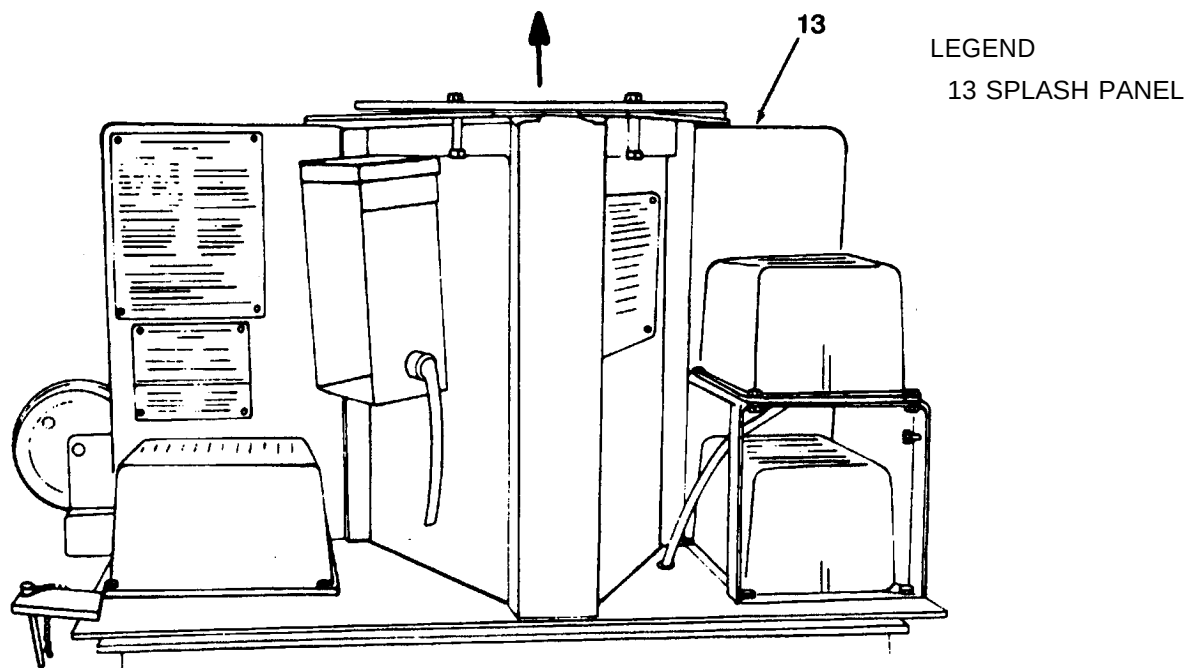
b. Remove battery ground wire (4).



LEGEND

- 5 NUTS
- 6 WASHERS
- 7 BOLTS
- 8 NUT
- 9 LOCKWASHER
- 10 SCREW
- 11 FLATWASHER
- 12 SCREEN

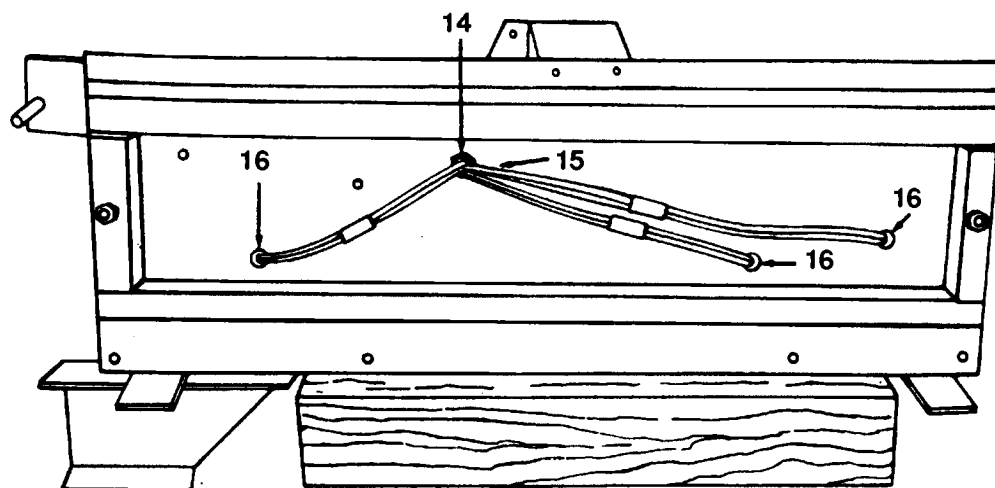
- c. Remove six nuts (5), washers (6), and bolts (7).
- d. Remove nut (8), lockwasher (9), screw (10), and flatwasher (11) from protective screen (12).



WARNING

Splash panel weighs approximately 250 lbs (113.4 kg). Four personnel are required to lift the splash panel from trailer if lifting device is not available.

- e. Using lifting device, remove the splash panel (13). Lay it on a flat surface with the "U" portion facing upwards.
- f. Remove ballast boxes (para 5.6).



- LEGEND
- 14 LOCKNUT
 - 15 CONNECTOR
 - 16 RUBBER GROM-MET

- g. Remove locknut (14).
- h. Remove electrical connector (15) and rubber grommet (16).
- i. Replace splash panel if damaged beyond repair.
- j. Install grommets (16) in splash panel.
- k. Install ballast boxes (para 5.6).
- l. Position in place on trailer.
- m. Install protective screen (12) to panel with flatwasher (11), screw (10), lockwasher (9), and nut (8) and tighten.
- n. Install six bits (7), lockwashers (6), and nuts (5) and tighten.
- o. Install data plates (para 5.7).
- p. Install ballast cable to control panel (para 5.5).
- q. Reconnect generator power cable to generator set.
- r. Install battery (para 4.20).
- s. Install winch (para 4.15).

5.8 BALLAST BOX.

This task covers: a. Replace

INITIAL SETUP

Tools

Master Mechanic Tool Kit (item 3, sect III, appx B)
Crimping Tool (item 11, sect III, appx B)

Equipment Condition

Battery removed (para 4.23)
Splash panel removed (para 5.7)

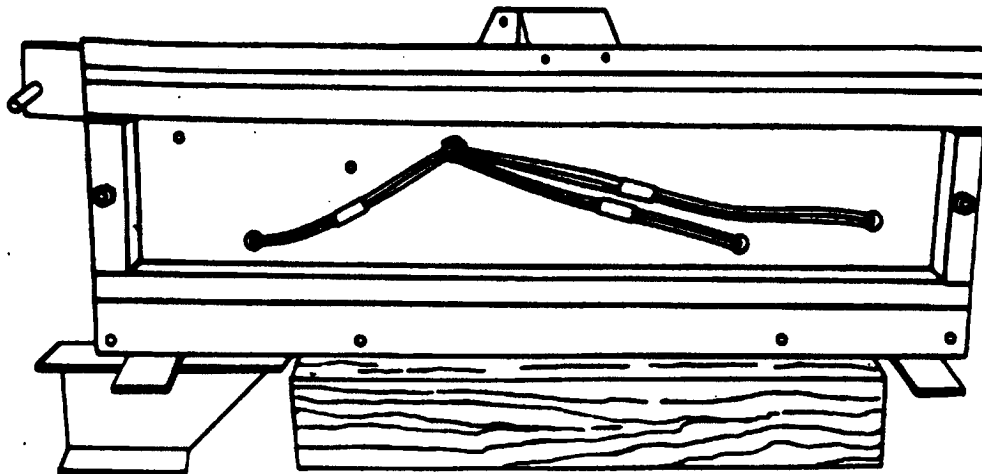
Materials/Parts

Tags (item 23, appx E)

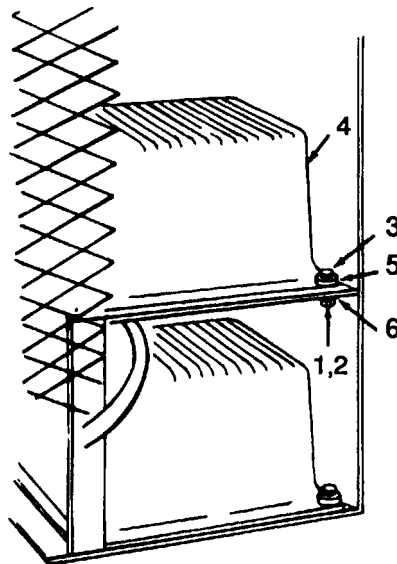
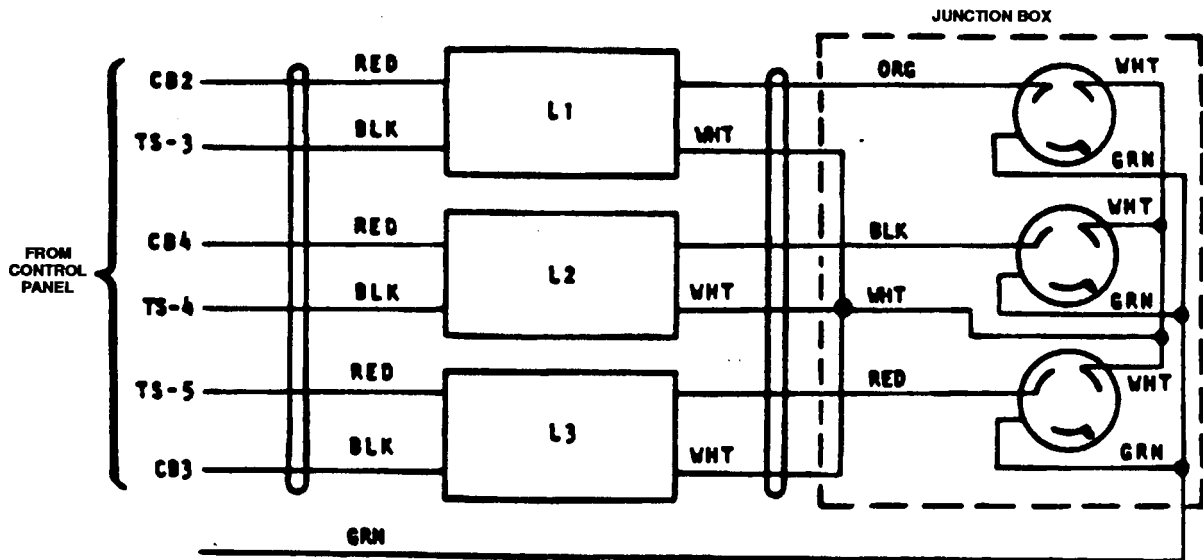
Personnel Required

MOS 52D Power Generation Repairman

REPLACE



- a. Tag and identify wires on bottom of splash panel and cut wires.



LEGEND

- 1 NUTS
- 2 WASHERS
- 3 SCREWS
- 4 BALLAST BOX
- 5 GROMMET
- 6 GROMMET

CAUTION

Set splash panel in upright position to remove ballast box.

- b. Remove four nuts (1), washers (2), and screws (3).
- c. Remove ballast box (4) and grommets (5 and 6).
- d. Slowly draw ballast box wiring through hole in splash panel.
- e. Remove remaining ballast boxes in the same manner.

- f . Replace unserviceable ballast boxes with serviceable items from stock.
- g. Insert ballast box wiring through hole in splash panel.
- h. Install four grommets (5 and 6) over screw holes in splash panel.
- i . Install ballast box (4) on top of grommets.
- j . Install four screws (3), washers (2), and nuts (1) and tighten.
- k. Splice ballast box wiring together and remove tags.
- l . Install remaining ballast boxes in the same manner.
- m. Install splash panel (para 5.8).
- n. Install battery (para 4.23).

APPENDIX A

REFERENCES

A1 SCOPE.

This appendix lists all forms, field manuals, technical manuals, and miscellaneous publications referenced in this manual.

A.2 FORMS AND RECORDS.

Recommended Changes to Publications and Blank Forms DA Form 2028

Recommend Changes to Equipment Technical Publications DA Form 2028-2

Equipment inspection and Maintenance Worksheet DA Form 2404

The Army Maintenance Management System (TAMMS) DA Pam 738-750

Product Quality Deficiency Report SF 368

A.3 FIELD MANUALS.

First Aid for Soldiers FM.21-11

A.4 TECHNICAL MANUALS AND BULLETINS.

Destruction of Army Materiel to Prevent Enemy Use TM 750-244-3

Administrative Storage TM 740-90-1

Operator, Unit, Direct Support, and General Support
Maintenance Manual 10 HP MIL-STD-Engine TM 9-2805-258-14

Operator, Unit, Direct Support, and General Support
Maintenance Manual, 6 HP MIL-STD-Engine TM 5-2805-203-14

Operator, Unit, Direct Support, and General Support
Maintenance Manual, Generator Set, 5kW, MDL MEP-017A TM 5-6115-332-14

Operator, Unit, Direct Support, and General Support
Maintenance Manual for Trailer, Chassis, 3/4-Ton, 2-Wheel, MDL 762 TM 9-2330-251-14

Operator, Unit, Direct Support, and General Support
Maintenance Manual for Generator Set, 3kW, MDL-MEP-016A TM 5-6115-271-14

Operator, Unit, Direct Support, and General Support
Maintenance Manual, Storage Batteries, Lead-Acid Type TM 9-6140-200-14

A.5 MISCELLANEOUS PUBLICATIONS.

Army Logistics Readiness and Sustainability AR 700-138

Expendable/Durable Items (Except Medical, Class V, Repair Parts, And Heraldic Items) CTA 50-970

APPENDIX B

MAINTENANCE ALLOCATION CHART

SECTION I. INTRODUCTION

B.1 GENERAL

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels under the standard Army Maintenance System concept.

b. The Maintenance Allocation Chart (MAC) in Section II designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component will be constant with the capacities and capabilities of the designated maintenance categories.

c. Section III lists the tools and test equipment (both special tools and common tools sets) required for each maintenance function as referenced from Section II.

d. Section IV contains supplemental instructions and explanatory notes for a particular maintenance function.

B.2 MAINTENANCE FUNCTIONS

Maintenance functions will be limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel).

b. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to dean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.

d. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

e. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and is shown as the 3rd position code of the SMR code.

f. Repair. The application of maintenance services including fault location/troubleshooting, removal/installation, and disassembly/assembly procedures, and maintenance actions to identify troubles, and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly) end item, or system.

g. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications (i.e., DMWR). Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

h. Rebuild. Consists of those service/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance

applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipment and components.

B.3 EXPLANATION OF COLUMNS IN THE MAC - SECTION II

a. Column 1 - Group Number. Column 1 lists functional group code numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the next higher assembly. End item group numbers are "00".

b. Column 2 - Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3 - Function. Column 3 lists the functions to be performed on the item listed in column 2. (For detailed explanation of these functions, see Paragraph B.2.)

d. Column 4 - Maintenance Category. Column 4 specifies, by the listing of a work time figure in the appropriate subcolumn(s), the category of maintenance authorized to perform the function listed in Column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance categories, appropriate work time figures will be shown for each category. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable rendition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. 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

e. Column 5 - Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TMDE, and support equipment required to perform the designated function.

f. Column 6 - Remarks. This column shall, when applicable, contain a letter code, in alphabetic order, which is keyed to the remarks contained in Section IV.

B.4 EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III

a. Column 1, Reference Code. The tool and test equipment reference code correlates with a code used in the MAC, Section II, Column 5.

b. Column 2, Maintenance Level. The lowest category of maintenance authorized to use the tool or test equipment.

c. Column 3, Nomenclature. Name of identification of the tool or test equipment.

d. Column 4, National Stock Number. The National Stock Number of the tool or test equipment.

e. Column 5, Tool Number. The manufacturer's part number.

B.5 EXPLANATION OF COLUMNS IN REMARKS, SECTION IV

- a. Column 1. Reference Codes. The code recoded in column 6, Section II.
- b. Column 2. remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC, Section II.

SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQUIPMENT	(6) REMARKS
			UNIT		DS	GS	DEPOT		
			C	O	F	H	D		
00	FLOODLIGHT SET								
01	FLOODLIGHT ASSY	INSPECT	.1						
		INSPECT		x					
		SERVICE	.1						
		SERVICE		x					
		REPLACE		.5				1	A
		REPAIR		.5				1	
02	TOWER ASSY	INSPECT	.1						
		INSPECT		x					
		INSPECT			x				
		REPLACE		1.0				1-4-15	B
		REPAIR			2.5			3-6	
	TOWER TILT LOCKBAR	INSPECT	.1						
		REPLACE		.5				1	
	EXTENSION LOCKBAR	INSPECT	.1						
		REPLACE		.5				1	
	RECEPTACLE, JUNC TION BOX	TEST		.2					
		REPLACE		.3				1	
03	WINCH	INSPECT	.1						
		SERVICE		.1					
		REPLACE		.5				1-16	
		REPAIR		1.5				1-16	C
	WINCH CABLES AND PULLEYS	REPLACE		.5				1	
04	POWER CABLE	TEST		.2				2	
		REPLACE		1.0				1	
05	CONTROL PANEL	INSPECT	.1						
		INSPECT			x				
		REPLACE			x			3	
		REPAIR			x			3	
	BATTERY CHARGER	REPLACE		.5				1	
	TOGGLE SWITCH AND CIRCUIT BREAKERS	TEST		.1				2	
		REPLACE		.5				5	
	RECEPTACLES	REPLACE		.3				1	
	DATA PLATES	REPLACE			.3			3-14	
06	SPLASH PANEL	INSPECT		.1					
		REPLACE			4.0			3-4-11	
		REPAIR			5.0			3-4-11	
07	BALLAST BOX	INSPECT		.1					
		REPLACE			4.0			3-11	
08	BATTERY, BATTERY TERMINALS, AND WIRES	INSPECT	.1						
		SERVICE	.2						
		SERVICE		.2					
		TEST		.2					
		REPIACE		.2				1-17	

(1)	(2)	(3)	(4)					(5)	(6)
GROUP NUMBER	COMPONENT/ ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE LEVEL					TOOLS AND EQUIPMENT	REMARKS
			UNIT		DS	GS	DEPOT		
			C	O	F	H	D		
0 9	RED WARNING LIGHT	INSPECT REPLACE REPLACE	.1 x	.3				7 1-11	A
10	LENS	REPLACE	.1						
	LAMP	REPLACE	.1						
	FUEL SYSTEM								
	FUEL TANK	INSPECT SERVICE SERVICE REPLACE	.1 .1	x .5				1	
	STRAINER	SERVICE REPLACE	.1 .1						
	CAP, FUEL	REPLACE	.1					8	
	GAUGE	REPLACE		x				1-12	
	FUEL LINE	INSPECT REPLACE		.1 .3				1	
11	LEVELING JACKS AND OUTRIGGERS	INSPECT SERVICE REPLACE	.1	.1 .5				1	
	CASTER WHEEL	SERVICE REPLACE		.1 .5				1	
12	GROUND ROD	INSPECT REPAIR	.1 .5					7	
13	LEVEL	SERVICE REPLACE	.1 .2					7-9-10	
14	GENERATOR MOUNT- ING HARDWARE	INSPECT REPLACE		x .2				1	
15	OIL DRAIN HOSE	REPLACE		.2				1	

SECTION III. TOOLS AND TEST EQUIPMENT REQUIREMENTS

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	0	TOOL KIT, LIGHTWEIGHT, MECHANICS	5180-00-177-7033	1
2		MULTIMETER	6625-00-581-2036	AN/URM 105
3	F	TOOL KIT, MASTER MECHANICS	5180-00-699-5273	
4		ARC WELDER		
5		TOOL KIT, GENERAL MECHANICS		
6		WELDING SET		
7		SCREWDRIVER, FLAT TIP, 4-INCH		
8		PLIERS, SLIPJOINT, STRAIGHT NOSE, 8-INCH		
9		RATCHET, 1/4-INCH DRIVE		
10		SOCKET, 5/16-INCH, 1/4-INCH DRIVE		
11		CRIMPING TOOL, TERMINAL	5120-00-596-9313	
12		CUTTER, GASKET	5110-00-238-8722	
13		PULLER, GROUND ROD	5120-00-013-1676	
14		RIVETING KIT	5120-00-017-2849	
15		TORCH OUTFIT	3433-00-935-7964	
16		VICE, MACHINIST	5120-00-293-1493	
17		BATTERY CARRIER		

SECTION IV. REMARKS

- A REPAIR IS RESTRICTED TO THOSE TOOLS FURNISHED WITH TOOL KIT,
GENERAL MECHANICS.
- B REPAIR OF TOWER ASSEMBLY AND OUTRIGGER WILL BE ACCOMPLISHED BY
WELDING.
- C REPAIR CONSISTS OF INSTALLING KIT.

APPENDIX C

UNIT AND DIRECT SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LISTS

SECTION I. INTRODUCTION

C.1 SCOPE. This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of unit, direct support and general support maintenance of the Floodlight Set. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

C.2 GENERAL. In addition to this section, Introduction, this Repair Parts and Special Tools List is divided into the following sections:

a. Section II. Repair Parts List. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. This list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Items are shown in the associated illustration(s)/figure(s).

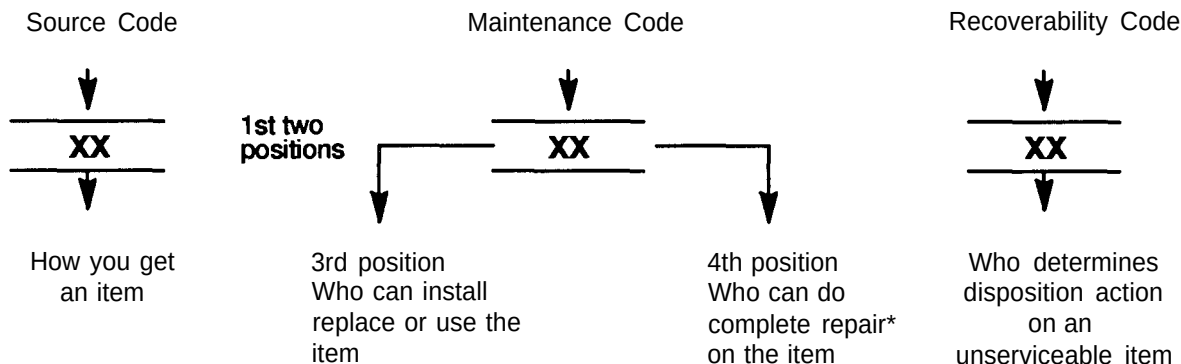
b. Section III. Special Tools List. A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE column) for the performance of maintenance.

c. Section IV. Cross Reference Index. A list, in National Item Identification Number (NIIN) sequence, of all National stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross referenced to each illustration figure and item number appearance. The figure and item number index lists figure and item numbers in alphanumeric sequence and cross references NSN, CAGEC and part number.

C.3 EXPLANATION OF COLUMNS (SECTIONS II AND III).

a. ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

b. SMR Code (Column (2)).



* Complete Repair Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

(1) Source Code. The source code tells you how to get an item needed for maintenance, repair, or overhaul of and end item/ equipment. Explanations of sours codes follows:

Source Code	Explanation
PA PB PC** PD PE PF PG	Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3rd position of the SMR code. **NOTE: Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requestdrquisitioned individually. They are part of a kit which is authorized to the maintenance indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.
MO - (Made at Unit/AVUM Level) MF - (Made at DS/AVUM Level) MH - (Made at GS Level) ML - (Made at Specialized Repair Activity (SRA)) MD - (Made at Depot)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION and USABLE ON CODE (UOC) column and listed in the Bulk Material group of the repair parts list in this RPSTL. If the item is authorized to you by the 3rd position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.
AO - (Assembled by Unit/AVUM Level) AF - (Assembled by DS/AVIM Level) AH - (Assembled by GS Category) AL - (Assembled by SRA) AD - (Assembled by Depot)	Items with these codes are not to be requestdrquisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd position code of the SMR code authorizes you to replace the item, but the sour code indicates the items are assembled at a higher level, order the item from the higher level of maintenance.
XA -	Do not requisition "XA"-coded item. Order its next higher assembly. (Refer to the NOTE below.)
XB -	If an "XB" item is not available from salvage, order it using the CAGEC and part number given.
XC -	Installation drawing, diagram, instruction sheet, field service drawing, that is identified manufacturer's part number.
XD -	Item is not stocked. Order an "XD"-coded item through normal supply channels using the CAGEC and part number given,if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft supplied items restricted by requirements of AR 750-1.

(2) Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

(a) The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance.

Maintenance Code	Application/Explanation
C -	Crew or operator maintenance done within unit/AVUM maintenance.
O -	Unit level/AVUM maintenance can remove, replace, and use the item.
F -	Direct support/AVIM maintenance can remove, replace, and use the item.
H -	General support maintenance can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions.)

NOTE

Some limited repair may be done on an item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart and SMR codes.

Maintenance Code	Application/Explanation
O -	Unit/AVUM is the lowest level that can do complete repair of the item.
F -	Direct support/AVIM is the lowest level that can do complete repair of the item.
H -	General Support is the lowest level that can do complete repair of the item.
L -	Specialized repair activity is the lowest level that can do complete repair of the item.
D -	Depot is the lowest level that can do complete repair of the item.
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. No parts or special tools are authorized for the maintenance of a "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

**Recoverability
Codes**

Application/Explanation

- Z - Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
- O - Reparable item. When not economically reparable, condemn and dispose of the item at unit or AVUM level.
- F - Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support or AVIM level.
- H - Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
- D - Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
- L - Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
- A - Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. CAGEC (Column (3)). The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

d. Part Number (Column (4)). Indicates the primary number used by the manufacturer, (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different part number from the number listed.

e. DESCRIPTION AND USABLE ON CODE (UOC) COLUMN (5). This column includes the following information:

- (1) The Federal item name and, when required, a minimum description to identify the item.
- (2) Part numbers of bulk materials are referenced in this column in the line entry to be manufactured/fabricated.
- (3) The statement "END OF FIGURE" appears just below the last item description in Column (5) for a given figure in both Section II and Section III.
- (4) Items that are included in kits and sets are listed below the name of the kit or set.
- (5) Spare/repair parts that makeup an assembled item are listed immediately following the assembled item line entry.
- (6) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.
- (7) The indenture, shown as dots appearing before the repair part, indicates that the item is a repair part of the next higher assembly.

f. Qty (Column (6)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunction group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and may vary from application to application.

C.4 EXPLANATION OF INDEX FORMAT AND COLUMNS (SECTION NO TAG).

a. NATIONAL STOCK NUMBER (NSN) INDEX.

(1) STOCK NUMBER Column. This column lists the NSN in national item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN, i.e.

NSN
5305-01-574-1467
NIIN

When using this column to locate an item, ignore the first four digits of the NSN. Use the complete NSN (13 digits) when requisitioning items by stock number.

(2) FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in Section IV.

(3) ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

b. PART NUMBER INDEX. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers O through 9, and each following letter or digit in like order).

(1) CAGEC Column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

(2) PART NUMBER Column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

(3) STOCK NUMBER Column. This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and CAGEC columns to the left.

(4) FIG. Column. This column lists the number of the figure where the item is identified/located in Section II.

(5) ITEM Column. The item number is that number assigned to the item as it appears in the figure referenced in adjacent figure number column.

c. FIGURE AND ITEM NUMBER INDEX.

(1) FIG. Column. This column lists the number of the figure where the item is identified/located in Section II.

(2) ITEM Column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

(3) STOCK NUMBER Column. This column lists the NSN for the item.

(4) CAGEC Column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

(5) PART NUMBER Column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

C.5 SPECIAL INFORMATION.

a. FABRICATION INSTRUCTIONS. Bulk materials required to manufacture items are listed in the Bulk Material Functional Group of this RPSTL. Part numbers for bulk materials are also referenced in the description column of the line entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in this manual.

b. INDEX NUMBERS. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the National Stock Number/Part Number Index and the bulk material list in Section NO TAG.

C.6 HOW TO LOCATE REPAIR PARTS.

a. When National Stock Numbers or Part Numbers are NOT Known.

(1) First. Using the table of contents, determine the assembly or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

(2) Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

(3) Third. Identify the item on the figure and use the Figure and Item Number Index to find the NSN.

b. When National Stock Number or Part Number is Known.

(1) First. Using the of National Stock Number and Part Number Indexes find the pertinent National Stock Number or Part Number. The NSN index is in National Item Identification Number (NIIN) sequence (see paragraph C.4.a.). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see paragraph C.4.b.). Both indexes cross-reference you to the illustration/figure and item number of the item you are looking for.

(2) Second. Turn to the figure and item number, verify that the item is the one you are looking for, then locate the item number in the repair parts list for the figure.

C.7 ABBREVIATIONS. Abbreviations used in this manual are listed in MIL-STD-12.

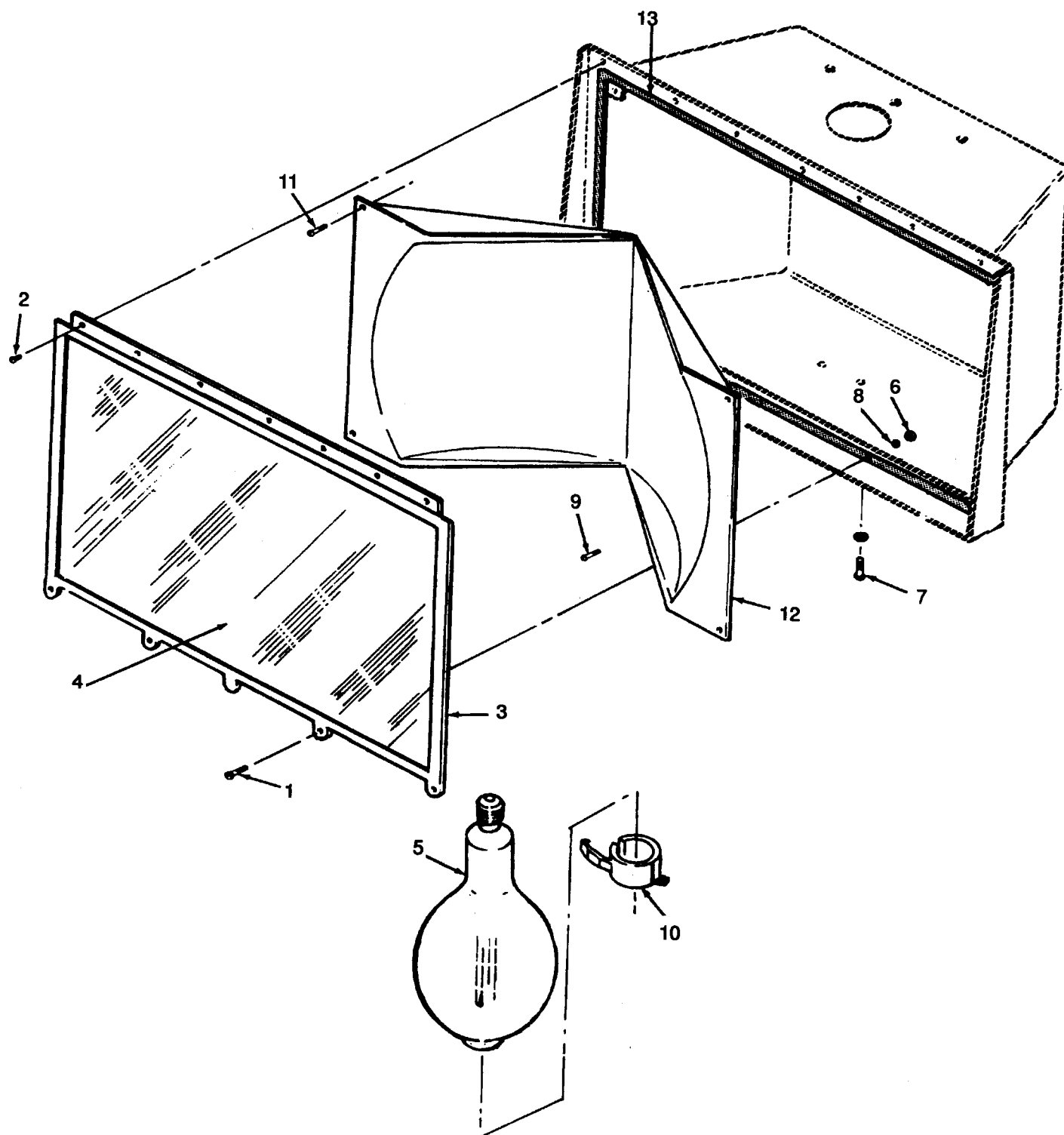


Figure C-1. Fixture Assembly (Sheet 1 of 3).

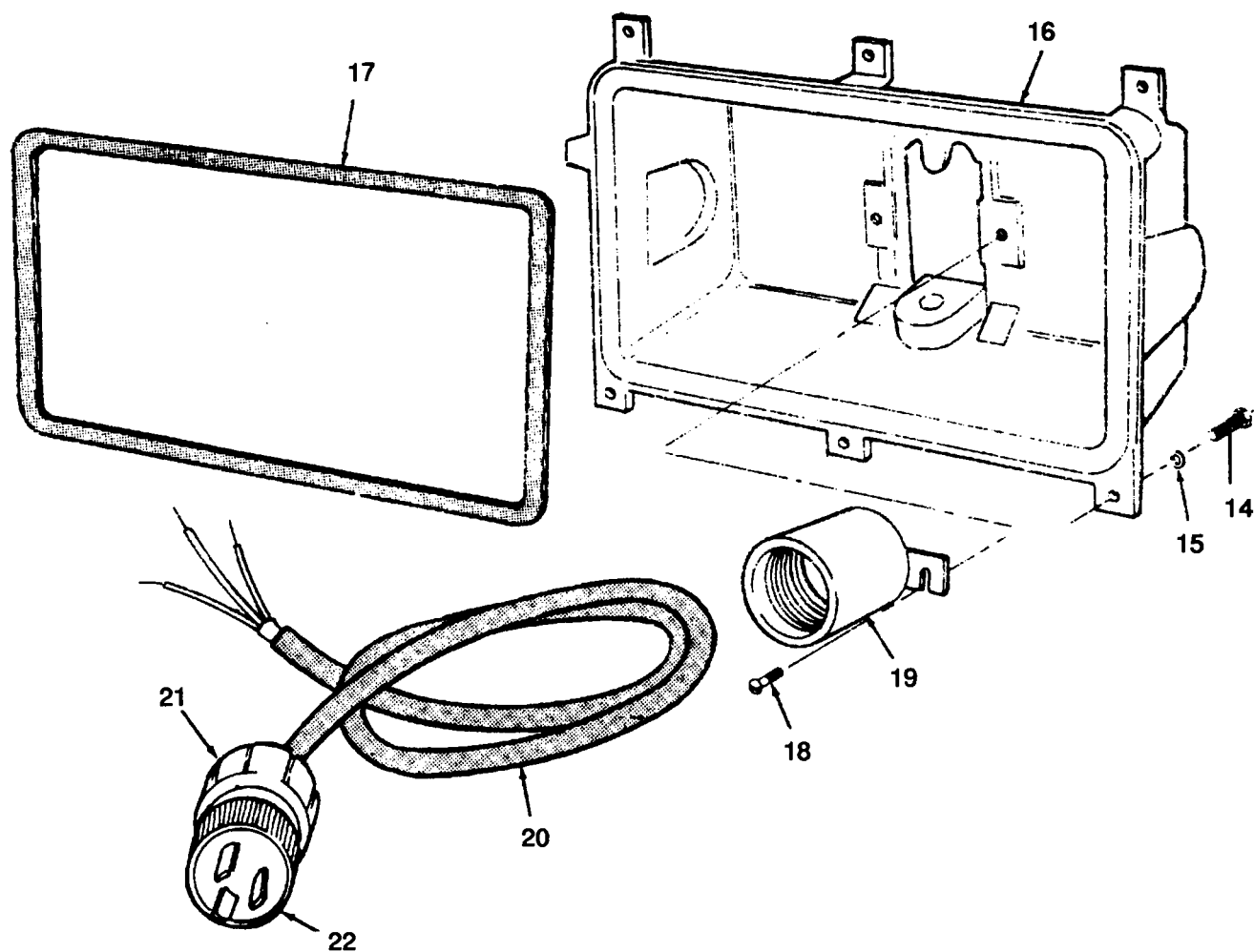


Figure C-1. Fixture Assembly (Sheet 2 of 3).

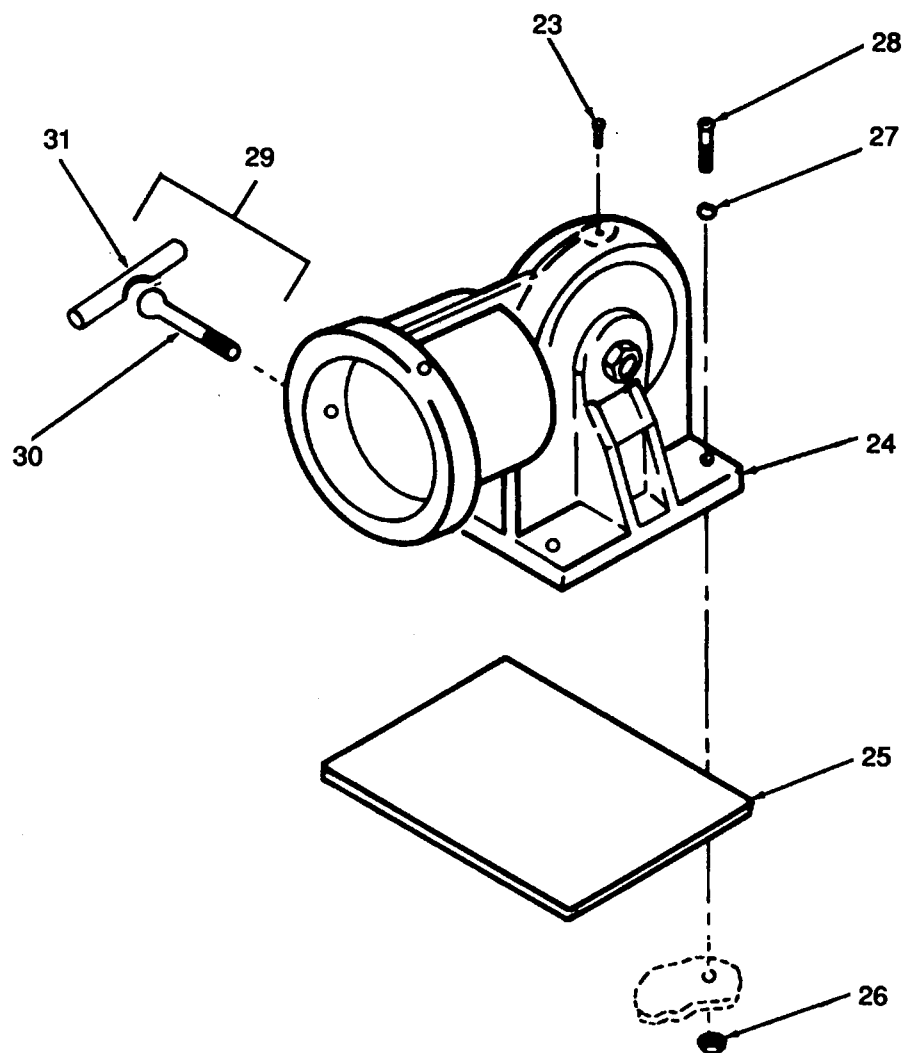


Figure C-1. Fixture Assembly (Sheet 3 of 3).

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 1 FIXTURE ASSEMBLY					
FIGURE C-1 FIXTURE ASSEMBLY					
	PB0ZZ	58781	SFA-8544-RBH- LP-120V	FIXTURE ASSEMBLY	1
	XB0ZZ	58781	C-23-4	.HOUSING, LAMP	1
1	PA0ZZ	96906	MS35207-266	..SCREW, MACHINE	12
2	PA0ZZ	96906	MS35206-225	..SCREW, MACHINE	8
3	XB0ZZ	58781	F-5	..FRAME, LENS	1
4	PA0ZZ	58781	L-5	..LENS, LIGHT	1
5	PA0ZZ	00805	MV-1000/U	..LAMP, 1000 WATT METAL HALIDE	3
6	PA0ZZ	96906	MS35649-23	..NUT, HEXAGON PLAIN	3
7	PA0ZZ	58781	M56-1	..SEALING WASHER	3
8	PA0ZZ	96906	MS35335-31	..LOCKWASHER	3
9	PA0ZZ	96906	MS35265-17	..SCREW, MACHINE	3
10	PA0ZZ	58781	SA-84	..STABILIZER, BULB	1
11	PA0ZZ	96906	MS35265-13	..SCREW, MACHINE	4
12	PA0ZZ	58781	S-11-D	..REFLECTOR	1
13	PA0ZZ	58781	G-68-1	..GASKET, LENS	9
14	PA0ZZ	96906	MS90725-3	..SCREW, CAP HEXAGON	6
15	PA0ZZ	96906	MS35338-45	..WASHER, LOCK	6
16	PB0ZZ	58781	C-72	..HOUSING	1
17	PA0ZZ	58781	G-67	..GASKET HOUSING	4
18	PA0ZZ	96906	MS35206-225	..SCREW, MACHINE	2
19	PA0ZZ	58781	S-5	..SOCKET, LAMP	1
20	PA0ZZ	81348	J-C-580S06CK3/1 4SRNJ	..CORD, FIXTURE	5
21	PA0ZZ	81091	L20RBP	..BOOT, DUST AND MOISTURE	1
22	PA0ZZ	81091	L820P	..PLUG, TWIST LOCK	1
23	PA0ZZ	96906	MS35265-22	..SCREW, MACHINE	4
24	PB0ZZ	58781	S-F-4	..SLIPFITTER	1
25	PA0ZZ	58781	A-1	..GASKET, RUBBER	1
26	PA0ZZ	96906	MS51967-14	..NUT, PLAIN, HEXAGON	1
27	PA0ZZ	96906	MS35338-48	..WASHER, LOCK	1
28	PA0ZZ	96906	MS90725-113	..SCREW, CAP, HEXAGON	1
29	MFFZZ	56681	HLP-1059A	..BOLT, T HANDLE, MAKE FROM: SCREW, P/N ..MS90728-73 AND METAL ROD, P/N MIL-S-23284	9
30	PAFZZ	96906	MS90728-73	..CAP, SCREW	9
31	PAFZZ	81349	MIL-S-23284	..METAL ROD, 3 IN LG X 3/8 IN DIA	9

END OF FIGURE

C-11/(C-12 BLANK)

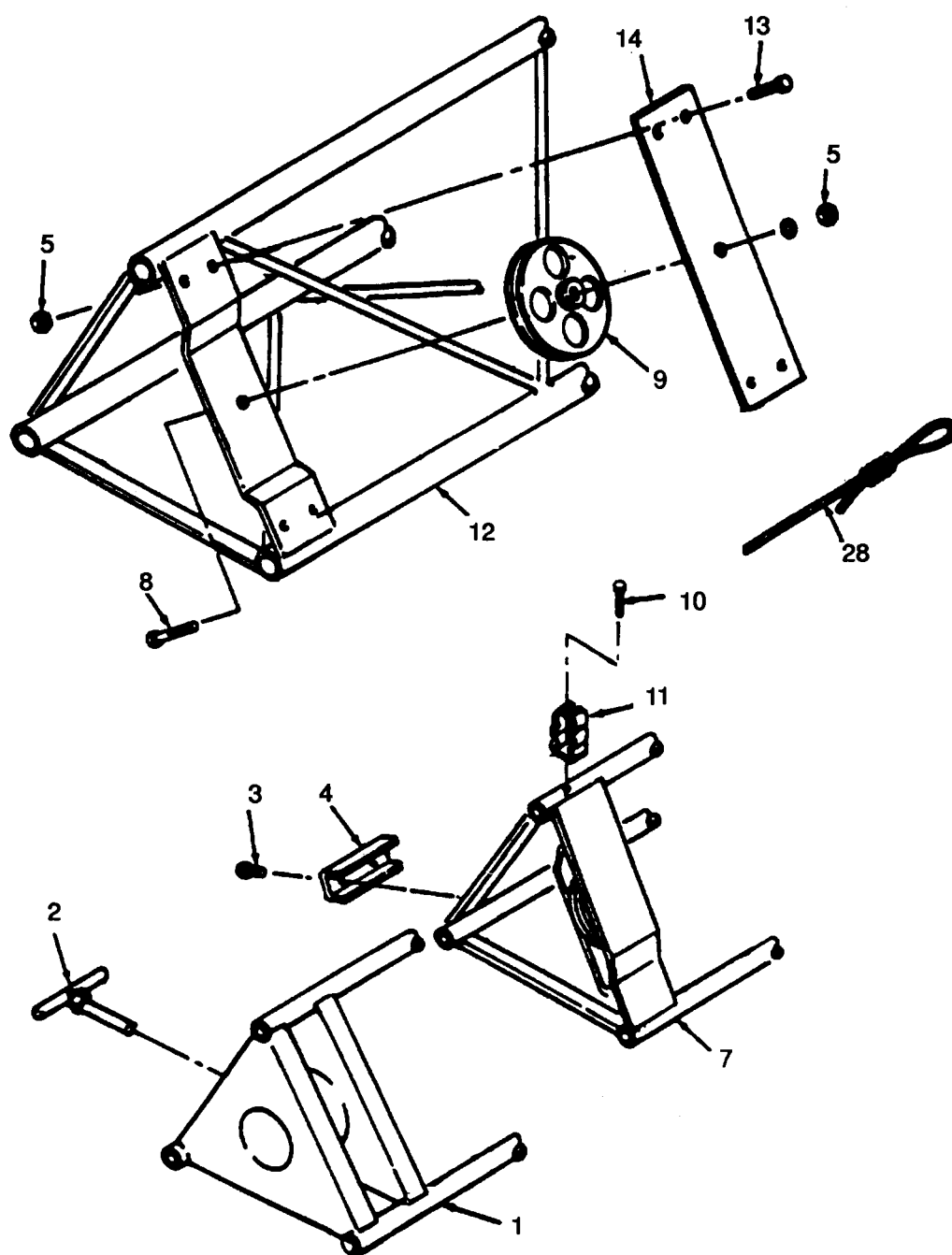


Figure C-2. Tower Assembly (Sheet 1 of 2).

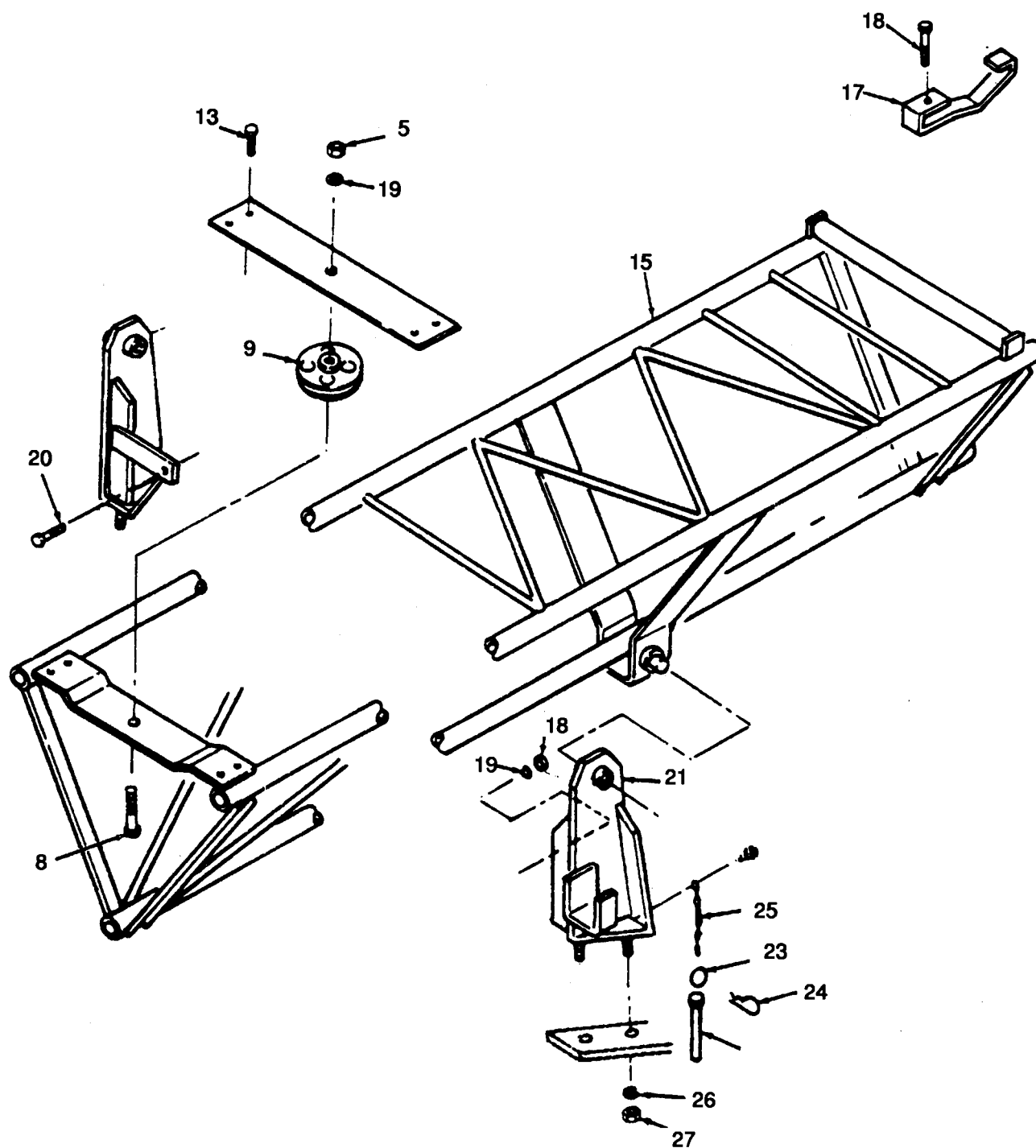


Figure C-2. Tower Assembly (Sheet 2 of 2).

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 2 TOWER ASSEMBLY					
FIGURE C-2 TOWER ASSEMBLY					
	XBFFH	56681	DRW NO 23-1	TOWER ASSEMBLY	1
1	PBFFF	56681	HLP-1023A	.TOWER, TOP SECTION	1
2	MFFZZ	56681	HLT-4240	..HANDLE PIVOT PIN	2
3	PAOZZ	96906	MS90725-8	..SCREW, CAP, HEXAGON	2
4	XB0ZZ	56681	4154-RA	..BRACKET, TOWER STOP	3
5	PAFZZ	96906	MS51922-17	..NUT, SELF-LOCKING	1
6	PAOZZ	96906	MS90725-61	..SCREW, CAP, HEXAGON HEAD	1
7	PBFFF	56681	HLP-1024A	.TOWER, SECTION NEXT TO TOP	1
8	PAFZZ	39428	92210A628	..SCREW, COUNTER SUNK	1
9	XBFFZ	56681	HLP-1027A	..PULLEY, TOWER	5
10	PAOZZ	96906	MS51863-38	..SCREW, SELF-TAPPING	4
11	PAOZZ	96906	MS28137-4	..CLIP, SPRING	4
12	PBFFF	56681	HLP-1025A	.TOWER SECTION NEXT TO BOTTOM	1
13	PAFZZ	96906	MS18154-58	..SCREW, MACHINE	4
14	XBFFZ	56681	4241	..BRACKET, SHEAVE	1
15	PBFFF	56681	HLP-1026A	.TOWER SECTION, BOTTOM	1
16	PAOZZ	96906	MS90725-117	..SCREW, CAP, HEXAGON HEAD	1
17	XB0ZZ	56681	HLP-1030A	..EXTENSION LOCKBAR	1
18	PAFZZ	96906	MS51922-17	..NUT, SELF-LOCKING	1
19	PAFZZ	96906	MS35338-46	..WASHER, LOCK	1
20	PAFZZ	96906	MS18154-60	..SCREW, CAP HEXAGON	1
21	XBFFF	56681	HLP-1033A	..HINGE ASSEMBLY, PIVOT	1
22	MF0ZZ	39428	98306A	..PIN ASSEMBLY, LOCK	1
23	XB0ZZ	56681	NPN	..RING, SPLIT	1
24	PAOZZ	39428	98335A	..PIN, SAFETY	2
25	PAOZZ	81348	RR- C-271TY2CL2SZ. 062	..CHAIN, SAFETY	2
26	PAFZZ	96906	MS35338-44	..WASHER, LOCK	4
27	PAFZZ	96906	MS51922-33	..NUT, SELF-LOCKING, HEXAGON	4
28	PBFZZ	56681	HLP-1018A	..WIRE ROPE, STEEL	1
END OF FIGURE					

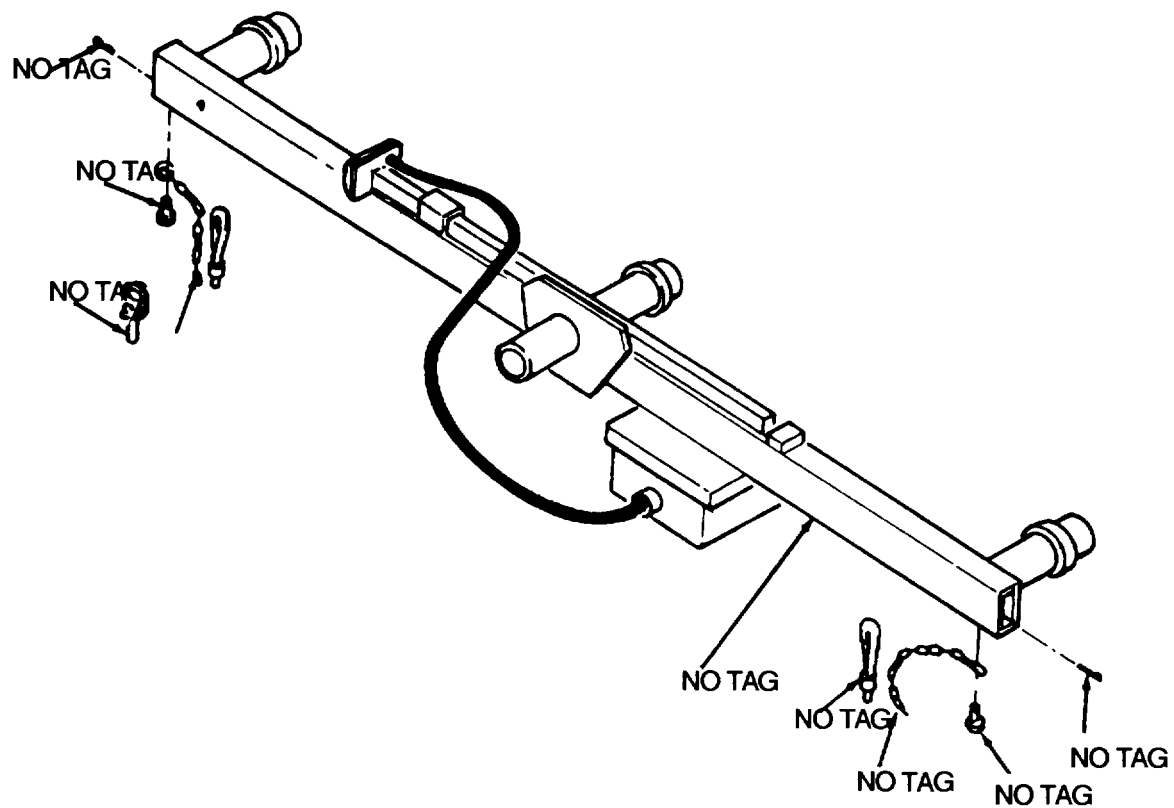


Figure C-3. Bar Assembly.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 02 TOWER ASSEMBLY - CONTINUED					
FIGURE C-3 BAR ASSEMBLY					
1	XB0ZZ	56681	HLP-1022A	.BAR ASSEMBLY	1
2	PA0ZZ	39428	3912T11	..SWIVEL EYE SNAP	3
3	PA0ZZ	81348	RR-C-271TY2 CL2SZ.062	..CHAIN, SAFETY	2
4	PAFZZ	96906	MS20604B3W2	..RIVET, BLIND	4
5	PA0ZZ	39428	98335A	..PIN, SAFETY	1
6	XB0ZZ	56681	NPN	..RING, SPLIT	1
END OF FIGURE					

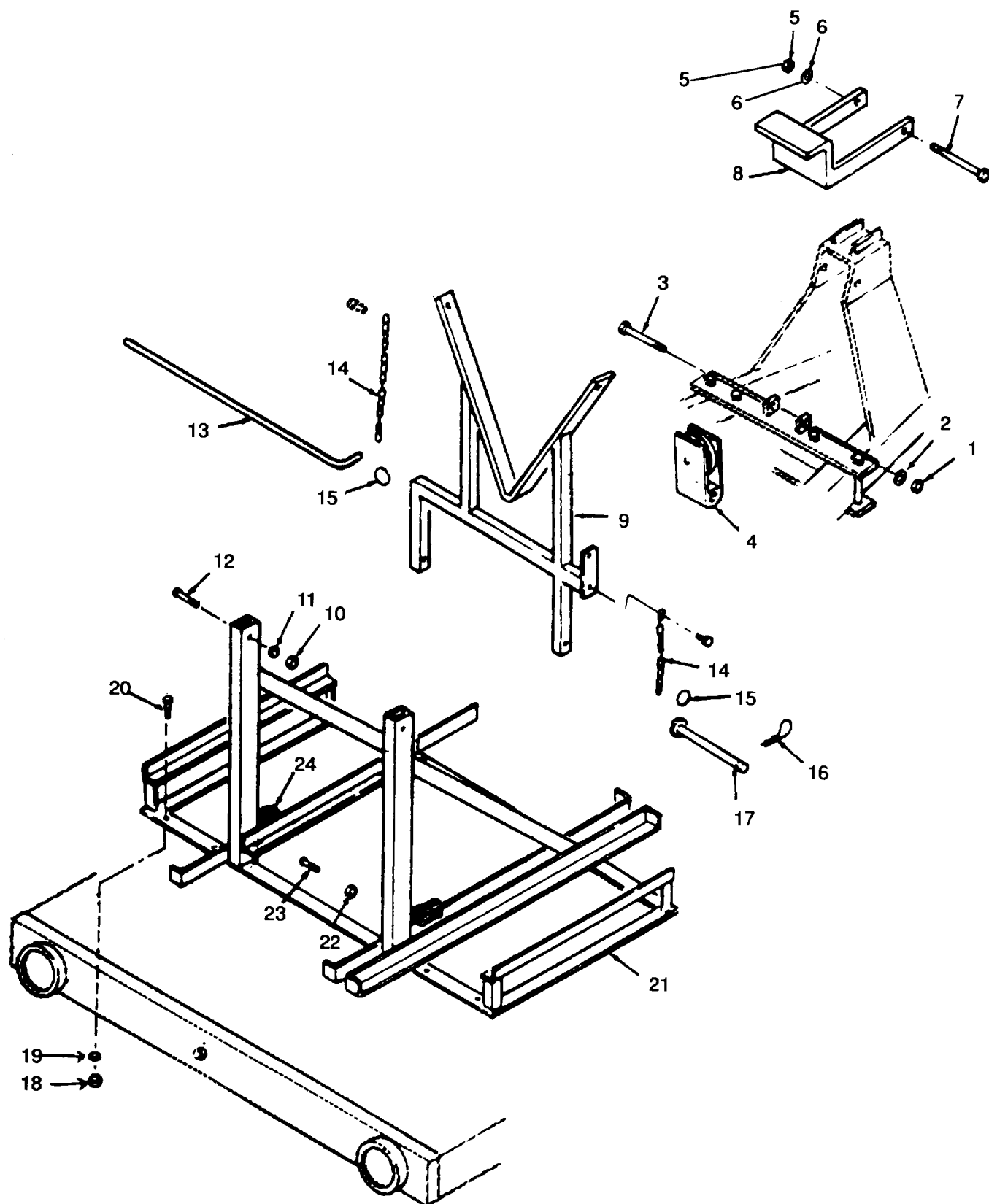


Figure C-4. Tower Cradle.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 02 TOWER ASSEMBLY - CONTINUED					
FIGURE C-4 TOWER CRADLE					
1	PAFZZ	96906	MS51967-14	.NUT, PLAIN, HEXAGON	1
2	PAFZZ	96906	MS35338-46	.WASHER, LOCK	1
3	PAFZZ	96906	MS90728-125	.SCREW, CAP, HEXAGON HEAD	1
4	XBZZ	56681	1194	.PULLEY, TOWER CABLE	1
5	PAZZ	96906	MS51967-8	.NUT, PLAIN, HEXAGON	1
6	PAZZ	96906	MS35338-46	.WASHER, LOCK	1
7	PAZZ	96906	MS90725-78	.SCREW, CAP, HEXAGON HEAD	1
8	XBZZ	56681	HLP-1031A	.BAR, TILT LOCK	1
9	XBFF	56681	HLP-1032A	.CRADLE ASSEMBLY	1
10	PAZZ	96906	MS51967-9	.NUT, PLAIN, HEXAGON	2
11	PAZZ	96906	MS35338-46	.WASHER, LOCK	2
12	PAZZ	96906	MS90728-41	.SCREW, CAP, HEXAGON HEAD	2
13	MFOZZ	39428	9010N12	.PIN, LOCKING, TOWER	1
14	PAZZ	81348	RR- C-271TY2CL2SZ. 062	.CHAIN, SAFETY	3
15	XBZZ	56681	#12	.RING, SNAP	2
16	PAZZ	88044	AN415-2	.PIN, LOCK	2
17	PAZZ	39428	98306A	.PIN, LOCKING	1
18	PAFZZ	96906	MS51967-14	.NUT, PLAIN, HEXAGON	10
19	PAFZZ	96906	MS35338-48	.WASHER, LOCK	10
20	PAFZZ	96906	MS90725-34	.BOLT, MACHINE	10
21	PAZZ	56681	HLP-1043A	.HOLD DOWN	2
22	PAZZ	97403	13214E3291-3	.NUT, PLAIN, HEXAGON	6
23	PAZZ	96906	MS35206-230	.SCREW, MACHINE	6
24	PAZZ	56681	201	.STRAP, FIXTURE	6
END OF FIGURE					

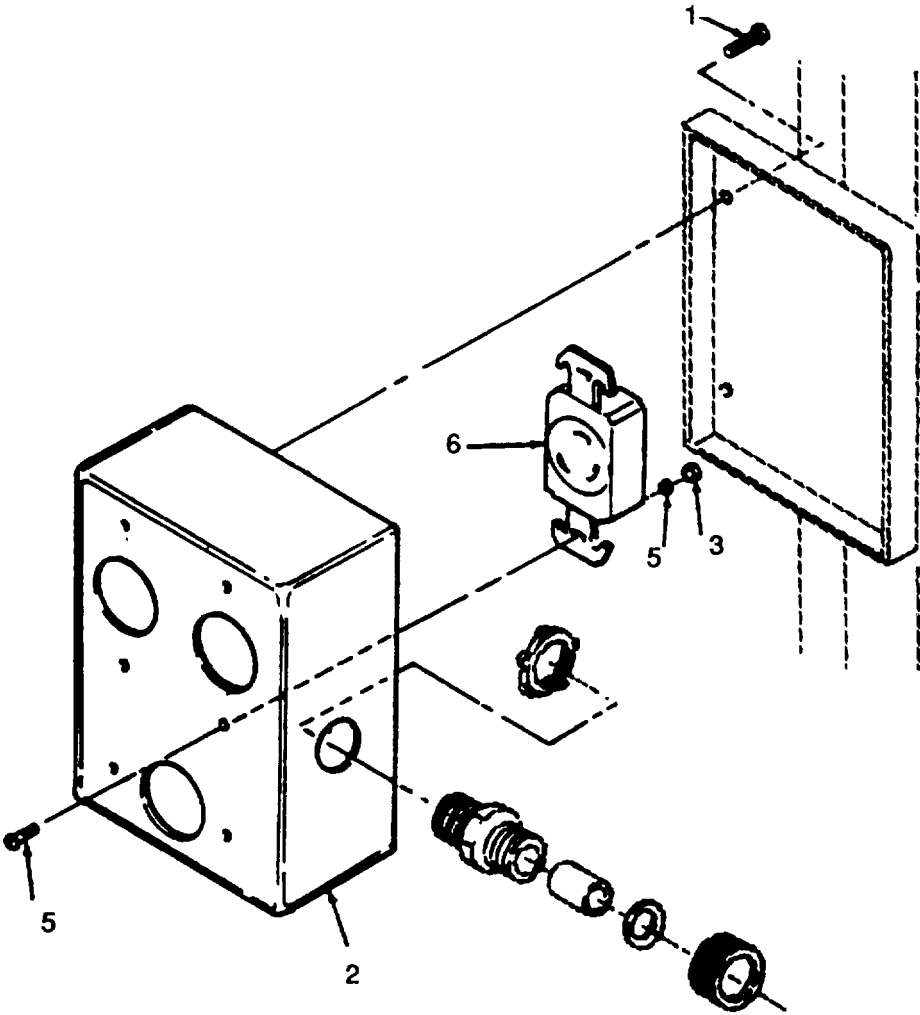


Figure C-5. Junction Box

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 02 TOWER ASSEMBLY - CONTINUED					
FIGURE C-5 JUNCTION BOX					
1	PAFZZ	96906	MS24617-21	.SCREW, METAL	4
2	XBFFZ	56681	HLP-1011A	.BOX, JUNCTION LIGHT BAR	1
3	PAOZZ	96906	MS35650-362	.NUT, PLAIN, HEXAGON	2
4	PAOZZ	96906	MS35338-41	.WASHER, LOCK	2
5	PAOZZ	96906	MS35206-35	.SCREW, RECEPTACLE	6
6	PAOZZ	81091	L820F0	.CONNECTOR, RECEPTACLE	3
END OF FIGURE					

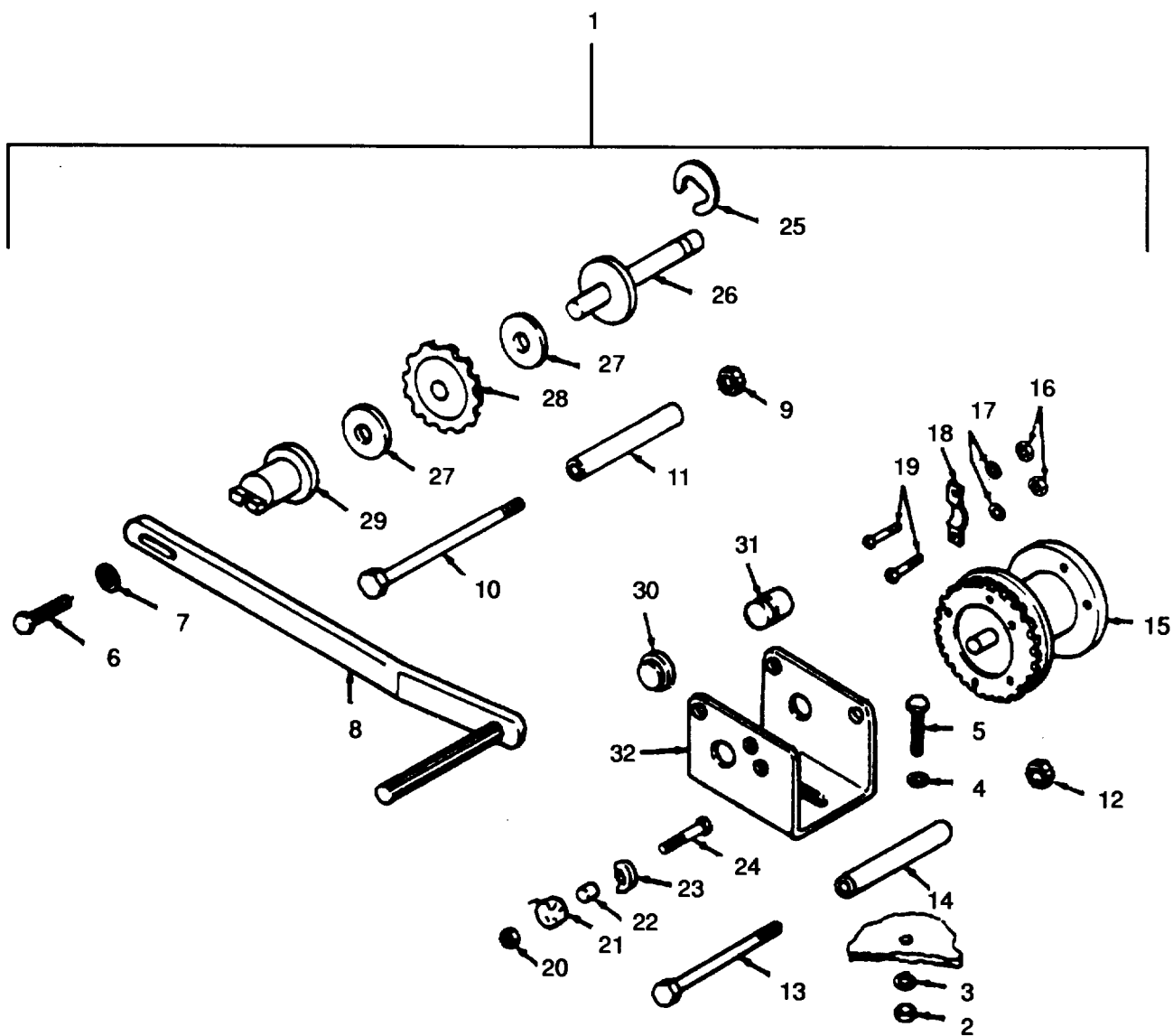


Figure C-6. Winch Assembly Tower.

SECTION (1) ITEM NO	II. (2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 3 WINCH ASSEMBLY TOWER					
FIGURE C-6 WINCH ASSEMBLY TOWER					
1	PA0FF	73470	K1550	WINCH ASSEMBLY, TOWER	1
2	PA0ZZ	96906	MS51967-8	.NUT, PLAIN, HEXAGON	3
3	PA0ZZ	96906	MS35338-46	.WASHER, SPLIT, LOCK	3
4	PA0ZZ	96906	MS27183-13	.WASHER, FLAT	1
5	PA0ZZ	96906	MS90725-58	.BOLT, MACHINE	3
6	PA0ZZ	96906	MS90725-3	.SCREW, CAP, HEXAGON HEAD PART OF KIT 6639S01	1
7	PA0ZZ	96906	MS35338-44	.WASHER, LOCK	1
8	PA0ZZ	73470	6636S01	.HANDLE, WINCH	1
9	PA0ZZ	96906	MS51922-17	.NUT, LOCK	1
10	PA0ZZ	96906	MS16208-69	.CAPSCREW, HEXAGON HEAD PART OF KIT 6562S00	1
11	XA0ZZ	73470	NPN	.SPACER, PART OF KIT 6562S00	1
12	PA0ZZ	96906	MS51922-33	.NUT, LOCK	1
13	PA0ZZ	96906	MS90725-129	.SCREW, CAP, HEXAGON	1
14	XA0ZZ	73470	NPN	.SPACER	1
15	XA0ZZ	73470	NPN	.DRUM ASSEMBLY	1
16	PA0ZZ	96906	MS35649-202	.NUT, HEXAGON PART OF KIT 6699S01	2
17	PA0ZZ	96906	MS35333-39	.WASHER, LOCK PART OF KIT 6699S01	2
18	KF0ZZ	73470	NPN	.KEEPER, ROPE PART OF KIT 6699S01	1
19	PA0ZZ	96906	MS35751-1	.BOLT, CARRIAGE PART OF KIT 6699S01	2
20	PAFZZ	96906	MS51922-9	.NUT, HEXAGON HEAD LOCK PART OF KIT 6730-00	1
21	KF0ZZ	73470	NPN	.SPRING, RATCHET PART OF KIT 6730-00	1
22	KF0ZZ	73470	NPN	.SPACER, RATCHET PART OF KIT 6730-00	1
23	KF0ZZ	73470	NPN	.PAWL, RATCHET PART OF KIT 6730-00	1
24	KF0ZZ	73470	NPN	.BOLT, RATCHET PART OF KIT 6730-00	1
25	KF0ZZ	73470	NPN	.RETAINING RING PART OF KIT 6639S01	1
26	KF0ZZ	73470	NPN	.PINION SHAFT ASSEMBLY PART OF KIT 6639S01	1
27	PA0ZZ	73470	6562S00	.BRAKE FACE DISK KIT PART OF KIT 6639S01	1
28	KF0ZZ	73470	NPN	.RATCHET GEAR PART OF KIT 6639S01	1
29	KF0ZZ	73470	NPN	.BRAKE NUT ASSEMBLY PART OF KIT 6639S01	V
30	KF0ZZ	73470	NPN	.BUSHING PART OF KIT 6639S01	1
31	KF0ZZ	73470	NPN	.BUSHING PART OF KIT 6639S01	1
32	XA0ZZ	73470	NPN	.FRAMER WINCH DRUM PART OF KIT 6730-00	1
	PA0ZZ	73470	6699S01	.ROPE KEEPER KIT	1
16				NUT, HEXAGON	2
17				WASHER, LOCK	2
18				KEEPER, ROPE	1

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 3 WINCH ASSEMBLY TOWER - (CONT)	
				FIGURE C-6 WINCH ASSEMBLY TOWER - (CONT)	
19				BOLT, CARRIAGE	2
-	PAFZZ	73470	6730-00	.RATCHET KIT	1
20				NUT, HEXAGON HEAD LOCK	1
21				SPRING, RATCHET	1
22				SPACER, RATCHET	1
23				PAWL, RATCHET	1
24				BOLT, RATCHET	1
32				FRAMER WINCH DRUM	1
6	PAFZZ	73470	6639S01	.PINION SHAFT GEAR KIT TOWER WINCH	1
25				SCREW, CAP, HEXAGON HEAD	1
26				RETAINING RING	1
27				PINION SHAFT ASSEMBLY	1
28				BRAKE FACE DISK KIT	1
29				RATCHET GEAR	1
30				BRAKE NUT ASSEMBLY	1
31				BUSHING	1
				BUSHING	1
				END OF FIGURE	

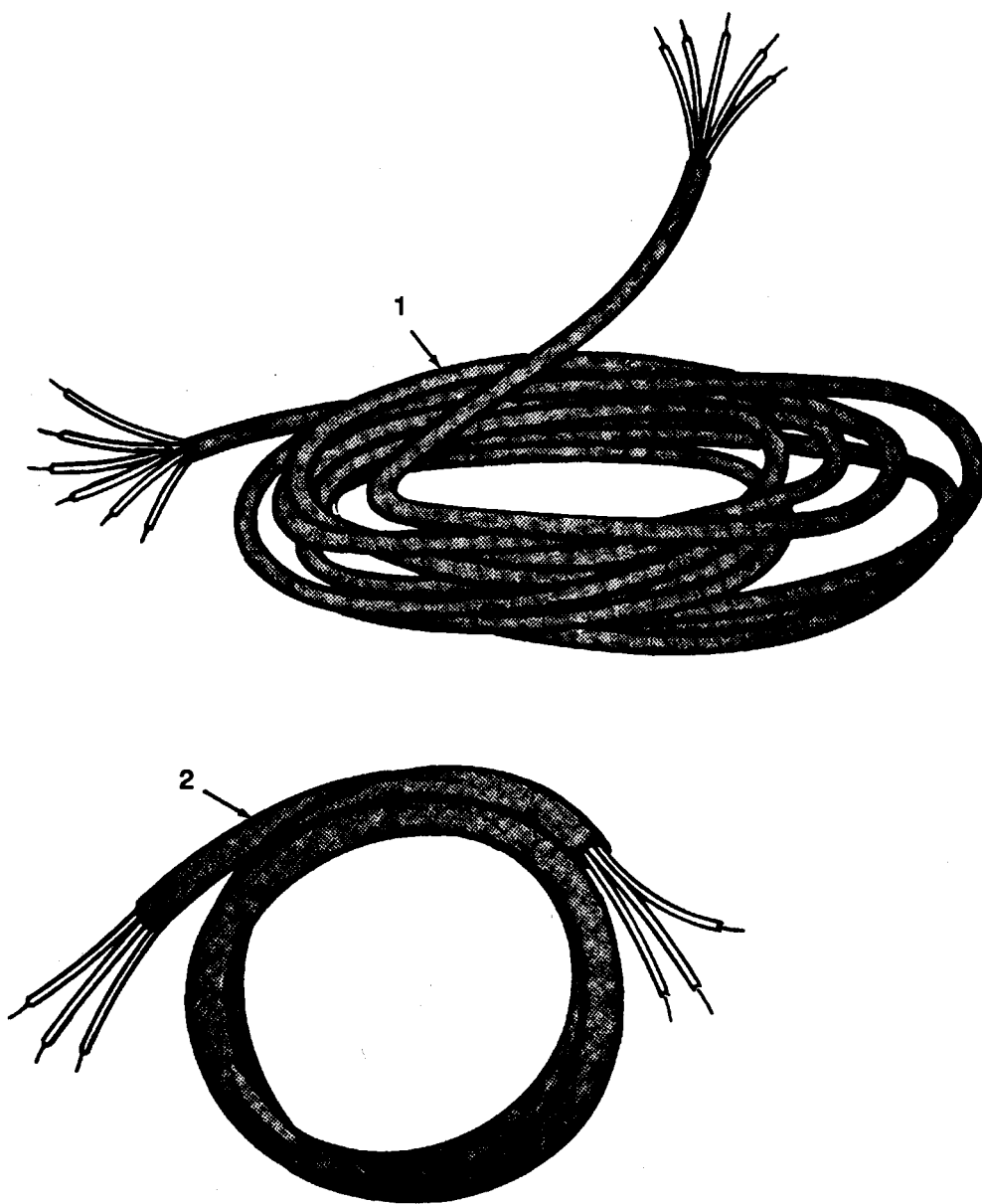


Figure C-7. Power Cable

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 4 POWER CABLE	
				FIGURE C-7 POWER CABLE	
1	PA0ZZ	81348	J-C-580S06CF6/1 4SRNJ	CORD, TOWER	40
2	PA0ZZ	82348	J-C-580S06CF3/1 2SRNJ	.CORD ELECTRICAL	5
				END OF FIGURE	

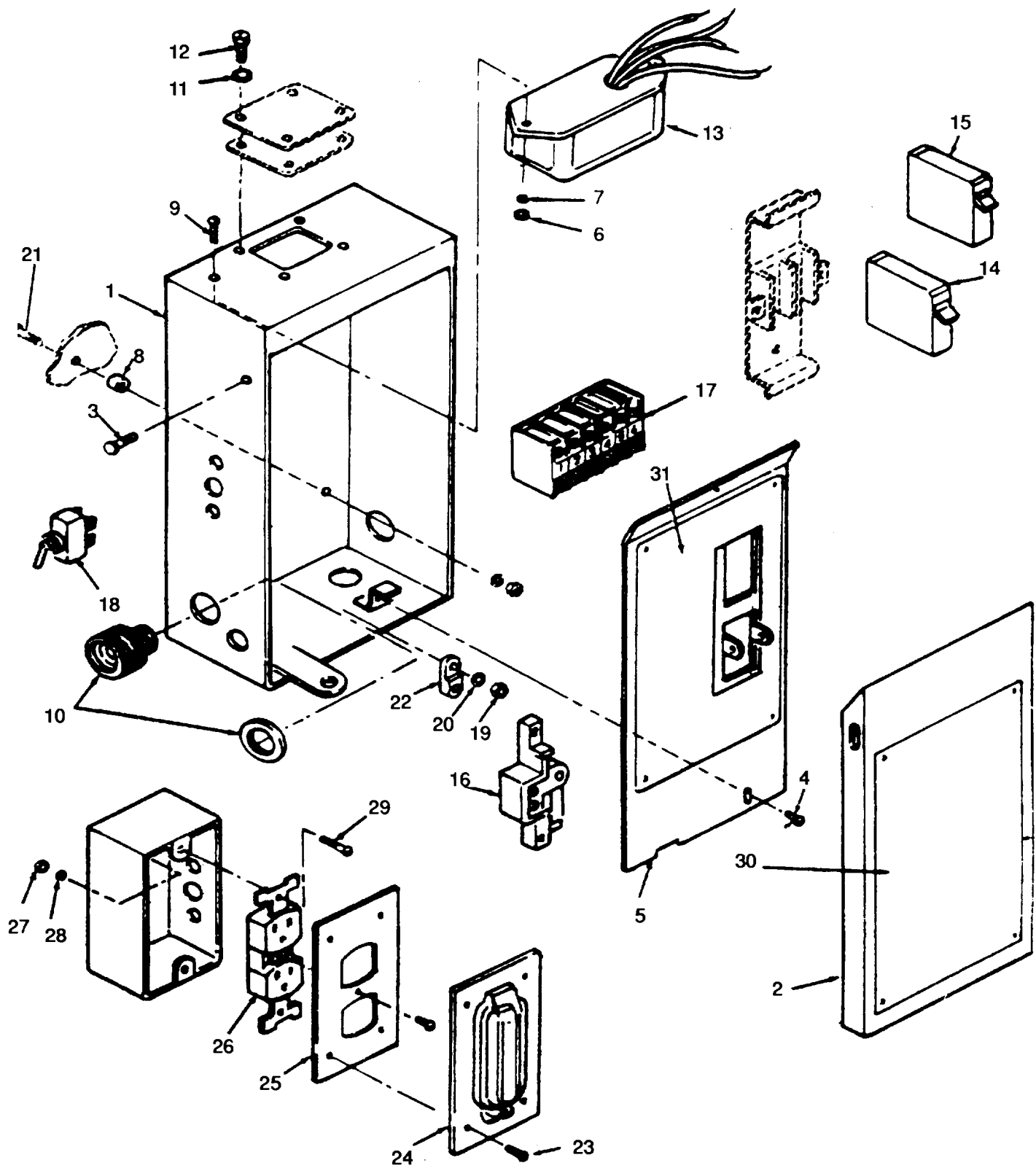


Figure C-8. Control Panel Assembly.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 5 CONTROL PANEL ASSEMBLY					
FIGURE C-8 CONTROL PANEL ASSEMBLY					
1	XBFZZ	27192	CH4R	PANEL, CONTROL	1
2	XB0ZZ	56681	HLP-1018A	.DOOR, CONTROL BOX	1
3	PA0ZZ	96906	MS35206-225	.SCREW, MACHINE	2
4	PA0ZZ	96906	MS35206-227	.SCREW, MACHINE	1
5	XB0ZZ	15605	CH4-E	.COVER, CONTROL BOX	1
6	PAFZZ	96906	MS51967-2	.NUT, PLAIN, HEXAGON	3
7	PAFZZ	96906	MS35338-52	.WASHER, LOCK	3
8	PAFZZ	96906	MS51953-34	.NIPPLE, PIPE	3
9	PAFZZ	96906	MS90725-3	.SCREW, CAP, HEXAGON	3
10	XBFZZ	56681	CG6275	.CONNECTOR, 3/4 IN	2
11	PAFZZ	96906	MS35338-44	.WASHER, LOCK	2
12	PAFZZ	96906	MS35206-226	.SCREW, MACHINE	2
13	PAFZZ	60135	9871	.CHARGER, BATTERY	1
14	PB0ZZ	15605	CH-125	.CIRCUIT BREAKER	3
15	PB0ZZ	81348	WC375/05001	.CIRCUIT BREAKER	1
16	XBFZZ	56681	N3N	.TERMINAL BOARD	1
17	XBFZZ	56681	HLP-1045A	.TERMINAL STRIP	1
18	PA0ZZ	96906	MS24306-222	.SWITCH, TOGGLE	1
19	PA0ZZ	96906	MS51967-2	.NUT, PLAIN, HEXAGON	1
20	PA0ZZ	96906	MS35338-44	.WASHER, LOCK	1
21	PA0ZZ	96906	MS90725-3	.SCREW, CAP, HEXAGON	1
22	PBFZZ	82366	1-128384	.GROUND TERMINAL	1
23	PA0ZZ	96906	MS35190-236	.SCREW, MACHINE	5
24	XB0ZZ	08556	A900	.COVER, RECEPTACLE	1
25	XB0ZZ	30554	69-669	.GASKET	1
26	PA0ZZ	81755	C15651	.RECEPTACLE, OUTLET	1
27	PAFZZ	96906	MS51967-2	.NUT, PLAIN, HEXAGON	2
28	PAFZZ	96906	MS35338-44	.WASHER, LOCK	2
29	PAFZZ	96906	MS35206-280	.SCREW, MACHINE	2
30	XBFZZ	81996	NPN	PLATE, WIRING	1
31	XBFZZ	81996	NPN	.PLATE, INSTRUCTION	1

END OF FIGURE

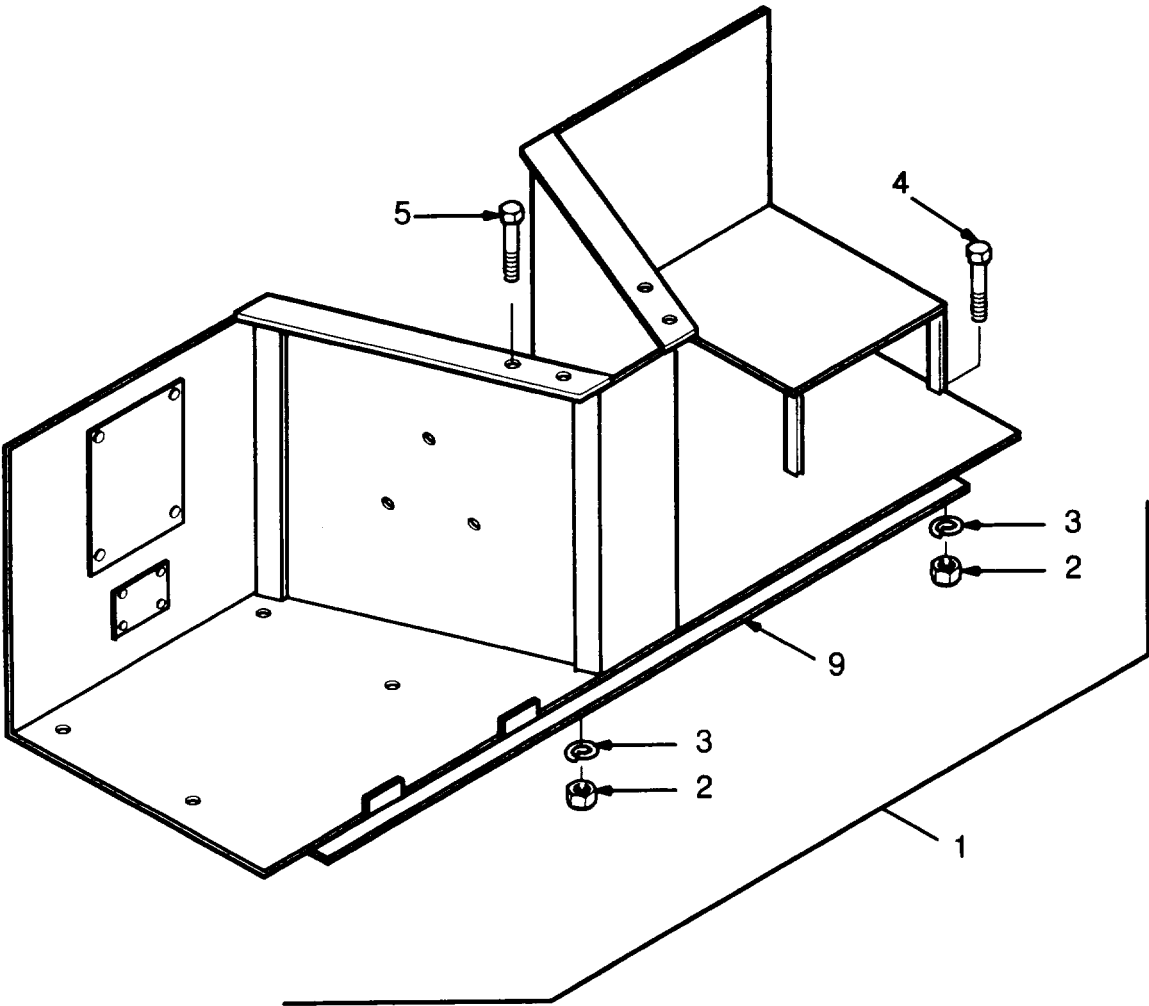


Figure C-9. Splash Panel

SECTION II

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
1				GROUP 6 SPLASH PANEL FIGURE C-9 SPLASH PANEL	
2	PAFZZ	96906	MS51922-23	..SPLASH PANEL.....	1
3	PAFZZ	96906	MS35338-46	..NUT, SELF-LOCKING, HEXAGON.....	6
4	PAFZZ	96906	MS90725-109	..WASHER, LOCK.....	6
5	PAFZZ	96906	MS90725-78	..SCREW, CAP, HEXAGON.....	4
6				..SCREW, CAP, HEXAGON .	
7				DELETED	
8				DELETED	
9	XBFZZ	56681	HLP-1034A	..SPLASH GUARD ASSEMBLY	1
				END OF FIGURE	

Change 1 C-31

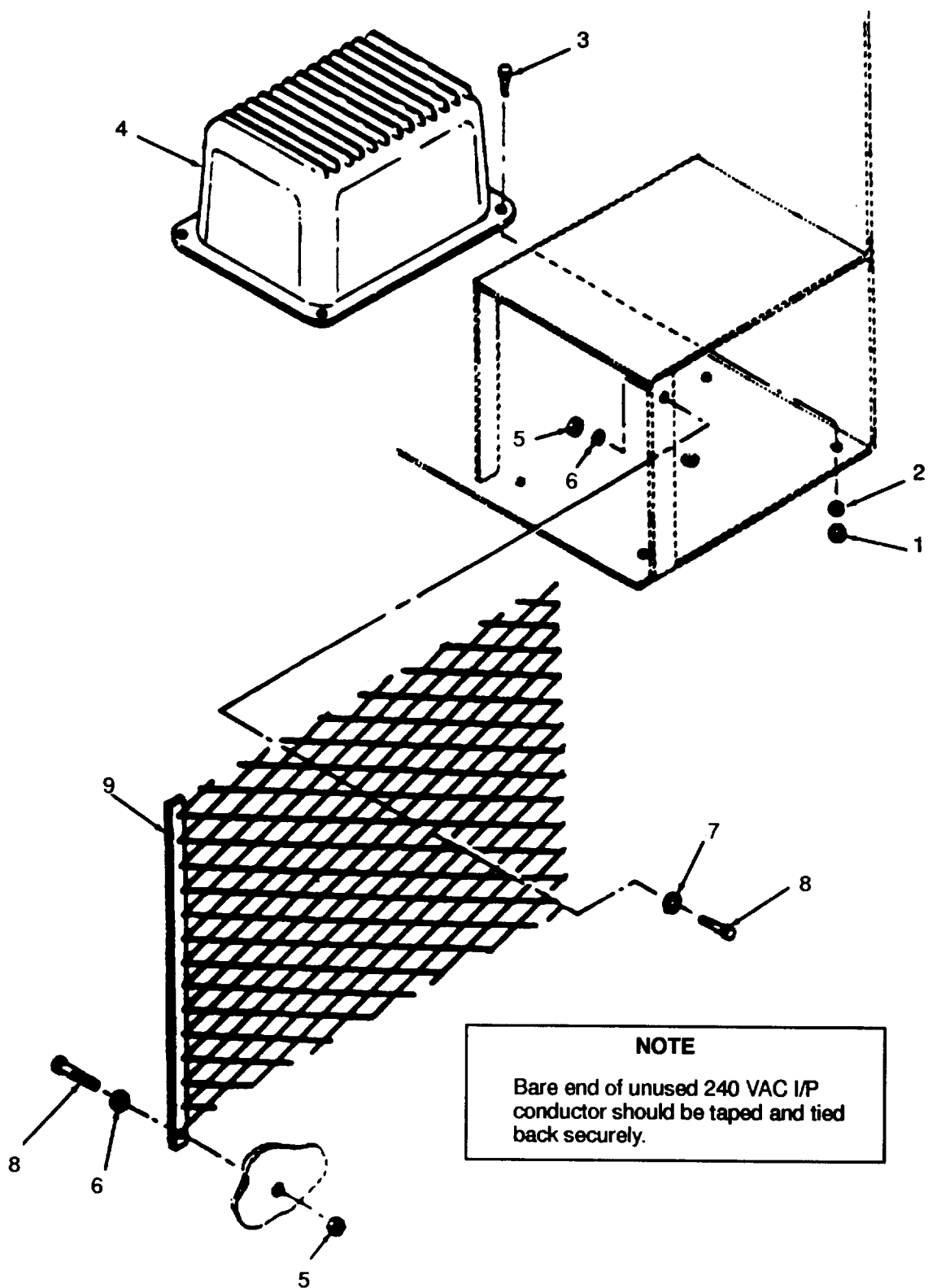


Figure C-10. Ballast Assembly.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 7 BALLAST ASSEMBLY					
FIGURE C-10 BALLAST ASSEMBLY					
1	PAFZZ	96906	MS51967-5	.NUT, PLAIN, HEXAGON	4
2	PAFZZ	96906	MS35338-45	.WASHER, LOCK	4
3	PAFZZ	96906	MS90725-34	.BOLT, MACHINE	4
4	PBFZZ	56681	RBH-81201240-H	.BALLAST, LAMP	1
5	PAOZZ	96906	MS51967-5	.NUT, PLAIN, HEXAGON	2
6	PAOZZ	96906	MS35338-45	.WASHER, LOCK	2
7	PAOZZ	96906	MS27183-13	.WASHER, FLAT	1
8	PAOZZ	96906	MS90725-34	.BOLT, MACHINE	2
9	XBOZZ	56681	HLP-1044A	.GUARD, MUFFLER	1
END OF FIGURE					

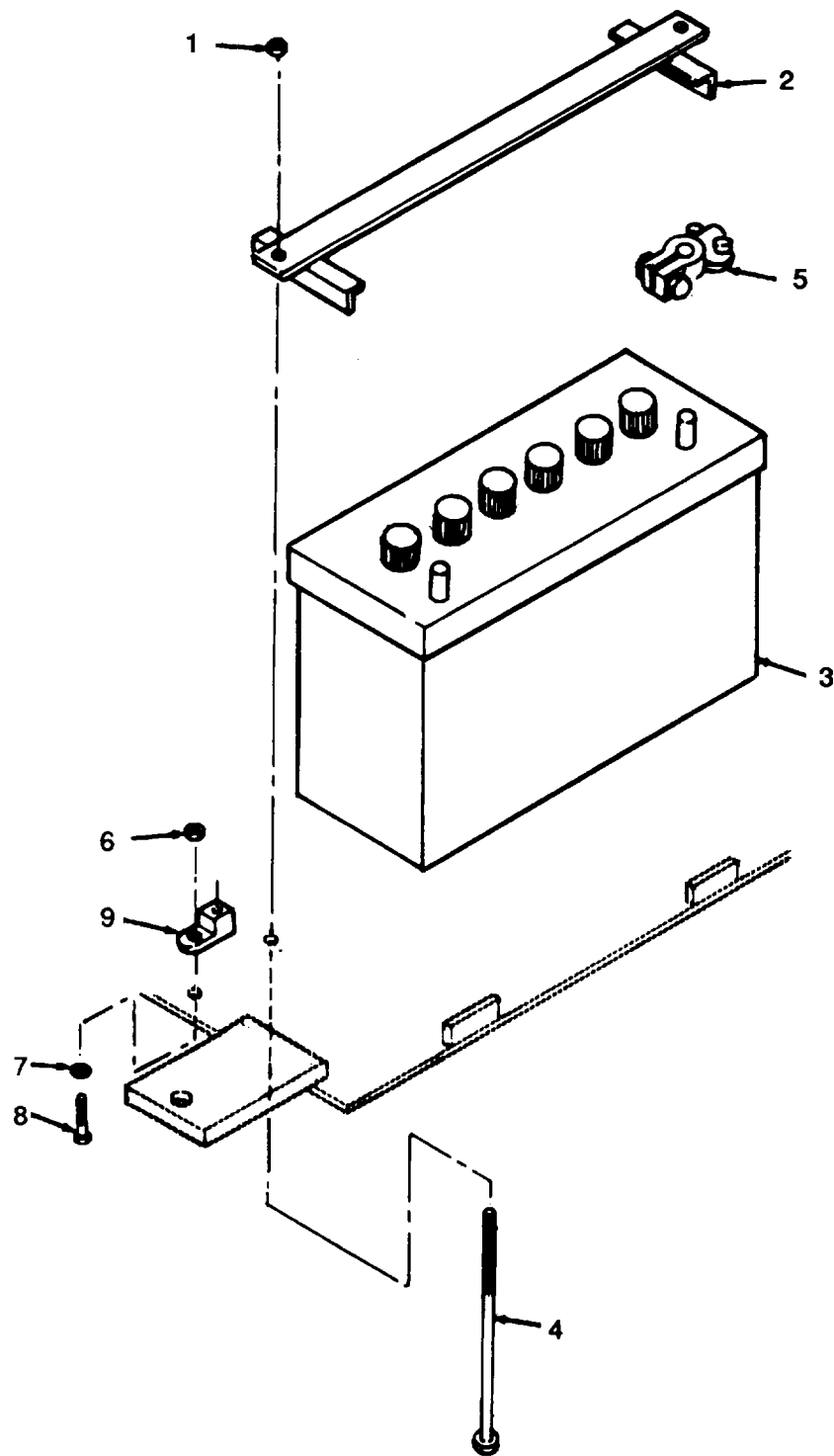


Figure C-11. Battery.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 8 BATTERY					
FIGURE C-11 BATTERY					
1	PA0ZZ	96906	MS51968-5	.NUT, PLAIN, HEXAGON	2
2	XB0ZZ	39428	9036N	.BATTERY, HOLD DOWN	1
3	PA0ZZ	96906	MS35000-1	.BATTERY, STORAGE	1
4	XB0ZZ	39428	98790A030	.ROD, BATTERY	2
5	XB0ZZ	64912	64-5122-3	.TERMINAL, BATTERY	2
6	PA0ZZ	96906	MS51967-2	.NUT, PLAIN, HEXAGON	1
7	PA0ZZ	96906	MS35338-44	.WASHER, LOCK	1
8	PA0ZZ	96906	MS90725-3	.SCREW, CAP HEXAGON	1
9	PAFZZ	82336	1-128384	.GROUND TERMINAL, CONTROL	1
END OF FIGURE					

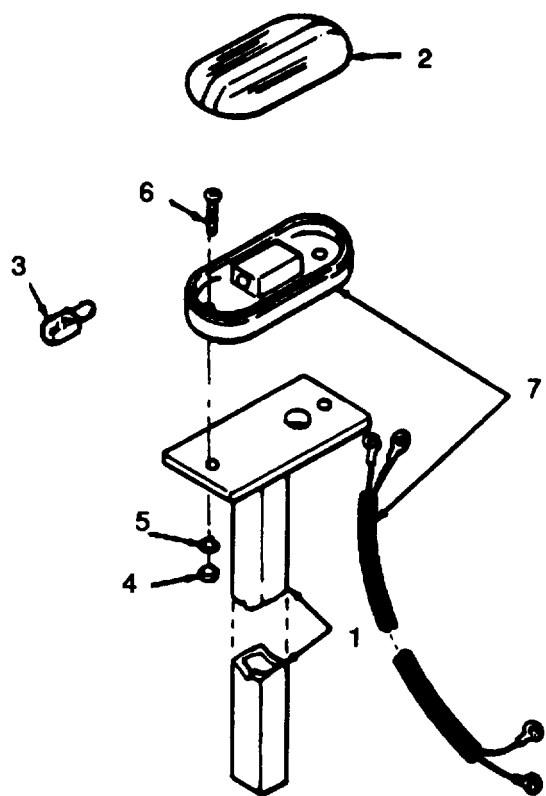


Figure C-12. Red Warning Light.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 9 RED WARNING LIGHT					
FIGURE C-12 RED WARNING LIGHT					
1	PA0ZZ	76635	59	LIGHT, MARKER, AIRCRAFT, WARNING BEACON	1
	XB0ZZ	56681	HLP-1021A	.MAST ATTACHED TO LIGHT BAR	1
2	PA0ZZ	72635	77-55604	.LENS MARKER LIGHT, RED	1
3	PA0ZZ	08108	1895	.LAMP, INCANDESCENT	2
4	PA0ZZ	96906	MS35650-302	.NUT, PLAIN, HEXAGON	2
5	PA0ZZ	96906	MS35338-44	.WASHER, LOCK	2
6	PA0ZZ	96906	MS35206-238	.SCREW, MACHINE	2
7	PA0ZZ	81348	J-C-580S06CK2/ 14SNRJ	.CABLE, POWER, RED WARNING LIGHT	5
END OF FIGURE					

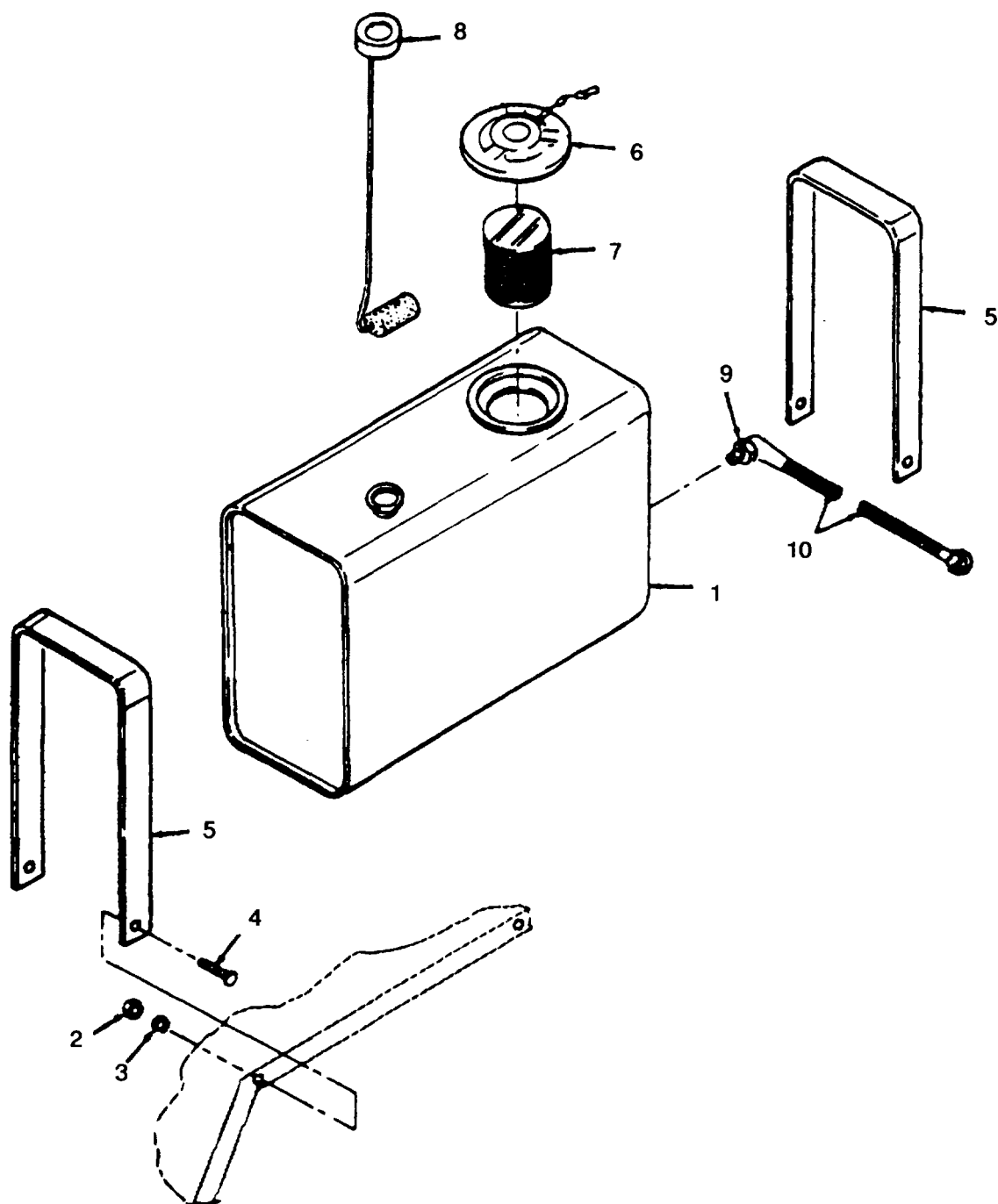


Figure C-13. Fuel Tank Assembly.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 10 FUEL TANK ASSEMBLY					
FIGURE C-13 FUEL TANK ASSEMBLY					
1	XB0ZZ	79502	D-780221	TANK, FUEL, ENGINE	1
2	PA0ZZ	96906	MS51967-8	.NUT, HEXAGON	4
3	PA0ZZ	96906	MS35338-46	.WASHER, SPLIT LOCK	4
4	PA0ZZ	96906	MS90725-34	.BOLT, MACHINE	4
5	XB0ZZ	56681	NPN	.STRAP, FUEL TANK MTG STRAP, STEEL	2
6	PB0ZZ	79502	CD-297	.CAP, FUEL TANK	1
7	XB0ZZ	79502	CD-1252	.STRAINER ELEMENT, SEDIMENT	1
8	XB0ZZ	56681	HLP-1049A	.INDICATOR, LIQUID FUEL TANK GAUGE	1
9	PA0ZZ	96906	MS20913-1J	.PLUG, PIPE	1
10	PB0ZZ	56681	3700-05-3903-05144X3903-05545	.FUEL LINE W/FITTING	1
END OF FIGURE					

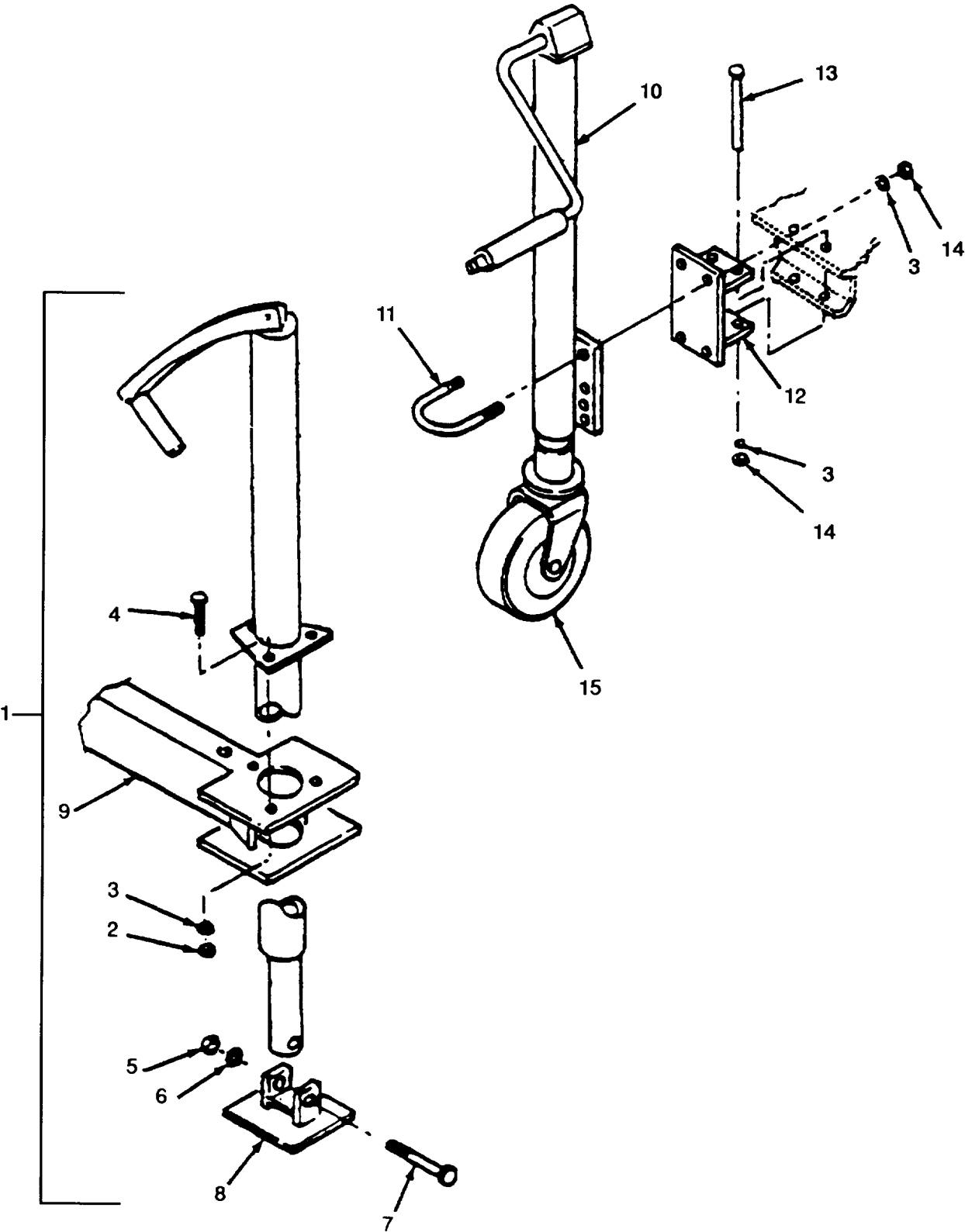


Figure C-14. Leveling Jacks.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 11 LEVELING JACKS					
FIGURE C-14 LEVELING JACKS					
1	PA000	56681	80250	JACK, OUTRIGGER	4
2	PA0ZZ	96906	MS51967-8	.NUT, PLAIN, HEXAGON	3
3	PA0ZZ	96906	MS35338-44	.WASHER, LOCK	3
4	PA0ZZ	96906	MS90725-58	.SCREW, CAP, HEXAGON	3
5	PA0ZZ	96906	MS51967-8	.NUT, PLAIN, HEXAGON	1
6	PA0ZZ	96906	MS35338-46	.WASHER, LOCK	1
7	PA0ZZ	96906	MS90725-69	.SCREW, CAP, HEXAGON HEAD	1
8	PD0ZZ	97403	C13226E4315	.FOOT PAD	1
9	XB0FZ	56049	145-82660	.BEAM, OUTRIGGER LEVELING JACKS	1
10	PA000	56681	HLP-1038A	JACK, LEVELING	1
11	PA0ZZ	56049	80600	.BRACKET, U-BOLT ASSEMBLY	1
12	XB0ZZ	56681	HLP-1037A	.SUPPORT, PLATE	1
13	PA0ZZ	96906	MS90725-372	.BOLT, MACHINE	2
14	PA0ZZ	96906	MS51965-8	.NUT, PLAIN, HEXAGON	6
15	PAFZZ	56681	HLP-1039A	.WHEEL, SOLID NONMETALLIC CASTER	1
END OF FIGURE					

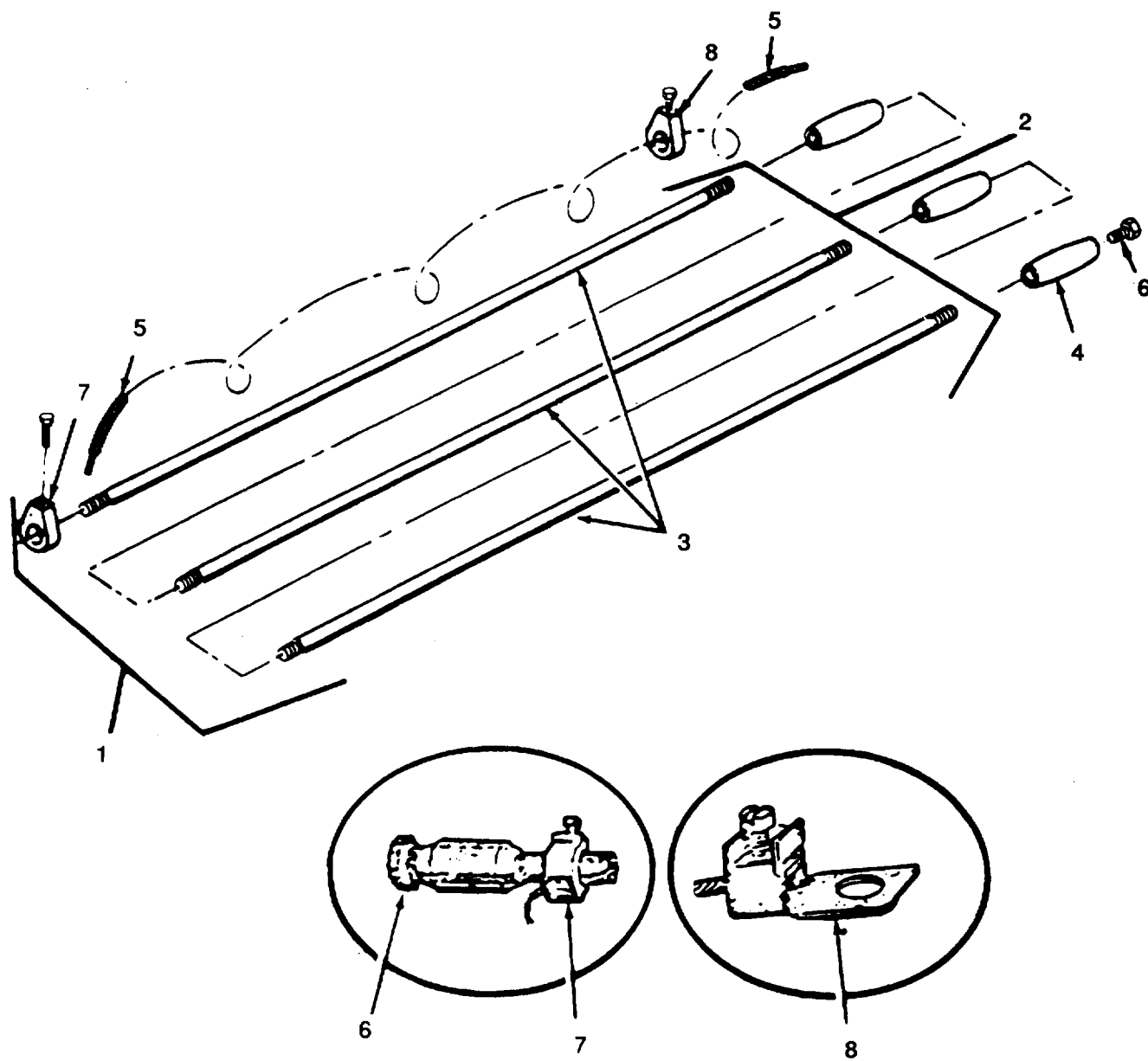


Figure C-15. Ground Rod Assembly.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 12 GROUND ROD ASSEMBLY					
FIGURE C-15 GROUND ROD ASSEMBLY					
1	PA0ZZ	81348	MIL-R-11461	ROD, GROUND ASSEMBLY	1
2	PA0ZZ	56681	HLP1053A	ROD, GROUND	1
3	PA0ZZ	72869	6-1-1912-21-48A	.RODS, GROUND	3
4	PA0ZZ	98242	360154	COUPLING, GROUND	3
5	PA0ZZ	81348	J-C-30	WIRE, COPPER, NO. 6 AWG	V
6	PA0ZZ	73616	GRB 58	STUD, DRIVE HEAD	1
7	PA0ZZ	04655	70-801074	CLAMP, ELECTRICAL	1
8	PA0ZZ	82366	1-128384	LUG, TERMINAL	3
	PB0ZZ	45225	P74-144	SLIDE HAMMER, GROUND	1
END OF FIGURE					

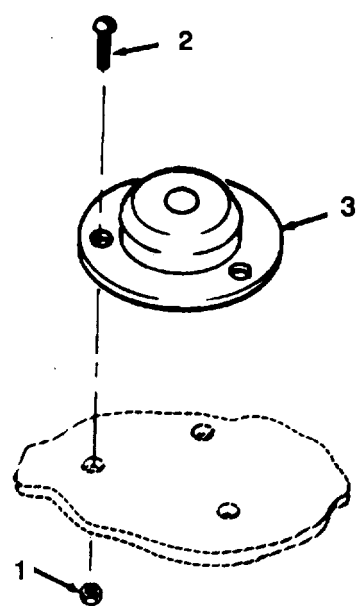


Figure C-16. Level Circular.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 13 LEVEL CIRCULAR	
				FIGURE C-16 LEVEL CIRCULAR	
1	PA0ZZ	96906	MS35649-262	.NUT, PLAIN, HEXAGON	3
2	PA0ZZ	96906	MS35206-207	.SCREW, MACHINE	3
3	PA0ZZ	56681	HLP-1051A	.LEVEL, CIRCULAR	1
				END OF FIGURE	

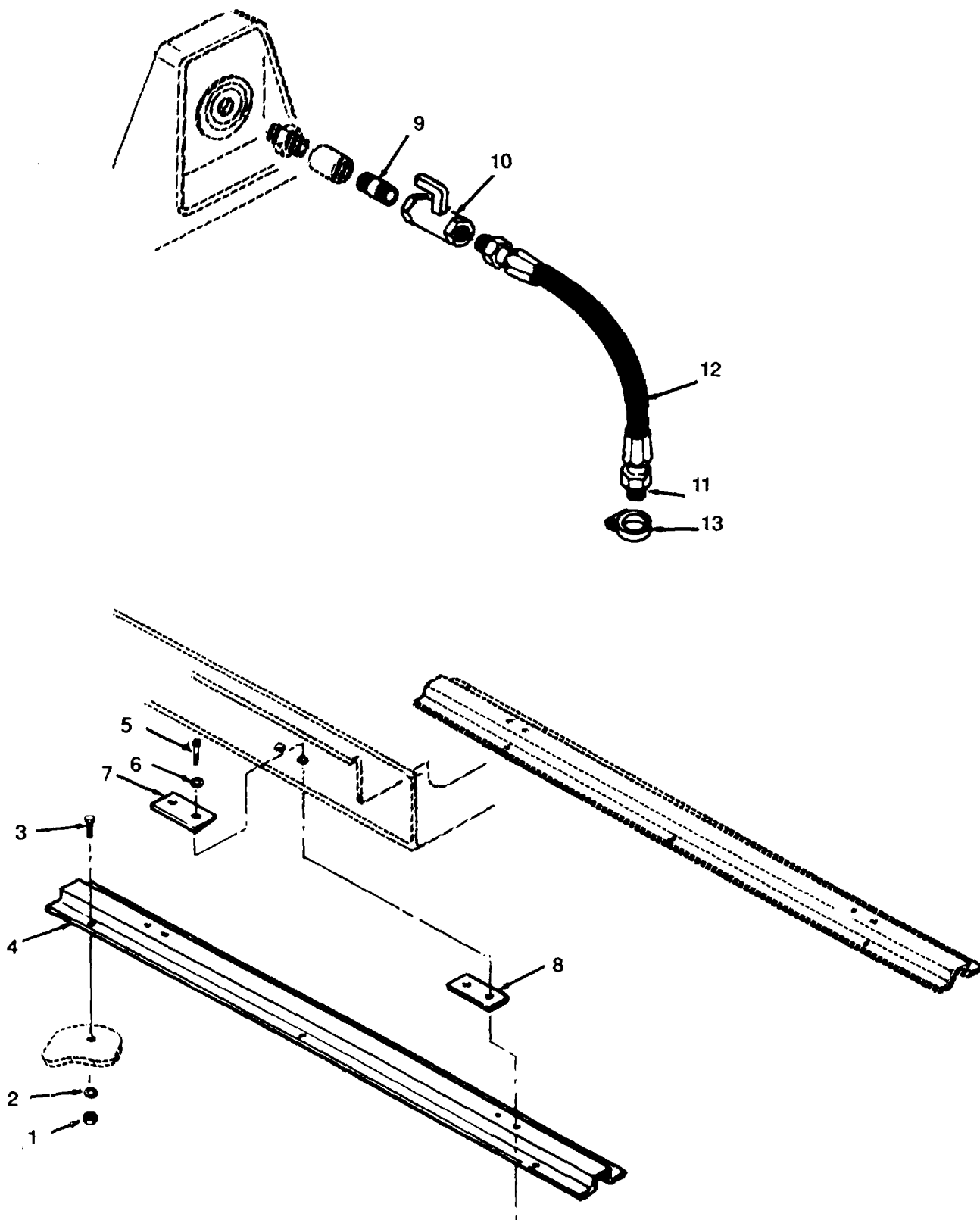


Figure C-17. Generator Mounting and Drain Hose.

SECTION II. (1) ITEM NO	(2) SMR CODE	(3) CAGEC	TM9-6230-210-13&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 14 GENERATOR MOUNTING AND DRAIN HOSE	
				FIGURE C-17 GENERATOR MOUNTING AND DRAIN HOSE	
1	PA0ZZ	96906	MS51967-8	NUT, PLAIN HEXAGON	6
2	PAFZZ	96906	MS35338-46	WASHER, LOCK	6
3	PA0ZZ	96906	MS90725-60	SCREW, CAP HEXAGON	6
4	XBZZ	56681	HLP-1041A	CHANNEL SECTION	2
5	PA0ZZ	96906	MS90725-114	SCREW, CAP HEX HD	4
6	PA0ZZ	96906	MS27183-18	WASHER, FLAT	4
7	PA0ZZ	97403	13206E4482-2	WASHER, BEVELED	4
8	PA0ZZ	97403	13212E3554	SPACER	4
9	PA0ZZ	96906	MS51953-29	NIPPLE, PIPE	1
10	PA0ZZ	96906	MS35930-2	COCK, PLUG	1
11	PA0ZZ	96906	MS51873-25	NIPPLE, PIPE	1
12	PA0ZZ	97403	13211E4918	HOSE, OIL DRAIN	1
13	PA0ZZ	96906	MS35842-11	CLAMP, HOSE	2
				END OF FIGURE	

SECTION III. SPECIAL TOOLS LIST

(Not Applicable)

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
5305-00-042-6417	C-1	28	4730-00-196-1502	C-17	9
5305-00-044-4153	C-9	4	5305-00-225-3839	C-2	3
5310-00-045-4007	C-5	5	5310-00-225-6993	C-2	27
5310-00-052-3632	C-4	22		C-6	12
6140-00-057-2553	C-11	3		C-9	2
5305-00-068-0500	C-1	14	5306-00-225-8497	C-6	5
	C-5	6	5306-00-225-8499	C-4	20
	C-8	9		C-10	3
	C-8	21		C-10	8
	C-11	8		C-13	4
	C-13	2	5306-00-226-4834	C-4	12
5305-00-071-1782	C-6	13	5430-00-229-0360	C-2	11
5305-00-071-2081	C-4	3	5330-00-240-0834	C-8	25
5310-00-087-4652	C-21	18	5305-00-269-3212	C-2	6
	C-6	9	5305-00-269-3219	C-14	7
5310-00-087-7493	C-6	4		C-9	5
	C-10	7	5940-00-271-9504	C-11	9
5940-00-112-5218	C-15	8	4820-00-277-1765	C-17	10
5305-00-115-9526	C-2	13	6145-00-295-0851	C-1	20
	C-6	5	5310-00-407-9566	C-1	15
	C-14	4		C-10	2
2590-00-119-0654	C-6	1		C-10	6
5940-00-171-9504	C-8	22	5925-00-413-1210	C-8	15
5999-00-186-3912	C-15	7	5975-00-417-0543	C-8	24
4010-00-186-9412	C-2	25	5305-00-543-2024	C-1	11
	C-3	3	6145-00-548-1243	C-7	2
	C-4	14	5310-00-576-5752	C-6	17
6145-00-189-6695	C-15	5	5305-00-579-2139	C-8	23
9510-00-189-7445	C-1	31	5310-00-582-5965	C-2	26
5315-00-194-2455	C-4	16		C-6	7
4730-00-196-1465	C-17	11		C-8	11
4730-00-196-1487	C-8	8		C-8	20

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NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
	C-8	28		C-4	1
	C-11	7		C-4	18
	C-12	5	5305-00-782-9494	C-17	5
	C-14	3	5975-00-794-2523	C-15	4
5310-00-584-5272	C-1	27	5310-00-809-5998	C-17	6
	C-4	19	5975-00-878-3791	C-15	1
4730-00-595-1074	C-13	9	5310-00-880-7744	C-10	1
5310-00-596-7693	C-1	8		C-10	5
5305-00-614-0260	C-1	9	5310-00-880-7746	C-11	1
5310-00-637-9541	C-1	19	5305-00-883-0628	C-5	1
	C-4	2	5305-00-889-3000	C-4	23
	C-4	6	6145-00-894-3434	C-7	1
	C-4	11	4730-00-908-3194	C-17	13
	C-6	3	4720-00-913-6422	C-17	12
	C-9	3	5975-00-924-9927	C-15	6
	C-13	3	5310-00-934-9747	C-16	1
	C-14	6	5310-00-934-9751	C-12	4
	C-17	2	5310-00-934-9755	C-5	4
5975-00-642-8937	C-15	3	5310-00-934-9758	C-6	16
5303-00-655-9314	C-1	23	5305-00-942-2196	C-2	20
5305-00-716-8128	C-1	16	6240-00-946-9654	C-12	3
5320-00-721-9075	C-3	4	5305-00-954-3938	C-16	2
5930-00-728-4328	C-8	18	5305-00-964-9564	C-14	13
5310-00-732-0558	C-1	26	5310-00-984-3806	C-6	20
	C-4	5	5305-00-984-4982	C-1	2
	C-6	2		C-1	18
	C-11	6		C-8	33
	C-14	2	5305-00-984-4983	C-8	12
	C-14	5	5305-00-984-4984	C-8	4
	C-17	1	5305-00-984-6225	C-5	6
5310-00-754-2005	C-8	7		C-12	6
5310-00-761-0654	C-4	10	5305-00-988-1724	C-8	29
5310-00-761-6882	C-8	6	5305-00-990-8632	C-1	30
	C-8	19	5330-00-995-3444	C-1	1
	C-8	27	6240-01-012-0829	C-1	5
5310-00-768-0318	C-1	26	6230-01-096-5368	C-3	1

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STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
6230-01-096-5370	C-17	4	6230-01-097-0860	C-12	1
6230-01-096-5371	C-4	21	2910-01-097-0915	C-12	7
6230-01-096-5400	C-14	10	5445-01-097-9747	C-2	12
6230-01-096-5403	C-13	12	6230-01-098-4763	C-8	1
4010-01-096-5404	C-2	28	5925-01-098-4770	C-8	14
	C-8	2	6230-01-100-1720	C-1	24
5210-01-096-5421	C-16	3	6250-01-100-1892	C-10	4
5935-01-096-5523	C-1	22	2910-01-100-4719	C-13	10
6680-01-096-5524	C-13	8	6210-01-128-6240	C-1	12
5335-01-096-5534	C-5	7	6210-01-128-8546	C-1	4
6230-01-096-5540	C-1	21	6230-01-137-3462	C-1	
2910-01-096-5543	C-13	1	5445-01-139-1117	C-1	
6230-01-096-5556	C-14	15	5975-01-143-7340	C-15	2
6130-01-096-9054	C-8	13	2590-01-145-1889	C-6	27
6230-01-097-0815	C-9	9	6210-01-146-2851	C-1	16
6230-01-097-0837	C-14	8	6230-01-146-2855	C-1	10
6230-01-097-0843	C-4	99	3590-01-147-4170	C-6	8
5445-01-097-0844	C-2	7	5340-01-147-9722	C-3	2
5445-01-097-0845	C-2	1	5305-01-148-0203	C-2	8
6230-01-097-0846	C-10	9	5340-01-148-6735	C-4	24
	C-14	9	5305-01-148-6766	C-2	10
5445-01-097-0847	C-2	15	6250-01-193-6531	C-1	19
			6210-01-201-7084	C-1	17
			5935-01-216-2565	C-8	26

PART NUMBER INDEX CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
56681	#12		C-4	15
88044	AN415-2	5315-00-194-2455	C-4	16
58781	A-1		C-1	25
08556	A-900	5975-00-417-0543	C-6	24
97403	C13226E4315	6230-01-097-0837	C-14	8
81755	C15651	5935-01-216-2565	C-6	26
58781	C-23-4		C-1	
58781	C-72	6210-01-146-2851	C-1	16
79502	CD-1252	2910-01-097-0915	C-13	7
79502	CD-297		C-13	6
56681	CG-6275		C-8	10
15605	CH-125	5925-01-098-4770	C-8	14
15605	CH4-E		C-8	5
27192	CH4R	6230-01-098-4763	C-8	1
79502	D-780221	2910-01-096-5543	C-13	1
56681	DRW NO 23-1	5445-01-139-1117	C-2	
58781	F-5		C-1	3
58761	G-67	6210-01-201-7084	C-1	17
58781	G-68-1		C-1	13
73616	GRB58	5975-00-924-9927	C-15	6
56681	HLP-1011A		C-5	3
56681	HLP-1018A	4010-01-096-5404	C-2	28
56681	HLP-1018A	4010-01-096-5404	C-8	2
56681	HLP-1021A	6230-01-097-0860	C-12	1
56681	HLP-1022A	6230-01-096-5368	C-3	1
56681	HLP-1023A	5445-01-097-0845	C-2	1
56681	HLP-1024A	5445-01-097-0844	C-2	7
56681	HLP-1025A	5445-01-097-9747	C-2	12
56681	HLP-1026A	5445-01-097-0847	C-2	15
56681	HLP-1027A		C-2	9
56681	HLP-1030A		C-2	17
56681	HLP-1031A		C-4	8
56681	HLP-1032A	6230-01-097-0843	C-4	9
56681	HLP-1033A		C-2	21
56681	HLP-1034A	6230-01-097-0815	C-9	9
56681	HLP-1037A	6230-01-096-5403	C-14	12
56681	HLP-1038A	6230-01-096-5400	C-14	10
56681	HLP-1039A	5340-01-096-5556	C-14	15
56681	HLP-1041A	6230-01-096-5370	C-17	4
56681	HLP-1043A	6230-01-096-5371	C-4	21
56681	HLP-1044A	6230-01-097-0846	C-10	9
56681	HLP-1045A		C-8	17
56681	HLP-1049A	6680-01-096-5524	C-13	8
56681	HLP-1051A	5210-01-096-5421	C-16	3
56681	HLP-1053A	5975-01-143-7340	C-15	2
56681	HLP-1059A		C-1	29

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PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG.	ITEM
56681	HLP-4240		C-2	2
81348	J-C-30	6145-00-189-6695	C-15	5
81348	J-C-580S06CF3/12SRNJ	6145-00-548-1243	C-7	2
81348	J-C-580S06CF6/14SRNJ	6145-00-894-3434	C-7	1
81348	J-C-580S06CK2/14SRNJ		C-12	7
81348	J-C-580S06CK3/14SRNJ	6145-00-295-0851	C-1	20
73470	K1550	2590-00-119-0654	C-6	1
58781	L-5	6210-01-128-8546	C-1	4
81091	L-20RBP	6230-01-096-5540	C-1	21
81091	LS820FO	5935-01-096-5534	C-5	7
81091	L820P	5935-01-096-5523	C-1	22
81348	MIL-R-11461	5975-00-878-3791	C-15	1
81349	MIL-S-23284	9510-00-189-7445	C-1	31
96906	MS16208-69		C-6	10
96906	MS18154-58	5305-00-115-9526	C-2	13
96906	MS18154-60	5305-00-942-2196	C-2	20
96906	MS20604B3W2	5320-00-721-9075	C-3	4
96906	MS20913-1J	4730-00-595-1074	C-13	9
96906	MS24306-222	5930-00-728-4328	C-8	18
96906	ms24617-21	5305-00-883-0628	c-5	2
96906	MS27183-13	5310-00-087-7493	C-6	4
96906	MS27183-13	5310-00-087-7493	C-10	7
96906	MS27183-18	5310-00-809-5998	C-17	6
96906	MS28137-4	5430-00-229-0360	C-2	11
96906	MS35000-1	6140-00-057-2553	C-11	3
96906	MS35190-236	5305-00-579-2139	C-8	23
96906	MS35206-207	5305-00-954-3938	C-16	2
96906	MS35206-225	5305-00-984-4982	C-1	2
96906	MS35206-225	5305-00-984-4982	C-1	18
96906	MS35206-225	5305-00-984-4982	C-8	3
96906	MS35206-226	5305-00-984-4983	C-8	12
96906	MS35206-227	5305-00-984-4984	C-8	4
96906	MS35206-230	5305-00-889-3000	C-4	23
96906	MS35206-238	5305-00-984-6225	C-12	6
96906	MS35206-280	5305-00-988-1724	C-8	29
96906	MS35206-35	5305-00-984-6225	C-5	6
96906	MS35207-266	5305-00-995-3444	C-1	1
96906	MS35265-13	5305-00-543-2024	C-1	11
96906	MS35265-17	5305-00-614-0260	C-1	9
96906	MS35265-22	5305-00-655-9314	C-1	23
96906	MS35333-39	5310-00-576-5752	C-6	17
96906	MS35335-31	5310-00-596-7693	C-1	8
96906	MS35338-41	5310-00-045-4007	C-5	5

PART NUMBER INDEX CAGEC PART NUMBER	STOCK NUMBER	FIG	ITEM
96906 MS35338-44	5310-00-582-5965	C-8	11
96906 MS35338-44	5310-00-582-5965	C-8	20
96906 MS35338-44	5310-00-582-5965	C-8	28
96906 MS35338-44	5310-00-582-5965	C-11	7
96906 MS35338-44	5310-00-582-5965	C-12	5
96906 MS35338-44	5310-00-582-5965	C-14	3
96906 MS35338-45	5310-00-407-9566	C-1	15
96906 MS35338-45	5310-00-407-9566	C-10	2
96906 MS35338-45	5310-00-407-9566	C-10	6
96906 MS35338-46	5310-00-637-9541	C-2	19
96906 MS35338-46	5310-00-637-9541	C-4	2
96906 MS35338-46	5310-00-637-9541	C-4	6
96906 MS35338-46	5310-00-637-9541	C-4	11
96906 MS35338-46	5310-00-637-9541	C-6	3
96906 MS35338-46	5310-00-637-9541	C-9	3
96906 MS35338-46	5310-00-637-9541	C-13	3
96906 MS35338-46	5310-00-637-9541	C-14	6
96906 MS35338-46	5310-00-637-9541	C-17	2
96906 MS35338-48	5310-00-584-5272	C-1	27
96906 MS35338-48	5310-00-584-5272	C-4	19
96906 MS35338-52	5310-00-754-2005	C-8	7
27906 MS35649-23		C-1	6
96906 MS35649-202	5310-00-934-9758	C-6	16
96906 MS35649-262	5310-00-934-9747	C-16	1
96906 MS35650-302	5310-00-934-9751	C-12	4
96906 MS35650-362	5310-00-934-9755	C-5	4
96906 MS35751-1		C-6	19
96906 MS35842-11	4730-00-908-3194	C-17	13
96906 MS35930-2	4820-00-277-1765	C-17	10
96906 MS51863-38	5305-01-148-6766	C-2	10
96906 MS51873-25	4730-00-196-1465	C-17	11
96906 MS51922-17	5310-00-087-4652	C-2	5
96906 MS51922-17	5310-00-087-4652	C-2	18
96906 MS51922-17	5310-00-087-4652	C-6	9
96906 MS51922-33	5310-00-225-6993	C-2	27
96906 MS51922-33	5310-00-225-6993	C-6	12
96906 MS51922-33	5310-00-225-6993	C-9	2
96906 MS51922-9	5310-00-984-3806	C-6	20
96906 MS51953-29	4730-00-196-1502	C-17	9
96906 MS51953-34	4730-00-196-1487	C-8	8
96906 MS51965-8	5310-00-732-0558	C-14	15
96906 MS51967-2	5310-00-761-6882	C-8	6
96906 MS51967-2	5310-00-761-6882	C-8	19
96906 MS51967-2	5310-00-761-6882	C-8	27
96906 MS51967-2	5310-00-761-6882	C-11	6
96906 MS51967-5	5310-00-880-7744	C-10	1

PART NUMBER INDEX CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
96906	MS51967-5	5310-00-880-7744	C-10	5
96906	MS51967-8	5310-00-732-0558	C-4	5
96906	MS51967-8	5310-00-732-0558	C-6	2
96906	MS51967-8	5310-00-732-0558	C-13	2
96906	MS51967-8	5310-00-732-0558	C-14	2
96906	MS51967-8	5310-00-732-0558	C-14	5
96906	MS51967-8	5310-00-732-0558	C-17	1
96906	MS51967-9	5310-00-761-0654	C-4	10
96906	MS51967-14	5310-00-768-0318	C-1	26
96906	MS51967-14	5310-00-768-0318	C-4	1
96906	MS51967-14	5310-00-768-0318	C-4	18
96906	MS51968-5	5310-00-880-7746	C-11	1
96906	MS90725-109	5305-00-044-4153	C-9	4
96906	MS90725-113	5305-00-042-6417	C-1	28
96906	MS90725-114	5305-00-782-9494	C-17	5
96906	MS90725-117	5305-00-716-8128	C-2	16
96906	MS90725-129	5305-00-071-1782	C-6	13
96906	MS90725-3	5305-00-068-0500	C-1	14
96906	MS90725-3	5305-00-068-0500	C-6	6
96906	MS90725-3	5305-00-068-0500	C-8	9
96906	MS90725-3	5305-00-068-0500	C-8	21
96906	MS90725-3	5305-00-068-0500	IC-11	8
96906	MS90725-34	5306-00-225-8499	C-4	20
96906	MS90725-34	5306-00-225-8499	C-10	3
96906	MS90725-34	5306-00-225-8499	C-10	8
96906	MS90725-34	5306-00-225-8499	C-13	4
96906	MS90725-372	5305-00-964-9564	C-14	14
96906	MS90725-58	5305-00-115-9526	C-6	5
96906	MS90725-58	5305-00-115-9526	C-14	4
96906	MS90725-60		C-17	3
96906	MS90725-61	5305-00-269-3212	C-2	6
96906	MS90725-69	5305-00-269-3219	C-14	7
96906	MS90725-78	5305-00-269-3228	C-4	7
96906	MS90725-78	5305-00-269-3228	C-9	5
96906	MS90725-8	5305-00-225-3839	C-2	3
96906	MS90728-41	5306-00-226-4834	C-4	12
96906	MS90728-73	5305-00-990-8632	C-1	30
96906	MS90728-125	5305-00-071-2081	C-4	3
00805	MV-1000/U	6240-01-012-0829	C-1	5
58781	M56-1		C-1	7
56681	NPN		C-2	23
56681	NPN		C-3	6
56681	NPN		C-6	11
73470	NPN		C-6	14
73470	NPN		C-6	15
73470	NPN		C-6	18

PART NUMBER INDEX CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
73470	NPN		C-6	21
73470	NPN		C-6	22
73470	NPN		C-6	23
73470	NPN		C-6	24
73470	NPN		C-6	25
73470	NPN		C-6	26
73470	NPN		C-6	28
73470	NPN		C-6	29
73470	NPN		C-6	30
73470	NPN		C-6	31
73470	NPN		C-6	32
73470	NPN		C-8	30
73570	NPN		C-8	31
81996	NPN		C-9	7
81996	NPN		C-9	8
81996	NPN		C-13	5
56681	N3N		C-8	16
45225	P74-144		C-14	
56681	RBH-81201240-H	6250-01-100-1892	C-10	4
81348	RR-C-271TY2CL2SZ.062	4010-00-186-9412	C-2	25
81348	RR-C-271TY2CL2SZ.062	4010-00-186-9412	C-3	3
81348	RR-C-271TY2CL2SZ.062	4010-00-186-9412	C-4	14
58781	S-F-4	6230-01-100-1720	C-1	24
58781	S-11-D	6210-01-128-6240	C-1	12
58781	S-5	6250-01-193-6531	C-1	19
58781	SA-84	6230-01-146-2855	C-1	10
58781	SFA-2854H-RBH-LP-120V	6230-01-137-3462	C-1	
81348	WC375/05001	5925-00-413-1210	C-8	15
82366	1-128384	5940-00-171-9504	C-8	22
82366	1-128384	5940-00-171-9504	C-11	9
82366	1-128384	5940-00-112-5218	C-15	8
56681	1194		C-4	4
97403	13206E4482-2		C-17	7
97403	13211E4918	4720-00-913-6422	C-17	12
97403	13214E3291-3	5310-00-052-3632	C-4	22
97403	13212E3554		C-17	8
56049	145-82660	6230-01-097-0846	C14	9
08108	1895	6240-00-946-9654	C-12	3
56681	201	5340-01-148-6735	C-4	24
98242	360154	5975-00-794-2523	C-15	4
56681	3700-05-3903-05144X3903-05545	2910-01-100-4719	C-13	10
39428	3912T11	5340-01-147-9722	C-3	2
56681	4154-RA		C-2	4
56681	4241		C-2	14
72635	59	6220-00-043-3322	C-12	
72869	6-1-1912-21-48A	5975-00-642-8937	C-15	3

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64912	64-5122-3		C-11	5
73470	6562S00	2590-01-145-1889	C-6	27
73470	6636S01	3950-01-147-4170	C-6	8
30554	69-669	5330-00-240-0834	C-8	25
04655	70-801074	5999-00-186-3912	C-15	7
72635	77-55604		C-12	2
56681	80250		C-14	1
56049	80560		C-14	10
56049	80600	5340-01-877-7006	C-14	12
39428	9010N12		C-4	13
39428	9036N		C-11	2
39428	92210A628	5305-01-148-0203	C-2	8
39428	98306A		C-2	22
39428	98306A		C-4	17
39428	98335A		C-2	24
39428	98335A		C-3	5
60135	9871	6130-01-096-9054	C-8	13
39428	98790A030		C-11	4

FIGURE AND ITEM NUMBER INDEX
FIG ITEM

STOCK NUMBER

CAGEC

PART NUMBER

C-1		6230-01-137-3462	58781	SFA-8544-RBH-LP-120 V
	1	5305-00-995-3444	58781	C-23-4
	2	5305-00-984-4982	96906	MS35207-266
	3		96906	MS35206-225
	4	6210-01-128-8546	58781	F-5
	5	6240-01-012-0829	58781	L-5
	6		00805	MV-1000/U
	7		96906	MS35649-23
	8	5310-00-596-7693	58781	M56-1
	9	5305-00-614-0260	96906	MS35335-31
	10	6230-01-146-2855	96906	MS35365-17
	11	5305-00-543-2024	58781	SA-84
	12	6210-01-128-6240	96906	MS35265-13
	13		58781	S-11-D
	14	5305-00-068-0500	58781	G-68-1
	15	5310-00-407-9566	96906	MS90725-3
	16	6210-01-146-2851	96906	MS35338-45
	17	6210-01-201-7084	58781	C-72
	18	5305-00-984-4982	58781	G-67
	19	6250-01-193-6531	96906	MS35206-225
	20	6145-00-295-0851	58781	S-5
	21	6230-01-096-5540	81348	J-C-580S06CK3/14SRNJ
	22	5935-01-096-5523	81091	L20RBP
	23	5305-00-655-9314	81091	L820P
	24	6230-01-100-1720	96906	MS35265-22
	25		58781	S-F-4
	26	5310-00-076-0318	58781	A-1
	27	5310-00-584-5272	96906	MS51967-14
	28	5305-00-042-6417	96906	MS35338-48
	29		96906	MS90725-113
	30	5305-00-990-8632	56681	HLP-1059A
	31	9510-00-189-7445	96906	MS90728-73
C-2		5445-01-139-1117	81349	MIL-S23284
	1	5445-01-097-0845	56681	DRW NO 23-1
	2		56681	HLP-1023A
	3	5305-00-225-3839	56681	HLT-4240
	4		96906	MS90725-8
	5	5310-00-087-4652	56681	4154-RA
	6	5305-00-269-3212	96906	MS51922-17
	7	5445-01-097-0844	96906	MS90725-61
	8	5305-01-148-0203	56681	HLP-1024A
	9		39428	92210A628
	10	5305-01-148-6766	56681	HLP-1027A
	11	5430-00-229-0360	96906	MS51863-38
	12	5445-01-097-9747	96906	MS28137-4
			56681	HLP-1025A

FIGURE AND ITEM NUMBER INDEX (CONTINUED)

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
	13	5305-00-115-9526	96906	MS18154-58
	14		56681	4241
	15	5445-01-097-0847	56681	HLP-1026A
	16	5305-00-716-8128	96906	MS90725-117
	17		56681	HLP-1030A
	18	5310-00-087-4652	96906	MS51922-17
	19	5310-00-637-9541	96906	MS35338-46
	20	5305-00-942-2196	96906	MS18154-60
	21		56681	HLP-1033A
	22		39428	98306A
	23		56681	NPN
	24		39428	98335A
	25	4010-00-186-9412	81348	RR-C-271TY2CL2SZ.062
	26	5310-00-582-5965	96906	MS35338-44
	27	5310-00-225-6993	96906	MS51922-33
	28	4010-01-096-5404	56681	HLP-1018A
C-3	1	6230-01-096-5368	56681	HLP-1022A
	2	5340-01-147-9722	39428	3912T11
	3		81348	RR-C-271TY2 CL2SZ.062
	4	5320-00-721-9075	96906	MS20604B3W2
	5		39428	98335A
	6		56681	NPN
C-4	1	5310-00-768-0318	96906	MS51967-14
	2	5310-00-637-9541	96906	MS35338-46
	3	5305-00-071-2081	96906	MS90728-125
	4		56681	1194
	5	5310-00-732-0558	96906	MS51967-8
	6		96906	MS35338-46
	7	5305-00-269-3228	96906	MS90725-78
	8		56681	HLP-1031
	9	6230-01-097-0843	56681	HLP-1032A
	10	5310-00-761-0654	96906	MS51967-9
	11		96906	MS35338-46
	12	5306-00-226-4834	96906	MS90728-41
	13		39428	9010N12
	14		81348	RR-C-271TY2CL2SZ.062
	15		56681	#12
	16	5315-00-194-2455	88044	AN415-2
	17		39428	98306A
	18	5310-00-768-0318	96906	MS51967-14
	19	5310-00-584-5272	96906	MS35338-48
	20	5306-00-225-8499	96906	MS90725-34
	21	6230-01-096-5371	56681	HLP-1043A
	22	5310-00-052-3632	97403	13214E3291-3
	23	5305-00-889-3000	96906	MS35206-230
	24	5340-01-148-6735	56681	201

FIGURE AND ITEM NUMBER INDEX (CONTINUED)

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-5	1	5305-00-883-0628	96906	MS24617-21
	2		56681	HLP-1011A
	3	5310-00-934-9755	96906	MS35650-362
	4	5310-00-045-4007	96906	MS35338-41
	5	5305-00-984-6225	96906	MS35206-35
	6	5935-01-096-5534	81091	L820F0
C-6	1	2590-00-119-0654	73470	K1550
	2	5310-00-732-0558	96906	MS51967-8
	3	5310-00-637-9541	96906	MS35338-46
	4	5310-00-087-7493	96906	MS27183-13
	5	5306-00-225-8497	96906	MS00725-58
	6	5305-00-068-0500	96906	MS90725-3
	7	5305-00-582-5965	96906	MS35338-44
	8	3950-01-147-4170	73470	6636S01
	9	5310-00-087-4652	96906	MS51922-17
	10		96906	MS16208-69
	11		73470	NPN
	12	5310-00-225-6993	96906	MS51922-33
	13	5305-00-071-1782	96906	MS90725-129
	14		73470	NPN
	15		73470	NPN
	16	5310-00-934-9758	96906	MS35649-202
	17	5310-00-576-5752	96906	MS35333-39
	18		73470	NPN
	19		96906	MS35751-1
	20	5310-00-984-3806	96906	MS51922-9
	21		73470	NPN
	22		73470	NPN
	23		73470	NPN
	24		73470	NPN
	25		73470	NPN
	26		73470	NPN
	27	2590-01-145-1889	73470	6562S00
	28		73470	NPN
	29		73470	NPN
	30		73470	NPN
	31		73470	NPN
	32		73470	NPN
C-7	1	6145-00-894-3434	81348	J-C-580S06CF6/14SRNJ
	2	6145-00-548-1243	82348	J-C-580S06CF3/12SRNJ
C-8	1	6230-01-098-4763	27192	CH4R
	2		56681	HLP-1018A
	3	5305-00-984-4982	96906	MS35206-225
	4	5305-00-984-4984	96906	MS35206-227
	5		15605	CH4-F
	6	5310-00-761-6882	96906	MS51967-2

CROSS REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG.	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-9	7	5310-00-754-2005	96906	MS35338-52
	8	4730-00-196-1487	96906	MS51953-34
	9	5305-00-068-0500	96906	MS90725-3
	10		56681	CG6275
	11	5310-00-582-5965	96906	MS35338-44
	12	5305-00-984-4983	96906	MS35206-226
	13	6130-01-096-9054	60135	9871
	14	5925-01-099-4770	15605	CH-125
	15	5925-00-413-1210	81348	WC375105001
	16		56681	N3N
	17		56681	HLP-1045A
	18	5930-00-728-4328	96906	MS24306-222
	19	5310-00-761-6882	96906	MS51967-2
	20	5310-00-582-5965	96906	MS35338-44
	21	5305-00-068-0500	96906	MS90725-3
	22	5940-00-171-9504	82366	1-128384
	23	5305-00-579-2139	96906	MS35190-236
	24	5975-00-417-0543	08556	A900
	25	5330-00-240-0834	30554	69-669
	26	5935-01-216-2565	81755	C15651
	27	5310-00-761-6882	96906	MS51967-2
	28	5310-00-582-5965	96906	MS3533-44
	29	5305-00-988-1724	96906	MS35206-280
	30		81996	NPN
	31		81996	NPN
	1			
	2	5310-00-225-6993	96906	MS51922-33
	3		96906	MS35338-46
	4	5305-00-044-4153	96906	MS90725-109
	5	5305-00-269-3228	96906	MS90725-78
	6	Deleted		
	7	Deleted		
	8	Deleted		
C-10	9	6230-01-097-0815	56681	HLP-1034A
	1	5310-00-880-7744	96906	MS51967-5
	2	5310-00-407-9566	96906	MS35338-45
	3	5306-00-225-8499	96906	MS90725-34
	4	6250-01-100-1892	56681	RBH-81201240-H
	5	5310-00-880-7744	96906	MS51967-5
	6	5310-00-407-9566	96906	MS35338-45
	7	5310-00-087-7493	96906	MS27183-13
	8	5306-00-225-8499	96906	MS90725-34
	9	6230-01-097-0836	56681	HLP-1044A
C-11	1	5310-00-880-7746	96906	MS51968-5
	2		39428	9036N
	3	6140-00-057-2553	96906	MS35000-1

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FIGURE AND ITEM NUMBER INDEX (CONTINUED)

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
	4		39428	98790A030
	5		64912	64-5122-3
	6		96906	MS51967-2
	7	5310-00-582-5965	96906	MS35338-44
	8		96906	MS90725-3
C-12	9	5940-00-271-9504	82336	1-128384
		6220-00-043-3322	76635	59
	1	6230-01-097-0860	56681	HLP-1021A
	2		72635	77-55604
	3	6240-00-946-9654	08108	1895
	4	5310-00-934-9751	96906	MS35650-302
	5	5310-00-582-5965	96906	MS35338-44
	6	5305-00-984-6225	96906	MS35206-238
	7		81348	J-C-580S06CK2/14SNRJ
C-13	1	2910-01-096-5543	79502	D-780221
	2		96906	MS51967-8
	3		96906	MS35338-46
	4	5306-00-225-8499	96906	MS90725-34
	5		56681	NPN
	6		79502	CD-297
	7	2910-01-097-0915	79502	CD-1252
	8	6680-01-096-5524	56681	HLP-1049A
	9	4730-00-595-1074	96906	MS20913-1J
C-14	10	2910-01-100-1719	56681	3700-05-3903-05144X3903-05545
	1		56681	80250
	2	5310-00-732-0558	96906	MS51967-8
	3	5310-00-582-5965	96906	MS35338-44
	4	5305-00-115-9526	96906	MS90725-58
	5	5310-00-732-0558	96906	MS51967-8
	6	5310-00-637-9541	96906	MS35338-46
	7	5305-00-269-3219	96906	MS90725-69
	8	6230-01-097-0837	97403	C13226E4315
	9	6230-01-097-0846	56049	145-82660
			56049	80560
	10	6230-01-096-5400	56681	HLP-1038A
	11	5340-01-877-7006	56049	80600
	12	6230-01-096-5403	56681	HLP-1037A
	13	5305-00-964-9564	96906	MS90725-372
	14	5310-00-732-0558	96906	MS51965-8
	15	5340-01-096-5556	56681	HLP-1039A
C-15	1	5975-00-878-3791	81348	MIL-R-11461
	2	5975-01-143-7340	56681	HLP1053A
	3	5975-00-642-8937	72869	6-1-1912-21-48A
	4	5975-00-794-2523	98242	360154
	5	6145-00-189-6695	81348	J-C-30
	6	5975-00-924-9927	73616	GRB 58

FIGURE AND ITEM NUMBER INDEX (CONTINUED)

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
	7	5999-00-186-3912	04655	70-801074
	8	5940-00-112-5218	82366	1-128384
			45225	P74-144
C-16	1	5310-00-934-9747	96906	MS35649-262
	2	5305-00-954-3938	96906	MS35206-207
	3	5210-01-096-5421	56681	HLP-1051A
C-17	1		96906	MS51967-8
	2		96906	MS35338-46
	3		96906	MS90725-60
	4	6230-01-096-5370	56681	HLP-1041A
	5	5305-00-782-9494	96906	MS90725-114
	6	5310-00-809-5998	96906	MS27183-18
	7		97403	13206E4482-2
	8		97403	13212E3554
	9	4730-00-196-1502	96906	MS51953-29
	10	4820-00-277-1765	96906	MS35930-2
	11	4730-00-196-1465	96906	MS51873-25
	12	4720-00-913-6422	97403	13211E4918
	13	4730-00-908-3194	96906	MS35842-11

APPENDIX D

ADDITIONAL AUTHORIZATION LIST (AAL)

SECTION I. INTRODUCTION

D-1. SCOPE.

This appendix lists additional items you are authorized for the support of the Floodlight Set.

D-2. GENERAL.

This list identifies items that do not have to accompany the Floodlight Set and that do have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, OR JTA.

D-3. EXPLANATION OF LISTING.

National stock numbers, descriptions, and quantities are provided to help you identify and request the additional items you require to support this equipment. The items are listed in alphabetical sequence by item name. If the item you require differs between serial numbers of the same model, effective serial numbers are shown in the last line of the description. If item required differs for different models of this equipment, the model is shown under the "Usable on" heading in the description column. These codes are identified as:

SECTION II. ADDITIONAL AUTHORIZATION ITEMS LIST

(1) National Stock Number	(2) Description CAGEC and Part Number	(3) Usable On Code	(4) Qty rqr
5120-00-596-9313	Crimping Tool, Terminal	EA	1
5110-00-238-8722	Cutter, Gasket	EA	1
5120-00-013-1676	Puller, Ground Rod	EA	1
5120-00-017-2849	Riveting Kit	EA	1
3433-00-935-7964	Torch Outfit	EA	1
5120-00-293-1493	Vise, Machines	EA	1
	MTOE AUTHORIZED ITEMS		
	N/A		
	CTA AUTHORIZED ITEMS		
	Safety Glasses	EA	1

APPENDIX E

EXPENDABLE/DURABLE SUPPLIES LIST

SECTION I. INTRODUCTION

E.1 SCOPE.

This appendix lists expendable/durable supplies that you will need to operate and maintain the Floodlight Set. This listing is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA50-790, Expendable/Durable Items (except medical, classV repair parts, and heraldic items), or CTA8-100, Army Medical Department Expendable/Durable Items

E.2 EXPLANATION OF COLUMNS.

a. Column 1. Item Number. This number is assigned to the entry in the listing and is referenced **in the** narrative instructions to identify the item (e.g. "Use cleaning compound, item 5, appx E").

b. Column 2. Level. This column identifies the lowest level of maintenance that requires the **item**.

C - Operator/crew
O- Unit maintenance
F - Direct support maintenance
H - General support maintenance

c. Column 3. National Stock Number. This is the national stock number assigned to the item which you can use to requisition it.

d. Column 4. Item Name, Description, Commercial and Government Entity Code (CAGEC), and Part Number. This provides the other information you need to identify the item.

e. Unit of Measure. This code shows the physical measurement or count of an item, such as **gallon, dozen, gross, etc.**

SECTION II. EXPENDABLE/DURABLE SUPPLIES LIST

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	O	6810-00-249-9357	ACID, Sulfuric, (Electrolyte)	GL
2	O/C	8030-00-251-3980	ANTI-SEIZE COMPOUND MIL-A907	CN
3			BICARBONATE OF SODA	BX
4			BUCKET	EA
5			CRIBBING	EA
6			DISTILLED WATER	GL
7			FUNNEL	EA

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
8			GASOLINE MIL-G-3056C	GL
9			GLOVES	PR
10			GLOVES, RUBBER	PR
11	0	9150-00-190-0900	GREASE, AUTO AND ARTILLERY MIL-G-10924	PAIL
12	0 0	9150-00-530-6814	GREASE, WIRE ROPE EXPOSED MIL-G-18458	PAIL
13			HOSE, FLEXIBLE	EA
14		9150-00-183-9858	LUBRICATING OIL, ENGINE OE- HDO-30 MIL-L-2104	CN
15			OIL MIL-L-21404	GL
16			OIL CAN	EA
17			PAINT MIL-E-52978	GL
18			RAGS	BL
19			RIVETS	GR
20			SOAP	EA
21	0	6850-00-274-5421	SOLVENT, CLEANING P-D-680 TYPE 2	CN
22			SYRINGE	EA
23			TAGS	EA
24			TAPE, CLOTH	RL
25			WELDING ROD	EA

NOTE
EXPENDABLE/DURABLE SUP-
PLIES LIST WILL BE LISTED IN TM
5-2805-203-14 FOR THE EN-
GINE, TM 5-6115-271-14 FOR
THE GENERATOR, AND TM
9-2330-251-14 FOR THE TRAILER.

APPENDIX F

COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

SECTION I. INTRODUCTION

F-1. SCOPE. This appendix lists components of the end item and basic issue items for the Floodlight Set to help you inventory the items for safe and efficient operation of the equipment.

F-2. GENERAL. The Components of End Item and Basic Issue Items (BII) Lists are divided into the following sections:

a. Section II, Components of End Item. This listing is for information purposes only, and is not authority to requisition replacements. These items are part of the Floodlight Set, but they are to be 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 help you find and identify the items.

b. Section III, Basic Issue Items. These essential items are required to place the Floodlight Set in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the Floodlight Set during operation and when it is transferred between property accounts. Listing items is your authority to request-requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

F-3. EXPLANATION OF COLUMNS.

a. Column (1), Illustration Number, gives you the number of the item illustrated.

b. Column (2), National Stock Number, identifies the stock number of the item to be used for requisitioning purposes.

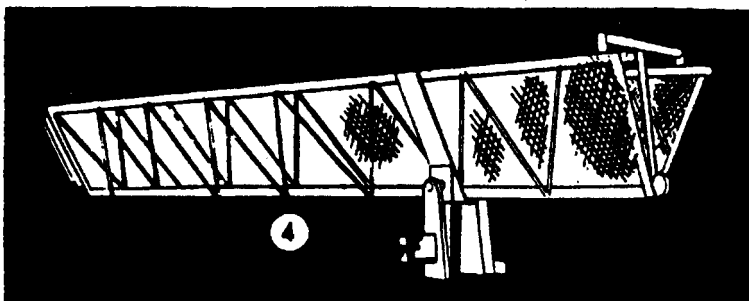
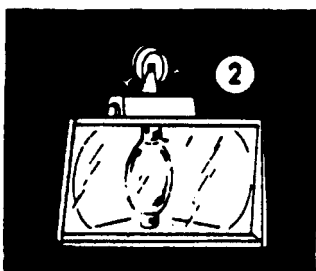
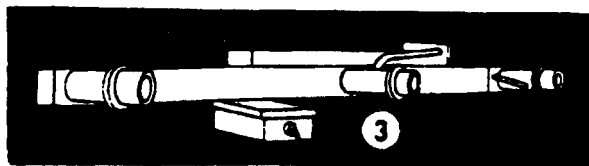
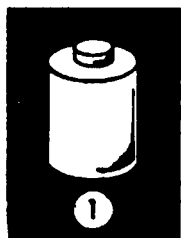
c. Column (3), Description and Useable On Code, identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (commercial and Government entity code) (in parenthesis) and the part number.

If the item you need is not the same for different models of the equipment, a Usable On Code will appear on the right side of the description column on the same line as the part number. These codes are identified below as:

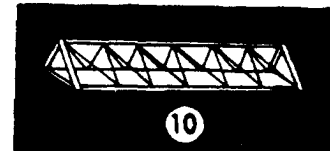
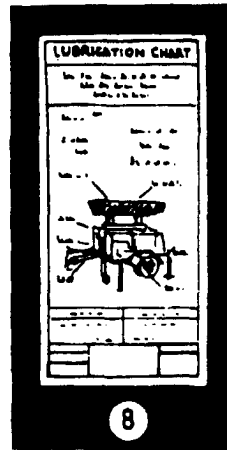
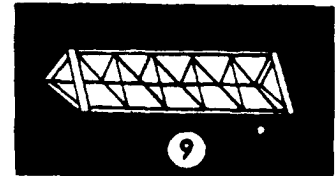
d. Column (4), U/I (unit of issue), indicates how the item is issued for the National Stock Number shown in column two.

e. Column (5), Qty Rqd, indicates the quantity required.

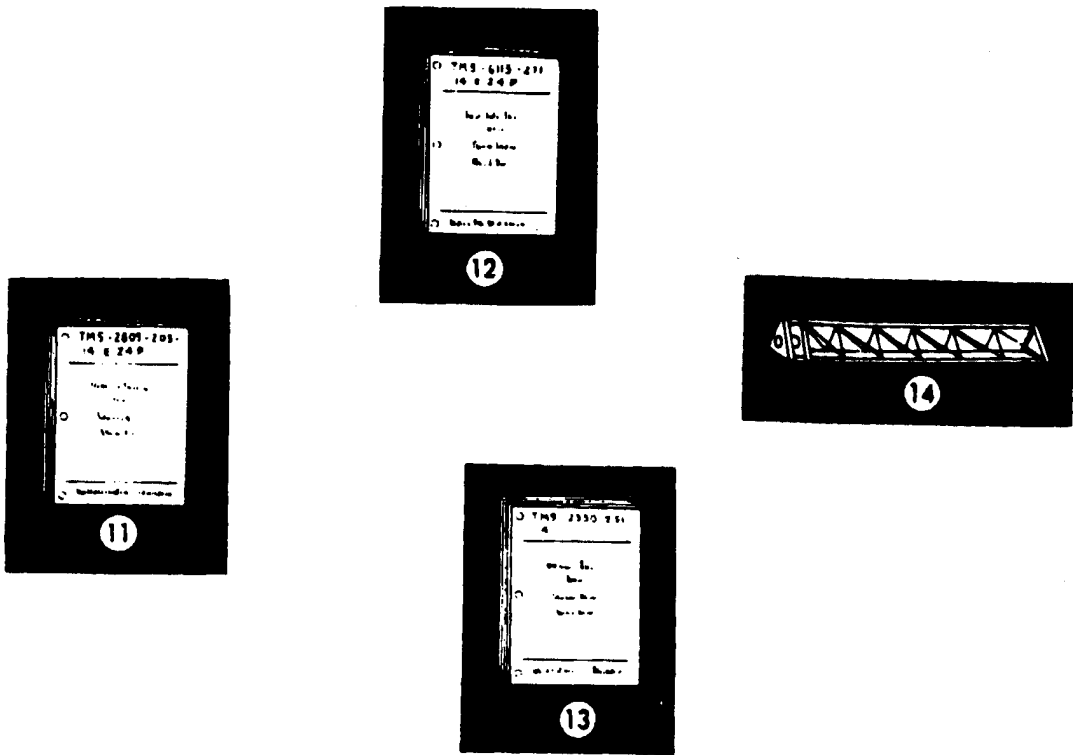
SECTION II. COMPONENTS OF END ITEM LIST



(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/I	(5) Qty rqr
1	6810-00-294-9354	Electrolyte, Battery		EA	1 gal
2	6230-01-137-3462	Fixture, Light (Separately Boxed) (58781) S F-851 H-LB		EA	3
		NOTE The following items are pack- agd in one (1) box.			
3	6230-01-096-5368	Bar Assembly, Light (56681) HLP - 1022A		EA	1
4	5445-01-097-0847	Bottom Section w/Pivot Modification (56681) CZ6-B-SP		EA	1



(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U / I	(5) Qty rqr
5	5975-00-878-3791	Ground Rod Assembly (15277) FS0216B122-1		E A	1
6	5120-00-2514489	Hammer Hand (77348) H8H		EA	1
7	4720-00-9136422	Hose, Oil Drain (97403) 13211E4918		EA	1
8		LO 9-2805-262-12		EA	1
9	5445-01-097-9747	Next to Bottom Section (56681) CZ5P		EA	1
10	5445-01-097-0844	Next to Top Section (56681) CZ4P		EA	1



(1)	(2)	(3)	(4)	(5)
Illus Number	National Stock Number	Description CAGEC and Part Number	Usable On Code	Qty rqr
11	5445-01-087-0845	TM 5-2805-262-14 & -24P	EA	1
12		TM 5-6115-271-14 & -24P	EA	1
13		TM 9-2330-251-14&P	EA	1
14		Top w/Light Bar Socket (56681) 3C23 T	EA	1

SECTION III. BASIC ISSUE ITEMS

(1)	(2)	(3)	(4)	(5)
Illus Number	National Stock Number	Description CAGEC and Part Number	Usable On Code	Qty rqr
1		TM 9-6230-210-13&P	EA	

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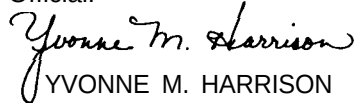
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TEAR ALONG PERFORATED LINE

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 decigrams = .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 milliliters = .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
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