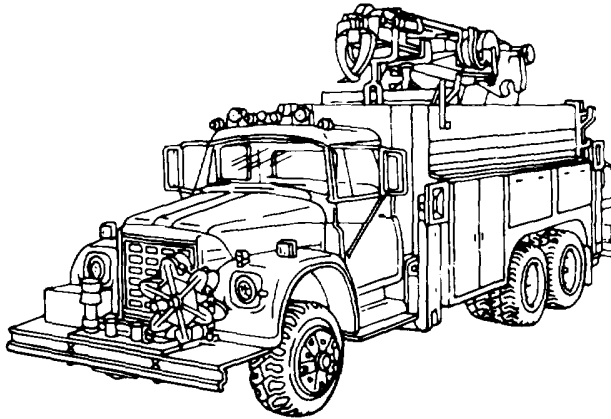


OPERATOR'S MANUAL

**TRUCK, TELEPHONE MAINTENANCE
UTILITY, C/S, 36,000 GVW, 6 x 4, W/WN,
W/E, M876 (NSN 2320-00-000-0114)**



**HOW TO USE
THIS MANUAL
PAGE iii**

**EQUIPMENT
DESCRIPTION
PAGE 1-7**

**OPERATING
INSTRUCTIONS
PAGE 2-1**

**PREVENTIVE MAINTENANCE
CHECKS AND SERVICES
PAGE 2-36**

**OPERATING THE DERRICK
AND AUXILIARY EQUIPMENT
PAGE 2-93**

**TROUBLESHOOTING
PROCEDURES
PAGE 3-1**

**MAINTENANCE
PROCEDURES
PAGE 3-36**

**This copy is a reprint which includes
current pages from Change 1.**

WARNING

CARBON MONOXIDE (EXHAUST) CAN KILL YOU

Carbon monoxide is without color or smell, but can kill you. Breathing air with carbon monoxide produces symptoms of headache, dizziness, loss of muscular control, a sleepy feeling, and coma. Brain damage or death can result from heavy exposure. Carbon monoxide occurs in the exhaust fumes of fuel-burning heaters and internal combustion engines. Carbon monoxide can become dangerously concentrated under conditions of no air movement. Precautions must be followed to insure crew safety when the personnel heater, main or auxiliary engine of any vehicle is operated for any purpose.

1. DO NOT operate personnel heater or engine of vehicle in a closed place unless the place has a lot of moving air.
2. DO NOT idle engine for long periods with ventilation-blower operating.
3. DO NOT drive any vehicle with engine compartment doors removed unless necessary for maintenance purposes.
4. BE ALERT at all times during vehicle operation for exhaust odors and exposure symptoms. If either is present, IMMEDIATELY VENTILATE personnel compartments. If symptoms persist, remove affected crew to fresh air; keep warm; DO NOT PERMIT PHYSICAL EXERCISE; if necessary, give artificial respiration.

FOR ARTIFICIAL RESPIRATION, REFER TO FM 21-11.

5. BE AWARE; the field protective mask for chemical-biological (CBR) protection will not protect you from carbon monoxide poisoning.

WARNINGS - CONTINUED**WARNING**

HIGH VOLTAGE

DEATH ON CONTACT

May result if personnel fail to observe

Safety precautions

High voltage or low voltage overhead power lines are dangerous. Use extreme care when working on telephone, and or utility poles. Power supply must be shut off, if possible, or move power lines to provide a wide, safe and clear work area when the M876 truck is operated with the derrick in raised and vertical position. Death to the derrick operator can occur if top of derrick makes contact with live overhead power lines.

WARNING

Always wear heavy leather gloves when handling winch wire cables. Never let wire cable run through your hands; frayed cables can cut you. Never operate a winch with less than four turns of cable on the drum. Keep cable coils tight and close together on drum while winching.

WARNING

Keep personnel not involved in winching away from winch cables and payload. A snapped cable or shifting load can cause serious injury or death. Stop winching immediately if shifting payload presents a hazard, or if any part fails. Notify organizational maintenance if hazard exists, or part failure.

WARNING

Be sure nozzle or container touches the filler tube on tank to carry off static electricity. Do not smoke or permit any open flame in the area of the M876 truck while you are servicing the fuel system. Failure to follow this warning can result in injury to personnel.

WARNING

Do not park with outriggers and derrick extended out over the downward slope of a hill. The weight of a man in the basket, or a lifted load, can exceed the safety limits of the vehicle center of gravity and tip the M876 truck over. Death or injury to personnel can result.

Change 1 a

WARNING

If your vehicle is to be towed, apply parking brake and place chocks in front of wheels prior to hook-up of tow bar and prior to disconnecting tow bar. Work between wrecker or towing vehicle and the disabled vehicle with extreme care. Vehicles having air actuated spring brakes and an inactive air system, uncage the spring brakes before the vehicle is separated from the towing vehicle. Failure to follow this warning may result in serious injury or death.

■ **Change 1 b**

CHANGE }
NO.1 }

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D. C.,
13 June 1986

OPERATOR'S MANUAL

**TRUCK, TELEPHONE MAINTENANCE, UTILITY, C/S,
36,000 GVW, 6 x 4, W/WN, W/E,
M876 (NSN 2320-00-000-0114)**

TM 9-2320-269-10, April 1984, is changed as follows:

1. Remove old pages and insert new pages as indicated below.
2. New or changed material is indicated by a vertical bar in the margin of the page.

Remove Pages

a (b blank)
2-63 and 2-64
2-65 and 2-66
2-93 and 2-94

Insert Pages

a and b
2-63, 2-64, 2-64.1/(2-64.2 blank)
2-65, 2-66, and 2-66.1/(2-66.2 blank)
2-93 and 2-94

3. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
*General, United States Army
Chief of Staff*

Official:

R.L. DILWORTH
*Brigadier General, United States Army
The Adjutant General*

Distribution:

To be distributed in accordance with DA Form 12-38, block 281, operator requirements for Truck, Telephone Maintenance, Utility, 6 x 4, M876.

OPERATOR'S MANUAL

**TRUCK, TELEPHONE MAINTENANCE, UTILITY, CIS,
36,000 GVW, 6 x 4, WIWN, W/E,
M876 (NSN 2320-00-000-0114)**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help to improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Tank-Automotive Command, ATTN: DRSTA-MB, Warren, MI 48090. A reply will be furnished to you.

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*This manual supersedes TM 9-2320-269-10 dated 20 May 1977.

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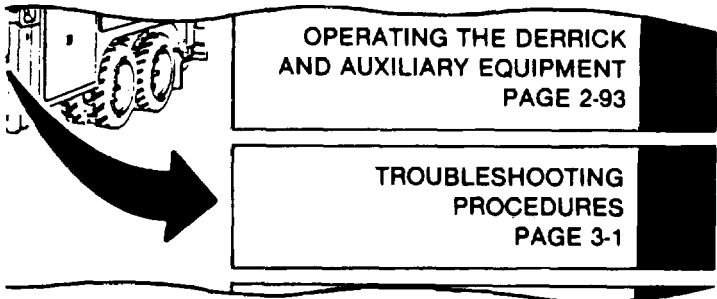
HOW TO USE THIS MANUAL

This manual will help you to operate and maintain the M876 telephone maintenance truck. The instructional outline below will help you use and locate any specific section in this manual when you need vehicle data, a maintenance procedure, or troubleshooting instructions. In the example case below, the troubleshooting section is your best course.

Example problem:

You are in the field, and the engine will not start with the outside temperature below 400F (4.60C). The engine turns over slowly when you depress starter switch.

Step 1. To locate the problem look at the manual cover. On the right edge you see a black tabbed box marked Troubleshooting. Turn to the page indicated.



Step 2. Locate Symptom Index. Under this alphabetical listing find, "Malfunction" ENGINE. Look for "Fails to start-engine cranks". A page number is shown on the right side.

SYMPTOM INDEX - CONTINUED

Malfunction		Troubleshooting Procedure Page
ENGINE		
Engine power surges		3-8
Excessive oil consumption		3-8
Fails to start - engine cranks		3-7

HOW TO USE THIS MANUAL - CONTINUED

Step 3. Turn to page 3-7 and you will see:

CORRECTIVE ACTION

Fails to start - engine cranks.

Step 1. Perform starting procedures, below 400F (4.60C), pages 2-66 and 2-67.

Pay attention to all cautions and notes.

- a. Pull out swirl destroyer control (5) (if your vehicle has one), ether start (6) and turn on key switch (7).
- b. If engine fails to start, notify organizational maintenance.

NOTE

Step 4. Corrective action is to 'Perform starting procedures below 40°F (4.60C), and pages 2-66 and 267 for procedures.' You proceed to this page and do the required operations . . . Problem solved!

FOLLOW THESE GUIDELINES WHEN USING THIS MANUAL:

Read all WARNINGS and CAUTIONS. Follow these instructions. Safety First At All Times.

CHAPTER 1
INTRODUCTION

OVERVIEW

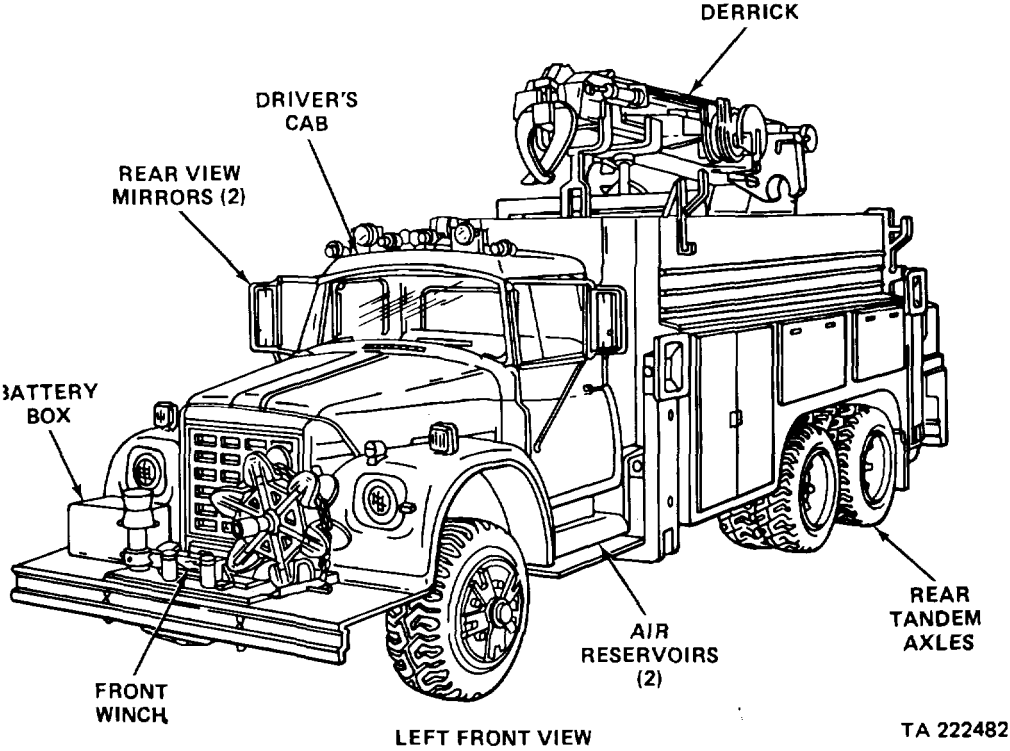
The purpose of this chapter is to give you information on what you need to know as the operator of the M876 Telephone Maintenance, Utility Truck.

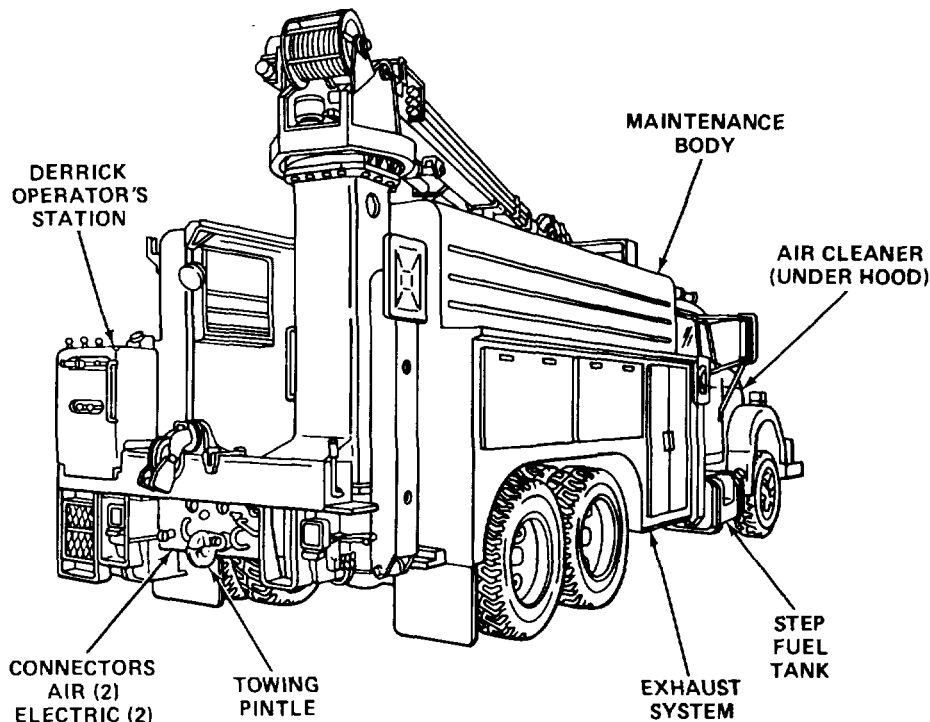
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Section I GENERAL INFORMATION

	Page		Page
Hand Receipt (-HR)		Reporting Equipment	
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List of Abbreviations.....	1-3	Recommendations	
Maintenance Forms and		(EIR's).....	1-3
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The following shows you some of the features and components of the M876 Telephone Maintenance Utility Truck that you will be using during the operation and maintenance procedures. Throughout this manual, it will be called the M876 Truck. The complete nomenclature will be used in reporting information requirements.





SCOPE

Type of Manual: Operator's

Model Number and Equipment Name: Telephone Maintenance Utility Truck M876

Purpose of Equipment: Support, maintain telephone/power lines, cable system installation, lighting installation, world-wide.

MAINTENANCE FORMS AND RECORDS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management Systems (TAMMS).

HAND RECEIPT (-HR) MANUALS

This manual has a companion document with a TM number followed by -HR (which stands for Hand Receipt). The TM 9-2320-269-10-HR consists of preprinted hand receipts (DA FORM 2062) that list end item related equipment (i.e., COEI, BII, and AAL) you must account for. As an aid to property accountability, additional -HR manuals may be requisitioned from the following source In accordance with procedures in Chapter 3, AR 310-2; The US Army Adjutant General Publications Center, ATTN: AGLD-OD, 2800 Eastern Blvd., Baltimore, MD 21220.

TA 222483

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR's)

If your M876 Telephone Maintenance Utility Truck 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 direct to: Commander, US Army Tank Automotive Command ATTN: DRSTA-MTB, Warren, MI 48090. We'll send you a reply.

LIST OF ABBREVIATIONS

amp	ampere
amp hr	ampere hour
bhp	brake horsepower
cm	centimeter
cu ft	cubic foot (feet)
cu m	cubic meter(s)
cu mm	cubic millimeter
GAWR	gross axle weight rating
GPM	gallons per minute
GVW	gross vehicle weight
ft	foot (feet)
FMVSS	Federal Motor Vehicle Safety Standards
In.	inch (inches)
kg	kilogram(s)
kpsi	thousands of pounds per square inch (tensile-strength)
kPa	kiloPascal
lb. ft	pounds - force foot
m ³	cubic meters
mm	millimeters(s)
mm ³	cubic millimeters
N•m	Newton-meter(s)
rad(s)	radian
v	volt(s)
w/	with
w/wn	with winch
w/e	with equipment
°C	degrees Celsius
°F	degrees Fahrenheit

GLOSSARY

AUGER	A screw type hole digging tool equipped with replaceable digging teeth.
BASKET	Personnel carrying component of a derrick where aerial work is required.

GLOSSARY - CONTINUED

BASKET LINER	A thermo-fused insulating insert for the mancarrying basket.
BASKET PIVOT	The area about which the basket rotates so the man in the basket stays vertical to the different elevation angles of the derrick leg.
CONSOLE	Derrick operator's station consisting of a cabinet which houses the derrick, turret rotation, turret winch and digger controls.
CONTROL TUBES	Telescopic mechanical linkage which provide control functions at the mancarrying basket.
DERRICK LEG	The outer, or main section of the steel tube hinged to the turret. This section has a fixed length and houses the derrick leg hydraulic extension and manual fiber glass insulating extension.
DIGGER	Hydraulic powered device which uses the auger to drill pole holes. Mounted on the upper end of the derrick leg hydraulic extension.
DIGGER RETURN LINE	The drain lines which return the digger hydraulic motor oil back to the oil reservoir tank.
ELEVATION CYLINDER	A double acting hydraulic powered cylinder which elevates the derrick leg assembly.
EXTENSION CYLINDER	A double acting hydraulic cylinder which extends and retracts the derrick leg safety and prevents electric wires from making contact with the steel leg extension.
HEAD SHEAVE	Pulley w/guard mounted on the outer end of the hydraulic leg extension for guidance of the turret winch wire rope.
HYDRAULIC LEG EXTENSION	The telescopic section of the derrick leg which is hydraulic powered to extend and retract.

GLOSSARY - CONTINUED

KELLY BAR	A hex-shaped drive shaft that attaches to the auger drive gear case, to which the auger is attached.
LOWER CONTROLS	The hydraulic controls on the console which control the movements of the derrick leg assembly.
MANUAL CONTROL	A control actuated by the operator, regardless of the means of actuation. Example: lever or a foot pedal control for directional valves.
MAST	The upright stationary section of the derrick base that supports the rotating mechanism and turret.
MICRON	One millionth of a meter or about .00004 inch.
MICRON RATING	The size of the particles a filter will remove from the fluid.
MOTOR	A rotary motion device which changes hydraulic energy into mechanical energy; a rotary actuator.
OPERATOR'S THROTTLE	A foot operated hydraulic power control which controls the vehicle engine RPM from the rear console.
OUTRIGGERS	Four hydraulically powered extendible stabilizing legs. Two are mounted on each side of the derrick sub-frame and provide a firm stable platform when the derrick is rotated, or elevated.
POLE GUIDE	A hydraulic powered device used to manipulate the upper end of the telephone poles being raised out of, or being lowered into pole hole.
POWER FEED TUBE	Telescoping hydraulic line which supplies oil to the digger motor.

GLOSSARY - CONTINUED

PULL-OUT EXTENSION	The manual controlled telescopic third section fiber-glass tube which isolates the steel section to which the man-basket is attached. Isolation is necessary for safety and prevents electric wires from making contact with the steel leg extension.
PUMP	A device which converts mechanical force and motion into hydraulic fluid power.
RAM	A single-acting cylinder with a single diameter plunger rather than a piston and rod. The plunger in a ram-type cylinder.
RESERVOIR	A container for storage of liquid in a fluid power system.
STRAINER	A coarse filter, or screen.
SUB-FRAME	An added structural unit attached to the top side of the truck chassis frame to provide a load distribution path between the derrick mast and the derrick outriggers.
TOOL OUTLETS	Quick disconnect fittings for supply of hydraulic power to accessory tools.
TROMBONE	A device used to stow and allow extension of the extra lengths of hydraulic lines when the hydraulic extension of the derrick leg is extended or retracted.
TURRET	The rotating section of the base which supports the derrick leg section.
TURRET WINCH	The hydraulic powered winch mounted on top of the turret.

Section II EQUIPMENT DESCRIPTION

	Page		Page
Equipment Character- istics, Capabilities, and Features	1-7	General	1-7
Equipment Data.....	1-34	Location and Descrip- tion of Major	
		Components	1-22

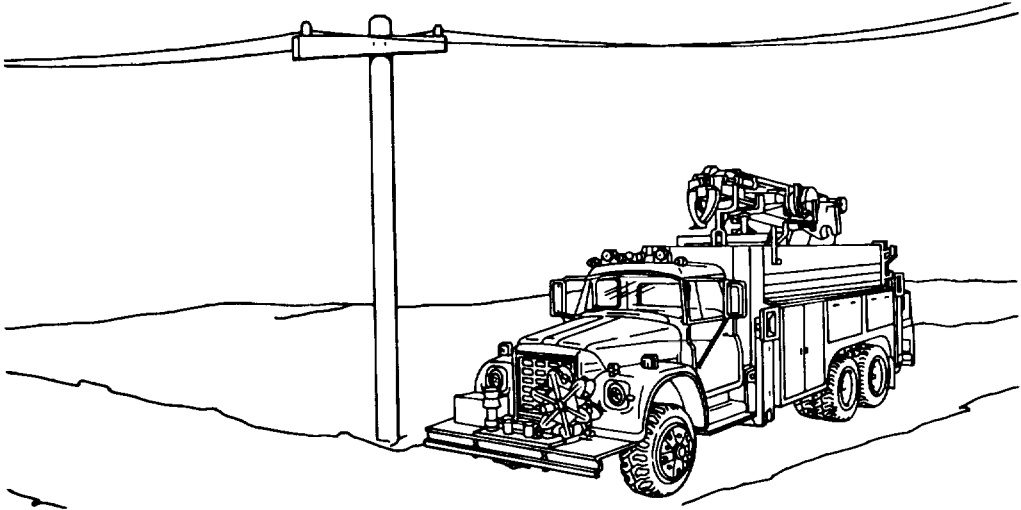
GENERAL

The following pages provide information to show you what the M876 truck, equipped with a Pole Master (PM) 300 hydraulic powered derrick/crane, is capable of doing during equipment operation. In addition, information is provided to show the special features of the M876 truck.

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

CHARACTERISTICS

The M876 truck supports, services, and maintains military overhead communication and high voltage electrical transmission lines.

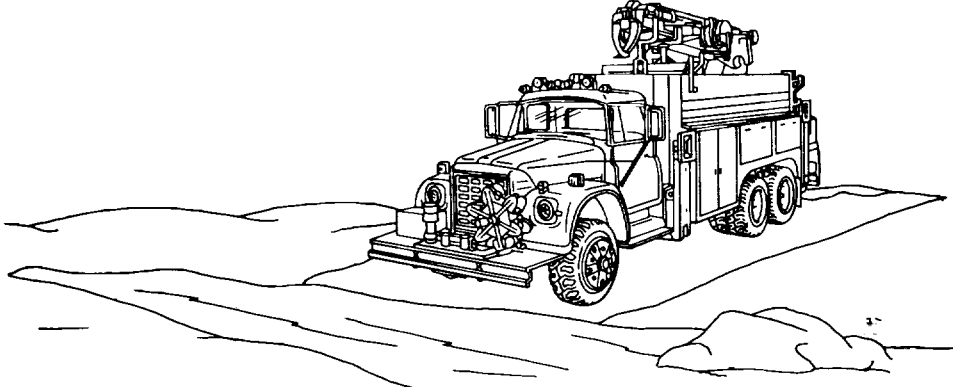
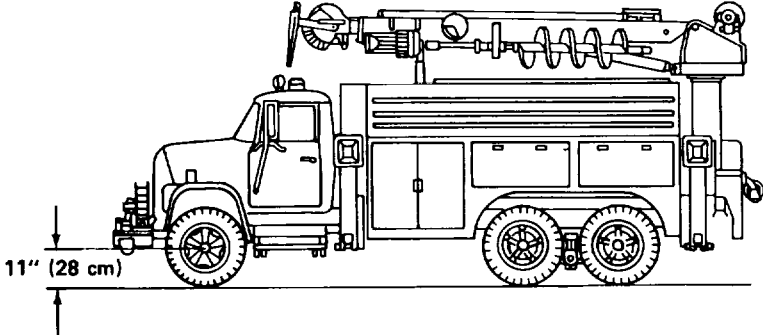


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EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

CAPABILITIES

The M876 truck can ford water with a maximum depth of 11 inches (28 cm) without the use of additional equipment.

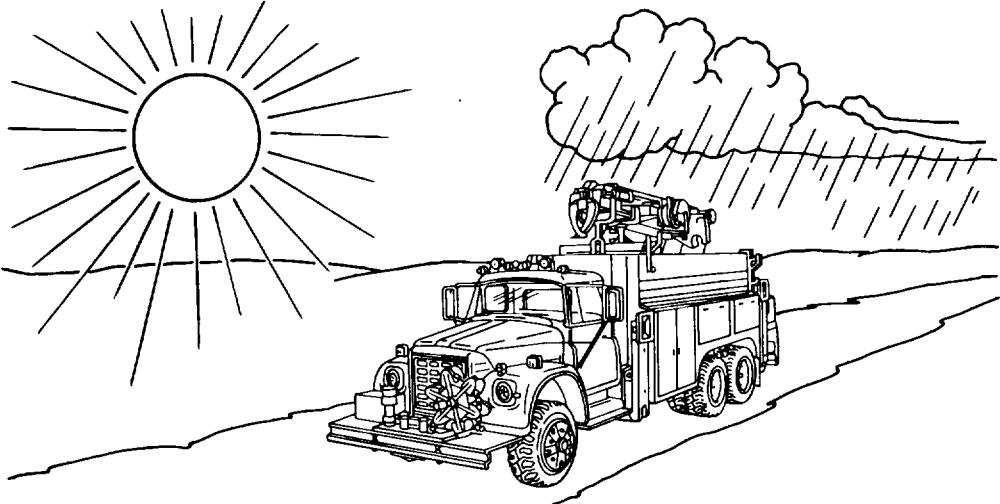


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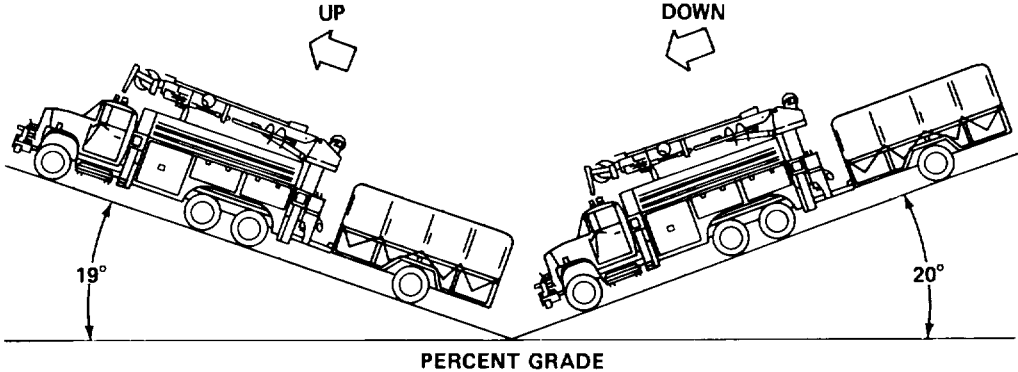
EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

CAPABILITIES - CONTINUED

The M876 truck is capable of operating in weather conditions of extreme cold, heat and rain.



The M876 truck, with derrick can go up a 19° or down a 20° grade while pulling a trailer.

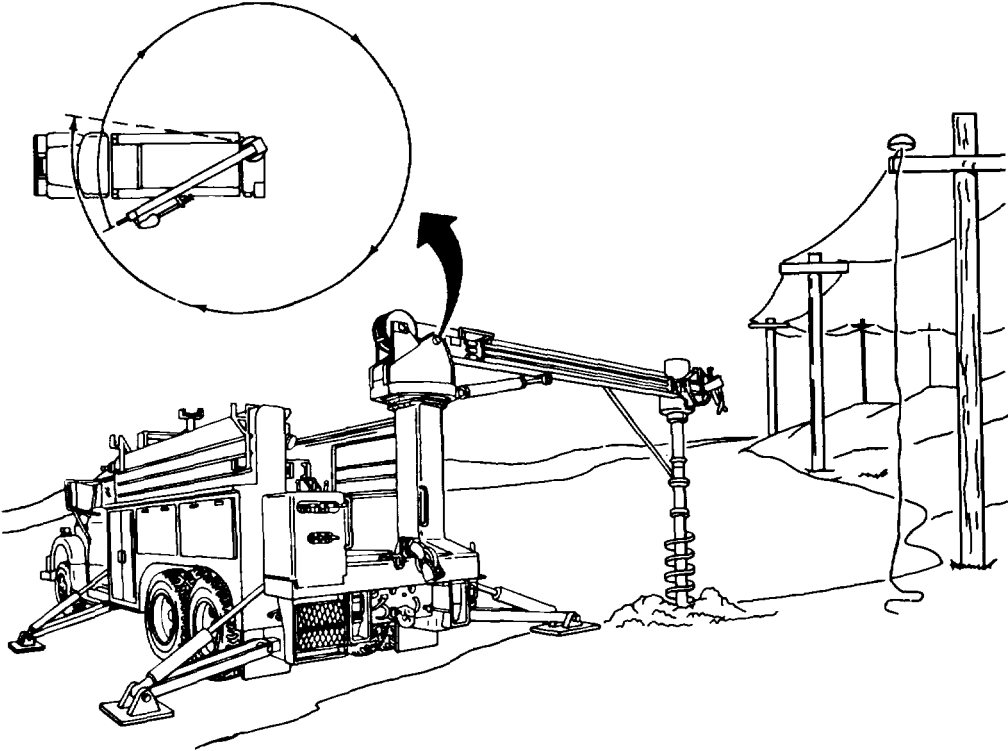


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EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

CAPABILITIES - CONTINUED

The M876 truck derrick is capable of 3700 non-continuous rotation. This means you can work off the left and right sides, and rear of the M876 truck.

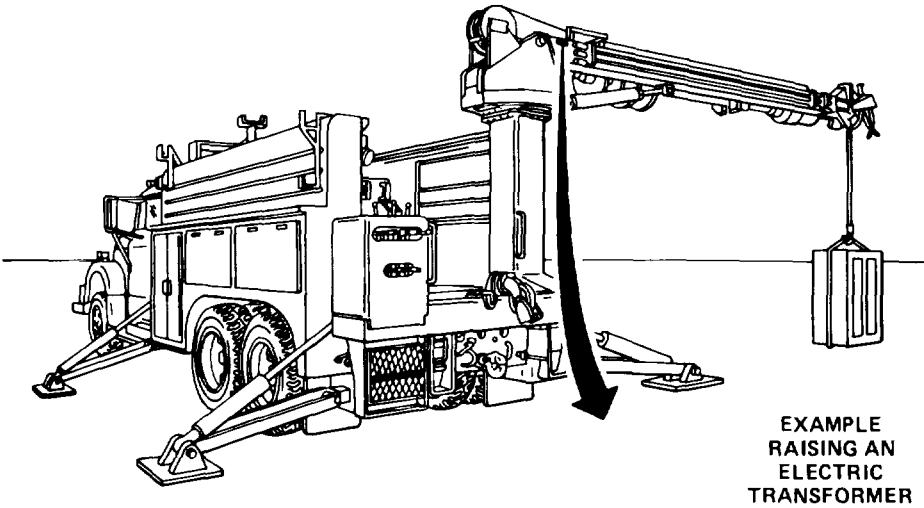


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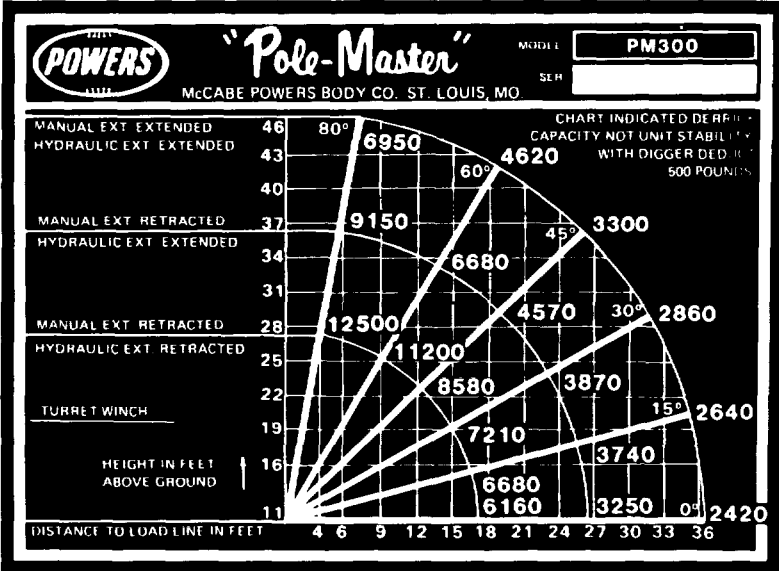
EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

CAPABILITIES - CONTINUED

The M876 truck derrick can be used as a crane, with a maximum load lifting capacity of 12,500 pounds (6,250 kg).



**EXAMPLE
RAISING AN
ELECTRIC
TRANSFORMER**



TA 222488

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

CAPABILITIES - CONTINUED

METRIC - LOADS - HEIGHT CONVERSION TABLE

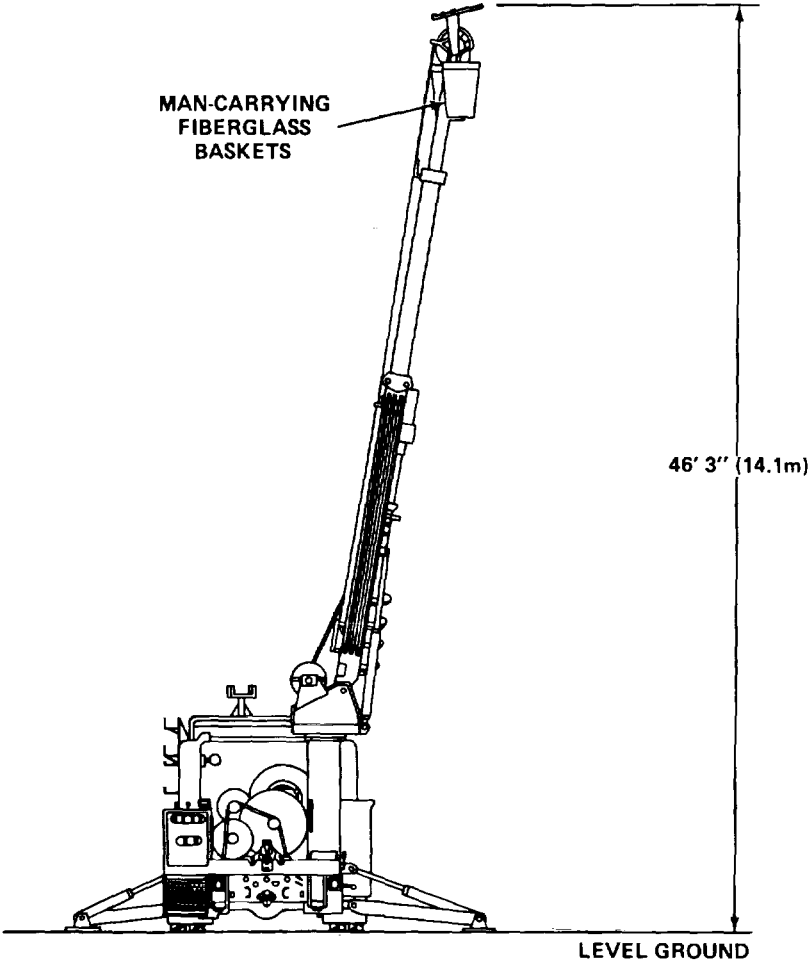
Derrick Angle (degrees)	Distance to Load Line		Load	
	(ft)	(cm)	(lb)	(kg)
80°	7 – 0	213.5	6950	3475
	5 – 0	152.5	9150	4575
	4 – 0	122.0	12500	6250
60°	19 – 0	579.5	4620	2310
	13 – 0	396.5	6680	3340
	9 – 0	274.5	11200	5600
45°	26 – 0	793.0	3300	1650
	19 – 0	579.5	4570	2285
	12 – 0	366.0	8580	4290
30°	32 – 0	976.0	2860	1430
	22 – 0	671.0	3870	1935
	15 – 0	457.5	7210	3605
15°	35 – 0	1067.5	2640	1320
	26 – 0	793.0	3740	1870
	17 – 0	518.5	6680	3340
0°	36 – 0	1098.0	2420	1210
	26 – 0	793.0	3250	1625
	17 – 0	518.5	6160	3080

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EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

CAPABILITIES - CONTINUED

The M876 truck can service or repair overhead lighting, radar, and radio antennas at a maximum height of 46 feet 3 inches (14.1 m), and 800 elevation, maximum.

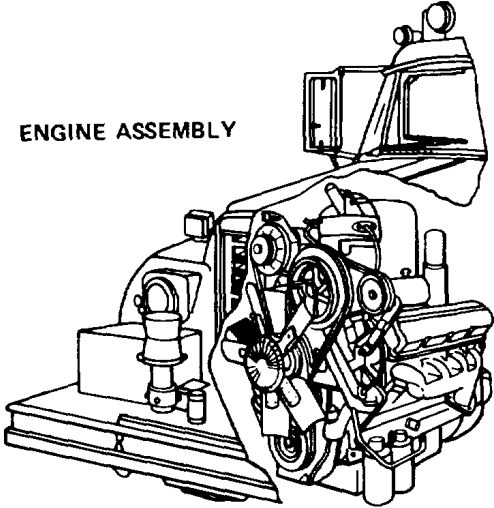


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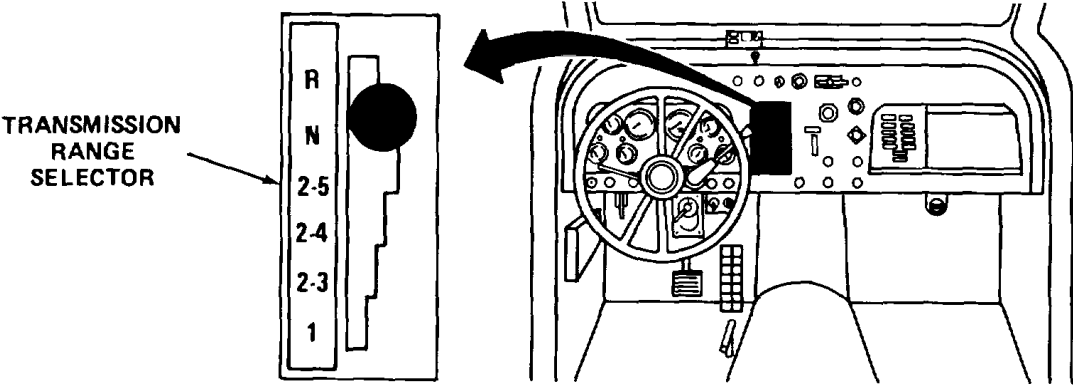
EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

FEATURES

The M876 truck is powered by a 190 horsepower, V-8, four stroke diesel engine.



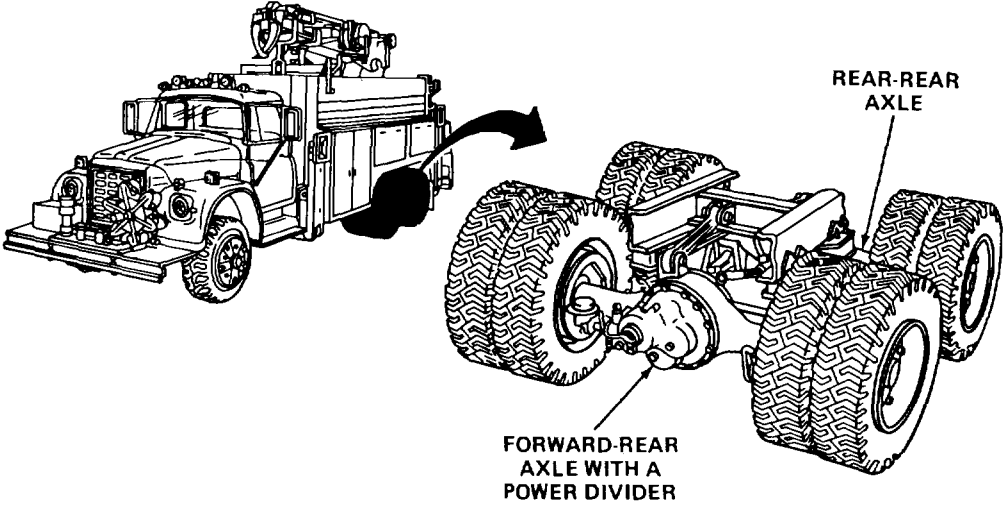
The M876 truck has an MT650 automatic transmission with five speeds forward and one speed reverse. The transmission range selector is easily reached from the driver's position.



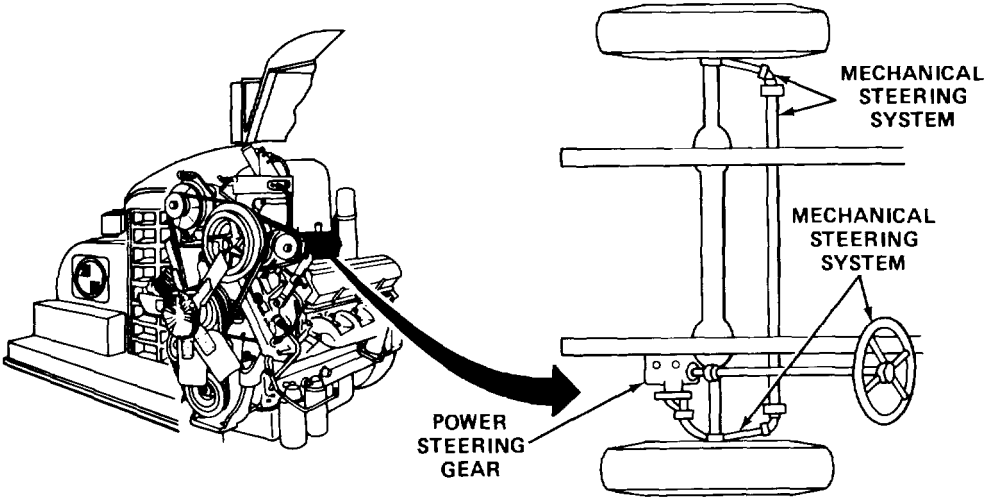
EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

FEATURES - CONTINUED

The M876 truck has rear axle drive only. The heavy duty tandem rear axles provide the gear reduction to the rear wheels for traction to move the M876 forward and reverse.



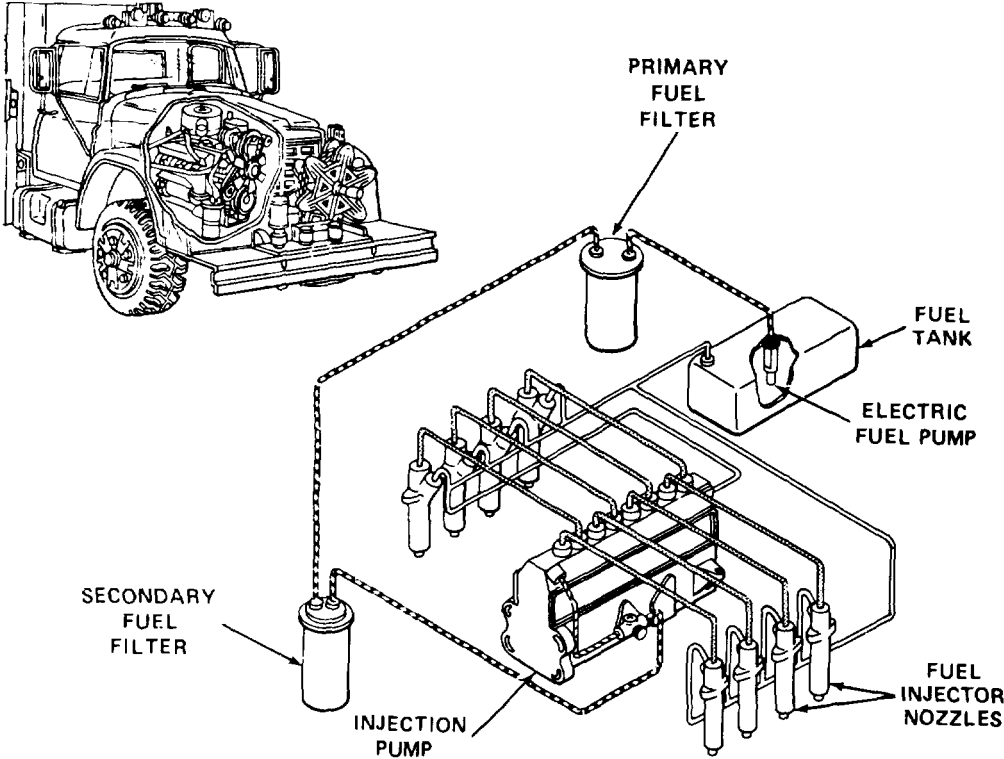
The M876 truck has hydraulic power steering.



EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

FEATURES - CONTINUED

The fuel system on the M876 truck consists of a step fuel tank, electric fuel pump, primary and secondary fuel filters, injection pump and fuel injector nozzles.



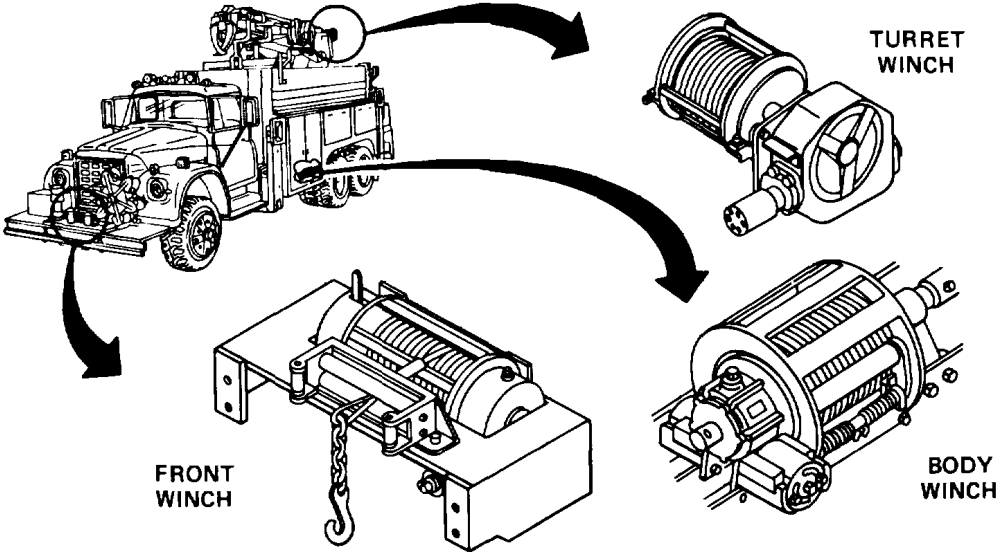
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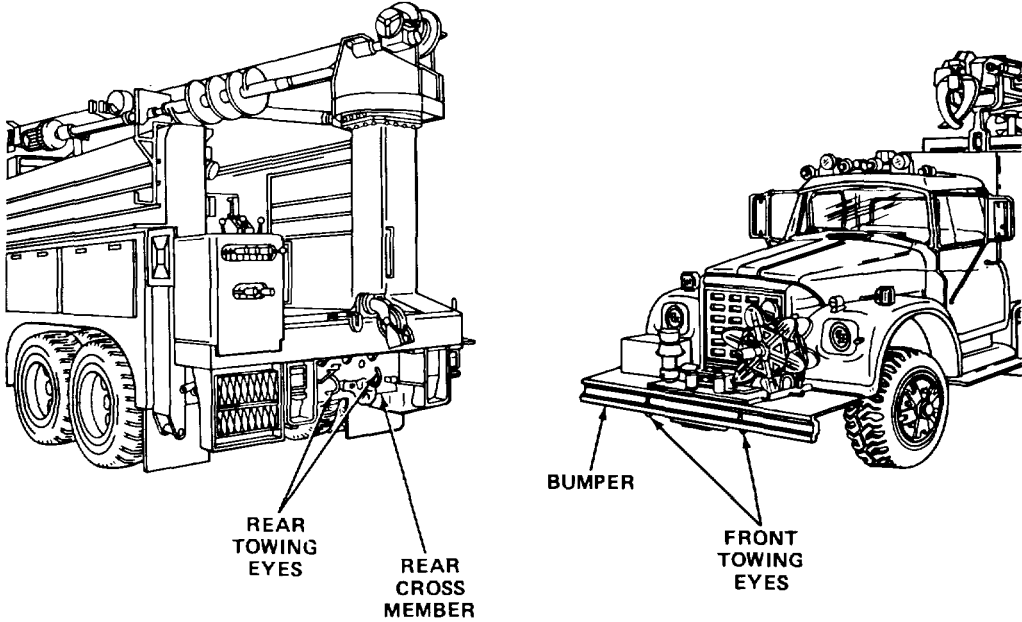
EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES - CONTINUED

FEATURES - CONTINUED

The M876 truck is equipped with a turret winch, a body winch, and a front mounted winch, shown below.



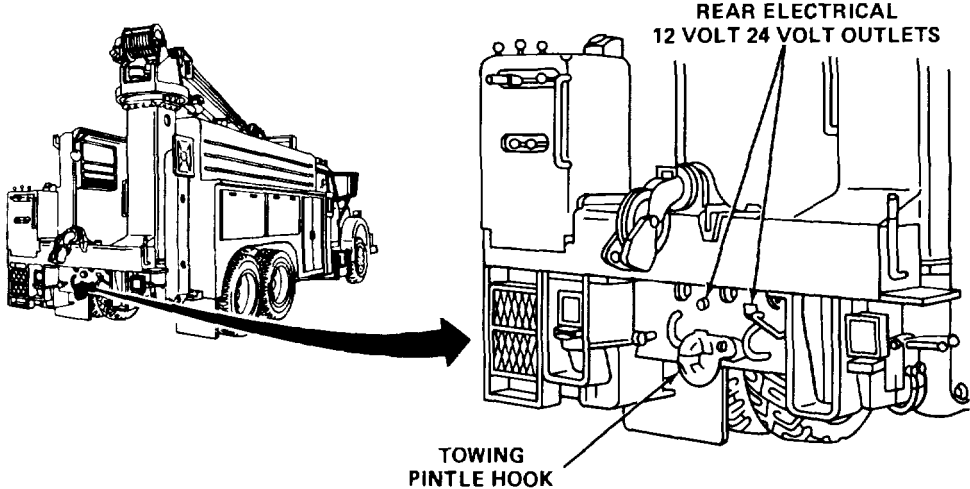
Four towing eyes are provided for towing the M876 truck if disabled. Two towing eyes are located under the front bumper and two are located at the rear of the M876 truck, on the face of rear crossmember.



EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

FEATURES - CONTINUED

The M876 truck has trailer towing capabilities with the towing pintle hook attached to the rear crossmember. It also provides 12 and 24 volt electrical outlets for military and commercial trailers.

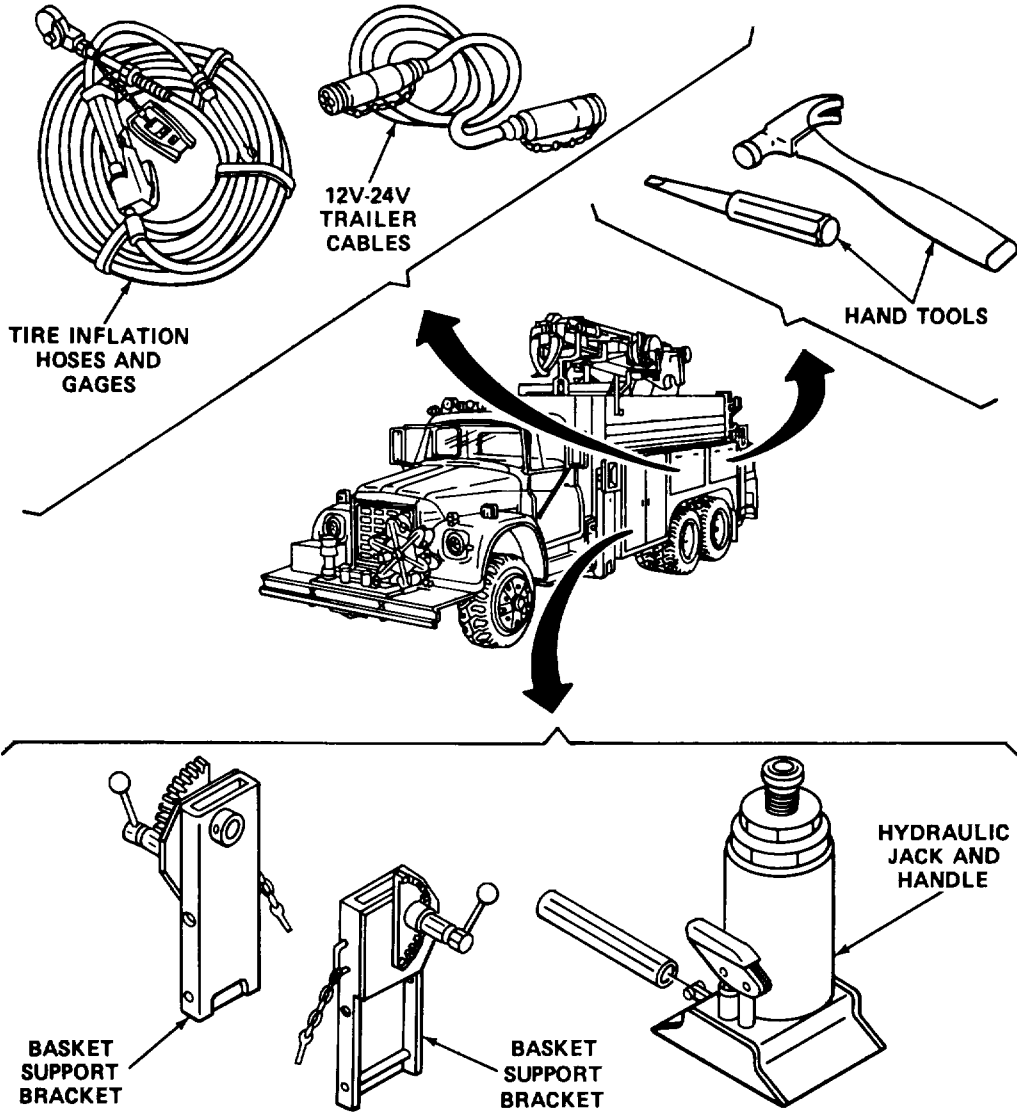


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EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

FEATURES - CONTINUED

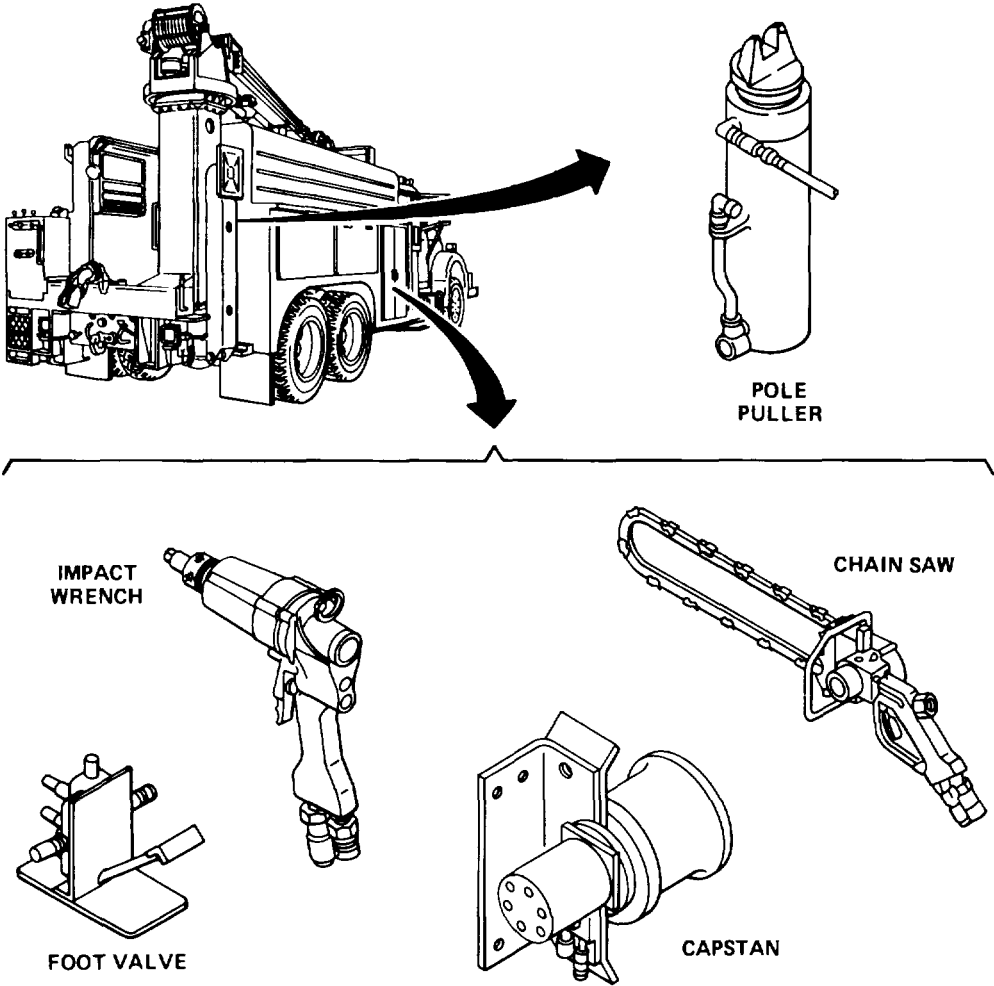
The construction-maintenance type body mounted on the M876 truck chassis provides storage for all required tools and tool accessories. The body also provides seating and shelter for extra crew personnel. The following items are stowed in the left-side storage compartments.



EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

FEATURES - CONTINUED

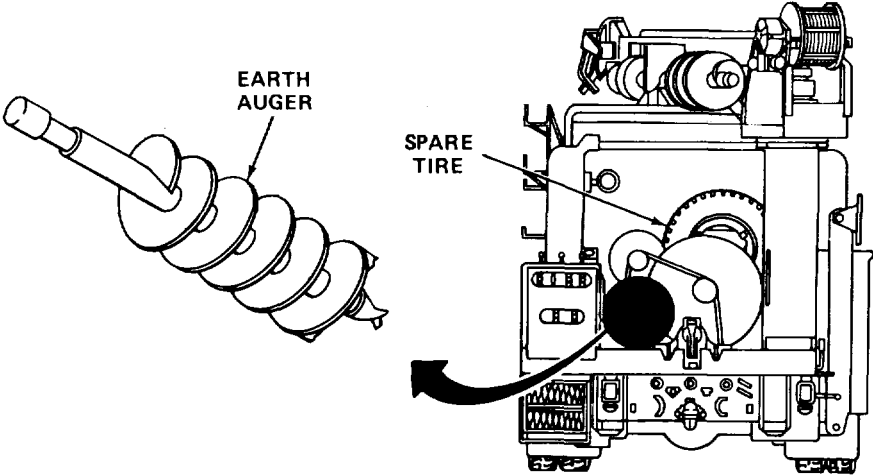
The storage compartments on the right side are generally used for accessory tool storage. The compartments have shelves, trays and bins for small parts storage. The following items are stowed in the right-side storage compartments.



EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES - CONTINUED

FEATURES - CONTINUED

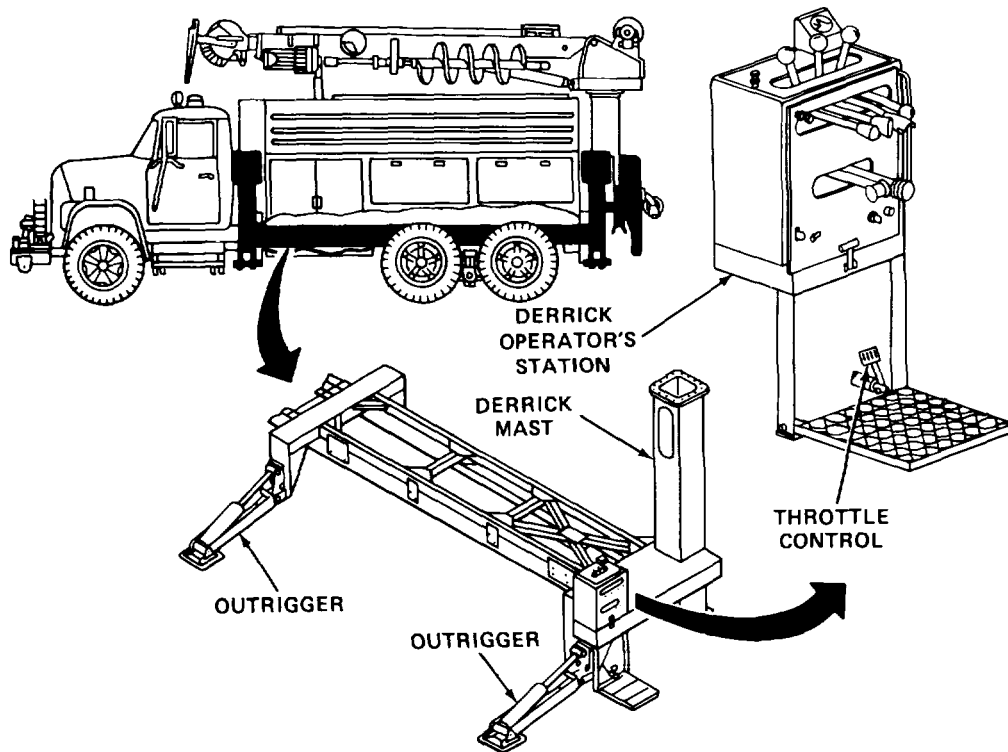
The Inside area of the M876 truck maintenance body provides storage for earth augers and spare tire. Compartment storage is also provided. There is a seating area for extra crew personnel, if required.



TA 222498

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

DERRICK- EXTERIOR



Derrick Sub-frame

Steel fabricated and welded into one unit. Sub-frame includes derrick mast, outriggers, and derrick operator's control console. The sub-frame mounts on and is bolted to the M876 truck frame. The sub-frame derrick mast supports the derrick and distributes derrick loads to M876 truck frame.

Derrick Operator's Station

Hydraulic control platform which houses the selector control valves which operate the derrick. It also has an Independent throttle control to increase engine RPM required during derrick operations.

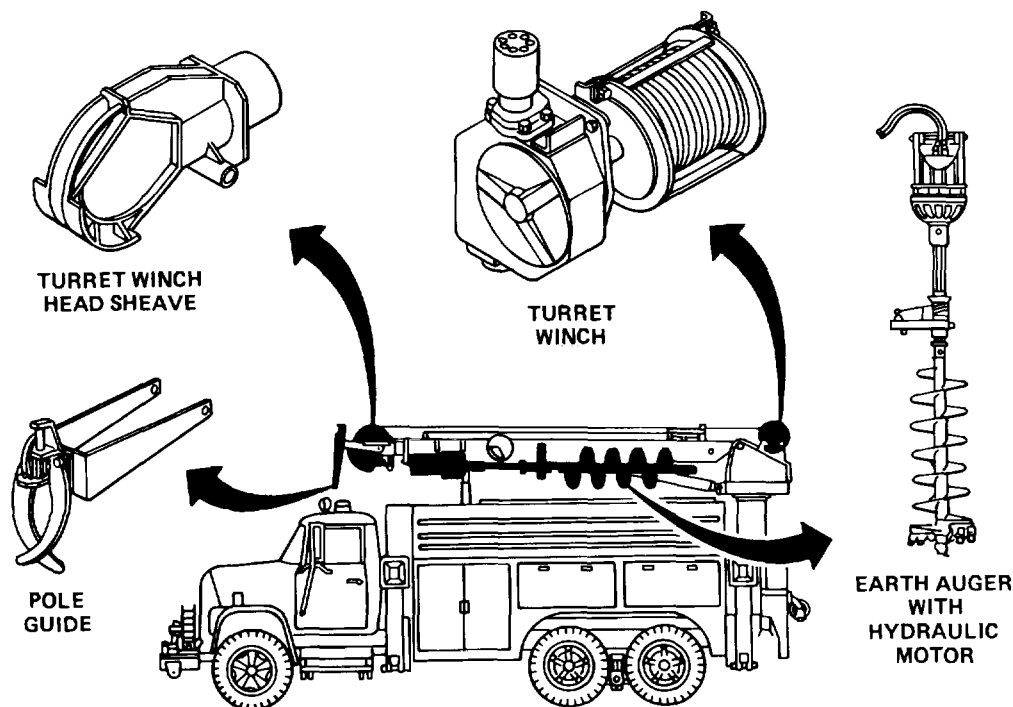
Outriggers

Four hydraulically operated jacks that stabilize the M876 truck during derrick operations. Outriggers have an Interlock safety system that prevents derrick operating until all four outriggers are down on the ground.

TA 222499

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

DERRICK - EXTERIOR - CONTINUED



Earth Auger with Hydraulic Motor

Digs the telephone pole holes. It is hydraulically powered, and is controlled from the operator's station. The earth auger, with hydraulic motor, is attached to left side of derrick boom and is self storing. The earth auger is capable of forward and reverse drilling speeds.

Pole Guide

Hydraulically powered with positive safe capability of handling and setting up to 60 foot (18 meters) standard line poles. Pole guide mounts to front of turret winch head sheave, and controlled from operator's station.

Turret Winch Head Sheave

Pulley with guard mounted on outer end of hydraulic leg extension for guidance of turret winch cable.

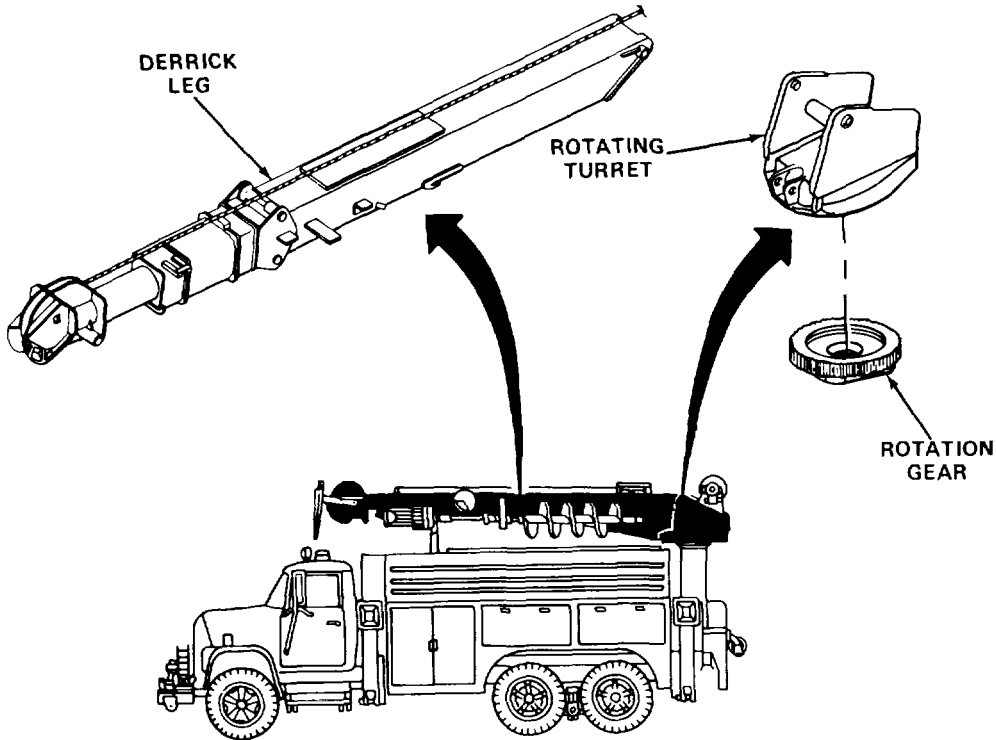
Turret Winch

Hydraulic powered winch mounted on top of the rotating turret. The turret winch is controlled from the operator's station.

TA 222500

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

DERRICK - EXTERIOR - CONTINUED



Rotating Turret and Rotation Gear

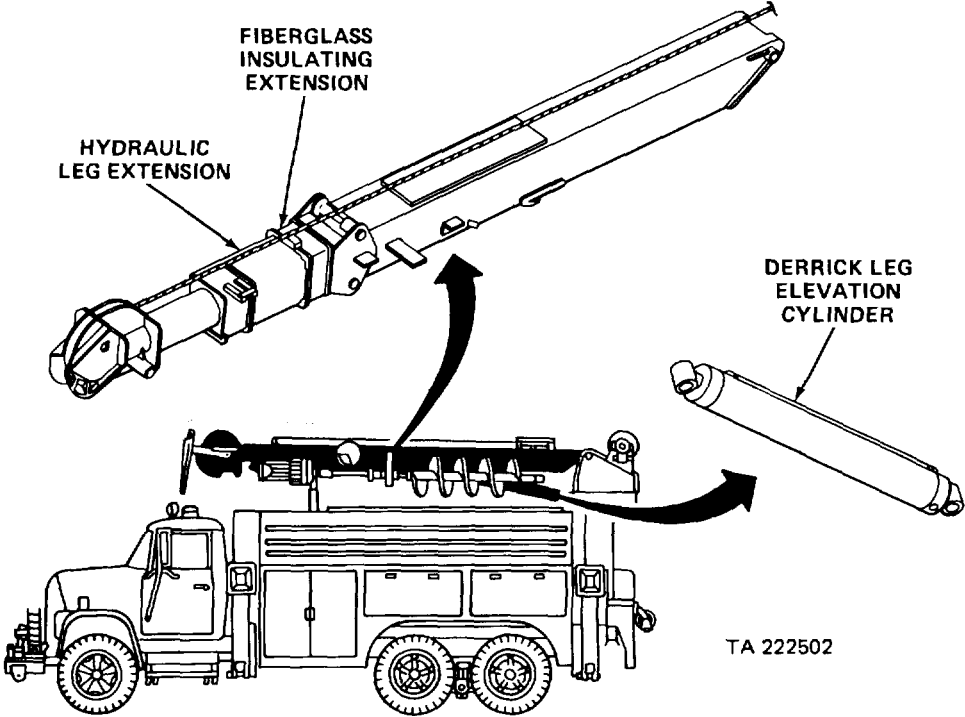
Mounts on top of derrick mast, and rotation gear is driven by hydraulic powered motor, turret rotates to 3700 (1/4) right and left direction only. In other words, rotation is non-continuous. Turret rotation is controlled from operator's station.

Derrick Leg

The derrick leg is attached to the rotating turret. The outer steel tube houses the fiberglass extension section and hydraulic powered extension section. The derrick leg is elevated and lowered by the elevation cylinder which is controlled from the operator's station.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

DERRICK - EXTERIOR - CONTINUED



Fiberglass Insulating Extension

Fiberglass insulating section is housed inside the outer derrick leg. This fiberglass section is manually extended. The fiberglass section insulates the steel hydraulic extension against contact with high voltage power lines when crew personnel are working in the aerial baskets.

Hydraulic Leg Extension

The hydraulic leg extension telescopes out and retracts hydraulically from the outer steel derrick leg tube. The hydraulic leg extension is controlled from the operator's station and aerial basket.

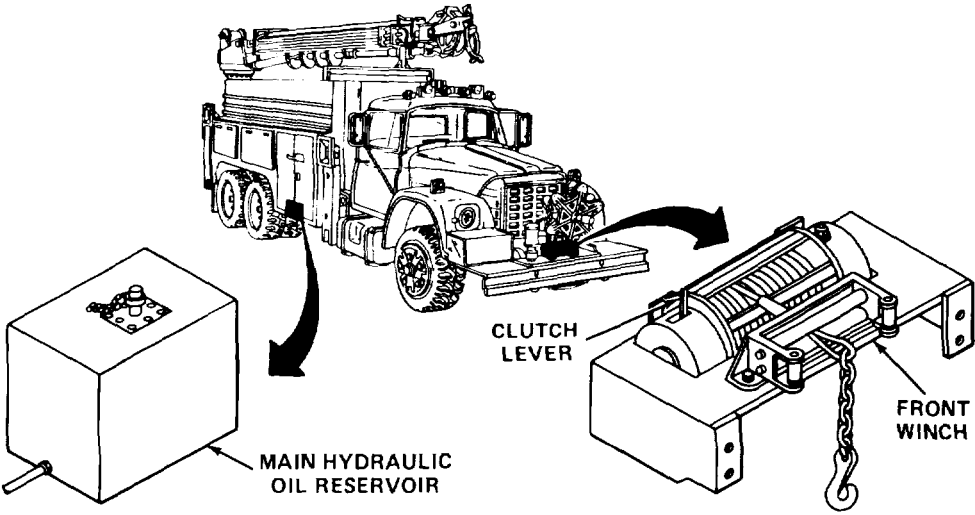
Derrick Leg Elevation Cylinder

A hydraulic cylinder which elevates and lowers the derrick leg assembly. The elevating cylinder is controlled from the operator's station and aerial basket.

TA 222502

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

DERRICK- EXTERIOR - CONTINUED



Front winch

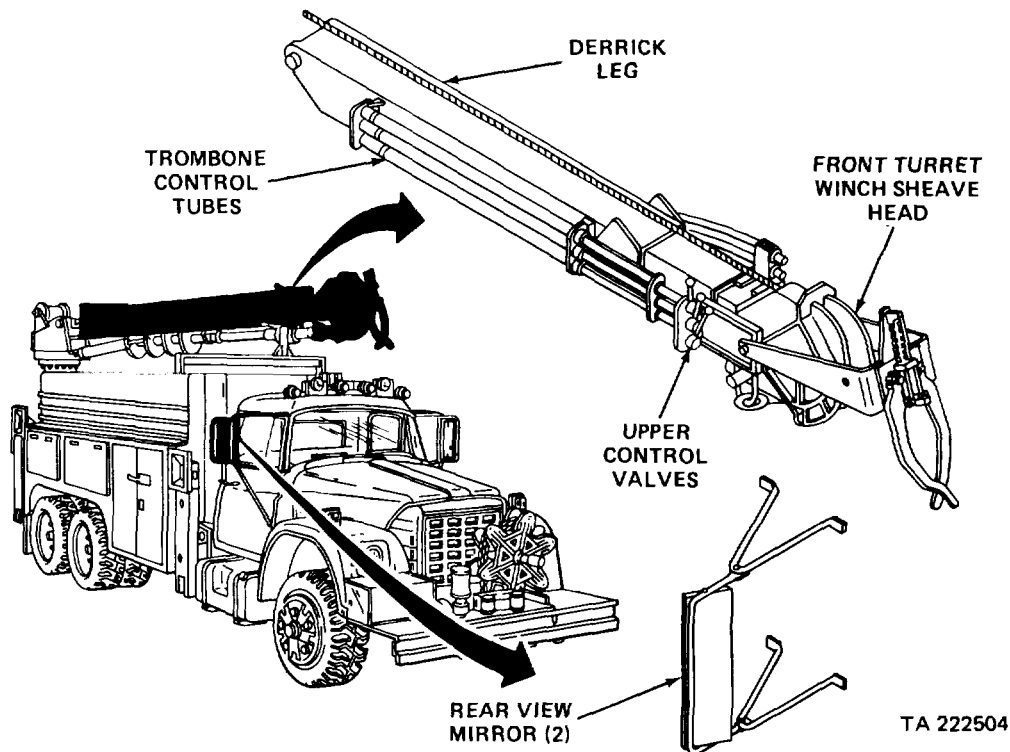
Hydraulically powered and driven by hydraulic motor. Winch engagement to hydraulic motor is controlled by clutch lever on the winch housing. Take up and pay out of winch cable is controlled from driver's position in cab.

Main Hydraulic Oil Reservoir

Mounted on the outer frame, right side of M876 truck, housed inside the front vertical compartment of the M876 truck body. The hydraulic oil reservoir holds 38-40 gallons (144.4 - 152.1 liters) hydraulic oil. Oil filter is located inside of oil reservoir.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

DERRICK - EXTERIOR - CONTINUED



Upper Control Valves

Are attached to the front turret winch sheave head. Derrick leg elevation, rotation, and extension is controlled from the man basket with the hydraulic powered upper control valves.

Trombone Control Tubes

Attached to the right side of the derrick leg. The control tubes supply hydraulic oil pressure to the upper control valves. The control tubes extend and retract like a trombone at the same time the derrick leg is extended and retracted.

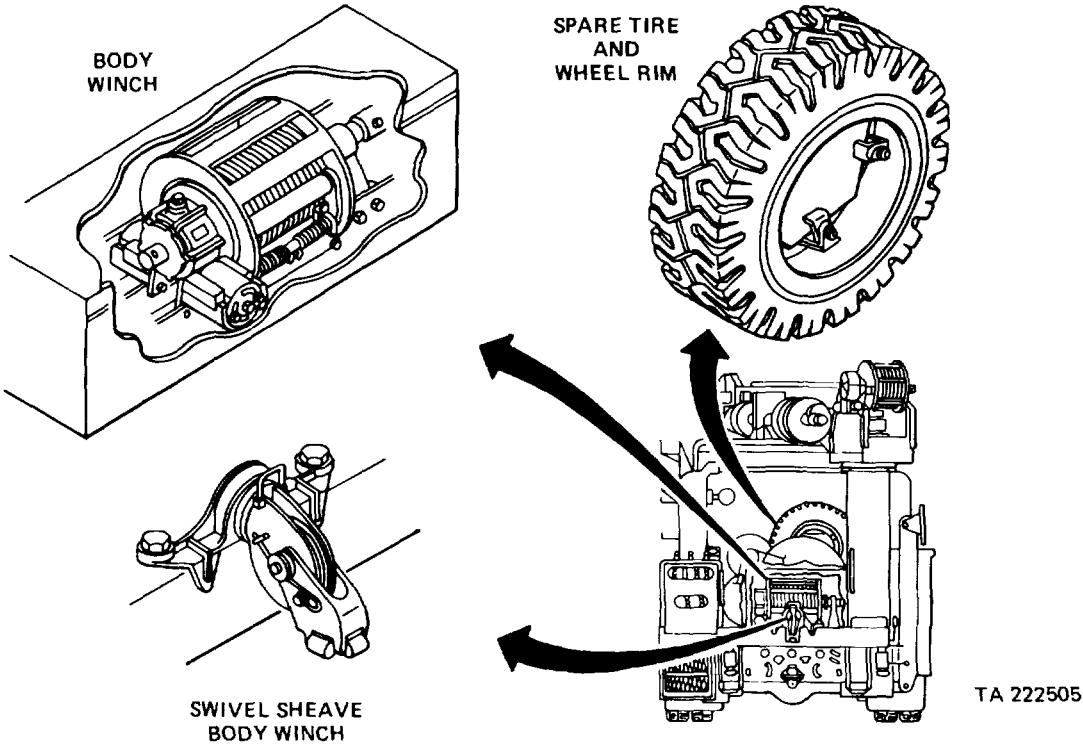
Rear View Mirrors

Are attached to the left and right doors of the M876 truck cab doors. The rear view mirrors provide visual control of traffic flow during highway travel. Mirrors are adjusted from cab, driver's and passenger position.

TA 222504

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

DERRICK - EXTERIOR - CONTINUED



Body Winch

Mounted on and bolted to the derrick sub-frame at the front section of the maintenance body. The hydraulic powered winch is controlled from right rear side of the M876 truck, by individual body winch controls.

Spare Tire and Wheel Rim

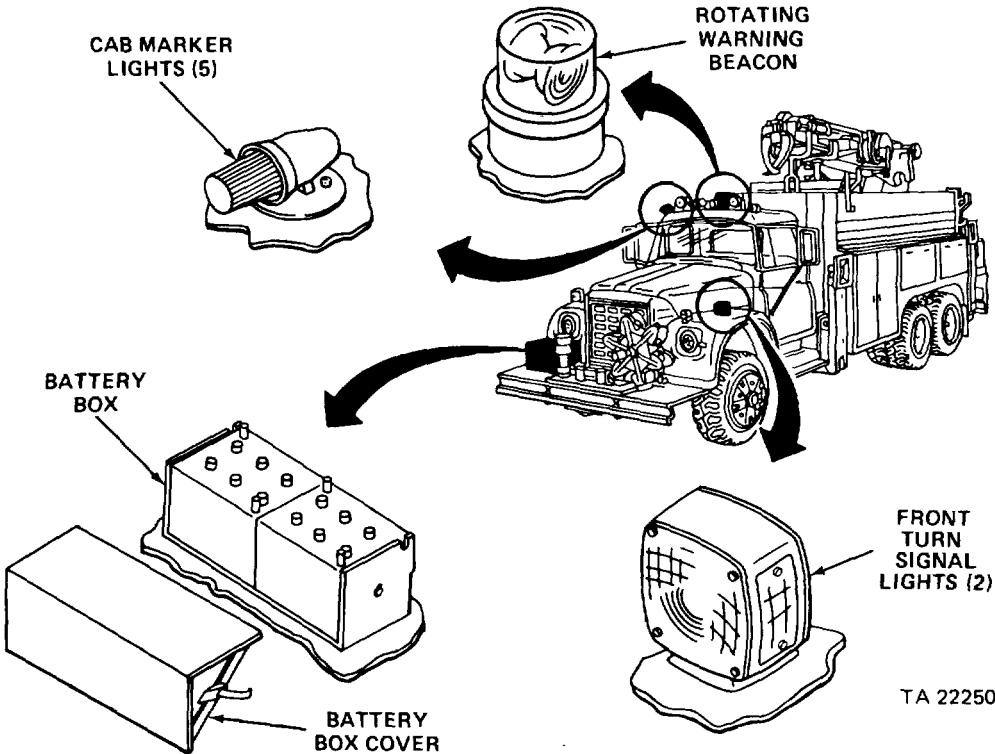
Fastened to carrier, and carrier is bolted to the forward bulkhead of the maintenance body, behind the body winch. Spare tire and wheel rim is removed and replaced in maintenance body with aid of turret winch.

Swivel Sheave Body Winch

Mounted and bolted to rear maintenance body floor. Guides body winch cable.

TA 222505

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED



Battery Box and Battery Box Cover

Houses M876 truck 12 volt storage battery which provides vehicle starting power. Formed heavy gage steel provides battery protection from damage.

Cab Marker Lights

Provides amber colored illumination during night driving to indicate vehicle height, as required by Federal Motor Vehicle Safety Standards (FMVSS). Switch controlled from dash panel in cab.

Rotating Warning Beacon

Provides CAUTION warning during critical operation or driving conditions, as required by FMVSS. Switch controlled from dash panel in cab.

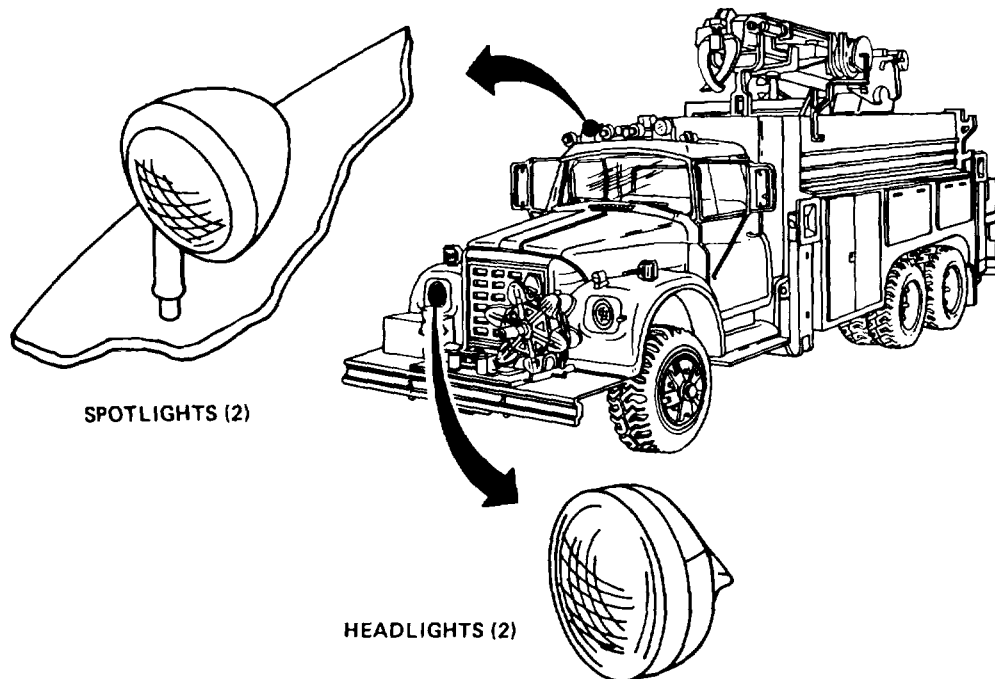
Front Turn Signal Lights

Provides left or right turn indication signals. Switch controlled from steering column in cab.

TA 222506

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

ELECTRICAL - EXTERIOR - CONTINUED

**Headlights**

Two provide illumination for night driving. Switch controlled from dash panel, and floor foot control in cab.

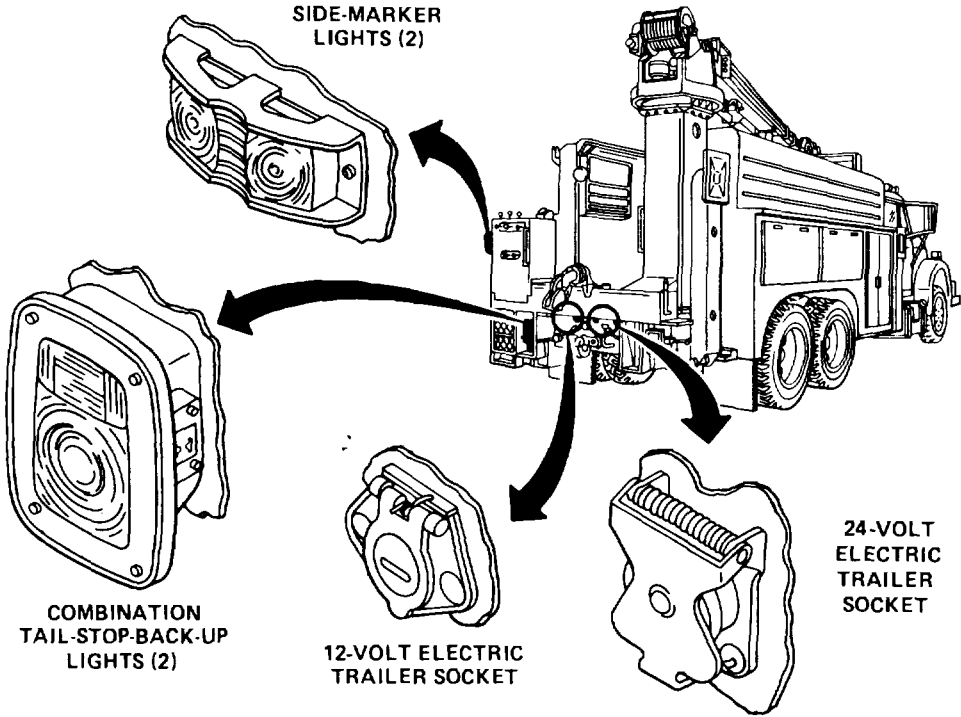
Spotlights

Provide light on maintenance operations during darkness. Consists of headlight housing assembly, rotating and tilting shaft and control handle with ON-OFF switch. Rotation, tilting and focusing controlled manually from driver or passenger position in cab.

TA 222507

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

ELECTRICAL- EXTERIOR - CONTINUED



Rear Side Marker Lights

Provide illumination indicating body clearance width during night driving, and as required by FMVSS. Controlled by headlight switch in cab.

12-Volt Electric Trailer Socket

Outlet provides power to operate trailers having 12-volt electric brake systems. Trailer brake control operated from cab.

24-Volt Electric Trailer Socket

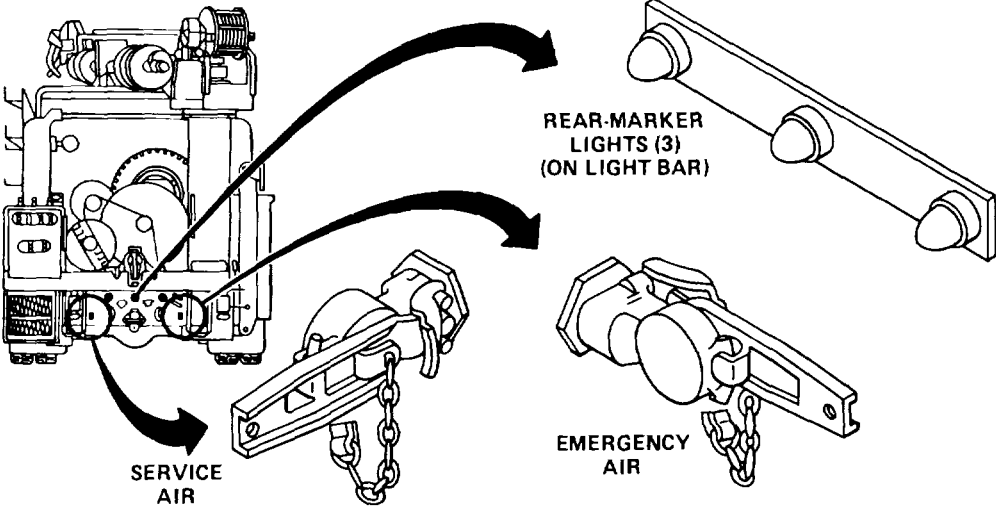
Outlet provides converted 12-volt power to operate trailers having 24-volt electric brake systems. Trailer control is the same 12-volt control above.

Combination Tail-Stop-Backup Lights

Taillights controlled by dash panel switch. Stoplights function when brake is depressed. Backup lights function when transmission shift selector lever is in reverse position.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

ELECTRICAL-AIR-EXTERIOR



Service Air

Outlet provides air for trailers equipped with air brakes, and used for tire inflation. Air supplied by air compressor.

Rear Marker Lights

Consists of light assemblies with red reflectors, mounted on a light bar fastened to rearmost crossmember. The lights provide warning to vehicles approaching from the rear during darkness. Required by FMVSS. Controlled from dash panel in cab.

Emergency Air

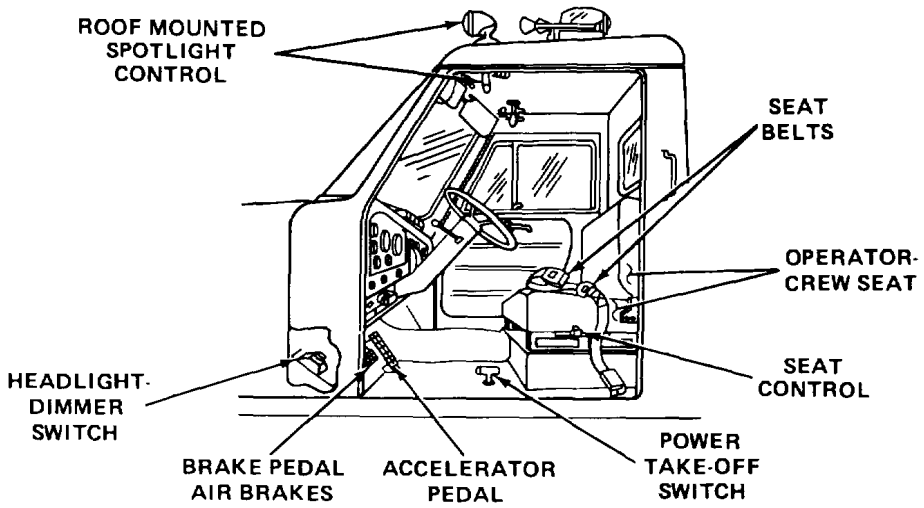
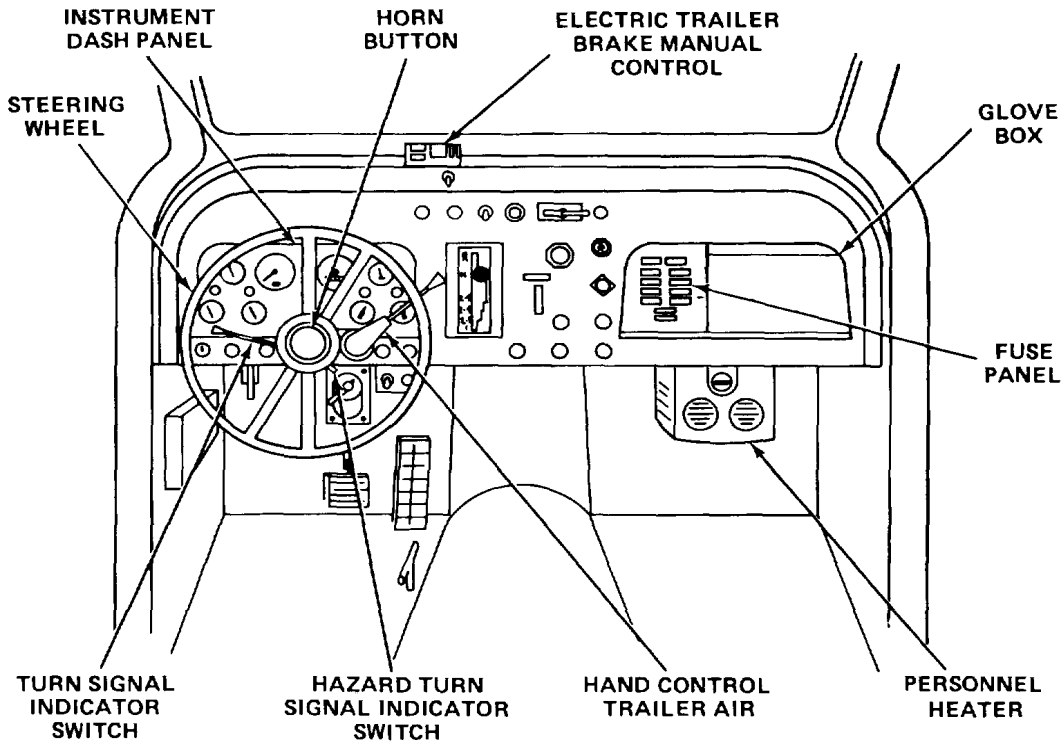
Provides emergency air to trailer air brakes in event of air failure in one of the dual air brake systems.

INTERIOR

The following items of equipment are located inside the cab. Their functions are described in Chapter 2, Operating Instructions.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED

INTERIOR - CONTINUED



EQUIPMENT DATA

Equipment, performance, and payload data for the M876 truck and major components are listed here in tabular format. All weights and dimensions are approximate.

EQUIPMENT	DATA
VEHICLE	Manufacturer Model International Harvester F-1850
	DIMENSIONS
	Length (Overall) 327.0 in. (830.58 cm) Width (Overall) 96.0 in. (234.84 cm) Height (Overall) 144.0 in. (365.76 cm) Ground Clearance Front Axle 9.6 in. (24.38 cm) Rear Axle 8.2 in. (20.82 cm) Wheel Base 187.0 in. (474.98 cm) Wheel Track Front 79.1 in. (200.91 cm) Rear 71.0 in. (180.34 cm)
	WEIGHTS
	Curb 28,000 lbs (12,701 kg) Payload 8,000 lbs (3,628 kg)* *(Minus operator and crew) Gross Vehicle (GVW) 36,000 lbs (16,330 kg)
	WEIGHT DISTRIBUTION
	Front Empty 7,500 lbs (3,402 kg) Loaded 8,457 lbs (3,836 kg) Rear Empty 20,500 lbs (9,299 kg) Loaded 27,543 lbs (12,494 kg)
ENGINE	Manufacturer Model International Harvester D-190 Type four stroke, V-type Cylinders 8 Displacement 548.7 cu in. (9,993 cm ³) Stroke 4.31 in. (10.94 cm) Bore 4.5 in. (11.43 cm) Maximum RPM 3,000 Horse Power 190 bhp at 2,000 rpm Torque 360 lb ft at 2,000 rpm

EQUIPMENT DATA - CONTINUED

EQUIPMENT	DATA	
FUEL SYSTEM	Type	Fuel Injection
	Make	Robert Bosch
	Model	C-91
	Fuel Tank	Step type (Curbside)
	Number of Tanks	1
	Fuel Filters	2 Two stage, full flow, spin off*
	*(Primary and secondary filters not interchangeable)	
	Fuel Type	No. 2 Diesel
	Rating (Minimum)	45 Cetane
	Air Cleaner	Dry Type
CAPACITIES		
Cooling System	42 quarts (39.74 liters)	
Engine Oil	10 quarts (9.46 liters)	
*(Add 3 quarts (2.83 liters) with filter)		
Fuel	60 gallons (227.1 liters)	
Transmission Oil	16 quarts (15.1 liters)	
Rear Axle		
Forward	26 pints (12.2 liters)	
Aft	26 pints (12.2 liters)	
Alcohol Evaporator	1 pint (0.475 liters)	
Derrick Reservoir	25 gallons (143.15 liters)	
ELECTRICAL SYSTEM	Volts	12
	Ground	Negative
	Alternator Capacity	61 amps
	Battery-Capacity at 20 hour rate	200 amp hours
TRANSMISSION	Make	Allison
	Model	MT-650
	Type	Automatic
	Number of Speeds	
	Forward	5
Reverse	1	

EQUIPMENT DATA - CONTINUED

EQUIPMENT	DATA	
	Power Take-off Make Model	Manual Shift Chelsea 26-C 3-G
AXLES-FRONT	Model Load Rating Type	FA-309 9,000 lbs (3,358 kg) I-Beam
REAR (FORWARD AND AFT)	Model Load Rating Type Ratio	RA-341 30,000 lbs (13,500 kg) Full Floating 5.57 : 1
WHEELS	Type Rim Size	Cast 6.50 in. (16.51 cm)
TIRES	Size Thread Design Ply Rating (Front and Rear)	8.25 x 20 Mud and Snow 12
TUBES	Type Size	Heavy Duty 8.25 x 20
BRAKES	Type	Air
PARKING BRAKE	Type Size Location	Piggy-back, Spring Actuated 16.5 x 6 Rear Wheels
DIRECTIONAL SIGNALS	Type	Class A
WINDSHIELD WIPERS	Type	Electric
HORN	Type	Electric and Air
PINTLE	Make Model	Holland MS 51118

EQUIPMENT DATA - CONTINUED

EQUIPMENT	DATA
BODY	Make McCabe/Powers Type Construction/Telephone Model 1900 Length (Inside) 162 in. (411.48 cm) Width (Inside) 62 in. (157.48 cm) Height (Sides) 45 in. (114.3 cm) Floor Thickness 14 Gage (0.198 cm)
DERRICK	Model PM-300 type Hydraulic Degrees Rotation 370° Non-continuous Load Capacity 12,500 lbs (5625.5 kg) Degree of 80° Elevation Height (Overall) 46 ft. 3 in. (14.1 m)
HYDRAULIC PUMP	Type Tandem 25 gpm and 8 gpm Pressure 3,500 psi (24,132 kPa) 25 gal side 2,500 psi (17,237 kPa) 8 gal side RPM 1200 Filter 10 micron discharge filter and 10 mesh screen
TURRET WINCH	Manufacturer Gear Products Model WN - 37 Rated Capacity 12,500 lbs (5625.5 kg) Dacron Rope Size 1 in. Dia (25.4 mm) Dacron Rope Length 130 ft (39.6 m)
BODY WINCH	Manufacturer Braden Model AMU-6-15 Rated Capacity 15,000 lbs (6,804 kg) Wire Rope Size 1/2 in. Dia (6 x 37 kip) Wire Rope Length 750 ft (228.6 m)
OUTRIGGERS	Type Foldout Quantity 4 Spread Front 14 ft, 4 in. (4.37 m) Rear 15 ft, 6 in. (4.72 m)

EQUIPMENT DATA - CONTINUED

EQUIPMENT		DATA
FRONT WINCH	Manufacturer	Ramsey
	Model	800 R
	Rated Capacity	20,000 lbs (9,072 kg)
	(Maximum line pull)	first layer 10,441 lbs (4,736.03 kg)
(Maximum line speed)	full drum 20 ft lbs (27.12 Nm/min)	
ALCOHOL EVAPORATOR	Manufacturer	Bendix-Westinghouse
	Model	AE - 2
	Installation Kit	Engine Air Cleaner Induction
	Capacity	1 pint (0.475 liters)
Recommended Fill	Pure Methanol Alcohol	
GROUND PRESSURE	Front Axle	60.5 psi (417 kPa)
	Rear Axle	53.5 psi (368 kPa)
FORDING		
	Maximum Depth Crossing	11 in. (27.9 cm) Hard Bottom
GRADE		
	Maximum Ascending Slope	19 Degrees
	Maximum Descending Slope	20 Degrees
	Maximum Side Slopes	0 Degrees

CHAPTER 2
OPERATING INSTRUCTIONS

OVERVIEW

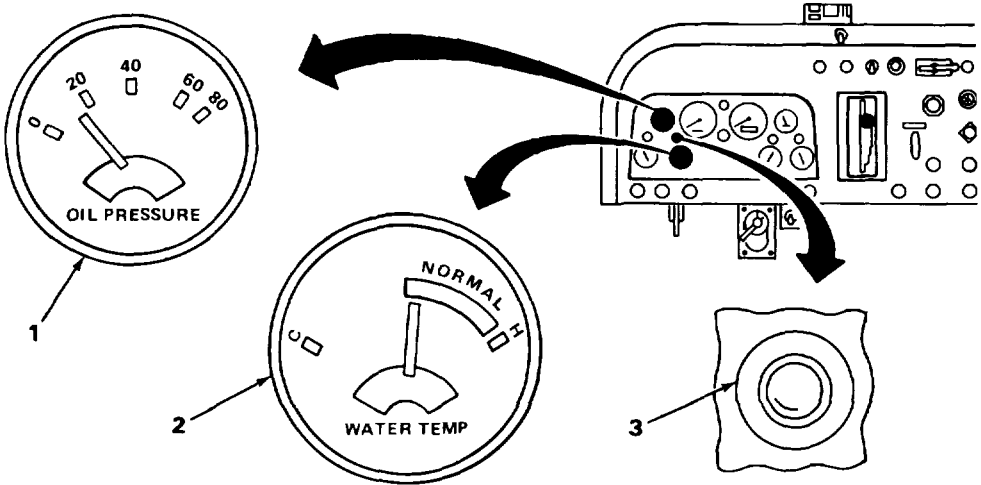
The purpose of this chapter is to give you the Instructions needed to check out and operate the M876 Truck.

		Page
Section I.	Description and Use of Operator's Controls and Indicators.....	2-1
Section II.	Preventive Maintenance Checks and Services (PMCS).....	2-36
Section III.	Operation Under Usual Conditions.....	2-58
Section IV.	Operating the Derrick and Auxiliary Equipment	2-93
Section V.	Operation Under Unusual Conditions.....	2-168

Section I DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS

	Page		Page	Page
Automatic Transmission Range Selector	2-15	Derrick Hydraulic Controls - Operator's Console		2-23
Auxiliary Equipment and Attachments	2-32	Derrick Outrigger Controls		2-29
Body Winch Controls - Rear of Truck	2-31	Front Winch Controls		2-22
Cab Floor-Mounted Controls	2-16	Instrument Panel Controls.....		2-2
Derrick Hydraulic Controls - Derrick Leg basket.....	2-28	Steering Wheel and Column Mounted Controls.....		2-18

INSTRUMENT PANEL CONTROLS



KEY	CONTROL OR INDICATOR	FUNCTION/USE
-----	----------------------	--------------

CAUTION

If no oil pressure is indicated on gage after engine starts up, or while driving, stop engine immediately and check for cause. Notify organizational maintenance, if necessary.

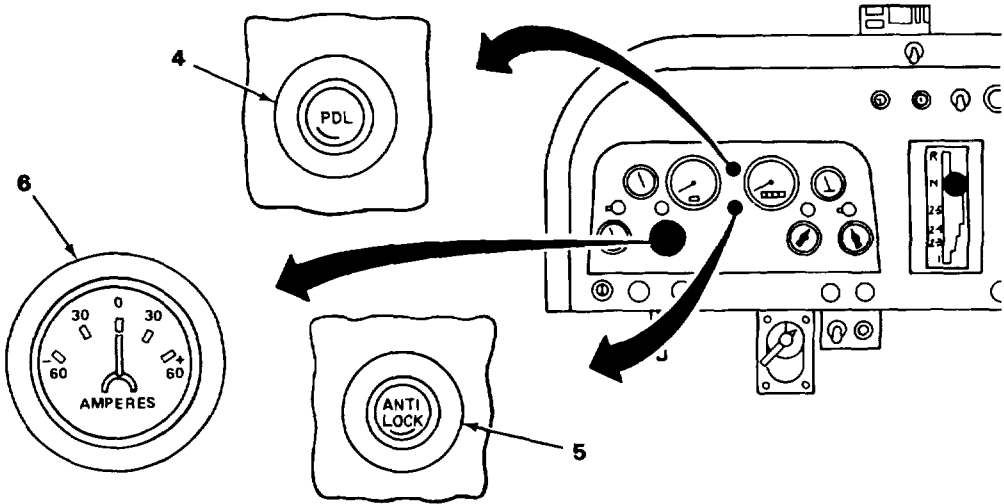
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|---|-------------------|--|
| 1 | OIL PRESSURE GAGE | Registers oil pressure being delivered to engine. Oil pressure at idle is 10 - 25 psi (69-172 kPa), and 45 - 60 psi (310-413 kPa) at normal operation. |
|---|-------------------|--|

CAUTION

If indicator suddenly rises to HOT position, after 2 to 5 minutes stop engine immediately, and troubleshoot cause. Notify organizational maintenance, if necessary.

- | | | |
|---|----------------------------|--|
| 2 | WATER TEMPERATURE GAGE | Indicates engine coolant temperature. Indicator registers in Normal range during driving. |
| 3 | LEFT TURN SIGNAL INDICATOR | Indicator light flashes green when signal is turned on or when emergency flasher is turned on. |

INSTRUMENT PANEL CONTROLS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION/USE
-----	----------------------	--------------

CAUTION

Move control from "OUT" position at LOW SPEED ONLY, AND NEVER WHEN REAR WHEELS ARE SPINNING.

- | | | |
|---|------------------------|--|
| 4 | INDICATOR LIGHT, POWER | Red warning light comes ON when DIVIDER LOCK CONTROL power divider lock control is moved to the IN position. |
|---|------------------------|--|

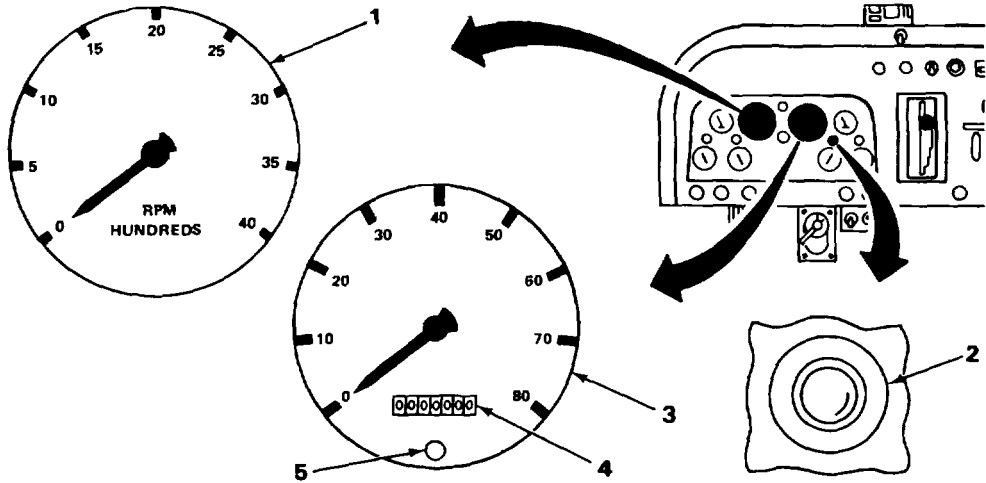
NOTE

If the yellow monitor warning light comes on while you are driving, it indicates a problem in the antilock system. The truck brakes are operable and can stop the truck. However, notify organizational maintenance when you get back to your unit.

- | | | |
|---|--|--|
| 5 | MONITOR WARNING LIGHT, BRAKE SYSTEM ANTILOCK | The yellow monitor warning light will indicate problems with only the antilock and not the truck brakes. To test the light, turn key switch to ON, the light should come on for 1/2 second. If not, notify organizational maintenance. |
|---|--|--|

- | | | |
|---|--------------|---|
| 6 | AMMETER GAGE | Indicates condition of battery charging system. A slight charge rate indicated while driving is normal. If extreme discharge or charge notify organizational maintenance. |
|---|--------------|---|

INSTRUMENT PANEL CONTROLS - CONTINUED



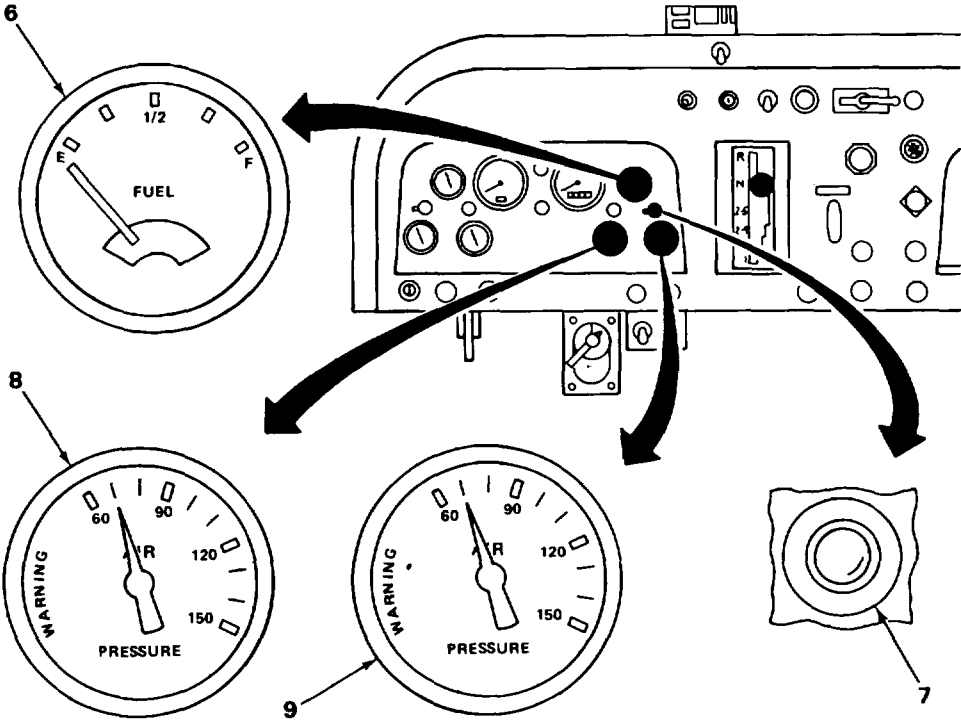
KEY	CONTROL OR INDICATOR	FUNCTION/USE
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CAUTION

Serious damage to engine will result if operated over the maximum 3000 rpm limit.

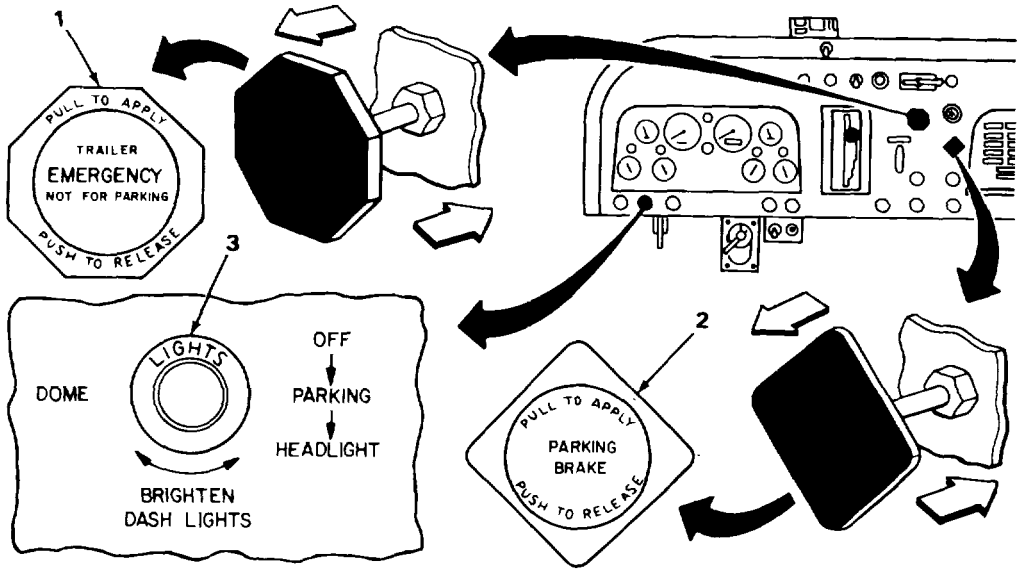
1	TACHOMETER	Measures engine speed in revolutions per minute (rpm) * (Engine rpm for front winch operation 1200 rpm.)
*To get actual engine rpm multiply the tachometer reading by 100.		
2	INDICATOR, RIGHT TURN SIGNAL	Flashes a green light when right turn signal is ON.
3	SPEEDOMETER	Indicates vehicle speed in miles per hour.
4	ODOMETER	Records total miles vehicle has traveled.
5	INDICATOR, HEADLIGHT HIGH BEAM	Red light comes ON when floor dimmer switch is depressed to raise headlight low beam to high beam.

INSTRUMENT PANEL CONTROLS - CONTINUED



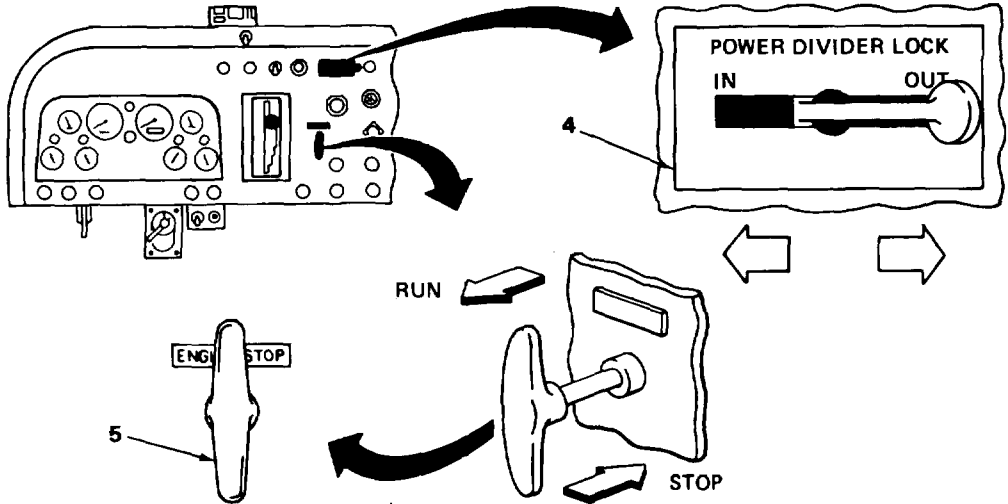
KEY	CONTROL OR INDICATOR	FUNCTION/USE
6	FUEL GAGE	Registers level of fuel in tank when key switch is turned on.
CAUTION		
Low air pressure indicator red light will come ON, warning buzzer will sound, if either gage, or both, register below 80 psi (552 kPa) air pressure. If this should happen while driving, stop the truck and check out the cause of air pressure loss. If necessary, drive carefully to organizational maintenance.		
7	WARNING INDICATOR, LOW AIR PRESSURE	Red warning light comes ON, air pressure drops below 80 psi (552 kPa).
8	PRIMARY AIR PRESSURE GAGE	Registers air pressure being supplied to primary brake system, by air compressor.
9	SECONDARY AIR PRESSURE GAGE	Registers the air pressure being delivered to the secondary (dual) brake system.

INSTRUMENT PANEL CONTROLS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION/USE
1	TRAILER EMERGENCY CONTROL	To stop trailer under emergency conditions, pull control out. The control should be pushed in during normal driving conditions.
<u>WARNING</u>		
Parking brake should always be applied when engine is stopped to prevent damage to vehicle or personnel.		
Stepping on brake pedal while parking brake is on will cause momentary loss of air pressure in brake system, and can cause damage to vehicle or personnel.		
2	PARKING BRAKE CONTROL	Pull out to apply parking brake, and push in to release. Parking brake must always be applied when operating hydraulic driven equipment.
3	CONTROL SWITCH, VEHICLE LIGHTING (First detent-parking and clearance lights. Second Second detent-headlights)	Controls headlights, parking light, clearance/marker lights, dash panel panel lights, and cab dome lights. Pull out to operate headlights, parking lights. Rotate to right to brighten dash panel lights, all the way to the right for dome light.

INSTRUMENT PANEL CONTROLS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION/USE
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CAUTION

To disengage the power divider, move control lever from the "IN" (locked) position at LOW VEHICLE SPEED only, and NEVER when the rear wheels are slipping.

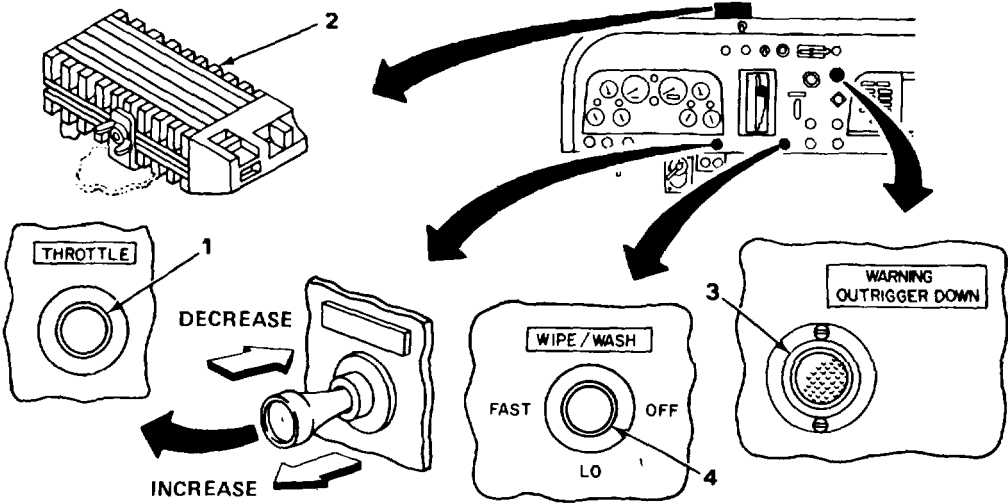
4	POWER DIVIDER LOCK	Control moved to IN position engages rear aft axle to the forward rear axle. Control moved to OUT position disengages the aft axle. Power divider used for pulling heavy loads or for traction when moving over rough terrain.
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CAUTION

It is important to allow engine to idle from three to five minutes before shutting down, to avoid seals, and the like feature, being damaged by engine heat which rises when the coolant is not recirculating.

5	ENGINE STOP CONTROL	Stop engine operation by pulling handle out. Used for "EMERGENCY SHUT DOWN" should the need arise. Pull OUT to shut down, push IN before starting engine. Engine won't start unless handle is pushed all the way In.
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INSTRUMENT PANEL CONTROLS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION/USE
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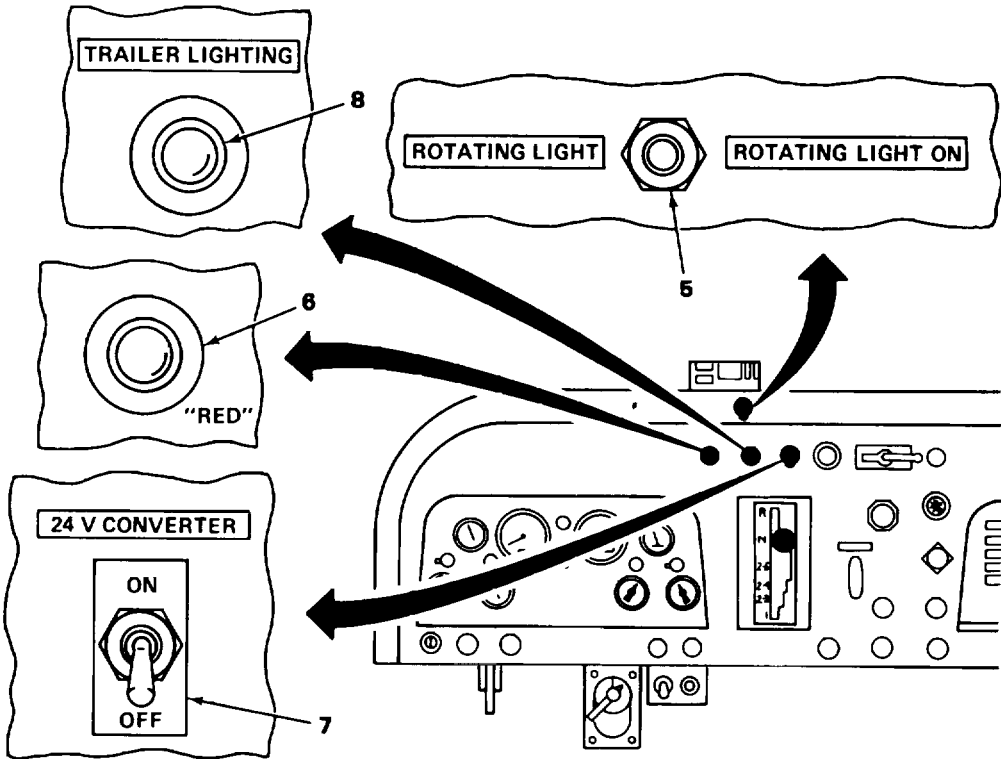
CAUTION

Serious damage to engine will result if engine is operated beyond the prescribed 3000 rpm.

1	HAND THROTTLE CONTROL	Maintains fixed engine speed for operating power takeoff driven equipment. Used to set and sustain 1200 rpm required for front winch operation. Observe rpm increase on tachometer while pulling hand control OUT to 1200 rpm.
2	ELECTRIC TRAILER BRAKE CONTROL	Operator's manual control for trailers equipped with electric brakes.
3	OUTRIGGER WARNING INDICATOR LIGHT	Red signal indicates outriggers are down on ground, or have not fully stowed when retracted.
4	WINDSHIELD WIPER AND WASHER CONTROL	Wiper/washer manual control. Two speed. Turn clockwise for wipers. When knob is pushed in solvent is sprayed on windshield.

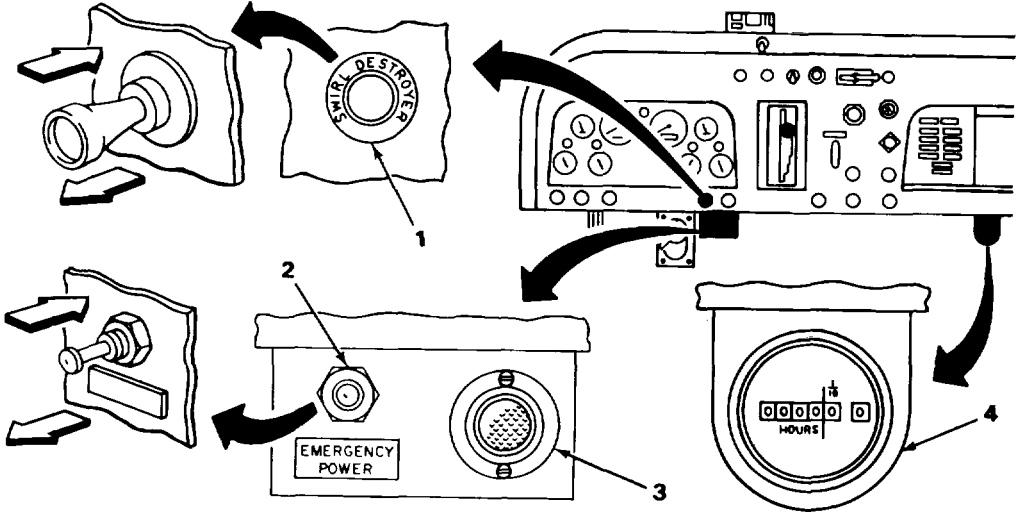
TA 222517

INSTRUMENT PANEL CONTROLS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION/USE
5	SWITCH - ROTATING WARNING BEACON LIGHT	Pull out for ON, and push in for OFF positions. Works with key switch in ON or OFF position.
6	INDICATOR LIGHT - ROTATING WARNING BEACON	Red light comes ON when switch is pulled. Indicates rotating warning beacon light is working.
7	SWITCH - 24 V CONVERTER	Push up for ON and down for OFF. Provides electrical power to trailers equipped with 24 volt electric system.
8	INDICATOR LIGHT - 24 V CONVERTER	Red light comes ON when switch is pushed to ON position. Indicates towed trailer is getting electric power.

INSTRUMENT PANEL CONTROLS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION/USE
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NOTE

This device is not installed on vehicles having engines with serial numbers above 45721.

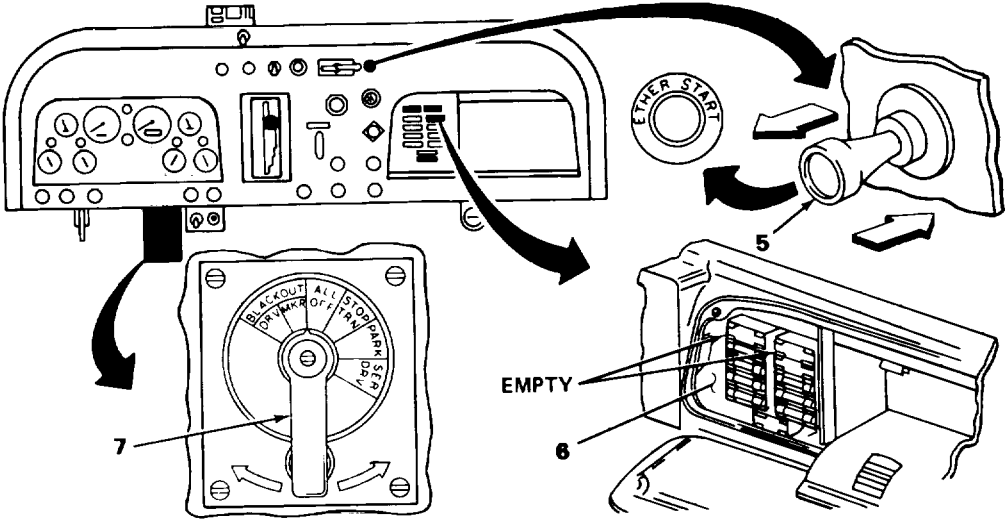
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|---|-------------------------|--|
| 1 | SWIRL DESTROYER CONTROL | Pull OUT to engage, and push IN to disengage. Hard starting aid for engine under unusual conditions. |
|---|-------------------------|--|

NOTE

This switch must be ON before use of emergency power button on outside of truck. (Shown on page 2-29).

- | | | |
|---|----------------------------------|---|
| 2 | SWITCH, EMERGENCY POWER | Pull OUT for ON, and push IN for OFF. Provides emergency electric power to operate derrick hydraulic's in event of engine failure. (Key switch must be ON). |
| 3 | INDICATOR LIGHT, EMERGENCY POWER | Red light indicates when emergency POWER SWITCH IS IN THE on position. |
| 4 | HOUR METER | Records the hours the vehicle has been in operation. Operates when the key switch is turned to ON position. |

INSTRUMENT PANEL CONTROLS - CONTINUED



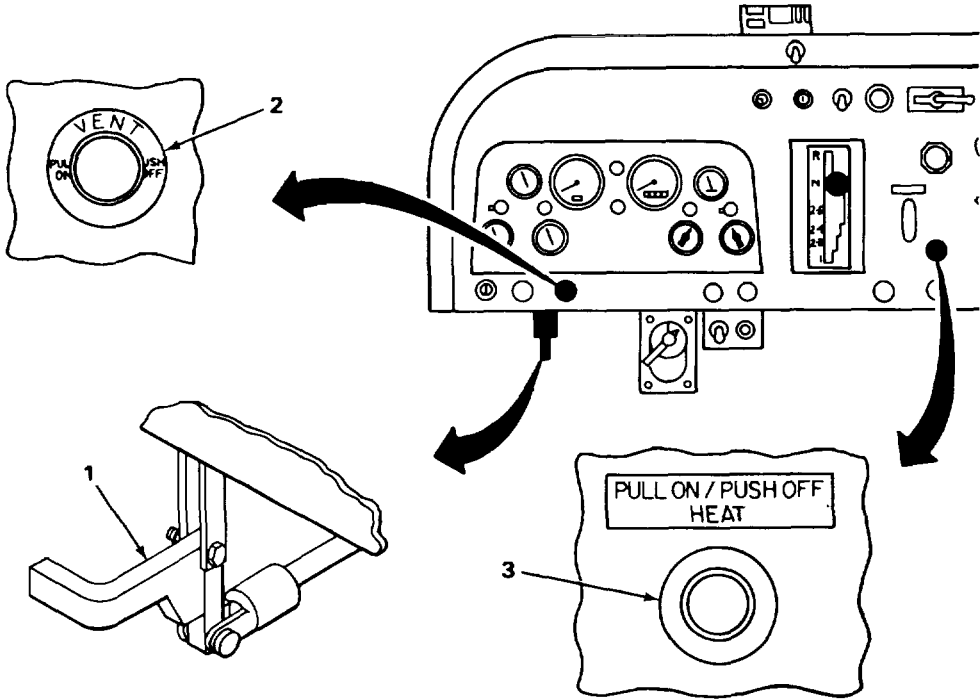
Key	Control or Indicator	Function/Use
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CAUTION

Excessive use of ether-start can cause damage to the engine.

5	ETHER - START CONTROL	Pull OUT to charge for 1 or 2 seconds, and push IN to discharge one shot of ether.
6	FUSE PANEL	Contains all fuses which protect vehicle electric circuitry from high voltage. <ul style="list-style-type: none"> A. CLEARANCE LIGHTS 15 amp B. TAILLIGHTS 20 amp C. HORN/DOME LIGHTS 15 amp D. STOPLIGHTS/HAZARD LIGHTS 20 amp E. HEATER FAN 20 amp F. TURN SIGNALS/BACKUP LIGHTS 15 amp G. PANEL LIGHTS/GAGES 4 amp H. FUEL PUMP 4 amp Empty fuse socket available if additional circuits are added.
7	SWITCH	Master control switch for service drive lights.

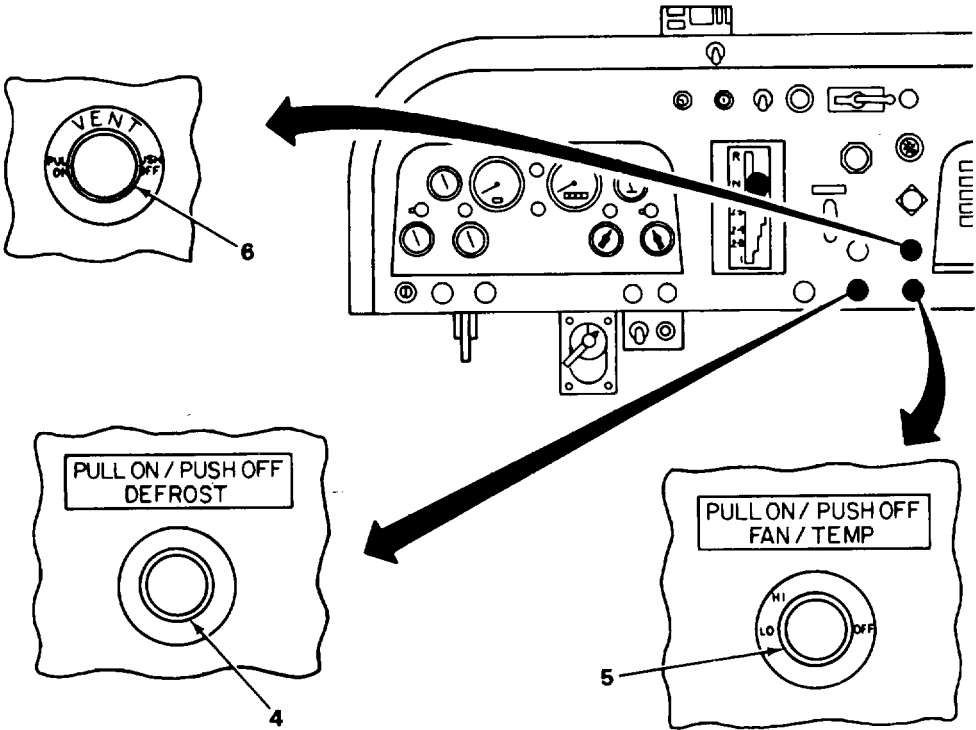
INSTRUMENT PANEL CONTROLS - CONTINUED



Key	Control or Indicator	Function/Use
1	CONTROL - FRONT WINCH	Three-position control. Push UP to take-up cable, center position is NEUTRAL, push DOWN to pay-out cable.
2	CONTROL - VENT LEFT SIDE	Pull OUT to open, push IN to close. Provides outside air to cab interior.
3	HEAT CONTROL - CAB PERSONNEL HEATER	Regulates heat when heater is used as fresh air heater. Pull OUT for heat, push IN to close. For fresh air heat, pull out controls marked HEAT, TEMP, and VENT.

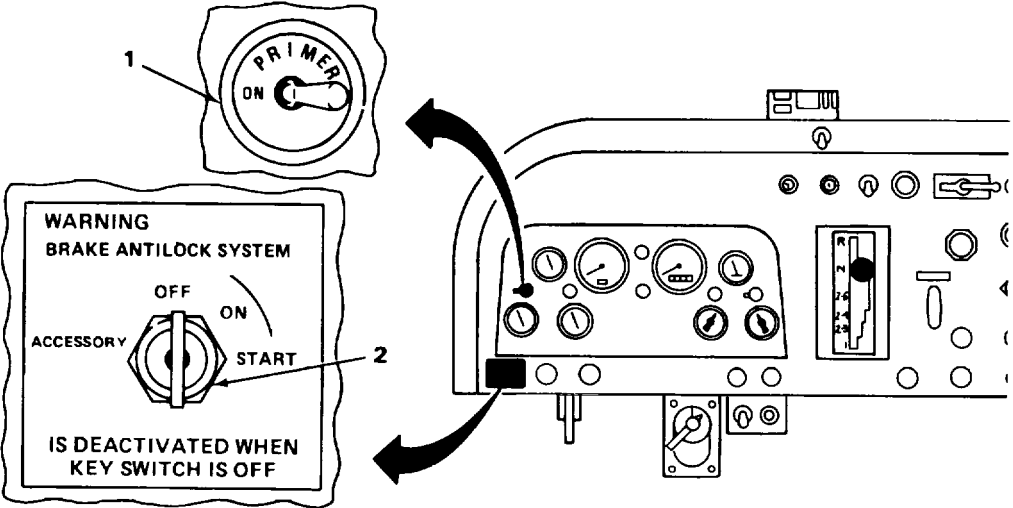
TA 222521

INSTRUMENT PANEL CONTROLS - CONTINUED



Key	Control or Indicator	Function/Use
4	CONTROL - HEATER DEFROSTER	Directs heated air to defrost the windshield. Pull OUT to open, and push IN to close.
5	CONTROL - HEATER FAN AND TEMPERATURE	Pull OUT to increase temperature, push IN to close. Turn control CLOCKWISE to set fan speed. To use as recirculating type heater, pull control marked TEMP OUT and push IN controls marked VENT and HEAT.
6	CONTROL - VENT RIGHT SIDE	Pull OUT to open, push IN to close. Provides outside air to cab interior.

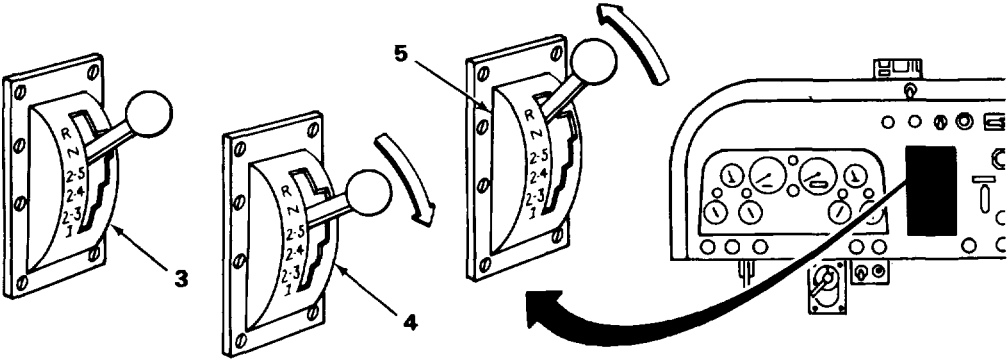
INSTRUMENT PANEL CONTROLS - CONTINUED



Key	Control or Indicator	Function/Use
1	SWITCH - FUEL PRIMER	Switch is spring loaded to the OFF position. To prime fuel system hold toggle to ON for 10-15 seconds, release toggle and it returns to OFF position. Priming (Bleeding) fuel system may be required where vehicle has been out of service, or fuel filters have been replaced.
CAUTION		
Allow engine to idle from three to five minutes before shutting down, to avoid seals, and the like features, being damaged by engine heat which rises when coolant is no longer being circulated.		
2	KEY - SWITCH	Switch is spring loaded in the "START" position. To start engine, hold key-switch to extreme right to engage starter motor and release when engine starts. Switch in the ON position opens electric circuits to all electrical components. Switch at ACCESSORY position opens electrical circuits to electrical components, but will not activate the starter motor. Normally used when vehicle is parked. Must be in the ON position when engine start and stop is controlled at Derrick Operator's console.

TA 222523

AUTOMATIC TRANSMISSION RANGE SELECTOR



Key	Control or Indicator	Function/Use
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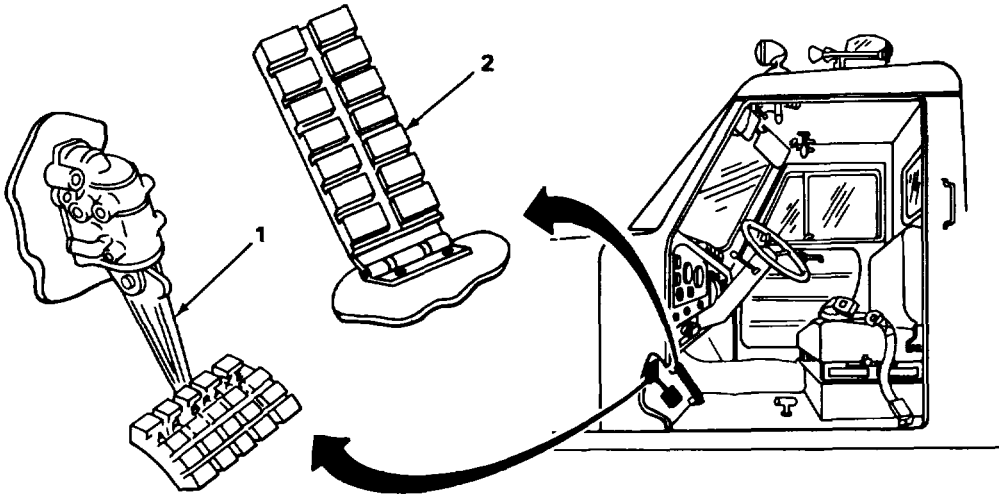
NOTE

There is no PARK position in the transmission. Always supply parking brake to hold vehicle when there is no one in it. Make sure the shift selector is in NEUTRAL position.

3	RANGE (SHIFT) SELECTOR - (Shown in NEUTRAL position)	Moving range selector to any position shown on the shift pattern plate places the transmission into selected drive range. Transmission must always be in "NEUTRAL" position when operating hydraulic driven equipment, such as winches, and derrick.
4	DRIVE 2-5 RANGE	Used for normal loads, grades, and traffic conditions, with open road ahead.
	DRIVE 2-4 RANGE	Used for moderate grades, and over the road operation with restrictive speeds.
	DRIVE 2-3 RANGE	Used for heavy traffic conditions.
	DRIVE 1 RANGE	Used for low gear hold condition when going up or going down steep grades that require engine brake ability, or operation in rough terrain.
5	REVERSE RANGE	Used to move vehicle backwards. Allow engine to idle before shifting in reverse, then move selector into reverse.

TA 222524

CAB FLOOR-MOUNTED CONTROLS



Key	Control or Indicator	Function/Use
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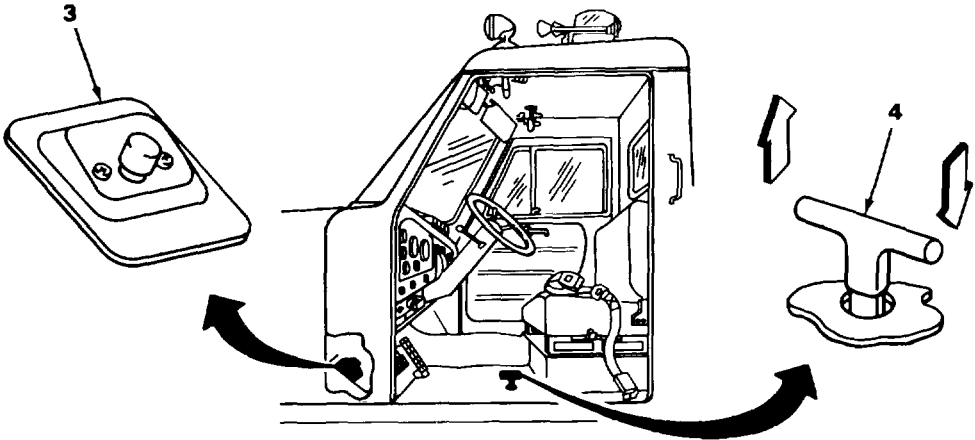
NOTE

For proper braking action, don't fan the brake pedal with short rapid applications. This wastes air pressure. Use steady but hard application that road and load conditions will permit, gradually reducing foot pressure so vehicle comes to a smooth stop, and you have enough air pressure to hold the vehicle. If you feel a slight throbbing when you depress the pedal, it's because of the antilock system.

1	CONTROL - AIR BRAKE PEDAL/VALVE ASSEMBLY	Pedal is swing mounted to a four way air control valve. As pedal is depressed, the air valve actuates all four vehicle brakes at same time.
2	ACCELERATOR PEDAL	Controls vehicle speed and transmission shifting. Use light foot pressure when you depress the pedal so the transmission can shift smoothly. Flooring the pedal causes poor engine and automatic transmission performance.

TA 222525

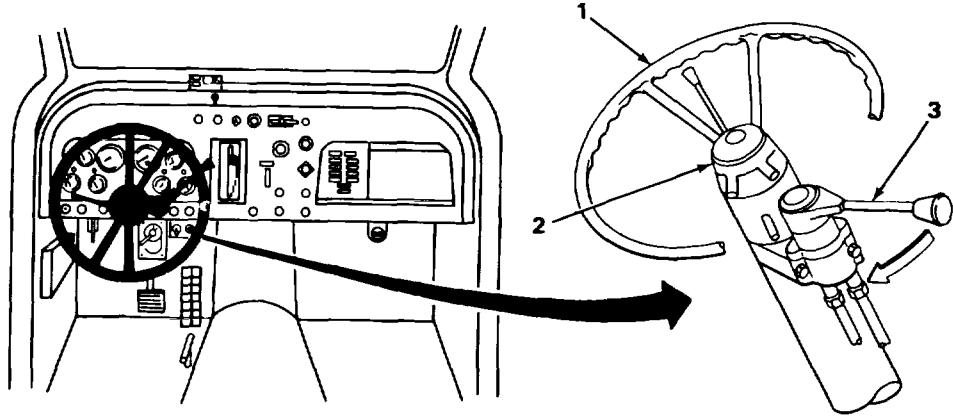
CAB FLOOR-MOUNTED CONTROLS - CONTINUED



Key	Control or Indicator	Function/Use
3	SWITCH - HEADLIGHT DIMMER	Raises headlights from LOW beam to HIGH beam. Controlled by driver's foot. indicator light on face of the speedometer comes ON to signal driver that the headlights are on HIGH beam.
CAUTION		
Engaging the power take-off while engine is running can cause serious damage to transmission. To engage the PTO, the engine must be shut down.		
4	CONTROL - POWER TAKE-OFF	Transfers engine power to hydraulic motors which power the hydraulic driven equipment. To engage the PTO pull control UP, to disengage, push DOWN. To operate the PTO, shut engine down, move transmission selector control to NEUTRAL, and start engine.

TA 222526

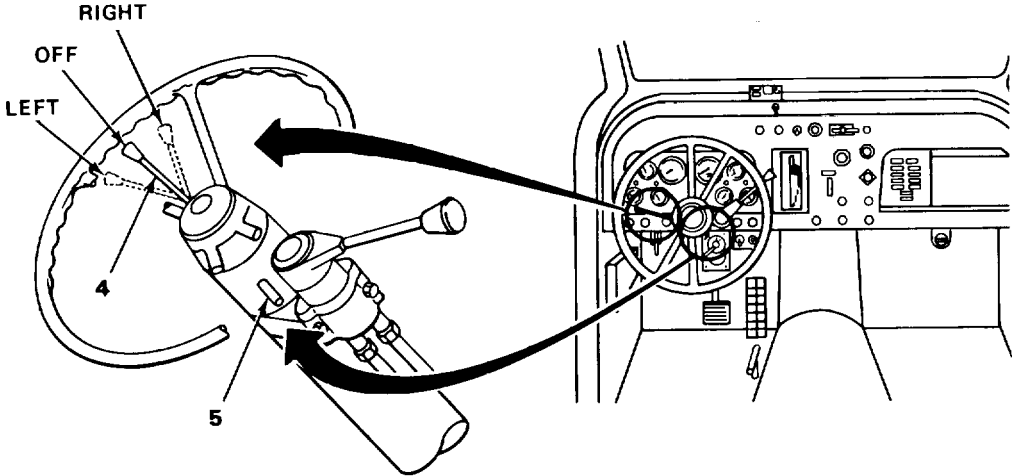
STEERING WHEEL AND COLUMN MOUNTED CONTROLS



Key	Control or Indicator	Function/Use
1	STEERING WHEEL	Controls direction of vehicle in motion. Turn CLOCKWISE for right turns, turn COUNTERCLOCKWISE for left turns.
2	BUTTON - HORN (CITY) ELECTRIC	Depress the sound horn. Normally used in city areas, Instead of air horn.
<u>WARNING</u>		
Use of trailer brakes for parking brakes can cause damage to vehicle or personnel. If there is a question of holding the vehicle, use the wheel chocks.		
3	HAND CONTROL VALVE - TRAILER AIR BRAKES	Used to prevent trailer-sway, or jackknifing when driving on slippery roads, or down steep grades. Pull down the control handle to apply trailer brakes.

TA 222527

STEERING WHEEL AND COLUMN MOUNTED CONTROLS - CONTINUED

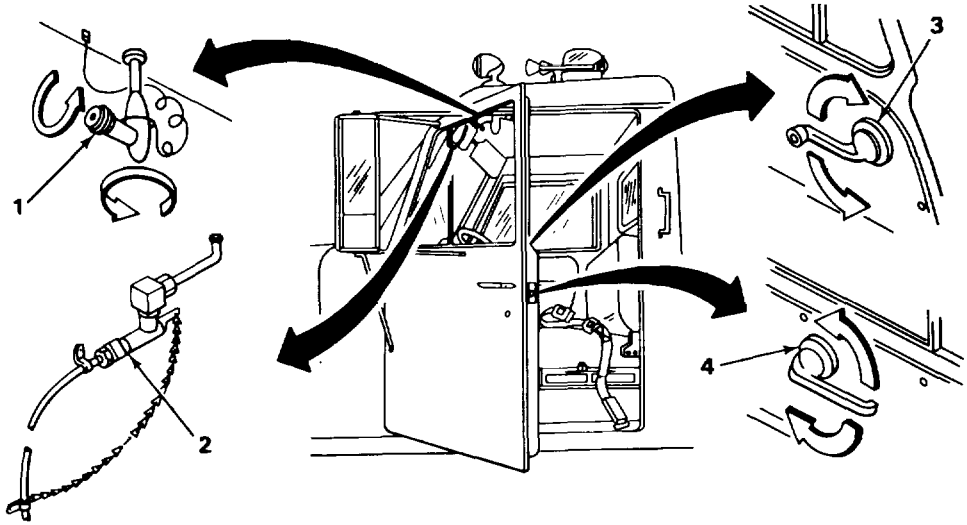


Key	Control or Indicator	Function/Use
4	SWITCH - TURN SIGNAL INDICATOR	Used to signal traffic, of your intentions, to turning either right or left. Push control lever UP for right turn, pull DOWN for a left turn. Steering wheel cancels switch to OFF position when turn is completed and you are driving straight ahead. Always use the turn signals when making turns.
5	SWITCH - WARNING TRAFFIC HAZARD LIGHTS	Used when vehicle disabled, being towed, or any other emergency condition requiring that traffic be WARNED to keep clear. Push in to turn ON, and pull out to turn OFF. All four turn signal indicators will flash warning.

TA 222528

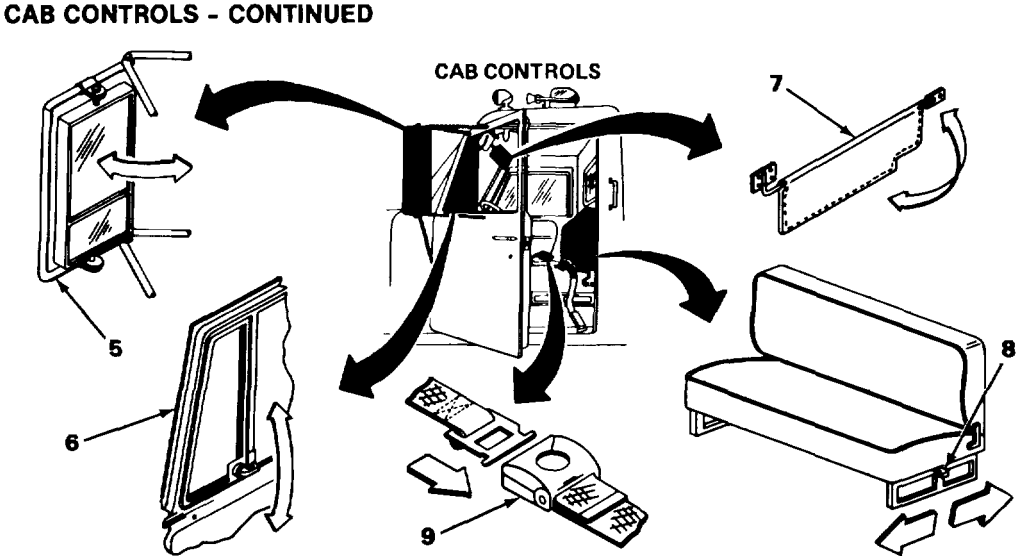
CAB CONTROLS

CAB CONTROLS



Key	Control or Indicator	Function/Use
1	CONTROL HANDLE - SPOTLIGHT	Used to illuminate the work area during night operations. Roof mounted spotlights controlled by the handle which rotates the lights left and right and up and down. Switch mounted on handle turns lights ON and OFF.
NOTE		
Obey local noise abatement ordinances regarding use of air horn.		
2	AIR HORN (COUNTRY) - W/VALVE CONTROL	Pull chain control DOWN to sound the air horn.
3	HANDLE - CONTROL DOOR GLASS WINDOW	Turn control handle CLOCKWISE or COUNTERCLOCKWISE to raise and lower the door glass window.
4	HANDLE - CONTROL - DOOR, INNER	Opens the door from inside the cab. Lift UP to open door, push DOWN locks the door.

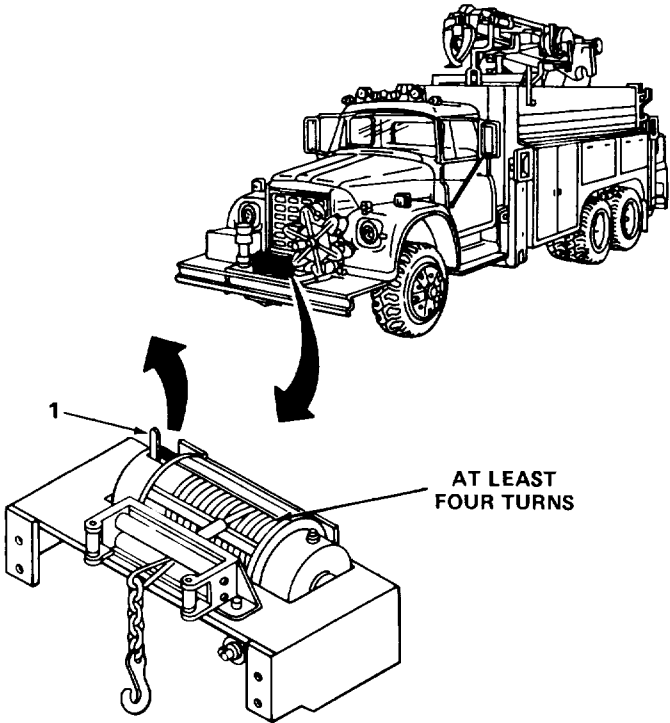
CAB CONTROLS - CONTINUED



Key	Control or Indicator	Function/Use
5	MIRRORS - REAR VIEW	Provides driver visual view of the traffic flow from behind, rear, and sides of the vehicle. Are adjusted by loosening, and tightening the locknuts at top and bottom of the vertical support bar.
6	DOOR SIDE VENT GLASS	Provides outside air into cab. Vent WINDOW latch secures window. To open vent glass window, rotate latch UP, to secure, rotate latch DOWN.
7	SUN VISOR	Provides driver shading protection against sun glare, and bright headlights. Push UP and DOWN, as needed.
8	CONTROL - DRIVER SEAT ADJUSTMENT	Pushing control REARWARD releases seat lock, hold control while sliding forward, or backwards to adjust. Release control to lock seat in place. Bolts for seat back adjustment.
9	SEAT BELTS	For driver, passenger safety. Wear fastened across lap.

FRONT WINCH CONTROLS

<p style="text-align: center;">WARNING</p> <p>1. CLUTCH MUST BE TOTALLY ENGAGED DURING WINCHING OPERATIONS.</p> <p>2. DO NOT DISENGAGE CLUTCH TO LOWER A LOAD.</p> <p>3. DO NOT LEAVE CLUTCH ENGAGED WHEN WINCH IS NOT IN USE.</p> <p>4. STAY OUT FROM UNDER AND AWAY FROM RAISED LOADS.</p>	<p>IN ^ CLUTCH v OUT</p>
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Key	Control or Indicator	Function/Use
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WARNING

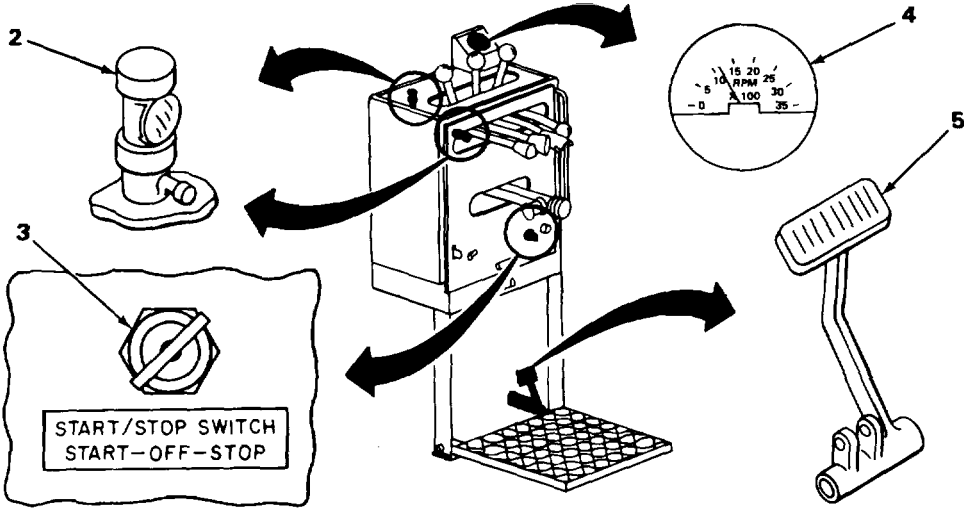
LOOSE OR FRAYED WIRE CABLES

Always wear heavy leather gloves when handling winch wire cables. Never let wire cables run through your hands; frayed cables can cut you. Never operate the winch with less than four turns of cable on the drum. Keep cable coils tight and close together on the drum while winching.

1	<p>CONTROL - CLUTCH LEVER - FRONT WINCH</p>	<p>Push toward battery box to ENGAGE and push in opposite direction to DISENGAGE winch clutch. Engage clutch to operate control lever on dash panel.</p>
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TA 222531

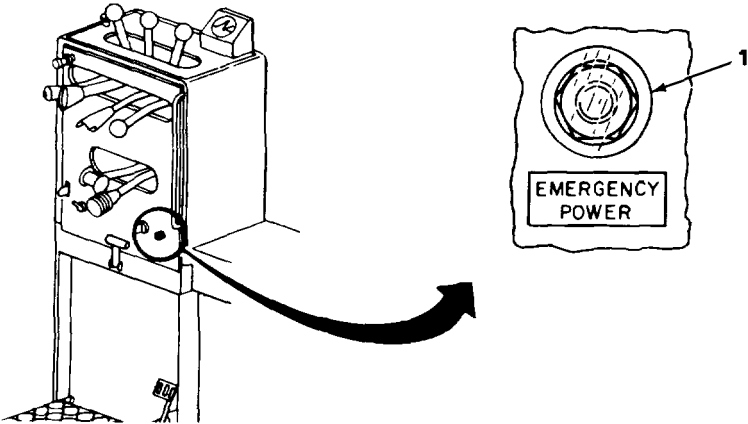
DERRICK HYDRAULIC CONTROLS-OPERATOR'S CONSOLE



Key	Control or Indicator	Function/Use
2	LIGHTS (2)-CONTROL PANEL ILLUMINATION	Turn switch to the left for ON position, turn to right for OFF. Used for night operations.
NOTE		
The key switch on the cab dash panel must be in the ON position to use START/STOP SWITCH on the operator's station console. Turning clockwise will stop engine immediately.		
3	SWITCH-START/STOP	Turn counterclockwise to START and clockwise to STOP the engine.
CAUTION		
Serious damage to engine will result if operated above the maximum 3000 rpm limit.		
4	TACHOMETER	Provides operator visual indication of engine rpm while operating derrick. To get actual rpm multiply the reading x 100.
5	THROTTLE PEDAL CONTROL	Provides operator control to increase, maintain, and decrease engine rpm while operating the derrick. Engine speed will return to idle when the throttle pedal control is released.

TA 222532

DERRICK HYDRAULIC CONTROLS-OPERATOR'S CONSOLE - CONTINUED



Key	Control or Indicator	Function/Use
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NOTE

The emergency power switch will not work if the key switch and emergency power switch on the cab instrument panel are not turned on.

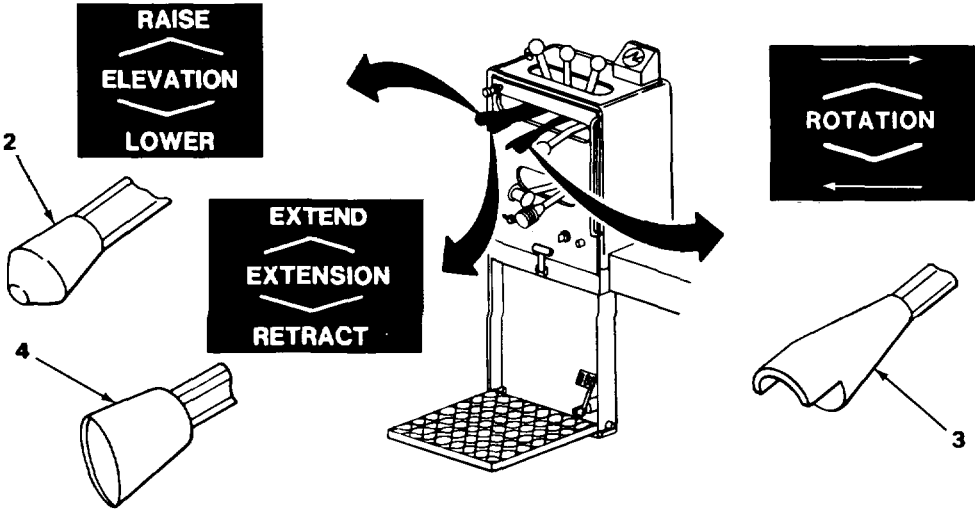
1	EMERGENCY POWER BUTTON (RED)	With key switch and emergency power switch in ON position at the truck cab instrument panel, you can push and hold the emergency power button on the operator's console. This operates an electric motor which drives a hydraulic pump if you lose engine power.
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The emergency power system should only be used to bring down the derrick leg, and put it in the stowed position, raise the outriggers, when engine power is lost.

There are two emergency power buttons:

1. On operator's console (above).
2. Located next to the right side outrigger controls, and identified by red button. See page 2-29.

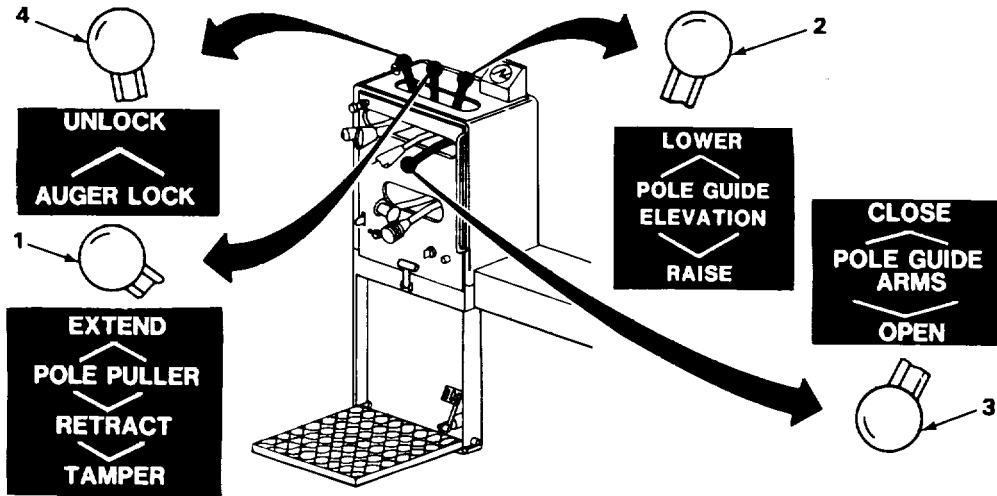
DERRICK HYDRAULIC CONTROLS-OPERATOR'S CONSOLE - CONTINUED



Key	Control or Indicator	Function/Use
2 go up	DERRICK ELEVATION CONTROL LEVER	Allows you to raise or lower the derrick leg. The derrick leg is able to go to an 800 angle, or lower the baskets to the ground. An indicator plate on the side of the derrick leg tells angle of the derrick. Releasing the lever causes it to automatically return to the neutral position.
3 counterclockwise;	DERRICK ROTATION CONTROL LEVER	Holding this control down causes the derrick to rotate counterclockwise; holding it up moves it clockwise. When you release the control lever, the derrick will stop rotating.
4 spring	DERRICK EXTENSION CONTROL LEVER	Hydraulically extends and retracts the derrick leg. This control is loaded to the neutral position.

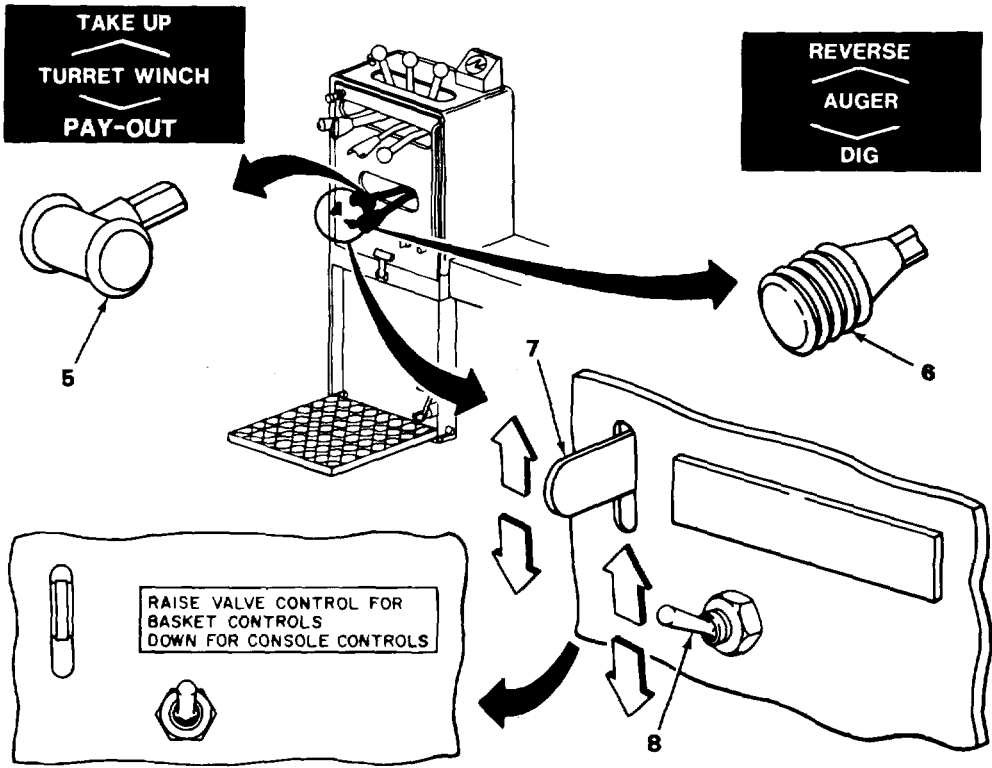
TA 222534

DERRICK HYDRAULIC CONTROLS-OPERATOR'S CONSOLE - CONTINUED



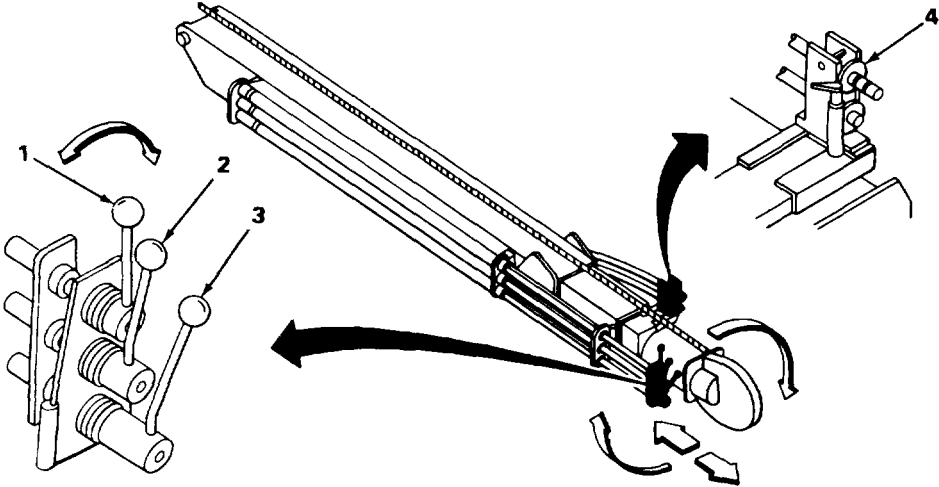
Key	Control or Indicator	Function/Use
1	POLE PULLER AND TAMPER CONTROL LEVER	This control is for the tool outlets located on the derrick leg and at the baskets. It has three positions and will stay in the position you put it in, until you move it out.
2	POLE GUIDE CONTROL LEVER	Raises and lowers the pole guide arms so you can position them, or get them out of the way when you're using the fiberglass extension.
3	POLE GUIDE ARMS CONTROL LEVER	Opens and closes the pole guide arms. The control is spring loaded to the neutral position. When you release it, the arms will stop wherever they are.
4	AUGER LOCK CONTROL LEVER	Controls the opening of the auger lock assembly. Pushing the control forward will open the lock and release the auger. If the control is let go, it will return to the neutral position. Unless you push this control forward, the auger will automatically lock when it is raised.

DERRICK HYDRAULIC CONTROLS-OPERATOR'S CONSOLE - CONTINUED



Key	Control or Indicator	Function/Use
5	TURRET WINCH CONTROL LEVER	Controls the payout (unwinding) and takeup (winding) of the turret winch cable.
6	AUGER CONTROL LEVER	This lever controls the digging operation, and the winding and unwinding of the auger from the stowed position to the operating position. It's spring loaded to the neutral position.
7	BASKET/CONSOLE CONTROL SELECTOR LEVER	Raising this lever allows you to control the derrick leg operation from the baskets. To operate the derrick from the control console, the lever must be in the down position.
8	LEFT REAR SPOTLIGHT SWITCH	Turns the spotlight on when it is out in the same position as the switch on the spotlight bracket. To turn the light off, place it in the opposite position of the switch on the spotlight bracket.

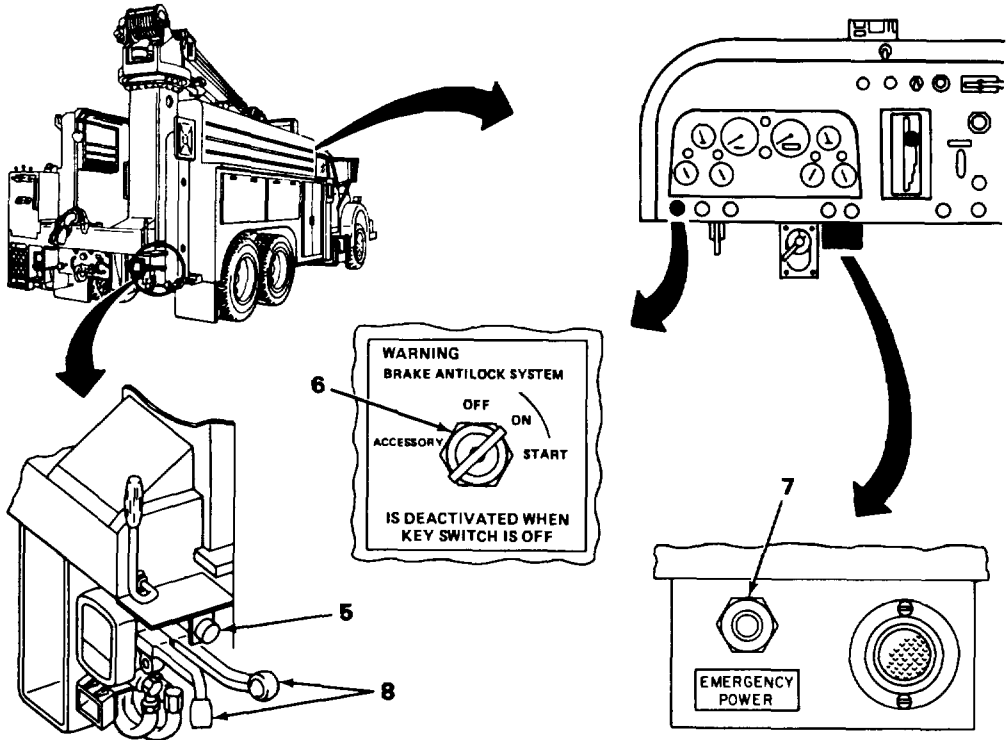
DERRICK HYDRAULIC CONTROLS-DERRICK LEG BASKET



Key	Control or Indicator	Function/Use
1	BASKET ELEVATION CONTROL LEVER	Controls raising and lowering of the derrick leg. Push FORWARD to raise, and pull BACK to lower.
2	BASKET ROTATION CONTROL LEVER	Controls the 3700 rotation of the derrick leg. Push FORWARD to rotate the derrick leg counterclockwise. Pull BACK to rotate clockwise.
3	BASKET EXTENSION CONTROL LEVER	Controls the extending and retraction of the derrick leg hydraulic extension section. Push FORWARD to move the hydraulic extension outward. Pull BACK to move the hydraulic extension inward (retract).
4	BASKET TOOLS OUTLET	Hydraulic power outlets. Provides hydraulic power for the operation of powered auxiliary tools at the basket.

TA 222537

DERRICK OUTRIGGER CONTROLS



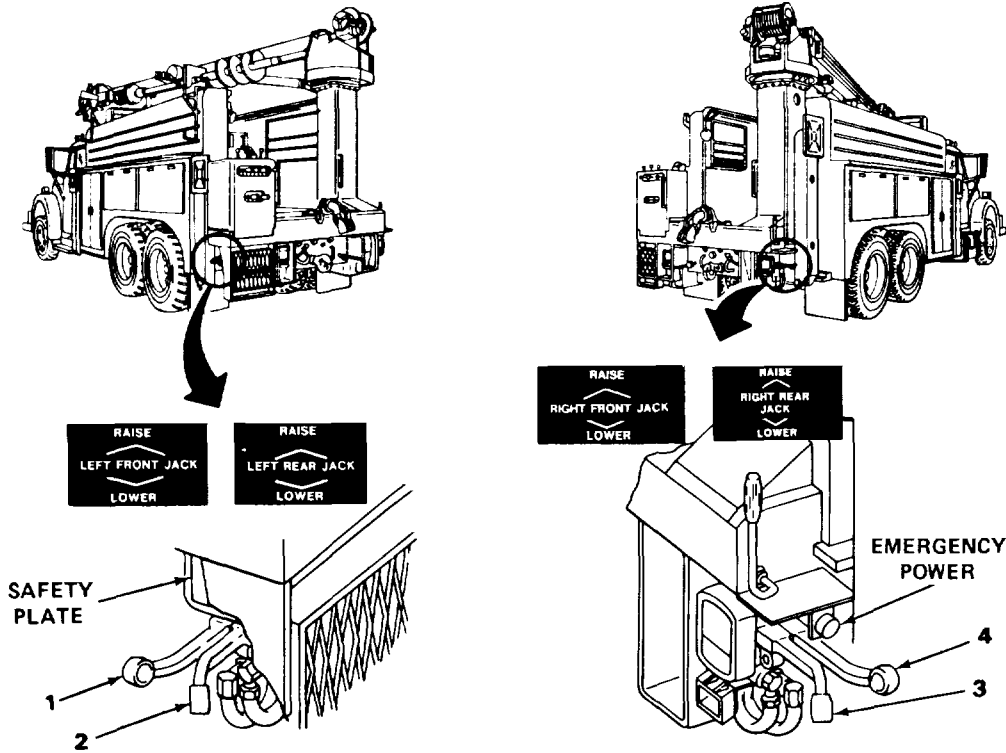
Key	Control or Indicator	Function/Use
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NOTE

The emergency power switch will not work if the key switch and emergency power switch on the cab instrument panel are not turned on.

- | | | |
|---|------------------------------|--|
| 5 | EMERGENCY POWER BUTTON (RED) | With key switch (6), and emergency power switch (7) in ON position at the truck cab instrument panel, you can push and hold the emergency power button (5) next to outrigger controls (8). This operates an electric motor which drives a hydraulic pump if you lose engine power. The emergency power system should-only be used to bring down the derrick leg, and put It in the stowed position, raise the outriggers, when engine power is lost. |
|---|------------------------------|--|

DERRICK OUTRIGGER CONTROLS - CONTINUED



Key	Control or Indicator	Function/Use
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NOTE

Position your truck on solid, level ground, as close as possible to the work area.

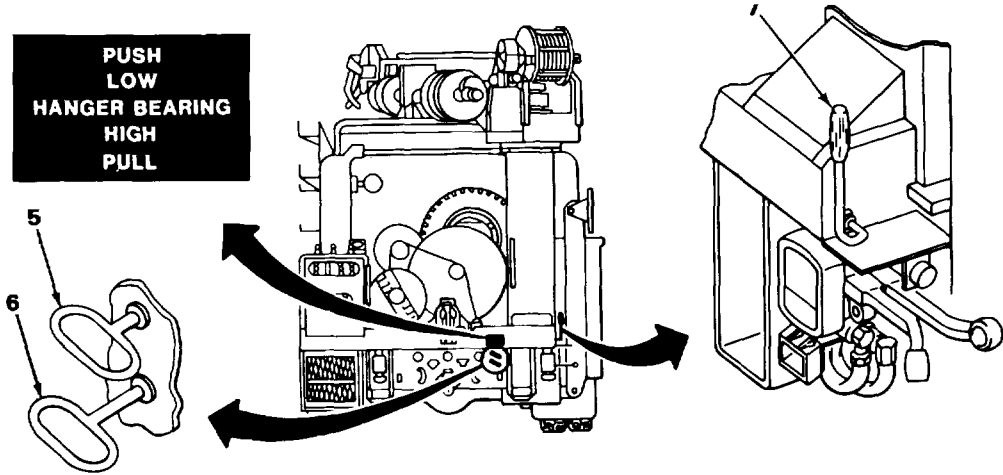
Lower the outriggers whenever you use the derrick.

Make sure everyone is clear of the outriggers when you lower them.

Warm up the hydraulic system in cold weather. Engage the PTO and let the pump run for five minutes at a low speed.

1	LEFT FRONT OUTRIGGER CONTROL LEVER	These instructions are common to all operation of the derrick.
2	LEFT REAR OUTRIGGER CONTROL LEVER	a. Lower the outriggers, one at a time by pushing DOWN on the control lever.
3	RIGHT REAR OUTRIGGER CONTROL LEVER	b. To raise the outriggers, lift UP on the control lever, while holding the safety plate away.
4	RIGHT FRONT OUTRIGGER CONTROL LEVER	

BODY WINCH CONTROLS-REAR OF TRUCK



Key	Control or Indicator	Function/Use
5	BODY WINCH CLUTCH CONTROL	To engage body winch drum. Pull OUT to engage, push IN to disengage.
6	BODY WINCH HANGER BEARING CONTROL	Control has three positions, high, low and neutral. Pull OUT for high speed, push all the way IN for low. Neutral is the halfway position, between high and low. Control is used to select winch payout and take up speeds.

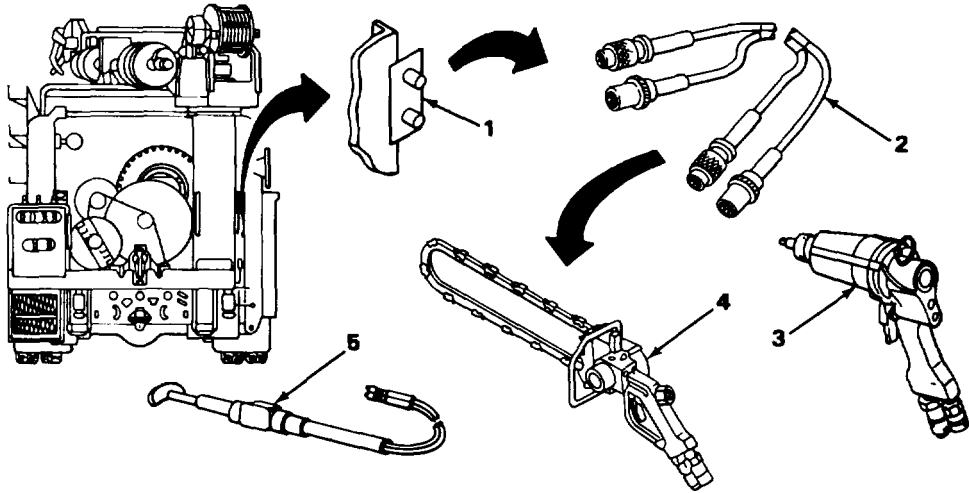
WARNING

LOOSE OR FRAYED WIRE CABLES

Always wear heavy leather gloves when handling winch wire cables. Never let wire cable run through your hands; frayed cables can cut you. Never operate a winch with less than four turns of cable on the drum. Keep cable coils tight and close together on the drum. while winching.

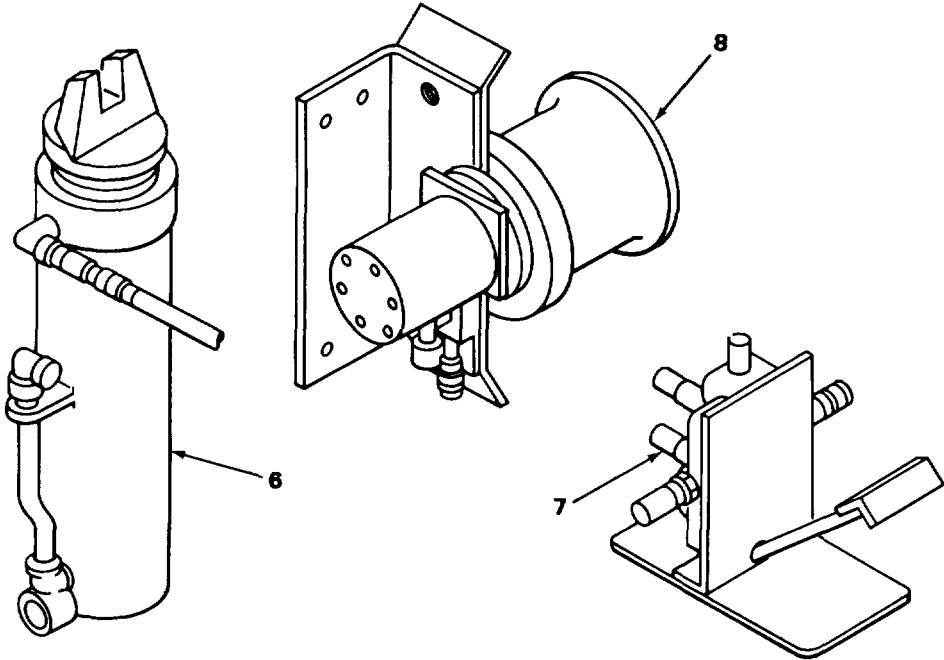
7	BODY WINCH CONTROL LEVER	Pulling rearward to pay out the winch cable, and pushing FORWARD takes up the winch cable.
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AUXILIARY EQUIPMENT AND ATTACHMENTS



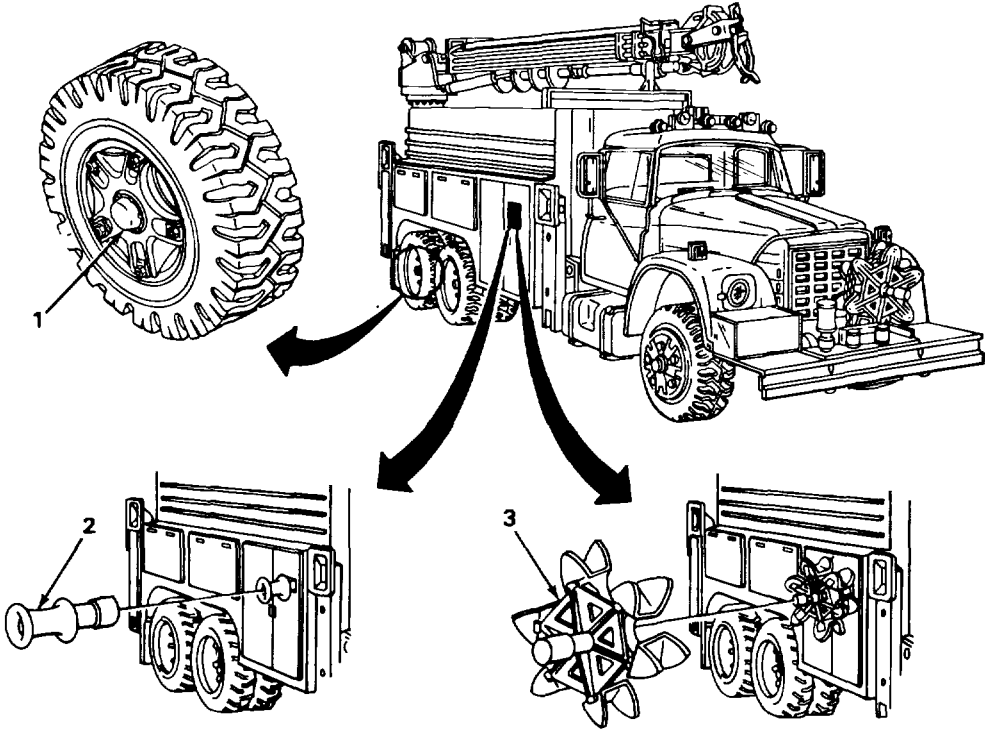
Key	Control or Indicator	Function/Use
1	HYDRAULIC TOOL OUTLET	There are two hydraulic tool outlets, one on derrick leg at the basket, and the one shown here. Outlet provides hydraulic power for auxiliary tools and attachments.
2	HYDRAULIC HOSE ASSEMBLY	Equipped with quick disconnecting fittings. Provides hydraulic power extension to auxiliary tools and attachments.
3	WRENCH, HYDRAULIC IMPACT	Attaches to the hydraulic hose assembly. Power operation is controlled by the trigger on the handle of the impact wrench and the pole puller control lever on the operator's station console.
4	SAW, POWER CHAIN	Is hydraulically powered. Attaches to hydraulic hose assembly. Power operation is controlled by the trigger on the saw handle and the pole puller control lever on the operator's station console.
5	TAMPER, SOIL COMPACTOR	Is hydraulically powered. Attaches to hydraulic hose assembly. Power operation controlled by the pole puller lever on the operator's station console.

AUXILIARY EQUIPMENT AND ATTACHMENTS - CONTINUED



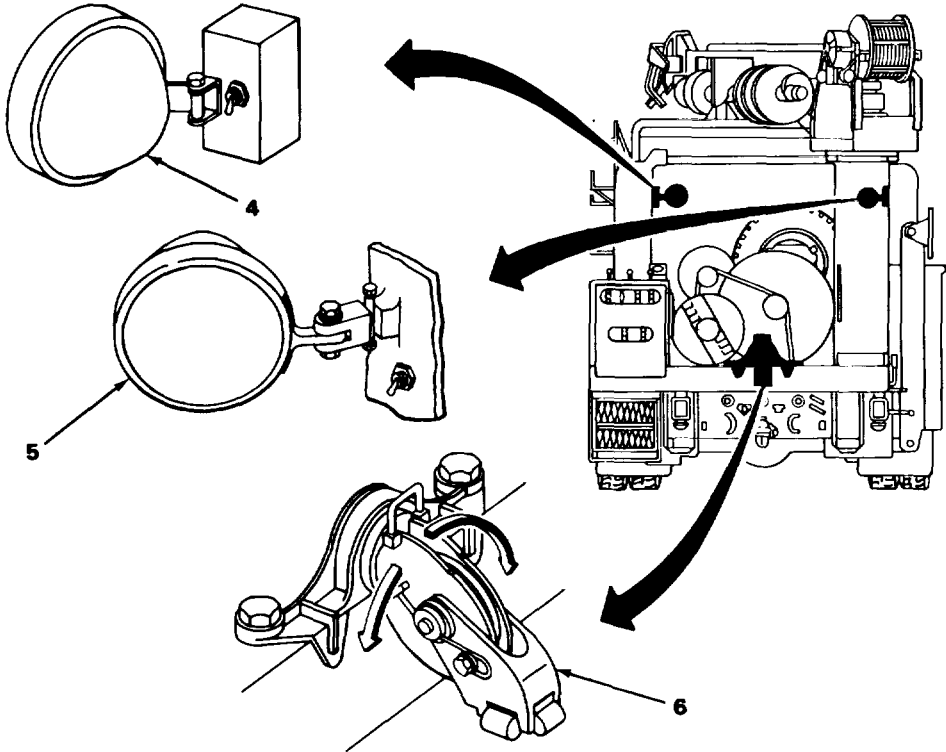
Key	Control or Indicator	Function/Use
6	POLE PULLER	Hydraulically powered. Attaches to hydraulic hose assembly. Controlled by pole puller control lever on operator's station console.
7	FOOT VALVE CONTROL	Hydraulically powered. Attaches to hydraulic hose assembly and to the hydraulic motor driven capstan (8). Power operation controlled by pole puller control lever on the operator's station console, and the foot pedal on the foot valve.
8	CAPSTAN, HYDRAULIC	Hydraulic-powered motor. Attaches to the foot valve. Power operation controlled by the foot pedal on the foot valve. Used with rope, as a light load puller.

AUXILIARY EQUIPMENT AND ATTACHMENTS - CONTINUED



Key	Control or Indicator	Function/Use
1	BACK-UP ALARM	Sounds a warning when vehicle is backing up, alerting all personnel in the area. It is bolted to the hub of the right rear aft outer wheel.
2	HEAD	Winch bayonette type. Used on body winch extension shaft, which protrudes through the small sliding door on the right side front storage compartment door. Used as light load puller.
3	ADAPTER, ROPE WINDER	Also used on the body winch extension shaft. Used to wind the 100 ft long (30 meters) sisal rope.

AUXILIARY EQUIPMENT AND ATTACHMENTS - CONTINUED



Key	Control or Indicator	Function/Use
4	SPOTLIGHT, W/SWITCH, LEFT REAR	Switch on operator's station console turns on spotlight when it is put in the same position as the switch on the spotlight bracket. To turn light off, place switch on console in the position opposite the switch on the spotlight bracket. Used for night time operations.
5	SPOTLIGHT, W/SWITCH, RIGHT REAR	Switching ON/OFF is controlled by switch on spotlight bracket. It cannot be controlled from the operator's console as the left spotlight. Push up to turn spotlight on.
6	SWIVEL SHEAVE	Mounted to the steel floor of the body. Guides the body winch cable. Sheave swivels in the direction of load pull.

Section II PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

Page		Page	
Explanation of Columns	2-39	PMCS Procedures	2-36
PMCS Chart Page	2-40	Special Instructions	2-37

GENERAL

This section contains the checks and services that have to be done to maintain the M876 Telephone Maintenance, Utility Truck In operational condition. Do the checks and services at the intervals shown in the Preventive Maintenance Checks and Services (PMCS) Chart, using the following as a guide.

- a. Do (B) PMCS before operating the equipment. Pay attention to the cautions and warnings.
- b. Do (D) PMCS during operation. (During means to monitor the equipment while it is actually being used.)
- c. Do (A) PMCS right after operating the equipment. Pay attention to cautions and warnings.
- d. Do (W) PMCS weekly.
- e. Do (M) PMCS monthly._

PMCS PROCEDURES

- a. Always do the checks and services in the same order, the pattern will become habit, and with practice, anything wrong will be seen in a hurry.
- b. If something does not work, use the troubleshooting Instructions in this manual, and notify your supervisor.
- c. If anything works wrong and you cannot fix it, write it up on DA Form 2404. If something is seriously wrong, report it to Organizational Maintenance. Don't accept, or operate the M876 Telephone Maintenance Truck with a condition in the "equipment is not ready/available" column.
- d. Take along tools and cleaning cloths needed to make the required checks and services. Use the following information to help identify potential problems before, and during the checks and services.

WARNING

Dry cleaning solvent P-D-680 vapors are toxic and solvent is flammable. Use In a well ventilated area and away from open flame or excessive heat. Injury to personnel could occur.

PMCS PROCEDURES - CONTINUED

- (1) Cleaning: Grease, dirt and oil get in the way and may cover up a serious problem. Use dry cleaning solvent P-D-680 to clean metal surfaces. Use soap and water when you clean rubber or plastic parts and materials.
- (2) Bolts, nuts, and screws: Check them all to make sure they are not loose, missing, bent, or broken. Don't try to clean them with a tool, but look for chipped paint, bare metal, or rust around bolt heads. Tighten loose bolts, nuts and screws or report it to organizational maintenance.
- (3) Welds: Look for loose or chipped paint, rust, or gaps where parts are welded together. If a bad weld is found, report it to organizational maintenance.

SPECIAL INSTRUCTIONS

- a. Inspections are required to see if items to be inspected are in good condition, are correctly assembled, stored, secured, not excessively worn, not leaking, and adequately lubricated.
 - (1) Good condition means items (Including supporting, attaching or connecting members) are not bent, twisted, chafed, burned, not broken or cracked, not bare, frayed, dented, collapsed, torn, cut or deteriorated.
 - (2) Correctly assembled or stored means a visual inspection to see if the item is in its normal position in the vehicle, and that all its parts are there and in their respective positions.
 - (3) Secured means an external visual examination, or check by hand, wrench, or pry-bar for looseness. Inspection includes brackets, bolts, lock washers, lock nuts, lock wires, or cotter pins, as well as connecting tubes, hoses, or wires.
 - (4) Excessively worn means item is worn beyond serviceable limits and likely to fail if not replaced before the next scheduled inspection. It includes all illegible markings, data and caution plates, and printed matter.
 - (5) Where the instruction "tighten" appears in the procedures, it means tighten with a wrench, even if the item appears to be secure.
 - (6) You need to know how fluid leaks affect the operation of the M876 telephone maintenance truck and its equipment. The following definition gives you the type and classes of leaks to help you find out the status of the equipment. Learn what to look for. When in doubt, notify your supervisor.

SPECIAL INSTRUCTIONS - CONTINUED

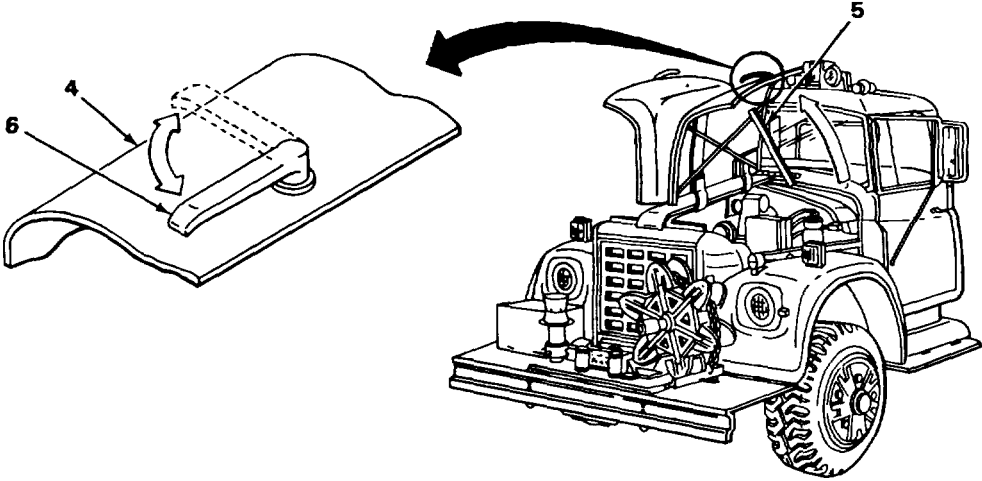
- CLASS I. Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
- CLASS II. Leakage of fluid great enough to form drops, but not enough to cause drops to drip or fall from item being checked/inspected.
- CLASS III. Leakage of fluid great enough to form drops that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

CAUTION

Equipment operation is allowable with minor leakage (Class I or II). Consideration must be given to the fluid capacity in the Item Being Checked/Inspected. When in doubt, notify your supervisor.

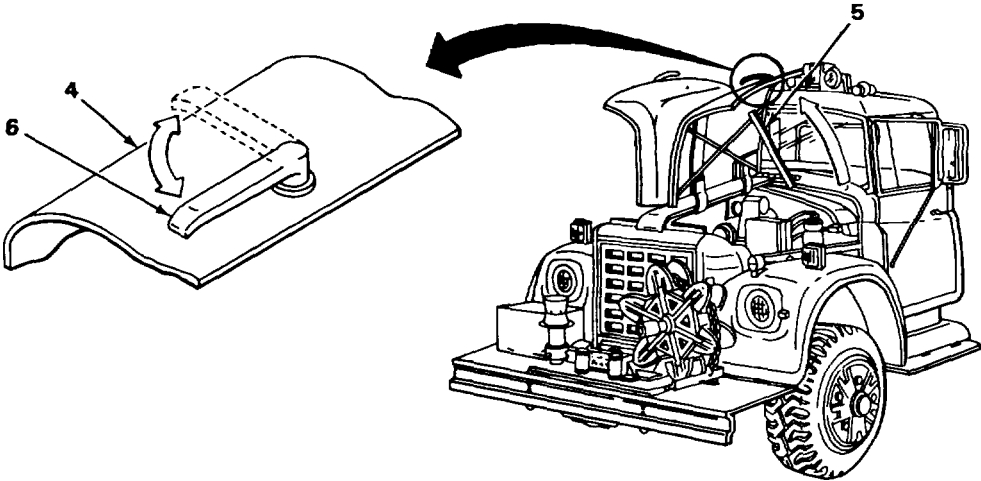
When operating with Class I or II leaks, continue to check fluid level indication to that required in the PMCS. Parts without fluid will stop working and would cause equipment damage.

- b. Raising the hood (butterfly type);
 - (1) Turn handle (1) to its vertical position.
 - (2) Raise hood (2) high enough to permit the ratchet hood rest (3) to engage to hold the hood open.



SPECIAL INSTRUCTIONS - CONTINUED

- c. Lowering and securing the hood in place.
 - (1) Raise hood (4) until ratchet hood rest (5) disengages.
 - (2) Lower hood (4) slowly into place.
 - (3) Turn handle (6) down, into horizontal position, securing hood (4).



EXPLANATION OF COLUMNS

Item Number

This column shows the sequence of doing the checks and services, and is used to identify the equipment area on the equipment Inspection and maintenance worksheet, DA Form 2404.

Interval

This column tells when each check is to be done.

Item To Be Inspected

This column shows what checks and services you have to do, and how to do them.

Equipment Not Ready/Available If:

This column shows/lists the condition of the M876 Telephone Maintenance Truck that will determine if you can operate it and the equipment.

OPERATORICREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

B-BEFORE D-DURING A-AFTER W-WEEKLY M-MONTHLY

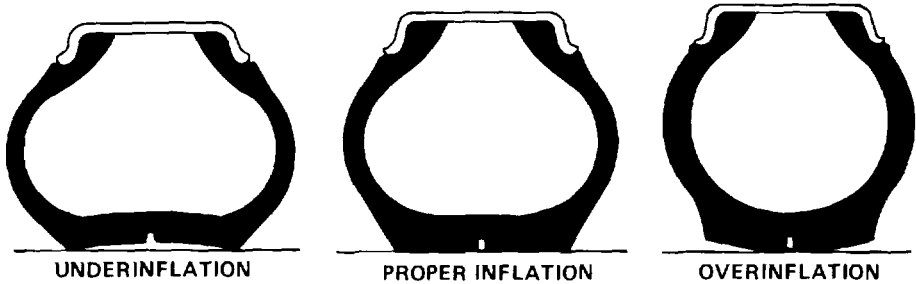
NOTE

If the M876 Telephone Maintenance, Utility Truck must be kept in continuous operation, check and service only those items that can be done without disturbing operations. Make the complete checks and services when equipment can be shut down.

Perform weekly as well as before operation PMCS if:

- (1) You are the assigned operator and have not operated the item since the last weekly.
- (2) You are operating the item for the first time.

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
.1				•		<p>TIRES</p> <p>NOTE</p> <p>Making sure tires are filled to the correct air pressure means maximum road contact and longer tire life.</p> <p>Check for correct inflation Front - 100 psi (689 kPa) Rear - 90 psi (620 kPa) (Always check tire pressure when tires are cold.)</p>	



**OPERATOR CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS)- CONTINUED**

B - Before

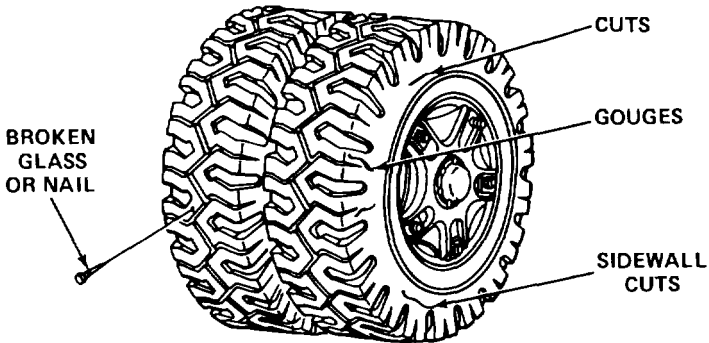
D - During

A - After

W - Weekly

M - MONTHLY

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
2	•					<p>MAKE THE FOLLOWING WALK-AROUND CHECKS</p> <p>Exterior of Vehicle</p> <p>a. Look truck over to make sure there is no damage to body that would affect vehicle operation. Check for operation of doors.</p> <p>b. Look for badly worn tire tread or cracks in side wall. Check for gouges, cuts and for broken glass or nails in tires.</p>	<p>Three or more tires are flat, unserviceable or missing.</p> <p>Tires have cuts, gouges, abrasions, cracks, or any damage that would penetrate to the cord body.</p>



**OPERATOR CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

B - Before

D - During

A - After

W - Weekly

M - MONTHLY

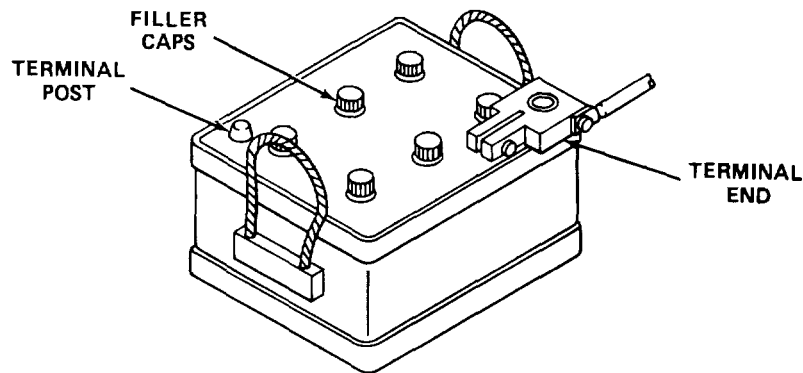
ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
	•					c. Look for damage under the truck. Pay particular attention to the axles, steering system, prop-shafts and exhaust systems. d. Look for leaking fuel, oil or water. Spots on the ground under the truck could be a sign of leakage.	Any Class III leaks.
	•					2-42	

**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
3					•	BATTERY (Located on front bumper) a. Check water level. Keep filler caps tight. See page 2-171. level is low. • b. Check terminal ends for tightness, damage or corrosion. Inspect battery for cracked case, burned, broken or loose battery terminal posts.	Notify organizational maintenance if fluid Battery missing, leaking, unserviceable, or will not crank.

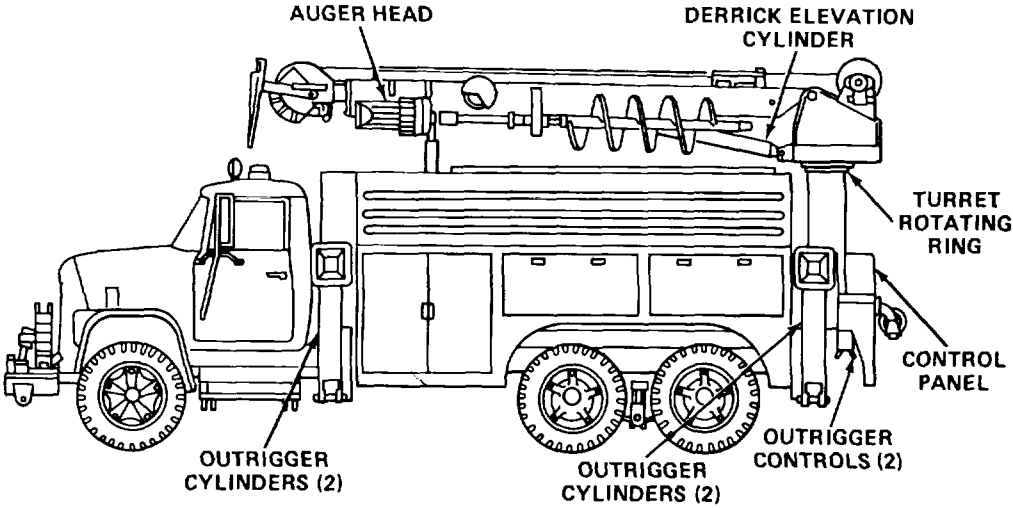
CAUTION

Keep open flame away from battery.



**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS)- CONTINUED**

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
4	•					<p>DERRICK</p> <p>a. Check for oil leaks, at hose and line connections and cylinders.</p> <ol style="list-style-type: none"> 1. Control panel 2. Turret rotating ring 3. Auger head 4. Outrigger controls and cylinders, both sides 5. Derrick elevation cylinder 	Any Class III leaks.



**OPERATORICREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

B - Before

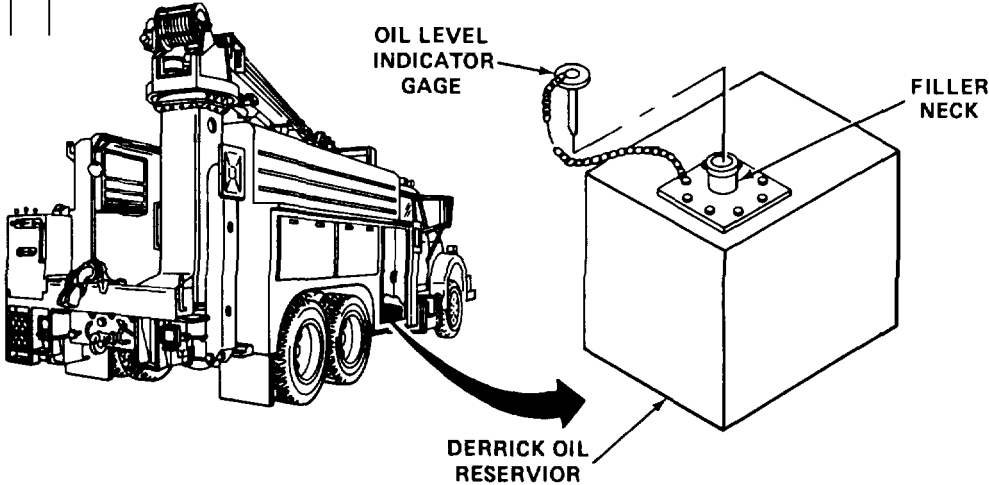
D - During

A - After

W - Weekly

M - MONTHLY

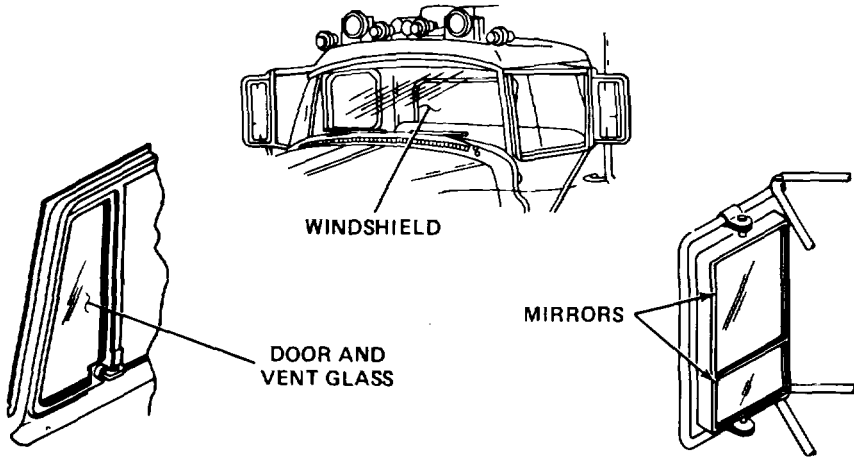
ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
4	•					b. Check oil reservoir. Any Class 111 leaks. If below full mark, add fluid. See LO 9-2320-269-12.	



5					<ul style="list-style-type: none"> • SPRINGS <p>Visually Inspect the springs leaves. for broken leaves.</p>	You have broken
6					<ul style="list-style-type: none"> • FRAMES AND MEMBERS <p>Visually inspect frame rails and cross members for signs broken of cracks, breaks, broken welds, missing rivets, and bolts.</p>	You have obviously cracked, loose, or side rails, cross members, welds, and bolts.

**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS)- CONTINUED**

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
7		•				WINDSHIELD, WINDOWS AND MIRRORS Check the windshield, window and mirrors for damage. Check mirrors for adjustment.	



8						ENGINE COMPONENTS • a. Check the alternator for secure mounting, and check for bare or broken wiring. • b. Inspect drive belts for Belts broken or cracks, fraying or other damage.	
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missing.

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**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

B - Before

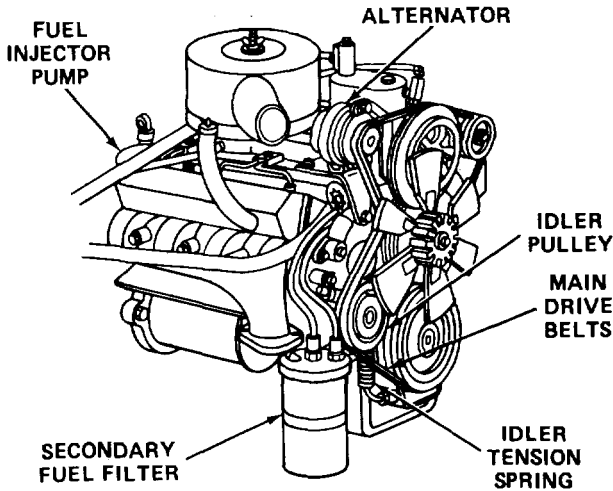
D - During

A - After

W - Weekly

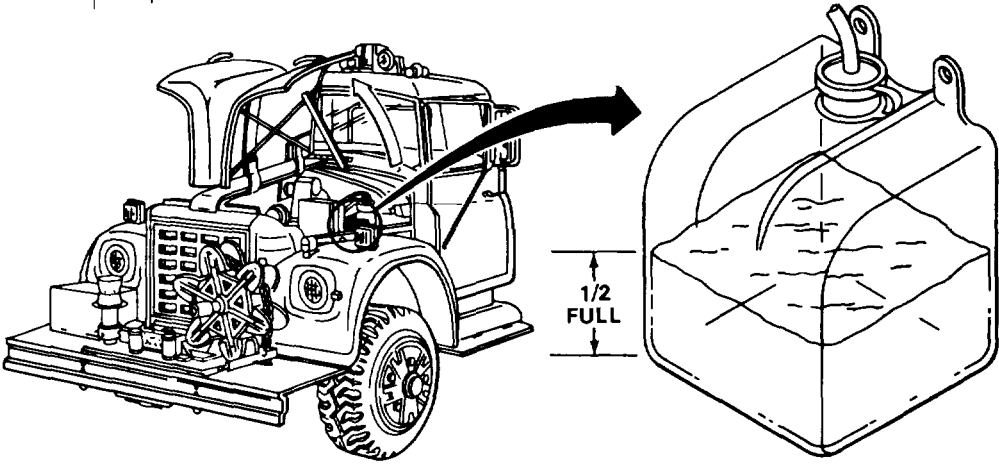
M - MONTHLY

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
						ENGINE COMPONENTS - CONTINUED c. Visually check fuel fil-Any Class III leaks. ters, fuel lines and fuel injector pump for leakage.	



**OPERATORICREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

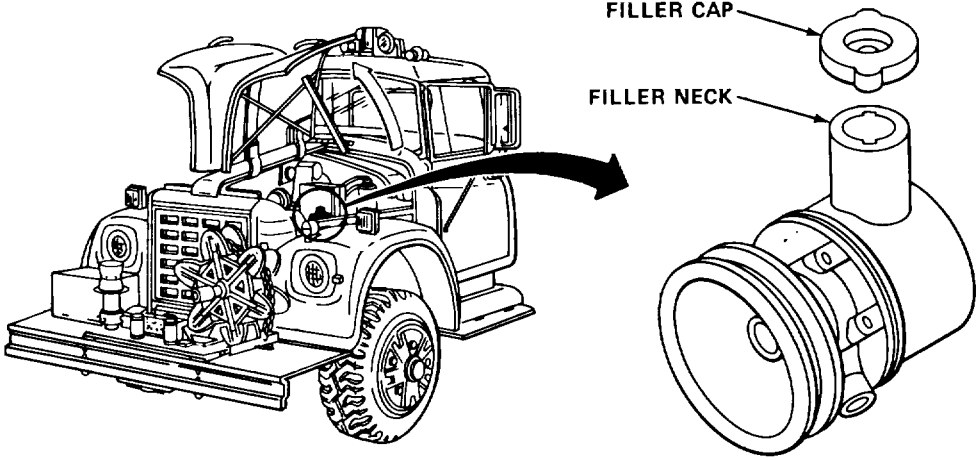
ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
9						WINDSHIELD WASHER RESERVOIR AND WIPERS • a. Check fluid level. Refill if less than half full.	



						• b. Check wiper blade. If worn notify organizational maintenance.	
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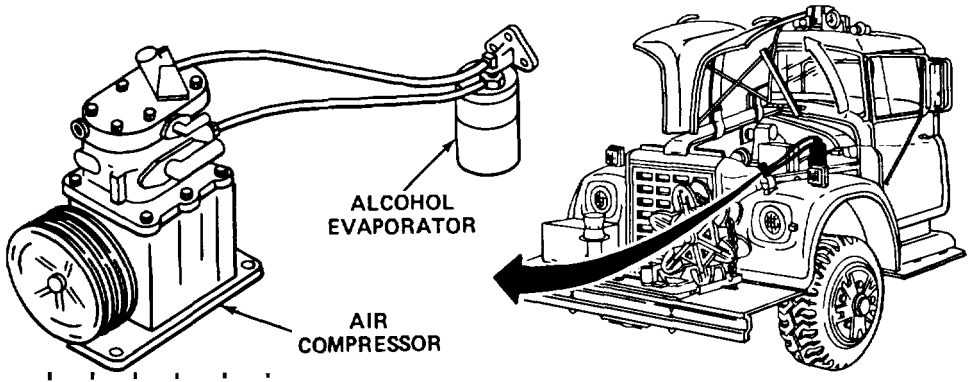
**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
10						POWER STEERING RESERVOIR • Check fluid level. Refill if Any Class III leaks. low. See LO 9-2320-269-12.	

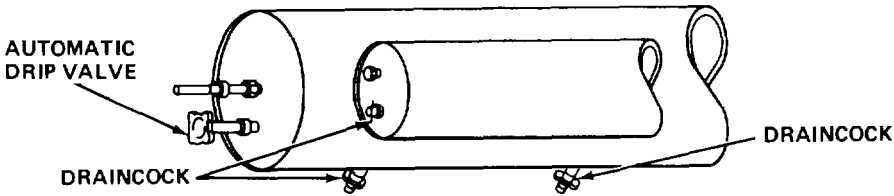


**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS)- CONTINUED**

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
11						<p>AIR COMPRESSOR-ALCOHOL EVAPORATOR AND RESERVOIRS</p> <ul style="list-style-type: none"> a. Check for loose mounting hardware. b. Check lines for damage. c. In freezing temperatures, check alcohol evaporator fluid. Should be over 2/3 full. 	Below 2/3 full in freezing temperatures.



						<ul style="list-style-type: none"> d. Drain air reservoirs daily in cold weather. Make sure draincocks are closed after draining. 	
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**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS)- CONTINUED**

B - Before

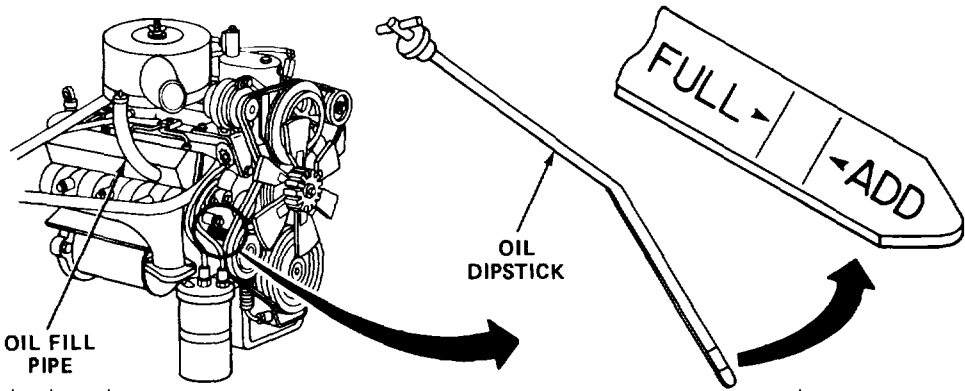
D - During

A - After

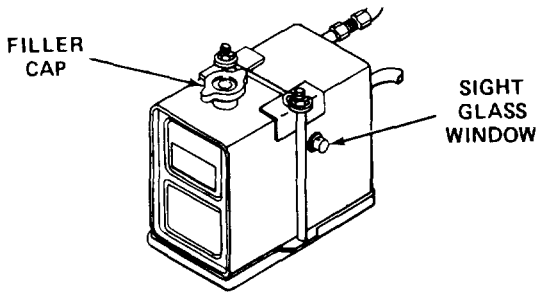
W - Weekly

M - MONTHLY

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
12	•					ENGINE OIL LEVEL (COLD) Check oil level on dipstick, if below ADD mark, add oil. Do not overfill. See LO 9-2320-269-12.	



13	•				•	<p>RADIATOR (Coolant and Hoses)</p> <p>a. Check coolant level. If below sightglass window, add coolant until level is just above bottom of sightglass window.</p> <p>b. Check hoses for leakage, deterioration, and secure connections.</p>	Hose leaking.
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**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

B - Before

D - During

A - After

W - Weekly

M - MONTHLY

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
14		•				<p>CAB ANTI-LOCK SYSTEM</p> <p>Turn key switch to the ON position. The anti-lock warning light should come on for 112 second, then go off. If it doesn't have organizational maintenance, check the system.</p> <p align="center">NOTE</p> <p>If the warning light comes on while you are driving, you will still be able to stop, but you should notify organizational maintenance as soon as possible.</p>	
15	•					<p>OPERATION</p> <p>Start the engine and listen for any unusual noise or vibration.</p>	<p>There is excessive noise vibration. Engine is inoperative.</p>

CAUTION

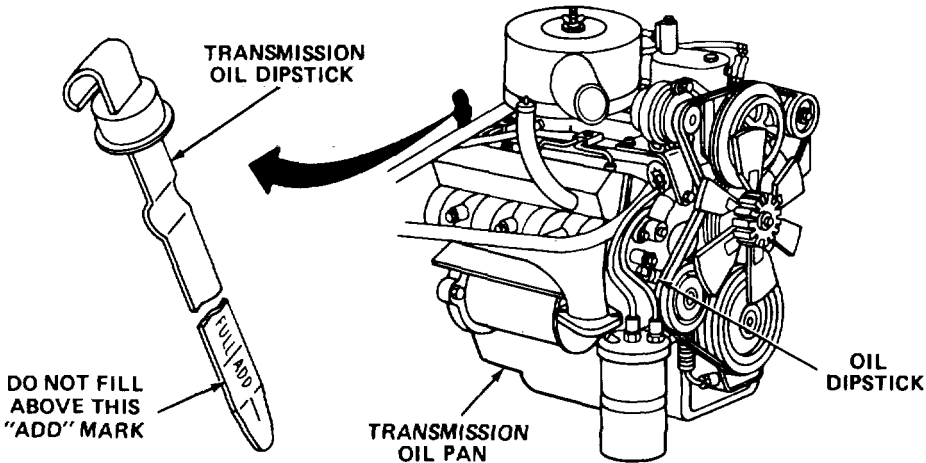
If the oil pressure gage does not show any oil pressure within 8-12 seconds after starting, turn the engine off. Continued operation will damage the engine. Notify your supervisor.

**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS)- CONTINUED**

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
16						<p>TRANSMISSION OIL LEVEL</p> <ul style="list-style-type: none"> With vehicle positioned on level ground, parking brake on and engine idling, shift the transmission into 2-5 range. When normal operating temperature of engine is reached (normal range on water temperature gage), move transmission shift lever through all drive ranges and return to NEUTRAL. With engine running, check transmission oil level on dipstick. It should be at the FULL mark. 	

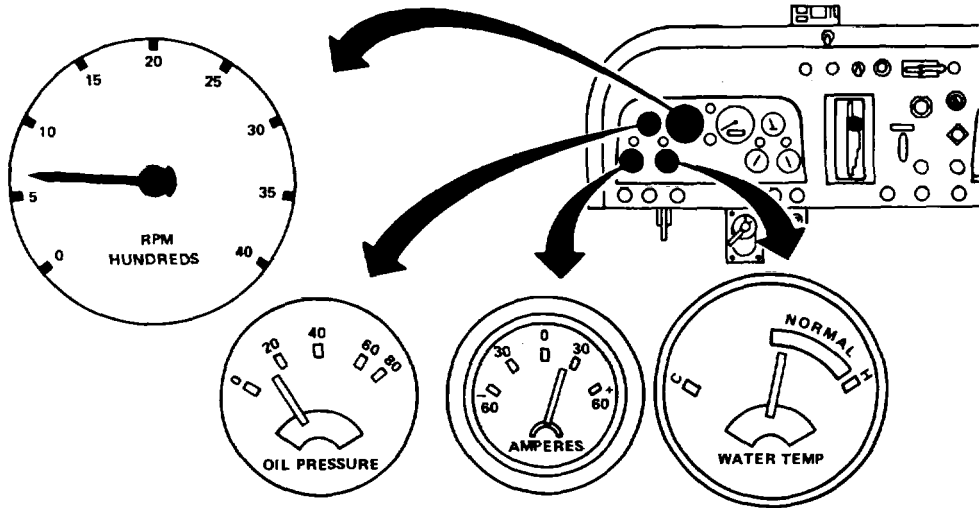
CAUTION

Do not fill above the ADD mark before transmission has reached normal operating temperature.



**OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES
(PMCS) - CONTINUED**

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
17						<p>INSTRUMENTS</p> <p>With the engine idling, check the following readings.</p> <ul style="list-style-type: none"> a. Tachometer; 600-650 rpm b. Oil Pressure; 10-25 psi (69-172 kPa)- idling with exception of fuel 45-60 psi (310-413 kPa)- driving c. Water temperature; Normal Range d. Ammeter; Should show slight charge 15-20 amps + (positive). 	<p>If tachometer is not operational or functioning properly.</p> <p>Readings are not within proper ranges, gage.</p>



OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

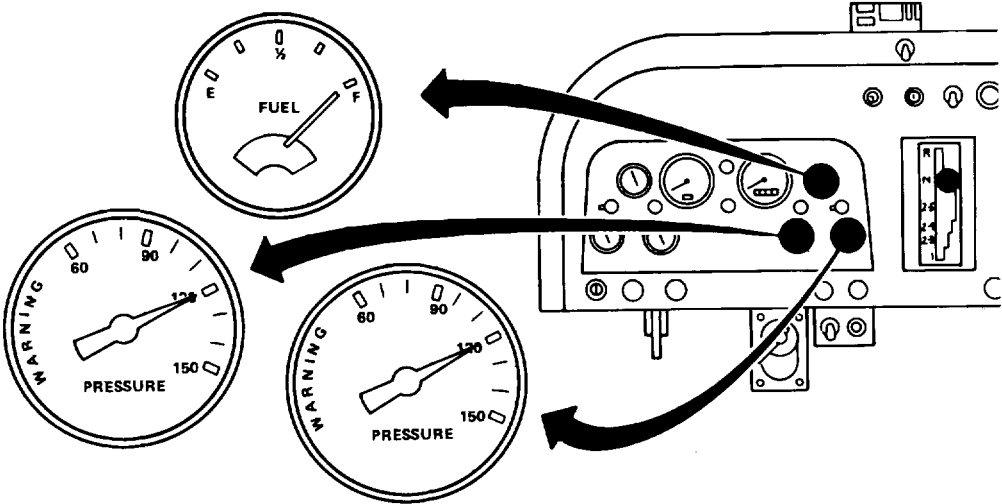
B - Before

D - During

A - After

W - Weekly

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
17	•	•				e. Fuel Level Indicator (Should indicate "FULL" before driving) f. Air Pressure Indicators (Brake Systems) Primary 80-120 psi (552-827 kPa) Secondary 80-120 psi (552-827 kPa)	Readings are not within proper ranges, with exception of fuel gage.



18		•				LIGHTS AND HORN a. Turn lights ON and check operation of inside and outside lights. b. Check both horns for operation.	
----	--	---	--	--	--	--	--

OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

B - Before

D - During

A - After

W - Weekly

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
19						<p>BRAKES</p> <p style="text-align: center;">NOTE Before you start driving, you must allow the air pressure to build up until the low air pressure warning light goes out and the buzzer goes off.</p> <ul style="list-style-type: none"> • a. Apply parking brakes. Truck should not operate, move in any gear. • b. Check service brakes for stopping ability, pulling or grabbing. 	<p>Service brakes or parking brakes do not operate properly. Air pressure will not reach 80 psi (552 kPa) or there is an air leak in the system.</p>
20						<p>STEERING SYSTEM</p> <ul style="list-style-type: none"> • While driving, check the steering response. 	<p>Steering action is unresponsive or binding.</p>
21						<p>TRANSMISSION</p> <p>Operate the vehicle in all gear ranges. During operation, check for any unusual noises, rough shifting or slippage of the clutches.</p>	<p>Transmission has unusual noise, is inoperative, shifts rough or slips.</p>
22						<p>DRIVE TRAIN</p> <ul style="list-style-type: none"> • While operating the vehicle, listen for any unusual noise. 	<p>There is unusual noise.</p>

OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

B - Before

D - During

A - After

W - Weekly

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	Equipment is Not Ready/Available If:
	B	D	A	W	M		
23		•				<p>DERRICK OPERATION</p> <p>a. With the engine running, lower the outriggers and operate the derrick assembly. Check its performance through a full range of movements.</p> <p>b. Look for hydraulic leaks at the cylinders, hydraulic lines and fittings.</p> <p>c. Operate emergency power to see if it is working.</p> <p style="text-align: center;">2-57</p>	<p>Outriggers Inoperative or derrick will not operate through its full range of movement.</p> <p>Any Class III leaks.</p>

Section III OPERATION UNDER USUAL CONDITIONS

The information in the following pages contains the procedures used in operating the M876 Telephone Maintenance, Utility Truck, its components and equipment. Guidelines are also given for adjusting control settings, and what to do when driving to meet changing road conditions. Make sure you know these guidelines as well as the operating procedures so that you will be able to respond to different situations as they happen.

Air and Air Brake System		Initial Adjustments and	
M876 Truck.....	2-82	Daily Checks.....	2-59
Alcohol Evaporator.....	2-82	Driver Seat and Seat	
Type of Air Brake System.....	2-82	Belt Adjustments.....	2-60
Driving.....	2-67	Parking.....	2-91
Automatic Transmission.....		Putting the M876 Truck	
Range Selector Position.....	2-69	in Motion.....	2-84
Checking Gages.....	2-68	Reviewing Driving Guidelines.....	2-89
City Driving.....	2-74	Starting and Warm-up at	
Driving Habits.....	2-72	Temperatures Above 40°F	
Driving Positions.....	2-72	(4.6°C).....	2-61
Highway Driving.....	2-74	Starting and Warm-Up at	
Hill Driving.....	2-75	Temperatures Below 40°F	
Night Driving.....	2-70	(4.6°C).....	2-66
Operating Your Vehicle		Stopping and Shutting	
Safely.....	2-73	Down Engine.....	2-90
Responsibilities.....	2-67	Understanding the FMVSS	
Speed.....	2-73	121 Brake System (Antilock)	
Steering the M876 Truck.....	2-72	Operation.....	2-83
Unnecessary Idling.....	2-68	Using the Power Divider	
Using Engine Braking.....	2-76	Locking System.....	2-80
Using Trailer Handbrake		Using the Trailer	
Control.....	2-77	Emergency Control.....	2-79
Using Your Brakes.....	2-72	Using 12 Volt and 24	
Vehicle Master Light		Volt Converter.....	2-78
Switch Control.....	2-70		

INITIAL ADJUSTMENTS AND DAILY CHECKS

Before you operate the M876 truck perform your (B), Before PMCS, and do all the required adjustments.

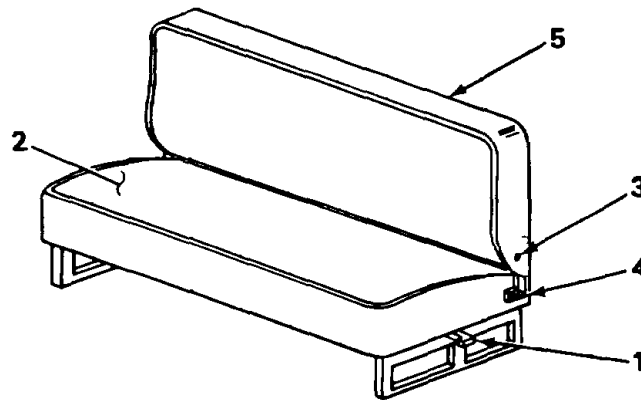
The following listed guidelines are reminders which you, as the operator, should keep in mind before you operate, as you operate, and after you operate the M876 truck.

1. Get to know just what the M876 truck will do. Do not attempt to operate it beyond its limitations.
2. Get to know your operator's controls, and how they function. React promptly to indicator warnings, should they come on when starting the engine, after the engine starts, and during truck operations.
3. Take it easy when the engine is cold. Allow it to warm up properly, and move the truck when the instruments tell you all systems are go. Never race a cold engine.
4. Make it a habit to shift the transmission range selector into NEUTRAL when the vehicle is standing longer than 60 seconds.
5. Come to a complete stop before shifting from FORWARD DRIVE into REVERSE, or from REVERSE into FORWARD DRIVE.
6. Pay attention to all warnings, cautions and notes.

INITIAL ADJUSTMENTS AND DAILY CHECKS - CONTINUED

Driver Seat and Seat Belt Adjustments:

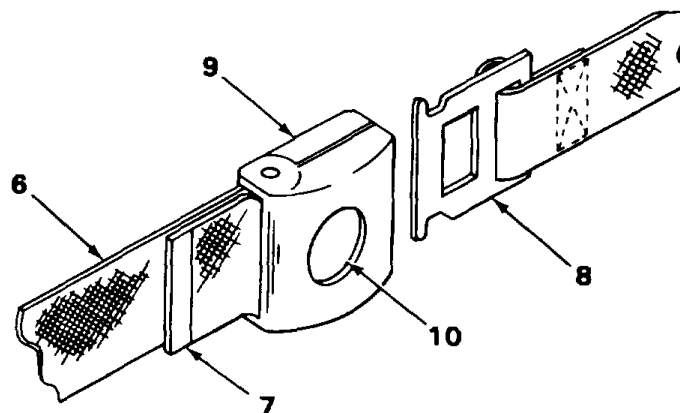
1. Adjust for driving position by pushing back adjustment control (1) and holding it while sliding seat (2) forward or aft to position where the steering wheel and floor mounted controls can be reached. Release control (1) to lock seat (2) in position.
2. Seatback angle is adjusted by loosening two bolts (3) and (4), on both ends of seat (2). Tilt seatback (5) forward or aft. Tighten bolts (3) and (4).



CAUTION

Use seat belts while driving vehicle as an aid to preventing personal injury in event of accident.

3. Adjust seat belt (6) for snug fit by pulling end (7). To secure, insert belt end (8) into buckle (9). To release, push button (10) in center of buckle (9). Seat belt should fit across your lap.

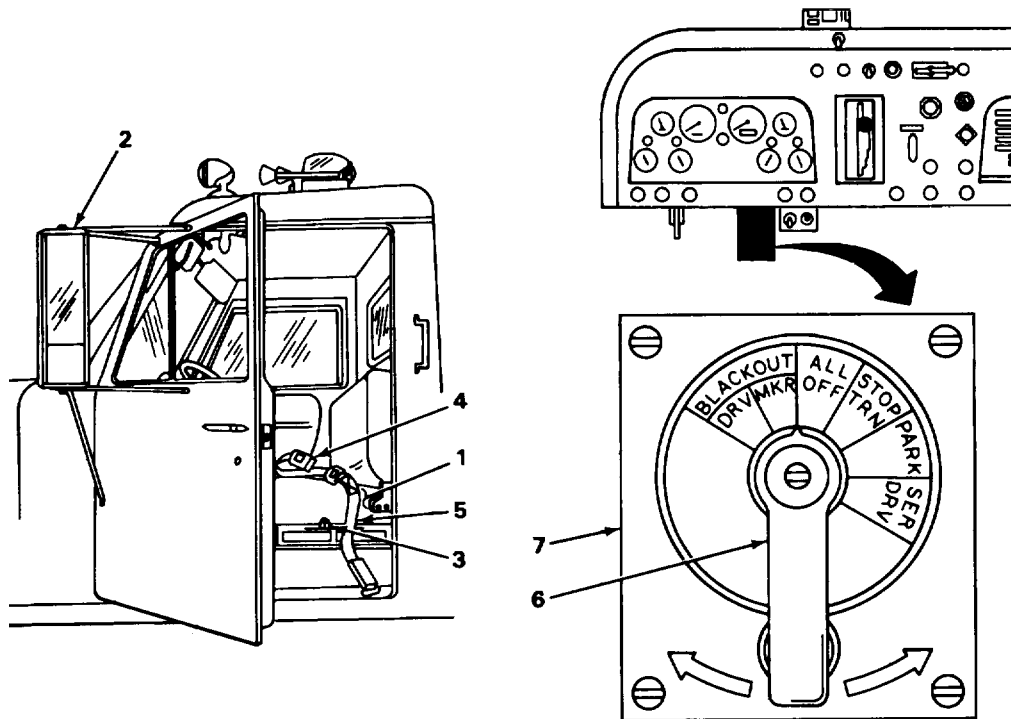


STARTING AND WARM-UP AT TEMPERATURES ABOVE 400F (4.6°C)**NOTE**

The following procedures describe the correct way to start the M876 truck diesel engine.

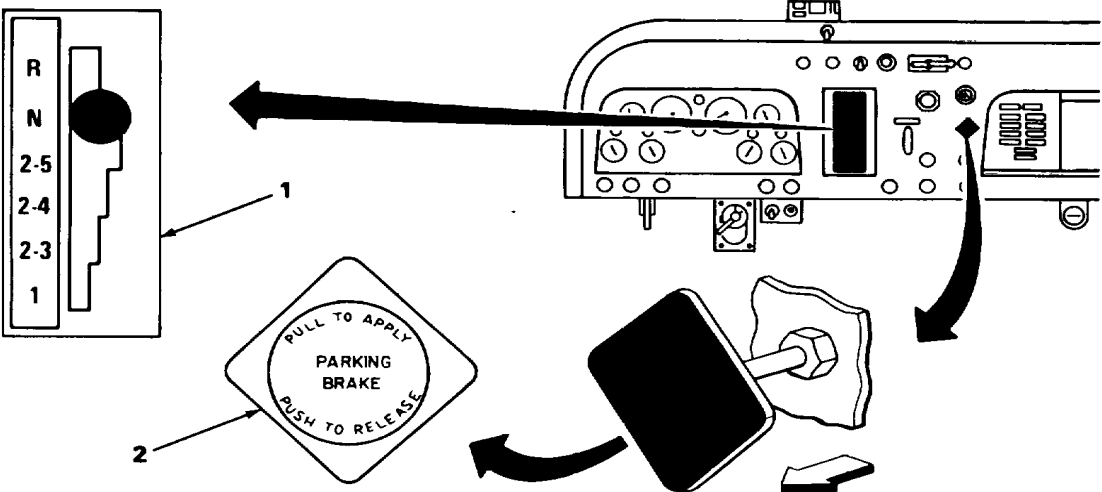
Before starting the diesel engine, make sure that you know where all the controls, instruments and indicators are and the purpose of each one. Refer to Section II, make sure that all before operation preventive maintenance checks and services (PMCS) were done.

1. Sit in the driver's seat (1).
2. Adjust rearview mirrors (2). Have assistant help you.
3. Adjust driver's seat (1), using seat adjustment control (3). Make sure seat (1) is locked securely after you have made the necessary adjustments. Make sure that you secure yourself with seat belts (4) and (5) before you drive away.
4. Move the master selector control handle (6) on the switch (7) to the lighting and driving service you desire. See page 2-70.

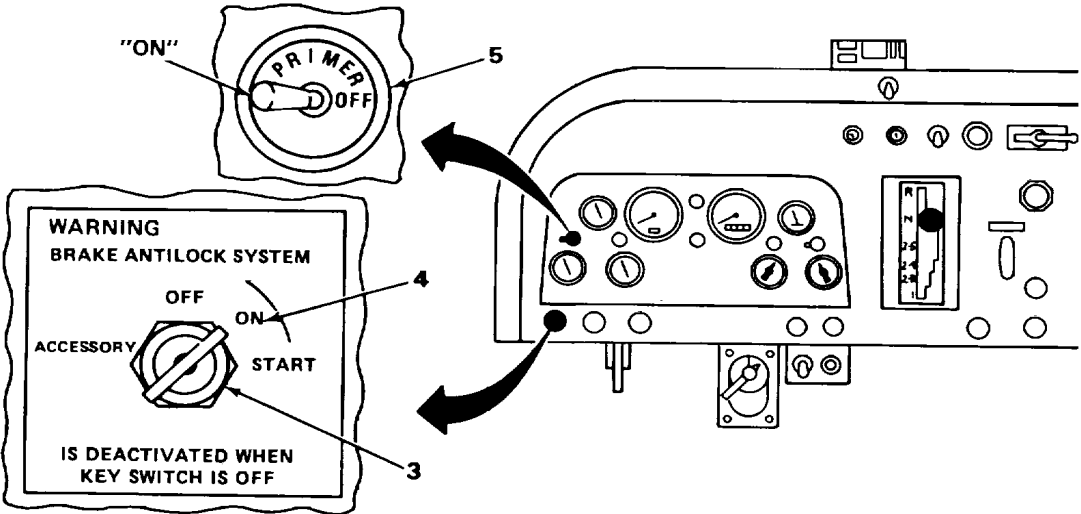


STARTING AND WARM-UP AT TEMPERATURES ABOVE 400F (4.60C) - CONTINUED

- 5. Place transmission range selector control (1) into the NEUTRAL position. See page 2-15.
- 6. Apply parking brake by pulling control handle (2) to OUT position.



- 7. Turn key switch (3) to ON position (4).
- 8. Push fuel primer switch (5) left, to ON position, and hold it there for not more than 10-15 seconds, then release it, to return to OFF position.



STARTING AND WARM-UP AT TEMPERATURES ABOVE 400 F (4.60 C) - CONTINUED

9. Push engine stop control (6) in.
10. Depress accelerator pedal (7) to FULL throttle position.

WARNING**CARBON MONOXIDE (EXHAUST) CAN KILL YOU**

Carbon monoxide is without color or smell, but can kill you. Breathing air with carbon monoxide produces symptoms of headache, dizziness, loss of muscular control, a sleepy feeling, and coma: Brain damage or death can result from heavy exposure. Carbon monoxide occurs in the exhaust fumes of internal combustion engines. Carbon monoxide can become dangerously concentrated under conditions of no air movement. Precautions must be followed to insure crew safety when the engine is operated for any purpose.

- DO NOT operate engine of vehicle in a closed place unless the place has a lot of moving air.
- DO NOT idle engine for long periods without airing out vehicle cab.
- DO NOT drive vehicle with engine compartment hoods removed unless necessary for maintenance purposes.
- BE ALERT at all times during vehicle operation for exhaust odors and exposure symptoms. If either is present, IMMEDIATELY VENTILATE vehicle cab. If symptoms persist, remove affected crew to fresh air; keep warm; DO NOT PERMIT PHYSICAL EXERCISE; if necessary, give artificial respiration.

FOR ARTIFICIAL RESPIRATION, REFER TO FM 21-11.

- BE AWARE; the field protective mask for chemical-biological (CBR) protection will not protect you from carbon monoxide poisoning.

Change 1 2-63

STARTING AND WARM-UP AT TEMPERATURES ABOVE 400 F (4.60 C) - CONTINUED**CAUTION**

To avoid damage to the starter motor, do not hold the starter key switch longer than 30 seconds. If the engine fails to start within 30 seconds, release the key switch and wait 60 seconds to allow the starter motor to cool before using it again.

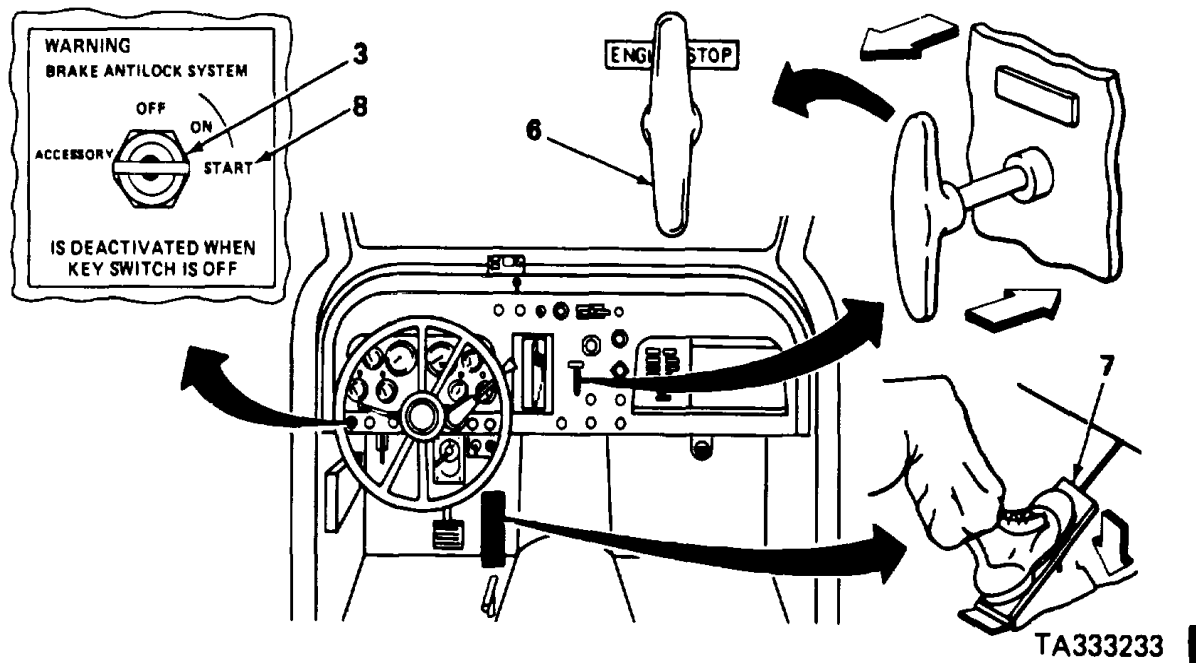
NOTE

If, after not more than four repeat starting operations, the engine fails to start, check for the reason, using the troubleshooting procedures in this manual, or notify organizational maintenance.

NOTE

As soon as engine starts, release starter key switch and reduce engine speed to a low idle.

11. Turn key switch (3) to start position (8), and hold it while starter motor engages and rotates the engine crankshaft. Release key switch (3) the instant engine starts and reduce engine speed to idle.



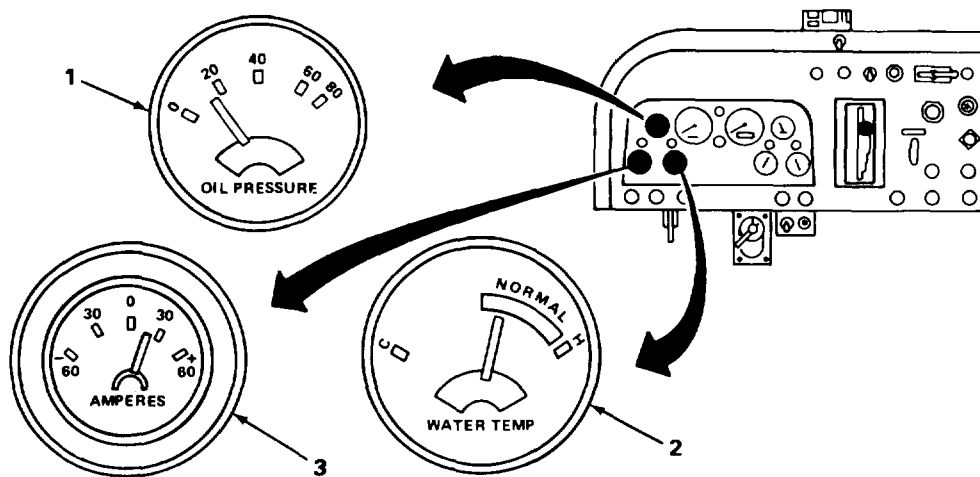
STARTING AND WARM-UP TEMPERATURES ABOVE 40°F (4.60C) - CONTINUED**CAUTION**

If the engine oil pressure does not register within 5 seconds, stop the engine immediately by pulling the ENGINE STOP control out. Check for the reason for no oil pressure, or notify organizational maintenance.

NOTE

Do not apply load to engine or increase engine speed until oil pressure gage indicates 45-80 psi (310-413 kPa). Oil pressure should raise within 15 seconds after engine starts.

12. Operate the engine at low load (800 rpm) until all systems reach operating temperature. Check all gages during the warm-up period.
 - a. Oil pressure gage (1) should register 10-25 psi (69-172 kPa), after engine start up.
 - b. Water temperature gage (2) should register a slow rate of climb toward the NORMAL range.
 - c. Ampere gage (3) should register on the plus (+) side of the gage.



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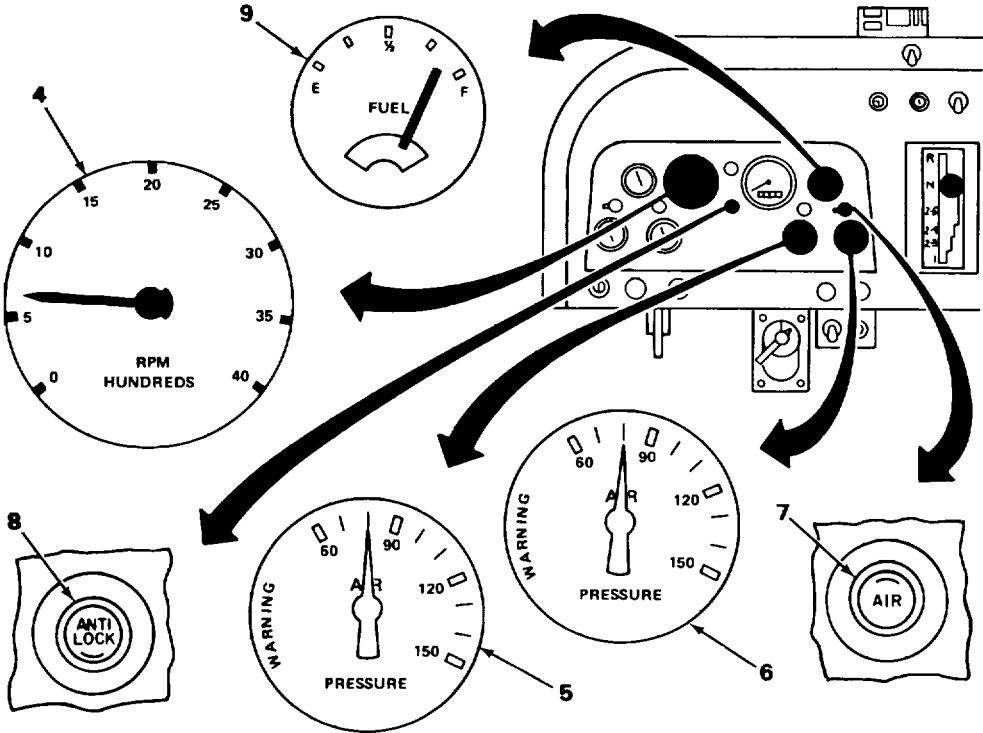
STARTING AND WARM-UP AT TEMPERATURES ABOVE 400F (4.60C) - CONTINUED

CAUTION

Do not put the M876 truck In motion until all systems are checked, found operational and are functioning normally.

- 13. Check the following Instrument panel gages and continue to allow engine to warm-up for at least 3-5 minutes.
 - a. Observe tachometer (4) and reduce engine speed to normal idle, 600-650 rpm.
 - b. Air pressure gage (5) and (6) should be indicating 80 psi (552 kPa), and low air pressure warning buzzer should be silent.
 - c. Low air pressure warning indicator light (7) should be out.
 - d. Brake system antilock warning indicator light (8) should be out.
 - e. Fuel gage (9) indicates fuel supply level in the tank as full.

- 14. If all systems are operational, functioning normally and all before (B) preventive maintenance checks and services (PMCS) were performed, the M876 truck is now ready to be put in motion.



STARTING AND WARM-UP AT TEMPERATURES BELOW 400 F (4.60 C)**NOTE**

The following procedures are basically the same as shown on pages 2-61 through 2-65.

1. Place transmission selector into NEUTRAL range. Apply the handbrake. Turn key switch to ON position, hold the fuel primer toggle in the ON position on the switch for 10-15 seconds and release the toggle. Push engine, stop control IN, and depress the accelerator pedal to the FULL THROTTLE position.

NOTE

The swirl destroyer device is not installed on vehicles having engine serial numbers above 45721. Proceed to step 3 if you do not have a swirl destroyer on your vehicle.

2. Pull swirl destroyer control (1) to OUT position.

CAUTION

Excessive use of ether-start can damage the engine. Do not exceed four repeat operations. If, after four repeat operations, the engine will not start, notify organizational maintenance.

3. Pull ether-start (2) out, hold for 1 to 2 seconds, then push it in to release the ether shot into the air intake manifold.

WARNING**CARBON MONOXIDE (EXHAUST) CAN KILL YOU**

Carbon monoxide is without color or smell, but can kill you. Breathing air with carbon monoxide produces symptoms of headache, dizziness, loss of muscular control, a sleepy feeling, and coma. Brain damage or death can result from heavy exposure. Carbon monoxide occurs in the exhaust fumes of internal combustion engines. Carbon monoxide can become dangerously concentrated under conditions of no air movement. Precautions must be followed to insure crew safety when the engine is operated for any purpose.

Change 1 2-66

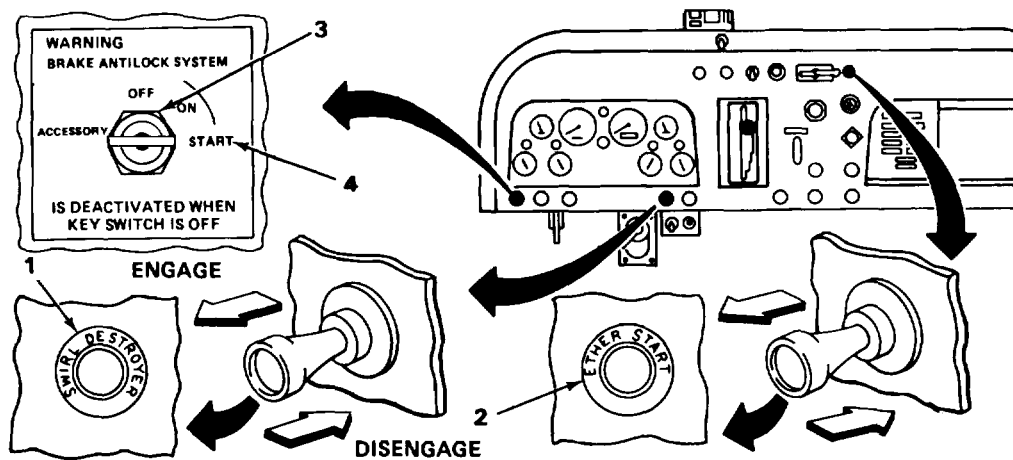
STARTING AND WARM-UP AT TEMPERATURES BELOW 400 F (4.60 C) - CONTINUED

WARNING - CONTINUED

- DO NOT operate engine of vehicle in a closed place unless the place has a lot of moving air.
- DO NOT idle engine for long periods without airing out vehicle cab.
- DO NOT drive vehicle with engine compartment hoods removed unless necessary for maintenance purposes.
- BE ALERT at all times during vehicle operation for exhaust odors and exposure symptoms. If either is present, IMMEDIATELY VENTILATE vehicle cab. If symptoms persist, remove affected crew to fresh air; keep warm; DO NOT PERMIT PHYSICAL EXERCISE; if necessary, give artificial respiration.

FOR ARTIFICIAL RESPIRATION, REFER TO FM 21-11.

- BE AWARE; the field protective mask for chemical-biological (CBR) protection will not protect you from carbon monoxide poisoning.
4. Turn key switch (3) to START position (4) and hold it down to engage the starter motor. Release the key switch the instant the engine starts.
 5. After 30 seconds, push the swirl destroyer control (1) in to the OFF position, if the engine starts running.



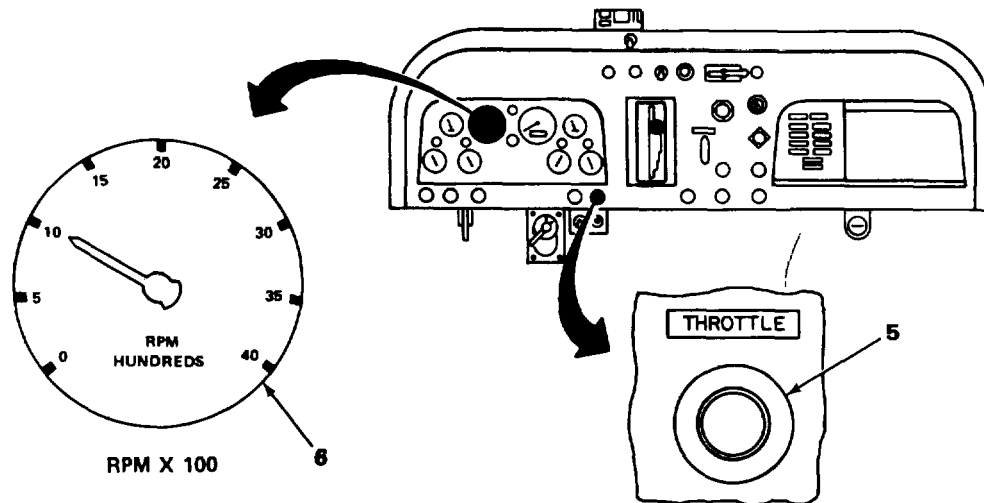
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STARTING AND WARM-UP TEMPERATURES BELOW 40°F (4.6°C) - CONTINUED**NOTE**

Under extreme cold conditions, below 0°F (-17.60C), it may be necessary to inject one or two small shots of ether-start to keep the engine running. Use the ether-start sparingly, and only if the engine falters.

6. Should the engine fail to start, repeat the starting procedures again. Pay attention to the above caution.
7. When the engine is running, check the instruments and indicators to see how they are registering. See pages 2-69 and 2-70. Pay attention to the cautions and notes.
8. In extreme cold conditions idle the engine at approximately 1000 rpm. Pull throttle control (5) out slowly until the tachometer pointer needle settles at number 10 on the scale, on tachometer (6). Do not use the accelerator pedal.
9. Allow the engine to warm-up for 3-5 minutes to allow all systems to reach operating temperatures and pressures before putting the vehicle in motion. See pages 261 through 2-67.

**DRIVING****RESPONSIBILITIES**

1. As the driver, your responsibility in keeping the M876 Telephone Maintenance Truck in safe operating condition and maintaining its mechanical efficiency, is dependent upon your skill and knowledge of vehicle care and operation.

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2. Remember that when driving the M876 Truck you are responsible for:
 - a. Safe operation of the vehicle and compliance with applicable federal, state, local, and host country laws/regulations.
 - b. Before, during, and after operation Inspection of your vehicle.
 - c. Care and cleaning of your vehicle and equipment at all times.
 - d. Safety and comfort of your passengers, Including Insuring that seat belts are fastened.
 - e. Security of your vehicle and equipment entrusted to you.
 - f. Exercise common sense.
 - g. Notifying your supervisor of any vehicle malfunctions, or required repairs which will keep the vehicle out of service.

UNNECESSARY IDLING

1. Do not idle the engine when parked, except when necessary to keep the engine warm in extreme cold weather, or when performing necessary maintenance checks.

CAUTION

Cab windows and fresh air vents will be open, to prevent dangerous accumulation of carbon monoxide fumes inside the vehicle while the engine is idling.

2. Never permit the engine to idle for long periods of time. In addition to wasting a lot of fuel, excess idling allows carbon formation and oil dilution to take place in the engine.
3. Do not exceed allowable speeds indicated on the vehicle instruction plate, if applicable, or operate at engine speeds low enough to cause engine to labor.

CHECKING GAGES

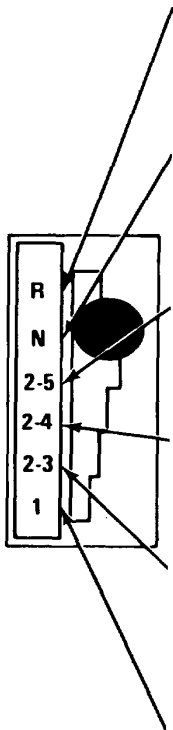
1. During operation services, as the driver, you must be continuously alert for any unusual noises, odors, abnormal Instrument readings, steering problems or any other evidence of vehicle malfunction while moving. Make sure you:
 - a. Watch your gages while driving.

DRIVING - CONTINUED**CHECKING GAGES - CONTINUED**

- b. Pay attention to warnings, cautions and notes that affect vehicle operation.

AUTOMATIC TRANSMISSION RANGE SELECTOR POSITIONS**WARNING**

Allowing your vehicle to coast in neutral is not recommended. This practice can cause severe damage to transmission. Use this for backing the vehicle. The vehicle should be completely stopped before shifting from a forward gear to reverse or from reverse to forward. The reverse warning signal is activated when the range selector is in this position. Reverse has only one gear.



Use this position when you start the engine. If the engine starts in any other position, the neutral start switch is malfunctioning. Neutral position is also used during stationary operation of the power takeoff (if your vehicle is equipped with a PTOL). Use neutral when the vehicle will be left unattended while the engine is running - apply the parking brake.

Use this for all normal driving conditions. The vehicle will start in 2nd gear, and as the accelerator is depressed, the transmission will upshift to 3rd gear, 4th gear, and 5th gear, automatically. As the vehicle slows down, the transmission will downshift, within the driving range, to the correct gear, automatically.

Occasionally, the road, load, or traffic conditions will make it desirable to restrict the automatic shifting to a lower range. When the conditions improve, return the range selector to the normal driving position.

Use this position for vehicle speed control and downhill braking. Transmission will start and stay in 2nd gear up to engine governed speed. Both 2nd and 3rd gears are available for engine braking since a 2-3 shift will occur above engine governed speed. Transmissions prior to S/N 13801 will provide a 2-3 upshift below engine governed speed.

This is the creeper gear - select this one for off-highway operation. Use the creeper for pulling through mud or snow. This gear provides the greatest tractive advantage. It is not recommended that full-power upshifts from 1 to 2-3 be made. Transmissions prior to S/N 19043, when matched with engines having governed speeds of 3400 rpm or higher, may automatically upshift from 1 to 2-3 before reaching governed speed.

DRIVING - CONTINUED

VEHICLE MASTER LIGHT SWITCH/CONTROL

The M876 Truck Vehicle master light switch/control has switch positions which control the vehicle lights.

1. For selection of lighting service required, depress button (1), and hold it down while moving control lever (2) to the desired position.
2. Service Drive - permits operation of only standard vehicle lights.
3. Park - permits operation of clearance and parking lights.
4. Stop-TRN - Permits operation of parking and taillights, when operating HAZARD light switch.
5. All OFF - Closes all electrical circuitry.

NIGHT DRIVING

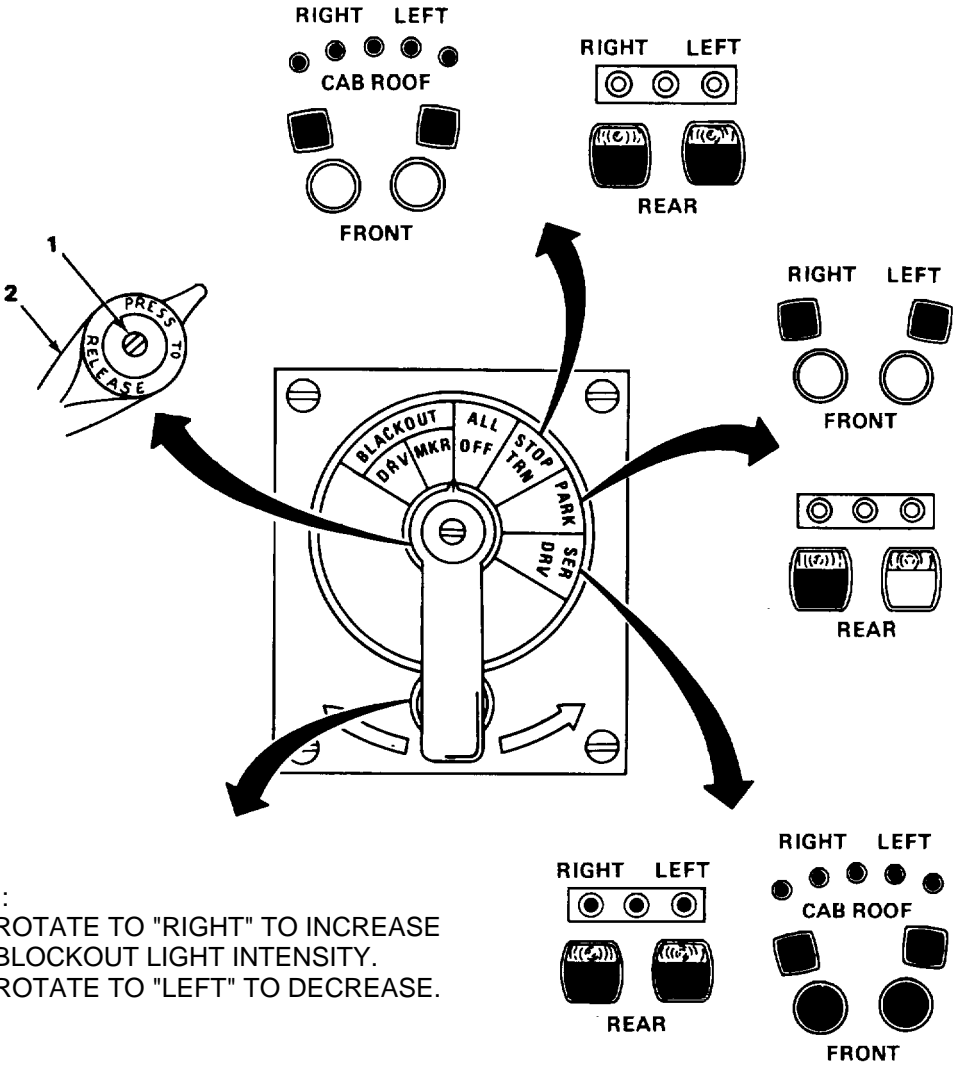
Darkness Increases dangers at night. At night, even with good headlights, a driver can only see not more than a few hundred feet ahead. See FM 21-305 for additional information.

1. Clean windshield is necessary more so at night than any other time, so keep your windshield and windows clean.
2. Never leave the headlights on when parking. Place your light switch control in PARK position.

NOTE

Emergency vehicles may leave the headlights on to illuminate the area, in an emergency.

DRIVING - CONTINUED



SWITCH:
 ROTATE TO "RIGHT" TO INCREASE
 BLOCKOUT LIGHT INTENSITY.
 ROTATE TO "LEFT" TO DECREASE.

NOTE:
 TO MOVE THE CONTROL LEVER,
 DEPRESS BUTTON (1), HOLD DOWN,
 AND MOVE LEVER (2) TO LIGHTING
 SERVICE DESIRED.
 SEE PAGE 2-11

DRIVING - CONTINUED

DRIVING HABITS

The following describes briefly the techniques of good driving. The instructions covering instruments, controls and indicators, starting the engine and transmission range selection have already been covered in the preceding paragraphs and sections. However, the following are things for you to review in your daily operations so you avoid slipping into bad, and perhaps dangerous habits. See FM 21-305 for additional driving information.

Driving Positions

1. Sit in an erect comfortable position. Adjust the seat, if necessary (see page 2-61), so you can reach and manipulate the vehicle controls, and have a clear view to the front of you.
 - a. Fasten the seat belts.
 - b. Adjust side rear view mirrors.
2. Before putting the vehicle in motion, carefully check traffic conditions, particularly the immediate front and rear of your vehicle, to insure no persons or objects are in the path of vehicle travel.

Steering the M676 Truck

1. Use both hands to steer the vehicle. Grip the steering wheel firmly, but not tightly.
2. Always round a corner or make any other turns at low speed, being ready for possible errors or unsafe maneuvers by other drivers or pedestrians.
3. Change lanes gradually. Do not turn sharply. Give a turn signal and look for traffic that may be coming up behind you.
4. Always maintain a safe distance from the vehicle in front of you to avoid having to swerve to avoid collision or accident.

Using Your Brakes

1. Always stop the M876 truck slowly and smoothly. Remove your foot from the accelerator pedal, use the brake pedal.

DRIVING - CONTINUED

Using Your Brakes - Continued

2. Stopping quickly from high speed may cause your vehicle to skid. If you must stop quickly, fully apply the brake pedal, releasing it, and reapplying your brakes, in a pumping action. Pumping the pedal gives the tires better traction as the vehicle slows down.
3. Always maintain a safe distance from the vehicle in front of you. A safe rule for following another vehicle is to allow 20 feet (6 meters) for each 10 miles per hour of speed you are traveling.

Speed

1. Watch your speed and observe posted speed limits.
 - a. Speed kills, so drive using common sense. In a moment of danger, while driving at high speed you have no control, nor any real time to think of how to avoid, evade, or stop your vehicle in the time necessary to prevent an accident.
 - b. The following factors can affect your stopping.
 - (1) Type and condition of the road surface.
 - (2) Ice, snow, rain, leaves, or mud on the road.
2. Existing conditions are constantly changing as you drive. One minute you are in a rolling country area, and next you're in a small roadside community. A few moments later you're passing through a school zone.
3. NOTHING is more important to safe driving than careful control of your speed. By doing so you are also conserving fuel and wear and tear of your vehicle.

Operate Your Vehicle Safely

1. Always signal your Intentions when you are going to make a turn, move from straight line of travel, or slow down. Use the vehicle controls.
2. Govern the overall operation of your vehicle by paying attention and doing what the road regulatory or warning signs are telling you.

DRIVING - CONTINUED**CITY DRIVING**

1. The transmission forward drive range selection for normal loads, grades and traffic conditions with an open road ahead should be the Drive 2-5 range.
2. However, when operating in heavy traffic conditions where restricted forward speeds would be more practical, then Drive 2-3 should be selected. In this range, the transmission will start in second gear and automatically shift into third gear.
3. Operating at reduced engine speeds conserves fuel and lowers the noise level of the vehicle. Further, you can stop the vehicle quicker at stoplights, stop street intersections and crosswalks, in heavily congested traffic areas.

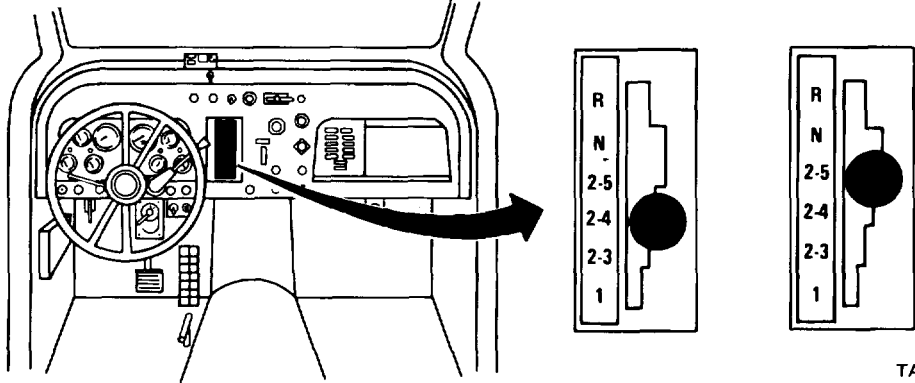
HIGHWAY DRIVING

1. The forward drive range selections for highway driving are dependent upon several conditional factors, and at best roadspeed you can best control the vehicle.
 - a. Road Conditions: Dry, wet, raining; Ice, snow.
 - b. Grades, hills: Normal; Moderate to steep; Steep and long stretch.
2. Drive 2-5 range should be selected when weather is dry, traffic and grades are normal. You can sustain highway speeds, slow down for towns and other posted areas, and have second, third, fourth and fifth forward drives by decreasing the engine speed and upshifting by increasing engine speed, as you pass through these restricted areas.

DRIVING - CONTINUED

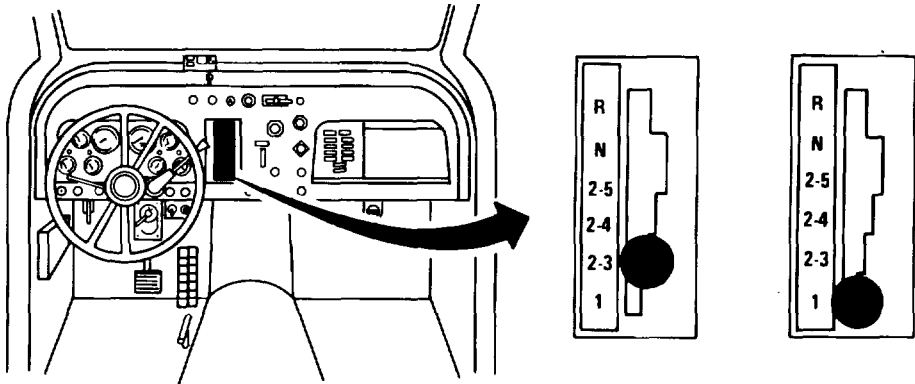
HIGHWAY DRIVING - CONTINUED

- 3. Drive 2-4 should be selected for moderate grades and over-the-road operations with restrictive speeds.



HILL DRIVING

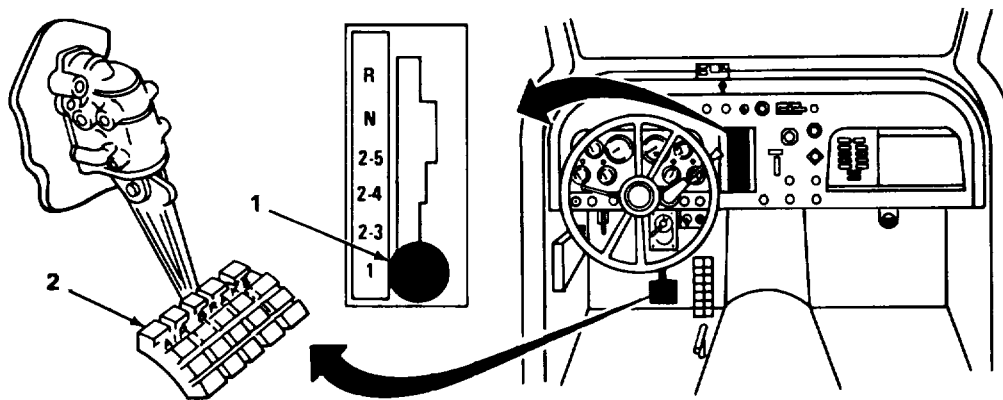
- 1. The use of the proper transmission drive range can minimize loading the engine when ascending long and steep grades.
- 2. Drive 2-3 range should be selected when you determine, as you approach the grade, that with accelerator fully depressed, as the truck moves onto and up the grade there will be enough power to maintain a satisfactory road speed, by remaining in that gear for the entire grade.
- 3. Drive 1 range should be selected when there is a need for a low-gear hold condition, such as ascending long steep grades, descending long steep grades where the need for engine braking is required, or for operation in rough or soft terrain.



DRIVING - CONTINUED**USING ENGINE BRAKING****CAUTION**

Do not allow the vehicle to roll freely downhill. Control downhill road speed with periodic application of the service brakes. Do not overheat brakes with long brake applications.

1. Just before starting descent move transmission range selector (1) into Drive 1 position. If you have not already done so, apply the service brakes (2) momentarily as you shift gears, to slow vehicle and transmission governor so the downshift can occur, and release the brakes.
2. Start your descent, do not accelerate, allow the vehicle to move slowly. The transmission will remain in first gear until you manually up-shift to a higher drive range. Apply service brakes as necessary to control vehicle road speed.
3. Upon reaching bottom grade, move range selector up into drive range permitted by road and traffic conditions.



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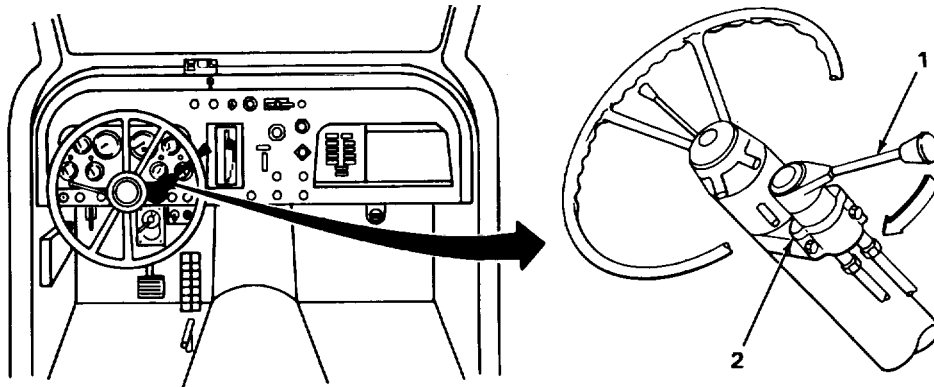
DRIVING - CONTINUED

USING TRAILER HANDBRAKE CONTROL

CAUTION

Do not apply handbrake control by pulling hard on control handle. Full and sudden on application can lock trailer brakes. The handbrake control valve should never be used to hold the brakes when the chassis is parked and unattended.

1. The trailer handbrake control valve has a finely graduated means of applying the trailer brakes to prevent trailer sway or jackknifing.
2. Operate control handle slowly to allow the brakes to apply smoothly.
3. The distance control handle (1), moved clockwise toward applied position (2), determines how hard the brakes will apply.
4. Be sure to move control handle (1) back to the OFF position when you have finished using it.

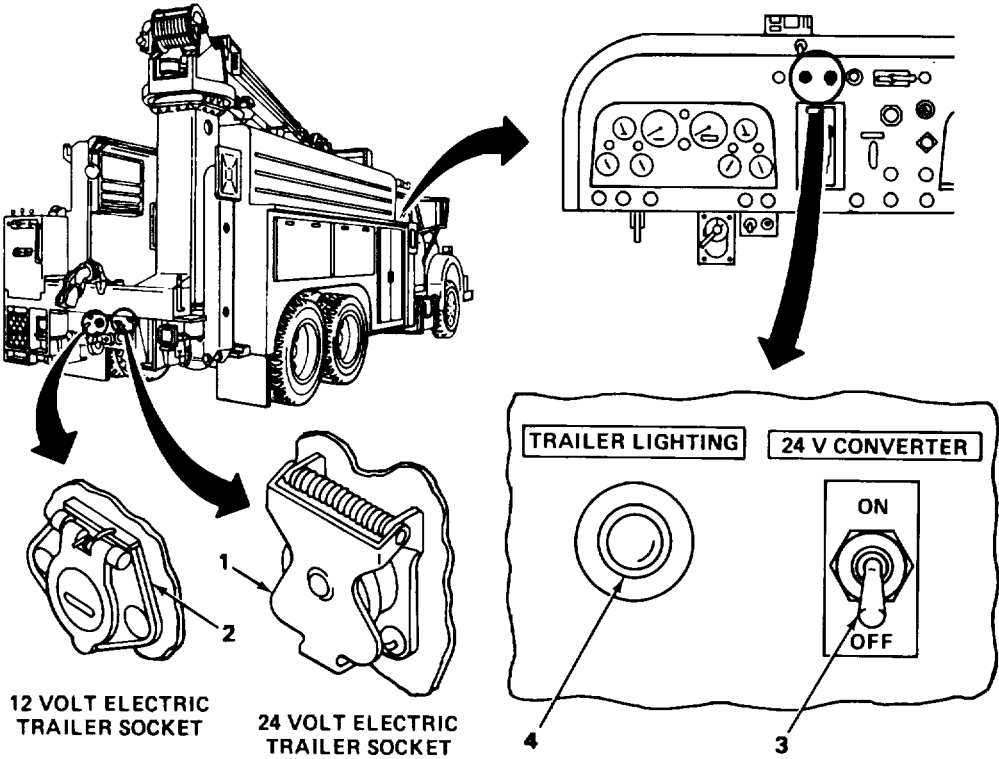


USING 12 VOLT AND 24 VOLT CONVERTER - CONTINUED

The inverter unit for the 12 volt and 24 volt converter system, mounted behind the operator's seat, is used to provide electrical power to a towed trailer configuration. Trailers having a 12 volt system are cabled into the 12 volt electric trailer socket (1), with no special switching required. Trailers having a 24 volt electrical system are enabled into the 24 volt electrical trailer socket (2) with power having to be applied by the M876 converter system.

How to operate the system

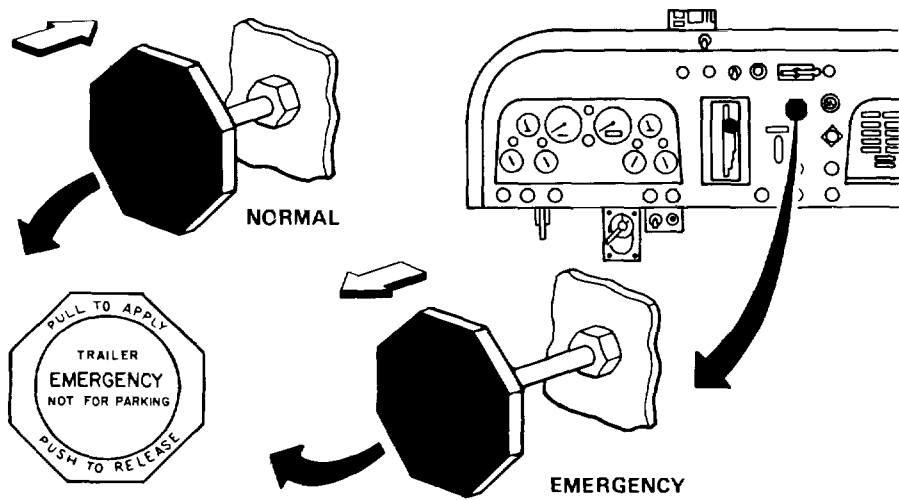
- 1. Make sure engine is running.
- 2. Move 24 V CONVERTER toggle switch (3) to ON.
- 3. TRAILER LIGHTING indicator (4) comes on showing that 24 volt power has been applied to the 24 v electric trailer socket (1).



USING TRAILER EMERGENCY CONTROL

The following information describes and shows you the location and operation of the emergency trailer (tractor) protection valve.

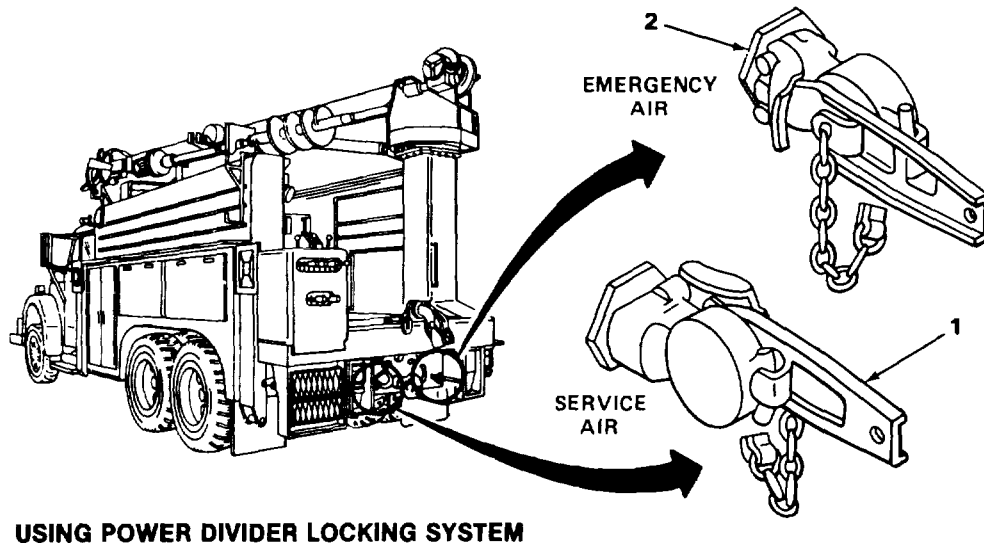
- 1. Inserted in the air service line leading to the trailer brake system is a tractor protection valve, that is operator controlled by a cap mounted two-way control valve that provides brake system protection for the towing vehicle by permitting closure of service and emergency lines leading to the trailer brake hose connections in the event of a trailer breakaway or other malfunction in the trailer air brake system. The two-way control valve, which is mounted on the cab instrument panel, may be placed in either of the two positions identified as NORMAL, (pushed in) and EMERGENCY (pulled out).
- 2. When the control valve lever is in the NORMAL position, service and emergency braking functions for the trailer are normal.



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USING TRAILER EMERGENCY CONTROL - CONTINUED

Should a condition resulting in severe air loss from the truck or trailer air brake system be detected, or for any other reason that should cause the operator to desire emergency application of the trailer brakes, he can pull the control to EMERGENCY position. This will cause both the trailer service (1) and emergency brake lines (2) to be closed off at the tractor protection valve. This can also be used as a means of checking operation of the trailer relay emergency valve operation. Should a condition resulting in air loss occur which is not detected by the operator (and the two-way control valve remains in the NORMAL position), the tractor protection valve will automatically close the air lines leading to the trailer and apply the trailer brakes by actuating the relay emergency valve on the trailer. This will occur when the system air pressure drops to about 30 to 40 psi (207 to 276 kPa).

**USING POWER DIVIDER LOCKING SYSTEM**

The forward rear axle is equipped with a power divider to drive the rear aft axle when additional traction is required. The power divider is used on sandy or soft muddy terrain, over rough terrain, and when fording, or pulling heavy loads.

NOTE

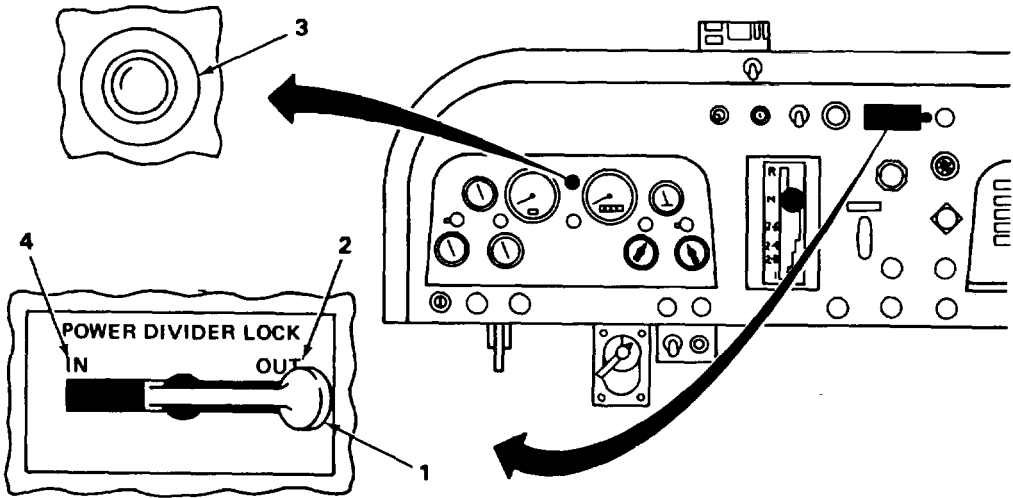
To prevent abnormal tire wear don't use the power divider unnecessarily.

Never move power divider control to lock IN position while rear wheels are slipping, to avoid damaging the axle.

Always place power divider control to lock IN position at low slow speed, to avoid damage to the axle.

USING POWER DIVIDER LOCKING SYSTEM - CONTINUED

- 1. Engage power divider locking system.
 - a. Slow M876 truck down to low slow speed.
 - b. Move control (1) to lock IN position (4).
 - c. Power divider indicator red warning light (3) will come ON to signal power divider is engaged.
- 2. Disengage power divider.
 - a. Slow M876 truck down to low slow speed.
 - b. Move control (1) to lock OUT position (2).
 - c. The power divider indicator red warning light (5) should go OUT to indicate power divider is disengaged.



AIR AND AIR BRAKE SYSTEM-M876 TRUCK

A basic knowledge and understanding of the compressed air, air brake system and components is important in the operation and maintenance of the M876 telephone utility maintenance truck. The following is a brief description of the brake system:

Type of Air Brake System

The brake system is a dual (split) air type with a primary and secondary supply system, designed to allow the operator to bring the truck to a safe stop if an air leak develops in either one of the systems. In addition, if air pressure is lost in the primary system, the spring (parking) brakes will automatically apply and bring the M876 truck to a gradual stop.

Alcohol Evaporator

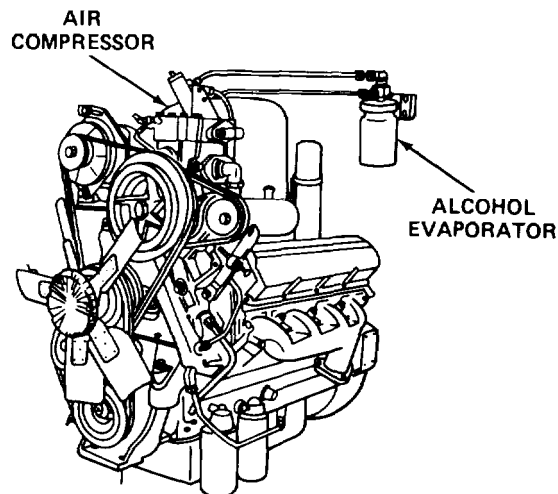
The alcohol evaporator is designed to permit vaporized alcohol to be drawn into the air brake system to overcome possible air system freeze-up while operating in subfreezing weather.

WARNING

Using only pure methanol alcohol when refilling the alcohol evaporator. Other types of alcohol and antifreeze solutions contain ingredients harmful and damaging to internal parts in the air system.

NOTE

The Installation of an alcohol evaporator does not eliminate the need for normal daily draining of all reservoirs.



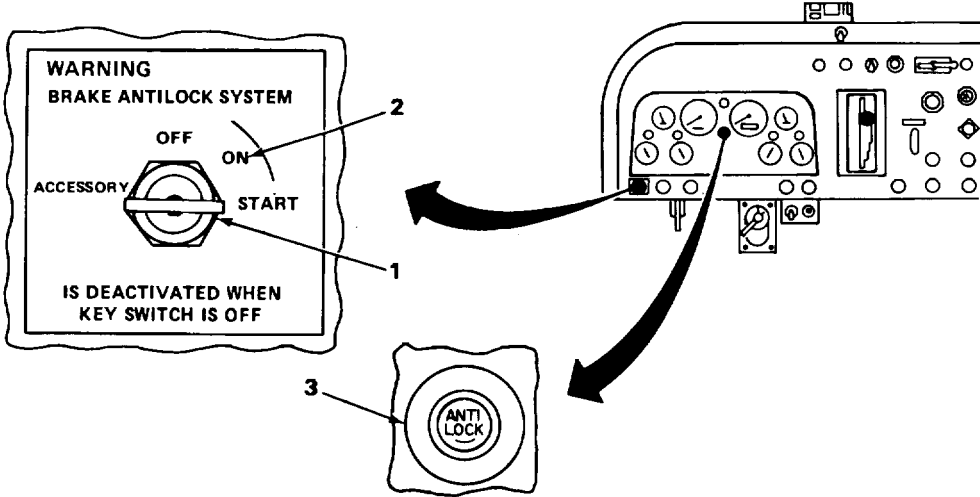
UNDERSTANDING THE FMVSS 12(1) BRAKE SYSTEM (ANTILOCK) OPERATION

The following describes the basic operation of the air (service) brake system used to stop the M876 truck.

CAUTION

When performing before (B) preventive checks and services, if the yellow warning light does not go out when the key switch is turned to ON position, do not operate the vehicle. Notify organizational maintenance.

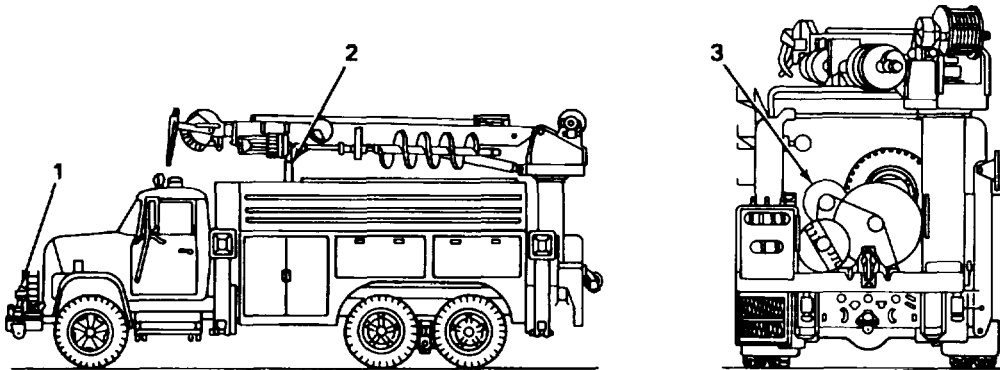
- 1. Operation at instrument panel:
 - a. When Ignition key switch (1) is turned to ON position (2) the bright yellow monitor warning light (3) should flash on for one half second, followed by light (3) going out. This indicates the antilock system circuitry is working satisfactorily.
 - b. If the yellow monitor warning light (3) remains on, a problem is indicated in the antilock system. Do not operate the vehicle. Notify organizational maintenance.
 - c. Should the yellow monitor warning light (3) come ON while driving, do not become alarmed. The air (service) brakes will continue to function as before but without the advantage of the antilock system. Notify organizational maintenance as soon as you return to your base.



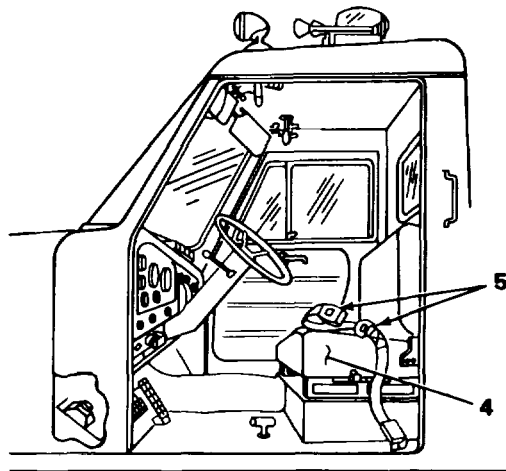
PUTTING THE M876 TRUCK IN MOTION

Before the M876 truck is moved, make sure all instruments, indicators, engine, and all other vehicle functioning sources have been safety checked, set and adjusted. If you cannot operate the vehicle you cannot perform the mission.

1. Check List - Before putting vehicle in motion be sure that:
 - a. All Before (B) PMCS were performed.
 - b. Front winch (1), equipment (2), and tools (3) are locked and stowed for travel. See pages 1-19 and 1-20.



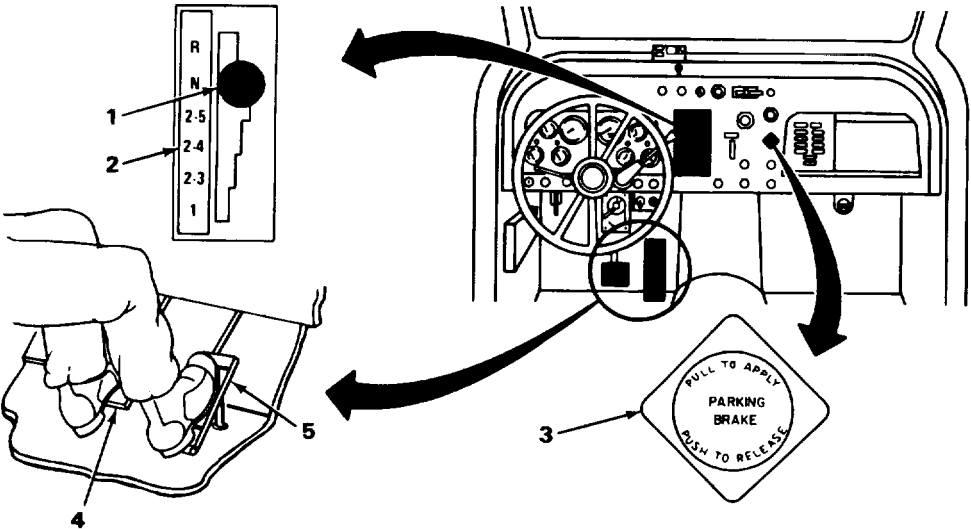
- c. You have adjusted your driver's seat (4) and secured seat belts (5).
- d. Start the engine and allow it to warm up. See pages 2-6(1) through 2-65.



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PUTTING THE M876 TRUCK IN MOTION - CONTINUED

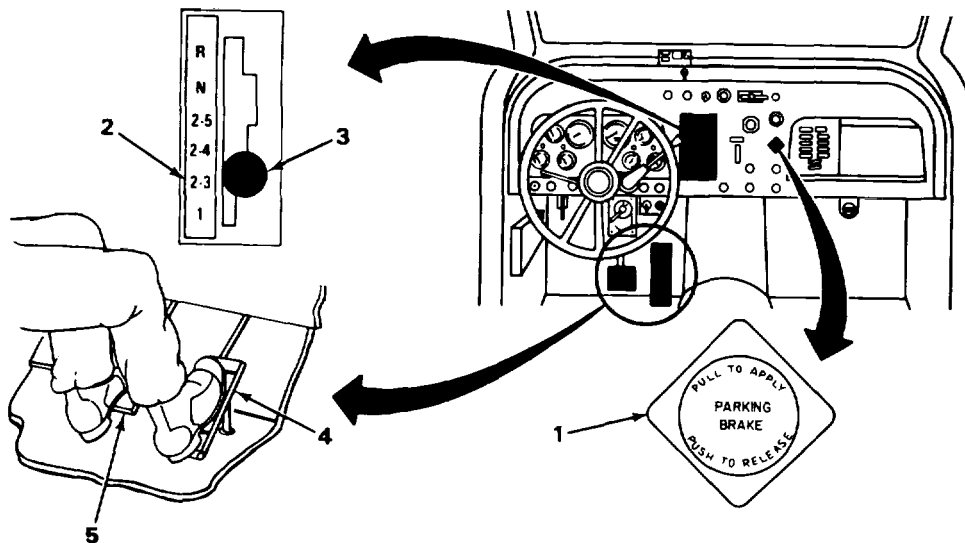
- 2. Putting the M876 truck into forward motion:
 - a. With engine started, and warmed up to normal operating temperatures. See pages 2-6(1) through 2-65 inclusive.
 - b. Place range selector (1) into 2-5 drive range (2).
 - c. Release parking brake (3), hold vehicle position with brake pedal (4), with your left foot, if possible.
 - d. Release brake pedal (4).
 - e. Depress accelerator pedal (5) gradually for a smooth start.



TA 222581

PUTTING THE M876 TRUCK IN MOTION - CONTINUED

3. Putting M876 truck in motion - heading upgrades;
 - a. Maintain M876 truck position with parking brake control (1).
 - b. Move transmission range selector (2) into 2-(3) drive range (3).
 - c. Depress accelerator pedal (4) increasing engine rpm to approximately 850-900 rpm.
 - d. Push parking brake control (1) in to release parking brake.
 - e. The M876 truck may tend to roll backwards, hold it in position by using your left foot to depress the brake pedal (5), and at the same time, gradually increase down pressure on accelerator pedal (4). As soon as forward motion of the truck is established release brake pedal (5) completely, and at the same time increase vehicle forward speed and motion.
 - f. Accelerate to maintain steady vehicle climbing speed upgrade.
 - g. You can select a transmission upshift drive range, suitable to road conditions or terrain.



TA 222582

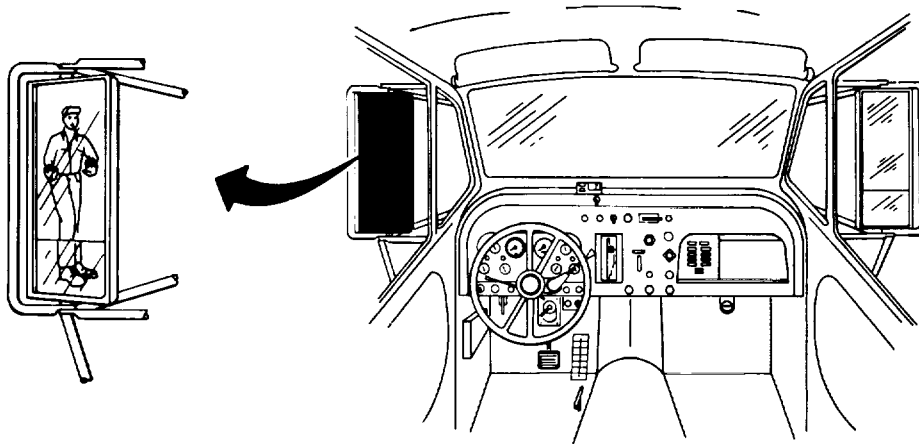
PUTTING THE M876 TRUCK IN MOTION - CONTINUED

4. Backing (Reversing) the M876 Truck.

Backing is somewhat difficult as your vehicle is harder to control. The following instructions are provided to make driving in reverse easier for you and that it be done safely.

a. Backing (reversing) instructions (level ground):

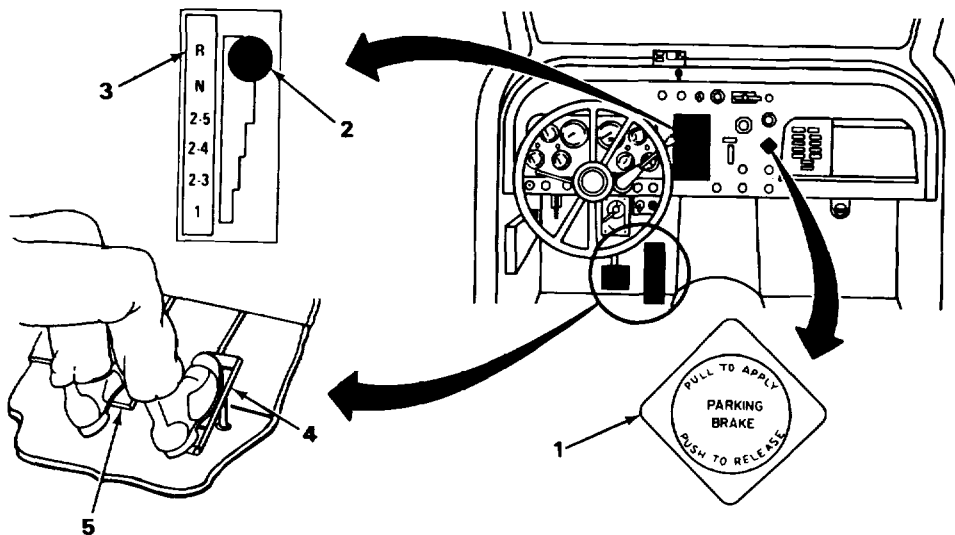
- (1) Never back long distances, unless absolutely necessary. It's much safer to cover the distance going forward.
- (2) Always use guides. Have your assistant help you.
- (3) Remind the guides to remain clear of the vehicle path, but visible to you in the rearview mirrors.
- (4) Always back slowly. Always be prepared to make a quick stop.
- (5) Keep looking back until you have stopped. If you should shift your eyes to the front you will be backing blindly, and you could miss your guide's stop signal.
- (6) Never open either door while vehicle is moving.
- (7) If no guides are available, get out of your vehicle and inspect the desired path of travel to make sure you have a clear path.
- (8) To turn when you are backing, turn steering wheel in same direction as you would going forward. To back right, turn wheel to the right. To back left, turn wheel to the left.



TA 222583

PUTTING THE M876 TRUCK IN MOTION - CONTINUED

- b. Backing (reversing) - M876 truck headed downgrade;
- (1) Maintain truck position with parking brake control (1).
 - (2) Move transmission range selector (2) into R - reverse drive range (3).
 - (3) Depress accelerator pedal (4) increasing engine speed (rpm) to approximately 850-900 rpm.
 - (4) Push parking brake control (1) in to release parking brake.
 - (5) The truck may tend to roll forward, hold it in position by applying the brake pedal (6) using your left foot.
 - (6) Depress accelerator pedal (4), at the same time decrease brake pedal (5) pressure.
 - (7) As soon as reverse motion of the truck is established, release brake pedal (5) completely.
 - (8) Back at low speed and observe the guide's signals, using your rear-view mirrors.



TA 222584

REVIEWING DRIVING GUIDELINES

After prolonged engine operation, or using the PTO, idle the engine from three to five minutes before shutting the engine down. This few minutes of idling allows the lubricating oil and coolant to carry heat away from the iron masses of the engine block.

The most practical engine rpm cruising speeds for highway operation is one that permits legal road speeds and fuel economy. The suggested cruising range for the M876 truck, on highway, is 1,800 - 1,900 rpm.

In the city and other reduced speed zones, match engine speed to the lower road requirements to conserve fuel and lower vehicle noise level. Select a drive gear range of not less than 1,500 rpm.

When downshifting for power on grades, wait for the transmission automatic shift points before making the down shift. If you can maintain a satisfactory engine speed on grades in the 2-5 drive range it is not necessary to down shift at all. See page 2-76.

Avoid overspeeding the engine beyond the 3,000 rpm, maximum governed speed, when rolling downgrade.

Never operate the engine at high rpm while in a low drive gear, when restricted by 20-25 mph (32-40 km/h) speed limits. This wastes fuel and creates unnecessary vehicle noise.

Avoid unnecessary prolonged engine idling. During long engine idling periods, the engine coolant temperatures will fall below NORMAL operating range. The incomplete combustion in a cold engine will cause crankcase dilution, formation of gummy deposits on valves, pistons, and rings and rapid accumulation of sludge in the engine.

Frequently check gages and indicators during normal driving operations. See pages 2-68 and 2-69.

Avoid oversteering. Become familiar with the steering characteristics of the M876 truck before attempting maneuvers in limited spaces.

DRIVE CAREFULLY! AT ALL TIMES!

STOPPING AND SHUTTING DOWN ENGINE

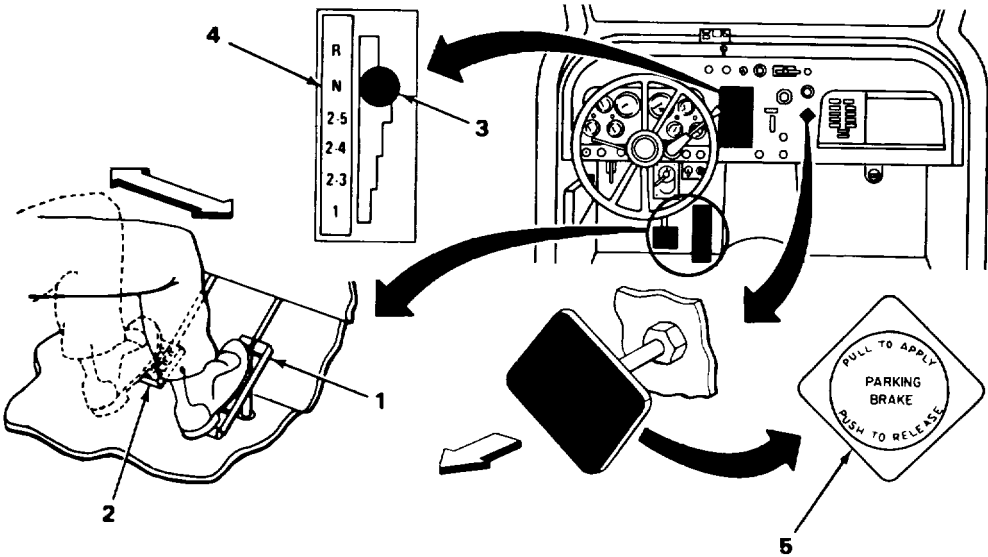
1. Stopping

CAUTION

Do not pump brake pedal to stop the M876 truck. This practice wastes air pressure, when you need it most.

Do not use the parking brake to stop the M876 truck. This practice could cause damage to truck.

- a. As you approach your parking spot lift-your foot from the accelerator pedal (1) to allow engine rpm reduction and transmission automatic down shifting help you slow the M876 truck.
- b. Apply service brakes with a hard and steady brake pedal (2) application, to bring the M876 truck to a smooth stop.
- c. When M876 is completely stopped, place transmission range selector (3) into neutral position (4).
- d. Apply parking brakes, pulling parking brake control (5) out.



TA 222585

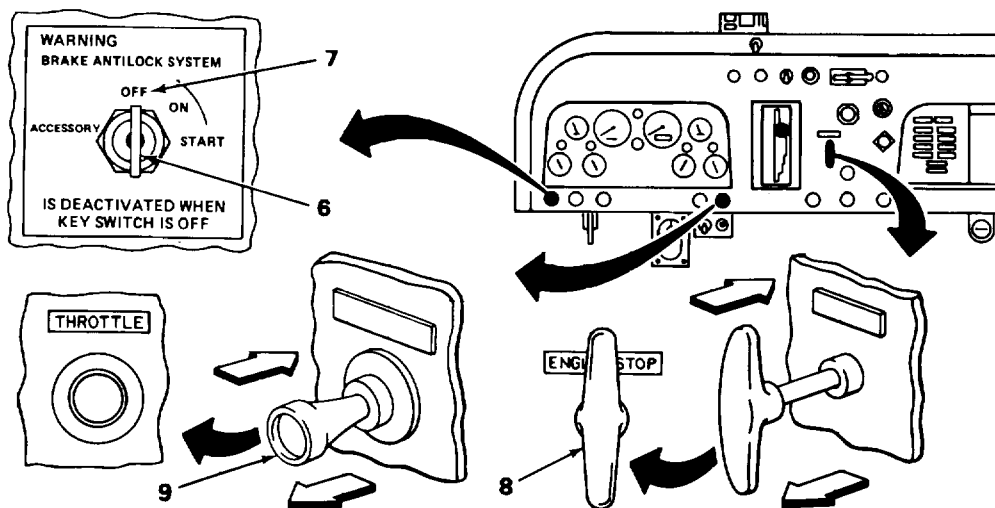
STOPPING AND SHUTTING DOWN ENGINE - CONTINUED

2. Shutting Down the Engine

NOTE

After prolonged engine operation, or using the PTO, idle the engine from three to five minutes before shutting the engine down. This few minutes of idling allows the lubricating oil and coolant to carry heat away from the engine block.

- a. Turn key switch (6) to OFF position (7).
- b. Pull engine stop control (8) out to stop engine.
- c. Make certain throttle control (9) is pushed in.

**PARKING****WARNING**

When parking the M876 truck do not leave transmission in gear: If truck rolls engine could start by heat from compression and cause injury to personnel, or damage to truck.

Do not park the M876 truck with engine running, and leave it unattended.

CAUTION

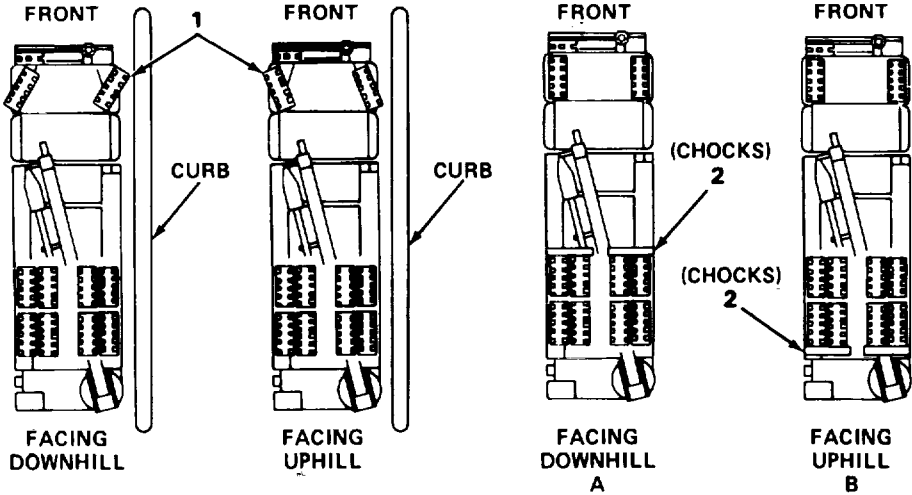
Always insure that the parking brake is applied before you leave the parked vehicle.

Do not apply service brakes while parking brake is on. Depressing brake pedal releases the parking brake momentarily.

TA 222586

PARKING - CONTINUED

- 1. Pull parallel to curb and stop the M876 truck.
- 2. If facing downhill, turn front wheels (1) hard right, facing into curb. If facing uphill, turn front wheels hard left, so rear of wheels (1) face into curb.
- 3. When parking on grades do not rely on parking brakes to hold vehicle. Block the rear wheel using your chock blocks (2), as shown in diagram (A) and (B).
- 4. Apply parking brakes, turn key switch OFF position, pull engine stop control out to stop engine, and place shift selector into NEUTRAL.



TA 222587

Section IV OPERATING THE DERRICK AND AUXILIARY EQUIPMENT

The information in the following pages contains the procedures used in operating the M876 truck derrick, its components, auxiliary equipment, attachments, starting and stopping the engine from the cab, at the operator's console and emergency power operation. Precautionary guidelines are given for setting and operating the M876 truck mission equipment controls. Make sure you know these guidelines, as well as the operating procedures, so you will be able to respond to different situations.

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the Derrick Leg 2-120	Removing the Basket(2)
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WARNING

HIGH VOLTAGE

DEATH ON CONTACT

May result if personnel fail to observe

Safety precautions

High voltage or low voltage overhead power lines are dangerous. Use extreme care when working on telephone, and or utility poles. Power supply must be shut off, if possible, or move power lines to provide a wide, safe and clear work area when the M876 truck is operated with the derrick in raised and vertical position. Death to the derrick operator can occur if top of derrick makes contact with live overhead power lines.

OPERATING THE FRONT WINCH

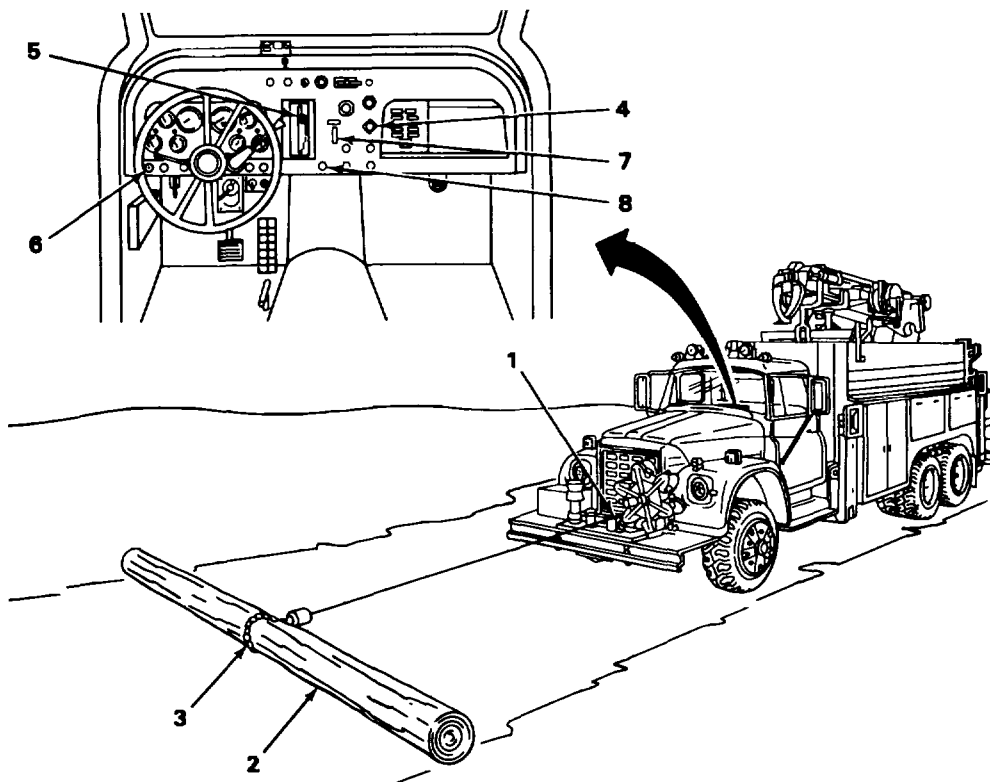
Positioning the Truck

NOTE

An M876 truck equipped with a front mounted winch must be positioned so winch is in a direct line to object to be pulled.

Never try to pull more than the weight of the M876 truck.

1. Driver positions the M876 truck to align the winch (1) for a direct line pull of object (2).
2. Assistant wraps chain (3) around object (2).
3. Driver stops the M876 truck, applies parking brake (4), places shift range selector (5) in neutral position, turns key-switch (6) to OFF position, pulls engine stop control (7) Out, to shut down engine and makes certain the throttle control (8) is pushed in.



TA 222588

OPERATING THE FRONT WINCH - CONTINUED

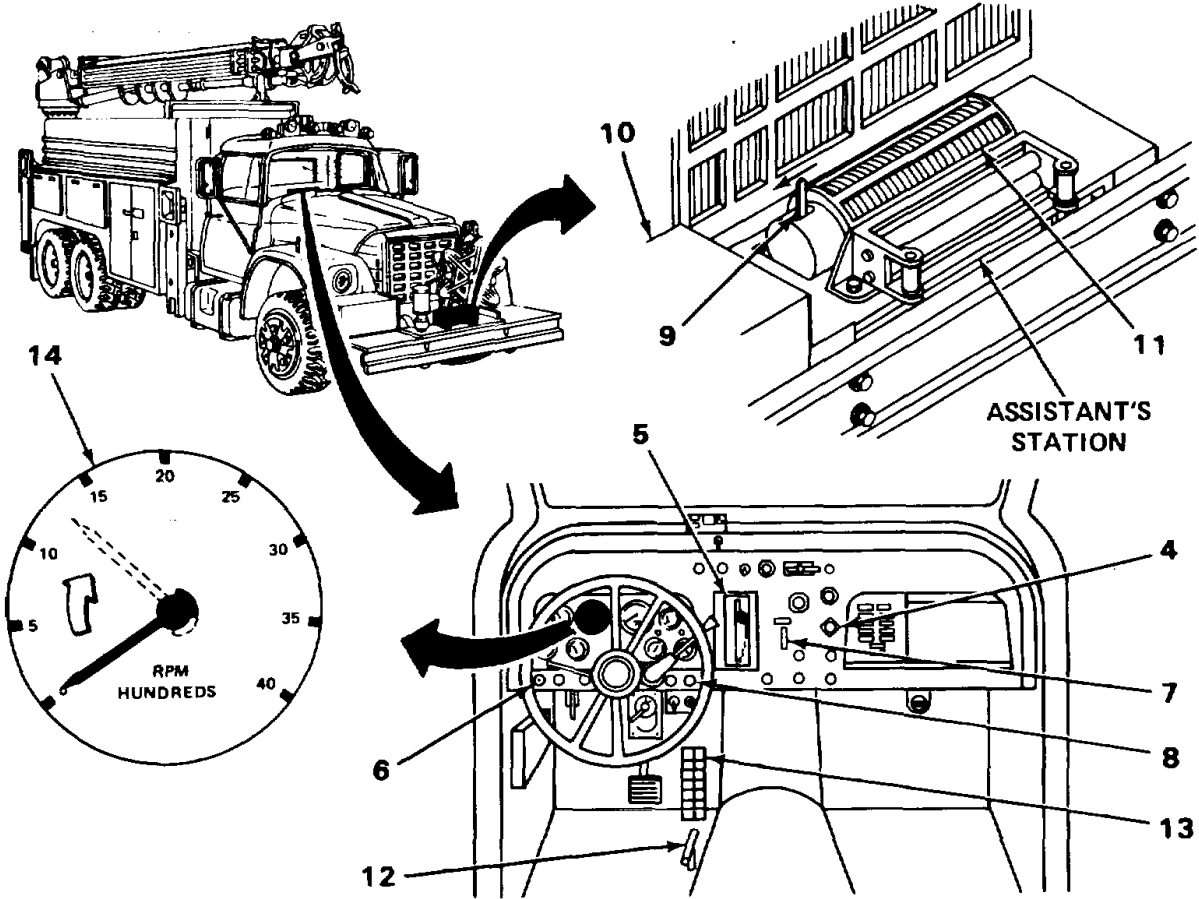
Restarting Engine and Preparing Winch for Operation

- 1. Assistant moves winch clutch lever (9) toward battery box (10) to engage winch drum (11).

CAUTION

Do not engage PTO when engine is running. Serious damage to transmission can occur.

- 2. Driver engages PTO by pulling up control (12) and re-starts engine;
 - a. Pushes engine stop control (7) in.
 - b. Range selector (5) is still in N position.
 - c. Parking brake (4) is still ON (pulled out).
 - d. Depresses accelerator pedal (13).
 - e. Turns key switch (6) to START position, releasing key switch and accelerator pedal, instant engine starts.
- 3. Increase engine rpm to 1200 rpm using hand throttle (8) and tachometer (14).



OPERATING THE FRONT WINCH - CONTINUED

Winching the Load

WARNING

Always wear heavy leather gloves when handling winch wire cables. Never let cable run through your hands; frayed cables can cut you. Never operate a winch with less than four turns of cable on the drum. Keep cable coils tight and close together on drum while winching.

Keep personnel not involved in winching away from winch cables and payload. A snapped cable or shifting load can cause serious injury or death. Stop winching immediately if shifting payload presents a hazard or if any parts fail. Notify organizational maintenance if hazard exists, or parts fail.

Stand at least 5 feet from winch while guiding cable on drum, to prevent hands and clothing from being snagged and pulled into the winch drum.

CAUTION

Always use hand throttle control to control engine speed when operating winch. Avoid sudden changes in engine speed or high speed. Winch directional control instructions are located on dash panel.

1. Assistant removes cable hook (1) from winch (2) and signals driver that he is ready to pull cable (3) to object to be pulled.
2. Driver slowly pushes hydraulic winch control (4) down to PAYOUT position (5) and allows winch drum (6) to slowly rotate and pay out cable (3).
3. Assistant inserts cable hook (1) into chain ring (7), and signals driver to reverse winch (2) and pull load.

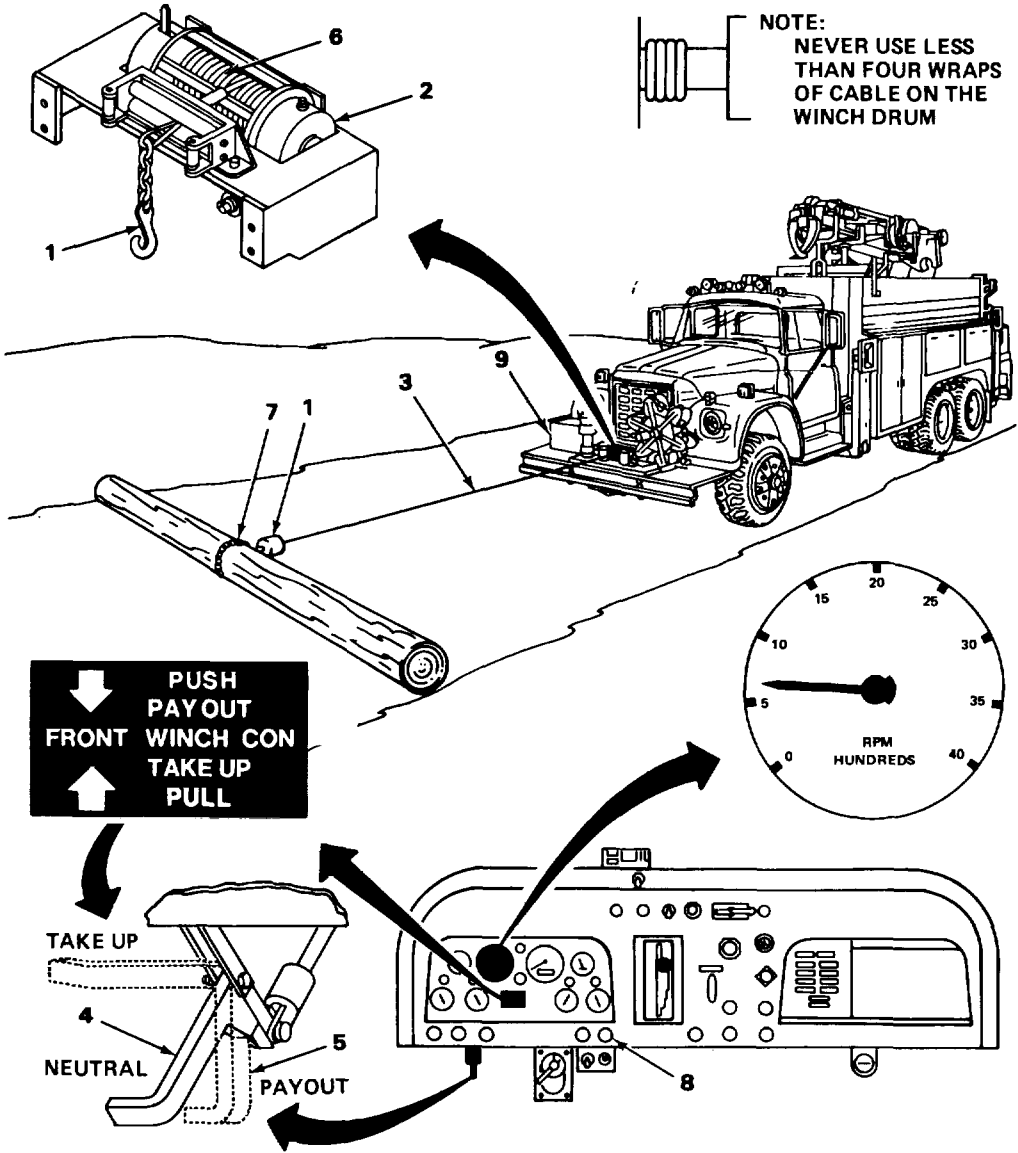
NOTE

If it is found that 1200 rpm engine is too fast for pulling the load, reduce engine speed to a drum speed needed, using hand throttle and tachometer.

4. Driver slowly raises the hydraulic winch control (4) upward to TAKE UP position and slowly moves load. Set hand throttle (8) for smooth operation.

OPERATING THE FRONT WINCH - CONTINUED

- 5. When load is moved into position or to stop winch, move hydraulic winch control (4) to CENTER or NEUTRAL position. Winch drum (6) should brake automatically.
- 6. Assistant removes cable hook (1) from load and secures cable hook (1) to winch (2).
- 7. Assistant moves winch control (3) away from battery box (9) to disengage winch drum (6).



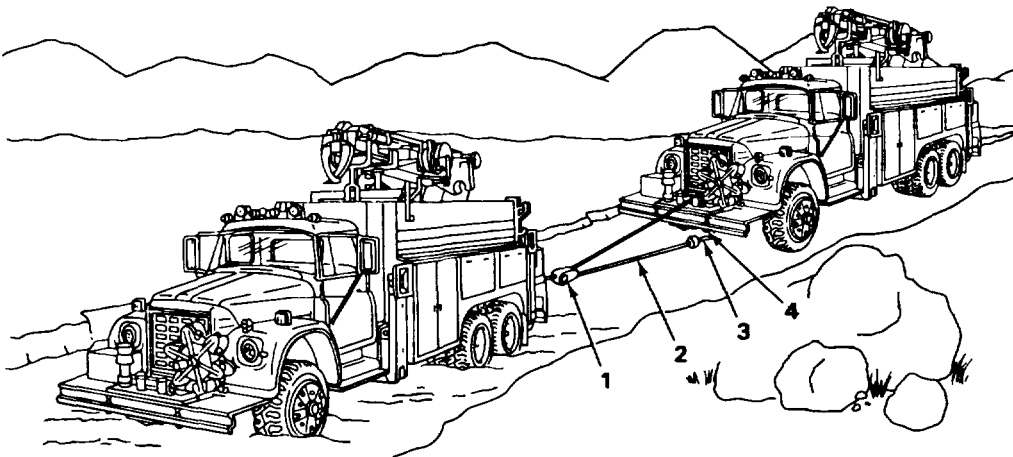
OPERATING THE FRONT WINCH - CONTINUED

Winching Heavy Loads

NOTE

The M876 truck's brakes will hold under load only as much as winch shear pin will hold. Always use a snatch block for very heavy loads. Never anchor truck to tree or other object. Serious injury to personnel may result.

1. For very heavy loads always use a snatch block (1) attached to object to be pulled.
2. Attach winch cable (2) through snatch block (1), and fasten hook end (3) to truck's front towing eye (4).
3. Operate winch at slow engine speed.

**NOTE**

The above method could be used for vehicle self-recovery by attaching a chain or sling around a solid stationary object, such as a tree.

TA 222591

OPERATING THE BODY WINCH

You must know and be familiar with the rear body winch, its operation, the use and operation of major winch components and auxiliary accessory equipment, in order to operate it safely. This information and operating instructions are provided in this paragraph.

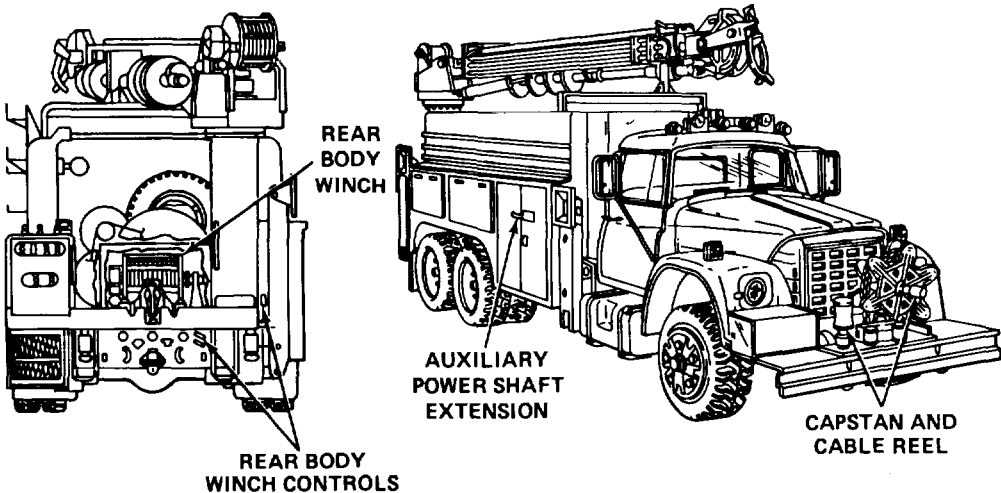
Rear Body Winch

Model	Braden AMU-6-15
Power	Hydraulic
Rating	15000 lbs (675.kg)
Cable	1/(2)inch diameter, wire

The rear body winch is mounted in the front end of the construction maintenance body, behind the vehicle cab and is operated and controlled from the rear of the truck body.

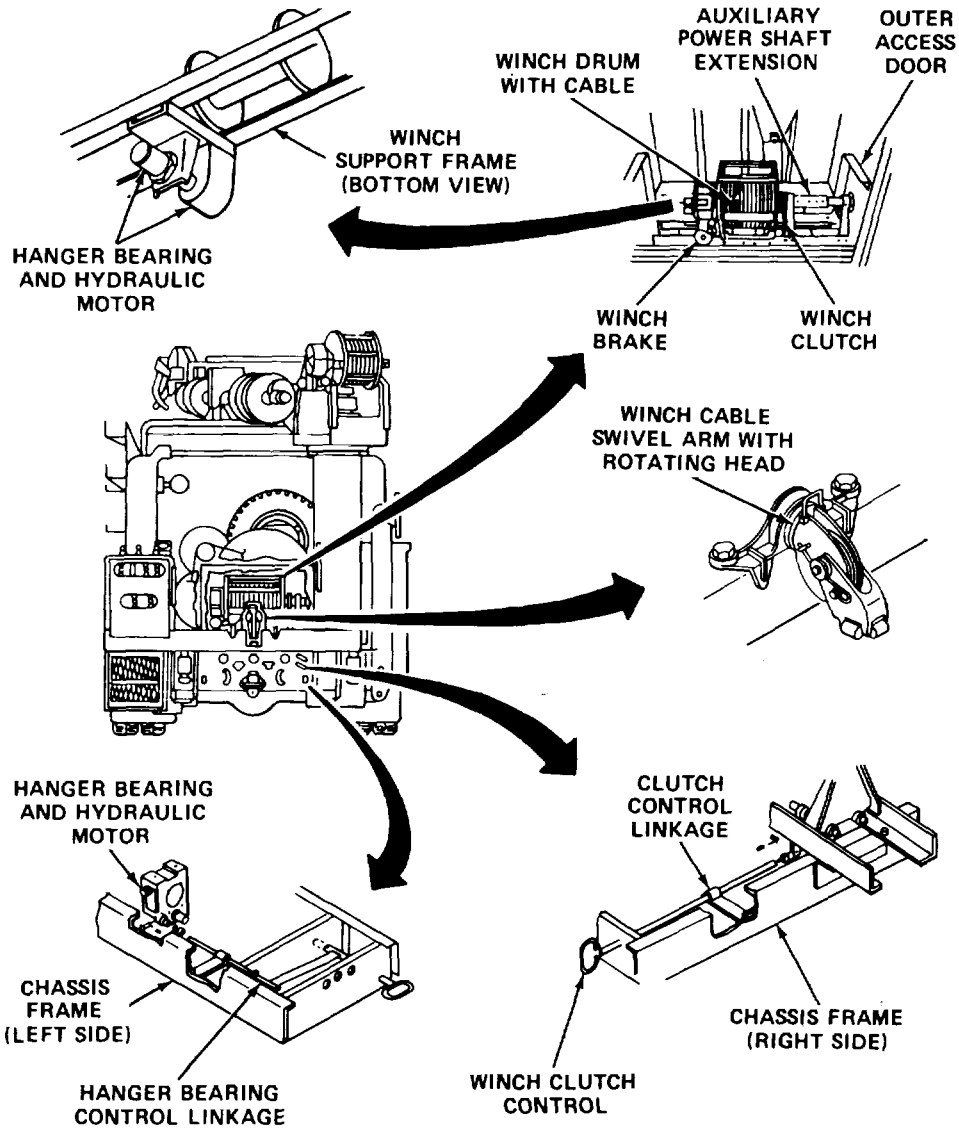
Accessory Equipment

The rear body winch is provided with an auxiliary power shaft extension on which a horizontal capstan or collapsible cable reel can be mounted during utility, telephone or construction work. The capstan and wire reel are stowed on the front of the M876 truck. The operation and use of the auxiliary power shaft extension and accessory equipment is explained further along in this manual.



OPERATING THE BODY WINCH - CONTINUED

These illustrations show the location of the winch components and controls described below. The function of each item is described in the operating Instructions.



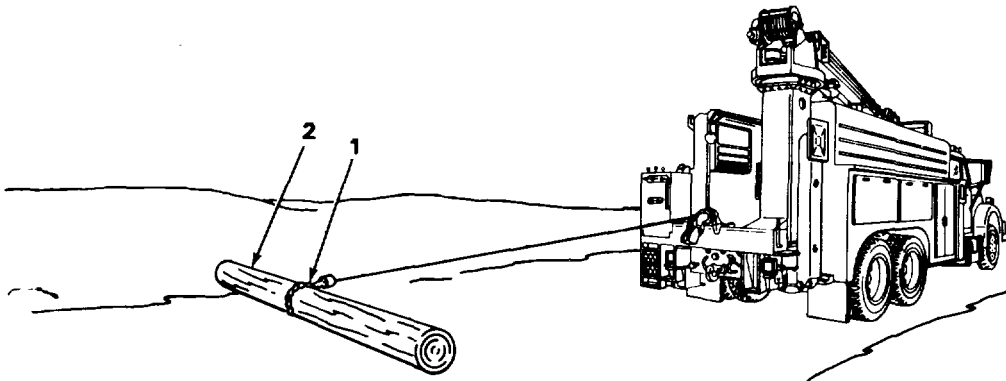
OPERATING THE BODY WINCH - CONTINUED**NOTE**

The truck must be positioned so the body winch is aligned in direct line to object being pulled whenever possible, particularly when winch is not equipped with a level wind device. See FM 20-2(2) Vehicle Recovery Operations for additional information.

Never try to pull more than the weight of the truck.

The body-mounted winch cab controls and indicators are the same as the front-mounted winch, with exception of the dash-mounted front winch hydraulic control. The operating controls for the body-mounted winch are located at the right rear of the truck frame.

1. Positioning the M876 truck for backup recovery.
 - a. Driver positions the truck to align the rear body winch for as direct a pull as possible, assisted with directional signals from assistant, at the rear of the truck.
 - b. Driver stops and shuts engine down, in preparation for engaging the PTO. Refer to preceding page paragraph a, or page 2-90.
 - c. Assistant rigs chain (1) on object to be pulled (2).



TA 222594

OPERATING THE BODY WINCH - CONTINUED

Restarting Engine and Preparing Winch for Operation.

CAUTION

Do not engage the PTO with engine running. Serious damage to transmission can occur.

1. Driver engages PTO by pulling up control (1) and re-starts engine,
 - a. Pushes engine stop control (2) In.
 - b. Range selector (3) is still in IN position (4).
 - c. Parking brake (5) is still ON (pulled out).
 - d. Depresses accelerator pedal (6).
 - e. Turns key switch (7) to extreme right to start engine, and releases key switch and accelerator pedal instant engine starts.

CAUTION

Always use hand throttle to control engine when operating winch. Avoid sudden changes in engine speed or high speed.

- f. Increases engine rpm, using hand throttle (8) and tachometer (9) to 1200 rpm.
2. Driver leaves cab and goes to rear winch control position at right rear of truck.

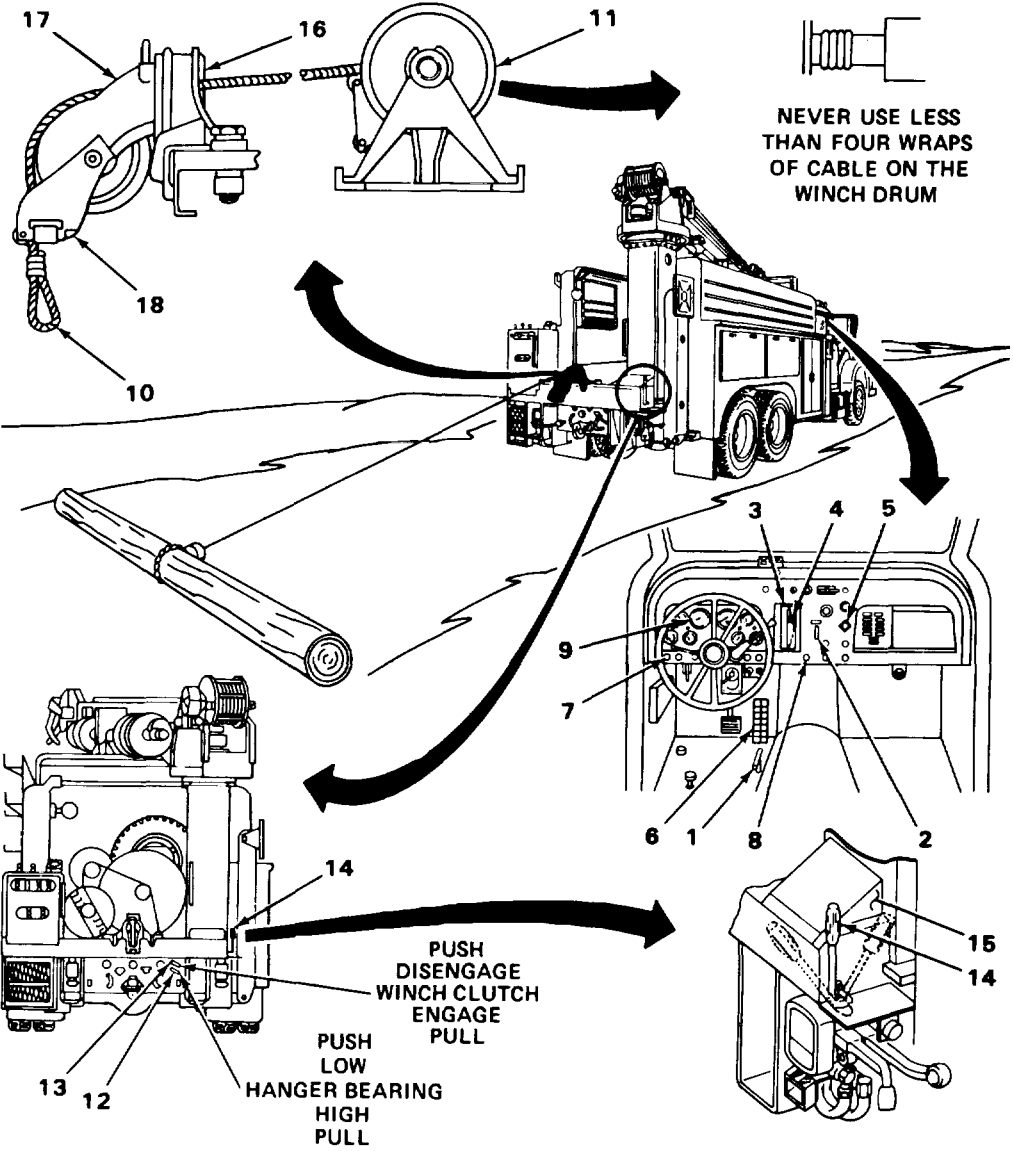
WARNING

Always wear heavy leather gloves when handling winch wire cables. Never let cable run through your hands; frayed cables can cut you. Never operate a winch with less than four turns of cable on the drum. Keep cable coils tight and close together on drum while winching.

3. Assistant, already at the winch, removes the cable end (10) from drum (11).
4. Driver pushes hanger bearing control (12) IN for low winch speed operation, and pulls winch clutch control (13) OUT, engaging drum.
5. Driver then moves body winch control lever (14) to PAYOUT position (15).

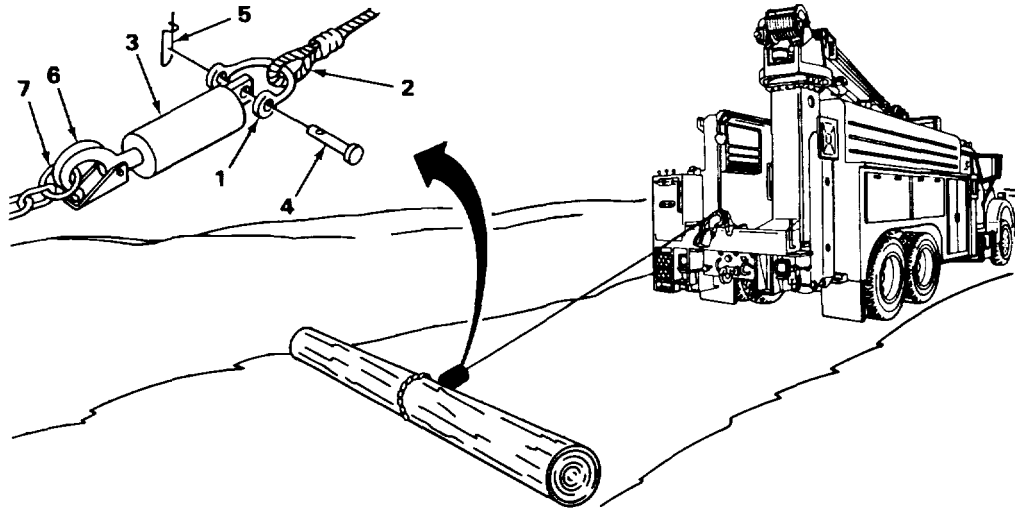
OPERATING THE BODY WINCH - CONTINUED

- 6. Assistant passes cable end (10) through swivel arm eye (16) over sheave wheel (17), and down through guide rollers (18) out the bottom of swivel arm.
- 7. Driver pays out cable (10), as needed, and assistant pulls it to object to be pulled.



OPERATING THE BODY WINCH - CONTINUED

8. Assistant installs shackle (1) through cable end (2), then secures it to the swivel jaw hook (3) with clevis pin (4) and lock pin (5), and inserts the hook end (6) of swivel jaw hook (3) into chain ring (7).



Winching the Load

WARNING

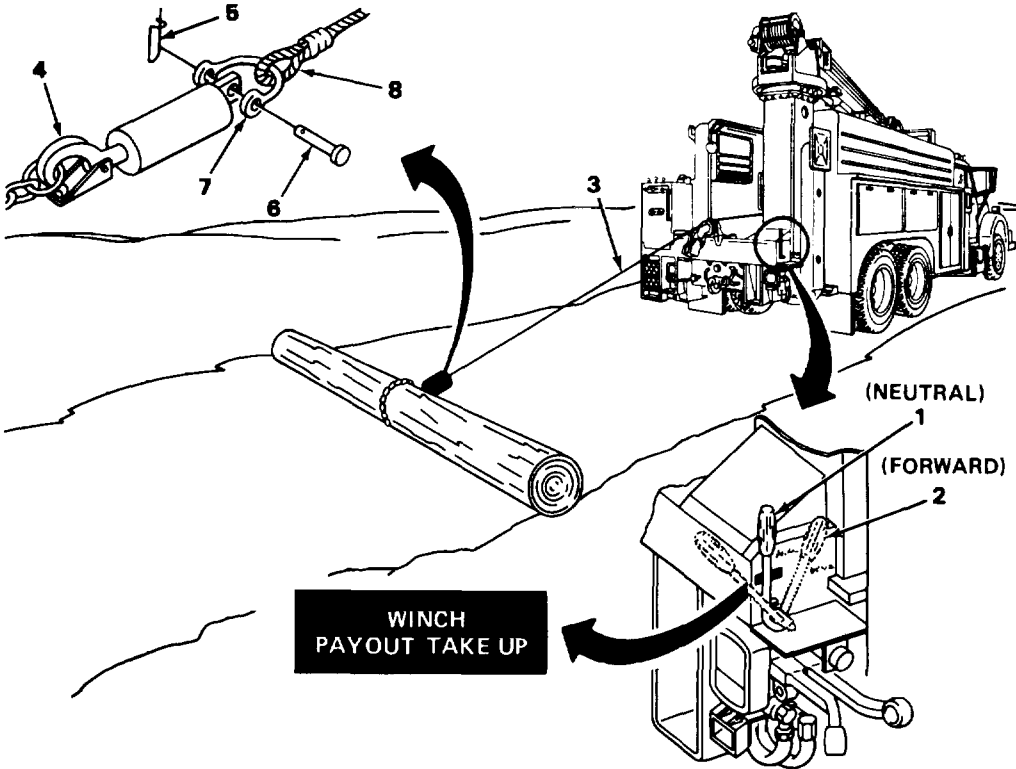
Keep personnel not involved in winching away from winch cables and payload. A snapped cable or shifting load can cause serious injury or death. Stop winching immediately if shifting payload presents a hazard or if any parts fail. Notify organizational maintenance if hazard exists, or parts fail.

Stand at least 5 feet from winch while guiding cable on drum, to prevent hands and clothing from being snagged and pulled into the winch drum.

TA 222596

OPERATING THE BODY WINCH - CONTINUED

- 1. Driver moves the load by pushing the winch control lever (1) FORWARD to the "TAKE UP" position (2).
- 2. Assistant at the winch makes sure cable (3) coils are tight and together on the winch drum.
- 3. When load is moved into position or to stop the winch, move winch control lever (1) to center Neutral position. Winch drum should brake automatically.
- 4. Assistant removes the swivel jaw hook (4) from load, unsnaps lock pin (5), removes clevis pin (6) and shackle (7) from cable end (8), assembles the shackle (7) into swivel jaw hook (4) and stows the swivel hook assembly.



TA 222597

OPERATION-BODY WINCH ATTACHMENTS**NOTE**

The body winch has two attachment/adapters. They are capstan and rope winder. They connect to the right side of the body winch extension shaft, which extends to the inside of the right front stowage compartment. A sliding cover provides access to the shaft end for installation of the capstan or rope winder.

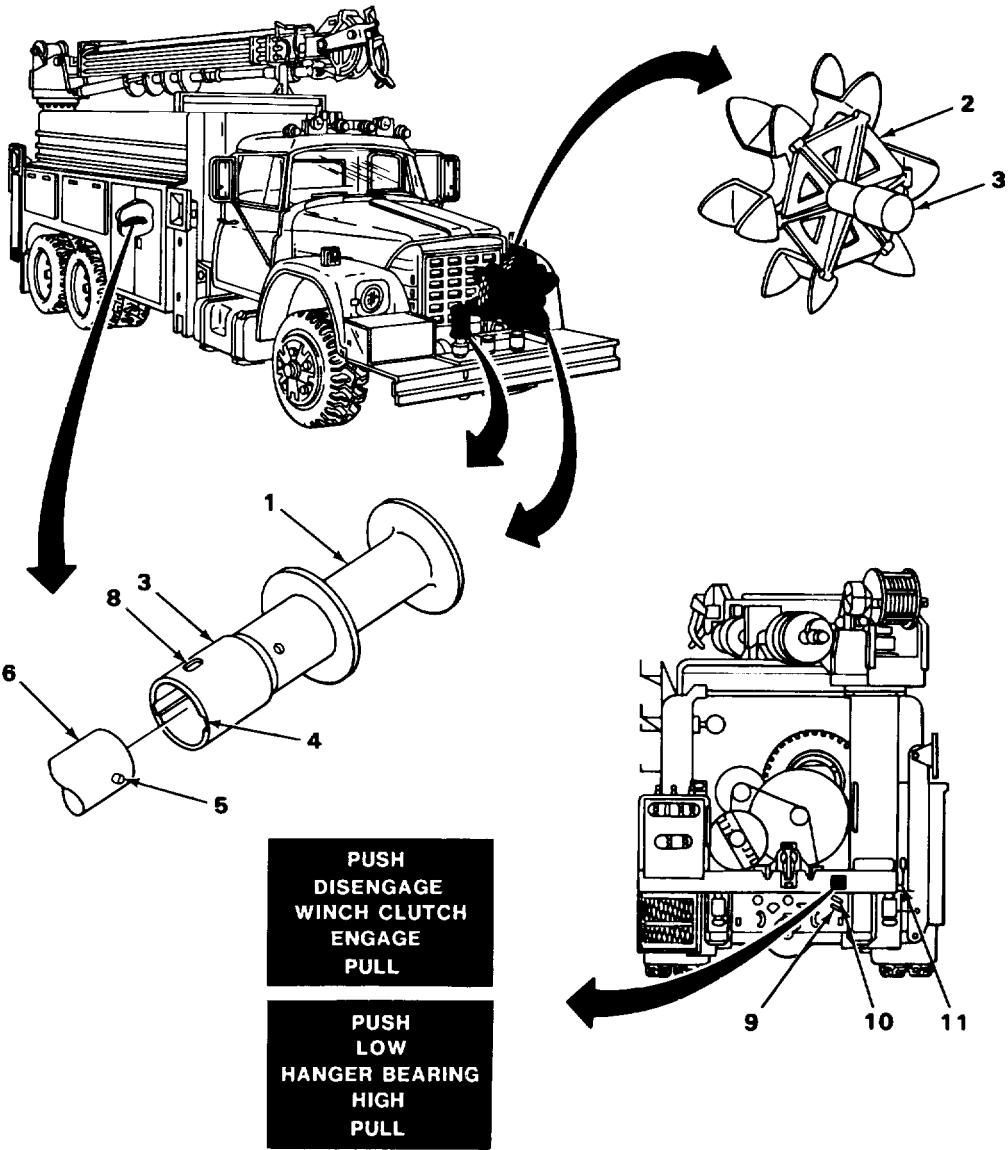
Installing and Operating the Capstan and/or Rope Winder

NOTE

To operate the capstan or rope winder attachment adapter perform the same procedures, "Restarting Engine and Preparing Winch for Operation", steps (1) and 2, page 2-95. Then follow the procedures below. Pay attention to warnings, cautions and notes.

1. Remove capstan (1) or rope winder (2) from stowage position on front bumper. Have assistant help you.
2. Position the adapter end (3) so the slotted grooves (4) are aligned to pins (5) on end of winch shaft extension (6), at the access door (7) of the front stowage compartment door.
3. Slide adapter end (3) in, over pins (5) as far as it will go, then give it a twisting motion to the left and pull it back towards you. Pin ends (5) should be visible in holes (8) on adapter end (3). The attachment is now locked onto extension shaft (6).
4. At the rear of the truck, push HANGER BEARING CONTROLS (9) in for low speed.
5. Push winch clutch control (10) in and disengage winch drum.
6. By moving winch control handle (11) to PAYOUT (Reverse), or TAKEUP(Forward) for direction you want capstan (1) or rope winder (2) to operate.

OPERATION-BODY WINCH ATTACHMENTS - CONTINUED



TA 222598

SAFETY NOTES-POSITIVE AND NEGATIVE DERRICK OPERATION

Potential safety hazards exist largely due to the human element. The following listed positive and negative safety notes must be followed during every workday condition when operating the M876 truck.

Your greatest assets on-the-job are care, caution and common sense.

POSITIVE SAFETY NOTES

- DO ...Think of Safety.
- ...Position your M876 truck on solid, level ground, as close as possible to the work area.
 - ...Lower all four outriggers whenever you use the derrick.
 - ...Make sure everyone is clear of outriggers when you lower them.
 - ...Warm up the hydraulic system In cold weather. Engage the PTO and allow the hydraulic pump to run for five minutes, at low speed.
 - ...Be aware of any overhead obstructions before you raise the derrick.
 - ...Frequently, check the winch and auger windup cables. A frayed or weak line could cause someone to be hurt.
 - ...Make sure everyone is clear before you release the auger lock.
 - ...Avoid jerking, or any sudden moves of the control levers, that causes the equipment to jerk. Operate your control levers smoothly and gradually.
 - ...Keep the hydraulic system clean and full.
 - ...Fasten your safety belt onto the loop on the basket when you're in it.
 - ...Keep the derrick leg and extensions clear of the traffic lanes to avoid being hit by passing vehicles.
 - ...Face the direction in which you are moving. Be on the 'lookout' for unforeseen hazards.
 - ...Wear a hard hat, and follow the safety rules.

SAFETY NOTES-POSITIVE AND NEGATIVE DERRICK OPERATION - CONTINUED

NEGATIVE SAFETY NOTES

- DON'T
- ... Exceed the derrick load capacities.
 - ... Boom down a load. Use your winch line.
 - ... Touch or step onto the M876 truck while the derrick leg is around HOT LINES; the truck could be HOT.
 - ... Get near HOT LINES with the derrick or any of the auxiliary equipment. If you must get near them, you should be standing on the operator's platform, or in a work basket.
 - ... Use winch for side pulls.
 - ... Let the auger pull the derrick leg along down. Lower the derrick with the auger.
 - ... Work over the downhill side if you have to position the M876 truck on a slope.
 - ... Pull poles with the derrick leg. Use the pole puller.
 - ... Ride on the derrick leg unless you are in the basket.
 - ... Move the truck unless the derrick and auxiliary equipment is properly stowed.
 - ... Drive the truck with the PTO engaged.
 - ... Put loose tools in the basket; use a tool tray.
 - ... Stand or sit on top of work basket.
 - ... Use a ladder in the work basket.
 - ... Try to get out of the basket when it's in the air.
 - ... Operate the derrick in winds over 30 mph.
 - ... Use graphite or any other conductive type lube on the Spirex boom extension.

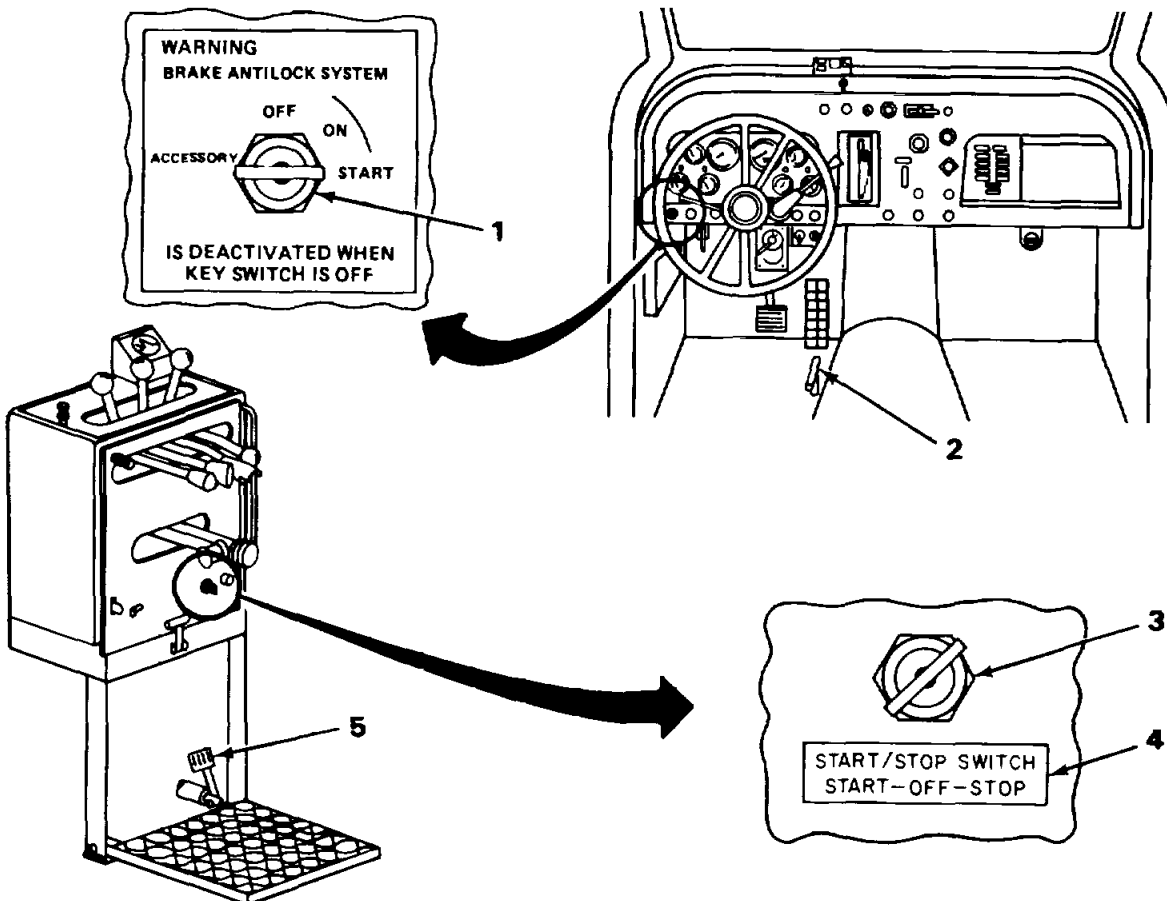
STARTING AND STOPPING THE ENGINE FROM THE CONSOLE

Starting the Engine

NOTE

The cab controls, i.e., key switch and PTO, must be in the same position as when starting the engine from the cab.

1. At the cab-engine stopped.
 - a. Turn key switch (1) to ON position.
 - b. Pull PTO control (2) UP to engage.
2. At the operator's console.
 - a. Turn start-stop switch (3) counterclockwise to START position (4), and start the engine. Release the start switch instant engine starts.
 - b. Use throttle pedal control (5) to increase engine speed, as required.
 - c. Observe tachometer (6) which registers the engine speed, as you depress the throttle pedal control (5).



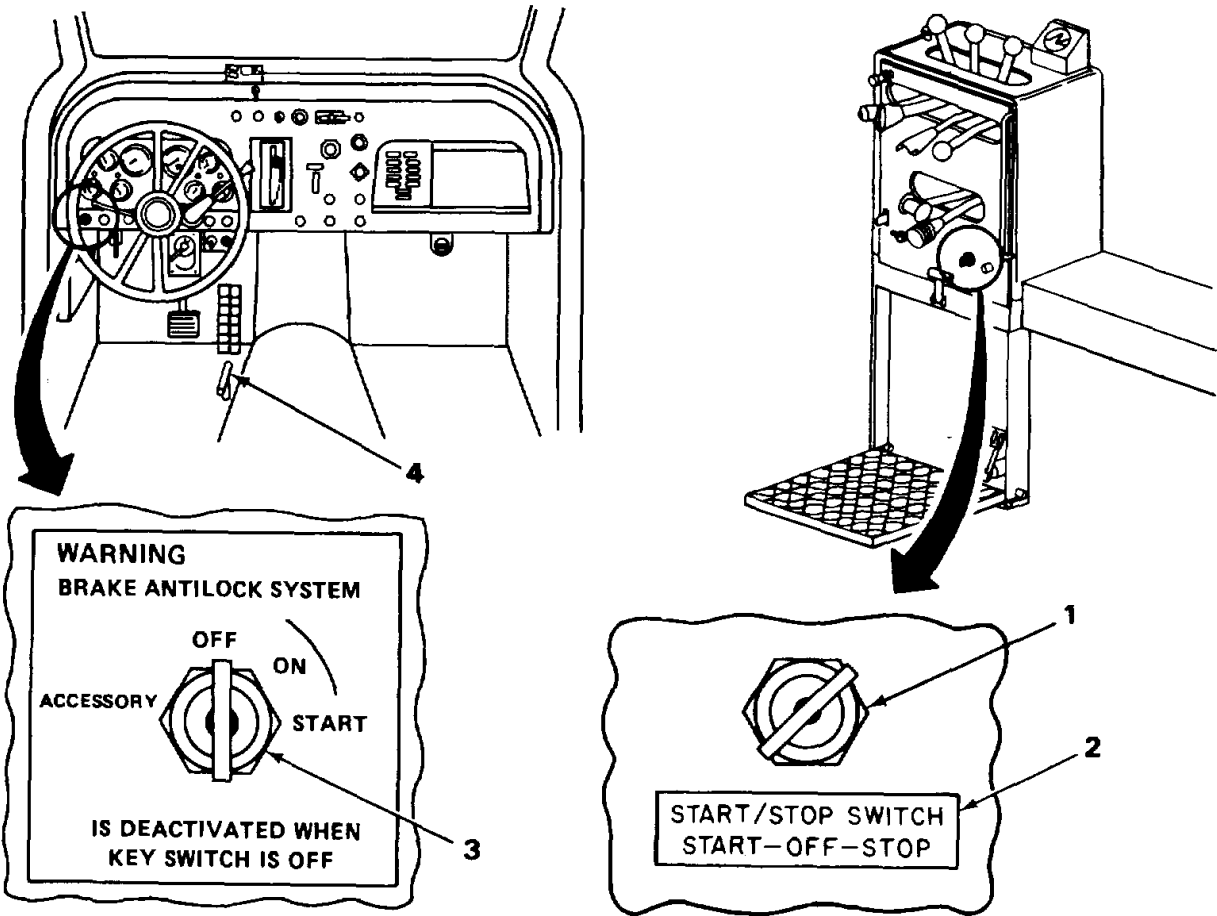
STARTING AND STOPPING THE ENGINE FROM THE CONSOLE - CONTINUED

Stopping the Engine

NOTE

There is no need to use the engine stop control in the cab when shutting down the engine at console. The start-stop switch is equipped with an engine kill kit attached, which stops the engine when the switch is turned to STOP.

1. To stop the engine, turn start-stop switch (1) to STOP position (2) at console.
2. Proceed to the cab and turn key switch (3) to OFF position, if engine is not going to be used again for several hours. This also conserves the battery.
3. Disengage the PTO (4) only if the derrick, or any auxiliary attachment will not be used and only when the engine is in idle.



USING EMERGENCY POWER

NOTE

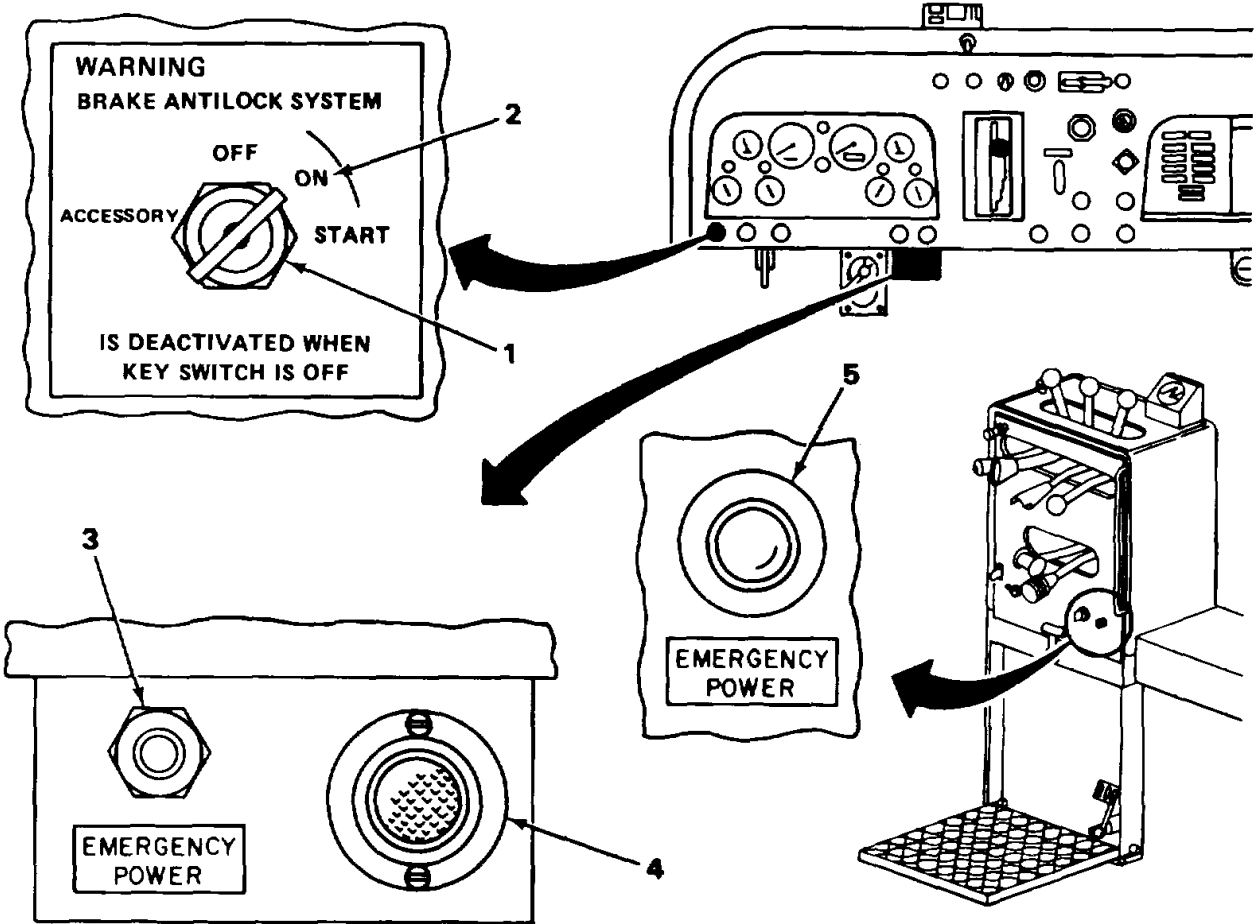
The emergency power system should only be used to bring the derrick leg down. Put it in stowed position, and raise the outriggers in the event engine stalls and will not re-start.

Setting the Cab Controls

- 1. Turn key switch (1) to ON position (2).
- 2. Pull emergency power switch (3) OUT. Indicator light (4) will come ON.

Operating the Derrick Controls

- 1. Push emergency button (5) and hold it in.
- 2. While holding button (5) in, operate the necessary derrick controls to bring it down and place into stowed position.



USING EMERGENCY POWER - CONTINUED

Operating the Outrigger Controls, Right Side

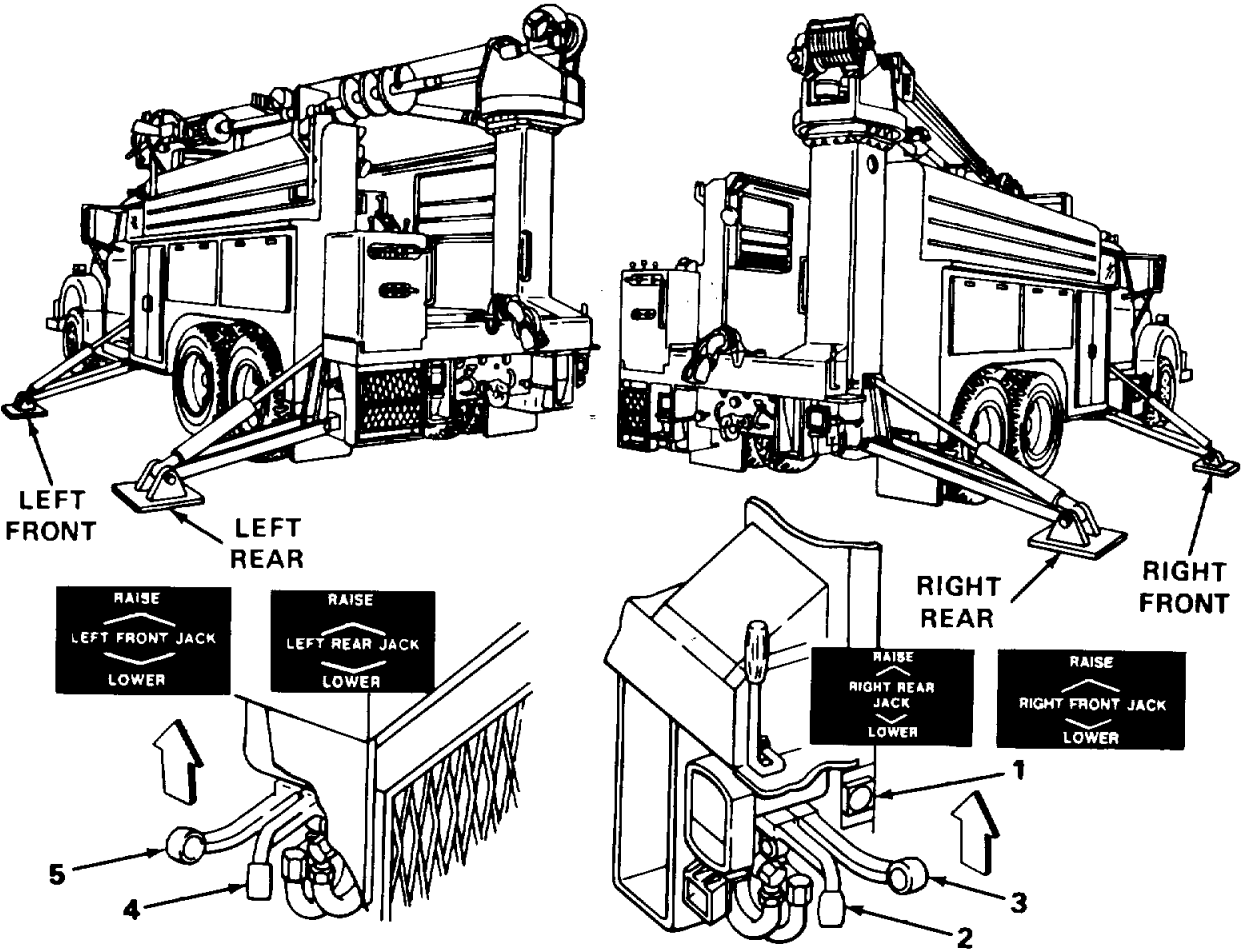
- 1. Push emergency button (1) and hold it in.
- 2. Raise right front and right rear outriggers using controls (2) and (3).

Operating the Outrigger Controls, Left Side

- 3. Have assistant help you by having him hold the emergency button (1) in, while you operate the controls (4) and (5) to raise the left side outriggers.

NOTE

Check for reason engine stalled, using the troubleshooting procedures in this manual. If you cannot re-start truck, notify organizational maintenance.



PLACING DERRICK INTO OPERATION

The information on the following pages contains Instructions common to all operations of the derrick and its auxiliary equipment. Make sure you know the location of each control on the truck and console, its purpose and its function. Safety cannot be over-emphasized when operating the M876 truck.

Placing the Derrick Into Operation

CAUTION

To avoid damage to the starter motor, do not run starter motor longer than 30 seconds.

Do not turn the key switch again until the starter motor and the engine have completely stopped.

Release the key switch immediately the instant the engine starts running.

NOTE

Should engine fail to start, see instructions for starting engine below 40°F (4.6°C), page 2-66.

If, after not more than four repeated starting operations, the engine fails to start, check for reasons for engine start failure by using the troubleshooting procedures in this manual, or notify organizational maintenance.

Make sure the truck is positioned on solid, level ground, as close as possible to the work area.

1. With engine not running, engage the PTO and then start engine, either from the cab, or at the console. See page 2-110.
2. Inside the cab set engine speed to 1200 rpm.
3. Check all engine gages as you warm up the engine and hydraulic system.

Lowering the Outriggers (Jacks)

CAUTION

Don't allow dirt to become embedded in the outrigger pads. This could prevent the outrigger pads from seating properly. Failure to seat outriggers firmly will cause derrick controls not to operate.

PLACING DERRICK INTO OPERATION - CONTINUED

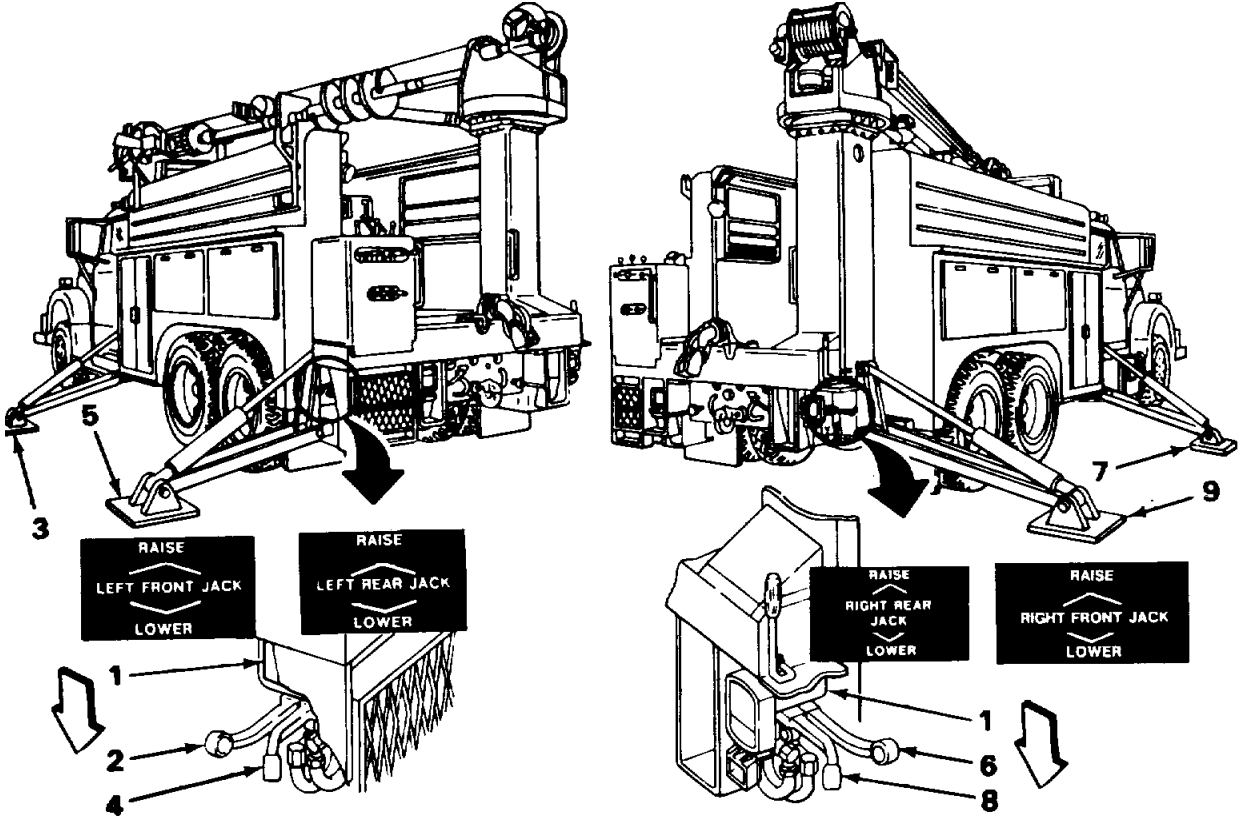
NOTE

Make sure everyone is clear of the outriggers when you lower them. Lower one outrigger at a time.

Make sure the M876 truck is level after you have positioned the outriggers. You may have to readjust the outriggers after you have operated the derrick for a time.

Have assistant use throttle control to increase engine RPM, if necessary, during console operation.

- 1. Left Side of Truck
 - a. Lift safety plate (1), and hold it out of your way.
 - b. Push jack control (2) down and lower outrigger (3).
 - c. Push jack control (4) down and lower outrigger (5).
- 2. Right Side of Truck
 - a. Lift safety plate (1) and hold it out of your way.
 - b. Push jack control (6) down and lower outrigger (7).
 - c. Push jack control (8) down and lower outrigger (9).



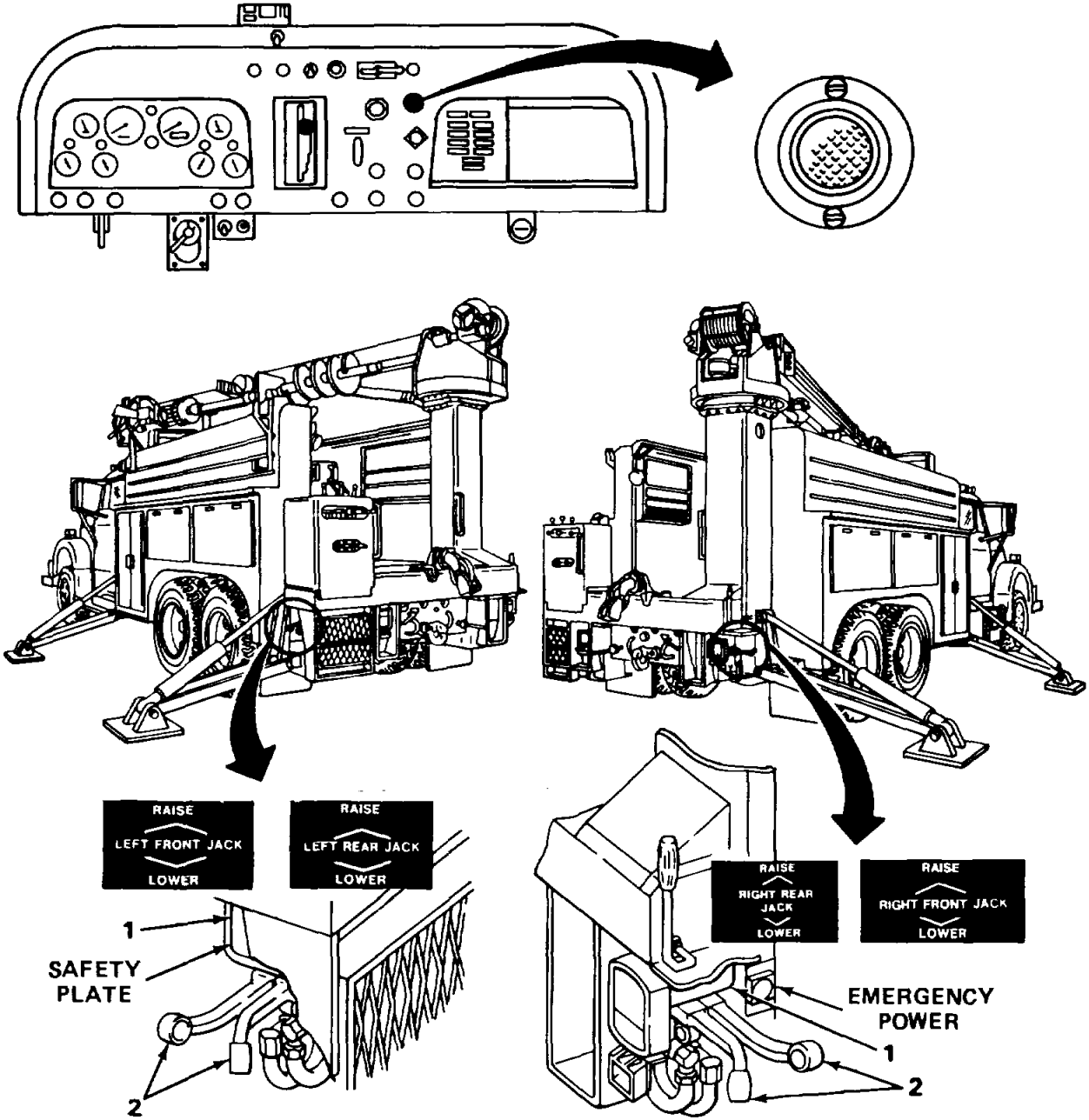
PLACING DERRICK INTO OPERATION - CONTINUED

NOTE

Failure to seat outriggers properly will cause derrick control not to operate.

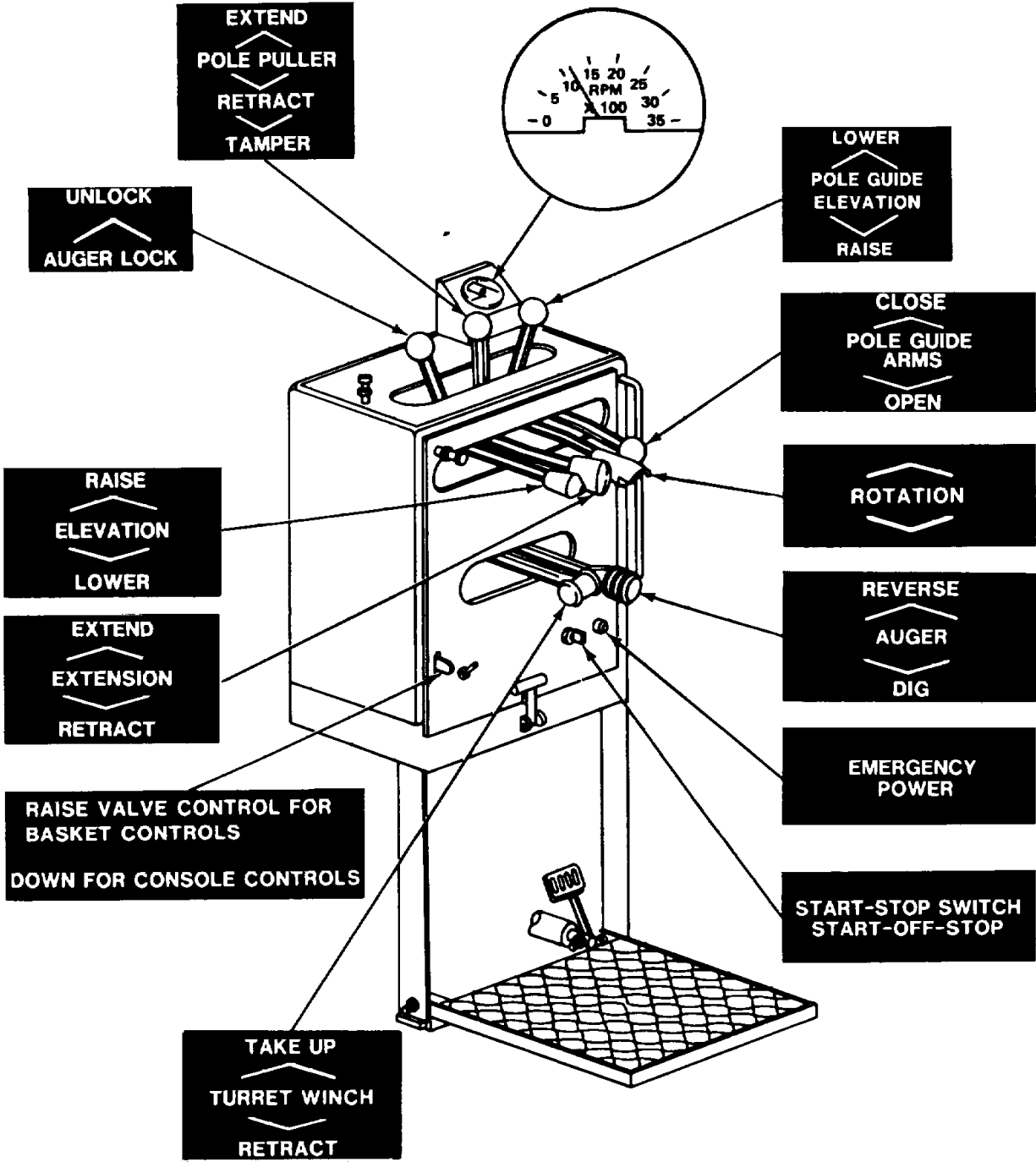
Raising the Outriggers (Jacks)

- 1. Holding safety plate (1) away, raise each of the outriggers, by pulling UP on the jack controls (2).
- 2. Check the cab instrument panel to ensure the outrigger warning indicator light (3) is out, indicating the outriggers are safely stowed for travel. (See page 2-8).



KNOWING THE DERRICK OPERATING CONTROLS

The following diagram of the operator's console is provided so you know where specific controls are positioned on the console panel, what the Instruction guide plates look like and specific control and control function each identifies.



RAISING AND LOWERING THE DERRICK LEG

WARNING

Make sure you check for overhead obstructions before moving the derrick leg from the rest.

NOTE

Make sure the M876 truck is level and all four outriggers are positioned on solid ground before operating the derrick.

Each derrick control handle has a distinctive shape and design, the purpose being that you learn which controls are which by feel. You then can operate the derrick and see the derrick movements at the same time.

RAISING THE DERRICK LEG

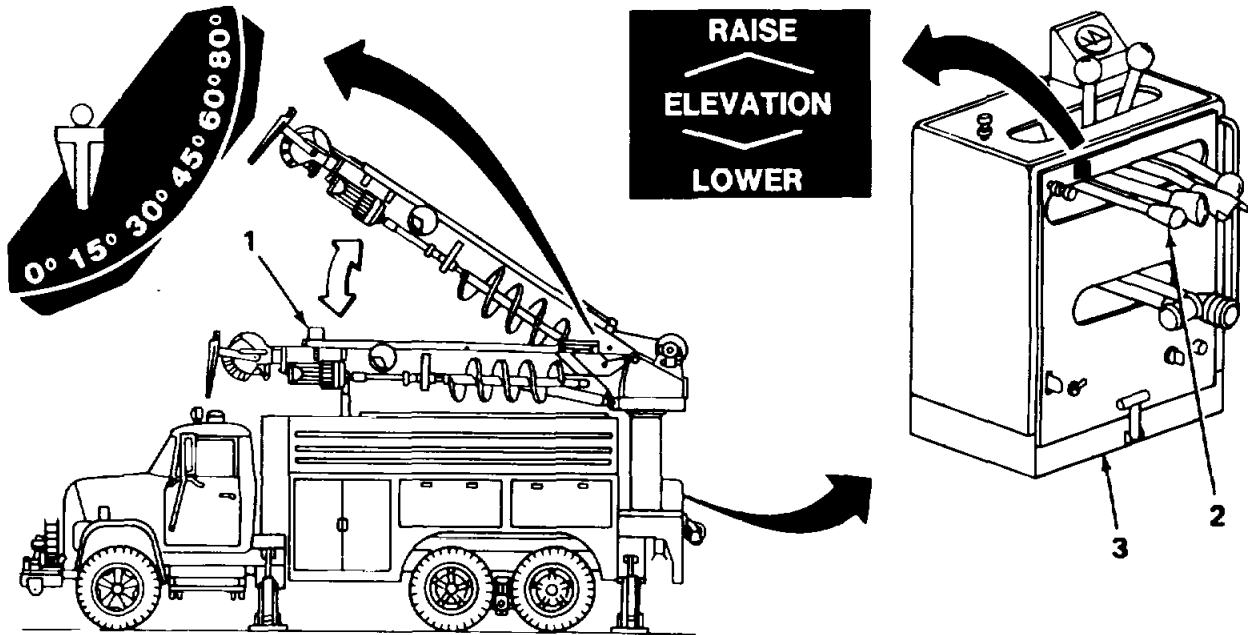
To raise the derrick leg from the rest (1) pull up on elevation control handle (2) on the operator's console (3).

LOWERING THE DERRICK LEG

Push down elevation control handle (2) to lower derrick leg. The derrick leg travel will stop when you release the handle (2).

NOTE

To see your angle of elevation, look at the gage on side of derrick leg.



ROTATING THE DERRICK LEG

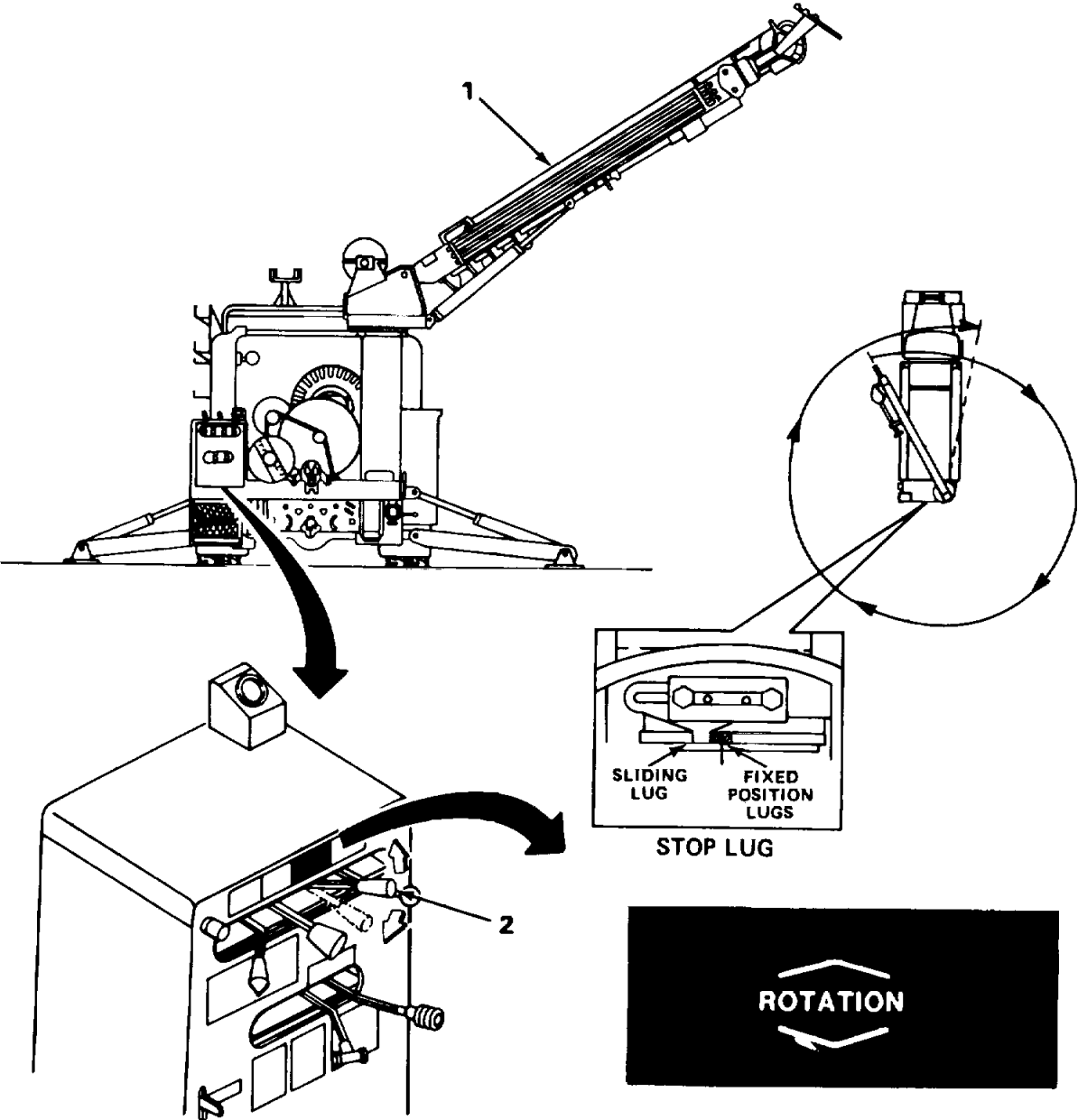
CAUTION

DO NOT rotate derrick leg while in stowed position. You will damage the equipment.

- 1. To rotate the derrick leg (1) clockwise, pull up on rotation control handle (2).
- 2. To rotate derrick leg (1) counterclockwise, push down on rotation control handle (2). When you release rotation control handle(2), the derrick leg will stop.

NOTE

A stop lug is located on the derrick turret to stop the derrick from rotating more than 370° (a full circle of 360° plus an additional 10°).



EXTENDING AND RETRACTING THE DERRICK LEG

NOTE

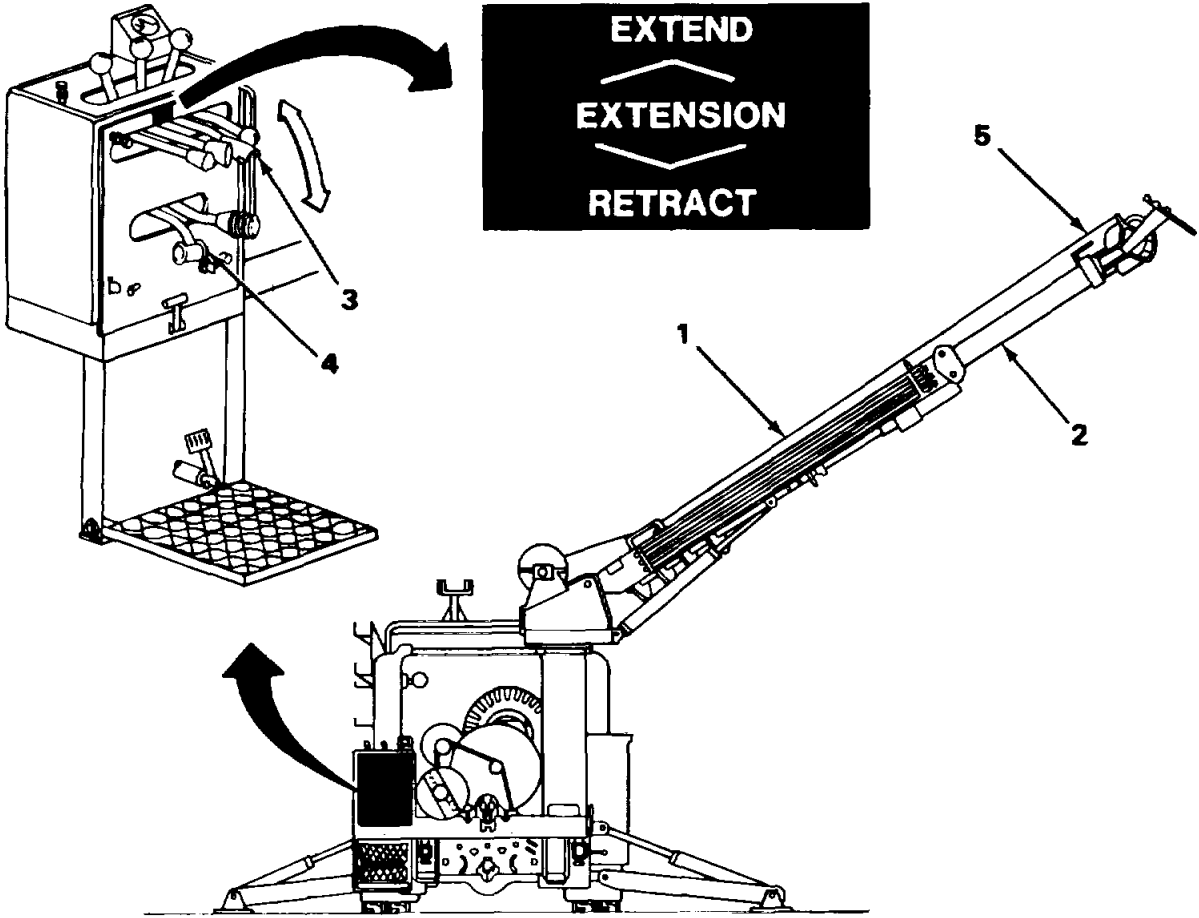
The derrick leg has two extension sections. This paragraph covers the first (hydraulic) section. The procedure for the second (fiberglass) extension is explained on page 2-121.

EXTENDING

To extend the derrick leg (1) extension (2), pull up on the extension control handle (3), while pulling down on turret winch control (4) to pay out winch cable.

RETRACTING

To retract extension (2) back into derrick leg (1), push down on extension control handle (3), while pulling up on turret winch control (4) to take up winch cable (5). When you release extension control handle (3), the derrick leg (1) will stop.



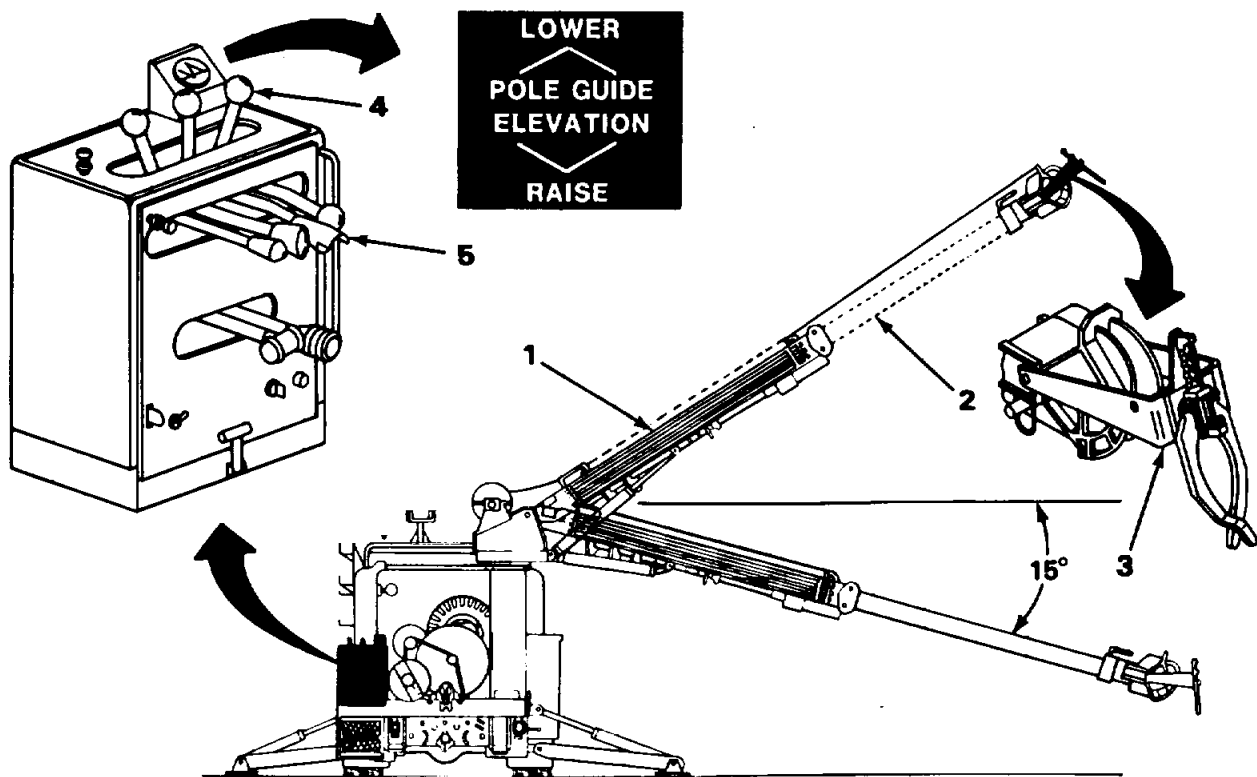
EXTENSION-RETRACTION FIBERGLASS EXTENSION

NOTE

This paragraph covers the second extension in the derrick leg, which consists of a fiberglass extension, that is extended manually. The following procedures will help you to extend this section by hand and retract it with the aid of the turret winch.

EXTENDING

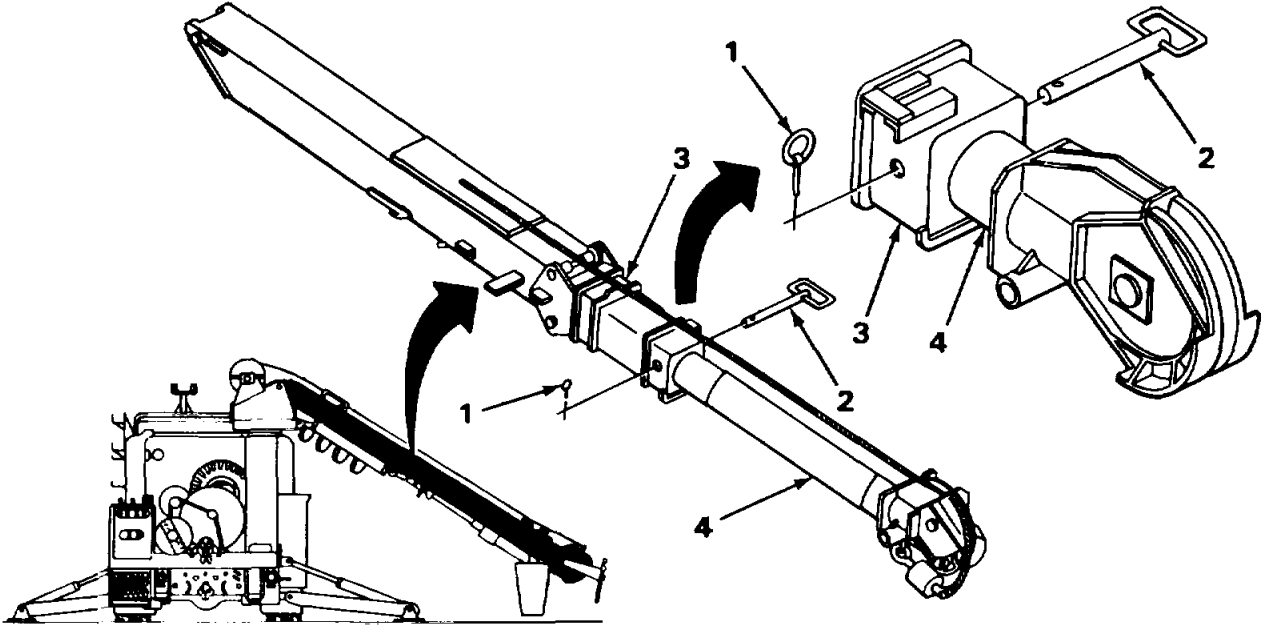
1. Extend derrick leg (1) hydraulic extension (2). See page 2-120 (extending and retracting derrick leg).
2. Raise pole guide (3) by pulling back on pole guide elevation control handle (4).
3. Using rotation control handle (5), rotate and lower derrick leg (1) over the right side of vehicle, to approximately 15° below horizontal. This will enable you to reach the fiberglass extension section easily and remove the retaining pin.



EXTENSION-RETRACTION FIBERGLASS EXTENSION - CONTINUED

EXTENDING - CONTINUED

- 4. Take out the locking click pin (1) and pin (2) from the derrick leg extension (3). Set pin (2) aside in safe place.
- 5. Manually pull the fiberglass extension (4) out to its maximum length from derrick leg extension (3). Have assistant help you.
- 6. Put pin (2) back into derrick leg extension (3) to secure fiberglass extension (4) in place. Secure pin (2) with locking click pin (1). Have assistant help you.



RETRACTING

CAUTION

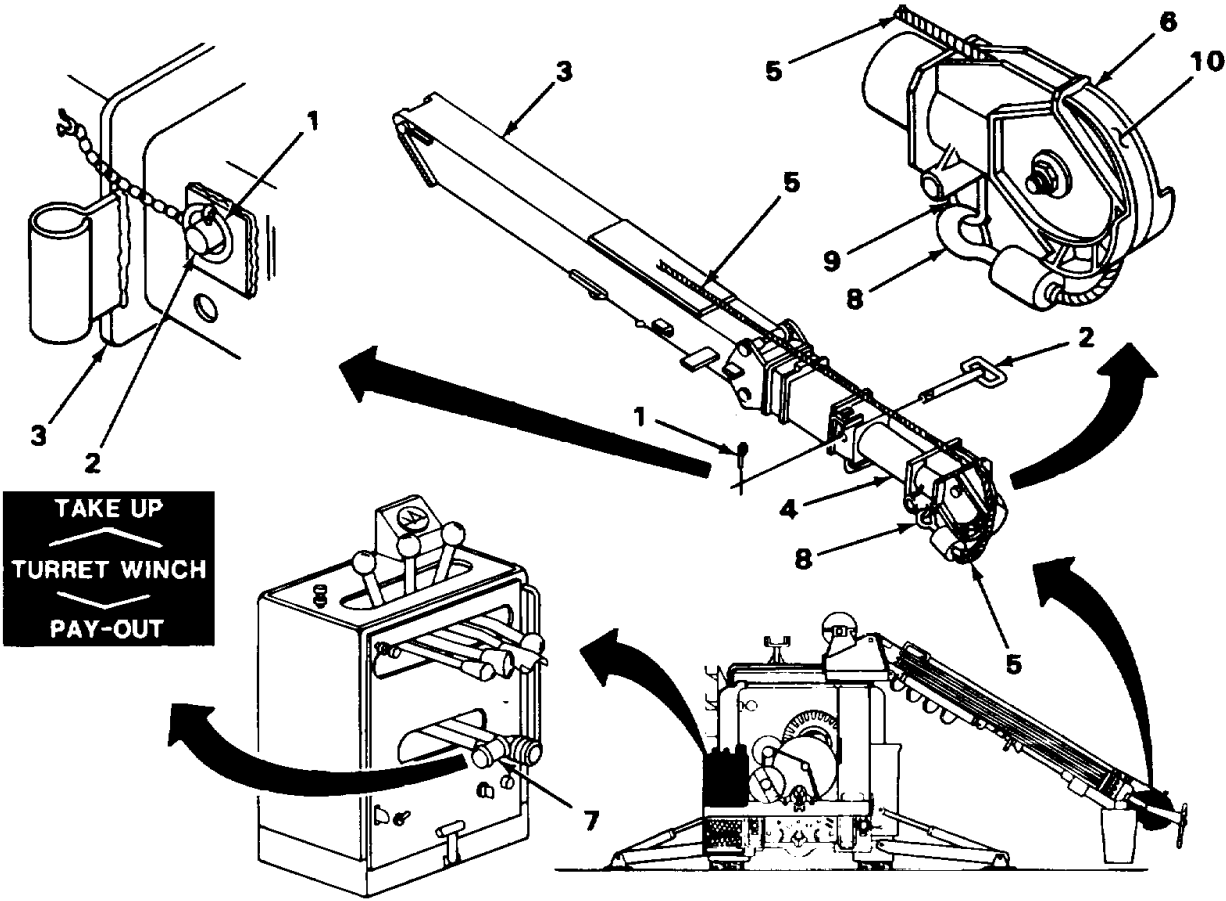
Never retract the fiberglass section by elevating the derrick leg and allowing the fiberglass section to free fall. Severe damage may result.

- 1. Take click pin (1) off the end of pin (2), securing fiberglass section (4) to derrick leg extension (3).
- 2. Take pin (2) out of derrick leg extension (3).
- 3. Using the turret winch cable to retract the fiberglass section (4), have assistant pull cable (5) out to the head sheave (6) while you push turret winch control handle (7) down to the payout position.

EXTENSION-RETRACTION FIBERGLASS EXTENSION - CONTINUED

RETRACTING - CONTINUED

- 4. Assistant hooks the swivel jaw hook (8) into the padeye (9) under the head sheave (6) and making sure cable (5) is positioned into head sheave pulley groove (10).
- 5. Take in cable (5), by pulling up on winch control handle (7) and slowly draw the fiberglass section (4) back into derrick leg extension (3).
- 6. Secure the fiberglass section (4) into place by putting pin (2) back into derrick leg extension (3). Secure pin (2) in place with click pin (1).

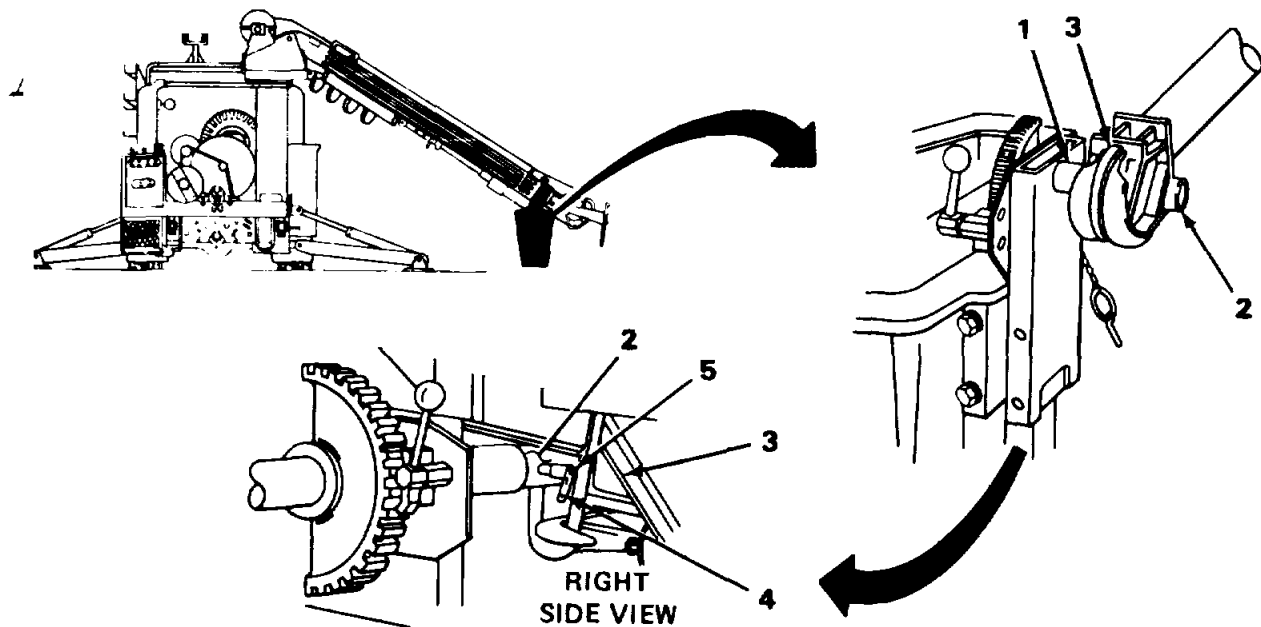


MOUNTING THE BASKET SUPPORT BRACKETS

NOTE

To mount the basket support brackets and the fiberglass baskets, the derrick leg, fully extended, must be rotated and positioned out over the right side of the vehicle. The basket support brackets, mounted to the head sheave assembly, must be positioned at about the same height off the ground as the mating brackets on the baskets.

1. With help from assistant, insert basket support shaft (1) into basket shaft support hole (2), on head sheave assembly (3).
2. Secure support bracket shaft (1) to basket support hole (2) with locking pin (4), releasing locking pin (4) by pushing button (5) in handle.
3. The basket support bracket for the opposite side is mounted in the same manner, using the above procedures.



MOUNTING THE BASKETS TO THE BASKET SUPPORTING BRACKETS

NOTE

One or both baskets must be installed before operating under these conditions. To install or remove the basket(s), follow the steps below:

1. Remove baskets and liners (1) from the back of M876 truck.
2. Extend, rotate and lower derrick leg (2) until the basket support bracket (3) is positioned at about the same height off the ground as bracket (4) on basket (1).

MOUNTING THE BASKET(S) TO THE BASKET SUPPORTING BRACKETS - CONTINUED

3. Remove click pin locking (5) and pin (6) from the basket support bracket (3).
4. With help from assistant, lift basket (1) and position bracket (4) to inside of support bracket (3). Make sure cut out (7), bottom of bracket (4), slips over and rests on pin (8), inside support bracket (3).
5. Secure basket (1) to support bracket (3) by inserting pin (6) through holes (9), and secure with click pin locking (5).

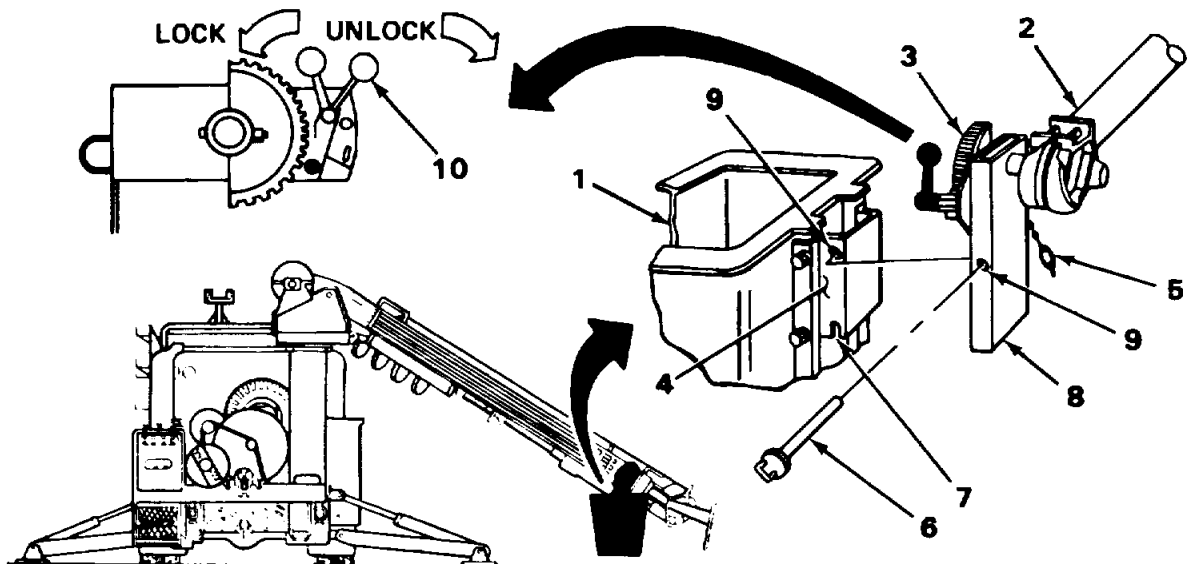
WARNING

The baskets should never be used without the liners installed. The liners give them extra strength and insulation protection.

6. Before raising or lowering the derrick leg (2), make sure you release the basket lock (10), so you maintain a level position as you raise or lower.
7. When you reach the angle of elevation you desire, secure the basket position by locking the basket lock (10).

NOTE

The basket locks are identical and lock or unlock in the same way in either basket.

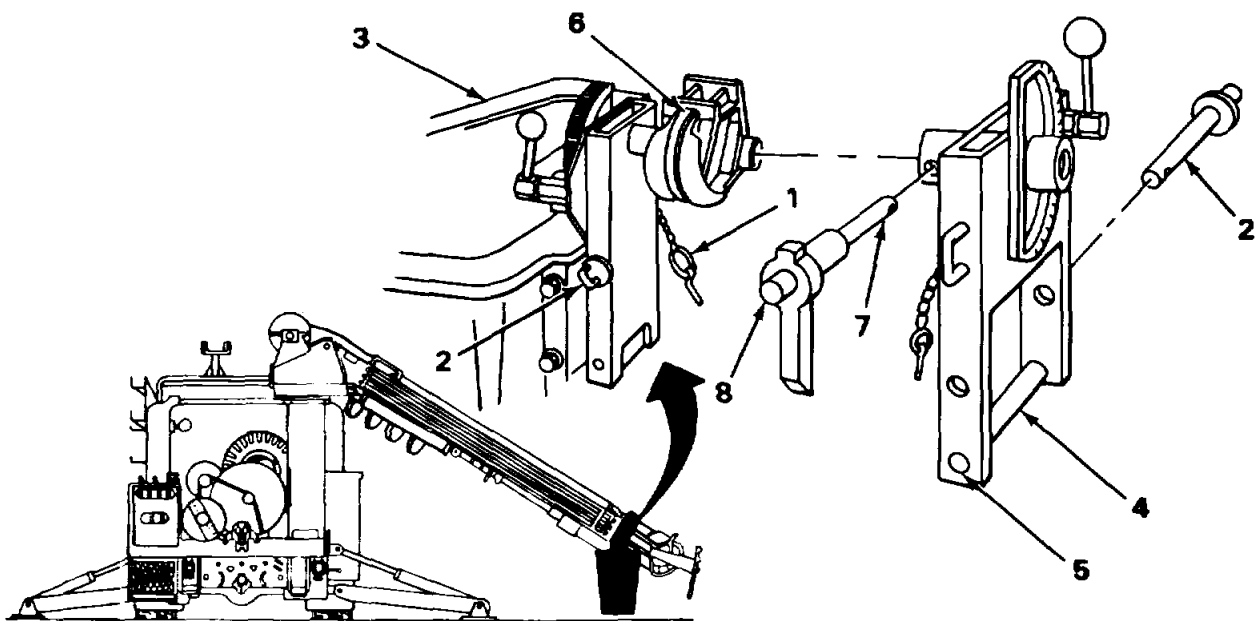


REMOVING THE BASKET(S) AND SUPPORT BRACKETS

NOTE

The derrick leg must be rotated and lowered off the side of the truck until the basket(s) is just above ground level. Do not let bottom of basket(s) rest on the ground.

1. Remove click pin locking (1) from end of pin (2).
2. While assistant holds basket (3) in position, remove pin (2). The basket (3) should now tip forward.
3. Lift basket (3) out and away from lower support bar (4) and support bracket (5), and set it on the ground.
4. Repeat the procedures above to remove the basket from the opposite side.
5. To remove the support brackets (5) from head sheave (6), remove locking pin (7) by depressing the button (8). Remove support bracket (5) and stow it.



OPERATING DERRICK CONTROLS FROM THE BASKET

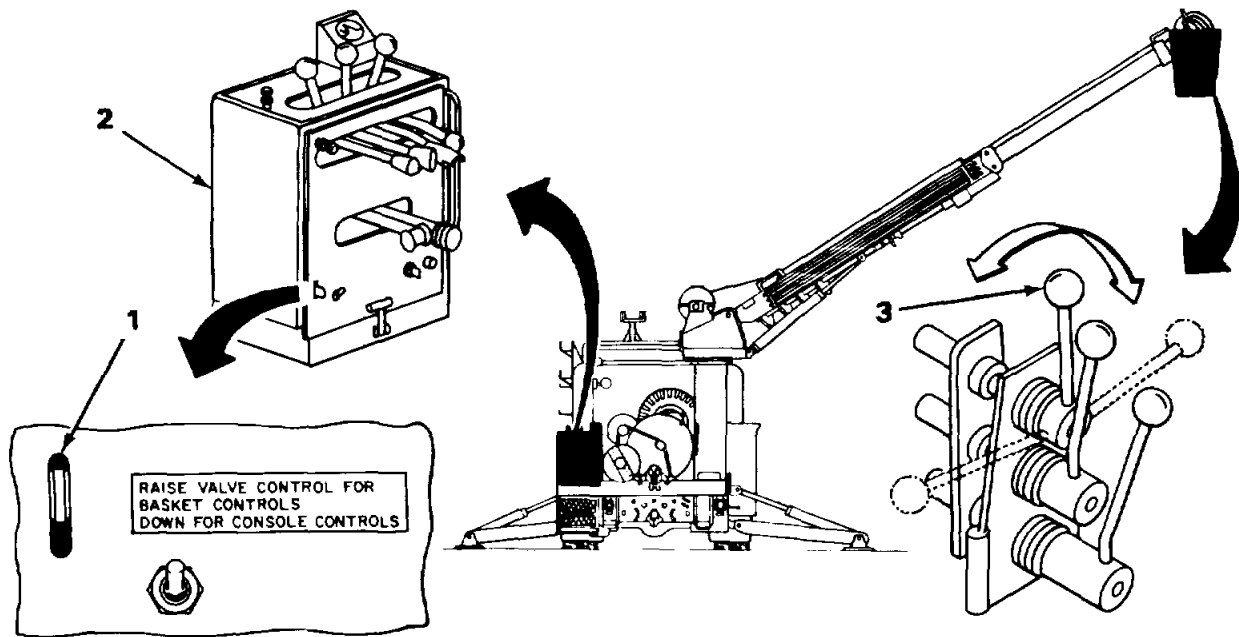
WARNING

One or both baskets must be installed before operating under these conditions. Crew personnel working in the baskets must wear safety belts.

NOTE

Hydraulic power is transmitted from the operator's console to the trombone hydraulic lines on the side of the derrick leg. To activate the basket controls, follow the procedures below.

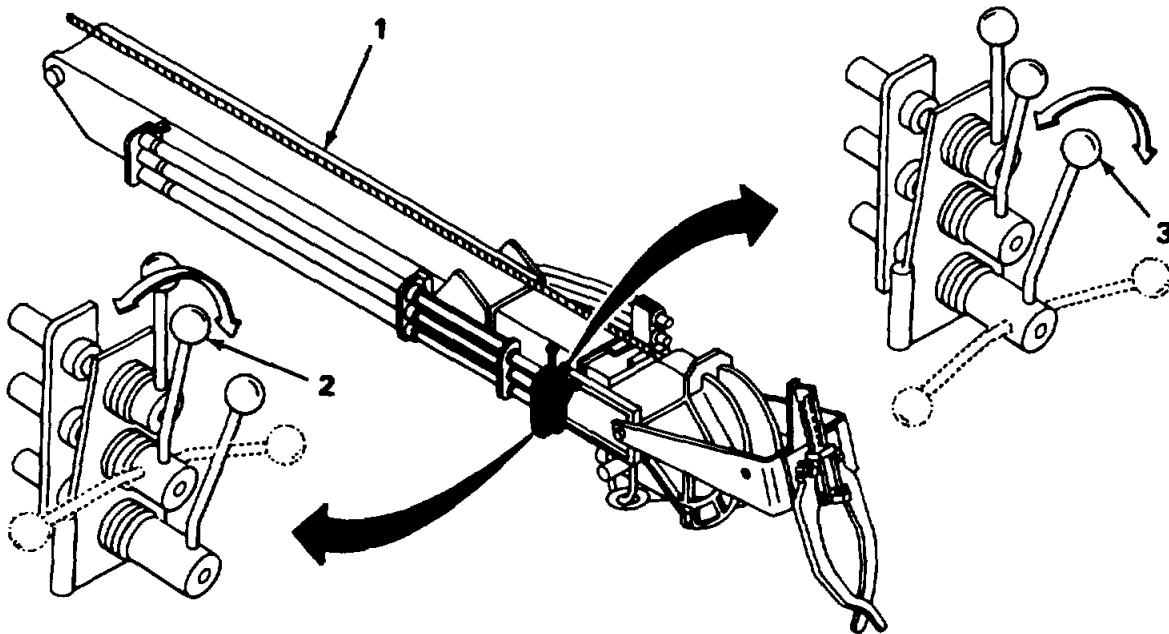
1. Move valve control (1) on operator's console (2) to UP or raised position. Basket controls are now powered.
2. Fasten your safety belt onto the loop on the basket after you get in.
3. Make sure there are no obstructions in the path the basket will travel before you move the basket.
4. Move elevation control handle (3) toward the derrick leg to elevate the derrick leg. When you release the control handle the derrick leg will stop.
5. To lower the derrick leg, pull control (3) toward the basket.



OPERATING DERRICK CONTROLS FROM THE BASKET - CONTINUED**NOTE**

Avoid any sudden movement of the controls that causes the equipment to jerk. Operate the controls smoothly and gradually.

6. To rotate the derrick leg (1) clockwise, pull the rotate control handle (2) back toward the basket. When you release the rotate control handle (2), the derrick leg will stop.
7. To rotate the derrick leg (1) counterclockwise, push the rotate control handle (2) toward the derrick leg. When you release the rotate control handle (2), the derrick leg will stop.
8. To extend the derrick leg hydraulic extension section, push the extend control handle (3) toward the derrick leg. When you release extend control handle (3), the extending movement of the hydraulic section will stop.
9. To retract the derrick leg hydraulic extension section, pull the control extend handle (3) toward the basket. When you release extend control handle (3), the hydraulic extension section retracting movement will stop.

**OPERATION-TURRET WINCH****NOTE**

The turret winch has a maximum capacity of 12,500 pounds (5,670 kg). The degree of the derrick leg elevation and length it is extended changes the lift capacities. The capacities and length of extension are shown on a chart on the operator's console and on pages 1-11 and 1-12.

OPERATION-TURRET WINCH - CONTINUED**WARNING**

Never exceed the rated capacity of the turret winch. Overloading can cause damage to the derrick.

Always lower the outriggers whenever you use the derrick to prevent damage to the truck.

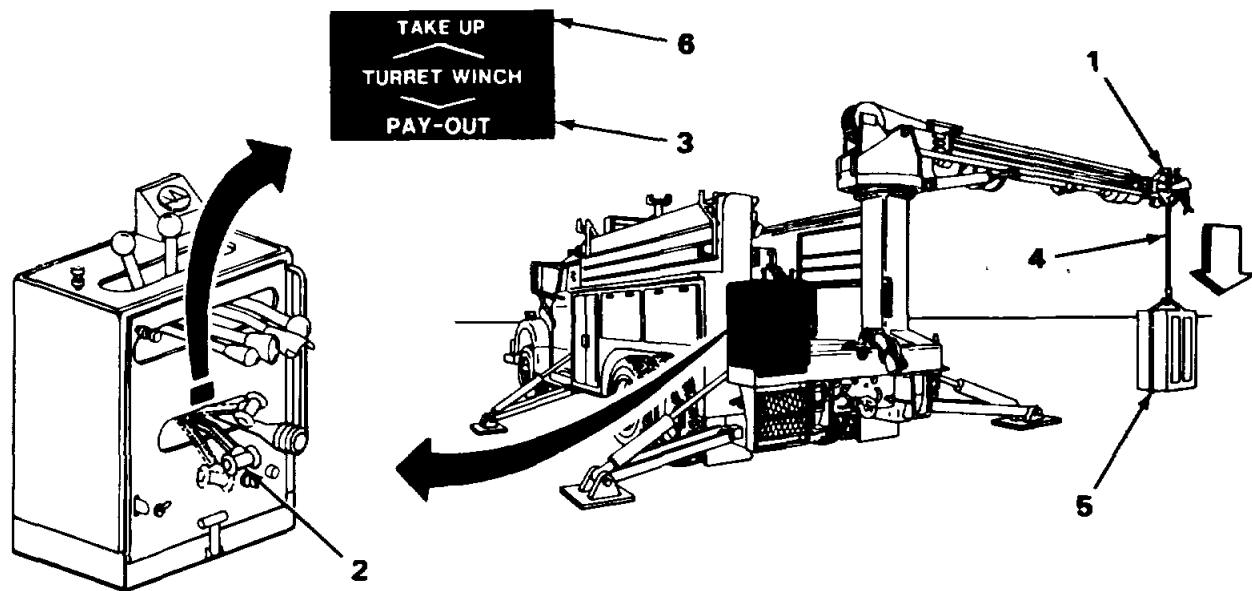
Keep personnel not involved in winching away from winch cables and payload. A snapped cable or shifting load can cause serious damage, injury or death. Stop winching immediately if shifting load presents a hazard, or if any parts fail. Notify organizational maintenance if hazard exists or parts fail.

Never work over the side of the truck, on the downhill side of a slope. The truck can turn over and cause injury or death.

Never boom down a payload. Use the winch line. Booming down may overturn the truck, causing damage or injury.

OPERATION-TURRET WINCH - CONTINUED

1. Position the derrick leg head sheave (1) so it is directly over the payload to be lifted. You will have to rotate and/or elevate the derrick leg to do so.
2. Push control handle (2) down to the PAYOUT position (3), lowering the winch line (4) so it can be hooked to the payload to be lifted.
3. Pull control handle (2) up to the TAKE UP position (6), and carefully lift the payload.

**USING THE AUGER****OPERATION****WARNING**

Make sure derrick hydraulic leg is fully retracted before starting auger operation. If not fully retracted, auger may shift and cause serious personal injury.

1. Raise derrick leg (1) to a 45° elevation, and rotate it out over the right side of the truck so you can observe the releasing of the auger (2).

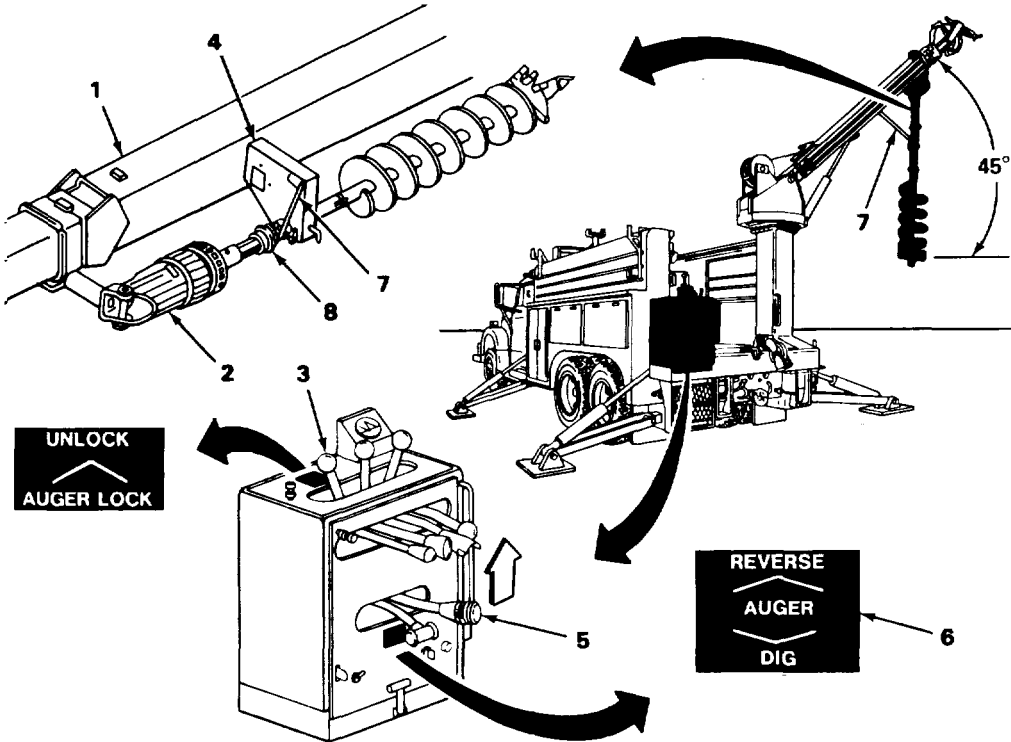
USING THE AUGER - CONTINUED

OPERATION - CONTINUED

NOTE

The auger lock is designed with a safety feature. If the auger shaft is resting on the lock when the control is pushed, the lock will not open. The auger must then be rotated to relieve the weight.

- 2. Release auger (2) by pushing control handle (3) forward, releasing auger lock (4).
- 3. Now carefully lower the auger (2) by pulling up on the auger control handle (5) to the REVERSE position (6), to unwind cable (7).
- 4. When auger (2) is fully lowered, move the cable (7) end from clutch (8) and fasten it out of the way of the auger (2).



USING THE AUGER - CONTINUED

OPERATION - CONTINUED

NOTE

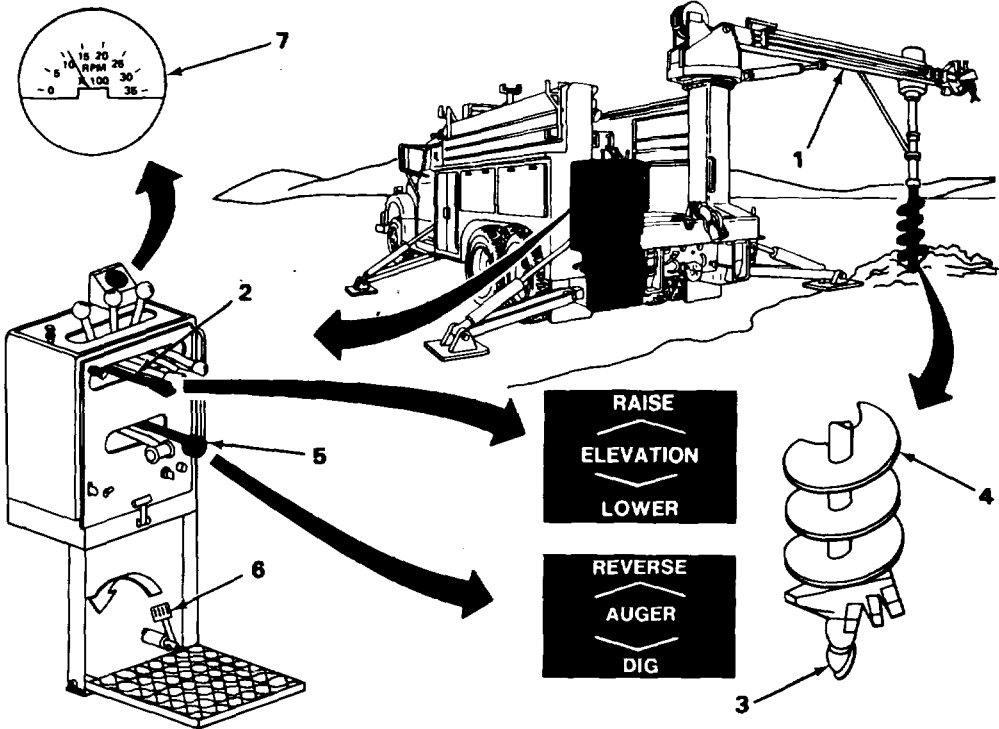
Maneuver the derrick leg so the auger is positioned directly over the spot where the pole hole is to be drilled.

- 5. Lower the derrick leg (1) by pushing down on the elevation control handle (2) so that pressure is placed on the auger pilot bit (3).

NOTE

As you're drilling, follow the auger with the derrick leg. Don't try to push the auger into the ground and don't let the auger pull the derrick leg down.

- 6. Start the auger (4) rotating (digging), by pushing the auger control handle (5) down to the DIG position. The auger (4) will stop rotating and digging when the control handle is released.
- 7. You can increase engine speed so the auger rotates and digs at a moderate speed by pushing the throttle pedal control (6) down. Observe the tachometer (7) to control the engine rpm and hold it at the best auger digging speed.



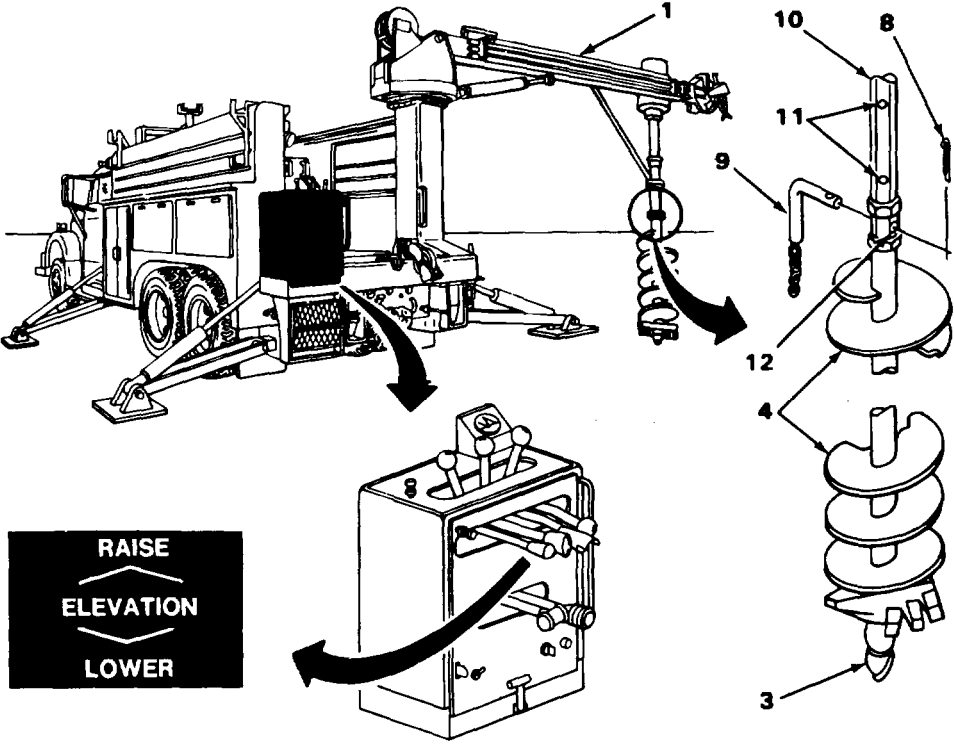
USING THE AUGER - CONTINUED

OPERATION - CONTINUED

NOTE

If the auger becomes caked with dirt, snap the dirt off by raising the derrick leg while the auger is rotating, until the auger is almost out of the hole. Stop the auger and clean off the dirt.

- 8. If the hole you're digging is more than 6 foot-6 inches deep, (1.98 m) extend auger (4). Stop auger (4) rotation, and lift it out of the hole by raising derrick leg (1).
- 9. Rotate derrick leg (1) until auger (4) is over solid ground and lower it, so auger pilot tip (3) is just resting on the ground.
- 10. Remove the click pin (8) from locking pin (9) on kelly bar (10).
- 11. Raise the derrick leg (1) very slowly until the hole (11) in kelly bar (10) lines up with hole (12) in auger shank. Install locking pin (9), and secure it with click pin (8).
- 12. Continue digging hole.



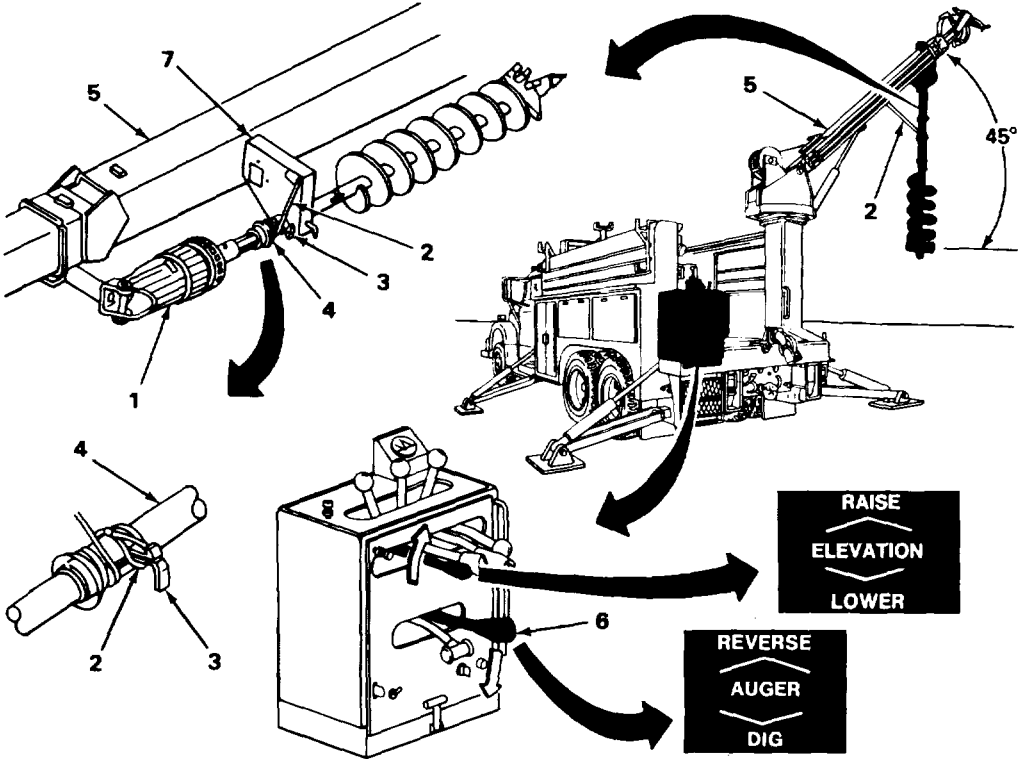
USING THE AUGER - CONTINUED

OPERATION - CONTINUED

CAUTION

Make sure derrick hydraulic leg is fully retracted before stowing auger. If not fully retracted, the equipment may be damaged.

- 13. When drilling is completed, return the auger (1) to the stowed position by:
 - a. Fasten end of wind-up-cable (2) over hook (3) on auger shaft clutch (4). Make sure cable (2) is properly secured.
 - b. Raise derrick leg (5) to 45° angle.
 - c. Push auger control handle (6) down until auger (1) locks into auger lock (7).



USING THE AUGER - CONTINUED**SPECIAL INSTRUCTIONS****Wet Soil**

1. Reduce the auger speed.
2. Don't push too much down pressure on the auger.
3. If the soil is sticky, coat the auger shank with oil.

Sand or Gravel

1. Reduce the auger speed.
2. Don't put too much down pressure on the auger.
3. If the sand or gravel starts to fall back into the hole, raise the auger and spin off the sand and gravel.

Rocky Soil

1. Manually remove as many of the surface rocks as possible.
2. Reduce the auger speed.
3. Loosen a rock that may be stuck in the hole by bumping the auger against the rock several times. It should eject.
4. If step 3 doesn't eject the rock, apply more pressure to the auger until it stalls. Then reverse the auger for a moment. Repeat this step until the rock is dislodged.

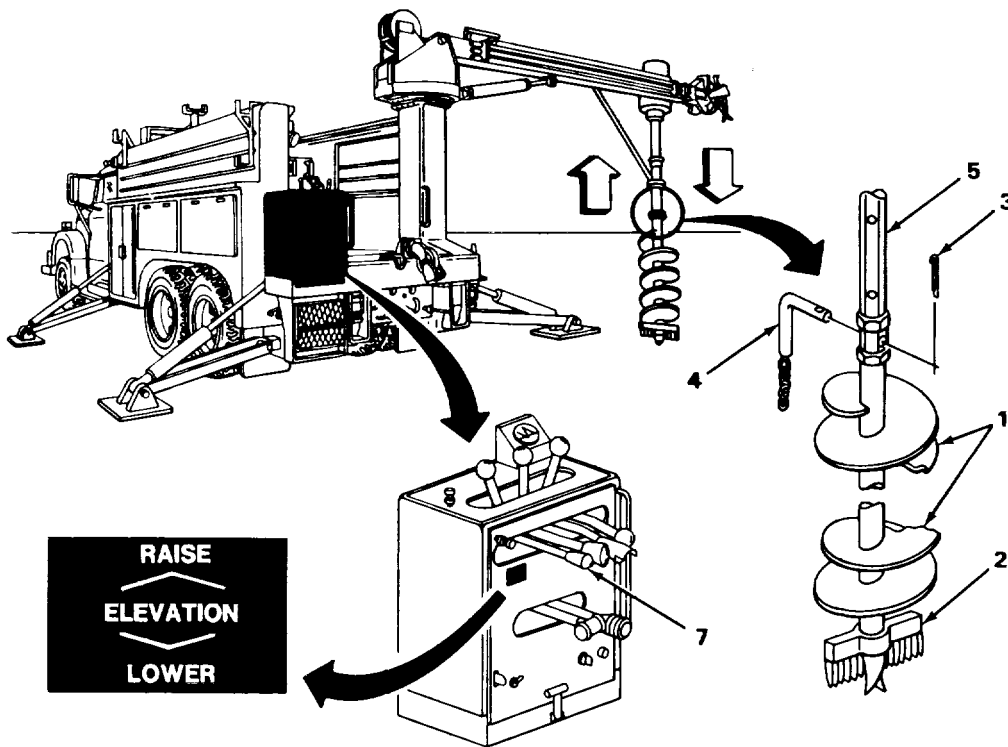
Frozen Soil

1. Make sure the auger blades are sharp.
2. Reduce the auger speed.
3. Apply more pressure to the auger, but don't let it turn without cutting.
4. When raising the auger, do it slowly.

USING THE AUGER - CONTINUED

CHANGING AUGER

1. Place the auger (1) in the drilling position with the pilot bit (2) resting on the ground.
2. Have assistant hold the auger (1) steady while locking pin click pin (3) and locking pin (4) are removed, which secures auger (1) to kelly bar (5).
3. Raise the derrick leg (6) by pulling UP on elevation control handle (7), and slowly pull the kelly bar (5) out of auger (1) shank. Stow auger (1) in the rear of the truck.
4. Position replacement auger (1) in the same spot where removed auger was positioned.
5. Lower derrick leg (6) by pushing down on elevation control handle (7). Have assistant steady kelly bar (5) so it will slide into replacement auger (1) shank. Stop when kelly bar (5) is positioned at the right depth.
6. Install locking pin (4) and secure it with click pin (3).



OPERATION-AUXILIARY EQUIPMENT

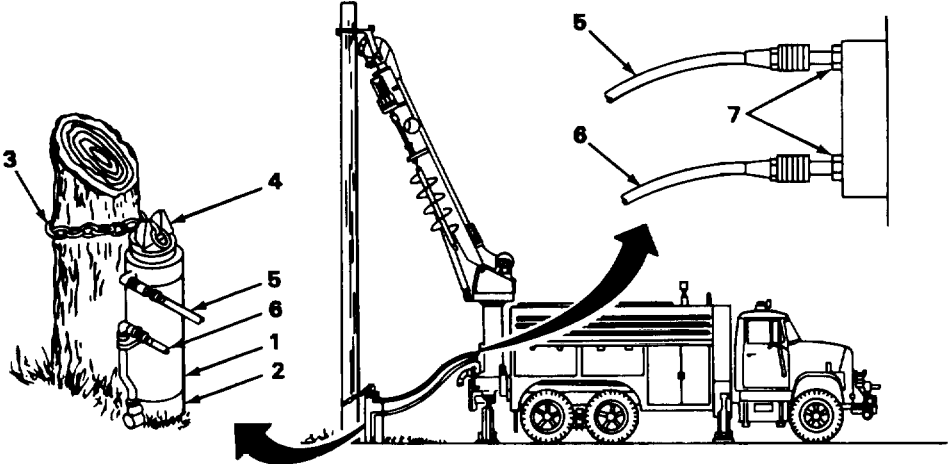
NOTE

The below listed, hydraulically-operated, special equipment can be connected at the back of the M876 truck or at the derrick leg. The chain saw and impact wrench can be operated from the baskets. The only thing that differs between the two connection locations is the position of the basket/console control selector lever.

Remember, all four outriggers must be emplaced on the ground.

POLE PULLER

- 1. Remove the pole puller (1) and base plate (2) from its stowed position on the truck.
- 2. Position pole puller (1) on base plate (2) next to the pole to be pulled. Secure a chain (3) around the pole, and place chain ends into the slotted bracket (4) on the top of pole puller (1).
- 3. Connect hydraulic lines (5) and (6) into connections on pole puller (1) and into hydraulic power source connections (7) on the truck.



OPERATION-AUXILIARY EQUIPMENT - CONTINUED
POLE PULLER - CONTINUED

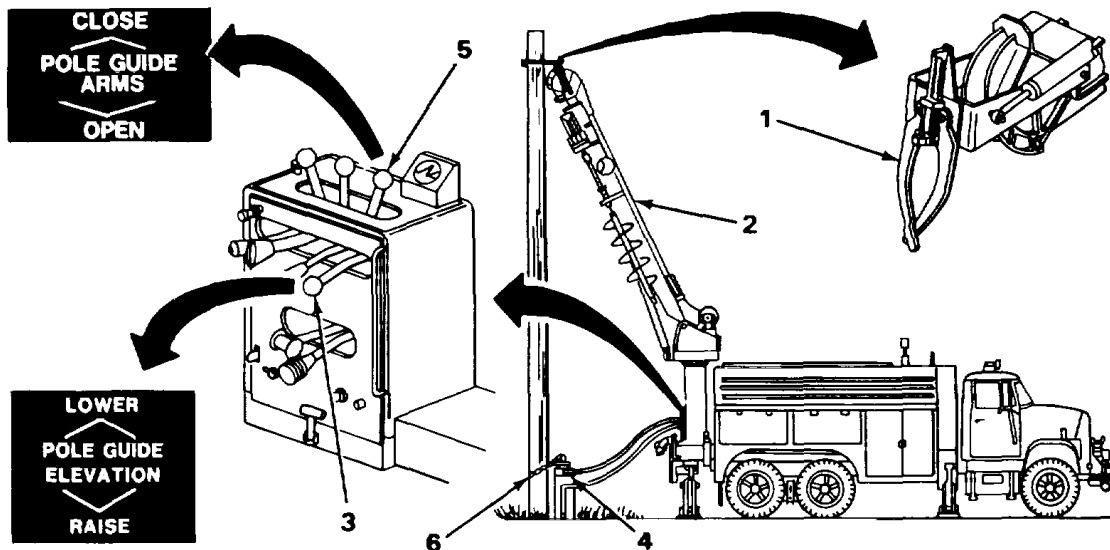
WARNING

Make sure that everyone is clear of the pole before you release the pole guide arms, to prevent injury when lowering pole to the ground.

CAUTION

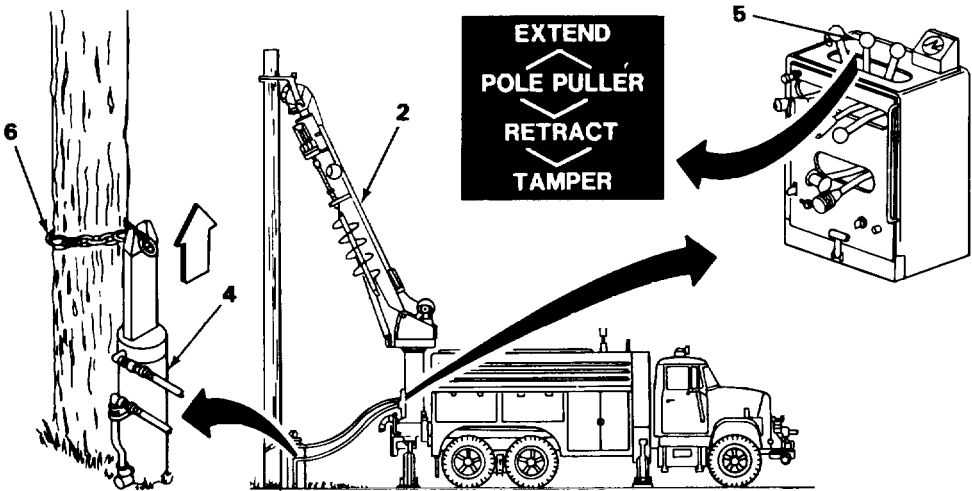
Raise the derrick leg as you extend the pole puller, so you are not pushing against the pole guide arms. **DO NOT** try to pull the pole out of the hole with the pole guide arms.

4. Secure the pole with the pole guide arms (1) by positioning the derrick leg (2), so the pole guide arms (1) will hold the pole near the top. Close the pole guide arms by pulling UP on the pole guide arms control handle (3).
5. To extend the pole puller (4), push forward on the pole puller control handle (5). Handle (5) will stay in the Forward position until you pull it back. Raise the derrick leg (2) as the pole is raised by the pole puller (4), so you can hold the pole while you reposition the pole puller (4).
6. Pull back on pole puller control handle (5) and retract the pole puller (4). Reposition the chain (6) and pole puller (4). Repeat this step until the pole is out of the ground.

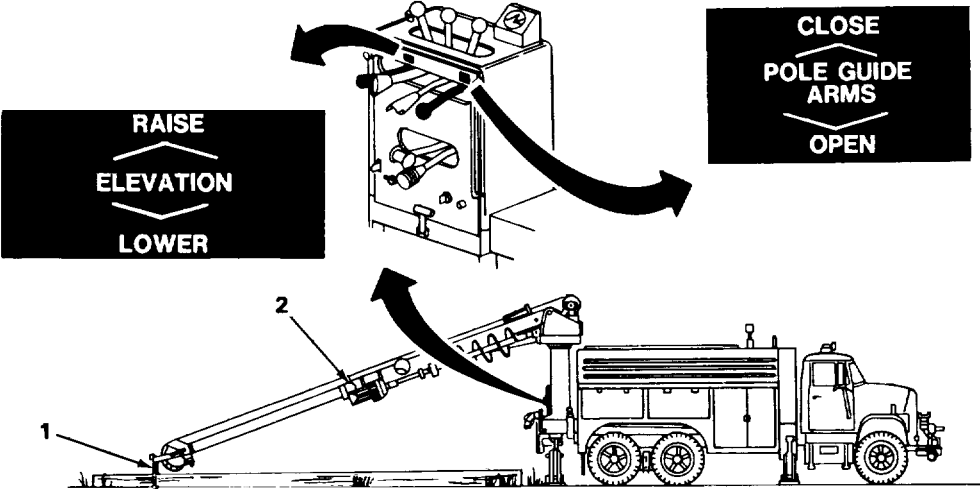


OPERATION-AUXILIARY EQUIPMENT - CONTINUED

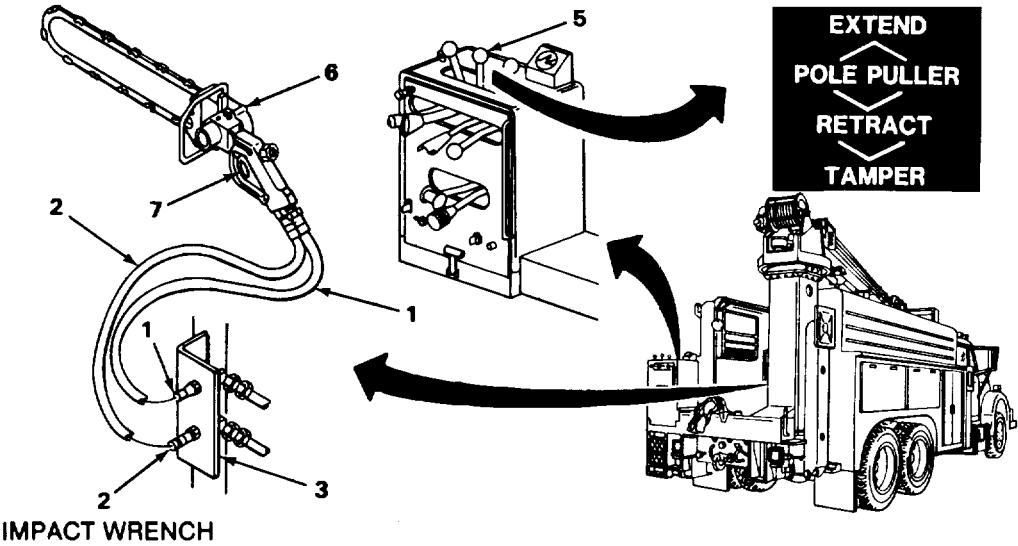
POLE PULLER - CONTINUED



- 7. Remove pole puller (4) and chain (6) from the pole. Lower the pole to the ground by lowering the derrick leg (2) and releasing (opening) the pole guide arms (1).

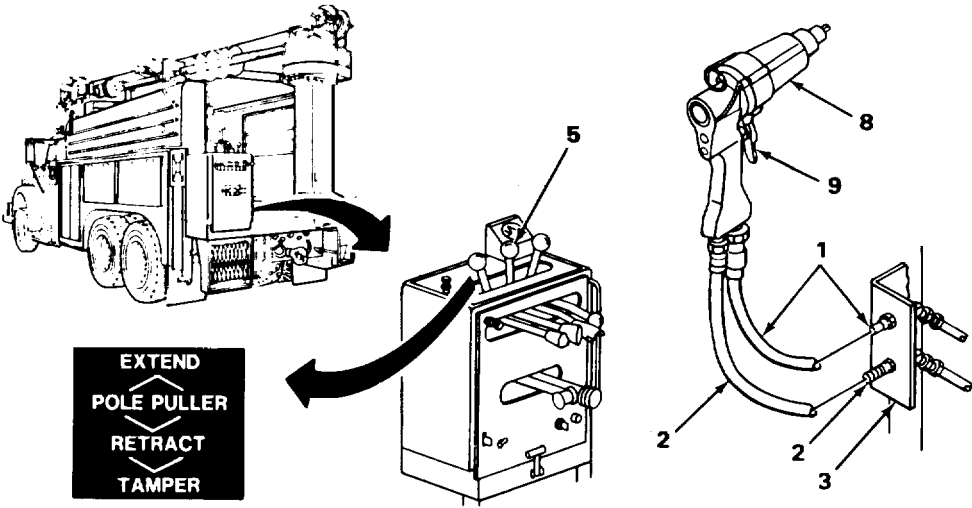


OPERATION-AUXILIARY EQUIPMENT - CONTINUED



IMPACT WRENCH

1. Connect hydraulic lines (1) and (2) to the truck hydraulic power source outlets (3).
2. Connect the other ends of hydraulic lines (1) and (2) to the impact wrench (8).
3. Pull the pole puller control handle (5) back. The control handle (5) will stay in this position until you push it forward.
4. Pull the trigger (9) on impact wrench (8) to start wrench operation. Releasing trigger (9) will stop the impact wrench (8).

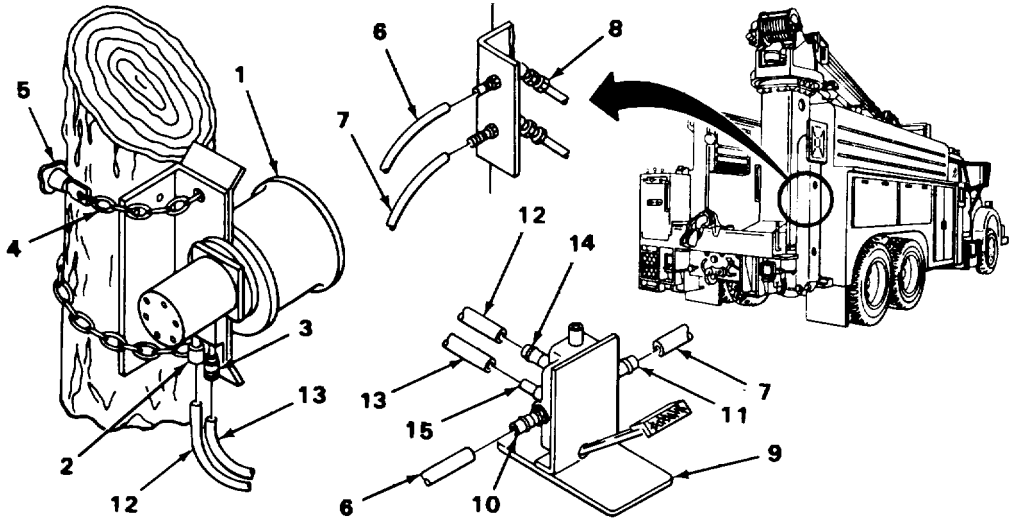


OPERATION-AUXILIARY EQUIPMENT - CONTINUED
HYDRAULIC CAPSTAN

NOTE

Don't confuse with body winch capstan.

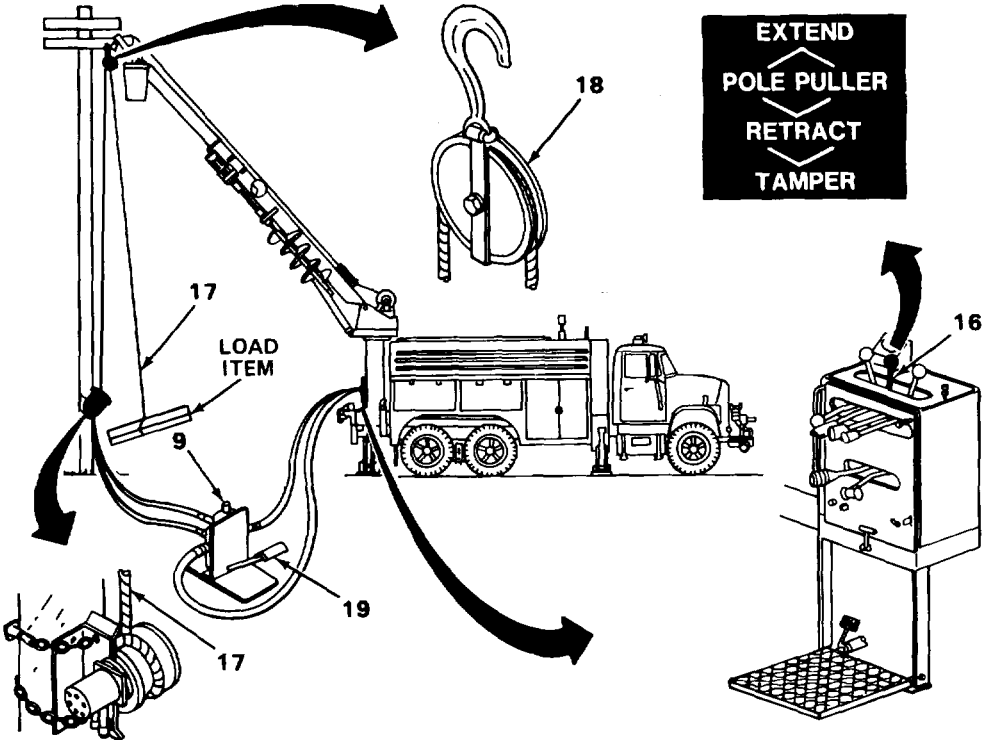
- 1. Position capstan (1), vee section to the pole with hydraulic connections (2) and (3) pointing downward.
- 2. While you hold capstan (1) in this position, have assistant secure it to the pole with two chain-type clamps (4). Turn chain tightening knobs (5) to clamp capstan (1) to the pole securely.
- 3. Connect two 50-foot hydraulic lines, ends (6) and (7) to the hydraulic power source outlets (8) on the truck.
- 4. Connect other ends of hydraulic lines (6) and (7) to foot valve (9), hydraulic connections (10) and (11).
- 5. Connect two more hydraulic lines (12) and (13) to hydraulic connections (2) and (3) on capstan (1) and foot valve connections (14) and (15).



OPERATION-AUXILIARY EQUIPMENT - CONTINUED

HYDRAULIC CAPSTAN - CONTINUED

- 6. Pull back on the pole puller control handle (16). It will stay in this position until you push it out.
- 7. Tie the rope (17) to the item you wish to pull up and run it through a block and tackle (18).
- 8. Wrap the rope around capstan (1) three times.
- 9. Step on pedal (19) at foot valve control (9), and pull the rope as the load rises.
- 10. The capstan (1) will stop when you take your foot off of pedal (19) at foot control valve (9).

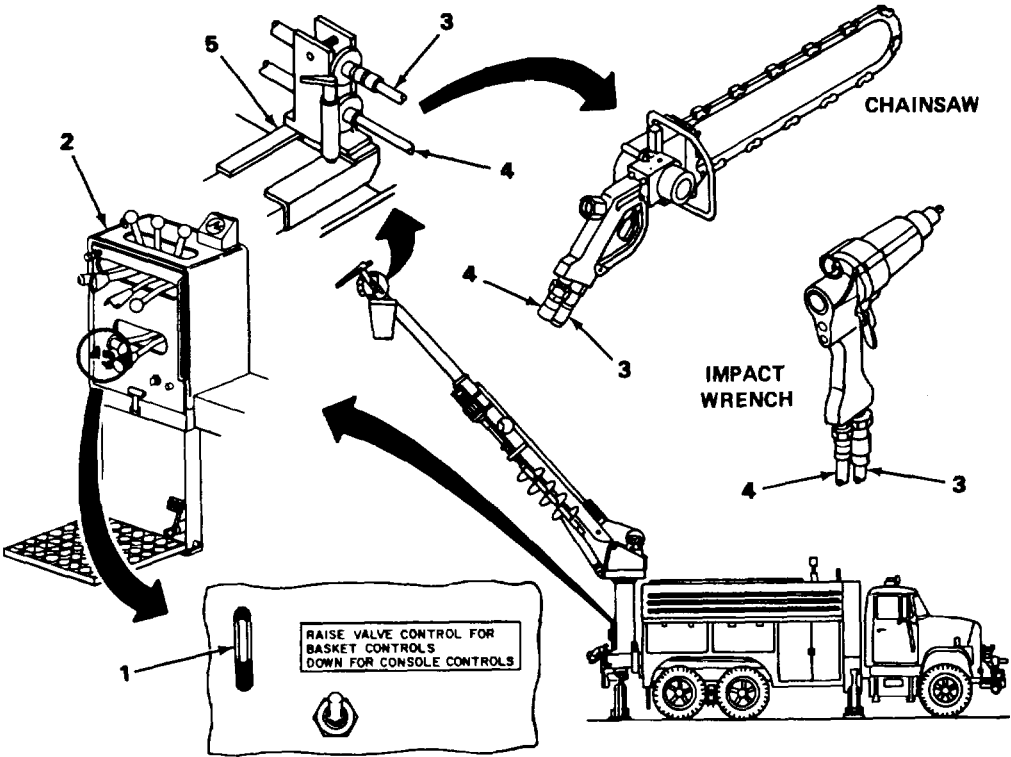


OPERATION-AUXILIARY EQUIPMENT - CONTINUED
AUXILIARY TOOL POWER OUTLETS AT THE BASKETS

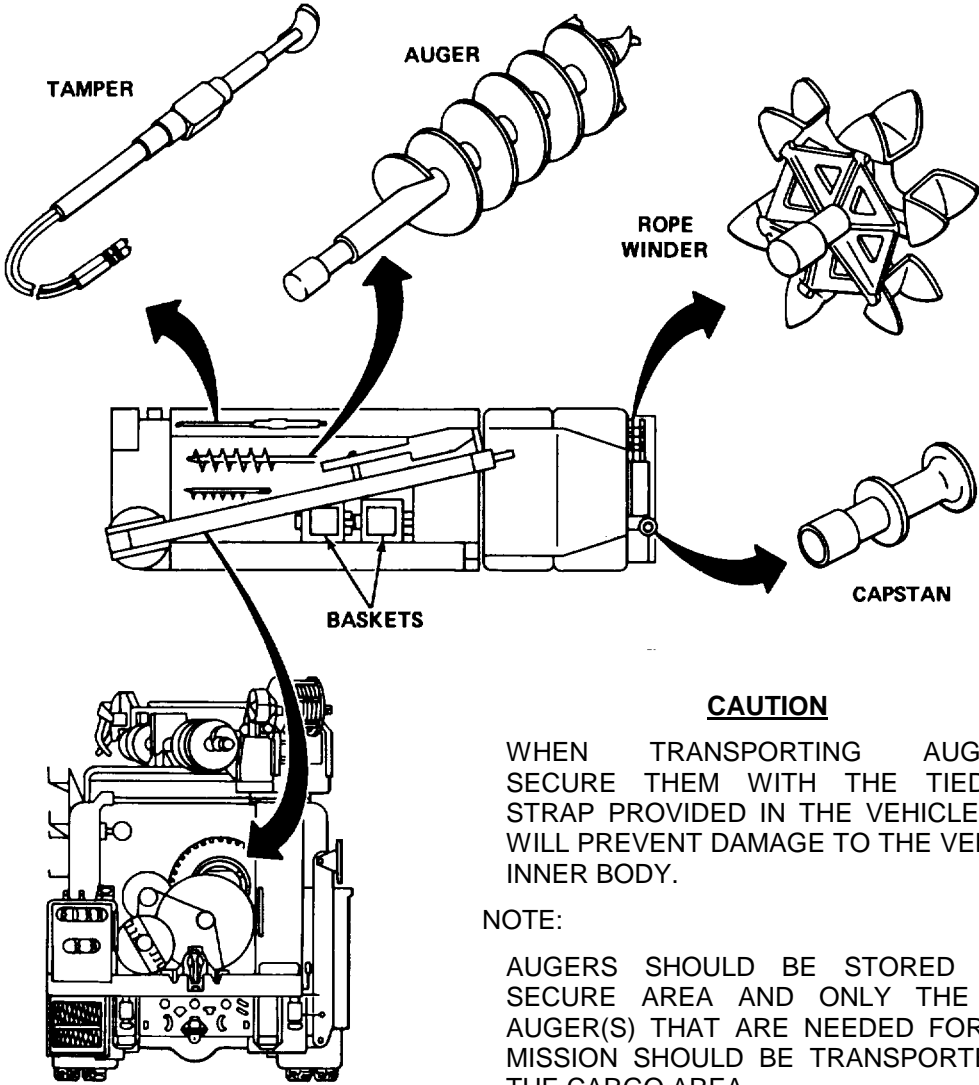
NOTE

Only the hydraulic powered chainsaw, and the Impact wrench can be operated while working in the basket(s). The hydraulic power source outlets are bracket-mounted on the left side of the derrick leg.

- 1. To operate all controls from the basket have assistant raise the valve control handle (1) on the operator's console (2).
- 2. For auxiliary tool operation, connect the hydraulic lines (3) and (4) to the hydraulic power source outlets (5).
- 3. Connect the other ends of hydraulic lines (3) and (4) to the tools to be used.



**AUXILIARY TOOL-EQUIPMENT STOWAGE
TOOL-AUGER STOWAGE-FRONT AND REAR**



CAUTION

WHEN TRANSPORTING AUGER(S) SECURE THEM WITH THE TIEDOWN STRAP PROVIDED IN THE VEHICLE THIS WILL PREVENT DAMAGE TO THE VEHICLE INNER BODY.

NOTE:

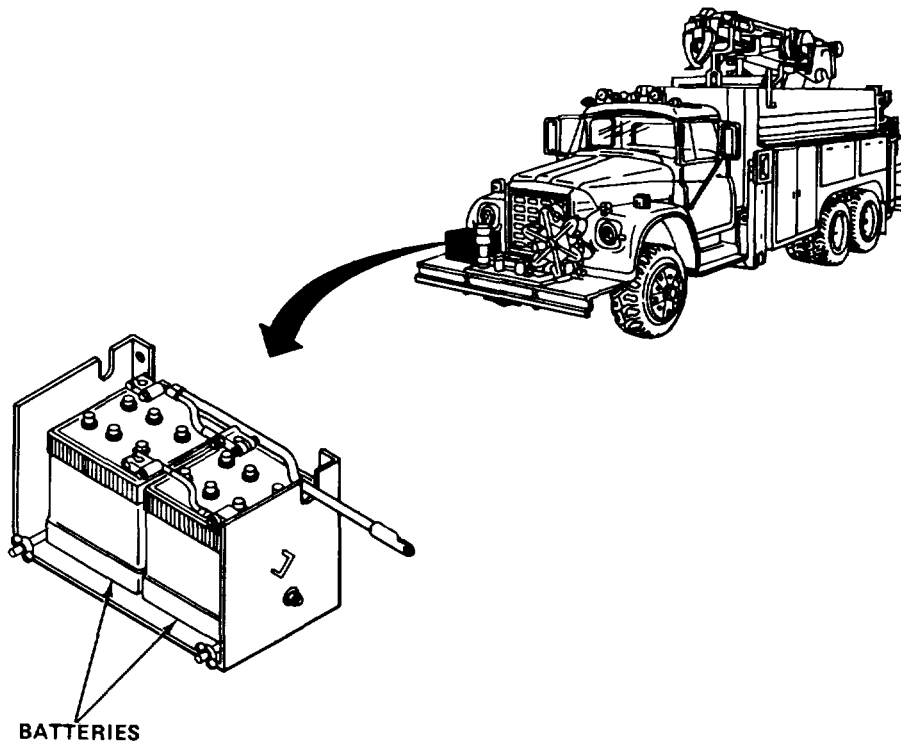
AUGERS SHOULD BE STORED IN A SECURE AREA AND ONLY THE SIZE AUGER(S) THAT ARE NEEDED FOR THE MISSION SHOULD BE TRANSPORTED IN THE CARGO AREA..

BATTERY JUMP-STARTING

The information on the following pages contains the battery jump-starting procedures to start the M876 engine, if the battery voltage is too weak to crank the engine.

MAINTAINING YOUR TRUCK BATTERY

1. Daily driving habits and weekly PMCS inspections determine good or bad performance of a battery.
2. Check the troubleshooting procedures in this manual if you are having problems with the battery, to locate and correct the cause, or notify Organizational Maintenance if necessary. If further information on battery maintenance is required see TM 9-6140-200-14.



BATTERY JUMP-STARTING - CONTINUED**WARNING**

Any procedures performed other than those outlined below could result in personnel injury or equipment damage.

Always wear eye protection when working around batteries, to prevent eye injury.

Don't smoke, or introduce open flames or sparks near the battery, especially if the caps are off. If a battery is gassing, it can explode and cause injury.

CAUTION

The M876 truck is equipped with a 12-volt system. Never jump start with a 24-volt system, unless the instructions below are observed.

Excessive engine idling at very low speeds will discharge the battery. Running the engine to recharge the battery is permissible, but keep an eye on the charging rate, engine performance and do not exceed 1000 engine rpm.

Always connect the ground cable last when connecting jump start cables, and always disconnect the ground cable first when disconnecting the jump start cables. This will minimize the possibility of sparks around the battery.

BATTERY JUMP-STARTING - CONTINUED**CONNECTING THE JUMPER CABLES**

1. Position the slave vehicle so that its batteries are directly opposite the batteries of the disabled vehicle. Stop the engine.
2. Open, and/or remove the battery box door(s) or cover on both vehicles, to expose the batteries.

CAUTION

If the slave vehicle is equipped with a 24-volt system, disconnect the second battery before attaching the jump cables, to prevent equipment damage.

Make sure you connect the positive (+) battery post of the disabled vehicle to the positive (+) battery post on the slave vehicle battery, and the negative (-) battery post of the disabled vehicle to the negative (-) battery post on the slave vehicle. Failure to do so can cause severe damage to the equipment.

3. Attach one end (1) of the positive (red) cable (2) to the positive (+) battery post (3) of the disabled vehicle, and attach the other end (4) to the positive (+) battery post (5) on the slave vehicle.
4. Attach one end (6) of the negative (black) cable (7) to the negative (-) battery post (8) of the disabled vehicle. Attach the other end (9) to the battery post (10) on the slave vehicle.
5. Start the engine of the slave vehicle, then crank and start the engine of the disabled vehicle.

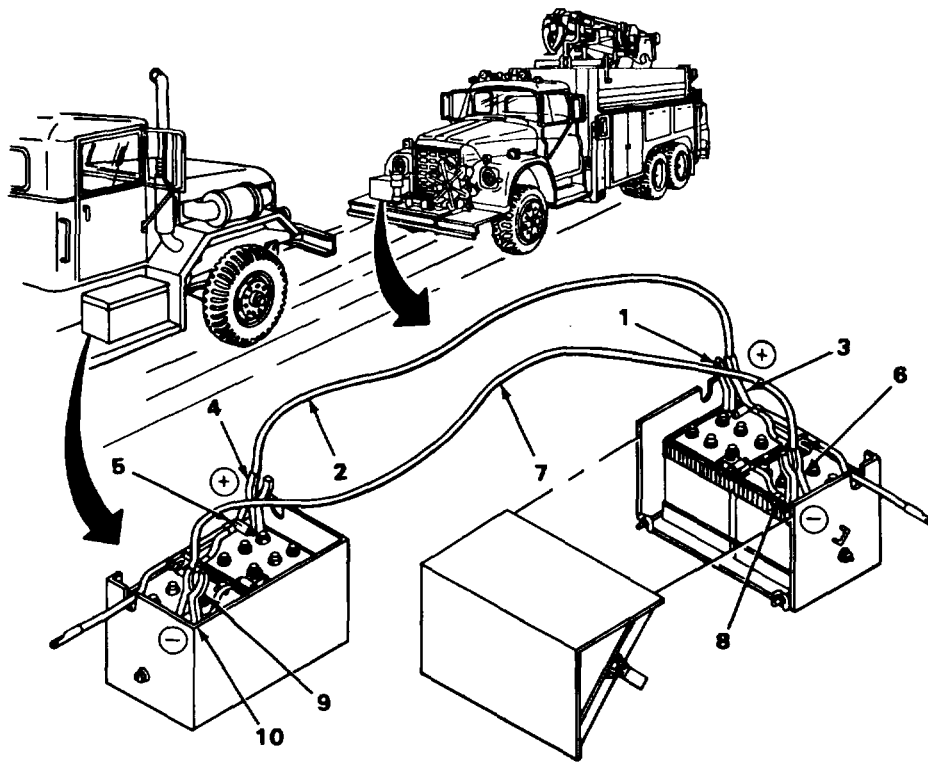
DISCONNECTING THE JUMPER CABLES**CAUTION**

Completely remove one jumper cable at a time to prevent contact of the positive (red) cable with the negative (black) cable end. Shorting the batteries in such a manner can cause serious damage to the alternators.

BATTERY JUMP-STARTING - CONTINUED

DISCONNECTING THE JUMPER CABLES - CONTINUED

1. When the disabled truck engine is running, remove the battery jump cables (2) and (7), one at a time.
2. Hook up the disconnected second battery on the slave vehicle.
3. Secure the battery box door(s), or install battery box cover(s), on both vehicles.

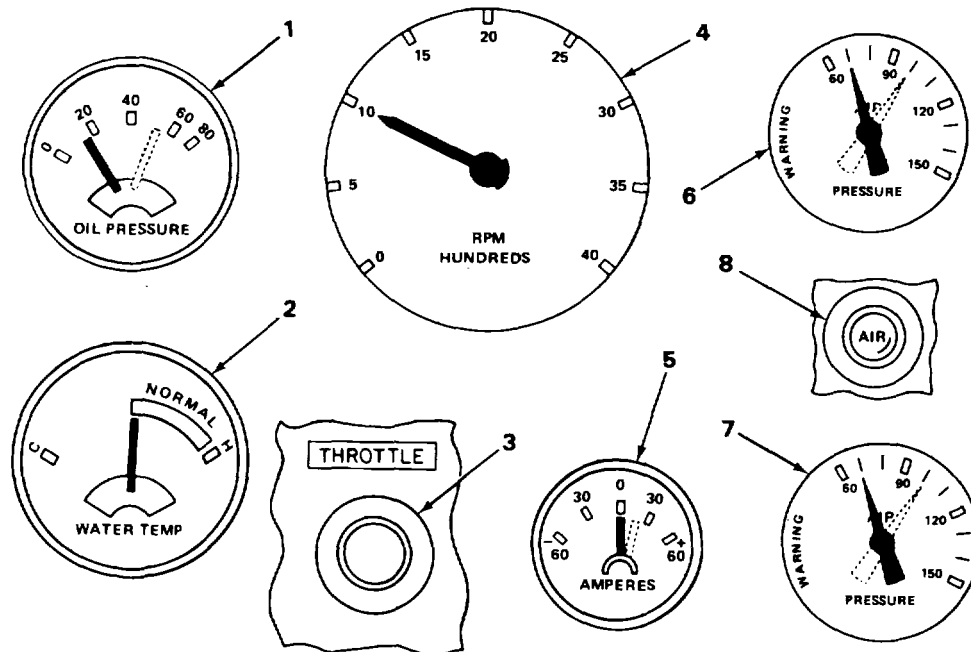


BATTERY JUMP-STARTING - CONTINUED**CHECKING ENGINE PERFORMANCE AFTER JUMP-START****CAUTION**

If no oil pressure is indicated on gage after engine starts up, or while driving, stop engine immediately and check for cause. Notify organizational maintenance, if necessary.

If indicator suddenly rises to "HOT" position, stop engine immediately, and check out reason for overheating. Notify organizational maintenance, if necessary.

1. Check oil pressure gage (1) and water temperature gage (2) to make sure gages are indicating normal engine operation.
2. Increase engine idle speed to 1000 rpm by adjusting throttle control (3) and observing tachometer (4).
3. Check ammeter gage (5) to make sure it shows battery is being charged. Allow engine to idle for at least 5 minutes, to build up the battery voltage.
4. Do not move the truck until both air pressure gages (6) and (7) indicate 80 psi (552 kPa) pressure, and low air pressure warning light (8) has gone out. Move truck when engine performance is indicated as satisfactory on all gages.



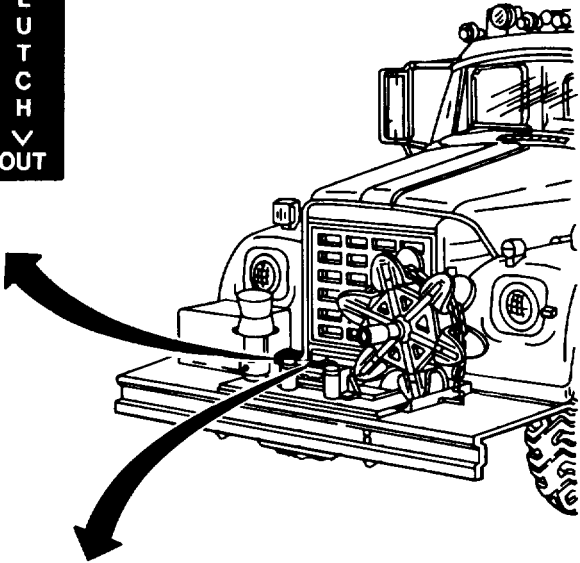
DECALS-DATA PLATES AND INSTRUCTION PLATES

FRONT

WARNING

1. CLUTCH MUST BE TOTALLY ENGAGED DURING WINCHING OPERATIONS.
2. DO NOT DISENGAGE CLUTCH TO LOWER A LOAD.
3. DO NOT LEAVE CLUTCH ENGAGED WHEN WINCH IS NOT IN USE.
4. STAY OUT FROM UNDER AND AWAY FROM RAISED LOADS.

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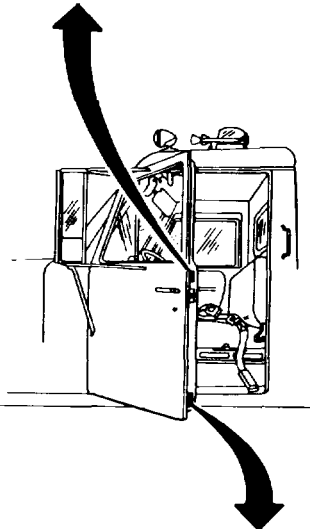



Ramsey Winch Co. TULSA, OKLAHOMA		MAX. LINE PULL	
MODEL	<input type="text"/>	FIRST LAYER	<input type="text"/>
SERIAL NUMBER	<input type="text"/>	FULL DRUM	<input type="text"/>
LUBRICANT	<input type="text"/>	INTERMITTANT DUTY RATING (FT-LS MIN)	<input type="text"/>
GREASE LIGHTLY WITH MULTI-PURPOSE GREASE		MAX. LINE SPEED	<input type="text"/> FT / MIN

DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED
CAB-LEFT DOOR

MFD. BY MCCABE-POWERS BODY CO., DATE _____
 INC. VEHICLE MFD. BY _____ DATE _____
 GVWR _____ GAWR-FRONT _____ REAR _____
 THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
 VEHICLE SAFETY STANDARDS IN EFFECT, DATE _____
 VEHICLE IDENTIFICATION NO. _____
 VEHICLE CLASSIFICATION _____

NPJ88



		
INTERNATIONAL HARVESTER COMPANY		
OF CANADA LTD. HAMILTON, ONTARIO		
VIN	MODEL	WB

PST MFG		PO LOC DATE

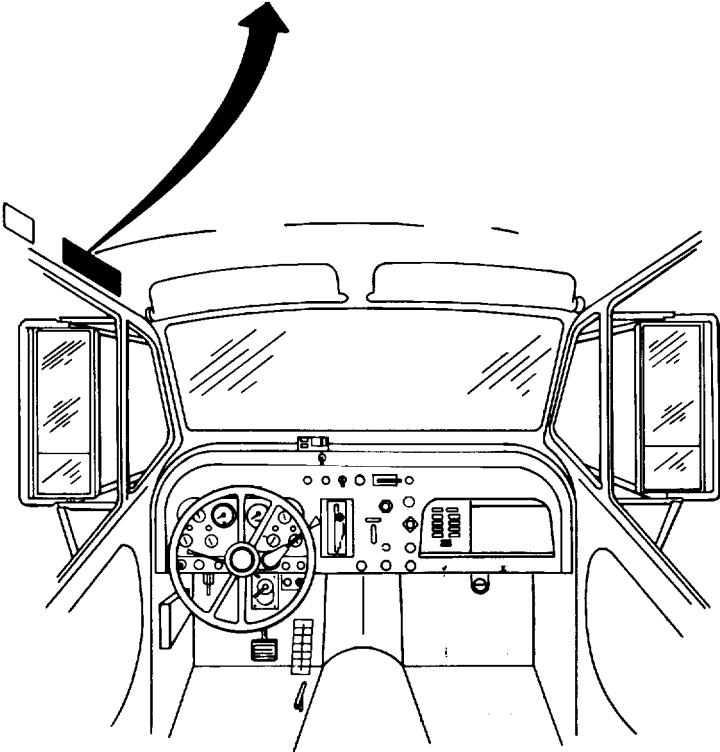
MAX GVW LBS		MAX GCW LBS

WARRANTY VOID IF ABOVE WEIGHT IS EXCEEDED EXCEPT RESTRICTED BY TIRES AND SPRINGS MADE IN CANADA		

DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

CAB

NOMENCLATURE _____
MAKE AND MODEL INTERNATIONAL _____
MANUFACTURER'S SERIAL NUMBER _____
REGISTRATION NUMBER _____
FSN NUMBER _____
VEHICLE CURB WEIGHT _____ POUNDS
PAYLOAD; MAXIMUM _____ POUNDS
GROSS WEIGHT, RATING, MAX _____ POUNDS
U.S. PROPERTY DATE OF DELIVERY _____
WARRANTY _____ MONTHS _____ MILES
CONTRACT NUMBER _____



DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

CAB - CONTINUED

POWER TAKE OFF OPERATION

MECHANICAL TRANSMISSION

- 1 A POWER TAKE OFF IS, AND SHOULD BE, OPERATED AS AN INTEGRAL PART OF THE MAIN TRANSMISSION
- 2 BEFORE SHIFTING THE POWER TAKE OFF INTO OR OUT OF GEAR, DISENGAGE THE CLUTCH AND WAIT FOR TRANSMISSION OR P.T.O. GEARS TO STOP ROTATING.

AUTOMATIC TRANSMISSION

ON AUTOMATIC TRANSMISSIONS, THE GEARS IN THE TRANSMISSION TURN WHEN THE TRANSMISSION IS IN NEUTRAL, THEREFORE, GEAR CLASHING WILL OCCUR IF THE POWER TAKE OFF IS SHIFTED INTO GEAR AT THIS TIME.

TO OPERATE POWER TAKE OFF PROPERLY

- 1 SHIFT TRANSMISSION LEVER INTO ANY OF THE DRIVE POSITIONS THIS WILL STOP TRANSMISSION GEARS FROM TURNING.
- 2 SHIFT POWER TAKE OFF INTO GEAR.
- 3 SHIFT TRANSMISSION INTO NEUTRAL. THIS WILL START TRANSMISSION GEARS TURNING.


THIS PROCEDURE SHOULD ELIMINATE GEAR CLASH.
NOTE: TOP MOUNTED P.T.O.'S REQUIRE PRESSURE LUBRICATION.

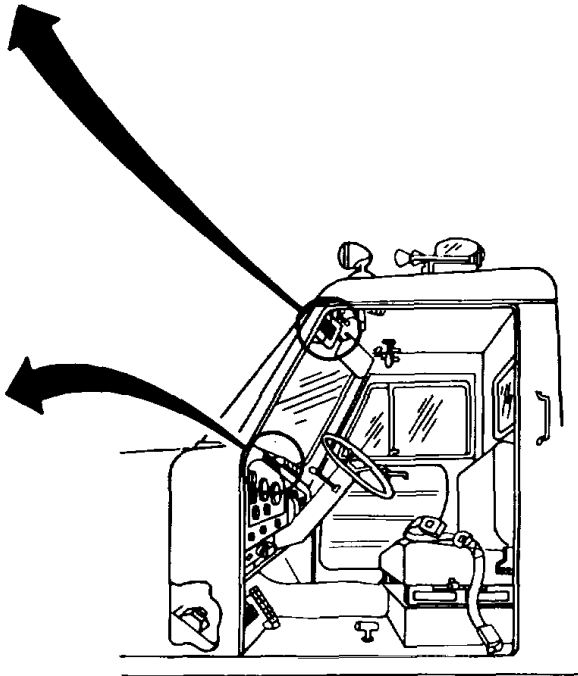
DANA CORPORATION
POWER EQUIP. DIV.

CAUTION

THIS VEHICLE IS EQUIPPED WITH A POWER TAKE OFF.

CONSULT OPERATING INSTRUCTIONS BEFORE USING (SEE SUN VISOR).


 DANA CORPORATION
POWER EQUIP. DIV.



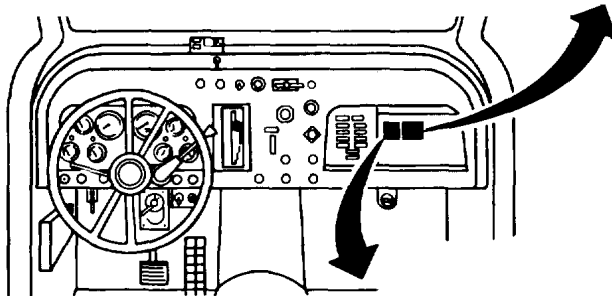
DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

CAB-DASH PANEL

WARNING

- (A) DERRICK MUST BE SECURED IN STOWED POSITION WHILE VEHICLE IS BEING MOVED
- (B) RATED BASKET LOAD, HYDRAULIC OUTRIGGERS DOWN, NOT IN EXCESS OF 300 POUNDS
- (C) INSPECT BASKET LEVELING SYSTEM
- (D) MAXIMUM VOLTAGE DERRICK EXTENSION AND BASKETS WITH LINERS WILL WITHSTAND 100,000 VOLTS A.C.
- (E) OVERALL TRAVEL HEIGHT WHEN DERRICK IS IN STOWED POSITION _____ INCHES
- (F) DERRICK SHALL NOT BE OPERATED IN WINDS IN EXCESS OF 30 MPH.
- (G) BASKET LINER MUST BE INSTALLED WHEN OPERATING ON OR NEAR ELECTRICAL LINES
- (H) DO NOT PERMIT DIRECT CONTACT OF BASKET TO GROUND WHEN OPERATING NEAR ELECTRICAL DISTRIBUTION LINES
- (I) WHEN USING PLASTIC NON CONDUCTIVE EXTENSION WITH BASKETS, REMOVE METAL WINCH CABLE AND OTHER CONDUCTIVE ACCESSORIES
- (J) MAXIMUM SIDE SLOPES, DEGREES _____ MAXIMUM ASCENDING SLOPES, DEGREES _____ MAXIMUM DESCENDING SLOPES, DEGREES _____
- (K) WHEEL CHOCKS IN PLACE
- (L) WIRE BRAID HYDRAULIC HOSE SHALL NOT BE USED ON OR NEAR ELECTRICAL LINES

1001000



DIESEL ENGINE with Ether Aid

COLD WEATHER STARTING INSTRUCTIONS

- 1 DEPRESS CLUTCH APPLY PARK BRAKE PUT TRANSMISSION IN NEUTRAL DISENGAGE FUEL SHUT OFF CONTROL
- 2 PULL OUT ETHER START KNOB (FOR ONE OR TWO SECONDS)
- 3 PUSH IN ETHER START KNOB
- 4 WAIT (THREE SECONDS) DEPRESS ACCELERATOR ACTUATE STARTER
- 5 IF ENGINE FAILS TO START REPEAT ABOVE PROCEDURE

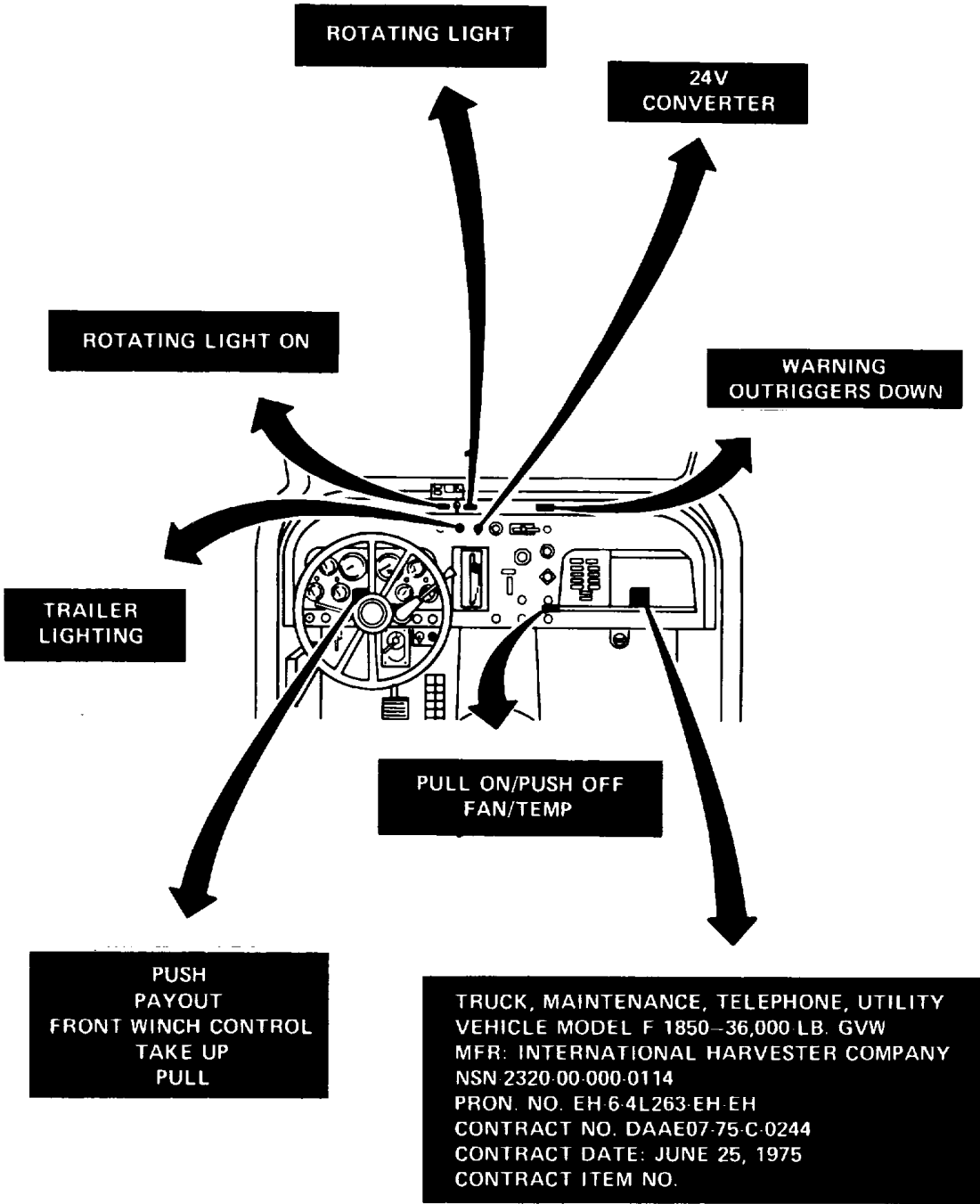
CAUTION

DO NOT EXCEED FOUR REPEAT OPERATIONS INVESTIGATE AND DETERMINE REASON FOR ENGINE NOT STARTING

- 6 IMMEDIATELY AFTER STARTING IT MAY BE NECESSARY TO REPEAT STEPS (2) AND (3) BEFORE ENGINE RUNS SMOOTHLY TO STOP ENGINE TURN KEY OFF ENGAGE FUEL SHUT OFF CONTROL

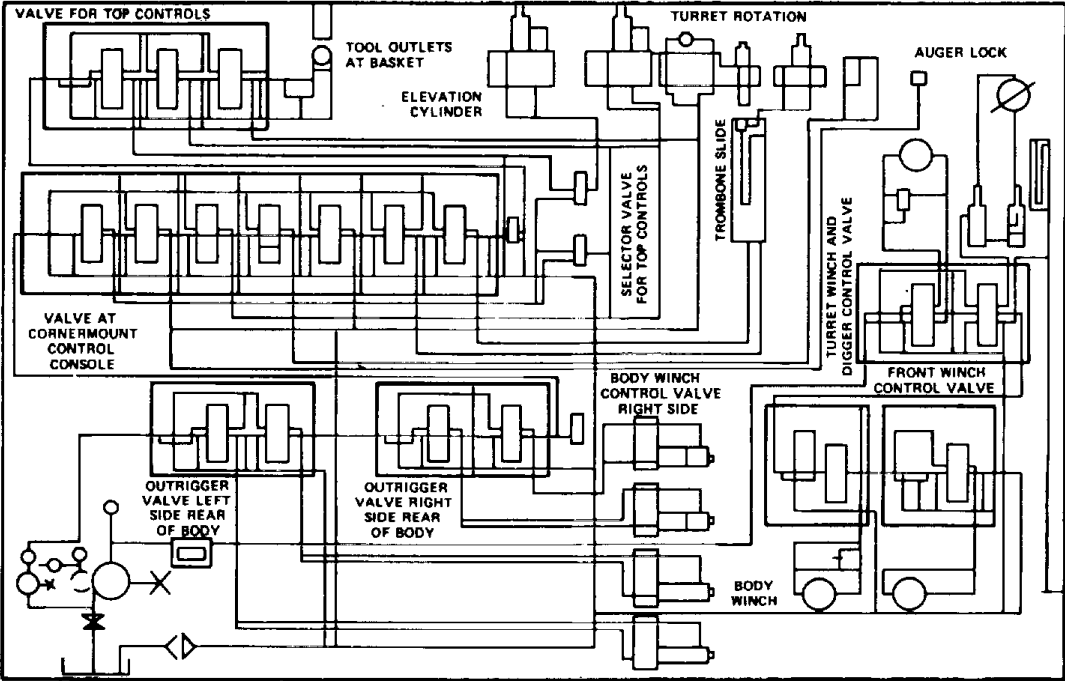
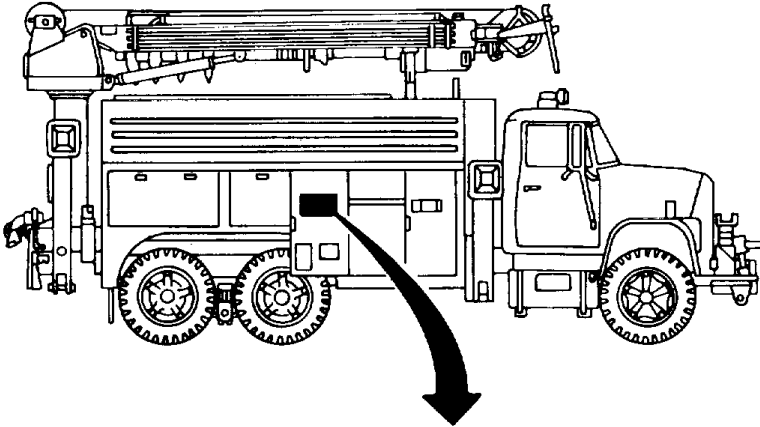
DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

CAB-DASH PANEL - CONTINUED



DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

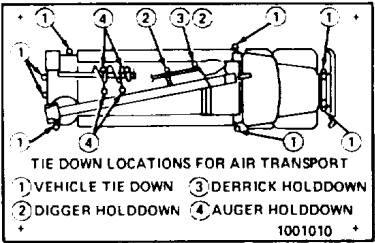
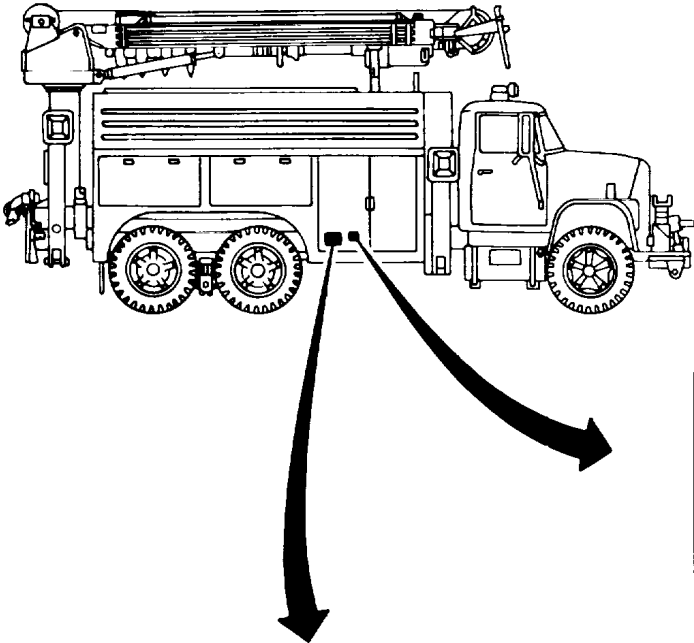
MAINTENANCE BODY



TA 222641

DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

MAINTENANCE BODY - CONTINUED



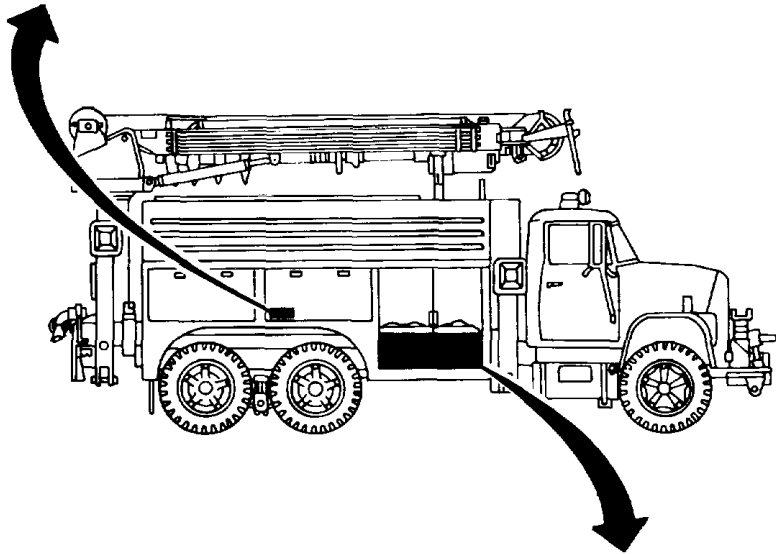
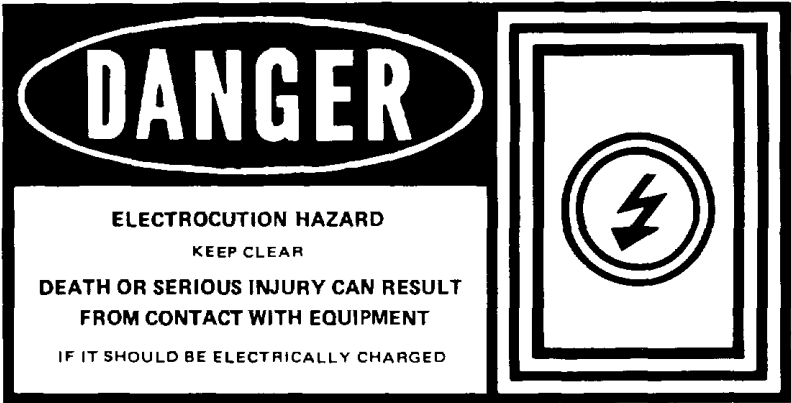
**AIRCRAFT TRANSPORT LOADING
 FOR
 TRUCK, MAINTENANCE; TELEPHONE, UTILITY C/S
 M 876 36000 GVW,R, 6X4, W/WN, W/E**

OVERALL LENGTH	322 IN	NUMBER OF TIEDOWNS	8
OVERALL HEIGHT	14.4 IN	TIEDOWN CAPACITY	14000 LBS.
OVERALL WIDTH	95.5 IN	FRONT AXLE TO GRD.	9 IN.
TOTAL WEIGHT	29,040 LBS.	REAR AXLE TO GRD.	8 IN.
LOAD ON EACH REAR TIRE	2725 LBS.	TIRE PRESSURE	50 P.S.I.
LOAD ON EACH FRONT TIRE	3620 LBS.	TIRE PRESSURE	75 P.S.I.
FOOTPRINT REAR TIRES	7.5 IN WIDE X 11 IN LONG		
FOOTPRINT FRONT TIRES	8.5 IN WIDE X 12 IN LONG		
WIDTH OUTSIDE FRONT TIRES	90 IN	WIDTH OUTSIDE REAR TIRES	95 IN

1001340

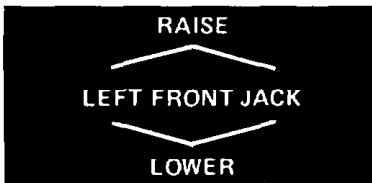
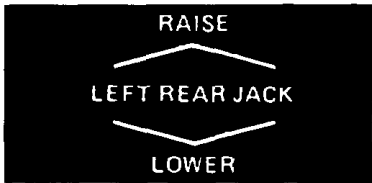
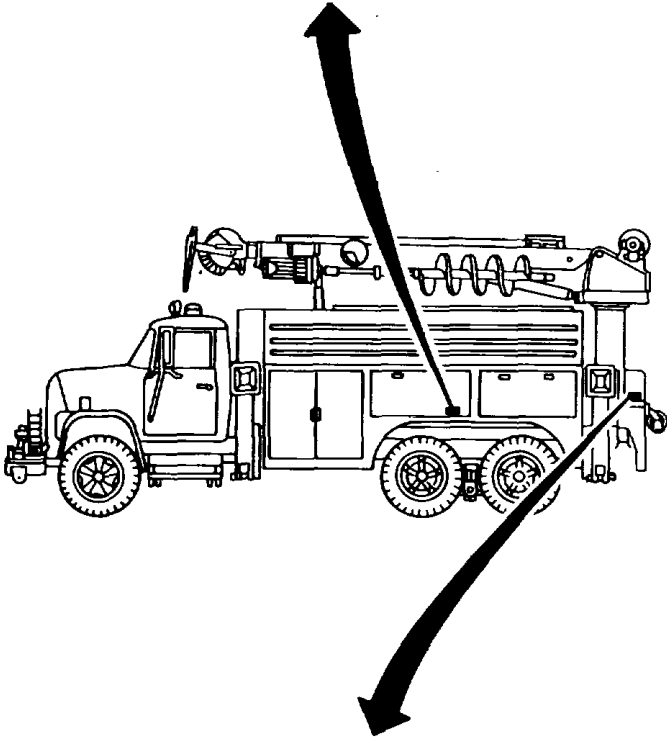
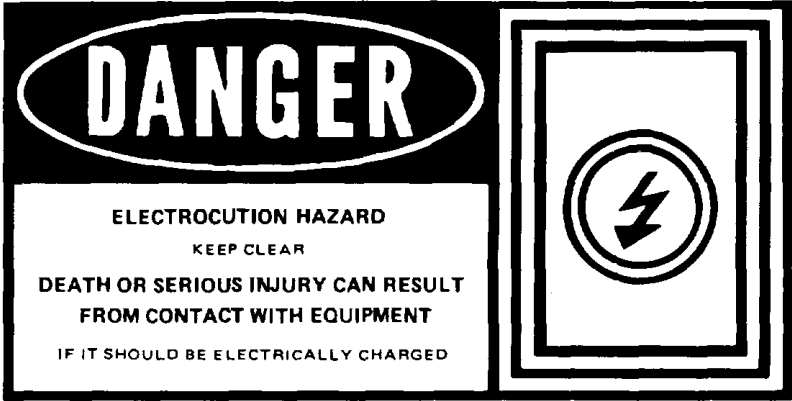
DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

MAINTENANCE BODY - CONTINUED



DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

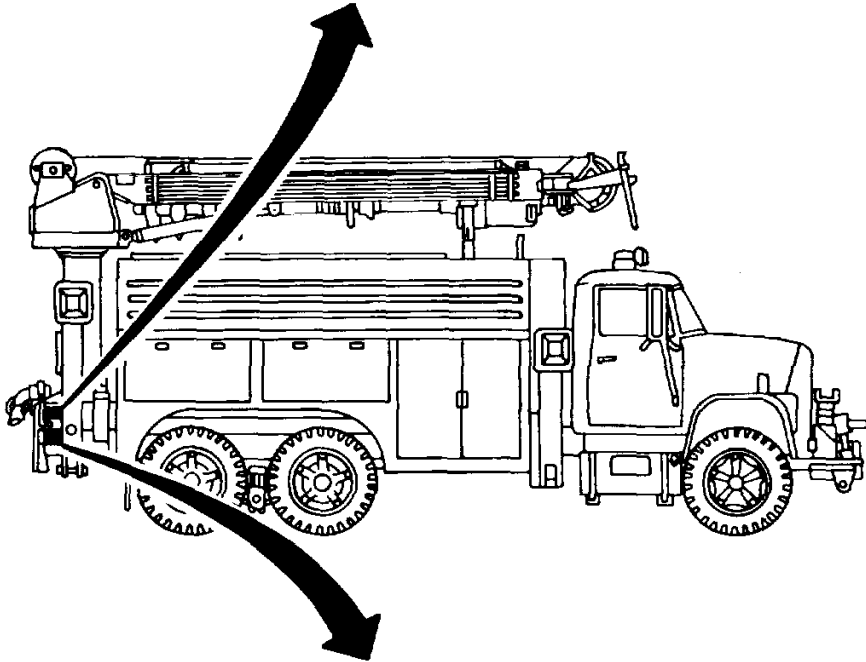
MAINTENANCE BODY - CONTINUED



DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

MAINTENANCE BODY - CONTINUED

WINCH
PAY-OUT ← CONTROL → TAKE-UP

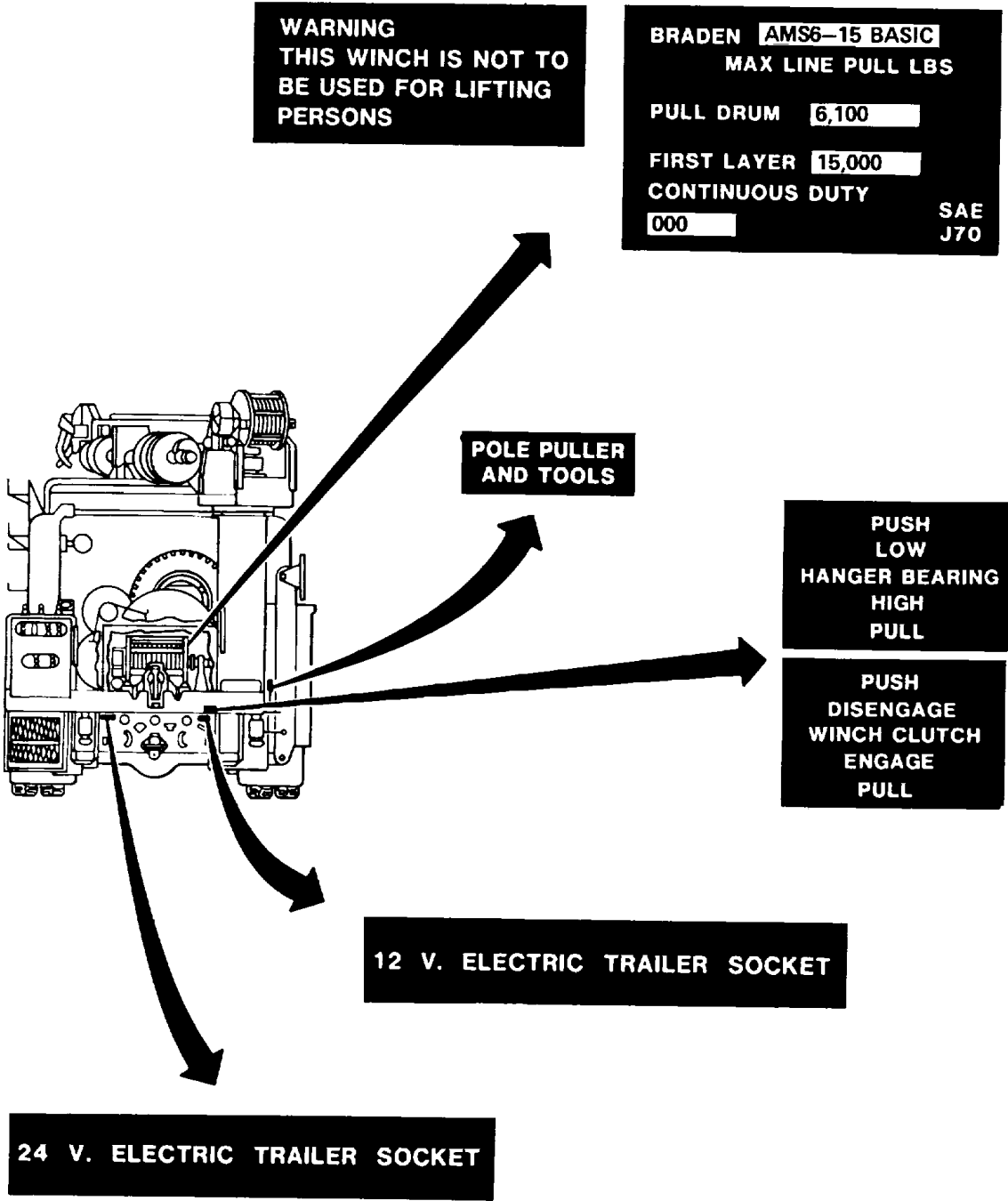


RAISE
∧
RIGHT REAR JACK
∨
LOWER

RAISE
∧
RIGHT FRONT JACK
∨
LOWER

DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

REAR



DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

REAR - CONTINUED

DANGER

ELECTROCUTION HAZARD

YOU MUST NOT OPERATE THIS MACHINE UNLESS YOU ARE QUALIFIED BY TRAINING AND EXPERIENCE IN THE SAFE OPERATION OF THIS MACHINE

TRAINING INCLUDES COMPLETE KNOWLEDGE OF YOUR EMPLOYER'S WORK RULES, ALL GOVERNMENTAL REQUISITIONS AND MANUFACTURER'S OPERATOR AND SAFETY MANUALS RELATIVE TO THIS MACHINE'S SAFE USE

AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY

DANGER

ELECTROCUTION HAZARD

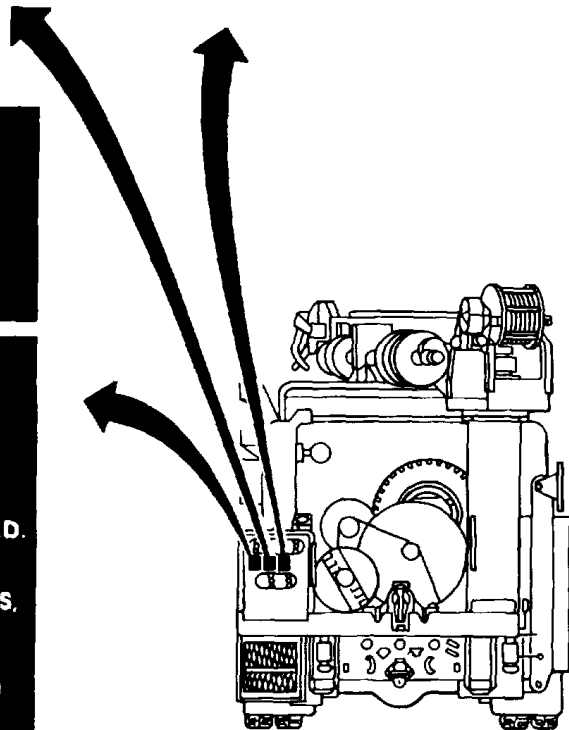
MAINTAIN SAFE CLEARANCES FROM ELECTRICAL POWER LINES AND APPARATUS. YOU MUST ALLOW FOR PLATFORM SWAY, ROCK, OR SAG.

THIS AERIAL DEVICE DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR WHEN YOU ARE IN CONTACT WITH OR IN PROXIMITY TO ANOTHER CONDUCTOR.

DEATH OR SERIOUS INJURY WILL RESULT FROM SUCH CONTACT OR INADEQUATE CLEARANCE.

CAUTION

1. INSPECT VEHICLE AND AERIAL DEVICE, INCLUDING OPERATION, PRIOR TO USE.
2. FOR STATIONARY OPERATION, VEHICLE MUST BE SECURELY PARKED AND STABILIZED BEFORE AERIAL DEVICE IS OPERATED.
3. BEFORE OPERATING THE AERIAL DEVICE, EQUIPPED WITH OUTRIGGERS, EXTEND THEM TO SOLID FOOTING.
4. OPERATORS SHALL WEAR A BODY BELT AND ATTACH WITH A LANYARD TO BOOM OR PLATFORM.
5. OPERATE ALL CONTROLS SLOWLY FOR SMOOTH PLATFORM MOTION.



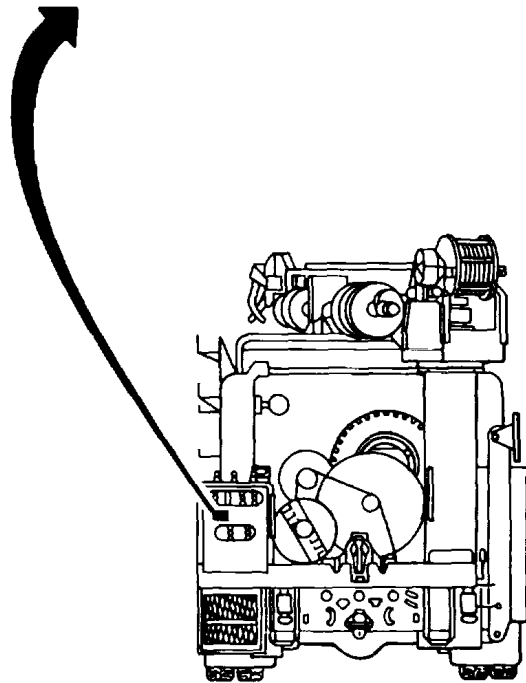
DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

REAR - CONTINUED

WARNING

- (A) DERRICK MUST BE SECURED IN STOWED POSITION WHILE VEHICLE IS BEING MOVED.
- (B) RATED BASKET LOAD, HYDRAULIC OUTRIGGERS DOWN, NOT IN EXCESS OF 300 POUNDS
- (C) INSPECT BASKET LEVELING SYSTEM
- (D) MAXIMUM VOLTAGE DERRICK EXTENSION AND BASKETS WITH LINERS WILL WITHSTAND 100,000 VOLTS A.C.
- (E) OVERALL TRAVEL HEIGHT WHEN DERRICK IS IN STOWED POSITION _____ INCHES.
- (F) DERRICK SHALL NOT BE OPERATED IN WINDS IN EXCESS OF 30 MPH. BASKET LINER MUST BE INSTALLED WHEN OPERATING ON OR NEAR ELECTRICAL LINES.
- (G) DO NOT PERMIT DIRECT CONTACT OF BASKET TO GROUND WHEN OPERATING NEAR ELECTRICAL DISTRIBUTION LINES
- (H) WHEN USING PLASTIC NON CONDUCTIVE EXTENSION WITH BASKETS, REMOVE METAL WINCH CABLE AND OTHER CONDUCTIVE ACCESSORIES.
- (J) MAXIMUM SIDE SLOPES, DEGREES _____ MAXIMUM ASCENDING SLOPES, DEGREES _____ MAXIMUM DESCENDING SLOPES, DEGREES _____
- (K) WHEEL CHOCKES IN PLACE.
- (L) WIRE BRAID HYDRAULIC HOSE SHALL NOT BE USED ON OR NEAR ELECTRICAL LINES.

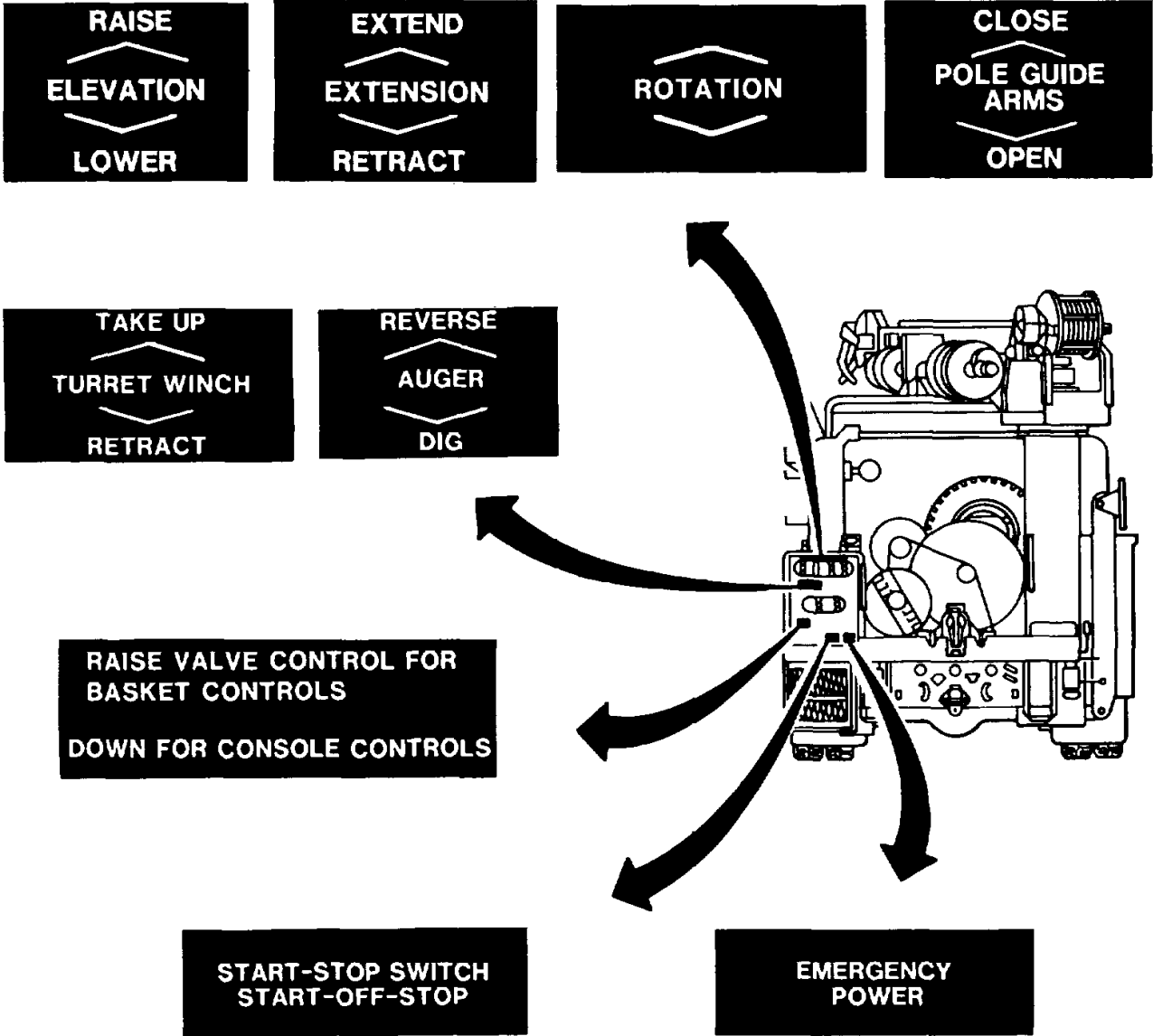
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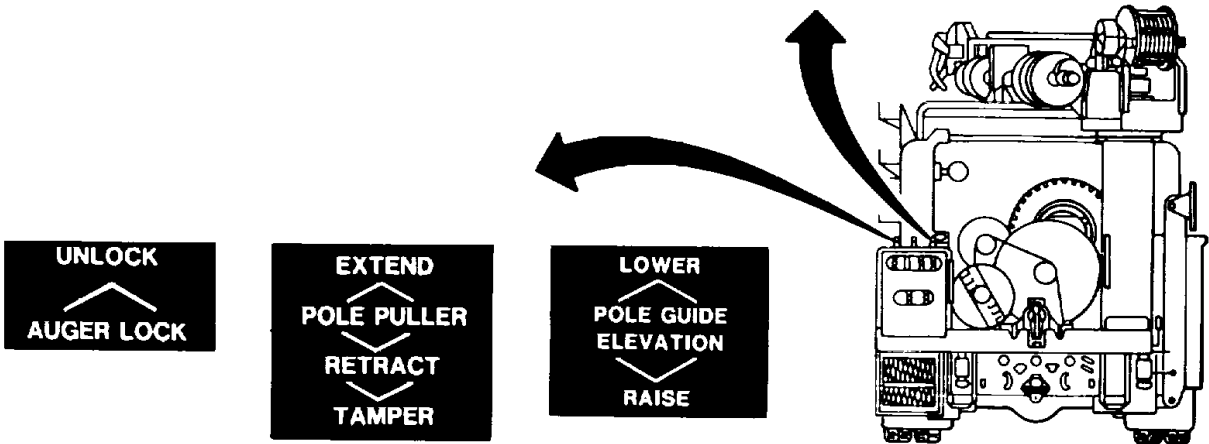
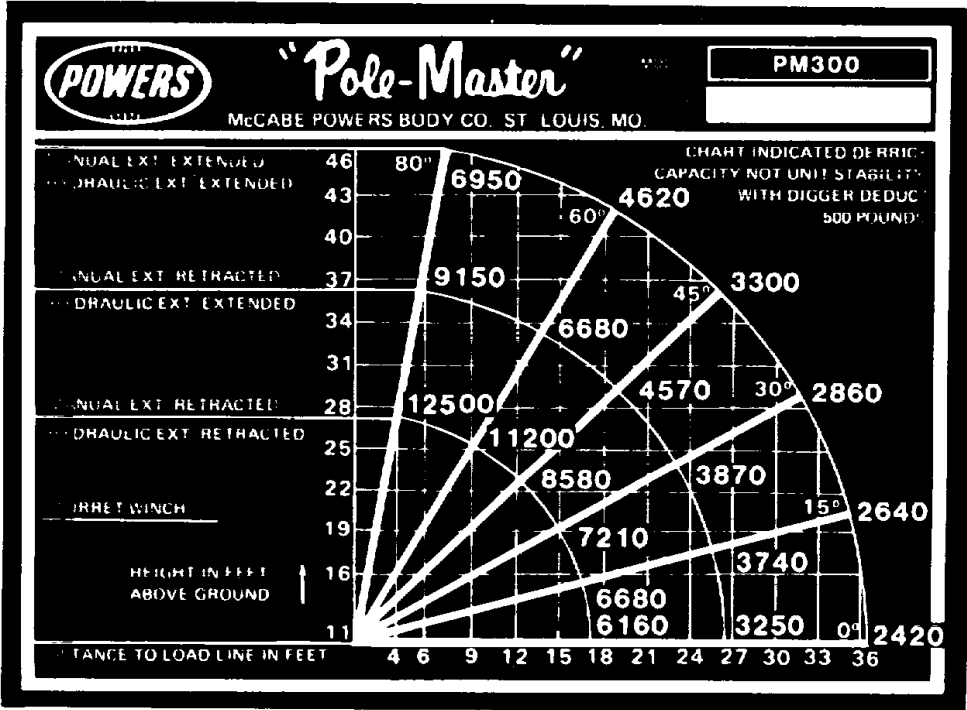
DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

REAR - CONTINUED



DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

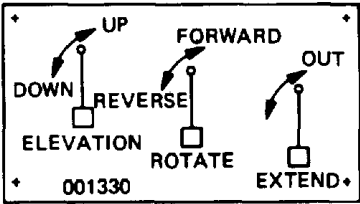
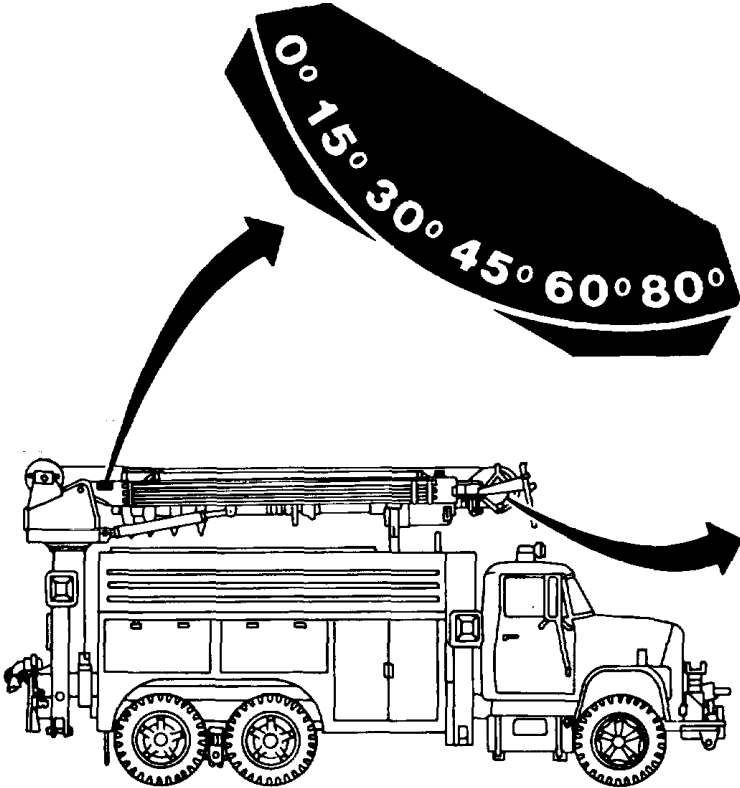
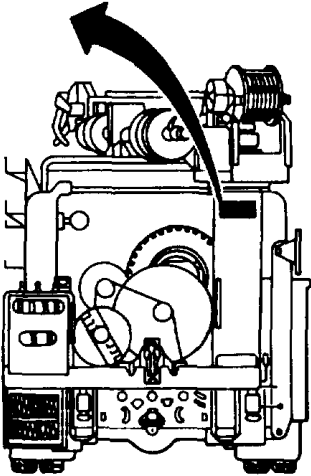
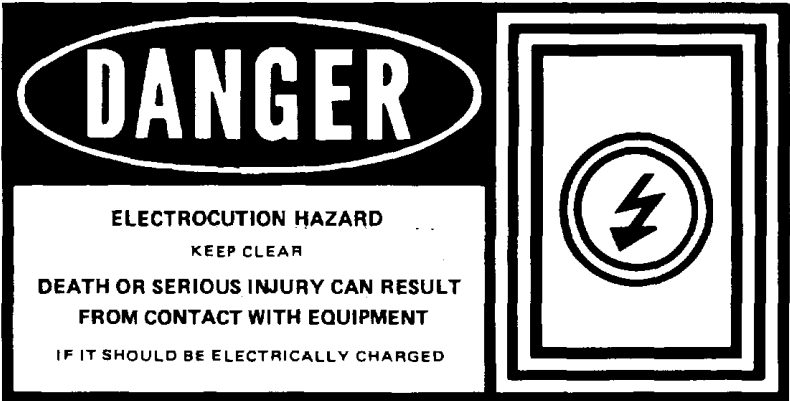
REAR - CONTINUED



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DECALS-DATA PLATES AND INSTRUCTION PLATES - CONTINUED

DERRICK



Section V OPERATION UNDER UNUSUAL CONDITIONS

The Information in the following pages contains instructions you need to know when operating the M876 truck in other than normal conditions. Use the following information as a guide:

The M876 truck will operate In temperatures ranging from -25°F (-32°C) to 125°F (+ 52°C). When exposed to the low and high temperatures, you have to be careful to avoid injury, especially if the M876 truck was operated for any length of time.

Make sure you are familiar with TM 21-300, Driver Training for Wheeled Vehicles, FM 21-305, Basic Instructions for Operators of Wheeled Vehicles, FM 31-70, Basic Cold Weather Manual and FM 9-207, Operation and Maintenance of Army Materiels in Extreme Cold Weather, before operating the M876 truck in unusual conditions.

	Page		Page
Extreme Cold Weather	2-173	Manual Release-Reset	
Extreme Hot Weather	2-169	Parking Spring Brake.....	2-188
Fording	2-185	Operation on Unusual	
General Lubrication		Terrain	2-177
Instructions.....	2-168	Towing the M876 Truck	2-189
Manual Release-Compress			
Parking Spring Brake	2-187		

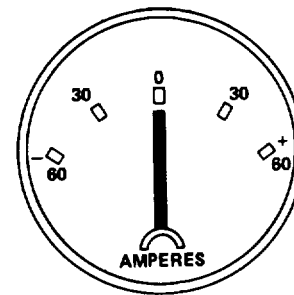
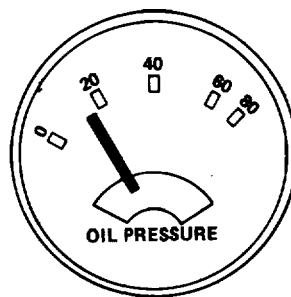
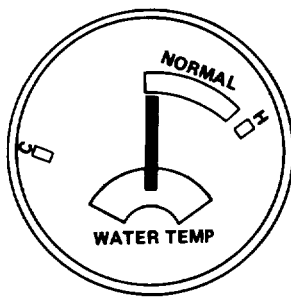
GENERAL LUBRICATION INSTRUCTIONS

1. In addition to normal preventive maintenance checks (PMCS), special care in cleaning and lubrication must be observed where the extremes of temperature, humidity and terrain conditions are present or anticipated.
2. The cleaning and lubricating procedures performed by the supporting maintenance personnel are listed on the LO 9-2320-269-12 Lubrication Chart.
3. Reduce service Intervals specified on the lubrication chart: i.e. lubricate more frequently to compensate for abnormal conditions, such as low or high temperatures, prolonged periods of high rpm operation, continued operation In sand or dust, immersion in water or exposure to moisture.

EXTREME HOT WEATHER

Watch and Guard Against Overheating

1. Overheating can be caused by the following conditions. Whenever possible, avoid or limit vehicle operation during these situations:
 - a. Operation continuously at high speed, for long periods of time.
 - b. Long and hard pulls up steep grades, in low gear ratios.
 - c. Long and hard pulls in sand, or soft terrain, in low gear ratios.
2. Be continuously alert for engine overheating by watching gages and halting for a cooling-off period whenever necessary and conditions permit.



Cooling System

1. Make frequent inspections and servicing of the following cooling system components:
 - a. Coolant level.
 - b. Engine oil level.

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EXTREME HOT WEATHER - CONTINUED

Cooling System

2. If the M876 truck engine consistently overheats, check for the following possible causes:
 - a. Accumulation of dirt, dust, sand or insects clogging the radiator fins.

WARNING

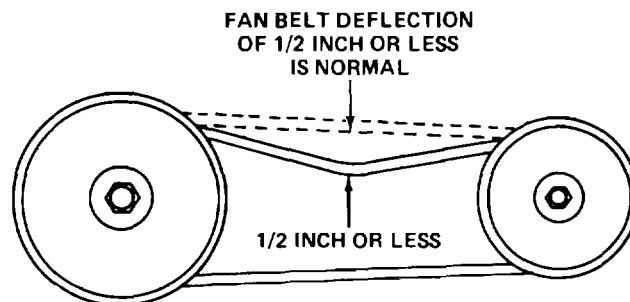
Particles blown by compressed air can be hazardous. Make certain the air stream is directed away from user, and other personnel in the area. User must wear protective safety eye shield when using compressed air in cleaning.

- b. Clean clogged radiator fins with water hose.

NOTE

Fan belt deflection of 1/2 Inch (1.27 cm) or less is normal.

- c. If the fan belts are loose, or require replacement, notify Organizational Maintenance.



TA 222653

EXTREME HOT WEATHER - CONTINUED

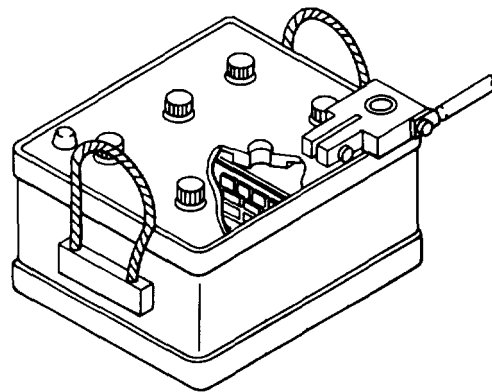
Batteries

WARNING

Don't smoke, or introduce open flames or sparks around batteries, especially if a battery is gassing. It can explode and cause personnel injury.

Never add electrolyte to the battery.

1. Check the level of the electrolyte in the battery cells frequently. If the batteries need a lot of water continuously, it is a sign that the battery is being overcharged. Report this to organizational maintenance.
2. If the electrolyte level is low, notify organizational maintenance.
3. Batteries will discharge at a greater rate if left standing for long periods at high temperatures. If necessary to park for several days, notify organizational maintenance to remove and store them in a cool place.



TA 222654

EXTREME HOT WEATHER - CONTINUED

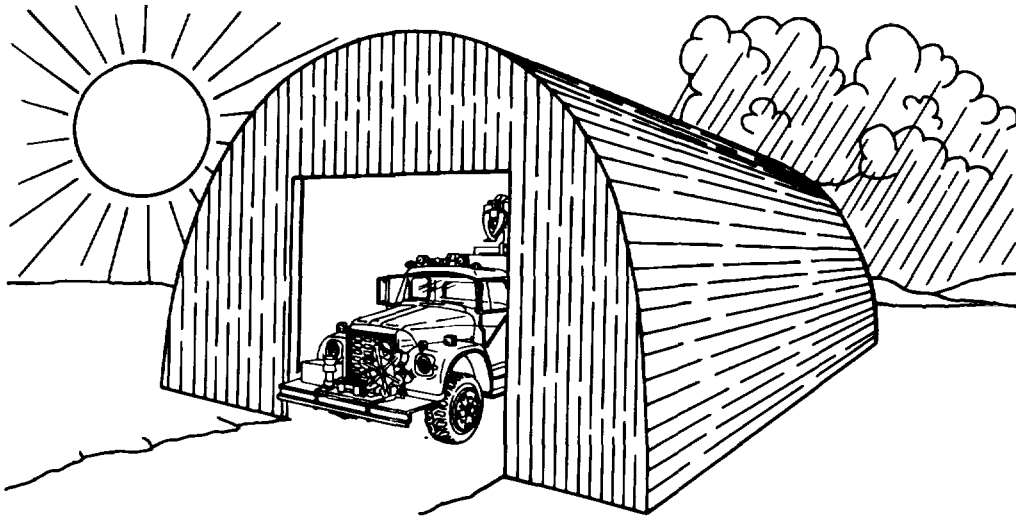
Protection While Parked

1. Park your M876 truck under cover whenever possible, to protect it against the effects of sun, sand, dust and storms.

NOTE

When checking tire pressures, do not reduce the tire pressure if tires are hot.

2. Check tires when cold. For correct pressure, see page 2-40.
3. Check the truck for corrosion, rust, mildew, mold and fungus growth on fabrics, glass and rubber.
4. Clean and lubricate the truck, as necessary, to prevent deterioration from corrosion and rust, especially if the truck is parked and inactive for a long period of time.



TA 222655

EXTREME COLD WEATHER**CAUTION**

Because extreme cold weather conditions greatly affect the operation and performance efficiency of the M876 truck, it is most important that you follow the approved precautionary practices and guidelines for cold weather operations. Refer to FM 9-207 for cold weather operation information.

Preparing for Cold Weather Operation

1. You must always be alert for indications of the effect the cold weather has upon the vehicle and its operation.
2. You must be very careful when starting or driving the truck after a shutdown for extended periods of time.
3. You must review the descriptions of operation in extreme cold weather, and be familiar with the guidelines contained in this manual and in the following listed Army publications:

FM 31-70
FM 31-71
TB 750-651
FM 9-207
TM 9-6140-200-14

How Extreme Cold Weather May Affect the M876 Truck

1. Lubricants can thicken.
2. Batteries can freeze, crack or provide insufficient voltage to crank the engine.
3. Tires can freeze to the ground.
4. Brakes can freeze up.
5. Air reservoir tanks can freeze.
6. Electrical wire insulations can crack, causing shorts.
7. Fuel cannot vaporize and form combustible mix for starting engines.
8. Various metals and materials can become brittle, easily damaged or broken.

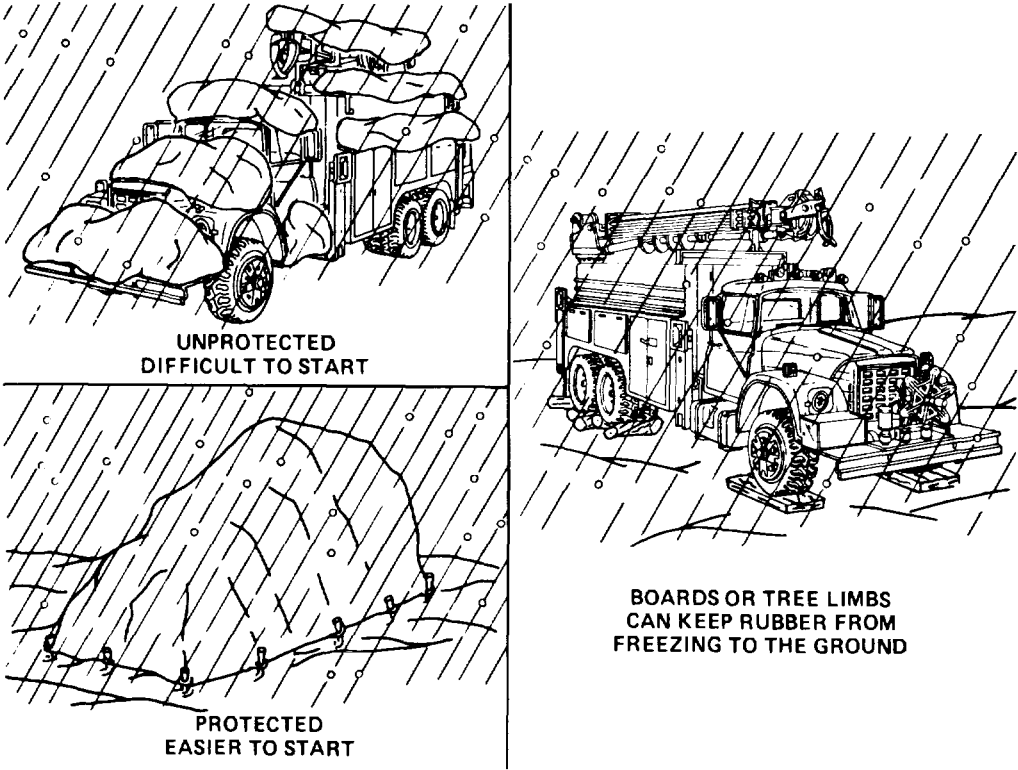
EXTREME COLD WEATHER - CONTINUED

Starting Operations

NOTE

Special winterization equipment is provided for the truck when protection against extreme cold weather, 0° to -65°F (-17.8° to -55°C) is required. For general information on winterization equipment and processing, refer to TM 9-207.

- 1. The M876 truck should be sheltered whenever possible, to protect it from freezing, ice or snow. Sheltering the truck also minimizes cold starting problems.
- 2. If the truck cannot be sheltered, it should be parked with the front facing away from the wind.
- 3. Prepare a footing of boards, brush or tree limbs for the tires, to prevent them from freezing to the ground. Use hay or straw, if available.
- 4. See page 2-66 and 2-67 for cold weather starting procedures (4.6°C).



EXTREME COLD WEATHER - CONTINUED

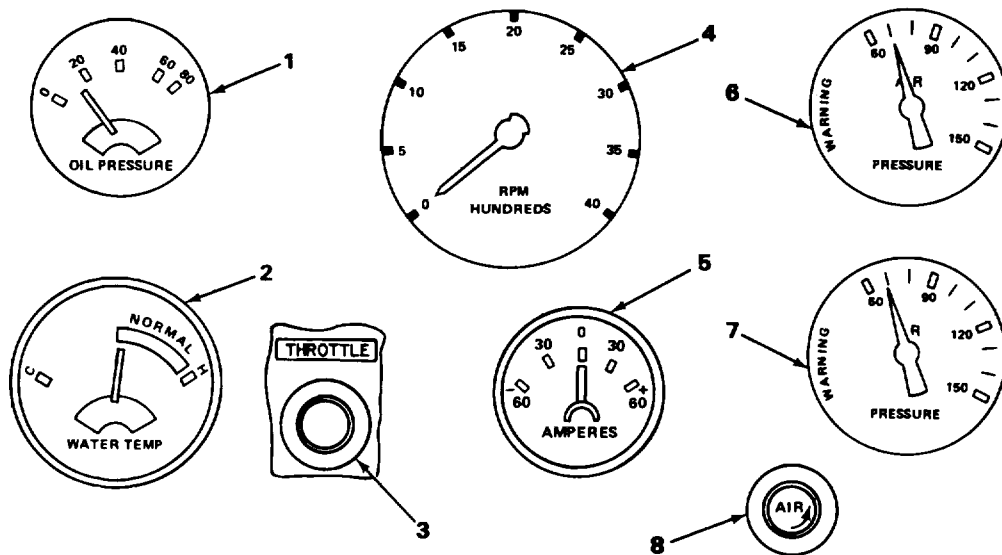
Placing the M876 Truck in Motion

CAUTION

If no oil pressure is indicated on gage after engine starts up, or while driving, stop engine immediately and to avoid damage to equipment. Check for cause. Notify organizational maintenance.

If the engine temperature indicator suddenly rises to "HOT" position, stop the engine immediately, and check for cause of overheating. Notify organizational maintenance.

1. After engine starts, check oil pressure gage (1) and water temperature (2). Make sure oil pressure gage is indicating 10-25 psi (69-172 kPa) and water temperature gage shows a slow rise.
2. Increase engine idle to 750-800 rpm by adjusting throttle control (3), and observing tachometer (4).
3. Check ammeter gage (5). It should show a slight charge rate.
4. Allow engine to warm up for at least 15 minutes, air pressure gages (6) and (7) to indicate 90 psi (621 kPa) and low air pressure warning indicator light (8) to go out.
5. After engine is thoroughly warmed up, place the transmission range selector into D5 and drive slowly for about 100 yards (91.4 m). Be careful not to stall the engine. This should heat gears and tires enough for the truck to be ready for normal operation.



TA 222657

EXTREME COLD WEATHER - CONTINUED

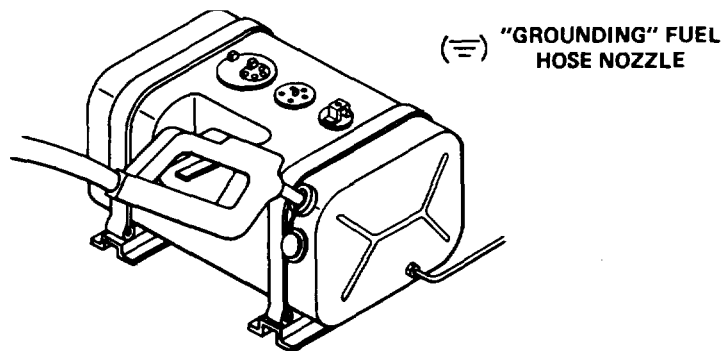
At Halt or Parking

1. for short halts, or shutdown periods, park the M876 truck in a sheltered spot out of the wind. If no shelter is available, park so the M876 truck does not face into the wind.
2. For long shutdown periods and if high ground is not available, prepare a footing of brush, tree limbs or planks to keep the tires out of ice, snow, water or mud. Chock (wheel blocks) in place, if necessary.

WARNING

Be sure the hose nozzle on the container contacts fuel tank filler tube on fuel tank, to carry off static electricity that could ignite fuel and cause serious injury to personnel.

3. Refuel Immediately in order to reduce condensation in fuel tanks. Before refueling, open fuel tank drain and drain off any accumulated water.

**NOTE**

When checking tire pressures, do not reduce pressure when tires are hot. Check tires when they are cold.

4. Under extreme cold conditions (below -25°F) (-34°C) when parking overnight, check tire pressure. Inflate underinflated tires to prevent flat spot freeze. See page 240 for correct tire pressures.
5. Place all control levers into NEUTRAL positions to prevent freezing in the ENGAGED position.
6. Drain the air reservoir tanks to remove accumulated water.
7. If no power plant heater is present, notify organizational maintenance to remove and store them in a warm place.

TA 222658

EXTREME COLD WEATHER - CONTINUED

At Halt or Parking - Continued

8. Have organizational maintenance check and service the cooling system to make sure the M876 truck is adequately protected against extreme cold.
9. Clean your M876 truck before you leave the area. Remove accumulations of ice, snow and mud from under the fenders, wheels, axles, radiator core and engine compartment. Exercise care when cleaning to prevent damaging the affected parts.

OPERATION ON UNUSUAL TERRAIN

General

It is difficult to cover all adverse conditions you will encounter when driving over unusual terrain in this manual. Therefore, it is essential you review and become familiar with the procedures in FM 21-305. Use these procedures along with the following guidelines when operating the M876 Truck on ice, snow, mud and off the road.

Operational Guidelines

1. Operation on snow, ice covered terrain or in deep mud requires the use of tire chains on the rear driving wheels.

CAUTION

Do not lower tire pressure so low that tire damage can occur.

2. Lowering tire pressure, in cases of sand, ice, mud and snow will help increase tire traction, if tire chains are not available. Tire pressure reduction (deflation) should not be more than 35 to 45 psi (241 to 310 kg) maximum. See page 2-40 for correct tire pressure.
3. Use the front winch to recover the M876 truck if hopelessly mired in deep mud or snow, and not movable by wheel traction. See FM 20-22 Vehicle Recovery Operations, and Towing the M876 Truck, in this manual, or see FM 21-305.
4. Use the power lock divider in areas where the ground surface provides poor traction. Move control lever to the IN position for dual axle operation, and to the OUT position when conditions are normal. See page 2-80 for Instructions.

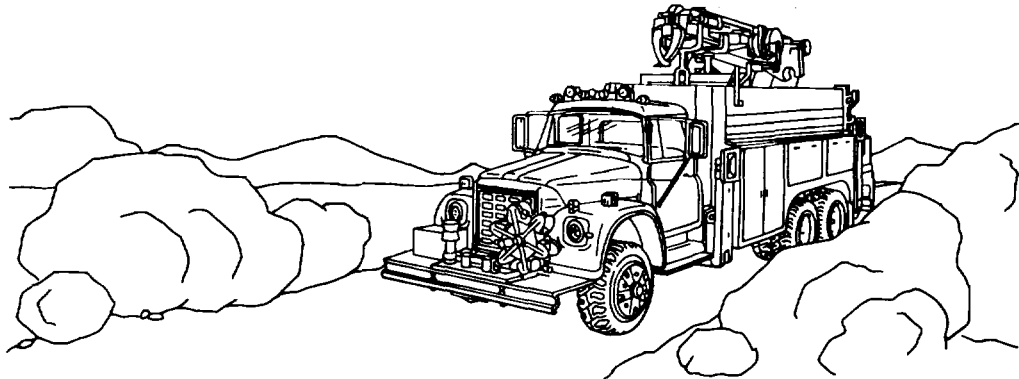
OPERATION ON UNUSUAL TERRAIN - CONTINUED

Operational Guidelines - Continued

5. Always drive at a reasonable, safe speed when moving on ice, snow and off road, to avoid accidents.
 - a. On icy roads make sure you know which direction your front wheels are directed. You might have them turned but truck could be moving straight ahead.
 - b. Change vehicle speed slowly. Fast accelerations or braking can cause the truck to slide or spin and cause accident.
6. Be alert for isolated patches of ice or snow, especially in shaded areas.

Wooded and Rocky Areas

1. Make sure your M876 truck can clear ground obstructions, like stumps, rocks or fallen trees, before you drive over them. Such objects can damage the underside of the truck.
2. Avoid low hanging tree limbs which could damage the derrick leg hydraulic lines and connections.
3. Always carry an extra spare tire and wheel on board the truck when working in rocky terrain, in the event tires are damaged or punctured.



TA 222659

OPERATION ON UNUSUAL TERRAIN - CONTINUED

Mud or Other Soft Surfaces

1. Before entering the mud, or any other soft surfaces, leave the M876 truck and look over the conditions to determine the transmission gear range to use, and sight a path to travel to get through the area safely.
2. Mount your truck. Engage the power divider for dual rear axle power and traction. Select the transmission gear range you judge that will get you through.
3. Enter the soft area, at a medium speed for the gear range you have selected.
4. Once you have entered, carefully maintain a steady pressure on the accelerator pedal to keep the truck moving.
 - a. Avoid stopping, if possible, to not get stuck.
 - b. Avoid accelerating, to prevent the rear wheels from spinning.
 - c. If you get stuck, try pulling out slowly, in a lower transmission gear range. **DON'T ROCK THE TRUCK.** You will only dig in deeper.
5. If you cannot pull out, and brush or boards do not give the traction you require, get another vehicle to pull you out.

WARNING

Always wear heavy leather gloves when handling winch wire cables. Never let cable run through your hands; frayed cables can cut you. Never operate a winch with less than four turns of cable on the drum. Keep cable coils tight and close together on the drum. Keep cable coils tight and close together on drum while winching.

Keep personnel not involved in winching away from winch cables and payload. A snapped cable or shifting load can cause serious injury or death. Stop winching immediately if shifting payload presents a hazard, or if any parts fail. Notify organizational maintenance if hazard exists or parts fail.

Stand at least 5 feet from winch, while guiding cable on drum, to prevent hands and clothing from being snagged and pulled into the winch drum.

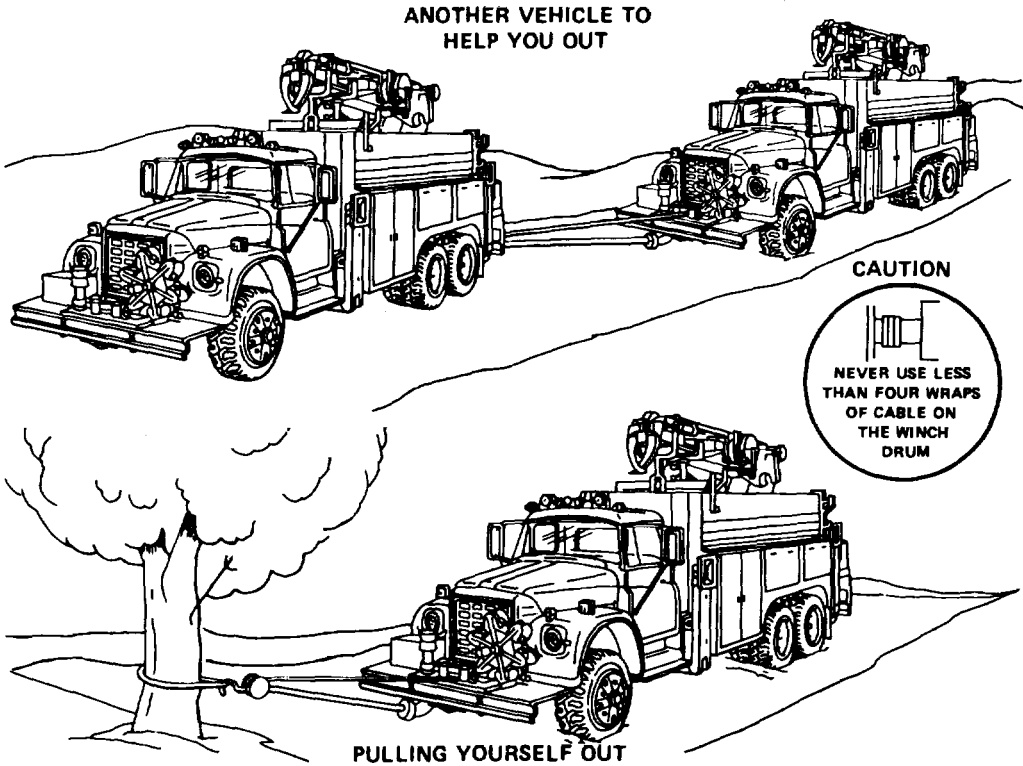
OPERATION ON UNUSUAL TERRAIN - CONTINUED

Mud or Other Soft Surfaces - Continued

- 6. When other vehicles are not available, attach the front or rear body winch cables to a large solid tree or solid object, and pull yourself out with winch power. DO NOT ROCK the truck, you will only dig In deeper. For winch operation Instructions and procedures, see pages 2-94 through 2-105 or refer to FM 20-22 and FM 21-305.

CAUTION

Never use less than four wraps of cable on the winch drum.



- 7. Inflate the tires to normal pressure and reinstall the tire valve stem caps before you start out again.

OPERATION ON UNUSUAL TERRAIN - CONTINUED

Sand or Dusty Areas

1. The main objective when driving in sand is to maintain movement with the least amount of strain on the M876 truck engine and power train, without bogging down.
2. This can be accomplished by looking conditions over before driving into the sand area, and determine:
 - a. Which transmission gear range to best select.
 - b. What truck speed would best maintain momentum.
 - c. Whether or not to deflate tires or use boards, matting, or canvas ahead of the tires.
3. When starting out:
 - a. Accelerate gradually to avoid spinning the rear wheels.
 - b. Once truck is rolling, maintain a steady, even speed.
 - c. Avoid shifting gears. Keep it in low gear range.
 - d. Bypass difficult areas by trying to go around them.
 - e. Always make wide turns. Sharp turns can stall the truck, or cause it to turn over.
 - f. When stopping, allow the truck to roll to a halt, or apply brakes gradually to avoid tires digging in.
 - g. Try to stop on downhill side of slopes to give truck the advantage when starting to move again.
4. When bogged down, have another vehicle pull truck out, or use truck winch power to pull truck out, should the tire deflation method not be successful in getting the truck out. Always remember to replace the tire valve stem caps when deflating and inflating tires.
5. When operating in dusty areas, always:
 - a. Check engine oil pressure and engine coolant temperature frequently while driving.

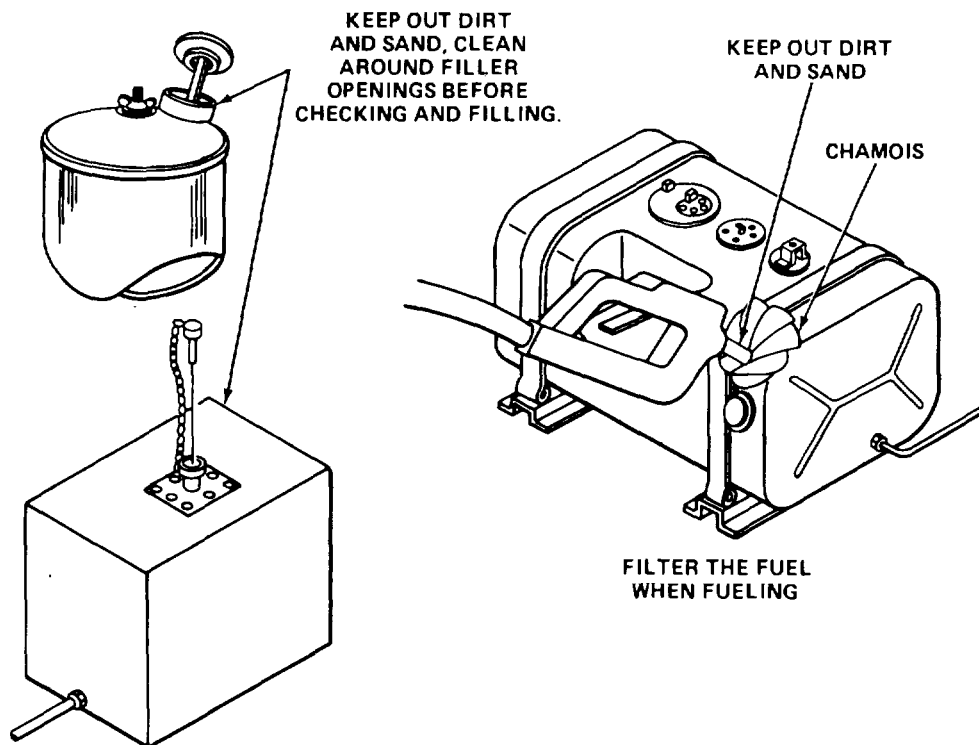
OPERATION ON UNUSUAL TERRAIN - CONTINUED

Sand or Dusty Areas - Continued

WARNING

Never remove the coolant pressure cap on the surge when the engine is overheated. The sudden release of pressure can cause severe injury. Allow the engine to cool down first.

- b. At first indication engine is overheating, stop the truck and allow it to cool down. Use the troubleshooting section in this manual to check for cause of the overheating, or notify organizational maintenance.
 - c. Clean fluid container spouts and areas around the engine and hydraulic fluid filler openings, before adding fluids.
 - d. Under extreme sandy or dusty conditions, filter the fuel when filling the tank.
6. When parking overnight, or for extended periods, park so the rear of the truck faces the wind.



TA 222661

OPERATION ON UNUSUAL TERRAIN - CONTINUED

Snow and Ice

NOTE

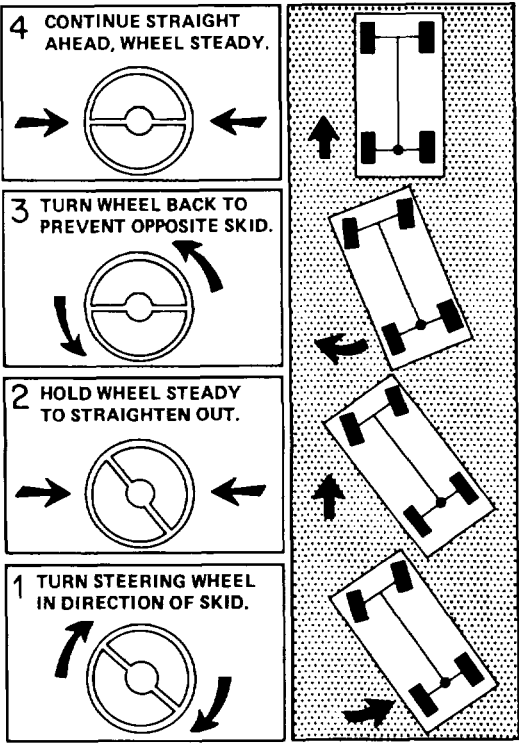
The guidelines listed below will assist you in operating the M876 truck on icy or snow-packed surfaces safely.

1. Driving:
 - a. Accelerate slowly to avoid spinning the wheels.
 - b. Drive at slower road speeds to better control the truck, safely.
 - c. Give turning signals sooner than usual.
 - d. Stay at least two to three truck lengths behind the vehicle ahead of you.
 - e. Keep windshield, window glass, sideview mirrors, headlights, taillights clean and clear of ice, snow and slush so that they are visible day or night.
2. Ascending, Descending Grades:
 - a. Ascend and descend moderate grades using low gear ranges that will ensure safe negotiation of the grades.
 - b. On steeper grades, use one gear range lower.
3. Braking:
 - a. Pump air brakes slowly, to give early warning of stopping intentions. This will also assist in preventing sliding or skidding.
 - b. After driving in slush or water, drive slowly to test brakes, by maintaining moderate pressure on brake pedal. A slight drag would create brake shoe friction heat and dry out brake shoes.
 - c. Ease up on accelerator pedal, and allow the truck engine to assist your braking action to bring the truck to a gradual safe stop.
4. Deep Snow, Heavy Ice and Slushy Road Conditions:
 - a. On difficult road conditions such as deep snow or severe icing, stop and look the area over to determine:
 - (1) Which transmission gear range to use.
 - (2) If reducing tire pressure would give you the traction to get through the area.
 - (3) If installation of tire chains would be the best and positive way to get through.

OPERATION ON UNUSUAL TERRAIN - CONTINUED

Snow and Ice - Continued

- b. Avoid frozen vehicle tracks, rocks, and other objects which could throw the truck sideways and into a dangerous skid.
- 5. Parking:
 - a. Place a footing of boards, brush or tree limbs beneath wheels when parking on wet, slushy or muddy surfaces.
 - b. Do not apply the parking brakes to avoid brake shoes freezing to the drums. Block the wheels instead.
 - c. Always place the transmission range selector into NEUTRAL to avoid it freezing into engaged position.
 - d. Clean the ice, snow, slush and mud from the truck when parking overnight, or longer extended periods.



FORDING

CAUTION

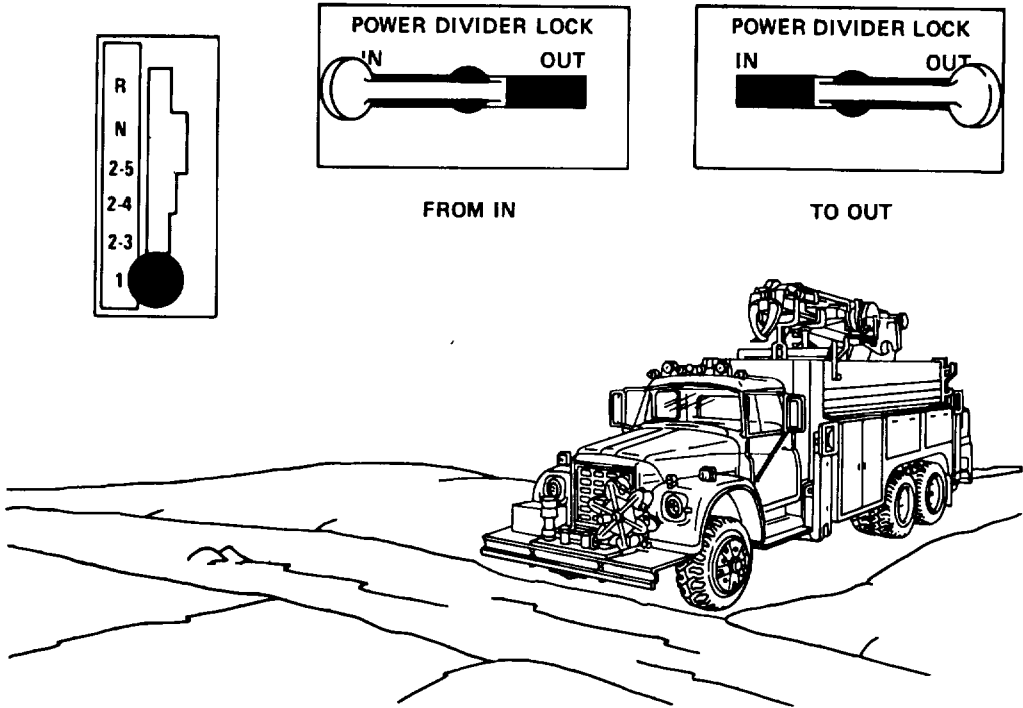
The M876 truck can ford only to a maximum depth of 11 inches (28 cm). If fording limit will be exceeded by unexpected sinking, find another crossing point to avoid damaging the truck.

Before Fording

NOTE

Before attempting to ford the stream bed, bottom should be checked to make sure the bottom surface is solid enough to support the weight of the truck.

- 1. Make sure the engine is operating properly before entering water.
- 2. Lubricate unpainted surfaces to guard against rust, corrosion, and deterioration.
- 3. Engage the power lock divider by moving the control lever to the OUT position.
- 4. Place transmission range selector into low D1 range.



FORDING - CONTINUED

During Fording

1. Enter the stream bed at a right or left angle. Do not approach direct on, unless necessary.
2. Ford at speeds of 3 to 4 mph (4.8 to 6.4 km/h).
3. Keep the cab doors open, in event you must suddenly leave the truck.
4. When the truck emerges from the water, apply the brakes while moving to dry the brake shoes out. Make sure brakes work properly before resuming normal operations.

After Fording

NOTE

During fording, water may enter your truck or its components. You must make sure that any accumulated water is removed before causing damage to truck systems, or equipment.

1. As soon as possible, after fording, check your truck as follows:
 - a. Let engine run to drive out any accumulated water.
 - b. Drain or dry any areas where water is accumulated.
 - c. Check each fluid system for evidence of water contamination. If you find water in any one of the systems, notify organizational maintenance to drain and refill the systems.
 - d. Refer to LO 9-2320-269-12, notify organizational maintenance that an after fording lubrication is required.
2. If necessary, notify organizational maintenance of any service or repairs your truck requires before you return it to normal service.

MANUAL RELEASE-COMPRESS PARKING SPRING BRAKE

WARNING

Block wheels to prevent truck from rolling when the spring brake power power springs are being caged manually, to avoid personnel injury.

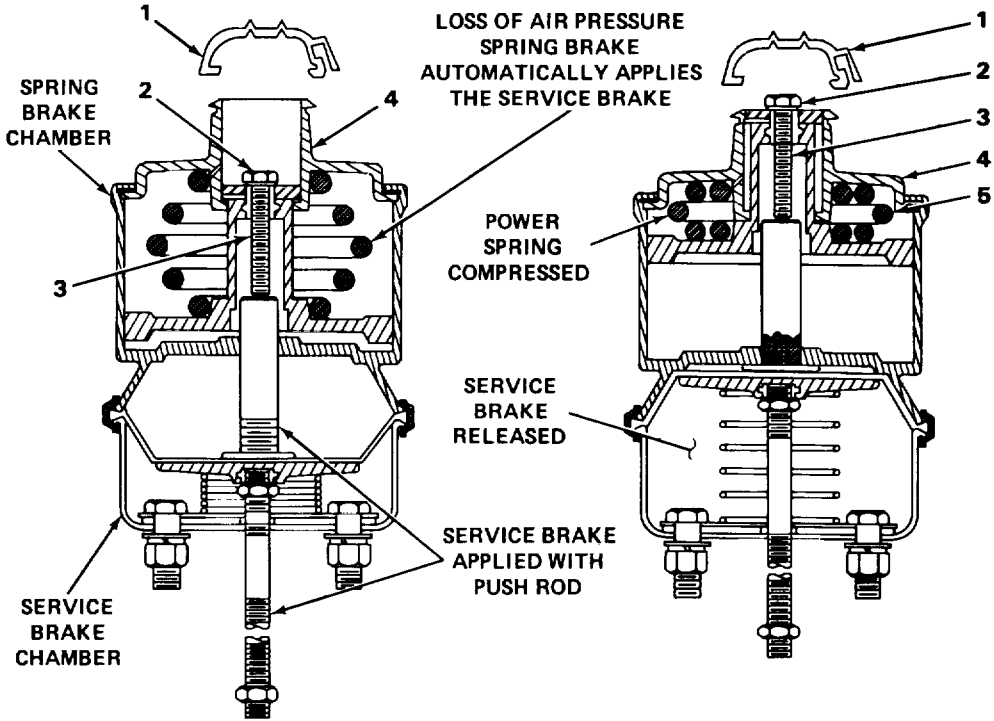
For towing, make sure the disabled truck is connected or secured to the tow vehicle before caging the spring brake power spring.

NOTE

Two spring-applied, and air-released parking brakes provide service brake application, should there be a sudden loss of air pressure. To release the spring applied service brakes to tow, the spring brake power springs must be compressed manually. Notify organizational maintenance to bring the correct tools.

Compressing (Caging) Spring Brake

1. Remove breather cap (1) to expose hex head (2) of the release bolt (3), down inside breather opening (4).
2. Using a deep-well socket, turn hex head (2) on the release bolt (3) counterclockwise, about 30 turns, to compress power spring (5).



MANUAL RELEASE-RESET PARKING SPRING BRAKE

CAUTION

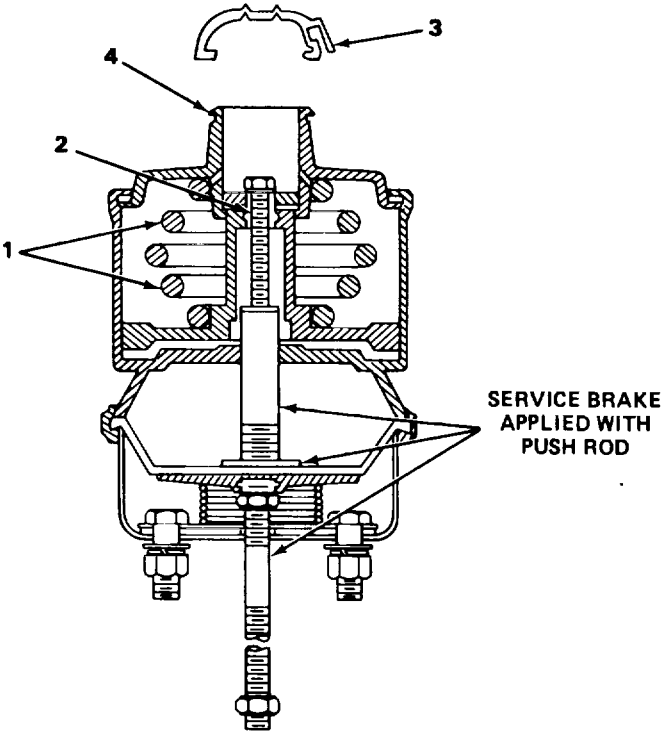
If the spring brakes have been compressed, they must be released before returning the truck to normal service. Notify organizational maintenance to bring correct tools.

Reset (Uncage) Spring Brakes

NOTE

While turning the release bolt down, observe that the push rod, extending from the service brake chamber, is moving the slack adjuster arm. This indicates that the spring brake power spring is expanding and applying the service brakes.

- 1. Release the compressed power springs (1) by turning the release bolt (2) down, (clockwise) about 30 turns, until the service brake shoes contact the drum.
- 2. Install breather cap (3) to seal opening (4).
- 3. Notify organizational maintenance to adjust the service brakes before returning the truck to normal service.



TOWING THE M876 TRUCK**CAUTION**

The below listed guideline rules must be followed when preparing, rigging and towing the M876 truck, to prevent personnel injury or equipment damage.

Guideline Rules

NOTE

There are no service air or emergency air couplings on the front of the M876 truck for tow vehicle to supply air to actuate the service brake system on a disabled M876 truck.

1. Notify organizational maintenance to send a wrecker or tow vehicle to provide tools, rigging equipment and towing attachment when the M876 truck is disabled.
2. Refer to FM 21-305 for the general guidelines for vehicle recovery and use of warning kits and signals.
3. Refer to FM 20-22 for procedures to correctly rig, recover and tow a disabled vehicle.
4. It is permissible to tow the M876 truck for a short distance, up to 1/2 mile (0.8 km) at very slow speed not to exceed 10 mph (16 km/h), without disconnecting or removing drivelines.
5. For all front end towing, install medium duty tow bar attachment (NSN 2540-00-378-2012) at pintle of the tow vehicle and front towing eyes on the disabled vehicle. Make sure the towing device is long enough to allow full turning radius.
6. Always connect towing vehicle to the disabled vehicle with safety chains.
7. Cage the parking brake power springs In event the disabled vehicle's air system has failed.
8. Vehicle towing speeds must be restricted to:
 - a. 15 mph (24 km/h) on PRIMARY roads.
 - b. 8 mph (12.8 km/h) on SECONDARY roads.
9. For cross-country towing, all tires must be on the ground.
10. Avoid all quick starts and stops.
11. Make sure all vehicle lights are turned on if towing during darkness is necessary.

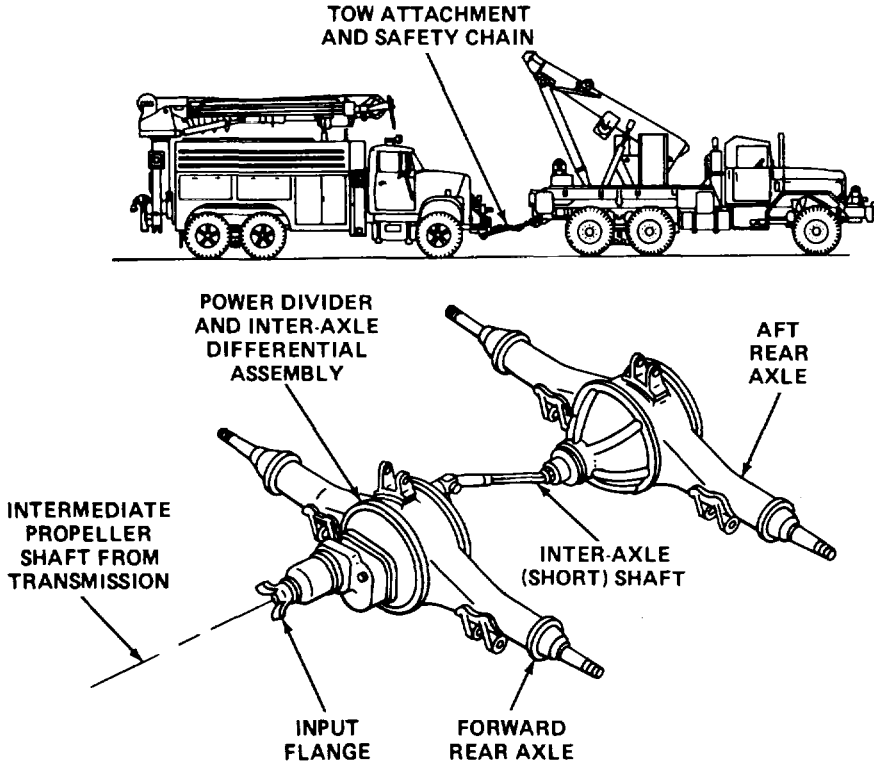
TOWING THE M876 TRUCK - CONTINUED

CAUTION

Drivelines (propeller shafts) must be disconnected, and/or removed when front end towing disabled vehicles. This will prevent damage to automatic transmissions.

All Axles On the Ground

1. Remove or disconnect drivelines, as follows;
 - a. Disconnect intermediate driveline rear universal joint at input flange on forward rear axle, and tie driveline securely up to the underside of the truck chassis.
 - b. If necessary, remove and stow Inter-axle driveline connecting rear aft axle to forward rear axle.
2. Cage parking brake power springs if M876 truck air system has failed. See pages 2-187 and 2-188.
3. Attach tow attachment to M876 truck front towing eyes, and pintle of the towing vehicle. Attach connecting safety chains to both vehicles.
4. Place a driver In the disabled vehicle to control it.

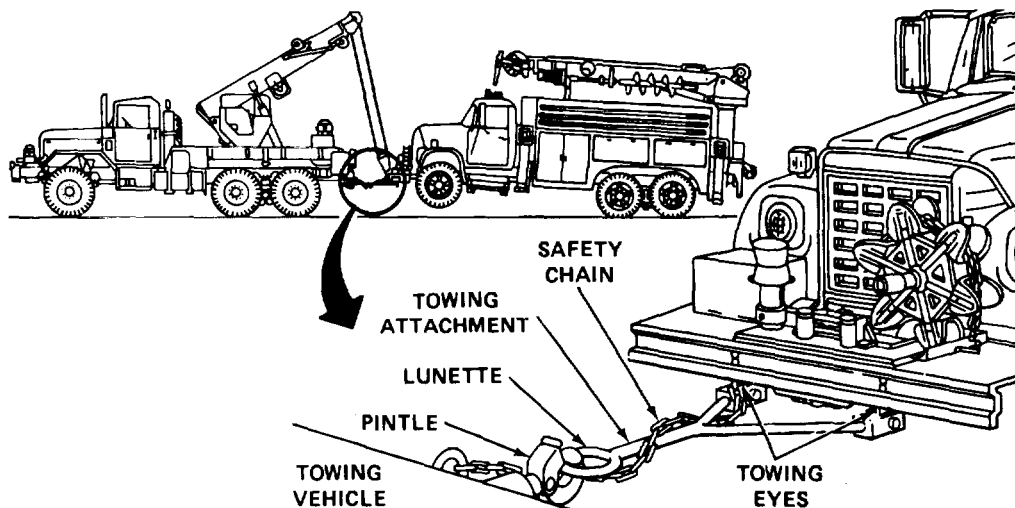


TOWING THE M876 TRUCK - CONTINUED**CAUTION**

Drivelines (propeller shafts) must be disconnected, and/or removed when front end towing disabled vehicles. This will prevent damage to automatic transmissions.

Front Axle Lifted Off the Ground (not recommended, use In emergency situation only)

1. Remove, and/or disconnect drivelines. See page 2-190.
2. Attach tow attachment to M876 truck front towing eyes, and pintle of towing vehicle. Attach connecting safety chains to both vehicles.
3. Cage parking brake power springs If M876 truck air system has failed. See pages 2-187 and 2-188.
4. Make sure all equipment, tools and other materials are properly and securely towed on the disabled truck.



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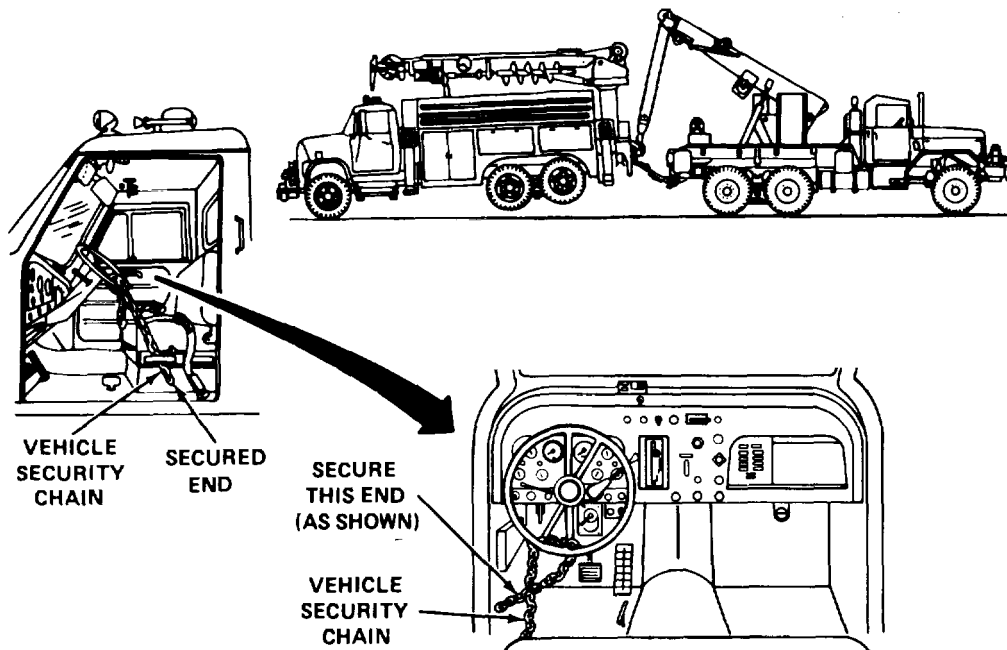
TOWING THE M876 TRUCK - CONTINUED

Rear Tandem Lifted Off the Ground

NOTE

The M876 truck is not equipped with a front drive-type axle, so with the rear tandem suspended off the ground, there is no need to remove or disconnect drivelines.

1. The front wheels must be positioned in a straight ahead position and secured as follows:
 - a. Position the front wheels straight ahead.
 - b. Using the security chain, pass the unsecured end up and through the steering wheel spokes nearest the chain.
 - c. Secure the chain end to the chain, as short as possible, to snub (restrict) any possible steering wheel movement during towing.
2. Attach tow attachment to both vehicles, and secure the safety chains.
3. The disabled truck is now ready for lifting and towing.



TA 222668

CHAPTER 3
MAINTENANCE INSTRUCTIONS

OVERVIEW

This chapter contains information that applies to the M876 truck's lubrication requirements, the troubleshooting procedures for both truck and derrick and the procedures required to maintain the equipment.

		Page
Section I.	Lubrication Instructions	3-1
Section II.	Troubleshooting Procedures	3-1
Section III.	Maintenance Procedures	3-36

Section I LUBRICATION INSTRUCTIONS

GENERAL

There are no additional lubrication requirements contained in this section for the M876 truck.

LUBRICATION

Use the Lubrication Chart LO 9-2320-26912 to service the M876 truck.

Section II TROUBLESHOOTING PROCEDURES

GENERAL

The troubleshooting procedures contained in this section and the symptoms Index will give you the information to find, isolate and correct problems you may find in operating the M876 truck.

	Page		Page
Explanation of Columns	3-2	Troubleshooting	3-1
Symptom Index	3-2	Troubleshooting Table	3-5

TROUBLESHOOTING

The troubleshooting table lists the common malfunctions which may be found during the operation or maintenance of the truck or its components. You should perform the tests, inspections and corrective actions in the order listed.

This manual cannot list all malfunctions that may occur, nor all the tests or inspections and corrective actions. If a malfunction is not listed or corrected, immediately notify the supervisor.

EXPLANATION OF COLUMNS

This paragraph will explain the troubleshooting headings.

- MALFUNCTION Visual or operational indication that something is wrong with the M876 truck.
- TESTS/INSPECTIONS Procedure to isolate the problem with a component, or a system.
- CORRECTIVE ACTION Procedure to correct the problem.

SYMPTOM INDEX

This information is provided as a guide to help you to identify your problem. Pick out the symptom that comes closest to the condition of your truck or operation. When the symptom (malfunction) is located, use the page number Indicated to get you to the troubleshooting procedure.

Malfunction	Troubleshooting Procedure Page
AIR BRAKES - TRAILER	
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Monitor light comes on at speeds above 15 mph.....	3-24
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No monitor light - key switch turned to on.....	3-23

SYMPTOM INDEX - CONTINUED

Malfunction Troubleshooting
Procedure Page

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Overheating 3-9

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Control handle will not stay in operating position..... 3-33
Load will not hold..... 3-33
No high pressure 3-33
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Derrick cannot be rotated 3-31
Derrick leg cannot be lowered..... 3-31
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retract 3-31
Derrick leg will not hold, drifts down 3-31
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Derrick pump not operating properly 3-31
Derrick pump very noisy 3-31
Outriggers will not hold in down position 3-31

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Will not release (disengage), and indicator light
stays on 3-16

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One or more light systems will not work..... 3-13
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of charge for long periods while operating vehicle 3-14
Trailer brakes lock up 3-15
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24-V converter indicator light stays on - switch
is off..... 3-14

SYMPTOM INDEX - CONTINUED

Malfunction	Troubleshooting' Procedure Page
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Fails to start - engine cranks	3-7
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TRANSMISSION	
Oil foam on dipstick	3-18
WINCHES	
One or both winches will not operate	3-29
Winch unusually noisy when operating	3-29

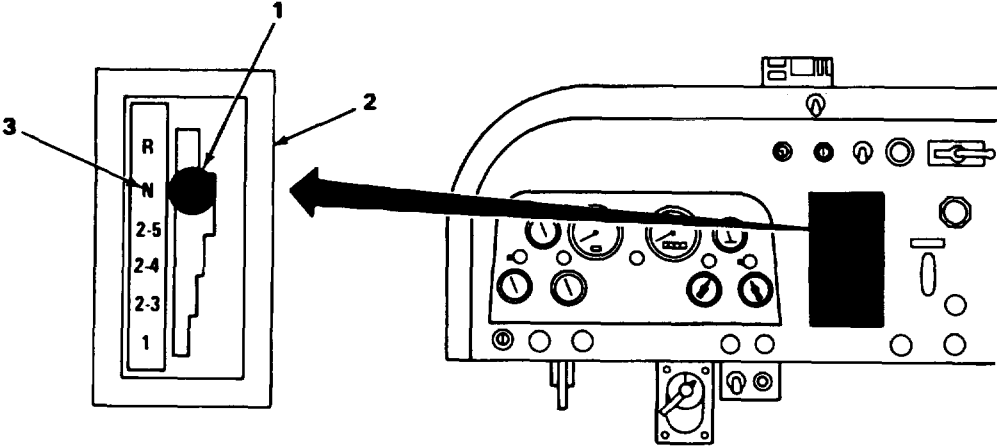
TROUBLESHOOTING TABLE

ENGINE

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Will not crank when key switch turned to start position.

- Step 1. Check position of transmission range selector (1) on shift quadrant (2).
 - a. Make sure transmission range selector (1) is in neutral position (3), and attempt to restart truck.
 - b. If truck will not crank, notify organizational maintenance.



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TROUBLESHOOTING TABLE - CONTINUED

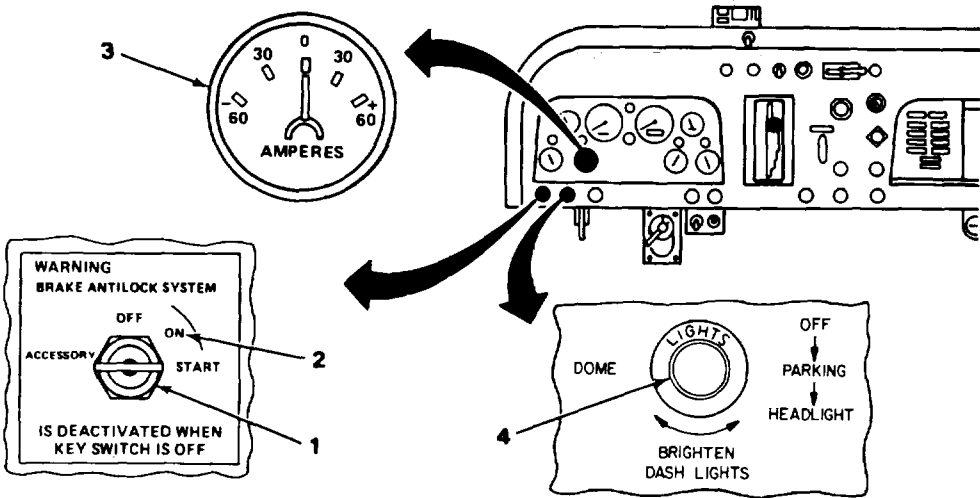
ENGINE - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Will not crank when key switch turned to start position - Continued.

Step 2. Check to see If battery has sufficient power to turn engine by turning key switch (1) to ON position (2).

- a. Observe ammeter (3). A slight negative (-) discharge of voltage should be Indicated. This indicates battery circuit is live.
- b. Pull light switch (4) on. Have assistant check exterior lights. Bright lights indicate a charged battery, and dim lights indicate low battery voltage. Push switch (4) off.
- c. If light indication is not received, notify organizational maintenance.



TROUBLESHOOTING TABLE - CONTINUED

ENGINE - CONTINUED

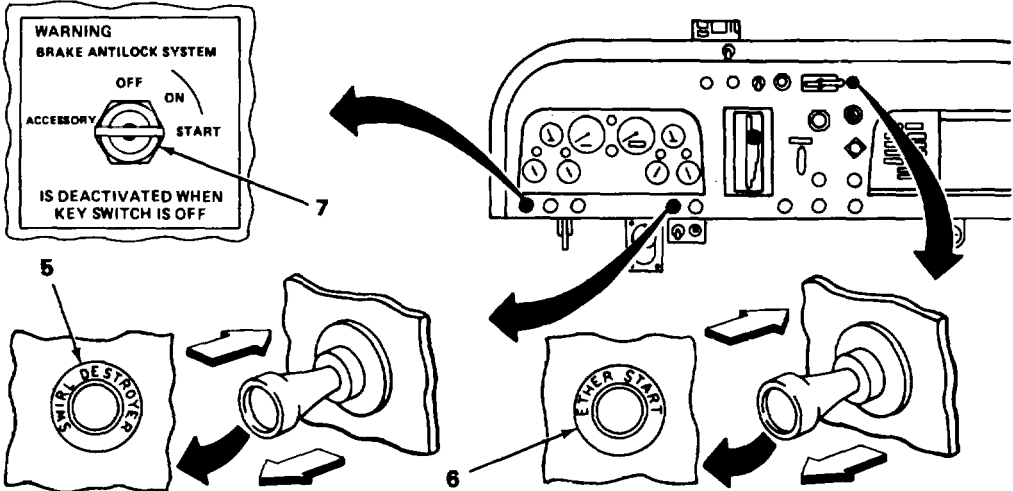
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Fails to start - engine cranks.

Step 1. Perform starting procedures, below 400F (4.60C), pages 2-66 and 2-67.

Pay attention to all cautions and notes.

- a. Pull out swirl destroyer control (5) (if your vehicle has one), ether start (6) and turn on key switch (7).
- b. If engine fails to start, notify organizational maintenance.



TROUBLESHOOTING TABLE - CONTINUED

ENGINE - CONTINUED

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

NOTE

To avoid worsening vehicle condition the following type malfunctions must be reported as soon as possible to higher support maintenance for required inspection, tests, adjustments and repairs to correct or restore serviceable/ operational conditions.

If you have any of the following additional engine problem malfunctions, notify organizational maintenance.

- Frequent stalling
- Will not idle
- Engine power surges
- No engine power
- Excessive oil consumption
- Shifts at improper speeds
- Transmission will not respond to shift lever movement
- Rough shifting
- Oil leaking from breather vent

TROUBLESHOOTING TABLE - CONTINUED

COOLING SYSTEM

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Loss of coolant.

Step 1. Check coolant hoses, clamps at radiator and air compressor for evidence of coolant leakage.

If coolant leakage is found, notify organizational maintenance.

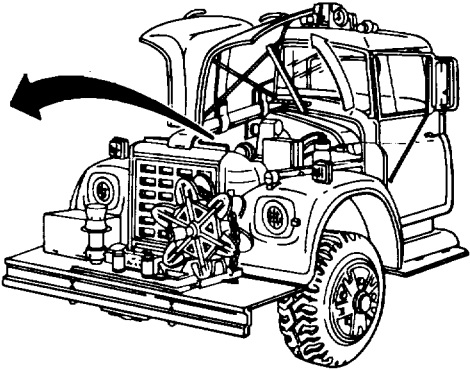
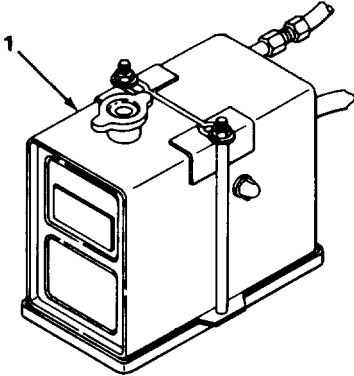
Overheating.

WARNING

Severe burns to hands, eyes and face can result from opening surge tank filler cap while engine is running, or before engine has cooled.

Step 1. Check radiator coolant level in surge tank (1).

Add coolant to surge tank (1). See page 3-36.



TROUBLESHOOTING TABLE - CONTINUED

COOLING SYSTEM - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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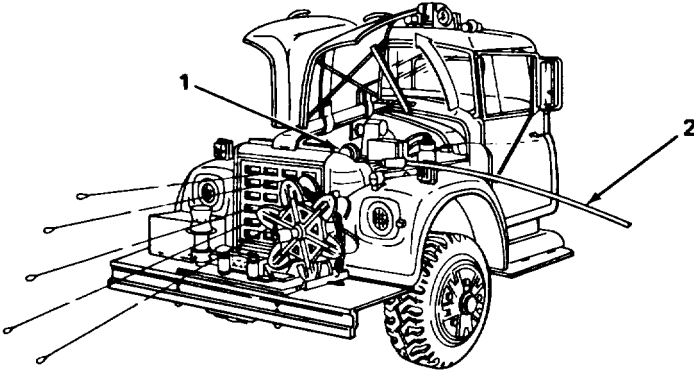
Overheating - Continued.

Step 2. Check coolant hoses, clamps at radiator and air compressor for evidence of coolant leakage.

If coolant leakage is found, notify organizational maintenance.

Step 3. Check radiator cooling fins to make sure they are free of mud, ice, snow and any other debris.

If available, wash radiator (1) clean with a low pressure water hose (2). Direct hose (2) water stream against the inside face of the radiator, outward to move the debris off, instead of through the radiator fins. Keep hose water stream away from the engine.



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TROUBLESHOOTING TABLE - CONTINUED

COOLING SYSTEM - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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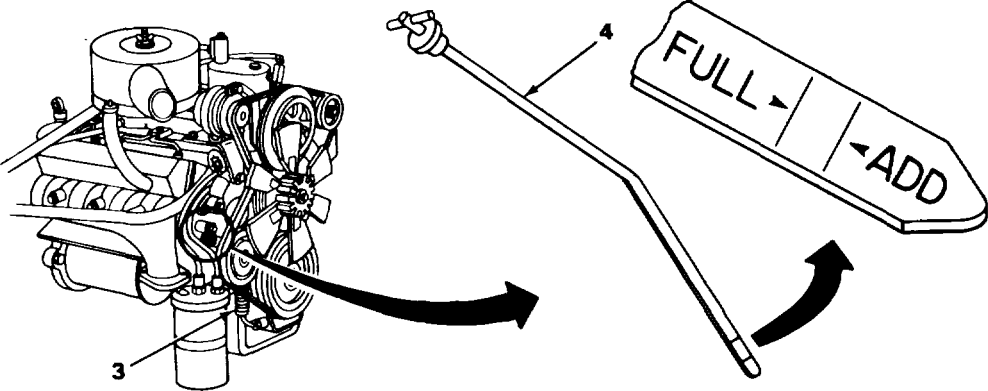
Overheating - Continued.

Step 4. Check cooling fan main drive belts (3) for looseness or wear.

If fan main drive belts are loose or worn, notify organizational maintenance.

Step 5. Check to make sure engine oil is at proper level on oil dipstick (4).

Add oil if necessary. Refer to LO 9-2320-269-12.



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TROUBLESHOOTING TABLE - CONTINUED

ELECTRICAL SYSTEM

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

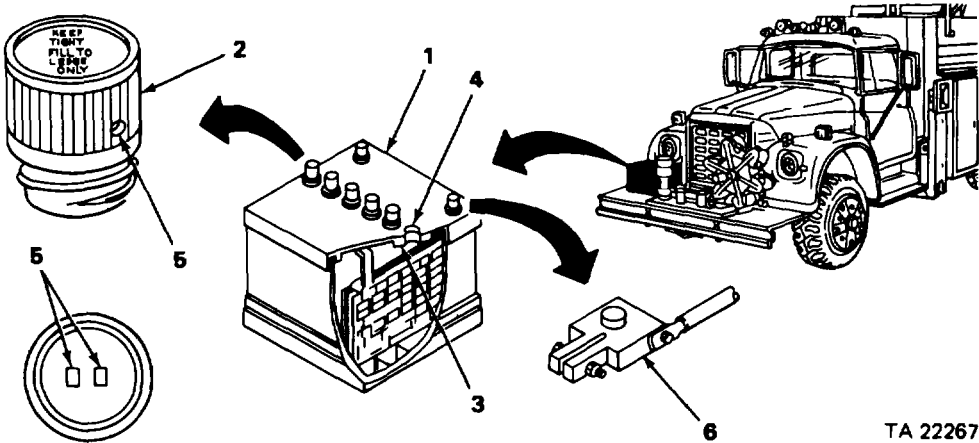
Undercharged battery - battery will not hold charge.

Step 1. Check battery (1) electrolyte level.

WARNING

Don't smoke, place near open flames, or make sparks around your battery, especially if the caps are off. If battery is gassing, it can explode and cause personnel injury.

- a. Remove vent caps (2). Notify organizational maintenance if electrolyte level is below ledge (3) of filler opening (4). Refer to TM 9-6140-200-14 or see page 2-171.
- b. Look at the vent caps (2) to make sure vent holes (5) are open to permit escape of gasses.
- c. Install vent caps (2), making sure they are screwed on tight.
- d. Make sure terminal ends (6) are clean and not corroded or loose. If loose or corroded, notify organizational maintenance.
- e. If battery fails to hold charge, notify organizational maintenance.



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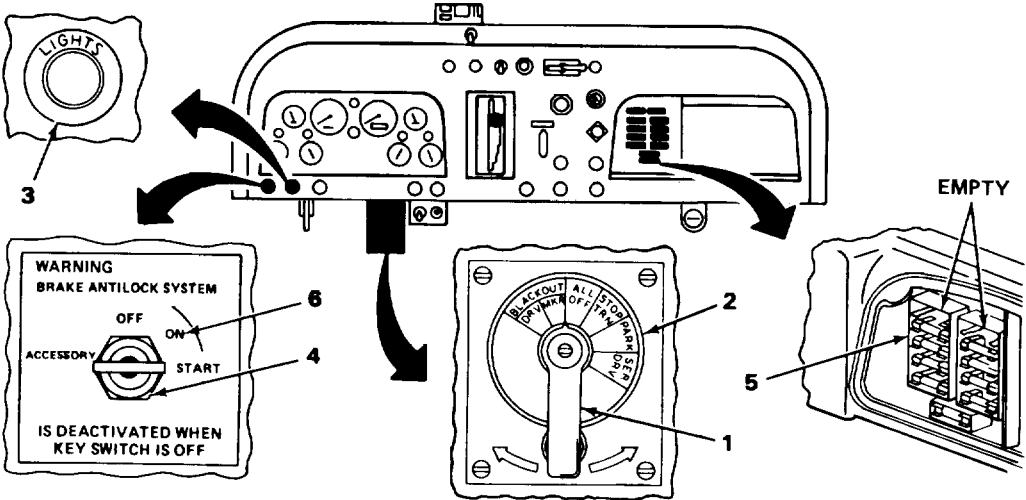
TROUBLESHOOTING TABLE - CONTINUED

ELECTRICAL SYSTEM - CONTINUED

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

One or more light systems will not work.

- Step 1. Check position of master selector control handle (1), on switch (2).
 - a. Push in and move selector control handle (1) to the lighting service position desired on switch (2).
 - b. Make sure dash panel light switch control (3) is pulled out.
- Step 2. If lights fail to come one, turn key switch (4) to OFF position, and check fuse panel (5) for possible blown fuse.
 - a. Replace defective fuse.
 - b. Turn key switch (4) to ON position (6).
- Step 3. If lights fail to come on, notify organizational maintenance.



TROUBLESHOOTING TABLE - CONTINUED

ELECTRICAL SYSTEM - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Overcharged battery - ammeter shows high rate of charge for long periods while operating vehicle.

Step 1. Check outside of battery case for electrolyte leakage.

NOTE

Leakage, if any, will be evidenced by heavy corrosive buildup at bottom of battery or by damage.

- a. Clean top of battery with damp cloth and look for evidence of battery swelling and case cracks.

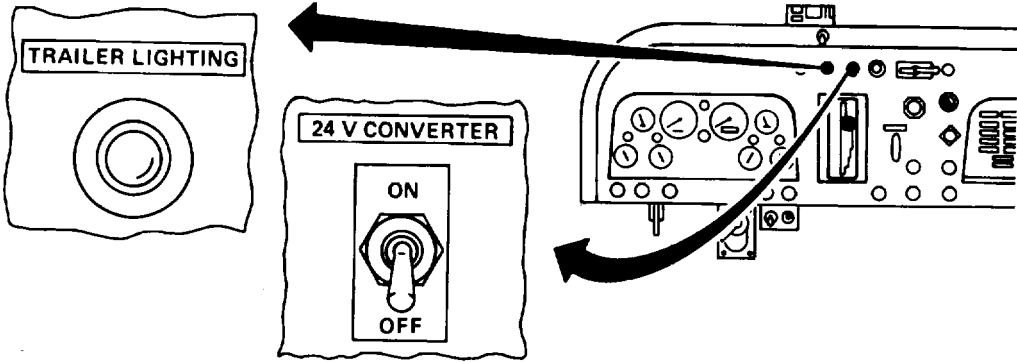
NOTE

Watch for batteries that need a lot of water. This is one indication that battery is being overcharged.

- b. If cracks or corrosion or low electrolyte level are formed, notify organizational maintenance.

24-V converter indicator light stays on - switch is off.

Notify organizational maintenance.



TA 222677

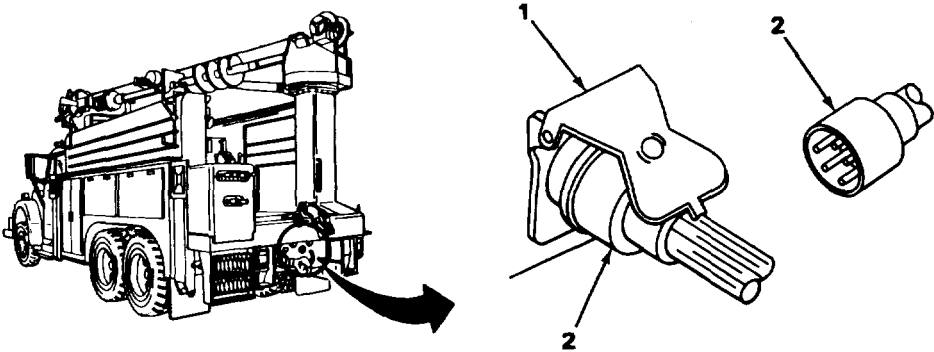
TROUBLESHOOTING TABLE - CONTINUED

ELECTRICAL SYSTEM - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

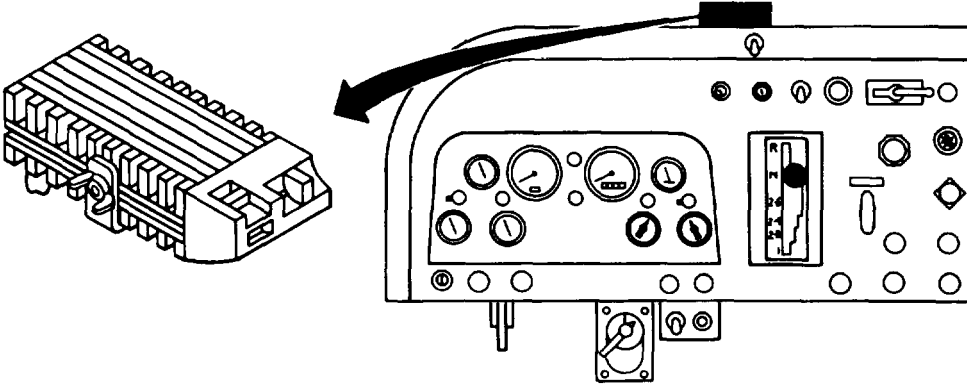
Trailer brakes not working.

- Step 1. Inspect intervehicular harness connections (1) and (2) on rear of truck and trailer for corrosion, or dirty contacts.
 - a. Disconnect truck 24-V receptacle (1), and the inter-vehicular harness socket (2).
 - b. Reconnect harness socket (2) into 24-V receptacle (1) making sure it is firmly seated and locked.
 - c. If trailer brakes fail to operate, notify organizational Trailer brakes lock up.



Trailer brakes lock up.

Notify organizational maintenance.



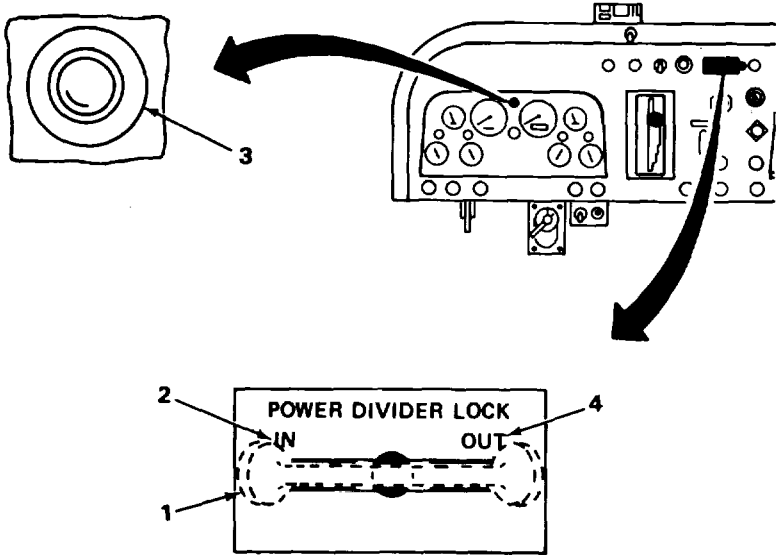
TROUBLESHOOTING TABLE - CONTINUED

DRIVELINE (POWER DIVIDER) LOCK-OUT SYSTEM

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Will not release (disengage), and indicator light stays on.

- Step 1. Check control lever position.
 - a. Leave control lever (1) at the IN position (2) and wait for Indicator light (3) to go out.
 - b. Move the control lever (1) to IN position (2), move it back to OUT position (4) and observe if indicator light (3) goes out.



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TROUBLESHOOTING TABLE - CONTINUED

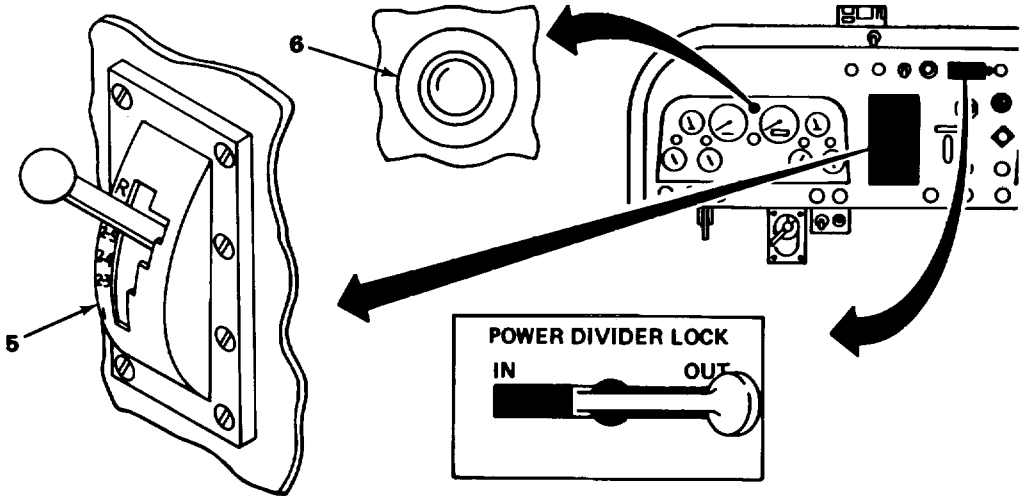
DRIVELINE (POWER DIVIDER) LOCK-OUT SYSTEM - CONTINUED

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Will not release (disengage), and indicator light stays on - Continued.

Step 2. Place transmission into reverse gear (5), and back the truck slowly to see if the Indicator light (6) goes out.

If the indicator light (6) remains on, notify organizational maintenance.



Will not engage (releases).

Notify organizational maintenance.

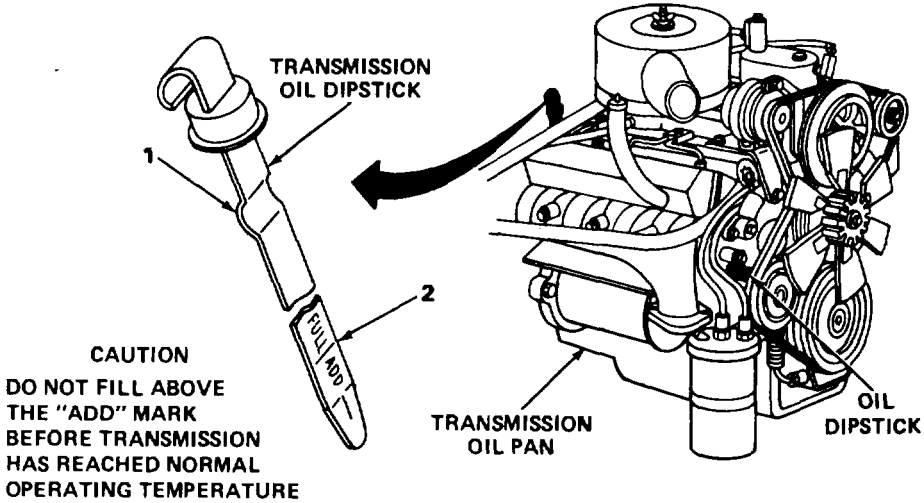
TROUBLESHOOTING TABLE - CONTINUED

TRANSMISSION

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Oil foam on dipstick.

- Step 1. Start engine and allow engine to warm up to operating temperature. See page 2-61 through 2-67 for procedures.
- Step 2. Check transmission oil level on dipstick (1). See PMCS page 2-53 and LO 9-2320-269-12.
If oil level is above FULL mark (2), notify organizational maintenance.



TA 222681

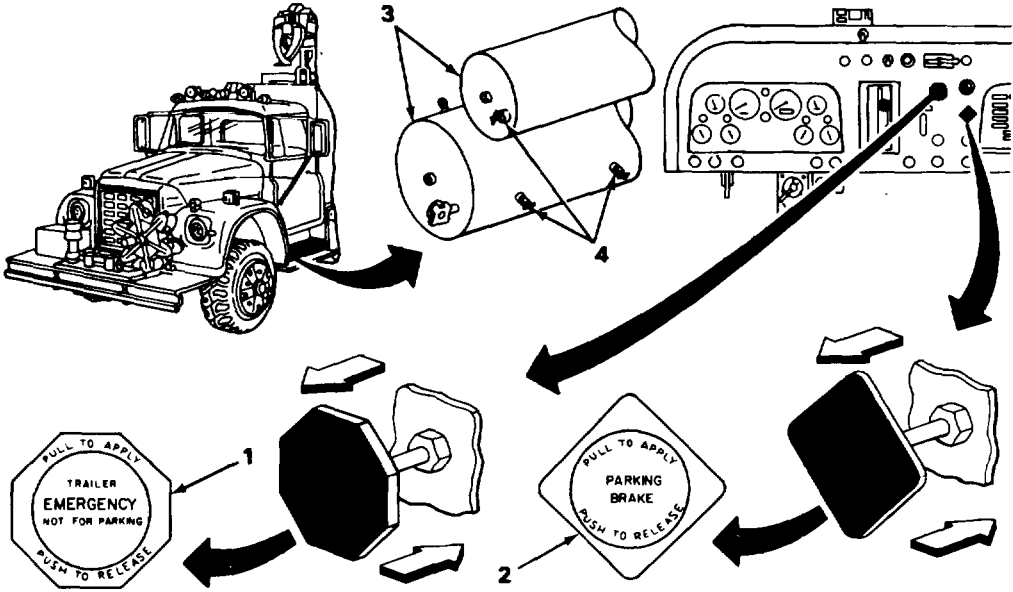
TROUBLESHOOTING TABLE - CONTINUED

AIR SYSTEM AND BRAKES

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Air pressure loss during operation - pressure warning light and buzzer come on.

- Step 1. Check positions of the emergency trailer brake control (1), and parking brake control (2).
 - a. Pull emergency trailer brake control (1) out and push it back in, making sure it is firmly seated.
 - b. Pull parking brake control (2) out and push it back in, making sure it is firmly seated.
- Step 2. Check the air reservoir tanks (3) for leaks.
 - a. Close drain cocks (4) if found not to be fully seated.
 - b. If leaks are heard at safety air vent valve(s), notify organizational maintenance.



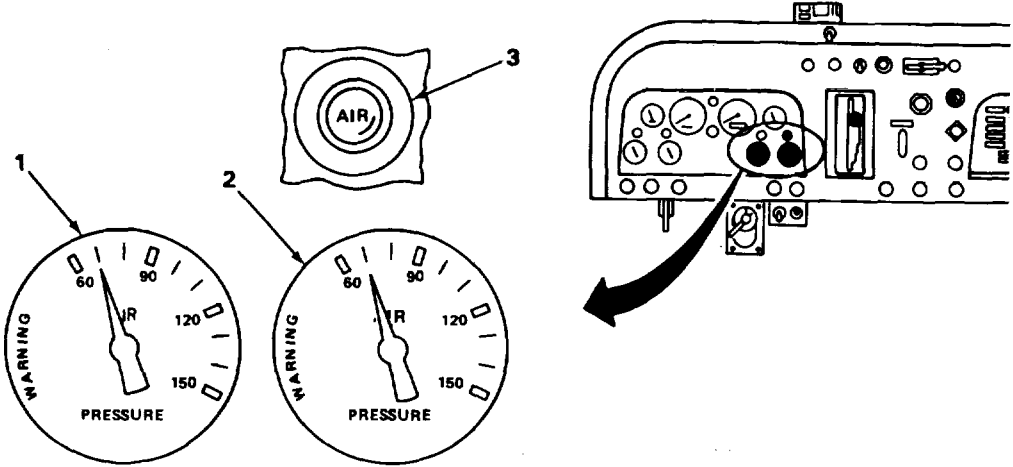
TROUBLESHOOTING TABLE - CONTINUED

AIR SYSTEM AND BRAKES - CONTINUED

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Air pressure loss during operation - pressure warning light and buzzer come on - Continued.

- Step 3. Run the engine to increase the air reservoir pressure to give an indication of 90 to 120 psi (621 to 827 kPa) on the air reservoir pressure gage (1) and (2). Stop the engine when the warning light (3) and buzzer have gone off.
 - a. Fully depress and hold brake pedal for at least two minutes.
 - b. Observe air pressure gages (1) and (2) for any air pressure loss. Any pressure loss should not exceed 5 psi (34 kPa).
 - c. If the air pressure has dropped more than 5 psi (34 kPa) in two minutes or less, notify organizational maintenance.



TROUBLESHOOTING TABLE - CONTINUED

AIR SYSTEM AND BRAKES - CONTINUED

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

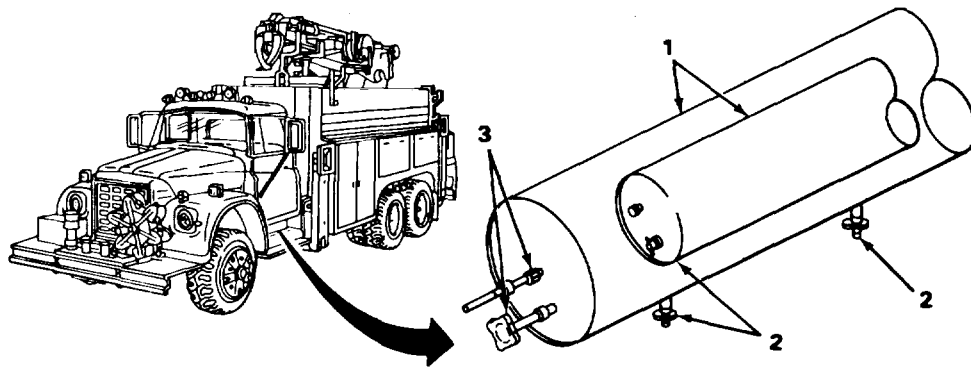
Low air pressure - warning light and buzzer are on.

Step 1. Check air reservoir tanks (1) to make sure all drain cocks (2) are closed.

Close drain cocks (2).

Step 2. Check around reservoir tanks (1) and air line connections (3) for sound of any air leaks.

If any leaks are found, notify organizational maintenance.



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TROUBLESHOOTING TABLE - CONTINUED

AIR SYSTEM AND BRAKES - CONTINUED

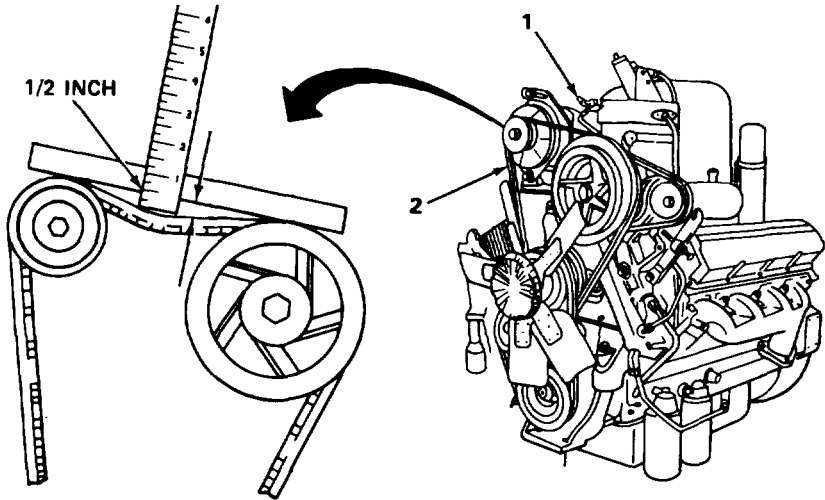
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Low air pressure - warning light and buzzer are on - Continued.

Step 3. With the engine running, check air compressor (1) for slipping belts (2). If belts (2) are slipping, notify organizational maintenance.

Step 4. With engine shut off, check air compressor (1) and belts (2) for tension.

Depress compressor belt (2). If deflection is less than 1/2 in. (12.7 mm), belt tension is normal, if more than 1/2 in. (12.7 mm), notify organizational maintenance.



If you have any of the following additional air-related malfunctions, notify organizational maintenance.

- Slow air pressure build-up
- Insufficient braking
- Quick loss of air pressure when engine stops

TROUBLESHOOTING TABLE - CONTINUED

ANTI-LOCK BRAKE SYSTEM

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

No monitor light - key switch turned to on.

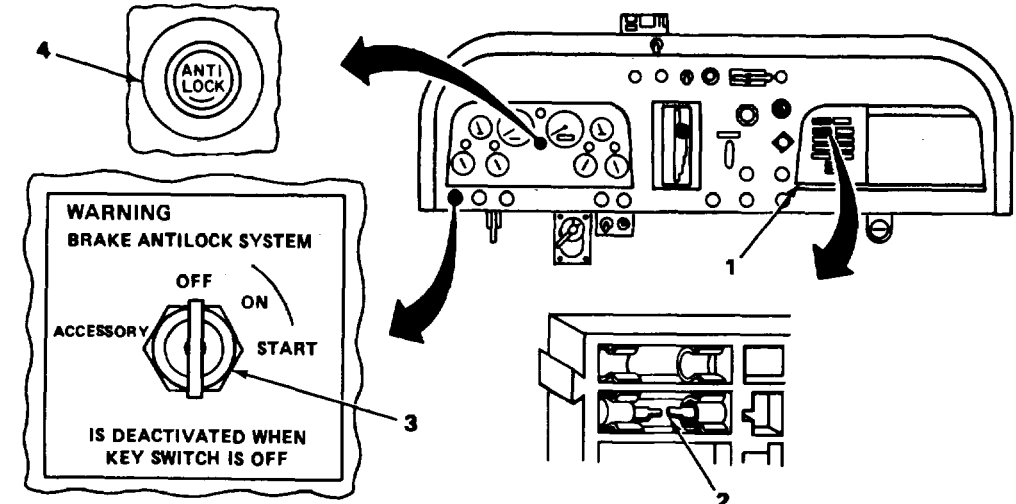
Step 1. Check dash fuse panel (1) for a blown fuse (2).

If fuse (2) is found to be blown, notify organizational maintenance.

Monitor light stays on.

Step 1. Shut engine off and turn key switch (3) to on and off several times.

If monitor light (4) stays on, notify organizational maintenance.



Delayed monitor light - truck not moving.

Notify organizational maintenance.

TROUBLESHOOTING TABLE - CONTINUED

ANTI-LOCK BRAKE SYSTEM - CONTINUED

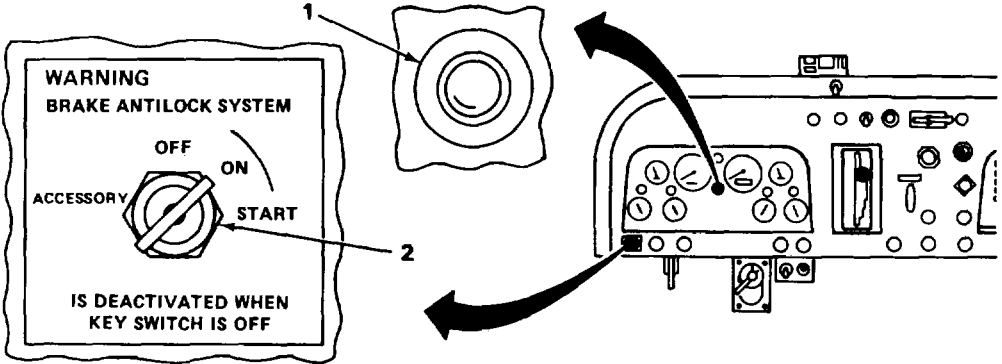
MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Monitor light comes on at speeds above 15 mph (24 km/h).

NOTE

Troubleshooting this condition can only be performed by roadtests at speeds above 15 mph (24 km/h), in order to reestablish the light fail conditions.

- Step 1. Attempt to reset monitor light (1) while operating the vehicle, by turning key switch (2) to off, and back to on.
 - a. If monitor light (1) goes out, no further tests are required.
 - b. If monitor light (1) does not go out, then notify organizational maintenance.



TROUBLESHOOTING TABLE - CONTINUED

ANTI-LOCK BRAKE SYSTEM - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Cycling of anti-lock system, or air control valves.

CAUTION

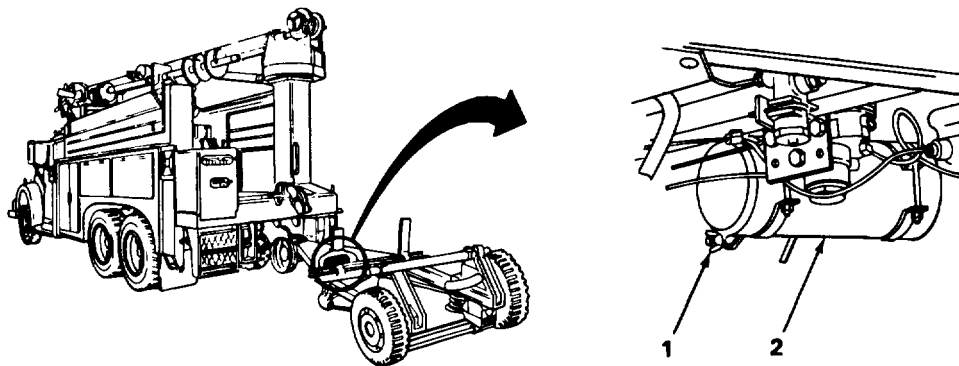
There are no monitor warning light signals when these malfunctions are occurring. Cycling of the anti-lock system is the result of false information being sent to the anti-lock computer module. This cycling of the air valves occurs while the truck is in motion.

If you experience rapid loss of air pressure or if a greater distance is required to stop the truck, notify organizational maintenance.

AIR BRAKES - TRAILER

Service brakes will not release - truck and trailer towing.

- Step 1. Check air hose couplings, trailer to truck. They may be improperly connected.
- Make sure air service and emergency air hose couplings are properly connected and seated.
 - Open drain cock (1) on trailer air reservoir (2), to release the air pressure.
 - If service brakes still will not release, notify organizational maintenance.



TA 222688

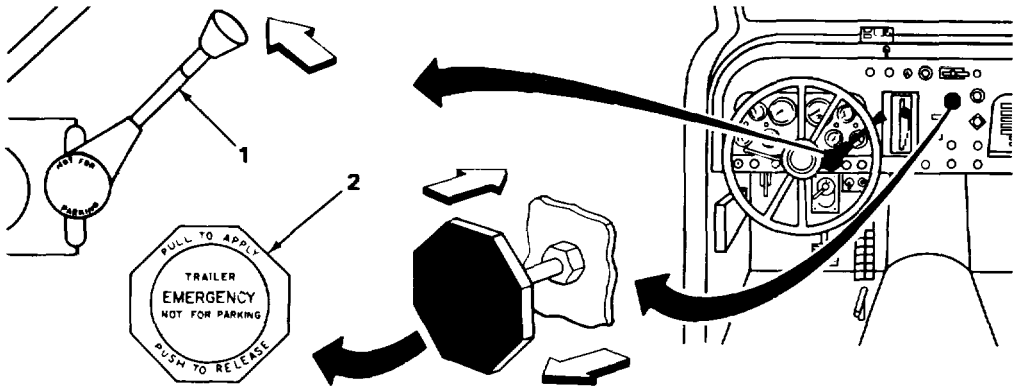
TROUBLESHOOTING TABLE - CONTINUED

AIR BRAKES - TRAILER - CONTINUED

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Service brakes will not release - truck and trailer towing - Continued.

- Step 2. Check to make sure Trailer handbrake control (1) is in the "OFF" position and the Trailer emergency control (2) is pushed in, to the dash panel.
 - a. Move Trailer handbrake control (1) to "OFF" position.
 - b. Push Trailer emergency control (2) to "IN" position.



- Step 3. Check for possible air leaks at air reservoirs, hoses and fittings at intervehicle air hose connections.
Notify organizational maintenance of any leaks or damaged lines. Otherwise trailer brakes will not release.

TA 222689

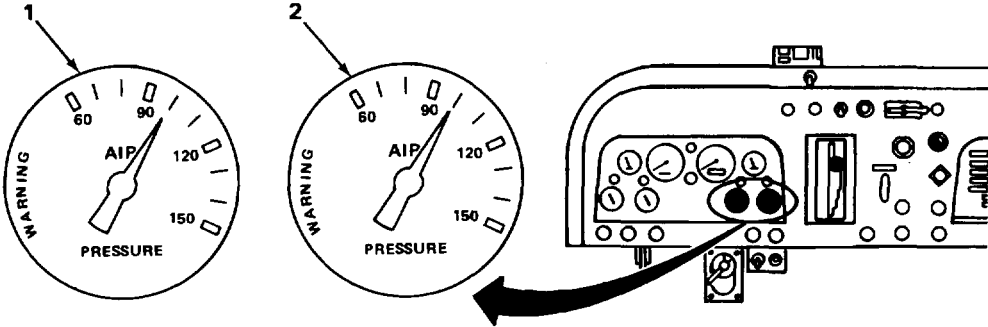
TROUBLESHOOTING TABLE - CONTINUED

AIR BRAKES - TRAILER - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Slow brake application, or slow release - truck and trailer towing.

- Step 1. Check the truck pressure gages (1) and (2) to make sure air pressure in system indicates between 90 to 105 psi (621 to 724 kPa).
- a. Observe any air pressure loss by shutting off the truck engine, and note if any pressure loss of more than 5 psi (34 kPa) in less than two minutes is evident of pressure gages (1) and (2).
 - b. If the air pressure has dropped more than 5 psi (34 kPa) in two minutes or less, notify organizational maintenance.



If you have any of the following additional brake-related malfunctions, notify organizational maintenance.

- Uneven braking
- Brakes release too slowly
- Noisy brakes
- Dragging brakes
- Parking brake does not hold.

TROUBLESHOOTING TABLE - CONTINUED

STEERING

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

NOTE

To avoid worsening vehicle condition, the following type malfunctions must be reported to organizational maintenance as soon as possible for required Inspection, tests, adjustments and repairs to correct or restore serviceable/ operational conditions.

Truck wanders.

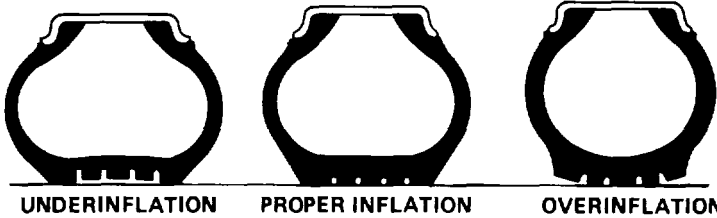
Step 1. Check tire pressures when they have cooled.

Inflate tires to correct pressures. See tire pressure table below.

NOTE

Always check tire pressures when tires are cold.

TIRE PRESSURE TABLE	
FRONT	100 PSI (690 KILOPASCAL)
REAR	90 PSI (621 KILOPASCAL)



TA 222691

TROUBLESHOOTING TABLE - CONTINUED

STEERING - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

If you have any of the following additional truck malfunctions, notify organizational maintenance.

- Hard steering
- No recovery from turns to straight ahead
- Front wheel shimmy
- Noise
- Excessive or uneven tire wear
- Wheel wobbles
- Wanders, pulls to one side

WINCHES

WARNING

Always wear heavy leather gloves when handling winch wirecables. Never let wire cables run through your hands; frayed cables can cut you. Never operate the winch with less than four turns of cable on the drum. Keep cable coils tight and close together on the drum while winching.

One or both winches will not operate.

CAUTION

Do not engage the PTO while engine is running. Serious damage to transmission can occur.

Check if PTO lever is engaged or disengaged.

See page 2-94 through 2-105 for correct winch operating procedures.

Winches unusually noisy while in operation.

Check lubricant levels.

See LO 9-2320-269-12.

TROUBLESHOOTING TABLE - CONTINUED

DERRICK

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

WARNING

Continued operation of vehicle and/or equipment having following type malfunctions can cause personnel injury.

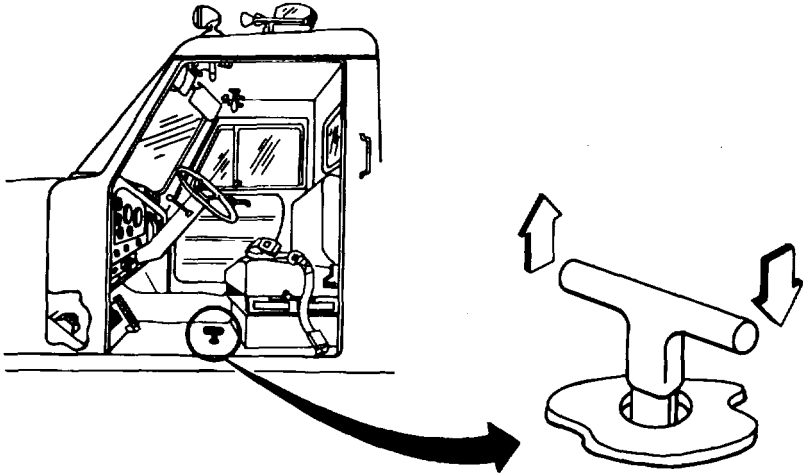
Derrick leg cannot be raised.

Check if PTO has been engaged.

CAUTION

Engaging the power take-off while engine is running can cause serious damage to transmission. To engage the PTO the engine must be shut down.

- a. Shut engine down, if running. See page 2-90 and 2-91.
- b. Engage PTO. See page 2-17.
- c. Start engine. See page 2-61 through 2-67.
- d. If problem is not corrected, notify organizational maintenance.



TA 222692

TROUBLESHOOTING TABLE - CONTINUED

DERRICK - CONTINUED

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

WARNING

Continued operation of vehicle and/or equipment having following type malfunctions can cause personnel injury.

Derrick leg cannot be lowered.

NOTE

The emergency power system should only be used to bring the derrick leg down, put it in stowed position and raise the outriggers, in the event the engine stalls and will not re-start. Notify organizational maintenance.

Derrick cannot be rotated.

Step 1. Check if payload exceeds chart capacity ratings.

See page 1-12 and 2-166.

Step 2. Check if vehicle is in level position.

See page 2-114.

Notify organizational maintenance.

Derrick leg hydraulic extension will not extend or retract.

Notify organizational maintenance.

If you have any of the following additional hydraulic system malfunctions, notify organizational maintenance.

- Derrick moves slow, erratic
- Derrick leg will not hold, drifts down
- Derrick operation, spongy
- Outriggers will not hold in down position
- Derrick pump not operating properly
- Derrick pump very noisy

TROUBLESHOOTING TABLE - CONTINUED

HYDRAULIC FLUID

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

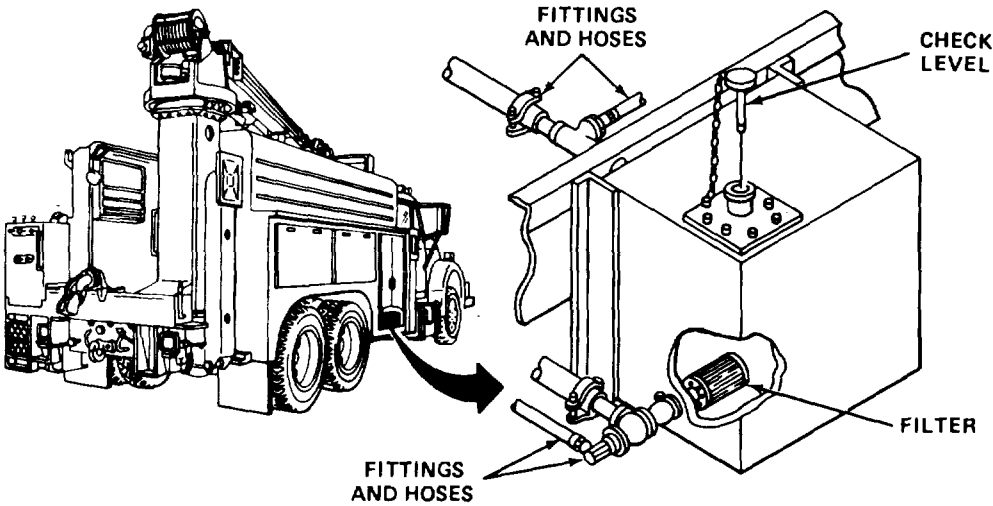
Loss of fluid.

CAUTION

Should fluid level become so low as to uncover the inlet pipe opening in the reservoir, extensive damage to hydraulic pump may result.

Check reservoir pressure and return lines/hoses for loose connections or leaks.

If loose connections or leaks are found, notify organizational maintenance.



TA 222693

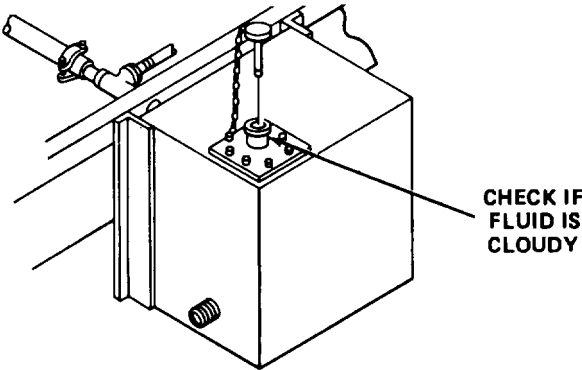
TROUBLESHOOTING TABLE - CONTINUED

HYDRAULIC FLUID - CONTINUED

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Fluid cloudy, contaminated.

Notify organizational maintenance.



CONTROLS - HYDRAULIC

WARNING

Continued operation of truck and/or equipment having the following type malfunctions can cause personnel Injury.

If you have any of the following additional hydraulic system problems, notify organiza-tional maintenance.

- Oil leaks at control valves
- Spring control handle does not return to neutral
- Control handle will not stay in operating position
- No motion; slow, jerky action of hydraulic system
- No high pressure
- Load will not hold

TROUBLESHOOTING TABLE - CONTINUED

POWER TAKE-OFF (PTO)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

Will not engage.

CAUTION

Engaging the power take-off while engine is running can cause serious damage to transmission. To engage the PTO, the engine must be shut down.

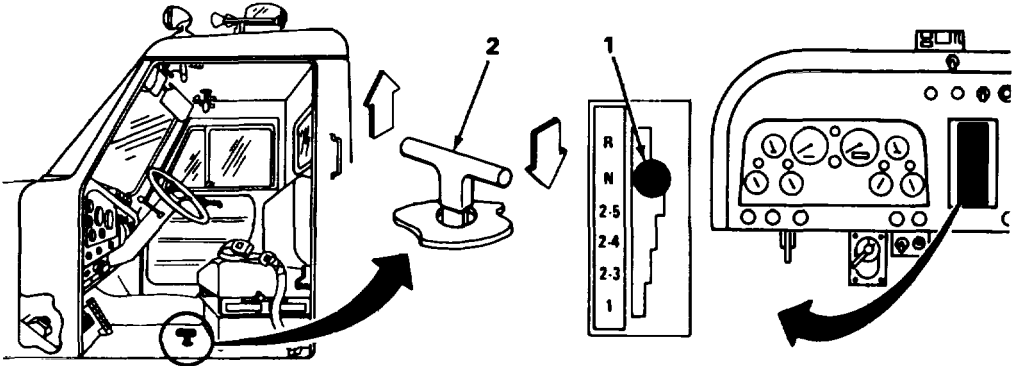
Step 1. Check if shift linkage is disconnected at PTO/transmission.

Go to step 2 if linkage connected.

Step 2. With engine shut down and transmission shift control (1) in Neutral position, pull up on PTO control (2). See page 2-17.

Restart engine. See page 2-61 through 2-7.

Notify organizational maintenance if PTO continues to fail to engage.



TROUBLESHOOTING TABLE - CONTINUED

POWER TAKE-OFF (PTO) - CONTINUED

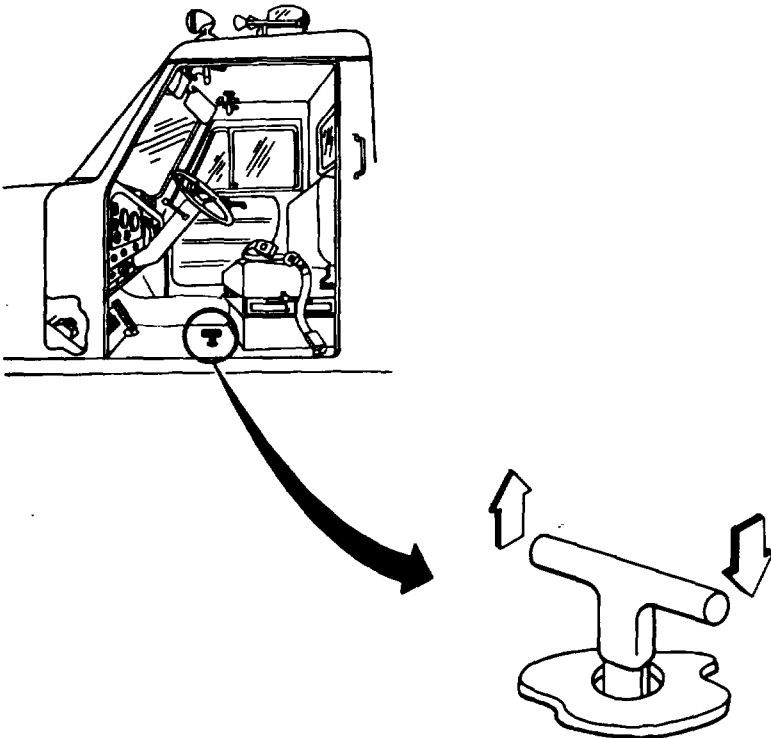
MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

CAUTION

Do not attempt to move vehicle with PTO engaged. Serious damage can occur to vehicle.

Will not disengage.

Notify organizational maintenance.



Section III MAINTENANCE PROCEDURES

OVERVIEW

This section gives you the information and procedures you need to maintain the M876 Telephone Maintenance Truck. Use these procedures and the preventive maintenance checks and services (PMCS) to make sure all systems are operating as they should.

	Page		Page
Cooling System	3-36	Rear Tire	3-45
Front Tire	3-39	Truck Cleaning	3-53

COOLING SYSTEM

This task covers:

Servicing (page 3-37)

INITIAL SETUP

Materials/Parts

Rags (item 2, appendix D)
 Antifreeze, permanent (item 1, appendix D)

Personnel Required

One

Equipment Condition

Truck parked, parking brake on. Engine shut down. Hood open (page 2-38).

COOLING SYSTEM - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

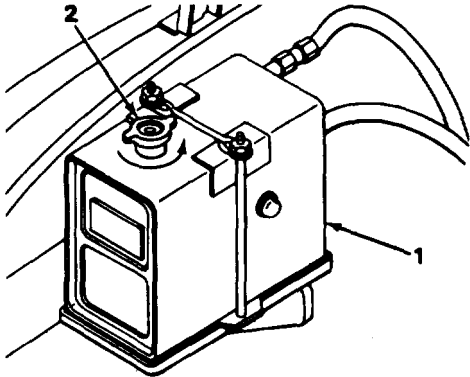
SERVICING

WARNING

If the engine has overheated and is shut down, let it cool down before you remove the radiator surge tank locking cap. Use a rag over the cap to keep your hand from being burned.

1 Surge tank (1)	Locking cap (2)	Loosen locking cap (2) to its first notch position.
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Loosening cap will allow excess pressure or steam to escape.



TA 222697

COOLING SYSTEM - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

SERVICING - CONTINUED

2 Surge tank (1)	Locking cap (2)	1. Unscrew and take off. Set aside.	
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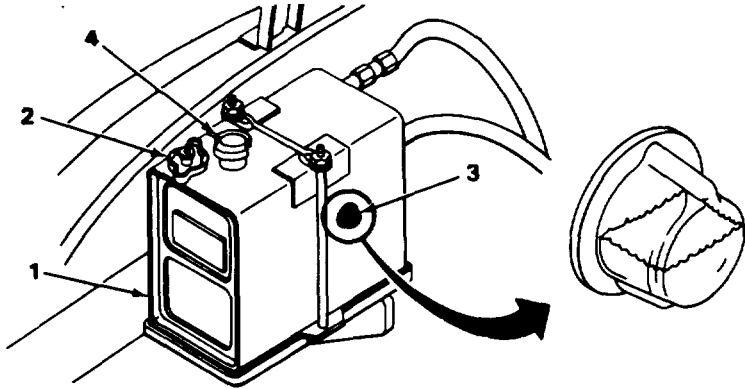
CAUTION

If the engine is overheated and must be kept running, keep it running before adding coolant. Otherwise, the block or cylinder head could crack.

- 2. Fill surge tank (1) with coolant until it reaches above the sight glass window (3).

Approximately 1 Inch (2.54 cm) below filler neck (4).

- 3. Screw locking cap (2) back on surge tank.



NOTE

FOLLOW-ON MAINTENANCE: Close engine hood (page 2-39).

TASK ENDS HERE

FRONT TIRE

This task covers:

- a. Removal (page 3-39)
- b. Installation (page 3-42)

INITIAL SETUP

Tools/Equipment

Chock, wheel (two required)
 Jack, hydraulic
 Wrench, lug

Personnel Required

One

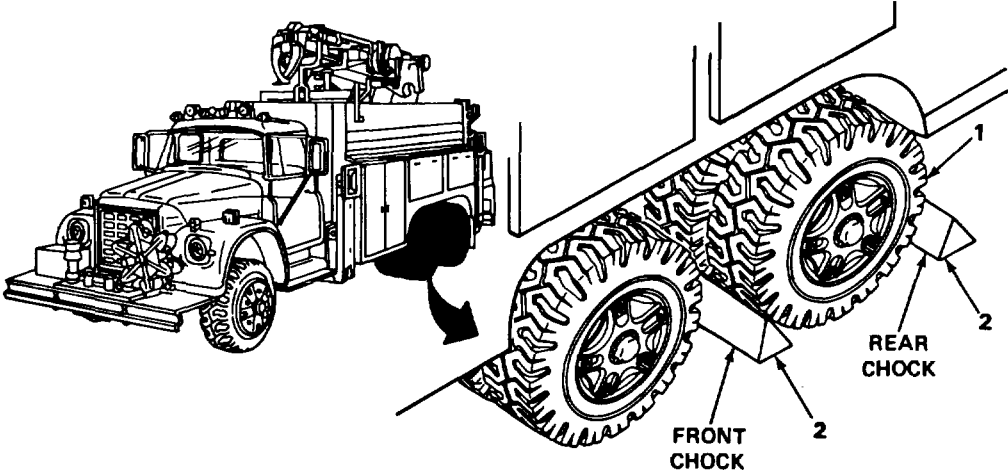
Equipment Condition

Truck parked.
 Parking brake on.
 Engine shut down.

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

REMOVAL

1 Left rear tire (1)	Wheel chocks (2)	Put one wheel chock in front of the left rear tire and one at the rear.	Wheel that is diagonally opposite to the one to be removed is to be chocked.
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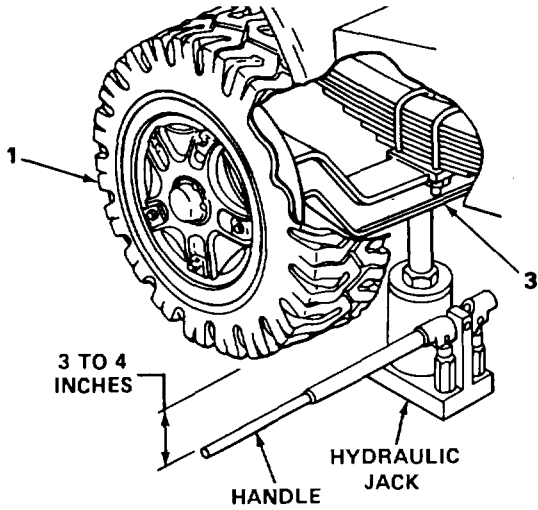
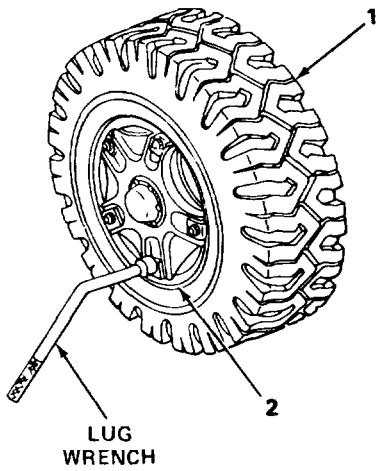


FRONT TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

REMOVAL - CONTINUED

2 Right front tire (1)	Lug nuts (2)	Using wrench, loosen. Do not take off at this time.
3 Right front axle (3)	Hydraulic jack	a. Position hydraulic jack under axle (3). b. Insert handle into hydraulic jack and raise right front tire (1) until it is 3 to 4 inches (8 to 10 cm) off the ground.



TA 222700

FRONT TIRE - CONTINUED

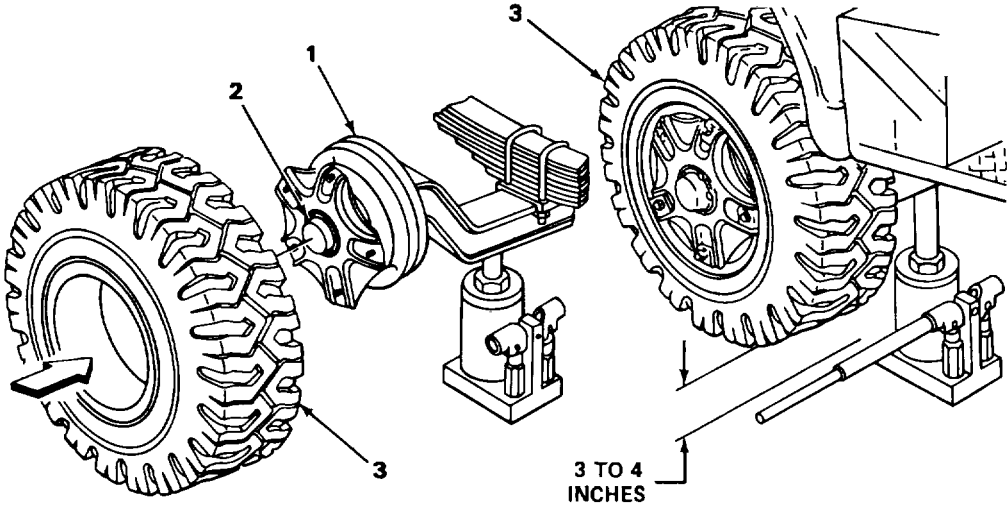
LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

INSTALLATION

WARNING

Be sure axle is supported with hydraulic jack before installing truck tire. Serious injury to personnel would result if jack should slip out from under axle during installation.

6 Wheel (1) and hub (2)	Right front tire (3)	Position on wheel (1) hub (2), making sure there is enough clearance (3 to 4 inches) between tire (3) and the ground surface.
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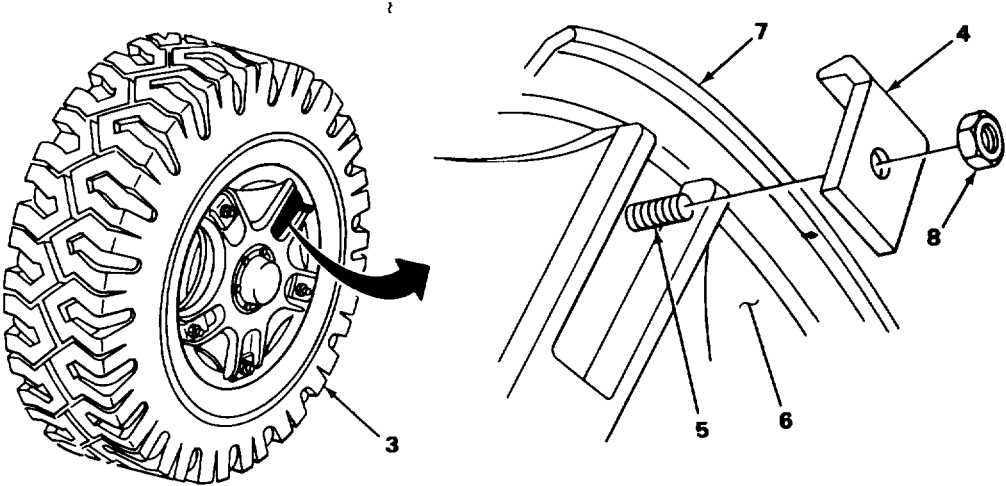


FRONT TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

INSTALLATION - CONTINUED

- | | | | |
|---|----------------------|--|---|
| 7 | Right front tire (3) | Retainers (4) | Put In position over studs (5) on wheel spokes (6).
Retainer secures wheel to tire rim (7). |
| 8 | Lug nuts (8) | Screw on by hand. Do not tighten at this time. | |



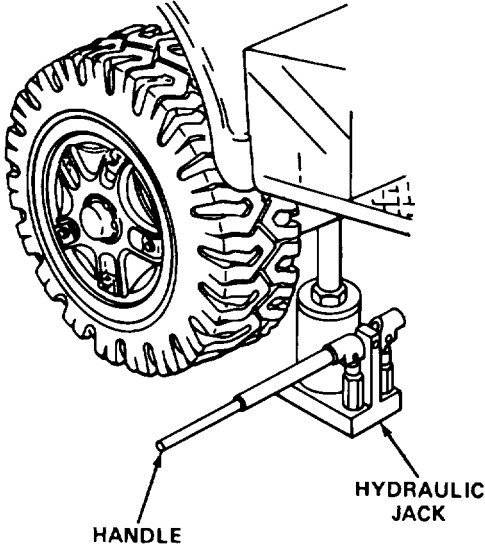
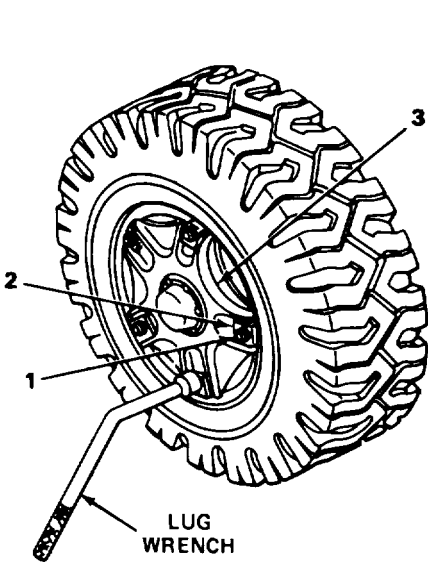
TA 222703

FRONT TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

INSTALLATION - CONTINUED

9	Lug nuts (1) and retainers (2)	<ul style="list-style-type: none">a. Make sure they are properly seated on wheel spokes (3).b. Using lug wrench, tighten all lug nuts securely.c. Using jack handle, lower hydraulic jack and remove from under right front axle.d. Check lug nuts for tightness.	
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TASK ENDS HERE

REAR TIRE

This task covers:

- a. Removal (page 3-45)
- b. Installation (page 3-49)

INITIAL SETUP

Tools/Equipment

Chock, wheel (two required)
Jack, hydraulic
Wrench, lug

Materials/Parts

None required at this time.

Personnel Required

One

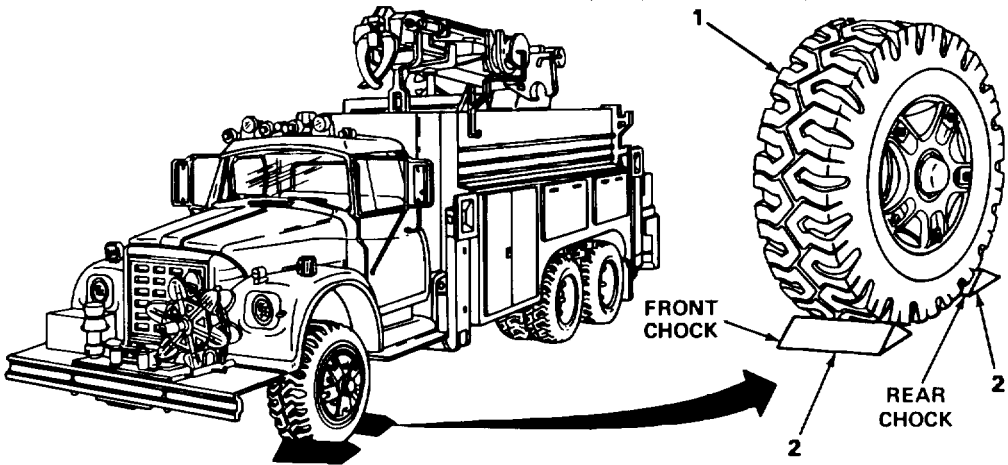
Equipment Condition

Truck parked.
Parking brake on.
Engine shut down.

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

REMOVAL

1 Left front tire (1)	Wheel chocks (2)	Put one wheel chock in front of the left front tire and one at the rear.	Wheel that is diagonally opposite to the one to be removed is to be chocked.
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REAR TIRE - CONTINUED

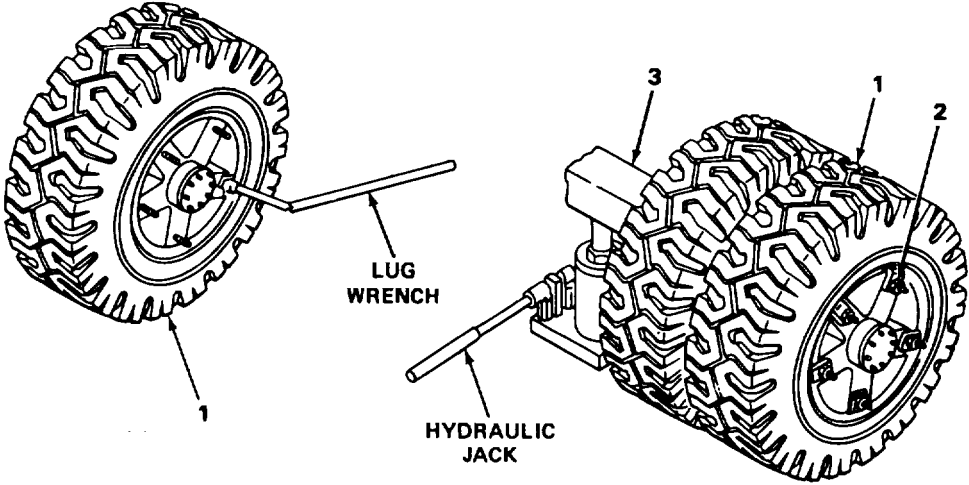
LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

REMOVAL- CONTINUED

NOTE

The following rear tire procedures are similar to those for removing a front tire. The difference is the removal/installation of a rim spacer.

- | | | | |
|-----------------------|----------------|--|--------------------------------------|
| 2 Right rear tire (1) | Lug nuts (2) | Using a wrench, loosen. | Do not take off at this time. |
| 3 Right rear axle (3) | Hydraulic jack | a. Position hydraulic jack under axle (3). | |

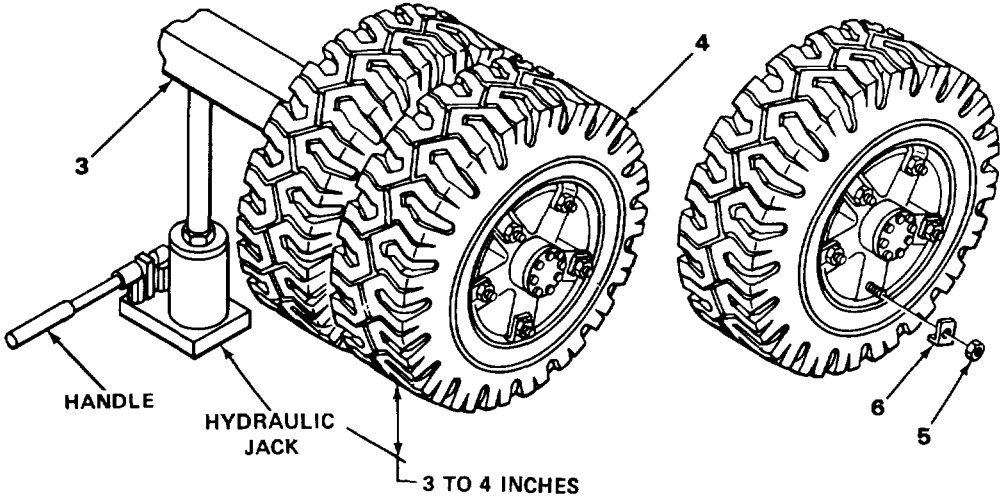


REAR TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

REMOVAL- CONTINUED

- 4 Right rear axle (3) Hydraulic jack Insert handle into hydraulic jack and raise right rear tire (4) until it is 3 to 4 inches (8 to 10 cm) off the ground.
- 5 Right rear tire (4) Lug nuts (5) and retainers (6) Unscrew and take off. Put lug nuts and retainers aside.



TA 222707

REAR TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
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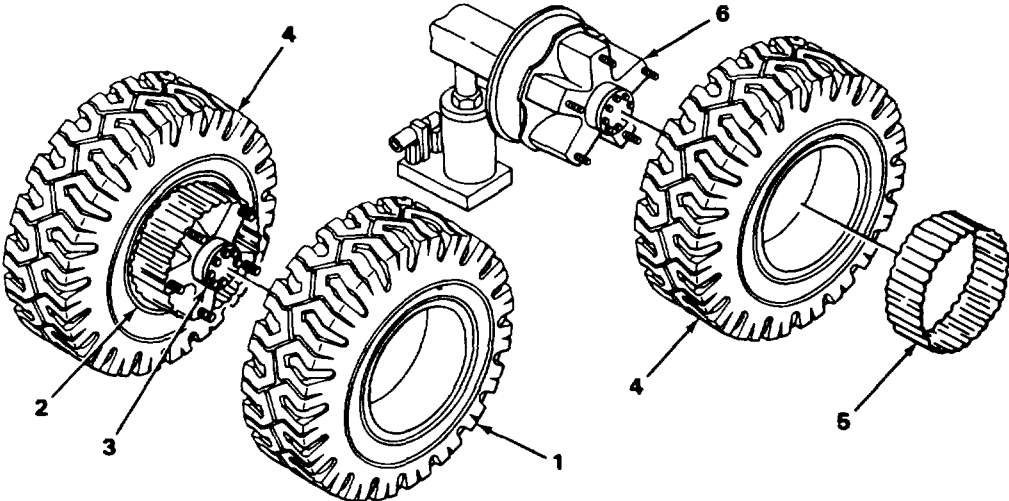
REMOVAL - CONTINUEUD

6		Remove tire (1) by sliding it off wheel (2) and hub (3). Set tire aside, out of work area.
---	--	--

NOTE

Use step 7 if the inner rear wheel is to be taken off.

7 Inner right rear tire (4)	Spacer rim (5)	a. Slide out of inner rear tire. b. Remove tire (4) by sliding it off wheel (6). Set tire aside, out of work area.
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TA 222708

REAR TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

INSTALLATION

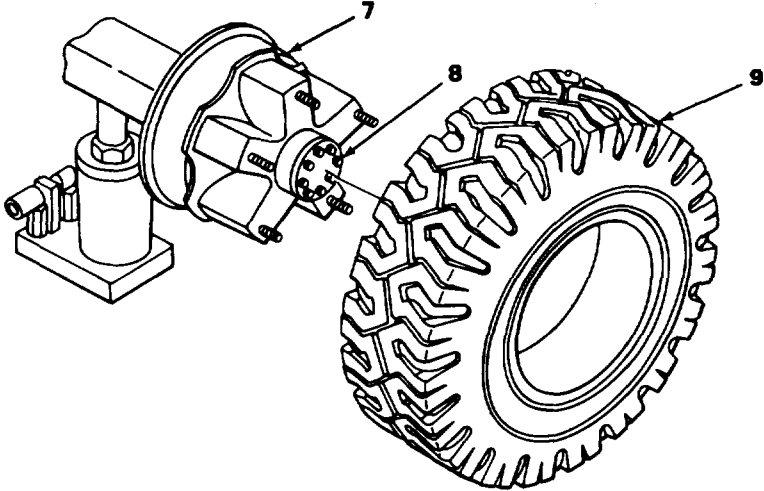
WARNING

Be sure axle is supported with hydraulic Jack before installing truck tire. Serious Injury to personnel would result if jack should slip out from axle during installation.

NOTE

Use step 1 and 2 if inner right rear tire was removed.

8 Wheel (7) and hub (8)	Inner right rear tire (9)	Position on wheel (7) and hub (8), making sure there is enough clearance (3 to 4 inches) (8 to 10 cm) between tire (9) and ground surface.
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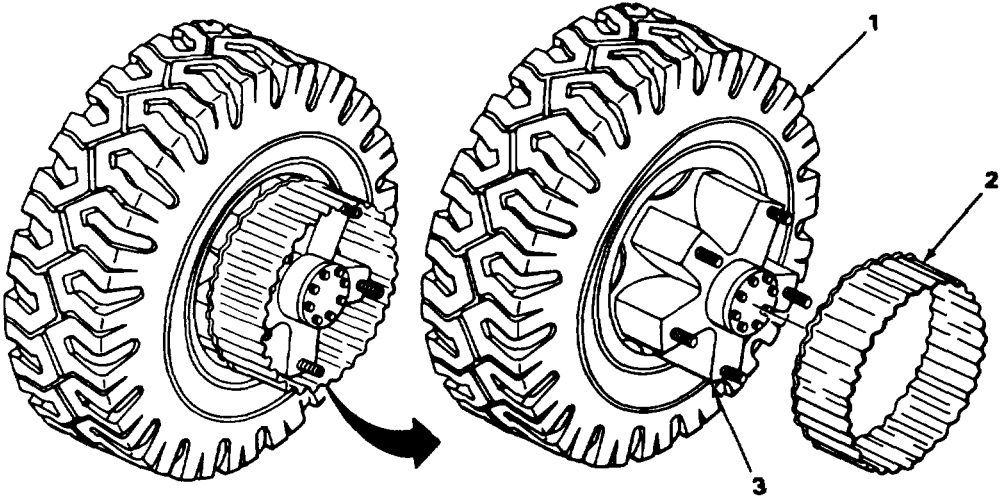
TA 222709

REAR TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
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INSTALLATION - CONTINUED

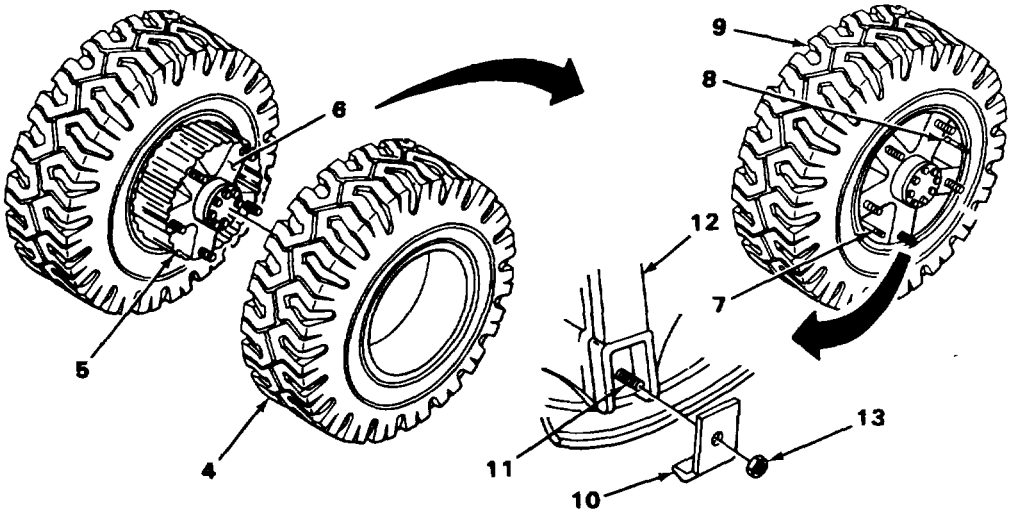
- | | | |
|-----------------------------|----------------|--|
| 9 Inner right rear tire (1) | Spacer rim (2) | a. Position inside tire (1) and wheel (3).
b. Use a rocking motion and seat the spacer rim (2) inside the tire (1) and wheel (3). |
|-----------------------------|----------------|--|



TA 222710

REAR TIRE - CONTINUED

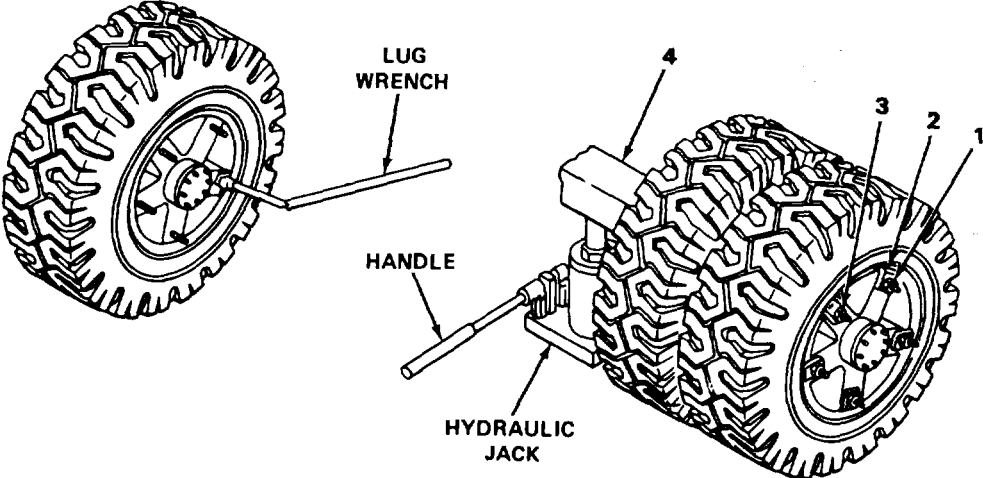
LOCATION	ITEM	ACTION	REMARKS
INSTALLATION - CONTINUED			
10	Right rear tire (4)	Slide onto spacer rim (5) and wheel (6), making sure that valve (7) is directly opposite the valve (8) on the inner tire (9).	
11	Retainers (10)	Put in position over studs (11) on wheel spokes (12).	
12	Lug nuts (13)	Screw on by hand. Do not tighten at this time.	



TA222711

REAR TIRE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
INSTALLATION - CONTINUED			
13	Lug nuts (1) and retainers (2)	a. Make sure they are properly seated on wheel spokes (3). b. Using lug wrench, tighten all nuts securely.	
14 Right rear axle (4)	Hydraulic jack	Using jack handle, lower hydraulic jack and remove from under right rear axle.	



TASK ENDS HERE

TA 222712

TRUCK CLEANING

This task covers:
Cleaning (page 3-54)

INITIAL SETUP:

Tools/Equipment	Personnel Required
Container	As required
Materials/Parts	Equipment Condition
Rags (item 2, appendix D)	Truck parked. Parking Brake on. Engine shut down.

CLEANING NOTES

Don't use hot water or strong detergents when cleaning or washing truck.

Don't wash truck in direct sunlight or if the metal is too hot to touch.

Don't use steel wool on surface metal.

Don't use solvents or abrasive cleaners, especially on the seat belts.

TRUCK CLEANING - CONTINUED

Location	Item	Action REMARKS
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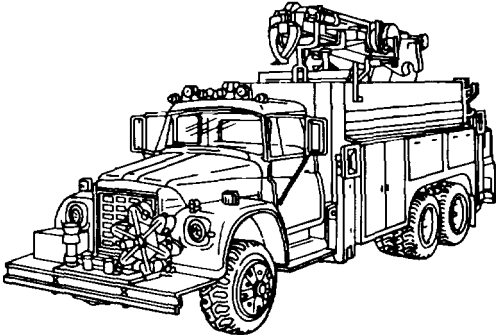
CLEANING

1

Outside of truck

- a. Clean/wash using rags and water. Let air dry.
- b. Look for scratches or bare metal.

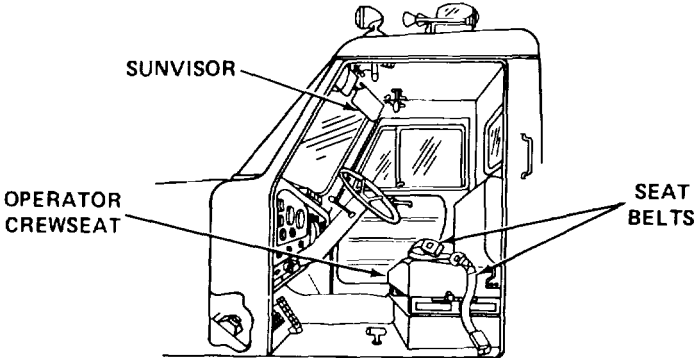
If you find any, notify organizational maintenance.



2

Inside of cab

Clean/wash crew seats and seat belts with mild solution of warm water and soap. Let air dry.



TASK ENDS HERE

APPENDIX A

REFERENCES

A-1. SCOPE

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

A-2. FORMS

Accident Identification Card.....	DD Form 518
Equipment Daily or Monthly Log.....	DA Form 2408-1
Equipment Inspection and Maintenance Work Sheet	DA Form 2404
Maintenance Request.....	DA Form 2407
Quality Deficiency Report.....	SF 368
Operator's Permit	SF 46
Recommended Changes to DA Publications	DA Form 2028-2
Uncorrected Fault Record	DA Form 2408-14
Vehicle Accident Report.....	SF 91

A-3. PUBLICATION INDEXES

The following indexes should be checked often to see if there have been changes, revisions or new publications that apply to material covered in this manual.

Consolidated Index of Army Publications and Forms.....	DA Pam 310-1
US Army Equipment Index of Modification	

A-4. FIELD MANUALS

Vehicle Recovery Operation.....	FM 20-22
First Aid for Soldiers	FM 21-11
Manual for the Wheeled Vehicle Driver.....	FM 21-305
Basic Cold Weather Manual.....	FM 31-70
Northern Operations.....	FM 31-71
Operation and Maintenance of Ordnance	
Material in Cold Weather (0° to -650F)	FM 9-207

A-5. TECHNICAL MANUALS

Use of Anti-Freeze, Cooling Systems.....	TM 750-0651
Chemical, Biological and Radiological	
(CBR) Decontamination.....	TM 3-220
Operator's, Organizational, Direct Support and	
General Support Maintenance Manual for	
Lead-Acid Storage Batteries	TM 9-6140-200-14
Driver Selection and Training (Wheeled Vehicles).....	TM 21-300
The Army Maintenance Management	
System (TAMMS).....	TM 38-750
Procedures for Destruction of Tank-Automotive	
Equipment to Prevent Enemy Use.....	TM 750-244-6

A-6. MISCELLANEOUS PUBLICATIONS

Lubrication Order: Truck, Telephone Maintenance
Utility, C/S, 36,000 GVW, 6X4, WI/W, WIE M876 LO 9-2320-269-12
Use of Antifreeze Solutions and Cleaning
Compounds in Engine Cooling Systems..... TB 750-651

APPENDIX B**COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LIST****Section I. INTRODUCTION****B-1. SCOPE**

This appendix lists components of end item and basic issue items for the M876 truck to help you inventory items required for safe and efficient operation.

B-2. GENERAL

The Components of End Item and Basic Issue Items Lists are divided into the following sections:

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

b. Section III. Basic Issue Items. These are the minimum essential items required to place the M876 truck in operations, to operate it and to perform emergency repairs. Although shipped separately packaged, BII must be with the M876 truck during operation and whenever it is transferred between property accounts. The illustrations will assist you with hard-to-identify items. This manual is your authority to request/requisition replacement B11, based on TOE/MTOE authorization of the end item.

B-3. EXPLANATION OF COLUMNS

The following provides an explanation of columns found in the tabular listings:

a. Column (1) - Illustration Number (Illus Number). This column indicates the number of the illustration in which the item is shown.

b. Column (2) - National Stock Number. Indicates the national stock number assigned to the item and will be used for requisitioning purposes.

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

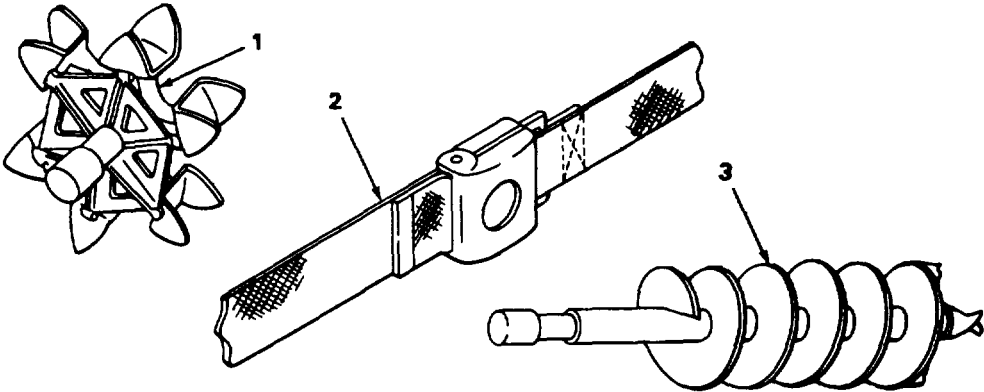
d. Column (5) - Quantity required (Qty Rqr). Indicates the quantity of the item authorized to be used with/on the equipment.

Section II. COMPONENTS OF END ITEM

(NOT APPLICABLE)

B-1

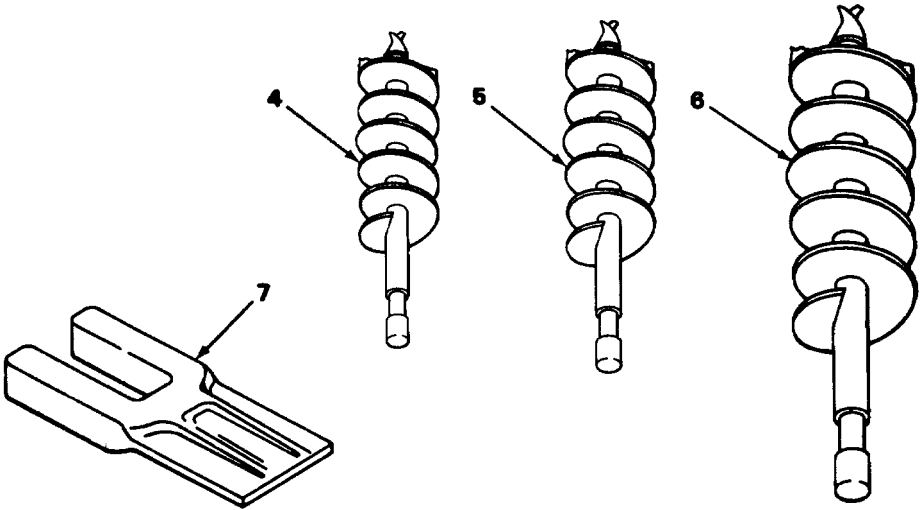
Section III. BASIC ISSUE ITEMS



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
1	2540-01-105-4040	ADAPTER: Rope winder (73362) RE 1301	EA	1
2	4240-01-105-6845	BELT, SAFETY: Buckle type, w/billet, 2000# design, 4 ft length, 5475 lb (73362)	EA	2
3	513341-117-8002	BIT: Auger, 12 in. dia. (standard flight) (73362) AU-15-12	EA	1

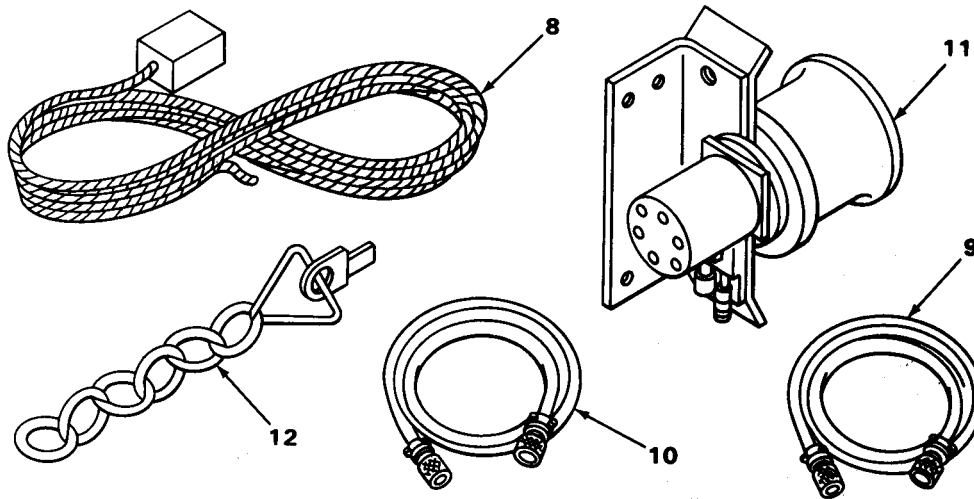
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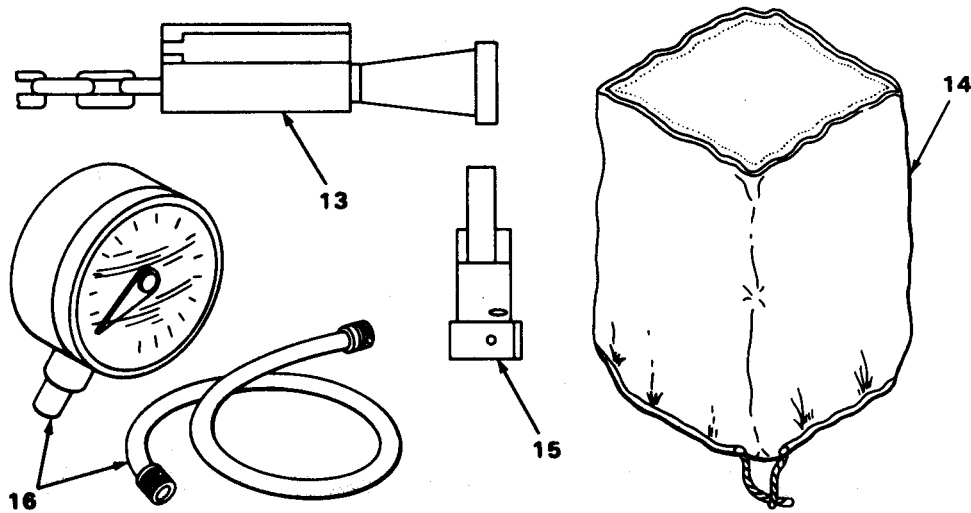
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
4	5133-01-117-004	BIT: Auger, 18 in. dia (18 in. flight) (73362) AU-43-18	EA	1
5	513301-117-8003	BIT: Auger, 24 in. dia (24 in. flight) (73362) AU-43-24	EA	1
6	5133-01-117-8005	BIT: Auger, 30 in. dia (30 in. flight) (73362) AU-30		
7	5133-01-1178006	BIT: Auger, pilot, w/4 each screw, cap hex head, 16 thread, 1 1/2 in. length and 4 each nut, 1/2 in. (24873) FH-205	EA	4

Section III. BASIC ISSUE ITEMS - CONTINUED



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
8	3940-01-109-9954	BLOCK, WOOD: 4 In., w/100 ft X 1/2 in. rope (73362) 300 - 1A B&L	EA	1
9		CABLE ASSEMBLY: Electric, 12V, 10 ft long, 7 wire conductor	EA	1
10	2590-00-772-8813	CABLE ASSEMBLY: Electric, 24 V, 10 ft long, size 12, 14 wire conductor (19207) 7728813	EA	1
11	3950-02-105-9399	CAPSTAN: Hydraulic, motor drive, rope winding (73362) 580 H	EA	1
12	4010-01-114-0698	CHAIN: Logging, 2X3 in. links, 7 ft length, 8 ton tensile (73362) A2474	EA	1

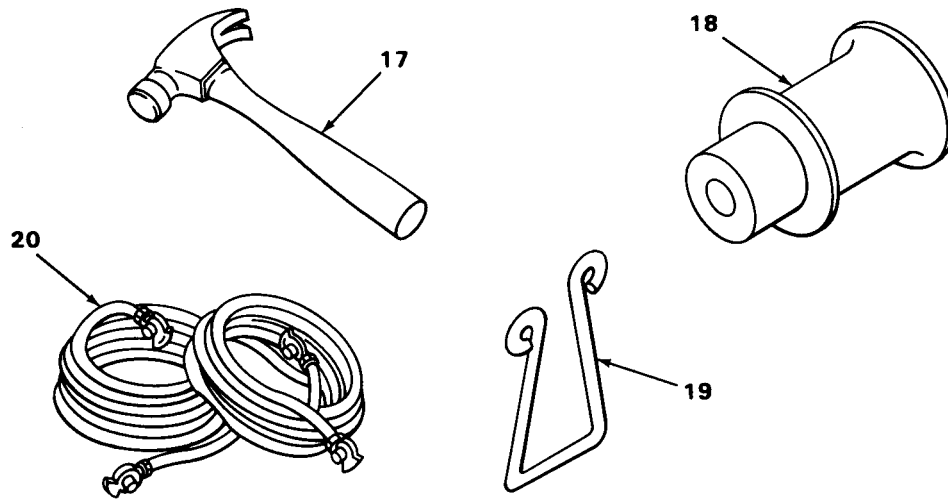
Section III. BASIC ISSUE ITEMS - CONTINUED



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
13	4030-01-109-9055	CLAMP: Chain type (21801) 2003	EA	2
14	2540-01-106-7117	COVER: Weather proof, w/drawstring, for control console (73362) CR329	EA	1
15	3820-01-114-5588	EXTENSION: Pilot bit (24873) PE-151	EA	1
16	6685-01-070-9858	GAGE: Pressure, w/6 ft hose and quick disconnect, 100 to 5,000 psi range (73362) CBM2-5DFM	EA	1

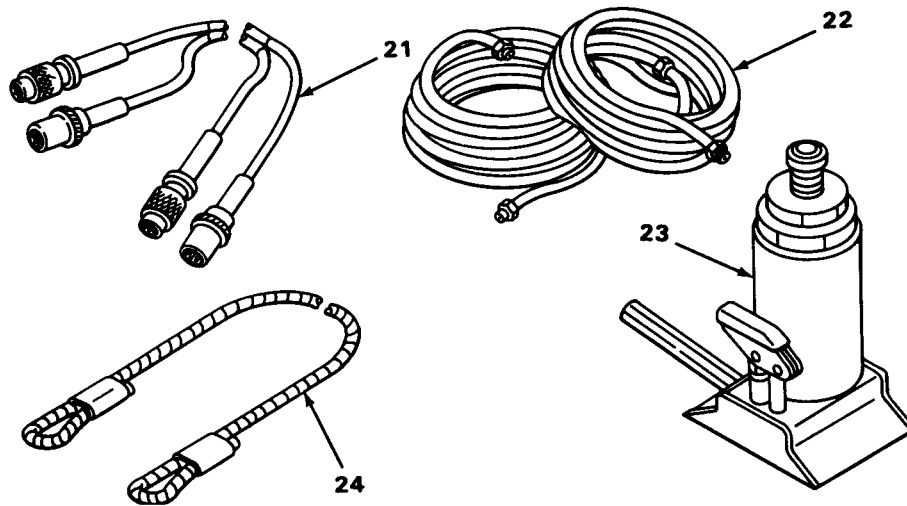
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(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
17	5120-00-242-3915	HAMMER, HAND: (80063) SMC 133905	EA	1
18	2590-01-105-7539	HEAD: Winch, bayonette type (73362) SM-10511	EA	1
19	3895-01-106-1363	HOOK: Tool tray to lineman's basket mounting, plastic (73362) 10O05	EA	4
20		HOSE ASSEMBLY: Air Set of two, W/MS35746-1 end connections, 114 in. length (31007) 295460-C91	EA	1

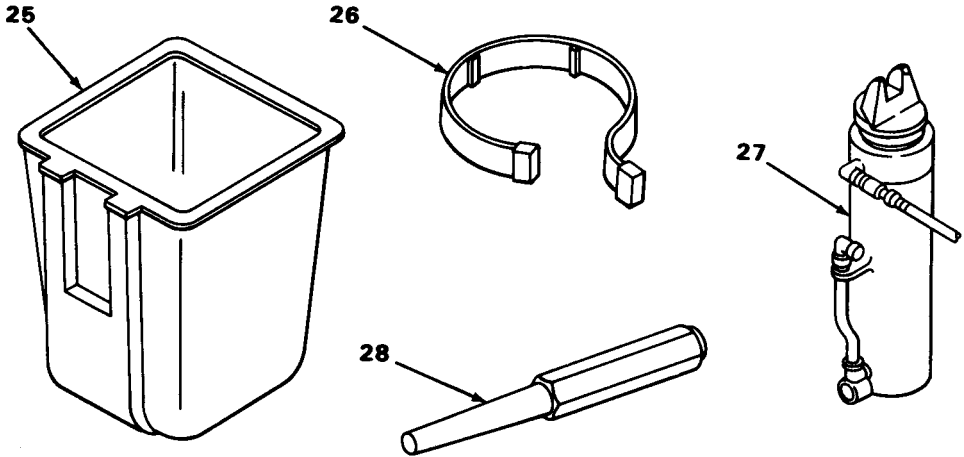
Section III. BASIC ISSUE ITEMS - CONTINUED



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
21	5120-00-5958396	HOSE ASSEMBLY: Hydraulic, w/quick dis- connect fittings, special feature, non-conductive Size 3/9 in. X 8 ft 3740-OC	EA	2
22		HOSE ASSEMBLY: Hydraulic, set of two 50 ft long each hose	EA	1
23		JACK: Hydraulic, hand (04741) 16W233	EA	1
24		LANYARD: Safety belt 5 ft long (73362) 5489P	EA	2

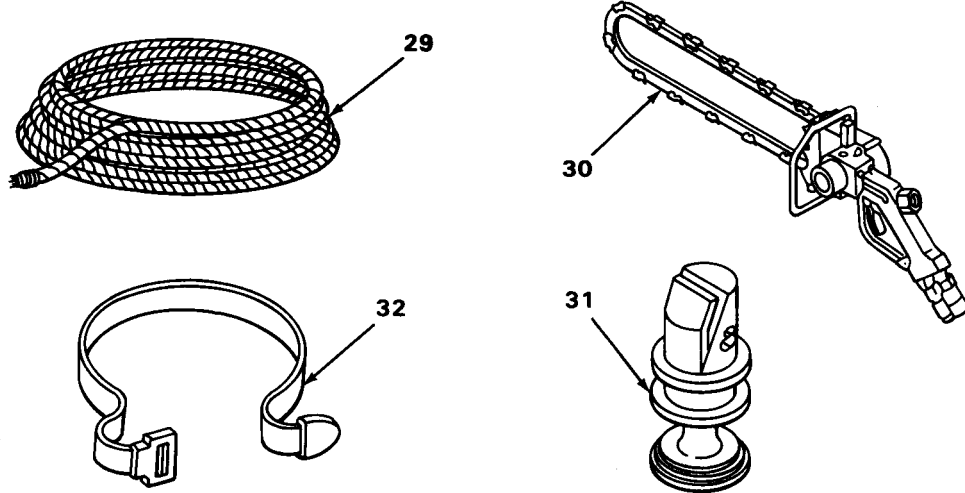
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Section III. BASIC ISSUE ITEMS - CONTINUED



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
25	3895-01-105-7540	LINER: Fiberglass basket (73362) SM 8508	EA	2
26	4240-01-105-6825	PAD: Lineman's safety belt, cotton webbing, w/keepers, 4 in. width, 2 1/2 ft long (73362) 5445	EA	2
27	3895-01-105-9931	POLE PULLER: Hydraulic, telephone pole remover, w/base plate (73362) MN-8156	EA	1
28	5120-00-239-0038	PUNCH, DRIFT: (81337) 01-12-1-14-3-4	EA	1

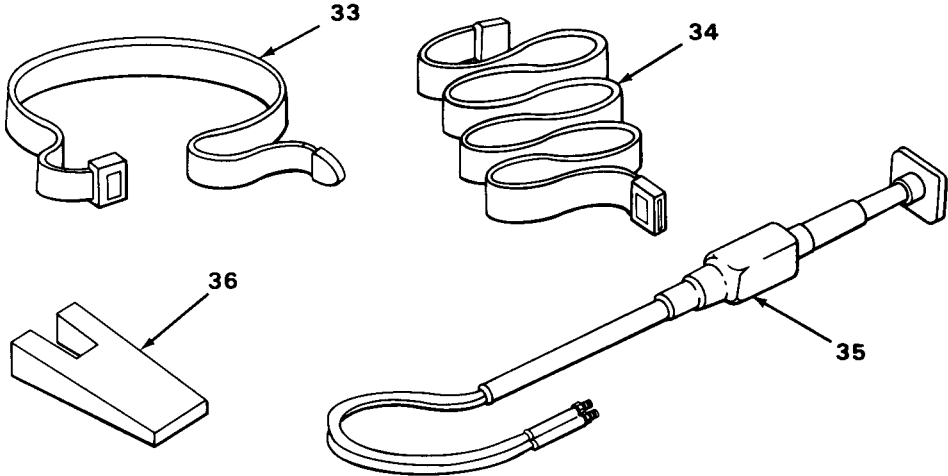
Section III. BASIC ISSUE ITEMS - CONTINUED



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
29	3695-01-106-2722	ROPE: Sisal, 3/4 in. dia, 100 ft long	EA	1
30		SAW: Power chain type, hydraulic, 8 gpm, 2,000 psi maximum pressure, w/hydraulic motor (73362) CS07-130D	EA	1
31	3895-01-105-7498	SCREW: Anchor tool, (24873) SAT-80	EA	1
32		STRAP: Mounting, w/buckle and clips, 1-1/2 in. width webbing, 19 in. long	EA	1

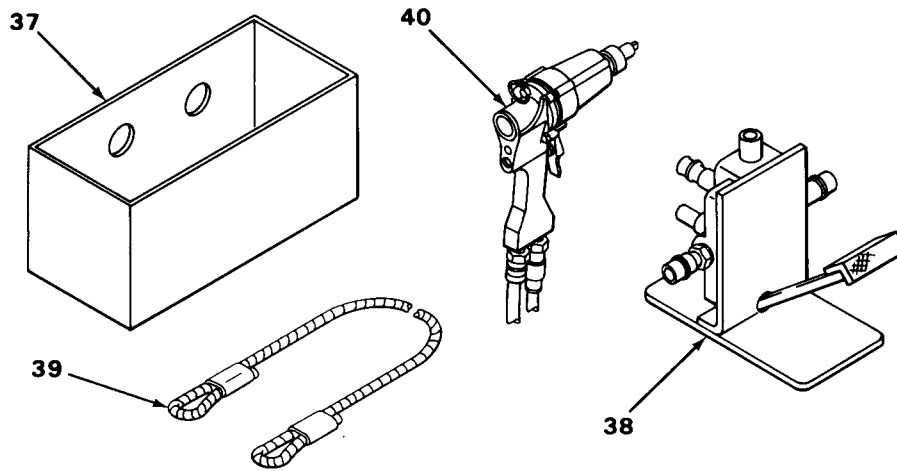
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(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
33		STRAP: Mounting, w/buckle and clip, 1-1/2 in. width webbing, 24 in. long	EA	1
34	5340-01-110-1865	STRAP: Mounting, w/buckle and clip, 2 in. width nylon webbing, 7 ft long (73362) ST-38	EA	1
35	389501-105-9488	TAMPER: Hydraulic, soil compacting, w/ kidney shaped shoe 833 (78525) MDL-TA52002D	EA	1
36	3815-01-084-2800	TOOTH: Surface clipping (24873) 1650	EA	25

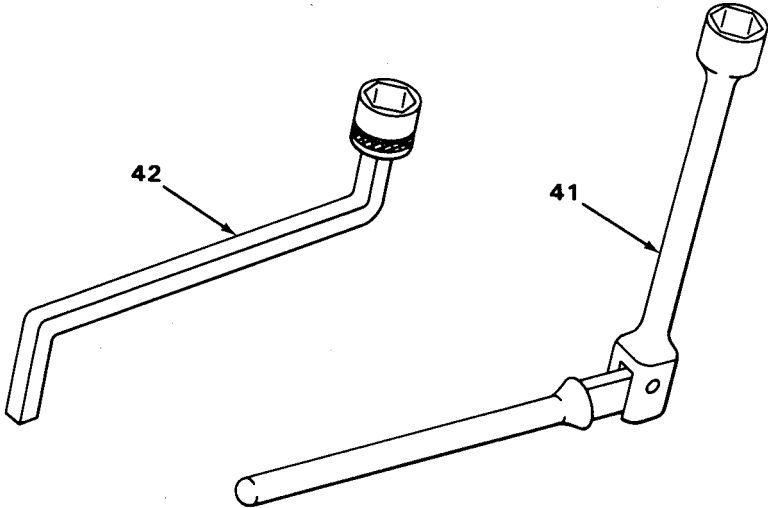
Section III. BASIC ISSUE ITEMS - CONTINUED



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
37	3895-01-105-9489	TRAY: Fiberglass, tool stowage, w/hook (73362) 05-918	EA	1
38	4820-01-105-9930	VALVE: Hydraulic, foot controlled, spring loaded (73362) D4-10-16-3NB	EA	1
39	4010-01-109-9796	WIRE ROPE: 8 ft long, 112 in. diameter, 3 strands, 3 layers, 1.8 in. diameter strand (73362) S9-1-E-E-9	EA	1
40	5130-01-117-7950	WRENCH: Impact, hydraulic, w/adaptor (78525) 1W05110	EA	1

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Section III. BASIC ISSUE ITEMS - CONTINUED



(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, FSCM and Part Number	(4) Usable On Code U/M	(5) QTY Reqd
41		WRENCH: Lug, 1 in. one end, 1-1/4 in. other end (31007) 58607R1	EA	1
42		WRENCH: Socket, size 7/8 in. (73362) CK-15 B-12	EA	1 TA 222724

APPENDIX C

**ADDITIONAL AUTHORIZATION LIST (AAL)
Section I. INTRODUCTION**

C-1. SCOPE

This appendix lists additional items you are authorized for the support of the M876 truck.

C-2. GENERAL

This list identifies items that do not have to accompany the M876 truck and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

C-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 under the type document (i.e., CTA, MTOE, TDA, or JTA) which authorizes the item(s) to you.

Section II. ADDITIONAL AUTHORIZATION LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION FSCM AND PART NUMBER	USABLE ON CODE	(3) U/M	(4) QTY AUTH
3830-01-084 0242	MTOE AUTHORIZED ITEMS			
	TOOTH: Super auger cutting (24873) 8550		EA	AIR
	TOOTH: Tungsten carbide (24873) 1656		EA	AIR
	CTA AUTHORIZED ITEMS			
	(NOT APPLICABLE)			
	C-1/(C-2 blank)			

APPENDIX D
EXPENDABLE SUPPLIES AND MATERIALS LIST
Section I. INTRODUCTION

D-1. SCOPE

This appendix lists expendable supplies and materials you will need to operate and maintain the M876 truck. These items are authorized to you by CTA 50-970, expendable items (except medical, class V, repair parts, and heraldic items).

D-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 material (e.g., 'Use cleaning compound, item 5, App. D').

b. Column (2) - Level. This column identifies the lowest level of maintenance that requires the listed item.

C - Operator/Crew

c. Column (3) - National Stock Number. This is the national stock number assigned to the item. The last line for each item indicates the federal supply code for manufacturer (FSCM) in parentheses followed by the part number.

d. Column (4) - Description. Indicates the federal item name and, if required, a description to identify the item. The last line for each item indicates the federal supply code for manufacturer (FSCM) in parentheses followed by the part number.

e. Column (5) - Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) UNIT OF MEAS
1	C	6850-00-243-1992	Antifreeze, permanent, ethylene glycol, inhibited (MIC-A-46153)	1 GAL
2	C	7920-00-205-3570	Rag, wiping, cotton, general purpose, class 2, grade 2	50 LB bale
3	C	6850-00-264-9038	Solvent, dry cleaning: PD680 type 1 D-2	1 QT

**APPENDIX E
STOWAGE AND SIGN GUIDE**

E-1. SCOPE

This appendix shows the locations for stowage of equipment and materiel required to be carried on the M876 truck.

E-2. GENERAL

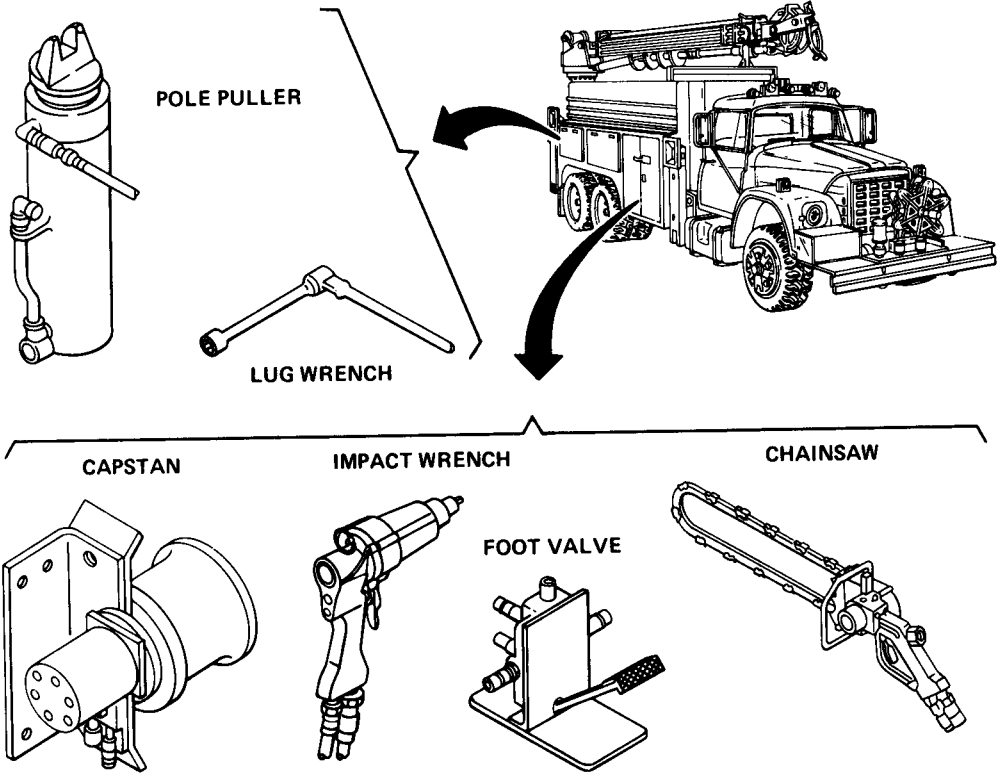
The illustration below and on the following pages show the location of equipment and tools carried on the M876 truck.

STOWAGE AND SIGN GUIDE

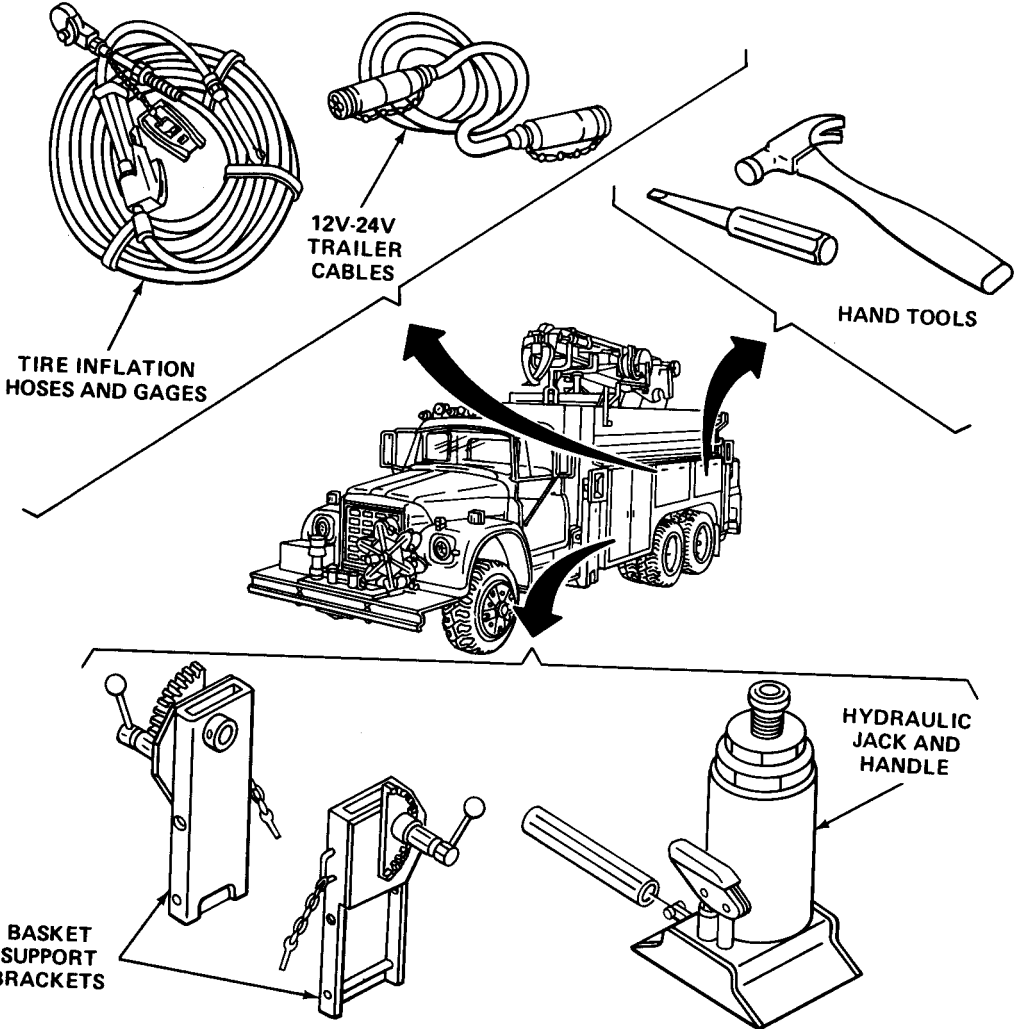
NOTE

There are no decals or stencils showing location of equipment on the M876 truck.

STOWAGE - RIGHT SIDE



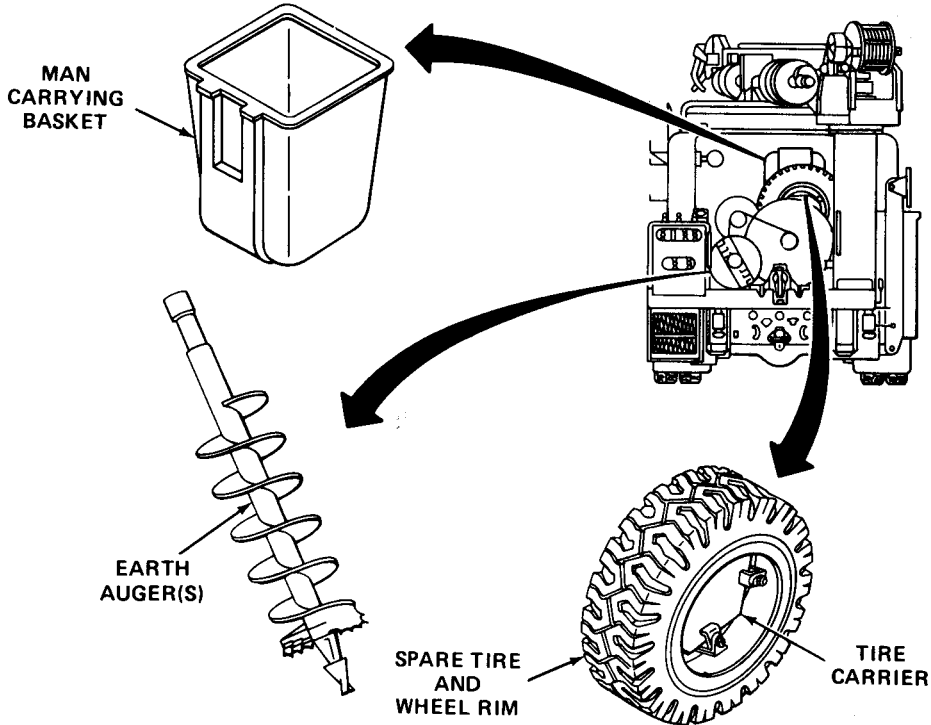
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STOWAGE - CARGO AREA



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By Order of the Secretary of the Army:

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The Adjutant General

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THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

- 1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
- 1 Meter = 100 Centimeters = 1,000 Millimeters = 39.37 Inches
- 1 Kilometer = 1,000 Meters = 0.621 Miles

SQUARE MEASURE

- 1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches
- 1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq Feet
- 1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

CUBIC MEASURE

- 1 Cu Centimeter = 1,000 Cu Millimeters = 0.06 Cu Inches
- 1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet

LIQUID MEASURE

- 1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
- 1 Liter = 1,000 Milliliters = 33.82 Fluid Ounces

TEMPERATURE

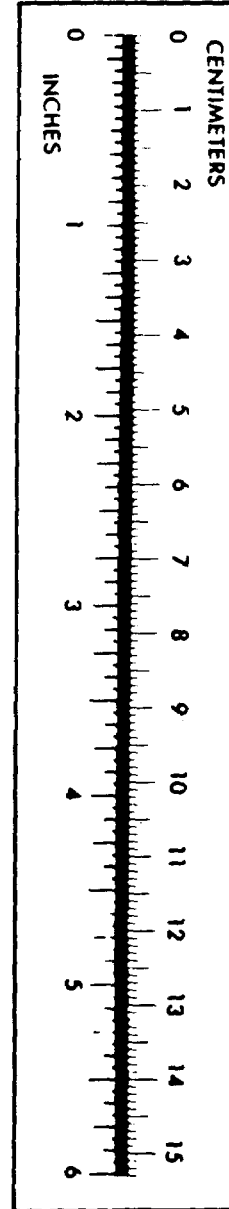
- $5/9 (^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
- 212° Fahrenheit is equivalent to 100° Celsius
- 90° Fahrenheit is equivalent to 32.2° Celsius
- 32° Fahrenheit is equivalent to 0° Celsius
- $9/5 \text{ C}^{\circ} + 32 = \text{F}^{\circ}$

WEIGHTS

- 1 Gram = 0.001 Kilograms = 1,000 Milligrams = 0.035 Ounces
- 1 Kilogram = 1,000 Grams = 2.2 lb.
- 1 Metric Ton = 1,000 Kilograms = 1 Megagram = 1.1 Short Tons

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds Per Square Inch	Kilopascals	6.895
Miles Per Gallon	Kilometers Per Liter	0.425
Miles Per Hour	Kilometers Per Hour	1.609
TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds Per Square Inch	0.145
Kilometers Per Liter	Miles Per Gallon	2.354
Kilometers Per Hour	Miles Per Hour	0.621



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