

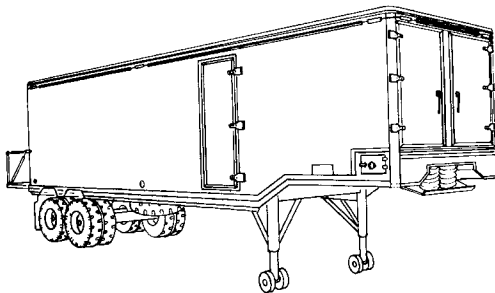
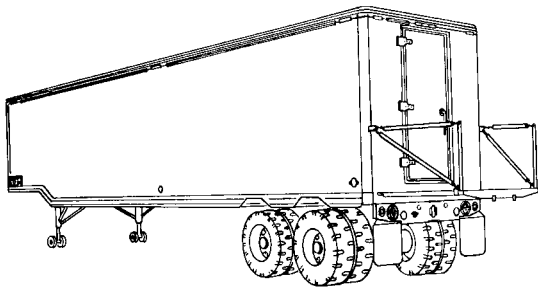
DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S ORGANIZATIONAL DIRECT SUPPORT AND
GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

SEMITRAILER, VAN: SATELLITE TERMINAL
OPERATOR, 10-TON, 4 WHEEL, XM971E2
(2330-01-163-5025)

SEMITRAILER, VAN: SATELLITE TERMINAL
MAINTENANCE & SUPPLY,
10-TON, 4 WHEEL, XM971E3
(2330-01-163-5026)

MILLER TRAILERS, INC.
DAAE07-82-C-5817



OPERATOR PMCS
PAGE 2-2

LUBRICATION
INSTRUCTIONS
PAGE 3-1

OPERATOR
TROUBLESHOOTING
PAGE 3-7

ORGANIZATIONAL PMCS
PAGE 4-3

ORGANIZATIONAL
MAINTENANCE
PAGE 4-37

DS/GS MAINTENANCE
PAGE 5-1

WARNING

HIGH VOLTAGE

is used in the operation of this equipment.

DEATH ON CONTACT

may result if personnel fail to observe safety precautions.

Be careful not to contact high-voltage connections of 115 and 208-volt ac input connections when working on this equipment.

Before working inside the equipment, turn power off and ground points of high potential before touching them.

EXTREMELY DANGEROUS POTENTIALS

exist in the following units:

Air Conditioner

Circuit Breaker

1 10-volt Receptacles

For artificial respiration, refer to TM 21-11.

WARNING

AIR UNDER PRESSURE

100 PSI AIR PRESSURE

is used in the operation of this equipment.

DEATH

or severe injury may result if personnel fail to observe safety precautions.

WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 138 F (58.8 C).

WARNING

Do not use gasoline, dry cleaning solvent or mineral spirits paint thinner to remove oil or grease from canvas. Use only water and a scrubbing brush.

WARNING

Overheated brake drums and hubs can cause severe burns to personnel when touched.

WARNING

Personnel must get under spare wheel carrier to remove nut. Exercise care to prevent injury.

WARNING

Hold wrench firmly when spare wheel carrier pawl is released; wheel can drop fast and cause injury.

WARNING

Be sure all personnel stand clear of towing vehicle and semi-trailer during coupling operations.

WARNING

]With quick release pins removed, upper part of rear platform will be loose. Person on ground must exercise care to support platform throughout the removal procedure.

WARNING

Rear platform must be supported in upright position during removal procedure.

WARNING

Weight of semi-trailer must be supported by leveling jacks or by blocking or support stands placed under rear corners of frame throughout operations to remove axle assembly.

WARNING

Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.

TECHNICAL MANUAL

DEPARTMENT OF THE ARMY

No. TM 9-2330-373-14 & P

Washington, D.C. 29 January 1987

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)
SEMITRAILER, VAN: SATELLITE TERMINAL OPERATOR,

10-TON, 4 WHEEL, XM971E2

(2330-01-163-5025)

SEMITRAILER, VAN: SATELLITE TERMINAL

MAINTENANCE & SUPPLY,

10-TON, 4 WHEEL, XM971E3

(2330-01-163-5026)

Current as of 15 January 1987

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Equipment Publications and Blank Forms), or DA Form 2028-2 located in the back of this publication direct to: US Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be sent to you.

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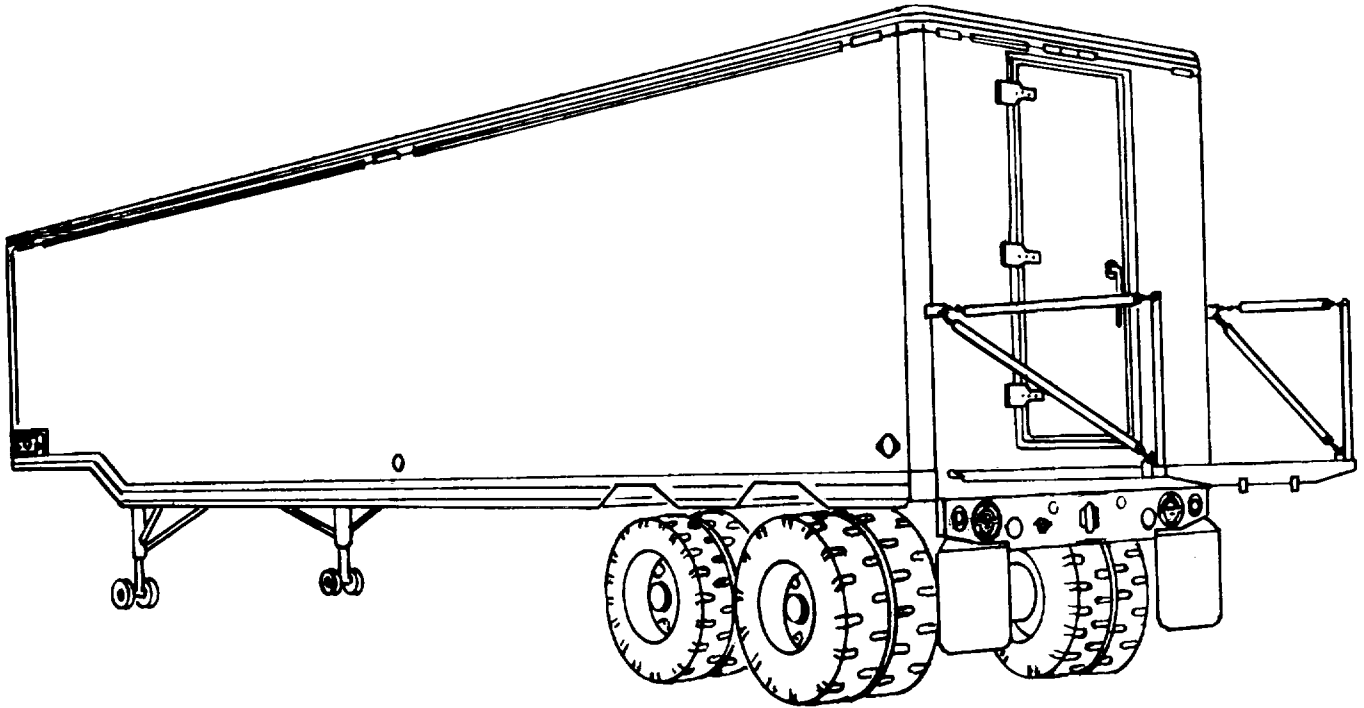
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CHAPTER 1

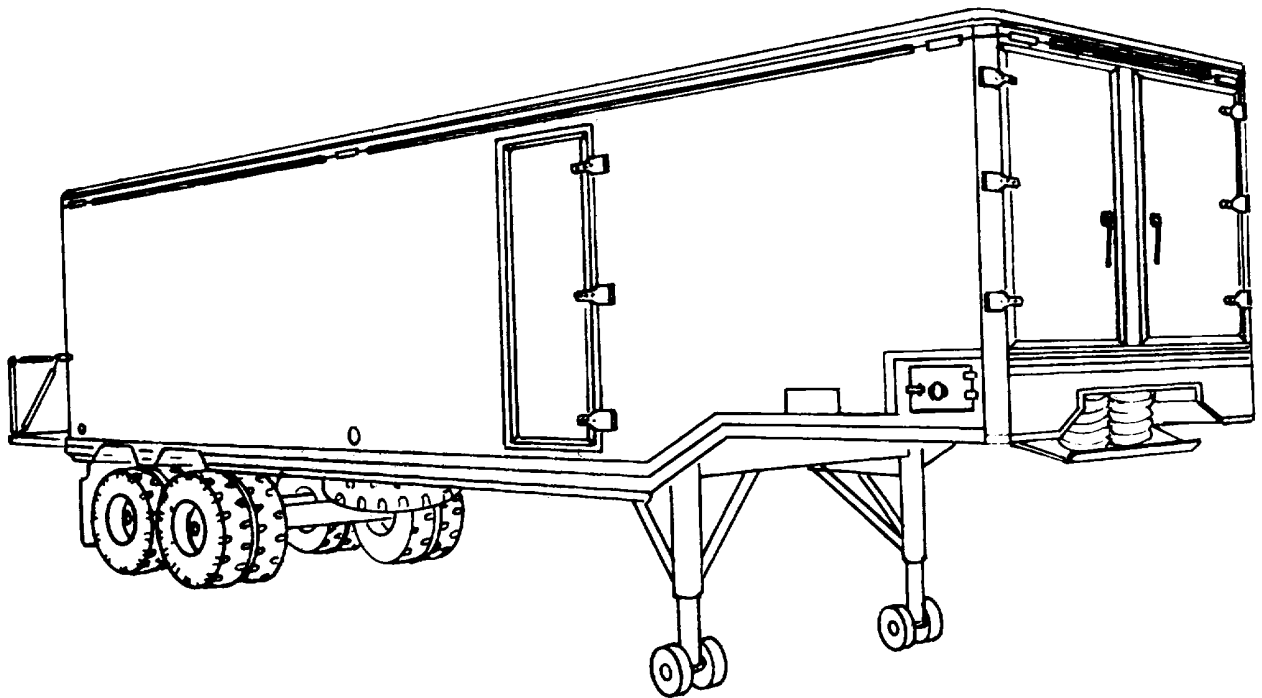
INTRODUCTION

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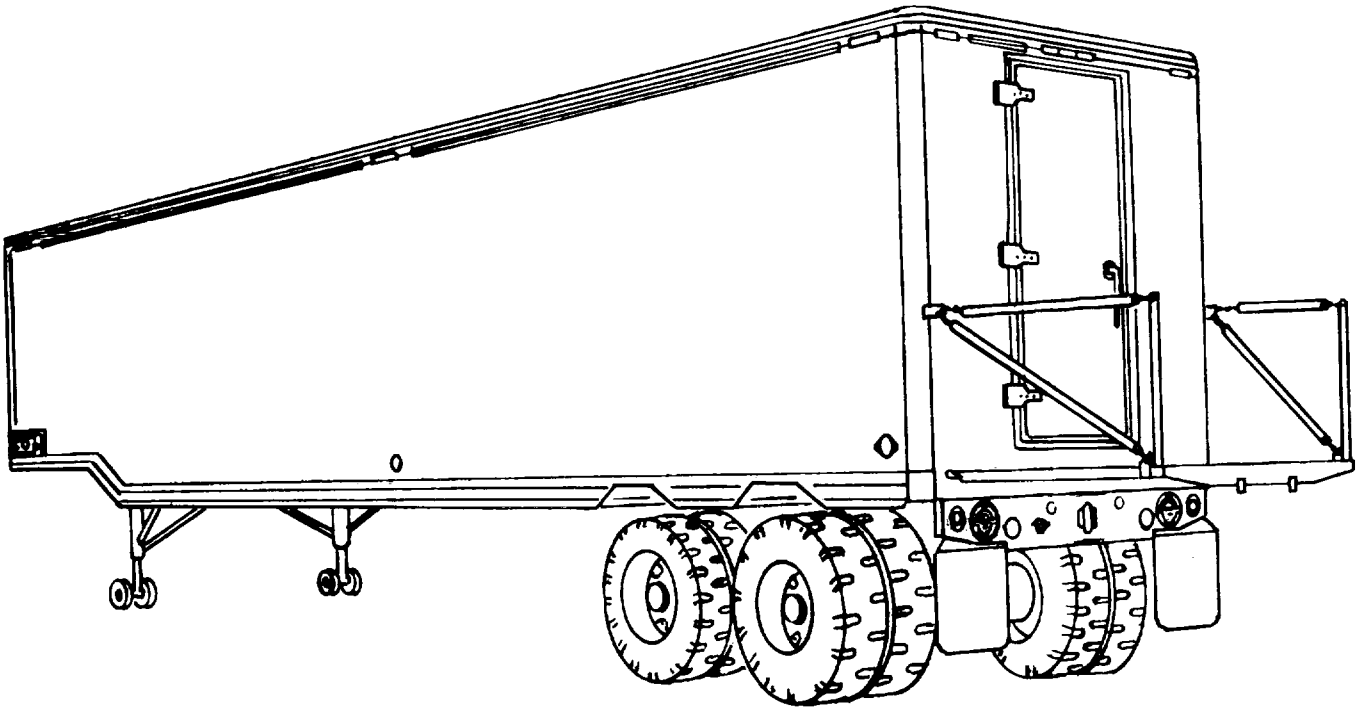
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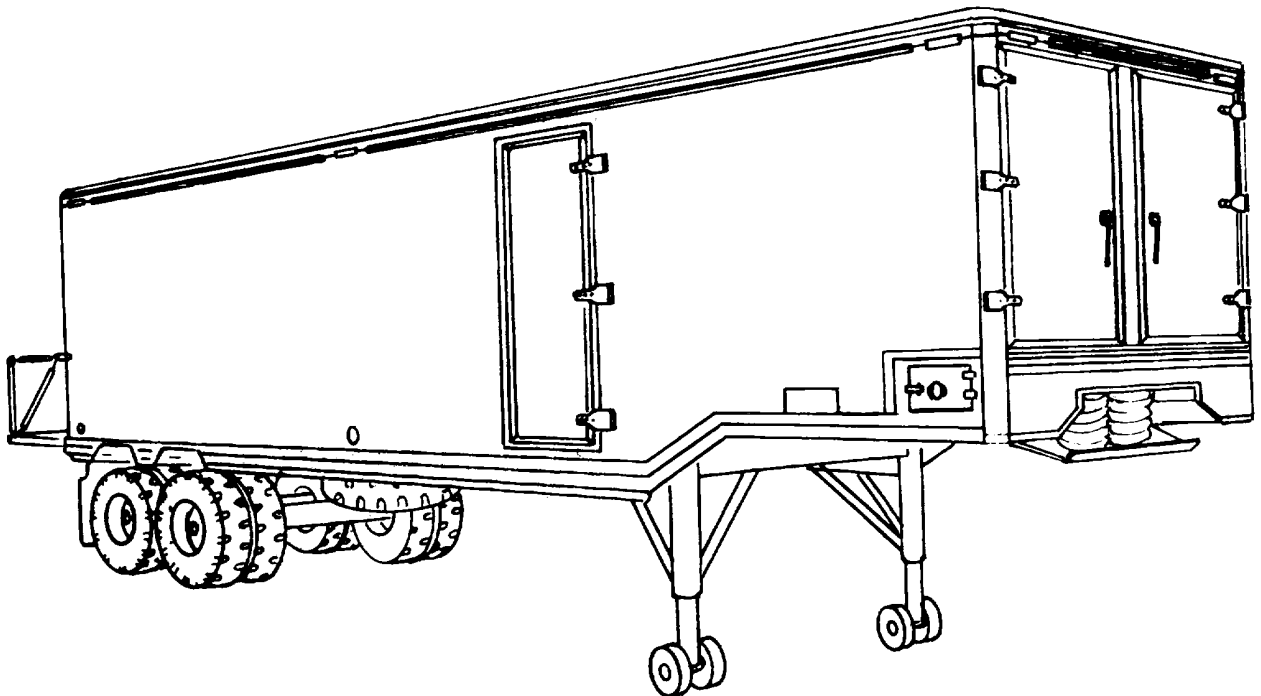
LEFT REAR VIEW, XM971E2



RIGHT FRONT VIEW, XM971E2



LEFT REAR VIEW, XM971E3



RIGHT FRONT VIEW, XM971E3

1-1. SCOPE

Type of Manual:

Operator's, Organizational, Direct Support and General Support Maintenance Manual (including Repair Parts and Special Tools List).

Model Number and Equipment Name: Semi trailer, Van: Satellite Terminal Operator, 10-ton, 4-wheel, XM971E2.

Semi trailer, Van: Satellite Terminal Maintenance & Supply, 10-ton, 4-wheel, XM971E3.

Purpose of Equipment: Houses and transports sensitive electronic equipment.

1-2. MAINTENANCE FORMS, RECORDS AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System.

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

For destruction of Army materiel to prevent enemy use, refer to TM 750-244-6.

1-4. PREPARATION FOR STORAGE

For information on administrative storage, refer to TM 740-90-1.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

EIR can and must be submitted by anyone who is aware of an unsatisfactory condition with the equipment design or use. It is not necessary to show a new design or list a better way to perform a procedure; Just simply tell why the design is unfavorable or why a procedure is difficult. EIR may be submitted on SF368 (Quality Deficiency Report). Mail directly to: Commander, U.S. Army Tank Automotive Command, ATTN: AMSTA-MV, Warren MI 48397-500. We will send you a reply.

Section II. EQUIPMENT DESCRIPTION AND DATA**1-6. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES**

a. Characteristics.

- (1) Serves as housing for electronic equipment.
- (2) Serves to transport the electronic equipment in operating condition.
- (3) Provides quick set-up in operating mode

b. Capabilities and Features.

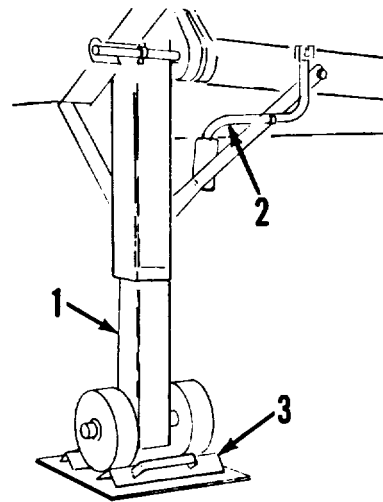
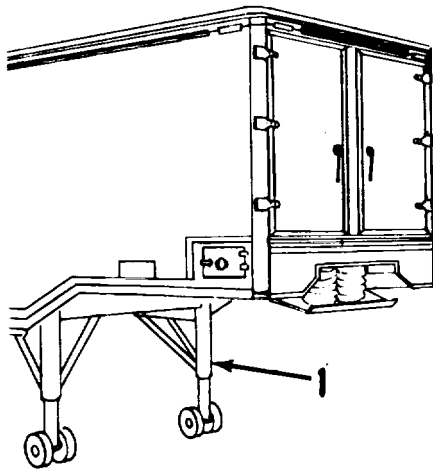
- (1) Transports delicate equipment with a minimum of vibration through use of air ride suspension.
- (2) Provides level attitude needed for operation of delicate equipment accomplished through use of leveling jacks and landing gears.
- (3) Can be towed at speeds up to 50 mph (80.5 kph) on highway, 25 mph (1140.2 kph) on secondary roads, and 15 mph (24.1 kph) over rough terrain when fully loaded.
- (4) Air-over-hydraulic brake system provides positive stopping action of semi trailer.
- (5) It is Radio Frequency Interference (RFI) shielded.
- (6) It is weather insulated and water tight.
- (7) It has storage facilities for tools, TMDE, BII, crew equipment and supplies.
- (8) Has a removable dolly assembly.
- (9) The towing vehicle used is the M52, M52A1, M52A2, M818, M931 or M932 tractor.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

The front, rear, right, and left designations used in the manual designate the general areas or sides of the semi trailer as viewed from the rear of the semi trailer, facing toward the front.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont) I

a. LANDING GEAR



- 1. Landing gear
- 2. Crank
- 3. Shoe

Two separately operated two-speed landing gears (1).

Located at drop, near front of semi trailer.

Cranks (2) are used to operate landing gear legs to raise or lower front end of semi trailer to couple and uncouple from towing vehicle.

Landing gear is used to support semi trailer when not coupled to towing vehicle and to level front of semi trailer.

Landing gears swing into horizontal position for aircraft loading only.

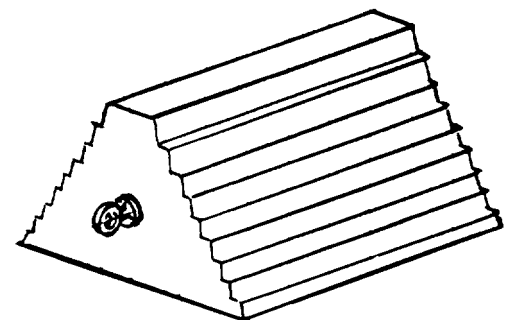
Landing gear shoes (3) are used in sandy, soft areas. When not in use, they are stowed in brackets underneath van body

b. WHEEL CHOCK Two wheel chocks.

Attached to bracket by chain.

Stored in bracket on each side of rear axle.

Used against rear wheel to prevent accidental movement.



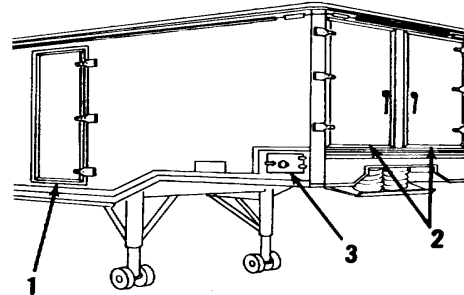
1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

c. RIGHT SIDE DOOR (1)

Located to rear of drop.

Is an escape door. Does not have an outside handle.
Can only be opened from interior of semi trailer.

Right side door is Radio Frequency Interference (RFI) shielded.



d. FRONT DOORS (2)

Double front doors.

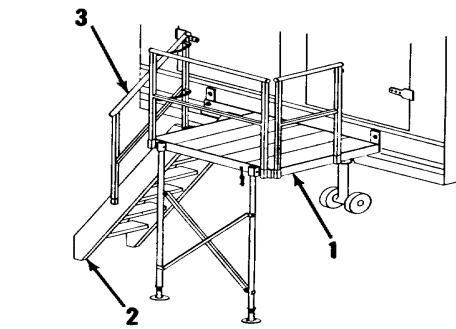
Used to gain access to front compartment of semi trailer.

- 1. Right side door
- 2. Front doors
- 3. Side storage compartment

e. FRONT PLATFORM

A detachable platform (1) is installed as needed to gain access to front interior of semi trailer.

A 6-step boarding ladder (2) is used to step up to platform. Platform and ladder are stowed in front compartment of semi trailer when not in use.



- 1. Front platform
- 2. Ladder
- 3. Ladder handrail

f. SIDE STORAGE COMPARTMENT

Two compartments.

One located at front corner of right side; one located at front corner of left side of semi trailer

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont) |

g. REAR DOOR (1) |

Rear door is located in center of rear of van body.

It is used to gain access to the interior of the semi trailer.

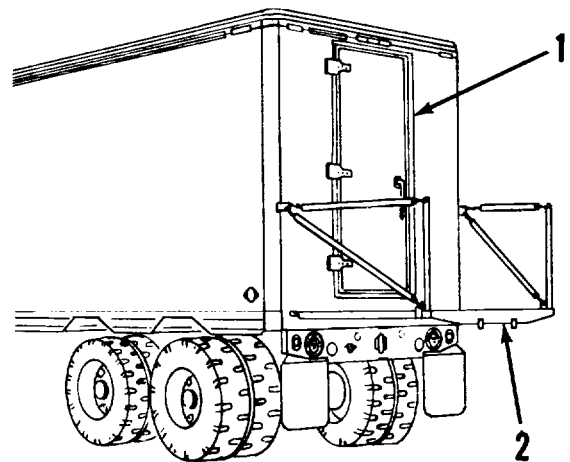
Rear door is Radio Frequency Interference (RFI) shielded.

h. REAR PLATFORM (2) |

Used to gain access to interior of semi trailer.

Is attached to body by hinges and raised and lowered manually.

Can be stowed upright against rear



1. Rear door van body.
2. Rear Platform

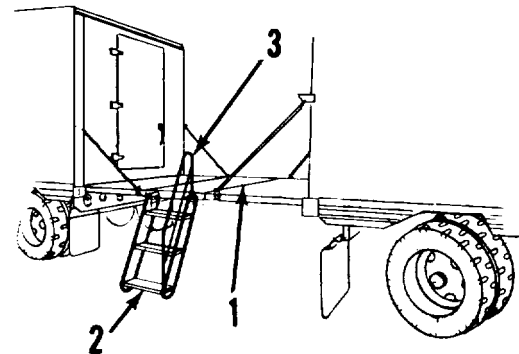
i. REAR PLATFORM BRIDGE (1) |

Used as a bridge to connect rear platforms of XM971E2 and XM971E3, when both semitrailers are back to back.

When not in use, platform bridge is stowed on rear platform.

j. LADDERS

A 3-step ladder (2) is used at each end of bridge (1), with handrail (3) to step up to rear platform.



1. Bridge
2. Ladder
3. Handrail

A 6-step ladder, with handrail, is used to step up to front platform (page 1-7).

Refer to paragraph 2-18 for ladder installation procedure.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont) J

Boarding ladders are stowed in front compartment of semi trailer.

A 12-foot folding ladder provides access to the roof of the semi trailer.

Folding ladder is stowed in brackets and clamps underneath van body.

k. AMBER REFLECTOR (1)

Four amber reflectors.

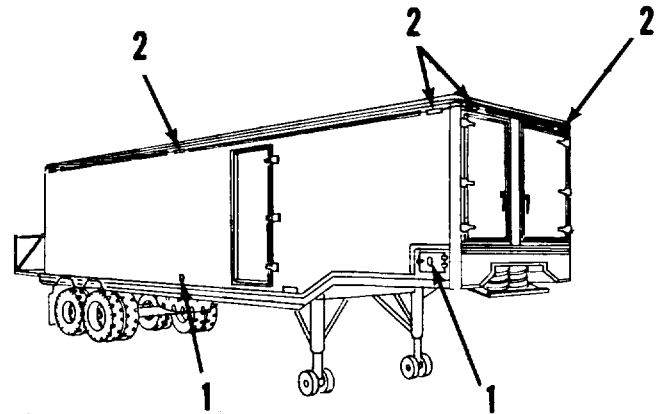
Two on each side, one near front and one at center.

l. AMBER CLEARANCE LIGHT (2)

Six amber clearance lights.

One at top center of each side. One at top front corner of each side.

One at top corner of each side of front.



- 1. Amber reflector
- 2. Amber clearance light

m. RED REFLECTOR (1) Four red reflectors.

One at lower rear corner of each side.

One at each end of rear dolly frame.

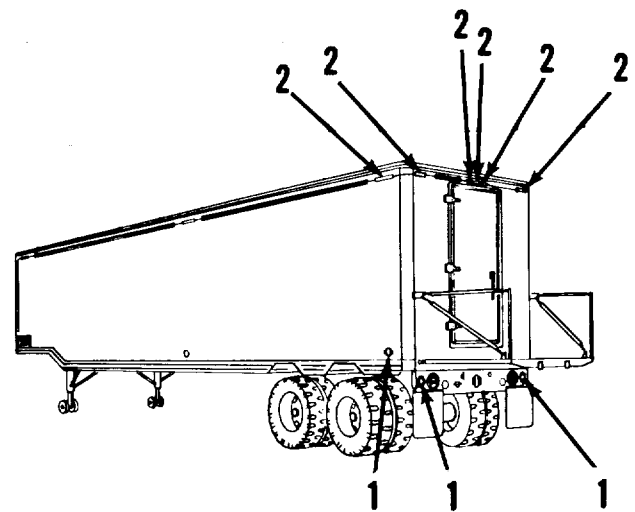
n. RED CLEARANCE LIGHT (2)

Seven red clearance lights.

One at top rear corner of each side.

Two at each end of top of rear.

Three at center of top of rear.

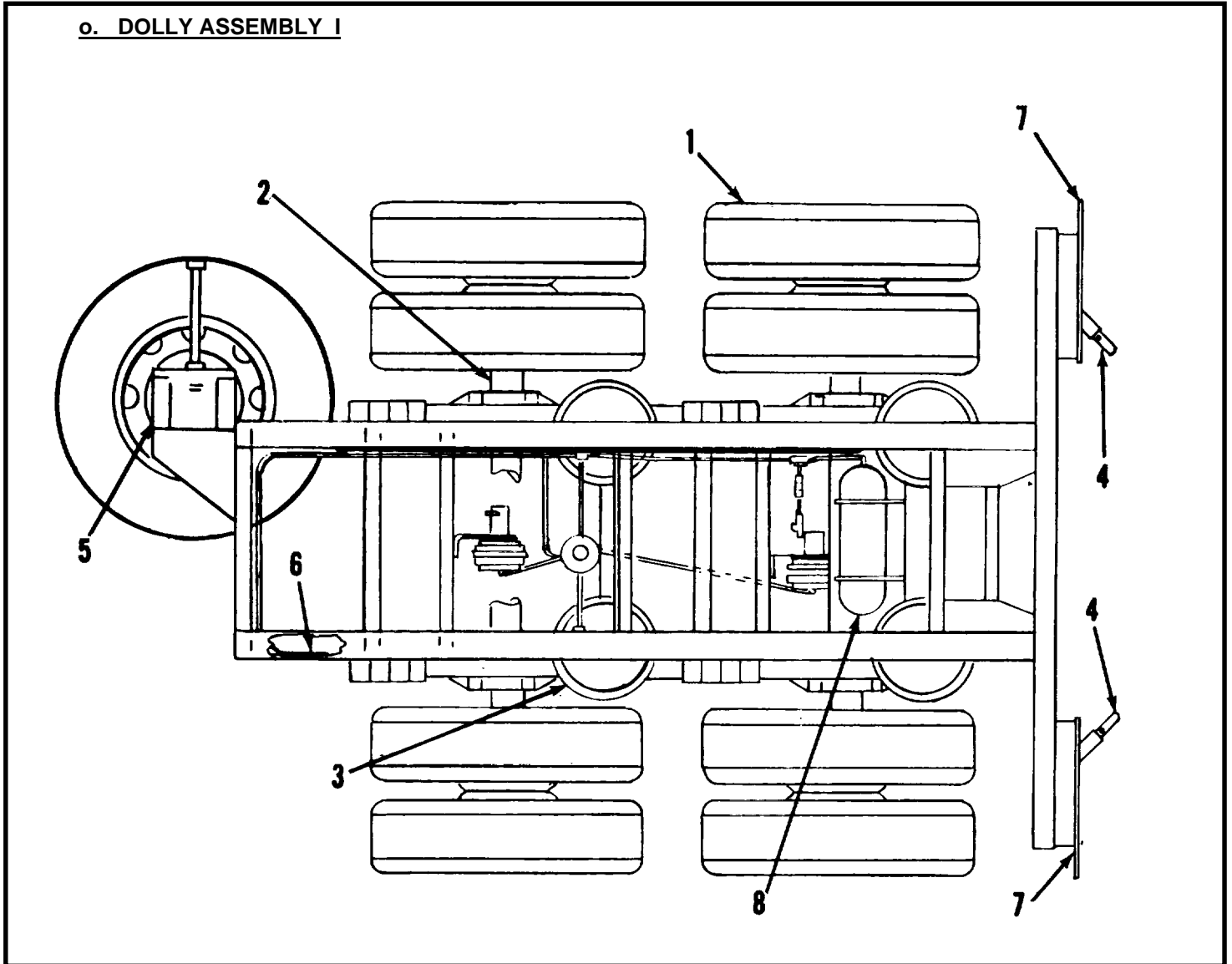


- 1. Red reflector
- 2. Red clearance light

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1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

o. DOLLY ASSEMBLY I



The dolly assembly, which can be removed, consists of:

1. Dual wheels and tires
2. Axle assembly
3. Suspension system
4. Leveling jacks
5. Spare wheel carrier
6. Electrical system
7. Splash guards
8. Air-over-hydraulic brake system

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

(1) WHEEL AND TIRE I

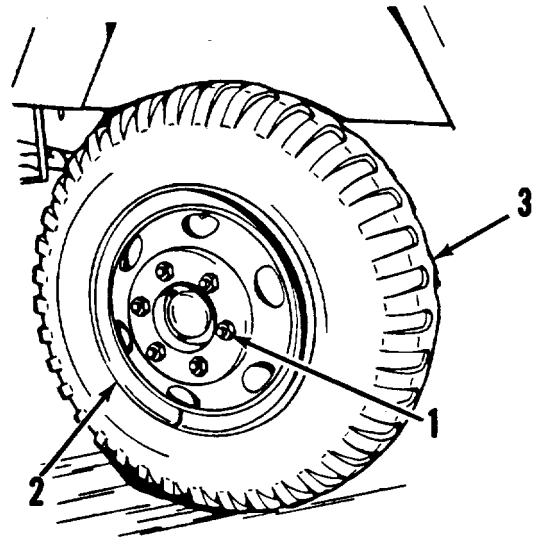
The eight wheels (2) are offset disk type rims with split-type retaining rings.

Nuts (1) for right wheels (marked R) have right hand threads.

Nuts (1) for left wheels (marked L) have left hand threads. The studs are similarly marked.

Nuts (1) must be turned in opposite direction of forward rotation of wheel to be loosened or removed.

Tires (3) are pneumatic type, non-directional, cross-country tread, size 9.00 by 20, 8 ply rating.



- 1. Cap nut
- 2. Wheel
- 3. Tire

(2) AXLE ASSEMBLY

Two axle assemblies, one located at center and one at rear of dolly assembly.

Each axle assembly has brake drums, hubs, brake assemblies, and associated parts.

(3) HUB (1)

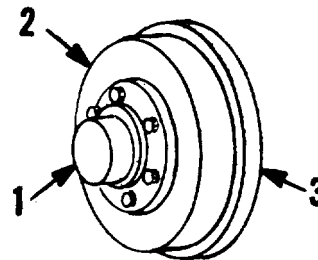
Each hub is mounted on axle spindle on two tapered roller bearings.

Brake drums are mounted on hubs.

(4) BRAKE DRUM (2)

Each brake drum is secured to hub through a dished back front brake drive (3)

A hub cap and gasket, secured to hub, keeps out moisture and dirt.



- 1. Hub
- 2. Brake drum
- 3. Back front brake drive

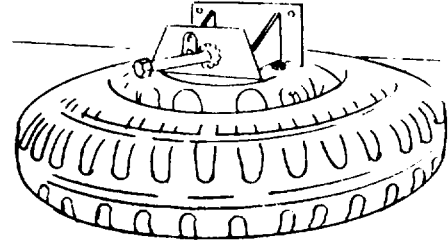
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1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

(5) SPARE WHEEL CARRIER

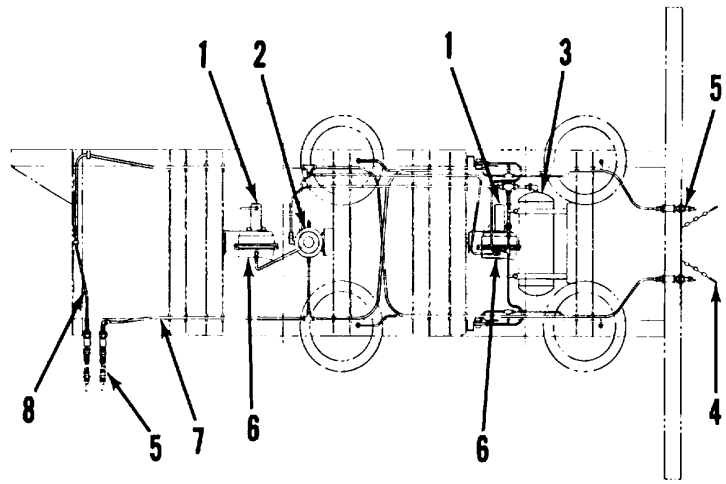
Is mounted at right side, to front of dolly assembly.

Has a wire rope and ratchet to help raise and lower spare wheel and tire.



p. BRAKE SYSTEM

1. Master cylinder
2. Relay valve
3. Air reservoir
4. Dummy coupling
5. Air half-coupling
6. Air chamber
7. Emergency air line
8. Service air line

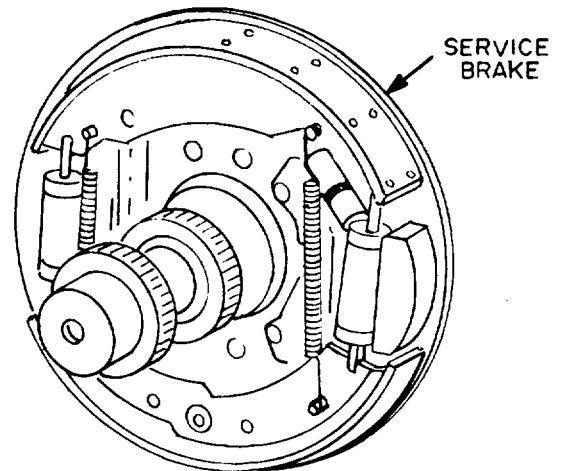


(l) SERVICE BRAKES

Are air-over-hydraulic type.

Air pressure operates hydraulic portion of braking system.

Brakes operate automatically when pressure is applied at tractor.



1-7 LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

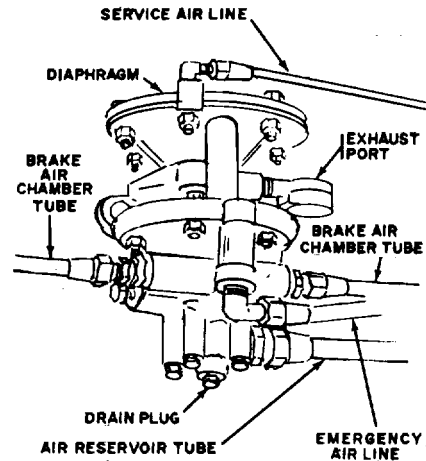
(2) RELAY VALVE

Located at center of dolly, just forward of front axle.

It directly controls service-brakes by controlling flow of air to and from air reservoir.

is connected to emergency and service air lines, air reservoir, and brake air chambers.

Automatically applies brakes if semi trailer breaks away from towing vehicle. Brakes also apply automatically if there is a serious leak in the emergency air line.

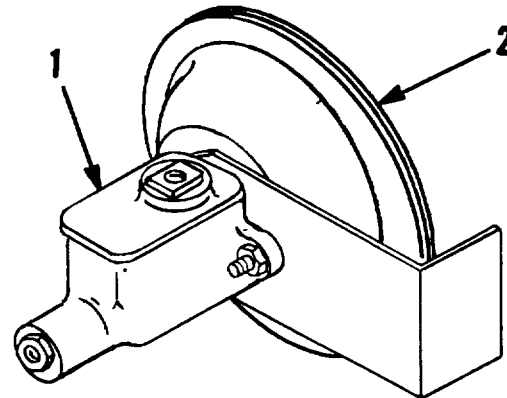


(3) HYDRAULIC MASTER CYLINDER AND BRAKE AIR CHAMBER

A hydraulic master cylinder (1) is attached to each brake air chamber (2).

One assembly is mounted at center of dolly, towards the front and one is mounted at the rear of the dolly, forward of air reservoir.

Master cylinder converts movement of brake air chamber push rod into hydraulic pressure to apply brakes.



- 1. Hydraulic master cylinder
- 2. Brake air chamber

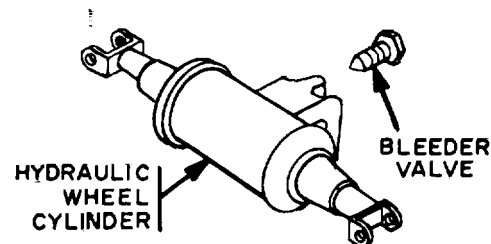
(4) HYDRAULIC WHEEL CYLINDER

Two are mounted on each brake backing plate.

It actuates brake shoes outward to force brake linings against brake drums.

Each wheel cylinder is connected to hydraulic master cylinder with tubing.

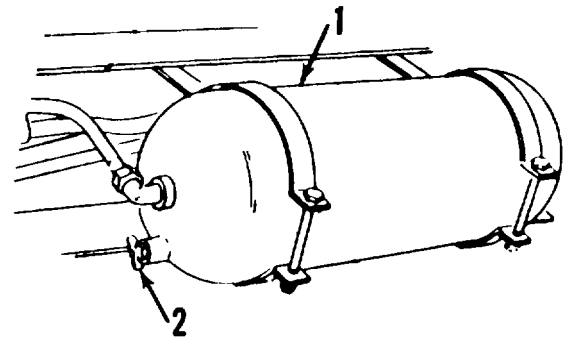
A bleeder valve on each wheel cylinder is used to bleed air from the system.



1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

(5) AIR RESERVOIR

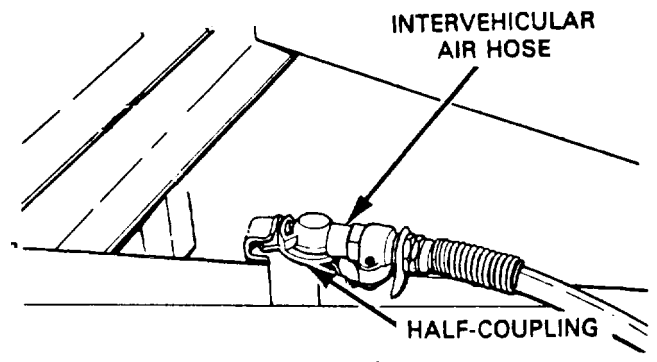
A metal tank located at center of dolly, near the rear.
 Stores compressed air for use in the semi trailer braking system.
 Reservoir (1) is equipped with a drain cock (2) for draining moisture and releasing air pressure if brakes are locked.



1. Air reservoir
 2. Drain cock

(6) COMPRESSED AIR SUPPLY

Towing vehicle is equipped with an air compressor, air reservoir, governor for controlling air pressure, air gage, and safety valve.
 Air lines, intervehicular air hoses, air couplings, and shutoff valves transmit compressed air to semi trailer brake system.



(7) SERVICE AIR LINE

Extends from air half-coupling (marked SERVICE) along inside of front rail of dolly and along inside of right side rail into top of relay valve (page 1-12).

It transmits changes in air pressure which cause relay valve to function.

These changes result from brake being applied in towing vehicle.

(8) EMERGENCY AIR LINE

It extends from air half-coupling (marked EMERGENCY) along inside of dolly left side rail into bottom of relay valve (page 1-12).

It transmits compressed air to fill air reservoir and to maintain proper air pressure under control of the relay valve.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

(9) AIR HALF-COUPLING AND DUMMY COUPLING

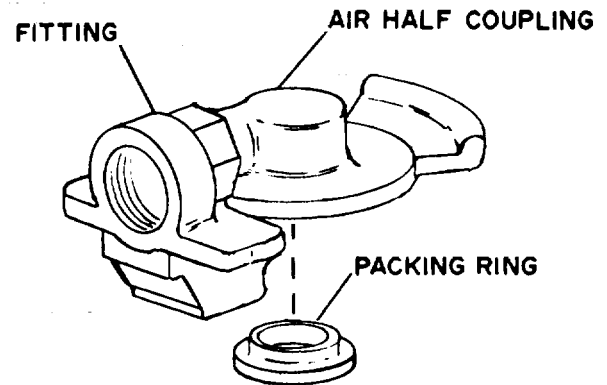
Two air half-couplings are located on left side of dolly frame and two are at front end of semi trailer.

Two additional half-couplings are located at rear of dolly.

They provide the connections to brake and air suspension air systems.

The front emergency air connection on dolly is located slightly to the left of service air connection.

Dummy couplings are located next to air half-couplings and are used to keep dirt from entering when the system is not connected.

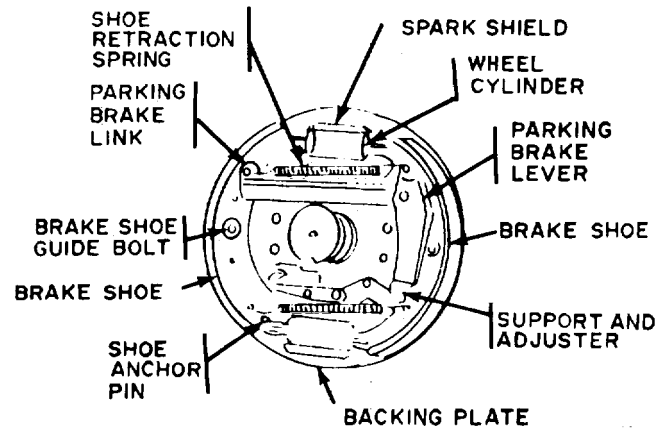


(10) INTERNAL BRAKE MECHANISM

Each brake mechanism is located within the brake drum and is supported by a backing plate.

Each one has two brake shoes fitted with brake linings.

Two hydraulic wheel cylinders are mounted between the ends of the brake shoes.



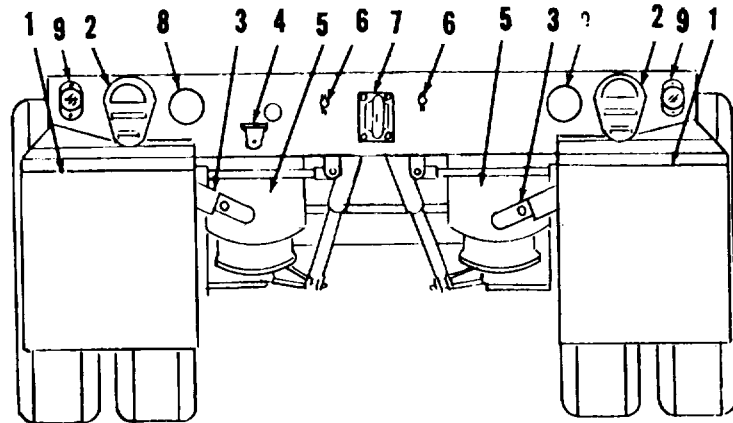
q. DOLLY ELECTRICAL SYSTEM

Wiring harnesses are located along the inside left rail of dolly frame. They extend from electrical inlet receptacle at front of dolly to stoplight taillights and rear electrical receptacle.

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1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

1. Splash guard
2. Stoplight-taillight
3. Leveling jack
4. Electrical receptacle
5. Air spring
6. Towing chain eye bolt
7. Towing pintle
8. Stoplight
9. Red reflector



(1) STOPLIGHT-TAILLIGHT ASSEMBLY (2)

A composite stoplight-taillight assembly is installed at each side of rear dolly.

(2) STOP LIGHT (8)

A stop light is located at each side of rear dolly frame, inboard of composite stoplight-taillight.

(3) RED CLEARANCE LIGHT (9)

A red clearance light is installed at each edge of dolly rear frame.

(4) REAR ELECTRICAL RECEPTACLE (4)

Is used to supply electrical current to towed vehicle.

r. SPLASH GUARD

Is installed to rear of each rear wheel.

s. TOWING CHAIN EYE BOLT (6)

Two eye bolts are located at rear of dolly, one at each side of towing pintle.

t. TOWING PINTLE ASSEMBLY (7)

It is located at center of rear dolly frame and is used in towing operations.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

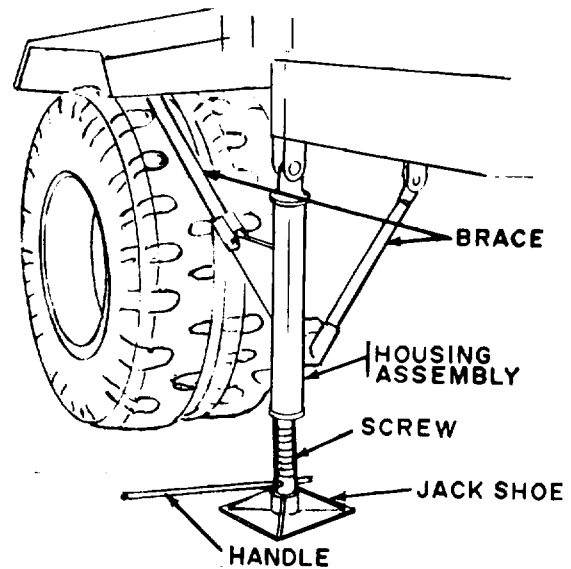
u. LEVELING JACK

A leveling jack and jack shoe are provided at each rear corner of dolly.

It consists of housing assembly, screw, braces, and removable jack shoe.

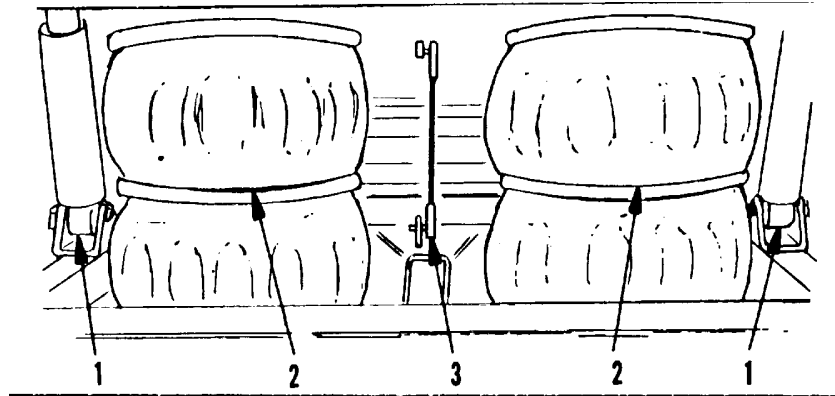
Leveling jack shoe is stowed on crossmember to rear of leveling Jack.

Jack is used to level and help stabilize semi trailer.



v. AIR MOUNTED FIFTH WHEEL KINGPIN

1. Shock absorber
2. Air spring
3. Height control valve



Two air springs (2) are located at front of semi trailer, directly over kingpin plate. Air springs contain pressurized air.

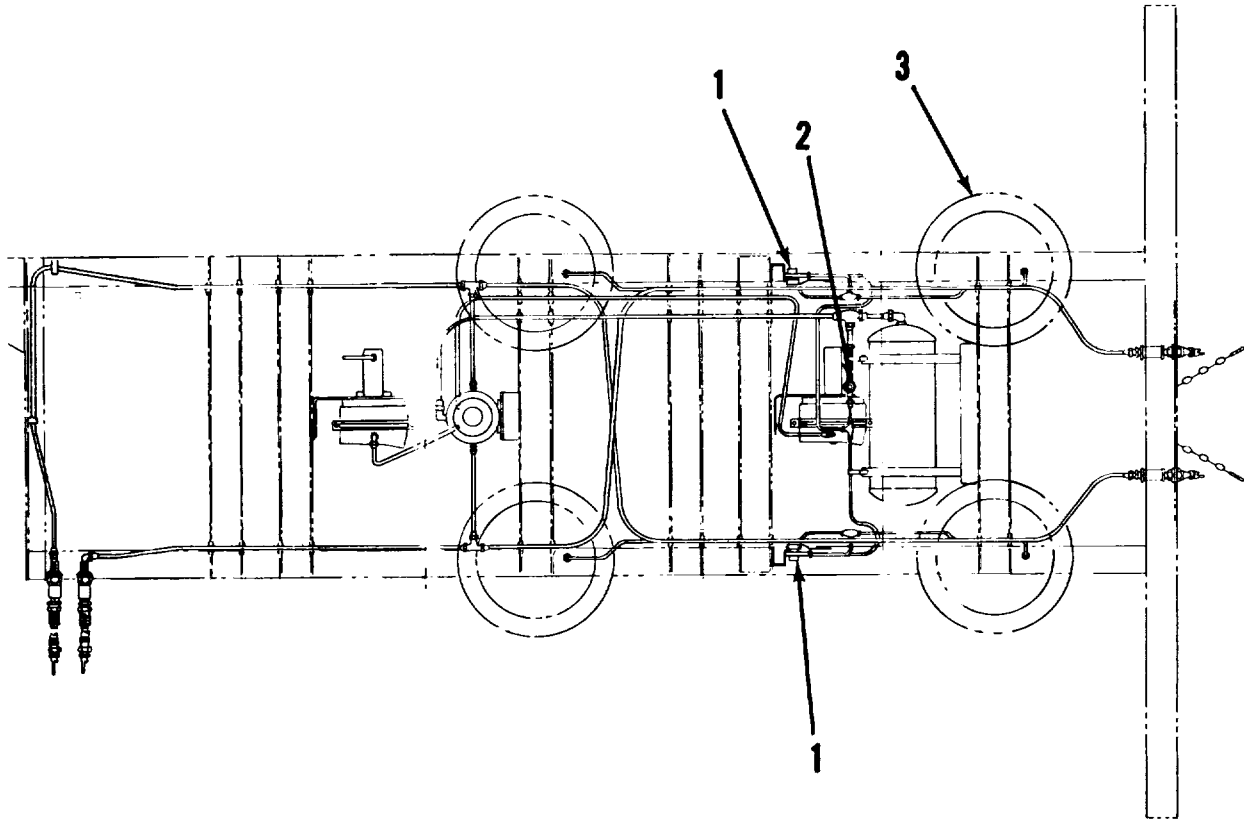
Height control valve (3) is located between and slightly to rear of the air springs.

Air flow is automatically regulated by height control valve in proportion to the load until proper design height is obtained.

Brake valve is located above and slightly to rear of air springs.

The brake valve maintains minimum air pressure.

Two shock absorbers (1), one located on outer side of each air spring, cushion shocks.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)**w. AIR SUSPENSION SYSTEM**

1. Height control valve
2. Brake valve
3. Air spring

(1) General Information

Air suspension system uses pressurized air drawn from the towing vehicle air system to fill air springs.

Automatic valve control regulates air pressure required for varying loads.

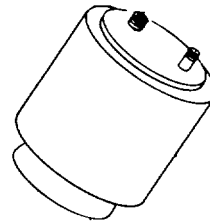
A constant vehicle ride height is maintained at all times.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

(2) AIR SPRING

Four air springs are used. One is located at each side of dolly, to rear of each axle.

They are automatically supplied with 65 psi air from height control valves.

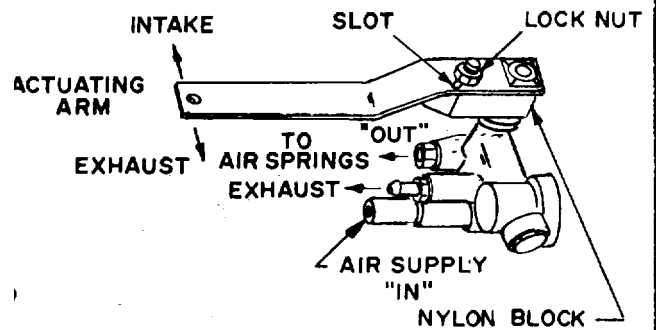


(3) HEIGHT CONTROL VALVE

Two height control valves are used.

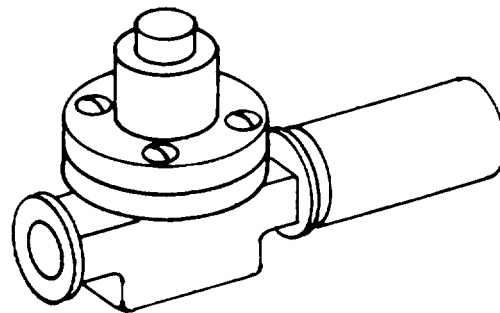
They are located one at each side of dolly, forward of rear axle and are directly linked to rear axle.

They automatically regulate air flow to air springs in proportion to the load until proper design height is obtained.



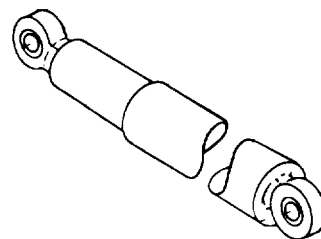
(4) BRAKE VALVE

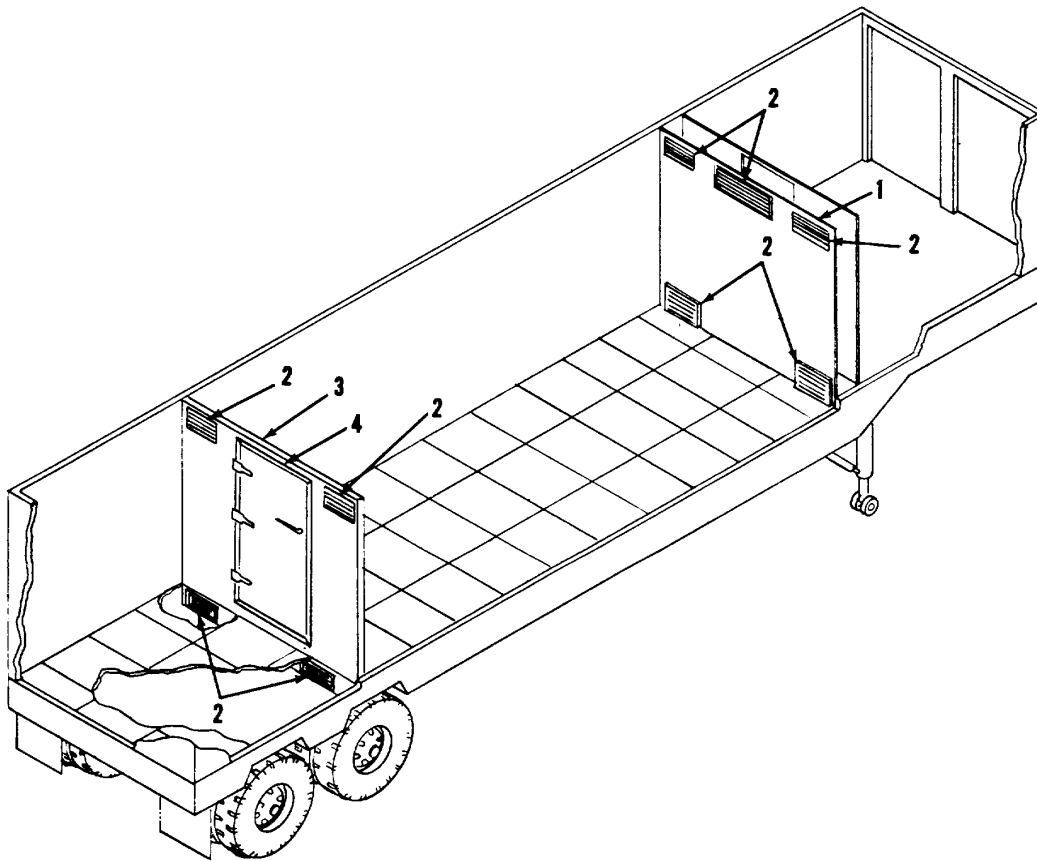
It is located at center of dolly, directly in front of air reservoir.



(5) SHOCK ABSORBER

A shock absorber is located at each of the four air springs.



1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)**x. VAN INTERIOR**

1. Front partition
2. RFI panel
3. Rear
4. Interior door

(1) FRONT PARTITION, XM971E2

The front partition (1) of the XM971E2 semi trailer contains five Radio Frequency Interference (RFI) panels (2). The panels vary in size and configuration.

There are three RFI panels at top of partition and two at the bottom.

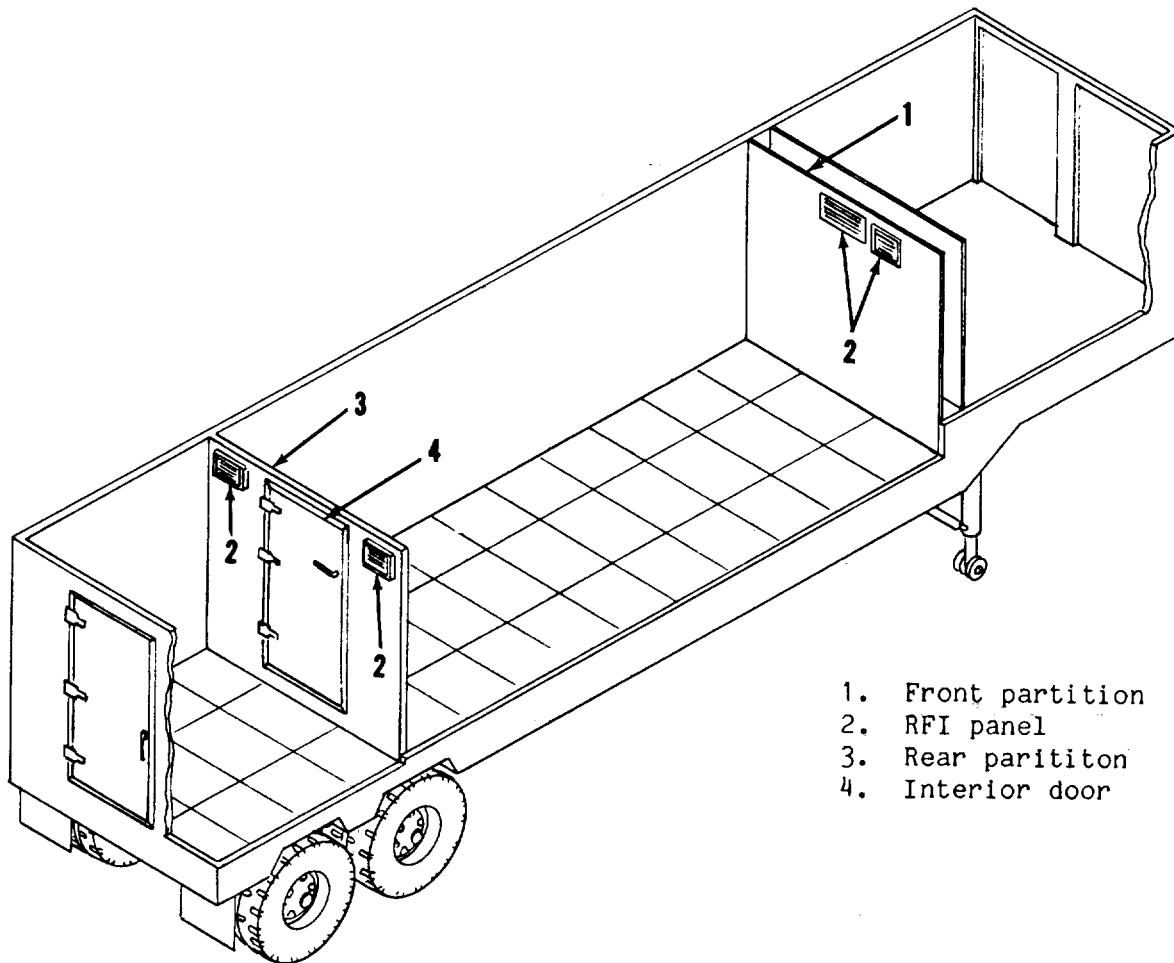
(2) REAR PARTITION, XM971E2

The rear partition (3) of the XM971E2 semi trailer contains four Radio Frequency Interference (RFI) panels (2).

The two sets of panels differ in size. There are two panels at top of partition and two at bottom.

The interior door (4) is installed in the rear partition (3) and provides access to the center compartment of the semi trailer.

The interior door is RFI shielded.

I 1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)**x. VAN INTERIOR (cont)**

1. Front partition
2. RFI panel
3. Rear partition
4. Interior door

(3) FRONT PARTITION, XM971E3 I

The front partition (1) of the XM971E3 semitrailer contains two Radio Frequency Interference (RFI) panels (2). There are two RFI panels at top of front partition.

(4) REAR PARTITION, XM971E3

The rear partition (3) of the XM971E3 semitrailer contains two Radio Frequency Interference (RFI) panels (2), located at top of partition.

The interior door (4) is installed in the rear partition (3) and provides access to the center compartment of the, semitrailer.

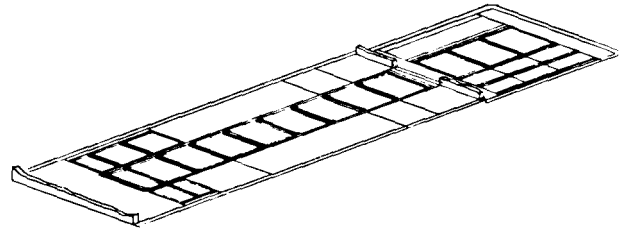
1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

x. VAN INTERIOR (cont)

1 (5) FINISH FLOOR

The finish floors of the XM971E2 and XM971E3 semitrailers contain removable panels.

Both semitrailers have 23 removable panels, which are basically alike.



1-8. IDENTIFICATION PLATE

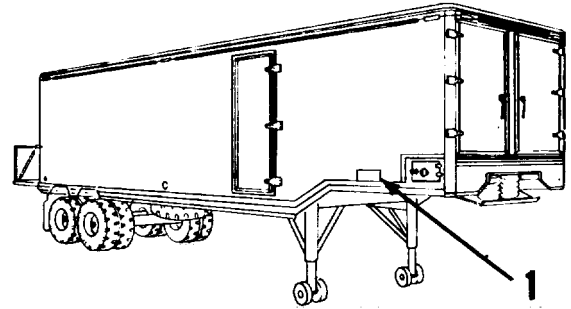
<p>SEMITRAILER VAN: OPERATOR 10 TON, 4 W, XM971E2, NSN 2330-01-163-5025</p> <p>MFD BY <input type="text"/></p> <p>VEH IDENT NO <input type="text"/></p> <p>CONTRACT NO <input type="text"/></p>	<p>WEIGHT AND DIMENSION DATA (TRAILER EMPTY)</p>																
<p>PUBLICATION TECHNICAL MANUAL TM9-2330-373-14 & P</p>	<table border="1"> <thead> <tr> <th>WEIGHTS</th> <th>EMPTY</th> <th>LOADED</th> <th>SPEEDS</th> </tr> </thead> <tbody> <tr> <td>WHEELS</td> <td>11,620</td> <td>23,040</td> <td>HIGHWAY 50 MPH</td> </tr> <tr> <td>KING PIN</td> <td>6,670</td> <td>15,250</td> <td>IMPROVED GVL 25 MPH</td> </tr> <tr> <td>TOTAL</td> <td>18,290</td> <td>38,290</td> <td>CROSS CNTRY 15 MPH</td> </tr> </tbody> </table>	WEIGHTS	EMPTY	LOADED	SPEEDS	WHEELS	11,620	23,040	HIGHWAY 50 MPH	KING PIN	6,670	15,250	IMPROVED GVL 25 MPH	TOTAL	18,290	38,290	CROSS CNTRY 15 MPH
WEIGHTS	EMPTY	LOADED	SPEEDS														
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TOTAL	18,290	38,290	CROSS CNTRY 15 MPH														
<p>DELIVERY DATE <input type="text"/> INSPECTED <input type="text"/></p>																	
<p>SHIPPING CUBAGE 3384 CU FT</p>																	
<p>SEMITRAILER VAN: MAINT & SUPPLY 10 TON, 4 W, XM971E3, NSN 2330-01-163-5026</p> <p>MFD BY <input type="text"/></p> <p>VEH IDENT NO <input type="text"/></p> <p>CONTRACT NO <input type="text"/></p>	<p>WEIGHT AND DIMENSION DATA (TRAILER EMPTY)</p>																
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<p>SHIPPING CUBAGE 3384 CU FT</p>																	

1-8. IDENTIFICATION PLATE (cont) I

The name and date identification plate (1) is located on front side of semitrailer drop.

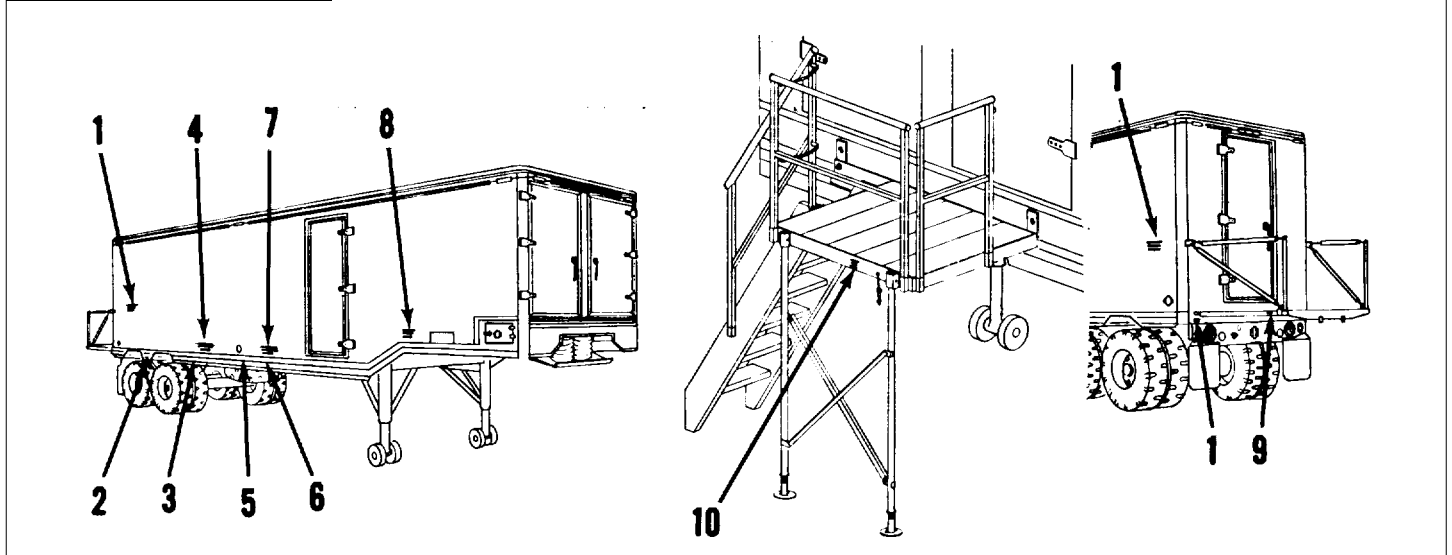
It lists name of vehicle, national stock number, manufacturer's serial number, contract number, publications concerning the vehicle, delivery and inspection dates, weight and dimension data, and shipping cubage.

The Army registration number for the vehicle is located on the inside of the side door.



1. Identification plate

1-9. STENCIL MARKINGS



The following list shows the location and wording of the stencil markings used on the semitrailer (refer to para 3-5 for instructions):

1. PLATFORM WEIGHT 170 LBS., 2 PERSONS REQUIRED TO RAISE OR LOWER PLATFORM
2. TP-50
3. USE FOR LIFT ONLY
4. REFER TO T. M. FOR OPERATING INSTRUCTIONS
5. AIRCRAFT LOADING EQUIP STORAGE

11-9. STENCIL MARKINGS (cont) |

- 6. ADAPTER STORAGE
- 7. ADAPTER WEIGHT 60 LBS., 2 PERSONS REQUIRED TO REMOVE OR INSTALL
- 8. SWING LANDING LEG INTO HORIZONTAL POSITION FOR AIRCRAFT LOADING PER T. M. OPERATING INSTRUCTIONS =
- 9. REAR PLATFORM AND BRIDGE LOAD CAPACITY 700 LBS.
- 10. FRONT PLATFORM LOAD CAPACITY 420 LBS.

1-10. DIFFERENCES BETWEEN MODELS

The XM971E2 AND XM971E3 semitrailers are basically alike, except for the following:

The XM971E3 semitrailer is equipped with the rear platform bridge.

The locations, sizes and quantities of Radio Frequency Interference (RFI) filters used in the interiors vary between the two semitrailers.

1-11. EQUIPMENT DATA

Towing facilitykingpin

Dimensions:

Overall length.....	432 in	(1 097.3 cm)
Overall length (with platform in stowed position)	438 in	(1 112.5 cm)
Overall width	96 in	(243.8 cm)
Kingpin to front.....	18 in	(45.7 cm)
Kingpin to center of axle	341 in	(866.1 cm)
Overall height (operational).....	141 in	(358.1 cm)
Overall height (reduced)	102 in	(259.1 cm)

Weight:

Weight (empty), XM971E2.....	18,290 lbs.	(8 303.7 kg)
------------------------------	-------------	--------------

1-11. EQUIPMENT DATA (cont)

Weight (empty), XM971E3.....	18,130 lbs	(8 231.0 kg)
Weight on kingpin (empty), XM971E2	6,670 lbs	(3 028.2 kg)
Weight on kingpin (empty), XM971E3	6,360 lbs	(2 887.4 kg)
Weight on wheels (empty), XM971E2	11,620 lbs	(5 275.5 kg)
Weight on wheels (empty), XM971E3	11,770 lbs	(5 343.6 kg)
Weight (loaded), XM971E2.....	38,290 lbs	(17 383.7 kg)
Weight (loaded), XM971E3.....	38,130 lbs	(17 311.0 kg)
Weight on kingpin (loaded), XM971E2	15,250 lbs	(6 923.5 kg)
Weight on kingpin (loaded), XM971E3	14,930 lbs	(6 778.2 kg)
Weight on wheels (loaded), XM971E2	23,040 lbs	(10 460.2 kg)
Weight on wheels (loaded), XM971E3	23,200 lbs	(10 532.8 kg)
Weight of dolly	4,300 lbs	(1 952.0 kg)
Cubage (shipping).....	3,384 cu. ft.	(91.7 m3)

Axle:

Tubular ordnance standard..... 10,000 lbs. (4 540.0 kg)

Brake system:

Actuation Air-over-hydraulic

Brake assemblies 4 sets

Electrical System:

Voltage-Military Application..... 24-volt dc

Voltage-Commercial Application..... 12-volt dc

Power source towing vehicle

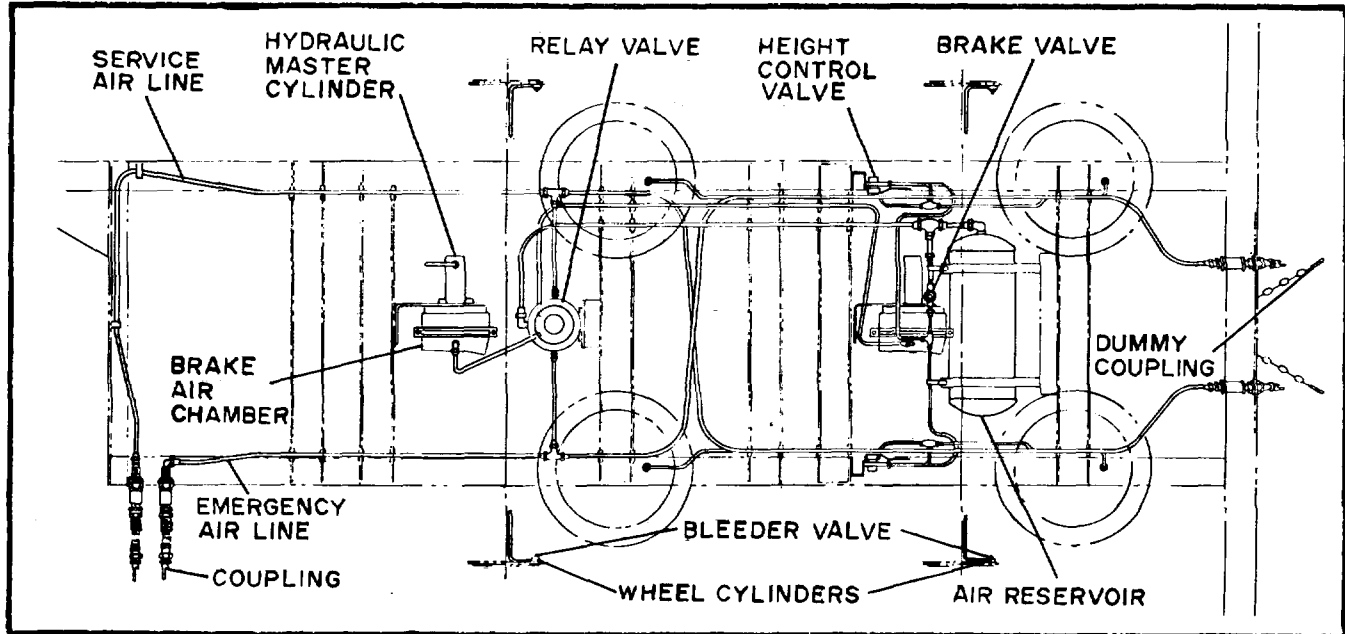
Tires:

Number 8 and a spare

1-11. EQUIPMENT DATA (cont)

Type.....	Military pneumatic
Design	Cross country, non-directional
Number of plies	8
Tire inflation:	
Highway	50 psi (344.75 k pa)
Cross country.....	30 psi (206.85 k pa)
Sand, mud, snow	20 psi (137.9 k pa)
Air mounted kingpin:	
Capacity	17,000 lbs. (7 718.0 kg) static load-65 psi (448.2 k pa)
Stroke.....	3 in. (7.62 cm) compression
Air spring.....	neoprene nylon air cell, operative to -500F (-44.4°C)
Assembly weight (including air controls).....	450 lbs.(204.3 kg)
Air suspension system:	
Capacity	20,000 lbs. (9 080.0 kg)
Weight (including diagonal braces and air spring mounting plates).....	500 lbs. (227.0 kg)
Axle travel.....	eight and one-half inches (21.6 cm) total, four and one half inches (11.43 cm) up, four inches (10.16 cm) down
Air spring	neoprene nylon air cell, operative to -500F (-44.4°C)
Landing gear.....	Swing-up type, separately operated, two-speed

Section III. PRINCIPLES OF OPERATION

1-12. BRAKE SYSTEM

When the air couplings are connected between the towing vehicle and the semitrailer, air shutoff valves on the towing vehicle are opened. Air flows through the air lines and the relay valve into the air reservoir on the semitrailer. The air pressure is built up to equal the air pressure on the towing vehicle.

When pressure is applied to the brake pedal on the towing vehicle, air pressure is directed to the relay valve.

The relay valve releases compressed air from the reservoir to the brake air chamber attached to the hydraulic master cylinder.

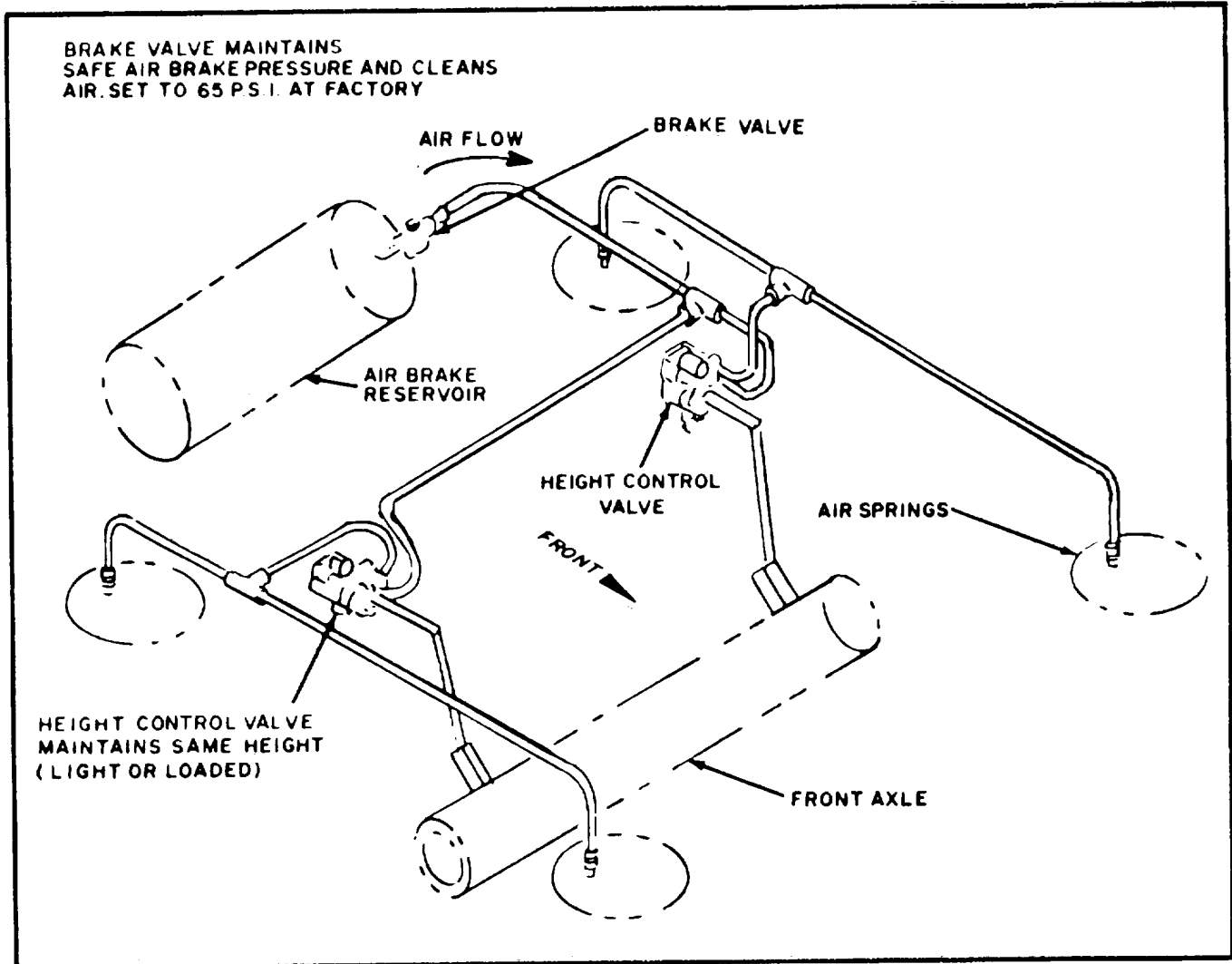
The brake air chamber push rod extends to contact a piston inside the master cylinder. The piston is actuated by pressure from the push rod to create hydraulic pressure in proportion to the pressure applied by the push rod.

The hydraulic pressure moves the wheel cylinder piston in the wheel brake mechanism. These pistons force the lining of the brake shoe against the brake drum.

When the brake pedal is released a drop in pressure causes the relay valve to release the compressed air from the semitrailer brake system.

With the air released, the brake return springs pull the brake shoes away from the drums.

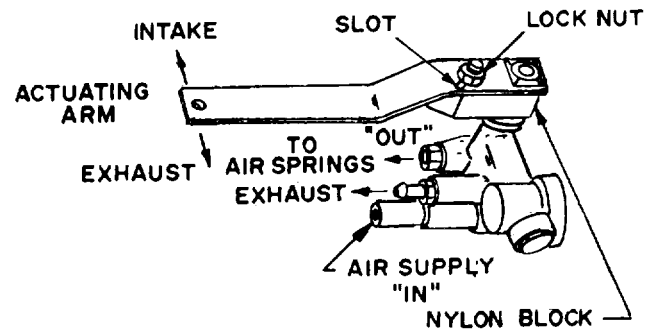
1-13. AIR SUSPENSION SYSTEM



The air suspension system is designed to operate at a set ride height. The two height control valves are used to maintain the proper axle-to-frame relationship necessary to regulate ride height.

The height control valves automatically regulate air to or from air springs.

The valves operate each side independently, thus maintaining a side to side semitrailer level condition at all times.



11-13. AIR SUSPENSION SYSTEM (cont)

Loss of air pressure or air spring deflection by off center loading causes actuating arm to move up.

Up movement of actuating arm opens the intake valve and allows supply air to pass through to the air springs serviced by that valve.

Down movement of actuating arm opens the exhaust valve, allowing excess air pressure to vent to the atmosphere.

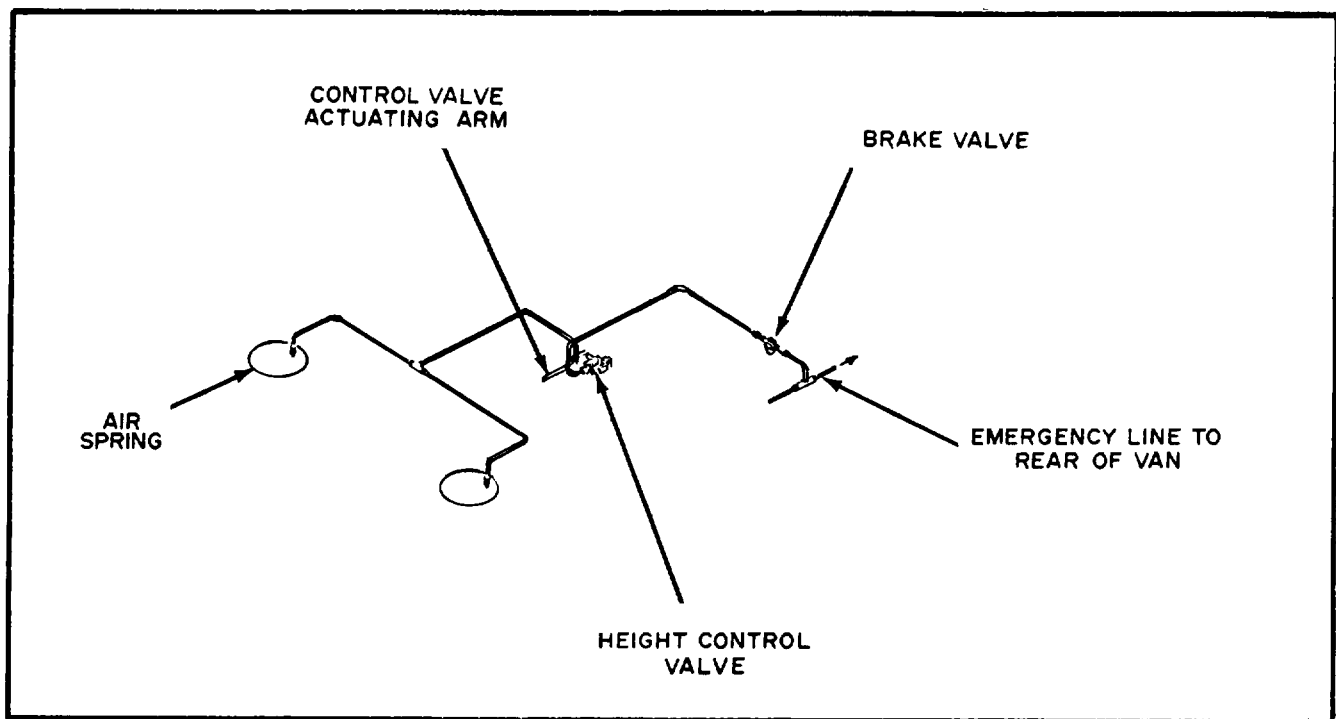
A check valve in the intake fitting prevents pressure loss if high pressure air supply is interrupted.

The height control valve incorporates a five-second time delay to prevent unnecessary actuation while the vehicle is traveling on uneven terrain at operating speeds.

A 3/8-inch dead zone is built into the valve action to prevent a valve hunting action.

When the semitrailer is uncoupled from the towing vehicle, the air springs automatically exhaust air until the bolster plate comes to rest on rubber bumpers inside the air springs.

1-14. AIR MOUNTED FIFTH WHEEL KINGPIN SYSTEM



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1-14. AIR MOUNTED FIFTH WHEEL KINGPIN SYSTEM (cont)

Pressurized air flows through the check valve, through the height control valve and into the air springs.

The height control valve regulates the amount of pressurized air required to take care of the varying semitrailer loads.

Air is regulated through the valve any time the semitrailer air system is coupled to the charged air system of the towing vehicle.

Loss of air pressure or air spring deflection by off center loading will cause the actuating arm of height control valve to move up. This up movement opens intake valve and allows supply air to pass through to air springs.

Down movement of the actuating arm opens exhaust valve, allowing excess air pressure to vent to the atmosphere.

A safety check valve in the intake fitting prevents pressure loss in the event of loss of supply air pressure.

A five-second time delay is built into the height control valve to prevent unnecessary actuation while driving on uneven terrain at operating speeds.

Valve hunting action is eliminated by a 3/8-inch dead zone built into the valve.

When the semitrailer is uncoupled from the towing vehicle, the fifth wheel plate will drop or sag.

**CHAPTER 2
OPERATING INSTRUCTIONS**

CHAPTER INDEX	Page
Preventive maintenance checks and services	2-2
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Towing the semitrailer	2-16
Uncoupling semitrailer from towing vehicle	2-18
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Landing gear.....	2-20
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Lowering and raising rear platform	2-22
Installing and removing platform bridge	2-24
Installing and removing front platform	2-26
Installing platform bridge ladder	2-27
Air reservoir drain cock.....	2-28
Air half-coupling.....	2-29
Emergency escape mechanism	2-29
Removal and installation of spare wheel and tire.....	2-29
Operation under unusual conditions.....	2-31

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

- 2-1. LANDING GEAR CRANK. Refer to para 1-7a.
- 2-2. AIR BRAKE HALF COUPLING. Refer to para 1-7 p(9).
- 2-3. AIR RESERVOIR DRAIN COCK. Refer to para 1-7 p(5).
- 2-4. SPARE WHEEL CARRIER. Refer to para 1-7 o(5).
- 2-5. LEVELING JACK. refer to para 1-7 u.
- 2-6. LADDERS. Refer to para 1-7 J.

Section II. OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)**2-7. MAINTENANCE FORMS AND RECORDS**

Every mission begins and ends with the paperwork. There isn't much of it, but you have to keep' it up. The forms and records you fill out have several uses. They are a permanent record of the services, repairs, and modifications made on your vehicle. They are reports to organizational maintenance and to your Commander, and they are a checklist for you when you want to know what is wrong with the vehicle after its last use, and whether those faults have been fixed. For the information you need on forms and records, see DA PAM 738-750.

2-8. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

a. Do your before (B) PREVENTIVE MAINTENANCE just before you operate the vehicle. Pay attention to the CAUTIONS and WARNINGS.

b. During checks and services (D) of PREVENTIVE MAINTENANCE will be performed while the equipment and/or its component systems are in operation.

c. Do your after (A) PREVENTIVE MAINTENANCE right after operating the vehicle. Pay attention to the CAUTION S and WARNINGS.

d. Do your weekly (W) PREVENTIVE MAINTENANCE weekly.

e. Do your monthly (M) PREVENTIVE MAINTENANCE once a month.

f. If something doesn't work, troubleshoot it with the instructions in this manual or notify your supervisor.

g. Always do your PREVENTIVE MAINTENANCE in the same order so it gets to be a habit. Once you've had some practice, you'll spot anything wrong in a hurry.

h. If anything looks wrong and you can't fix it, write it on your DA Form 2404. If you find something seriously wrong, report it to organizational maintenance RIGHT NOW.

i. When you do your PREVENTIVE MAINTENANCE, take along the tools you need to make all the checks. You always need a rag or two.

WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point is 138 F (58.8 C).

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2-8. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (cont)

(1) Keep it clean: Dirt, grease, oil and debris only get in the way and may cover up a serious problem. Clean as you work and as needed. Use cleaning solvent (item 3, appendix E) on all metal surfaces. Use soap and water when you clean rubber or plastic material.

(2) Bolts, nuts and screws: Check them all for obvious looseness, missing, bent or broken condition. You can't try them all with a tool, but look for chipped paint, bare metal, or rust around bolt heads. If you find one you think is loose, tighten it, or report it to organizational maintenance if you can't tighten it.

(3) Welds: Look for loose or chipped paint, rust, or gap where parts are welded together. If you find a bad weld, report it to organizational maintenance.

(4) Electric wires and connectors: Look for cracked, frayed or broken insulation, bare wires, and loose connectors. Tighten all loose wires and connectors as required.

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

i. It is necessary for you to know how fluid leakage affects the status of your vehicle. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your vehicle. Learn, then be familiar with them and REMEMBER WHEN IN DOUBT, NOTIFY YOUR SUPERVISOR.

- | | |
|------------|--|
| | Leakage Definition for Crew/Operator PMCS |
| CLASS I: | Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops. |
| CLASS II: | Leakage of fluid great enough to form drops but not enough to cause drops to drip from item being checked/inspected. |
| CLASS III: | Leakage of fluid great enough to form drops that fall from the item being checked/inspected. |

CAUTION

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

When operating with Class I or Class II leaks, continue to check fluid levels as required in your PMCS. Class III leaks should be reported to your supervisor or organizational maintenance.

Operator/Crew Preventive Maintenance Checks and Services

NOTE

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

B - Before

D - During

A - After

W - Weekly

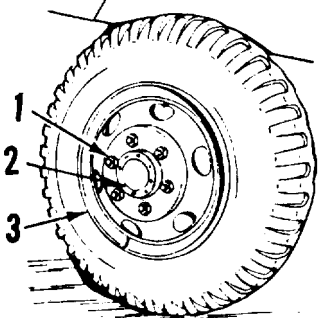
ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE:	Equipment is Not Ready/Available If:
	B	D	A	W	M		
1	•					<p>NOTE Perform weekly as well as before PMCS if:</p> <p>a. You are the assigned operator but have not operated the vehicle since the last weekly.</p> <p>b. You are operating the vehicle for the first time.</p> <p>MAKE THE FOLLOWING WALK-AROUND CHECKS:</p> <p>EXTERIOR OF VEHICLE</p> <p>a. Check tires for unusual or extreme wear, cuts, cracks, and improper inflation. Remove any stones from between the treads</p> <p>b. Visually check for loose, missing or damaged parts.</p> <p>c. Check for evidence of leakage (oil or brake fluid) on or under semitrailer.</p> <p>d. Gage tires for correct pressure (50 psi, 344.75k pa).</p>	<p>Tires have cuts or abrasions which would result in tire failure during operation.</p> <p>Class III leakage is evident.</p>

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Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

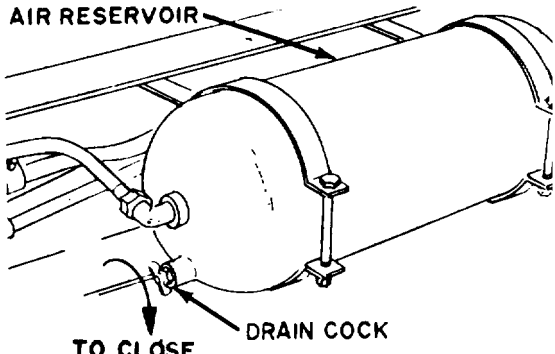
Within designated interval, these checks are to be performed in the order listed.

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE:	Equipment is Not Ready/Available If:
	B - Before	D - During	A - After	W - Weekly	M		
2						<p>WHEELS</p>  <p>NOTE Left wheel nuts are turned counterclockwise to tighten and clockwise to loosen. Right wheel nuts are turned clockwise to tighten and counterclockwise to loosen.</p> <ul style="list-style-type: none"> • a. Inspect wheel nuts (1) every 500 miles for tightness. Tighten if necessary and have organizational maintenance torque nuts to 450-500 lb-ft (610.2-678 Nm). • b. Inspect hub cap bolts (2) every 500 miles for tightness. Tighten if necessary. • c. Inspect wheel (3) for damage every 500 miles. 	Two or more wheel nuts missing from any one wheel.

Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

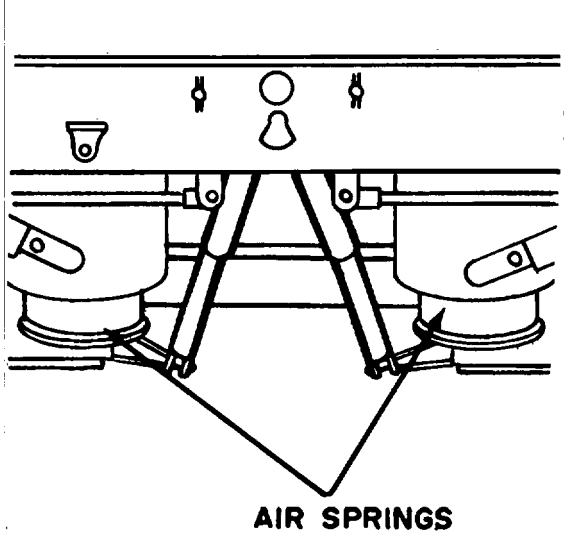
Within designated interval, these checks are to be performed in the order listed.

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE:	Equipment is Not Ready/Available If:
	B	D	A	W	M		
3	•					BRAKE AIR HOSES Check air hoses for obvious damage.	Air line/hose(s) broken or missing.
4	•					ELECTRICAL WIRING Visually inspect electrical wiring for cuts, breaks or other damage.	
5	•					LIGHTS AND REFLECTORS a. Operate lights (if tactical situation permits). b. Visually inspect reflectors for presence or damage.	
6				•		AIR BRAKE RESERVOIR	
						 <p>WARNING</p> <p>Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.</p> <p>a. Open drain cock to drain accumulated moisture. b. Close drain cock.</p>	

Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

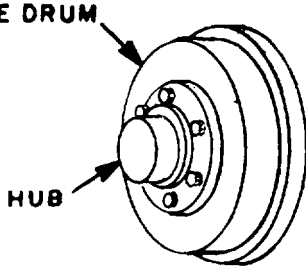
Within designated interval, these checks are to be performed in the order listed.

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE:	Equipment is Not Ready/Available If:
	B	D	A	W	M		
7						<p>AIR SUSPENSION</p>  <p style="text-align: center;">AIR SPRINGS</p> <p>NOTE</p> <p>Minimum air pressure of 65 psi should be maintained when performing these checks.</p> <p>a. Visually check air springs Air springs will not inflate. Check for damaged, loose, or broken parts.</p> <p>b. Open air reservoir drain cock to drain accumulated moisture.</p> <p>GENERAL OPERATIONS</p> <p>Be alert for unusual noises or abnormal conditions that might indicate load shifting or defective performance.</p>	
8							

Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

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

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE:	Equipment is Not Ready/Available If:
	B	D	A	W	M		
9		•				<p>BRAKES</p> <p>During operation, apply semi-trailer brakes several times and check for any unusual conditions or unsatisfactory performance (grabbing, pulling or slow brakes),</p>	
10		•				<p>TRACKING</p> <p>Pull semitrailer straight ahead and check for any side pull, wander, shimmy or slack between kingpin and fifth wheel lock.</p>	Vehicle pulls to side or wanders.
11						<p>BRAKE DRUM AND HUB (TEMPERATURES)</p> <div style="text-align: center;">  </div> <p><u>WARNING</u></p> <p>Overheated brake drums and hubs can cause severe burns to personnel when touched. After operations, cautiously feel brake drums and hubs for excessive heat.</p>	

Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

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

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE:	Equipment is Not Ready/Available If:
	B	D	A	W	M		
11						BRAKE DRUM AND HUB (TEMPERATURES) (cont) NOTE Overheated brake drums indicate improperly adjusted, defective or dry wheel bearings or dragging brakes.	
12		•				LANDING GEAR Couple semitrailer to towing vehicle and check landing gear for obvious damage.	Landing gear does not work.
13			•			AIR PRESSURE Inspect for leaks in the air brake system by stopping engine of towing vehicle when air pressure is at a maximum and noting any large drop on the air pressure gage within approximately one minute.	
14					•	BODY AND FRAME a Visually inspect body parts, such as doors and spare wheel carrier, for damage. b. Make general inspection of body, ladders and landing gear and leveling jack shoes.	

Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

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

ITEM NO	INTERVAL					ITEM TO BE INSPECTED PROCEDURE:	Equipment is Not Ready/Available If:
	B	D	A	W	M		
14						BODY AND FRAME (cont)	
						<p>c. Visually inspect front and rear platforms. Make certain quick release pins and mounting studs are in good working order.</p>	
15						RADIO FREQUENCY INTER-FERENCE SHIELDING	
						<p>NOTE</p> <p>Radio Frequency Interference shielding (RFI) must be kept clean at all times to provide a good bond.</p>	
2-10							

*

Section III. OPERATION UNDER USUAL CONDITIONS

2-9. COUPLING SEMITRAILER TO TOWING VEHICLE

WARNING

Be sure all personnel stand clear of towing vehicle and semitrailer during coupling operations, or serious injury may result.

1. Make certain front platform has been removed prior to aligning towing vehicle with semitrailer.
2. Slowly back towing vehicle into position. Be sure kingpin (1) is in line with fifth wheel coupler jaws (3).
3. Before kingpin plate (2) starts to ride the approach ramps (4), check that kingpin plate (2) is above approach ramps (4).

NOTE

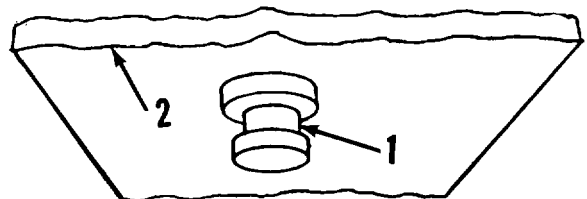
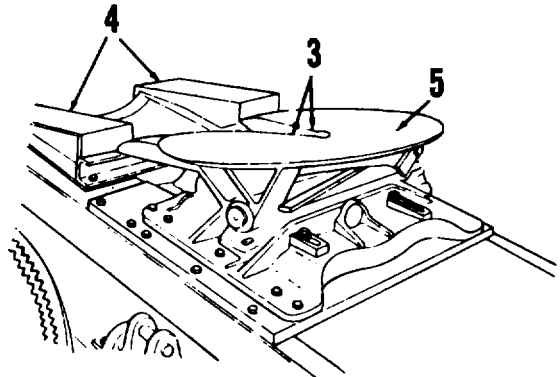
Ground guide will assist in raising and lowering landing gear legs as required.

4. Adjust height as needed by using landing gear. Make sure coupler jaws (3) are open.
5. Slowly back towing vehicle until coupler jaws (3) engage kingpin.

CAUTION

Visually check coupling. You should not be able to see daylight between fifth wheel and kingpin plate. If light shows, realine towing vehicle.

6. Make sure coupling is secure by inching forward. If coupling is not locked, rock back and forth slowly until kingpin (1) is locked in fifth wheel (5).

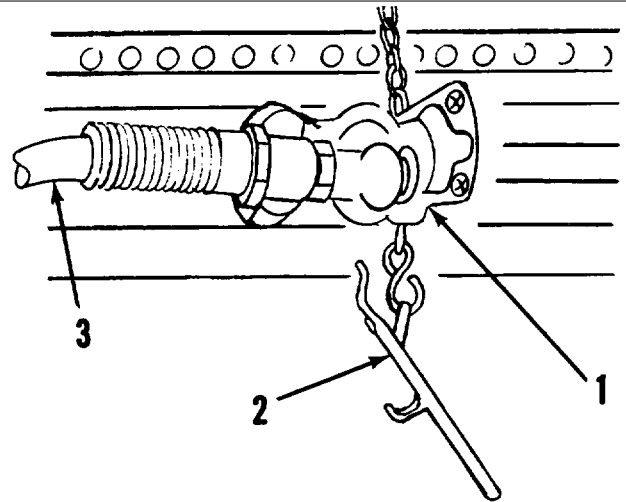


1. Kingpin
2. Kingpin plate
3. Coupler jaws
4. Ramps
5. Fifth wheel

2-9. COUPLING SEMITRAILER TO TOWING VEHICLE (cont)

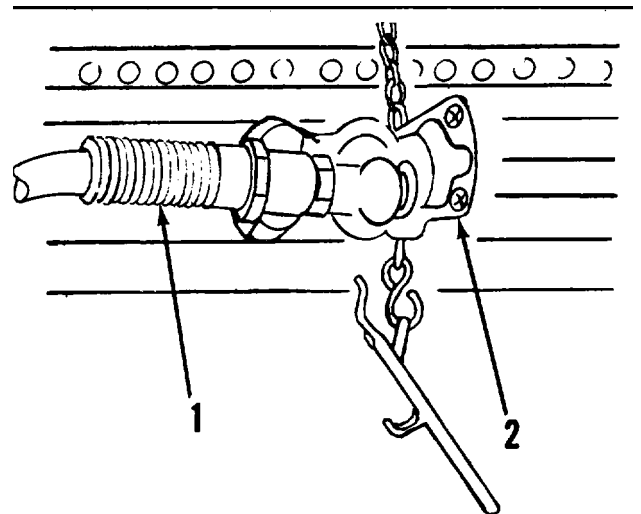
7. Remove dummy couplings (2) on front of semitrailer and place in their supports.
8. Connect coupling marked SERVICE on towing vehicle air hose (3) to coupling marked SERVICE (1) on semitrailer.

1. Service coupling
2. Dummy coupling.
3. Air hose.

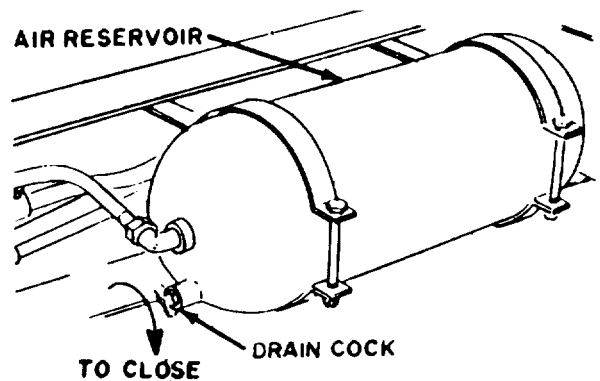


9. Connect coupling marked EMERGENCY on towing vehicle air hose (1) to coupling marked EMERGENCY (2) on semitrailer.

1. Air hose
2. Emergency coupling

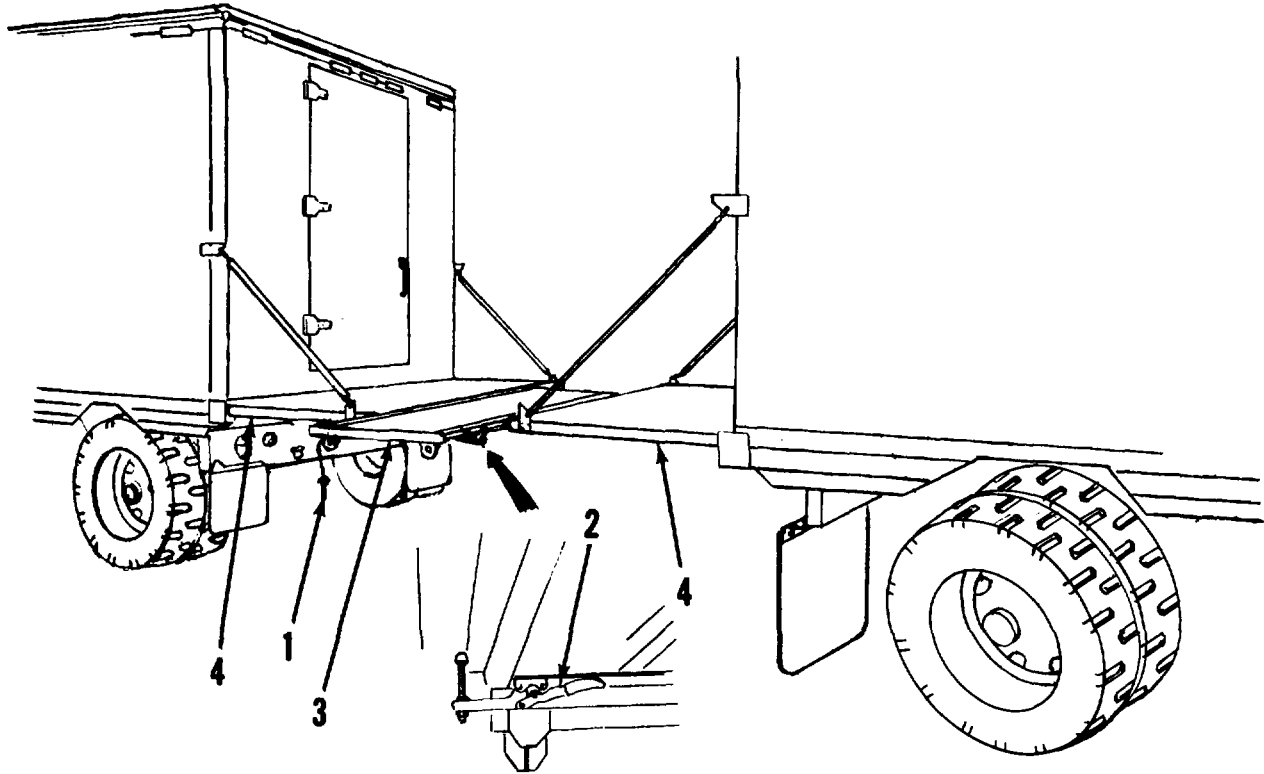


10. Make certain air reservoir drain cock is closed.
11. Open two air shutoff valves on towing vehicle to pressurize semitrailer air system.



2-9. COUPLING SEMITRAILER TO TOWING VEHICLE (cont)

12. Unlatch and remove platform bridge as follows:



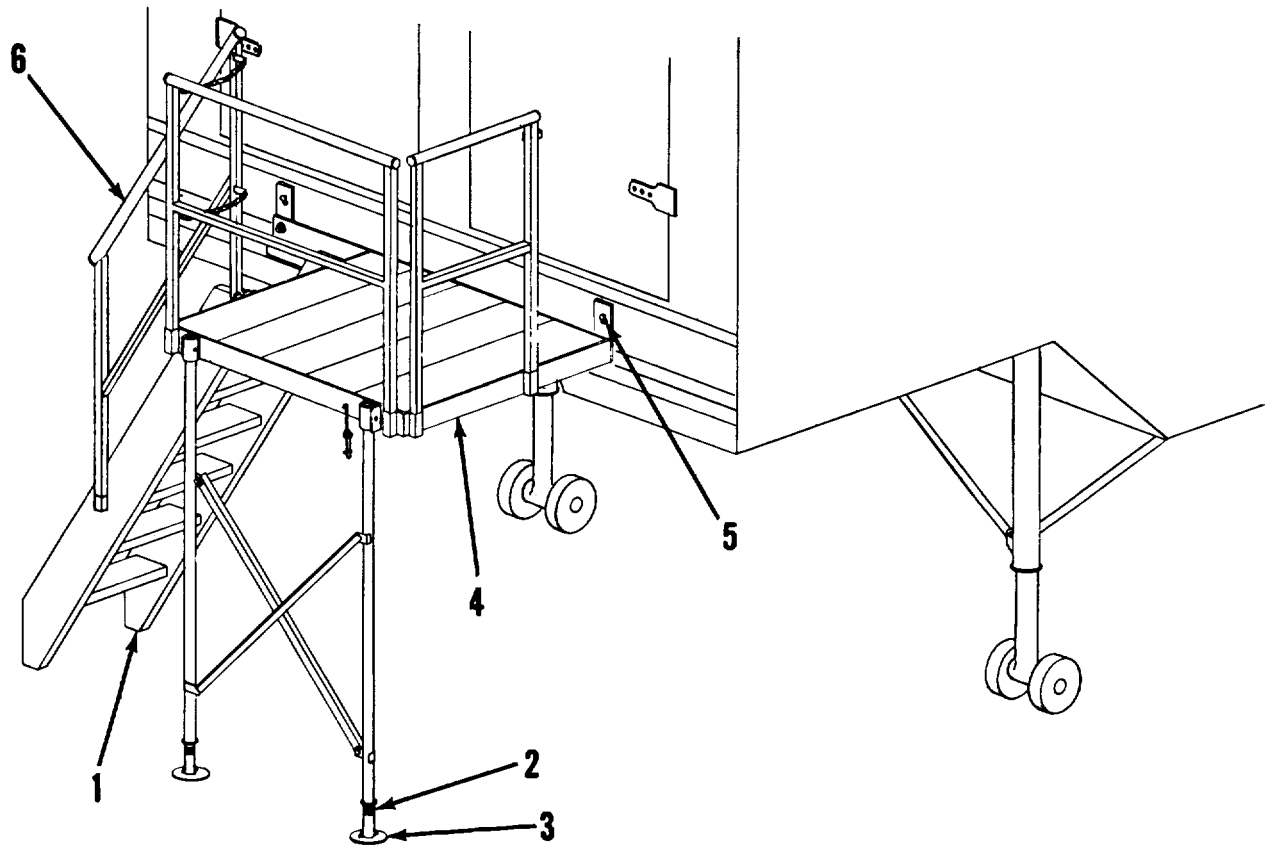
1. Quick release pin
2. Clamp
3. Platform bridge
4. Rear Platform

- a. Two personnel required to perform this operation.
- b. Remove two quick release pins (1).
- c. Loosen four clamps (2) securing platform bridge (3) to both rear platforms (4).
- d. Slide bridge off rear platforms and set it aside.

13. Raise and secure rear platform (para 2-15).
14. Stow platform bridge on rear platform of XM971E2 semitrailer (para 2-16).
15. Remove front platform from front of semitrailer as follows:

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2-9. COUPLING SEMITRAILER TO TOWING VEHICLE (cont)



- | | |
|---------------------|-------------|
| 1. Ladder | 4. Platform |
| 2. Screw | 5. Stud |
| 3. Footpad assembly | 6. Handrail |

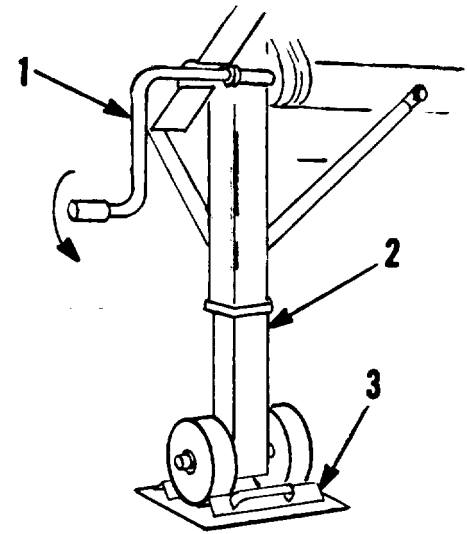
- a. Two personnel required for this operation.
- b. Raise ladder (1) with attached handrail (6) from its mounting brackets and set aside.
- c. Turn both platform leg assembly screws (2) counterclockwise until footpad assemblies (3) clear the ground.
- d. Raise platform (4) slightly to release stud (5) from mounting plate and remove platform.
- e. Stow both front platform and boarding ladder with handrail in semitrailer front compartment.

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2-9. COUPLING SEMITRAILER TO TOWING VEHICLE (cont)

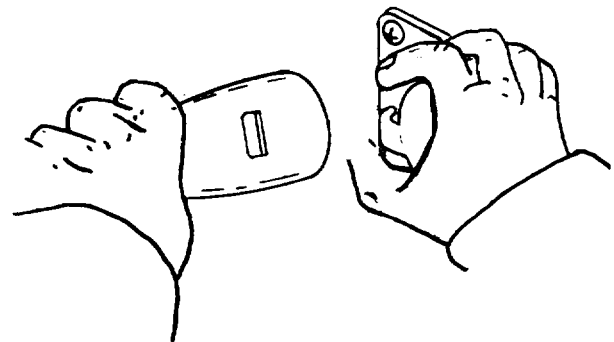
16. Turn crank (1) counterclockwise to raise landing gear leg (2).
17. Stow landing gear shoes (3) in brackets on underside of semitrailer.

1. Crank
2. Landing gear leg
3. Shoe



18. Retract and stow leveling jack (para 2-14).

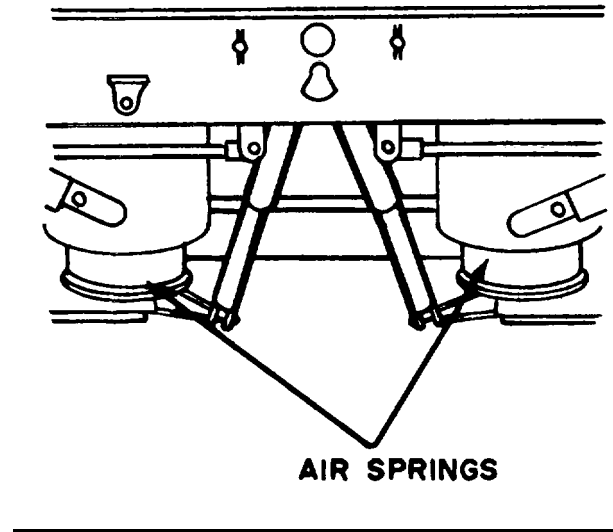
19. Plug towing vehicle intervehicular cable into receptacle on front of semitrailer.
20. Make sure to use the proper receptacle, either 24-volt or 12-volt, depending on the electrical system of towing vehicle.
21. Check to see that all lights are in working order



TA 314714

2-9. COUPLING SEMITRAILER TO TOWING VEHICLE (cont)

22. To check air springs, first build up air pressure to 65 psi (448.2 k pa).
23. Visually inspect for air spring inflation.
24. Check to see that semitrailer is level when air springs are fully inflated.
25. Stow wheel chocks and raise landing gear legs.
26. Tow semitrailer at operating speeds.
27. Note any irregularities in leveling.
28. Park towing vehicle and shut down engine. Air springs should slowly deflate in a level condition.

**2-10. TOWING THE SEMITRAILER****DRIVING**

1. When driving towing vehicle and semitrailer, the overall length of the unit must be kept in mind when passing other vehicles and when turning.
2. Because the unit is hinged in the middle, turning and backing are also affected.
3. The semitrailer's payload will affect stopping and off road maneuverability.

TURNING

1. When turning corners, allow for the fact that the semitrailer wheels turn inside the turning radius of the towing vehicle.
2. To make a right turn at a road intersection, drive towing vehicle about half way into the intersection and then cut sharply to the right.
3. This will allow for the shorter turning radius of the semitrailer and will keep it off the curb.

TA 314715

2-10. TOWING THE SEMITRAILER (cont) |**STOPPING**

1. In normal operation, the brakes of towing vehicle and semitrailer are applied at the same time when the driver steps on brake pedal.
2. Brake pressure must be applied gradually and smoothly.
3. Semitrailer brakes may be applied separately by using brake control lever on towing vehicle steering column.
4. On steep down grades or slippery surfaces, semitrailer brakes must be applied before towing vehicle brakes. This will reduce the possibility of jack-knifing the semitrailer.

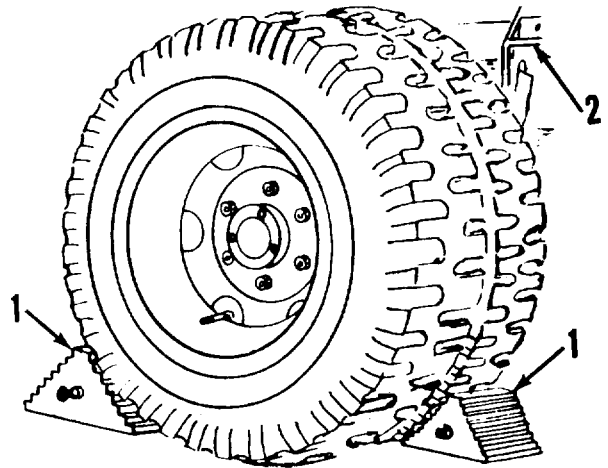
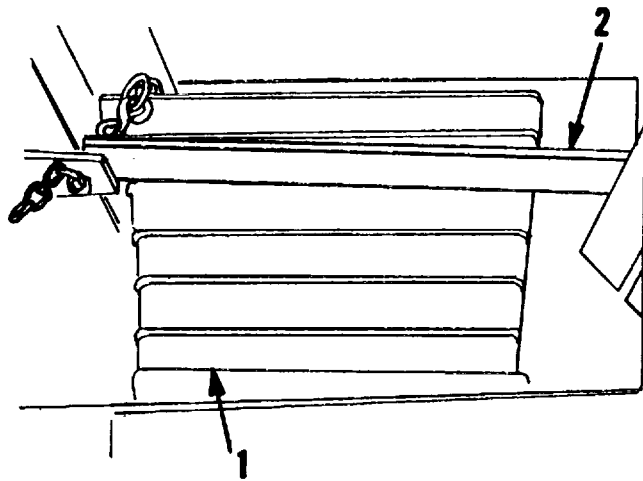
PARKING

1. When towing vehicle and semitrailer are to be parked and left unattended, set parking brake on towing vehicle.
2. Turn off towing vehicle engine before leaving cab.
3. Block semitrailer wheels with wheel chocks.

BACKING

1. The assistant driver or another person will act as ground guide to assist and direct driver.
2. Adjust all rear view mirrors before backing.
3. When backing, rear of semitrailer will always move to opposite direction of that in which front wheels are turned.
4. When wheels of towing vehicle are turned to the right, rear of semitrailer will go to the left.
5. When semitrailer has turned and backing in a straight line is required, turn towing vehicle wheels in the direction semitrailer is moving. This will slowly bring towing vehicle and semitrailer into a straight line.

2-10. UNCOUPLING SEMITRAILER FROM TOWING VEHICLE

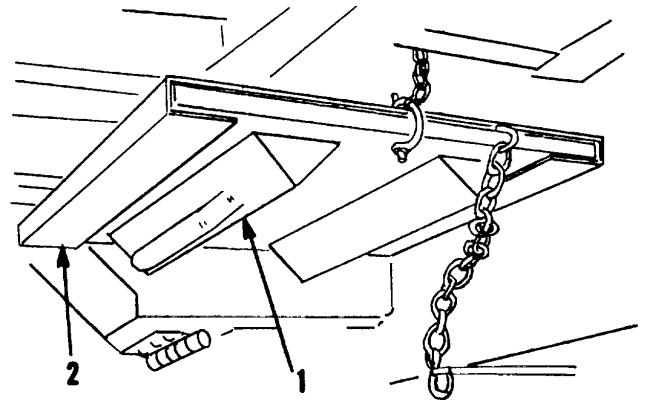


- 1. Wheel chock
- 2. Bracket

1. Remove wheel chock (1) from storage bracket (2).
2. Place wheel chock (1) behind outside wheel of front axle.
3. Place second wheel chock in front of wheel.

4. Remove landing gear shoes (1) from storage brackets (2) underneath van body.

- 1. Shoe
- 2. Bracket



NOTE

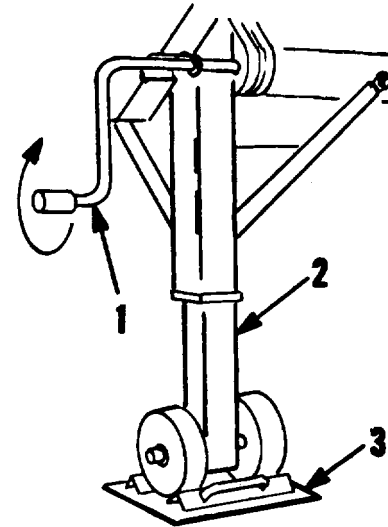
Make sure there is firm footing under landing gears and leveling jack shoes before lowering landing gears or leveling jacks.

TA 314716

2-11. UNCOUPLING SEMITRAILER FROM TOWING VEHICLE (cont)

5. Turn crank (1) clockwise to lower landing gear legs (2) on to shoes (3) until they support front of van van body.

1. Crank
2. Leg
3. Shoe

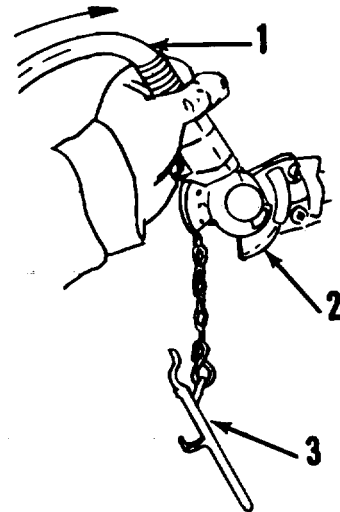


WARNING

Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.

6. Disconnect intervehicular air hoses (1) from air half-couplings (2) and insert dummy coupling (3).

1. Air hose
2. Air half-coupling
3. Dummy coupling



7. Disconnect intervehicular electrical cable.
8. Release kingpin lock on the fifth wheel and drive towing vehicle away from semitrailer.

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2-12. SEMITRALER FOR OPERATION

PRELIMINARY STEPS

1. Disconnect from towing vehicle (para 2-11).
2. Lower landing gear legs (para 2-13).
3. Lower leveling Jack legs (para 2-14)
4. Lower rear platform (para 2-15)
5. Install rear platform bridge (para 2-16).
6. Install front platform (2-17).
7. Install ladders (para 2-18).

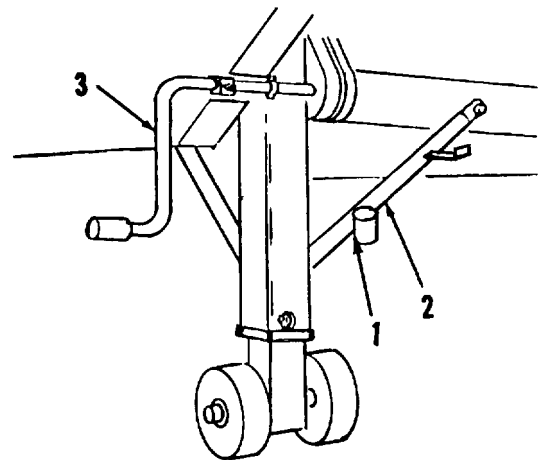
2-13. LANDING GEAR I

NOTE

Swing landing gear to horizontal position for aircraft loading only (para 4-45).

OPERATION

1. With landing gears in normal operating position with legs contacting ground, remove crank (3) from stowage socket (1) on brace (2).
2. Position slot in crank (3) to engage pin in landing leg shaft.
3. Landing gears are two speed, separately operated landing legs.
4. Pull out shaft for high speed travel.
5. Push in shaft for low speed travel.
6. Use crank (3) to raise or lower semitrailer. Clockwise rotation raises van. Counterclockwise rotation lowers van.



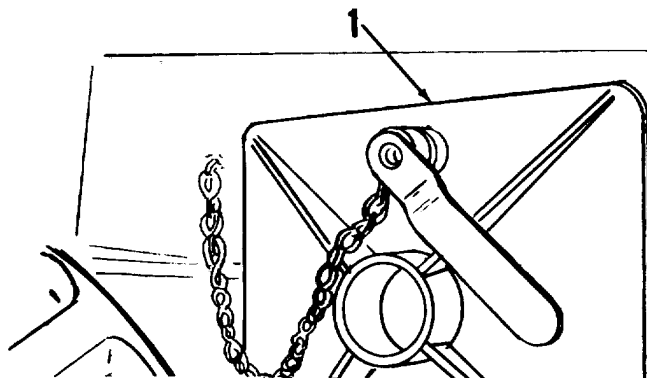
1. Stowage socket
2. Brace
3. Crank TA 314718

2-14. LEVELING JACK

TO OPERATE

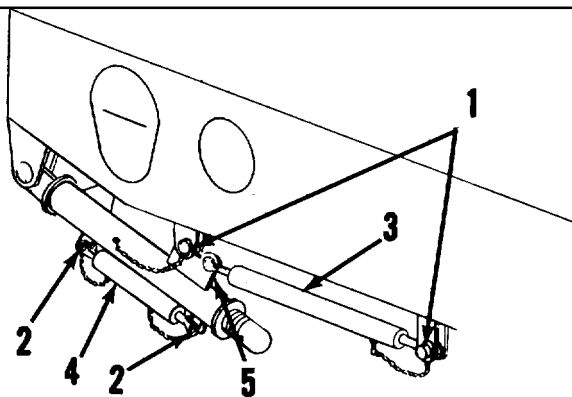
1. Remove leveling jack shoe (1) from crossmember and place it on ground in alignment with jack.

1. Shoe



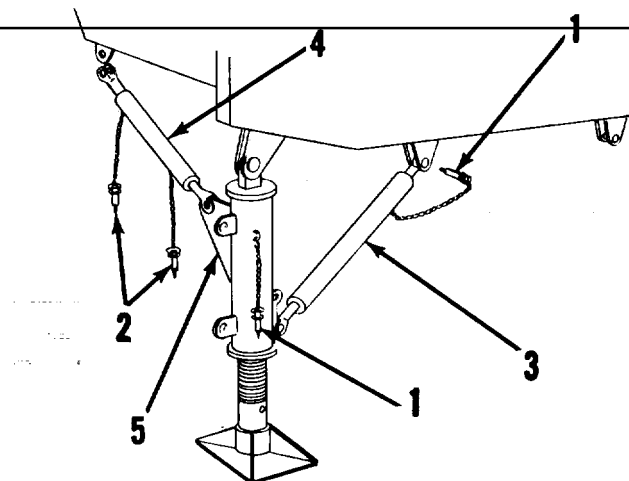
2. Pull out two pins (1) securing jack and long brace (3) to rear crossmember and allow jack to swing down to the vertical position.
3. Pull out two pins (2) securing short brace (4) on jack. Attach one end of brace to gusset (5) on side of jack.

1. Pin
2. Pin
3. Long brace
4. Short brace
5. Gusset



4. Using pin (2), secure short brace (4) to bracket on van located to rear of wheels.
5. Using pin (1), secure long brace (3) to bracket on van that jack was attached to when stowed.

1. Pin
2. Pin
3. Long brace
4. Short brace
5. Gusset



2-14. LEVELNG JACK (cont)

TO OPERATE

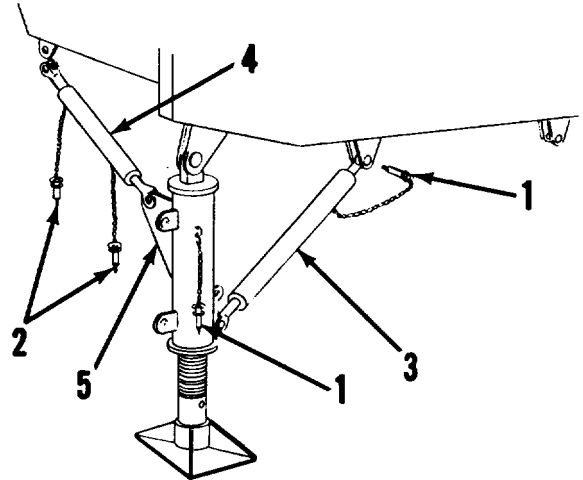
6. Remove handle from side storage compartment and insert in hole at bottom of actuation screw. Turn clockwise to lower actuator screw on to the shoe.

TO RETRACT AND STOW

1. Insert handle in hole at bottom of actuation screw. Turn counterclockwise to retract actuator screw. Remove handle and stow in side storage compartment.

2. Pull out pin (1) securing long brace (3) in position.
3. Pull out pin (2) securing short brace (4) to gusset (5).
4. Swing leveling jack up to horizontal position and secure with two pins (1) at rear of van.
5. Secure Jack shoe on crossmember.

1. Pin
2. Pin
3. Long brace
4. Short brace
5. Gusset



2-15. LOWERING AND RAISING REAR PLATFORM

LOWERING REAR PLATFORM

WARNING

With lock pins removed, upper part of the platform will be loose. In both raising and lowering operations, person supporting platform must exercise care to prevent injury.

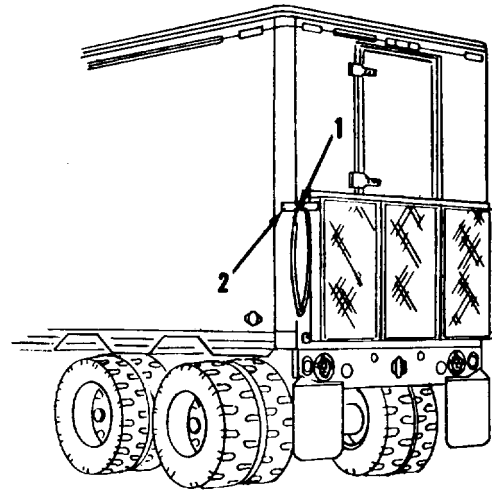
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2-15. LOWERING AND RAISING REAR PLATFORM (cont)

LOWERING REAR PLATFORM

1. Two personnel required, one at each edge of platform.
2. Remove two quick release pins (1) from upper attach plate (2). Lower platform until it comes to rest on the chains.
3. Insert handrail uprights in sockets on platform and secure to upper attach plate with snap hook.

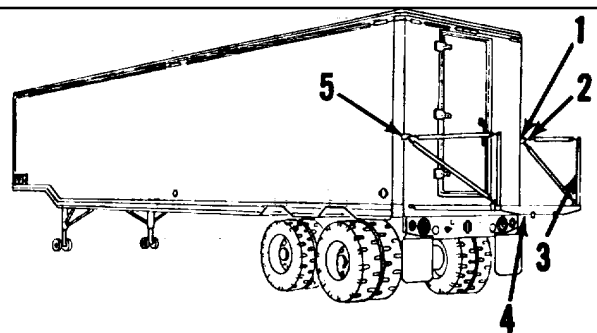
1. Quick release pin
2. Attach plate



RAISING REAR PLATFORM

1. Two personnel required for this operation, one person at each end of platform.
2. Remove snap hooks (2) securing handrails (3). Remove handrails.
3. Raise platform (4) so that it rests against van body. Secure in position with two quick release pins (1) at upper attach plates (5).

1. Quick release pin
2. Snap hook
3. Handrail
4. Platform
5. Attach plate

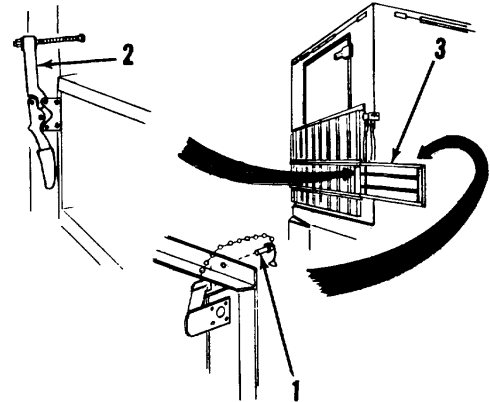


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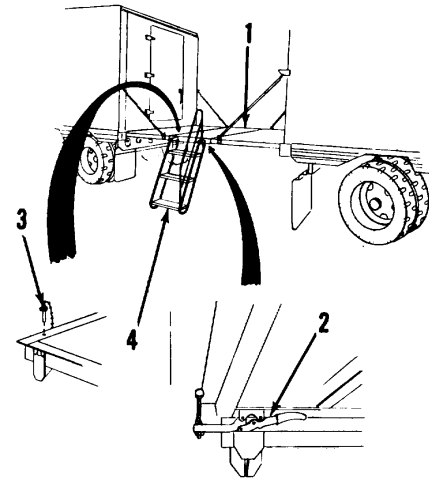
2-16. INSTALLING AND REMOVING PLATFORM BRIDGE

INSTALLING PLATFORM BRIDGE

1. Remove two quick release pins (1) and release four clamps (2) securing platform bridge (3) on rear platform of XM971E3 semitrailer.
2. Set platform bridge aside.
 1. Pin
 2. Clamp
 3. Bridge



3. Drive both XM971E2 and XM971E3 semitrailers so that rears of both vans are back to back.
4. Lower both platforms (para 2-15).
5. Back one van towards the second van to allow enough space between the rear platforms for the platform bridge.
6. Place horizontal side of bridge (1) on each horizontal side of each rear platform. Secure with four clamps (2) and two quick release pins (3).
7. Install ladder (4) (para 2-18).
 1. Platform bridge
 2. Clamp
 3. Pin
 4. Ladder



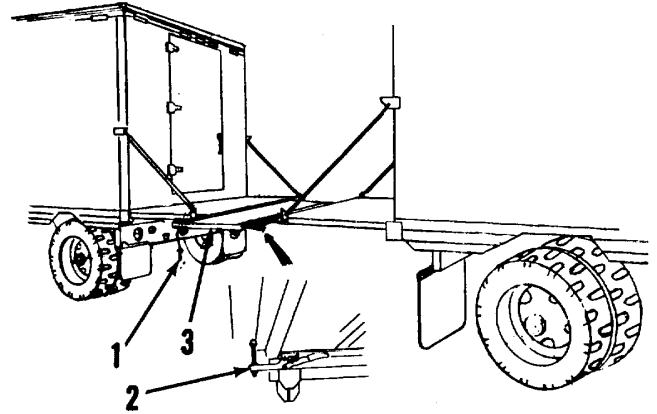
TA 314722 2-24

2-16. INSTALLING AND REMOVING PLATFORM BRIDGE (cont)

REMOVING PLATFORM BRIDGE

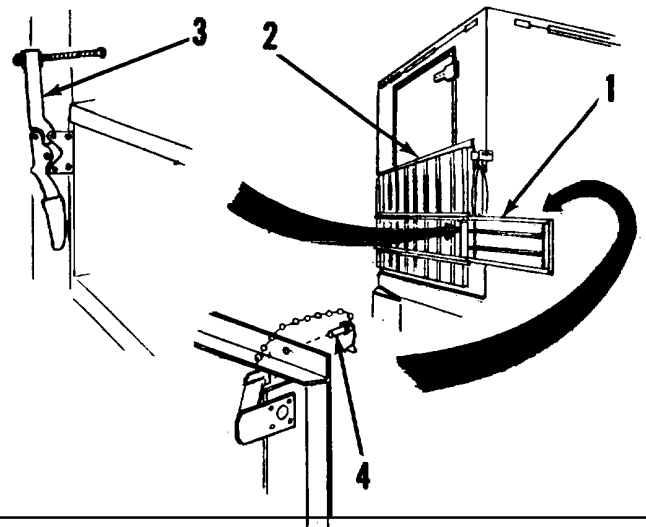
1. Remove ladder (para 2-18).
2. Release two quick release pins (1) and loosen clamps (2) securing platform bridge (3).
3. Slide bridge off rear platform and set it aside.

1. Pin
2. Clamp
3. Bridge



4. To stow platform bridge on rear platform of XM971E3 semitrailer, first raise rear platform to upright position para 2-15).
5. Slide platform bridge (1) in on horizontal channels of rear platform (2).
6. Secure bridge with four clamps (3) and two quick release pins (4).

1. Bridge
2. Rear Platform
3. Clamp
4. Pin

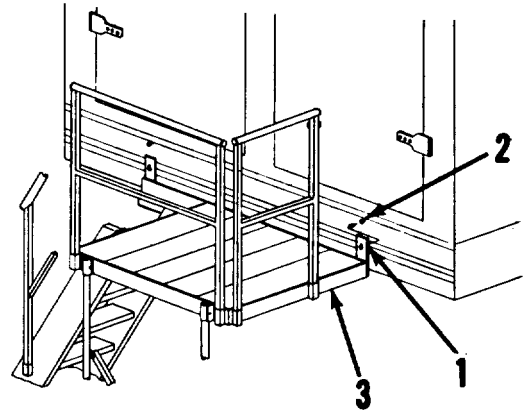


2-17. INSTALLING AND REMOVING FRONT PLATFORM

INSTALLING FRONT PLATFORM

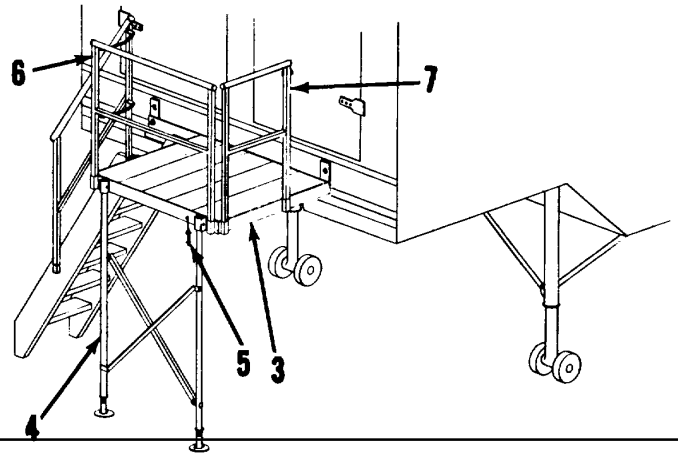
1. Two personnel required.
2. Align holes in mounting brackets (1) with studs (2) screwed into tie-down holes.
3. Position platform (3) on studs.

1. Bracket
2. Stud
3. Platform



4. Position two legs (4) into sockets and secure with two quick release pins (5).
5. Lower legs to make secure contact with ground.
6. Insert front (6) and side (7) handrails in sockets.

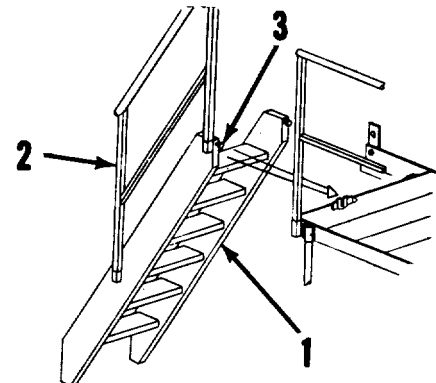
3. Platform
4. Leg
5. Quick release pin
6. Front handrail
7. Side handrail



INSTALLING FRONT PLATFORM LADDER

1. Ladder (1) is equipped with handrail (2).
2. Insert head of screws (3) on ladder into slots on platform.

1. Ladder
2. Handrail
3. Screw



2-17. INSTALLING AND REMOVING FRONT PLATFORM (cont)

REMOVING FRONT PLATFORM LADDER

1. Lift ladder out of slots in platform.
2. Remove ladder with attached handrail.

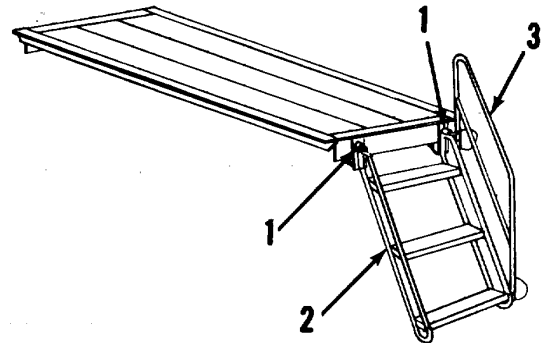
REMOVING FRONT PLATFORM

1. Two personnel required.
2. Lift front and side handrails from sockets in front platform. Remove handrails.
3. Raise platform legs to clear ground.
4. Release two quick release pins and remove legs from sockets.
5. Lift platform from holes in mounting bracket and remove platform.

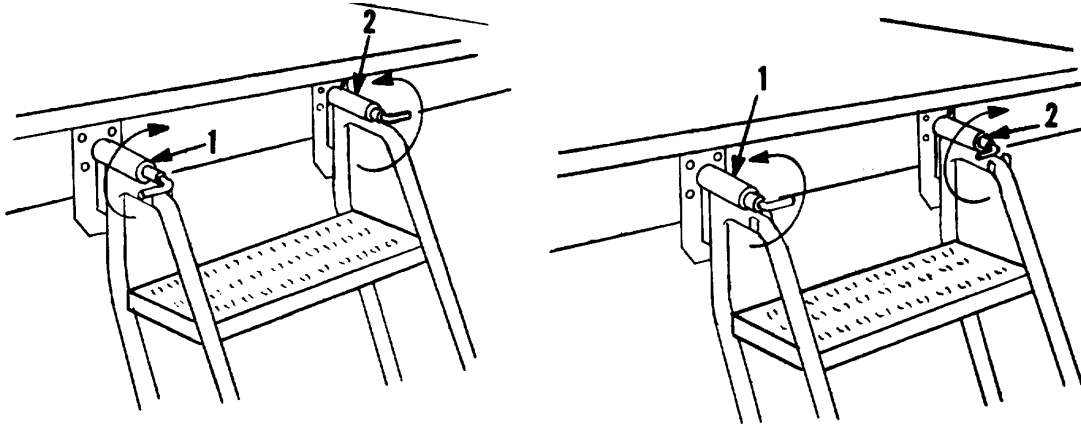
2-18. INSTALLING PLATFORM BRIDGE LADDER

1. Remove ladder (2) and handrail (3) from front compartment of semitrailer.
2. Ladder has latch (1) on each side at end to be attached to bridge.

1. Latch
2. Ladder
3. Handrail



2-18. INSTALLING PLATFORM BRIDGE LADDER (cont)



- 1. Left latch handle
- 2. Right latch handle

LOCKED POSITION

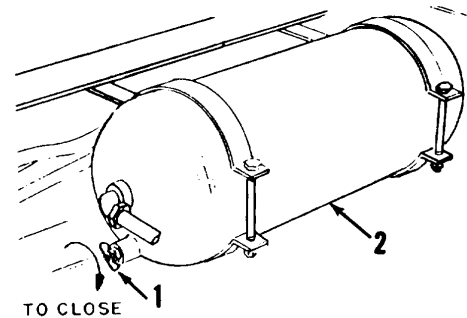
UNLOCKED POSITION

3. To install, first turn left latch handle (1) to right and right latch handle (2) to left.
4. Insert ladder end into the holes provided in rear platform bridge.
5. Turn left latch handle to left and right latch handle to right to lock ladder in position.
6. Insert handrail in sockets on side of ladder and secure with quick release pins.

2-19. AIR RESERVOIR DRAIN COCK

1. The hand operated drain cock (1) is located at end and bottom of air reservoir (2).
2. Turn counterclockwise to open to drain moisture and to permit release of air pressure if brakes lock. Turn clockwise to close drain cock.
3. Open drain cock if semitrailer is to remain inactive for a length of time.

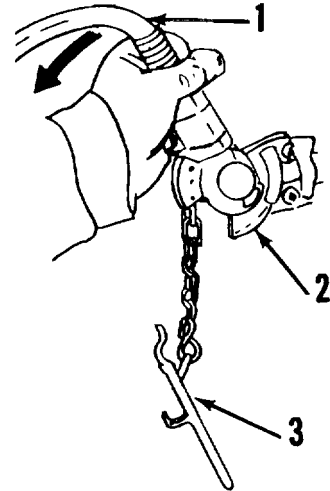
- 1. Drain cock
- 2. Air reservoir



2-20. AIR HALF-COUPLING

1. Remove dummy coupling (1).
2. Raise towing vehicle air hose (3) and coupling (2) to a vertical position and align outlet holes.
3. Rotate coupling to the horizontal locked position.

1. Dummy coupling
2. Coupling
3. Air hose

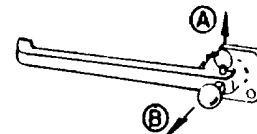


2-21. EMERGENCY ESCAPE MECHANISM

1. All doors, except the right side door, have an emergency escape mechanism to allow personnel to open the door from the inside, even though outside handle is locked.
2. To disengage exterior handle, pull out safety release pin (A) and pull lock pin (B) out completely.
3. Turn interior door handle clockwise and open door.

IN EMERGENCY

**TO OPEN DOOR WHEN
EXTERIOR HANDLE IS
LOCKED**



- 1) **(A) REMOVE SAFETY RELEASE
PIN**
- (B) PULL LOCK PIN OUT**
- 2) **EXTERIOR HANDLE IS NOW
DISENGAGED**
- 3) **OPERATE DOOR HANDLE
IN NORMAL MANNER**

2-22. REMOVAL AND INSTALLATION OF SPARE WHEEL AND TIRE

REMOVAL

WARNING

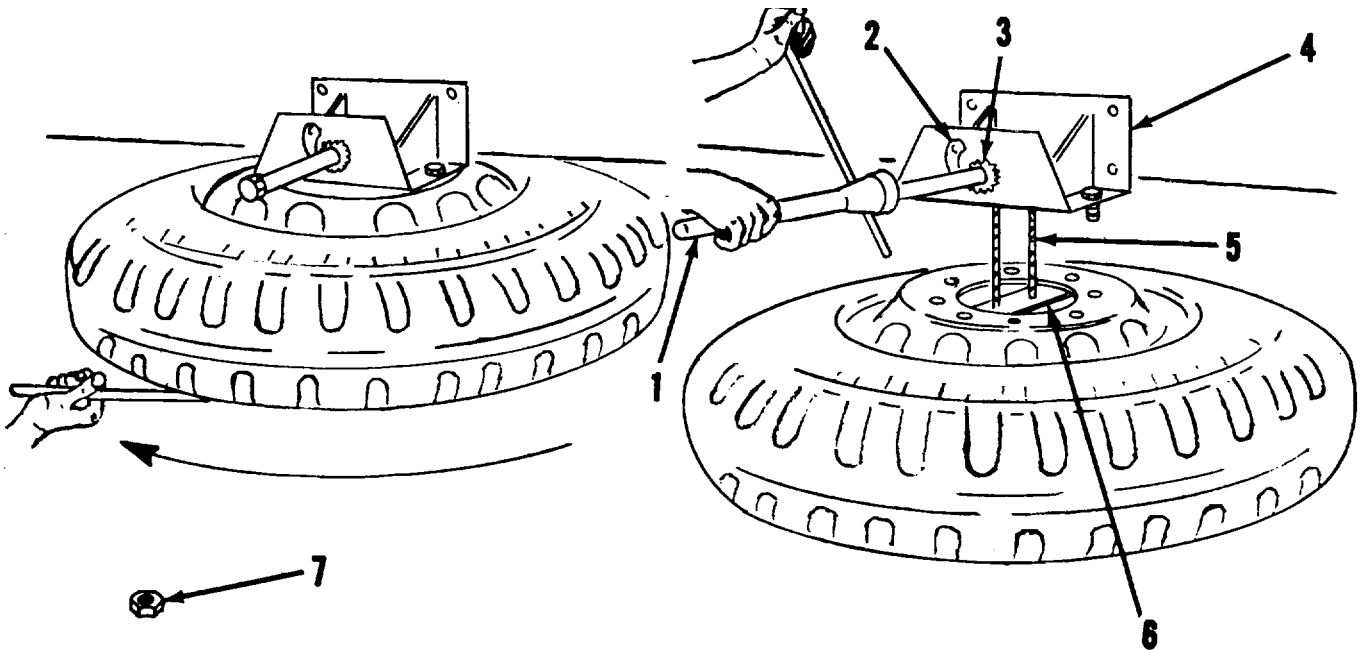
Personnel must get under tire to remove nuts. Make certain pawl is engaged in ratchet wheel. Exercise care to prevent injury.

2-22. REMOVAL AND INSTALLATION OF SPARE WHEEL AND TIRE (cont)

REMOVAL (cont)

WARNING

Hold wrench firmly when pawl is released; wheel can drop fast and cause injury.



- 1. Wrench
- 2. Pawl
- 3. Ratchet wheel
- 4. Upper member

- 5. Wire rope
- 6. Pick-up member
- 7. Nut

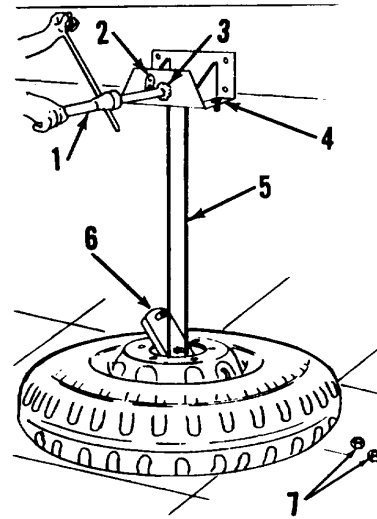
1. Working from curbside of semitrailer, use wheel nut wrench (1) and remove two special wheel nuts (7) which secure wheel to upper member (4).
2. Wheel and lower pick-up member (6) are held in place by wire rope (5).
3. Position wheel nut wrench (1) on the nut at outer end of ratchet wheel (3) on which wire rope is wound.
4. Release pawl (2) from ratchet and turn wrench counterclockwise, thus lowering wheel.
5. Continue turning counterclockwise until wheel rests on ground.
6. Slip pick-up member (6) out of wheel hole.

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REMOVAL AND INSTALLATION OF SPARE WHEEL AND TIRE (cont)

INSTALLATION

1. Lower pick-up member (6) to ground (steps (1) through (6) of removal procedure).
2. Insert pick-up member (6) through large hole in wheel. Rotate pickup member so that it is at right angles to wire rope (5).
3. Set pawl (2) in contact with ratchet wheel (3) and turn wheel nut wrench (1) on ratchet wheel clockwise, raising wheel.
4. As wheel moves up to upper member (4), align securing bolts with any two holes in wheel.
5. After wheel is tight against upper member (4), install and tighten special nuts (7), using wheel nut wrench (1).



- | | |
|------------------|-------------------|
| 1. Wrench | 5. Wire rope |
| 2. Pawl. | 6. Pick-up member |
| 3. Ratchet wheel | 7. Nut |
| 4. Upper member | |

Section IV. OPERATION UNDER UNUSUAL CONDITIONS

2-23. GENERAL INFORMATION

a. In addition to the normal preventive maintenance service, special care in cleaning and lubrication must be observed where extremes of temperature, humidity, and terrain conditions are present or anticipated. Proper cleaning, lubrication, and storage and handling of fuels and lubricants not only insure proper operation and functioning, but also guard against excessive wear of the working parts and deterioration of the materials.

b. FM 55-30 contains instructions on driver selection, training, and supervision, and FM 21-305 prescribes special driving instructions for operating wheeled vehicles under unusual conditions. A detailed study of FM 55-30 and FM 21-305 is essential for use of this material under unusual conditions.

OPERATION UNDER UNUSUAL CONDITIONS (cont)**2-23. GENERAL INFORMATION (cont)**

c. Refer to paragraphs 2-24 through 2-30 for operating procedures under unusual conditions. For lubrication procedures under operation in dusty and sandy conditions and after fording operations, refer to paragraphs 2-26 and 2-30.

d. When chronic failure of materiel results from subjection to extreme conditions, report the condition on SF Form 368.

2-24. OPERATION IN EXTREME COLD**a. General.**

(1) Extensive preparation of materiel scheduled for operation in extreme cold weather is necessary. Generally, extreme cold causes lubricants to thicken or congeal, cracks insulation, causes electrical short circuits and various construction materials to become hard, brittle, and easily damaged or broken.

(2) You, the operator, must always be on the alert for indications of the effect of cold weather on the semitrailer.

(3) You, the operator, must be very cautious when placing the vehicle in motion after a shutdown. Congealed lubricants may cause failure of parts. Tires frozen to the ground or frozen to the shape of the flat spot while underinflated must be considered. One or more brake shoes may be frozen fast and require preheating to avoid damage to the towing vehicle clutch surfaces.

(4) Refer to FM 9-207 for description of operation in extreme cold.

b. At Halt or Parking.

(1) When halted for short shutdown periods, park semitrailer in a sheltered spot out of the wind. If no shelter is available, park so that its rear faces into the wind. For long shutdown periods, if high and dry ground is not available, prepare a footing of planks or brush.

(2) Clean all parts of the semitrailer of snow, ice and mud as soon as possible after operation. See PMCS, chapter 2, for after-operation procedures.

2-24. OPERATION IN EXTREME COLD (cont) 1

(3) Gage tires for correct pressure, 50 psi (344.75 k pa) highway, 30 psi (206.85 k pa) cross-country, 20 psi (137.9 k pa) soft sand, mud or snow,

2-25. OPERATION IN EXTREME HEAT

a. If possible, park semitrailer under cover to protect it from sun, sand and dust.

b. Cover inactive semitrailer with tarpaulins, if they are available and if there is no other available shelter. Shake out and air canvas covers or other items subject to deterioration from mildew or attacks by insects or vermin for several hours weekly.

c. Semi-trailers, inactive for long periods in hot, humid weather are subject to rapid rusting and accumulation of fungi growth. Frequently inspect, clean and lubricate to prevent excessive deterioration.

2-26. OPERATION IN DUSTY OR SANDY AREAS

a. For emergency operations in beach and desert sands, correct tire inflation is 20 psi (137.9 k pa). For continued operation in sand, oversize balloon sand tires may be necessary. The tread should be of plain rib and the tire of round cross section.

2-27. OPERATION IN MUD AND SNOW

a. Reduce tire inflation to 20 psi (137.9 k pa).

b. After each operation, remove ice, snow and mud from underneath semitrailer and from hoses, lines, tubes, and electrical connections.

2-28. OPERATION UNDER RAINY OR HUMID CONDITIONS

a. Protect semitrailer from direct rainfall whenever possible. During dry periods open doors to speed drying process.

b. Dampness increases corrosive action. Inspect painted surfaces and electrical connections more frequently for damage.

2-29. OPERATION IN SALT WATER AREAS

Wash salt deposits from all equipment with fresh water. Observe the precautions in paragraph 2-28.

2-30. FORDING OPERATIONS

- a. Instructions for fording operations for the towing vehicle apply also to the semitrailer.
- b. Reduce tire pressure to 20 psi (137.9 k pa) to aid in amphibious landings.
- c. After fording operations, lubricate semitrailer in accordance with lubrication instructions.
- d. Notify Organizational Maintenance to clean wheel bearings and hand pack with lubricant specified in lubrication instructions after each submersion.

CHAPTER 3

OPERATOR MAINTENANCE INSTRUCTIONS

CHAPTER INDEX

Page

Lubrication chart.....3-2

Detailed lubrication information3-5

Cleaning3-6

Service intervals3-6

Painting and identification marking.....3-6

Troubleshooting.....3-7

Removal of wheel and tire assembly from hub3-16

Installation of wheel and tire assembly on hub.....3-17

Section I. LUBRICATION INSTRUCTIONS '

CAUTION

Do not mix hydraulic brake fluid with silicon based fluid. Mixing these fluids may cause brake failure.

3-1. GENERAL

This section contains the lubrication instructions, showing location, intervals and proper materials for lubricating the semitrailer. These instructions are mandatory.

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LUBRICATION INSTRUCTIONS

SEMITRAILER, VAN: SATELLITE TERMINAL OPERATOR, XM971E2

SEMITRAILER, VAN: SATELLITE TERMINAL MAINTENANCE & SUPPLY, XM971E3

Intervals are based on normal operation. Adjust to compensate for abnormal and severe conditions or contaminated lubricants. During inactive periods, intervals may be extended commensurate with adequate preservation.

Lubricate points indicated by DOTTED ARROW SHAFTS on both sides of equipment. A DOTTED CIRCLE indicates a drain hole.

Relubricate after washing or fording as necessary.

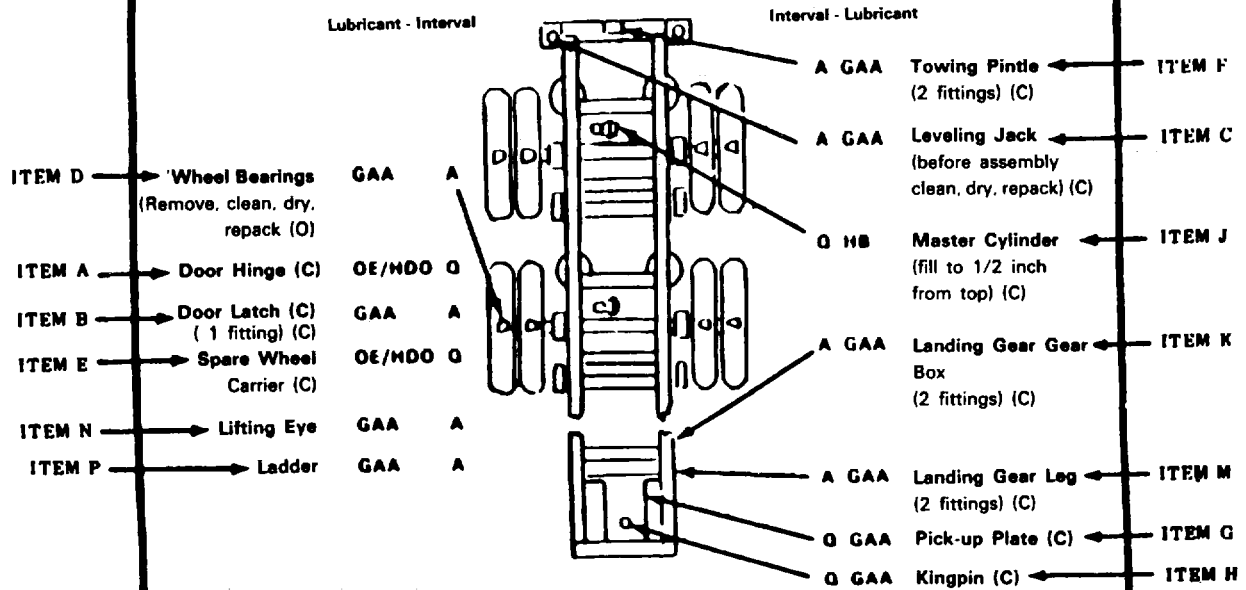
In the Table indicating MAN HOURS required per interval, the time specified is the time required to perform all services at the particular interval.

On-condition (OC) intervals for oil changes shall be determined by the Army Oil Analysis Program (AOAP) laboratory and shall be applied unless otherwise notified.

WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat.

Clean fittings before lubrication, using dry cleaning solvent PD-680. Dry before lubricating.



— TIME REQUIRED —

TOTAL MAN-HOURS		TOTAL MAN-HOURS	
Interval	Man-Hr.	Interval	Man-Hr.
O	4	A	12

LUBRICATION INSTRUCTIONS

SEMITRAILER, VAN: SATELLITE TERMINAL OPERATOR, XM971E2
 SEMITRAILER, VAN: SATELLITE TERMINAL MAINTENANCE & SUPPLY, XM971E3

- KEY -

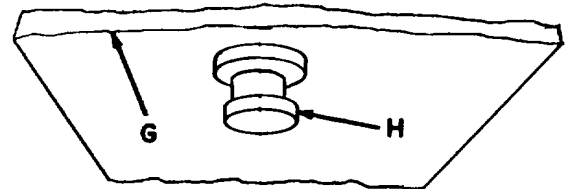
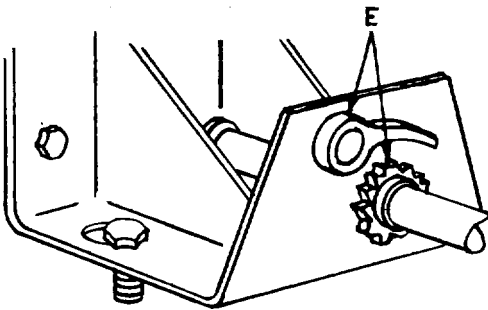
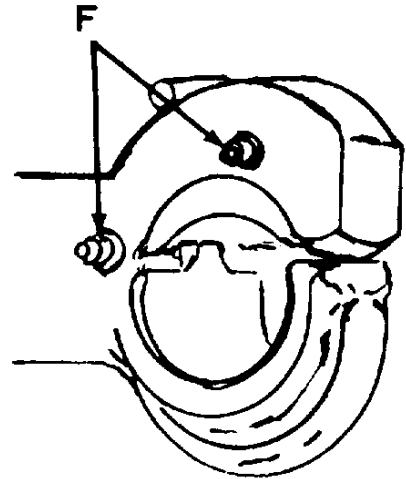
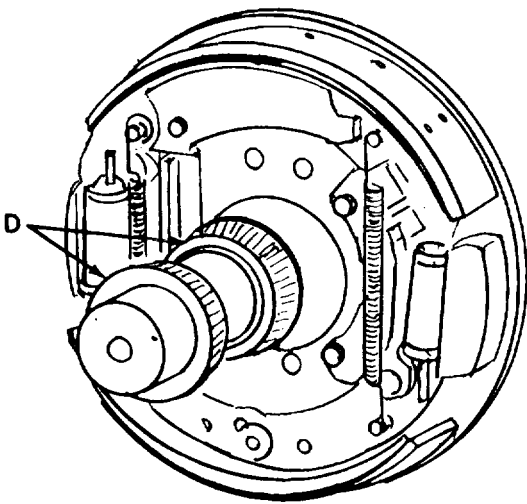
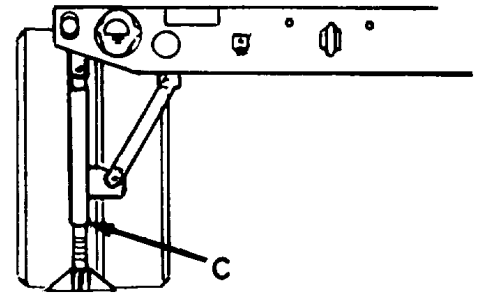
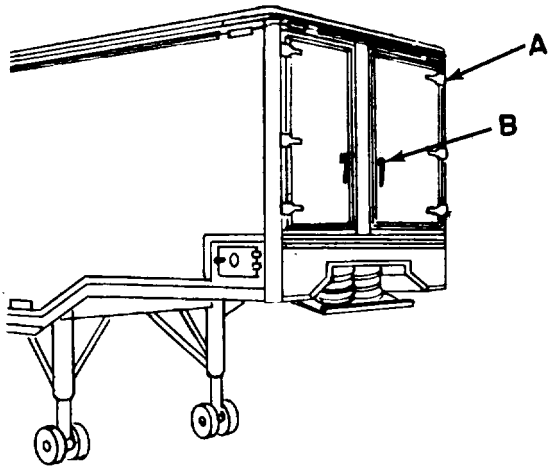
Lubricants	Expected Temperatures					Intervals
	Above +15°F (Above -9°C)	+40° to -15°F (+4° to -26°C)	+40° to -65°F (+4° to -54°C)			
OE/HDO - Lubricating Oil, Internal Combustion, Tactical Service MIL-L-2104	OE/HDO-30	OE/HDO-10		For Arctic Operation Refer to FM 9-207		Q-Quarterly (3 months)
OEA - Lubricating Oil, Internal Combustion, Arctic MIL-L-46167			OEA			A- Annually every second Semi-annual "S" PM Service
GAA - Grease, Automotive and Artillery MIL-G-10924	All Temperatures					
BFS, Brake Fluid Silicone, All Temperature, Operational and Preservative MIL-B-46176						

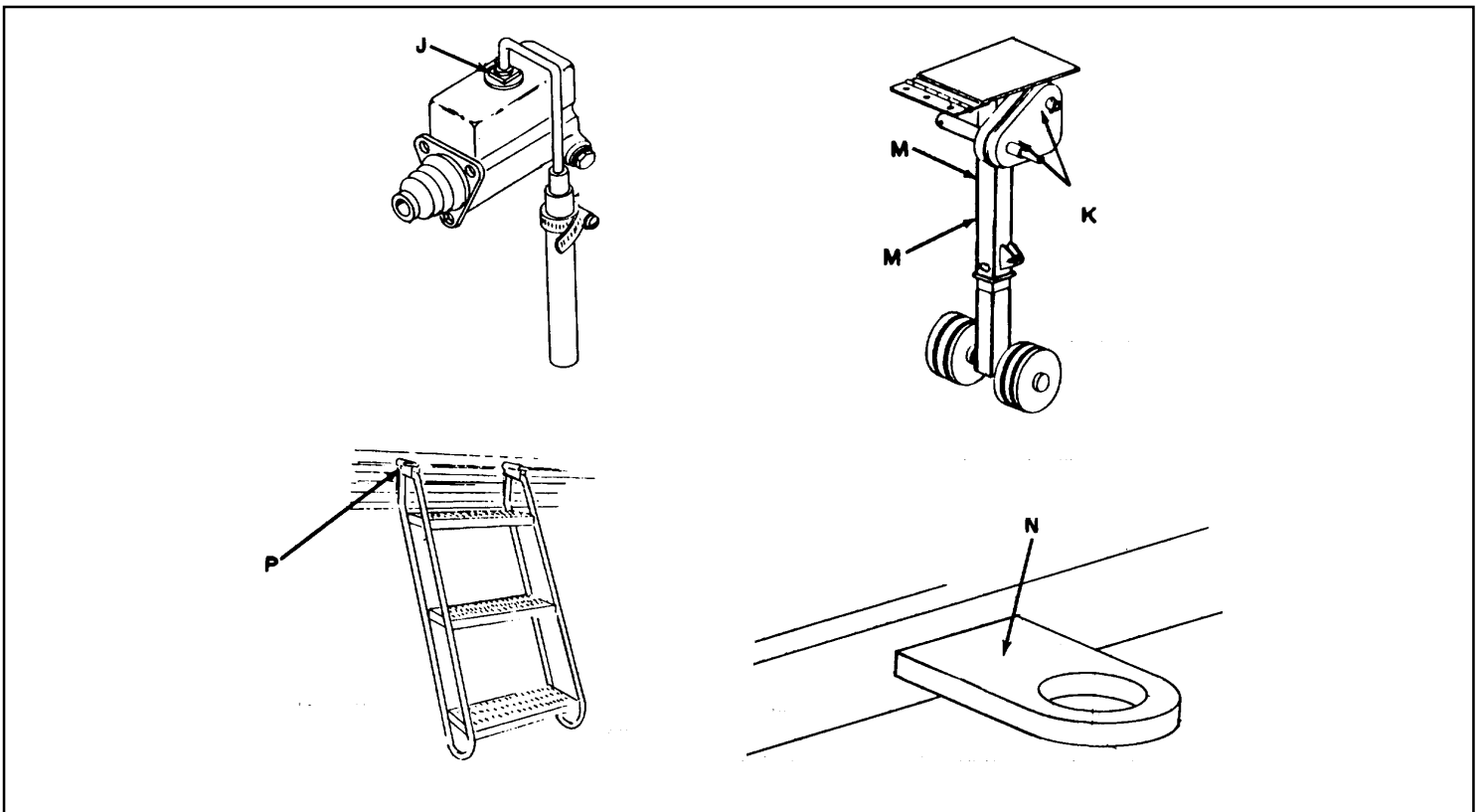
- NOTES -

1. OIL CAN POINTS
 Quarterly lubricate hinges and spare wheel carrier pawl and ratchet with OE/HDO.

 If OEA lubricant is required to meet the temperature ranges prescribed in the Key, OEA is to be used in all places, where OE/HDO-10 is specified.

 The use of OE/HDO 15W-40 in lieu of OE/HDO-30 is authorized: The OE/HDO 15W-40 can be used at any temperature above -15°C (5°F).
2. DO NOT LUBRICATE -Springs.
3. LUBRICATION INTERVAL
 Intervals marked "Q" may be lubricated by the operator if supervised by a mechanic.
4. Use hydraulic brake fluid (BFS) base only. Mixing it with petroleum base hydraulic fluid will render brakes inoperative.
5. LANDING GEAR AND LEVELING JACK LEGS
 Quarterly fully extend legs, wipe clean and apply GAA to unpainted surfaces.
6. INTERVALS
 Lubrication intervals will be scheduled and performed during regular scheduled PM Services whenever possible.





3-2. DETAILED LUBRICATION INFORMATION

- a. Service intervals specified in the lubrication instructions are for normal operation and where moderate temperature, humidity and atmosphere conditions prevail.
- b. Clean lubrication points, grease fittings and surrounding areas before applying lubricant.
- c. Clean all lubrication points after lubricating to prevent accumulation of foreign matter, d. Clean and lubricate bearings as specified in TM 9-214.
- e. Maintain a record of vehicle lubrication and report any discrepancies noted during lubrication. Refer to DA PAM 738-750 for maintenance forms and procedures to record and report any findings.

3-3. CLEANING

- a. Keep all external parts not requiring lubrication clean of lubricants.
- b. Use a cleaning solvent (item 3, appendix E) to clean or wash grease or oil from metal parts.
- c. After parts are cleaned, rinse and dry them thoroughly. Apply a light grade of oil to all polished metal surfaces to prevent rusting.
- d. When authorized to install new parts, remove any preservative materials, such as rust preventive compound or protective grease, prior to installation. Apply lubricant prescribed in lubrication instructions if required.

3-4. SERVICE INTERVALS

- a. The service intervals specified are for conditions where normal operation, temperature and humidity prevail.
- b. Refer to FM 9-207 for instructions on necessary preliminary lubrication of the vehicle in cold weather areas.
- c. After operation under dusty or sandy conditions, clean and inspect all points of lubrication for fouled lubricants. Lubricate as necessary in accordance with lubrication instructions.
- d. After fording operation, lubricate vehicle in accordance with lubrication instructions.

3-5. PAINTING AND IDENTIFICATION MARKING

- a. Painting. Instructions for preparation of the material for painting, methods of painting, and materials to be used are contained in TM 43-0139.
- b. Identification Marking. Re-stencil the semitrailer chassis or body if the markings are not legible. Instructions for marking are contained in TM 43-0209. The numerals and letters are of simple block type (1-1/2 inches high), with curved lines where applicable, and painted with black enamel to specification MIL-E-52798. Proceed as follows:

3-5. PAINTING AND IDENTIFICATION MARKING (cont)**WARNING**

To prevent injury to personnel, avoid excessive inhalation of vapors. All cleaning and stenciling procedures must be performed in a well-ventilated room, or outdoors. A fire extinguisher must be positioned adjacent to the work area.

- (1) Remove oil and grease from equipment.
- (2) Apply paint to stencil with dabbing motion.
- (3) Remove stencil and fill in spaces to provide for continuous lines in the letters and numerals.
- (4) Allow paint to dry for 24 hours.

Section II. TROUBLESHOOTING PROCEDURES**3-6. INTRODUCTION**

Table 3-1 lists the common malfunctions which you find during the operation or maintenance of the semitrailer, van, 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 tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective action, notify your supervisor.

TA 314744

TROUBLESHOOTING PROCEDURES (cont)

3-6. INTRODUCTION (cont)

SYMPTOM INDEX

	Troubleshooting Chart Item No.	Page
ELECTRICAL SYSTEM		
All lamps fail to light	1	3-9
All chassis lights are on and van clearance lights are off	3	3-11
Directional signals inoperative	4	3-11
One or more lamps will not light.....	2	3-10
BRAKE SYSTEM		
Brakes will not release	5	3-11
Grabbing brakes	8	3-13
No brakes or weak brakes	6	3-12
Slow brake application or slow release.....	7	3-13
SUSPENSION SYSTEM		
All air springs flat.....	10	3-14
Semitrailer sags to one side.....	9	3-14
AIR MOUNTED FIFTH WHEEL KINGPIN		
Air springs flat	11	3-14
WHEELS, HUBS, BEARINGS, AND TIRES		
Air leakage from tires	15	3-15
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Wobbly wheels.....	13	3-15
LEVELING JACK AND LANDING GEAR		
Erratic operation or binding.....	16	3-16

Table 3-1. Troubleshooting

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

ELECTRICAL SYSTEM

WARNING

Make sure all electrical power is disconnected before performing any maintenance on the electrical system.

1. ALL LAMPS FAIL TO LIGHT.

Step 1. Check light switch on towing vehicle.

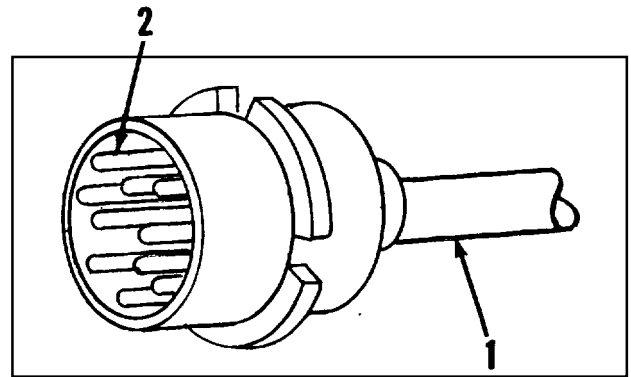
Place light switch on towing vehicle in proper mode of operation. If towing vehicle lamps light, but semitrailer lights do not, proceed to Step 2.

Step 2. Check to see that intervehicular cable (1) is properly plugged into receptacle.

Pull intervehicular cable plug out of receptacle and insert properly.

Step 3. Inspect for dirty or corroded terminals (2) on intervehicular cable (1).

Clean connectors, receptacles and plug.



TA 314734

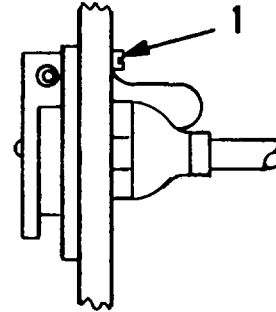
Table 3-1. Troubleshooting

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

ELECTRICAL SYSTEM (cont)

Step 4. Check for good ground connection at intervehicular cable receptacle (para 4-12).

Tighten ground connection (1).



Step 5. Check lights again.

If they still don't light, notify organizational maintenance.

2. ONE OR MORE LAMPS WILL NOT LIGHT.

Step 1. Inspect and replace defective lamps.

Step 2. Inspect for dirty or corroded terminals on intervehicular cable.

Clean connections, receptacle and plug.

Step 3. Check for loose or corroded light connectors.

If they still do not light, notify organizational maintenance.

TA 314735

Table 3-1. Troubleshooting

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

ELECTRICAL SYSTEM (cont)

3. ALL CHASSIS LIGHTS ARE ON AND CLEARANCE LIGHTS ARE OFF.

Step 1. Inspect turn signal lamp.

If lamp is defective, notify organizational maintenance.

Step 2. Inspect for dirty or corroded connectors at composite light, cable socket and contacts.

Clean connectors and reconnect.

If they don't work, notify organizational maintenance.

4. DIRECTIONAL SIGNALS INOPERATIVE.

Step 1. Inspect turn signal lamp.

If lamp is defective, notify organizational maintenance.

Step 2. Inspect for dirty or corroded connectors at composite light, cable socket and contacts.

Clean connectors and reconnect.

If they don't work, notify organizational maintenance.

BRAKE SYSTEM

5. BRAKES WILL NOT RELEASE.

Step 1. Inspect intervehicular air hose connections.

Connect hoses properly - SERVICE to SERVICE, EMERGENCY to EMERGENCY.

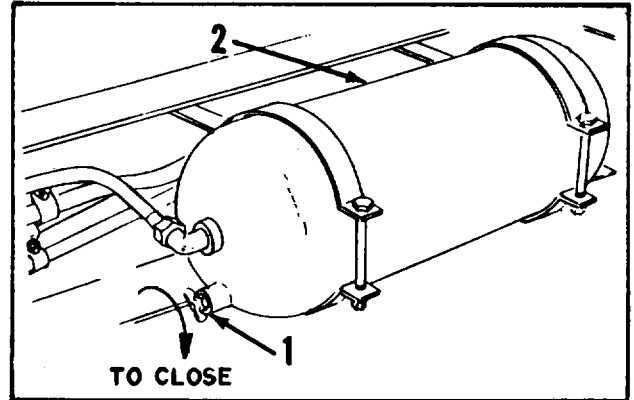
Table 3-1. Troubleshooting

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

BRAKE SYSTEM (cont)

Step 2. Check air reservoir (2) drain cock (1).

Close air reservoir drain cock (1).



Step 3. Check to see if shutoff valves on towing vehicle are closed.

Close shutoff valves on towing vehicle.

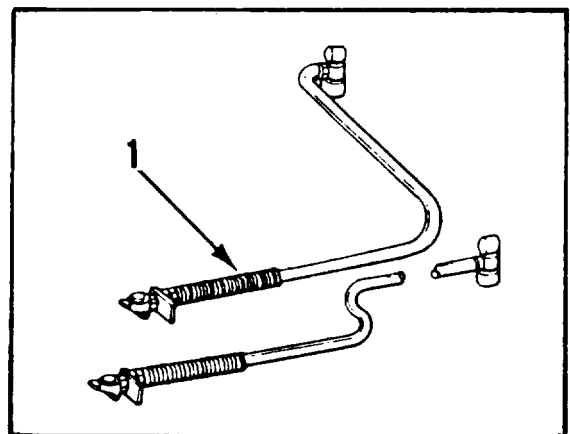
Step 4. Inspect intervehicular hoses for restrictions.

Check intervehicular hoses (1) for kinks, bends, or restrictions, and straighten.

6. NO BRAKES OR WEAK BRAKES.

Step 1. Check to see if intervehicular air hoses (1) are properly connected.

Connect air hoses properly.



Step 2. Check for low air pressure.

Inspect air supply lines for leaks. Tighten connections where necessary.

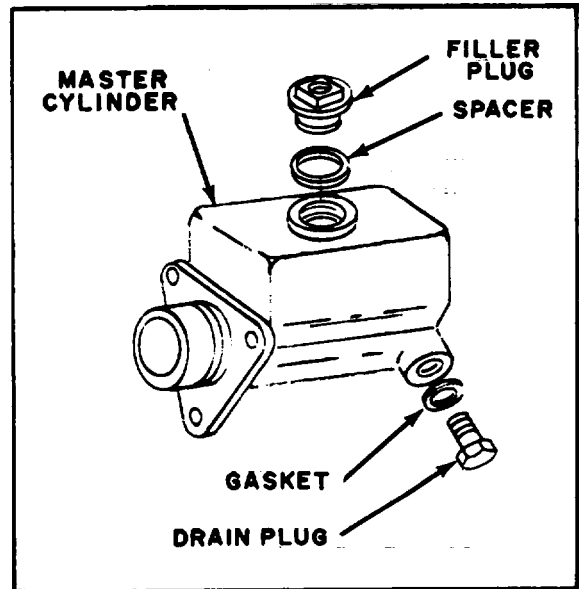
Table 3-1. Troubleshooting

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

BRAKE SYSTEM (cont)

7. SLOW BRAKE APPLICATION OR SLOW RELEASE.

Check master cylinder for sufficient brake fluid, 1/2-inch to 3/8 inch from top of reservoir. Notify organizational maintenance if insufficient.



8. GRABBING BRAKES

WARNING

Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.

Check air system for moisture.

Open drain cock on air reservoir and drain moisture from system.

Table 3-1. Troubleshooting

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

SUSPENSION SYSTEM

9. SEMITRAILER SAGS TO ONE SIDE.

Step 1. Check tires to see if air pressure is low or uneven.

Inflate tires to correct pressure: highway, 50 psi (344.75 k pa), cross-country, 30 psi (206.85 k pa), soft sand, mud or snow, 20 psi (137.9 k pa).

Step 2. Check to see if load in semitrailer is evenly distributed.

Distribute load evenly.

10. ALL AIR SPRINGS FLAT.

Check air pressure on gage in towing vehicle.

Build up air pressure to 65 psi (448.2 k pa).

AIR MOUNTED FIFTH WHEEL KINGPIN

11. AIR SPRINGS FLAT

Check air pressure on gage in towing vehicle.

Build up air pressure to 65 psi (1448.2 k pa).

Table 3-1. Troubleshooting

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

WHEELS, HUBS, BEARINGS, AND TIRES

12. NOISY WHEELS.

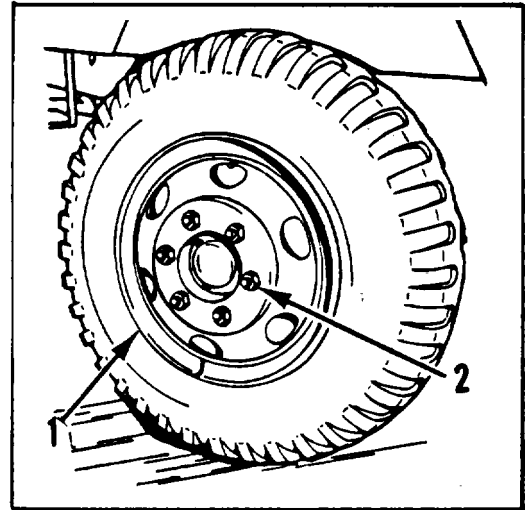
Inspect wheels (1) for looseness.

Tighten wheel stud nuts (2) para 3-7). If still noisy, notify organizational maintenance.

13. WOBBLY WHEELS.

Inspect wheels (1) for looseness.

Tighten wheel stud nuts (2) para 3-7). If still wobbly, notify organizational maintenance.



14. EXCESSIVELY WORN, SCUFFED, OR CUPPED TIRE(S)

Step 1. Check for improper tire pressure.

Inflate tires to correct pressure: highway, 50 psi (344.75 k pa), cross-country, 30 psi (206.85 k pa), soft sand, mud or snow, 20 psi (137.9 k pa).

Step 2. Inspect wheels for looseness.

Tighten wheel stud nuts.

15. AIR LEAKAGE FROM TIRES.

Step 1. Inspect valve core for damage or looseness.

Tighten or replace valve core.

Step 2. Check tire for puncture.

Replace wheel and punctured tire with spare (para 2-22 and 3-7).

Table 3-1. Troubleshooting

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

LEVELING JACK AND LANDING GEAR

16. ERRATIC OPERATION OR BINDING.

Step 1. Check for adequate lubrication.

Lubricate in accordance with lubrication instructions.

Step 2. Visually check for apparent damage to leveling jack and landing gear gear box.

If damaged, notify organizational maintenance.

Section III. MAINTENANCE

3-7. WHEEL AND TIRE

REMOVAL OF WHEEL AND TIRE ASSEMBLY FROM HUB

1. Apply brakes to semitrailer. If semitrailer is attached to towing vehicle, wheels may be locked by disconnecting the emergency air connections.
2. Chock wheels on opposite end of axle from which wheel is to be removed.

3-7. WHEEL AND TIRE (cont)

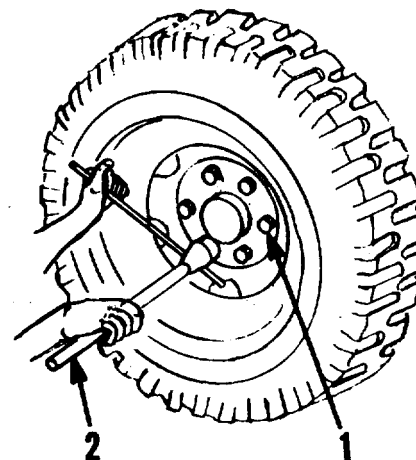
REMOVAL OF WHEEL AND TIRE ASSEMBLY FROM HUB (cont)

NOTE

Outer cap nuts on right side (marked R) have right hand threads and those on left side (marked L) have left hand threads. Nuts must be turned in opposite direction to normal forward rotation of wheel to be loosened or removed.

3. Loosen six outer wheel nuts (1), using wheel nut wrench (2).
4. Jack up semitrailer until wheel clears the ground.
5. Remove wheel nuts and remove wheel.
6. If inner wheel is to be removed, remove inner six cap nuts and inner wheel in same manner.

1. Outer wheel nuts
2. Wrench



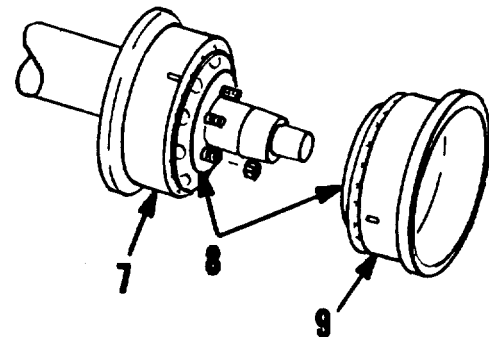
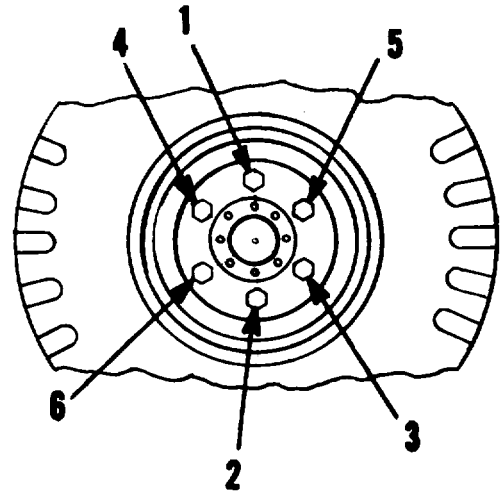
INSTALLATION OF WHEEL AND TIRE ASSEMBLY ON HUB

1. Make certain mounting faces of hub, ball seats and flat mounting surfaces of wheel are clean and free of foreign matter or excess paint.
2. Check to see that threads of studs are clean and not damaged.

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3-7. WHEEL AND TIRE (cont)**INSTALLATION OF WHEEL AND TIRE ASSEMBLY ON HUB (cont)**

3. If removed, mount inner wheel (7) on hub with convex side (8) of wheel facing out. Install inner wheelcap nuts.
4. Tighten nuts securely in the tightening sequence shown.
5. Mount outer wheel (9) on hub, with convex side (8) of wheel facing in and against inner wheel.
6. Make certain valve stem for outer wheel is not aliend with valve stem of inner wheel.
7. Install outer wheel nuts, following same procedure and tightening sequence used with inner wheel nuts.
8. As soon as possible, check with organizational maintenance for a torque of 450-500 lb-ft (610.2678.0 Nm).
9. Inflate tires to 50 psi (344.75 k pa) for highway driving, 3q psi (206.85 k pa) for cross-country driving, and 20 psi (137.9 k pa) for driving in soft sand, mud or snow.
10. Lower semitrailer and stow wheel chocks.



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CHAPTER 4

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

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Section I. REPAIR PARTS,SPECIAL TOOLS;TEST,MEASUREMENT AND**DIAGNOSTIC EQUIPMENT (TMDE);AND SUPPORT EQUIPMENT****4-1. COMMON TOOLS AND EQUIPMENT**

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

4-2. SPECIAL TOOLS, TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT

Special tools are not required for this equipment.

4-3. REPAIR PARTS

Repair parts are listed and illustrated In Appendix F of this manual.

Section II. SERVICE UPON RECEIPT**4-4. GENERAL**

When new, used or reconditioned materiel is first received, it is the responsibility of the officer in charge to determine whether the materiel has been properly prepared for service by the supplying organization and to be sure it is in condition to perform its function. Inspect all assemblies, subassemblies, and accessories to be sure they are properly assembled, secure, clean, and correctly adjusted and/or lubricated. Check all tools and equipment to be sure every item is present, in good condition, clean, and properly mounted or stowed.

4-5. INSPECTING AND SERVICING EQUIPMENT**a. Preliminary Services.****(1) General procedures.**

If exterior surface is coated with rust preventive compound, remove it with cleaning solvent (item 3, appendix E).

4-5. INSPECTING AND SERVICING EQUIPMENT (cont)

- (2) Special procedures.
 - (a) Perform the preventive maintenance checks and services (table 4-1).
 - (b) Lubricate all lubrication points illustrated in the lubrication instructions, regardless of interval.
 - (c) Schedule "S" semiannual preventive maintenance service on DD Form 314 (Preventive Maintenance Schedule and Record).
 - (d) Deficiencies, which appear to involve unsatisfactory design, will be reported in accordance with DA PAM 738-750.
 - (e) Perform a "break in" of 25 miles (40.23 km) at a maximum speed of 30 mph (48.27 kph).
- b. Before-Operation Service. This is a brief service to ascertain that the semitrailer is ready for operation; it is mainly a check to see if conditions affecting the vehicle's readiness have changed since the last after operating service. Refer to Operator\Crew Preventive Maintenance Checks and Services in chapter 2.

Section III. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)**4-6. GENERAL**

To insure that the semitrailer is ready for operation at all times, it must be inspected within designated intervals so that defects may be discovered and corrected before they result in serious damage or failure. Table 4-1 contains a tabulated listing of preventive maintenance checks and services to be performed by organizational maintenance personnel. All deficiencies and shortcomings will be recorded as well as the corrective action taken on DA Form 2404 at the earliest possible opportunity.

4-7. ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES

- a. The item numbers of table 4-1 indicate the sequence of the PMCS. Perform at the intervals shown below:
 - (1) Do your Quarterly (Q) PREVENTIVE MAINTENANCE once each three months.
 - (2) Do your Semiannual (S) PREVENTIVE MAINTENANCE once each six months.

4-7. ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES (cont)

- (3) Do your Annual (A) PREVENTIVE MAINTENANCE once each year.
- (4) Do your Miles (MI) PREVENTIVE MAINTENANCE when the mileage of the semitrailer reaches the amount listed.
 - b. If something doesn't work, troubleshoot it with the instructions in this manual, or notify your supervisor.
 - c. Always do your preventive maintenance in the same order, so it gets to be a habit. Once you've had some practice, you'll spot anything wrong in a hurry.
 - d. If anything looks wrong and you can't fix it, write it down on your DA Form 2404. If you find something seriously wrong, report it to direct support as soon as possible.

WARNING

Cleaning solvent used to clean parts is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 1380 F (58.8° C).

- (1) Keep it clean: Dirt, grease, oil and debris only get in the way and may cover up a serious problem. Clean as you work and as needed. Use cleaning solvent (item 3, appendix E) to clean metal surfaces. Use soap and water when you clean rubber or plastic material.
- (2) Bolts, nuts and screws: Check that they are not loose, missing, bent, or broken. You can't try them all with a tool, of course, but look for chipped paint, bare metal or rust around bolt heads. Tighten any that you find loose.
- (3) Welds: Look for loose or chipped paint, rust or gaps where parts are welded together. If you find a bad weld, report it to direct support.
- (4) Electric wires and connectors: Look for cracked, frayed or broken insulation, bare wires, and loose or broken connections and connectors. Tighten all loose wires and connectors. Replace or repair as required.
- (5) Hoses and fluid lines: Look for wear, damage and leaks. Make sure clamps and fittings are tight. Wet spots show leaks, of course, but a stain around a fitting or connector can mean a leak. If a leak comes from a loose fitting or connector, tighten it. If something is broken or worn out, either correct it or report it to direct support (refer to MAC Chart).

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4-7. ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES (cont)

e. It is necessary for you to know how fluid leaks affect the status of your equipment. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your equipment. Learn and be familiar with them and REMEMBER WHEN IN DOUBT, NOTIFY YOUR SUPERVISOR.

Leakage definition for Organizational PMCS

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

CLASS II Leakage of fluid great enough to form drops but not enough to cause drops to drip from the item being checked/inspected.

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

CAUTION

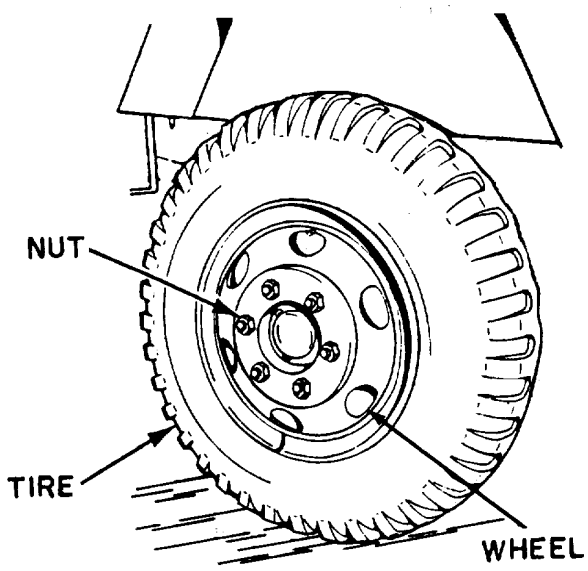
Equipment operation is allowable with minor leakages (Class I or II). Of course, consideration must be given to the fluid capacity in the item/system being checked/inspected. When in doubt, notify your supervisor.

When operating with Class I or Class II leaks, continue to check fluid levels as required in your PMCS. Class III leaks should be reported to your supervisor or direct support.

4-8. SPECIFIC PROCEDURES

Specific procedures for performance of preventive maintenance checks and services are given in table 4-1.

Table 4-1. Organizational Preventive Maintenance Checks and Services
Q- Quarterly S-Semiannually A- Annually MI -Miles

Item No.	Interval				ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	MI	
					<p style="text-align: center;">NOTE</p> <p style="text-align: center;">Perform operator/crew PMCS prior to or in conjunction with organizational PMCS if:</p> <p style="margin-left: 40px;">a. There is a delay between the daily operation of the equipment and the organizational PMCS.</p> <p style="margin-left: 40px;">b. Regular operator is not assisting/participating.</p> <p><u>TIRES</u></p> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> • a. Rotate and match tires every 1,000 miles or semiannually, to tread design and degree of wear to ensure safety and extended tire life. • b. Torque lug nuts to 450-500 lb.-ft. (610.2-678.0 Nm).

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Table 4-1. Organizational Preventive Maintenance Checks and Services (cont)
Q- Quarterly S-Semiannually A- Annually MI -Miles

Item No.	Interval				ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	MI	
2	•				<p><u>VEHICLE EQUIPMENT</u></p> <p>Visually inspect towing/air hose couplings for damaged or loose connections. Repair or replace as required.</p>
3		•			<p><u>AIR-HYDRAULIC SYSTEM</u></p> <p>a. Check all hydraulic lines for leaks, kinks, bends, cracks, and presence of mounting clamps. Replace as required.</p> <div> <p>The diagram shows two intervehicular air hoses. One hose is connected to a vehicle's air system, and the other is a separate hose with a connector. The label 'INTERVEHICULAR AIR HOSES' has an arrow pointing to the hoses.</p> </div> <p>b. (</p> <p>cuts, breaks and damaged connectors. Replace if defective</p>

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Table 4-1. Organizational Preventive Maintenance Checks and Services (cont)
Q- Quarterly S-Semiannually A- Annually MI -Miles

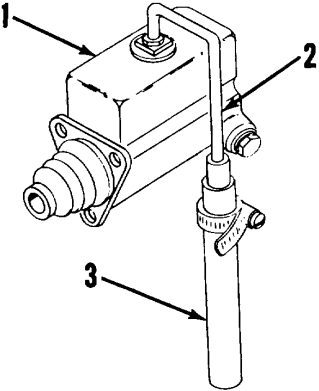
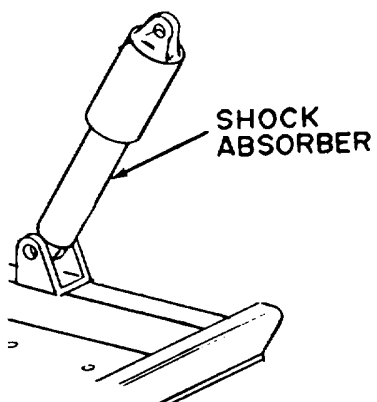
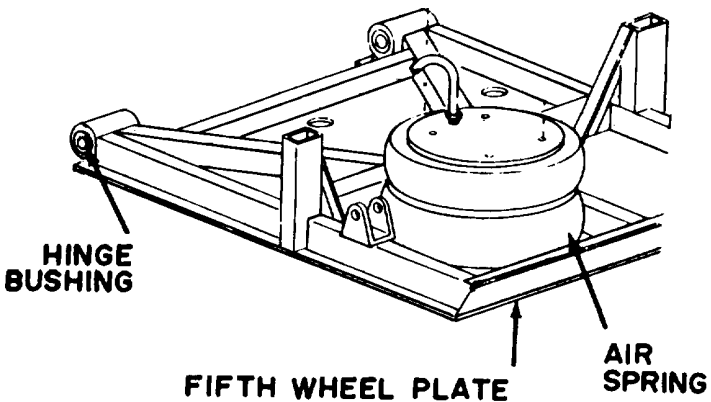
Item No.	Interval				ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	MI	
3					<p>AIR-HYDRAULIC SYSTEM (cont)</p>  <p>c. Check master cylinder (1) for security of mounting, serviceable vent tube (2), vent hose (3) and leaks.</p>
4		•			<p><u>AIR MOUNTED KINGPIN</u></p> <p>a. Check for broken or damaged parts. Replace broken or damages parts as required.</p>  <p>b. Check shock absorbers for oil leakage or worn rubber bushings. Replace as required.</p>

Table 4-1. Organizational Preventive Maintenance Checks and Services (cont)
Q- Quarterly S-Semiannually A- Annually MI -Miles

Item No.	Interval				ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	MI	
4					<p><u>AIR MOUNTED KINGPIN (cont)</u></p>  <p>HINGE BUSHING</p> <p>FIFTH WHEEL PLATE</p> <p>AIR SPRING</p> <p>• Check hinge bushings for excessive wear or deterioration. Replace as required.</p>
5					<p><u>AIR SUSPENSION SYSTEM</u></p> <p>NOTE Minimum air pressure of approximately 65 psi should be maintained when performing these checks.</p> <p>a. Check all nuts, screws, bolts, and air connections for tightness. (See torque table, appendix H).</p> <p>•</p>

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Table 4-1. Organizational Preventive Maintenance Checks and Services (cont)
Q- Quarterly S-Semiannually A- Annually MI -Miles

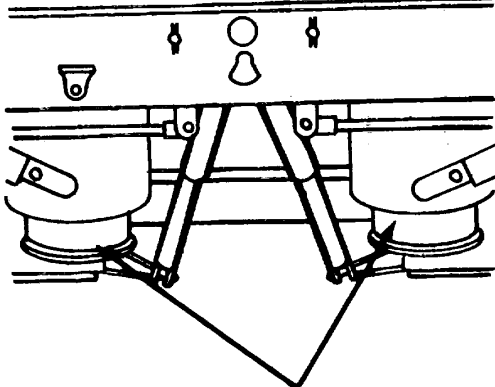
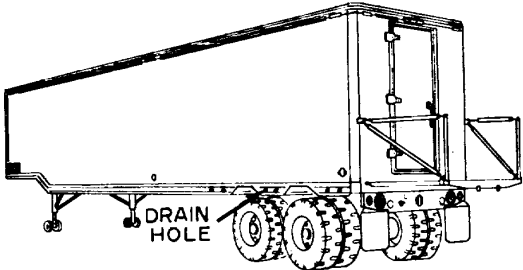
Item No.	Interval				ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	MI	
5					<p><u>AIR SUSPENSION SYSTEM (cont)</u></p>  <p style="text-align: center;">AIR SPRINGS</p> <ul style="list-style-type: none"> • b. Check ride height dimension (14 inches plus or minus 1/8 in.) (35.6 cm) (paragraph 4-34). • c. With rear of semitrailer blocked up until tires clear ground and suspension is fully extended, check that air springs are fully deflated. Adjust height as required (paragraph 4-34). • d. Inspect air spring for damage at connection points. Replace as required. • e. Check shock absorbers for oil leakage or worn rubber bushings. Replace as required.
6				•	<p><u>WHEEL BEARINGS</u></p> <p>Clean wheel bearings and repack in accordance with lubrication instructions.</p>

Table 4-1. Organizational Preventive Maintenance Checks and Services (cont)
Q- Quarterly S-Semiannually A- Annually MI -Miles

Item No.	Interval				ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	MI	
7					<p><u>BRAKES</u></p> <ul style="list-style-type: none"> a Adjust brakes. b If possible, perform a road test of semitrailer. At all times during the test be alert for unusual or excessive noises that may indicate damages, looseness, defects and deficient lubrication. c. Make several stops, noting side pull, noise, chatter or any other unusual condition. d. Disconnect air hoses from towing vehicle and note if semitrailer brakes apply.
8					<p><u>BRAKE DRUMS AND HUBS</u></p> <p style="text-align: center;">WARNING Overheated brake drums and hubs can cause severe burns to personnel when touched.</p> <ul style="list-style-type: none"> • Immediately after road test, cautiously feel brake drums and hubs. <p style="text-align: center;">NOTE An overheated hub and brake drum indicates an improperly adjusted, defective or dry wheel bearing, or dragging brake.</p> <p>An abnormally cool condition indicates an inoperative brake.</p>

Table 4-1. Organizational Preventive Maintenance Checks and Services (cont)
Q- Quarterly S-Semiannually A- Annually MI -Miles

Item No.	Interval				ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	MI	
9					<p><u>CONDENSATION DRAIN HOLES</u></p>  <p>Drain holes are located in rubrail, at base of each body post. Insulation may clog drain holes. Using a wire or rod up to 3/16 in. diameter, periodically ream out drain holes.</p>

Section IV. TROUBLESHOOTING PROCEDURES

4-9. INTRODUCTORY INFORMATION

a. Table 4-2 lists the common malfunctions which you may find during the operation or maintenance of the semitrailer, van, or its components. You should perform the tests/inspections and corrective actions in the order listed.

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

SYMPTOM INDEX

	Troubleshooting Chart Item No	Page
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Air spring flat.....	25	4-33
System deflates rapidly when parked.....	27	4-34
Unlevel condition when fully inflated.....	26	4-34
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Semitrailer leans	20	4-30
Suspension deflates rapidly when parked	21	4-30
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BRAKE SYSTEM		
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Slow brake application or slow release.....	7	4-23
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SYMPTOM INDEX

	Troubleshooting Chart Item No	Page
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ELECTRICAL SYSTEM		
All lights fail to operate	1	4-15
Dim or flickering lights, 24-volt	3	4-18
Directional signals inoperative	4	4-19
One or more lamps will not light	2	4-17
LEVELING JACK		
Jack is hard to operate	16	4-28
Jack shoe will not set on base	17	4-28
SWING-UP LANDING GEAR		
Erratic operation	15	4-28
WHEELS AND HUBS		
Wheel noise	12	4-26
Wheel wobble	13	4-26
Excessively worn, scuffed or cupped tires	14	4-27

Table 4-2. Troubleshooting

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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ELECTRICAL SYSTEM

WARNING

Make sure all electrical power is disconnected before performing any maintenance on the electrical system. Serious injury or death may result if proper precautions are not taken.

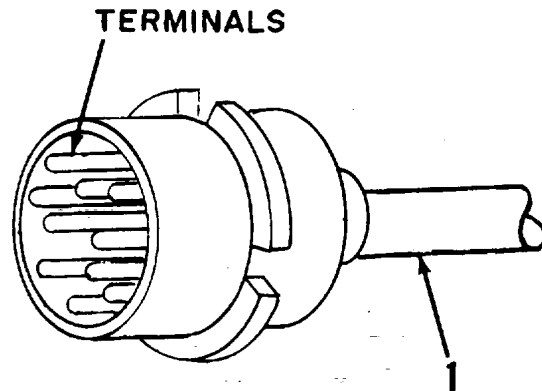
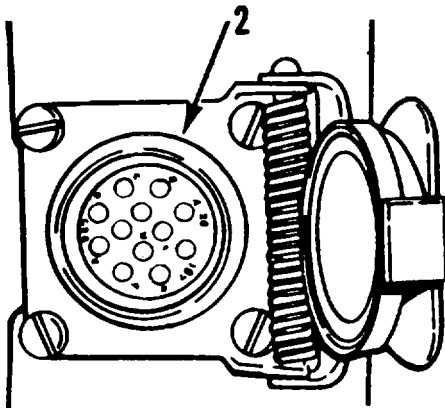
NOTE

The following procedures are applicable to the 12-volt and 24-volt electrical systems.

1. ALL LIGHTS FAIL TO OPERATE

Step 1. Check to see that light switch on towing vehicle is in desired position.

Place towing vehicle light switch in proper mode of operation.



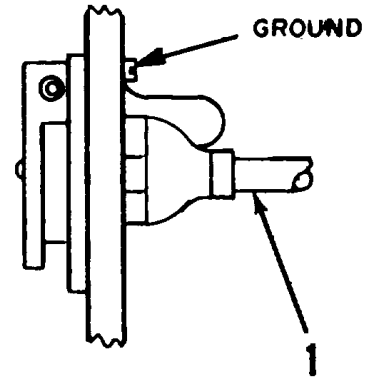
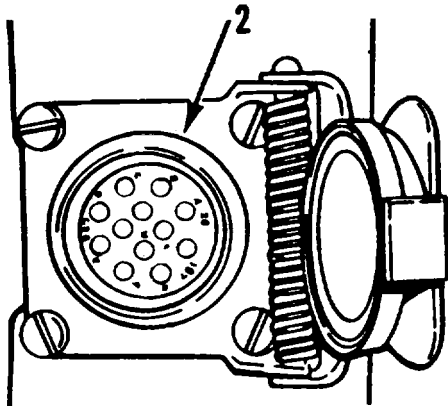
Step 2. Inspect for dirty or corroded terminals in intervehicular cable plug (1).

Clean terminals in plug and receptacle (2).

Table 4-2. Troubleshooting (cont)

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

ELECTRICAL SYSTEM (cont)



Step 3. Inspect intervehicular cable (1) for proper connection to receptacle (2). In all steps, check for good ground connection.

Connect cable properly. Tighten ground.

Step 4. Check to see that current is flowing from towing vehicle.

Use multimeter for voltage check. Place red lead (1) in lamp socket (2), with black lead to ground. Check for proper voltage (12 volts for all lamps except for the 24-volt blackout lamps).

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Table 4-2. Troubleshooting (cont)

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

ELECTRICAL SYSTEM (cont)

WARNING

Make sure power is disconnected.

Step 5. Check wiring harness for short circuit.

Check cable for bare spots. Notify Direct Support if repair is necessary. Make a continuity test of all circuits with a multimeter (refer to wiring diagram, page 4-36).

Step 6. Check light switch on towing vehicle.

Replace light switch on towing vehicle if defective.

Step 7. Check resistor contact points (1).

Clean contact points.

Step 8. Use multimeter and check resistors for rated ohms marked on resistors (refer to wiring diagram, page 4-36).

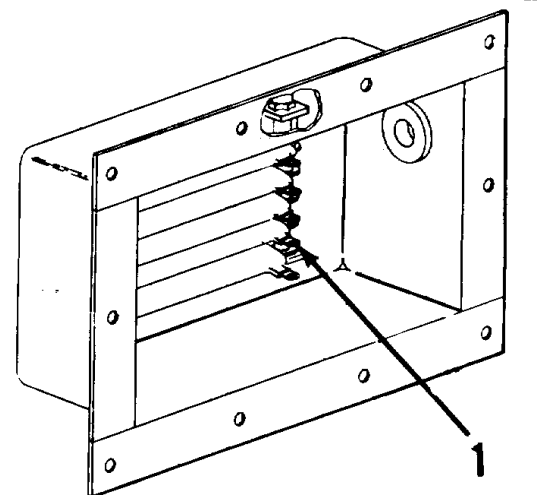
Replace cracked, chipped or defective resistor (para 4-11).

2. ONE OR MORE LAMPS WILL NOT LIGHT

Step 1. Inspect lamps and check for broken or loose wires.

Replace defective lamp. Repair wire breaks at light assembly and tighten all connections (paras 4-13, 4-14, 4-15).

Step 2. Inspect for dirty or corroded cable contacts in sleeves or lamp sockets.



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Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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ELECTRICAL SYSTEM (cont)

Remove lamps and clean contacts (paras 4-13, 4-15).

Step 3. Check for broken or loose connections.
Tighten, repair, or replace as necessary.

Step 4. Check to see if light assembly is defective.
Replace defective light assembly (paras 4-13, 4-14, 4-15).

Step 5. Inspect intervehicular cable for dirty or corroded terminals.
Clean receptacle and plug.

3. DIM OR FLICKERING LIGHTS.

Step 1. Check to see if lamp is defective.
Replace defective lamp (paras 4-13, 4-15).

Step 2. Inspect for poor or loose ground connections.
Clean ground cable terminal and tighten connections.

Step 3. Inspect for loose, dirty, or corroded terminals.
Clean and tighten terminals.

Step 4. Check for dirty or corroded lamp sockets, cable connectors or harness contacts.
Clean as necessary.

Step 5. Check resistor contact points (para 4-11).
Clean contact points.

Step 6. Use multimeter and check resistors for rated ohms marked on resistors (refer to wiring diagram, page 4-36).
Replace cracked, chipped or defective resistor (para 4-11).

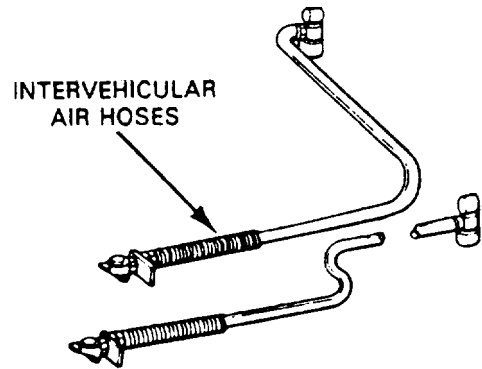
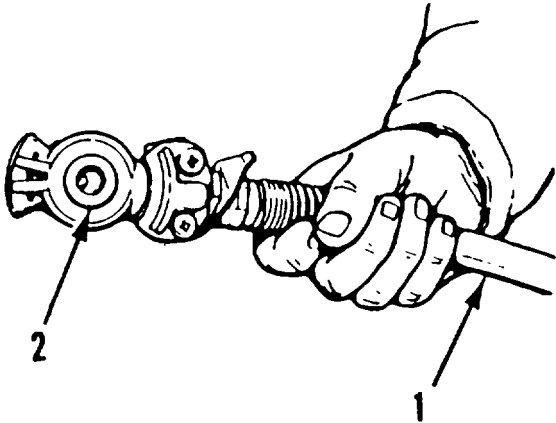
Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
ELECTRICAL SYSTEM (cont)		
4. DIRECTIONAL SIGNALS INOPERATIVE.		
	Step 1. Check for defective flasher or switch in towing vehicle.	Replace defective part. See towing vehicle maintenance manual.
	Step 2. Check for defective lamp.	Replace defective lamp (para 4-15).
	Step 3. Check composite light assembly.	Replace defective light assembly (para 4-15).
	Step 4. Inspect for dirty or corroded lamp sockets or contacts.	Remove lamp (para 4-15) and clean sockets and contacts.
BRAKE SYSTEM		
5. BRAKES WILL NOT RELEASE.		
	Step 1. Check to see if brake on towing vehicle is in applied position.	Release towing vehicle brake.
	Step 2. Check to see if shutoff valves on towing vehicle are in closed position.	Open towing vehicle shutoff valves.
	Step 3. Check to see if air reservoir drain cock is open.	Close air reservoir drain cock.
	Step 4. Check for restrictions in service and emergency air lines, or intervehicular hoses.	Straighten kinks and bends in lines or hoses.

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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BRAKE SYSTEM (cont)



Step 5. Inspect intervehicular air hoses (1) for proper connection and damaged or missing performed packing (2).

- a. Connect hoses (1) properly.
- b. Replace missing or damaged performed packing (see towing vehicle manual).

Step 6. Apply towing vehicle brakes and release. Emergency relay valve should vent brake chamber air through exhaust port when towing vehicle brakes are released.

If brake chamber air is not vented when towing vehicle brakes are released, replace the emergency relay valve (para 4-25).

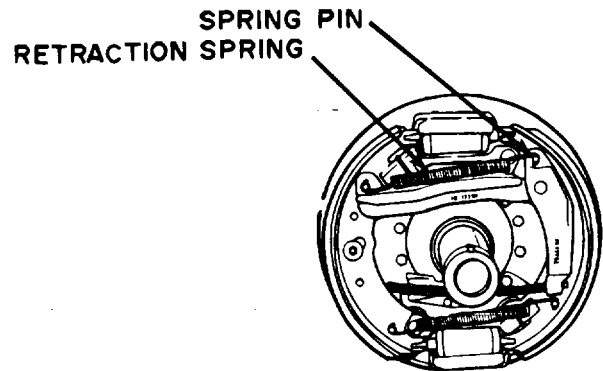
Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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BRAKE SYSTEM (cont)

Step 7. Inspect brake shoe retraction spring to see if spring is weak or broken.

Replace brake shoe retraction spring (para 4-19).



6. NO BRAKES OR WEAK BRAKES

Step 1. Check to see if shut off valves on towing vehicle are closed.

Open shut off valves.

Step 2. Inspect intervehicular air hose for proper connection.

Connect air hose properly.

Step 3. Check to see if semitrailer air reservoir drain cock is open.

Close air reservoir drain cock.

Step 4. Check to see if air pressure is low.

Check air pressure gage on towing vehicle. Remove any restrictions in air lines. Make leakage test. With air hose couplings connected and brake applied. coat couplings, connectors and fittings with soap and water solution. No leaks are permissible.

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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BRAKE SYSTEM (cont)

Step 5. Check to see if brake fluid is low in master cylinder.

Fill master cylinder with brake fluid to one-half inch to three-eighths of an inch below top of reservoir.

Step 6. Check for air in hydraulic brake system.

Bleed hydraulic brake system (para 4-18).

Step 7. Check relay valve for defect.

Perform operating test (para 4-25). Replace relay valve if necessary.

Step 8. Check for leaks in hydraulic system.

Tighten or replace connections.

Step 9. Check to see if brakes are out of adjustment.

Adjust brakes (para 4-17).

Step 10. Inspect for grease or brake fluid on brake lining (1).

Replace brake shoe if lining has grease or brake fluid (para 4-20). Check and replace wheel cylinder, if necessary (para 4-21).

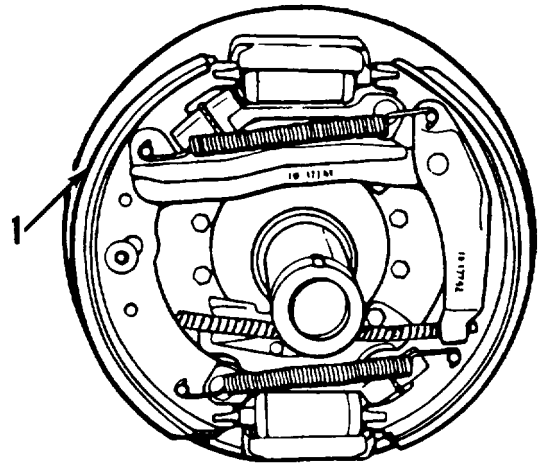


Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
BRAKE SYSTEM (cont)		
Step 11. Check for worn brake linings.		Replace brake shoe if lining is worn to within 1/16 in. of rivet heads (para 4-20).
Step 12. Check for wheel cylinder leaks.		Replace defective wheel cylinder (para 4-21).
Step 13. Check for master cylinder leaks.		Replace defective master cylinder (para 4-23).
7. SLOW BRAKE APPLICATION OR SLOW RELEASE.		
Step 1. Check to see if air pressure is low.		Check air supply. Make leakage test (paras 4-24, 4-25, 4-26, 4-28).
Step 2. Check relay valve.		Perform operating test (para 4-25) and replace if necessary.
Step 3. Check for insufficient brake fluid in master cylinder.		Fill master cylinder with brake fluid until fluid level is one-half to three-eighths of an inch below top of reservoir (para 4-23).
Step 4. Check for air in hydraulic brake system.		Bleed hydraulic brake system (para 4-18).
Step 5. Check for weak or broken brake shoe retraction spring.		Replace spring (para 4-19).
Step 6. Check for wheel cylinder leaks.		Replace defective wheel cylinder (para 4-21).

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
BRAKE SYSTEM (cont)		
Step 7. Check for master cylinder leaks.		Replace defective master cylinder (para 4-23).
8. GRABBING BRAKES		
Step 1. Check relay valve.		Perform operating test (para 4-25). Replace relay valve if necessary.
Step 2. Check to see if brakes are out of adjustment.		Adjust brakes (para 4-17).
Step 3. Check for loose or worn wheel bearings.		Adjust wheel bearings (para 4-30). If they cannot be adjusted properly, replace wheel bearings (para 4-30).
Step 4. Check for air in hydraulic brake system.		Bleed hydraulic brake system (para 4-18).
Step 5. Check for grease on brake lining.		Replace brake shoe (para 4-20). Replace oil seal if necessary (para 4-30).
Step 6. Check for cracked, scored, or deformed brake drum.		Replace defective brake drum (para 4-30).
Step 7. Check for loose or worn brake lining.		Replace brake shoe (para 4-20).

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
BRAKE SYSTEM (cont)		
9. BRAKE DRUM RUNNING HOT.		
	Step 1. Check to see if brakes are adjusted too tightly.	Adjust brakes (para 4-17).
	Step 2. Check for weak or worn brake shoe retraction spring.	Replace defective spring (para 4-19).
	Step 3. Check for deformed brake drum.	Replace deformed brake drum (para 4-30).
10. UNEVEN BRAKING.		
	Step 1. Check to see if brakes are out of adjustment.	Adjust brakes (para 4-17).
	Step 2. Check for grease on brake lining.	Replace brake shoe (para 4-20). Replace oil seal if necessary (para 4-30).
	Step 3. Check for wheel cylinder leaks.	Replace defective wheel cylinder (para 4-21).
11. NOISY BRAKES.		
	Step 1. Check for loose rivets or loose lining.	Replace brake shoe (para 4-20).
	Step 2. Check for grit, rust or metal particles in brake drum.	Clean brake drum and brake components.

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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BRAKE SYSTEM (cont)

Step 3. Check for scored or deformed brake drum.

Replace defective brake drum (para 4-30).-

WHEELS AND HUBS

12. WHEEL NOISE.

Step 1. Check to see if wheel bearings are too tight.

Adjust wheel bearings (para 4-30).

Step 2. Check for worn wheel bearings.

Replace worn wheel bearings (para 4-30).

Step 3. Check for worn brake lining or lining that is too tight against drum.

Adjust brakes or replace brake shoes (paras 4-17, 4-20).

13. WHEEL WOBBLE.

Step 1. Check wheel bearings for wear or damage.

Replace worn or damaged wheel bearings (para 4-30).

Step 2. Check to see if wheel bearings are too loose.

Adjust or replace loose wheel bearings (para 4-30).

Step 3. Check for bent or damaged wheel.

Replace bent or damaged wheel (para 3-7).

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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WHEELS AND HUBS (cont)

14. EXCESSIVELY WORN, SCUFFED OR CUPPED TIRES.

Step 1. Check for improper tire pressure.

Inflate to correct pressure: highway, 50 psi (344.75 k pa); cross-country, 30 psi (206.85 k pa); soft sand, mud or snow, 20 psi (137.9 k pa).

Step 2. Check for loose wheels.

Tighten wheel nuts, Torque to 450-500 lb-ft (610-678 Nm).

Step 3. Check for loose wheel bearings.

Adjust wheel bearings (para 4-30).

Step 4. Check for deformed wheel or rim.

Replace defective wheel (para 3-7).

Step 5. Check for deformed brake drum.

Replace deformed brake drum (para 4-30).

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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SWING-UP LANDING GEAR

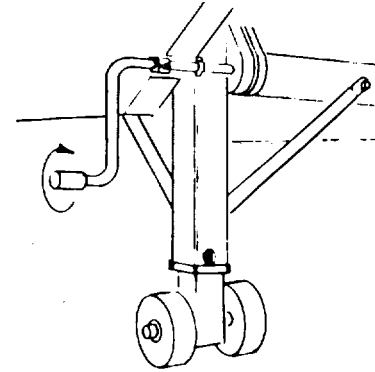
15. ERRATIC OPERATION (BINDING AND GRINDING).

Step 1. Check for grit and dirt on working parts.

Clean working parts.

Step 2. Check operation after cleaning.

Lubricate as required. Replace landing gear if binding persists.



LEVELING JACK

16. JACK IS HARD TO OPERATE.

Step 1. Check lubrication.

Lubricate according to lubrication instructions.

Step 2. Check for bent Jack screw.

Replace leveling jack if jack screw is bent.

Step 3. Check for bent or dented housing.

Replace housing as necessary.

17. JACK SHOE WILL NOT SET ON BASE.

Check jack shoe.

Replace bent jack shoe.

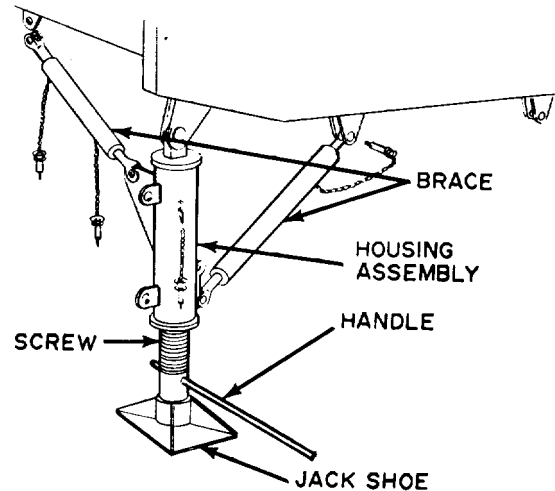
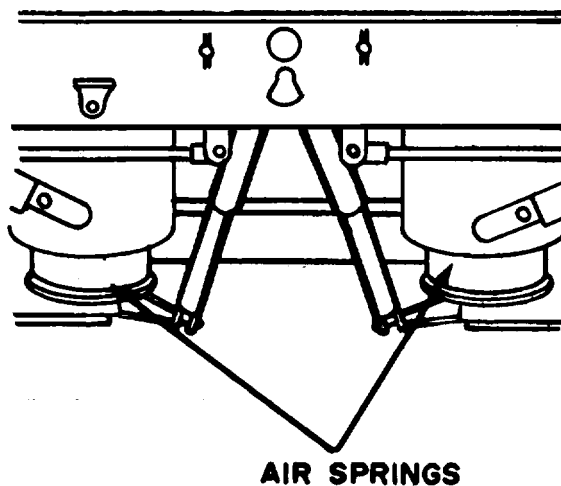
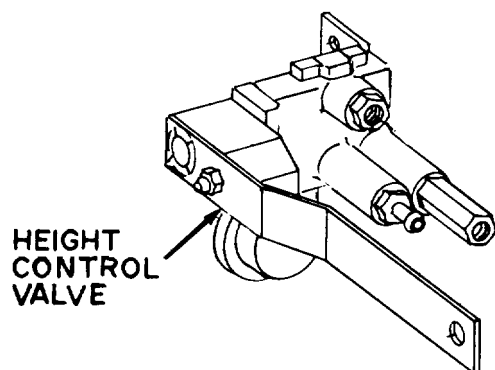


Table 4-2. Troubleshooting (cont)

MALFUNCTION
 TEST OR INSPECTION
 CORRECTIVE ACTION

AIR SUSPENSION SYSTEM

18. ALL AIR SPRINGS ARE FLAT.
 Step 1. Check for sufficient air pressure.
 Build up towing vehicle air pressure to 65 psi (para 2-9).
 Step 2. Check for poor coupling connection.
 Connect coupling properly (para 2-9).
 Step 3. Check air lines for breaks or leaks.
 Repair or replace.
19. AIR SPRINGS FLAT ON ONE SIDE OF TRAILER ONLY.



- Step 1. Check height control valve adjustment.
 Adjust valve to proper dimensions (para 4-34).

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Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
AIR SUSPENSION SYSTEM (cont)		
	Step 2.	Check air spring for severe leak or blowout. Replace air spring (para 4-34)
	Step 3.	Check height control valve for defect. Replace defective height control valve.
	Step 4.	Check height control valve linkage for breaks or bends. Repair or replace linkage.
	Step 5.	Check air line for leak or break. Repair leak or replace line.
20.	SEMITRAILER LEANS.	
	Step 1.	Check height control valve adjustment or malfunction. Adjust or replace height control valve.
	Step 2.	Check air spring for severe leak or blowout. Replace air spring (para 4-34)
	Step 3.	Check air lines for leaks. Repair air line leaks.
21.	SUSPENSION DEFLATES RAPIDLY WHEN PARKED.	
	Step 1.	Check air lines for leaks. Locate and repair leaks.
	Step 2.	Check air spring for leaks or wear. Replace air spring if defective (para 4-34)

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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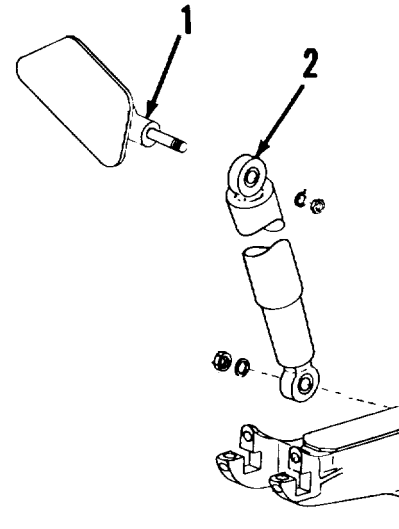
AIR SUSPENSION SYSTEM (cont)

22. AIR SPRING BLOWN OUT.

- Step 1. Check for excessive wear, puncture or cut.
Replace air spring (para 4-34)
- Step 2. Check if tires or rims are rubbing against air spring.
Align wheels properly.

Step 3. Check for continual or repeated overextension of air spring.

Adjust height control valve.
Replace shock absorber (2) if broken; or replace broken upper shock mount bracket (1) (para 4-34).



Step 4. Check for proper adjustment of height control valve.
Adjust height control valve (para 4-34).

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Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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AIR SUSPENSION SYSTEM (cont)

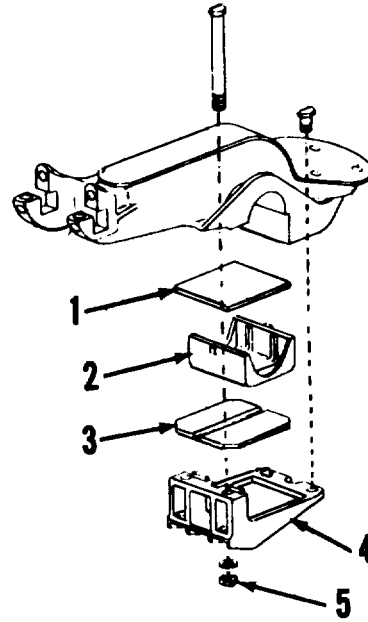
23. TORSION BAR BREAKAGE.

Step 1. Check adjustment of height control valves.
Readjust height control valves (para 4-34).

Step 2. Check axle connections for looseness.

Tighten nuts (5) to a torque of 200 lb-ft (271.2 Nm).

1. Rubber wrapper
2. Axle adapter
3. Rubber pad
4. Axle cap
5. Nut



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Table 4-2. Troubleshooting (cont)

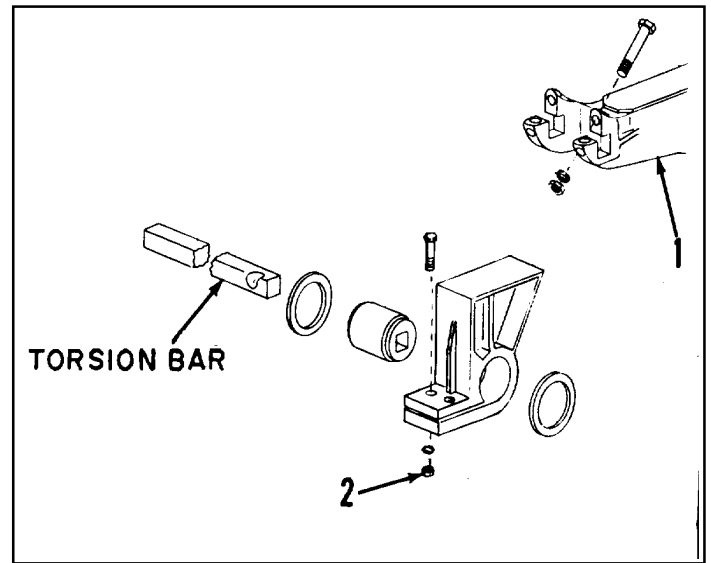
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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AIR SUSPENSION SYSTEM (cont)

24. WEAR OF TORSION BAR RUBBER BUSHING.

Check bushing (3) for excessive wear or twisting.

Loosen nuts (2) and retighten with equalizing arms (1) at normal ride position.



AIR MOUNTED FIFTH WHEEL KINGPIN

25. AIR SPRINGS FLAT.

- Step 1. Check air pressure of system.
Build up towing vehicle air pressure to 65 psi.
- Step 2. Check for poor coupling connection.
Connect coupling properly (para 2-9)
- Step 3. Check air lines for leaks or breaks.
Repair leak or replace air line.

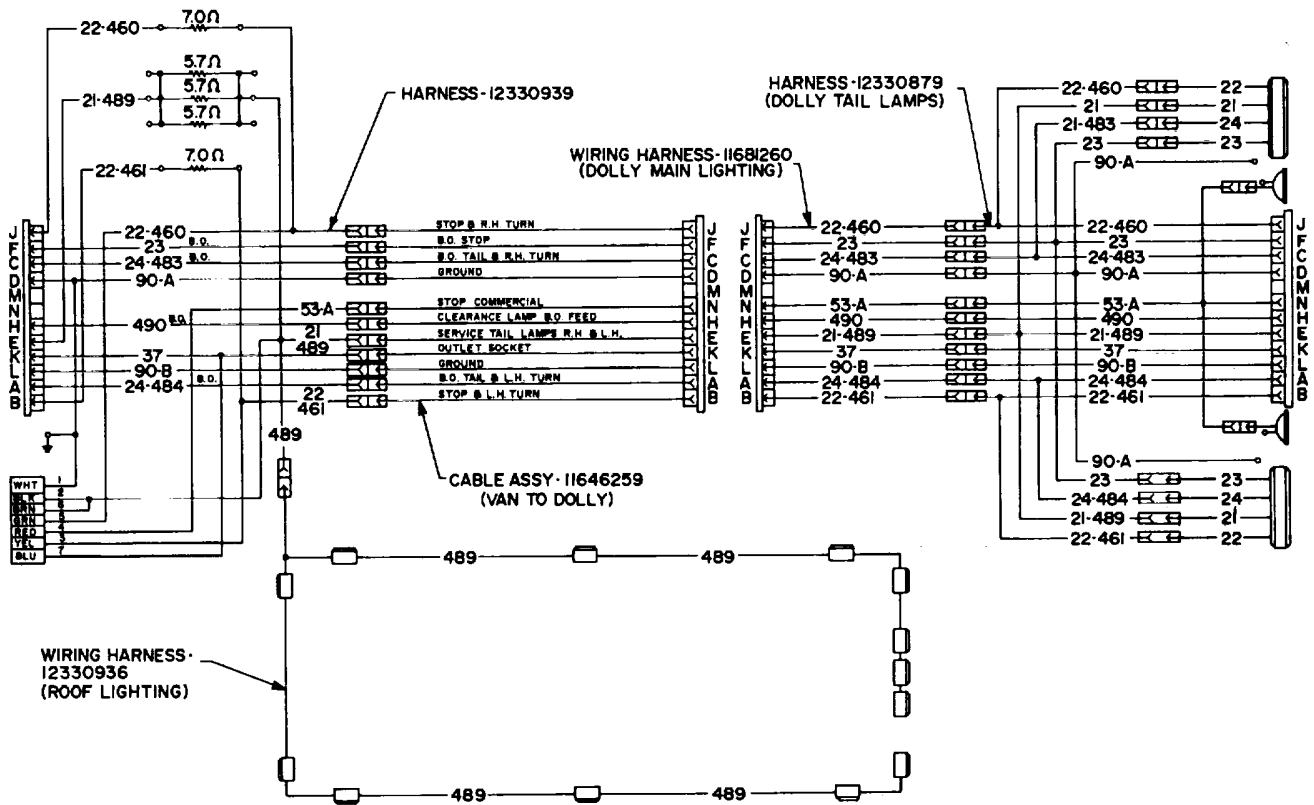
TA 314757

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
AIR MOUNTED FIFTH WHEEL KINGPIN (cont)		
26.	UNLEVEL CONDITION WHEN FULLY INFLATED.	
	Step 1. Check air spring for blowout or leaks.	Replace defective air spring (para 4-35)
	Step 2. Check air lines for leaks or breaks.	Repair leak or replace air line.
27.	SYSTEM DEFLATES RAPIDLY WHEN PARKED.	
	Step 1. Check air lines for leaks or breaks.	Repair leak or replace air line.
	Step 2. Check air spring for leaks.	Replace defective air spring (para 4-35)
28.	AIR SPRING BLOWN OUT.	
	Step 1. Check air spring for wear cuts and punctures.	Replace defective air spring (para 4-35)
	Step 2. Check if semitrailer operated extensively with low or no air in springs.	Isolate and correct condition. Replace air spring (para 4-35).
	Step 3. Check for continual or repeated overextension of air spring.	Adjust height control valve (para 4-35) or replace shock absorber if broken (para 4-35)

Table 4-2. Troubleshooting (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
DOORS		
29.	DIFFICULTY IN LOCKING OR UNLOCKING DOORS.	
	Step 1.	Check handle door lock, bolt slide fasteners and striker plates for rust and corrosion (para 4-38) Clean and lubricate.
	Step 2.	Check if door is hard to lock. Add shim stock as required under handle door lock and (or) bolt slide fastener guides (para 4-38)
	Step 3.	Check for a good weather tight seal when door is in closed and locked position.
	a.	Add shim stock as required under striker plate of bolt slide fasteners.
	b.	Replace defective lock assembly (para 4-38).
30.	DOOR HINGES DO NOT OPERATE PROPERLY.	
	Step 1.	Check for rust on hinge pin. Remove rust and lubricate.
	Step 2.	Check for cracked or broken hinge. Replace defective hinge (para 4-38)
31.	R.F.I. SHIELDING DOES NOT PROVIDE A GOOD BOND.	
		Check for dust, grime and dirt in door opening. Clean, wash and dry (para 4-38).



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Section V. ELECTRICAL SYSTEM MAINTENANCE PROCEDURES

WARNING

Make sure all electrical power is disconnected before performing any maintenance on the electrical system. Serious injury or death may result if proper precautions are not taken.

4-10. GENERAL

1. The XM971E2 and XM971E3 semitrailers are equipped with two intervehicular cable receptacles, located at the front of the van body.
2. The 12-pin, 24-volt receptacle is located at the center, and the 7-pin, 12-volt receptacle is located to the right of the 24-volt receptacle.
3. A resistor assembly makes it possible to use a towing vehicle with either a 12-volt or a 24-volt electrical system.
4. Refer to semitrailer wiring diagram (page 4-36) before connecting any disconnected wires.

4-11. RESISTOR ASSEMBLY

THIS TASK COVERS

- a. Removal of resistor
- b. Inspection of resistor
- c. Installation of resistor

**Troubleshooting Reference
Item No.**

1. All lights fail to operate
3. Dim or flickering lights

Test Equipment:

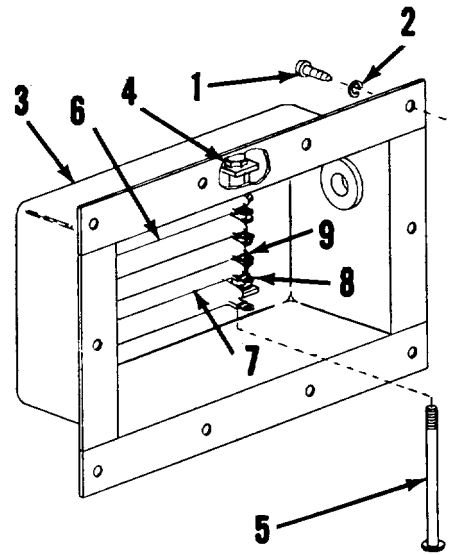
Multimeter Personnel Required: 1

TA 314815

4-11. RESISTOR ASSEMBLY (cont)

REMOVAL OF RESISTOR

1. Disconnect power source.
2. Remove ten screws (1) and washers (2) securing housing (3).
3. Remove two nuts (4) and screws (5) securing resistors (6) and (7).
4. The two 7-ohm resistors (6) may be removed individually. Disconnect and tag wires. Remove resistors.
5. The three 5.7-ohm resistors (7) are interconnected by jumper wires (9). Tag and disconnect wires and remove resistors as a unit.



INSPECTION

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Check resistor contact points (8) for cleanliness. Clean as required. 2. Using a multimeter, check resistors for rated ohms marked on front of resistor (refer to wiring diagram, page 4-36). 3. Replace cracked, chipped or defective resistor. | <ol style="list-style-type: none"> 1. Screw 2. Washer 3. Housing 4. Nut 5. Screw 6. 7-ohm resistor 7. 5.7-ohm resistor 8. Contact point 9. Jumper wire |
|---|---|

INSTALLATION OF RESISTOR

1. Replace 7-ohm resistor (6) by connecting disconnected wires and securing with screws (5) and nuts (4).
2. Position 5.7-ohm resistors (7) and solder all jumper wire (9) connections.
3. Connect all disconnected wires and secure in place with screws (5) and nuts (4).
4. Using multimeter, check resistors for rated ohms marked on front of resistors (refer to wiring diagram, page 4-36).
5. Position housing (3) and secure with ten screws (1) and washers (2).

4-12. INTERVEHICULAR CABLE RECEPTACLE

THIS TASK COVERS

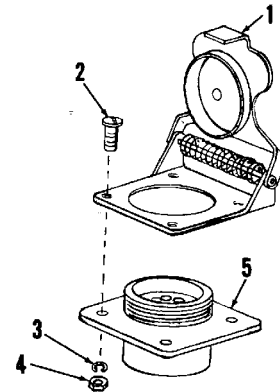
- a. Removal of 24-volt receptacle
- b. Cleaning and inspection
- c. Installation of 24-volt receptacle
- d. Removal of 12-volt receptacle
- e. Installation of 12-volt receptacle
- f. Removal of main harness receptacle
- g. Cleaning and inspection
- h. Installation of main harness receptacle.

Test Equipment Required: Multimeter

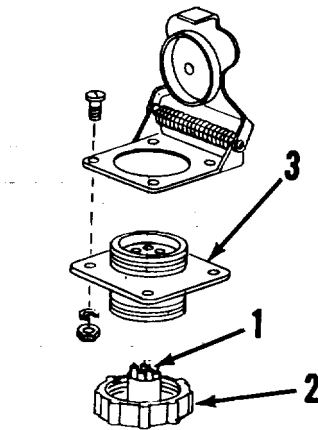
Personnel Required: 1

REMOVAL OF 24-VOLT RECEPTACLE

- 1. Disconnect power source.
- 2. Remove four nuts (4), washers (3) and screws (2) securing receptacle (5) and cover (1) to chassis frame.
- 3. Remove cover and receptacle.
 - 1. Cover
 - 2. Screw
 - 3. Washer
 - 4. Nut
 - 5. Receptacle



- 4. Remove nut (2) from rear of receptacle (4) and slide nut back over the wires (1).
- 1. Wires
 - 2. Nut
 - 3. Receptacle

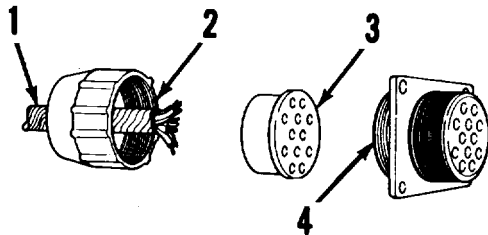


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14-12. INTERVEHICULAR CABLE RECEPTACLE (cont)

REMOVAL OF 24-VOLT RECEPTACLE (cont)

- | | |
|--|--|
| <ol style="list-style-type: none"> 5. Mark and unsolder wires at rear of receptacle (4). 6. Remove rubber bushing (3) from receptacle (4) and slide bushing back over wires (1). | <ol style="list-style-type: none"> 1. Wires 2. Nut 3. Rubber bushing 4. Receptacle |
|--|--|



CLEANING AND INSPECTION

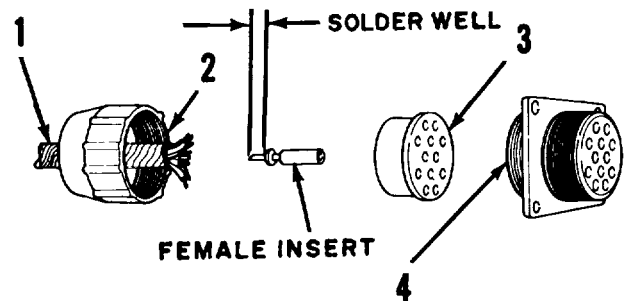
WARNING

Cleaning solvent, used to clean parts is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 1380F (58.80C).

1. Clean all parts with cleaning solvent (item 3, appendix E).
2. Inspect for cracks, breaks or other damage.
3. Replace defective parts.

INSTALLATION OF 24-VOLT RECEPTACLE

1. Insert bushing (3) over wires (1).
2. Solder wires (1) to terminals at rear of receptacle (refer to wiring diagram, page 4-36).
3. Slide nut (2) over wires (1) and bushing (3) to rear of receptacle (4). Tighten nut.



- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Wires 2. Nut | <ol style="list-style-type: none"> 3. Bushing 4. Receptacle |
|--|---|

14-12. INTERVEHICULAR CABLE RECEPTACLE (cont)

INSTALLATION OF 24-VOLT RECEPTACLE (cont) I

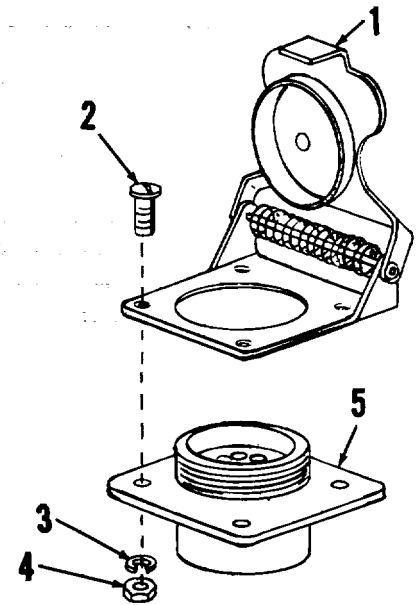
4. Make certain power source is disconnected and make a continuity check of all circuits throughout semitrailer, using a multimeter.
5. Wrap exposed wires and nut with tape, leaving ground wire (with lug) exposed for later installation (step 7 below).
6. Insert ground wire and receptacle into hole in front of chassis. Place cover assembly over receptacle flange, with center line of cover hinge 90 from center line of-semitrailer body.

NOTE

Receptacle key must be next to cover hinge.

7. Aline holes in cover (1) and receptacle (5) with holes in chassis and secure with four screws (2), washers (3) and nuts (4), with ground lug secured to chassis by one of the washers and nuts.
8. Connect power source.

1. Cover
2. Screw
3. Washer
4. Nut
5. Receptacle



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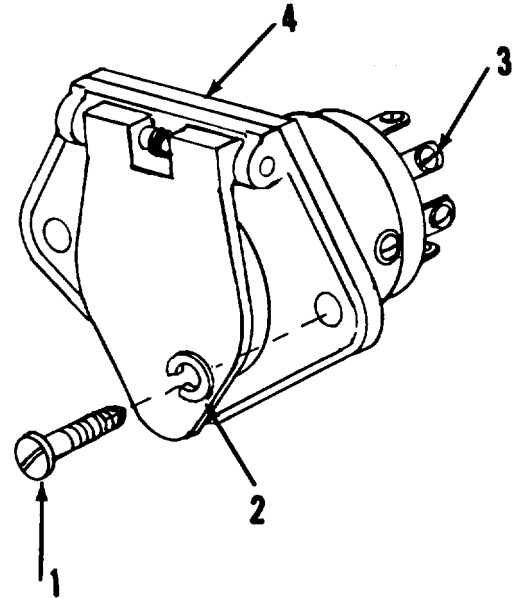
4-12. INTERVEHICULAR CABLE RECEPTACLE (cont)

REMOVAL OF 12-VOLT RECEPTACLE

1. Disconnect power source.
2. Remove two screws (1) and washers (2) securing receptacle (4). Re- move receptacle.
3. Loosen screws (3) securing each wire. Tag and remove wires from rear of receptacle.

INSTALLATION OF 12-VOLT RECEPTACLE

1. Clean and inspect receptacle in accordance with the procedure for the 24-volt receptacle (page 4-40), 2. Insert each wire into its proper position at rear of receptacle (refer to wiring diagram, page 4-36) and secure with screws (3).



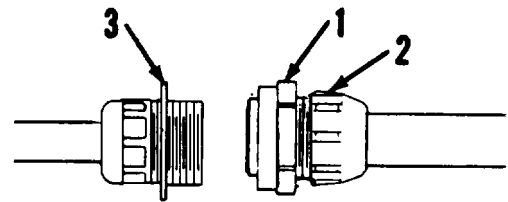
3. Position receptacle (4) and secure with two screws (1) and washers (2).
4. Connect power source.

1. Screw
2. Washer
3. Screw
4. Receptacle

MAIN HARNESS RECEPTACLE

REMOVAL

1. Loosen nut (1) securing dolly harness receptacle (2) to main harness receptacle (3).
2. Pull dolly harness receptacle (2) outward and away from main harness receptacle (3) to separate the two receptacles.



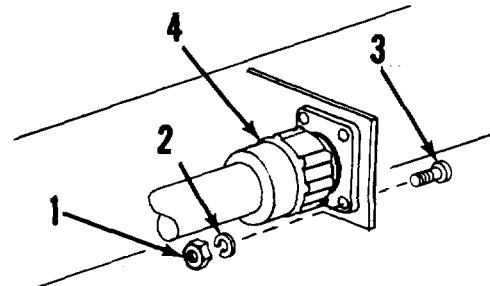
1. Nut
2. Dolly harness receptacle
3. Main harness receptacle

TA 314763

MAIN HARNESS RECEPTACLE (cont)

REMOVAL (cont) I

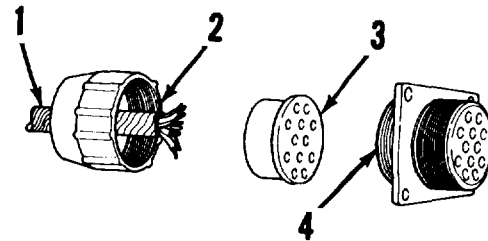
3. Remove four nuts (1), washers (2) and screws (3) securing main harness receptacle (4) to chassis.



1. Nut
2. Washer

3. Screw
4. Main harness receptacle

4. Remove all tape at rear of receptacle (4) to expose wires and bushing retainer nut (2).
5. Remove nut (2) from receptacle (4) and slide nut back over wiring harness (1).
6. Remove rubber bushing (3) from receptacle (4) and slide bush-



ing back over harness (1) to expose solder connections.

3. Bushing
7. Mark and unsolder wires at rear of receptacle (4).

1. Harness
2. Nut
4. Receptacle

CLEANING AND INSPECTION

WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 158 F (58.80C).

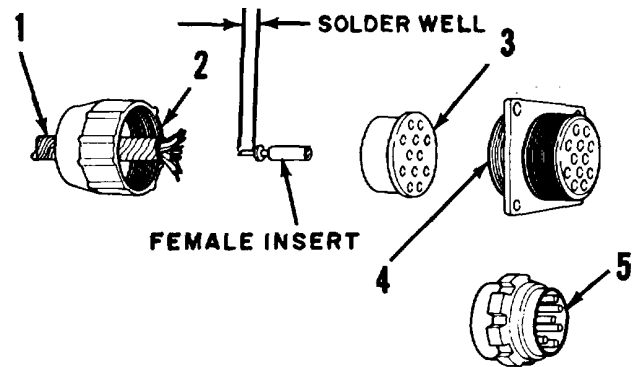
1. Clean all parts with cleaning solvent (item 3, appendix E).
2. Inspect for cracks, breaks or other damage.
3. Replace defective parts.

TA 314764

MAIN HARNESS RECEPTACLE (cont)

INSTALLATION

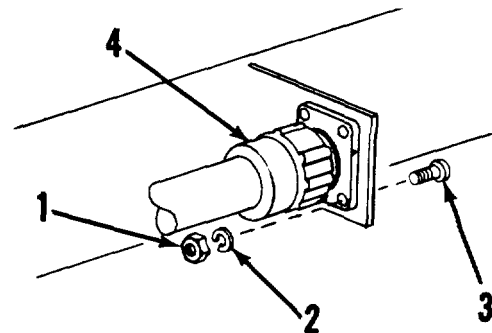
1. Slide rubber bushing (3) over wires (1).
2. Solder wires to terminals at rear of receptacle (refer to wiring diagram, page 4-36).
3. Slide nut (2) over wires (1) and bushing (3) to rear of receptacle (4). Tighten nut (2).



1. Wires
2. Nut
3. Bushing
4. Receptacle

4. Make certain power source is disconnected and make a continuity check of all circuits throughout semitrailer, using multimeter.
5. Wrap exposed wire and nut with tape.
6. Insert receptacle into hole in chassis.

7. Aline holes in receptacle plate (4) with holes in chassis.
8. Secure receptacle (4) with four screws (3), washers (2) and nuts (1).

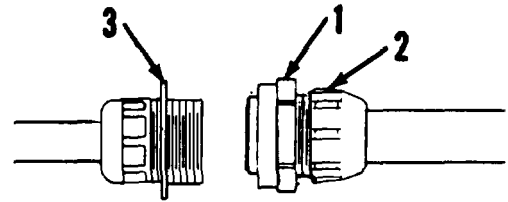


1. Nut
2. Washer
3. Screw
4. Main harness receptacle

MAIN HARNESS RECEPTACLE (cont)

INSTALLATION (cont)

9. Connect dolly harness receptacle (2) to main harness receptacle (3) and secure with nut (1).
1. Nut
2. Dolly harness receptacle
3. Main harness receptacle



4-13. MARKER CLEARANCE LIGHT

THIS TASK COVERS

- a. Lamp replacement
- b. Removal
- c. Cleaning and inspection
- d. Installation

Troubleshooting Reference
Item No.

3. Dim or flickering lights

Test Equipment Required:

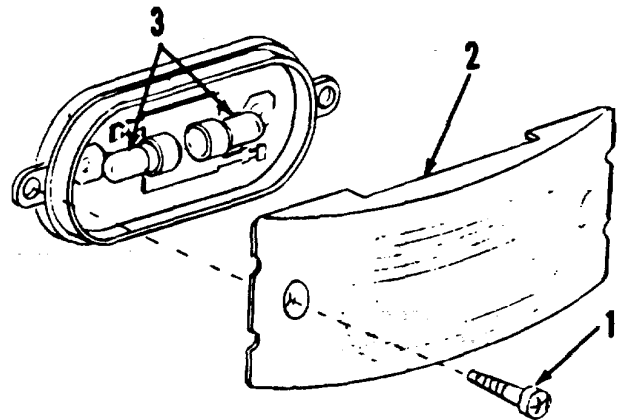
None Personnel Required: 1

LAMP REPLACEMENT

NOTE

All semitrailer running lights are controlled by the electrical system of the towing vehicle. A master switch on the towing vehicle controls the service and blackout modes of operation of the lights. Place this switch in the proper position prior to testing the lamps after installation. Lamps will not light if towing vehicle switch is in the OFF position.

1. Remove two screws (1) securing lens (2). Remove lens.
2. Push in on lamp (3), turning counterclockwise to remove from socket.
3. Insert new lamp (3) into socket. Press in and turn clockwise.
4. Test lamp by turning on switch in towing vehicle.



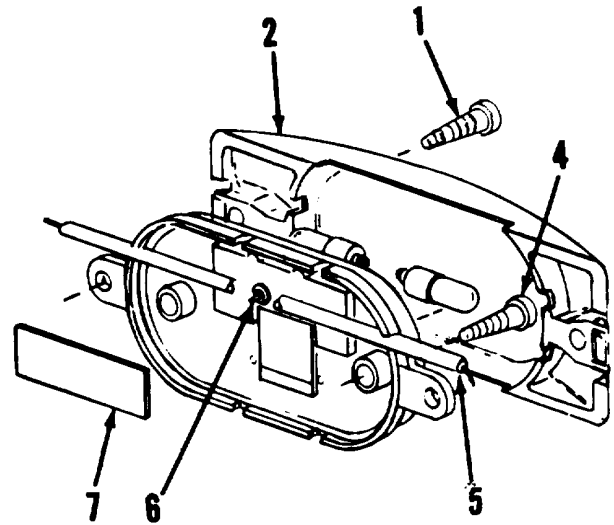
5. Position lens (2) on light and secure with two screws (1).

1. Screw
2. Lens
3. Lamp

TA 314766

4-13. MARKER CLEARANCE LIGHT (cont)**REMOVAL**

1. Remove two screws (1) and remove lens (2).
2. Remove two screws (4) securing light.
3. Remove insert (7) from rear of light body.
4. Pull wire (5) away from contact points (6) and remove light.



- | | |
|----------|-------------------|
| 1. Screw | 5. Wire |
| 2. Lens | 6. Contact points |
| 4. Screw | 7. Insert |

CLEANING AND INSPECTION**WARNING**

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 158 F (58.8 C).

1. Clean all parts, except rubber items or gaskets, with cleaning solvent (item 3, appendix E).
2. Inspect body for cracks, warpage, cracked or broken lens, or evidence of leakage.
3. Make sure all parts are in good condition and will make good electrical contact and watertight connections.

INSTALLATION

1. Place wire (5) over two contact points (6) on rear of light.
2. Position insert (7) and press down to compress wire against contact points and provide electrical contact.
3. Secure light with two screws (4).
4. Position lens (2) and secure with two screws (1).

TA 314767

4-14. STOP LIGHT

THIS TASK COVERS

- a. Removal
- b. Installation

Troubleshooting Reference
Item No.

- 1. All lights fail to operate
- 2. Dim or flickering lights
- 3. Directional signals inoperative

Test Equipment Required: None

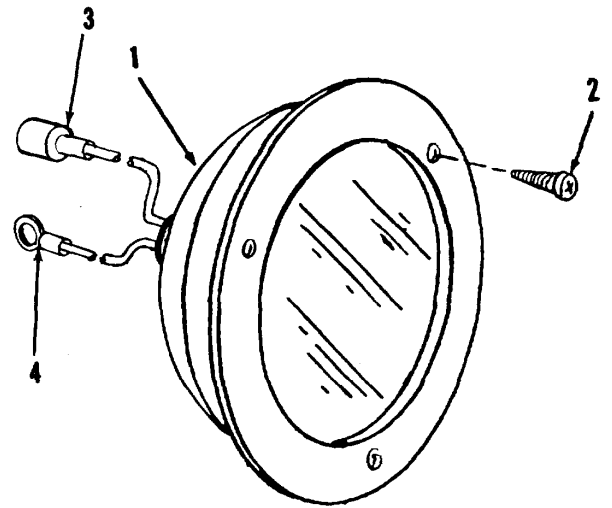
Personnel Required: 1

REMOVAL

- 1. Disconnect electrical connector (3) and ground wire (4) at rear of light.
- 2. Remove three screws (1) securing light (2). Replace defective light (2).

INSTALLATION

- 1. Position light (2) and secure with three screws (1).
- 2. Connect electrical connector (3) and ground wire (4).
- 3. Test light by turning on switch



in towing vehicle and depressing
brake pedal.

- 1. Screw
- 2. Light
- 3. Connector
- 4. Ground wire

4-15. COMPOSITE STOPLIGHT TAILLIGHT

THIS TASK COVERS

- | | |
|---------------------|-------------------------------------|
| a. Removal | Troubleshooting Reference |
| b. Lamp replacement | Item No. |
| c. Cleaning | 1. All lights fail to operate |
| d. Inspection | 2. One or more lamps will not light |
| e. Assembly | 3. Dim or flickering lights |
| f. Installation | 4. Directional signals inoperative |

Test Equipment Required: None

Personnel Required: 1

TA 314768

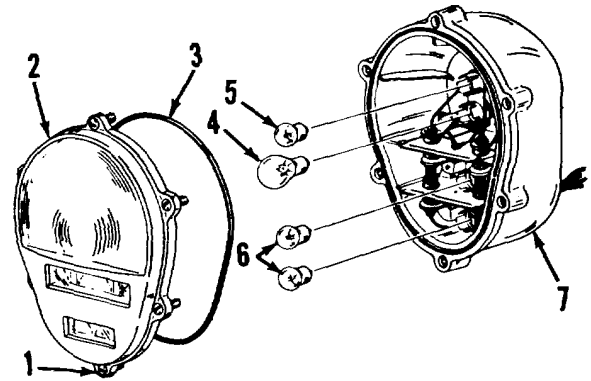
4-15. COMPOSITE STOPLIGHT TAILLIGHT (cont)

REMOVAL

1. Tag and disconnect four connectors (6) from harness connectors and ground wire (8) from chassis.
2. Reach behind dolly frame and remove two screws (5) and lock washers (4) securing light assembly to mounting channel in dolly crossmember. Remove light.

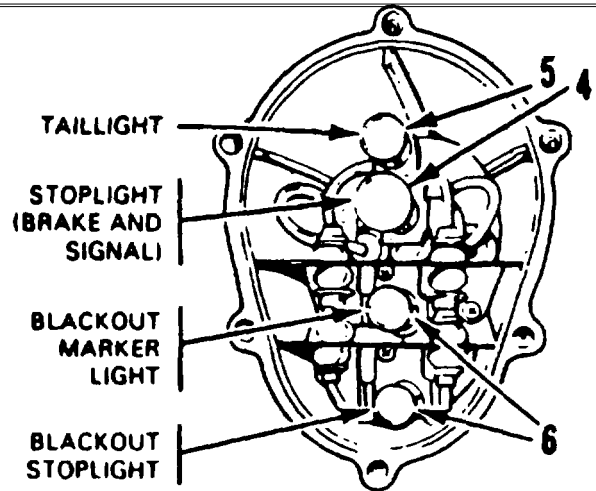
LAMP REPLACEMENT

1. Loosen six retaining screws (1) on lens assembly (2).
2. Remove lens assembly (2) with attached preformed packing (3).
3. Push in on lamp (4, 5, or 6) and turn counterclockwise to remove.
4. Insert lamp (4, 5, or 6) in socket socket, push in and turn clockwise.



- | | |
|------------------|----------------|
| 1. Screw | 5. Lamp |
| 2. Lens assembly | 6. Lamp |
| 3. Packing | 7. Body |
| 4. Lamp | 8. Ground wire |

5. Test lamps as follows: Turn service switch on towing vehicle to ON position to test service tail lamp (5).
6. Operate brake pedal on towing vehicle to test stoplight lamp (4).
7. Operate turn signal lever in towing vehicle to test operation of turn signal lamp (4).
8. Test blackout lamp (6) by placing towing vehicle switch in BLACKOUT mode of operation and then operating the proper switch, brake pedal, or turn signal lever



TA 314769

4-15. COMPOSITE STOPLIGHT TAILLIGHT (cont) 1

CLEANING

CAUTION

Do not use cleaning solvent. It will damage the body of the light.

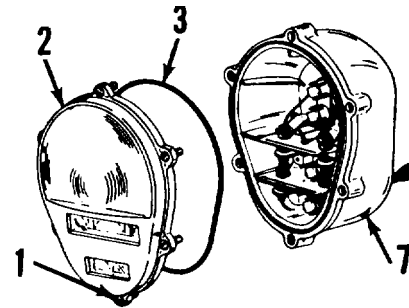
1. Clean exterior of light, using clean water and soap solution.
2. Clean interior of body and lens assembly, using clean water and soap solution. Dry thoroughly.

INSPECTION

1. Inspect preformed packing and replace if damaged.
2. Inspect lens assembly for cracks, warpage, or broken lens. Replace lens assembly if defective.
3. Inspect wiring and sockets. Replace light assembly if defective.

ASSEMBLY

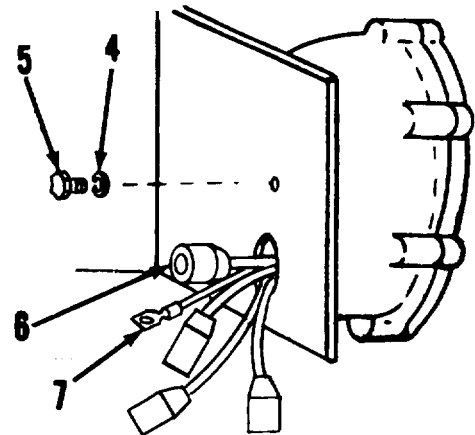
1. Position preformed packing (3) and lens assembly (2) on body (7).
2. Secure with six captive screws (1).



- | | |
|------------------|------------|
| 1. Screw | 3. Packing |
| 2. Lens assembly | 7. Body |

INSTALLATION

1. Position light assembly on mounting channel and secure with two screws (5) and lock washers (4).
2. Connect four connectors (6) to harness connectors and connect ground wire (7) to chassis.
3. Test operation of light. Operate turn signal lever in towing vehicle to test operation of turn signal lamp.



- | | |
|--|----------------|
| 4. Test blackout lamp by placing towing vehicle switch in BLACKOUT mode and then operating the proper switch, brake pedal and turn signal lever. | 4. Lock washer |
| | 5. Screw |
| | 6. Connector |
| | 7. Ground wire |

TA 314770

Section VI. BRAKE SYSTEM MAINTENANCE PROCEDURES

4-16. GENERAL

The following paragraphs cover procedures for removal, disassembly, assembly and installation of brake shoe assembly, wheel cylinder assembly, master cylinder assembly, brake air chamber assembly, relay valve, hydraulic lines and air lines. These paragraphs also cover brake adjustment, bleeding the hydraulic brake system, cleaning, inspection and repair of hydraulic lines and air lines.

The service brakes are air-over-hydraulic type with automatic break-away protection. When the semitrailer brake system is properly connected to the service brake system of the towing vehicle, the towing vehicle brake pedal operates the brakes on both vehicles.

4-17. BRAKE ADJUSTMENT

THIS TASK COVERS

Brake adjustment

Troubleshooting Reference

Item No.

- 6. No brakes or weak brakes
- 8. Grabbing brakes
- 9. Brake drum running hot
- 10. Uneven braking

Test Equipment Required: None

Personnel Required: 1

WARNING

Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.

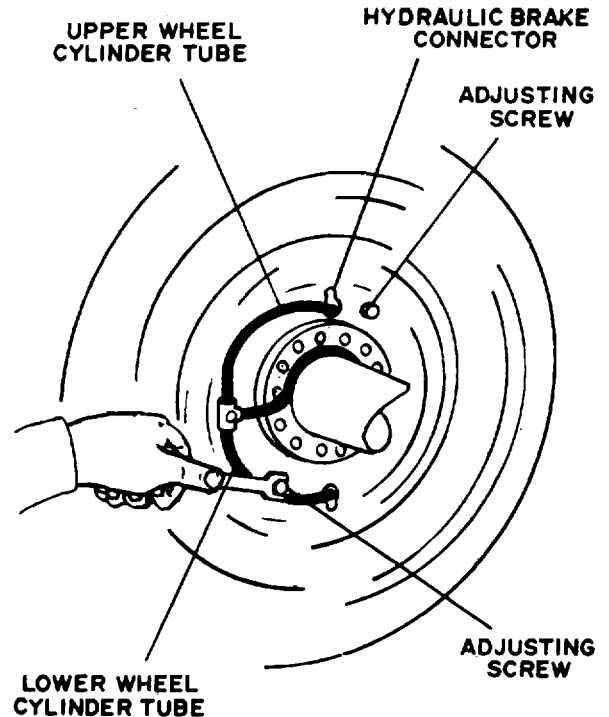
1. Release pressure from braking system by opening drain cock on air reservoir.
2. Place Jack under axle and raise rear of semitrailer until tires clear ground.

TA 314771

4-17. BRAKE ADJUSTMENT (cont)**NOTE**

Try to laterally rock wheel, hub and brake drum assembly on axle spindle. If rocking condition exists; adjust wheel bearings (para 4-30) before making brake adjustment.

3. The upper brake shoe adjusting screw is located at top rear face of brake backing plate. Turn screw clockwise until brakes drag slightly when wheel or drum is turned by hand.
4. Back off screw just enough to allow drum to rotate freely.
5. The bottom brake shoe adjusting screw is located at bottom rear face of backing plate. Turn this screw clockwise and repeat procedures of steps 3 and 4 above.
6. Repeat this procedure on all other wheels. Make both adjustments at each wheel as uniform as possible. Shoe adjusting bolt and spring assemblies lock brakes in set position.
7. Close drain cock, lower tires to ground, and remove jacks.

**14-18. BLEEDING HYDRAULIC BRAKE SYSTEM I****GENERAL**

Proper operation of brake system requires a solid column of fluid (without air bubbles).

Bleed the system to expel any air which may have entered. Need for bleeding is generally indicated by soft brake action.

Bleeding can be done manually or with pressure feed filler. Towing vehicle must be coupled to semitrailer for manual bleeding operation.

Front axle wheels and rear axle wheels should be bled individually and each applicable master cylinder used (see hydraulic system schematic, page 4-75).

TA 314772

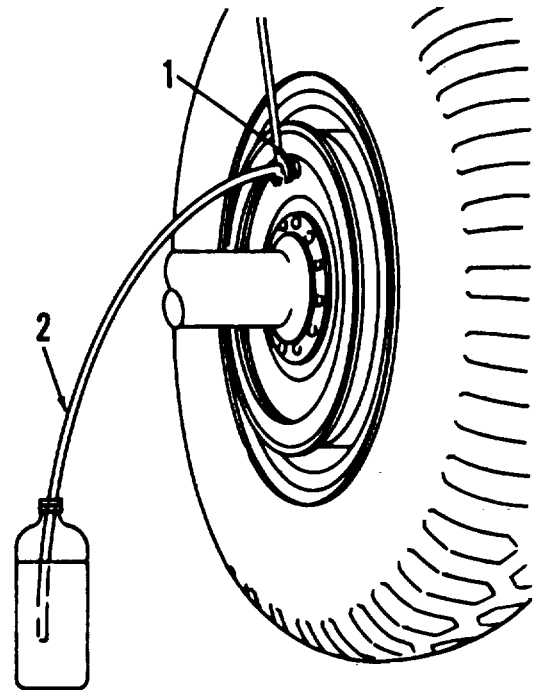
4-18. BLEEDING HYDRAULIC BRAKE SYSTEM (cont)

MANUAL BLEEDING

1. Connect the towing vehicle SERVICE and EMERGENCY brake line air couplings to their proper semitrailer couplings and open shutoff valves on tow- ing vehicle air supply lines.
2. Clean bleeder valve (1) in hydraulic wheel cylinder and attach tube (2) to bleeder valve. Submerge opposite tube end in bottle or jar partially filled with hydraulic brake fluid.

CAUTION

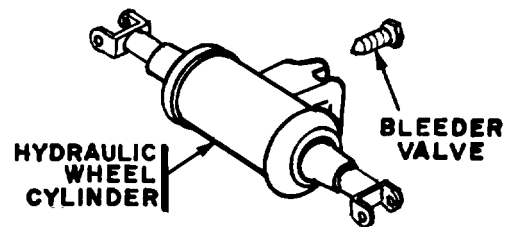
Do not reuse brake fluid when refilling master cylinder. Use clean fluid as required on lubrication instructions.



3. Fill the hydraulic master cylinder with brake fluid until fluid level is 1/2-inch to 3/8-inch below top of reservoir.

1. Bleeder valve
2. Tube

4. Rotate bleeder valve three- quarters of a turn counter- clockwise.
5. Depress towing vehicle brake pedal to expel air.
6. Close bleeder valve before releasing brake pedal.



TA 314773

4-18. BLEEDING HYDRAULIC BRAKE SYSTEM (cont) I

MANUAL BLEEDING (cont)

CAUTION

Do not pump master cylinder dry. Damage may result to the braking system.

7. Expelled air will show as bubbles coming out of tube. Continue step 5 above until air bubbles cease.
8. Remove bleeder tube.
9. Repeat steps 1 through 5 on remaining wheel cylinders, replenishing fluid in master cylinder reservoir as necessary.
10. Close towing vehicle shutoff valves, open air reservoir drain cock and disconnect towing vehicle SERVICE and EMERGENCY air line couplings from semitrailer couplings.
11. Install filler plug and vent tube in top of master cylinder reservoir.
12. Close air reservoir drain cock.

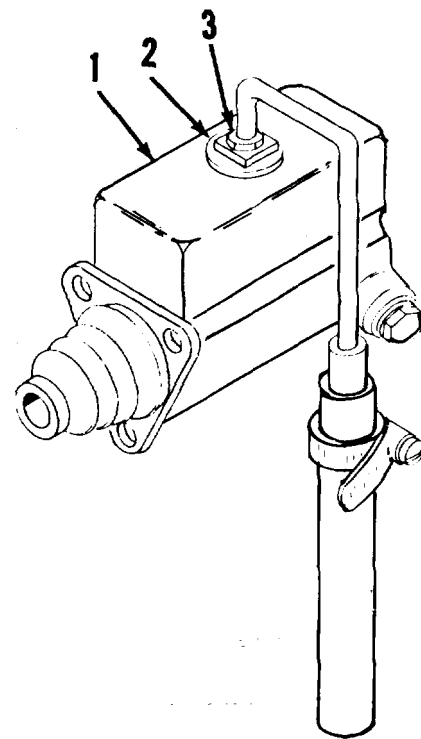
PRESSURE FEED FILLER BLEEDING

1. Remove filler plug (2) and vent tube assembly (3), install pressure feed adapter in master cylinder filler hole, and connect pressure feed filler hose to pressure feed adapter.

NOTE

Master cylinder reservoir should contain from 10 to 20 psi (68.95 to 137.90 kpa) air pressure and sufficient fluid to maintain a constant level in master cylinder.

2. Bleed system as in manual bleeding (steps 2, 4, 6 and 9 above), except that replenishing of brake fluid and manual operation of vehicle brake pedal are not required.



- | | |
|--|---|
| <ol style="list-style-type: none"> 3. Remove pressure feed filler hose and pressure feed adapter from master cylinder (1) and install filler plug (2) and vent tube assembly (3). | <ol style="list-style-type: none"> 1. Master cylinder 2. Filler plug 3. Vent tube assembly |
|--|---|

TA 314774

4-19. BRAKE RETRACTION SPRING

THIS TASK COVERS

- a. Removal
- b. Inspection
- c. Installation

Troubleshooting Reference

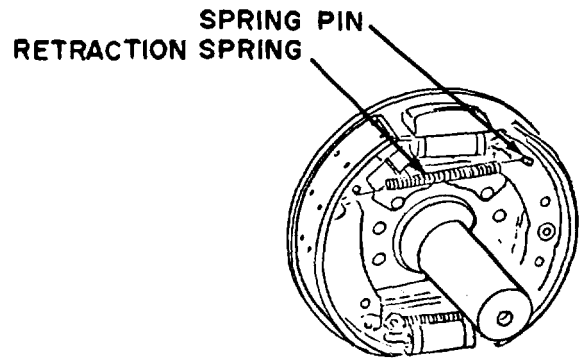
Item No.	
5	Brakes will not release
7	Slow brake application or slow release
9	Brake drum running hot

Test Equipment Required: None

Personnel Required: 1

REMOVAL

1. Heed WARNING on page 4-50 and open air reservoir drain cock.
2. Remove wheel from hub (para 3-7).
3. Remove hub and brake drum from axle assembly (para 4-30).
4. Remove brake retraction spring from each brake shoe spring pin.



INSPECTION

1. Inspect spring for rust, tension and excess wear.
2. Replace worn or defective spring.

INSTALLATION

1. Insert spring in position on spring pin.
2. Install hub and brake drum on axle (para 4-30).
3. Install wheel on hub (para 3-7).
4. Bleed and adjust brakes (paras 4-18 and 4-17).

TA 314775

4-20. BRAKE SHOE

THIS TASK COVERS

Item No.

- a. General
- b. Inspection
- c. Removal
- d. Installation'

Troubleshooting Reference

- 6 No brakes or weak brakes
- 8 Grabbing brakes
- 10 Uneven braking
- 11 Noisy brakes
- 12 Wheel noise

Test Equipment Required: None

Personnel Required: 1

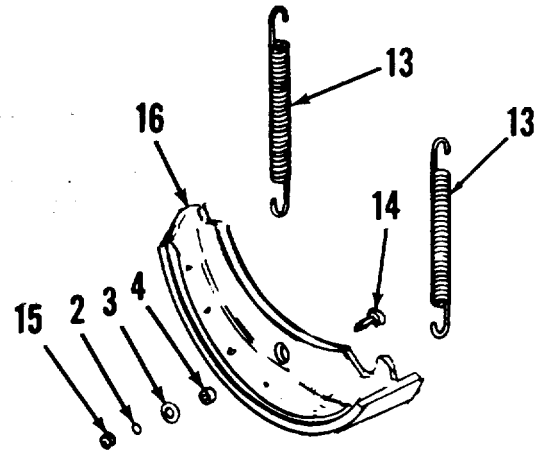
INSPECTION

1. Inspect brake shoe lining for wear.
2. If braking surface is within 3/16 inch of rivet head or grease or hydraulic fluid is present, replace brake shoe.

REMOVAL

1. Heed WARNING on page 4-50, wear goggles and open air reservoir drain cock (para 2-19).
2. Remove wheel from hub (para 3-7).
3. Remove hub and drum assembly (para 4-30).

4. Remove helical extension spring (13).
5. At the forward brake shoe (16), remove nut (15), lock washer (2), guide bolt washer (3), and sleeve spacer (4) from brake shoe guide bolt (14). Re- move square neck guide bolt from brake backing plate (6).



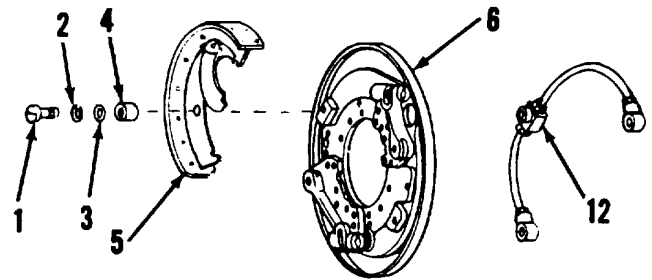
- 2. Washer
- 3. Washer
- 4. Spacer
- 13. Spring
- 14. Guide bolt
- 15. Nut
- 16. Brake shoe

TA 314778

4-20. BRAKE SHOE (cont)

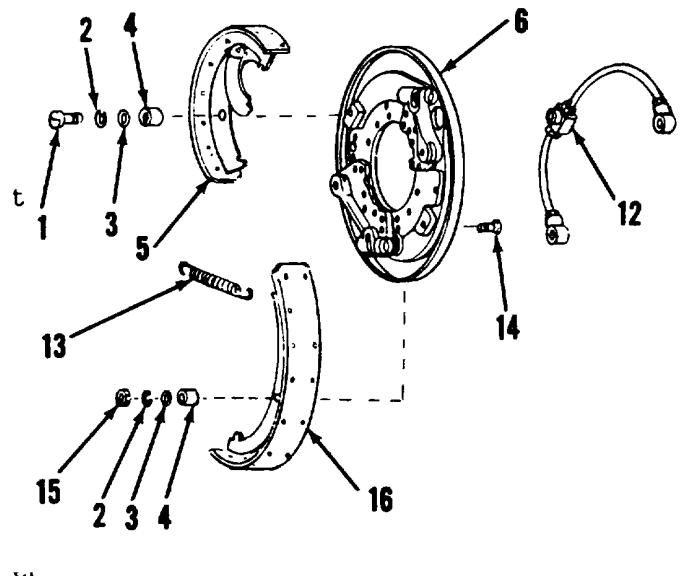
REMOVAL (cont)

6. At the rear brake shoe (5), remove cap screw (1), lock washer (2), guide screw washer (3), and sleeve spacer (4) which secure brake shoe and wheel cylinder tube assembly (12) in position.
7. Disengage the brake shoe from wheel cylinder piston rod and anchor supports.



INSTALLATION

1. Position either brake shoe against brake backing plate and slide into place in anchor supports and wheel cylinder piston rod. Install other brake shoe in same manner.
2. Assemble guide bolt sleeve spacer (4), guide screw washer (3), and lock washer (2) on cap screw (1).
3. Aline tube connection fitting, part of tube assembly (12), with guide hole at the rear of backing plate.
4. Install assembled guide screw through slot in brake shoe (5) and into fitting at rear of backing plate (6). Tighten guide screw.
5. Insert guide bolt (14) from rear of backing plate (6) through slot in shoe. Assemble guide bolt sleeve spacer (4), guide bolt washer (3), washer (2), and nut (15) on guide bolt (14). Tighten nut.
6. Install hub and brake drum (para 4-30).
7. Install wheel (para 3-7).
8. Bleed and adjust brakes (paras 4-18 and 4-17).



TA 314777

4-21. HYDRAULIC WHEEL CYLINDER

THIS TASK COVERS

- a. Removal
- b. Installation

Troubleshooting Reference

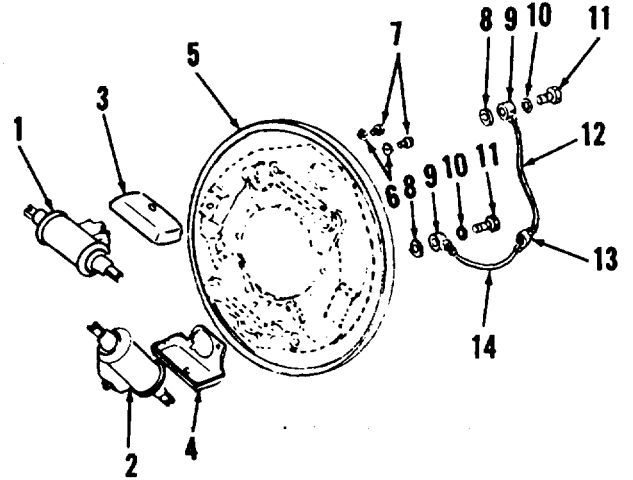
- Item No.
- 6. No brakes or weak brakes
- 7. Slow brake application or slow brake release
- 10. Uneven braking

Test Equipment Required: None

Personnel Required: 1

REMOVAL

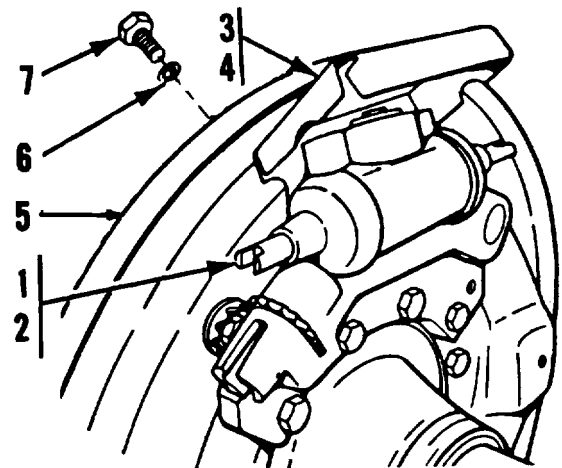
1. Remove wheel (para 3-7).
2. Remove hub and brake drum (para 4-30).
3. Unscrew the tube assembly bolt from wheel cylinder tube fitting (13).
4. Remove fluid passage bolt (11) and spacer ring (10) from tube connector (9).
5. Pull the connector away from cylinder (1) or (2).
Remove washer (8) between connector and cylinder.



- | | | |
|---|------------------|-------------|
| 1. Cylinder | 10. Spacer ring | |
| 2. Cylinder | 11. Bolt | |
| 6. If removing both of the wheel cylinders, remove upper and lower wheel cylinder tubes (12) and (14) from rear of brake backing plate (5). | 5. Backing plate | 12. Tube |
| | 8. Washer | 13. Fitting |
| | 9. Connector | 14. Tube |

7. From rear of backing plate (5), remove two bolts (7) and lock washers (6) securing wheel cylinders (1) and (2) and spark shields (3) and (4) to brake backing plate (5).
8. Slide the brake shoes away from wheel cylinder piston rod.

- | | |
|-------------|------------------|
| 1. Cylinder | 5. Backing plate |
| 2. Cylinder | 6. Washer |
| 3. Shield | 7. Bolt |
| 4. Shield | |



4-21. HYDRAULIC WHEEL CYLINDER (cont)

REMOVAL (cont)

CAUTION

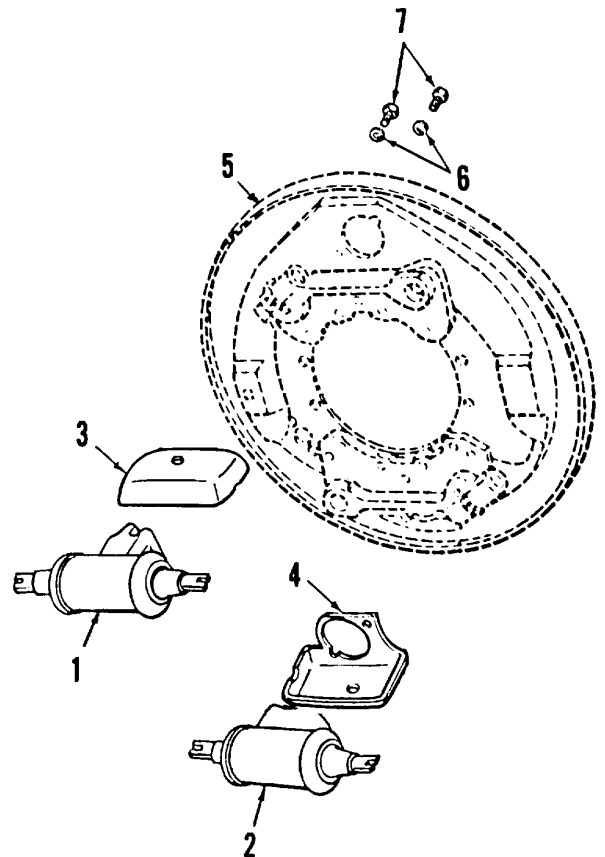
Prevent brake fluid from coming in contact with brake linings. Contaminated linings must be replaced.

9. Remove wheel cylinder (1) or (2). Remove spark shield (3) or (4) from cylinder.

INSTALLATION

1. Position spark shield (3) or (4) over rear of each wheel cylinder (1) or (2).
2. Place wheel cylinder between ends of brake shoe and through brake backing plate (5).
Install two lock washers (6) and bolts (7) from rear of backing plate (5) to secure cylinder and spark shield to backing plate.

1. Cylinder
2. Cylinder
3. Shield
4. Shield
5. Backing plate
6. Washer
7. Bolt



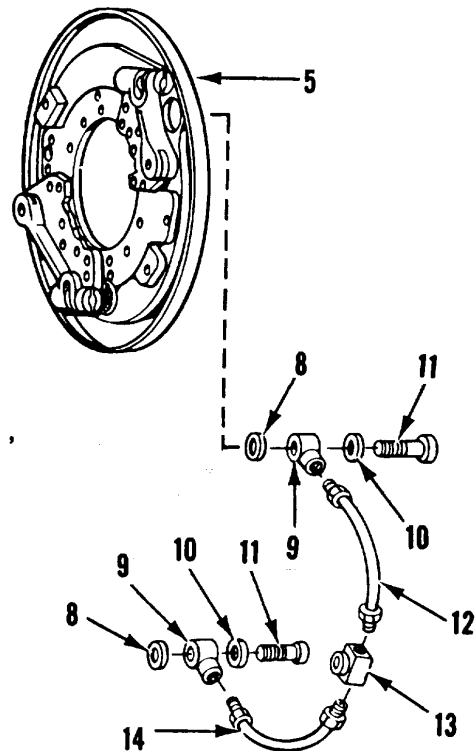
TA 314779

4-21. HYDRAULIC WHEEL CYLINDER (cont)

INSTALLATION (cont)

3. If installing both cylinders, attach cylinder tubes (12) and (14) to tube fittings (13) and tube connectors (9).
4. Install spacer rings (10) on fluid passage bolts (11) and insert bolts into tube connectors (9).
5. Install washers (8) on bolts (11). Position assembled tubes (12) and (14) with assembled parts, on backing plate (5). Tighten bolts (11).

5. Backing plate
8. Washer
9. Connector
10. Spacer ring
11. Bolt
12. Tube
13. Fitting
14. Tube



6. Install hub and drum assembly (para 4-30).
7. Install wheel (para 3-7).
8. Bleed and adjust brakes (paras 4-18 and 4-17).

4-22. BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY

THIS TASK COVERS

- a. Removal
- b. Inspection and repair
- c. Installation

Test Equipment Required: None

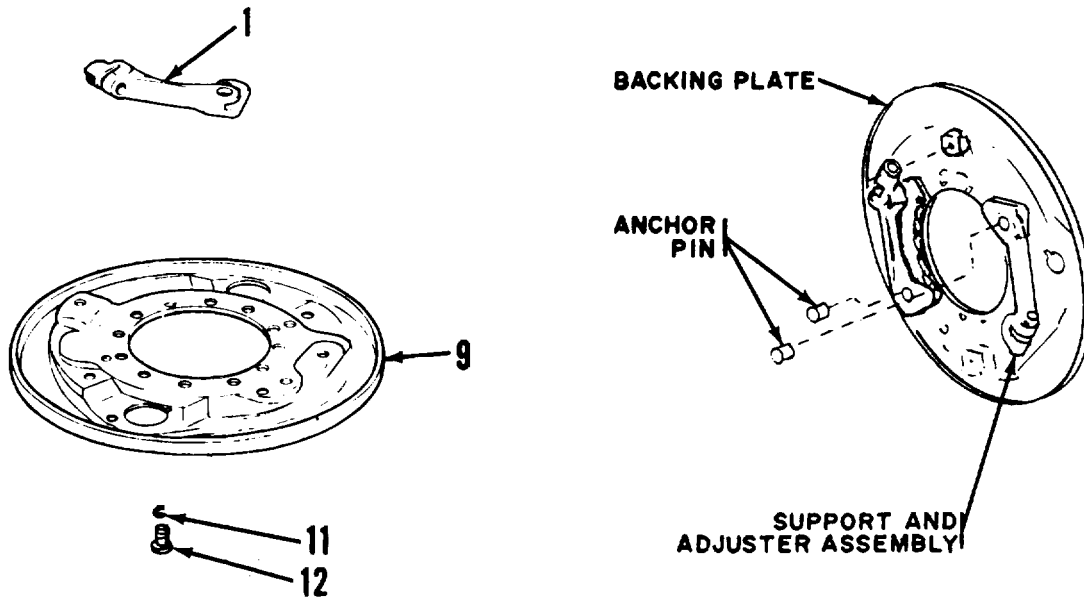
Personnel Required: 1

TA 314780

4-22. BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY (cont)

REMOVAL

1. Remove wheel (para 3-7).
2. Remove hub and brake drum (para 4-30).



- | | |
|----------------------------------|------------|
| 1. Support and adjuster assembly | 11. Washer |
| 9. Backing plate | 12. Screw |

3. Scribe alinement marks on support and adjuster assembly, brake backing plate, and axle flange to insure proper installation.
4. Remove two nuts, two lock washers, and two cap screws at rear of axle flange. This hardware partially secures upper anchor support and adjuster assembly (1) to brake backing plate (9), and brake backing plate to axle flange.
5. Remove two cap screws (12) and lock washers (11) securing each support and adjuster assembly (1) to brake backing plate (9).

NOTE

Care should be taken to avoid loss of anchor pins which will drop out of support and adjuster assembly (1) as they are removed.

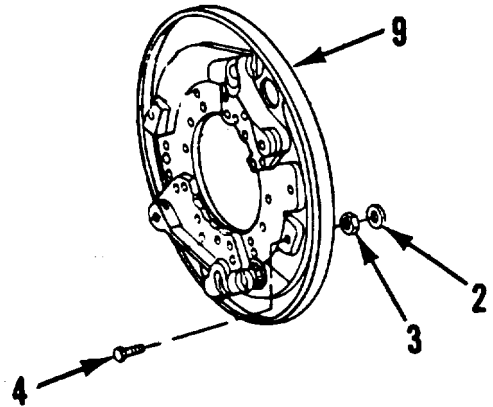
6. Carefully lift support and adjuster assembly (1) from backing plate (9) and out of mesh with adjusting gear.

4-22. BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY (cont)

REMOVAL (cont)

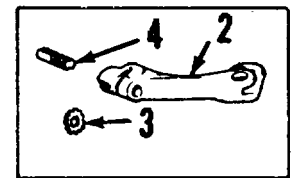
7. Disconnect hydraulic line at rear of backing plate. Remove eight nuts (3), screws (4), and lock washers (2) securing brake backing plate (9) to axle flange. Slide backing plate off axle spindle.

- 2. Washer
- 3. Nut
- 4. Screw
- 9. Backing plate



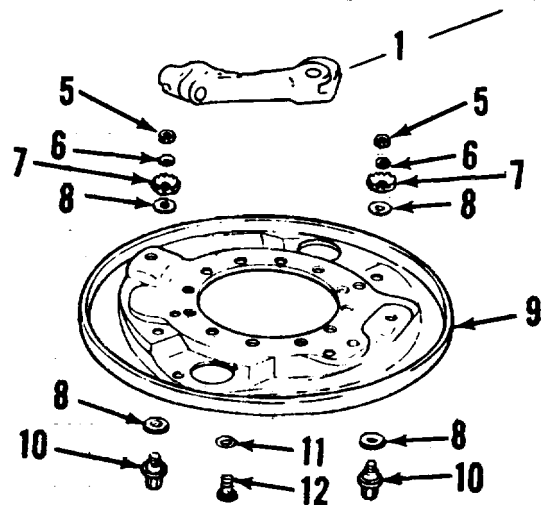
8. Remove nut (5) and lock washer (6) securing adjusting gear (7) to spring and bolt assembly (10).

9. Remove gear (7), two washers (8), and spring and bolt assembly (10) from brake backing plate (9).



INSPECTION AND REPAIR

- 1. Inspect support and adjuster assembly (1) for breaks or cracks. Replace if defective.
- 2. Inspect adjusting wheel (3) for broken or missing teeth. Replace if defective.
- 3. Inspect adjusting screw (4) for damaged threads. Replace defective screw.
- 4. Inspect brake backing plate (9). Straighten and paint as required. Replace if cannot be made serviceable.



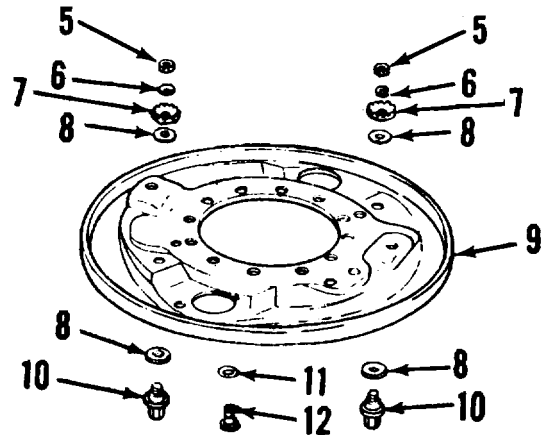
- 1. Support and adjuster assembly
- 2. Support
- 3. Adjusting wheel
- 4. Adjusting screw
- 5. Nut
- 6. Washer

- 7. Adjusting gear
- 8. Washer
- 9. Backing plate
- 10. Spring and bolt assembly
- 11. Washer
- 12. Screw

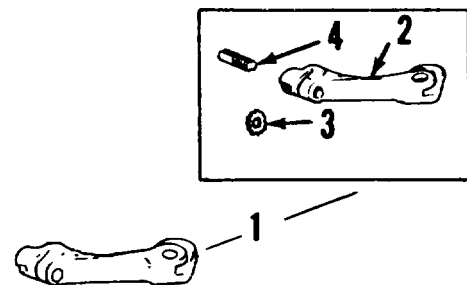
4-22. BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY (cont)

INSTALLATION

1. Slide one washer (8) on threaded end of spring and bolt assembly (10) and install, threaded end first, through opening at rear of brake backing plate (9).
2. Install second washer (8) and adjusting gear (7) on threaded end of stud.
3. Secure gear to stud with lock washer (6) and nut (5).
4. Following scribed marks made at removal, position backing plate (9) against flange of axle and secure with eight cap screws, lock washers and nuts.



5. If removed, install the anchor pin in large opening at end of support and adjuster assembly (1).
6. Before installing the support and adjuster assembly, make certain adjusting screw (4) is properly positioned in support (2) to receive the brake shoe which seats on its top surface. The adjusting screw should be recessed one inch below the rim of the support. Rotation of adjusting wheel (3) will adjust screw to required dimension.
7. Following the scribed marks made at removal, position each support (2) on front of brake backing plate (9). Make certain adjusting wheel meshes with installed adjusting gear. Secure each support and adjuster assembly to backing plate with two cap screws (12) and lock washers (11).



1. Support and adjuster
2. Support
3. Adjusting wheel
4. Adjusting screw

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4-22. BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY (cont)

INSTALLATION (cont)

NOTE

The cap screws are installed in mounting holes at the extreme ends of support and adjuster assembly.

8. Install two cap screws (from rear of axle flange) through two center mounting holes of upper support and adjuster assembly. Secure cap screws with two lock washers and nuts.
9. Install hub and drum assembly (para 4-30).
10. Install wheel (para 3-7).
11. Bleed and adjust brakes (paras 4-18 and 4-17).

4-23. HYDRAULIC MASTER CYLINDER

THIS TASK COVERS

- a. Servicing
- b. Removal
- c. Installation

**Troubleshooting Reference
Item No.**

6. No brakes or weak brakes
7. Slow brake application or slow release
8. Grabbing brakes.

Test Equipment Required: None

Personnel Required: 1

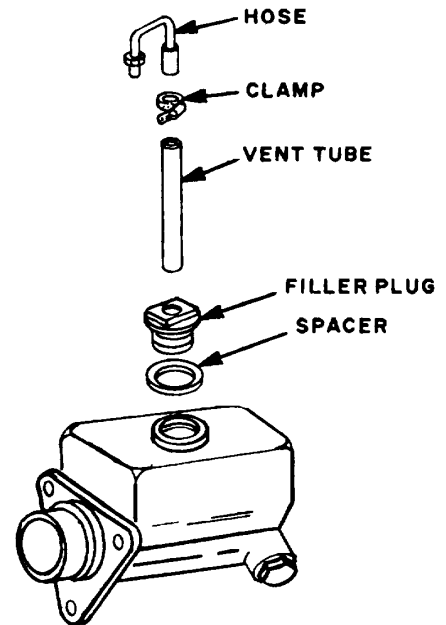
SERVICING

NOTE

Master cylinder service includes only flushing and refilling hydraulic system (refer to hydraulic system schematic, page 4-75 for location of master cylinders).

4-23. HYDRAULIC MASTER CYLINDER (cont)**SERVICING (cont)**

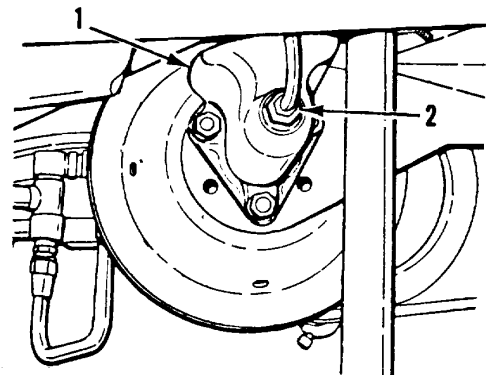
1. Loosen vent tube nut and remove vent tube assembly.
2. Remove filler plug and spacer from top of master cylinder.
3. Fill with brake fluid (item 4, appendix E) to 1/2 to 3/8-inch from top of master cylinder reservoir.
4. Install spacer and filler plug; tighten filler plug.
5. Install and tighten vent tube assembly.

**REMOVAL****WARNING**

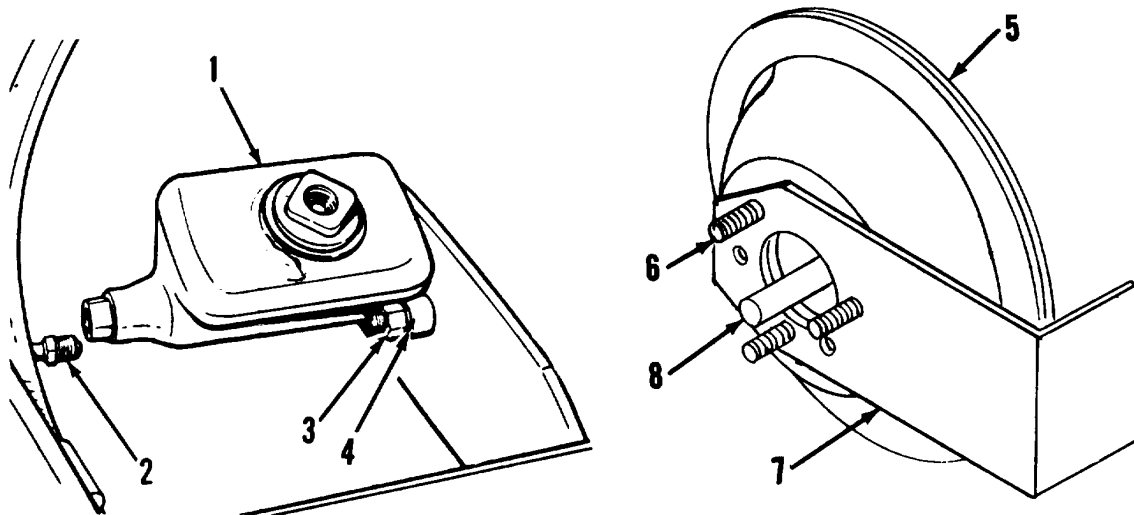
Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.

1. Release air pressure from system by opening drain cock on air reservoir.
2. Place a can or a bucket below the flexible hose (2) at rear of master cylinder (1) to catch any fluid spilled during removal.

1. Master cylinder
2. Flexible hose



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4-23. HYDRAULIC MASTER CYLINDER (cont)**REMOVAL (cont)**

1. Master cylinder
2. Hose
3. Nut
4. Washer

5. Brake air chamber
6. Stud
7. Bracket
8. Push rod

3. Disconnect flexible hose (2) from rear of master cylinder (1).
4. Remove three nuts (3) and lock washers (4) which attach master cylinder to bracket (7) and brake air chamber (5).
5. Move master cylinder to one side enough to detach rubber bellows. Remove master cylinder.

INSTALLATION

1. Position master cylinder (1) over the three studs (6) and against bracket (7). Make sure that brake air chamber push rod (8) is properly seated in master cylinder piston.
2. Install rubber bellows over lip on master cylinder.
3. Secure cylinder (1) in place-with three nuts (3) and lock washers (4).
4. Connect flexible hose (2) to rear of master cylinder.
5. Close drain cock on air reservoir.
6. Fill master cylinder and bleed system.

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4-24. BRAKE AIR CHAMBER

THIS TASK COVERS

- a. Leakage test
- b. Push rod travel test
- c. Removal
- d. Installation

Test Equipment Required: None

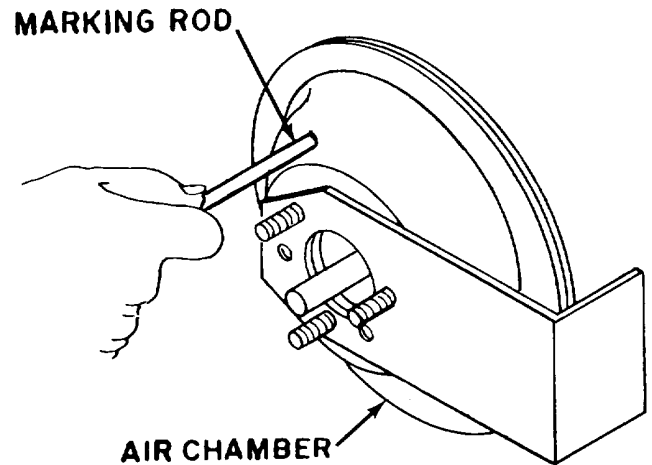
Personnel Required: 2

LEAKAGE TEST

1. With brakes applied, coat air chamber flange with soap and water solution and inspect for leaks.
2. If leakage is detected, tighten securing hardware sufficiently to stop any leaks. No leakage is permissible.
3. Check non-pressure side of air chamber for leaks by applying soap and water solution to holes in chamber body. If leakage exists, replace air chamber.

PUSH ROD TRAVEL TEST

1. Connect intervehicular air hose couplings.
2. With the brakes released, insert a small rod through one of two inspection holes in left side of brake air chamber. Mark rod, indicating distance traveled to contact push rod.
3. Apply the brakes and again mark rod at surface of mounting bracket with rod in contact with push rod.
4. Withdraw the rod and measure distance between marks. This indicates amount of piston travel.
5. Adjust the brakes (para 4-17), if necessary, to permit a minimum of one-half inch to a maximum of seven-eighths of an inch travel.



4-24. BRAKE AIR CHAMBER (cont)

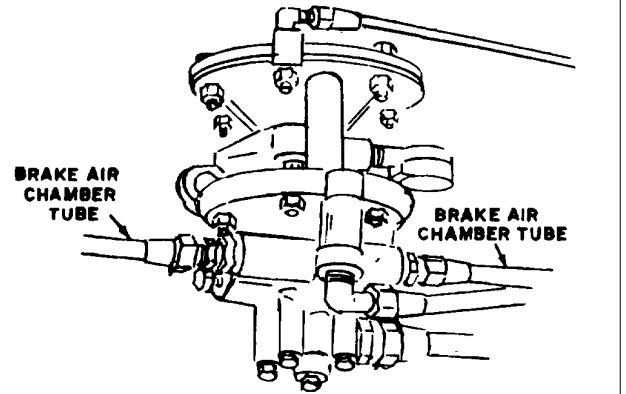
REMOVAL

WARNING

Air under 100 psi air pressure is used in the operation of the break air system. Serious injury or death can result unless proper precautions are taken.

1. Release air pressure from system by opening drain cock on the air reservoir. (See illustration in para 4-26).

2. Disconnect air chamber-to-relay valve tubes.



3. Remove two nuts and lock washers attaching air chamber to bracket.
4. Remove air chamber, being careful not to damage rubber bellows.

INSTALLATION

1. Position air chamber on bracket. Secure with two nuts and lock washers.
2. Connect air chamber-to-relay valve tubes.
3. Close drain cock on air reservoir.
4. Add hydraulic fluid to master cylinder (para 4-23).
5. Bleed and adjust brakes (paras 4-18, 4-17).

4-25. RELAY VALVE

THIS TASK COVERS

- a. Drainage of moisture
- b. Operating test
- c. Leakage test
- d. Removal
- e. Installation

Troubleshooting Reference

- Item No,
5. Brakes will not release
 6. No brakes or weak brakes
 7. Slow brake application or slow release
 8. Grabbing brakes

Test Equipment Required: None

Personnel Required: 2

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4-25. RELAY VALVE (cont)

DRAINAGE OF MOISTURE

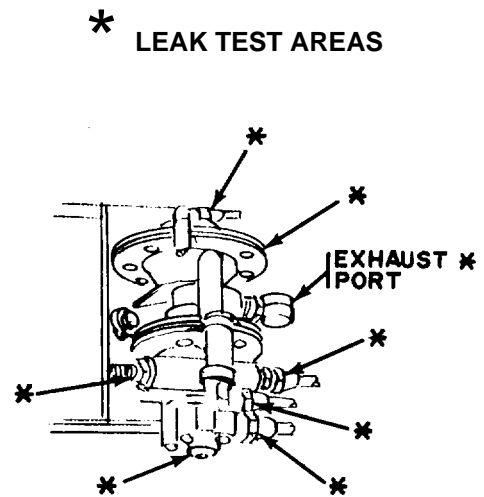
1. Heed WARNING on page 4-64 and remove drain plug from bottom of relay valve by turning it counterclockwise.
2. Allow moisture to drain. Insert drain plug in position and turn clockwise to tighten.

OPERATING TEST

1. With brake air system of semitrailer connected and charged, check if brakes apply properly.
2. Release brakes and check whether air pressure is being exhausted promptly.
3. With semitrailer brake system fully charged, close shutoff valve in emergency line tube on towing vehicle and disconnect brake air hose coupling tagged EMERGENCY. Check whether semitrailer brakes apply automatically.
4. Connect brake air hose to coupling tagged EMERGENCY. Open shutoff valve on towing vehicle and check for automatic semitrailer release of brakes.

LEAKAGE TEST

1. With brake air system of semitrailer connected and charged, apply soap and water solution to cover flanges which hold diaphragms and to brake air hose coupling tagged SERVICE. No leakage should be present. If leaks are detected tighten attaching hardware and tighten coupling as required.
2. Coat exhaust port with soap and water solution. Apply brakes and check for leaks.
3. Release brakes and apply soap and water solution to exhaust port and check for leakage.
4. Disconnect EMERGENCY coupling (step 3, operating test), coat exhaust port with soap and water solution and check for leaks.



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4-25. RELAY VALVE (cont)

LEAKAGE TEST (cont)

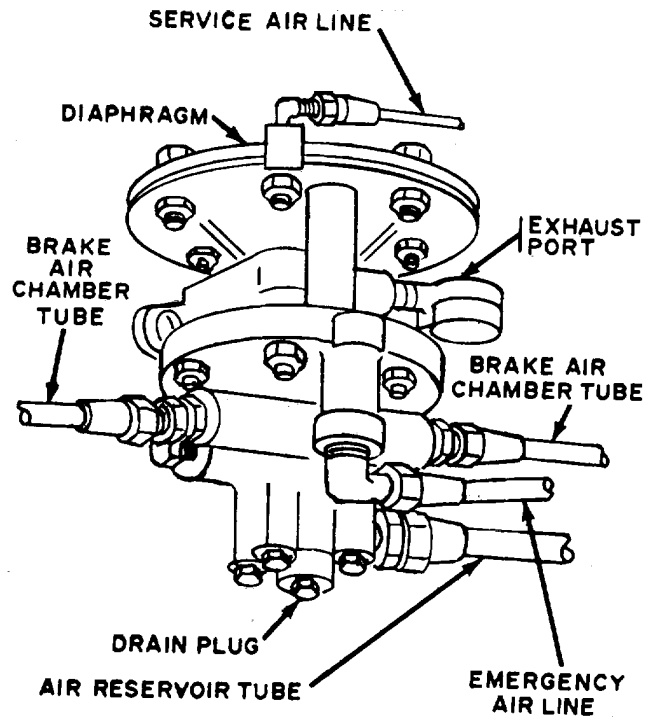
5. Leakage in steps 2, 3, and 5 above must not exceed one inch bubble in two seconds. If excess leakage is found, replace relay valve.

REMOVAL

1. Heed WARNING (page 4-64), wear goggles and open air reservoir drain cock.
2. Disconnect service and emergency air lines, air reservoir air tube, and brake air chamber air tubes.
3. Remove three nuts, washers and screws securing relay valve to mounting bracket. Remove relay valve.

INSTALLATION

1. Position relay valve on mounting bracket and secure with three screws, washers, and nuts.
2. Connect brake air chamber air tubes, air reservoir air tube, and service and emergency air lines to relay valve.
3. Make operating and leakage tests.



4-26. AIR RESERVOIR

THIS TASK COVERS

- a. Leakage test
- b. Removal
- c. Installation
- d. Drain cock leakage test
- e. Removal of drain cock
- f. Cleaning and inspection of drain cock
- g. Installation of drain cock

Test Equipment Required: None

Personnel Required: 1

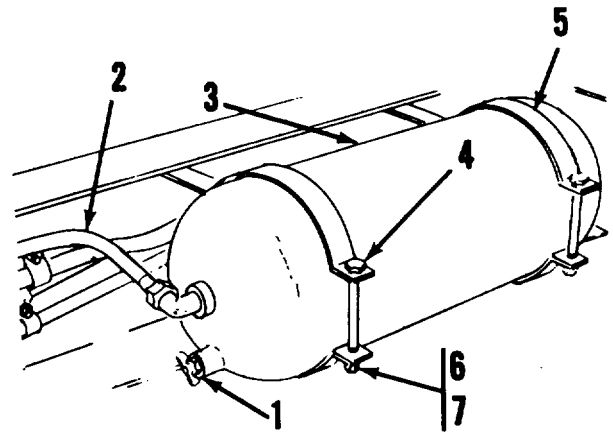
4-26. AIR RESERVOIR (cont)

LEAKAGE TEST

1. With brake system charged, coat drain cock, air connections and outside of air reservoir with soap and water solution and check for air leaks. No leakage is permissible.
2. Tighten any leaking connections.
3. Inspect for damage or corrosion.
4. Replace reservoir if it leaks or if any damage or corrosion is found that would weaken reservoir.

REMOVAL

1. Disconnect intervehicular air hoses.
2. Heed WARNING (page 4-64) wear goggles and open drain cock.
3. Disconnect air tube from relay valve to air reservoir.
4. Remove two nuts (7), washers (6) and screws (4) securing air reservoir (3) in mounting straps (5) and remove reservoir.



INSTALLATION

1. Position air reservoir (3) with drain cock (1) at the bottom.
2. Secure air reservoir in straps (5) with two screws (4), washers (6) and nuts (7).
3. Connect air tube (2) from relay valve to air reservoir (3).
4. Make leakage test.

1. Drain cock
2. Air tube
3. Air reservoir
4. Screw
5. Strap
6. Washer
7. Nut

DRAIN COCK LEAKAGE TEST

1. With brake system charged, coat drain cock with soap and water solution.
2. Leaks in excess of a three-inch bubble in three seconds are not permissible.

4-26. AIR RESERVOIR (cont)**DRAIN COCK LEAKAGE TEST (cont)**

3. Leakage due to dirt accumulation can be corrected by cleaning and applying sealer tape (item 15, appendix E) on the drain cock threads before assembly.
4. Leakage due to a damaged part requires replacement of the drain cock.

REMOVAL OF DRAIN COCK**WARNING**

Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.

1. Open drain cock to release air from reservoir.
2. Remove drain cock by turning it counterclockwise.

CLEANING AND INSPECTION OF DRAIN COCK**WARNING**

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 138°F (58.8°C).

1. Clean with cleaning solvent (item 3, appendix E).
2. Inspect for damage or-excessive wear.
3. Replace defective-drain cock.

INSTALLATION OF DRAIN COCK

1. Apply sealer tape (item 15, appendix E) to drain cock threads.
2. Take care not to damage drain cock during installation. Insert in position and secure by turning in a clockwise direction.

4-27. AIR HALF-COUPLING

THIS TASK COVERS

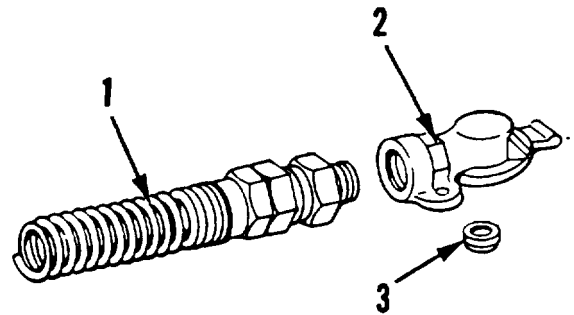
- a. Removal
- b. Cleaning
- c. Inspection and replacement
- d. Installation of packing ring
- e. Installation

Test Equipment Required: None

Personnel Required: 1

REMOVAL

1. Hold adapter (1) stationary with a wrench and unscrew half-coupling (2).
2. Pry packing ring (3) from body. Discard packing ring.

**CLEANING**

1. Clean mud and dirt from all exposed surfaces with water and a stiff brush.

WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 138°F (58.8°C).

2. Remove grease with cleaning solvent (item 3, appendix E)

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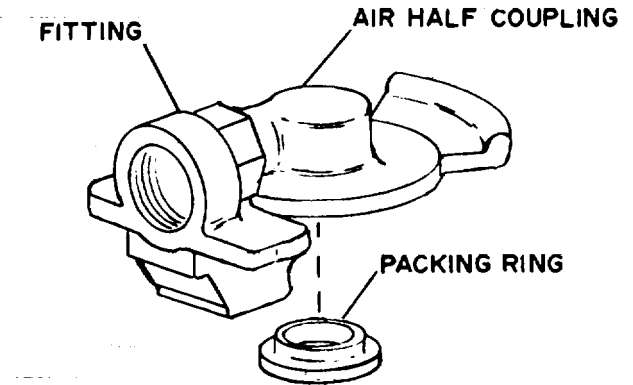
4-27. AIR HALF-COUPLING (cont)

INSPECTION AND REPLACEMENT

1. Inspect half-coupling body for damaged threads or cracks. Replace coupling if damaged.
2. Inspect packing ring for excessive wear and deterioration. Replace packing ring if defective.

INSTALLATION OF PACKING RING

1. Clean groove in coupling from which packing ring was removed.
2. Partially collapse ring with fingers and insert one side of ring flange in groove.
3. Push ring into place. Face of ring must lie flat, with no twist or bulge.



INSTALLATION

1. Screw threads of half-coupling over externally threaded fitting of connector and tighten until an airtight seal is made.
2. Make sure face of coupling is vertical and toward left side of semitrailer.

4-28. HOSE, TUBING AND FITTINGS (AIR AND HYDRAULIC)

THIS TASK COVERS

- a. General
- b. Serviceability test
- c. Removal of hydraulic hose
- d. Installation of hydraulic hose
- e. Removal of tube fitting
- f. Installation of tube fitting
- g. Splicing nonmetallic tubing

- Troubleshooting Reference
- | | |
|---------|--------------------------|
| Item No | |
| 5. | Brakes will not release |
| 6. | No brakes or weak brakes |

Test Equipment Required: None

Personnel Required: 1

GENERAL

Hydraulic and air tubing and fittings are not ordinarily removed except for replacement. Refer to page 4-74 for air system schematic and page 4-75 for hydraulic system schematic.

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4-28. HOSE, TUBING AND FITTINGS (cont)

GENERAL (cont)

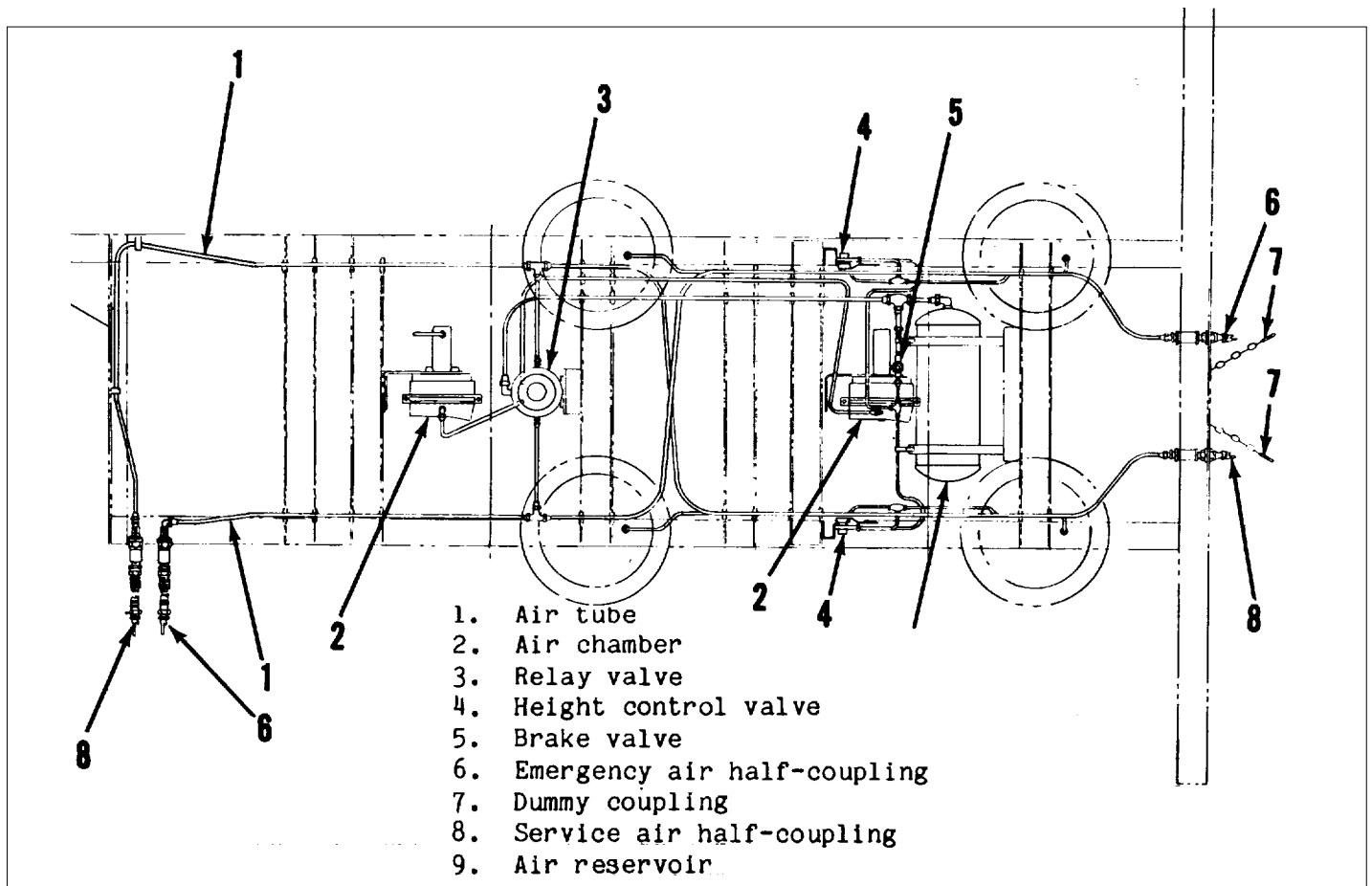
Replace bent, kinked, or damaged lines and fittings.

Keep all lines tightly attached.

Any disconnection or replacement of hydraulic tubing or fitting will require bleeding of the brake system (para 4-18).

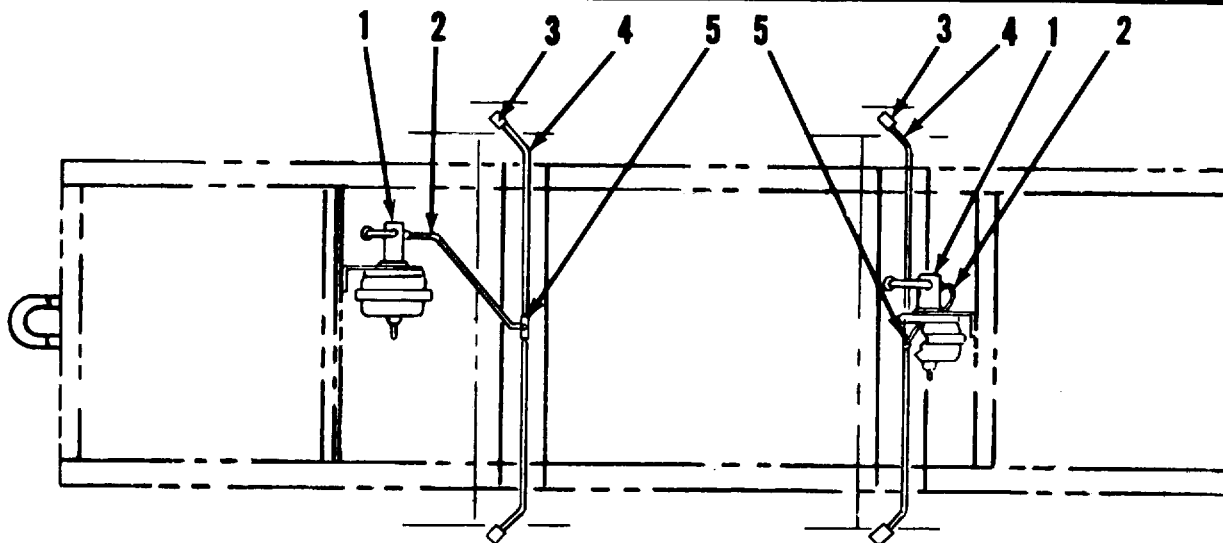
SERVICEABILITY TEST

1. With brake air hose couplings of intervehicular air hose connected and brakes applied, coat hose couplings and connectors of air hose, fittings of emergency and service air line tubes, and air tubes with soap and water solution. No leakage is permissible.
2. Examine hydraulic lines, flexible line and fittings. Tighten fittings if leaks are found. No leakage is permissible.



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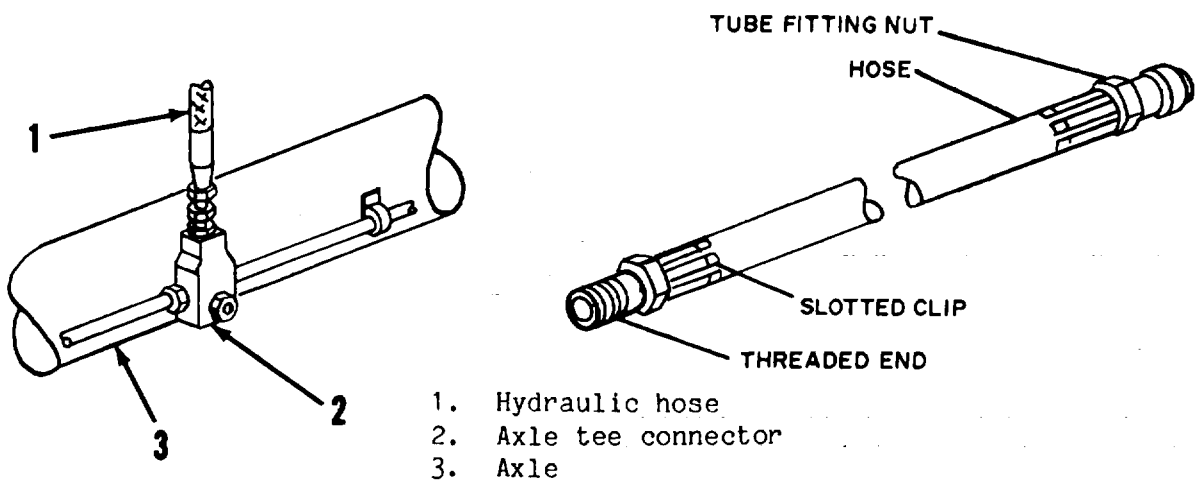
4-28. HOSE, TUBING AND FITTINGS (AIR AND HYDRAULIC) (cont)



- 1. Hydraulic master cylinder
- 2. Hydraulic hose
- 3. Hydraulic wheel cylinder

- 4. Hydraulic line
- 5. Axle tee connector

REMOVAL OF HYDRAULIC HOSE



1. Remove hydraulic hose (1) from wheel cylinder line connecting tee (2) on front of rear axle (3).
2. Unscrew tube fitting nut from hose.
3. Pry slotted clip off hose.
4. Unseat externally threaded end of hose in tee (2) of axle assembly and unscrew hose from fittings at both ends.

4-28. HOSE, TUBING AND FITTINGS (AIR AND HYDRAULIC) (cont)**INSTALLATION OF HYDRAULIC HOSE**

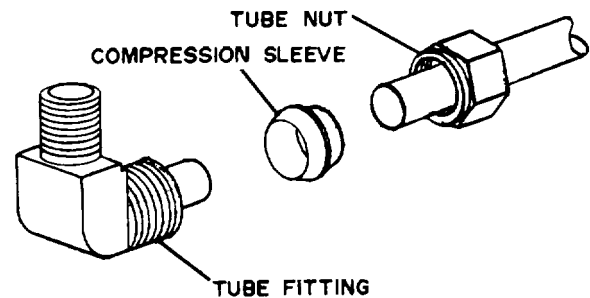
1. Insert externally threaded end of hose (1) in tee (2) on axle and tighten until snug. Do not cross thread.
2. Place slotted clip in groove on hose end and press downward until clip stops.
3. Insert tube in hose and screw tube fitting nut into hose until snug.
4. With brakes applied, wipe all connections clean and check for leaks.

REMOVAL OF TUBE FITTING

1. Unscrew tube nut from tube fitting.
2. Serviceable tube fittings and tube nuts may be reused, but compression sleeves must be replaced.

INSTALLATION OF TUBE FITTING

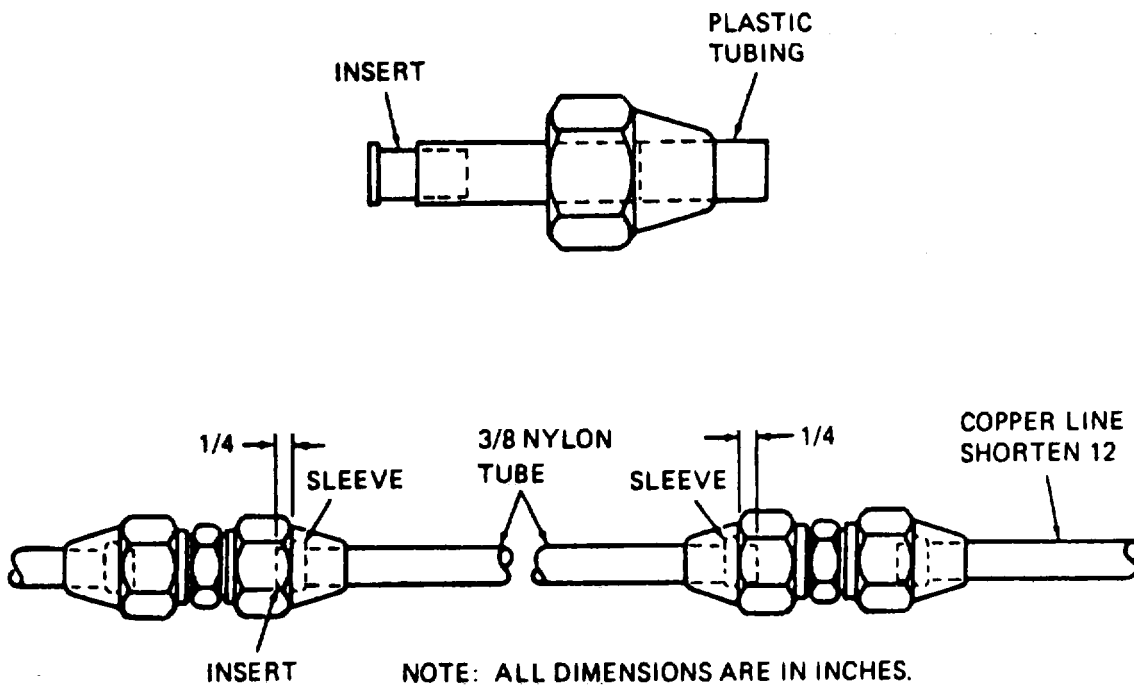
1. Cut tubing with hacksaw or tube cutter, making sure end is smooth and cut squarely with tubing wall. Do not crimp or partially close ends.
2. Ream and file tubing end to remove burrs. Blow out to remove cuttings or filings.
3. Place nut and new sleeve on tube and insert end of tube into recess in fitting body.
4. Hold tube at bottom of recess and tighten tube nut until sufficient pressure is placed on sleeve to prevent leakage. Do not cross thread.



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4-28. HOSE, TUBING AND FITTINGS (AIR AND HYDRAULIC) (cont)

SPLICING NONMETALLIC TUBING



1. Cut required length of tubing to replace damaged portion.
2. Install nut, sleeve and insert on both ends of tubing and splice as shown above.

Section VII. WHEEL, HUB AND BRAKE DRUM MAINTENANCE PROCEDURES

4-29. WHEEL, HUB AND BRAKE DRUM

WHEELS

Refer to paragraph 3-7.

TIRES

Refer to TM9-2610-200-24 for removal, servicing and installation of tires.

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4-30. HUB AND BRAKE DRUM

THIS TASK COVERS

- a. Removal of hub and brake drum assembly from axle
- b. Removal of brake drum from hub
- c. Cleaning
- d. Inspection and replacement
- e. Installation of brake drum on hub
- f. Installation of hub and brake drum assembly on axle

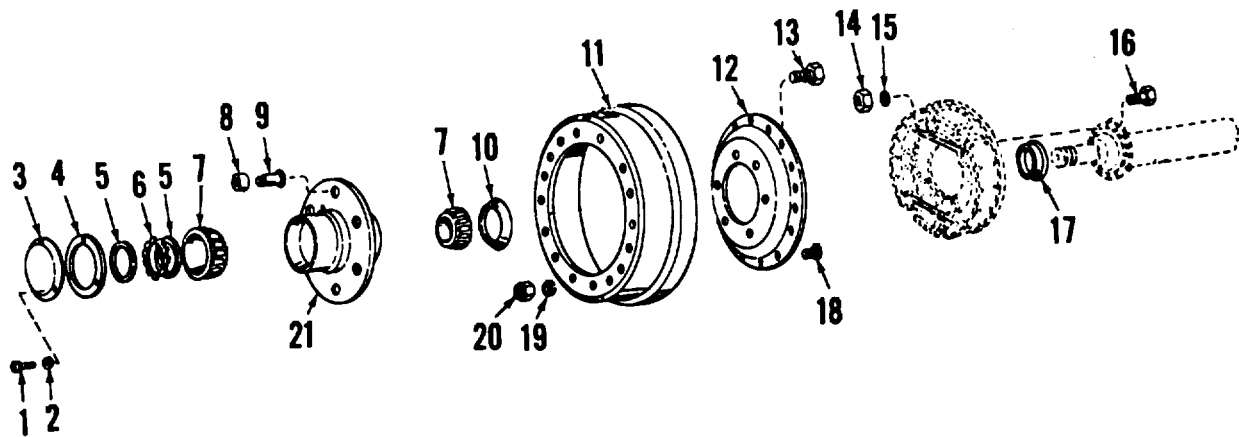
Troubleshooting Reference Item No.

- 8. Grabbing brakes
- 9. Brake drum running hot
- 11. Noisy brakes
- 12. Wheel noise
- 13. Wheel wobble

Test Equipment Required: None

Personnel Required: 1

REMOVAL OF HUB AND BRAKE DRUM ASSEMBLY FROM AXLE



- | | |
|------------------|----------------------------|
| 1. Screw | 12. Back front brake drive |
| 2. Washer | 13. Bolt |
| 3. Hub cap | 14. Nut |
| 4. Gasket | 15. Washer |
| 5. Adjusting Nut | 16. Screw |
| 6. Key washer | 17. Sleeve spacer |
| 7. Bearing | 18. Bolt |
| 8. Nut | 19. Washer |
| 9. Nut | 20. Nut |
| 10. Seal | 21. Hub |
| 11. Brake drum | |

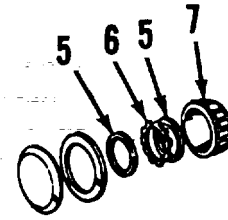
1. Remove screws (1) and washers (2) securing hub cap (3) and hub cap gasket (4) to hub (21). Remove hub cap and gasket. Discard gasket if defective.

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4-30. HUB AND BRAKE DRUM (cont)

REMOVAL OF HUB AND BRAKE DRUM ASSEMBLY FROM AXLE (cont)

2. Using a screwdriver, lift bent-over locking lugs of key washer (6) to release outer bearing adjusting nut (5).
3. Using wheel bearing locknut wrench, remove outer bearing adjusting nut (5).
4. Slide off key washer (6).
5. Remove inner bearing adjusting nut (5), using same locknut wrench.
6. Move hub and brake drum assembly slightly on axle spindle to loosen outer tapered roller bearing (7). Remove bearing.



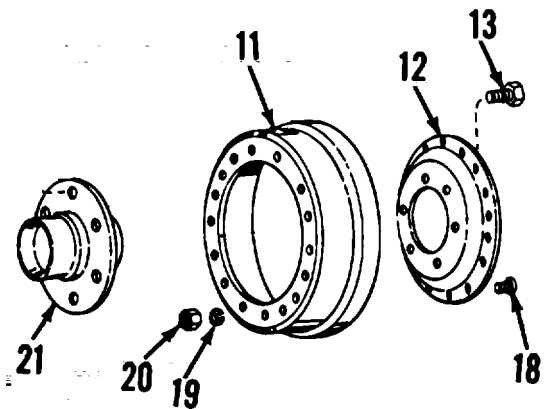
7. Pull hub and brake drum assembly from axle.
8. Remove oil seal (10) and inner tapered roller bearing (7).
9. Do not remove oil seal sleeve spacer (17) unless damaged or badly worn.

REMOVAL OF BRAKE DRUM FROM HUB

NOTE

Use an arbor press or equivalent if it is necessary to remove and install ribbed neck bolts (18) or ribbed shoulder bolts (13).

1. Remove nuts (20), washers (19) and ribbed neck bolts (18) securing brake drum (11) to back front brake drive (12).
2. Remove back front brake drive (12) from hub assembly (21) by removing ribbed shoulder bolts (13) and separating back front brake drive from hub assembly.



11. Brake drum
12. Back front brake drive
13. Ribbed shoulder bolt
18. Ribbed-neck bolt
19. Washer
20. Nut
21. Hub

4-30. HUB AND BRAKE DRUM (cont)

CLEANING

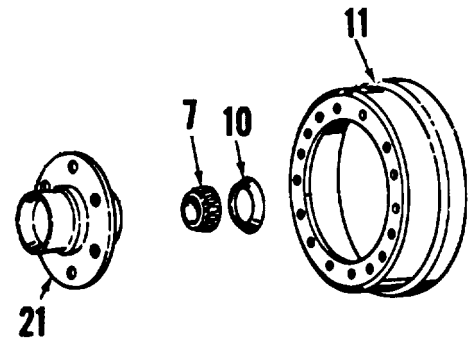
WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 138°F (58.8°C).

1. Clean all parts with cleaning solvent (item 3, appendix E).
2. Dry all parts thoroughly.

INSPECTION AND REPLACEMENT

1. Inspect hub (21) carefully for cracks or other indication of damage.
2. Inspect inside diameter of brake drum (11) for out-of-round or excessive scoring.
3. Lightly oil rollers of tapered roller bearing (7) and rotate by hand to test for tightness. Replace if there is evidence of scarring, pitting or excessive wear.
4. Inspect encased oil seal (10) to make sure contact material is intact and pliable.
5. Inspect threads on wheel studs in hub, in bearing adjusting nuts, and wheel cap nuts. Replace if threads are damaged.

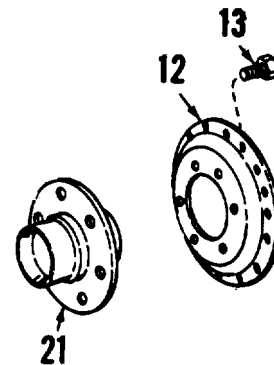


- 7. Bearing
- 10. Oil seal
- 11. Brake drum
- 21. Hub

INSTALLATION OF BRAKE DRUM ON HUB

1. Position hub (21) on back front brake drive (12) and secure with six ribbed-shoulder bolts (13).

- 12. Back front brake drive
- 13. Ribbed shoulder bolts
- 21. Hub

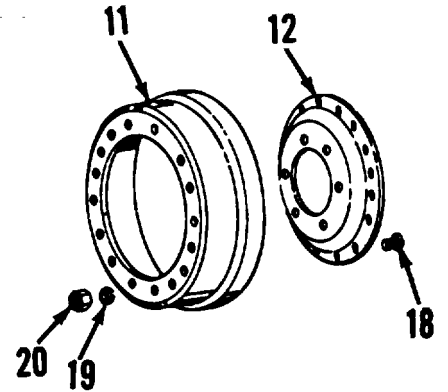


4-30. HUB AND BRAKE DRUM (cont)

INSTALLATION OF BRAKE DRUM ON HUB (cont)

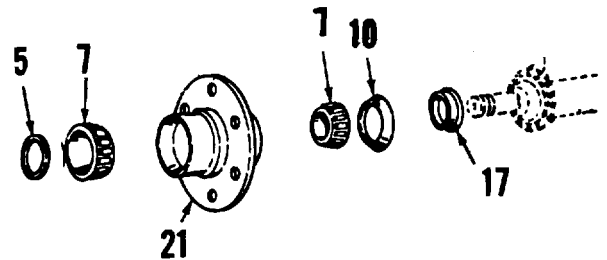
- Position brake drum (11) on back front brake drive (12) and secure with 18 ribbed neck bolts (18), washers (19) and nuts (20).

- 11. Brake drum
- 12. Back front brake drive
- 18. Ribbed neck bolt
- 19. Washer
- 20. Nut



INSTALLATION OF HUB AND BRAKE DRUM ASSEMBLY ON AXLE

- Replace oil sleeve spacer (17) if it has been removed.
- Press or carefully tap oil seal (10) into place, using a block of wood. Do not hammer directly on seal.
- Pack inner tapered roller bearing (7) with grease and install on axle spindle, adjacent to oil seal (10), with large outside diameter of bearing toward oil seal. Tap bearing gently, if necessary, with a brass drift.
- Slide hub and drum assembly on axle spindle, being careful not to damage seal (10).
- Pack outer tapered roller bearing (7) with grease and insert with small outside diameter of bearing over spindle and into hub.
- Install inner adjusting nut (5), but do not tighten.



- 5. Adjusting nut
- 7. Bearing
- 10. Seal
- 17. Spacer
- 21. Hub

TA 314801

4-30. HUB AND BRAKE DRUM (cont)

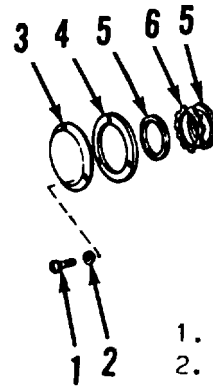
INSTALLATION OF HUB AND BRAKE DRUM ASSEMBLY ON AXLE (cont)

- 7. While turning hub slowly, tighten inner bearing adjusting nut, using locknut wrench, until hub binds on spindle. Back off nut about one-eighth turn. Check adjustment by attempting to rock hub on spindle. If bearings are properly adjusted, movement of brake drum in relation to top edge of backing plate will scarcely be visible and brake drum will turn freely. If movement is excessive, repeat procedure.
- 8. Install nut locking key washer (6) on spindle.

NOTE

With a minimum of movement, adjust bearing adjusting nut (5) so that flats of nut will mate with locking lugs on key washer (6).

- 9. Install outer bearing adjusting nut (5), using wheel bearing locknut wrench, drawing it up tightly against nut locking key washer (6). Take care not to disturb bearing adjustment.
- 10. Bend one or two locking lugs of key washer (.6) over outer and inner adjusting nuts (5). Recheck adjustment (step 7 above).
- 11. Position hub cap (3) and gasket (4) and secure with three screws (1) and washers (2).
- 12. Adjust brakes (para 4-17).



- 1. Screw
- 2. Washer
- 3. Hub cap
- 4. Gasket
- 5. Adjusting nut
- 6. Key washer

Section VIII. SPARE WHEEL CARRIER, LEVELING JACK AND LANDING GEAR

4-31. SPARE WHEEL CARRIER

THIS TASK COVERS

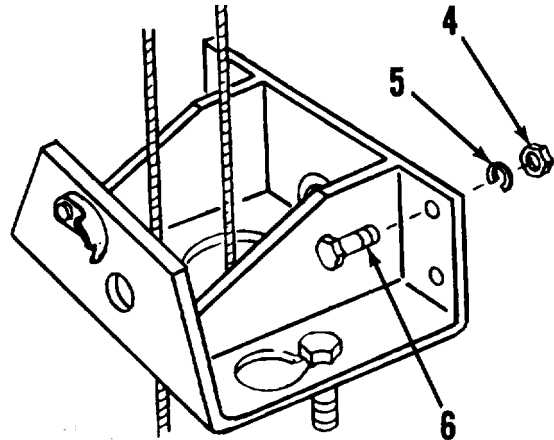
- a. Removal
- b. Cleaning
- c. Inspection and repair
- d. Replacement of wire rope
- e. Installation

Test Equipment Required: None

Personnel Required: 2
TA 314802

4-31. SPARE WHEEL CARRIER (cont)**REMOVAL**

1. Remove spare wheel and tire from carrier (para 2-22).
2. Remove four nuts (4), lock washers (5) and screws (6) securing spare wheel carrier to dolly.
3. Remove carrier.
 4. Nut
 5. Washer
 6. Screw

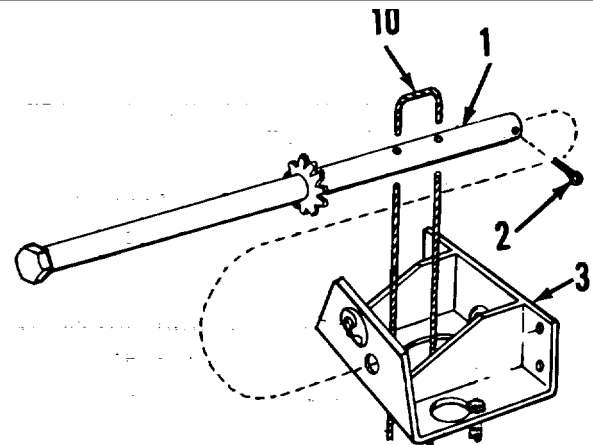
**CLEANING****WARNING**

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 138 F (58.80C).

1. Remove accumulated grease with cleaning solvent (item 3, appendix E).
2. Remove all surface dirt with water and stiff brush.

INSPECTION AND REPAIR

1. Check upper member (3) for cracks or breaks in welds. Straighten member and weld cracks.
2. Check ratchet wheel (1) for wear and alignment. Check weld of ratchet and nut on shaft for cracks or undue teeth wear. Reweld if necessary.
3. Replace ratchet wheel (1) by removing cotter pin (2) and wire rope (10). Slide worn ratchet wheel out and new one in; then secure with cotter pin (2) and attach wire rope (10).

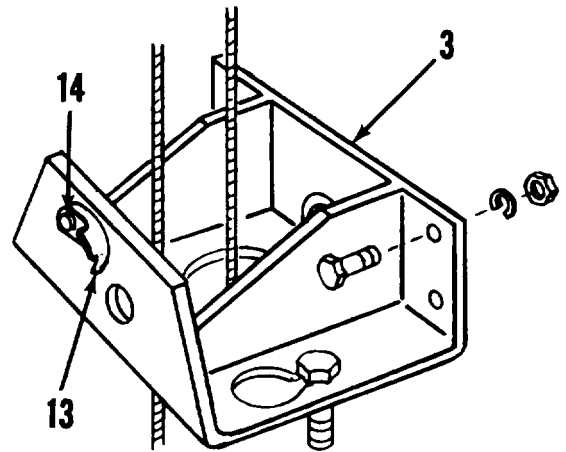


1. Ratchet wheel
2. Cotter pin
3. Upper member
10. Wire rope

4-31. SPARE WHEEL CARRIER (cont) I

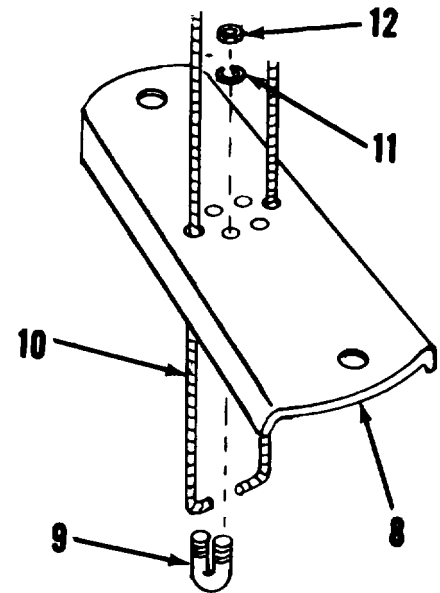
INSPECTION AND REPAIR (cont)

4. Check pawl (13) for wear and looseness of rivet (14) which attaches pawl to upper member (3). Replace pawl and/or replace rivet if necessary.



- 3. Upper member
- 13. Pawl
- 14. Rivet

5. Check lower member (8) for dents or twisted parts.
6. Check U-bolts (9) for tightness. Check nuts (12) for stripped threads and looseness and washers (11) for damage. Replace if necessary.
7. Check wire rope (10) for frayed wire or undue wear. Replace if necessary.
8. Repair and repaint damaged surfaces where paint has been removed, in accordance with instructions in TM 43-0139.



- 8. Lower member
- 9. U-bolt
- 10. Wire rope

- 11. Washer
- 12. Nut

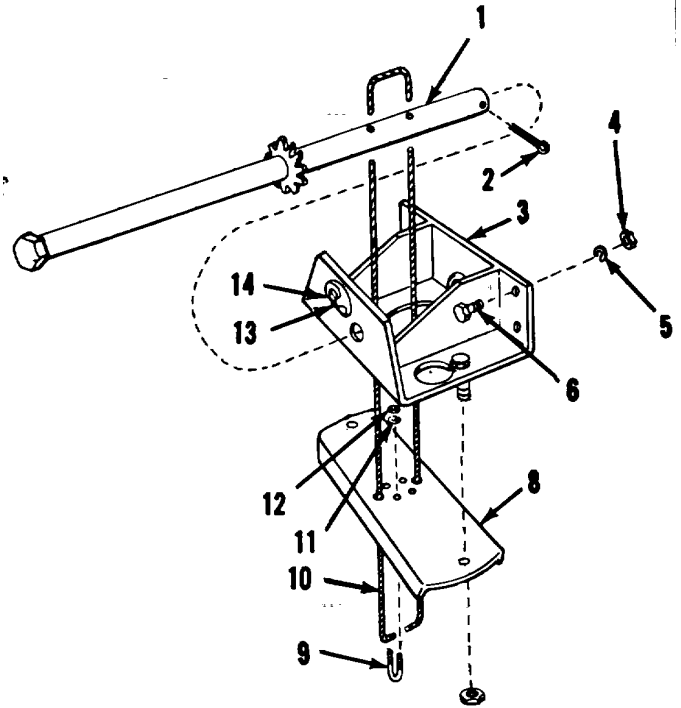
4-31. SPARE WHEEL CARRIER (cont)

REPLACEMENT OF WIRE ROPE

1. Release wire rope (10) from lower member (8) by removing four nuts (12) and lock washers (11) from U-bolts (9).
2. Draw wire rope (10) from holes in ratchet wheel (1).
3. Make a wire rope with ferrules to prevent raveling, from six feet of 3/16-inch diameter, 7 by 19 aircraft type, preformed wire rope.

INSTALLATION

1. Aline four holes in carrier upper member with holes in chassis.
2. Secure carrier with four screws (6), lock washers (5) and nuts (4).
3. Raise spare wheel carrier (para 2-22).



4-32. LEVELING JACK

THIS TASK COVERS

- a. Removal
- b. Cleaning
- c. Inspection and replacement
- d. Installation

Troubleshooting Reference
Item No.

- 16 Jack is hard to operate
- 17 Jack shoe will not set on base

Test Equipment Required: None

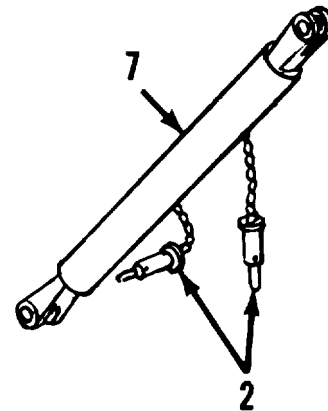
Personnel Required: 1

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4-32. LEVELING JACK (cont)

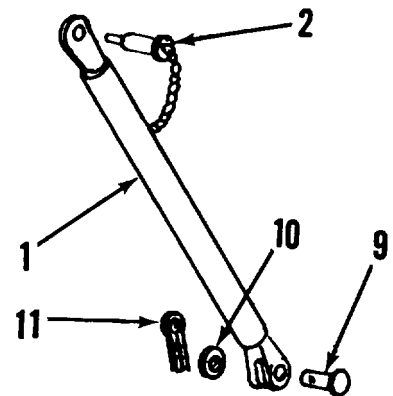
REMOVAL

1. Release two pin and chain assemblies (2) securing side brace (7). Remove brace.
2. Pin and chain assembly
7. Side brace



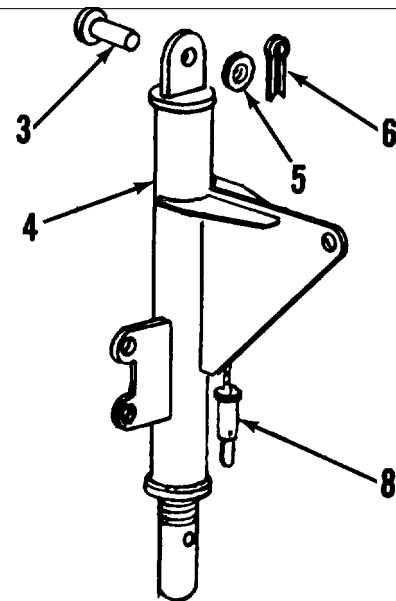
2. From rear brace (1), release pin and chain assembly (2). Remove cotter pin (11), flat washer (10) and headed pin (9) securing brace to gusset. Remove brace.

1. Rear brace
2. Pin and chain assembly
9. Headed pin
10. Flat washer
11. Cotter pin



3. Remove cotter pin (6), flat washer (5) and headed pin (3). Release pin and chain assembly (8) and remove housing (4).

3. Headed pin
4. Housing
5. Flat washer
6. Cotter pin
8. Pin and chain assembly



4-32. LEVELING JACK (cont)

CLEANING

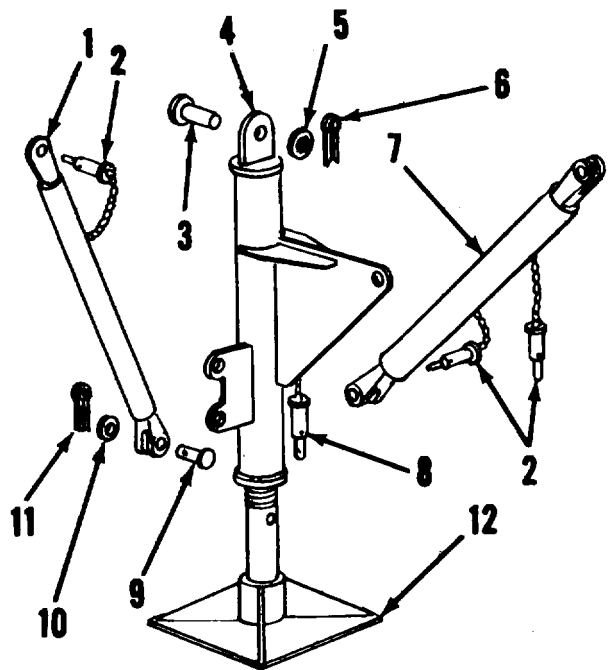
1. Remove accumulated grease with cleaning solvent (item 3, appendix E).
2. Remove surface dirt with water and stiff brush.

INSPECTION AND REPLACEMENT

1. Inspect housing for damage.
2. Check operation of Jack screw. Lubricate as required. Replace leveling Jack if screw is defective.
3. Check Jack shoe (12) for bend. Replace defective Jack shoe.
4. Inspect pin and chain assembly for wear and damage. Replace defective parts.

INSTALLATION

1. Position housing (4) under dolly rear crossmember and secure with headed pin (3), flat washer (5), cotter pin (6) and pin and chain assembly (8).
2. Position brace (1) and secure with headed pin (9), flat washer (10), cotter pin (11) and pin and chain assembly (2).
3. Position brace (7) and secure with two pin and-chain assemblies (2).



1. Brace
2. Pin and chain assembly
3. Headed pin
4. Housing
5. Flat washer
6. Cotter pin

7. Brace
8. Pin and chain assembly
9. Headed pin
10. Flat washer
11. Cotter pin
12. Shoe

4-33. SWING-UP LANDING GEAR

THIS TASK COVERS

- a. Removal
- b. Cleaning and inspection
- c. Installation

Troubleshooting Reference
Item No.

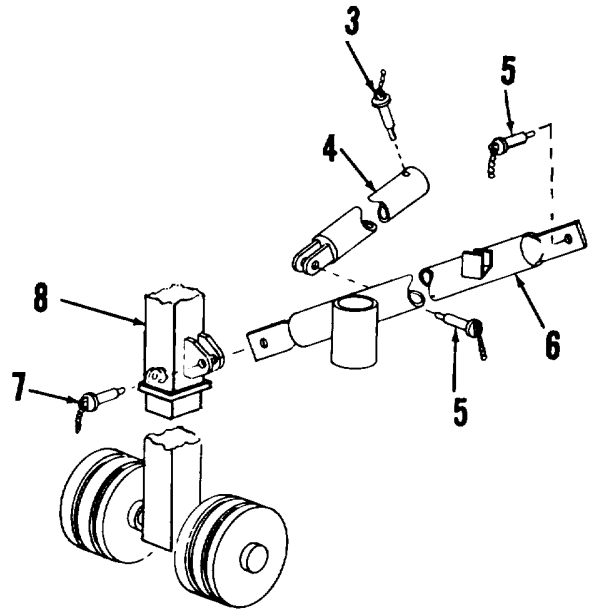
- 15 Erratic operation
(binding and grinding)

Test Equipment Required: None

Personnel Required: 1

REMOVAL

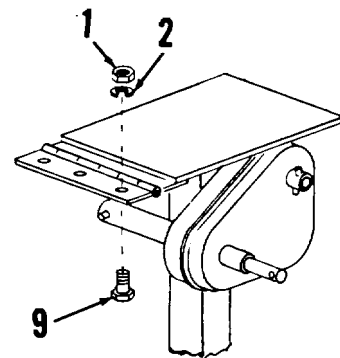
1. Couple semitrailer to towing vehicle, or block semitrailer for support.
2. Using crank assembly, retract landing gear leg (8) part way.
3. Release four pin and chain assemblies (3, 5, and 7) and remove two braces (4 and 6).



- 3. Pin and chain assembly
- 4. Brace
- 5. Pin and chain assembly
- 6. Brace
- 7. Pin and chain assembly
- 8. Leg

4. Remove three nuts (1), lock washers (2) and screws (9) and remove landing gear.

- 1. Nut
- 2. Lock washer
- 9. Screw



TA 314808

14-33. SWING-UP LANDING GEAR (cont)

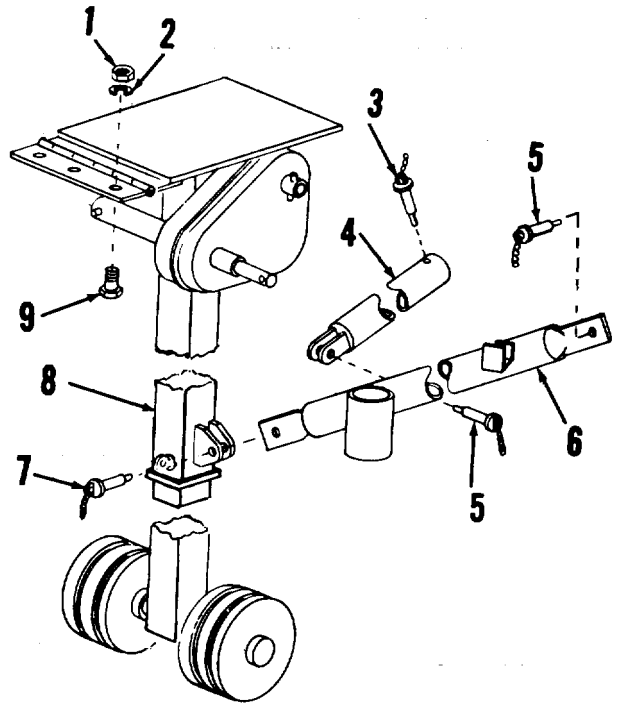
CLEANING AND INSPECTION

1. Clean mud and dirt from all exposed surfaces with water and stiff brush.
2. Check operation of landing gear. Lubricate as required. Replace if defective. No repair is authorized.

INSTALLATION

1. Position landing gear and secure in place with three screws (9), lockwashers (2) and nuts (1).
2. Position two braces (4 and 6) and secure in place with four pin and chain assemblies (3, 5, and 7).
3. Using crank assembly, lower landing gear leg to ground.
4. Remove towing vehicle or blocking.

1. Nut
2. Lock washer
3. Pin and chain assembly
4. Brace
5. Pin and chain assembly
6. Brace
7. Pin and chain assembly
8. Leg
9. Screw



TA 314809

Section IX. SUSPENSION SYSTEM MAINTENANCE

4-34. AIR SUSPENSION SYSTEM

THIS TASK COVERS

- a. General
- b. Adjustment
- c. Removal of rubber bushing and torsion bar
- d. Installation of rubber bushing and torsion bar
- e. Replacement of torsion bar
- f. Removal of air spring
- g. Installation of air spring
- h. Removal of axle connection components
- i. Installation of axle connection components
- J. Removal of height control valve
- k. Installation of height control valve
- l. Removal of adjusting rod
- m. Installation of adjusting rod
- n. Removal of shock absorber
- o. Installation of shock absorber

Troubleshooting References
Item No.

- 18 All air springs are flat
- 19 Air springs flat on one side only
- 20 Semitrailer leans
- 21 Suspension deflates rapidly when parked
- 22 Air springs blown out
- 23 Torsion bar breakage
- 24 Wear of torsion bar rubber bushing

Test Equipment Required: None

Personnel Required: 1

GENERAL

1. Safe brake air pressure of 65 psi is automatically maintained by brake valve in the event of air loss due to a failure in the system.
2. Rubber bumpers inside the air springs carry the loaded semitrailer should all springs go flat.
3. Stability through the axle connections allows operation of a loaded semitrailer with pressurized springs on one side of semitrailer only.
4. If an air spring fails, disconnect the height control valve linkage on inoperable side. Air to springs on that side will be shut off, allowing air pressure to build up in system and in air springs on opposite side.

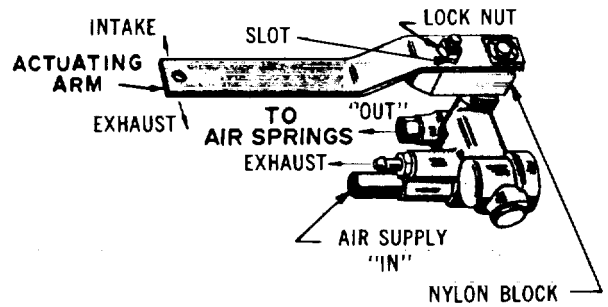
ADJUSTMENT

1. Adjust height control valve for proper dimensions between axle center line and underside of frame by setting one valve at a time.
2. Position semitrailer on level ground, coupled to towing vehicle. Build up air pressure to 65 psi and maintain this pressure while adjusting height control valve.

4-34. AIR SUSPENSION SYSTEM (cont)

ADJUSTMENT (cont)

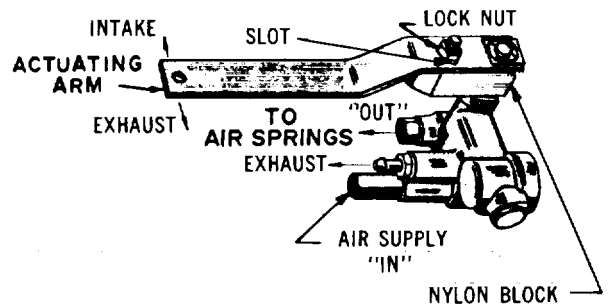
3. Disconnect the linkage from both height control valve actuating arms.
4. Move both of the actuating arms to a vertical down position and hold until all air is exhausted from air springs.
5. Connect one valve actuating arm only to its linkage. Air spring controlled by this valve will inflate until the valve shuts off inlet air pressures.
6. With one set of air springs fully inflated, measure distance from center line of axle to underside of frame.



NOTE

It will take two to six seconds after adjustment of nylon block in height control valve before air starts to flow through valve. This is caused by the built-in time delay.

7. Adjust valve by loosening lock nut and carefully moving nylon block until dimension of 14 inches, plus or minus one-eighth of an inch, is reached. Tighten adjustment lock nut.



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4-34. AIR SUSPENSION SYSTEM (cont)

ADJUSTMENT (cont)

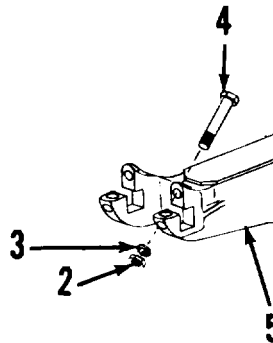
8. Disconnect linkage and let springs deflate about half way. Reconnect linkage and allow springs to inflate. When valve shuts off, check height dimension again.
9. Repeat steps 6, 7, and 8 above until proper 14 inches, plus or minus one-eighth of an inch dimension is reached.
10. Disconnect the valve adjusted in previous steps and move actuating arm to a vertical down position to deflate springs.
11. Repeat steps 5 through 10 above with the opposite height control valve.
12. Connect both actuating arms with their linkages. When springs are fully inflated and valves shut off, check height dimension. Both valves should be synchronized.

REMOVAL OF RUBBER BUSHING AND TORSION BAR

1. Remove weight from semitrailer by blocking and jacking up axle.
2. Remove front or rear wheels as required.
3. Disconnect linkage from height control valves and depress actuating arms to exhaust air pressure from air springs.

4. Remove nuts (2), lock washers (3) and cap screws (4) securing equalizing arms (5).

2. Nut
3. Lock washer
4. Cap screw
5. Equalizing

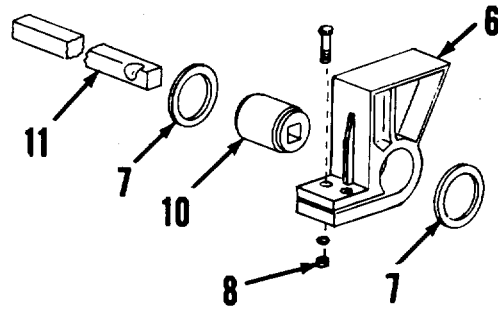


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4-34. AIR SUSPENSION SYSTEM (cont)

REMOVAL OF RUBBER BUSHING AND TORSION BAR (cont)

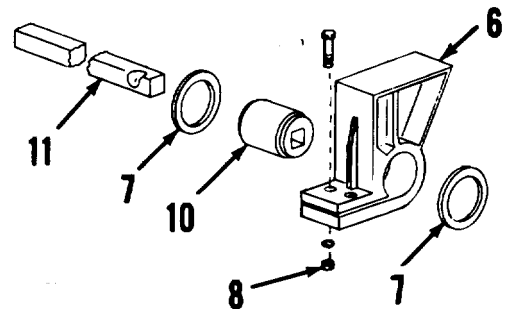
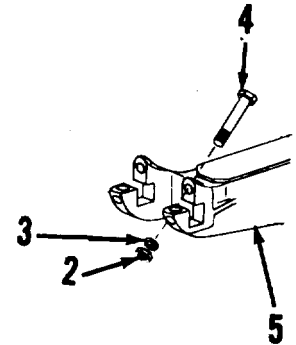
5. Loosen nuts (8) securing frame bracket (6).
6. Drive torsion bar (11) completely out of assembly, using care not to mushroom torsion bar end.
7. Carefully let both equalizing arms down away from frame brackets.
8. Push out rubber bushing (10) and spacers (7).



- | | | | |
|----|---------|-----|----------------|
| 6. | Bracket | 10. | Rubber bushing |
| 7. | Spacer | 11. | Torsion bar |
| 8. | Nut | | |

INSTALLATION OF RUBBER BUSHING AND TORSION BAR

1. Insert rubber bushing (10) and rotate, as near as possible, to operating position.
2. Place spacers (7) on ends of bushing (10) and move equalizing arms (5) back to their positions relative to frame brackets (6).
3. Line up square holes in bushing with square holes in equalizing arms to receive offset cap screw (4).
4. Insert torsion bar (11) through ends of equalizing arms and bushings. Make sure notch in torsion bar is aligned to receive offset cap screw (4).
5. Jack up axle to proper design height from horizontal axle centerline to underside of frame (14 inches, plus or minus one-eighth of an inch). Tighten nuts (8) with axle in proper height position to a torque of 150 lb-ft (203.4 Nm).
6. Install cap screws (4), lock washers (3) and nuts (2) and tighten to a torque of 200 lb-ft (271.2 Nm).



- | | |
|-----|----------------|
| 2. | Nut |
| 3. | Lock washer |
| 4. | Cap Screw |
| 5. | Equalizing arm |
| 6. | Bracket |
| 7. | Spacer |
| 8. | Nut |
| 10. | Rubber bushing |
| 11. | Torsion bar |

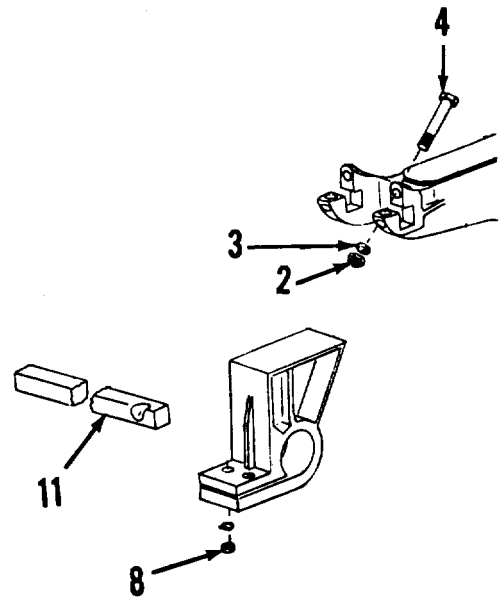
7. Reconnect linkage to height control valve.
8. Install wheels and remove blocking and jacking equipment.

4-34. AIR SUSPENSION SYSTEM (cont)**REPLACEMENT OF TORSION BAR ONLY**

1. Block up semitrailer to remove all weight from semitrailer.
2. Remove front or rear wheels as applicable.

3. Remove attaching nuts (2), lock washers (3), and cap screws (4), and loosen bracket nuts (8).
4. Place the chamfered end of the new torsion bar against end of old torsion bar (11) and drive out old torsion bar. Make sure notch in new torsion bar is positioned to receive cap screw in outer torsion bar clamp of left hand equalizing arm (5).
5. Install the cap screws (4), lock washers (3), and nuts (2) and tighten to a torque of 200 lb-ft (271.2 Nm). Tighten nuts (8) to a torque of 150 lb-ft (203.4 Nm).
6. Install the wheels and remove the blocking and jacking equipment.

2. Nut
3. Washer
4. Cap Screw
8. Nut
11. Torsion bar

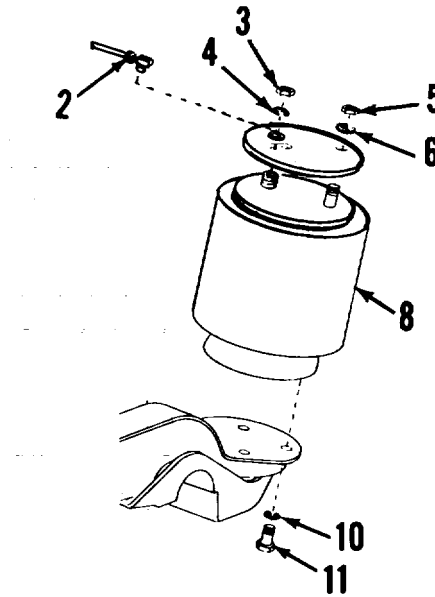
**REMOVAL OF AIR SPRING**

1. Block up semitrailer to remove all weight from suspension system.
2. Disconnect linkage from height control valve that supplies the faulty air spring. Exhaust pressurized air by moving actuating arm down.

TA 314813

4-34. AIR SUSPENSION SYSTEM (cont)**REMOVAL OF AIR SPRING (cont)**

3. Disconnect air hose (2) from top of air spring (8).
4. Remove upper mounting nuts (3 and 5) and lock washers (4 and 6).
5. Remove lower mounting cap screws (11) and washers (10).
6. Depress air spring to retract upper mounting studs from frame and remove air spring with lower piston attached.
7. Turn air spring assembly upside down and remove one-half inch nuts from inside of piston.
8. Tap down on clamp plate studs until air cell separates from piston.



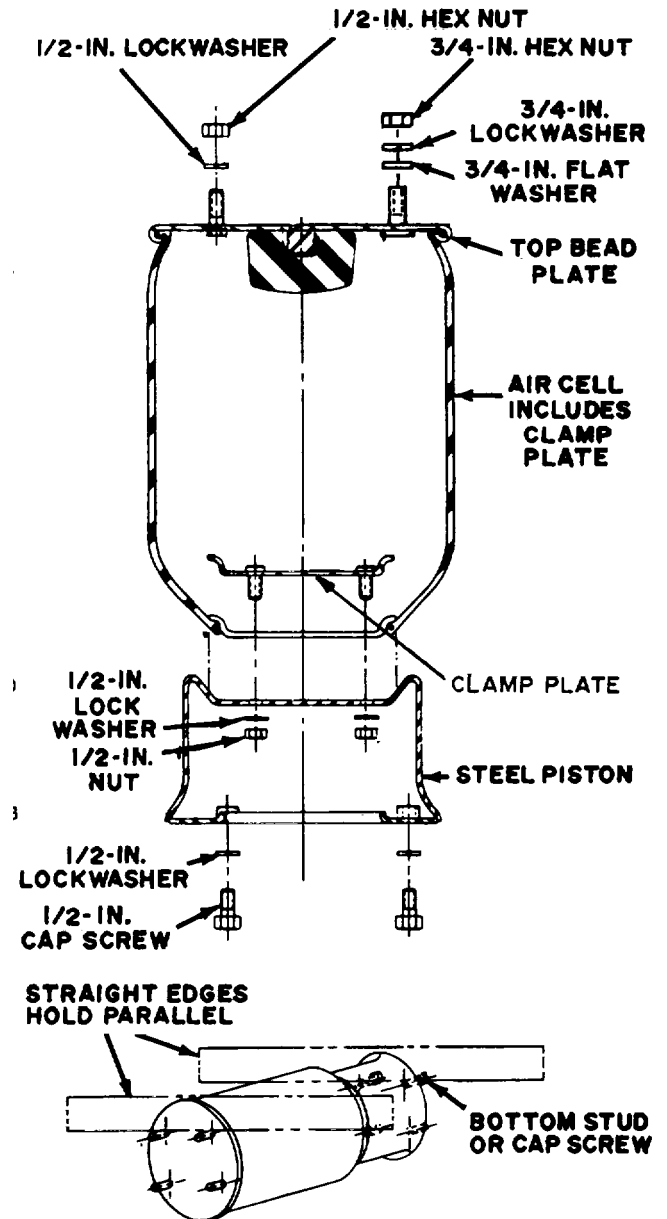
2. Air hose
3. Nut
4. Lock washer
5. Nut
6. Lock washer
8. Air spring
10. Washer
11. Screw

TA 314814

4-34. AIR SUSPENSION SYSTEM (cont)

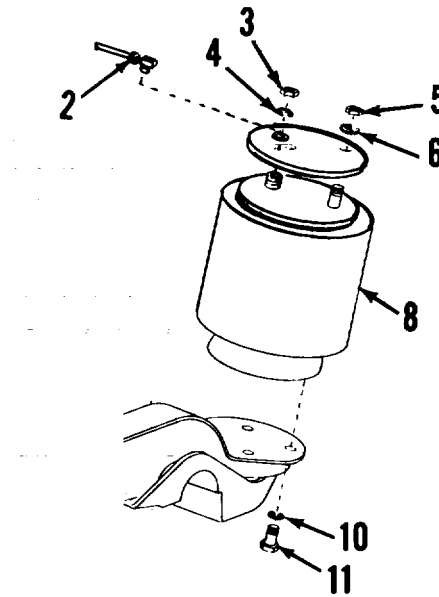
INSTALLATION OF AIR SPRING

1. Position the new air cell, right side up, over piston and position clamp plate so that studs hang down through opening in air cell.
2. Carefully set the air cell down on piston so that studs go through holes in piston.
3. Start the one-half inch nuts and lock washers on studs inside piston. Do not tighten.
4. Rotate the piston so that mounting studs in bottom of piston are parallel with mounting studs in top bead plate.
5. Start the cap screw in the bottom of piston. Hold two straight edge against top studs and bottom cap screws as shown. Adjust piston studs until straight edges aline.
6. Tighten the nuts inside the piston to a torque of 50 lb-ft (67.8 Nm).
7. Recheck for the proper alinement of top and bottom studs.



4-34. AIR SUSPENSION SYSTEM (cont)**INSTALLATION OF AIR SPRING (cont)**

8. Place air spring assembly (8) on pad of equalizing arm (9) and install lower mounting cap screws (11) and lock washers (10). Tighten to a torque of 25 lb-ft (33.9 Nm) maximum.
9. Depress air spring and guide upper studs into air spring mounting plate (7). Secure with nuts (3 and 5) and lock washers (4 and 6).
10. Reconnect air hose (2).



2. Air hose
3. Nut
4. Lock washer
5. Nut
6. Lock washer
8. Air spring
9. Equalizing arm
10. Washer
11. Screw

11. Reconnect height control valve linkage.
12. Recheck for leaks at operating pressure of 65 psi (448.2 k pa).
13. Remove blocking and jacking equipment.

REMOVAL OF AXLE CONNECTION COMPONENTS

1. Remove all weight from suspension by blocking up semitrailer and jacking up axle.
2. Exhaust all air from air springs by disconnecting linkage to both height control valves and rotating actuating arms down.

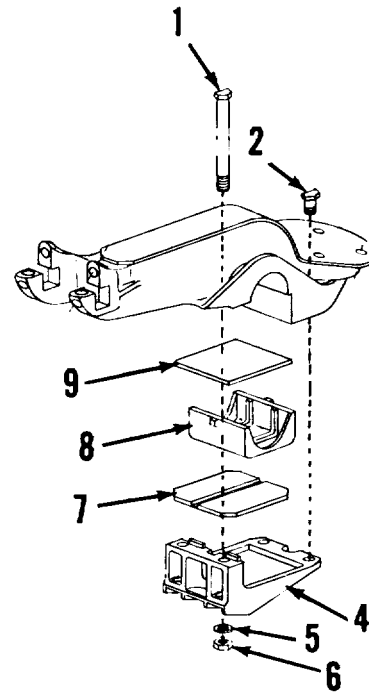
TA 314817

4-34. AIR SUSPENSION SYSTEM (cont)

REMOVAL OF AXLE CONNECTION COMPONENTS (cont)

3. Remove the axle cap nuts (6), washers (5), bolts (1 and 2) and remove axle cap (4), rubber pad (7), axle adapter (8), and rubber wrapper (9).

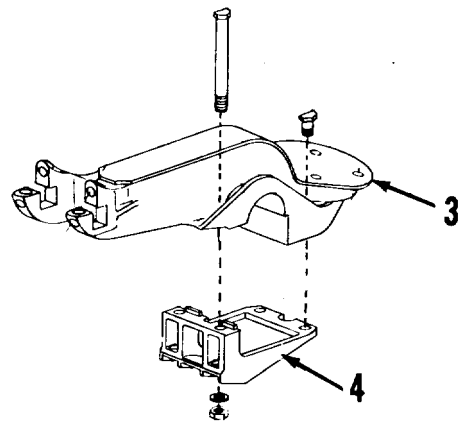
- 1. Bolt
- 2. Bolt
- 4. Axle cap
- 5. Washer
- 6. Axle cap nut
- 7. Rubber pad
- 8. Axle adapter
- 9. Rubber wrapper



INSTALLATION OF AXLE CONNECTION COMPONENTS

1. The axle connection cap (4) must be drawn down so that a metal to metal contact exists between the axle connection cap and its mating part (3). Tighten nuts to a torque of 300 lb-ft (406.8 Nm).

- 3. Equalizing arm
- 4. Axle cap

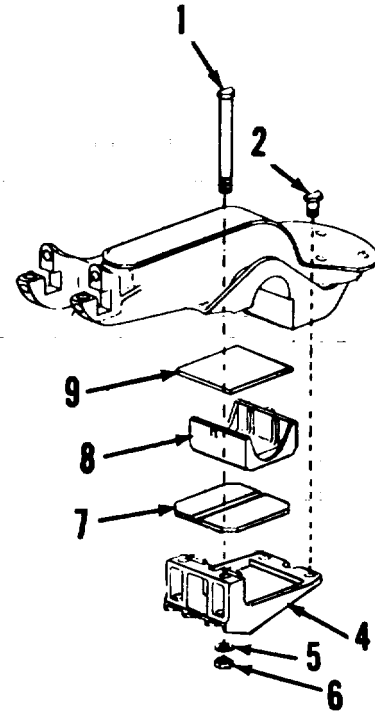


4-34. AIR SUSPENSION SYSTEM (cont)

REMOVAL OF AXLE CONNECTION COMPONENTS (cont)

2. Position the axle connection components (4, 7, 8i and 9). Make sure that groove in rubber pad (7) matches bottom tongue on axle adapter (8). The metal tongues on axle cap (4) must fit into proper slots provided in mating parts.
3. Secure axle connection components (4, 7, 8, and 9) with bolts (1 and 2), flat washers (5) and nuts (6).

1. Bolt
2. Bolt
4. Axle cap
5. Flat washer
6. Nut
7. Rubber pad
8. Axle adapter
9. Rubber wrapper



4. Reconnect linkage to height control valves.
5. Remove jacking and blocking equipment.

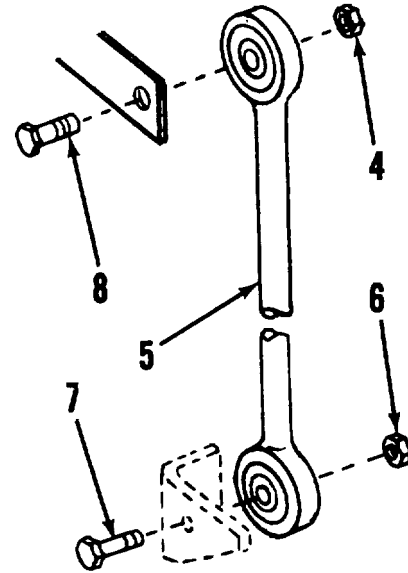
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4-34. AIR SUSPENSION SYSTEM (cont)

REMOVAL OF HEIGHT CONTROL VALVE

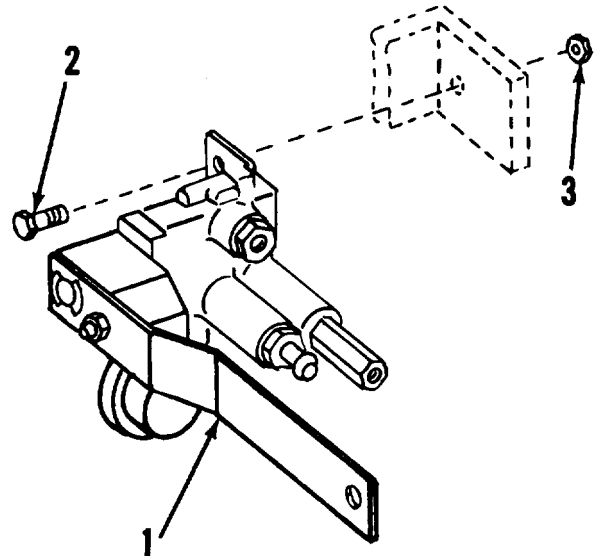
1. Remove nut (6) and screw (7) securing lower end of adjusting rod (5).
2. Remove nut (4) and screw (8) securing upper end of adjusting rod to height control valve.

4. Nut
5. Adjusting rod
6. Nut
7. Screw
8. Screw



3. Remove two nuts (3) and screws (2) securing height control valve (1). Remove height control valve.

1. Height control valve
2. Screw
3. Nut



TA 314820

4-34. AIR SUSPENSION SYSTEM (cont)

INSTALLATION OF HEIGHT CONTROL VALVE

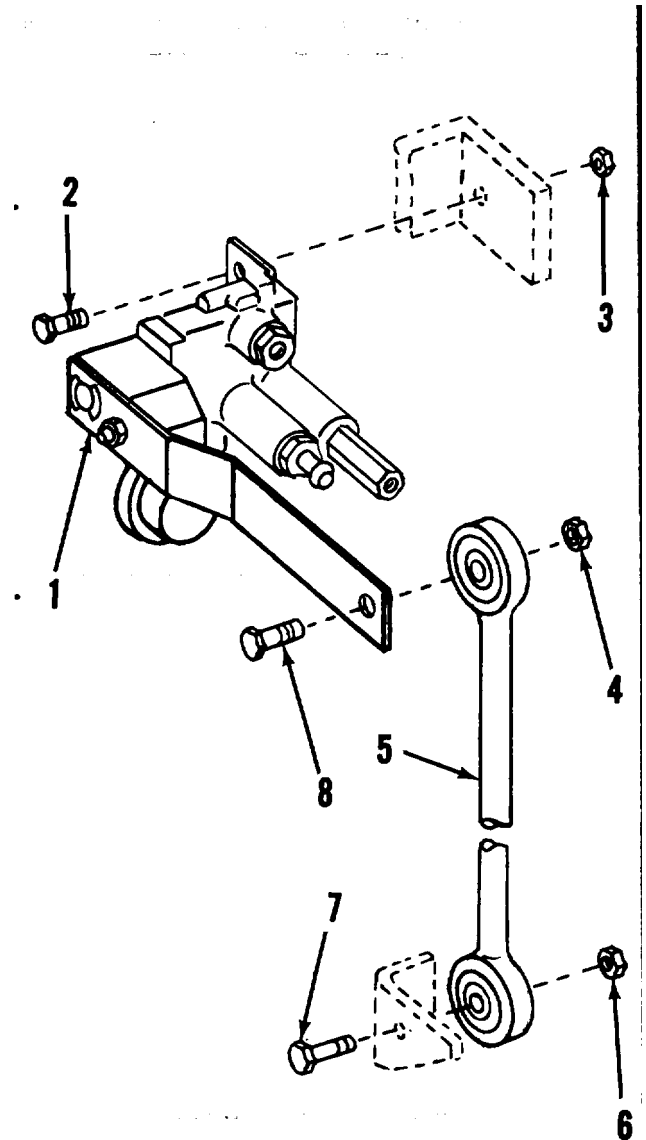
1. Position the height control valve (1) and secure with two screws (2) and nuts (3).
2. Position the upper end of adjusting rod (5) on height control valve and secure with screw (8) and nut (4),
3. Position the lower end of the adjusting rod (5) and secure with screw (7) and nut (6)

REMOVAL OF ADJUSTING ROD

1. Remove nut (6) and screw (7) securing lower end of adjusting rod (5)
2. Remove nut (4) and screw (8) securing upper end of adjusting rod (5) to height control valve (1).
3. Remove adjusting rod (5).

INSTALLATION OF ADJUSTING ROD

1. Position adjusting rod (5) on height control valve.
2. Secure upper end of adjusting rod (5) to height control valve with screw (8) and nut (4).
3. Secure lower end of adjusting rod (5) with screw (7) and nut (6)-.



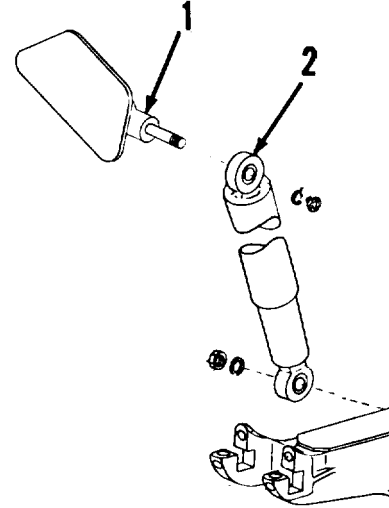
- | | |
|----|----------------------|
| 1. | Height control valve |
| 2. | Screw |
| 3. | Nut |
| 4. | Nut |

- | | |
|----|---------------|
| 5. | Adjusting rod |
| 6. | Nut |
| 7. | Screw |
| 8. | Screw |

14-34. AIR SUSPENSION SYSTEM (cont)

REMOVAL OF SHOCK ABSORBER

1. Apply 65 psi (448.2 k pa) air pressure to suspension, or block up semitrailer to design height of 14 inches as measured from centerline of axle to underside of frame.
2. Remove nuts (4) and flat washers (3) securing top and bottom shock absorber mounting eyes to shock mount studs (1).
3. Remove shock absorber (2).



INSTALLATION OF SHOCK ABSORBER

1. Position eyes of shock absorber (2), large end up, on ends of mounting studs
2. Lightly tap shock absorber onto studs, using hammer and wood block.

1. Mounting stud
2. Shock absorber
3. Flat washer
4. Nut

4-35. AIR MOUNTED KINGPIN

THIS TASK COVERS

- a. Adjustment of height control valve
- b. Removal of air spring
- c. Installation of air spring
- d. Removal of shock absorber
- e. Installation of shock absorber
- f. Removal of fifth wheel plate hinge components
- g. Installation of fifth wheel plate hinge components.
- h. Removal of adjusting rod,
- i. Installation of adjusting rod

Troubleshooting Reference
Item No.

- | | |
|----|---------------------------------------|
| 25 | Air springs flat |
| 26 | Unlevel condition when fully inflated |
| 27 | System deflates rapidly when parked |
| 28 | Air springs blown out |

Test Equipment Required: None

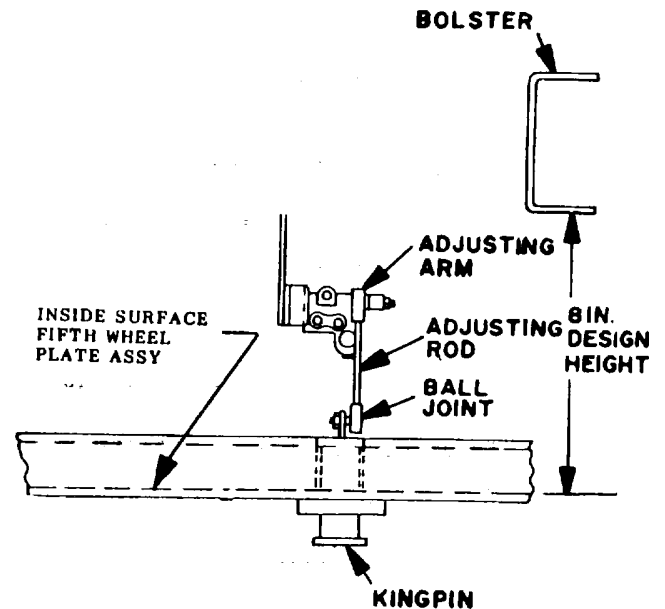
Personnel Required: 1

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4-35. AIR MOUNTED KINGPIN (cont)**ADJUSTMENT OF HEIGHT CONTROL VALVE****CAUTION**

Do not pull adjusting arm all the way down. It will be crushed against fifth wheel plate.

1. The design dimension between bottom of bolster and upper face of fifth wheel plate is eight inches when fifth wheel plate is in position parallel to semitrailer frame. The design height can vary plus or minus one-eighth of an inch without adverse effect on operation.
2. Loosen the height control valve adjusting rod and raise adjusting arm when height is too low. Tighten adjusting rod.
3. Loosen the height control valve adjusting rod and lower adjusting arm when height is too high. Tighten adjusting rod (refer to appendix H for torque limits).

**REMOVAL OF AIR SPRING**

1. Extend landing gear legs and uncouple semitrailer from towing vehicle.
2. Disconnect linkage from height control valve and depress actuating arm to exhaust air pressure from air springs.
3. Place fork lift or other suitable lifting or blocking device under fifth wheel plate to carry weight of assembly.

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4-35. AIR MOUNTED KINGPIN (cont)

REMOVAL OF AIR SPRING (cont)

4. Disconnect air line (6) at top of air spring and remove upper mounting screws (1) and lock washers (2).
5. Remove screws (4) attaching air springs to fifth wheel plate (5).

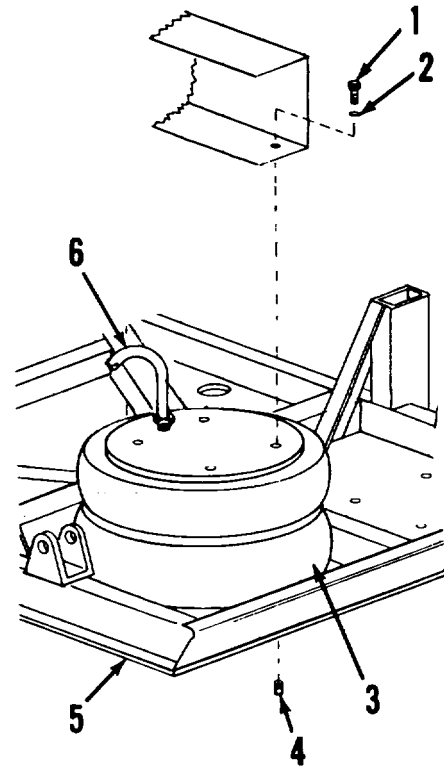
NOTE

It may be necessary to disconnect shock absorbers before proceeding. Refer to procedures in paragraph covering removal of shock absorber.

6. Lower fifth wheel plate sufficiently to allow removal of air spring (3). Pull air spring forward to clear fifth wheel plate and remove air spring.

INSTALLATION OF AIR SPRING

1. Slide replacement air spring into position on fifth wheel plate, align bottom mounting holes, insert screws (4) and tighten.
2. Raise fifth wheel plate (5) to match air spring top mounting holes in channels in van body sub-base. Install screws (1) and lock washers (2) and tighten.



1. Screw
2. Lock washer
3. Air spring
4. Screw
5. Fifth wheel plate
6. Air line

3. Connect air line to inlet at top of air spring. Connect valve linkage.
4. Couple semitrailer to towing vehicle, build up air pressure and check for air leaks with soap solution.

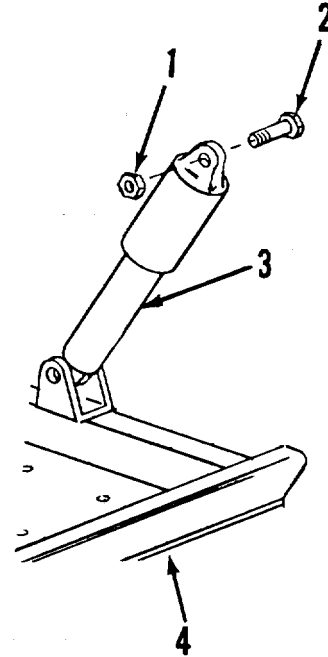
TA 314824

4-35. AIR MOUNTED KINGPIN (cont)**REMOVAL OF SHOCK ABSORBER**

1. Apply 65 psi air pressure to suspension, or block up semitrailer to the design height of 8 inches, plus or minus one-eighth of an inch, between upper face of fifth wheel plate and bottom of bolster, with fifth wheel plate (4) parallel to semitrailer frame.
2. Remove nuts (1) and screws (2) securing top and bottom shock absorber mounting eyes to mountings.
3. Remove shock absorber (3).

INSTALLATION OF SHOCK ABSORBER

1. Position shock absorber (3) with large end up.
2. Install screws (2) and nuts (1) and tighten (refer to appendix H, torque limits).
3. Remove blocking equipment, if used.



1. Nut
2. Screw
3. Shock absorber
4. Fifth wheel plate

REMOVAL OF FIFTH WHEEL PLATE HINGE COMPONENTS

1. Extend landing gear legs and uncouple towing vehicle from semitrailer.
2. Disconnect linkage from height control valve and depress actuating arm to exhaust air pressure from air springs.
3. Place suitable lifting or blocking device under fifth wheel plate to carry weight of assembly when removed.

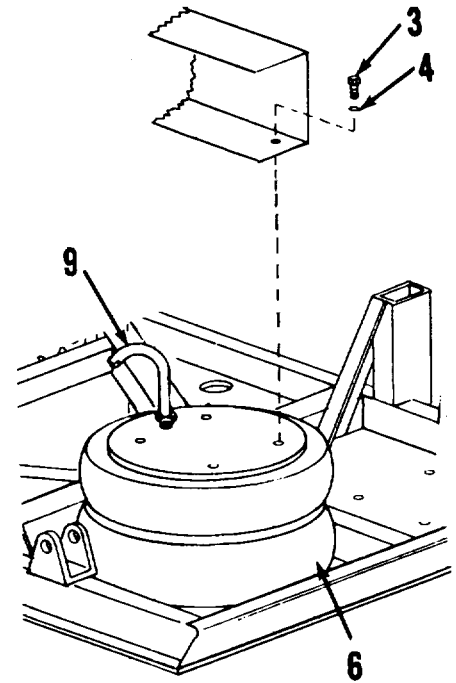
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4-35. AIR MOUNTED KINGPIN (cont)

REMOVAL OF FIFTH WHEEL PLATE HINGE COMPONENTS (cont)

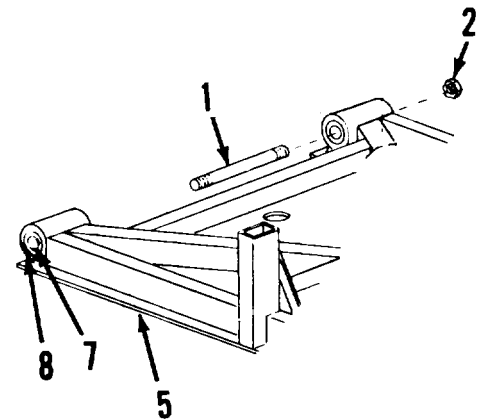
4. Disconnect air line (9) at top of air spring (6).
5. Remove upper mounting screws (3) and lock washers (4).
6. Disconnect shock absorbers.

3. Screw
4. Lock washer
6. Air spring
9. Air line



7. Remove nuts (2) from each end of hinge rod bolt (1) and remove rod bolt.
8. Lower fifth wheel plate assembly (5) from semitrailer.
9. Drive rubber bushing (8) and sleeve (7) from hinge fitting.

1. Hinge bolt
2. Nut
5. Fifth wheel plate
7. Sleeve
8. Rubber bushing



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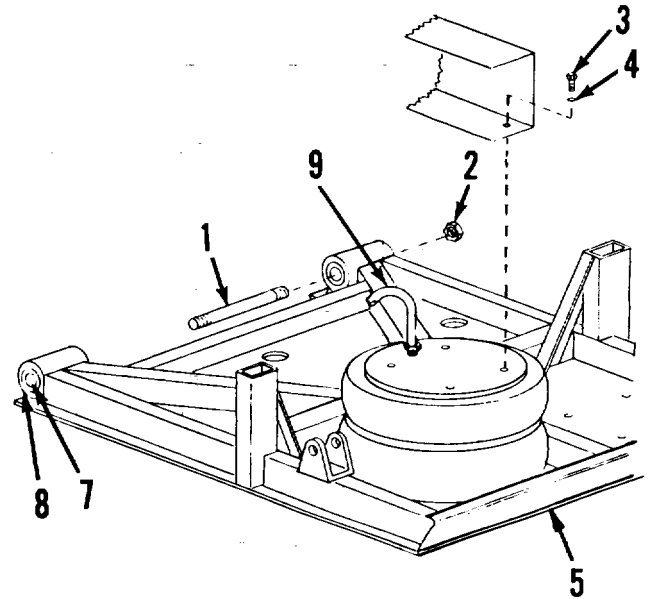
4-35. AIR MOUNTED KINGPIN (cont)

INSTALLATION OF FIFTH WHEEL PLATE HINGE COMPONENTS

NOTE

Install rubber bushing (8) using new inner sleeve (7). Sleeve must be driven into bushing (8) before installation.

1. Mate fifth wheel plate (5) to semi-trailer hinge fittings and insert rod bolts (1). Secure with nuts (2)
2. Connect shock absorbers.
3. Connect air line (9) at top of air spring.
4. Raise fifth wheel plate (5) to mate air spring top mounting holes with matching holes in channels in van body sub-base.
5. Install screws (3) and lock washers (4).



- | | |
|----------------|----------------------|
| 1. Rod bolt | 5. Fifth wheel plate |
| 2. Nut | 7. Sleeve |
| 3. Screw | 8. Rubber bushing |
| 4. Lock washer | 9. Air line |

6. Connect height control valve linkage.
7. Couple semitrailer to towing vehicle, build up air pressure and check for air leaks with soap solution.

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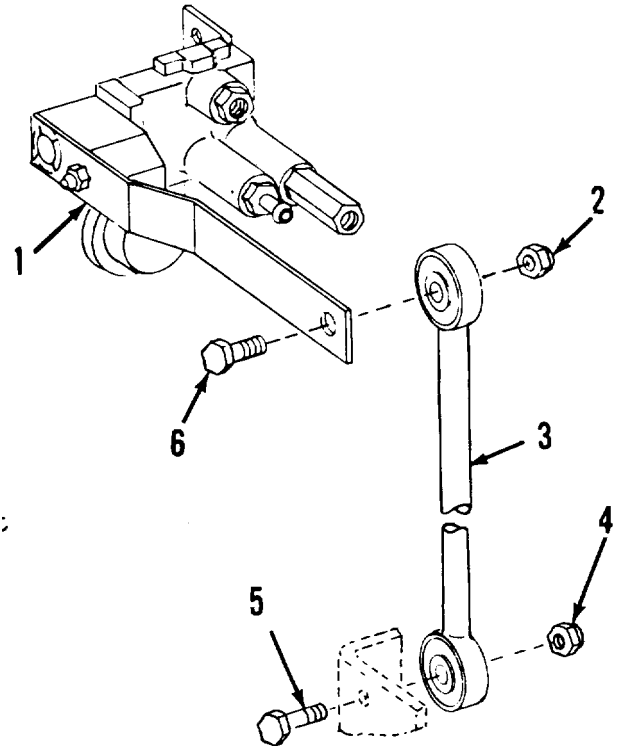
4-35. AIR MOUNTED KINGPIN (cont)

REMOVAL OF ADJUSTING ROD

1. Remove nut (4) and screw (5) securing lower end of adjusting rod (3).
2. Remove nut (2) and screw (6) securing upper end of adjusting rod (3) to height control valve (1).
3. Remove adjusting rod (3).

INSTALLATION OF ADJUSTING ROD

1. Position adjusting rod (3) on height control valve (1).
2. Secure upper end of adjusting rod (3) to height control valve with screw (6) and nut (2).
3. Secure lower end of adjusting rod (3) with screw (5) and nut (4).



- | | |
|----|----------------------|
| 1. | Height control valve |
| 2. | Nut |
| 3. | Adjusting rod |

- | | |
|----|-------|
| 4. | Nut |
| 5. | Screw |
| 6. | Screw |

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**Section X. REAR PLATFORM AND FRONT PLATFORM
MAINTENANCE PROCEDURES**

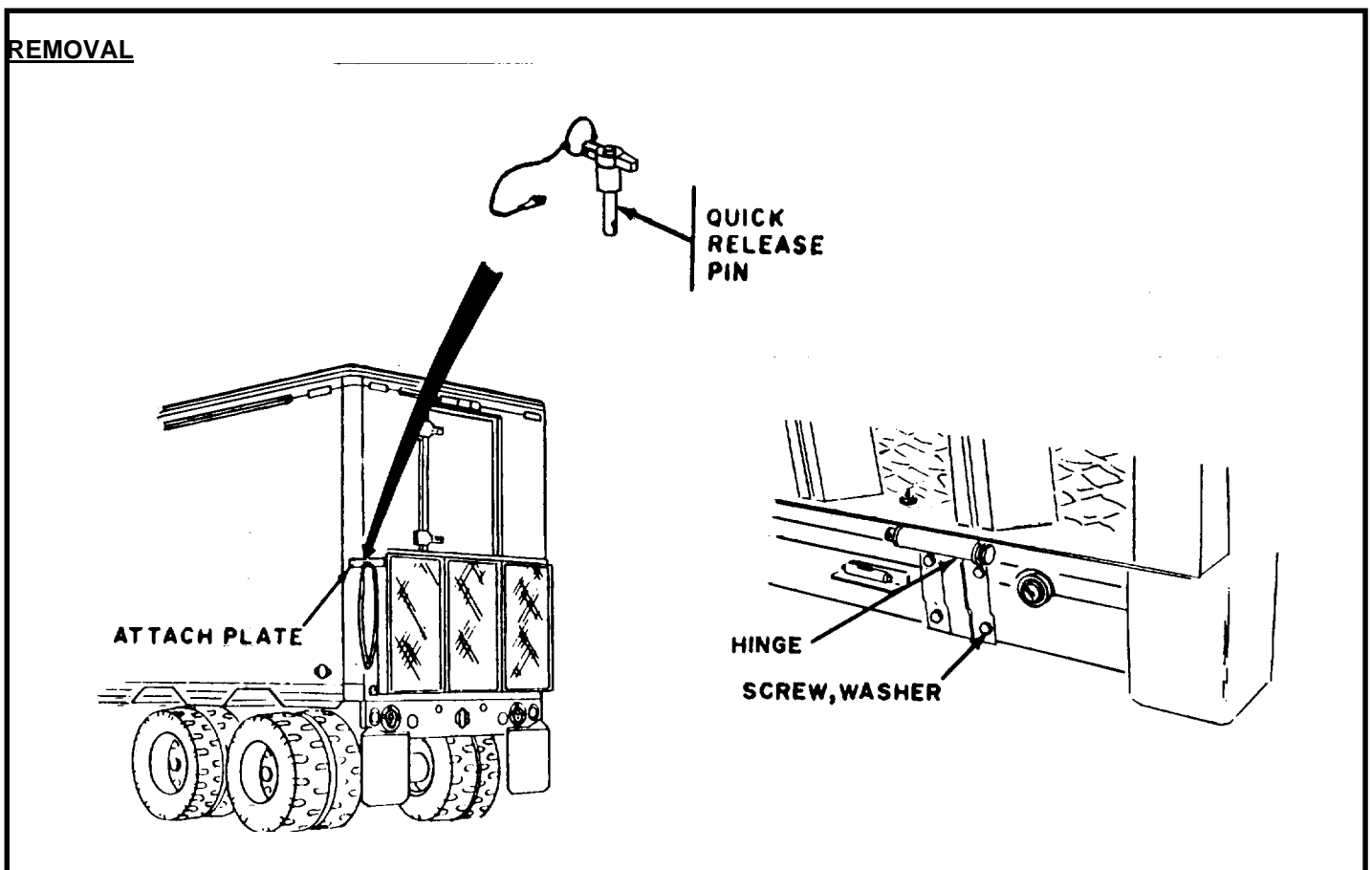
4-36. REAR PLATFORM

THIS TASK COVERS

- a. Removal
- b. Installation
- c. Removal of chains
- d. Installation of chains
- e. Removal of hinges
- f. Installation of hinges
- g. Removal of rubber bumpers
- h. Installation of rubber bumpers
- i. Removal of quick release pins
- j. Installation of quick release pins
- k. Removal of handrail chains
- l. Installation of handrail chains

Equipment Required: None

Personnel Required: 2



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4-36. REAR PLATFORM (cont)

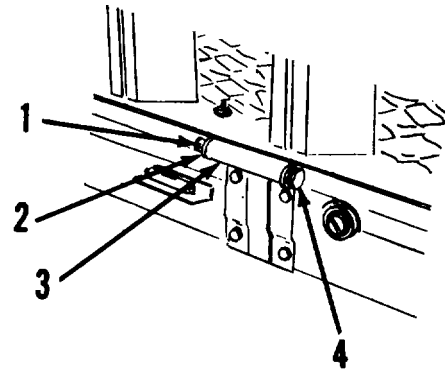
REMOVAL (cont)

WARNING

**Platform must be supported in upright position during removal procedure.
Two persons are required, due to the weight of the platform.**

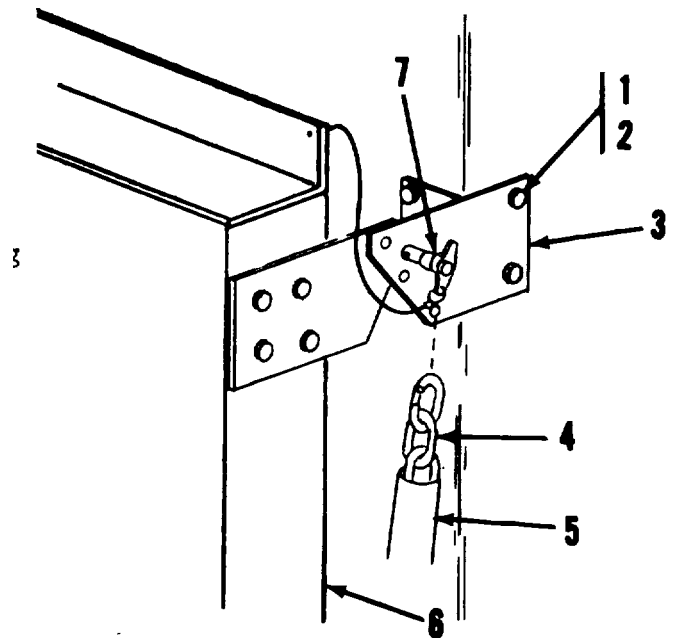
1. Block platform to support it when attaching hardware is removed.
2. With platform in upright position and supported by one of the persons, remove three nuts (1), six washers (2) and three screws (4) securing three hinges (3) to van body.

1. Nut
2. Washer
3. Hinge
4. Screw



3. Remove screws (1) and washers (2) securing upper attach plates (3). Remove attach plate, chain (4) and tubing (5) as a unit.
4. Remove quick release pins (7) securing upper end of platform (6) to van body and lower platform to ground.

1. Screw
2. Washer
3. Attach plate
4. Chain
5. Tubing
6. Platform
7. Release pin

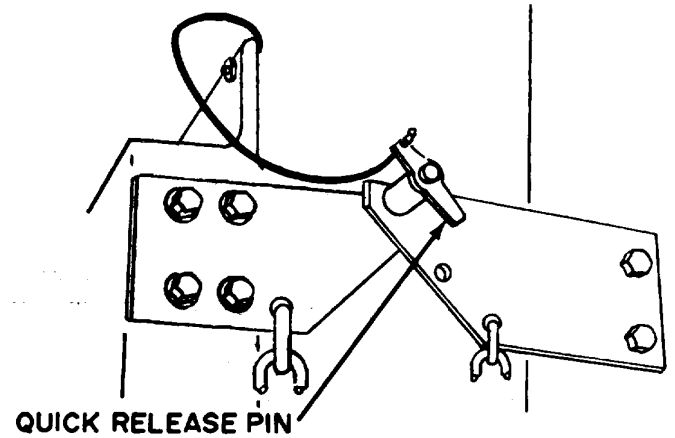


4-36. REAR PLATFORM (cont)

INSTALLATION

1. Block platform so that holes in hinges are alined with holes in van body.
2. Secure hinges to body with screws and washers.
3. Position upper attach plate and chain and secure with screws and washers.

4. Secure platform in position with quick release pins.

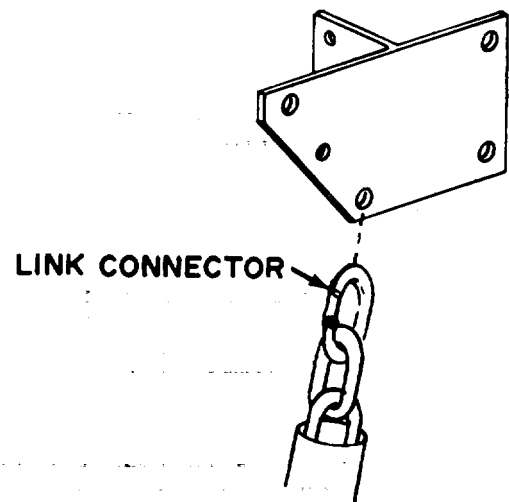


REMOVAL OF CHAINS

1. Using bolt cutters, remove link connector at each end of chain.
2. Remove chain and tubing.

INSTALLATION OF CHAINS

1. Install tubing on chain.
2. Aline two ends of link connector at each end of chain and peen together.



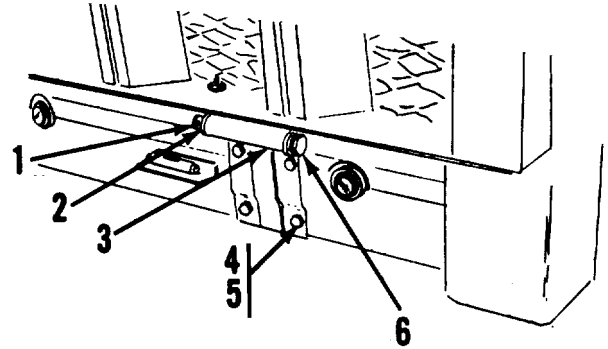
4-36. REAR PLATFORM (cont)

REMOVAL OF HINGES

1. Remove platform.
2. Remove four screws (4) and lock washers (5) securing hinge and strap (3) to body of semitrailer.
3. Remove nut (1), two flat washers (2) and screw (6) which secure the hinge to the platform. Remove hinge.

INSTALLATION OF HINGES

1. Position hinge on rear platform and secure it with screw (6), two flat washers (2) and nuts (1).
2. Block platform so that holes in hinge align with holes in body of semitrailer.
3. Secure hinge to body with four screws (4) and washers (5).
4. Install platform in position and secure with quick release pins.



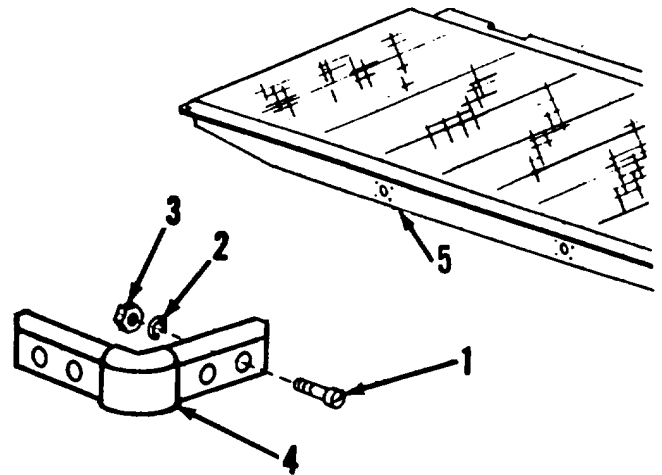
- | | |
|----|-----------------|
| 1. | Nut |
| 2. | Flat washer |
| 3. | Hinge and strap |
| 4. | Screw |
| 5. | Lock washer |
| 6. | Screw |

REMOVAL OF RUBBER BUMPERS

1. Remove four nuts (3), washers (2) and screws (1) securing bumper (4) to platform (5).
2. Remove bumper.

INSTALLATION OF RUBBER BUMPERS

1. Position rubber bumper (4) on edge of platform (5).
2. Secure bumper (4) with four screws (1), washers (2) and nuts (3).



- | | | | |
|----|--------|----|----------|
| 1. | Screw | 4. | Bumper |
| 2. | Washer | 5. | Platform |
| 3. | Nut | | |

4-36. REAR PLATFORM (cont)

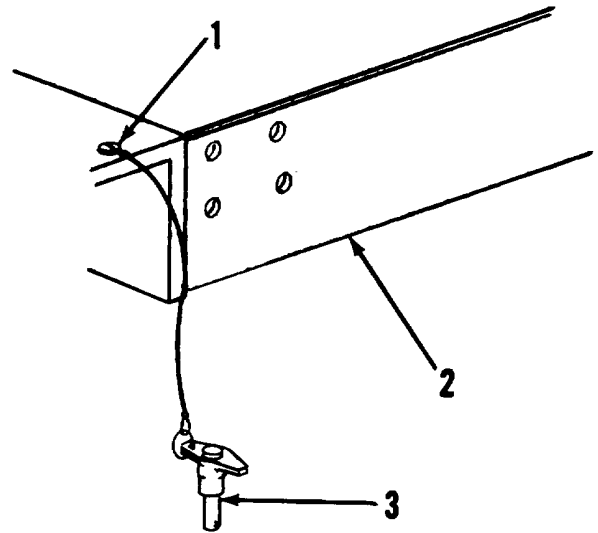
REMOVAL OF QUICK RELEASE PINS

1. Remove screw (1) securing quick release pin (3) to platform (2).
2. Remove quick release pin.

INSTALLATION OF QUICK RELEASE PINS

1. Position quick release pin (3) on platform (2).
2. Secure pin (3) with screw (1).

1. Screw
2. Platform
3. Pin

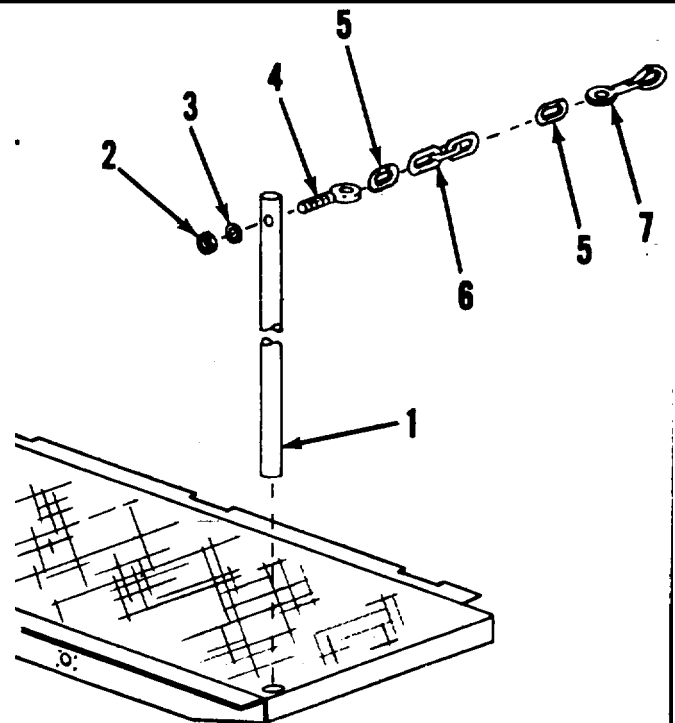


REMOVAL OF HANDRAIL CHAINS

1. Remove nut (2) and washer (3) securing eye bolt (4) to upright (1)
2. At other end, release snap hook (7) and remove chain (6).
3. Using bolt cutters, remove link connector (5) at each end of chain.

INSTALLATION OF HANDRAIL CHAINS

1. At upper end of chain (6), insert link connector (6) between end of chain and snap hook (7). Peen ends of link connector together.
2. At upright end of chain, insert link connector between end of chain and eye bolt (4). Peen ends of link connector together.
3. Insert eye bolt (4) in upright (1) and secure with nut (2) and washer (3).



- | | |
|-------------|-------------------|
| 1. Upright | 5. Link connector |
| 2. Nut | 6. Chain |
| 3. Washer | 7. Snap hook |
| 4. Eye bolt | |

4-37. FRONT PLATFORM

THIS TASK COVERS

- a. Removal of lock pins
- b. Installation of lock pins
- c. Removal of rubber bumper
- d. Installation of rubber bumper
- e. Removal of handrail chains
- f. Installation of handrail chains
- g. Removal of handrail lock pins
- h. Installation of handrail lock pins

Test Equipment Required: None

Personnel Required: 1

REMOVAL OF LOCK PINS

1. Remove screw (1) and washer (2) securing tension lock pin (3) to platform (4).
2. Remove lock pin (3).

INSTALLATION OF LOCK PINS

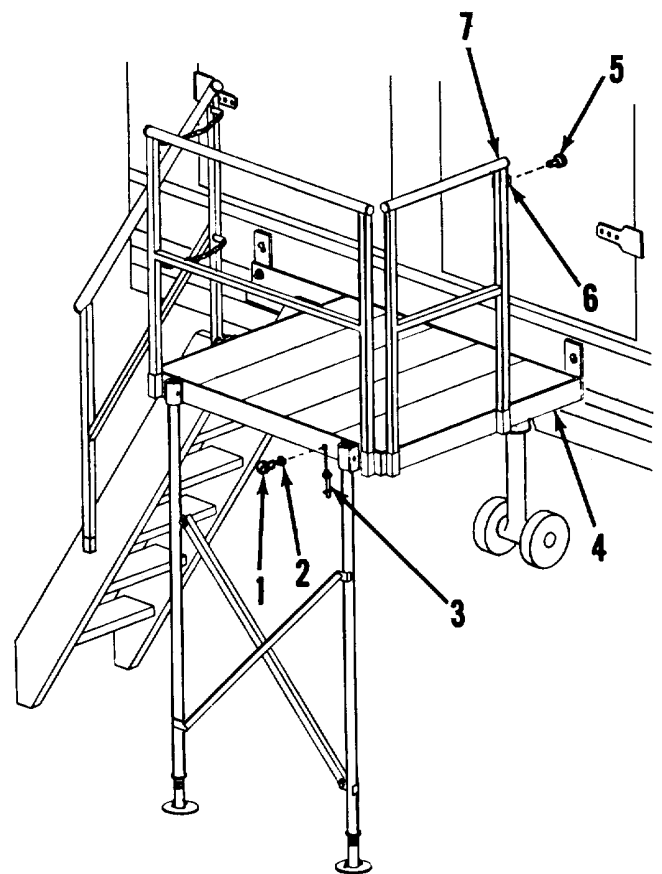
1. Position lock pin (3) on platform (4).
2. Secure with screw (1) and washer (2).

REMOVAL OF RUBBER BUMPER

1. Remove screws (5) securing rubber bumper (6) to side handrail (7).
2. Remove bumper (6).

INSTALLATION OF RUBBER BUMPER

1. Position bumper (6) on side handrail (7).
2. Secure with screws (5).



- 1. Screw
- 2. Washer
- 3. Lock pin
- 4. Platform
- 5. Screw
- 6. Rubber bumper
- 7. Side Handrail

14-37. FRONT PLATFORM (cont)

REMOVAL OF HANDRAIL CHAINS

1. Release snap hook (1).
2. Using bolt cutters, remove link connector (2) at each end of chain (3).

INSTALLATION OF HANDRAIL CHAINS

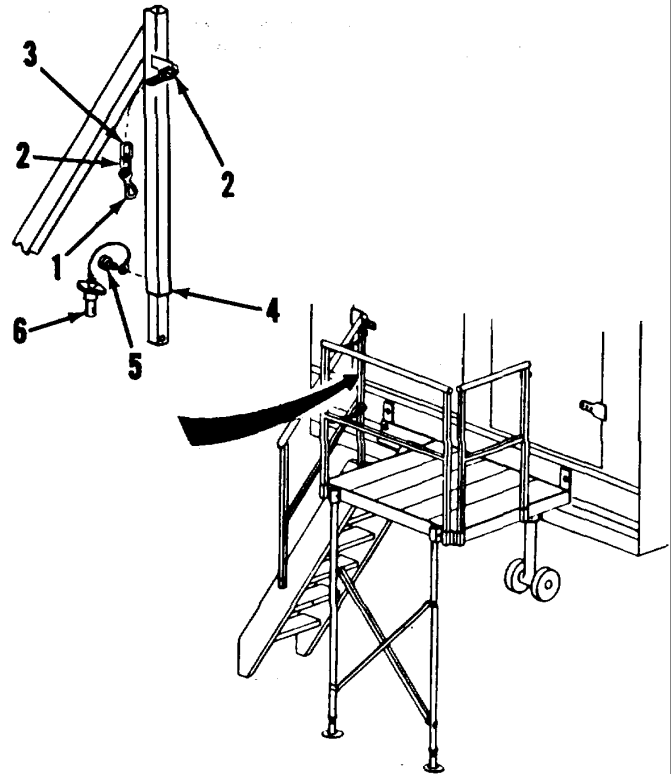
1. At upper end of chain, insert link connector (2) between end of chain (3) and bracket on handrail (4).
2. Peen ends of link connector together.

REMOVAL OF HANDRAIL LOCK PINS

1. Remove rivet (5) securing lock pin (6) to handrail (4).
2. Remove lock pin.

INSTALLATION OF HANDRAIL LOCK PINS

1. Position lock pin (6) on handrail (4).
2. Secure with rivet (5).



1. Snap hook
2. Link connector
3. Chain

4. Handrail
5. Rivet
6. Lock pin

Section XI. BODY AND PARTS MAINTENANCE PROCEDURES

4-38. DOORS

THIS TASK COVERS

- a. Removal of door stop and chain
- b. Installation of door stop and chain
- c. Removal of door
- d. Installation of door
- e. Removal of hinge
- f. Installation of hinge
- g. Cleaning
- h. Inspection and repair
- i. Removal of exterior handle
- J. Removal of interior handle
- k. Removal of handle door lock assembly
- l. Removal of roller latch lock assembly
- m. Removal of bolt slide fasteners and locking rods
- n. Inspection and repair
- o. Installation of bolt slide fasteners and locking rods
- p. Installation of roller latch lock assembly
- q. Installation of handle door lock assembly
- r. Installation of interior handle
- s. Installation of exterior handle
- t. Removal of door seals
- u. Installation of door seals

Troubleshooting Reference

Item No.	
29	Difficulty in locking or unlocking door
30	Door hinges do not operate properly
31	RFI shielding does not provide a good bond

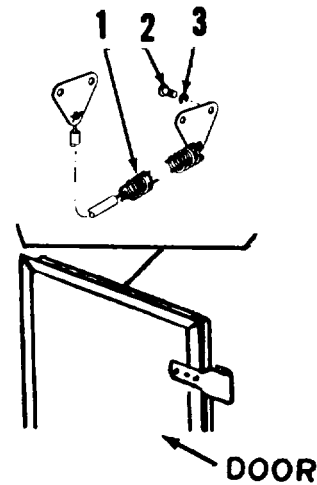
Test Equipment Required: None

REMOVAL OF DOOR STOP AND CHAIN

1. Remove four screws (2) and lock washers (3) securing door stop and chain (1).
2. Remove door stop and chain.

INSTALLATION OF DOOR STOP AND CHAIN

1. Position door stop and chain (1) on door and on door frame.
2. Secure in position with four screws (2) and lock washers (3).



- 1. Door stop
- 2. Screw
- 3. Washer

14-38. DOORS (cont)

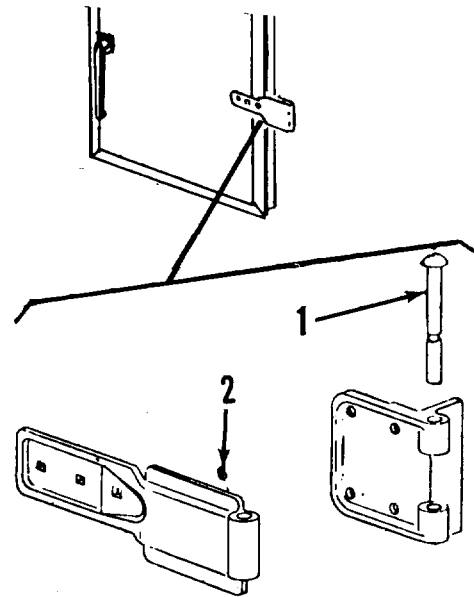
REMOVAL OF DOOR

1. Remove setscrews (2) securing three hinge pins (1) and drive out pins.
2. Remove door.

INSTALLATION OF DOOR

1. Position door in opening. Drive hinge pins (1) into position.
2. Secure hinge pins (1) with set-screws (2).

- 1. Hinge pin
- 2. Setscrew



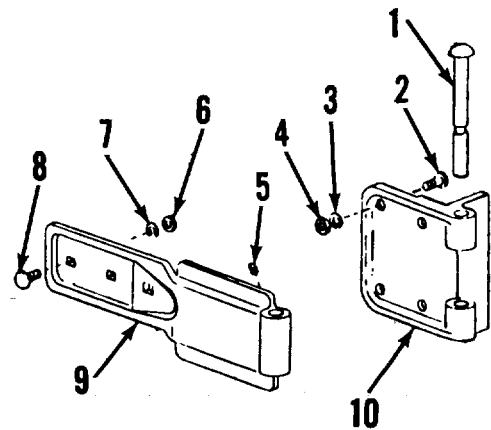
REMOVAL OF HINGE

1. Remove door.
2. Remove three nuts (6), lock washers (7) and bolts (8) securing hinge strap (9) to door.
3. Remove four nuts (4), lock washers (3) and bolts (2) securing hinge butt (10) to door jamb.

INSTALLATION OF HINGE

1. Separate new hinge by removing hinge pin.
2. Position hinge butt (10) on door Jamb and secure with four bolts (2), washers (3) and nuts (4).
3. Position hinge strap (9) on door and secure with three bolts (8), washers (7) and nuts (6).
4. Install door in opening. Drive in hinge pin (1) and secure with setscrew (5).

- | | | |
|--------------|-------------|----------------|
| 1. Hinge pin | 4. Nut | 7. Washer |
| 2. Bolt | 5. Setscrew | 8. Bolt |
| 3. Washer | 6. Nut | 9. Hinge strap |
| | | 10. Hinge butt |



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4-38. DOORS (cont)

CLEANING

WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 1380 F (58.80 C).

1. Use cleaning solvent (item 3, appendix E) to remove grease and oil.
2. Use steam or water and a stiff brush to remove dirt.

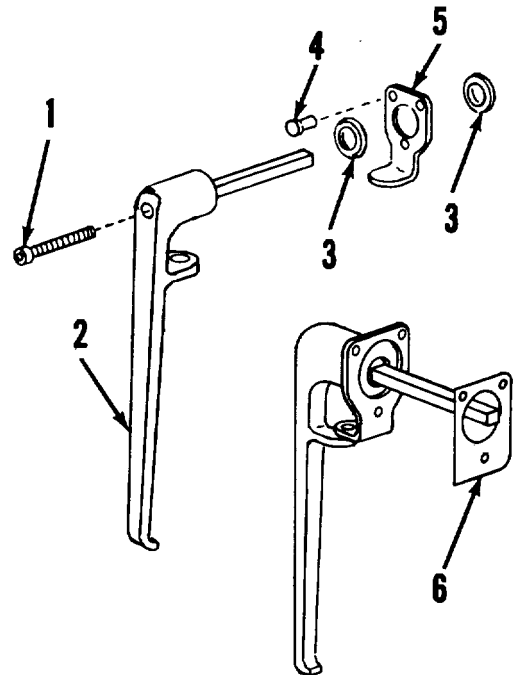
INSPECTION AND REPAIR

1. Inspect for dents and cracks.
2. Visually check all hardware for defects.
3. Straighten bent parts if feasible.
4. Weld cracked or fractured items.
5. Replace parts damaged beyond repair.

REMOVAL OF EXTERIOR HANDLE

1. Remove screw (1) securing exterior handle (2) on shaft.
2. Remove handle and outer preformed packing (3).
3. To remove inner preformed packing (3) and escutcheon plate (5), remove three rivets (4) and remove inner preformed packing (3), escutcheon plate (5) and spacer (6).

1. Screw
2. Handle
3. Preformed packing
4. Rivet
5. Escutcheon plate
6. Spacer

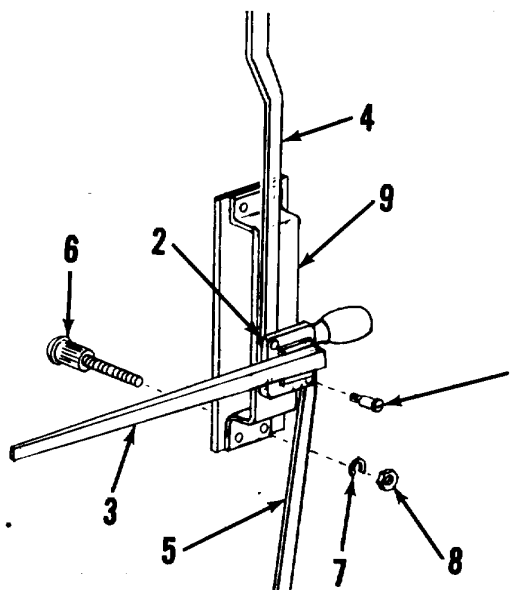


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4-38. DOORS (cont)

REMOVAL OF INTERIOR HANDLE, SIDE DOOR/PARTITION DOOR

1. Remove two shoulder screws (1) and spacers (2) securing interior handle (3) and lower end of upper locking rod (4) and upper end of center locking rod (5).
2. Upper locking rod (4) will remain attached to upper bolt slide fastener. Center locking rod will remain attached to roller latch lock assembly.



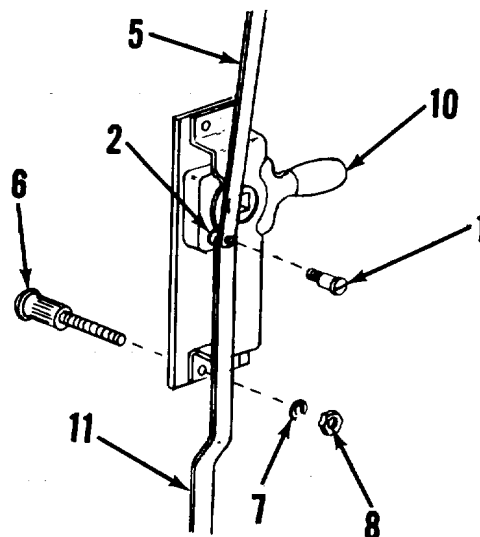
REMOVAL OF HANDLE LOCK ASSEMBLY, SIDE DOOR/PARTITION DOOR

1. Remove four bolts (6), washers (7) and nuts (8) securing handle lock assembly (9)
2. Remove handle lock assembly.
 1. Screw
 2. Spacer
 3. Handle
 4. Upper locking rod
 5. Center locking rod

6. Bolt
7. Washer
8. Nut
9. Handle lock assembly

REMOVAL OF ROLLER LATCH LOCK ASSEMBLY, SIDE DOOR/PARTITION DOOR

1. Remove shoulder screw (1) and spacer (2) securing ends of center locking rod (5) and lower locking rod (11) to roller latch lock assembly (10).
2. Remove center locking rod (5). Lower locking rod (11) will remain attached to lower bolt slide fastener.
3. Remove four bolts (6), washers (7) and nuts (8) securing roller latch lock assembly (10). Remove lock assembly.

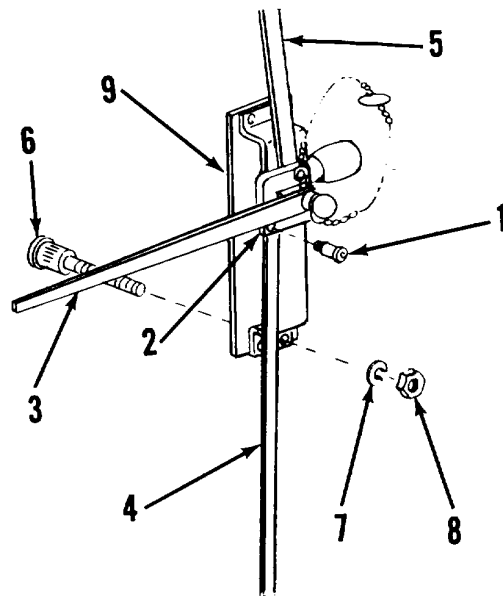


7. Washer
8. Nut
10. Roller latch lock assembly
11. Lower locking rod

4-38. DOORS (cont)

REMOVAL OF INTERIOR HANDLE, REAR DOOR/FRONT DOORS

1. Remove two shoulder screws (1) and spacers (2) securing interior handle (3) and lower end of center locking rod (5) and upper end of lower locking rod (4).
2. Center locking rod (5) will remain attached to roller latch lock assembly. Lower locking rod (4) will remain attached to lower bolt slide fastener.



REMOVAL OF HANDLE LOCK ASSEMBLY, REAR DOOR/FRONT DOORS

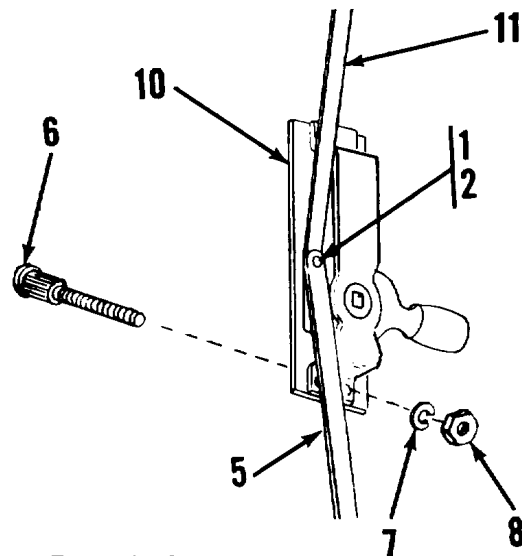
1. Remove four bolts (6), washers (7) and nuts (8) securing handle lock assembly (9).
2. Remove handle lock assembly.

- | | |
|----|--------------------|
| 1. | Screw |
| 2. | Spacer |
| 3. | Handle |
| 4. | Lower locking rod |
| 5. | Center locking rod |

- | | |
|----|----------------------|
| 6. | Bolt |
| 7. | Washer |
| 8. | Nut |
| 9. | Handle lock assembly |

REMOVAL OF ROLLER LATCH LOCK ASSEMBLY, REAR DOOR/FRONT DOORS

1. Remove shoulder screw (1) and spacer (2) securing ends of center locking rod (5) and upper locking rod (11) to roller latch lock assembly (10).
2. Remove center locking rod (5). Upper locking rod (11) will remain attached to upper bolt slide fastener.
3. Remove four bolts (6), washers (7) and nuts (8) securing roller latch lock assembly (10). Remove lock assembly.



- | | |
|----|--------------------|
| 1. | Screw |
| 2. | Spacer |
| 5. | Center locking rod |
| 6. | Bolt |

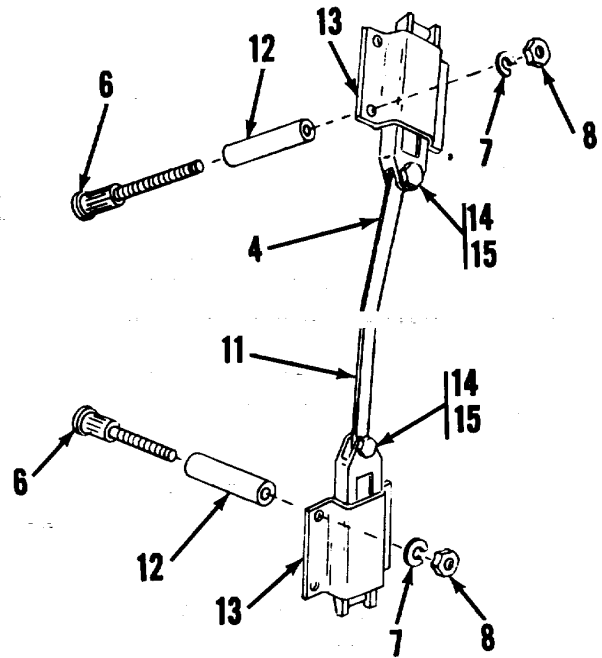
- | | |
|-----|----------------------------|
| 7. | Washer |
| 8. | Nut |
| 10. | Roller latch lock assembly |
| 11. | Upper locking rod |

4-38. DOORS (cont).

REMOVAL OF BOLT SLIDE FASTENERS AND LOCKING RODS

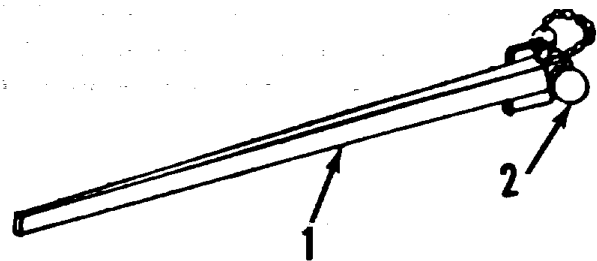
1. Remove screws (14) and washers (15) securing upper and lower locking rods (4 and 11) to bolt slide fasteners (13).
2. Remove four bolts (6), spacers (12), washers (7) and nuts (8) securing each bolt slide fastener (13). Remove bolt slide fasteners.

4. Upper locking rod
6. Bolt
7. Washer
8. Nut
11. Lower locking rod
12. Spacer
13. Bolt slide fastener
14. Screw
15. Washer



INSPECTION AND REPAIR

1. Inspect parts for cracks, bends, excessive wear and deterioration. Replace defective parts.
2. Straighten locking rods to assure proper alignment in upper and lower bolt slide fasteners.
3. Straighten bends or dents in bolt slide fastener covers that may cause binding.
4. Check lock for ease of operation; lubricate as required in accordance with lubrication instructions, using grease fitting on handle lock assembly.
5. With door locked from outside, remove pin (2), turn handle (1) and note if door opens easily.
6. Clean and paint if necessary.
7. Replace defective or damaged parts.



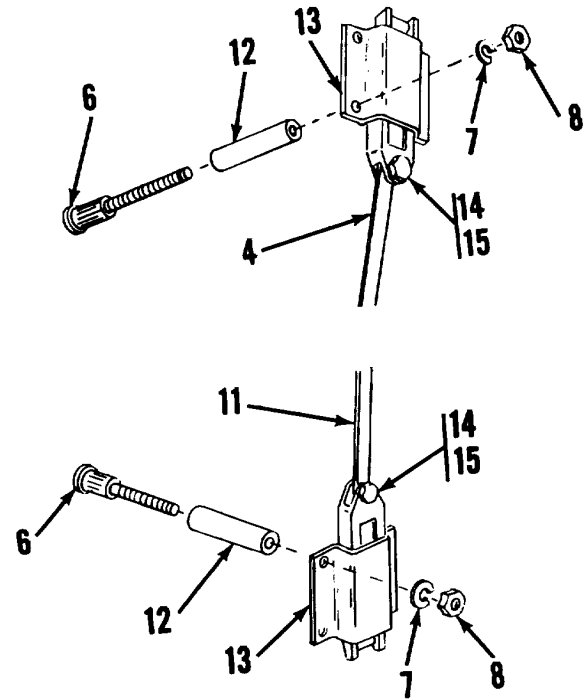
1. Handle
2. Pin

4-38. DOORS (cont).

INSTALLATION OF BOLT SLIDE FASTENERS AND LOCKING RODS

1. Position both bolt slide fasteners (13) and secure each one with four bolts (6), spacers (12), washers (7) and nuts (8).
2. Position upper locking rod (4) on upper bolt slide fastener (13). Position lower locking rod (11) on lower bolt slide fastener (13). Secure to each bolt slide fastener with screw (14) and washer (15).

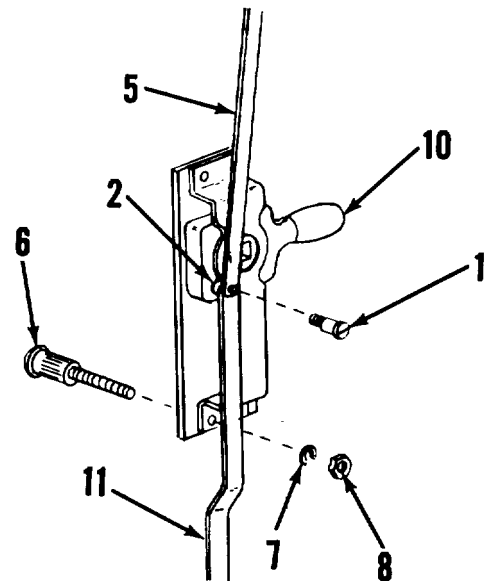
- 4. Upper locking rod
- 6. Bolt
- 7. Washer
- 8. Nut
- 11. Lower locking rod
- 12. Spacer
- 13. Bolt slide fastener
- 14. Screw
- 15. Washer



INSTALLATION OF ROLLER LATCH LOCK ASSEMBLY, SIDE DOOR/PARTITION DOOR

1. Position roller latch lock assembly (10) and secure with four bolts (6), washers (7) and nuts (8).
2. On roller latch lock assembly (10), position lower end of center locking rod (5) with upper end of lower locking rod (11). Secure with shoulder screw (1) and washer (2).

- 1. Screw
- 2. Spacer
- 5. Center locking rod
- 6. Bolt
- 7. Washer
- 8. Nut
- 10. Roller latch lock assembly
- 11. Lower locking rod



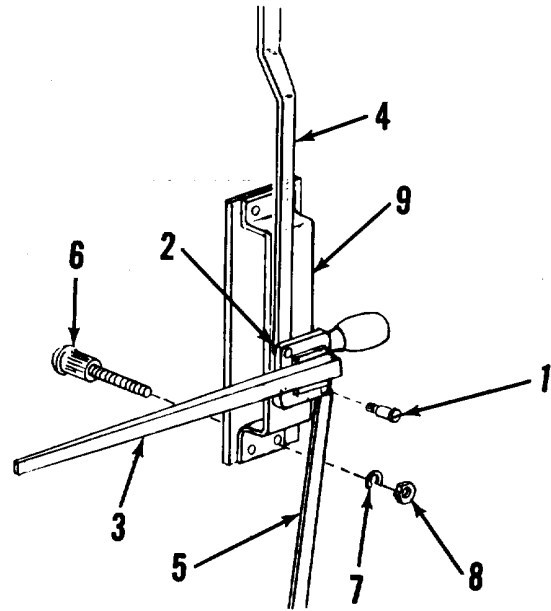
4-38. DOORS (cont).

INSTALLATION OF HANDLE LOCK ASSEMBLY SIDE DOOR/PARTITION DOOR

1. Position handle lock assembly (9).
2. Secure handle lock assembly with four bolts (6), washers (7) and nuts (8).

INSTALLATION OF INTERIOR HANDLE, SIDE DOOR/PARTITION DOOR

1. Position upper end of center locking rod (5) and lower end of upper locking rod (4) with interior handle (3) on handle lock assembly (9).
2. Secure handle and rods with two shoulder screws (1) and spacers (2).



1. Screw
2. Spacer
3. Handle

4. Upper locking rod
5. Center locking rod
6. Bolt

7. Washer
8. Nut
9. Handle lock assembly

INSTALLATION OF EXTERIOR HANDLE

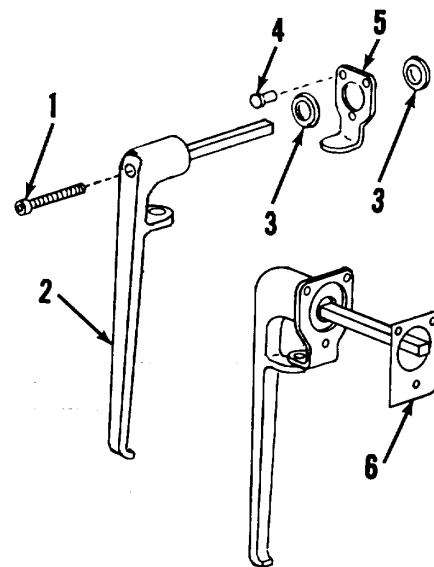
1. Position spacer (6), inner preformed packing (3) and escutcheon plate (5) if they had been removed. Secure with three rivets (4).
2. Position exterior handle (2) and outer preformed packing (3).

NOTE

Screw (1) must be coated with lock-tite prior to installation. Over-torque of this screw will cause fracture of interior shear pin.

3. Apply lock-tite to threads of screw (1). Secure handle (2) with screw (1) to a torque of 3-4 lb-ft (4.07-5.42 Nm).

1. Screw
2. Handle
3. Preformed packing



4. Rivet
5. Escutcheon plate
6. Spacer

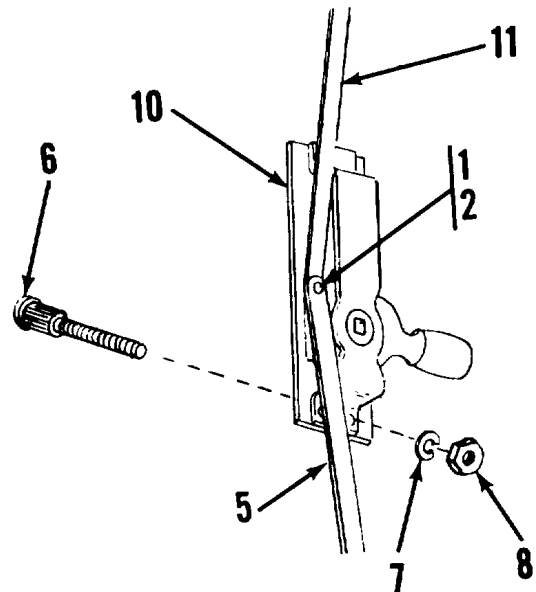
4-38. DOORS (cont).

INSTALLATION OF ROLLER LATCH LOCK ASSEMBLY, REAR DOOR/FRONT DOORS

1. Position roller latch lock assembly (10) and secure with four bolts (6), washers (7) and nuts (8).

2. On roller latch lock assembly (10), position lower end of upper locking rod (11) with upper end of center locking rod (5). Secure with shoulder screw (1) and spacer (2).

- 1. Screw
- 2. Spacer
- 5. Center lock rod
- 6. Bolt
- 7. Washer
- 8. Nut
- 10. Roller latch lock assembly
- 11. Upper locking rod



INSTALLATION OF HANDLE LOCK ASSEMBLY, REAR DOOR/FRONT DOORS

1. Position handle lock assembly (9).

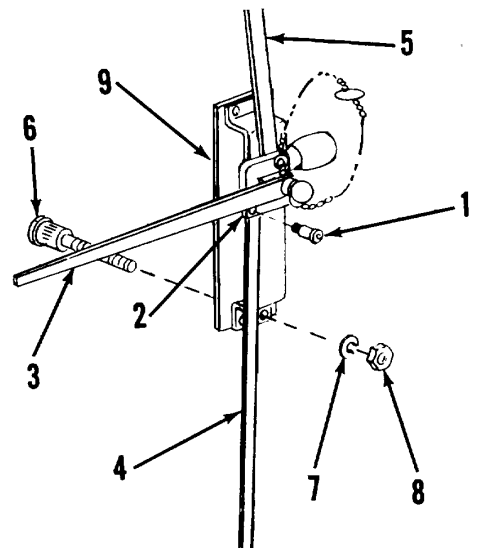
2. Secure handle lock assembly with four bolts (6), washers (7) and nuts (8).

INSTALLATION OF INTERIOR HANDLE, REAR DOOR/FRONT DOORS

1. Position lower end of center locking rod (5) and upper end of lower locking rod (4) with interior handle (3) on handle lock assembly (9).

2. Secure handle and rods with two shoulder screws (1) and spacers (2).

- 1. Screw
- 2. Spacer
- 3. Handle
- 4. Lower locking rod



- 5. Center locking rod
- 6. Bolt
- 7. Washer
- 8. Nut
- 9. Handle lock assembly

4-38. DOORS (cont).

REMOVAL OF DOOR SEALS

1. Some doors are provided with both rubber seals and Radio Frequency Interference (RFI) seals. Others are provided with RFI seals only, while some incorporate rubber seals only.
2. To remove both types of seals, open van door and pry seal from groove.

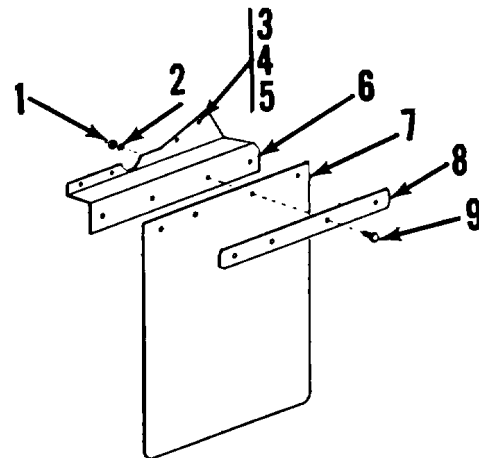
INSTALLATION OF DOOR SEALS

1. Make certain Jambs and thresholds are free of dirt, dust and grime.
2. Use fine steel wool to remove any grease or grime; then wash with cleaning solvent (item 3, appendix E). Wipe clean.
3. Use proper bonding cement and secure seal in groove.

4-39. SPLASH GUARD

REMOVAL

1. Remove four nuts (3), lock washers (4) and screws (5) securing bracket (6) to dolly rear crossmember.
2. Remove bracket, splash guards and spacer as a unit.
3. Remove four nuts (1), lock washers (2) and screws (9) securing spacer (8) and splash guard (7) to bracket (6).



INSTALLATION

1. Position splash guard (7) and spacer (8) on bracket (6) and secure with four screws (9), lock washers (2) and nuts (1).
2. Position bracket with attached splash guard and spacer on dolly crossmember.
3. Secure with four screws (5), lock washers (4) and nuts (3).

1. Nut
2. Washer
3. Nut
4. Washer
5. Screw
6. Bracket
7. Splash guard
8. Spacer
9. Screw

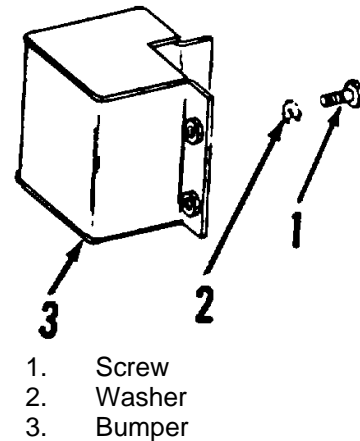
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4--40. REAR BUMPER**REMOVAL**

1. Working under inside corner of chassis, remove four screws (1) and washers (2) securing bumper (3) to rear corner post and chassis rear crossmember.
2. Remove rear bumper.

INSTALLATION

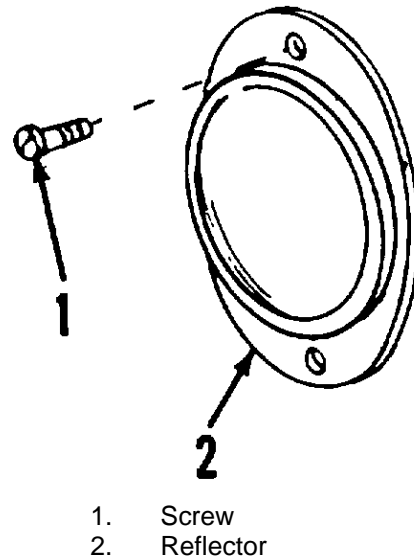
1. Position rear bumper (3).
2. Secure in position with four screws (1) and washers (2).

**4-41. REFLECTOR****REMOVAL**

1. Remove two screws (1) securing reflector to van body.
2. Remove reflector.

INSTALLATION

1. Apply sealant (item 19, appendix E) in and around mounting holes in van body.
2. Position reflector (2) on body and align mounting holes.
3. Secure with two screws (1).

**4-42. PINTLE ASSEMBLY****THIS TASK COVERS**

- a. Removal
- b. Inspection and replacement
- c. Installation

4-42. PINTLE ASSEMBLY (cont)**REMOVAL**

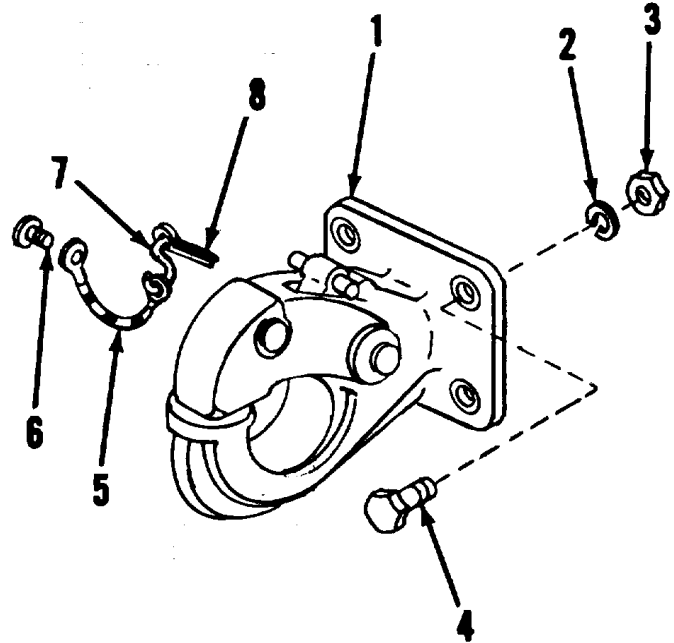
1. Remove four nuts (3), lock washers (2) and screws (4) securing pintle assembly (1) to chassis. Remove pintle assembly.
2. Remove cotter pin (8), screw (6) and S-hook (7). Remove chain (5).

INSPECTION AND REPLACEMENT

1. Inspect pintle for ease of operation.
2. Check for cracked or damaged parts.
3. Replace worn or damaged pintle assembly.
4. Lubricate according to lubrication instructions.

INSTALLATION

1. Attach chain (5) to pintle body with S-hook (7), cotter pin (8) and screw (6).
2. Position pintle assembly (1) and secure with four screws (4), lock washers (2) and nuts (3).



1. Pintle assembly
2. Washer
3. Nut
4. Screw
5. Chain
6. Screw
7. S-hook
8. Cotter pin

4-43. MAINTENANCE UNDER UNUSUAL CONDITIONS**THIS TASK COVERS**

- a. Extreme cold weather maintenance
- b. Extreme hot weather maintenance
- c. Maintenance after fording
- d. Maintenance after operation on unusual terrain

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4-43. MAINTENANCE UNDER UNUSUAL CONDITIONS (cont).**EXTREME COLD WEATHER MAINTENANCE**

For maintenance procedures and practices during extreme cold weather, refer to FM 9-207.

EXTREME HOT WEATHER MAINTENANCE

1. In hot, dry climates, corrosive action will occur on all parts of the materiel and will be accelerated during rainy seasons.
2. Evidence of corrosion will appear in the form of rust, paint blisters, mildew, mold, and fungus growth.
3. Remove corrosion from exterior metal surfaces with abrasive paper or cloth. Apply a protective coating of paint, or touch up the existing paint.
4. Keep a film of engine lubricating oil (OE-30) on unfinished exposed metal surfaces.

MAINTENANCE AFTER FORDING

Refer to TM 9-238 for maintenance procedures after fording.

MAINTENANCE AFTER OPERATION ON UNUSUAL TERRAIN

1. Thorough cleaning and lubrication of all parts affected must be accomplished as soon as possible after operation in mud.
2. Clean all suspension components. Repack wheel bearings if necessary.
3. After operation in sand or dust, touch up all painted surfaces damaged by sandblasting.
4. Lubricate completely to force out lubricants contaminated by sand or dust.

Section XII. PREPARATION FOR STORAGE OR SHIPMENT**4-44. PREPARATION FOR STORAGE**

THIS TASK COVERS

- a. Cleaning and drying
- b. Lubrication
- c. Preservation
- d. Army shipping documents

4-44. PREPARATION FOR STORAGE (cont)**CLEANING AND DRYING**

1. Wash semitrailer.
2. Remove all dirt, grease and oil.
3. Dry thoroughly.

LUBRICATION

1. Lubricate semitrailer as required.
2. Lubricate accompanying tools and equipment to protect them against deterioration.

PRESERVATION

1. All critical unpainted areas must be protected during shipment.
2. Oil and grease covered in the lubrication instructions may be used.
3. Periodic visual inspections are necessary to discover signs of corrosion.

ARMY SHIPPING DOCUMENTS

Prepare all Army shipping documents accompanying the semitrailer in accordance with DA PAM 738-750.

4-45. AIR SHIPMENT OF SEMITRAILER**THIS TASK COVERS**

- a. General
- b. Components of aircraft loading equipment
- c. Location of aircraft loading equipment
- d. Loading procedure
- e. Unloading procedure

Test Equipment Required: None

Personnel Required: 2

GENERAL

The aircraft loading equipment for the XM971E2 and XM971E3 semitrailers have been designed for the 40K-Loader to load semitrailer in C130, C141 or C5 aircraft.

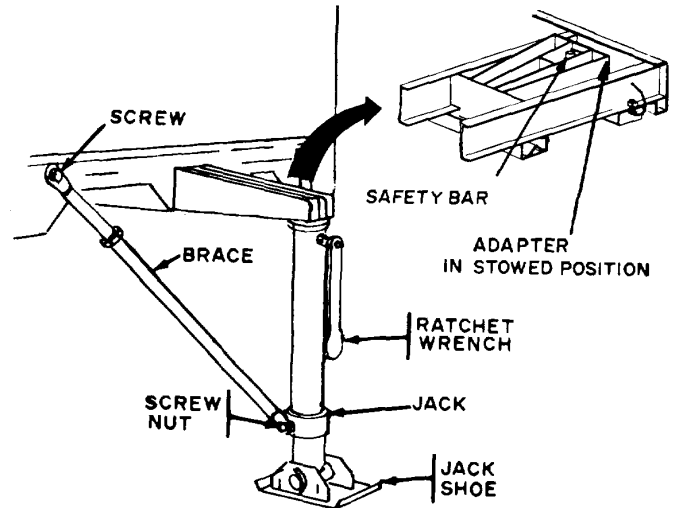
4-45. AIR SHIPMENT OF SEMITRAILER (cont)

WARNING

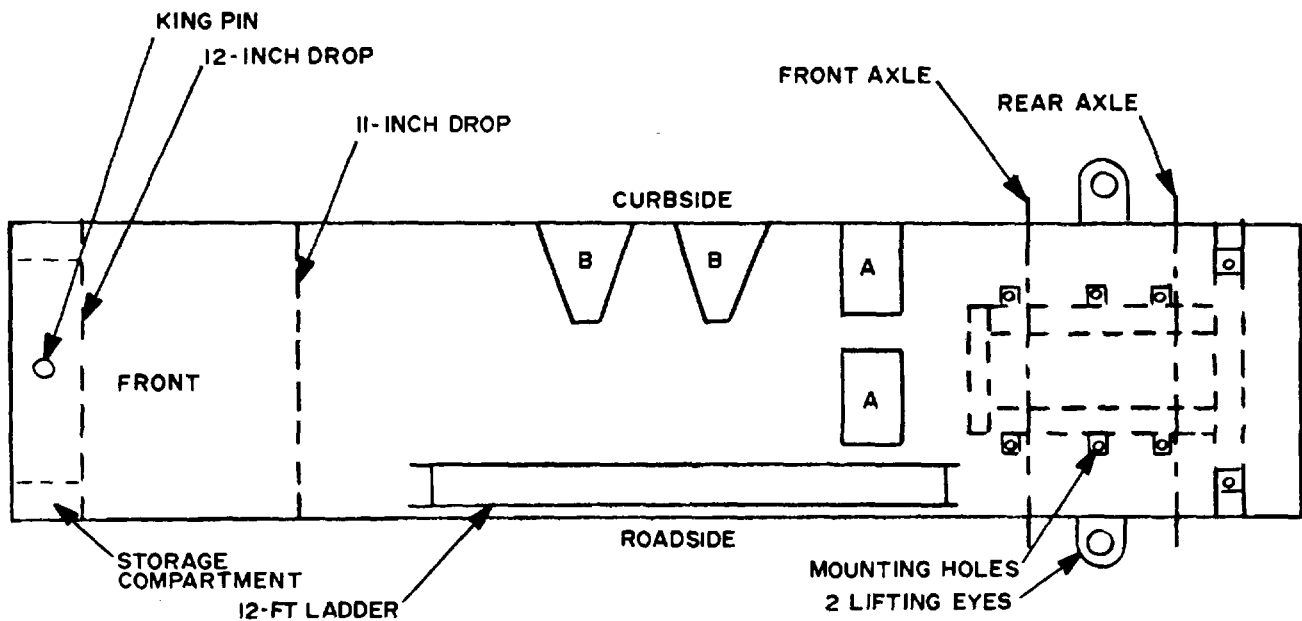
Two persons are required to handle the loading equipment and perform the operations.

COMPONENTS OF AIRCRAFT LOADING EQUIPMENT

1. Two adapter assemblies.
2. Two loading jacks and two ratchet handles.
3. Four braces and hardware to attach braces to loading Jacks and semitrailer.
4. Two loading Jack shoes.



LOCATION OF AIRCRAFT LOADING EQUIPMENT



- A. Two loading jacks, four braces
- B. Two adapter assemblies

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4-45. AIR SHIPMENT OF SEMITRAILER (cont)**LOADING PROCEDURE**

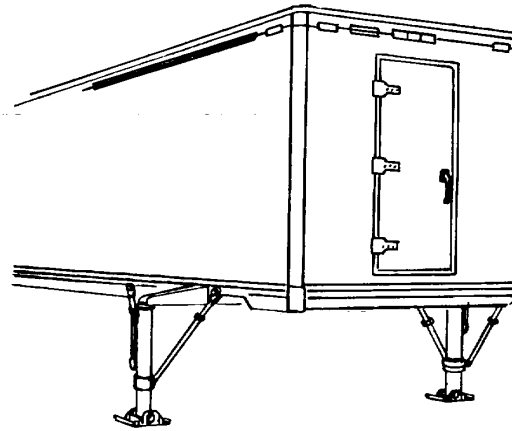
1. Place towing vehicle, semitrailer and K-loader on runway near aircraft. Apply brakes. Towing vehicle must remain attached as long as loading jacks are in use.
2. Remove tie down rings from front left and right side storage compartments. Install all 30 tie down rings on van body.

WARNING

Two persons are needed to remove adapters from storage area. Adapters are very heavy. When retaining handle is removed, adapters drop down. Use caution to prevent injury.

3. Remove aircraft loading equipment from the various storage areas underneath the semitrailer.
4. Reach in back of lifting eye, pull handle of lifting eye down and out and pull out curbside and roadside lifting eyes located between front and rear wheels.

5. Hang adapters on lifting eyes and secure them with safety bars, with flat surface of bar towards side of semitrailer. Make certain they are seated properly on semitrailer walls.

**WARNING**

Aircraft loading Jacks must be perpendicular at all times to prevent injury to personnel.

6. Position Jacks under adapters. Make certain Jacks are perpendicular. Remove brace attaching hardware and jack handles from side storage compartment. Secure braces to jacks and to sides of semitrailer, using tiedown receptacles.

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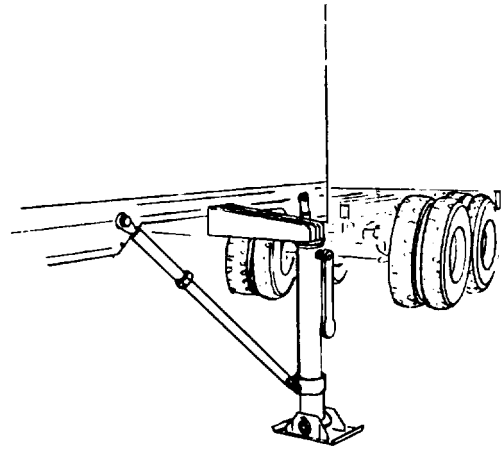
4-45. AIR SHIPMENT OF SEMITRAILER (cont)**LOADING PROCEDURE (cont)**

7. Remove eight cotter pins, nuts, washers and screws securing dolly assembly. Insert mounting hardware in mounting holes and secure nuts, finger tight.
8. Disconnect both air hoses and the 24-volt plug from the subbase. Make certain that the 24-volt cable assembly and the air hoses are properly stowed before attempting any skid loading.

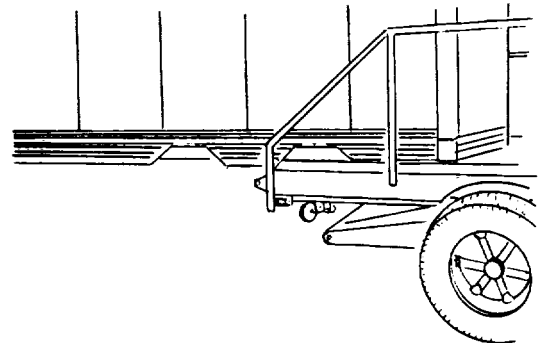
WARNING

Personnel at this point should stay clear of the underside of the semitrailer until it is securely resting on the K-loader.

9. Using loading jacks, lift van body rear end (both sides at the same time) to a height permitting removal of dolly toward the rear. Make certain loading Jacks do not deviate from the perpendicular. Should this occur, stop lifting operation, reposition Jacks, and repeat lifting operation.
10. Open air reservoir drain cock (page 2-28) in order to move dolly freely. Pull dolly toward the rear from underneath van body and set it aside for aircraft loading.



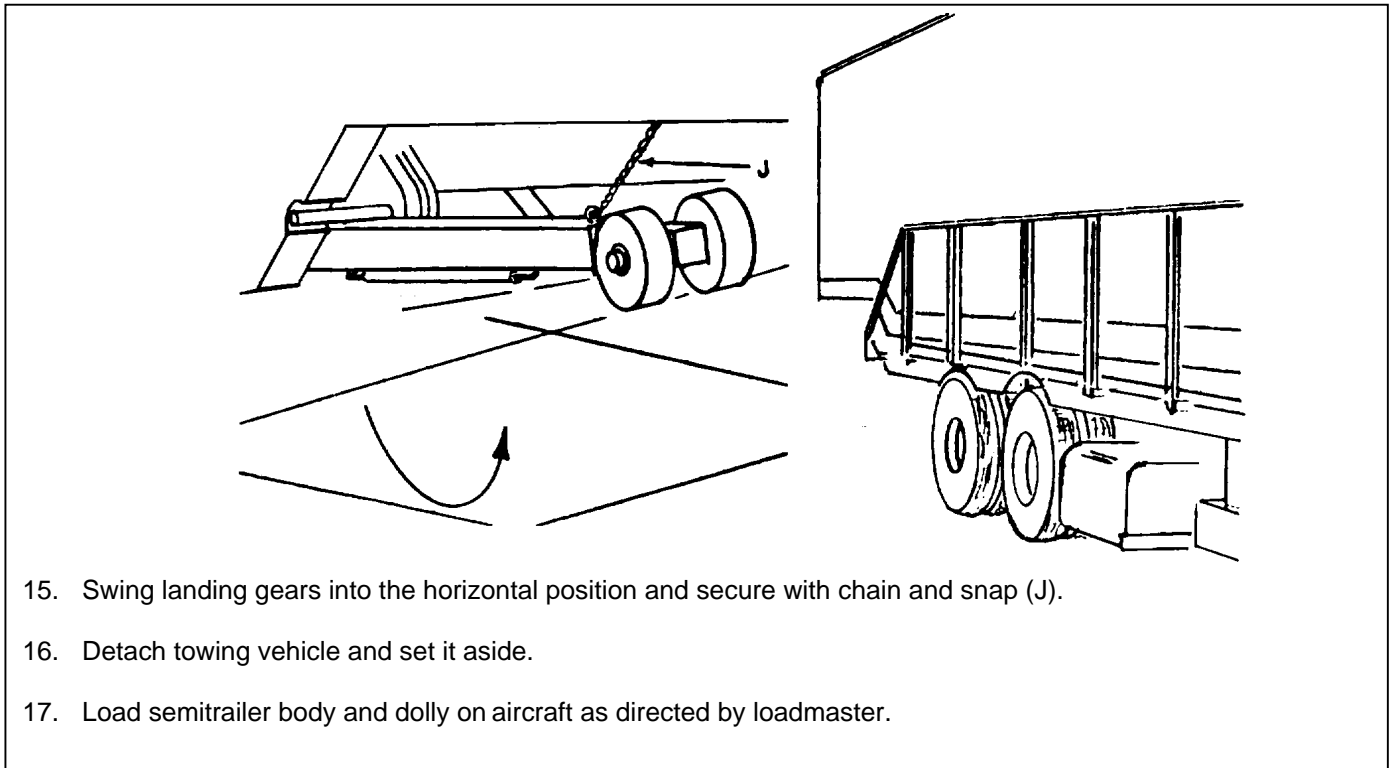
11. Move the K-loader under the van body, making sure that van body skid rails are matching the roller beds of the K-loader, leaving the aircraft loading equipment storage areas accessible.



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4-45. AIR SHIPMENT OF SEMITRAILER (cont)**LOADING PROCEDURE (cont)**

12. Remove hardware attaching braces and remove braces. Place hardware in bag and place bag in side storage compartment. Remove Jacks and adapters and stow them in their locations underneath van body.
13. Move K-loader forward until it almost contacts landing gear legs.
14. Secure van body to K-loader by means of the tie down provisions in the sidewalls and tie down rings provided.



15. Swing landing gears into the horizontal position and secure with chain and snap (J).
16. Detach towing vehicle and set it aside.
17. Load semitrailer body and dolly on aircraft as directed by loadmaster.

UNLOADING PROCEDURE

1. Unload van body from aircraft to the K-loader, making certain that stowage areas are accessible.
2. Secure van body to K-loader by means of the tie down provisions in the sidewalls and tie down rings provided.
3. Attach towing vehicle to van body.
4. Swing landing gear legs to the vertical position and lower legs so that wheels contact the ground.
5. Remove aircraft loading equipment from the various stowage areas.

4-45. AIR SHIPMENT OF SEMITRAILER (cont)**UNLOADING PROCEDURE (cont)**

6. Pull out curbside and roadside lifting eyes between the front and rear wheels.
7. Hang adapters on lifting eyes and secure them with safety bars, with flat surface of bars toward sides of semitrailer. Make certain adapters are seated properly on the sidewalls.

WARNING

Make certain aircraft loading jacks are perfectly straight. If shifting occurs, stop operation at once and reposition Jacks.

8. Position loading jacks and attach braces. At all times, make certain Jacks are perpendicular.
9. Using loading jacks, lift van body rear end (both sides at the same time) to a height permitting the installation of the dolly from the rear. Make certain loading jacks do not deviate from the perpendicular. Should this occur, stop the lifting operation, reposition Jacks and repeat the lifting operation.
10. Remove K-loader.
11. Insert dolly in position from the rear and lower rear end of van body.
12. Secure dolly with eight screws, washers, nuts and cotter pins (refer to appendix H for torque values).
13. Connect both air hoses and the 24-volt plug to the subbase.
14. Remove aircraft loading equipment and stow each item in its proper location in the stowage areas underneath the van body.
15. Detach towing vehicle.
16. Remove the 30 tie down rings previously installed. Place them in bags and store in side storage compartments.

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**CHAPTER 5
DIRECT SUPPORT AND GENERAL SUPPORT
MAINTENANCE INSTRUCTIONS**

CHAPTER INDEX

	Page
Common tools and equipment.....	5-1
Special tools, test, measurement and diagnostic equipment (TMDE) and support equipment.....	5-1
Repair parts	5-1
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Wiring harness	5-3
Axle assembly.....	5-5
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Brake drum	5-12

**Section I. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND
SUPPORT EQUIPMENT**

5-1. COMMON TOOLS AND EQUIPMENT

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

5-2. SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

Special tools are not required for this equipment.

5-3. REPAIR PARTS

Repair parts are listed and illustrated in appendix F of this manual.

Section II. TROUBLESHOOTING PROCEDURES

5-4. INTRODUCTORY INFORMATION

Refer to table 5-1 for troubleshooting procedures.

Table 5-1. Troubleshooting

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

ELECTRICAL SYSTEM**1. ALL LIGHTS FAIL TO OPERATE**

- Step 1. Inspect intervehicular cable for proper connection. In all steps, check for good ground connection.
Connect cable properly. Tighten ground.
- Step 2. Inspect for dirty or corroded terminals in intervehicular cable.
Clean terminals in plug and receptacle.
- Step 3. Check to see that light switch on towing vehicle is in desired position.
Place towing vehicle light switch in proper mode of operation.
- Step 4. Check to see that current is flowing from towing vehicle.
Check towing vehicle cables and circuit breakers.
- Step 5. Check wiring harness for short circuit.
Check cable for bare spots. Repair if necessary. Make a continuity test of all circuits, using a multimeter.
Replace defective single wire or replace wiring harness as required.
- Step 6. Check light switch on towing vehicle.
Replace light switch on towing vehicle if it is defective.

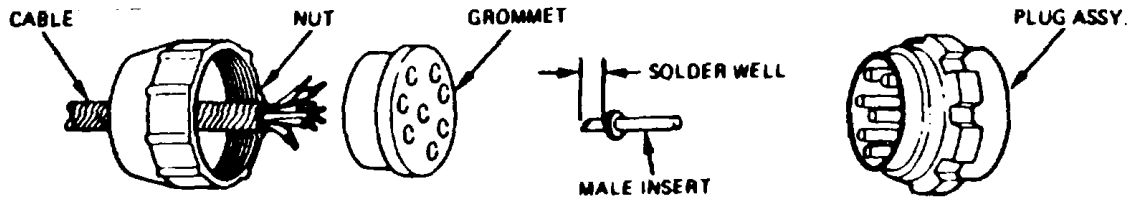
NOTE
Refer to table 4-2.

Section III. MAINTENANCE PROCEDURES

5-5. WIRING HARNESS CONNECTOR AND RECEPTACLE

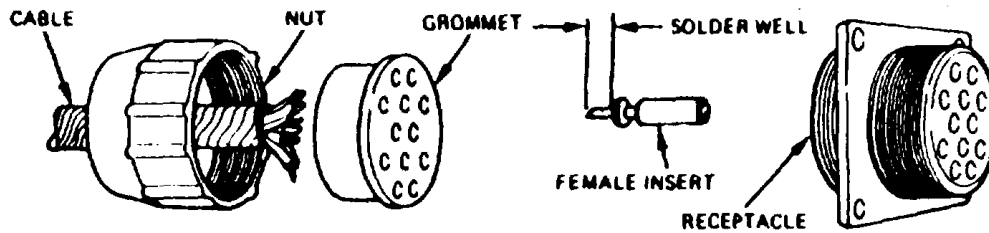
REPLACEMENT OF CONNECTORS AND RECEPTACLES

MALE TYPE PLUG ASSEMBLY (WITH SPANNER COUPLING NUT)



- | | |
|--|---|
| <ol style="list-style-type: none"> 1 - STRIP CABLE INSULATION EQUAL TO DEPTH OF SOLDER WELLS OF INSERTS 2 - REMOVE GROMMET RETAINING NUT FROM PLUG ASSEMBLY AND REMOVE DAMAGED CABLE. 3 - SLIDE GROMMET BACK FROM PLUG ASSEMBLY AND REMOVE DAMAGED CABLE. | <ol style="list-style-type: none"> 4 - PASS REPLACEMENT CABLE THROUGH GROMMET RETAINING NUT AND GROMMET INSERT INTO SOLDER WELLS OF INSERTS. AND SOLDER. 5 - SLIDE GROMMET OVER INSERTS AND PRESS INTO PLUG ASSEMBLY UNTIL SEATED 6 - THREAD GROMMET RETAINING NUT TO PLUG . |
|--|---|

FEMALE-TYPE RECEPTACLE ASSEMBLY



- | | |
|--|--|
| <ol style="list-style-type: none"> 1 - STRIP CABLE INSULATION EQUAL TO DEPTH OF SOLDER WELLS OF INSERTS. 2 - REMOVE GROMMET RETAINING NUT FROM PLUG ASSEMBLY AND SLIDE BACK OVER CABLE. 3 - SLIDE GROMMET BACK FROM ASSEMBLY AND REMOVE DAMAGED CABLE . | <ol style="list-style-type: none"> 4 - PASS REPLACEMENT CABLE ENDS THROUGH GROMMET RETAINING NUT AND GROMMET. INSERT INTO SOLDER WELLS OF INSERTS, AND SOLDER. 5 - SLIDE GROMMET OVER INSERTS AND PRESS INTO RECEPTACLE ASSEMBLY UNTIL SEATED. 6 - THREAD GROMMET RETAINING NUT TO RECEPTACLE ASSEMBLY. |
|--|--|

* NOTE: CONTACT SIZES 8, 4 AND 0 MAY BE REMOVED FROM CONNECTOR TO SIMPLIFY REPAIR

5-6. WIRING HARNESS

THIS TASK COVERS

- a. Removal
- b. Installation.
- c. Replacement of single wires

Test Equipment Required: Multimeter

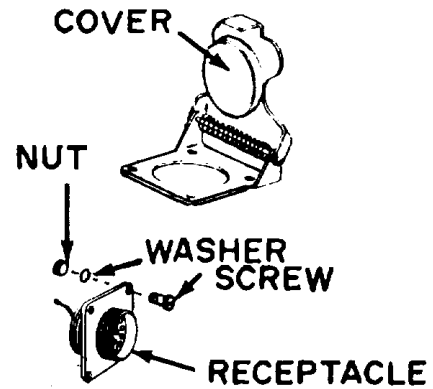
Personnel Required: 1

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5-6. WIRING HARNESS (cont)

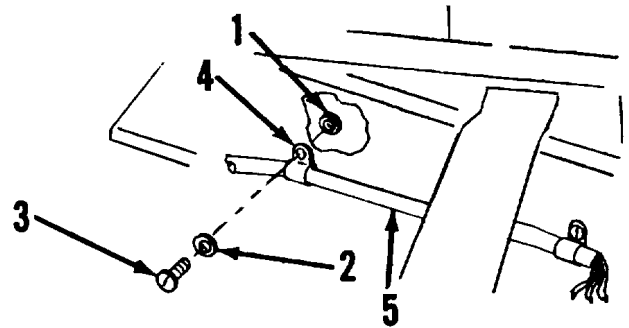
REMOVAL

1. Disconnect receptacles from harness and all cable connectors.
2. Remove four nuts, lock washers and screws securing connector and cover to crossmember, and remove connector and cover.
3. Unsolder harness wire from connector (para 4-12).



4. Remove nuts (1), lock washers (2), screws (3) and clamps (4) securing harness (5) to undercarriage.

1. Nut
2. Washer
3. Screw
4. Clamp
5. Harness



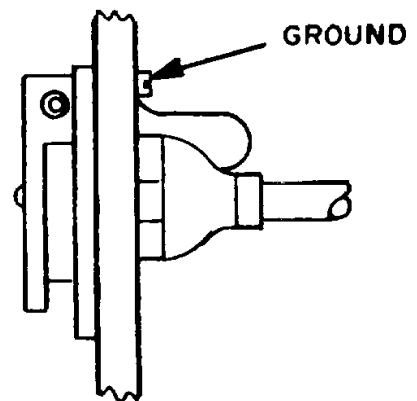
INSTALLATION

1. Position harness, threading through cutouts where required and secure with screws, lock washers nuts and clamps.
2. Connect harness to receptacles and all cable connectors.

NOTE

Ground wire terminal is secured by one of four screws, lock washers and nuts.

3. Secure connector and cover to crossmember with four screws, lock washers and nuts.
4. Make a continuity test of all circuits, using a multimeter.



5-6. WIRING HARNESS (cont)**REPLACEMENT OF SINGLE WIRES**

1. Remove and discard electrical insulating tape binding wires of defective branch.
2. Cut defective wire from branch, leaving enough wire for splicing.
3. Cut new piece of wire to same length (plus splice) as defective wire and splice to harness. Tape splice with insulating tape.
4. Assemble new terminals, washers, sleeves and electrical shells to ends of new wire as required. Install marker band.

5-7. AXLE ASSEMBLY**THIS TASK COVERS**

- a. General
- b. Removal
- c. Cleaning
- d. Inspection and repair
- e. Assembly of new axle
- f. Installation

Test Equipment Required: None

Personnel Required: 2

GENERAL

Generally, axle assemblies will not be removed unless inspection shows a need for repair or replacement.

For inspection purposes, remove wheels (para 3-7) and hubs and brake drums (para 4-30).

REMOVAL**WARNING**

Weight of semitrailer must be supported by leveling jacks or by blocking or support stands placed under rear corners of frame throughout operation.

TA 314855

5-7. AXLE ASSEMBLY (cont)

REMOVAL (cont)

1. Position semitrailer on level surface with front end resting on landing gear legs.
2. Deflate air springs.
3. Extend leveling Jack enough to relieve each tire of ground contact and provide support during removal and installation operations.

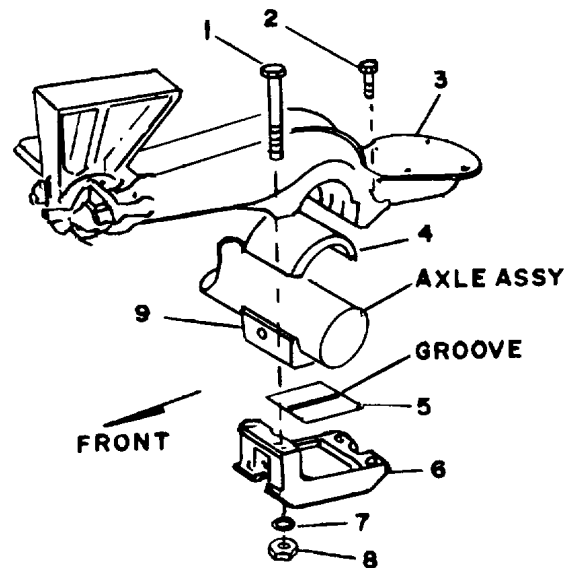
WARNING

Wear goggles when opening air reservoir drain cock. Failure to do so could cause serious eye injury from high pressure air.

4. Open air reservoir drain cock to relieve air pressure.
5. Remove wheels (para 3-7).
6. Remove hubs and brake drums (para 4-30).
7. Disconnect hydraulic brake hose at tee on rear center of axle.
8. Support axle with Jack.

9. Remove eight nuts (8), eight washers (7), four rod bolts (1) and four rod bolts (2).
10. Remove two axle connection caps (6) and two rubber pads (5).
11. Lower jack supporting axle and remove axle and rubber wrapper (4) from underneath semitrailer.

1. Rod bolt
2. Rod bolt
4. Rubber wrapper
5. Rubber pad
6. Axle connection cap
7. Washer
8. Nut



TA 314856

5-7. AXLE ASSEMBLY (cont)**CLEANING**

1. Clean mud and dirt from all exposed surfaces with water and stiff brush.

WARNING

Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 138°F (58.8°C).

2. Remove grease from spindle of axle and wheel retaining parts with cleaning solvent (item 3, appendix E).

INSPECTION AND REPAIR

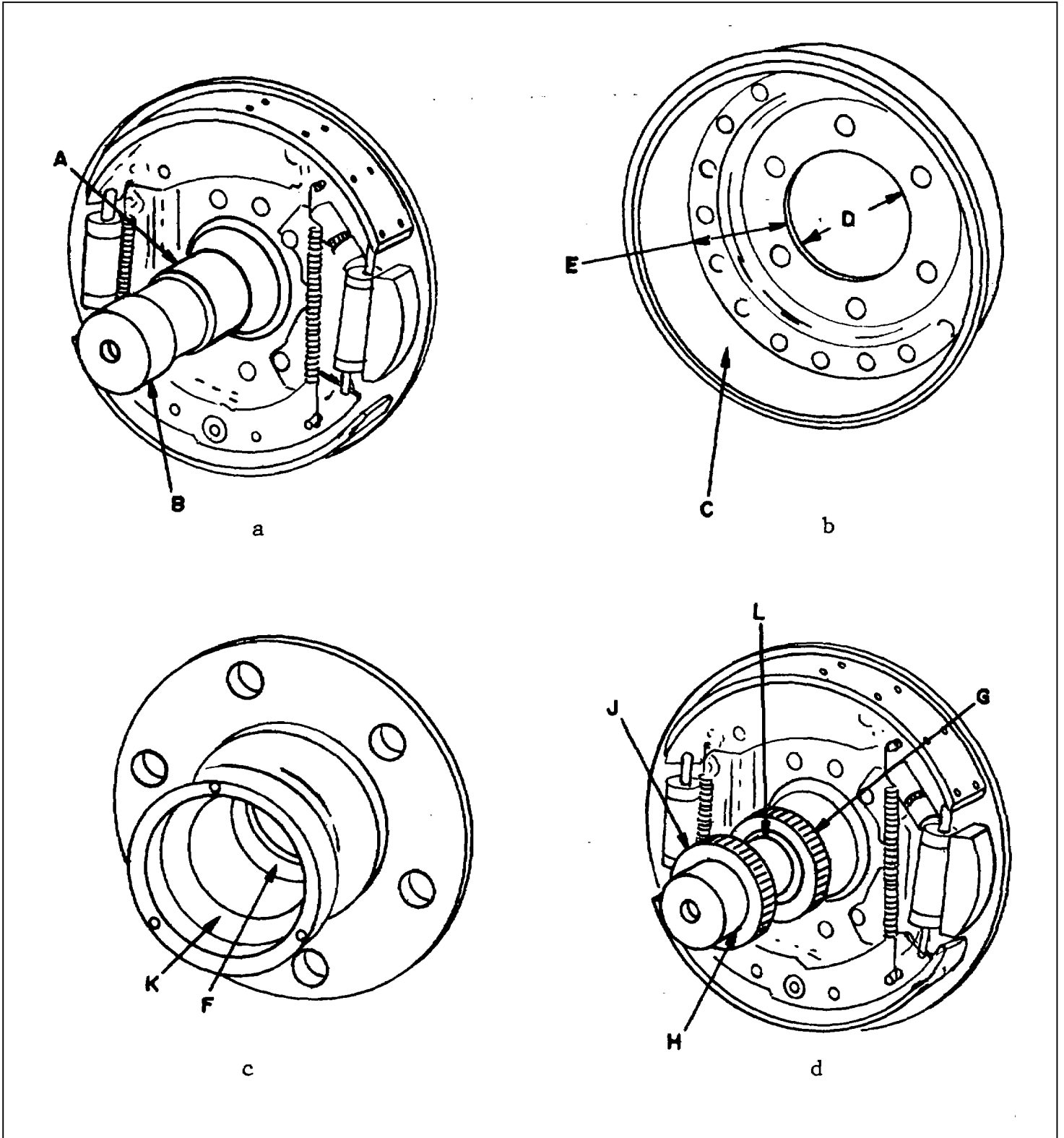
1. Check threads of axle spindle for wear, crossed threads, or other damage.
2. Using fine file, remove burrs, or hand chase threads if necessary.
3. Check for bent axle spindle. Indications of a bent axle spindle are binding bearings which cannot be adjusted properly, and extremely uneven wear of brake linings. Replace defective axle spindle.
4. Check for damaged paint and repaint where necessary.
5. Check that axle meets requirements of repair standards listed in Repair Standards, table 5-2.
6. The repair and rebuild standards included herein give the minimum, maximum, and key clearance of new or rebuilt parts. They also give wear limits which indicate that point to which a part or parts may be worn before replacement, in order to give maximum service with minimum replacement.
7. Normally, all parts which have not been worn beyond the dimensions shown under wear-limits or damaged from corrosion, will be approved for service. Points of measurement for repair standards are shown in the accompanying illustration.

TA 314857

Table 5-2. Repair Standards

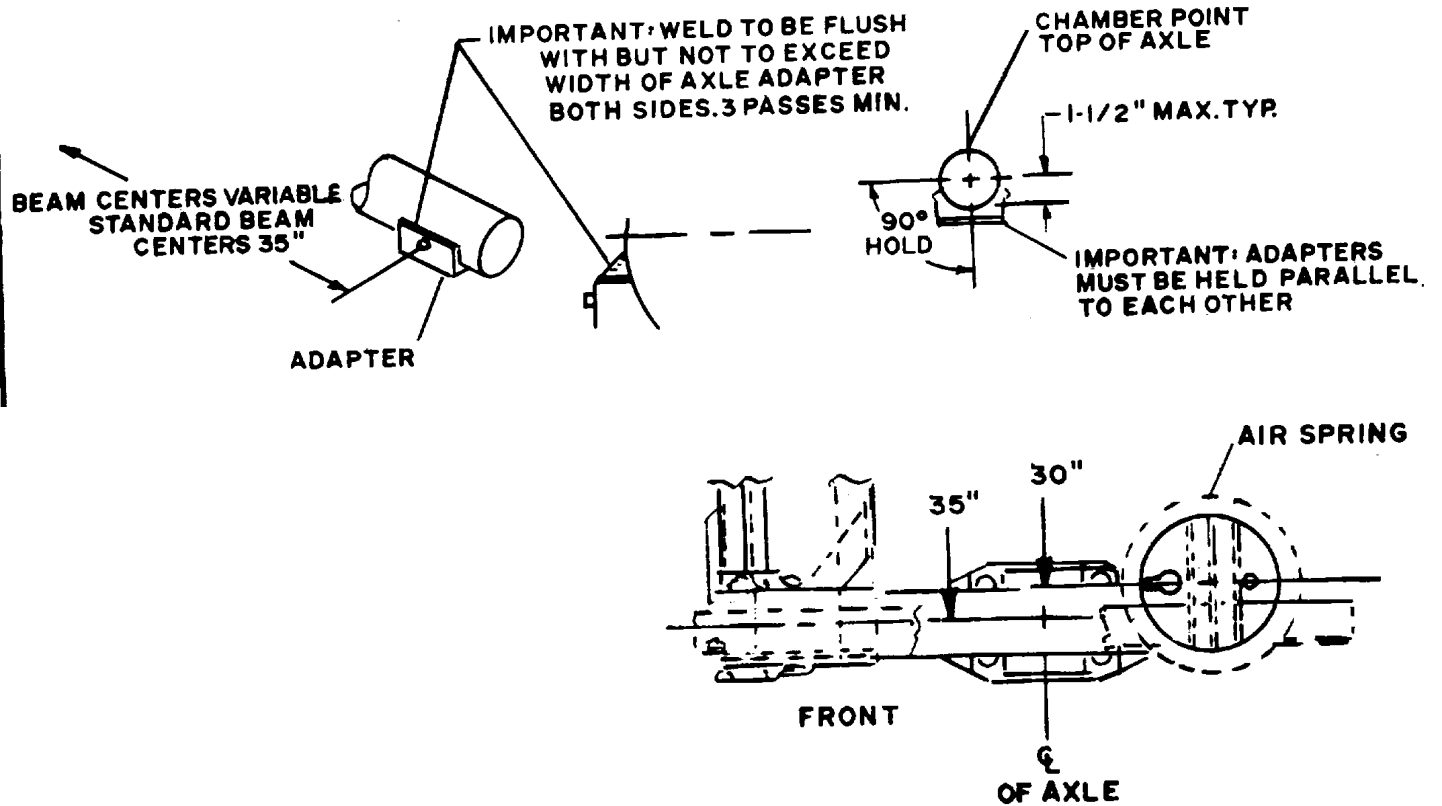
Item and point of measurement	Illustration letter ref.	Size and fit of new parts		Wear limits
		Min.	Max.	
a. Axle				
Diameter of inner bearing surface	A	3.4988	3.4988	3.4983
Diameter of outer bearing surface	B	2.6238	2.6248	2.6233
b. Brake drum				
Inside diameter	C	16.495	16.505	16.625
c. Drum adapter				
Inside diameter of hub location hole	D	7.250	7.254	*
Concentricity of inside diameter with outside diameter	E	Total reading	Indicator 0.004	*
d. Wheel hub				
Inside diameter of inner bearing cup surface	F	5.996	5.998	*
Outside diameter of inner bearing cup surface	G	6.0000	6.0010	*
Inside inner bearing cup fit		0.0015T	0.0045T	*
Inside (bore) diameter of inner bearing	L	3.5000	3.5010	3.5015
Inside diameter of outer bearing cup surface	K	4.434	4.436	*
Outer diameter of outer bearing cup	J	4.375	4.385	*
Inside outer bearing cup fit		0.0015T	0.0045T	*
Inside (bore) diameter of outer bearing	H	2.6250	2.6260	2.6265

* Indicates that part should be replaced when worn beyond the limits given in "size and fit of new parts" column.



5-7. AXLE ASSEMBLY (cont)

ASSEMBLY OF NEW AXLE



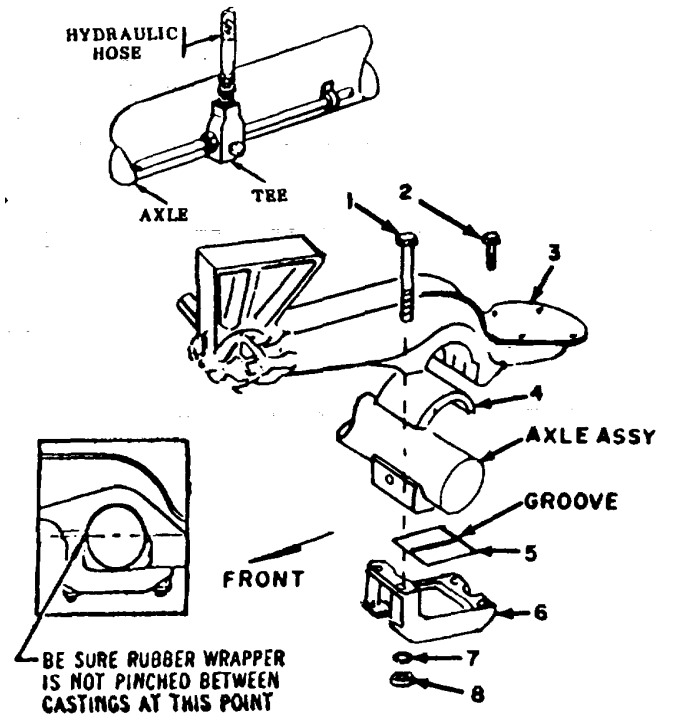
1. Determine centers of equalizing arms by adding five inches to air spring centers. Example: 30-inch air spring center plus 5 inches equals 35-inch equalizing arms center.
2. Locate equalizing arm centers on axle.
3. Position two axle adapters on bottom of axle at the center points located in step 2 above. Clamp adapters in place.
4. Using a level protractor, adjust both adapters as shown. Be sure adapters are parallel and tight against axle.
5. Weld both adapters securely as shown above with a minimum of three passes, using welding rods AWS Spec. E-7016 or equivalent.
6. Position tee fitting on new axle in same location as the original axle and secure with cap screw, lock washer and nuts

TA 314859

5-7. AXLE ASSEMBLY (cont)

INSTALLATION

1. Connect hydraulic hose to tee at center of axle.
2. Insert rubber wrappers (4) in position in equalizing arms (3).
3. Position axle in equalizing arms.
4. Place support under axle.
5. Check rubber wrappers (4) to make certain they are not pinched.
6. Place rubber pads (5) in axle connection caps (6).
7. Place axle connector pads (6) under axle and insert rod bolts (1) and (2).
8. Secure bolts (1) and (2) with eight nuts (8) and washers (7).
9. Torque nuts (8) alternately until axle connection caps (6) and equalizing arms (3) are a tight fit, metal to metal.



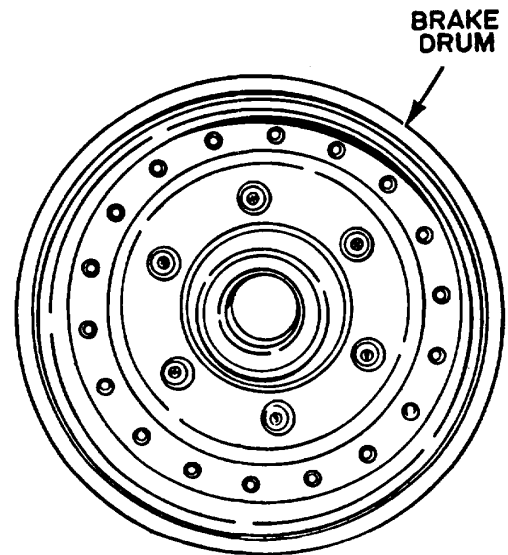
1. Rod bolt
2. Rod bolt
3. Equalizing arm
4. Rubber wrapper
5. Rubber pad
6. Axle connection cap
7. Washer
8. Nut

10. Install hubs and brake drums (para 4-30).
11. Install wheels (para 3-7).
12. Connect hydraulic hoses.
13. Close air reservoir drain cock
14. Remove blocking and support equipment.

TA 314860

5-8. BRAKE DRUM**REPAIR**

1. If inspection (para 4-30) reveals brake drum to be out of round or excessively scored, re-bore, removing as little metal as necessary to true friction surface.
2. After boring, check that brake drum meets requirements of repair standards listed in table 5-2.
3. If refinishing requires the removal of more than 1/16 inch of material (1/8 inch in diameter), replace brake drum.



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**APPENDIX A
REFERENCES**

A-1. Publication Indexes

The following indexes should be consulted frequently for latest changes or revisions and for new publications relating to materiel covered in this technical manual:

Index of Army Motion Pictures and Related Audio-Visual Aids.....	DA Pam 108-1
Consolidated Index of Army Publications and Forms	DA Pam 310-1

A-2. Forms

Refer to DA PAM 738-750, The Army Maintenance Management System (TAMMS) for instructions on the use of maintenance forms pertaining to the materiel.

A-3. Field Manuals, Supply Bulletins, Technical Bulletins, and Technical Manuals

Color and Marking of Military Vehicles	TB 43-0209
Wheeled Vehicles: Inspection, Care, and Preservation During Storage	SB 740-98-1
Camouflage	TM 5-200
Operation and Maintenance of Ordnance Materiel in Cold Weather.....	FM 9-207
Painting Instructions for Field Use.....	TM 43-0139
Inspection, Care and Maintenance of Antifriction bearings.....	TM 9-214
Care, Maintenance, and Repair of Pneumatic Tires and Inner Tubes.....	TM 9-2610-200-24

Administrative Storage of Equipment TM 740-90-1

Procedures for Destruction of Tank
Automotive Equipment to Prevent Enemy Use TM 750-244-6

Deep Water Fording of Ordnance Materiel TM 9-238

The Army Maintenance Management System DA PAM 738-750

Army Motor Transport Units and Operations..... FM 55-30

Manual for the wheeled Vehicle Driver FM 21-305

First Aid for Soldiers FM 21-11

APPENDIX B

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. GENERAL

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

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

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

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

B-2. MAINTENANCE FUNCTIONS |

Maintenance functions will be limited to and defined as follows:

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

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

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

d. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. Aline. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

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

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

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

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

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurement (hours/miles, etc.) considered in classifying Army equipments/components.

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

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

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

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

d. Column 4, Maintenance Category. Column 4 specifies, by the listing of a work time figure in the appropriate subcolumn(s), the category of maintenance authorized to perform the function listed in Column 3. This figure represents the active time

required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate work time figures will be shown for each category. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance categories are as follows:

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

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

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

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

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

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

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

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

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

B-5. EXPLANATION OF COLUMNS IN REMARKS, SECTION IV

a. Column 1, Reference Code. The code recorded in Column 6, Section II.

b. Column 2, Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC, Section II.

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND TEST EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
06	ELECTRICAL SYSTEM								
0608	COVER ASSEMBLY	Inspect		0.1					
		Replace		0.2					
0609	LAMP	Inspect	0.1						
		Replace	0.2						
	LIGHTS	Inspect		0.1					
		Replace		0.3					
0613	WIRING HARNESS MAIN AND ROOF	Inspect		0.1					
		Test		0.3					
		Replace			3.0				
		Repair			4.0				
	ELECTRICAL LEAD ASSEMBLY	Inspect		0.1					
		Test		0.3					
		Replace			2.0				
		Repair			3.0				
	WIRING HARNESS DOLLY MAIN	Inspect		0.1					
		Test		0.3					
		Replace			3.5				
		Repair			4.5				
	WIRING HARNESS DOLLY TAIL- LIGHTS	Inspect		0.1					
		Test		0.3					
		Replace			1.0				
		Repair			2.0				
	HARNESS, INTER- CONNECTING	Inspect		0.1					
		Test		0.3					
		Replace			0.2				
		Repair			0.5				
	RESISTOR ASSEMBLY	Inspect		0.1					
		Replace		0.5					

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND TEST EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
11 1100	AXLE AXLE ASSEMBLY	Inspect Replace		0.5	8.0				
12 1202	BRAKES SHOE ASSEMBLY	Inspect Adjust Replace		0.5 0.5 1.0					
1204	CYLINDER, MASTER	Inspect Service Replace Repair		0.2 0.2 0.2 2.0					
	CYLINDER, WHEEL TUBE ASSEMBLY	Replace Inspect Test		1.5 0.1 0.1					
1208	CHAMBER, AIR	Replace Inspect Test Replace		0.1 0.1 0.5 0.3					
	VALVE, RELAY	Inspect Test Replace		0.1 0.5 0.2					
	HOSE, AIR	Inspect Test Replace		0.1 0.2 2.0					
	RESERVOIR, AIR	Inspect Replace		0.1 0.2					

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND TEST EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
1208	COCK, DRAIN	Inspect Test Replace		0.1 0.1 0.1					
	COUPLING, AIR	Inspect Replace	0.1	0.1 0.1					
13 1311	WHEELS BEARING, HUB	Inspect Adjust Replace		0.3 0.2 0.2			Wrench		
	SEAL, OIL BRAKE DRUM	Replace Inspect Replace Repair		0.3 0.5 0.3 0.5					
1313	WHEEL TIRE	Replace Inspect Replace Repair Repair	0.5	0.2 1.0 1.0 0.5					
15	TUBE FRAME & TOWING ATTACHMENTS								
1501	PLATFORMS, LADDERS	Repair		2.0					
1501	BRIDGE	Repair		2.0					
1503	PINTLE	Inspect Repair		0.1 0.2					

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND TEST EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
1504	CARRIER, SPARE TIRE/WHEEL	Inspect Replace Repair		0.1 0.3 0.5					
1506	FIFTH WHEEL AIR MOUNTED KINGPIN HINGE COMPONENTS, BUSHINGS, SLEEVES SPRING, AIR	Inspect Replace		0.2 1.0					
	VALVE, HEIGHT CONTROL	Inspect Adjust Replace		0.1 0.2 0.3					
	ROD, BALL JOINT SHOCK ABSORBER	Replace Inspect Replace		0.3 0.1 0.2					
1507	LANDING GEAR	Inspect Replace		0.2 0.5					
	LEVELING JACK	Inspect Replace		0.1 0.3					
16	SPRINGS & SHOCK ABSORBERS								
1601	AIR SUSPENSION SYSTEM AIR SPRING	Inspect Replace		0.2 1.0					
	VALVE, HEIGHT CONTROL	Inspect Adjust Replace		0.1 0.2 0.3					

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND TEST EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
1601	ROD, BALL JOINT	Replace		0.3					
	SHOCK ABSORBER	Inspect		0.1					
		Replace		0.3					
	TORSION BAR & BUSHING	Replace		0.5					
18	BODY								
1801	HINGE, DOOR	Inspect		0.1					
		Replace		0.2					
	LOCK ASSEMBLY	Inspect		0.2					
		Replace		0.2					
	SEAL, DOOR	Replace		1.0					
	GUARD, SPLASH	Inspect		0.1					
		Replace		0.2					
22	BODY, CHASSIS ACCESSORY ITEMS								
2202	REFLECTORS	Replace		0.2					
2202	RFI FILTER	Inspect		0.1					
		Replace		0.2					
2210	DATA PLATES	Replace		0.2					

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

SEMITRAILER, VAN: SATELLITE TERMINAL OPERATOR, XM971E2

SEMITRAILER, VAN: SATELLITE TERMINAL MAINTENANCE & SUPPLY, XM971E3

Tool or Test Equipment	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool No.
Reference Code		None		

Section IV. REMARKS

SEMITRAILER, VAN: SATELLITE TERMINAL OPERATOR, XM971E2

SEMITRAILER, VAN: SATELLITE TERMINAL MAINTENANCE & SUPPLY, XM971E3

Reference Code	Remarks/Notes
	None

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APPENDIX C

COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LIST

Section I. INTRODUCTION**C-1. SCOPE**

This appendix lists components of end item and basic issue items for Semitrailer, Van: Satellite Terminal Operator, XM971E2 and Semitrailer, Van: Satellite Terminal Maintenance & Supply, XM971E3.

C-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 Semitrailer in operation, to operate it, and to perform emergency repairs. Although shipped separately packaged, BII must be with the semitrailer 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 BII, based on TOE/MTOE authorization of the end item.

C-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 (3) - Description. Indicates the Federal item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the FSCM (in parentheses) followed by the part number. If item needed differs for different models of this equipment, the model is shown under the "Usable On" heading in this column. These codes are identified as:

Code	Used On
094	Model XM971E2
095	Model XM971E3

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

e. 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

This section is **not** applicable

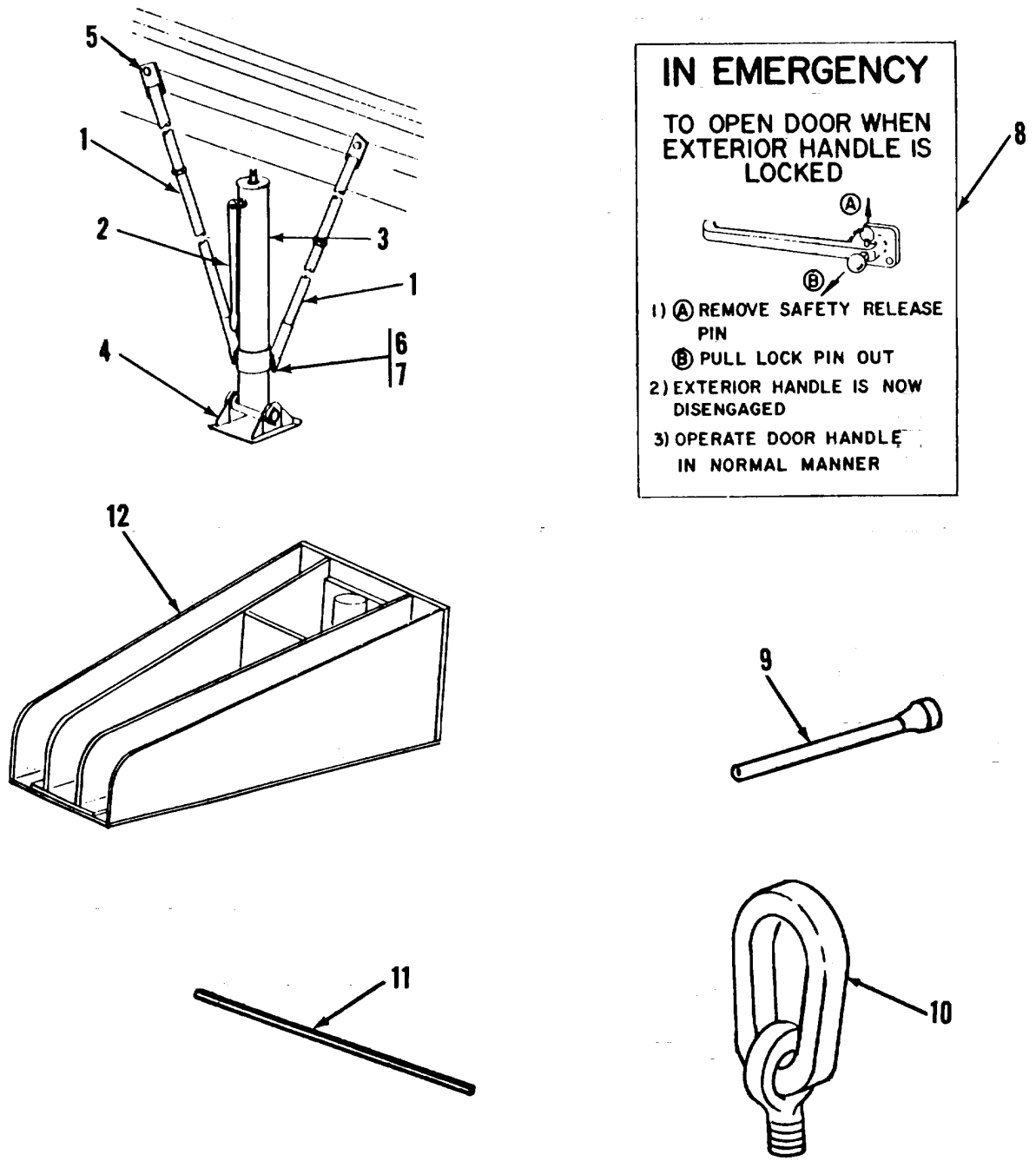


Figure C-1.

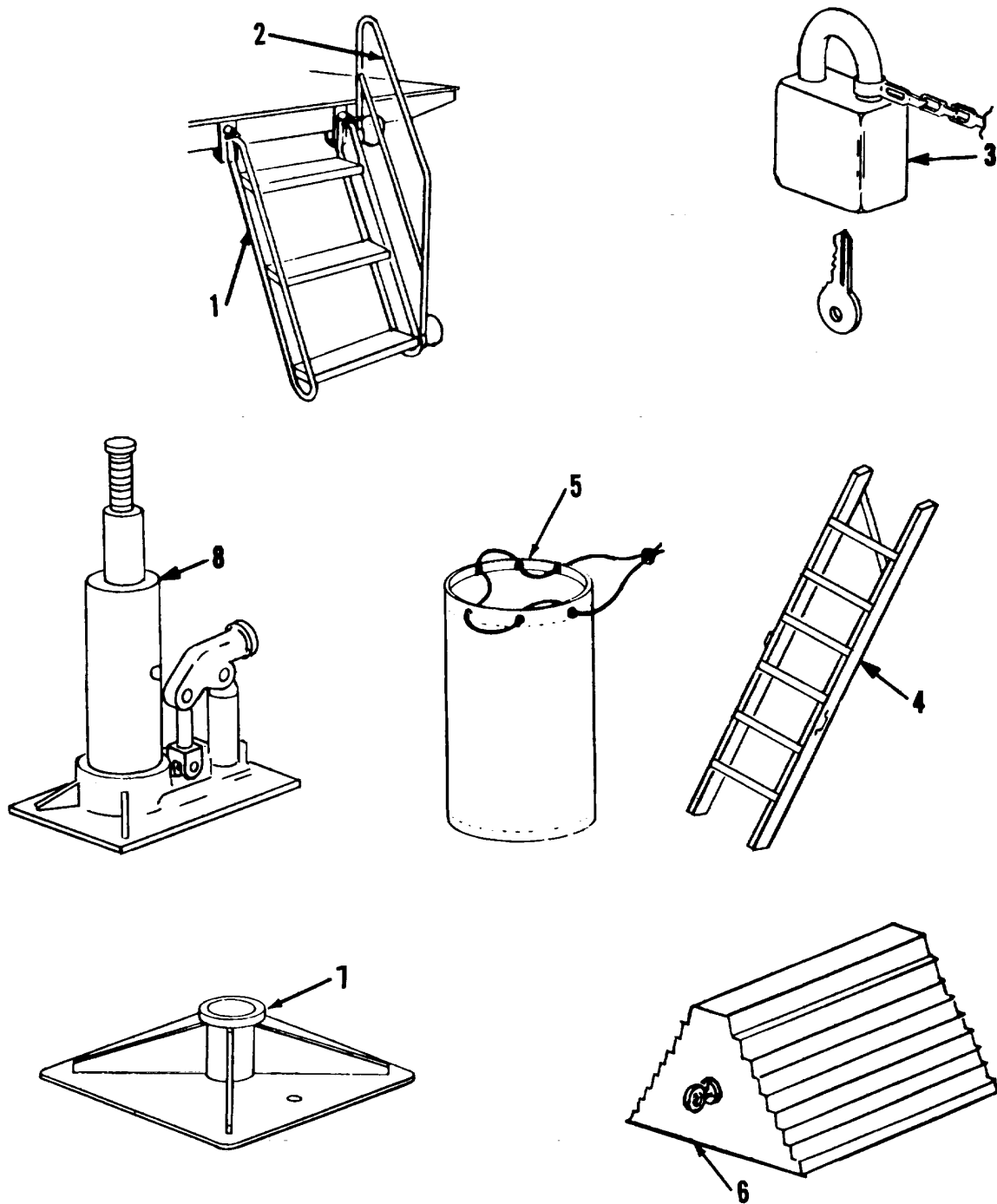


Figure C-2.

(1) Illus number		(2) National Stock number	(3) Description FSCM and Part number	Usable On Code	(4) U/M	(5) Qty rqr
C-1	12	2510-01-031-4455	ADAPTER: leveling - aircraft loading jack (underneath van body) (19207)11681435		EA	2
C-2	5	8105-01-171-4739	BAG: tiedown ring storage (in side storage compartment) (19207) 12307763		EA	2
C-1	1	2590-01-181-6331	BRACE: loading jack (with jack, underneath van body) (19207)12315736		EA	4
		2640-00-060-3550	CAP: pneumatic valve (on spare wheel and tire) (96906)MS51375-1		EA	1
C-2	6	2540-01-052-6234	CHOCK, WHEEL: (in bracket underneath van body) (96906)MS52127-2		EA	2
C-1	8	9905-01-207-3508	DECAL: emergency (19207)12331218		EA	4
C-1	11	5120-00-243-2419	HANDLE: leveling jack (in side storage compartment) (80244)41W1541-10		EA	2
C-2	2	2540-01-049-5162	HANDRAIL: ladder (in van front compartment) (19207)11646386		EA	1
		2610-00-269-7383	INNER TUBE: tire (on spare tire) (81348)ZZ-I-550/900-20/TR175A/ONCTR		EA	1
C-1	3	2590-01-185-0477	JACK: aircraft loading (underneath van body) (19207)12315735		EA	2
C-2	8	5120-00-224-7330	JACK: hydraulic (in side storage compartment) (06365)W253		EA	1
C-2	4	2540-01-092-4056	LADDER: folding (in brackets underneath van) (19207)11684609		EA	1

BASIC ISSUE ITEMS

(1) Illus number	(2) National Stock number	(3) Description FSCM and Part number	Usable On Code	(4) U/M	(5) Qty rqr
C-2	1	2540-01-049-6350	LADDER: vehicle boarding (in van front compartment) (19207)11681466	EA	1
C-1	7	5310-00-763-8920	NUT: jack brace (in side storage compartment) (96906)MS51967-20	EA	4
C-2	3	5340-00-682-1505	PADLOCK SET: (on doors) (96906)MS21313-52	EA	1
C-1	10	1670-01-092-9236	RING, TIEDOWN: (in stowage bag in side compartment) (96906)MS21237-IB	EA	30
C-1	5	5305-01-201-0295	SCREW: jack brace (in side storage compartment) (96906)MS90726-248	EA	4
C-1	6	5305-00-051-0827	SCREW: jack brace (in side storage compartment) (96906)MS90725-164	EA	4
C-1	4	2590-01-207-6366	SHOE: loading jack (with jack, underneath van) (19207) 12315763	EA	2
C-2	7	2590-00-856-1952	SHOE, VEHICLE SUPPORT: (in bracket underneath van) (19207)8747207	EA	2
		2610-00-262-8677	TIRE, PNEUMATIC: (on spare wheel) (81348)ZZ-T-381M/Group 3/ 9.00-20/D/TBCC	EA	1
		2640-00-810-5861	VALVE CORE: inner tube (on spare tire) (96906)MS51377-1	EA	1
		2530-00-026-0265	WHEEL: (on carrier) (19207)7389621	EA	1
C-1	9		WRENCH, LUG: wheel nut (in side storage compartment) (21450)41-W-3838-30	EA	1
C-1	2	5120-00-138-3772	WRENCH, RATCHET: loading jack (in storage compartment) (19207)12330872	EA	2

APPENDIX D

ADDITIONAL AUTHORIZATION LIST

Section I. INTRODUCTION

D-1. SCOPE

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

D-2. GENERAL

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

D-3. EXPLANATION OF LISTING

National stock numbers, descriptions, and quantities are provided to help you identify and request the additional items you require to support this equipment. The items are listed in alphabetical sequence by item name under the type document (i.e., CTA, MTOE, TDA, or JTA) which authorizes the item(s) to you. If item required differs for different models of this equipment, the model is shown under the "Usable on" heading in the description column. These codes are identified as:

Code	Used On
094	Model XM971E2
095	Model XM971E3

Section II. ADDITIONAL AUTHORIZATION LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION FSCM & PART NUMBER USABLE ON CODE	(3) U/M	(4) QTY
	None authorized		

APPENDIX E

EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION**E-1. SCOPE**

This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA-50-970, Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

E-2. EXPLANATION OF COLUMNS

a. **Column 1 - Item number.** This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use cleaning solvent, item 3, appendix E").

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

- C - Operator/Crew
- O - Organizational Maintenance
- F - Direct Support Maintenance
- H - General Support Maintenance

c. **Column 3 - National Stock Number.** This is the National stock number assigned to the item; use it to request or requisition the item.

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 requirement.

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	0	8040-00-290-4301	Cement, Bonding, MMM-A-1617 Type 2 1 Qt Can	EA
2	0	8040-00-062-6953	5 Qz Tube	EA
3	C,O	6850-00-281-1985	Cleaning Solvent, PD 680 (SDII) 1 Gal Can	EA
4	C,O	9150-00-190-0904	Grease, Automotive and Artillery, (GAA), MIL-G-10924 1 Lb Can	EA
5	C,O	9150-00-190-0905	5 Lb Can	EA
6	C,O	9150-00-190-0907	35 Lb Can	EA
7			Enamel, Black - MIL-E-52798A Brake Fluid, Silicone, Automotive , MIL-B-4 6176	EA
8	0	9150-01-059-2586	5 Gal Can Lubricating Oil, Spec MIL-L-2104 OE/HDO-30	EA
9	0	91 50-00-1 86-6681	1 Qt Can	EA
10	0	9150-00-188-9858	5 Gal Can	EA
11	0	9150-00-188-9859	55 Gal Drum (16 Ga)	EA
12	0	9150-00-189-6759	55 Gal Drum (18 Ga) Lubricating Oil, Sub-zero, Spec MIL- L-2104 (temp. above -20 F) OE/HDO-10	EA
13	0	9150-00-189-6727	1 Qt Can, Type 1	EA
14	0	9150-00-191-2772	55 Gal Drum	EA
15	C,O	8030-00-889-3534	Tape (Teflon), MIL-T-27730	EA
16	C,O	8030-00-515-2488	Waterproofing Sealant, MIL-C-21067 1 Cartridge	EA
E-2				

APPENDIX F
ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL
SUPPORT MAINTENANCE REPAIR PARTS AND
SPECIAL TOOLS LIST

Section I. INTRODUCTION

1. SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for the performance of organizational, direct support, and general support maintenance of the Semitrailer, Van: Satellite Terminal Operator, XM971E2 and Semitrailer, Van: Satellite Terminal Maintenance & Supply, XM971E3. It authorizes the requisitioning, issue and disposition of spares, repair parts and special tools as indicated by the Source, Maintenance and Recoverability (SMR) codes.

2. GENERAL

In addition to Section I, Introduction, this Repair Parts and Special Tools List is divided into the following sections:

a. Section II. Repair Parts List. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. This list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Repair parts kits or sets are listed separately in their own functional group within Section II. Repair parts for repairable special tools are also listed in this section.

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

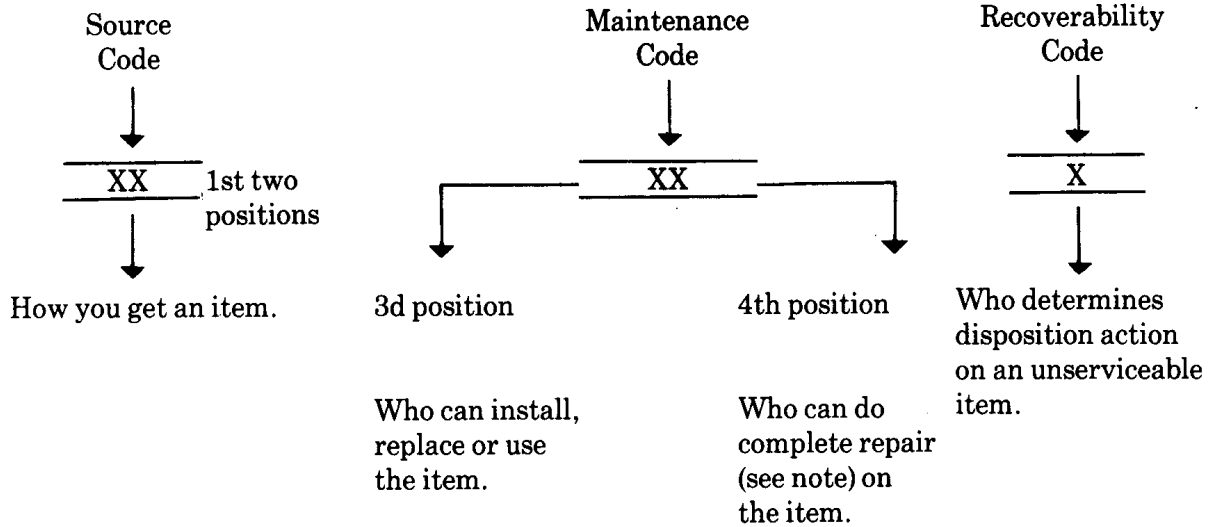
c. Section IV. National Stock Number and Part Number Index. A list, in National item identification number (NIIN) sequence, of all National stock numbers appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

3. EXPLANATION OF COLUMNS (Sections II and III)

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

b. SMR CODE (Column 2). The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instructions, as shown in the following breakout:

Source Maintenance Recoverability



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

(1) Source Code. The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Source codes are always the first two positions of the SMR code. Explanations of source codes follows:

Code Explanation

PA
PB
PC
PD
PE
PF
PG

Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3d position of the SMR code.

KD
KF
KB

** NOTE: Items coded PC are subject to deterioration. Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3d position of the SMR code. The complete kit must be requisitioned and applied.

t

MO—Made at org/AVUM category
MF—Made at DS/AVUM category
MH—Made at GS category
ML—Made at Specialized Repair Activity (SRA)
MD—Made at Depot

Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the Bulk Material group in the repair parts list in this manual. If the item is authorized to you by the 3d position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.

AO—Assembled by org/AVUM category
AF—Assembled by DS/AVUM category
AH—Assembled by GS category
AL—Assembled by SRA
AD—Assembled by Depot

Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3d position code of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.

- XA- Do not requisition an "XA"-coded item. Order its next higher assembly. (Also, refer to the NOTE below.)
- XB- If an "XB" item is not available from salvage, order it using the FSCM and part number given.
- XC- Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.
- XD Item is not stocked. Order an "XD"-coded item through normal supply channels using the FSCM and part number given, if no NSN is available.

NOTE

: Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 700-42,;

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

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

Code	Application/Explanation
C	- Crew or operator maintenance done within organizational or aviation unit maintenance.
O	- Organizational or aviation unit level can remove, replace, and use the item.
F	- Direct support or aviation intermediate level can remove, replace, and use the item.
H	- General support level can remove, replace and use the item.
L	- Specialized repair activity can remove, replace, and ;use the item.
D	- Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions). (NOTE: Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes). This position will contain one of the following maintenance codes:

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

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

Recoverability Code	Definition
Z	- Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the 3d position of SMR Code.
O	Reparable item. When uneconomically repairable, condemn and dispose of the item at organizational or aviation unit level.

Recoverability Code	Definition
F	- Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support or aviation intermediate level.
H	- Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D	- Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L	- Reparable item. Condemnation and disposal not authorized below specialized repair activity.
A	- Item requires special handling or condemnation procedures because of specific reasons (i.e., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. FSCM (Column (3)). The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc. that supplies the item.

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

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

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

- (1) The Federal item name, and when required, a minimum description to identify the item.
- (2) The physical security classification of the item is indicated by the parenthetical entry of the applicable physical security classification abbreviation (e.g., Phy Sec CI (C) - Confidential, Phy Sec CL(S)-Secret, Phy Sec CL(T)-Top Secret).

(3) Items that are included in kits and sets are listed below the name of the kit or set.

(4) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

(5) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.

(6) When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC).

(7) The usable on code, when applicable (see paragraph 5, Special Information)

(8) In the Special Tools List section, the basis of issue (BOI) appears as the last line(s) in the entry for each special tool, special TMDE, and other special support equipment. When density of equipments supported exceeds density spread indicated in the basis of issue, the total authorization is increased proportionately.

(9) The statement "END OF FIGURE" appears just below the last item description in Column 5 for a given figure in both Section II and Section III.

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

4. EXPLANATION OF COLUMNS (Section IV)

a. NATIONAL STOCK NUMBER INDEX.

(1) STOCK NUMBER Column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine NSN

digits of the NSN (i. ., 5305 01 674 1467 . When using this column to locate NIIN an item, ignore the first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

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

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

b. PART NUMBER INDEX. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

(1) FSCM-Column. The Federal Supply Code for Manufacturers (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc. that supplies the item.

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

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

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

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

5. SPECIAL INFORMATION

a. USABLE ON CODE. The usable on code appears in the lower left corner of the Description column heading. Usable on codes are shown as "UOC" . . . in the Description column (justified left) on the first line applicable item description/nomenclature. Uncoded items are applicable to all. models. Identification of the usable on codes used in the RPSTL are:

<u>Code</u>	<u>Used On</u>
094	XM971E2
095	XM971E3

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

c. **ASSEMBLY INSTRUCTIONS.** Detailed assembly instructions for items source coded to be assembled from component spare/repair parts are found in this manual. Items that make up the assembly are listed immediately-following the assembly item entry or reference is made to an applicable figure.

6. HOW TO LOCATE REPAIR PARTS

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

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

(3) **Third.** Identify the item on the figure and note item number.

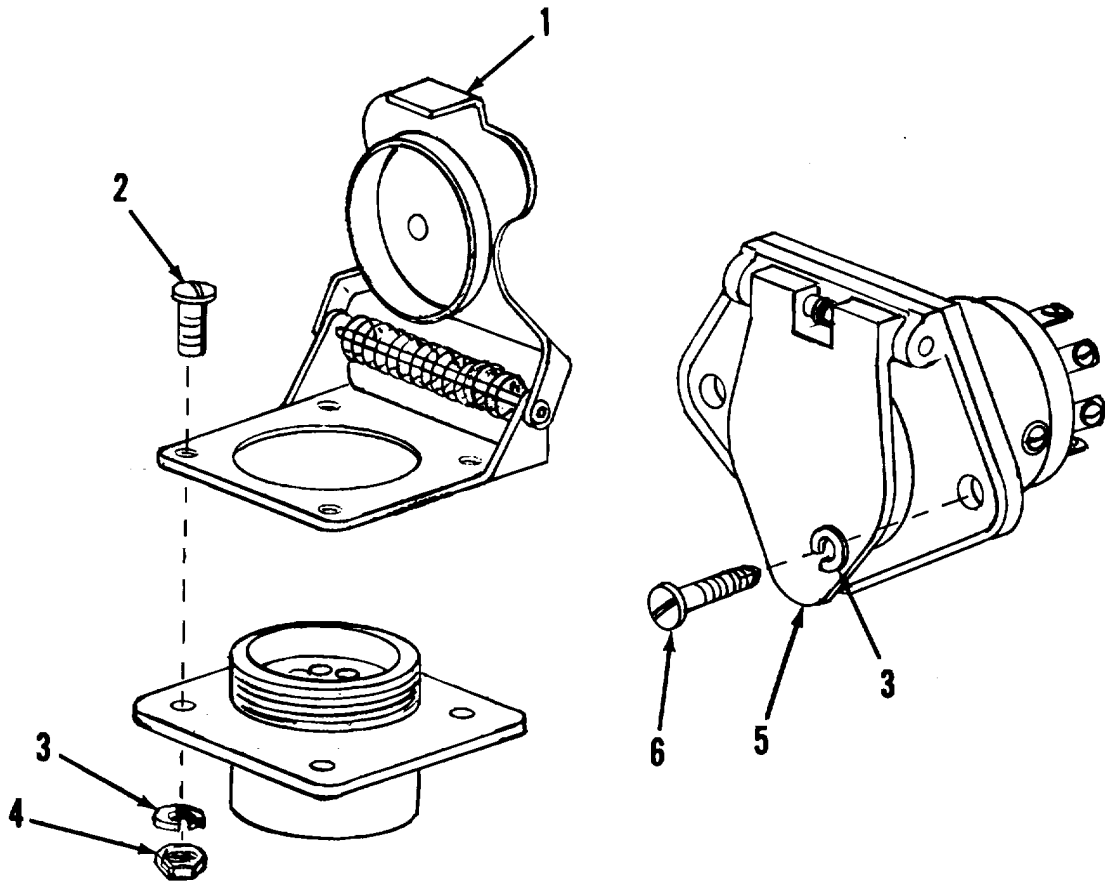
(4) **Fourth.** Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.

(5) **Fifth.** Refer to the Part Number Index to find the NSN, if assigned.

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

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

(2) **Second.** After finding the figure and item number, verify that the item is the one you're looking for, then locate the Item number in the repair parts list for the figure.



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Figure 1. Intervehicular Cable Receptacles and Cover.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 06 ELECTRICAL SYSTEM	
				GROUP 0608 MISCELLANEOUS ITEMS	
				FIG. 1. INTERVEHICULAR CABLE RECEPTACLE AND COVER	
1	PAOZZ	19207	7731428	COVER, ELECTRICAL CO	2
2	PAOZZ	96906	MS35206-286	SCREW, MACHINE	8
3	PAOZZ	96906	MS35333-40	WASHER, LOCK.....	10
4	PAOZZ	96906	MS51967-2	NUT, PLAIN, HEXAGON;	8
5	PAOZZ	98343	752HD	CONNECTOR, PLUG, ELEC	1
6	PAOZZ	96906	MS24629-61	SCREW, TAPPING, THREA.....	2

END OF FIGURE

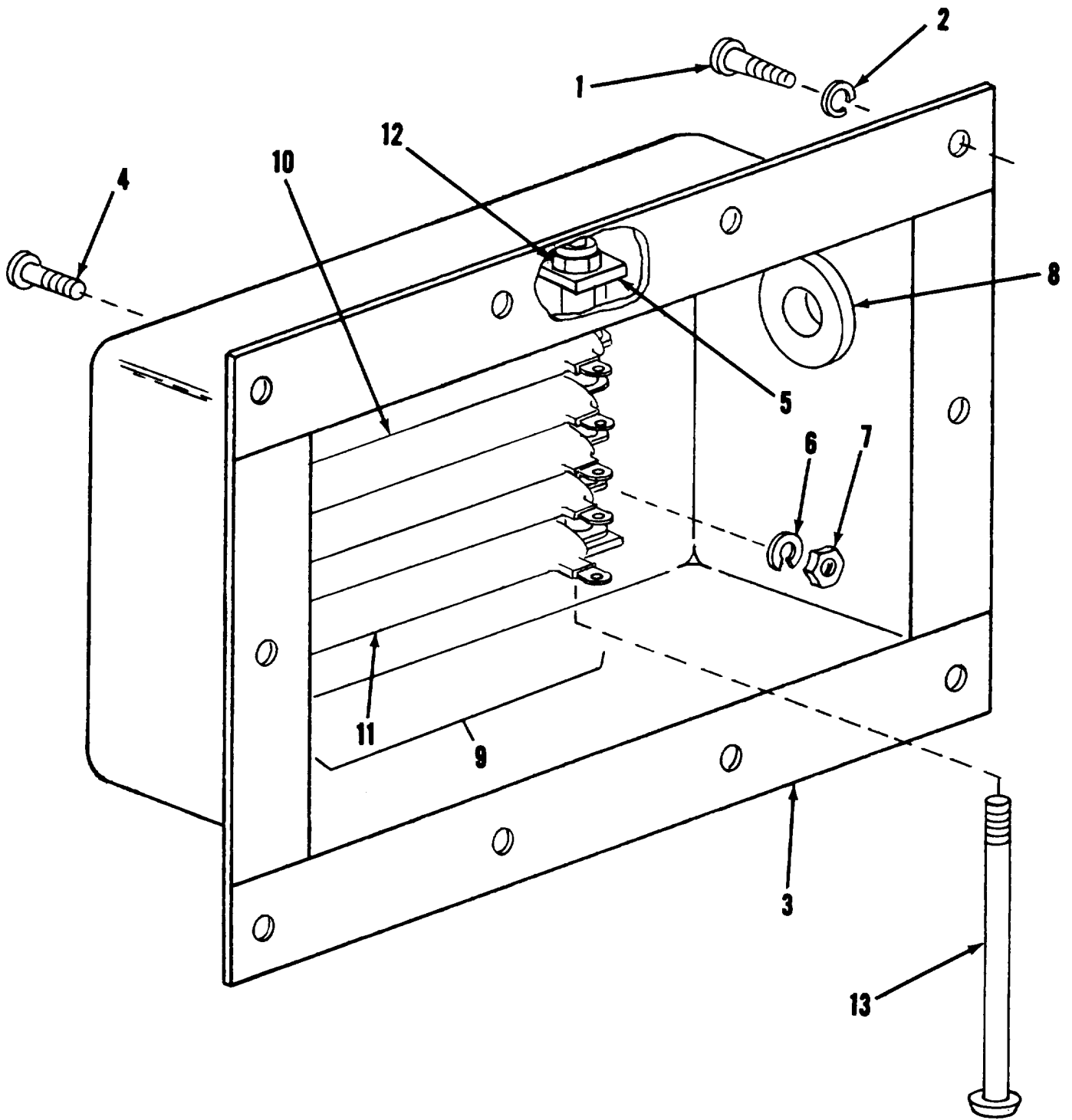


Figure 2. Resistor Assembly.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE	FSCM	NUMBER		

GROUP 0608 MISCELLANEOUS ITEMS

FIG. 2. RESISTOR ASSEMBLY

1	PAOZZ	96906	MS24629-48	SCREW, TAPPING, THREA.....	10
2	PAOZZ	96906	MS35338-43	WASHER, LOCK.....	10
3	XDOZZ	19207	12330940	HOUSING.....	1
4	PAOZZ	96906	MS35206-247	SCREW, MACHINE	4
5	XDOZZ	19207	12315505	BRACKET	2
6	PAOZZ	96906	MS35338-42	WASHER, LOCK.....	4
7	PAOZZ	96906	MS35649-282	NUT, PLAIN, HEXAGON	4
8	PAOZZ	88044	AN931-8-13	GROMMET, NONMETALLIC.....	1
9	PBOZZ	19207	12315654	RESISTOR ASSEMBLY.....	1
10	XAOZZ	81348	RW22-V-7R0	. RESISTOR 7 OHMS	2
11	XAOZZ	81348	R22-V-5R7	. RESISTOR 5.7 OHMS	3
12	PAOZZ	96906	MS21044N3	. NUT, SELF-LOCKING, HE	2
13	PAOZZ	96906	MS35207-274	. SCREW, MACHINE	2

END CF FIGURE

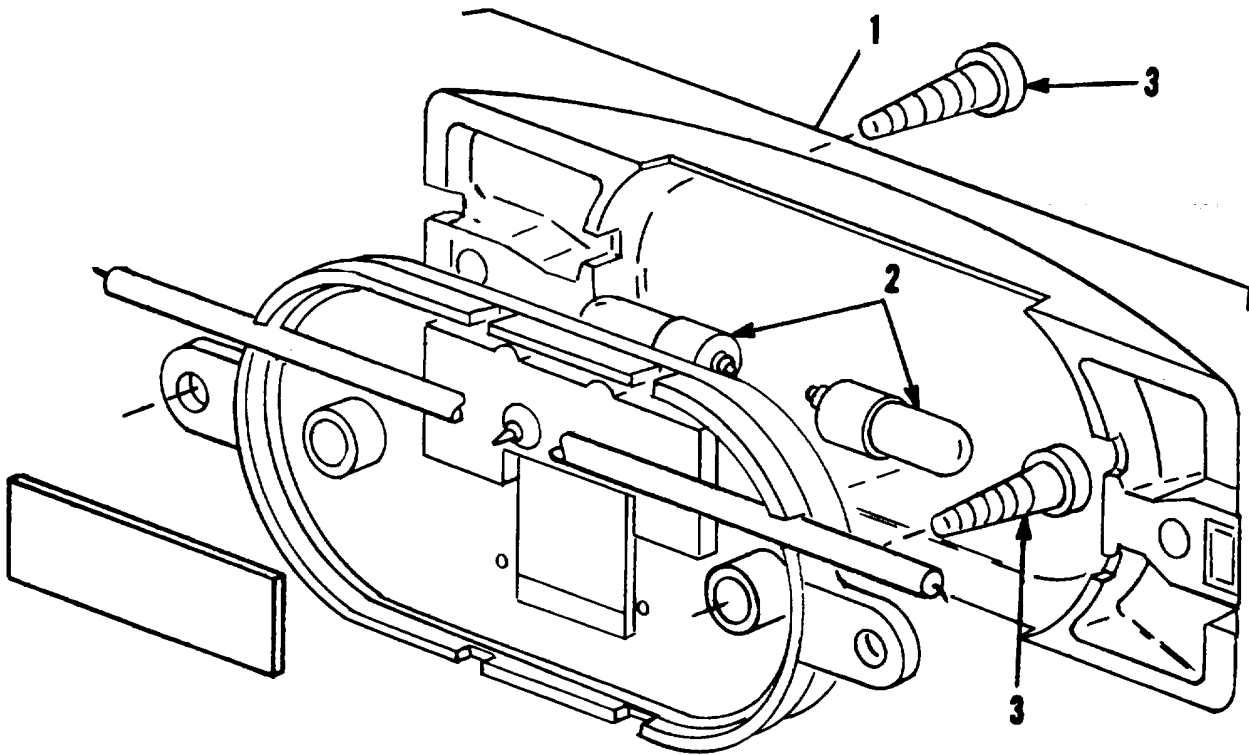


Figure 3. Marker Clearance Light.

TA 314633

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
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GROUP 0609 LIGHTS

FIG. 3. MARKER CLEARANCE LIGHTS

1	PAOZZ	81834	01-4663-23	LIGHT, MARKER, CLEARA RED	7
1	PAOZZ	81834	01-4663-33	LIGHT, MARKER, CLEARA AMBER	6
2	PAOZZ	21450	193065	. LAMP, INCANDESCENT	2
3	PAOZZ	96906	MS24629-48	SCREW, TAPPING, THREA.....	52

END OF FIGURE

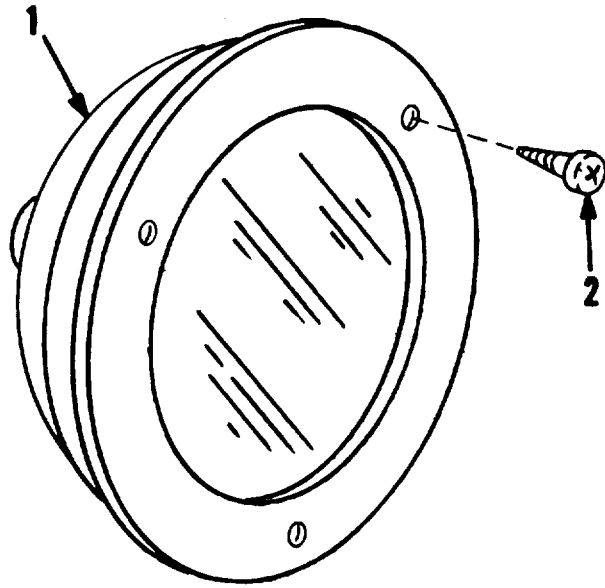


Figure 4. Stop light.

TA 314634

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 0609 LIGHTS	
				FIG. 4. STOP LIGHT	
1	PAOZZ	13548	40222R	STOP LIGHT, VEHICULA.....	2
2	PAOZZ	96906	MS24629-48	SCREW, TAPPING, THREA.....	6

END OF FIGURE

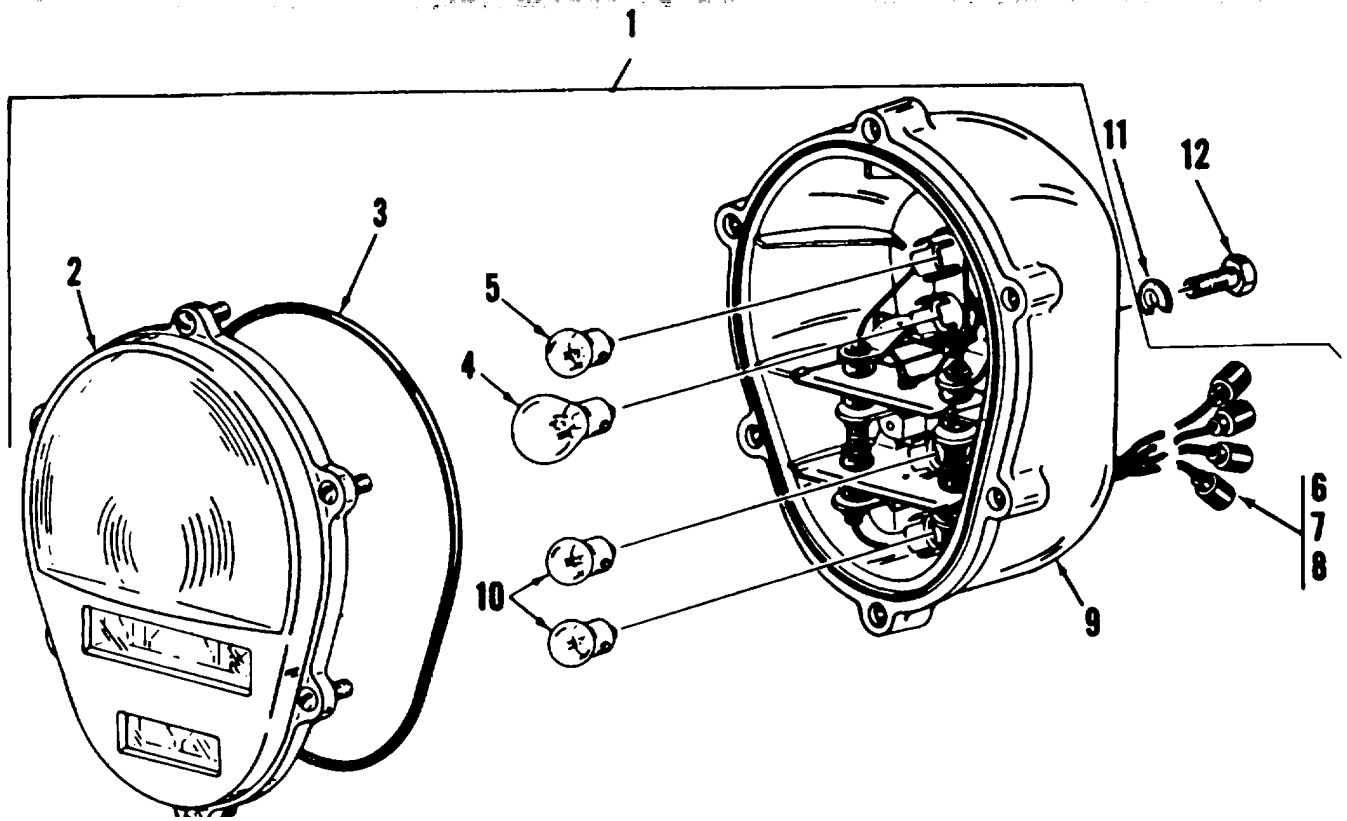


Figure 5. Stoplight Taillight Assembly.

TA 314635

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 0609 LIGHTS					
FIG. 5. STOP LIGHT/TAILLIGHT ASSEMBLY					
1	PAOZZ	96906	MS52125-1	STOP LIGHT-TAILLIGH.....	2
2	PAOZZ	19201	11639535	. LENS LIGHT	1
3	PAOZZ	19207	11639519-2	. PACKING, PREFORMED	1
4	PAOZZ	9690	MS35478-1073	. LAMP, INCANDSCENT.....	1
5	PAOZZ	96906	MS15570-89	. LAMP, INCANDSCENT.....	1
6	PAOZZ	19207	8338566	. SHELL, ELECTRICAL CO	4
7	PAOZZ	19207	8338567	. WASHER, SLOTTED.....	4
8	PAOZA	96906	MS27148-2	. CONTACT, ELECTRICAL.....	4
9	XAOZZ	19207	11639520	. BODY ASSEMBLY	1
10	PAOZZ	96906	MS15570-1251	. LAMP, INCANDESCENT	2
11	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	4
12	PAOZZ	96906	MS18154-58	SCREW, CAP, HEXAGON H.....	4

END OF FIGURE

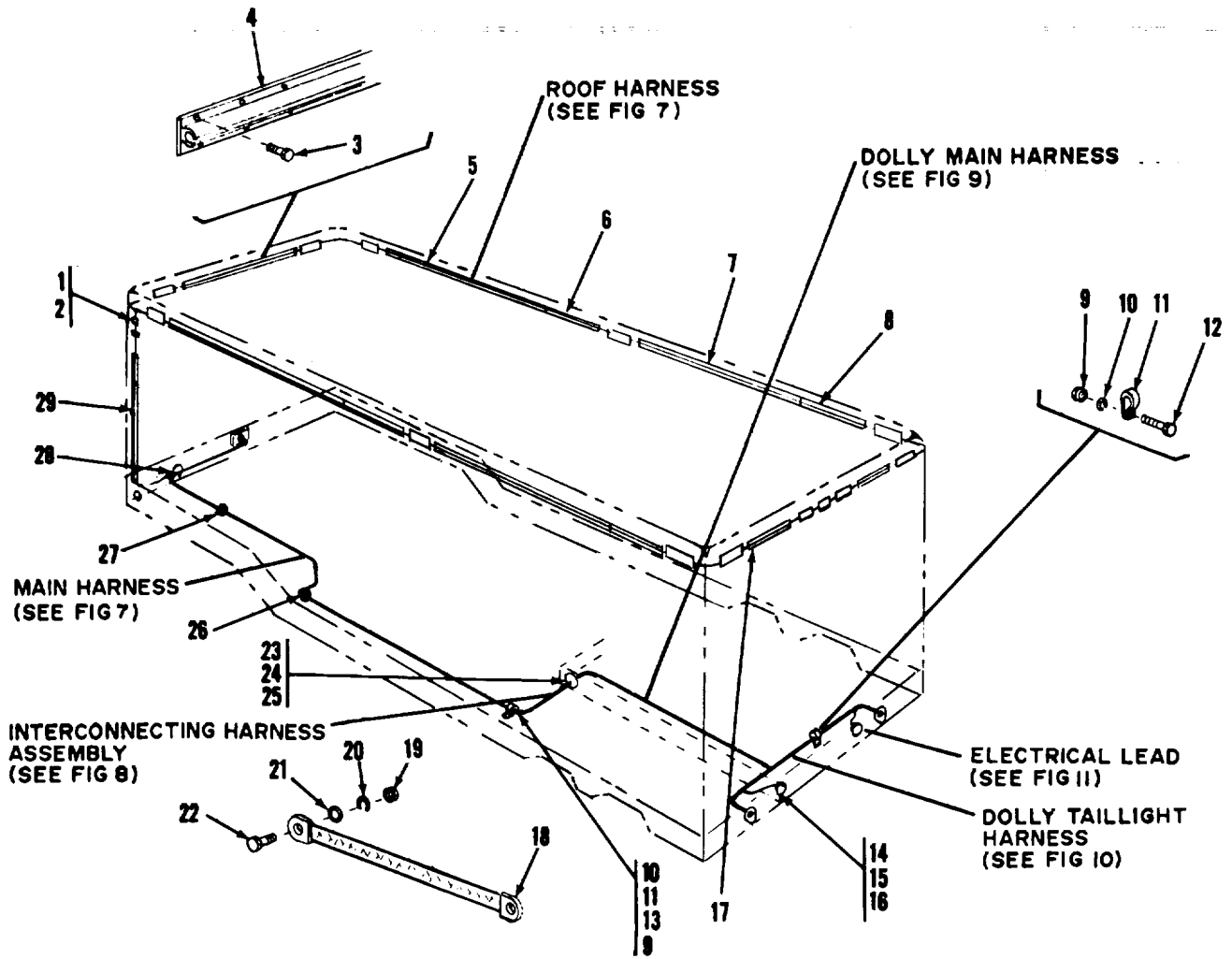


Figure 6. Wiring Harness Attaching Parts.

TA 314685

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 0613 WIRING HARNESS					
FIG. 6 WIRING HARNESS ATTACHING PARTS					
1	PAOZZ	96906	MS24629-48	SCREW, TAPPING, THREA.....	17
2	PAOZZ	96906	MS21322-33	CLAMP, LOOP.....	17
3	PAOZZ	96906	MS24629-37	SCREW, TAPPING, THREA.....	143
4	PBOZZ	19207	12330937-5	CONDUIT, RACEWAY, MET.....	1
5	PBOZZ	19207	12330937-1	CONDUIT, RACEWAY, MET.....	2
6	PBOZZ	19207	12330937-2	CONDUIT, RACEWAY, MET.....	2
7	PBOZZ	19207	12330937-3	CONDUIT, RACEWAY, MET.....	2
8	PBOZZ	19207	12330937-4	CONDUIT, RACEWAY, MET.....	2
9	PAOZZ	96906	MS35649-202	NUT, PLAIN, HEXAGCN.....	3
10	PAOZZ	96906	MS35338-43	WASHER, LOCK.....	3
11	PAOZZ	96906	MS21333-105	CLAMP, LOOP.....	3
12	PAOZZ	96906	MS35206-263	SCREW, MACHINE.....	2
13	PAOZZ	96906	MS35206-266	SCREW, MACHINE.....	1
14	PAOZZ	96906	MS35649-202	NUT, PLAIN, HEXAGON.....	2
15	PAOZZ	96906	MS35333-39	WASHER, LCCK.....	2
16	PAOZZ	96906	MS35206-265	SCREW, MACHINE.....	2
17	PBOZZ	19207	1233C946	CONDUIT, RACEWAY, MET.....	1
18	PAOZZ	92675	57038R2	LEAD, ELECTRICAL.....	1
19	PAOZZ	96906	MS51967-3	NUT, PLAIN, HEXAGON.....	4
20	PAOZZ	96906	MS35338-44	WASHER, LOCK.....	1
21	PAOZZ	96906	MS27183-10	WASHER, FLAT.....	1
22	PAOZZ	96906	MS90725-14	SCREW, CAP, HEXAGON H.....	1
23	PAOZZ	96906	MS35649-282	NUT, PLAIN, HEXAGON.....	4
24	PAOZZ	96906	MS35338-57	WASHER, LOCK K.....	4
25	PAOZZ	96906	MS35206-247	SCREW, MACHINE.....	4
26	PAOZZ	96906	MS35489-109	GROMMET, NONMETALLIC.....	17
27	PAOZZ	19207	10506798	GROPMET, NONMETALLIC.....	8
28	PAOZZ	96906	MS35489-94	GROMMET, NONMETALLIC.....	1
29	PBOZZ	19207	12330938	CONDUIT, RACEWAY, MET.....	1

END OF FIGURE

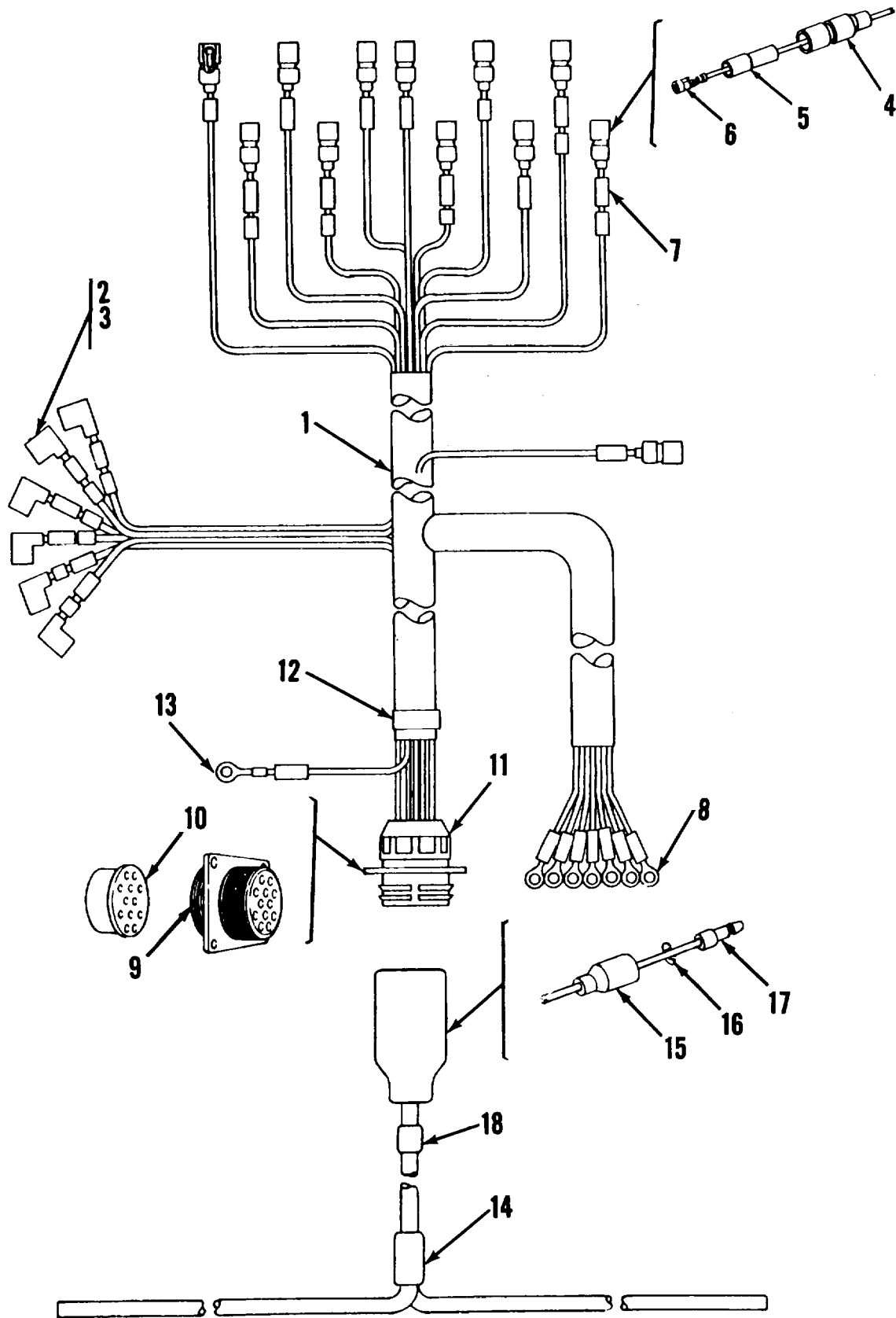


Figure 7. Wiring Harness, Main; Wiring Harness, Roof.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 0613 WIRING HARNESS					
FIG. 7. WIRING HARNESS, MAIN;WIRING HARNESS, ROOF					
1	MFFZZ	19207	12330939	WIRING HARNESS MAIN, FABRICATE FROM P/N M13486-1-5.....	1
2	PAOZZ	19207	12315556	. TERMINAL, QUICK DISC	6
3	PAOZZ	81345	M23053/1-102-0	. INSULATION SLEEVING	6
4	PAOZZ	19207	8338561	. SHELL, ELECTRICAL CO	12
5	PAOZZ	19207	8338562	. INSULATOR, BUSHING	12
6	PAOZZ	19207	833'8564	. TERMINAL ASSEMBLY	12
7	PAOZZ	81345	M43436/1-3	. BAND, MARKER.....	37
8	PAOZZ	21450	506207	. TERMINAL, LUG.....	7
9	PAOZZ	19207	8376208	. CONNECTOR , RECEPTACL	1
10	PAOZZ	19207	7722333	. BUSHING, RUBBER.....	1
11	PAOZZ	19207	7723309	. NUT, PLAIN , KNURLED	1
12	PAOZZ	81349	M43436/1-1	. BAND, MARKER.....	1
13	PAOZZ	21450	506209	. TERMINAL, LUG.....	1
14	MFFZZ	19207	12330936	WIRING HARNESS ROOF, FABRICATE FROM PIN M13486-1-5.....	1
15	PAOZZ	19201	8338566	. SHELL, ELECTRICAL CO	1
16	PAOZZ	19207	8338567	. WASHER, SLOTTED	1
17	PAOZA	96906	MS27148-2	. CONTACT, ELECTRICAL.....	1
18	PAOZZ	81349	M43436/1-1	. BAND, MARKER.....	1

END OF FIGURE

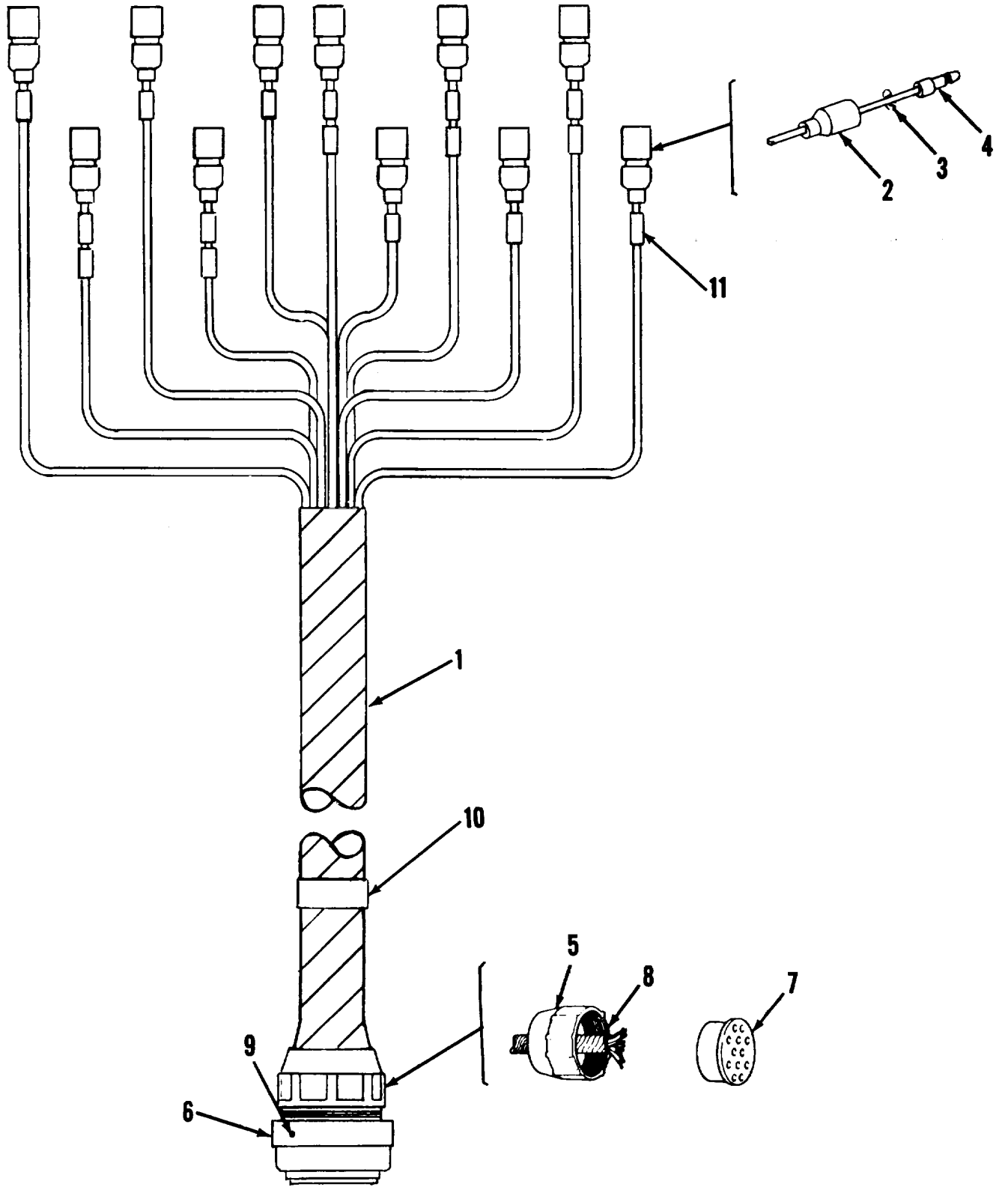


Figure 8. Harness Assembly, Interconnecting.

SECTION II

TM 9-2330-373-14&P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
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GROUP 0613 WIRING HARNESS

FIG. 8. HARNESS ASSEMBLY, INTERCONNECTING

1	MFFZZ	19207	11646259	WIRING HARNESS INTERCONNECTING	1
				FABRICATE FROM P/N M13486-1-5	
2	PAOZZ	19207	8338566	. SHELL, ELECTRICAL CO	11
3	PAOZZ	19207	8338567	. WASHER, SLOTTED	11
4	PAOZA	96906	MS27148-2	. CONTACT, ELECTRICAL.....	11
5	PAOZZ	19207	8724258	. CONNECTOR, PLUG, ELEC.....	1
6	PAOZZ	19207	7716634	. NUT, COUPLING, ELECTR.....	1
7	PAOZZ	19207	7122333	. BUSHING.RUBBER.....	1
8	PAOZZ	19207	7723309	. NUT, PLAIN, KNURLED	1
9	PAOZZ	19207	8724763	. NONMETALLIC ROD.	1
10	PAOZZ	8134S	M43436/1-3	. BAND, MARKER.....	1
11	PAOZZ	81349	M43436/1-1	. BAND, MARKER.....	16

END OF FIGURE

8-1

SECTION II

TM 9-2330-373-14&P

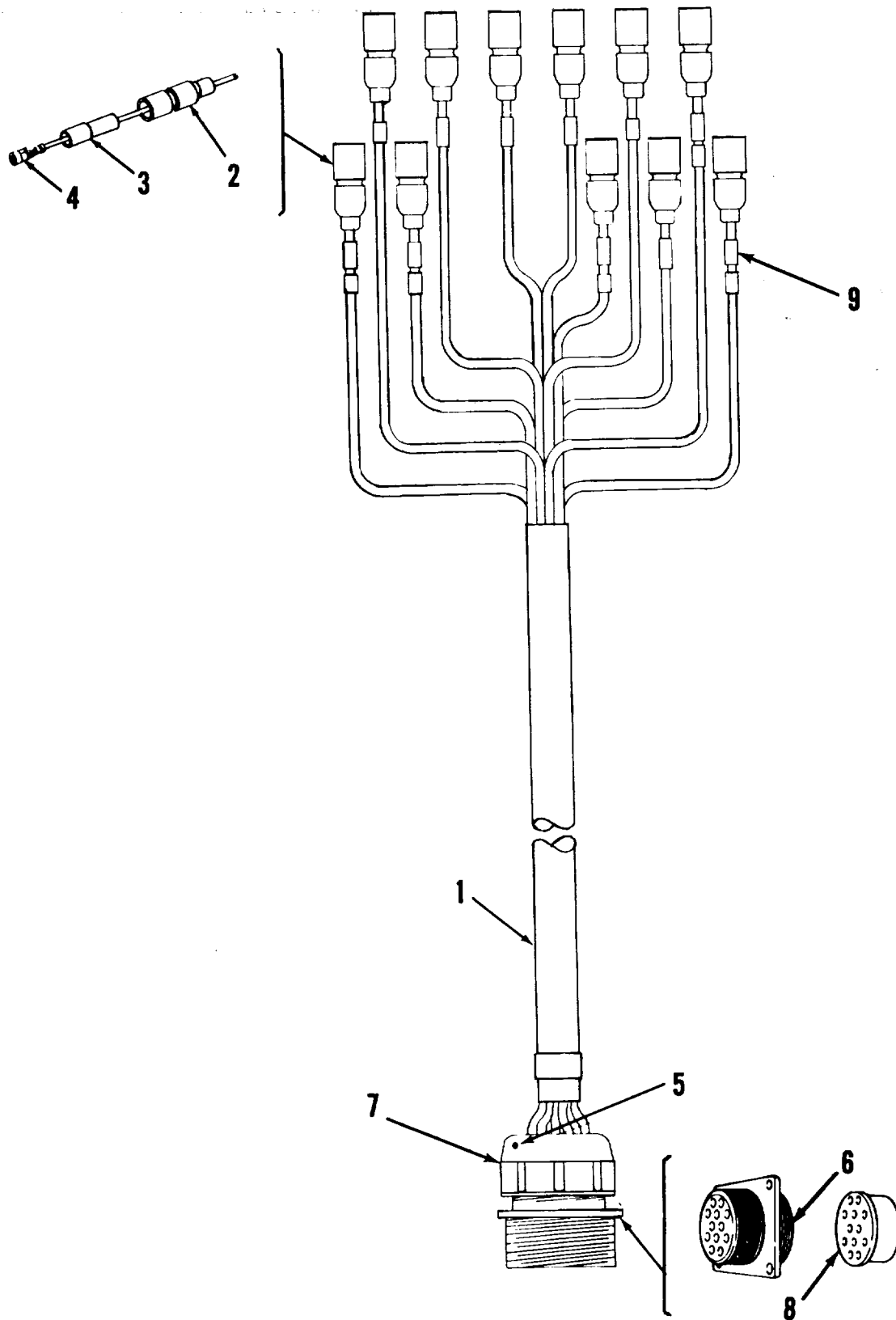


Figure 9. Main Dolly Harness.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR	FSCM	PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE		NUMBER		
GROUP 0613 WIRING HARNESS					
FIG. 9. MAIN DOLLY HARNESS					
1	MFFZZ	19207	11681260	WIRING HARNESS DOLLY MAIN,	1
Z	PAOZZ	19207	8338561	FABRICATE FROM P/N M13486-1-5	
3	PAOZZ	19207	8338562	. SHELL., ELECTRICAL CO	11
4	PAOZZ	19207	8338563	. INSULATOR, BUSHING	11
5	PAOZZ	19207	8124763	. FERRULE, ELECTRICAL	11
6	PAOZZ	19207	7716793	. NONMETALLIC ROD.....	1
7	PAOZZ	19207	7723309	. CONNECTOR, RECEPTACL	1
8	PAOZZ	19207	7722333	. NUT, PLAIN, KNURLED	1
9	PAOZZ	81349	M43436/1-1	. BUSHING, RUBBER.....	1
				. BAND, MARKER.....	16

END OF FIGURE

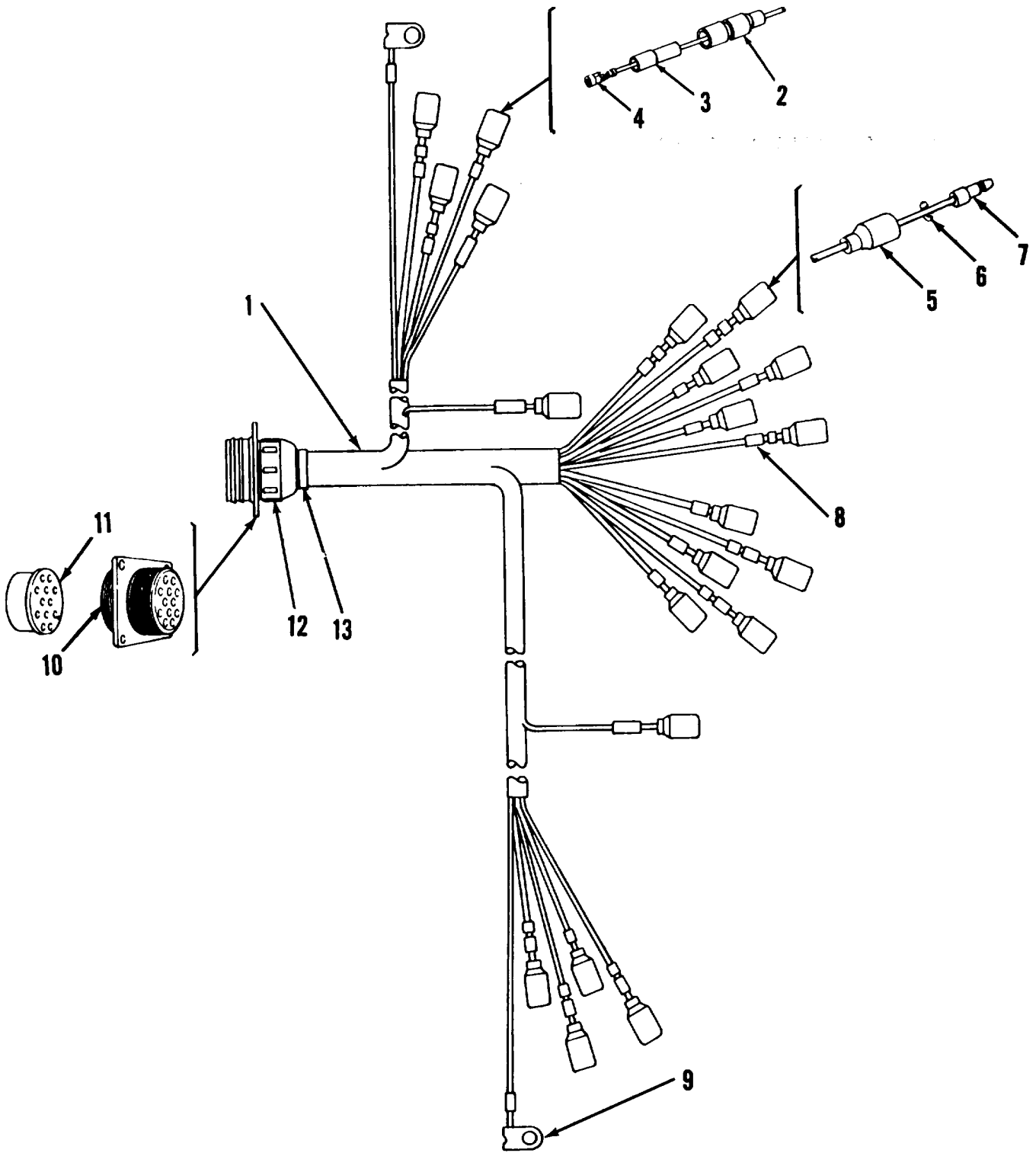


Figure 10. Wiring Harness, Dolly Taillights.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 0613 WIRING HARNESS					
FIG. 10. WIRING HARNESS, DOLLY TAILLIGHTS					
1	MFFZZ	19207	12330879	WIRING HARNESS DOLLY TAILLIGHTS,.....	1
				FABRICATE FROM P/N M13486-1-5	
2	PAOZZ	19207	8338561	. SHELL, ELECTRICAL CO	10
3	PAOZZ	19207	8338562	. INSULATOR, BUSHING	10
4	PAOZZ	19207	8338563	. FERRULE, ELECTRICAL	10
5	PAOZZ	19207	8338566	. SHELL, ELECTRICAL CO	11
6	PAOZZ	19207	8338567	. WASHER, SLOTTED	11
7	PAOZA	96906	MS27148-2	. CONTACT, ELECTRICAL.....	11
8	PAOZZ	81345	M43436/1-1	. BAND, MARKER.....	33
9	PAOZZ	96906	MS35438-8	. TERMINAL, LUG.....	2
10	PAOZZ	96906	MS75C21-2	. CONNECTOR, RECEPTACL	1
11	PAOZZ	19207	7722333	. BUSHING, RUBBER.....	11
12	PAOZZ	19207	7723309	. NUT, PLAIN, KNURLED	1
13	PAOZZ	81345	M43436/1-3	. BAND, MARKER.....	11

END OF FIGURE

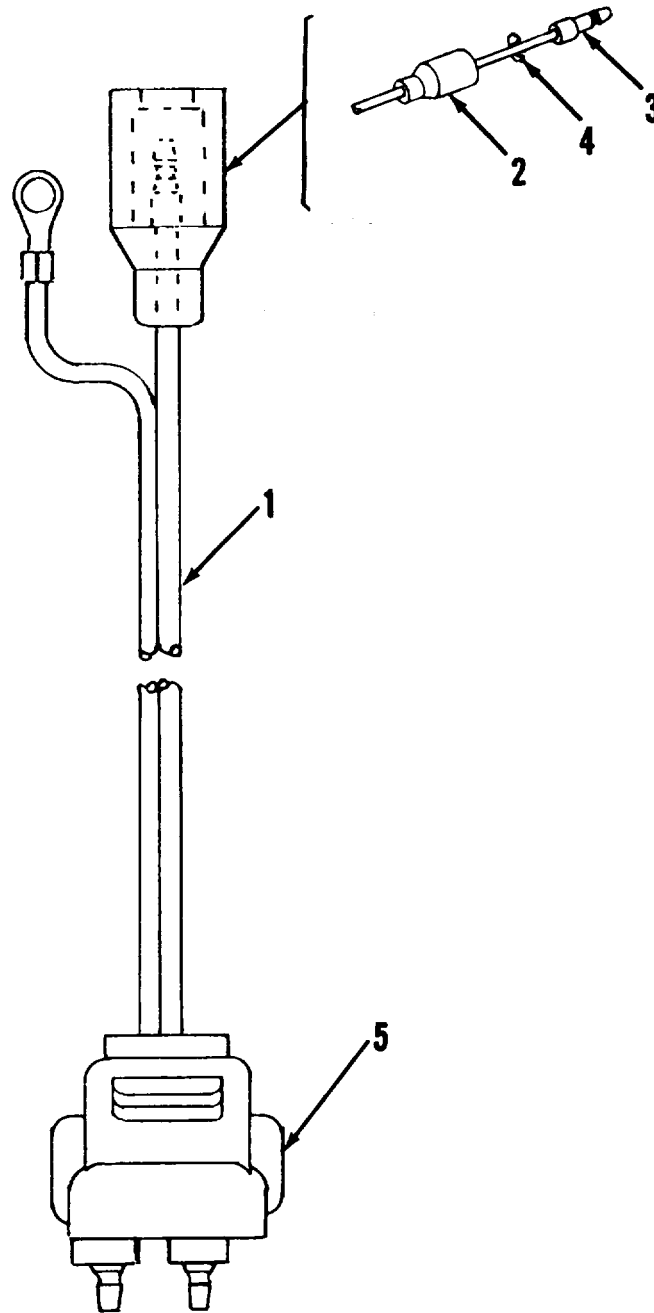


Figure 11. Lead, Electrical.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
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GROUP 0613 WIRING HARNESS

FIG. 11. LEAD, ELECTRICAL

1	PAOZZ	19207	1233C878	LEAD, ELECTRICAL.....	2
2	PAOZZ	19207	8724495	. SHELL, ELECTRICAL CO	1
3	XDOZA	96906	MS27148-3	. CONTACT, ELECTRICAL.....	1
4	PAOZZ	19207	8724497	. WASHER, SLOTTED.....	1
5	PAOZZ	13548	949258S/T	. CONNECTOR, PLUG, ELEC.....	1

END OF FIGURE

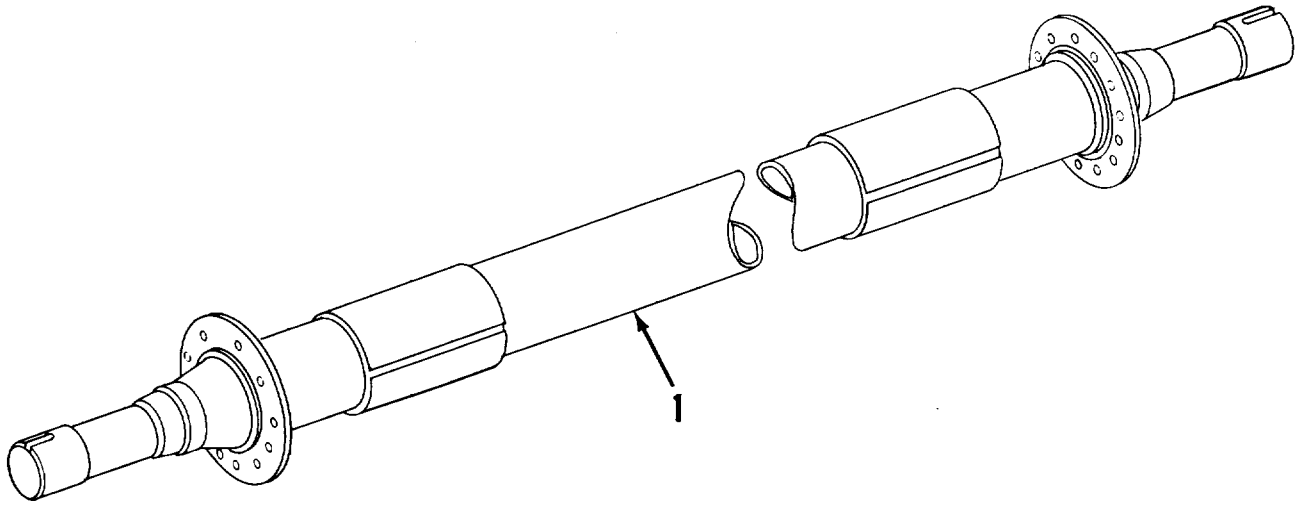


Figure 12. Rear Axle Assembly.

TA 314642

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY

GROUP 11 REAR AXLE

GROUP 1100 REAR AXLE ASSEMBLY

FIG. 12. REAR AXLE ASSEMBLY

1	PBFZZ	19207	11684320	AXLE, VEHICULAR, NOND.....	2
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END OF FIGURE

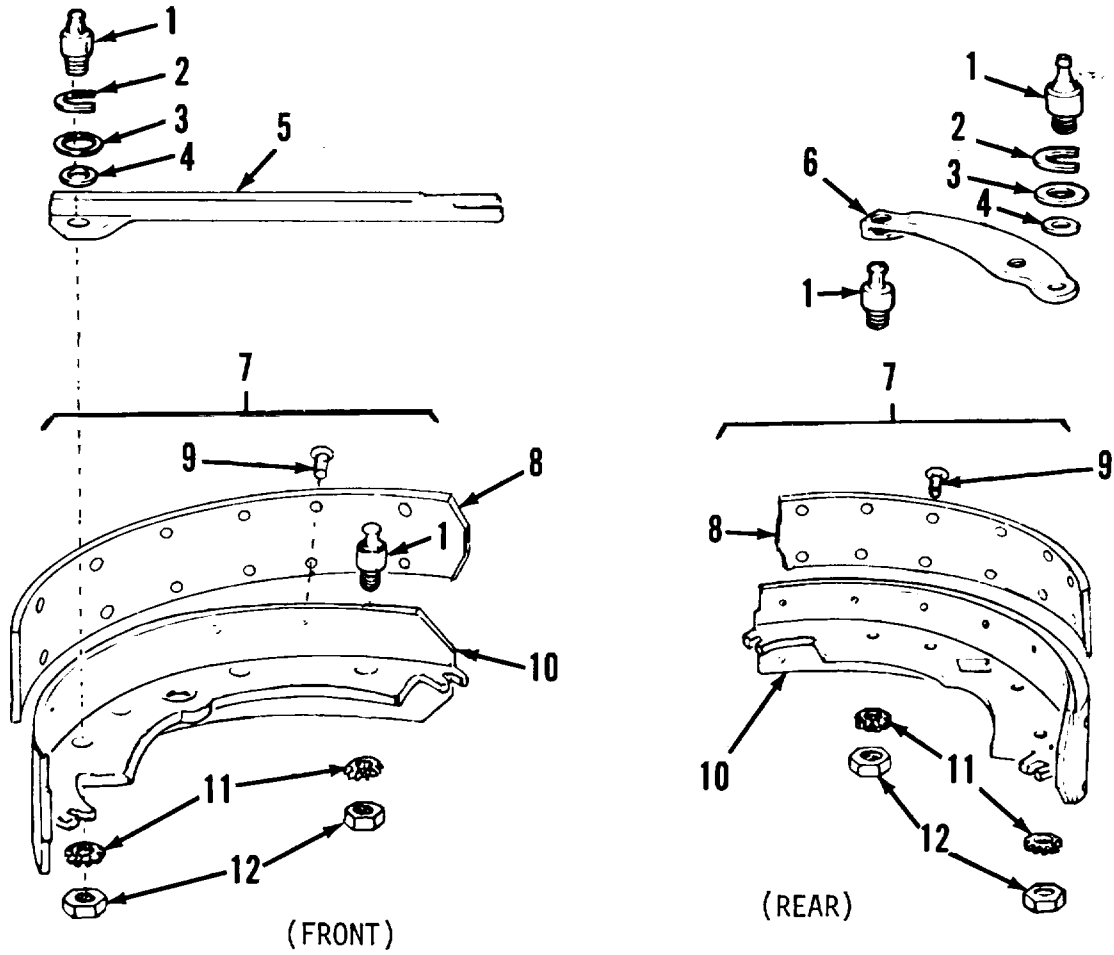


Figure 13. Brake Shoe and Related Parts.

TA 314643

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE	FSCM	NUMBER		
GROUP 12 BRAKES					
GROUP 1202 SERVICE BRAKES					
FIG. 13. BRAKE SHOE & RELATED PARTS					
1	PAOZZ	19207	8733938	PIN, SERVICE BRAKE	2
2	PAOZZ	19207	8733937	WASHER, SLOTTED	1
3	PAOZZ	19207	8733936	WASHER, FLAT.....	1
4	PAOZZ	19207	8733935	WASHER, SPRING TENS	1
5	PAOZZ	19207	8733926	CONNECTING LINK, RIG FRONT, LEFT	1
5	PAOZZ	19207	8733927	LINK EMERGENCY BRAK FRONT, RIGHT.....	1
6	PAOZZ	19207	8733911	LEVER, LEFT HAND BRA REAR	1
6	PAOZZ	19207	8733912	LEVER, RIGHT HAND BR REAR	1
7	PAOFF	19207	7064978	BRAKE SHOE	1
8	PAOZZ	19207	8720517	. LINK, FRICTION	1
9	PAOZZ	96906	MS16536-175	. RIVET, TUBULAR	9
10	PBOZZ	63477	F103606	. BRAKE SHOE	1
11	PAOZZ	96906	MS3533536	WASHER, LOCK-	2
12	PAOZZ	96906	MS51970-4	NUT, PLAIN, HEXAGCN.....	2

END OF FIGURE

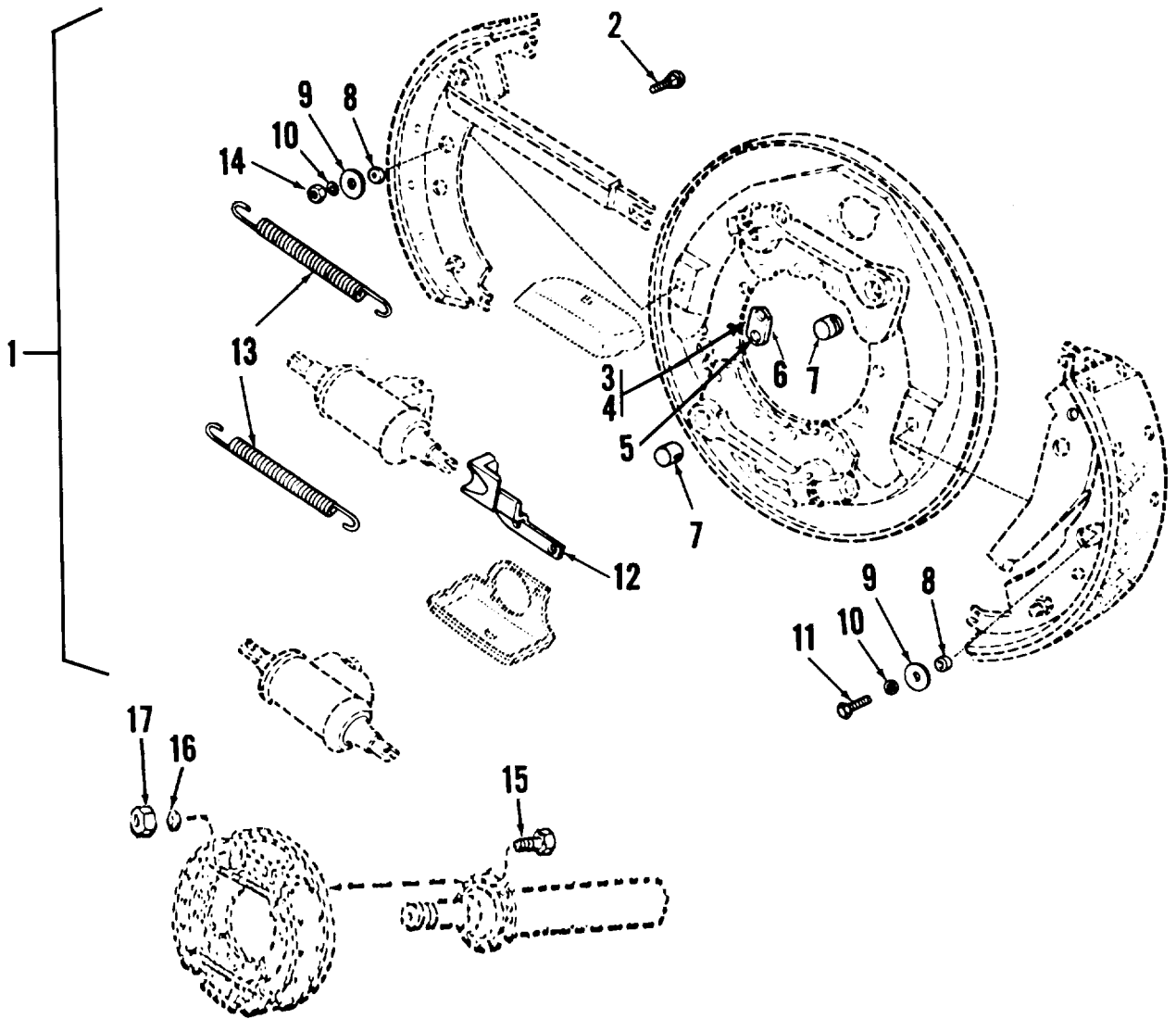


Figure 14. Service Brake Attaching Parts.

TA 3144644

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
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GROUP 1202 SERVICE BRAKES

FIG. 14. SERVICE BRAKE ATTACHING PARTS

1	PBOZZ	19207	8336701	BRAKE, SHOE TYPE LEFT HAND.....	2
1	PBOFF	19207	8336702	BRAKE, SHOE TYPE RIGHT HAND	2
2	PAOZZ	19207	7411760	. BOLT, SQUARE NECK.....	1
3	PAOZZ	969C6	MS51967-2	. NUT, PLAIN, HEXAGON	4
4	PAOZZ	96906	MS35338-44	. WASHER, LOCK.....	4
5	PAOZZ	19207	8733890	. BRACKET, LEFT HAND	1
5	PAOZZ	19207	8733891	. BRACKET, RIGHT HAND	1
6	PAOZZ	19207	8735729	. COVER, ACCESS.....	1
7	PAOZZ	24617	2284336	. PIN, STRAIGHT, HEADLE	2
8	PAOZZ	19207	7412103	. SPACER, SLEEVE.....	2
9	PAOZZ	19207	5323088	. WASHER, FLAT	2
10	PAOZZ	96906	MS35338-44	. WASHER, LOCK.....	2
11	PAOZZ	96906	MS90726-8	. SCREW, CAP, HEXAGON H	1
12	PAOZZ	19207	8733892	. RAMP, CABLE LEFT HAND	1
12	PAOZZ	21450	8733893	. RAMP, BRAKE CABLE RIGHT HAND	1
13	PAOZZ	19207	8720515	. SPRING, HELICAL, EXTE	2
14	PAOZZ	969C6	MS51970-1	. NUT, PLAIN, HEXAGON	1
15	PAOZZ	96906	MS90726-60	. SCREW, CAP, HEXAGON H.....	16
15	PAOZZ	96906	MS90726-64	SCREW, CAP, HEXAGON H.....	16
16	PAOZZ	96904	MS35335-35	WASHER, LOCK.....	48
17	PAOZZ	96906	MS51968-8	NUT, PLAIN, HEXAGON	48

END OF FIGURE

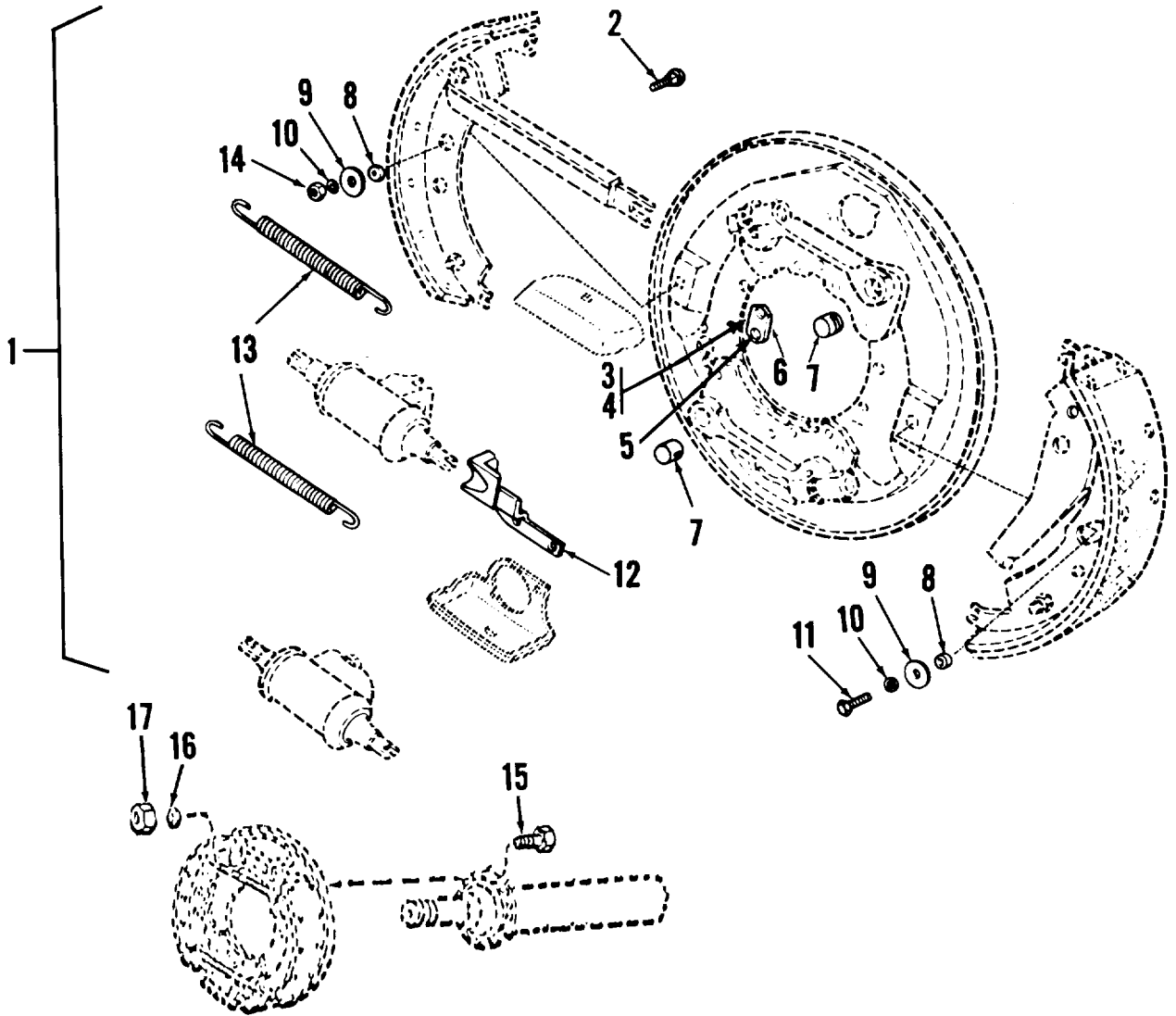


Figure 15. Backing Plate Assembly.

TA 314645

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 1202 SERVICE BRAKES					
FIG. 15. BACKING PLATE ASSEMBLY					
1	PBOZZ	19207	8733901	PLATE, BACKING, BRAKE LEFT HAND.....	2
1	PBOZZ	19207	81733902	PLATE, BACKING, BRAKE RIGHT HAND.....	2
2	PAOZZ	96906	MS18154-58	. SCREW, CAP, HEXAGON H.....	4
3	PAOZZ	96906	MS35335-35	. WASHER, LOCK.....	4
4	PBOOO	19207	8733896	. SUPPORT AND ADJUSTE LEFT HAND.....	2
4	PBOOO	19207	8733897	. SUPPCRT AND ADJUSTE- RIGHT HAND	2
5	PAOZZ	19207	8733908	.. SUPPORT ASSY LEFT HAND	1
5	PAOZZ	19207	8733909	.. SUPPORT ASSY RIGHT HAND.....	1
6	PAOZZ	19207	8336104	.. WHEEL, SLACK ADJUSTE	1
7	PAOZZ	19207	8336705	.. SCREW, BRAKE SHOE AD LEFT HAND	2
7	PAOZZ	19207	8336789	.. SCREW, BRAKE SHOE AD RIGHT HAND	2
8	PAOZZ	96906	MS35691-13	. NUT, PLAIN, HEXAGON	2
9	PAOZZ	96906	MS35333-41	. WASHER, LOCK.....	2
10	PAOLZ	19207	7412104	. PINION, BRAKE SHOE A	2
11	PAOZZ	19207	7412120	. WASHER, FLAT	4
12	PBOZZ	78500	A1-3236M1261	. PLATE, BACKING, BRAKE LEFT HAND,	1
12	PBOZZ	19207	8733933	. PLATE, BACKING, BRAKE RIGHT HAND	1
13	PAOZZ	19207	8720331	. SPRING AND BOLT ASS	2

END OF FIGURE

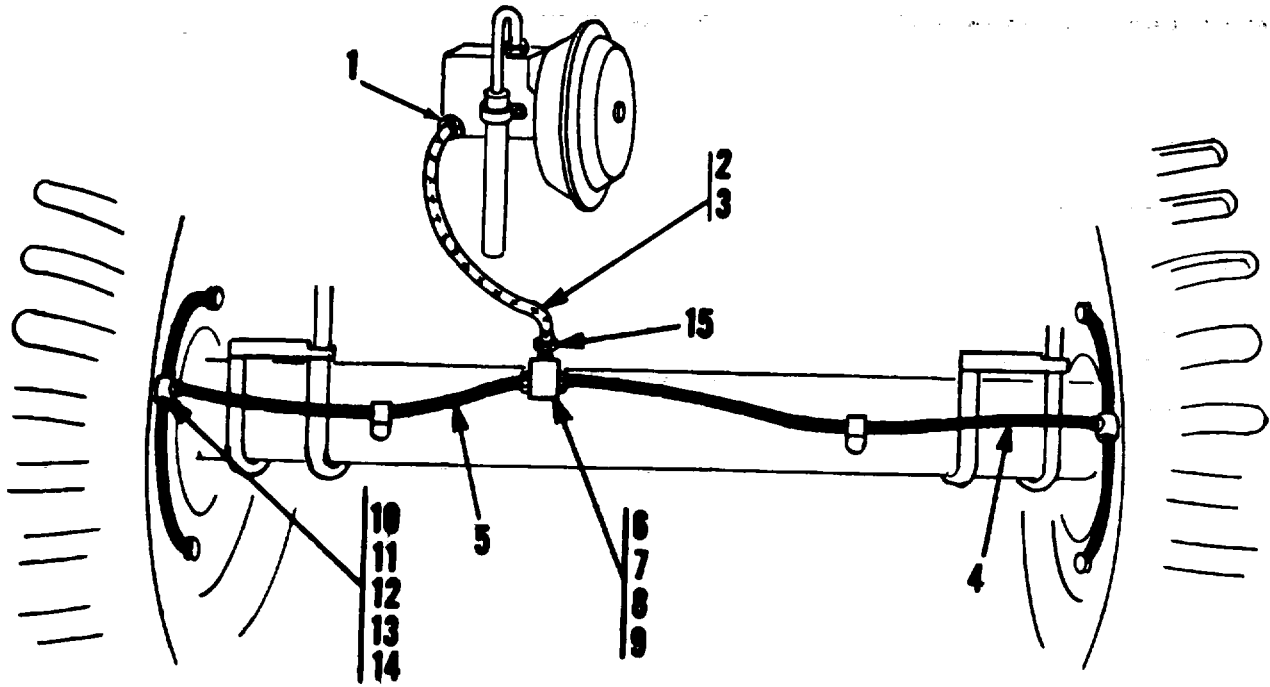
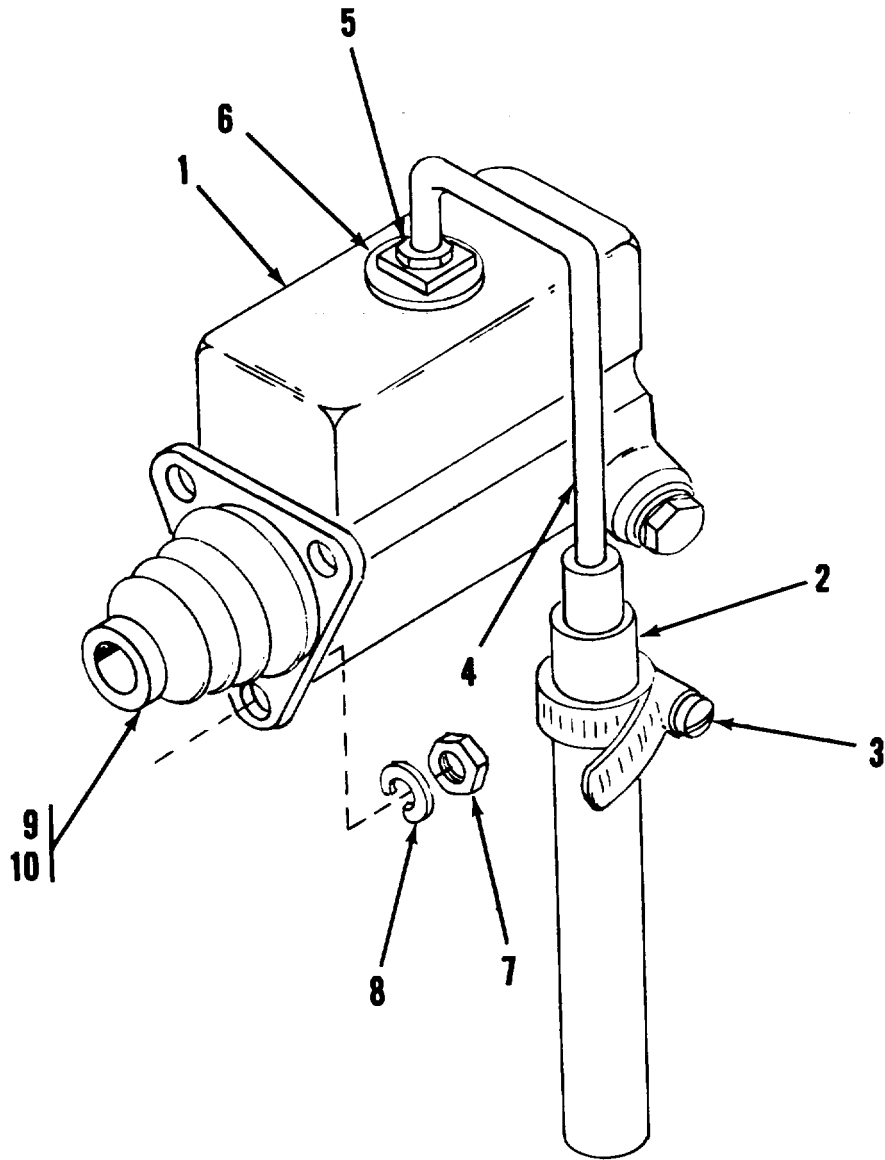


Figure 16. Hydraulic Brake System.

TA 314646

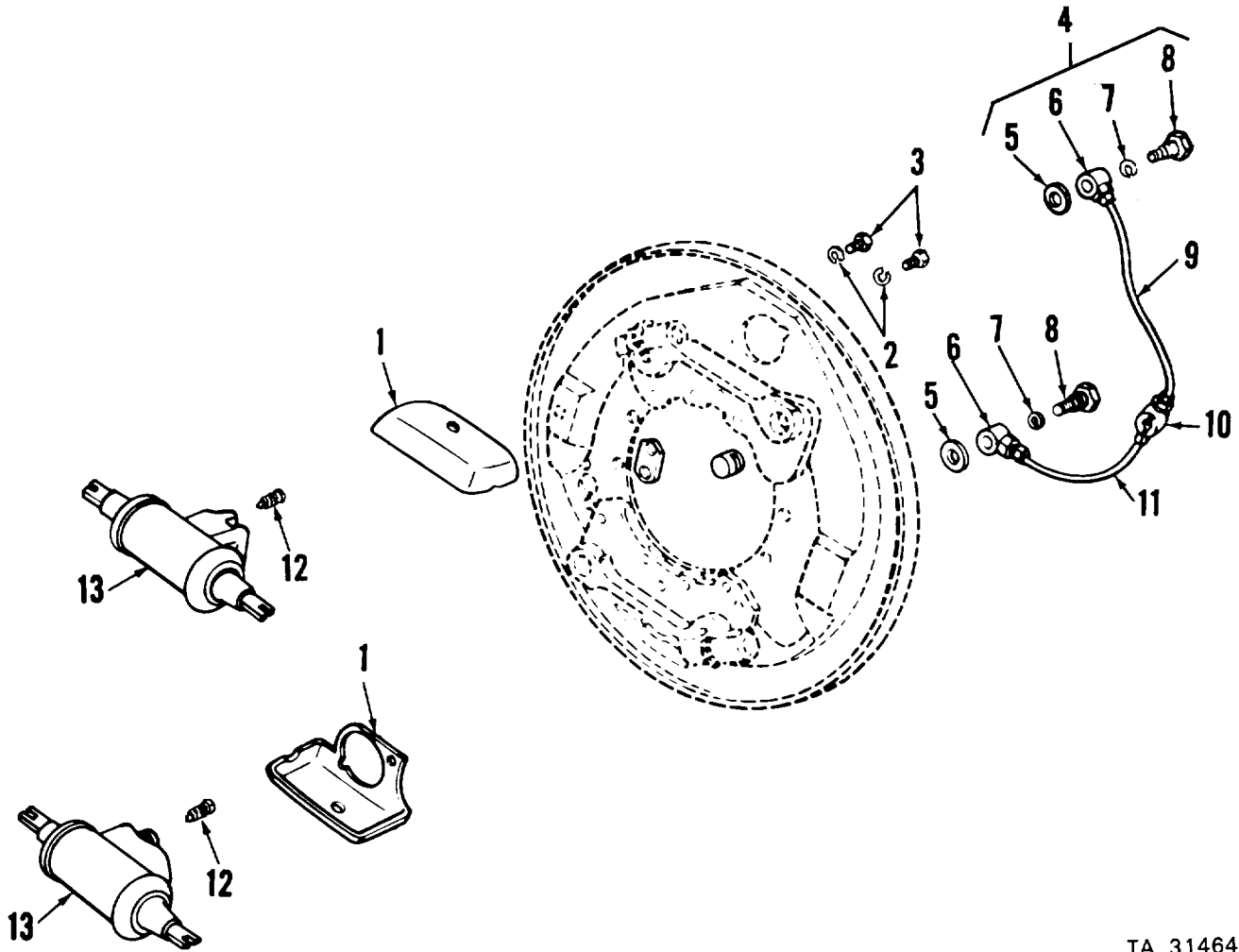
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 1204 HYDRAULIC BRAKE SYSTEM	
				FIG.16. HYDRAULIC BRAKE SYSTEM	
1	PAOZZ	63477	5156653	ADAPTER, STRAIGHT, TU	2
2	PAOZZ	19207	10869558	CLIP, SPRING TENSION	2
3	PAOZZ	19207	11684636	HOSE ASSEMBLY, NONME	2
4	PAOZZ	19207	11684501-1	TUBE ASSEMBLY, METAL	2
5	PAOZZ	19207	11684501-2	TUBE ASSEMBLY, METAL,	2
6	PAOZZ	96906	MS51968-8	NUT PLAIN, HEXAGON	2
7	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	4
8	PAOZZ	9690	MSS0726-62	SCREW, CAP, HEXAGON H.....	2
9	PAOZZ	19207	5167679	CONNECTOR, MULTIPLE,..	2
10	PAOZZ	19207	1412079	BOLT, FLUID PASSAGE	4
11	PAOZZ	19207	7745464	TEE, TUBE	4
12	PAOZZ	19207	5298653	SPACER, RING.....	4
13	PAOZZ	19207	5214930	WASHER, FLAT.,.....	4
14	PAOZZ	19207	5214539	WASHER, FLAT	2
15	PAOZZ	19207	12315741	BOLT, INTERNALLY REL.....	2
				END OF FIGURE	



TA 314647

Figure 17. Hydraulic Master Cylinder.

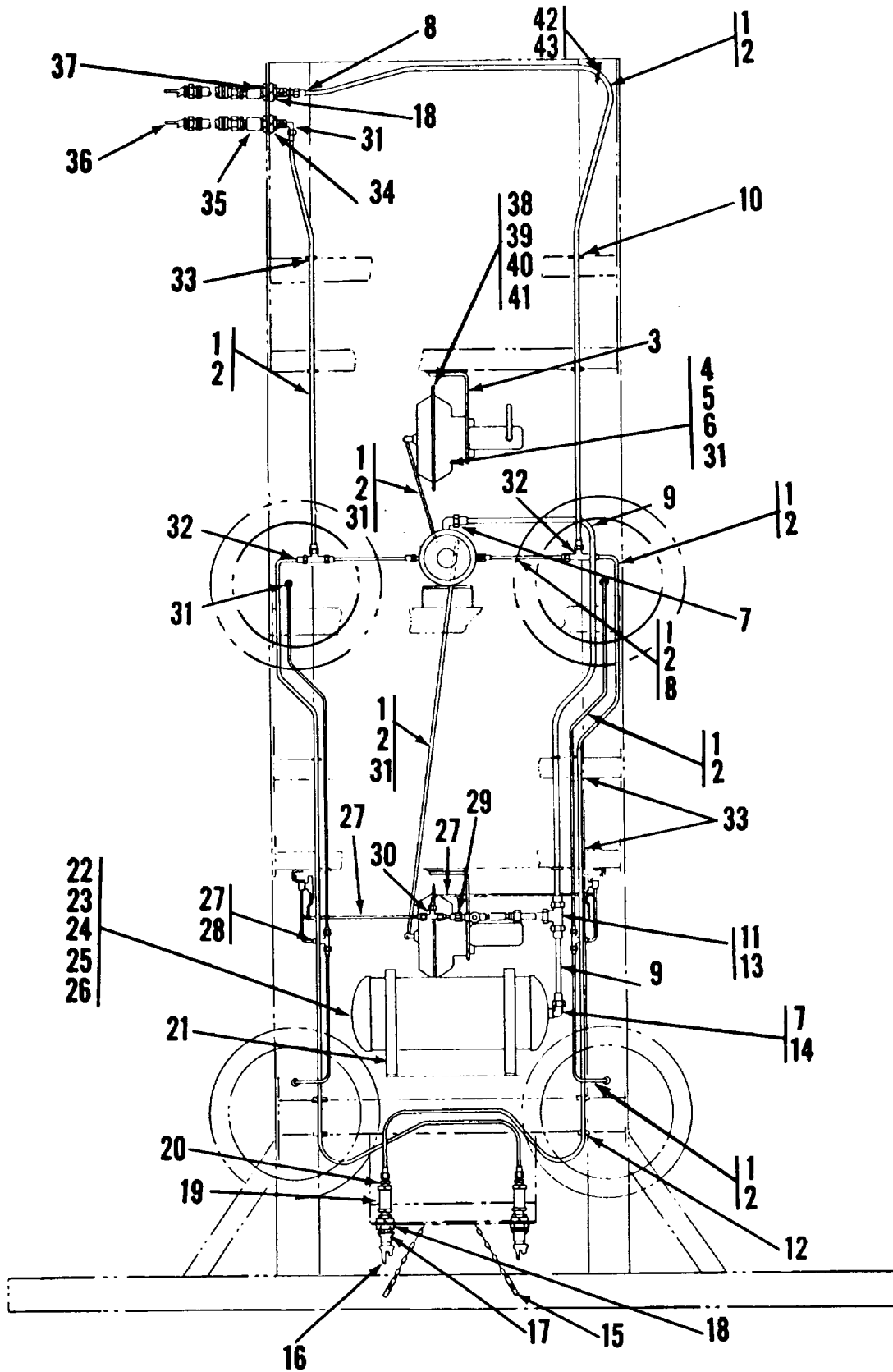
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 1204 HYDRAULIC BRAKE SYSTEM	
				FIG.17. HYDRAULIC MASTER CYLINDER	
1	PAOZZ	19207	8332086	CYLINDER ASSEMBLY , H	2
2	PAOZZ	96906	MS521301A204120	HOSE, NONMETALLIC	2
3	PAOZZ	96906	N535842-11	CLAMP, HOSE.....	2
4	PAOZZ	19207	3t5426	TUBE ASSEMBLY, METAL	2
5	PAOZZ	63477	\$719691	CAP, FILLER OPENING	2
6	PAOZZ	19207	1373354	SPACER, RING.....	2
7	PAOZZ	96906	MS51968-8	NUT, PLAIN, HEXAGON	6
8	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	6
9	PAOZZ	63477	FO-1330-G	RING, RETAINING.	2
10	PAOZZ	19207	1539308	BELLOWS, PROTECTION	2
				END OF FIGURE	



TA 314648

Figure 18. Wheel Cylinder and Hydraulic Tubes.

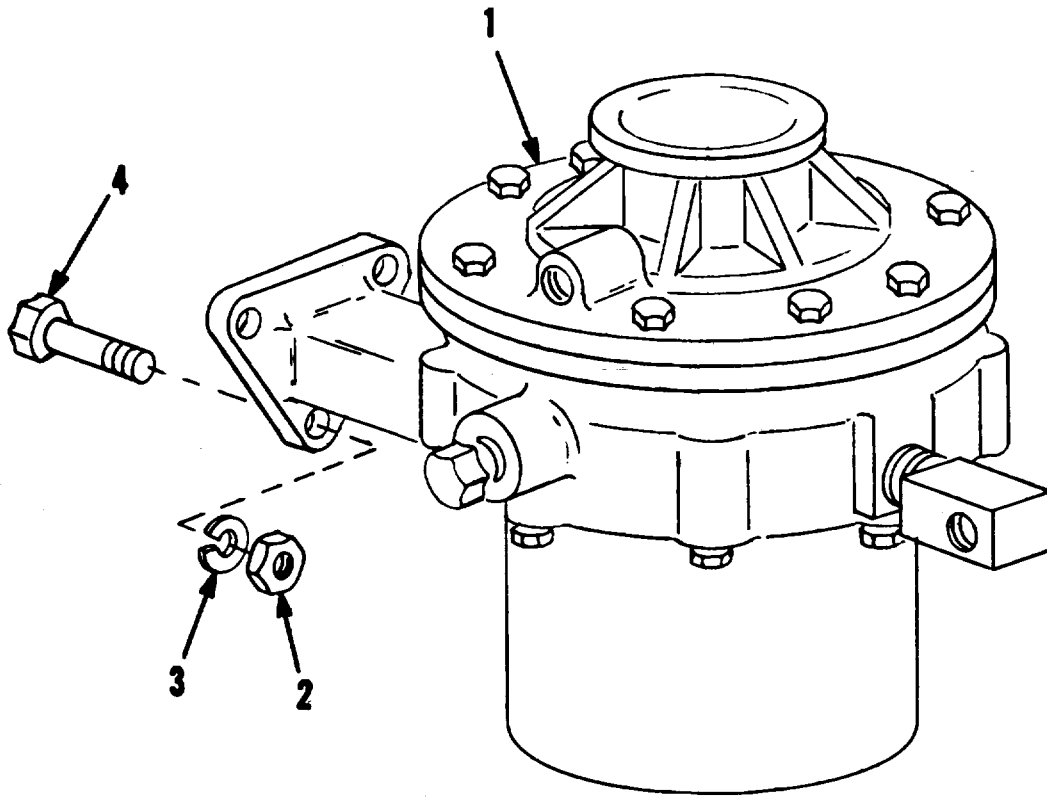
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 1204 HYDRAULIC BRAKE SYSTEM					
FIG. 18. WHEEL CYLINDER t HYDRAULIC					
TUBES					
1	PAOZZ	19207	1412050	SHIELD, BRAKE DISK RIGHT HAND	4
1	PAOZZ	19207	7412068	SHIELD, BRAKE DISK LEFT HAND.....	4
2	PAOZZ	96906	MS35338-45	WASHER, LOCK.....	16
3	PAOZZ	96906	MS90725-31	BOLT, MACHINE	16
4	PAOOO	19207	E733898	TUBE ASSEMBLY, METAL LEFT HAND	4
4	PAOOO	19207	E733899	TUBE ASSEMBLY, METAL RIGHT HAND.....	4
5	PAOZZ	19207	1412088	WASHER SHOULDERED A	2
6	PAOZZ	19207	7745464	TEE, TUBE.....	2
7	PAOZZ	19201	5298653	SPACER, RING.....	2
8	PAOZZ	19207	7412079	BOLT, FLUID PASSAGE	2
9	PAOZZ	19207	6733920	TUBE ASSEMBLY, METAL LEFT, UPPER.....	1
9	PAOZZ	19207	E733916	TUBE ASSEMBLY, METAL RIGHT, UPPER.....	1
10	PAOZZ	19207	1411903	CONNECTOR, MULTIPLE,	1
11	PAOZZ	19207	E733922	TUBE ASSEMBLY, METAL LEFT, LOWER	1
11	PAOZZ	19207	8733518	TUBE ASSEMBLY, METAL RIGHT, LOWER.....	1
12	PAOZZ	19207	7539268	BLEEDER VALVE, HYDRA	8
13	PAOZZ	19207	7412065	CYLINDER ASSEMBLY, H	8
END OF FIGURE					



TA 314649

Figure 19. Brake and Air Suspension Air Lines.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
SECTION II					
GROUP 1208 AIR BRAKE SYSTEM					
FIG.19. BRAKE & AIR SUSPENSION AIR					
LINES					
1	PAOZZ	19207	CPR104420-2	HOSE NONMETALLIC	43
2	PAOZZ	19207	CPR102321-1	INSERT, TUBE FITTING	10
3	PAOZZ	19207	E730456	BRACKET, MOUNTING,.....	2
4	PAOZZ	19207	11668361	CHAMBER, AIR BRAKE	2
5	PAOZZ	96906	MS51968-20	NUT, PLAIN, HEXAGON	4
6	PAOZZ	96906	MS35338-50	WASHER, LOCK.....	4
7	PAOZZ	96906	MS39182-6	ELBOW, PIPE TO TUBE	2
8	PAOZZ	96906	MS39179-5	ADAPTER STRAIGHT, PI.....	3
9	PAOZZ	30321	C608	HOSE NONMETALLIC	6
10	PAOZZ	96906	MS35489-102	GROMMET, NONMETALLIC	18
11	PAOZZ	96906	MS39188-3	TEE, TUBE.....	1
12	PAOZZ	96906	MS35489-109	GROMMET, NONMETALLIC	12
13	PAOZZ	56442	1014M5	ADAPTER, STRAIGHT, PI.....	1
14	PAOZZ	96906	MN35782-5	COCK, DRAIN.....	1
15	PAOOO	19207	7014565	DUMMY COUPLING, AUTO	2
16	PAOZZ	96906	MS35746-1	COUPLING HALF, QUICK.....	2
17	PAOZZ	96906	MS39231-4	ELBOW, PIPE	2
18	PAOZO	19201	5228623	NIPPLE, TANK.....	4
19	PAOZZ	06853	285112	VALVE, BALL.....	2
20	PAOZZ	96906	MS39179-7	ADAPTER, STRAIGHT, PI.....	2
21	PAOZZ	19201	1411080	STRAP, RETAINING, LOWER	2
21	PAOZZ	19207	7411079	STRAP, RETAINING, UPPER	2
22	PAOZZ	19207	7411078	RESERVOIR AIR	1
23	PAOZZ	96906	MS51968-8	NUT, PLAIN, HEXAGON	6
24	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	6
25	PAOZZ	96906	MSS0726-60	SCREW, CAP, HEXAGON H.....	4
26	PAOZZ	96906	MS90727-74	SCREW, CAP, HEXAGON H.....	2
27	PAOZZ	19207	8689206	TUBE, METALLIC.....	5
28	PAOZZ	06853	225760	TEE, TUBE.....	2
29	PAOZZ	96906	MS39179-2	ADAPTER, STRAIGHT, PI.....	1
30	PAOZZ	96906	MS39188-1	TEE, TUBE.....	1
31	PAOZZ	96906	MS39182-3	ELBOW, PIPE TO TUBE	7
32	PAOZZ	96906	MS39188-2	TEE, TUBE.....	2
33	PAOZZ	96906	MS35489-105	GROMMET, NONMETALLIC	6
34	PAOZZ	96906	MS53007-2	PLATE, IDENTIFICATIO.....	2
35	PAOZZ	96906	MS39233-4	COUPLING, PIPE	2
36	PAOZZ	19207	6747263	HOSE ASSEMBLY, NONME	2
37	PAOZZ	96906	MS53007-1	PLATE, IDENTIFICATIO.....	2
38	PAOZZ	19207	E742616	CHAMBER AND CYLINDE	2
39	PAOZZ	96906	MS51968-8	NUT, PLAIN, HEXAGON	6
40	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	6
41	PAOZZ	96906	MS90726-62	SCREW, CAP, HEXAGON H.....	6
42	PAOZZ	96906	MS24629-48	SCREW, TAPPING, THREA.....	4
43	PAOZZ	96906	MS21333-100	CLAMP, LOOP.....	4
END OF FIGURE					

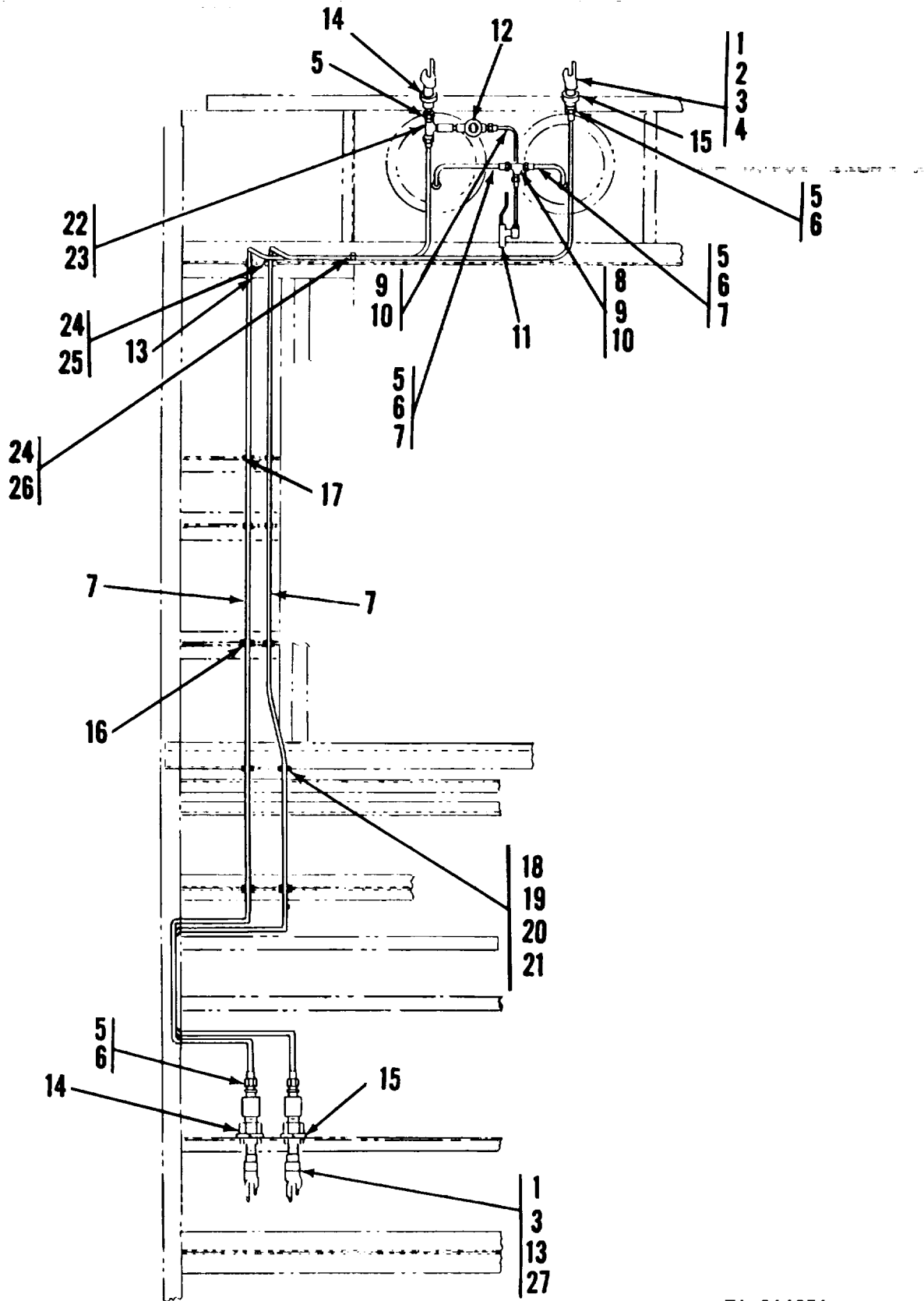


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Figure 20. Relay Valve.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY

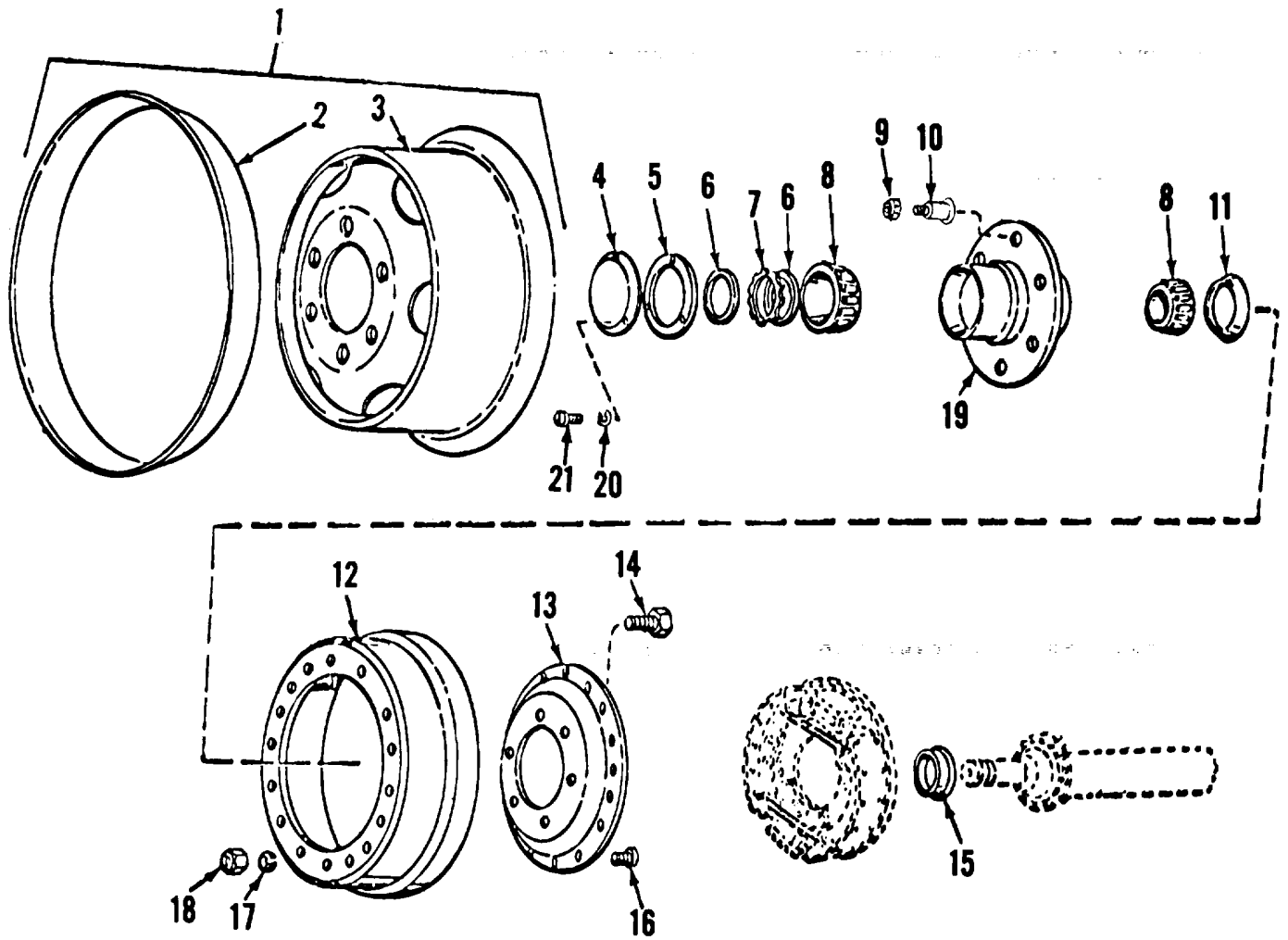
				GROUP 1208 AIR BRAKE SYSTEM	
				FIG. 20. RELAY VALVE	
1	PAOZZ	96906	MS53004-2	PARTS KIT, RELAY VAL	1
2	PAOZZ	96906	MS51967-8	NUT, PLAIN, HEXAGON	3
3	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	3
4	PAOZZ	96906	MS90726-63	SCREW, CAP, HEXAGON H.....	3
				END OF FIGURE	



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Figure 21. Air Mounted Kingpin Air Lines.

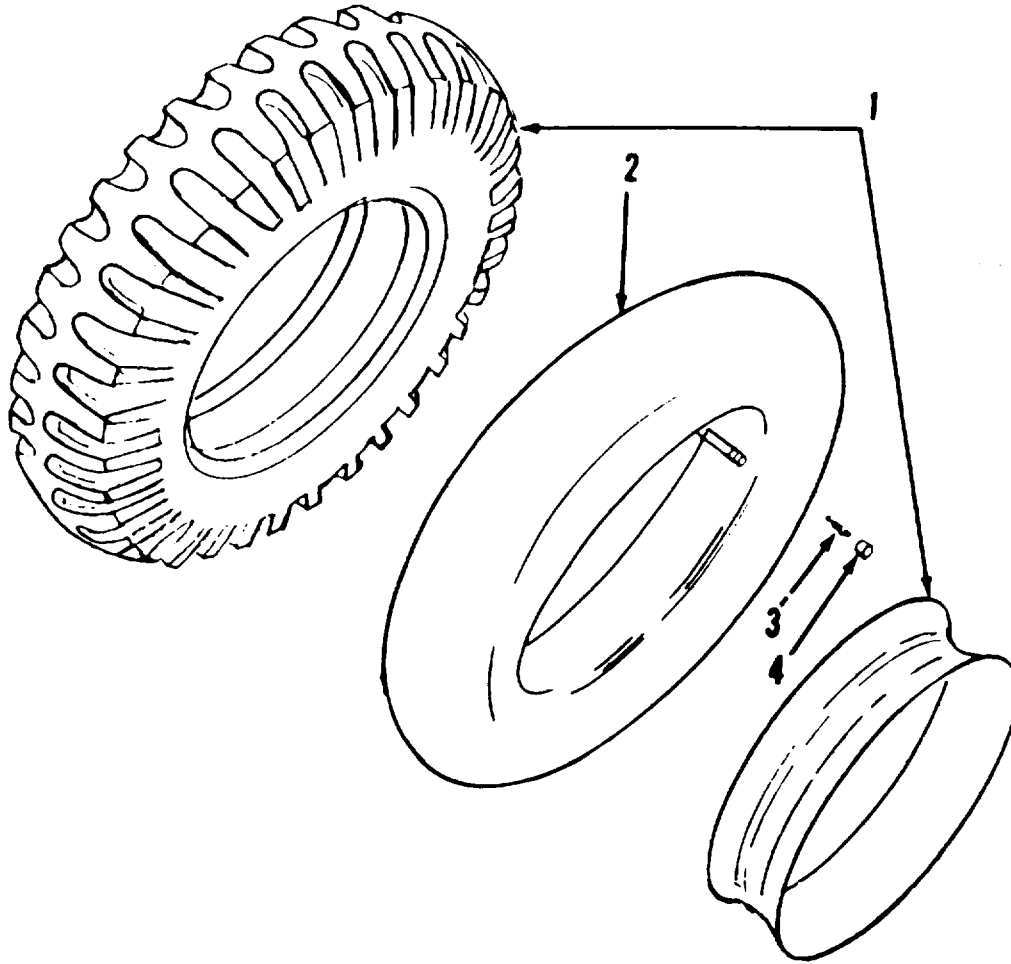
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 1208 AIR BRAKE SYSTEM	
				FIG. 21 AIR MOUNTED KINGPIN AIR LINES	
1	PAOZZ	96906	MS35746-1	COUPLING HALF, QUICK.....	4
2	PAOZZ	96906	MS27183-27	WASHER, FLAT.....	4
3	PAOOO	19207	5228623	NIPPLE, AIRLINE.....	4
4	PAOOO	19207	7014965	DUMMY COUPLING, AUTO.....	2
5	PAOZZ	96906	MS39179-5	ADAPTER, STRAIGHT, PI.....	7
6	PAOZZ	19207	CPR102321-1	INSERT, TUBE FITTING.....	8
7	PAOZZ	19207	CPR104420-2	HOSE, NONMETALLIC.....	61
8	PAOZZ	06853	225760	TEE, TUBE.....	1
9	PAOZZ	96906	MS35179-1	ADAPTER, STRAIGHT, PI.....	1
10	PAOZZ	19207	8689206	TUBE, METALLIC.....	3
11	PAOZZ	19207	11684410	VALVE, HEIGHT CONTRO.....	1
12	PAOZZ	19207	11684346	VALVE, AIR BRAKE.....	1
13	PAOZZ	96906	MS35489-109	GROMMET, NONMETALLIC.....	1
14	PAOZZ	96906	NS53007-2	PLATE, IDENTIFICATIO.....	2
15	PAOZZ	96906	MS53007-1	PLATE, IDENTIFICATIO.....	2
16	PAOZZ	19207	10506798	GROMMET, NONMETALLIC.....	6
17	PAOZZ	96906	MS35489-105	GROMMET, NONMETALLIC.....	7
18	PAOZZ	96906	MS35649-202	NUT, PLAIN, HEXAGON.....	3
19	PAOZZ	96906	MS35338-43	WASHER, LOCK.....	3
20	PAOZZ	96906	MS35206-266	SCREW, MACHINE.....	3
21	PAOZZ	96906	MS21334-32	CLAMP, LOOP.....	2
22	PAOZZ	17590	305087-0116	TUBE, METALLIC.....	3
23	PAOZZ	96906	MS39190-3	TEE, PIPE TO TUBE.....	1
24	PAOZZ	96906	MS24629-48	SCREW, TAPPING, THREA.....	7
25	PAOZZ	96906	MS21333-105	CLAMP, LOOP.....	4
26	PAOZZ	96906	MS21333-100	CLAMP, LOOP.....	3
27	PAOZZ	96906	MS39231-4	ELBOW, PIPE.....	2
				END OF FIGURE	



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Figure 22. Wheel and Hub Assembly.

SECTION II				(5)	(6)
(1)	(2)	(3)	(4)		
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE	FSCM	NUMBER		
				GROUP 13 WHEELS	
				GROUP 1311 WHEEL ASSEMBLY	
				FIG. 22 WHEEL & HUB ASSEMBLY	
1	PAOZZ	96906	MS53044-5	WHEEL, PNEUMATIC TIR	8
2	PAOZZ	96906	NS53045-3	RING, SIDE, AUTOMOTIV.	1
3	XAOZZ	09386	86589008	WHEEL, PNEUMATIC TIR	1
4	PAOZZ	19200	6144454	HUB CAP, WHEEL	4
5	PAOZZ	19207	6144356	GASKET	4
6	PAOZZ	19207	7411379	NUT, PLAIN, OCTAGON	8
7	PAOZZ	19207	1411378	WASHER, KEY	4
8	PAOZZ	96906	MS1081-112	BEARING, ROLLER, TAPE	8
9	PAOZZ	96906	MS51983-3	NUT, PLAIN, SINGLE BA LH	12
9	PAOZZ	21450	537805	NUT, PLAIN, CAP RH	12
10	PAOZZ	96906	MS53068-1	NUT, CAP, DUAL WHEEL LH	12
10	PAOZZ	96906	MS53068-2	NUT, CAP, DUAL WHEEL RH	12
11	PAOZZ	19207	1411429	SEAL, PLAIN ENCASED	4
12	PAOZZ	19207	7411425	BRAKE DRUM	4
13	PAOZZ	19207	7413231	BACK FRONT BRAKE DR	4
14	PAOZZ	96906	MS51946-1	BOLT, RIBBED SHOULDE LH	12
14	PAOZZ	96906	MS51946-2	BOLT, RIBBED SHOULDE RH	12
15	PAOZZ	19207	7411433	SPACER, SLEEVE	4
16	PAOZZ	19207	8720025	BOLT, RIBBED NECK	72
17	PAOZZ	96906	MS27183-14	WASHER, FLAT	72
18	PAOZZ	96906	M521045-6	NUT, SELF-LOCKING, HE	72
19	PAOZZ	19207	7263712	HUB, BODY	4
20	PAOZZ	96906	M53533844	WASHER, LOCK	12
21	PAOZZ	96906	MS35206-279	SCREW MACHINE	12
				END OF FIGURE	



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Figure 23. Tire and Tube.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE	FSCM	NUMBER		
				GROUP 1313 TIRES/TUBES	
				FIG. 23 TIRE 6 TUBE	
1	PAOFF	81348	ZZ-T-381M/GROUP 39.00-20/D/ TBCC	TIRE, PNEUMATIC.....	8
2	PAOZZ	81348	ZZ-1-550/900-20/ TR 175A/ONCTR	INNER TUBE, PNEUMATI.....	8
3	PAOZZ	96906	MS51377-1	VALVE COPE.....	8
4	PAOZZ	81348	ZZ-V-25/TYPEIV/C LASS1/TR-VC- 2	CAP, PNEUMATIC VALVE	8
				END OF FIGURE	

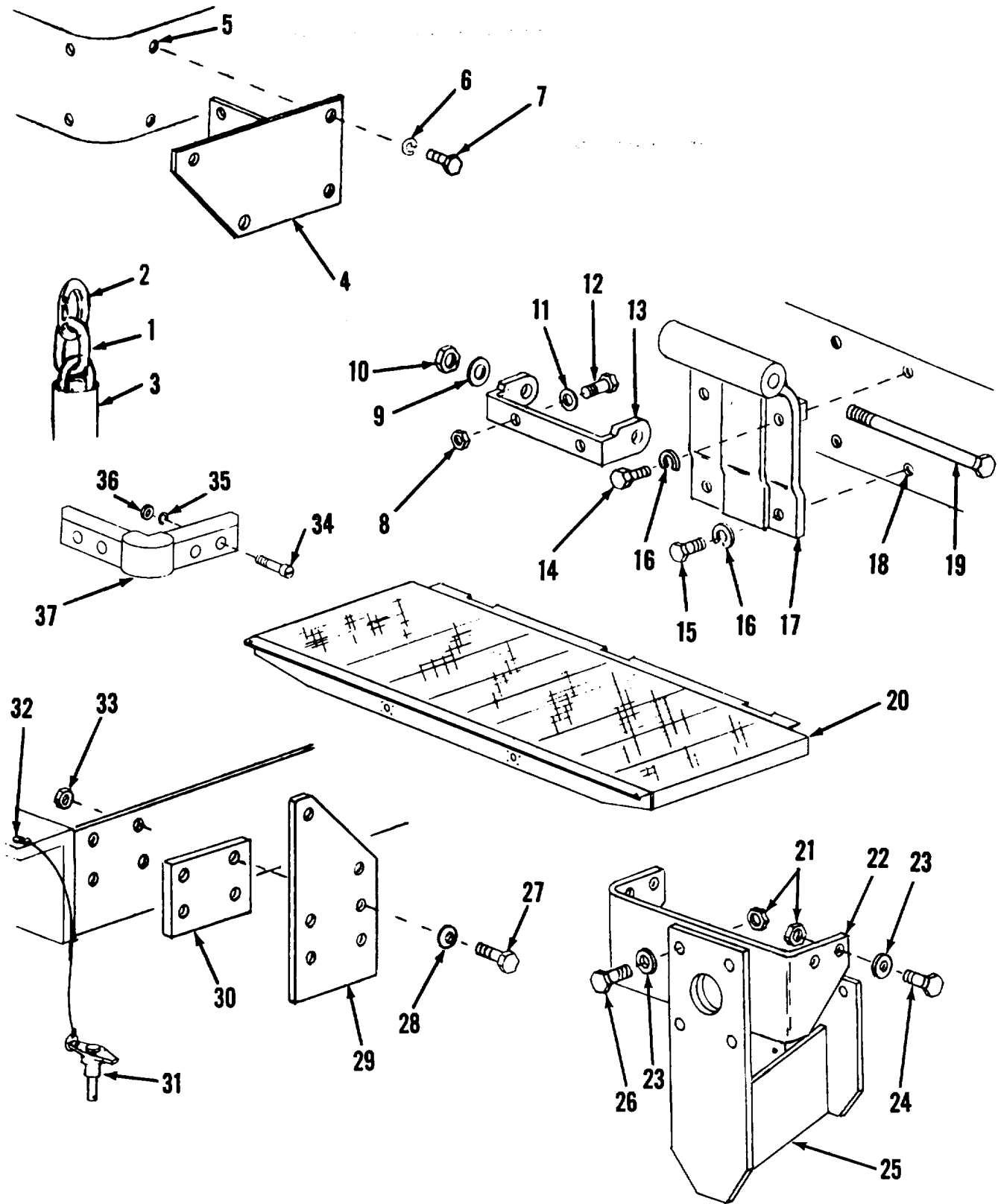
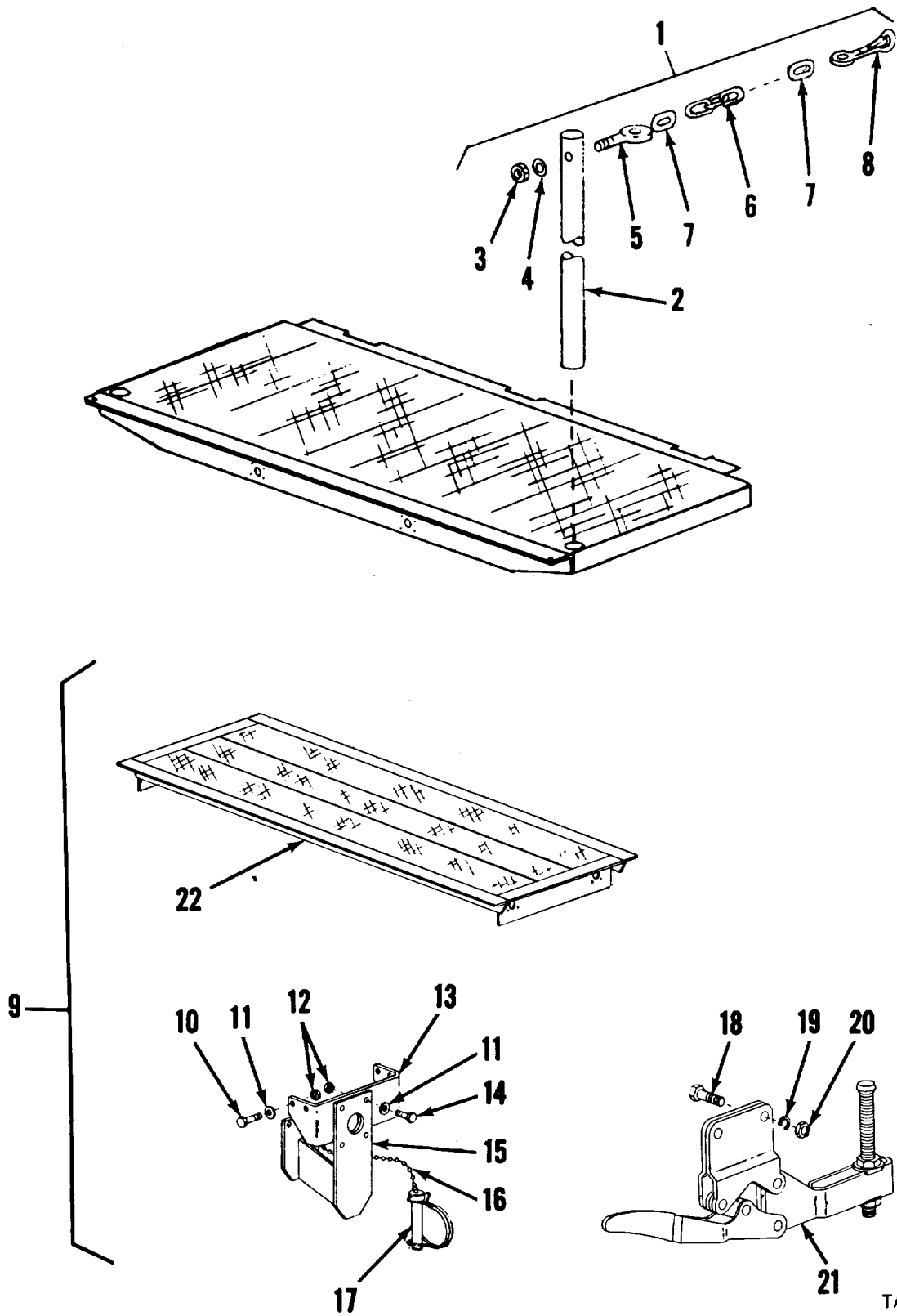


Figure 24. Rear Platform.

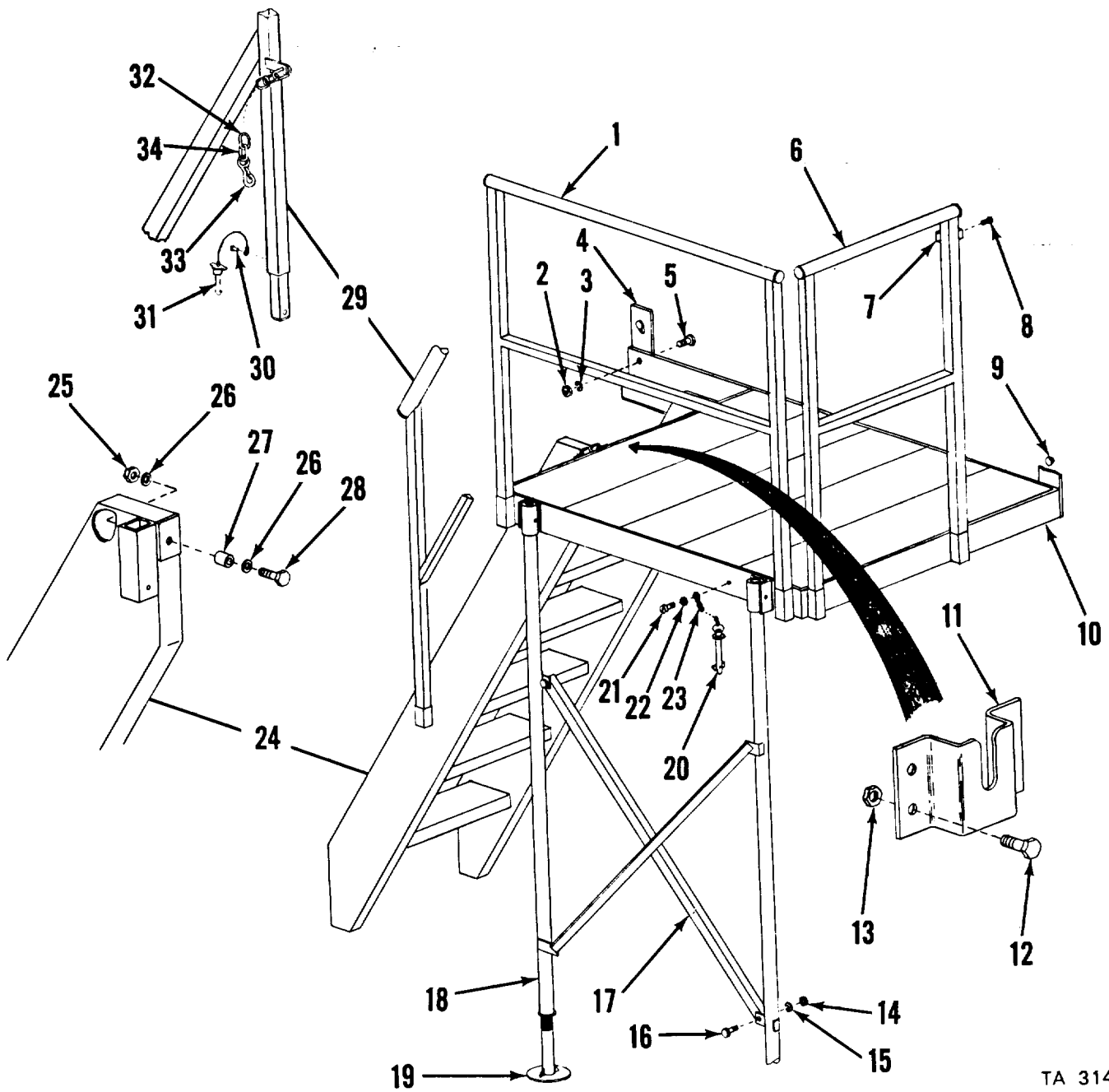
SECTION II				(5)	(6)
(1)	(2)	(3)	(4)		
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE	FSCM	NUMBER		
				GROUP 15 FRAME AND TOWING ATTACHMENT	
				GROUP 1501 FRAME ASSEMBLY	
				FIG. 24 REAR PLATFORM	
1	MFFZZ	19207	12353858-1	CHAIN FABRICATE FROM P/N 12353858	2
	PAOZZ	81348	RR-C-271, TYPE II	.LINK, CHAIN	4
2			SIZE .25		
3	PAOZZ	81349	M23053/L-107-	INSULATION SLEEVING (5 FT).....	2
4	PBOZZ	19207	12331035-I	BRACKET, MOUNTING.....	1
4	PBOZZ	19207	12331035-2	BRACKET, MOUNTING LH	1
5	PAOZZ	96906	MS27130-S34	NUT, PLAIN, BLIND RIV	8
6	PAOZZ	96906	MS35338-44	WASHER, LOCK.....	8
7	PAOZZ	96906	MS90728-8	SCREW, CAP, HEXAGON H.....	8
8	PAOZZ	96906	M551922-9	NUT, SELF-LOCKING, HE	6
9	PAOZZ	96906	M527183-18	WASHER, FLAT.....	6
10	PAOZZ	96906	MS51922-33	NUT, SELF-LOCKING, HE	3
11	PAOZZ	96906	MS27183-12	WASHER, FLAT.....	6
12	PAOZZ	96906	MS90725-36	SCREW, CAP, HEXAGON H.....	6
13	PAOZZ	19207	11684622	HINGE, REAR PLATFORM H.....	3
14	PAOZZ	96906	MS90728-12	SCREW CAP, HEXAGON H.....	6
15	PAOZZ	96906	MS90728-8	SCREW, CAP, HEXAGON H.....	6
16	PAOZZ	96906	MS35338-44	WASHER, LOCK.....	12
17	PAOZZ	19207	11684614	HINGE ASSEMBLY, REAR.....	3
18	PAOZZ	96906	MS27130-S32	NUT, PLAIN, BLIND RIV.....	12
19	PAOZZ	96906	MS90725-128	SCREW, CAP, HEXAGON H.....	3
20	XDOZZ	19207	12331064	PLATFORM ASSEMBLY	1
21	PAOZZ	96906	MS51922-1	NUT, SELF-LOCKING, HE	16
22	PBOZZ	19207	12315541	SPACER P	2
23	PAOZZ	96906	MS27183-10	WASHER, FLAT.....	16
24	PAOZZ	96906	MSS0728-8	SCREW, CAP, HEXAGON H.....	8
25	PBOZZ	19207	12307881	BRACKET ASSEMBLY, MO	2
26	PAOZZ	96906	MS90725-10	SCREW, CAP, HEXAGON H.....	8
27	PAOZZ	96906	MS50728-8	SCREW, CAP, HEXAGON H.....	12
28	PAOZZ	96906	MS27183-10	WASHER, FLAT.....	12
29	PBOZZ	19207	11684612	PLATE, ATTACHING	2
30	PBOZZ	19207	12315345	SPACER, PLATE	2
31	PAOZZ	96, 906	MS11985-615	PIN, QUICK RELEASE	2
32	PAOZZ	96906	MS51861-37	SCREW, TAPPING, THREA.....	2
33	PAOZZ	96906	MS51922-1	NUT, SELF-LOCKING, HE	12
34	PAOZZ	96906	MS35206-266	SCREW, MACHINE	8
35	PAOZZ	96906	4527183-42	WASHER, FLAT.....	8
36	PAOZZ	96906	MS35649-202	NUT, PLAIN, HEXAGON	8
37	PAOZZ	70485	307W	BUMPER, RUBBER.....	2
				END OF FIGURE	



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Figure 25. Handrail Assembly, Rear Platform;
Bridge Assembly, Rear Platform.

SECTION II				(5)	(6)
(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 1501 FRAME ASSEMBLY FIG. 25 HANDRAIL ASSY, REAR PLATFORM; BRIDGE ASSY, REAR PLATFORM	
1	PBOZZ	19207	12331036	HANDRAIL ASSEMBLY.....	2
2	PBOZZ	19207	12331023	UPRIGHT, HANDRAIL.....	1
3	PAOZZ	96906	MS51922-1	NUT, SELF-LOCKING, HE	1
4	PAOZZ	96906	MS27183-10	.WASHER, FLAT.....	1
5	PAOZZ	19201	12353782	BOLT, EYE.....	1
6	PAOZZ	81348	RR-C-271, TYPE I SIZE . 25	LINK, CHAIN	2
7	MFFZZ	19207	12353858-5	CHAIN FABRICATE FROM P/N 12353858	1
8	PAOZZ	96906	MS51828-6M	HOOK, SNAP.....	1
9	PBOZZ	19207	12353779	PLATFORM, TAILGATE, V.....	1
10	PAOZZ	96906	MS90728-8	SCREW, CAP, HEXAGON H..... UOC :095	24
11	PAOZZ	96906	MS27183-10	WASHER, FLAT..... UOC :095	40
12	PAOZZ	96906	MS51922-1	NUT, SELF-LOCKING HE	40
13	PBOZZ	19207	12315541	SPACER..... UOC :095	4
14	PAOZZ	96906	MS90725-10	SCREW, CAP, HEXAGON H..... UOC : 095	16
15	PBOZZ	19207	12307881	BRACKET ASSEMBLY MO	4
16	MFFZZ	19207	12353862-2	CHAIN FABRICATE FROM P/N 12353862	2
17	PAOZZ	192a7	12307810	PIN, QUICK RELEASE	2
18	PAOZZ	96906	MS90725-34	BOLT, MACHINE	8
19	PAOZZ	96906	MS35338-45	WASHER, LOCK..... UOC :095	8
20	PAOZZ	96906	MS51967-5	NUT, PLAIN, HEXAGON	8
21	PBOZZ	19207	12353780	CLAMP, TOGGLE,,..... UOC: 095	4
22	XAOZZ	19207	12353776	BRIDGE, PLATFORM..... UOC :095	1
				END OF FIGURE	

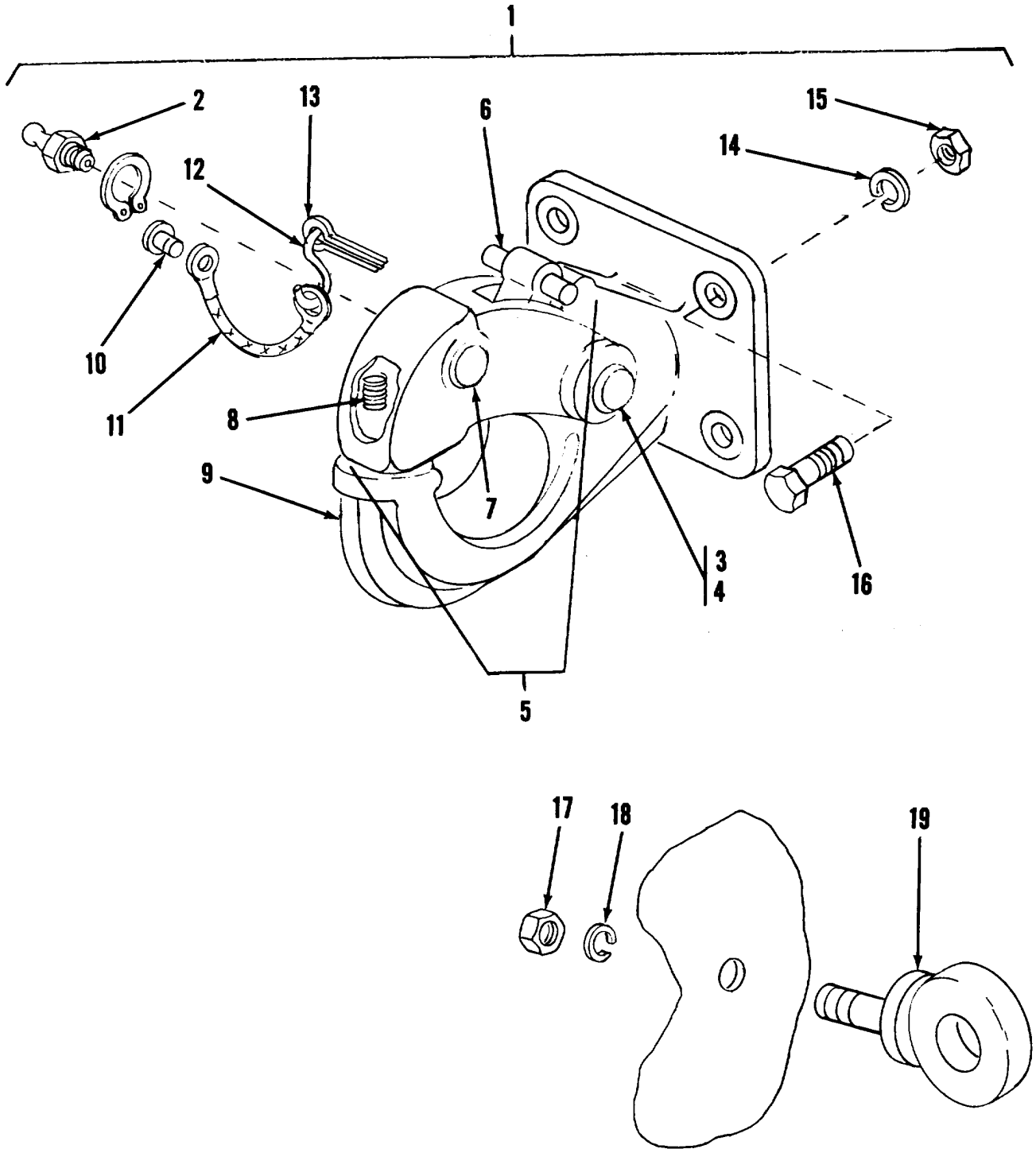


TA 314656

Figure 26. Front Platform.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
SECTION II					
GROUP 1501 FRAME ASSEMBLY					
FIG. 26 FRONT PLATFORM					
1	PBOZZ	19207	12353801	HANDRAIL ASSEMBLY, F FRONT	1
2	PAOZZ	96906	MS51522-17	NUT, SELF-LOCKING, HE	4
3	PAOZZ	96906	NS27183-14	WASHER, FLAT.....	4
4	PBOZZ	19207	12353806	PLATE, MOUNTING	2
5	PAOZZ	96906	MS90728-62	SCREW , CAP, HEXAGON H.....	4
6	PBOZZ	19201	12353805	HANDRAIL ASSEMBLY SIDE	1
7	PAOZZ	19207	12353835	BUMPER, RUBBER.....	1
8	PAOZZ	96906	MS24629-48	SCREW.....	2
9	PAOZZ	19201	12353792	PIN SHOULDER HEADLE.....	2
10	XDOZZ	19207	12353804	PLATFORM ASSEMBLY	1
11	PBOZZ	19207	12353791	BRACKET, LADDER.....	2
12	PAOZZ	96906	MS0725-10	SCREW, CAP, HEXAGON H.....	8
13	PAOZZ	96906	MS51522-1	NUT, SELF-LOCKING, HE	8
14	PAOZZ	96906	M551922-17	NUT, SELF-LOCKING, HE	4
15	PAOZZ	96906	M527183-14	WASHER, FLAT.....	4
16	PAOZZ	96906	MS90728-62	SCREW, CAP, HEXAGON H.....	4
17	PBOZZ	19207	12353794	CROSSBRACE	2
18	PBOZZ	19207	12353814	LEG ASSEMBLY.....	2
19	PBOZZ	19207	12353800	SHOE, JACK SUPPORT	2
20	PAOZZ	19207	12315611-4	PIN, TOGGLE, HEADED.....	2
21	PAOZZ	96906	MS24629-50	SCREW, TAPPING, THREA.....	2
22	PAOZZ	96906	MS27183-42	WASHER, FLAT.....	2
23	MFFZZ	19207	12353862-6	CHAIN FABRICATE FROM P/N 12353862	2
24	PBOZZ	19207	12353802	LADDER, VEHICLE BOAR	1
25	PAOZZ	96906	MS51922-9	NUT, SELF-LOCKING, HE	2
26	PAOZZ	96906	MS27183-11	WASHER, FLAT.....	2
21	PBOZZ	19207	12331243-3	SPACER, SLEEVE.....	2
28	PAOZZ	96906	MS50728-38	BOLT, MACHINE	2
29	PBOZZ	19207	12353803	HANDRAIL ASSEMBLY, L.....	1
30	PAOZZ	9690	MS24662-173	.RIVET, BLIND	1
31	PAOZZ	19207	11646392-1	.PIN, QUICK RELEASE	1
32	MFFZZ	19201	12353858-4	.CHAIN FABRICATE FROM P/N 12353858	2
33	PAOZZ	96906	MS51828-6M	.HOOK, SNAP	2
34	PAOZZ	81348	RR-C-271 TYPEII SIZE .25IN	.LINK, CHAIN	4

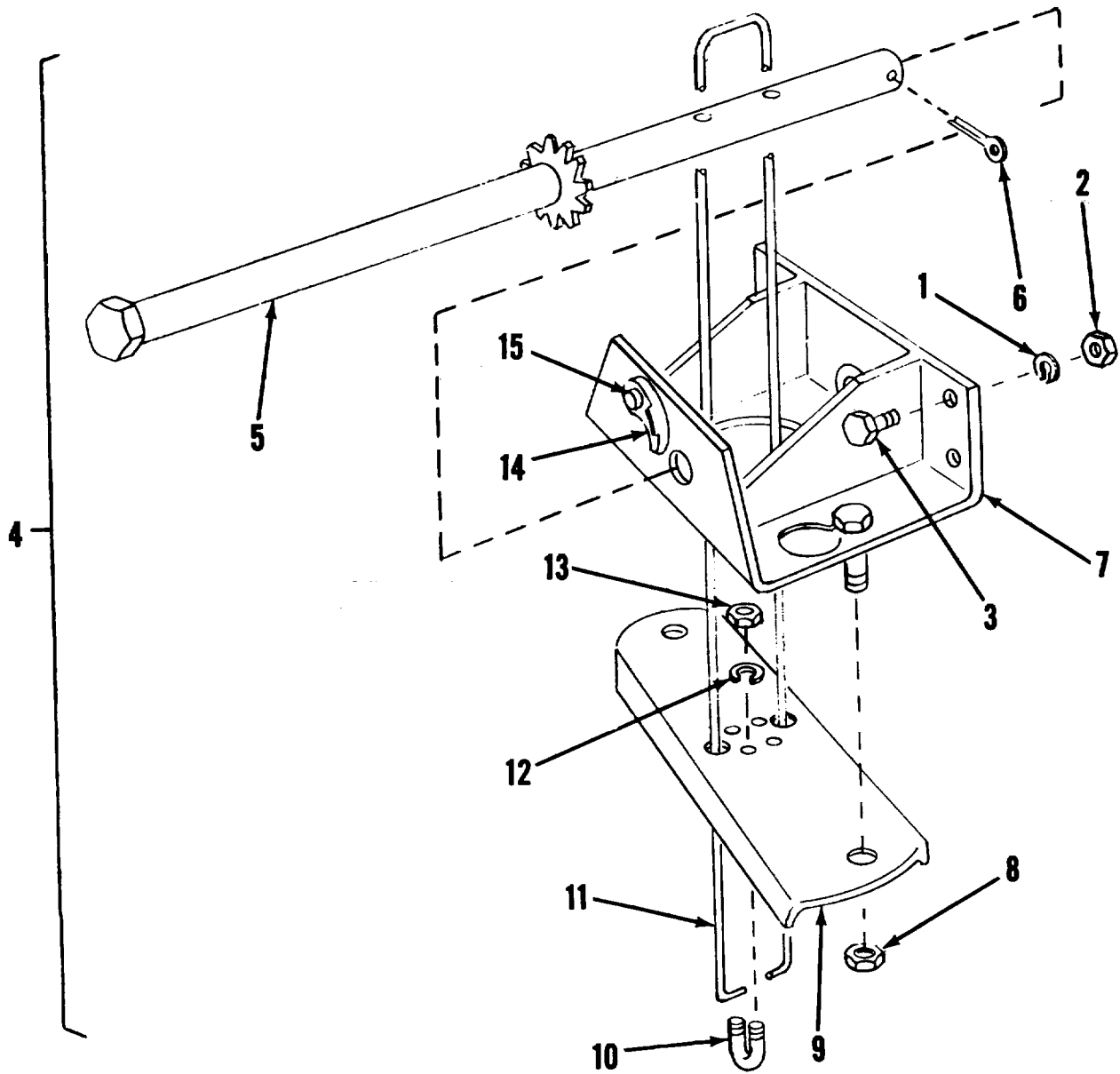
END OF FIGURE



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Figure 27. Pintle Assembly and Towing Attachments.

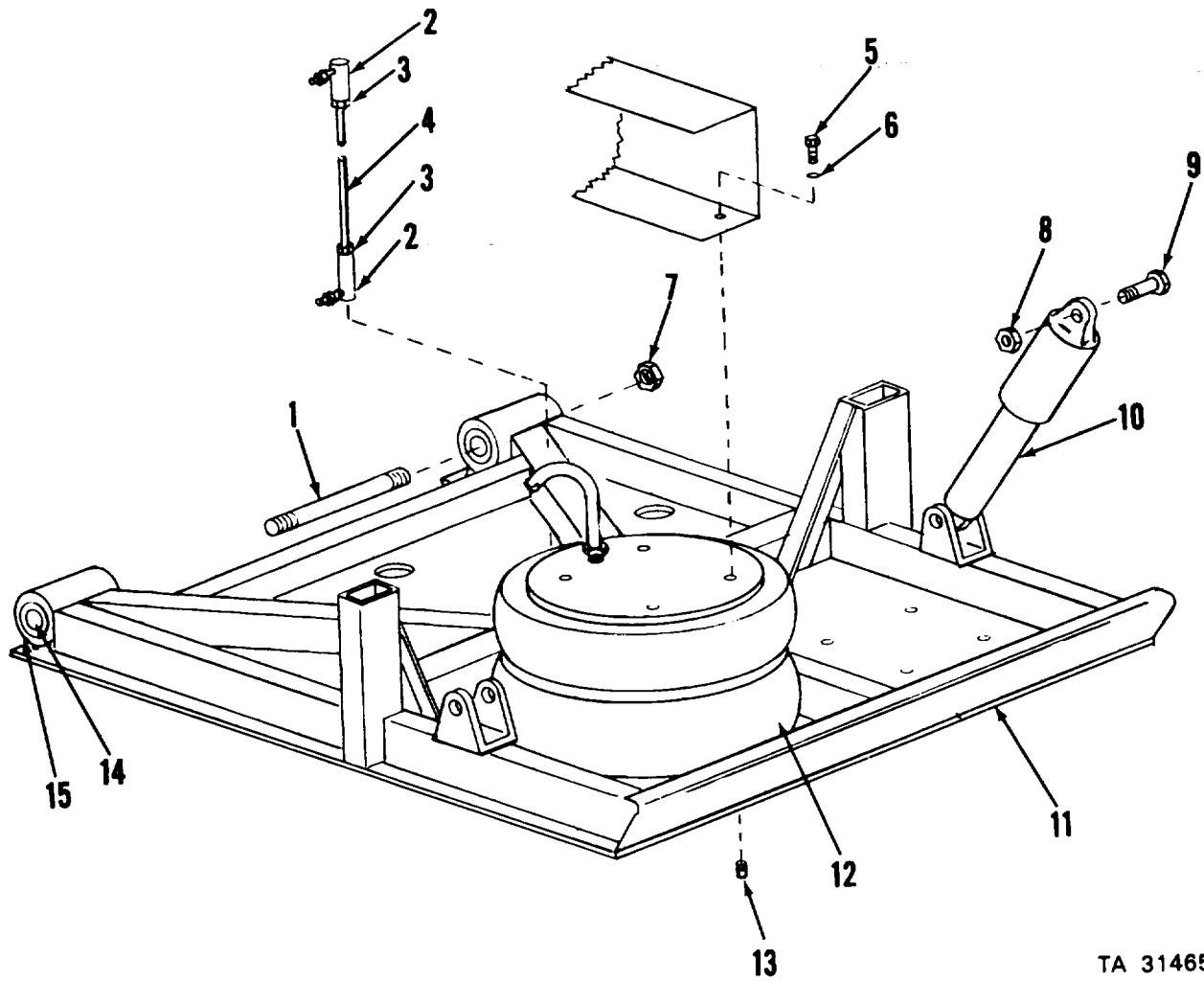
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR	FSCM	PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE		NUMBER		
GROUP 1503 PINTLES & TOWING ATTACHMENTS					
FIG. 27 PINTLE ASSY & TOWING ATTACHMENTS					
1	PBOZZ	96906	MS51335-2	PINTLE ASSEMBLY, TOW	1
2	PAOZZ	96906	M515001-1	.FITTING LUBRICATION	2
3	PAOZZ	96906	MS16624-1050	.RING, RETAINING	4
4	PAOZZ	19207	1524315	.PIN, GROOVED, HEADLES	1
5	PBOZZ	19207	8380197	.LOCK ASSEMBLY, PINTL	1
6	PBOZZ	19207	8380196	..LATCH, PINTLE HOOK	1
7	PAOZZ	19207	1524316	..PIN, GROOVED, HEADLES	1
8	PAOZZ	19207	7044253	..SPRING, HELICAL, COMP	1
9	XDOZZ	19207	1073213	.HOOK, PINTLE	1
10	PAOZZ	96906	M521318-47	.SCREW, DRIVE	1
11	PAOZZ	80244	42015120-205	.CHAIN, WELDLESS	1
12	PAOZZ	96906	MS17006-53	.HOOK, CHAIN, S	1
13	PAOZZ	80020	36344N24	.PIN, COTTER	1
14	PAOZZ	96906	MS35338-48	WASHER LOCK	4
15	PAOZZ	96906	MS51968-14	NUT PLAIN, HEXAGON	4
16	PAOZZ	96906	MS90126-115	SCREW, CAP, HEXAGON H	4
17	PAOZZ	96906	MS51922-57	NUT SELF-LOCKING, HE	2
18	PAOZZ	96906	MS35338-51	WASHER, LOCK	2
19	PAOZZ	96906	MS51937-8	BOLT, EYE	2
END OF FIGURE					



TA 314658

Figure 28. Spare Wheel Carrier.

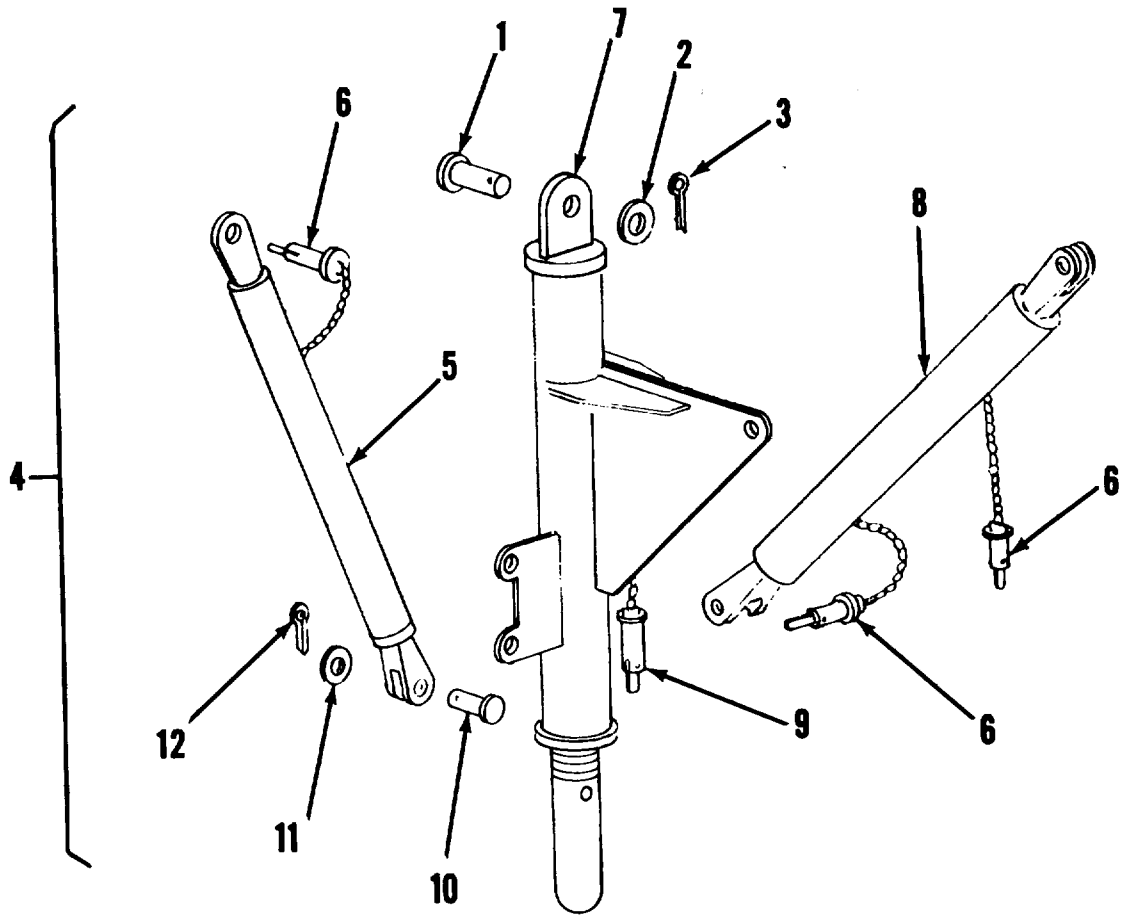
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE	FSCM	NUMBER		
GROUP 1504 SPARE WHEEL CARRIER					
FIG. 28 SPARE WHEEL CARRIER					
1	PAOZZ	96906	MS35338-48	WASHER, LOCK.....	4
2	PAOZZ	96906	MS51967-14	NUT PLAIN, HEXAGON	4
3	PAOZZ	96906	MS18154-111	SCREW, CAP , HEXAGON- H	4
4	PBOZZ	19201	7521160	CARRIER	1
5	PAOZZ	19207	7521157	RATCHET WHEEL	1
6	PAOZZ	96906	M524665-495	PIN COTTER	1
7	PBOZZ	19207	7521163	FRAME ASSEMBLY	1
8	PAOZZ	19207	1418892	NUT, PLAIN, HEXAGON	2
9	PBOZZ	19207	7521161	MEMBER.....	1
10	PAOZZ	19207	7739666	BOLT, U	2
11	PAOZZ	19207	1521159	ROPE, WIRE	1
12	PAOZZ	96906	MS35338-44	WASHER, LOCK.....	4
13	PAOZZ	96906	MS551967-2	NUT, PLAIN HEXAGON	4
14	PAOZZ	19207	7521156	PAWL	1
15	PAOZZ	19207	E327759	RIVET, SOLID	1
END OF FIGURE					



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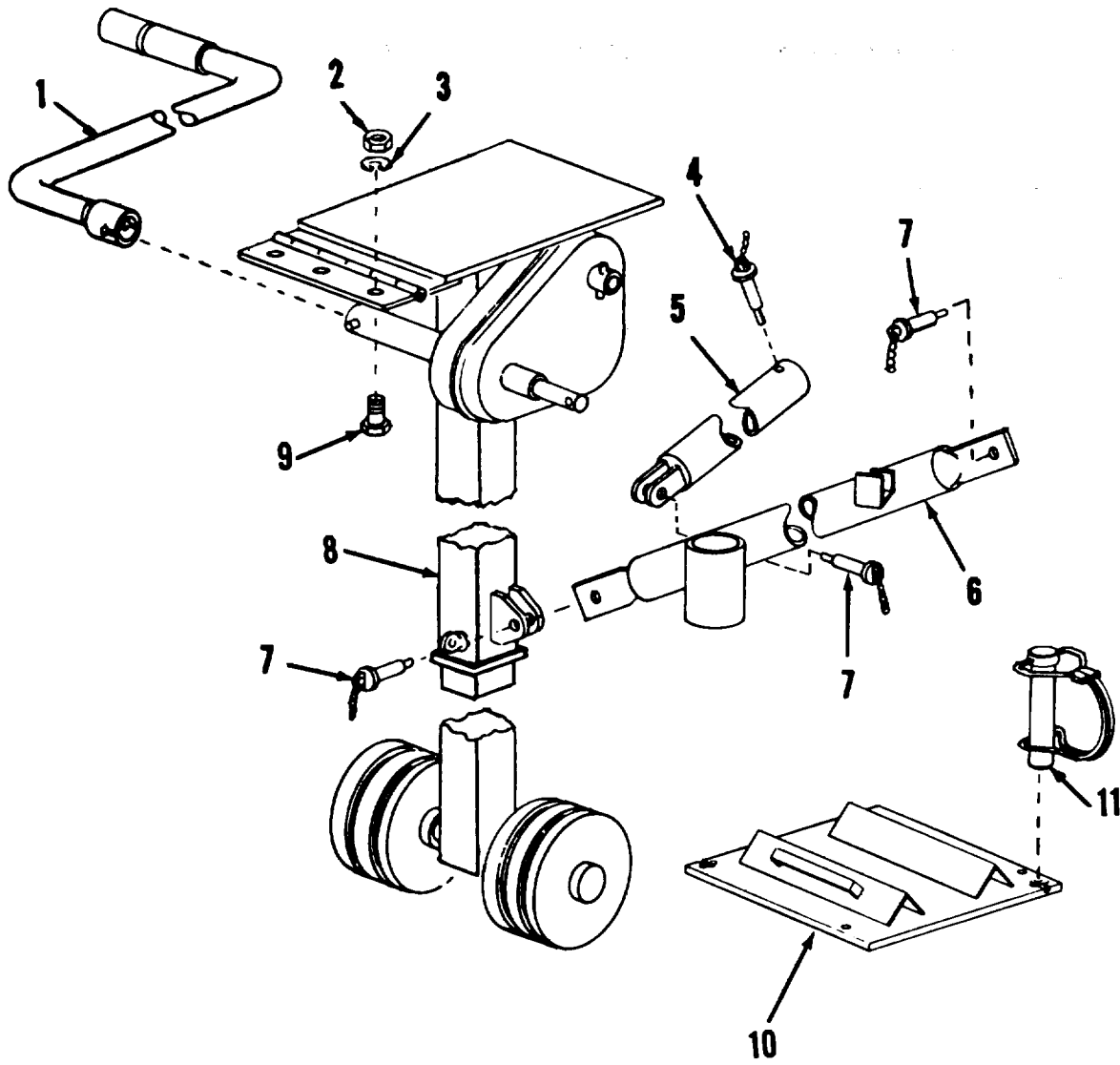
Figure 29. Air Mounted Fifth Wheel Kingpin Assembly.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 1506 FIFTH WHEEL					
FIG. 29 AIR MOUNTED FIFTH WHEEL KING-PIN ASSEMBLY					
1	PAOZZ	19207	11684365	STUD, PLAIN	2
2	PAOZZ	19207	11684335	BALL JOINT	2
3	PAOZZ	96906	MS35691-13	NUT, PLAIN, HEXAGON	2
4	PAOZZ	19207	11684334	STUD, PLAIN	1
5	PAOZZ	96906	MS18154-58	SCREW, CAP, HEXAGON H.....	8
6	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	8
7	PAOZZ	96906	MS21083N18	NUT, SELF-LOCKING, HE	4
8	PAOZZ	96906	MS21245-12	NUT, SELF-LOCKING, HE.	4
9	PAOZZ	96906	MS90727-192	SCREW, CAP, HEXAGON H.....	4
10	PAOZZ	19201	11684344	SHOCK ABSORBER, DIRE	2
11	XDOZZ	19207	11684362	FRAME.....	1
12	PAOZZ	19207	11684360	AIR SPRING, KINGPIN.....	2
13	PAOZZ	96906	MS24667-52	SCREW, CAP, SOCKET HE.....	8
14	PAOZZ	19207	11684343	LINER, PLASTIC.....	2
15	PAOZZ	19207	11684361	MOUNT, RESILIENT	2
END OF FIGURE					



TA 314660
Figure 30. Leveling Jack.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 1507 LANDING GEAR, LEVELING JACKS					
FIG. 30 LEVELING JACK					
1	PAOZZ	96906	MS20392-12C91	PIN, STRAIGHT, HEADED	2
2	PAOZZ	96906	MS27183-27	WASHER, FLAT	2
3	PAOZZ	96906	MS24665-425	PIN, COTTER	2
4	PBOZZ	19207	11684674-1	SUPPORT, RETRACTABLE RIGHT HAND	1
4	PBOZZ	19207	11684674-2	SUPPORT, RETRACTABLE LEFT HAND.....	1
5	PAOZZ	19207	11684675	BRACE ASSEMBLY REAR.....	2
6	PAOZZ	19207	8747218-1	CHAIN ASSEMBLY, SING	2
7	PBOZZ	19207	11684672-1	JACK, LEVELING-SUPPO LEFT HAND.....	1
7	PBOZZ	19207	11684672-2	JACK, LEVELING-SUPPO RIGHT HAND	1
8	PAOZZ	19207	11684676	BRACE ASSEMBLY SIDE	2
9	PAOZZ	19201	11684673-3	PIN, LOCK TENSION	6
10	PAOZZ	96906	MS35810-38	PIN, STRAIGHT, HEADED	1
11	PAOZZ	96906	MS27183-23	WASHER, FLAT	1
12	PAOZZ	96906	MS24665-421	PIN, COTTER	1
END OF FIGURE					

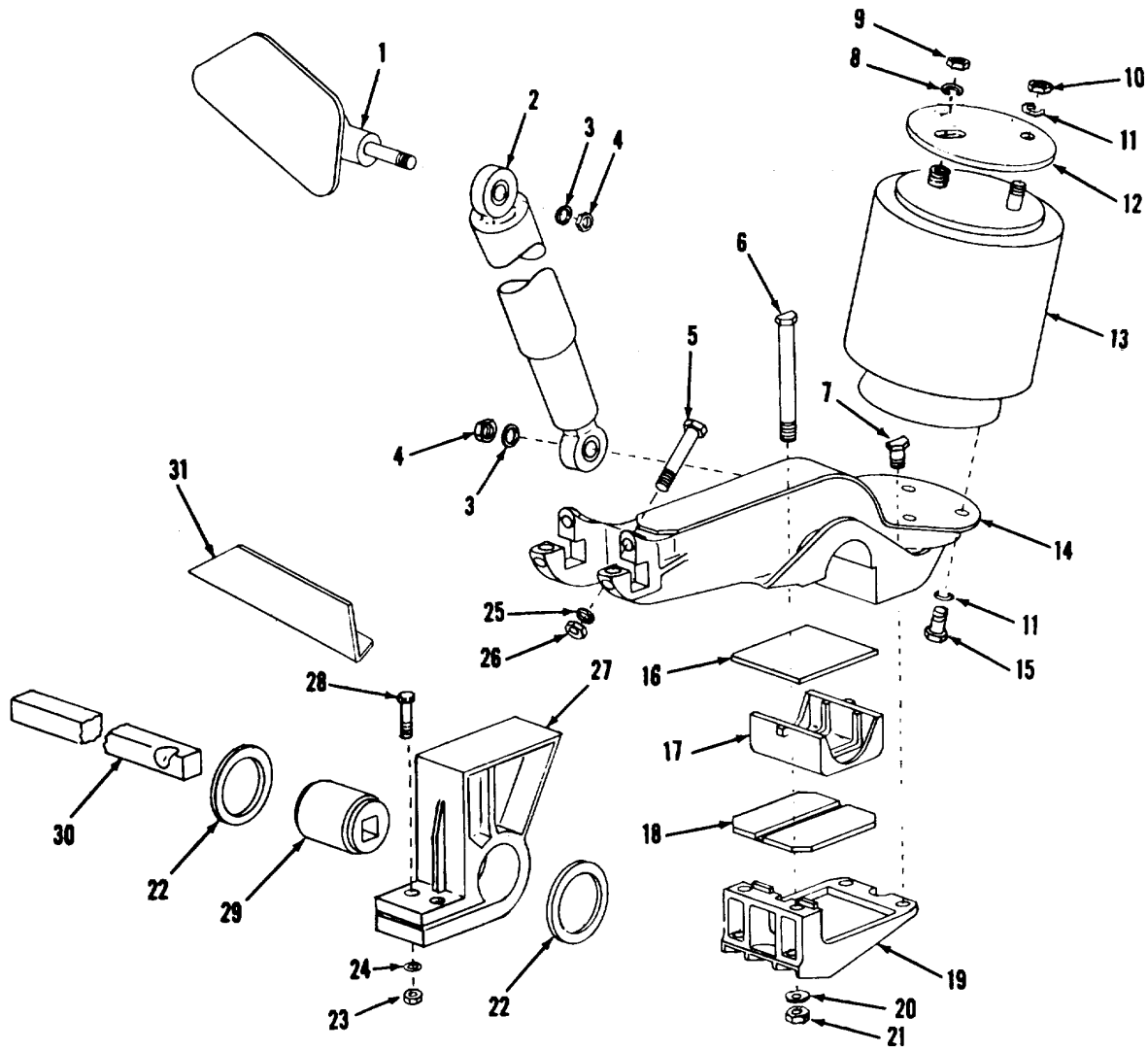


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Figure 31. Swing-Up Landing Gear.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 1507 LANDING GEAR,LEVELING JACKS					
FIG.31. SWING-UP LANDING GEAR					
1	PAOZZ	19207	11681656	CRANK, HAND.....	2
2	PAOZZ	96906	MS51968-14	NUT, PLAINHEXAGCN.....	6
3	PAOZZ	96906	M535338-48	WASHER, LOCK.....	6
4	PAOZZ	19207	11684673-1	PIN,LOCK TENSION	2
5	PAOZZ	19207	11684303	BRACE, SUPPCRT.PETRA.....	REAR
				.....	2
6	PAOZZ	19207	11681674-1	BRACE, SUPPCRT, RETRA LEFT HAND	1
6	PAOZZ	19207	11681674-2	BRACE, SUPPCRT, RETRA RIGHT HAND	1
7	PAOZZ	19207	11684673-2	PIN, LOCK TENSION	6
8	PAOZZ	19207	1233C793-1	LEG, SEMITRAILER RET LEFT HAND.....	1
8	PAOZZ	19207	1233C793-2	LEG, SEMITRAILER RET RIGHT HAND	1
9	PAOZZ	96906	MS90726114	SCREW, CAP, HEXAGON H.....	6
10	PAOZZ	19207	12307808	SHOE, VEHICLE SUPPOR.....	2
11	PAOZZ	19207	123017810	PIN, QUICK FELEASE.....	2

END OF FIGURE



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Figure 32. Air Suspension System Components.

SECTION II				(5)	(6)
(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 16 SPRINGS & SHCCK ABSORBERS					
GROUP 1601 SPRINGS					
FIG.32 AIR SUSPENSION SYSTEM- COMPO- NENTS					
1	XDOZZ	19207	11684348	BRACKET	2
2	PAOZZ	19207	11684357	SHOCK ABSCRBER, DIRE	4
3	PAOZZ	96906	MS2CC02-14	WASHER, FLAT.....	8
4	PAOZZ	96906	MS51922-57	NUT, SELF-LCCKING, HE.....	8
5	PAOZZ	96906	MS90727-199	SCREW, CAP, HEXAGON H.....	8
6	PAOZZ	19207	11684337-2	BOLT, MACHINE	8
7	PAOZZ	19207	11684337-1	BOLT, MACHINE	8
8	PAOZZ	96906	MS35338-51	WASHER, LOCK,.....	4
9	PAOZZ	96906	M5S51968-23	NUT, PLAIN, HEXAGCN.....	4
10	PAOZZ	96906	MS51967-14	NUT, PLAIN, HEXAGON	4
11	PAOZZ	96906	MS35338-48	WASHER, LOCK,.....	20
12	PBOZZ	19207	11684350	PLATE, MOUNTING	4
13	PAOZZ	19207	11684366	AIR SPRING ASSY, SUS.....	4
14	PBOZZ	19207	11684352-2	ARN, EQUALIZING, AIR RIGHT HAND	2
15	PAOZZ	96906	MS90725-109	SCREWCAP, HEXAGON H.....	16
16	PAOZZ	19207	11684336	WRAPPER, RUBER AXLE	4
17	PAOZZ	19207	11684353	ADAPTER, AXLE,	4
18	PAOZZ	19207	11684356	PAD, RUBBERAXLE	4
19	PAOZZ	19207	11684354	CAP, CONNECTCR, AXLE.....	4
20	PAOZZ	9690	MS20002-14	WASHER, FLAT.....	16
21	PAOZZ	96906	MS51S22-65	NUT, SELF-LCCKING, HE.....	16
22	PAOZZ	19207	11684338	WASHER, FLAT.....	8
23	PAOZZ	96906	MS51522-49	NUT, SELF-LCCKING.HE.....	8
24	PAOZZ	96906	MS20002-10	WASHER1FLAT.....	8
25	PAOZZ	96906	MS20002-12	WASHER, FLAT.....	8
26	PAOZZ	96906	MS51522-57	NUT, SELF-LCCKING, HE.....	8
27	XDOZZ	19207	11684351	BRACKET, FRAME.....	4
28	PAOZZ	96906	MS90727-172	SCREW.CAP, HEXAGON H	8
29	PAOZZ	19207	11684355	BUSHINGRUBBER	4
30	PBOZZ	19207	11684345	TORSION BAR	2
31	XOOZZ	19207	11684349	BRACE, ANGLE.....	4

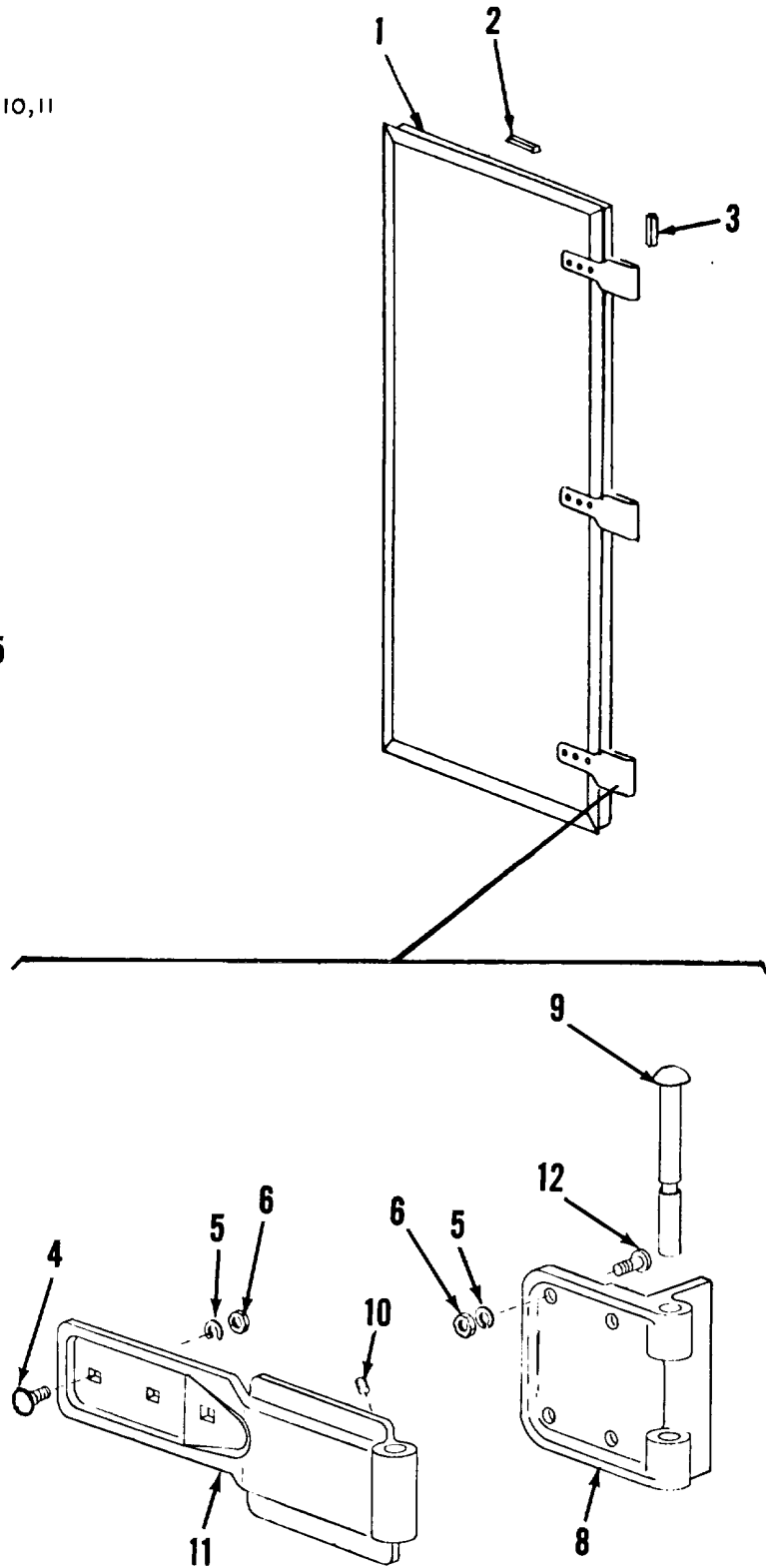
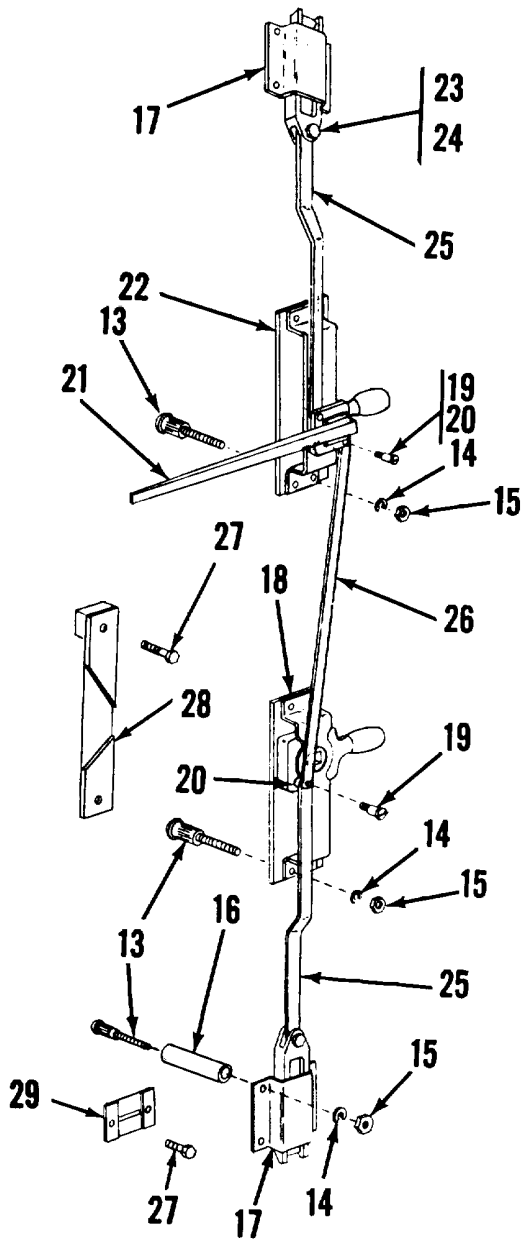
END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
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GROUP 1601 SPRINGS
FIG.33 AIR SPRING AIR CONTROL COMPO-
NENTS

1	PAOZZ	19207	11684346	VALVE, AIR BRAKE.....	1
2	PAOZZ	96906	MS51S22-2	NUTSELF-LOCKING, HE	4
3	PAOZZ	19207	11684367	INVERTED NUT, TUBE C.	4
4	PAOZZ	96906	M1SSI22-2	NUT, SELF-LOCKING, HE	4
5	PAOZZ	19201	11684329	ROD, ALIGNING, AIR SP,	2
6	PAOZZ	96906	MS90728-9	SCREW, CAP, HEXAGON H.....	4
7	PAOZZ	19207	11684410	VALVE, HEIGHT CONTROL	2
8	PAOZZ	9690	MS50726-6	SCREW, CAP, HEXAGON H.....	4
END OF FIGURE					

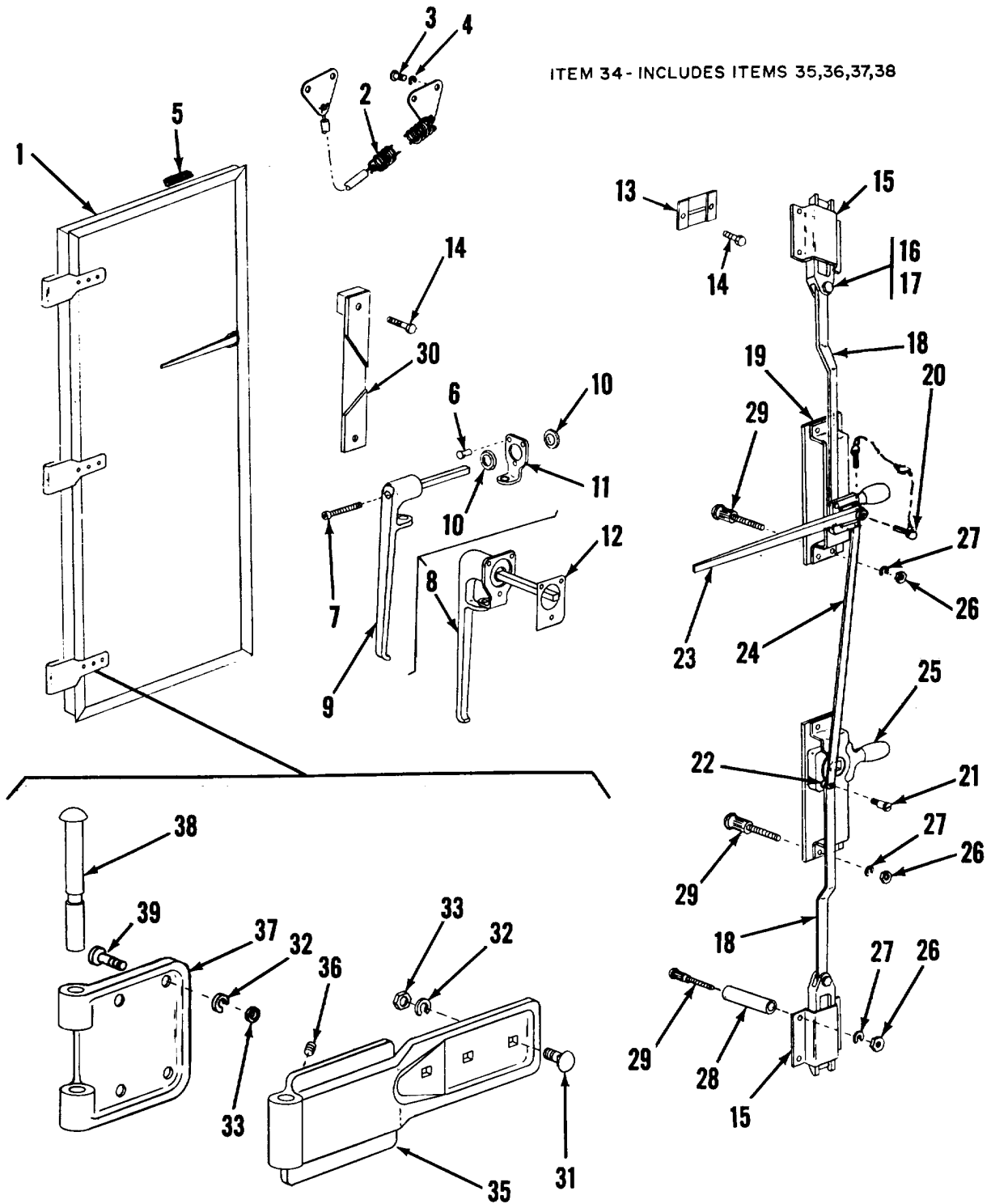
ITEM 7 - INCLUDES ITEMS 8,9,10,11



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Figure 34. Right Side Door.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 18 BCDY	
				GROUP 1801 8CODY	
				FIG.34 RIGHT SIDE DOOR	
1	PBOZZ	19207	12331017	DOOR, METAL, SWINGING RIGHT SIDE,	1
2	PAOZZ	19201	12315658	SEAL, RUBBER, DOOR	20
3	PAOZZ	19207	12315659	SEAL, RUBBER CHANNEL	20
4	PAOZZ	96906	MS35751-71	BOLT, SCUARE NECK	9
5	PAOZZ	969C6	MS35338-46	WASHER, LOCK	21
6	PAOZZ	96906	MS51967-8	NUT, PLAIN, HEXAGON	21
7	P80ZZ	19207	12330840	HINGE, TEE	3
8	PAOZZ	19207	ICE82202	•BUTT, HINGE	1
9	PAOZZ	19207	11607480	•PIN , GROOVED, HEADED	1
10	PAOZZ	96906	MS51963-64	•SETSCREW	1
11	PAOZZ	19207	1233C196	STRAP, HINGE	1
12	PAOZZ	96906	MS35751-77	BOLT, SQUARE NECK INBOARD	6
12	PAOZZ	96906	M550728-62	SCREW, CAP, HEXAGON H OUTBOAROD	6
13	PAOZZ	19207	12331242	BOLT, RIBBED NECK	16
14	PAOZZ	96906	MS35338-45	WASHER, LOCK	16
15	PAOZZ	96906	S51S22-9	NUTSELF-LOCKING, HE	16
16	PBOZZ	19207	12331243-2	SPACER, SLEEVE,	8
17	PBOZZ	1922C	2525-52	SLIDE FASTENER, BOLT	2
18	P80ZZ	1922C	1-2525-50R	LATCH, DOOR, VEHICULA	1
19	PAOZZ	969C6	MS51575-18	SCREW , SHOULDER	3
20	PAOZZ	19207	1233C845	SPACER, SLEEVE	3
21	PAOZZ	19207	12315674	HANDLE, DOOR	1
22	PBOZZ	1922C	4-2525-50L	LATCH, DOOR, VEHICULA	1
23	PAOZZ	96906	MSSC728-8	SCREW, CAP, HEXAGON H	2
24	PAOZZ	96906	MS35338-46	WASHER, LOCK	2
25	PBOZZ	1920C	12315484-8	ROD, LOCKING	2
26	PBOZZ	19207	12331000-2	ROD, LOCKING	1
27	PAOZZ	96906	MSS0725-6	SCREW, CAP, HEXAGON H	8
28	PBOZZ	19201	12315633-1	PLATE, KEEPER UPPER	1
28	PBOZZ	19207	12315633-2	PLATE, MENDING LOWER	1
29	PBOZZ	19207	12315649	STRIKE, CATCH	2
				END CF FIGURE	



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Figure 35. Interior Partition Door.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 1801 BODY					
FIG.35 INTERIOR PARTITION DOOR					
1	PBOZZ	19207	12331043	DOOR, METAL, SWINGING INTERIOR	1
				PARTITION	
2	PAOZZ	19207	11681178	CHAIN DOOR STOP	1
3	PAOZZ	96906	MS24629-50	SCREW, TAPPING, THREA	4
4	PAOZZ	96906	MS35338-43	WASHER, LOCK	4
5	PAOZZ	19207	12315659	SEAL, RUBBER CHANNEL	40
6	PAOZZ	19207	12315644-3	RIVET, BLIND	3
7	PAOZZ	96506	NS16997-61	SCREW, CAP, SOCKET HE	1
8	PBOZZ	19207	12315569-2	HANDLE, DOOR	1
9	PB0ZZ	19207	12307731	• HANDLE, DOOR	11
10	PAOZZ	96906	MS28775-216	PACKING, PREFORMED	2
11	PBOZZ	19207	12315571	ESCUTCHEON PLATE	1
12	PBOZZ	19207	12331041	SPACER, PLATE	1
13	PBOZZ	19207	12315649	STRIKE, CATCH	2
14	PAOZZ	96906	MS907256	SCREW, CAP.HEXAGON H	8
15	PBOZZ	19220	4-2525-52	SLIDE FASTENER, BOLT	2
16	PAOZZ	96906	MSS0727-58	SCREW, CAP, HEXAGON H	2
17	PAOZZ	96906	MS35338-46	WASHER, LOCK	2
18	PBOZZ	19207	12315484-9	ROD, LOCKING	2
19	PBOZZ	19220	4-2525-50R	LOCK, DOOR.VEH	1
20	PAOZZ	192C7	12331240	PIN, QUICK RELEASE	
21	PAOZZ	96906	MS51975-18	SCREW, SHOULDER	3
22	PAOZZ	19207	12330845	SPACER, SLEEVE	3
23	PAOZZ	19207	12315674	HANDLEDOOR	1
24	PBOZZ	19207	12315484-8	ROD, LOCKING	1
25	PBOZZ	1922C	11-2525-50L	LATCH, DOOR, VEHICULA-	1
26	PAOZZ	96906	MS51922-9	NUT, SELF-LOCKING, HE	16
27	PAOZZ	96906	MS35338-45	WASHER, LOCK	16
28	PBOZZ	19207	12331243-2	SPACER, SLEEVE	8
29	PAOZZ	19207	12331242	BOLT, RIBBED NECK	16
30	PBOZZ	19207	12315633-1	PLATE, KEEPER LOWER	1
30	PBOZZ	19207	12315633-2	PLATE, MENDING UPPER	1
31	PAOZZ	96906	MS35751-71	BOLT, SQUARE NECK	9
32	PAOZZ	96906	MS35338-46	WASHER, LOCK	21
33	PAOZZ	96906	MS51967-8	NUT, PLAIN.HEXAGCN	21
34	PBOZZ	19207	12330840	HINGE, TEE	3
35	PAOZZ	19207	1233C796	• STRAP, HINGE	1
36	PAOZZ	96906	MS5163-64	• SETSCREW,	1
37	PAOZZ	19207	1C882202	• LEAF, BUTT HINGE	1
38	PAOZZ	19207	116C1480	PIN, GROOVED, HEADED	1
39	PAOZZ	96906	M535751-77	BOLT, SQUARE NECK INBOARD	6
39	PAOZZ	96906	MSS0728-62	SCREW, CAP, HEXAGON H OUTBOARD	6

END OF FIGURE

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 1801 BODY					
FIG.36 FRONT DOORS					
1	PBOZZ	19207	12331019-1	DOOR, METAL, SWINGING LEFT FRONT	1
1	P8OZZ	19207	12331019-2	DOOR, METAL, SWINGING RIGHT FRONT	1
2	PAOZZ	19207	12315658	SEAL, RUBBER, DOOR	40
3	PAOZZ	19207	11681178	CHAIN DOOR STOP	2
4	PAOZZ	96906	MS24629-50	SCREW, TAPPING, THREA	8
5	PAOZZ	96906	MS535338-43	ASHER, LOCK	8
6	PAOZZ	96906	MS35751-71	BOLT, SCUARE NECK	18
7	PAOZZ	96906	MS35338-46	WASHER, LOCK	42
8	PAOZZ	96906	MS51967-8	NUT, PLAIN, HEXAGON	42
9	PBOZZ	19201	1233C795	HINGE ASSEMBLY,STRA	6
10	PAOZZ	19207	1233C796	• STRAP, HINGE	1
11	PAOZZ	96906	MS51963-64	• SETSCREW	1
12	PAOZZ	19207	1C882201	• BASE, HINGE, STRAP	1
13	PAOZZ	19207	11607480	• PIN, GROOVED, HEADED	1
14	PAOZZ	96906	MS35751-77	BOLT, SQUARE NECK INBOARD	12
14	PAOZZ	19207	11681633	BOLT, SQUARE NECK OUTBOARD	12
15	PAOZZ	96906	MS51922-9	NUT.SELF-LCCKING, HE	16
16	PAOZZ	96906	M535338-45	WASHER, LOCK	16
17	PBOZZ	19220	4-2525-52	SLIDE FASTENER, BOLT	4
18	PBOZZ	19207	12331243-2	SPACER, SLEEVE	16
19	PAOZZ	19207	12331242	BOLT, RIBBED NECK	16
20	PAOZZ	96906	MS51975-18	SCREW, SHOULDER	6
21	PAOZZ	19207	1233C845	SPACER, SLEEVE	6
22	PAOZZ	19207	12315674	HANDLE, DOOR	2
23	PAOZZ	19207	12331240	PIN, QUICK RELEASE	2
24	P8OZZ	19220	4-2525-50R	LOCK, DOOR, VEH. LEFT FRONT DOOR	1
24	PBOZZ	19220	4-2525-50L	LATCH, DOOR, VEHICULA RIGHT FRONT	1
25	PAOZZ	96906	MS51922-9	NUT, SELF-LCCKING, HE	16
26	PAOZZ	96906	MS35338-45	WASHER, LOCK	16
27	PAOZZ	19207	12331242	BOLT, RIBBED NECK	16
28	PBOZZ	19220	11-2525-50L	LATCH, DOOR, VEHICULA LEFT FRONT DOOR	1
28	PBOZZ	19220	11-2525-50R	LATCH , DOOR , VEHICULA RIGHT FRONT	1
29	PBOZZ	L9207	12315484-7	ROD, LOCKING	2
30	PAOZZ	96906	MS90727-58	SCREW, CAP, HEXAGON H	4
31	PAOZZ	96906	MS35338-46	WASHER, LOCK	4
32	PBOZZ	19201	12331000-3	ROD, LOCKING	2
33	P8OZZ	19207	12315484-6	ROD, LOCKING	2
34	PAOZZ	19207	12315644-3	RIVET, BLIND	6
35	PBOZZ	19207	1233C884	SPACER, PLATE	2
36	PAOZZ	96906	MS16997-61	SCREW, CAP, SOCKET HE	2
37	PBOZZ	19201	12315569-2	HANDLE, DOOR	2
38	PBOZZ	19207	12307731	• HANDLE, DOOR	1
39	PAOZZ	96906	MS28775-216	• PACKING, PREFORMED	2
40	PBOZZ	19207	12315571	• ESCUTCHECN PLATE	1
41	PBOZZ	19207	12315633-2	PLATE, MENDING UPPER	2
41	PBOZZ	19207	12315633-1	PLATE, KEEPER LOWER	2

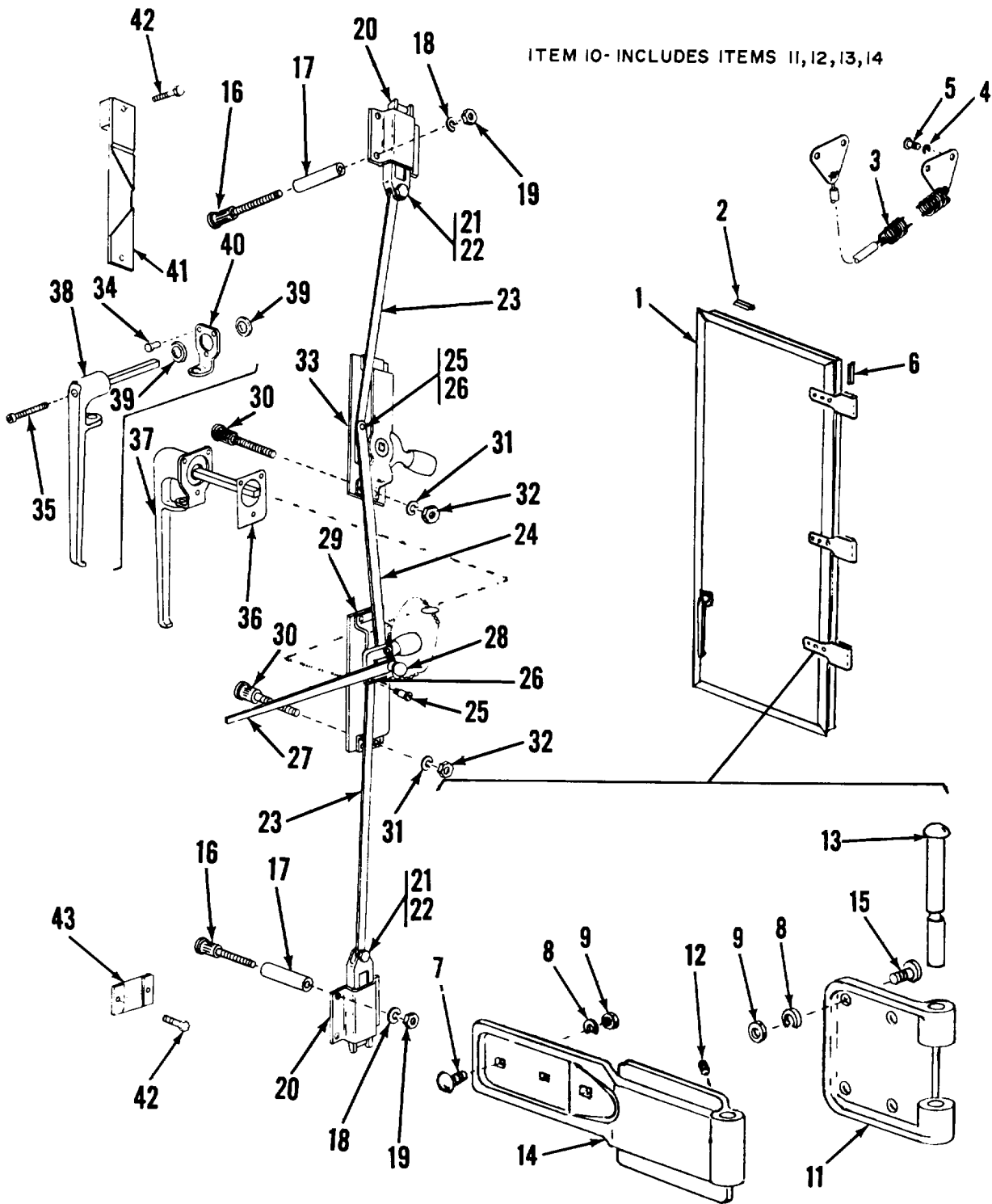
SECTION II

TM 9-2330-373-14&P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
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42	PAOZZ	96906	M590725-6	SCREW, CAP, HEXAGON H.....	16
43	PBOZZ	19207	12315649	STRIKE, CATCH.....	4

END OF FIGURE

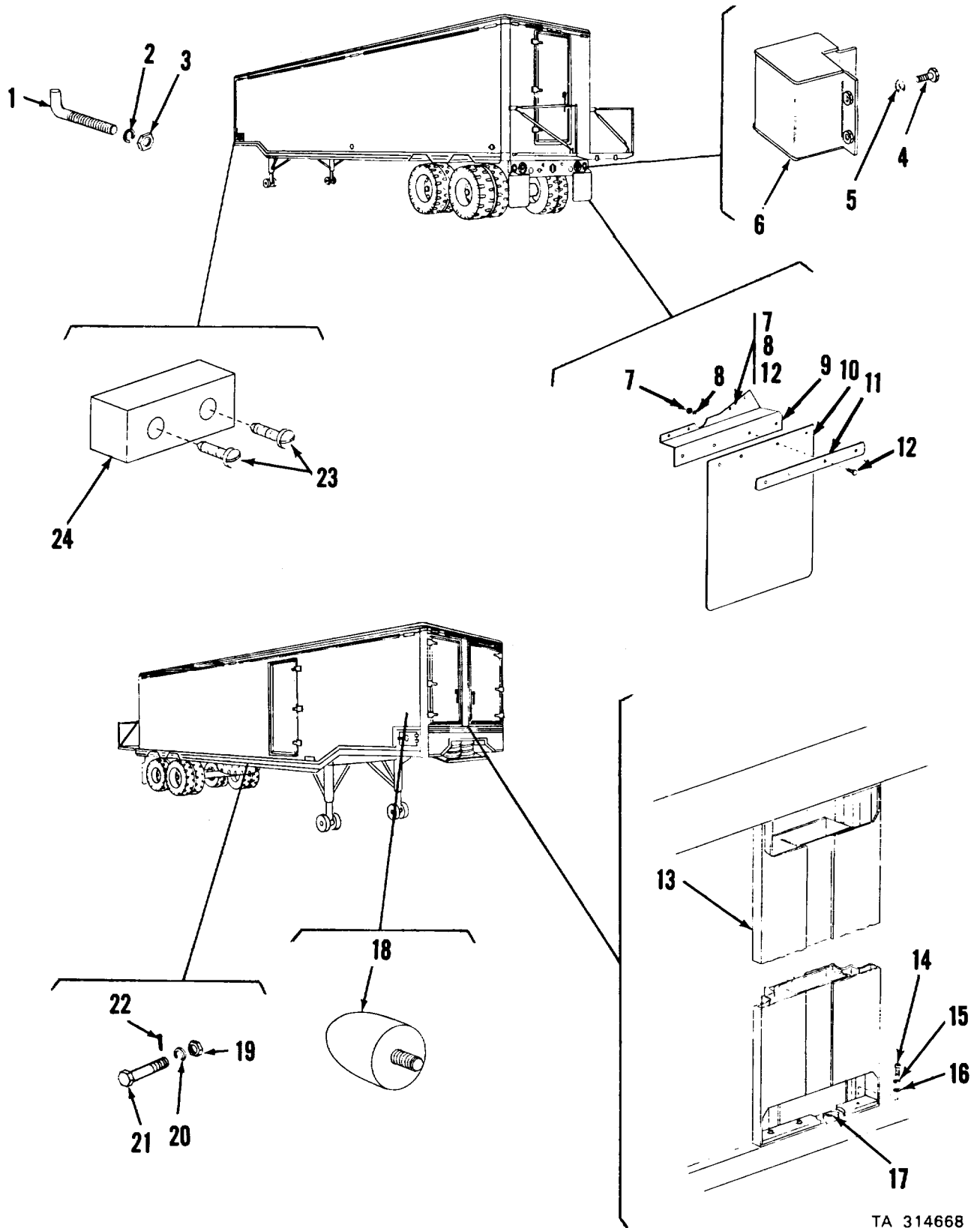


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Figure 37. Rear Door.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
GROUP 1801 BODY FIG.37 REAR DOCRS					
1	PBOZZ	19207	1233C797-3	DOOR, METAL, SWINGING REAR.....	1
2	PAOZZ	19201	12315658	SEAL, RUBBER, DOOR	20
3	PAOZZ	19207	12315659	SEAL, RUBBER CHANNEL.....	20
4	PAOZZ	19207	11681178	CHAIN DOOR STOP	1
5	PAOZZ	96906	MS24629-50	SCREW, TAPPING, THREA.....	4
6	PAOZZ	96906	MS35338-43	WASHER, LOCK.....	4
7	PAOZZ	96906	MS35751-71	BOLT, SQUARE NECK.....	9
8	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	21
9	PAOZZ	96906	MS51567-8	NUT, PLAIN, HEXAGCN.....	21
10	PBOZZ	19207	1233C840	HINGE, TEE	3
11	PAOZZ	19207	1233C796	• STRAP, HINGE.....	1
12	PAOZZ	96906	MS51563-64	• SETSCREW	1
13	PAOZZ	19207	116C7480	• PIN, GROOVED, HEADED.....	1
14	PAOZZ	19207	IC82202	• LEAF, BUTT HINGE	1
15	PAOZZ	96906	MS35751-77	BOLT, SQUARE NECK INBCARD	6
15	PAOZZ	96906	MS90728-62	SCREW, CAP, HEXAGCN H OUTBOARD	6
16	PAOZZ	19201	12331242	BOLT, RIBBED NECK	8
17	PBOZZ	19207	12331243-2	SPACER, SLEEVE.....	8
18	PAOZZ	96906	MS35338-45	WASHER, LCCK.....	8
19	PAOZZ	96906	MS51522-9	NUT, SELF-LCCKING, HE.....	8
20	PBOZZ	19220	4-2525-52	SLIDE FASTENER, BOLT	2
21	PAOZZ	96906	MSS0727-58	SCREW, CAP, HEXAGON H.....	2
22	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	2
23	P8OZZ	19207	12315484-3	ROD, LCCKING	2
24	PBOZZ	19207	12315484-4	ROD, LOCKING	1
25	PAOZZ	969C6	MS51S75-18	SCREW, SHOULDER.....	3
26	PAOZZ	19207	1233C845	SPACER, SLEEVE.....	3
27	PAOZZ	19207	12315674	HANDLE, DOOR.....	1
28	PAOZZ	19207	12331240	PIN, QUICK RELEASE	1
29	PBOZZ	1922C	4-2525-501	LATCH, DOOR, VEHICULA.....	1
30	PAOZZ	19207	12331242	BOLT, RIBBED NECK.....	8
31	PAOZZ	96906	NS35338-45	WASHER, LOCK.....	8
32	PAOZZ	969C6	MS51522-9	NUT, SELF-LCCKING, HE.....	8
33	PBOZZ	1922C	11-2525-50R	LATCH, DOOR, VEHICULA.....	1
34	PAOZZ	19207	12315644-3	RIVET, BLIND	3
35	PAOZZ	96906t	S16597-61	SCREW, CAP, SOCKET HE.....	1
36	PBOZZ	19207	1233C884	SPACER, PLATE	1
37	PBOZZ	19207	12315569-2	HANDLE, DOOR.....	1
38	PBOZZ	19207	12307731	• HANDLE, DOOR.....	1
39	PAOZZ	969C6	MS28775-216	• PACKING, PREFORMD	2
40	PBOZZ	19207	12315571	ESCUTCHECN PLATE	1
41	PBOZZ	19207	12315633-1	PLATE, KEEPER LOWER	1
41	PBOZZ	19207	12315633-2	PLATE, MENDING UPPER.....	1
42	PAOZZ	S6906	HS90725-6	SCREW, CAP, HEXAGON H.....	8
43	PBOZZ	192C0	12315649	STRIKE, CATCH.....	2

END OF FIGURE

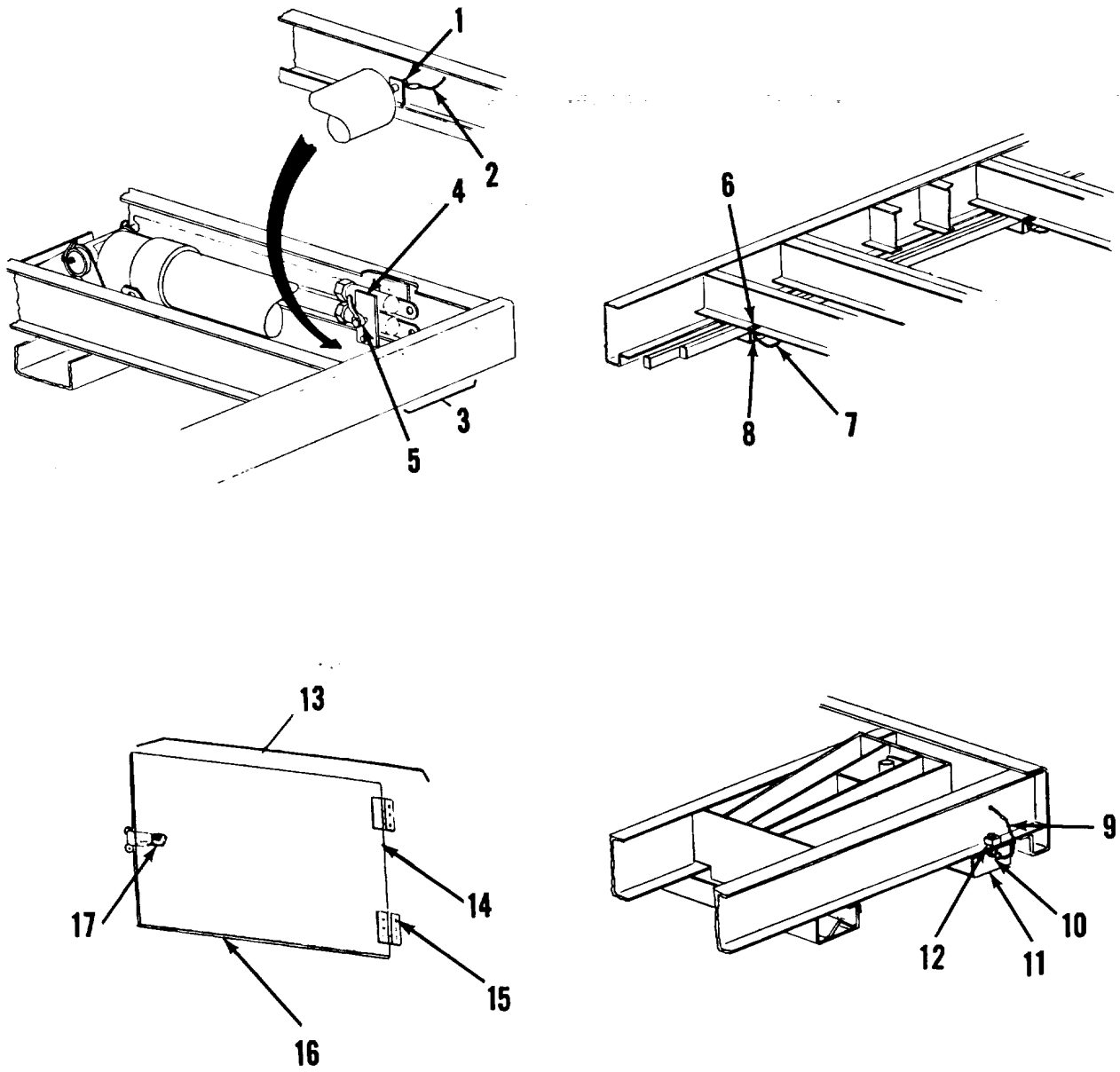


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Figure 38. Miscellaneous Body Items.

SECTION II				(5)	(6)
(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 1801 BODY	
				FIG.38 MISCELLANEOUS BODY ITEMS	
1	PAOZZ	19207	10882285	BOLT, HOOK	2
2	PAOZZ	96906	MS35338-45	WASHER, LOCK.....	2
3	PAOZZ	96906	MS51567-5	NUT, PLAIN, HEXAGON	2
4	PAOZZ	96906	MSS0728-113	SCREW, CAP, HEXAGON H.....	8
5	PAOZZ	96906	M535338-48	WASHER, LOCK.....	8
6	PBOZZ	19207	1CE91528	BUMPER, VEHICULAR LH.....	1
6	PBOZZ	19207	ICE91529	BUMPER, VEHICULAR RH	1
7	PAOZZ	96906	M551967-8	NUT, PLAIN, HEXAGON	16
8	PAOZZ	96906	MS3533846	ASHER, LOCK	16
9	PBOZZ	19207	11646302-1	BRACKET, DOUBLE ANGL RH	1
9	PBOZZ	19207	11646302-2	BRACKET, DOUBLE ANGL LH	1
10	PAOZZ	19207	1CE82200	GUARD, SPLASH, VEHICU.....	2
11	PAOZZ	19207	10544341	SPACER, PLATE	2
12	PAOZZ	96906	MS18154-58	SCREW, CAP, HEXAGON H.....	16
13	PBOZZ	19207	1233C987	STAKE, VEHICLE BODY	11
14	PAOZZ	96906	MS16997-62	SCREW, CAP, SOCKET HE.....	8
15	PAOZZ	96906	MS35338-44	WASHER, LOCK.....	8
16	PAOZZ	96906	MS27183-9	WASHERFLAT	8
17	PAOZZ	96906	MS27130-A49	NUT, PLAIN, BLIND RIVY.....	8
18	PAOZZ	19207	E747317	BUMPER, RUBBER	1
19	PAOZZ	96906	MS35692-62	NUT, PLAIN, SLOTTED, H	8
20	PAOZZ	96906	MS35338-51	WASHER, LOCK.....	8
21	PAOZZ	96906	MS51106-460	SCREW, CAP, HEXAGON H.....	6
21	PAOZZ	96906	MS51106-462	SCREW, CAP, HEXAGOGN H U/O REAR	2
				CROSSMEMBER.....	4
22	PAOZZ	96906	MS24665-359	PIN, COTTER	8
23	PAOZZ	96906	MS51861-47	SCREW, TAPPING, THREA.....	2
24	PAOZZ	19207	12331013	BUMPER, RUBBER	1

END CF FIGURE

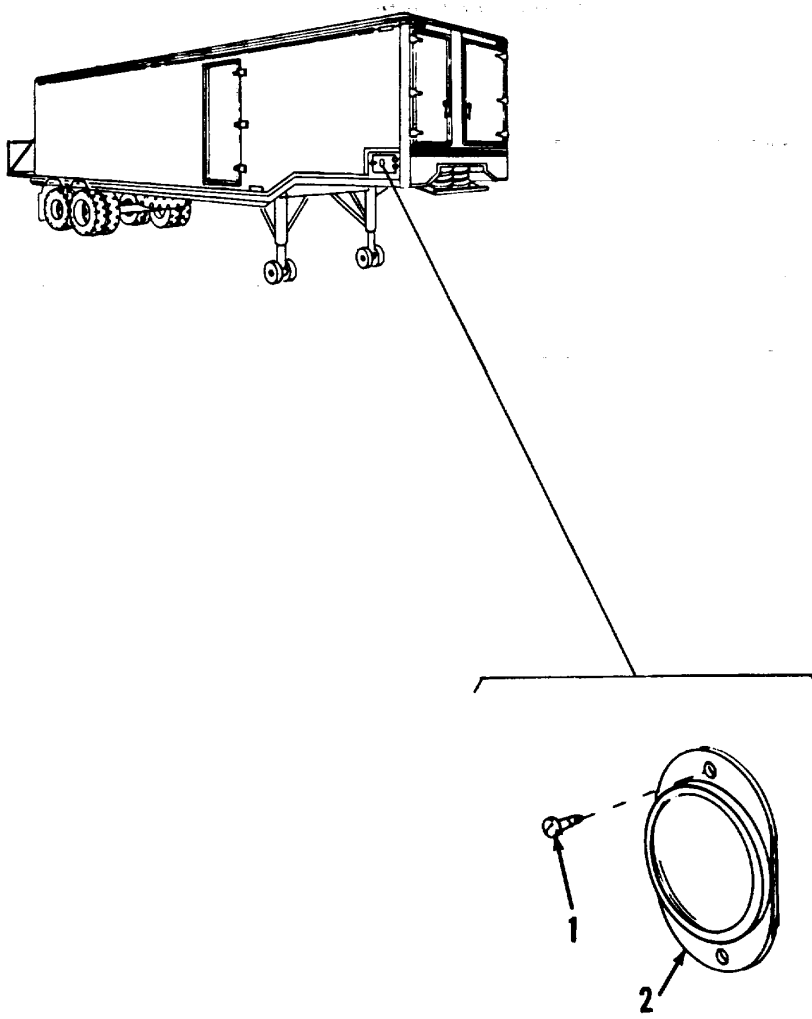


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Figure 39. Miscellaneous Body Items.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE	FSCM	NUMBER		
GROUP 1801 CODY					
FIG.39 MISCELLANEOUS BODY ITEMS					
1	PAOZZ	969C6	MS17985-C310	PIN, QUICK RELEASE	2
2	MFFZZ	19207	12353862-5	CHAIN FABRICATE FROM P/N 12353862	1
3	PBOZZ	19207	12315761	BRACKET ASSEMBLY, LO	4
4	PBOZZ	19207	12315766	PLATE, CLIP RETAINER.....	4
5	PBOZZ	19207	12315767	HANDLE, DOOR.....	4
6	PBOZZ	19201	12308007	PIN, STRAIGHT, HEADED	2
7	MFFZZ	19207	12353861-1	• CHAIN FABRICATE FROM P/N 12353861	2
8	PAOZZ	88044	AN415-2	PIN, LOCK.....	2
9	MFFZZ	19207	12353860-1	• CHAIN FABRICATE FRCM P/N 12353860	2
10	PAOZZ	88044	AN415-2	PIN, LOCK.....	2
11	PBOZZ	19207	12307928	BRACKET ASSEMBLY, MO	2
12	PBOZZ	19201	12308007	PIN, STRAIGHT, HEADED	2
13	PBOZZ	19207	123017760	DOOR, METAL, SWINGING	2
14	PBOZZ	19207	12307779	DOOR, ACCESS.....	2
15	PBOZZ	19207	12315561	HINGE, BUTT	4
16	PAOZZ	04633	12C2-T	SEAL	10
17	PAOZZ	19207	11669716	CATCH, CLAMPING	2

END CF FIGURE



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Figure 40. Reflector.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
				GROUP 22 ACCESSORY ITEMS	
				GROUP 2202 ACCESSORY ITEMS	
				FIG.40 REFLECTOR	
1	PAOZZ	96906	MS51861-66	SCREW, TAPPING, THREA.....	16
2	PAOZZ	96906	MS35387-1	REFLECTOR, INDICATIN RED.....	4
2	PAOZZ	96906	MS35387-2	REFLECTOR, INDICATIN AMBER.....	4

END OF FIGURE

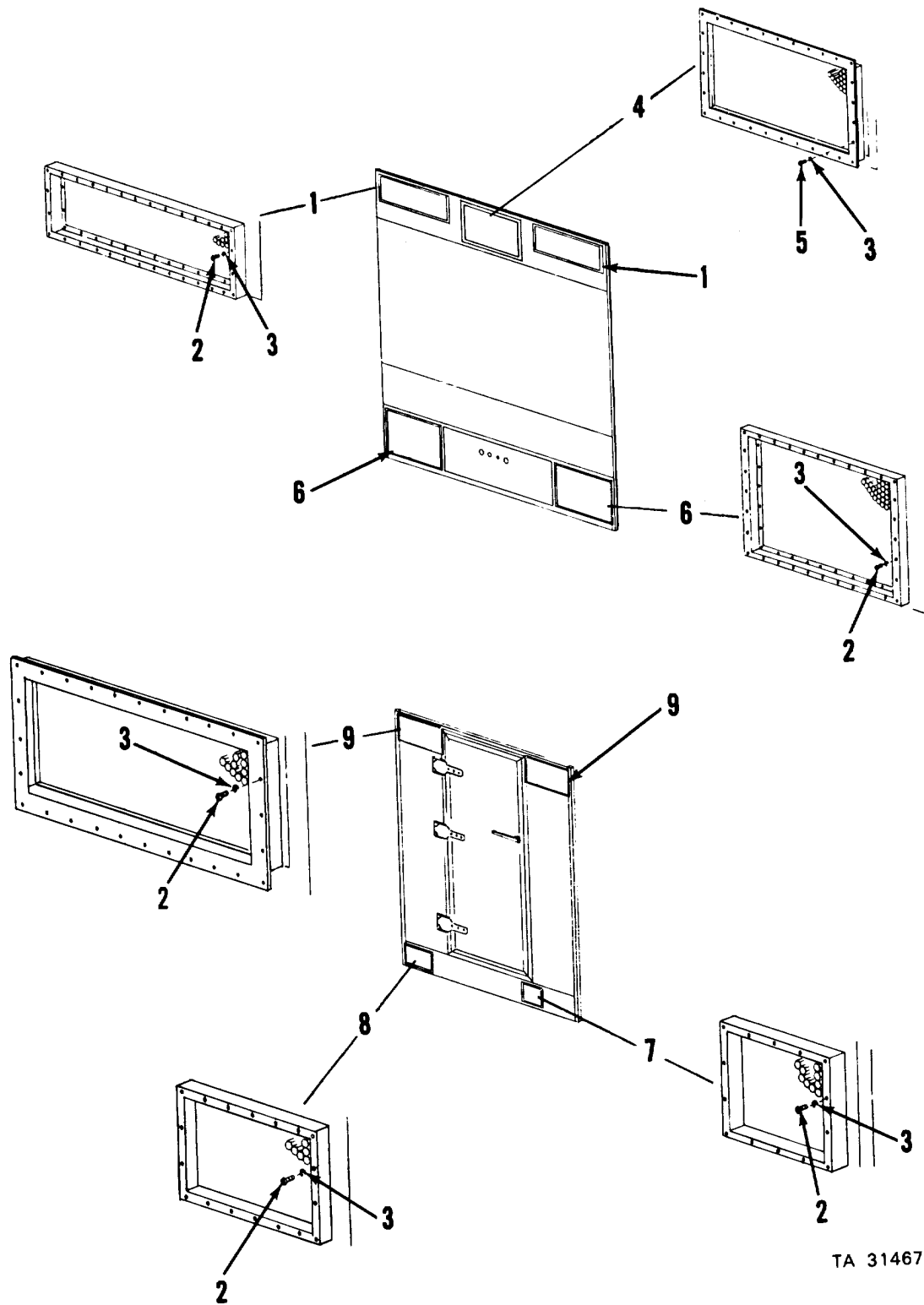
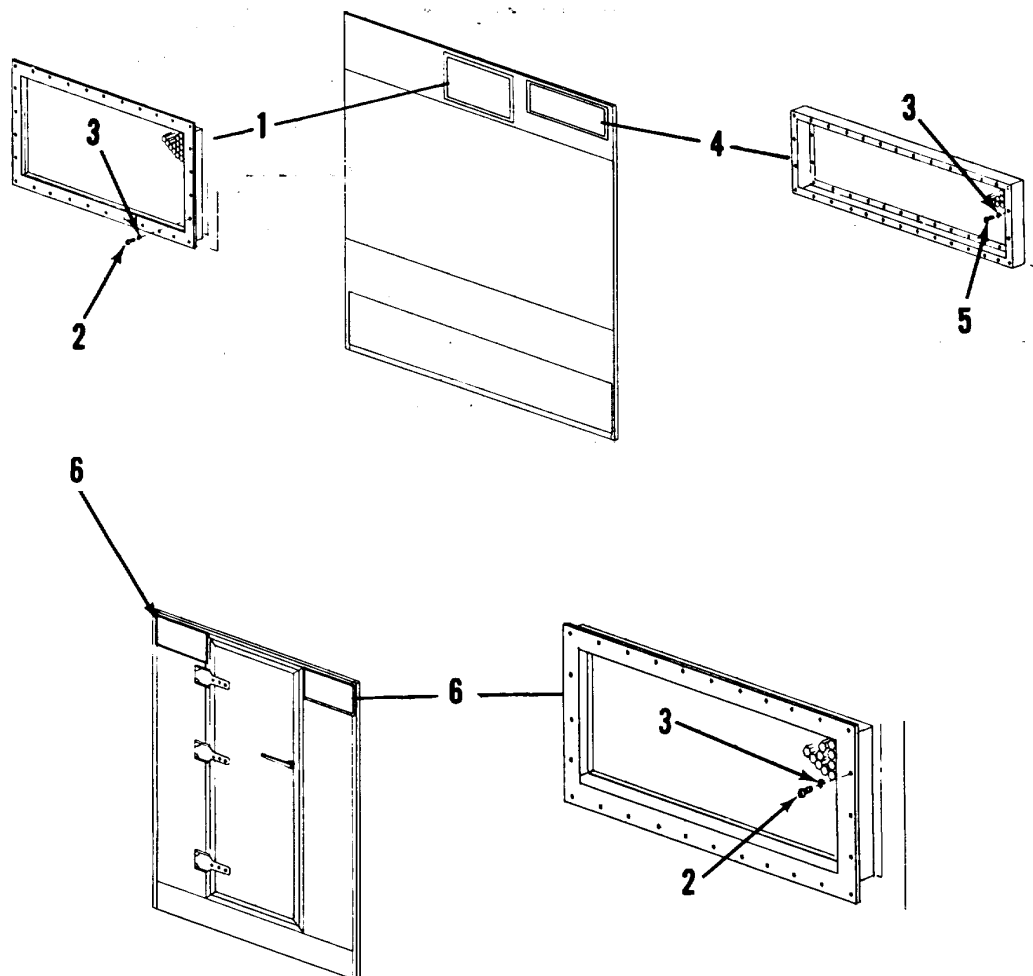


Figure 41. Radio Frequency Interference (RFI) Filters, XM971E2.

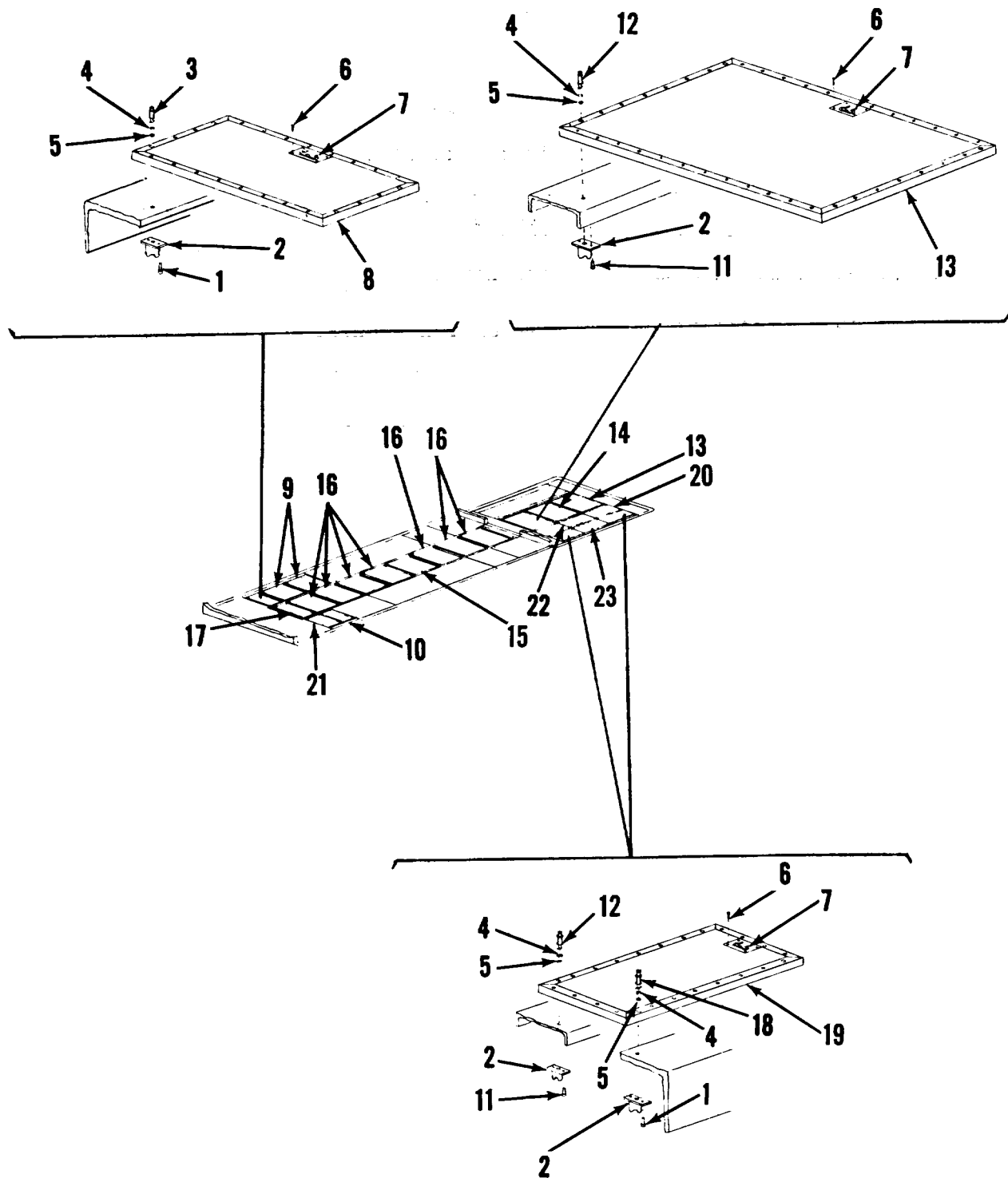
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 2202 ACCESSORY ITEMS					
FIG.41 RADIC FREQUENCY INTERFERENCE					
(RFI) FILTERS,XH971E2					
1	PBOZZ	19207	12331267	FILTER, INNER WALL.....	2
				UCC :094	
2	PAOZZ	19207	12353876-2	SCREW, CAP, HEXAGON H.....	164
				UOC :094	
3	PAOZZ	96907	MS35333-39	WASHER, LOCK.....	328
				UOC :094	
4	PBOZZ	19207	12331250	FILTER, INNER WALL.....	1
				UOC :094	
5	PAOZZ	19207	12353876-1	SCREW, CAP, HEXAGON H.....	164
				UOC :094	
6	PBOZZ	19207	12331251	FILTER, INNER WALL.....	2
				UOC :094	
7	PBOZZ	19207	12331265	FILTER, INNER WALL.....	1
				UOC :094	
8	PBOZZ	19207	12331264	FILTER, INNER WALL.....	1
				UOC :094	
9	PBOZZ	19207	12331263	FILTER, INNER WALL.....	2
				UOC :094	
END OF FIGURE					



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Figure 42. Radio Frequency Interference (RFI) Filters, XM971E3.

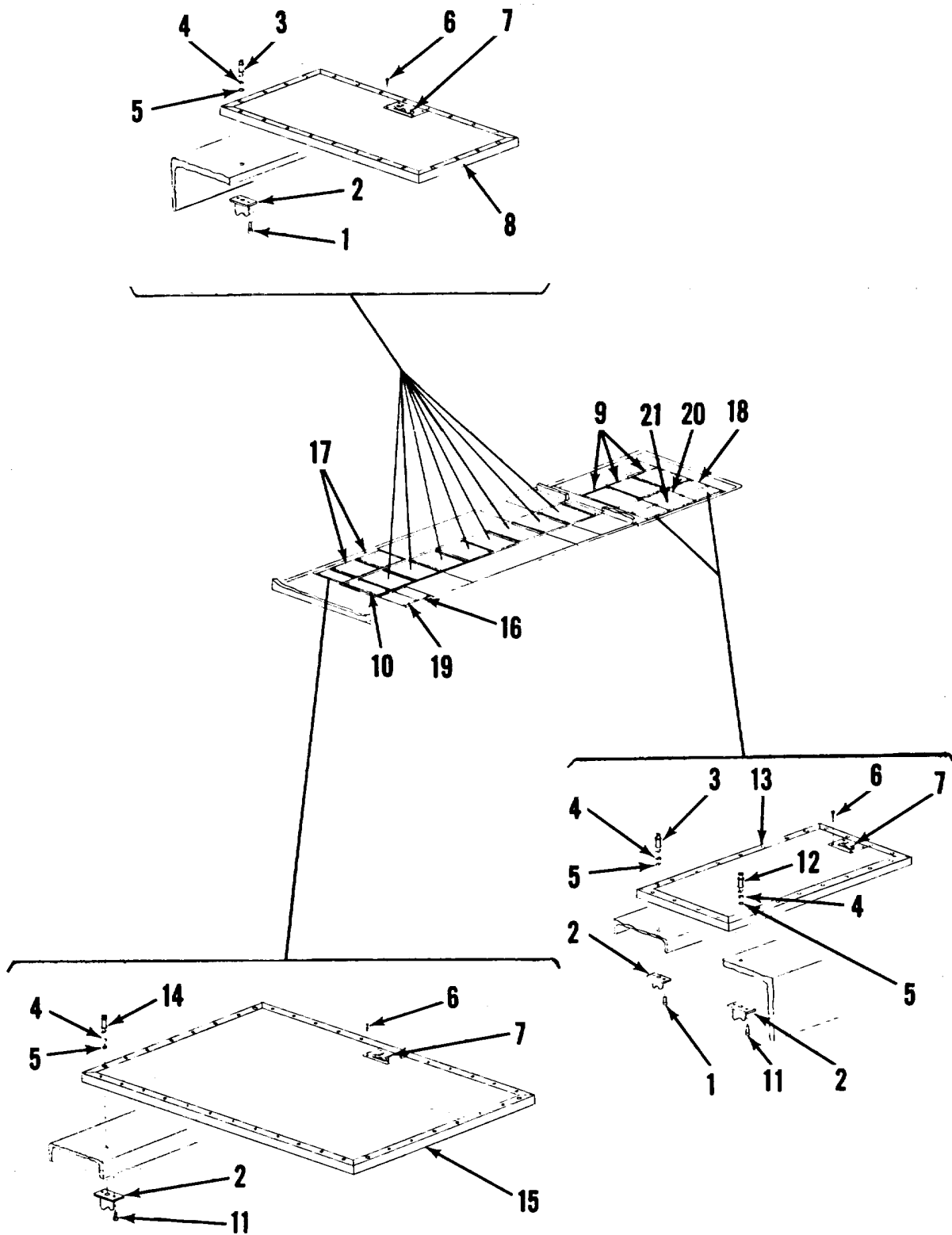
SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
GROUP 2202 ACCESSORY ITEMS					
FIG.42 RADIO FREQUENCY INTERFERENCE					
(RFI) FILTERS, XM971E3					
1	PBOZZ	19207	12331250	FILTER, INNER WALL.....	1
				UOC :095	
2	PAOZZ	19207	12353876-1	SCREW, CAP, HEXAGON H.....	88
				UOC :095	
3	PAOZZ	96906	MS35333-39	WASHER, LOCK.....	122
				UOC :095	
4	PBOZZ	19207	12331267	FILTER, INNER WALL.....	1
				UOC :095	
5	PAOZZ	19207	12353876-2	SCREW, CAP, HEXAGON H.....	34
				UCC :095	
6	PBOZZ	19207	12331263	FILTER, INNER WALL.....	2
				UOC :095	
END OF FIGURE					



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Figure 43. Floor Panels, XM971E2.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
SECTION II					
GROUP 2202 ACCESSORY ITEMS					
FIG.43 FLOOR PANELS, 1 XN971E2					
1	PAOZZ	8134S	M24243/1-8408	RIVET, BLIND	32
				UOC :094	
2	PAOZZ	19207	7327426-1	RECEPTACLE, TURNLOCK	92
				UOC:094	
3	PAOZZ	19207	ICS07041-6	STUD ASSEMBLY, TURNL	10
				UOC :094	
4	PAOZZ	19207	12353731	WASHER, SPLIT	92
				UOC :094	
5	PAOZZ	19207	10CS07044-6	EYELET, TURNLOCK FAS.....	80
				UOC:094	
5	PAOZZ	19207	1007044-2	EYELET, TURNLOCK FAS.....	12
				UOC :094	
6	PAOZZ	969C6	MS35492-50	SCREW, WOOD	92
				UOC :094	
7	PAOZZ	9248S	3325	RING, DOOR, FLUSH	23
				UOC :094	
8	XDOZZ	19201	12331222	PANEL, REMOVABLE	1
				UOC :094	
9	XDOZZ	19207	12331223	PANEL, RE MGVBABLE	2
				UOC :094	
10	XDOZZ	19207	12353749	PANEL, REMOVABEL	1
				UOC :094	
11	PAOZZ	81349	M24243/1-B404	RIVET, BLIND	152
				UOC :094	
12	PAOZZ	19201	1CS07041-7	STUD ASSEMBLY, TURNL	76
				UOC :094	
13	XDOZZ	19207	12331224	PANEL, REMOVABLE	2
				UOC :094	
14	XDOZZ	19207	12331099	PANEL, REMOVABLE	1
				UOC :094	
15	XDOZZ	19207	12331098	PANEL, REMOVABLE	1
				UOC :094	
16	XDOZZ	19207	12331121	PANEL, REMOVABLE	7
				UOC :094	
17	XDOZZ	19207	12331221	PANEL, REMOVABLE	1
				UOC :094	
18	PAOZZ	19207	1C507041-5	STUD ASSEMBLY, TURNL	6
				UOC :094	
19	XDOZZ	19207	12353750	PANEL, REMOVABLE	2
				UOC :094	
20	XDOZZ	19207	12331091	PANEL, REMOVABLE	2
				UOC :094	
21	XDOZZ	19207	12353873	PANEL, REMOVABLE	1
				UOC :094	
22	XDOZZ	19207	12353874	PANEL, REMOVABLE	1
				UOC:094	
23	XDOZZ	19207	12353875	PANEL, REMOVABLE	1
				UOC :094	
END OF FIGURE					



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Figure 44. Floor Panels, XM971E3.

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
SECTION II					
GROUP 2202 ACCESSORY ITEMS FIG.44 FLCOR PANELS, XM971E3					
1	PAOZZ	8134S	M24243/1-B404	RIVET, BLIND	152
				UOC :095	
2	PAOZZ	19207	7327426-1	RECEPTACLE, TURNLOCK	92
				UOC :095	
3	PAOZZ	19207	1CS07041-7	STUD ASSEMBLY, TURNL.	76
				UOC :095	
4	PAOZZ	19207	12353731	WASHER, SPLIT	92
				UOC:095	
5	PAOZZ	19207	ICS07044-6	EYELET, TURNLOCK FAS.....	80
				UOC :095	
5	PAOZZ	19207	1C907044-2	EYELET, TURKLOCK FAS.....	12
				UOC :095	
6	PAOZZ	96906	M535492-50	SCREW, HOOD	92
				UOC:095	
7	PAOZZ	92489	3325	RING, DOOR, FLUSH.....	23
				UOC :095	
8	XDOZZ	19207	12331121	PANEL, REMOVABLE	8
				UOC :095	
9	XDOZZ	19207	12331224	PANEL, REMOVABLE	3
				UOC :095	
10	XDOZZ	19207	12331221	PANEL, REMOVABLE	1
				UOC :095	
11	PAOZZ	8134S	M24243/1-8408	RIVET, BLIND	32
				UOC :095	
12	PAOZZ	19207	ICS07041-5	STUD ASSEMBLY, TURNL	6
				UCC:095	
13	XDOZZ	19207	12353750	PANEL, REMOVABLE	2
				UOC :095	
14	PAOZZ	19207	ICS07041-6	STUD ASSEMBLY, TURNL	10
				UOC:095	
15	XDOZZ	19207	12331222	PANEL, REMOVABLE	1
				UOC :095	
16	XDOZZ	19207	12353749	PANEL, REMOVABLE	1
				UOC :095	
17	XDOZZ	19207	12331223	PANEL, REMOVABLE	2
				UOC :095	
18	XDOZZ	19207	12331091	PANEL, REMOVABLE	2
				UCC :095	
19	XDOZZ	19207	12353873	PANEL, REMOVABLE	1
				UOC: 095	
20	XDOZZ	19207	12353874	PANEL, REMOVABLE.	1
				UOC :095	
21	XDOZZ	19207	12353875	PANEL, REMCVABLE	1
				UOC :095	
END OF FIGURE					

SEMITRAILER VAN: OPERATOR
10 TON, 4W, XM971E2, NSN 2330-01-163-5025

MFD BY
 VEH IDENT NO
 CONTRACT NO

PUBLICATION
 TECHNICAL MANUAL TM9-2330-373-14 & P

DELIVERY DATE INSPECTED

SHIPPING CUBAGE 3384 CU FT

WEIGHT AND DIMENSION DATA (TRAILER EMPTY)

WEIGHTS	EMPTY	LOADED	SPEEDS
WHEELS	11,620	23,040	HIGHWAY 50 MPH
KING PIN	6,670	15,250	IMPROVED GVL 25 MPH
TOTAL	18,290	38,290	CROSS CNTRY 15 MPH

SEMITRAILER VAN: MAINT & SUPPLY
10 TON, 4W, XM971E3, NSN 2330-01-163-5026

MFD BY
 VEH IDENT NO
 CONTRACT NO

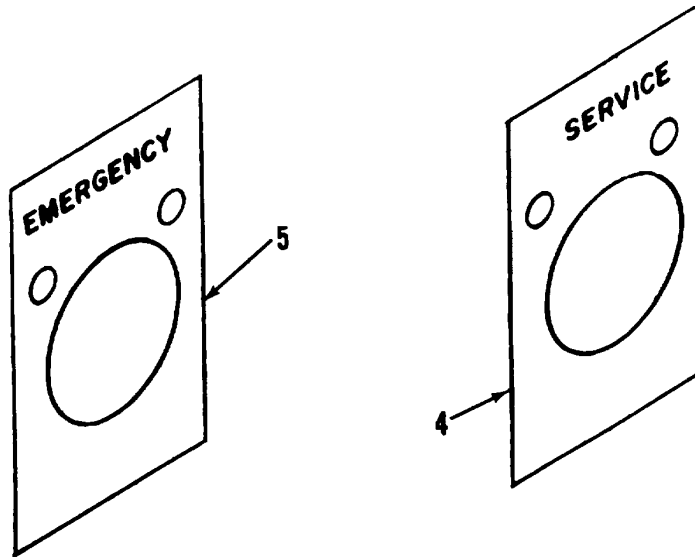
PUBLICATION
 TECHNICAL MANUAL TM9-2330-373-14 & P

DELIVERY DATE INSPECTED

SHIPPING CUBAGE 3384 CU FT

WEIGHT AND DIMENSION DATA (TRAILER EMPTY)

WEIGHTS	EMPTY	LOADED	SPEEDS
WHEELS	11,770	23,200	HIGHWAY 50 MPH
KING PIN	6,360	14,930	IMPROVED GVL 25 MPH
TOTAL	18,130	38,130	CROSS CNTRY 15 MPH



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Figure 45. Identification Plates.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR	FSCM	PART	DESCRIPTION AND USABLE ON CODES (UOC)	QTY
NO	CODE		NUMBER		
GROUP 2210 DATA PLATES					
FIG.45. IDENTIFICATION PLATES					
1	PAOZZ	969C6	N551861-45	SCREW, TAPPING, THREA	6
2	PAOZZ	19207	12331014	PLATE, IDENTIFICATION	1
				UOC :094	
3	PAOZZ	19207	12331015	PLATE1IDENTIFICATION	1
				UOC :095	
4	PAOZZ	96906	N553007-1	PLATE, IDENTIFICATION	1
5	PAOZZ	96906	MS53007-2	PLATE, IDENTIFICATION	1
END OF FIGURE					

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
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GROUP 95 GENERAL USE/STANDARDIZED
 PARTS
 GROUP 9501 BULK MATERIALS
 FIG.BULK

1	PAFZZ	81349	M13486/1-5		
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WIRE ELECTRICAL..... V
 END OF FIGURE

BULK-1

CROSS- REFERENCE-INDEXES
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-006-8291	24	18	4730-00-069-1186	19	8
5320-00-011-9951	13	9		21	5
5315-00-013-7214	38	22	4730-00-069-1187	19	31
5315-00-013-7238	30	3	5305-00-071-1781	24	19
5315-00-013-8143	30	10	5305-00-071-2069	38	4
5310-00-014-5850	24	35	5305-00-071-2237	6	22
	26	22	5305-00-071-2241	24	26
5310-00-016-7361	29	7		25	14
5310-00-017-9721	28	8		26	12
5306-00-017-9722	28	10	5305-00-071-2509	24	14
6240-00-019-0877	5	10	2530-00-074-2357	13	5
2530-00-021-2366	20	1	2530-00-075-5856	21	12
5365-00-023-8241	32	29		33	1
2530-00-026-0265	22	1	5340-00-078-3615	6	2
5305-00-044-4153	32	15	5310-00-080-6004	22	17
5310-00-045-3296	2	2		26	3
	6	10		26	15
	21	19	5325-00-081-4157	43	5
	35	4		44	5
	36	5	5310-00-081-4219	24	11
	37	6	5305-00-082-6977	29	9
5310-00-045-3295	2	6	5310-00-087-4652	26	2
4730-00-051-4203	27	2		26	14
5940-00-050-6207	7	8	5310-00-088-1251	24	21
5540-00-050-6200	7	13		24	33
5305-00-050-9215	29	13		25	3
5305-00-052-6917	26	21		25	12
	35	3		26	13
	36	4	5365-00-090-5426	7	10
	37	5		8	7
5305-00-052-7492	1	6		9	8
5999-00-057-2925	5	8		10	1t
	7	17	5340-00-097-6343	39	1
	8	4	3110-00-100-5951	22	8
	10	7	5305-00-115-9526	5	12
2640-00-060-3550	23	4		15	2
5970-00-063-1405	7	3		29	5
5310-00-067-6351	27	17		38	12
	32	4	4010-00-129-3221	27	11
	32	26	6220-00-134-9098	5	1
5305-00-0 68-0502	34	27	2530-00-142-6045	19	4
	35	14	2590-00-142-6164	31	1
	36	42	6240-00-143-3159	5	5
	37	42	5310-00-149-9126	32	24
5305-00-068-0500	33	8	5306-00-150-3075	27	19
5305-00-068-0511	26	5	3040-00-150-7127	13	5
	26	16	6145-00-152-6499	BULK	1
	34	12	6240-00-155-7859	3	2
	35	39	2530-00-157-1396	19	3
	37	15	2530-00-159-8755	15	5

CROSS- REFERENCE-INDEXES
NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
2530-00-159-8756	15	5	4710-00-277-5525	21	10
5310-00-167-0721	15	9	4730-00-277-8750	21	9
6220-00-179-4324	5	2	2530-00-278-2243	17	1
9390-00-180-7285	8	9	5310-00-282-4776	32	3
	9	5		32	20
4730-00-L87-7612	19	35	5320-00-285-1025	28	15
5315-00-194-2455	39	8	2530-00-287-8252	18	12
	39	10	4730-00-289-0051	19	7
9905-00-202-3635	40	2	5325-00-290-0074	6	26
4730-00-203-0028	19	13		19	12
4710-00-203-3172	21	22		21	13
9905-00-205-2795	40	2	5315-00-290-6132	27	4
5305-00-225-3842	33	6	5310-00-314-0764	13	4
5310-00-225-6992	32	21	5310-00-314-0765	13	3
5310-00-225-6993	24	10	5310-00-322-7260	13	2
5306-00-225-8496	18	3	5315-00-322-7261	13	1
5305-00-225-8455	25	18	5306-00-335-4768	22	16
5305-00-225-6081	24	12	5310-00-359-0458	16	13
5306-00-226-4831	26	28	2530-00-359-1162	22	10
5305-00-226-7768	27	16	5306-00-383-4957	22	14
5315-00-234-1664	28	6	5310-00-393-6685	7	11
4730-00-240-9150	19	11		8	8
5315-00-243-0016	27	13		9	7
4730-00-244-9848	19	18		10	12
	21	3	5940-00-399-6676	7	6
4730-00-249-3935	19	17	5310-00-407-9566	18	2
	21	27		25	19
5305-00-253-5620	27	10		34	14
2610-00-262-8677	23	1		35	27
5325-00-262-9162	6	28		36	16
5305-00-267-8974	14	11		36	26
5305-00-269-2803	14	15		37	18
	19	25		37	31
5305-00-269-2805	16	8		38	2
	19	41	4730-00-419-9425	16	11
5305-00-26- 2806	20	4		18	6
5305-00-269-2807	14	15	4820-00-420-5499	19	19
5305-00-269-3234	35	16	5305-00-432-4172	24	32
	36	30	5305-00-432-4201	45	1
	37	21	5305-00-432-4203	38	23
5305-00-269-3250	19	26	5305-00-432-4252	40	1
5310-00-260-4040	32	23	5330-00-462-0907	5	3
2530-00-270-3878	19	15	4730-00-463-1588	16	9
	21	4	5310-00-488-9342	29	8
4730-00-270-4500	19	29	4730-00-494-6580	21	23
5365-00-274-4544	16	12	5310-00-500-0387	22	9
	18	7	4710-00-511-1692	17	4
5310-00-275-6635	16	14	5365-00-516-7878	17	9
5325-00-276-6100	2	8	2530-00-522-1157	14	12
4710-00-277-5525	19	27	2530-00-522-4183	13	8

**CROSS- REFERENCE-INDEXES
NATIONAL STOCK NUMBER INDEX**

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-550-1130	1	3	5310-00-637-9541	36	7
5310-00-550-3503	13	11		36	31
5310-00-559-5185	43	4		37	8
	44	4		37	22
4710-00-566-71133	18	9		38	8
4710-00-566-7134	18	11	5330-00-641-0231	35	10
5935-00-572-9180	5	6		36	39
	7	15		37	39
	8	2	5310-00-641-9939	14	9
	10	5	5310-00-656-0067	11	4
5310-00-576-57526	15		4720-00-678-6125	19	36
	41	3	5935-00-686-2599	8	5
	42	3	5325-00-690-7882	43	12
5310-00-582-55656	20			44	3
	14	4	5935-00-691-5591	11	2
	14	10	2530-00-693-1007	13	7
	22	20	2530-00-693-1029	22	10
	24	6	5360-00-699-9018	14	13
	24	16	5340-00-702-1293	24	31
	28	12	5360-00-704-4253	27	8
	38	15	5365-00-717-5617	38	11
5310-00-584-527227	14		5305-00-723-9386	34	10
	28	1		35	36
	31	3		36	11
	32	11		37	12
	38	5	5305-00-725-4187	31	9
5310-00-584-785827	18		5305-00-726-2559	32	28
	32	8	4730-00-729-6437	16	10
	38	20		18	8
5310-00-581-7890	6	24	2530-00-730-7620	14	1
4730-00-595-0083	19	16	2530-00-730-7621	14	1
	21	1	5310-00-732-0558	20	2
5310-0-00-55-6612	32	25		34	6
5330-00-614-4354	22	5		35	33
2530-00-614-4454	22	4		36	8
6240-00-617-1295	5	4		37	9
5310-00-627-6128	14	16		38	7
	15	3	5310-00-732-0559	14	17
4710-0--630-9928	18	11		16	6
5310-00-637-9541	5	11		17	7
	16	7		19	23
	17	8		19	39
	19	24	5310-00-732-0560	27	15
	19	40		31	2
	20	3	5306-00-733-9239	22	14
	29	6	1440-00-735-53L6	22	19
	34	5	5365-00-737-3354	17	6
	34	24	2530-00-738-9061	22	2
	35	17	2530-00-741-1078	19	22
	35	32	5310-00-741-1378	22	7

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-741-137	22	6	1440-00-798-4812	15	4
2530-00-741-1425	22	12	1440-00-798-4824	15	4
5330-00-741-1425	22	11	5365-00-803-7301	27	3
5365-00-741-1433	22	15	5340-00-809-1492	19	43
5306-00-741-1760	14	2		21	26
4730-00-1741-103	18	0	5340-00-809-1494	6	11
4710-00-741-1907	18	9		21	25
2530-00-T41-2050	18	1	4720-00-809-2750	17	2
2530-00-741-2045	18	13	5310-00-809-3078	26	26
2530-00-741-2066	18	1	5310-00-809-4058	6	21
5310-00-741-2086	18	5		24	23
5365-00-741-2103	14	8		24	28
2530-00-741-2104	15	10		25	4
5315-00-741-2106	14	7		25	11
5310-00-741-2120	15	11	5310-00-809-5998	24	9
2530-00-711-3231	22	13	5310-00-809-8533	30	11
3040-00-752-1156	28	14	5310-00-809-8541	21	2
2510-00-752-1157	28	5		30	2
2510-00-752-1160	28	4	2640-00-810-5861	23	3
2510-00-752-1161	28	9	5325-00-814-3316	19	33
2510-00-00-752-1163	28	7		2	17
5315-00-752-4316	27	7	5306-00-816-2441	34	4
9905-00-752-4646	7	12		35	31
	7	18		36	6
	8	11		37	7
	9	9	5310-00-820-6653	19	6
	10	8	5310-00-823-8804	38	16
2530-00-753-9308	17	10	5320-00-824-4760	43	1
5325-00-754-1071	19	10		44	11
5940-00-754-9257	10	9	5935-00-833-8561	7	4
5310-00-761-6882	1	4		9	2
	14	3		10	2
	28	1	35970-00-833-8562	7	5
5310-00-763-8901	32	9		9	3
5310-00-763-8905	19	5		10	3
2530-00-770-9145	15	6	5310-00-833-8567	5	7
2530-00-770-9150	15	7		7	16
2530-00-770-9151	15	7		8	3
5975-00-711-6634	8	6		10	6
5935-00-771-6793	9	6	2540-00-835-9039	27	1
5935-00-773-142	1	1	4730-00-837-1177	19	20
4730-00-773-2163	17	5	5325-00-840-6031	43	18
5935-00-773-6571	1	5		44	12
1450-00-776-3264	14	6	6150-00-844-6178	6	18
2530-00-791-0110	15	1	5935-00-846-3883	7	9
2530-00-791-3255	15	1	5935-00-846-3884	10	10
	15	12	5940-00-846-5012	9	4
4710-00-171-8071	18	4		10	4
4710-00-791-8078	18	4	4820-00-849-1220	19	14
2530-00-794-9763	14	12	5315-00-849-9857	30	12

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-10-850-6993	38	19	5340-00-977-0815	19	21
5310-00-853-9335	15	8	5305-00-578-9380	35	7
	29	3		36	36
4730-00-854-6931	16	1		37	35
5305-00-855-0964	2	1	5305-00-978-9385	38	14
	3	3	5310-00-982-4908	22	18
	4	2	5310-00-984-3806	24	8
	6	1		26	25
	19	42		34	15
	21	24		35	26
	26	8		36	15
	26	8		36	25
5305-00-855-0967	6	3		37	19
5310-00-877-5757	2	12		37	32
5310-00-880-2004	22	9	5305-00-984-6195	2	4
5310-00-880-7744	25	20		6	25
	38	3	5305-00-984-6210	6	12
9905-00-893-357	07	7	5305-00-984-6212	6	16
	8	10	5305-00-984-62L3	6	13
	10	13		21	20
4730-00-896-0837	19	32		24	34
2540-00-897-5917	38	10	2530-00-987-2565	14	5
5340-00-897-5921	16	2	5305-00-988-1723	22	21
5305-00-901-3L10	43	6	5305-00-988-9265	1	2
	44	6	2540-00-990-0499	32	2
5310-00-903-3993	13	12	5310-00-990-5322	32	22
5315-00-904-7401	30	1	2530-00-991-4342	14	5
5310-00-905-0762	6	19	5306-00-993-6257	34	12
4730-00-908-3194	17	3		35	39
40030-00-916-2141	27	12		36	14
4730-00-921-3241	19	30		37	15
5340-00-921-6993	21	21	1440-00-994-8975	15	13
5310-00-924-4218	14	14	9905-00-999-7369	19	34
5305-00-928-9636	32	5		21	14
5310-00-929-1807	33	2		45	5
	33	4	9905-00-999-7370	19=	37
5340-00-92-8372	38	18		21	15
5310-00-934-9757	2	7		45	4
	6	23	4720-01-003-6706	19	9
5310-00-934-97586	9		4720-01-014-4915	19	1
	6	14		21	7
	21	1	85320-01-015-6896	43	11
	24	36		44	1
5305-000-939-0658	34	19	5406-01-023-5116	27	6
	35	21	2540-01-024-3622	27	5
	36	20	5305-01-027-5247	38	21
	37	25	4710-01-031-9120	16	5
5305-00-958-0671	2	13	2540-01-032-7419	38	6
2530-00-973-2355	13	6	5306-01-033-4358	36	14
2530-00-973-235k	13	6	5340-01-034-3072	35	2

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5340-01-034-3072	36	32	1590-01-124-9288	31	4
	37	4	2590-01-124-9289	31	7
5306-01-034-3418	38	1	2590-01-124-9290	30	7
5970-01-044-4532	24	3	2590-01-124-9291	30	7
2540-0-046-0367	38	6	2590-01-124-9292	30	9
2530-01-046-4695	29	14	2590-01-129-5737	30	5
5325-01-050-1586	6	27	2590-01-129-5738	30	8
	21	16	5340-01-138-7153	35	11
4010-01-005-2093	30	6		36	40
5310-01-070-2105	28	2		37	40
	32	10	5305-01-139-2048	38	21
4010-01-014-5025	28	11	2540-01-139-9679	35	19
4730-01-075-8821	19	2		36	24
	21	6	5330-01-140-2424	34	3
5340-01-083-5520	19	21		35	5
2530-01-083-5600	12	1		37	3
4710-01-083-5630	16	4	6220-01-140-8247	3	1
2530-01-083-5641	15	12	6220-01-140-8248	3	1
5340-01-087-6921	24	13	6220-01-141-0908	4	i
2590-01-087-8633	31	6	5315-01-143-0639	34	9
2590-01-087-8634	31	6		35	38
2590-01-008-5903	31	5		36	13
2510-01-222-4040	29	12		37	13
2510-01-022-4050	32	13	5905-01-143-5161	2	9
2530-01-092-4051	21	11	4720-01-143-6992	16	3
	33	7	5340-01-145-6829	24	37
2540-00-02-4052	32	19	5940-01-147-3415	7	2
2540-01-052-4053	32	16	5320-01-150-9681	35	6
2530-01-052-4054	32	14		36	34
2530-01-052-4055	32	14		37	34
3040-01-092-4125	29	2	2540-01-152-1056	35	9
2540-01-052-4133	29	10		36	38
2530-01-092-6385	32	17		37	38
2530-01-092-6386	32	1	85325-01-152-2378	34	17
2540-01-093-0560	33	5		35	15
5340-01-095-241{	24	17		36	17
5340-01-056-7556	29	15		37	20
2530-01-096-5945	13	1	02540-01-152-8882	34	21
5306-01-100-6250	32	6		35	23
4730-00-102-3704	19	28		36	22
	21	8		37	27
5430-01-204-9000	32	7	2510-01-156-8094	34	2
5310-01-100-8404	24	5		36	2
5307-01-111-7053	29	4		37	2
5325-01-117-7453	43	2	5120-01-158-7781	25	21
	44	22	5900-01-160-0731	31	8
5307-01-110-6021	29	1	2590-01-160-0732	31	8
2510-01-190-4141	39	13	5306-01-162-0017	16	15
2590-01-124-5225	30	4	4730-01-162-0623	33	3
2590-01-124-5226	30	4	5340-01-183-6845	34	7

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5340-0-1183-6845	35	34	5340-01-204-5674	37	43
	37	10	2540-01-205-5983	32	12
2590-01-183-8370	11	1	2540-01-205-5988	25	1
5340-01-184-4815	24	25	2540-01-205-5989	25	2
	25	15	2510-01-205-5990	25	9
2530-01-184-4856	19	38	2540-01-205-5991	26	1
2540-01-184-4897	31	10	2510-01-205-5992	26	4
5315-01-185-0162	39	6	2540-01-205-5993	26	11
	39	12	2540-01-205-5994	26	17
5340-00-850-0163	39	11	2540-01-205-5995	26	29
5315-01-186-4115	26	20	2590-01-205-6004	26	18
3040-01-186-7888	37	23	5340-01-205-6005	26	31
2510-01-186-7885	37	24	2540-01-205-6020	26	24
5315-01-16-7976	25	17	2530-01-205-6027	32	30
	31	11	2590-01-205-6028	26	19
2540-0189-045234	22	9	8905-01-206-3995	45	2
	36	24	5340-01-206-7420	38	9
	37	29	5340-01-206-7589	34	28
5340-01-185-0453	36	9		35	30
2540-01-189-0454	35	25		36	41
	36	28		37	41
2540-01-189-0455	34	1	82590-01-207-3476	41	1
	36	28		42	4
	37	3	32590-01-207-3477	41	4
5340-01-189-0059	39	5		42	1
5320-01-1L2-2248	26	30	2590-01-207-3478	41	6
2540-01-193-1738	39	3	2590-01-207-3479	41	7
2540-01-193-1835	35	8	2590-01-207-3480	41	9
	36	37		42	6
	37	37	2590-01-207-3487	24	4
5340-01-195-1713	39	15	2590-01-207-3488	24	4
5365-01-195-4945	24	30	2540-01-207-3489	26	6
5975-01-196-0156	6	17	2510-01-207-3494	34	26
5975-01-156-0157	6	29	2510-01-207-3495	36	32
5340-01-196-1621	24	29	2510-01-207-3516	37	1
5975-01-196-1638	6	4	2510-01-207-6254	39	14
5975-01-190-1635	6	5	2590-01-207-6255	41	8
5975-01-196-1640	6	6	9905-01-207-6305	45	3
5975-01-196-1641	6	7	2510-01-207-6343	34	1
5975-01-198-0651	6	8	2510-01-207-6344	35	1
5340-01-198-7591	39	17	5340-01-207-6348	36	12
5935-01-199-9210	11	5	2510-01-208-3394	38	13
5340-01-203-0321	34	28	5340-01-208-3399	43	7
	35	30		44	7
	36	41	5310-01-208-3862	38	17
	37	41	5365-01-208-6216	36	35
5340-01-203-0328	38	9		37	36
5340-01-204-5674	34	29	2510-01-211-8395	36	1
	35	13	2510-01-211-8396	36	1
	36	43	5325-01-213-8432	43	5

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5325-01-213-8432	44	5			
5325-01-213-8433	43	3			
	44	14			
5340-01-213-8731	38	24			
5365-01-215-3846	35	12			
5365-01-215-3863	34	16			
	35	28			
	36	18			
	37	17			
5340-01-215-6701	26	7			
5305-01-215-7270	28	3			
2501-01-215-5950	34	25			
	35	24			
2510-01-215-9951	35	18			
2510-01-215-9952	36	29			
2510-01-215-9953	36	33			
5315-01-217-0545	26	9			
5340-01-217-0975	34	11			
	35	35			
	36	10			
	37	11			
5340-01-217-5316	35	20			
	36	23			
	37	28			
5340-01-219-7053	34	8			
	35	37			
	37	14			
5365-01-211-8555	26	27			
5306-01-224-6887	34	13			
	35	29			
	36	19			
	36	27			
	37	16			
	37	30			
5365-01-230-3488	34	20			
	35	22			
	36	21			
	37	26			
5306-01-234-0355	25	5			
5340-01-234--040	39	4			

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88044	AN415-2	5315-00-194-24553	9	8
			39	10
88044	AN931--13	5325-00-276-6100	2	8
78500	A1-323M1261	2530-00-791-3259	15	12
19207	OPR102321-1	4730-01-079-8821	19	2
			21	6
19207	OPR10	4420-24720-01-014	49	19
			21	7
30327	0608	4720-01-003-6706	19	9
63477	F0-1330-G	5365-00-516-7878	17	9
63477	F103601	2530-01-096-9945	13	10
96906	M51500I-1	4730-00-050-4203	27	2
96506	H515570-1251	6240-00-019-0877	5	10
96906	M515570-85	6240-00-143-3159	5	5
96906	M51653-175	5320-00-011-9951	13	9
96906	M516624-1050	5365-00-803-7301	27	3
96906	M516957-61	5305-00-978-9380	35	7
			36	36
			37	35
96906	M51695-62	5305-00-978-9385	38	14
96906	M517985-0310	5340-00-097-6343	39	1
96906	M517585-615	5340-00-702-1293	24	31
96906	M518154-111	5305-01-215-7279	28	3
96906	M518154-58	5305-00-115-9526	5	12
			15	2
			29	5
			38	12
96906	M51908I-112	3110-00-100-5951	22	8
96906	M520002-10	5310-00-149-9126	32	24
96906	M520002-12	5310-00-595-6612	32	25
96906	M520002-14	5310-00-282-4776	32	3
			32	20
96908	M520352-1201	5315-00-904-7407	30	1
96906	M521044N3	5310-00-877-5797	2	12
96906	M521045-6	5310-00-982-4908	22	18
96906	M521083N18	310-00-016-7361	29	7
96906	M521245-12	5310-00-488-9342	29	8
96506	M521318-47	5305-00-253-5626	27	10
96906	M521322-33	5340-00-078-3615	6	2
96906	M521333-100	5340-00-809-1492	19	43
			21	26
96906	M521333-105	5340-00-809-1494	6	11
			21	25
96906	M521334-32	5340-00-921-6993	21	21
96906	M524625-37	5305-00-855-0967	6	3
96906	M524625-48	5305-00-855-0964	2	1
			3	3
			4	2
			6	1
			19	42
			21	24

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96906	M524625-48	5305-00-855-09642	6	8
			26	8
96906	M524625-50	5305-00-052-69172	6	21
			35	-3
			36	4
			37	5
96906	M5246255-1	5305-00-052-7492	1	6
96906	M52466-173	5320-01-192-2248	26	30
96906	M5246::-355	5315-00-013-7214	38	22
96906	M52466-421	5315-00-849-9857	30	12
96906	M524665-425	5315-00-013-7238	30	3
96906	M52465-455	5315-00-234-1664	28	6
96906	M524667-52	5305-00-050-9215	29	13
96506	M527130-A45	5310-01-208-3862	38	17
96906	M527130-532	5310-00-006-8291	24	18
96906	M527130-534	5310-01-108-8404	24	5
96906	M527148-2	5999-00-057-2929	5	8
			7	17
			8	4
			10	7
96906	M527146-3		11	3
96906	M5271t8-10	5310-00-809-4058	6	21
			24	23
			24	28
			25	4
			25	11
96906	M527183-11	5310-00-809-3078	26	26
96906	M5271t3-12	5310-00-081-4219	24	11
96906	M527183-14	5310-00-080-6004	22	17
			26	3
			26	15
96906	M5271L3-18	5310-00-809-5998	24	9
96906	M52713-23	5310-00-809-8533	30	11
96906	M527183-27	5310-00-809-8541	2	12
			30	2
96906	M527183-42	5310-00-014-58502	4	35
			26	22
96906	M527183-5	5310-00-823-8804	38	16
96906	M528775-216	5330-00-641-0231	35	10
			36	39
			37	39
96906	M535208-247	5305-00-984-6195	2	4
			6	25
96906	M53520k-263	5305-00-984-6210	61	2
96906	M53520t-2:5	5305-00-984-6212	61	6
96906	M53520t-266	5305-00-984-6213	61	3
			21	20
			4	34
96906	M535208-279	5305-00-988-1723	22	21
96906	M53520t-286	5305-00-988-9265	1	2
96906	M535207-274	5305-00-958-0671	21	3

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96906	M535333-3	55310-00-576-57526	1	5
			41	3
			42	3
96906	M535333-40	5310-00-550-1130	1	3
96906	h535333-41	5310-00-167-0721	15	9
96906	M535335-35	5310-00-627-6128	14	16
			15	3
96906	M535335-36	5310-0--550-3503	13	11
96906	M53532--42	5310-00-045-3299	2	6
96906	A535338-43	5310-00-045-3296	2	2
			6	10
			21	19
			35	4
			36	5
			37	6
			37	6
96906	M535338-44	5310-00-582-5965	6	20
			14	4
			14	10
			22	20
			24	6
			24	16
			28	12
			38	15
96906	M535338-45	5310-00-407-95661	8	2
			25	19
			34	14
			35	27
			36	16
			36	26
			37	18
			37	31
96906	M535338-46	5310-00-637-9541	38	2
			5	11
			16	7
			17	8
			19	24
			19	40
			20	3
			29	6
			34	5
			34	24
			35	17
			35	32
			36	7
36	31			
96906	M535338-48	5310-00-584-52722	37	8
			37	22
			38	8
			7	14
			28	1
			31	3
			31	3

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96906	M535338-48	5310-00-584-52723	2	11
			38	5
96906	M535338-50	5310-00-820-6653	19	6
96906	M535338-51	5310-00-584-7888	27	18
			32	8
			38	20
96906	M535338-57	5310-00-584-7890	6	24
96906	M535387-1	9905-00-205-2795	40	2
96906	M535367-2	9905-00-202-3639	40	2
96906	M535438-8	5940-00-754-9257	10	9
96906	M5354718-073	6240-00-617-0991	5	4
96906	M535486-102	5325-00-754-1071	19	10
96906	M53545-L005	5325-00-814-3316	19	33
			21	17
96906	M53549-109	5325-00-290-0074	6	26
			19	12
			21	13
96906	M535485-54	5325-00-262-9162	6	28
96906	M535452-50	5305-00-901-3106	43	6
			44	6
96906	M535645-202	5310-00-934-9758	6	9
			6	14
			21	18
			24	36
96906	M535645-262	5310-00-934-9757	2	7
			6	23
96906	M535651-13	5310-00-853-93351	5	8
			29	3
96906	M535602-42	5310-00-850-6993	38	19
96906	M535746-1	4730-00-595-0083	19	16
			21	1
96906	M535751-71	5306-00-816-24413	4	4
			35	31
			36	6
			37	7
96906M	535751-77	5306-00-993-62573	4	12
			35	39
			36	14
			37	15
96906	M535782-5	4820-00-849-1220	19	14
96906	M535810-38	5315-00-013-8143	30	10
96906	M535842-11	4730-00-908-3194	17	3
96906	M539175-1	4730-00-277-8750	21	9
96906	M535115-2	4730-00-270-4580	19	29
96906	M539179-5	4730-00-069-1186	19	8
			21	5
96906	M539175-7	4730-00-837-1177	19	20
96906	M539182-3	4730-00-069-1187	19	31
96590	M539182-0	4730-00-289-0051	19	7
96906	M531L8-1	4730-00-921-3241	19	30
96906	M535L18-2	4730-00-896-0837	19	32

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96506	M535LI8-3	4730-00-240-9159	19	11
96906	M539150-3	4730-00-494-6580	21	23
96906	M539231-4	4730-00-249-3935	19	17
			21	27
96906	M539233-4	4730-00-187-7612	19	35
96906	M551106-460	5305-01-139-2048	38	21
96506	M551106-462	5305-01-027-5247	38	21
9690t	M551335-2	2540-00-835-9039	27	1
96906	M5513177-1	2640-00-810-5861	23	3
96906	M551828-kM		25	8
			26	32
969G06	M55181-37	5305-00-432-4172	24	32
96906	M551861-45	5305-00-432-4201	45	1
96906	M55181-41	5305-00-432-4203	38	23
96906	M551861-66	5305-00-432-4252	40	1
96006	M551522-1	5310-00-088-1251	24	21
			24	33
			25	3
			25	12
			26	13
96906	M5515i-171	5310-00-087-46522	6	2
			26	14
960906	M551922-2	5310-00-929-18073	3	2
			33	4
9650(	M551922-33	5310-00-225-6993	24	10
96906	M551522-49	5310-00-269-4040	32	23
96906	M551922-57	5310-00-067-6356	27	17
			32	4
			32	26
96506	M551922-65	5310-00-225-6992	32	21
96906	5551122-5	5310-00-984-3806	24	8
			26	25
			34	15
			35	26
			36	15
			36	25
			37	19
			37	32
96906	M55137-	5306-00-150-3075	27	19
96906	M551544-1	5306-00-733-9239	22	14
96906	M551546-2	5306-00-383-4957	22	14
969006	M551963-64	5305-00-723-9386	34	10
			35	36
			36	11
			37	12
96906	M55157-14	5310-01-070-21052	8	2
			32	10
96906	M551960-2	5310-00-761-6882	1	4
			14	3
			28	13
96906	M551967-3	5310-00-905-0762	6	19

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96906	M551567-5	5310-00-880-77442	5	20
			38	3
96906	M55187-8	5310-00-732-05582	0	2
			34	6
			35	33
			36	8
			37	9
			38	7
96906	M5 5158-14	5310-00-732-0560	27	15
			31	2
96506	M55196t-20	5310-00-763-8905	19	5
96906	M551588-23	5310-00-763-8901	32	9
96906	M55186f-8	5310-00-732-0559	14	17
			16	6
			17	7
			19	23
			19	39
96906	M551570-1	5310-00-924-4218	14	14
96906	M551970-4	5310-00-903-3993	13	12
96906	M551975-18	5305-00-939-0658	34	19
			35	21
			36	20
			37	25
96906	551L583-3	5310-00-880-2004	22	9
96906	M552125-1	6220-00-134-9098	5	1
96906	M5521301A204120	4720-00-809-2750	17	2
96906	M553004-2	2530-00-021-2366	20	1
96906	M55300t-1	9905-00-999-7370	19	37
			21	15
			45	4
96906	M553000-2	9905-00-999-73691	9	34
			21	14
			45	5
96906	M553044-5	2530-00-026-0265	22	1
96906	M553045-3	2530-00-738-9061	22	2
96906	M55308-1	2530-00-693-1029	22	10
96906	M553068-2	2530-00-359-1162	22	10
96906	M575021-2	5935-00-846-3884	10	10
96906	M587000-53	4030-00-916-2141	27	12
96906	M550725-10	5305-00-071-2241	24	26
			25	14
			26	12
96906	M590725-109	5305-00-044-4153	32	15
96906	M59072i7128	5305-00-071-1781	24	19
96906	M590725-14	5305-00-07L-2237	6	22
96906	M590725-31	5306-00-225-8496	18	3
96906	M590725-34	5306-00-225-8499	25	18
96906	M590725-36	5305-00-225-9081	24	12
96906	M590725-6	5305-00-068-0502	34	27
			35	14
			36	42

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96906	M590725-6	5305-00-068-0502	37	42
96906	M590726-114	5305-00-725-4187	31	9
96906	M590726-115	5305-00-226-7768	27	16
96906	M590726-6	5305-00-068-0506	33	8
96906	N590726-60	5305-00-269-2803	14	15
			19	25
96906	M590726-62	5305-00-269-2805	16	8
			19	41
96906	M590726-63	5305-00-269-2806	20	4
96906	M590726-64	5305-00-269-2807	14	15
96906	M590726-8	5305-00-267-8974	14	11
96906	M590727-172	5305-00-726-2559	32	28
96906	M590727-192	5305-00-082-6977	29	9
96906	M590727-199	5305-00-928-9636	32	5
96906	M590727-58	5305-00-269-3234	35	16
			36	30
			37	21
96906	M590727-74	5305-00-269-3250	19	26
96906	M590728-113	5305-00-071-2069	38	4
96906	M590728-12	5305-00-071-2509	24	14
96906	M590728-38	5306-00-226-4831	26	28
96906	M590728-62	5305-00-068-05L1	26	5
			26	16
			34	12
			35	39
			37	15
96906	M590728-82		4	7
			24	15
			24	24
			24	27
			25	10
			34	23
96906	M90728-9	5305-00-225-38423	3	6
81349	M13486/1-5	6145-00-152-6499	BULK	1
81349	M23053/1-102-0	5970-00-063-1499	7	3
81349	M23053/1-107-0	5970-01-044-4532	24	3
81349	M24243/1-B404	5320-01-015-6896	43	11
			44	1
81349	M24243/1-B408	5320-00-824-4760	4	31
			44	11
81349	M4343/1-1	9905-00-752-4649	7	12
			7	18
			8	11
			9	9
			10	8
81349	M43436/1-3	9905-00-893-3570	7	7
			8	10
			10	13
81348	RR-0-271,VYP8II 5IZ825		24	1
			25	6

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81348	RR-0-271,YP8II, 5IZ825IN		26	33
81348	RW22-V-5R7		2	11
81348	RW22-V-7RO		2	10
81348	ZZ-I-550/900-20/ TR175A/ON0TR		23	2
81348	ZZ-T-38IM/GROUP 3/900-20YD/TB00	2610-00-262-8677	2	31
81348	ZZ-V-251YP8IV/0 LA55I/TR-V0-2	2640-00-060-3550	2	34
81834	01-46:3-23	6220-01-140-8248	3	1
81834	01-4603-33	6220-01-140-8247	3	1
56442	1014M5	4730-00-203-0028	19	13
19207	L0869558	5340-00-897-5921	16	2
19207	10882200	2540-00-897-5917	38	10
19207	10882201	5340-01-207-6348	36	12
19207	10882202	5340-01-219-7059	34	8
			35	37
			37	14
19207	10882285	5306-01-034-3418	38	1
19207	10891528	2540-01-046-0367	38	6
19207	O0891525	2540-01-032-7419	38	6
19207	10906758	5325-01-050-1586	6	27
			21	16
19207	10907041-5	5325-00-840-60314	3	18
			44	12
19207	10907041-6	5325-01-213-84334	3	3
			44	14
19207	10907041-7	5325-00-690-78824	3	12
			44	3
19207	10907044-2	5325-00-081-41574	3	5
			44	5
19207	10907044-6	5325-01-213-84324	3	5
			44	5
19207	10944341	5365-00-717-5617	38	11
19220	11-2525-50L	2540-01-189-0454	35	25
			36	28
19220	11-2525-50R	2540-01-189-04553	4	18
			36	28
			37	33
19207	11607480	5315-01-143-06393	4	9
			35	38
			36	13
			37	13
19207	11639515-2	5330-00-462-0907	5	3
19207	11639520		5	9
19207	11635535	6220-00-179-4324	5	2
19207	11646255		8	1
19207	11646302-1	5340-01-203-0328	38	9
19207	11646302-2	5340-01-206-7420	38	9
19207	11646352-1	5340-01-205-6005	26	31

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19207	L166831	2530-00-142-6045	19	4
19207	11669716	5340-01-198-7591	39	17
19207	11681178	5340-01-034-3072	35	2
			36	3
			37	4
19207	116812t0		9	1
19207	11681633	5306-01-033-4358	36	14
19207	11681656	2590-00-142-6164	31	1
19207	1168174-1	2590-01-087-8633	31	6
19207	11681674-2	2590-01-087-8634	31	6
19207	11684303	2590-01-088-5903	31	5
19207	11684320	2530-01-083-5600	12	1
19207	11684325	2540-01-093-0560	33	5
19207	11684334	5307-01-111-7093	29	4
19207	11684335	3040-01-092-4125	29	2
19207	11684336	2540-01-092-4053	32	16
19207	11684337-1	5306-01-104-9000	32	7
19207	11684337-2	5306-01-100-6256	32	6
19207	11684338	5310-00-990-5322	32	22
19207	11684343	2530-01-046-4695	29	14
19207	11684344	2540-01-092-4133	29	10
19207	L1684345	2530-01-205-6027	32	30
19207	11684346	2530-00-075-5856	21	12
			33	1
19207	11684348		32	1
19207	11684345		32	31
19207	116843502	540-01-205-5983	32	12
19207	11684351		32	27
19207	11684352-1	2530-01-092-4054	32	14
19207	1684352-2	2530-01-092-4055	32	14
19207	11684353	2530-01-092-6385	32	17
19207	11684354	2540-01-092-4052	32	19
19207	11684355	5365-00-023-8241	32	29
19207	11684356	2530-01-092-6386	32	18
19207	11684357	2540-00-990-0499	32	2
19207	116843:0	2510-01-092-4046	29	12
19207	11684361	5340-01-096-7556	29	15
[9207	11684362		29	11
19207	11684365	5307-01-118-6021	29	1
19207	1168436:	2510-01-092-4050	32	13
19207	11684367	4730-01-162-0623	33	3
19207	11684410	2530-01-092-4051	21	11
			33	7
19207	11684501-1	4710-01-083-5636	16	4
19207	11684501-2	4710-01-031-9120	16	5
19207	11684f12	5340-01-196-1621	24	29
19207	11684614	5340-01-095-2416	24	17
19207	11684622	5340-01-067-6921	24	13
19207	11684636	4720-01-143-6992	16	3
19207	11684672-1	2590-01-124-9290	30	7
19207	11684612-2	2590-01-124-9291	30	7

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19207	11684613-1	2590-01-124-9288	31	4
19207	11684673-2	2590-01-124-9289	31	7
19207	11684673-3	2590-01-124-9292	30	9
19207	11684674-1	2590-01-124-5225	30	4
19207	11684674-2	2590-01-124-5226	30	4
19207	11684t75	2590-01-129-5737	30	5
19207	11684676	2590-01-129-5738	30	8
04633	1202-1		39	16
19207	123071312	2540-01-152-1056	35	9
			36	38
			37	38
19207	12307160	2510-01-119-4141	39	13
19207	12307775	2510-01-207-6254	39	14
19207	12307808	2540-01-184-4897	31	10
19207	12307810	5315-01-186-7976	25	17
			31	11
19207	1230711	5340-01-184-48152	4	25
			25	15
19207	12307528	5340-01-185-0163	39	11
19207	12308007	5315-01-185-0162	39	6
			39	12
19207	12315345	5365-01-195-4945	24	30
19207	12315414-3	3040-01-186-7888	37	23
19207	12315484-4	2510-01-186-7889	37	24
19207	12315414-6	2510-01-215-9953	36	33
19207	12315484-7	2510-01-215-9952	36	29
19207	12315484-8	2510-01-215-9950	34	25
			35	24
19207	12315484-5	2510-01-215-9951	35	18
19207	12315505		2	5
19207	12315541		24	22
			25	13
19207	12315556	5940-01-147-3415	7	2
19207	12315561	5340-01-195-1713	39	15
19207	123155t5-2	2540-01-193-1839	35	8
			36	37
			37	37
19207	12315571	5340-01-138-71533	5	11
			36	40
			37	40
19207	12315611-4	5315-01-186-4115	26	20
19207	12315633-1	5340-01-206-7589	34	28
			35	30
			36	41
			37	41
19207	12315633-2	5340-01-203-03213	4	28
			35	30
			36	41
			37	41
19207	12315644-3	5320-01-150-9681	35	6
			36	34

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19207	12315644-3	5320-01-150-9681	37	34
19207	1231545	5340-01-204-5674	34	29
			35	13
			36	43
			37	43
19207	12315654	5905-01-143-5161	2	9
19207	12315658	2510-01-156-8094	34	2
			36	2
			37	2
19207	12315655	5330-01-140-2424	34	3
			35	5
			37	3
19207	12315674	2540-01-152-88823	4	21
			35	23
			36	22
			37	27
19207	12315741	5306-01-162-0017	16	15
19207	12315741	2540-01-193-1738	39	3
19207	1231576	5340-01-234-0406	39	4
19207	12315767	5340-01-189-0599	39	5
19207	12330753-1	2590-01-160-0731	31	8
19207	1233073-2	2590-01-160-0732	31	8
19207	12330755	5340-01-189-0453	36	9
19207	12330056	5340-01-217-0975	34	11
			35	35
			36	10
			37	11
19207	12330757-3	2510-01-207-3516	37	1
19207	12330840	5340-01-183-6845	34	7
			35	34
			37	10
19207	12330G45	5365-01-230-34883	4	20
			35	22
			36	21
			37	26
19207	12330878	2590-01-183-8397	11	1
19207	12330875		10	1
19207	12330845	365-01-208-6216	36	35
			37	36
19207	12330536		7	14
19207	12330537-1	5975-01-196-1639	6	5
19207	12330537-2	5975-01-196-1640	6	6
19207	12330537-3	5975-01-196-1641	6	7
19207	12330537-4	5975-01-198-0651	6	8
19207	12330537-5	5975-01-196-1638	6	4
19207	12330538	5975-01-196-0157	6	29
19201	12330530		7	1
19207	i2330540		2	3
19207	12330546	5975-01-196-0156	6	17
19201	12330587	2510-01-208-3394	38	13
19207	12331000-2	2510-01-207-3494	34	26

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19207	12331000-3	2510-01-207-3495	36	32
19207	12331013	5340-01-213-8731	38	24
19207	12331014	9905-01-206-3995	45	2
19207	12331015	9905-01-207-6305	45	3
19207	12331017	2510-01-207-6343	34	1
19207	12331015-1	2510-01-211-8395	36	1
19207	12331015-2	2510-01-211-8396	36	1
19207	12331023	2540-01-205-5989	25	2
19207	12331035-1	2590-01-207-3487	24	4
19207	12331035-2	2590-01-207-3488	24	4
19207	12331036	2540-01-205-5988	25	1
19207	12331041	5365-01-215-3846	35	12
19207	12331043	2510-01-207-6344	35	1
19207	12331084		24	20
19207	12331051		43	20
			44	18
19207	12331058		43	15
19207	12331055		43	14
19207	12331121		43	16
			44	8
19207	12331221		43	17
			44	10
19207	12331222		43	8
			44	15
[9207	12331223		43	9
			44	17
19207	12331224		43	13
			44	9
19207	12331240	5340-01-217-5316	35	20
			36	23
			37	28
19207	12331242	5306-01-224-6887	34	13
			35	29
			36	19
			36	27
			37	16
			37	30
19207	2331243-2	5365-01-215-38633	4	16
			35	28
			36	18
			37	17
19207	12331243-3	5365-01-219-8959	26	27
19207	12331250	2590-01-207-3477	41	4
			42	1
19207	12331251	2590-01-207-3478	41	6
19207	123312t3	2590-01-207-3480	41	9
			42	6
19207	123312t4	2590-01-207-6255	41	8
19207	12331265	2590-01-207-3479	41	7
19207	12331267	2590-01-207-3476	41	1
			42	4

**NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX**

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19207	1235331	5310-00-559-91854	3	4
			44	4
19207	123537454		3	10
			44	16
19207	123537504		3	19
			44	13
19207	12353176		25	22
19207	12353775	2510-01-205-5990	25	9
19207	12353780	5120-01-158-7781	25	21
19207	12353182	5306-01-234-0355	25	5
19207	12353751	2540-01-205-5993	26	11
19207	12353752	5315-01-217-0945	26	9
19207	12353754	2540-01-205-5994	26	17
19207	12353800	2590-01-205-6028	26	19
19207	12353801	2540-01-205-5991	26	1
19207	12353802	2540-01-205-6020	26	24
19207	12353803	2540-01-205-5995	26	29
19207	12353804		26	10
19207	12353805	2540-01-207-3489	26	6-
19207	12353806	2510-01-205-5992	26	4
19207	12353814	2590-01-205-6004	26	18
19207	12353835	5340-01-215-6701	26	7
19207	12353858-1		24	2
19207	1235385f-4		26	34
19207	12353858-5		25	7
19207	123538k0-1		39	9
19207	12353861-1		39	7
19207	123538f2-2		25	16
19207	123538k2-5		39	2
19207	123538t2-f		26	23
19207	12353683		43	21
			44	19
19207	123538744		3	22
			44	20
19207	123538754		3	23
			44	21
19207	1235387k-1		41	5
			42	2
19207	12353816-2		41	2
			42	5
21450	193065	6240-00-155-7859	3	2
06853	225760	4730-01-102-3704	19	28
			21	8
24617	2284336	5315-00-741-2106	14	7
06853	285172	4820-00-420-5499	19	19
17590	305087-0116	4710-00-203-3172	21	22
70485	307W	5340-01-145-6829	24	37
92489	3325	5340-01-208-3399	43	7
			44	7
80020	36344N24	5315-00-243-1169	27	13
19220	4-2525-5GL	2540-01-189-0452	34	22

**NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX**

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19220	4-2525-50L	2540-01-189-04523	6	24
			37	29
19220	4-2525-50R	2540-01-139-96793	5	19
			36	24
19220	4-2525-52	5325-01-152-23783	4	17
			35	15
			36	17
			37	20
13548	40222R	6220-01-141-0908	4	1
80244	42015120-205	4010-00-129-3221	27	11
21450	506207	5940-00-050-6207	7	8
21450	506205	5940-00-050-6209	7	13
63477	5156653	4730-00-854-6931	16	1
19207	516767;	4730-00-463-1588	16	9
19207	5214535	5310-00-275-6635	16	14
19207	5214530	5310-00-359-0458	16	13
19207	5228623	4730-00-244-9848	19	18
			21	3
19207	5298653	5365-00-274-4544	16	12
			18	7
19207	5323088	5310-00-641-99391	4	9
21450	537805	5310-00-500-03872	2	9
92679	57038R2	6150-00-844-61786	1	8
19207	614435t	5330-00-614-43562	2	5
19200	6144454	2530-00-614-44542	2	4
19207	70145t5	2530-00-270-38781	9	15
			21	4
19207	7044253	5360-00-704-42532	7	8
19207	7064578	2530-00-693-10071	3	7
19207	7073213		27	9
19207	7263712	1440-00-735-53162	2	19
19207	7327426-1	5325-01-117-74534	3	2
			44	2
19207	7373354	5365-00-737-33541	7	6
19207	7411078	2530-00-741-10781	9	22
19207	7411075	5340-01-083-55271	9	21
19207	740L[80	5340-00-977-08151	9	21
19207	7411378	5310-00-741-13782	2	7
19207	7411375	5310-00-741-13792	2	6
19207	7411425	2530-00-741-14252	2	12
19207	7411425	5330-00-741-14292	2	11
19207	7411433	5365-00-741-L4332	2	15
19207	7411760	5306-00-741-17601	4	2
19207	7411[03	4730-00-741-15031	8	10
19207	7412050	2530-00-741-20501	8	1
19207	741205	2530-00-741-20651	8	13
19207	7412068	2530-00-741-20681	8	1
19207	7412075	4730-00-729-64371	6	10
			18	8
19207	7412088	5310-00-741-20881	8	5
19207	7412103	5365-00-741-21031	4	8

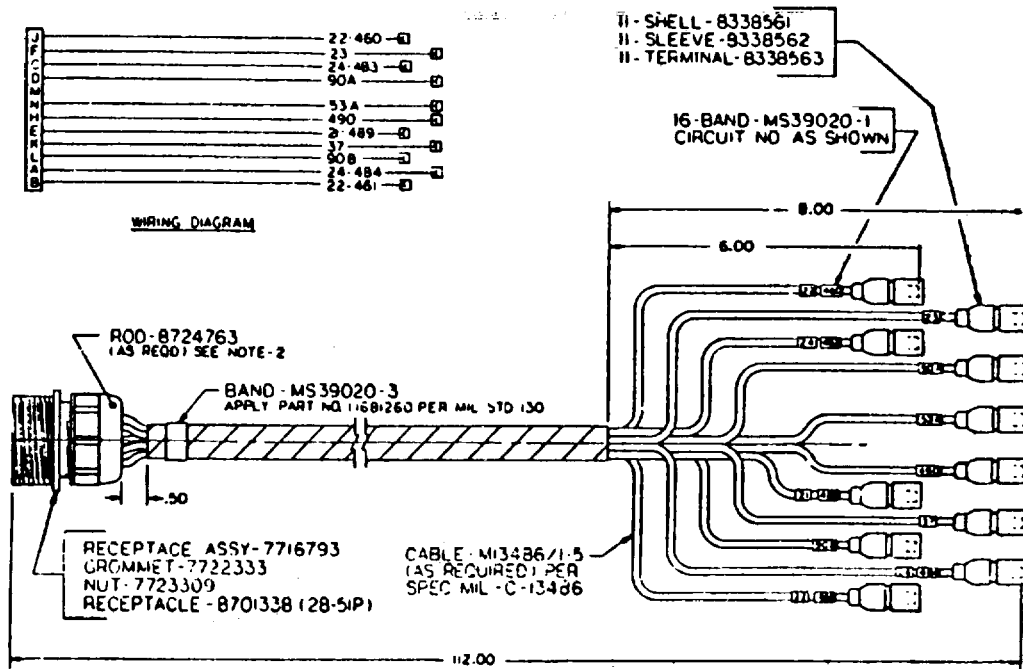
**NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX**

FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19207	7412104	2530-00-741-2104	15	10
19207	7412120	5310-00-741-2120	15	11
19207	7413231	2530-00-741-3231	22	13
19207	7418802	5310-00-017-9721	28	8
98343	752HD	5935-00-773-6571	1	5
19207	7521161	3040-00-752-1156	28	14
19201	7521157	2510-00-752-1157	28	5
19207	7521155	4010-01-074-5029	28	11
19207	75211t0	2510-00-752-1160	28	4
19207	7521161	2510-00-752-1161	28	9
19207	752t113	2510-00-752-1163	28	7
19207	7524315	5315-00-290-6132	27	4
19207	7524316	5315-00-752-4316	27	7
19207	7539268	2530-00-287-8252	18	12
19207	7539308	2530-00-753-9308	17	10
19207	7716634	5975-00-771-6634	8	6
19207	7716753	5935-00-771-6793	9	6
19207	7722333	5365-00-090-5426	7	10
			8	7
			9	8
			10	11
19207	7723305	5310-00-393-6685	7	11
			8	8
			9	7
			10	12
19207	7731428	5935-00-773-1428	1	1
19207	7739666	5306-00-017-9722	28	10
19207	7745464	4730-00-419-9425	16	11
			18	6
63477	7579601	4730-00-773-2163	17	5
19207	6327755	5320-00-285-1025	28	15
19207	833208t	2530-00-278-2243	17	1
19207	8336701	2530-00-730-7620	14	1
19207	8336702	2530-00-730-7621	14	1
19207	6336704	2530-00-770-9149	15	6
19207	8336705	2530-00-770-9150	15	7
19207	8336785	2530-00-770-9151	15	7
19207	8338561	5935-00-833-8561	7	4
			9	2
			10	2
19207	8338562	5970-00-833-8562	7	5
			9	3
			10	3
19207	8338563	5940-00-846-5012	9	4
			10	4
L9207	8338564	5940-00-399-6676	7	6
19207	833856t	5935-00-572-9180	5	6
			7	15
			8	2
			10	5
19207	6338567	5310-00-833-8567	5	7

**NATIONAL STOCK NUMBER AND PART NUMBER INDEX
PART NUMBER INDEX**

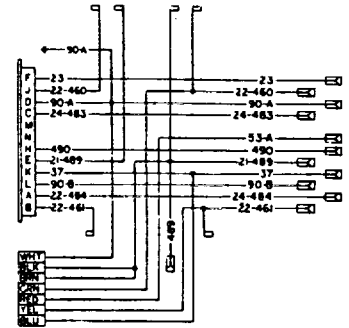
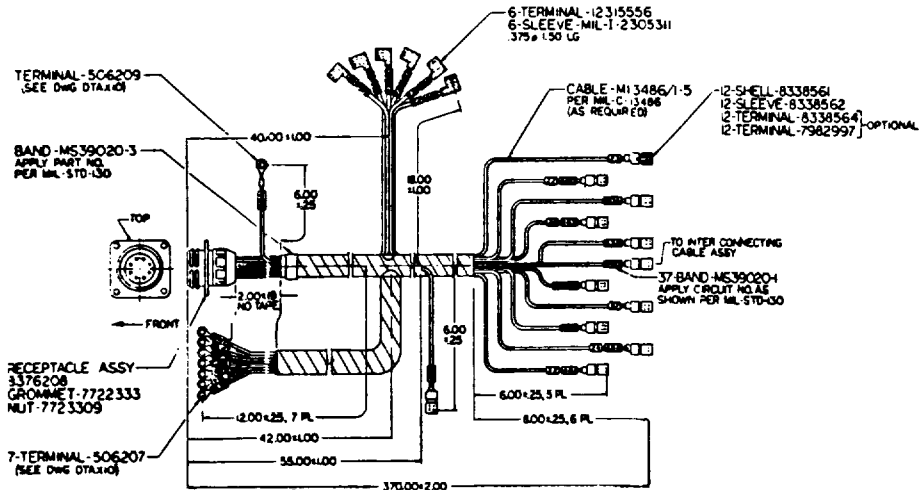
FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
19207	8338561	5310-00-833-8567	7	16
			8	3
			10	6
19207	836542	41710-00-511-169	27	4
19201	8376208	5935-00-846-3883	7	9
19207	8380156	2540-01-023-5116	27	6
19207	838015	2540-01-024-3622	27	5
09386	86585008		22	3
19207	8689201	4710-00-277-5525	19	27
			21	10
19207	8720025	5306-00-335-4768	22	16
19207	8720331	1440-00-994-8975	15	13
19207	8720515	5360-00-699-9018	14	13
19207	8720517	2530-00-522-4183	13	8
19207	8724258	5935-00-686-2599	8	5
19207	8724495	5935-00-691-5591	11	2
19201	8724497	5310-00-656-0067	11	4
19207	87247t3	9390-00-180-7289	8	9
			9	5
19207	8730456	2530-00-157-1396	19	3
19207	8733850	2530-00-991-4342	14	5
19207	8733851	2530-00-987-2565	14	5
19207	8733842	2530-00-522-1157	14	12
21450	8733893	2530-00-794-9763	14	12
19207	8733805	1440-00-798-4824	15	4
19207	8733857	1440-00-798-4812	15	4
19207	8733858	471-00-791-8078	18	4
19207	8733855	4710-00-791-8077	18	4
19207	8733901	2530-00-791-3259	15	1
19207	8733902	2530-00-791-0110	15	1
19207	8733908	2530-00-159-8755	15	5
19207	8733905	2530-00-159-8756	15	5
19207	8733911	2530-00-973-2355	13	6
19207	8733912	2530-00-973-2356	13	6
19207	873391[	4710-00-741-1907	18	9
19207	8733918	4710-00-630-9928	18	11
19207	8733920	4710-00-566-7133	18	9
19207	8733922	4710-00-566-7134	18	11
19207	873392t	3040-00-150-71127	13	5
19207	8733927	2530-00-074-2357	13	5
19207	8733933	2530-01-083-5641	15	12
19207	8733935	5310-00-314-0764	13	4
19207	8733936	5310-00-314-0765	13	3
19207	8d733937	5310-00-322-7260	13	2
19207	8d733938	5315-00-322-7261	13	1
19207	8735725	1450-00-776-3264	14	6
19207	874261[	2530-01-184-4856	19	38
19207	8747218-1	4010-01-059-2093	30	6
19207	8747263	4720-00-678-6125	19	36
19207	8747317	5340-00-929-8372	38	18
13546	9492585IT	5935-01-199-9921	1L	5

APPENDIX G
ILLUSTRATED LIST OF MANUFACTURED ITEMS



TA 314675

Wiring Harness 5511681260

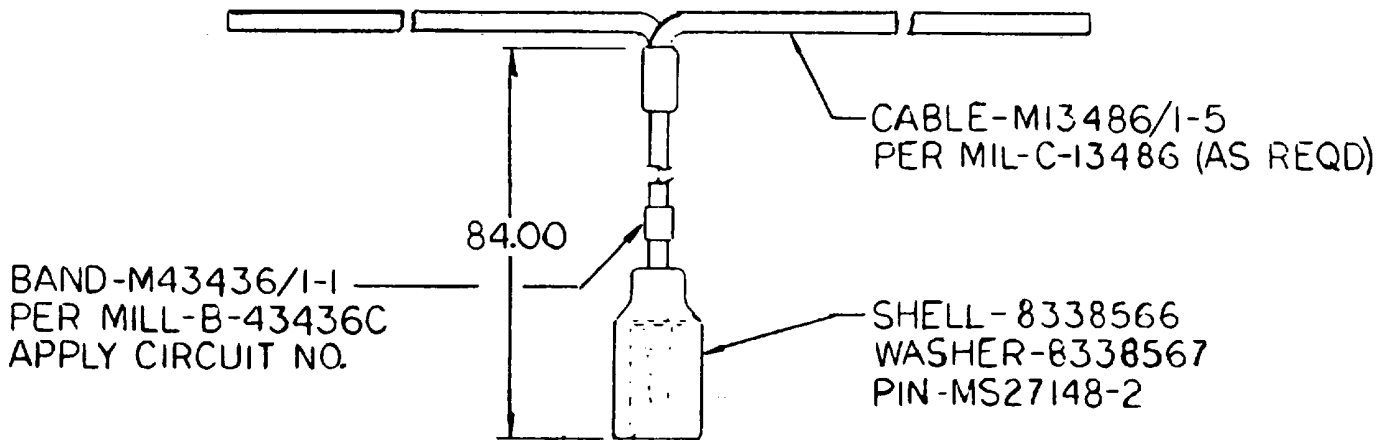


WIRING DIAGRAM

REFER TO PAGE G-5 FOR
ASSEMBLY INSTRUCTIONS

Wiring Harness 85512330939

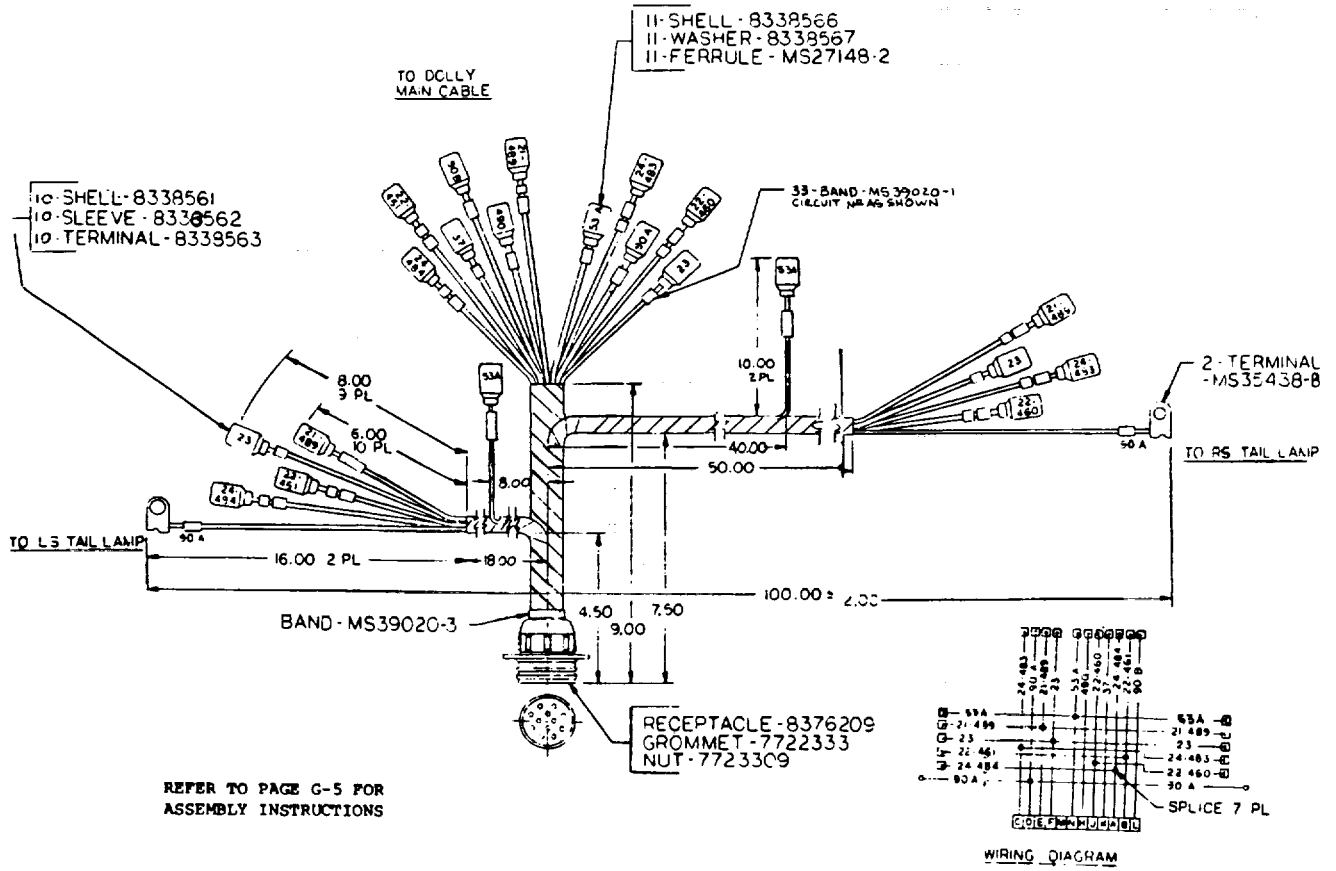
Wiring Harness 12330939



REFER TO PAGE G-5 FOR
ASSEMBLY INSTRUCTIONS

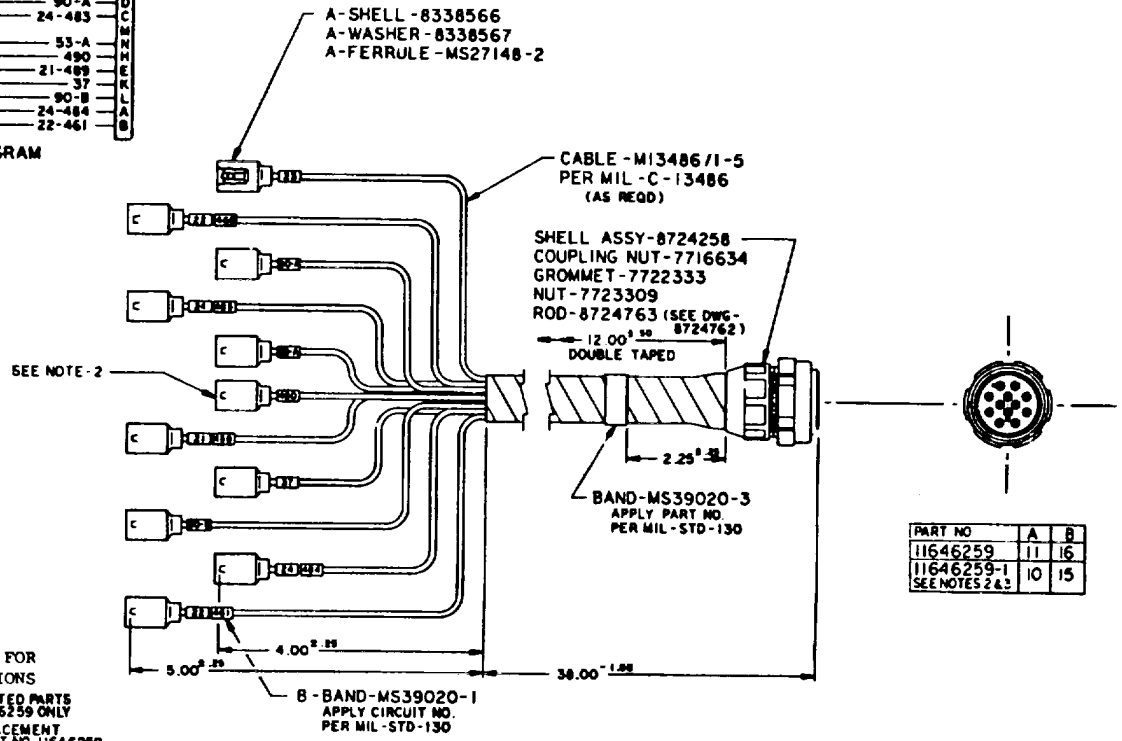
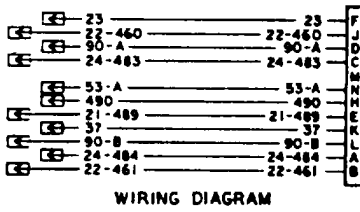
TA 314676

Wiring Harness 85512330936



TA 314677

Wiring Harness 85512330879



NOTES:

- 1 REFER TO PAGE G-5 FOR ASSEMBLY INSTRUCTIONS
- 2 CIRCUIT 490 AND ASSOCIATED PARTS USED WITH PART NO 11646259 ONLY
- 3 FOR FIELD SERVICE REPLACEMENT USE WIRING HARNESS PART NO 11646259

TA 314678

Wiring Harness 85511646259

1. BINDING: (USE A OR B)

- A. CABLES SHALL BE BOUND TOGETHER WITH ONE HALF OVERLAPPING TURNS OF TAPE, THICKNESS .010, WIDTH $3/4 \pm 1/4$, COLOR BLACK, SPEC HH-I-595, OR TAPE, TYPE EF-9, WIDTH $3/4 \pm 1/4$, COLOR BLACK, SPEC MIL-I-15126,OR
- B. CABLES SHALL BE BOUND TOGETHER WITH ONE-HALF OVERLAPPING TURNS OF INSULATION, TYPE A OR TYPE F, FORM TS, GRADE A, CLASS 1,THICKNESS .008, WIDTH $3/4 \pm 1/4$, COLOR BLACK, SPEC MIL-I-631. INSULATION MUST BE WRAPPED IN ACCORDANCE WITH BEST COMMERCIAL PRACTICE AND ENDS MUST BE SECURED TO PREVENT UNRAVELING.

2. CRIMP:

CRIMP PIN CONTACTS (FERRULES), TERMINALS AND SPLICING CONNECTORS TO CABLES (CONDUCTORS AND/OR INSULATION) TO MEET PERFORMANCE REQUIREMENTS OF SPEC MIL-T-13513.

NOTE: DO NOT DISTORT SKIRTS OF PIN CONTACTS (MS27148) WHEN CRIMPING TO CONDUCTORS.

3. SOLDER:

SOLDER CONDUCTORS TO PIN AND SOCKET CONTACTS AND (SOLDER-TYPE) TERMINALS AND TERMINAL ASSEMBLIES IN ACCORDANCE WITH REQUIREMENT 5 OF SPEC MIL-STD-454.

4. SPLICE:

SPLICED CONDUCTORS MUST MEET REQUIREMENTS OF SPEC MIL-T-13513 FOR PERFORMANCE.

SPLICED CONDUCTORS MUST BE ADEQUATELY INSULATED AND THE INSULATION MUST BE SEALED TO EACH CABLE'S INSULATION.

COMPLETED SPLICES MUST MEET THE REQUIREMENTS OF SPEC MIL-C-13486 FOR THE FOLLOWING PHYSICAL PROPERTIES: HIGH VOLTAGE TO GROUND (HIGH POTENTIAL), FUNGUS RESISTANCE, RESISTANCE TO OIL ABSORPTION, RESISTANCE TO IMMERSION IN LIQUIDS, FLAMMABILITY, RESISTANCE TO OZONE, HIGH TEMPERATURE RESISTANCE.

THE FOLLOWING SUGGESTED METHODS FOR INSULATING SPLICED CONDUCTORS HAVE DEMONSTRATED THEIR ABILITY TO MEET THE ABOVE REQUIREMENTS:

METHOD 1. - VULCANIZE, USING RUBBER, SYNTHETIC, GRADE SC 515 OR SC 615, A1, B1, C1, F1, SPEC MIL-R-3065. THICKNESS OF RUBBER OVER EXPOSED CONDUCTORS SHALL BE $1/8$ TO $5/32$ AND IS TO OVERLAP ADJACENT INSULATION FOR A DISTANCE OF AT LEAST $3/16$ AND A MINIMUM THICKNESS OF $1/32$ OR AS SPECIFIED ON DRAWING.

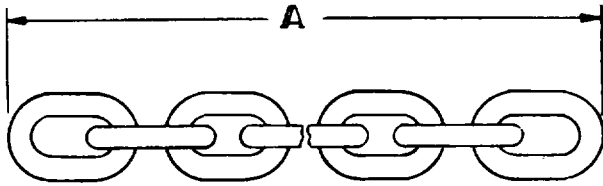
METHOD 2. - INSULATE, USING HEAT-SHRINKABLE, PREMOLDED SPLICE COVERS, TRANSITIONS AND BOOT CONFIGURATIONS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

APPROVED SOURCE: RAYCLAD TUBES, INC., REDWOOD CITY, CALIF.

ALL SOURCES MUST COMPLY WITH THE PHYSICAL AND FUNCTIONAL REQUIREMENTS OF THE MANUFACTURER'S ITEM INDICATED. ARMY ENGINEERING APPROVAL IS REQUIRED.

5. PLUG ALL SPARE GROMMET HOLES WITH ROD OF DIAMETER AND LENGTH AS REQUIRED.

TA 314680

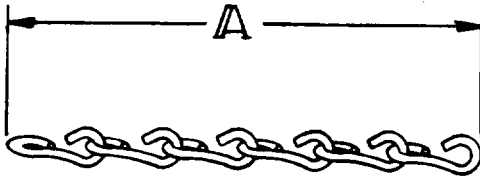


12353858 - 5	36.00
12353858 - 4	7.81
12353858 - 3	66.00
12353858 - 2	60.00
12353858 - 1	48.00
PART NO.	A

NOTES:

1. MATERIAL:
CHAIN, PROOF COIL PER RR-C-271,
TYPE I, GRADE C, CLASS 4,
WELDED STEEL. SIZE: .25
2. FINISH:
ZINC COAT PER QQ-Z-325,
TYPE II, CLASS 2.

Chain 12353858



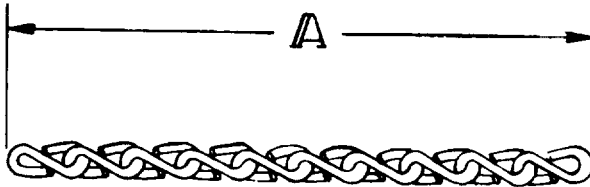
12353860 - 1	7.00
PART NO.	A

NOTES:

1. MATERIAL:
CHAIN, SINGLE-JACK, WELDLESS
PER RR-C-271, TYPE II, CLASS 7,
STEEL. SIZE: .080
2. FINISH:
COMMERCIAL BRIGHT

TA 314681

Chain 12353860



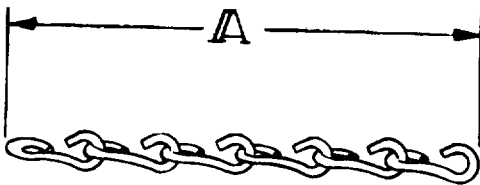
12353861-1	7.00
PART NO.	A

NOTES:

1 MATERIAL:
 CHAIN, DOUBLE-JACK WELDLESS
 PER RR-C-271, TYPE II, CLASS B.
 STEEL SIZE: .105

2 FINISH:
 COMMERCIAL BRIGHT

Chain 12353861



12353862-6	8.31
12353862-5	7.38
12353862-4	4.62
12353862-3	3.69
12353862-2	16.62
12353862-1	9.25
PART NO.	A

NOTES:

1 MATERIAL:
 CHAIN, SINGLE-JACK, WELDLESS
 PER RR-C-271, TYPE II, CLASS 7.
 STEEL SIZE: .135 (NO. 10)

2 FINISH:
 COMMERCIAL BRIGHT

TA 314682

Chain 12353862

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APPENDIX H
TORQUE LIMITS

H-1. GENERAL

This appendix lists the torque limits used on XM971E2 and XM971E3 semitrailers.

H-2. TORQUE LIMITS

The torque limits are listed in table H-1.

Table H-1. Torque limits

Nut size	Torque limits (lb-ft)
Air Ride Suspension and Air Mounted Kingpin	
1/2 inch	25 lb-ft
5/8 inch	150 lb-ft
3/4 inch	200 lb-ft
3/4 inch (air spring only)	20 lb-ft
7/8 inch	300 lb-ft
1 inch	450 lb-ft
1 1/8 inch	700 lb-ft
1 1/4 inch	900 lb-ft
Piston nut inside air spring	50 lb-ft
Wheel nuts	450-500 lb-ft

H-1/(H-2 blank)

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By Order of the Secretary of the Army:

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

Official:


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Brigadier General United States Army
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
- $9/5 \text{ } ^{\circ}\text{C} + 32 = \text{ } ^{\circ}\text{F}$

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

