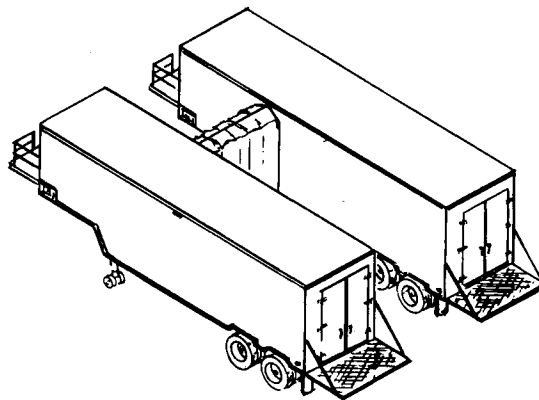


DEPARTMENT OF THE ARMY TECHNICAL MANUAL

**OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND
GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND
SPECIAL TOOLS LIST)
SEMITRAILER, VAN: REPAIR FACILITY, XM991
(2330-01-093-8322)**

**SEMITRAILER, VAN: TEST STATION, XM995
(2330-01-093-8323)**

**MILLER TRAILERS, INC.
CONTRACT DAAE07-78-C-6768**



This copy is a reprint which includes current
pages from Changes 1

**HEADQUARTERS, DEPARTMENT OF THE ARMY
JUNE 1982**

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 or 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
110-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 (58.3° 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

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

WARNING

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

WARNING

In aircraft loading procedure, once attaching hardware has been removed and air hoses and electrical plug disconnected, personnel should stay clear of underside of semitrailer until it is securely resting on the K-Loader.

WARNING

Aircraft loading adapters are very heavy. Use caution in handling them. Two persons are required to handle the aircraft loading kit and perform the operations.

WARNING

Semitrailer must be supported on the K-Loader during landing gear swing-up operation. Be sure that all toggle pins have been lubricated with GAA grease and are operable and removable.

WARNING

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

WARNING

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

WARNING

Weight of semitrailer 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

Brake linings are made of asbestos. Wear protective mask when working with brake linings.

WARNING

Be sure all personnel stand clear of towing vehicle and semitrailer during coupling operations.

**CHANGE
No.1**

**HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 12 February 1986**

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

**SEMITRAILER, VAN: REPAIR FACILITY, XM991
(2330-01-093-8322)**

**SEMITRAILER, VAN: REPAIR FACILITY, XM991 E1
(2330-01-145-0363)**

**SEMITRAILER, VAN: TEST STATION, XM995
(2330-01-093-8323)**

**SEMITRAILER, VAN: TEST STATION, XM995 E1
(2330-01-145-0364)**

**SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991 E2
(2330-01-151-1707)**

**SEMITRAILER, VAN: MASS STORAGE UNIT, XM995 E2
(2330-01-151-1706)**

TM 9-2330-363-14 & P, 4 JUNE 1982, is changed as follows:

1. Remove old pages and insert new pages as indicated below.
2. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the illustration number and along the side of the affected area of the illustration.
3. File this change sheet in front of the publication for reference purposes.

Remove pages

v thru ix/(x blank)
1-1 thru 1-4
1-7 thru 1-10

Insert Pages

v thru vii/(viii blank)
1-1 thru 1-4.4
1-7 thru 1-10.1/(1-10.2 blank)
1-18.1/(1-18.2 blank)
1-22.1/(1-22.2 blank)

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1-23 and 1-24
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3-1 and 3-2
4-15 and 4-16

4-35 and 4-36
4-37 and 4-38

4-65 and 4-66
4-73 and 4-74
4-81 thru 4-90
4-107 thru 4-110
4-111 thru 4-114
4-115 thru 4-120
B-3 thru B-10
C-1 and C-2

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D-1 and D-2
E-1 and E-2
F-1 thru F-7
1 thru 85
Index 1 thru Index 6
Index 7 thru Index 10
Index 11 thru Index 16

Insert Pages

1-23 thru 1-24.1/(1-24.2 blank)
2-21 thru 2-22.1/(2-22.2 blank)
3-1 thru 3-2.1/(3-2.2 blank)
4-15 and 4-16
4-34.1 and 4-34.2
4-35 thru 4-36.2
4-37 thru 4-38.1/(4-38.2 blank)
4-64.1/(4-64.2 blank)
4-65 and 4-66
4-73 and 4-74
4-81 thru 4-90
4-107 thru 4-110.7/(4-110.8 blank)
4-111 thru 4-114.1/(4-114.2 blank)
4-115 thru 4-120
B-3 thru B-10
C-1 and C-2
C-4.1/(C-4.2 blank)
C-5 thru C-7/(C-8 blank)
D-1 and D-2
E-1 and E-2
F-1 thru F-9
Figure 1 thru I-28
Index 1 thru Index 6.1/(Index 6.2 blank)
Index 7 thru Index 10.1/(Index 10.2 blank)
Index 11 thru Index 16

By Order of the Secretary of the Army:

Official:

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

MILDRED E. HEDBERG
Brigadier General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-39, Operator, Organizational, Direct Support and General Support Maintenance requirements for Semitrailer, XM991/E1/E2; XM995/E1/E2.

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 4 June 1982

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

SEMITRAILER, VAN: REPAIR FACILITY, XM991
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(2330-01-145-0364)
SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2
(2330-01-151-1707)
SEMITRAILER, VAN: MASS STORAGE UNIT, XM995E2
(2330-01-151-1706)

Current as of 15 September 1985

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, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE

Type of Manual:

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

Model Number and Equipment Name:

XM995 - Semitrailer, Van: Test Station, 10-ton, 4-wheel.

XM995E1 - Semitrailer, Van: Test Station, 10-ton, 4-wheel.

XM991 - Semitrailer, Van: Repair Facility, 10-ton, 4-wheel.

XM991E1 - Semitrailer, Van: Repair Facility, 10-ton, 4-wheel.

XM995E2 - Semitrailer, Van: Mass Storage Unit, 10-ton, 4-wheel.

XM991E2 - Semitrailer, Van: Central Processor, 10-ton, 4-wheel.

Purpose of Equipment:

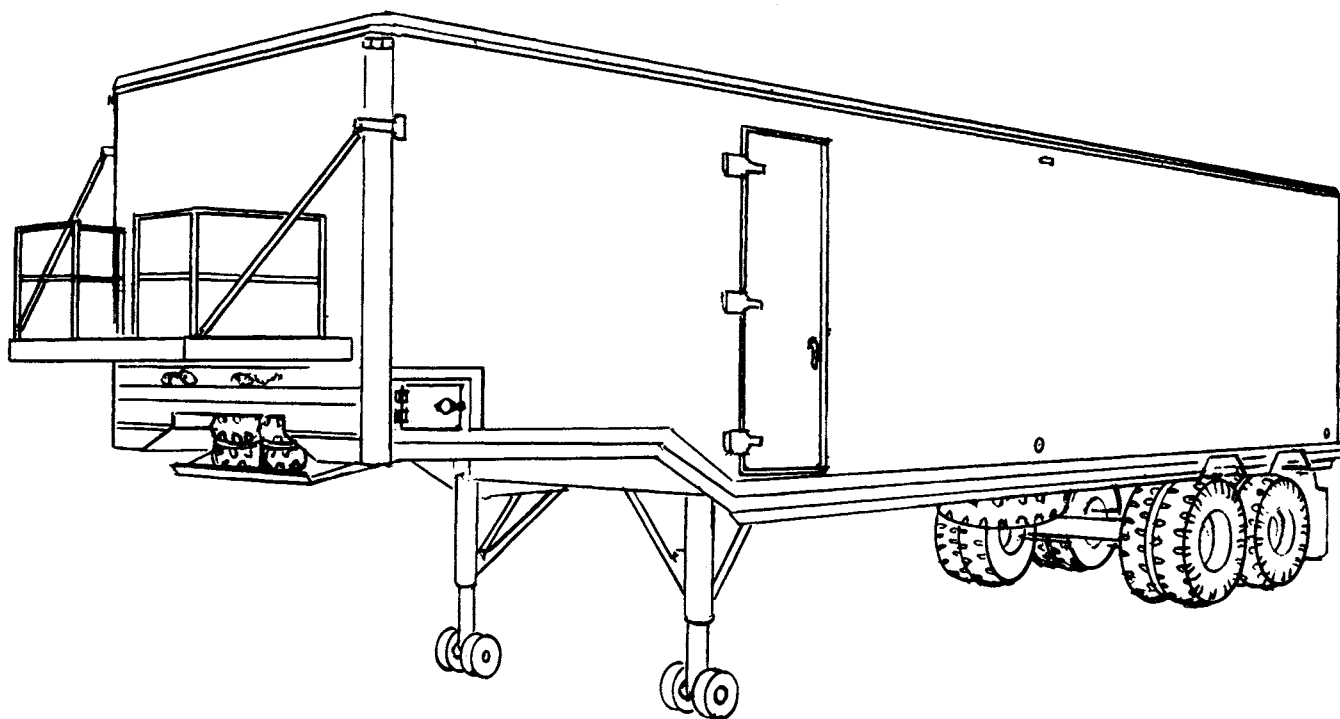
Houses and transports sensitive electronic equipment.

1-2. MAINTENANCE FORMS, RECORDS AND REPORTS

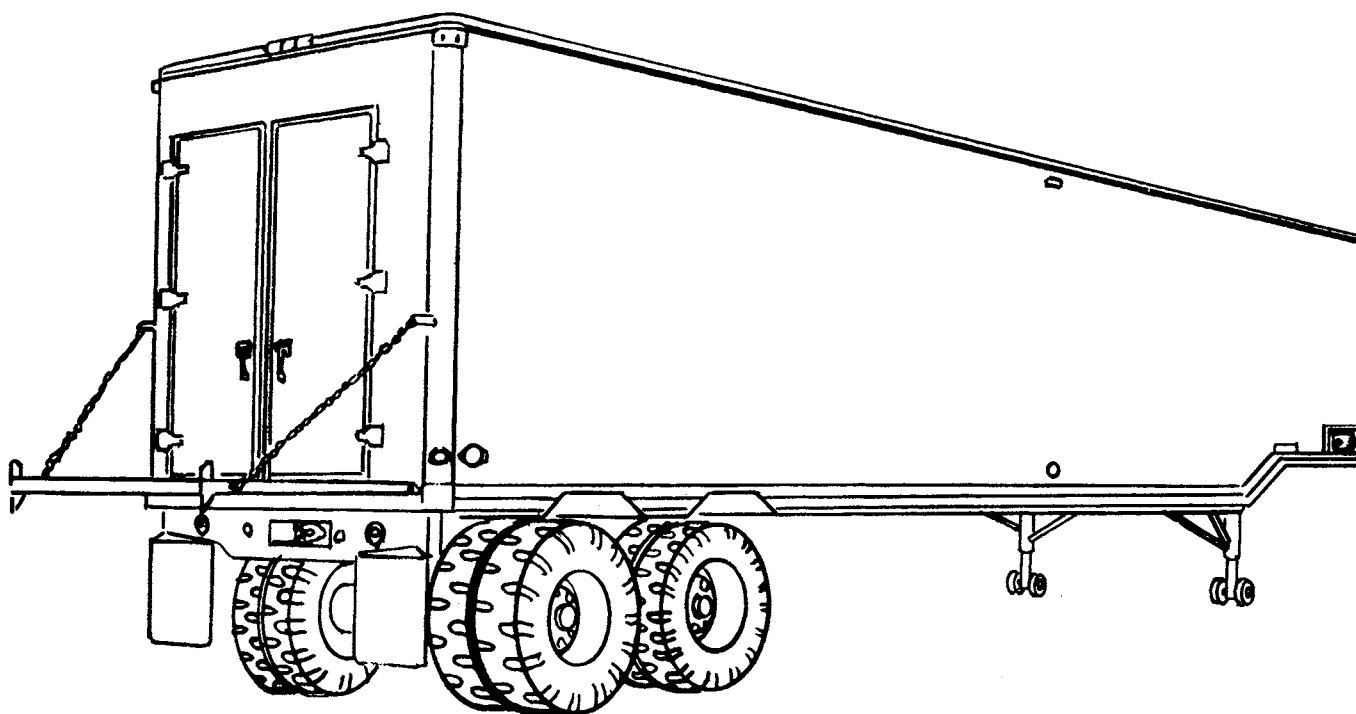
Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Management System.

1-3. HAND RECEIPT (-HR) MANUAL

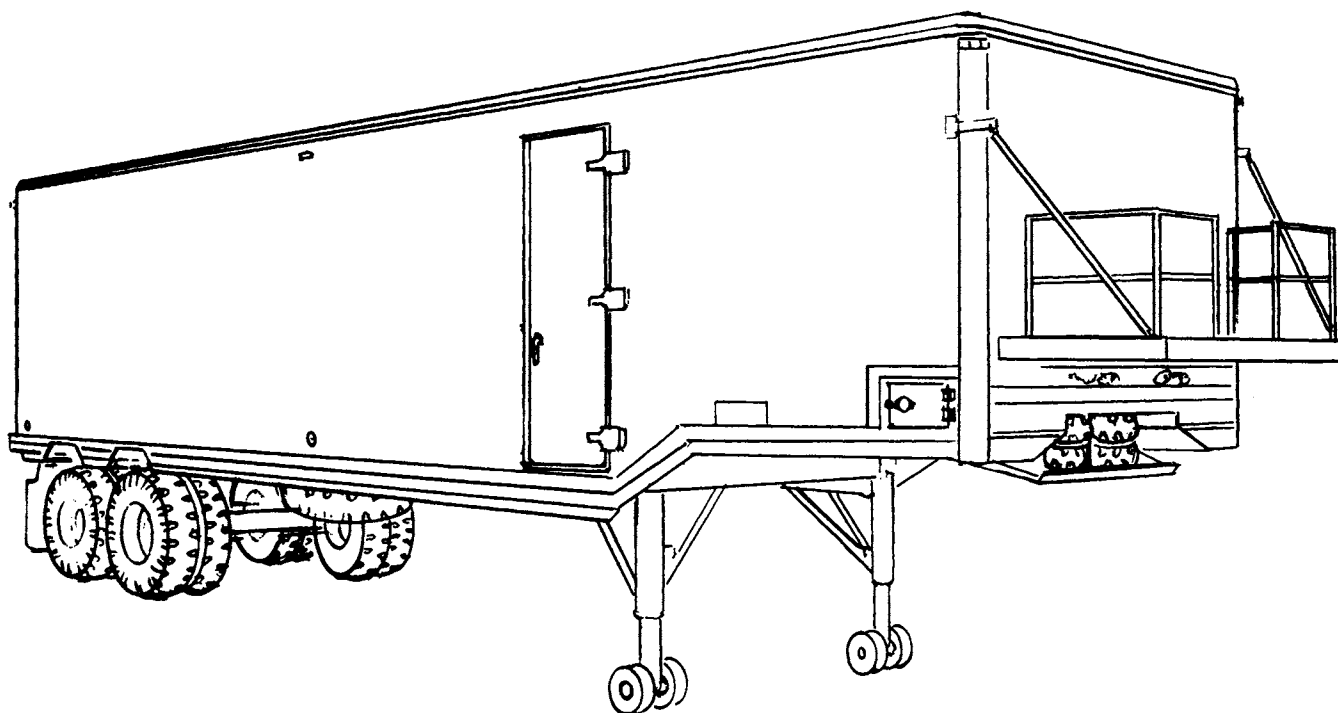
This manual has a companion document with a TM number followed by "-HR" (which stands for Hand Receipt). The TM 9-2330-363-14-HR consists of pre-printed hand receipts (DA Form 2062) that list end item related equipment (i. e., COEI, BIL, and AAL) you must account for. As an aid to property accountability, additional -HR manuals may be requisitioned from the following source in accordance with procedures in chapter 3, AR 310-2: Commander, U. S. Army Adjutant General Publication Center, 2800 Eastern Boulevard, Baltimore MD 21220.



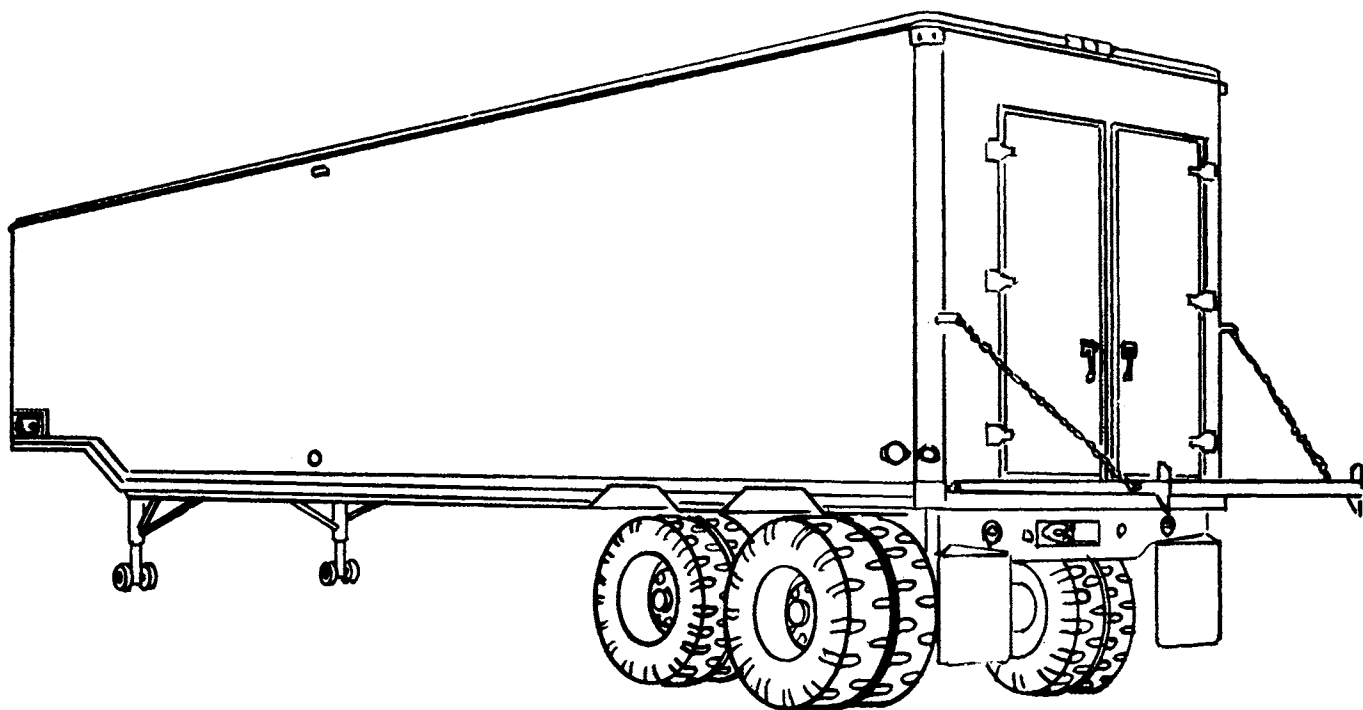
Roadside view, XM991



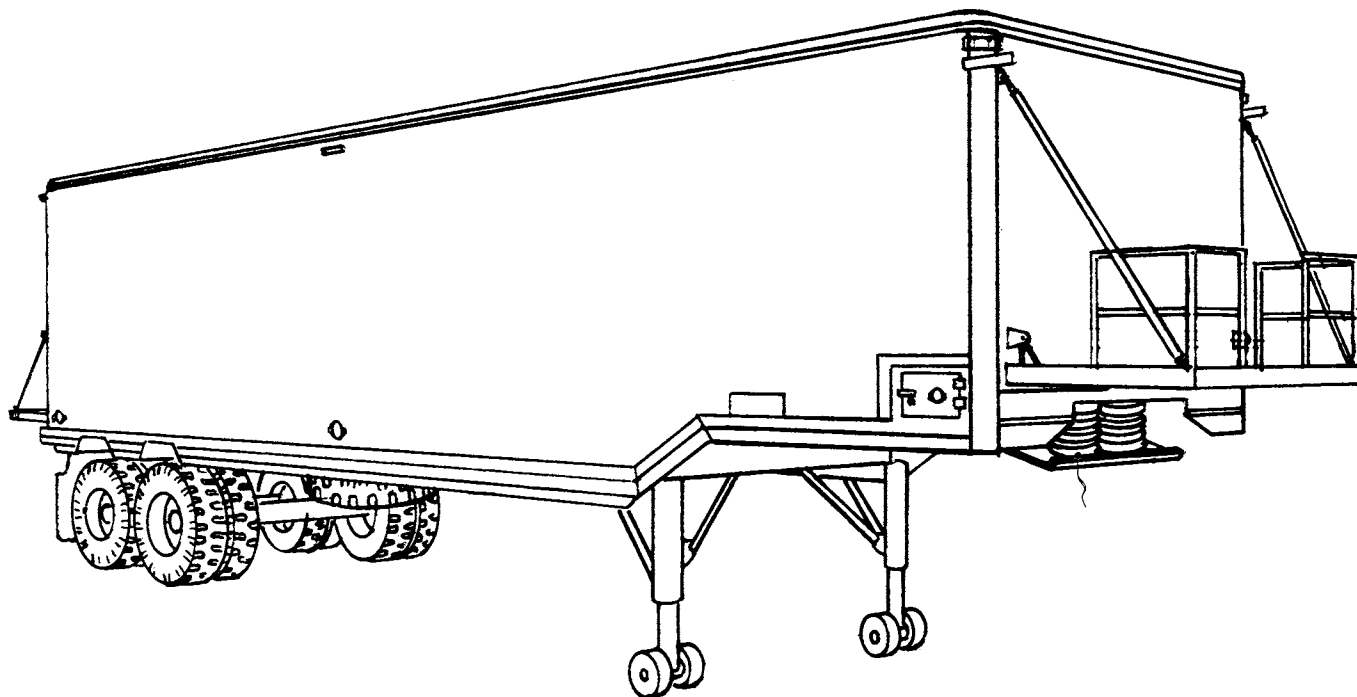
Curbside view, XM991



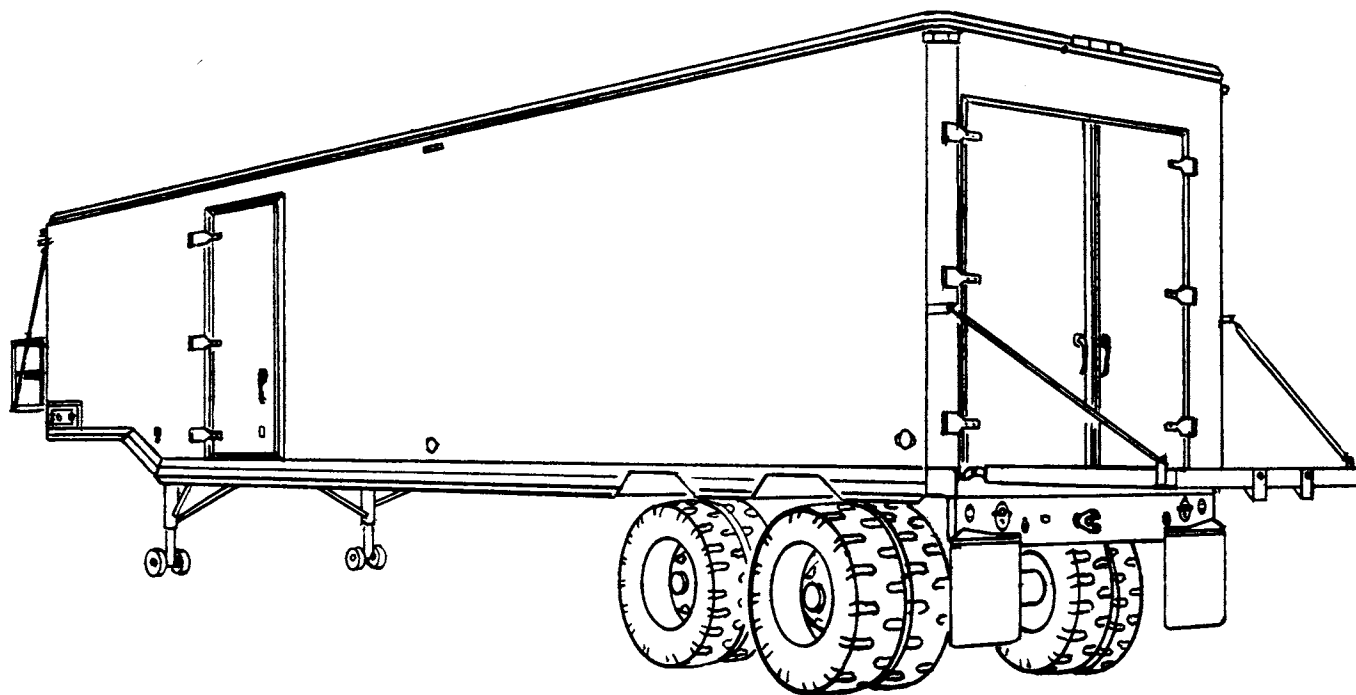
Curbside view, XM995



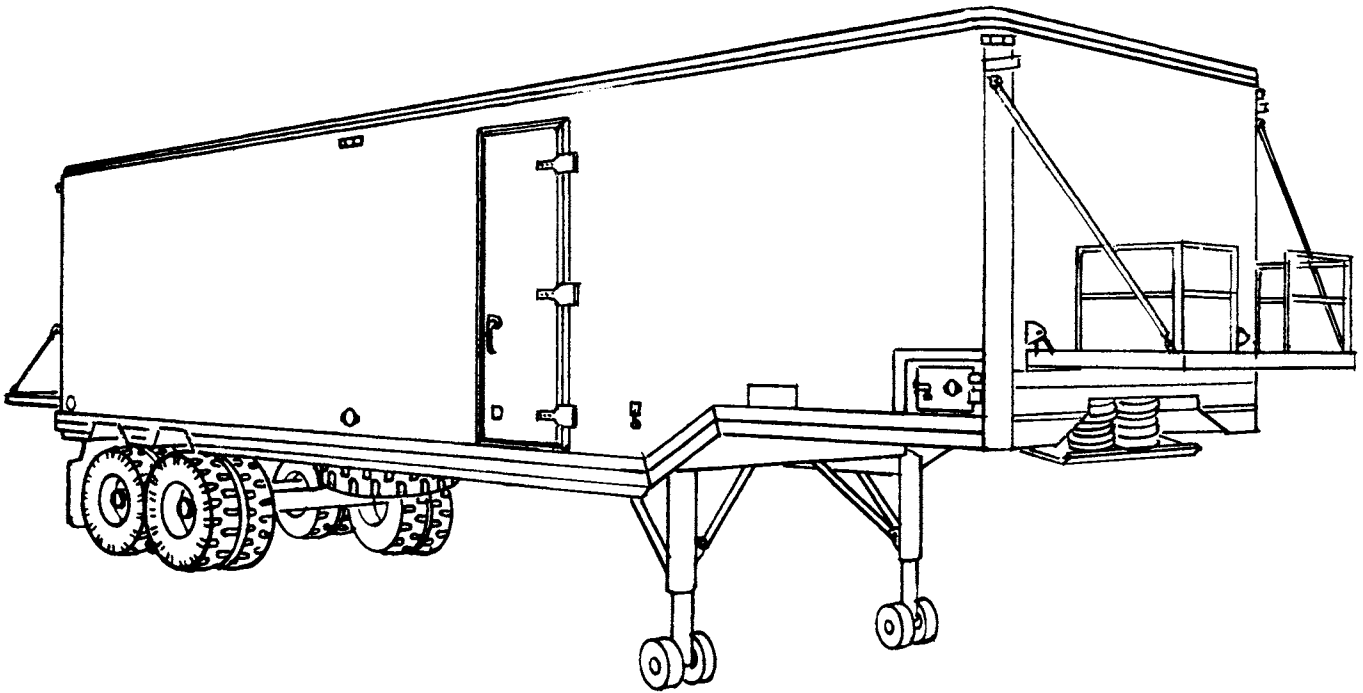
Roadside view, XM995



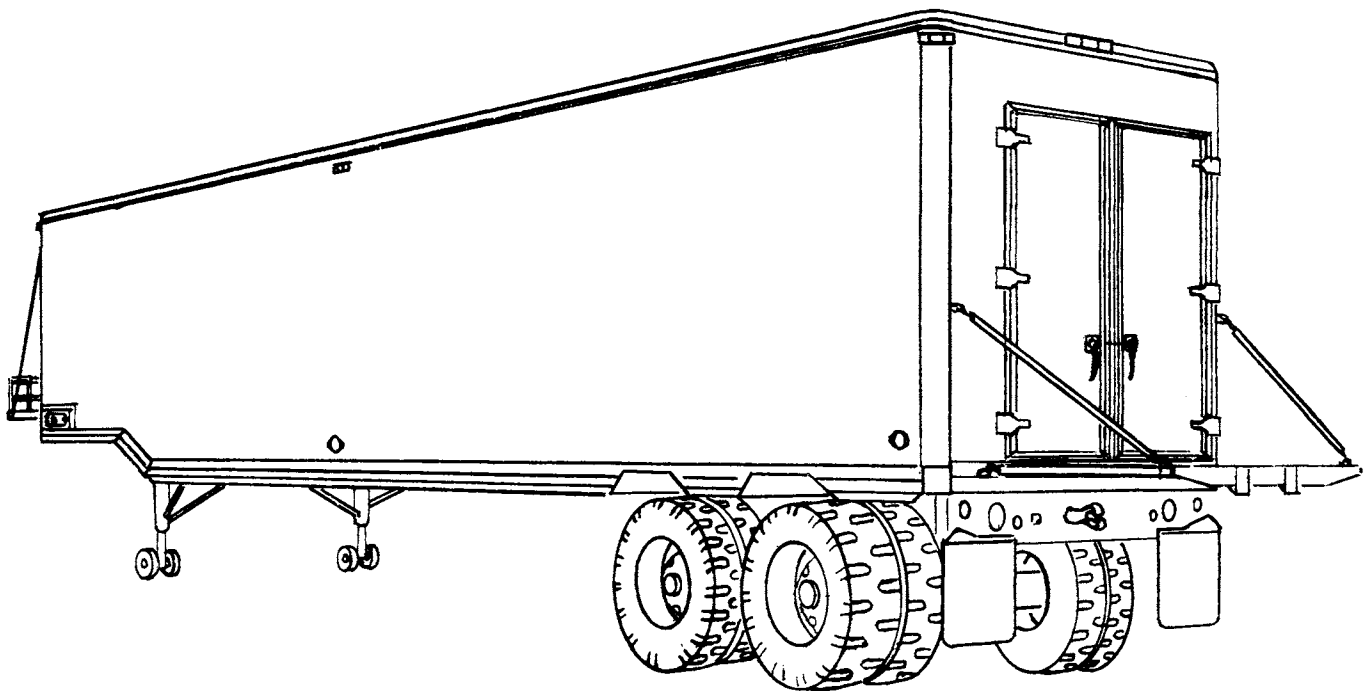
Curbside view, XM991E1



Roadside view, XM991E1



Curbside view, XM995E1

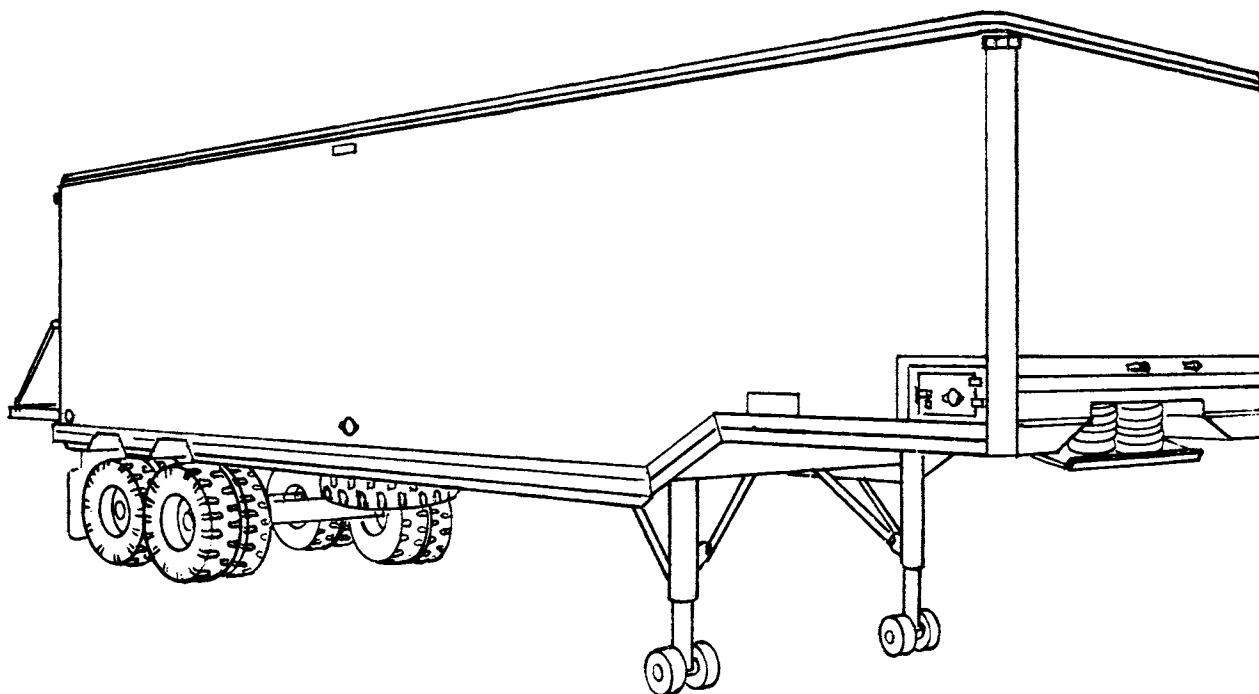


Roadside view, XM995E1

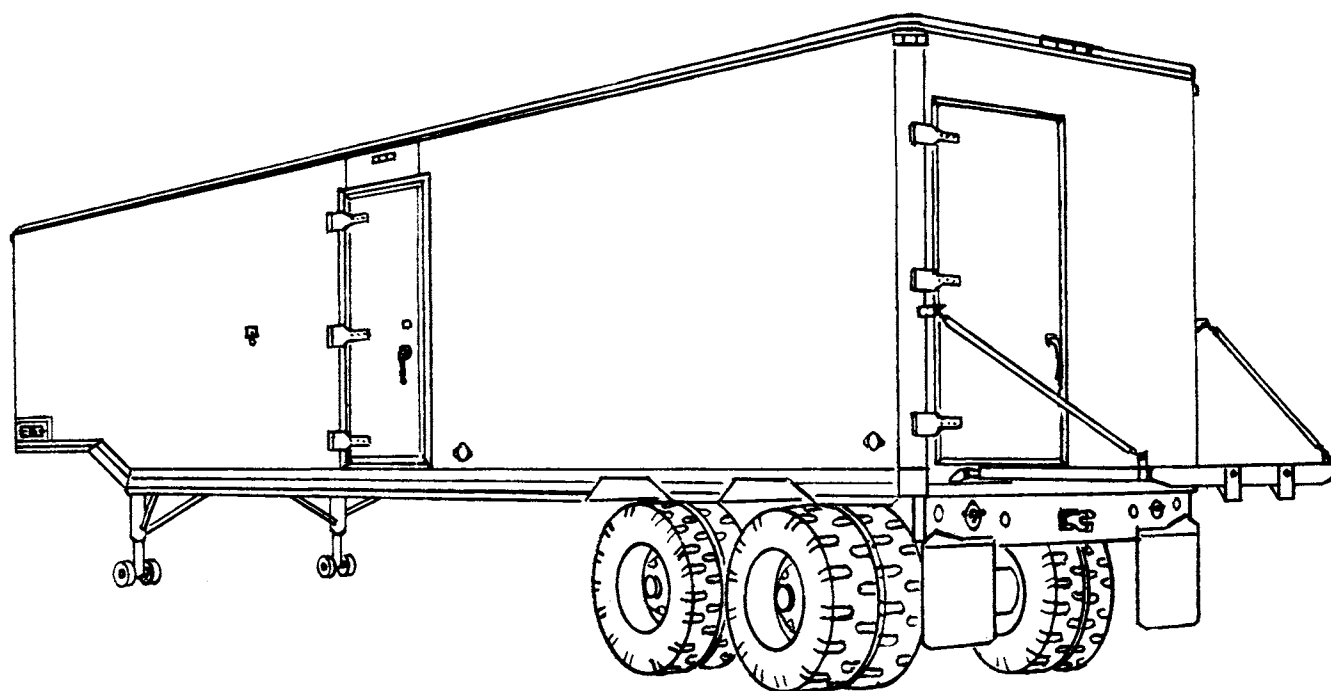
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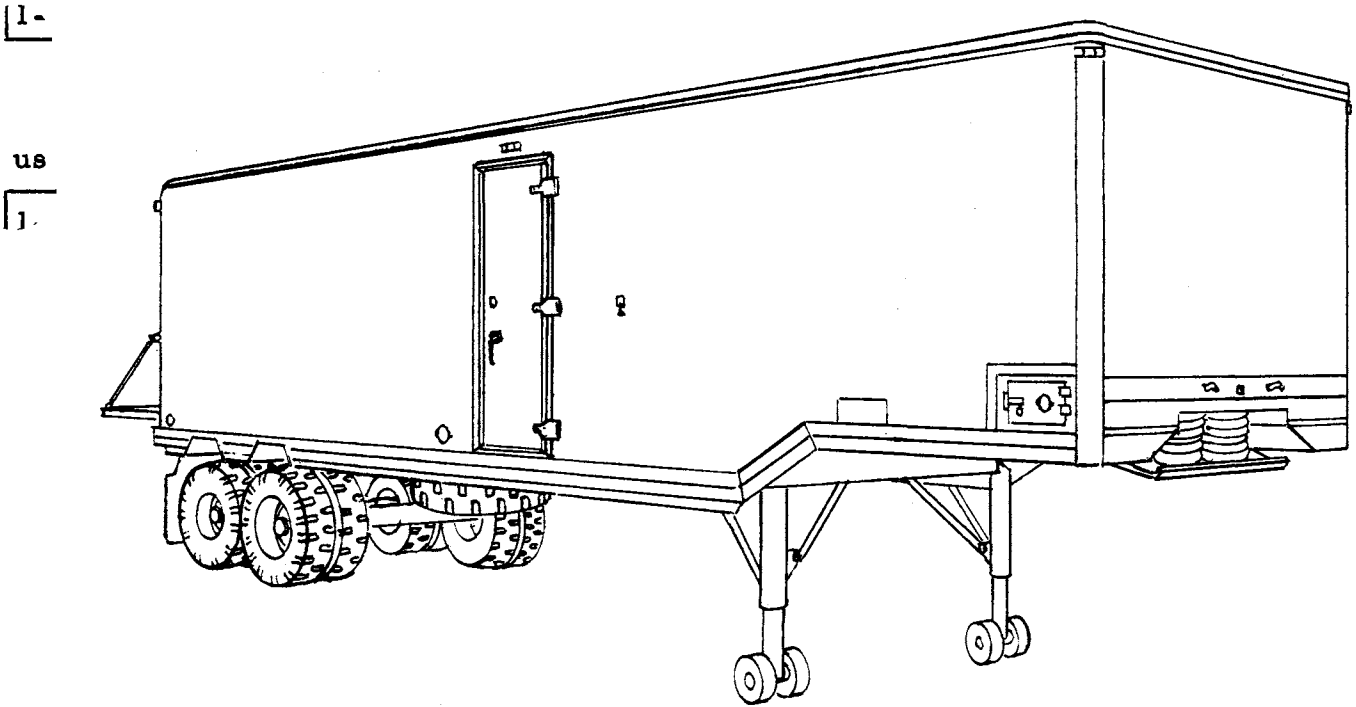
1-4. 1



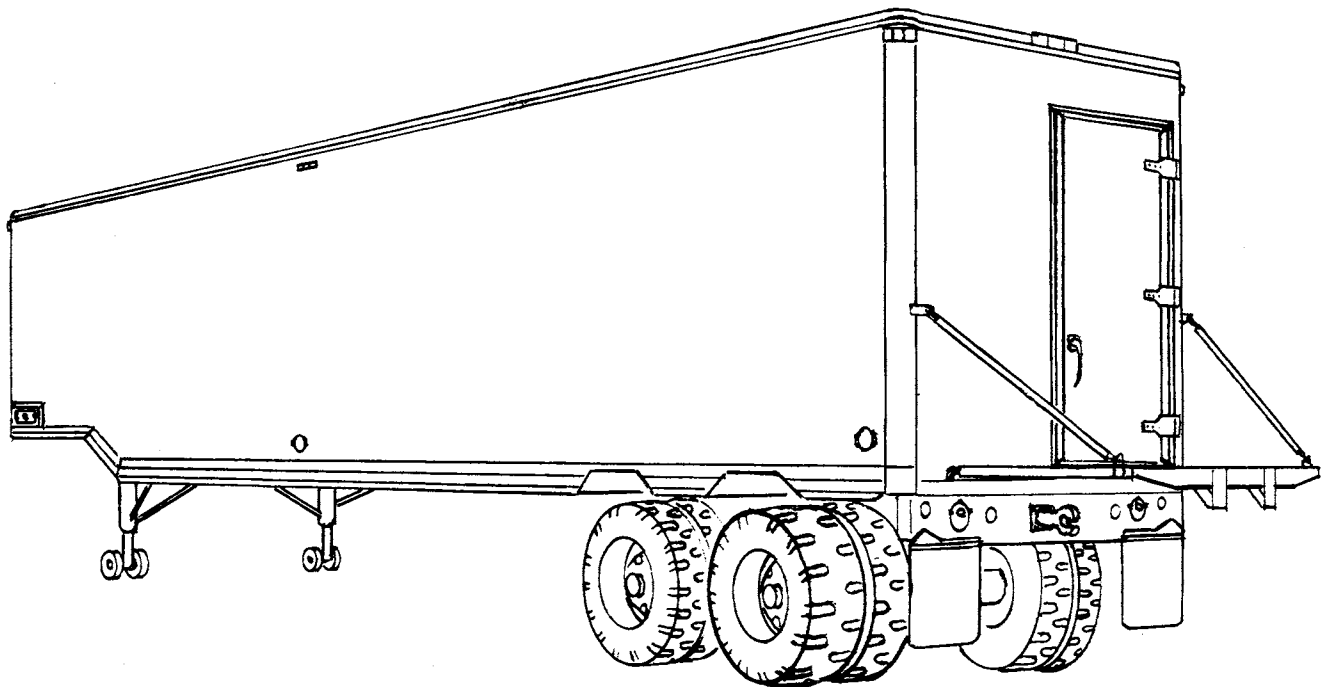
Curbside view, XM991E2



Roadside view, XM991E2



Curbside view, XM995E2



Roadside view, XM995E2

1-4. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

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

1-5. PREPARATION FOR STORAGE

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

1-6. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS

If your semitrailer needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to U.S. Army Tank Automotive Command, ATTN: AMSTA-MP, Warren, MI 48397-5000. We will send you a reply.

Section II. EQUIPMENT DESCRIPTION AND DATA

1-7. 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) Level attitude needed for operation of delicate equipment is accomplished through use of landing gears, leveling jack and eight levels.
- (3) Dolly assembly can be removed for air shipment of semitrailer.
- (4) Air-over-hydraulic brake system provides positive stopping action of semitrailer.

1-8. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

a. General.

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

1-8. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

b. Towing Vehicle.

The M52, M52A1, M52A2, M818, or modified M915 truck tractor is used as the towing vehicle.

1-9. AMBER REFLECTOR (1)

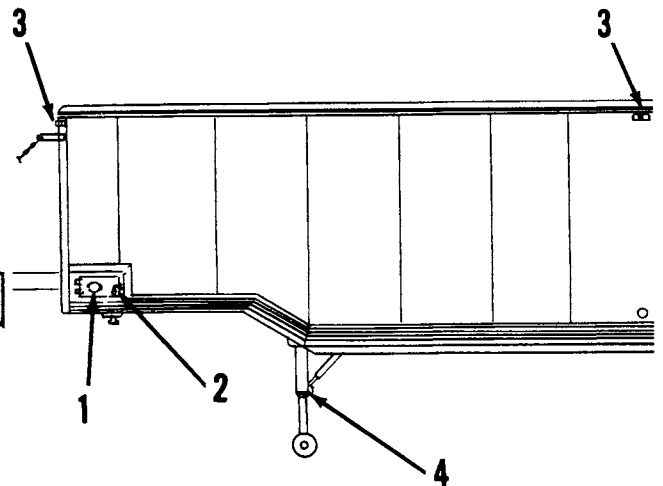
- a. Semitrailer has four:
- b. Two on left side, one near front and one at center.
- c. Two on right side, one near front and one at center.

1-10. STORAGE COMPARTMENT (2)

- a. Two storage compartments:
- b. One at left front corner.
- c. One at right front corner.

1-11. AMBER CLEARANCE LIGHT (3)

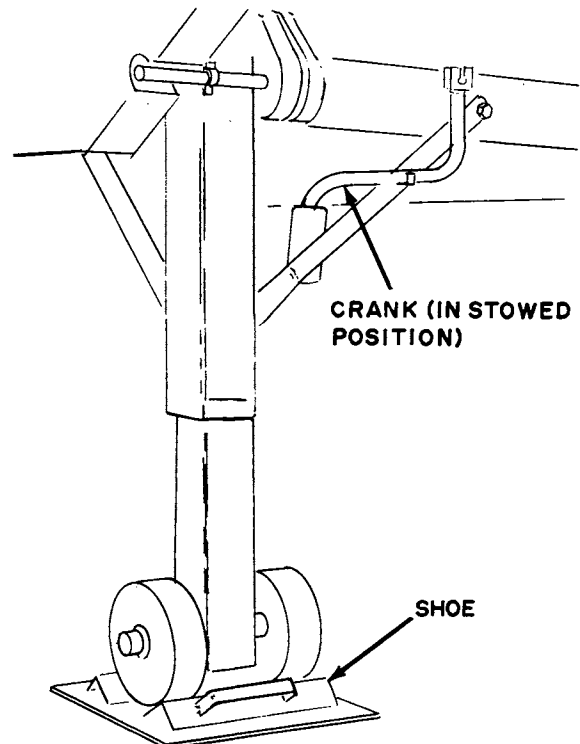
- a. One at top center of each side.
- b. One at top front corner of each side.



- 1. Amber reflector
- 2. Storage compartment
- 3. Amber clearance light
- 4. Landing gear

1-12. LANDING GEAR (4)

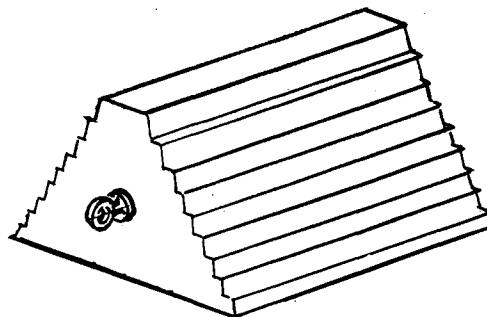
- a. Two separately operated two-speed landing gears.
- b. Located at the drop, near front of semitrailer.
- c. Cranks are used to operate landing gear legs to raise and lower front end of semitrailer when preparing to couple and uncouple from towing vehicle.
- d. Landing gear used to support semitrailer when not coupled to towing vehicle.
- e. Landing gears swing into horizontal position for aircraft loading only.



LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

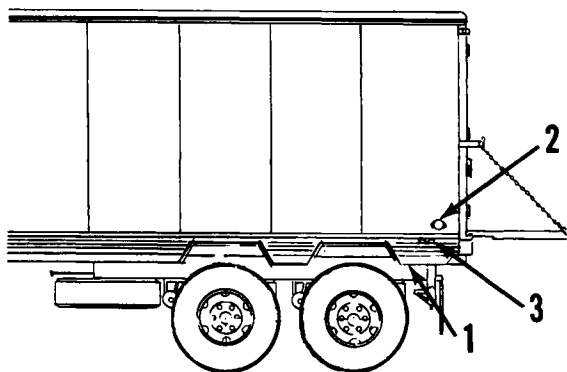
1-13. WHEEL CHOCK (1)

- a. Two wheel chocks.
- b. Attached to bracket by chain.
- c. Stored in bracket on each side of rubrail to rear of rear axle.
- d. Used against rear wheel to prevent accidental movement.



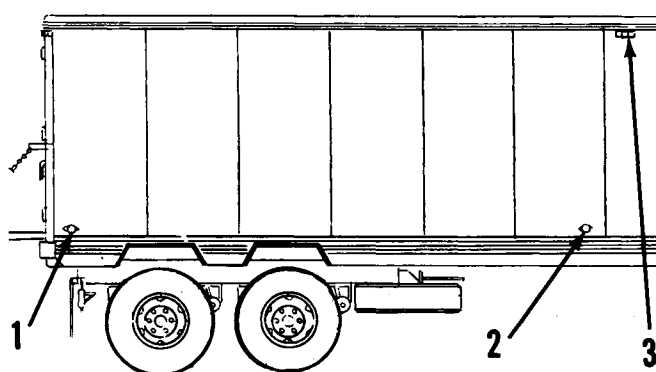
1-14. RED REFLECTOR (2)

- a. Four red reflectors.
- b. One on left side toward rear.
- c. One on right side toward rear.
- d. Two on rear.



LEFT SIDE

- 1. Wheel chock
- 2. Red reflector
- 3. Level assembly

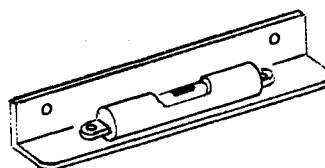


RIGHT SIDE

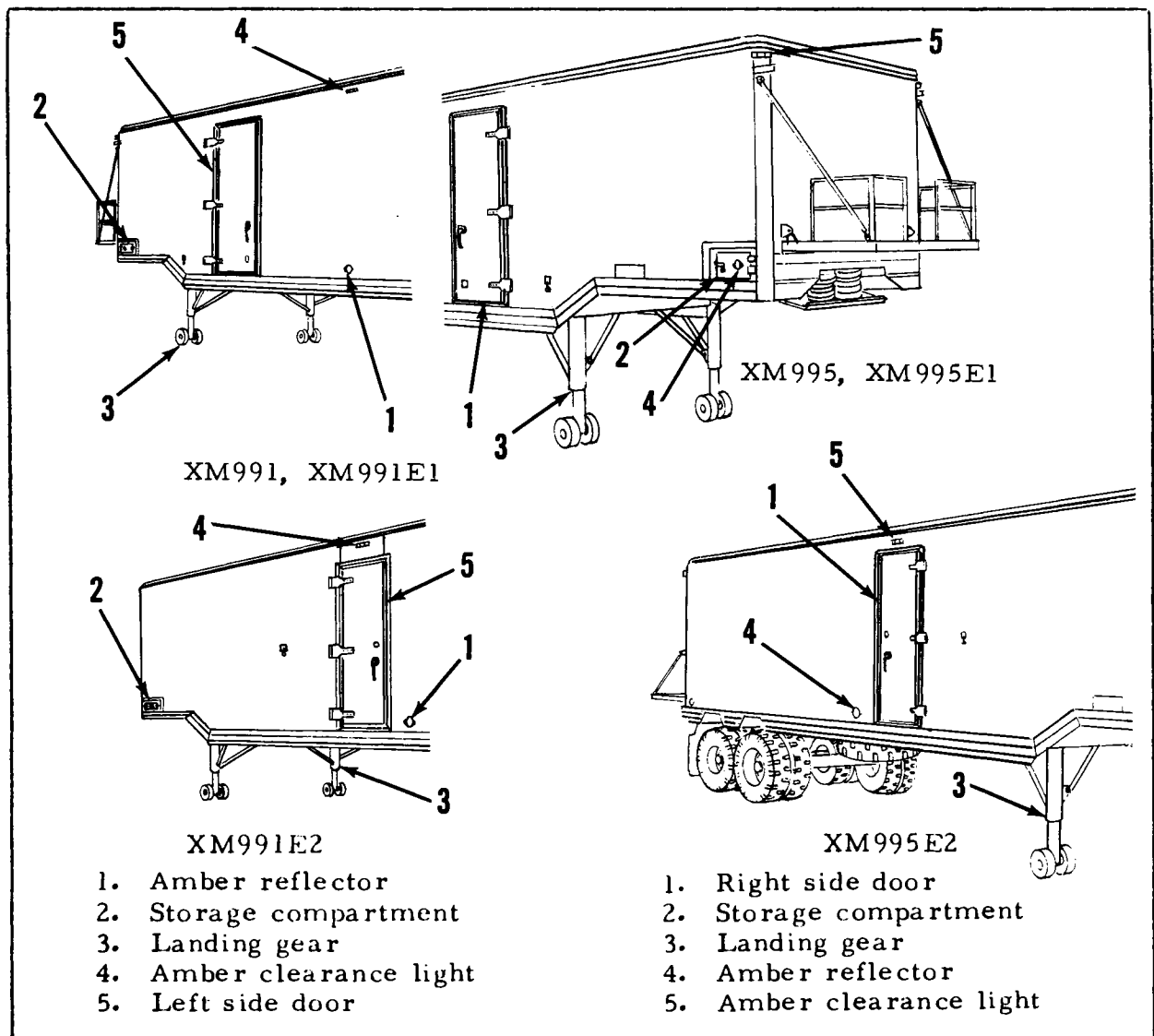
- 1. Red reflector
- 2. Amber reflector
- 3. Amber clearance light

1-15. LEVEL ASSEMBLY

- a. Eight level assemblies, one at each side of each corner.
- b. Indicate if semitrailer is level.



LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)



1-16. LEFT SIDE DOOR

a. On XM991 and XM991E1 semitrailers, the left side door is located to rear of drop, towards the front.

b. On XM991E2 semitrailer, the left side door is located at the center of the left side.

c. Provides access to interior of semitrailer.

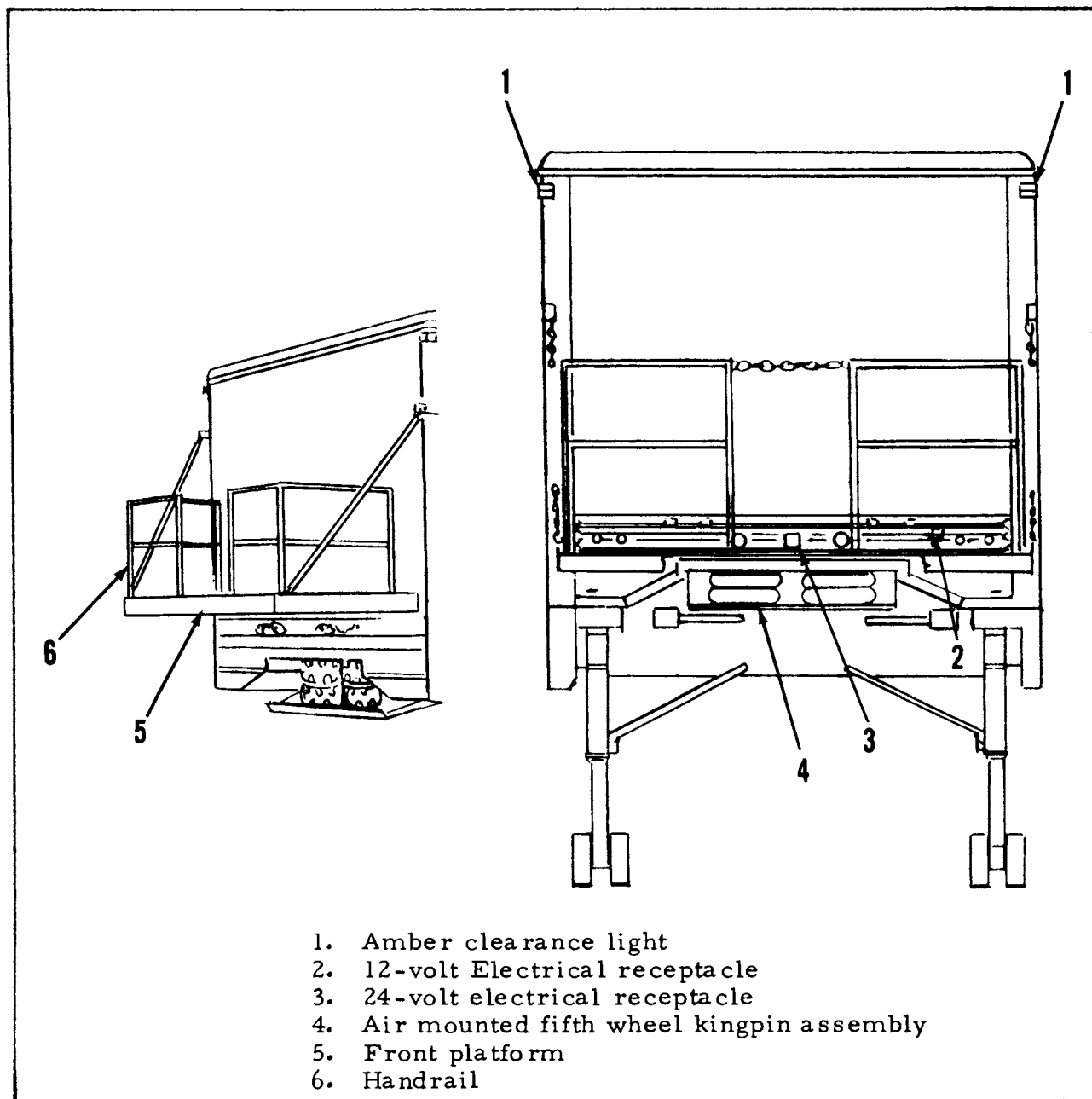
1-17. RIGHT SIDE DOOR

a. On XM995 and XM995E1 semitrailers, the right side door is located to rear of drop.

b. On XM995E2 semitrailer, the right side door is located at the center of the right side.

c. Provides access to interior of semitrailer.

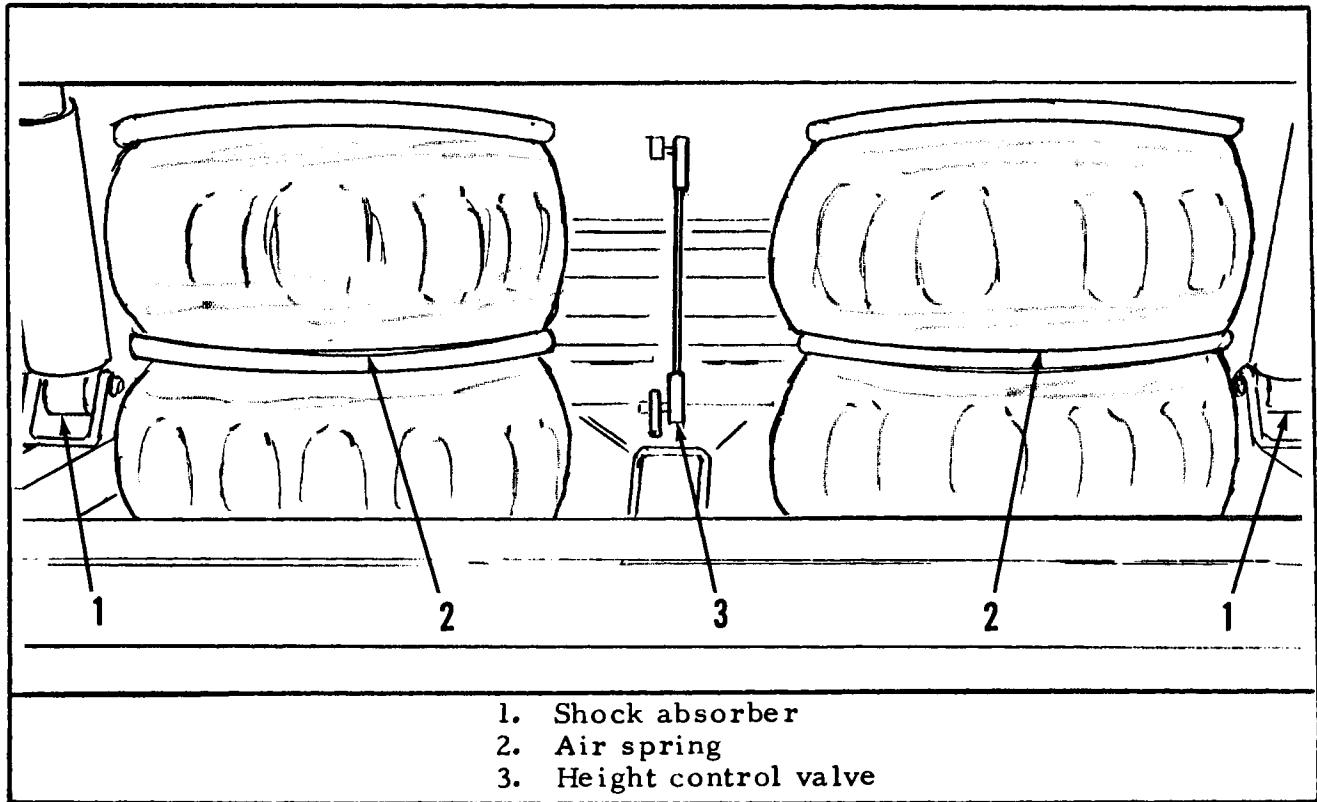
LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)



1-18. FRONT PLATFORM, XM991, XM991E1, XM995, XM995E1

- a. Used to service and install air conditioners.
- b. Swings up on pivots.
- c. Stowed upright.

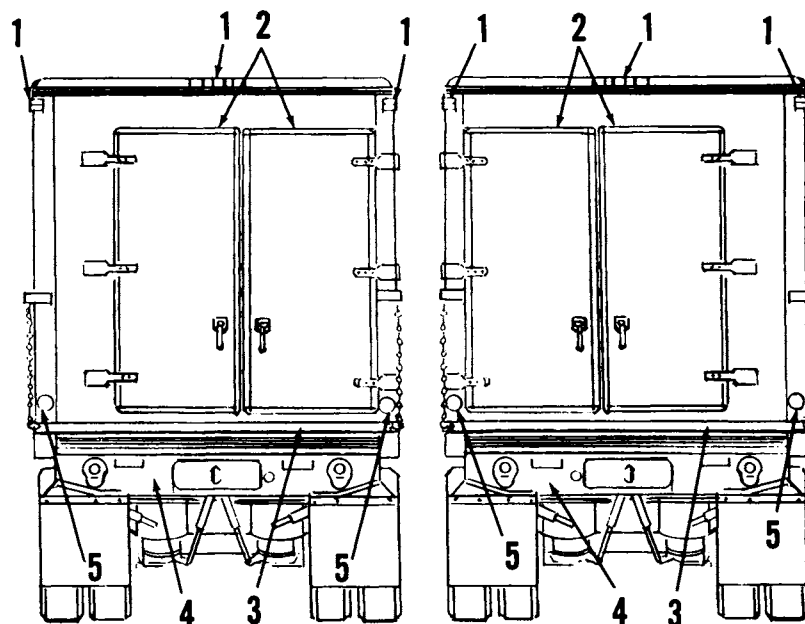
LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)



1-19. AIR MOUNTED FIFTH WHEEL KINGPIN

- a. Two air springs (2) are located at front of semitrailer, directly over kingpin plate. Air springs contain pressurized air.
- b. Height control valve (3) is located between and slightly to rear of the air springs.
- c. Air flow is automatically regulated by height control valve in proportion to the load until proper design height is obtained.
- d. Brake protection valve is located above and slightly to rear of air springs.
- e. The brake protection valve maintains minimum air pressure.
- f. Two shock absorbers (1), one located on outer side of each air spring, cushion shocks.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)



XM995

XM991

1. Red clearance light
2. Double rear doors
3. Rear platform
4. Dolly assembly
5. Red reflector

1-20. REAR DOORS, XM991, XM991E1, XM995, XM995E1

- a. These semitrailers have double rear doors.
- b. Used to gain access to interior of semitrailer.

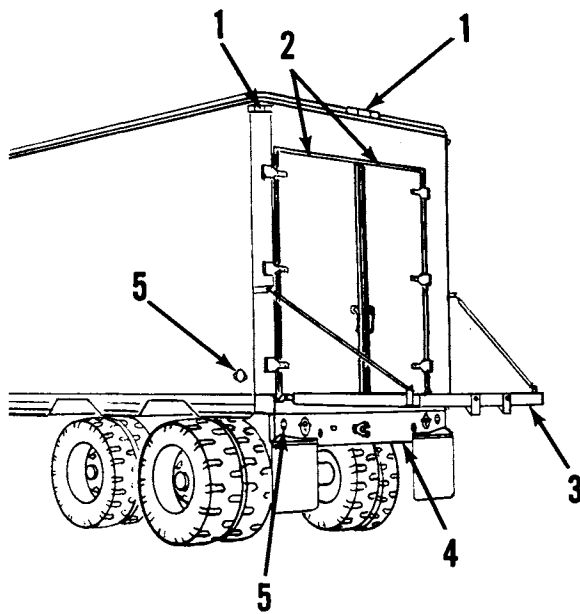
1-20.1. REAR DOOR, XM991E2, XM995E2

- a. These semitrailers have a single rear door.
- b. Used to gain access to interior of semitrailer.

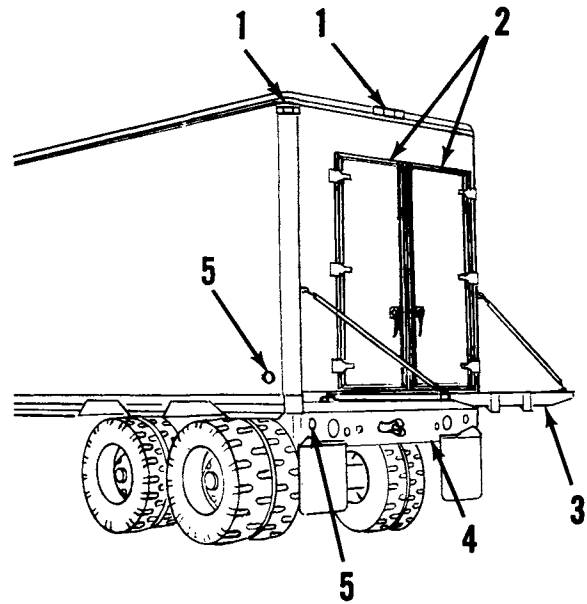
1-21. RED CLEARANCE LIGHT

- a. Three located at top center of rear of van body.
- b. One located at each top corner of rear of van.

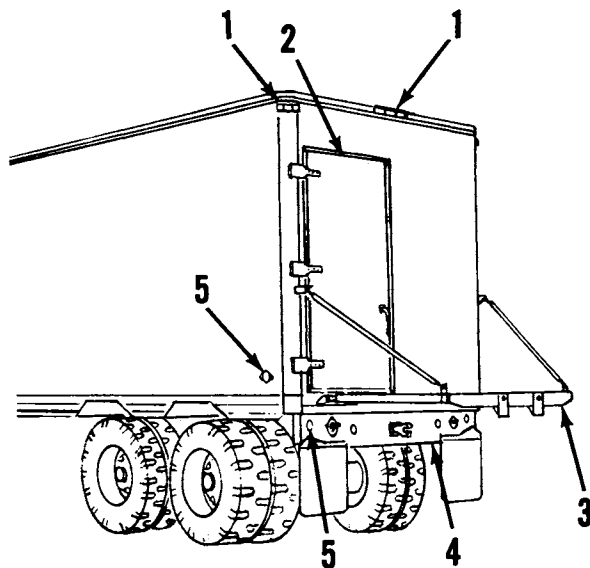
LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)



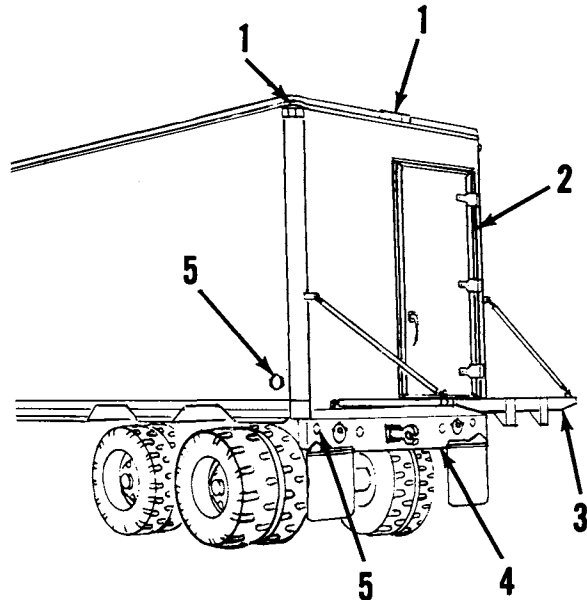
XM991E1



XM995E1



XM991E2



XM995E2

1. Red clearance light
2. Rear door
3. Rear platform
4. Dolly assembly
5. Red reflector

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

1-22. REAR PLATFORM

- a. Used as a loading platform.
- b. Is attached to body by hinges and raised and lowered manually.
- c. Can be stowed upright against rear of van body.

1-23. LADDERS

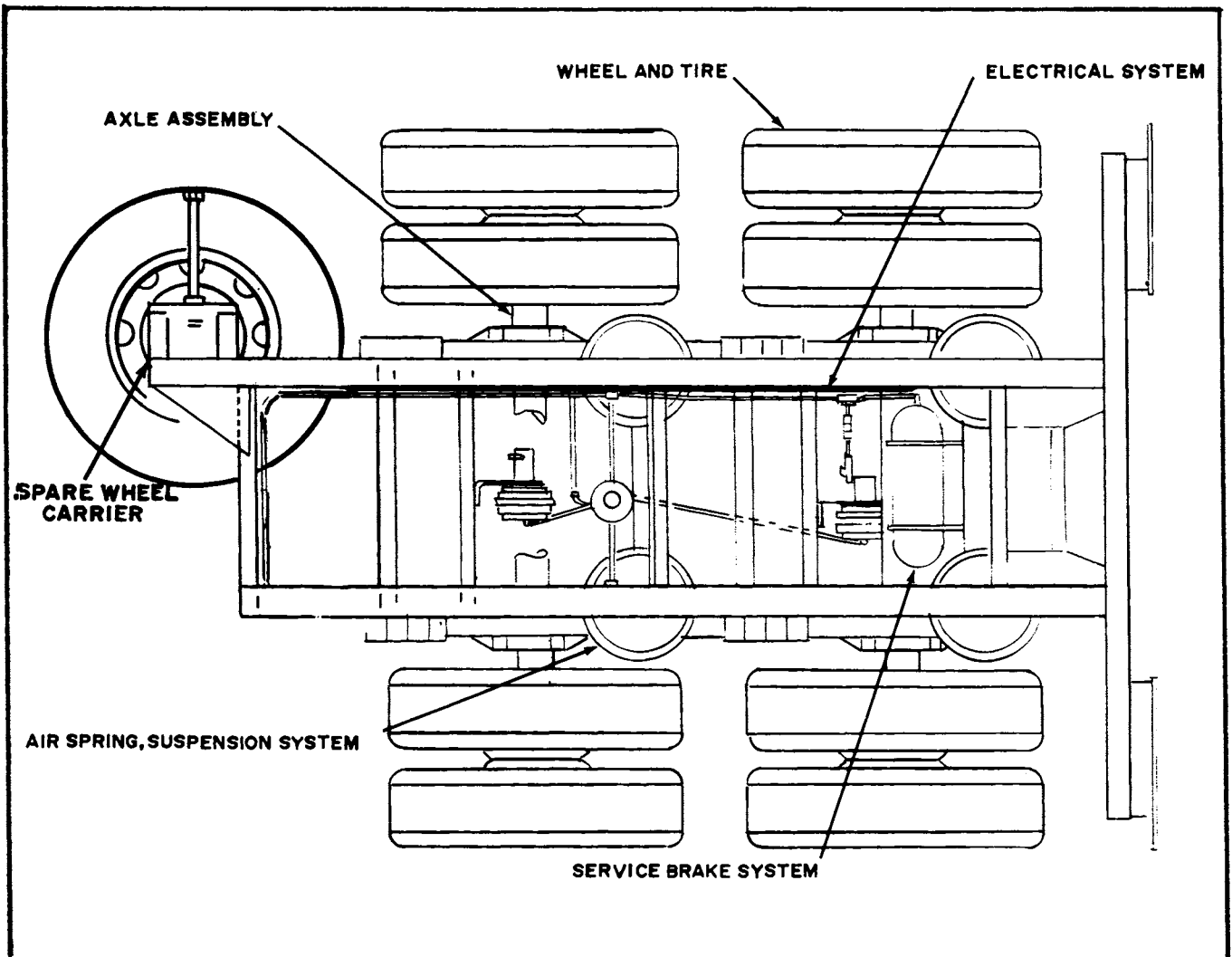
- a. Two personnel boarding ladders provide access to side door and rear platform.
- b. A 12-foot ladder is used to get to roof and front platform.

- c. All ladders are stowed in brackets and clamps on the underside of semitrailer (page 2-21).

1-24. DOLLY ASSEMBLY

The dolly assembly, which can be removed for air transport, consists of:

- a. Dual wheels and tires.
- b. Axle and brake assemblies.
- c. Air suspension system.
- d. Leveling jacks.



LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

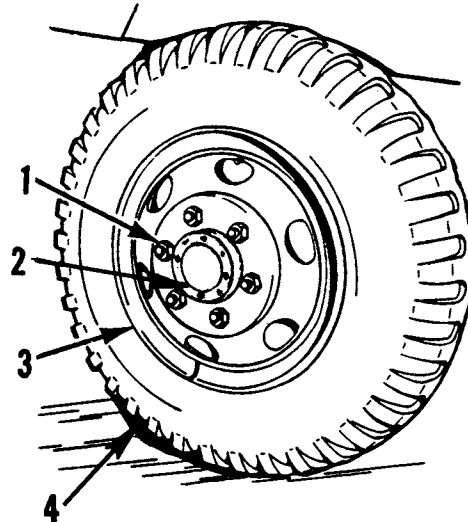
- e. Spare wheel carrier (page 1-11).
- f. Electrical system.
- g. Towing pintle and hook for towing safety chains (page 1-17).
- h. Electrical and brake connections for towed vehicle (pages 1-15 and 1-17).
- i. Splash guards (page 1-16).

1-25. DOLLY ELECTRICAL SYSTEM

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

1-26. WHEEL AND TIRE

- a. The eight wheels are offset disk-type rims with split type retaining rings.
- b. Nuts for right wheels (marked R) have right hand threads.
- c. Nuts for left wheels (marked L) have left hand threads. The studs are similarly marked.
- d. Nuts must be turned in opposite direction of forward rotation of wheel to be loosened or removed.
- e. Tires are military pneumatic type, nondirectional, cross country tread design, size 9.00 by 20, 8-ply rating.



- 1. Cap nut
- 2. Hub cap bolt
- 3. Wheel
- 4. Tire

1-27. AXLE ASSEMBLY

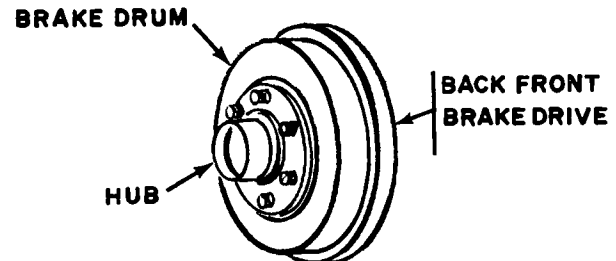
- a. Two axle assemblies are located at center and rear of dolly assembly.
- b. Each axle assembly has brake drum, hub, brake assemblies, and associated parts.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

1-28. HUB

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

b. Brake drums are mounted on the hubs.



1-29. BRAKE DRUM

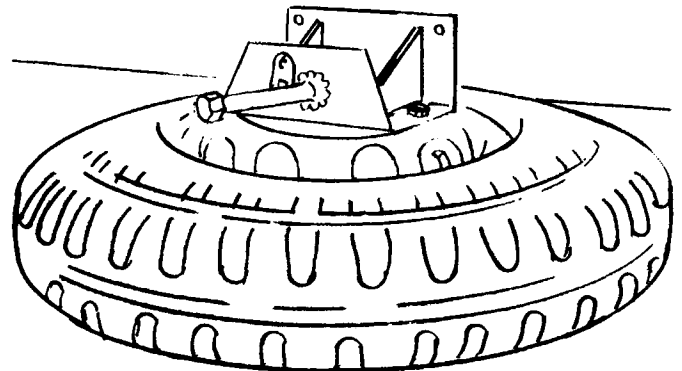
a. Each brake drum is secured to each hub through a dished back front brake drive.

b. A hub cap and gasket, secured to each hub, excludes moisture and dirt.

1-30. SPARE WHEEL CARRIER

a. Spare wheel carrier is mounted at front of dolly assembly.

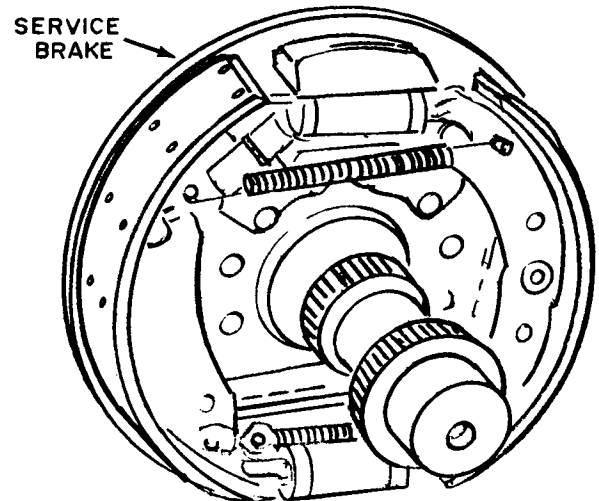
b. It has a wire rope and ratchet to help raise and lower the spare wheel and tire.



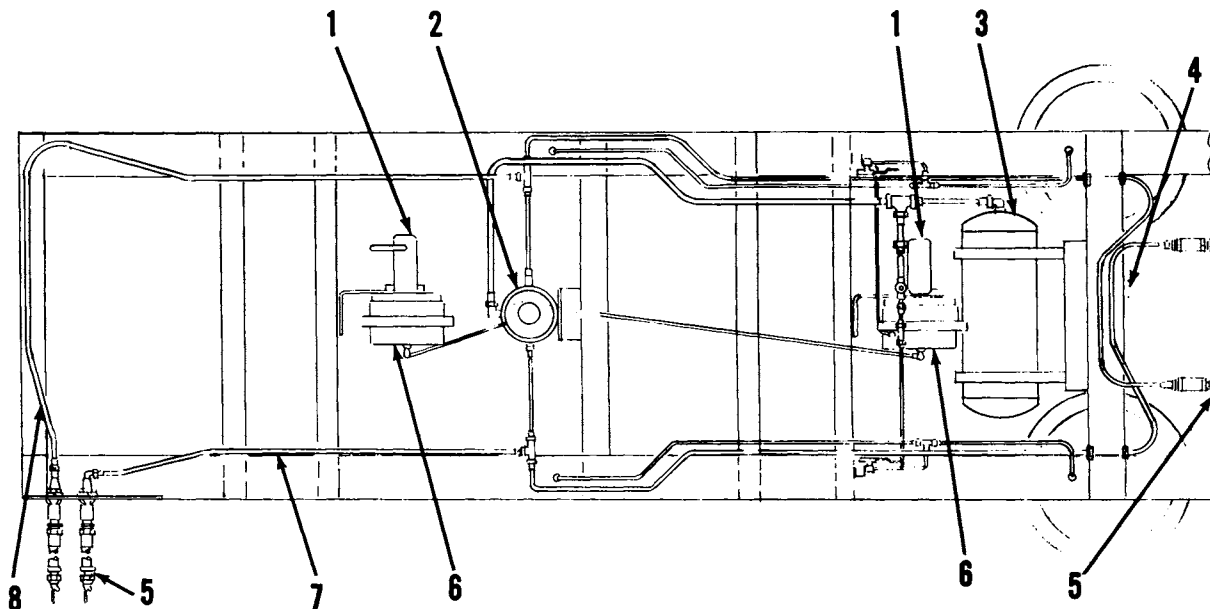
1-31. SERVICE BRAKE ASSEMBLY

a. Service Brakes.

- (1) Are air-over-hydraulic type.
- (2) Air pressure operates the hydraulic portion of braking system.
- (3) Brakes are operated automatically when pressure is applied at the towing vehicle.



LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)



b. Service Brake System.

The service brake system consists of the following:

1. Hydraulic master cylinder
 2. Relay valve
 3. Air reservoir
 4. Dummy coupling
 5. Air half-coupling
 6. Brake air chamber
 7. Emergency air line
 8. Service air line
- Internal brake mechanism

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

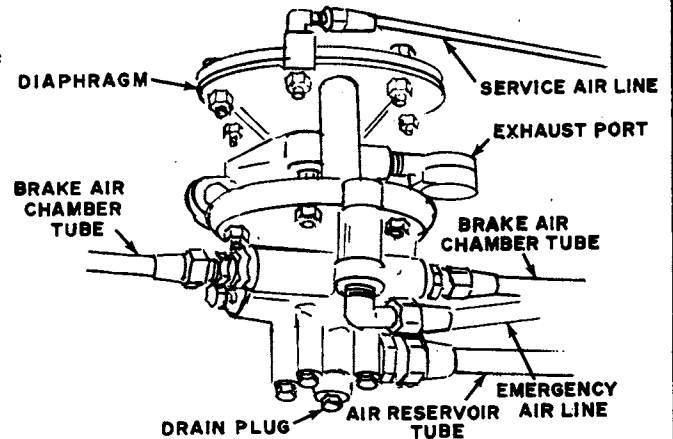
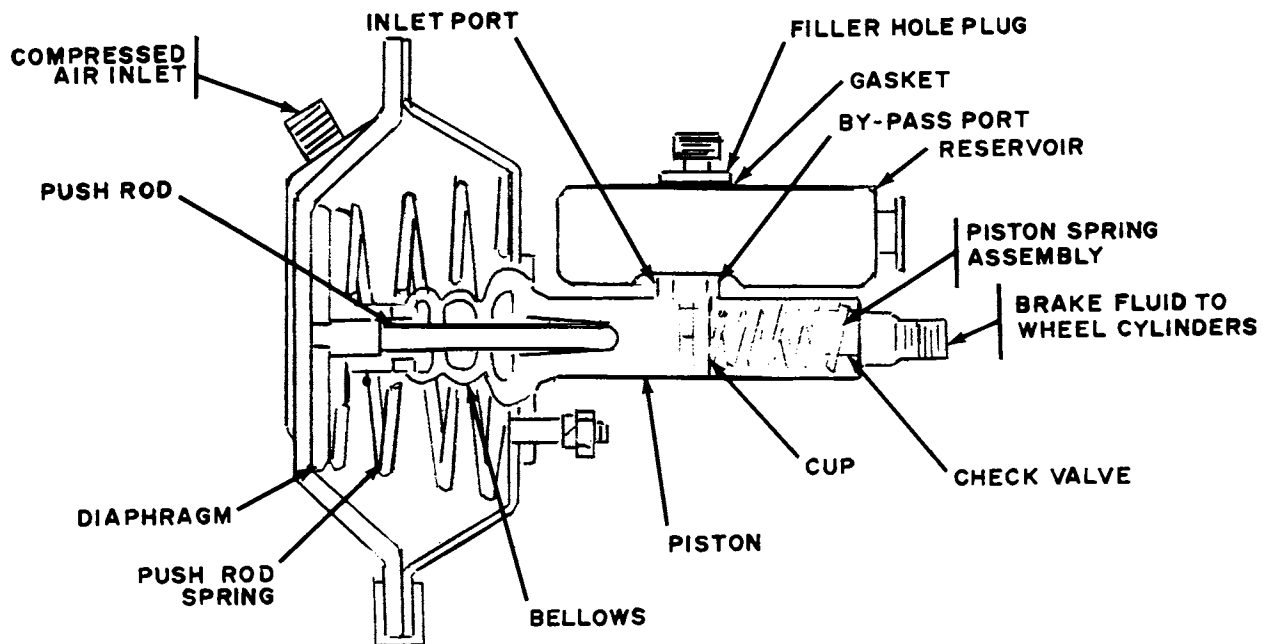
c. Relay Valve.

(1) The relay valve is located at center of dolly, just to rear of forward axle. It directly controls service brakes.

(2) It controls flow of air to and from air reservoir.

(3) It is connected to emergency and service air lines, air reservoir, and brake air chamber.

(4) Relay valve automatically applies brakes if semitrailer breaks away from towing vehicle. Brakes will also apply automatically if there is a serious leak in the emergency air line.

d. Hydraulic Master Cylinder.

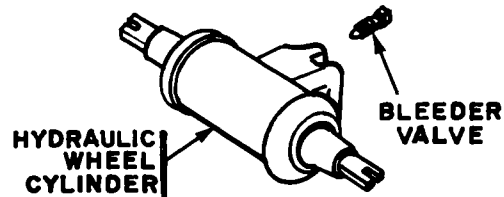
(1) Hydraulic master cylinder is attached to each brake air chamber. Each assembly is mounted on a bracket at the center of the dolly, forward of each axle.

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

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

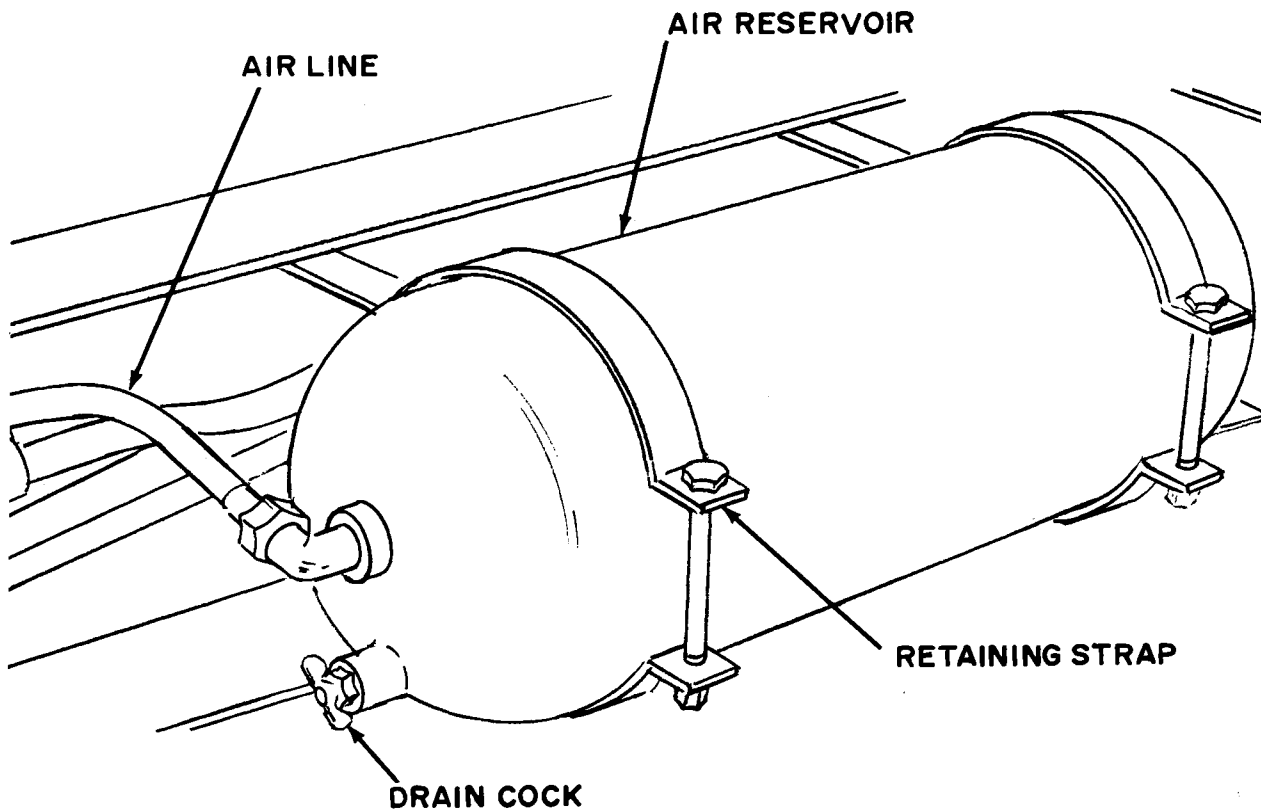
e. Hydraulic Wheel Cylinder.

- (1) Two are mounted on each brake backing plate (page 33).
- (2) It actuates brake shoes outward to force brake linings against brake drums.
- (3) Each wheel cylinder is connected to hydraulic master cylinder with tubing.
- (4) A bleeder valve on each wheel cylinder is used to bleed air from the system.



f. Air Reservoir.

- (1) It is a metal tank located at the center of the dolly, over the rear axle.
- (2) It stores compressed air used to supply air to semitrailer braking system.
- (3) The reservoir is equipped with a drain cock for draining moisture and releasing air pressure if brakes are locked.

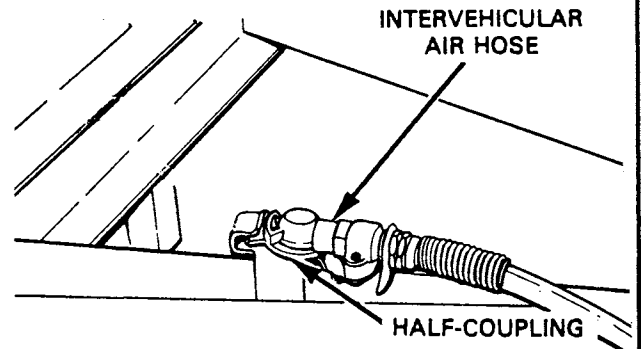


LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

g. Compressed Air Supply.

(1) Towing vehicle is equipped with an air compressor, air reservoir, governor for controlling air pressure, air gage, and safety valve.

(2) Air lines, intervehicular air hoses, air couplings, and shutoff valves transmit compressed air to semitrailer brake system.



h. Service Air Line.

(1) 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).

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

(3) These changes result from brake being applied in towing vehicle.

i. Emergency Air Line.

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

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

j. Air Half-Coupling and Dummy Coupling.

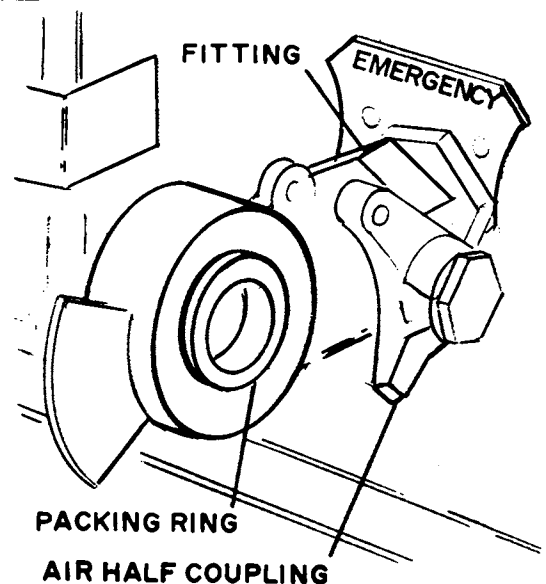
(1) Two air half-couplings are located on left side of dolly frame and two are at front end of semitrailer.

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

(3) They provide the connections to brake and air suspension air systems.

(4) The front emergency air connection is located slightly to rear of service air connection.

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



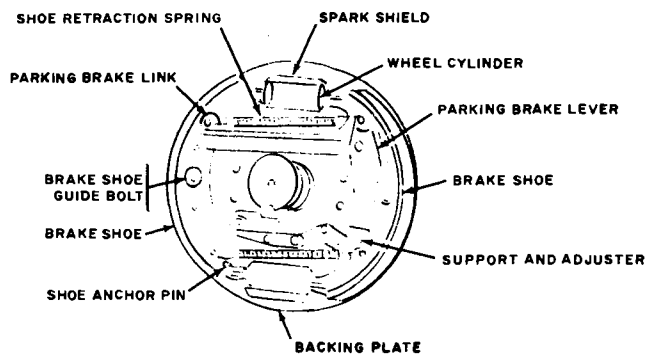
LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

k. Internal Brake Mechanism.

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

(2) Each one has two brake shoes fitted with brake linings.

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

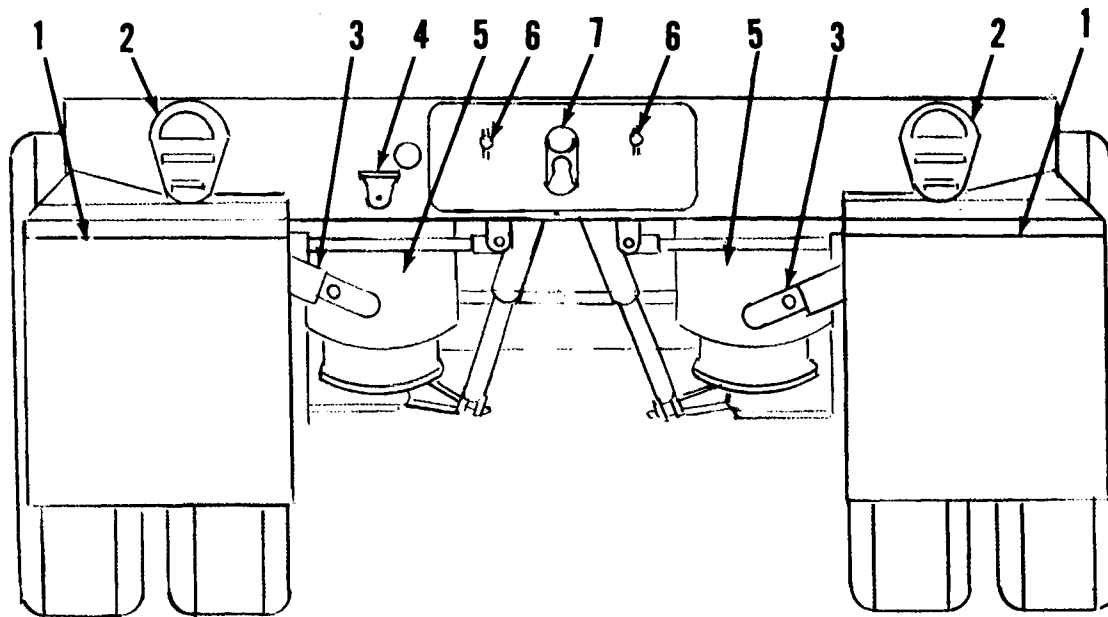


1-32. SPLASH GUARD

A splash guard is installed to the rear of each rear wheel.

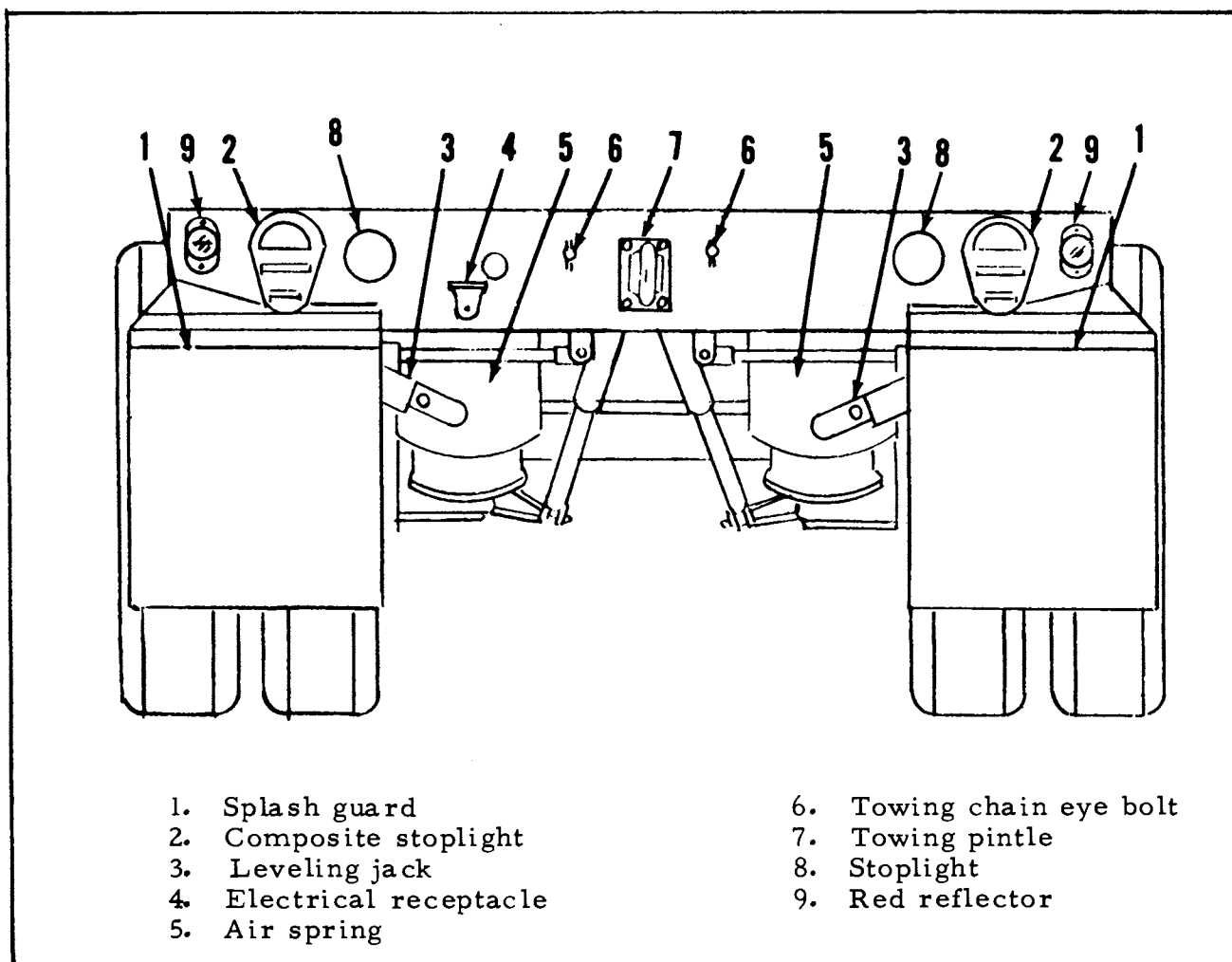
1-33. STOPLIGHT-TAILLIGHT ASSEMBLY

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



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

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)



1-33. 1. STOPLIGHT, XM991E1, XM995E1, XM991E2, XM995E2

a. On XM991E1, XM995E1, XM991E2 and XM995E2 semitrailers, an additional stoplight is installed at each side of rear dolly frame, inboard of each composite stoplight.

b. This stoplight is used only when semitrailer is towed by a towing vehicle with a 12-volt electrical system.

1-33. 2. RESISTOR ASSEMBLY, XM991E2, XM995E2

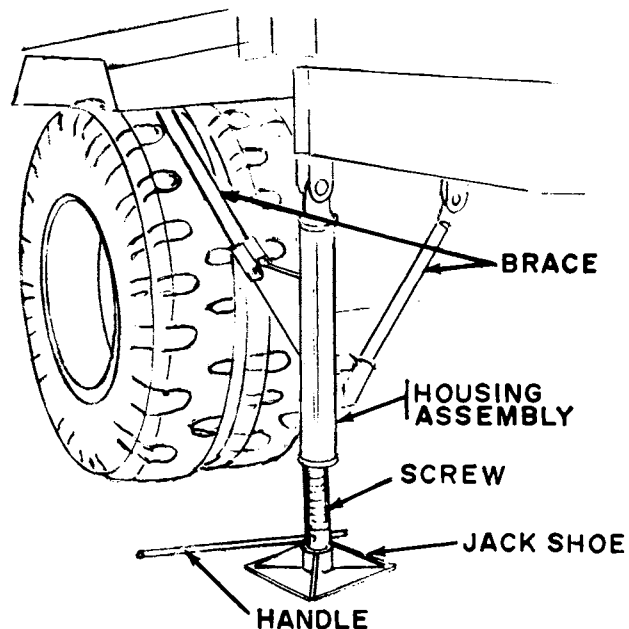
a. On XM991E2 and XM995E2 semitrailers, a resistor assembly is located in the left side storage compartment.

b. This resistor assembly is used when running lights are in operation.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

1-34. LEVELING JACK

- a. A leveling jack and jack shoe are provided at each rear corner of dolly.
- b. It consists of housing assembly, screw, braces, and removable jack shoe.
- c. Handle is stowed in front storage compartment.
- d. Jack is used to level and help stabilize semitrailer.



1-35. TOWING CHAIN EYE BOLTS

- a. Two eye bolts are located at rear of dolly, one at each side of towing pintle.
- b. They are used to retain the safety chains of towed vehicles.

1-36. TOWING PINTLE ASSEMBLY

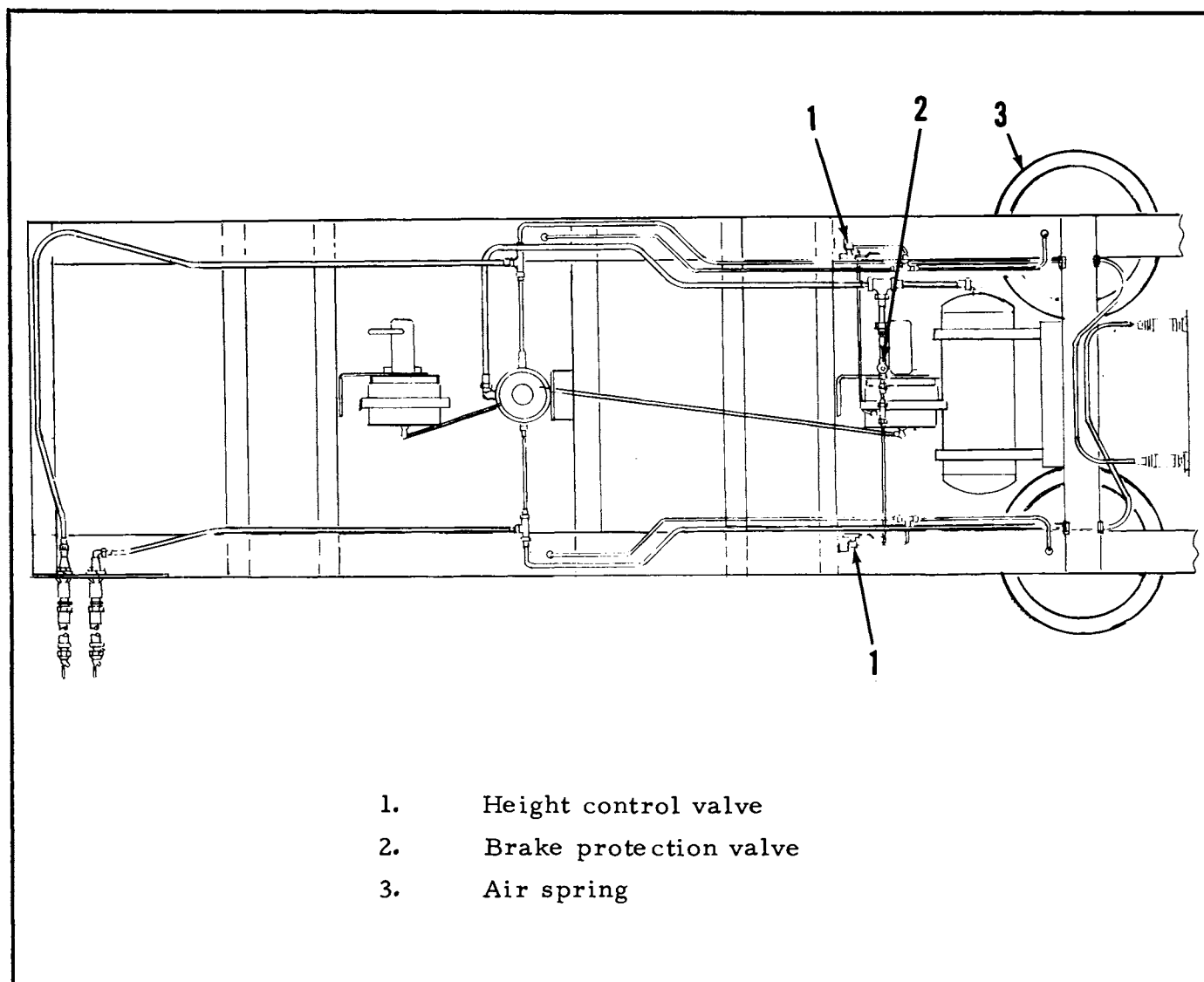
It is located at the center of the rear dolly frame and is used in towing operations.

1-37. REAR ELECTRICAL RECEPTACLE

- a. An electrical outlet is provided at rear of dolly, to left of the pintle assembly.
- b. It is used to supply electrical current to towed vehicle.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

1-38. AIR SUSPENSION SYSTEM



a. General Information.

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

(2) Automatic valve control regulates air pressure required for varying loads.

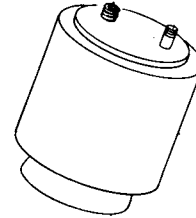
(3) A constant vehicle ride height is maintained at all times.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

b. Air Spring.

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

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

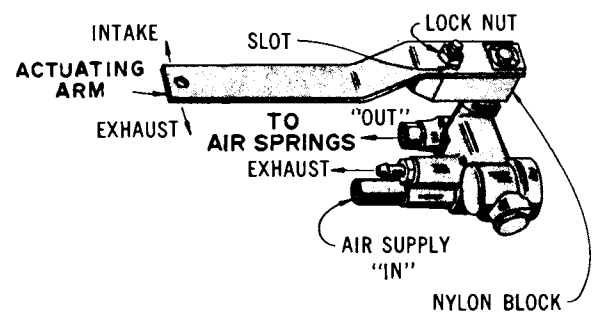


c. Height Control Valve.

(1) Two height control valves are used.

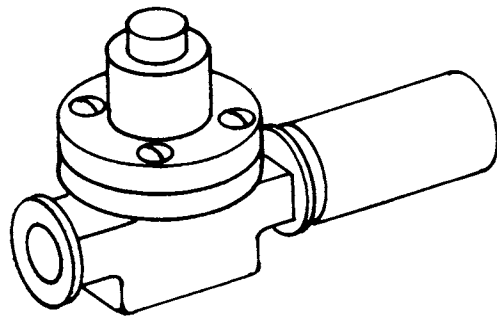
(2) They are located one at each side of dolly, forward of rear axle and are directly linked to rear axle.

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



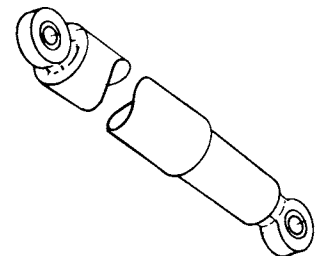
d. Brake Protection Valve.

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



e. Shock Absorber.

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



LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

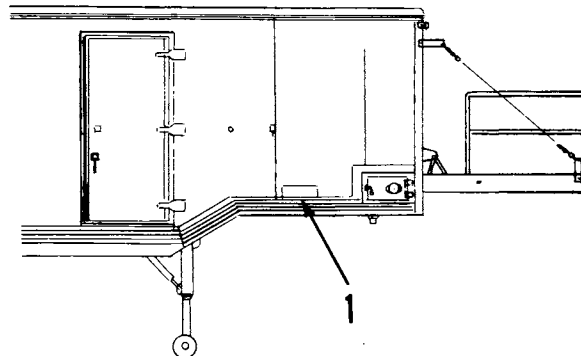
1-39. IDENTIFICATION PLATE AND VEHICLE REGISTRATION NUMBER

SEMITRAILER VAN: REPAIR FACILITY 10 TON, 4W, XM991, NSN 2330-01-093-8322 MFD BY MILLER TRAILERS INC. BRADENTON, FLORIDA VEN IDENT NO <input type="text"/> CONTRACT NO DAAE07-78-C-6768		WEIGHT AND DIMENSION DATA (TRAILER EMPTY) 																	
PUBLICATION TECHNICAL MANUAL TM9-2330-363-14 & P		<table border="1"> <tr> <th>WEIGHTS</th> <th>EMPTY</th> <th>LOADED</th> <th>SPEEDS</th> </tr> <tr> <td>WHEELS</td> <td>9890</td> <td>11350</td> <td>HIGHWAY 50 MPH</td> </tr> <tr> <td>KING PIN</td> <td>5120</td> <td>7380</td> <td>IMPROVED GRAVEL 25 MPH</td> </tr> <tr> <td>TOTAL</td> <td>15010</td> <td>18730</td> <td>CROSS COUNTRY 15 MPH</td> </tr> </table>		WEIGHTS	EMPTY	LOADED	SPEEDS	WHEELS	9890	11350	HIGHWAY 50 MPH	KING PIN	5120	7380	IMPROVED GRAVEL 25 MPH	TOTAL	15010	18730	CROSS COUNTRY 15 MPH
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KING PIN	5120	7380	IMPROVED GRAVEL 25 MPH																
TOTAL	15010	18730	CROSS COUNTRY 15 MPH																
DELIVERY DATE <input type="text"/> INSPECTED <input type="text"/>		SHIPPING CUBAGE 3384 CU FT																	

SEMITRAILER VAN: TEST STATION 10 TON, 4W, XM995, NSN 2330-01-093-8323 MFD BY MILLER TRAILERS INC. BRADENTON, FLORIDA VEN IDENT NO <input type="text"/> CONTRACT NO DAAE07-78-C-6768		WEIGHT AND DIMENSION DATA (TRAILER EMPTY) 																	
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WHEELS	9890	13127	HIGHWAY 50 MPH																
KING PIN	5120	10298	IMPROVED GRAVEL 25 MPH																
TOTAL	15010	23425	CROSS COUNTRY 15 MPH																
DELIVERY DATE <input type="text"/> INSPECTED <input type="text"/>		SHIPPING CUBAGE 3384 CU FT																	

a. The name and data identification plate (1) is located on front right side of semitrailer. 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.

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



LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

1-39. IDENTIFICATION PLATE (cont)

SEMITRAILER VAN: REPAIR FACILITY 10 TON, 4W, XM991E1, NSN-2330-01-145-0383		WEIGHT AND DIMENSION DATA (TRAILER EMPTY)																	
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TOTAL	15120	35120	CROSS COUNTRY 15 MPH																
DELIVERY DATE: _____ INSPECTED: _____		SHIPPING CUBAGE 3384 CU FT																	

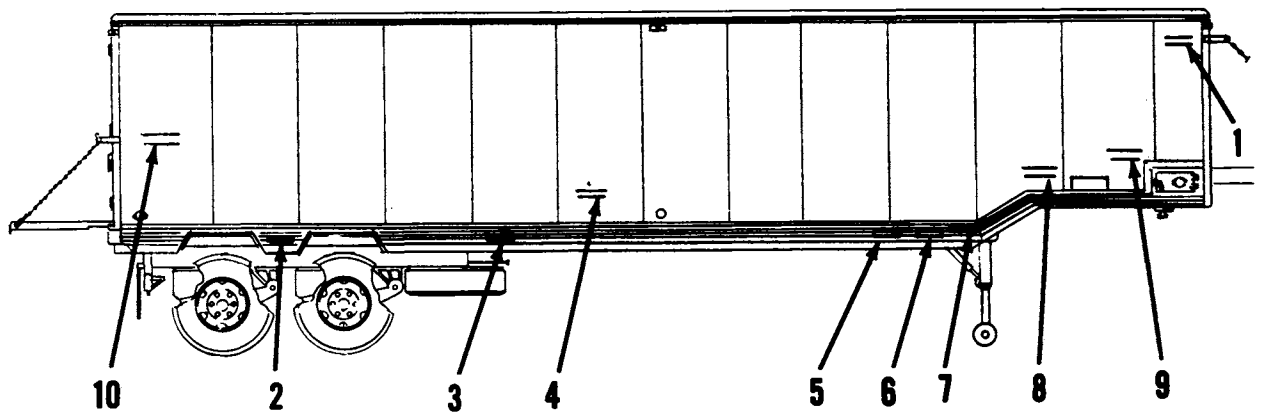
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DELIVERY DATE: _____ INSPECTED: _____		SHIPPING CUBAGE 3384 CU FT.																	

SEMITRAILER VAN: CENTRAL PROCESSOR 10 TON, 4W, XM991E2, NSN 2330-01-151-1707		WEIGHT AND DIMENSION DATA (TRAILER EMPTY)																	
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WEIGHTS	EMPTY	LOADED	SPEEDS																
WHEELS	9970	21970	HIGHWAY 50 MPH																
KING PIN	5210	13270	IMPROVED GRAVEL 25 MPH																
TOTAL	15180	35180	CROSS COUNTRY 15 MPH																
DELIVERY DATE: _____ INSPECTED: _____		SHIPPING CUBAGE 3384 CU.FT.																	

SEMITRAILER VAN: MASS STORAGE UNIT 10 TON, 4W, XM 995E2, NSN 2330-01-151-1706		WEIGHT AND DIMENSION DATA (TRAILER EMPTY)																	
MFD BY: _____ VEH IDENT NO: _____ CONTRACT NO: _____																			
PUBLICATION TECHNICAL MANUAL TM9-2330-363-14 & P		<table border="1"> <tr> <th>WEIGHTS</th> <th>EMPTY</th> <th>LOADED</th> <th>WEIGHTS</th> </tr> <tr> <td>WHEELS</td> <td>9970</td> <td>21970</td> <td>HIGHWAY 50 MPH</td> </tr> <tr> <td>KING PIN</td> <td>5210</td> <td>13270</td> <td>IMPROVED GRAVEL 25 MPH</td> </tr> <tr> <td>TOTAL</td> <td>15180</td> <td>35180</td> <td>CROSS COUNTRY 15 MPH</td> </tr> </table>		WEIGHTS	EMPTY	LOADED	WEIGHTS	WHEELS	9970	21970	HIGHWAY 50 MPH	KING PIN	5210	13270	IMPROVED GRAVEL 25 MPH	TOTAL	15180	35180	CROSS COUNTRY 15 MPH
WEIGHTS	EMPTY	LOADED	WEIGHTS																
WHEELS	9970	21970	HIGHWAY 50 MPH																
KING PIN	5210	13270	IMPROVED GRAVEL 25 MPH																
TOTAL	15180	35180	CROSS COUNTRY 15 MPH																
DELIVERY DATE: _____ INSPECTED: _____		SHIPPING CUBAGE 3384 CU.FT.																	

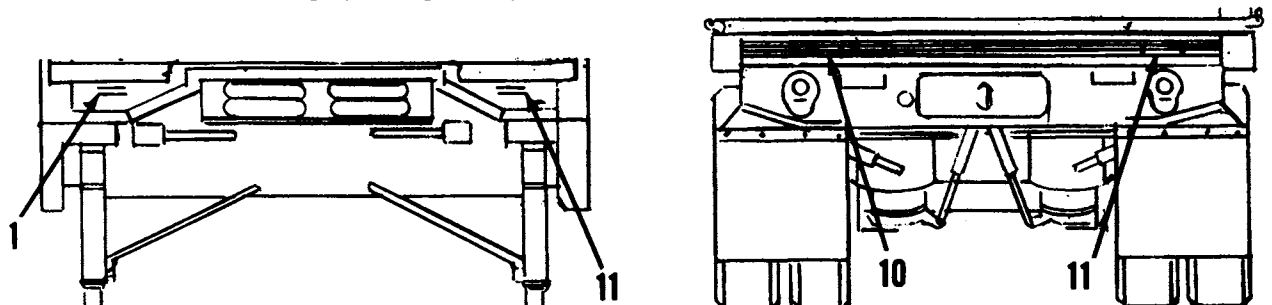
LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

1-40. STENCIL MARKINGS



The following list shows the location and wording of the stencil markings used on the semitrailer:

1. PLATFORM WEIGHT 180 LBS., 2 PERSONS REQUIRED TO RAISE OR LOWER PLATFORM
2. TP-50
3. AIRCRAFT LOADING EQUIPMENT STORAGE
4. REFER TO T. M. FOR OPERATING INSTRUCTIONS
5. ADAPTER STORAGE
6. ADAPTER WEIGHT, 60 LBS., 2 PERSONS REQUIRED TO REMOVE OR INSTALL
7. FOR LIFT ONLY
8. SWING LANDING LEG INTO HORIZONTAL POSITION FOR AIRCRAFT LOADING PER T. M. OPERATING INSTRUCTIONS
9. USE LIFTING EYES WHEN LIFTING ONLY
10. PLATFORM WEIGHT, 160 LBS., 2 PERSONS REQUIRED TO RAISE OR LOWER THE PLATFORM
11. PLATFORM LOAD CAPACITY 500 LBS.



1 41. DIFFERENCES BETWEEN MODELS

- a. The XM991 and XM995 semitrailers are basically alike, except for the location of the side door.
- b. The XM991E1 and XM995E1 semitrailers are basically like the XM991 and XM995 semitrailers, except for the locking mechanism of the doors.
- c. The XM991E2 and XM995E2 semitrailers are basically alike, except for location, quantity and locking mechanism of the doors.
- d. The XM991 and XM991E1 semitrailers have the side door located on the left side, to rear of drop, toward the front.
- e. The XM991E2 has the side door located in the center of the left side.
- f. The XM995 and XM995E1 semitrailers have the side door located on the right side, to rear of drop.
- g. The XM995E2 semitrailer has the side door located in the center of the right side.
- h. The double rear doors on the XM991, XM991E1, XM995 and XM995E1 semitrailers are offset to the same side as the side door.
- i. The XM991E2 and XM995E2 semitrailers have a single rear door, offset to the same side as the side door.
- j. The locking mechanism on the XM991E1, XM995E1, XM991E2 and XM995E2 semitrailer doors differs from that of the XM991 and XM995 semitrailer doors.
- k. The electrical system of the XM991E1, XM995E1, XM991E2, and XM995E2 semitrailers differs from that of the XM991 and XM995 semitrailers.

1-42. EQUIPMENT DATA

Towing facility kingpin

Dimensions:

Overall length	425 in	(1 079.5 cm)
Overall length (with platforms in stowed position), XM991, XM995, XM991E1, XM995E1	464 in.	(1 178.6 cm)
Overall length (with rear platform in stowed position), XM991E2, XM995E2	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)

1-42. EQUIPMENT DATA (cont)

Weight

Weight (empty), XM991, XM995	15,010 lbs.	(6 814.5 kg)
Weight (empty), XM991E1, XM995E1	15,120 lbs.	(6 864.5 kg)
Weight (empty), XM991E2, XM995E2	15,180 lbs.	(6 891.7 kg)
Weight on kingpin (empty), XM991, XM995	5,120 lbs.	(2 324.5 kg)
Weight on kingpin (empty), XM991E1, XM995E1	5,230 lbs.	(2 374.4 kg)
Weight on kingpin (empty), XM991E2, XM995E2	5,210 lbs.	(2 365.3 kg)
Weight on wheels (empty), XM991, XM995	9,890 lbs.	(4 490.1 kg)
Weight on wheels (empty), XM991E1, XM995E1	9,890 lbs.	(4 490.1 kg)
Weight on wheels (empty), XM991E2, XM995E2	9,970 lbs.	(4 526.4 kg)
Weight (loaded), XM991	18,730 lbs.	(8 503.4 kg)
Weight (loaded), XM995	23,425 lbs.	(10 635.0 kg)
Weight (loaded), XM991E1	35,120 lbs.	(15 944.4 kg)
Weight (loaded), XM995E1	35,120 lbs.	(15 944.4 kg)
Weight (loaded), XM991E2	35,180 lbs.	(15 971.8 kg)
Weight (loaded), XM995E2	35,180 lbs.	(15 971.8 kg)
Weight on kingpin (loaded), XM991	7,380 lbs.	(3 277.5 kg)
Weight on kingpin (loaded), XM995	10,298 lbs.	(4 675.3 kg)
Weight on kingpin (loaded), XM991E1	13,240 lbs.	(6 011.0 kg)
Weight on kingpin (loaded), XM995E1	13,240 lbs.	(6 011.0 kg)
Weight on kingpin (loaded), XM991E2	13,270 lbs.	(6 024.6 kg)
Weight on kingpin (loaded), XM995E2	13,270 lbs.	(6 024.6 kg)
Weight on wheels (loaded), XM991	11,350 lbs.	(5 152.9 kg)
Weight on wheels (loaded), XM995	13,127 lbs.	(5 959.7 kg)
Weight on wheels (loaded), XM991E1	21,880 lbs.	(9 933.5 kg)
Weight on wheels (loaded), XM995E1	21,880 lbs.	(9 933.5 kg)
Weight on wheels (loaded), XM991E2	21,910 lbs.	(9 947.1 kg)
Weight on wheels (loaded), XM995E2	21,910 lbs.	(9 947.1 kg)
Weight of dolly	4,300 lbs.	(1 952.0 kg)
Cubage (shipping)	3,384 cu.ft.	(94.7 m ³)

Axle:

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

Brake system:

Actuation	Air-over-hydraulic
Brake assemblies	4 sets

1-42. EQUIPMENT DATA (cont)

Electrical system:

Voltage 24-volt dc
 Power source towing vehicle

Tires:

Number 8 and a spare
 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 lb. (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 -50° F (-44.4°C)
 Assembly weight (including air controls) 450 lbs. (204.3 kg)

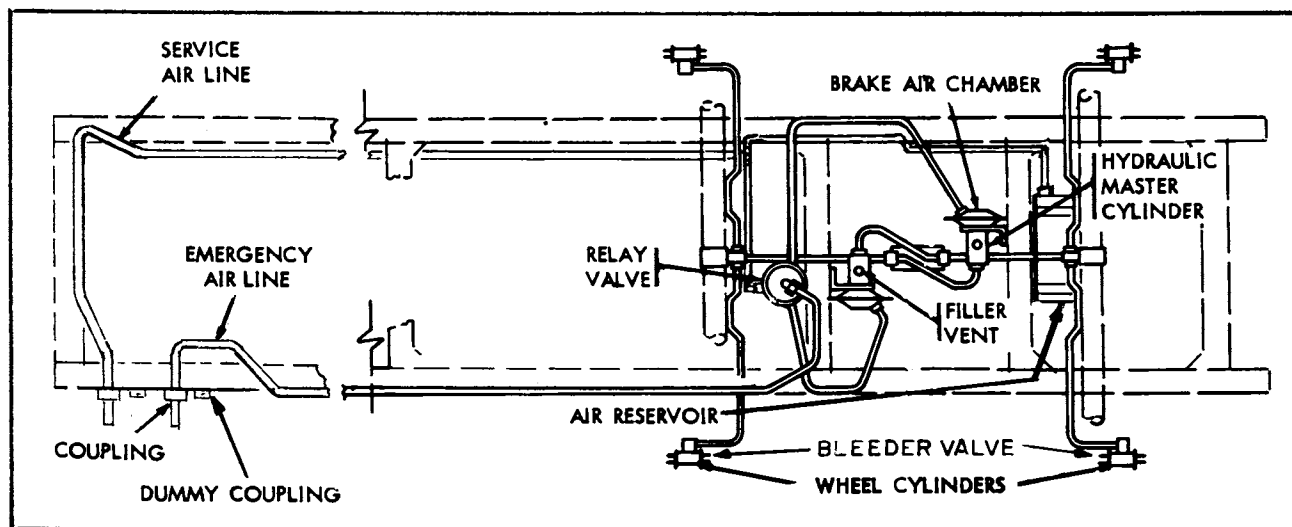
Air suspension system:

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 -50° F (-44.4°C)

Landing gear Swing-up type, separately
 operated, two-speed

Section III. TECHNICAL PRINCIPLES OF OPERATION

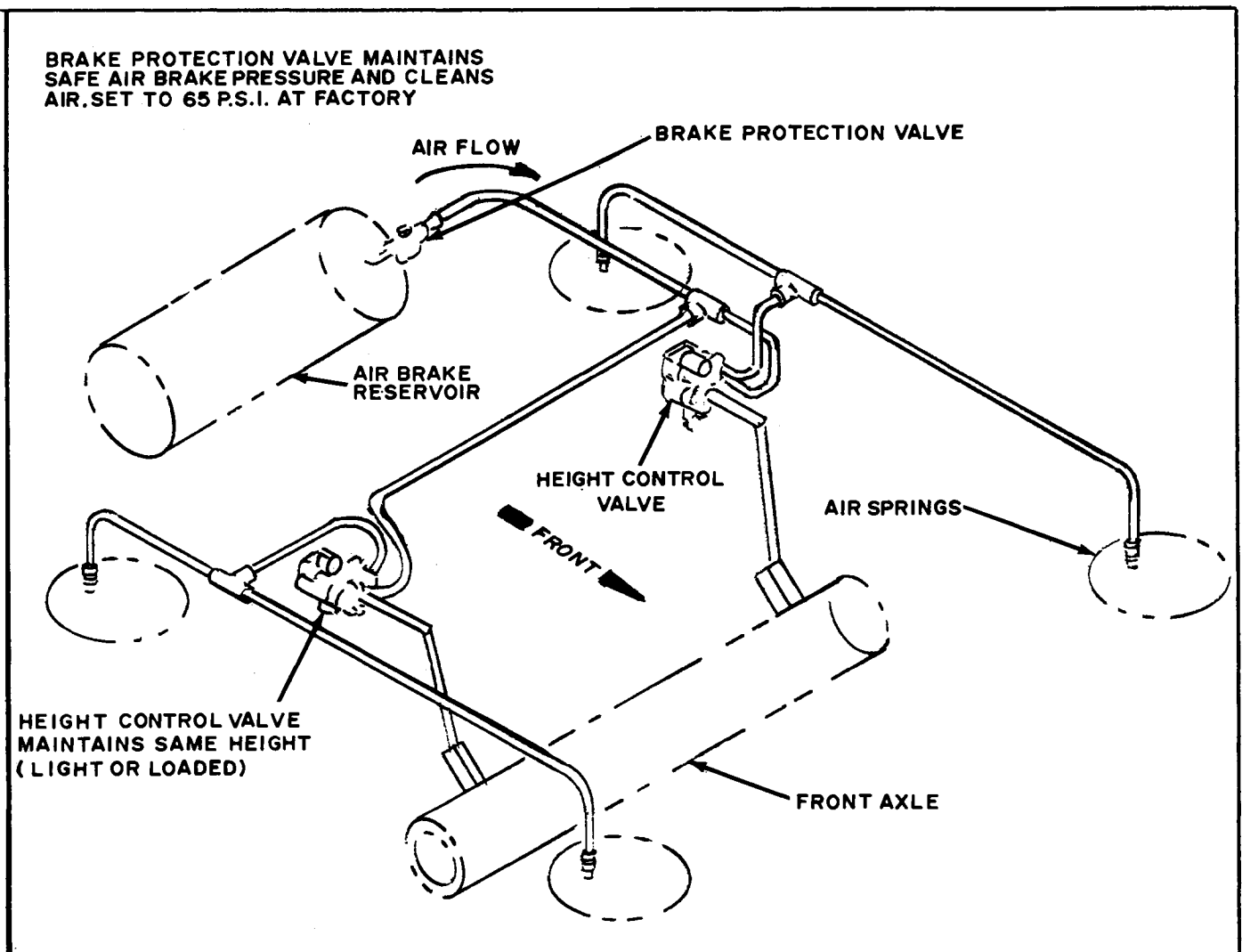
1-43. BRAKE SYSTEM



- a. 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.
- b. When pressure is applied to the brake pedal on the towing vehicle, air pressure is directed to the relay valve.
- c. The relay valve releases compressed air from the air reservoir to the brake air chamber attached to the hydraulic master cylinder.
- d. 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.
- e. 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.
- f. When the brake pedal is released, a drop in pressure causes the relay valve to release the compressed air from the semitrailer service brake system.
- g. With the air released, the brake return springs pull the brake shoes away from the drums.
- h. The extent of brake release is in direct proportion to the brake pedal movement.

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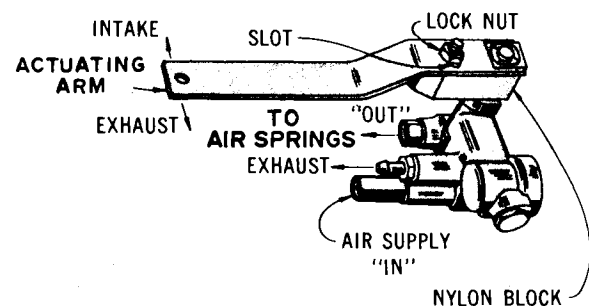
1-44. AIR SUSPENSION SYSTEM



a. 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.

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

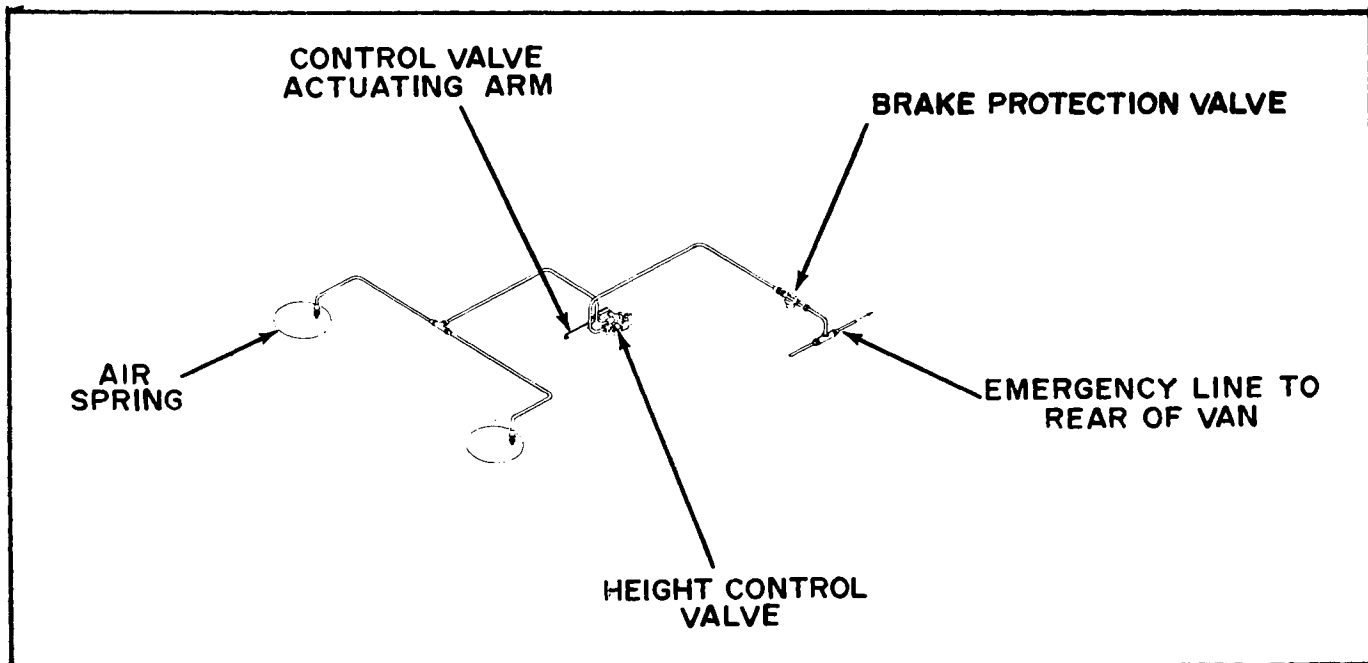
c. The valves operate each side independently, thus maintaining a side to side semitrailer level condition at all times.



1-44. AIR SUSPENSION SYSTEM (cont)

- d. Loss of air pressure or air spring deflection by off center loading causes actuating arm to move up.
- e. Up movement of actuating arm opens the intake valve and allows supply air to pass through to the air springs serviced by that valve.
- f. Down movement of actuating arm opens the exhaust valve, allowing excess air pressure to vent to the atmosphere.
- g. A check valve in the intake fitting prevents pressure loss if high pressure air supply is interrupted.
- h. 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.
- i. A 3/8-inch dead zone is built into the valve action to prevent a valve hunting action.

1-45. AIR MOUNTED FIFTH WHEEL KINGPIN SYSTEM



- a. Pressurized air flows through the check valve, through the height control valve and into the air springs.
- b. 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.
- c. The height control valve regulates the amount of pressurized air required to take care of the varying semitrailer loads.

1-45. AIR MOUNTED FIFTH WHEEL KINGPIN SYSTEM (cont)

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

e. 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.

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

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

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

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

CHAPTER 2

OPERATING INSTRUCTIONS

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

- 2-1. LANDING GEAR CRANK. Refer to para 1-12.
- 2-2. AIR BRAKE HALF COUPLING. Refer to para 1-31.
- 2-3. AIR RESERVOIR DRAIN COCK. Refer to para 1-31.
- 2-4. SPARE WHEEL CARRIER. Refer to para 1-30.
- 2-5. LEVELING JACK. Refer to para 1-34.
- 2-6. LADDERS. Refer to para 1-23.

Section II. 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 TM 38-750.

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 CAUTIONS 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 of solvent is 138 degrees F (58.8 degrees 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) 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, of course, 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 or broken connectors. Tighten all loose wires and connectors. Replace or repair as required.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (cont)

(5) Hoses and fluid lines: Look for wear, damage and leaks. Make sure clamps and fittings are tight. Wet spots show leaks, or 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.

j. 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 Definitions 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 full capacity of the item/system being checked/ inspected. When in doubt, notify your supervisor.

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

M—Monthly

Item No.	Interval					ITEM TO BE INSPECTED Procedures: Check For and Have Repaired, Filled, or Adjusted as Needed	Equipment Is Not Ready/Available If:
	B	D	A	W	M		
1	●					<p>NOTE</p> <p>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).</p>	<p>Tires have cuts or abrasions which would result in tire failure during operation.</p> <p>One or more tires missing or unserviceable.</p> <p>Class III leakage is evident.</p>

Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

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

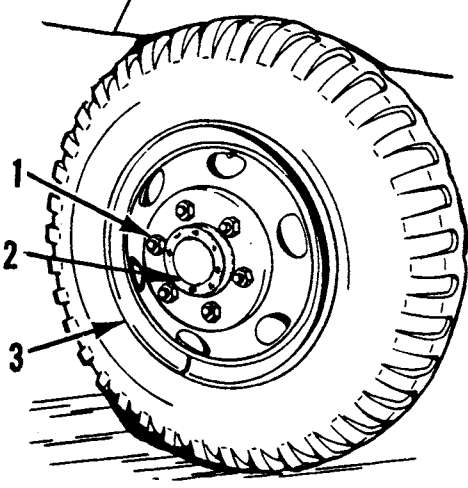
B—Before

D—During

A—After

W—Weekly

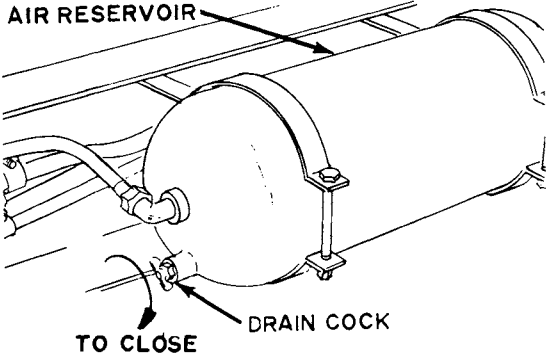
M—Monthly

Item No.	Interval					ITEM TO BE INSPECTED Procedures: Check For and Have Repaired, Filled, or Adjusted as Needed	Equipment Is Not Ready/Available If:
	B	D	A	W	M		
2						<p>WHEELS</p>  <p>NOTE</p> <p>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. ● 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.

Operator/Crew Preventive Maintenance Checks and Services (cont)**NOTE**

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

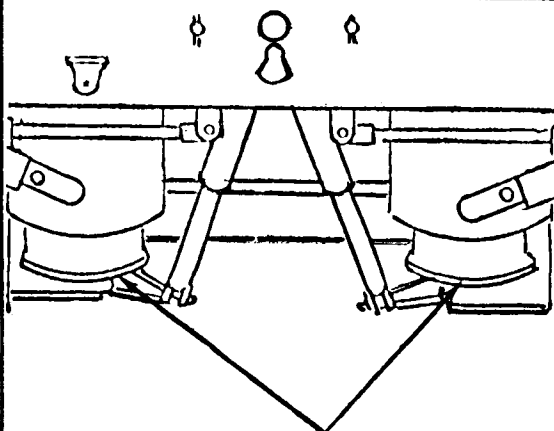
B—Before**D—During****A—After****W—Weekly****M—Monthly**

Item No.	Interval					ITEM TO BE INSPECTED Procedures: Check For and Have Repaired, Filled, or Adjusted as Needed	Equipment Is Not Ready/Available If:
	B	D	A	W	M		
3	●					BRAKE AIR HOSES Check air hoses for obvious damage.	Air 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  Open drain cock to drain accumulated moisture.	

Operator/Crew Preventive Maintenance Checks and Services (cont)**NOTE**

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

B—Before**D—During****A—After****W—Weekly****M—Monthly**

Item No.	Interval					ITEM TO BE INSPECTED Procedures: Check For and Have Repaired, Filled, or Adjusted as Needed	Equipment Is Not Ready/Available If:
	B	D	A	W	M		
7						<p>AIR SUSPENSION</p>  <p>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 for equal inflation. 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>	Air springs will not inflate.
8	●		●		●		

Operator/Crew Preventive Maintenance Checks and Services (cont)

NOTE

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

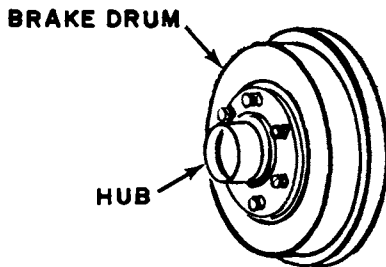
B—Before

D—During

A—After

W—Weekly

M—Monthly

Item No.	Interval					ITEM TO BE INSPECTED Procedures: Check For and Have Repaired, Filled, or Adjusted as Needed	Equipment Is Not Ready/Available If:
	B	D	A	W	M		
9		●				BRAKES During operation, apply semi-trailer brakes several times and check for any unusual conditions or unsatisfactory performance (grabbing, pulling or slow brakes)	
10		●				TRACKING Pull semitrailer straight ahead and check for any side pull, wander, shimmy or slack between kingpin and fifth wheel lock.	Vehicle pulls to side or wanders.
11						BRAKE DRUM AND HUB (TEMPERATURES) <div data-bbox="578 1202 966 1468">  </div> WARNING Overheated brake drums and hubs can cause severe burns to personnel when touched. After operations, cautiously feel brake drums and hubs for excessive heat.	

Operator/Crew Preventive Maintenance Checks and Services (cont)**NOTE**

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

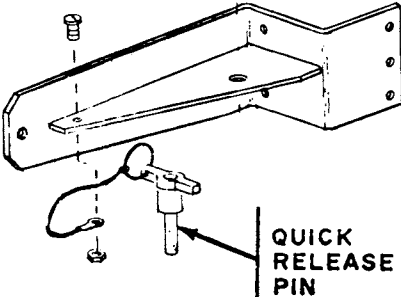
B—Before**D—During****A—After****W—Weekly****M—Monthly**

Item No.	Interval					ITEM TO BE INSPECTED Procedures: Check For and Have Repaired, Filled, or Adjusted as Needed	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.

B—Before**D—During****A—After****W—Weekly****M—Monthly**

Item No.	Interval					ITEM TO BE INSPECTED Procedures: Check For and Have Repaired, Filled, or Adjusted as Needed	Equipment Is Not Ready/Available If:
	B	D	A	W	M		
14						BODY AND FRAME (cont) 	
15						<ul style="list-style-type: none"> ● c. Visually inspect front and rear platforms. Make certain quick release pins are in good working order. RADIO FREQUENCY INTER-FERENCE SHIELDING NOTE <ul style="list-style-type: none"> ● Radio Frequency Interference shielding (RFI) must be kept clean at all times to provide a good bond. 	

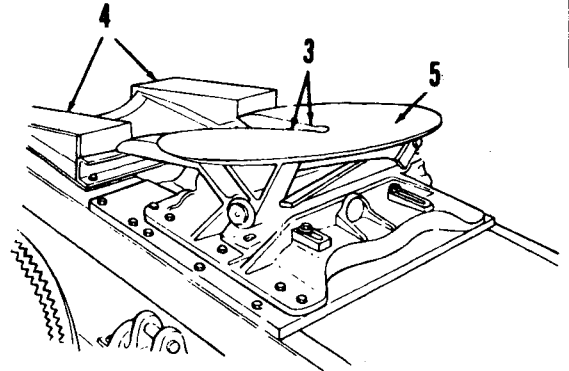
Section III. OPERATION UNDER USUAL CONDITIONS

2-9. COUPLING SEMITRAILER TO TOWING VEHICLE

WARNING

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

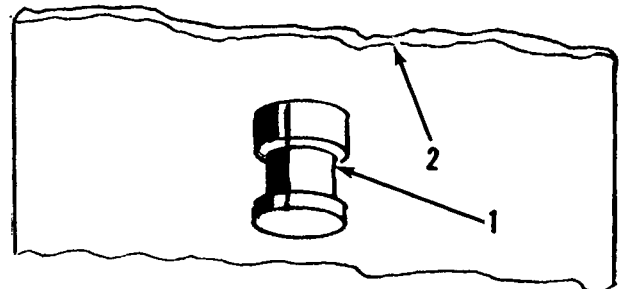
1. Aline towing vehicle with semitrailer.
2. Slowly back towing vehicle into position. Be sure kingpin (1) is in line with fifth wheel coupler jaws (3).
3. Before kingpin plate (2) starts to ride the approach ramps (4), check that kingpin plate (2) is above approach ramps (4). Adjust height as needed by using the landing gear. Make sure coupler jaws (3) are open.
4. Slowly back towing vehicle until coupler jaws (3) engage kingpin (1).



CAUTION

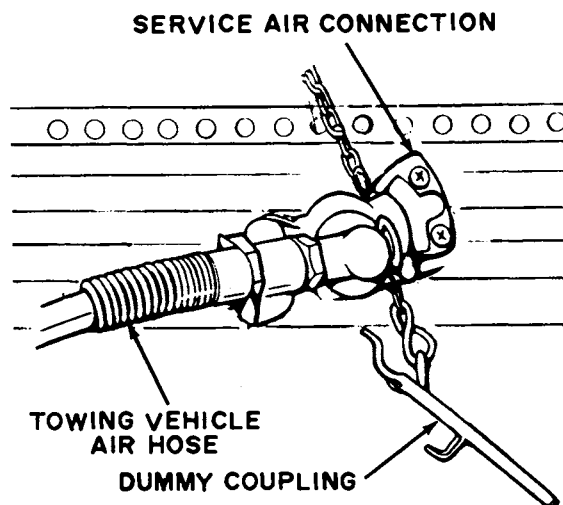
Visually check coupling. You should not be able to see daylight between the fifth wheel and the kingpin plate.

5. 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).

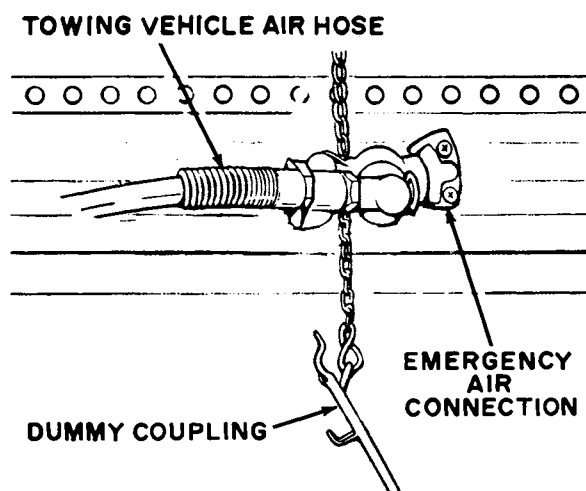


2-9. COUPLING SEMITRAILER TO TOWING VEHICLE (cont)

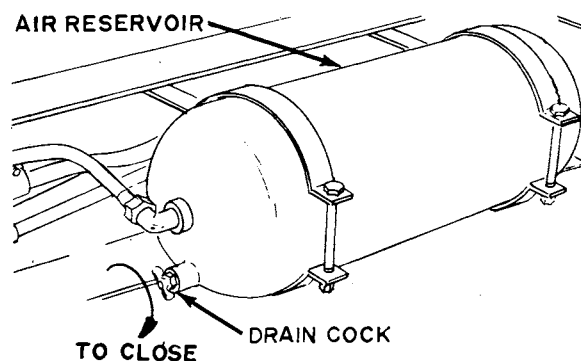
6. Remove dummy couplings on front of semitrailer and place in their supports.
7. Connect coupling marked SERVICE on towing vehicle air hose to coupling marked SERVICE on semitrailer.



8. Connect coupling marked EMERGENCY on towing vehicle air hose to coupling marked EMERGENCY on semitrailer.



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



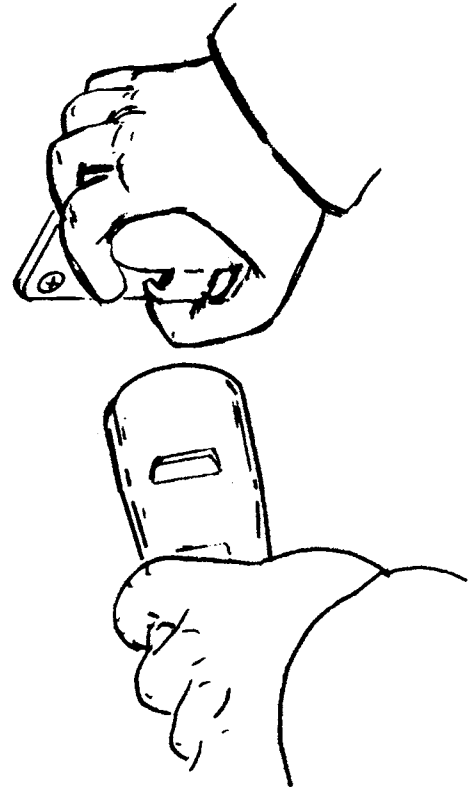
2-9. COUPLING SEMITRAILER TO TOWING VEHICLE (cont)

11. Plug towing vehicle intervehicular cable into receptacle on front of semi-trailer.

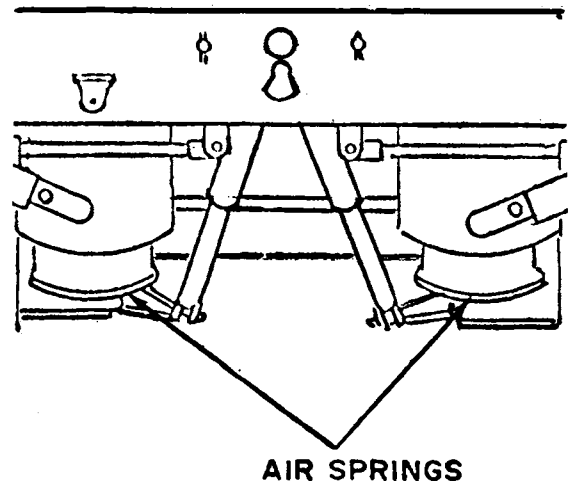
CAUTION

Check lamps for 12-volt or 24-volt lamps.

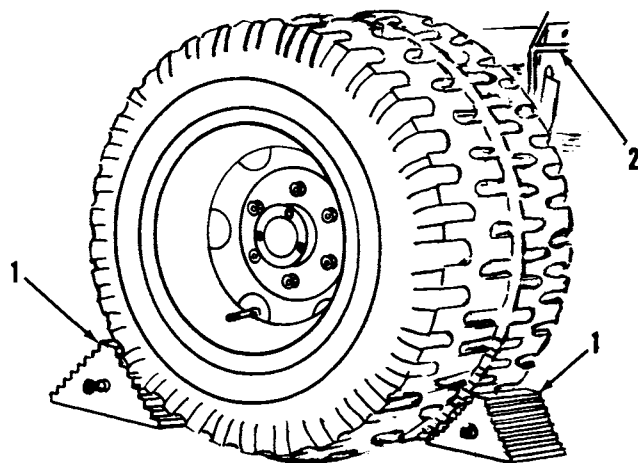
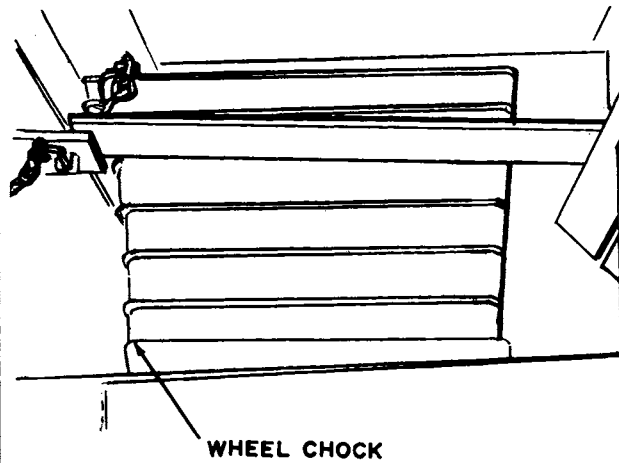
12. Make sure to use the proper receptacle, either 24-volt or 12-volt, depending on the electrical system of towing vehicle.
13. Check to see that all lights are in working order.



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

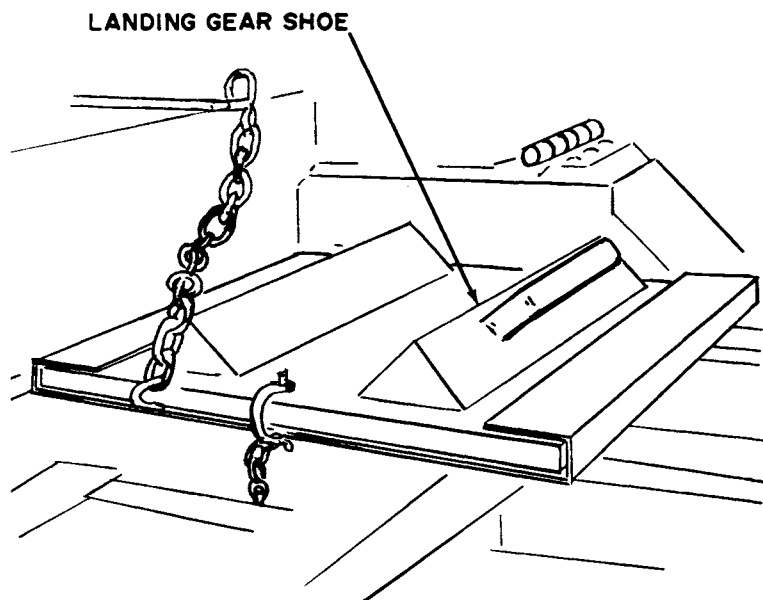


2-10. UNCOUPLING SEMITRAILER FROM TOWING VEHICLE



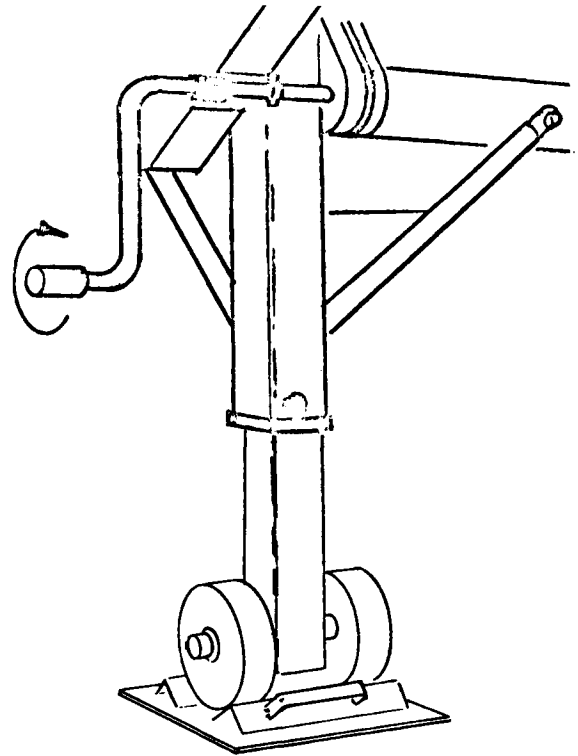
1. Remove wheel chock (1) from stowage bracket (2).
2. Place wheel chock (1) behind outside wheel of front axle.
3. Place second wheel chock in front of wheel.

4. Remove landing gear shoes from stowage brackets underneath van body.

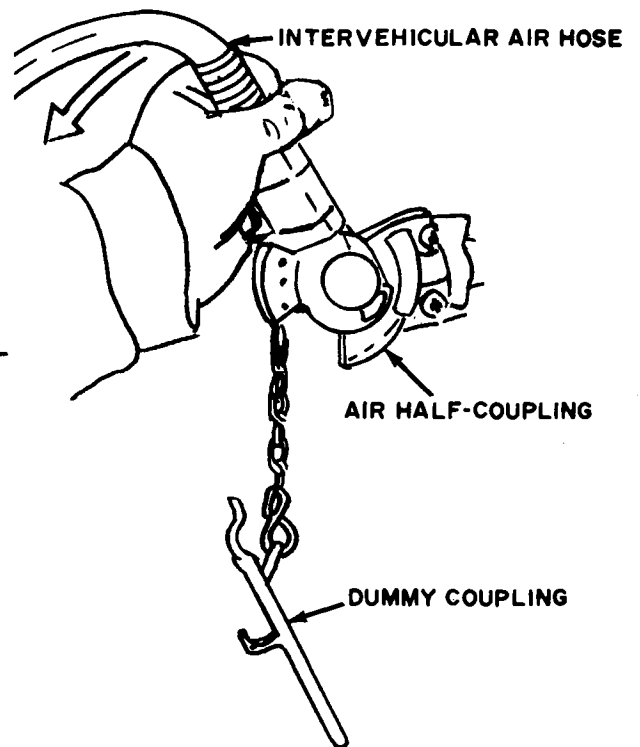


2-10. UNCOUPLING SEMITRAILER FROM TOWING VEHICLE (cont)

5. Turn crank clockwise to lower landing gear legs until they support front of van body.



6. Disconnect air brake hoses from towing vehicle.



2-10. UNCOUPLING SEMITRAILER FROM TOWING VEHICLE (cont)

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

2-11. PREPARING SEMITRAILER FOR OPERATION

PRELIMINARY STEPS

1. Disconnect from towing vehicle (paragraph 2-10 above).
2. Lower landing gear legs (paragraph 2-12).
3. Level van body (paragraphs 2-13, 2-14).
4. Lower front and rear platforms (paragraph 2-15).
5. Install ladders (paragraph 2-16).

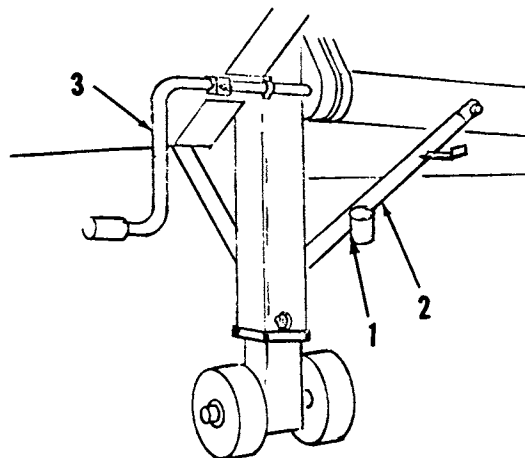
2-12. LANDING GEAR

NOTE

Swing landing gear to horizontal position for aircraft loading only.

OPERATION

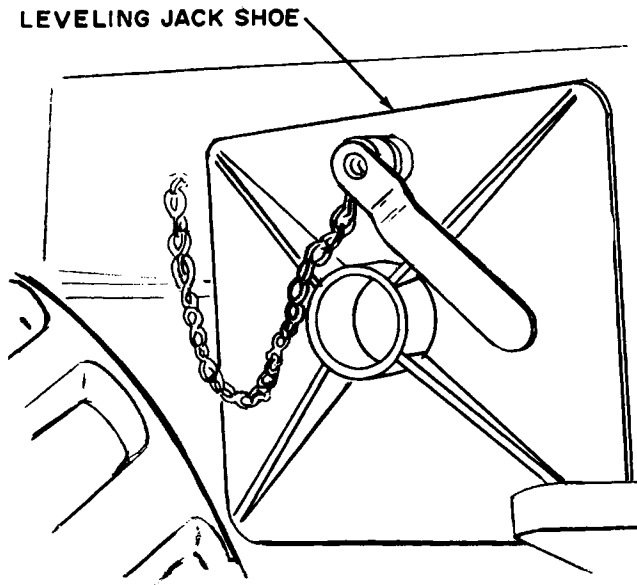
1. With landing gears in normal operating position with legs contacting ground, unfasten snap chain assembly (1). Remove crank (3) from stowage socket on brace (2).
2. Position slot in crank (3) to engage pin in landing leg shaft.
3. Landing gears are two speed, separately operated landing legs.
4. Pull 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.



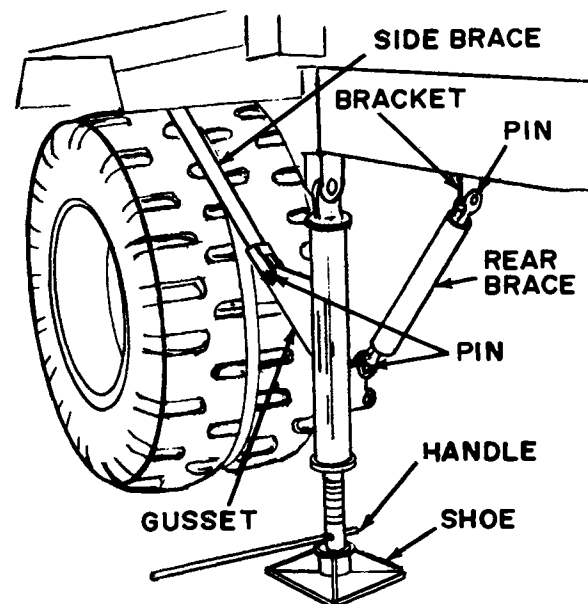
2-13. LEVELING JACK

TO OPERATE

1. Remove leveling jack shoe from crossmember and place it on ground in alinement with jack.



2. Pull out the two retaining pins at rear and allow jack to swing down to the vertical position.
3. Pull out retaining pin from short side brace and pin brace to gusset on side of jack housing.

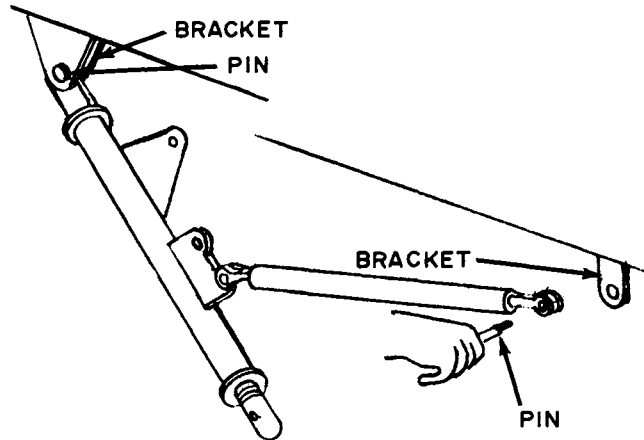


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2-13. LEVELING JACK (cont)

TO OPERATE (cont)

4. Pin short brace to top of bracket on van.
5. Swing long rear brace up into position and pin in place.

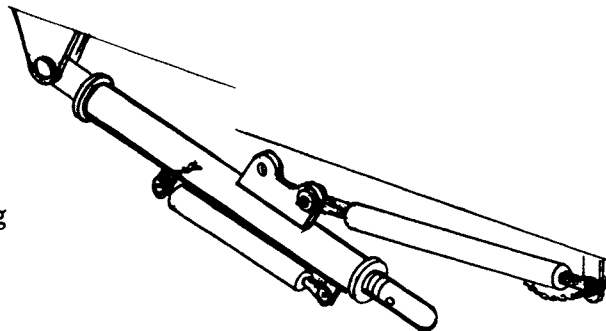


6. Remove handle from side storage compartment and insert in hole at bottom of actuation screw. Turn clockwise to lower actuator screw on to the shoe.

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 retaining pin securing long rear brace in position.
3. Pull out retaining pin securing short side brace to gusset on side of jack housing.
4. Swing leveling jack up to horizontal position and secure with two retaining pins at rear of van.
5. Secure leveling jack shoe on cross-member.

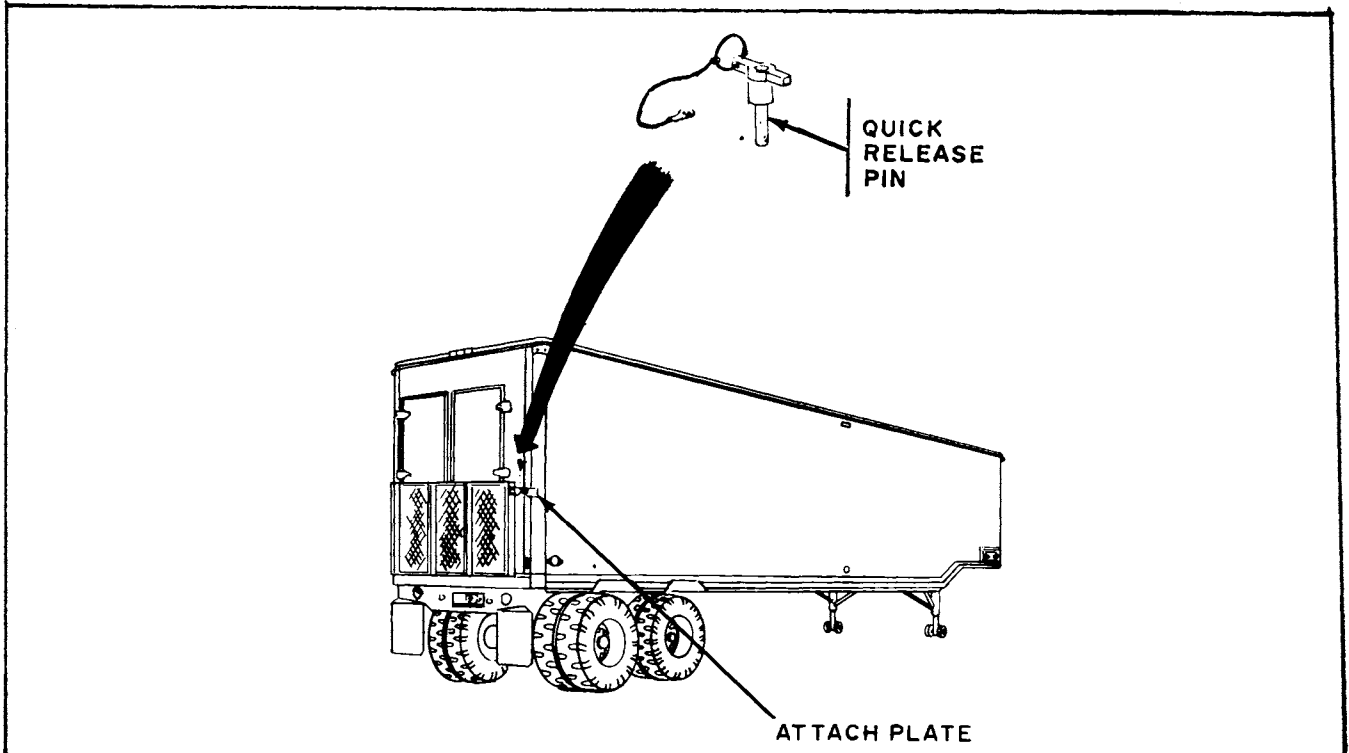


2-14. LEVELING VAN BODY

1. Follow procedure of para 2-13 above to set leveling jacks in operating position.
2. Check the four levels at the rear corners of van body and adjust leveling jacks as required.
3. Check the four levels at the front corners of van body. Level front end of van body using the landing gear.
4. Check all eight levels. Adjust each leveling jack or landing gear leg until the bubbles of all eight levels are centered.

2-15. RAISING AND LOWERING PLATFORMS

RAISING REAR PLATFORM



1. Two persons required for this operation, one person at each edge of platform.
2. Raise platform so that it rests against van body. Secure in position with two quick release pins at upper attach plate.

LOWERING REAR PLATFORM

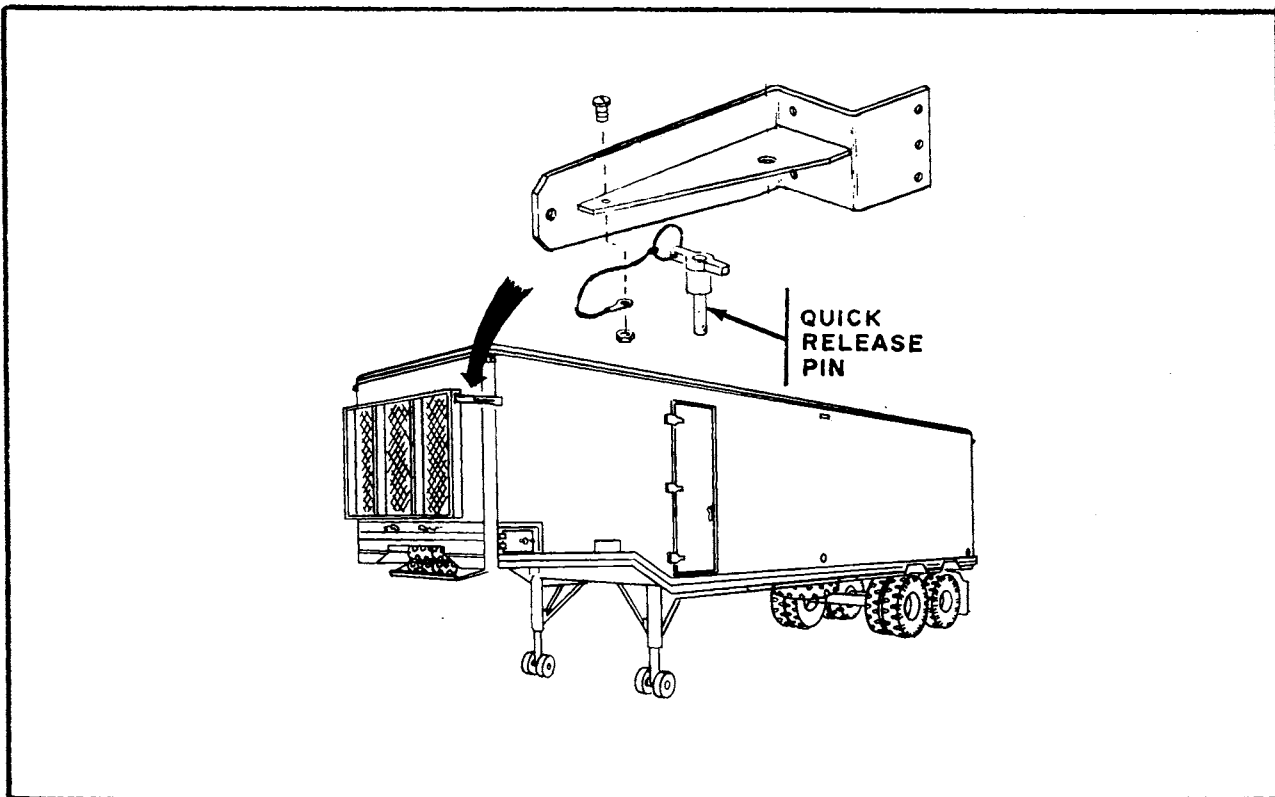
1. Two persons required, one at each edge of platform.
2. Remove two quick release pins from upper attach plate. Lower platform until it comes to rest on the chains.

2-15. RAISING AND LOWERING FRONT PLATFORMS (cont)

1. Two persons are required for this procedure.

WARNING

With quick release pins removed, upper part of platform will be loose.
In both raising and lowering operations, person on ground must exercise care to support platform.



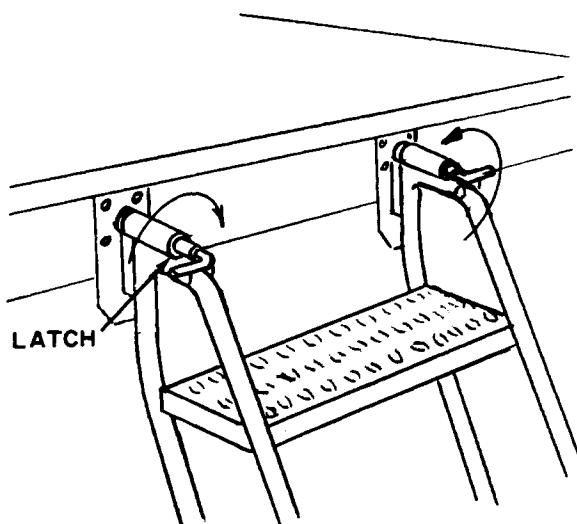
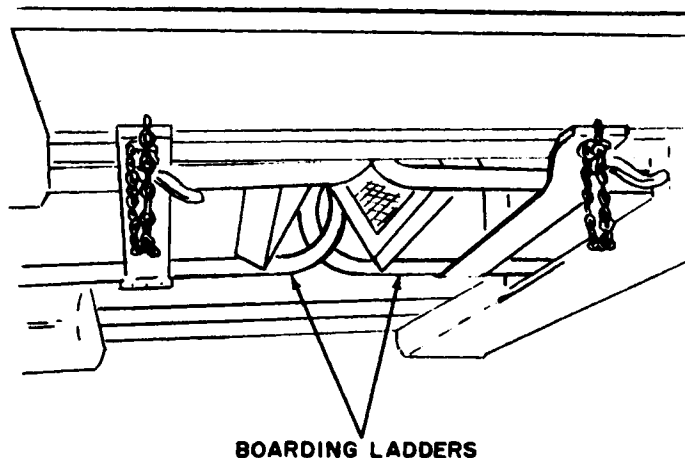
2. Both persons raise platform to upright position, resting against van body.
3. One person supports platform in upright position.
4. Second person uses folding ladder to reach upper part of platform and insert a quick release pin on each side to secure platform in place.

LOWERING FRONT PLATFORM

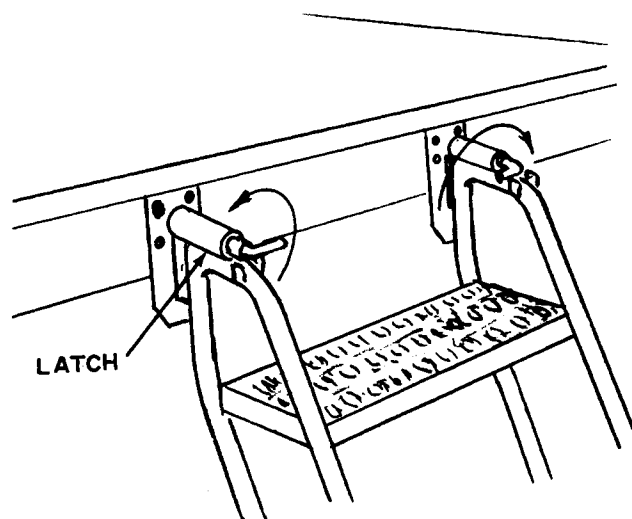
1. Two persons are required for this operation.
2. One person supports platform.
3. Second person uses folding ladder to reach upper part of platform and remove a quick release pin from each side.
4. Both persons lower platform until it comes to rest on the chains.

2-16. INSTALLING LADDER

1. Remove ladder from stowage bracket on underside of semi-trailer.



Locked position

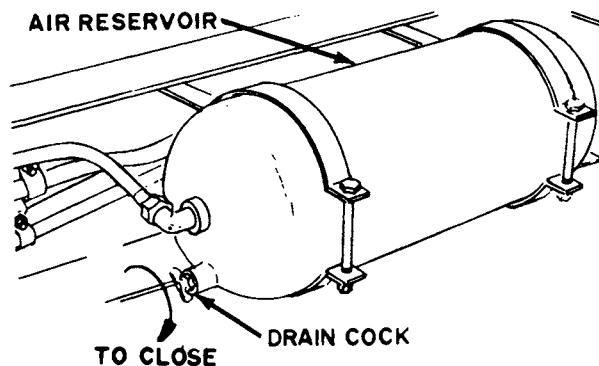


Unlocked position

2. Ladder has a latch on each side, at end to be attached to semitrailer.
3. To install, first turn left latch handle to right and right latch handle to left.
4. Insert ladder end into the holes provided under side door and rear platform.
5. Turn left latch handle to left and right latch handle to right to lock ladder in position.

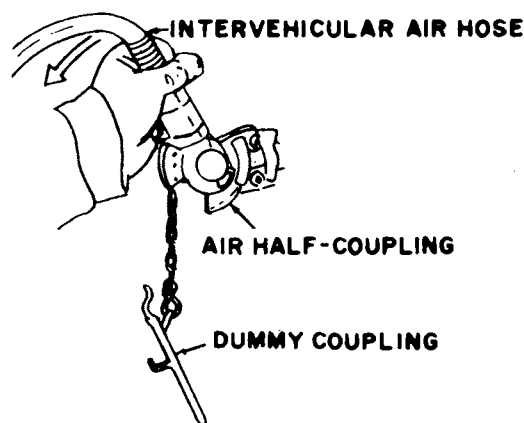
2-17. AIR RESERVOIR DRAIN COCK

1. The hand operated drain cock is located at end and bottom of air reservoir.
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.



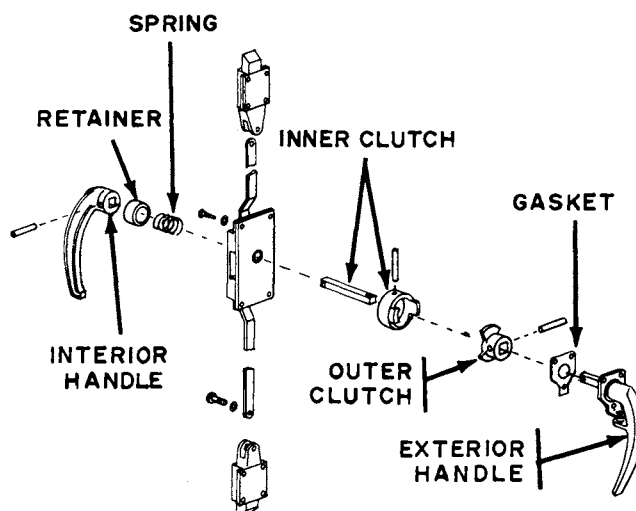
2-18. AIR HALF-COUPLING

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



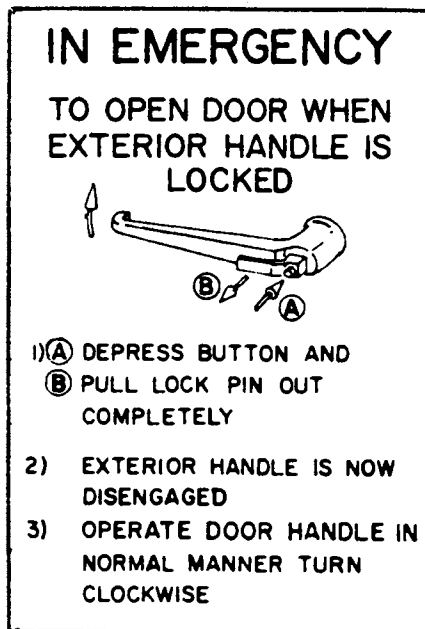
2-19. ESCAPE LOCK ASSEMBLY, XM991, XM995

1. All doors on the XM991 and XM995 semitrailers have an escape lock assembly to allow personnel to open the door, even if it is locked.
2. To use escape lock assembly, push interior handle in to disengage clutch, turn handle and open door.

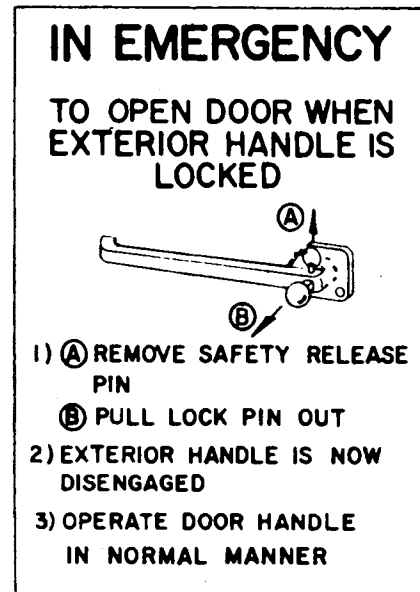


2-19.1. ESCAPE MECHANISM, XM991E1, XM995E1, XM991E2, XM995E2

1. On the XM991E1 and XM995E1 semitrailers, all doors are equipped with an emergency escape mechanism.
2. On the XM991E2 and XM995E2 semitrailers, all doors, with the exception of the right side door, are equipped with an emergency escape mechanism.
3. The escape mechanism allows personnel to open the door from the inside, even though outside handle is locked.
4. The procedure to follow to use the escape mechanism for the XM991E1 and XM995E1 semitrailers differs from that for the XM991E2 and XM995E2 semitrailers.
5. Follow the instructions below that apply to your vehicle.



XM991E1, XM995E1



XM991E2, XM995E2

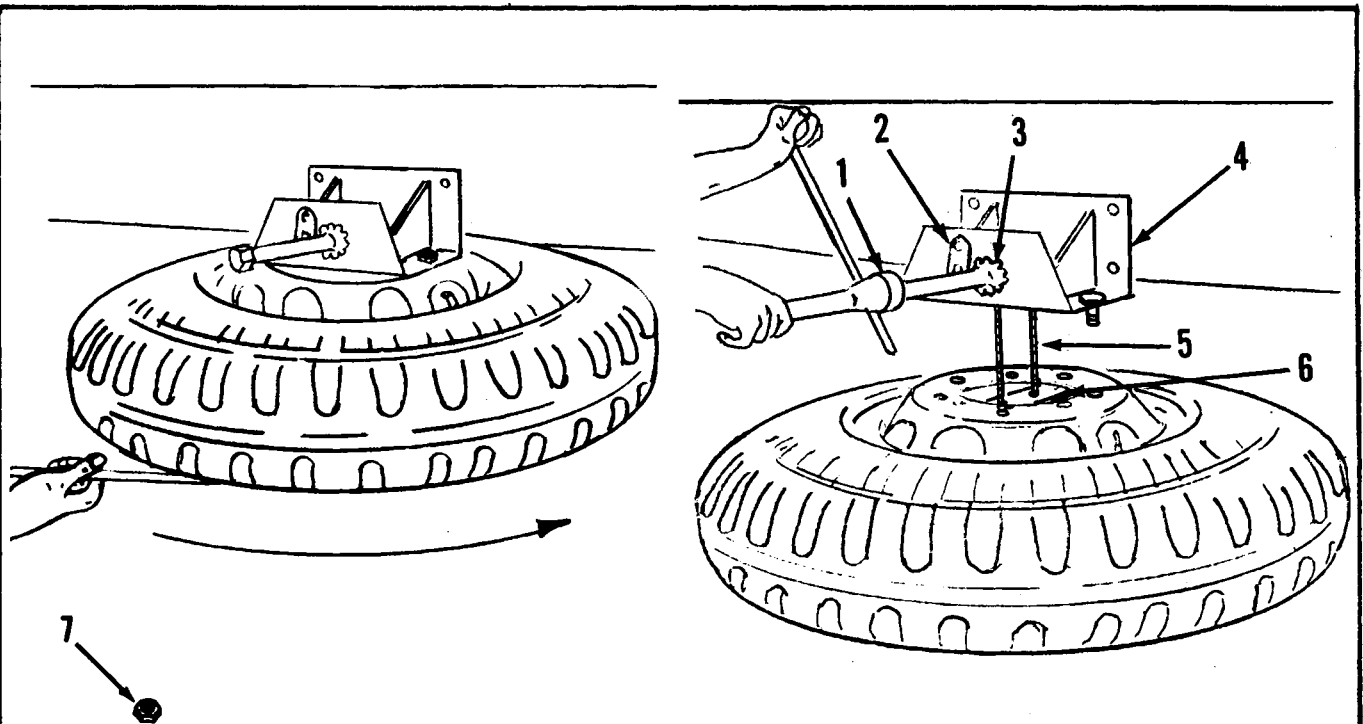
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2-20. REMOVAL AND INSTALLATION OF SPARE WHEEL AND TIRE

REMOVAL

WARNING

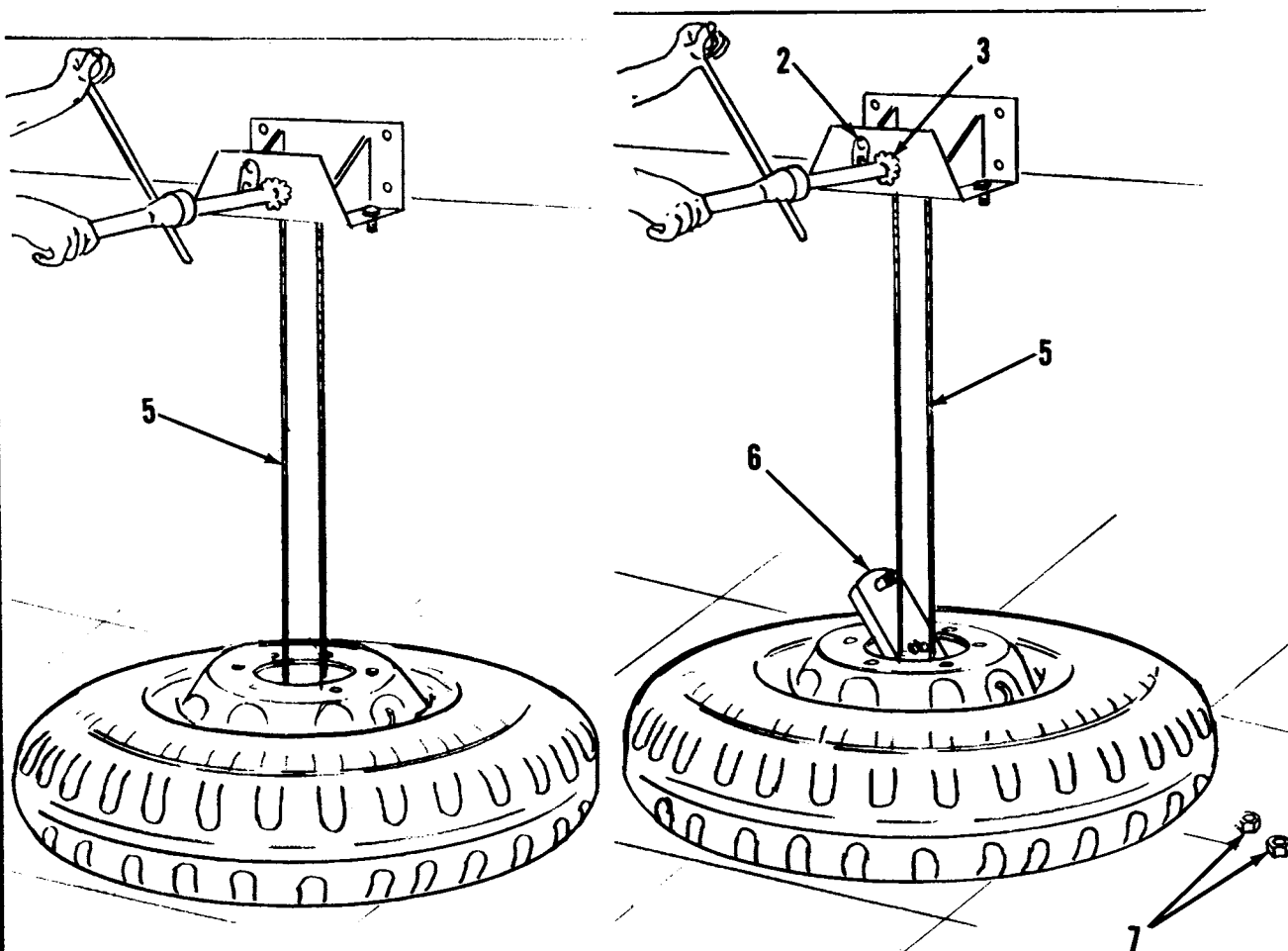
Personnel must get under tire to remove nut. Exercise care to prevent injury.



1. Working from curbside of semitrailer, use wheel nut wrench (1) and remove two special 3/4-inch hexagon wheel nuts (7) which secure wheel to upper member (4).
2. The wheel and lower pick-up member (6) are held in place by the 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.

2-20. REMOVAL AND INSTALLATION OF SPARE WHEEL AND TIRE (cont)

INSTALLATION



1. Lower pick-up member (6) to ground (steps (1) through (5) of a above).
2. Rotate pick-up member (6) until it aligns with wire rope (5) and insert through large hole in wheel. Rotate pick-up member so that it is at right angles to wire rope.
3. Set pawl (2) in contact with ratchet and turn wheel nut wrench (1) on ratchet wheel (3) clockwise, thus raising wheel.
4. As wheel moves up to carrier assembly, align securing bolts with any two holes in wheel.
5. After wheel is tight against upper member, tighten special 3/4-inch hexagon nuts (7), using wheel nut wrench (1).

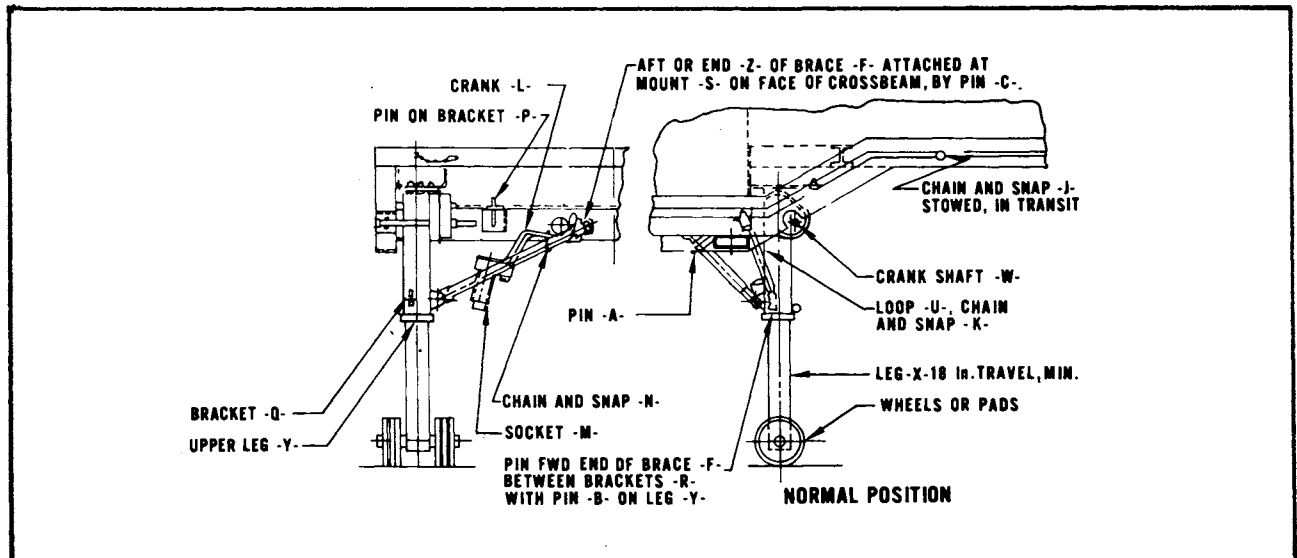
2-21. SWING-UP PROCEDURE, LANDING GEAR

NOTE

Swing landing gear to horizontal position for aircraft loading only.

WARNING

Semitrailer must be secured on the K-loader before attempting the swing-up procedure. Failure to do so may result in bodily injury or damage to equipment.

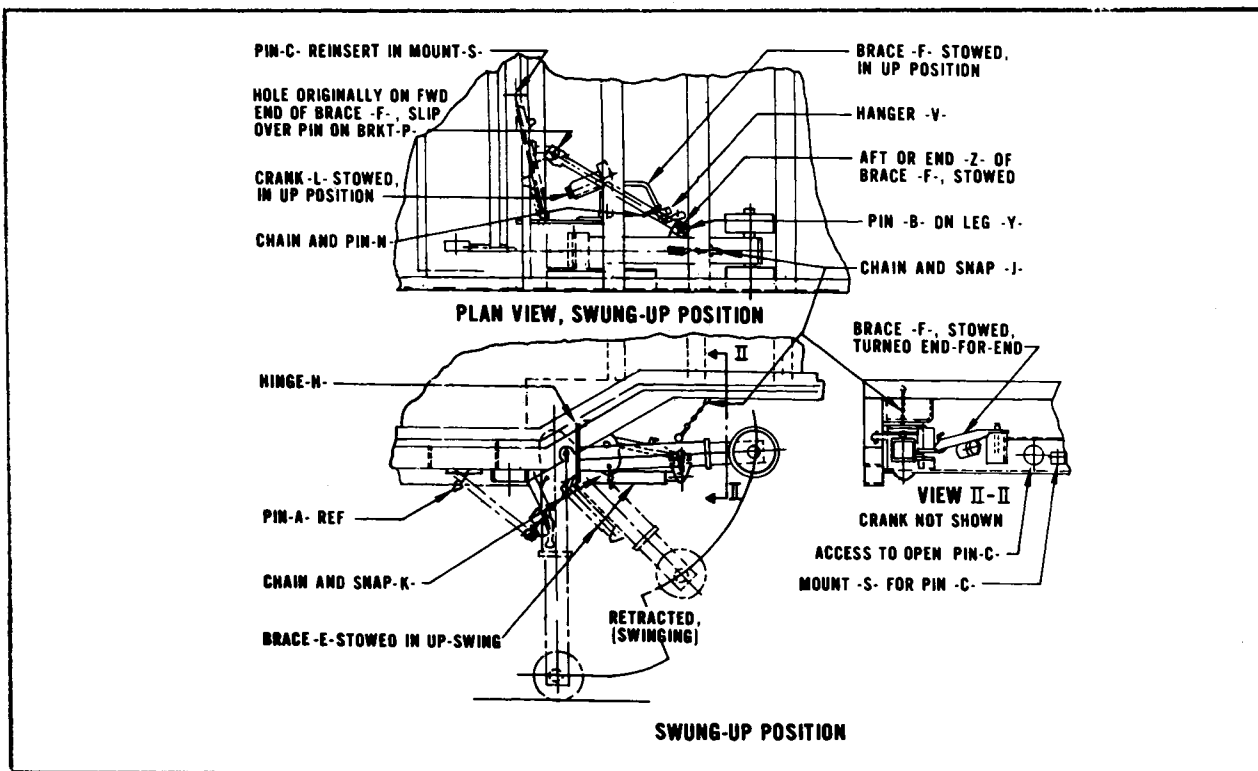


NOTE

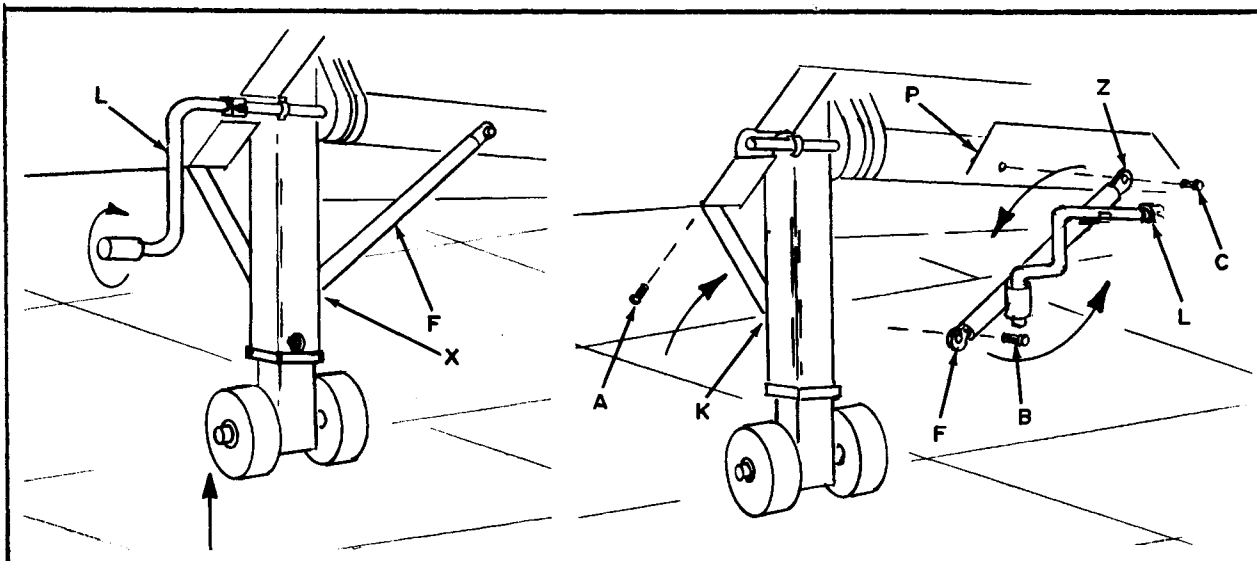
Be sure all toggle pins have been lubricated with GAA grease and are operable and removable.

1. Using crank (L), retract leg (X) approximately 12 inches.
2. Replace crank (L) in stowed position on brace (F).
3. Refasten snap and chain assembly (N).

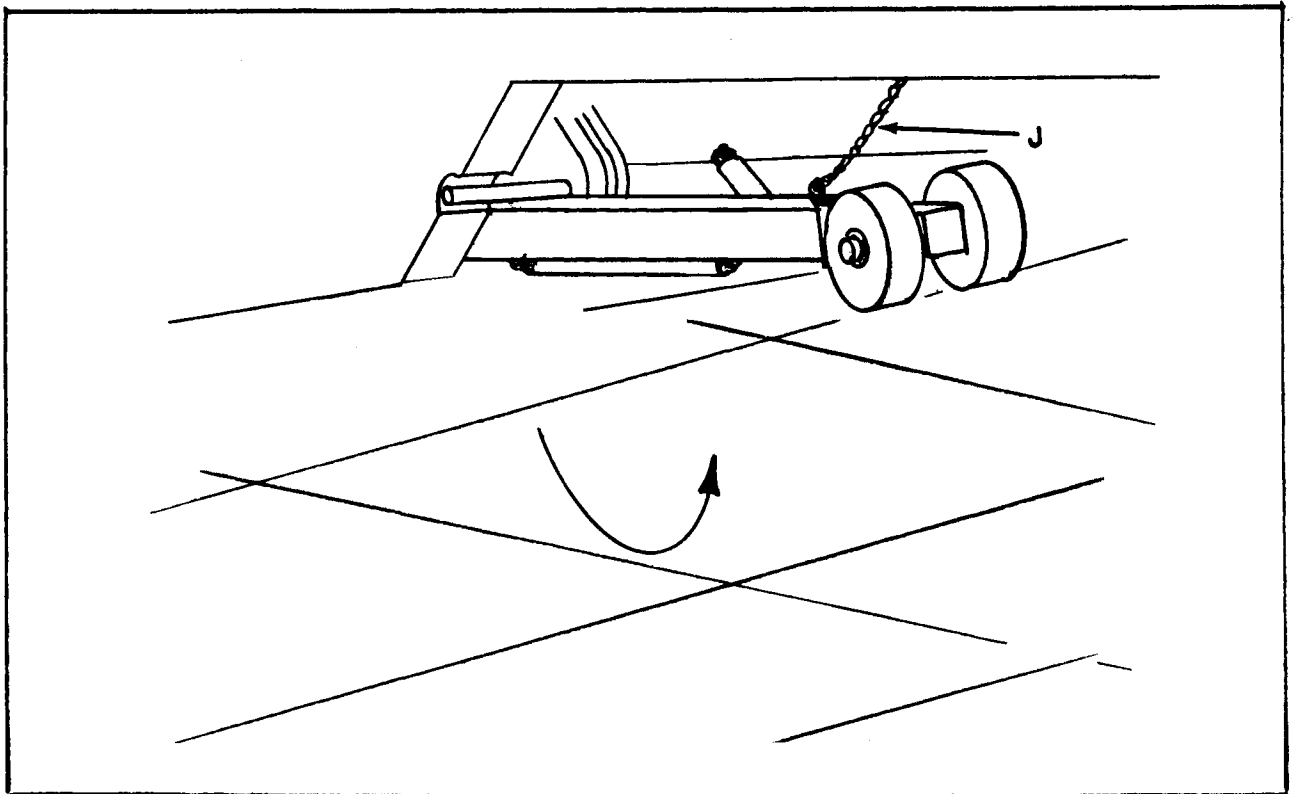
2-21. SWING-UP PROCEDURE, LANDING GEAR (cont)



4. Remove pin (A) from small brace.
5. Remove pins (B and C) from large brace (F). This is the brace with the crank stowed on it.
6. Fasten small brace to leg assembly with snap and chain assembly (K).
7. Pick up brace (F) with crank (L) stowed on it. Turn brace end for end (plan view). Aft end (Z) is now at forward end near pin (B). Place end hole around pin on bracket (P).



2-21. SWING-UP PROCEDURE, LANDING GEAR (cont)



6. Manually lift each leg assembly carefully to horizontal position. Attach snap and chain assembly (J) to hold each leg.
7. Aline hole in end (Z) of brace (F) on top of (not between) brackets (R) on leg assembly.
8. Insert pin (B) to secure each landing gear and brace in the swing-up position.

SWING-DOWN PROCEDURE

1. Remove pin (B).
2. Remove snap and chain assembly (J) which secures each leg.
3. Carefully and slowly lower leg to the vertical position.
4. Position brace (F), making certain to turn it end for end to the position it occupied before performing step 5 above.

Section IV. OPERATION UNDER UNUSUAL CONDITIONS

2-22. 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 materiel under unusual conditions.

c. Refer to paragraphs 2-23 through 2-29 for operating procedures under unusual conditions. For lubrication procedures under operation in dusty and sandy conditions and after fording operations, refer to paragraph 3-4.

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

2-23. 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) The driver must always be on the alert for indications of the effect of cold weather on the semitrailer chassis and van.

(3) The driver 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.

OPERATION UNDER UNUSUAL CONDITIONS (cont)

(4) Refer to TM 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 the vehicle so that its least vulnerable parts face 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.

(3) Gage tires for correct pressure.

c. Lubricants (Storage, Handling and Use).

(1) The operation of equipment at arctic temperatures will depend to a great extent upon the condition of the lubricants. Immediate effects of careless storage and handling or improper use of the materials are not always apparent, but any deviation from proper procedures may cause trouble at the least expected time.

(2) In arctic operations, contaminations with moisture is a source of many difficulties. Moisture can be the result of snow getting into the product, condensation due to "breathing" of a partially filled container when a product is brought outdoors from room temperature. Other impurities will also contaminate lubricants so their usefulness is impaired.

(3) Refer to TM 9-207 for detailed instructions on storage, handling and use of lubricants.

2-24. OPERATION IN EXTREME HEAT

a. Do not park the semitrailer in the sun for long periods as the heat and sunlight will shorten the life of the tires. If possible, park vehicle under cover to protect it from sun, sand and dust.

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

WARNING

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

OPERATION UNDER UNUSUAL CONDITIONS (cont)

c. Clean mildewed canvas by scrubbing with a dry brush. Do not use water to remove dirt, until mildew has been removed. If mildew is present, examine material carefully by stretching and pulling for evidence of rotting or weakening. Replace canvas if fabric shows weakness.

d. Semitrailers 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.

2-25. OPERATION IN DUSTY OR SANDY AREAS

a. For emergency operations in beach and desert sands, correct tire inflation is 20 psi. For continued operations in sand, oversize balloon sand tires are necessary for all wheeled vehicles. The tread should be of plain rib and the tire of round cross section.

CAUTION

When packing wheel bearings, completely clean the wheel bearings before packing with grease, since sand or dust mixed with grease forms an abrasive mixture.

c. Operation under extremely sandy or dusty conditions requires frequent inspection, cleaning and lubrication of the chassis working parts.

2-26. OPERATION IN MUD AND SNOW

a. Reduce tire inflation to 20 psi. For continued operation in snow, install snow tread tires.

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

2-27. OPERATION UNDER RAINY OR HUMID CONDITIONS

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

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

2-28. OPERATION IN SALT WATER AREAS

Wash salt deposits from all equipment with fresh water. Observe the precautions in paragraph 2-27.

OPERATION UNDER UNUSUAL CONDITIONS (cont)

2-29. FORDING OPERATIONS

- a. Instructions for fording operations for the towing vehicle apply also to the semitrailer.
- b. Clean wheel bearings and hand pack with lubricant specified in lubrication instructions after each submersion.
- c. Reduce tire pressure to 20 psi to aid in amphibious landings.

CHAPTER 3

OPERATOR MAINTENANCE INSTRUCTIONS

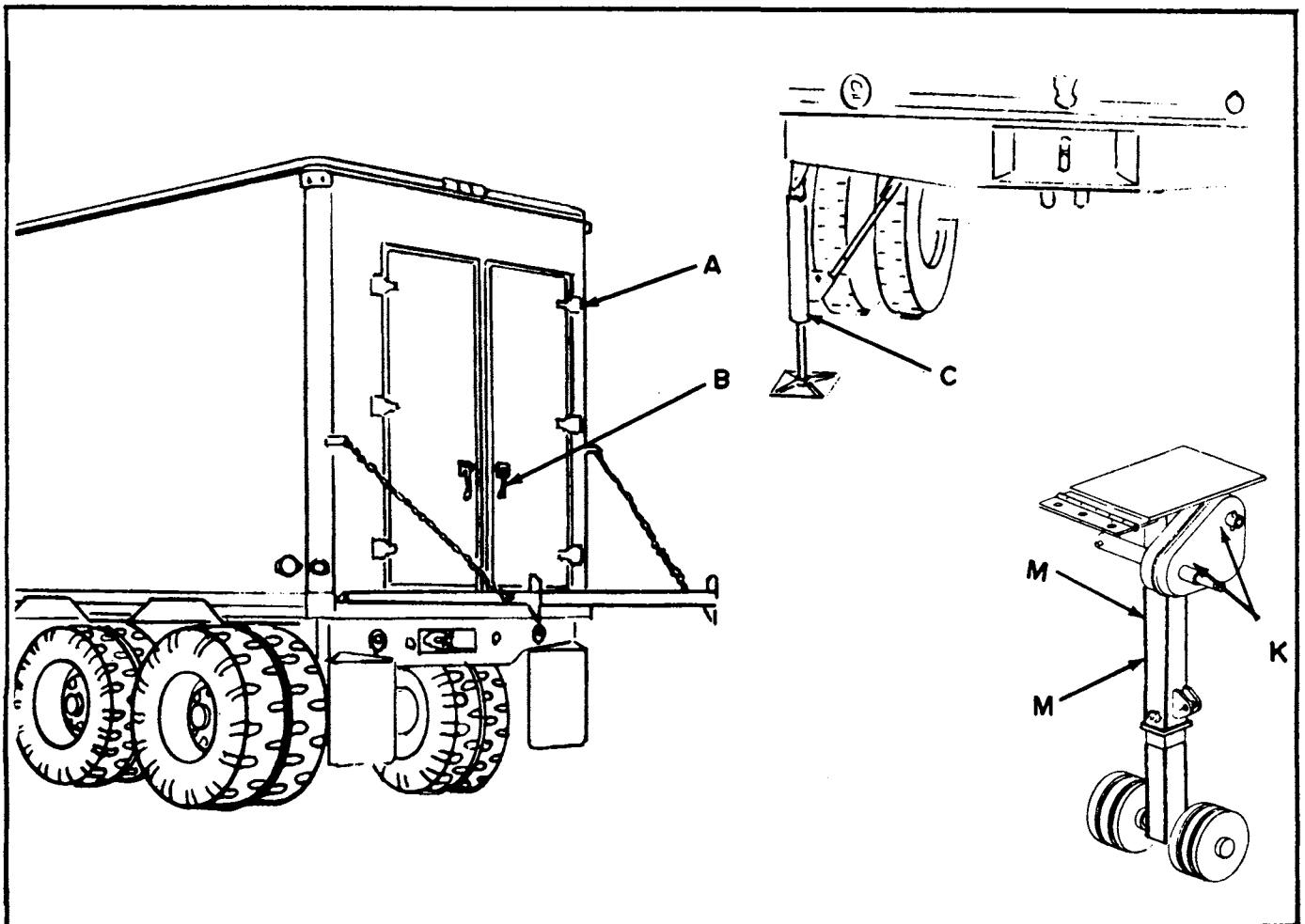
Section I. LUBRICATION INSTRUCTIONS

CAUTION

Do not mix hydraulic brake fluid and silicon based fluid.

3-1. GENERAL

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



LUBRICATION INSTRUCTIONS

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1
SEMITRAILER, VAN: TEST STATION, XM995, XM995E1
SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2
SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

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.

WARNING

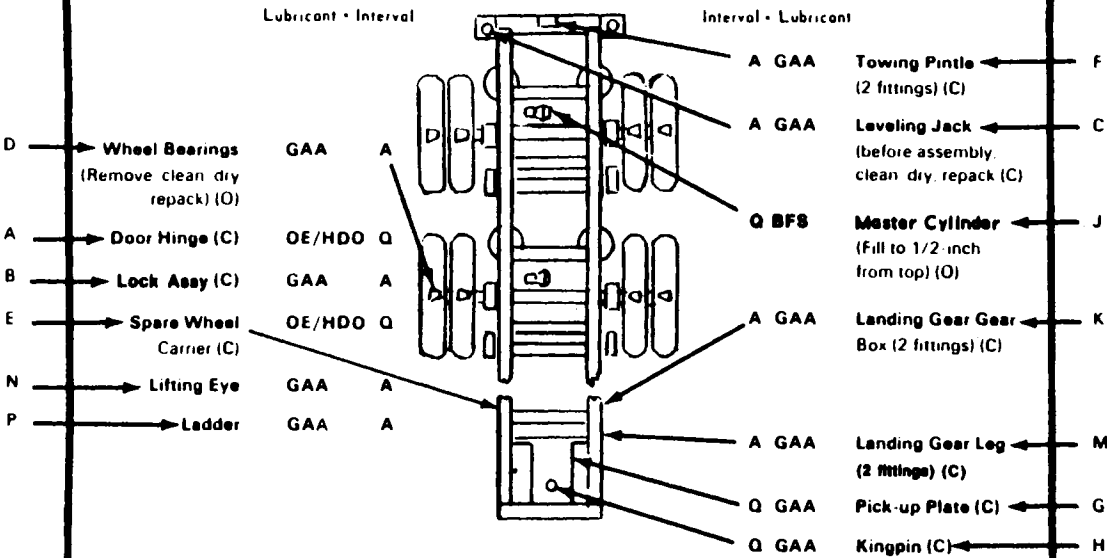
Cleaning solvent, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat.

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

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.



— TIME REQUIRED —

TOTAL MAN - HOURS		TOTAL MAN - HOURS	
Interval	Man-Hr	Interval	Man-Hr
Q	4	A	12

LUBRICATION INSTRUCTIONS

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1
 SEMITRAILER, VAN: TEST STATION, XM995, XM995E1
 SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2
 SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

- 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		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				

For Arctic Operation
Refer to FM 9-207

- 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.

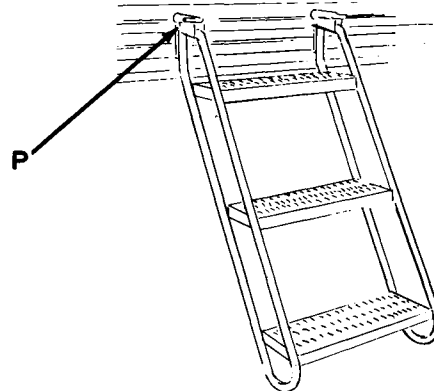
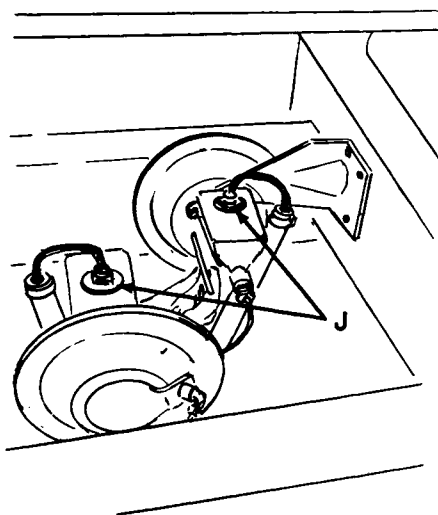
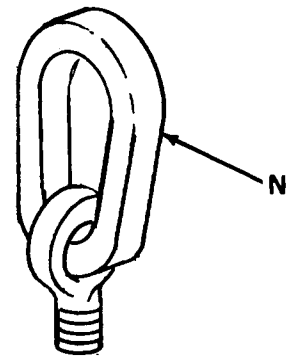
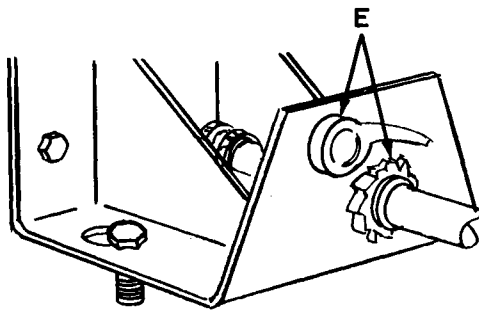
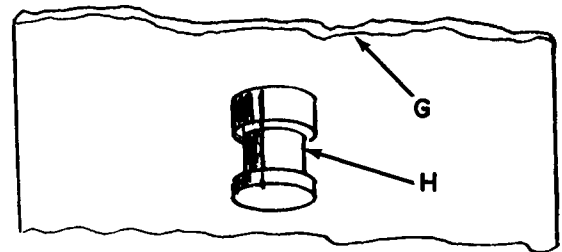
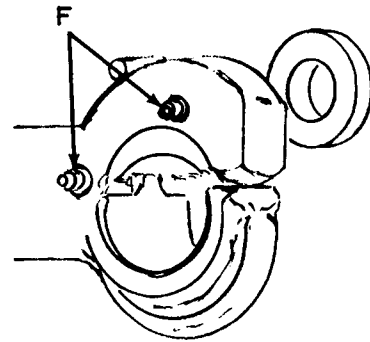
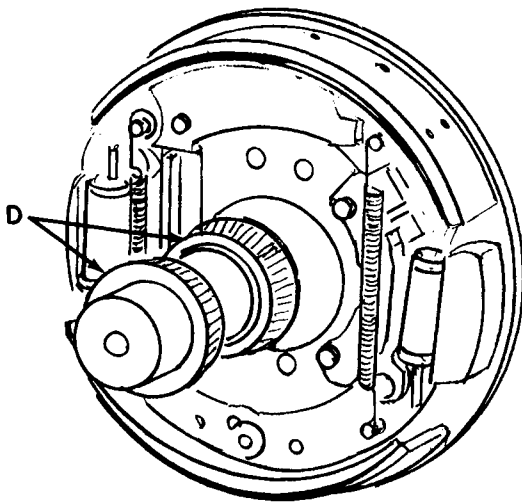
4. Use hydraulic brake fluid (BFS) base only. Mixing it with petroleum base hydraulic fluid will render brakes inoperative.

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 mandatory lubrication instructions are for normal operation and where moderate temperatures, humidity and atmosphere conditions prevail. Refer to paragraphs 2-22 thru 2-25 and 2-29 for use of mandatory lubricants under unusual conditions.
- b. Keep all lubricants in closed containers and store in a clean, dry place away from external heat. Allow no dust, dirt, or other foreign material to mix with the lubricants. Keep all lubrication equipment clean and ready to use.
- c. Clean lubrication points, grease fittings and surrounding areas before applying lubricant.
- d. Clean all lubrication points after lubricating to prevent accumulation of foreign matter.
- e. Clean and lubricate bearings as specified in TM 9-214.
- f. Maintain a record of vehicle lubrication and report any discrepancies noted during lubrication. Refer to TM 38-750 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 TM 9-207 for instructions on necessary preliminary lubrication of the vehicle in cold weather areas.

CAUTION

A lubricant fouled by dust and sand acts as an abrasive mixture and causes rapid wear of parts.

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 TB 746-93-1. The numerals and letters are of simple block type with curved lines where applicable, and painted with black enamel to specification MIL-E-52798A. Proceed as follows:

WARNING

To prevent injury to personnel, avoid inhalation or 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. INTRODUCTORY INFORMATION

a. 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.

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 action, notify your supervisor.

SYMPTOM INDEX

	Troubleshooting Chart Item No.	Page
ELECTRICAL SYSTEM		
All lamps fail to light	1	3-7
All chassis lights are on and van clearance lights are off .	3	3-8
Directional signals inoperative	4	3-8
One or more lamps will not light	2	3-8
BRAKE SYSTEM		
Brakes will not release	5	3-9
Grabbing brakes	8	3-11
No brakes or weak brakes	6	3-10
Slow brake application or slow release	7	3-11
SUSPENSION SYSTEM		
All air springs flat	10	3-12
Semitrailer sags to one side	9	3-12
AIR MOUNTED FIFTH WHEEL KINGPIN		
Air springs flat	11	3-12
WHEELS, HUBS, BEARINGS, AND TIRES		
Air leakage from tires	15	3-13
Noisy wheels	12	3-13
Undue wear of tires	14	3-13
Wobbly wheels	13	3-13
LEVELING JACK		
Erratic operation	16	3-14
LANDING GEAR		
Erratic operation	17	3-14

Table 3-1. Troubleshooting

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

ELECTRICAL SYSTEM

1. ALL LAMPS FAIL TO LIGHT.

Step 1. Check battery and light switch on towing vehicle.

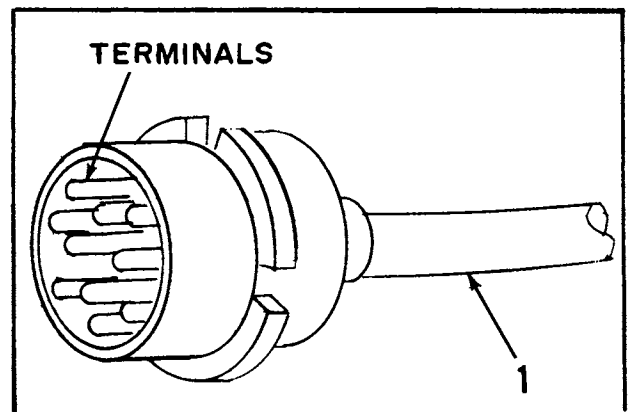
Place light switch on towing vehicle in proper mode of operation.

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

Clean connectors, receptacles and plug.

Step 3. Check to see that intervehicular cable is properly plugged into receptacle.

Pull intervehicular cable plug out of receptacle and insert properly.



Step 4. Check for good ground connections at light assemblies and intervehicular cable receptacle.

Tighten ground connections.

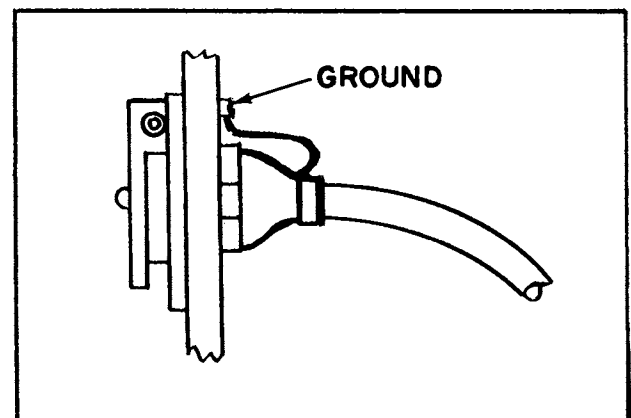


Table 3-1. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

ELECTRICAL SYSTEM (cont)

2. ONE OR MORE LAMPS WILL NOT LIGHT.

Step 1. Inspect lamp(s).

Replace defective lamp(s).

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

Clean connections, receptacle and plug.

Step 3. Check for loose cable connections.

Tighten connections.

Step 4. Check to see if rear junction connector is loose if forward chassis lights are on, but rear lights are off.

Pull out, clean and reinsert connector, making certain socket and contacts are clean.

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

Step 1. Check to see if 12-volt or 24-volt light receptacle connector is loose.

Pull out plug, clean and insert. Make certain that a good connection is made.

Step 2. Inspect for dirty or corroded contacts in 12-volt or 24-volt receptacle.

Clean contacts.

4. DIRECTIONAL SIGNALS INOPERATIVE.

Inspect for dirty or corroded cable socket and contacts.

Clean socket and contacts.

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Table 3-1. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM

5. BRAKES WILL NOT RELEASE.

Step 1. Inspect intervehicular air hose connections.

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

Step 2. Check air reservoir drain cock.

Close air reservoir drain cock.

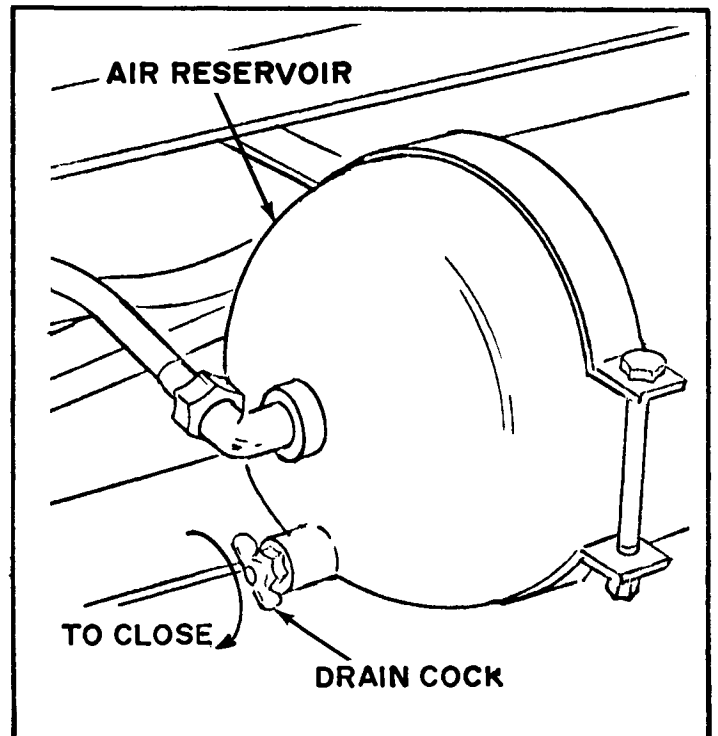


Table 3-1. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM (cont)

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

Step 4. Inspect intervehicular air lines for restrictions.

Check intervehicular air lines for kinks, bends or restrictions,
and straighten.

6. NO BRAKES OR WEAK BRAKES.

Step 1. Check to see if intervehicular air lines are properly connected.
Connect all air lines properly.

Step 2. Check for low air pressure.

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

Table 3-1. Troubleshooting (cont)

MALFUNCTION

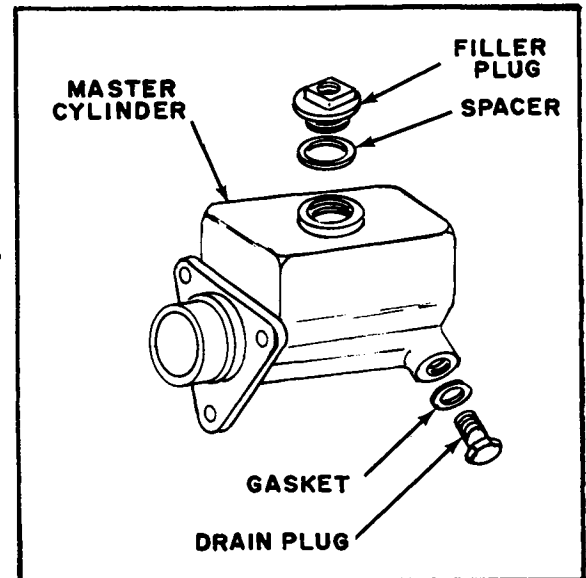
TEST OR INSPECTION

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.

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

Table 3-1. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

SUSPENSION SYSTEM

9. SEMITRAILER SAGS TO ONE SIDE.

Check tires to see if air pressure is low or uneven.
Inflate tires to correct pressure (paragraph 3-9).

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 (448.2 k pa).

Table 3-1. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

WHEELS, HUBS, BEARINGS, AND TIRES

12. NOISY WHEELS.

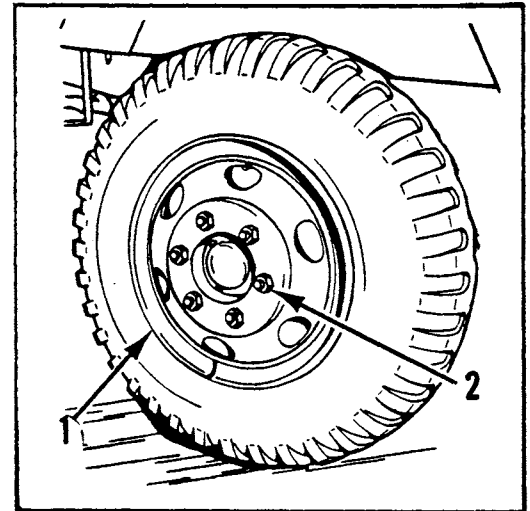
Inspect wheels (1) for looseness.

Tighten wheel stud nuts (2).

13. WOBBLY WHEELS.

Inspect wheels (1) for looseness.

Tighten wheel stud nuts (2) (paragraph 3-9).



14. UNDUE WEAR OF TIRES.

Check tires for proper inflation.

Inflate tires to correct pressure (paragraph 3-9).

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 (paragraphs 2-15 and 3-9).

Table 3-1. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

LEVELING JACK

16. ERRATIC OPERATION.

Check for adequate lubrication.

Lubricate in accordance with lubrication instructions.

LANDING GEAR

17. ERRATIC OPERATION.

Check for adequate lubrication.

Lubricate in accordance with lubrication instructions.

Section III. MAINTENANCE

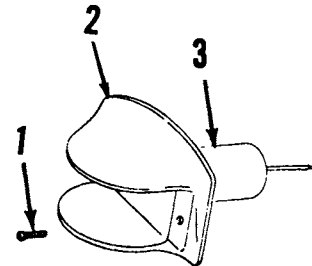
3-7. MARKER CLEARANCE LIGHT

NOTE

All 12-volt and 24-volt 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.

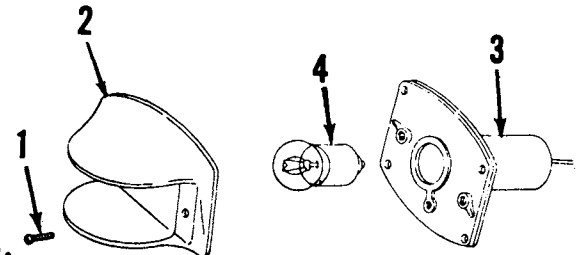
LAMP REMOVAL

1. Remove two screws (1) which fasten body (2) of clearance light to mounting plate (3).
2. Remove body (2) and lens.
3. Push in on lamp (4), turning counter-clockwise to remove from socket.



LAMP INSTALLATION

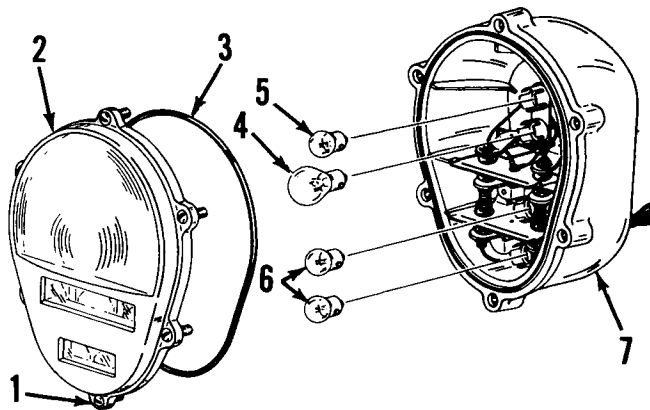
1. Insert lamp (4) into socket. Press in and turn clockwise.
2. Test lamp by turning on switch in towing vehicle.
3. Position body (2) with lens and secure to mounting plate (3) with two screws (1).



3-8. STOPLIGHT-TAILLIGHT ASSEMBLY

LAMP REMOVAL

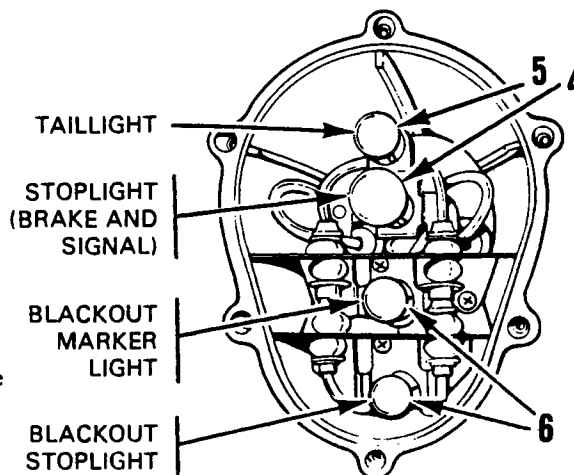
1. Loosen six retaining screws (1) on lens assembly (2).
2. Remove lens assembly (2) with attached preformed packing (3).
3. Push in on lamp (4, 5, or 6) and turn counterclockwise to remove.



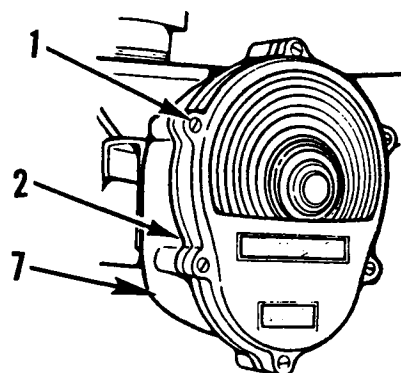
LAMP INSTALLATION

1. Insert lamp (4, 5, or 6) in socket, push in and turn clockwise.

2. Test lamps as follows:
Turn service switch on towing vehicle to ON position to test service tail lamp (5).
3. Operate brake pedal on towing vehicle to test stoplight lamp (4).
4. Operate turn signal lever in towing vehicle to test operation of turn signal lamp (4).
5. 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.



6. Position preformed packing in lens assembly (2) and install lens assembly on body (7).
7. Tighten six retaining screws (1).



3-9. WHEEL AND TIRE

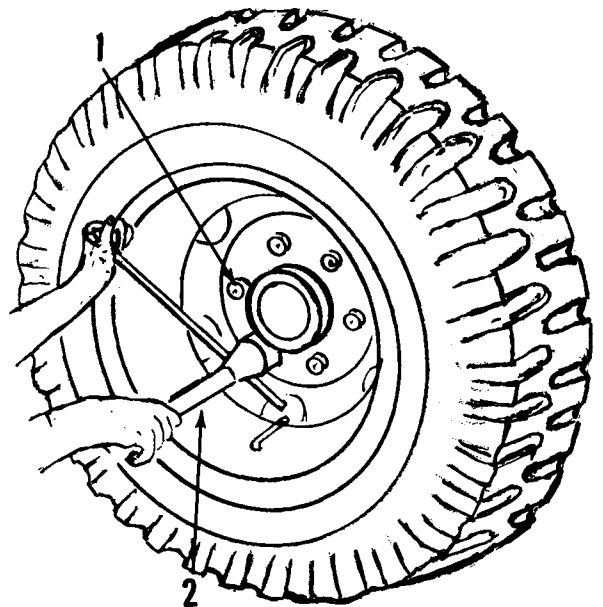
REMOVAL OF WHEEL AND TIRE ASSEMBLY FROM HUB

1. Apply brakes to semitrailer. If semitrailer is attached to towing vehicle, wheels may be locked by disconnecting the emergency air connections.

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.

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



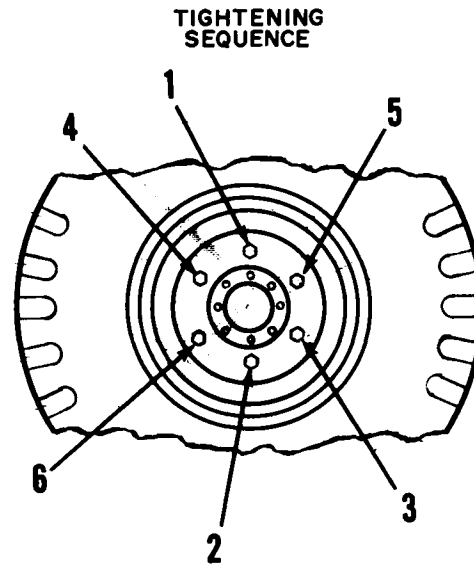
INSTALLATION OF WHEEL AND TIRE ASSEMBLY ON HUB

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.

3-9. WHEEL AND TIRE (cont)

INSTALLATION OF WHEEL AND TIRE ASSEMBLY ON HUB (cont)

3. Mount inner wheel on hub with convex side of wheel facing out. Install inner wheel cap nuts.
4. Tighten nuts securely in the tightening sequence shown.
5. At earliest convenience, check with organizational maintenance for a torque of 450-500 lb-ft (610.2-678.0 Nm).
6. Mount outer wheel on hub, with convex side of wheel facing in and against inner wheel.
7. Make certain valve stem for outer wheel is not aligned with valve stem of inner wheel.
8. Install outer wheel nuts, following same procedure and tightening sequence used with inner wheel nuts.
9. Inflate tires to 50 psi for highway driving, 30 psi for cross-country driving, and 20 psi for driving in soft sand.



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CHAPTER 4

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. REPAIR PARTS, SPECIAL TOOLS, 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, 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. For the purpose, 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 any exterior surface is coated with rust preventive compound,

4-5. INSPECTING AND SERVICING EQUIPMENT (cont)

remove it with cleaning solvent (item 3, appendix E).

(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 TM 38-750.

(e) Perform a "break in" of 25 miles at a maximum speed of 30 mph.

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, and to paragraphs 2-10 and 2-11.

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 (Q) PREVENTIVE MAINTENANCE once each three months.

(2) Do your (S) PREVENTIVE MAINTENANCE once each six months.

(3) Do your (A) PREVENTIVE MAINTENANCE once each year.

(4) Do your (B) PREVENTIVE MAINTENANCE once each two years.

(5) Do your (H) PREVENTIVE MAINTENANCE at the hour interval listed.

(6) Do your (MI) PREVENTIVE MAINTENANCE when the mileage of the vehicle reaches the amount listed.

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

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 138 degrees F (58.8 degrees 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 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).

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 definitions for Organizational PMCS

CLASS I	Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
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4-7. ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES (cont)
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Leakage definitions for Organizational PMCS (cont)

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.

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 (cont)

Q—Quarterly S—Semiannually A—Annually B—Biennially H—Hours MI—Miles

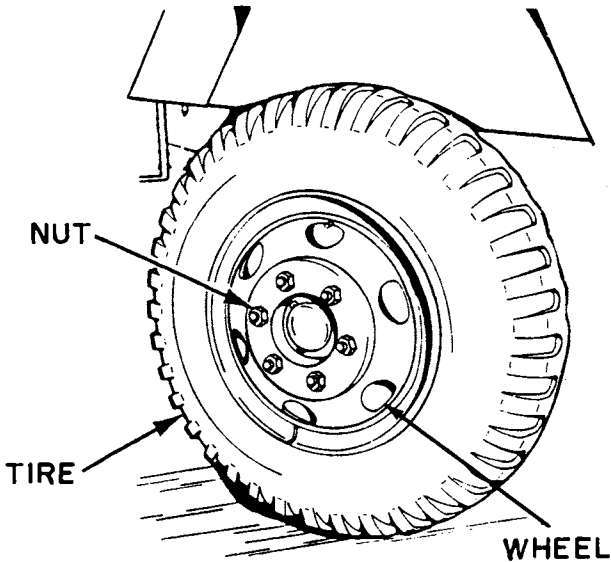
Item No.	Interval						ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	B	H	MI	
1							<p>NOTE</p> <p>Perform operator/crew PMCS prior to or in conjunction with organizational PMCS if:</p> <p>a. There is a delay between the daily operation of the equipment and the organizational PMCS.</p> <p>b. Regular operator is not assisting/participating.</p> <p><u>TIRES</u></p>  <p>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.</p> <p>b. Torque lug nuts to 450-500 lb. -ft. (610.2-678.0 Nm).</p>

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

Q—Quarterly S—Semiannually A—Annually B—Biennially H—Hours MI—Miles

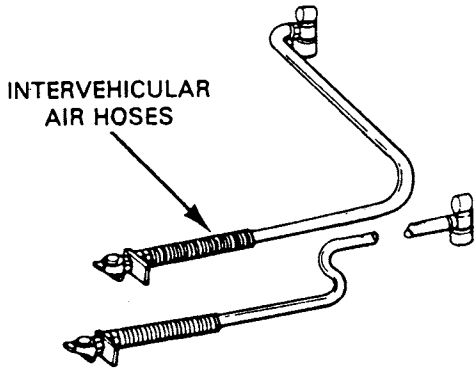
Item No.	Interval						ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	B	H	MI	
2	●						<u>VEHICLE EQUIPMENT</u> Visually inspect towing/air hose couplings for damaged or loose connections. Repair or replace as required.
3		●					<u>AIR-HYDRAULIC SYSTEM</u> a. Check all hydraulic lines for leaks, kinks, bends, cracks, and presence of mounting clamps. Replace as required.
		●					 <p>INTERVEHICULAR AIR HOSES</p> <p>b. Check intervehicular air hoses for cuts, breaks and damaged connectors. Replace if defective.</p>

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

Q—Quarterly S—Semiannually A—Annually B—Biennially H—Hours MI—Miles

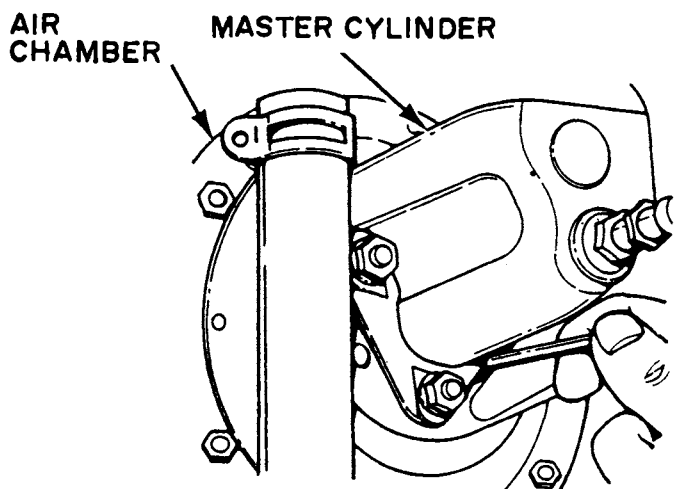
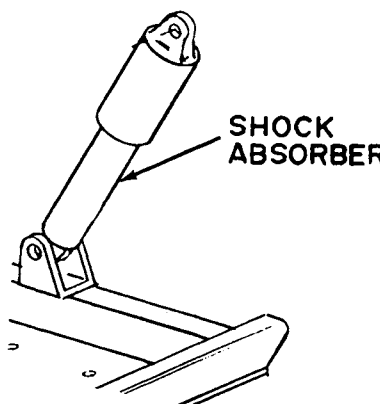
Item No.	Interval						ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	B	H	MI	
3							<u>AIR-HYDRAULIC SYSTEM (cont)</u>  <p>c. Check master cylinder for security of mounting, serviceable vent hoses and leaks.</p>
4							<u>AIR MOUNTED KINGPIN</u> <p>a. Check for broken or damaged parts. Replace broken or damaged 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 B—Biennially H—Hours MI—Miles

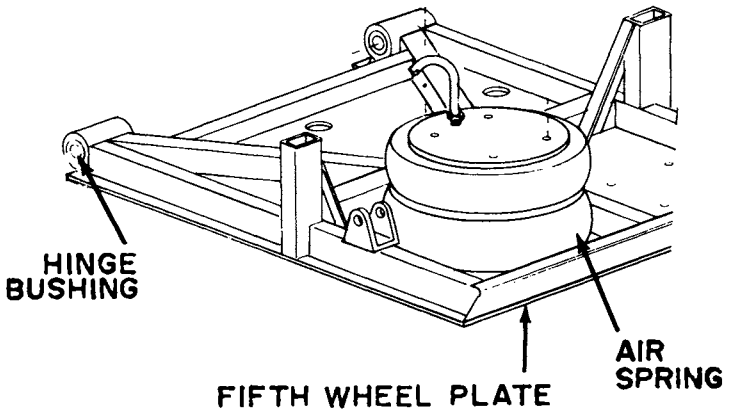
Item No.	Interval						ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	B	H	MI	
4							<p><u>AIR MOUNTED KINGPIN (cont)</u></p>  <p>HINGE BUSHING</p> <p>FIFTH WHEEL PLATE</p> <p>AIR SPRING</p> <p>c. Check hinge bushings for obvious wear or deterioration. Replace as required.</p>
5							<p><u>AIR SUSPENSION SYSTEM</u></p> <p>NOTE</p> <p>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>

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

Q—Quarterly S—Semiannually A—Annually B—Biennially H—Hours MI—Miles

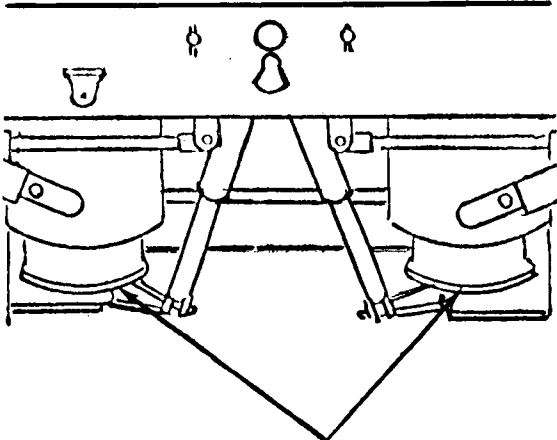
Item No.	Interval						ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	B	H	MI	
5							<u>AIR SUSPENSION SYSTEM (cont)</u>  AIR SPRINGS <p>b. Check ride height dimension (14 inches plus or minus 1/8 in.) (35.6 cm) (paragraph 4-32).</p> <p>c. With rear 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 4-32).</p> <p>d. Inspect air spring for damage at connection points. Replace as required.</p> <p>e. Check shock absorbers for oil leakage or worn rubber bushings. Replace as required.</p>
6							<u>WHEEL BEARINGS</u> <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 B—Biennially H—Hours MI—Miles

Item No.	Interval						ITEM TO BE INSPECTED Procedures: Check for and have repaired, filled, or adjusted as needed.
	Q	S	A	B	H	MI	
7	● ● ● ●						<u>BRAKES</u> 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 damage, 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	●						<u>BRAKE DRUMS AND HUBS</u> WARNING Overheated brake drums and hubs can cause severe burns to personnel when touched. Immediately after road test, cautiously feel brake drums and hubs. NOTE An overheated hub and brake drum indicates an improperly adjusted, defective or dry wheel bearing, or dragging brake. An abnormally cool condition indicates an inoperative brake.

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
ELECTRICAL SYSTEM		
All lights fail to operate	1	4-13
Dim or flickering lights, 24-volt	3	4-16
Directional signals inoperative	4	4-16
One or more lamps will not light	2	4-15
BRAKE SYSTEM		
Brake drum running hot	9	4-23
Brakes will not release	5	4-17
Grabbing brakes	8	4-22
No brakes or weak brakes	6	4-19
Noisy brakes	11	4-24
Slow brake application or slow release	7	4-21
Uneven braking	10	4-24
WHEELS AND HUBS		
Wheel noise	12	4-24
Wheel wobble	13	4-25

SYMPTOM INDEX - Continued

	Troubleshooting Chart Item No.	Page
SWING-UP LANDING GEAR		
Erratic operation	14	4-25
LEVELING JACK		
Jack is hard to operate	15	4-26
Jack shoe will not set on base	16	4-26
AIR SUSPENSION SYSTEM		
Air spring blown out	21	4-28
Air spring flat on one side of semitrailer only . . .	18	4-27
All air springs are flat	17	4-26
Semitrailer leans	19	4-28
Suspension deflates rapidly when parked	20	4-28
Torsion bar breakage	22	4-30
Wear of torsion bar rubber bushing	23	4-31
AIR MOUNTED FIFTH WHEEL KINGPIN		
Air spring blown out	27	4-32
Air spring flat	24	4-31
System deflates rapidly when parked	26	4-32
Unlevel condition when fully inflated	25	4-32
DOORS		
Difficulty in locking or unlocking door	28	4-33
Door hinges do not operate properly	29	4-33
RFI shielding does not provide a good bond	30	4-33

Table 4-2. Troubleshooting

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

ELECTRICAL SYSTEM

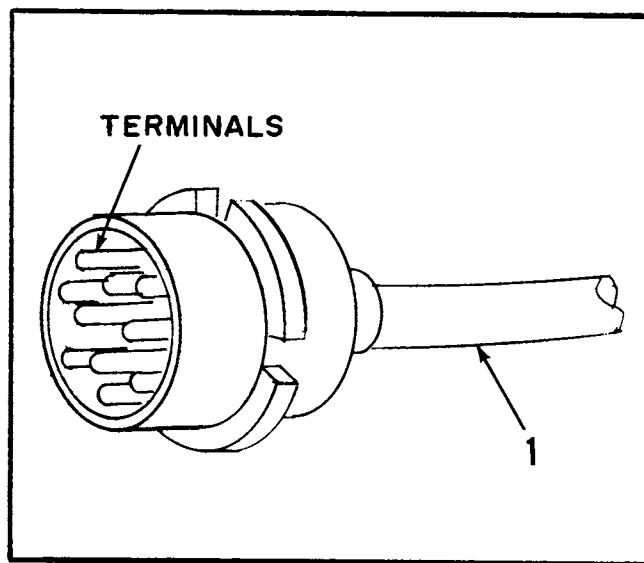
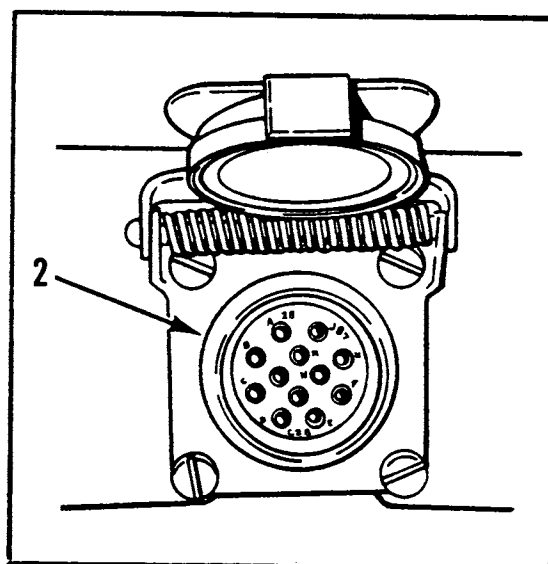
NOTE

The following procedures are applicable to the 24-volt electrical system.

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 (1).

Clean terminals in plug and receptacle (2).

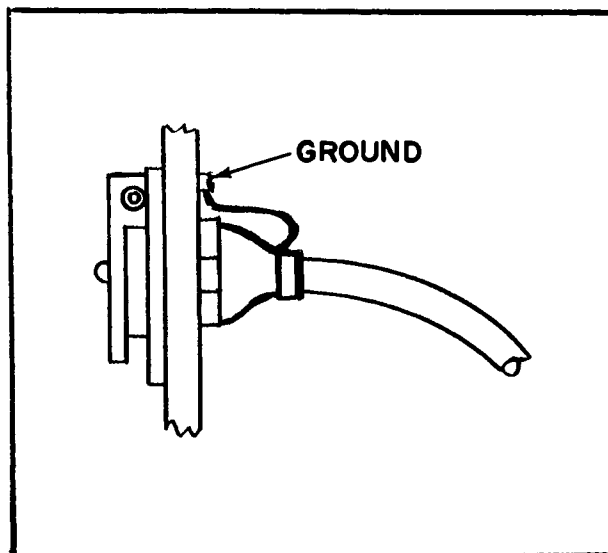
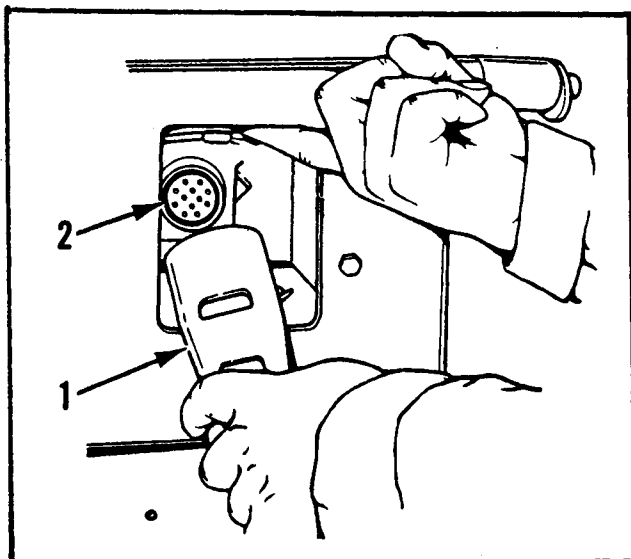
Table 4-2. Troubleshooting (cont)

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 or 24 volts).

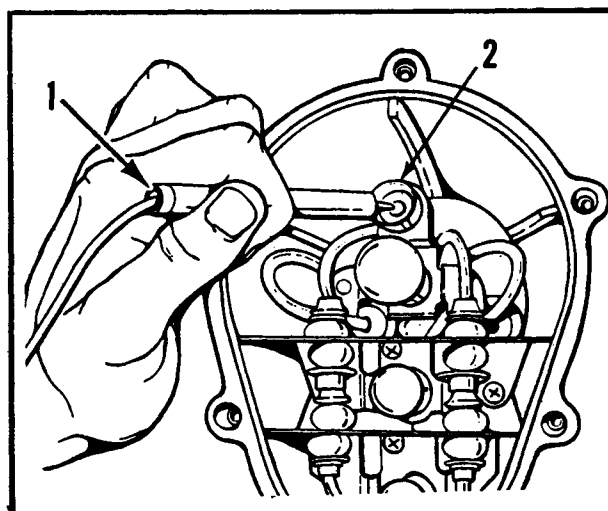


Table 4-2. Troubleshooting (cont)

MALFUNCTION**TEST OR INSPECTION****CORRECTIVE ACTION****ELECTRICAL SYSTEM (cont)**

Step 5. Check wiring harness for short circuit.

Check cable for bare spots. Repair if necessary. Make a continuity test of all circuits with a multimeter.

Step 6. Check light switch on towing vehicle.

Replace light switch on towing vehicle if defective.

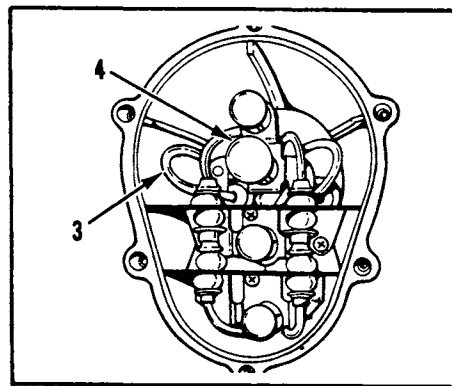
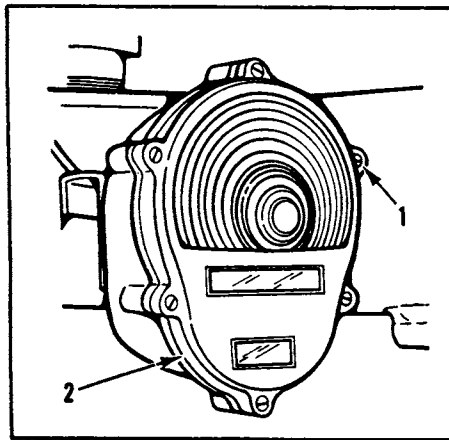
Step 7. Check resistor contact points for cleanliness on those semi-trailers that have a resistor assembly.

Clean contact points.

Step 8. Use multimeter and check resistors for rated ohms marked on resistors (see wiring diagram, page 4-34.2).

Replace cracked, chipped or defective resistor (paragraph 4-10.1).

2. ONE OR MORE LAMPS WILL NOT LIGHT.



Step 1. Loosen six retaining screws (1), remove lens assembly (2), and check for broken or loose wires (3) and broken or defective lamp (4).

Replace defective lamp. Repair wire breaks and tighten all connections (paragraph 4-13).

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

Remove lamps and clean contacts (paragraph 4-13).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

ELECTRICAL SYSTEM (cont)

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 (paragraphs 4-12, 4-13).

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 (paragraphs 3-7, 3-8).

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 for cleanliness on those semi-trailers that have a resistor assembly.

Clean contact points.

Step 6. Use multimeter and check resistors for rated ohms marked on resistors (see wiring diagram, page 4-34.2)

Replace cracked, chipped or defective resistor (paragraph 4-10.1).

4. DIRECTIONAL SIGNALS INOPERATIVE.

Step 1. Check for defective flasher or switch in towing vehicle.

Replace defective part.

Step 2. Check light assembly.

Replace defective light assembly (paragraph 4-13).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

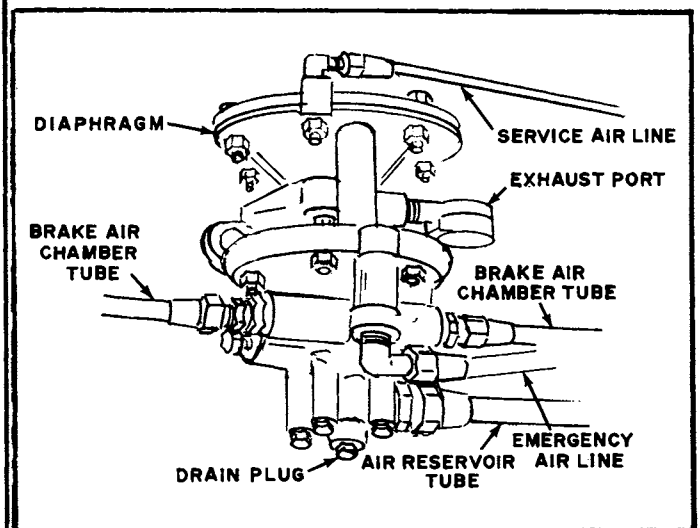
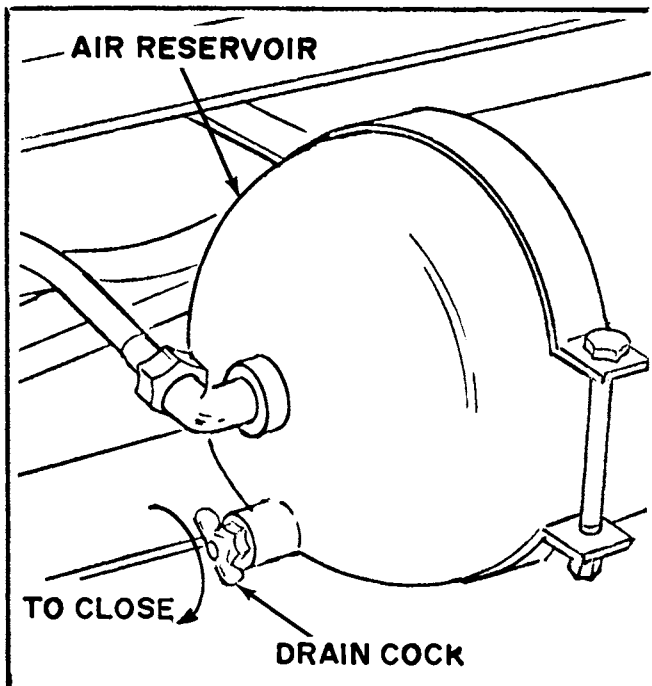
CORRECTIVE ACTION

ELECTRICAL SYSTEM (cont)

- Step 3. Inspect for dirty or corroded lamp sockets or contacts.
Remove lamp and clean socket and contacts.

BRAKE SYSTEM

5. BRAKES WILL NOT RELEASE.



- Step 1. Check to see if relay valve is in applied position.
- Build up pressure in brake system if towing vehicle is coupled.
 - Open drain cock on semitrailer air reservoir if semitrailer is coupled.

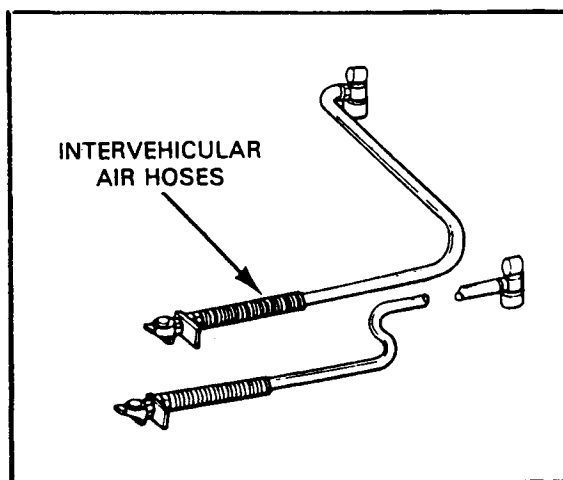
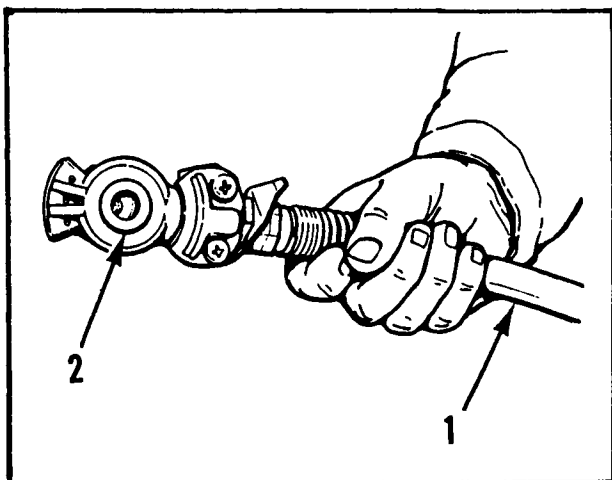
Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM (cont)



- Step 2. Inspect intervehicular air hose (1) for proper connection and damaged or missing preformed packing (2).
- Connect hose (1) properly.
 - Replace missing or damaged preformed packing (paragraph 4-25).
- Step 3. Check to see if brake on towing vehicle is in applied position.
Release towing vehicle brake.
- Step 4. Check for restrictions in service and emergency air lines, or intervehicular hose.
Straighten kinks and bends in lines or hose.
- Step 5. Check to see if shutoff valves on towing vehicle are in closed position.
Open towing vehicle shutoff valves.
- Step 6. Check to see if air reservoir drain cock is open.
Close air reservoir drain cock.

Table 4-2. Troubleshooting (cont)

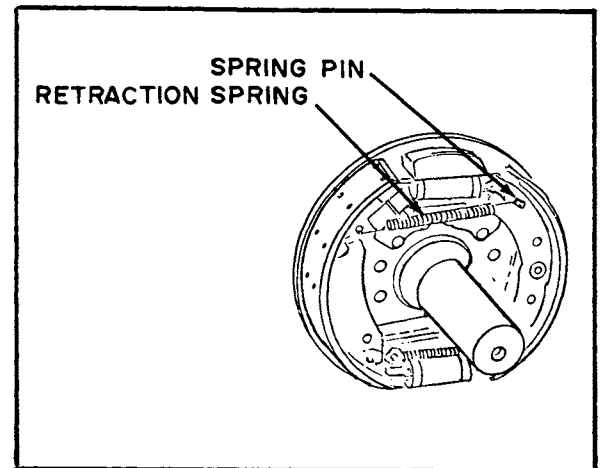
MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM (cont)

- Step 7. Inspect brake shoe retraction spring to see if spring is weak or broken.
- Replace brake shoe retraction spring (paragraph 4-17).



6. NO BRAKES OR WEAK BRAKES.

- Step 1. Check to see if shutoff valves on towing vehicle are closed.
- Open towing vehicle shutoff 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.
- Step 5. Check relay valve for defect.
- Perform operating test (paragraph 4-23). Replace relay valve if necessary.

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

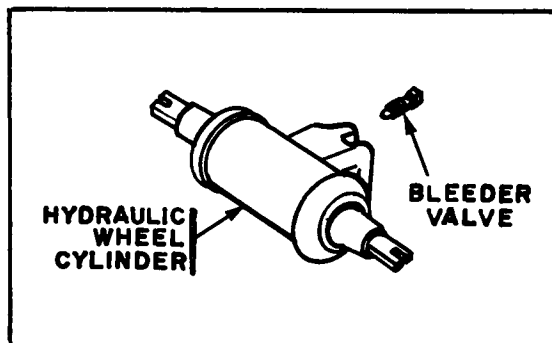
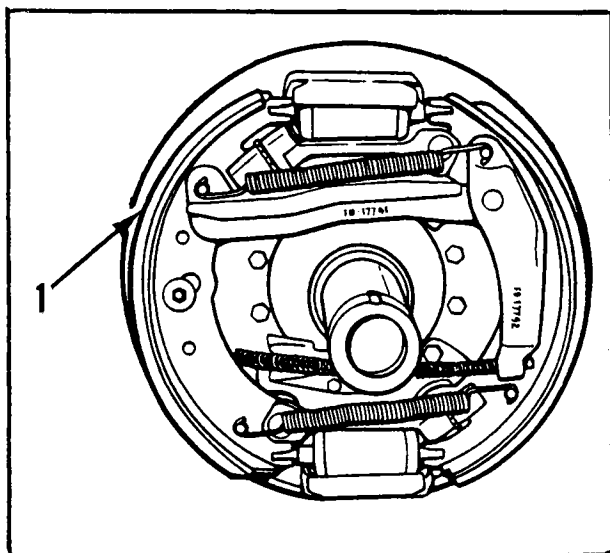
BRAKE SYSTEM (cont)

Step 6. Check for air in hydraulic brake system.

Bleed hydraulic brake system (paragraph 4-16).

Step 7. Check for leaks in hydraulic system.

Tighten or replace connections.



Step 8. Check to see if brakes are out of adjustment.

Adjust brakes (paragraph 4-15).

Step 9. 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 10. Inspect for grease or brake fluid on brake lining (1).

Replace brake shoe lining (paragraph 4-18). Check and replace wheel cylinder, if necessary (paragraph 4-19).

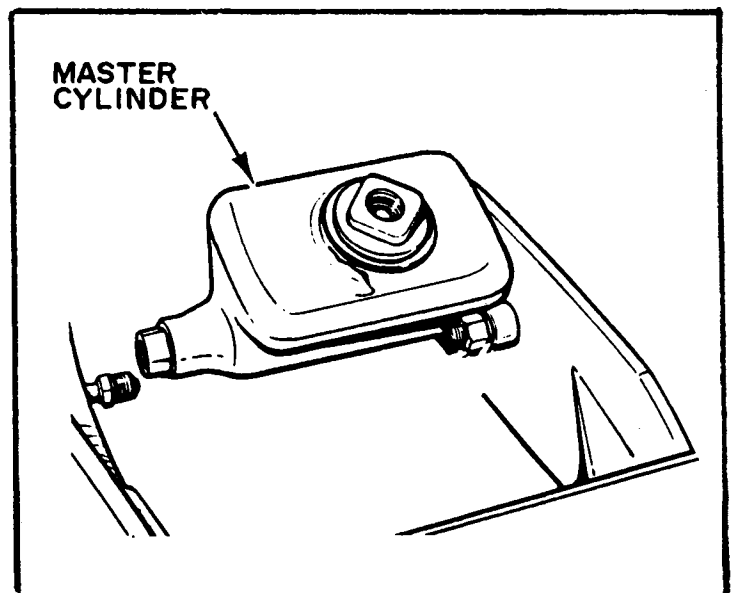
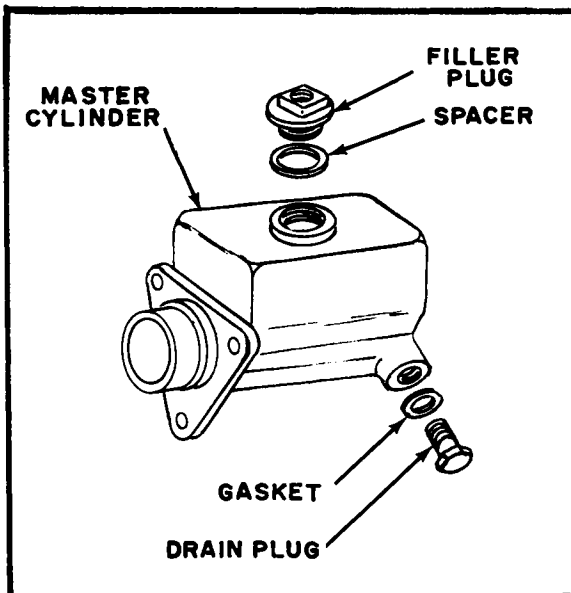
Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM (cont)



Step 11. Check for worn brake linings.

Notify direct support if brake lining needs replacement.

Step 12. Check for defective wheel cylinder.

Replace defective wheel cylinder (paragraph 4-19).

Step 13. Check for defective master cylinder.

Replace defective master cylinder (paragraph 4-21).

7. SLOW BRAKE APPLICATION OR SLOW RELEASE.

Step 1. Check to see if air pressure is low.

Check air supply. Make leakage test (paragraphs 4-22, 4-23, 4-24, 4-26).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM (cont)

Step 2. Check for defective relay valve.

Perform operating test (paragraph 4-23) 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 (paragraph 4-21).

Step 4. Check for air in hydraulic brake system.

Bleed hydraulic brake system (paragraph 4-16).

Step 5. Check for weak or broken brake shoe retraction spring.

Replace spring (paragraph 4-17).

Step 6. Check for defective wheel cylinder.

Replace defective wheel cylinder (paragraph 4-19).

Step 7. Check for defective master cylinder.

Replace defective master cylinder (paragraph 4-21).

8. GRABBING BRAKES.

Step 1. Check for defective relay valve.

Perform operating test (paragraph 4-23). Replace relay valve if necessary.

Step 2. Check to see if brakes are out of adjustment.

Adjust brakes (paragraph 4-15).

Step 3. Check for loose or worn wheel bearings (2).

Adjust wheel bearings (paragraph 4-28). If they cannot be adjusted properly, replace wheel bearings (paragraph 4-28).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM (cont)

Step 4. Check for air in hydraulic brake system.

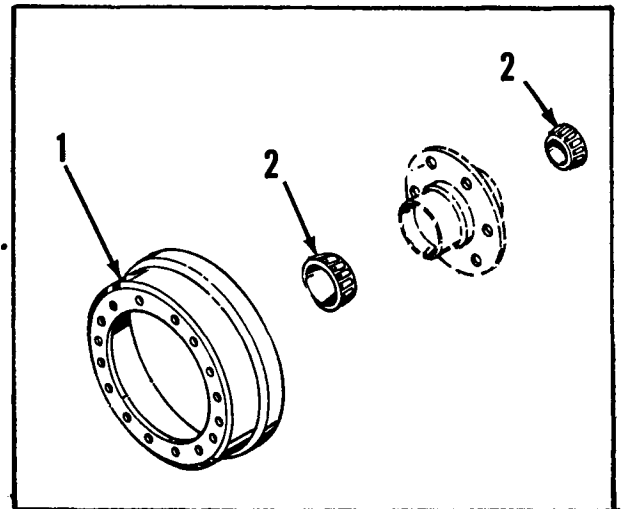
Bleed hydraulic brake system (paragraph 4-16).

Step 5. Check for grease on brake lining.

Replace brake shoe (paragraph 4-18). Replace oil seal if necessary (paragraph 4-28).

Step 6. Check for cracked, scored, or deformed brake drum (1).

Replace defective brake drum (paragraph 4-28).



Step 7. Check for loose or worn brake lining.

Replace brake shoe (paragraph 4-18) or notify direct support to replace lining.

9. BRAKE DRUM RUNNING HOT.

Step 1. Check to see if brakes are adjusted too tightly.

Adjust brakes (paragraph 4-15).

Step 2. Check for weak or worn brake shoe retraction spring.

Replace defective spring (paragraph 4-17).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

BRAKE SYSTEM (cont)

Step 3. Check for deformed brake drum.

Replace deformed brake drum (paragraph 4-28).

10. UNEVEN BRAKING.

Step 1. Check to see if brakes are out of adjustment.

Adjust brakes (paragraph 4-15).

Step 2. Check for grease on brake lining.

Replace brake shoe (paragraph 4-18). Replace oil seal if necessary (paragraph 4-28).

Step 3. Check for defective wheel cylinder.

Replace defective wheel cylinder (paragraph 4-19).

11. NOISY BRAKES.

Step 1. Check for loose rivets or loose lining.

Replace brake shoe (paragraph 4-18) or notify direct support to reline brakes.

Step 2. Check for scored or deformed brake drum.

Replace defective brake drum (paragraph 4-28).

Step 3. Check for road grit, rust or metal particles in brake drum.

Clean brake drum and brake components.

WHEELS AND HUBS

12. WHEEL NOISE.

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

Adjust or replace wheel bearings (paragraph 4-28).

Step 2. Check for worn wheel bearings.

Replace worn wheel bearings (paragraph 4-28).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

WHEELS AND HUBS (cont)

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

Adjust brakes or replace brake shoes (paragraph 4-28).

13. WHEEL WOBBLE.

Step 1. Check wheel bearings for wear or damage.

Replace worn or damaged wheel bearings (paragraph 4-28).

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

Adjust or replace loose wheel bearings (paragraph 4-28).

SWING-UP LANDING GEAR

14. 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.

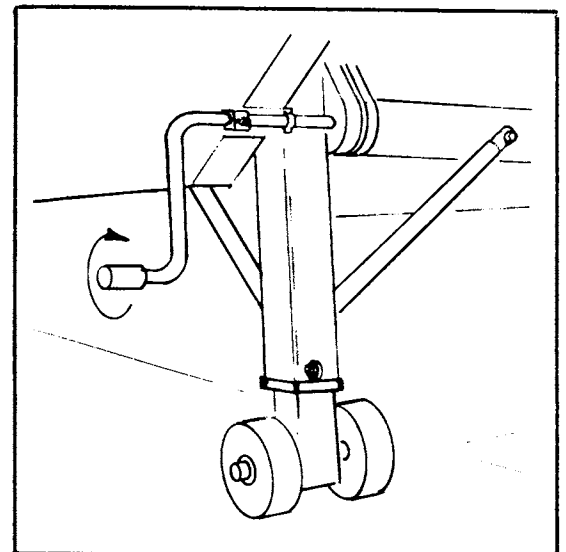


Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

LEVELING JACK

15. 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.

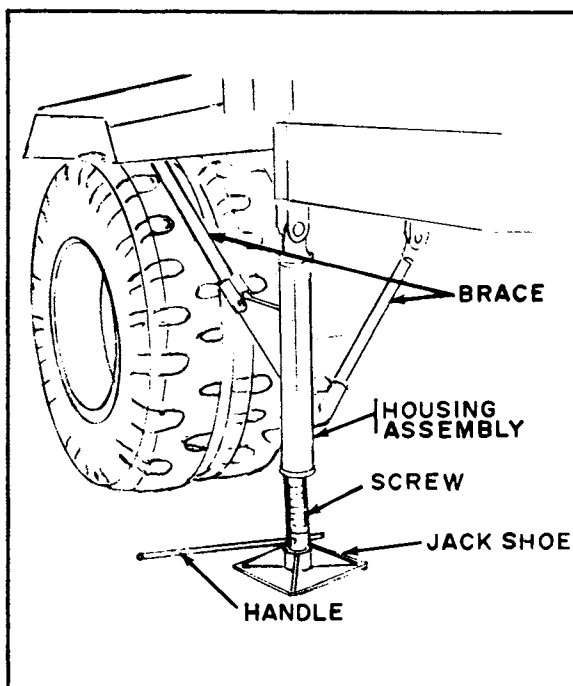
Step 3. Check for bent or dented housing.

Replace housing as necessary.

16. JACK SHOE WILL NOT SET ON BASE.

Check jack shoe.

Replace bent jack shoe.



AIR SUSPENSION SYSTEM

17. ALL AIR SPRINGS ARE FLAT.

Step 1. Check for sufficient air pressure.

Build up towing vehicle air pressure to 65 psi (paragraph 2-9).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

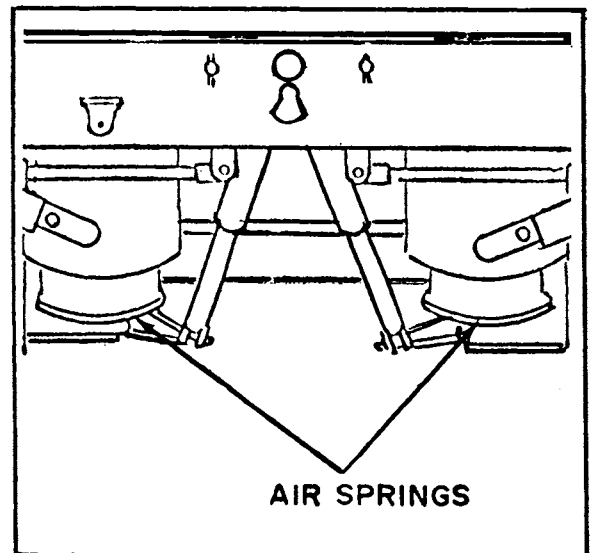
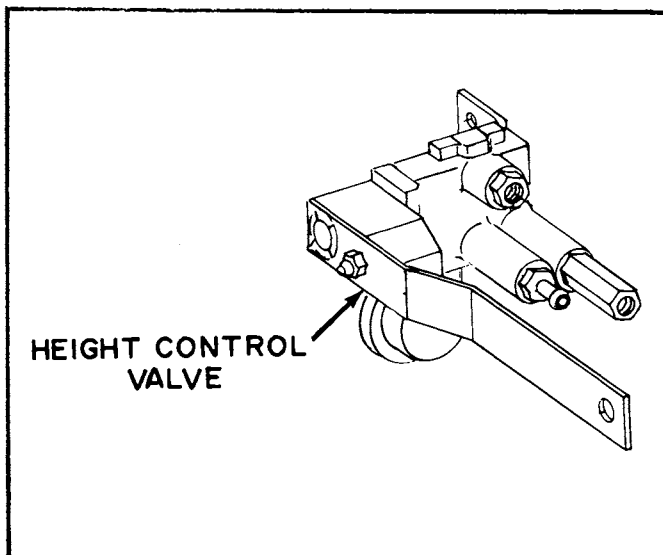
TEST OR INSPECTION

CORRECTIVE ACTION

AIR SUSPENSION SYSTEM (cont)

- Step 2. Check for poor coupling connection.
Connect coupling properly (paragraph 2-9).
- Step 3. Check air lines for breaks or leaks.
Repair or replace.

18. AIR SPRINGS FLAT ON ONE SIDE OF TRAILER ONLY.



- Step 1. Check height control valve adjustment.
Adjust valve to proper dimensions (paragraph 4-32).
- Step 2. Check air spring for severe leak or blowout.
Replace air spring (paragraph 4-32).
- Step 3. Check height control valve for defect.
Replace defective height control valve.

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

AIR SUSPENSION SYSTEM (cont)

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.

19. 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 (paragraph 4-32).

Step 3. Check air lines for leaks.

Repair air line leaks.

20. 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 (paragraph 4-32).

21. AIR SPRING BLOWN OUT.

Step 1. Check for excessive wear, puncture or cut.

Replace air spring (paragraph 4-32).

Step 2. Check if tires or rims are rubbing against air spring.

Align wheels properly.

Table 4-2. Troubleshooting (cont)

MALFUNCTION

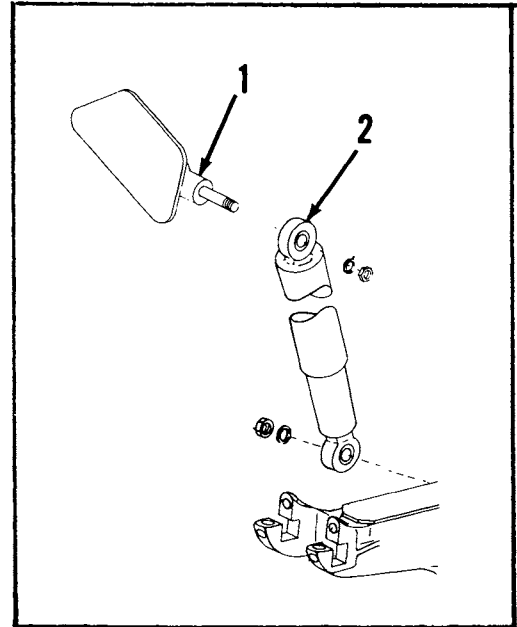
TEST OR INSPECTION

CORRECTIVE ACTION

AIR SUSPENSION SYSTEM (cont)

- 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) (paragraph 4-32).



- Step 4. Check for proper adjustment of height control valve.

Adjust height control valve (paragraph 4-32).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

AIR SUSPENSION SYSTEM (cont)

22. TORSION BAR BREAKAGE.

Step 1. Check adjustment of height control valves.

Readjust height control valves (paragraph 4-32).

Step 2. Check axle connections for looseness.

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

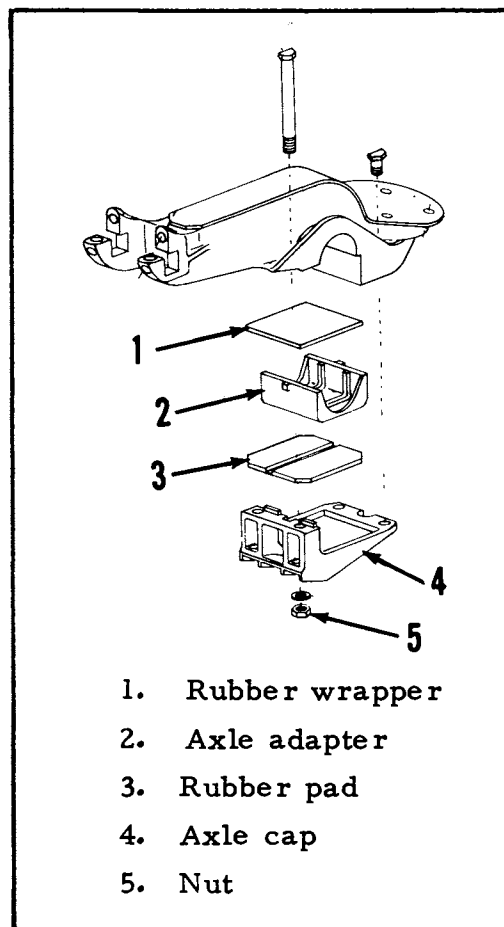


Table 4-2. Troubleshooting (cont)

MALFUNCTION

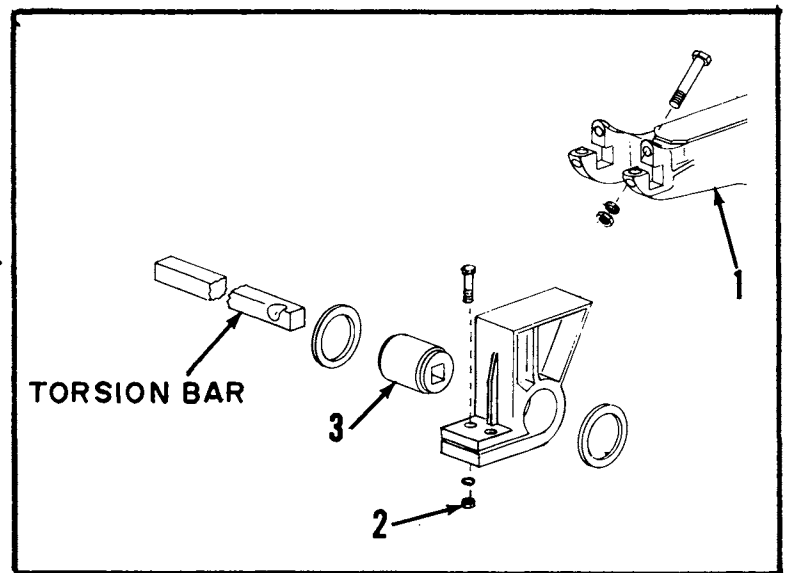
TEST OR INSPECTION

CORRECTIVE ACTION

AIR SUSPENSION SYSTEM (cont)

23. WEAR OF TORSION BAR RUBBER BUSHING.

Check for torsion preload in bushing (3).
Loosen nuts (2) and re-tighten with equalizing arms (1) at normal ride position.



AIR MOUNTED FIFTH WHEEL KINGPIN

24. 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 (paragraph 2-9).

Step 3. Check air lines for leaks or breaks.

Repair leak or replace air line.

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

AIR MOUNTED FIFTH WHEEL KINGPIN (cont)

25. UNLEVEL CONDITION WHEN FULLY INFLATED.

Step 1. Check air spring for blowout or leaks.

Replace defective air spring (4-33).

Step 2. Check air lines for leaks or breaks.

Repair leak or replace air line.

26. 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 (paragraph 4-33).

27. AIR SPRING BLOWN OUT.

Step 1. Check air spring for wear, cuts and punctures.

Replace defective air spring (paragraph 4-33).

Step 2. Check if semitrailer operated extensively with low or no air in springs.

Isolate and correct condition. Replace air spring (paragraph 4-33).

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

Adjust height control valve (paragraph 4-33) or replace shock absorber if broken (paragraph 4-33).

Table 4-2. Troubleshooting (cont)

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

DOORS

28. DIFFICULTY IN LOCKING OR UNLOCKING DOORS.

Step 1. Check center lock, flush bolts and striker plates for rust and corrosion (paragraph 4-40).

Clean and lubricate.

Step 2. Check if door is hard to lock.

Add shim stock as required under center lock and (or) flush bolt guides (paragraph 4-40).

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 flush bolts.
- b. Replace defective lock assembly (paragraph 4-40).

29. DOOR HINGES DO NOT OPERATE PROPERLY.

Step 1. Check for rust on hinge pin.

Remove rust and lubricate.

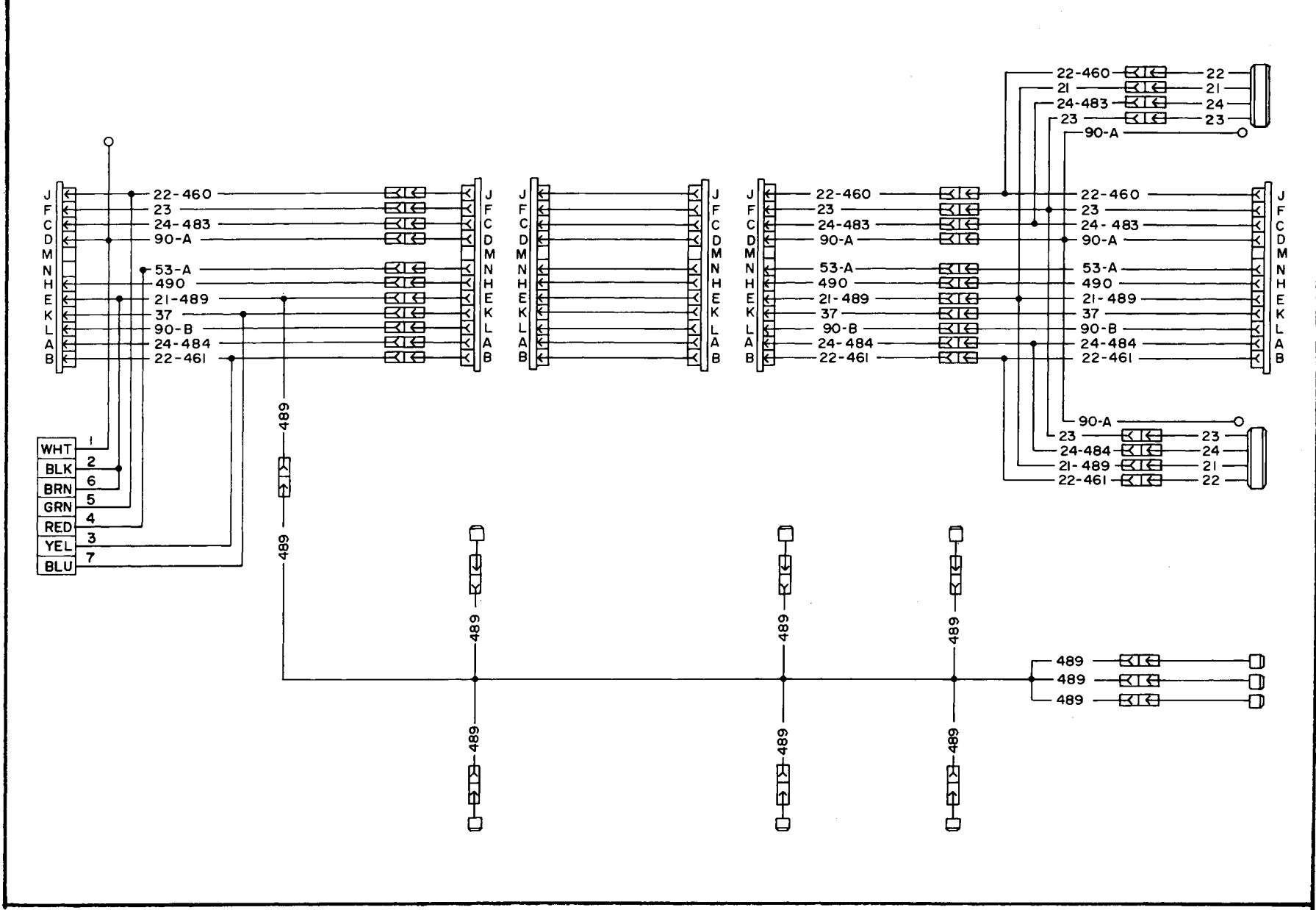
Step 2. Check for cracked or broken hinge.

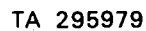
Replace defective hinge (paragraph 4-40).

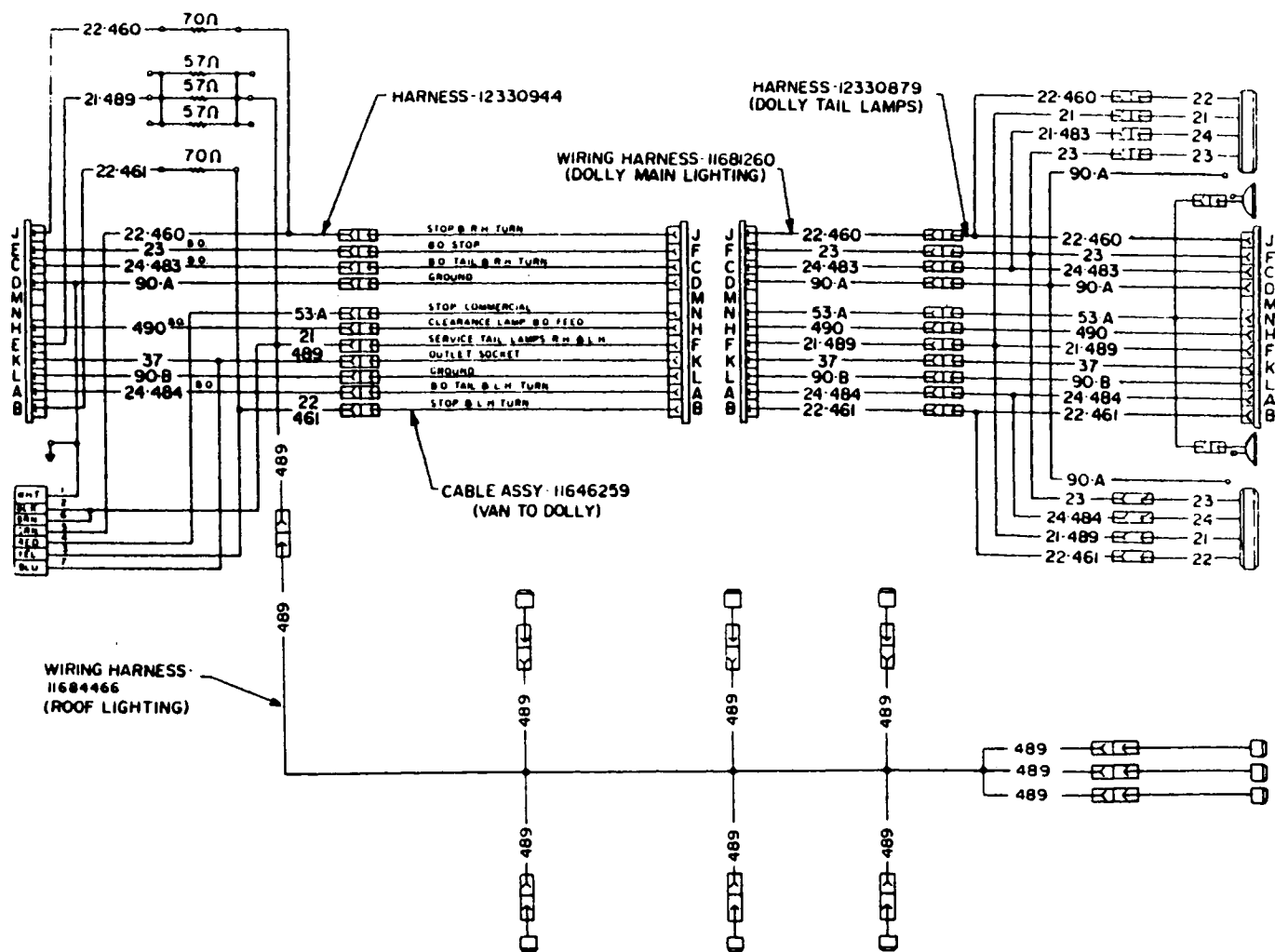
30. R. F. I. SHIELDING DOES NOT PROVIDE A GOOD BOND.

Check for dust, grime and dirt in door opening.

Clean, wash and dry (paragraph 4-40).







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Section V. MAINTENANCE PROCEDURES

4-10. ELECTRICAL SYSTEM

GENERAL

- a. All semitrailers are equipped with two receptacles at the front of the van body, to be used with the intervehicular cable.
- b. The 24-volt receptacle is located at the center and the 12-volt receptacle is located to the right of the 24-volt receptacle.
- c. The towing vehicle used will determine which receptacle to use. Make certain that clearance lights and stoplights are equipped with lamps of the proper voltage before turning on lights.
- d. A resistor assembly on the XM991E2 and XM995E2 semitrailers makes it possible to use a towing vehicle with either a 12-volt or a 24-volt electrical system.
- e. Refer to wiring diagram before connecting any disconnected wires (page 4-34 for XM991 and XM995 semitrailers, page 4-34.1 for XM991E1 and XM995E1 semitrailers, and page 4-34.2 for XM991E2 and XM995E2 semitrailers).

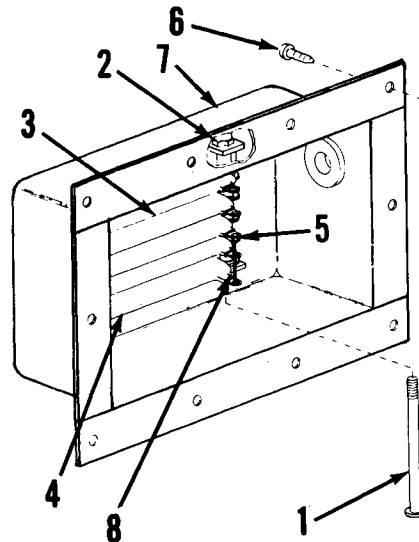
4-10.1. RESISTOR ASSEMBLY, XM991E2, XM995E2

THIS TASK COVERS

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

REMOVAL

1. Disconnect power source.
2. Remove ten screws (6) securing housing (7).
3. Remove two nuts (2) and screws (1) securing resistors.
4. The two 7 ohm resistors (3) may be removed individually. Disconnect and tag wires. Remove resistors.
5. The three 5.7 ohm resistors (4) are interconnected by jumper wires (8). Tag and disconnect wires and remove resistors.



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Change 1

4-35

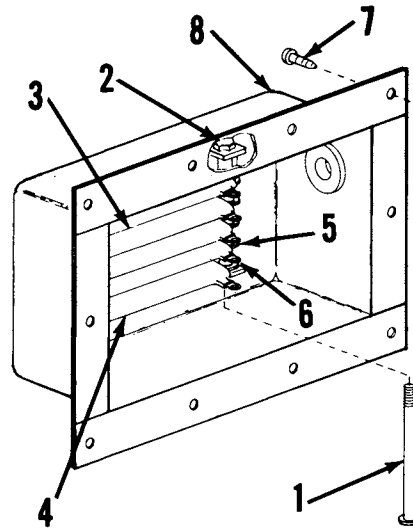
4-10.1. RESISTOR ASSEMBLY (cont)

INSPECTION

1. Check resistor contact points (6). Clean as required.
2. Using multimeter, check resistors for rated ohms on front of resistor (refer to wiring diagram, page 4-34.2).
3. Replace cracked, chipped or defective resistor.

INSTALLATION

1. Replace 7 ohm resistor (3) by connecting disconnected wires and securing with screws (1) and nuts (2).
2. Position 5.7 ohm resistors (4) and solder all jumper wires (5).
3. Connect all disconnected wires and secure with screws (1) and nuts (2).
4. Using multimeter, check resistors for rated ohms marked on front of resistor (refer to wiring diagram, page 4-34.2).
5. Position housing (8) and secure with ten screws (7).



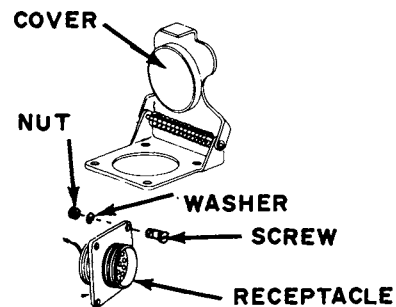
4-11. INTERVEHICULAR CABLE RECEPTACLE, 24-VOLT

THIS TASK COVERS

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

REMOVAL

1. Remove the four nuts, washers and screws which secure cover and receptacle to chassis frame. Remove cover and receptacle.
2. Remove all tape at rear of receptacle to expose wire and nut.
3. Remove the nut from the receptacle and slide nut back over harness.

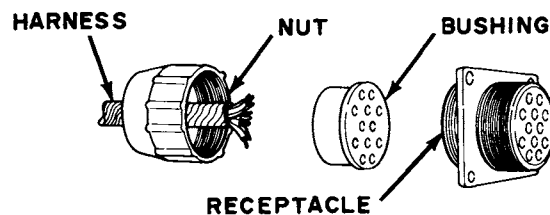


4. Remove the rubber bushing from receptacle and slide bushing back over wires to expose solder connections.

NOTE

Mark wires before unsoldering.

5. Unsolder the wires at rear of receptacle.



CLEANING AND INSPECTION

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

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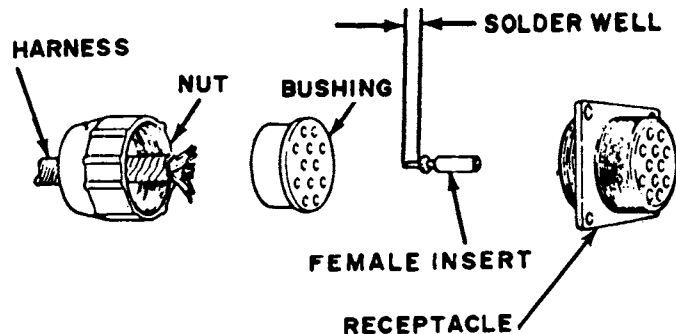
Change 1

4-36. 1

4-11. INTERVEHICULAR CABLE RECEPTACLE, 24-VOLT

INSTALLATION

1. Solder wires to the terminals at rear of receptacle in accordance with wiring diagram.
2. Slide the rubber bushing over wires and solder connections at rear of receptacle.
3. Slide the nut over the wires and bushing to rear of receptacle and tighten nut.

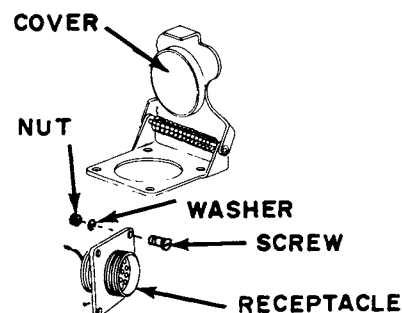


4. Make a continuity check of all circuits throughout semitrailer, using a multimeter.
5. Wrap exposed wires and nut with tape, leaving ground wire (with lug) exposed for later installation (step 7 below).
6. Insert ground wire and receptacle into hole in front of chassis and place cover assembly over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

NOTE

Receptacle key must be next to cover hinge.

7. Align holes in cover and receptacle with holes in chassis and secure with four screws, washers and nuts, with ground lug secured to chassis by one of the washers and nuts.



4-11.1. INTERVEHICULAR CABLE RECEPTACLE, 12-VOLT

REMOVAL

1. Disconnect power source.

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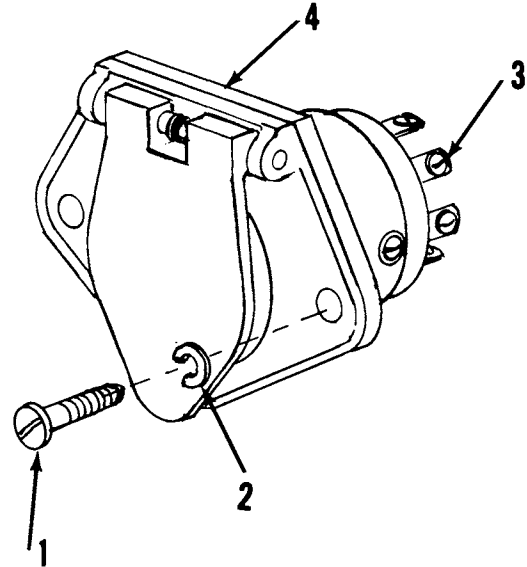
4-11.1. INTERVEHICULAR CABLE RECEPTACLE, 12-VOLT (cont)

REMOVAL (cont)

2. Remove two screws (1) and washers (2) securing receptacle (4). Remove receptacle.
3. Loosen screws (3) securing each wire to rear of receptacle. Tag and remove wires from receptacle.

INSTALLATION

1. Clean and inspect receptacle in accordance with the procedures for the 24-volt receptacle (paragraph 4-11).
2. Insert each wire into its proper position at rear of receptacle (refer to wiring diagram) and secure each wire with screw (3).
3. Position receptacle (4) and secure with two screws (1) and washers (2).
4. Connect power source.



4-12. MARKER CLEARANCE LIGHT

THIS TASK COVERS

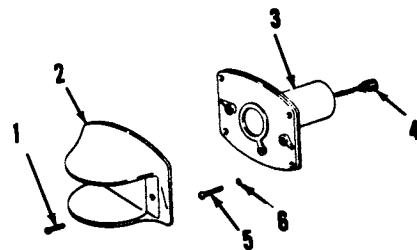
- a. Removal
- b. Cleaning and inspection
- c. Replacement
- d. Installation

Troubleshooting Reference
Item No.

3 Dim or flickering lights

REMOVAL

1. Remove two screws (1) which secure body of light (2) to plate (3). Remove body.
2. Remove four screws (5) and washers (6) which secure light to semitrailer.
3. Disconnect electrical connector (4).



CLEANING AND INSPECTION

1. Clean all parts, except rubber items or gaskets, with approved cleaning solvent.
2. Inspect body for cracks, warpage, cracked or broken lens, or evidence of leakage around gasket.
3. Check socket to make sure all parts are in good condition and will make good electrical contact and watertight connections.
4. Sandpaper scratches and paint, if required.

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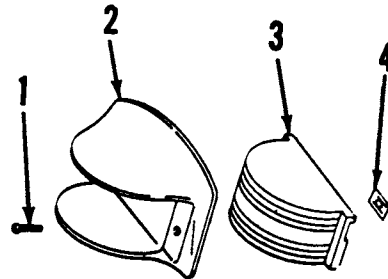
Change 1

4-37

4-12. MARKER CLEARANCE LIGHT (cont)

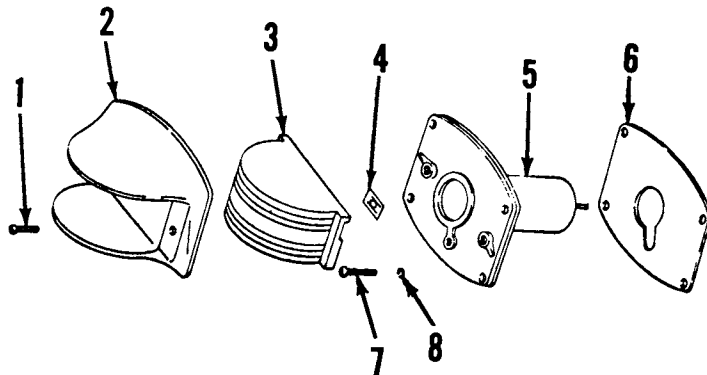
REPLACEMENT

1. Replace a defective lens (3) by removing two nuts (4) from studs on body (2) which secure lens in body. Install new lens and secure with two nuts (4).
2. Replace light if internal parts are defective.



INSTALLATION

1. Connect wires, making certain that matching cables (identified by numbered markers) are joined.
2. Position plate (5) and preformed felt (6) on semitrailer, and secure with four screws (7) and washers (8).
3. Test operation of light by turning on switch in towing vehicle.
4. Position body (2) with attached lens (3) and secure with two screws (1).



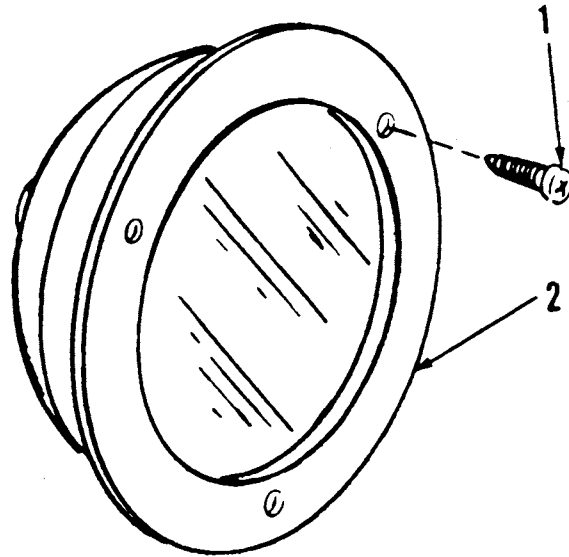
4-12.1. STOP LIGHT, XM991E1, XM995E1, XM991E2, XM995E2

REMOVAL

1. Disconnect electrical connector at rear of light.
2. Remove three screws (1) securing light (2). Replace defective light.

INSTALLATION

1. Position light (2) and secure with three screws (1).
2. Connect electrical connector.
3. Test light by turning on switch in towing vehicle and depressing brake pedal.



4-13. COMPOSITE STOPLIGHT TAILLIGHT

THIS TASK COVERS

- a. Removal
- b. Disassembly
- c. Cleaning
- d. Inspection
- e. Reassembly
- f. Installation

Troubleshooting Reference

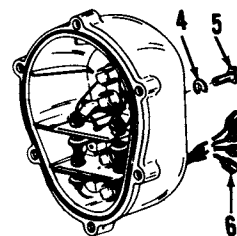
Item No.

- 1 All lights fail to operate
- 2 One or more lamps will not light
- 3 Dim or flickering lights
- 4 Directional signals inoperative

4-13. COMPOSITE STOPLIGHT TAILLIGHT (cont)

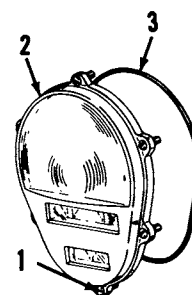
REMOVAL

1. Disconnect four electrical stop-light connectors (6) from chassis harness connectors.
2. Reach behind dolly frame and remove two screws (5) and washers (4) securing light assembly to mounting bracket in dolly crossmember. Remove light.



DISASSEMBLY

1. Loosen six captive screws (1) securing lens assembly (2) to body. Remove lens assembly (2) and preformed packing (3).
2. Further disassembly is not authorized.



CLEANING

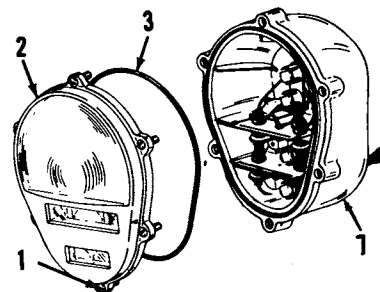
1. Clean exterior of light, using clean water and soap solution. Do not use cleaning solvent.
2. Clean interior of body and lens assembly, using clean water and soap solution. Dry thoroughly.

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.

REASSEMBLY

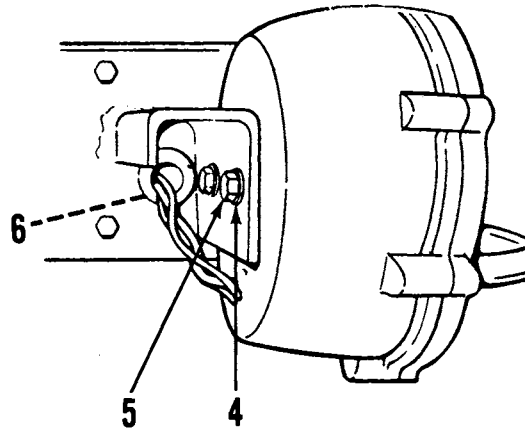
1. Position preformed packing (3) and lens assembly (2) on body (7).
2. Secure with six captive screws (1).



4-13. COMPOSITE STOPLIGHT TAILLIGHT (cont)

INSTALLATION

1. Position light assembly on mounting bracket and secure with two screws (5) and lock washers (4).
2. Connect the four connectors (6) to the chassis harness connectors.
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.



4-14. BRAKE SYSTEM

GENERAL

a. This paragraph covers procedures for removal and installation of brake shoe assembly, relay valve, master cylinder assembly, air chamber assembly, wheel cylinder assembly, hydraulic lines, and air lines. This paragraph also covers cleaning, inspection and repair of hydraulic lines and air lines.

b. The service brakes are the 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.

4-15. BRAKE ADJUSTMENT

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.

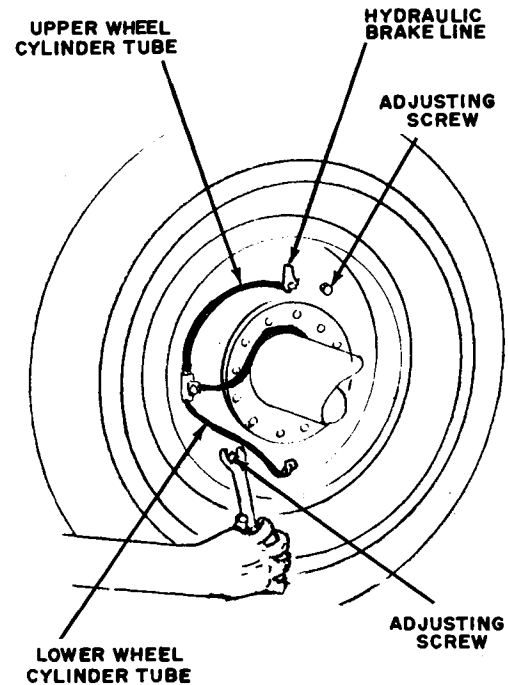
NOTE

Try to laterally rock wheel, hub and brake drum assembly on axle spindle. If rocking condition exists, adjust wheel bearings (paragraph 4-28) before making brake adjustment.

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4-15. BRAKE ADJUSTMENT (cont)

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 adjusting screw just enough to allow brake 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 on air reservoir, lower tires to ground, and remove jacks.



4-16. BLEEDING HYDRAULIC BRAKE SYSTEM

GENERAL

- a. Proper operation of brake system requires a solid column of fluid (without air bubbles).
- b. Bleed the system to expel any air which may have entered. Need for bleeding is generally indicated by soft brake action.
- c. Bleeding can be done manually or with pressure feed filler. Towing vehicle must be coupled to semitrailer for manual bleeding operation.

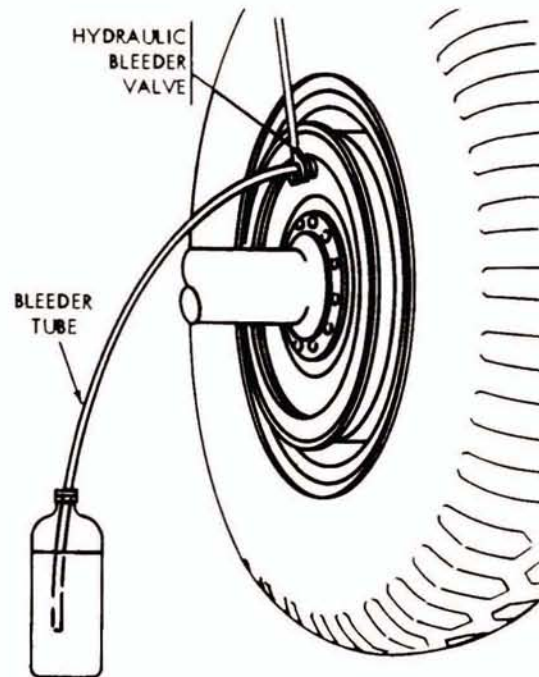
4-16. BLEEDING HYDRAULIC BRAKE SYSTEM (cont)

MANUAL BLEEDING

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

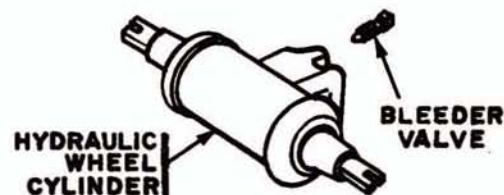
CAUTION

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.

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



4-16. BLEEDING HYDRAULIC BRAKE SYSTEM (cont)

MANUAL BLEEDING (cont)

CAUTION

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

5. Expelled air will show as bubbles coming out of tube. Continue step 4 above until air bubbles cease.
6. Remove bleeder tube.
7. Repeat steps 1 through 5 on remaining wheel cylinders, replenishing fluid in master cylinder reservoir as necessary.
8. Close towing vehicle shutoff valves, open air reservoir drain cock and disconnect towing vehicle SERVICE and EMERGENCY air line couplings from semitrailer couplings.
9. Install filler plug and vent tube in top of master cylinder reservoir.
10. Close air reservoir drain cock.

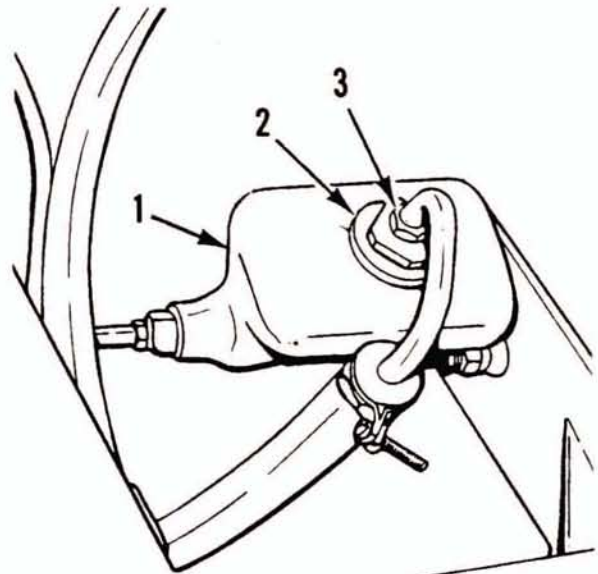
PRESSURE FEED FILLER BLEEDING

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 k pa) air pressure and sufficient fluid to maintain a constant level in master cylinder assembly.

2. Bleed system as in manual bleeding (steps 2, 4, and 6 above), except that replenishing of brake fluid and manual operation of vehicle brake pedal are not required.
3. Remove pressure feed filler hose and pressure feed adapter from master cylinder (1) and install filler plug (2) and vent tube assembly (3).



4-17. BRAKE RETRACTION SPRING

THIS TASK COVERS

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

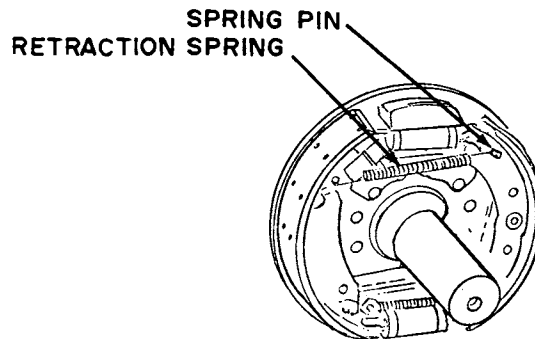
Troubleshooting Reference

Item No.

- | | |
|---|---|
| 5 | Brakes will not release |
| 7 | Slow brake application or
slow release |
| 9 | Brake drum running hot |

REMOVAL

1. Open air reservoir drain cock.
2. Remove wheel from hub (paragraph 3-10).
3. Remove hub and brake drum from axle assembly (paragraph 4-28).
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 (paragraph 4-28).
3. Install wheel on hub (paragraph 3-10).
4. Bleed and adjust brakes (paragraphs 4-15 and 4-16).

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4-18. BRAKE SHOE

THIS TASK COVERS

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

Troubleshooting Reference

Item No.

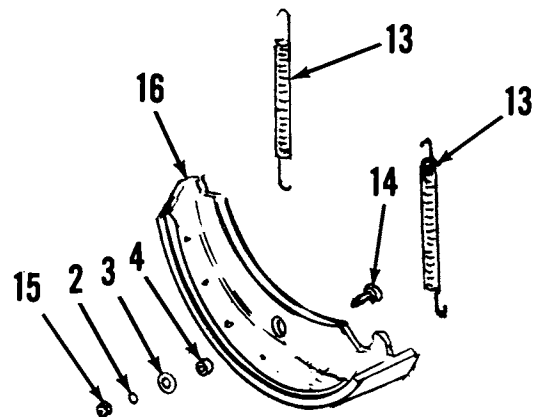
- 6 No brakes or weak brakes
- 8 Grabbing brakes
- 10 Uneven braking
- 11 Noisy brakes
- 12 Wheel noise

INSPECTION

1. Inspect brake shoe lining for wear.
2. If braking surface is near heads of tubular rivets, or grease or hydraulic fluid is present, replace brake shoe.

REMOVAL

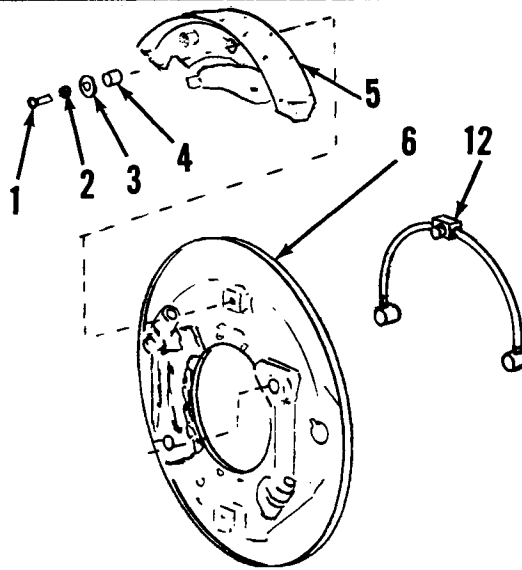
1. Open air reservoir drain cock.
2. Remove wheel (paragraph 3-9).
3. Remove hub and brake drum (paragraph 4-28).
4. Install C-clamp over each end of hydraulic wheel cylinder (21) and (18) to retain wheel cylinder piston. Remove helical extension spring (13).
5. At the forward brake shoe (16), remove nut (15), lock washer (2), guide bolt washer (3), and sleeve spacer (4) from brake shoe guide bolt (14). Remove square neck guide bolt from brake backing plate (6).



4-18. BRAKE SHOE (cont)

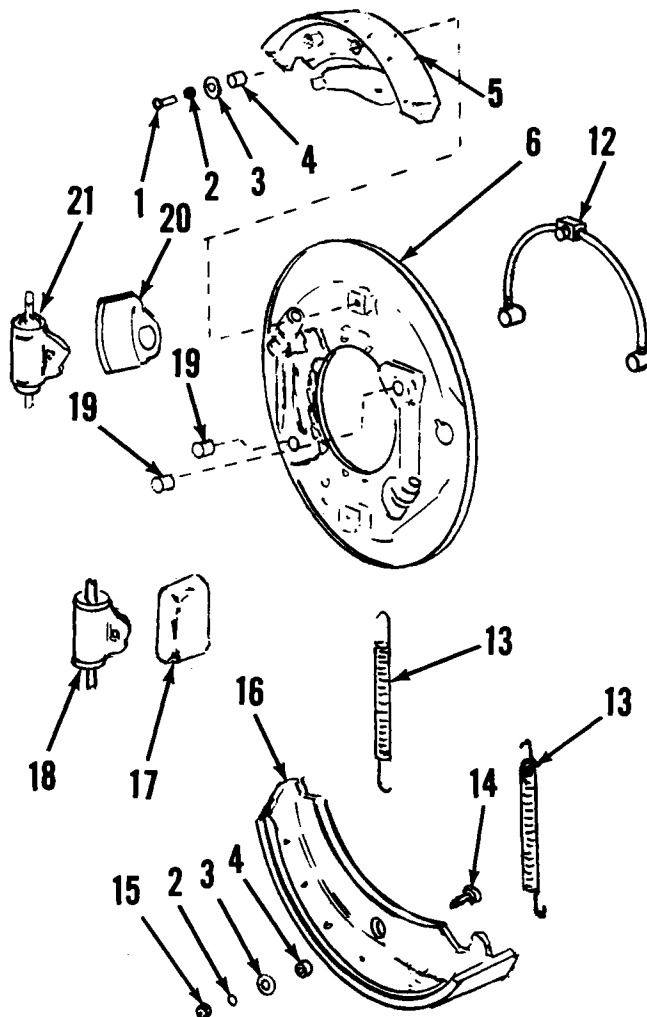
REMOVAL (cont)

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 (paragraph 4-28).
7. Install wheel (paragraph 3-10).
8. Bleed and adjust brakes (paragraphs 4-15 and 4-16).



4-19. HYDRAULIC WHEEL CYLINDER

THIS TASK COVERS

- a. Removal
- b. Installation

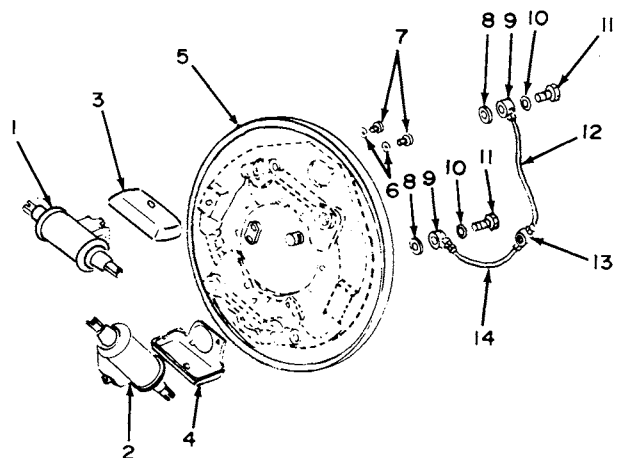
Troubleshooting Reference

Item No.

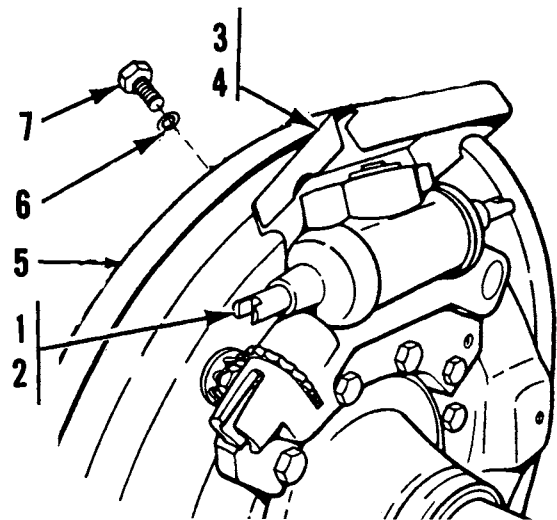
- 6 No brakes or weak brakes
- 7 Slow brake application or slow release
- 10 Uneven braking

REMOVAL

1. Remove wheel (paragraph 3-9).
2. Remove hub and brake drum (paragraph 4-28).
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.
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).



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.



4-19. HYDRAULIC WHEEL CYLINDER (cont)

REMOVAL (cont)

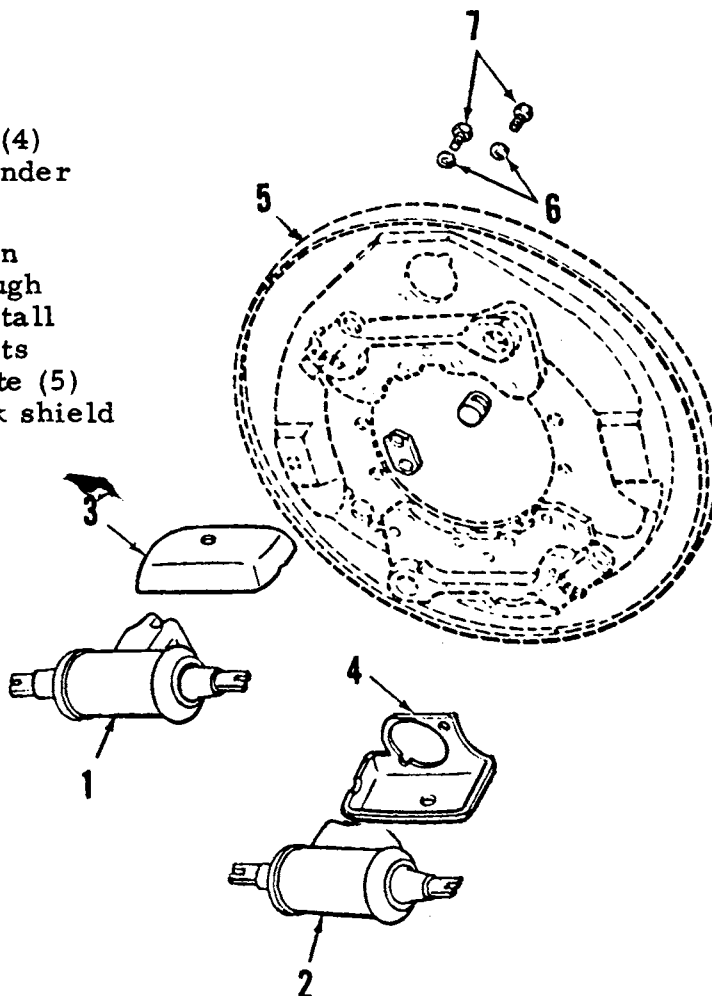
CAUTION

Prevent hydraulic brake fluid from coming in contact with brake linings, either by dripping or soiled hands. Contaminated linings must be replaced.

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

INSTALLATION

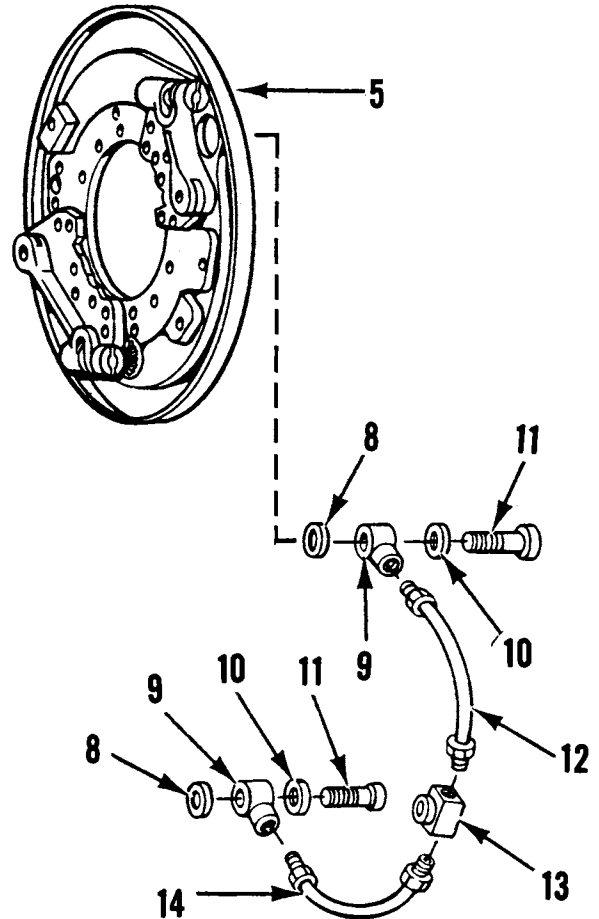
1. Position spark shield (3) or (4) over rear of each wheel cylinder (1) or (2).
2. Place wheel cylinder between ends of brake shoe and through brake backing plate (5). Install two lock washers (6) and bolts (7) from rear of backing plate (5) to secure cylinder and spark shield to backing plate.



4-19. 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).
6. Bleed and adjust brakes (paragraphs 4-15 and 4-16).



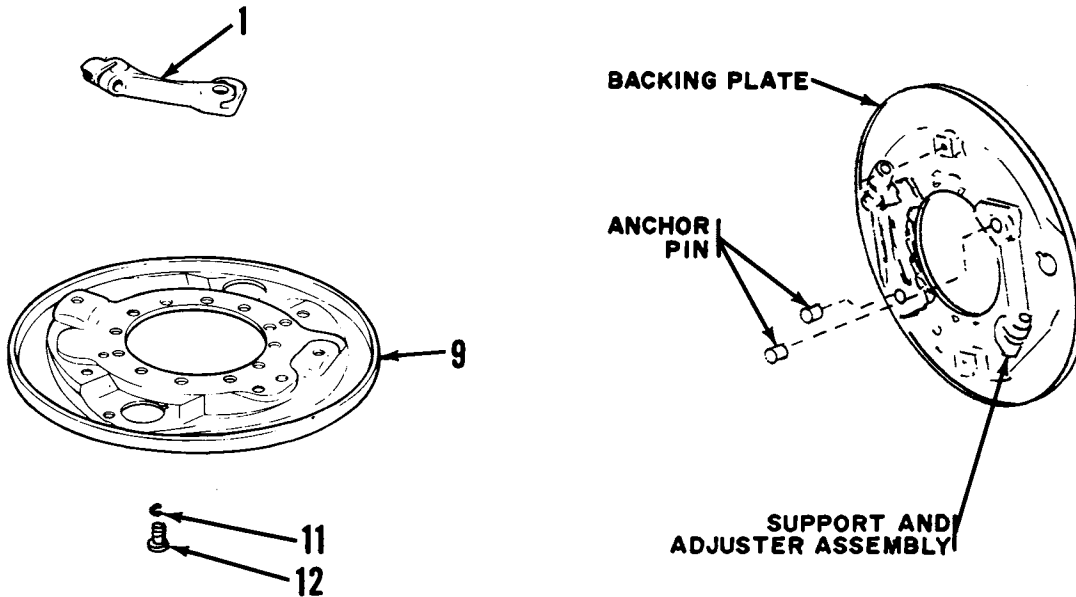
4-20. BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY

THIS TASK COVERS

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

BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY (cont)

REMOVAL



1. Scribe alinement marks on support and adjuster assembly, brake backing plate, and axle flange to insure proper installation.
2. 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.
3. Remove two cap screws (12) and lock washers (11) securing each support and adjuster assembly (1) to brake backing plate (9).

NOTE

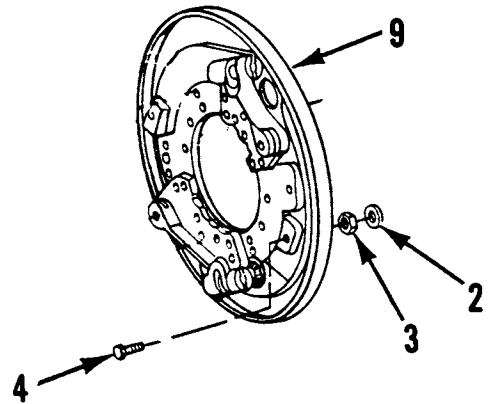
Care should be taken to avoid loss of anchor pins which will drop out of support and adjuster assembly (1) as they are removed.

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

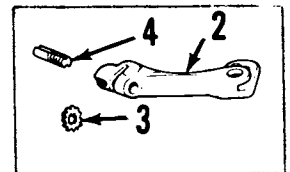
BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY (cont)

REMOVAL (cont)

5. 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.

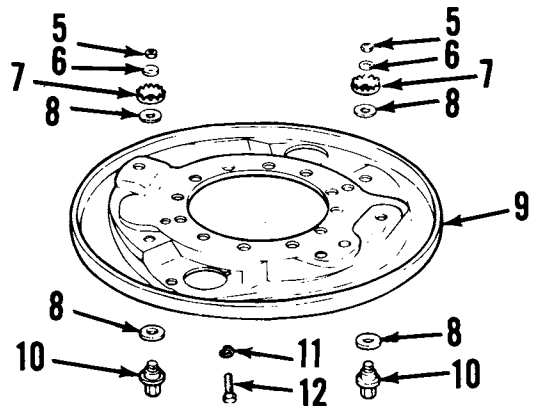


6. Remove nut (5) and lock washer (6) securing adjusting gear (7) to spring and bolt assembly (10).
7. Remove gear (7), two washers (8), and spring and bolt assembly (10) from brake backing plate (9).



INSPECTION AND REPAIR

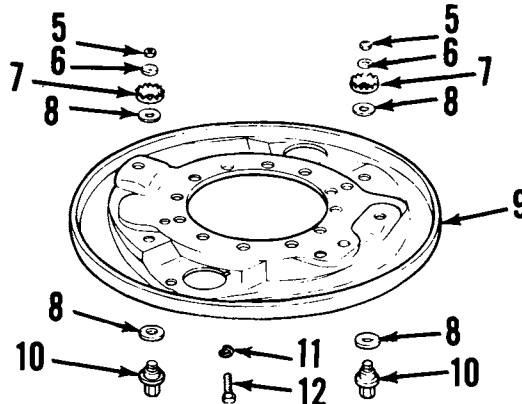
1. Inspect support and adjuster assembly (1) for breaks or cracks. Replace if defective.
2. Inspect adjusting wheel (3) for broken or missing teeth. Replace if defective.
3. Inspect adjusting screw (4) for damaged threads. Replace defective screw.
4. Inspect brake backing plate (9). Straighten and paint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



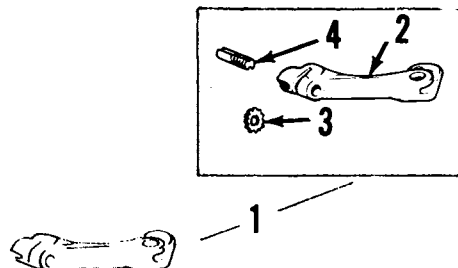
BRAKE BACKING PLATE AND SUPPORT AND ADJUSTER ASSEMBLY (cont)

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).



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.

4-21. 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

SERVICING

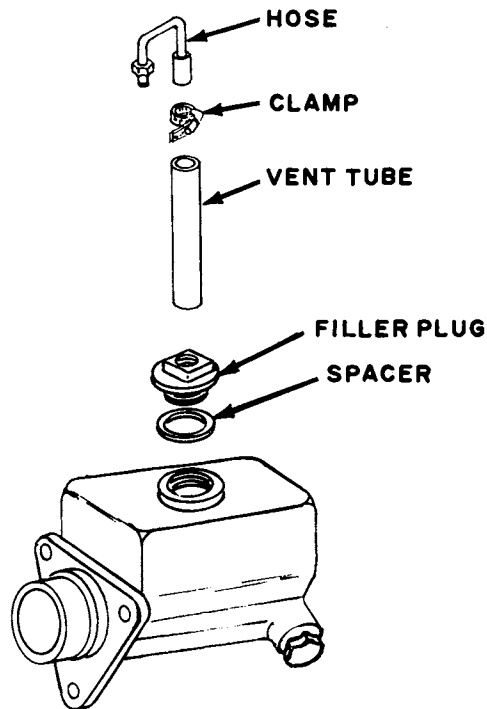
NOTE

Master cylinder service includes only flushing and refilling hydraulic system.

4-21. HYDRAULIC MASTER CYLINDER (cont)

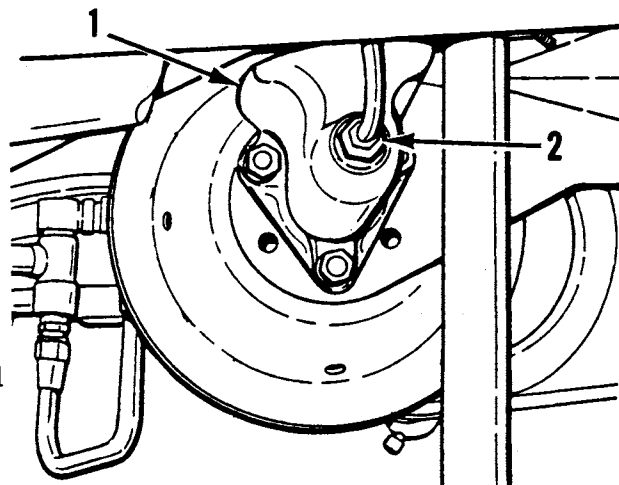
SERVICING (cont)

1. 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-in. of the top of master cylinder reservoir.
4. Install spacer and filler plug; tighten filler plug.
5. Install and tighten vent tube assembly.



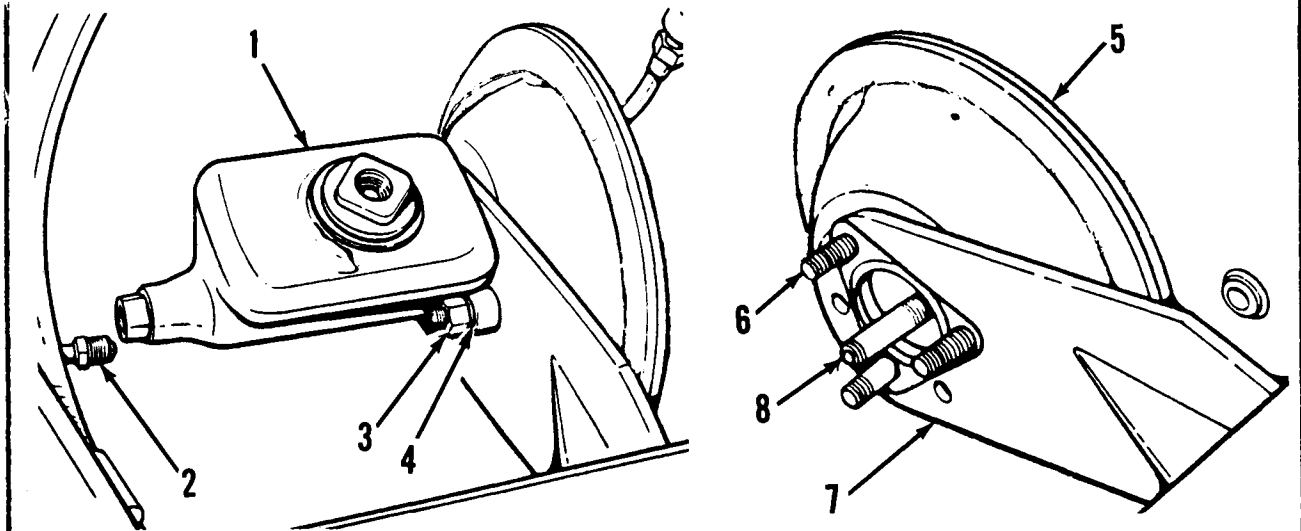
REMOVAL

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.



4-21. HYDRAULIC MASTER CYLINDER (cont)

REMOVAL (cont)



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.

4-22. BRAKE AIR CHAMBER

THIS TASK COVERS

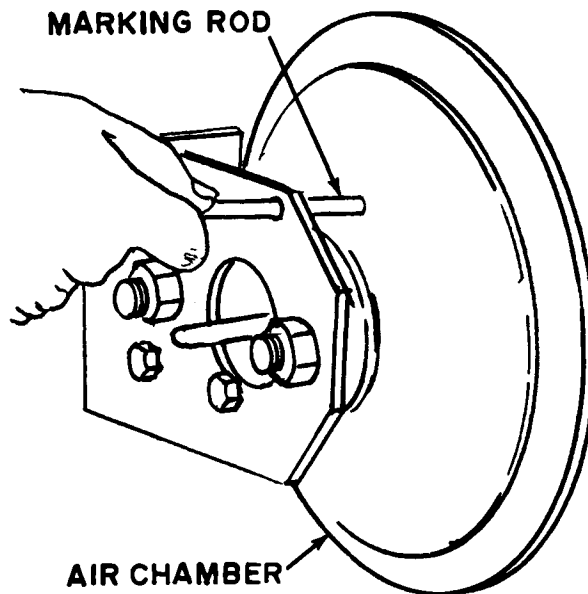
- a. Leakage test
- b. Push rod travel test
- c. Removal
- d. Installation

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 (paragraph 4-15), if necessary, to permit a minimum of one-half inch to a maximum of seven-eighths of an inch travel.



4-22. BRAKE AIR CHAMBER (cont)

REMOVAL

WARNING

Air under 100 psi air pressure is used in the operation of the brake and the suspension systems. Observe all safety precautions.

1. Release air pressure from system by opening drain cock on the air reservoir.
2. Disconnect air chamber-to-relay valve tube.
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 mounting studs through bracket. Secure with two nuts and lockwashers.
2. Connect air chamber-to-relay valve tube.
3. Close drain cock on air reservoir.
4. Add hydraulic fluid to master cylinder (paragraph 4-21).
5. Bleed and adjust brakes (paragraphs 4-15 and 4-16).

4-23. 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 |

4-23. RELAY VALVE (cont)

DRAINAGE OF MOISTURE

1. 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.

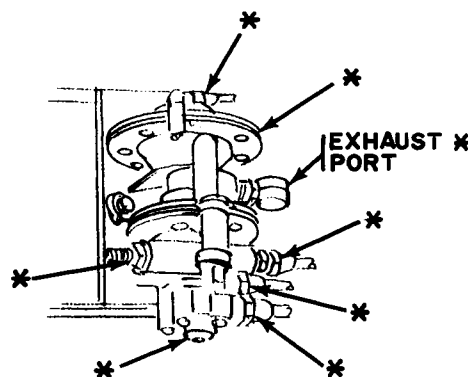
OPERATING TEST

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. With relay valve in EMERGENCY position, coat exhaust port with soap and water solution and check for leaks.

* LEAKAGE TEST AREAS



4-23. RELAY VALVE (cont)

LEAKAGE TEST (cont)

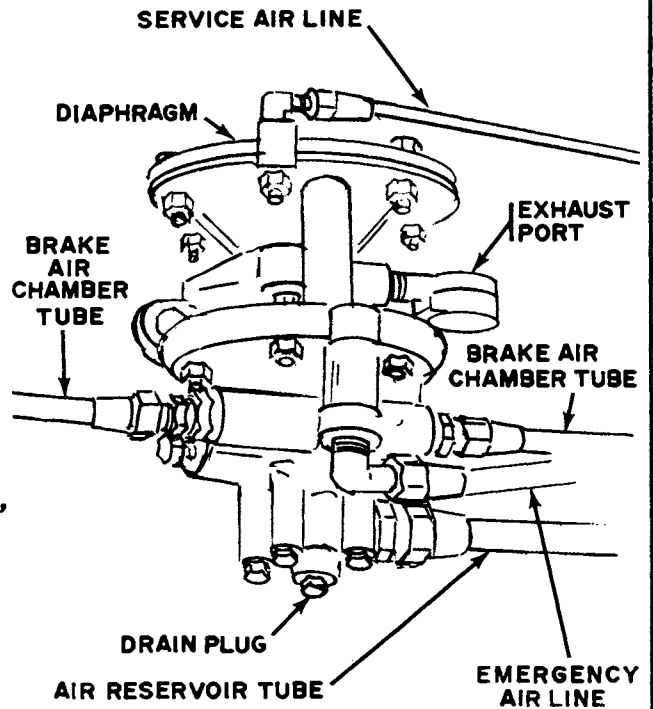
5. Leakage in steps 2, 3, and 4 above must not exceed one inch bubble in two seconds. If excess leakage is found, replace relay valve.

REMOVAL

1. Open drain cock on air reservoir.
2. Disconnect service and emergency air tubes, air reservoir air tube, and brake air chamber air tube.
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 tube, air reservoir air tube, and service and emergency air lines to relay valve.
3. Make operating and leakage tests.



4-24. 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

4-24. AIR RESERVOIR (cont)

LEAKAGE TEST

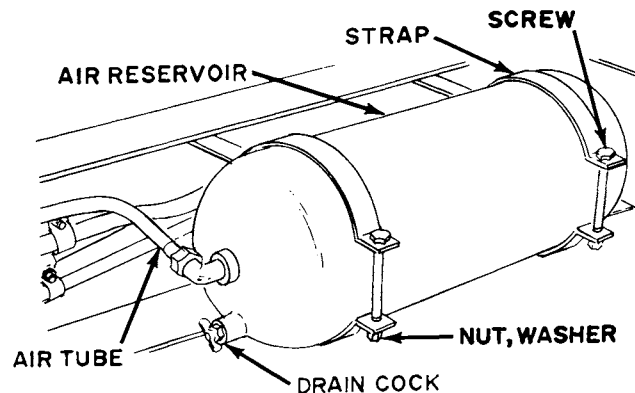
1. With brake system charged, coat drain cock, air connections, and outside of air reservoir with soap and water solution and check for air leaks. No leakage is permissible.
2. Tighten any leaking connections.
3. Inspect for damage or corrosion.
4. Replace reservoir if it leaks or if any damage or corrosion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

REMOVAL

1. Disconnect intervehicular air hoses.
2. Open drain cock on air reservoir.
3. Disconnect air tube from relay valve to air reservoir.
4. Remove four nuts, lock washers and cap screws securing air reservoir mounting straps to chassis, and remove reservoir.

INSTALLATION

1. Position air reservoir with drain cock at the bottom.
2. Secure air reservoir and clamps with four cap screws, lock washers and nuts to chassis.
3. Connect air tube from relay valve to air reservoir.
4. Make leakage test.



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 is not permissible.

4-24. AIR RESERVOIR (cont)

DRAIN COCK LEAKAGE TEST (cont)

3. Leakage due to dirt accumulation can be corrected by cleaning and applying a coat of Artillery and Automotive Grease (GAA) on the drain cock threads before assembly.
4. Leakage due to a damaged part requires replacement of the drain cock.

REMOVAL OF DRAIN COCK

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

CLEANING AND INSPECTION OF DRAIN COCK

1. Clean with approved cleaning solvent.
2. Inspect for damage or excessive wear.
3. Replace defective drain cock.

INSTALLATION OF DRAIN COCK

1. Apply sealer tape 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.

4-25. AIR HALF-COUPLING

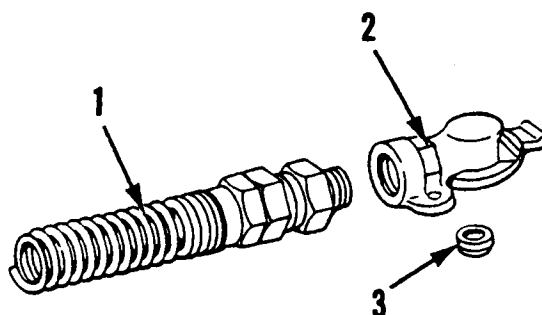
THIS TASK COVERS

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

4-25. AIR HALF-COUPLING (cont)

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

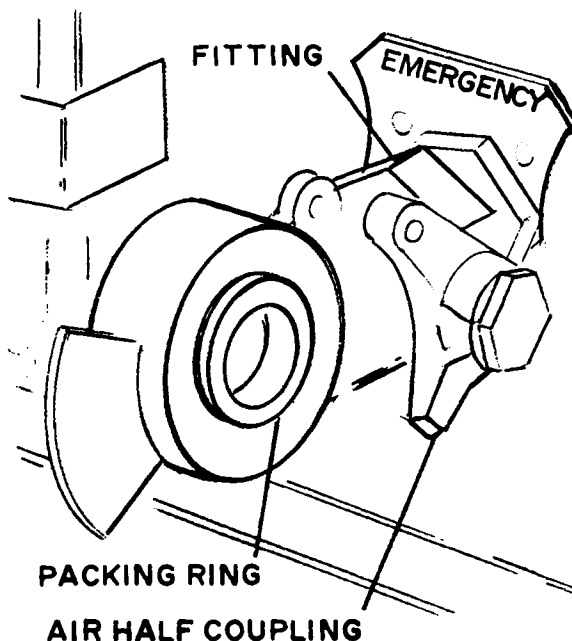
1. Clean mud and dirt from all exposed surfaces with water and a stiff brush.
2. Remove grease with cleaning solvent (item 3, appendix E).

INSPECTION AND REPLACEMENT

1. Inspect half-coupling body for damaged threads or cracks. Replace coupling if damaged.
2. Check plunger for ease of operation.
3. Inspect pin for tightness.

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.

4-26. HOSE, TUBING AND FITTINGS (AIR AND HYDRAULIC)

THIS TASK COVERS

a. General		
b. Serviceability test	Troubleshooting Reference	
c. Removal of hydraulic hose	Item No.	
d. Installation of hydraulic hose	5	Brakes will not release
e. Removal of tube fitting	6	No brakes or weak brakes
f. Installation of tube fitting		

GENERAL

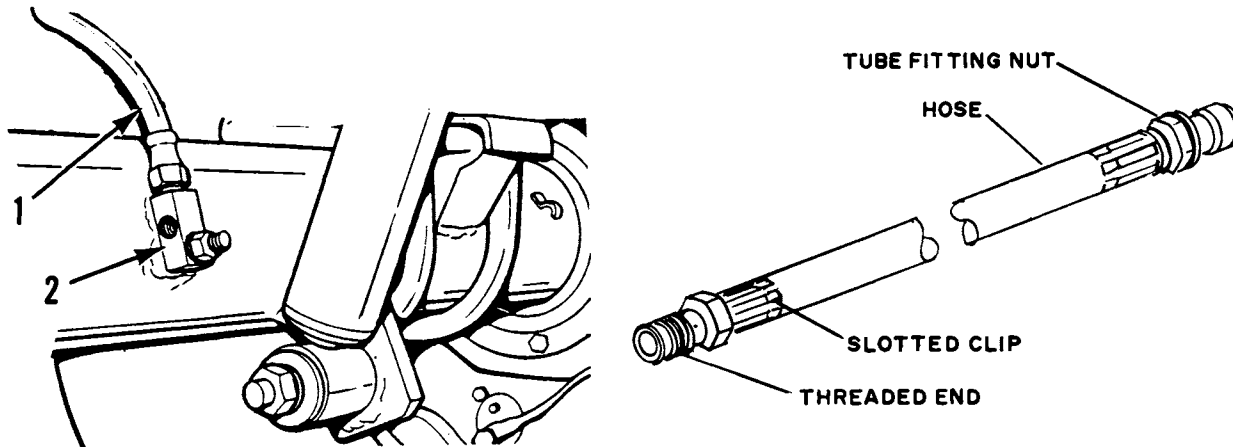
1. Hydraulic and air tubing and fittings are not ordinarily removed except for replacement.
2. Replace bent, kinked, or damaged lines and fittings.
3. Keep all lines tightly attached.
4. Any disconnection or replacement of hydraulic tubing or fitting will require bleeding of the brake system (paragraph 4-16).

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.

4-26. HOSE, TUBING AND FITTINGS (AIR AND HYDRAULIC) (cont)

REMOVAL OF HYDRAULIC HOSE



1. Remove hydraulic hose (1) from wheel cylinder line connecting tee (2) on front or rear axle.
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.

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.

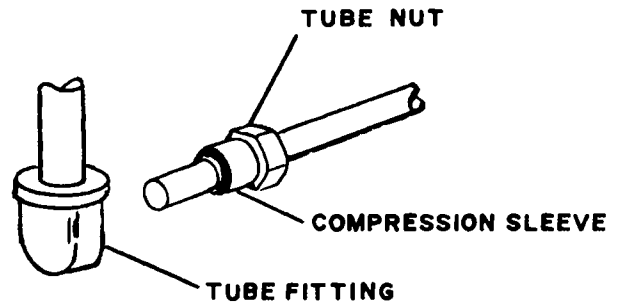
4-26. HOSE, TUBING AND FITTINGS (AIR AND HYDRAULIC) (cont)

REMOVAL OF TUBE FITTING

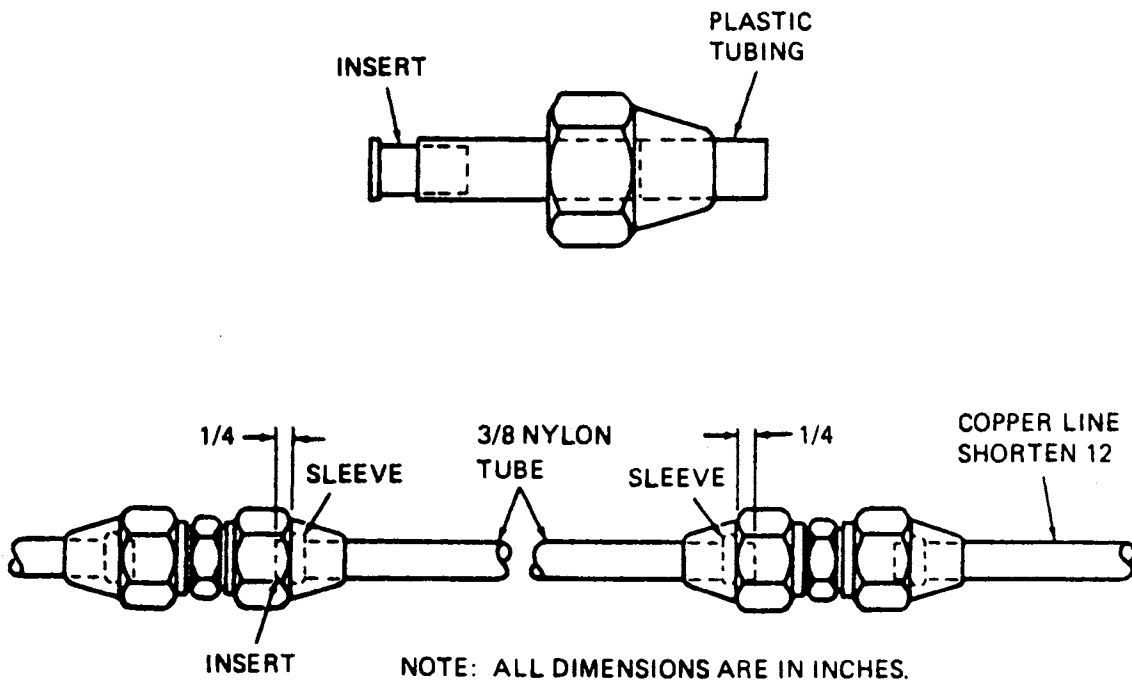
1. Unscrew tube nut from tube fitting.
2. Serviceable tube fittings and tube nuts may be reused, but compression sleeves must be replaced.

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.



4-26.1. 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.

4-27. WHEEL, HUB AND BRAKE DRUM

WHEELS

Refer to paragraph 3-9.

TIRES

Refer to TM 9-2610-200-20 for removal, servicing and installation of tires.

4-28. HUB AND BRAKE DRUM

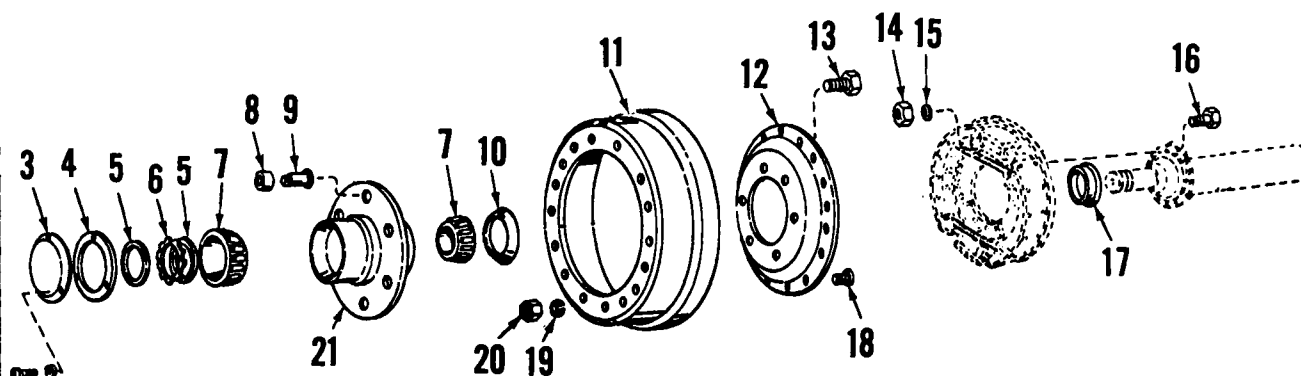
THIS TASK COVERS

- 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

REMOVAL OF HUB AND BRAKE DRUM ASSEMBLY FROM AXLE



1. Screw
2. Washer
3. Hub cap
4. Gasket
5. Adjusting Nut
6. Key washer
7. Bearing
8. Nut
9. Nut
10. Seal
11. Brake drum

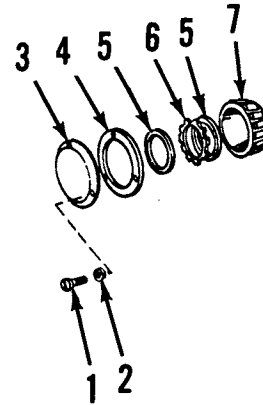
12. Back front brake drive
13. Bolt
14. Nut
15. Washer
16. Screw
17. Sleeve spacer
18. Bolt
19. Washer
20. Nut
21. Hub

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

4-28. 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 NSN 5120-00-169-4586, 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.

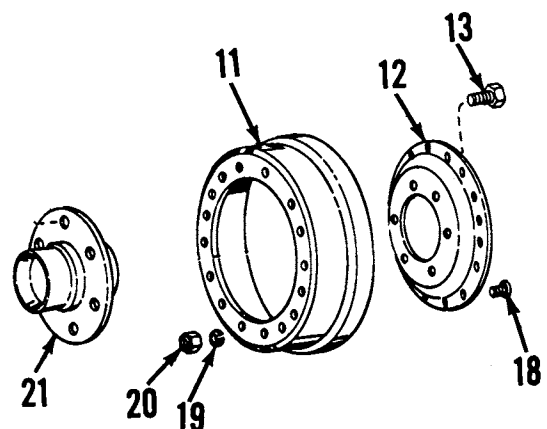


REMOVAL OF BRAKE DRUM FROM HUB

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.



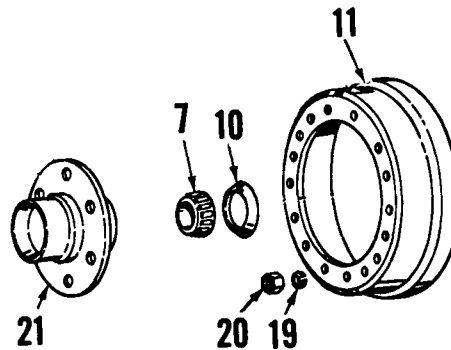
4-28. HUB AND BRAKE DRUM (cont)

CLEANING

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

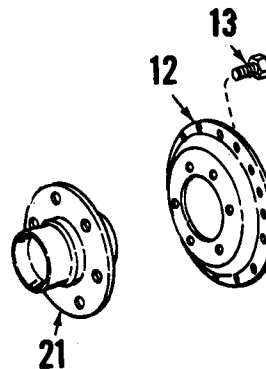
INSPECTION AND REPLACEMENT

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.



INSTALLATION OF BRAKE DRUM ON HUB

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

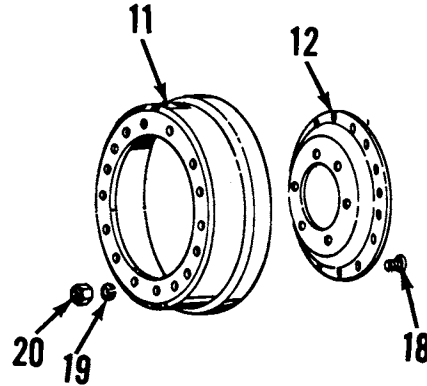


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4-28. HUB AND BRAKE DRUM (cont)

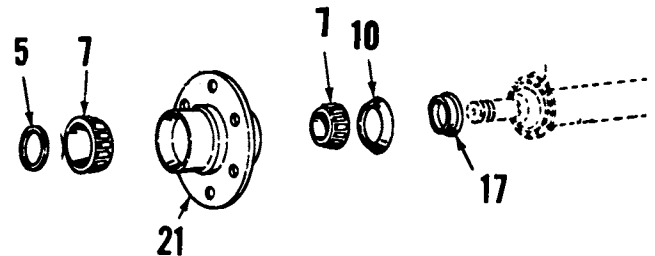
INSTALLATION OF BRAKE DRUM ON HUB (cont)

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



INSTALLATION OF HUB AND BRAKE DRUM ASSEMBLY ON AXLE

1. Replace oil sleeve spacer (17) if it has been removed.
2. Press or carefully tap oil seal (10) into place, using a block of wood. Do not hammer directly on seal.
3. 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.
4. Slide hub and drum assembly on axle spindle, being careful not to damage seal (10).
5. Pack outer tapered roller bearing (7) with grease and insert with small outside diameter of bearing over spindle and into hub.
6. Install inner adjusting nut (5), but do not tighten.



4-28. HUB AND BRAKE DRUM (cont)

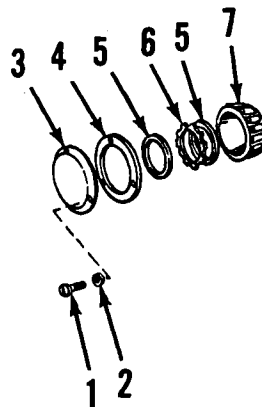
INSTALLATION OF HUB AND BRAKE DRUM ASSEMBLY ON AXLE (cont)

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. Check bearing adjustment.
12. Position hub cap (3) and gasket (4) and secure with three screws (1) and washers (2).
13. Adjust brakes (paragraph 4-15).



4-29. SPARE WHEEL CARRIER

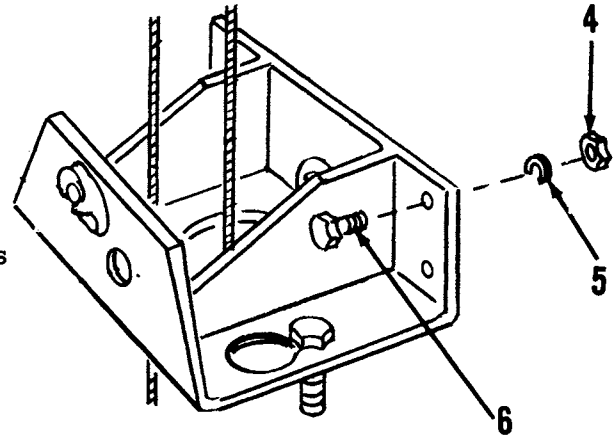
THIS TASK COVERS

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

4-29. SPARE WHEEL CARRIER (cont)

REMOVAL

1. Remove spare wheel and tire from carrier (paragraph 2-15).
2. Remove four nuts (4), lock washers (5) and screws (6) securing spare wheel carrier.
3. Remove carrier.

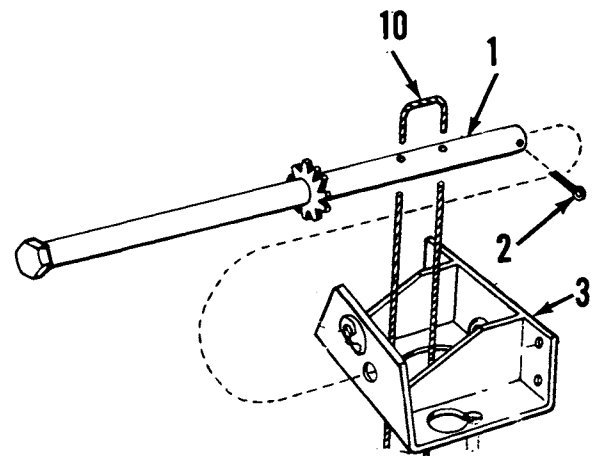


CLEANING

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

INSPECTION AND REPAIR

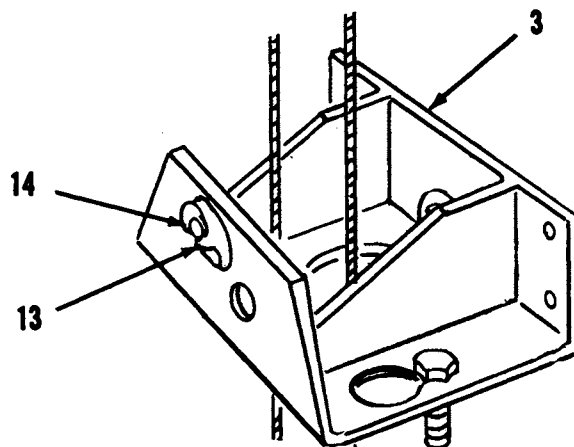
1. Check upper member (3) for cracks or breaks in welds. Straighten member and weld cracks.
2. Check ratchet wheel (1) for wear and alinement. Check weld of ratchet and nut on shaft for cracks or undue teeth wear. Reweld if necessary in accordance with MIL-STD-1261A.
3. Replace ratchet wheel (1) by removing 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).



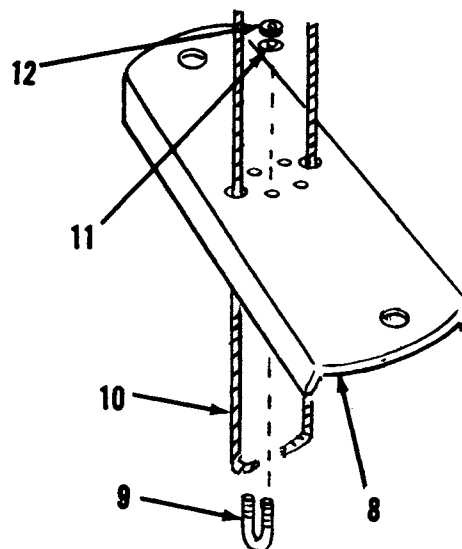
4-29. SPARE WHEEL CARRIER (cont)

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.



5. Check lower member (8) for dents or twisted parts.
6. Check U-bolts (9) for tightness. Check attaching nuts (12) for stripped threads or looseness, and 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.

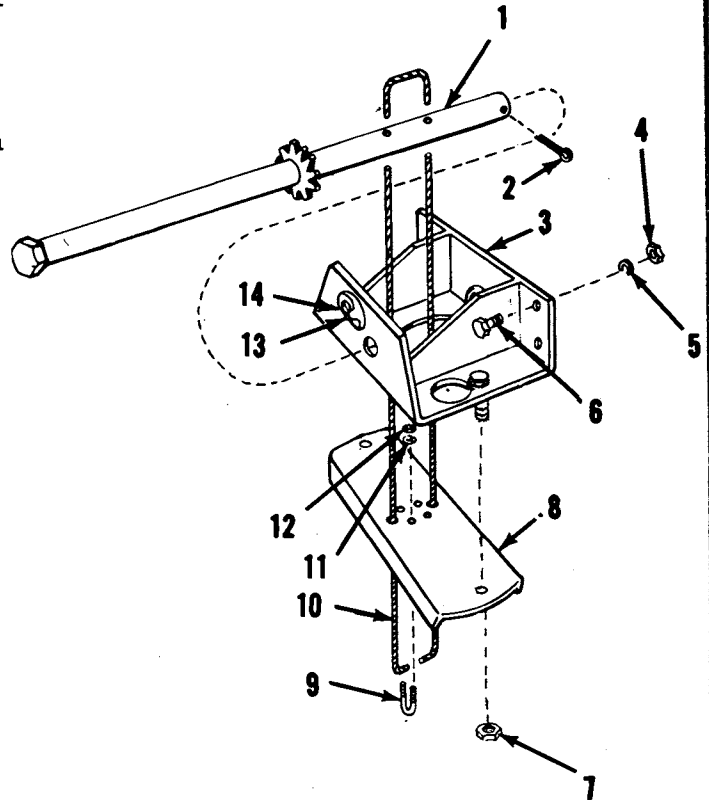


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4-29. SPARE WHEEL CARRIER (cont)

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 (paragraph 2-20).

4-30. LEVELING JACK

THIS TASK COVERS

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

Troubleshooting Reference

Item No.

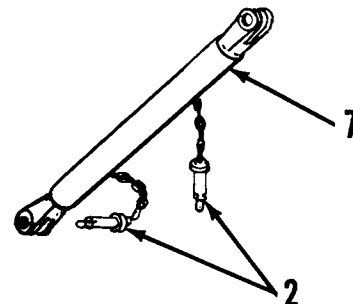
- | | |
|----|--------------------------------|
| 15 | Jack is hard to operate |
| 16 | Jack shoe will not set on base |

TA 173647

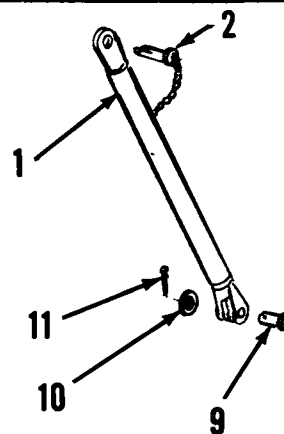
4-30. LEVELING JACK (cont)

REMOVAL

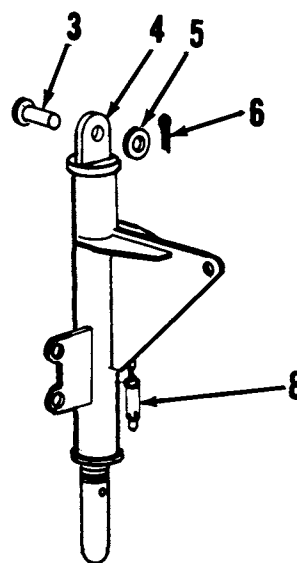
1. Place leveling jack in operating position (paragraph 2-13).
2. Release two pin and chain assemblies (2) securing side brace (7). Remove brace.



3. 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.



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



4-30. LEVELING JACK (cont)

CLEANING

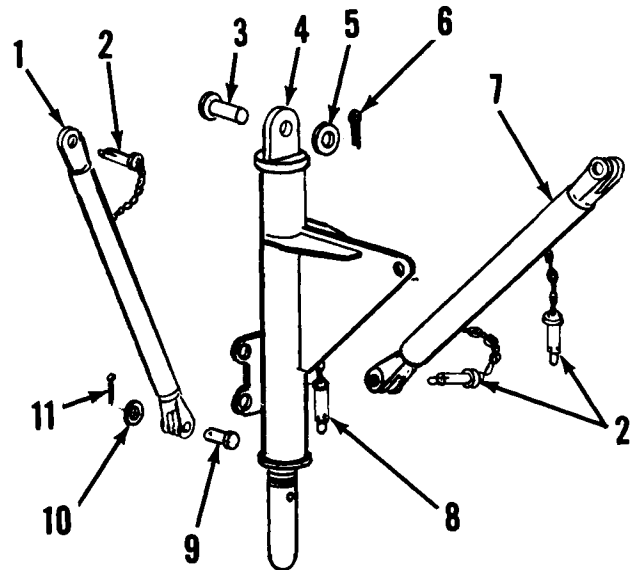
1. Remove accumulated grease with cleaning solvent (item 3, appendix E).
2. Remove surface dirt with water and stiff brush.

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 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).



4-31. SWING-UP LANDING GEAR

THIS TASK COVERS

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

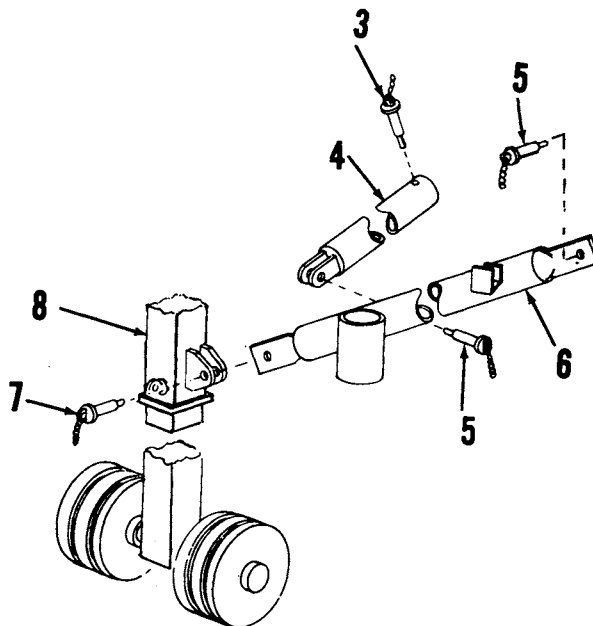
Troubleshooting Reference

Item No.

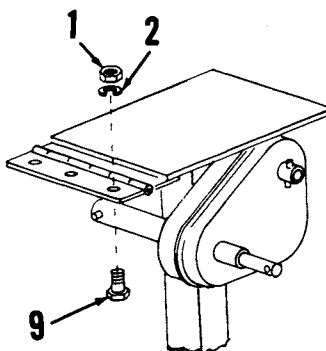
14 Erratic operation
(binding and grinding)

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).



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



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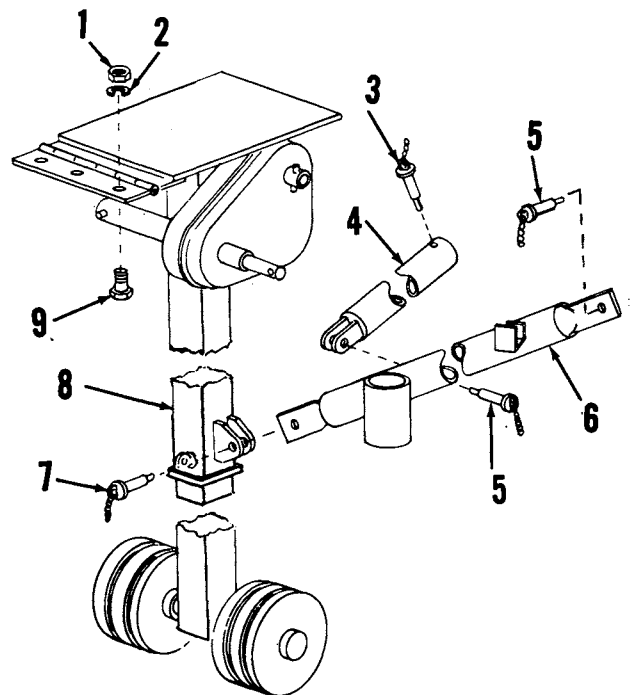
4-31. SWING-UP LANDING GEAR (cont)

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.



4-32. 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.

- | | |
|----|---|
| 17 | All air springs are flat |
| 18 | Air springs flat on one side only |
| 19 | Semitrailer leans |
| 20 | Suspension deflates rapidly when parked |
| 21 | Air springs blown out |
| 22 | Torsion bar breakage |
| 23 | Wear of torsion bar rubber bushing |

GENERAL

1. Safe brake air pressure of 65 psi is automatically maintained by brake protection 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.

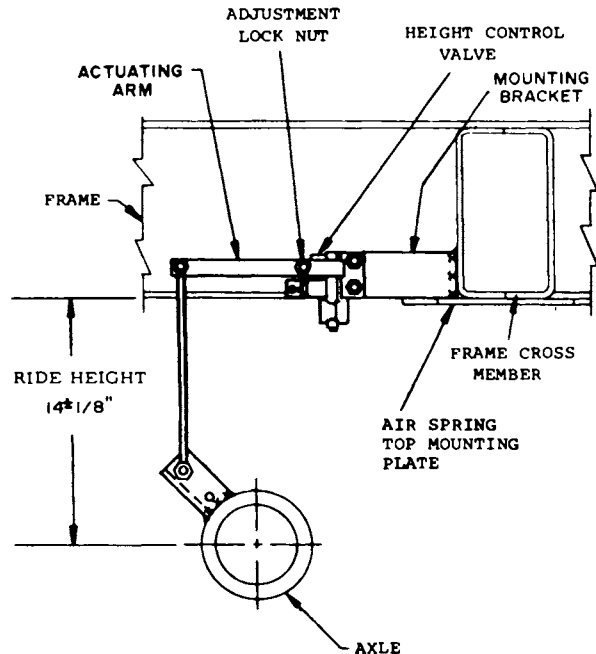
ADJUSTMENT

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.

4-32. AIR SUSPENSION SYSTEM (cont)

ADJUSTMENT (cont)

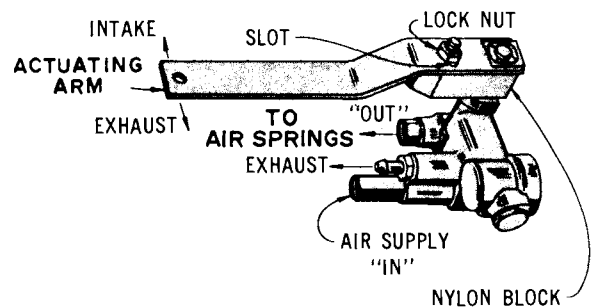
3. Disconnect the linkage from both height control valve actuating arms.
4. Move both of the actuating arms to a vertical down position and hold until all air is exhausted from air springs.
5. Connect one valve actuating arm only to its linkage. Air spring controlled by this valve will inflate until 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.



4-32. AIR SUSPENSION SYSTEM (cont)

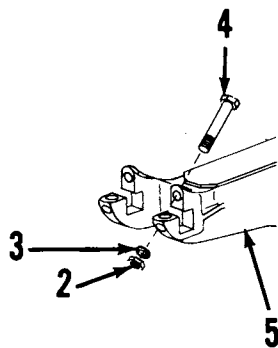
ADJUSTMENT (cont)

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).

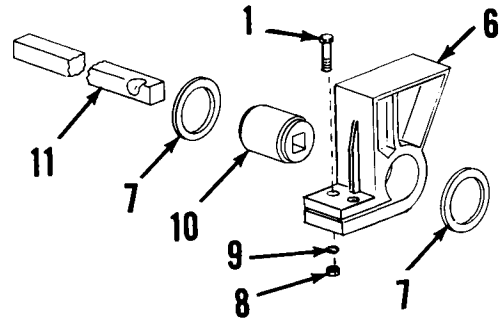


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4-32. AIR SUSPENSION SYSTEM (cont)

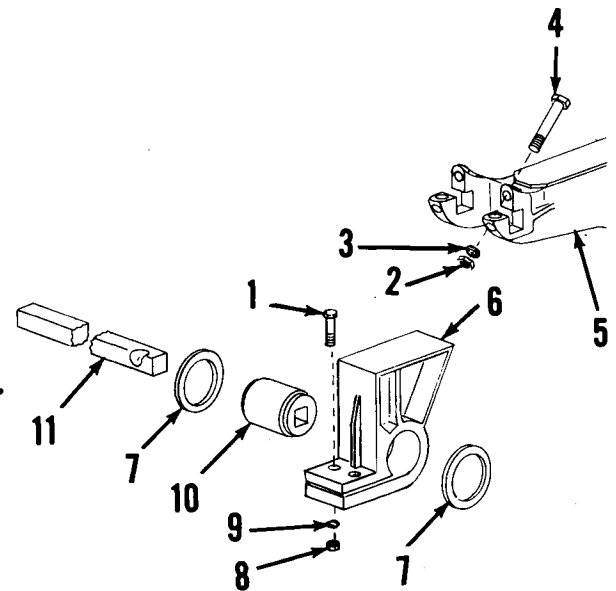
REMOVAL OF RUBBER BUSHING AND TORSION BAR (cont)

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).



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).



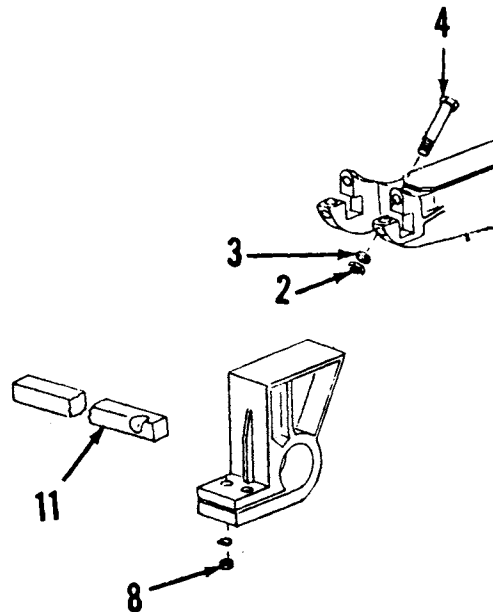
7. Reconnect linkage to height control valve.
8. Install wheels and remove blocking and jacking equipment.

4-32. 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. Grind a one-fourth inch by 45 degree chamfer on one end of new torsion bar.

4. Remove attaching nuts (2), lock washers (3), and cap screws (4), and loosen bracket nuts (8).
5. 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).
6. 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).
7. Install the wheels and remove the blocking and jacking equipment.



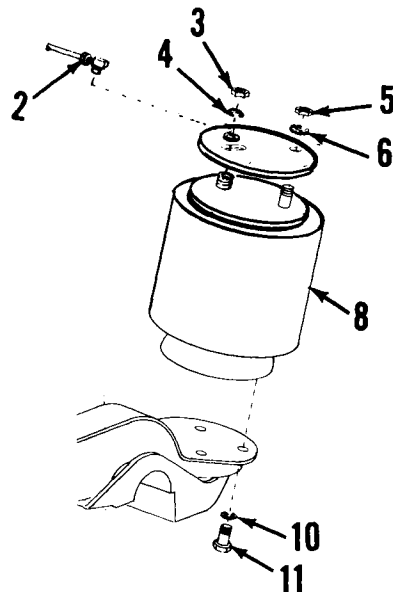
REMOVAL OF AIR SPRING

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.

4-32. AIR SUSPENSION SYSTEM (cont)

REMOVAL OF AIR SPRING (cont)

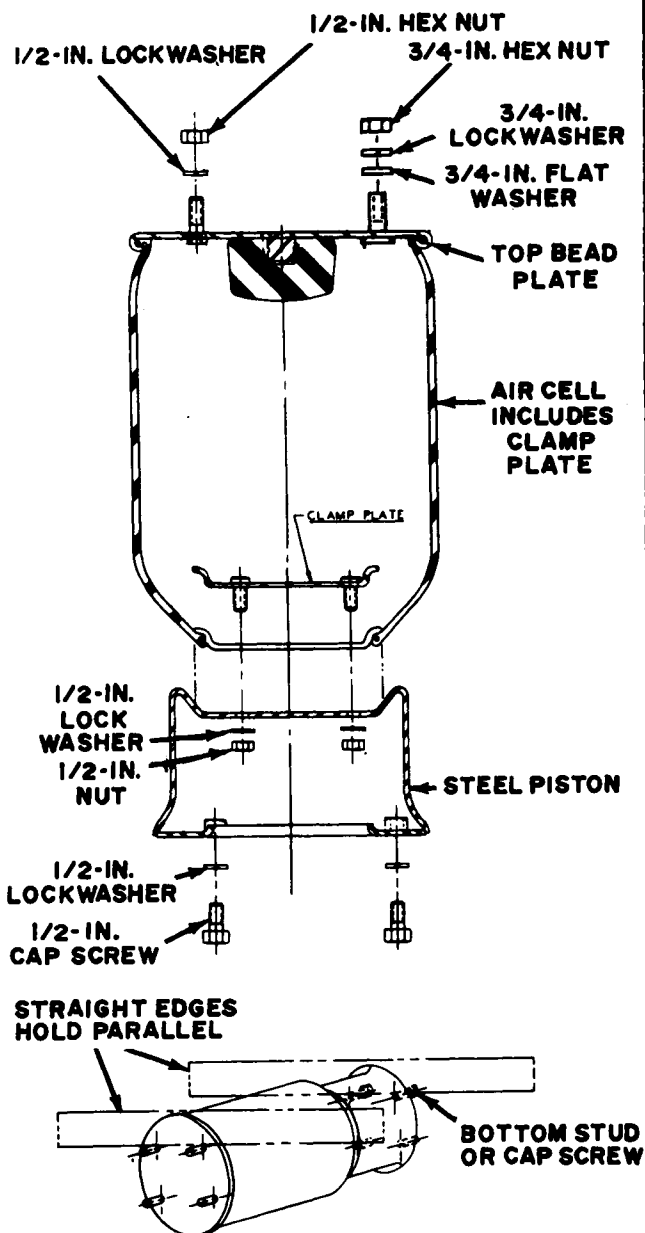
3. Disconnect air hose (2) from top of air spring (8).
4. Remove upper mounting nuts (3 and 5) and lock washers (4 and 6).
5. Remove lower mounting screws (11) and washers (10).
6. Depress air spring to retract upper mounting studs from frame and remove air spring with lower piston attached.
7. Turn 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.



4-32. AIR SUSPENSION SYSTEM (cont)

INSTALLATION OF AIR SPRING

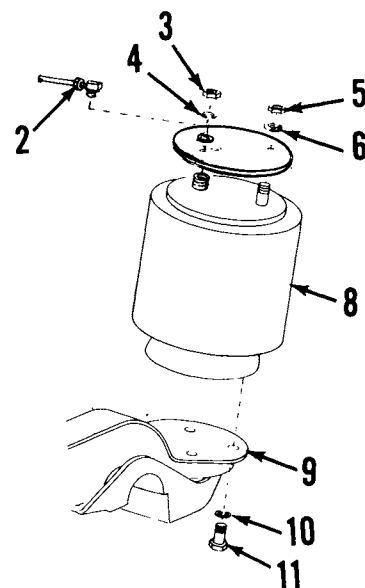
1. Position the new air cell, right side up, over piston and position clamp plate so that studs hang down through opening in air cell.
2. Carefully set the air cell down on piston so that studs go through holes in piston.
3. Start the one-half inch nuts and lock washers on studs inside piston. Do not 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 edges 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 alignment of top and bottom studs.



4-32. 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).



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.

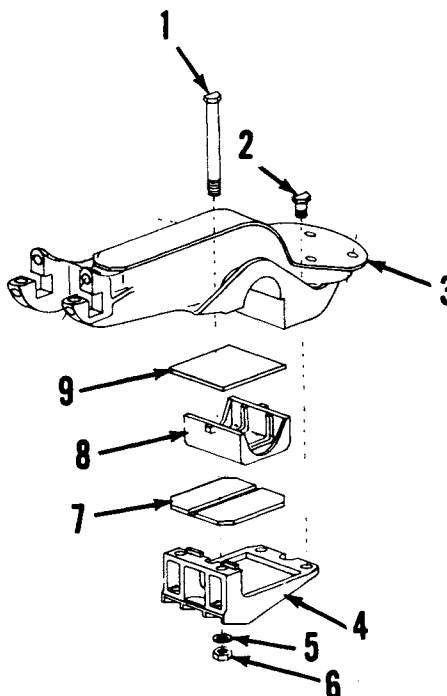
REMOVAL OF AXLE CONNECTION COMPONENTS

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.

4-32. AIR SUSPENSION SYSTEM (cont)

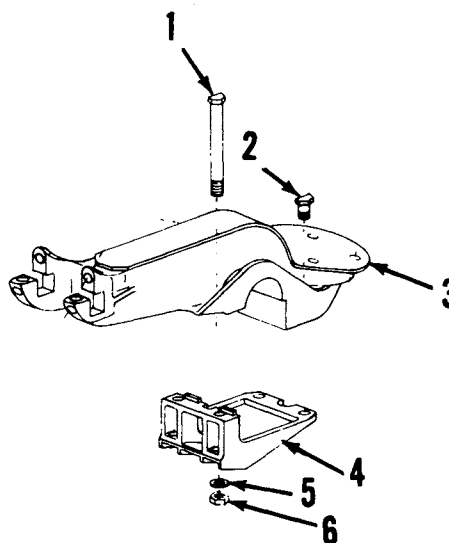
REMOVAL OF AXLE CONNECTION COMPONENTS (cont)

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).



INSTALLATION OF AXLE CONNECTION COMPONENTS

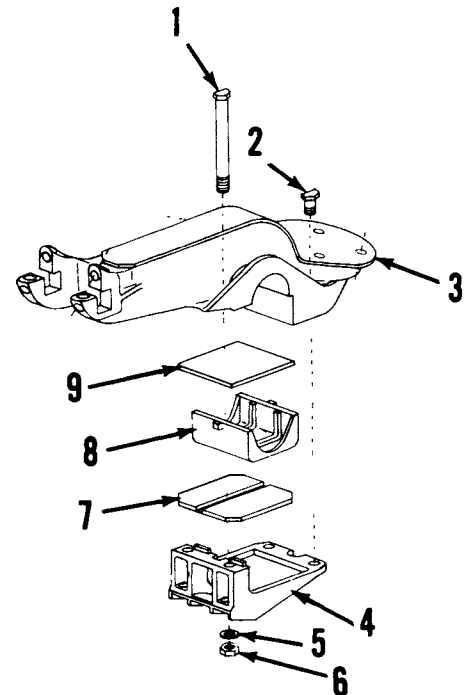
1. The axle connection cap (4) must be drawn down so that a metal to metal contact exists between the axle connection cap and its mating part (3). Tighten nuts to a torque of 300 lb-ft (406.8 Nm).



4-32. AIR SUSPENSION SYSTEM (cont)

INSTALLATION OF AXLE CONNECTION COMPONENTS (cont)

2. Position the axle connection components (4, 7, 8, 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).

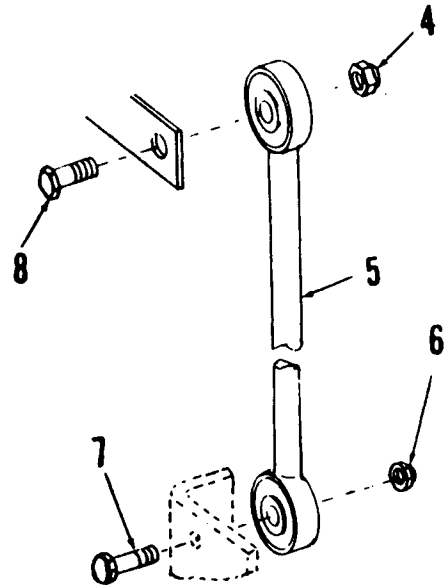


4. Reconnect linkage to height control valves.
5. Remove jacking and blocking equipment.

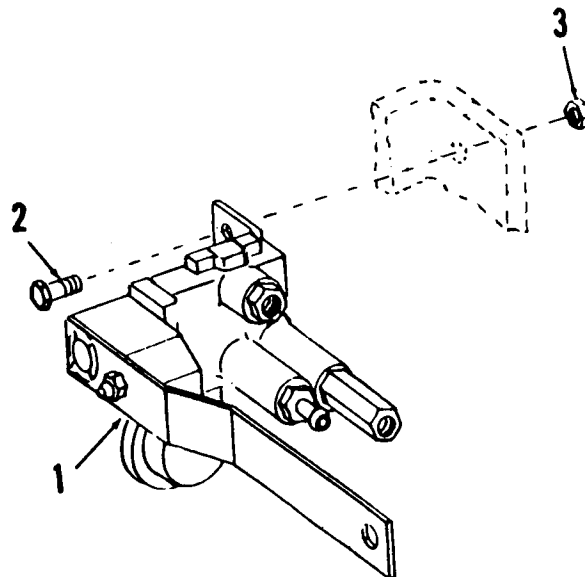
4-32. AIR SUSPENSION SYSTEM (cont)

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.



3. Remove two nuts (3) and screws (2) securing height control valve (1). Remove height control valve.



4-32. AIR SUSPENSION SYSTEM (cont)

INSTALLATION OF HEIGHT CONTROL VALVE

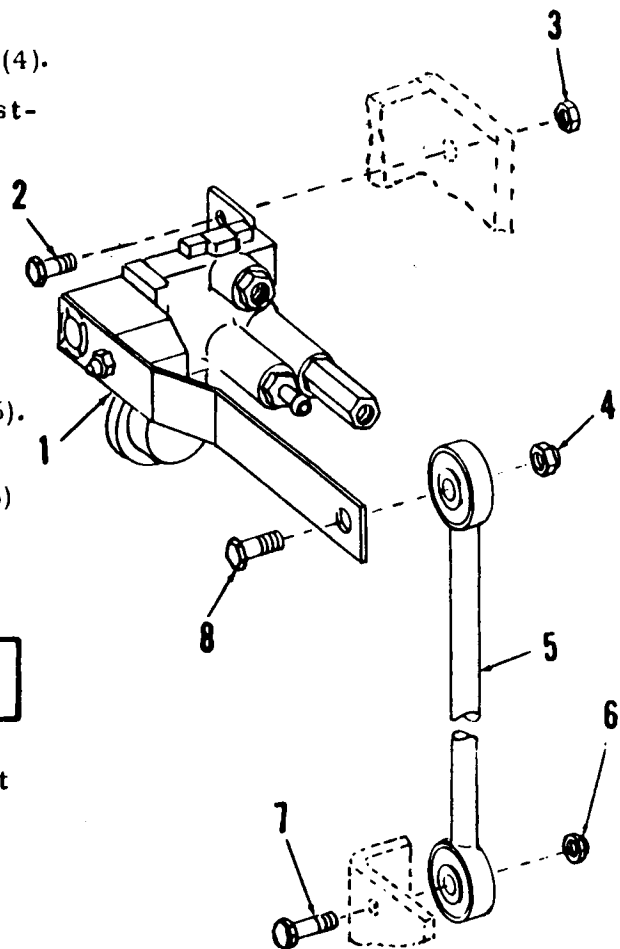
1. Position the height control valve (1) and secure with two screws (2) and nuts (3).
2. Position the upper end of adjusting rod (5) on height control valve and secure with screw (8) and nut (4).
3. Position the lower end of the adjusting rod (5) and secure with screw (7) and nut (6).

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

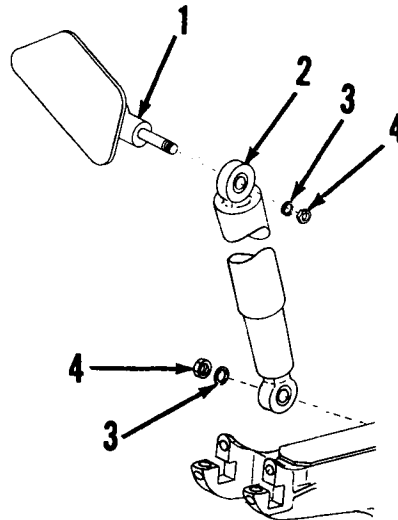
1. Position adjusting rod (5) on height control valve.
2. Secure upper end of adjusting rod (5) to height control valve with screw (8) and nut (4).
3. Secure lower end of adjusting rod (5) with screw (7) and nut (6).



4-32. AIR SUSPENSION SYSTEM (cont)

REMOVAL OF SHOCK ABSORBER

1. Apply 65 psi (448.2 k pa) air pressure to suspension, or block up semi-trailer 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.
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.

4-33. 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.

- | | |
|----|---------------------------------------|
| 24 | Air springs flat |
| 25 | Unlevel condition when fully inflated |
| 26 | System deflates rapidly when parked |
| 27 | Air springs blown out |

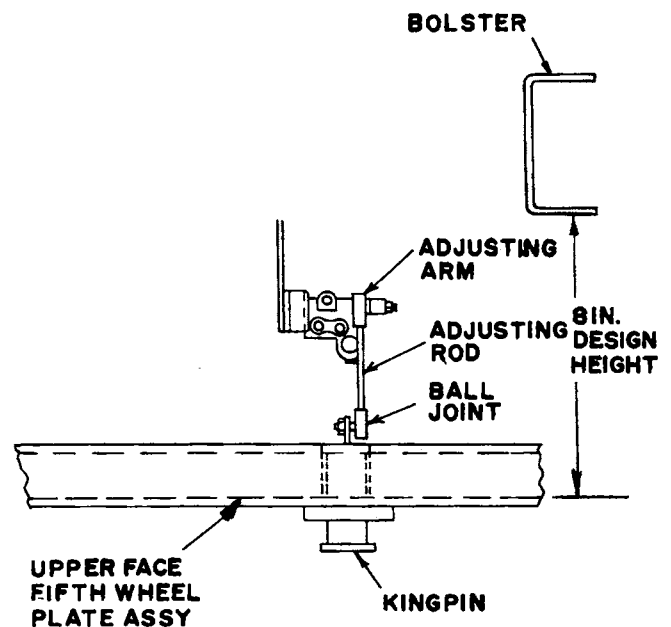
4-33. AIR MOUNTED KINGPIN (cont)

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 semi-trailer 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.

4-33. AIR MOUNTED KINGPIN (cont)

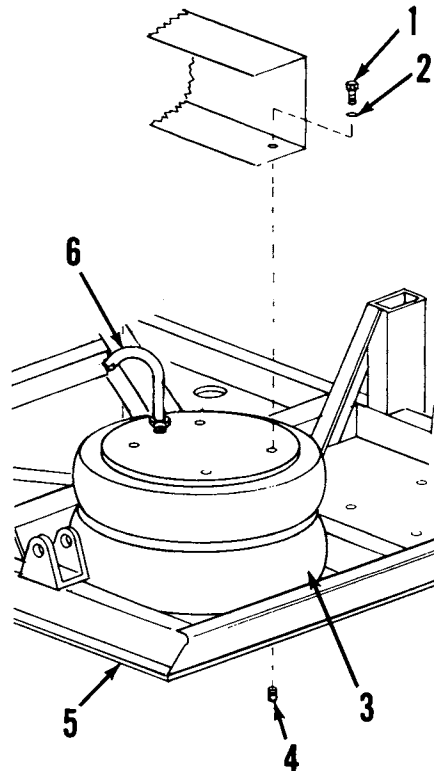
REMOVAL OF AIR SPRING (cont)

4. Disconnect air line 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.

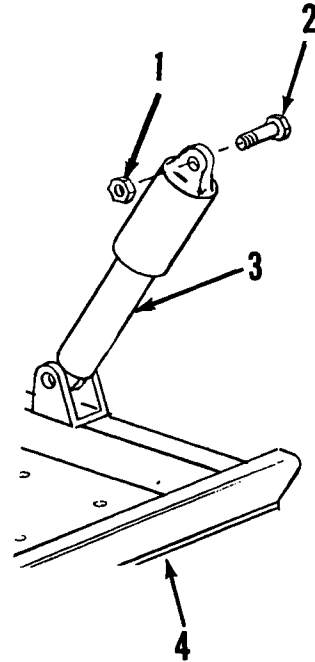
3. Connect air line to inlet at top of air spring. Connect valve linkage.
4. Couple semitrailer to towing vehicle, build up air pressure and check for air leaks with soap solution.

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4-33. 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.

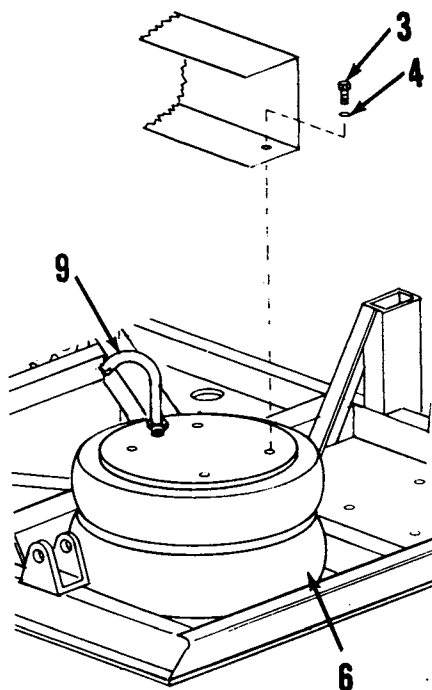
REMOVAL OF FIFTH WHEEL PLATE HINGE COMPONENTS

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.

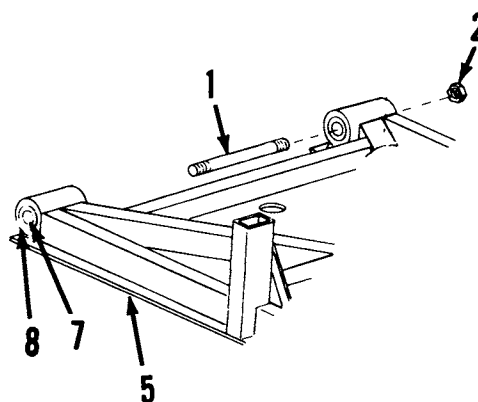
4-33. AIR MOUNTED KINGPIN (cont)

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.



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.



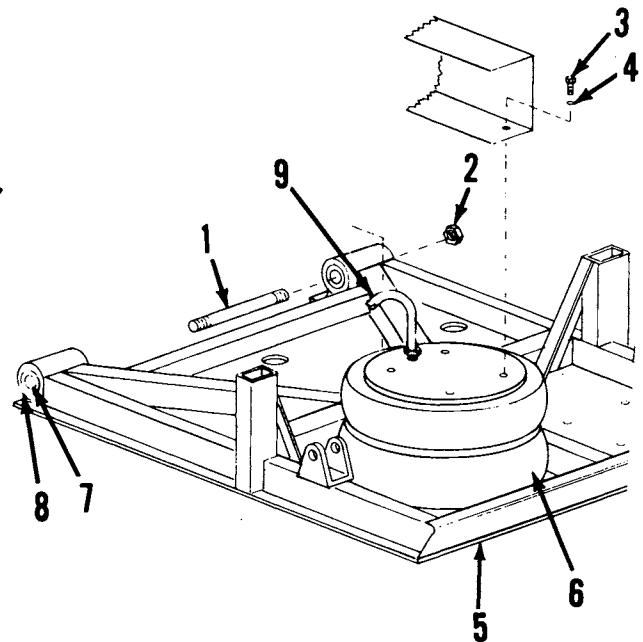
4-33. AIR MOUNTED KINGPIN (cont)

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).



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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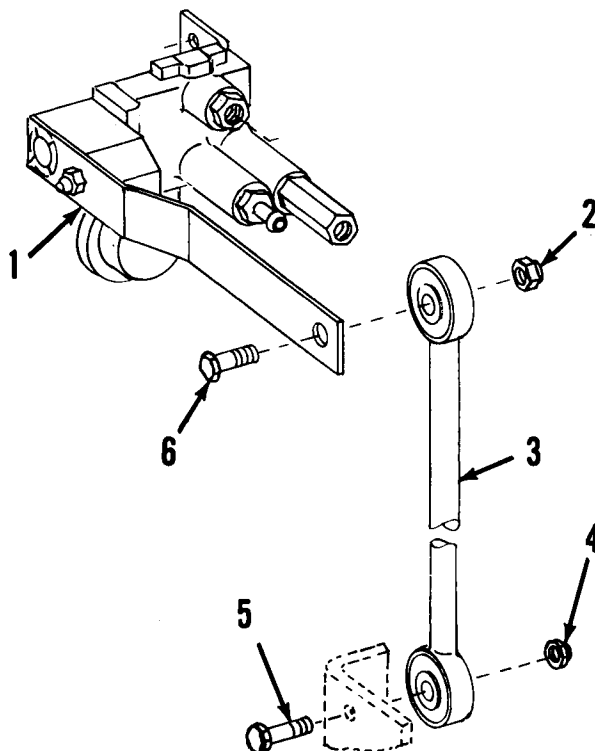
4-33. AIR MOUNTED KINGPIN (cont)

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).



4-34. VAN BODY AND ASSOCIATED PARTS

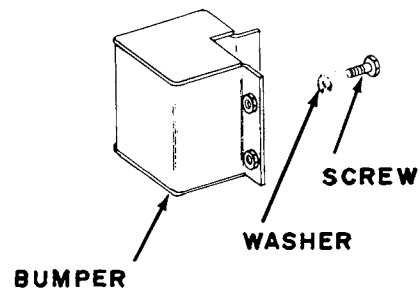
THIS TASK COVERS

- a. Removal of rear bumper
- b. Installation of rear bumper
- c. Removal of splash guard
- d. Installation of splash guard

4-34. VAN BODY AND ASSOCIATED PARTS (cont)

REMOVAL OF REAR BUMPER

1. Working under inside corner of chassis, remove four screws and lock washers securing bumper to rear corner post and chassis rear crossmember.
2. Remove rear bumper.

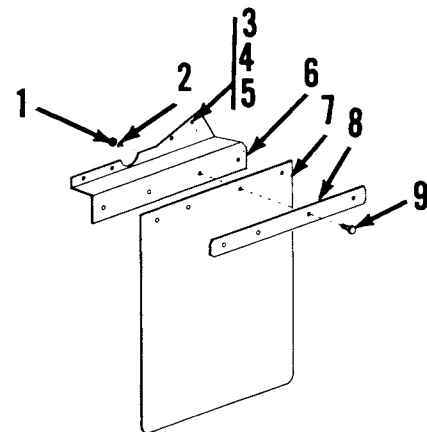


INSTALLATION OF REAR BUMPER

1. Position rear bumper.
2. Secure in position with four screws and lock washers.

REMOVAL OF SPLASH GUARD

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 OF SPLASH GUARD

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).

4-35. PINTLE ASSEMBLY

THIS TASK COVERS

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

REMOVAL

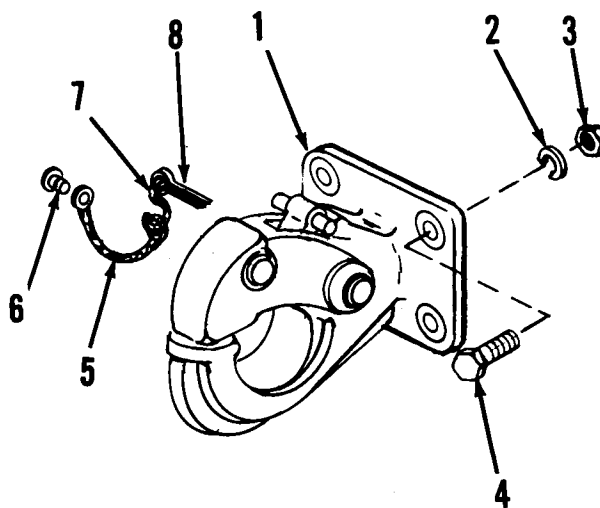
1. Remove four nuts (3), lock washers (2) and screws (4) securing pintle assembly (1) to chassis. Remove pintle assembly.
2. Remove cotter pin (8), screw (6) and S-hook (7). Remove chain (5).

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).



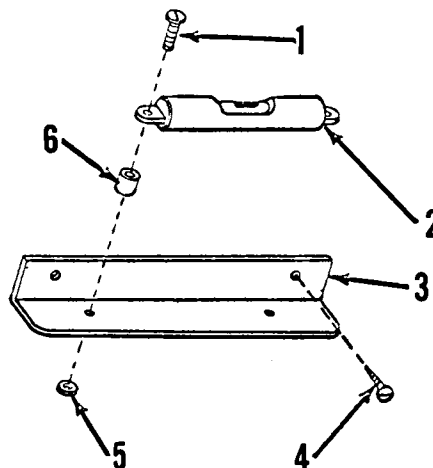
4-36. LEVEL ASSEMBLY

THIS TASK COVERS

- a. Removal
- b. Installation

REMOVAL

1. Remove two nuts (5), screws (1) and sleeve spacers (6) securing level to bracket.
2. Remove level (2).
3. To remove bracket (3), remove two rivets (4) and remove bracket.



INSTALLATION

1. Position bracket (3) on body and secure with two rivets (4).
2. Position sleeve spacers (6) and level (2) and secure with two screws (1) and nuts (5).

4-37. IDENTIFICATION PLATE

THIS TASK COVERS

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

REMOVAL

Remove six screws and remove plate.

INSPECTION

Inspect for rust. Remove rust, clean thoroughly and apply a heavy coat of lacquer.

INSTALLATION

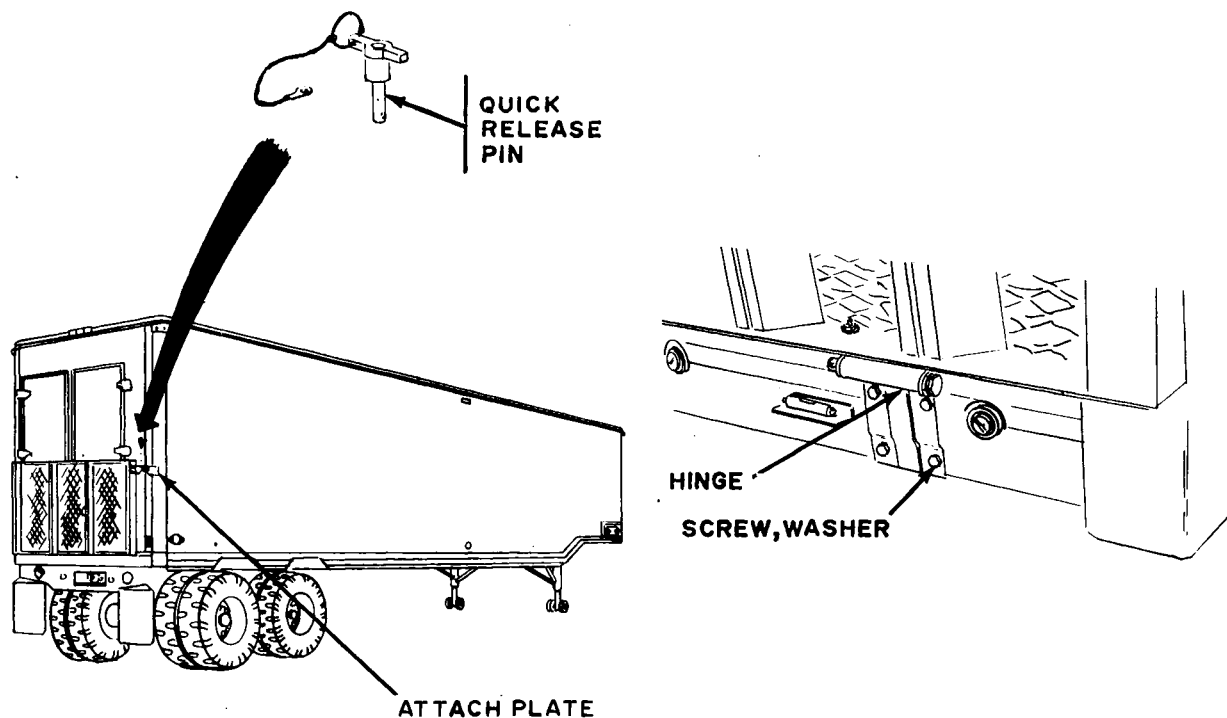
Position plate and secure with six screws.

4-38. REAR PLATFORM

THIS TASK COVERS

- a. Removal
- b. Installation
- c. Removal of chain
- d. Installation of chain
- e. Removal of rear platform hinge
- f. Installation of rear platform hinge

REMOVAL



WARNING

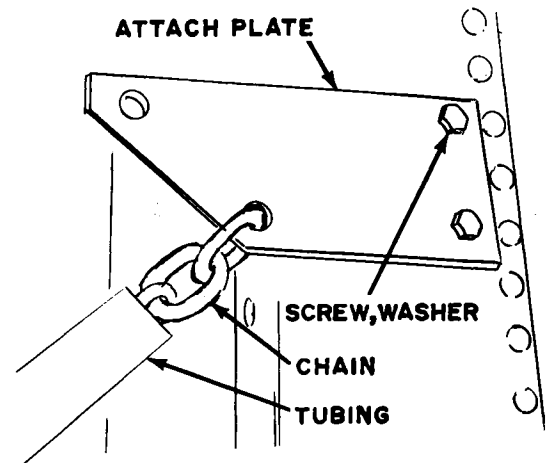
Platform must be supported in upright position during removal procedure. Two persons are required due to the weight of the platform.

1. Block platform to support it when attaching hardware is removed.
2. With platform in upright position, remove 12 hinge screws and lock washers from van body while supporting platform against side of semitrailer.
3. Remove block and quick release pins and lower platform to ground.

4-38. REAR PLATFORM (cont)

REMOVAL (cont)

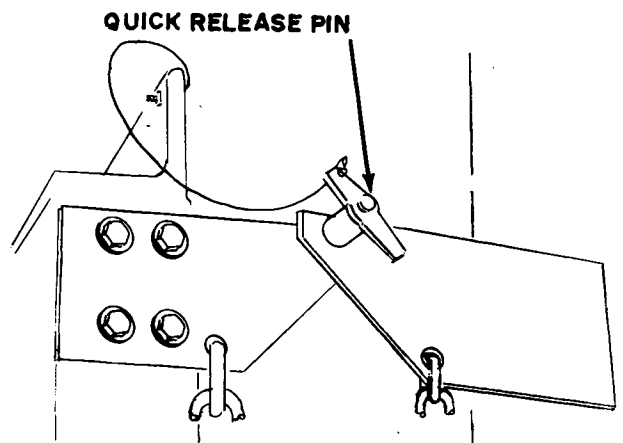
4. Remove screws and washers securing upper attach plate and remove attach plate and chain.



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.

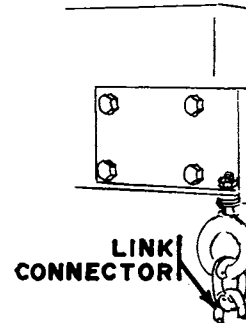
4. Secure platform in position with quick release pins.



4-38. REAR PLATFORM (cont)

REMOVAL OF CHAIN

1. Using bolt cutters, remove link connector at each end of chain.
2. Remove chain and tubing.

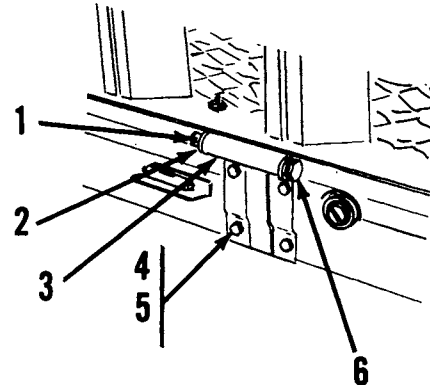


INSTALLATION OF CHAIN

1. Install tubing on chain.
2. Aline two ends of link connector at each end of chain and peen together.

REMOVAL OF REAR PLATFORM HINGE

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 REAR PLATFORM HINGE

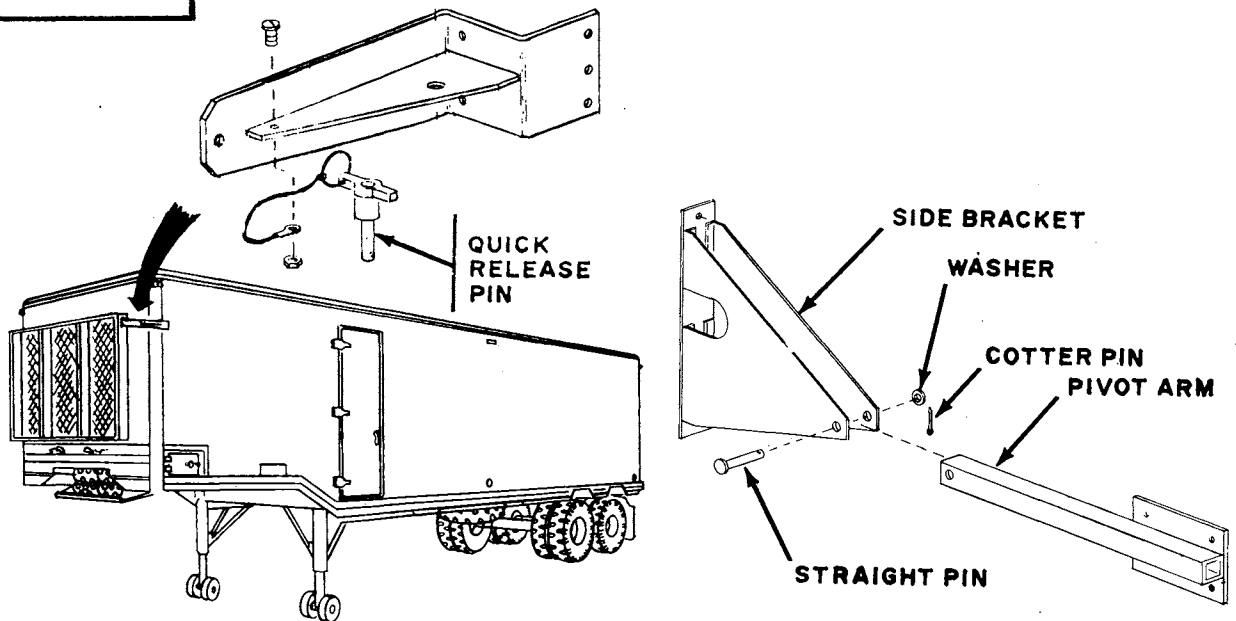
1. Position hinge on rear platform and secure it with screw (6), two flat washers (2) and nuts (1).
2. Block platform so that holes in hinge aline with holes in body of semitrailer.
3. Secure hinge to body with four screws (4) and washers (5).
4. Install platform in position and secure with quick release pins.

4-39. FRONT PLATFORM

THIS TASK COVERS

- a. Removal
- b. Installation
- c. Removal of front platform chain
- d. Installation of front platform chain
- e. Removal of guard rail assembly
- f. Installation of guard rail assembly

REMOVAL



1. Two persons are required to perform this operation.
2. Block platform, with platform in upright position.
3. With person on ground supporting platform, second person uses folding ladder to gain access to upper portion of platform and attaching items.

WARNING

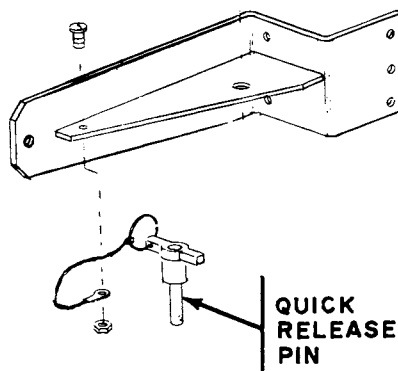
Platform should be supported in upright position during removal procedure.
Two persons are required due to the weight of the platform.

4. Withdraw two quick release pins securing upper end of platform.
5. Remove three cotter pins and straight pins from center bracket and two side brackets securing lower end of platform.
6. Lower platform to ground.

4-39. FRONT PLATFORM (cont)

INSTALLATION

1. Block platform so that lower brackets are alined. Make certain second person supports platform at all times.
2. Install three straight pins and three cotter pins in center bracket and two side brackets.
3. Using folding ladder, insert two quick release pins in upper end of platform.
4. Remove blocking.

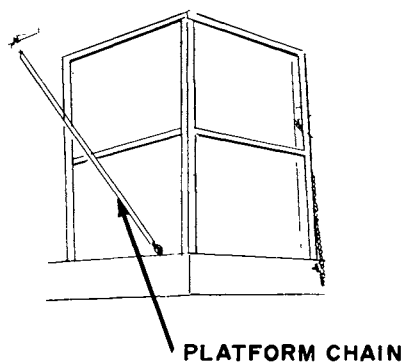


REMOVAL OF FRONT PLATFORM CHAIN

1. Using bolt cutters, remove link connector at each end of chain.
2. Remove chain and tubing.

INSTALLATION OF FRONT PLATFORM CHAIN

1. Install tubing on chain.
2. Aline two ends of link connector at each end of chain and peen together.



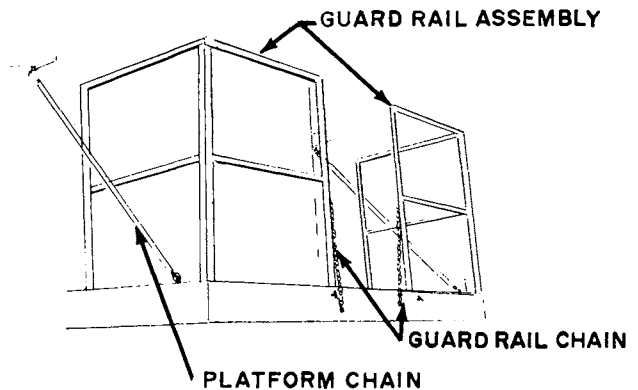
4-39. FRONT PLATFORM (cont)

REMOVAL OF GUARD RAIL ASSEMBLY

1. Remove guard rail chains, using snap at each end of chain.
2. Remove quick release pins securing guard rail assembly and remove guard rail assembly.

INSTALLATION OF GUARD RAIL ASSEMBLY

1. Position side and center sections of guard rail assembly.
2. Secure in position with quick release pins.
3. Install guard rail chains.



4-40. 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 door lock
- j. Inspection and repair of door lock
- k. Installation of door lock
- l. Removal of clutch assembly
- m. Installation of clutch assembly
- n. Removal of radio frequency interference shielding door seal
- o. Installation of radio frequency interference shielding door seal
- p. Removal of handle gasket
- q. Installation of handle gasket

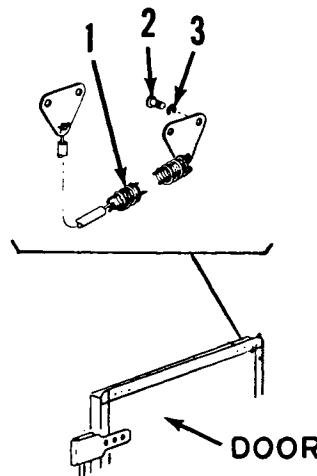
Troubleshooting Reference
Item No.

- | | |
|----|--|
| 28 | Difficulty in locking or unlocking door |
| 29 | Door hinges do not operate properly |
| 30 | RFI shielding does not provide a good bond |

4-40. DOORS (cont)

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

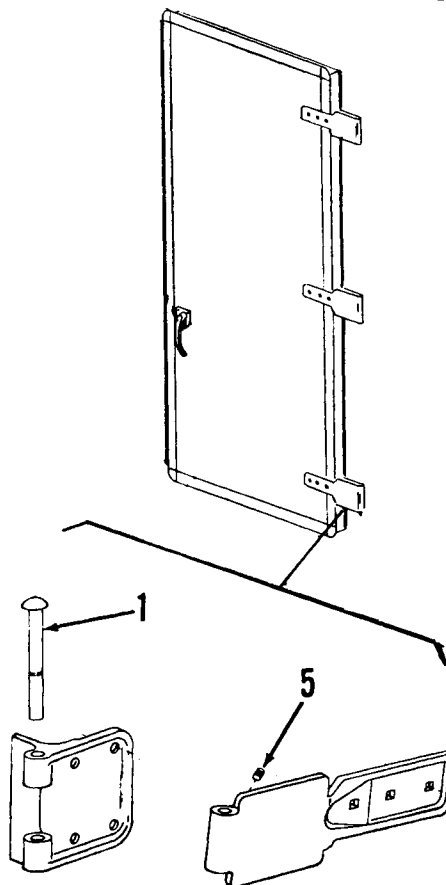
1. Position door stop and chain (1) on door and on door frame.
2. Secure in position with four screws (2) and lock washers (3).

REMOVAL OF DOOR

1. Remove setscrews (5) 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 setscrews (5).



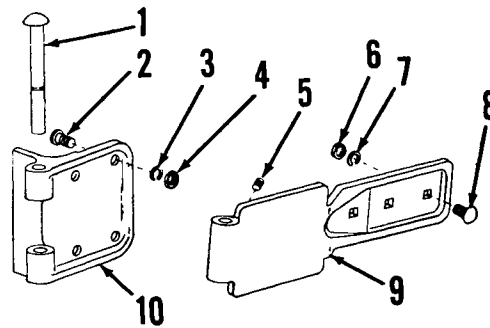
4-40. DOORS (cont)

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), lock washers (3) and nuts (4).
3. Position hinge strap (9) on door and secure with three bolts (8), lock washers (7) and nuts (6).
4. Install door in door opening. Drive in hinge pin (1) and secure with setscrew (5).



CLEANING

1. Use steam or water and a stiff brush to remove dirt.
2. Use cleaning solvent (item 3, appendix E) to remove grease and oil.

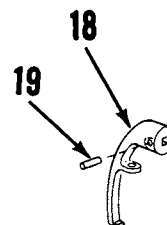
INSPECTION AND REPAIR

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. Before welding, remove or cover adjacent wood or other flammable material to prevent damage.
5. Replace parts damaged beyond repair.

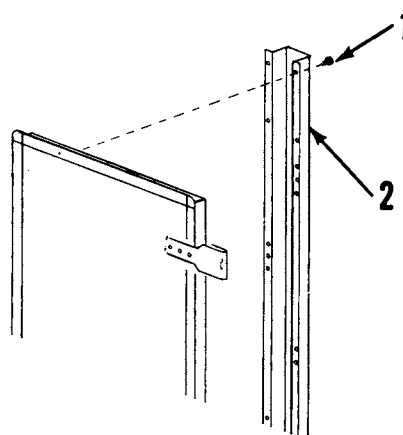
4-40. DOORS (cont)

REMOVAL OF DOOR LOCK, XM991, XM995

1. Drive out pin (19) securing inner door handle (18). Remove handle.

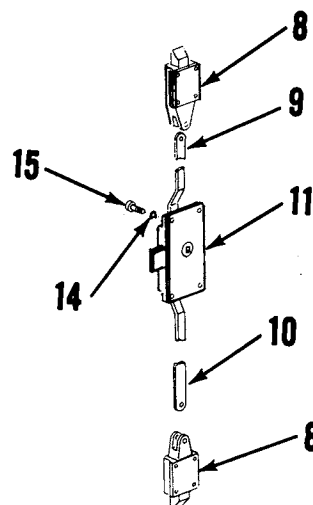


2. Remove screws (1) securing lock guard (2) and remove lock guard.



3. Remove screws (15) and washers (14) securing center lock (11) and upper and lower flush bolts (8).

4. Remove center lock (11), locking rods (9 and 10) and flush bolts (8) as a unit.

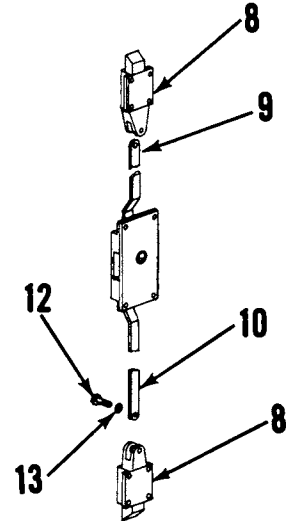


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4-40. DOORS (cont)

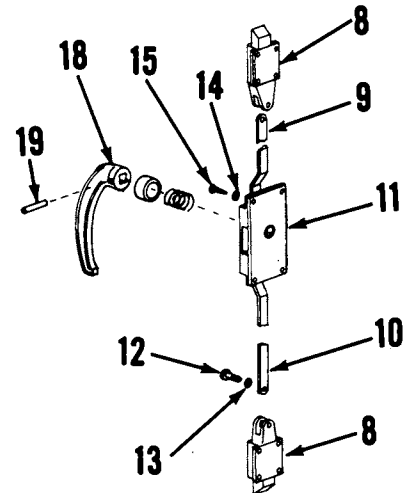
INSPECTION AND REPAIR OF DOOR LOCK, XM991, XM995

1. Inspect parts for cracks, bends, excessive wear, and deterioration. Replace defective parts.
2. If necessary, remove screw (12) and washer (13) securing locking rod (9 or 10) to flush bolts (8).
3. Straighten locking rod to assure proper alignment in upper and lower flush bolts.
4. Check lock for ease of operation. Lubricate as required.
5. Straighten bends or dents in flush bolts that may cause binding.
6. Clean and paint if necessary.



INSTALLATION OF DOOR LOCK, XM991, XM995

1. If locking rod (9 or 10) had been removed, position rod on flush bolt (8) and secure with screw (12) and washer (13).
2. Position center lock (11), locking rods (9 and 10), and upper and lower flush bolts (8) as a unit and secure with screws (15) and washers (14).
3. Position lock guard and secure with screws.
4. Install inner handle (18) and secure with pin (19).

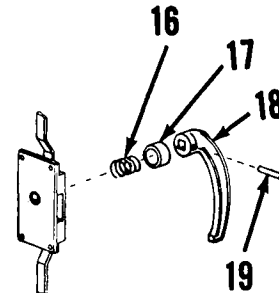


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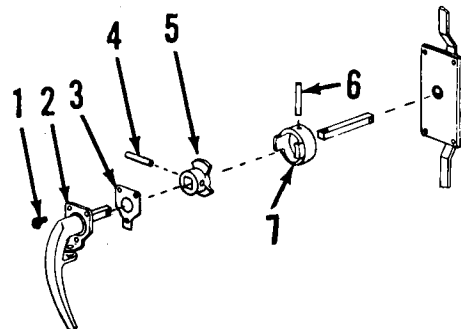
4-40. DOORS (cont)

REMOVAL OF CLUTCH ASSEMBLY, XM991, XM995

1. Drive out pin (19) securing inner door handle (18). Remove handle.
2. Remove inner handle clutch spring (16) and clutch spring retainer (17).

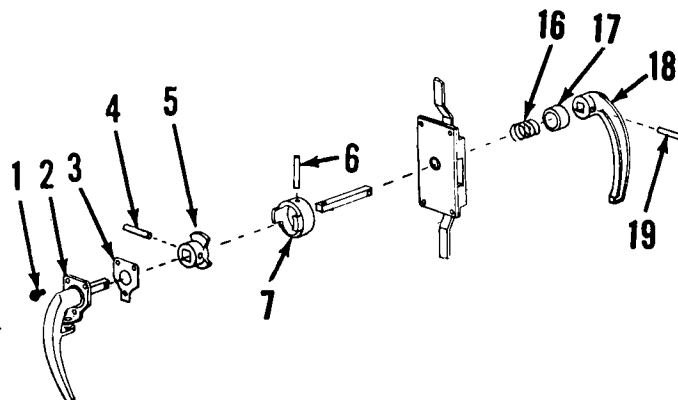


3. Remove pin (6) securing inner clutch (7), and remove clutch.
4. In the event that the outer clutch must be replaced, remove three rivets (1) securing outer door handle (2). Remove handle and gasket (3).
5. Remove pin (4) securing outer clutch (5), and remove clutch.



INSTALLATION OF CLUTCH ASSEMBLY, XM991, XM995

1. If outer clutch was removed, position exterior handle (2) and gasket (3) and secure with three rivets (1).
2. Position outer clutch (5) and secure with pin (4).
3. Position inner clutch (7) and secure with pin (6).
4. Insert spring (16), retainer (17) and inner handle (18). Secure handle (18) with pin (19).



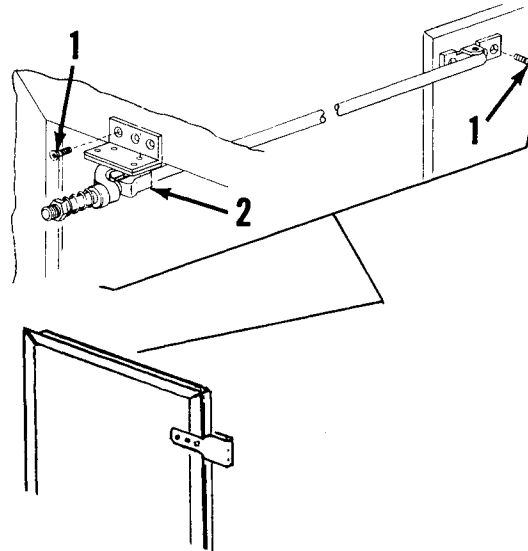
4-40. DOORS (cont)

REMOVAL OF DOOR HOLDER, XM991E1, XM995E1

1. Remove six screws (1) securing door holder (2).
2. Remove door holder.

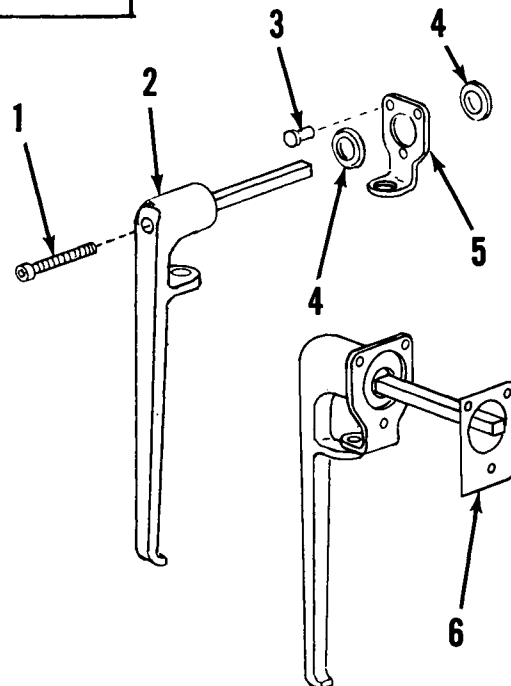
INSTALLATION OF DOOR HOLDER, XM991E1, XM995E1

1. Position door holder (2).
2. Secure with six screws (1).



REMOVAL OF EXTERIOR HANDLE, XM991E1, XM995E1, XM991E2, XM995E2

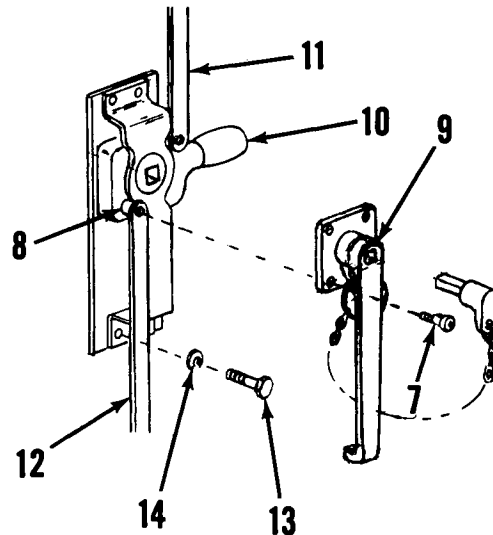
1. Remove screw (1) securing handle (2) to shaft.
2. Remove handle and outer preformed packing (4).
3. If necessary to remove inner preformed packing (4), remove three rivets (3) and remove escutcheon plate (5), inner preformed packing (4) and spacer (6).



4-40. DOORS (cont)

REMOVAL OF INTERIOR HANDLE,
XM991E1, XM995E1

1. Remove two shoulder screws (7) and spacers (8) securing interior handle (9) and ends of upper and lower locking rods (11 and 12).
2. Remove handle. Locking rods will remain attached to bolt slide fasteners.

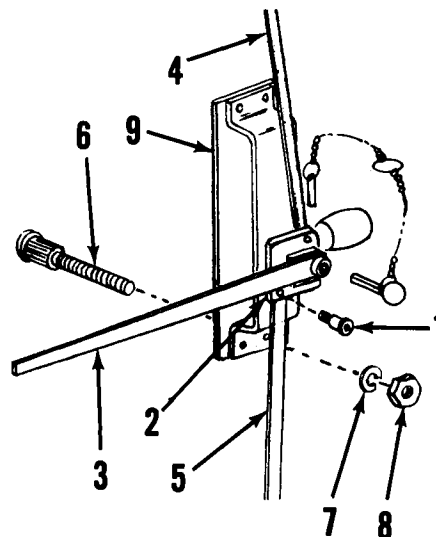


REMOVAL OF LOCK ASSEMBLY,
XM991E1, XM995E1

1. Remove four screws (13) and lock washers (14) securing lock assembly (10).
2. Remove lock assembly.

REMOVAL OF INTERIOR HANDLE,
XM991E2, XM995E2

1. Remove two shoulder screws (1) and spacers (2) securing interior handle (3) and lower end of center locking rod (4) and upper end of lower locking rod (5).
2. Center locking rod (4) will remain attached to upper lock assembly. Lower locking rod will remain attached to lower bolt slide fastener.



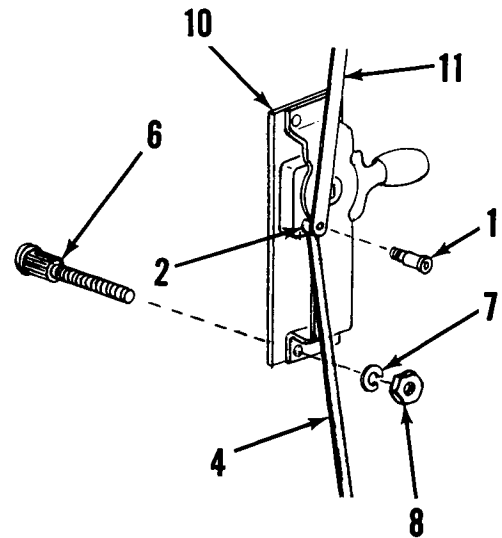
REMOVAL OF CENTER LOCK ASSEMBLY,
XM991E2, XM995E2

1. Remove four bolts (6), washers (7) and nuts (8) securing center lock assembly (9).
2. Remove center lock assembly.

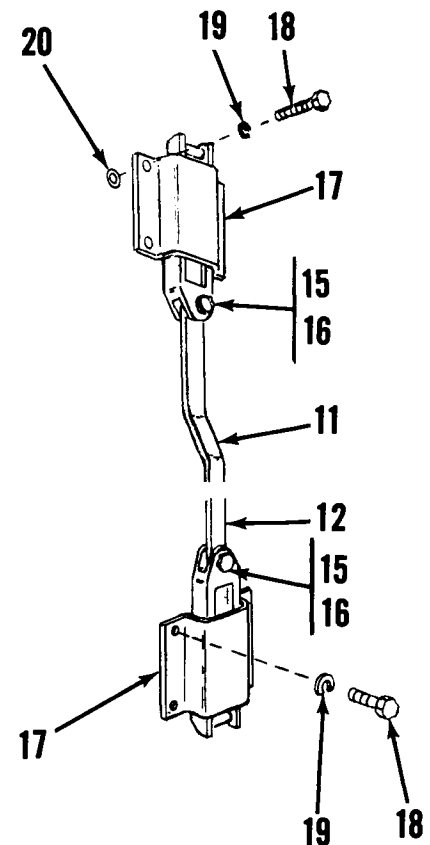
4-40. DOORS (cont)

REMOVAL OF UPPER LOCK ASSEMBLY,
XM991E2, XM995E2

1. Remove shoulder screw (1) and spacer (2) securing ends of center locking rod (4) and upper locking rod (11) to upper lock assembly (10).
2. Remove center locking rod (4). Upper locking rod (11) will remain attached to upper bolt slide fastener.
3. Remove four bolts (6), washers (7) and nuts (8) securing upper lock assembly (10). Remove lock assembly.

REMOVAL OF BOLT SLIDE FASTENERS
AND LOCKING RODS, XM991E1, XM995E1

1. Remove screws (15) and washers (16) securing upper and lower locking rods (11 and 12) to bolt slide fasteners (17).
2. Remove four screws (18) and lock washers (19) securing lower bolt slide fastener. Remove lower bolt slide fastener.
3. Remove four screws (18) and lock washers (19), and two flat washers (20) securing upper bolt slide fastener (17). Remove bolt slide fastener.



TA 296002

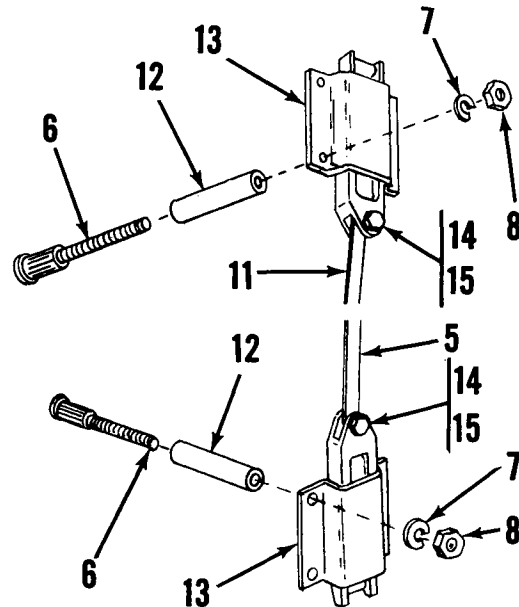
Change 1

4-110.3

4-40. DOORS (cont)

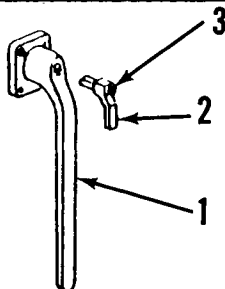
REMOVAL OF BOLT SLIDE FASTENERS
AND LOCKING RODS, XM991E2, XM995E2

1. Remove screws (14) and washers (15) securing upper and lower locking rods (11 and 4) 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.

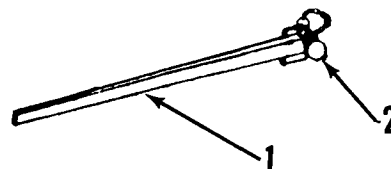


INSPECTION AND REPAIR

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. Clean and paint if necessary.
5. Check lock for ease of operation. Lubricate as required in accordance with lubrication instructions, using grease fitting on handle lock assembly.



XM991E1, XM995E1



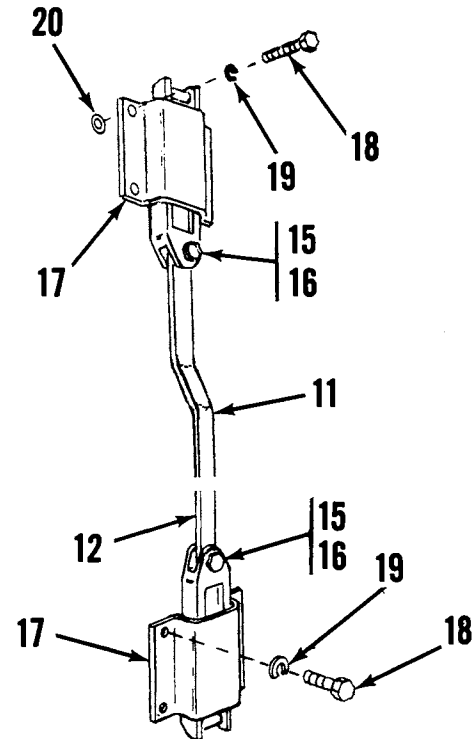
XM991E2, XM995E2

6. On XM991E1 and XM995E1, with door locked from outside, depress button (3) on handle (1) and raise release pin (2). Turn handle and note if door opens easily.
7. On XM991E2 and XM995E2, with door locked from outside, remove release pin (2), turn handle (1) and note if door opens easily.

4-40. DOORS (cont)

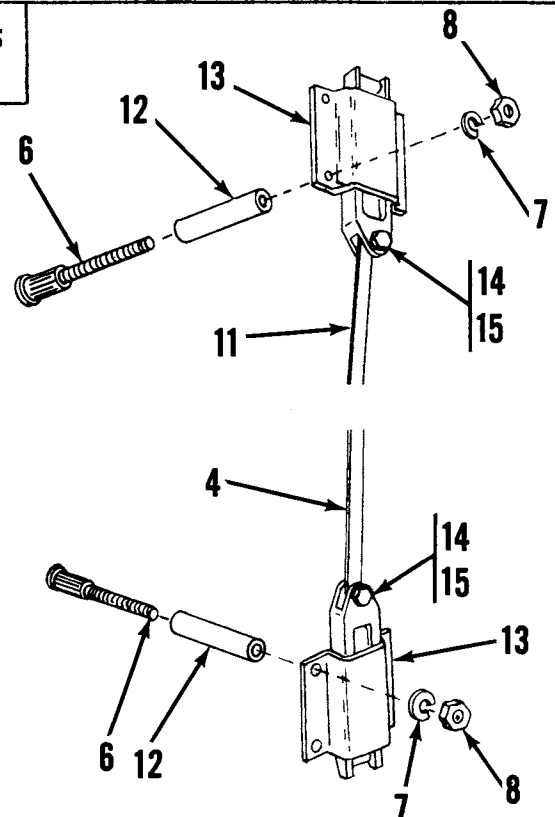
INSTALLATION OF BOLT SLIDE FASTENERS AND LOCKING RODS, XM991E1, XM995E1

1. Position upper bolt slide fastener (17) and secure with four screws (18), lock washers (19) and two flat washers (20).
2. Position lower bolt slide fastener (17) and secure with four screws (18) and lock washers (19).
3. Position upper locking rod (11) on upper bolt slide fastener (17). Position lower locking rod (12) on lower bolt slide fastener (17). Secure to bolt slide fastener with screw (15) and washer (16).



INSTALLATION OF BOLT SLIDE FASTENERS AND LOCKING RODS, XM991E2, XM995E2

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 (11) on upper bolt slide fastener (13). Position lower locking rod (4) on lower bolt slide fastener (13). Secure to each bolt slide fastener with screw (14) and washer (15).



TA 296004

Change 1

4-110.5

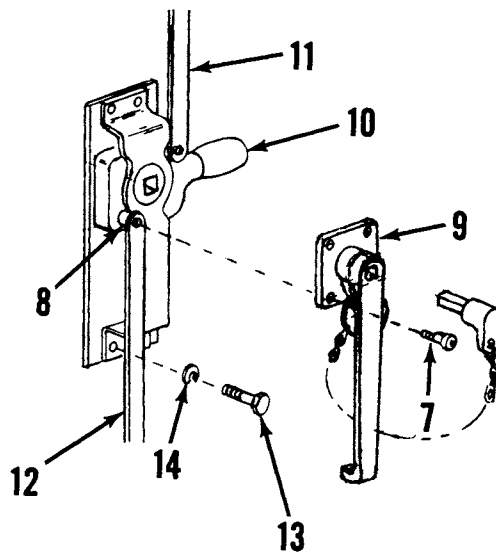
4-40. DOORS (cont)

INSTALLATION OF LOCK ASSEMBLY,
XM991E1, XM995E1

1. Position lock assembly (10).
2. Secure lock assembly with four screws (13) and lock washers (14).

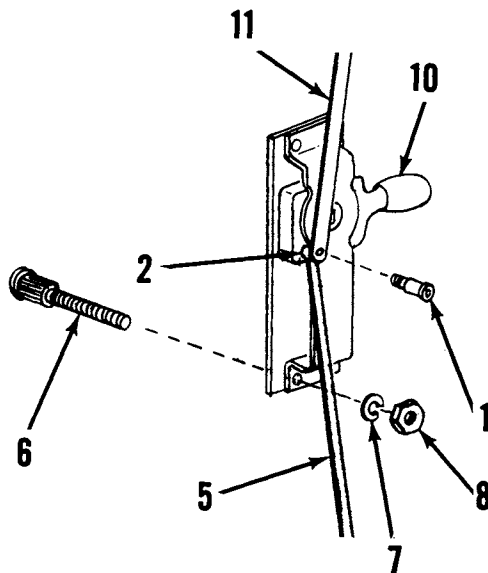
INSTALLATION OF INTERIOR HANDLE,
XM991E1, XM995E1

1. Position interior handle (9).
2. Position loose ends of upper and lower locking rods (11 and 12) on lock assembly (10).
3. Secure handle and ends of locking rods with two shoulder screws (7) and spacers (8).



INSTALLATION OF UPPER LOCK ASSEMBLY
XM991E2, XM995E2

1. Position upper lock assembly (10) and secure with four bolts (6), washers (7) and nuts (8).
2. On upper lock assembly (10), position lower end of upper locking rod (11) with upper end of center locking rod (5).
3. Secure locking rods with shoulder screw (1) and spacer (2).



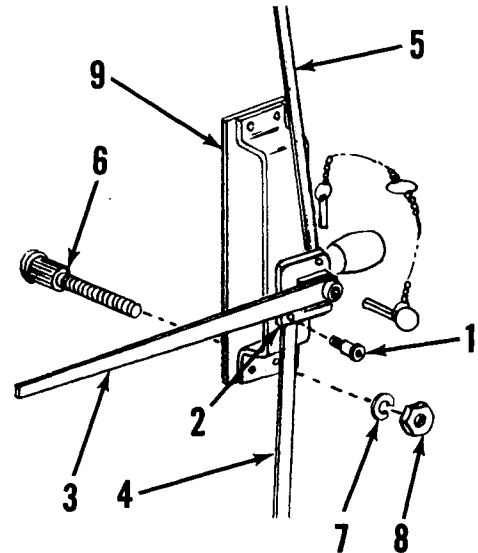
4-40. DOORS (cont)

INSTALLATION OF CENTER LOCK ASSEMBLY, XM991E2, XM995E2

1. Position center lock assembly (9).
2. Secure center lock assembly with four bolts (6), washers (7) and nuts (8).

INSTALLATION OF INTERIOR HANDLE, XM991E2, XM995E2

1. Position lower end of center locking rod (5) and upper end of lower locking rod (4) with interior handle (3) on center lock assembly (9).
2. Secure handle and rods with two shoulder screws (1) and spacers (2).



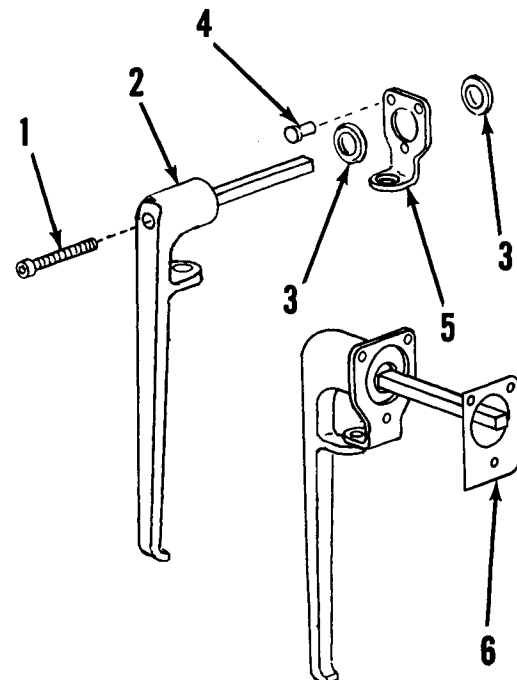
INSTALLATION OF EXTERIOR HANDLE, XM991E1, XM995E1, XM991E2, XM995E2

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).



4-40. DOORS (cont)

REMOVAL OF RADIO FREQUENCY INTERFERENCE SHIELDING DOOR SEAL

1. Doors are provided with seals containing integral radio frequency interference (RFI) shielding. This shielding must be kept clean at all times to provide a good bond.
2. Open door and pry seal from groove in door frame.

INSTALLATION OF RADIO FREQUENCY INTERFERENCE SHIELDING DOOR SEAL

1. Make certain jambs and thresholds are free of dirt, dust and grease.
2. Use fine steel wool to remove any grease and grime; then wash with approved cleaning solvent and wipe clean.
3. Use proper bonding cement and secure RFI seal in groove in door frame, with mesh positioned toward van body.

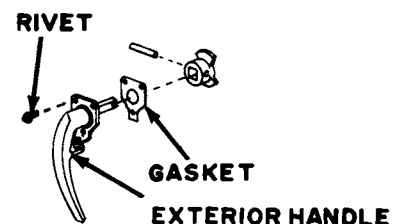


REMOVAL OF HANDLE GASKET, XM991, XM995

1. The outer handle gasket should be replaced only if it is defective.
2. To remove, gasket, remove three rivets securing handle and gasket. Remove handle and gasket.

INSTALLATION OF HANDLE GASKET, XM991, XM995

1. Position handle and gasket.
2. Secure handle and gasket with three rivets.



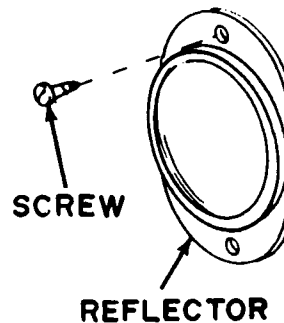
4-41. REFLECTOR

REMOVAL

1. Remove two screws securing reflector to van body.
2. Remove reflector.

INSTALLATION

1. Apply sealant (item 22, appendix E) in and around mounting holes in van body.
2. Position reflector on body and align mounting holes.
3. Secure with two screws.



4-42. 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

EXTREME COLD WEATHER MAINTENANCE

For maintenance procedures and practices during extreme cold weather, refer to TM 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-20) on unfinished exposed metal surfaces.

4-42. MAINTENANCE UNDER UNUSUAL CONDITIONS (cont)

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 VI. PREPARATION FOR SHIPMENT AND AIR SHIPMENT

4-43. PREPARATION FOR SHIPMENT

THIS TASK COVERS

- a. Cleaning and drying
- b. Lubrication
- c. Preservation
- d. Army shipping documents

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.

4-43. PREPARATION FOR SHIPMENT (cont)

PRESERVATION (cont)

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.

4-44. AIR SHIPMENT OF SEMITRAILER

GENERAL

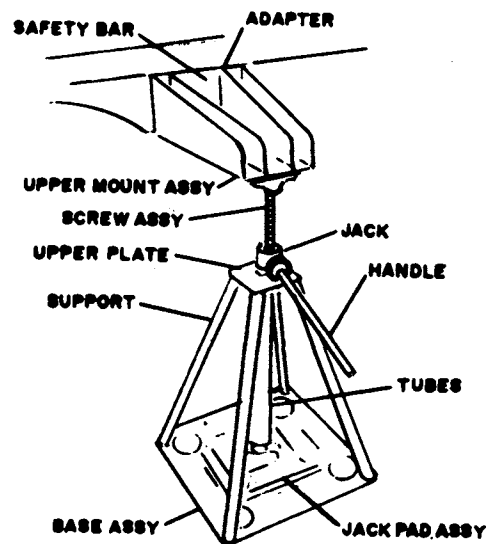
The aircraft loading kit for the XM991 and XM995 semitrailers and the aircraft loading equipment for the XM991E1, XM995E1, XM991E2 and XM995E2 semitrailers have been designed for the 40K-Loader to load semitrailer in C130, C141 or C5 aircraft.

WARNING

Two persons are required to handle the loading kit or loading equipment and perform the operations.

COMPONENTS OF AIRCRAFT LOADING KIT, XM991, XM995

1. Two adapter assemblies.
2. Two loading jack assemblies, consisting of two handles, two jacks with two inner and outer tubes, two screw assemblies, two upper mount assemblies, and two jack pad assemblies.
3. Two loading jack stand assemblies, consisting of two upper plate assemblies, eight supports and two base assemblies.

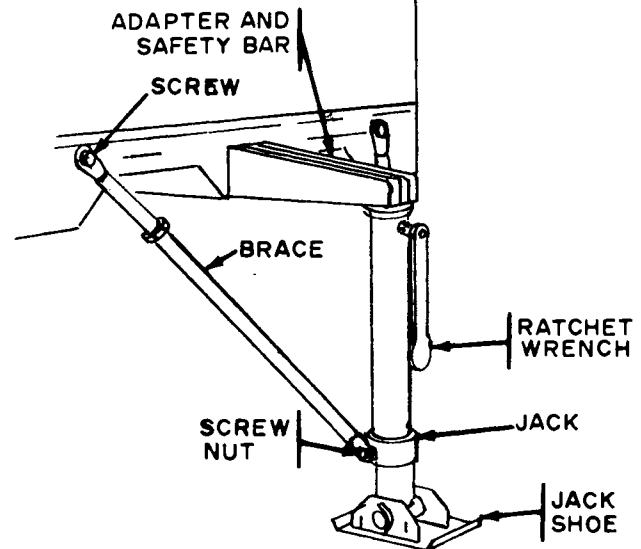


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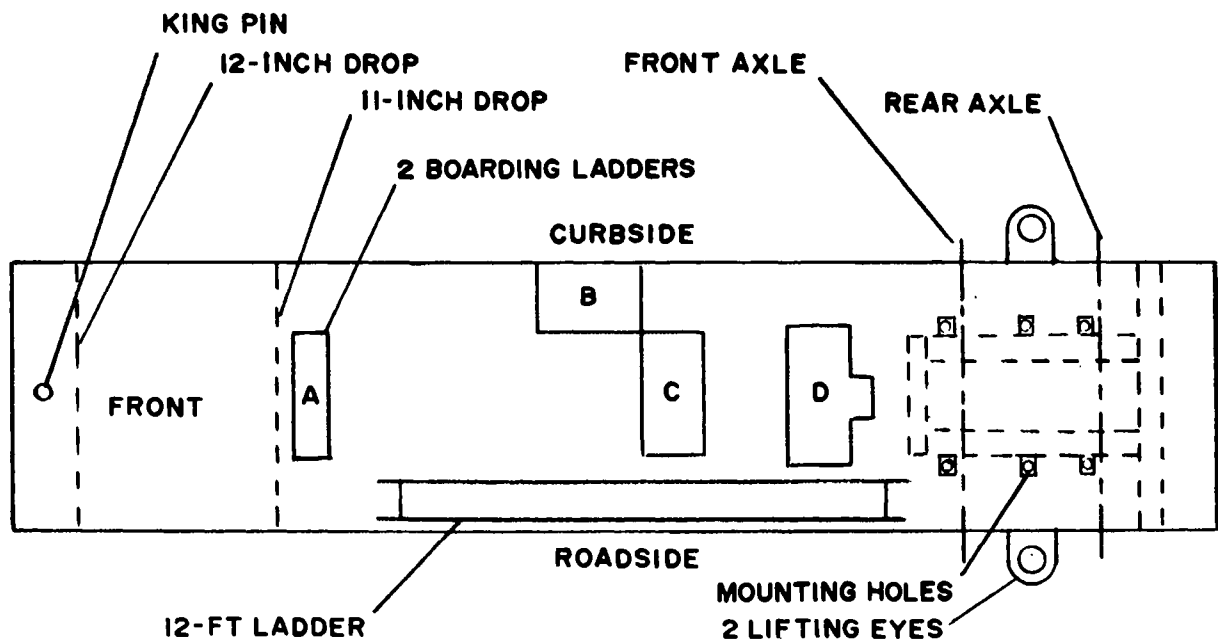
4-44. AIR SHIPMENT OF SEMITRAILER (cont)

COMPONENTS OF AIRCRAFT LOADING EQUIPMENT, XM991E1, XM995E1, XM991E2, XM995E2

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 KIT, XM991, XM995

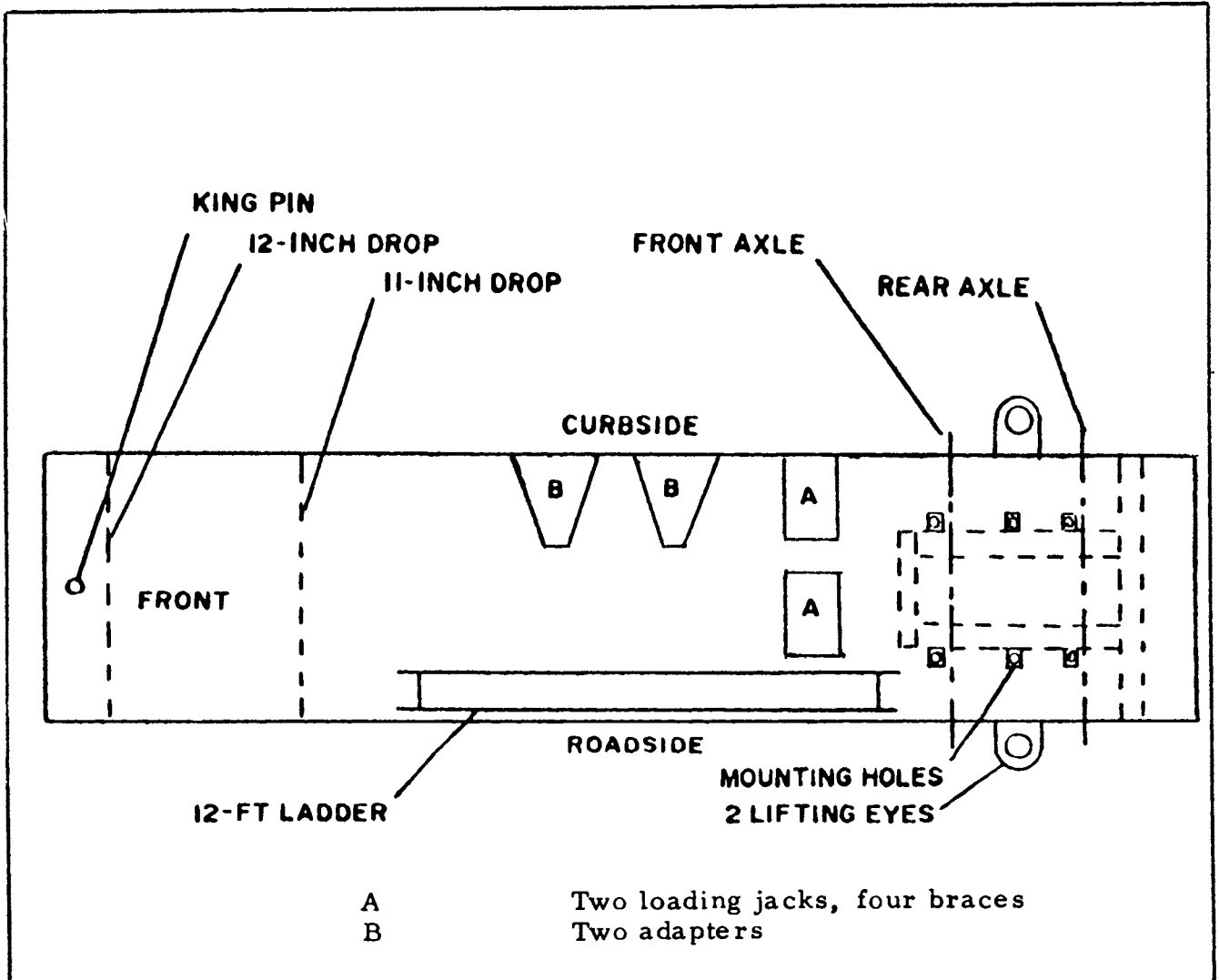


- | | |
|---|--|
| A | Two boarding ladders |
| B | Two adapter assemblies |
| C | Two loading jacks, two handles |
| D | Two jack pads, eight supports, two base assemblies, two upper plates |

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4-44. AIR SHIPMENT OF SEMITRAILER (cont)

LOCATION OF AIRCRAFT LOADING EQUIPMENT,
XM991E1, XM995E1, XM991E2, XM995E2



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.

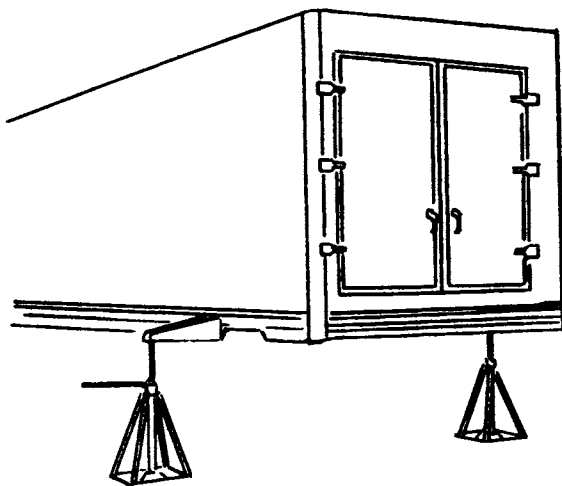
4-44. AIR SHIPMENT OF SEMITRAILER (cont)

LOADING PROCEDURE (cont)

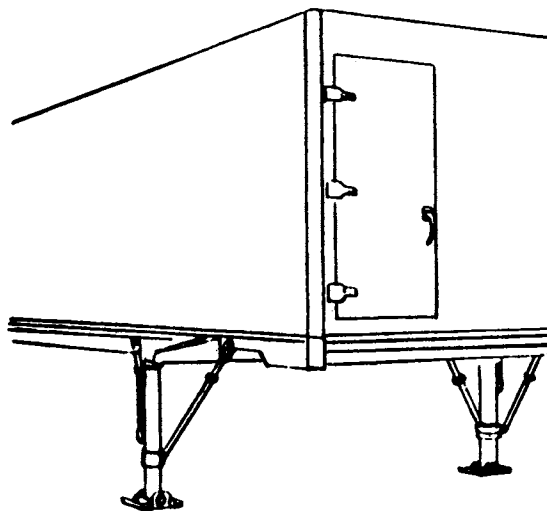
WARNING

Two persons are needed to remove adapters from storage area. Adapters are very heavy. On the XM991E1, XM995E1, XM991E2 and XM995E2 semitrailers, 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 between front and rear wheels.
5. Hang adapters on lifting eyes and secure them with safety bars, with flat surface of bar towards sides of semitrailer. Make certain they are seated properly on semitrailer walls.



XM991, XM995



XM991E2, XM995E2

WARNING

Aircraft loading jacks must be perpendicular at all times to prevent injury to personnel.

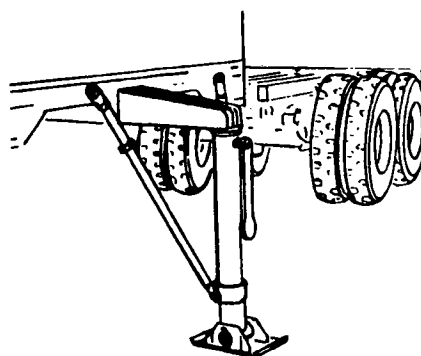
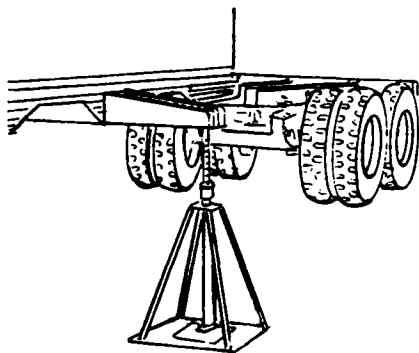
4-44. AIR SHIPMENT OF SEMITRAILER (cont)

LOADING PROCEDURE (cont)

6. On the XM991 and XM995 semitrailers, position jacks and stands under the adapters. Make certain jacks are perpendicular.
6. 1. On the XM991E1, XM995E1, XM991E2, and XM995E2 semitrailers, 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 tie down receptacles.
7. Lower landing gear legs so that wheels contact ground.
8. On the XM991 and XM995 semitrailers, remove two cotter pins, four nuts, six washers and six screws securing dolly assembly. For safe keeping, after dolly is removed, insert the screws in the mounting holes and secure with nuts, finger tight. Make certain to insert longer screws in rear mounting holes.
8. 1. On the XM991E1, XM995E1, XM991E2, and XM995E2 semitrailers, remove eight cotter pins, nuts, washers and screws securing dolly assembly. Insert mounting hardware in mounting holes and secure nuts, finger tight.
9. 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

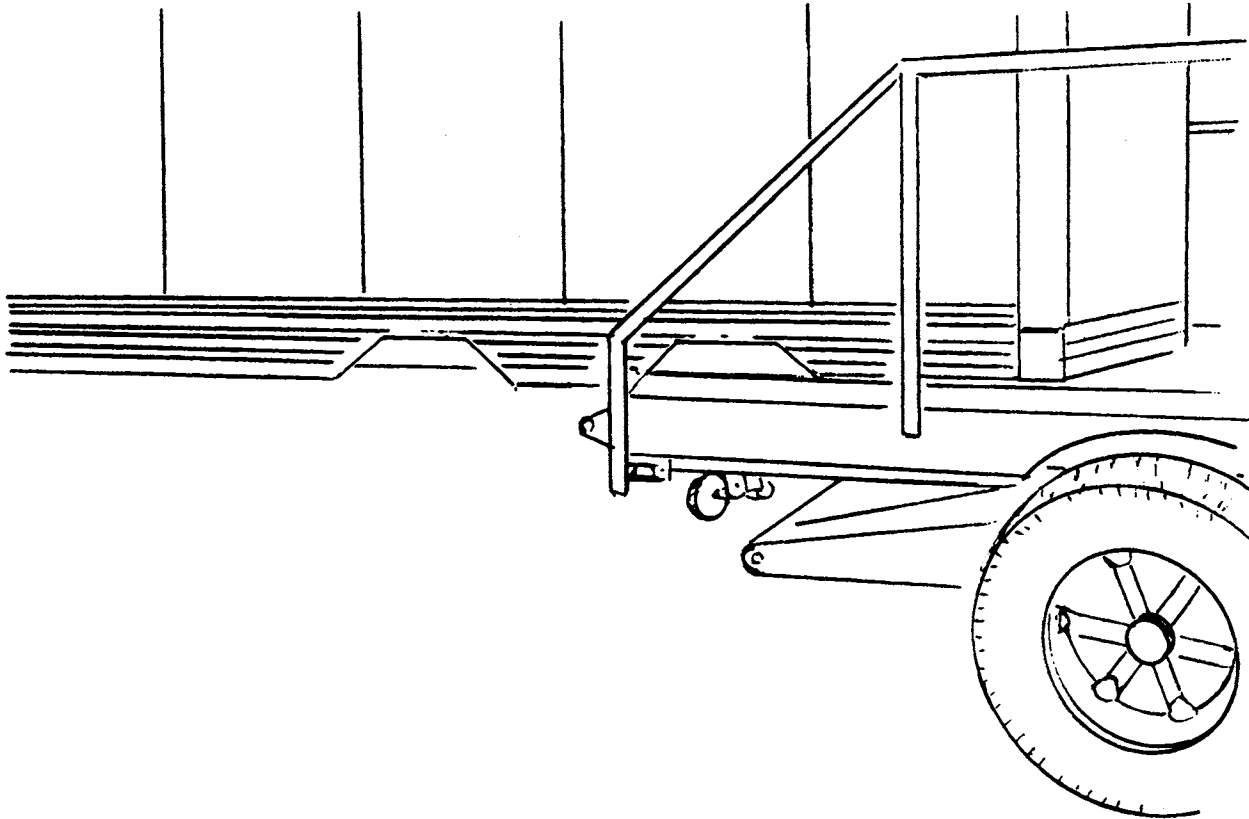
Personnel at this point should stay clear of the underside of the semitrailer until it is securely resting on the K-loader, as failure of the jacks could result in serious injury.



10. Using loading jacks, lift van body rear end (both sides at same time) to a height permitting removal of dolly toward the rear. Make certain aircraft loading jacks do not deviate from the perpendicular. Should this occur, stop lifting operation, reposition jacks, and repeat lifting operation.
11. Open air reservoir drain cock (page 2-27) in order to move dolly freely. Pull dolly toward the rear from underneath van body and set it aside for aircraft loading.

4-44. AIR SHIPMENT OF SEMITRAILER (cont)

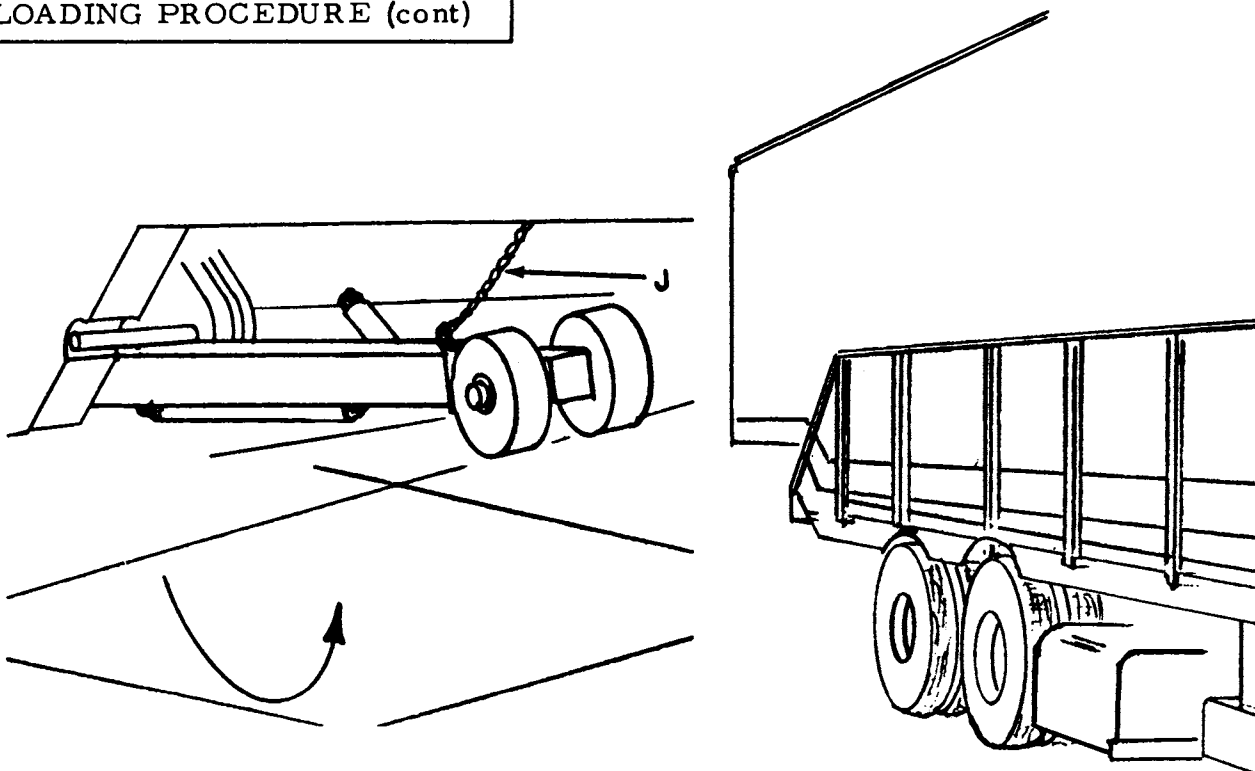
LOADING PROCEDURE (cont)



12. Move the K-loader under the van body, making sure that the van body slide rails are matching the roller beds of the K-loader, leaving the aircraft loading equipment stowage areas accessible.
13. On the XM991 and XM995 semitrailers, remove loading jacks, stands and adapters and stow them in their stowage compartments underneath van body.
13. 1. On the XM991E1, XM995E1, XM991E2, and XM995E2 semitrailers, remove attaching hardware and 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.
14. Move K-loader forward until it almost contacts landing gear legs.
15. Secure van body to K-loader by means of the tie down provisions in the sidewalls and tie down rings provided as OVE.

4-44. AIR SHIPMENT OF SEMITRAILER (cont)

LOADING PROCEDURE (cont)



16. Swing landing gears into the horizontal position and secure with chain and snap (J).
17. Detach towing vehicle and move it aside.
18. 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 as OVE.
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.
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.

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4-44. AIR SHIPMENT OF SEMITRAILER (cont)

UNLOADING PROCEDURE (cont)

WARNING

Make certain aircraft loading jacks are perfectly straight. If shifting occurs, stop operation at once and reposition jacks.

8. Position jacks and stands on the XM991 and XM995 semitrailers. Position jacks under adapters and attach braces on the XM991E1, XM995E1, XM991E2, and XM995E2 semitrailers. 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. On the XM991 and XM995 semitrailers, secure dolly with six screws and washers, four nuts and two cotter pins (refer to appendix H for torque values).
13. On the XM991E1, XM995E1, XM991E2, and XM995E2 semitrailers, secure dolly with eight screws, washers, nuts and cotter pins (refer to appendix H for torque values).
14. Connect both air hoses and the 24-volt plug to the subbase.
15. Remove aircraft loading equipment and stow each item in its proper location in the stowage areas underneath the van body.
16. Detach towing vehicle.
17. Remove the 30 tie down rings previously installed. Place them in bags and store in side storage compartments.

CHAPTER 5

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE INSTRUCTIONS

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.

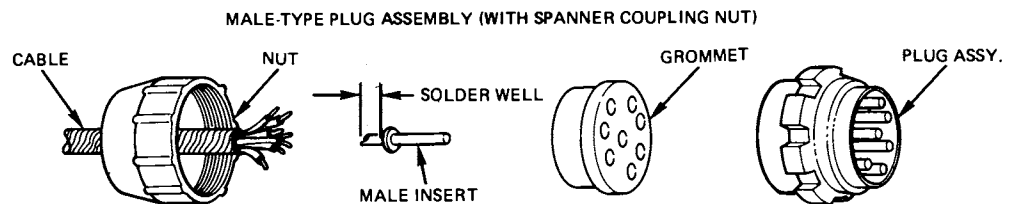
NOTE

Refer to table 4-2.

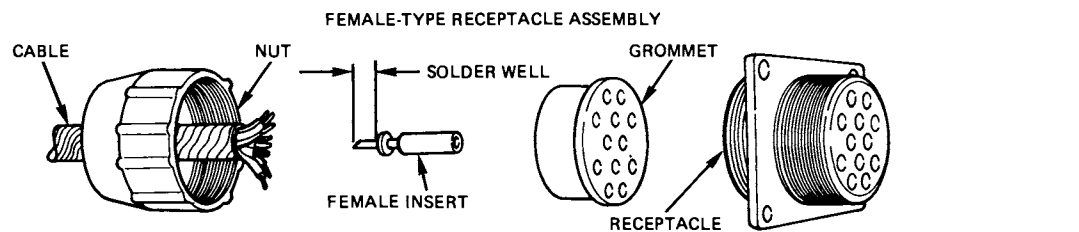
Section III. MAINTENANCE PROCEDURES

5-5. WIRING HARNESS CONNECTOR AND RECEPTACLE

REPLACEMENT OF CONNECTORS AND RECEPTACLES



- 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.
- 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 ASSEMBLY.



- 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 RECEPTACLE ASSEMBLY AND REMOVE DAMAGED CABLE.
- 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

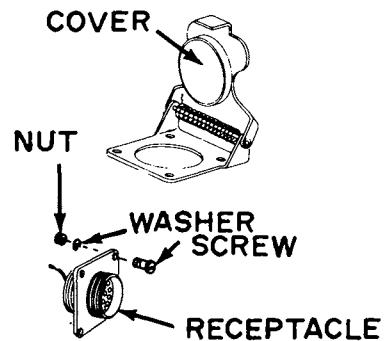
THIS TASK COVERS

- a. Removal
- b. Installation
- c. Replacement of single wires

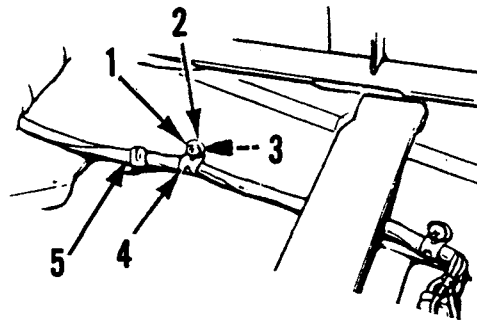
5-6. WIRING HARNESS (cont)

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 (paragraph 4-11).



4. Remove nuts (1), lock washers (2), screws (3) and clamps (4) securing harness (5) to undercarriage.



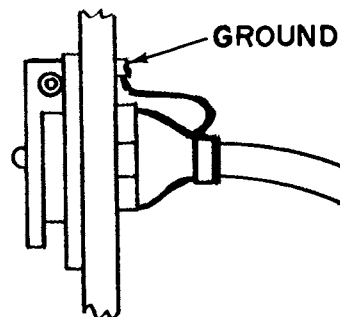
INSTALLATION

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.



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

GENERAL

Generally, axle assemblies will not be removed unless inspection shows a need for repair or replacement.

For inspection purposes, remove wheels (paragraph 3-10) and hubs and brake drums (paragraph 4-28).

REMOVAL

WARNING

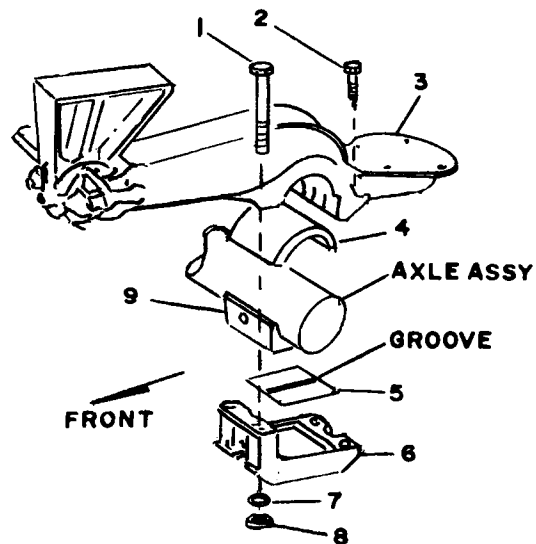
Weight of semitrailer must be supported by leveling jacks or by blocking or support stands placed under rear corners of frame throughout operation.

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.
4. Open air reservoir drain cock to relieve air pressure.
5. Remove wheels (paragraph 3-9).
6. Remove hubs and brake drums (paragraph 4-28).
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.



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5-7. AXLE ASSEMBLY (cont)

CLEANING

1. Clean mud and dirt from all exposed surfaces with water and stiff brush.
2. Remove grease from spindle of axle and wheel retaining parts with cleaning solvent (item 3, appendix E).

INSPECTION AND REPAIR

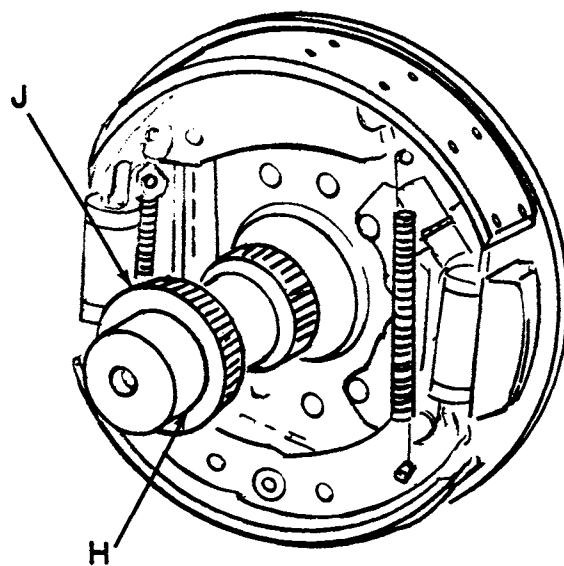
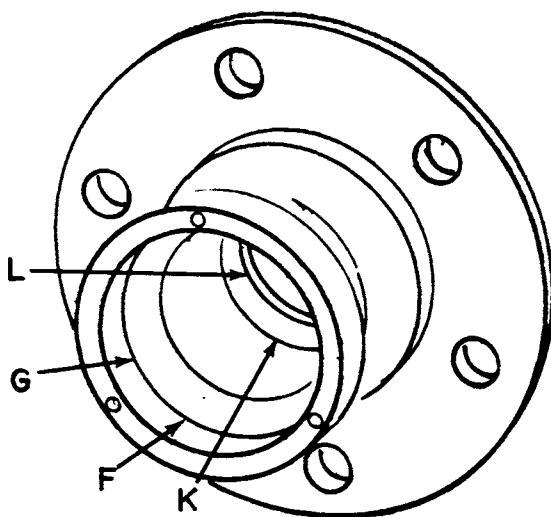
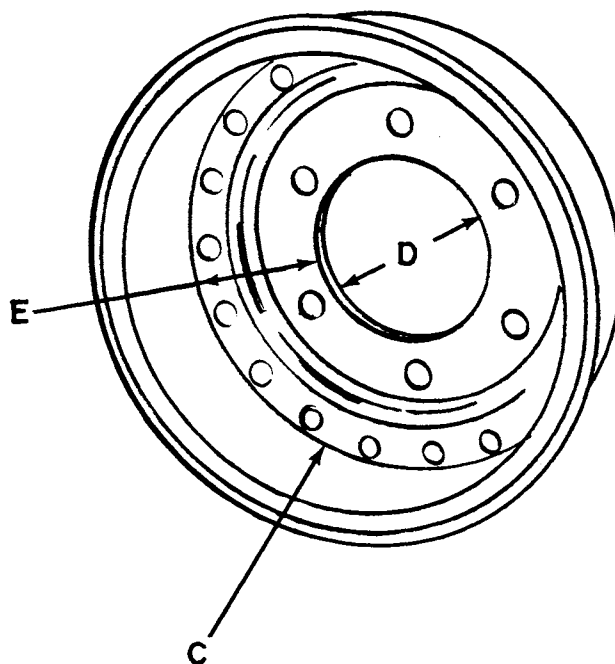
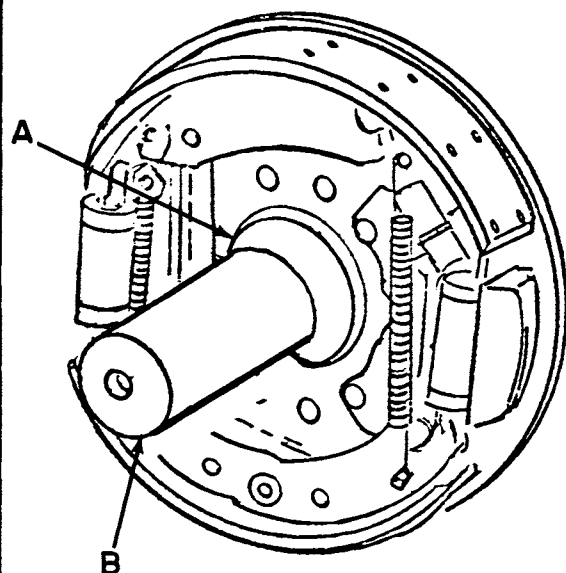
1. Check threads of axle spindle for wear, crossed threads, or other damage.
2. Using fine file, remove burrs, or hand chase threads if necessary.
3. Check axle spindle for bend. Indications of a bent axle spindle are binding bearings which cannot be adjusted properly, and extremely uneven wear of brake 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.

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	3.4998	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	4.4375	4.4385	*
Inside outer bearing cup fit		0.0015T	0.0045T	*
Inside (bore) diameter of outer bearing	H	2.6250	2.6260	2.6265

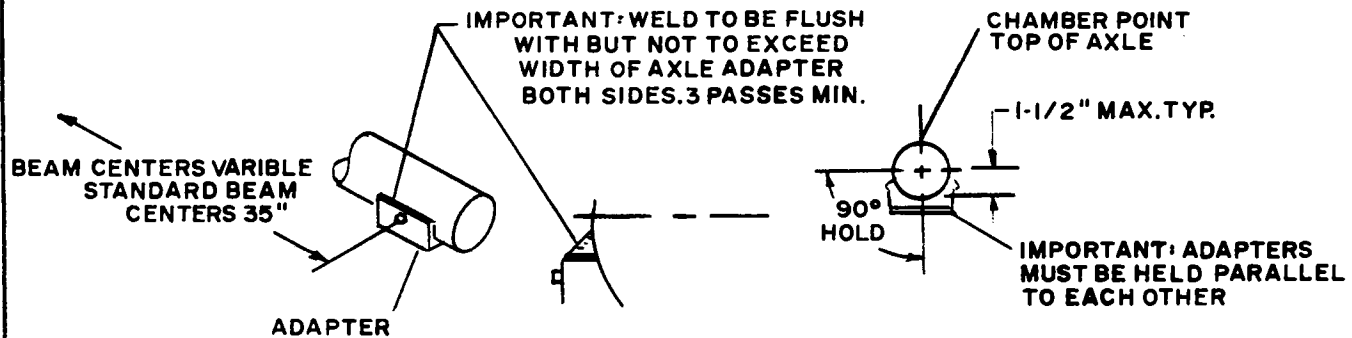
* Indicates that part should be replaced when worn beyond the limits given in "size and fit of new parts" column.

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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.

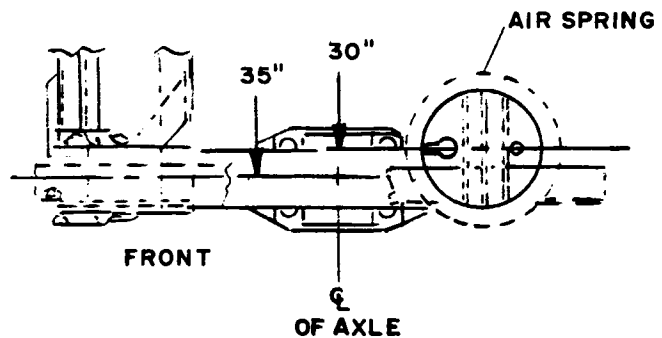
2. Locate equalizing arm centers on axle.

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.

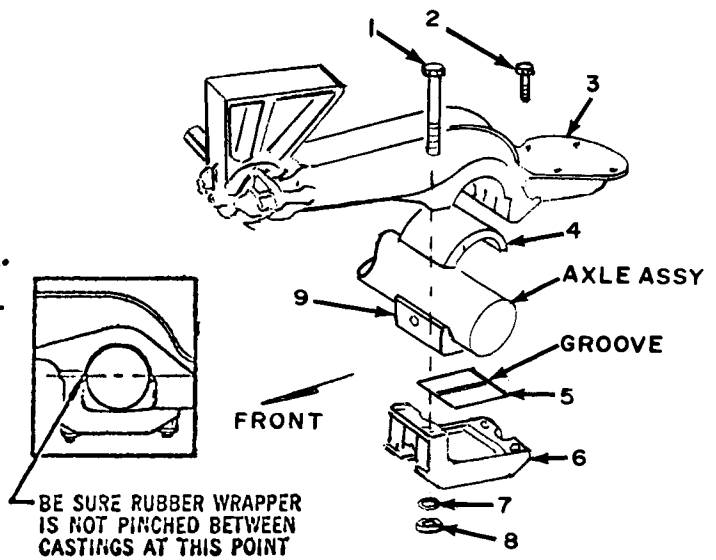


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5-7. AXLE ASSEMBLY (cont)

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.

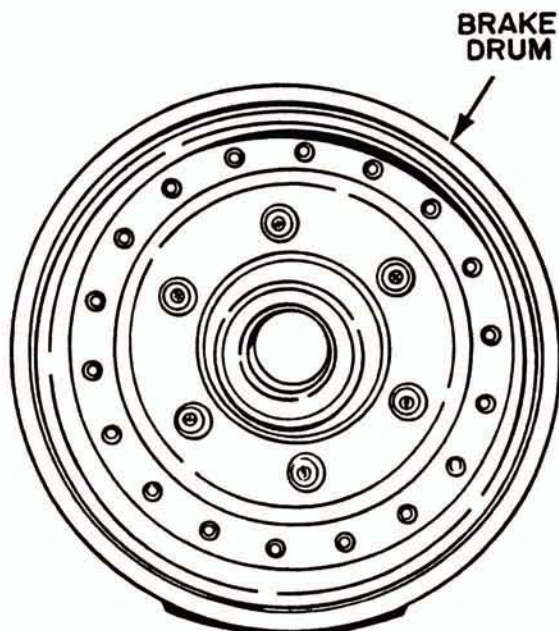


10. Install hubs and brake drums (paragraph 4-28).
11. Install wheels (paragraph 3-9).
12. Connect hydraulic hoses.
13. Close air reservoir drain cock.
14. Remove blocking and support equipment.

5-8. BRAKE DRUM

REPAIR

1. If inspection (paragraph 4-28) 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.

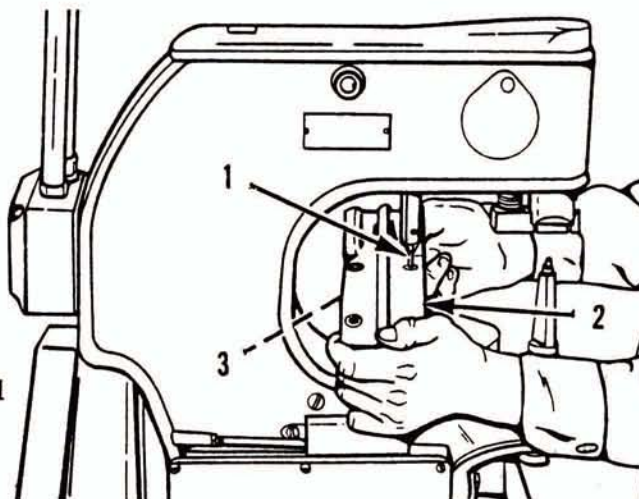


5-9. RELINING BRAKE SHOES

WARNING

Brake linings are made of asbestos.
Wear protective masks when working
with brake lining.

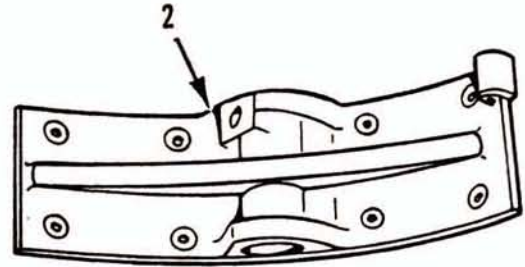
1. Remove 14 rivets (1) from brake shoe (2), and remove and discard old brake lining (3).



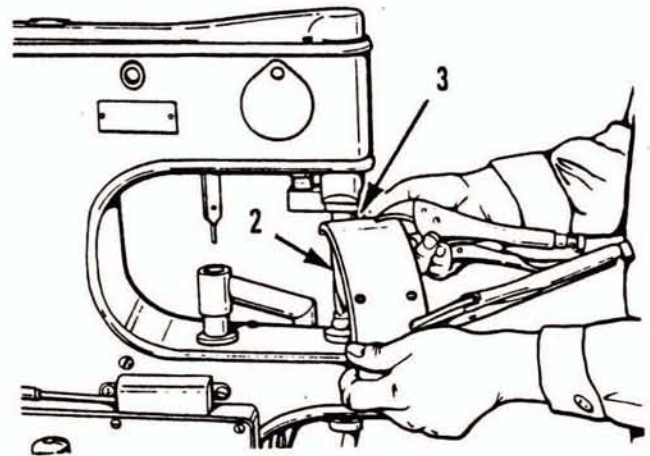
5-9. RELINING BRAKE SHOE (cont)**WARNING**

Never use compressed air or wire brush to clean brake parts as it will stir up dangerous asbestos dust.

2. Clean brake shoe (2) thoroughly. Use a stiff bristle brush and water to remove mud. Use cleaning solvent (3, appendix E) to remove oil and grease.
3. Repaint brake shoe with forest green enamel and allow it to dry thoroughly.

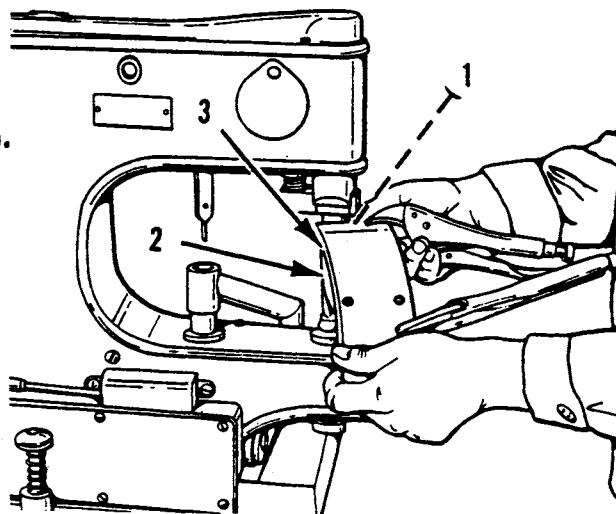


4. Position new brake lining (3) on brake shoe (2).



5-9. RELINING BRAKE SHOE (cont)

5. Install rivets (1) in the two center holes of brake shoe (2) and brake lining (3) to secure brake lining.
6. Install remaining rivets (1) in brake lining (3) to secure it to brake shoe (2).
7. Check contact of brake lining with brake shoe. A 0.010-inch (0.025cm) feeler gage should not enter between brake shoe and brake lining at any point.
8. Repeat steps 1 through 7 on the remaining brake shoes.



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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
Index of Administrative Publications	DA Pam 310-1
Index of Blank Forms	DA Pam 310-2
Index of Doctrinal, Training and Organizational Publications	DA Pam 310-3
Index of Technical Manuals, Technical Bulletins, Supply Manuals, Supply Bulletins, and Lubrications Orders	DA Pam 310-4
Military Publications Index of Supply Catalogs and Supply Manuals (excluding types 7, 8 and 9)	DA Pam 310-6

A-2. Forms.

Refer to TM 38-750, 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 Materials and Field Manufacturing Techniques	TM 5-200
Operation and Maintenance of Ordnance Materiel in Cold Weather.	TM 9-207
Painting Instructions for Field Use	TM 43-0139

Inspection, Care, and Maintenance of Antifriction Bearings	TM 9-214
Organizational Care, Maintenance, and Repair of Pneumatic Tires and Inner Tubes	TM 9-2610-200-20
Administrative Storage of Equipment	TM 740-90-1
Procedures for Destruction of Equipment to Prevent Enemy Use	TM 750-244-6
Welding Procedures for Constructural Steels	MIL-STD-1261A
Deep Water Fording of Ordnance Materiel	TM 9-238
The Army Maintenance Management System	TM 38-750
Army Motor Transport Units and Operations	FM 55-30
Manual for the Wheeled Vehicle Driver	FM 21-305
Painting and Marking of Army Aircraft	TB 746-93-1

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

c. Section III lists the special tools and test equipment 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.

b. Test. To verify serviceability by measuring the mechanical 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 gases.

d. Adjust. To maintain, 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. Install. The act of emplacing, seating, or fixing into position an item, part or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

h. Replace. The act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart. Replace is authorized by the MAC and is shown as the third position code of the SMR code.

i. Repair. The application of maintenance services or other maintenance actions to 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 prescribed 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 measurements (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 components, assemblies, subassemblies, and modules with the next higher assembly.

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 C-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, troubleshooting 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.

SECTION II. MAINTENANCE ALLOCATION CHART

FOR

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

(1)	(2)	(3)	(4)					(5)	(6)
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY					TOOLS & EQUIPT	REMARKS
			C	O	F	H	D		
06	ELECTRICAL SYSTEM								
0608	COVER ASSEMBLY	Inspect Replace		0.1 0.2					
0609	LAMP	Inspect Replace	0.1 0.2						
	LIGHTS	Inspect Replace		0.1 0.3					
0613	WIRING HARNESS, MAIN AND ROOF	Inspect Test Replace Repair		0.1 0.3	3.0 4.0				
	ELECTRICAL LEAD ASSEMBLY	Inspect Test Replace Repair		0.1 0.3	2.0 3.0				
	WIRING HARNESS, DOLLY MAIN	Inspect Test Replace Repair		0.1 0.3	3.5 4.5				
	WIRING HARNESS, DOLLY TAIL- LIGHTS	Inspect Test Replace Repair		0.1 0.3	1.0 2.0				
	CABLE ASSEMBLY INTERCONNEC- TION	Inspect Test Replace Repair		0.1 0.3	0.2 0.5				
	RESISTOR	Inspect Replace		0.1 0.5					

MAINTENANCE ALLOCATION CHART

FOR

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

(1)	(2)	(3)	(4)					(5)	(6)
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY					TOOLS & EQUIPT	REMARKS
			C	O	F	H	D		
11	AXLE								
1100	AXLE ASSEMBLY	Inspect Replace			0.5 8.0				
12	BRAKES								
1202	SHOE ASSEMBLY	Inspect Adjust Replace		0.5 0.5 1.0					
	SHOE LINING	Inspect Repair		0.5	3.0				
1204	CYLINDER, MAS- TER	Inspect Service Replace		0.2 0.2 0.2					
	CYLINDER, WHEEL	Replace		1.5					
	TUBE ASSEMBLY	Inspect Test Replace		0.1 0.1 0.1					
1208	CHAMBER, AIR	Inspect Test Replace		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					

MAINTENANCE ALLOCATION CHART

FOR

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

(1)	(2)	(3)	(4)					(5)	(6)
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY					TOOLS & EQUIPT	REMARKS
			C	O	F	H	D		
1208	RESERVOIR, AIR	Inspect Replace		0.1 0.2					
	COCK, DRAIN	Inspect Test Replace		0.1 0.1 0.1					
	COUPLING, AIR	Inspect Replace		0.1 0.1					
13	WHEELS								
1311	BEARING, HUB	Inspect Adjust Replace		0.3 0.2 0.2					
	SEAL, OIL	Replace		0.3					
	BRAKE DRUM	Inspect Replace Repair		0.5 0.3	1.0				
	WHEEL	Replace	0.5						
1313	TIRE	Inspect Replace Repair		0.2 1.0 1.0					
	TUBE	Repair		0.5					
15	FRAME & TOWING ATTACHMENTS								
1501	PLATFORMS, LADDERS, GUARDS	Replace		2.0					

MAINTENANCE ALLOCATION CHART

FOR

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

(1)	(2)	(3)	(4)					(5)	(6)
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY					TOOLS & EQUIPT	REMARKS
			C	O	F	H	D		
1503	PINTLE	Inspect Replace		0.1 0.2					
1504	CARRIER, SPARE TIRE/WHEEL	Inspect Replace Repair		0.1 0.3 0.5					
	WIRE ROPE	Inspect Replace		0.1 0.5					
1506	AIR MOUNTED KINGPIN PLATE, SLEEVE, BUSHING	Replace		0.5					
	SPRING, AIR	Inspect Replace		0.2 1.0					
	VALVE, HEIGHT CONTROL	Inspect Adjust Replace		0.1 0.2 0.3					
	ROD, BALL JOINT	Replace		0.3					
	SHOCK ABSORBER	Inspect Replace		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								

MAINTENANCE ALLOCATION CHART

FOR

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

(1)	(2)	(3)	(4)					(5)	(6)
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY					TOOLS & EQUIPT	REMARKS
			C	O	F	H	D		
1601	AIR SUSPENSION SYSTEM AIR SPRING	Inspect		0.2					
		Replace		1.0					
	VALVE, HEIGHT CONTROL	Inspect		0.1					
		Adjust		0.2					
		Replace		0.3					
	ROD, BALL JOINT	Replace		0.3					
1801	SHOCK ABSORBER	Inspect		0.1					
		Replace		0.3					
	TORSION BAR & BUSHING	Replace		0.5					
	HINGE, DOOR	Inspect		0.1					
		Replace		0.2					
22	CLUTCH, DOOR	Inspect		0.2					
		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								

MAINTENANCE ALLOCATION CHART

FOR

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

(1)	(2)	(3)	(4)					(5)	(6)
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY					TOOLS & EQUIPT	REMARKS
			C	O	F	H	D		
2202	REFLECTORS	Replace		0.2					
	LEVELS	Inspect		0.1					
		Replace		0.2					
2210	DATA PLATES	Replace		0.2					

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

Tool or Test Equipment Reference Code	Maintenance Category	Nomenclature	National/NATO Stock Number	Tool No.

SECTION IV. REMARKS

SEMITRAILER, VAN: REPAIR FACILITY, XM991, XM991E1

SEMITRAILER, VAN: TEST STATION, XM995, XM995E1

SEMITRAILER, VAN: CENTRAL PROCESSOR, XM991E2

SEMITRAILER, VAN: MASS STOWAGE UNIT, XM995E2

Reference Code	Remarks/Notes
	None

APPENDIX C

COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Section I. INTRODUCTION

C-1. SCOPE

This appendix lists components of end item and basic issue items for semitrailer, van: repair facility, XM991 and XM991E1; semitrailer, van: test station, XM995 and XM995E1; semitrailer, van: central processor, XM991E2; and semitrailer, van: mass stowage unit, XM995E2.

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
035	Model XM991
036	Model XM995
057	Model XM991E2
058	Model XM995E2
063	Model XM991E1
064	Model XM995E1

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. INTEGRAL COMPONENTS OF END ITEM

This section is not applicable.

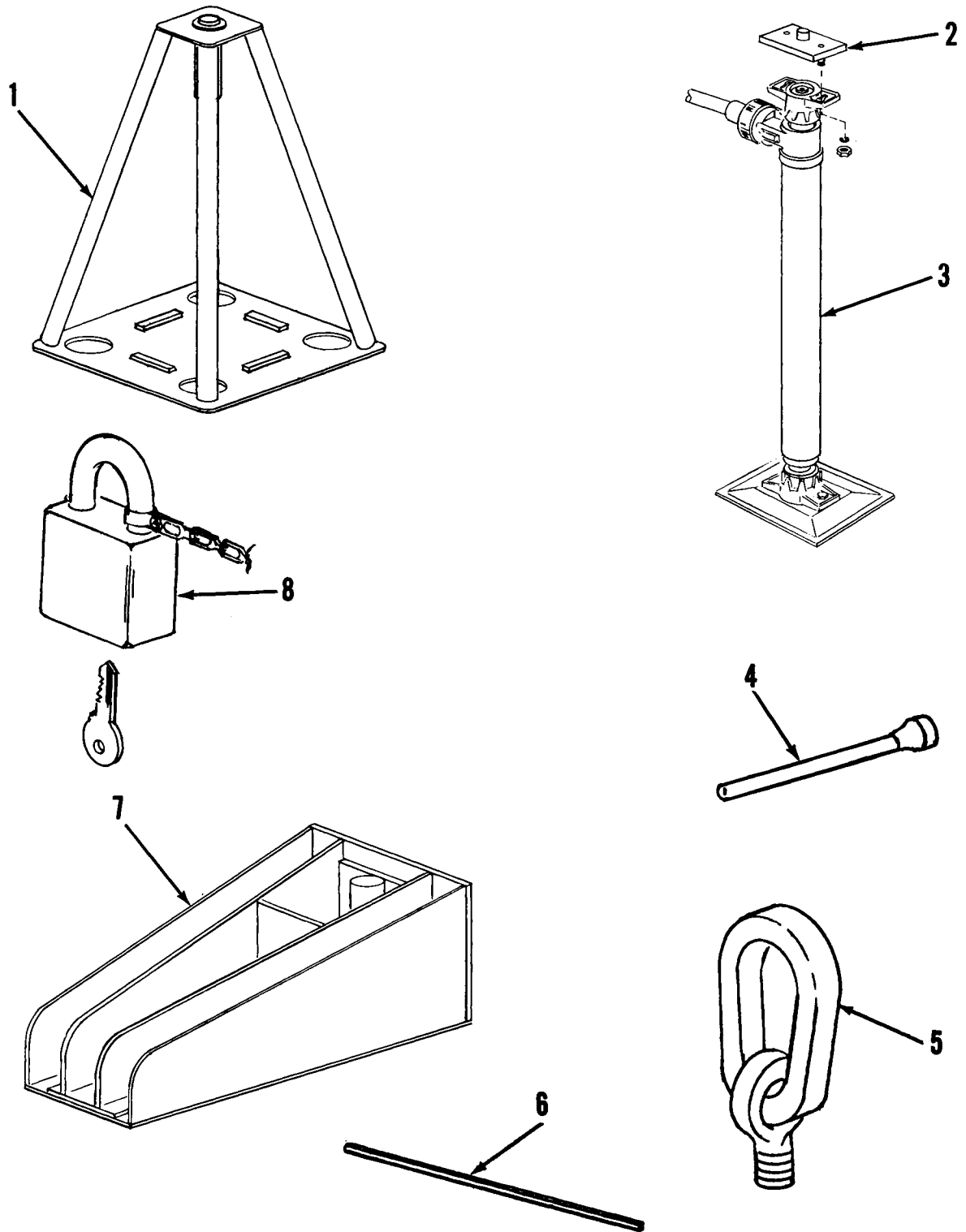


Figure C-1. Basic issue items.

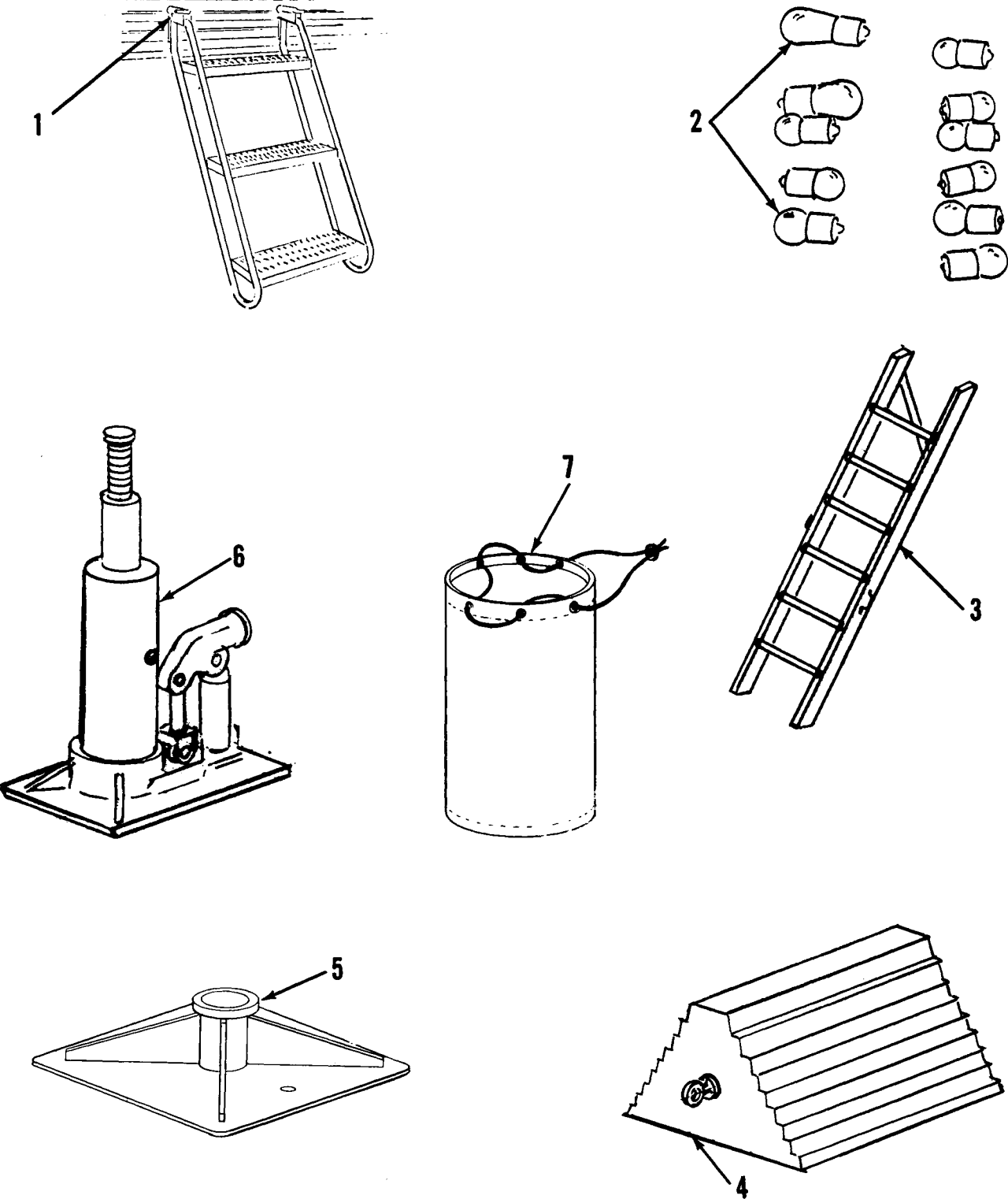
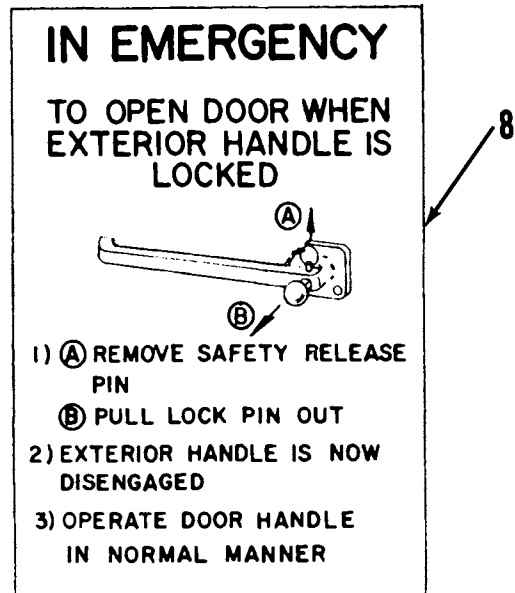
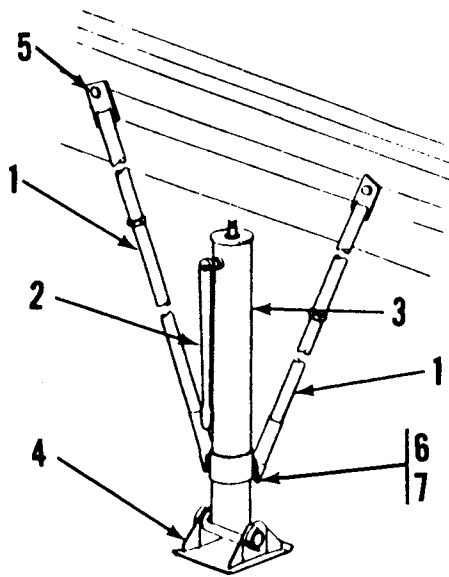
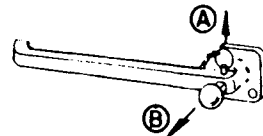


Figure C-2. Basic issue items.



IN EMERGENCY

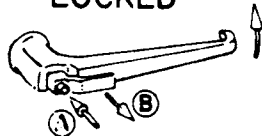
TO OPEN DOOR WHEN
EXTERIOR HANDLE IS
LOCKED



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

IN EMERGENCY

TO OPEN DOOR WHEN
EXTERIOR HANDLE IS
LOCKED



- 1) A DEPRESS BUTTON AND
B PULL LOCK PIN OUT
COMPLETELY
- 2) EXTERIOR HANDLE IS NOW
DISENGAGED
- 3) OPERATE DOOR HANDLE IN
NORMAL MANNER TURN
COUNTERCLOCKWISE

Figure C-3. Basic Issue Items.

Section III. BASIC ISSUE ITEMS

(1) Illus number		(2) National Stock number	(3) Description FSCM and Part number	Usable On Code	(4) U/N	(5) Qty rqr
C-1	7	2510-01-031-4455	ADAPTER: leveling-sup- port jack (in underneath stowage compartment) (19207) 11681435		EA	2
C-2	7	8105-01-171-4739	BAG: tiedown ring stor- age (in side stowage compartment) (19207) 12307763		EA	2
		2640-00-060-3550	CAP: pneumatic valve (on spare wheel and tire) (96906) MS51375-1		EA	1
C-2	4	2540-01-052-6234	CHOCK, WHEEL (in bracket under body) (96906) MS52127-2		EA	2
C-1	6	5120-00-243-2419	HANDLE: leveling jack (in side stowage compart- ment) (80244) 41W1541-10		EA	2
		2610-00-269-7383	INNER TUBE: (on spare) (81348)ZZ -I-550/900-20/ TR175A/ONCTR		EA	1
C-1	3	2590-01-038-1507	JACK: leveling-support (in underneath stowage compartment C) (19207) 11646252	035, 036	EA	2
C-2	6	5120-00-224-7330	JACK: hydraulic (06365)W253		EA	1
C-2	3	2540-01-092-4056	LADDER: folding (in brackets underneath body) (19207) 11684609		EA	1
C-2	1	2540-01-087-6980	LADDER: vehicle board (in brackets underneath body) (19207) 11684408		EA	2

BASIC ISSUE ITEMS (cont)

(1) Illus number		(2) National Stock number	(3) Description FSCM and Part number	Usable On Code	(4) U/M	(5) Qty rqr
C-2	2	6240-00-155-8717	LAMP, INCANDESCENT (96906) MS15570-67		EA	9
C-2	2	6240-00-019-0877	LAMP, INCANDESCENT (96906) MS15570-1251		EA	9
C-2	2	6240-00-617-0991	LAMP, INCANDESCENT (96906) MS35478-1073		EA	2
C-2	2	6240-00-044-6914	LAMP, INCANDESCENT (96906) MS35478-1683		EA	2
C-1	8	5340-00-682-1505	PADLOCK SET (on doors) (96906) MS21313-52	035, 036	EA	1
C-1	5	1670-01-092-9236	RING, TIEDOWN (in stowage bag) (96906) MS21237-1B		EA	30
C-2	5	2590-00-856-1952	SHOE VEHICLE SUP- PORT: leveling jack (in bracket underneath body) (19207) 8747207		EA	2
C-1	1	2590-01-043-7892	STAND, JACK LEVEL- ING (in underneath stowage compartment D) (19207) 11646249	035, 036	EA	2
		2610-00-262-8677	TIRE, PNEUMATIC (on spare wheel carrier) (81348) ZZ-T-381M/Group 3/9.00/D/TBCC		EA	1
C-1	2	2590-01-124-5063	UPPER MOUNT ASSEM- BLY: leveling jack (in underneath stowage compartment D) (19207) 11646402	035, 036	EA	2

BASIC ISSUE ITEMS (cont)

(1) Illus number	(2) National Stock number	(3) Description FSCM and Part number	Usable On Code	(4) U/M	(5) Qty rqr
C-1	4	2640-00-810-5861		EA	1
		2530-00-026-0265		EA	1
		WRENCH, LUG: wheel nut (in side stowage compartment) (21450) 41W3838-30		EA	1
C-3	1	2590-01-181-6331	057, 058, 063, 064	EA	4
C-3	2	5120-00-138-3772	057, 058, 063, 064	EA	2
C-3	3	2590-01-185-0477	057, 058, 063, 064	EA	2
C-3	5	SCREW: jack brace (in side stowage compartment) (96906)MS90726-248	057, 058, 063, 064	EA	4
C-3	6	SCREW: jack brace (in side stowage compartment) (96906)MS90725-164	057, 058, 063, 064	EA	4
C-3	7	5310-00-763-8920	057, 058, 063, 064	EA	4
C-3	4	SHOE: loading jack (with jack underneath body) (19207)12315763	057, 058	EA	2
C-3	8	DECAL: emergency (19207)12331218	057, 058, 063, 064	EA	3
C-3	9	DECAL: emergency (19207)12330823	063, 064	EA	3
C-1	8	5340-01-050-7059	057, 058, 063, 064	EA	1

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
035	Model XM991
036	Model XM995
057	Model XM991E2
058	Model XM995E2
063	Model XM991E1
064	Model XM995E1

Section II. ADDITIONAL AUTHORIZATION LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION FSCM & PART NUMBER USABLE ON CODE	(3) U/M	(4) QTY AUTH
	None authorized		

APPENDIX E

EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

E-1. SCOPE

This appendix lists expendable supplies and materials you will need to operate and maintain the semitrailer. These items are authorized to you by CTA 50-970. Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic 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 SUPPLIES AND MATERIALS LIST

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	O	8040-00-290-4301	Cement, Bonding, MMM-A-1617 Type 2 1 Qt Can	EA
2	O	8040-00-062-6953	5 Qz Tube	EA
3	C, O		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	EA
8	O	9150-01-059-2586	Brake Fluid, Silicone, Automotive (BFS), MIL-B-46176 5 Gal Can	EA
9	C	6240-00-019-0877	Lamp, Incandescent, 12 volt MS15570-1251 (96906)	EA
10	C	6240-00-019-3093	Lamp, Incandescent, 12 volt MS15570-623 (96906)	EA
11	C	6240-00-044-6914	Lamp, Incandescent, 12 volt	EA
12	O	9150-00-186-6681	Lubricating Oil, Spec MIL-L-2104 OE/HDO-30 1 Qt Can	EA
13	O	9150-00-188-9858	5 Gal Can	EA
14	O	9150-00-188-9859	55 Gal Drum (16 Ga)	EA
15	O	9150-00-189-6759	55 Gal Drum (18 Ga)	EA
16	O	9150-00-189-6727	Lubricating Oil, Sub-zero, Spec MIL- L-2104 (temp. above -20°F). OE/HDO-10 1 Qt Can, Type 1	EA
17	O	9150-00-191-2772	55 Gal Drum	EA

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST (cont)

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
18	O	9150-00-185-0629	Lubricating Oil, General Purpose (PL-Special), MIL-L-644A. 2 Oz (oblong screw top can)	EA
19	O	9150-00-257-5436	4 Oz (oblong can with spout)	EA
20	O	9150-00-231-6689	1 Qt	EA
21	C, O	9150-00-231-9064	Preservative, Lubricating, Light Oil 1 Qt Can	EA
22	C, O		Waterproofing Sealant, MIL-C-21067 1 Cartridge	EA

APPENDIX F

REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION1. SCOPE.

This manual lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of organizational, direct support, and general support maintenance of the Semitrailer, Van: Repair Facility, XM991 and XM991E1; Semitrailer, Van: Test Station, XM995 and XM995E1; Semitrailer, Van: Central Processor, XM991E2; and Semitrailer, Van: Mass Storage Unit, XM995E2. 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. The list also includes parts which must be removed for replacement of the authorized parts. Parts list 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 by item name in FIG BULK at the end of the section. Repair parts kits or sets are listed separately in their own functional group within Section II. Repair parts for repairable tools are also listed in this section.

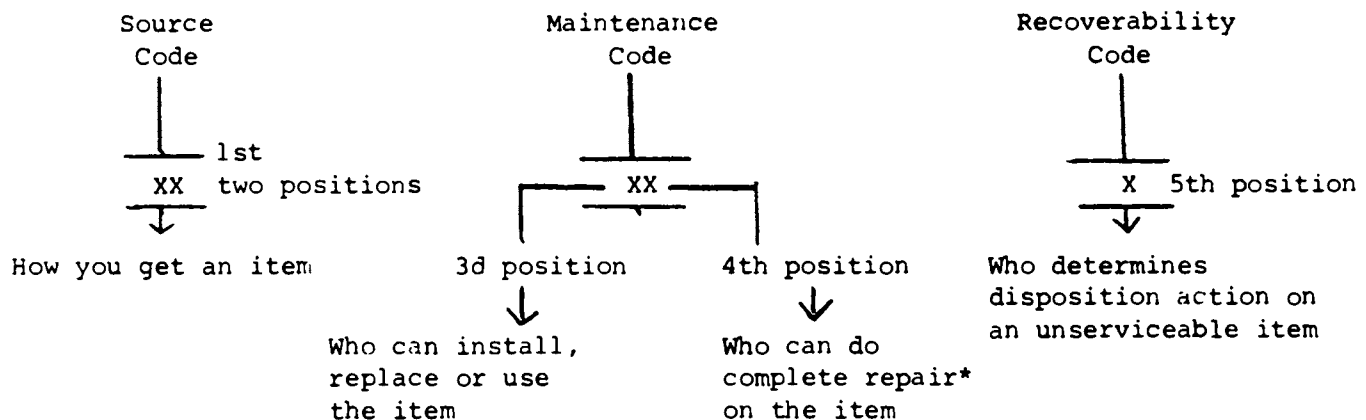
b. Section III. Special Tools List. A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE (UOC) column) for the performance of maintenance.

c. Section IV, National Stock Number and Part Number Index. A list, in National item identification number (NIIN) sequence, of all National stock numbers (NSN) appearing in the listings, 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 (Section 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:



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

(1) Source Code. The source code tells you how you 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	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.
PB	
PC **	
PD	
PE	
PF	
PG	

** NOTE: Items coded PC are subject to deterioration.

MO - (Made at
org/AVUM
Level)
MF - (Made at
DS/AVIM
Level)
MH - (Made at
GS Level)
ML - (Made at
Specialized
Repair Act
(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 3rd position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.

AO - (Assem-
bled by
org/AVUM
Level)
AF - (Assem-
bled by
DS/AVIM
Level)
AH - Assem-
bled by
GS Level)
AL - (Assem-
bled by
SRA)
AD - (Assem-
bled 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
O	- 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 support is the lowest level that can do complete repair of the item.
L	- Specialized repair activity is the lowest level that can do complete repair of the item.
D	- Depot is the lowest level that can do complete repair of the item.
Z	- Nonreparable. No repair is authorized.
B	- No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B" coded item.) However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

Recoverability Code	Definition
Z	- Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the 3d position of the SMR Code.
O	- Reparable item. When uneconomically reparable, condemn and dispose of the item at organizational or aviation unit level.
F	- Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support or aviation intermediate level.

Recoverability
Code

Definition

- | | |
|---|---|
| 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, but go ahead and use or furnish it as the replacement part.

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

(1) The Federal item name, and when required, a minimum description to identify the item.

(2) 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 CI Secret, Phy Sec CI (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 digits of the NSN (i.e., 5305-01-674-1467). When using this column to locate 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. 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>	<u>Code</u>	<u>Used On</u>	<u>Code</u>	<u>Used On</u>
035	XM991	057	XM991E2	063	XM991E1
036	XM995	058	XM995E2	064	XM995E1

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.

a. When National Stock Number or Part Number is Not Known.

(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.

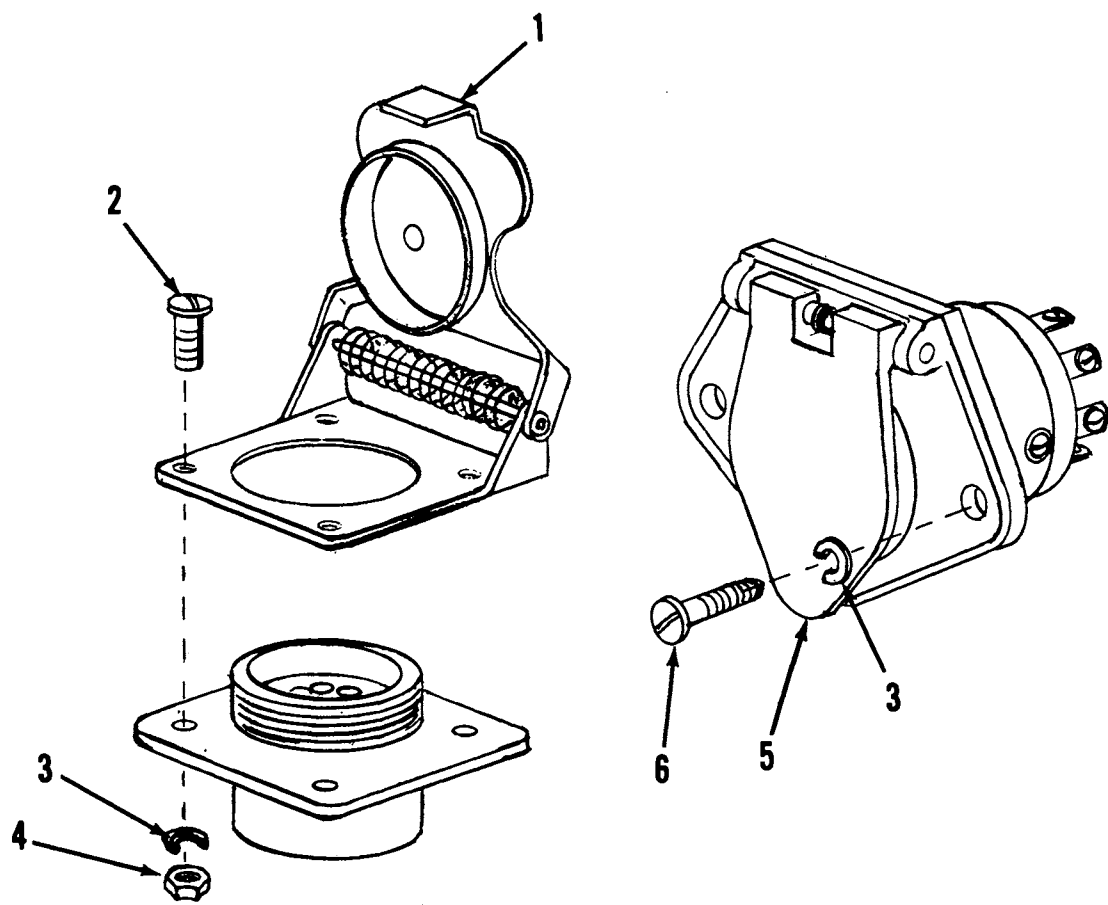


Figure 1. Intervehicular Cable Receptacles and Cover.

TA 355625

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY

GROUP 06 ELECTRICAL SYSTEM

GROUP 0608 MISCELLANEOUS ITEMS

FIG. 1 INTERVEHICULAR CABLE

RECEPTACLES AND COVER

1	PAOZZ	19207	7731428	COVER,ELECTRICAL CO POWER INPUT CONNECTOR.....	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.....	8
6	PAOZZ	96906	MS24629-61	SCREW,TAPPING.....	2

END OF FIGURE

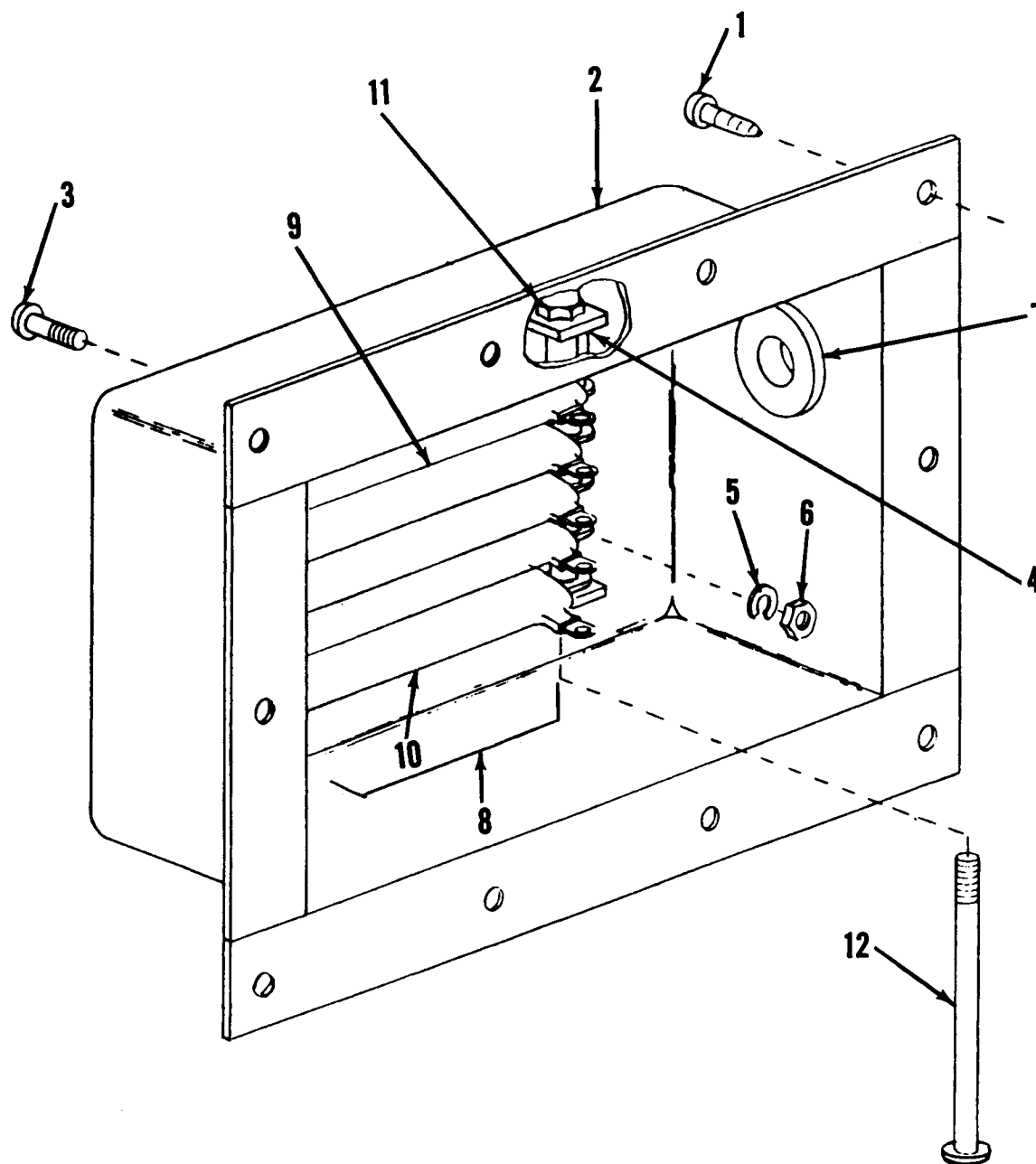


Figure 1A. Resistor Assembly, XM991E2, XM995E2.

TA 355626

SECTION II			TM9-2330-363-14&P		(5)	(6)					
(1)	(2)	(3)	(4)								
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY							
NO	CODE	FSCM	NUMBER								
GROUP 0608 MISCELLANEOUS ITEMS											
FIG. 1A RESISTOR ASSEMBLY, XM991E2,											
XM995E2											
1	PAOZZ	96906	MS24629-48	SCREW,TAPPING,THREA.....	10						
				UOC:057,058							
2	XDOZZ	19207	12330940	HOUSING.....	1						
				UOC:057,058							
3	PAOZZ	96906	MS35206-247	SCREW,MACHINE.....	4						
				UOC:057,058							
4	XDOZZ	19207	12315505	BRACKET.....	2						
				UOC:057,058							
5	PAOZZ	96906	MS35338-42	WASHER,LOCK.....	4						
				UOC:057,058							
6	PAOZZ	96906	MS35649-282	NUT,PLAIN,HEXAGON.....	4						
				UOC:057,058							
7	PAOZZ	96906	MS35489-14	GROMMET,NONMETALLIC.....	1						
				UOC:057,058							
8	PBOZZ	19207	12315654	RESISTOR ASSEMBLY.....	1						
				UOC:057,058							
9	XAOZZ	81348	RW22-V-7R3	.RESISTOR 7 OHMS.....	2						
				UOC:057,058							
10	XAOZZ	81348	RW22-V-5R7	.RESISTOR 5.7 OHMS.....	3						
				UOC:057,058							
11	PAOZZ	96906	MS21044N3	NUT,SELF-LOCKING,HE.....	2						
				UOC:057,058							
12	PAOZZ	96906	MS35207-274	SCREW,MACHINE.....	2						
				UOC:057,058							

END OF FIGURE

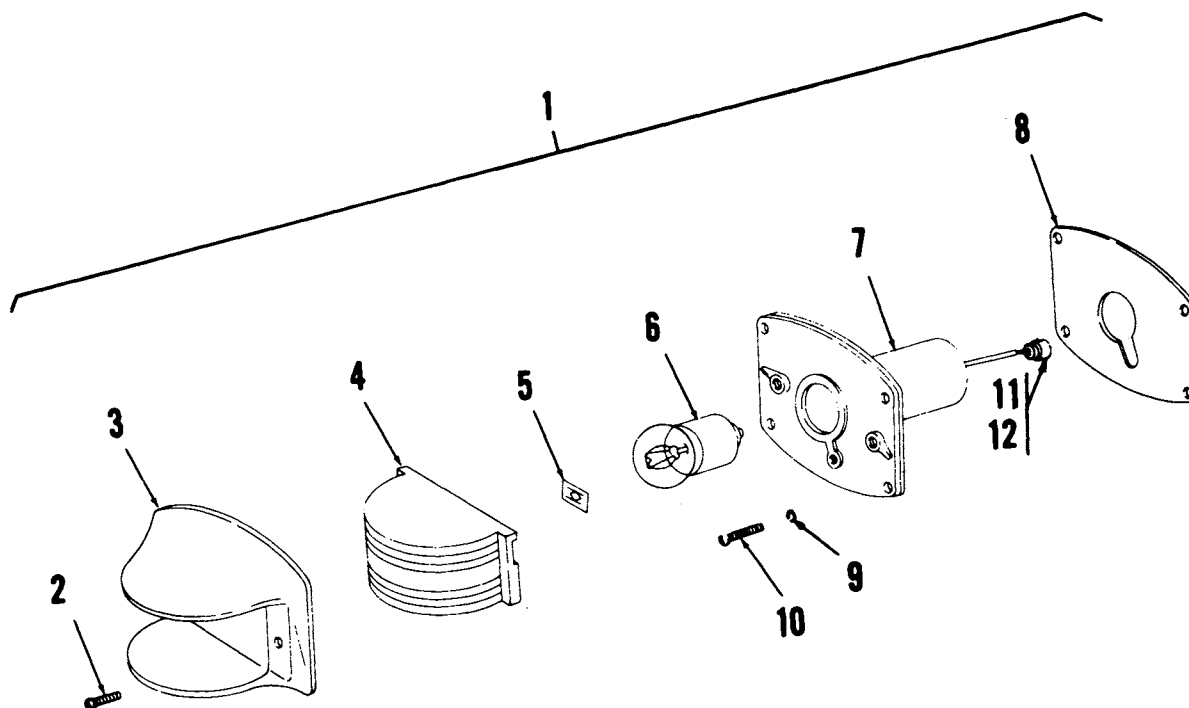


Figure 2. Marker Clearance Light.

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 0609 LIGHTS					
FIG. 2 MARKER CLEARANCE LIGHT					
1	PAOZZ	96906	MS35423-1	LIGHT,MARKER,CLEARA AMBER SERVICE..	4
				UOC:035,036,063,064	
1	PAOZZ	96906	MS35423-3	LIGHT,MARKER,CLEARA AMBER SERVICE..	4
				UOC:057,058	
1	PAOZO	96906	MS35423-2	LIGHT,MARKER,CLEARA RED SERVICE....	5
				UOC:035,036,063,064	
1	PAOZZ	96906	MS35423-4	LIGHT,MARKER,CLEARA RED SERVICE....	5
				UOC:057,058	
2	PAOZZ	96906	MS35190-289	.SCREW,MACHINE.....	2
3	PAOZZ	19207	7526516	.DOOR.....	1
4	PAOZZ	96906	MS35421-1	.LENS,LIGHT AMBER SERVICE,U/O NHA	1
				MS35423-1.....	
4	PAOZZ	96906	MS35421-2	.LENS,LIGHT RED SERVICE,U/O NHA	1
				MS35423-2.....	
5	PAOZZ	19207	7526796	.PUSH ON NUT.....	1
6	PAOZZ	96906	MS15570-1251	.LAMP,INCANDESCENT.....	1
				UOC:035,036,063,064	
6	PAOZZ	81348	W-L-00111/60	.LAMP,INCANDESCENT.....	1
				UOC:057,058	
7	PAOZZ	19207	7526515	.PLATE,MOUNTING,LAMP.....	1
8	PAOZZ	19207	7526509	.FELT,MECHANICAL,PRE.....	1
9	PAOZZ	96906	MS35333-39	WASHER,LOCK.....	36
10	PAOZZ	96906	MS24629-48	SCREW,TAPPING,THREA.....	36
11	PAOZZ	19207	8338566	SHELL,ELECTRICAL CO.....	9
12	PAOZZ	19207	8338567	WASHER,SLOTTED.....	9

END OF FIGURE

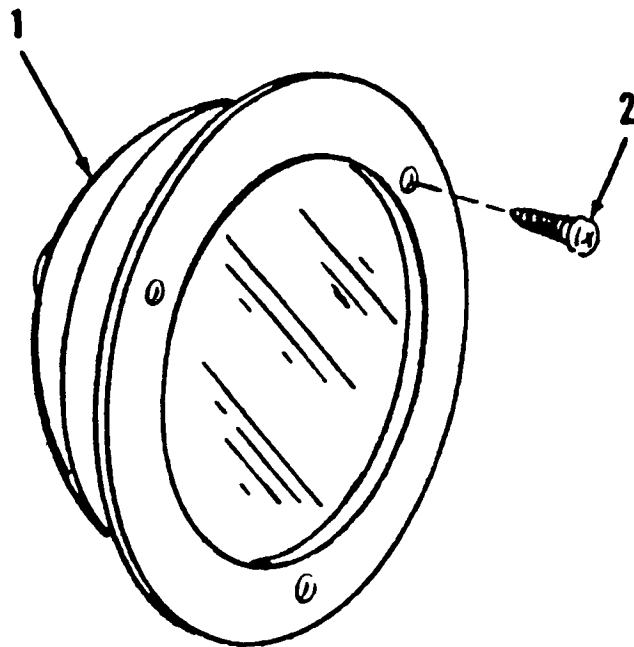


Figure 2A. Light, Stop, XM991E1, XM995E1,
XM991E2, XM995E2.

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				GROUP 0609 LIGHTS	
				FIG. 2A LIGHT, STOP, XM991E1,	
				XM995E1, XM991E2, XM995E2	
1	PADZZ	13548	40222R	STOP LIGHT,VEHICULA.....	2
				UOC:057,058,063,064	
2	PADZZ	96906	MS24629-48	SCREW,TAPPING,THREA.....	6
				UOC:057,058,063,064	

END OF FIGURE

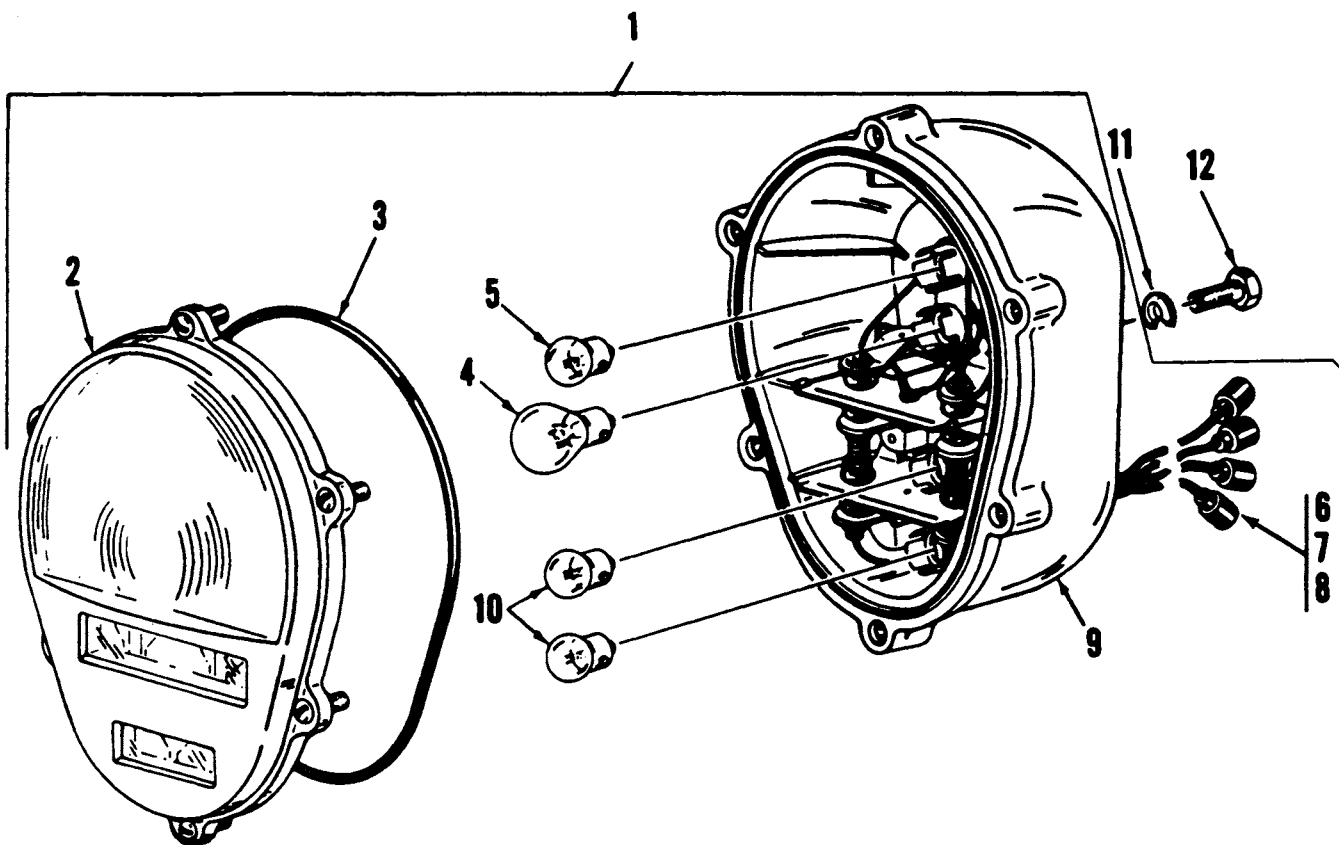


Figure 3. Composite Stoplight Taillight.

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 0609 LIGHTS						
FIG. 3 COMPOSITE STOPLIGHT TAILLIGHT						
1	PA000	96906	MS52125-2	STOP LIGHT-TAILLIGH.....	2	
				UOC:035,036,063,064		
1	PA0ZZ	96906	MS52125-1	STOP LIGHT-TAILLIGH.....	2	
				UOC:057,058		
2	PA0ZZ	19207	11639535	.LENS,LIGHT.....	1	
3	PA0ZZ	19207	11639519-2	.PACKING,PREFORMED.....	1	
4	PA0ZZ	96906	MS35478-1683	.LAMP,INCANDESCENT SERVICE STOP AND	1	
				TURN.....		
				UOC:035,036,063,064		
4	PA0ZZ	96906	MS35478-1073	LAMP,INCANDESCENT.....	1	
				UOC:057,058		
5	PA0ZZ	96906	MS15570-623	.LAMP,INCANDESCENT SERVICE	1	
				TAILLIGHT.....		
				UOC:035,036,063,064		
5	PA0ZZ	96906	MS15570-89	.LAMP,INCANDESCENT.....	1	
				UOC:057,058		
6	PA0ZZ	19207	8338566	.SHELL,ELECTRICAL CO.....	4	
7	PA0ZZ	19207	8338567	.WASHER,SLOTTED.....	4	
8	PA0ZZ	96906	MS27148-2	.CONTACT,ELECTRICAL.....	4	
9	XAOZZ	19207	11639520	.BODY ASSEMBLY.....	1	
10	PA0ZZ	96906	MS15570-1251	.LAMP,INCANDESCENT BLACKOUT	2	
				TAILLIGHT AND STOP.....		
11	PA0ZZ	96906	MS35338-46	WASHER,LOCK.....	2	
12	PA0ZZ	96906	MS18154-58	SCREW,CAP,HEXAGON H.....	2	

END OF FIGURE

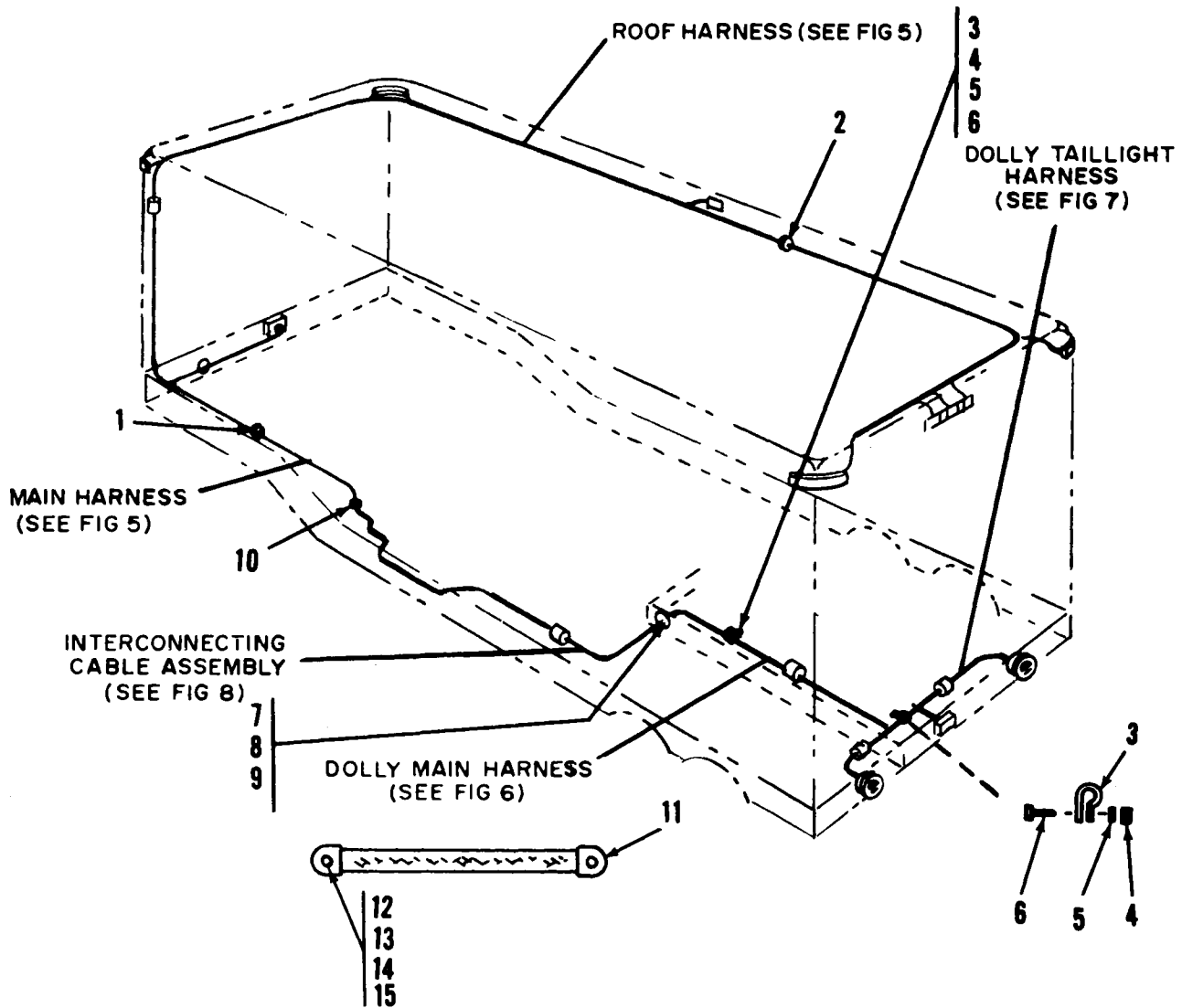


Figure 4. Wiring Harness Attaching Parts, XM991, XM995.

SECTION II			TM9-2330-363-14&P			
(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. 4 WIRING HARNESS ATTACHING						
PARTS, XM991, XM995						
1	PAOZZ	19207	10906798	GROMMET, NONMETALLIC.....	8	
				UOC:035,036		
2	PAOZZ	96906	MS35489-51	GROMMET, NONMETALLIC.....	66	
				UOC:035,036		
3	PAOZZ	96906	MS21919F12	CLAMP, LOOP.....	7	
				UOC:035,036		
4	PAOZZ	96906	MS35649-202	NUT, PLAIN, HEXAGON.....	7	
				UOC:035,036		
5	PAOZZ	96906	MS35338-43	WASHER, LOCK.....	7	
				UOC:035,036		
6	PAOZZ	96906	MS35206-263	SCREW, MACHINE.....	7	
				UOC:035,036		
7	PAOZA	96906	MS35649-286S	NUT, PLAIN, HEXAGON.....	4	
				UOC:035,036		
8	PAOZZ	96906	MS35333-38	WASHER, LOCK.....	4	
				UOC:035,036		
9	PAOZZ	96906	MS35206-247	SCREW, MACHINE.....	4	
				UOC:035,036		
10	PAOZZ	96906	MS35489-109	GROMMET, NONMETALLIC.....	28	
				UOC:035,036		
11	PAOZZ	92679	57038R2	LEAD, ELECTRICAL.....	1	
				UOC:035,036		
12	PAOZZ	96906	MS51967-3	NUT, PLAIN, HEXAGON.....	1	
				UOC:035,036		
13	PAOZZ	96906	MS35338-44	WASHER, LOCK.....	1	
				UOC:035,036		
14	PAOZZ	96906	MS27183-10	WASHER, FLAT.....	1	
				UOC:035,036		
15	PAOZZ	96906	MS90725-14	SCREW, CAP, HEXAGON H.....	1	
				UOC:035,036		

END OF FIGURE

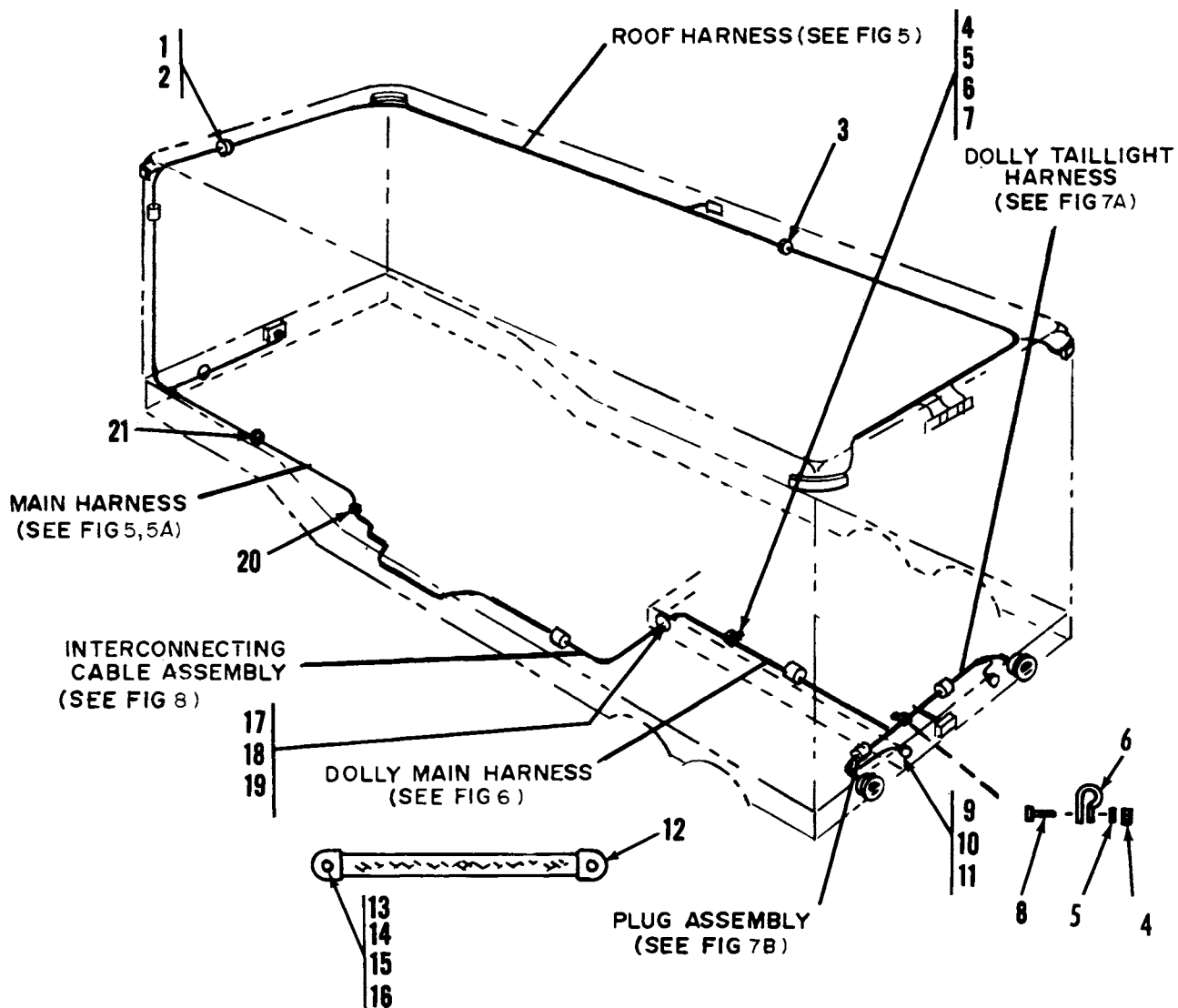


Figure 4A. Wiring Harness Attaching Parts, XM991E1, XM995E1, XM991E2, XM995E2.

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SECTION II			TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UDC)	QTY	
GROUP 0613 WIRING HARNESS						
FIG. 4A WIRING HARNESS ATTACHING						
PARTS, XM991E1, XM995E1, XM991E2,						
XM995E2						
1	PAOZZ	96906	MS24629-48	SCREW,TAPPING,THREA.....	4	
				UDC:057,058,063,064		
2	PAOZZ	96906	MS21322-33	CLAMP,LOOP.....	4	
				UDC:057,058,063,064		
3	PAOZZ	96906	MS35489-51	GROMMET,NONMETALLIC.....	48	
				UDC:057,058,063,064		
4	PAOZZ	96906	MS35649-202	NUT,PLAIN,HEXAGON.....	3	
				UDC:057,058,063,064		
5	PAOZZ	96906	MS35338-43	WASHER,LOCK.....	3	
				UDC:057,058,063,064		
6	PAOZZ	96906	MS21333-105	CLAMP,LOOP.....	3	
				UDC:057,058,063,064		
7	PAOZZ	96906	MS35206-263	SCREW,MACHINE.....	2	
				UDC:057,058,063,064		
8	PAOZZ	96906	MS35206-266	SCREW,MACHINE.....	1	
				UDC:057,058,063,064		
9	PAOZZ	96906	MS35649-202	NUT,PLAIN,HEXAGON.....	2	
				UDC:057,058,063,064		
10	PAOZZ	96906	MS35333-39	WASHER,LOCK.....	2	
				UDC:057,058,063,064		
11	PAOZZ	96906	MS35206-265	SCREW,MACHINE.....	2	
				UDC:057,058,063,064		
12	PAOZZ	19207	11684311	LEAD,ELECTRICAL.....	1	
				UDC:057,058,063,064		
13	PAOZZ	96906	MS51967-3	NUT,PLAIN,HEXAGON.....	1	
				UDC:057,058,063,064		
14	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	1	
				UDC:057,058,063,064		
15	PAOZZ	96906	MS27183-10	WASHER,FLAT.....	1	
				UDC:057,058,063,064		
16	PAOZZ	96906	MS90725-14	SCREW,CAP,HEXAGON H.....	1	
				UDC:057,058,063,064		
17	PAOZZ	96906	MS35649-282	NUT,PLAIN,HEXAGON.....	4	
				UDC:057,058,063,064		
18	PAOZZ	96906	MS35333-38	WASHER,LOCK.....	4	
				UDC:057,058,063,064		
19	PAOZZ	96906	MS35206-247	SCREW,MACHINE.....	4	
				UDC:057,058,063,064		
20	PAOZZ	96906	MS35489-109	GROMMET,NONMETALLIC.....	17	
				UDC:057,058,063,064		
21	PAOZZ	19207	10906798	GROMMET,NONMETALLIC.....	8	
				UDC:057,058,063,064		

END OF FIGURE

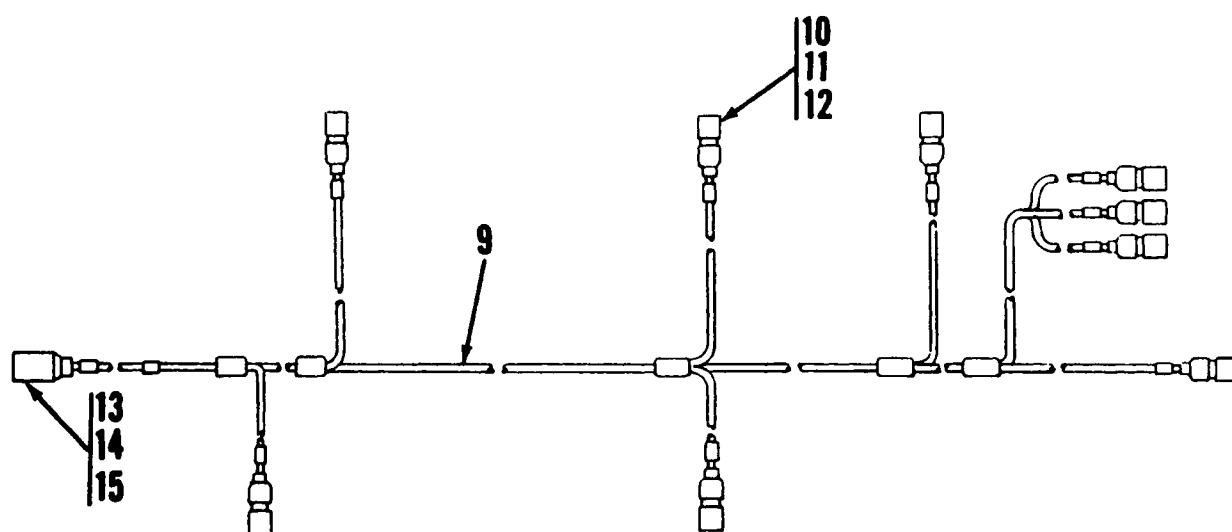
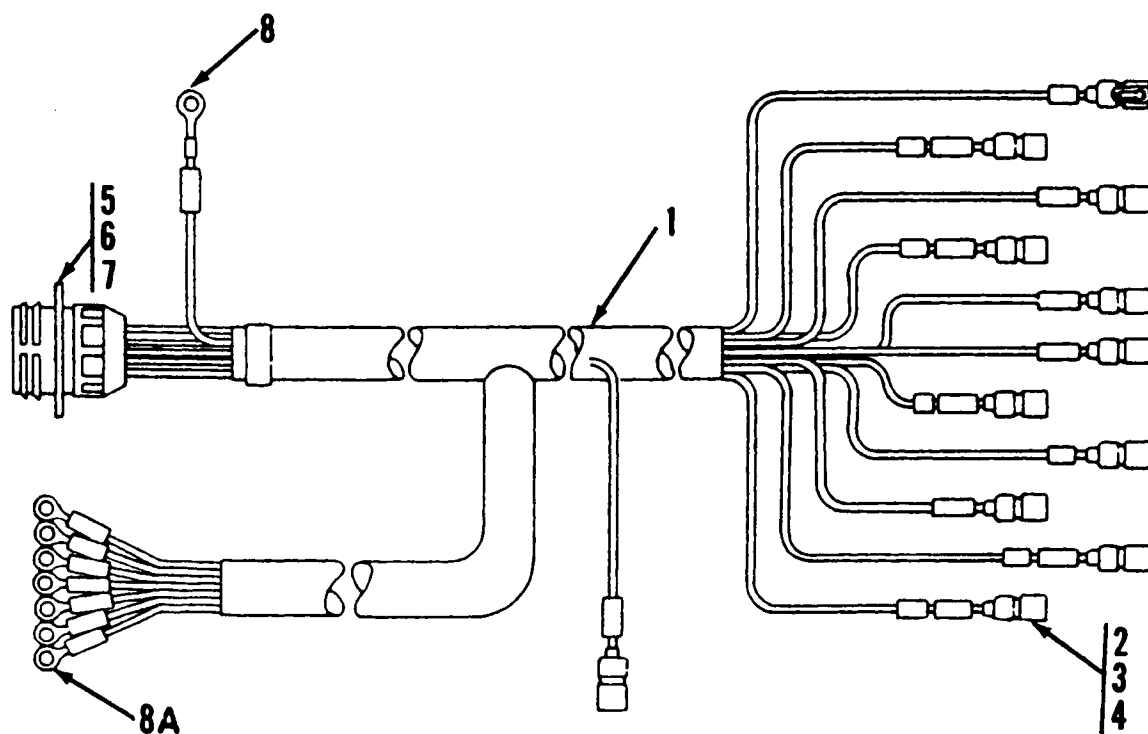


Figure 5. Wiring Harness, Main, XM991, XM995, XM991E1, XM995E1;
Wiring Harness, Roof.

SECTION II			TM9-2330-363-14&P	(5)	(6)
(1)	(2)	(3)	(4)		
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 0613 WIRING HARNESS					
FIG. 5 WIRING HARNESS, MAIN, XM991,					
XM995, XM991E1, XM995E1; WIRING					
HARNESS, ROOF					
1	MFFZZ	19207	11684465	WIRING HARNESS MAIN,FABRICATE FROM P/N M13486-1-5.....	1
				UOC:035,036,063,064	
2	PAOZZ	19207	8338561	.SHELL,ELECTRICAL CO.....	12
				UOC:035,036,063,064	
3	PAOZZ	19207	8338562	.INSULATOR,BUSHING.....	12
				UOC:035,036,063,064	
4	PAOZZ	19207	8338564	.TERMINAL ASSEMBLY.....	12
				UOC:035,036,063,064	
5	PAOZZ	19207	8376208	.CONNECTOR,RECEPTACL.....	1
				UOC:035,036,063,064	
6	PAOZZ	19207	7722333	.BUSHING,RUBBER.....	1
				UOC:035,036,063,064	
7	PAOZZ	19207	7723309	.NUT,PLAIN,KNURLED.....	1
				UOC:035,036,063,064	
8	PAOZZ	21450	506209	.TERMINAL,LUG.....	1
				UOC:035,036,063,064	
8A	PAOZZ	21450	506207	.TERMINAL,LUG.....	7
				UOC:035,036,063,064	
9	MFFZZ	19207	11684466	WIRING HARNESS ROOF,FABRICATE FROM P/N M13486-1-5.....	1
				UOC:035,036,063,064	
10	PAOZZ	19207	8338561	.SHELL,ELECTRICAL CO.....	9
				UOC:035,036,063,064	
11	PAOZZ	19207	8338562	.INSULATOR,BUSHING.....	9
12	PAOZZ	19207	8338563	.FERRULE,ELECTRICAL.....	9
13	PAOZZ	19207	8338566	.SHELL,ELECTRICAL CO.....	1
14	PAOZZ	19207	8338567	.WASHER,SLOTTED.....	1
15	PAOZZ	96906	MS27148-2	.CONTACT,ELECTRICAL.....	1

END OF FIGURE

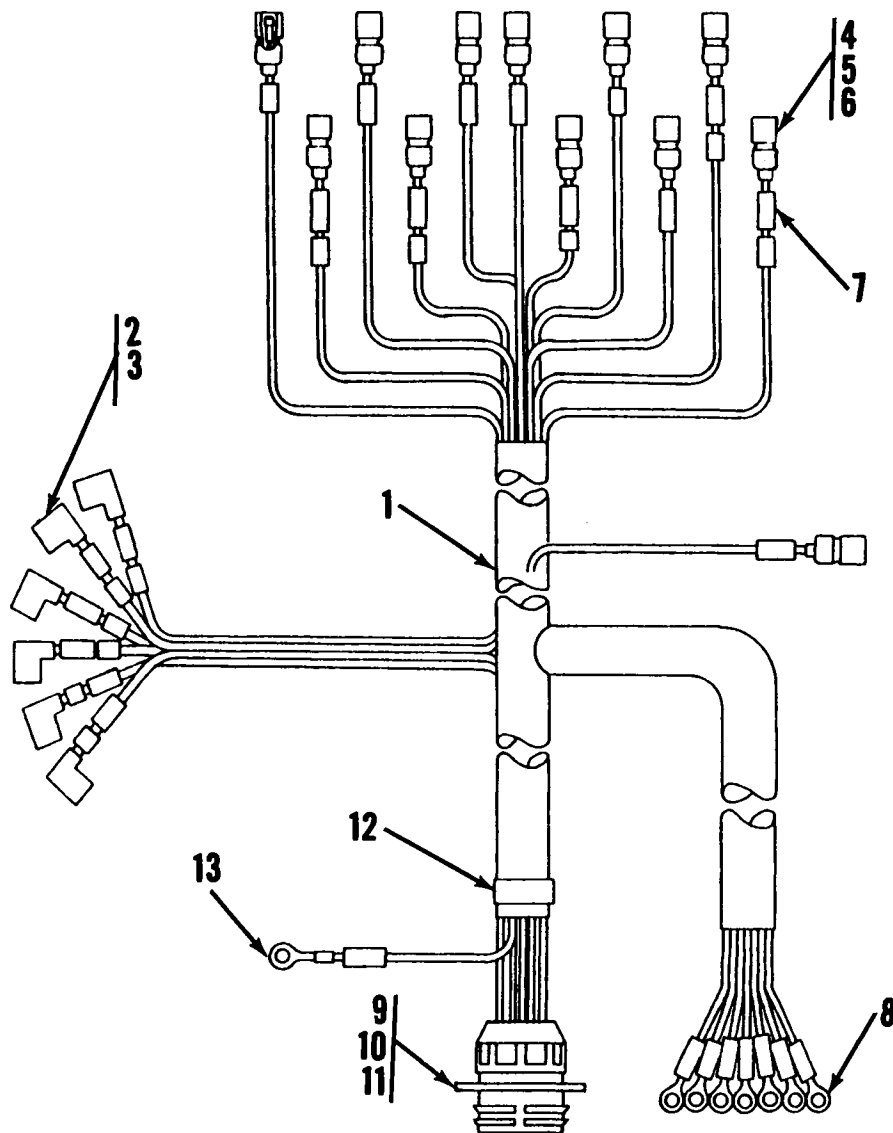


Figure 5A. Wiring Harness, Main, XM991E2, XM995E2.

SECTION II			TM9-2330-363-14&P		(5)	(6)		
(1)	(2)	(3)	(4)					
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY				
NO	CODE	FSCM	NUMBER					
GROUP 0613 WIRING HARNESS								
FIG. 5A WIRING HARNESS, MAIN,								
XM991E2, XM995E2								
1	MFFZZ	19207	12330944	WIRING HARNESS MAIN,FABRICATE FROM P/N M13486-1-5.....		1		
				UOC:057,058				
2	PAOZZ	19207	12315556	.TERMINAL,QUICK DISC.....		6		
				UOC:057,058				
3	PAOZZ	81349	M23053/1-102-0	.INSULATION SLEEVING.....		6		
				UOC:057,058				
4	PAOZZ	19207	8338561	.SHELL,ELECTRICAL CO.....		12		
				UOC:057,058				
5	PAOZZ	19207	8338562	.INSULATOR,BUSHING.....		12		
				UOC:057,058				
6	PAOZZ	19207	8338564	.TERMINAL ASSEMBLY.....		12		
				UOC:057,058				
7	PAOZZ	96906	MS39020-1	.BAND,MARKER.....		37		
				UOC:057,058				
8	PAOZZ	21450	506207	.TERMINAL,LUG.....		7		
				UOC:057,058				
9	PAOZZ	19207	8376208	.CONNECTOR,RECEPTACL.....		1		
				UOC:057,058				
10	PAOZZ	19207	7722333	.BUSHING,RUBBER.....		1		
				UOC:057,058				
11	PAOZZ	19207	7723309	.NUT,PLAIN,KNURLED.....		1		
				UOC:057,058				
12	PAOZZ	81349	M43436-1-3	.BAND,MARKER.....		1		
				UOC:057,058				
13	PAOZZ	21450	506209	.TERMINAL,LUG.....		1		
				UOC:057,058				

END OF FIGURE

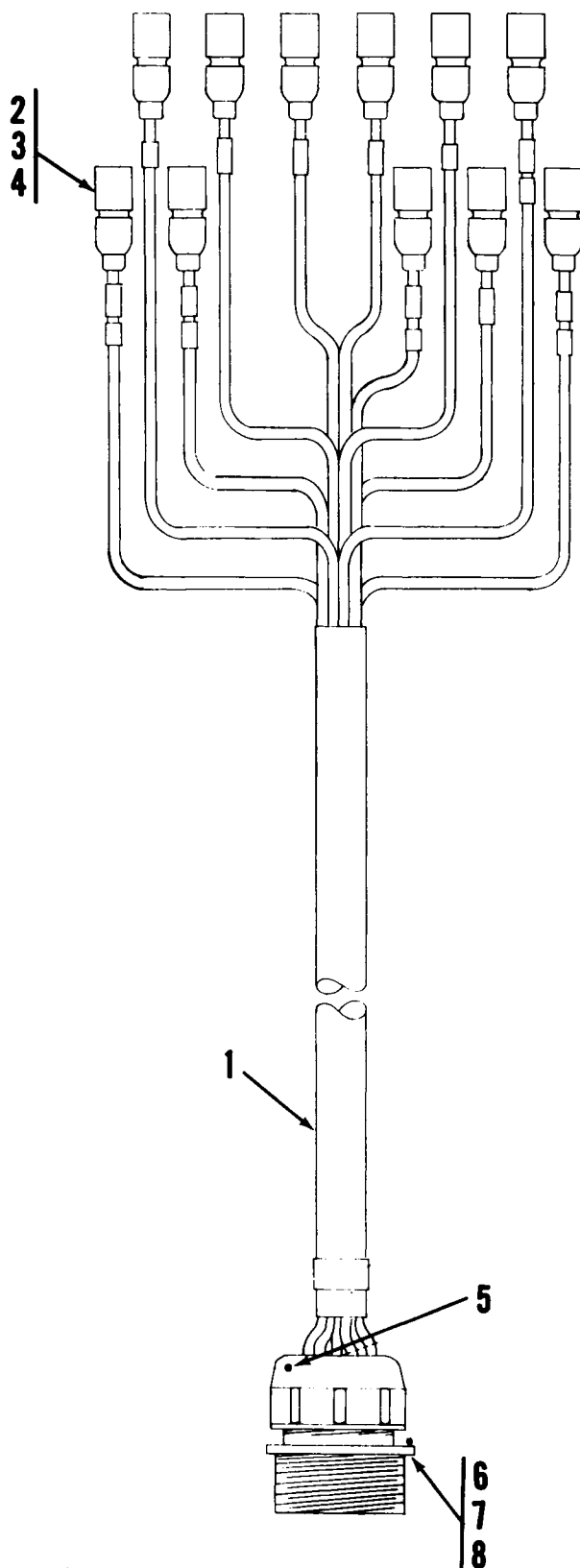


Figure 6. Main Dolly Harness.

SECTION II			TM9-2330-363-14&P		
(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. 6 MAIN DOLLY HARNESS					
1	MFFZZ	19207	11681260	WIRING HARNESS DOLLY MAIN.....	1
2	PAOZZ	19207	8338561	.SHELL,ELECTRICAL CO.....	11
3	PAOZZ	19207	8338562	.INSULATOR,BUSHING.....	11
4	PAOZZ	19207	8338563	.FERRULE,ELECTRICAL.....	11
5	PAOZZ	19207	8724763	.NONMETALLIC ROD.....	1
6	PAOZZ	19207	7716793	.CONNECTOR,RECEPTACL.....	1
7	PAOZZ	19207	7723309	.NUT,PLAIN,KNURLED.....	1
8	PAOZZ	19207	7722333	.BUSHING,RUBBER.....	1

END OF FIGURE

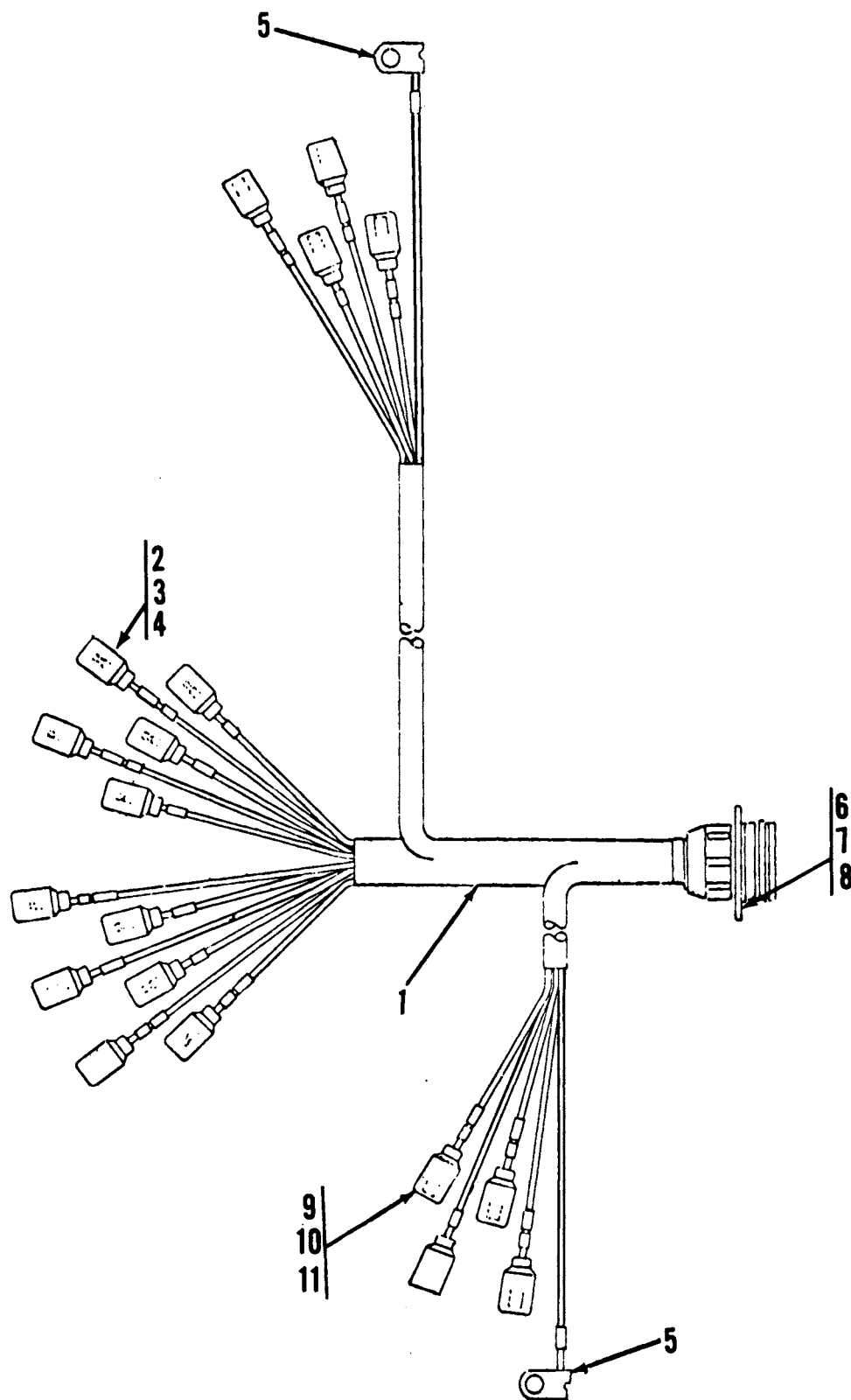


Figure 7. Wiring Harness, Dolly Taillights, XM991, XM995.

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SECTION II			TM9-2330-363-14&P			
(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. 7 WIRING HARNESS, DOLLY						
TAILLIGHTS, XM991, XM995						
1	MFFZZ	19207	11684316	WIRING HARNESS DOLLY		1
				TAILLIGHTS,FABRICATE FROM P/N M13486		
				-1-5.....		
				UOC:035,036		
2	PAOZZ	19207	8338566	.SHELL,ELECTRICAL CO.....		11
				UOC:035,036		
3	PAOZZ	19207	8338567	.WASHER,SLOTTED.....		11
				UOC:035,036		
4	PAOZZ	96906	MS27148-2	.CONTACT,ELECTRICAL.....		11
				UOC:035,036		
5	PAOZZ	96906	MS35438-8	.TERMINAL,LUG.....		2
				UOC:035,036		
6	PAOZZ	96906	MS75021-2	.CONNECTOR,RECEPTAC.....		1
				UOC:035,036		
7	PAOZZ	19207	7722333	.BUSHING,RUBBER.....		1
				UOC:035,036		
8	PAOZZ	19207	7723309	.NUT,PLAIN,KNURLED.....		1
				UOC:035,036		
9	PAOZZ	19207	8338561	.SHELL,ELECTRICAL CO.....		8
				UOC:035,036		
10	PAOZZ	19207	8338562	.INSULATOR,BUSHING.....		8
				UOC:035,036		
11	PAOZZ	19207	8338563	.FERRULE,ELECTRICAL.....		8
				UOC:035,036		

END OF FIGURE

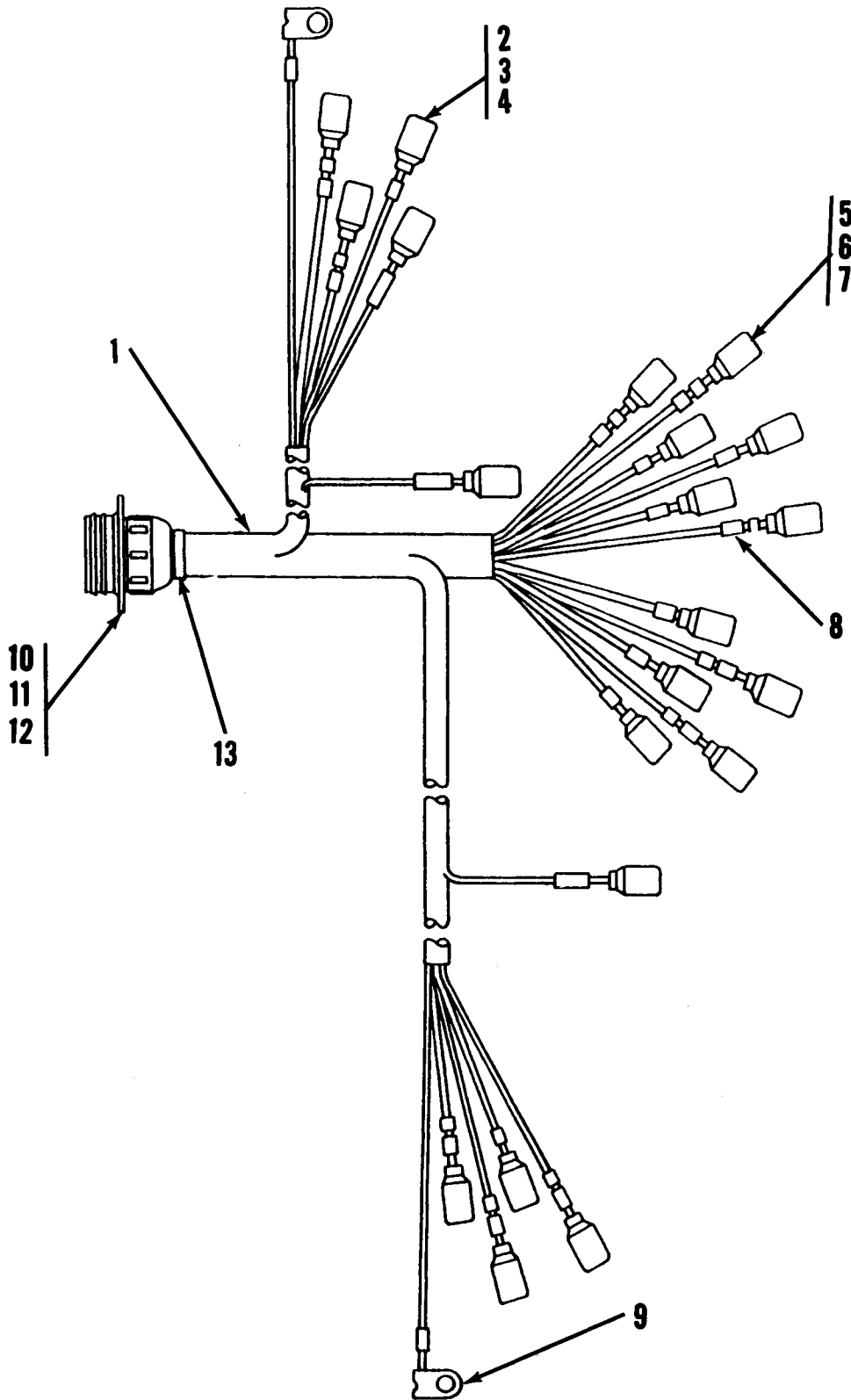


Figure 7A. Wiring Harness, Dolly Taillights, XM991E1, XM995E1, XM991E2, XM995E2.

SECTION II			TM9-2330-363-14&P			
(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. 7A WIRING HARNESS, DOLLY						
TAILLIGHTS, XM991E1, XM995E1,						
XM991E2, XM995E2						
1	MFFZZ	19207	12330879	WIRING HARNESS DOLLY		1
				TAILLIGHTS,FABRICATE FROM P/N M13486		
				-1-5.....		
				UOC:057,058,063,064		
2	PAOZZ	19207	8338561	.SHELL,ELECTRICAL CO.....		10
				UOC:057,058,063,064		
3	PAOZZ	19207	8338562	.INSULATOR,BUSHING.....		10
				UOC:057,058,063,064		
4	PAOZZ	19207	8338563	.FERRULE,ELECTRICAL.....		10
				UOC:057,058,063,064		
5	PAOZZ	19207	8338566	.SHELL,ELECTRICAL CO.....		11
				UOC:057,058,063,064		
6	PAOZZ	19207	8338567	.WASHER,SLOTTED.....		11
				UOC:057,058,063,064		
7	PAOZZ	96906	MS27148-2	.CONTACT,ELECTRICAL.....		11
				UOC:057,058,063,064		
8	PAOZZ	96906	MS39020-1	.BAND,MARKER.....		33
				UOC:057,058,063,064		
9	PAOZZ	96906	MS35438-8	.TERMINAL,LUG.....		2
				UOC:057,058,063,064		
10	PAOZZ	96906	MS75021-2	.CONNECTOR,RECEPTCL.....		1
				UOC:057,058,063,064		
11	PAOZZ	19207	7722333	.BUSHING,RUBBER.....		1
				UOC:057,058,063,064		
12	PAOZZ	19207	7723309	.NUT,PLAIN,KNURLED.....		1
				UOC:057,058,063,064		
13	PAOZZ	81349	M43436-1-3	.BAND,MARKER.....		1
				UOC:057,058,063,064		

END OF FIGURE

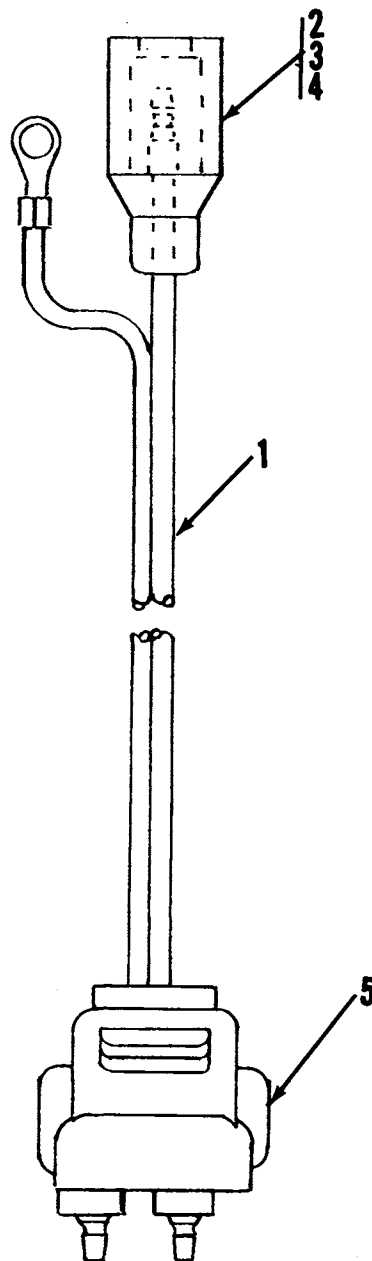


Figure 7B. Plug Assembly, XM991E1, XM995E1, XM991E2, XM995E2.

SECTION II			TM9-2330-363-14&P			
(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. 7B PLUG ASSEMBLY, XM991E1,						
XM995E1, XM991E2, XM995E2						
1	PAOZZ	19207	12330878	LEAD,ELECTRICAL.....		2
				UOC:057,058,063,064		
2	PAOZZ	19207	8724495	.SHELL,ELECTRICAL CO.....		1
				UOC:057,058,063,064		
3	PAOZZ	96906	MS27148-3	.CONTACT,ELECTRICAL.....		1
				UOC:057,058,063,064		
4	PAOZZ	19207	8724497	.WASHER,SLOTTED.....		1
				UOC:057,058,063,064		
5	PAOZZ	13548	9425S/T	.CONNECTOR,PLUG,ELEC.....		1
				UOC:057,058,063,064		

END OF FIGURE

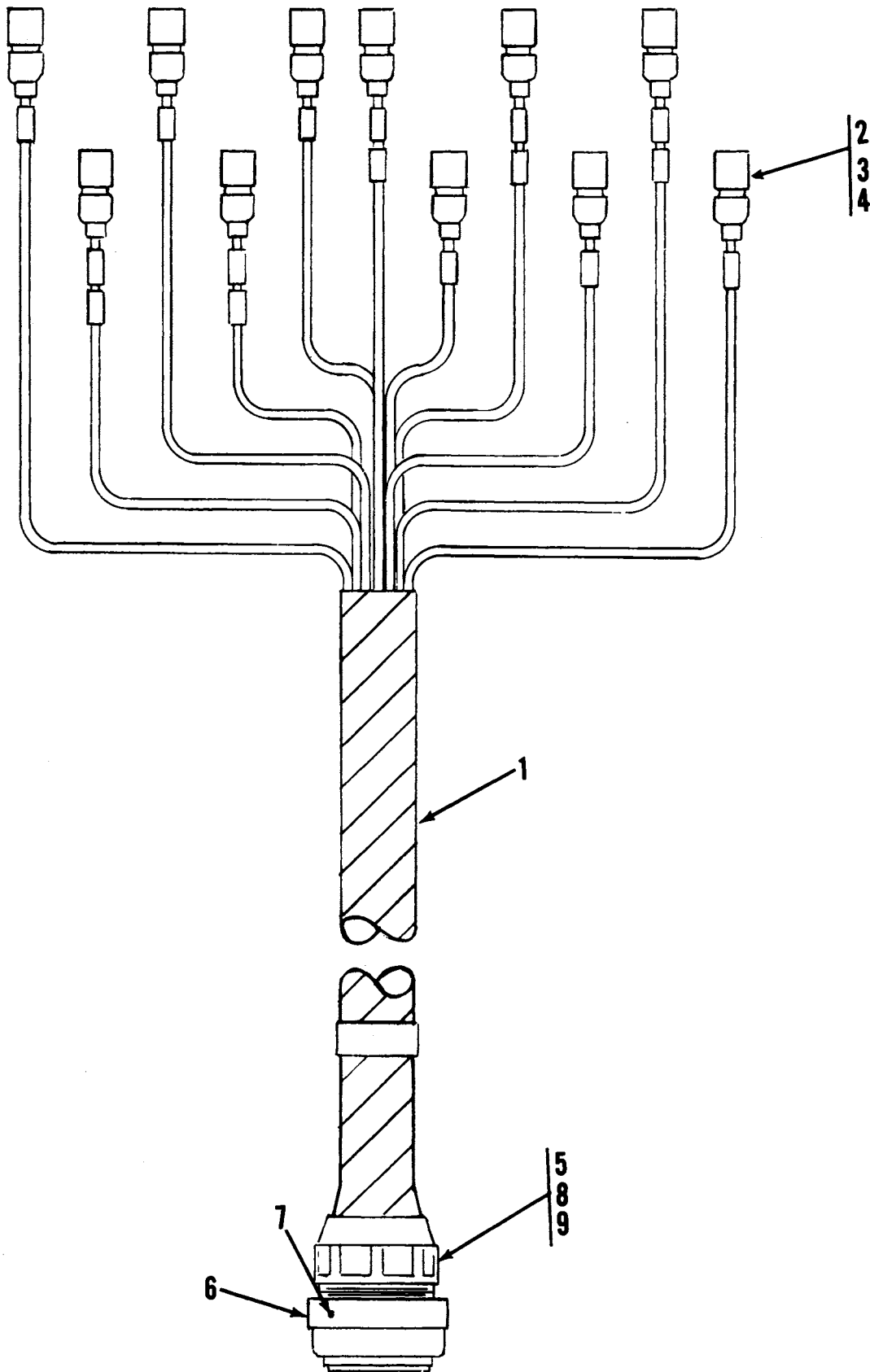


Figure 8. Wiring Harness.

SECTION II			TM9-2330-363-14&P			
(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. 8 WIRING HARNESS						
1	MFFZZ	19207	11646259	WIRING HARNESS FABRICATE FROM P/N	1	
				M13486-1-5.....		
2	PAOZZ	19207	8338566	.SHELL,ELECTRICAL CO.....	11	
3	PAOZZ	19207	8338567	.WASHER,SLOTTED.....	11	
4	PAOZZ	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	8724763	.NONMETALLIC ROD.....	1	
8	PAOZZ	19207	7723309	.NUT,PLAIN,KNURLED.....	1	
9	PAOZZ	19207	7722333	.BUSHING,RUBBER.....	1	

END OF FIGURE

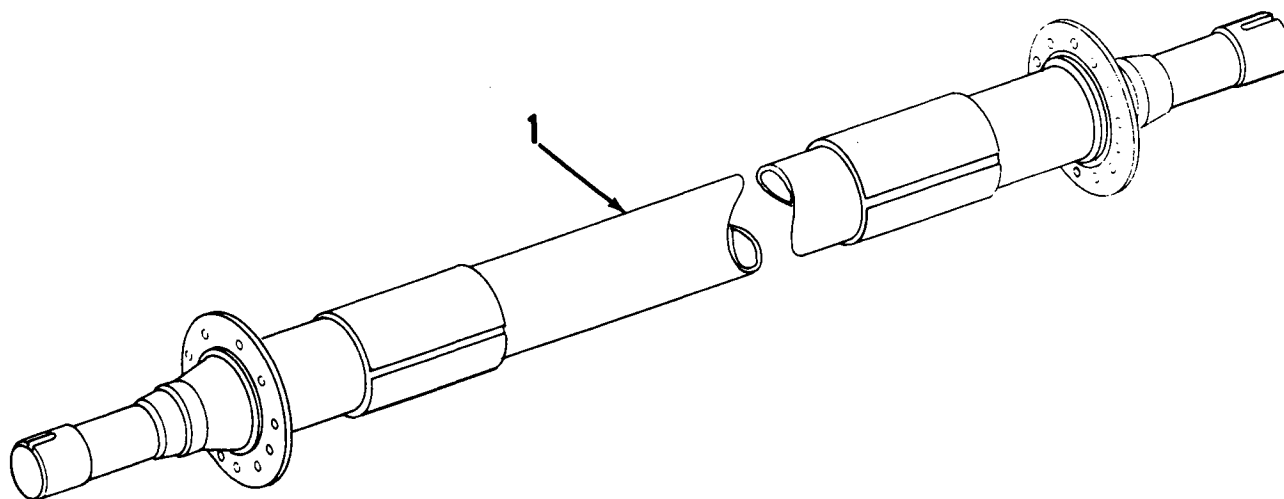


Figure 9. Rear Axle Assembly.

SECTION II			TM9-2330-363-14&P		
(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. 9 REAR AXLE ASSEMBLY	
1	PBFZZ	19207	11684320	AXLE,VEHICULAR,NOND.....	2
				END OF FIGURE	

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 12 BRAKES					
GROUP 1202 SERVICE BRAKES					
FIG. 10 BRAKE SHOE AND RELATED PARTS					
1	PAOZZ	19207	8733894	BRAKE SHOE FRONT LEFT.....	2
1	PAOFZ	19207	8733895	BRAKE SHOE FRONT RIGHT.....	2
2	PAOZF	19207	8733903	BRAKE SHOE REAR LEFT.....	2
2	PAOZF	19207	8733904	BRAKE SHOE REAR RIGHT.....	2
3	PAOZZ	19207	8733938	.PIN,SERVICE BRAKE.....	2
4	PAOZZ	19207	8733937	.WASHER,SLOTTED.....	1
5	PAOZZ	19207	8733936	.WASHER,FLAT.....	1
6	PAOZZ	19207	8733935	.WASHER,SPRING TENS.....	1
7	PAOZZ	19207	8733926	.CONNECTING LINK,RIG LEFT HAND,U/O	2
				NHA 8733894.....	
7	PAOZZ	19207	8733927	.LINK EMERGENCY BRAK RIGHT HAND,U/O	2
				NHA 8733895.....	
8	PAOZZ	19207	8733911	.LEVER,LEFT HAND BRA U/O NHA	2
				8733903.....	
8	PAOZZ	19207	8733912	.LEVER,RIGHT HAND BR U/O NHA	2
				8733904.....	
9	PAOFF	19207	7064978	.BRAKE SHOE.....	1
10	PAFZZ	19207	8720517	..LINING,FRICTION.....	1
11	PAFZZ	96906	MS16536-175	..RIVET,TUBULAR.....	9
12	PBFZZ	63477	FE-19222	..BRAKE SHOE.....	1
13	PAOZZ	96906	MS35335-36	.WASHER,LOCK.....	2
14	PAOZZ	96906	MS51970-4	.NUT,PLAIN,HEXAGON.....	2
15	PAOZZ	96906	MS35308-364	.SCREW,CAP,HEXAGON H.....	2

END OF FIGURE

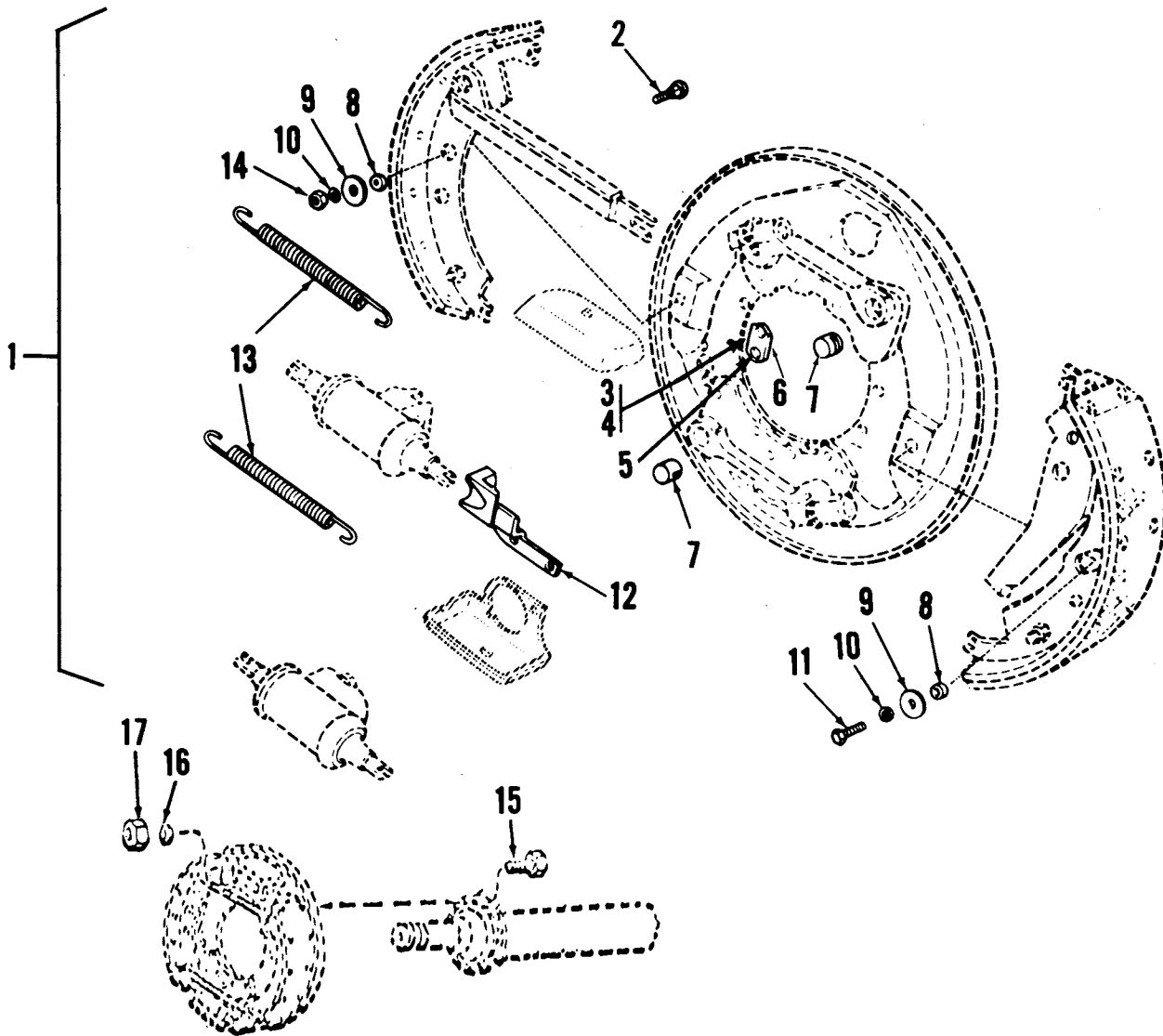


Figure 11. Service Brake Attaching Parts.

SECTION II			TM9-2330-363-14&P		
(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. 11 SERVICE BRAKE ATTACHING

PARTS

1	PBOZF	19207	8336702	BRAKE,SHOE TYPE RIGHT HAND.....	2
1	PBOZZ	19207	8336701	BRAKE,SHOE TYPE LEFT HAND.....	2
2	PAOZZ	19207	7411760	.BOLT,SQUARE NECK.....	1
3	PAOZZ	96906	MS51967-2	.NUT,PLAIN,HEXAGON.....	4
4	PAOZZ	96906	MS35338-44	.WASHER,LOCK.....	4
5	PAOZZ	19207	8733890	.BRACKET, LEFT HAND,U/O NHA 8336701	1
5	PAOZZ	19207	8733891	.BRACKET, RIGHT HAND,U/O NHA	1
				8336702.....	
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,U/O NHA	1
				8336701.....	
12	PAOZZ	21450	8733893	.RAMP,BRAKE CABLE RIGHT HAND,U/O	4
				NHA 8336702.....	
13	PAOZZ	19207	8720515	.SPRING,HELICAL,EXTE.....	2
14	PAOZZ	96906	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	96906	MS35335-35	WASHER,LOCK.....	48
17	PAOZZ	96906	MS51968-8	NUT,PLAIN,HEXAGON.....	48

END OF FIGURE

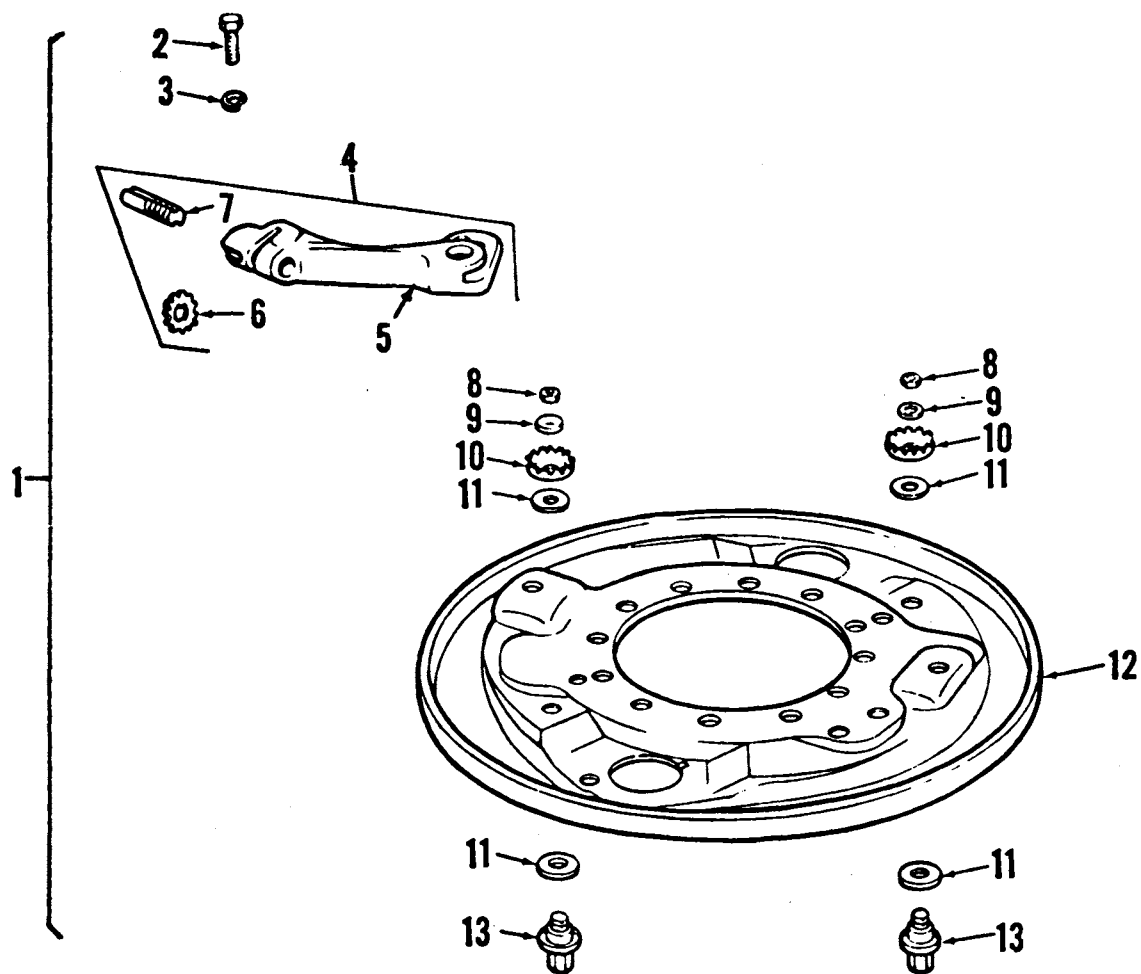


Figure 12. Backing Plate Assembly.

SECTION II			TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 1202 SERVICE BRAKES						
FIG. 12 BACKING PLATE ASSEMBLY						
1	PBOZZ	19207	8733901	PLATE,BACKING,BRAKE LEFT HAND,U/O NHA 8336701.....	2	
1	PBOZZ	19207	8733902	PLATE,BACKING,BRAKE RIGHT HAND,U/O NHA 8336702.....	2	
2	PAOZZ	96906	MS90727-57	.SCREW,CAP,HEXAGON H.....	4	
3	PAOZZ	96906	MS35335-35	.WASHER,LOCK.....	4	
4	PBOZO	19207	8733896	.SUPPORT AND ADJUSTE LEFT HAND,U/O NHA 8733901.....	2	
4	PBOZO	19207	8733897	.SUPPORT AND ADJUSTE RIGHT HAND,U/O NHA 8733902.....	2	
5	PAOZZ	19207	8733908	..SUPPORT ASSY LEFT HAND,U/O NHA 8733896.....	1	
5	PAOZZ	19207	8733909	..SUPPORT ASSY RIGHT HAND,U/O NHA 8733897.....	1	
6	PAOZZ	19207	8336704	..WHEEL,SLACK ADJUSTE.....	1	
7	PAOZZ	19207	8336705	..SCREW,BRAKE SHOE ADJUSTING,LEFT,U/O NHA 8733896.....	2	
7	PAOZZ	19207	8336789	..SCREW,BRAKE SHOE ADJUSTING,RIGHT,U/O NHA 8733897.....	2	
8	PAOZZ	96906	MS35691-13	.NUT,PLAIN,HEXAGON.....	2	
9	PAOZZ	96906	MS35333-41	.WASHER,LOCK.....	2	
10	PAOZZ	19207	7412104	.PINION,BRAKE SHOE A.....	2	
11	PAOZZ	19207	7412120	.WASHER,FLAT.....	4	
12	PBOZZ	78500	A1-3236M1261	.PLATE,BACKING,BRAKE LEFT HAND,U/O NHA 8733901.....	2	
12	PBOZZ	19207	8733933	.PLATE,BACKING,BRAKE RIGHT HAND,U/O NHA 8733902.....	2	
13	PAOZZ	19207	8720331	.SPRING AND BOLT ASS.....	2	

END OF FIGURE

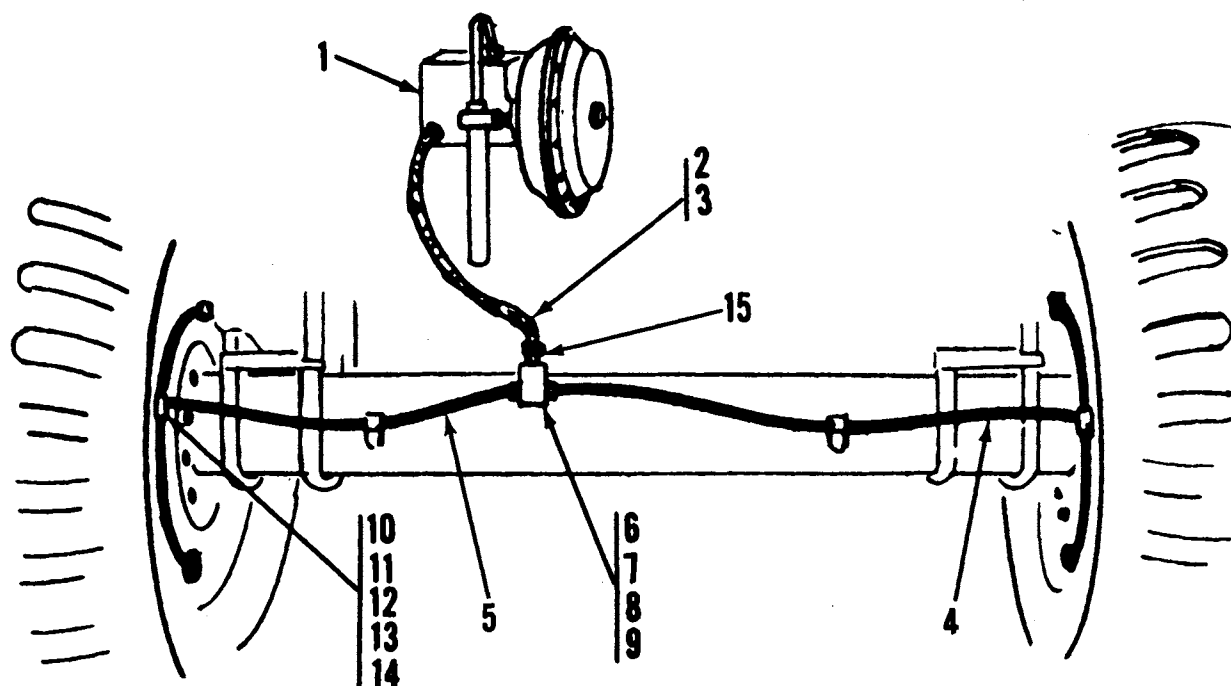


Figure 13. Hydraulic Brake System.

SECTION II			TM9-2330-363-14&P		
(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. 13 HYDRAULIC BRAKE SYSTEM

1	PAOZZ	93061	5156653	ADAPTER,STRAIGHT,TU CYLINDER.....	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.....	2
8	PAOZZ	96906	MS90726-62	SCREW,CAP,HEXAGON H.....	2
9	PAOZZ	19207	5167679	CONNECTOR,MULTIPLE,.....	2
10	PAOZZ	19207	7412079	BOLT,FLUID PASSAGE.....	4
				UOC:035,036	
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

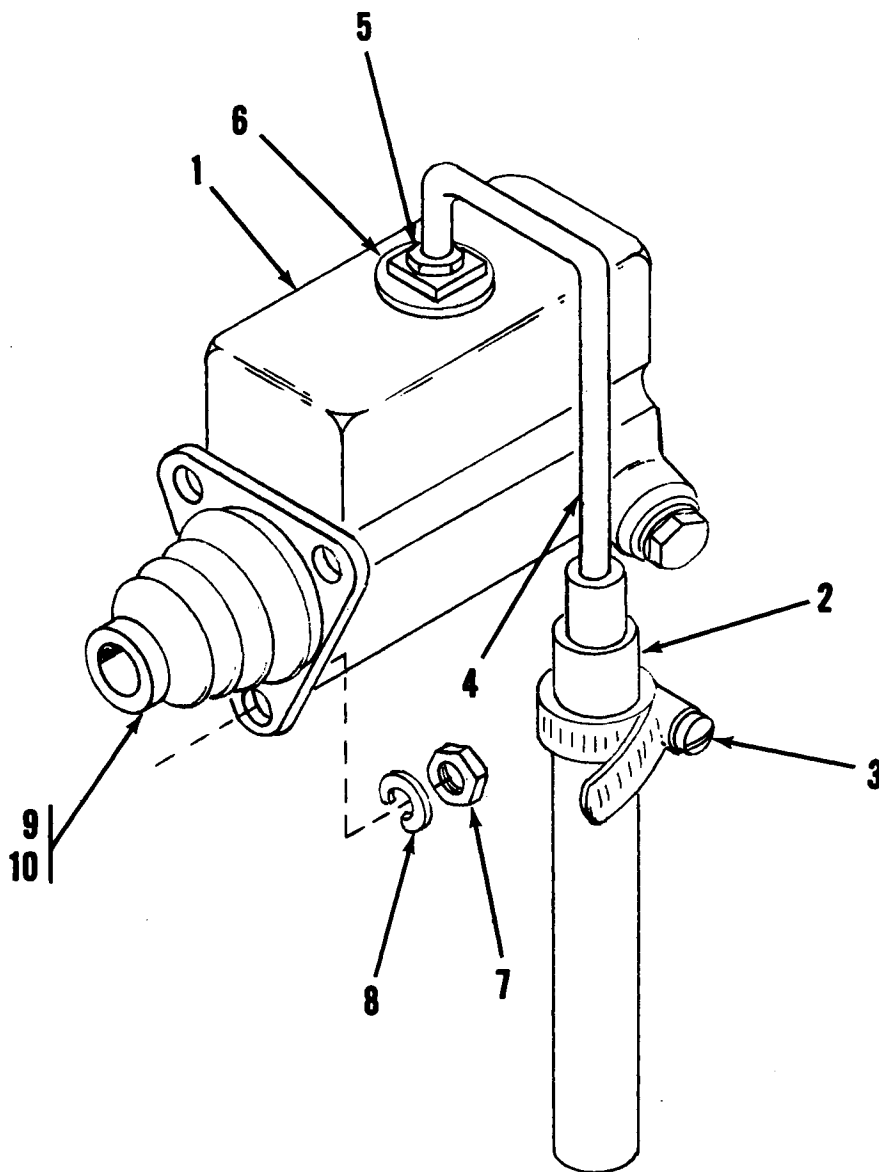


Figure 14. Hydraulic Master Cylinder.

SECTION II			TM9-2330-363-14&P		
(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. 14 HYDRAULIC MASTER CYLINDER					
1	PAOZZ	19207	8332086	CYLINDER ASSEMBLY, HYDRAULIC MASTER	2
2	PAOZZ	96906	MS521301A204120	HOSE, NONMETALLIC.....	2
3	PAOZZ	96906	MS35842-11	CLAMP, HOSE.....	2
4	PAOZZ	19207	8365426	TUBE ASSEMBLY, METAL.....	2
5	PAOZZ	63477	7979691	CAP, FILLER OPENING.....	2
6	PAOZZ	19207	7373354	SPACER, RING.....	2
7	PAOZZ	96906	MS51968-8	NUT, PLAIN, HEXAGON.....	6
8	PAOZZ	96906	MS35338-46	WASHER, LOCK.....	6
9	PAOZZ	23040	GQA167880	RING, RETAINING.....	2
10	PAOZZ	19207	7539308	BELLOWS, PROTECTION.....	2

END OF FIGURE

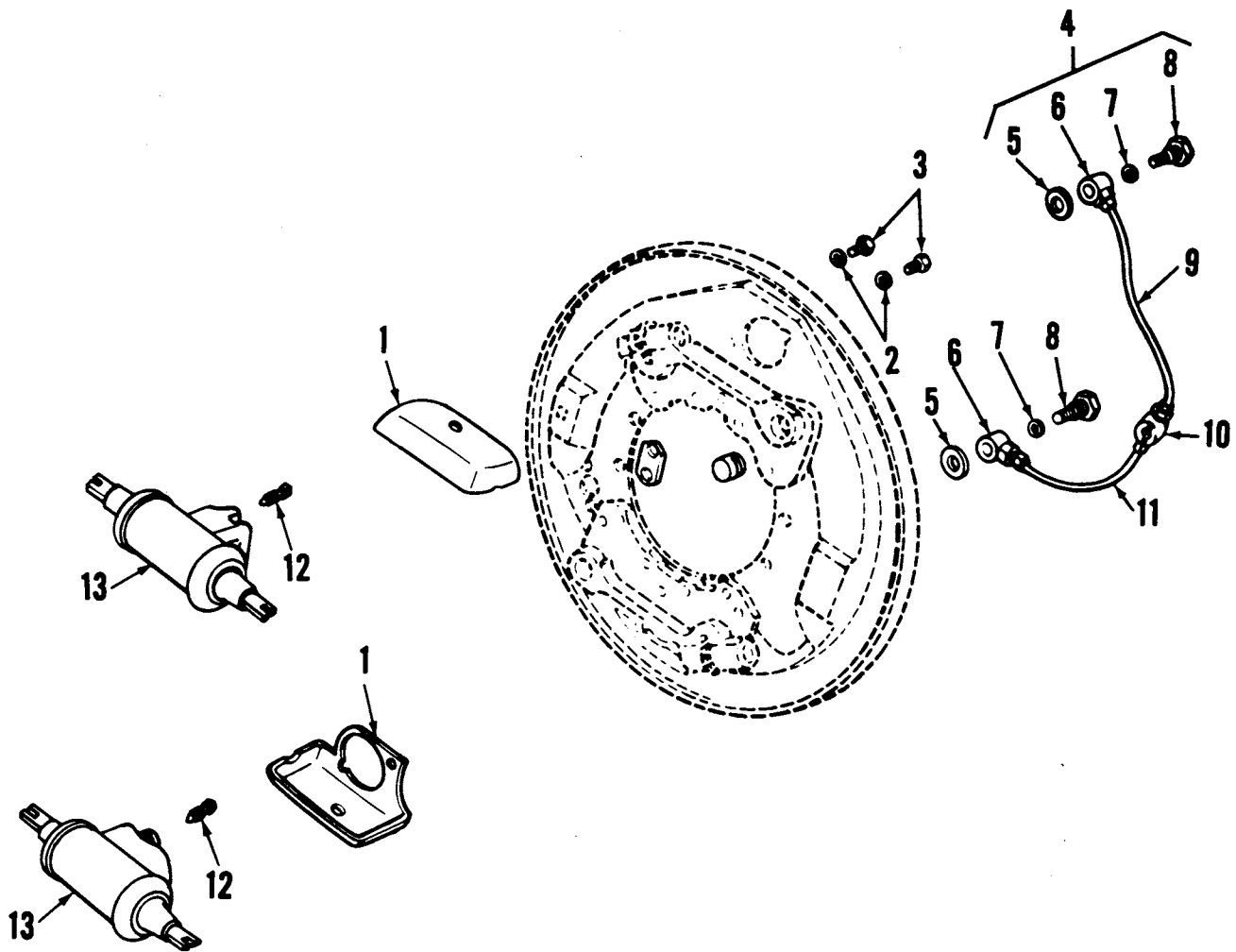


Figure 15. Wheel Cylinder and Hydraulic Tubes.

SECTION II			TM9-2330-363-14&P	(5)	(6)
(1)	(2)	(3)	(4)		
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
NO	CODE	FSCM	NUMBER		
GROUP 1204 HYDRAULIC BRAKE SYSTEM					
FIG. 15 WHEEL CYLINDER AND HYDRAULIC					
TUBES					
1	PAOZZ	19207	7412050	SHIELD BRAKE WHEEL CYLINDER,RH.....	4
1	PAOZZ	19207	7412068	SHIELD BRAKE WHEEL CYLINDER,LH.....	4
2	PAOZZ	96906	MS35338-45	WASHER,LOCK.....	16
3	PAOZZ	96906	MS90725-31	BOLT,MACHINE.....	16
4	PAOZO	19207	8733898	TUBE ASSEMBLY,METAL LEFT.....	4
4	PAOZO	19207	8733899	TUBE ASSEMBLY,METAL RIGHT.....	4
5	PAOZZ	19207	7412088	. WASHER,SHOULDERED A.....	2
6	PAOZZ	19207	7745464	. TEE,TUBE.....	2
7	PAOZZ	19207	5298653	. SPACER,RING.....	2
8	PAOZZ	19207	7412079	. BOLT,FLUID PASSAGE.....	2
UOC:035,036					
9	PAOZZ	19207	8733920	. TUBE ASSEMBLY,METAL LEFT,U/O NHA	1
8733898.....					
9	PAOZZ	19207	8733916	. TUBE ASSEMBLY,METAL RIGHT,U/O NHA	1
8733899.....					
10	PAOZZ	19207	7411903	. CROSS,TUBE.....	1
11	PAOZZ	19207	8733922	. TUBE ASSEMBLY,METAL LEFT,U/O NHA	1
8733898.....					
11	PAOZZ	19207	8733918	. TUBE ASSEMBLY,METAL RIGHT,U/O NHA	1
8733899.....					
12	PAOZZ	19207	7539268	BLEEDER VALVE,HYDRA.....	8
13	PAOZZ	19207	7412065	CYLINDER ASSEMBLY, HYDRAULIC,WHEEL.	8

END OF FIGURE

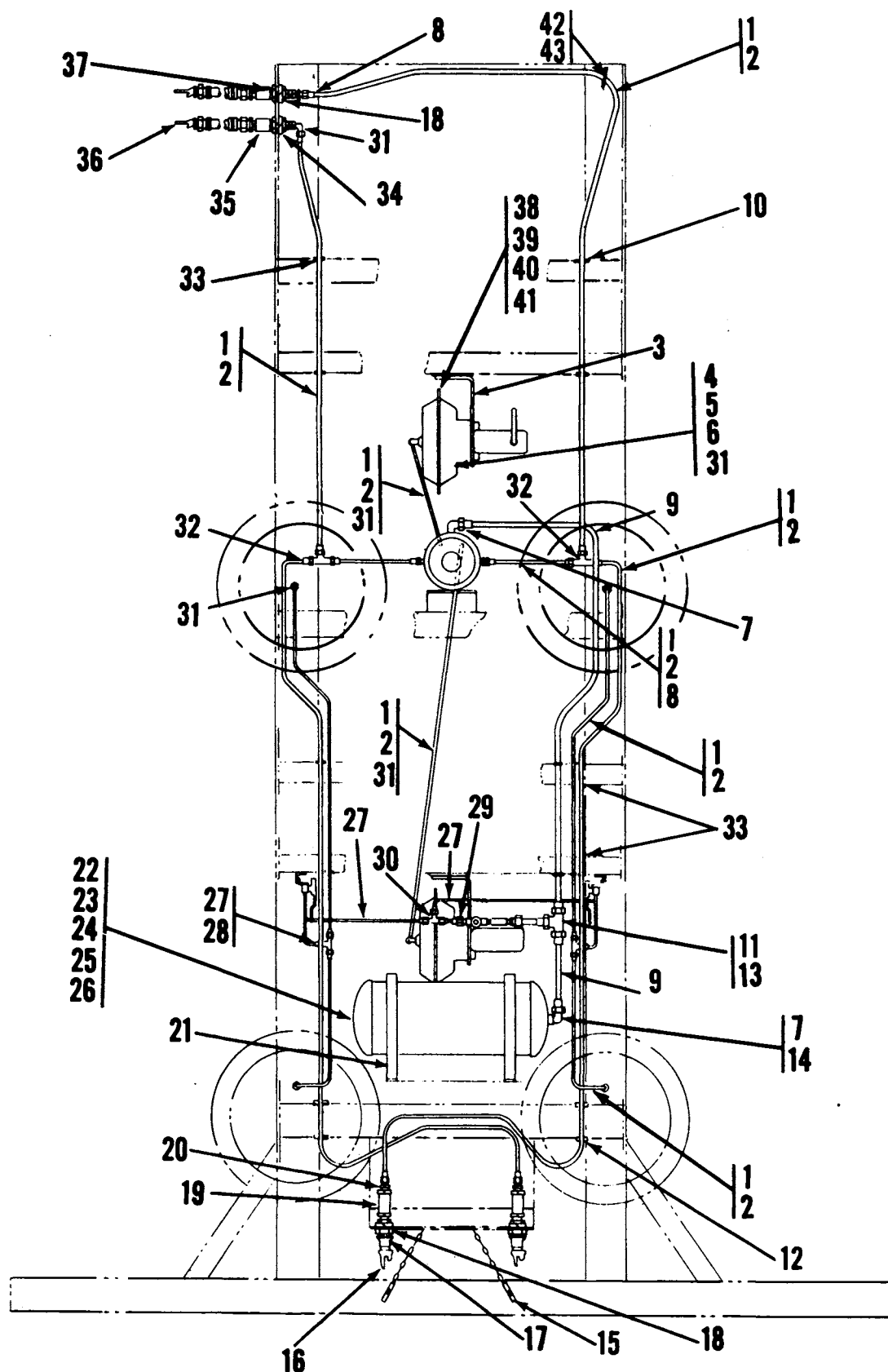


Figure 16. Brake and Air Suspension Air Lines.

SECTION II			TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 1208 AIR BRAKE SYSTEM						
FIG. 16 BRAKE AND AIR SUSPENSION AIR						
LINES						
1	PAOZZ	19207	CPR104420-2	HOSE, NONMETALLIC.....	40	
2	PAOZZ	19207	CPR102321-1	INSERT, TUBE FITTING.....	10	
3	PAOZZ	19207	8730456	BRACKET, MOUNTING,.....	2	
4	PAOZZ	19207	11668361	CHAMBER, AIR BRAKE.....	2	
5	PAOZZ	96906	MS51968-20	NUT, PLAIN, HEXAGON.....	4	
6	PAOZZ	80045	23MS35338-50	WASHER, LOCK.....	4	
7	PAOZZ	96906	MS39182-6	ELBOW, PIPE TO TUBE.....	2	
8	PAOZZ	96906	MS39179-5	ADAPTER, STRAIGHT, PI.....	3	
9	PAOZZ	19207	CPR104420-3	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.....	1	
13	PAOZZ	56442	1014M5	ADAPTER, STRAIGHT, PI.....	1	
14	PAOZZ	96906	MS35782-5	COCK, DRAIN.....	1	
15	PAOZZ	19207	7014965	DUMMY COUPLING, AUTO.....	2	
16	PAOZZ	96906	MS35746-1	COUPLING HALF, QUICK.....	2	
17	PAOZZ	96906	MS39231-4	ELBOW, PIPE.....	2	
18	PAOZZ	19207	5228623	NIPPLE, TANK.....	4	
19	PAOZZ	06853	285172	VALVE, BALL.....	2	
20	PAOZZ	96906	MS39179-7	ADAPTER, STRAIGHT, PI.....	2	
21	PAOZZ	19207	7411080	STRAP, RETAINING UPPER.....	2	
21	PAOZZ	19207	7411079	STRAP, RETAINING LOWER.....	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	MS90726-60	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.....	6	
32	PAOZZ	96906	MS39188-2	TEE, TUBE.....	2	
33	PAOZZ	96906	MS35489-105	GROMMET, NONMETALLIC.....	6	
34	PAOZZ	96906	MS53007-2	PLATE, IDENTIFICATIO EMERGENCY	2	
				DESIGNATION.....		
35	PAOZZ	96906	MS39233-4	COUPLING, PIPE.....	2	
36	PAOZZ	19207	8747263	HOSE ASSEMBLY, NONME.....	2	
37	PAOZZ	96906	MS53007-1	PLATE, IDENTIFICATIO SERVICE	2	
				DESIGNATION.....		
38	PAOZZ	19207	8742616	CYLINDER ASSEMBLY, H.....	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

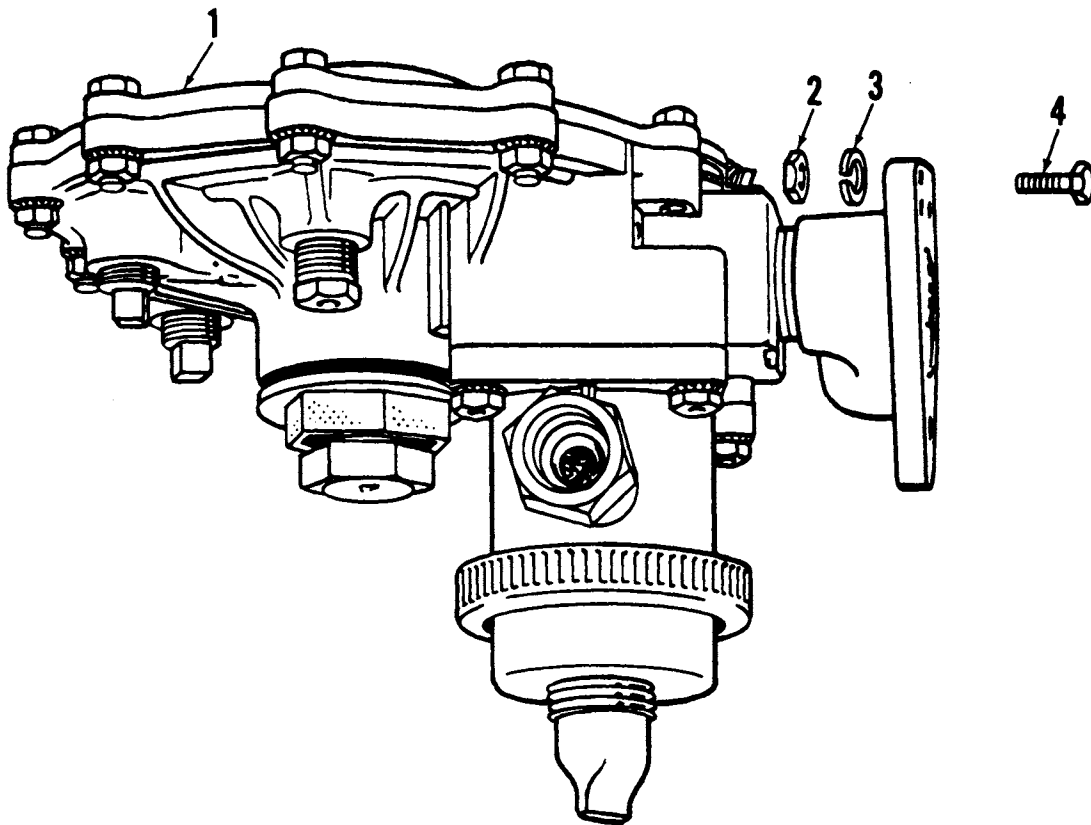


Figure 17. Relay Valve.

TA 355647

SECTION II			TM9-2330-363-14&P		
(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. 17 RELAY VALVE

1	PAOZZ	96906	MS53004-2	PARTS KIT,MECHANICA.....	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

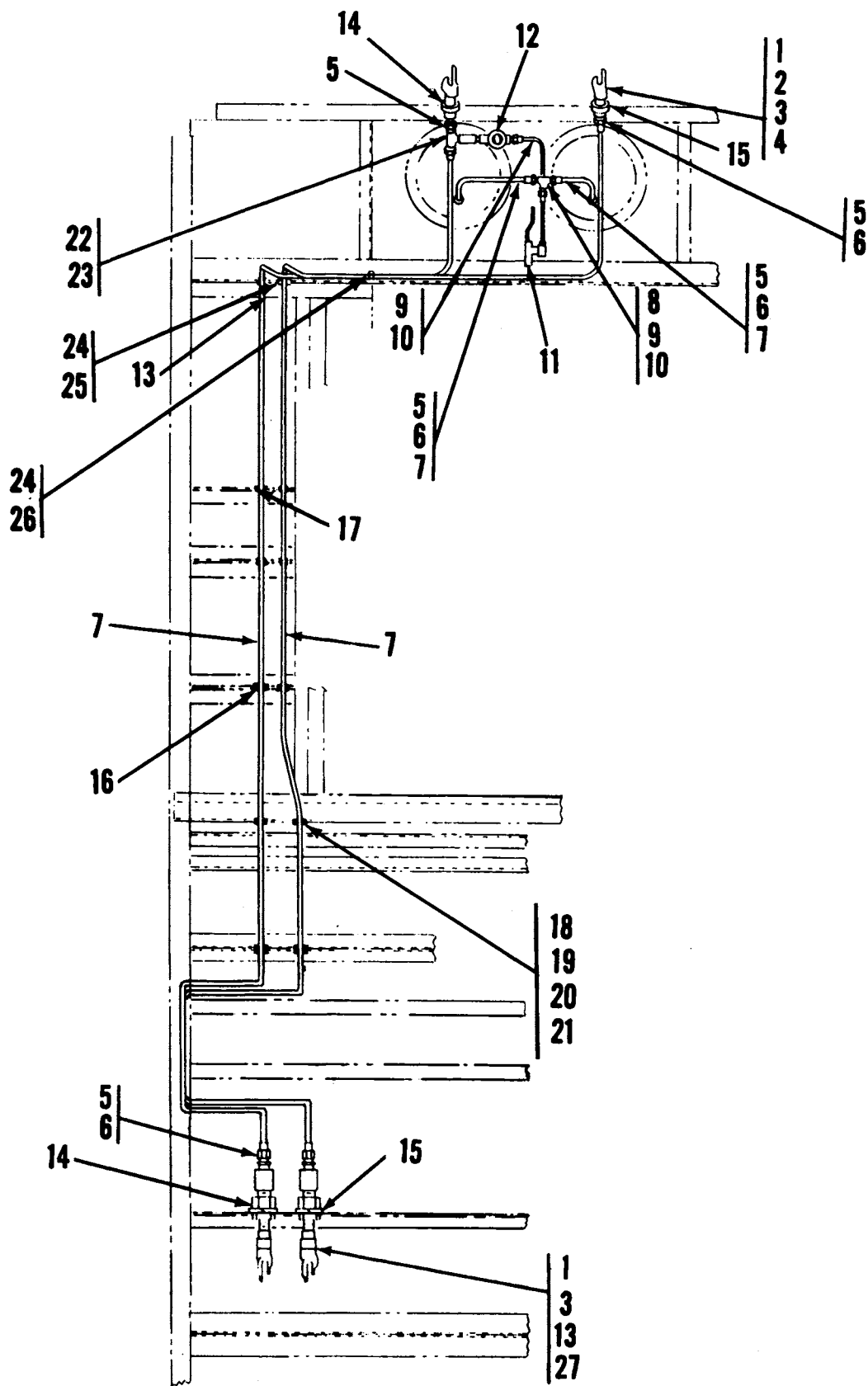


Figure 18. Air Mounted Kingpin Air Lines.

SECTION II			TM9-2330-363-14&P		(5)	(6)		
(1)	(2)	(3)	(4)					
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY				
NO	CODE	FSCM	NUMBER					
GROUP 1208 AIR BRAKE SYSTEM								
FIG. 18 AIR MOUNTED KINGPIN AIR								
LINES								
1	PAOZZ	96906	MS35746-1	COUPLING HALF, QUICK.....		4		
2	PAOZZ	19207	10891417	WASHER, BEVEL.....		4		
3	PAOZZ	19207	5228623	NIPPLE, TANK.....		4		
4	PAOZZ	19207	7014965	DUMMY COUPLING, AUTO.....		4		
5	PAOZZ	96906	MS39179-5	ADAPTER, STRAIGHT, PI.....		6		
6	PAOZZ	19207	CPR102321-1	INSERT, TUBE FITTING.....		8		
7	PAOZZ	19207	CPR104420-2	HOSE, NONMETALLIC.....		65		
8	PAOZZ	06853	225760	TEE, TUBE.....		1		
9	PAOZZ	96906	MS39179-2	ADAPTER, STRAIGHT, PI.....		2		
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	MS53007-2	PLATE, IDENTIFICATIO EMERGENCY		2		
				DESIGNATION.....				
15	PAOZZ	96906	MS53007-1	PLATE, IDENTIFICATIO SERVICE		2		
				DESIGNATION.....				
16	PAOZZ	19207	10906798	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	M39231-4	ELBOW, PIPE.....		2		

END OF FIGURE

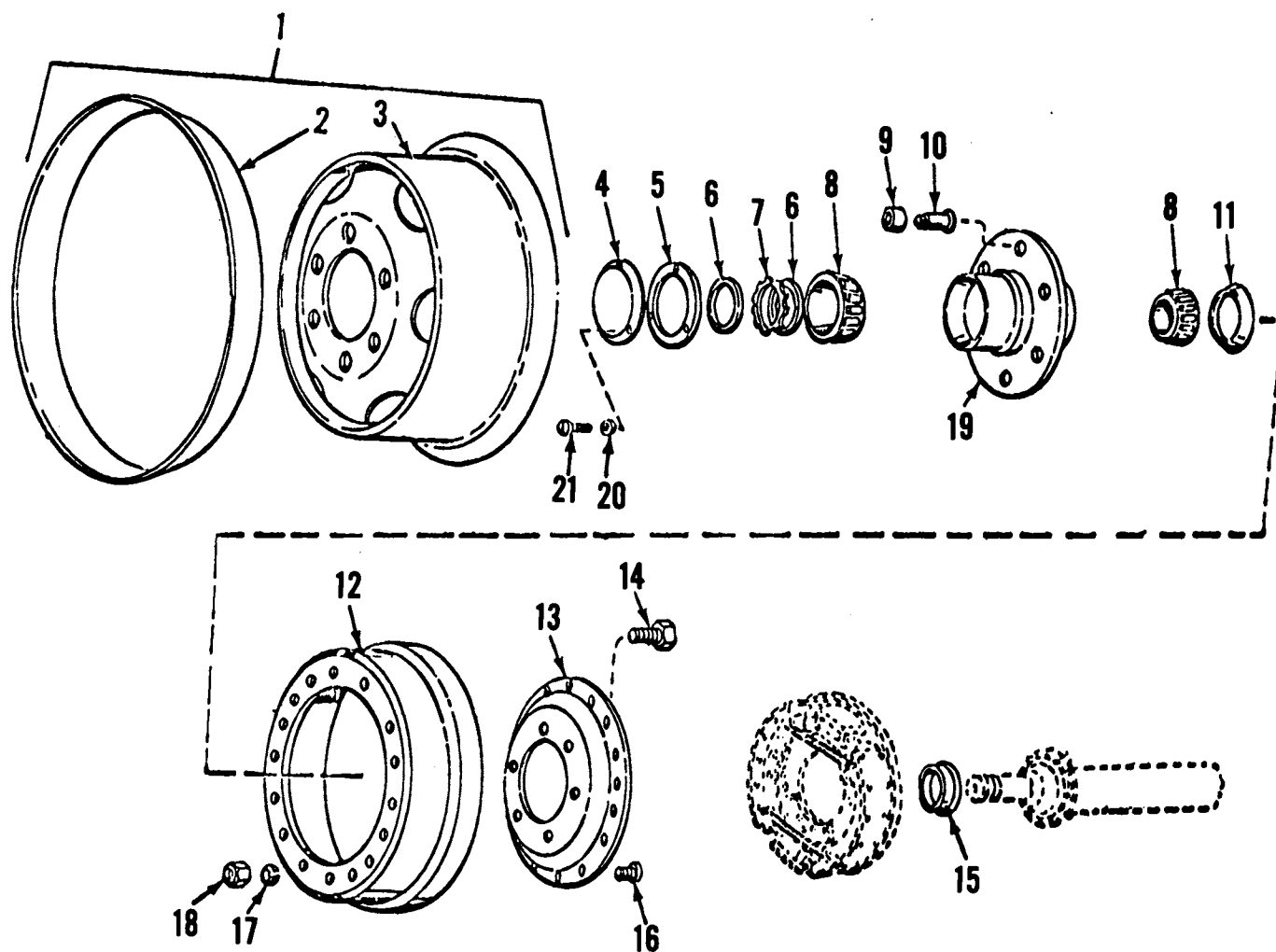


Figure 19. Wheel and Hub Assembly.

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)		(6)
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 13 WHEELS						
GROUP 1311 WHEEL ASSEMBLY						
FIG. 19 WHEEL AND HUB ASSEMBLY						
1	A000Z	96906	MS53044-5	WHEEL,PNEUMATIC TIR WITH RING.....	8	
2	PA0ZZ	96906	MS53045-3	.RING,SIDE, AUTOMOTIVE.....	1	
3	PA0ZZ	09386	86589008	.WHEEL,PNEUMATIC TIR.....	1	
4	PA0ZZ	19204	6144454	CAP.....	4	
5	PA0ZZ	19207	6144356	GASKET HUB CAP.....	4	
6	PA0ZZ	19207	7411379	NUT,PLAIN,OCTAGON.....	8	
7	PA0ZZ	19207	7411378	WASHER,KEY.....	4	
8	PA0ZZ	96906	MS19081-112	BEARING,ROLLER, TAPERED,WITH CUP...	8	
9	PA0ZZ	96906	MS51983-3	NUT,PLAIN,SINGLE BALL SEAT,LEFT	12	
				HAND.....		
9	PA0ZZ	21450	537805	NUT,PLAIN,CAP BALL SEAT,RIGHT HAND.	12	
10	PA0ZZ	96906	MS53068-1	NUT,CAP,DUAL WHEEL LEFT HAND.....	12	
10	PA0ZZ	96906	MS53068-2	NUT,CAP,DUAL WHEEL RIGHT HAND.....	12	
11	PA0ZZ	19207	7411429	SEAL,PLAIN ENCASED.....	4	
12	PA0FZ	19207	7411425	BRAKE DRUM.....	4	
13	PA0ZZ	19207	7413231	BACK FRONT BRAKE DR.....	4	
14	PA0ZZ	96906	MS51946-1	BOLT,RIBBED SHOULDER,LEFT HAND.....	12	
14	PA0ZZ	96906	MS51946-2	BOLT,RIBBED SHOULDER,RIGHT HAND....	12	
15	PA0ZZ	19207	7411433	SPACER,SLEEVE.....	4	
16	PA0ZZ	18876	8720025	BOLT,RIBBED NECK.....	72	
17	PA0ZZ	96906	MS27183-14	WASHER,FLAT.....	72	
18	PA0ZZ	96906	MS21045-6	NUT,SELF-LOCKING,HE.....	72	
19	PA0ZZ	19207	7263712	HUB,BODY.....	4	
20	PA0ZZ	96906	MS35338-44	WASHER,LOCK.....	12	
21	PA0ZZ	96906	MS35206-279	SCREW,MACHINE.....	12	

END OF FIGURE

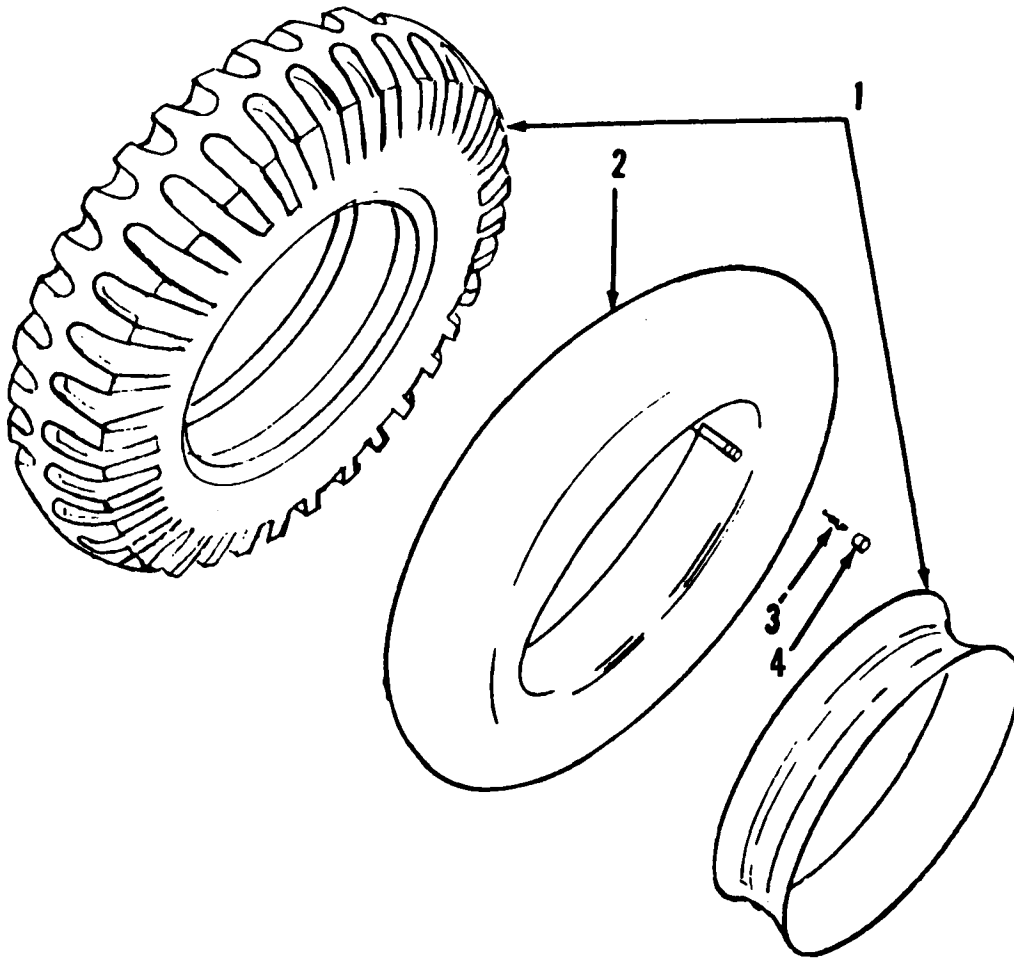


Figure 20. Tire and Tube.

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY

GROUP 1313 TIRE AND TUBE

FIG. 20 TIRE AND TUBE

1	PAOFF	81348	ZZ-T-381M/GROUP 3/9.00-20/D/TBCC	TIRE,PNEUMATIC.....	8
2	PAOZZ	81348	ZZ-I-550/900-20/ TR175A/ONCTR	INNER TUBE,PNEUMATI.....	8
3	PAOZZ	96906	MS51377-1	VALVE CORE.....	8
4	PAOZZ	96906	MS51375-1	CAP,PNEUMATIC VALVE.....	8

END OF FIGURE

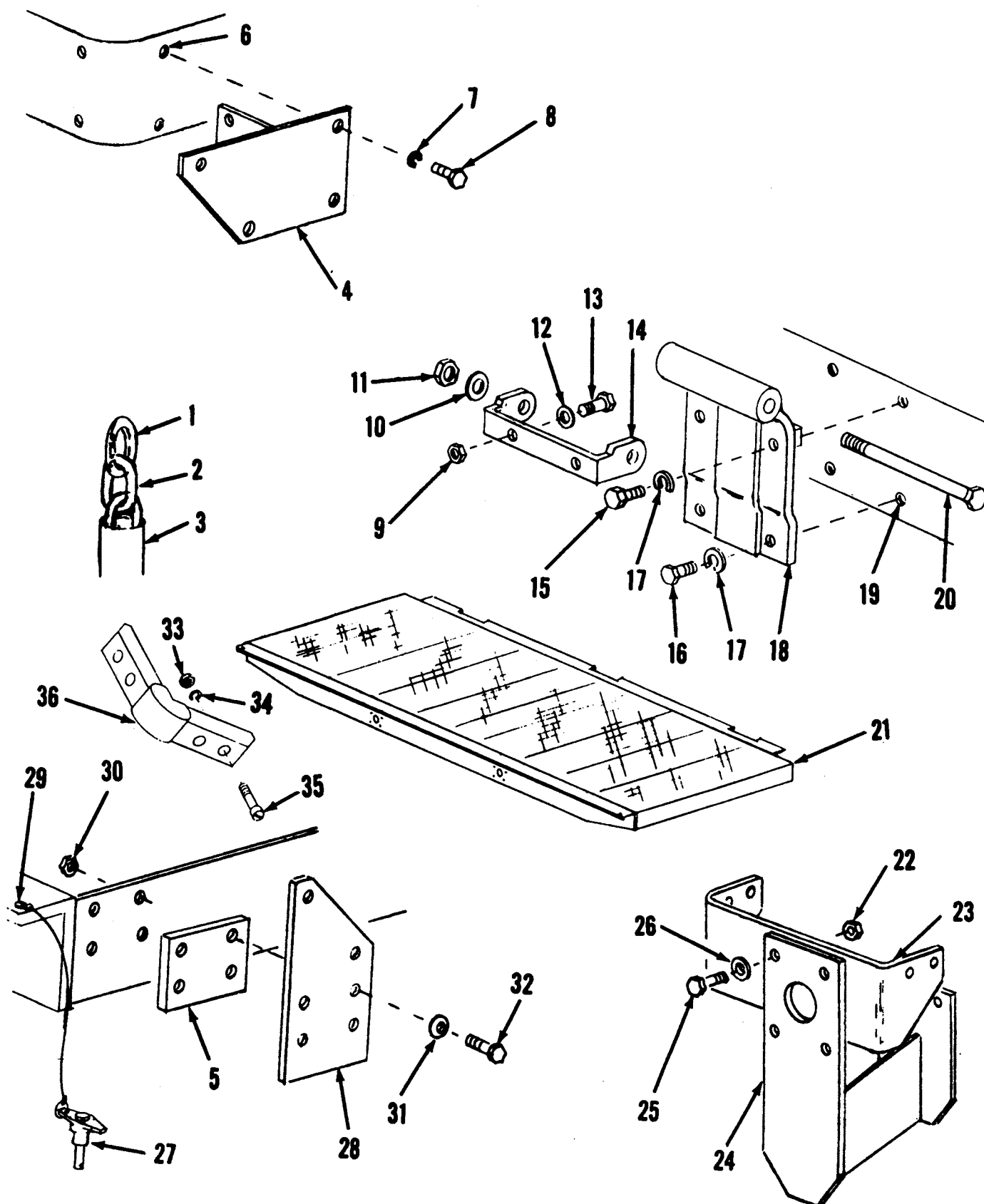


Figure 21. Rear Platform.

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY

GROUP 15 FRAME AND TOWING

ATTACHMENTS

GROUP 1501 REAR PLATFORM

FIG. 21 REAR PLATFORM

1	PAOZZ	81348	RR-C-271,TYPE II	LINK,CHAIN.....	4
			,SIZE .25		
2	MFFZZ	19207	12353858-1	CHAIN FABRICATE FROM P/N 12353858..	2
3	PAOZZ	81349	M23053/1-107-0	INSULATION SLEEVING.....	2
4	PBOZZ	19207	12315715-1	BRACKET ASSEMBLY,RH.....	1
4	PBOZZ	19207	12315715-2	BRACKET,ASSEMBLY,LH.....	1
5	PBOZZ	19207	12315345	SPACER,PLATE.....	2
6	PAOZZ	96906	MS27130-S34	NUT,PLAIN,BLIND RIV.....	8
7	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	8
8	PAOZZ	96906	MS90725-8	SCREW,CAP,HEXAGON H.....	8
9	PAOZZ	96906	MS51922-9	NUT,SELF-LOCKING,HE.....	6
10	PAOZZ	96906	MS27183-18	WASHER,FLAT.....	6
11	PAOZZ	96906	MS51922-33	NUT,SELF-LOCKING,HE.....	3
12	PAOZZ	96906	MS27183-12	WASHER,FLAT.....	6
13	PAOZZ	96906	MS90725-36	SCREW,CAP,HEXAGON H.....	6
14	PAOZZ	19207	11684622	HINGE,REAR PLATFORM.....	3
15	PAOZZ	96906	MS90728-12	SCREW,CAP,HEXAGON H.....	6
16	PAOZZ	96906	MS90725-8	SCREW,CAP,HEXAGON H.....	6
17	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	12
18	PAOZZ	19207	11684614	HINGE ASSEMBLY,REAR HINGE.....	3
19	PAOZZ	96906	MS27130-S32	NUT,PLAIN,BLIND RIV.....	12
20	PAOZZ	96906	MS90725-128	SCREW,CAP,HEXAGON H.....	3
21	XDOZZ	19207	11684611	PLATFORM ASSEMBLY.....	1
22	PAOZZ	96906	MS51922-1	NUT,SELF-LOCKING,HE.....	8
23	PBOZZ	19207	12315541	SPACER.....	2
24	PBOZZ	19207	12307881	BRACKET ASSEMBLY,MO.....	2
25	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....	8
26	PAOZZ	96906	MS27183-10	WASHER,FLAT.....	8
27	PAOZZ	96906	MS17985-615	PIN,QUICK RELEASE.....	2
28	XBOZZ	19207	11684612	PLATE,ATTACHING LOWER.....	2
29	PAOZZ	96906	MS51861-37	SCREW,TAPPING, THREAD FORMING.....	2
30	PAOZZ	96906	MS51922-1	NUT,SELF-LOCKING,HE.....	12
31	PAOZZ	96906	MS27183-10	WASHER,FLAT.....	12
32	PAOZZ	96906	MS90725-8	SCREW,CAP,HEXAGON H.....	12
33	PAOZZ	96906	MS35649-202	NUT,PLAIN,HEXAGON.....	8
34	PAOZZ	96906	MS27183-42	WASHER,FLAT.....	8
35	PAOZZ	96906	MS35206-266	SCREW,MACHINE.....	8
36	PAOZZ	70485	307W	BUMPER,RUBBER.....	2

END OF FIGURE

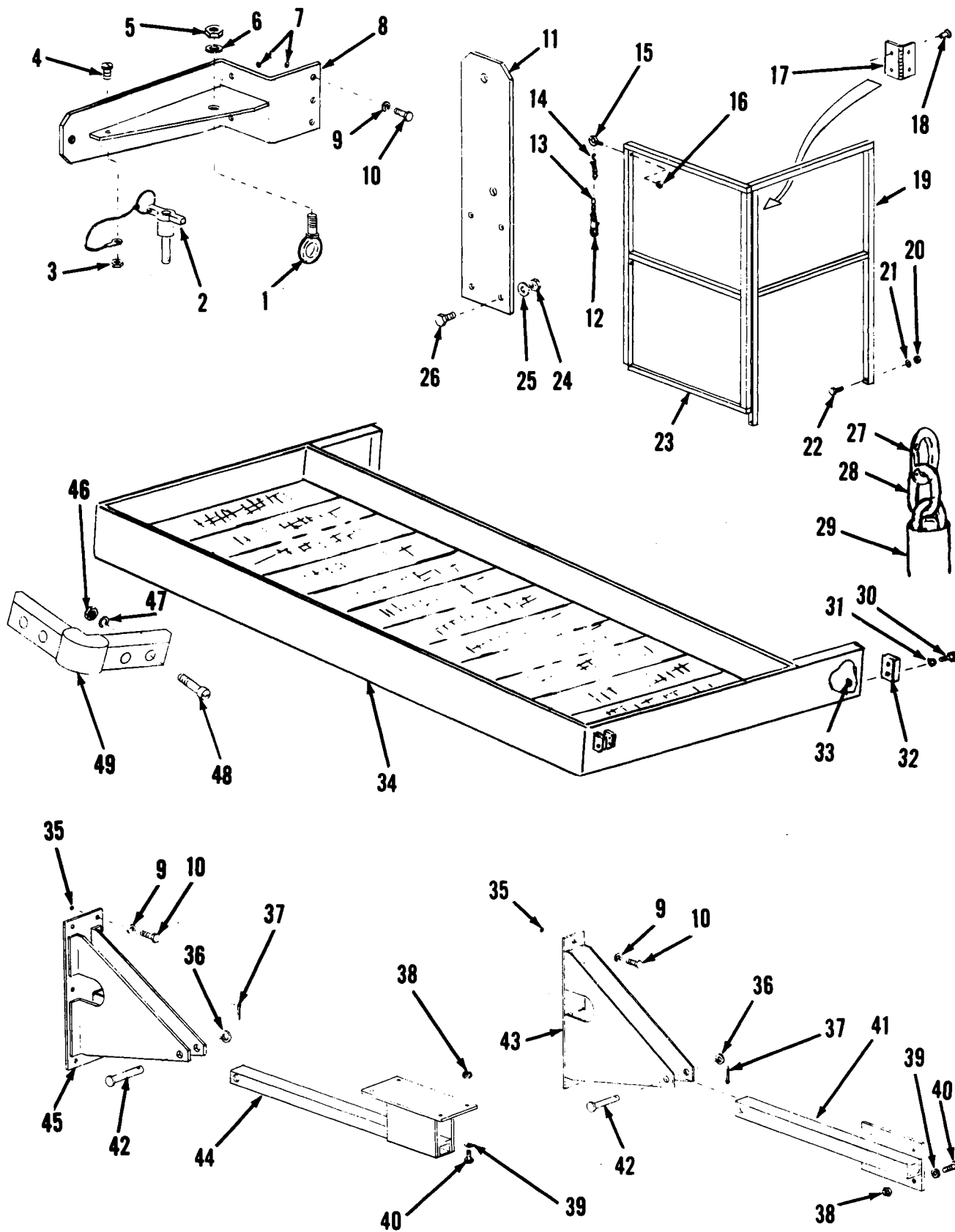


Figure 22. Front Platform.

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC) QTY		
GROUP 1501 FRONT PLATFORM						
FIG. 22 FRONT PLATFORM						
1	PAOZZ	96906	MS51937-3	BOLT,EYE.....	4	
				UOC:035,036,063,064		
2	PAOZZ	96906	MS17985-615	PIN,QUICK RELEASE.....	4	
				UOC:035,036,063,064		
3	PAOZZ	96906	MS35649-262	NUT,PLAIN,HEXAGON.....	4	
				UOC:035,036,063,064		
4	PAOZZ	96906	MS35206-232	SCREW,MACHINE.....	4	
				UOC:035,036,063,064		
5	PAOZZ	96906	MS51967-8	NUT,PLAIN,HEXAGON.....	4	
				UOC:035,036,063,064		
6	PAOZZ	96906	MS27183-13	WASHER,FLAT.....	14	
				UOC:035,036,063,064		
7	PAOZZ	96906	MS27130-S33	NUT,PLAIN,BLIND RIV.....	12	
				UOC:035,036,063,064		
8	PBOZZ	19207	11684628-1	BRACKET ASSEMBLY,UP RIGHT HAND.....	1	
				UOC:035,036,063,064		
8	PBOZZ	19207	11684628-2	BRACKET ASSEMBLY,UP LEFT HAND.....	1	
				UOC:035,036,063,064		
9	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	24	
				UOC:035,036,063,064		
10	PAOZZ	96906	MS90725-8	SCREW,CAP,HEXAGON H.....	24	
				UOC:035,036,063,064		
11	XBOZZ	19207	11684627	PLATE RIGHT HAND.....	2	
				UOC:035,036,063,064		
12	PAOZZ	81349	MIL-H-15021 TYPE II	SNAP HOOK.....	2	
				UOC:035,036,063,064		
13	MFFZZ	19207	12353859-1	CHAIN FABRICATE FROM P/N 12353859..	2	
				UOC:035,036,063,064		
14	PAOZZ	96906	MS87006-63	HOOK,CHAIN,S.....	4	
				UOC:035,036,063,064		
15	PAOZZ	14557	8413	BOLT,EYE.....	4	
				UOC:035,036,063,064		
16	PAOZZ	96906	MS51967-8	NUT,PLAIN,HEXAGON.....	4	
				UOC:035,036,063,064		
17	PAOZZ	40670	5955957	HINGE,BUTT.....	4	
				UOC:035,036,063,064		
18	PAOZZ	19207	11684632	FASTNER,BLIND.....	16	
				UOC:035,036,063,064		
19	PBOZZ	19207	11684629	GUARD RAIL ASSEMBLY SIDE.....	2	
				UOC:035,036,063,064		
20	PAOZZ	96906	MS51922-1	NUT,SELF-LOCKING,HE.....	4	
				UOC:035,036,063,064		
21	PAOZZ	96906	MS27183-9	WASHER,FLAT.....	16	
				UOC:035,036,063,064		
22	PAOZZ	96906	MS90728-14	SCREW,CAP,HEXAGON H.....	4	
				UOC:035,036,063,064		
23	PBOZZ	19207	11684630	GUARD RAIL ASSEMBLY FRONT.....	2	
				UOC:035,036,063,064		

SECTION II		TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
24	PAOZZ	96906	MS51922-1	NUT,SELF-LOCKING,HE..... UOC:035,036,063,064	8
25	PAOZZ	96906	MS27183-9	WASHER,FLAT..... UOC:035,036,063,064	8
26	PAOZZ	96906	MS90725-8	SCREW,CAP,HEXAGON H..... UOC:035,036,063,064	8
27	PAOZZ	81348	RR-C-271,TYPE II	LINK,CHAIN..... UOC:035,036,063,064	4
28	MFFZZ	19207	12353858-2	CHAIN FABRICATE FROM P/N 12353858.. UOC:035,036,063,064	2
29	PAOZZ	81349	M23053/1-107-0	INSULATION SLEEVING..... UOC:035,036,063,064	2
30	PAOZZ	96906	MS35206-265	SCREW,MACHINE..... UOC:035,036,063,064	8
31	PAOZZ	96906	MS27183-41	WASHER,FLAT..... UOC:035,036,063,064	8
32	PAOZZ	19207	11684617	BUMPER,RUBBER..... UOC:035,036,063,064	4
33	PAOZZ	96906	MS17830-3C	NUT,SELF-LOCKING,HE..... UOC:035,036,063,064	8
34	XDOZZ	19207	11684619	PLATFORM ASSEMBLY..... UOC:035,036,063,064	1
35	PAOZZ	96906	MS27130-S33	NUT,PLAIN,BLIND RIV..... UOC:035,036,063,064	12
36	PAOZZ	96906	MS27183-17	WASHER,FLAT..... UOC:035,036,063,064	15
37	PAOZZ	96906	MS24665-353	PIN,COTTER..... UOC:035,036,063,064	2
38	PAOZZ	96906	MS51922-1	NUT,SELF-LOCKING,HE..... UOC:035,036,063,064	12
39	PAOZZ	96906	MS27183-9	WASHER,FLAT..... UOC:035,036,063,064	12
40	PAOZZ	96906	MS90725-8	SCREW,CAP,HEXAGON H..... UOC:035,036,063,064	12
41	PBOZZ	19207	11684626	PIVOT ARM ASSEMBLY SIDE..... UOC:035,036,063,064	2
42	PAOZZ	96906	MS20392-5C67	PIN,STRAIGHT,HEADED..... UOC:035,036,063,064	2
43	PBOZZ	19207	11684624	BRACKET ASSEMBLY,PI..... UOC:035,036,063,064	2
44	PBOZZ	19207	11684625	PIVOT ARM ASSEMBLY CENTER..... UOC:035,036,063,064	1
45	PBOZZ	19207	11684623	BRACKET ASSEMBLY..... UOC:035,036,063,064	1
46	PAOZZ	96906	MS35649-202	NUT,PLAIN,HEXAGON..... UOC:035,036,063,064	8
47	PAOZZ	96906	MS27183-41	WASHER,FLAT..... UOC:035,036,063,064	8
48	PAOZZ	96906	MS35206-267	SCREW,MACHINE..... UOC:035,036,063,064	8
49	PAOZZ	70485	307W	BUMPER,RUBBER..... UOC:035,036,063,064	2

END OF FIGURE

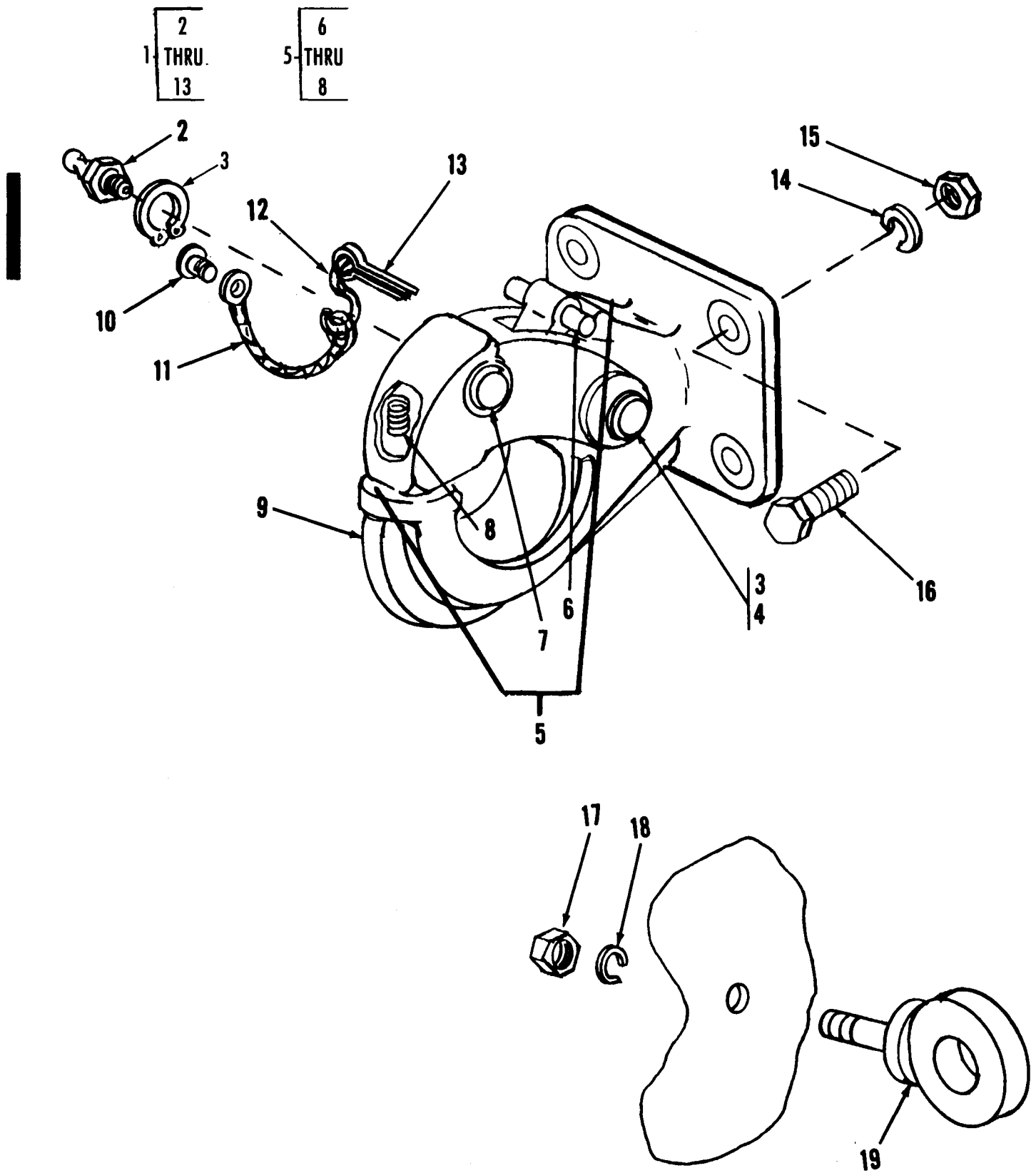


Figure 23. Pintle Assembly and Towing Attachments.

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 1503 PINTLE ASSEMBLY					
FIG. 23 PINTLE ASSEMBLY AND TOWING					
ATTACHMENTS					
1	PBOZZ	96906	MS51335-2	PINTLE ASSEMBLY,TOW.....	1
2	PAOZZ	96906	MS15001-1	.FITTING,LUBRICATION.....	2
3	PAOZZ	96906	MS16624-1050	.RING,RETAINING.....	4
4	PAOZZ	19207	7524315	.PIN,GROOVED,HEADLES.....	1
5	PBOZZ	19207	8380197	. LOCK ASSEMBLY,PINTL.....	1
6	PBOZZ	19207	8380196	..LATCH,PINTLE HOOK.....	1
7	PAOZZ	19207	7524316	..PIN,GROOVED,HEADLES.....	1
8	PAOZZ	19207	7044253	..SPRING,HELICAL,COMP.....	1
9	PAOZZ	19207	7073213	.HOOK,PINTLE.....	1
10	PAOZZ	96906	MS21318-47	.SCREW,DRIVE.....	1
11	PAOZZ	80244	42C15120-205	.CHAIN,WELDLESS.....	1
12	PAOZZ	96906	MS87006-53	.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	MS90726-115	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

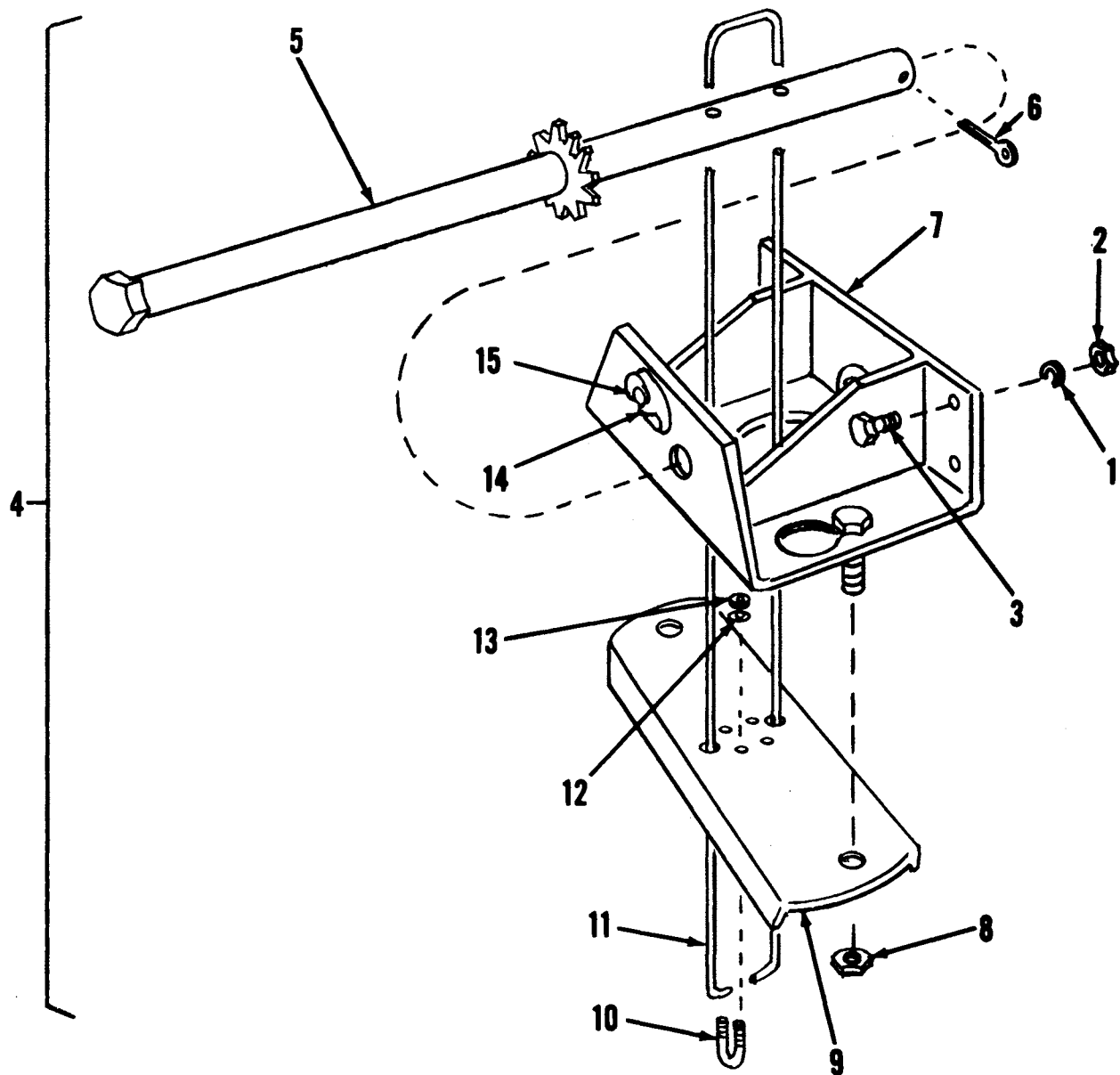


Figure 24. Spare Wheel Carrier.

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 1504 SPARE WHEEL CARRIER					
FIG. 24 SPARE WHEEL CARRIER					
1	PAOZZ	96906	MS35338-48	WASHER, LOCK.....	4
2	PAOZZ	96906	MS51967-14	NUT, PLAIN, HEXAGON.....	4
3	PAOZZ	96906	MS18154-113	SCREW, CAP, HEXAGON H.....	4
4	PBOZZ	19207	7521160	CARRIER.....	1
5	PBOZZ	19207	7521157	. RATCHET WHEEL.....	1
6	PAOZZ	96906	MS24665-495	. PIN, COTTER.....	1
7	PBOZZ	19207	7521163	. FRAME ASSEMBLY.....	1
8	PAOZZ	19207	7418892	. NUT, PLAIN, HEXAGON.....	2
9	PBOZZ	19207	7521161	. MEMBER.....	1
10	PAOZZ	19207	7739666	. BOLT, U.....	2
11	PAOZZ	19207	7521159	. ROPE, WIRE.....	1
12	PAOZZ	96906	MS35338-44	. WASHER, LOCK.....	4
13	PAOZZ	96906	MS51967-2	. NUT, PLAIN, HEXAGON.....	4
14	PAOZZ	19207	7521156	. HOOK, PINTLE.....	1
15	PAOZZ	19207	8327759	. RIVET, SOLID.....	1

END OF FIGURE

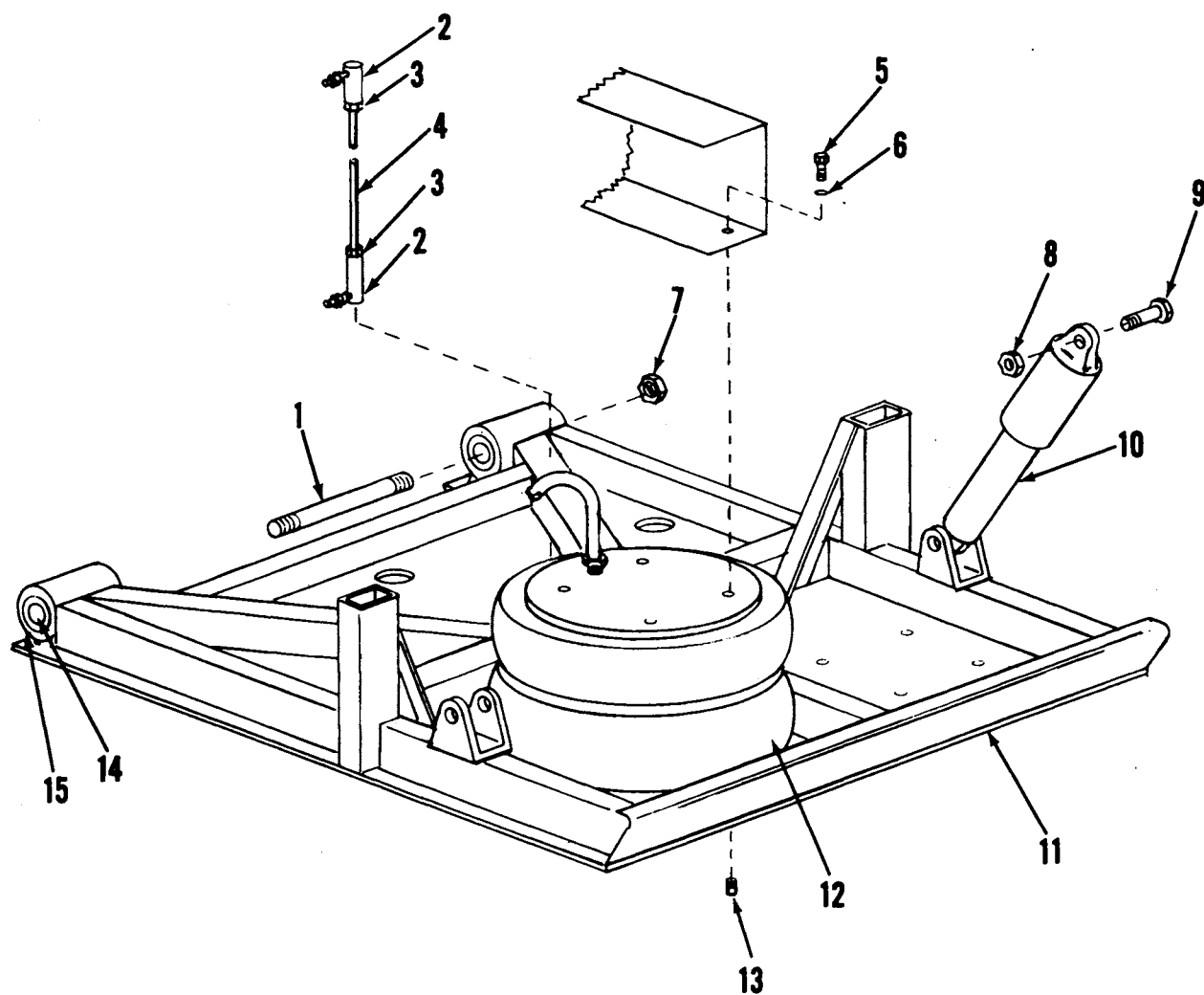


Figure 25. Air Mounted Fifth Wheel Kingpin Assembly.

TA 355855

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 1506 FIFTH WHEEL					
FIG. 25 AIR MOUNTED FIFTH WHEEL					
KINGPIN ASSEMBLY					
1	PAOZZ	40670	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	MS18154-60	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	19207	11684344	SHOCK ABSORBER,DIRE.....	2
11	XDOZZ	19207	11684362	PLATE ASSEMBLY FIFTH WHEEL.....	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	BUSHING,RUBBER.....	2

END OF FIGURE

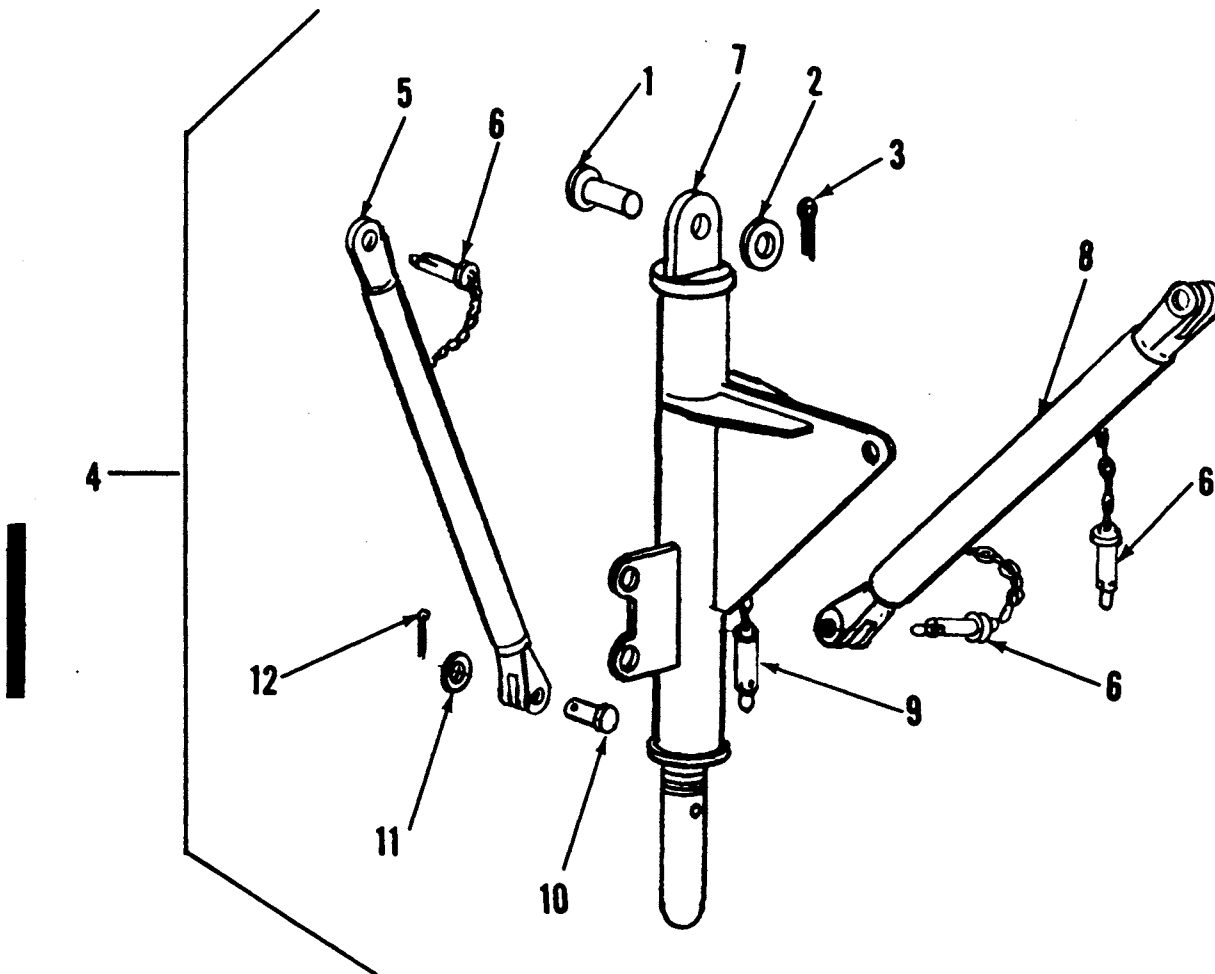


Figure 26. Leveling Jack.

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 1507 LEVELING JACK						
FIG. 26 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	1	
				SUPPORT,VEHICULAR,RH.....		
4	PBOZZ	19207	11684674-2	SUPPORT,RETRACTABLE	1	
				SUPPORT,VEHICULAR,LH.....		
5	PAOZZ	19207	11684675	.BRACE ASSEMBLY REAR.....	1	
6	PAOZZ	19207	8747218-1	.CHAIN ASSEMBLY,SING.....	3	
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.....	1	
9	PAOZZ	19207	11684673-3	.PIN,LOCK TENSION.....	1	
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

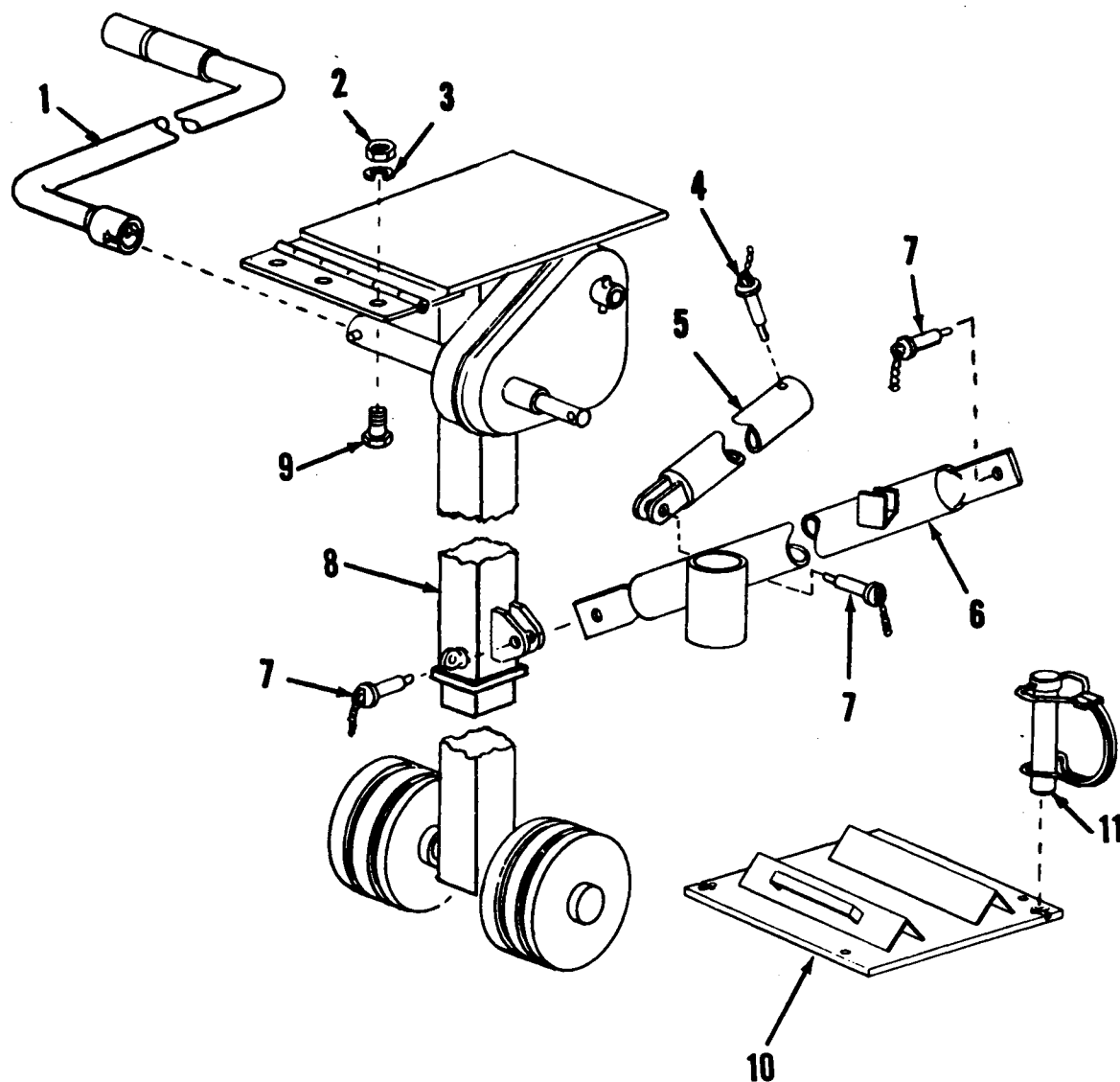


Figure 27. Swing-up Landing Gear.

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 1507 LANDING GEAR						
FIG. 27 SWING-UP LANDING GEAR						
1	PAOZZ	19207	11681656	CRANK,HAND.....	2	
2	PAOZZ	96906	MS51968-14	NUT,PLAIN,HEXAGON.....	6	
3	PAOZZ	96906	MS35338-48	WASHER,LOCK.....	6	
4	PAOZZ	19207	11684673-1	PIN,LOCK TENSION.....	2	
5	PBOZZ	19207	11684303	BRACE,SUPPORT,RETRA.....	2	
6	PBOZZ	19207	11681674-1	BRACE SUPPORT,RETRA LH.....	1	
6	PBOZZ	19207	11681674-2	BRACE,SUPPORT,RETRA RH.....	1	
7	PAOZZ	19207	11684673-2	PIN,LOCK TENSION.....	6	
8	PBOZZ	19207	12330793-1	LEG,SEMITRAILER,LH.....	1	
8	PBOZZ	19207	12330793-2	LEG,SEMITRAILER,RH.....	1	
9	PAOZZ	96906	MS90726-114	SCREW,CAP,HEXAGON H.....	6	
10	PAOZZ	19207	12307808	SHOE,VEHICLE SUPPOR.....	2	
11	PAOZZ	19207	12307810	PIN,QUICK RELEASE.....	2	

END OF FIGURE

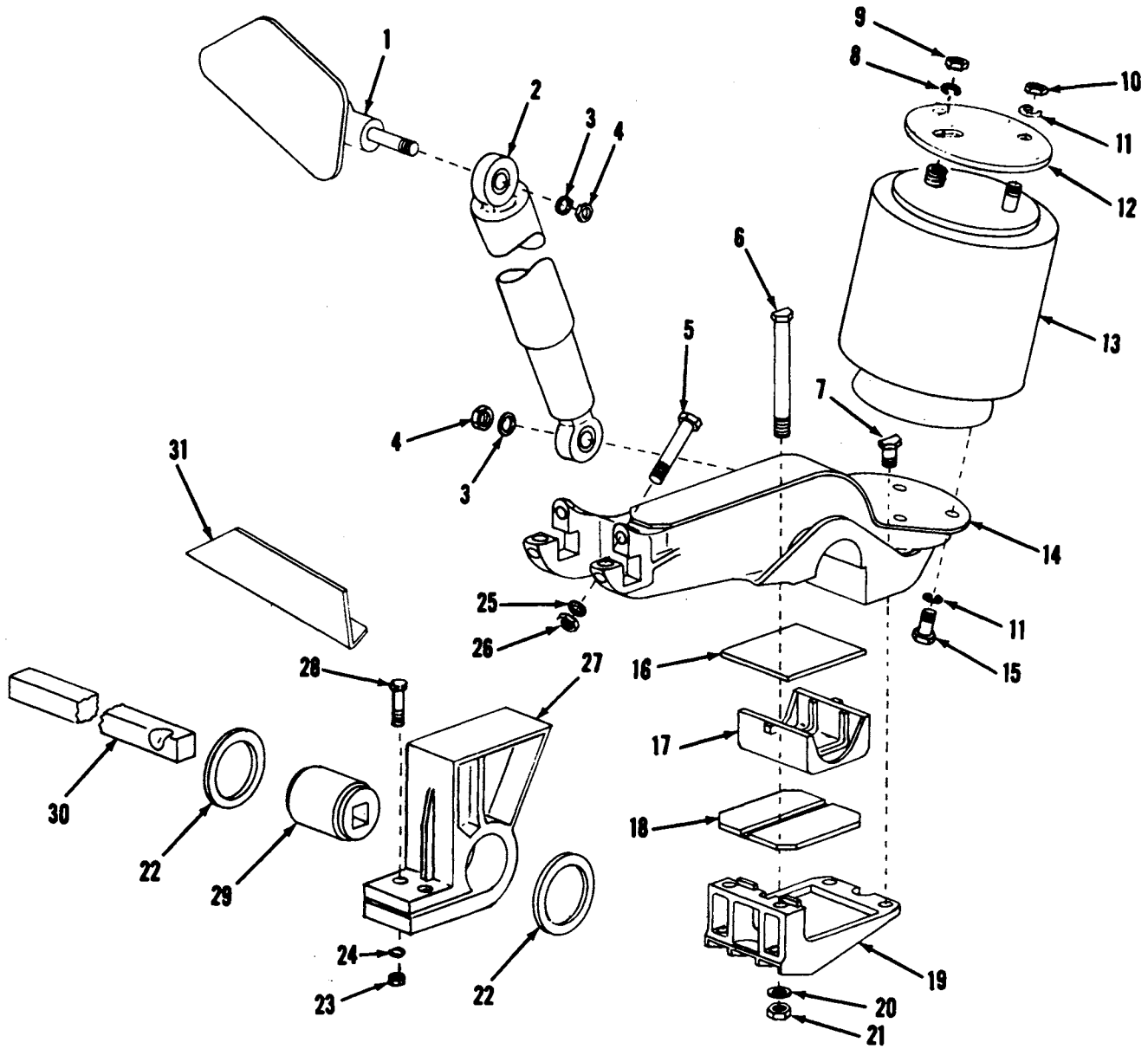


Figure 28. Air Suspension System Components.

SECTION II			TM9-2330-363-14&P		(5)	(6)	
(1)	(2)	(3)	(4)				
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY			
NO	CODE	FSCM	NUMBER				
GROUP 16 SPRINGS AND SHOCK							
ABSORBERS							
GROUP 1601 AIR SUSPENSION SYSTEM							
FIG. 28 AIR SUSPENSION SYSTEM							
COMPONENTS							
1	XDOZZ	19207	11684348	BRACKET.....	2		
2	PAOZZ	19207	11684357	SHOCK ABSORBER,DIRE.....	4		
3	PAOZZ	96906	MS20002-14	WASHER,FLAT.....	8		
4	PAOZZ	96906	MS51922-57	NUT,SELF-LOCKING, HEXAGON.....	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	MS51968-23	NUT,PLAIN,HEXAGON.....	4		
10	PAOZZ	96906	MS51967-14	NUT,PLAIN,HEXAGON.....	4		
11	PAOZZ	96906	MS35338-48	WASHER,LOCK.....	20		
12	XDOZZ	19207	11684350	PLATE,MOUNTING.....	4		
13	PAOZZ	19207	11684366	AIR SPRING ASSY,SUS.....	4		
14	PBOZZ	19207	11684352-1	ARM,EQUALIZING,AIR LH.....	2		
14	PBOZZ	19207	11684352-2	ARM,EQUALIZING,AIR RH.....	2		
15	PAOZZ	96906	MS90725-109	SCREW,CAP,HEXAGON H.....	16		
16	PAOZZ	19207	11684336	WRAPPER,RUBBER AXLE.....	4		
17	PBOZZ	19207	11684353	ADAPTER,AXLE.....	4		
18	PAOZZ	19207	11684356	PAD,RUBBER,AXLE.....	4		
19	PAOZZ	19207	11684354	CAP,CONNECTOR,AXLE.....	4		
20	PAOZZ	96906	MS20002-14	WASHER,FLAT.....	16		
21	PAOZZ	96906	MS51922-65	NUT,SELF-LOCKING, HEXAGON.....	16		
22	PAOZZ	19207	11684338	WASHER,FLAT.....	8		
23	PAOZZ	96906	MS51922-49	NUT,SELF-LOCKING,HE HEXAGON.....	8		
24	PAOZZ	96906	MS20002-10	WASHER,FLAT.....	8		
25	PAOZZ	96906	MS20002-12	WASHER,FLAT.....	8		
26	PAOZZ	96906	MS51922-57	NUT,SELF-LOCKING, HEXAGON.....	8		
27	XDOZZ	19207	11684351	BRACKET,FRAME.....	4		
28	PAOZZ	96906	MS90728-195	SCREW,CAP,HEXAGON H.....	8		
29	PAOZZ	19207	11684355	BUSHING,RUBBER.....	4		
30	XDOZZ	19207	11684345	BAR,TORSION.....	2		
31	XDOZZ	19207	11684349	BRACE,ANGLE.....	8		

END OF FIGURE

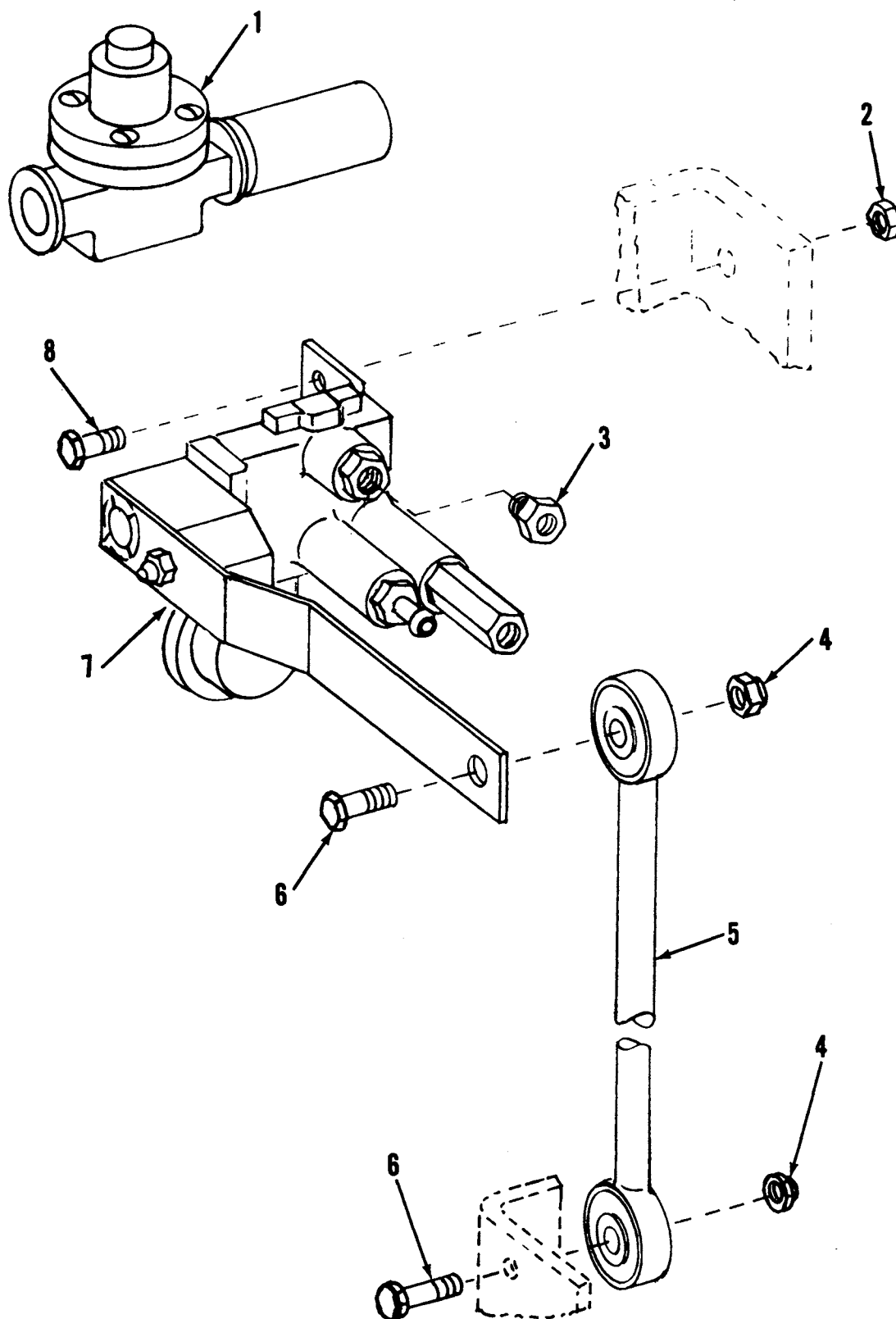


Figure 29. Air Spring Air Control Components.

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC) QTY		
GROUP 1601 AIR SUSPENSION SYSTEM						
FIG. 29 AIR SPRING AIR CONTROL						
COMPONENTS						
1	PAOZZ	19207	11684346	VALVE,AIR BRAKE.....		1
2	PAOZZ	96906	MS51922-2	NUT,SELF-LOCKING,HE.....		4
3	PAOZZ	40670	11684367	INVERTED NUT,TUBE C.....		4
4	PAOZZ	96906	MS51922-2	NUT,SELF-LOCKING,HE.....		4
5	PAOZZ	19207	11684329	ROD,ALIGNING,AIR SP.....		2
6	PAOZZ	96906	MS90725-9	SCREW,CAP,HEXAGON H.....		4
7	PAOZZ	19207	11684410	VALVE,HEIGHT CONTROL.....		2
8	PAOZZ	96906	MS90726-6	SCREW,CAP,HEXAGON H.....		4

END OF FIGURE

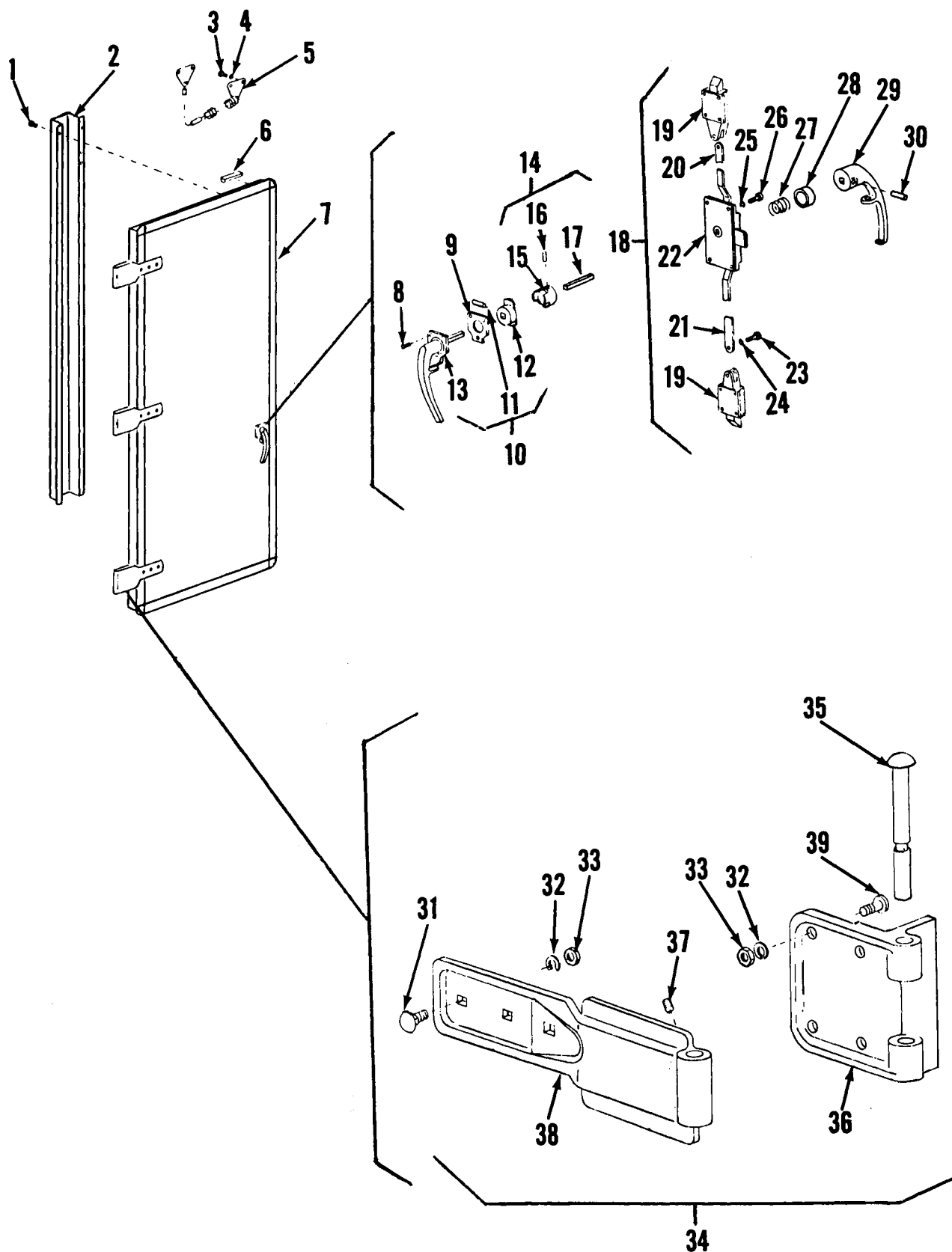


Figure 30. Doors and Associated Parts, XM991, XM995.

TA 355660

SECTION II			TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 18 BODY						
GROUP 1801 DOORS AND ASSOCIATED						
PARTS						
FIG. 30 DOORS AND ASSOCIATED PARTS,						
XM991, XM995						
1	PAOZZ	96906	MS24629-50	SCREW,TAPPING, THREAD FORMING,U/O NHA 11684572-1,11684574-2.....	60	
				UOC:035,036		
2	XBOZZ	19207	11646385-2	GUARD U/O NHA 11684574-2,11684574-3	2	
				UOC:036		
2	XBOZZ	19207	11646385-2	GUARD U/O NHA 11684574-2.....	1	
				UOC:035		
2	XBOZZ	19207	11646385-1	GUARD U/O NHA 11684574-1,11684574-4	2	
				UOC:035		
2	XBOZZ	19207	11646385-1	GUARD U/O NHA 11684574-1.....	1	
				UOC:036		
3	PAOZZ	96906	MS24629-50	SCREW,TAPPING,THREA.....	12	
				UOC:035,036		
4	PAOZZ	96906	MS35338-43	WASHER,LOCK.....	12	
				UOC:035,036		
5	PAOZZ	19207	11681178	CHAIN DOOR STOP.....	3	
				UOC:035,036		
6	PAOZZ	19207	11592542	SEAL,RUBBER,DOOR U/O NHA 11684572-1,11684574-2.....	54	
				UOC:035,036		
7	PBOZZ	19207	11684574-1	DOOR,METAL,SWINGING.....	1	
				UOC:035,036		
7	PBOZZ	19207	11684574-2	DOOR,METAL,SWINGING RIGHT SIDE /036/,RIGHT REAR /035/.....	1	
				UOC:035,036		
7	PBOZZ	19207	11684574-3	DOOR,METAL,SWINGING RIGHT REAR.....	1	
				UOC:036		
7	PBOZZ	19207	11684574-4	DOOR,METAL,SWINGING LEFT REAR.....	1	
				UOC:035		
8	PAOZZ	96906	MS20613-8P10	RIVET,SOLID.....	9	
				UOC:035,036		
9	PAOZZ	19207	11592566	GASKET.....	3	
				UOC:035,036		
10	PAOZZ	19207	11637956	HANDLE ASSEMBLY,DOO.....	3	
				UOC:035,036		
11	PAOZZ	96906	MS35677-46	.PIN,GROOVED, HEADLESS.....	1	
				UOC:035,036		
12	PBOZZ	19207	11589900	.CLUTCH,DOOR HANDLE.....	1	
				UOC:035,036		
13	PAOZZ	19207	12307756	.HANDLE,DOOR.....	1	
				UOC:035,036		
14	PBOZZ	19207	11637990	CLUTCH ASSEMBLY,HAN INNER,U/O NHA	1	

SECTION II			TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC) QTY		
				11684572-1,11684574-2.....		
				UOC:035,036		
15	PBOZZ	19207	11589901	.CLUTCH,DOOR HANDLE.....	1	
				UOC:035,036		
16	PAOZZ	96906	MS35677-47	.PIN,GROOVED, HEADLESS.....	1	
				UOC:035,036		
17	PBOZZ	19207	11637989	.PIN,STRAIGHT,HEADLE.....	1	
				UOC:035,036		
18	PBOZZ	19207	11637991-1	LOCK ASSEMBLY,VAN U/O NHA 11684574-2.....	1	
				UOC:035		
18	PBOZZ	19207	11637991-1	LOCK ASSEMBLY,VAN U/O NHA 11684574-2,11684574-3.....	2	
				UOC:036		
18	PBOZZ	19207	11637991-2	LOCK ASSEMBLY U/O NHA 11684574-1,11684574-4.....	2	
				UOC:035		
18	PBOZZ	19207	11637991-2	LOCK ASSEMBLY U/O NHA 11684574-1... UOC:036	1	
19	PAOZZ	19207	7748911	.BOLT,FLUSH.....	2	
				UOC:035,036		
20	PBOZZ	19207	8722186-3	.CONNECTING,LINK,RIG.....	1	
				UOC:035,036		
21	PBOZZ	19207	8722186-10	.CONNECTING LINK,RIG.....	1	
				UOC:035,036		
22	PAOZZ	19207	10911036-1	.LOCK,VAN DOOR U/O NHA 11637991-1.. UOC:035	1	
22	PAOZZ	19207	10911036-1	.LOCK,VAN DOOR U/O NHA 11637991-1.. UOC:036	2	
22	PAOZZ	19207	10911036-2	.LOCKASSEMBLY,VAN DOOR,U/O NHA 11637991-2.....	2	
				UOC:035		
22	PAOZZ	19207	10911036-2	.LOCKASSEMBLY,VAN DOOR, U/O NHA 11637991-2.....	1	
				UOC:036		
23	PAOZZ	96906	MS90727-58	.SCREW,CAP,HEXAGON H.....	2	
				UOC:035,036		
24	PAOZZ	96906	MS35338-46	.WASHER,LOCK.....	2	
				UOC:035,036		
25	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	36	
				UOC:035,036		
26	PAOZZ	96906	MS24629-61	SCREW,TAPPING,THREA.....	36	
				UOC:035,036		
27	PAOZZ	19207	11589902	SPRING,HELICAL,COMP.....	3	
				UOC:035,036		
28	PAOZZ	19207	11637943	RETAINER,HELICAL CO.....	3	
				UOC:035,036		
29	PAOZZ	19207	12307757	HANDLE,DOOR INNER.....	3	
				UOC:035,036		
30	PAOZZ	96906	MS35677-48	PIN,GROOVED,HEADLES.....	3	
				UOC:035,036		
31	PAOZZ	96906	MS35751-71	BOLT,SQUARE NECK.....	27	

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)		(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES(UOC) QTY		
32	PAOZZ	96906	MS35338-46	UOC:035,036		
				WASHER, LOCK.....		63
33	PAOZZ	96906	MS51967-8	UOC:035,036		
				NUT, PLAIN, HEXAGON.....		63
34	PBOZZ	19207	11607505	UOC:035,036		
				HINGE, TEE U/O NHA 11684574-2.....		3
34	PBOZZ	19207	11607505	UOC:035		
				HINGE, TEE U/O NHA 11684574-		6
				2, 11684574-3.....		
34	PBOZZ	19207	11607504	UOC:036		
				HINGE, ACCESS DOOR U/O NHA 11684574-		3
				1.....		
34	PBOZZ	19207	11607504	UOC:036		
				HINGE, ACCESS DOOR U/O NHA 11684574-		6
				1, 11684574-4.....		
35	PAOZZ	19207	11607480	UOC:035		
				.PIN, GROOVED, HEADED.....		1
36	XAOZZ	19207	10882201	UOC:035,036		
				.LEAF, BUTT HINGE U/O NHA 11607504..		1
36	XAOZZ	19207	10882202	UOC:035,036		
				.LEAF, BUTT HINGE U/O NHA 11607505..		1
37	PAOZZ	96906	MS51963-64	UOC:035,036		
				.SETSCREW.....		1
38	PAOZZ	19207	11607487	UOC:035,036		
				.HINGE, STRAP.....		1
39	PAOZZ	96906	MS35751-77	UOC:035,036		
				BOLT, SQUARE NECK U/O NHA 11684574-		12
				1, 11684574-2, 11684574-4 V....		
39	PAOZZ	96906	MS90725-62	UOC:035,036		
				SCREW, CAP, HEXAGON H U/O NHA		12
				11684574-1, 11684574-3, 11684574-4....		
39	PAOZZ	96906	MS90725-62	UOC:035,036		
				SCREW, CAP, HEXAGON H.....		6
39	PAOZZ	19207	11681633	UOC:036		
				BOLT, SQUARE NECK.....		12
39	PAOZZ	19207	11681633	UOC:036		
				BOLT, SQUARE NECK U/O NHA 11684574-		6
				3, 11684574-4.....		
				UOC:035		

END OF FIGURE

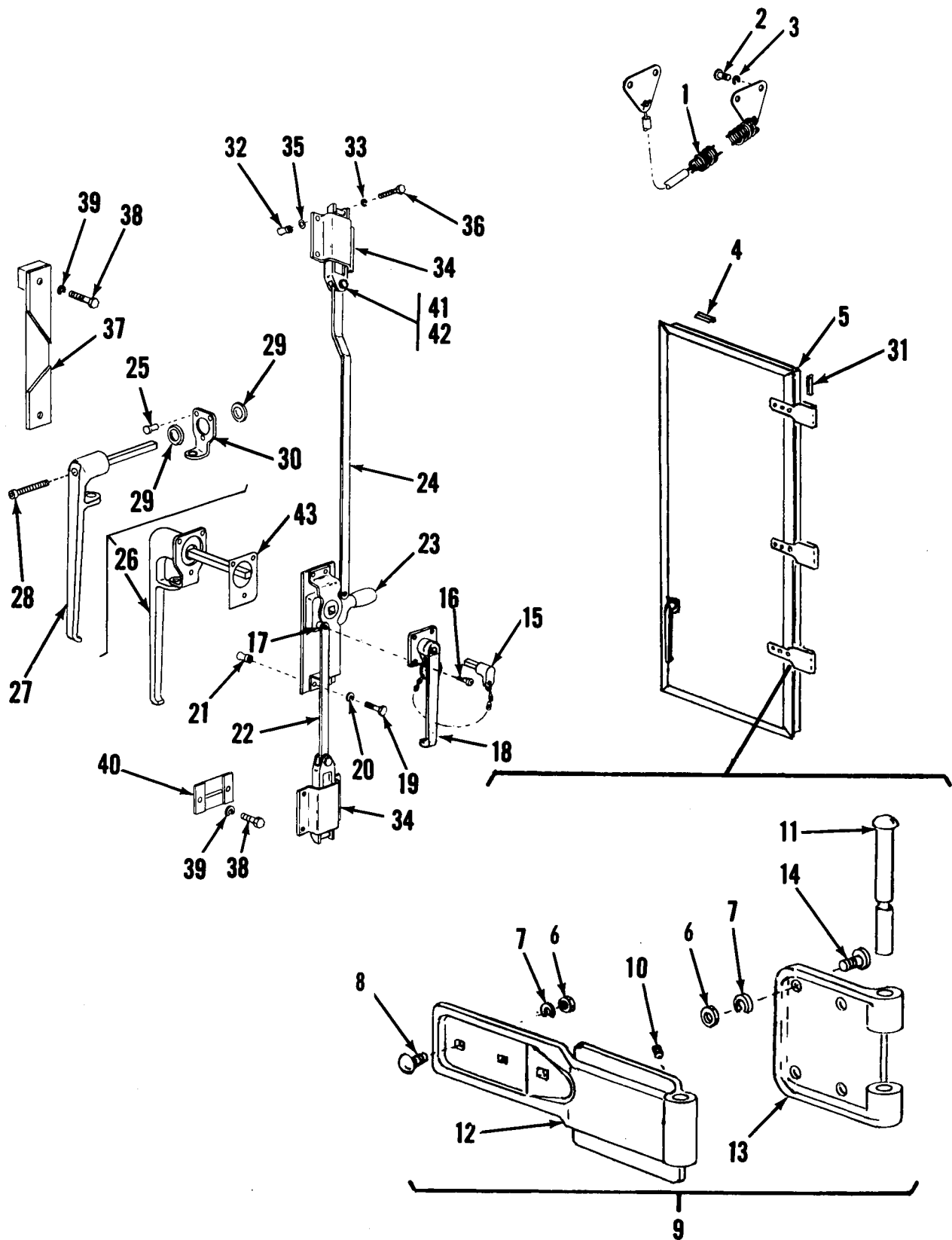


Figure 30A. Doors and Associated Parts, XM991E1, XM995E1.

TA 355661

SECTION II			TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 1801 DOORS AND ASSOCIATED						
PARTS						
FIG. 30A DOORS AND ASSOCIATED PARTS,						
XM991E1, XM995E1						
1	PAOZZ	19207	11681178	CHAIN DOOR STOP.....	2	
				UOC:063,064		
2	PAOZZ	96906	MS24629-50	SCREW,TAPPING,THREA.....	8	
				UOC:063,064		
3	PAOZZ	96906	MS35338-43	WASHER,LOCK.....	8	
				UOC:063,064		
4	PAOZZ	19207	12315658	SEAL,RUBBER,DOOR.....	36	
				UOC:063,064		
5	PBOZZ	19207	12330928-2	DOOR,METAL,SWINGING.....	1	
				UOC:063		
5	PBOZZ	19207	12330928-1	DOOR,METAL,SWINGING.....	1	
				UOC:064		
5	PBOZZ	19207	12330928-3	DOOR,METAL,SWINGING.....	1	
				UOC:064		
5	PBOZZ	19207	12330928-4	DOOR,SWINGING.....	1	
				UOC:063		
6	PAOZZ	96906	MS51967-8	NUT,PLAIN,HEXAGON.....	42	
				UOC:063,064		
7	PAOZZ	96906	MS35338-46	WASHER,LOCK.....	42	
				UOC:063,064		
8	PAOZZ	96906	MS35751-71	BOLT,SQUARE NECK.....	18	
				UOC:063,064		
9	PBOZZ	19207	12330840	HINGE,TEE.....	3	
				UOC:063		
9	PBOZZ	19207	12330795	HINGE ASSEMBLY,BUTT.....	3	
				UOC:064		
10	PAOZZ	96906	MS51963-64	.SETSCREW.....	1	
				UOC:063,064		
11	PAOZZ	19207	11607480	.PIN,GROOVED,HEADED.....	1	
				UOC:063,064		
12	XAOZZ	19207	12330796	.STRAP,HINGE.....	1	
				UOC:063,064		
13	XAOZZ	19207	10882202	.BUTT,HINGE.....	1	
				UOC:063,064		
13	XAOZZ	19207	10882201	.LEAF,BUTT HINGE.....	1	
				UOC:063,064		
14	PAOZZ	96906	MS90725-62	SCREW,CAP,HEXAGON H.....	6	
				UOC:063,064		
14	PAOZZ	96906	MS35751-77	BOLT,SQUARE NECK.....	12	
				UOC:063,064		
14	PAOZZ	19207	11681633	BOLT,SQUARE NECK.....	6	
				UOC:063,064		
15	PAOZZ	19220	2525-55	PIN,QUICK RELEASE.....	2	
				UOC:063,064		

SECTION II		TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)		
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
16	PAOZZ	96906	MS51975-18	SCREW,SHOULDER.....	4
				UOC:063,064	
17	PAOZZ	19207	12330845	SPACER,SLEEVE.....	4
				UOC:063,064	
18	PAOZZ	19207	12315674	HANDLE,DOOR.....	2
				UOC:063,064	
19	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....	8
				UOC:063,064	
20	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	8
				UOC:063,064	
21	PAOZZ	96906	MS27130-S50	NUT,PLAIN,BLIND RIV.....	8
				UOC:063,064	
22	PBOZZ	19207	12315484-3	ROD,LOCKING.....	2
				UOC:063,064	
23	PBOZZ	19220	4-2525-50R	LOCK,DOOR,VEH.....	1
				UOC:064	
23	PBOZZ	19220	4-2525-50L	LOCK ASSEMBLY,VEHIC.....	1
				UOC:063	
24	PBOZZ	19207	12315558-2	ROD,LOCKING.....	2
				UOC:063,064	
25	PAOZZ	19207	12315644-3	RIVET,BLIND.....	6
				UOC:063,064	
26	PBOZZ	19207	12315569-2	HANDLE,DOOR.....	2
				UOC:063,064	
27	PBOZZ	19207	12307731	.HANDLE,DOOR.....	1
				UOC:063,064	
28	PAOZZ	96906	MS16997-61	.SCREW,CAP,SOCKET HE.....	1
				UOC:063,064	
29	PAOZZ	96906	MS28775-216	.PACKING,PREFORMED.....	2
				UOC:063,064	
30	PBOZZ	19207	12315571	.ESCUTCHEON PLATE.....	1
				UOC:063,064	
31	PAOZZ	19207	12315659	SEAL,RUBBER CHANNEL.....	36
				UOC:063,064	
32	PAOZZ	96906	MS27130-A50	NUT,PLAIN,BLIND RIV.....	16
				UOC:063,064	
33	PAOZZ	96906	MS27183-9	WASHER,FLAT.....	4
				UOC:063,064	
34	PAOZZ	19220	4-2525-52	SLIDE FASTENER,BOLT.....	4
				UOC:063,064	
35	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	16
				UOC:063,064	
36	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....	16
				UOC:063,064	
37	PBOZZ	19207	12315633-2	PLATE,KEEPER.....	1
				UOC:064	
37	PBOZZ	19207	12315633-1	PLATE,KEEPER.....	1
				UOC:063	
38	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....	12
				UOC:063,064	
39	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	12
				UOC:063,064	

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
40	PBOZZ	19207	12315649	STRIKE,CATCH.....	4	
				UOC:063,064		
41	PAOZZ	96906	MS90727-58	SCREW,CAP,HEXAGON H.....	4	
				UOC:063,064		
42	PAOZZ	96906	MS35338-46	WASHER,LOCK.....	4	
				UOC:063,064		
43	PBOZZ	19207	12330884	SPACER,PLATE.....	2	
				UOC:063,064		

END OF FIGURE

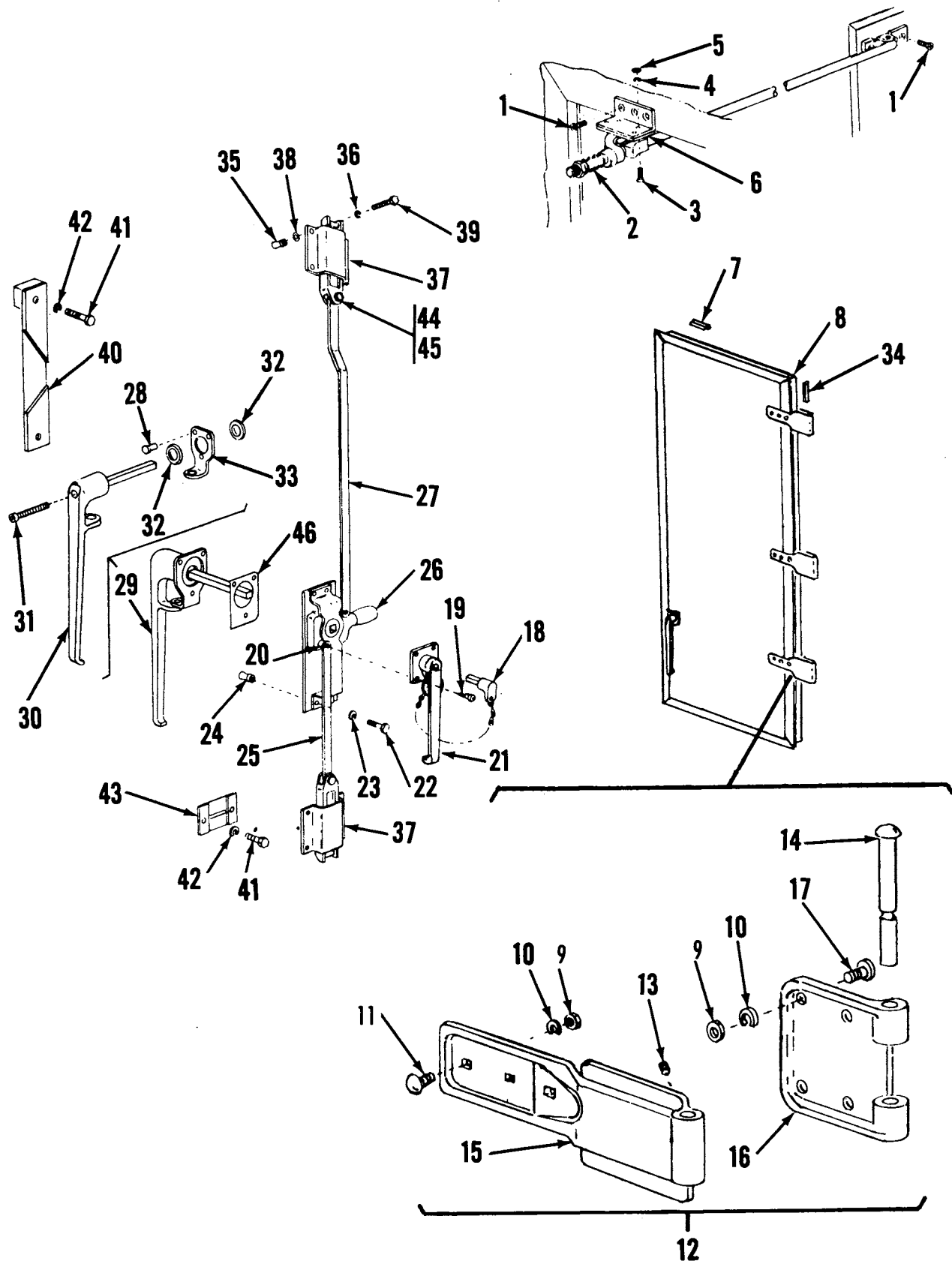


Figure 30B. Doors and Associated Parts, XM991E1, XM995E1.

SECTION II				TM9-2330-363-14&P	(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY		
NO	CODE	FSCM	NUMBER			
GROUP 1801 DOORS AND ASSOCIATED PARTS						
FIG. 30B DOORS AND ASSOCIATED PARTS,						
XM991E1, XM995E1						
1	PAOZZ	96906	MS24627-64	SCREW,TAPPING,THREA.....	6	
				UOC:063,064		
2	PAOZZ	19207	12330932	HOLDER,DOOR.....	1	
				UOC:063,064		
3	PAOZZ	96906	MS35190-291	SCREW,MACHINE.....	4	
				UOC:063,064		
4	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	4	
				UOC:063,064		
5	PAOZZ	96906	MS51967-2	NUT,PLAIN,HEXAGON.....	4	
				UOC:063,064		
6	PAOZZ	19207	12330931	BRACKET,ANGLE.....	1	
				UOC:063,064		
7	PAOZZ	19207	12315658	SEAL,RUBBER,DOOR.....	20	
				UOC:063,064		
8	PBOZZ	19207	12330928-1	DOOR,METAL,SWINGING.....	1	
				UOC:063		
8	PBOZZ	19207	12330928-2	DOOR,METAL,SWINGING.....	1	
				UOC:064		
9	PAOZZ	96906	MS51967-8	NUT,PLAIN,HEXAGON.....	21	
				UOC:063,064		
10	PAOZZ	96906	MS35338-46	WASHER,LOCK.....	21	
				UOC:063,064		
11	PAOZZ	96906	MS35751-71	BOLT,SQUARE NECK.....	9	
				UOC:063,064		
12	PBOZZ	19207	12330840	HINGE,TEE.....	3	
				UOC:063,064		
13	PAOZZ	96906	MS51963-64	. SETSCREW.....	1	
				UOC:063,064		
14	PAOZZ	19207	11607480	. PIN,GROOVED,HEADED.....	1	
				UOC:063,064		
15	PAOZZ	19207	12330796	. HINGE,STRAP.....	1	
				UOC:063,064		
16	XAOZZ	19207	10882202	. LEAF,BUTT HINGE.....	1	
				UOC:063,064		
17	PAOZZ	96906	MS90725-62	SCREW,CAP,HEXAGON H.....	6	
				UOC:064		
17	PAOZZ	96906	MS35751-77	BOLT,SQUARE NECK.....	6	
				UOC:063,064		
17	PAOZZ	19207	11681633	BOLT,SQUARE NECK.....	6	
				UOC:063		
18	PAOZZ	19220	2525-55	PIN,QUICK RELEASE.....	1	
				UOC:063,064		
19	PAOZZ	96906	MS51975-18	SCREW,SHOULDER.....	2	
				UOC:063,064		

SECTION II		TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)		
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
20	PAOZZ	19207	12330845	SPACER,SLEEVE.....	2
				UOC:063,064	
21	PAOZZ	19207	12315674	HANDLE,DOOR.....	1
				UOC:063,064	
22	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....	4
				UOC:063,064	
23	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	4
				UOC:063,064	
24	PAOZZ	96906	MS27130-S50	NUT,PLAIN,BLIND RIV.....	4
				UOC:063,064	
25	PBOZZ	19207	12315484-3	ROD,LOCKING.....	1
				UOC:063,064	
26	PBOZZ	19220	4-2525-50R	LOCK,DOOR,VEH.....	1
				UOC:063	
26	PBOZZ	19220	4-2525-50L	LOCK ASSEMBLY,VEHIC.....	1
				UOC:064	
27	PBOZZ	19207	12315558-2	ROD,LOCKING.....	1
				UOC:063,064	
28	PAOZZ	19207	12315644-3	RIVET,BLIND.....	3
				UOC:063,064	
29	PBOZZ	19207	12315569-2	HANDLE,DOOR.....	1
				UOC:063,064	
30	PBOZZ	19207	12307731	.HANDLE,DOOR.....	1
				UOC:063,064	
31	PAOZZ	96906	MS16997-61	.SCREW,CAP,SOCKET HE.....	2
				UOC:063,064	
32	PAOZZ	96906	MS28775-216	.PACKING,PREFORMED.....	2
				UOC:063,064	
33	PBOZZ	19207	12315571	.ESCUTCHEON PLATE.....	1
				UOC:063,064	
34	PAOZZ	19207	12315659	SEAL,RUBBER CHANNEL.....	20
				UOC:063,064	
35	PAOZZ	96906	MS27130-A50	NUT,PLAIN,BLIND RIV.....	8
				UOC:063,064	
36	PAOZZ	96906	MS27183-9	WASHER,FLAT.....	2
				UOC:063,064	
37	PAOZZ	19220	4-2525-52	SLIDE FASTENER,BOLT.....	2
				UOC:063,064	
38	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	8
				UOC:063	
39	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....	8
				UOC:063,064	
40	PBOZZ	19207	12315633-1	PLATE,KEEPER.....	1
				UOC:063	
40	PBOZZ	19207	12315633-2	PLATE,MENDING.....	1
				UOC:064	
41	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....	6
				UOC:063,064	
42	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	6
				UOC:063,064	
43	PBOZZ	19207	12315649	STRIKE,CATCH.....	2
				UOC:063,064	

SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
44	PAOZZ	96906	MS90727-58	SCREW,CAP,HEXAGON H.....	2	
				UOC:063,064		
45	PAOZZ	96906	MS35338-46	WASHER,LOCK.....	2	
				UOC:063,064		
46	PBOZZ	19207	12330884	SPACER,PLATE.....	1	
				UOC:063,064		

END OF FIGURE

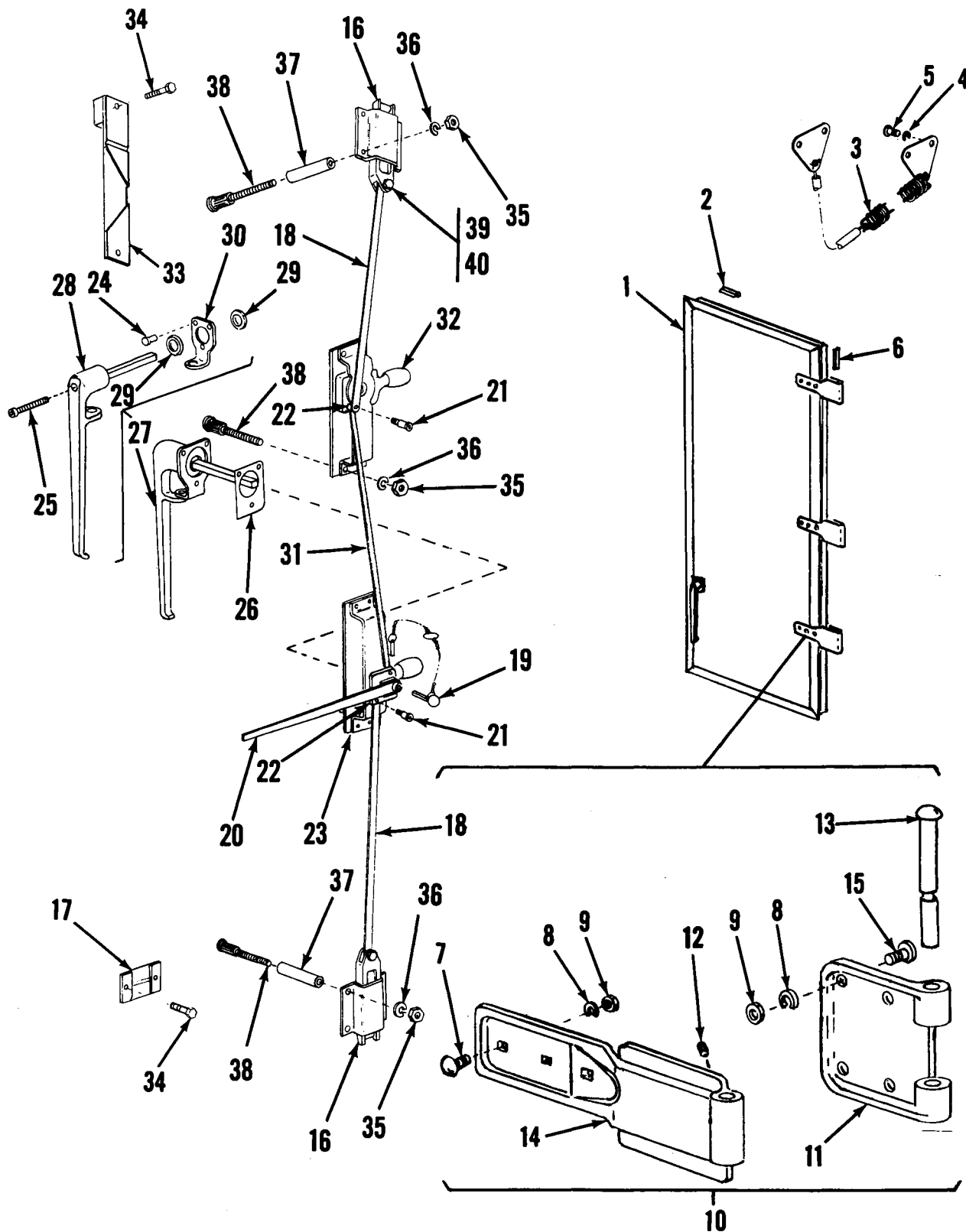


Figure 30C. Doors and Associated Parts, XM991E2, XM995E2.

TA 355663

SECTION II			TM9-2330-363-14&P		(5)	(6)		
(1)	(2)	(3)	(4)					
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY				
NO	CODE	FSCM	NUMBER					
GROUP 1801 DOORS AND ASSOCIATED PARTS								
FIG. 30C DOORS AND ASSOCIATED PARTS,								
XM991E2, XM995E2								
1	PBOZZ	19207	12330838-1	DOOR,METAL,SWINGING.....	1			
				UOC:058				
1	PBOZZ	19207	12330838-2	DOOR,METAL,SWINGING.....	1			
				UOC:057				
1	PBOZZ	19207	12330797-1	DOOR,METAL,SWINGING.....	1			
				UOC:057				
1	PBOZZ	19207	12330797-2	DOOR,METAL,SWINGING.....	1			
				UOC:058				
2	PAOZZ	19207	12315658	SEAL,RUBBER,DOOR.....	40			
				UOC:057,058				
3	PAOZZ	19207	11681178	CHAIN DOOR STOP.....	2			
				UOC:057,058				
4	PAOZZ	96906	MS35338-43	WASHER,LOCK.....	8			
				UOC:057,058				
5	PAOZZ	96906	MS24629-50	SCREW,TAPPING,THREA.....	8			
				UOC:057,058				
6	PAOZZ	19207	12315659	SEAL,RUBBER CHANNEL.....	40			
				UOC:057,058				
7	PAOZZ	96906	MS35751-71	BOLT,SQUARE NECK.....	18			
				UOC:057,058				
8	PAOZZ	96906	MS35338-46	WASHER,LOCK.....	42			
				UOC:057,058				
9	PAOZZ	96906	MS51967-8	NUT,PLAIN,HEXAGON.....	42			
				UOC:057,058				
10	PBOZZ	19207	12330840	HINGE,TEE.....	3			
				UOC:058				
10	PBOZZ	19207	12330795	HINGE ASSEMBLY,BUTT.....	3			
				UOC:057				
11	XAOZZ	19207	10882202	.LEAF,BUTT HINGE.....	1			
				UOC:058				
11	XAOZZ	19207	10882201	.LEAF,BUTT HINGE.....	1			
				UOC:057				
12	PAOZZ	96906	MS51963-64	.SETSCREW.....	1			
				UOC:057,058				
13	PAOZZ	19207	11607480	.PIN,GROOVED,HEADED.....	1			
				UOC:057,058				
14	PAOZZ	19207	12330796	.HINGE,STRAP.....	1			
				UOC:057,058				
15	PAOZZ	96906	MS35751-77	BOLT,SQUARE NECK.....	12			
				UOC:057,058				
15	PAOZZ	96906	MS90725-62	SCREW,CAP,HEXAGON H.....	6			
				UOC:057,058				
15	PAOZZ	19207	11681633	BOLT,SQUARE NECK.....	6			
				UOC:057,058				

SECTION II			TM9-2330-363-14&P				
(1)	(2)	(3)	(4)	(5)		(6)	
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODES (UOC)		QTY	
16	PAOZZ	19220	4-2525-52	SLIDE FASTENER,BOLT.....		4	
				UOC:057,058			
17	PBOZZ	19207	12315649	STRIKE,CATCH.....		4	
				UOC:057,058			
18	PBOZZ	19207	12315484-3	ROD,LOCKING.....		4	
				UOC:057,058			
19	PAOZZ	19207	12331240	PIN,QUICK RELEASE.....		2	
				UOC:057,058			
20	PAOZZ	19207	12315674	HANDLE,DOOR.....		2	
				UOC:057,058			
21	PAOZZ	96906	MS51975-18	SCREW,SHOULDER.....		6	
				UOC:057,058			
22	PAOZZ	19207	12330845	SPACER,SLEEVE.....		6	
				UOC:057,058			
23	PBOZZ	19220	4-2525-50R	LOCK,DOOR,VEH.....		2	
				UOC:058			
23	PBOZZ	19220	4-2525-50L	LOCK ASSEMBLY,VEHIC.....		2	
				UOC:057			
24	PAOZZ	19207	12315644-3	RIVET,BLIND.....		6	
				UOC:057,058			
25	PAOZZ	96906	MS16997-61	SCREW,CAP, SOCKET HE.....		2	
				UOC:057,058			
26	PBOZZ	19207	12330884	SPACER,PLATE.....		2	
				UOC:057,058			
27	PBOZZ	19207	12315569-2	HANDLE,DOOR.....		2	
				UOC:057,058			
28	PBOZZ	19207	12307731	.HANDLE,DOOR.....		1	
				UOC:057,058			
29	PAOZZ	96906	MS28775-216	.PACKING,PREFORMED.....		2	
				UOC:057,058			
30	PBOZZ	19207	12315571	.ESCUTCHEON PLATE.....		1	
				UOC:057,058			
31	PBOZZ	19207	12315484-4	ROD,LOCKING.....		2	
				UOC:057,058			
32	PBOZZ	19220	11-2525-50L	LOCK ASSEMBLY,VEHIC.....		2	
				UOC:058			
32	PBOZZ	19220	11-2525-50R	LOCK ASSEMBLY,VEHIC.....		2	
				UOC:057			
33	PBOZZ	19207	12315633-1	PLATE,KEEPER,LH.....		2	
				UOC:057,058			
33	PBOZZ	19207	12315633-2	PLATE,MENDING,RH.....		2	
				UOC:057,058			
34	PAOZZ	96906	MS90725-10	SCREW,CAP,HEXAGON H.....		16	
				UOC:057,058			
35	PAOZZ	96906	MS51922-9	NUT,SELF-LOCKING,HE.....		32	
				UOC:057,058			
36	PAOZZ	96906	MS35338-44	WASHER,LOCK.....		32	
				UOC:057,058			
37	PBOZZ	19207	12331243-2	SPACER,SLEEVE.....		4	
				UOC:057,058			
38	PAOZZ	19207	12331242	BOLT,RIBBED NECK.....		32	
				UOC:057,058			

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
39	PAOZZ	96906	MS90727-58	SCREW,CAP,HEXAGON H.....	4
				UOC:057,058	
40	PAOZZ	96906	MS35338-46	WASHER,LOCK.....	4
				UOC:057,058	

END OF FIGURE

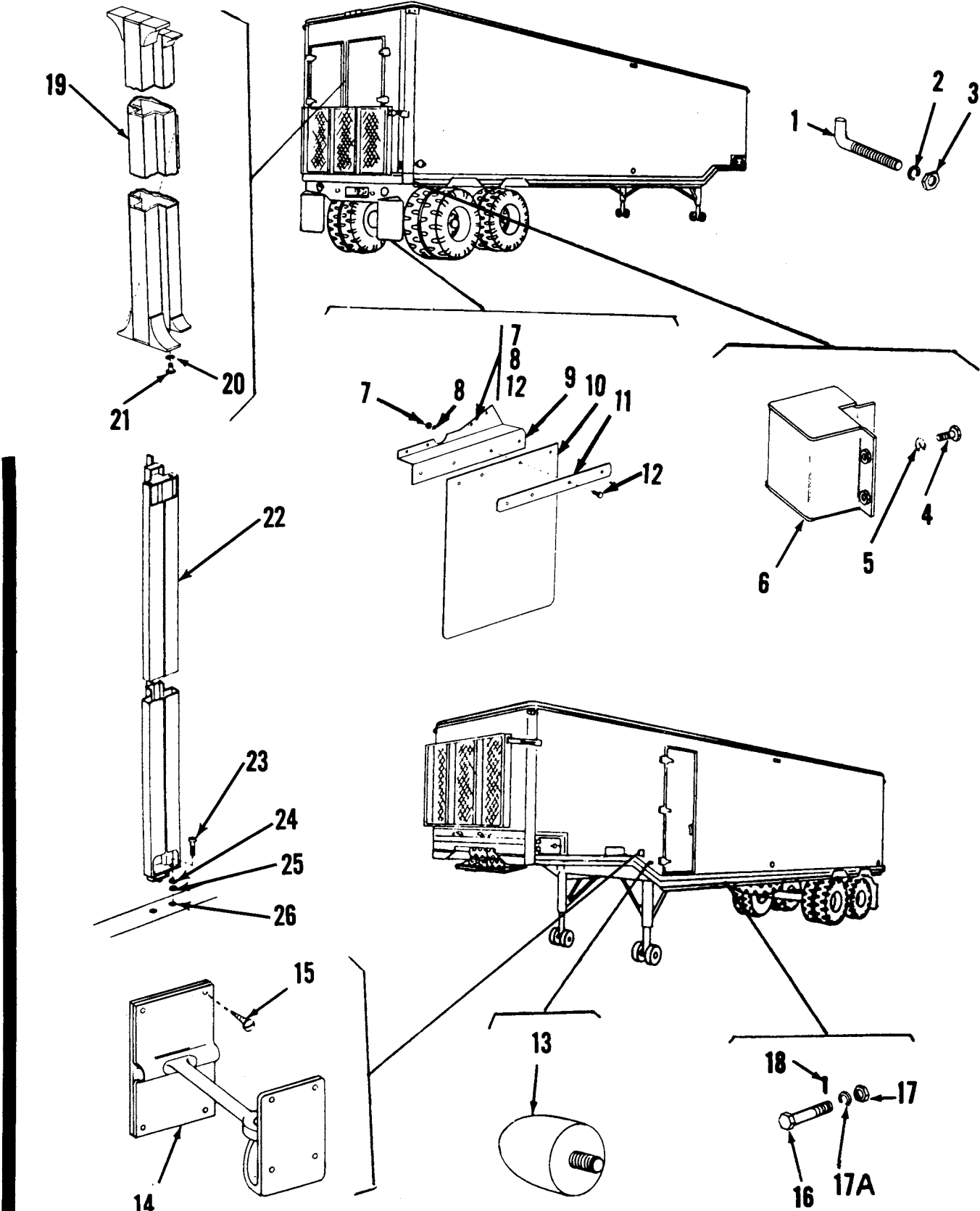


Figure 31. Miscellaneous Body Items.

SECTION II			TM9-2330-363-14&P		(5)	(6)		
(1)	(2)	(3)	(4)					
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY				
NO	CODE	FSCM	NUMBER					
GROUP 1801 DOORS AND ASSOCIATED								
PARTS								
FIG. 31 MISCELLANEOUS BODY ITEMS								
1	PAOZZ	19207	10882285	BOLT,HOOK.....	2			
2	PAOZZ	96906	MS35338-45	WASHER,LOCK.....	2			
3	PAOZZ	96906	MS51967-5	NUT,PLAIN,HEXAGON.....	2			
4	PAOZZ	96906	MS90725-113	SCREW,CAP,HEXAGON H.....	8			
5	PAOZZ	96906	MS35338-48	WASHER,LOCK.....	8			
6	PFOZZ	19207	10891528	BUMPER,VEHICULAR LH.....	1			
6	PFOZZ	19207	10891529	BUMPER,VEHICULAR RH.....	1			
7	PAOZZ	96906	MS51967-8	NUT,PLAIN,HEXAGON.....	16			
8	PAOZZ	96906	MS35338-46	WASHER,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	10882200	GUARD,SPLASH,VEHICU.....	2			
11	PAOZZ	19207	10944341	SPACER,PLATE.....	2			
12	PAOZZ	96906	MS18154-60	SCREW,CAP,HEXAGON H.....	16			
13	PAOZZ	19207	8747317	BUMPER,RUBBER.....	1			
14	PAOZZ	19207	8747118	HOLDERASSEMBLY,DOOR.....	1			
15	PAOZZ	96906	MS51861-66	SCREW,TAPPING, THREAD FORMING.....	8			
16	PAOZZ	96906	MS51106-460	SCREW,CAP,HEXAGON H.....	6			
16	PAOZZ	96906	MS51106-462	SCREW,CAP,HEXAGON H.....	2			
17	PAOZZ	96906	MS35692-62	NUT,PLAIN,SLOTTED,H.....	8			
17A	PAOZZ	96906	MS35338-51	WASHER,LOCK.....	8			
18	PAOZZ	96906	MS24665-359	PIN,COTTER.....	8			
19	PBOZZ	19207	11684510	POST,CENTER REMOVAB.....	1			
				UOC:035,036				
20	PAOZZ	96906	MS35338-45	WASHER,LOCK.....	4			
				UOC:035,036				
21	PAOZZ	96906	MS35218-84	SCREW,MACHINE.....	4			
				UOC:035,036				
22	PBOZZ	19207	12330915	POST ASSEMBLY,REMOV.....	1			
				UOC:063,064				
23	PAOZZ	96906	MS16997-62	SCREW,CAP,SOCKET HE.....	4			
				UOC:063,064				
24	PAOZZ	96906	MS27183-9	WASHER,FLAT.....	4			
				UOC:063,064				
25	PAOZZ	96906	MS35338-44	WASHER,LOCK.....	4			
				UOC:063,064				
26	PAOZZ	96906	MS27130-A49	NUT,PLAIN,BLIND RIV.....	4			
				UOC:063,064				

END OF FIGURE

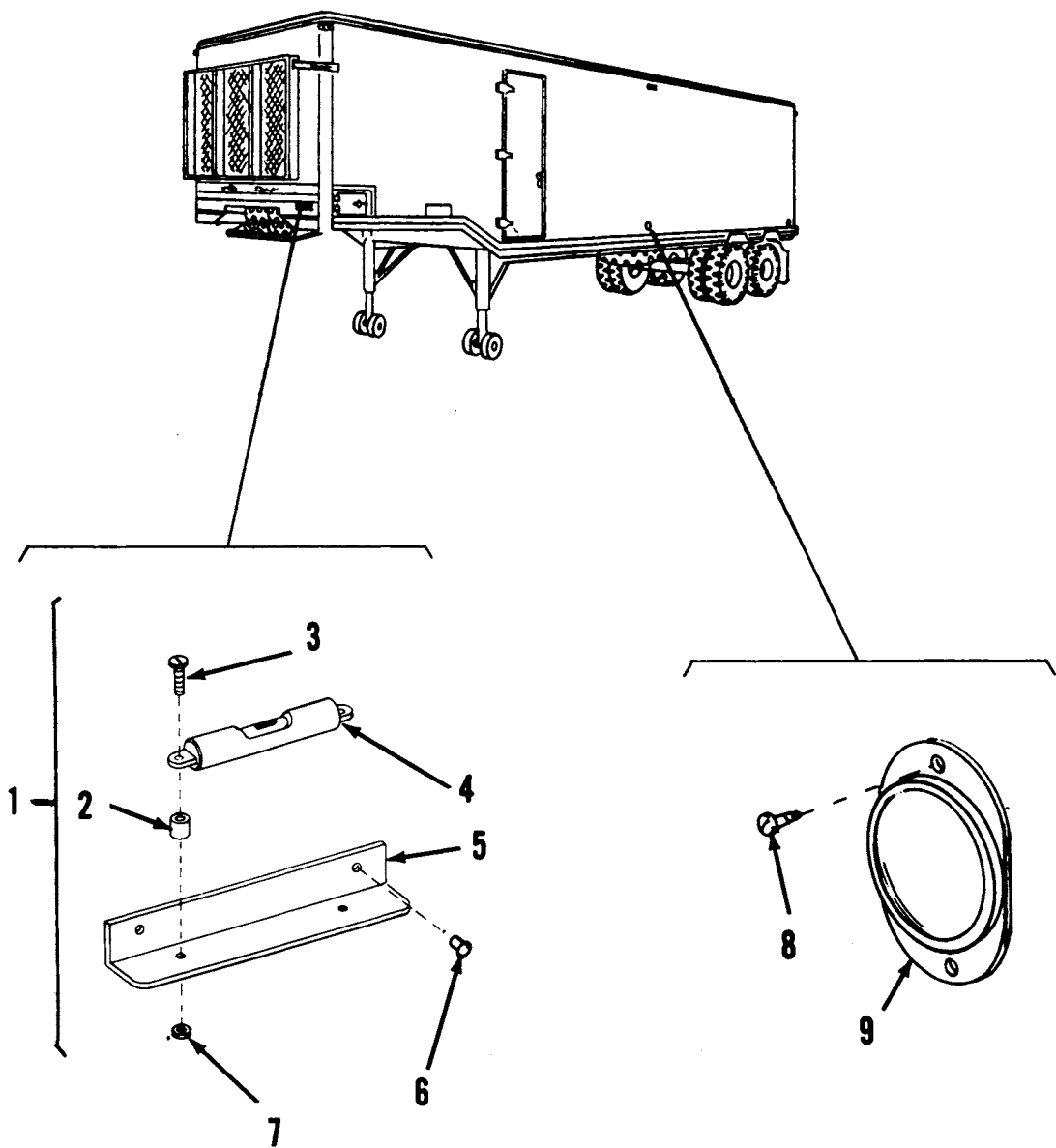


Figure 32. Level Assembly and Reflector.

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SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY

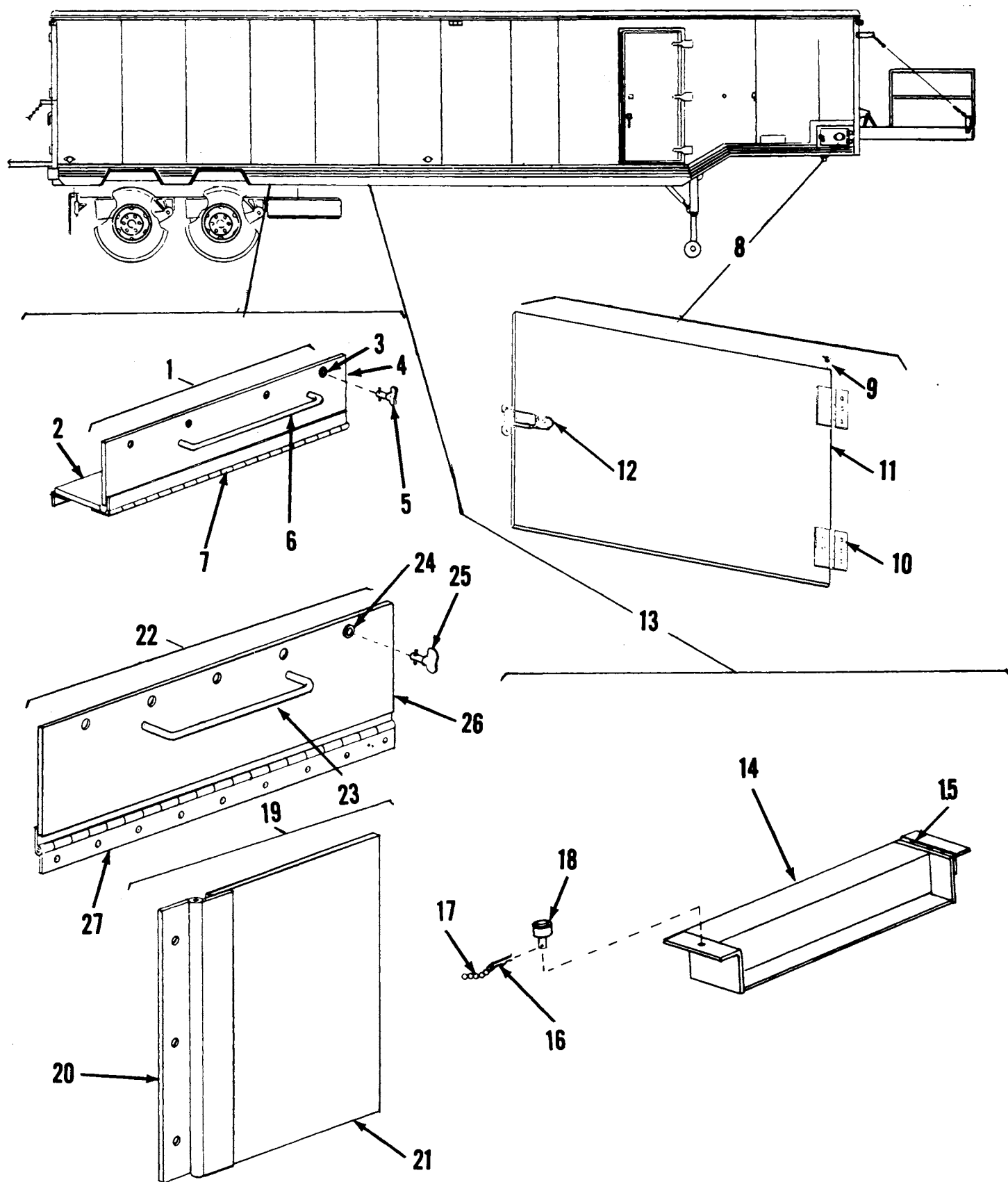
GROUP 22 ACCESSORY ITEMS

GROUP 2202 ACCESSORY ITEMS

FIG. 32 LEVEL ASSEMBLY AND REFLECTOR

1	PAOZZ	19207	11638167	LEVEL ASSEMBLY VAN.....	8
2	PAOZZ	19207	11638170	. SPACER, SLEEVE.....	2
3	PAOZZ	96906	MS27039-812	. SCREW, MACHINE.....	2
4	PAOZZ	19207	11638168	. VIAL, LEVEL.....	1
5	XBOZZ	19207	11638169	. BRACKET, MOUNTING.....	1
6	PAOZZ	96906	MS24662-204	. RIVET, BLIND.....	2
7	PAOZZ	96906	MS21083N08	. NUT, SELF-LOCKING, HEXAGON.....	2
8	PAOZZ	96906	MS51861-66	SCREW, TAPPING, THREAD FORMING.....	16
9	PAOZZ	96906	MS35387-1	REFLECTOR, INDICATING, CLEARANCE, RED	4
9	PAOZZ	96906	MS35387-2	REFLECTOR, INDICATING, CLEARANCE, AMBER.....	4

END OF FIGURE



SECTION II			TM9-2330-363-14&P		(5)	(6)					
(1)	(2)	(3)	(4)								
ITEM	SMR		PART	DESCRIPTION AND USABLE ON CODES(UOC) QTY							
NO	CODE	FSCM	NUMBER								
GROUP 2202 ACCESSORY ITEMS											
FIG. 33 ACCESSORY ITEMS											
1	PBOZZ	19207	5955072	COVER ASSEMBLY,STOR.....	1						
				UOC:035,036							
2	XAOZZ	19207	5955073-1	.COVER.....	1						
				UOC:035,036							
3	PAOZZ	19207	10907044-5	.EYELET,TURNLOCK FASTENER.....	4						
				UOC:035,036							
4	XAOZZ	19207	5955073-2	.COVER.....	1						
				UOC:035,036							
5	PAOZZ	71286	4002-9W	.STUD ASSEMBLY, TURNLOCK FASTENER..	4						
				UOC:035,036							
6	XBOZZ	40670	9348089	.HANDLE,COVER.....	1						
				UOC:035,036							
7	XAOZZ	19207	5955070-3	.HINGE.....	2						
				UOC:035,036							
8	PBOZZ	19207	12307760	DOOR,METAL,SWINGING.....	2						
9	XBOZZ	19207	12307779	.DOOR,ACCESS.....	2						
10	PAOZZ	96906	MS27966-6	.HINGE,BUTT.....	4						
11	PAOZZ	04633	EC1202	.SEAL.....	10						
12	PAOZZ	27109	595002071	CATCH,CLAMPING.....	2						
13	XDOZZ	19207	5955088	BRACKET ASSEMBLY.....	2						
				UOC:035,036							
14	XBOZZ	19207	5955090	.BAR,BRACKET.....	1						
				UOC:035,036							
15	PAOZZ	19207	12307791	.HINGE,BUTT.....	1						
				UOC:035,036							
16	PAOZZ	39428	98335-A	PIN,LOCK.....	2						
				UOC:035,036							
17	PAOZZ	10001	42C15350	CHAIN,WELDLESS.....	2						
				UOC:035,036							
18	PAOZZ	40670	9350051	PIN AND BLOCK,STORA.....	2						
				UOC:035,036							
19	PBOZZ	19207	5955079	DOOR ASSEMBLY,VEHIC.....	2						
				UOC:035,036							
20	XAOZZ	19207	5955070-2	.HINGE,DOOR.....	1						
				UOC:035,036							
21	XAOZZ	19207	5955080	.DOOR,ACCESS.....	1						
				UOC:035,036							
22	PBOZZ	19207	5955071	COVER ASSEMBLY,STOR.....	1						
				UOC:035,036							
23	XBOZZ	40670	9348089	.HANDLE,COVER.....	1						
				UOC:035,036							
24	PAOZZ	19207	10907044-5	.EYELET,TURNLOCK FASTENER.....	5						
				UOC:035,036							
25	PAOZZ	71286	4002-14W	.STUD ASSEMBLY, TURNLOCK FASTENER..	5						
				UOC:035,036							
26	XAOZZ	19207	5955081	.COVER.....	1						
				UOC:035,036							
27	XAOZZ	19207	5955071-1	.HINGE.....	1						
				UOC:035,036							

END OF FIGURE

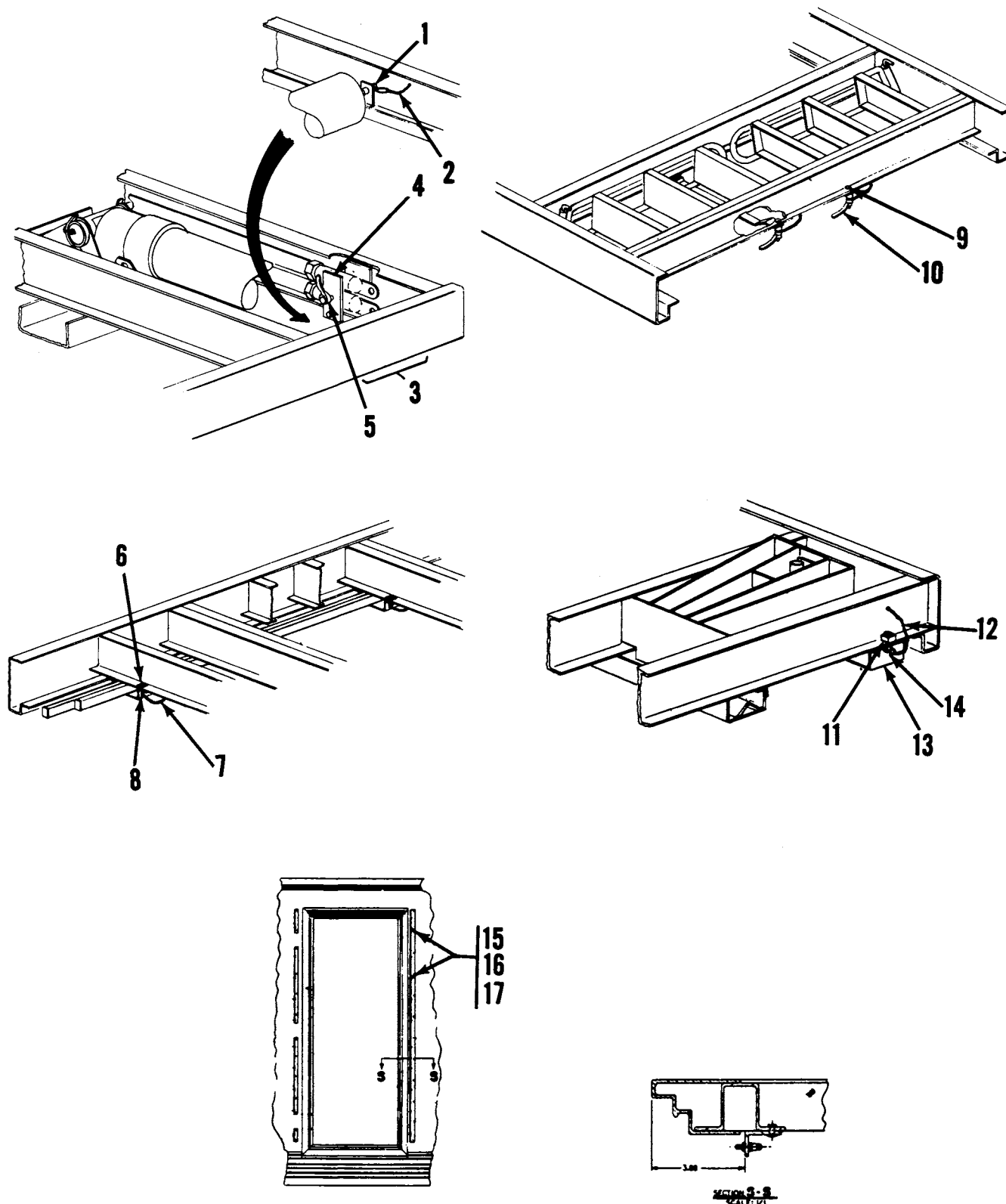
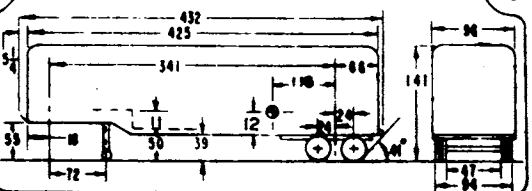


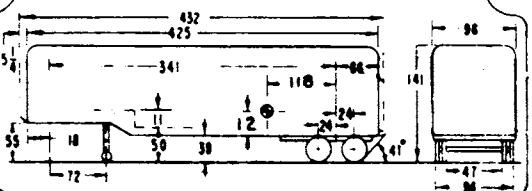
Figure 33A. Accessory Items, XM991E1, XM995E1, XM991E2, XM995E2.

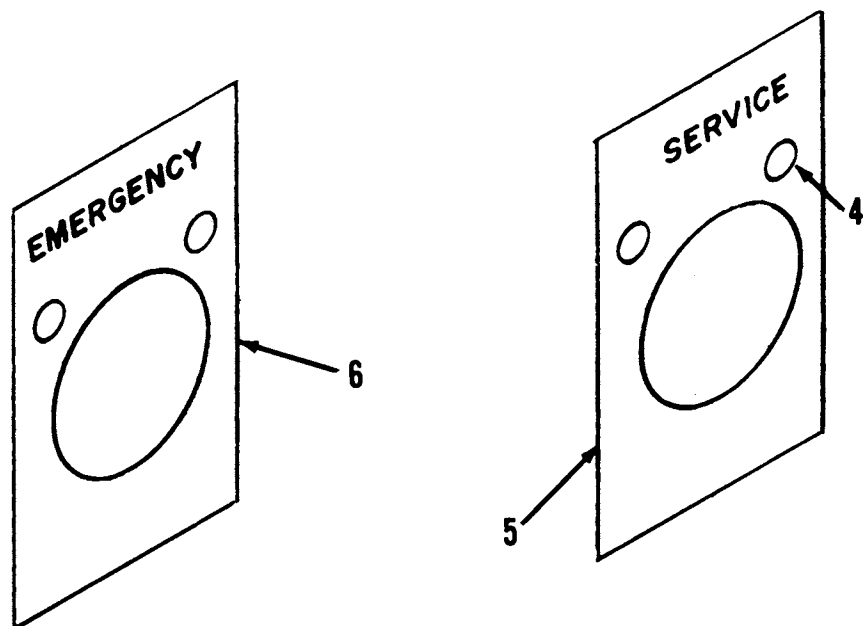
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SECTION II			TM9-2330-363-14&P			
(1)	(2)	(3)	(4)		(5)	(6)
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)		QTY
GROUP 2202 ACCESSORY ITEMS						
FIG. 33A ACCESSORY ITEMS, XM991E1,						
XM995E1, XM991E2, XM995E2						
1	PAOZZ	19207	12315765	PIN,QUICK RELEASE.....		2
				UOC:057,058,063,064		
2	MFFZZ	19207	12353860-1	.CHAIN FABRICATE FROM P/N 12353860.		1
				UOC:057,058,063,064		
3	PBOZZ	19207	12315761	HANDLE AND BRACKET.....		4
				UOC:057,058,063,064		
4	PBOZZ	19207	12315766	PLATE,CLIP RETAINER.....		4
				UOC:057,058,063,064		
5	PBOZZ	19207	12315767	HANDLE,DOOR.....		4
				UOC:057,058,063,064		
6	PBOZZ	19207	12308007	PIN AND BLOCK ASSEM.....		2
				UOC:057,058,063,064		
7	MFFZZ	19207	12353861-1	.CHAIN FABRICATE FROM P/N 12353861.		2
				UOC:057,058,063,064		
8	PAOZZ	39428	98335-A	PIN,LOCK.....		2
				UOC:057,058,063,064		
9	PAOZZ	96906	MS90728-116	SCREW,CAP,HEXAGON H.....		2
				UOC:057,058,063,064		
10	PBOZZ	19207	11684305	HANDLE ASSEMBLY.....		2
				UOC:057,058,063,064		
11	PBOZZ	19207	12308007	PIN AND BLOCK ASSEM.....		2
				UOC:057,058,063,064		
12	MFFZZ	19207	12353860-1	.CHAIN FABRICATE FROM P/N 12353860.		2
				UOC:057,058,063,064		
13	PBOZZ	19207	12307928	BRACKET ASSEMBLY,MO.....		2
				UOC:057,058,063,064		
14	PAOZZ	88044	AN415-2	PIN,LOCK.....		2
				UOC:057,058,063,064		
15	PAOZZ	96906	MS27977-29N	STUD,SNAP FASTENER.....		22
				UOC:063,064		
16	PAOZZ	96906	MS27183-7	WASHER,FLAT.....		22
				UOC:063,064		
17	PAOZZ	96906	MS21083-N08	NUT,SELF-LOCKING,HE.....		22
				UOC:063,064		

END OF FIGURE

SEMITRAILER VAN: REPAIR FACILITY 10 TON, 4W, XM991, NSN 2330-01-093-8322 MFD BY MILLER TRAILERS INC. BRADENTON, FLORIDA VEN IDENT NO <input type="text"/> CONTRACT NO DAAE07-78-C-6768		WEIGHT AND DIMENSION DATA (TRAILER EMPTY) 	
TECHNICAL MANUAL TMO-2330-363-14 & P		WEIGHTS EMPTY LOADED WHEELS 9890 11350 KING PIN 5120 7380 TOTAL 15010 18730	
DELIVERY DATE <input type="text"/> INSPECTED <input type="text"/>		SPEEDS HIGHWAY 50 MPH IMPROVED GRAVEL 25 MPH CROSS COUNTRY 15 MPH	
SHIPPING CUBAGE 3304 CU FT			

SEMITRAILER VAN: TEST STATION 10 TON, 4W, XM995, NSN 2330-01-093-8323 MFD BY MILLER TRAILERS INC. BRADENTON, FLORIDA VEN IDENT NO <input type="text"/> CONTRACT NO DAAE07-78-C-6768		WEIGHT AND DIMENSION DATA (TRAILER EMPTY) 	
TECHNICAL MANUAL TMO-2330-363-14 & P		WEIGHTS EMPTY LOADED WHEELS 9890 13127 KING PIN 5120 10298 TOTAL 15010 23425	
DELIVERY DATE <input type="text"/> INSPECTED <input type="text"/>		SPEEDS HIGHWAY 50 MPH IMPROVED GRAVEL 25 MPH CROSS COUNTRY 15 MPH	
SHIPPING CUBAGE 3304 CU FT			



8 → **TO OPEN
WHEN LOCKED IN
PUSH HANDLE IN &
TURN TO UNLOCK**

7 → **EMERGENCY
EXIT**

Figure 34. Identification Plates.

SECTION II			TM9-2330-363-14&P	(5)	(6)
(1)	(2)	(3)	(4)		
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 2210 IDENTIFICATION PLATES					
FIG. 34 IDENTIFICATION PLATES					
1	PAOZZ	96906	MS51861-45	SCREW,TAPPING,THREA.....	6
				UOC:035,036	
2	PAOZZ	19207	12315616	PLATE,IDENTIFICATIO.....	1
				UOC:035	
3	PAOZZ	19207	12315615	PLATE,IDENTIFICATIO.....	1
				UOC:036	
4	PAOZZ	96906	MS24662-153	RIVET,BLIND.....	4
5	PAOZZ	96906	MS53007-1	PLATE,IDENTIFICATIO.....	1
6	PAOZZ	96906	MS53007-2	PLATE,IDENTIFICATIO.....	1
7	PAOZZ	19207	11638183	PLATE,IDENTIFICATIO.....	3
				UOC:035,036	
8	PAOZZ	19207	11638182	PLATE,INSTRUCTION.....	3
				UOC:035,036	

END OF FIGURE

1

2

3

4

5

SEMITRAILER VAN: REPAIR FACILITY
10 TON, 4W, XM991E1, NSN-2330-01-145-0383

MFD BY
 VEH IDENT NO
 CONTRACT NO

PUBLICATION
 TECHNICAL MANUAL TM9-2330-363-14 & P

DELIVERY DATE INSPECTED

SHIPPING CUBAGE 3384 CU FT

WEIGHT AND DIMENSION DATA (TRAILER EMPTY)

WEIGHTS	EMPTY	LOADED	SPEEDS
WHEELS	9890	27880	30 mph
KING PIN	5230	13240	IMPROVED GRAVEL 25 mph
TOTAL	15120	33120	CROSS COUNTRY 15 mph

SEMITRAILER VAN: TEST STATION, 10 TON, 4W, XM995E1, NSN 2330-01-145-0384

MFD BY
 VEH IDENT NO
 CONTRACT NO

PUBLICATION
 TECHNICAL MANUAL TM9-2330-363-14 & P

DELIVERY DATE INSPECTED

SHIPPING CUBAGE 3384 CU FT

WEIGHT AND DIMENSION DATA (TRAILER EMPTY)

WEIGHTS	EMPTY	LOADED	SPEEDS
WHEELS	9890	27880	30 mph
KING PIN	5230	13240	IMPROVED GRAVEL 25 mph
TOTAL	15120	33120	CROSS COUNTRY 15 mph

SEMITRAILER VAN: CENTRAL PROCESSOR
10 TON, 4W, XM991E2, NSN 2330-01-151-1707

MFD BY
 VEH IDENT NO
 CONTRACT NO

PUBLICATION
 TECHNICAL MANUAL TM9-2330-363-14 & P

DELIVERY DATE INSPECTED

SHIPPING CUBAGE 3384 Cu Ft

WEIGHT AND DIMENSION DATA (TRAILER EMPTY)

WEIGHTS	EMPTY	LOADED	SPEEDS
WHEELS	9970	21910	30 mph
KING PIN	5210	13270	IMPROVED GRAVEL 25 mph
TOTAL	15180	33180	CROSS COUNTRY 15 mph

SEMITRAILER VAN: MASS STOWAGE UNIT
10 TON, 4W, XM 895E2, NSN 2330-01-151-1706

MFD BY
 VEH IDENT NO
 CONTRACT NO

PUBLICATION
 TECHNICAL MANUAL TM 9-2330-363-14 & P

DELIVERY DATE INSPECTED

SHIPPING CUBAGE 3384 Cu Ft.

WEIGHT AND DIMENSION DATA (TRAILER EMPTY)

WEIGHTS	EMPTY	LOADED	SPEEDS
WHEELS	9970	21910	30 mph
KING PIN	5210	13270	IMPROVED GRAVEL 25 mph
TOTAL	15180	33180	CROSS COUNTRY 15 mph

Figure 34A. Identification Plates, XM991E1, XM995E1, XM991E2, XM995E2.

TA 355669

SECTION II			TM9-2330-363-14&P		(5)	(6)
(1)	(2)	(3)	(4)			
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY	
GROUP 2210 IDENTIFICATION PLATES						
FIG. 34A IDENTIFICATION PLATES,						
XM991E1, XM995E1, XM991E2, XM995E2						
1	PAOZZ	96906	MS51861-45	SCREW,TAPPING,THREA.....	6	
				UOC:057,058,063,064		
2	PAOZZ	19207	12330906	PLATE,IDENTIFICATIO.....	1	
				UOC:063		
3	PAOZZ	19207	12330907	PLATE,IDENTIFICATIO.....	1	
				UOC:064		
4	PAOZZ	19207	12330942	PLATE,IDENTIFICATIO.....	1	
				UOC:057		
5	PAOZZ	19207	12330943	PLATE,IDENTIFICATIO.....	1	
				UOC:058		

END OF FIGURE

SECTION II			TM9-2330-363-14&P		
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
GROUP 95 GENERAL USE STANDARDIZED					
PARTS					
GROUP 9501 BULK ITEMS					
1	PAFZZ	81349	M13486-1-5	WIRE,ELECTRICAL.....	1
2	PAOZZ	19207	12353858	CHAIN.....	1
3	PAOZZ	19207	12353859	CHAIN.....	1
				UOC:035,036,063,064	
4	PAOZZ	19207	12353860	CHAIN.....	1
				UOC:057,058,063,064	
5	PAOZZ	19207	12353861	CHAIN.....	1
				UOC:057,058,063,064	

END OF FIGURE

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX		NATIONAL STOCK NUMBER INDEX	
STOCK NUMBER	FIG. ITEM	STOCK NUMBER	FIG. ITEM
5220-00-001-1255	32 1	5310-00-067-6356	28 26
5305-00-003-6769	30B 1	5305-00-068-0506	29 8
5310-00-006-8291	21 19	4730-00-069-1186	16 8
5320-00-011-9951	10 11		18 5
5315-00-013-7214	31 18	4730-00-069-1187	16 31
5315-00-013-7238	26 3	5305-00-071-1781	21 20
5315-00-013-8143	26 10	5305-00-071-2072	33A 9
5310-00-014-5850	21 34	5305-00-071-2237	4 15
5310-00-016-7361	25 7		4A 16
5310-00-017-9721	24 8	5305-00-071-2241	21 25
5306-00-017-9722	24 10		30A 19
6240-00-019-0877	2 6		30A 36
	3 10		30A 38
6240-00-019-3093	3 5		30B 22
2530-00-021-2366	17 1		30B 39
5365-00-023-8241	28 29		30B 41
5360-00-025-8210	30 27		30C 34
5305-00-042-6417	31 4	5305-00-071-2509	21 15
5305-00-044-4153	28 15	5305-00-071-2511	22 22
6240-00-044-6914	3 4	2530-00-074-2357	10 7
5310-00-045-3296	4 5	2530-00-075-5856	18 12
	18 19		29 1
	30 4	5340-00-078-3615	4A 2
	4A 5	5310-00-080-6004	19 17
	30A 3	5310-00-081-4219	21 12
	30C 4	5305-00-082-6977	25 9
5310-00-045-3299	1A 5	5310-00-087-7493	22 6
5306-00-050-0346	22 1	5310-00-088-1251	21 22
4730-00-050-4203	23 2		21 30
5940-00-050-6207	5 8A		22 20
	5A 8		22 24
5940-00-050-6209	5 8		22 38
	5A 13	5365-00-090-5426	5 6
5305-00-050-9215	25 13		6 8
5305-00-052-6917	30 1		7 7
	30 3		8 9
	30A 2		5A 10
	30C 5		7A 11
5305-00-052-7492	1 6	3110-00-100-5951	19 8
	30 26	6220-00-113-0986	2 1
5999-00-057-2929	3 8	5305-00-115-9526	3 12
	5 15	4010-00-129-3221	23 11
	7 4	6220-00-134-9098	3 1
	8 4	2530-00-142-6045	16 4
	7A 7	2590-00-142-6164	27 1
2640-00-060-3550	20 4	6240-00-143-3159	3 5
5970-00-063-1499	5A 3	5310-00-149-9126	28 24
5320-00-067-5840	30 8	5306-00-150-3075	23 19
5310-00-067-6356	23 17	5305-00-150-3583	32 3
	28 4	3040-00-150-7127	10 7

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX		NATIONAL STOCK NUMBER INDEX	
STOCK NUMBER	FIG. ITEM	STOCK NUMBER	FIG. ITEM
6145-00-152-6499	BULK 1	5305-00-269-3213	30 39
6240-00-155-8717	2 6		30A 14
2530-00-157-1396	16 3		30B 17
5310-00-158-9408	22 7		30C 15
	22 35	5305-00-269-3233	12 2
2530-00-159-8755	12 5	5305-00-269-3234	30 23
2530-00-159-8756	12 5		30A 41
5340-00-164-3558	30 34		30B 44
	30 34		30C 39
5310-00-167-0721	12 9	5305-00-269-3250	16 26
5325-00-171-6387	4 2	5310-00-269-4040	28 23
	4A 3	2610-00-269-7383	20 2
6220-00-179-4324	3 2	2530-00-270-3878	16 15
9390-00-180-7289	6 5		18 4
	8 7	4730-00-270-4580	16 29
4730-00-187-7612	16 35		18 9
5315-00-194-2455	33A 14	5365-00-274-4544	13 12
9905-00-202-3639	32 9		15 7
4730-00-203-0028	16 13	5310-00-275-6635	13 14
4710-00-203-3172	18 22	5325-00-276-4918	33A 15
9905-00-205-2795	32 9	5325-00-276-6100	1A 7
5305-00-225-3839	21 8	4710-00-277-5525	16 27
	21 16		18 10
	21 32	2530-00-278-2243	14 1
	22 10	5310-00-282-4776	28 3
	22 26		28 20
	22 40	5320-00-285-1025	24 15
5305-00-225-3842	29 6	2530-00-287-8252	15 12
5310-00-225-6992	28 21	4730-00-289-0051	16 7
5310-00-225-6993	21 11	5325-00-290-0074	4 10
5306-00-225-8496	15 3		16 12
5305-00-225-9081	21 13		18 13
5305-00-226-7768	23 16		4A 20
4010-00-228-9957	33 17	5325-00-290-3818	33 25
5315-00-234-1664	24 6	5325-00-290-3820	33 5
4730-00-240-9159	16 11	5315-00-290-6132	23 4
5315-00-243-1169	23 13	6220-00-299-7425	2 4
4730-00-244-9848	16 18	6220-00-299-7426	2 4
	18 3	5310-00-314-0764	10 6
4730-00-249-3935	16 17	5310-00-314-0765	10 5
5305-00-253-5626	23 10	5310-00-322-7260	10 4
2610-00-262-8677	20 1	2530-00-322-7261	10 3
5305-00-267-8974	11 11	5306-00-335-4768	19 16
5305-00-269-2803	11 15	5330-00-353-0959	2 8
	16 25	5310-00-359-0458	13 13
5305-00-269-2805	13 8	2530-00-359-1162	19 10
	16 41	6250-00-371-4018	2 7
5305-00-269-2806	17 4	5306-00-383-4957	19 14
5305-00-269-2807	11 15	5310-00-393-6685	5 7
5305-00-269-3213	30 39		6 7

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX		NATIONAL STOCK NUMBER INDEX	
STOCK NUMBER	FIG. ITEM	STOCK NUMBER	FIG. ITEM
5310-00-393-6685	7 8	5310-00-582-5965	21 7
	8 8		21 17
	5A 11		22 9
	7A 12		24 12
5940-00-399-6676	5 4		30 25
	5A 6		31 25
5310-00-407-9566	15 2		4A 14
	31 2		30A 20
	31 20		30A 35
5310-00-410-3019	4 7		30A 39
5330-00-414-6695	30 9		30B 4
4730-00-419-9425	13 11		30B 23
	15 6		30B 38
4820-00-420-5499	16 19		30B 42
5305-00-432-4172	21 29		30C 36
5305-00-432-4201	34 1	5310-00-584-5272	23 14
	34A 1		24 1
5305-00-432-4252	31 15		27 3
	32 8		28 11
5310-00-436-3290	22 33		31 5
5310-00-438-6962	30A 21	5310-00-584-7888	23 18
	30B 24		28 8
5330-00-462-0907	3 3		31 17A
4730-00-463-1588	13 9	4730-00-595-0083	16 16
5310-00-488-9342	25 8		18 1
4730-00-494-6580	18 23	5310-00-595-6612	28 25
5310-00-500-0387	19 9	5310-00-596-8169	2 5
4710-00-511-1692	14 4	5340-00-597-6153	4 3
5365-00-516-7878	14 9	5330-00-614-4356	19 5
2530-00-522-1157	11 12	2530-00-614-4454	19 4
2530-00-522-4183	10 10	6240-00-617-0991	3 4
5310-00-550-1130	1 3	5310-00-627-6128	11 16
5310-00-550-3503	10 13		12 3
5310-00-559-0070	4 8	2590-00-630-1567	30 22
	4A 18		30 22
4710-00-566-7133	15 9	4710-00-630-9928	15 11
4710-00-566-7134	15 11	5310-00-637-9541	3 11
5935-00-572-9180	2 11		13 7
	3 6		14 8
	5 13		16 24
	7 2		16 40
	8 2		17 3
	7A 5		25 6
5310-00-576-5752	2 9		30 24
	4A 10		30 32
6220-00-577-3434	2 1		31 8
5310-00-582-5965	4 13		30A 7
	11 4		30A 42
	11 10		30B 10
	19 20		30B 45

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX		NATIONAL STOCK NUMBER INDEX	
STOCK NUMBER	FIG. ITEM	STOCK NUMBER	FIG. ITEM
5310-00-637-9541	30C 8	5310-00-741-1378	19 7
	30C 40	5310-00-741-1379	19 6
5330-00-641-0231	30A 29	2530-00-741-1425	19 12
	30B 32	5330-00-741-1429	19 11
	30C 29	5365-00-741-1433	19 15
5310-00-641-9939	11 9	5306-00-741-1760	11 2
5310-00-656-0067	7B 4	6220-00-741-1843	2 1
4720-00-678-6125	16 36	4730-00-741-1903	15 10
5315-00-682-2207	30 11	4710-00-741-1907	15 9
5935-00-686-2599	8 5	2530-00-741-2050	15 1
5935-00-691-5591	7B 2	2530-00-741-2065	15 13
2530-00-693-1007	10 9	2530-00-741-2068	15 1
2530-00-693-1029	19 10	5310-00-741-2088	15 5
5360-00-699-9018	11 13	5365-00-741-2103	11 8
5340-00-702-1293	21 27	2530-00-741-2104	12 10
	22 2	5315-00-741-2106	11 7
5360-00-704-4253	23 8	5310-00-741-2120	12 11
2540-00-707-3213	23 9	2530-00-741-3231	19 13
5365-00-717-5617	31 11	3040-00-752-1156	24 14
5305-00-723-9386	30 37	2510-00-752-1157	24 5
	30A 10	2510-00-752-1160	24 4
	30B 13	2510-00-752-1161	24 9
	30C 12	2510-00-752-1163	24 7
5305-00-725-4187	27 9	5315-00-752-4316	23 7
6220-00-726-1916	2 1	9905-00-752-4649	5A 7
4030-00-729-6054	22 14		7A 8
4730-00-729-6437	13 10	6220-00-752-6516	2 3
	15 8	2530-00-753-9308	14 10
2530-00-730-7620	11 1	5325-00-754-1071	16 10
2530-00-730-7621	11 1	5940-00-754-9257	7 5
5310-00-732-0558	17 2		7A 9
	22 5	5310-00-761-6882	1 4
	22 16		11 3
	30 33		24 13
	31 7		30B 5
	30A 6	5310-00-763-8901	28 9
	30B 9	5310-00-763-8905	16 5
	30C 9	5310-00-765-3197	22 31
5310-00-732-0559	11 17		22 47
	13 6	2530-00-770-9149	12 6
	14 7	2530-00-770-9150	12 7
	16 23	2530-00-770-9151	12 7
	16 39	5975-00-771-6634	8 6
5310-00-732-0560	23 15	5935-00-771-6793	6 6
	27 2	5935-00-773-1428	1 1
5306-00-733-9239	19 14	4730-00-773-2163	14 5
1440-00-735-5316	19 19	5935-00-773-6571	1 5
5365-00-737-3354	14 6	2530-00-774-9401	10 1
2530-00-738-9061	19 2	2530-00-774-9402	10 1
2530-00-741-1078	16 22	2530-00-774-9403	10 2

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX		NATIONAL STOCK NUMBER INDEX	
STOCK NUMBER	FIG. ITEM	STOCK NUMBER	FIG. ITEM
1450-00-776-3264	11 6	5970-00-833-8562	5 11
2530-00-791-0110	12 1		6 3
2530-00-791-3259	12 1		7 10
	12 12		5A 5
4710-00-791-8077	15 4		7A 3
4710-00-791-8078	15 4	5310-00-833-8567	2 12
2530-00-794-9763	11 12		3 7
1440-00-798-4812	12 4		5 14
1440-00-798-4824	12 4		7 3
2530-00-798-4850	10 2		8 3
5305-00-801-5747	10 15		7A 6
5365-00-803-7301	23 3	2540-00-835-9039	23 1
9320-00-806-2165	33 11	4730-00-837-1177	16 20
5340-00-809-1492	16 43	5340-00-839-0098	30 19
	18 26	5315-00-839-5822	22 37
5340-00-809-1494	18 25	2510-00-840-9339	30 6
	4A 6	6150-00-844-6178	4 11
4720-00-809-2750	14 2	5935-00-846-3883	5 5
5310-00-809-4058	4 14		5A 9
	21 26	5935-00-846-3884	7 6
	21 31		7A 10
	4A 15	5940-00-846-5012	5 12
5310-00-809-5997	22 36		6 4
5310-00-809-5998	21 10		7 11
5310-00-809-8533	26 11		7A 4
5310-00-809-8541	26 2	4820-00-849-1220	16 14
5310-00-809-8544	33A 16	5315-00-849-9857	26 12
2640-00-810-5861	20 3	5310-00-850-6993	31 17
5325-00-814-3316	16 33	5310-00-853-9335	12 8
	18 17		25 3
5306-00-816-2441	30 31	4730-00-854-6931	13 1
	30A 8	5305-00-855-0964	2 10
	30B 11		1A 1
	30C 7		16 42
5310-00-820-6653	16 6		18 24
5310-00-823-8804	22 21		2A 2
	22 25		4A 1
	22 39	5315-00-866-2673	30 30
	31 24	5310-00-877-5797	1A 11
	30A 33	5310-00-880-2004	19 9
	30B 36	5310-00-880-7744	31 3
5325-00-826-3620	33 3	9905-00-893-3570	5A 12
	33 24		7A 13
5935-00-833-8561	5 2	4730-00-896-0837	16 32
	5 10	2540-00-897-5917	31 10
	6 2	5340-00-897-5921	13 2
	7 9	5310-00-903-3993	10 14
	5A 4	5315-00-904-7407	26 1
	7A 2	5310-00-905-0762	4 12
5970-00-833-8562	5 3		4A 13

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX			NATIONAL STOCK NUMBER INDEX		
STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
4730-00-908-3194	14	3	5305-00-984-6195	1A	3
5305-00-915-8087	24	3		4A	19
4030-00-916-2141	23	12	5305-00-984-6210	4	6
2540-00-918-4184	30	22		4A	7
	30	22	5305-00-984-6212	22	30
2540-00-918-4191	31	14		4A	11
4730-00-921-3241	16	30	5305-00-984-6213	18	20
5340-00-921-6993	18	21		21	35
5310-00-924-4218	11	14		4A	8
5999-00-926-3144	7B	3	5305-00-984-6214	22	48
5305-00-928-9636	28	5	2530-00-987-2565	11	5
5310-00-929-1807	29	2	5305-00-988-1723	19	21
	29	4	5305-00-988-9265	1	2
5340-00-929-8372	31	13	2540-00-990-0499	28	2
5310-00-934-9747	22	3	5310-00-990-5322	28	22
5310-00-934-9757	1A	6	2530-00-991-4342	11	5
	4A	17	5306-00-993-6257	30	39
5310-00-934-9758	4	4		30A	14
	18	18		30B	17
	21	33		30C	15
	22	46	1440-00-994-8975	12	13
	4A	4	9905-00-999-7369	16	34
	4A	9		18	14
5305-00-939-0658	30A	16		34	6
	30B	19	9905-00-999-7370	16	37
	30C	21		18	15
5310-00-941-6019	32	7		34	5
	33A	17	4720-01-003-6706	16	9
5305-00-942-2196	25	5	4720-01-014-4915	16	1
	31	12		18	7
5305-00-947-4358	28	28	2540-01-023-5116	23	6
5315-00-951-7542	22	42	2540-01-024-3622	23	5
5305-00-954-4603	31	21	5305-01-027-5247	31	16
5305-00-958-0671	1A	12	5320-01-028-4855	32	6
5305-00-958-5246	2	2	2510-01-031-0063	30	12
5305-00-958-5247	30B	3	4710-01-031-9120	13	5
2530-00-973-2355	10	8	5340-01-032-6011	30	28
2530-00-973-2356	10	8	2540-01-032-7419	31	6
5340-00-974-9847	30	29	5340-01-033-3446	30	34
5340-00-977-0815	16	21		30	34
5305-00-978-9380	30A	28	5306-01-033-4358	30	39
	30B	31		30	39
	30C	25		30A	14
5305-00-978-9385	31	23		30B	17
5320-00-982-3815	34	4		30C	15
5310-00-982-4908	19	18	5340-01-034-3072	30	5
5310-00-984-3806	21	9		30A	1
	30C	35		30C	3
5305-00-984-4992	22	4	5306-01-034-3418	31	1
5305-00-984-6195	4	9	2510-01-041-0680	30	15

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

STOCK NUMBER	NATIONAL STOCK NUMBER INDEX		STOCK NUMBER	NATIONAL STOCK NUMBER INDEX	
	FIG.	ITEM		FIG.	ITEM
9905-01-043-8002	34	7	2540-01-093-0560	29	5
9905-01-043-8003	34	8	6220-01-093-4439	3	1
5970-01-044-4532	21	3	5340-01-095-2416	21	18
	22	29	5315-01-096-2536	30	16
5315-01-045-6509	30	17	5340-01-096-7556	25	15
2540-01-046-0367	31	6	2530-01-096-9945	10	12
2530-01-046-4695	25	14	5325-01-098-6727	22	18
2540-01-046-9404	30	18	5340-01-098-6784	22	32
	30	18	5315-01-100-5249	33	16
2540-01-049-8001	30	18		33A	8
	30	18	5306-01-100-6256	28	6
5325-01-050-1586	4	1	5310-01-101-6046	30A	32
	18	16		30B	35
	4A	21	4730-01-102-3704	16	28
5365-01-051-8631	32	2		18	8
5310-01-053-1444	18	2	5306-01-102-6963	22	15
5210-01-053-3357	32	4	5306-01-104-9000	28	7
4010-01-059-2093	26	6	5310-01-108-8404	21	6
5310-01-070-2105	24	2	5307-01-111-7093	25	4
	28	10	5307-01-118-6021	25	1
4010-01-074-5029	24	11	2510-01-119-4101	31	19
4730-01-079-8821	16	2	2510-01-119-4138	30	7
	18	6	2510-01-119-4139	30	7
5340-01-083-5527	16	21	2510-01-119-4140	30	7
2530-01-083-5600	9	1	2510-01-119-4141	33	8
4710-01-083-5636	13	4	2510-01-124-5152	30	7
2530-01-083-5641	12	12	2590-01-124-5225	26	4
2540-01-087-6919	33	22	2590-01-124-5226	26	4
2540-01-087-6920	33	1	2590-01-124-9288	27	4
5340-01-087-6921	21	14	2590-01-124-9289	27	7
2590-01-087-8633	27	6	2590-01-124-9290	26	7
2590-01-087-8634	27	6	2590-01-124-9291	26	7
2590-01-088-5902	33	19	2590-01-124-9292	26	9
2590-01-088-5903	27	5	5340-01-128-9562	33	15
2510-01-088-5904	30	10	2590-01-129-5737	26	5
2540-01-088-5905	30	14	2590-01-129-5738	26	8
2540-01-088-5907	33	18	2540-01-130-3492	30	13
5340-01-092-0408	22	17	5340-01-132-4941	33	10
2510-01-092-4046	25	12	9905-01-133-1492	34	2
2510-01-092-4050	28	13	9905-01-133-1493	34	3
2530-01-092-4051	18	11	5340-01-138-7153	30A	30
	29	7		30B	33
2540-01-092-4052	28	19		30C	30
2540-01-092-4053	28	16	5305-01-139-2048	31	16
2540-01-092-4054	28	14	2540-01-139-9679	30A	23
2540-01-092-4055	28	14		30B	26
3040-01-092-4125	25	2		30C	23
2540-01-092-4133	25	10	5330-01-140-2424	30A	31
2530-01-092-6385	28	17		30B	34
2530-01-092-6386	28	18		30C	6

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STOCK NUMBER		NATIONAL STOCK NUMBER INDEX		STOCK NUMBER	
	FIG.	ITEM		FIG.	ITEM
5340-01-141-0884	30A	15	2510-01-187-9453	30B	27
	30B	18	2540-01-189-0452	30A	23
6220-01-141-0908	2A	1		30B	26
5315-01-143-0639	30	35		30C	23
	30A	11	5340-01-189-0453	30A	9
	30B	14		30C	10
	30C	13	2540-01-189-0454	30C	32
5905-01-143-5161	1A	8	2540-01-189-0455	30C	32
4720-01-143-6992	13	3	2510-01-189-0535	30C	1
5340-01-145-6829	21	36	2590-01-189-0543	4A	12
	22	49	2540-01-189-0599	33A	5
5940-01-147-3415	5A	2	2540-01-193-1734	22	43
5320-01-150-9681	30A	25	2510-01-193-1735	22	41
	30B	28	2540-01-193-1736	22	23
	30C	24	2510-01-193-1737	31	22
2540-01-152-1056	30A	27	2540-01-193-1738	33A	3
	30B	30	2540-01-193-1748	22	45
	30C	28	2510-01-193-1749	22	44
5325-01-152-2378	30A	34	2540-01-193-1750	22	19
	30B	37	2540-01-193-1751	22	8
	30C	16	2540-01-193-1752	22	8
2540-01-152-8800	33A	10	9905-01-193-1788	34A	2
2540-01-152-8882	30A	18	9905-01-193-1789	34A	3
	30B	21	2510-01-193-1808	30A	5
	30C	20		30B	8
2510-01-156-8094	30A	4	2510-01-193-1809	30A	5
	30B	7		30B	8
	30C	2	2510-01-193-1810	30A	5
2590-01-160-0731	27	8	2510-01-193-1811	30C	1
2590-01-160-0732	27	8	2510-01-193-1812	30C	1
5306-01-162-0017	13	15	2540-01-193-1839	30A	26
4730-01-162-0623	29	3		30B	29
5340-01-181-6332	21	4		30C	27
5340-01-181-6333	21	4	9905-01-194-7020	34A	4
5340-01-183-6845	30A	9	9905-01-194-7021	34A	5
	30B	12	5365-01-195-4945	21	5
	30C	10	2510-01-197-8141	30C	1
2590-01-183-8397	7B	1	2510-01-197-8142	30A	5
5340-01-184-4815	21	24	5340-01-198-7591	33	12
2530-01-184-4856	16	38	5935-01-199-9921	7B	5
2590-01-184-4897	27	10	3040-01-200-4391	30	21
5315-01-185-0162	33A	6	3040-01-200-5681	30	20
	33A	11	5340-01-203-0321	30A	37
2590-01-185-0163	33A	13		30B	40
2510-01-186-7888	30A	22		30C	33
	30B	25	5340-01-203-0328	31	9
	30C	18	5340-01-204-5674	30A	40
2510-01-186-7889	30C	31		30B	43
5340-01-186-7976	27	11		30C	17
2510-01-187-9453	30A	24	5340-01-206-7420	31	9

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STOCK NUMBER	NATIONAL STOCK NUMBER INDEX		FIG.	ITEM
	FIG.	ITEM		
5340-01-206-7589	30A	37		
	30B	40		
	30C	33		
5310-01-208-3862	31	26		
5365-01-208-6216	30A	43		
	30B	46		
	30C	26		
5340-01-208-6814	30B	6		
5365-01-215-3863	30C	37		
5340-01-217-0975	30B	15		
	30C	14		

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
88044	AN415-2	5315-00-194-2455	33A	14
78500	A1-3236M1261	2530-00-791-3259	12	12
19207	CPR102321-1	4730-01-079-8821	16	2
			18	6
19207	CPR104420-2	4720-01-014-4915	16	1
			18	7
19207	CPR104420-3	4720-01-003-6706	16	9
04633	EC1202	9320-00-806-2165	33	11
63477	FE-19222	2530-01-096-9945	10	12
23040	GQA167880	5365-00-516-7878	14	9
81349	MIL-H-15021 TYPE II		22	12
96906	MS15001-1	4730-00-050-4203	23	2
96906	MS15570-1251	6240-00-019-0877	2	6
			3	10
96906	MS15570-623	6240-00-019-3093	3	5
96906	MS15570-89	6240-00-143-3159	3	5
96906	MS16536-175	5320-00-011-9951	10	11
96906	MS16624-1050	5365-00-803-7301	23	3
96906	MS16997-61	5305-00-978-9380	30A	28
			30B	31
			30C	25
96906	MS16997-62	5305-00-978-9385	31	23
96906	MS17830-3C	5310-00-436-3290	22	33
96906	MS17985-615	5340-00-702-1293	21	27
			22	2
96906	MS18154-113	5305-00-915-8087	24	3
96906	MS18154-58	5305-00-115-9526	3	12
96906	MS18154-60	5305-00-942-2196	25	5
			31	12
96906	MS19081-112	3110-00-100-5951	19	8
96906	MS20002-10	5310-00-149-9126	28	24
96906	MS20002-12	5310-00-595-6612	28	25
96906	MS20002-14	5310-00-282-4776	28	3
			28	20
96906	MS20392-12C 91	5315-00-904-7407	26	1
96906	MS20392-5C67	5315-00-951-7542	22	42
96906	MS20613-8P10	5320-00-067-5840	30	8
96906	MS21044N3	5310-00-877-5797	1A	11
96906	MS21045-6	5310-00-982-4908	19	18
96906	MS21083-N08	5310-00-941-6019	33A	17
96906	MS21083N08	5310-00-941-6019	32	7
96906	MS21083N18	5310-00-016-7361	25	7
96906	MS21245-12	5310-00-488-9342	25	8
96906	MS21318-47	5305-00-253-5626	23	10
96906	MS21322-33	5340-00-078-3615	4A	2
96906	MS21333-100	5340-00-809-1492	16	43
			18	26
96906	MS21333-105	5340-00-809-1494	18	25
			4A	6
96906	MS21334-32	5340-00-921-6993	18	21

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS21919F12	5340-00-597-6153	4	3
96906	MS24627-64	5305-00-003-6769	30B	1
96906	MS24629-48	5305-00-855-0964	2	10
			1A	1
			16	42
			18	24
			2A	2
			4A	1
96906	MS24629-50	5305-00-052-6917	30	1
			30	3
			30A	2
			30C	5
96906	MS24629-61	5305-00-052-7492	1	6
			30	26
96906	MS24662-153	5320-00-982-3815	34	4
96906	MS24662-204	5320-01-028-4855	32	6
96906	MS24665-353	5315-00-839-5822	22	37
96906	MS24665-359	5315-00-013-7214	31	18
96906	MS24665-421	5315-00-849-9857	26	12
96906	MS24665-425	5315-00-013-7238	26	3
96906	MS24665-495	5315-00-234-1664	24	6
96906	MS24667-52	5305-00-050-9215	25	13
96906	MS27039-812	5305-00-150-3583	32	3
96906	MS27130-A49	5310-01-208-3862	31	26
96906	MS27130-A50	5310-01-101-6046	30A	32
			30B	35
96906	MS27130-S32	5310-00-006-8291	21	19
96906	MS27130-S33	5310-00-158-9408	22	7
			22	35
96906	MS27130-S34	5310-01-108-8404	21	6
96906	MS27130-S50	5310-00-438-6962	30A	21
			30B	24
96906	MS27148-2	5999-00-057-2929	3	8
			5	15
			7	4
			8	4
			7A	7
96906	MS27148-3	5999-00-926-3144	7B	3
96906	MS27183-10	5310-00-809-4058	4	14
			21	26
			21	31
			4A	15
96906	MS27183-12	5310-00-081-4219	21	12
96906	MS27183-13	5310-00-087-7493	22	6
96906	MS27183-14	5310-00-080-6004	19	17
96906	MS27183-17	5310-00-809-5997	22	36
96906	MS27183-18	5310-00-809-5998	21	10
96906	MS27183-23	5310-00-809-8533	26	11
96906	MS27183-27	5310-00-809-8541	26	2
96906	MS27183-41	5310-00-765-3197	22	31
			22	47

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS27183-42	5310-00-014-5850	21	34
96906	MS27183-7	5310-00-809-8544	33A	16
96906	MS27183-9	5310-00-823-8804	22	21
			22	25
			22	39
			31	24
			30A	33
			30B	36
96906	MS27966-6	5340-01-132-4941	33	10
96906	MS27977-29N	5325-00-276-4918	33A	15
96906	MS28775-216	5330-00-641-0231	30A	29
			30B	32
			30C	29
96906	MS35190-289	5305-00-958-5246	2	2
96906	MS35190-291	5305-00-958-5247	30B	3
96906	MS35206-232	5305-00-984-4992	22	4
96906	MS35206-247	5305-00-984-6195	4	9
			1A	3
			4A	19
96906	MS35206-263	5305-00-984-6210	4	6
			4A	7
96906	MS35206-265	5305-00-984-6212	22	30
			4A	11
96906	MS35206-266	5305-00-984-6213	18	20
			21	35
			4A	8
96906	MS35206-267	5305-00-984-6214	22	48
96906	MS35206-279	5305-00-988-1723	19	21
96906	MS35206-286	5305-00-988-9265	1	2
96906	MS35207-274	5305-00-958-0671	1A	12
96906	MS35218-84	5305-00-954-4603	31	21
96906	MS35308-364	5305-00-801-5747	10	15
96906	MS35333-38	5310-00-559-0070	4	8
			4A	18
96906	MS35333-39	5310-00-576-5752	2	9
			4A	10
96906	MS35333-40	5310-00-550-1130	1	3
96906	MS35333-41	5310-00-167-0721	12	9
96906	MS35335-35	5310-00-627-6128	11	16
			12	3
96906	MS35335-36	5310-00-550-3503	10	13
96906	MS35338-42	5310-00-045-3299	1A	5
96906	MS35338-43	5310-00-045-3296	4	5
			18	19
			30	4
			4A	5
			30A	3
			30C	4
96906	MS35338-44	5310-00-582-5965	4	13
			11	4
			11	10

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS35338-44	5310-00-582-5965	19	20
			21	7
			21	17
			22	9
			24	12
			30	25
			31	25
			4A	14
			30A	20
			30A	35
			30A	39
			30B	4
			30B	23
			30B	38
			30B	42
			30C	36
96906	MS35338-45	5310-00-407-9566	15	2
			31	2
			31	20
96906	MS35338-46	5310-00-637-9541	3	11
			13	7
			14	8
			16	24
			16	40
			17	3
			25	6
			30	24
			30	32
			31	8
			30A	7
			30A	42
			30B	10
			30B	45
			30C	8
			30C	40
96906	MS35338-48	5310-00-584-5272	23	14
			24	1
			27	3
			28	11
			31	5
96906	MS35338-51	5310-00-584-7888	23	18
			28	8
			31	17A
96906	MS35387-1	9905-00-205-2795	32	9
96906	MS35387-2	9905-00-202-3639	32	9
96906	MS35421-1	6220-00-299-7425	2	4
96906	MS35421-2	6220-00-299-7426	2	4
96906	MS35423-1	6220-00-577-3434	2	1
96906	MS35423-2	6220-00-726-1916	2	1
96906	MS35423-3	6220-00-113-0986	2	1
96906	MS35423-4	6220-00-741-1843	2	1

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS35438-8	5940-00-754-9257	7	5
			7A	9
96906	MS35478-1073	6240-00-617-0991	3	4
96906	MS35478-1683	6240-00-044-6914	3	4
96906	MS35489-102	5325-00-754-1071	16	10
96906	MS35489-105	5325-00-814-3316	16	33
			18	17
96906	MS35489-109	5325-00-290-0074	4	10
			16	12
			18	13
			4A	20
96906	MS35489-14	5325-00-276-6100	1A	7
96906	MS35489-51	5325-00-171-6387	4	2
			4A	3
96906	MS35649-202	5310-00-934-9758	4	4
			18	18
			21	33
			22	46
			4A	4
			4A	9
96906	MS35649-262	5310-00-934-9747	22	3
96906	MS35649-282	5310-00-934-9757	1A	6
			4A	17
96906	MS35649-286S	5310-00-410-3019	4	7
96906	MS35677-46	5315-00-682-2207	30	11
96906	MS35677-47	5315-01-096-2536	30	16
96906	MS35677-48	5315-00-866-2673	30	30
96906	MS35691-13	5310-00-853-9335	12	8
			25	3
96906	MS35692-62	5310-00-850-6993	31	17
96906	MS35746-1	4730-00-595-0083	16	16
			18	1
96906	MS35751-71	5306-00-816-2441	30	31
			30A	8
			30B	11
			30C	7
96906	MS35751-77	5306-00-993-6257	30	39
			30A	14
			30B	17
			30C	15
96906	MS35782-5	4820-00-849-1220	16	14
96906	MS35810-38	5315-00-013-8143	26	10
96906	MS35842-11	4730-00-908-3194	14	3
96906	MS39020-1	9905-00-752-4649	5A	7
			7A	8
96906	MS39179-2	4730-00-270-4580	16	29
			18	9
96906	MS39179-5	4730-00-069-1186	16	8
			18	5
96906	MS39179-7	4730-00-837-1177	16	20
96906	MS39182-3	4730-00-069-1187	16	31

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS39182-6	4730-00-289-0051	16	7
96906	MS39188-1	4730-00-921-3241	16	30
96906	MS39188-2	4730-00-896-0837	16	32
96906	MS39188-3	4730-00-240-9159	16	11
96906	MS39190-3	4730-00-494-6580	18	23
96906	MS39231-4	4730-00-249-3935	16	17
96906	MS39233-4	4730-00-187-7612	16	35
96906	MS51106-460	5305-01-139-2048	31	16
96906	MS51106-462	5305-01-027-5247	31	16
96906	MS51335-2	2540-00-835-9039	23	1
96906	MS51375-1	2640-00-060-3550	20	4
96906	MS51377-1	2640-00-810-5861	20	3
96906	MS51861-37	5305-00-432-4172	21	29
96906	MS51861-45	5305-00-432-4201	34	1
			34A	1
96906	MS51861-66	5305-00-432-4252	31	15
			32	8
96906	MS51922-1	5310-00-088-1251	21	22
			21	30
			22	20
			22	24
			22	38
96906	MS51922-2	5310-00-929-1807	29	2
			29	4
96906	MS51922-33	5310-00-225-6993	21	11
96906	MS51922-49	5310-00-269-4040	28	23
96906	MS51922-57	5310-00-067-6356	23	17
			28	4
			28	26
96906	MS51922-65	5310-00-225-6992	28	21
96906	MS51922-9	5310-00-984-3806	21	9
			30C	35
96906	MS51937-3	5306-00-050-0346	22	1
96906	MS51937-8	5306-00-150-3075	23	19
96906	MS51946-1	5306-00-733-9239	19	14
96906	MS51946-2	5306-00-383-4957	19	14
96906	MS51963-64	5305-00-723-9386	30	37
			30A	10
			30B	13
			30C	12
96906	MS51967-14	5310-01-070-2105	24	2
			28	10
96906	MS51967-2	5310-00-761-6882	1	4
			11	3
			24	13
			30B	5
96906	MS51967-3	5310-00-905-0762	4	12
			4A	13
96906	MS51967-5	5310-00-880-7744	31	3
96906	MS51967-8	5310-00-732-0558	17	2
			22	5

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS51967-8	5310-00-732-0558	22	16
			30	33
			31	7
			30A	6
			30B	9
			30C	9
96906	MS51968-14	5310-00-732-0560	23	15
			27	2
96906	MS51968-20	5310-00-763-8905	16	5
96906	MS51968-23	5310-00-763-8901	28	9
96906	MS51968-8	5310-00-732-0559	11	17
			13	6
			14	7
			16	23
			16	39
96906	MS51970-1	5310-00-924-4218	11	14
96906	MS51970-4	5310-00-903-3993	10	14
96906	MS51975-18	5305-00-939-0658	30A	16
			30B	19
			30C	21
96906	MS51983-3	5310-00-880-2004	19	9
96906	MS52125-1	6220-00-134-9098	3	1
96906	MS52125-2	6220-01-093-4439	3	1
96906	MS521301A204120	4720-00-809-2750	14	2
96906	MS53004-2	2530-00-021-2366	17	1
96906	MS53007-1	9905-00-999-7370	16	37
			18	15
			34	5
96906	MS53007-2	9905-00-999-7369	16	34
			18	14
			34	6
96906	MS53044-5		19	1
96906	MS53045-3	2530-00-738-9061	19	2
96906	MS53068-1	2530-00-693-1029	19	10
96906	MS53068-2	2530-00-359-1162	19	10
96906	MS75021-2	5935-00-846-3884	7	6
			7A	10
96906	MS87006-53	4030-00-916-2141	23	12
96906	MS87006-63	4030-00-729-6054	22	14
96906	MS90725-10	5305-00-071-2241	21	25
			30A	19
			30A	36
			30A	38
			30B	22
			30B	39
			30B	41
			30C	34
96906	MS90725-109	5305-00-044-4153	28	15
96906	MS90725-113	5305-00-042-6417	31	4
96906	MS90725-128	5305-00-071-1781	21	20
96906	MS90725-14	5305-00-071-2237	4	15

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS90725-14	5305-00-071-2237	4A	16
96906	MS90725-31	5306-00-225-8496	15	3
96906	MS90725-36	5305-00-225-9081	21	13
96906	MS90725-62	5305-00-269-3213	30	39
			30	39
			30A	14
			30B	17
			30C	15
96906	MS90725-8	5305-00-225-3839	21	8
			21	16
			21	32
			22	10
			22	26
			22	40
96906	MS90725-9	5305-00-225-3842	29	6
96906	MS90726-114	5305-00-725-4187	27	9
96906	MS90726-115	5305-00-226-7768	23	16
96906	MS90726-6	5305-00-068-0506	29	8
96906	MS90726-60	5305-00-269-2803	11	15
			16	25
96906	MS90726-62	5305-00-269-2805	13	8
			16	41
96906	MS90726-63	5305-00-269-2806	17	4
96906	MS90726-64	5305-00-269-2807	11	15
96906	MS90726-8	5305-00-267-8974	11	11
96906	MS90727-192	5305-00-082-6977	25	9
96906	MS90727-199	5305-00-928-9636	28	5
96906	MS90727-57	5305-00-269-3233	12	2
96906	MS90727-58	5305-00-269-3234	30	23
			30A	41
			30B	44
			30C	39
96906	MS90727-74	5305-00-269-3250	16	26
96906	MS90728-116	5305-00-071-2072	33A	9
96906	MS90728-12	5305-00-071-2509	21	15
96906	MS90728-14	5305-00-071-2511	22	22
96906	MS90728-195	5305-00-947-4358	28	28
81349	M13486-1-5	6145-00-152-6499	BULK	1
81349	M23053/1-102-0	5970-00-063-1499	5A	3
81349	M23053/1-107-0	5970-01-044-4532	21	3
			22	29
96906	M39231-4		18	27
81349	M43436-1-3	9905-00-893-3570	5A	12
			7A	13
81348	RR-C-271, TYPE II , SIZE .25		21	1
			22	27
81348	RW22-V-5R7		1A	10
81348	RW22-V-7R3		1A	9
81348	W-L-00111/60	6240-00-155-8717	2	6
81348	ZZ-I-550/900-20/ TR175A/ONCTR	2610-00-269-7383	20	2

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
81348	ZZ-T-381M/GROUP 3/9.00-20/D/TBCC	2610-00-262-8677	20	1
56442	1014M5	4730-00-203-0028	16	13
19207	10869558	5340-00-897-5921	13	2
19207	10882200	2540-00-897-5917	31	10
19207	10882201		30	36
			30A	13
			30C	11
19207	10882202		30	36
			30A	13
			30B	16
			30C	11
19207	10882285	5306-01-034-3418	31	1
19207	10891417	5310-01-053-1444	18	2
19207	10891528	2540-01-046-0367	31	6
19207	10891529	2540-01-032-7419	31	6
19207	10906798	5325-01-050-1586	4	1
			18	16
			4A	21
19207	10907044-5	5325-00-826-3620	33	3
			33	24
19207	10911036-1	2590-00-630-1567	30	22
			30	22
19207	10911036-2	2540-00-918-4184	30	22
			30	22
19207	10944341	5365-00-717-5617	31	11
19220	11-2525-50L	2540-01-189-0454	30C	32
19220	11-2525-50R	2540-01-189-0455	30C	32
19207	11589900	2510-01-031-0063	30	12
19207	11589901	2510-01-041-0680	30	15
19207	11589902	5360-00-025-8210	30	27
19207	11592542	2510-00-840-9339	30	6
19207	11592566	5330-00-414-6695	30	9
19207	11607480	5315-01-143-0639	30	35
			30A	11
			30B	14
			30C	13
19207	11607487		30	38
19207	11607504	5340-01-033-3446	30	34
			30	34
19207	11607505	5340-00-164-3558	30	34
			30	34
19207	11637943	5340-01-032-6011	30	28
19207	11637956	2510-01-088-5904	30	10
19207	11637989	5315-01-045-6509	30	17
19207	11637990	2540-01-088-5905	30	14
19207	11637991-1	2540-01-049-8001	30	18
			30	18
19207	11637991-2	2540-01-046-9404	30	18
			30	18
19207	11638167	5220-00-001-1255	32	1

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	11638168	5210-01-053-3357	32	4
19207	11638169		32	5
19207	11638170	5365-01-051-8631	32	2
19207	11638182	9905-01-043-8003	34	8
19207	11638183	9905-01-043-8002	34	7
19207	11639519-2	5330-00-462-0907	3	3
19207	11639520		3	9
19207	11639535	6220-00-179-4324	3	2
19207	11646259		8	1
19207	11646302-1	5340-01-203-0328	31	9
19207	11646302-2	5340-01-206-7420	31	9
19207	11646385-1		30	2
			30	2
19207	11646385-2		30	2
			30	2
19207	11668361	2530-00-142-6045	16	4
19207	11681178	5340-01-034-3072	30	5
			30A	1
			30C	3
19207	11681260		6	1
19207	11681633	5306-01-033-4358	30	39
			30	39
			30A	14
			30B	17
			30C	15
19207	11681656	2590-00-142-6164	27	1
19207	11681674-1	2590-01-087-8633	27	6
19207	11681674-2	2590-01-087-8634	27	6
19207	11684303	2590-01-088-5903	27	5
19207	11684305	2540-01-152-8800	33A	10
19207	11684311	2590-01-189-0543	4A	12
19207	11684316		7	1
19207	11684320	2530-01-083-5600	9	1
19207	11684329	2540-01-093-0560	29	5
19207	11684334	5307-01-111-7093	25	4
19207	11684335	3040-01-092-4125	25	2
19207	11684336	2540-01-092-4053	28	16
19207	11684337-1	5306-01-104-9000	28	7
19207	11684337-2	5306-01-100-6256	28	6
19207	11684338	5310-00-990-5322	28	22
19207	11684343	2530-01-046-4695	25	14
19207	11684344	2540-01-092-4133	25	10
19207	11684345		28	30
19207	11684346	2530-00-075-5856	18	12
			29	1
19207	11684348		28	1
19207	11684349		28	31
19207	11684350		28	12
19207	11684351		28	27
19207	11684352-1	2540-01-092-4054	28	14
19207	11684352-2	2540-01-092-4055	28	14

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	11684353	2530-01-092-6385	28	17
19207	11684354	2540-01-092-4052	28	19
19207	11684355	5365-00-023-8241	28	29
19207	11684356	2530-01-092-6386	28	18
19207	11684357	2540-00-990-0499	28	2
19207	11684360	2510-01-092-4046	25	12
19207	11684361	5340-01-096-7556	25	15
19207	11684362		25	11
40670	11684365	5307-01-118-6021	25	1
19207	11684366	2510-01-092-4050	28	13
40670	11684367	4730-01-162-0623	29	3
19207	11684410	2530-01-092-4051	18	11
			29	7
19207	11684465		5	1
19207	11684466		5	9
19207	11684501-1	4710-01-083-5636	13	4
19207	11684501-2	4710-01-031-9120	13	5
19207	11684510	2510-01-119-4101	31	19
19207	11684574-1	2510-01-119-4138	30	7
19207	11684574-2	2510-01-124-5152	30	7
19207	11684574-3	2510-01-119-4139	30	7
19207	11684574-4	2510-01-119-4140	30	7
19207	11684611		21	21
19207	11684612		21	28
19207	11684614	5340-01-095-2416	21	18
19207	11684617	5340-01-098-6784	22	32
19207	11684619		22	34
19207	11684622	5340-01-087-6921	21	14
19207	11684623	2540-01-193-1748	22	45
19207	11684624	2540-01-193-1734	22	43
19207	11684625	2510-01-193-1749	22	44
19207	11684626	2510-01-193-1735	22	41
19207	11684627		22	11
19207	11684628-1	2540-01-193-1751	22	8
19207	11684628-2	2540-01-193-1752	22	8
19207	11684629	2540-01-193-1750	22	19
19207	11684630	2540-01-193-1736	22	23
19207	11684632	5325-01-098-6727	22	18
19207	11684636	4720-01-143-6992	13	3
19207	11684672-1	2590-01-124-9290	26	7
19207	11684672-2	2590-01-124-9291	26	7
19207	11684673-1	2590-01-124-9288	27	4
19207	11684673-2	2590-01-124-9289	27	7
19207	11684673-3	2590-01-124-9292	26	9
19207	11684674-1	2590-01-124-5225	26	4
19207	11684674-2	2590-01-124-5226	26	4
19207	11684675	2590-01-129-5737	26	5
19207	11684676	2590-01-129-5738	26	8
19207	12307731	2540-01-152-1056	30A	27
			30B	30
			30C	28

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	12307756	2540-01-130-3492	30	13
19207	12307757	5340-00-974-9847	30	29
19207	12307760	2510-01-119-4141	33	8
19207	12307779		33	9
19207	12307791	5340-01-128-9562	33	15
19207	12307808	2590-01-184-4897	27	10
19207	12307810	5340-01-186-7976	27	11
19207	12307881	5340-01-184-4815	21	24
19207	12307928	2590-01-185-0163	33A	13
19207	12308007	5315-01-185-0162	33A	6
			33A	11
19207	12315345	5365-01-195-4945	21	5
19207	12315484-3	2510-01-186-7888	30A	22
			30B	25
			30C	18
19207	12315484-4	2510-01-186-7889	30C	31
19207	12315505		1A	4
19207	12315541		21	23
19207	12315556	5940-01-147-3415	5A	2
19207	12315558-2	2510-01-187-9453	30A	24
			30B	27
19207	12315569-2	2540-01-193-1839	30A	26
			30B	29
			30C	27
19207	12315571	5340-01-138-7153	30A	30
			30B	33
			30C	30
19207	12315615	9905-01-133-1493	34	3
19207	12315616	9905-01-133-1492	34	2
19207	12315633-1	5340-01-206-7589	30A	37
			30B	40
			30C	33
19207	12315633-2	5340-01-203-0321	30A	37
			30B	40
			30C	33
19207	12315644-3	5320-01-150-9681	30A	25
			30B	28
			30C	24
19207	12315649	5340-01-204-5674	30A	40
			30B	43
			30C	17
19207	12315654	5905-01-143-5161	1A	8
19207	12315658	2510-01-156-8094	30A	4
			30B	7
			30C	2
19207	12315659	5330-01-140-2424	30A	31
			30B	34
			30C	6
19207	12315674	2540-01-152-8882	30A	18
			30B	21
			30C	20

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	12315715-1	5340-01-181-6332	21	4
19207	12315715-2	5340-01-181-6333	21	4
19207	12315741	5306-01-162-0017	13	15
19207	12315761	2540-01-193-1738	33A	3
19207	12315765		33A	1
19207	12315766		33A	4
19207	12315767	2540-01-189-0599	33A	5
19207	12330793-1	2590-01-160-0731	27	8
19207	12330793-2	2590-01-160-0732	27	8
19207	12330795	5340-01-189-0453	30A	9
			30C	10
19207	12330796		30A	12
		5340-01-217-0975	30B	15
			30C	14
19207	12330797-1	2510-01-197-8141	30C	1
19207	12330797-2	2510-01-193-1812	30C	1
19207	12330838-1	2510-01-189-0535	30C	1
19207	12330838-2	2510-01-193-1811	30C	1
19207	12330840	5340-01-183-6845	30A	9
			30B	12
			30C	10
19207	12330845		30A	17
			30B	20
			30C	22
19207	12330878	2590-01-183-8397	7B	1
19207	12330879		7A	1
19207	12330884	5365-01-208-6216	30A	43
			30B	46
			30C	26
19207	12330906	9905-01-193-1788	34A	2
19207	12330907	9905-01-193-1789	34A	3
19207	12330915	2510-01-193-1737	31	22
19207	12330928-1	2510-01-193-1809	30A	5
			30B	8
19207	12330928-2	2510-01-193-1808	30A	5
			30B	8
19207	12330928-3	2510-01-197-8142	30A	5
19207	12330928-4	2510-01-193-1810	30A	5
19207	12330931	5340-01-208-6814	30B	6
19207	12330932		30B	2
19207	12330940		1A	2
19207	12330942	9905-01-194-7020	34A	4
19207	12330943	9905-01-194-7021	34A	5
19207	12330944		5A	1
19207	12331240		30C	19
19207	12331242		30C	38
19207	12331243-2	5365-01-215-3863	30C	37
19207	12353858		BULK	2
19207	12353858-1		21	2
19207	12353858-2		22	28
19207	12353859		BULK	3

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	12353859-1		22	13
19207	12353860		BULK	4
19207	12353860-1		33A	2
			33A	12
19207	12353861		BULK	5
19207	12353861-1		33A	7
06853	225760	4730-01-102-3704	16	28
			18	8
24617	2284336	5315-00-741-2106	11	7
80045	23MS35338-50	5310-00-820-6653	16	6
19220	2525-55	5340-01-141-0884	30A	15
			30B	18
06853	285172	4820-00-420-5499	16	19
17590	305087-0116	4710-00-203-3172	18	22
70485	307W	5340-01-145-6829	21	36
			22	49
80020	36344N24	5315-00-243-1169	23	13
19220	4-2525-50L	2540-01-189-0452	30A	23
			30B	26
			30C	23
19220	4-2525-50R	2540-01-139-9679	30A	23
			30B	26
			30C	23
19220	4-2525-52	5325-01-152-2378	30A	34
			30B	37
			30C	16
71286	4002-14W	5325-00-290-3818	33	25
71286	4002-9W	5325-00-290-3820	33	5
13548	40222R	6220-01-141-0908	2A	1
80244	42C15120-205	4010-00-129-3221	23	11
10001	42C15350	4010-00-228-9957	33	17
21450	506207	5940-00-050-6207	5	8A
			5A	8
21450	506209	5940-00-050-6209	5	8
			5A	13
93061	5156653	4730-00-854-6931	13	1
19207	5167679	4730-00-463-1588	13	9
19207	5214539	5310-00-275-6635	13	14
19207	5214930	5310-00-359-0458	13	13
19207	5228623	4730-00-244-9848	16	18
			18	3
19207	5298653	5365-00-274-4544	13	12
			15	7
19207	5323088	5310-00-641-9939	11	9
21450	537805	5310-00-500-0387	19	9
92679	57038R2	6150-00-844-6178	4	11
27109	595002071	5340-01-198-7591	33	12
19207	5955070-2		33	20
19207	5955070-3		33	7
19207	5955071	2540-01-087-6919	33	22
19207	5955071-1		33	27

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FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	5955072	2540-01-087-6920	33	1
19207	5955073-1		33	2
19207	5955073-2		33	4
19207	5955079	2590-01-088-5902	33	19
19207	5955080		33	21
19207	5955081		33	26
19207	5955088		33	13
19207	5955090		33	14
40670	5955957	5340-01-092-0408	22	17
19207	6144356	5330-00-614-4356	19	5
19204	6144454	2530-00-614-4454	19	4
19207	7014965	2530-00-270-3878	16	15
			18	4
19207	7044253	5360-00-704-4253	23	8
19207	7064978	2530-00-693-1007	10	9
19207	7073213	2540-00-707-3213	23	9
19207	7263712	1440-00-735-5316	19	19
19207	7373354	5365-00-737-3354	14	6
19207	7411078	2530-00-741-1078	16	22
19207	7411079	5340-01-083-5527	16	21
19207	7411080	5340-00-977-0815	16	21
19207	7411378	5310-00-741-1378	19	7
19207	7411379	5310-00-741-1379	19	6
19207	7411425	2530-00-741-1425	19	12
19207	7411429	5330-00-741-1429	19	11
19207	7411433	5365-00-741-1433	19	15
19207	7411760	5306-00-741-1760	11	2
19207	7411903	4730-00-741-1903	15	10
19207	7412050	2530-00-741-2050	15	1
19207	7412065	2530-00-741-2065	15	13
19207	7412068	2530-00-741-2068	15	1
19207	7412079	4730-00-729-6437	13	10
			15	8
19207	7412088	5310-00-741-2088	15	5
19207	7412103	5365-00-741-2103	11	8
19207	7412104	2530-00-741-2104	12	10
19207	7412120	5310-00-741-2120	12	11
19207	7413231	2530-00-741-3231	19	13
19207	7418892	5310-00-017-9721	24	8
98343	752HD	5935-00-773-6571	1	5
19207	7521156	3040-00-752-1156	24	14
19207	7521157	2510-00-752-1157	24	5
19207	7521159	4010-01-074-5029	24	11
19207	7521160	2510-00-752-1160	24	4
19207	7521161	2510-00-752-1161	24	9
19207	7521163	2510-00-752-1163	24	7
19207	7524315	5315-00-290-6132	23	4
19207	7524316	5315-00-752-4316	23	7
19207	7526509	5330-00-353-0959	2	8
19207	7526515	6250-00-371-4018	2	7
19207	7526516	6220-00-752-6516	2	3

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

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19207	7526796	5310-00-596-8169	2	5
19207	7539268	2530-00-287-8252	15	12
19207	7539308	2530-00-753-9308	14	10
19207	7716634	5975-00-771-6634	8	6
19207	7716793	5935-00-771-6793	6	6
19207	7722333	5365-00-090-5426	5	6
			6	8
			7	7
			8	9
			5A	10
			7A	11
19207	7723309	5310-00-393-6685	5	7
			6	7
			7	8
			8	8
			5A	11
			7A	12
19207	7731428	5935-00-773-1428	1	1
19207	7739666	5306-00-017-9722	24	10
19207	7745464	4730-00-419-9425	13	11
			15	6
19207	7748911	5340-00-839-0098	30	19
63477	7979691	4730-00-773-2163	14	5
19207	8327759	5320-00-285-1025	24	15
19207	8332086	2530-00-278-2243	14	1
19207	8336701	2530-00-730-7620	11	1
19207	8336702	2530-00-730-7621	11	1
19207	8336704	2530-00-770-9149	12	6
19207	8336705	2530-00-770-9150	12	7
19207	8336789	2530-00-770-9151	12	7
19207	8338561	5935-00-833-8561	5	2
			5	10
			6	2
			7	9
			5A	4
			7A	2
19207	8338562	5970-00-833-8562	5	3
			5	11
			6	3
			7	10
			5A	5
			7A	3
19207	8338563	5940-00-846-5012	5	12
			6	4
			7	11
			7A	4
19207	8338564	5940-00-399-6676	5	4
			5A	6
19207	8338566	5935-00-572-9180	2	11
			3	6
			5	13

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	8338566	5935-00-572-9180	7	2
			8	2
			7A	5
19207	8338567	5310-00-833-8567	2	12
			3	7
			5	14
			7	3
			8	3
			7A	6
19207	8365426	4710-00-511-1692	14	4
19207	8376208	5935-00-846-3883	5	5
			5A	9
19207	8380196	2540-01-023-5116	23	6
19207	8380197	2540-01-024-3622	23	5
14557	8413	5306-01-102-6963	22	15
09386	86589008		19	3
19207	8689206	4710-00-277-5525	16	27
			18	10
18876	8720025	5306-00-335-4768	19	16
19207	8720331	1440-00-994-8975	12	13
19207	8720515	5360-00-699-9018	11	13
19207	8720517	2530-00-522-4183	10	10
19207	8722186-10	3040-01-200-4391	30	21
19207	8722186-3	3040-01-200-5681	30	20
19207	8724258	5935-00-686-2599	8	5
19207	8724495	5935-00-691-5591	7B	2
19207	8724497	5310-00-656-0067	7B	4
19207	8724763	9390-00-180-7289	6	5
			8	7
19207	8730456	2530-00-157-1396	16	3
19207	8733890	2530-00-991-4342	11	5
19207	8733891	2530-00-987-2565	11	5
19207	8733892	2530-00-522-1157	11	12
21450	8733893	2530-00-794-9763	11	12
19207	8733894	2530-00-774-9401	10	1
19207	8733895	2530-00-774-9402	10	1
19207	8733896	1440-00-798-4824	12	4
19207	8733897	1440-00-798-4812	12	4
19207	8733898	4710-00-791-8078	15	4
19207	8733899	4710-00-791-8077	15	4
19207	8733901	2530-00-791-3259	12	1
19207	8733902	2530-00-791-0110	12	1
19207	8733903	2530-00-774-9403	10	2
19207	8733904	2530-00-798-4850	10	2
19207	8733908	2530-00-159-8755	12	5
19207	8733909	2530-00-159-8756	12	5
19207	8733911	2530-00-973-2355	10	8
19207	8733912	2530-00-973-2356	10	8
19207	8733916	4710-00-741-1907	15	9
19207	8733918	4710-00-630-9928	15	11
19207	8733920	4710-00-566-7133	15	9

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NATIONAL STOCK NUMBER AND PART NUMBER INDEX

FSCM	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	8733922	4710-00-566-7134	15	11
19207	8733926	3040-00-150-7127	10	7
19207	8733927	2530-00-074-2357	10	7
19207	8733933	2530-01-083-5641	12	12
19207	8733935	5310-00-314-0764	10	6
19207	8733936	5310-00-314-0765	10	5
19207	8733937	5310-00-322-7260	10	4
19207	8733938	2530-00-322-7261	10	3
19207	8735729	1450-00-776-3264	11	6
19207	8742616	2530-01-184-4856	16	38
19207	8747118	2540-00-918-4191	31	14
19207	8747218-1	4010-01-059-2093	26	6
19207	8747263	4720-00-678-6125	16	36
19207	8747317	5340-00-929-8372	31	13
40670	9348089		33	6
			33	23
40670	9350051	2540-01-088-5907	33	18
13548	9425S/T	5935-01-199-9921	78	5
39428	98335-A	5315-01-100-5249	33	16
			33A	8

APPENDIX G

ILLUSTRATED LIST OF MANUFACTURED ITEMS

INTRODUCTION

This appendix includes complete instructions for making items authorized to be manufactured or fabricated at organizational maintenance.

A part number index in alphanumeric order is provided for cross-referencing the part number of the item to be manufactured to the figure which covers fabrication criteria.

Bulk materials needed for manufacture of an item are listed by part number and NSN in the following tabular listing:

Part number of item	Figure no.	Required number of feet of wire M13486-1-5 6145-00-772-0853
11646259	G-2	39
11681260	G-4.2	101
11684316	G-4	50
11684465	G-3	357
11684466	G-1	74
12330879	G-4.3	84
12330944	G-4.1	391

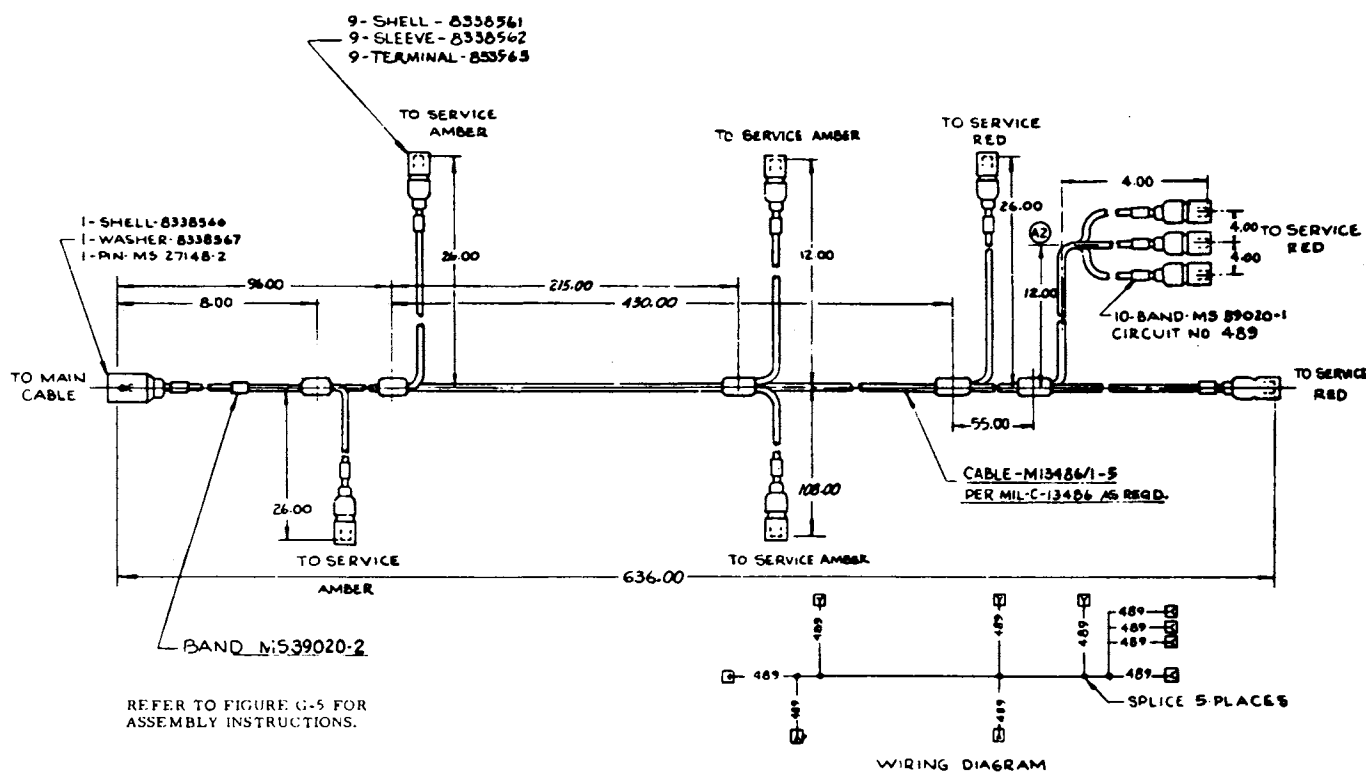


Figure G-1. Wiring harness 11684466.

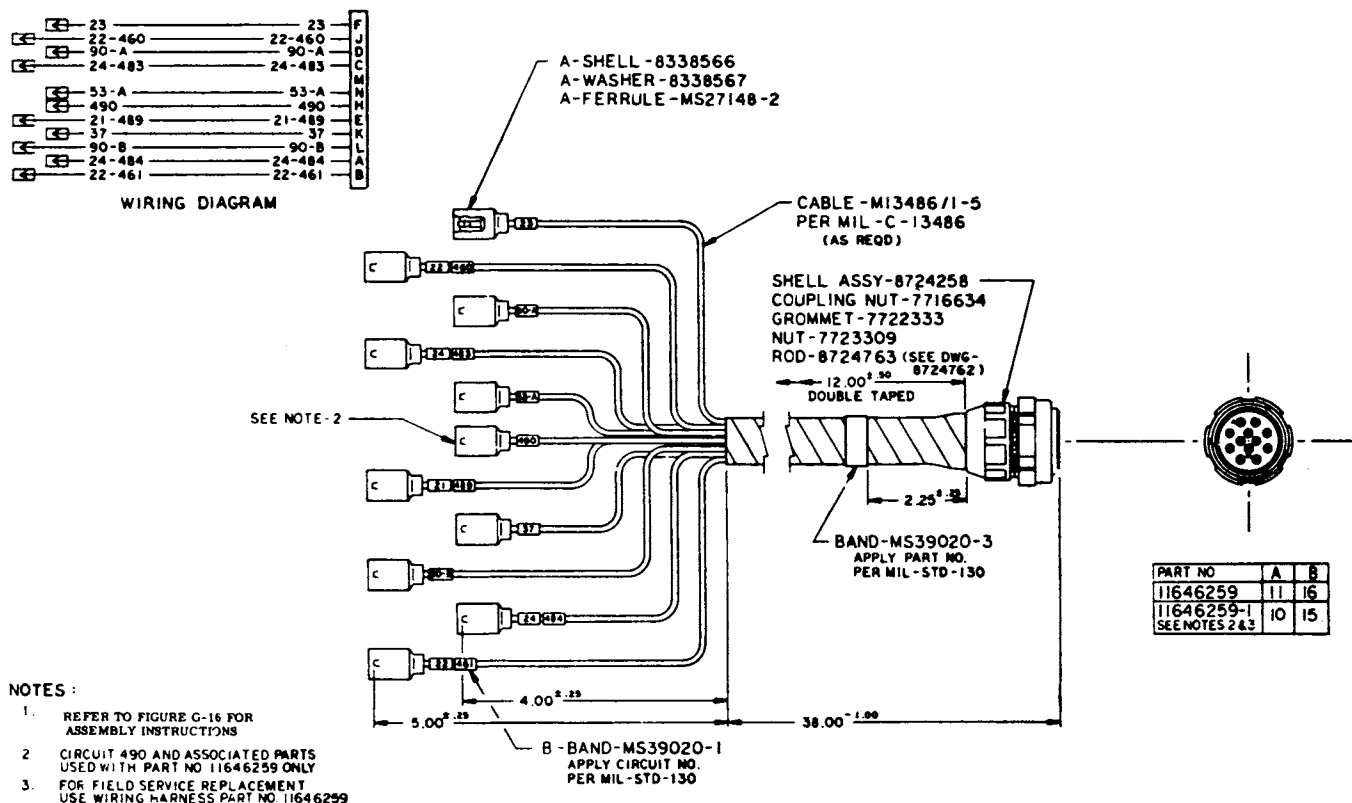


Figure G-2. Cable Assembly.11646259.

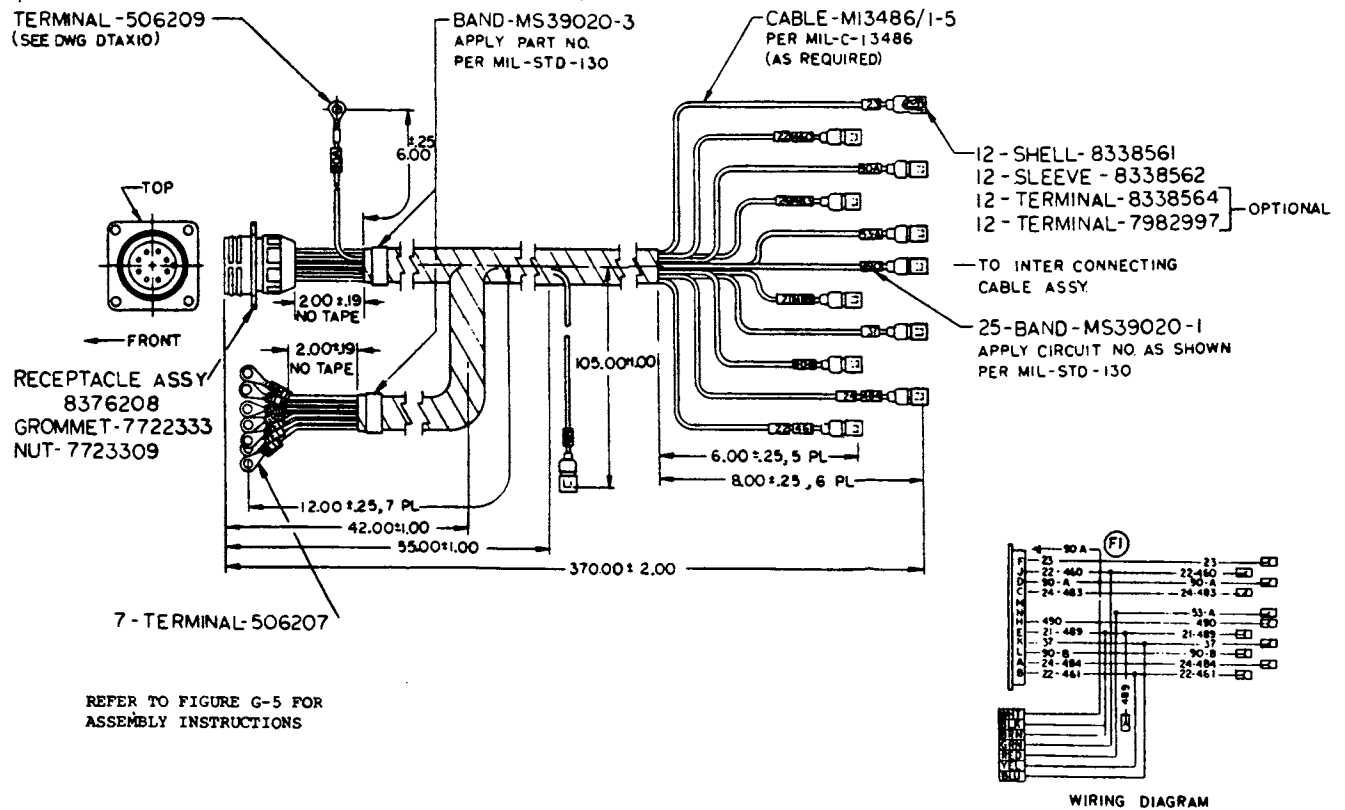


Figure G-3. Wiring Harness 11684465.

TA 355622

Change 1

G-3

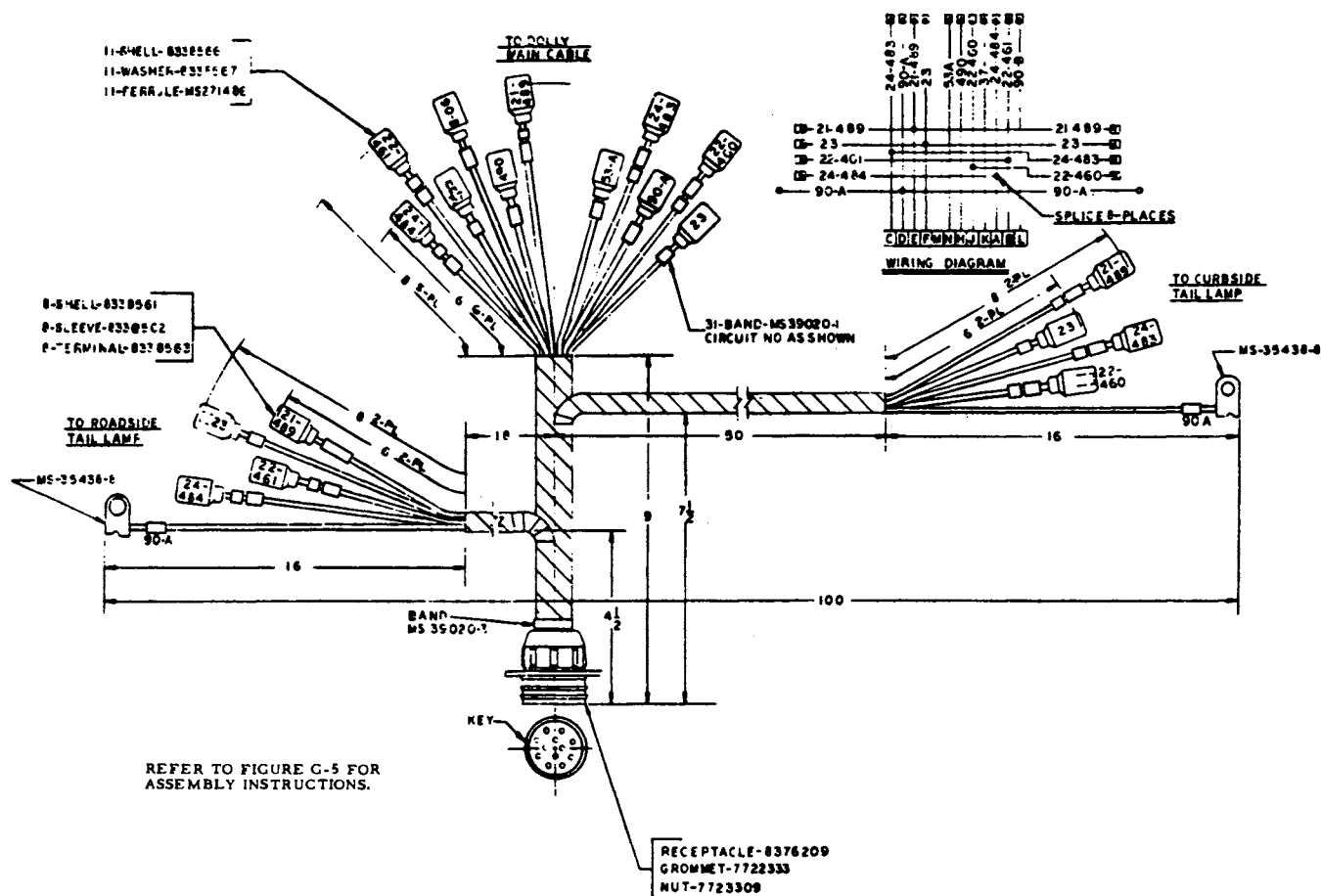


Figure G-4. Wiring harness 11684316.

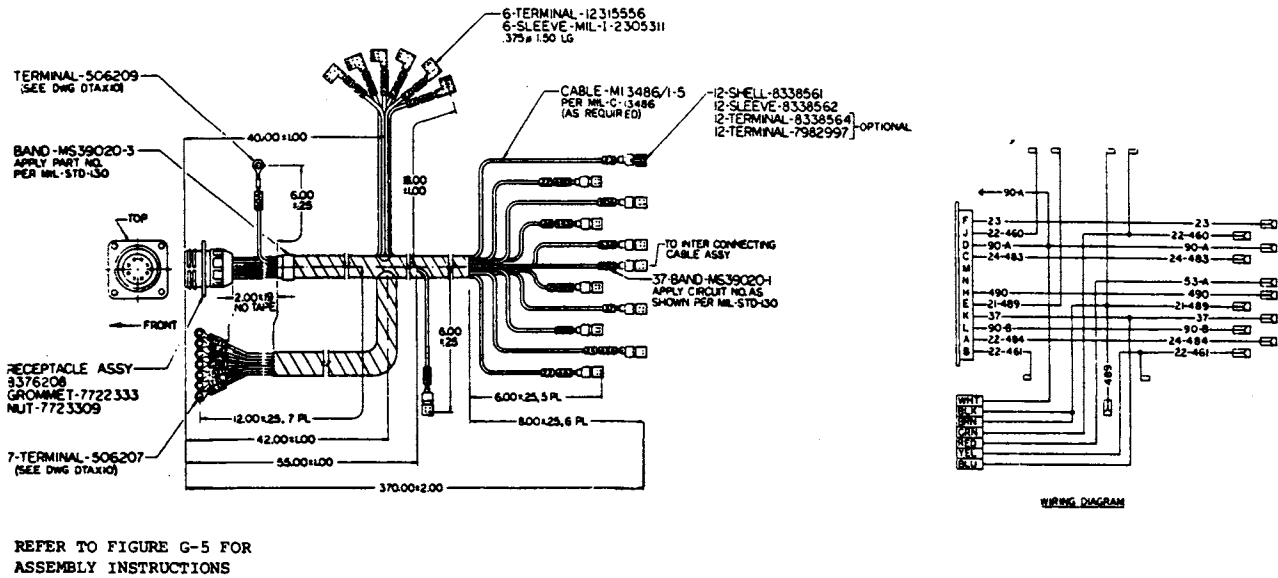


Figure G-4.1. Wiring harness, main 12330944, XM991E2, XM995E2.

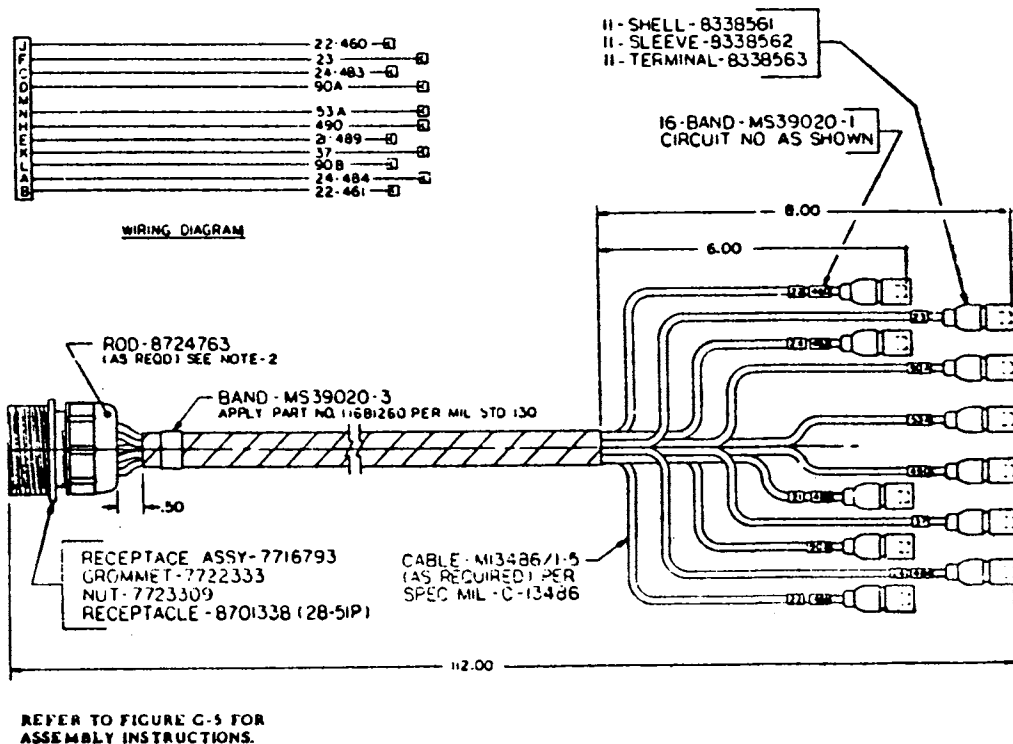


Figure G-4.2. Wiring harness, dolly main 11681260.

TA 355621

Change 1

G-4.1

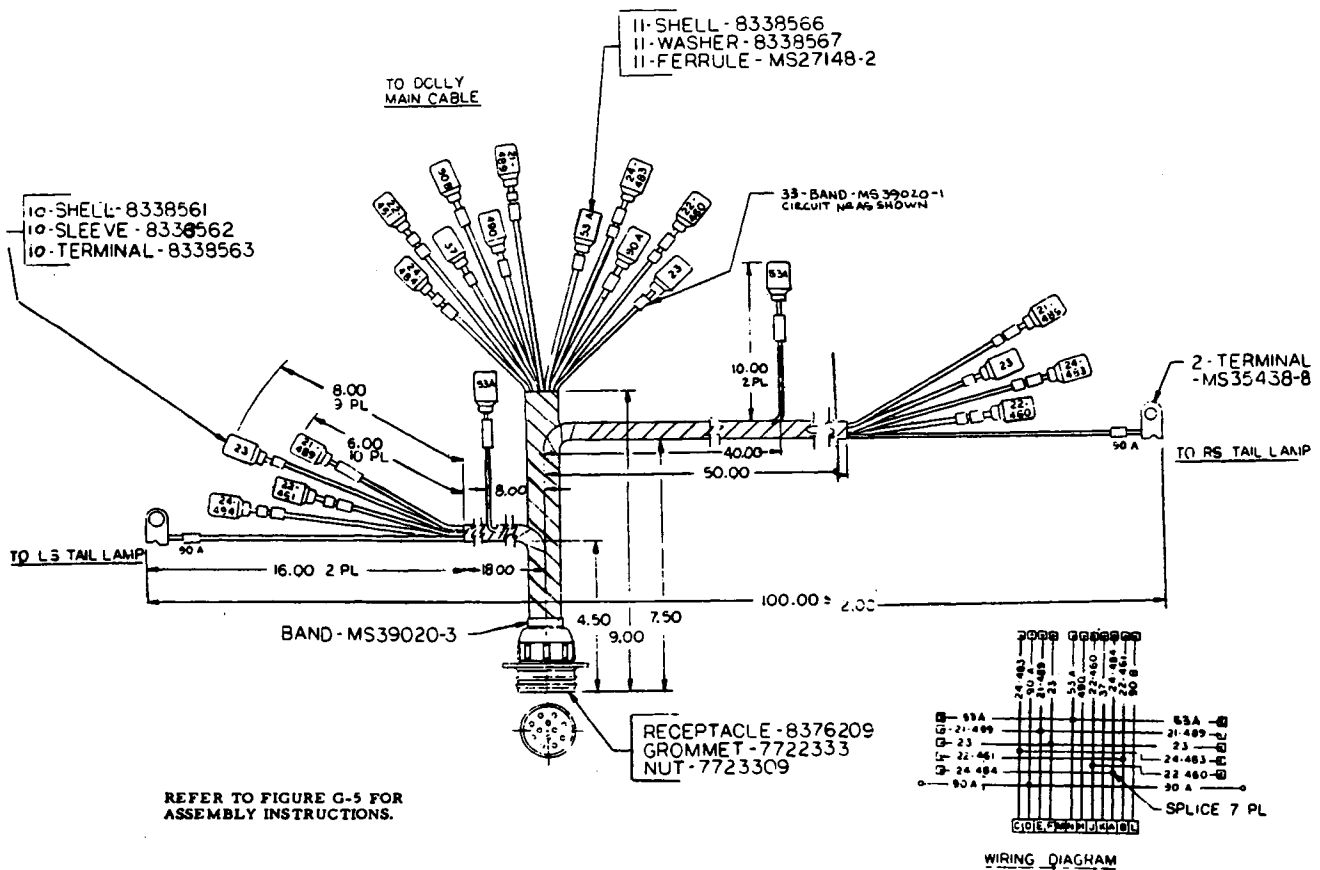
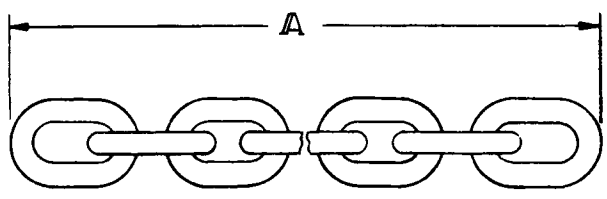


Figure G-4. 3. Wiring harness, dolly taillights 12330879, XM991E1, XM995E1, XM991E2, XM995E2.

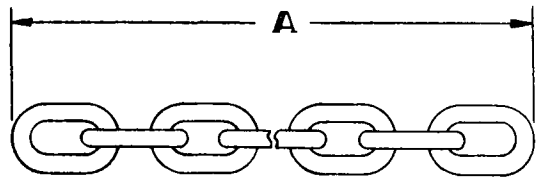


NOTES:

- 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.

12353858 - 5	36.00
12353858 - 4	7.81
12353858 - 3	66.00
12353858 - 2	60.00
12353858 - 1	48.00
PART NO.	<u>A</u>

Figure G-4. 4. Chain 12353858.

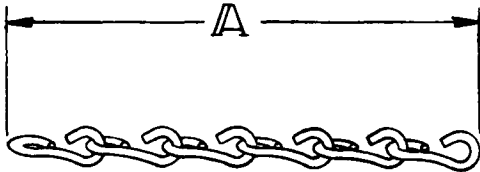


NOTES:

- 1. MATERIAL:
CHAIN, PROOF COIL PER RR-C-271,
TYPE I, GRADE C, CLASS 4,
WELDED STEEL. SIZE: .19
- 2. FINISH:
ZINC COAT PER QQ-Z-325,
TYPE II, CLASS 2.

12353859 - 1	24.00
PART NO.	<u>A</u>

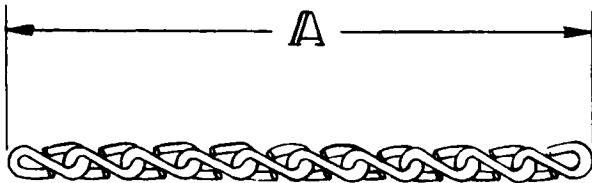
Figure G-4. 5. Chain 12353859.



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

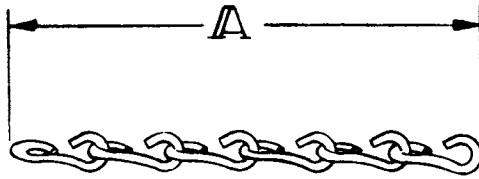
Figure G-4. 6. Chain 12353860.



12353861-1	7.00
PART NO.	A

- NOTES:
- 1. MATERIAL:
CHAIN, DOUBLE-JACK WELDLESS
PER RR-C-271, TYPE II, CLASS 8.
STEEL SIZE: .105
 - 2. FINISH:
COMMERCIAL BRIGHT

Figure G-4. 7. Chain 12353861.



NOTES:

1 MATERIAL:
CHAIN, SINGLE-JACK, WELDLESS
PER RR-C-271, TYPE II, CLASS 7
STEEL, SIZE: .135 (NO. 10)

2 FINISH:
COMMERCIAL BRIGHT

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

Figure G-4. 8. Chain 12353862.

TA 355672

Change 1 G-4. 5/(G-4. 6 blank)

APPENDIX H

TORQUE LIMITS

H-1. General.

This appendix lists the torque limits used on XM991 and XM995 semi-trailers.

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

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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 = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 Lb
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

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 = 1000 Cu Millimeters = 0.06 Cu Inches
 1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet

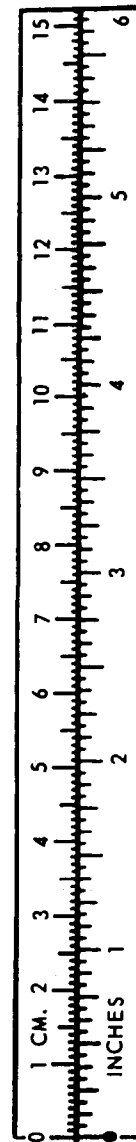
TEMPERATURE

$5.9^{\circ}\text{F} - 32 = ^{\circ}\text{C}$
 $212^{\circ}\text{Fahrenheit}$ is equivalent to $100^{\circ}\text{Celsius}$
 $90^{\circ}\text{Fahrenheit}$ is equivalent to $32.2^{\circ}\text{Celsius}$
 $32^{\circ}\text{Fahrenheit}$ is equivalent to 0°Celsius
 $9.5^{\circ}\text{C} + 32 = \text{F}^{\circ}$

APPROXIMATE CONVERSION FACTORS

<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>
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

<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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