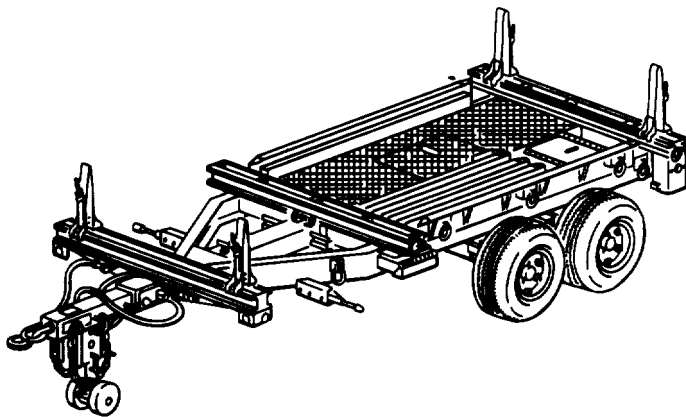


OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)



TRAILER, BOLSTER: 4-TON, 4-WHEEL, GENERAL PURPOSE M796 (NSN 2330-00-089-3866) AND M796A1 (NSN 2330-01-137-5116)

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Change

No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D.C., 25 January 1990

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

TRAILER,BOLSTER:
4-TON,4-WHEEL,
GENERAL PURPOSE
M796 (NSN 2330-00-089-3866)
AND
M796A1 (NSN 2330-01-137-5116)

TM 9-2330-287-14&P, 6 December 1984, is changed as follows:

1. Change to narrative material is indicated by a vertical bar in the outside margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the identification number.
2. Remove old pages and insert new pages as indicated below.
3. File this change sheet in front of the publication for reference purposes.

Remove Pages	Insert Pages
i thru iv	i thru iv
2-11 thru 2-14	2-11 thru 2-14
4-3 and 4-4	4-3 and 4-4
4-87 and 4-88	4-87 and 4-88
A-1 and A-2	A-1 and A-2
B-5 thru C-4	B-5 thru C4
F-1 thru F-78	1 thru I-22

By Order of the Secretary of the Army:

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

Official:

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

DISTRIBUTION:

To be distributed in accordance with DA Form 12-39 (Block Nos. 548, 549, 550), Operator, Unit, and Direct Support and General Support maintenance requirements for Trailer, Bolster, 4-ton, 4-wheel, General Purpose, M796, M796A1.

WARNING**USING DRYCLEANING SOLVENT**

Drycleaning solvent PD-680 is both toxic and flammable. Avoid prolonged breathing of vapors and avoid skin contact. Do not use near open flame or excessive heat. Flash-point of solvent is 138°F (59°C). Serious illness, injury, or loss of life could result from improper use.

WARNING**COUPLING**

All persons not involved in coupling operation must stand clear of towing vehicle and trailer to prevent possible injury.

WARNING**DRAINING AIR RESERVOIR**

Wear protective goggles to prevent eye injury when opening air reservoir draincock. Move away from airstream to prevent injuries.

WARNING**USING UNAUTHORIZED CLEANING SOLVENTS**

Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Refer to TM 9-247.

WARNING**USING COMPRESSED AIR**

Particles blown by compressed air are hazardous. Make certain the airstream is directed away from user and other personnel in the area. User must wear eye goggles or face shield to prevent injury when using compressed air.

WARNING**INOPERATIVE LIGHTS**

Do not operate trailer with any burned out or missing lights. Not being seen could result in injury to personnel and damage to equipment.

WARNING**RAISING LANDING GEAR**

Do not raise landing gear assembly unless trailer is connected to a towing vehicle or is securely supported on jack stands. The trailer may fall, causing injury to personnel.

WARNING

STOWING EQUIPMENT

Before moving trailer, be sure stanchions, bolsters, and related tiedown equipment are properly stowed on trailer. If trailer is loaded, be sure load is properly secured to trailer. Injury to personnel or damage to equipment may result.

WARNING

BRAKE MAINTENANCE

Before performing any maintenance on brake system, disconnect air supply to trailer and drain trailer air reservoir. Failure to do so could result in serious injury.

WARNING

ASBESTOS HAZARD

All components of the service brake assembly will be coated with asbestos dust from the brake linings. Wear a filter mask whenever handling any assembly components. The breathing of asbestos dust is an extreme health hazard.

WARNING

BRAKE CHAMBER SPRING

Brake air chamber is under spring tension. Use care during the removal of bolts. Spring tension could cause brake air chamber to fly apart, causing injury to personnel.

TECHNICAL MANUAL }
 NO. 9-2330-287-14&P }

HEADQUARTERS
 DEPARTMENT OF THE ARMY
 Washington D.C., 6 December 1984

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

**TRAILER, BOLSTER:
 4-TON, 4-WHEEL,
 GENERAL PURPOSE
 M796 (NSN 2330-00-089-3866)
 AND
 M796A1 (NSN 2330-01-137-5116)**

Current as of 20 July 1989

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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* This manual supersedes TM 9-2330-287-14, 14 October 1971; including all changes.

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HOW TO USE THIS MANUAL

This manual is designed to help you operate and maintain the bolster trailer. The front cover table of contents is provided for quick reference to important information. There is also an index located in the final pages for use in locating specific items of information.

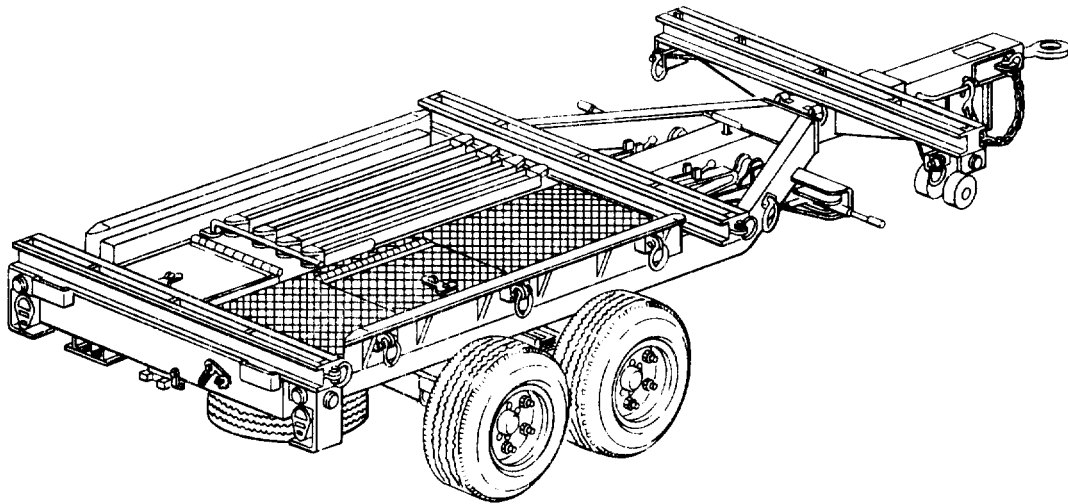
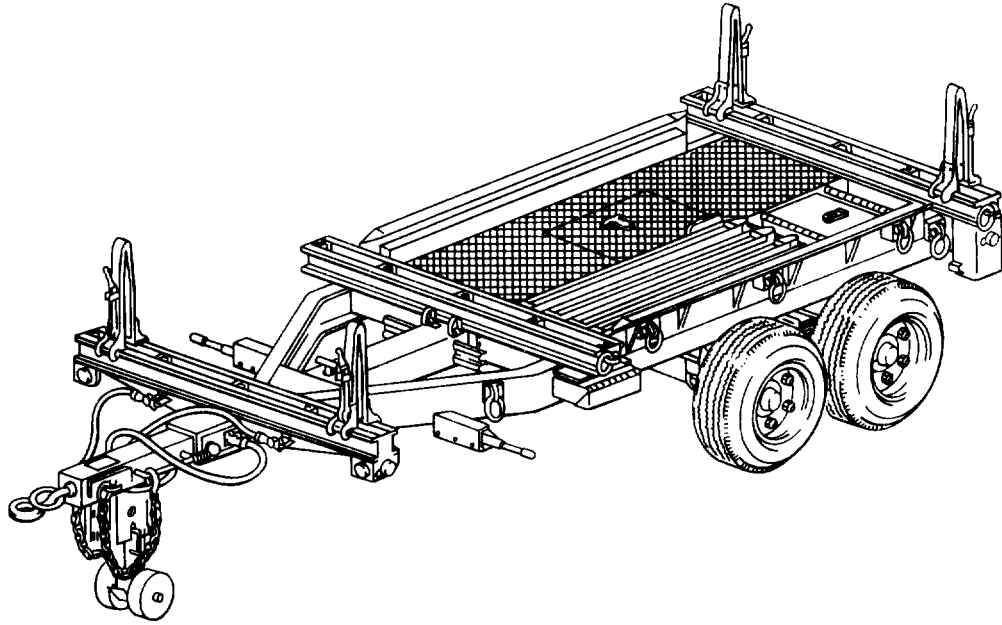
Measurements in this manual are given in both US standard and metric units. A metric to US standard conversion chart can be found on the inside back cover.

Read all preliminary information found at the beginning of each task. It has important information and safety instructions you must follow before beginning the task.

Warning pages are located in the front of this manual. You should read the warnings before operating or doing maintenance on the equipment.

A subject index appears at the beginning of each chapter listing sections that are included in that chapter. A more specific subject index is located at the beginning of each section to help you find the exact paragraph you are looking for.

This manual covers two different models. Applicable model numbers will be listed in paragraph titles. If paragraphs are applicable to both models, model numbers will not be listed.



CHAPTER 1

INTRODUCTION

OVERVIEW

The purpose of this chapter is to give you information on the bolster trailer chassis size, shape, major equipment, and how it works.

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Section I. GENERAL INFORMATION

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SCOPE

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

Equipment Name: M796 and M796A1 4-Ton, 4. Wheel, General Purpose Bolster Trailer.

Purpose of Equipment: The trailer is used to transport invasion pipes. The trailer can be used over unimproved roads as well as improved roads.

MAINTENANCE FORMS AND RECORDS

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

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Refer to TM 750-244-6, Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use (US Army Tank-Automotive Command).

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your trailer needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Tank-Automotive Command, Attn: DRSTA-MP, Warren, MI 48090. We will send you a reply.

Section II. EQUIPMENT DESCRIPTION AND DATA

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Capabilities, and Features.....	1-2	Location and Description of	
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EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

CHARACTERISTICS

- Extendable open-frame chassis with bolster supports
- May be towed by 5-ton M39 series truck or similar vehicle
- Has tandem axle with four wheels
- Has air-operated hydraulic brake system
- Has 24-volt electrical system
- Has retractable landing gear at front of trailer
- Has spare wheel located under right rear of trailer

CAPABILITIES AND FEATURES

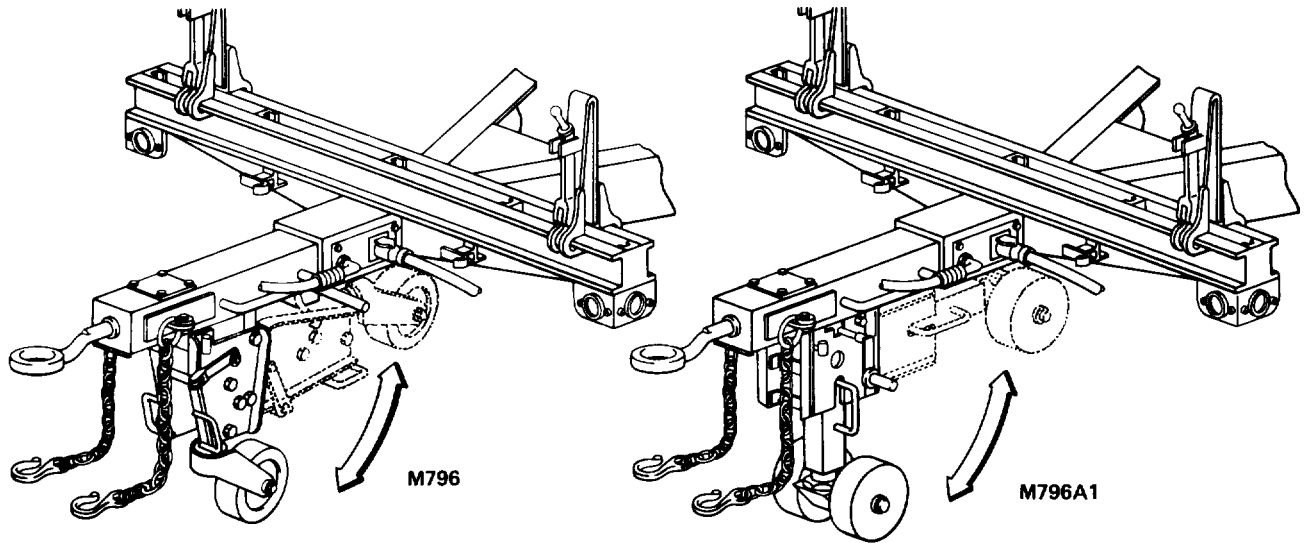
Payload	8000 lb (3632 kg)
Speed Limits	
Highway	50 mph (80 km/h)
Unimproved road	10 mph (16 km/h)
Cross-country	10 mph (16 km/h)

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

LANDING GEAR

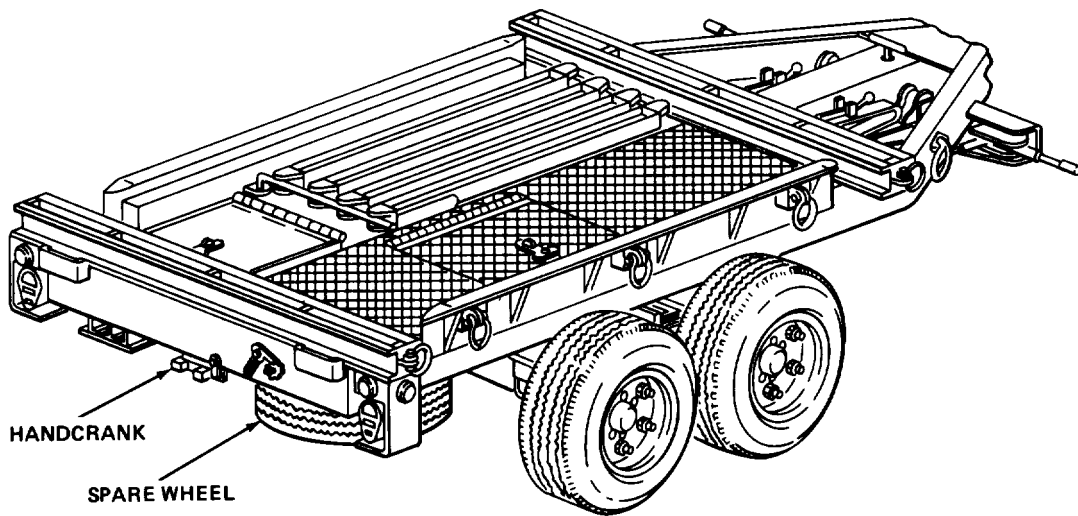
- A manually operated landing gear supports the front of the trailer when not coupled.
- It has a handcrank and gearbox that raise and lower the landing gear.
- It has lockpins that lock the landing gear in up or down position.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - CONTINUED



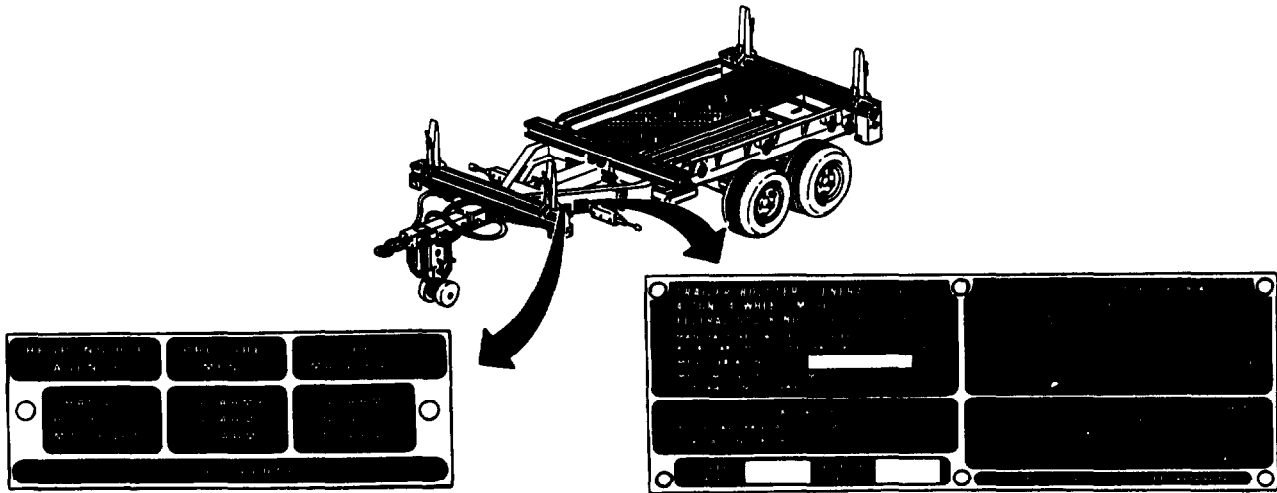
SPARE WHEEL

The spare wheel is stowed under the right-hand rear corner of the trailer frame and a handcrank is provided to raise and lower the spare wheel.



LOCATION AND DESCRIPTION OF DATA PLATES

There are two data plates located on the left side of the front frame. They provide identification, registration, weight/dimensions, and caution information.



DIFFERENCES BETWEEN MODELS

The M796A1 bolster trailer is identical to the M796 except that it has a new support assembly (landing gear) with dual wheels; a new axle, hub, and drum assembly; and an antirotation bracket and anti-chafing shield to prevent snagging of air and electrical lines when the reach tube is extended and retracted.

EQUIPMENT DATA

Total empty weight	4820	lb (2188 kg)
Total loaded weight	12,820	lb (5838 kg)
Weight on wheels (empty)	4140	lb (1879.6 kg)
Weight on wheels (loaded)	12,070	lb (5479.8 kg)
Weight on lunette (empty)	680	lb (308.7 kg)
Weight on lunette (loaded)	750	lb (340.5 kg)
Height	42.5	in. (107.9 cm)
Width	92	in. (233.7 cm)
Ground clearance	12.5	in. (31.7 cm)
Length (extended)	258.5	in. (656.6 cm)
Length (retracted)	210.5	in. (534.6 cm)
Angle of departure (maximum)	25	degrees
Tires	25x16.5	LT
Inflation - highway	45	psi (310.3 kPa)
cross-country	25	psi (172.4 kPa)
mud, snow, and sand	25	psi (172.4 kPa)

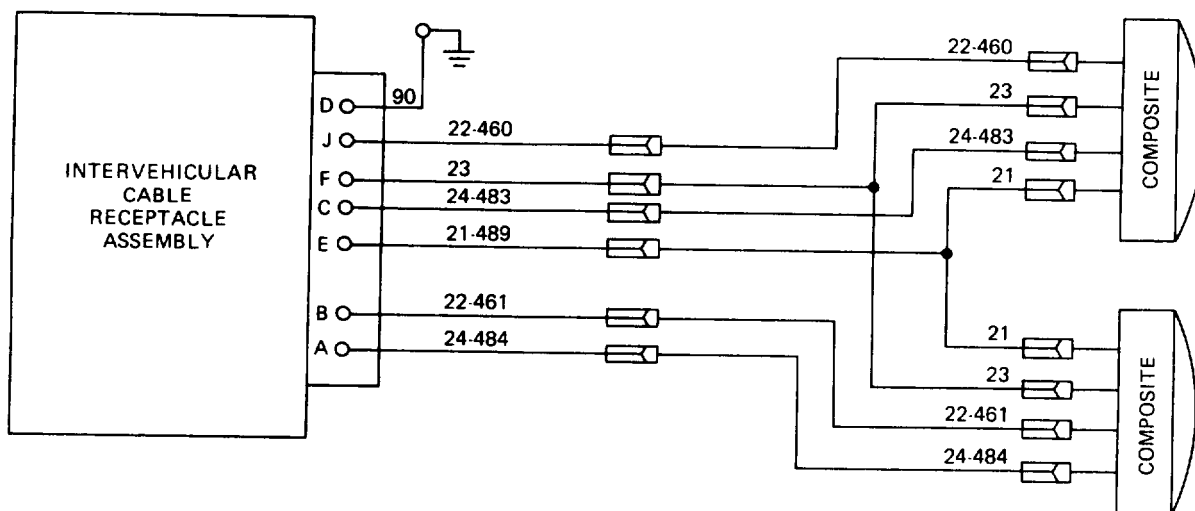
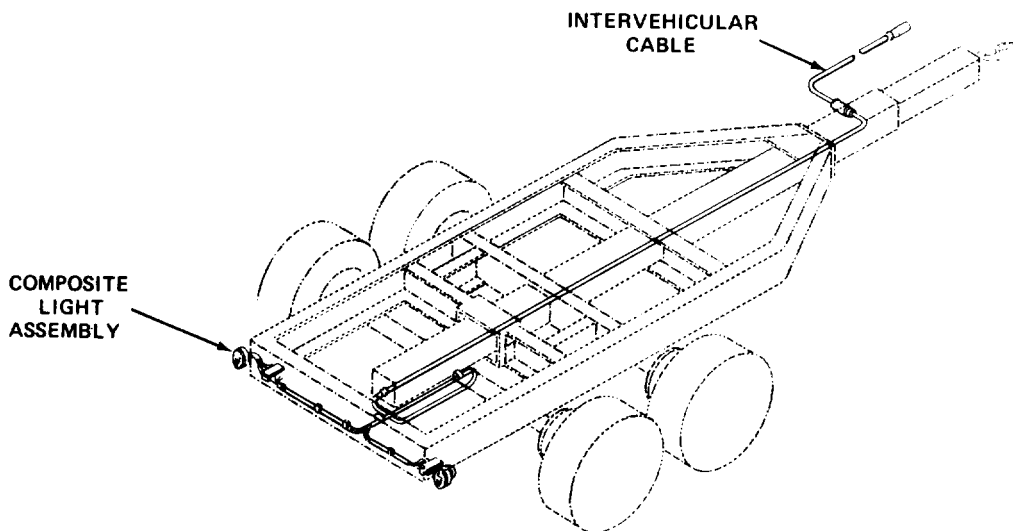
Section III. PRINCIPLES OF OPERATION

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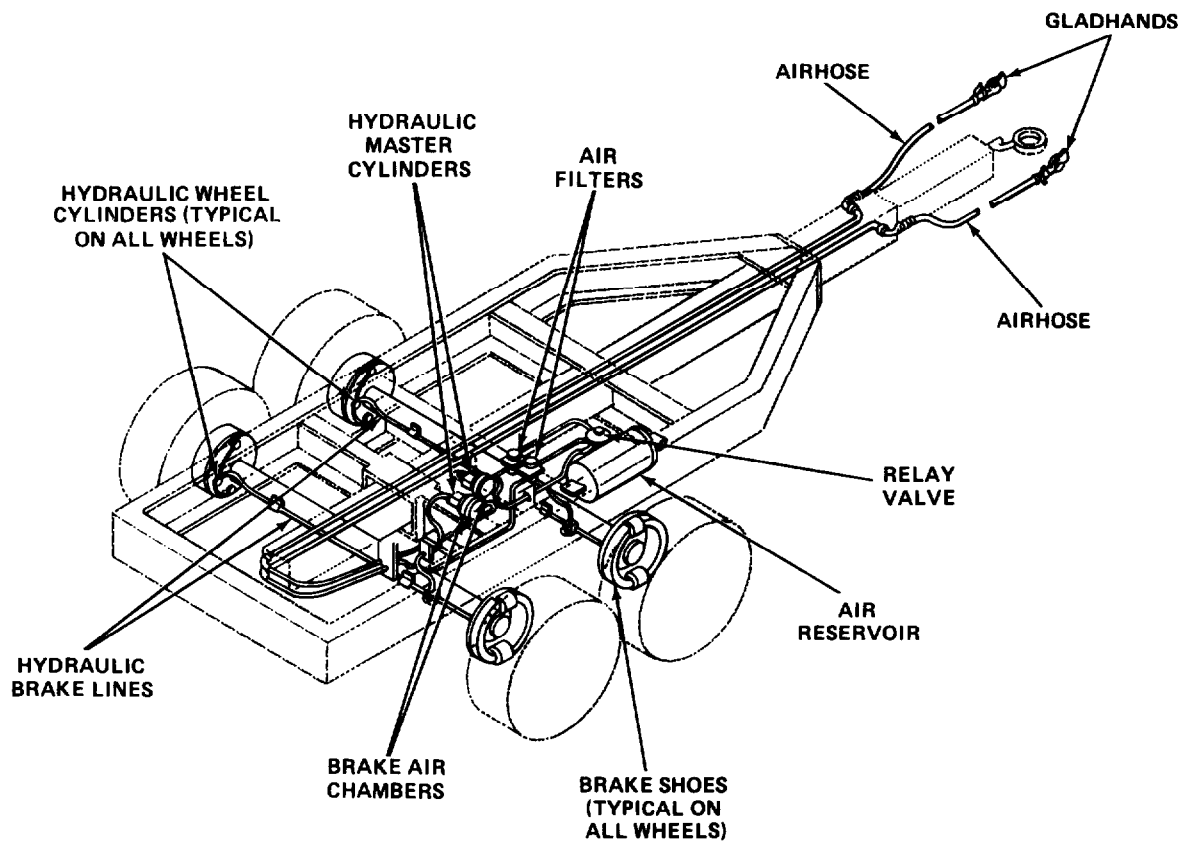
ELECTRICAL SYSTEM

The electrical system is a 24-volt military system with an intervehicular cable to connect the trailer to the towing vehicle.

The composite light assemblies consist of turn signal, stop, tail, and blackout lights.



BRAKE SYSTEM



Gladhands – The gladhands are the coupling point for the trailer-to-towing vehicle. They are marked, one for emergency and the other for service, to ensure correct hookup.

Airhoses – The airhoses are attached to the gladhand on one end and to the trailer on the other.

Air Filters – The air filters clean air from the towing vehicle of moisture and foreign matter.

Relay Valve – The relay valve directs and controls the flow of air to and from the reservoir to the brake air chamber.

Air Reservoir – The air reservoir stores the system air pressure (60 psi (413.7 kPa) minimum) that operates the brake system. Pressure to the reservoir is initially supplied and then maintained through the emergency supply line from the towing vehicle through the relay valve.

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BRAKE SYSTEM - CONTINUED

Brake Air Chamber – The brake air chamber converts air pressure to mechanical motion. This movement through the hydraulic master cylinder applies the brakes. When air pressure in the brake air chamber is released, spring action releases the brakes.

Hydraulic Master Cylinders – The hydraulic master cylinders convert the mechanical motion of the brake air chamber to hydraulic pressure.

Hydraulic Brake Lines – The hydraulic brake lines transfer hydraulic pressure from the hydraulic master cylinder to the wheel cylinders.

Hydraulic Wheel Cylinders – The wheel cylinders convert system hydraulic pressure to mechanical motion and force the brake lining against the brakedrum.

Brakeshoes – The two brakeshoes on each wheel assembly are spread apart by the mechanical movement of the wheel cylinders. The brakeshoes are pushed against the brakedrum, causing friction to slow or stop the trailer.

CHAPTER 2 OPERATING INSTRUCTIONS

OVERVIEW

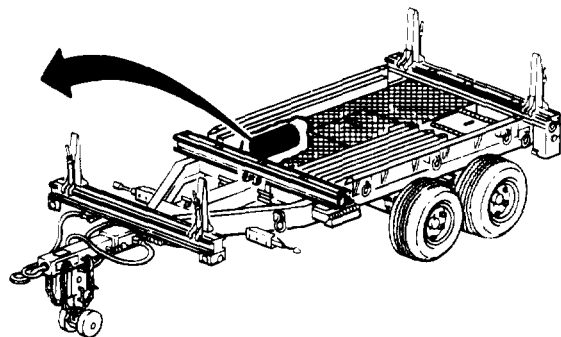
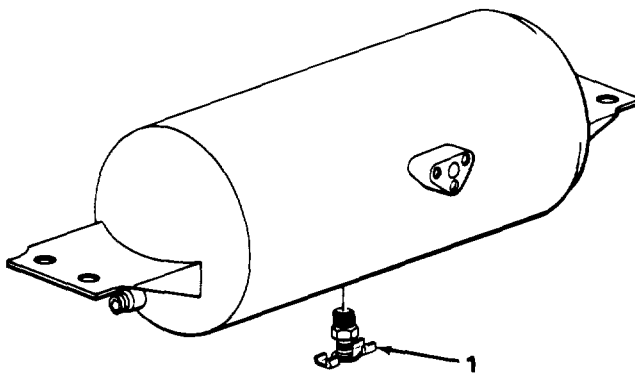
This chapter shows and describes the trailer controls and contains operator/crew level preventive maintenance procedures. There are instructions for coupling, driving, stopping, and backing in both usual and unusual conditions and other information to help you understand and better operate the trailer.

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Section I. DESCRIPTION AND USE OF OPERATOR'S CONTROLS

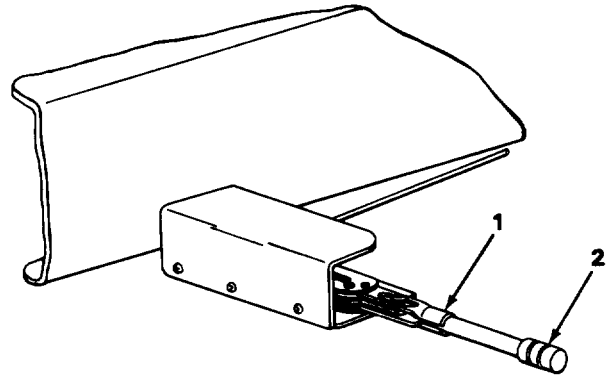
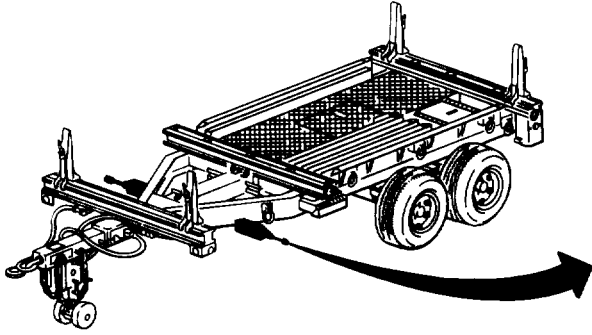
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Landing Gear (M796A1)	2-6		
Lunette and Safety Chains	2-5		
Portable Bolsters and Stanchions	2-3		

AIR RESERVOIR



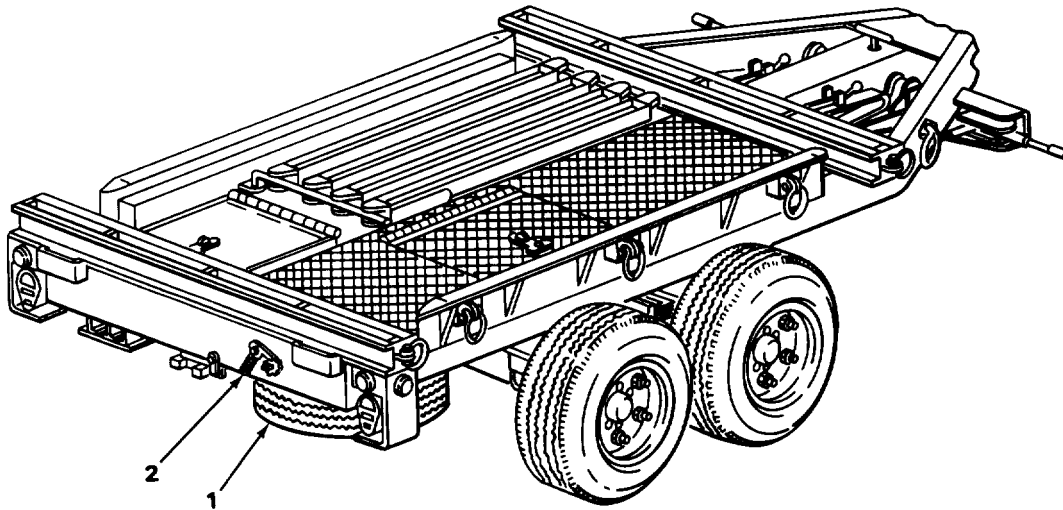
KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Draincock	Used to drain accumulation of moisture and for releasing air pressure in the event of locked brakes.

HANDBRAKE



KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Handbrake lever assemblies	Ensures positive brake application when in the applied position.
2	Adjustment knobs	Used to adjust cable tension.

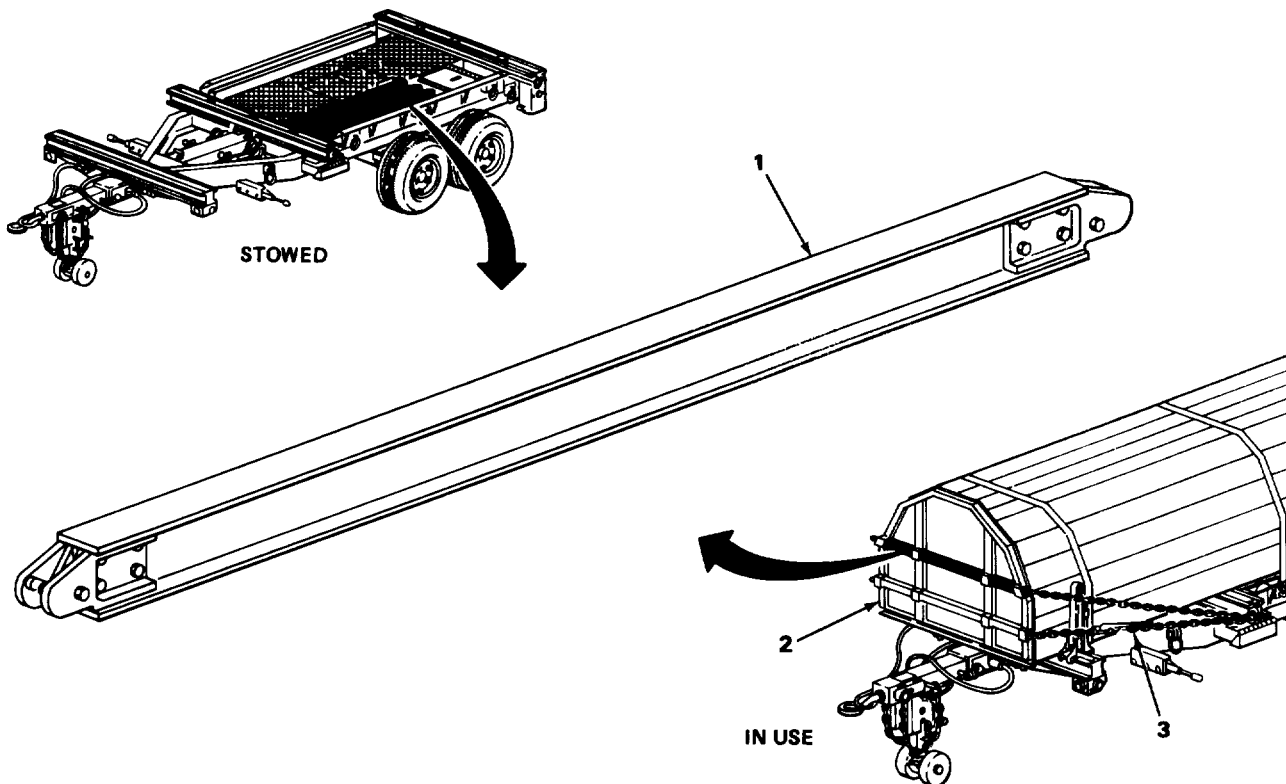
SPARE WHEEL



KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Spare wheel	To replace a damaged or flat tire.
2	Handcrank	Used to operate ratchet.

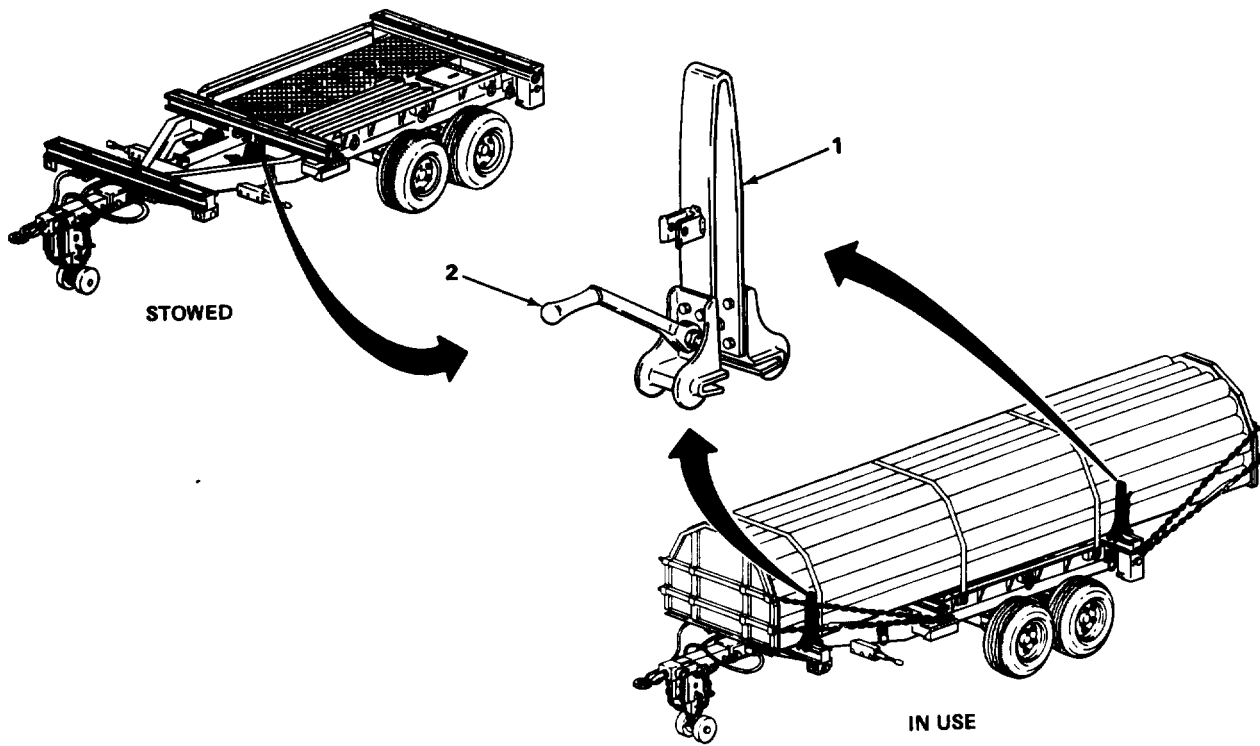
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PORTABLE BOLSTERS AND STANCHIONS



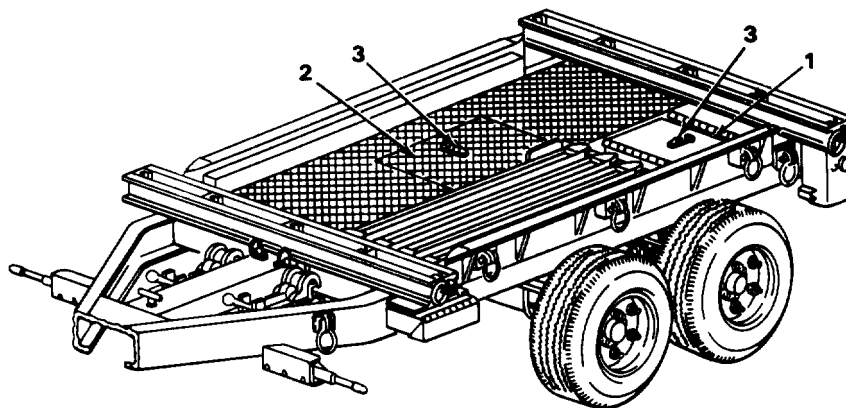
KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Portable bolsters	When used in conjunction with tiedown chains and invasion pipe retainer kit, prevent load from shifting forward and portable bolsters backward on the trailer.
2	Invasion pipe retainer kit	Used to support invasion pipe during transportation.
3	Tiedown chains	Used to secure load to trailer.

PORTABLE BOLSTERS AND STANCHIONS - CONTINUED



KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Stanchions	Adjustable for different load widths. Used to prevent load from shifting from side to side.
2	Lock handles	Used to lock stanchions in position when stowed or in use.

STORAGE COMPARTMENT AND ACCESS PANEL

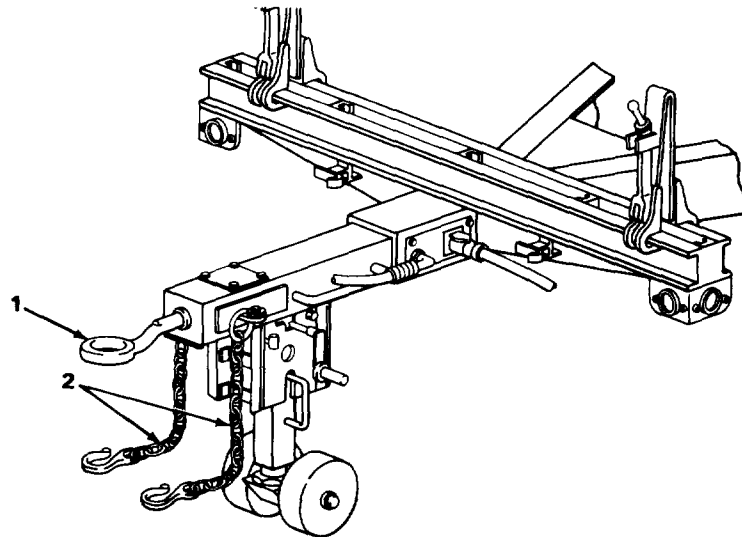


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STORAGE COMPARTMENT AND ACCESS PANEL - CONTINUED

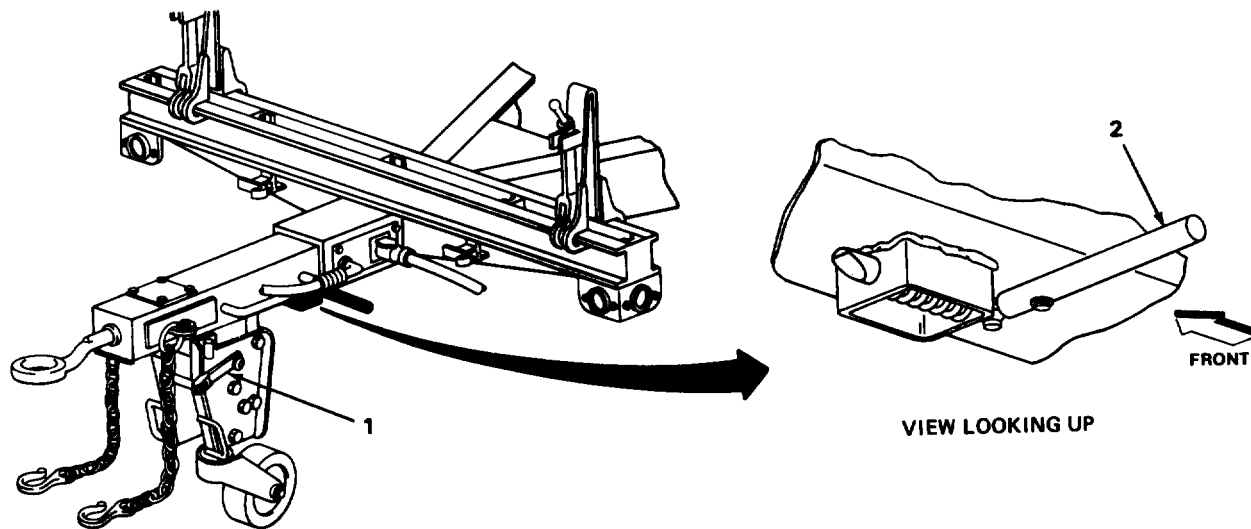
KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Storage compartment	Used for storage of tiedown straps and chains.
2	Access panel	Provides access to master cylinder for servicing.
3	Lock handles	Used to lock access panel and storage compartment door closed.

LUNETTE AND SAFETY CHAINS



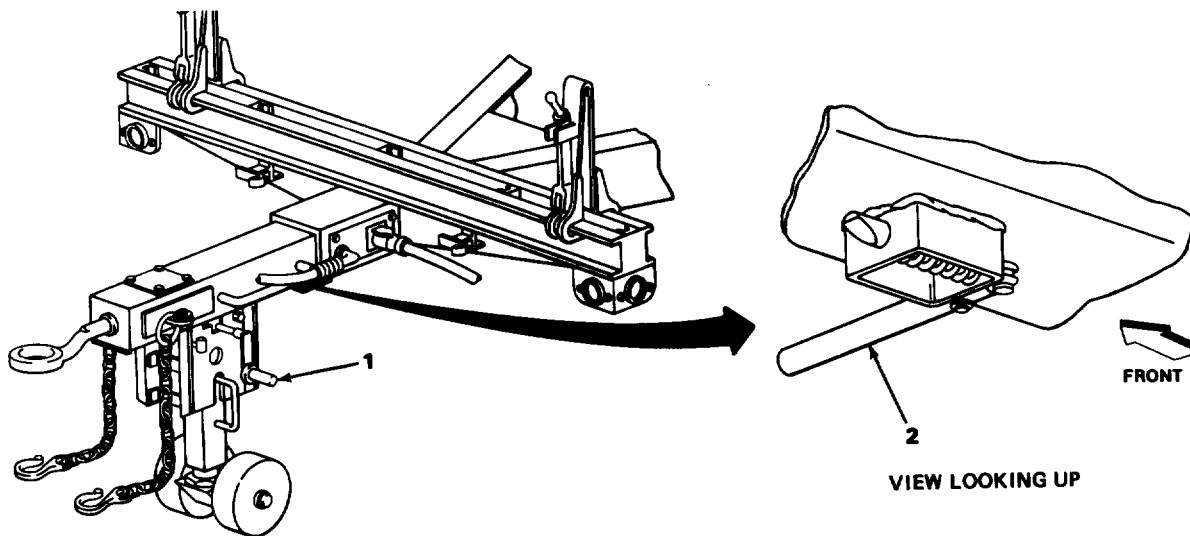
KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Lunette	Used to couple the trailer to the towing vehicle.
2	Safety chains	Hooked to eyebolts on towing vehicle to prevent trailer from fully breaking away.

LANDING GEAR (M798)



KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Handcrank	Operates the gearbox. Turning handcrank clockwise raises trailer turning handcrank counterclockwise lowers trailer.
2	Release handle	Provided to release the lockpin and extend the landing gear.

LAN DING GEAR (M796A1)

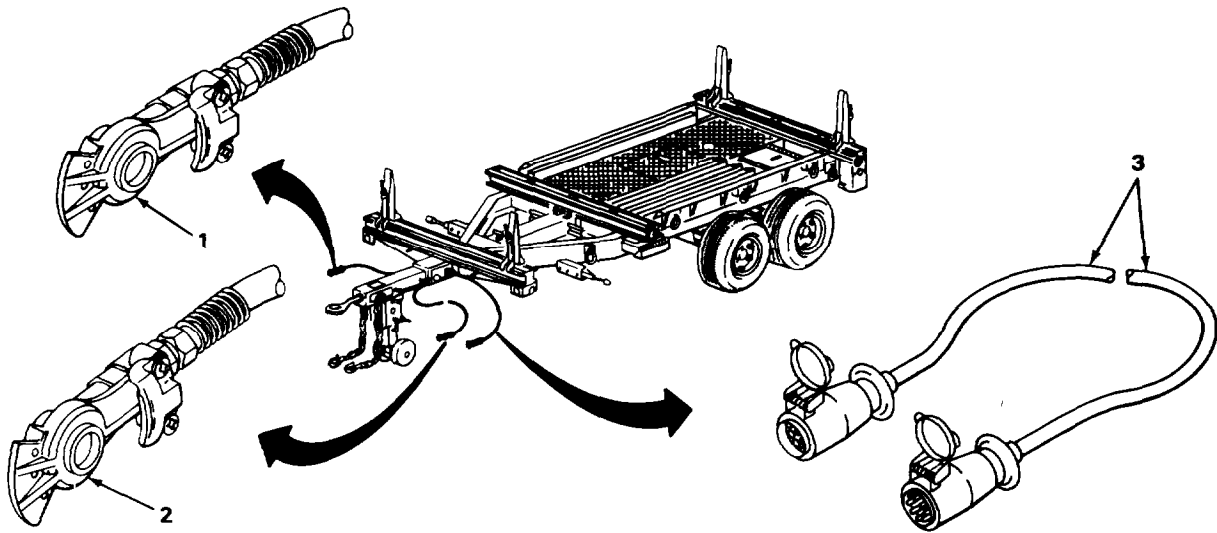


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LANDING GEAR (M796A1) - CONTINUED

KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Handcrank	Operates the gearbox. Turning handcrank clockwise raises trailer; turning handcrank counterclockwise lowers trailer.
2	Release handle	Provided to release the lockpin and extend the landing gear.

TRAILER-TO-TOWING VEHICLE CONNECTORS



KEY	CONTROL OR INDICATOR	FUNCTION OR USE
1	Emergency gladhand	Provides the connection to the towing vehicle's compressed air supply for the trailer's brake system.
2	Service gladhand	Provides the connection to the towing vehicle that provides the application and release signals for the trailer's brake system.
3	Intervehicular cable	Supplies electrical power from towing vehicle to trailer electrical system.

**Section II. OPERATOR/CREW PREVENTIVE MAINTENANCE
CHECKS AND SERVICES (PMCS)**

	Page		Page
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Leakage Definitions.....	2-9	Special Instructions.....	2-8
Operator/Crew Preventive Maintenance Checks and Services (PMCS).....	2-10		

GENERAL

This section contains instructions for performing PMCS on the trailer. The procedures list checks, services, and criteria to ensure that the trailer is prepared for operation. Perform checks and services at the specified intervals, keeping in mind the following guidelines:

Do your before (B) PMCS before operating the vehicle. Pay attention to all WARNINGS and CAUTIONS.

Do your during (D) PMCS while operating the vehicle. During operation means to monitor the vehicle and its related parts while being operated.

Do your after (A) PMCS right after operating the vehicle. Pay attention to all WARNINGS and CAUTIONS.

SPECIAL INSTRUCTIONS

If something does not work properly, troubleshoot it with the instructions in this manual and notify your supervisor.

Always do your preventive maintenance in the same order so it will become a habit. Once you have had some practice, you will spot something wrong in a hurry.

If something looks wrong and you cannot fix it, write it on a DA Form 2404. If you find something seriously wrong, report it to organizational maintenance immediately.

When you do your preventive maintenance, take along the tools you will need to make all the necessary checks. You always need a rag or two.

WARNING

Drycleaning solvent PD-680 is both toxic and flammable. Avoid prolonged breathing of vapors, and avoid skin contact. Do not use near open flame or excessive heat. Flash-point of solvent is 138°F (59°C). Serious illness, injury, or loss of life could result from improper use.

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 drycleaning solvent PD-680 on all metal surfaces. Use soap and water to clean rubber or plastic material.

SPECIAL INSTRUCTIONS - CONTINUED

Bolts, Nuts, and Screws. Check that they are not loose, missing, bent, or broken. Look for chipped paint, bare metal, or rust around boltheads. Report loose nuts, screws, and bolts to organizational maintenance.

Electrical Wires and Connectors. Look for cracked or broken insulation, bare wire, and loose or broken connectors. Report loose connectors and faulty wiring to organizational maintenance.

Hoses and Lines. Look for wear, damage, or leaks. Make sure clamps and fittings are tight. Report any damage, leaks, and loose fittings to organizational maintenance.

Welds. Look for loose or chipped paint, rust, or gaps where parts are welded together. Report bad welds to organizational maintenance.

LEAKAGE DEFINITIONS

It is necessary for you to know how fluid leaks affect the status of the trailer. The following are definitions of the types/classes of leakage needed to determine the status of the trailer. Become familiar with them. When in doubt, notify your supervisor.

Class I – Seepage of fluid (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 fall.

Class III – Leakage of fluid great enough to form drops that fall.

CAUTION

Equipment operation is allowed with minor leaks (Class I or Class II). Consideration must be given to the fluid capacity of the trailer hydraulic system. When in doubt, notify your supervisor.

When operating with Class I or II leaks, check fluid levels more often than required in the PMCS. Hydraulic brake systems with leaks will stop working if fluid levels are not maintained.

Class III leaks must be reported to your supervisor or organizational maintenance.

PMCS COLUMN DESCRIPTION

Item No. – The order that PMCS should be performed. Also used as a source of item numbers for the TM number column on DA Form 2404, Equipment Inspection and Maintenance Worksheet, when recording results of PMCS.

Interval – Tells when each check is to be performed.

item To Be Inspected – Lists the checks to be performed.

Equipment Is Not Ready/Available If – Has an entry only when the trailer should not be operated or accepted with that problem.

OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

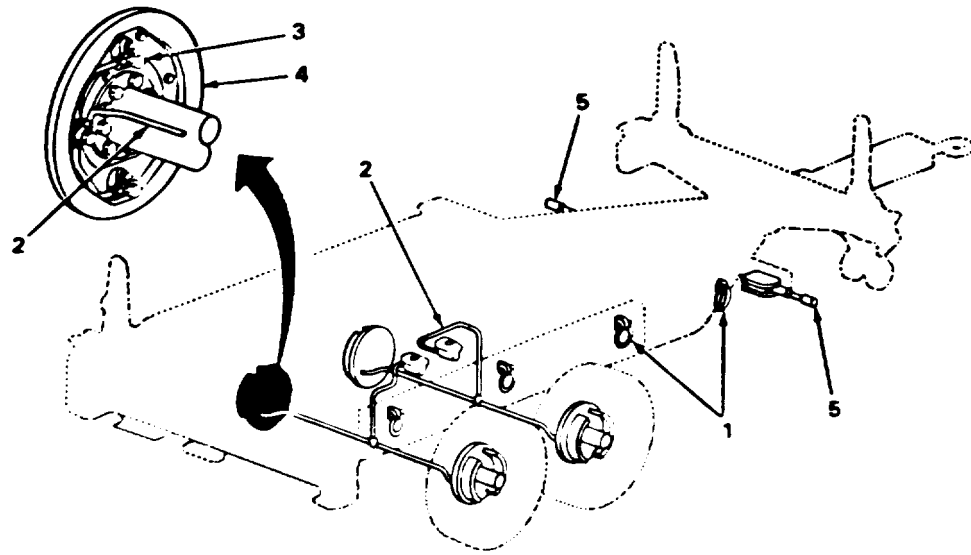
B - BEFORE

D - DURING

A - AFTER

ITEM NO.	INTERVAL			ITEM TO BE INSPECTED PROCEDURE: CHECK FOR AND HAVE REPAIRED, FILLED, OR ADJUSTED AS NEEDED	EQUIPMENT IS NOT READY/AVAILABLE IF:
	B	D	A		
1.	●			<p>TIRES</p> <p>a. Check tires for obvious damage such as cuts, bruises, bulges, and flats.</p> <p>b. Remove any glass, nails, or other foreign objects embedded in tires.</p> <p>c. Adjust inflation to 45 psi (310.3 kPa).</p>	Tires are damaged or unserviceable.
2.	●			<p>WHEELS</p> <p>Check wheel nuts for obvious looseness and missing nuts.</p>	Wheel nuts are loose or missing.
3.	●			<p>SPARE WHEEL</p> <p>a. Check spare wheel for security of mounting and condition.</p> <p>b. Adjust air pressure to 45 psi (310.3 kPa).</p>	
4.	●			<p>TIEDOWN RINGS</p> <p>Check rings (1) for free movement, looseness, and missing parts.</p>	Parts are unserviceable.
5.	●			<p>BRAKE SYSTEM</p> <p>a. Check all lines (2) and fittings (3) for leaks.</p> <p>b. Check backing plate (4) for evidence of leaking fluid.</p>	Class III type leakage is evident.
6.	●			<p>HANDBRAKES</p> <p>a. Check handbrake levers (5) for proper operation.</p> <p>b. Adjust handbrakes as required (page 3-4).</p>	Handbrakes are not adjustable.

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



ITEM NO.	INTERVAL			ITEM TO BE INSPECTED PROCEDURE: CHECK FOR AND HAVE REPAIRED, FILLED, OR ADJUSTED AS NEEDED	EQUIPMENT IS NOT READY/AVAILABLE IF:
	B	D	A		
7.	●	●		<p>REFLECTORS AND LIGHTS</p> <p>a. Inspect for damaged or missing reflectors and light assemblies.</p> <p>b. If tactical situation permits connect towing vehicle electrical cable to trailer and check lights for proper operation.</p>	

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

B - BEFORE

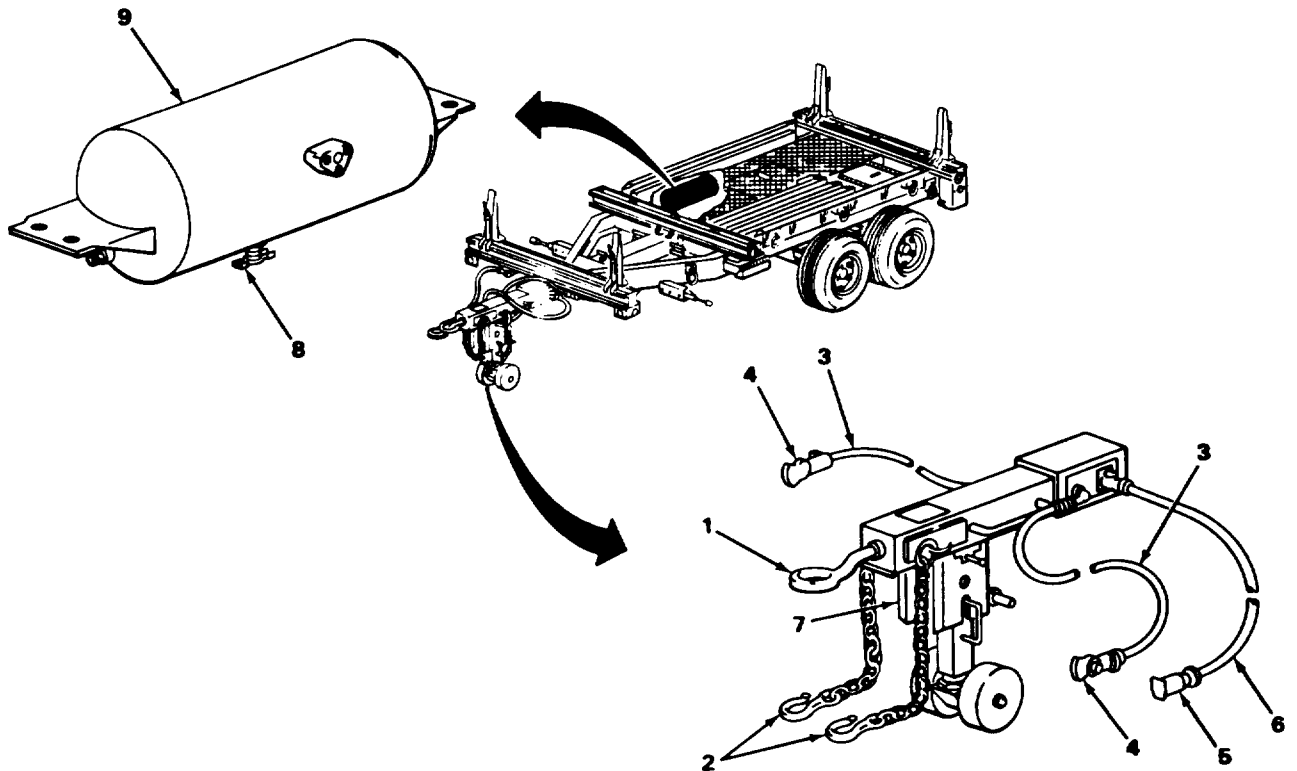
D - DURING

A - AFTER

ITEM NO.	INTERVAL			ITEM TO BE INSPECTED PROCEDURE: CHECK FOR AND HAVE REPAIRED, FILLED, OR ADJUSTED AS NEEDED	EQUIPMENT IS NOT READY/AVAILABLE IF:
	B	D	A		
8.	●			LUNETTE Check lunette (1) is not bent, twisted, or loose.	Parts are unserviceable.
9.	●			SAFETY CHAINS Check chains (2) for excessive wear due to dragging.	Parts are unserviceable.
10.	●			GLADHAND AND AIRHOSE a. Check for cracks and holes in hoses (3). b. Check gladhands (4) for proper fit. c. Check gladhands (4) and hoses(3) for leaks. Check condition of gladhand packing. d. Insure gladhand seals are not cracked, torn, dry-rotted, warped, or missing.	Gladhand and airhose are damaged, causing leaks.
11.	●			INTERVEHICULAR CABLE Check cable ends (5) and cable (6) for any signs of looseness, cracks, or bare and broken wires.	Proper electrical connection cannot be made.
12.	●			LANDING GEAR a. Check landing gear (7) for free movement up and down, extending, retracting, and swivel movement. b. Check landing gear (7) locks for proper operation both up and down.	There is evidence or indication that landing gear might collapse.
13.		●		BRAKES a. Check brakes for proper operation. b. Pay attention for pulling and grabbing during operation.	Brakes will not hold or release.

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

ITEM NO.	INTERVAL			ITEM TO BE INSPECTED PROCEDURE: CHECK FOR AND HAVE REPAIRED, FILLED, OR ADJUSTED AS NEEDED	EQUIPMENT IS NOT READY/AVAILABLE IF:
	B	D	A		
	B - BEFORE D- DURING A - AFTER				
14.		●		TRAILER AND TIEDOWN CHAINS Check for shifting loads and loose tiedown chains.	Load shifts or tiedown chains are broken. Frame is cracked or springs are broken.
15.			●	AIR RESERVOIR Open draincock (8) and drain any accumulated moisture and air pressure from reservoir (9).	
16.			●	FRAME AND SUSPENSION Check frame and suspension for damage.	



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Section III. OPERATION UNDER USUAL CONDITIONS

	Page		Page
After Use	2-18	Preparation for Use	2-14
During Operation.....	2-17		

PREPARATION FOR USE

Perform before (B) operator/crew Preventive Maintenance Checks and Services (PMCS) before continuing with the following procedures.

WARNING

All persons not involved in coupling operation must stand clear of towing vehicle and trailer to prevent possible injury.

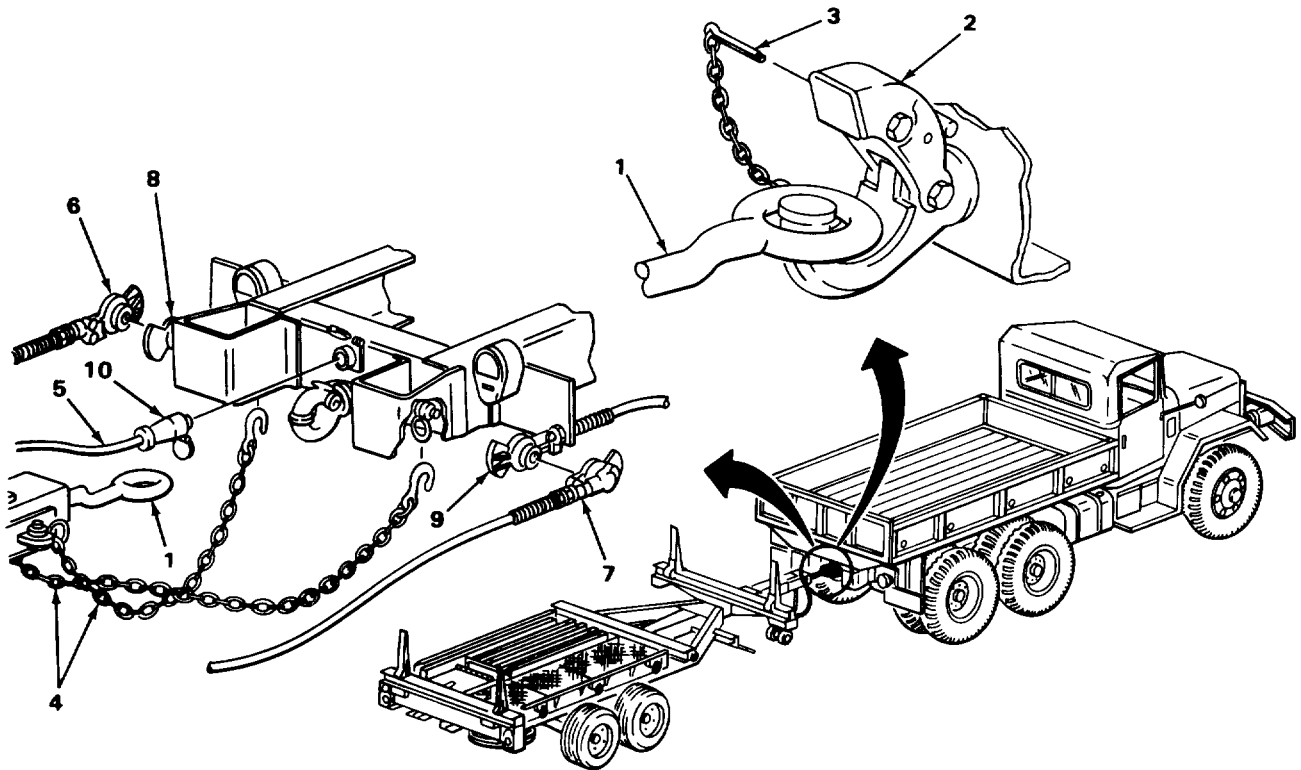
1. Review and perform towing vehicle operating procedures to prepare towing vehicle for coupling.
2. Check that lunette (1) on trailer is same height as pintle (2) on towing vehicle. To adjust, turn landing gear handcrank clockwise to raise and counterclockwise to lower.

NOTE

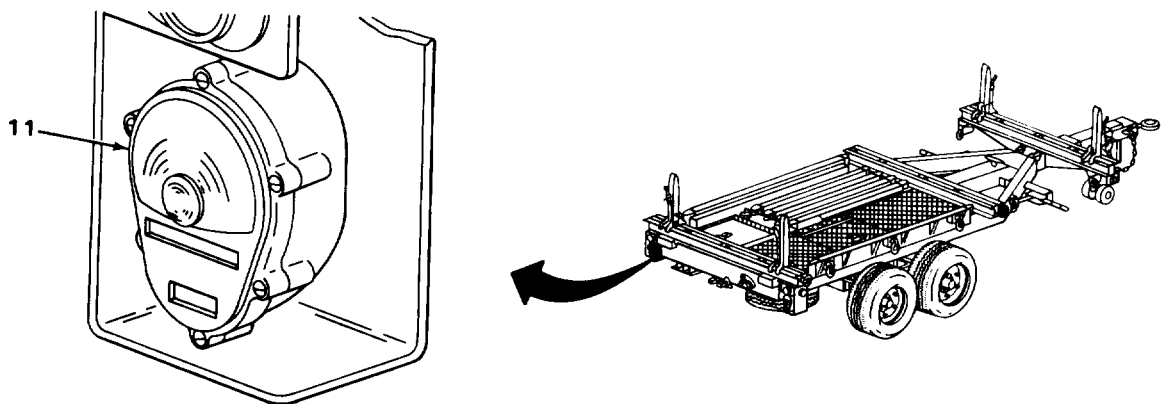
Use an assistant to direct you while backing up.

3. Aline towing vehicle with trailer.
4. Slowly back towing vehicle until lunette (1) and pintle (2) engage.
5. Install pintle lockpin (3).
6. Attach safety chains (4) from trailer to towing vehicle by crossing chains under lunette (1) to opposite side eyebolts.
7. Connect trailer intervehicular cable (5) to towing vehicle and trailer.
8. Connect trailer service and emergency airhose gladhands (6 and 7) to towing vehicle gladhands (8 and 9).
9. Check gladhands (6 and 7), intervehicular cable connection (10), and safety chains (4) for security and routing to provide slack during operation involving tight turns.
10. Turn on towing vehicle air supply to pressurize trailer brake system.

PREPARATION FOR USE - CONTINUED



11. Turn on service light of towing vehicle, and check that all trailer lights (11) are working.
12. Have assistant apply service brakes and operate left- and right-turn signals. Check trailer lights for proper operation.
13. Turn service lights of towing vehicle to OFF. Turn blackout light of towing vehicle to ON and check trailer light operation as in steps 1 and 2.

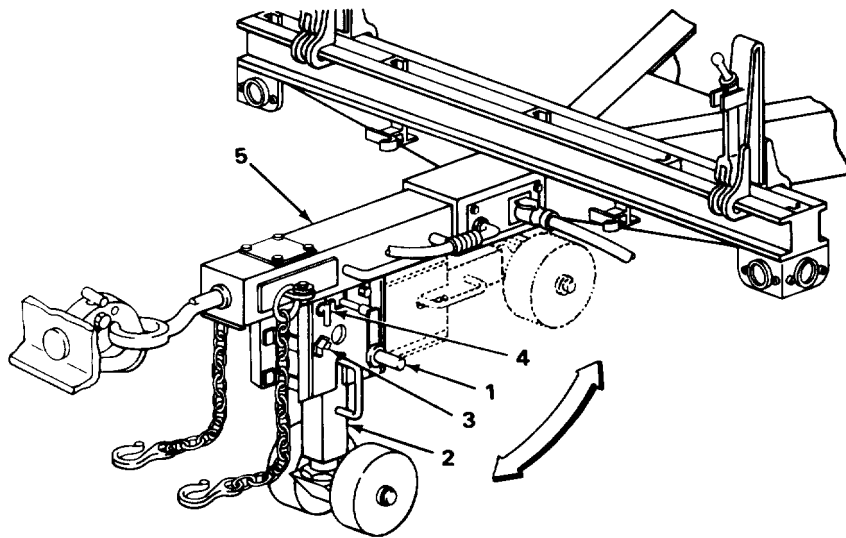


PREPARATION FOR USE - CONTINUED

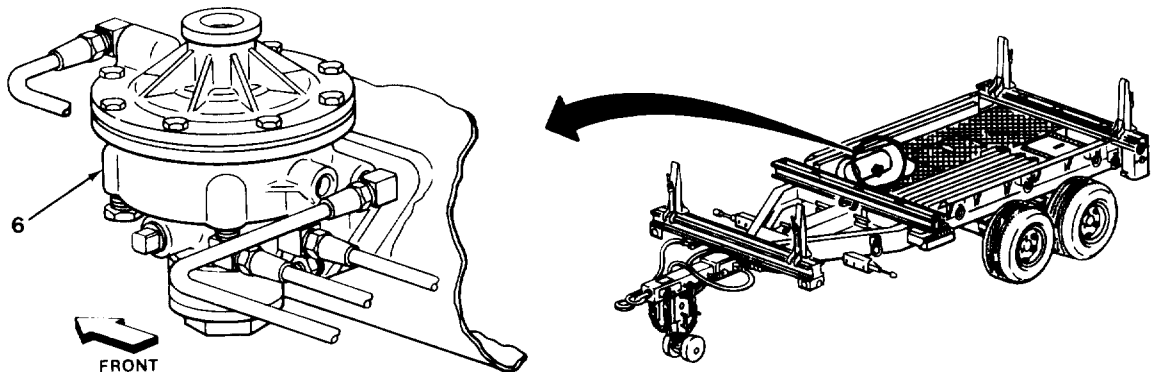
WARNING

Do not raise landing gear assembly unless trailer is connected to a towing vehicle or is securely supported on jack stands. The trailer may fall, causing injury to personnel.

14. Rotate handcrank (1), fully retracting landing gear (2), and secure handle of crank in clip (3).
15. Disengage pin support lock (4) from landing gear assembly.
16. Rotate landing gear (2) rearward and up to its stowed position. Ensure spring-loaded lockpin is fully engaged.
17. Stow pin support lock (4) in reach tube (5).



18. Have an assistant apply and release towing vehicle service brake, and check that air relay valve (6) on trailer vents with each application of service brakes.



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DURING OPERATION

WARNING

Before moving trailer, be sure stanchions, bolsters, and related tiedown equipment are properly stowed on trailer. If trailer is loaded, be sure load is properly secured to trailer. Injury to personnel or damage to equipment may result.

Perform during (D) operator/crew preventive maintenance checks and services (PMCS) during operation of trailer.

DRIVING

When driving the towing vehicle and trailer, the overall length of the unit must be kept in mind when passing other vehicles and when turning. Backing is also affected because the unit is hinged in the middle.

TURNING

When turning corners, remember that trailer wheels turn inside the turning radius of the towing vehicle. Make right turns by driving towing vehicle about halfway into the intersection, then cut sharply to the right. This will keep trailer wheels off the curb. Keep vehicle close enough to curb or edge of road to prevent other vehicles from attempting to pass on your right side.

STOPPING

During normal operation, stepping on the brake pedal will apply both towing vehicle and trailer service brakes at the same time. Apply brakes gradually and smoothly.

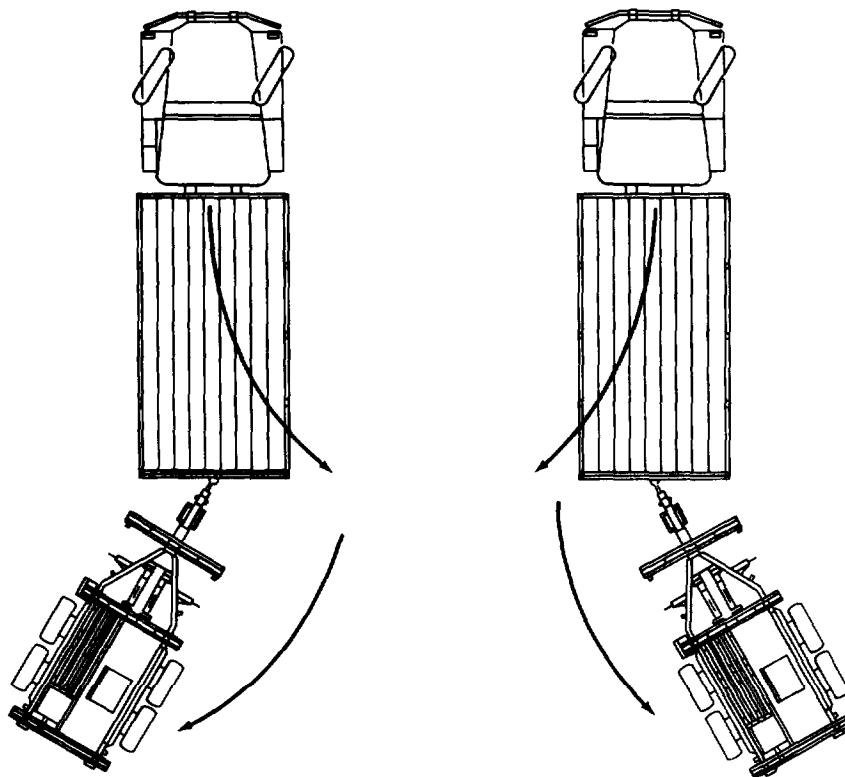
PARKING

When parking for extended periods, both the towing vehicle and the trailer parking brakes should be set. Do not use the trailer service brakes for long-term parking. Part of the reservoir pressure is automatically released if the brakes are applied for long periods of time. Slow leaks could cause the service brakes to release when air pressure drops too low.

DURING OPERATION - CONTINUED

BACKING

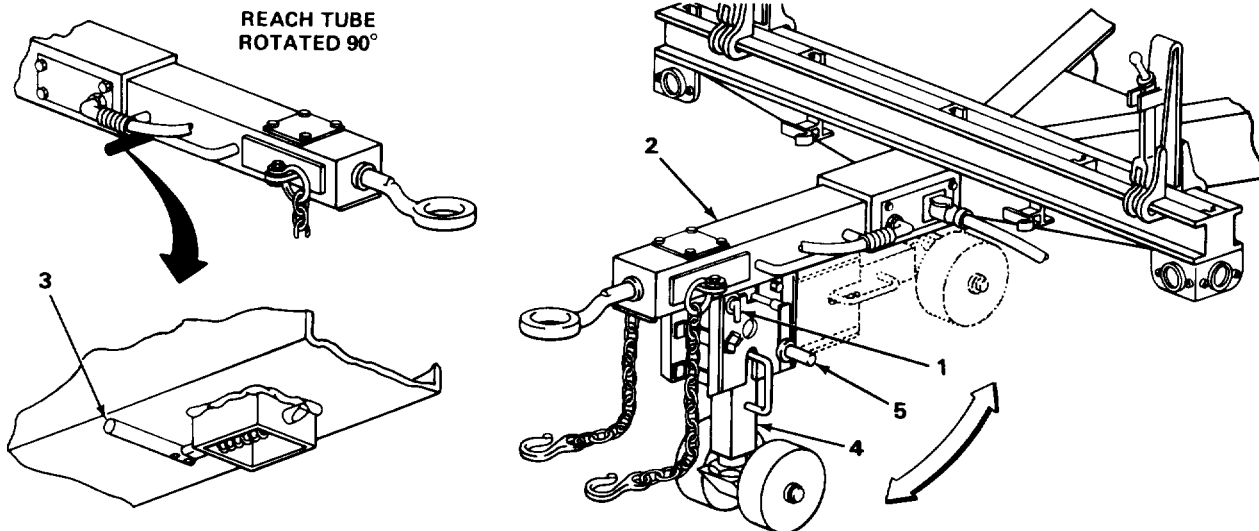
Have assistant guide you while backing. Adjust rearview mirrors before backing. When the towing vehicle and trailer are in a straight line, the rear of the trailer will move opposite to the direction the towing vehicle front wheels are turned. When the towing vehicle front wheels are turned to the right, the rear of the trailer will move to the left as you back up. When the towing vehicle front wheels are turned to the left, the rear of the trailer will move to the right.



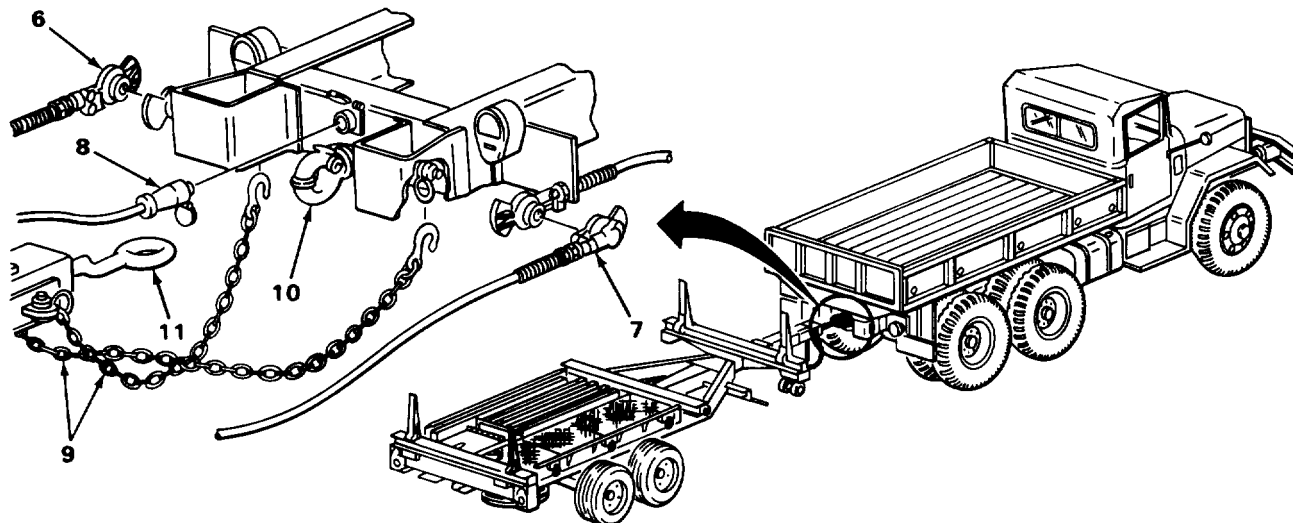
AFTER USE

1. Disengage pin support lock (1) from reach tube (2).
2. Pull landing gear stowed lock handle (3) to disengage stow lockpin, allowing landing gear (4) to swing down.
3. Engage pin support lock (1), locking landing gear (4) down.
4. Rotate handcrank (5), lowering landing gear(4), until it contacts the ground.
5. Set handbrake on trailer and towing vehicle.
6. Turn off air supply from towing vehicle.

AFTER USE - CONTINUED



7. Disconnect service and emergency airhose gladhands (6 and 7) from towing vehicle and stow on dummy couplings on trailer.
8. Disconnect intervehicular cable (8) from towing vehicle and stow end connector in clip on trailer.
9. Disconnect safety chains (9) and stow in tiedown loops on trailer.
10. Open pintle hook (10) and turn landing gear handcrank (5) to raise front of trailer so lunette (11) will clear pintle hook (10).
11. Drive towing vehicle away from trailer.



Section IV. OPERATION UNDER UNUSUAL CONDITIONS

	Page		Page
Fording	2-21	Operation in Saltwater Areas.....	2-21
Operation in Extreme Cold.....	2-20	Operation in Sandy or Dusty	
Operation in Extreme Heat.....	2-20	Areas	2-20
Operation in Mud.....	2-21	Operation in Snow.....	2-20

OPERATION IN EXTREME COLD

1. Refer to the lubrication chart for the proper lubricants to use in extreme cold.
2. Extreme cold can cause insulation material on electrical wire to crack and cause short circuits and other construction materials to become hard, brittle, and easily damaged or broken.
3. Tires may freeze to ground or have flat spots if underinflated.
4. Brakeshoes may freeze to brakedrum and will need to be heated to prevent damage.
5. Refer to FM 9-207 and FM 21-305 for special instructions on driving hazards in extreme cold.
6. When parking short term, park in a sheltered area out of the wind.
7. For parking long term, place a footing of planks or brush under trailer and landing gear wheels.
8. Remove all built-up ice and mud as soon as possible after use.
9. Use canvas covers to shield the trailer, if available. Keep cover ends off the ground to keep them from freezing to the ground.

OPERATION IN EXTREME HEAT

1. Refer to the lubrication chart for proper lubricants to use in extreme heat.
2. Do not park the trailer in sunlight for long periods of time. Heat and sunlight shorten tire life. Shelter or cover the trailer with canvas, if available.

OPERATION IN SANDY OR DUSTY AREAS

1. Clean, inspect, and lubricate more often in dusty or sandy areas.
2. Reduce tire pressure for emergency use on beach or desert sand.
3. Return tire pressure to normal, 45 psi (310.3 kPa), after emergency operation in sand.

OPERATION IN SNOW

Refer to FM 21-305 for special instructions on operating in snow.

OPERATION IN SALTWATER AREAS

Saltwater will cause rapid rust and corrosion to develop. Clean, Inspect, and lubricate more often than scheduled.

OPERATION IN MUD

Thoroughly clean and lubricate all parts contaminated by mud as soon as possible after operating in mud. Pack wheel bearings if necessary.

FORDING

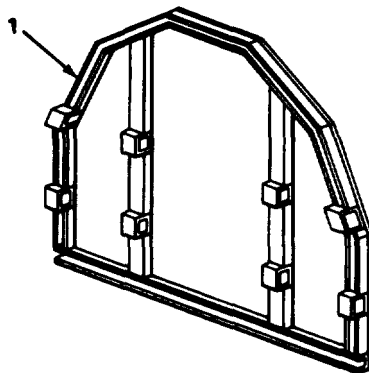
1. Check bottom surface of stream or river. if bottom surface is too soft, do not ford.
2. Protect cables, connectors, and terminals by spraying them with ignition insulation compound.
3. After fording, apply the brakes a few times to help dry out the brake lining. Be sure brakes are operating properly before driving at normal speeds.
4. Lubricate all unpainted surfaces with lubricating oil.
5. Lubricate the trailer in accordance with the lubrication chart, page 4-3.
6. Refer to TM 9-238 for deepwater fording information.

Section V. OPERATION OF MATERIEL IN CONJUNCTION WITH THE BOLSTER TRAILER

	Page	Page
General	2-21	Preparation for Loading.....2-23
Loading	2-24	Uneven Length Loads.....2-22
Partial Loads.....	2-22	

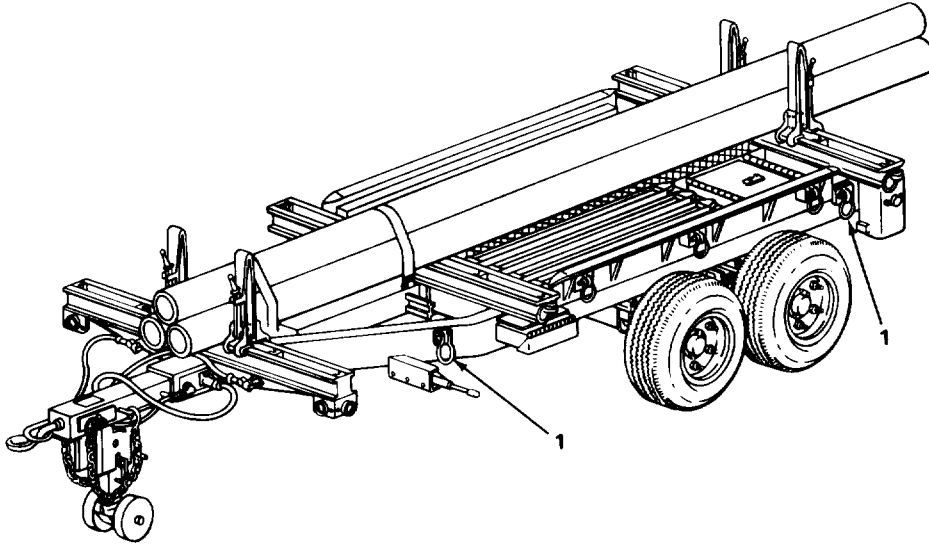
GENERAL

The invasion pipe retainer kit (1) consists of two metal plates structurally reinforced and welded. When transporting loads of Invasion pipe on the M796 and M796A1 bolster trailer, these plates are used in conjunction with the portable bolsters, chain assemblies, straps, load binders, and stanchions. A normal load for tiedown with the invasion pipe retainer kit consists of 41 lengths of pipe, 6-inch inside diameter by 21 feet long.



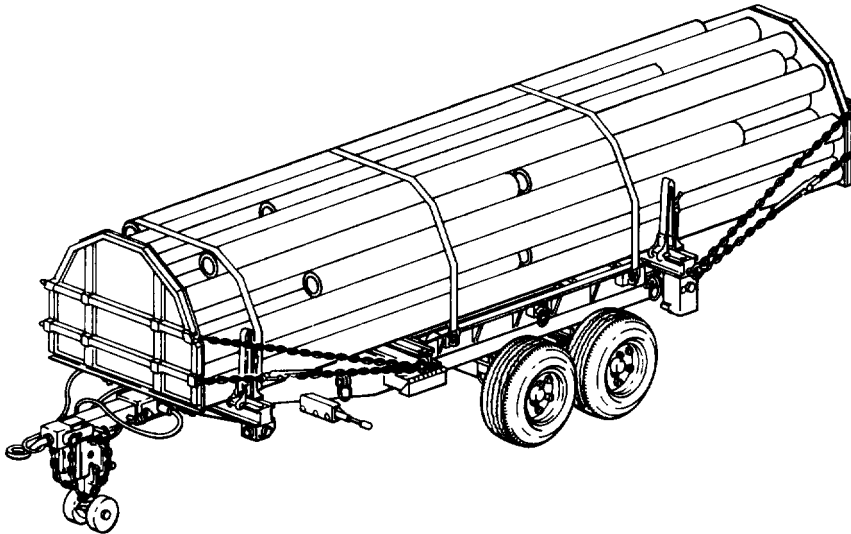
PARTIAL LOADS

Partial loads of sufficient quantities may also be carried on the M796 and M796A1 bolster trailer, providing the stack is high enough to properly secure the invasion pipe retainer kit against the load. If only two or three lengths of pipe are to be carried, they can be secured by using the swinging tiedown shackles (1) on each side of the center beam of the frame.



UNEVEN LENGTH LOADS

If pipes of uneven length are to be carried using the invasion pipe retainer kit, at least four sections of equal length pipe must be positioned at the lower outside and upper outside corners of the load. This placement will allow the invasion pipe retainer kit to be properly positioned at each end of the load, and allows proper tension of the tiedown chains. Pipes of shorter length can be positioned in the middle of the load where they will be properly secured.



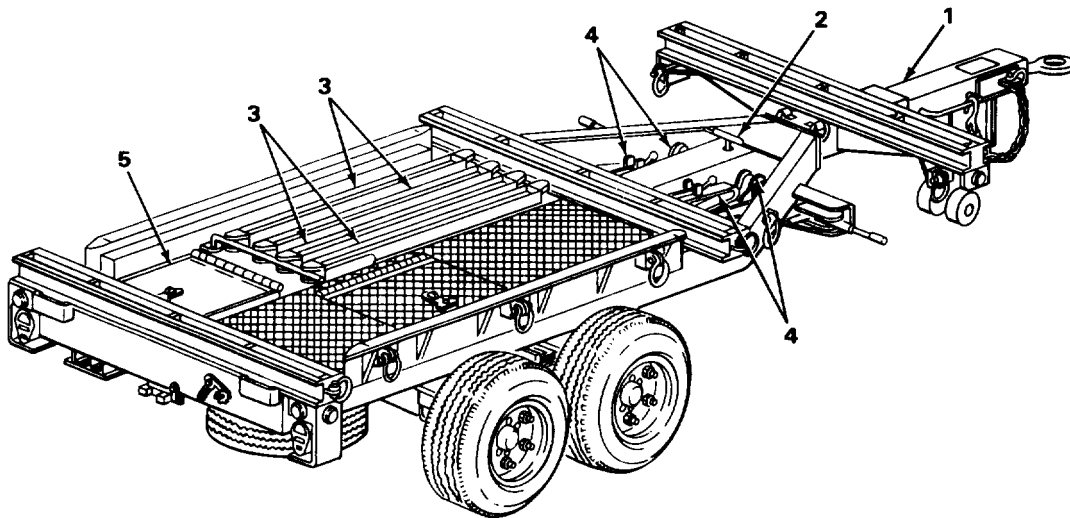
PREPARATION FOR LOADING

1. Couple trailer to towing vehicle as described in section III, page 2-14.

CAUTION

Airhoses and electrical harness must be disconnected from the rear of the reach tube before extending or retracting it. If not, damage to trailer could result.

2. Set handbrake, disconnect airhoses and electrical harness from rear of reach tube (1), and remove center pin (2) to unlock reach tube (1).
3. By moving towing vehicle very slowly, extend or retract reach tube (1) as required to permit centering weight of the load over the center tiedown ring. Aline center pin holes and insert center pin (2), locking reach tube (1).
4. Remove four portable bolsters (3) from their stowed position in bed of trailer.
5. Remove four stanchions (4) from stowed position in reach tube area of frame.
6. Remove four load binders, four tiedown chains, and three straps from storage compartment (5).
7. Place the invasion pipe retainer kit clear of loading area to prevent possible damage.

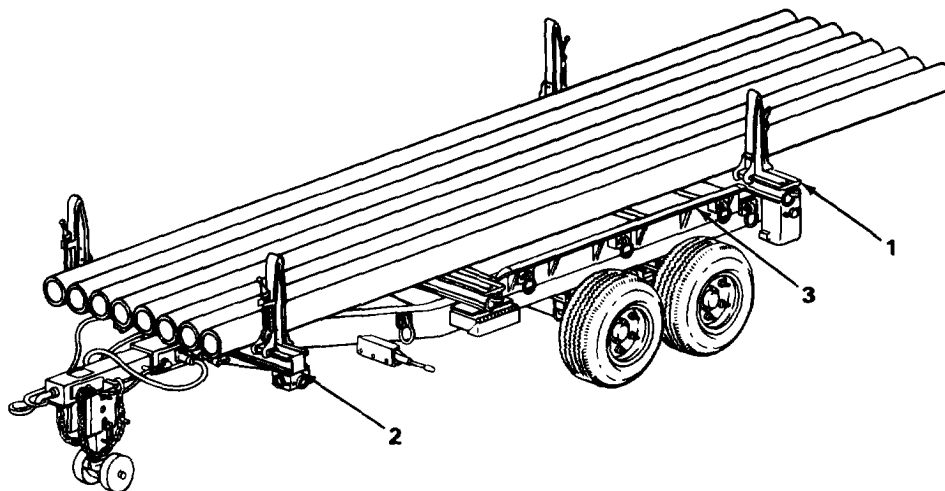


LOADING

NOTE

Procedure given is for a normal load for tiedown with the invasion pipe retainer kit consisting of 41 lengths of pipe, 6-inch inside diameter by 21 feet long.

1. Position two stanchions at ends of rear structural bolster (1) and two stanchions at ends of reach tube bolster (2).
2. Position forward end of first invasion pipe 6 inches in front of leading edge of reach tube bolster (2). Continue placing first layer of invasion pipe between the stanchions within limits of the raised side rails (3).

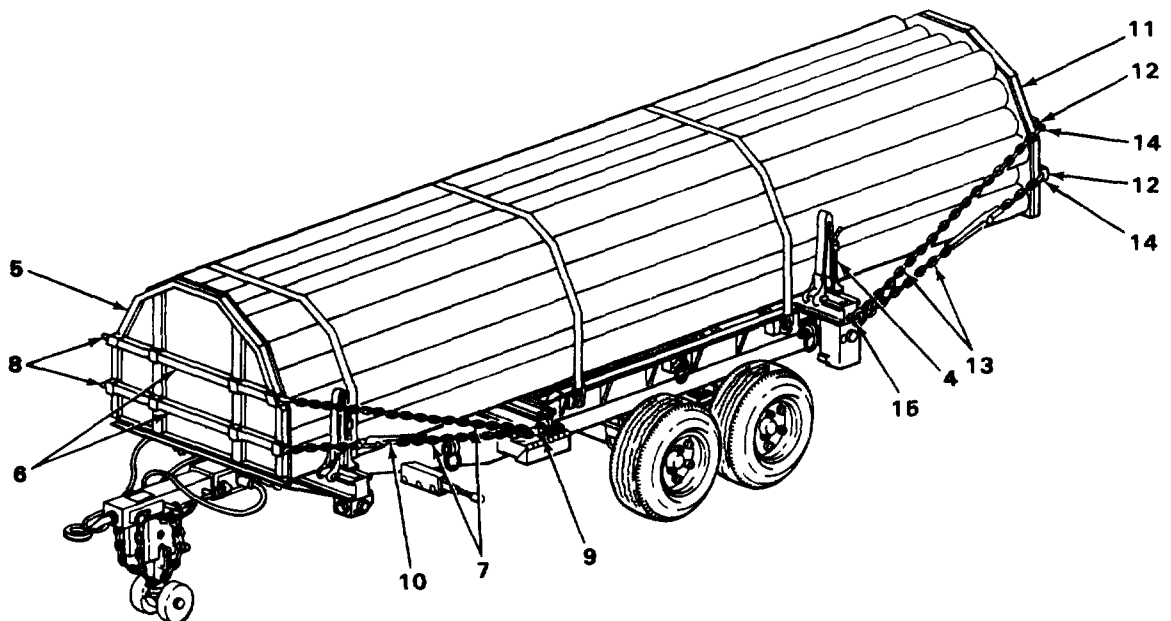


3. Slide the four stanchions (4) inboard against the first layer of invasion pipe until they all touch each other. Adjust all stanchions (4) an equal distance from the end of their respective bolster.
4. Lock the stanchions (4) into position.
5. Place two more layers of invasion pipe between the stanchions (4) with the ends of all pipe even.
6. Place one pipe retainer kit (5) with smooth side of plate against front of pipe load and with two 1/2-inch bent bottom lug rods inserted into two pipe ends of the bottom layer.
7. Slide two portable bolsters (6) into upper and lower box sections of the pipe retainer kit (5) with the sharp corners positioned forward.
8. Insert one link of hook end of tiedown chain (7) (do not use hook) into top portable bolster end (8) and lock in position.
9. Lead other end of tiedown chain (7) back through tiedown ring (9) and forward to bottom portable bolster end (8).

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LOADING - CONTINUED

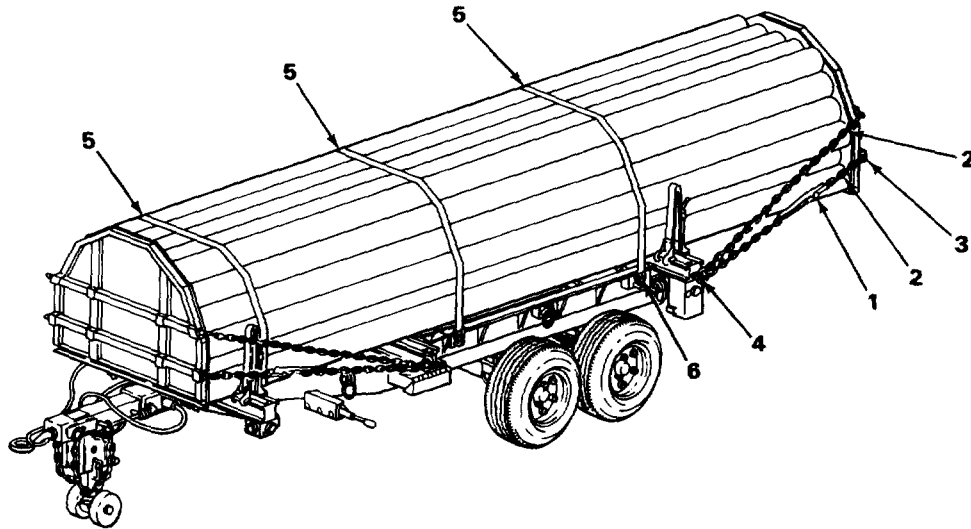
10. Remove as much slack from tiedown chain (7) as possible and insert one link into bottom portable bolster end (8).
11. Maintain pipe retainer kit (5) in a vertical position and flush against pipe load. Repeat steps 8 thru 10 on other side of trailer.
12. Install two load binders (10), one on each side of trailer in lower length of tiedown chain (7), between lower portable bolster (6) and tiedown ring (9). Apply only enough tension to take up slack in tiedown chain (7).
13. Position additional layers of invasion pipe in the form of a pyramid, flush against pipe retainer kit (5).
14. Place one pipe retainer kit (11) with smooth side of plate against rear of pipe load and with two 1/2-inch bent bottom lug rods inserted into two pipe ends of bottom layer of pipe. These lugs will support the pipe retainer kit (11) during installation.
15. Slide two portable bolsters (12) into the upper and lower box sections of the pipe retainer kit (11) with the sharp corners of the portable bolsters (12) positioned towards the rear.
16. Insert one link of hooked end of tiedown chain (13) (do not use hook) into top portable bolster end (14) and lock in position.
17. Lead other end of tiedown chain (13) forward through tiedown ring (15) and back to bottom portable bolster end (14).
18. Remove as much slack from tiedown chain (13) as possible and insert one link into bottom portable bolster end (14).
19. Maintain pipe retainer kit (11) in a vertical position and flush against pipe load. Repeat steps 16 thru 18 on other side of trailer.



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LOADING - CONTINUED

20. Install two load binders (1), one on each side of trailer in lower length of tiedown chain (2) between lower portable bolster (3) and tiedown ring (4). Apply only enough tension to take up slack in tiedown chain (2).
21. Apply tension to each of the four installed load binders (1) in increments, being careful not to shift load, until all tiedown chains (2) are tight.
22. Install three straps (5) over load and tighten and secure to tiedown rings (6).
23. Inspect load for proper alinement and proper tiedown tension, and that no possibility of the load breaking loose during movement exists.
24. Secure all loose chain and strap ends.



CHAPTER 3

OPERATOR MAINTENANCE

OVERVIEW

This chapter contains the lubrication and troubleshooting maintenance instructions and procedures authorized at operator level.

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

Section I. LUBRICATION INSTRUCTIONS

Lubrication under usual and unusual conditions and the trailer lubrication chart are contained in organizational maintenance, chapter 4.

Section II. OPERATOR TROUBLESHOOTING PROCEDURES

	Page		Page
Explanation of Columns	3-1	Operator Troubleshooting	3-2
General	3-1	Symptom Index	3-2

GENERAL

This section lists the common malfunctions that you may find during operation of the trailer and its components. Perform the tests, inspections, and corrective maintenance in the order listed.

This manual cannot list all malfunctions that may occur, or all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by corrective actions listed, notify your supervisor.

EXPLANATION OF COLUMNS

Malfunction. Visual or operational indication that something is wrong with the trailer.

Test or Inspection. Procedure to isolate the problem to a component or system.

Corrective Action. Procedure to correct problem.

SYMPTOM INDEX

This symptom index is provided as a guide to the troubleshooting procedure that will help you solve the problem you are having.

Page

BRAKE SYSTEM

No brakes 3-3

ELECTRICAL SYSTEM

Air lamps fail to light 3-2

One or more (but not all) lamps fail to light 3-2

OPERATOR TROUBLESHOOTING

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

ELECTRICAL SYSTEM

1. ALL LAMPS FAIL TO LIGHT.

Step 1. Check intervehicular cable connector for proper connection.

Reconnect cable.

Step 2. Check towing vehicle circuit breaker/fuse.

Refer to towing vehicle technical manual for instructions.

If lamps still fail to light, notify organizational maintenance.

2. ONE OR MORE (BUT NOT ALL) LAMPS FAIL TO LIGHT.

Check for loose connector at affected light.

Reconnect.

If lamp(s) still fail to light, notify organizational maintenance.

OPERATOR TROUBLESHOOTING – CONTINUED

MALFUNCTION
 TEST OR INSPECTION
 CORRECTIVE ACTION

BRAKE SYSTEM

3. NO BRAKES.

Step 1. Check for closed air valves on towing vehicle.

Open air valves.

Step 2. Check for open draincock on trailer air reservoir.

Close draincock.

Step 3. Check airhose gladhands for proper connection (emergency-to-emergency and service-to-service).

Reconnect.

If you still have no brakes, notify organizational maintenance.

Step 4. Check for hydraulic leaks.

Notify organizational maintenance.

Section III. OPERATOR MAINTENANCE PROCEDURES

	Page		Page
Handbrake	3-4	Wheel and Tire	3-5
Spare Wheel	3-7		

NOTE

Personnel are listed only if the task requires more than one person. If personnel required is not listed, one technician can do the task.

HANDBRAKE

This task covers:

Adjustment

INITIAL SETUP

Tools

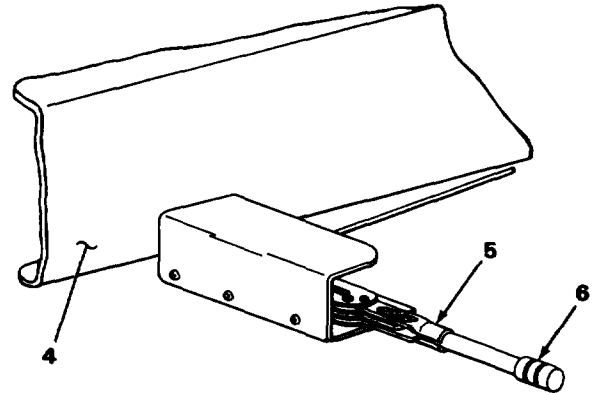
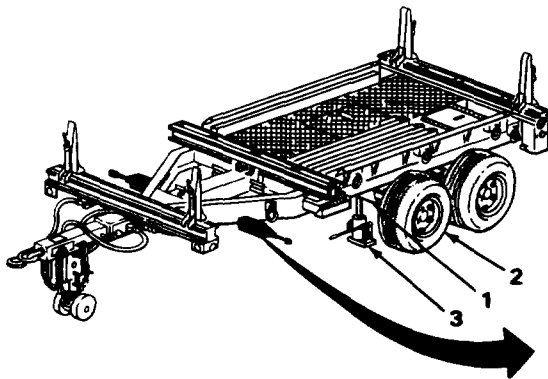
Jack, hydraulic

LOCATION	ITEM	ACTION REMARKS
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NOTE

Procedure is for one handbrake. Repeat procedure for opposite side.

1.	Front wheel axle (1)	Wheel (2)	Using hydraulic jack (3), raise until wheel (2) clears ground.
2.	Trailer chassis, front (4)	Handbrake lever (5)	Release.
3.	Handbrake lever (5)	Knob (6)	Adjust by turning clockwise to tighten or counterclockwise to loosen. Wheel (2) should lock when handbrake lever travel is no more than two-thirds toward lock position.
4.	Trailer chassis, front (4)	Hand brake lever (5)	Release. Make sure front wheel (2) turns freely.
5.	Front wheel axle (1)	Wheel (2)	Using hydraulic jack (3), lower.

HANDBRAKE - CONTINUED

TASK ENDS HERE

WHEEL AND TIRE

This task covers:

- a. Removal (page 3-6)
- b. Installation (page 3-6)

INITIAL SETUP**Tools**

Handle, 3/4-inch square drive
 Jack, hydraulic
 Socket, 1 1/2-by 3/4-inch
 square drive

WHEEL AND TIRE - CONTINUED

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

REMOVAL

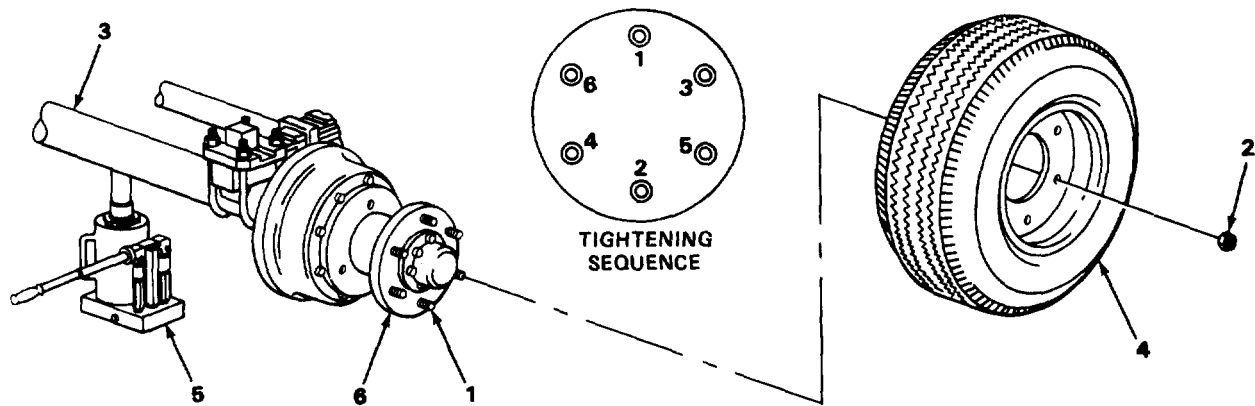
NOTE

Hub studs and wheel nuts are marked R on right wheel and L on left wheel. Nuts must be turned in opposite direction to normal forward rotation of wheel to be loosened.

- | | | | |
|----|----------------|-----------|---|
| 1. | Hub studs (1) | Nuts (2) | Using socket and handle, loosen nuts (2). |
| 2. | Wheel axle (3) | Wheel (4) | Using hydraulic jack (5), raise. |
| 3. | Hub studs (1) | Nuts (2) | Using socket and handle, remove. |
| 4. | Hub (6) | Wheel (4) | Remove. |

INSTALLATION

- | | | | |
|----|----------------|-----------|---|
| 5. | Hub (6) | Wheel (4) | Place on studs (1). |
| 6. | Hub studs (1) | Nuts (2) | Using socket and handle, install and tighten.
Use shown sequence. |
| 7. | Wheel axle (3) | Wheel (4) | Using jack (5), lower. |
| 8. | Hub studs (1) | Nuts (2) | Using socket and handle, retighten.
Nuts must be retightened and torqued to 450 - 500 ft lb (610 - 678 NŻm) by organizational maintenance. |



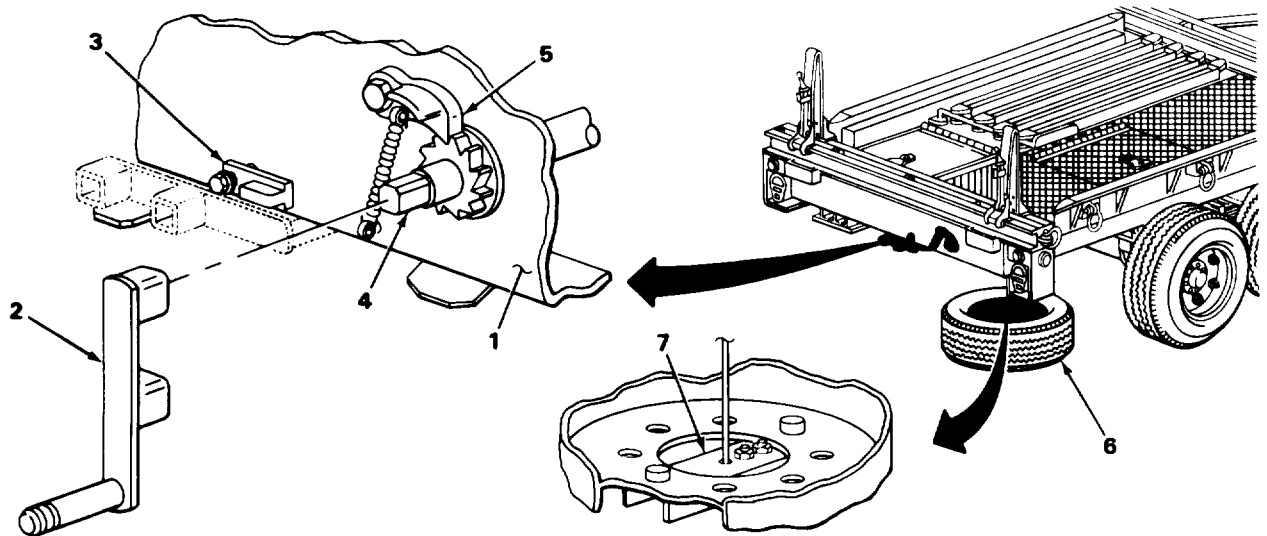
TASK ENDS HERE

SPARE WHEEL

This task covers:

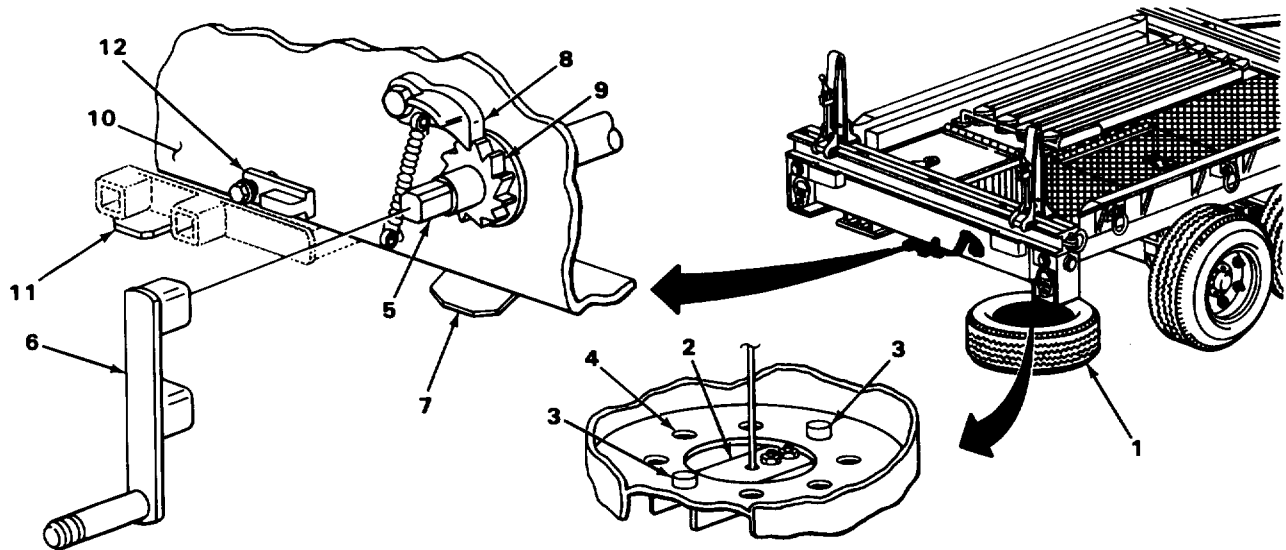
- a. Removal (page 3-7)
- b. Installation (page 3-8)

	LOCATION	ITEM	ACTION REMARKS
REMOVAL			
1.	Rear cross-member (1)	Handcrank (2)	a. Unlock by turning lock (3) upward. b. Remove handcrank (2) from stowed position.
2.	Crankshaft (4)	Handcrank (2)	a. Place on end of crankshaft (4). b. Turn clockwise until pawl (5) clears teeth.
3.	Pawl (5)	Crankshaft (4)	a. Lift pawl (5) up. b. Lower wheel (6) by turning handcrank (2) counterclockwise until wheel reaches ground and cable is slack.
4.	Wheel (6)	Member (7)	Push down, turn endways, and pull through rim.



SPARE WHEEL - CONTINUED

	LOCATION	ITEM	ACTION REMARKS
INSTALLATION			
5.	Wheel (1)	Member (2)	Place member (2) through hole of rim and position studs (3) in hub stud holes (4).
6.	Crankshaft (5)	Handcrank (6)	a. Turn clockwise to raise wheel (1). b. Pull wheel (1) tightly against angles (7) until pawl (8) rests firmly in a ratchet tooth (9).
7.	Rear cross-member (10)	Handcrank (6)	Remove handcrank (6) and place in stored position (11) and turn lock (12) down to lock.



TASK ENDS HERE

CHAPTER 4
ORGANIZATIONAL MAINTENANCE

OVERVIEW

This chapter contains all the maintenance authorized to be performed by organizational maintenance. Included are lubrication instructions, preventive maintenance checks and services, troubleshooting, and maintenance procedures.

		Page
Section I.	Lubrication Instructions	4-2
Section II.	Repair Parts, Special Tools; Test, Measurement, and Diagnostic Equipment (TMDE); and Support Equipment	4-5
Section III.	Service Upon Receipt.....	4-5
Section IV.	Organizational Preventive Maintenance Checks and Services (PMCS)	4-7
Section V.	Organizational Troubleshooting	4-10
Section VI	General Maintenance Instructions	4-14
Section VII.	Electrical System	4-16
Section VIII.	Axle	4-32
Section IX.	Brake System.....	4-40
Section X.	Wheels, Hubs, and Brakedrums	4-87
Section XI.	Frame and Towing Attachments	4-95
Section XII.	Springs	4-103
Section XIII.	Miscellaneous Accessories	4-106



Section I. LUBRICATION INSTRUCTIONS

	Page		Page
Lubrication Chart	4-3	Lubrication Instructions.	4-2

LUBRICATION INSTRUCTIONS

GENERAL

Keep all lubricants in closed containers and store in a clean, dry place away from external heat. Keep container covers clean and allow no dust, dirt, or other foreign material to mix with the lubricants. Keep all lubrication equipment clean and ready for use.

CLEANING

Keep all external parts not requiring lubrication free of lubricants. Before lubricating the equipment, wipe all lubrication points free of dirt and grease. Clean all lubrication points after servicing to prevent accumulation of foreign matter.

LUBRICATION INTERVAL

Service the lubrication points at the proper intervals as specified in the lubrication chart. The intervals specified are based on operation under normal conditions. Modification of the recommended intervals may be required under unusual operating conditions.

LUBRICATION CHART

Refer to the lubrication chart on the following pages for lubrication under normal conditions. Refer to FM 9-207 for instructions on lubrication in weather below 0°F (-18°C). Refer to TM 9-238 for lubrication before and after fording. Clean and inspect all lubrication points after operating in mud, dust, sand, or other unusual conditions. Lubricate trailer in accordance with the lubrication chart.

LUBRICATION CHART

TRAILER, BOLSTER: 4-TON, 4-WHEEL, GENERAL PURPOSE M796 (NSN 2330-00-089-3866) M796A1 (NSN 2330-01-137-5116)

Hard-time intervals and related man-hour times are based on normal operation. The man-hour time specified is the time you need to do all services prescribed for a particular interval. Change the interval if your lubricants are contaminated or if you are operating equipment under adverse conditions, including longer-than-usual operating hours. The interval may be extended during periods of low activity. If extended, adequate preservation precautions must be taken.

WARNING

Drycleaning solvent PD-680 is both toxic and flammable. Avoid prolonged breathing of vapors and avoid skin contact. Do not use near open flame or excessive heat. Flashpoint of solvent is 138° F (59° C). Serious illness, injury, or loss of life could result from improper use.

Dotted leader lines indicate lubrication is required on both sides of equipment.

Clean fittings and area around lubricating points with drycleaning solvent PD-680 or equivalent before lubricating.

LUBRICANT • INTERVAL

INTERVAL • LUBRICANT

Retractable Support GAA
(Two Fittings – M796
Only)

S

GAA Retractable Support
(One Fitting –
M796A1 Only)

S

Front Wheel Bearings GAA
(See Note 3.)

S

GAA Reach Tube
(See Note 3.)

S

Rear Wheel Bearings GAA
(See Note 3.)

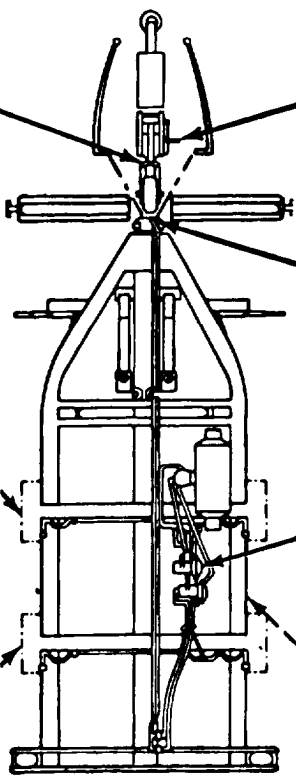
S

BFS Master Cylinders
(Fill To 1/2 In. From
Top.)

S

GAA Trunnion Axle
(Two Fittings)

S



TOTAL MAN-HOURS*	
INTERVAL	MAN-HOUR
S	2.0

*Total time specified is the time you need to do all services prescribed for a particular interval.

-KEY-

LUBRICANTS	EXPECTED TEMPERATURES			INTERVALS
	ABOVE +15°F (ABOVE -9°C)	+40°F TO -15°F (+4°C TO -26°C)	+40°F TO -65°F (+4°C TO -54°C)	
OE/HDO Lubricating oil, internal combustion engine, tactical service	OE/HDO 30	OE/HDO 10		A – Annually S – Semiannually
OEA Lubricating oil, internal combustion, arctic Oilcan points (See Note 2.)				
BFS Brake fluid silicone, automotive Master cylinder	ALL TEMPERATURES			
GAA Grease, automotive and artillery	ALL TEMPERATURES			

For arctic operations, refer to FM 9-207

NOTES:

1. FOR OPERATION OF EQUIPMENT IN PROTRACTED COLD TEMPERATURES BELOW -15°F (-26°C). Remove lubricants prescribed in the key for temperatures above -15°F (-26°C). Relubricate with lubricants specified in the key for temperatures below -15°F (-26°C). If OEA lubricant is required to meet the temperature changes prescribed in the key, OEA lubricant is to be used in place of OE/HDO 10 lubricant for all temperature ranges where OE/HDO 10 lubricant is specified in the key.

2. OILCAN POINTS. Every 6 months, lubricate linkage pins, clevises, and all exposed adjusting threads with OE/HDO.

3. WHEEL BEARINGS. Every 6 months, remove, clean, and repack with GAA. Refer to TM 9-214, Inspection, Care, and Maintenance of Antifriction Bearings.

4. LANDING LEG GEARBOX. Lubricate at time of disassembly.

5. LUBRICANTS. The following is a list of lubricants with military symbols and applicable specification numbers:

OE/HDO	MIL-L-2104C
GAA	MIL-G-10924C
OEA	MIL-L-46167
BFS	MIL-B-46176

**Section II. REPAIR PARTS, SPECIAL TOOLS; TEST, MEASUREMENT,
AND DIAGNOSTIC EQUIPMENT (TMDE); AND
SUPPORT EQUIPMENT**

	Page		Page
Common Tools and Equipment	4-5	Special Tools, TMDE, and	
Repair Parts	4-5	Support Equipment	4-5

COMMON TOOLS AND EQUIPMENT

Refer to the Modified Table of Organization and Equipment (MTOE) for authorized common tools and equipment applicable to your unit.

SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

No special tools, TMDE, or support equipment are required to maintain the trailer.

REPAIR PARTS

Repair parts are listed and illustrated in appendix F of this manual.

Section III. SERVICE UPON RECEIPT

	Page		Page
Preliminary Servicing and Adjustment of Equipment	4-6	Service Upon Receipt of Materiel	4-5

SERVICE UPON RECEIPT OF MATERIEL

This task covers:

- a. Unpacking (page 4-6)
- b. Checking unpacked equipment (page 4-6)

INITIAL SETUP

Tools

Cutter, strap
Puller, nail

Materials/Parts

Drycleaning solvent PD-680 (item 10,
appendix E)
Rags (item 7, appendix E)

SERVICE UPON RECEIPT OF MATERIEL - CONTINUED

LOCATION	ITEM	ACTION REMARKS
UNPACKING		
1. Trailer	DD Form 1397	Read and follow all instructions.
2.	Metal straps, plywood, tape, seals, and wrappings	Using strap cutter and nail puller, remove all straps, plywood, tape, seals, and wrappings.

CHECKING UNPACKED EQUIPMENT

WARNING

Drycleaning solvent PD-680 is both toxic and flammable. Avoid prolonged breathing of vapors and avoid skin contact. Do not use near open flame or excessive heat. Flash-point of solvent is 138°F (59°C). Serious illness, injury, or loss of life could result from improper use.

3.	Coated exterior parts	Using drycleaning solvent and rags, remove rust-preventive compound.
4.	Trailer	a. Inspect for any damage during shipment. b. Check for modification of equipment.
5.	Equipment packing list	Check equipment against packing list for completeness. Discrepancies must be reported in accordance with introduction in TM 38-750.

PRELIMINARY SERVICING AND ADJUSTMENT OF EQUIPMENT

Perform the operator and organizational preventive maintenance checks and services (PMCS) as described on pages 2-8 and 4-7.

Lubricate all points as shown in the Lubrication Chart (page 4-3) regardless of interval.

Schedule the next PMCS on DD Form 314, Preventive Maintenance Schedule and Record.

Report all problems on DA Form 2407 If the deficiencies appear to involve unsatisfactory design.

Perform a break-in road test of 25 miles (40.2 km) at a maximum speed of 50 mph (80 km/h).

Section IV. ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

	Page		Page
General	4-7	PMCS Column Description	4-8
Leakage Definitions	4-8	Special Instructions	4-7
Organizational Preventive Maintenance Checks and Services (PMCS)	4-9		

GENERAL

The trailer must be inspected systematically to ensure that it is ready for operation at all times. Inspection will allow defects to be discovered and corrected before they result in serious damage or failure. The PMCS chart contains a tabulated list of preventive maintenance checks and services. All deficiencies and corrective actions taken will be recorded on DA Form 2404.

Do your(S) PMCS once each 6 months.

Do your(A) PMCS once each year.

SPECIAL INSTRUCTIONS

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 maintenance as soon as possible and notify your supervisor.

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

Always do your preventive maintenance in the same order so it gets to be a habit. Once you've had practice, you will spot something wrong immediately.

When you do your preventive maintenance, take along the tools that you need to make all the checks. You always need a rag or two.

WARNING

Drycleaning solvent PD-680 is both toxic and flammable. Avoid prolonged breathing of vapors and avoid skin contact. Do not use near open flame or excessive heat. Flash-point of solvent is 138°F (59°C). Serious illness, injury, or loss of life could result from improper use.

NOTE

When you are doing any PMCS or routine checks, keep in mind the warnings and cautions.

Routine checks, like the following, are not listed in the PMCS checks. They are things that you should do any time you see they must be done. If you find a routine check in your PMCS, it is because other operators reported problems with this item.

SPECIAL INSTRUCTIONS - CONTINUED

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 drycleaning solvent PD-680 to clean metal surfaces. Use soap and water when cleaning rubber or plastic material.

Bolts, Nuts, and Screws. Check that they are not loose, missing, bent, or broken. You can't try them all with a tool but look for chipped paint, bare metal, or rust around boltheads. Tighten any that you find loose.

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 maintenance.

Electric Wires and Connectors. Check for cracked or broken insulation, bare wires, and loose or broken connectors. Tighten loose connectors and make sure wires are in good condition.

Hoses and Lines. Look for wear, damage, and leaks. Make sure clamps and fittings are tight. 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 maintenance (see the MAC).

LEAKAGE DEFINITIONS

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

Class II - Leakage of fluid great enough to form drops, but not enough to cause drops to fall.

Class III - Leakage of fluid great enough to form drops that fall.

PMCS COLUMN DESCRIPTION

Item No. - The order that PMCS should be performed, and also used as a source of item numbers for the TM number column on DA Form 2404, Equipment Inspection and Maintenance Worksheet, when recording results of PMCS.

Interval - Tells when each task is to be performed.

Item to be Inspected - Lists the checks to be performed.

ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

S-SEMIANNUALLY

A-ANNUALLY

ITEM NO.	INTERVAL		ITEM TO BE INSPECTED PROCEDURE: CHECK FOR AND HAVE REPAIRED, FILLED, REPLACED, OR ADJUSTED AS NEEDED
	S	A	
			NOTE Perform operator/crew PMCS prior to, or in conjunction with, organizational PMCS.
1.	●		<p>FRAME</p> <p>Look for cracks, bent members, or broken welds.</p>
2.	●		<p>BRAKE MASTER CYLINDER</p> <p>Check fluid level in master cylinder. Fill to 1/2 inch from top.</p>
3.		●	<p>WHEEL BEARINGS</p> <p>a. Remove wheel hubs and bearing cones (page 4-87).</p> <p>b. Clean, inspect, and repack wheel bearings.</p>
4.		●	<p>SERVICE BRAKES</p> <p>a. Clean (page 4-14), inspect, and repair or replace (page 4-46) internal brake parts as required.</p> <p>b. Adjust service brakes (page 4-50).</p>
5.	●		<p>WHEELS AND TIRES</p> <p>a. Using a torque wrench, tighten wheel nuts to 450 - 500 ft lb (610 – 678 N•m).</p> <p>b. Check tread depth of tires.</p>
6.	●		<p>SUSPENSION</p> <p>Check suspension for bent or cracked parts, loose mounting, and worn bushings.</p>

Section V. ORGANIZATIONAL TROUBLESHOOTING PROCEDURES

	Page		Page
Explanation of Columns	4-10	Organizational Troubleshooting	4-11
General	4-10	Symptom Index	4-10

GENERAL

The troubleshooting table in this section lists the common malfunctions that you may find during the operation or maintenance of the trailer or equipment. Do the tests or inspections and corrective actions in the order listed.

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

EXPLANATION OF COLUMNS

Malfunction. Visual or operational indication that something is wrong with your trailer.

Test or Inspection. Procedure used to isolate the problem in a system or component.

Corrective Action. Procedure used to correct the problem.

SYMPTOM INDEX

This symptom index is provided as a quick way to get you to the troubleshooting procedure that will help you solve the problem you are having.

	Page
BRAKE SYSTEM	
Brakes will not release	4-13
Weak or no brakes	4-13
ELECTRICAL SYSTEM	
Lamps dim or flickering	4-12
One or more lamps fail to light	4-11

NOTE

Refer to electrical schematic on page 1-5 when performing any electrical troubleshooting.

ORGANIZATIONAL TROUBLESHOOTING

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

ELECTRICAL SYSTEM

1. ONE OR MORE LAMPS FAIL TO LIGHT.

- Step 1. Check lamps (missing, broken, or burned out).
- Remove and replace as required (page 4-17).
- Step 2. Check for continuity between edge of lamp socket and light assembly housing, and center post of lamp socket and related light assembly plug connector.
- If no continuity exists, replace light assembly (page 4-18).
- Step 3. Check continuity between edge of lamp socket and trailer frame.
- If no continuity exists, remove and clean mating surfaces.
- Step 4. Disconnect rear section wire harness from receptacle at rear of reach tube. Have assistant operate lights while checking voltage at receptacle.
- If 24 volts are present at all receptacle pins, replace rear section wire harness (page 4-29).
- Step 5. Remove intervehicular cable receptacle from reach tube. Disconnect reach tube section wire harness from receptacle. Have assistant operate affected light while checking voltage at receptacle.
- If 24 volts are present at the affected plug connectors, replace reach tube section wire harness (page 4-25).
- Step 6. Disconnect intervehicular cable from its receptacle. Have assistant operate affected light while checking voltage at affected intervehicular cable plug sockets.
- If 24 volts are present, repair intervehicular cable receptacle (page 4-23).

ORGANIZATIONAL TROUBLESHOOTING - CONTINUED

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

1. ONE OR MORE LAMPS FAIL TO LIGHT - CONTINUED.

Step 7. Disconnect intervehicular cable from towing vehicle. Have assistant operate affected lights while checking voltage at affected pins in towing vehicle receptacle.

If voltage is present at affected pins in towing vehicle receptacle, replace intervehicular cable (page 2-7).

If voltage is not present at affected pins in towing vehicle receptacle, refer to applicable maintenance TM for towing vehicle.

2. LAMPS DIM OR FLICKERING.**NOTE**

If only one light assembly is dim or flickering, proceed to step 5.

Step 1. Check continuity between the terminal of ground wire no. 90 at rear section wire harness and trailer frame.

If no continuity exists, remove and clean mating surfaces.

Step 2. Disconnect rear section wire harness from reach tube section wire harness. Check continuity between socket D and trailer frame.

Step 3. Check continuity between pin D at both receptacles of reach tube wire harness.

If no continuity exists, replace wire harness (page 4-25).

Step 4. Check continuity between pin D and socket D of intervehicular cable.

If no continuity exists, replace intervehicular cable (page 2-7).

Step 5. Check continuity between edge of lamp socket and light assembly housing.

If no continuity exists, replace light assembly (page 4-18).

Step 6. Check continuity between edge of lamp socket and trailer frame.

If no continuity exists, remove and clean mating surfaces.

ORGANIZATIONAL TROUBLESHOOTING - CONTINUED

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

BRAKE SYSTEM

3. BRAKES WILL NOT RELEASE.

NOTE

If only one wheel brake will not release, proceed to step 4.

Step 1. Check emergency relay valve for proper operation.

WARNING

Before performing any maintenance on brake system, disconnect air supply to trailer and drain trailer air reservoir. Failure to do so could result in serious injury.

Replace relay valve as required (page 4-68).

Step 2. Check airbrake chamber for insufficient push rod travel.

Adjust service brake as required (page 4-50).

Step 3. Check service airhose and lines for obstructions.

Remove hose and lines to clear obstructions as required (page 4-62).

Step 4. Check handbrake cable for binding.

Replace as required (page 4-42).

Step 5. Check for separation of brakeshoe and lining.

Replace as required (page 4-46).

4. WEAK OR NO BRAKES.

Step 1. Check fluid level in master cylinder.

Fill to proper level as required and bleed brakes (page 4-51).

Step 2. Check emergency relay valve for proper operation.

ORGANIZATIONAL TROUBLESHOOTING - CONTINUED

MALFUNCTION

TEST OR INSPECTION

CORRECTIVE ACTION

4. WEAK OR NO BRAKES – CONTINUED.

WARNING

Before performing any maintenance on brake system, disconnect air supply to trailer and drain trailer air reservoir. Failure to do so could result in serious injury.

Replace relay valve as required (page 4-68).

Step 3. Check airbrake chamber for excessive push rod travel.

Adjust service brakes as required (page 4-50).

Step 4. Check for worn brake lining.

Replace as required (page 4-46).

Step 5. Inspect wheel cylinders for possible binding and leaking.

Replace as required (page 4-55).

Section VI. GENERAL MAINTENANCE INSTRUCTIONS

	Page		Page
Cleaning Instructions	4-15	Inspection Instructions	4-16
General	4-14		

GENERAL

Each maintenance section provides instructions for organizational maintenance personnel. The following initial setup information applies to all procedures.

Resources required are not listed unless they apply to the procedure.

Personnel are listed only if the task requires more than one technician. If Personnel Required is not listed, one technician can do the task.

The normal standard equipment condition to start a maintenance task is power off. Equipment condition is not listed unless some other condition is required.

CLEANING INSTRUCTIONS

WARNING

Improper cleaning methods and use of unauthorized cleaning liquids or solvent could result in injury to personnel and damage to equipment. Refer to TM 9-247.

Cleaning instructions will be the same for the majority of parts and components that make up the trailer.

The importance of cleaning must be thoroughly understood by maintenance personnel. Care and effort are required in cleaning. Dirt and foreign material are a constant threat to satisfactory maintenance. The following should apply to all cleaning, inspection, repair, and assembly operations.

1. Clean all parts before inspection, after repair, and before assembly.
2. Keep hands free of grease, which can collect dust, dirt, or grit.
3. After cleaning, cover or wrap all parts to protect them from dust and dirt. Lightly oil parts that are subject to rust.

STEAM CLEANING

Protect all electrical equipment that can be damaged by the steam or moisture before steam cleaning the exterior of the trailer.

Place disassembled parts in a suitable container to steam clean.

After cleaning, dry and cover or lightly oil all parts subject to rust.

CASTINGS, FORGINGS, AND MACHINED METAL PARTS

WARNING

Drycleaning solvent PD-680 is both toxic and flammable. Avoid prolonged breathing of vapors and avoid skin contact. Do not use near open flame or excessive heat. Flash-point of solvent is 138°F (59°C). Serious illness, injury, or loss of life could result from improper use.

Clean inner and outer surfaces with drycleaning solvent. Remove grease and accumulated deposits with a stiff brush. Check machined surfaces for scoring or obvious damage.

WARNING

Particles blown by compressed air are hazardous. Make certain the airstream is directed away from user and other personnel in the area. User must wear safety goggles or face shield to prevent injury when using compressed air.

Blow out all threaded holes with compressed air to remove dirt and cleaning fluids.

CLEANING INSTRUCTIONS - CONTINUED

ELECTRICAL CABLES, FLEXIBLE HOSES, AND OIL SEALS

CAUTION

Washing electrical cables and flexible hoses with drycleaning solvents or mineral spirits will cause serious damage or can possibly destroy the material.

Wash electrical cables and flexible hoses with soap and water solution, and wipe dry.

Oil seals are normally damaged during removal and must be replaced. Cleaning will not be necessary.

BEARINGS

Refer to TM 9-214 for instructions and procedures covering care and maintenance of antifriction bearings.

INSPECTION INSTRUCTIONS

All components and parts must be carefully inspected to determine if they are serviceable for reuse, can be repaired, or must be scrapped.

DRILLED AND THREADED HOLES AND SURFACES

Inspect for wear, distortion, cracks, and any other damages in or around drilled and threaded holes. Mark all damaged areas requiring repair or replacement.

METAL LINES, FLEXIBLE HOSES, AND METAL FITTINGS

Inspect metal lines for sharp kinks, cracks, and bad dents.

Inspect flexible hoses for fraying, deterioration, evidence of leakage, and loose metal fittings or connectors.

BUSHINGS

Inspect bushings for excessive wear, elongation, or grooving.

Section VII. ELECTRICAL SYSTEM

	Page		Page
Composite Light	4-18	Reach Tube Section Wire Harness	4-25
Composite Light Lamp and Lens	4-17	Rear Section Wire Harness.	4-29
Intervehicular Cable Receptacle	4-23	Wire Harness Repair.	4-19

COMPOSITE LIGHT LAMP AND LENS

This task covers:

- a. Removal (page 4-17)
- b. Installation (page 4-18)

INITIAL SETUP

Tools

Screwdriver, flat-tip

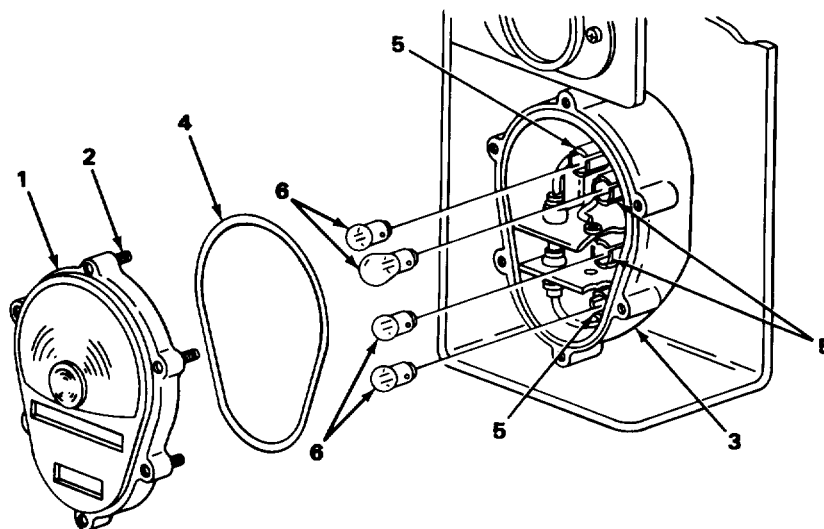
Materials/Parts

Lamp(s) (as required)
 Lens assembly
 Packing (if required)

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

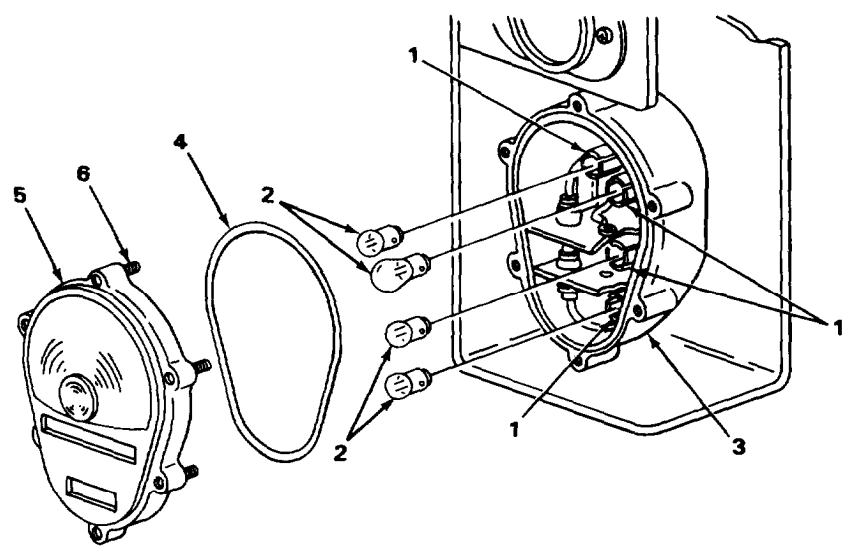
REMOVAL

- | | | |
|------------------------|-----------------------------------|---|
| 1. Lens assembly (1) | Six captive screws (2) | Using screwdriver, unscrew.
Screws will remain with lens. |
| 2. Composite light (3) | Lens assembly (1) and packing (4) | Remove. |
| 3. Four sockets (5) | Four lamps (6) | Push in, turn counterclockwise, and remove. |



COMPOSITE LIGHT LAMP AND LENS - CONTINUED

LOCATION	ITEM	ACTION REMARKS
INSTALLATION		
4. Four sockets (1)	Four lamps (2)	Push in and turn clockwise.
5. Composite light (3)	Packing (4) and lens assembly (5)	Using new packing if necessary, place in position.
6. Lens assembly (5)	Six captive screws (6)	Using screwdriver, tighten.



TASK ENDS HERE

COMPOSITE LIGHT

This task covers:

- a. Removal (page 4-19)
- b. Installation (page 4-19)

INITIAL SETUP

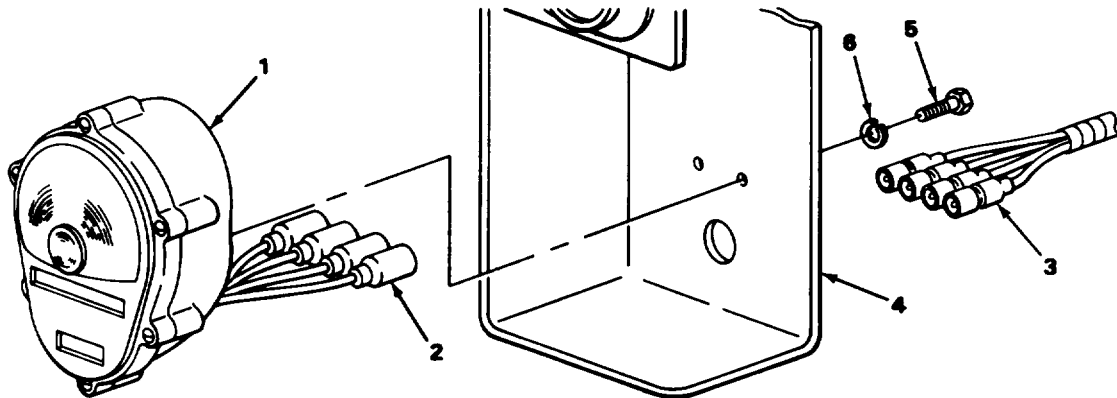
Tools

- Handle, reversible, 3/8-inch square drive
- Socket, 9/16- by 3/8-inch square drive

TA224775

COMPOSITE LIGHT - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Composite light (1)	Eight electrical connectors (2 and 3)	Separate.
2. Composite light box (4)	Two capscrews (5) and two lockwashers (6)	Using socket and handle, unscrew and remove composite light (1).
INSTALLATION		
3. Composite light box (4)	Two lockwashers (6) and two capscrews (5)	Using socket and handle, install composite light (1).
4. Composite light (1)	Eight electrical connectors (2 and 3)	Reconnect.



TASK ENDS HERE

WIRE HARNESS REPAIR

This task covers:

- a. Male connector repair (page 4-20)
- b. Female connector repair (page 4-20)
- c. Ring terminal replacement (page 4-21)
- d. Circuit band marker replacement (page 4-22)
- e. Receptacle repair (page 4-22)

WIRE HARNESS REPAIR - CONTINUED

INITIAL SETUP

Tools

Pliers, cutting
 Pliers, slip-joint
 Screwdriver, flat-tip
 Stripper, hand wire
 Tool, crimping
 Tool, engraving

Materials/Parts

Contacts (as required)
 Marker band
 Shells (as required)
 Solder
 Terminals (as required)

LOCATION	ITEM	ACTION REMARKS
MALE CONNECTOR REPAIR		
1. Wire lead (1)	Shell (2)	Slide back on wire lead (1).
2.	Washer (3)	Take off.
3.	Shell (2)	Slide off over contact (4). Throw away shell (2).
4.	Contact (4)	Using cutting pliers, cut off. Throw away contact (4).
5.	Wire lead (1)	Using stripper, strip off insulation equal to the depth of the new contact (4).
6. Wire lead (1)	New shell (2)	Slide onto wire lead (1).
7.	New contact (4)	Slide onto wire lead (1) and, using crimping tool, crimp.
8.	Washer (3)	a. Slide onto wire lead (1). b. Slide new shell (2) over washer (3) and new contact (4).

FEMALE CONNECTOR REPAIR

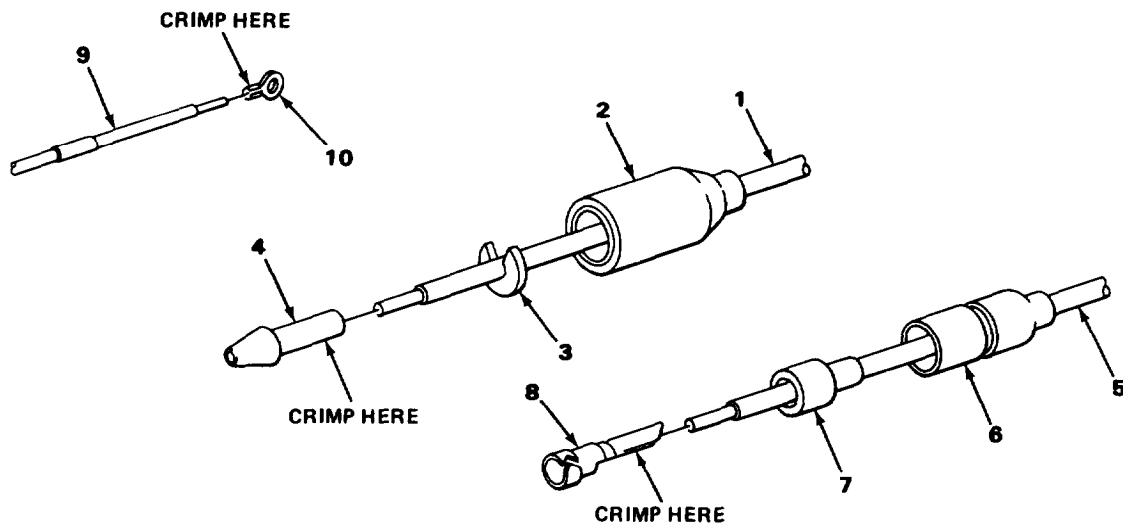
9. Wire lead (5)	Shell (6) and sleeve (7)	Slide back on wire lead (5).
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WIRE HARNESS REPAIR - CONTINUED

LOCATION	ITEM	ACTION REMARKS
10. Wire lead (5)	Contact (8)	Using cutting pliers, cut off. Throw away contact (8).
11.	Wire lead (5)	Using stripper, strip off insulation equal to the depth of the new contact (8).
12. Wire lead (5)	Shell (6) and sleeve (7)	Slide onto wire lead (5).
13.	New contact (8), shell (6), and sleeve (7)	a. Slide onto wire lead (5) and, using a crimping tool, crimp. b. Slide shell (6) and sleeve (7) over new contact (8).

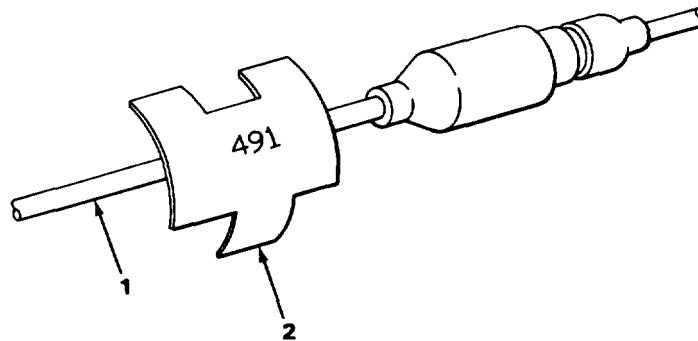
RING TERMINAL REPLACEMENT

14. Wire lead (9)	Terminal (10)	Using cutting pliers, cut off. Throw away terminal (10).
15.	Wire lead (9)	Using stripper, strip off insulation equal to the depth of the new terminal (10).
16. Wire lead (9)	New terminal (10)	a. Slide onto the end of wire (9). b. Using crimping tool, crimp.



WIRE HARNESS REPAIR - CONTINUED

LOCATION	ITEM	ACTION REMARKS
CIRCUIT BAND MARKER REPLACEMENT		
17. Wire lead (1)	Marker band (2)	Open tabs and, using screwdriver, remove. Note number on the band and throw the band away.
18.	New marker band (2)	Using the engraving tool, engrave the number.
19.	New marker band (2)	Put on wire lead (1) and, using crimping tool, bend tabs over.



RECEPTACLE REPAIR

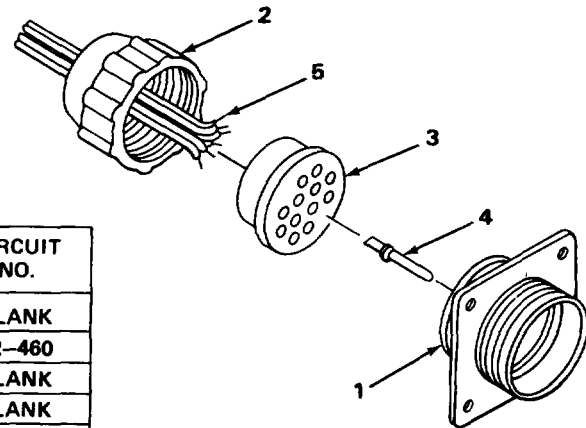
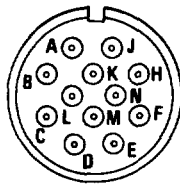
20. Connector (1)	Nut (2)	Using slip-joint pliers, take off.
21.	Grommet (3)	Take out.
22. Grommet (3)	Pins (4)	Pull out of grommet.
23. Pins (4)	Wire leads (5)	Remove by melting solder with soldering iron.

NOTE

Only unsolder the leads that need to be repaired.

WIRE HARNESS REPAIR - CONTINUED

LOCATION	ITEM	ACTION REMARKS
24. Pins (4)	Wire leads (5)	a. Heat the solder well in pin (4). b. While solder is hot, insert wire lead (5) into it.
25. Grommet (3)	Pin (4)	Insert pin (4) into the grommet (3). Follow chart to put pins in the proper location.
26. Connector (1)	Grommet (3)	Put grommet (3) into connector (1).
27.	Nut (2)	Using slip-joint pliers, screw on.



TERMINAL DESIGNATION	CIRCUIT NO.	TERMINAL DESIGNATION	CIRCUIT NO.
A	24-484	H	BLANK
B	22-461	J	22-460
C	24-483	K	BLANK
D	90	L	BLANK
E	21-489	M	BLANK
F	23	N	BLANK

TASK ENDS HERE

INTERVEHICULAR CABLE RECEPTACLE

This task covers:

- a. Removal (page 4-24)
- b. Installation (page 4-24)

INTERVEHICULAR CABLE RECEPTACLE - CONTINUED

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
 - Socket, 7/16- by 3/8-inch square drive
-

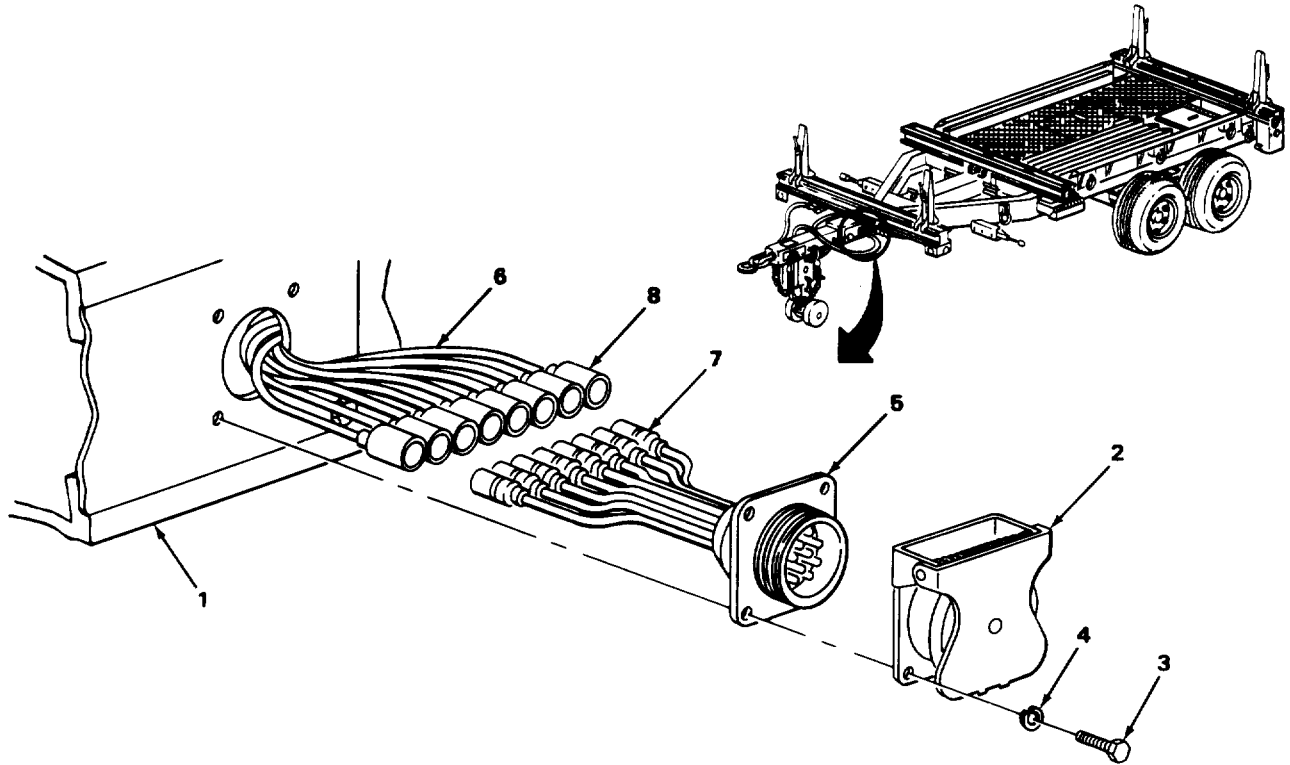
LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Reach tube (1) to receptacle cover (2)	Four capscrews (3) and four lock-washers (4)	Using socket and handle, remove.
2. Receptacle (5)	Receptacle cover (2)	Remove.
3. Reach tube (1)	Receptacle (5)	a. Remove. b. Guide wire harness connectors through hole.

NOTE

Prior to disconnecting mated connectors, note numbers on identification bands. If numbers are not legible or identification bands are missing, tag wire with proper identification numbers.

4. Reach tube section wire harness (6)	Eight mated connectors (7 and 8)	Separate.
INSTALLATION		
5. Reach tube section wire harness (6)	Eight receptacle connectors (8)	Reconnect to eight mated connectors (7) and remove identification tags.
6. Reach tube (1)	Eight mated connectors (7 and 8)	Guide connectors into reach tube recess.
7.	Receptacle (5) and receptacle cover (2)	Position, alining mounting holes.
8. Receptacle (5) and receptacle cover (2)	Four capscrews (3) and four lockwashers (4)	Using socket and handle, install.

INTERVEHICULAR CABLE RECEPTACLE - CONTINUED



TASK ENDS HERE

REACH TUBE SECTION WIRE HARNESS

This task covers:

- a. Removal (page 4-26)
- b. Installation (page 4-26)

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
- Socket, 7/16- by 3/8-inch square drive
- Wrench, open-end, 1-inch

Equipment Condition

- Intervehicular cable receptacle removed (page 4-23).
- Spare wheel removed (page 3-7).
- Reach tube extended 16 inches (page 2-23).

Material

- Rope, 20-foot length

REACH TUBE SECTION WIRE HARNESS - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Reach tube, rear (1)	Two quick disconnect fittings (2)	Pull back on quick disconnect fittings (2) and unhook.
2.	Rear section wire harness (3)	Disconnect.
3. Receptacle (4)	Jamnut (5)	Using wrench, remove.
4. Plate (6)	Four capscrews (7) and four lockwashers (8)	Using socket and handle, remove.

NOTE

Step 5 applies to M796A1 trailer only.

5.	Antirotation bracket (9)	Remove.
6. Reach tube, rear (1)	Plate (6)	Remove.
7. Receptacle (4)	Reach tube section wire harness (10)	Tie rope (11) to harness.

NOTE

When removing wire harness, leave sufficient length of rope exposed at both ends of reach tube. Rope will be used for installation of new harness.

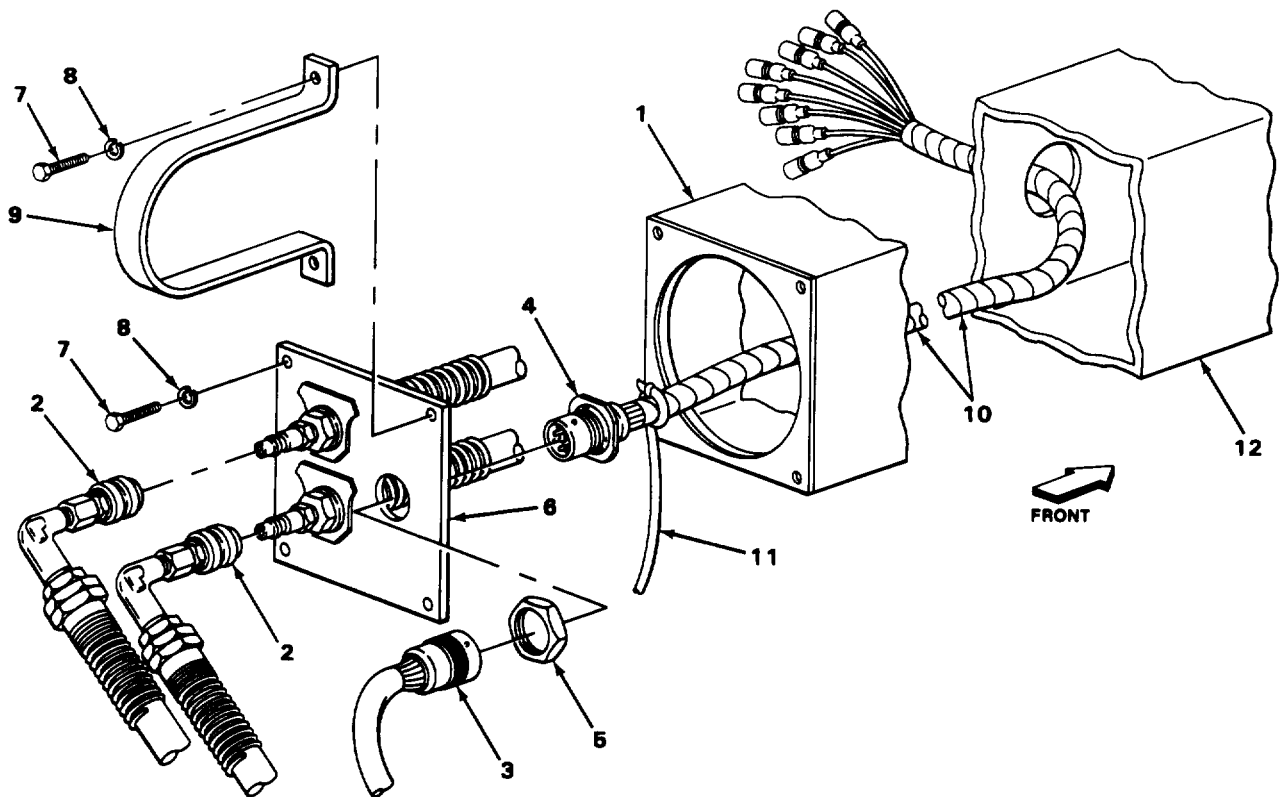
8. Reach tube, front (12)	Reach tube section wire harness (10)	a. Pull harness (10) out of reach tube. b. Untie rope (11).
---------------------------	--------------------------------------	--

INSTALLATION

9. Rope(11)	Reach tube section wire harness (10)	Tie rope (11) to harness (10) forward of receptacle (4).
10. Reach tube, rear (1)	Rope (11)	Pull rope (11), drawing harness (10) into reach tube.
11. Reach tube section wire harness (10)	Rope (11)	Untie.

REACH TUBE SECTION WIRE HARNESS - CONTINUED

LOCATION	ITEM	ACTION REMARKS
12. Plate (6)	Receptacle (4)	Position in mounting hole.
13. Receptacle (4)	Jamnut (5)	Using wrench, install.
14. Reach tube, rear (1)	Plate (6)	Position, alining mounting holes.



REACH TUBE SECTION WIRE HARNESS - CONTINUED

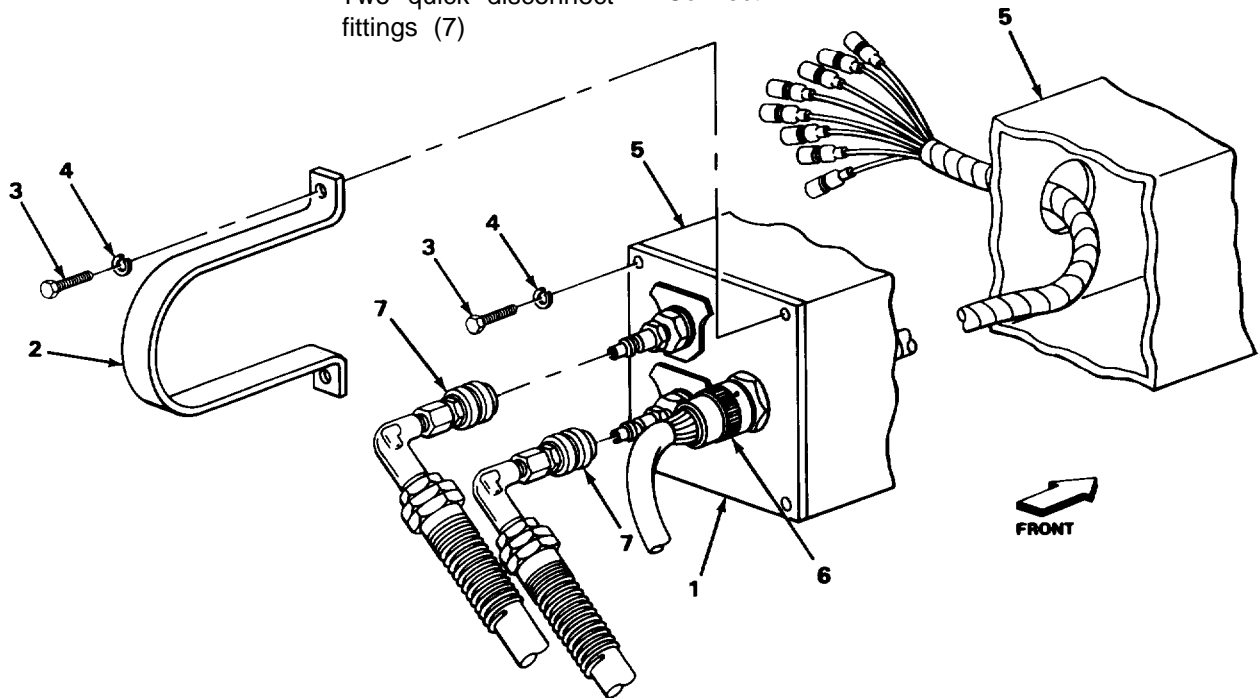
LOCATION	ITEM	ACTION	REMARKS
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INSTALLATION – CONTINUED

NOTE

Step 15 applies to M796A1 trailer only.

- | | | |
|--------------------------|---|-----------------------------------|
| 15. Plate (1) | Antirotation bracket (2) | Install. |
| 16. | Four capscrews (3) and four lockwashers (4) | Using socket and handle, install. |
| 17. Reach tube, rear (5) | Rear section Wire harness (6) | Connect. |
| 18. | Two quick disconnect fittings (7) | Connect. |



NOTE

FOLLOW-ON MAINTENANCE:

1. Install intervehicular cable receptacle (page 4-23).
2. Install spare wheel (page 3-7).

TASK ENDS HERE

TA224782

REAR SECTION WIRE HARNESS

This task covers:

- a. Removal (page 4-29)
- b. Installation (page 4-30)

INITIAL SETUP

Tools

Handle, reversible, 3/8-inch square drive
 Socket, 7/16- by 3/8-inch square drive
 Screwdriver, cross-tip

Equipment Condition

Spare wheel removed (page 3-7).

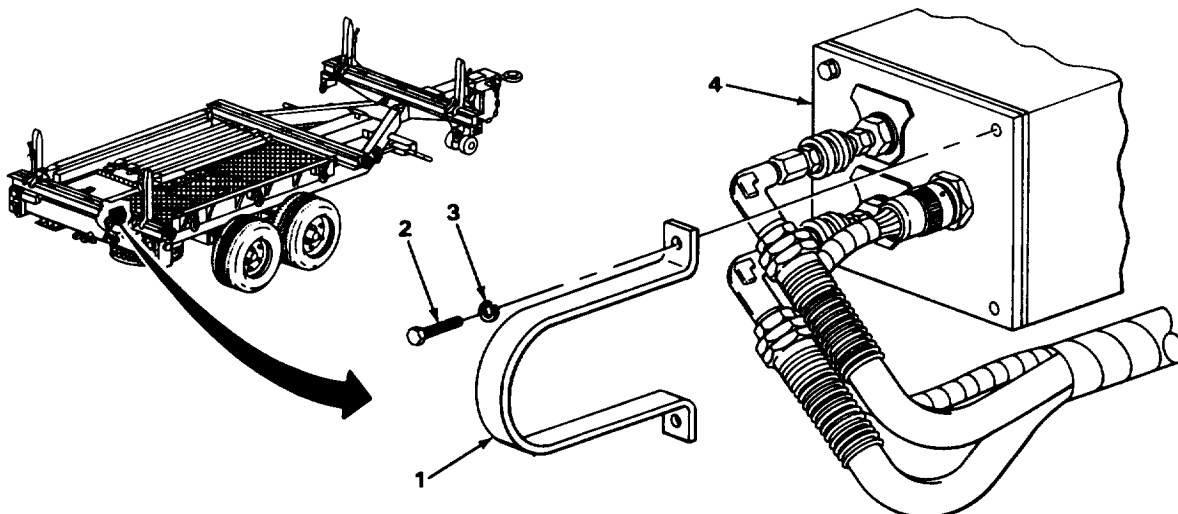
LOCATION	ITEM	ACTION REMARKS
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REMOVAL

NOTE

Steps 1 and 2 apply to M796A1 trailer only.

- | | | |
|-----------------------------|---|----------------------------------|
| 1. Antirotation bracket (1) | Two capscrews (2) and two lockwashers (3) | Using socket and handle, remove. |
| 2. Plate (4) | Antirotation bracket (1) | Remove. |



REAR SECTION WIRE HARNESS - CONTINUED

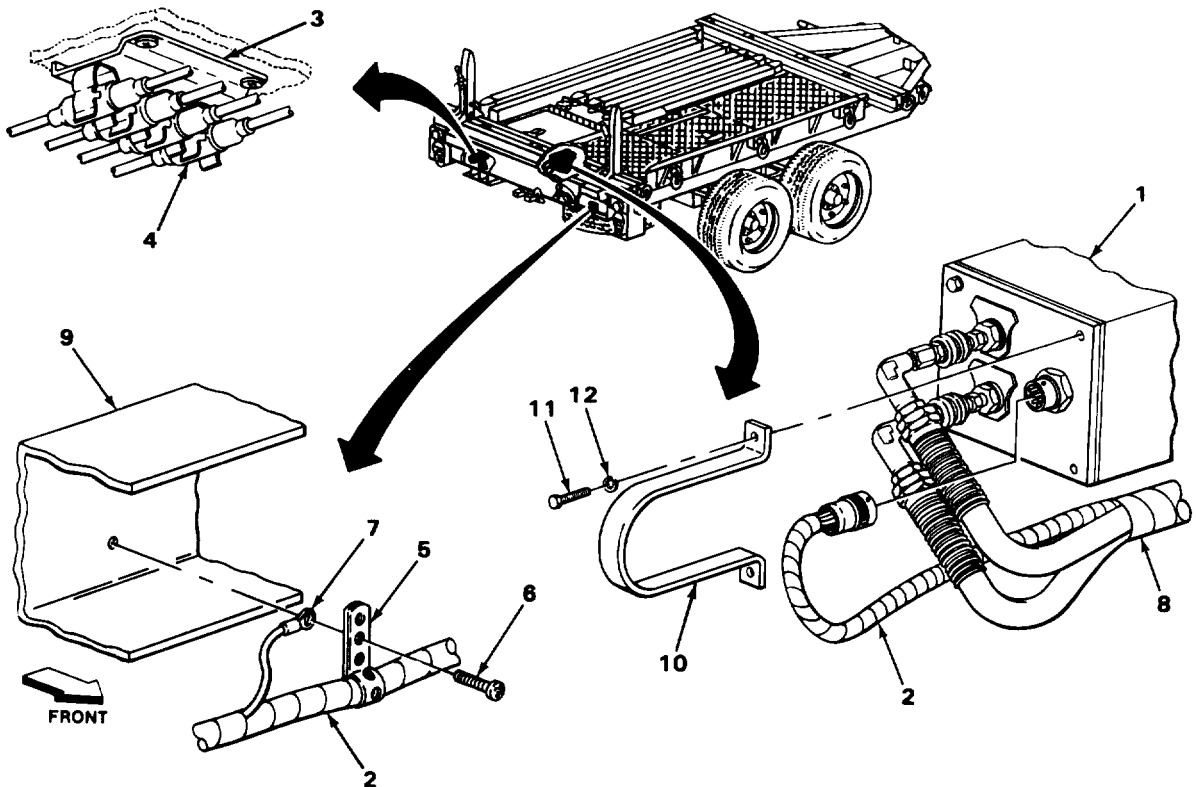
LOCATION	ITEM	ACTION REMARKS
3. Reach tube, rear (1)	Rear section wire harness (2)	Disconnect.
NOTE		
<p>Prior to disconnecting mated connectors, note numbers on identification bands. If numbers are not legible or identification bands are missing, tag wires with proper identification numbers.</p>		
4. Clip assemblies (3)	Four mated connectors (4)	Remove and separate.
5. Six clamps (5)	Six screws (6) and ground wire (7)	Using screwdriver, remove.
6. Rear section wire harness (2)	Six clamps (5)	Remove.
7.	Tape wrapping (8)	Remove tape holding harness to airhoses, if installed.
8. Trailer frame, rear (9)	Rear section wire harness (2)	Remove.

INSTALLATION

9. Trailer frame, rear (9)	Rear section wire harness (2)	Place in position.
10.	Four mated connectors (4)	Reconnect and remove identification tags.
11. Clip assemblies (3)	Four mated connectors (4)	Install.
12. Rear section wire harness (2)	Six clamps (5)	Position on harness (2).
13. Trailer frame, rear (9)	Six clamps (5) and ground wire (7)	Position, alining mounting holes.
14. Six clamps (5)	Six screws (6)	Using screwdriver, install.
15. Rear section wire harness (2)	Tape wrapping (8)	Tape to airhoses.

REAR SECTION WIRE HARNESS - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
16. Reach tube, rear (1)	Rear section wire harness (2)	Connect.	
NOTE			
Steps 17 and 18 apply to M796A1 trailer only.			
17. Reach tube, rear (1)	Antirotation bracket (10)	Position, aligning mounting holes.	
18. Antirotation bracket (10)	Two capscrews (11) and two lockwashers(12)	Using socket and handle, install.	



NOTE

FOLLOW-ON MAINTENANCE: Install spare wheel (page 3-7).

TASK ENDS HERE

Section VIII. AXLE

	Page		Page
Trunnion Axle	4-36	Wheel Axle	4-32

WHEEL AXLE

This task covers:

- a. Removal (page 4-32)
 - b. Installation (page 4-34)
-

INITIAL SETUP

<p>Tools</p> <p>Handle, reversible, 1/2-inch square drive</p> <p>Handle, reversible, 3/8-inch square drive</p> <p>Jack, hydraulic</p> <p>Socket, 9/16- by 3/8-inch square drive</p> <p>Socket, 3/4- by 1/2-inch square drive</p> <p>Socket, 15/16- by 1/2-inch square drive</p> <p>Stands, jack</p> <p>Wrench, open-end, 7/16-inch</p> <p>Wrench, open-end, 9/16-inch</p>	<p>Personnel Required</p> <p>Two</p> <p>Equipment Condition</p> <p>Service brake disassembled (page 4-46).</p> <p>Left service brake to axle tee line removed (page 4-57).</p> <p>Right service brake to axle tee line removed (page 4-57).</p> <p>Axle flex hose removed (page 4-57).</p>
---	--

		ACTION
LOCATION	ITEM	REMARKS

REMOVAL

NOTE

This a typical procedure for the front or the rear axles.

- | | | | |
|----|-------------------|--------------------|--|
| 1. | Axle (1) | Hydraulic jack (2) | Raise until axle (1) is clear of jack stands (3). |
| 2. | Trunnion axle (4) | Jack stands (3) | <ul style="list-style-type: none"> a. Position under trunnion axle. b. Lower hydraulic jack (2). |

WHEEL AXLE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
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NOTE

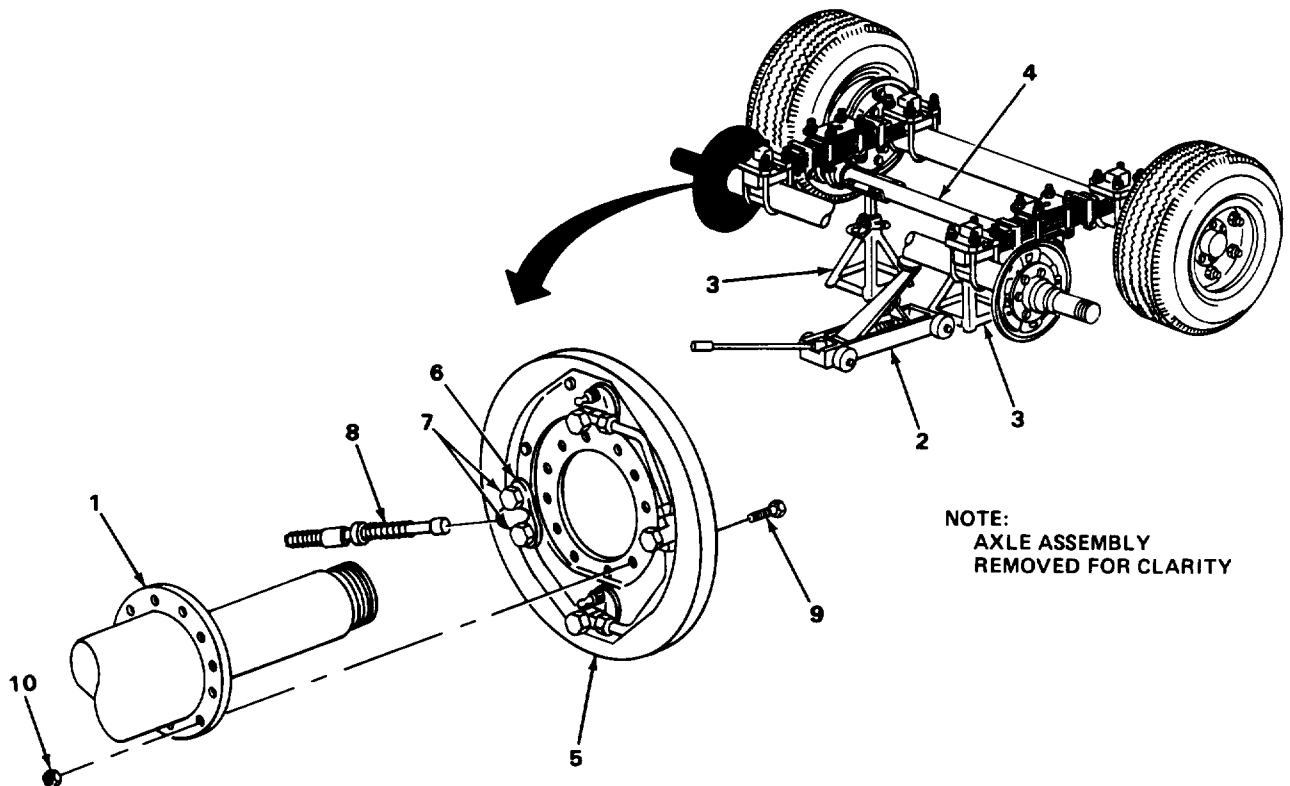
Steps 3 and 4 apply to front axle only.

- | | | | |
|----|--------------------------------|---------------------|---------------------------------|
| 3. | Backing plate (5) to clamp (6) | Two capscrews (7) | Using 7/16-inch wrench, loosen. |
| 4. | Clamp (6) | Handbrake cable (8) | Pull out. |

NOTE

Repeat steps 3 and 4 for the opposite side.

- | | | | |
|----|-------------------------------|---------------------------------------|--|
| 5. | Backing plate (5) to axle (1) | Four capscrews (9) and four nuts (10) | Using 9/16-inch wrench, socket, and handle with 3/8-inch square drive, remove. |
| 6. | Axle (1) | Backing plate (5) | Remove. |



WHEEL AXLE - CONTINUED

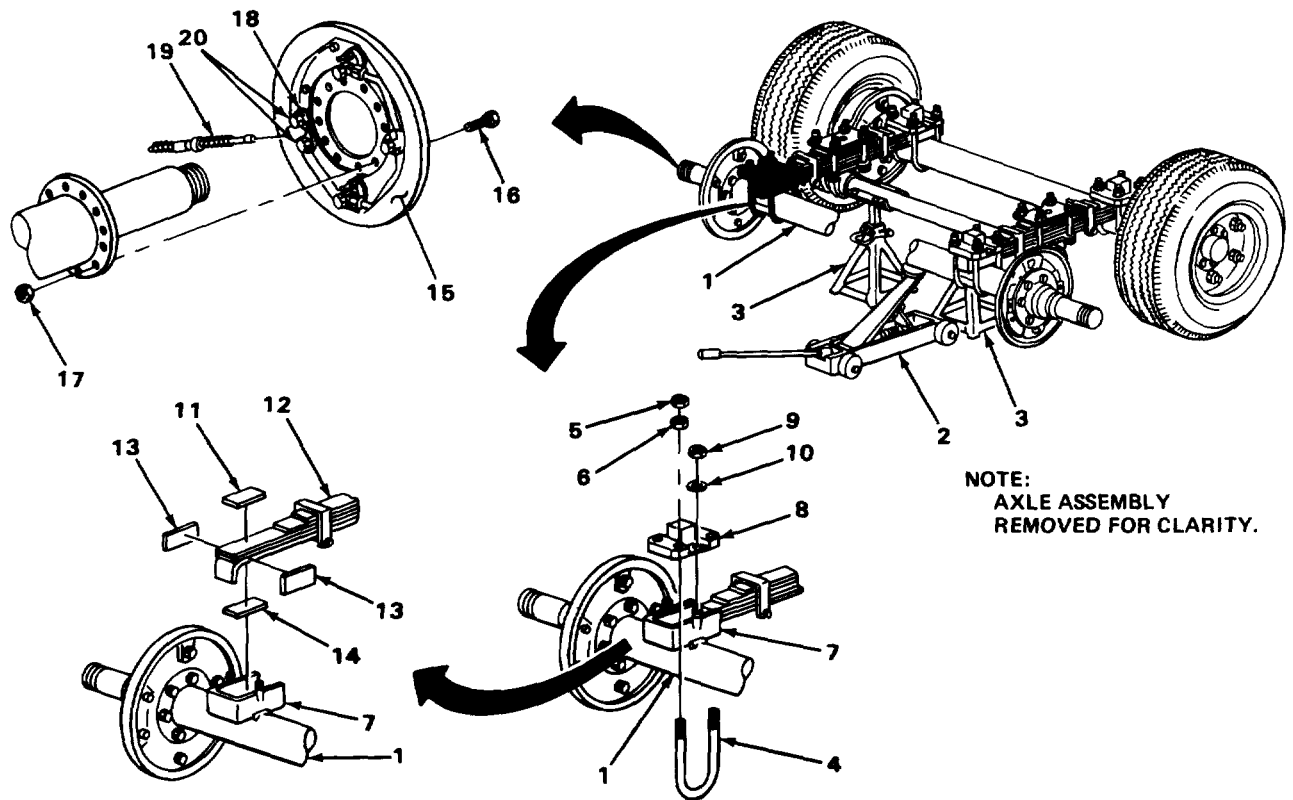
	LOCATION	ITEM	ACTION REMARKS
REMOVAL - CONTINUED			
7.	Axle (1)	Hydraulic jack (2)	Place under axle (1) for support. Do not remove weight of trailer from Jack stands (3).
8.	Two U-bolts (4)	Four locknuts (5) and four nuts (6)	Using 15/16-inch socket and handle with 1/2-inch square drive, remove.
9.	Shackle box (7) to cover(8)	Two U-bolts (4)	Remove.
10.	Shackle box (7)	Cover (8), two nuts (9), two lockwashers (10), and spacer (11)	Using 3/4-inch socket and handle with 1/2-inch square drive, remove.
NOTE			
Repeat steps 5, 6, 8, 9, and 10 for opposite side.			
11.	Springs (12)	Axle (1)	With help of an assistant, lower and remove.
12.	Shackle box (7)	Two spacers (13) and spacer (14)	Remove.
NOTE			
Repeat step 12 for opposite side.			
INSTALLATION			
13.	Shackle box (7)	Two spacers (13) and spacer (14)	Place in position.
NOTE			
Repeat step 13 for opposite side.			
14.	Spring (12)	Axle (1)	Using hydraulic jack (2), place in position.
15.	Shackle box (7)	Cover (8), two nuts (9), two lockwashers (10), and spacer (11)	Using 3/4-inch socket and handle with 1/2-inch square drive, install.

WHEEL AXLE - CONTINUED

	LOCATION	ITEM	ACTION REMARKS
16.	Shackle box (7) to cover (8)	Two U-bolts (4)	Place in position.
17.	Two U-bolts (4)	Four nuts (6) and four locknuts (5)	Using 15/16-inch socket and handle with 1/2-inch square drive, install.
18.	Axle (1)	Backing plate (15)	Place in position.
19.	Backing plate (15) to axle (1)	Four capscrews(16) and four nuts (17)	Using 9/16-inch wrench, socket, and han- dle with 3/8-inch square drive, install.
20.	Clamp (18)	Handbrake cable (19)	Slide into position.
21.	Clamp (18) to backing plate (15)	Two capscrews (20)	Using 7/16-inch wrench, tighten.

NOTE

Repeat steps 15 thru 19 for opposite side.



NOTE:
AXLE ASSEMBLY
REMOVED FOR CLARITY.

WHEEL AXLE - CONTINUED

NOTE

FOLLOW-ON MAINTENANCE:

1. Assemble service brakes (page 4-46).
2. Install brake line; left service brake to axle tee (page 4-57).
3. Install brake line right service brake to axle tee (page 4-57).
4. Install axle flex hose (page 4-57).

TASK ENDS HERE

TRUNNION AXLE

This task covers:

- a. Removal (page 4-36)
 - b. Installation (page 4-38)
-

INITIAL SETUP

Tools

- Jack, hydraulic
- Handle, reversible, 1/2-inch square drive
- Socket, 15/16- by 1/2-inch square drive
- Socket, 1 1/8-by 112-inch square drive
- Stand, jack (two required)

Tools - Continued

- Wrench, open-end, 15/16-inch
- Wrench, open-end, 1 1/8-inch
- Wrench, socket-head, 7/16-inch

Personnel Required

Two

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1.	Trunnion axle, left side (1)	Hydraulic jack (2) Lift so that wheels support no weight, but still touch ground.
2.	Left frame rail (3)	Jack stands (4) a. Place jack stands (4) in position. b. Lower jack (2). Allow Jack (2) to remain supporting trunnion axle (1).

NOTE

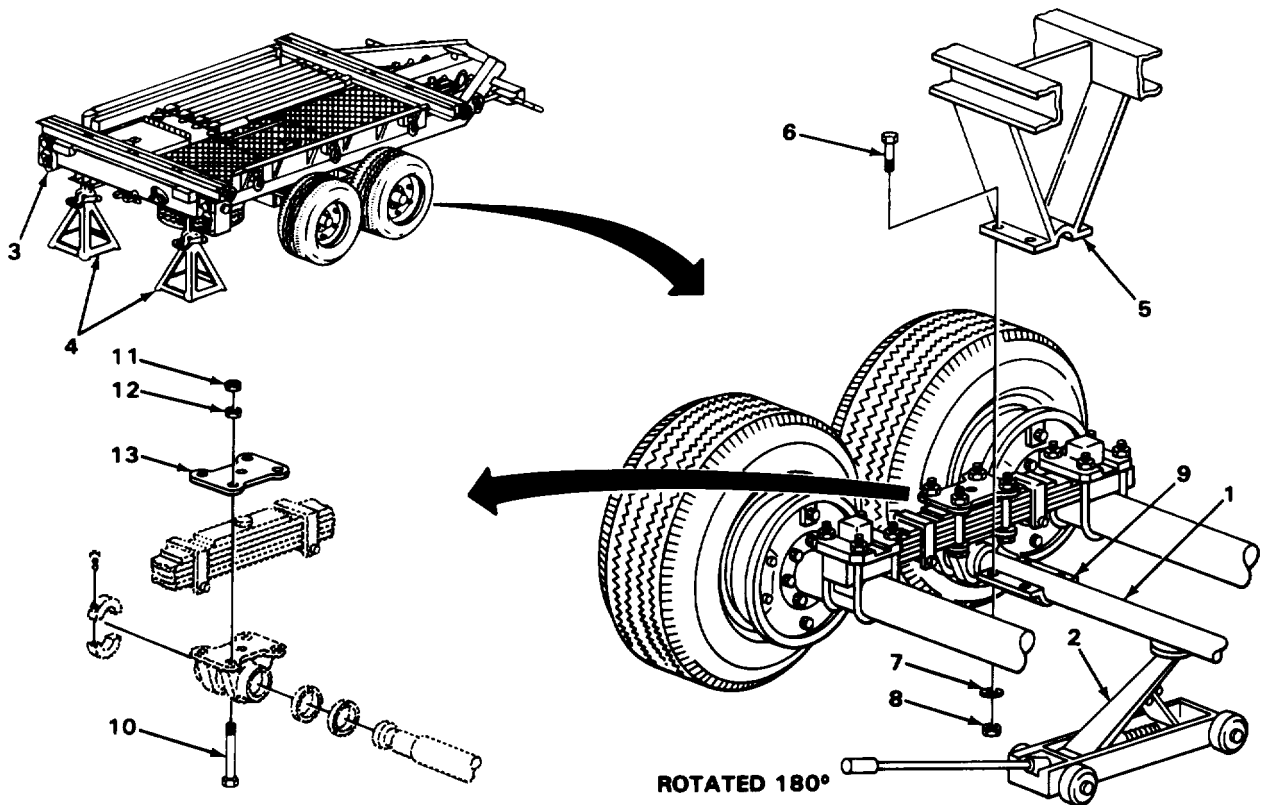
Repeat steps 1 and 2 for opposite side.

TRUNNION AXLE - CONTINUED

	LOCATION	ITEM	ACTION REMARKS
3.	Axle mount (5)	Four capscrews (6), four lockwashers (7), four nuts (8), and clamp (9)	Using 15/16-inch open-end wrench, 15/16-inch socket, and handle, remove.
NOTE			
Repeat step 3 for opposite side.			
4.	Four bolts (10)	Four locknuts (11) and four nuts (12)	Using 1 1/8-inch open-end wrench, 1 1/8- inch socket, and handle, remove.
5.	Plate (13)		Remove.

NOTE

Repeat steps 4 and 5 for opposite side.



TRUNNION AXLE - CONTINUED

	LOCATION	ITEM	ACTION REMARKS
REMOVAL – CONTINUED			
6.	Axle mount (1)	Trunnion axle (2)	With the help of an assistant, using hydraulic jack (3), lower and remove.
7.	Lockring (4)	Two capscrews (5)	Using 7/16-inch socket-head wrench, remove.
8.	Trunnion axle, left side (2)	Lockring (4)	Remove.
9.		Axle bracket (6) and two spacers (7)	Slide off.

NOTE

Repeat steps 7 thru 9 for opposite side.

INSTALLATION

10.	Trunnion axle, left side (2)	Axle bracket (6) and two spacers (7)	Slide into position.
11.		Lockring (4)	Place in position.
12.	Lockring (4)	Two capscrews (5)	Using 7/16-inch socket-head wrench, install.

NOTE

Repeat steps 10 thru 12 for opposite side.

13.	Axle mount (1)	Trunnion axle, left side (2)	With the help of an assistant, using a hydraulic jack (3), raise into position.
14.	Four bolts (8)	Plate (9)	Place in position.
15.		Four locknuts (10) and four nuts (11)	Using 1 1/8-inch open-end wrench, 1 1/8-inch socket, and handle, install.

NOTE

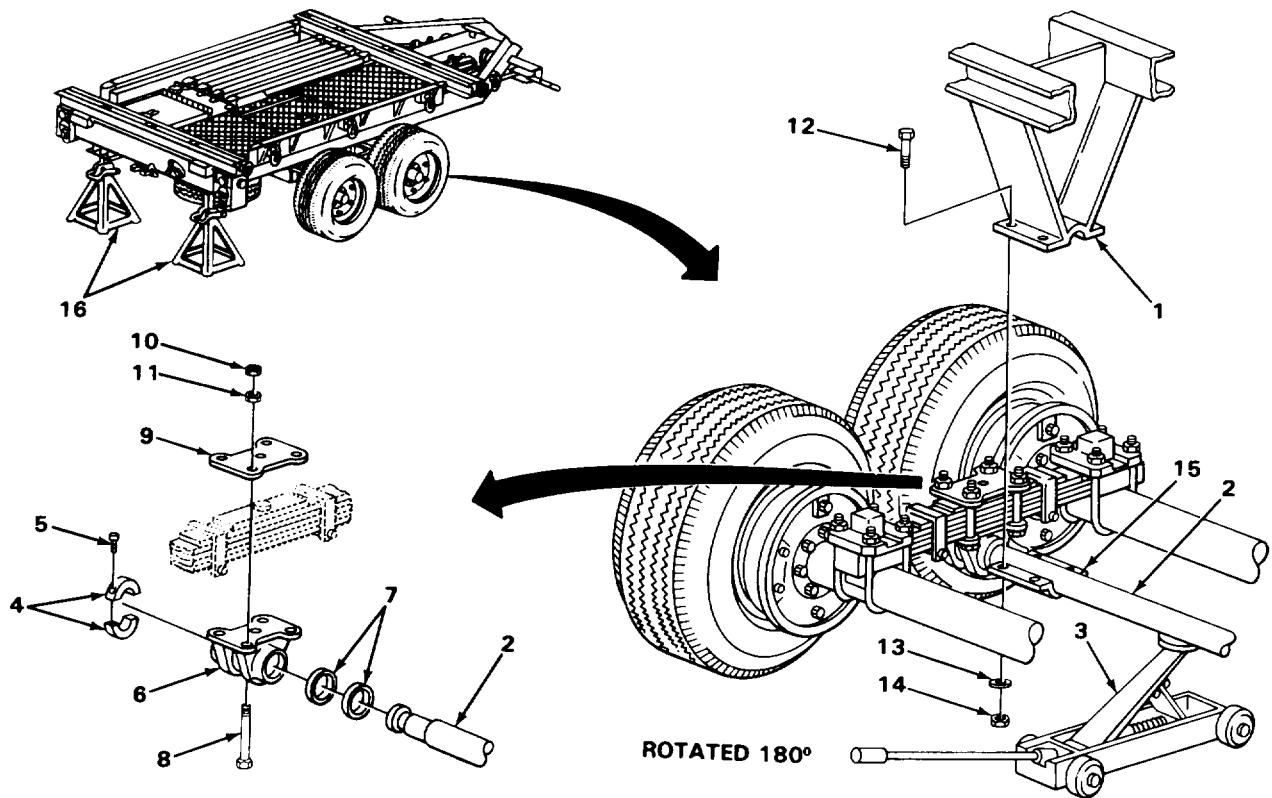
Repeat steps 13 thru 15 for opposite side.

TRUNNION AXLE - CONTINUED

LOCATION	ITEM	ACTION REMARKS
16. Axle mount (1)	Four capscrews (12), four lock-washers (13), four nuts (14), and clamp (15)	Using 15/16-inch open-end wrench, 15/16-inch socket, and handle, install.
NOTE		
Repeat step 16 for opposite side.		
17. Trunnion axle, left side (2)	Hydraulic jack (3)	a. Lift trailer enough to clear jack stand (16). b. Remove jack stands (16) and lower jack (3).

NOTE

Repeat step 17 for opposite side.



TASK ENDS HERE

Section IX. BRAKE SYSTEM

	Page		Page
Airbrake Line Replacement	4-62	Handbrake Cable Adjustment	4-44
Airbrake System Leaks	4-71	Handbrake Lever	4-40
Air Filter	4-73	Hydraulic Line Replacement	4-57
Airhose, Intervehicular	4-77	Hydraulic System Bleeding	4-51
Airhose, Reach Tube	4-79	Master Cylinder	4-53
Airhose, Rear Section	4-84	Relay Valve	4-68
Air Reservoir	4-72	Service Brake	4-46
Air Reservoir Draincock	4-70	Service Brake Adjustment	4-50
Brake Air Chamber	4-65	Wheel Cylinder	4-55
Gladhands	4-76		
Handbrake Cable	4-42		

HANDBRAKE LEVER

This task covers:

- a. Removal (page 4-40)
 - b. Installation (page 4-41)
-

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
- Pliers, diagonal-cutting
- Screwdriver, cross-tip
- Socket, 9/16- by 3/8-inch square drive
- Wrench, open-end, 9/16-inch

Materials/Parts

- Cotter pin
-

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

REMOVAL

- | | | |
|-------------------------|--|---|
| 1. Mounting bracket (1) | Cover (2), three screws (3), and three lockwashers (4) | Using screwdriver, remove. |
| 2. Handbrake Lever (5) | Three capscrews (6) and three nuts (7) | Using wrench, socket, and handle, remove. |

HANDBRAKE LEVER - CONTINUED

LOCATION	ITEM	ACTION REMARKS
3. Mounting bracket (1)	Handbrake lever (5), three spacers (8), and three spacers (9)	Remove.
4. Clevis (10)	Cotter pin (11) and clevis pin (12)	Using pliers, remove. Discard cotter pin (11).
INSTALLATION		
5. Mounting bracket (1)	Three spacers (9) and handbrake lever (5)	Position, alining with mounting holes.
6. Handbrake lever (5)	Three spacers (8), three capscrews (6), and three nuts (7)	Using wrench, socket, and handle, install.
7.	Clevis (10), cotter pin (11), and clevis pin (12)	a. Position clevis (10) and insert clevis pin (11). b. Using pliers, install cotter pin (12).
8. Mounting bracket (1)	Cover (2)	Position and aline mounting holes.
9. Cover (2)	Three screws (3) and three lockwashers (4)	Using screwdriver, install.

TASK ENDS HERE

HANDBRAKE CABLE

This task covers:

- a. Removal (page 4-42)
 - b. Installation (page 4-43)
-

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
- Socket, 1/2- by 3/8-inch square drive
- Wrench, open-end, adjustable
- Wrench, open-end, 7/16-inch

Tools - Continued

- Wrench, open-end, 1/2-inch
- Wrench, open-end, 9/16-inch (two required)

Equipment Condition

Hub and drum removed (page 4-87).

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

REMOVAL

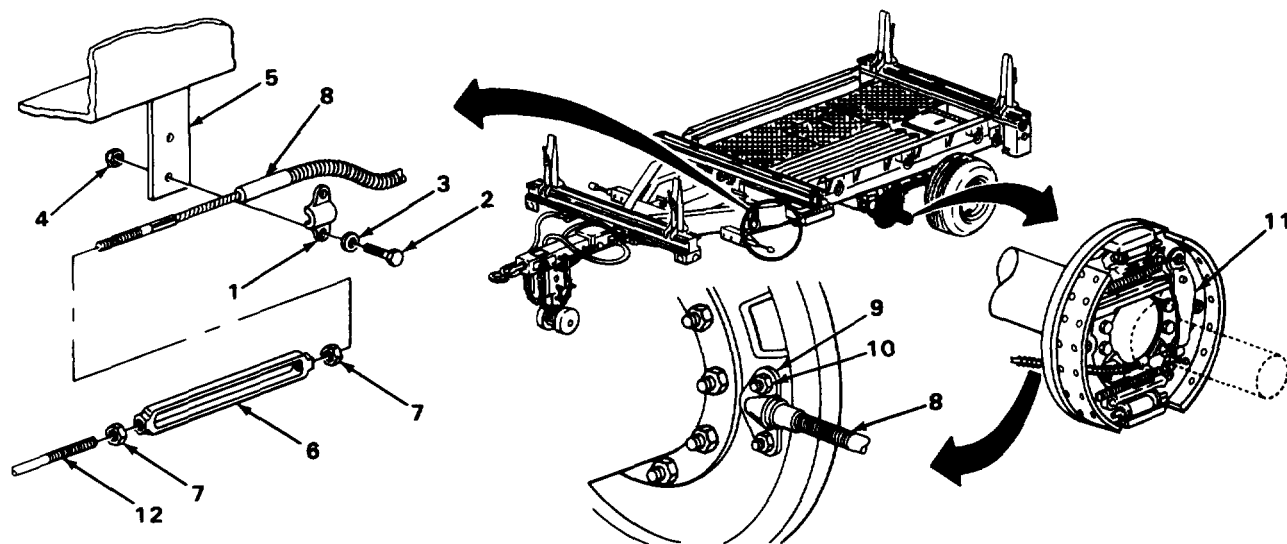
- | | | | |
|----|---------------------------|--|---|
| 1. | Handbrake cable clamp (1) | Two capscrews (2), two lockwashers (3), and two nuts (4) | Using 1/2-inch wrench, socket, and handle, remove. |
| 2. | Cable bracket (5) | Handbrake cable clamp (1) | Remove. |
| 3. | Turnbuckle (6) | Two jamnuts (7) | Using two 9/16-inch wrenches, loosen. |
| 4. | Handbrake cable (8) | Turnbuckle (6) | Using 9/16-inch wrench, remove.
Hold cable (8) with adjustable wrench to prevent twisting, if required. |
| 5. | Cable guide bracket (9) | Two nuts (10) | Using 7/16-inch wrench, loosen. |
| 6. | Brake lever (11) | Handbrake cable (8) | Unhook. |
| 7. | Cable guide bracket (9) | Handbrake cable (8) | Remove. |

INSTALLATION

- | | | | |
|----|-------------------------|---------------------|----------------------------|
| 8. | Cable guide bracket (9) | Handbrake cable (8) | Push through and position. |
|----|-------------------------|---------------------|----------------------------|

HANDBRAKE CABLE - CONTINUED

LOCATION	ITEM	ACTION REMARKS
9. Brake lever (11)	Handbrake cable (8)	Hook in place.
10. Cable guide bracket (9)	Two nuts (10)	Using 7/16-inch wrench, tighten.
11. Connecting rod (12) and handbrake cable (8)	Two jamnuts (7)	Using 9/16-inch wrench, install.
12.	Turnbuckle (6)	a. Using 9/16-inch wrench to take up cable slack, screw turnbuckle (6) counter-clockwise (when viewed from rear of trailer) onto connecting rod (12) and handbrake cable (8) and tighten. b. Leave jamnuts (7) finger tight.
13. Cable bracket (5)	Handbrake cable (8) and handbrake cable clamp (1)	Place in position.
14. Handbrake cable clamp (1)	Two capscrews (2), two lockwashers (3), and two nuts (4)	Using socket, handle, and 1/2-inch wrench, install.



HANDBRAKE CABLE - CONTINUED

NOTE

FOLLOW-ON MAINTENANCE: Install hub and drum (page 4-87).

TASK ENDS HERE

HANDBRAKE CABLE ADJUSTMENT

This task covers:

Adjustment

INITIAL SETUP

Tools

Jack
 Wrench, open-end, adjustable
 Wrench, open-end, 9/16-inch (two required)

Equipment Condition

Service brakes adjusted (page 4-50).

LOCATION	ITEM	ACTION REMARKS
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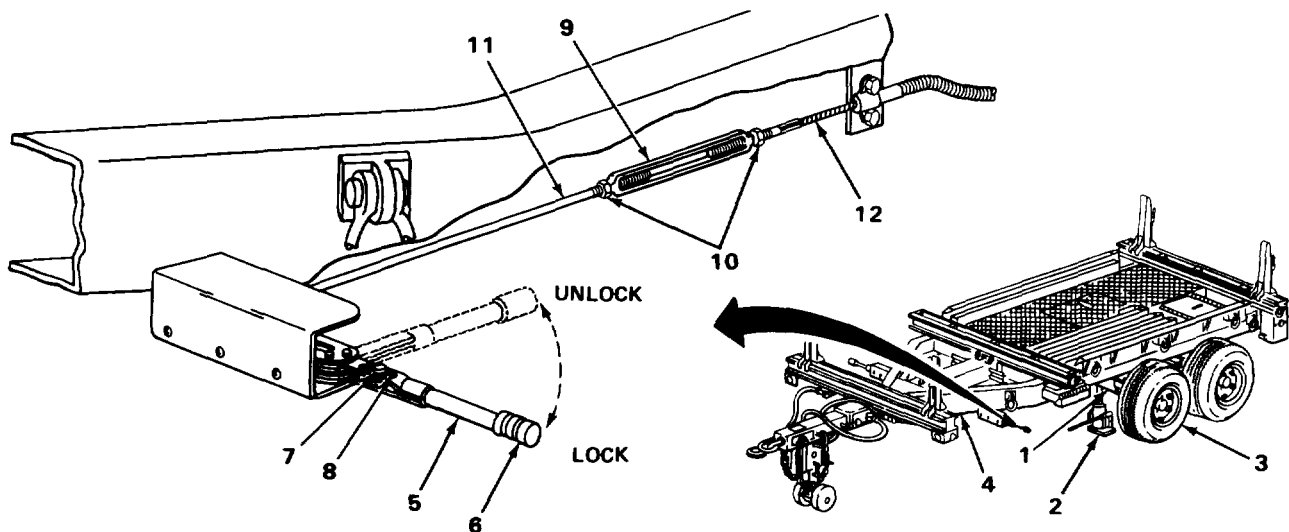
NOTE

Procedure is for one handbrake. Repeat procedure for opposite side.

- | | | |
|-----------------------------|--------------------|---|
| 1. Front wheel axle (1) | Jack (2) | Place jack (2) under front wheel axle (1) and raise until wheel (3) clears ground. |
| 2. Trailer frame, front (4) | Handbrake lever(5) | Release (unlock). |
| 3. Handbrake lever(5) | Knob (6) | Turn knob (6) in the necessary direction to position link pin (7) approximately halfway between each end of slot (8). |
| 4. Turnbuckle (9) | Two jamnuts (10) | Using two 9/16-inch wrenches (one on jamnut and one on turnbuckle), loosen. |

HANDBRAKE CABLE ADJUSTMENT - CONTINUED

LOCATION	ITEM	ACTION REMARKS
5. Connecting rod (11) and handbrake cable (12)	Turnbuckle (9)	a. Turn turnbuckle (9) counterclockwise (when viewed from rear of trailer) until brakeshoes drag slightly when wheel (3) and brakedrum are rotated by hand. Hold cable (12) with adjustable wrench to prevent twisting. b. Back off (turn clockwise when viewed from rear of trailer) turnbuckle (9) until the wheel and drum turn freely without drag.
6. Turnbuckle (9)	Two jamnuts (10)	Using two 9/16-inch wrenches (one on jamnut and one on turnbuckle), tighten.
7. Trailer frame, front (4)	Handbrake lever (5)	Test adjustment by moving handbrake lever (5) to lock position, If handbrake lever (5) cannot be moved to the fully locked position, turn handbrake lever knob (6) counterclockwise until correct lever position is obtained.
8. Front wheel axle (1)	Jack (2)	Lower and remove.



TASK ENDS HERE

SERVICE BRAKE

This task covers:

- a. Disassembly (page 4-46)
 - b. Inspection criteria (page 4-48)
 - c. Assembly (page 4-48)
-

INITIAL SETUP

Tools

Extension, 6-by 3/8-inch square drive
 Handle, reversible, 3/8-inch square drive
 Pliers, brake-repair
 Pliers, needle-nose
 Socket, 7/16- by 3/8-inch square drive

Tools - Continued

Socket, 9/16- by 3/8-inch square drive
 Wrench, open-end, 9/16-inch

Equipment Condition

Hub and brakedrum removed (page 4-87).

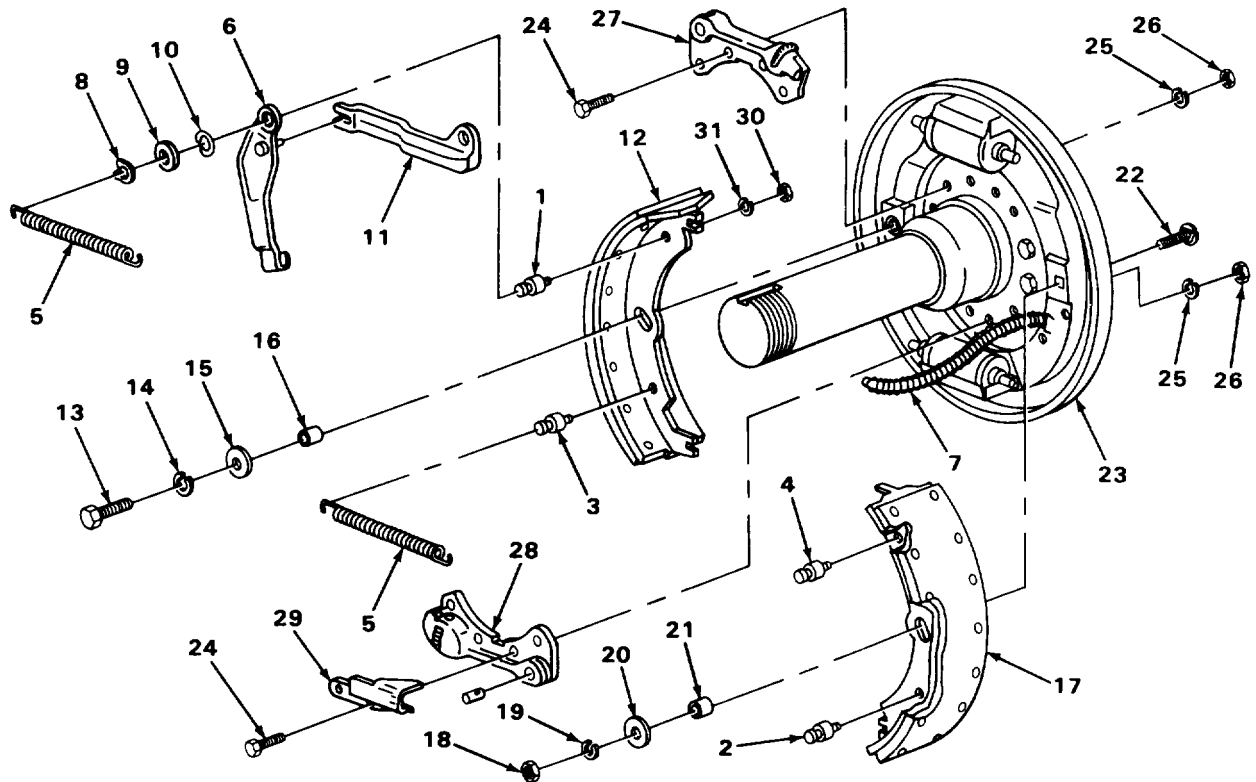
LOCATION	ITEM	ACTION REMARKS
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DISASSEMBLY

1. Pins (1,2,3, and 4)	Two springs (5)	Using brake-repair pliers, remove.
2. Brake lever (6)	Handbrake cable (7)	Unhook.
3. Pins (1 and 4)	Two clips (8), two flat washers (9), and two wave washers (10)	Using needle-nose pliers, remove.
4. Pin (1)	Brake lever (6)	Slide off.
5. Pin (4)	Strut (11)	Slide off.
6. Brakeshoe(12)	Capscrew (13), lock-washer (14), flat washer (15), and sleeve (16)	Using 7/16-inch socket and handle, remove.
7. Brakeshoe (17)	Nut (18), lockwasher (19), flat washer (20), sleeve (21), and bolt (22)	Using 7/16-inch socket and handle, remove.

SERVICE BRAKE - CONTINUED

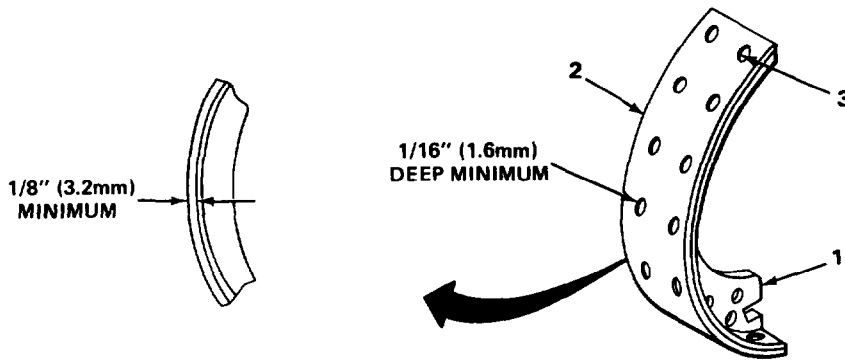
LOCATION	ITEM	ACTION REMARKS
8. Backing plate (23)	Brakeshoes (12 and 17)	Remove.
9.	Four capscrews (24), four lockwashers (25), four nuts (26), and adjuster (27)	Using 9/16-inch socket, extension, handle, and wrench, remove.
10.	Four capscrews (24), four lockwashers (25), four nuts (26), adjuster (28), and cable guide (29)	Using 9/16-inch socket, extension, handle, and wrench, remove.
11. Brakeshoes (12 and 17)	Pins (1, 2, 3 and 4), four nuts (30), and four lock- washers (31)	Using 9/16-inch socket, extension, and handle, remove.



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SERVICE BRAKE - CONTINUED

LOCATION	ITEM	ACTION REMARKS
INSPECTION CRITERIA		
12. Brakeshoe (1)	Lining (2) and rivets (3)	a. Inspect shoes (1) for cracks. b. Inspect linings (2) for cracks, looseness to shoes (1), or a thickness of at least 1/8 inch (3.2 millimeters). c. Inspect rivets (3) for looseness. Rivets (3) also should beat least 1/16 inch (1.6 millimeters) below the surface of the lining (2).

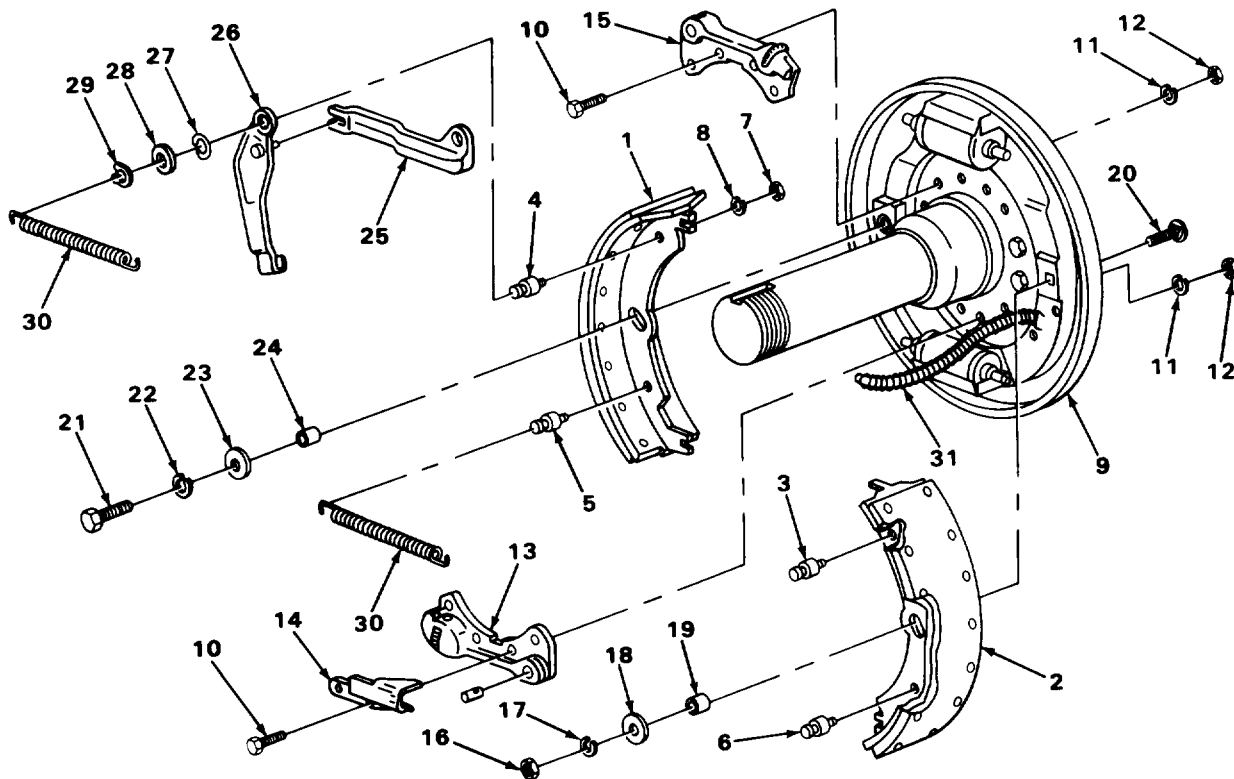


ASSEMBLY

13. Brakeshoes (1 and 2)	Pins (3, 4,5, and 6), four nuts (7), and four lock washers (8)	Using 9/16-inch socket, extension, and handle, install.
14. Backing plate (9)	Four capscrews (10), four lockwashers (11), four nuts (12), adjuster (13), and cable guide (14)	Using 9/16-inch socket, extension, handle, and wrench, install.
15.	Four capscrews (10), four lockwashers (11), four nuts (12), and adjuster (15)	Using 9/16-inch socket, extension, handle, and wrench, install.
16.	Brakeshoe (2)	Place in position.
17. Brakeshoe (2) to backing plate (9)	Nut (16), lockwasher (17), flat washer (18), sleeve (19), and bolt (20)	Using 7/16-inch socket, install.

SERVICE BRAKE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
18. Backing plate(9)	Brakeshoe (1)	Place in position.	
19. Brakeshoe (1) to backing plate (9)	Capscrew (21), lockwasher (22), flat washer (23), and sleeve (24)	Using 7/16-inch socket and handle, install.	
20. pins (3 and 4)	Strut (25) and brake lever (26)	Place in position.	
21.	Two wave washers (27), two flat washers (28), and two clips (29)	Using needle-nose pliers, install.	
22. Pins (3, 4, 5, and 6)	Two springs (30)	Using brake-repair pliers, install.	
23. Brake lever (26)	Handbrake cable (31)	Hook into place.	



SERVICE BRAKE - CONTINUED

NOTE

FOLLOW-ON MAINTENANCE: Install hub and drum (page 4-87).

TASK ENDS HERE

SERVICE BRAKE ADJUSTMENT

This task covers:

Adjustment

INITIAL SETUP

Tools

Jack
Wrench, box-end, 5/8-inch

LOCATION	ITEM	ACTION REMARKS
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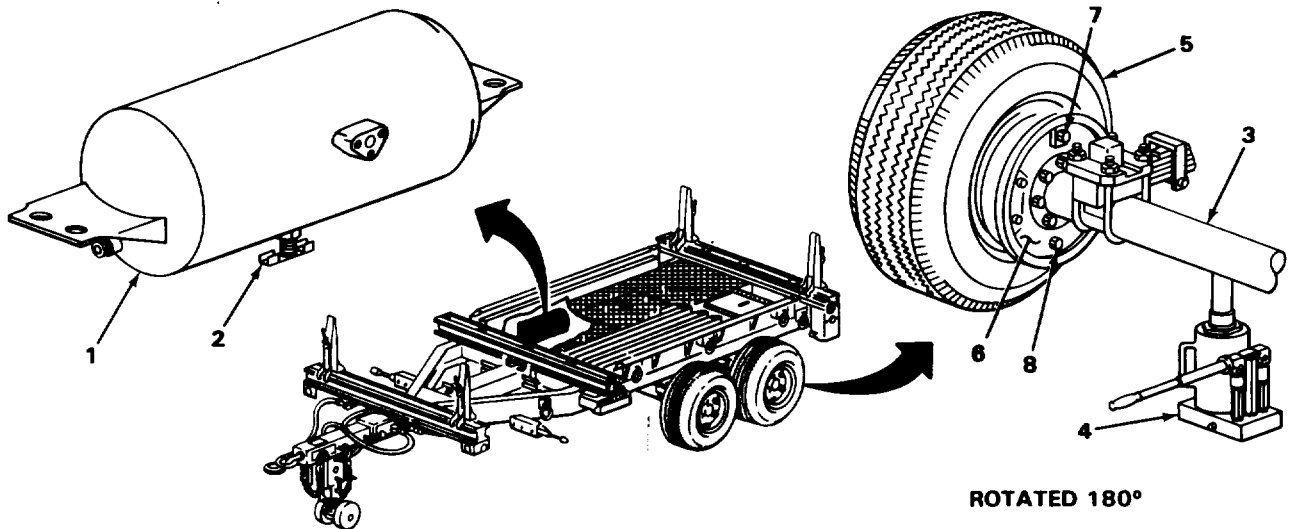
NOTE

Adjust brakes when brakedrums are cool.

Procedure given is for one wheel.

1. Air reservoir (1)	Draincock (2)	Open allowing air to drain.
2. Wheel axle (3)	Jack (4)	Raise until wheel (5) is off the ground.
3. Backing plate (6)	Upper shoe adjusting stud (7)	a. Using wrench, turn counterclockwise (when viewed from rear face of backing plate) until wheel locks. b. Back off by turning clockwise just enough to allow wheel to turn freely.
4.	Lower shoe adjusting stud (8)	Repeat step 2.
5. Wheel axle (3)	Jack (4)	Lower and remove.
6. Air reservoir (1)	Draincock (2)	Close.

SERVICE BRAKE ADJUSTMENT - CONTINUED



NOTE

FOLLOW-ON MAINTENANCE: Adjust handbrake (page 3-4).

TASK ENDS HERE

HYDRAULIC SYSTEM BLEEDING

This task covers:

- a. Manual bleeding (page 4-52)
- b. Pressure bleeding (page 4-53)

INITIAL SETUP

Tools

- Pressure bleeder
- Wrench, open-end, 7/18-inch

Materials/Parts

- Brake fluid (item 2, appendix E)
- Container
- Plastic tubing

Personnel Required

Manual bleeding – two

References

TB 43-0002-87- Brake Fluid, Silicone (BFS) Conversion Procedures for Tank-Automotive Equipment

HYDRAULIC SYSTEM BLEEDING - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
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NOTE

Use the manual bleeding procedure only if a pressure bleeder is not available.

The trailer must be connected to the towing vehicle to manually bleed brakes.

The following procedure is typical for both left and right wheels.

Always bleed the wheel cylinder farthest from the master cylinder first.

Always bleed the lower cylinder first on a dual wheel cylinder brake.

Check fluid level of master cylinder frequently during manual bleeding procedure and replenish as required. Failure to keep filled will allow air to enter the hydraulic system.

Refer to the manufacturer's instructions for proper operation and servicing of the pressure bleeder.

MANUAL BLEEDING

1. Right wheel at lower cylinder bleed fitting (1)	Tubing (2)	Push tubing onto bleed fitting. Tubing should be long enough to reach ground when connected.
2.	Container (3)	Fill container half full with brake fluid and position by wheel being bled.
3.	Tubing (2)	Submerge free end in brake fluid.

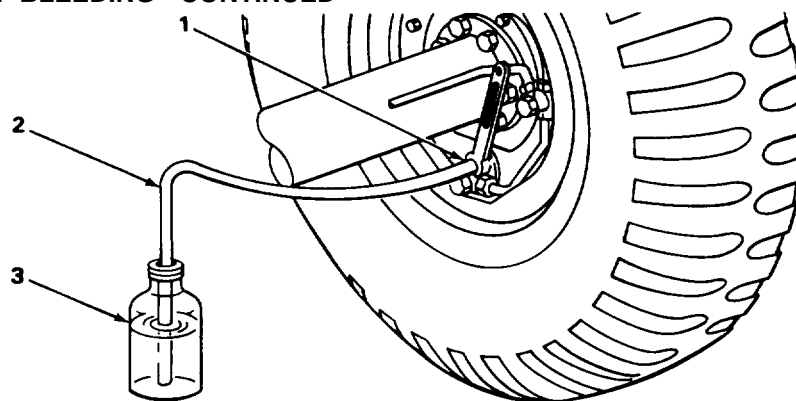
NOTE

Assistant should pump brake pedal slowly while brakes are bled.

4.	Bleed fitting (1)	Using wrench, open fitting three-quarter turn. Fluid and air will be forced through tube. Continue until no more air bubbles appear in fluid.
5.	Bleed fitting (1)	Close fitting and remove tubing.

NOTE

Steps 1 thru 5 should be repeated for upper wheel cylinder and both cylinders on right wheel.

HYDRAULIC SYSTEM BLEEDING -CONTINUED**PRESSURE BLEEDING****NOTE**

The pressure bleeder should be connected to the master cylinder according to manufacturer's instructions for proper operation.

Perform the manual bleeding procedure after the pressure bleeder is connected.

TASK ENDS HERE**MASTER CYLINDER**

This task covers:

- a. Removal (page 4-54)
- b. Installation (page 4-54)

INITIAL SETUP**Tools**

Wrench, open-end, 7/16-inch
 Wrench, open-end, 9/16-inch
 Wrench, open-end, 5/8-inch
 Wrench, open-end, 1-inch

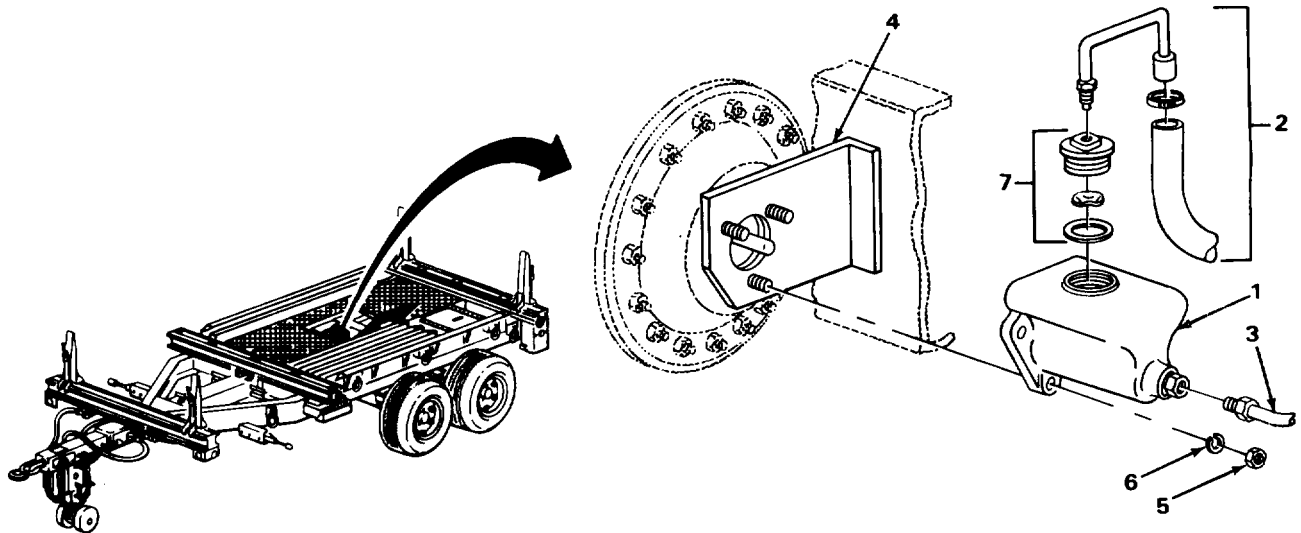
Materials/Parts

Brake fluid, BFS (item 2, appendix E)

MASTER CYLINDER - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Master cylinder (1)	Vent tube (2)	Using 5/8- and 1-inch wrenches, remove.
2.	Line (3)	Using 7/16- and 5/8-inch wrenches, remove.
3. Mounting bracket (4)	Three nuts (5) and three lockwashers (6)	Using 9/16-inch wrench, remove.
4.	Master cylinder (1)	Remove. Brake air chamber will also be loose from bracket.
INSTALLATION		
5. Mounting bracket (4)	Master cylinder (1)	Position on mounting bracket (4) and studs.
6. Master cylinder (1)	Three nuts (5) and three lockwashers (6)	Using 9/16-inch wrench, install.
7.	Line (3)	Using 7/16- and 5/8-inch wrenches, install.
8.	Master cylinder (1)	Fill with brake fluid to 1/2 inch from top.
9. Master cylinder (1)	Vent tube (2) and fitting (7)	Using 5/8- and 1-inch wrenches, install.

MASTER CYLINDER - CONTINUED



NOTE

FOLLOW-ON MAINTENANCE: Bleed brakes (page 4-51).

TASK ENDS HERE

WHEEL CYLINDER

This task covers:

- a. Removal (page 4-56)
- b. Installation (page 4-56)

INITIAL SETUP

Tools

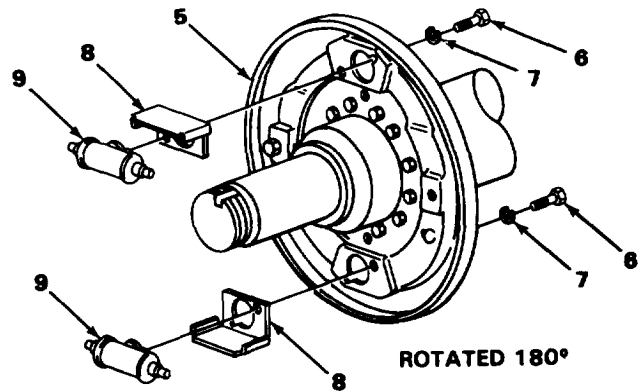
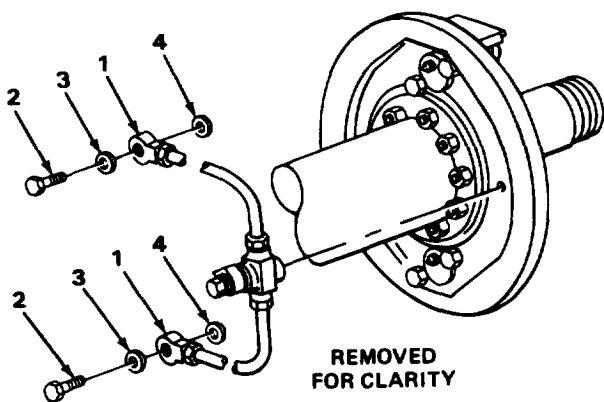
- Handle, reversible, 3/8-inch square drive
- Socket, 1/2- by 3/8-inch square drive
- Wrench, open-end, 1 1/16-inch

Equipment Condition

Service brake disassembled (page 4-46).

WHEEL CYLINDER - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
REMOVAL			
1. Connectors (1)	Capscrews (2) and sealing washers (3 and 4)	Using 1 1/16-inch wrench, remove.	
2. Backing plate (5)	Two capscrews (6) and two lockwashers (7)	Using 1/2-inch socket and handle, remove.	
3.	Spark shield (8) and wheel cylinder (9)	Remove.	
INSTALLATION			
4. Backing plate (5)	Spark shield (8) and wheel cylinder (9)	Position, aligning with mounting holes.	
5.	Two lockwashers (7) and two capscrews (6)	Using 1/2-inch socket and handle, install.	
6.	Connectors (1) and sealing washers (4)	Position on backing plate (5).	
7. Connectors(1)	Capscrews (2) and sealing washers (3)	Using 11/16-inch wrench, install.	



WHEEL CYLINDER - CONTINUED

NOTE

FOLLOW-ON MAINTENANCE:

1. Install brakeshoes (page 4-46).
2. Bleed brakes (page 4-51).

TASK ENDS HERE

HYDRAULIC LINE REPLACEMENT

This task covers:

- | | |
|--|---|
| <ul style="list-style-type: none"> a. Master cylinder to axle flex hose (page 4-57) b. Axle flex hose (page 4-58) c. Axle tee to left service brake (page 4-58) | <ul style="list-style-type: none"> d. Axle tee to right service brake (page 4-60) e. Wheel cylinders to connector (page 4-60) |
|--|---|
-

INITIAL SETUP

Tools

Wrench, open-end, 7/16-inch
 Wrench, open-end, 5/8-inch
 Wrench, open-end, 15/16-inch
 Screwdriver, cross-tip

Materials/Parts

New hoses (as required)
 New lines (as required)

LOCATION	ITEM	ACTION	REMARKS
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MASTER CYLINDER TO AXLE FLEX HOSE

NOTE

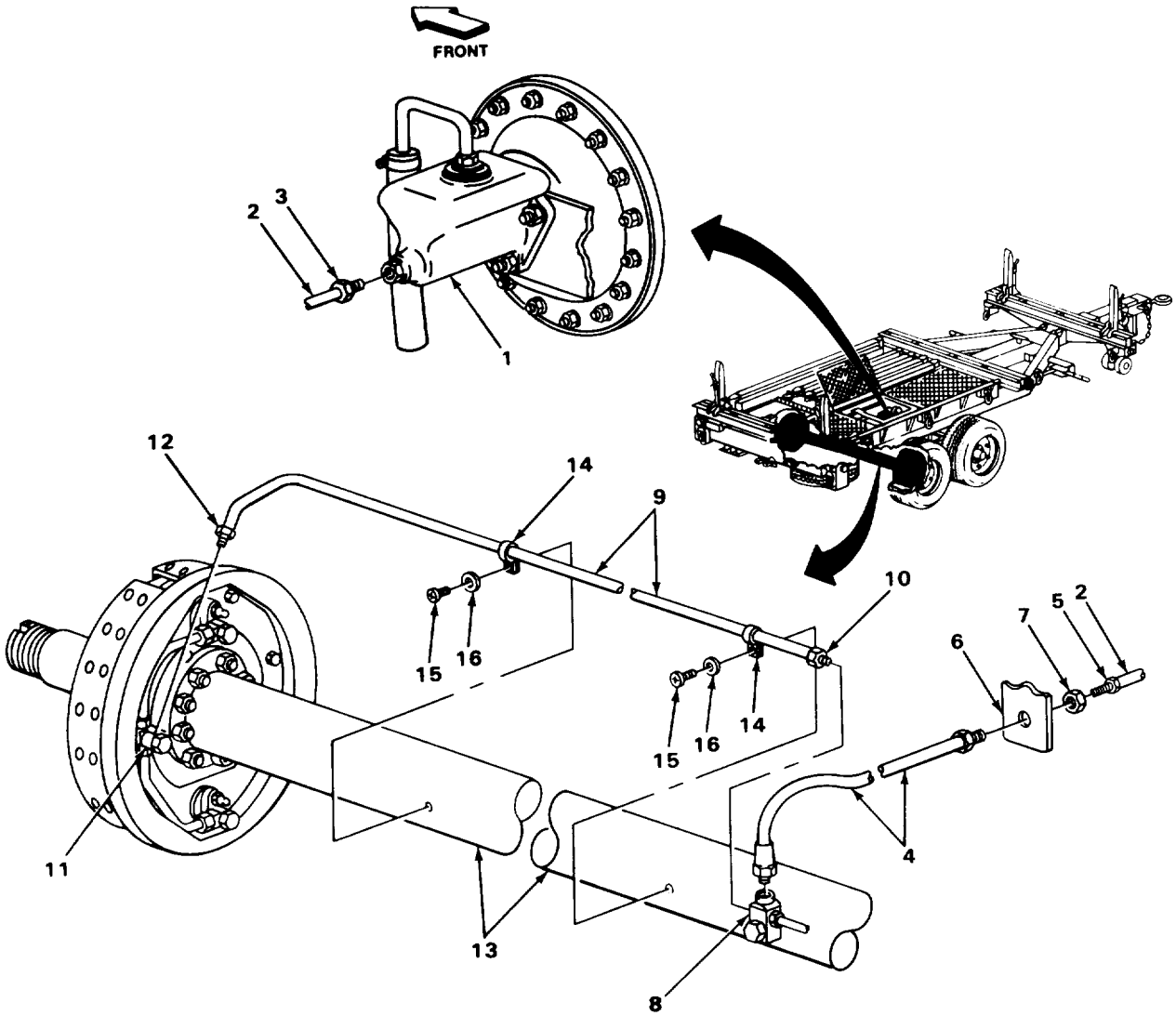
These are typical procedures for the front or the rear axle braking systems.

HYDRAULIC LINE REPLACEMENT - CONTINUED

LOCATION	ITEM	ACTION REMARKS
MASTER CYLINDER TO AXLE FLEX HOSE - CONTINUED		
1. Master cylinder(l) to line (2)	Fitting (3)	Using 7/16- and 5/8-inch wrenches, loosen.
2. Hose (4) to line (2)	Fitting (5)	Using 7/16-inch wrench, loosen.
3. Master cylinder (1) to hose (4)	Line (2)	Remove. Discard line (2).
4.	New line (2)	Place in position.
5. Hose (4) to new line (2)	Fitting (5)	Using 7/16-inch wrench, tighten.
6. Master cylinder (1) to new line (2)	Fitting (3)	Using 7/16- and 5/8-inch wrenches, tighten.
AXLE FLEX HOSE		
7. Hose (4) to line (2)	Fitting (5)	Using 7/16-inch wrench, loosen,
8. Hose (4) to bracket (6)	Nut (7)	Using 15/16- and 5/8-inch wrenches, remove.
9. Axle tee (8)	Hose (4)	Using 5/8-inch wrench, remove. Discard hose (4).
10.	New hose (4)	Using 5/8-inch wrench, install.
11. New hose (4) to bracket (6)	Nut (7)	Using 5/8- and 15/16-inch wrenches, install.
12. New hose (4) to line (2)	Fitting (5)	Using 7/16-inch wrench, tighten.
AXLE TEE TO LEFT SERVICE BRAKE		
13. Line (9) to axle tee (8)	Fitting (10)	Using 7/16-inch wrench, loosen.

HYDRAULIC LINE REPLACEMENT - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
14. Connector (1) to line (9)	Fitting (12)	Using 7/16-inch wrench, loosen.	
15. Axle (13) to two clamps (14)	Two screws (15) and two lockwashers (16)	Using screwdriver, remove.	
16. Axle tee (8) to connector(n)	Line (9)	Remove.	



HYDRAULIC LINE REPLACEMENT - CONTINUED

LOCATION	ITEM	ACTION REMARKS
AXLE TEE TO LEFT SERVICE BRAKE - CONTINUED		
17. Line (1)	Two clamps (2)	Remove. Discard line (1).
18. New line(1)	Two clamps (2)	Install.
19. Axle tee (3) to connector (4)	New line (1)	Place in position.
20. Two clamps (2) to axle (5)	Two screws (6) and two lockwashers (7)	Using screwdriver, install.
21. Connector (4) to new line (1)	Fitting (9)	Using 7/16-inch wrench, tighten.
22. Axle tee (3) to new line (1)	Fitting (10)	Using 7/16-inch wrench, tighten.
AXLE TEE TO RIGHT SERVICE BRAKE		
23. Axle tee (3) to line (11)	Fitting (12)	Using 7/16-inch wrench, loosen.
24. Connector (13) to line (11)	Fitting (14)	Using 7/16-inch wrench, loosen.
25. Axle tee (3) to connector (13)	Line(n)	Remove. Discard line (11).
26.	New line(n)	Place in position.
27. Connector (13) to new line (11)	Fitting (14)	Using 7/16-inch wrench, tighten.
28. Axle tee (3) to new line (11)	Fitting (12)	Using 7/16-inch wrench, tighten.

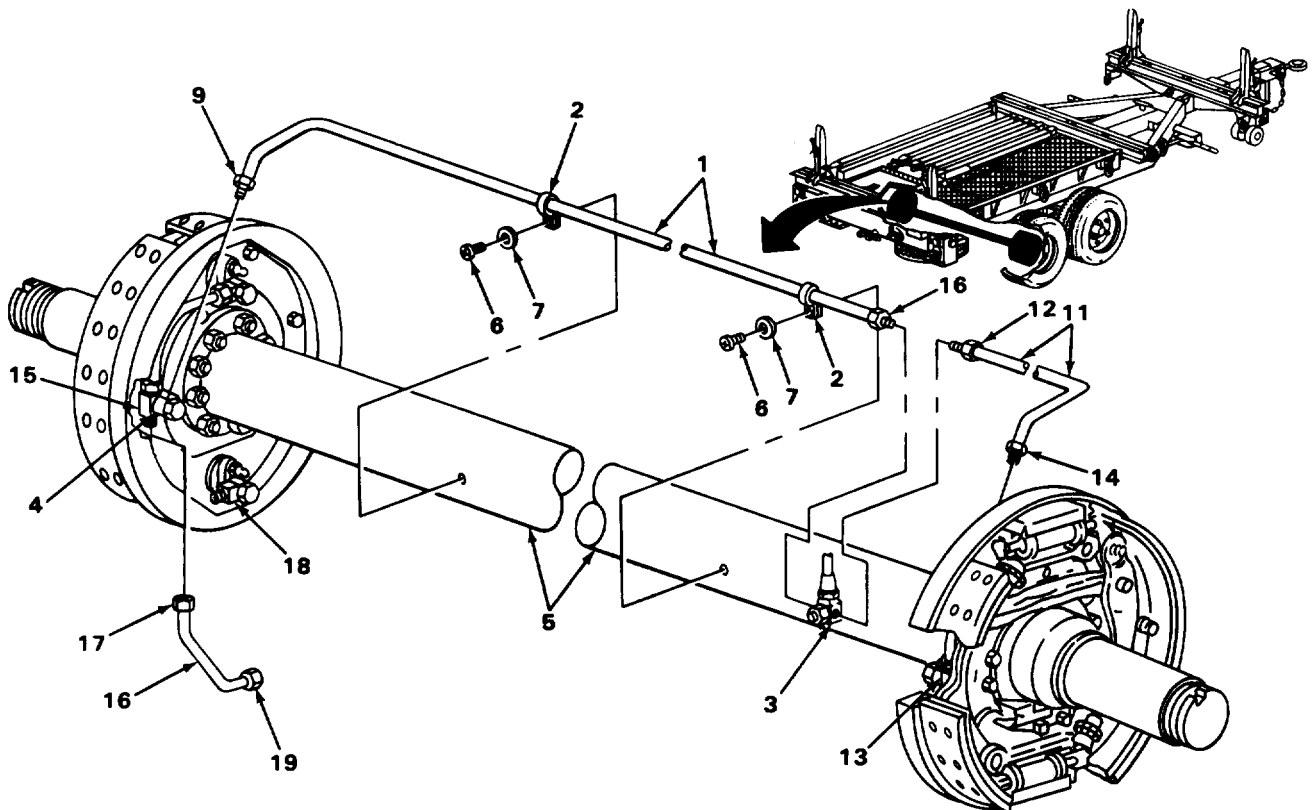
WHEEL CYLINDERS TO CONNECTOR

NOTE

This procedure is typical for the upper and lower wheel cylinder lines.

HYDRAULIC LINE REPLACEMENT - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
29. Tee (15) to line (16)	Fitting (17)	Using 7/16-inch wrench, loosen.	
30. Connector (18) to line (16)	Fitting (19)	Using 7/16-inch wrench, loosen.	
31. Connector (18) to tee (15)	Line (16)	Remove. Discard line (16).	
32.	New line (16)	Place in position.	
33. Connector (18) to new line (16)	Fitting (19)	Using 7/16-inch wrench, tighten.	
34. Tee (15) to new line (16)	Fitting (17)	Using 7/16-inch wrench, tighten.	



HYDRAULIC LINE REPLACEMENT- CONTINUED

NOTE

FOLLOW-ON MAINTENANCE: Bleed brakes (page 4-51).

TASK ENDS HERE

AIRBRAKE LINE REPLACEMENT

This task covers:

- | | |
|--|---|
| <p>a. Rear section hoses to air filters
(page 4-62)</p> <p>b. Air filters to relay valve
(page 4-63)</p> | <p>c. Relay valve to brake chambers
(page 4-64)</p> |
|--|---|
-

INITIAL SETUP

Tools

Screwdriver, flat-tip
Wrench, open-end, 5/8-inch

Materials/Parts

New airbrake lines (as required)

LOCATION	ITEM	ACTION	REMARKS
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REAR SECTION HOSES TO AIR FILTERS

NOTE

All procedures are for one line each and are typical of the service and emergency braking systems.

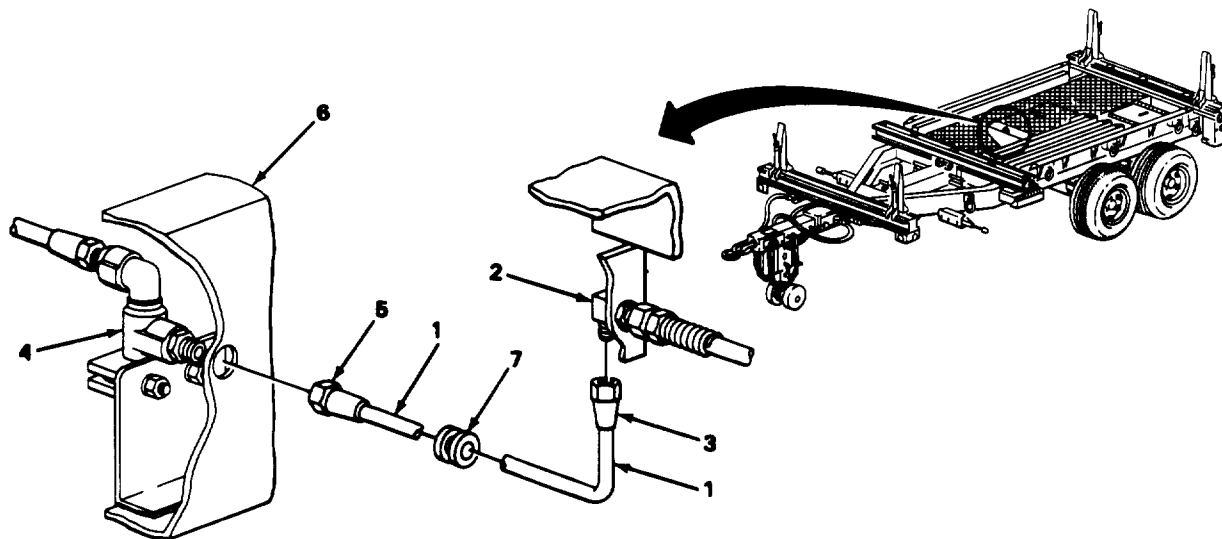
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|--|--|---|
| <p>1. Line (1) to elbow (2)</p> <p>2. Line (1) to filter (4)</p> <p>3. Frame (6)</p> <p>4. Filter (4) to elbow (2)</p> | <p>Fitting (3)</p> <p>Fitting (5)</p> <p>Grommet (7)</p> <p>Line (1) and grommet (7)</p> | <p>Using wrench, remove.</p> <p>Using wrench, remove.</p> <p>Using screwdriver, pry out of hole.</p> <p>Remove.</p> |
|--|--|---|

AIRBRAKE LINE REPLACEMENT - CONTINUED

LOCATION	ITEM	ACTION REMARKS
5. Line (1)	Grommet (7)	Remove. Discard line (1).
6. New line (1)	Grommet (7)	Install.
7. Filter (4) to elbow (2)	New line(I)	Place in position.
8. Frame (6)	Grommet (7)	Using screwdriver as an aid, install.
9. New line (1) to filter (4)	Fitting (5)	Using wrench, tighten.
10. New line (1) to elbow (2)	Fitting (3)	Using wrench, tighten.

AIR FILTERS TO RELAY VALVE

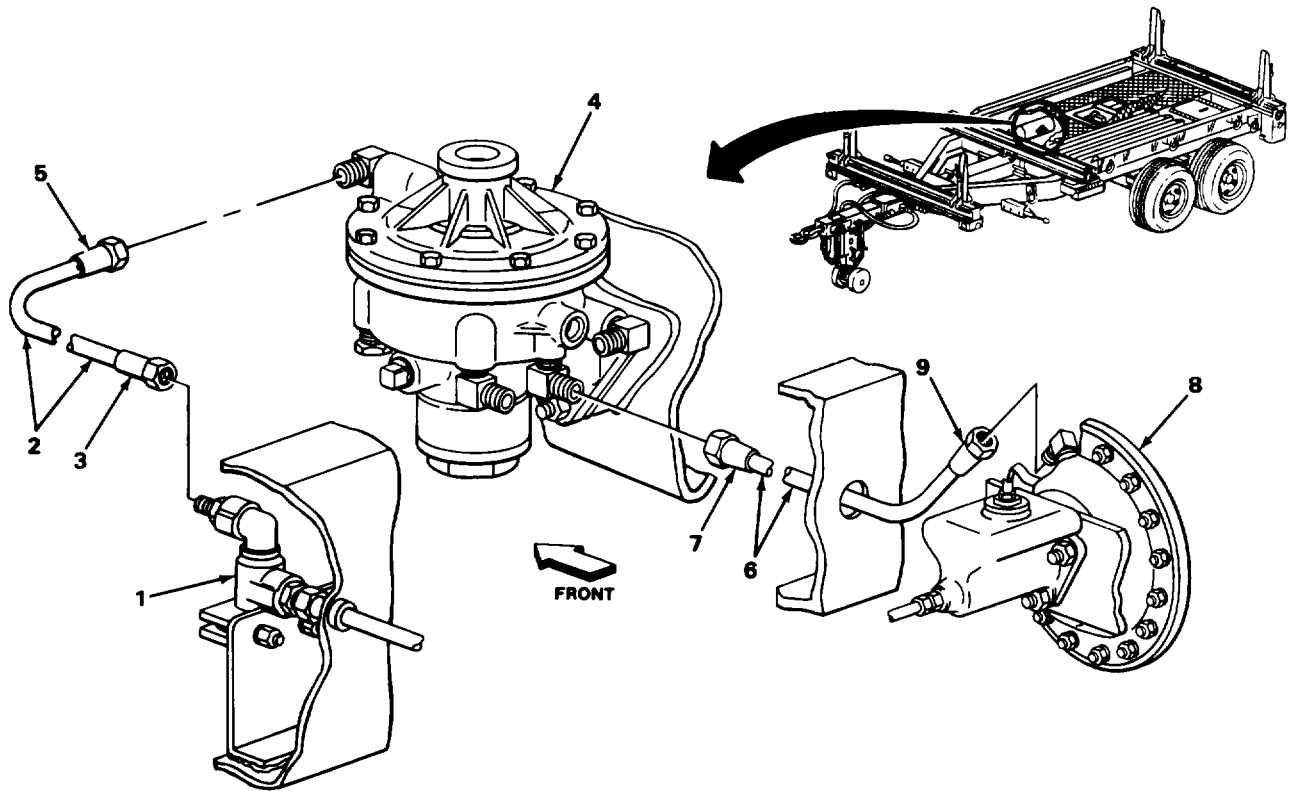
11. Filter (1) to line (2)	Fitting (3)	Using wrench, loosen.
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AIRBRAKE LINE REPLACEMENT - CONTINUED

LOCATION	ITEM	ACTION REMARKS
AIR FILTERS TO RELAY VALVE		
11. Filter (1) to line (2)	Fitting (3)	Using wrench, loosen.
NOTE		
All procedures are for one line each and are typical of the service and emergency braking systems.		
12. Relay valve (4) to line (2)	Fitting (5)	Using wrench, loosen.
13. Relay valve (4) to filter (1)	Line (2)	Remove. Discard line (2).
14.	New line (2)	Place in position.
15. Relay valve (4) to new line (2)	Fitting (5)	Using wrench, tighten.
16. Filter (1) to new line (2)	Fitting (3)	Using wrench, tighten.
RELAY VALVE TO BRAKE AIR CHAMBERS		
17. Relay valve (4) to line (6)	Fitting (7)	Using wrench, loosen.
18. Brake air chamber (8) to line (6)	Fitting (9)	Using wrench, loosen.
19. Brake air chamber (8) to relay valve (4)	Line (6)	Remove. Discard line (6).
20.	New line(6)	Place in position.
21. Brake air chamber (8) to new line (6)	Fitting (9)	Using wrench, tighten.
22. Relay valve (4) to new line (6)	Fitting (7)	Using wrench, tighten.

AIRBRAKE LINE REPLACEMENT - CONTINUED



TASK ENDS HERE

BRAKE AIR CHAMBER

This task covers:

- | | |
|----------------------------|-----------------------------|
| a. Removal (page 4-66) | c. Assembly (page 4-67) |
| b. Disassembly (page 4-66) | d. Installation (page 4-68) |

INITIAL SETUP

Tools

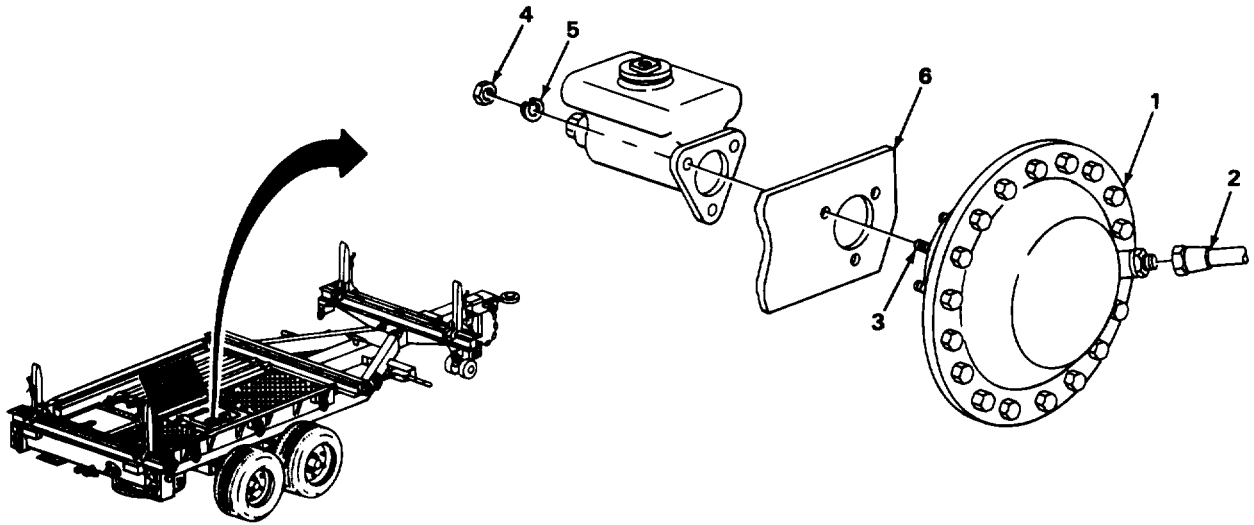
- Handle, reversible, 3/8-inch square drive
- Socket, 1/2- by 3/8-inch square drive
- Wrench, open-end, 1/2-inch
- Wrench, open-end, 5/8-inch
- Wrench, open-end, 9/16-inch

Materials/Parts

- Vise

BRAKE AIR CHAMBER - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Brake air chamber (1)	Line (2)	Using 5/8-inch wrench, remove.
2. Three studs (3)	Three nuts (4) and three lock-washers (5)	Using 9/16-inch wrench, remove.
3. Bracket (6)	Brake air chamber (1)	Remove.



DISASSEMBLY

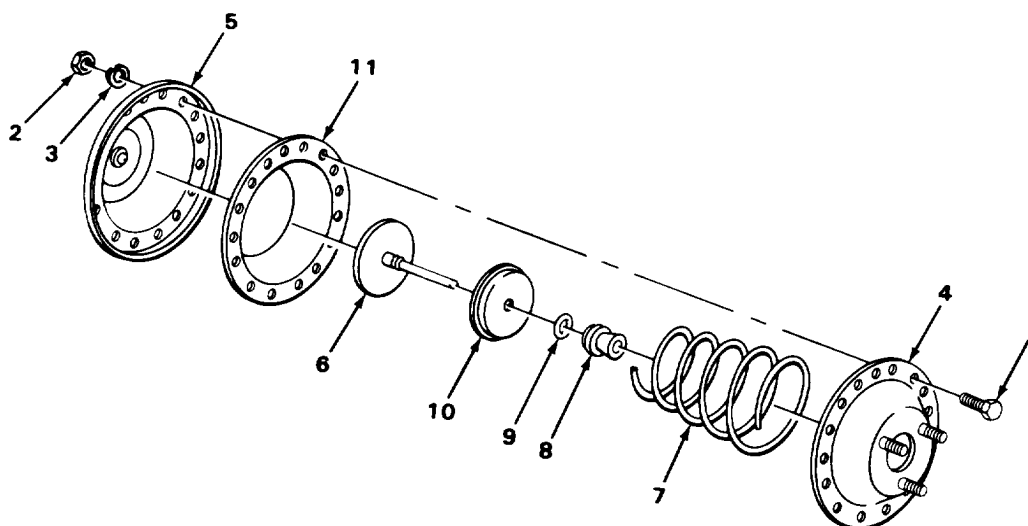
WARNING

Brake air chamber is under spring tension. Use care during the removal of bolts. Spring tension could cause brake air chamber to fly apart, causing injury to personnel.

- | | | |
|----------------------|--|--|
| 4. Brake air chamber | Eighteen cap screws (1), eighteen nuts (2), and eighteen lockwashers (3) | <ul style="list-style-type: none"> a. Place brake air chamber in a vise. b. Using socket, handle, and 1/2-inch wrench, remove. |
|----------------------|--|--|

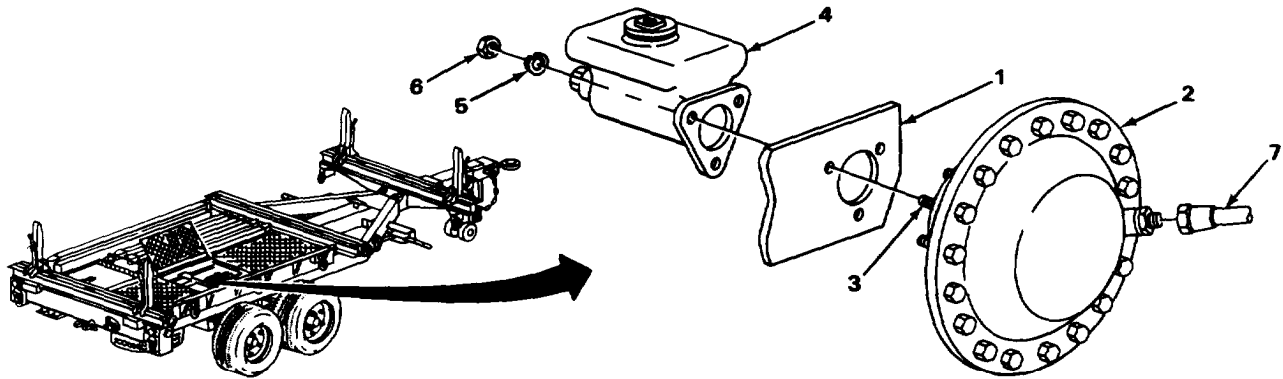
BRAKE AIR CHAMBER - CONTINUED

LOCATION	ITEM	ACTION REMARKS
5. Body (4)	Cover (5)	a. Allow to separate slowly by opening vise. b. Remove from vise.
6.	Cover (5), rod (6), and spring (7)	Remove.
7. Rod (6)	Collar (8), O-ring (9), and retainer (10)	Remove.
8. Cover(5)	Diaphragm (11)	Remove,
ASSEMBLY		
9. Rod (6)	Collar (8), O-ring (9), and retainer (10)	Assemble.
10. Body (4)	Spring (7), rod (6), diaphragm (11), and cover (5)	a. Position on body assembly. b. Place in vise and slowly close, alining holes.
11.	Eighteen capscrews (1), eighteen nuts (2), and eighteen lockwashers (3)	Using socket, handle, and 1/2-inch wrench, install.



BRAKE AIR CHAMBER - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
INSTALLATION			
12. Bracket (1)	Brake air chamber (2)	Position on bracket (1).	
13. Three studs (3)	Master cylinder (4), three lockwashers (5), and three nuts (6)	Using 9/16-inch wrench, install.	
14. Brake air chamber (2)	Line (7)	Using 5/8-inch wrench, install.	



TASK ENDS HERE

RELAY VALVE

This task covers:

- a. Removal (page 4-69)
- b. Installation (page 4-69)

INITIAL SETUP

Tools

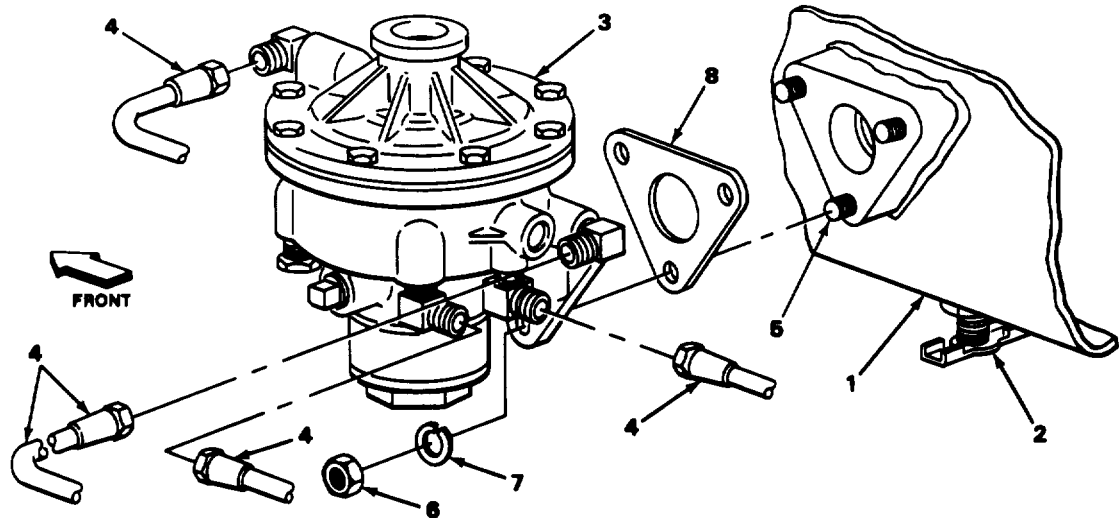
Wrench, open-end, 9/16-inch
 Wrench, open-end, 5/8-inch

Materials/Parts

Gasket

RELAY VALVE - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Air reservoir (1)	Draincock (2)	Open, allowing air to drain.
2. Relay valve (3)	Four lines (4)	Using 5/8-inch wrench, remove.
3. Three studs (5)	Three nuts (6) and three lockwashers (7)	Using 9/16-inch wrench, remove.
4.	Relay valve (3) and gasket (8)	Remove. Discard gasket (8).
INSTALLATION		
5. Three studs (5)	New gasket (8) and relay valve (3)	Position on studs.
6.	Three nuts (6) and three lockwashers (7)	Using 9/16-inch wrench, install.
7. Relay valve (3)	Four lines (4)	Using 5/8-inch wrench, install.
8. Air reservoir (1)	Draincock (2)	Close.



NOTE

FOLLOW-ON MAINTENANCE: Test for leaks (page 4-71).

TASK ENDS HERE

AIR RESERVOIR DRAINCOCK

This task covers:

- a. Removal (page 4-70)
- b. Installation (page 4-70)

INITIAL SETUP

Tools

Wrench, open-end, 9/16-inch

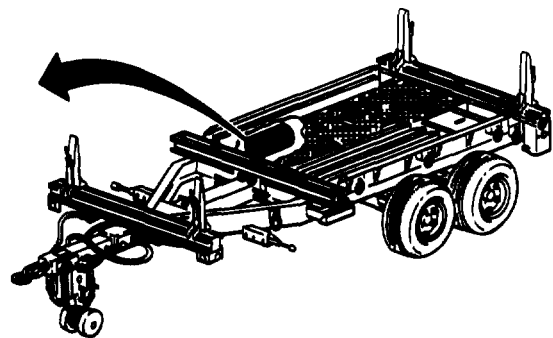
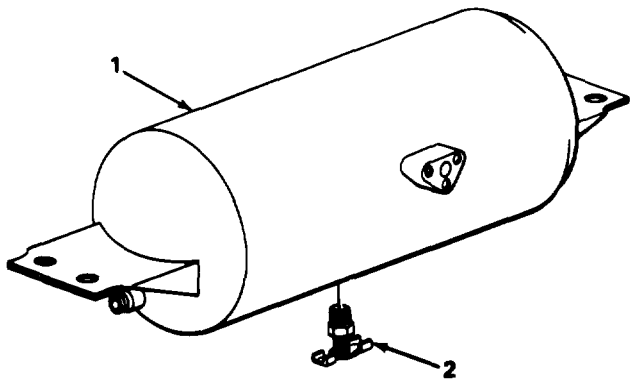
LOCATION	ITEM	ACTION	REMARKS
----------	------	--------	---------

REMOVAL

- | | | |
|---------------------|---------------|---|
| 1. Air reservoir(1) | Draincock (2) | a. Open, allowing air pressure to escape.
b. Using wrench, remove. |
|---------------------|---------------|---|

INSTALLATION

- | | | |
|----------------------|---------------|--|
| 2. Air reservoir (1) | Draincock (2) | a. Using wrench, install.
b. Close. |
|----------------------|---------------|--|



NOTE

FOLLOW-ON MAINTENANCE: Test for leaks (page 4-71).

TASK ENDS HERE

AIRBRAKE SYSTEM LEAKS

This task covers:

Testing

INITIAL SETUP

Tools

Brush, straight-handle bristle

Materials/Parts

Soap solution (item 9, appendix E)

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

NOTE

This is a typical test that may be applied to any part of the airbrake system.

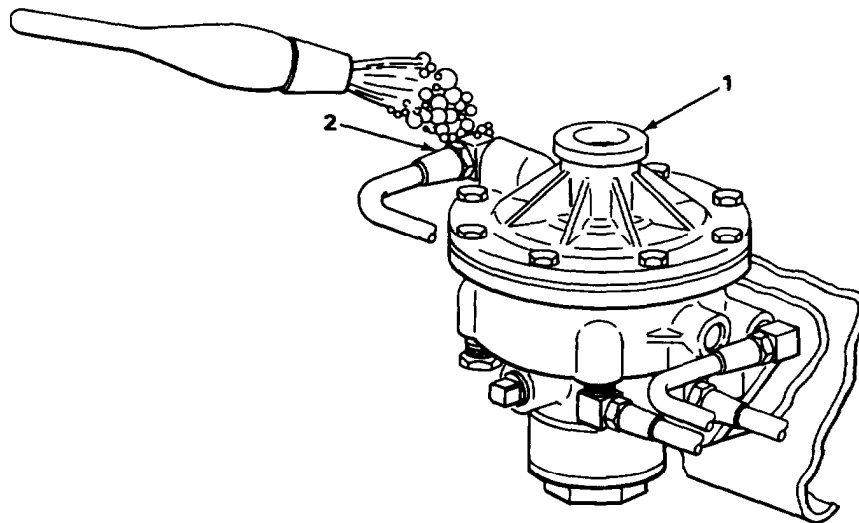
The hoister trailer must be coupled to a tow vehicle to pressurize its airbrake system,

Component (1)

Fitting (2)

Using brush, apply a soap solution and water.

Leakage of air will be indicated by bubbles.



TASK ENDS HERE

AIR RESERVOIR

This task covers:

- a. Removal (page 4-72)
 - b. Installation (page 4-72)
-

INITIAL SETUP

<p>Tools</p> <p>Handle, reversible, 3/8-inch square drive</p> <p>Socket, 9/16- by 3/8-inch square drive</p> <p>Wrench, open-end, 9/16-inch</p>	<p>Equipment Condition</p> <p>Relay valve removed (page 4-68).</p>
--	--

		ACTION REMARKS
LOCATION	ITEM	

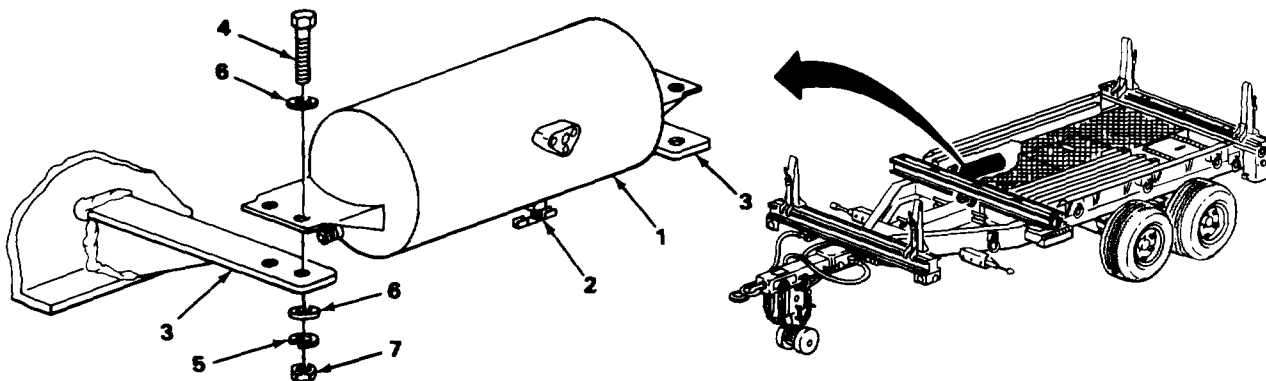
REMOVAL

1. Air reservoir (1)	Draincock (2)	Open.
2. Brackets (3)	Four capscrews (4), four lockwashers (5), eight flat washers (6) and four nuts (7)	Using socket, handle, and wrench, remove.
3.	Air reservoir (1)	Remove from brackets (3).

INSTALLATION

4. Brackets(3)	Air reservoir (1)	Position on top of brackets (3).
5.	Four capscrews (4), four lockwashers (5), eight fiat washers (6), and four nuts (7)	Using socket, handle, and wrench, install.
6. Air reservoir (1)	Draincock (2)	Close.

AIR RESERVOIR - CONTINUED



NOTE

FOLLOW-ON MAINTENANCE: Relay valve installed (page 4-68).

TASK ENDS HERE

AIR FILTER

This task covers:

- a. Repair (page 4-73)
- b. Assembly (page 4-74)
- c. Removal (page 4-75)
- d. Installation (page 4-75)

INITIAL SETUP

Tools

- Wrench, open-end, 7/16-inch
- Wrench, open-end, 5/8-inch
- Wrench, open-end, 11/2-inch

Materials/Parts

- Filter element
- Packing
- Solvent, drycleaning (item 10, appendix E)

LOCATION	ITEM	ACTION	REMARKS
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REPAIR

WARNING

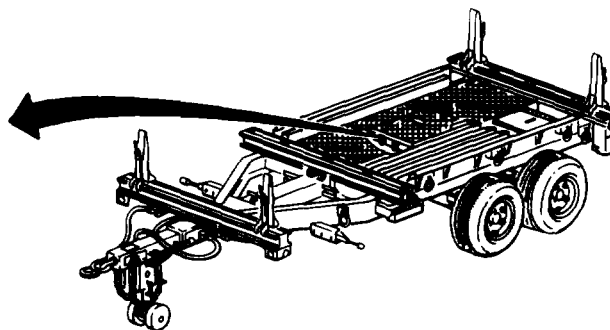
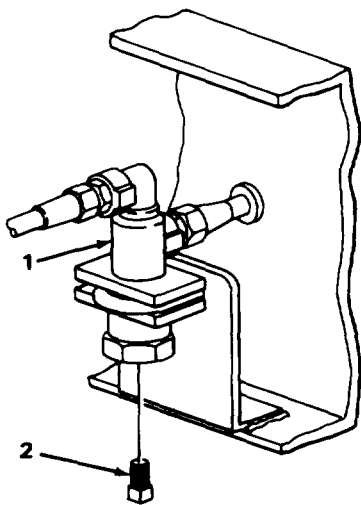
Drycleaning solvent PD-680 is both toxic and flammable, Avoid prolonged breathing of vapors and avoid skin contact. Do not use near open flame or excessive heat. Flash-point of solvent is 138°F (59°C). Serious illness, injury, or loss of life could result from improper use.

AIR FILTER - CONTINUED

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

REPAIR - CONTINUED

- | | | |
|-----------------------|----------|---|
| 1. Filter housing (1) | Plug (2) | Using 7/16-inch wrench, remove.
Allow all water to drain. |
| 2. | Plug (2) | Using 7/16-inch wrench, install. |



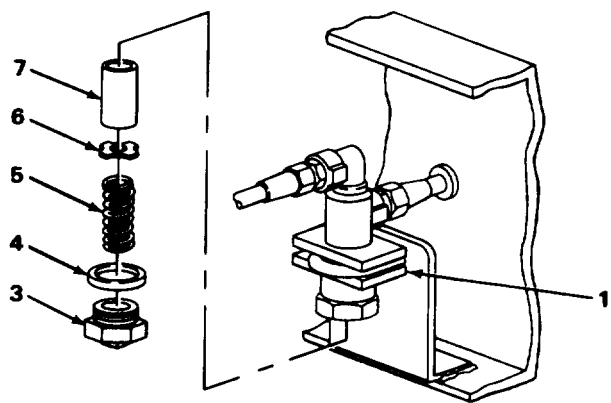
- | | | |
|-----------------------|--|---|
| 3. Filter housing (1) | Nut (3) and packing (4) | Using 1 1/2-inch wrench, remove.
Discard packing (4). |
| 4. | Spring (5), filter element (6), and washer (7) | Remove and, using drycleaning solvent, clean all items.
Discard filter element (6). |

ASSEMBLY

- | | | |
|-----------------------|--|-----------------------------------|
| 5. Filter housing (1) | Spring (5), new filter element (6), and washer (7) | Insert into filter housing (1). |
| 6. | New packing (4) and nut (3) | Using 1 1/2-inch wrench, install. |

AIR FILTER - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
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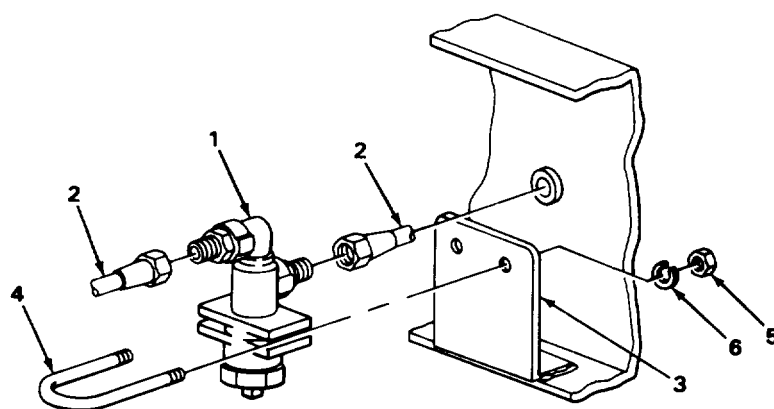


REMOVAL

7. Filter housing (1)	Two lines (2)	Using 5/8-inch wrench, remove.
8. Bracket (3)	U-bolt (4), two nuts (5), two lockwashers (6), and filter housing (1)	Using 7/16-inch wrench, remove.

INSTALLATION

9. Bracket (3)	Filter housing (1), U-bolt (4), two nuts (5) and two lockwashers (6)	Using 7/16-inch wrench, install.
10. Filter housing (1)	Two lines (2)	Using 5/8-inch wrench, install.



NOTE

FOLLOW-ON MAINTENANCE: Test for leaks (page 4-71).
TASK ENDS HERE

GLADHANDS

This task covers:

- a. Removal (page 4-76)
 - b. Installation (page 4-76)
-

INITIAL SETUP

Tools

- Wrench, open-end, 15/16-inch
 - Wrench, open-end, 1 1/16-inch
 - Wrench, open-end, 1 1/8-inch
-

LOCATION	ITEM	ACTION	REMARKS
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REMOVAL

NOTE

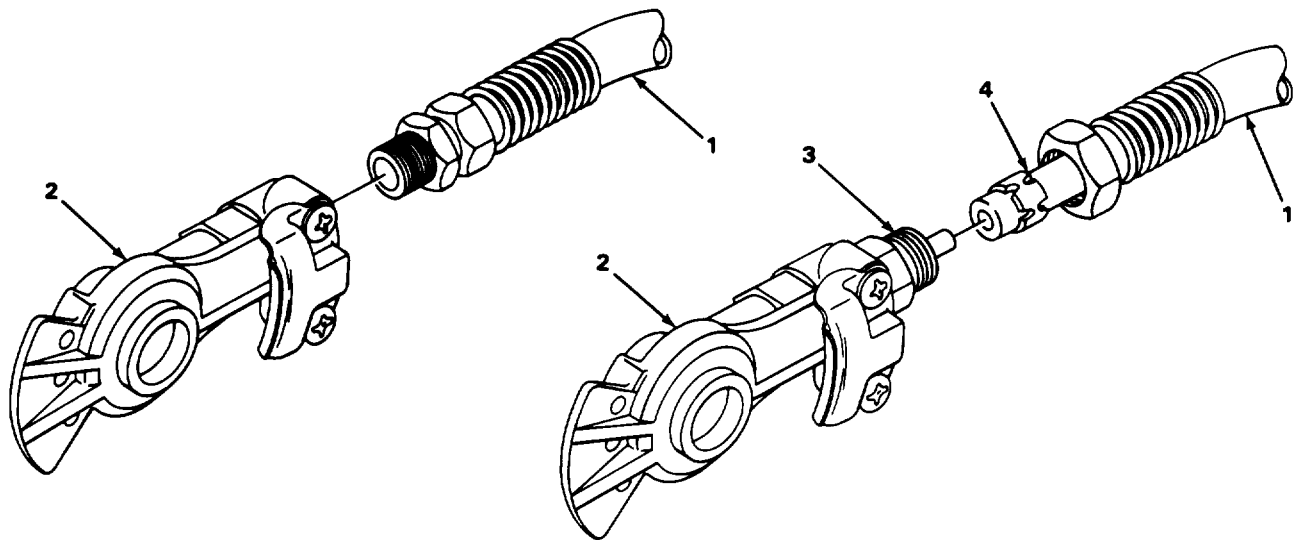
Do steps 1 and 4 when removing an unserviceable gladhand. Do steps 2 and 3 when removing gladhands from an unserviceable hose.

1. Service or emergency airhose (1)	Gladhand (2)	Remove using 15/16- and 1 1/8-inch wrenches.
2.	Gladhand (2) and body (3)	Using 15/16- and 1 1/16-inch wrenches, remove from hose (1).

INSTALLATION

3. Service or emergency hose (1)	Gladhand (2), body (3), and sleeve (4)	Using 15/16- and 1 1/16-inch wrenches, install on hose (1).
4.	Gladhand (2)	Using 15/16- and 1 1/8-inch wrenches, install.

GLADHANDS - CONTINUED



NOTE

FOLLOW-ON MAINTENANCE: Test for leaks (page 4-71).

TASK ENDS HERE

AIRHOSE, INTERVEHICULAR

This task covers:

- a. Removal (page 4-78)
- b. Installation (page 4-78)

INITIAL SETUP

Tools

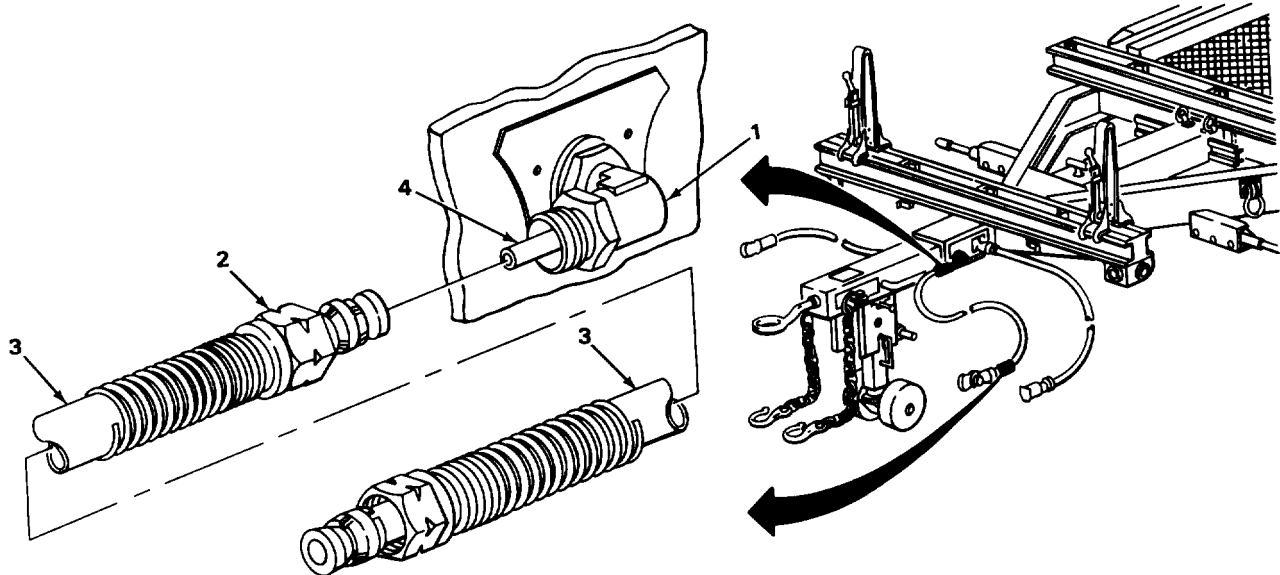
Wrench, open-end, 1-inch
 Wrench, open-end, 1 1/16-inch

Equipment Condition

Gladhand removed (page 4-76).

AIRHOSE, INTERVEHICULAR - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Fitting (1)	Nut (2) and hose (3)	Using 1- and 1 1/16-inch wrenches, remove.
INSTALLATION		
2. Fitting (1)	Hose (3)	Install by sliding hose (3) over guide (4) of fitting (1).
3.	Nut (2)	Using 1- and 1 1/16-inch wrenches, install.



NOTE

FOLLOW-ON MAINTENANCE: Install gladhand (page 4-76).

TASK ENDS HERE

AIRHOSE, REACH TUBE

This task covers:

- a. Removal (page 4-79)
- b. Installation (page 4-81)

INITIAL SETUP

Tools

Handle, reversible, 3/8-inch square drive
 Socket, 7/16- by 3/8-inch square drive

Tools - Continued

Wrench, open-end, 1-inch
 Wrench, open-end, 1 1/16-inch

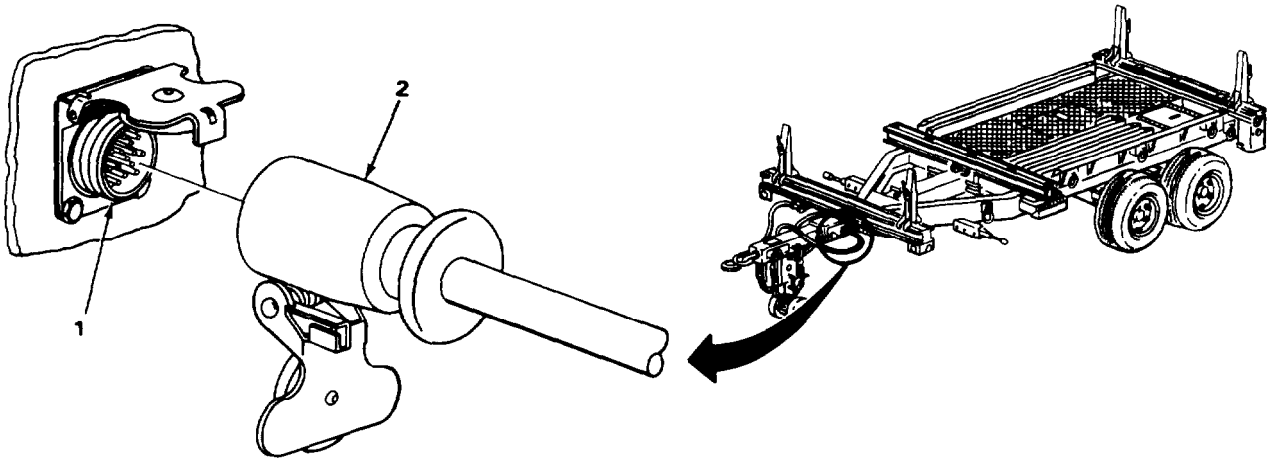
LOCATION	ITEM	ACTION REMARKS
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REMOVAL

1. Receptacle (1)

Intervehicular cable (2)

Disconnect.

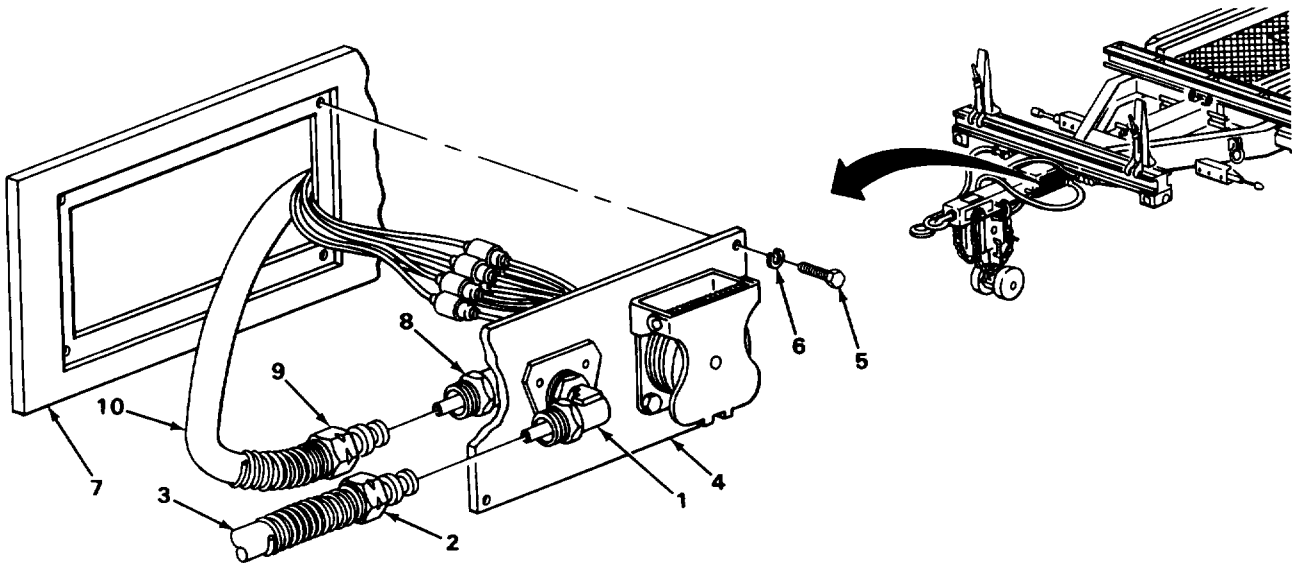


AIRHOSE, REACH TUBE - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL - CONTINUED		
2. Fitting(1)	Nut (2) and hose (3)	Using 1- and 1 1/16-inch wrenches, remove.
3. Plate (4)	Four Capcrews (5) and four lock-washers (6)	Using socket and handle, remove.
4. Reach tube, forward section (7)	Plate (4)	Remove.
5. Fitting (8)	Nut (9) and hose (10)	Using 1- and 1 1/16-inch wrenches, remove.

NOTE

Repeat steps 2 thru 5 for opposite side.



6. Reach tube, rear section (11)	Airhoses (12) and wire harness (13)	Disconnect.
7. Plate (14)	Four capscrews (15), four lockwashers (16), and antirotation bracket (17)	Using socket and handle, remove. Antirotation bracket (17) applies to model M796A1 only.
8. Reach tube, rear section (11)	Plate (14)	Remove.

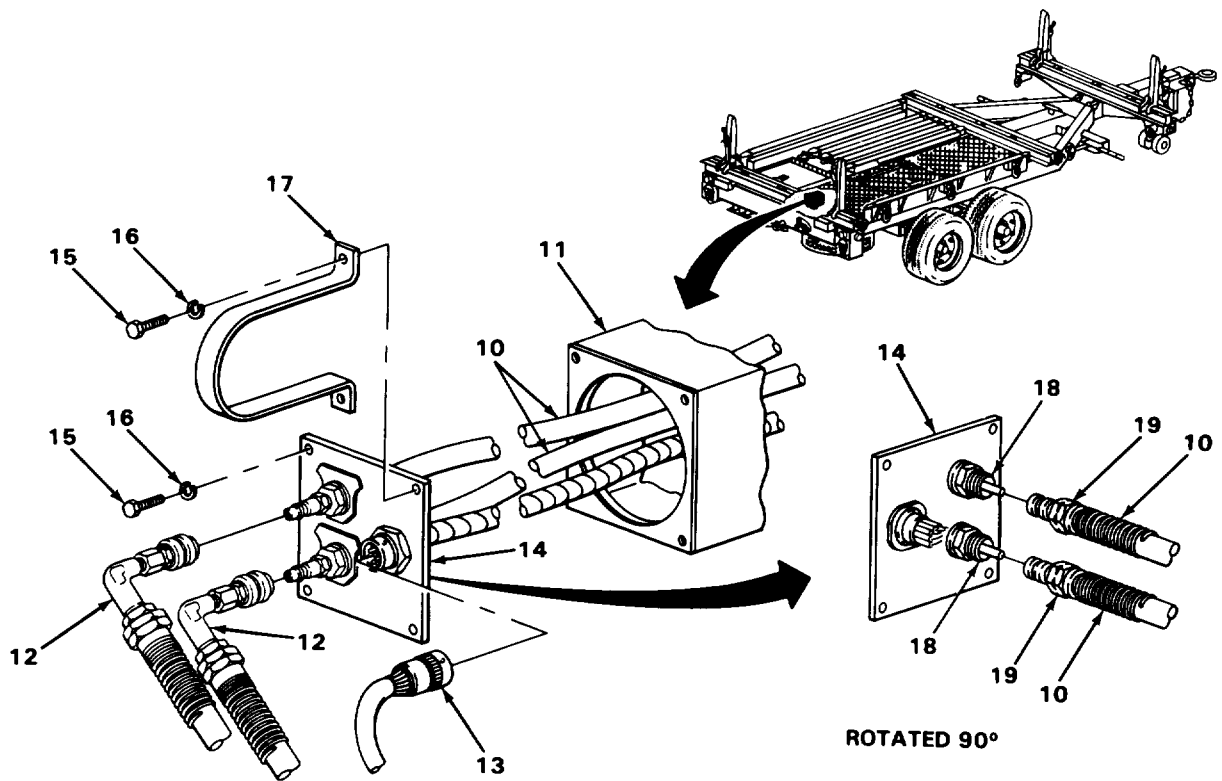
TA224815

AIRHOSE, REACH TUBE - CONTINUED

LOCATION	ITEM	ACTION REMARKS
9. Fittings (18)	Two nuts (19) and two hoses (10)	Using 1- and 1 1/16-inch wrenches, remove.
10. Two hoses (10), both ends	Four nuts (19)	Remove.
11. Reach tube, rear section (11)	Two hoses (10)	Remove.

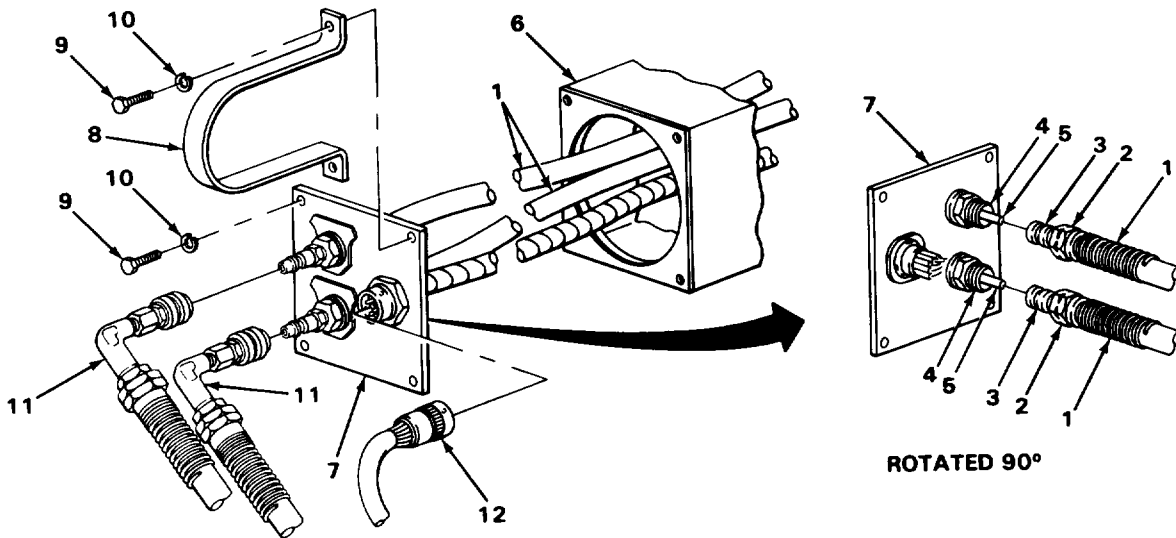
INSTALLATION

12. Reach tube, rear section (11)	Two hoses (10)	Position in reach tube (11).
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AIRHOSE, REACH TUBE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
INSTALLATION – CONTINUED			
13. Two hoses (1)	Two nuts (2) and two sleeves (3)	Position on hoses (1).	
14. Fittings (4)	Two hoses (1)	Install onto guides (5).	
15.	Two nuts (2)	Using 1- and 1 1/16-inch wrenches, install.	
16. Reach tube, rear section (6)	Plate (7) and antirotation bracket (8)	Position and aline mounting holes. Antirotation bracket (8) applies to model M796A1 only.	
17. Plate (7)	Four capscrew (9) and four lockwashers (10)	Using socket and handle, install.	
18. Reach tube, rear section (6)	Two hoses (11) and wire harness (12)	Reconnect.	



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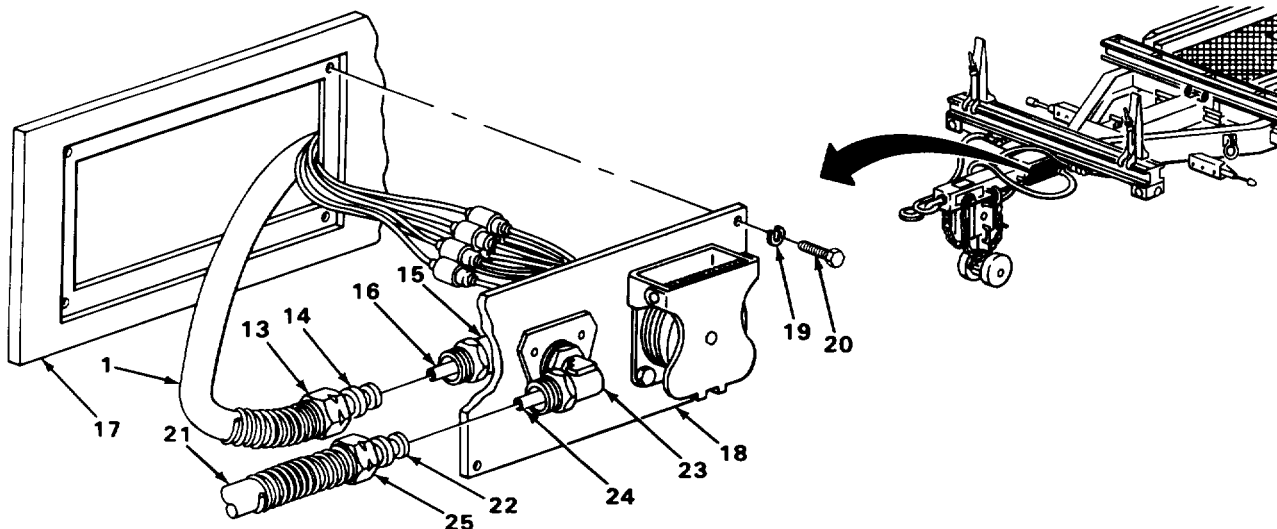
AIRHOSE, REACH TUBE - CONTINUED

LOCATION	ITEM	ACTION REMARKS
19. Hose (1)	Nut (13) and sleeve (14)	Position on hose (1).
20. Fitting (15)	Hose (1)	Install onto guide (16).
21.	Nut (13)	Using 1- and 1 1/16-inch wrenches, install.
22. Reach tube, forward section (17)	Plate (18)	Position, alining mounting holes.
23. Plate (18)	Four lockwashers (19) and four capscrews (20)	Using socket and handle, install.

NOTE

Repeat steps 19 thru 23 for opposite side.

24. Hose (21)	Sleeve (22)	Position on hose (21).
25. Fitting (23)	Hose (21)	Install onto guide (24).
26.	Nut (25)	Using 1- and 1 1/16-inch wrenches, install.



NOTE

FOLLOW-ON MAINTENANCE: Test for leaks (page 4-71).

TASK ENDS HERE

AIRHOSE, REAR SECTION

This task covers:

- | | |
|----------------------------|-----------------------------|
| a. Removal (page 4-84) | c. Assembly (page 4-86) |
| b. Disassembly (page 4-85) | d. Installation (page 4-86) |
-

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
 - Socket, 7/16- by 3/8-inch square drive
 - Wrench, open-end, 3/4-inch
 - Wrench, open-end, 13/16-inch
 - Wrench, open-end, 1-inch
 - Wrench, open-end, 1 1/16-inch
-

LOCATION	ITEM	ACTION	REMARKS
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REMOVAL

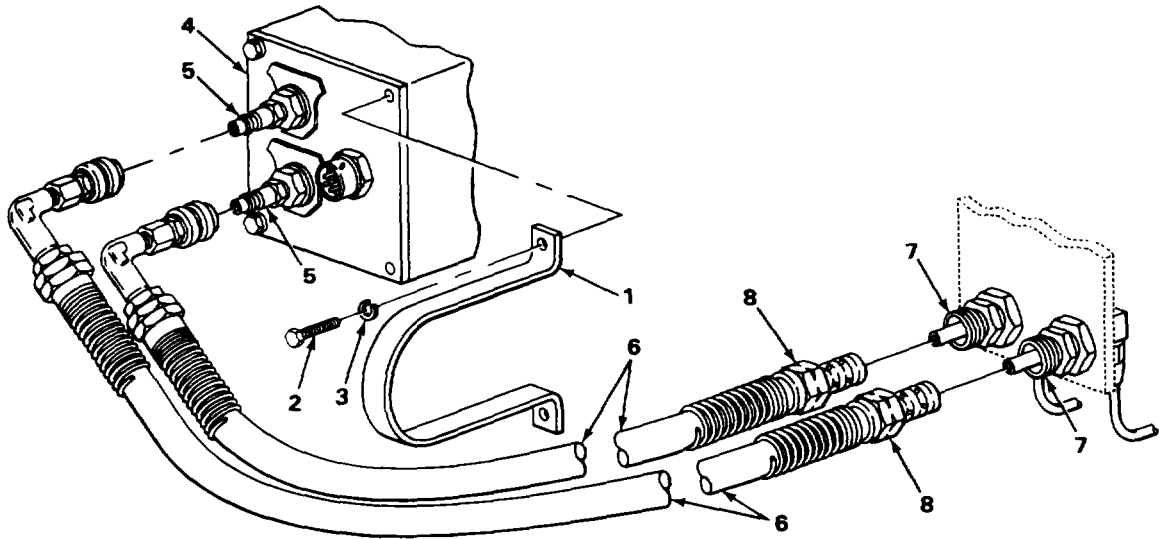
NOTE

Steps 1 and 2 apply to model M796A1 only.

1. Antirotation bracket (1)	Two capscrews (2) and two lockwashers (3)	Using socket and handle, remove.
2. Reach tube, rear section (4)	Antirotation bracket (1)	Remove.
3. Fittings (5)	Two hoses (6)	Disconnect.
4. Fittings (7)	Two nuts (8) and two hoses (6)	Using 1- and 1 1/16-inch wrenches, remove.

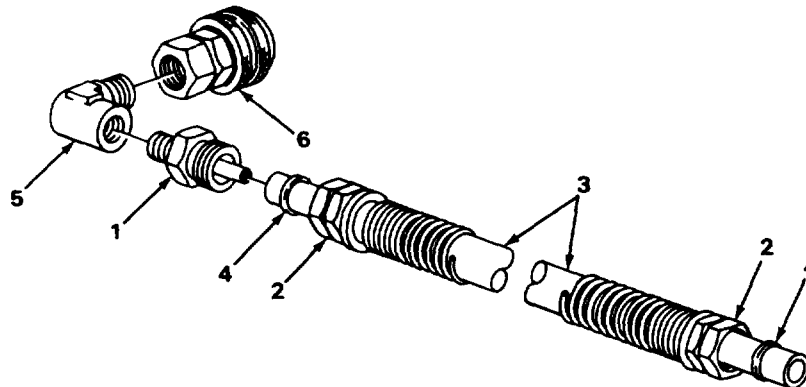
AIRHOSE, REAR SECTION - CONTINUED

LOCATION	ITEM	ACTION REMARKS
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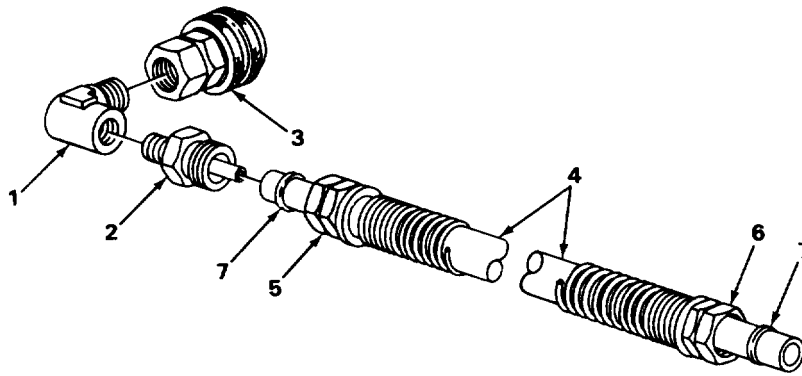
DISASSEMBLY

5. Fitting (1)	Nut (2) and hose (3)	Using 1- and 1 1/16-inch wrenches, remove.
6. Hose (3)	Two sleeves (4) and two nuts (2)	Remove.
7. Elbow (5)	Fitting (1)	Using 13/16- and 1-inch wrenches, remove.
8.	Quick disconnect fitting (6)	Using 3/4- and 13/16-inch wrenches, remove.



AIRHOSE, REAR SECTION - CONTINUED

LOCATION	ITEM	ACTION REMARKS
ASSEMBLY		
9. Elbow (1)	Fitting (2)	Using 13/16- and 1-inch wrenches, install.
10.	Quick disconnect fitting (3)	Using 3/4- and 13/16-inch wrenches, install.
11. Hose (4)	Nuts (5 and 6) and two new sleeves (7)	Position on hose (4).
12. Fitting (2)	Hose (4)	Install.
13.	Nut (5)	Using 1- and 1 1/16-inch wrenches, install.



INSTALLATION

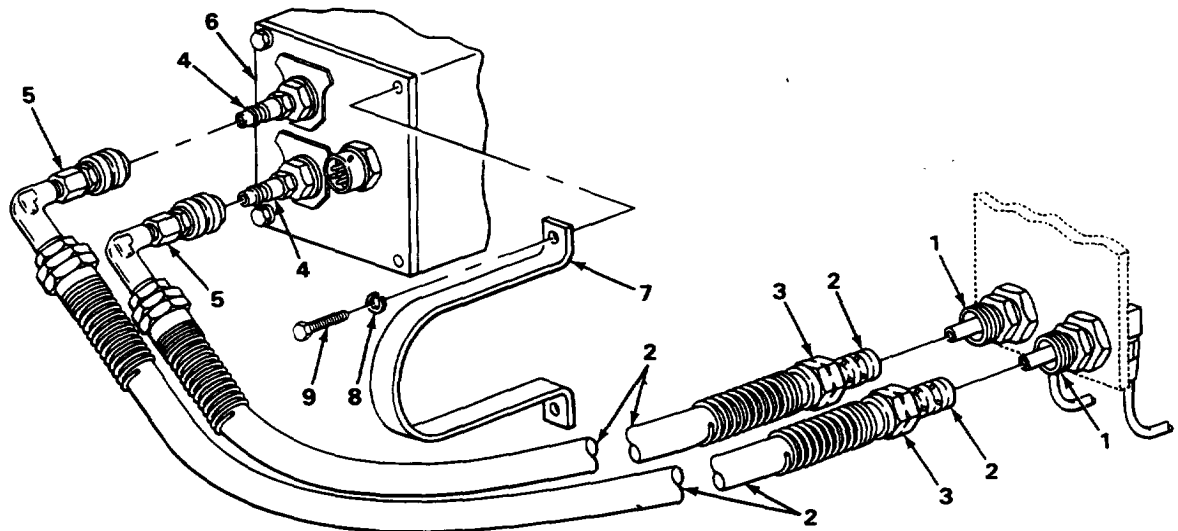
14. Two fittings (1)	Two hoses (2)	Install.
15.	Two nuts (3)	Using 1- and 1 1/16-inch wrenches, install.
16. Two fittings (4)	Two quick disconnect fittings (5)	Connect.

NOTE

Steps 17 and 18 apply to model M796A1 only.

AIRHOSE, REAR SECTION - CONTINUED

LOCATION	ITEM	ACTION REMARKS
17. Reach tube, rear section (6)	Antirotation bracket (7)	Position over hoses (2) and aline mounting holes.
18. Antirotation bracket (7)	Two lockwashers (8) and two capscrews (9)	Using 7/16-inch socket and handle, install.



NOTE

FOLLOW-ON MAINTENANCE: Test for leaks (page 4-71).

TASK ENDS HERE

Section X. WHEELS, HUBS, AND BRAKEDRUMS

	Page	Page	
Hub and Drum Repair (M796)	4-91	Hub and Drum Replacement	4-87
Hub and Drum Repair (M796A1)	4-93	Wheel and Tire	4-95

HUB AND DRUM REPLACEMENT

This task covers:

- a. Removal (page 4-88)
- b. Installation (page 4-89)
- c. Wheel bearing adjustment (page 4-89)

HUB AND DRUM REPLACEMENT – CONTINUED

INITIAL SETUP

Tools	Materials/Parts
Drift	Gasket, as required
Extension, socket-wrench, 3/4-inch square drive	Grease, GAA (item 3, appendix E)
Hammer	Oil seal
Handle, reversible, 1/2-inch square drive	Equipment Condition
Handle, reversible, 3/4-inch square drive	Wheel and tire removed (page 3-5).
Screwdriver, flat-tip	
Socket, wheel-bearing, 3-inch eight point by 3/4-inch square drive (M796)	Socket, wheel bearing, 3-3/8-inch eight point by 3/4-inch square drive (M796A1)
Socket, 3/4- by 1/2-inch square drive	

LOCATION	ITEM	ACTION REMARKS
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REMOVAL

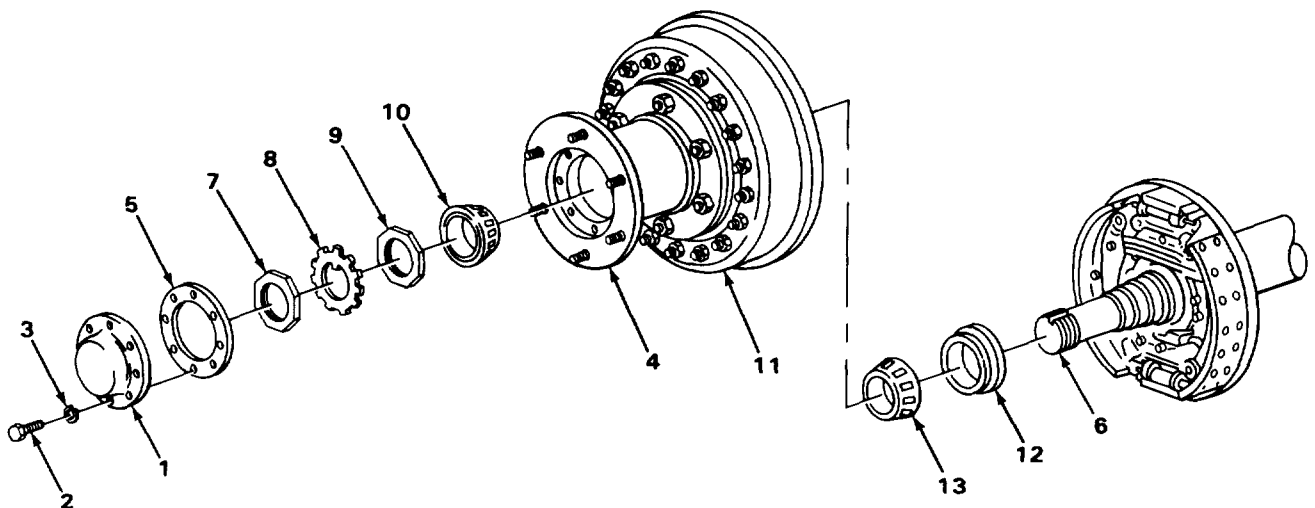
1. Hubcap (1)	Eight capscrews (2) and eight lockwashers (3)	Using 3/4-inch socket, extension, and handle, remove.
2. Hub (4)	Hubcap (1) and gasket (5)	Remove. Discard gasket (5).
3. Spindle (6)	Locknut (7), lock-washer (8), and adjusting nut (9)	Using wheel-bearing socket, remove.
4.	Hub (4)	Rock hub (4) in and out to loosen outer bearing cone (10).
5.	Outer bearing cone (10)	Remove.
6.	Hub (4)	Remove hub (4) with brakedrum (11).
7. Hub (4)	Oil seal (12) and inner bearing cone (13)	Using hammer and drift, remove. Discard oil seal (12).

HUB AND DRUM REPLACEMENT - CONTINUED

LOCATION	ITEM	ACTION REMARKS
INSTALLATION		
8. Hub (4)	Inner bearing cone (13)	a. Clean, inspect, and pack bearing cone (13) with grease. See TM 9-214. b. Position in hub (4).
9.	New oil seal (12)	Using hammer and drift, install new oil seal (12).
10. Spindle (6)	Hub (4)	Install hub (4) on spindle (6). Be careful not to damage or dislodge oil seal (12).
11. Spindle (6)	Outer bearing cone (10)	a. Clean, inspect, and pack bearing cone (10) with grease. See TM 9-214. b. Position on spindle (6) and in hub (4).
12.	Adjusting nut (9)	Using wheel-bearing socket, install loosely.

WHEEL BEARING ADJUSTMENT

- | | | |
|------------------------|--------------------------|---|
| <p>13. Spindle (6)</p> | <p>Adjusting nut (9)</p> | <p>a. Using wheel-bearing socket, tighten slowly while turning hub and drum until a slight drag is felt.</p> <p>b. Back off nut (9) until drag just disappears.</p> <p>c. Ensure that there is no looseness in the bearings by trying to rock the hub and drum.</p> |
|------------------------|--------------------------|---|



HUB AND DRUM REPLACEMENT - CONTINUED

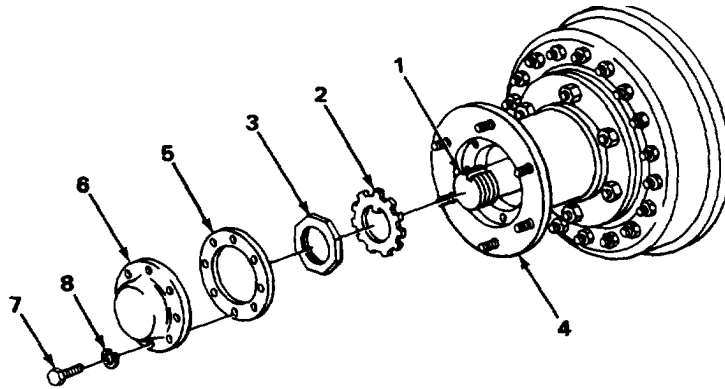
LOCATION	ITEM	ACTION REMARKS
----------	------	-------------------

WHEEL BEARING ADJUSTMENT - CONTINUED

NOTE

If, in step 13, noise or movement is heard or felt, repeat that step.

14. Spindle (1)	Lockwasher (2) and locknut (3)	Using wheel-bearing socket, install.
15. Locknut (3)	Lockwasher (2)	Using screwdriver, bend tab of lockwasher (2) down over flat of locknut (3).
16. Hub (4)	New gasket (5) and hubcap (6)	Position, alining mounting holes.
17. Hubcap (6)	Eight capscrews (7) and eight lockwashers (8)	Using 3/4-inch socket, handle, and extension, install.



NOTE

FOLLOW-ON MAINTENANCE:

1. Install wheel and tire (page 3-5).
2. Adjust brakes (page 4-50).

TASK ENDS HERE

HUB AND DRUM REPAIR (M796)

This task covers:

- a. Disassembly (page 4-91)
- b. Assembly (page 4-92)

INITIAL SETUP

Tools

- Drift, brass
- Hammer, ball-peen
- Handle, reversible, 3/8-inch square drive
- Socket, 9/16- by 3/8-inch square drive

Tools - Continued

- Socket, 3/4- by 3/8-inch square drive
- Wrench, open-end, 9/16-inch

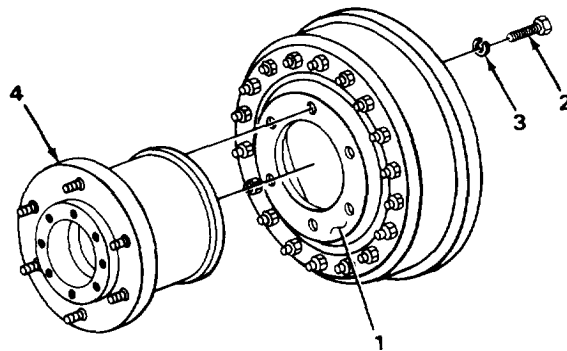
Equipment Condition

Hub and drum removed (page 4-87).

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

DISASSEMBLY

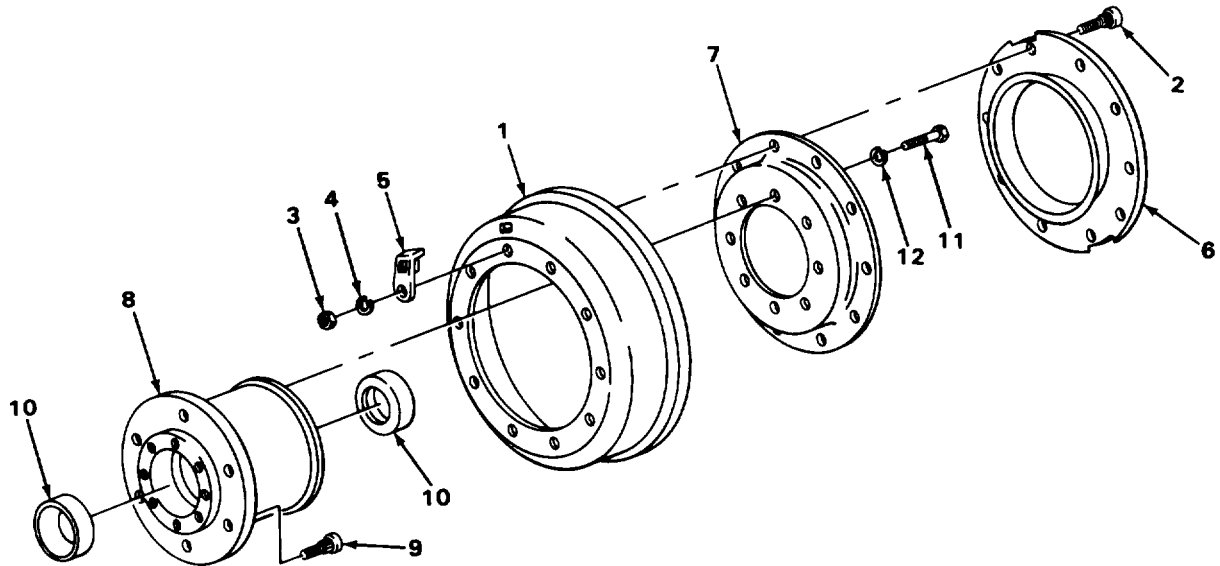
- | | | |
|----------------------|---|---|
| 1. Adapter plate (1) | Eight capscrews (2) and eight lockwashers (3) | Using 3/4-inch socket and handle, remove. |
| 2. | Hub (4) | Remove. |



HUB AND DRUM REPAIR (M796) - CONTINUED

LOCATION	ITEM	ACTION REMARKS
DISASSEMBLY - CONTINUED		
3. Brakedrum (1)	Twelve ribbed bolts (2), twelve nuts (3), twelve lockwashers (4), and cover (5)	a. Using 9/16-inch socket and handle, remove nuts (3). b. Using hammer and drift, remove ribbed bolts (2).
4.	Slinger (6) and adapter plate (7)	Remove.
5. Hub (8)	Six ribbed bolts (9) and two bearing races (10)	a. Using drift and hammer, remove bearing races (10). b. Using hammer, remove ribbed bolts (9).
ASSEMBLY		
6. Hub (8)	Ribbed bolts (9) and two bearings races (10)	Using drift and hammer, remove bearing
7. Brakedrum (1)	Slinger (6) and adapter plate (7)	Position in brakedrum (1) and aline mounting holes.
8.	Twelve ribbed bolts (2), twelve nuts (3), twelve lockwashers (4), and cover (5)	Using 9/16-inch socket, handle, and wrench, install.
9. Hub (8)	Brakedrum (1)	Position, alining mounting holes.
10. Adapter plate (7)	Eight capscrews(11) and eight lockwashers (12)	Using 3/4-inch socket and handle, install.

HUB AND DRUM REPAIR (M796) - CONTINUED



NOTE

FOLLOW-ON MAINTENANCE: Install hub and drum (page 4-87).

TASK ENDS HERE

HUB AND DRUM REPAIR (M796A1)

This task covers:

- a. Disassembly (page 4-94)
- b. Assembly (page 4-94)

INITIAL SETUP

Tools

- Drift, brass
- Hammer, ball-peen
- Handle, reversible, 3/8-inch square drive
- Punch
- Socket, 9/16- by 3/8-inch square drive
- Wrench, box-end, 1 1/4-inch

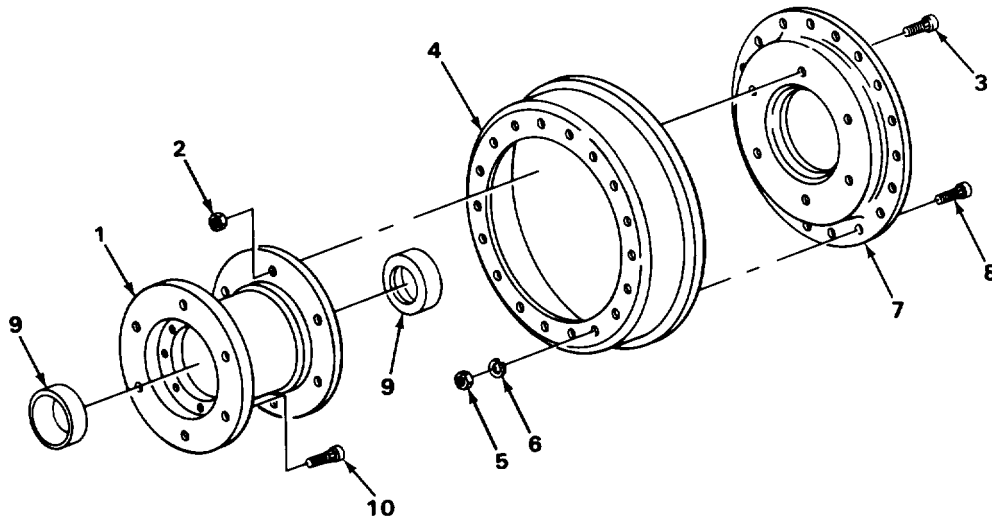
Equipment Condition

Hub and drum removed (page 4-87).

HUB AND DRUM REPAIR (M796A1) - CONTINUED

LOCATION	ITEM	ACTION REMARKS
DISASSEMBLY		
1. Hub(1)	Six nuts (2)	Using 1 1/4-inch wrench, remove.
2.	Six ribbed bolts (3)	Using punch and hammer, remove.
3. Adapter plate (7)	Hub (1)	Remove.
4.	Twelve nuts (5) and twelve lockwashers (6)	Using 9/16-inch socket and handle, remove.
5.	Adapter plate (7)	Remove.
6.	Twelve ribbed bolts (8)	Using punch and hammer, remove ribbed bolts (8) as required.
7. Hub(1)	Two bearing races (9)	Using drift and hammer, remove.
8.	Six ribbed bolts (10)	Using punch and hammer, remove bolts (10) as required.
ASSEMBLY		
9. Hub(1)	Six ribbed bolts (10)	Using punch and hammer, install.
10.	Two bearing races (9)	Using drift and hammer, install.
11. Brakedrum (4)	Adapter plate (7)	Position, alining mounting holes.
12. Adapter plate (7)	Twelve ribbed bolts (8), twelve nut (5), and twelve lockwashers (6)	Using socket and handle, install, Be sure the head of each ribbed bolt (8) is fully seated.
13. Hub(1)	Brakedrum (4)	Position on hub (1) and aline mounting holes.
14.	Six ribbed bolts (3) and six nuts (2)	Using wrench, install.

HUB AND DRUM REPAIR (M796A1) - CONTINUED



NOTE

FOLLOW-ON MAINTENANCE: Install hub and drum (page 4-87).

TASK ENDS HERE

WHEEL AND TIRE

The replacement and repair of wheels and tires will be in accordance with TM 9-2610-200-20, Organizational Care, Maintenance, and Repair of Pneumatic Tires, Inner Tubes, and Radial Tires.

Section XI. FRAME AND TOWING ATTACHMENTS

	Page	Page
Landing Leg	4-95	Spare Wheel Storage Assembly 4-100
Lunette	4-97	
Safety Chains, Lift and Tiedown Rings	4-99	

LANDING LEG

This task covers:

- a. Removal (page 4-96)
- b. Installation (page 4-96)

LANDING LEG - CONTINUED

INITIAL SETUP

Tools

- Handle, reversible, 1/2-inch square drive
- Socket, 1 1/16- by 1/2-inch square drive
- Stand, jack
- Wrench, box-end, 1 1/8-inch

Materials/Parts

- Grease (item 3, appendix E)

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

REMOVAL

NOTE

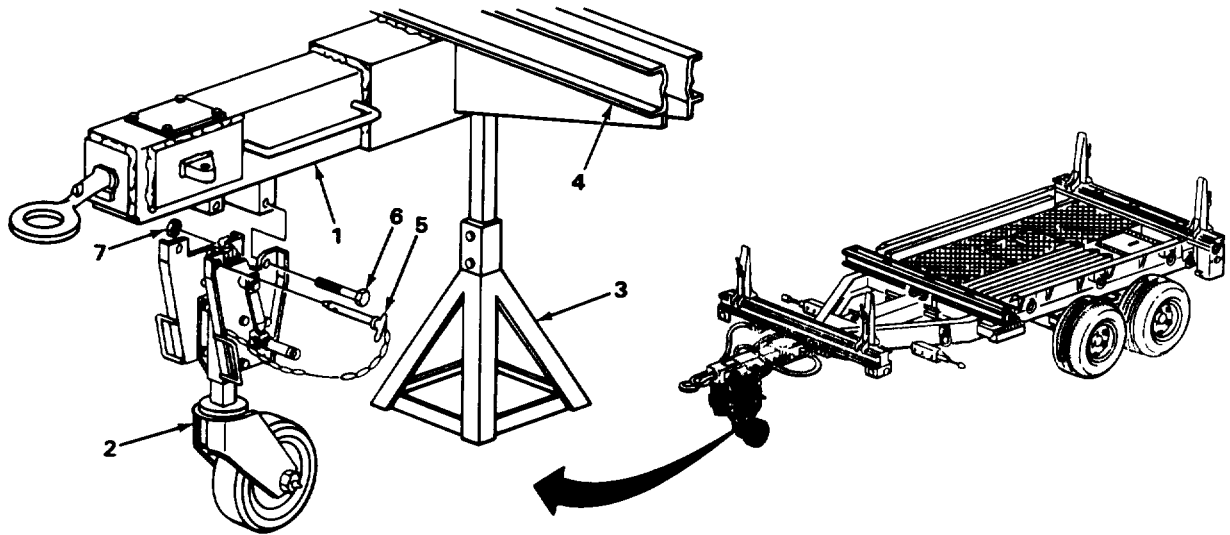
Typical for all models (M796 shown).

- | | | |
|--------------------|--------------------------|--|
| 1. Reach tube (1) | Landing leg (2) | Extend fully. |
| 2. | Jack stand (3) | <ul style="list-style-type: none"> a. Position jack stand (3) under reach tube (1) near forward bolster (4). b. Retract landing leg (2), allowing weight of trailer to rest on jack stand (3). |
| 3. Landing leg (2) | Down lockpin (5) | Remove. |
| 4. | Capscrew (6) and nut (7) | Using socket, handle, and wrench, remove.
Support landing leg (2). |
| 5. Reach tube (1) | Landing leg (2) | Remove. |

INSTALLATION

- | | | |
|--------------------|---|--|
| 6. Reach tube (1) | Landing leg (2) | Position landing leg (2) and aline mounting hole. |
| 7. Landing leg (2) | Capscrew (6), nut (7), and down lockpin (5) | <ul style="list-style-type: none"> a. Apply a light coat of grease to capscrew (6). b. Using socket, handle, and wrench, install capscrew (6) and nut (7).
Landing leg (2) must swing freely. c. Install down lockpin (5). |
| 8. Reach tube (1) | Landing leg (2) | Extend fully and remove jack stand (3). |

LANDING LEG - CONTINUED



TASK ENDS HERE

LUNETTE

This task covers:

- a. Removal (page 4-98)
 - b. Installation (page 4-98)
-

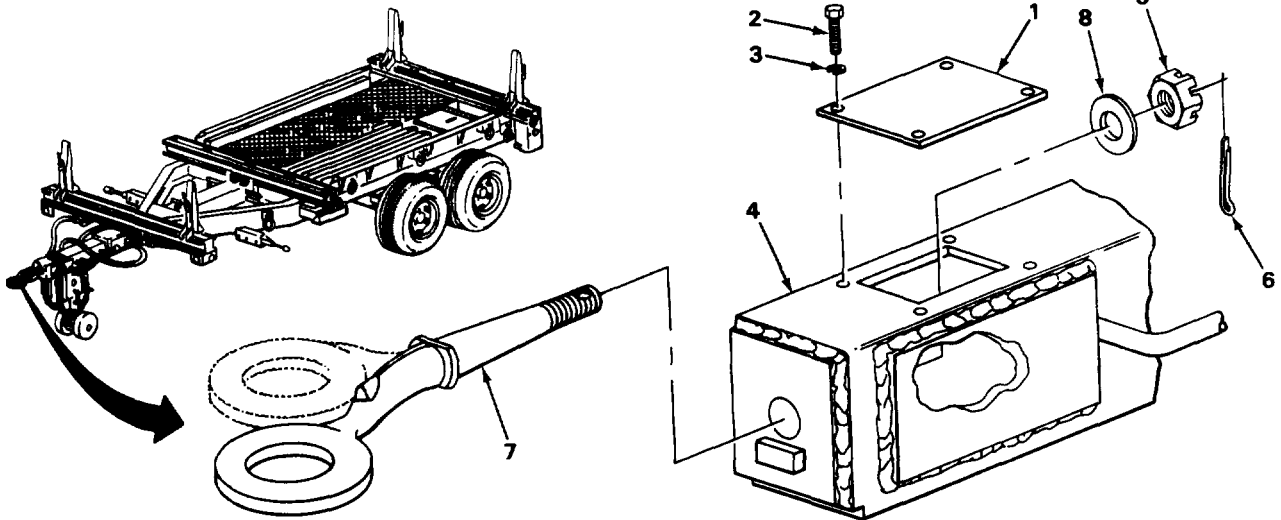
INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
- Pliers, diagonal-cutting
- Socket, 7/16- by 3/8-inch square drive
- Wrench, open-end, 1 1/2-inch

LUNETTE - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
REMOVAL			
1. Cover plate (1)	Four capscrews (2) and four lockwashers (3)	Using socket and handle, remove.	
2. Reach tube(4)	Cover plate (1)	Remove.	
3. Nut(5)	Cotter pin (6)	Using pliers, remove.	
4. Lunette (7)	Nut (5) and flat washer (8)	Using wrench, remove.	
5. Reach tube (4)	Lunette (7)	Remove.	
INSTALLATION			
6. Lunette (7)	Flat washer (8) and nut (5)	Using wrench, install and aline cotter pinhole.	
7. Nut (5)	Cotter pin (6)	Using pliers, install cotter pin (6) and bend ends over.	
6. Reach tube (4)	Cover plate (1)	Position, alining mounting holes.	
g. Cover plate (1)	Four capscrews (2) and four lockwashers (3)	Using socket and handle, install.	



TASK ENDS HERE

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SAFETY CHAINS, LIFT AND TIEDOWN RINGS

This task covers:

- a. Removal (page 4-99)
- b. Installation (page 4-99)

INITIAL SETUP

Tools

- Handle, reversible, 1/2-inch square drive
- Socket, 1 1/8- by 1/2-inch square drive
- Wrench, box-end, 1 1/8-inch

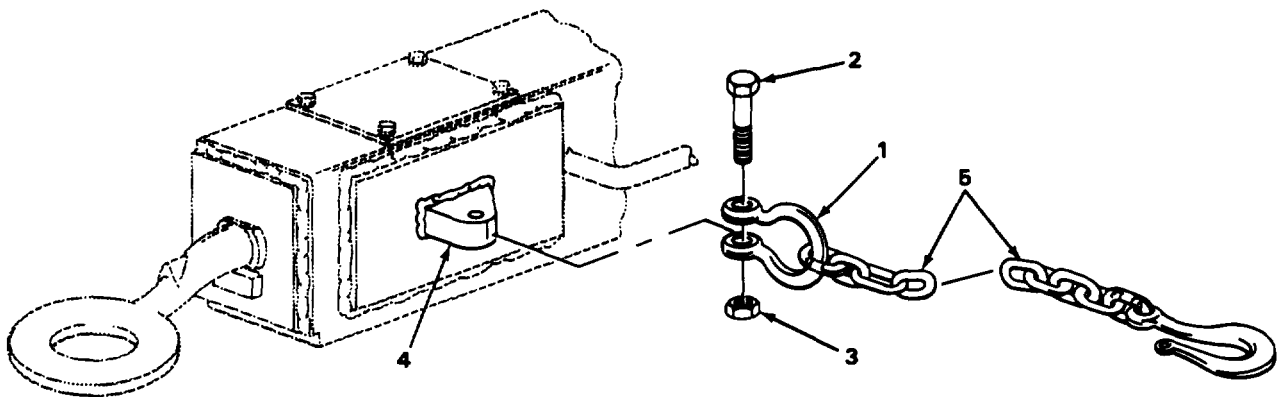
LOCATION	ITEM	ACTION REMARKS
----------	------	-------------------

REMOVAL

- | | | |
|---------------------------|---------------------------------------|---|
| 1. Tiedown ring (1) | Capscrew (2) and nut (3) | Using socket, handle, and wrench, remove. |
| 2. Tiedown ring mount (4) | Tiedown ring (1) and safety chain (5) | Remove. |

INSTALLATION

- | | | |
|---------------------------|---------------------------------------|--|
| 3. Tiedown ring mount (4) | Tiedown ring (1) and safety chain (5) | Position, alining mounting holes. |
| 4. Tiedown ring (1) | Capscrew (2) and nut (3) | Using socket, handle, and wrench, install. |



TASK ENDS HERE

SPARE WHEEL STORAGE ASSEMBLY

This task covers:

- a. Disassembly (page 4-100)
 - b. Assembly (page 4-101)
-

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
- Pliers, diagonal-cutting
- Socket, 7/16- by 3/8-inch square drive
- Socket, 3/4- by 318-inch square drive
- Wrench, socket-head, 1/8-inch
- Wrench, open-end, 7/8-inch

Materials/Parts

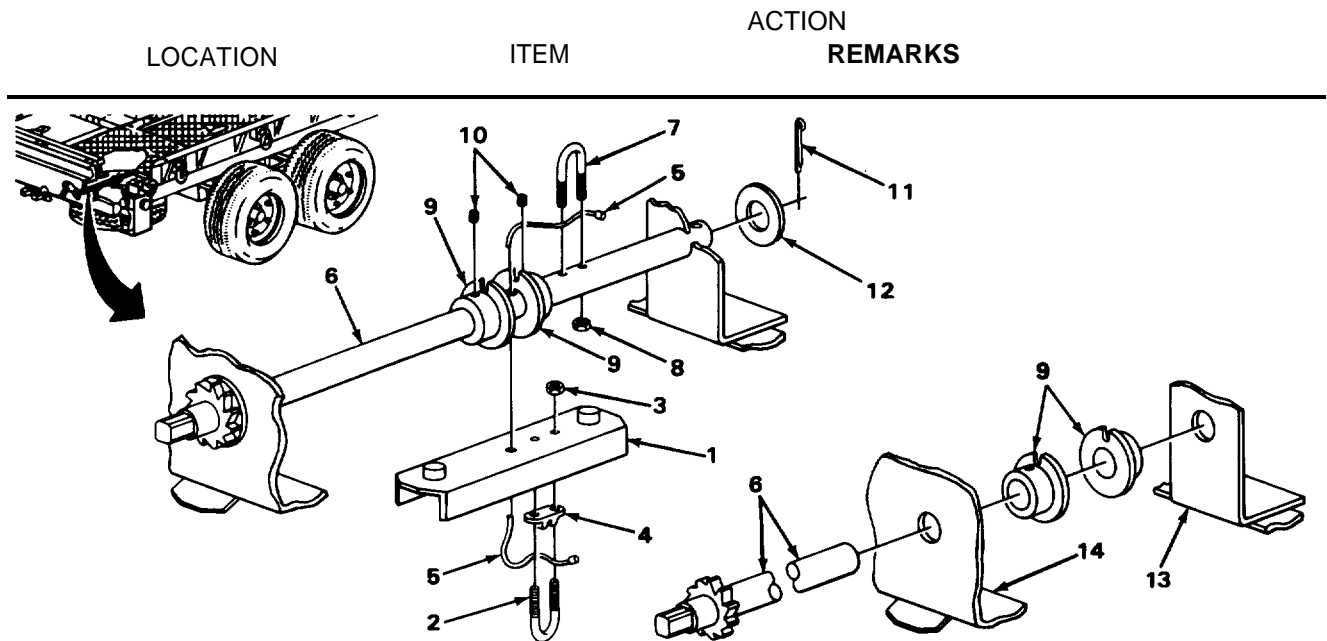
- Cotter pin
 - Equipment Condition
 - Spare wheel removed (page 3-7).
-

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

DISASSEMBLY

- | | | |
|-----------------|---|---|
| 1. Member (1) | U-bolt (2), two nuts (3), clip (4), and cable (5) | Using 7/16-inch socket and handle, remove. |
| 2. Shaft (6) | U-bolt (7), two nuts (8), and cable (5) | Using 7/16-inch socket and handle, remove. |
| 3. Flanges (9) | Two setscrews (10) | Using socket-head wrench, loosen. |
| 4. Shaft (6) | Cotter pin (11) and washer (12) | Using pliers, remove. |
| 5. Bracket (13) | Shaft (6) and two flanges (9) | a. Remove shaft (6) from bracket (13).
b. Remove flanges (9) from shaft (6). |
| 6. Frame (14) | Shaft (6) | Remove. |

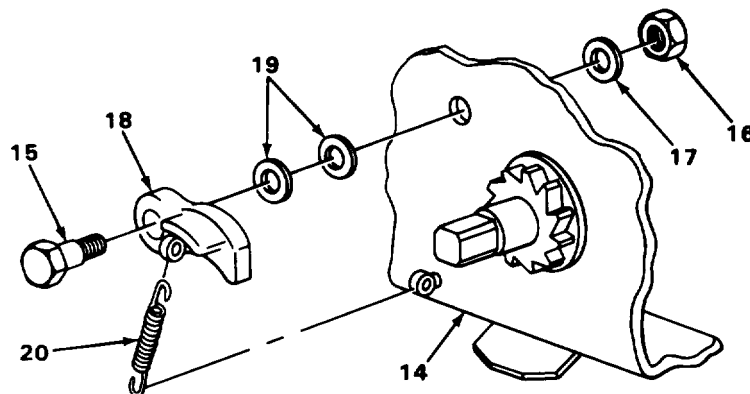
SPARE WHEEL STORAGE ASSEMBLY - CONTINUED



- | LOCATION | ITEM | ACTION
REMARKS |
|----------------------|---|---|
| 7. Shoulder bolt(15) | Nut (16) and lockwasher(17) | Using 3/4-inch socket, handle, and open-end wrench, remove. |
| 8. Frame (14) | Pawl (18), shoulder bolt (15), two flat washers (19), and spring (20) | Remove. |

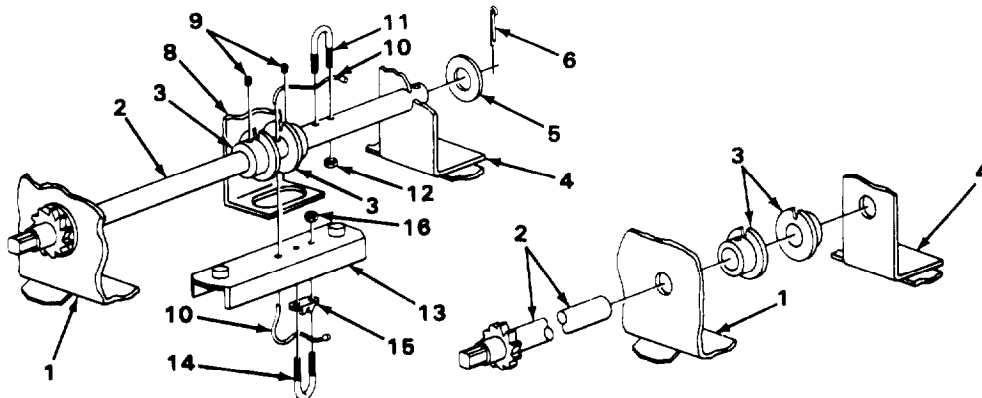
ASSEMBLY

- | | | |
|---------------|---|---|
| 9. Frame (14) | Pawl (18), two flat washers (19), and spring (20) | a. Hook spring (20) on frame (14).
b. Position pawl (18) and washers (19) and align mounting hole. |
| 10. Pawl (18) | Shoulder bolt (15), nut (16), and lockwasher (17) | Using 3/4-inch socket, handle, and open-end wrench, Install. |



SPARE WHEEL STORAGE ASSEMBLY- CONTINUED

LOCATION	ITEM	ACTION REMARKS
ASSEMBLY – CONTINUED		
11. Frame (1)	Shaft (2) and two flanges (3)	Insert shaft (2) through frame (1). Install flanges (3) on shaft (2) with flat sides facing each other.
12. Bracket (4)	Shaft (2), washer (5), and cotter pin (6)	Install shaft (2) in bracket (4). Using pliers, install washer(5) and cotter pin (6) on shaft.
13. Shaft (2)	Flanges (3) and two setscrews (7)	Position flanges (3) with flat sides alined with inside edge of cable guide (8). Using socket-head wrench, tighten setscrews (9).
14.	Cable (10), U-bolt (11), and two nuts (12)	Install cable (10) through guide (8) and thread through shaft (2). Using 7/16-inch socket and handle, install U-bolt (11) and nuts (12), clamping cable (10) to shaft (2).
15. Member (13)	Cable (10), U-bolt (14), clip (15), and two nuts (16)	Pass cable (10) through member (13) and between clip (15) and U-bolt (14). Using 7/16-inch socket and handle, install U-bolt (14) and nuts (16).



NOTE

FOLLOW-ON MAINTENANCE: Install spare wheel (page 3-7).

TASK ENDS HERE

Section XII. SPRINGS

	Page		Page
Springs	4-103	Spring Bumper	4-105

SPRINGS

This task covers:

- a. Removal (page 4-103)
- b. Installation (page 4-104)

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
- Handle, reversible, 1/2-inch square drive
- Jack, hydraulic
- Socket, 3/4- by 3/8-inch square drive

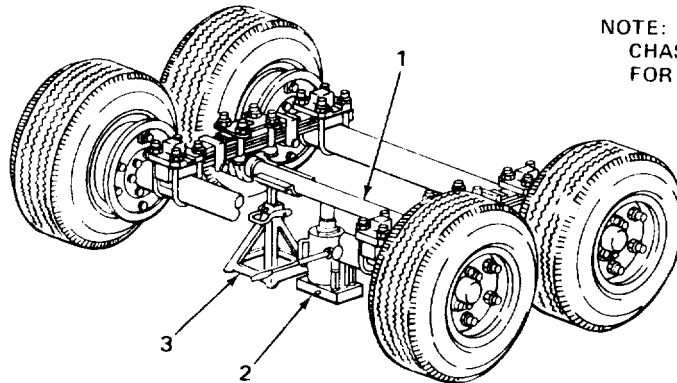
Tools – Continued

- Socket, 15/16- by 3/8-inch square drive
- Socket, 1 1/8- by 1/2-inch square drive
- Stand, jack
- Wrench, box-end, 1 1/8-inch

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

REMOVAL

- | | | |
|----------------------|--------------------|---|
| 1. Trunnion axle (1) | Hydraulic jack (2) | <ul style="list-style-type: none"> a. Using hydraulic jack, lift axle enough to remove weight of trailer from wheels. <li style="padding-left: 20px;">Tires should remain on the ground. b. Support axle (1) with jack stand (3). |
|----------------------|--------------------|---|



NOTE:
CHASSIS REMOVED
FOR CLARITY.

SPRINGS - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL- CONTINUED		
2. Trunnion axle (1)	Four bolts (2) and eight nuts (3)	Using 1 1/8-inch socket, handle with 1/2-inch square drive, and wrench, remove.
3. Spring (4)	Plate (5)	Remove.
4. Two wheel axles (6)	Four U-bolts (7) and sixteen nuts (8)	Using 15/16-inch socket and handle with 3/8-inch square drive, remove.
5. Two covers (9)	Four nuts (10) and four lockwashers(11)	Using 3/4-inch socket and handle with 3/8-inch square drive, remove.
6. Two shackle boxes (12)	Two covers (9), eight spacers (13), and spring (4)	Remove.

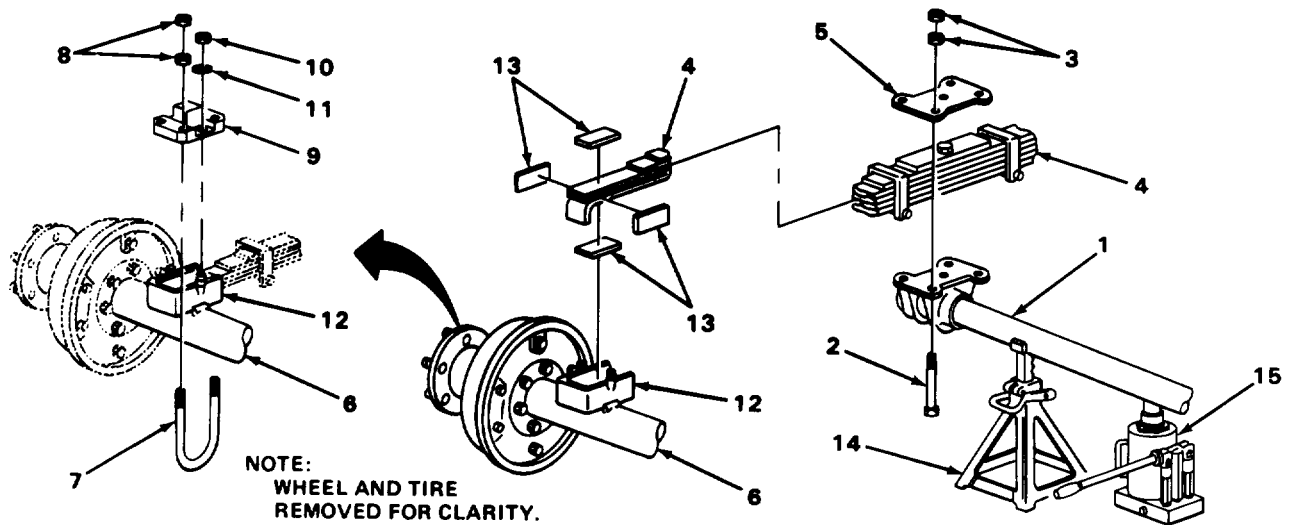
INSTALLATION

NOTE

Trailer model M796A1 will have two extra spacers in the shackle boxes that must be properly positioned during spring installation.

7. Two shackle boxes (12)	Spring (4), eight spacers (13), and two covers (9)	a. Position spring (4) and spacers (13) in shackle boxes (12). b. Position and aline covers (9) on shackle boxes (12).
8. Two covers (9)	Four lockwashers (11) and four nuts (10)	Using 3/4-inch socket and handle with 3/8-inch square drive, install.
9. Two wheel axles (6)	Four U-bolts (7) and sixteen nuts (8)	Using 15/16-inch socket and handle with 3/8-inch square drive, install.
10. Spring (4)	Trunnion axle (1) and plate (5)	Position on spring (4).
11. Trunnion axle (1)	Four bolts (2) and eight nuts (3)	Using 1 1/8-inch socket, handle with 3/8-inch square drive, and wrench, install.
12.	Jack stand (14)	Using hydraulic jack (15), remove.

SPRINGS - CONTINUED



TASK ENDS HERE

SPRING BUMPER

This task covers:

- a. Removal (page 4-108)
- b. Installation (page 4-108)

INITIAL SETUP

Tools

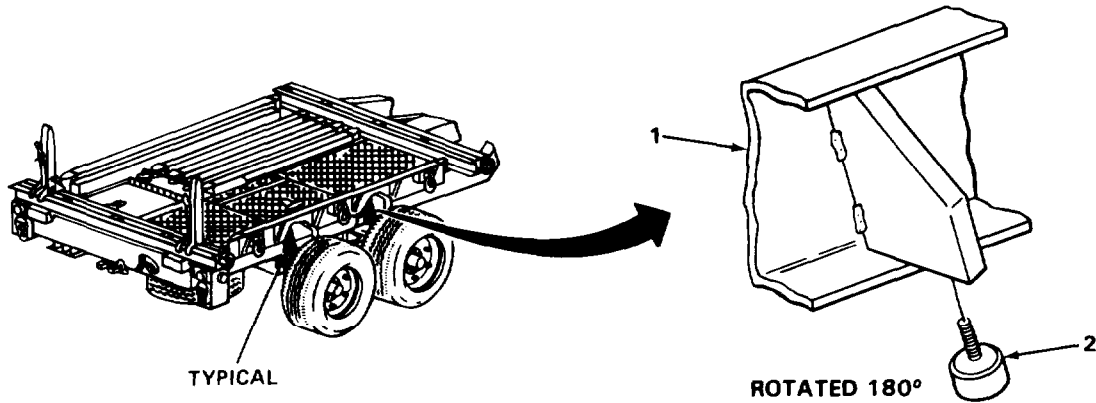
Pliers, channel-lock

Materials/Parts

Spring bumper

SPRING BUMPER - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
REMOVAL			
1. Frame (1)	Bumper (2)	Using pliers, unscrew bumper (2).	
INSTALLATION			
2. Frame (1)	Bumper (2)	Install and tighten bumper (2) by hand.	



TASK ENDS HERE

Section XIII. MISCELLANEOUS ACCESSORIES

	Page		Page
Plate, Vehicle Data	4-107	Reflectors	4-106

REFLECTORS

This task covers:

- a. Removal (page 4-107)
- b. Installation (page 4-107)

INITIAL SETUP

Tools

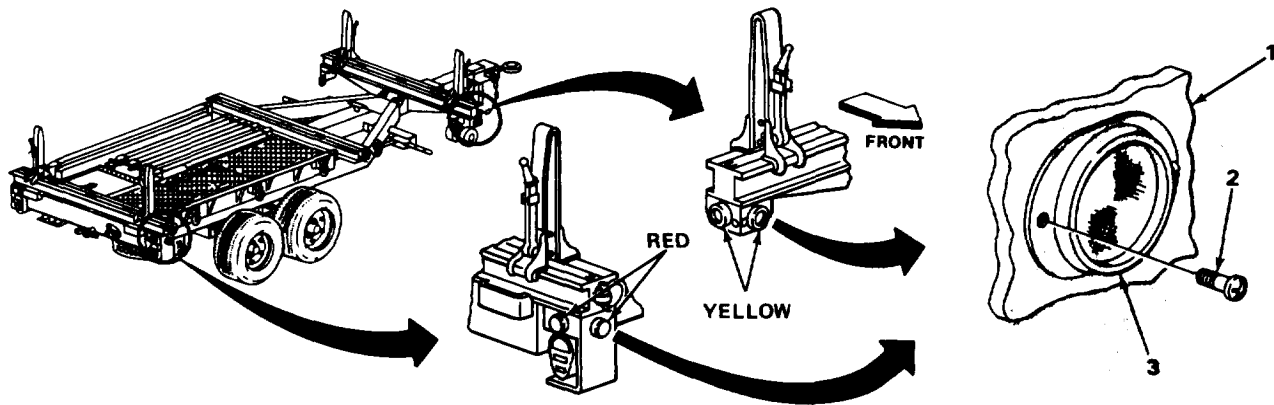
Screwdriver, cross-tip

Materials/Parts

Screws (as required)

REFLECTORS - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
1. Frame (1)	Two screws (2) and reflector (3)	Using screwdriver, remove.
INSTALLATION		
2. Frame (1)	Reflector (3)	Position red reflector (3) at rear of trailer and yellow reflector (3) at front of trailer.
3. Reflector(3)	Two screws (2)	Using screwdriver, install.



TASK ENDS HERE

PLATE, VEHICLE DATA

This task covers:

- a. Removal (page 4-108)
- b. Installation (page 4-108)

INITIAL SETUP

Tools

Drill, bit, twist, 3/8-inch
 Drill, electric, portable, 1/2-inch size
 Hammer, ball-peen
 Punch
 Screwdriver, flat-tip

Materials/Parts

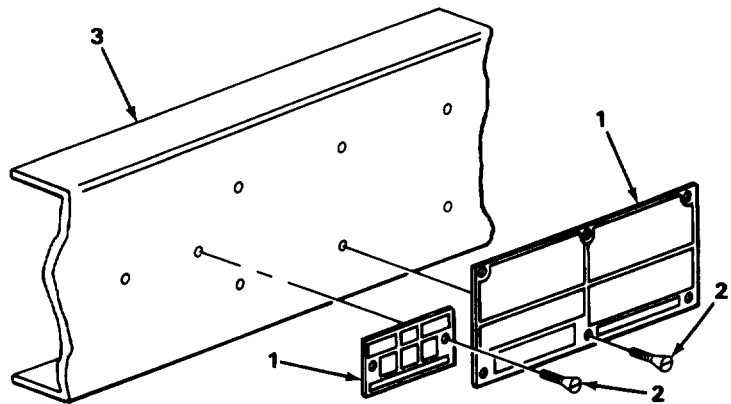
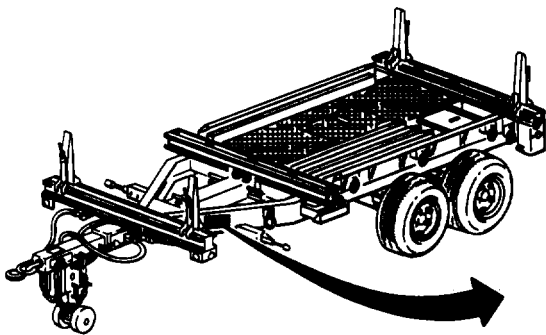
Drivescrews (as required)

PLATE, VEHICLE DATA - CONTINUED

LOCATION	ITEM	ACTION REMARKS
REMOVAL		
NOTE		
If trailer is equipped with drivescrews, omit steps 2 and 5. If trailer is equipped with self-tapping machine screws, omit steps 1 and 6.		
1. Data plate (1)	Drivescrews (2)	a. Using drill, drill off head of screws (2). b. Using punch and hammer, drive out stem of screw (2).
2. Data plate (1)	Screws (2)	Using screwdriver, remove.
3. Frame (3)	Data plate (1)	Remove.

INSTALLATION

- | | | |
|-------------------|-----------------|-----------------------------------|
| 4. Frame (3) | Data plate (1) | Position, alining mounting holes. |
| 5. Data plate (1) | Screws (2) | Using screwdriver, install. |
| 6. Data plate (1) | Drivescrews (2) | Using hammer, install. |



TASK ENDS HERE

CHAPTER 5

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE

OVERVIEW

This chapter contains information covering repair parts, special tools; test, measurement, and diagnostic equipment (TMDE); support equipment; and direct support and general support maintenance instructions for the bolster trailer.

Each maintenance section provides instructions for direct support and general support maintenance personnel. The following initial setup information applies to all procedures.

Resources required are not listed unless they apply to the procedure.

Personnel are listed only if the task requires more than one technician. If Personnel Required is not listed, one technician can do the task.

The normal standard equipment condition to start a maintenance task is power off. Equipment condition is not listed unless some other condition is required.

		Page
Section I.	Repair Parts, Special Tools; Test, Measurement, and Diagnostic Equipment (TMDE); and Support Equipment	5-1
Section II.	Maintenance Procedures	5-2

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

	Page		Page
Common Tools and Equipment	5-1	Special Tools, TMDE, and Support Equipment	5-1
Repair Parts	5-1		

COMMON TOOLS AND EQUIPMENT

Refer to the Modified Table of Organization and Equipment (MTOE) for authorized common tools and equipment applicable to your unit.

SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

No special tools, TMDE, or support equipment are required to maintain the trailer.

REPAIR PARTS

Repair parts are listed and illustrated in appendix F.

Section II. MAINTENANCE PROCEDURES

	Page		Page
Brakedrum Repair	5-3	Landing Leg Repair (M796A1)	5-12
Brakeshoe Repair	5-2	Pipe Retainer Kit Repair	5-15
Frame Repair	5-5	Tire Repair	5 - 5
Landing Leg Repair (M796)	5-5		

BRAKESHOE REPAIR

This task covers:

- | | |
|---|--|
| <ul style="list-style-type: none"> a. Disassembly (page 5-2) b. Cleaning (page 5-2) | <ul style="list-style-type: none"> c. Inspection (page 5-3) d. Assembly (Page 5-3) |
|---|--|
-

INITIAL SETUP

Tools

Reliner, brake and clutch

Equipment Condition

Brakeshoes removed (page 4-46).

Materials/parts

Linings, 8 each
Rivets, 112 each

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

WARNING

All components of the service brake assembly will be coated with asbestos dust from the brake linings. Wear a filter mask whenever handling any assembly components. The breathing of asbestos dust is an extreme health hazard.

DISASSEMBLY

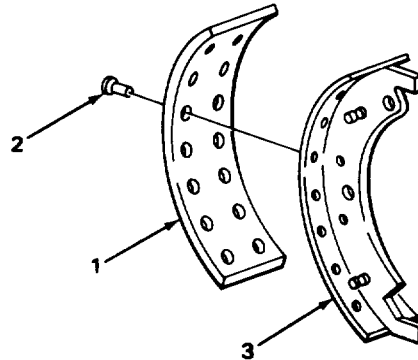
- | | | |
|---|--|---|
| <ul style="list-style-type: none"> 1. Shoe (1) | <ul style="list-style-type: none"> Fourteen rivets (2) and lining (3) | <ul style="list-style-type: none"> Using brake reliner, remove. Discard rivets (2) and lining (3). |
|---|--|---|

CLEANING

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> 2. | <ul style="list-style-type: none"> Shoe (1) | <ul style="list-style-type: none"> Clean in accordance with cleaning instructions (page 4-15). |
|--|--|---|

BRAKESHOE REPAIR - CONTINUED

LOCATION	ITEM	ACTION REMARKS
INSPECTION		
3.	Shoe (1)	a . Inspect for cracks and distortions. b . Inspect all holes for excessive wear. Discard bad shoe (1).
ASSEMBLY		
4. Shoe (1)	Lining (3)	Position, alining mounting holes.
5. Lining (3)	Fourteen rivets (2)	Using brake reliner, install.



TASK ENDS HERE

BRAKEDRUM REPAIR

This task covers:

- a. Inspection (page 5-4)
- b. Repair (page 5-4)

INITIAL SETUP

Tools

Inside micrometer, 15-to 16-inch
Lathe, brakedrum cutting

Equipment Condition

Wheel hub and brakedrum removed
(page 4-87).

BRAKEDRUM REPAIR - CONTINUED

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

WARNING

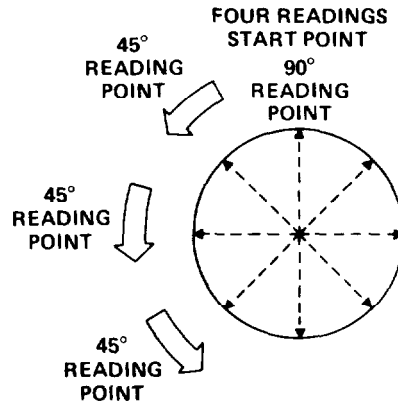
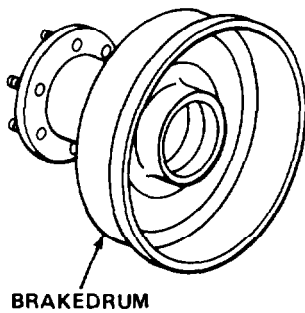
All components of the service brake assembly will be coated with asbestos dust from the brake linings. Wear a filter mask whenever handling any assembly components. The breathing of asbestos dust is an extreme health hazard.

INSPECTION

- | | | | |
|----|-----------|---|--|
| 1. | Brakedrum | a. Inspect for warpage, cracks, checking, or scoring.
Discard drum if cracked, or if scoring is deeper than 1/16 inch (0.159 centimeter).
b. Using inside micrometer, check inside diameter of drum at four locations, 45 degrees apart.
Discard drum if out-of-round, requiring removal of more than 1/16 inch (0.159 centimeter) of metal. | |
|----|-----------|---|--|

REPAIR

- | | | | |
|----|-----------|--|--|
| 2. | Brakedrum | Reface braking surface using a brakedrum lathe.
Remove a maximum of 0.01 inch (0.0254 centimeter) per cut. Discard drum if inside diameter exceeds 15.23 inches (38.68 centimeters). | |
|----|-----------|--|--|



BRAKEDRUM REPAIR - CONTINUED**NOTE**

FOLLOW-ON MAINTENANCE: Install hub and drum (page 4-87).

TASK ENDS HERE**TIRE REPAIR**

Repair of tires will be accomplished in accordance with TM 9-2610-200-20, Organizational Care, Maintenance, and Repair of Pneumatic Tires, Inner Tubes, and Radial Tires.

FRAME REPAIR

Repair of frames will be accomplished in accordance with TB 9-2300-247-40, Tactical Wheeled Vehicles: Repair of Frames.

LANDING LEG REPAIR (M796)

This task covers:

- a. Disassembly (page 5-6)
- b. Assembly (page 5-8)

INITIAL SETUP**Tools**

Hammer, ball-peen
 Handle, reversible, 3/8-inch square drive
 Handle, reversible, 1/2-inch square drive
 Pliers, diagonal cutting
 Punch, drift-pin
 Socket, 7/16- by 3/8-inch square drive
 Socket, 1/2- by 3/8-inch square drive
 Socket, 3/4- by 3/8-inch square drive
 Socket, 1 1/2-by 1/2-inch square drive

Tools - Continued

Socket, 2-by 1/2-inch square drive
 Socket, 2 1/8-by 1/2-inch square drive
 Wrench, open-end, 3/4-inch
 Wrench, open-end, 1 1/2-inch

Materials/Parts

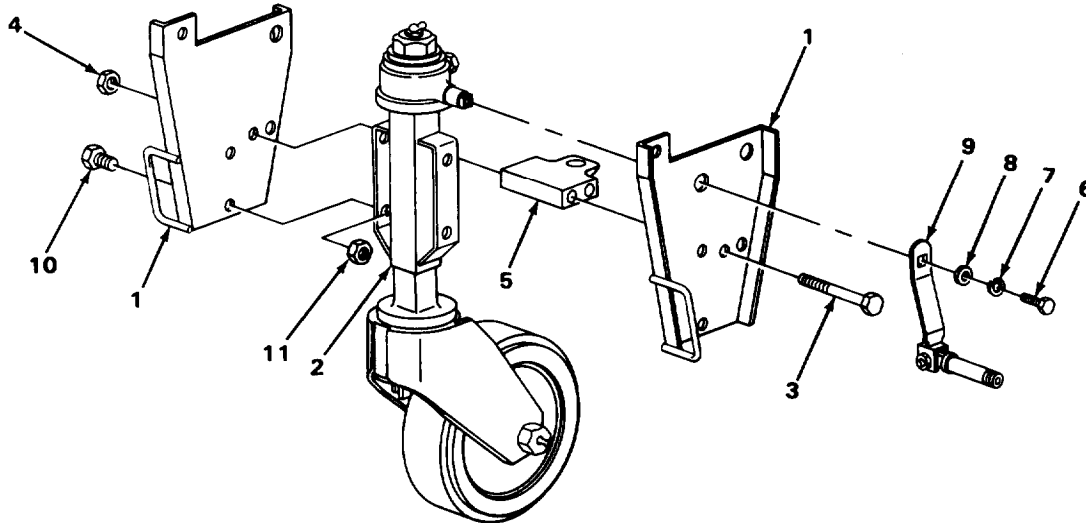
Cotter pins
 Grease, GAA (item 3, appendix E)
 O-rings
 Rags (item 7, appendix E)

Equipment Condition

Landing leg removed (page 4-95).

LANDING LEG REPAIR (M796) - CONTINUED

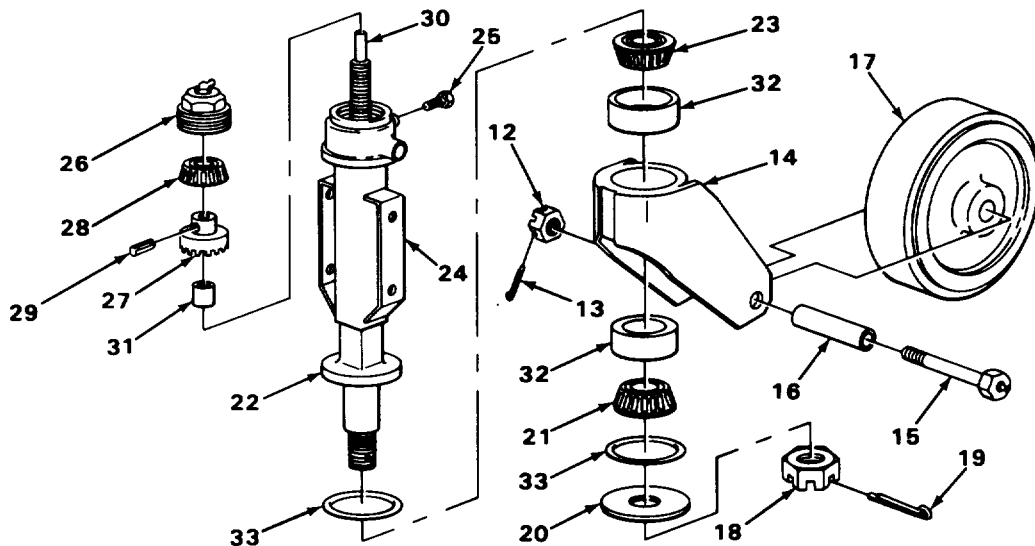
LOCATION	ITEM	ACTION REMARKS
DISASSEMBLY		
1. Legs (1) to outer tube (2)	Two capscrews (3), two nuts (4), and lock bar (5)	Using 3/4-inch socket, handle with 3/8-inch square drive, and 3/4-inch wrench, remove.
2.	Capscrew (6), lock-washer (7), washer (8), and crank (9)	Using 1/2-inch socket and handle with 3/8-inch square drive, remove.
3.	Four capscrews (10), four nuts (11), and two legs (1)	Using 3/4-inch socket, handle with 3/8-inch square drive, and 3/4-inch wrench, remove.



4. Nut (12)	Cotter pin (13)	Using pliers, remove.
5. Swivel plate (14)	Castellated nut (12), capscrew (15), and spacer (16)	Using 1 1/2-inch socket, handle with 1/2-inch square drive, and 1 1/2-inch wrench, remove.
6.	Wheel and tire (17)	Remove.
7. Nut (18)	Cotter pin (19)	Using pliers, remove.
8. Swivel plate (14)	Castellated nut (18), washer (20), and bearing cone (21)	Using 2-inch socket and handle with 1/2-inch square drive, remove.

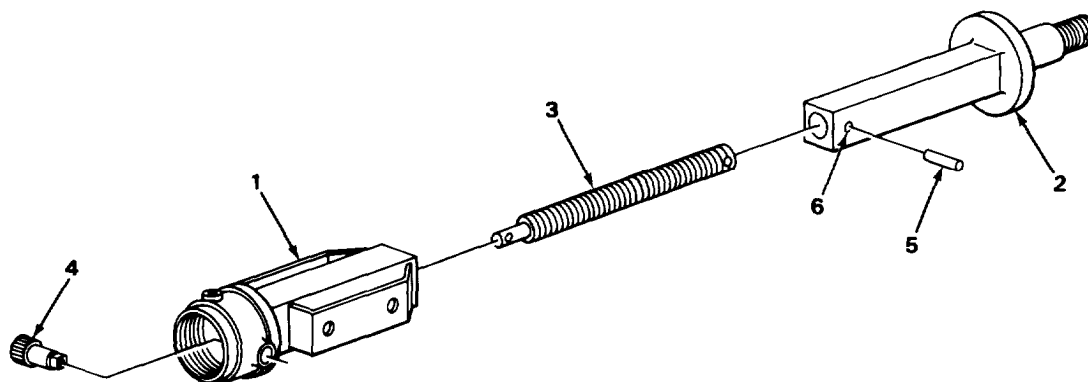
LANDING LEG REPAIR (M796) - CONTINUED

LOCATION	ITEM	ACTION	REMARKS
9. Inner tube (22)	Swivel plate (14)	Remove.	
10.	Bearing cone (23)	Remove.	
11. Outer tube (24)	Capscrew (25)	Using 7/16-inch socket and handle with 3/8-inch square drive, remove.	
12.	Cap (26)	Using 2 1/8-inch socket and handle with 1/2-inch square drive, remove.	
13.	Inner tube (22)	Push up into outer tube (24).	
14. Beveled gear (27)	Bearing cone (28)	Remove.	
15.	Pin (29)	Using punch, remove.	
16. Screw shaft (30)	Beveled gear (27) and spacer (31)	Remove.	
17. Swivel plate (14)	Two bearing cups (32) and two O-rings (33)	Using hammer and punch, remove. Discard O-rings (33).	



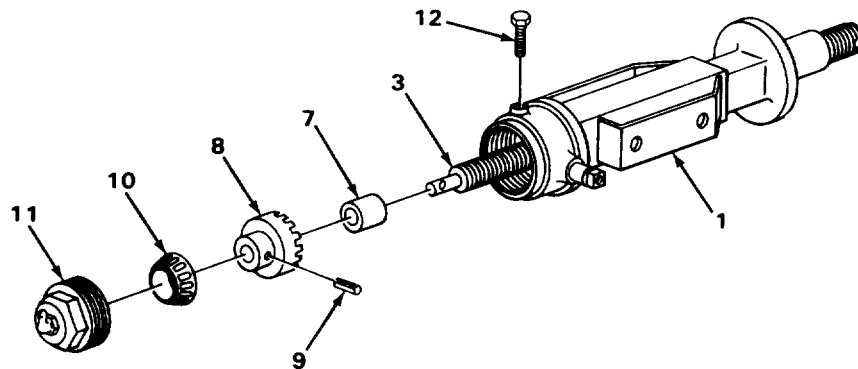
LANDING LEG REPAIR (M796) - CONTINUED

LOCATION	ITEM	ACTION REMARKS	
DISASSEMBLY - CONTINUED			
18.	Outer tube (1)	Inner tube (2) and screw shaft (3)	Remove.
19.		Gear and shaft (4)	Remove.
20.	Inner tube (2)	Screw shaft (3)	Rotate, alining pin (5) with hole (6).
21.	Screw shaft (3)	Pin (5)	Using punch, drive out through hole (6).
22.	Inner tube (2)	Screw shaft (3)	Remove by unscrewing from inner tube (2),
ASSEMBLY			
23.	Inner tube (2)	Screw shaft (3)	a. Lubricate with a heavy coat of grease. b. Install by threading into inner tube (2) and alining pinhole in screw shaft (3) with hole (6).
24.	Screw shaft (3)	Pin (5)	Using punch, install through hole (6).
25.	Outer tube (1)	Gear and shaft (4)	Coat lightly with grease and install.
26.		Screw shaft (3) and inner tube (2)	Fully insert through tube (1).



LANDING LEG REPAIR (M796) - CONTINUED

LOCATION	ITEM	ACTION REMARKS
27. Screw shaft (3)	Spacer (7) and beveled gear (8)	Install.
28. Beveled gear (8)	Pin (9)	Using punch, install through beveled gear (8) and screw shaft (3).
29.	Bearing cone (10)	Install.
30. Outer tube (1)	Cap (11)	a. Using 2 1/8-inch socket and handle with 1/2-inch square drive, install. Bottom cap (11) to seat bearing. b. Loosen cap (11) to align next notch with threaded hole for capscrew (12).
31.	Capscrew (12)	Using 7/16-inch socket and handle with 3/8-inch square drive, install.

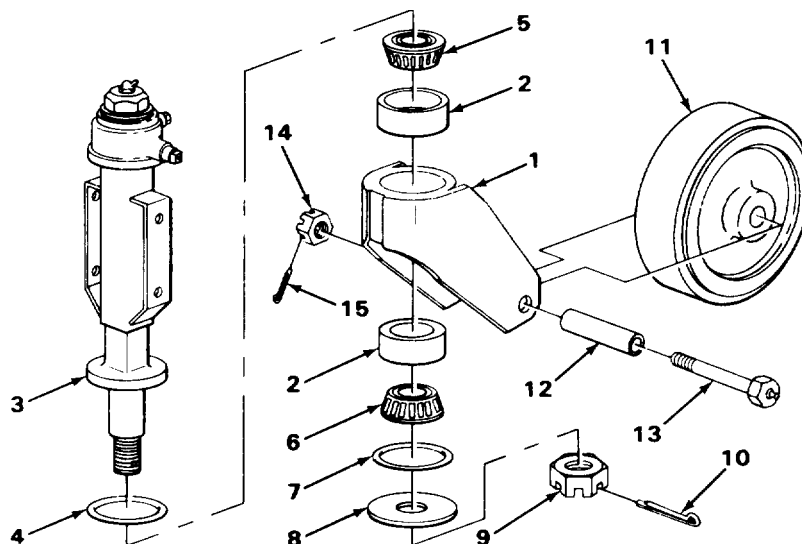


LANDING LEG REPAIR (M796) - CONTINUED

LOCATION	ITEM	ACTION REMARKS
ASSEMBLY – CONTINUED		
32. Swivel plate (1)	Two bearing cups (2)	Using punch, install.
33. Inner tube (3)	New O-ring (4) and bearing cone (5)	a. Install new O-ring (4). b. Pack bearing cone (5) with GAA grease and install. Refer to TM 9-214.
34.	Swivel plate (1)	Install.
35. Swivel plate (1)	Bearing cone (6) and new O-ring (7)	a. Pack bearing cone (6) with GAA grease. Refer to TM 9-214. b. Install bearing cone (6). c. Install new O-ring (7).
36. Inner tube (3)	Flat washer (8) and castellated nut (9)	Using 2-inch socket and handle with 1/2-inch square drive, install. Bottom castellated nut (9) to seat bearings.
37. Castellated nut (9)	Cotter pin (10)	a. Loosen castellated nut (9), alining next slot of nut with cotter pinhole in inner tube (3). Swivel plate (1) should turn freely. b. Using pliers, install cotter pin (10).
38. Swivel plate (1)	Wheel and tire (11)	Install, alining mounting holes.
39.	Spacer (12), cap-screw (13), and castellated nut (14)	Using 1 1/2-inch socket, handle with 1/2-inch square drive, and 1 1/2-inch wrench, install.
40. Castellated nut (14)	Cotter pin (15)	a. Aline nearest slot of castellated nut with cotter pinhole. b. Install cotter pin (15).

LANDING LEG REPAIR (M796) - CONTINUED

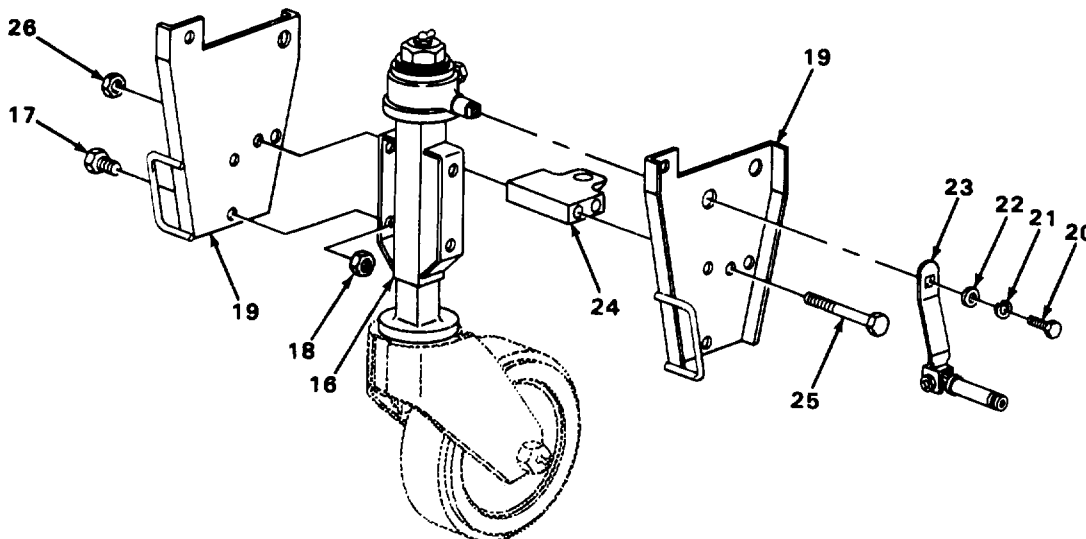
LOCATION	ITEM	ACTION REMARKS
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41. Outer tube (16) Four capscrews (17), four nuts (18), and two legs (19) Using 3/4-inch socket, handle with 3/8-inch square drive, and 3/4-inch wrench, install.

42. Capscrew (20), lock-washer (21), washer (22), and crank (23) Using 1/2-inch socket and handle with 3/8-inch square drive, install.

43. Legs (19) Lock bar (24), two capscrews (25), and two nuts (26) Using 3/4-inch socket and handle with 3/8-inch square drive, install.



LANDING LEG REPAIR (M796) - CONTINUED

NOTE

FOLLOW-ON MAINTENANCE: Install landing leg (page 4-95).

TASK ENDS HERE

LANDING LEG REPAIR (M796A1)

This task covers:

- a. Disassembly (page 5-12)
 - b. Assembly (page 5-14)
-

INITIAL SETUP

Tools

- Handle, reversible, 3/8-inch square drive
- Punch
- Socket, 7/16- by 3/8-inch square drive
- Socket, 9/16- by 3/8-inch square drive
- Socket, 3/4- by 3/8-inch square drive

Tools - Continued

- Wrench, open-end, 7/16-inch
- Wrench, open-end, 9/16-inch
- Wrench, open-end, 3/4-inch

Equipment Condition

Landing leg removed (page 4-95).

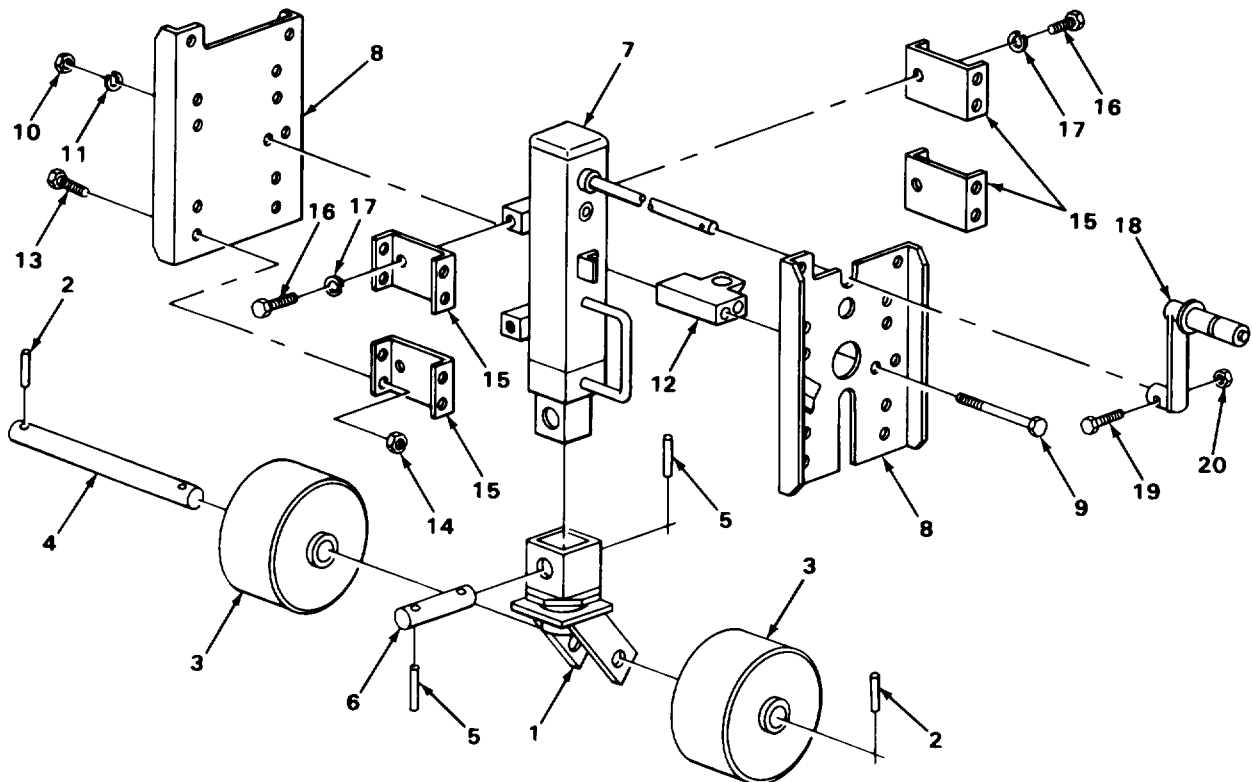
LOCATION	ITEM	ACTION REMARKS
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DISASSEMBLY

1 .	Swivel plate (1)	Two roll pins (2)	Using punch, remove.
2 .		Two wheels (3) and axle (4)	Remove.
3 .		Two roll pins (5)	Using punch, remove.
4 .		Axle (6)	Remove.
5 .	Leg assembly (7)	Swivel plate (1)	Remove.
6 .	Flange plates, left and right (8)	Two capscrews (9), two nuts (10), and two lockwashers(11)	Using 3/4-inch socket, handle, and 3/4-inch open-end wrench, remove.
7 .		Lock bar (12)	Remove.

LANDING LEG REPAIR (M796A1) - CONTINUED

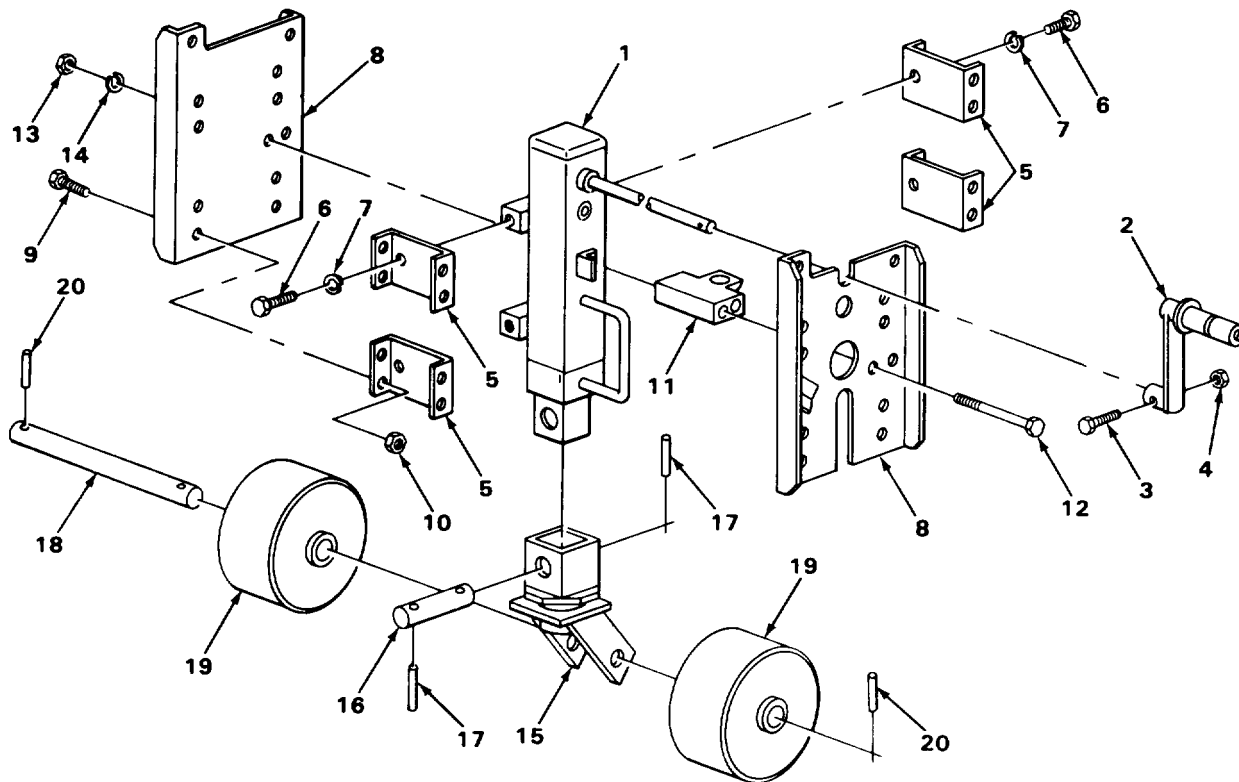
LOCATION	ITEM	ACTION REMARKS
8. Flange plates, left and right (8)	Sixteen capscrews (13) and sixteen nuts (14)	Using 9/16-inch socket, handle, and 9/16-inch open-end wrench, remove.
9. Leg assembly (7)	Flange plates, left and right (8)	Remove.
10. Four brackets (15)	Four capscrews (16) and four lock- washers (17)	Using 3/4-inch socket and handle, remove.
11. Leg assembly (7)	Four brackets (15)	Remove.
12. Handcrank (18)	Capscrews (19) and nut (20)	Using 7/16-inch socket, handle, and 7/16- inch open-end wrench, remove.
13. Leg assembly (7)	Handcrank (18)	Remove.



LANDING LEG REPAIR (M796A1) - CONTINUED

LOCATION	ITEM	ACTION REMARKS
ASSEMBLY		
14. Leg assembly (1)	Handcrank (2)	Position on leg assembly, alining mounting hole.
15. Handcrank (2)	Capscrew (3) and nut (4)	Using 7/16-inch socket, handle, and 7/16-inch open-end wrench, install.
16. Leg assembly (1)	Four brackets (5)	Position, alining mounting holes.
17. Four brackets (5)	Four capscrews (6) and four lock-washers (7)	Using 3/4-inch socket and handle, install.
18.	Flange plates, left and right (8)	Position, alining mounting holes.
19. Flange plates, left and right (8)	Sixteen capscrews (9) and sixteen nuts (10)	Using 9/16-inch socket, handle, and 9/16-inch open-end wrench, install.
20.	Lock bar (11)	Position, alining mounting holes.
21.	Two capscrews (12), two nuts (13), and two lockwashers (14)	Using 3/4-inch socket, handle, and 3/4-inch open-end wrench, install.
22. Leg assembly (1)	Swivel plate (15)	Position on leg assembly (1).
23. Swivel plate (15)	Axle (16) and two roll pins (17)	a. Position axle (16) through swivel plate. b. Using punch, install pins (17).
24.	Axle (18)	Position in swivel plate (15).
25. Axle (18)	Two wheels (19) and two roll pins (20)	a. Position wheels (19) on axle (18). b. Using punch, install pins (20).

LANDING LEG REPAIR (M796A1) - CONTINUED



NOTE

FOLLOW-ON MAINTENANCE: Install landing leg (page 4-95)

TASK ENDS HERE

PIPE RETAINER KIT REPAIR

Repair of the pipe retainer kit will be limited to welding and straightening of its members. Refer to TM 9-237, Operator's Manual for Welding Theory and Application.

APPENDIX A

REFERENCES

A1. SCOPE.

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

A.2. PUBLICATION INDEXES.

The following indexes should be consulted frequently for latest changes or revisions, and for new publications relating to material covered in this manual.

Index of Army Motion Pictures and Related Audio Visual Aids DA PAM 108-1
 Consolidated Index of Army Publications and Blank Forms DA PAM 25-30

A-3. FORMS.

Recommended Changes to Publications and Blank Forms DA FORM 2028
 Equipment Inspection and Maintenance Worksheet DA FORM 2404
 Maintenance Request DA FORM 2407
 Uncorrected Fault Record DA FORM 2408-14
 Equipment Maintenance Log (Consolidated) DA FORM 2409
 Preventive Maintenance Schedule and Record DD FORM 314
 Accident Identification Card DD FORM 518
 Processing and Reprocessing Report for Shipment, Storage, and
 Issue of Vehicles and Spare Engines DD FORM 1397
 Operator Report on Motor Vehicle Accidents SF 91
 Quality Deficiency Report SF 368

A-4. FIELD MANUALS.

Camouflage FM 5-20
 Explosives and Demolitions FM 5-25
 Operation and Maintenance of Ordnance Materiel in Cold Weather
 (0° to - 65°F) FM 9-207
 Manual for the Wheeled Vehicle Driver FM 21-305
 Basic Cold Weather Manual FM 31-70

A-5. TECHNICAL MANUALS.

Inspection, Care, and Maintenance of Antifriction Bearings TM 9-214
 Operator's Manual for Welding Theory and Application TM 9-237
 Deepwater Fording of Ordnance Materiel. TM 9-238
 Materials Used for Cleaning, Preserving, Abrading, and Cementing
 Ordnance Materiel and Related Materials Including Chemicals TM 9-247
 Organizational Care, Maintenance, and Repair of Pneumatic Tires,
 Inner Tubes, and Radial Tires. TM 9-2610-200-20
 The Army Maintenance Management System (TAMMS) DA PAM 738-750
 Painting Instructions for Field Use TM 43-0139

A-5. TECHNICAL MANUALS - CONTINUED.

Railcar Loading Procedures TM 55-601
Administrative Storage of Equipment TM 740-90-1
Storage and Materials Handling. TM 743-200-1
Procedures for Destruction of Tank-Automotive Equipment to
Prevent Enemy Use (US Army Tank-Automotive Command) TM 750-244-6

A-6. TECHNICAL BULLETINS.

Tactical Wheeled Vehicles: Repair of Frames. TB 9-2300-247-40
Standards for Oversea Shipment or Domestic Issue of Special
Purpose Vehicles, Combat, Tactical, Construction, and
Selected Industrial and Troop Support US Army Tank-Automotive
Materiel Readiness Command Managed items TB 9-2300-281-35
Brake Fluid, Silicone (BFS) Conversion Procedures for Tank-Auto-
motive Equipment TB 43-0002-87
Color, Marking, and Camouflage Pattern Painting of Military
Vehicles, Construction Equipment, and Materials Handling
Equipment. TB 43-0209

A-7. MISCELLANEOUS PUBLICATIONS.

Requisitioning, Receipt, and Issue System. AR 725-50
Expendable/Durable Items (Except Medical, Class V, Repair Parts,
and Heraldic items) CTA50-970

APPENDIX B

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. GENERAL.

- a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance categories.
- b. The Maintenance Allocation Chart (MAC) in section II designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions on the end item or component will be consistent with the capacities and capabilities of the designated maintenance categories.
- c. Section III lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from section II.
- d. Section IV contains supplemental instructions and explanatory notes for a particular maintenance function.

B-2. MAINTENANCE FUNCTIONS.

Maintenance functions will be limited to and defined as follows:

- a. **Inspect.** To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (eg, by sight, sound, or touch).
- b. **Test.** To verify serviceability by measuring the mechanical, pneumatic, hydraulic, and/or electrical characteristics of an item and comparing those characteristics with prescribed standards.
- c. **Service.** Operation required periodically to keep an item in proper operating condition, ie, to clean (includes decontaminating, when required), preserve, drain, paint, or replenish fuel, lubricants, or gases.
- d. **Adjust.** To maintain or regulate, within prescribed limits, by bringing into proper or exact position, or by setting operating characteristics to specified parameters.
- e. **Anne.** 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 comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

B-2. MAINTENANCE FUNCTIONS - CONTINUED.

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

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

i. Repair. The application of maintenance services¹, including fault location/troubleshooting², removal/installation, disassembly/assembly³ procedures, and maintenance actions⁴ to identify trouble and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications (ie, 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 equipment/components.

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

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

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

c. Column 3, Maintenance Function. Column 3 lists the functions to be performed on the item listed in column 2. (See paragraph B-2 for a detailed explanation of these functions.)

¹Services - inspect, test, service, adjust, aline, calibrate, and/or replace.

²Fault location/troubleshooting - The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

³Disassembly/assembly - encompasses the step-by-step taking apart (or breakdown) of a spare/functional group code item to the level of its least componency identified as maintenance significant (ie, assigned an SMR code) for the category of maintenance under consideration.

⁴Actions - Welding, grinding, riveting, straightening, facing, remachining, and/or resurfacing.

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

d. Column 4, Maintenance Category. Column 4 specifies, by the listing of a worktime figure in the appropriate subcolumn, 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 worktime figures will be shown for each category. The worktime figure represents the average time required to restore an item (assembly, subassembly, components, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the Maintenance Allocation Chart. The symbol designations for the various maintenance categories are as follows:

- C - Operator or Crew
- O - Organizational
- F - Direct Support
- H - General Support
- D - Depot

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TM DE, 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, that shall be keyed to the remarks contained in section IV.

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

a. Column 1, Reference Code. The tools and equipment reference code correlates with the code used in the MAC, section II, column 5.

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

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

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

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

B-5. EXPLANATION OF COLUMNS IN REMARKS, SECTION IV.

a. Column 1, Reference 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

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQPT	(6) REMARKS
			C	O	F	H	D		
06	ELECTRICAL SYSTEM								
0609	Lamps	Replace		0.5				1	
	Lights	Replace		0.5				1	
0613	Harness	Replace		3.5				1	
		Repair		3.0				1	
	Cable	Replace		0.1					
11	REAR AXLE								
1100	Axles	Replace		8.0				1,2,3	
12	BRAKES								
1201	Lever, Handbrakes	Adjust	0.5						
		Replace		2.0				1	
	Cable, Handbrake	Adjust		0.5				1	
		Replace		2.0				1	
1202	Shoes, Brake	Adjust		1.0				1,2	
		Replace		3.0				1,2,3	
		Repair			3.0				
1204	Cylinder, Master	Service		0.1				1	
		Replace		1.0				1,3	
	Cylinder, Wheel	Replace		1.0				1,2,3	
	Lines and Fittings, [Hydraulic)	Replace		1.5				1,2,3	
1208	Lines and Fittings (Air)	Replace		1.0				1,2	
	Couplings (Air)	Replace		0.5				1	
	Filter (Air)	Service		0.2				1	
		Replace		0.5				1	
		Repair		0.5				1	

MAINTENANCE ALLOCATION CHART - CONTINUED

(1) GROUP NUMBEF	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQPT	(6) REMARKS
			C	O	F	H	D		
1208	Chamber, Brake (Air)	Replace Repair		0.8 1.0				1,3 1,3	
	Valve, Emergency (Air)	Replace		0.5				1	
	Reservoir	Replace		0.5				1	
	Draincock	Service Replace		0.2 0.5				1 1	
13	WHEELS, HUBS, AND DRUMS								
1311	Drum, Brake	Replace Repair		1.0	1.0			1,2,3	
	Hub, Wheel	Replace		1.0					
	Bearing, Wheel	Adjust Replace		0.5 1.5				7,8 7,8	
1313	Wheel	Replace	0.5						
	Tire	Service Replace Repair	0.5					1,2,3, 4,5	
15	FRAME AND TOWING ATTACHMENTS								
1501	Shackles (Lift and Tiedown rings)	Replace		0.8				1	
	Shackles (Tiedown rings)	Replace		0.8				1	
1503	Lunette (Tow ring)	Replace		1.5				1,2	
	Safety Chains	Replace		0.5				1	

MAINTENANCE ALLOCATION CHART - CONTINUED

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQPT	(6) REMARKS
			C	O	F	H	D		
1505	Spare Wheel Storage Assembly	Replace		1.5				1	
		Repair		1.0					
16	SPRINGS								
1601	Spring Bumper	Replace		4.0				1,2,3	
		Replace		1.0				1	
22	MISCELLANEOUS ACCESSORIES								
2210	Reflectors	Replace		0.5				1	
	Plates, Data	Replace		0.5				1,2	
33	SPECIAL PURPOSE KITS								
	Kit, Invasion Pipe	Replace		1.0					
		Repair				2.0			2,3

Section III. TOOLS AND TEST EQUIPMENT REQUIREMENTS

(1) REFERENCE CODE	(2) MAINTENANCE CATEGORY	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER	(5) TOOL NUMBER
1	O	Tool Kit, Mechanics General	5180-00-177-7033	
2	O	Shop Equipment, Common Set Number 1	4910-00-754-0654	
3	O	Shop Equipment, Supple- mental Set Number 1	4910-00-754-0653	
4	F	Shop Equipment, Field Maintenance Basic Set	4910-00-754-0705	

(1) REFERENCE CODE	(2) MAINTENANCE CATEGORY	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER	(5) TOOL NUMBER
5	F	SHOP EQUIPMENT, AUTOMOTIVE MAINTENANCE AND REPAIR: FIELD MAINTENANCE, SUPPLEMENT NUMBER 1	4910-00-754-0706	
6	H	SHOP EQUIPMENT, WELDED FIELD MAINTENANCE, POST, CAMP, AND STATION	4910-00-348-7696	
7	O	SOCKET, WHEEL BEARING, 3-INCH, EIGHT POINT, 3/4-INCH SQUARE DRIVE (M796)	5120-00-104-4076	(45225) 1907
8	O	SOCKET, WHEEL BEARING, 3-3/8-INCH, EIGHT POINT, 3/4-INCH SQUARE DRIVE (7964A1)	5120-01-105-8593	(45225) 1924

SECTION IV. REMARKS

THERE ARE NO REMARKS OR EXPLANATORY NOTES

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 the bolster trailer models M796 and M796A1 to help you inventory items required for safe and efficient operation.

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 bolster trailer M796 and M796A1 in operation, operate it, and perform emergency repairs. Although shipped separately packaged, basic issue items must be with the bolster trailer 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 basic issue items 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 No.). 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 minimal description to identify and locate the item. The last line for each item indicates the FSCM (in parentheses) followed by the part number.

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

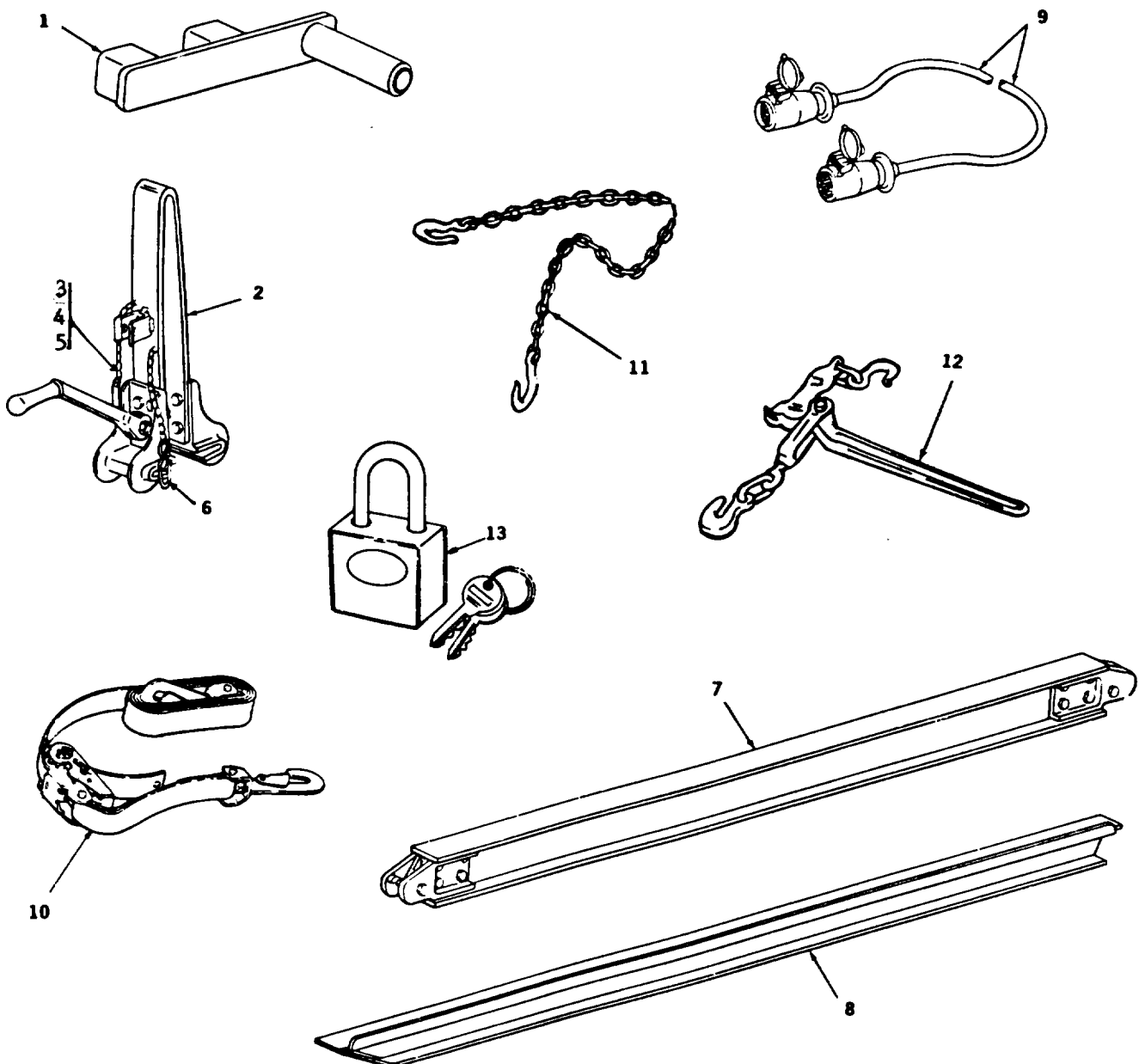
C-3. EXPLANATION OF COLUMNS - CONTINUED.

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

Section II. COMPONENTS OF END ITEM

There are no components of end item authorized for the bolster trailer models M796 and M796A1.

Section III. BASIC ISSUE ITEMS



(1) ILLUS NO.	(2) NATIONAL STOCK NUMBER	BASIC ISSUE ITEMS - CONTINUED (3) DESCRIPTION FSCM AND PART NUMBER	(4) U/M	(5) QTY REQ'D
1	2590-00-860-0533	CRANK HANDLE, SPARE WHEEL (19207) 10885456	EA	1
2	2510-00-040-2703	STANCHIONS (19207)8342151	EA	4
3		CHAIN ASSEMBLY WITH PIN (19207) 10926182	EA	1
4		PIN (19207) 10926183	EA	1
5	5315-00-839-5822	PIN, COTTER (96906) MS24665-353	EA	1
6	4010-01-134-3730	CLIP ASSEMBLY (19207) 10926184		
7	2540-00-152-2201	PORTABLE BOLSTERS (19207) 11636506	EA	4
8	3990-00-152-2251 2540-00-152-2252	RAMPS (19207) 11636649-1 LH (19207) 11636649-2 RH	EA EA	1 1
9	2590-00-772-8812	CABLE ASSEMBLY, POWER, INTERVEHICULAR (16528) 7728812	EA	1
10	5340-00-980-9277	STRAPS (19207) 10900880	EA	3
11	4010-00-182-8784 4010-00-182-8788	CHAIN ASSEMBLY (19207) 11636457 (19207) 11636654-1 A08	EA EA	4 2
12	3990-00-171-9774	LOAD BINDER (81349) MIL-B-18161B	EA	4
13	5340-00-682-1508	PADLOCK (96906) MS35647-3	EA	1

CHANGE 1

C-3/(C-4 BLANK)

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

SECTION I. INTRODUCTION

1. Scope.

This RPSTL lists and authorizes spares and repair parts: special tools: special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of operator, organizational, direct support and general support maintenance of the M796 and M796A1 Bolster Trailers. 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 1. 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 lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Repair kits are listed separately in their own functional group within Section II. Repair parts for repairable special tools are also listed in the section. Items listed are shown on the associated illustration(s)/figure(s).

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

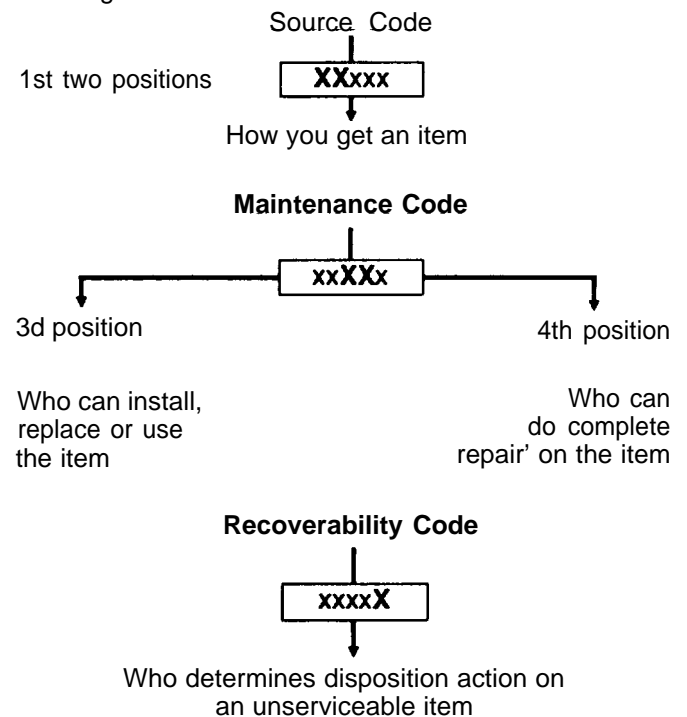
c. Cross-reference indexes. A list, in National Item Identification Number (NIIN) sequence, of all National stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing; in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance. The figure and

item number index lists figure and item numbers in alphanumeric sequence and cross-references NSN, FSCM, and part numbers.

3. Explanation of Columns (Sections II and III).

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

b. SMR CODE (Column (2)). The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instructions, as shown in the following breakout:



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

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

<u>Code</u>	<u>Application/Explanation</u>	
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	**Items coded PC are subject to deterioration.	
KD	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3d position of the SMR code. The complete kit must be requisitioned and applied.	
KF		
KB		
MO-(Made at UM/AVUM Level)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the Bulk Material group of the repair parts list in this RPSTL. If the item is authorized to you by the 3d position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.	
MF-(Made at DS AVUM Level)		
MH-(Made at GS Level)		
ML-(Made at Specialized Repair Act (SRA))		
MD-(Made at Depot)		
AO-(Assembled by UM/AVUM Level)		
AF-(Assembled by DS/A VIM Level)	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.	
AH-(Assembled by GS Category)		
AL-(Assembled by SRA)		
AD-(Assembled by Depot)		
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 the 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 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.

<u>Code</u>	<u>Application/Explanation</u>
C -	Crew or operator maintenance done within unit maintenance or aviation unit maintenance.
O -	Unit maintenance or aviation unit category 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 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:

<u>Code</u>	<u>Application/Explanation</u>
O-	Unit maintenance or Aviation unit is the lowest level that can do complete repair of the item.
F-	Intermediate Direct support or aviation intermediate is the lowest level that can do complete repair of the item.
H-	Intermediate 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, lubrication, 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:

<u>Code</u>	<u>Application/Explanation</u>
Z-	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
O-	Reparable item. When uneconomically repairable, condemn and dispose of the item at unit maintenance or aviation level.
F-	Reparable item. When uneconomically repairable, condemn and dispose of the item at the intermediate direct support or aviation intermediate level.
H-	Reparable item. When uneconomically repairable, condemn and dispose of the item at the intermediate 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 of item not authorized below specialized repair activity (SRA).

A - Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. 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 a NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. DESCRIPTION AND USABLE ON CODE (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) Physical security classification. Not applicable

(3) Items that are included in kits and sets are listed below the name of the kit or set on Figure KIT.

(4) Spare/repair parts that make up and 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). Not applicable.

(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 (NSN) INDEX.

(1) STOCK NUMBER column This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine

NSN

digits of the NSN (i.e., 5305-01-674-146Z.) When using

NIIN

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 Manufacturer (FSCM) is a 5 digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

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

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

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

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

c. FIGURE AND ITEM NUMBER INDEX.

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

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

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

(4) FSCM column. The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

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

5. Special Information.

Use the following subparagraphs as applicable:

a. USABLE ON CODE. The "USABLE ON CODE" title appears in the lower right corner of column (6), Description. Usable on codes are shown in the right-hand margin of the description column. uncoded items are applicable to all models. Identification of the usable on codes used in this publication are:

<u>Code</u>	<u>Used On</u>
A08	M796
A60	M796A1

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 codes to be manufactured or fabricated are found in Appendix G.

c. ASSEMBLY INSTRUCTION. Detailed assembly instructions for items source coded to be assembled from component spare/repair parts are found in

Appendix G. Items that make up the assembly are listed immediately following the assembly item entry or reference is made to an applicable figure.

d. KITS. Line item entries for repair parts kits appear in group 9401 in Section II.

e. INDEX NUMBERS. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the National Stock Number/Part Number Index and the bulk material list in Section II.

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 and subassembly groups, and listings are divided into the some groups.

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

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

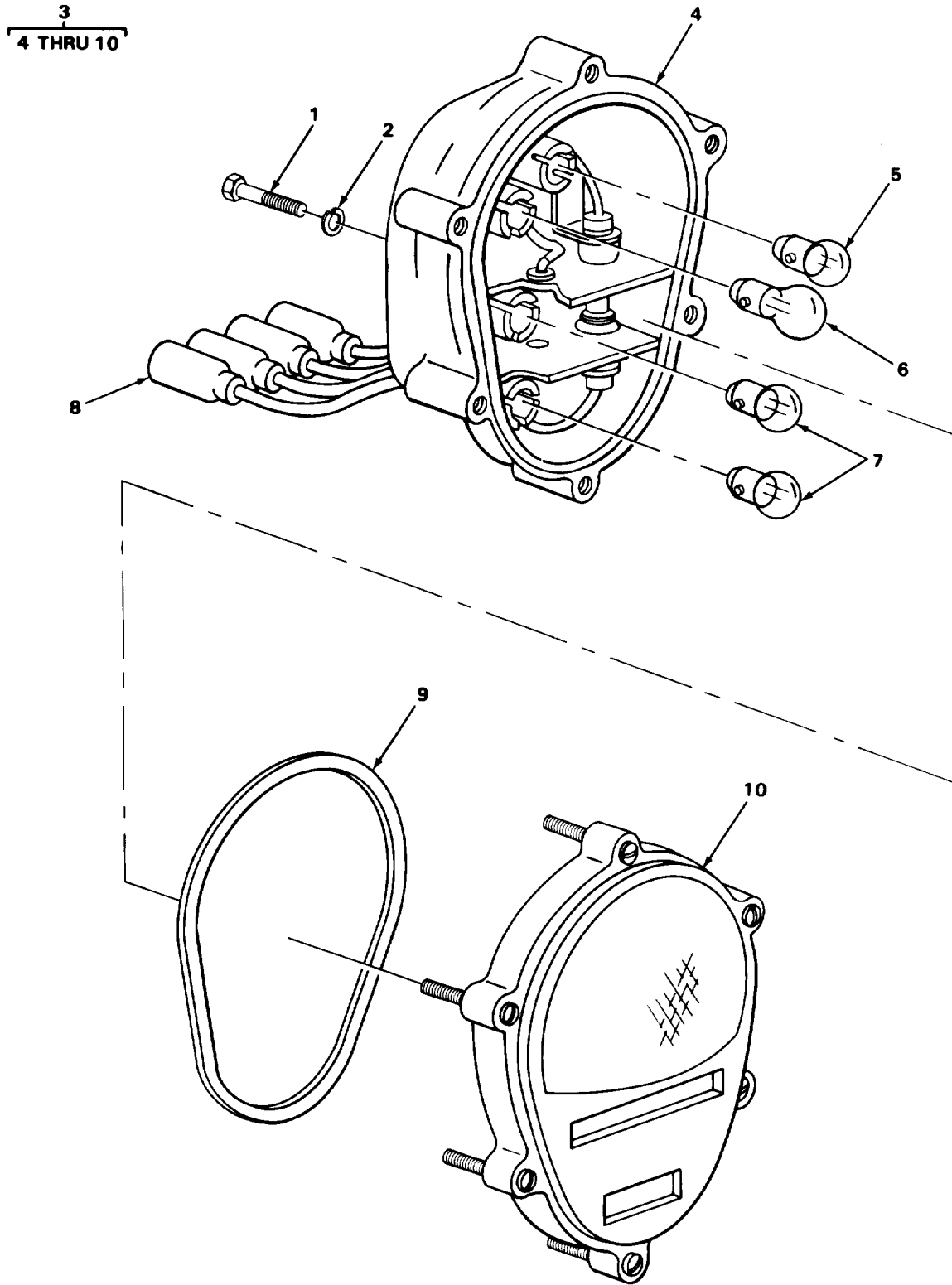
b. When National Stock Number or Part Number is Known:

(1) First. Using the National Stock Number or the Part Number Index, find the pertinent National Stock Number or Part Number. The NSN index is in National Item Identification Number (NIIN) sequence (see 4.1(1)). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see 4. b). Both indexes cross-reference you to the illustration/figure and item number of the item you are looking for.

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

7. Abbreviations.

For standard abbreviations see MIL-STD-12D, Military Standard Abbreviations For Use On Drawings, Specifications, Standards And In Technical Documents.

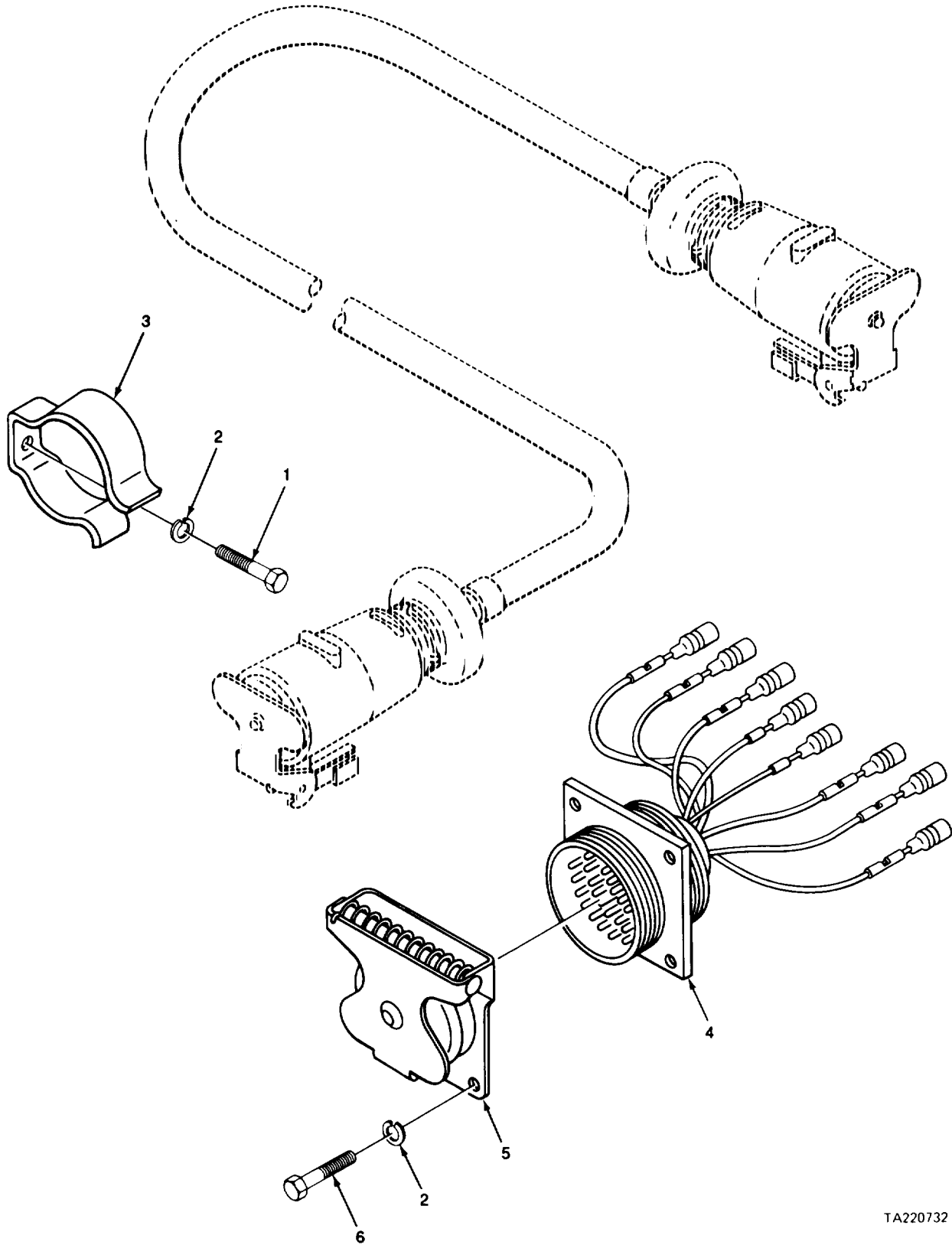


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FIGURE 1. LIGHT ASSEMBLY.

SECTION II					
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
GROUP 06 ELECTRICAL SYSTEM					
0609 LIGHTS					
FIG. 1 LIGHT ASSEMBLY					
1	PAOZZ	96906	MS90728-61	SCREW,CAP,HEXAGON H	4
2	PAOZZ	96906	MS35338-46	WASHER,LOCK	4
3	PAOOO	96906	MS52125-2	STOP LIGHT-TALLIGH	2
4	PAOZZ	19207	11639520	.BODY ASSEMBLY	1
5	PAOZZ	96906	MS15570-623	.LAMP,INCANDESCENT	1
6	PAOZZ	96906	MS35478-1683	.LAMP,INCANDESCENT	1
7	PAOZZ	96906	MS15570-1251	.LAMP,INCANDESCENT	2
8	PAOZZ	19207	8338566	.SHELL,ELECTRICAL CO	4
9	PAOZZ	19207	11614198-2	.PACKING,PREFORMED	1
10	PAOZZ	19207	11639535	.LENS,LIGHT	1

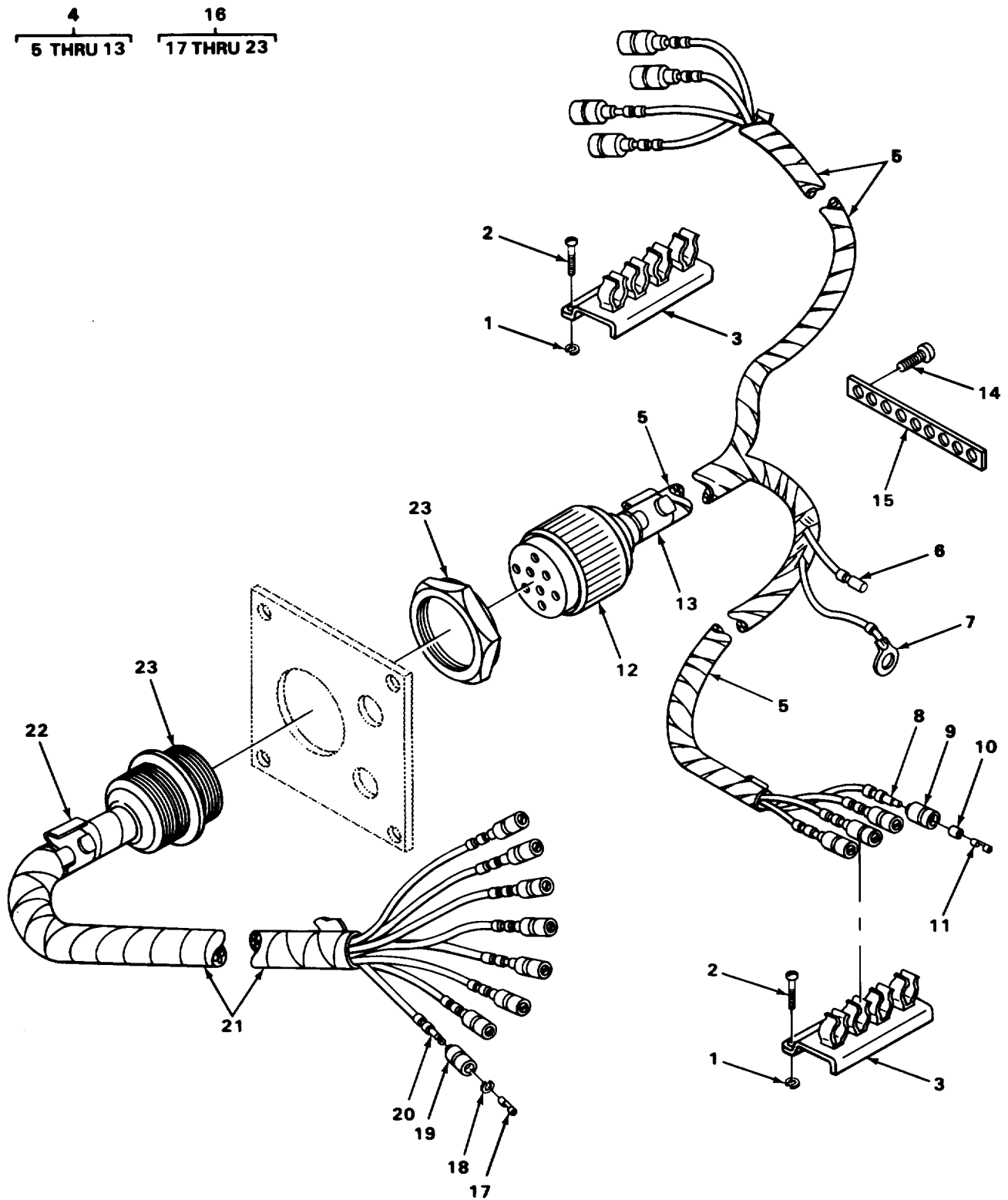
END OF FIGURE



TA220732

FIGURE 2. INTERVEHICULAR CABLE ASSEMBLY.

SECTION II				TM9-2330-287-14&P		
(1)	(2)	(3)	(4)	(5)		(6)
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)		QTY
				0613 WIRING HARNESSSES		
				FIG. 2. INTERVEHICULAR CABLE		
				ASSEMBLY		
1	PAOZZ	96906	MS35206-278	SCREW,MACHINE		1
2	PAOZZ	96906	MS35338-44	WASHER, LOCK		5
3	PAOZZ	19207	8363978	CLIP, SPRING TENSION		1
4	PAOZZ	19207	11636586	LEAD ASSEMBLY, ELECT		1
5	PAOZZ	19207	7731428	COVER, ELECTRICAL CO		1
6	PAOZZ	96906	MS90727-8	SCREW, CAP, HEXAGON H		4
				END OF FIGURE		



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FIGURE 3. WIRING HARNESS.

SECTION II (1)	ITEM (2)	(3)	TM9-2330-287-14&P (4)	(5)	(6)
NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				0613 WIRING HARNESSSES FIG. 3. WIRING HARNESS	
1	PAOZZ	96906	MS35338-44	WASHER, LOCK	4
2	PAOZZ	96906	MS35206-277	SCREW, MACHINE	4
3	PFOZZ	19207	11636512	BRACKET, MOUNTING	4
4	PAOZZ	19207	11636587	WIRING HARNESS, BRAN	2
5	MOOZZ	81349	M13486-1-5/6FT	.WIRE ELECTRICAL (MAKE FROM P/N 13486-1-5)	1
6	PAOZZ	19207	8347216	.CAP, PROTECTIVE, DUST	1
7	PAOZZ	96906	MS20659-163	.TERMINAL, LUG	1
8	PFOZZ	96906	MS39020-2	.BAND, MARKER	14
9	PAOZZ	19207	8338561	.SHELL, ELECTRICAL CO	8
10	PAOZZ	19207	8338562	.INSULATOR, BUSHING	8
11	PAOZZ	19207	8338564	.TERMINAL ASSEMBLY	8
12	PAOZZ	96906	MS3116P-16-8S	.CONNECTOR, PLUG, ELEC	1
13	PFOZZ	96906	MS39020-2	.BAND, MARKER	1
14	PAOZZ	96906	MS35206-278	SCREW, MACHINE	
15	PAOZZ	19207	10905840	STRAP, TIEDOWN, ELECT	6
16	PAOZZ	19207	11636588	WIRING HARNESS	1
17	PAOZZ	96906	MS27148-2	.CONTACT, ELECTRICAL	8
18	PAOZZ	19207	8338567	.WASHER, SLOTTED	8
19	PAOZZ	19207	8338566	.SHELL, ELECTRICAL CO	8
20	PFOZZ	96906	MS39020-2	.BAND, MARKER	12
21	MOOZZ	81349	M13486-1-5/15 FT	.WIRE ELECTRICAL (MAKE FROM P/N M13486-1-5)	1
22	PFOZZ	96906	MS39020-2	.BAND, MARKER	1
23	PFOZZ	96906	MS3114P-16-8P	.CONNECTOR, RECEPTACL	1

END OF FIGURE

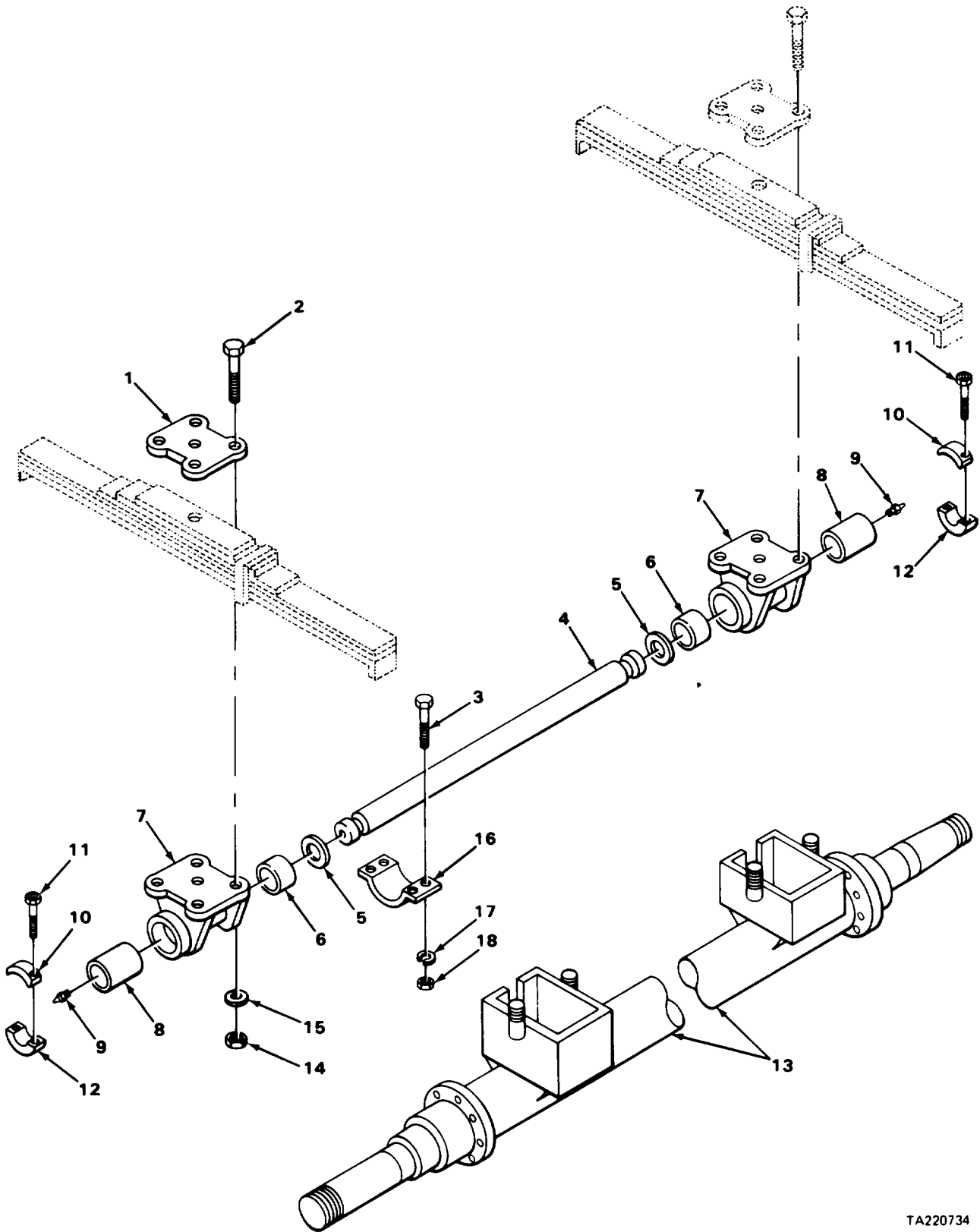
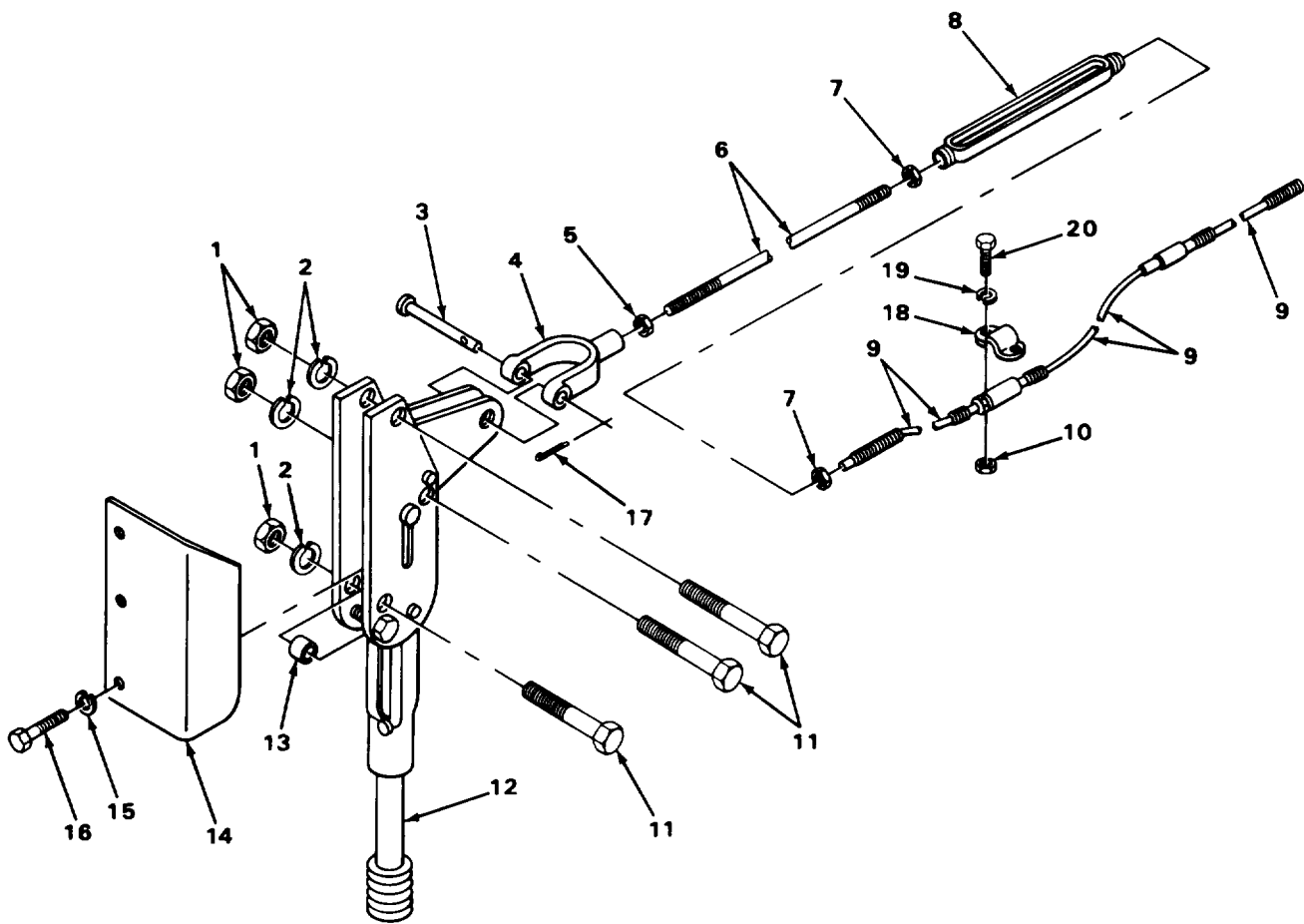


FIGURE 4. AXLE AND TRUNNION ASSEMBLY.

TA220734

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
GROUP II REAR AXLE					
1100 REAR AXLE ASSEMBLY					
FIG. 4 AXLE AND TRUNNION ASSEMBLY					
1	PFOZZ	19207	11592621	PLATE, MOUNTING, FLAT	2
2	PAOZZ	96906	MS90727-200	SCREW, CAP, HEXAGON H	8
3	PAOZZ	96906	MS90727-164	SCREW, CAP, HEXAGON H	8
4	PAOZZ	19207	11592617	SHAFT, SHOULDERED	1
5	XDOZZ	19207	11592664	SPACER, RING	2
6	PAOZZ	19207	11592645	SPACER, RING	2
7	PAOZZ	19207	11592672	TRUNNION BLOCK WITH BUSHING, REAR AXLE	2
8	PAOZZ	19207	11592619	BUSHING, SLEEVE	2
9	PAOZZ	96906	MS15003-1	FITTING, LUBRICATION	2
10	PAOZZ	19207	11592624	CLAMP, HUB, HALF UPPE	2
11	PAOZZ	96906	MS16998-46	SCREW, CAP, SOCKET HE	4
12	PAOZZ	19207	11592625	CLAMP, BRIDGE	2
13	PBOZZ	19207	11592610	AXLE, VEHICULAR, NOND UOC: A08	2
13	PBOZZ	19207	12312969	AXLE ASSEMBLY, VEHIC WHEEL UOC: A60	2
14	PFOZZ	96906	MS51968-23	NUT, PLAIN, HEXAGON	8
15	PFOZZ	96906	MS35691-61	NUT, PLAIN, HEXAGON	8
16	PAOZZ	19207	11592649	STRAP, RETAINING	2
17	PAOZZ	96906	MS35338-50	WASHER, LOCK	8
18	PAOZZ	96906	MS51968-20	NUT, PLAIN, HEXAGON	8

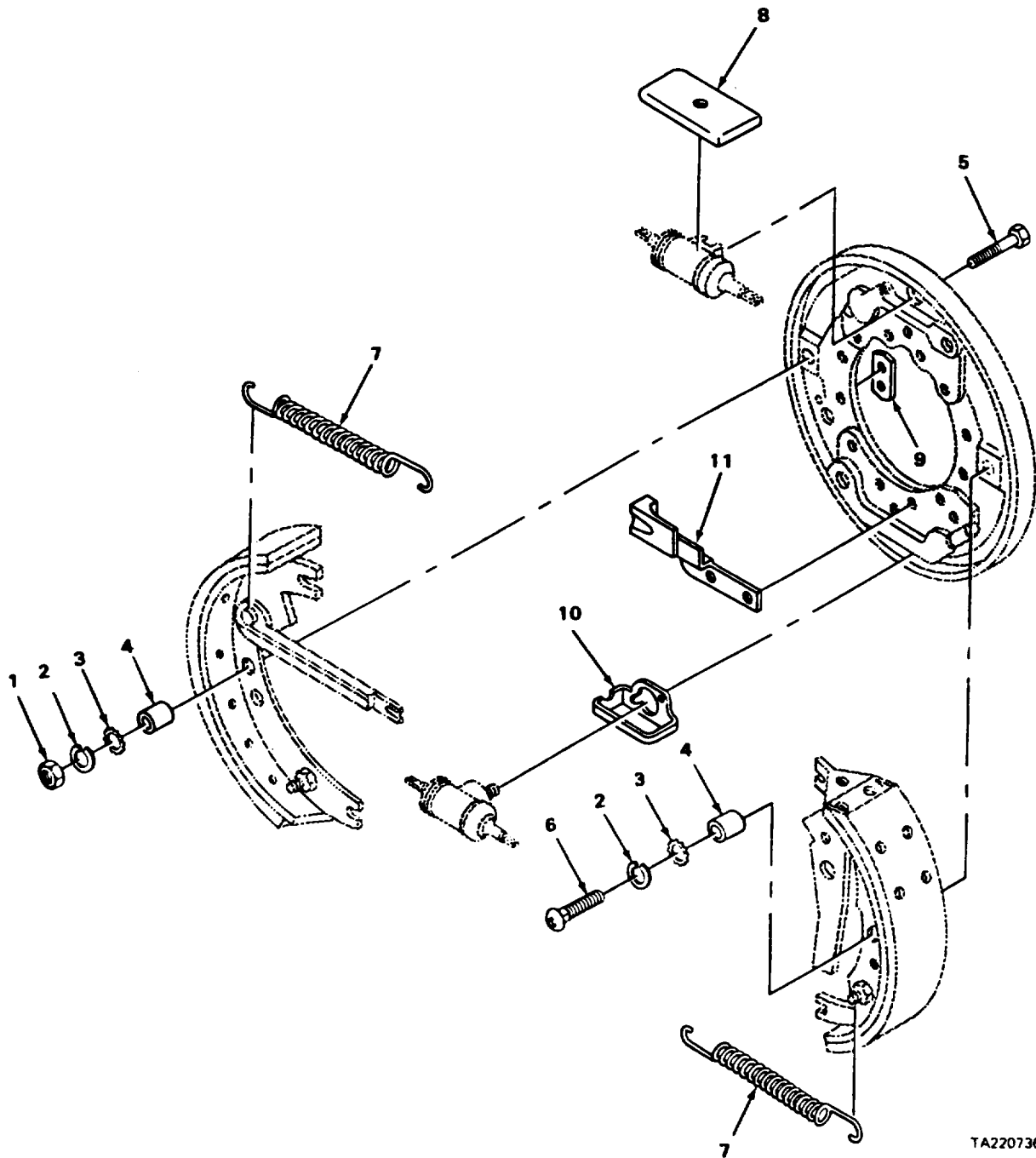
END OF FIGURE



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FIGURE 5. HANDBRAKE ASSEMBLY.

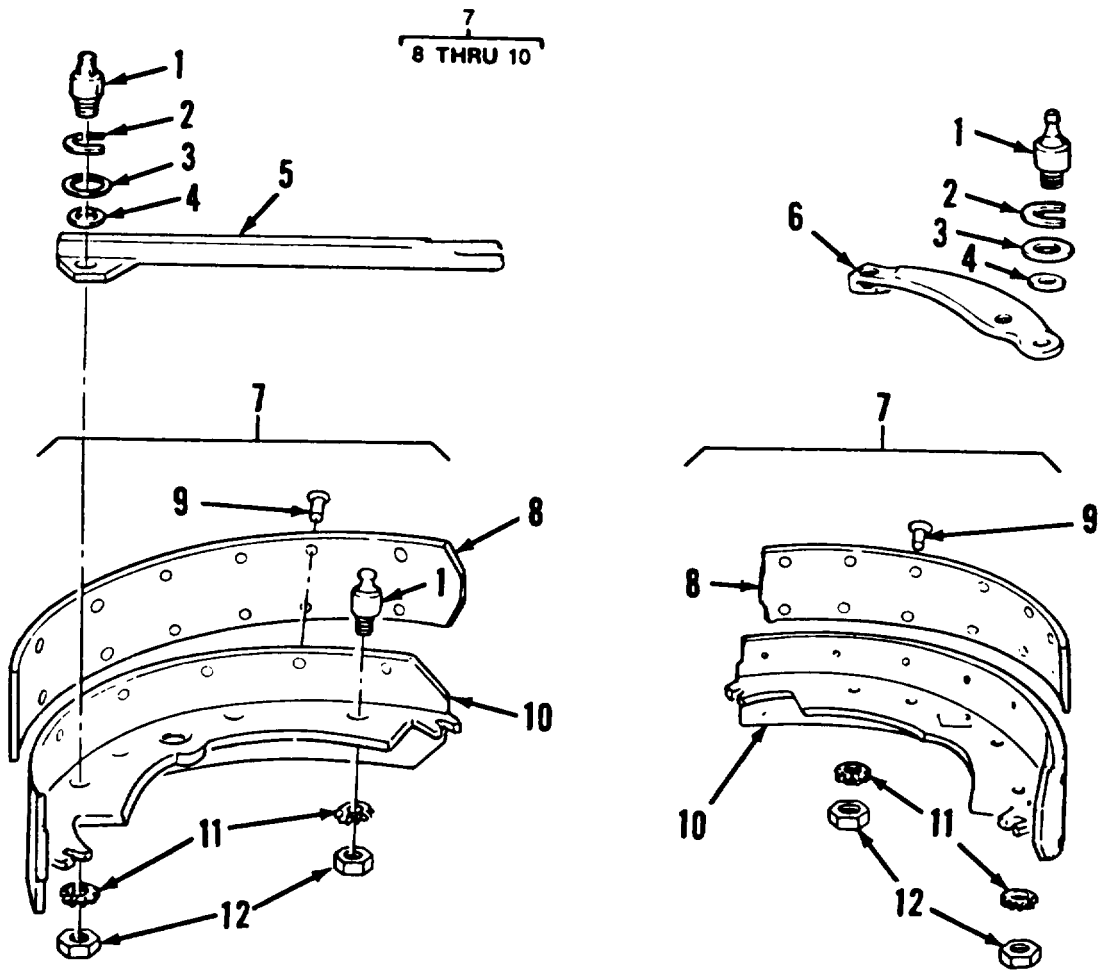
SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
GROUP 12 BRAKES					
1201 HANDBRAKES					
FIG. 5. HANDBRAKE ASSEMBLY					
1	PAOZZ	96906	MS51922-17	NUT, SELF-LOCKING, HE	6
2	PAOZZ	96906	MS35338-57	WASHER, LOCK	6
3	PAOZZ	96906	MS35810-4	PIN, STRAIGHT, HEADED	2
4	PAOZZ	96906	MS35812-4	CLEVIS, ROD END	2
5	PAOZZ	0596	P X2054	NUT, PLAIN, HEXAGON	2
6	PAOZZ	19207	11636552	ROD, THREADED END	2
7	PAOZZ	96906	MS51968-8	NUT, PLAIN, HEXAGON	4
8	PAOZZ	19207	8331946	TURNBUCKLE BODY	2
9	PAOZZ	96906	MS53060-3	CABLE ASSEMBLY, HAND	2
10	PAOZZ	96906	MS51922-9	NUT, SELF-LOCKING, HE	4
11	PAOZZ	96906	MS90725-67	SCREW, CAP, HEXAGON H	6
12	PAOZZ	92867	01001307	LEVER, MANUAL CONTRO	2
13	PAOZZ	19207	8699500	SPACER, SLEEVE	6
14	PFOZZ	19207	11636553-1	GUARD, SPLASH, VEHICU LEFT	1
14	PFOZZ	19207	11636553-2	GUARD, SPLASH, VEHICU RIGHT	1
15	PAOZZ	96906	MS35338-44	WASHER, LOCK	6
16	PAOZZ	96906	MS35206-277	SCREW, MACHINE	6
17	PAOZZ	96906	MS24665-283	PIN, COTTER	2
18	PAOZZ	19207	7411006	STRAP, RETAINING	2
19	PAOZZ	96906	MS35338-45	WASHER, LOCK	4
20	PAOZZ	96906	MS90725-33	BOLT, MACHINE	4
END OF FIGURE					



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FIGURE 6. BRAKE RELATED ITEMS.

SECTION II				TM9-2330-287-14&P		
(1)	(2)	(3)	(4)	(5)		(6)
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)		QTY
				1202 SERVICE BRAKES		
				FIG. 6. BRAKE RELATED ITEMS		
1	PAOZZ	96906	MS51970-1	NUT,PLAIN,HEXAGON		1
2	PAOZZ	96906	MS35338-46	WASHER,LOCK		2
3	PAOZZ	96906	MS35335-36	WASHER,LOCK		2
4	PAOZZ	19207	7412103	SPACER,SLEEVE		2
5	PAOZZ	96906	MS90727-8	SCREW,CAP,HEXAGON H		1
6	PAOZZ	19207	7411760	BOLT,SQURE NECK		1
7	PAOZZ	19207	8333770	SPRING,HELICAL,EXTE		2
8	PAOZZ	63477	F9556	SHIELD,BRAKE DISK RIGHT HAND		1
9	PAOZZ	63477	F19635	BRACKET,LEFT HAND		2
10	PAHZZ	19207	7412068	SHIELD,BRAKE DISK LEFT HAND		1
11	PAOZZ	63477	F19581	RAMP,CABLE LEFT HAND		1
11	PAOZZ	63477	F19582	RAMP,BRAKE CABLE LEFT HAND		1
				END OF FIGURE		



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FIGURE 7. SERVICE BRAKE ASSEMBLY.

SECTION II				TM9-2330-287-14&P	
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
1202 SERVICE BRAKES					
FIG. 7. SERVICE BRAKE ASSEMBLY					
1	PAOZZ	63477	F17758	PIN,SERVICE BRAKE	4
2	PAOZZ	19207	8733937	WASHER,SLOTTED	2
3	PAOZZ	19207	8733936	WASHER,FLAT	2
4	PAOZZ	19207	8733935	WASHER,SPRING TENSI	2
5	PAOZZ	63477	FD17762	LINK EMERGENCY BRAK	1
5	PAOZZ	19207	8733926	CONNECTING LINK,RIG LEFT HAND	1
6	PAOZZ	02686	123917	LEVER,LEFT HAND BRA	1
6	PAOZZ	63477	F17751	LEVER,RIGHT HAND BR	1
7	PAOFF	63477	F19223	BRAKE SHOE	2
8	PAFZZ	19207	8720517	.LINING,FRICTION	2
9	PAFZZ	96906	MS16536-176	.RIVET,TUBULAR	28
10	XAOZZ	19207	7064979	.WEB AND TABLE	2
11	PAOZZ	96906	MS35338-46	WASHER,LOCK	4
12	PAOZZ	96906	MS51970-4	NUT,PLAIN,HEXAGON	4
END OF FIGURE					

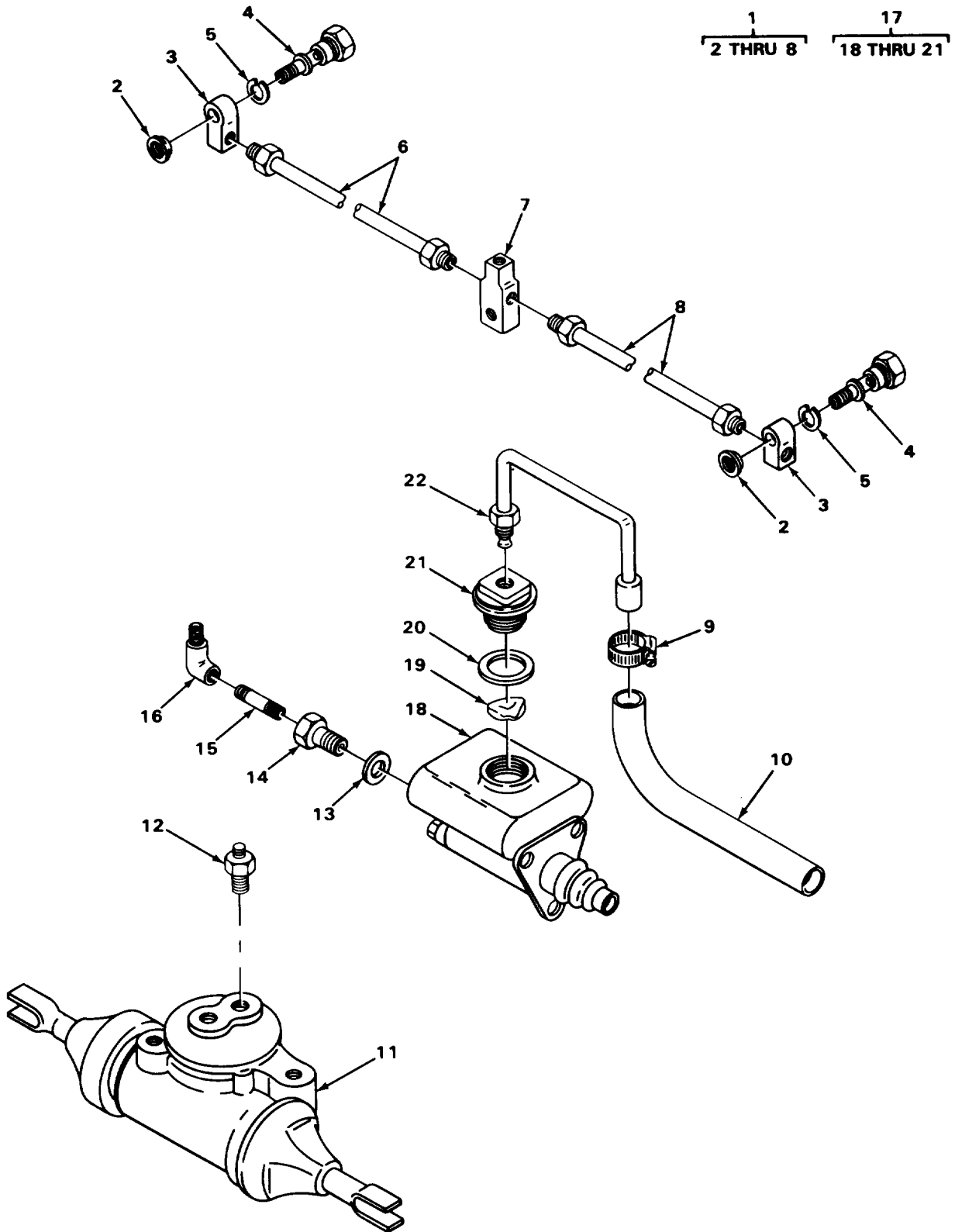
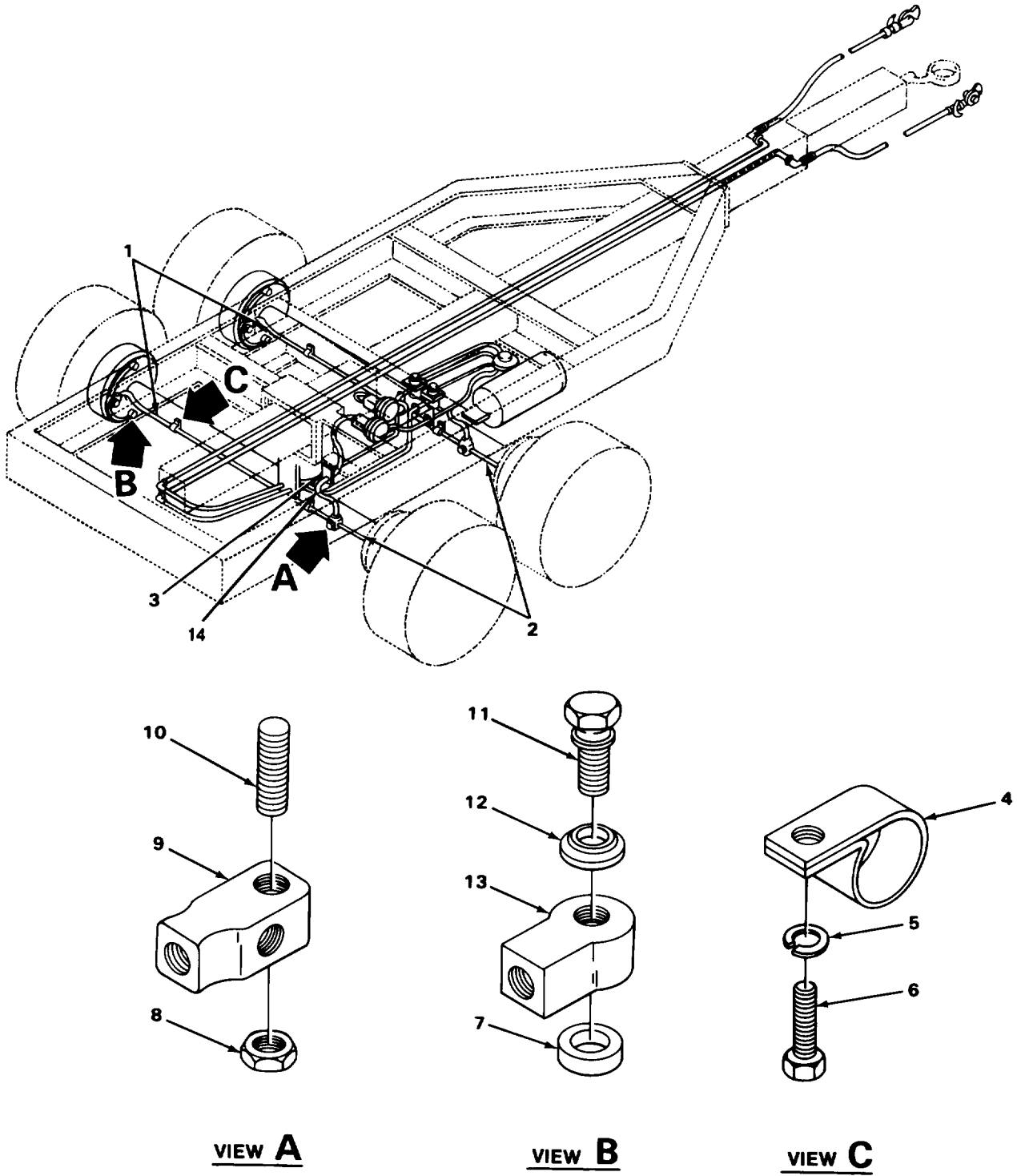


FIGURE 8. HYDRAULIC MASTER CYLINDER ASSEMBLY AND WHEEL CYLINDER ASSEMBLY.

SECTION II		TM9-2330-287-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				1204 HYDRAULIC BRAKE SYSTEM	
				FIG. 8. HYDRAULIC MASTER CYLINDER	
				ASSEMBLY AND WHEEL CYLINDER ASSEMBLY	
1	PAOZZ	63477	FD13346	TUBE ASSEMBLY,METAL LEFT HAND	1
1	PAOZZ	19207	8733899	TUBE ASSEMBLY,METAL RIGHT HAND	1
2	PAOZZ	19207	7412088	.WASHER, SHOULDERED A	2
3	PAOZZ	19207	7745464	.TEE, TUBE	2
4	PAOZZ	63477	7412079	.BOLT, FLUID PASSAGE	2
5	PAOZZ	96906	MS35333-41	.WASHER, LOCK	2
6	PAOZZ	63477	FD13351	.TUBE ASSEMBLY, METAL RIGHT HAND	1
6	PAOZZ	19207	8733922	.TUBE ASSEMBLY, METAL LEFT HAND	1
7	PAOZZ	63477	FC13927E	.CONNECTOR, MULTIPLE	1
8	PAOZZ	19207	8733918	.TUBE ASSEMBLY, METAL RIGHT HAND	1
8	PAOZZ	19207	8733920	.TUBE ASSEMBLY, METAL LEFT HAND	1
9	PFOZZ	96906	MS35842-12	CLAMP, HOSE	1
10	PAOZZ	56190	8365425	HOSE, PREFORMED	1
11	PAOZZ	19207	8733928	CYLINDER ASSEMBLY, H	8
12	PAOZZ	63477	F11410	BLEEDER VALVE, HYDRA	8
13	PAOZZ	19207	5214539	WASHER, FLAT	1
14	PAOZZ	63477	5156653	ADAPTER, STRAIGHT, TU	1
15	XDOZZ	96906	MS39159-4	ADAPTER, STRAIGHT, PI	1
16	PAOZZ	96906	MS51879-4	ELBOW, PIPE TO TUBE	1
17	PAOOO	63477	FE14240	CYLINDER ASSEMBLY, H	2
18	XDOZZ	19207	7979727	.CYLINDER, HYDRAULIC	1
19	XODZZ	19207	7979689	.BAFFLE, AIRFLOW, ENGI	1
20	PAOZZ	19207	7373354	.SPACER, RING	1
21	PAOZZ	63477	7979691	.CAP, FILLET OPENING	1
22	PAOZZ	23705	A298322	TUBE ASSEMBLY, METAL	1

END OF FIGURE

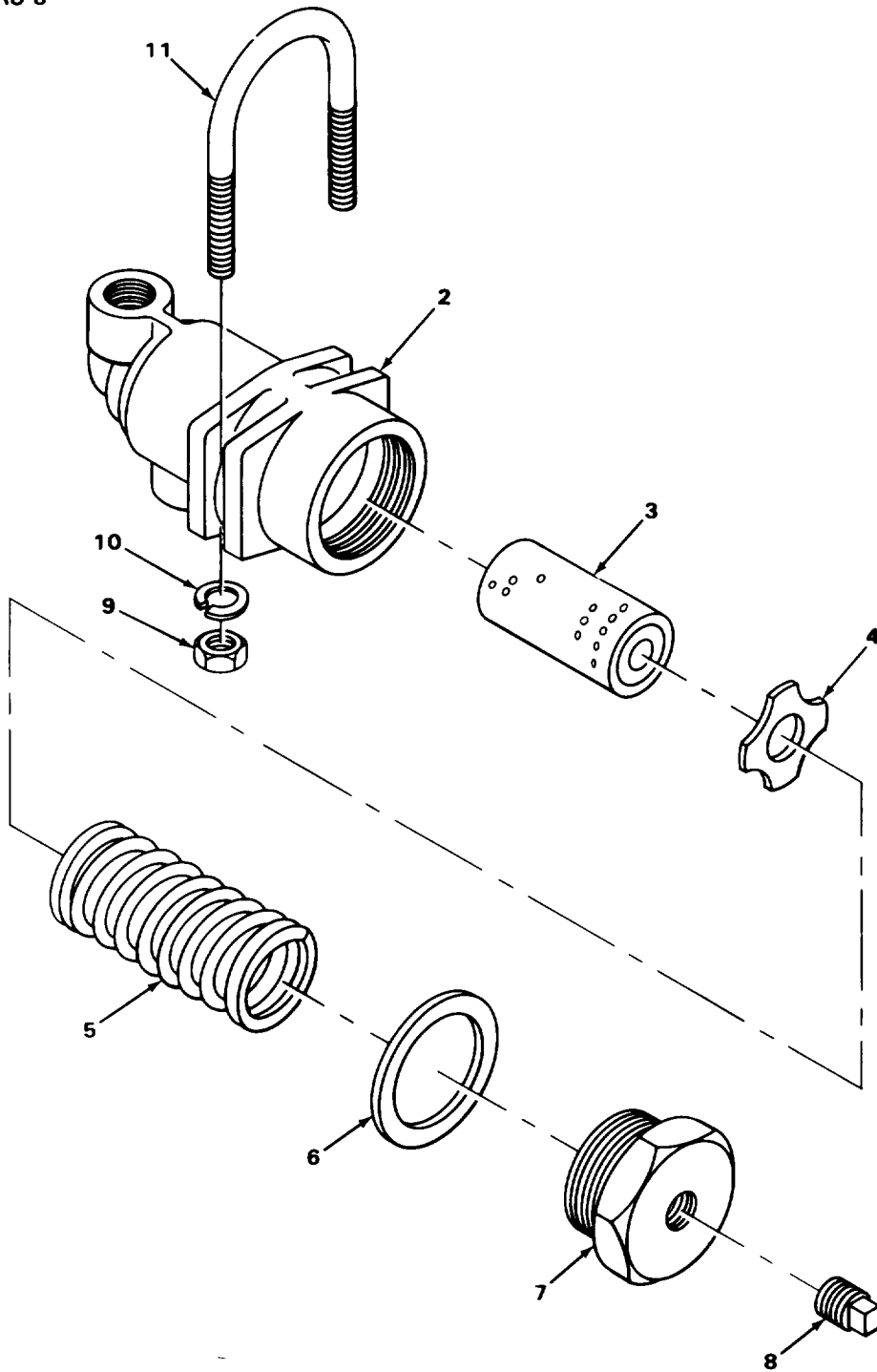


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FIGURE 9. AIR HYDRAULIC BRAKE LINES AND FITTINGS,

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				1204 HYDRAULIC BRAKE SYSTEM FIG. 9. AIR HYDRAULIC BRAKE LINES AND FITTINGS	
1	PAOZZ	19207	11592651	TUBE, BENT, METALLIC UOC:A08	2
1	PFOZZ	19207	12313002	TUBE ASSEMBLY, METAL UOC:A60	2
2	PAOZZ	63477	FC4751	HOSE ASSEMBLY, NONME	2
3	PAOZZ	19207	11592650	TUBE ASSEMBLY, METAL	2
4	PAOZZ	96906	MS21333-34	CLAMP, LOOP	4
5	PAOZZ	96906	MS35338-44	WASHER, LOCK	4
6	PFOZZ	96906	MS35206-277	SCREW, MACHINE	4
7	PAOZZ	19207	5298653	SPACER, RING	4
8	PAOZZ	96906	MS51968-11	NUT, PLAIN, HEXAGON	4
9	PAOZZ	79470	5167679	CONNECTOR, MULTIPLE	2
10	PFOZZ	24617	179125	STUD, PLAIN	2
11	PAOZZ	63477	7412079	BOLT, FLUID PASSAGE	8
12	PAOZZ	19207	7412088	WASHER, SHOULDERED A	8
13	PAOZZ	19207	8331586	CONNECTOR, MULTIPLE	4
14	PAOZZ	19207	8733920	HOSE, ASSY	1
				END OF FIGURE	

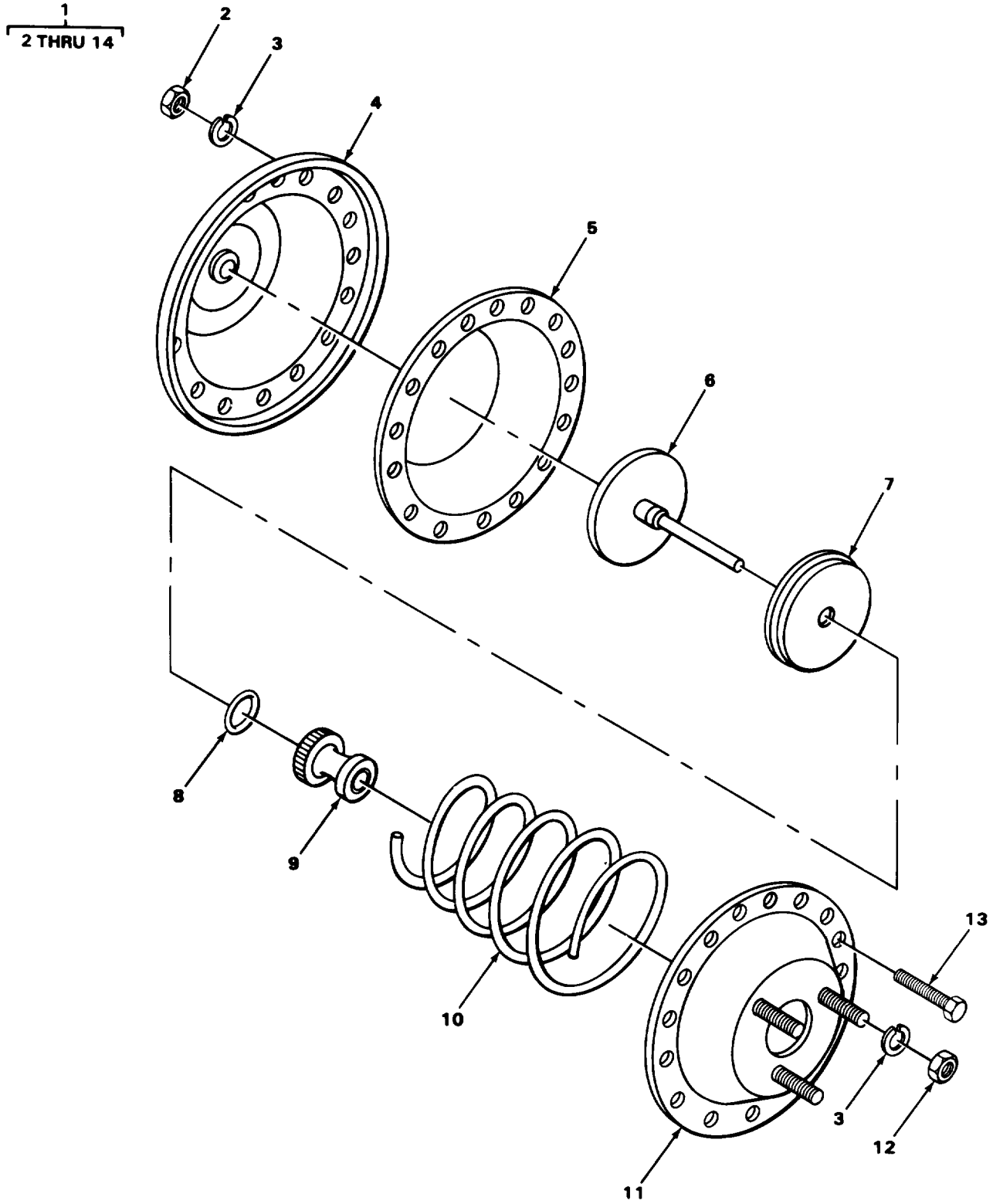
1
2 THRU 8



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FIGURE 10. AIR FILTER ASSEMBLY.

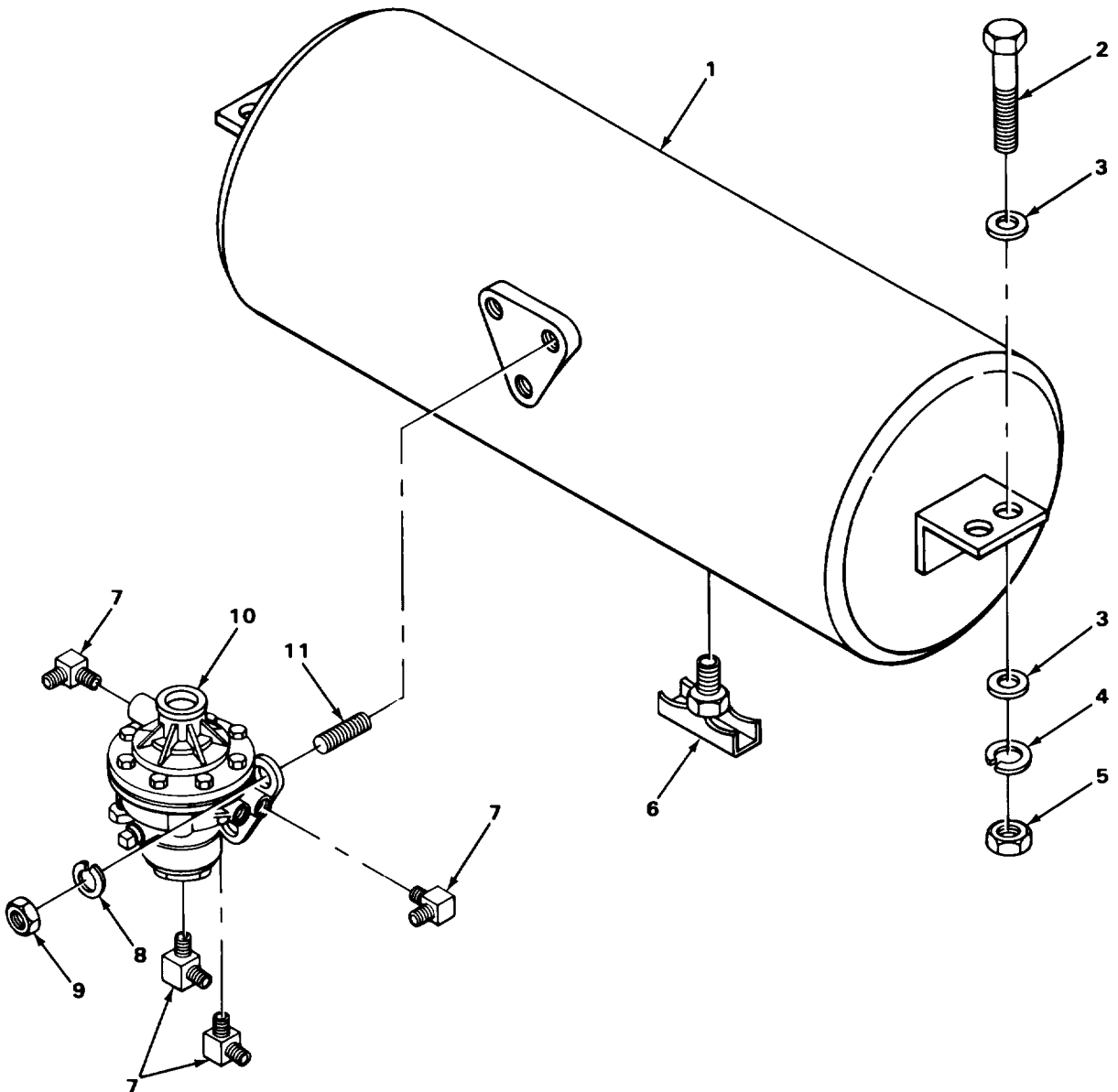
SECTION II				TM9-2330-287-14&P	
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				1208 AIR BRAKE SYSTEM	
				FIG. 10. AIR FILTER ASSEMBLY	
1	PAOZZ	23705	A298749	AIR FILTER,BRAKE LI	2
2	PAOZZ	40342	N-12970-A	.ELBOW BODY,AIR LINE	1
3	KFOZZ	23705	N12971	.FILTER ELEMENT,FLUI PART OF KIT P/N RN13A	1
4	PAOZZ	40342	N12972	.WASHER,SPRING TENS I	1
5	PAOZZ	06853	235093	.SPRING,HELICAL,COMP	1
6	KFOZZ	91340	M4X509	.GASKET PART OF KIT P/N RN13A	1
7	PAOZZ	06853	235091	.ADAPTER BUSHING	1
8	PAOZZ	66640	9112001	.PLUG,PIPE	1
9	PAOZZ	96906	MS51967-2	NUT,PLAIN,HEXAGON	2
10	PAOZZ	96906	MS35338-44	WASHER,LOCK	2
11	PAOZZ	19207	7979296	BOLT,U	2
				END OF FIGURE	



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FIGURE 11. AIR HYDRAULIC CHAMBER ASSEMBLY.

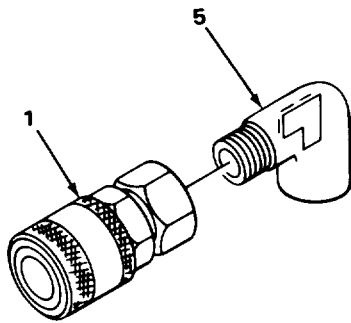
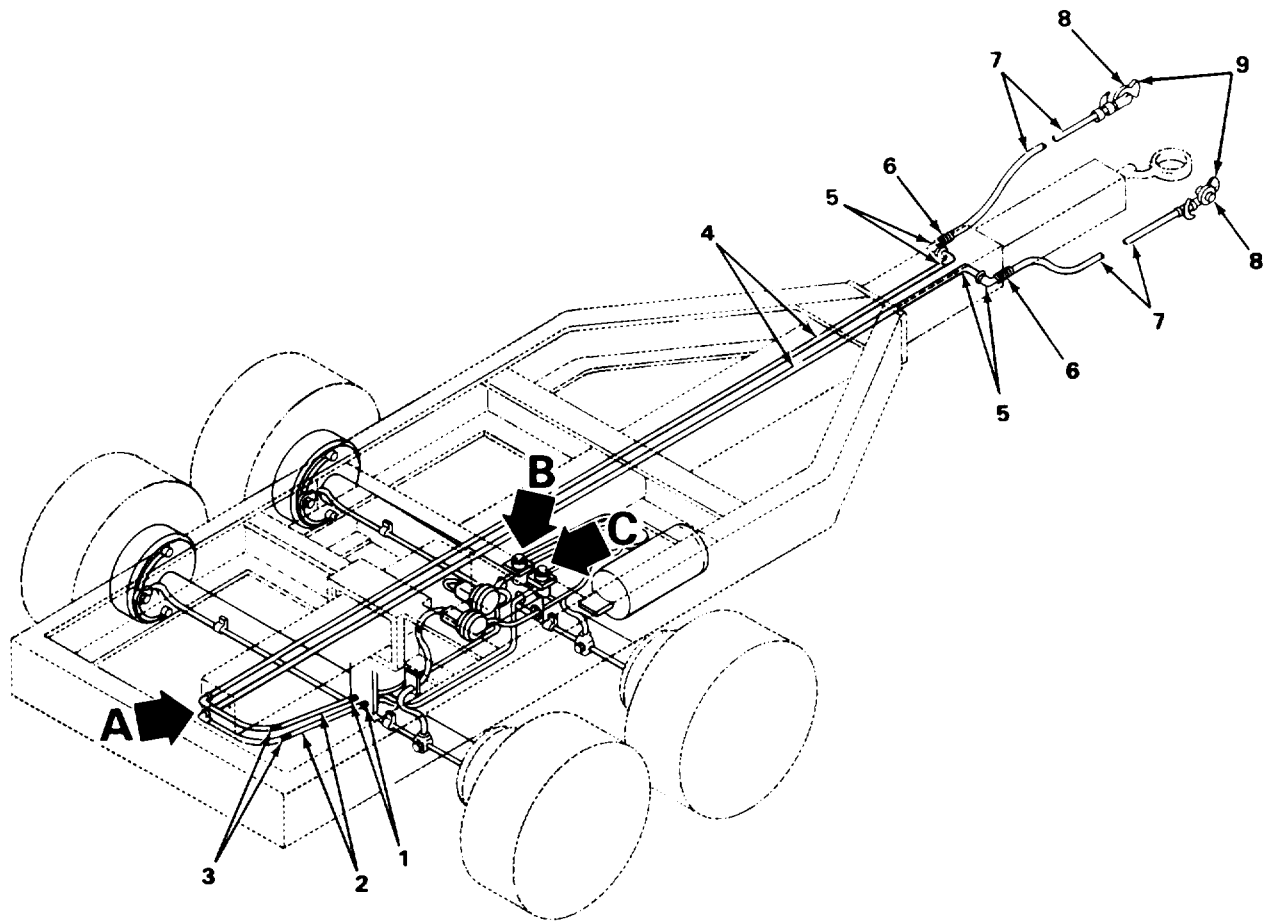
SECTION II		TM9-2330-287-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
1208 AIR BRAKE SYSTEM					
FIG. 11. AIR HYDRAULIC CHAMBER ASSEMBLY					
1	PAOZZ	23075	A298320	CHAMBER,AIR BRAKE	2
2	PAOZZ	96906	MS51967-8	.NUT,PLAIN,HEXAGON	16
3	PAOZZ	96906	MS35338-45	.WASHER,LOCK	19
4	PAOZZ	19207	7979602	.COVER,ACCESS	1
5	PAOZZ	19207	7979611	.DIAPHRAGM	1
6	PAOZZ	19207	7979599	.ROD,CHAMBER ASSEMBL	1
7	PAOZZ	19207	7979610	.RETAINER,HELICAL CO	1
8	XDOZZ	19207	7979609	.PACKING,PREFORMED	1
9	PAOZZ	19207	8365427	.COLLAR,AIR CHAMBER	1
10	PAOZZ	19207	7979608	.SPRING,HELICAL,COMP	1
11	PAOZZ	97554	7979605	.BODY ASSEMBLY,CHAMB	1
12	PAOZZ	96906	MS51968-5	.NUT,PLAIN,HEXAGON	3
13	PAOZZ	96906	MS90726-33	.BOLT,MACHINE	16
END OF FIGURE					



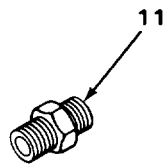
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FIGURE 12. EMERGENCY RELAY VALVE, CHECK VALVE, AND AIR BRAKE RESERVOIR.

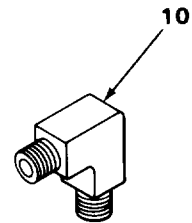
SECTION II		TM9-2330-287-14&P				
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY	
				1208 AIR BRAKE SYSTEM FIG. 12. EMERGENCY RELAY VALVE, CHECK VALVE, AND AIR BRAKE RESERVOIR		
1	PAOZZ	19207	11636427	RESERVOIR, AIR BRAK	1	
2	PFOZZ	96906	MS35291-061	SCREW,CAP,HEXAGON H	4	
3	PAOZZ	96906	MS27183-14	WASHER,FLAT	8	
4	PAOZZ	96906	MS35338-46	WASHER,LOCK	4	
5	PAOZZ	96906	MS35691-7	NUT,PLAIN,HEXAGON	4	
6	PAOZZ	96906	MS35782-5	COCK,DRAIN	1	
7	PAOZZ	81343	6-4 120202BA(LON G NUT)	ELBOW,PIPE TO TUBE	4	
8	PAOZZ	96906	MS35338-46	WASHER,LOCK	3	
9	PFOZZ	96906	MS51968-8	NUT,PLAIN,HEXAGON	3	
10	PAOZZ	96906	MS53004-2	PARTS KIT,RELAY VAL EMERGENCY RELAY VALVE	1	
11	PAOZZ	12204	113247	STUD,PLAIN	3	
				END OF FIGURE		



VIEW A



VIEW B



VIEW C

TA220746

FIGURE 13. AIR BRAKE LINES AND FITTINGS.

SECTION II		TM9-2330-287-14&P				
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY	
				1208 AIR BRAKE SYSTEM		
				FIG.13 AIR BRAKE LINES AND FITTINGS		
1	XDOZZ	19207	12255381	COUPLING HALF,QUICK	4	
2	PAOZZ	19207	11636609	HOSE ASSEMBLY,NONME	2	
3	PAOZZ	81349	M43436/1-3	BAND,MARKER	2	
4	PAOZZ	19207	11636611	HOSE ASSEMBLY,NONME	2	
5	PAOZZ	96906	MS39230-2	ELBOW,PIPE	6	
6	PAOZZ	11978	DM340	COUPLING HALF,QUICK	2	
7	PAOZZ	19207	8330805-4	HOSE ASSEMBLY,NONME	2	
8	PAOZZ	96906	MS35746-1	COUPLING HALF,QUICK	2	
9	PAOZZ	06853	213630	PACKING,PREFORMED	2	
10	PAOZZ	81343	6-4 120202BA(LON G NUT)	ELBOW,PIPE TO TUBE	1	
11	PAOZZ	79146	HO-168-6X4	ADAPTER,STRAIGHT,PI AIR FILTER	1	
				END OF FIGURE		

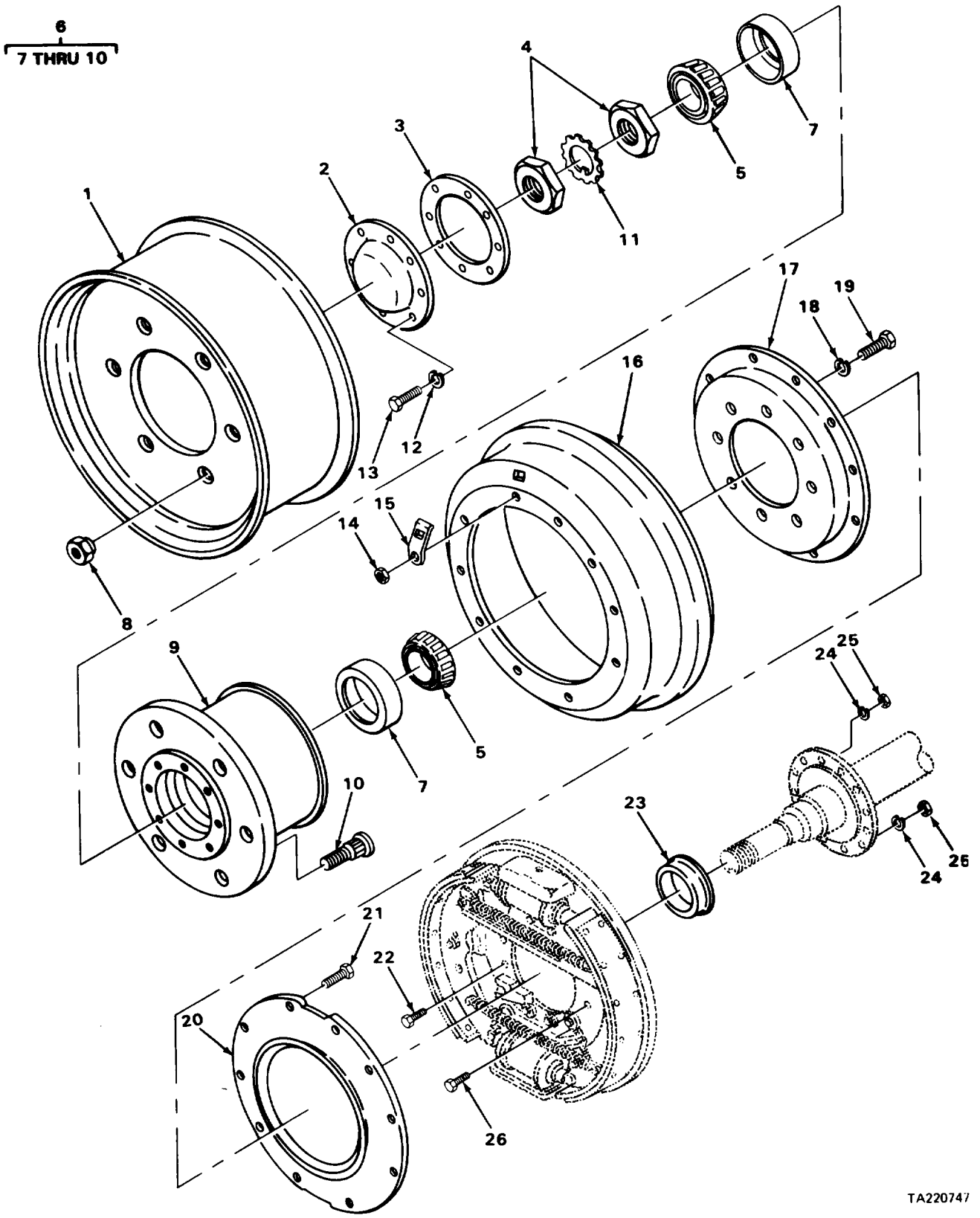
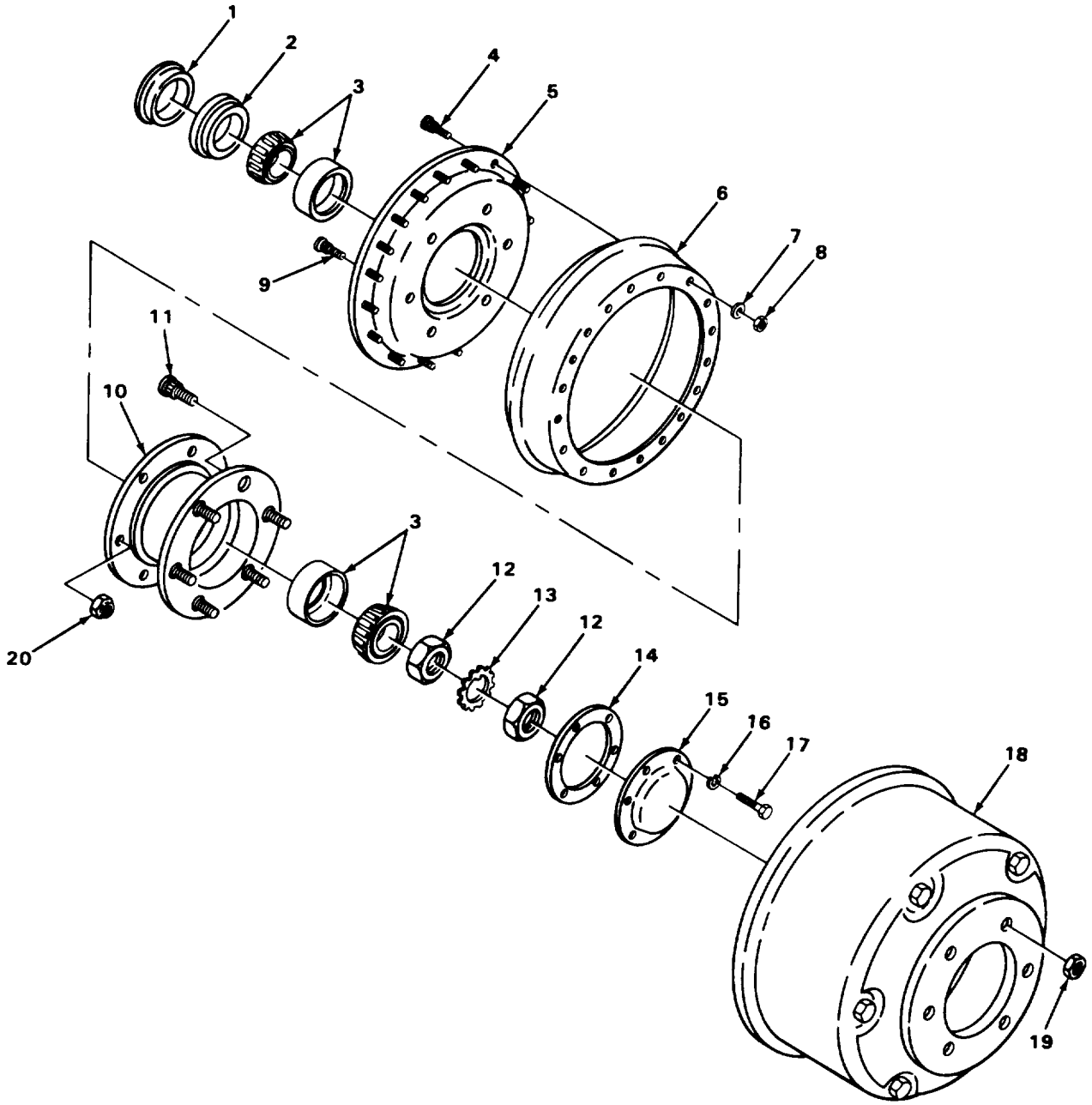


FIGURE 14. WHEEL, HUB, AND DRUM ASSEMBLY (M796).

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
GROUP 13 WHEELS, HUBS AND DRUMS 1311 WHEELS, HUBS AND DRUMS FIG. 14. WHEEL, HUB, AND DRUM ASSEMBLY (M796)					
1	PAOZZ	19207	11592642	WHEEL,PNEUMATIC TIR UOC:A08	5
2	PFOZZ	78500	3262H86	CAP,GREASE UOC:A08	4
3	PAOZZ	19207	7521787	GASKET UOC:A08	4
4	PAOZZ	19207	7521633	NUT,PLAIN,OCTAGON UOC:A08	8
5	PAOZZ	08162	392	CONE AND ROLLERS,TA OUTER UOC:A08	4
5	PFOZZ	08162	BT3994	CONE AND ROLLERS,TA INNER UOC:A08	4
6	PAOZZ	78500	A333E785	HUB,BODY UOC:A08	4
7	PAOZZ	08162	3920	.CUP,TAPERED ROLLER UOC:A08	2
8	PAOZZ	96906	MS51983-1	.NUT,PLAIN,SINGLE BA LEFT HAND UOC:A08	6
8	PAOZZ	96906	MS51983-2	.NUT,PLAIN,SINGLE BA RIGHT HAND UOC:A08	6
9	PAOZZ	09386	68221D	.HUB ASY W DRUM UOC:A08	1
10	PAOZZ	19207	10896719-1	.BOLT,RIBBED SHOULDE LEFT UOC:A08	6
10	PAOZZ	96906	MS51946-4	.BOLT,RIBBED SHOULDE RIGHT UOC:A08	6
11	PAOZZ	19207	7521650	WASHER,KEY UOC:A08	4
12	PAOZZ	88044	AN935-816	WASHER,LOCK UOC:A08	32
13	PAOZZ	96906	MS18154-113	SCREW,CAP,HEXAGON H UOC:A08	32
14	PAOZZ	96906	MS51943-36	NUT,SELF-LOCKING,HE UOC:A08	40
15	PAOZZ	19207	7521667	COVER,ACCESS UOC:A08	4
16	PBOZZ	19207	10896696	BRAKE DRUM UOC:A08	4
17	PAOZZ	19207	8357992	ADAPTER,BRAKE DRUM UOC:A08	4
18	PAOZZ	96906	MS35338-48	WASHER,LOCK UOC:A08	32
19	PAOZZ	19207	7521631	BOLT,MACHINE UOC:A08	32
20	PFOZZ	19207	7521664	DEFLECTOR,DIRT AND UOC:A08	4
21	PAOZZ	19207	7411026	BOLT,RIBBED SHOULDE	40

SECTION II				TM9-2330-287-14&P		
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)		QTY
22	PFOZZ	96906	MS90726-60	UOC:A08 SCREW,CAP,HEXAGON H		16
23	XDOZZ	78500	A1205Z650	UOC:A08 SEAL,PLAIN ENCASED		4
24	PAOZZ	96906	MS35335-35	UOC:A08 WASHER,LOCK		32
25	PFOZZ	96906	MS51968-8	UOC:A08 NUT,PLAIN,HEXAGON		32
26	PAOZZ	96906	MS90726-64	UOC:A08 SCREW,CAP,HEXAGON H		16
				UOC:A08		
				END OF FIGURE		

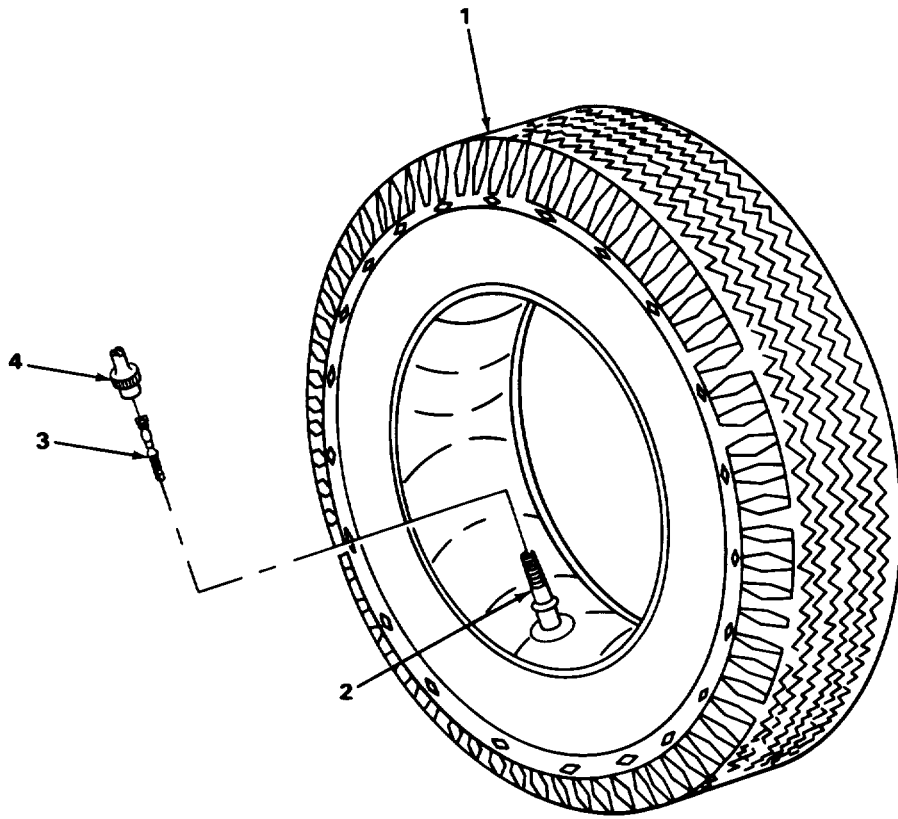


TA220748

FIGURE 15. WHEEL, HUB, AND DRUM ASSEMBLY (M796A1).

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				1311 WHEEL, HUBS AND DRUMS FIG. 15. WHEEL, HUB, AND DRUM ASSEMBLY (M756A1)	
1	PAOZZ	23862	2275698	SPACER,SLEEVE UOC:A08	4
2	PAOZZ	19207	7411429	SEAL,PLAIN ENCASED UOC:A60	4
3	PAOZZ	96906	MS19081-112	BEARING,ROLLER,TAPE UOC:A60	8
4	PAOZZ	18876	8720025	BOLT,RIBBED NECK UOC:A60	72
5	PAOZZ	19207	7413231	PLATE,BACKING,BRAKE UOC:A60	4
6	PAOZZ	24617	2284031	BRAKE DRUM UOC:A60	4
7	PAOZZ	96906	MS27183-14	WASHER,FLAT UOC:A60	72
8	PAOZZ	96906	MS21045-6	NUT,SELF-LOCKING,HE UOC:A60	72
9	PAOZZ	96906	MS51946-11	BOLT,RIBBED SHOULDE UOC:A60	24
10	PBOZZ	19207	11682127-1	HUB,BODY UOC:A60	4
11	PAOZZ	96906	MS51946-2	BOLT,RIBBED SHOULDE UOC:A60	24
11	PAOZZ	96906	MS51946-1	BOLT,RIBBED SHOULDE UOC:A60	24
12	PAOZZ	19207	7411379	NUT,PLAIN,OCTAGON UOC:A60	8
13	PAOZZ	19207	7411378	WASHER,KEY UOC:A60	8
14	XDOZZ	23705	6144356	GASKET UOC:A60	4
15	PAOZZ	19207	6144454	HUB CAP,WHEEL UOC:A60	4
16	PAOZZ	96906	MS35338-44	WASHER,LOCK UOC:A60	24
17	PAOZZ	96906	MS35206-281	SCREW,MACHINE UOC:A60	24
18	PAOZZ	19207	11592642	WHEEL,PNEUMATIC TIR UOC:A60	4
19	PAOZZ	96906	MS51983-2	NUT,PLAIN,SIGNLE BA UOC:A60	24
19	PAOZZ	96906	MS51983-1	NUT,PLAIN,SINGLE BA UOC:A60	24
20	PFOZZ	96906	MS51943-46	NUT,SELF-LOCKING,HE UOC:A60	24

END OF FIGURE



TA220749

FIGURE 16. TIRE, VALVE, AND VALVE CAP.

SECTION II		TM9-2330-287-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				1313 TIRES AND TUBES	
				FIG. 26. TIRE, VALVE, AND VALVE CAP	
1	PAOFO	81348	ZZ-T-381P/12-16. 5/GP2A/E/LTHR	TIRE,PNEUMATIC	6
2	PAOZZ	81348	ZZ-V-25/TYPEII/C LASS2/TRI501	VALVE,PNEUMATIC TIR	5
3	PAOZZ	96906	MS51377-1	VALVE CORE	5
4	PAOZZ	51665	US48	CAP,PNEUMATIC VALVE	5
				END OF FIGURE	

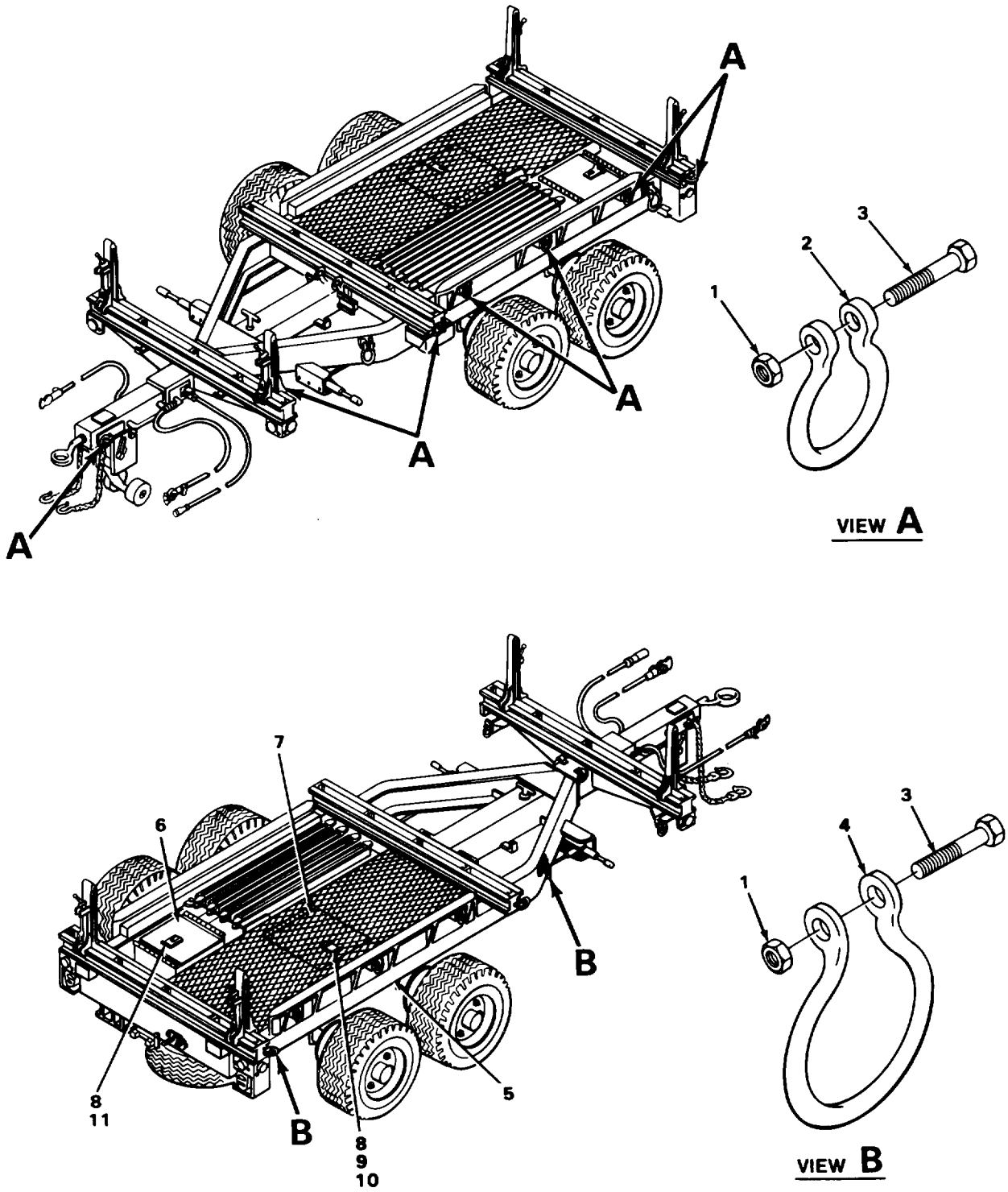
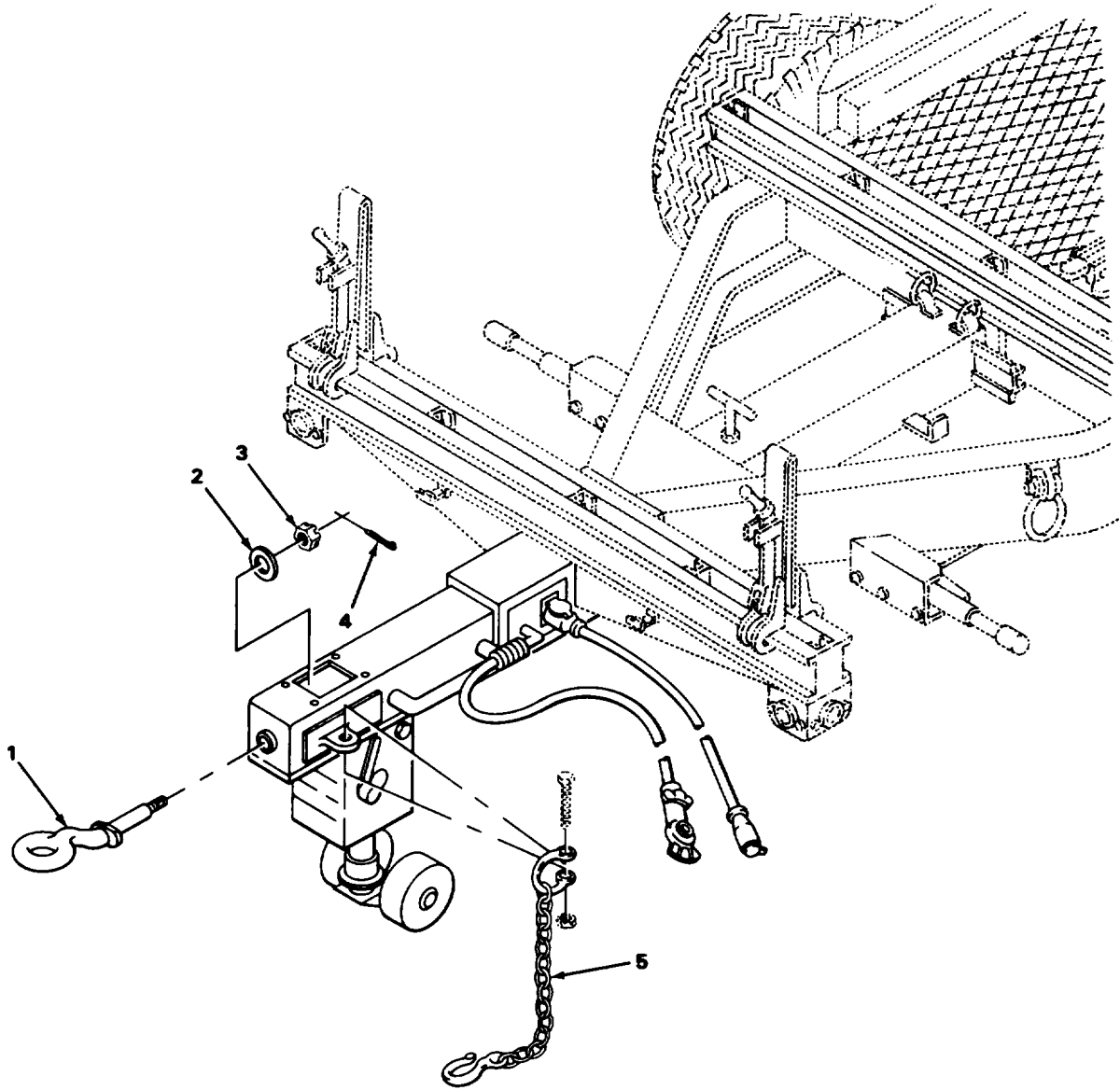


FIGURE 17. SHACKLES.

SECTION II		TM9-2330-287-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				GROUP 15 FRAME AND TOWING	
				ATTACHMENTS	
				1501 FRAME ASSEMBLY	
				FIG. 17. SHACKLES	
1	PAOZZ	96906	MS51922-57	NUT, SELF-LOCKING, HE	18
2	PAOZZ	19207	10891283	SHACKEL LOAD TIEDOWN	14
3	PAOZZ	96906	MS90728-193	SCREW, CAP, HEXAGON H	18
4	PAOZZ	19207	11592598	SHACKLE VEHICLE LIFTING	4
5	PAOZZ	19207	10914500	BUMPER, RUBBER	4
6	PAOZZ	19207	11636555	BOX, STORAGE	1
7	PAOZZ	19207	11636555	ACCESS PANEL	1
8	PAOZZ	19207	8328726	LOCKING LATCH	1
9	PAOZZ	19207	7753912	PIN, CLIP	1
10	PAOZZ	81342	RRC271	CHAIN, WELDED	1
11	PAOZZ	03776	MS49005-8	PLUG, PIPE	1

END OF FIGURE



TA220751

FIGURE 18. LUNETTE AND SAFETY CHAINS.

SECTION II				TM9-2330-287-14&P		
(1)	(2)	(3)	(4)	(5)		(6)
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)		QTY
				1503 PINTLES AND TOWING ATTACHMENTS		
				FIG. 18. LUNETTE AND SAFETY CHAINS		
1	PAOZZ	96906	MS51339-3	COUPLER, DRAWBAR, RIN		1
2	PAOZZ	24617	446284	WASHER, FLAT		1
3	PAOZZ	19207	7411028	NUT, PLAIN, SLOTTED, H		1
4	PAOZZ	96906	MS24665-499	PIN, COTTER		1
5	PAOZZ	19207	11636654-2	CHAIN ASSEMBLY, SING		2
				UOC:A60		
				END OF FIGURE		

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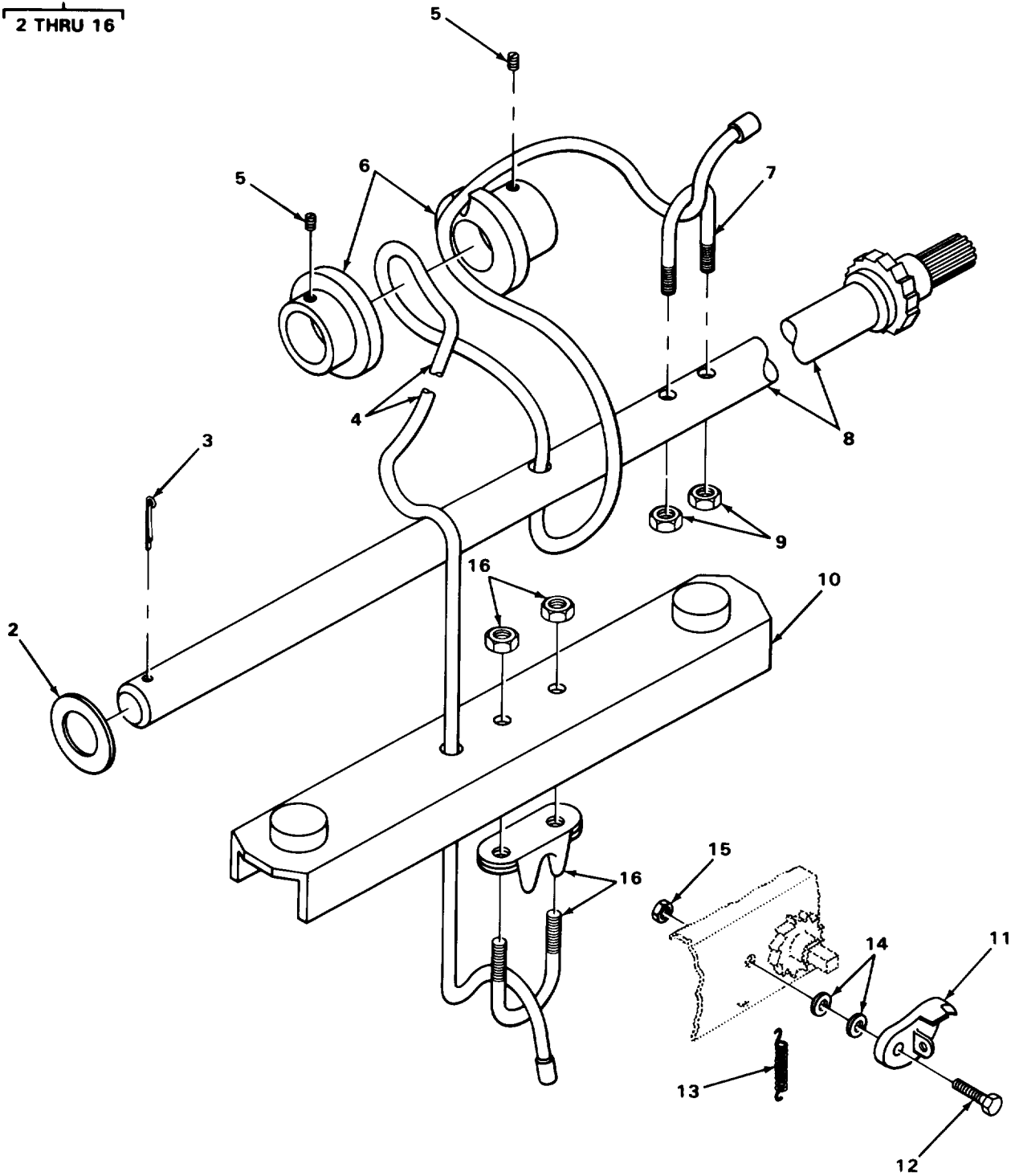
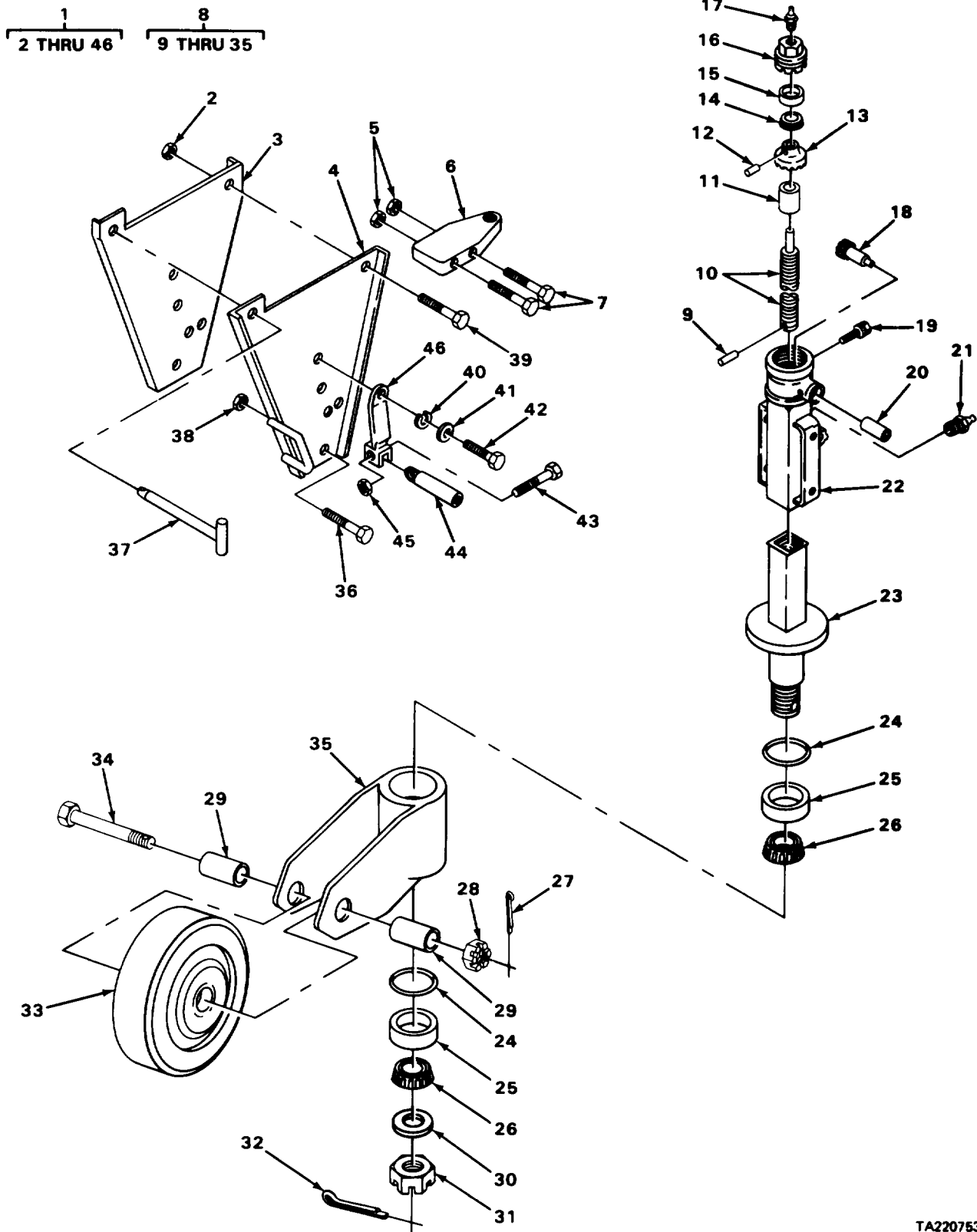


FIGURE 19. SPARE WHEEL STOWAGE ASSEMBLY.

SECTION II		TM9-2330-287-14&P				
(1)	(2)	(3)	(4)	(5)	(6)	
ITEM NO	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY	
				1504 SPARE WHEEL CARRIER		
				FIG.19. SPARE WHEEL STOWAGE ASSEMBLY		
1	PFOZZ	19207	11636646	BRACKET, MOUNTING	1	
2	PAOZZ	96906	MS27183-30	.WASHER, FLAT	1	
3	PAOZZ	96906	MS24665-498	.PIN, COTTER	1	
4	PAOZZ	19207	11636668	.STRAND, WIRE	1	
5	PAOZZ	96906	MS51965-54	.SETSCREW	2	
6	PFOZZ	19207	11592656	.COLLAR, SHAFT	2	
7	PAOZZ	19207	11636665	.BOLT, U	1	
8	PFOZZ	19207	11636669	.SHAFT AND RATCHET, T	1	
9	PAOZZ	96906	MS51967-2	.NUT, PLAIN, HEXAGON	2	
10	PAOZZ	19207	11592666	.SUPPORT TIRE CARRIE	1	
11	PAOZZ	19207	11636591	.PAWL	1	
12	PAOZZ	19207	11636670	.BOLT, SHOULDER	1	
13	PAOZZ	19207	7409903	.SPRING, HELICAL, EXTE	1	
14	PAOZZ	96906	MS27183-21	.WASHER, FLAT	2	
15	PAOZZ	96906	MS51922-33	.NUT, SELF-LOCKING, HE	1	
16	PAOZZ	96906	MS16842-3	.CLAMP, WIRE ROPE, SAD	1	

END OF FIGURE



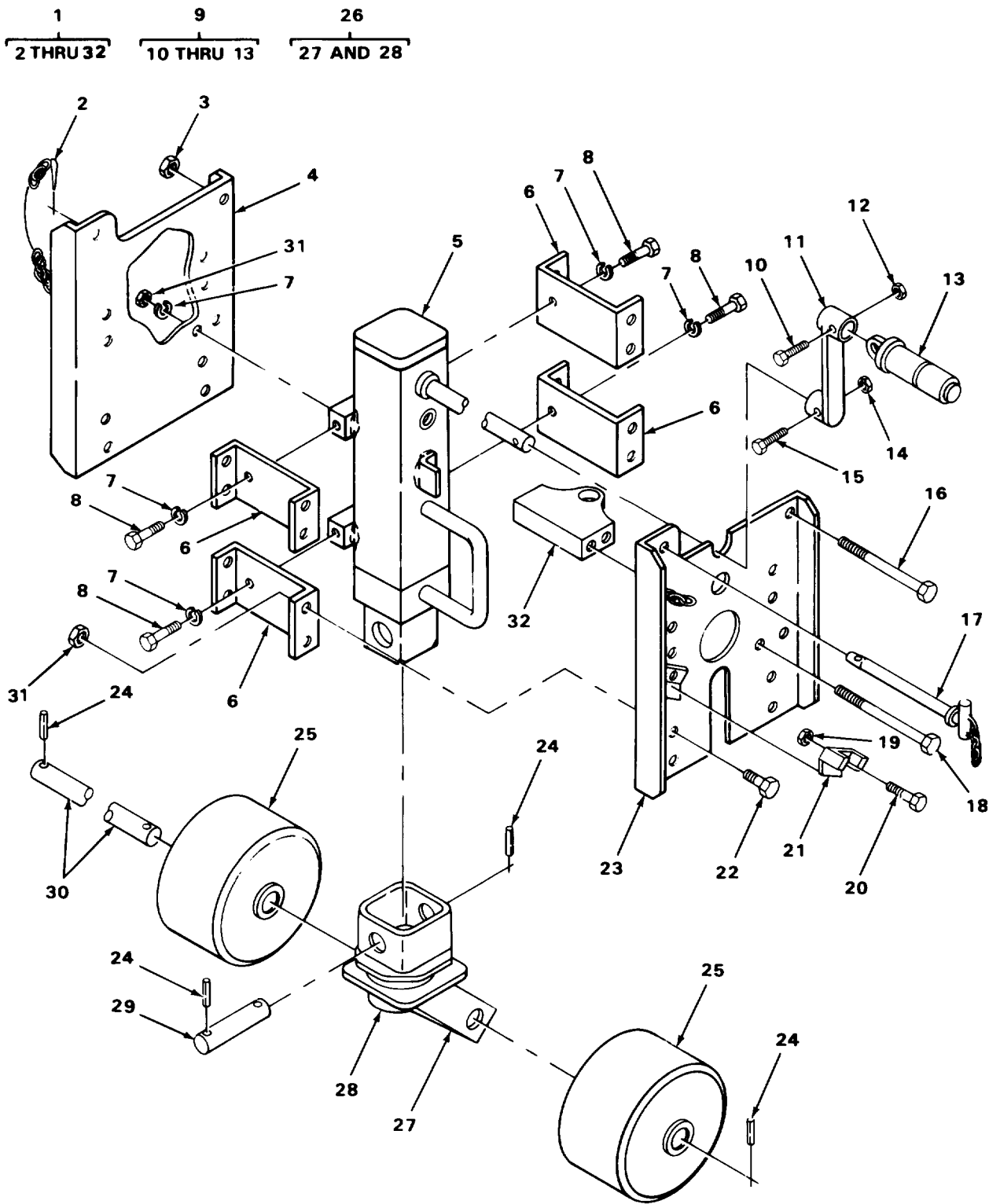
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FIGURE 20. RETRACTABLE SUPPORT ASSEMBLY AND LEGS (M796).

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
				1507 LANDING GEAR AND LEVELING JACKS FIG. 20. RETRACTABLE SUPPORT ASSEMBLY AND LEGS (M796)	
1	PAOFF	19207	11636503	SUPPORT,RETRACTABLE UOC:A08	1
2	PAFZZ	96906	MS51922-37	.NUT,SELF-LOCKING,HE UOC:A08	1
3	PAFZZ	19207	11636676	.PLATE,SUPPORT UOC:A08	1
4	PAFZZ	19207	11636675	.PLATE,SUPPORT UOC:A08	1
5	PAFZZ	96906	MS51922-33	.NUT,SELF-LOCKING,HE UOC:A08	2
6	PAFZZ	19207	11636684	.BAR,LOCK,RETRACTABL UOC:A08	1
7	PFZZ	96906	MS90728-129	.SCREW,CAP,HEXAGON H UOC:A08	2
8	PFOFF	19207	11636613	.SUPPORT,RETRACTABLE UOC:A08	1
9	PAFZZ	96906	MS35674-41	..PIN,GROOVED,HEADLES UOC:A08	1
10	PAFZZ	19207	11636614	..SHAFT,SHOULDERED UOC:A08	1
11	PAFZZ	19207	8020123	..SPACER,SLEEVE UOC:A08	1
12	PAOZZ	96906	MS9047-264	..PIN,SPRING UOC:A08	1
13	PAFZZ	18876	8020174	..GEAR,BEVEL UOC:A08	1
14	PAFZZ	08162	02475	..CONE AND ROLLERS,TA UOC:A08	1
15	PAFZZ	00006	02420	..CUP,TAPERED ROLLER UOC:A08	1
16	PAFZZ	19207	7032131	..CAP,GEAR HOUSING,JA UOC:A08	1
17	PAOZZ	96906	MS15003-6	..FITTING,LUBRICATION UOC:A08	1
18	PAFZZ	19207	7032133	..GEAR SHAFT,BEVEL UOC:A08	1
19	PAFZZ	21450	187745	..SCREW UOC:A08	1
20	PAFZZ	18876	8020716	..SPACER,RING UOC:A08	1
21	PAOZZ	96906	MS15003-1	..FITTING,LUBRICATION UOC:A08	1
22	PAFZZ	19207	11636621	..HOUSING,SUPPORT UOC:A08	1
23	PAFZZ	19207	11636620	..TUBE ASSEMBLY,RETRA UOC:A08	1
24	PAFZZ	96906	MS28775-234	..PACKING,PREFORMED UOC:A08	2

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
25	PAFZZ	60038	16284	. .CUP,TAPERED ROLLER UOC:A08	2
26	PAFZZ	08162	16150	. .CONE AND ROLLER,TA UOC:A08	2
27	PAFZZ	96906	MS24665-499	. .PIN,COTTER UOC:A08	1
28	PAFZZ	96906	MS35692-73	. .NUT,PLAIN,SLOTTED,H UOC:A08	1
29	PAFZZ	19207	11636616	. .BUSHING,SLEEVE UOC:A08	2
30	PAFZZ	19207	11636619	. .WASHER,FLAT UOC:A08	1
31	PAFZZ	96906	MS35692-97	. .NUT,PLAIN,SLOTTED,H UOC:A08	1
32	PAFZZ	96906	MS24665-627	. .PIN,COTTER UOC:A08	1
33	PAFZZ	19207	11682153	. .WHEEL,METAL TIRE UOC:A08	2
34	PAFZZ	19207	11636618	. .BOLT,FLUID PASSAGE UOC:A08	1
35	PAFZZ	19207	11636615	. .PLATE,SUPPORT,RETRA UOC:A08	1
36	XDFZZ	96906	MS90726-111	. .SCREW,CAP,HEXAGON H UOC:A08	4
37	PAFZZ	19207	11636685	. .PIN,SPECIAL UOC:A08	1
38	PAFZZ	96906	MS21044N8	. .NUT,SELF-LOCKING,HE UOC:A08	4
39	PAFZZ	19207	11636605	. .SCREW,CAP,HEXAGON H UOC:A08	1
40	PFZZ	96906	MS35338-45	. .WASHER,LOCK UOC:A08	1
41	PAFZZ	19207	7032134	. .WASHER,FLAT UOC:A08	1
42	PAFZZ	96906	MS90725-31	. .BOLT,MACHINE UOC:A08	1
43	PAFZZ	96906	MS90726-64	. .SCREW,CAP,HEXAGON H UOC:A08	1
44	PAFZZ	19207	7032136	. .HANDLE ASSEMBLY,HAN UOC:A08	1
45	PAFZZ	96906	MS51922-21	. .NUT,SELF-LOCKING,HE UOC:A08	1
46	PAFZZ	19207	7032135	. .ARM CRANK,ASSEMBLY UOC:A08	1

END OF FIGURE



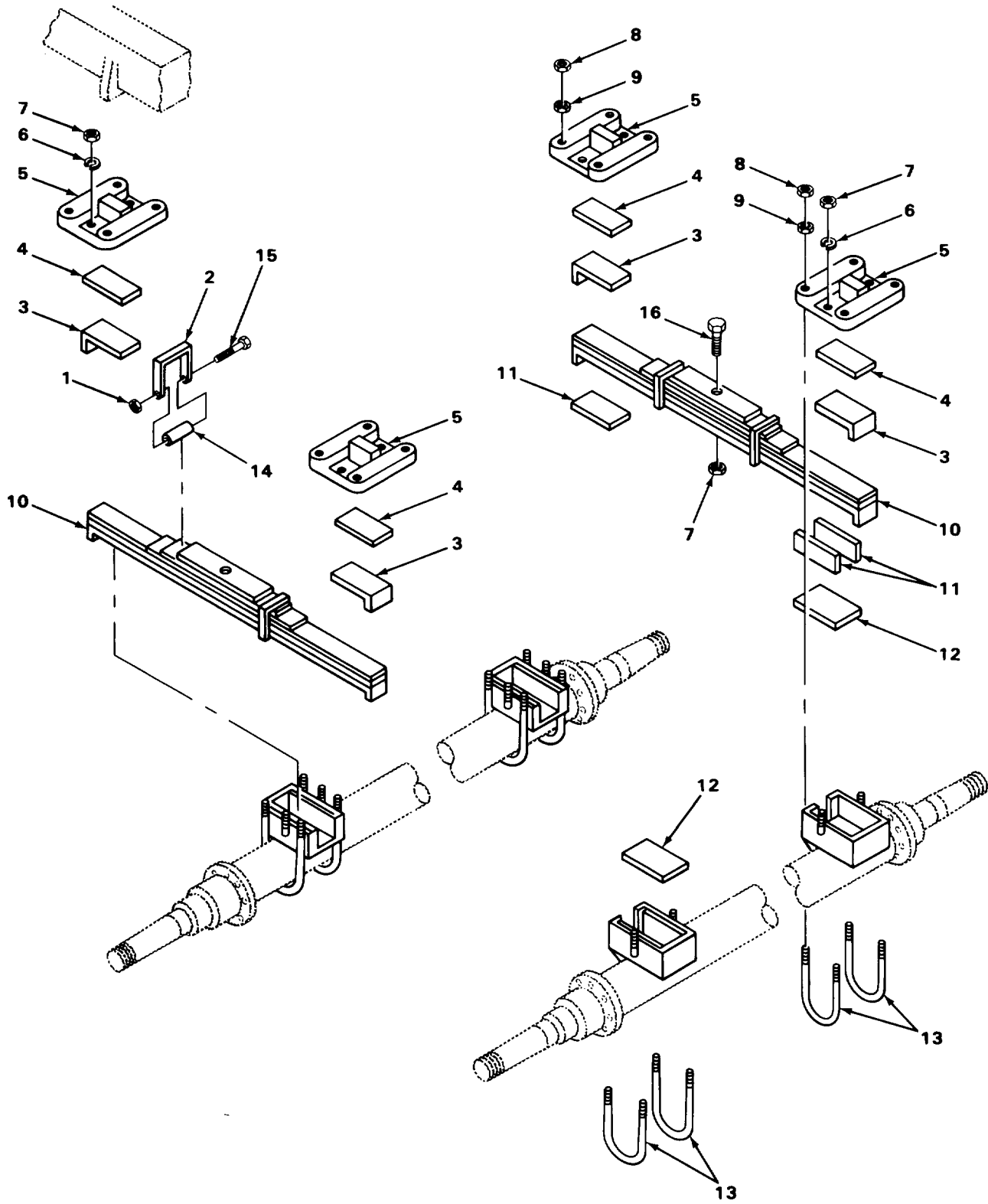
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FIGURE 21. RETRACTABLE SUPPORT ASSEMBLY AND LEGS (M796A1).

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
1507 LANDING GEAR AND LEVELING JACKS FIG. 21. RETRACTABLE SUPPORT ASSEMBLY AND LEGS (M796A1)					
1	PAOFF	19207	12312997	SUPPORT,RETRACTABLE UOC:A60	1
2	XBFZZ	19207	11636686	.CLIP,SPRING TENSION UOC:A60	1
3	PAFZZ	96906	MS51922-61	.NUT,SELF-LOCKING,HE UOC:A60	1
4	PPFZZ	19207	12312995	.PLATE ASSEMBLY,FLAN RIGHT UOC:A60	1
5	XAFZZ	19207	12259830-1	.LEG,SEMITRAILER RET UOC:A60	1
6	XBFZZ	19207	12312998	.BRACKET,MOUNTING UOC:A60	4
7	PAFZZ	96906	MS35338-48	.WASHER,LOCK UOC:A60	6
8	PAFZZ	96906	MS90725-109	.SCREW,CAP,HEXAGON H UOC:A60	4
9	PFOZZ	19207	12259835	.CRANK,HAND UOC:A60	1
10	PAFZZ	96906	MS90726-38	..BOLT,MACHINE UOC:A60	
11	PAOZZ	19207	12259840	..ARM,HAND CRANK UOC:A60	1
12	PAFZZ	96906	MS21083N5	..NUT,SELF-LOCKING,HE UOC:A60	1
13	PBFZZ	19207	12259837	..HANDLE,MANUAL CONTR UOC:A60	1
14	PAFZZ	96906	MS17829-4C	.NUT,SELF-LOCKING,HE UOC:A60	1
15	PAFZZ	96906	MS90725-10	.SCREW,CAP,HEXAGON H UOC:A60	1
16	XBFZZ	19207	11636605-1	.BOLT,MACHINE UOC:A60	1
17	XBFZZ	19207	11636685-1	.PIN,COTTER UOC:A60	1
18	XBFZZ	19207	11669792	.BOLT,ASSEMBLED SLEE UOC:A60	2
19	PAFZZ	96906	MS51922-1	.NUT,SELF-LOCKING,HE UOC:A60	1
20	PAFZZ	96906	MS90725-5	.SCREW,CAP,HEXAGON H UOC:A60	1
21	PAFZZ	19207	12312996	.CLIP,SPRING TENSION UOC:A60	1
22	PAFZZ	96906	MS18154-58	.SCREW,CAP,HEXAGON H UOC:A60	16
23	XBFZZ	19207	12312992	.PLATE,CHAIN LINK LEFT UOC:A60	1
24	PAFZZ	96906	MS16562-66	.PIN,SPRING UOC:A60	4

SECTION II				TM9-2330-287-14&P	
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
25	PBFZZ	19207	12259845	.WHEEL,METAL TIRE UOC:A60	2
26	AFFZZ	19207	12354248	.CASTER ASSEMBLY UOC:A60	1
27	XBFZZ	19207	12312987	..CASTER,SWIVEL UOC:A60	1
28	XBFZZ	19207	12312983	..ADAPTER,HOUSING UOC:A60	1
29	PBFZZ	19207	12259831	.SHAFT,STRAIGHT UOC:A60	1
30	XBFZZ	19207	12259831-1	.SHAFT,STRAIGHT UOC:A60	1
31	PAFZZ	96906	MS51967-8	.NUT,PLAIN,HEXAGON UOC:A60	18
32	PAFZZ	19207	11636684	.BAR,LOCK,RETRACTABL UOC:A60	1

END OF FIGURE



TA220755

FIGURE 22. SUSPENSION ASSEMBLY.

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
GROUP 16 SPRINGS AND SHOCK ABSORBERS					
1601 SPRINGS					
FIG. 22. SUSPENSION ASSEMBLY					
1	PAOZZ	96906	MS51967-11	NUT, PLAIN, HEXAGON	4
2	PBOZZ	19207	11592653	ALIGNMENT CLIP, LEAF	4
3	XBOZZ	19207	12313036	SPACER, PLATE UOC: A60	4
4	PAOZZ	19207	11592640	PAD, CUSHIONING	4
5	XBOZZ	19207	12312976	COVER ASSEMBLY UOC: A60	4
5	XBOZZ	19207	11592632	COVER ASSEMBLY UOC: A08	4
6	PAOZZ	88044	AN935-816	WASHER, LOCK	8
7	PAOZZ	96906	MS51968-14	NUT, PLAIN, HEXAGON	10
8	PAOZZ	96906	MS51968-20	NUT, PLAIN, HEXAGON	16
9	PAOZZ	96906	MS35691-53	NUT, PLAIN, HEXAGON	16
10	PAOZZ	19207	11592616	SPRING ASSEMBLY, LEA	2
11	PAOZZ	19207	11592639	PAD, CUSHIONING UOC: A08	8
11	XBOZZ	19207	11592639-1	PAD, CUSHIONING UOC: A60	8
12	PAOZZ	19207	11592638	PAD, CUSHIONING	4
13	PAOZZ	19207	11592641	BOLT, U UOC: A08	8
13	XBOZZ	19207	12312971	BOLT, U UOC: A60	8
14	PBOZZ	19207	11592648	SPACER, SLEEVE	4
15	PAOZZ	96906	MS90727-125	SCREW, CAP, HEXAGON H	4
16	PAOZZ	19207	11592654	BOLT, MACHINE	2
END OF FIGURE					

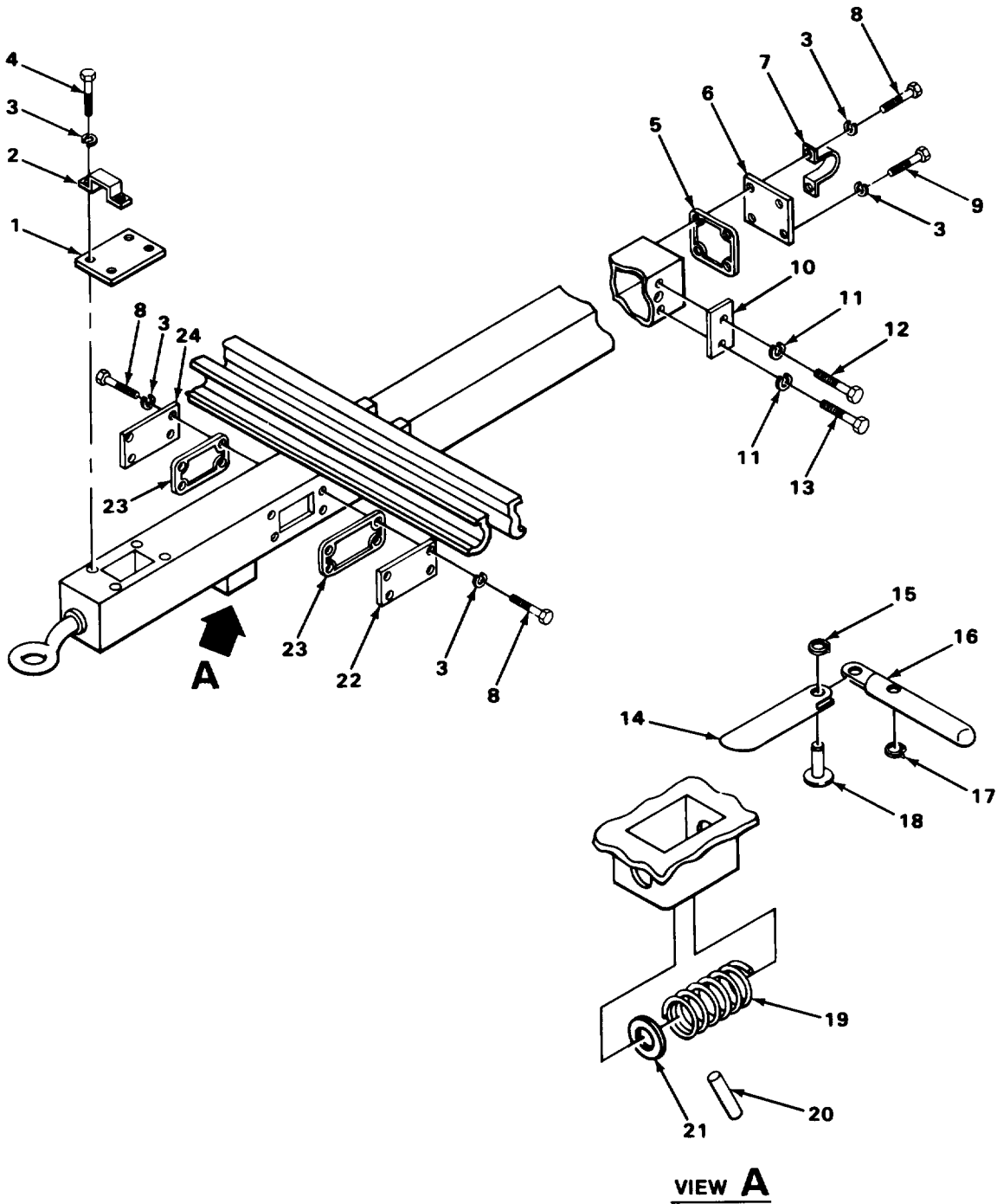
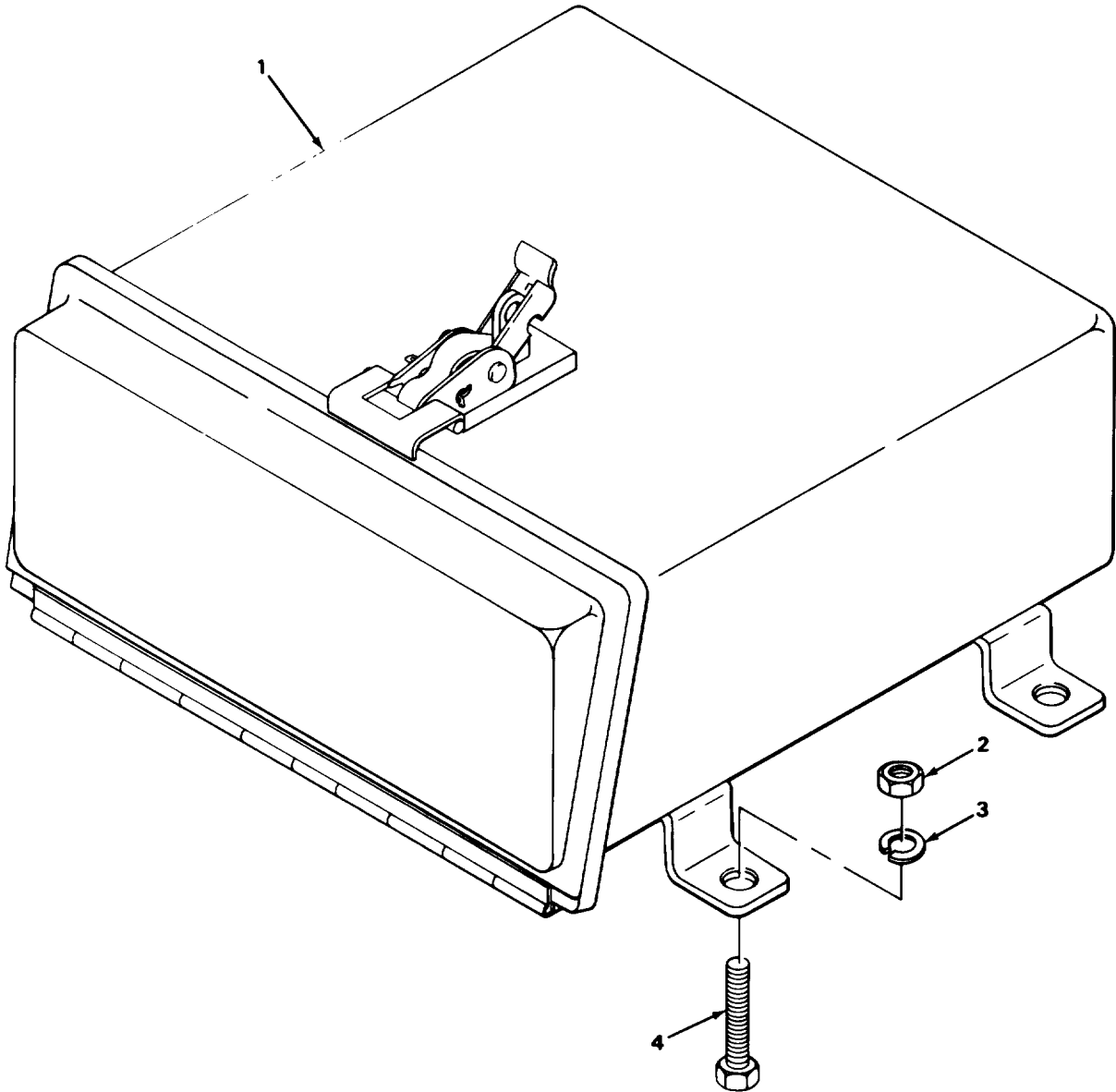


FIGURE 23. BODY COMPONENTS.

SECTION II (1) ITEM NO	(2) SMR CODE	(3) FSCM	TM9-2330-287-14&P (4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)	(6) QTY
GROUP 18 BODY					
1801 BODY ASSEMBLY					
FIG. 23. BODY COMPONENTS					
1	PAOZZ	19207	11636658	COVER, ACCESS	1
2	PFOZZ	19207	12312978	BRACKET, DOUBLE ANGL UOC:A60	1
3	PAOZZ	96906	MS35338-44	WASHER, LOCK	16
4	PAOZZ	96906	MS35308-305	SCREW, CAP, HEXAGON H UOC:A08	4
4	PAOZZ	96906	MS35308-306	SCREW, CAP, HEXAGON H TOP REACH TUBE PLATES RETAINING UOC:A60	4
5	PAOZZ	19207	11636717	GASKET	1
6	PAOZZ	19207	11636653	COVER, ACCESS	1
7	PFOZZ	19207	12296618	STRAP, RETAINING	1
8	PAOZZ	96906	MS35308-307	SCREW, CAP, HEXAGON H UOC:A08	8
8	PAOZZ	96906	MS35308-307	SCREW, CAP, HEXAGON H UOC:A60	10
9	PAOZZ	96906	MS35308-305	SCREW, CAP, HEXAGON H UOC:A08	2
9	PAOZZ	96906	MS35308-305	SCREW, CAP, HEXAGON H UOC:A60	2
10	PAOZZ	19207	11636574	SPACER, PLATE	1
11	PAOZZ	96906	MS35338-46	WASHER, LOCK	2
12	PAOZZ	96906	MS35308-305	SCREW, CAP, HEXAGON H UOC:A08	2
13	PAOZZ	96906	MS35308-364	SCREW, CAP, HEXAGON H UOC:A60	2
14	PAOZZ	19207	11636652	YOKE, RETRACTABLE SU	1
15	PAOZZ	96906	MS16633-1050	RING, RETAINING	1
16	PAOZZ	19207	11636651	HANDLE, RETRACTABLE	1
17	PAOZZ	96906	MS16633-1025	RING, RETRAINING	1
18	PFOZZ	19207	11636650	PIN, GROOVED, HEADED	1
19	PAOZZ	19207	8331541	SPRING, HELICAL, COMP	1
20	PAOZZ	19207	7979971	PIN, STRAIGHT, HEADLE	1
21	PAOZZ	19207	8331542	WASHER, RECESSED	1
22	PAOZZ	19207	11636681	PLATE, REACH TUBE, LEFT FRONT	1
23	PAOZZ	19207	11636656	GASKET	2
24	PAOZZ	19207	11636657	PLATE, WELDMENT	1

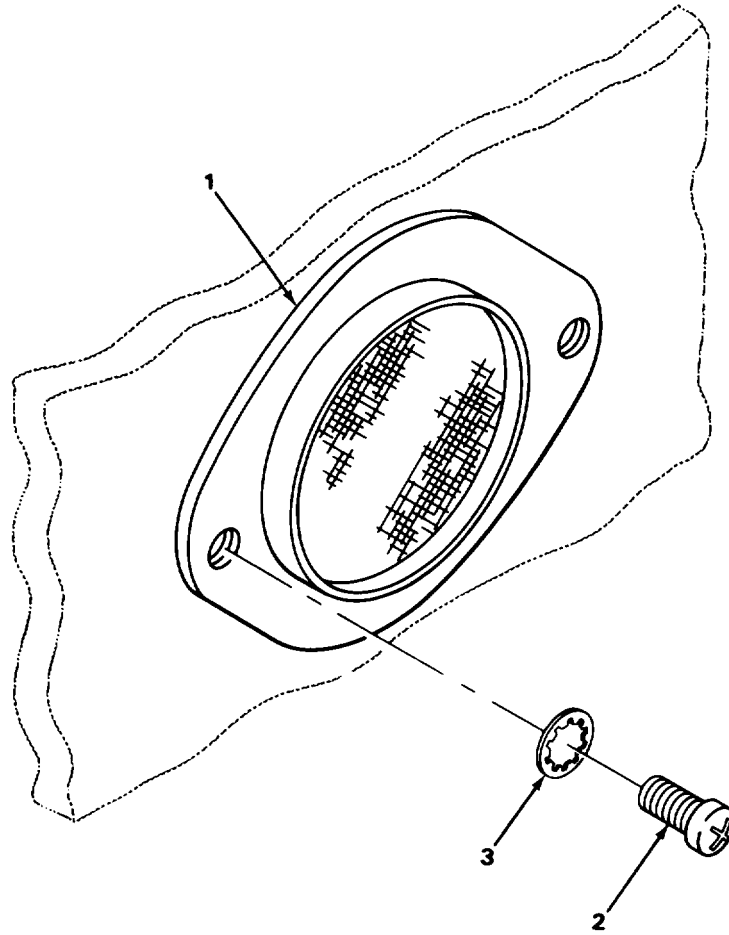
END OF FIGURE



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FIGURE 24. MANUAL CONTAINER.

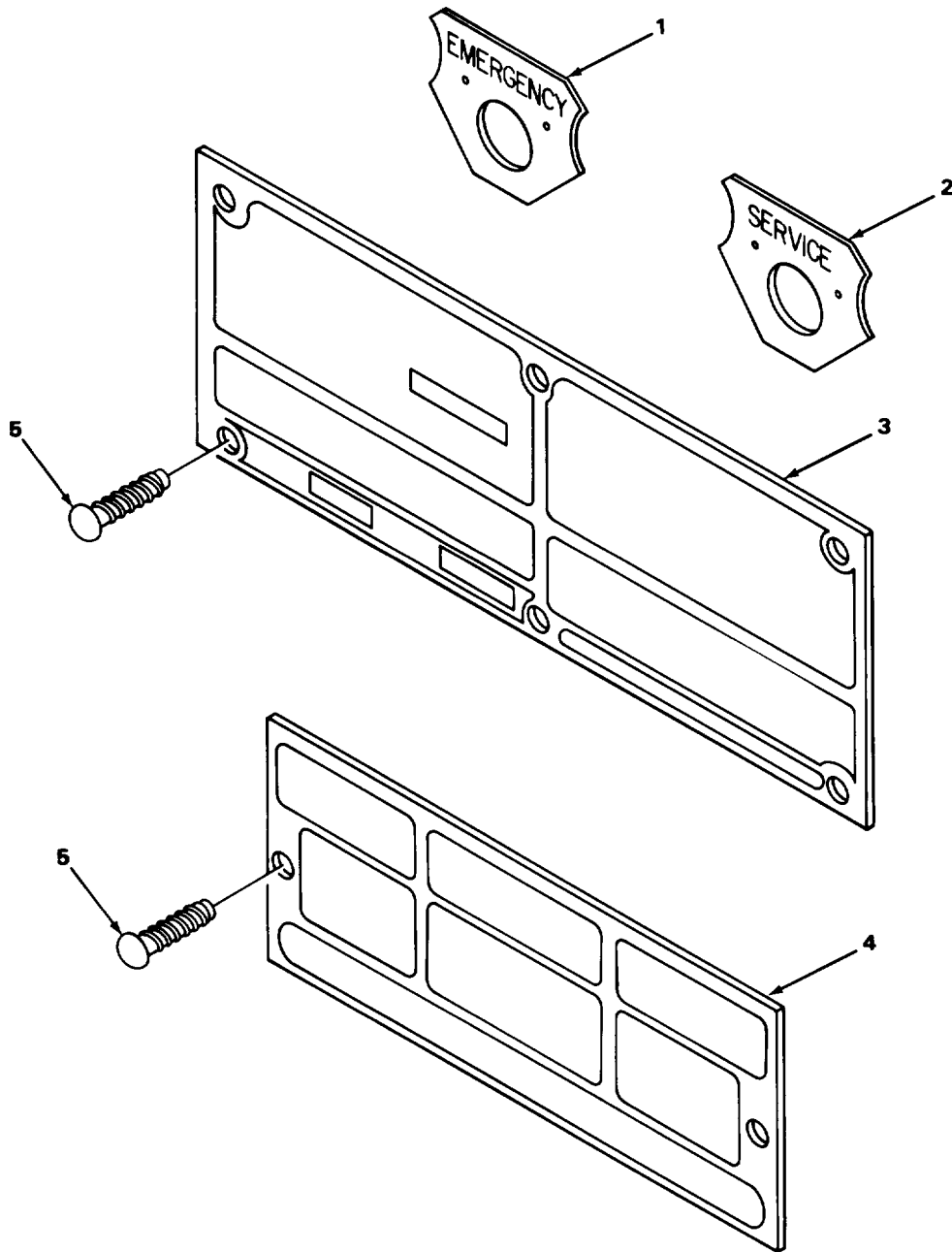
SECTION II		TM9-2330-287-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				1808 STOWAGE RACKS AND BOXES	
				FIG. 24. MANUAL CONTAINER	
1	PAOZZ	19207	10950595	BOX,ACCESSORIES STO	1
2	PAOZZ	96906	MS51967-2	NUT,PLAIN,HEXAGON	4
3	PAOZZ	96906	MS35338-44	WASHER,LOCK	4
4	PAOZZ	96906	MS90725-6	SCREW,CAP,HEXAGON H	4
				END OF FIGURE	



TA220758

FIGURE 25. REFLECTORS.

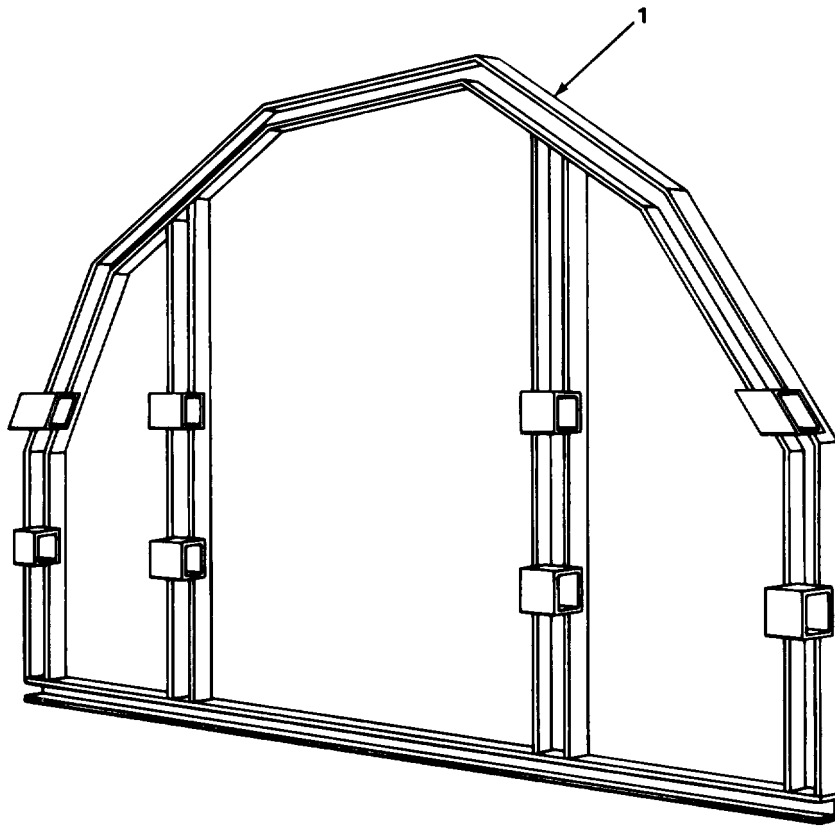
SECTION II				TM9-2330-287-14&P		
(1)	(2)	(3)	(4)	(5)		(6)
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)		QTY
				GROUP 22 BODY AND CHASSIS		
				ACCESSORY ITEMS		
				2202 ACCESSORY ITEMS		
				FIG. 25. REFLECTORS		
1	PAOZZ	96906	MS35387-1	REFLECTOR, INDICATIN RED		4
1	PAOZZ	96906	MS35387-2	REFLECTOR, INDICATIN AMBER		4
2	PAOZZ	96906	MS35206-277	SCREW, MACHINE		16
3	PAOZZ	96906	MS35333-40	WASHER, LOCK		16
				END OF FIGURE		



TA220759

FIGURE 26. DATA PLATES.

SECTION II				TM9-2330-287-14&P	
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				2210 DATA PLATES	
				FIG. 26. DATA PLATES	
1	PAOZZ	96906	MS53007-2	PLATE, IDENTIFICATIO	2
2	PAOZZ	96906	MS53007-1	PLATE, IDENTIFICATIO	2
3	PFOZZ	19207	11636534	PLATE, IDENTIFICATIO	1
				UOC:A08	
3	XDOZZ	19207	12313001	PLATE, IDENTIFICATIO	1
				UOC:A60	
4	PFOZZ	19207	7979373	PLATE, IDENTIFICATIO	1
				UOC:A08	
5	PAOZZ	96906	MS21318-57	SCREW, DRIVE	8
				END OF FIGURE	



TA220760

FIGURE 27. INVASION PIPE RETAINER KIT.

SECTION II				TM9-2330-287-14&P	
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				GROUP 33 SPECIAL PURPOSE KITS	
				3307 SPECIAL PURPOSE KITS	
				FIG. 27. INVASION PIPE RETAINER KIT	
1	PAOFF	19207	11636516	KIT,INVASION PIPE R	2
				END OF FIGURE	

SECTION II		TM9-2330-287-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				GROUP 94 KITS	
				9401 KITS	
				FIG. KIT	
	PAOZZ	40342	RN13A	PARTS KIT, FLUID PRE	2
				FILTER ELEMENT, FLUI (1) 10-3	
				GASKET (1) 10-6	
				END OF FIGURE	

KIT-1

SECTION II		TM9-2330-287-14&P			
(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)	QTY
				GROUP 95 BULK MATERIALS	
				9501 BULK MATERIALS	
				FIG. BULK	
1	PAOZZ	81349	M13486-1-5	WIRE,ELECTRICAL	1
				END OF FIGURE	

BULK-1

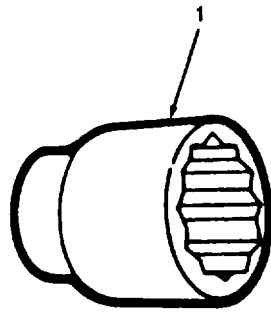


FIGURE 28. SPECIAL TOOLS.

SECTION III				TM9-2330-287-14&P		
(1)	(2)	(3)	(4)	(5)		(6)
ITEM	SMR		PART			
NO	CODE	FSCM	NUMBER	DESCRIPTION AND USABLE ON CODE (UOC)		QTY
				GROUP 26 TOOLS AND TEST EQUIPMENT		
				2604 SPECIAL TOOLS		
				FIG. 28. SPECIAL TOOLS		
1	PEOZZ	45225	1924	SOCKET, SOCKET WRENC	QTY: 1 PER SET	
				UOC:A60		
1	PEOZZ	45225	1907	SOCKET, SOCKET WRENC	QTY: 1 PER SET	
				UOC:A08		
				END OF FIGURE		

CROSS-REFERENCE INDEXES

STOCK NUMBER	NATIONAL STOCK NUMBER INDEX		STOCK NUMBER	FIG	ITEM
	FIG	ITEM			
3120-00-008-5841	4	8	5305-00-115-9526	21	22
5307-00-011-3247	12	11	4720-00-142-5343	13	2
5310-00-012-6189	5	5	4730-00-145-0701	20	34
5315-00-013-7308	20	32	3040-00-150-7127	7	5
5307-00-017-9125	9	10	5315-00-151-8990	20	37
4730-00-018-9566	10	8	5310-00-151-8992	14	11
6240-00-019-0877	1	7	5306-00-152-0561	22	13
6240-00-019-3093	1	5	5306-00-152-0562	19	7
2530-00-021-2366	12	10	5305-00-152-0569	20	39
2530-00-026-0200	11	9	4720-00-152-1254	13	4
2530-00-026-0255	14	2	2590-00-152-2167	20	1
5305-00-044-4153	21	8	2590-00-152-2171	20	35
5310-00-044-6284	18	2	2590-00-152-2173	20	23
6240-00-044-6914	1	6	2590-00-152-2174	20	4
4730-00-050-4208	4	9	2590-00-152-2178	20	3
	20	21	2530-00-152-2197	12	1
5999-00-057-2929	3	17	2590-00-152-2198	22	11
5320-00-058-9885	7	9	5340-00-152-2199	4	16
2640-00-060-3550	16	4	5340-00-152-2200	19	10
5315-00-062-5417	20	9	5365-00-152-2202	23	10
5310-00-067-6356	17	1	2590-00-152-2203	3	4
5310-00-067-9507	20	2	6150-00-152-2204	3	16
5305-00-068-0501	21	20	3040-00-152-2205	19	11
5305-00-068-0502	24	4	2590-00-152-2206	20	10
5305-00-068-0515	2	6	2590-00-152-2208	20	22
	6	5	2510-00-152-2210	23	6
4730-00-069-1187	12	7	2510-00-152-2212	23	24
	13	10	2510-00-152-2213	23	1
5305-00-071-2241	21	15	2590-00-152-2214	20	6
3040-00-074-2357	7	5		21	32
4030-00-075-7212	17	2	5330-00-152-3362	23	23
5340-00-075-9147	17	5	6145-00-152-6499	BULK	1
5310-00-080-6004	12	3	5310-00-158-5099	20	30
	15	7	5310-00-167-0721	8	5
5935-00-086-2378	3	23	5340-00-168-8210	3	3
5310-00-087-4652	5	1	4730-00-172-0034	20	17
5310-00-088-1251	21	19	5315-00-176-6746	20	12
2530-00-088-4909	20	33	2590-00-178-0179	20	8
5330-00-090-2128	13	9	3040-00-178-0717	19	8
3110-00-100-0232	14	5	3040-00-178-0718	19	6
3110-00-100-0380	14	7	2530-00-178-0720	14	1
3110-00-100-0526	20	25		15	18
3110-00-100-0633	20	15	5340-00-178-1441	11	7
3110-00-100-3096	14	5	3120-00-178-1557	20	29
3110-00-100-3165	20	26	6220-00-179-4324	1	10
3110-00-100-5951	15	3	4010-00-182-8790	18	5
3110-00-100-9812	20	14	4010-00-182-8797	19	4
5120-00-104-4076	28	1	5306-00-182-9369	19	12
5305-00-105-6871	20	19	5306-00-182-9384	5	6
5940-00-113-3145	3	7	5365-00-182-9634	4	6

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
2530-00-192-8928	11	11	5310-00-407-9566	11	3
9905-00-202-3639	25	1		20	40
2530-00-204-4800	8	17	4730-00-419-9425	8	3
9905-00-205-2795	25	1	5310-00-431-7435	20	41
5306-00-206-1560	15	9	2510-00-438-1592	22	10
5306-00-206-6340	14	10	5340-00-439-6062	4	12
5310-00-225-6993	19	15	5365-00-442-5845	23	15
	20	5	4730-00-463-1588	9	9
5306-00-225-8496	20	42	3130-00-463-4491	4	7
5306-00-225-8498	5	20	5310-00-470-9340	20	31
5306-00-225-9088	11	13	5310-00-483-8792	21	14
5306-00-225-9093	21	10	5330-00-485-0725	1	9
4030-00-233-9568	19	16	2610-00-489-8065	16	1
3040-00-239-5654	4	4	2510-00-493-8896	27	1
2530-00-239-5658	4	13	5340-00-495-7212	20	46
2530-00-239-5666	4	10	4710-00-511-1692	8	22
4730-00-242-2976	13	6	5310-00-518-5566	14	8
4730-00-253-4412	13	5		15	19
5305-00-253-5631	26	5	2530-00-522-1157	6	11
5305-00-269-2803	14	22	2530-00-522-4183	7	8
5305-00-269-2807	14	26	5315-00-536-3865	23	20
	20	43	5305-00-543-2419	1	1
5305-00-269-3217	5	11		12	2
5365-00-274-4544	9	7	5310-00-550-1130	25	3
5310-00-275-6635	8	13	5310-00-550-3503	6	3
9905-00-282-7489	26	4	4710-00-566-7133	8	8
5340-00-282-7519	9	4		9	14
2530-00-287-8252	8	12	4710-00-566-7134	8	6
2530-00-288-2986	14	16	5935-00-572-9180	1	8
4730-00-289-5176	17	11		3	19
2530-00-293-1752	14	20	5330-00-576-9733	20	24
2530-00-293-5139	11	1	4730-00-580-8457	10	7
5310-00-314-0764	7	4	5310-00-582-5965	2	2
5310-00-314-0765	7	3		3	1
5310-00-322-7260	7	2		5	15
5315-00-322-7261	7	1		9	5
3040-00-330-3262	5	12		10	10
3020-00-331-2334	20	13		15	16
5365-00-331-2340	20	20		23	3
5306-00-335-4768	15	4		24	3
5365-00-341-2388	20	11	5310-00-584-5272	14	18
5975-00-345-8055	3	15		21	7
2590-00-350-4028	2	4	5310-00-584-7890	5	2
5340-00-374-3334	17	8	5310-00-594-8038	14	8
5306-00-383-4957	15	11		15	19
2540-00-388-9985	24	1	4730-00-595-0083	13	8
5940-00-399-6676	3	11	5330-00-599-4230	14	3
2530-00-406-1466	14	17	4720-00-618-4318	9	2
5306-00-406-7320	22	16	5310-00-627-6128	14	24
5310-00-407-9566	5	19	4710-00-630-9928	8	8

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
5310-00-637-9541	1	2	5365-00-741-1433	15	1
	6	2	5306-00-741-1760	6	6
	7	11	4710-00-741-1907	8	6
	12	4	2530-00-741-2050	6	8
	12	8	2530-00-741-2065	8	11
	23	11	2530-00-741-2068	6	10
5310-00-660-3381	21	12	5310-00-741-2088	8	2
3040-00-679-3153	20	18		9	12
2530-00-679-3154	20	16	5365-00-741-2103	6	4
5340-00-679-3185	2	3	2530-00-741-3231	15	5
5310-00-679-3606	10	4	2530-00-741-5748	10	2
5305-00-685-3511	23	4	5306-00-752-1631	14	19
5305-00-688-2018	23	8	5310-00-752-1633	14	4
	23	8	3040-00-752-1655	14	6
5305-00-688-2020	23	4	5340-00-752-1667	14	15
	23	9	2590-00-760-5811	22	12
	23	9	2590-00-760-5812	22	4
	23	12	5310-00-761-6882	10	9
5310-00-693-0738	23	21		19	9
5340-00-693-0739	5	8		24	2
2530-00-693-1007	7	7	5310-00-763-8901	4	14
2530-00-696-0351	KIT		5310-00-763-8905	4	18
5360-00-699-8489	23	19		22	8
5360-00-699-9018	6	7	5935-00-773-1428	2	5
5360-00-700-4429	11	10	4730-00-773-2163	8	21
5360-00-706-9054	10	5	5315-00-775-3912	17	9
5305-00-719-5274	22	15	2590-00-777-3069	5	9
5365-00-721-7680	23	17	2510-00-782-9606	23	22
5305-00-724-6738	19	5	4710-00-791-8077	8	1
5305-00-726-2551	4	3	4710-00-791-8078	8	1
5305-00-728-5475	4	2	2530-00-794-9763	6	11
4730-00-729-6437	8	4	2530-00-797-9295	10	1
	9	11	5306-00-797-9296	10	11
5310-00-732-0558	11	2	9905-00-798-1208	26	3
	21	31	5305-00-801-5747	23	13
5310-00-732-0559	5	7	4720-00-809-2750	8	10
	12	9	2640-00-810-5861	16	3
	14	25	5310-00-814-0672	14	14
5310-00-732-0560	22	7	5935-00-814-4618	3	12
5306-00-733-9239	15	11	5315-00-815-8840	5	3
5330-00-737-3354	8	20	5310-00-820-6653	4	17
5360-00-740-9903	19	13	5310-00-823-8803	19	14
5340-00-741-1006	5	18	5310-00-832-9719	21	3
5306-00-741-1026	14	21	5935-00-833-8561	3	9
5310-00-741-1028	18	3	5970-00-833-8562	3	10
3040-00-741-1084	14	9	5310-00-833-8567	3	18
5310-00-741-1378	15	13	5310-00-835-2037	22	9
5310-00-741-1379	15	12	5315-00-838-4584	21	24
2530-00-741-1425	15	6	5310-00-840-5785	12	5
5330-00-741-1429	15	2	5310-00-842-1190	4	15

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NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
5315-00-842-3044	5	17	4710-01-115-0647	9	3
5315-00-842-3045	18	4	4710-01-115-0648	9	1
	20	27	5340-01-141-4814	11	4
5310-00-842-7605	20	28	5340-01-145-8478	23	7
4820-00-849-1220	12	6	1095-01-146-7686	11	5
5315-00-849-9854	19	3	5365-01-147-7704	22	14
4730-00-854-6931	8	14	4720-01-149-1430	13	7
5310-00-877-5795	20	38	1095-01-162-0352	11	6
5310-00-880-7745	9	8	1095-01-172-9560	15	10
5310-00-880-7746	11	12	2590-01-186-5896	21	1
5310-00-880-8189	22	1	5340-01-191-5913	23	16
9905-00-893-3570	13	3	5340-01-209-0475	21	9
5365-00-899-6723	5	13	3040-01-209-0497	21	29
5310-00-903-3993	7	12	5340-01-209-0500	21	13
4730-00-908-3193	8	9	5340-01-209-0503	21	11
5305-00-915-8087	14	13	2530-01-215-3389	21	25
5310-00-924-4218	6	1	2510-01-215-3953	22	2
4030-00-930-8160	17	4	5315-01-215-9867	23	18
5310-00-935-3569	15	20	5340-01-222-5247	21	21
5340-00-937-5286	20	44	5340-01-226-4590	21	4
5305-00-947-4356	17	3	4710-01-234-3682	9	1
5310-00-959-1488	20	45	2530-01-264-6547	4	13
2530-00-973-2355	7	6	5340-01-266-7656	17	6
2530-00-973-2356	7	6		17	7
5310-00-982-4908	15	8	5340-01-277-2478	23	2
5305-00-983-6663	4	11	5330-01-279-0501	23	5
5310-00-983-8485	19	2	2590-01-283-1797	19	1
5310-00-984-3806	5	10	2540-01-286-7675	5	14
5340-00-985-0823	5	4	2540-01-287-4183	5	14
5305-00-988-1721	3	2	5340-01-292-0491	4	1
	5	16			
	9	6			
	25	2			
5305-00-988-1722	2	1			
	3	14			
5305-00-988-1725	15	17			
2530-00-991-4342	6	9			
2540-00-999-5584	18	1			
9905-00-999-7369	26	1			
9905-00-999-7370	26	2			
2590-01-020-6073	23	14			
5305-01-032-2312	20	7			
5340-01-041-5052	3	6			
4730-01-043-5999	8	16			
2510-01-067-4717	1	4			
5310-01-073-8614	14	12			
	22	6			
6220-01-093-4439	1	3			
5306-01-104-5885	14	10			
5120-01-105-8593	28	1			

CROSS-REFERENCE

PART NUMBER INDEX

FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
88044	AN935-816	5310-01-073-8614	14	12
			22	6
78500	A1205Z65C		14	23
23075	A298320	2530-00-293-5139	11	1
23705	A298322	4710-00-511-1692	8	22
23705	A298749	2530-00-797-9295	10	1
78500	A333E785	3040-00-752-1655	14	6
08162	BT3994	3110-00-100-3096	14	5
11978	DM340	4730-00-242-2976	13	6
63477	FC13927E		8	7
63477	FC4751	4720-00-618-4318	9	2
63477	FD13346	4710-00-791-8078	8	1
63477	FD13351	4710-00-741-1907	8	6
63477	FD17762	3040-00-074-2357	7	5
63477	FE14240	2530-00-204-4800	8	17
63477	F11410	2530-00-287-8252	8	12
63477	F17751	2530-00-973-2356	7	6
63477	F17758	5315-00-322-7261	7	1
63477	F19223	2530-00-693-1007	7	7
63477	F19581	2530-00-522-1157	6	11
63477	F19582	2530-00-794-9763	6	11
63477	F19635	2530-00-991-4342	6	9
63477	F9556	2530-00-741-2050	6	8
79146	H0-168-6X4		13	11
96906	MS15003-1	4730-00-050-4208	4	9
			20	21
96906	MS15003-6	4730-00-172-0034	20	17
96906	MS15570-1251	6240-00-019-0877	1	7
96906	MS15570-623	6240-00-019-3093	1	5
96906	MS16536-176	5320-00-058-9885	7	9
96906	MS16562-66	5315-00-838-4584	21	24
96906	MS16633-1025	5365-00-721-7680	23	17
96906	MS16633-1050	5365-00-442-5845	23	15
96906	MS16842-3	4030-00-233-9568	19	16
96906	MS16998-46	5305-00-983-6663	4	11
96906	MS17829-4C	5310-00-483-8792	21	14
96906	MS18154-113	5305-00-915-8087	14	13
96906	MS18154-58	5305-00-115-9526	21	22
96906	MS19081-112	3110-00-100-5951	15	3
96906	MS20659-163	5940-00-113-3145	3	7
96906	MS21044N8	5310-00-877-5795	20	38
96906	MS21045-6	5310-00-982-4908	15	8
96906	MS21083N5	5310-00-660-3381	21	12
96906	MS21318-57	5305-00-253-5631	26	5
96906	MS21333-34	5340-00-282-7519	9	4
96906	MS24665-283	5315-00-842-3044	5	17
96906	MS24665-498	5315-00-849-9854	19	3
96906	MS24665-499	5315-00-842-3045	18	4
			20	27
96906	MS24665-627	5315-00-013-7308	20	32
96906	MS27148-2	5999-00-057-2929	3	17

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PART NUMBER INDEX

FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
96906	MS27183-14	5310-00-080-6004	12	3
			15	7
96906	MS27183-21	5310-00-823-8803	19	14
96906	MS27183-30	5310-00-983-8485	19	2
96906	MS28775-234	5330-00-576-9733	20	24
96906	MS3114P-16-8P	5935-00-086-2378	3	23
96906	MS3116P-16-8S	5935-00-814-4618	3	12
96906	MS35206-277	5305-00-988-1721	3	2
			5	16
			9	6
			25	2
96906	MS35206-278	5305-00-988-1722	2	1
			3	14
96906	MS35206-281	5305-00-988-1725	15	17
96906	MS35291-061	5305-00-543-2419	12	2
96906	MS35308-305	5305-00-688-2020	23	4
			23	9
			23	9
			23	12
96906	MS35308-306	5305-00-685-3511	23	4
96906	MS35308-307	5305-00-688-2018	23	8
			23	8
96906	MS35308-364	5305-00-801-5747	23	13
96906	MS35333-40	5310-00-550-1130	25	3
96906	MS35333-41	5310-00-167-0721	8	5
96906	MS35335-35	5310-00-627-6128	14	24
96906	MS35335-36	5310-00-550-3503	6	3
96906	MS35338-44	5310-00-582-5965	2	2
			3	1
			5	15
			9	5
			10	10
			15	16
			23	3
			24	3
96906	MS35338-45	5310-00-407-9566	5	19
			11	3
			20	40
96906	MS35338-46	5310-00-637-9541	1	2
			6	2
			7	11
			12	4
			12	8
			23	11
96906	MS35338-48	5310-00-584-5272	14	18
			21	7
96906	MS35338-50	5310-00-820-6653	4	17
96906	MS35338-57	5310-00-584-7890	5	2
96906	MS35387-1	9905-00-205-2795	25	1
96906	MS35387-2	9905-00-202-3639	25	1
96906	MS35478-1683	6240-00-044-6914	1	6

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FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
96906	MS35674-41	5315-00-062-5417	20	9
96906	MS35691-53	5310-00-835-2037	22	9
96906	MS35691-61	5310-00-842-1190	4	15
96906	MS35691-7	5310-00-840-5785	12	5
96906	MS35692-73	5310-00-842-7605	20	28
96906	MS35692-97	5310-00-470-9340	20	31
96906	MS35746-1	4730-00-595-0083	13	8
96906	MS35782-5	4820-00-849-1220	12	6
96906	MS35810-4	5315-00-815-8840	5	3
96906	MS35812-4	5340-00-985-0823	5	4
96906	MS35842-12	4730-00-908-3193	8	9
96906	MS39020-2		3	8
			3	13
			3	20
			3	22
			8	15
96906	MS39159-4		8	15
96906	MS39230-2	4730-00-253-4412	13	5
03776	MS49005-8	4730-00-289-5176	17	11
96906	MS51339-3	2540-00-999-5584	18	1
96906	MS51377-1	2640-00-810-5861	16	3
96906	MS51879-4	4730-01-043-5999	8	16
96906	MS51922-1	5310-00-088-1251	21	19
96906	MS51922-17	5310-00-087-4652	5	1
96906	MS51922-21	5310-00-959-1488	20	45
96906	MS51922-33	5310-00-225-6993	19	15
			20	5
96906	MS51922-37	5310-00-067-9507	20	2
96906	MS51922-57	5310-00-067-6356	17	1
96906	MS51922-61	5310-00-832-9719	21	3
96906	MS51922-9	5310-00-984-3806	5	10
96906	MS51943-36	5310-00-814-0672	14	14
96906	MS51943-46	5310-00-935-3569	15	20
96906	MS51946-1	5306-00-733-9239	15	11
96906	MS51946-11	5306-00-206-1560	15	9
96906	MS51946-2	5306-00-383-4957	15	11
96906	MS51946-4	5306-00-206-6340	14	10
96906	MS51965-54	5305-00-724-6738	19	5
96906	MS51967-11	5310-00-880-8189	22	1
96906	MS51967-2	5310-00-761-6882	10	9
			19	9
			24	2
96906	MS51967-8	5310-00-732-0558	11	2
			21	31
96906	MS51968-11	5310-00-880-7745	9	8
96906	MS51968-14	5310-00-732-0560	22	7
96906	MS51968-20	5310-00-763-8905	4	18
			22	8
96906	MS51968-23	5310-00-763-8901	4	14
96906	MS51968-5	5310-00-880-7746	11	12
96906	MS51968-8	5310-00-732-0559	5	7
			12	9

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FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
96906	MS51968-8	5310-00-732-0559	14	25
96906	MS51970-1	5310-00-924-4218	6	1
96906	MS51970-4	5310-00-903-3993	7	12
96906	MS51983-1	5310-00-518-5566	14	8
			15	19
96906	MS51983-2	5310-00-594-8038	14	8
			15	19
96906	MS52125-2	6220-01-093-4439	1	3
96906	MS53004-2	2530-00-021-2366	12	10
96906	MS53007-1	9905-00-999-7370	26	2
96906	MS53007-2	9905-00-999-7369	26	1
96906	MS53060-3	2590-00-777-3069	5	9
96906	MS9047-264	5315-00-176-6746	20	12
96906	MS90725-10	5305-00-071-2241	21	15
96906	MS90725-109	5305-00-044-4153	21	8
96906	MS90725-31	5306-00-225-8496	20	42
96906	MS90725-33	5306-00-225-8498	5	20
96906	MS90725-5	5305-00-068-0501	21	20
96906	MS90725-6	5305-00-068-0502	24	4
96906	MS90725-67	5305-00-269-3217	5	11
96906	MS90726-111		20	36
96906	MS90726-33	5306-00-225-9088	11	13
96906	MS90726-38	5306-00-225-9093	21	10
96906	MS90726-60	5305-00-269-2803	14	22
96906	MS90726-64	5305-00-269-2807	14	26
			20	43
96906	MS90727-125	5305-00-719-5274	22	15
96906	MS90727-164	5305-00-726-2551	4	3
96906	MS90727-200	5305-00-728-5475	4	2
96906	MS90727-8	5305-00-068-0515	2	6
			6	5
96906	MS90728-129	5305-01-032-2312	20	7
96906	MS90728-193	5305-00-947-4356	17	3
96906	MS90728-61	5305-00-543-2419	1	1
81349	M13486-1-5	6145-00-152-6499	BULK	1
81349	M13486-1-5/15 FT		3	21
81349	M13486-1-5/6FT		3	5
91340	M4X509		10	6
81349	M43436/1-3	9905-00-893-3570	13	3
40342	N-12970-A	2530-00-741-5748	10	2
23705	N12971		10	3
40342	N12972	5310-00-679-3606	10	4
05396	PX2054	5310-00-012-6189	5	5
40342	RN13A	2530-00-696-0351	KIT	
81342	RRC271		17	10
51665	US48	2640-00-060-3550	16	4
81348	ZZ-T-381P/12-16. 5/GP 2A/E/L THR	2610-00-489-8065	16	1
81348	ZZ-V-25/TYPEII/C LASS2/TRI501		16	2
92867	01001307	3040-00-330-3262	5	12

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FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
00006	02420	3110-00-100-0633	20	15
08162	02475	3110-00-100-9812	20	14
19207	10891283	4030-00-075-7212	17	2
19207	10896696	2530-00-288-2986	14	16
19207	10896719-1	5306-01-104-5885	14	10
19207	10905840	5975-00-345-8055	3	15
19207	10914500	5340-00-075-9147	17	5
19207	10950595	2540-00-388-9985	24	1
12204	113247	5307-00-011-3247	12	11
19207	11592598	4030-00-930-8160	17	4
19207	11592610	2530-00-239-5658	4	13
19207	11592616	2510-00-438-1592	22	10
19207	11592617	3040-00-239-5654	4	4
19207	11592619	3120-00-008-5841	4	8
19207	11592621	5340-01-292-0491	4	1
19207	11592624	2530-00-239-5666	4	10
19207	11592625	5340-00-439-6062	4	12
19207	11592632		22	5
19207	11592638	2590-00-760-5811	22	12
19207	11592639	2590-00-152-2198	22	11
19207	11592639-1		22	11
19207	11592640	2590-00-760-5812	22	4
19207	11592641	5306-00-152-0561	22	13
19207	11592642	2530-00-178-0720	14	1
			15	18
19207	11592645	5365-00-182-9634	4	6
19207	11592648	5365-01-147-7704	22	14
19207	11592649	5340-00-152-2199	4	16
19207	11592650	4710-01-115-0647	9	3
19207	11592651	4710-01-115-0648	9	1
19207	11592653	2510-01-215-3953	22	2
19207	11592654	5306-00-406-7320	22	16
19207	11592656	3040-00-178-0718	19	6
19207	11592664		4	5
19207	11592666	5340-00-152-2200	19	10
19207	11592672	3130-00-463-4491	4	7
19207	11614198-2	5330-00-485-0725	1	9
19207	11636427	2530-00-152-2197	12	1
19207	11636503	2590-00-152-2167	20	1
19207	11636512	5340-00-168-8210	3	3
19207	11636516	2510-00-493-8896	27	1
19207	11636534	9905-00-798-1208	26	3
19207	11636552	5306-00-182-9384	5	6
19207	11636553-1	2540-01-286-7675	5	14
19207	11636553-2	2540-01-287-4183	5	14
19207	11636555	5340-01-266-7656	17	6
			17	7
19207	11636574	5365-00-152-2202	23	10
19207	11636586	2590-00-350-4028	2	4
19207	11636587	2590-00-152-2203	3	4
19207	11636588	6150-00-152-2204	3	16

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FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
19207	11636591	3040-00-152-2205	19	11
19207	11636605	5305-00-152-0569	20	39
19207	11636605-1		21	16
19207	11636609	4720-00-142-5343	13	2
19207	11636611	4720-00-152-1254	13	4
19207	11636613	2590-00-178-0179	20	8
19207	11636614	2590-00-152-2206	20	10
19207	11636615	2590-00-152-2171	20	35
19207	11636616	3120-00-178-1557	20	29
19207	11636618	4730-00-145-0701	20	34
19207	11636619	5310-00-158-5099	20	30
19207	11636620	2590-00-152-2173	20	23
19207	11636621	2590-00-152-2208	20	22
19207	11636646	2590-01-283-1797	19	1
19207	11636650	5315-01-215-9867	23	18
19207	11636651	5340-01-191-5913	23	16
19207	11636652	2590-01-020-6073	23	14
19207	11636653	2510-00-152-2210	23	6
19207	11636654-2	4010-00-182-8790	18	5
19207	11636656	5330-00-152-3362	23	23
19207	11636657	2510-00-152-2212	23	24
19207	11636658	2510-00-152-2213	23	1
19207	11636665	5306-00-152-0562	19	7
19207	11636668	4010-00-182-8797	19	4
19207	11636669	3040-00-178-0717	19	8
19207	11636670	5306-00-182-9369	19	12
19207	11636675	2590-00-152-2174	20	4
19207	11636676	2590-00-152-2178	20	3
19207	11636681	2510-00-782-9606	23	22
19207	11636684	2590-00-152-2214	20	6
			21	32
19207	11636685	5315-00-151-8990	20	37
19207	11636685-1		21	17
19207	11636686		21	2
19207	11636717	5330-01-279-0501	23	5
19207	11639520	2510-01-067-4717	1	4
19207	11639535	6220-00-179-4324	1	10
19207	11669792		21	18
19207	11682127-1	1095-01-172-9560	15	10
19207	11682153	2530-00-088-4909	20	33
19207	12255381		13	1
19207	12259830-1		21	5
19207	12259831	3040-01-209-0497	21	29
19207	12259831-1		21	30
19207	12259835	5340-01-209-0475	21	9
19207	12259837	5340-01-209-0500	21	13
19207	12259840	5340-01-209-0503	21	11
19207	12259845	2530-01-215-3389	21	25
19207	12296618	5340-01-145-8478	23	7
19207	12312969	2530-01-264-6547	4	13
19207	12312971		22	13

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FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
19207	12312976		22	5
19207	12312978	5340-01-277-2478	23	2
19207	12312983		21	28
19207	12312987		21	27
19207	12312992		21	23
19207	12312995	5340-01-226-4590	21	4
19207	12312996	5340-01-222-5247	21	21
19207	12312997	2590-01-186-5896	21	1
19207	12312998		21	6
19207	12313001		26	3
19207	12313002	4710-01-234-3682	9	1
19207	12313036		22	3
19207	12354248		21	26
02686	123917	2530-00-973-2355	7	6
08162	16150	3110-00-100-3165	20	26
60038	16284	3110-00-100-0526	20	25
24617	179125	5307-00-017-9125	9	10
21450	187745	5305-00-105-6871	20	19
45225	1907	5120-00-104-4076	28	1
45225	1924	5120-01-105-8593	28	1
06853	213630	5330-00-090-2128	13	9
23862	2275698	5365-00-741-1433	15	1
24617	2284031	2530-00-741-1425	15	6
06853	235091	4730-00-580-8457	10	7
06853	235093	5360-00-706-9054	10	5
78500	3262H86	2530-00-026-0255	14	2
08162	392	3110-00-100-0232	14	5
08162	3920	3110-00-100-0380	14	7
24617	446284	5310-00-044-6284	18	2
63477	5156653	4730-00-854-6931	8	14
79470	5167679	4730-00-463-1588	9	9
19207	5214539	5310-00-275-6635	8	13
19207	5298653	5365-00-274-4544	9	7
81343	6-4 120202BA(LON G NUT)	4730-00-069-1187	12	7
			13	10
23705	6144356		15	14
19207	6144454		15	15
09386	68221D	3040-00-741-1084	14	9
19207	7032131	2530-00-679-3154	20	16
19207	7032133	3040-00-679-3153	20	18
19207	7032134	5310-00-431-7435	20	41
19207	7032135	5340-00-495-7212	20	46
19207	7032136	5340-00-937-5286	20	44
19207	7064979		7	10
19207	7373354	5330-00-737-3354	8	20
19207	7409903	5360-00-740-9903	19	13
19207	7411006	5340-00-741-1006	5	18
19207	7411026	5306-00-741-1026	14	21
19207	7411028	5310-00-741-1028	18	3
19207	7411378	5310-00-741-1378	15	13

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FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
19207	7411379	5310-00-741-1379	15	12
19207	7411429	5330-00-741-1429	15	2
19207	7411760	5306-00-741-1760	6	6
19207	7412068	2530-00-741-2068	6	10
63477	7412079	4730-00-729-6437	8	4
			9	11
19207	7412088	5310-00-741-2088	8	2
			9	12
19207	7412103	5365-00-741-2103	6	4
19207	7413231	2530-00-741-3231	15	5
19207	7521631	5306-00-752-1631	14	19
19207	7521633	5310-00-752-1633	14	4
19207	7521650	5310-00-151-8992	14	11
19207	7521664	2530-00-293-1752	14	20
19207	7521667	5340-00-752-1667	14	15
19207	7521787	5330-00-599-4230	14	3
19207	7731428	5935-00-773-1428	2	5
19207	7745464	4730-00-419-9425	8	3
19207	7753912	5315-00-775-3912	17	9
19207	7979296	5306-00-797-9296	10	11
19207	7979373	9905-00-282-7489	26	4
19207	7979599	1095-01-162-0352	11	6
19207	7979602	5340-01-141-4814	11	4
97554	7979605	2530-00-192-8928	11	11
19207	7979608	5360-00-700-4429	11	10
19207	7979609		11	8
19207	7979610	5340-00-178-1441	11	7
19207	7979611	1095-01-146-7686	11	5
19207	7979689		8	19
63477	7979691	4730-00-773-2163	8	21
19207	7979727		8	18
19207	7979971	5315-00-536-3865	23	20
19207	8020123	5365-00-341-2388	20	11
18876	8020174	3020-00-331-2334	20	13
18876	8020716	5365-00-331-2340	20	20
19207	8328726	5340-00-374-3334	17	8
19207	8330805-4	4720-01-149-1430	13	7
19207	8331541	5360-00-699-8489	23	19
19207	8331542	5310-00-693-0738	23	21
19207	8331586		9	13
19207	8331946	5340-00-693-0739	5	8
19207	8333770	5360-00-699-9018	6	7
19207	8338561	5935-00-833-8561	3	9
19207	8338562	5970-00-833-8562	3	10
19207	8338564	5940-00-399-6676	3	11
19207	8338566	5935-00-572-9180	1	8
			3	19
19207	8338567	5310-00-833-8567	3	18
19207	8347216	5340-01-041-5052	3	6
19207	8357992	2530-00-406-1466	14	17
19207	8363978	5340-00-679-3185	2	3

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FSCM	PART NUMBER	STOCK NUMBER	FIG	ITEM
56190	8365425	4720-00-809-2750	8	10
19207	8365427	2530-00-026-0200	11	9
19207	8699500	5365-00-899-6723	5	13
18876	8720025	5306-00-335-4768	15	4
19207	8720517	2530-00-522-4183	7	8
19207	8733899	4710-00-791-8077	8	1
19207	8733918	4710-00-630-9928	8	8
19207	8733920	4710-00-566-7133	8	8
			9	14
19207	8733922	4710-00-566-7134	8	6
19207	8733926	3040-00-150-7127	7	5
19207	8733928	2530-00-741-2065	8	11
19207	8733935	5310-00-314-0764	7	4
19207	8733936	5310-00-314-0765	7	3
19207	8733937	5310-00-322-7260	7	2
66640	9112001	4730-00-018-9566	10	8

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
BULK	1	6145-00-152-6499	81349	M13486-1-5
KIT		2530-00-696-0351	40342	RN13A
1	1	5305-00-543-2419	96906	MS90728-61
1	2	5310-00-637-9541	96906	MS35338-46
1	3	6220-01-093-4439	96906	MS52125-2
1	4	2510-01-067-4717	19207	11639520
1	5	6240-00-019-3093	96906	MS15570-623
1	6	6240-00-044-6914	96906	MS35478-1683
1	7	6240-00-019-0877	96906	MS15570-1251
1	8	5935-00-572-9180	19207	8338566
1	9	5330-00-485-0725	19207	11614198-2
1	10	6220-00-179-4324	19207	11639535
2	1	5305-00-988-1722	96906	MS35206-278
2	2	5310-00-582-5965	96906	MS35338-44
2	3	5340-00-679-3185	19207	8363978
2	4	2590-00-350-4028	19207	11636586
2	5	5935-00-773-1428	19207	7731428
2	6	5305-00-068-0515	96906	MS90727-8
3	1	5310-00-582-5965	96906	MS35338-44
3	2	5305-00-988-1721	96906	MS35206-277
3	3	5340-00-168-8210	19207	11636512
3	4	2590-00-152-2203	19207	11636587
3	5		81349	M13486-1-5/6FT
3	6	5340-01-041-5052	19207	8347216
3	7	5940-00-113-3145	96906	MS20659-163
3	8		96906	MS39020-2
3	9	5935-00-833-8561	19207	8338561
3	10	5970-00-833-8562	19207	8338562
3	11	5940-00-399-6676	19207	8338564
3	12	5935-00-814-4618	96906	MS3116P-16-8S
3	13		96906	MS39020-2
3	14	5305-00-988-1722	96906	MS35206-278
3	15	5975-00-345-8055	19207	10905840
3	16	6150-00-152-2204	19207	11636588
3	17	5999-00-057-2929	96906	MS27148-2
3	18	5310-00-833-8567	19207	8338567
3	19	5935-00-572-9180	19207	8338566
3	20		96906	MS39020-2
3	21		81349	M13486-1-5/15 FT
3	22		96906	MS39020-2
3	23	5935-00-086-2378	96906	MS3114P-16-8P
4	1	5340-01-292-0491	19207	11592621
4	2	5305-00-728-5475	96906	MS90727-200
4	3	5305-00-726-2551	96906	MS90727-164
4	4	3040-00-239-5654	19207	11592617
4	5		19207	11592664
4	6	5365-00-182-9634	19207	11592645
4	7	3130-00-463-4491	19207	11592672
4	8	3120-00-008-5841	19207	11592619
4	9	4730-00-050-4208	96906	MS15003-1
4	10	2530-00-239-5666	19207	11592624

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
4	11	5305-00-983-6663	96906	MS16998-46
4	12	5340-00-439-6062	19207	11592625
4	13	2530-00-239-5658	19207	11592610
4	13	2530-01-264-6547	19207	12312969
4	14	5310-00-763-8901	96906	MS51968-23
4	15	5310-00-842-1190	96906	MS35691-61
4	16	5340-00-152-2199	19207	11592649
4	17	5310-00-820-6653	96906	MS35338-50
4	18	5310-00-763-8905	96906	MS51968-20
5	1	5310-00-087-4652	96906	MS51922-17
5	2	5310-00-584-7890	96906	MS35338-57
5	3	5315-00-815-8840	96906	MS35810-4
5	4	5340-00-985-0823	96906	MS35812-4
5	5	5310-00-012-6189	05396	PX2054
5	6	5306-00-182-9384	19207	11636552
5	7	5310-00-732-0559	96906	MS51968-8
5	8	5340-00-693-0739	19207	8331946
5	9	2590-00-777-3069	96906	MS53060-3
5	10	5310-00-984-3806	96906	MS51922-9
5	11	5305-00-269-3217	96906	MS90725-67
5	12	3040-00-330-3262	92867	01001307
5	13	5365-00-899-6723	19207	8699500
5	14	2540-01-286-7675	19207	11636553-1
5	14	2540-01-287-4183	19207	11636553-2
5	15	5310-00-582-5965	96906	MS35338-44
5	16	5305-00-988-1721	96906	MS35206-277
5	17	5315-00-842-3044	96906	MS24665-283
5	18	5340-00-741-1006	19207	7411006
5	19	5310-00-407-9566	96906	MS35338-45
5	20	5306-00-225-8498	96906	MS90725-33
6	1	5310-00-924-4218	96906	MS51970-1
6	2	5310-00-637-9541	96906	MS35338-46
6	3	5310-00-550-3503	96906	MS35335-36
6	4	5365-00-741-2103	19207	7412103
6	5	5305-00-068-0515	96906	MS90727-8
6	6	5306-00-741-1760	19207	7411760
6	7	5360-00-699-9018	19207	8333770
6	8	2530-00-741-2050	63477	F9556
6	9	2530-00-991-4342	63477	F19635
6	10	2530-00-741-2068	19207	7412068
6	11	2530-00-522-1157	63477	F19581
6	11	2530-00-794-9763	63477	F19582
7	1	5315-00-322-7261	63477	F17758
7	2	5310-00-322-7260	19207	8733937
7	3	5310-00-314-0765	19207	8733936
7	4	5310-00-314-0764	19207	8733935
7	5	3040-00-074-2357	63477	FD17762
7	5	3040-00-150-7127	19207	8733926
7	6	2530-00-973-2355	02686	123917
7	6	2530-00-973-2356	63477	F17751
7	7	2530-00-693-1007	63477	F19223

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
7	8	2530-00-522-4183	19207	8720517
7	9	5320-00-058-9885	96906	MS16536-176
7	10		19207	7064979
7	11	5310-00-637-9541	96906	MS35338-46
7	12	5310-00-903-3993	96906	MS51970-4
8	1	4710-00-791-8077	19207	8733899
8	1	4710-00-791-8078	63477	FD13346
8	2	5310-00-741-2088	19207	7412088
8	3	4730-00-419-9425	19207	7745464
8	4	4730-00-729-6437	63477	7412079
8	5	5310-00-167-0721	96906	MS35333-41
8	6	4710-00-566-7134	19207	8733922
8	6	4710-00-741-1907	63477	FD13351
8	7		63477	FC13927E
8	8	4710-00-566-7133	19207	8733920
8	8	4710-00-630-9928	19207	8733918
8	9	4730-00-908-3193	96906	MS35842-12
8	10	4720-00-809-2750	56190	8365425
8	11	2530-00-741-2065	19207	8733928
8	12	2530-00-287-8252	63477	F11410
8	13	5310-00-275-6635	19207	5214539
8	14	4730-00-854-6931	63477	5156653
8	15		96906	MS39159-4
8	16	4730-01-043-5999	96906	MS51879-4
8	17	2530-00-204-4800	63477	FE14240
8	18		19207	7979727
8	19		19207	7979689
8	20	5330-00-737-3354	19207	7373354
8	21	4730-00-773-2163	63477	7979691
8	22	4710-00-511-1692	23705	A298322
9	1	4710-01-115-0648	19207	11592651
9	1	4710-01-234-3682	19207	12313002
9	2	4720-00-618-4318	63477	FC4751
9	3	4710-01-115-0647	19207	11592650
9	4	5340-00-282-7519	96906	MS21333-34
9	5	5310-00-582-5965	96906	MS35338-44
9	6	5305-00-988-1721	96906	MS35206-277
9	7	5365-00-274-4544	19207	5298653
9	8	5310-00-880-7745	96906	MS51968-11
9	9	4730-00-463-1588	79470	5167679
9	10	5307-00-017-9125	24617	179125
9	11	4730-00-729-6437	63477	7412079
9	12	5310-00-741-2088	19207	7412088
9	13		19207	8331586
9	14	4710-00-566-7133	19207	8733920
10	1	2530-00-797-9295	23705	A298749
10	2	2530-00-741-5748	40342	N-12970-A
10	3		23705	N12971
10	4	5310-00-679-3606	40342	N12972
10	5	5360-00-706-9054	06853	235093
10	6		91340	M4X509

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
10	7	4730-00-580-8457	06853	235091
10	8	4730-00-018-9566	66640	9112001
10	9	5310-00-761-6882	96906	MS51967-2
10	10	5310-00-582-5965	96906	MS35338-44
10	11	5306-00-797-9296	19207	7979296
11	1	2530-00-293-5139	23075	A298320
11	2	5310-00-732-0558	96906	MS51967-8
11	3	5310-00-407-9566	96906	MS35338-45
11	4	5340-01-141-4814	19207	7979602
11	5	1095-01-146-7686	19207	7979611
11	6	1095-01-162-0352	19207	7979599
11	7	5340-00-178-1441	19207	7979610
11	8		19207	7979609
11	9	2530-00-026-0200	19207	8365427
11	10	5360-00-700-4429	19207	7979608
11	11	2530-00-192-8928	97554	7979605
11	12	5310-00-880-7746	96906	MS51968-5
11	13	5306-00-225-9088	96906	MS90726-33
12	1	2530-00-152-2197	19207	11636427
12	2	5305-00-543-2419	96906	MS35291-061
12	3	5310-00-080-6004	96906	MS27183-14
12	4	5310-00-637-9541	96906	MS35338-46
12	5	5310-00-840-5785	96906	MS35691-7
12	6	4820-00-849-1220	96906	MS35782-5
12	7	4730-00-069-1187	81343	6-4 120202BA(LON G NUT)
12	8	5310-00-637-9541	96906	MS35338-46
12	9	5310-00-732-0559	96906	MS51968-8
12	10	2530-00-021-2366	96906	MS53004-2
12	11	5307-00-011-3247	12204	113247
13	1		19207	12255381
13	2	4720-00-142-5343	19207	11636609
13	3	9905-00-893-3570	81349	M43436/1-3
13	4	4720-00-152-1254	19207	11636611
13	5	4730-00-253-4412	96906	MS39230-2
13	6	4730-00-242-2976	11978	DM340
13	7	4720-01-149-1430	19207	8330805-4
13	8	4730-00-595-0083	96906	MS35746-1
13	9	5330-00-090-2128	06853	213630
13	10	4730-00-069-1187	81343	6-4 120202BA(LON G NUT)
13	11		79146	H0-168-6X4
14	1	2530-00-178-0720	19207	11592642
14	2	2530-00-026-0255	78500	3262H86
14	3	5330-00-599-4230	19207	7521787
14	4	5310-00-752-1633	19207	7521633
14	5	3110-00-100-0232	08162	392
14	5	3110-00-100-3096	08162	BT3994
14	6	3040-00-752-1655	78500	A333E785
14	7	3110-00-100-0380	08162	3920
14	8	5310-00-518-5566	96906	MS51983-1

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
14	8	5310-00-594-8038	96906	MS51983-2
14	9	3040-00-741-1084	09386	68221D
14	10	5306-00-206-6340	96906	MS51946-4
14	10	5306-01-104-5885	19207	10896719-1
14	11	5310-00-151-8992	19207	7521650
14	12	5310-01-073-8614	88044	AN935-816
14	13	5305-00-915-8087	96906	MS18154-113
14	14	5310-00-814-0672	96906	MS51943-36
14	15	5340-00-752-1667	19207	7521667
14	16	2530-00-288-2986	19207	10896696
14	17	2530-00-406-1466	19207	8357992
14	18	5310-00-584-5272	96906	MS35338-48
14	19	5306-00-752-1631	19207	7521631
14	20	2530-00-293-1752	19207	7521664
14	21	5306-00-741-1026	19207	7411026
14	22	5305-00-269-2803	96906	MS90726-60
14	23		78500	A1205Z650
14	24	5310-00-627-6128	96906	MS35335-35
14	25	5310-00-732-0559	96906	MS51968-8
14	26	5305-00-269-2807	96906	MS90726-64
15	1	5365-00-741-1433	23862	2275698
15	2	5330-00-741-1429	19207	7411429
15	3	3110-00-100-5951	96906	MS19081-112
15	4	5306-00-335-4768	18876	8720025
15	5	2530-00-741-3231	19207	7413231
15	6	2530-00-741-1425	24617	2284031
15	7	5310-00-080-6004	96906	MS27183-14
15	8	5310-00-982-4908	96906	MS21045-6
15	9	5306-00-206-1560	96906	MS51946-11
15	10	1095-01-172-9560	19207	11682127-1
15	11	5306-00-383-4957	96906	MS51946-2
15	11	5306-00-733-9239	96906	MS51946-1
15	12	5310-00-741-1379	19207	7411379
15	13	5310-00-741-1378	19207	7411378
15	14		23705	6144356
15	15		19207	6144454
15	16	5310-00-582-5965	96906	MS35338-44
15	17	5305-00-988-1725	96906	MS35206-281
15	18	2530-00-178-0720	19207	11592642
15	19	5310-00-518-5566	96906	MS51983-1
15	19	5310-00-594-8038	96906	MS51983-2
15	20	5310-00-935-3569	96906	MS51943-46
16	1	2610-00-489-8065	81348	ZZ-T-381P/12-16 5/GP2A/E/LTHR
16	2		81348	ZZ-V-25/TYPEII/C LASS2/TRI501
16	3	2640-00-810-5861	96906	MS51377-1
16	4	2640-00-060-3550	51665	US48
17	1	5310-00-067-6356	96906	MS51922-57
17	2	4030-00-075-7212	19207	10891283
17	3	5305-00-947-4356	96906	MS90728-193

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
17	4	4030-00-930-8160	19207	11592598
17	5	5340-00-075-9147	19207	10914500
17	6	5340-01-266-7656	19207	11636555
17	7	5340-01-266-7656	19207	11636555
17	8	5340-00-374-3334	19207	8328726
17	9	5315-00-775-3912	19207	7753912
17	10		81342	RRC271
17	11	4730-00-289-5176	03776	MS49005-8
18	1	2540-00-999-5584	96906	MS51339-3
18	2	5310-00-044-6284	24617	446284
18	3	5310-00-741-1028	19207	7411028
18	4	5315-00-842-3045	96906	MS24665-499
18	5	4010-00-182-8790	19207	11636654-2
19	1	2590-01-283-1797	19207	11636646
19	2	5310-00-983-8485	96906	MS27183-30
19	3	5315-00-849-9854	96906	MS24665-498
19	4	4010-00-182-8797	19207	11636668
19	5	5305-00-724-6738	96906	MS51965-54
19	6	3040-00-178-0718	19207	11592656
19	7	5306-00-152-0562	19207	11636665
19	8	3040-00-178-0717	19207	11636669
19	9	5310-00-761-6882	96906	MS51967-2
19	10	5340-00-152-2200	19207	11592666
19	11	3040-00-152-2205	19207	11636591
19	12	5306-00-182-9369	19207	11636670
19	13	5360-00-740-9903	19207	7409903
19	14	5310-00-823-8803	96906	MS27183-21
19	15	5310-00-225-6993	96906	MS51922-33
19	16	4030-00-233-9568	96906	MS16842-3
20	1	2590-00-152-2167	19207	11636503
20	2	5310-00-067-9507	96906	MS51922-37
20	3	2590-00-152-2178	19207	11636676
20	4	2590-00-152-2174	19207	11636675
20	5	5310-00-225-6993	96906	MS51922-33
20	6	2590-00-152-2214	19207	11636684
20	7	5305-01-032-2312	96906	MS90728-129
20	8	2590-00-178-0179	19207	11636613
20	9	5315-00-062-5417	96906	MS35674-41
20	10	2590-00-152-2206	19207	11636614
20	11	5365-00-341-2388	19207	8020123
20	12	5315-00-176-6746	96906	MS9047-264
20	13	3020-00-331-2334	18876	8020174
20	14	3110-00-100-9812	08162	02475
20	15	3110-00-100-0633	00006	02420
20	16	2530-00-679-3154	19207	7032131
20	17	4730-00-172-0034	96906	MS15003-6
20	18	3040-00-679-3153	19207	7032133
20	19	5305-00-105-6871	21450	187745
20	20	5365-00-331-2340	18876	8020716
20	21	4730-00-050-4208	96906	MS15003-1
20	22	2590-00-152-2208	19207	11636621

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
20	23	2590-00-152-2173	19207	11636620
20	24	5330-00-576-9733	96906	MS28775-234
20	25	3110-00-100-0526	60038	16284
20	26	3110-00-100-3165	08162	16150
20	27	5315-00-842-3045	96906	MS24665-499
20	28	5310-00-842-7605	96906	MS35692-73
20	29	3120-00-178-1557	19207	11636616
20	30	5310-00-158-5099	19207	11636619
20	31	5310-00-470-9340	96906	MS35692-97
20	32	5315-00-013-7308	96906	MS24665-627
20	33	2530-00-088-4909	19207	11682153
20	34	4730-00-145-0701	19207	11636618
20	35	2590-00-152-2171	19207	11636615
20	36		96906	MS90726-111
20	37	5315-00-151-8990	19207	11636685
20	38	5310-00-877-5795	96906	MS21044N8
20	39	5305-00-152-0569	19207	11636605
20	40	5310-00-407-9566	96906	MS35338-45
20	41	5310-00-431-7435	19207	7032134
20	42	5306-00-225-8496	96906	MS90725-31
20	43	5305-00-269-2807	96906	MS90726-64
20	44	5340-00-937-5286	19207	7032136
20	45	5310-00-959-1488	96906	MS51922-21
20	46	5340-00-495-7212	19207	7032135
21	1	2590-01-186-5896	19207	12312997
21	2		19207	11636686
21	3	5310-00-832-9719	96906	MS51922-61
21	4	5340-01-226-4590	19207	12312995
21	5		19207	12259830-1
21	6		19207	12312998
21	7	5310-00-584-5272	96906	MS35338-48
21	8	5305-00-044-4153	96906	MS90725-109
21	9	5340-01-209-0475	19207	12259835
21	10	5306-00-225-9093	96906	MS90726-38
21	11	5340-01-209-0503	19207	12259840
21	12	5310-00-660-3381	96906	MS21083N5
21	13	5340-01-209-0500	19207	12259837
21	14	5310-00-483-8792	96906	MS17829-4C
21	15	5305-00-071-2241	96906	MS90725-10
21	16		19207	11636605-1
21	17		19207	11636685-1
21	18		19207	11669792
21	19	5310-00-088-1251	96906	MS51922-1
21	20	5305-00-068-0501	96906	MS90725-5
21	21	5340-01-222-5247	19207	12312996
21	22	5305-00-115-9526	96906	MS189154-58
21	23		19207	12312992
21	24	5315-00-838-4584	96906	MS16562-66
21	25	2530-01-215-3389	19207	12259845
21	26		19207	12354248
21	27		19207	12312987

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FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
21	28		19207	12312983
21	29	3040-01-209-0497	19207	12259831
21	30		19207	12259831-1
21	31	5310-00-732-0558	96906	MS51967-8
21	32	2590-00-152-2214	19207	11636684
22	1	5310-00-880-8189	96906	MS51967-11
22	2	2510-01-215-3953	19207	11592653
22	3		19207	12313036
22	4	2590-00-760-5812	19207	11592640
22	5		19207	11592632
22	5		19207	12312976
22	6	5310-01-073-8614	88044	AN935-816
22	7	5310-00-732-0560	96906	MS51968-14
22	8	5310-00-763-8905	96906	MS51968-20
22	9	5310-00-835-2037	96906	MS35691-53
22	10	2510-00-438-1592	19207	11592616
22	11		19207	11592639-1
22	11	2590-00-152-2198	19207	11592639
22	12	2590-00-760-5811	19207	11592638
22	13		19207	12312971
22	13	5306-00-152-0561	19207	11592641
22	14	5365-01-147-7704	19207	11592648
22	15	5305-00-719-5274	96906	MS90727-125
22	16	5306-00-406-7320	19207	11592654
23	1	2510-00-152-2213	19207	11636658
23	2	5340-01-277-2478	19207	12312978
23	3	5310-00-582-5965	96906	MS35338-44
23	4	5305-00-685-3511	96906	MS35308-306
23	4	5305-00-688-2020	96906	MS35308-305
23	5	5330-01-279-0501	19207	11636717
23	6	2510-00-152-2210	19207	11636653
23	7	5340-01-145-8478	19207	12296618
23	8	5305-00-688-2018	96906	MS35308-307
23	8	5305-00-688-2018	96906	MS35308-307
23	9	5305-00-688-2020	96906	MS35308-305
23	9	5305-00-688-2020	96906	MS35308-305
23	10	5365-00-152-2202	19207	11636574
23	11	5310-00-637-9541	96906	MS35338-46
23	12	5305-00-688-2020	96906	MS35308-305
23	13	5305-00-801-5747	96906	MS35308-364
23	14	2590-01-020-6073	19207	11636652
23	15	5365-00-442-5845	96906	MS16633-1050
23	16	5340-01-191-5913	19207	11636651
23	17	5365-00-721-7680	96906	MS16633-1025
23	18	5315-01-215-9867	19207	11636650
23	19	5360-00-699-8489	19207	8331541
23	20	5315-00-536-3865	19207	7979971
23	21	5310-00-693-0738	19207	8331542
23	22	2510-00-782-9606	19207	11636681
23	23	5330-00-152-3362	19207	11636656
23	24	2510-00-152-2212	19207	11636657

CROSS-REFERENCE INDEXES

FIG	ITEM	FIGURE AND ITEM NUMBER INDEX		PART NUMBER
		STOCK NUMBER	FSCM	
24	1	2540-00-388-9985	19207	10950595
24	2	5310-00-761-6882	96906	MS51967-2
24	3	5310-00-582-5965	96906	MS35338-44
24	4	5305-00-068-0502	96906	MS90725-6
25	1	9905-00-202-3639	96906	MS35387-2
25	1	9905-00-205-2795	96906	MS35387-1
25	2	5305-00-988-1721	96906	MS35206-277
25	3	5310-00-550-1130	96906	MS35333-40
26	1	9905-00-999-7369	96906	MS53007-2
26	2	9905-00-999-7370	96906	MS53007-1
26	3		19207	12313001
26	3	9905-00-798-1208	19207	11636534
26	4	9905-00-282-7489	19207	7979373
26	5	5305-00-253-5631	96906	MS21318-57
27	1	2510-00-493-8896	19207	11636516
28	1	5120-00-104-4076	45225	1907
28	1	5120-01-105-8593	45225	1924

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 M796 and M796A1 bolster trailer. These items are authorized to you by CTA 50-970, Expendable items.

E-2. EXPLANATION OF COLUMNS.

a. Column 1, item Number. This is the number assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., Use sealing compound, item 8, appendix D).

b. Column 2, Level. This column identifies the lowest level of maintenance that requires the listed item. The symbol designation for the various maintenance levels are as follows:

- C - Operator/Crew
- O - Organizational
- F - Direct Support
- H - General Support

c. Column 3, National Stock Number. This is the national stock number assigned to the item; use it to request or requisition the item.

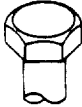






d. Column 4, Description. indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for Manufacturer (FSCM) in parentheses followed by the part number.

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 requirements.

SECTION II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION (FSCM)	(5) U/M
1	O		CONTAINER, EMPTY, 1-QUART	EA
2	O	9150-01-102-9455	BRAKE FLUID, SILICONE(BFS) (81349)MIL-L-46176 1-GALLON CAN	OZ
3	O	9150-00-190-0904	GREASE, AUTOMOTIVE AND ARTILLERY (81349)MIL-G-10924C 1-POUND CAN	OZ
4	O	9150-00-186-6181 9150-00-188-9858 9150-00-188-9859 9150-00-189-6729	OIL, LUBRICATING OE/HDO-30 (81349)MIL-L-2104C 1-QUART CAN TYPE 1 5-GALLON CAN 55-GALLON DRUM(16-GAGE) 55-GALLON DRUM(18-GAGE)	OZ OZ OZ OZ
5	O	9150-00-402-4478 9150-00-402-2372 9150-00-495-7197	OIL, LUBRICATING OEA (81349)MIL-L-46167 1-QUART CAN 5-GALLON CAN 55-GALLON DRUM(18-GAGE)	OZ OZ OZ
6	O		PLASTIC TUBING	FT
7	C	7920-00-205-1711	RAGS, WIPING (58536)A-A-531 50-POUND BALE	EA
8	O		SEALING COMPOUND	OZ
9	O		SOAP SOLUTION	OZ
10	C	6850-00-664-5685 6850-00-281-1985 6850-00-285-8011	SOLVENT, DRYCLEANING (81349)PD-680, TYPE II 1-QUART CAN 1-GALLON CAN 55-GALLON DRUM	OZ OZ OZ

APPENDIX H
TORQUE LIMITS

Current Usage	Much Used	Much Used	Used at Times	Used at Times
Quality of Material	Indeterminate	Minimum Commercial	Medium Commercial	Best Commercial
SAE Grade Number	1 or 2	5	6 or 7	8
Capscrew Head Markings			 	 
Manufacturer's marks may vary				
These are all SAE Grade 5 (3 line)				

CAUTION

If replacement capscrews are of a higher grade than originally supplied, use torque specifications for that placement. This will prevent equipment damage due to overtightening.

Capscrew Body Size (Inches) - (Thread)		Torque Ft Lb (N•m)	Torque Ft Lb (N•m)	Torque Ft Lb (N•m)	Torque Ft Lb (N•m)
114	20	5 (7)	8 (11)	10 (14)	12 (16)
	28	6 (8)	10 (14)		14 (19)
5/16	18	11 (15)	17 (23)	19 (26)	24 (33)
	24	13 (18)	19 (26)		27 (37)
3/8	16	18 (24)	31 (42)	34 (46)	44 (60)
	24	20 (27)	35 (47)		49 (66)
7/16	14	28 (38)	49 (66)	55 (75)	70 (95)
	20	30 (41)	55 (75)		78 (106)
1/2	13	39 (53)	75 (102)	85 (115)	105 (142)
	20	41 (56)	85 (115)		120 (163)
9/16	12	51 (69)	110 (149)	120 (163)	155 (210)
	18	55 (75)	120 (163)		170 (231)
5/8	11	83 (113)	150 (203)	167 (226)	210 (285)
	18	95 (129)	170 (231)		240 (325)
3/4	10	105 (142)	270 (366)	280 (380)	375 (508)
	16	115 (156)	295 (400)		420 (569)
7/8	9	160 (217)	395 (536)	440 (597)	605 (820)
	14	175 (237)	435 (590)		675 (915)
1	8	235 (319)	590 (800)	660 (895)	910 (1234)
	14	250 (339)	660 (895)		990 (1342)

TA224847

TORQUE LIMITS - CONTINUED

NOTE

Always use the torque values listed above when specific torque values are not available.

Do not use above values in place of those specified in other sections of this manual; special attention should be observed when using SAE Grade 6, 7, and 8 capscrews.

The above is based on use of clean, dry threads.

Reduce torque by 10 percent when engine oil is used as a lubricant.

Reduce torque by 20 percent if new plated capscrews are used.

Capscrews threaded into aluminum may require reductions in torque of 30 percent or more of Grade 5 capscrew torque and must attain two capscrew diameters of thread engagement.

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By Order of the Secretary of the Army:

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

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The Adjutant General

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THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter=10 Millimeters=0.01 Meters=0.3937 Inches
 1 Meter=100 Centimeters=1000 Millimeters=39.37 Inches
 1 Kilometer=1000 Meters=0.621 Miles

WEIGHTS

1 Gram=0.001 Kilograms=1000 Milligrams=0.035 Ounces
 Kilogram=1000 Grams=2.2 Lb
 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

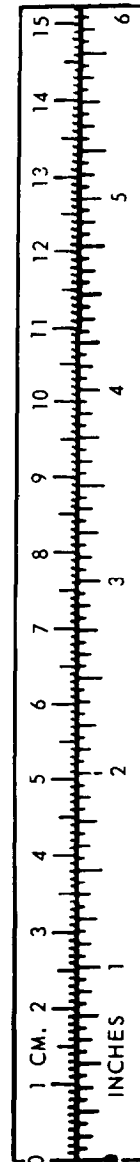
TEMPERATURE

$5/9 (°F - 32) = °C$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5 C + 32 = F°$

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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