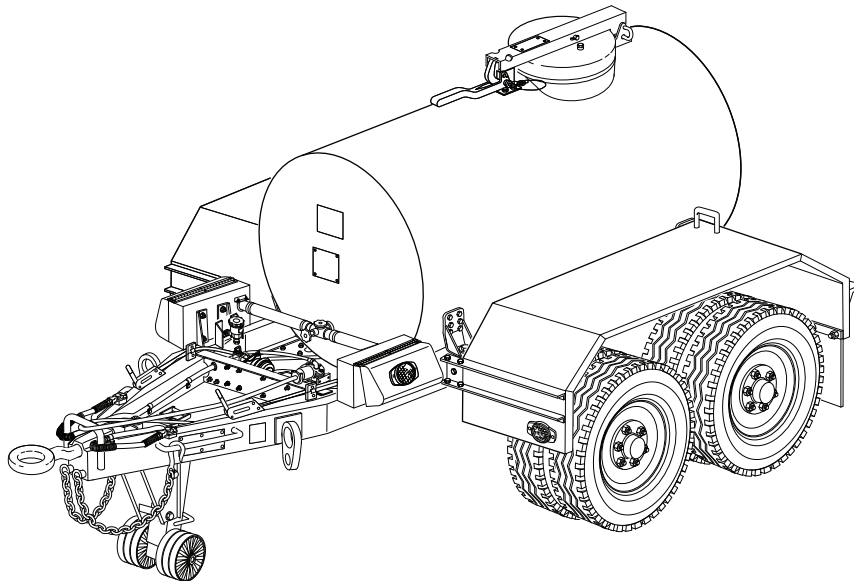


TM 9-2330-397-13&P

**TECHNICAL MANUAL
OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR
PARTS AND SPECIAL TOOLS LISTS (RPSTL)
FOR
TRAILER, TANK, WATER: 400 GALLON, 1-1/2 TON,
8-WHEEL WITH STAINLESS STEEL TANK BODY
NSN 2330-01-389-9073 (EIC CMB)
M1112**



SUPERSEDURE NOTICE: This manual supersedes TM 9-2330-397-14&P dated 24 April 2000, including all changes.

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

**HEADQUARTERS, DEPARTMENT OF THE ARMY, WASHINGTON D.C.
07 DECEMBER 2015**

WARNING SUMMARY

This warning summary contains general safety and hazardous materials warnings that must be understood and applied during operation and maintenance of the M1112 Trailers to ensure personnel against injury, long-term health hazards, or death. Failure to observe these precautions could result in serious injury or death to personnel. Also included are explanations of safety and hazardous materials icons used within the technical manual.

FIRST AID

FOR FIRST AID INFORMATION, REFER TO FM 4-25.11.

EXPLANATION OF SAFETY WARNING ICONS



ELECTRICAL - electrical wire to hand with electricity symbol running through hand shows that shock hazard is present.



FLYING PARTICLES - arrows bouncing off the face with face shield shows that particles flying through the air will harm face.



HEAVY OBJECT - heavy object on hand shows that heavy parts present a danger to life or limb.



HEAVY OBJECT - human figure stooping over heavy object shows physical injury potential from improper lifting technique.



HEAVY PARTS - heavy object on human figure shows that heavy parts present a danger to life or limb.



HEAVY PARTS - heavy object pinning human figure against wall shows that heavy, moving parts present a danger to life or limb.

WARNING SUMMARY - Continued

EXPLANATION OF SAFETY WARNING ICONS - Continued



SLICK FLOOR - wavy line on floor with legs prone shows that slick floor presents a danger for falling.

GENERAL SAFETY WARNINGS DESCRIPTION

WARNING



Make sure electrical power is disconnected before performing any maintenance on the electrical system. Do not use metal cleaning objects to clean cable plugs or receptacles. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING



- Compressed air used for cleaning or drying purposes, or for clearing restrictions, should never exceed 30 psi (207 kPa). Wear protective clothing (eye protection, gloves, etc.). Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Hardware within the brake system is pressurized; ensure proper eye protection is worn before inspecting or performing maintenances. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Wear eye protection to prevent eye injury when working with components that could fly through the air. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING SUMMARY - Continued

GENERAL SAFETY WARNINGS DESCRIPTION - Continued

WARNING



- All personnel must stand clear of Prime Mover and trailer during coupling and uncoupling operations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Do not run safety chains parallel. They must be crossed under drawbar ring to prevent excess shifting of trailer in case it becomes uncoupled during operation. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Do not park trailer on crowned or rutted inclined surfaces. The parking brakes will not be effective unless all four front wheels have firm contact with the ground. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING



Radius rod and bracket will swing freely. Radius rod and bracket must be tied to frame assembly to prevent injury to personnel and damage to equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING SUMMARY - Continued

GENERAL SAFETY WARNINGS DESCRIPTION - Continued

WARNING



- Fender weighs 130 lb (59 kg). Three people are required to remove fender from frame. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Walking beam weighs 225 lbs (102 kg). To prevent injury to personnel and damage to equipment, two people are required to remove walking beam from cross axle. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Wheel and Tire assembly weighs 80 lb (36 kg). Two people are required to remove/install assembly. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Spring assembly weighs 105 lb (39 kg). Use caution, provide adequate support, and use assistance during removal. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Landing leg weighs 150 lb (68 kg). Two people are required to lift landing leg. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING



Weight of trailer must be supported on suitable supports at all times. Do not support weight of trailer on lifting device. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING



Lifting device must have a weight capacity greater than 7,160 lb (3,248 kg), the weight of trailer and cargo. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING SUMMARY - Continued

EXPLANATION OF HAZARDOUS MATERIALS ICONS



BIOLOGICAL - abstract symbol bug shows that a material may contain bacteria or viruses that present a danger to life or health.



CHEMICAL - drops of liquid on hand shows that the material will cause burns or irritation to human skin or tissue.



EXPLOSION - rapidly expanding symbol shows that the material may explode if subjected to high temperatures, sources of ignition or high pressure.



EYE PROTECTION - person with goggles shows that the material will injure the eyes.



FIRE - flam shows that a material may ignite and cause burns.



POISON - skull and crossbones shows that a material is poisonous or is a danger to life.



VAPOR - human figure in a cloud shows that material vapors present a danger to life or health.

WARNING SUMMARY - Continued

GENERAL HAZARDOUS MATERIALS WARNING DESCRIPTION

WARNING



Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING



Adhesive causes immediate bonding on contact with eyes, skin, or clothing and also gives off harmful vapors. Wear *gloves*, eye protection and use *adhesive product* only in a well-ventilated areas. If adhesive *makes contact with eyes or skin*, flush *thoroughly* with water for 15 minutes. Try to keep eyes open. Get immediate medical attention. *If ingested, DO NOT induce vomiting. Keep individual calm and seek immediate medical attention.* Failure to comply may result in death or injury to personnel. Dispose of clean-up cloths or rags IAW local policy and ordinances. *Keep contaminated cloths and / or rags clear of open flame or ignition sources.*

WARNING



- Use extreme care to ensure that no foreign material enters the water tank. The highest sanitary practices must be followed when handling drinking water. Serious illness may result from impure, contaminated drinking water. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- When water tank is used for NONPOTABLE WATER, water tank must be so marked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- If water tank was filled with nonpotable water, water tank must be flushed out with clean potable water and drained. DO NOT allow water tank to sit for extended periods of time with any amount of liquid in it. Standing water will result in contamination and food poisoning. KEEP WATER TANK CLEAN AT ALL TIMES. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING SUMMARY - Continued

GENERAL HAZARDOUS MATERIALS WARNING DESCRIPTION - Continued

WARNING



- Tank interior is a confined space with potential oxygen deficiency and toxic fume hazards. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- An adequate air evacuation system must be used to quickly exhaust fumes from inside tank assembly. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Personnel must wear rubber gloves, canvas sleeves, safety shoes, rubberized apron or jacket, and protective mask while performing abrasive cleaning operation. A portable air filter must also be used. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- NEVER WORK ALONE INSIDE tank assembly. A safety rope must be secured around chest and under arms of person entering water tank. Opposite end of safety rope must be held by a person stationed at the manhole opening. This will allow for quick removal of a person from water tank in the event of accident or personal injury. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING



Use a drain pan or appropriate containment equipment to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Immediately clean up spilled fluid before proceeding with any task. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.

WARNING SUMMARY - Continued

GENERAL HAZARDOUS MATERIALS WARNING DESCRIPTION - Continued

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: This manual supersedes TM 9-2330-397-14&P dated 24 April 2000, including all changes. Zero in the "Change No." column indicates an original page or work package.

Date of issue for the revised manual is:

Original 07 December 2015

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 42 AND TOTAL NUMBER OF WORK PACKAGES IS 119, CONSISTING OF THE FOLLOWING:

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HEADQUARTERS DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 07 DECEMBER 2015

TECHNICAL MANUAL
OPERATOR AND FIELD MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

FOR

TRAILER, TANK, WATER: 400 GALLON, 1-1/2 TON, 8-WHEEL
WITH STAINLESS STEEL TANK BODY
NSN 2330-01-389-9073 (EIC CMB)
M1112

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

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Current as of 29 December 2011

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Index

HOW TO USE THIS MANUAL

This technical manual contains operating instructions, component locations, and specifications for the safe and efficient operation of the M1112 Water Trailer. It also contains operational and field level troubleshooting and maintenance procedures for this trailer.

WARNINGS, CAUTIONS, AND NOTES

WARNINGS, CAUTIONS, and NOTES occur throughout this manual. An explanation for each follows:

A **WARNING** precedes the text of any procedure that poses a clear danger to the person performing it. Warnings contain critical data for ensuring personal safety.

A **CAUTION** precedes the text of any procedure involving a clear risk of damage to equipment.

A **NOTE** is used to highlight essential conditions or statements that clarify instructions and make procedures easier to accomplish.

INITIAL SETUP

Before starting a task, you must obtain all the tools, supplies, and personnel listed in the initial setup. Be sure to read the task before performing the maintenance. If any other tasks are referenced, you must go to the initial setup page for each of those tasks to find out what tools, supplies, and personnel will be needed.

CHAPTER 1: GENERAL INFORMATION, EQUIPMENT DESCRIPTION, AND THEORY OF OPERATION

This chapter describes the trailer and its major assemblies and components. It contains a specification table for the trailer equipment as well as information needed for maintaining records and making equipment recommendations.

CHAPTER 2: OPERATOR INSTRUCTIONS

This chapter describes, locates, and illustrates the controls and indicators used on the trailer. It contains detailed instructions for operation of the vehicle under unusual conditions.

CHAPTER 3: TROUBLESHOOTING PROCEDURES

Use the troubleshooting index to find the common operator and field malfunctions and symptoms that may occur during use of the trailer. Perform the troubleshooting and corrective actions in the order listed within each individual Work Package (WP).

CHAPTER 4: PREVENTIVE MAINTENANCE CHECKS AND SERVICES

This chapter contains operator and field level Preventive Maintenance Checks and Services (PMCS). Water trailer components must be inspected periodically to find and correct defects, and regular services are needed to keep the trailer operational.

CHAPTER 5: OPERATOR MAINTENANCE INSTRUCTIONS

This chapter provides operator level maintenance procedures. Remove/disassemble only to the extent necessary to replace defective components/assemblies. Use standard maintenance practices/procedures.

HOW TO USE THIS MANUAL - Continued

CHAPTER 6: FIELD MAINTENANCE INSTRUCTIONS

This chapter provides field level maintenance and servicing instructions for the trailer. It includes instructions for the repair and/or replacement of many trailer components and assemblies. Use standard maintenance practices/procedures.

CHAPTER 7: REPAIR PARTS AND SPECIAL TOOLS LIST

This chapter includes the Repair Parts and Special Tools List (RPSTL) to assist in replacing any defective component or assembly.

CHAPTER 8: SUPPORTING INFORMATION

This chapter includes References, the Maintenance Allocation Chart (MAC), Additional Authorization List (AAL), Components of End Items (COEI) and Basic Issue Items (BII) Lists, the Expendable and Durable Items List (EDIL), the Tool Identification List (TIL).

ALPHABETICAL INDEX

An alphabetical index of WPs is located after the last WP in this manual.

CHAPTER 1

GENERAL INFORMATION, EQUIPMENT DESCRIPTION, AND THEORY OF OPERATION

OPERATOR MAINTENANCE GENERAL INFORMATION

SCOPE

The purpose of this chapter is to familiarize you with the Trailer, Tank, Water: 400 Gallon, 1-1/2 Ton, 8-Wheel with Stainless Steel Tank Body M1112.

TYPE OF MANUAL

TM 9-2330-397-13&P is an Operator and Field Maintenance Manual including Repair Parts and Special Tools List (RPSTL).

MODEL NUMBER AND EQUIPMENT NAME

Trailer, Tank, Water: 400 gallon, 1-1/2 Ton, 8-Wheel M1112.

PURPOSE OF EQUIPMENT

The M1112 trailer is used to transport 400 gal (1,514 l) of potable or nonpotable water. It can be used on improved and unimproved roads.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 750-8, The Army Maintenance Management System (TAMMS) User Manual.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your M1112 needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you do not like about your equipment. Let us know why you do not like the design or performance.

All non-Aviation/Missile EIRs and PQDRs must be submitted through the Product Data Reporting and Evaluation Program (PDREP) Web site. The PDREP site is: <https://www.pdrep.csd.disa.mil/>.

If you do not have Internet access, you may submit your information using an SF 368 (Product Quality Deficiency Report). You can send your SF 368 using email, regular mail, or fax using the addresses/fax numbers specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items. The term "corrosion" means the deterioration of a material or its properties due to a reaction of that material with its chemical environment. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking. Plastics, composites, and rubbers can also degrade (also considered to be corrosion based on the above definition of corrosion). Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically ultraviolet) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking. The US Army has defined the following nine (9) forms of corrosion used to evaluate the deterioration of metals. These shall be used when evaluating and documenting corrosion.

UNIFORM (or general attack): Affects a large area of exposed metal surface, like rust on steel or tarnish on silver. It gradually reduces the thickness of the metal until it fails.

CORROSION PREVENTION AND CONTROL (CPC) - Continued

CREVICE: Occurs in crevices created by rubber seals, gaskets, bolt heads, lap joints, dirt or other surface deposits. It will develop anywhere moisture or other corrosive agents are trapped and unable to drain or evaporate.

SELECTIVE LEACHING: One element, usually the anodic element of an alloy, corrodes away, leaving the cathodic element. This can create holes in metal.

INTERGRANULAR: Metal deterioration caused by corrosion on the bonds between or across the grain boundaries of the metal. The metal will appear to be peeling off in sheets, flaking, or being pushed apart by layers. A particular type of intergranular corrosion is exfoliation.

PITTING: This can result from conditions similar to those for crevice corrosion. Pits can develop on various materials due to their composition. Rifle boxes are big victims of pitting.

EROSION: Results when a moving fluid (liquid or gas) flows across a metal surface, particularly when solid particles are present in the fluid. Corrosion actually occurs on the surface of the metal, but the moving fluid washes away the corrosion and exposes a new metal surface, which also corrodes.

FRETTING: Occurs as a result of small, repetitive movements (e.g., vibration) between two surfaces in contact with each other. It's usually identified by a black powder corrosion product or pits on the surface.

GALVANIC: Occurs when two different types of metal come in contact with each other, like steel bolts on aluminum, for example. This is a common problem on aircraft because of their mix of metals.

STRESS: Term used to describe corrosion cracking and corrosion fatigue.

Where an item is not ready/available due to one of these forms of corrosion, it shall be recorded as a corrosion failure in the inspection record and the appropriate code (170) for corrosion shall be used when requesting/performing maintenance.

SF Form 368, Product Quality Deficiency Report should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

DESTRUCTION OF ARMY MATERIAL TO PREVENT ENEMY USE

For destruction of Army material to prevent enemy use, refer to TM 750-244-6, Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use.

PREPARATION FOR SHIPPING OR STORAGE

For instructions for the preparation for storage or shipment, see (WP 0078).

WARRANTY INFORMATION

The M1112 does not have any warranties.

LIST OF ABBREVIATIONS/ACRONYMS

Abbreviations and acronyms appearing in this manual are defined in the paragraph from where they first appear, after which only the abbreviation or acronym is used. The following is a quick-reference list of all abbreviations and acronyms and their corresponding word or compound term used in this manual.

Table 1. List of Abbreviations and Acronyms.

AAL	Additional Authorization List
BII	Basic Issue Items
CA	Can
CAGEC	Commercial and Government Entity Code

LIST OF ABBREVIATIONS/ACRONYMS - Continued

Table 1. List of Abbreviations and Acronyms - Continued.

cm	Centimeter
COEI	Components of End Item
CPC	Corrosion Prevention and Control
CTA	Common Table of Allowance
DA	Department of the Army
EA	Each
EDIL	Expendable and Durable Items List
EIR	Field Equipment Improvement Recommendation
FM	Field Manual
ft	Foot, Feet
GAA	Grease, Automotive and Artillery
gal	Gallons
IAW	In Accordance With
in.	Inch
kg	Kilogram
km	Kilometer
km/h	Kilometers Per Hour
kPa	Kilopascal
l	Liter
lb	Pound(s)
lb ft	Pounds Per Square Foot
lb in.	Pounds Per Square Inch
LED	Light Emitting Diode
m	Meter
MAC	Maintenance Allocation Chart

LIST OF ABBREVIATIONS/ACRONYMS - Continued

Table 1. List of Abbreviations and Acronyms - Continued.

mm	Millimeter
mph	Miles Per Hour
MTOE	Modified Tables of Organization and Equipment
MWO	Modification Work Order
N·m	Newton Meters
NIIN	National Item Identification Number
No.	Number
NSN	National Stock Number
PMCS	Preventive Maintenance Checks and Services
P/N	Part Number
POL	Petroleum Oils and Lubricants
PQDR	Product Quality Deficiency Report
psi	Pounds Per Square Inch
QT	Quart
QTY	Quantity
RECM	Recommended
RPSTL	Repair Parts and Special Tools List
SAE	Society of Automotive Engineers
SMR	Source, Maintenance, and Recoverability
SRA	Specialized Repair Activity
TAMMS	The Army Maintenance Management System
TB	Technical Bulletin
TM	Technical Manual
TMDE	Test, Measurement, and Diagnostic Equipment
TULSA	TACOM Unique Logistics Support Applications

LIST OF ABBREVIATIONS/ACRONYMS - Continued**Table 1. List of Abbreviations and Acronyms - Continued.**

UOC	Usable On Code
WCA	Warranty Claim Action
WP	Work Package

QUALITY ASSURANCE (QA)

Material used for replacement, repair, or modification must meet the requirements of this manual TM 9-2330-397-13&P. If quality of material requirements are not stated in this manual TM 9-2330-397-13&P, the material must meet the requirements of the drawings, standards, specifications, or approved engineering change proposals applicable to the subject equipment.

SAFETY, CARE, AND HANDLING

For information on general safety precautions and regulations, review the warning summary at the front of this manual that follows the table of contents. Observe all warnings and cautions that appear in the maintenance procedures.

END OF WORK PACKAGE

OPERATOR MAINTENANCE EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

The M1112 water tank trailer is designed to carry 400 gal (1,514 l) of potable or nonpotable water either highway or cross-country.

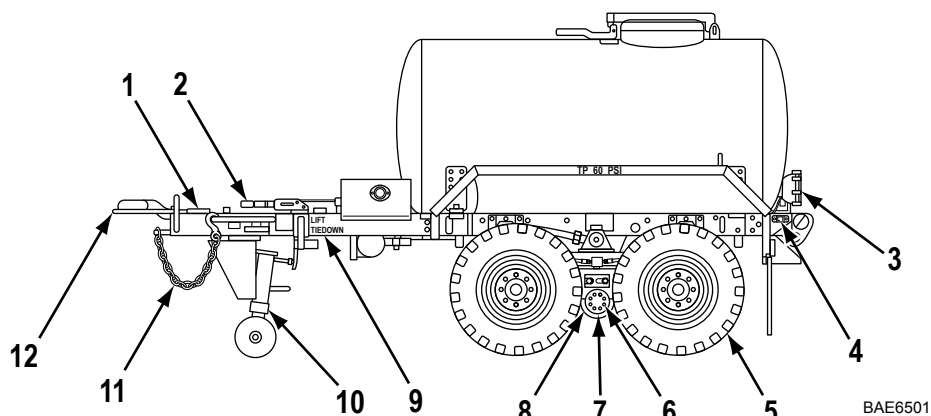
The trailer is designed to be towed by an M939 Series 5-ton and other equivalent Prime Movers.

Maximum allowable speed is 55 mph (88 Km/h) highway and 10 mph (16 Km/h) cross-country.

The trailer is equipped with the following:

- A 24 Volt electrical system capable of operating under standard and blackout modes.
- A landing leg assembly to support the front of the trailer when not coupled to the Prime Mover.
- Manually operated parking brakes used to secure the trailer when stopped or parked.
- Eight-wheel single axle with leaf spring suspension to absorb road shock.
- Dual-line air/hydraulic brake system that receives air pressure from Prime Mover.
- Two adjustable walking beams to provide alignment.

LOCATION AND DESCRIPTIONS OF MAJOR COMPONENTS

Table 1. Frame Assembly Components.**Figure 1. Frame Assembly Components.**

KEY	COMPONENTS	DESCRIPTION
1	Intervehicular Cable	Connects trailer electrical system to the Prime Mover.
2	Handbrake Lever Assemblies	Activates the handbrakes when the trailer is stopped or parked.
3	Light Assemblies	Consists of blackout, stoplight, and taillight assemblies. Indicate presence of trailer to vehicles traveling behind.
4	Red Clearance Lights	Indicates presence of trailer to vehicles from side.
5	Wheel Assembly	Provides support and motion for the trailer.
6	Cross Axle	Supports the trailer load and mounting for the frame.
7	Suspension	Consists of two nine-piece leaf springs and two shock absorbers mounted on axle. Restrains sudden and rapid vertical movement.
8	Walking Beams	Consists of a front and a rear frame assembly that provide mounting for wheels and alignment.
9	Frame Assembly	Composed of two pressed-steel side rails and six pressed steel crossmembers. Supports the trailer load.
10	Landing Leg Assembly	Supports the front of the trailer when not coupled to the Prime Mover.
11	Safety Chains	Prevents the trailer from breaking away from the Prime Mover.
12	Drawbar Ring	Attaches the trailer to the Prime Mover.

LOCATION AND DESCRIPTIONS OF MAJOR COMPONENTS - Continued

Table 2. Water Tank Components.

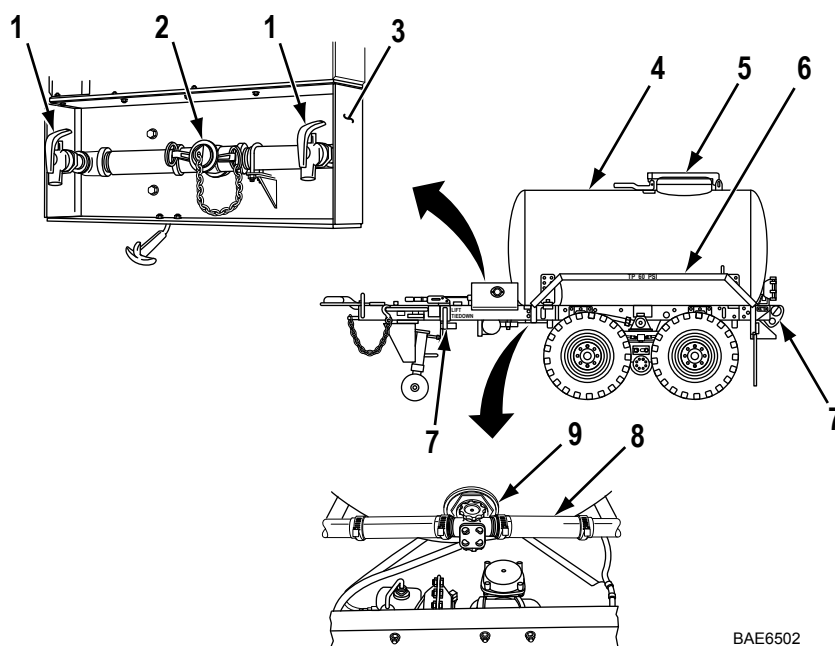
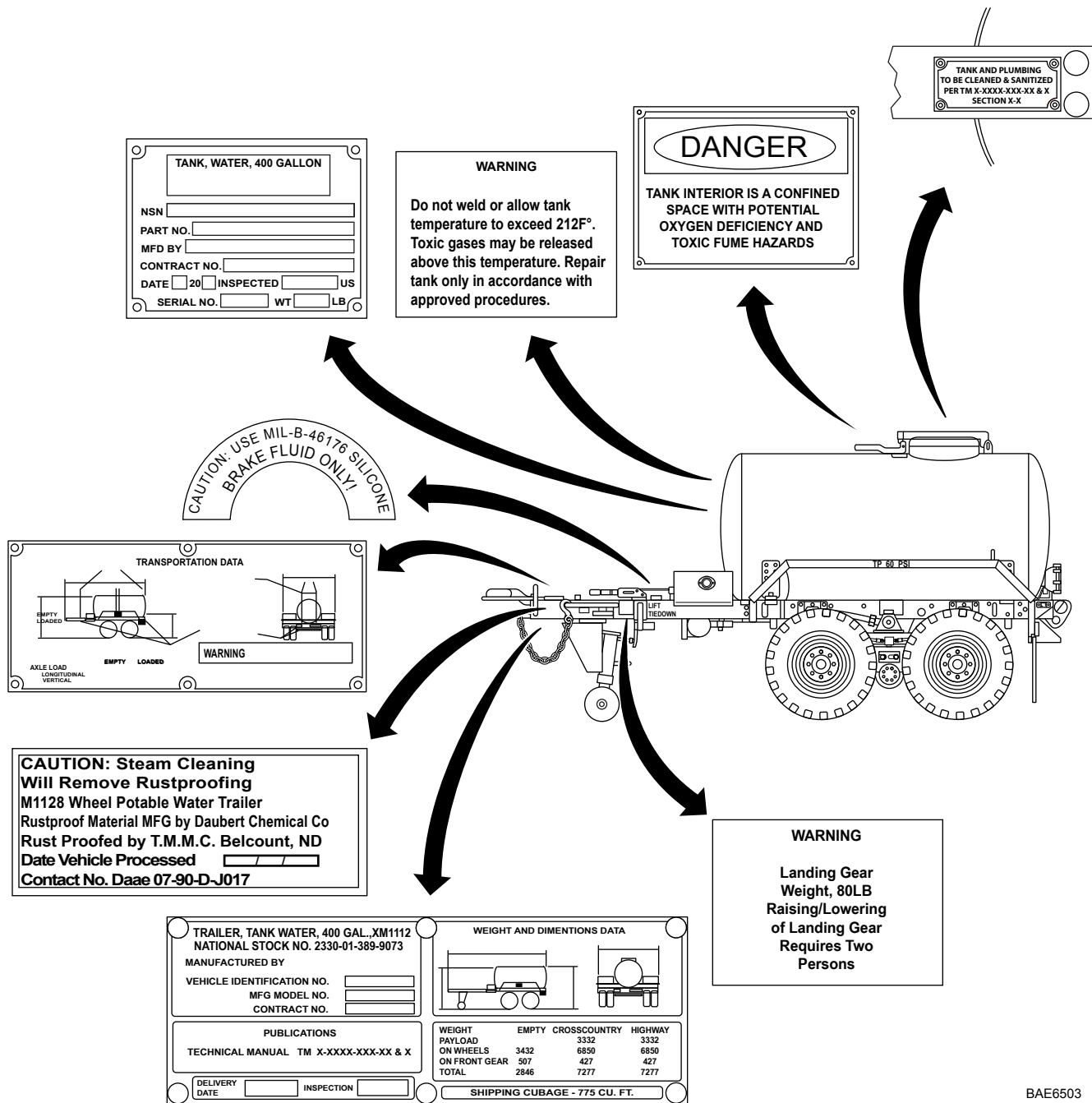


Figure 2. Water Tank Components.

KEY	COMPONENTS	DESCRIPTION
1	Faucets	Allow for the dispensing of water from the tank.
2	Quick-Disconnect Coupling	Provides easy coupling for other types of dispensing.
3	Faucet Box Assemblies	Protect faucets from weather or incidental damage.
4	Tank	Holds 400 gal (1,514 l) of potable water or nonpotable water, if so marked, for transport.
5	Manhole Cover	Provides access to interior of the tank for filling, inspecting, and cleaning.
6	Fender	Protects tires, tank, and vehicles traveling behind the trailer from thrown dirt or stones.
7	Lifting and Tiedown Points	Provides points for lifting trailer and/or securing trailer during shipment. Located at front, sides and rear of frame.
8	Piping	Allows water to flow from tank to faucets.
9	Manifold Valve	Directs the flow of water to faucets.

LOCATION AND CONTENTS OF DATA PLATES

The following illustrations show the location and contents of all data plates. Maintain data plates so that all information remains legible. If any data plate is missing or no longer legible, notify Field Maintenance.



BAE6503

Figure 3. Data Plates and Locations.

EQUIPMENT DATA**Table 3. Water Tank Trailer Equipment Data.**

Overall Dimensions:	
Height (To Top of Manhole Cover):	
Full	81 in. (205.7 cm)
Empty	84 in. (213.4 cm)
Length	162.62 in. (413.0 cm)
Width	98 in. (248.9 cm)
Drawbar Ring (Adjustable)	36-40 in. (91-102 cm)
Ground Clearance	17 in. (43 cm)
Weights:	
Payload Maximum:	
Highway	7,160 lb (3,248 kg)
Cross-Country	6,850 lb (3,107 kg)
Empty Net Weight	3,880 lb (1,762 kg)
Wheels:	
Rim Size	7.0 x 16 in. (17.8 x 40.6 cm)
Tires:	
Rating	8 ply D-Range, Radial
Size	LT215/85R16, tubeless
Maximum Tire Inflation Pressure:	
Highway	60 psi (413 kPa) at 55 mph (88 kph)
Secondary Roads	60 psi (413 kPa) at 40 mph (64 kph)
Cross Country	40 psi (275 kPa) at 10 mph (16 kph)
Axle Assembly:	
Capacity	12,000 lb (5,443 kg)
Tube Diameter	4.5 in. (11.43 cm)

EQUIPMENT DATA - Continued**Table 3. Water Tank Trailer Equipment Data - Continued.**

Spindle:	
Brake Flanges	3.245 in. (8.242 cm)
Dimension at Bearing	2.247 in. (5.707 cm)
Service Brakes:	
Air Operating Pressure	100 psi (690 kPa)
Diameter	12 in. (38.1 cm)
Width	2 in. (5.1 cm)
Landing Leg Assembly:	
Gear Ratio	3:1
Lifting Capacity	6,000 lb (2,724 kg)
Maximum Extension	10.5 in. (26.7 cm)
Electrical System:	
Voltage	24 Volt

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
THEORY OF OPERATION**

WATER TANK TRAILER THEORY OF OPERATION

The M1112 water tank trailer is designed to carry 400 gal (1,514 l) of potable or nonpotable water either highway or cross-country. The trailer is designed to be towed by an M939 Series 5-ton and other equivalent Prime Movers. Maximum allowable speed is 55 mph (88 km/h) highway, 10 mph (16 km/h) cross-country.

END OF WORK PACKAGE

CHAPTER 2

OPERATOR INSTRUCTIONS

OPERATOR MAINTENANCE DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS

GENERAL

This Work Package (WP) shows the location and function of all water tank trailer controls and indicators. Review this work package thoroughly before operating the trailer.

CONTROLS AND INDICATORS

Table 1. Landing Leg Positions.

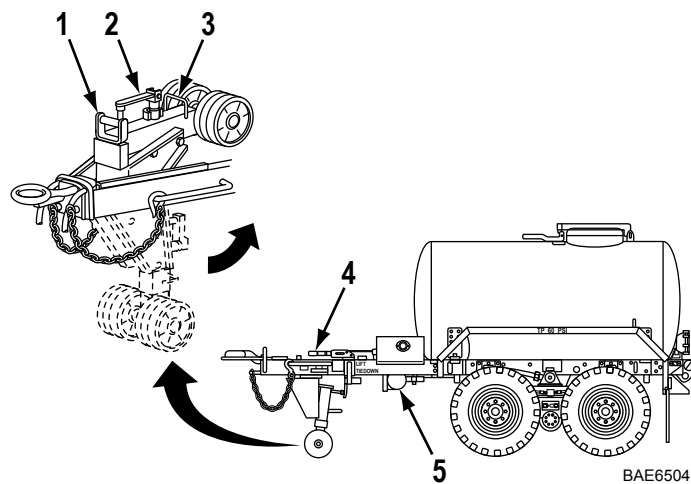
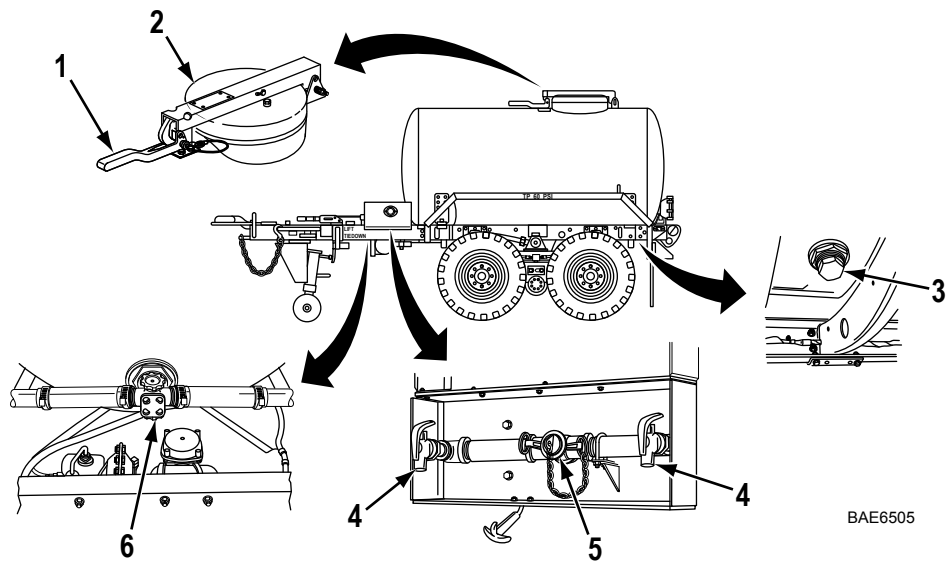


Figure 1. Landing Leg Positions.

Key	Control/Indicator	Function
1	Release Handle	Secures the landing leg assembly in up or down position.
2	Hand Crank	Operates the gearbox to raise or lower the landing leg assembly.
3	Landing Leg Handle	Raises or lowers the landing leg assembly.
4	Handbrake Lever	Activates handbrakes when the trailer is stopped or parked.
5	Pressure Tank Drain Valve	Drains air pressure from pressure tank.

Table 2. Water Plumbing Components.**Figure 2. Water Plumbing Components.**

Key	Control/Indicator	Function
1	Latch	Secures the manhole cover closed.
2	Manhole Cover	Provides access to the tank for filling, cleaning, and inspection.
3	Drain Plug	Drains water from the tank.
4	Forward Faucets	Draws water from the tank.
5	Quick-Disconnect Coupling	Provides easy coupling for other types of dispensing.
6	Manifold Valve	Directs water to the faucets.

END OF WORK PACKAGE

**FIELD MAINTENANCE
OPERATION UNDER USUAL CONDITIONS**

INITIAL SETUP:**Personnel Required**

Two

References

FM 21-10

TB MED 577

References (cont.)

TC 21-305-20

TM 9-2330-267-13&P

WP 0002

WP 0006

WP 0035

GENERAL

1. This Work Package (WP) contains instructions for safely operating the water tank trailer under usual conditions. Unusual conditions are defined and described in (WP 0006).
2. Before operating a new or reconditioned trailer, make sure Field Maintenance services the vehicle.
3. Perform all Before Preventive Maintenance Checks and Services (PMCS) (WP 0035) before operating the trailer to make sure that all adjustments and checks are completed.
4. Review all towing instructions in Prime Mover manual to prepare for coupling and uncoupling operations.

COUPLING TRAILER TO PRIME MOVER**WARNING**

All personnel must stand clear of Prime Mover and trailer during coupling and uncoupling operations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

Have assistant direct you during backing operations.

1. Remove lockpin (Figure 1, Item 6) and open Prime Mover pintle (Figure 1, Item 5).
2. Using hand crank (Figure 1, Item 13), crank landing leg assembly (Figure 1, Item 14) down until drawbar ring (Figure 1, Item 9) is above divided portion of Prime Mover pintle (Figure 1, Item 5).
3. Align Prime Mover with trailer and slowly back up Prime Mover until drawbar ring (Figure 1, Item 9) is centered in pintle (Figure 1, Item 5).
4. Use hand crank (Figure 1, Item 13) on trailer to lower landing leg assembly (Figure 1, Item 14) until weight of trailer is supported by Prime Mover.
5. Close pintle (Figure 1, Item 5) and install lockpin (Figure 1, Item 6).

WARNING

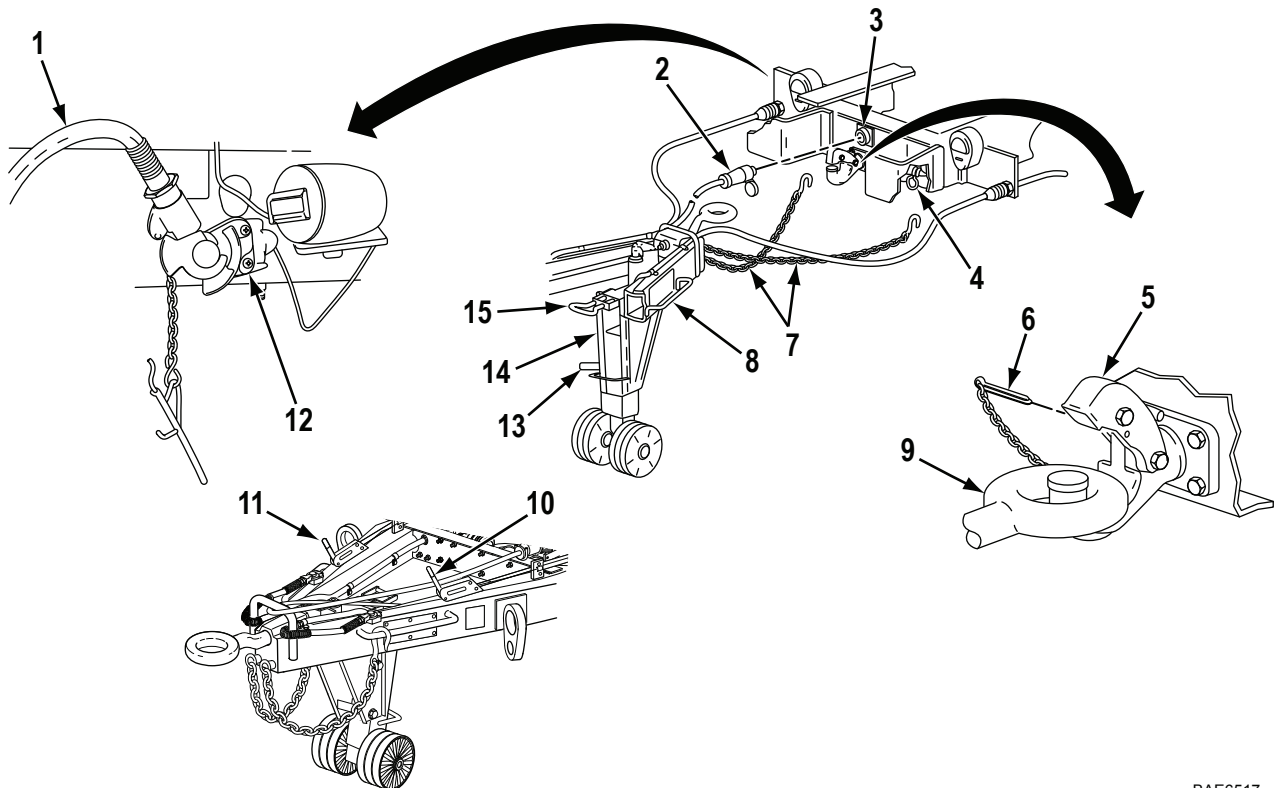
Do not run safety chains parallel. They must be crossed under drawbar ring to prevent excess shifting of trailer in case it becomes uncoupled during operation. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

6. Remove two safety chains (Figure 1, Item 7) from lifting handles (Figure 1, Item 8).
7. Cross safety chains (Figure 1, Item 7) under drawbar ring (Figure 1, Item 9) and attach to Prime Mover tow shackles (Figure 1, Item 4).
8. Connect intervehicular cable (Figure 1, Item 2) to Prime Mover receptacle (Figure 1, Item 3).
9. Remove two dummy covers from two Prime Mover air couplings (Figure 1, Item 12).
10. Connect the service and emergency air hose (Figure 1, Item 1) to the correct air couplings (Figure 1, Item 12).
11. Turn on two Prime Mover air valves to supply pressure to trailer service air system.

COUPLING TRAILER TO PRIME MOVER - Continued**WARNING**

All personnel must stand clear of Prime Mover and trailer during coupling and uncoupling operations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

12. Pull release handle (Figure 1, Item 15) and raise landing leg assembly (Figure 1, Item 14) into locked position. Make sure release handle is fully engaged.
13. Release roadside and curbside handbrakes (Figure 1, Items 11 and 10) on trailer.



BAE6517

Figure 1. Components and Locations for Coupling Trailer.

END OF TASK

TOWING INSTRUCTIONS

1. Perform all During PMCS (WP 0035) while operating the trailer.
2. When towing the trailer, overall length of the unit must be kept in mind when passing other vehicles and when turning.
3. Turning and backing operations will be affected because Prime Mover and trailer act as a hinged unit.
4. Follow prescribed speeds at all times (WP 0002).
5. When parking for extended periods, set the handbrakes on Prime Mover, trailer, and chock wheels.
6. If trailer or trailer and Prime Mover are parked on a hill, chock wheels.
7. For further information on proper driving practices, refer to TC 21-305-20.

END OF TASK

UNCOUPLING TRAILER FROM PRIME MOVER

WARNING



- All personnel must stand clear of Prime Mover and trailer during uncoupling operation. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
 - Landing leg weighs 150 lbs (68 kg). Two people are required to lift landing leg. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
1. Pull release handle (Figure 3, Item 13) and use landing leg handle (Figure 3, Item 10) to lower landing leg assembly (Figure 3, Item 12) on trailer into down and locked position.
 2. Use hand crank (Figure 3, Item 11) to raise trailer until weight of trailer is on landing leg assembly (Figure 3, Item 12) and drawbar ring (Figure 3, Item 7) is centered in Prime Mover pintle (Figure 3, Item 6).

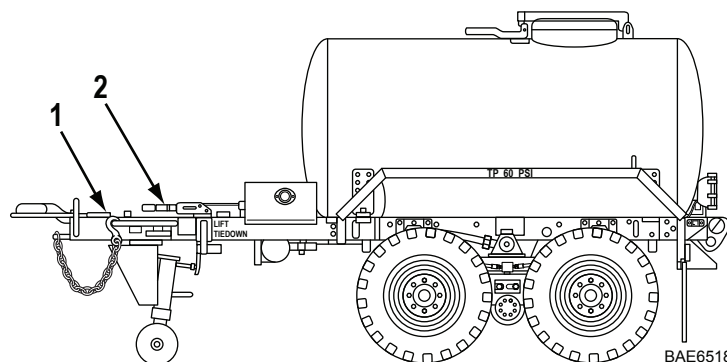


Figure 2. Handbrake Applied Position.

UNCOUPLING TRAILER FROM PRIME MOVER - Continued**WARNING**

Do not park trailer on crowned or rutted inclined surfaces. The parking brakes will not be effective unless all four front wheels have firm contact with the ground. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

3. Apply roadside and curbside handbrakes on trailer by lowering handbrake lever assemblies (Figure 2, Item 2) until they are parallel to frame assembly (Figure 2, Item 1).
4. Remove intervehicular cable (Figure 3, Item 2) from Prime Mover receptacle (Figure 3, Item 3) and attach to cable brackets on trailer.
5. Turn off trailer service air system by turning off two air valves on Prime Mover.
6. Rotate and release intervehicular air hoses (Figure 3, Item 1) from two Prime Mover air couplings (Figure 3, Item 14).
7. Stow two intervehicular air hoses (Figure 3, Item 1) on two trailer brackets.
8. Install two dummy covers in Prime Mover air couplings (Figure 3, Item 14).
9. Remove lockpin (Figure 3, Item 5) and open Prime Mover pintle (Figure 3, Item 6).
10. Remove two safety chains (Figure 3, Item 8) from Prime Mover tow shackles (Figure 3, Item 4) and stow on trailer lifting handles (Figure 3, Item 9).
11. Move Prime Mover a safe distance away from trailer.
12. Chock trailer wheels.
13. Perform all After PMCS (WP 0035).

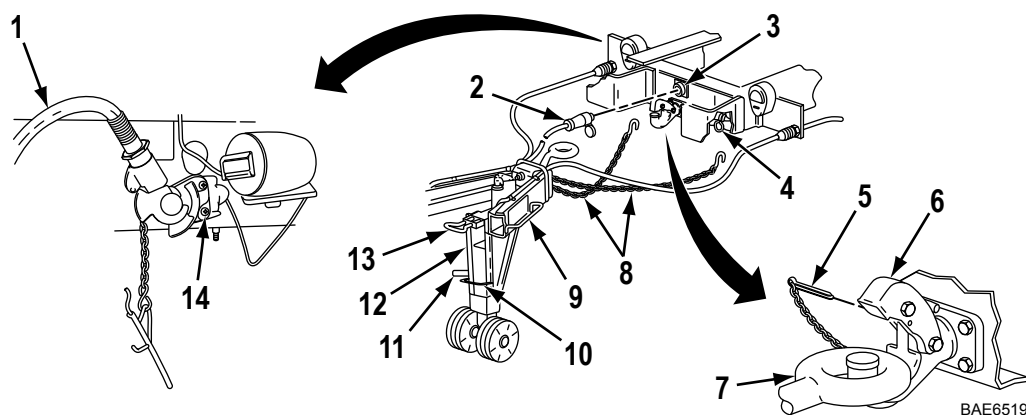


Figure 3. Components and Locations for Uncoupling Trailer.

END OF TASK

OPERATING WATER TANK

GENERAL

Operate the water tank in accordance with standard operating procedures. Be sure to perform the During PMCS (WP 0035).

WATER TANK

WARNING



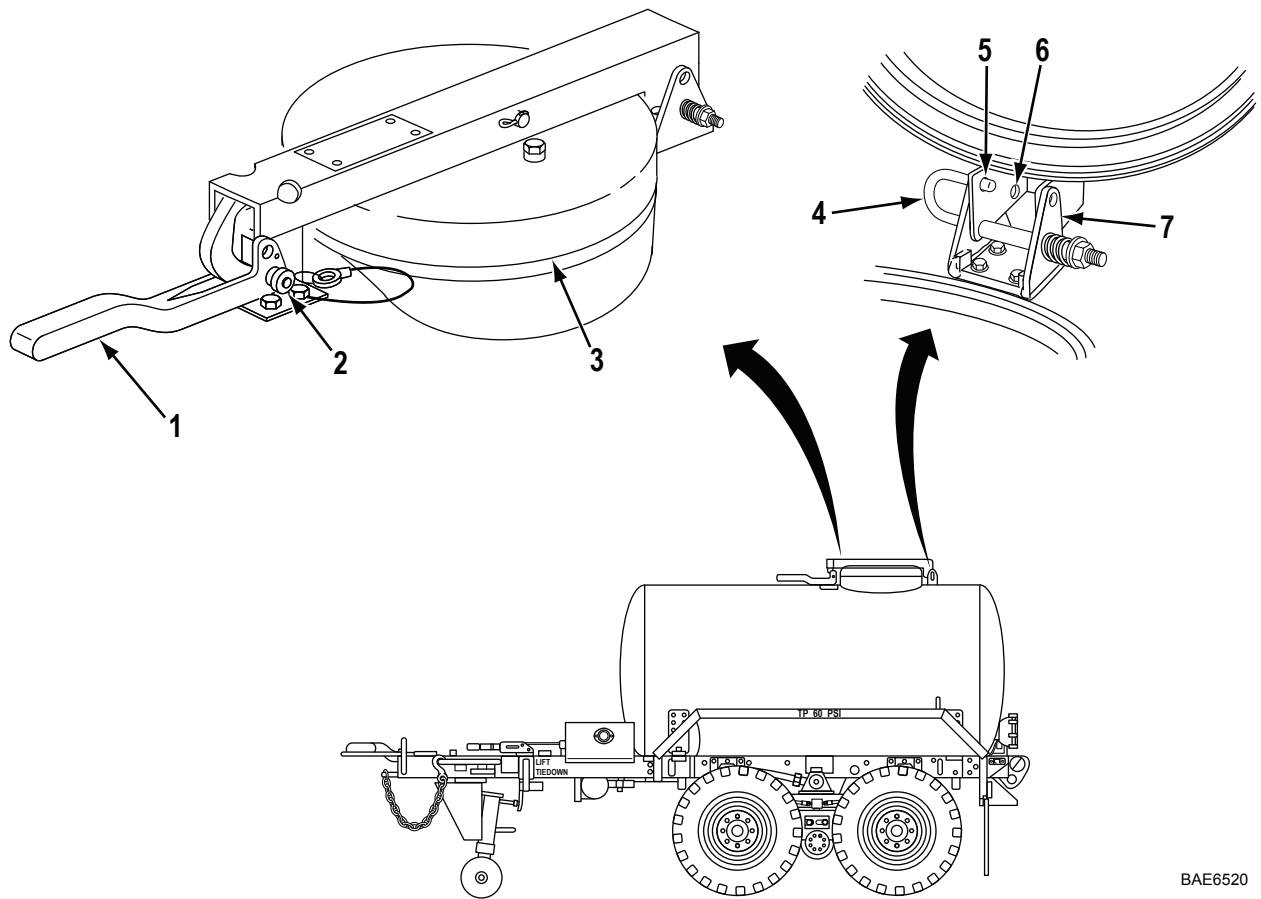
- Use extreme care to ensure that no foreign material enters the water tank. The highest sanitary practices must be followed when handling drinking water. Serious illness may result from impure, contaminated drinking water. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- When water tank is used for NONPOTABLE WATER, water tank must be so marked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

The manhole cover may have latching assembly used on the M149A2 Water Trailer. Operating information for this latch can be found in TM 9-2330-267-13&P.

1. Remove retention pin (Figure 4, Item 2).
2. Open manhole cover (Figure 4, Item 3) by pulling up on hold-down clamp lever (Figure 4, Item 1).
3. Pull looped end of J-bolt (Figure 4, Item 4) and lift manhole cover (Figure 4, Item 3) until two holes (Figure 4, Item 5) on bracket (Figure 4, Item 7) and manhole cover align. Release J-bolt (Figure 4, Item 4).
4. Fill water tank through manhole opening.
5. Pull looped end of J-bolt (Figure 4, Item 4) and close manhole cover (Figure 4, Item 3). Release J-bolt (Figure 4, Item 4) into two holes (Figure 4, Item 6) on bracket (Figure 4, Item 7).
6. Secure manhole cover with cover hold-down clamp lever (Figure 4, Item 1).
7. Insert retention pin (Figure 4, Item 2) into cover hold-down clamp lever (Figure 4, Item 1).

OPERATING WATER TANK - Continued



BAE6520

Figure 4. Manhole Cover Open and Closed Lock Position.

END OF TASK

DRAINING WATER TANK**WARNING**

If water tank was filled with nonpotable water, water tank must be flushed out with clean potable water and drained. DO NOT allow water tank to sit for extended periods of time with any amount of liquid in it. Standing water will result in contamination and food poisoning. KEEP WATER TANK CLEAN AT ALL TIMES. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

For information on cleaning and disinfecting procedures, refer to FM 21-10 and TB MED 577.

1. Close manifold valve (Figure 5, Item 9) by turning center handle (Figure 5, Item 10) counterclockwise.
2. Press down on faucet levers (Figure 5, Item 1) and drain remaining water from curbside and roadside piping (Figure 5, Item 2).
3. Remove drain plug (Figure 5, Item 8) from water tank and drain liquid from water tank.
4. Install drain plug (Figure 5, Item 8) on water tank.

END OF TASK**DISPENSING CONSUMABLE LIQUIDS FROM FORWARD FAUCETS**

1. Pull out and release fastener (Figure 5, Item 7) and lift faucet box cover (Figure 5, Item 4) until open.
2. Turn center handle (Figure 5, Item 10) of manifold valve (Figure 5, Item 9) clockwise to release liquid to the curbside and roadside faucets (Figure 5, Item 5).
3. Press down on faucet levers (Figure 5, Item 1) to allow liquid to flow from faucets (Figure 5, Item 5). Release faucet levers (Figure 5, Item 1) to stop flow.
4. Water tank is equipped with quick-disconnect coupling (Figure 5, Item 6). To use, pull out coupling ring (Figure 5, Item 3) and remove dust plug from coupling (Figure 5, Item 6).

DISPENSING CONSUMABLE LIQUIDS FROM FORWARD FAUCETS - Continued

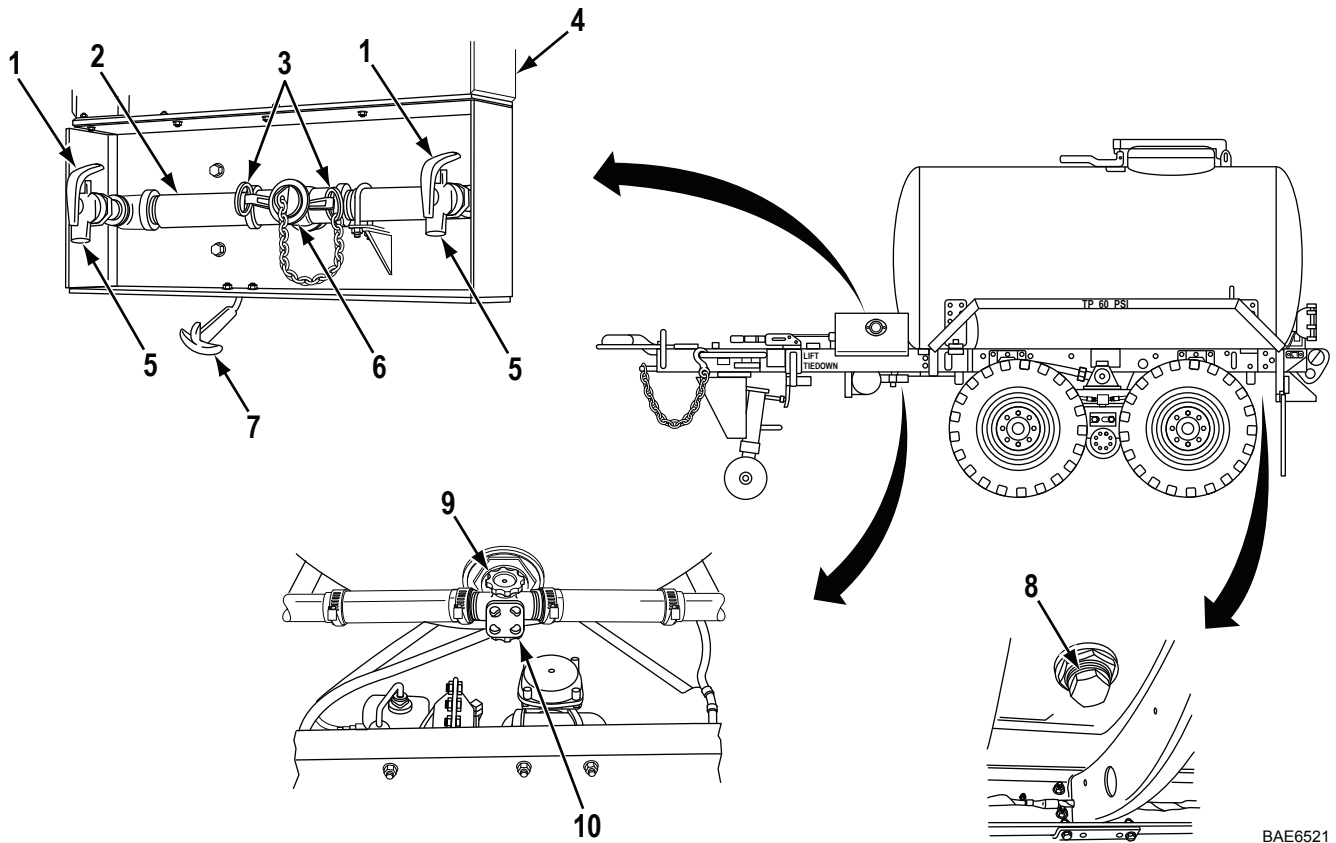


Figure 5. Water System Components.

END OF TASK

END OF WORK PACKAGE

OPERATOR MAINTENANCE OPERATION UNDER UNUSUAL CONDITIONS

INITIAL SETUP:

References

TC 21-305-20
TM 4-33.31
TM 10-4130-237-14

References (cont.)

WP 0062
WP 0079

GENERAL

This Work Package (WP) contains special instructions for operating and servicing the trailer under unusual conditions.

In addition to performing all normal PMCS, special care must be taken in regard to cleaning and lubrication when extremes in temperature, humidity, and terrain conditions are present or anticipated. Proper cleaning, lubrication, storage, and handling ensures proper operation and function and also guards against excessive wear.

OPERATION IN EXTREME COLD

CAUTION

To ensure that water tank trailer is not damaged, approved practices and precautions must be followed. For general cold weather information applicable to water tank trailers, refer to TM 4-33.31 and TC 21-305-20. Failure to comply may result in damage to, or destruction of, equipment or mission.

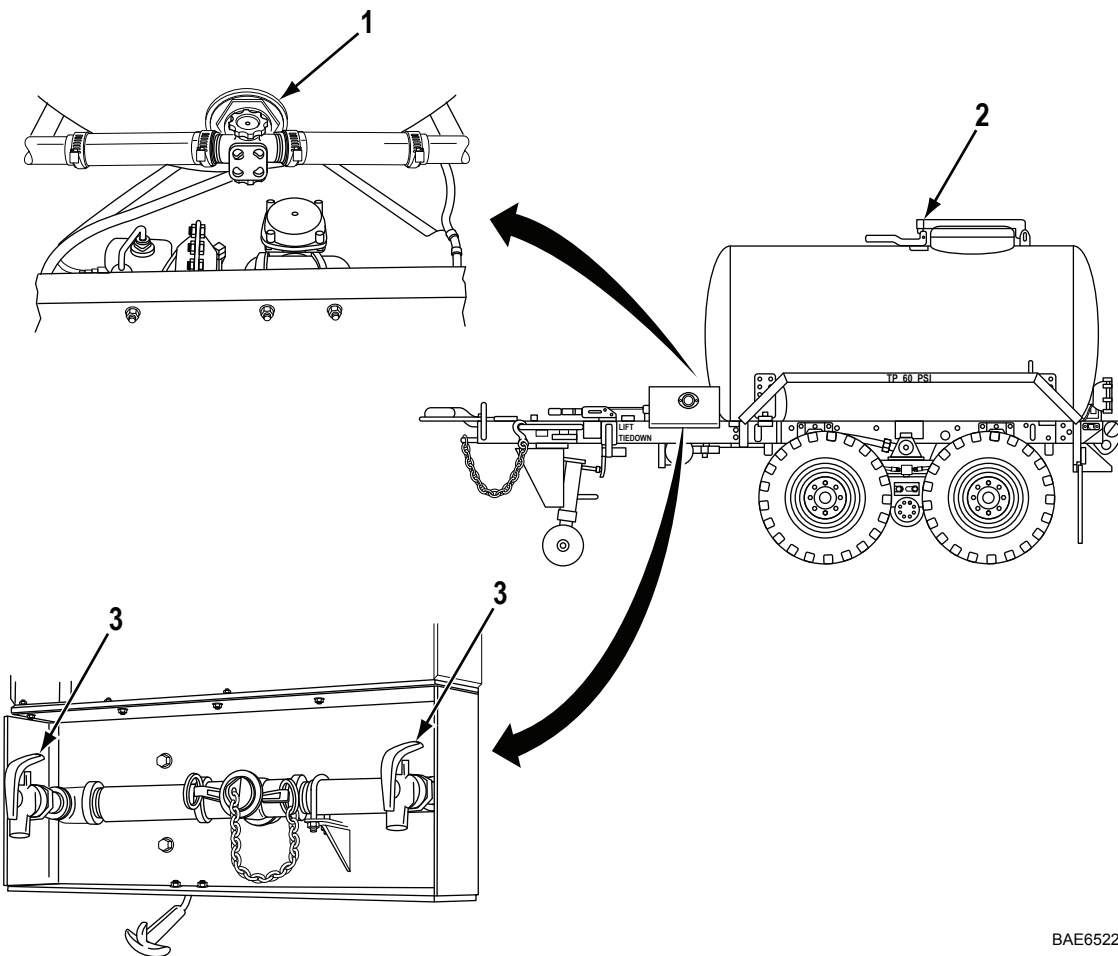
1. Extensive preparation of material scheduled for operation in extreme cold is necessary, refer to TM 4-33.31 and TC 21-305-20.
2. For proper lubrication during extreme cold weather conditions (WP 0079).

OPERATION IN EXTREME COLD - Continued

CAUTION

Exercise care when removing accumulations of ice, mud, and snow from water tank trailer and water tank. Failure to comply may result in damage to, or destruction of, equipment or mission.

3. To prevent damage to water tank trailer in extreme cold, use the following procedures:
 - a. In areas where temperatures fall below 32°F (0°C), manhole cover (Figure 1, Item 2) should be kept tightly closed.
 - b. After each use, drain piping. Close manifold valve (Figure 1, Item 1) and then depress curbside and roadside faucet levers (Figure 1, Item 3) to drain water from piping.
 - c. If the temperature is expected to fall below 0°F (-18°C) the trailer should be placed in a shelter, if possible.



BAE6522

Figure 1. Main Water Valve and Faucets.

END OF TASK

OPERATION IN EXTREME HEAT

1. For proper lubrication during extreme heat conditions (WP 0079). Adequate lubrication is essential.
2. Keep tires covered from direct sunlight to prevent increases in air pressure and deterioration of rubber.
3. For Operator's, Unit, Direct Support, and General Support Maintenance Manual, Small Mobile Water Chiller, refer to TM 10-4130-237-14.

END OF TASK**OPERATION IN HIGH HUMIDITY AND SALTWATER AREAS**

1. Moist and salty areas can destroy the rust preventative qualities of oils and greases. When equipment is active, exposed surfaces should be cleaned and lubricated daily. For proper lubrication in high humidity and saltwater areas (WP 0079).
2. When equipment is inactive, unpainted parts should be coated with lubricating oil. All covers and caps should be in place (WP 0079).

END OF TASK**OPERATION IN MUD AND SNOW**

1. After operation in mud or snow, have Field Maintenance inspect and perform wheel bearing maintenance as required.
2. For special instructions on driving hazards in snow, refer to FM 21-305.
3. Immediately after operation in mud or snow, thoroughly clean, inspect, and lubricate if tactical situation permits (WP 0079).
4. Inspect, clean, and lubricate frequently when operating in mud (WP 0079).

END OF TASK**OPERATION IN DUSTY OR SANDY AREAS**

1. Inspect, clean, and lubricate frequently when operating in dusty or sandy areas. For proper lubrication instructions (WP 0079).
2. Make sure no dust or sand enters exposed mechanisms or lubrication fittings during inspections and repair operations. Cover exposed parts with tarpaulins or other suitable cover during disassembly and assembly.
3. When beginning operations in dusty or sandy areas, remove lubricants from exposed components, such as landing gear, if tactical situation permits. Grease and oil will cause dust and sand to accumulate and act as an abrasive, which will cause rapid wear.

END OF TASK

FORDING

1. Refer to Prime Mover operating instructions in Prime Mover technical manual for information on fording operations. Prime Mover instructions are also applicable.
2. Fording depth of water tank trailer is limited to manhole cover. If trailer is properly sealed, fording depth limit is to the Prime Mover depth.
3. After fording operations, perform following services as soon as tactical situation permits:
 - a. Notify Field Maintenance to remove wheel and rim assemblies and clean them thoroughly.
 - b. Lubricate in accordance with (WP 0079).

END OF TASK**END OF WORK PACKAGE**

CHAPTER 3

TROUBLESHOOTING PROCEDURES

OPERATOR MAINTENANCE TROUBLESHOOTING INTRODUCTION

GENERAL

1. This Work Package (WP) provides information for identifying and correcting malfunctions that you may find while operating the Chemical and Biological Protective Shelter (CBPS) System.
2. The Troubleshooting Index (WP 0008) lists common malfunctions that may occur and refers you to the proper page in (WP 0009) through for a troubleshooting procedure.
3. If you are unaware of the location of an item mentioned in troubleshooting, refer to (WP 0002) or (WP 0004).
4. Before performing troubleshooting, read and follow all safety instructions found in the Warning Summary at the front of this manual.
5. This chapter 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 listed corrective actions, notify Supervisor.
6. When troubleshooting a malfunction:
 - a. Locate the symptom or symptoms in (WP 0008) that best describes the malfunction. If the appropriate symptom is not listed, notify Supervisor.
 - b. Turn to the page where the troubleshooting procedures for the malfunction in question are described. Headings on each page show how each troubleshooting procedure is organized: **Symptom, Malfunction, and Corrective Action.**
 - c. Perform each step in the order listed until the malfunction is corrected and the item being inspected is operational. DO NOT perform any maintenance task unless the troubleshooting procedure tells you to do so.

EXPLANATION OF COLUMNS

The columns in (WP 0009) through are defined as follows:

- **SYMPTOM.** A visual or operational indication that something is wrong with the equipment.
- **MALFUNCTION.** Equipment defect that may cause the symptom.
- **CORRECTIVE ACTION.** A procedure to correct the problem.

END OF WORK PACKAGE

OPERATOR MAINTENANCE TROUBLESHOOTING INDEX

<u>Malfunction/Symptom</u>	<u>Troubleshooting Procedure</u>
OPERATOR	
1. ALL LAMPS FAIL TO LIGHT	WP 0009
2. ONE STOPLIGHT LAMP OR TAILLIGHT LAMP DOES NOT LIGHT	WP 0010
3. ALL CHASSIS LIGHTS ARE ON AND CLEARANCE LIGHTS ARE OFF	WP 0011
4. HANDBRAKES FAIL TO HOLD TRAILER	WP 0012
5. BRAKES DRAG	WP 0013
6. BRAKES ARE LOCKED; WHEELS WILL NOT TURN	WP 0014
7. BRAKES WILL NOT HOLD WHEN SERVICE BRAKES ARE APPLIED	WP 0015
8. AIR IS LEAKING WHEN INTERVEHICULAR AIR HOSES ARE CONNECTED	WP 0016
9. FLUID IS LEAKING AROUND MASTER CYLINDER OR WHEEL CYLINDER	WP 0017
10. TRAILER JERKS WHEN SERVICE BRAKES ARE APPLIED	WP 0018
11. TRAILER SERVICE BRAKES LOCK UP WHEN PRIME MOVER BRAKES ARE APPLIED	WP 0019
12. WHEELS WOBBLE DURING MOVEMENT	WP 0020
13. TIRES ARE WEARING UNEVENLY	WP 0021
FIELD	
14. ALL LAMPS FAIL TO LIGHT, ARE DIM, OR ARE FLICKERING	WP 0022
15. ROADSIDE OR CURBSIDE BLACKOUT STOPLIGHT WILL NOT LIGHT	WP 0023
16. ROADSIDE OR CURBSIDE BLACKOUT MARKER LIGHT WILL NOT LIGHT	WP 0024
17. ROADSIDE OR CURBSIDE SERVICE TAILLIGHT WILL NOT LIGHT	WP 0025
18. ROADSIDE OR CURBSIDE SERVICE BRAKE LIGHT OR SIGNAL LIGHT WILL NOT LIGHT	WP 0026
19. SERVICE BRAKES ARE WEAK	WP 0027
20. SERVICE BRAKES ARE LOCKED	WP 0028
21. HANDBRAKES DRAG	WP 0029
22. HANDBRAKES WILL NOT HOLD WHEN APPLIED	WP 0030

- Continued

<u>Malfunction/Symptom</u>	<u>Troubleshooting Procedure</u>
23. SERVICE BRAKES ARE DRAGGING, UNEVEN, OR GRABBING (BRAKE DRUMS RUNNING HOT)	WP 0031
24. TIRES ARE CUPPED OR WEARING UNEVENLY	WP 0032
25. NO SPRING ACTION IN SUSPENSION	WP 0033

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
ALL LAMPS FAIL TO LIGHT**

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE**SYMPTOM**

ALL LAMPS FAIL TO LIGHT

MALFUNCTION

INTERVEHICULAR CABLE IS NOT CONNECTED OR SECURED

CORRECTIVE ACTION

1. Insert intervehicular cable plug in Prime Mover receptacle to ensure a good connection.
2. Verify problem is solved.
3. Notify Field Maintenance.

END OF WORK PACKAGE

OPERATOR MAINTENANCE
ONE STOPLIGHT LAMP OR TAILLIGHT LAMP DOES NOT LIGHT

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE

SYMPTOM

ONE STOPLIGHT LAMP OR TAILLIGHT LAMP DOES NOT LIGHT

MALFUNCTION

LOOSE OR BAD ELECTRICAL CONNECTION

CORRECTIVE ACTION

1. Connect loose plug connectors.
2. Verify problem is solved.
3. Notify Field Maintenance.

END OF WORK PACKAGE

OPERATOR MAINTENANCE
ALL CHASSIS LIGHTS ARE ON AND CLEARANCE LIGHTS ARE OFF

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE

SYMPTOM

ALL CHASSIS LIGHTS ARE ON AND CLEARANCE LIGHTS ARE OFF

MALFUNCTION

LOOSE OR BAD ELECTRICAL CONNECTION

CORRECTIVE ACTION

1. Connect loose plug connectors.
2. Verify problem is solved.
3. Notify Field Maintenance.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
HANDBRAKES FAIL TO HOLD TRAILER**

INITIAL SETUP:

References
WP 0037

TROUBLESHOOTING PROCEDURE

SYMPTOM

HANDBRAKES FAIL TO HOLD TRAILER

MALFUNCTION

HANDBRAKE CABLE OUT OF ADJUSTMENT

CORRECTIVE ACTION

1. Adjust handbrake lever (WP 0037).
2. Verify problem is solved.
3. Notify Field Maintenance.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
BRAKES DRAG**

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE**SYMPTOM**

BRAKES DRAG

MALFUNCTION

HANDBRAKE ENGAGED

CORRECTIVE ACTION

1. Disengage handbrake.
2. Verify problem is solved.
3. Notify Field Maintenance.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
BRAKES ARE LOCKED; WHEELS WILL NOT TURN**

INITIAL SETUP:

References
WP 0005

TROUBLESHOOTING PROCEDURE

SYMPTOM

BRAKES ARE LOCKED; WHEELS WILL NOT TURN

MALFUNCTION

NO AIR PRESSURE TO TRAILER

CORRECTIVE ACTION

1. Make sure service brake intervehicular air hose is connected to proper air coupling on Prime Mover (WP 0005).
2. Verify problem is solved.
3. Open air valve on Prime Mover.
4. Verify problem is solved.
5. Notify Field Maintenance.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
BRAKES WILL NOT HOLD WHEN SERVICE BRAKES ARE APPLIED**

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE

SYMPTOM

BRAKES WILL NOT HOLD WHEN SERVICE BRAKES ARE APPLIED

MALFUNCTION

HYDRAULIC BRAKE FLUID LOW

CORRECTIVE ACTION

Notify Field Maintenance.

MALFUNCTION

PRIME MOVER AIR VALVES ARE CLOSED

CORRECTIVE ACTION

1. Open Prime Mover air valves.
2. Verify problem is solved.
3. Notify Field Maintenance.

MALFUNCTION

BRAKE SHOES ARE SATURATED WITH HYDRAULIC BRAKE FLUID

CORRECTIVE ACTION

Notify Field Maintenance.

END OF WORK PACKAGE

OPERATOR MAINTENANCE
AIR IS LEAKING WHEN INTERVEHICULAR AIR HOSES ARE CONNECTED

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE

SYMPTOM

AIR IS LEAKING WHEN INTERVEHICULAR AIR HOSES ARE CONNECTED

MALFUNCTION

AIR HOSES OR SEALS ARE DAMAGED

CORRECTIVE ACTION

Notify Field Maintenance.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
FLUID IS LEAKING AROUND MASTER CYLINDER OR WHEEL CYLINDER**

INITIAL SETUP:

Not Applicable

WARNING



Use a drain pan or appropriate containment equipment to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Immediately clean up spilled fluid before proceeding with any task. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.

TROUBLESHOOTING PROCEDURE

SYMPTOM

FLUID IS LEAKING AROUND MASTER CYLINDER OR WHEEL CYLINDER

MALFUNCTION

SEALS, LINES, OR EQUIPMENT ARE DAMAGED

CORRECTIVE ACTION

Notify Field Maintenance.

END OF WORK PACKAGE

OPERATOR MAINTENANCE
TRAILER JERKS WHEN SERVICE BRAKES ARE APPLIED

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE

SYMPTOM

TRAILER JERKS WHEN SERVICE BRAKES ARE APPLIED

MALFUNCTION

BRAKE SHOES OR DRUMS ARE DAMAGED

CORRECTIVE ACTION

Notify Field Maintenance.

END OF WORK PACKAGE

OPERATOR MAINTENANCE
TRAILER SERVICE BRAKES LOCK UP WHEN PRIME MOVER BRAKES ARE APPLIED

INITIAL SETUP:

Not Applicable

TROUBLESHOOTING PROCEDURE

SYMPTOM

TRAILER SERVICE BRAKES LOCK UP WHEN PRIME MOVER BRAKES ARE APPLIED

MALFUNCTION

DAMAGED MASTER CYLINDER

CORRECTIVE ACTION

Notify Field Maintenance.

MALFUNCTION

BRAKES OUT OF ADJUSTMENT

CORRECTIVE ACTION

Notify Field Maintenance.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
WHEELS WOBBLE DURING MOVEMENT**

INITIAL SETUP:

References
WP 0038

TROUBLESHOOTING PROCEDURE

SYMPTOM

WHEELS WOBBLE DURING MOVEMENT

MALFUNCTION

LOOSE WHEEL NUTS

CORRECTIVE ACTION

1. Tighten wheel nuts (WP 0038).
2. Verify problem is solved.
3. Notify Field Maintenance.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
TIRES ARE WEARING UNEVENLY**

INITIAL SETUP:

References
WP 0038

TROUBLESHOOTING PROCEDURE

SYMPTOM

TIRES ARE WEARING UNEVENLY

MALFUNCTION

LOOSE WHEEL NUTS

CORRECTIVE ACTION

1. Tighten wheel nuts (WP 0038).
2. Verify problem is solved.
3. Notify Field Maintenance.

MALFUNCTION

IMPROPER TIRE PRESSURE

CORRECTIVE ACTION

1. Inflate tires to 60 psi (413 kPa).
2. Verify problem is solved.
3. Notify Field Maintenance.

END OF WORK PACKAGE

FIELD MAINTENANCE
ALL LAMPS FAIL TO LIGHT, ARE DIM, OR ARE FLICKERING

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0046
WP 0081

References

WP 0045

Equipment Condition

Trailer coupled (WP 0005)

TROUBLESHOOTING PROCEDURE**NOTE**

For routing of electrical wires and location of electrical components, refer to chassis wiring diagram (WP 0081).

SYMPTOM

ALL LAMPS FAIL TO LIGHT, ARE DIM, OR ARE FLICKERING

MALFUNCTION

24 VOLTS NOT PRESENT AT PRIME MOVER CONNECTOR

CORRECTIVE ACTION

1. Using Prime Mover technical maintenance manual, troubleshoot Prime Mover's electrical system to ensure that correct voltage is present in Prime Mover socket.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR CABLE IS CORRODED, FRAYED, OR CUT

CORRECTIVE ACTION

1. Clean dirty or corroded contact pins.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR CABLE IS DAMAGED OR A POOR GROUND

CORRECTIVE ACTION

1. Replace intervehicular cable (WP 0046).
2. Verify problem is solved.
3. Remove intervehicular ground terminal and clean.
4. Verify problem is solved.
5. Replace terminal if needed (WP 0045).
6. Verify problem is solved.

END OF WORK PACKAGE

FIELD MAINTENANCE
ROADSIDE OR CURBSIDE BLACKOUT STOPLIGHT WILL NOT LIGHT

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0045
WP 0046
WP 0081

References

WP 0041
WP 0043

Equipment Condition

Trailer coupled (WP 0005)

TROUBLESHOOTING PROCEDURE**NOTE**

For routing of electrical wires and location of electrical components, refer to chassis wiring diagram (WP 0081).

SYMPTOM

ROADSIDE OR CURBSIDE BLACKOUT STOPLIGHT WILL NOT LIGHT

MALFUNCTION

IMPROPER VOLTAGE FROM PRIME MOVER

CORRECTIVE ACTION

1. Using Prime Mover technical maintenance manual, troubleshoot Prime Mover's electrical system to ensure that correct voltage is present in Prime Mover socket.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR CABLE HAS CORRODED, FRAYED WIRES, OR CUTS

CORRECTIVE ACTION

1. Repair intervehicular cable frayed wires (WP 0046).
2. Verify problem is solved.
3. Clean all intervehicular cable connector pins.
4. Verify problem is solved.

MALFUNCTION

ROADSIDE OR CURBSIDE BLACKOUT STOPLIGHT HAS BROKEN, MISSING LED, DAMAGED OR CORRODED WIRES OR TERMINALS

CORRECTIVE ACTION

1. Replace broken or missing LED or assembly (WP 0041).
2. Verify problem is solved.
3. Repair damaged or corroded wires or terminals (WP 0045).
4. Verify problem is solved.
5. Clean corroded terminals.
6. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT BLACKOUT STOPLIGHT SOCKET

CORRECTIVE ACTION

1. Replace LED light or assembly (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 23 DISCONNECT BETWEEN LIGHT ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace stoplight - taillight assembly and clean mounting surface (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 23 DISCONNECT BETWEEN INTERVEHICULAR ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace chassis harness assembly (WP 0043).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS NOT PRESENT AT WIRE 23 DISCONNECT BETWEEN INTERVEHICULAR CABLE ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace intervehicular cable assembly (WP 0046).
2. Verify problem is solved.

END OF WORK PACKAGE

FIELD MAINTENANCE
ROADSIDE OR CURBSIDE BLACKOUT TAILLIGHT WILL NOT LIGHT

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0046
WP 0081

References

WP 0041
WP 0045

Equipment Condition

Trailer coupled (WP 0005)

TROUBLESHOOTING PROCEDURE**NOTE**

For routing of electrical wires and location of electrical components, refer to wiring diagram (WP 0081).

SYMPTOM

ROADSIDE OR CURBSIDE BLACKOUT TAILLIGHT WILL NOT LIGHT

MALFUNCTION

IMPROPER VOLTAGE FROM PRIME MOVER

CORRECTIVE ACTION

1. Using Prime Mover technical maintenance manual, troubleshoot Prime Mover's electrical system to ensure that correct voltage is present in Prime Mover socket.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR CABLE HAS CORRODED, FRAYED WIRES, OR CUTS ON CONNECTOR

CORRECTIVE ACTION

1. Repair intervehicular cable frayed wires.
2. Verify problem is solved.
3. Clean all intervehicular cable connector and pins.
4. Verify problem is solved.

MALFUNCTION

ROADSIDE OR CURBSIDE BLACKOUT TAILLIGHT HAS BROKEN, MISSING LED, DAMAGED OR CORRODED WIRES OR TERMINALS

CORRECTIVE ACTION

1. Replace broken or missing LED or assembly (WP 0041).
2. Verify problem is solved.
3. Repair damaged or corroded wires or terminals (WP 0045).
4. Verify problem is solved.
5. Clean corroded terminals.
6. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT BLACKOUT TAILLIGHT SOCKET

CORRECTIVE ACTION**NOTE**

If access to LED socket is not possible because stoplight - taillight assembly is one-piece unit, replace assembly. Do not attempt to disassemble and replace LED.

1. Replace LED light or assembly (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 24-484 DISCONNECT (ROADSIDE) OR 24-483 DISCONNECT (CURBSIDE) BETWEEN LIGHT ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace stoplight - taillight assembly and clean mounting surface (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 24-484 DISCONNECT (ROADSIDE) OR 24-483 DISCONNECT (CURBSIDE) BETWEEN INTERVEHICULAR ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace chassis harness assembly (WP 0045).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS NOT PRESENT AT WIRE 24 DISCONNECT BETWEEN INTERVEHICULAR CABLE ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace intervehicular cable assembly (WP 0046).
2. Verify problem is solved.

END OF WORK PACKAGE

FIELD MAINTENANCE
ROADSIDE OR CURBSIDE SERVICE TAILLIGHT WILL NOT LIGHT

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0045
WP 0046
WP 0081

References

WP 0041
WP 0043

Equipment Condition

Trailer coupled (WP 0005)

TROUBLESHOOTING PROCEDURE**NOTE**

For routing of electrical wires and location of electrical components, refer to wiring diagram (WP 0081).

SYMPTOM

ROADSIDE OR CURBSIDE SERVICE TAILLIGHT WILL NOT LIGHT

MALFUNCTION

IMPROPER VOLTAGE FROM PRIME MOVER

CORRECTIVE ACTION

1. Using Prime Mover technical maintenance manual, troubleshoot Prime Mover's electrical system to ensure that correct voltage is present in Prime Mover socket.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR CABLE HAS CORRODED, FRAYED WIRES, OR CUTS ON CONNECTOR

CORRECTIVE ACTION

1. Repair intervehicular cable frayed wires (WP 0046).
2. Verify problem is solved.
3. Clean all intervehicular cable connector and pins.
4. Verify problem is solved.

MALFUNCTION

ROADSIDE OR CURBSIDE SERVICE TAILLIGHT HAS BROKEN, MISSING LED/LAMP, DAMAGED OR CORRODED WIRES OR TERMINALS

CORRECTIVE ACTION**NOTE**

If access to LED socket is not possible because stoplight - taillight assembly is one-piece unit, replace assembly. Do not attempt to disassemble and replace LED.

1. Replace broken or missing LED/lamp or assembly (WP 0041).
2. Verify problem is solved.
3. Repair damaged or corroded wires or terminals (WP 0045).
4. Verify problem is solved.
5. Clean corroded terminals.
6. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT SERVICE TAILLIGHT SOCKET

CORRECTIVE ACTION

1. Replace LED/lamp or assembly (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 21 DISCONNECT BETWEEN SERVICE TAILLIGHT ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace stoplight - taillight assembly and clean mounting surface (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 21 DISCONNECT BETWEEN INTERVEHICULAR ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace chassis harness assembly (WP 0043).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS NOT PRESENT AT WIRE 21 DISCONNECT BETWEEN INTERVEHICULAR CABLE ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace intervehicular cable assembly (WP 0046).
2. Verify problem is resolved.

END OF WORK PACKAGE

FIELD MAINTENANCE
ROADSIDE OR CURBSIDE SERVICE BRAKE LIGHT OR SIGNAL LIGHT WILL NOT LIGHT

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0045
WP 0046
WP 0081

References

WP 0041
WP 0043

Equipment Condition

Trailer coupled (WP 0005)

TROUBLESHOOTING PROCEDURE**NOTE**

For routing of electrical wires and location of electrical components, refer to wiring diagram (WP 0081).

SYMPTOM

ROADSIDE OR CURBSIDE BRAKE LIGHT OR SIGNAL LIGHT WILL NOT LIGHT

MALFUNCTION

IMPROPER VOLTAGE FROM PRIME MOVER

CORRECTIVE ACTION

1. Using Prime Mover technical maintenance manual, troubleshoot Prime Mover's electrical system to ensure that correct voltage is present in Prime Mover socket.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR CABLE HAS CORRODED, FRAYED WIRES, OR CUTS ON CONNECTOR

CORRECTIVE ACTION

1. Clean all intervehicular cable connector pins.
2. Connect intervehicular cable to Prime Mover and verify brake light signal light operation.

MALFUNCTION

STOPLIGHT OR SIGNAL LIGHT HAS BROKEN, MISSING, LAMPS, DAMAGED OR CORRODED WIRES OR TERMINALS

CORRECTIVE ACTION**NOTE**

If access to LED socket is not possible because stoplight - taillight assembly is one-piece unit, replace assembly. Do not attempt to disassemble and replace LED.

1. Replace broken or missing light bulbs (WP 0041).
2. Verify problem is solved.
3. Repair damaged wires or terminals (WP 0045).
4. Verify problem is solved.
5. Clean corroded terminals.
6. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT SERVICE STOP LIGHT OR SIGNAL LIGHT SOCKET

CORRECTIVE ACTION

1. Replace LED/lamp or assembly (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 22-461 (ROADSIDE) OR 22-460 (CURBSIDE) BETWEEN STOPLIGHT OR SIGNAL LIGHT ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace stoplight-taillight assembly or signal light assembly (WP 0041).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS PRESENT AT WIRE 22 DISCONNECT BETWEEN INTERVEHICULAR ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace chassis harness assembly (WP 0043).
2. Verify problem is solved.

MALFUNCTION

24 VOLTS NOT PRESENT AT WIRE 22-461 DISCONNECT (ROADSIDE) OR 22-460 DISCONNECT (CURBSIDE) BETWEEN INTERVEHICULAR CABLE ASSEMBLY AND CHASSIS HARNESS

CORRECTIVE ACTION

1. Replace intervehicular cable assembly (WP 0046).
2. Verify problem is solved.

END OF WORK PACKAGE

**FIELD MAINTENANCE
SERVICE BRAKES ARE WEAK**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0056
WP 0059

Materials/Parts

Brake Fluid (WP 0118, Table 1, Item 2)

Equipment Condition

Trailer coupled (WP 0005)

References

WP 0052

TROUBLESHOOTING PROCEDURE**WARNING**

Hardware within the brake system is pressurized; ensure proper eye protection is worn before inspecting or performing maintenances. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

SYMPTOM

SERVICE BRAKES ARE WEAK

MALFUNCTION

INTERVEHICULAR AIR HOSES LEAK

CORRECTIVE ACTION

1. Replace intervehicular air hoses (WP 0059).
2. Verify problem is solved.

MALFUNCTION

HYDRAULIC BRAKE FLUID LEVEL LOW

CORRECTIVE ACTION

1. Add hydraulic brake fluid and bleed brake system (WP 0056).
2. Verify problem is solved.

MALFUNCTION

WORN OR CONTAMINATED BRAKE SHOE LININGS

CORRECTIVE ACTION

1. Replace and adjust brake shoes (WP 0052).
2. Verify problem is solved.

END OF WORK PACKAGE

FIELD MAINTENANCE SERVICE BRAKES ARE LOCKED

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Equipment Condition

Trailer coupled (WP 0005)

References

WP 0052
WP 0059

TROUBLESHOOTING PROCEDURE

WARNING



- Hardware within the brake system is pressurized; ensure proper eye protection is worn before inspecting or performing maintenances. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Do not handle brake shoes, brake drums, or other brake components unless area has been properly cleaned. There may be hazardous dust on these components which can be dangerous if you touch it or breathe it. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft cloth. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

SYMPTOM

SERVICE BRAKES ARE LOCKED

MALFUNCTION

PARKING BRAKES ARE APPLIED

CORRECTIVE ACTION

1. Disengage both handbrake levers (WP 0005).
2. Verify problem is solved.

MALFUNCTION

PRIME MOVER AIR VALVES ARE OFF

CORRECTIVE ACTION

1. Turn on Prime Mover air valves as directed in Prime Mover technical manual.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR AIR HOSES ARE IMPROPERLY CONNECTED

CORRECTIVE ACTION

1. Connect air hose connections properly.
2. Verify problem is solved.

MALFUNCTION

INTERVEHICULAR AIR HOSES LEAK

CORRECTIVE ACTION

1. Replace preformed packing and check for leaks at connection.
2. Verify problem is solved.
3. Replace intervehicular air hoses (WP 0059).
4. Verify problem is solved.

MALFUNCTION

WEAK OR BROKEN BRAKE SHOE RETURN SPRINGS

CORRECTIVE ACTION

1. Replace weak or broken brake shoe return springs (WP 0052).
2. Verify problem is solved.

END OF WORK PACKAGE

**FIELD MAINTENANCE
HANDBRAKE(S) DRAG**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0051
WP 0052

References

WP 0037

Equipment Condition

Trailer coupled (WP 0005)

TROUBLESHOOTING PROCEDURE**SYMPTOM**

HANDBRAKES DRAG

MALFUNCTION

HANDBRAKE LEVER NOT ADJUSTED

CORRECTIVE ACTION

1. Adjust handbrake lever (WP 0037).
2. Verify problem is solved.

MALFUNCTION

BRAKE SHOE RETURN SPRINGS IMPROPERLY INSTALLED OR BROKEN

CORRECTIVE ACTION

1. Replace brake shoe return springs (WP 0052).
2. Verify problem is solved.

MALFUNCTION

HANDBRAKE CABLE BINDING

CORRECTIVE ACTION

1. Replace handbrake cable (WP 0051).
2. Verify problem is solved.

END OF WORK PACKAGE

**FIELD MAINTENANCE
HANDBRAKE(S) WILL NOT HOLD WHEN APPLIED**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0051
WP 0052

References

WP 0037

Equipment Condition

Trailer coupled (WP 0005)

TROUBLESHOOTING PROCEDURE**SYMPTOM**

HANDBRAKE WILL NOT HOLD WHEN APPLIED

MALFUNCTION

HANDBRAKE LEVER NOT ADJUSTED

CORRECTIVE ACTION

1. Adjust handbrake lever (WP 0037).
2. Verify problem is solved.

MALFUNCTION

HANDBRAKE CABLE BINDING OR BROKEN

CORRECTIVE ACTION

1. Replace handbrake cable (WP 0051).
2. Verify problem is solved.

MALFUNCTION

BRAKE SHOE HARDWARE MISSING OR DAMAGED

CORRECTIVE ACTION

1. Replace missing or damaged brake shoe hardware (WP 0052).
2. Verify problem is solved.

END OF WORK PACKAGE

FIELD MAINTENANCE
SERVICE BRAKES ARE DRAGGING, UNEVEN, OR GRABBING (BRAKE DRUMS ARE RUNNING HOT)

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Equipment Condition

Trailer coupled (WP 0005)

References

WP 0052
WP 0062

TROUBLESHOOTING PROCEDURE**SYMPTOM**

SERVICE BRAKES ARE DRAGGING, UNEVEN, OR GRABBING (BRAKE DRUMS RUNNING HOT)

MALFUNCTION

BRAKE SHOES ARE NOT ADJUSTED PROPERLY

CORRECTIVE ACTION

1. Adjust brake shoes (WP 0052).
2. Verify problem is solved.

MALFUNCTION

BRAKE DRUMS ARE CRACKED, SCORED, OR DEFORMED

CORRECTIVE ACTION

1. Replace brake drums (WP 0062).
2. Verify problem is solved.

MALFUNCTION

WHEEL BEARINGS ARE LOOSE

CORRECTIVE ACTION

1. Adjust wheel bearings as necessary (WP 0062).
2. Verify problem is solved.

MALFUNCTION

LOOSE OR WORN BRAKE SHOES

CORRECTIVE ACTION

1. Replace brake shoes (WP 0052).
2. Verify problem is solved.

END OF WORK PACKAGE

FIELD MAINTENANCE
WHEEL ASSEMBLY CUPPED OR WEARING UNEVENLY

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Wrench, Torque
(WP 0119, Table 1, Item 10)

Equipment Condition

Trailer coupled (WP 0005)

References

WP 0049
WP 0062

TROUBLESHOOTING PROCEDURE**SYMPTOM**

WHEEL ASSEMBLY CUPPED OR WEARING UNEVENLY

MALFUNCTION

TIRES ARE NOT INFLATED PROPERLY

CORRECTIVE ACTION

1. Adjust tire pressure to 60 psi (413 kPa).
2. Verify problem is solved.

MALFUNCTION

WHEEL NUTS ARE LOOSE

CORRECTIVE ACTION

1. Torque wheel nuts to 105 lb ft (142 N·m).
2. Verify problem is solved.

MALFUNCTION

WHEEL BEARINGS ARE LOOSE

CORRECTIVE ACTION

1. Adjust wheel bearings (WP 0062).
2. Verify problem is solved.

MALFUNCTION

WALKING BEAM OUT OF ALIGNMENT

CORRECTIVE ACTION

Align walking beam (WP 0049).

END OF WORK PACKAGE

**FIELD MAINTENANCE
NO SPRING ACTION IN SUSPENSION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Equipment Condition

Trailer coupled (WP 0005)

References

WP 0068

TROUBLESHOOTING PROCEDURE**SYMPTOM**

NO SPRING ACTION IN SUSPENSION

MALFUNCTION

SPRING BROKEN

CORRECTIVE ACTION

1. Replace spring (WP 0068).
2. Verify problem is solved.

MALFUNCTION

SPRING HARDWARE MISSING OR BROKEN

CORRECTIVE ACTION

1. Replace missing or broken spring hardware (WP 0068).
2. Verify problem is solved.

END OF WORK PACKAGE

CHAPTER 4

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

OPERATOR MAINTENANCE PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INTRODUCTION

GENERAL

To ensure that the M1112 water tank trailer is ready for operation at all times, it must be inspected on a regular basis so that defects may be found and corrected before they result in injury, damage, or equipment failure.

This section contains systematic instructions on inspections, adjustments, lubrications, services, tests, and corrections to be performed by the Operator and Field Maintenance personnel to keep the equipment in good operating condition and ready for its primary mission.

EXPLANATION OF TABLE ENTRIES

Item No. Column. Numbers in this column are for reference. When completing DA Form 2404/5988-E (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must perform checks and services for the interval listed.

NOTE

Before, During, After, and Weekly procedures are done in Operator PMCS (WP 0035).
Semiannual and Annual are done in Field PMCS (WP 0036).

Interval Column. This column tells you when you must perform the procedure in the Procedure column:

- a. *Before* procedures must be done immediately before operating trailer.
- b. *During* procedures must be done while operating trailer.
- c. *After* procedures must be done immediately after operating trailer.
- d. *Weekly* procedures must be done once each week.
- e. *Quarterly* procedures must be performed four times a year.
- f. *Semiannual* procedures must be done twice a year.
- g. *Annual* procedures must be done once a year.

Item to Check/Service Column. This column lists the item to be checked or serviced.

NOTE

The WARNING and CAUTION headings appearing in PMCS table should always be observed. WARNING and CAUTION headings appear before applicable procedures. You must observe these WARNING headings to prevent injury or death to yourself and others, and CAUTION headings to prevent equipment from being damaged.

Procedure Column. This column gives the procedure you must perform to check or service the item listed in the Item to Check/Service column, to know if the equipment is ready or available for its intended mission. You must perform the procedure at the times stated in the Interval column.

EXPLANATION OF TABLE ENTRIES - Continued

Equipment Not Ready/Available Column. Information in this column tells you what faults will keep equipment from being capable of performing its primary mission. If you perform check/service procedures that show faults listed in this column, the equipment is not ready/available. Follow standard operating procedures for maintaining the equipment or reporting equipment failure.

GENERAL LUBRICATION PROCEDURES**NOTE**

For lubrication key, localized views, and procedural notes (WP 0079).

1. Recommended intervals are based on normal conditions of operation, temperature, and humidity. When operating under extreme conditions, lubricants should always be changed more frequently. When in doubt, notify Supervisor.
2. Keep all lubricants in a closed container and store in a clean, dry place away from extreme heat or cold. Keep container covers clean and do not allow dust, dirt, or other foreign material to mix with lubricants. Keep all lubrication equipment clean and ready for use.
3. Maintain a good record of all lubrication performed and report any problems noted during lubrication. For maintenance forms and procedures to record and report any findings, refer to DA PAM 750-8.
4. Keep all external parts of equipment not requiring lubrication free of lubricants. Before lubrication, wipe lubrication fittings with a clean rag. After lubrication, wipe off excess oil or grease to prevent accumulation of foreign matter.
5. For lubrication instructions in cold weather, refer to TM 4-33.31.
6. For use of standardized lubricants, refer to AR 70-12.

GENERAL PMCS PROCEDURES

1. Always perform PMCS in the same order so it gets to be a habit. Once you have had some practice, you will spot anything wrong in a hurry. If the equipment does not perform as required, refer to the appropriate troubleshooting procedure in Chapter 3.
2. If anything is seriously wrong and you cannot fix it, write it on DA Form 2404/5988-E. If you find something seriously wrong, IMMEDIATELY report to Supervisor.
3. Before performing preventive maintenance, read all the checks required for the applicable interval and prepare all that is needed to make all the checks.

GENERAL PMCS PROCEDURES - Continued

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Cloths or rags saturated with solvent cleaning compound must be disposed of in accordance with authorized facility procedures. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

GENERAL PMCS PROCEDURES - Continued**CAUTION**

Do not use high-pressure water or steam to clean trailer. Use only low-pressure water and bristled brushes. Be especially careful when cleaning electrical system components including lighting. Failure to comply may result in damage to, or destruction of, equipment or mission.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.
-
- a. **Keep Equipment Clean.** Dirt, grease, oil, and debris get in the way and may cover up a serious problem. Clean as you work and as needed. Use solvent cleaning compound on all metal surfaces. Use detergent and water when you clean rubber, plastic, and painted surfaces. Spot paint as required to prevent corrosion.
 - b. **Bolts, Nuts, and Screws.** Ensure that they are not loose, missing, bent, or broken. Report loose, missing, or damaged bolts, nuts, and screws to Supervisor.
 - c. **Welds.** Look for loose or chipped paint, rust, or gaps where parts are welded together. Report bad welds to Supervisor.
 - d. **Electrical Wires and Connectors.** Look for cracked or broken insulation, bare wires, and loose or broken connectors. Report loose connectors and faulty wiring to Supervisor.
 - e. **Hoses, Lines, and Fittings.** Look for wear and damage. Check for loose clamps and fittings. Report any worn, damaged, or loose hoses, lines, and fittings to Supervisor.
 - f. **Fluid Leakage.** It is necessary for you to know how fluid leakage affects the status of machine. The following definitions explain the types/classes of leakage you need to know to be able to determine the status of machine. Learn and be familiar with them, and remember: when in doubt, notify Supervisor.

LEAKAGE DEFINITIONS

CAUTION

Operation is allowed with Class I and Class II leakage. WHEN IN DOUBT, NOTIFY SUPERVISOR. When operating with Class I or Class II leaks, check fluid levels more frequently. Class III leaks must be reported immediately to Supervisor. Failure to comply may result in damage to, or destruction of, equipment or mission.

NOTE

Notify Supervisor of any leaks you cannot fix.

1. It is important to know how fluid leaks affect the status of the trailer. The following are definitions of the types/classes of leakage an operator must know to determine whether the trailer is mission capable. Learn these leakage definitions. When in doubt, notify Supervisor.
 - a. **Class I:** Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
 - b. **Class II:** Leakage of fluid great enough to form drops, but not enough to cause drops to drip from item being checked/serviced.
 - c. **Class III:** Leakage of fluid great enough to form drops that fall from the item being checked/serviced.
2. Equipment operation is allowed with minor (Class I or Class II) leakage. Fluid levels in an item/system affected with such leakage must be checked more frequently than required in PMCS. When in doubt, notify Supervisor.
3. Report Class III leaks IMMEDIATELY to Supervisor.

END OF WORK PACKAGE

**OPERATOR MAINTENANCE
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) PROCEDURES**

INITIAL SETUP:**Materials/Parts**

Rap, Wiping (WP 0118, Table 1, Item 9)

References

WP 0005

WP 0037

Personnel Required

Two

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p style="text-align: center;">NOTE</p> <ul style="list-style-type: none"> Review WARNING, CAUTION, and NOTE headings before performing PMCS on the trailer assembly. If operating trailer assembly for the first time, perform Weekly PMCS the first time "Before" PMCS is performed. Unless otherwise indicated, perform preventive maintenance and lubrication with trailer assembly uncoupled from Prime Mover, parked on level ground, handbrakes applied, and wheels chocked. Begin walk around inspection at front roadside of trailer assembly and proceed in a counterclockwise direction. 	

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

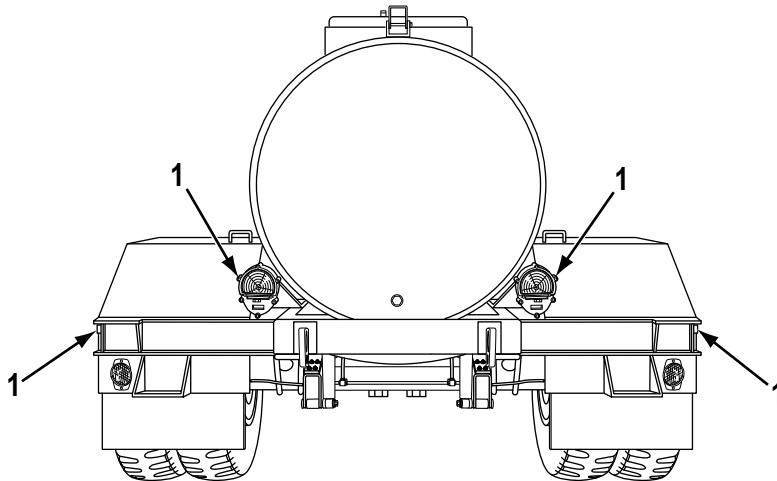

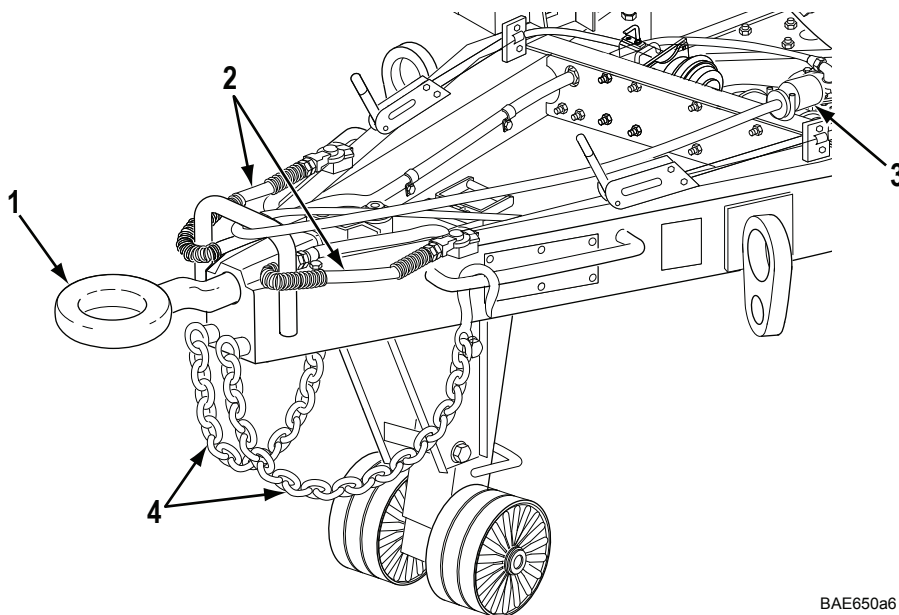
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before	LIGHTS AND REFLECTORS	<p>NOTE</p> <p>An assistant is required when checking operation of lights.</p> <p>1. Operate Prime Mover light switch through all settings and check lights (Figure 1, Item 1).</p>  <p>BAE6509</p>	
2	Before	TIRES	<p>WARNING</p>  <p>Tire may still be under pressure. Wear eye protection when removing penetrating objects. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.</p> <p>1. Check tires for cuts, foreign objects, or unusual tread wear.</p> <p>2. Remove any stones or other debris from treads.</p>	Two or more tires on one side of trailer are missing, flat, or unserviceable.

Figure 1. Intervehicular Cables and Lights and Reflectors.

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before	WHEELS	1. Check wheels for damage. 2. Look for loose or missing nuts.	Two or more wheels per axle are damaged. Two or more wheel nuts are missing from any wheel.
4	Before	DRAWBAR RING	Check drawbar ring assembly (Figure 2, Item 1) for secure mounting and obvious damage.	Drawbar ring is loose or bent.
5	Before	INTER-VEHICULAR AIR LINES	Check intervehicular air lines (Figure 2, Item 2) and intervehicular cable (Figure 2, Item 3) for cuts and breaks.	Intervehicular air lines or intervehicular cable broken or missing.
6	Before	INTER-VEHICULAR CABLE	Check intervehicular air lines (Figure 2, Item 2) and intervehicular cable (Figure 2, Item 3) for cuts and breaks.	Intervehicular air lines or intervehicular cable broken or missing.
7	Before	SAFETY CHAIN	Check safety chains (Figure 2, Item 4) for secure mounting and obvious damage.	Safety chains are missing or unsecured.



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Figure 2. Intervehicular Air Lines and Cable.

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

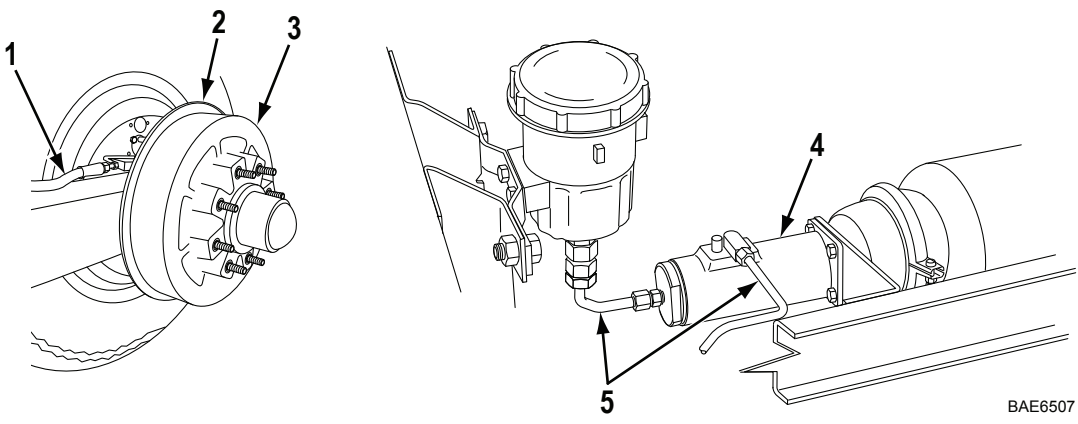
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Before	BRAKE SYSTEM	<p>Check for fluid leaks at brake drums (Figure 3, Item 3), backing plate assembly (Figure 3, Item 2), master cylinder (Figure 3, Item 4), and hydraulic brake lines (Figure 3, Items 1 and 5).</p> 	Class III leaks are found.
9	Before	AIR LEAK CHECK	<ol style="list-style-type: none"> 1. Couple trailer to Prime Mover and connect all intervehicular air lines (WP 0005). 2. Start Prime Mover and watch air pressure gage for normal reading. Refer to Prime Mover technical manual for instructions. 3. Push Prime Mover brake pedal down to applied position and hold. 4. Shut down Prime Mover engine. 5. Watch Prime Mover air pressure gage for two minutes. If pressure drops more than 10 percent within two minutes, notify Field Maintenance. 	
10	Before	WATER TANK	<p>NOTE</p> <p>Moderate amounts of rust on the interior surfaces of stainless steel water tanks used for potable field water storage and transportation generally will not adversely affect the water's potability. Preventive Medicine (PM) personnel who inspect the water tanks should not fail them based solely on the presence of rust unless approximately 25% or more of the interior surface area is rusted.</p>	

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p>NOTE</p> <p>Tanks must be well rinsed with potable water after disinfecting them, to reduce the chloride concentration in contact with the passive film. Prior to long term storage, any remaining rinse water should be completely removed and the tank interior dried, so the oxygen in the air can keep the passive film intact during storage. welds, imperfections in the alloy, and physical damage can penetrate the protective film and cause rust if for some reason the passive layer does not reform. High chlorine residuals, low pH, and high temperatures all enhance the rates of rusting in Buffalo and Hippo water tanks wherever the passive film has been compromised. The resulting rust may be localized, or it may be spread across the tank's inner surface. Stainless steel thrives on cleanliness. Any dirt, sediment, biological growth, or other conditions that may hinder natural pacification and trap corrosive agents next to the surface should be brought to the attention of the owner/ operator, because they reduce the inherent corrosion protection of the stainless steel.</p> <p>1. When filling, check manhole cover (Figure 4, Item 1), seal, and latch for damage.</p> <p>2. Check forward faucets curbside and roadside (Figure 4, Item 2) for leakage and proper operation.</p>	One or more faucets are damaged or missing.

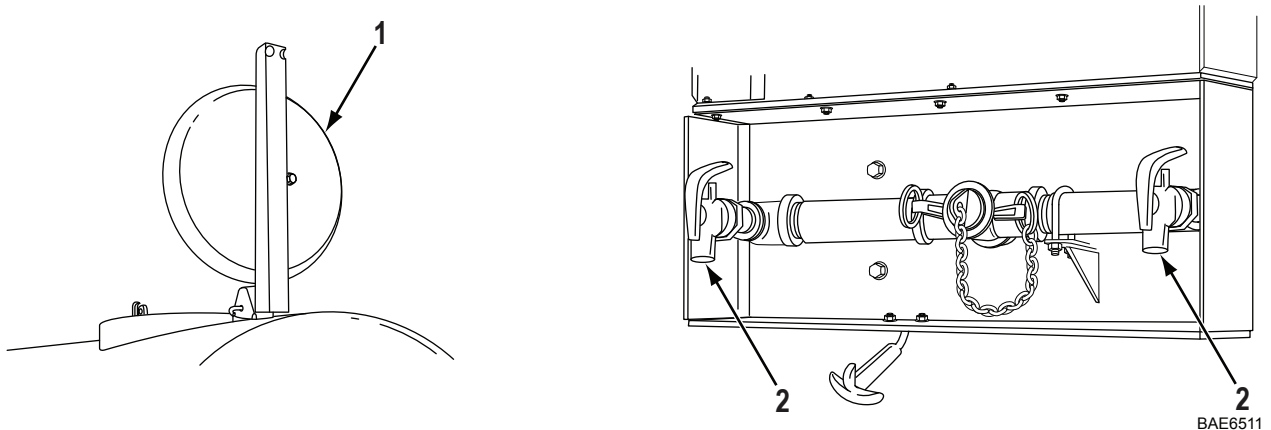
**Figure 4. Manhole Cover and Water Valves.**

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
11	Before	TRAILER	Inspect entire chassis for obvious damage, cracks, or broken welds.	Frame is cracked or has damage.
12	During	LANDING LEG ASSEMBLY	Check landing leg assembly (Figure 5, Item 1) for proper mounting, alignment, and general condition.	Landing leg will not secure in stored position or will not support trailer.

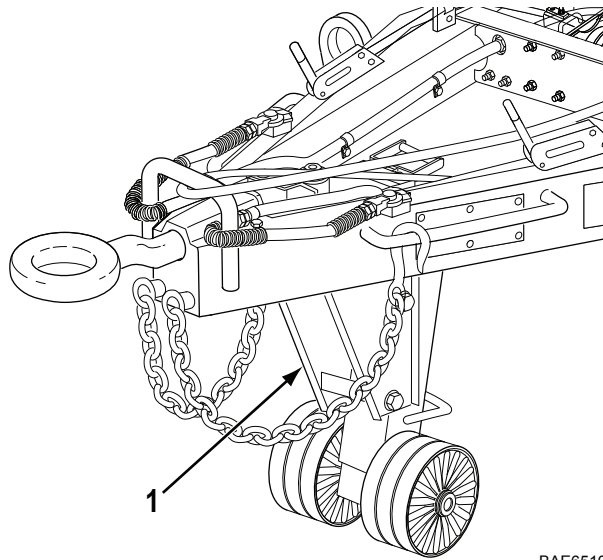


Figure 5. Landing Leg Assembly.

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

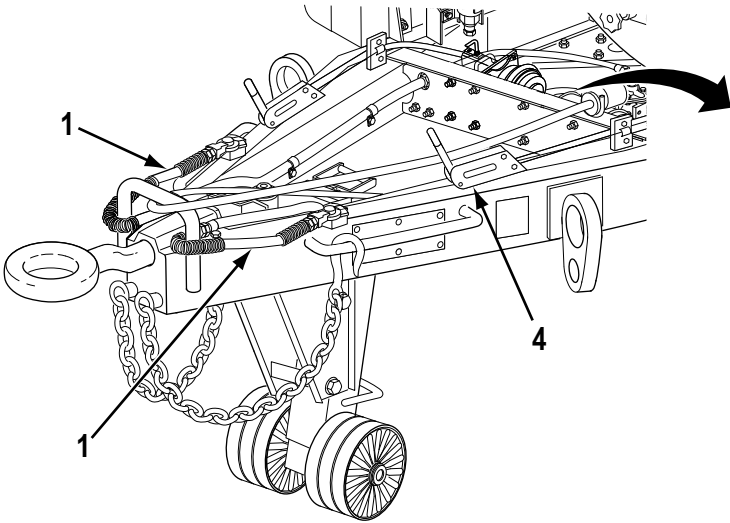
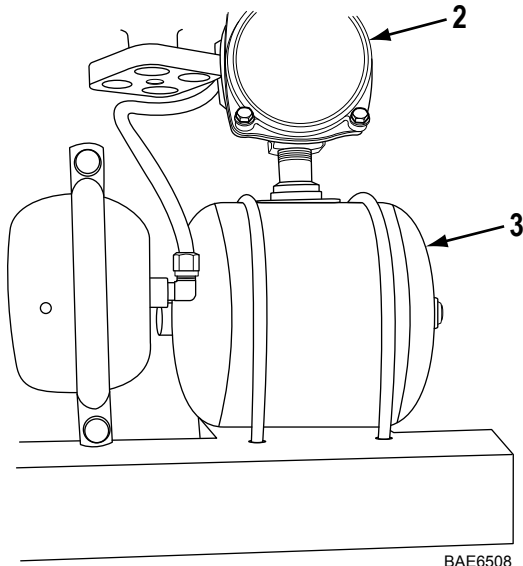
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
13	During	BRAKE SYSTEM	<ol style="list-style-type: none"> 1. Test brake system by coupling trailer to Prime Mover. Check hose connections and make sure Prime Mover air valves are turned on. Actuate service brakes. 2. With trailer coupled to Prime Mover, have an assistant actuate service brakes. Listen for air leaks at intervehicular air hoses (Figure 6, Item 1), relay valve (Figure 6, Item 2), and air reservoir (Figure 6, Item 3). 3. Be alert for unusual difficulty in stopping that would indicate service brakes are not working properly. 	<p>Service brakes fail to operate.</p> <p>Air leaks are found.</p>
<div style="display: flex; justify-content: space-around; align-items: flex-end;">   </div> <p style="text-align: center;">Figure 6. Air System Components.</p>				
14	During	TRAILER	<ol style="list-style-type: none"> 1. Be alert for any unusual noises when towing trailer. Stop and investigate any unusual noises. 2. Make sure trailer is tracking/following correctly behind Prime Mover. 	
15	After	HANDBRAKES	<ol style="list-style-type: none"> 1. With trailer coupled to Prime Mover, set handbrakes (Figure 6, Item 4). 2. Move trailer slightly to see if handbrakes hold the wheels. 3. Adjust handbrakes (WP 0037). 	Handbrakes fail to operate or hold trailer.

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

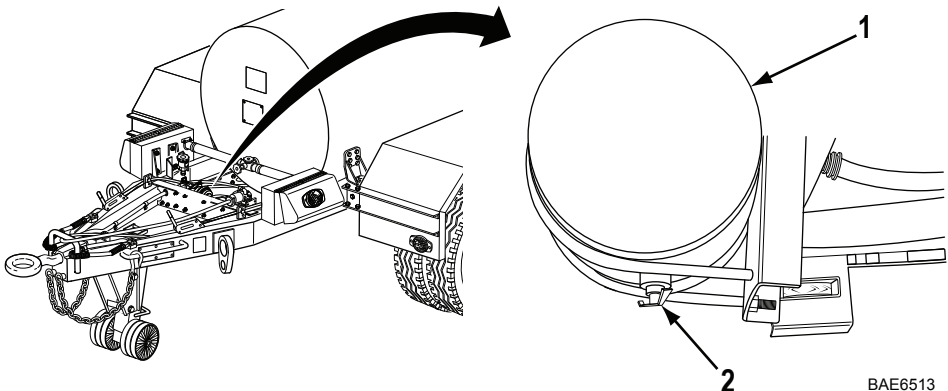
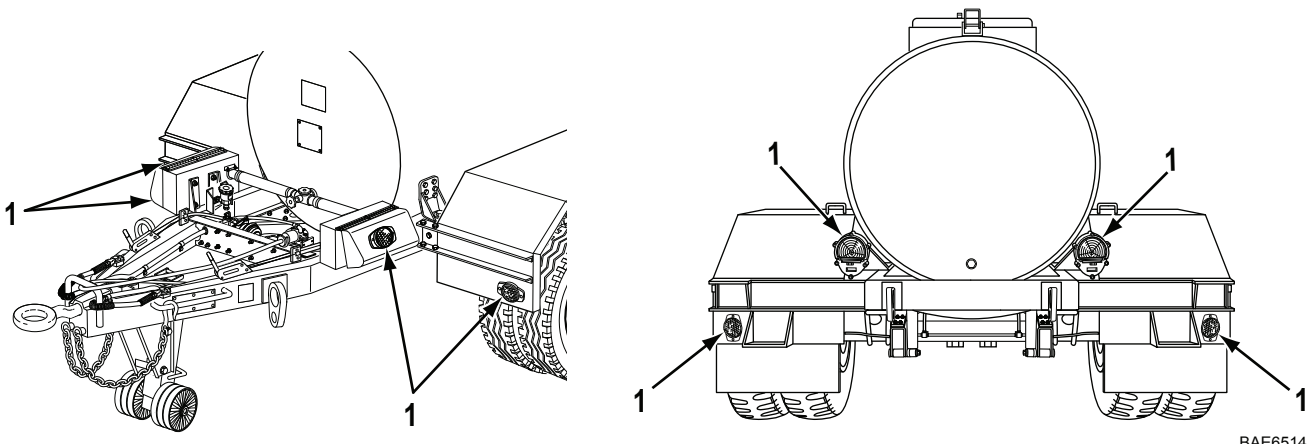
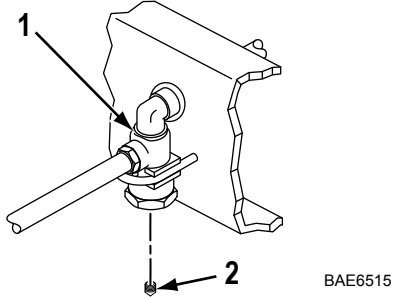
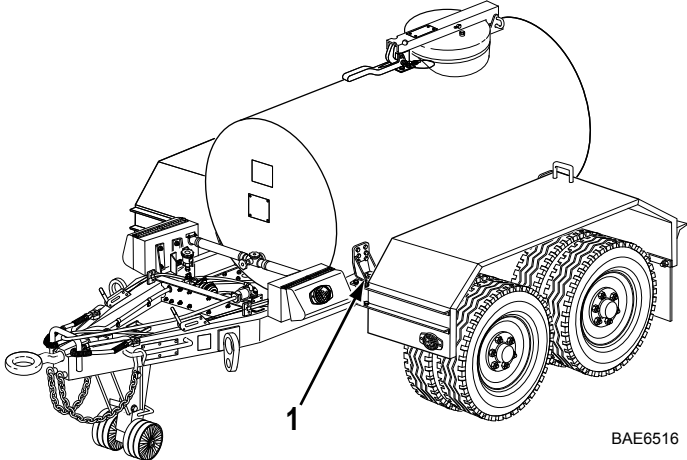
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	After	AIR TANK AND FILTER	Apply handbrakes and open drain valve (Figure 7, Item 2) on air reservoir (Figure 7, Item 1) to drain condensation. Close drain valve (Figure 7, Item 2).	
 <p>Figure 7. Drain Valve on Brake Air Reservoir Tank.</p>				
17	Weekly	TIRES	Check to make sure that tire pressure is at 60 psi (413.7 kPa) when tires are cool.	
18	Weekly	LIGHTS AND REFLECTORS	Check for presence and damage to lights and reflectors (Figure 8, Item 1).	
 <p>Figure 8. Reflector Locations.</p>				
19	Weekly	AIR TANK AND FILTER	1. Unscrew pipe plug (Figure 9, Item 2) on air filter (Figure 9, Item 1) and drain condensation from air filter. 2. Clean pipe plug with lint-free rag before installing.	

Table 1. Operator Preventive Maintenance Checks and Services (PMCS) Procedures - Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			3. Check air tank for damage and leaks.  Figure 9. Air Filter Drain Plug.	
20	Weekly	WATER TANK	1. Check tank interior for contamination (dirt, rust, paint, or chips). 2. Check tank mounting screws and bushings (Figure 10, Item 1) for obvious looseness.	Contamination is found in tank interior. Tank mounting screws and bushings are missing or loose.
			 Figure 10. Frame to Tank Mounting Hardware.	

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) PROCEDURES**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Wrench, Torque
(WP 0119, Table 1, Item 10)

References (cont.)

WP 0005
WP 0037
WP 0038
WP 0041
WP 0042
WP 0046
WP 0052
WP 0059
WP 0060
WP 0067
WP 0076
WP 0077
WP 0079

Materials/Parts

Brake Fluid (WP 0118, Table 1, Item 2)
Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Grease, Automotive and Artillery
(WP 0118, Table 1, Item 7)
Rag, Wiping (WP 0118, Table 1, Item 9)

References

TM 9-2610-200-14

WARNING

Use a drain pan or appropriate containment equipment to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Immediately clean up spilled fluid before proceeding with any task. Comply with local regulations when disposing of clean up material and leaked and spilled fluids. Failure to comply may cause damage to environment and health of personnel. Seek medical attention in the event of an injury.

WARNING

- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

Table 1. Field Preventive Maintenance Checks and Services (PMCS) Procedures

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
			<p>NOTE</p> <ul style="list-style-type: none"> Review all WARNING, CAUTION, and NOTE headings before performing PMCS on the trailer assembly. If operating trailer assembly for the first time, perform Weekly PMCS the first time "Before" PMCS is performed. Unless otherwise indicated, perform preventive maintenance and lubrication with trailer assembly uncoupled from Prime Mover, parked on level ground, handbrakes applied, and wheels chocked. Begin walk around inspection at roadside of trailer assembly and proceed in a counterclockwise direction. 	
1	Quarterly	HANDBRAKE LEVERS	Lubricate per Lubrication Instructions (WP 0079).	
2	Quarterly	FAUCET BOX COVERS	Lubricate per Lubrication Instructions (WP 0079).	
3	Quarterly	MASTER CYLINDER	Lubricate per Lubrication Instructions (WP 0079).	
4	Semi-annually	LIGHTS	Replace any broken or cracked lenses or unserviceable lights (WP 0041) and (WP 0042).	Any light is missing or inoperative.
5	Semi-annually	INTER-VEHICULAR CABLE	Check intervehicular cable for cuts, breaks, and frayed wires or damaged plug (WP 0046).	Intervehicular cable is cut, broken, or frayed or plug is damaged.
6	Semi-annually	INTER-VEHICULAR AIR HOSES	Check air hoses for cuts, breaks, and damaged air couplings. Replace if defective (WP 0059).	Air hoses or air couplings are damaged.
7	Semi-annually	AIR RESERVOIR	Check air reservoir and lines for damage and make sure fittings are tight. Replace air reservoir if damaged (WP 0060).	Air reservoir or lines are damaged.
8	Semi-annually	WHEEL AND TIRE ASSEMBLY	<p>1. Inspect tires for wear and damage. Check tread depth. Refer to TM 9-2610-200-14.</p> <p>2. Torque wheel nuts to 105 lb ft (142 N·m) (WP 0038).</p>	<p>Tread depth less specified.</p> <p>Wheel nuts stripped or will not torque properly.</p>

Table 1. Field Preventive Maintenance Checks and Services (PMCS) Procedures - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Semi-annually	LANDING LEG ASSEMBLY	1. Inspect for bent and broken components (WP 0067). 2. Inspect release handle for proper operation (WP 0067).	Landing leg has bent or broken components. Release handle does not operate properly.
10	Semi-annually	LANDING LEG SCREW SHAFT	Lubricate landing leg screw shaft (Figure 1, Item 1) with grease. <div> <p>BAE6526</p> </div> <p>Figure 1. Landing Leg Screw Shaft.</p>	
11	Semi-annually	SUSPENSION	1. Inspect suspension for bent or cracked leaves, loose mounting, and worn components. 2. Inspect shock absorbers for damage or leaks. <div> <p>CAUTION</p> </div> <p>To prevent damage to trailer, do not lubricate springs. Failure to comply may result in damage to, or destruction of, equipment or mission.</p> 3. Lubricate suspension bushings and rollers with grease (WP 0079).	Suspension leaves are damaged, components are worn, or mountings are loose. Shock absorbers are damaged or leaking.

Table 1. Field Preventive Maintenance Checks and Services (PMCS) Procedures - Continued



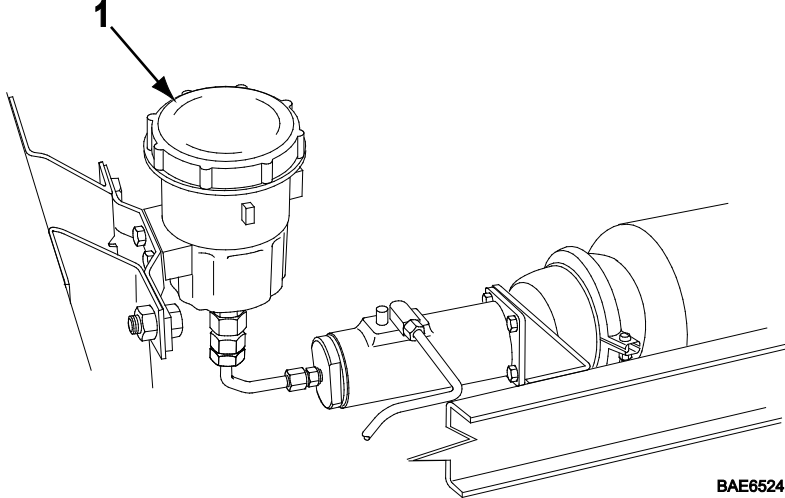
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	Semi-annually	DATA PLATES, DECALS, AND STENCIL MARKINGS	Make sure all data plates, decals, and stencil markings are legible and in good condition. Replace damaged or disfigured plates (WP 0077).	
13	Semi-annually	REFLECTORS	Replace any cracked or broken reflectors (WP 0076).	
14	Semi-annually	WATER TANK	<p style="text-align: center;">WARNING</p> <div style="display: flex; justify-content: center; align-items: center;">   </div> <p>If water tank was filled with nonpotable water, water tank must be flushed out with clean potable water and drained. DO NOT allow water tank to sit for extended periods of time with any amount of liquid in it. Standing water will result in contamination and food poisoning. KEEP WATER TANK CLEAN AT ALL TIMES. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.</p> <ol style="list-style-type: none"> 1. Check for contamination. If tank is contaminated, flush with fresh water before use (WP 0005). 2. Check water tank body brackets for cracks, missing lock wire, and missing or loose bolts. 	<p>Water tank is contaminated.</p> <p>Water tank body brackets are cracked, missing lock wire, or have missing or loose bolts.</p>
15	Annually	WHEEL BEARINGS	<p style="text-align: center;">NOTE</p> <p>A one-time, mandatory removal of the spacer sleeve between seal, plain encased and brake backing plate is required during the first annual service. If found, spacer must be removed and not used.</p>	

Table 1. Field Preventive Maintenance Checks and Services (PMCS) Procedures - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	Annually	BRAKES	<p>1. Check master cylinder reservoir (Figure 2, Item 1) fluid level. Fill to within 0.5 in. (12.7 mm) from top.</p> <p>2. Clean, inspect, and repair or replace internal service brake parts as required (WP 0052).</p> <p>3. Adjust brake shoes (WP 0052). Check handbrake lever adjustment. Adjust as required (WP 0037).</p>	
 <p style="text-align: center;">Figure 2. Master Cylinder Reservoir.</p>				
17	Annually	FRAME	Inspect for cracks, bent members, and broken welds.	Frame is cracked, bent, or has broken welds.

END OF TASK**END OF WORK PACKAGE**

CHAPTER 5

OPERATOR MAINTENANCE

**OPERATOR MAINTENANCE
HANDBRAKE LEVER ASSEMBLY ADJUSTMENT**

INITIAL SETUP:

Not Applicable

WARNING



If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

This trailer has two handbrake lever assemblies. This procedure adjusts one handbrake assembly. The other handbrake lever assembly is adjusted the same way.

ADJUSTMENT

1. Release handbrake lever assembly (Figure 1, Item 1).
2. Turn adjustment knob (Figure 1, Item 2) clockwise to tighten or counterclockwise to loosen.
3. Apply handbrake lever assembly (Figure 1, Item 1) and check to make sure front inner and outer wheel locks. Repeat Steps 1 and 2 as required.

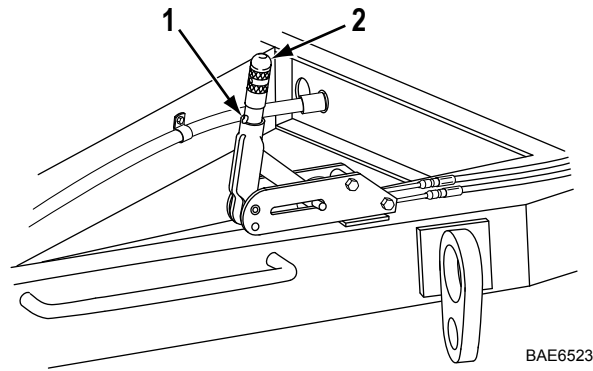


Figure 1. Handbrake in the Released Position.

END OF TASK

END OF WORK PACKAGE

OPERATOR MAINTENANCE WHEEL AND TIRE ASSEMBLY REPLACEMENT

INITIAL SETUP:

Personnel Required

Two

Equipment Condition

Handbrakes applied (WP 0005)

WARNING



Wheel and Tire assembly weighs 80 lbs (36 kg). Two people are required to remove/install assembly. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- There are four wheel assemblies. This procedure replaces one rear outer wheel assembly. All wheel assemblies are removed the same way.
- The walking beam can be rotated to provide clearance during inner tire removal.

REMOVAL

1. Place suitable lifting device under cross axle on side closest to the tire being removed, until weight of trailer is on suitable lifting device.
2. Loosen, but do not remove, eight lug nuts (Figure 1, Item 3) on wheel assembly (Figure 1, Item 2).
3. Raise trailer until wheel is completely off ground.
4. Place suitable support under cross axle.
5. Remove eight lug nuts (Figure 1, Item 3) and wheel assembly (Figure 1, Item 2) from eight studs (Figure 1, Item 1).

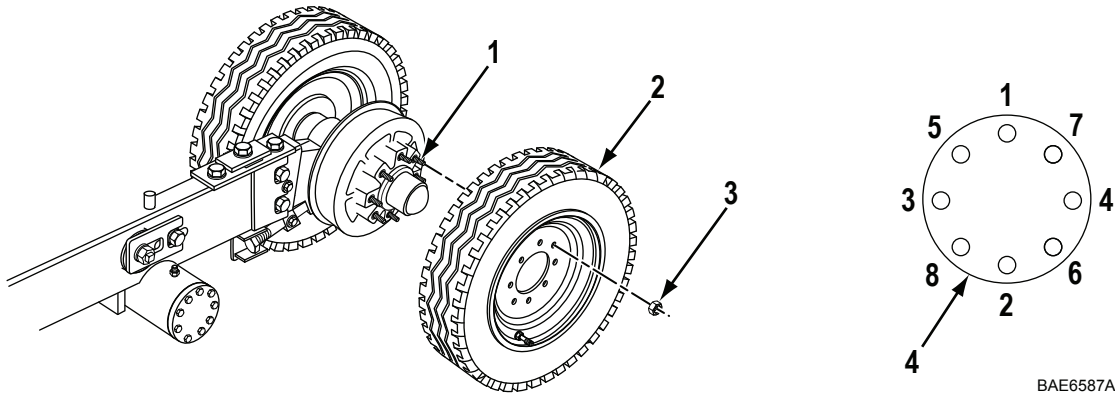


Figure 1. Wheel Replacement and Tire Lug Nut Tightening.

END OF TASK**INSTALLATION**

1. Position wheel assembly (Figure 1, Item 2) on studs (Figure 1, Item 1), and install eight lug nuts (Figure 1, Item 3).
2. Remove walking beam and cross axle support.
3. Lower trailer until full weight is on wheels. Following torque sequence (Figure 1, Item 4), tighten eight lug nuts (Figure 1, Item 3).
4. When mission permits, have Field Maintenance torque to 105 lb ft (142 N·m).

END OF TASK**FOLLOW ON TASK**

Have Field Maintenance re-torque wheel nuts to 105 lb ft (142 N·m) after approximately 100 miles (160 km) of operation.

END OF TASK**END OF WORK PACKAGE**

CHAPTER 6

FIELD MAINTENANCE

**FIELD MAINTENANCE
SERVICE UPON RECEIPT**

INITIAL SETUP:**Materials/Parts**

Brake Fluid (WP 0118, Table 1, Item 2)
Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Grease, Automotive and Artillery
(WP 0118, Table 1, Item 7)
Rag, Wiping (WP 0118, Table 1, Item 9)

References (cont.)

DA PAM 750-8
DD Form 1397
WP 0035
WP 0036
WP 0044

References

DA Form 2407/5990-E

OVERVIEW

This chapter contains all of the maintenance authorized to be performed by Field Maintenance. Included are Service Upon Receipt of Material, Field Maintenance instructions, and detailed maintenance tasks that Field Maintenance personnel may perform to maintain the trailer.

These Field Maintenance instructions contain general shop practices and specific methods you must be familiar with to properly maintain the trailer. You should read and understand the procedures here before starting Field Maintenance tasks on the trailer.

GENERAL INFORMATION

Before you begin a task, you should find out how much repair, modification, or replacement is needed to fix the equipment as described in this manual. Sometimes the reason for equipment failure can be seen right away and therefore complete teardown is not necessary for repair. Disassemble equipment only as far as necessary to repair or replace broken parts.

INSPECTION

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Cloths or rags saturated with solvent cleaning compound must be disposed of in accordance with authorized facility procedures. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

INSPECTION - Continued**NOTE**

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.
 - When a new, used, or reconditioned trailer is first received determine whether it has been properly prepared for service and is in condition to perform its mission. Follow the inspection instructions and servicing instructions specified below.
1. Read and follow all instructions on DD Form 1397 attached to conspicuous part of trailer.
 2. Remove all straps, plywood, tape, seals and wrapping.
 3. Remove rust-preventive compound from coated exterior parts of trailer using cleaning solvent and clean dry rag.
 4. Inspect trailer for damage incurred during shipment.
 5. Inspect trailer equipment to see if it has been modified.
 6. Check equipment against packing list to ensure that shipment is complete. Report any discrepancies in accordance with instructions in DA PAM 750-8.

END OF TASK**SERVICING**

1. Perform all Operator and Field Preventive Maintenance Checks and Services (PMCS) (WP 0035) and (WP 0036). Schedule next PMCS on DD Form 314.
2. Lubricate all lubrication points as described in (WP 0044).
3. Report any problems on DA Form 2407/5990-E.
4. Perform a break-in road test of 25 mi. (40 km) at a maximum speed of 50 mph (80 km/h).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE GENERAL MAINTENANCE

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts (cont.)

(WP 0118, Table 1, Item 4)
Cloth, Abrasive (WP 0118, Table 1, Item 5)
Dishwashing Compound, Hand
(WP 0118, Table 1, Item 6)
Rag, Wiping (WP 0118, Table 1, Item 9)

Materials/Parts

Brush, Scrub (WP 0118, Table 1, Item 3)
Cleaning Compound, Solvent

References

TB MED 577
TM 9-214

GENERAL

These general maintenance instructions contain general shop practices and specific methods you must be familiar with to properly maintain the M1112 trailer. You should read and understand these practices and methods before performing any Field tasks.

Before beginning a task, find out how much repair, modification, or replacement is needed to fix the equipment. Sometimes the reason for equipment failure can be seen right away, and complete teardown is not necessary. Disassemble equipment only as far as necessary to repair or replace damaged or broken parts.

The following "Initial Setup" information applies to all procedures:

- Resources are not listed unless they apply to the procedure.
- Personnel are listed only if more than one technician is required to complete the task. If "Personnel Required" is not listed, one mechanic can complete the task.

All bands and forms attached to equipment must be checked to learn the reason for equipment's removal from service. Modification Work Orders (MWO's) and technical bulletins must also be checked for equipment changes and updates.

In some cases, a part may be damaged by removal. If the part appears to be good, and other parts behind it are not defective, leave it on and continue with the procedure. Here are a few simple rules:

- Do not remove dowel pins or studs unless loose, bent, broken, or otherwise damaged.
- Do not remove bearings or bushings unless damaged. If you need to remove them to access parts behind, pull bearings and bushings out carefully.
- Replace all gaskets, seals, lockwashers, cotter pins, preformed packings.

WORK SAFETY

1. Observe all warnings and cautions. Always use power tools carefully.
2. Protect against injury. Wear protective gear such as eye protection, safety shoes, rubber apron, and gloves.
3. When lifting heavy parts, have someone help you. Ensure that lifting/stabilizing equipment is working properly, is suitable for the assigned task, and is secure against slipping.

WORK SAFETY - Continued

4. All maintenance should be performed with:
 - a. Trailer parking brake engaged.
 - b. Prime Mover in neutral with parking brake engaged, if coupled.
 - c. Prime Mover engine stopped, if coupled.

CLEANING INSTRUCTIONS**WARNING**

- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed. Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Cloths or rags saturated with solvent cleaning compound must be disposed of in accordance with authorized facility procedures. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

CLEANING INSTRUCTIONS - Continued**NOTE**

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

GENERAL

Cleaning instructions will be the same for a majority of parts and components that make up the trailer. The following should apply to all cleaning operations:

1. Clean all parts before inspection, after repair, and before assembly.
2. Keep hands free of grease which can collect dust, dirt, and grit.
3. After cleaning, all parts should be covered or wrapped to protect them from dust and dirt. Parts that are subject to rust should be lightly oiled.

STEAM CLEANING

1. Before steam cleaning exterior of trailer, protect all electrical equipment that could be damaged by steam or moisture.
2. Place disassembled parts in a suitable container to steam clean. Parts that are subject to rust should be dried and lightly oiled after cleaning.

WATER SANITATION**WARNING**

- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- If water tank was filled with nonpotable water, water tank must be flushed out with clean potable water and drained. DO NOT allow water tank to sit for extended periods of time with any amount of liquid in it. Standing water will result in contamination and food poisoning. KEEP WATER TANK CLEAN AT ALL TIMES. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Use extreme care to ensure that no foreign material enters the water tank. The highest sanitary standards must be followed when handling drinking water. Serious illness may result from impure, contaminated drinking water. When water tank is used for NONPOTABLE WATER, water tank must be so marked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

When water tank is used for NONPOTABLE WATER, water tank must be so marked. The highest sanitary practices must be followed when handling drinking water, refer to TB MED 577.

CASTINGS, FORGINGS, AND MACHINED METAL PARTS**WARNING**

- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

CASTINGS, FORGINGS, AND MACHINED METAL PARTS - Continued**WARNING**

- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

1. Remove grease and accumulated deposits with a stiff bristle brush.
2. Clean inner and outer surfaces with cleaning solvent.

CASTINGS, FORGINGS, AND MACHINED METAL PARTS - Continued**WARNING**

Compressed air used for cleaning or drying purposes, or for clearing restrictions, should never exceed 30 psi (207 kPa). Wear protective clothing (eye protection, gloves, etc.). Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

3. Clear all threaded holes with compressed air to remove dirt and cleaning fluids.

OIL SEALS, ELECTRICAL CABLES, AND FLEXIBLE HOSES**CAUTION**

Do not wash oil seals, electrical harnesses, and flexible hoses with dry cleaning solvent or mineral spirits. Failure to comply may result in damage to, or destruction of, equipment or mission.

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

BEARINGS

Clean bearings in accordance with TM 9-214.

INSPECTION INSTRUCTIONS**NOTE**

All damaged areas should be marked for repair or replacement.

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

Inspect drilled and tapped (threaded) holes for the following:

- Wear, distortion, cracks, and any other damage in or around holes for wear, distortion, cracks, and any other damage.
- Threaded areas for wear, distortion (stretching), and evidence of cross-threading.

Inspect metal lines, flexible lines (hoses), and metal fittings for the following:

- Metal lines for sharp kinks, cracks, bad bends, and dents.
- Flexible lines for fraying, evidence of leakage, and loose metal fittings or connectors.
- Metal fittings and connectors for thread damage and worn or rounded hex heads.

Inspect castings, forgings, and machined metal parts for the following:

- Machined surfaces for nicks, burrs, raised metal, wear, and other damage.
- Inner and outer surfaces for breaks and cracks.

Inspect bearings in accordance with TM 9-214.

REPAIR INSTRUCTIONS

Any repair procedure to a specific part or component is covered in the Work Package (WP) pertaining to that item. After repair, clean all parts thoroughly to prevent dirt, metal chips, or other foreign material from entering any working parts.

Repair casting, forgings, and machined metal parts using the following instructions:

1. Repair minor cracked casting or forgings.

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

REPAIR INSTRUCTIONS - Continued**NOTE**

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.
2. Repair minor damage to machined surfaces with a fine mill file or an abrasive cloth dipped in cleaning solvent.
 3. Replace any deeply nicked machined surface that could affect the assembly operation.
 4. Repair minor damage to threaded cap screw holes with thread tap of same size to prevent cutting oversize.
 5. After repair, clean all parts thoroughly to prevent dirt, metal chips, or other foreign material from entering any working parts.

TAGGING WIRES AND HOSES

As soon as the first wire, hose, or tube is disconnected, write number "1" on two tags. Secure one tag to the wire, hose, or tube and the other tag to the terminal, nipple, or fitting. After disconnecting the second wire, hose, or tube, write number "2" on two tags. Secure one tag to the wire, hose, or tube, and the second tag to the terminal, nipple, or fitting. Do the same for all wires, hoses, and tubes.

Note which numbers you used, in pencil, on art in this manual. This will help you to accurately re-tag, if tags are removed to perform cleaning and maintenance work.

Remove all tags when finished.

END OF WORK PACKAGE

**FIELD MAINTENANCE
LIGHT ASSEMBLY MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References (cont.)

WP 0045
WP 0046

Materials/Parts

Grommet (WP 0085, Figure 3, Item 27)
O-Ring (WP 0083, Figure 1, Item 3)
Washer, Lock
Qty: (2) (WP 0083, Figure 1, Item 9)

Equipment Condition

Intervehicular cable disconnected from Prime
Mover (WP 0005)

References

WP 0043

WARNING

Ensure all power sources are disconnected prior to performing any maintenance on electrical system. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

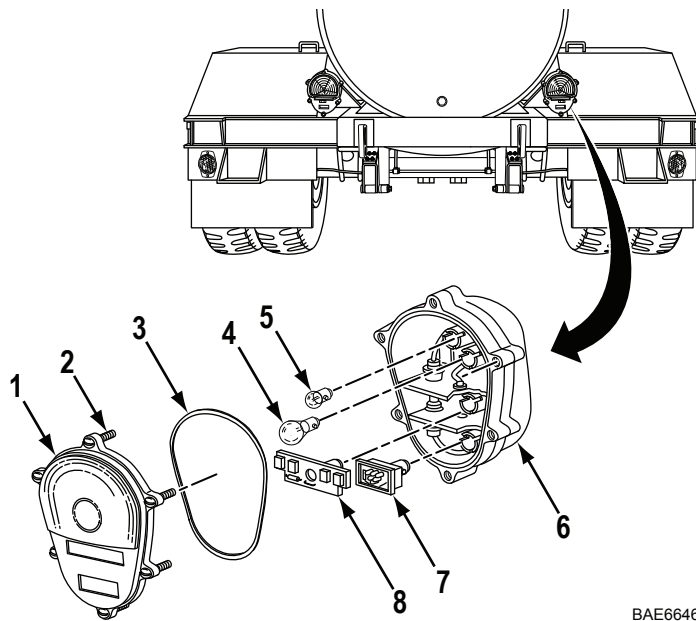
NOTE

This trailer has two lights assemblies. This procedure replaces one light assembly. The other light assembly is replaced the same way.

DISASSEMBLY**NOTE**

- To remove light bulbs or LEDs, push in on light bulb or LED and turn light bulb or LED counterclockwise.
- Perform Steps 1, 2, and 3 if only replacing light assembly lens, light bulbs, or LEDs.

1. Remove six screws (Figure 1, Item 2), lens (Figure 1, Item 1), and lens seal (Figure 1, Item 3) from light assembly (Figure 1, Item 6). Discard lens seal (Figure 1, Item 3).
2. Remove light bulb (Figure 1, Item 4 or 5) from light assembly (Figure 1, Item 6).
3. Remove LED (Figure 1, Item 7 or 8) from light assembly (Figure 1, Item 6).



BAE6646

Figure 1. Light Assembly Bulb and LED Removal.

NOTE

Tag all wires prior to removal to assist with installation.

4. Remove four electrical connectors (Figure 2, Items 2 and 3) from clip assemblies (Figure 2, Item 1).
5. Disconnect four electrical connectors (Figure 2, Items 2 and 3) from light assembly to chassis wiring harness.
6. Remove grommet (Figure 2, Item 8) from trailer frame (Figure 2, Item 9). Discard grommet (Figure 2, Item 8).
7. Remove light assembly electrical harness (Figure 2, Item 2) from trailer frame (Figure 2, Item 9).
8. Remove two bolts (Figure 2, Item 6) and lockwashers (Figure 2, Item 5) from light assembly bracket (Figure 2, Item 7). Discard lockwashers (Figure 2, Item 5).

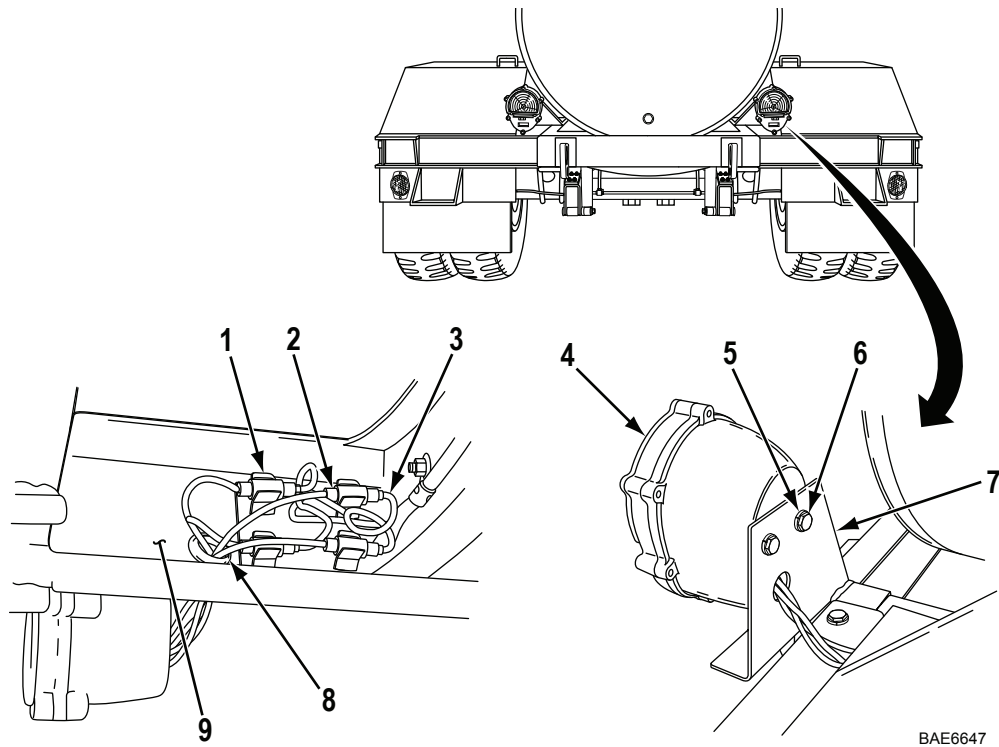
DISASSEMBLY - Continued

Figure 2. Light Assembly Removal.

9. Remove light assembly (Figure 2, Item 4) from light assembly bracket (Figure 2, Item 7).

END OF TASK**INSPECTION**

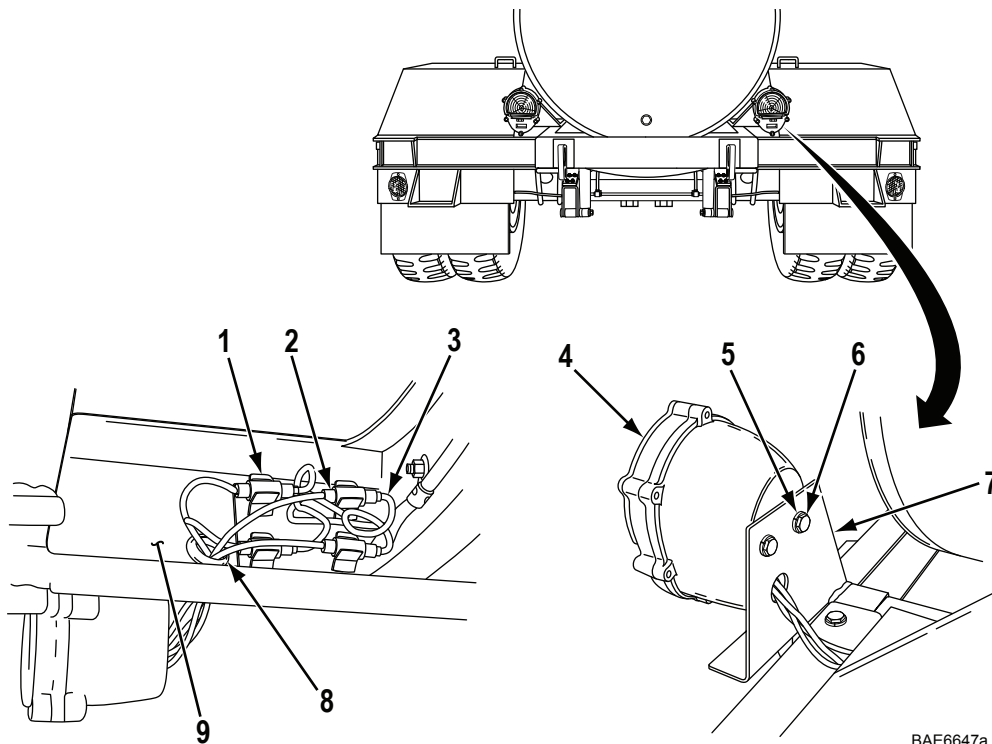
1. Inspect wires (Figure 2, Items 2 and 3) for breaks, missing bands, or damage. Replace bands (WP 0045), wiring harness (WP 0043), or light assembly (Figure 2, Item 4) if any of these conditions are found.
2. Inspect light assembly (Figure 2, Item 4) for cracks and damage. Replace light assembly (Figure 2, Item 4) if any of these conditions are found.

END OF TASK

ASSEMBLY**NOTE**

Perform Steps 6 through 8 if only replacing light lens, light bulbs or LEDs.

1. Install light assembly (Figure 3, Item 4) on trailer bracket (Figure 3, Item 7) with two new lockwashers (Figure 3, Item 5) and bolts (Figure 3, Item 6).
2. Install light assembly electrical harness (Figure 3, Item 2) through trailer frame (Figure 3, Item 9).
3. Install new grommet (Figure 3, Item 8) on trailer frame (Figure 3, Item 9).
4. Connect four electrical connectors (Figure 3, Item 2).
5. Install four electrical connectors (Figure 3, Items 2 and 3) to clip assemblies (Figure 3, Item 1).



BAE6647a

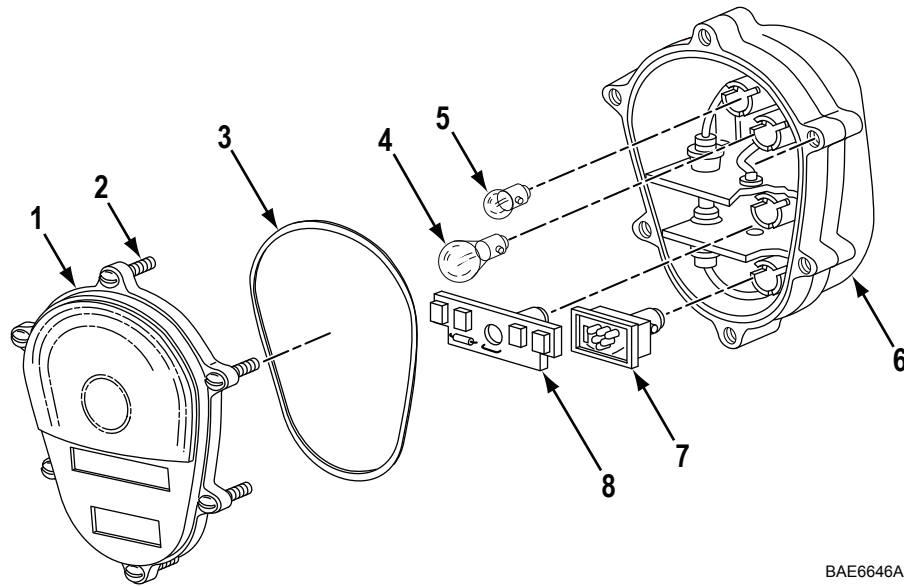
Figure 3. Light Assembly Installation.

6. Install light bulb (Figure 4, Item 4 or 5) in light assembly (Figure 4, Item 6).

NOTE

To install light bulbs or LEDs push in and rotate clockwise.

7. Install LEDs (Figure 4, Item 7 or 8) in light assembly (Figure 4, Item 6).
8. Install new lens seal (Figure 4, Item 3) on lens (Figure 4, Item 1).
9. Install lens (Figure 4, Item 1) on light assembly (Figure 4, Item 6) with six screws (Figure 4, Item 2).

ASSEMBLY - Continued

BAE6646A

Figure 4. Light Assembly Bulb and LED Installation.

END OF TASK**FOLLOW ON TASK**

Connect intervehicular connector and verify proper operation (WP 0046).

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
CLEARANCE MARKER LIGHT MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Equipment Condition

Trailer parked on level ground (WP 0005)

WARNING

Ensure all power sources are disconnected prior to performing any maintenance on electrical system. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- This trailer has two clearance marker lights. This procedure replaces one clearance marker light. The other clearance marker light is replaced the same way.
- The replacement procedures are same for old style and LED lights.

REMOVAL**NOTE**

Perform Steps 1 and 2 only if replacing clearance marker light lens or light bulb.

1. Remove two screws (Figure 1, Item 5) and lens (Figure 1, Item 4) from clearance marker light (Figure 1, Item 2).

NOTE

- To remove light bulb, push in on light bulb and turn light bulb counterclockwise.
- Step 2 only applies to light bulb style lights, not the LED.

2. Remove light bulb (Figure 1, Item 3) from clearance marker light (Figure 1, Item 2).
3. Disconnect electrical connector (Figure 1, Item 1).
4. Remove four screws (Figure 1, Item 6) and clearance marker light (Figure 1, Item 2).

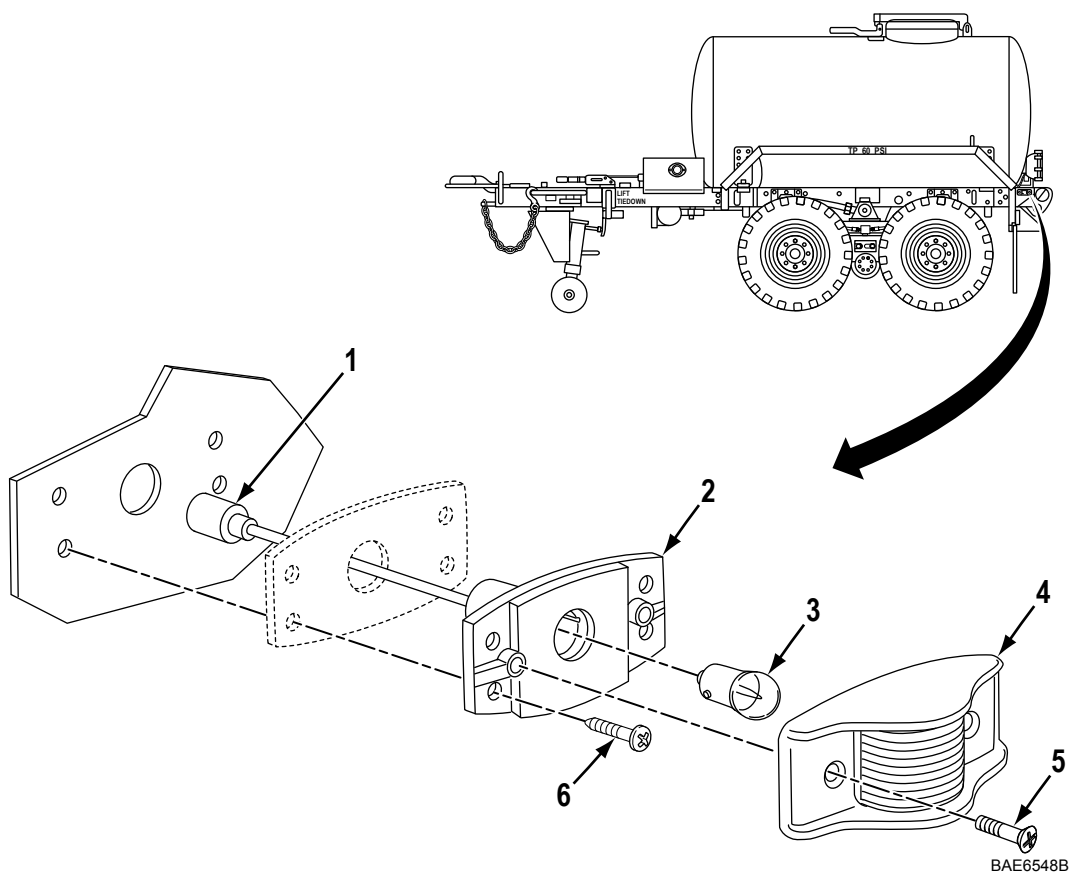


Figure 1. Clearance Marker Light Maintenance.

END OF TASK

INSPECTION

1. Inspect clearance marker light (Figure 1, Item 2) for cracks and damage. Replace clearance marker light (Figure 1, Item 2) if any of these conditions are found.
2. Inspect lens (Figure 1, Item 4) for cracks and damage. Replace lens (Figure 1, Item 4) if any of these conditions are found.

END OF TASK**INSTALLATION****NOTE**

Perform Steps 3 and 4 only if replacing clearance marker light lens or light bulb.

1. Install clearance marker light (Figure 1, Item 2) with four bolts (Figure 1, Item 6).
2. Connect electrical connector (Figure 1, Item 1).

NOTE

- To install light bulb, push in on light bulb and rotate light bulb clockwise.
- Step 3 only applies to light bulb style lights, not the LED.

3. Install light bulb (Figure 1, Item 3) in clearance marker light (Figure 1, Item 2).
4. Install lens (Figure 1, Item 4) on clearance marker light (Figure 1, Item 2) with two screws (Figure 1, Item 5).

END OF TASK**FOLLOW ON TASK**

Connect intervehicular connector and check for proper operation (WP 0005).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE CHASSIS WIRING HARNESS MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References

WP 0043
WP 0081

Materials/Parts

Band, Marker (WP 0085, Figure 3, Item 5)
Band, Marker (WP 0085, Figure 3, Item 9)
Grommet Qty: (2) (WP 0085, Figure 3, Item 15)
Strap, Tiedown (WP 0118, Table 1, Item 11)
Tag, Marker (WP 0118, Table 1, Item 12)

Equipment Condition

Light assembly disconnected (WP 0041)
Clearance marker lights wiring harness
disconnected (WP 0044)
Intervehicular cable disconnected (WP 0005)

WARNING



Ensure all power sources are disconnected prior to performing any maintenance on electrical system. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

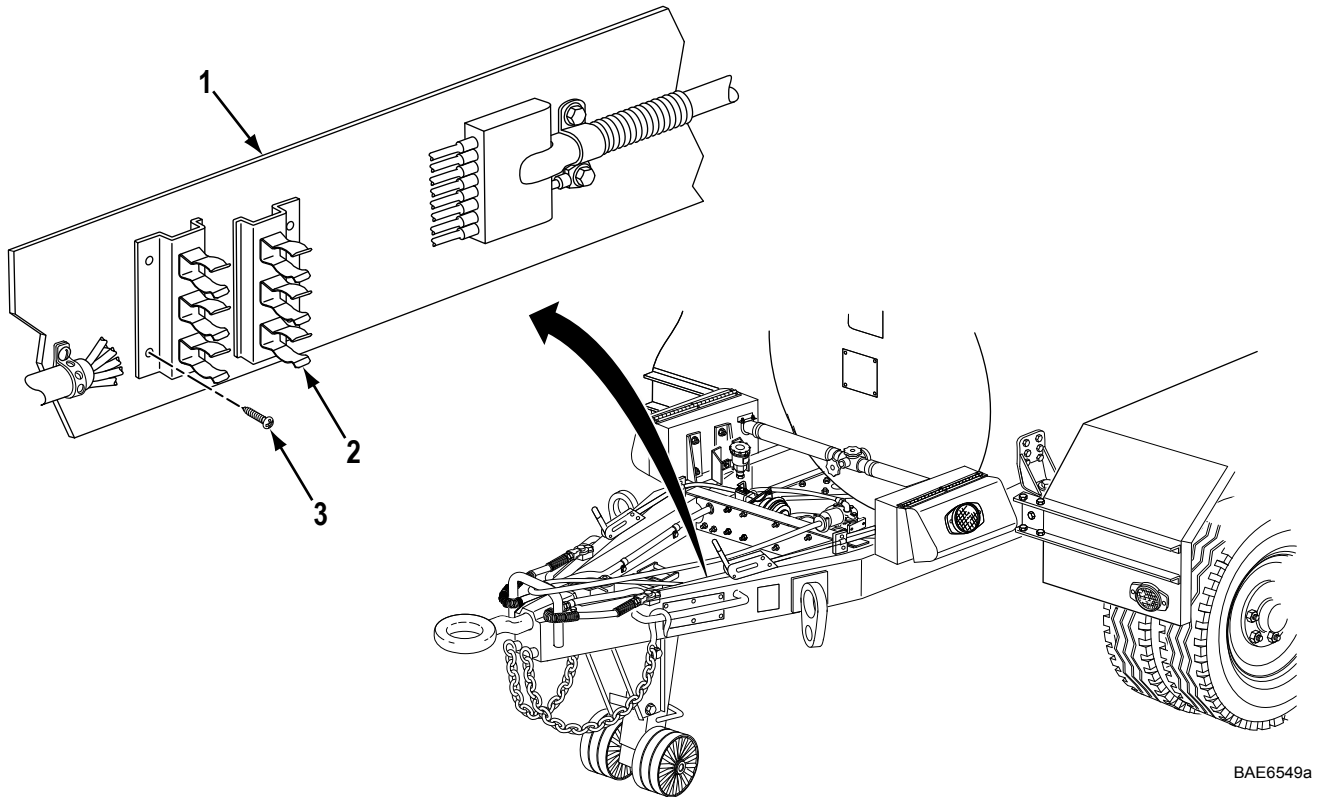
NOTE

- Tag all wires, hoses, tubing, and connections prior to removal for ease of installation.
- Testing the chassis wiring harness consists of a continuity check of the individual wires contained in the harness assembly. For wire function and identification, refer to wiring diagram (WP 0081). Before disconnecting any wires, ensure that identification bands are present.

REMOVAL**NOTE**

If only removing the clips, perform Step 1.

1. Remove two screws (Figure 1, Item 3) and clip (Figure 1, Item 2) from trailer frame (Figure 1, Item 1).



BAE6549a

Figure 1. Chassis Wiring Harness Clamp Removal.

NOTE

Note wiring harness routing during removal to assist with installation.

2. Remove three self-tapping screws (Figure 2, Item 8), washers (Figure 2, Item 9), and tiedown straps (Figure 2, Item 10) from chassis wiring harness (Figure 2, Item 7) and frame (Figure 2, Item 1). Discard tiedown straps (Figure 2, Item 10).
3. Remove six bolts (Figure 2, Item 2), washers (Figure 2, Item 5), tiedown straps (Figure 2, Item 3), and nuts (Figure 2, Item 6) from chassis wiring harness (Figure 2, Item 7) and frame (Figure 2, Item 1). Discard tiedown straps (Figure 2, Item 3).
4. Remove chassis wiring harness (Figure 2, Item 7) from two grommets (Figure 2, Item 4) on trailer frame (Figure 2, Item 1).
5. Remove two grommets (Figure 2, Item 4) from trailer frame (Figure 2, Item 1). Discard grommets (Figure 2, Item 4).
6. Remove chassis wiring harness (Figure 2, Item 7) from trailer frame (Figure 2, Item 1).

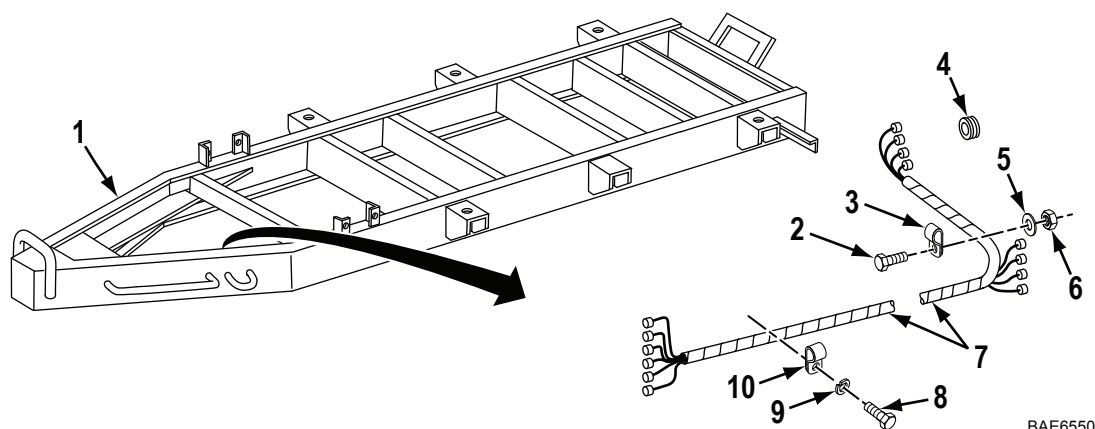
REMOVAL - Continued

Figure 2. Chassis Wiring Harness Removal.

END OF TASK**INSPECTION**

1. Inspect chassis wiring harness (Figure 2, Item 7) for bends, breaks, and damage. Replace chassis wiring harness (Figure 2, Item 7) if any of these conditions are found.
2. Inspect chassis wiring harness (Figure 2, Item 7) for damaged or missing tags. Replace tags if any of these conditions are found.

END OF TASK**INSTALLATION****NOTE**

Chassis wiring harness schematics may be used to assist with chassis wiring harness installation.

1. Install two new grommets (Figure 2, Item 4) into trailer frame (Figure 2, Item 1).
2. Route chassis wiring harness (Figure 2, Item 7) through two grommets (Figure 2, Item 4).
3. Secure chassis wiring harness (Figure 2, Item 7) to trailer frame (Figure 2, Item 1) with six bolts (Figure 2, Item 2), washers (Figure 2, Item 5), new tiedown straps (Figure 2, Item 3) and nuts (Figure 2, Item 6).
4. Secure chassis wiring harness (Figure 2, Item 7) to trailer frame (Figure 2, Item 1) with three self-tapping screws (Figure 2, Item 8), washers (Figure 2, Item 9), and new tiedown straps (Figure 2, Item 10).

NOTE

If clips were removed, perform Step 5.

5. Install clip (Figure 1, Item 2) to trailer frame (Figure 1, Item 1) with two screws (Figure 1, Item 3).

END OF TASK

FOLLOW ON TASK

1. Connect clearance marker lights wiring harness (WP 0044).
2. Connect light assemblies (WP 0043).
3. Connect intervehicular connector and check for proper operation (WP 0005).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE
CLEARANCE MARKER LIGHT WIRING HARNESS MAINTENANCE

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References

WP 0043
WP 0081

Materials/Parts

Band, Marker (WP 0085, Figure 3, Item 5)
Band, Marker (WP 0085, Figure 3, Item 9)
Grommet Qty: (2) (WP 0085, Figure 3, Item 15)
Strap, Tiedown (WP 0118, Table 1, Item 11)
Tag, Marker (WP 0118, Table 1, Item 12)

Equipment Condition

Trailer uncoupled (WP 0005)

WARNING

Ensure all power sources are disconnected prior to performing any maintenance on electrical system. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Tag all wires, hoses, tubing, and connections prior to removal for ease of installation.
- Testing the clearance marker light wiring harness consists of a continuity check of the individual wires contained in the harness assembly. For wire function and identification, refer to wiring diagram (WP 0081). Before disconnecting any wires, ensure that identification bands are present.
- There are two clearance marker light wiring harnesses. This procedure replaces one clearance marker light wiring harness. The other wiring harness is replaced the same way

REMOVAL

1. Disconnect clearance marker light from clearance marker light wiring harness (Figure 1, Item 3).
2. Disconnect chassis wiring harness from clearance marker light wiring harness (Figure 1, Item 3).
3. Remove two self-tapping screws (Figure 1, Item 4), washers (Figure 1, Item 5), and tiedown straps (Figure 1, Item 6) from clearance marker light wiring harness (Figure 1, Item 3) and frame (Figure 1, Item 1). Discard tiedown straps (Figure 1, Item 6).
4. Remove clearance marker light wiring harness (Figure 1, Item 3) from two grommets (Figure 1, Item 2) on trailer frame (Figure 1, Item 1).
5. Remove two grommets (Figure 1, Item 2) from trailer frame (Figure 1, Item 1). Discard grommets (Figure 1, Item 2).
6. Remove clearance marker light wiring harness (Figure 1, Item 3) from trailer frame (Figure 1, Item 1).

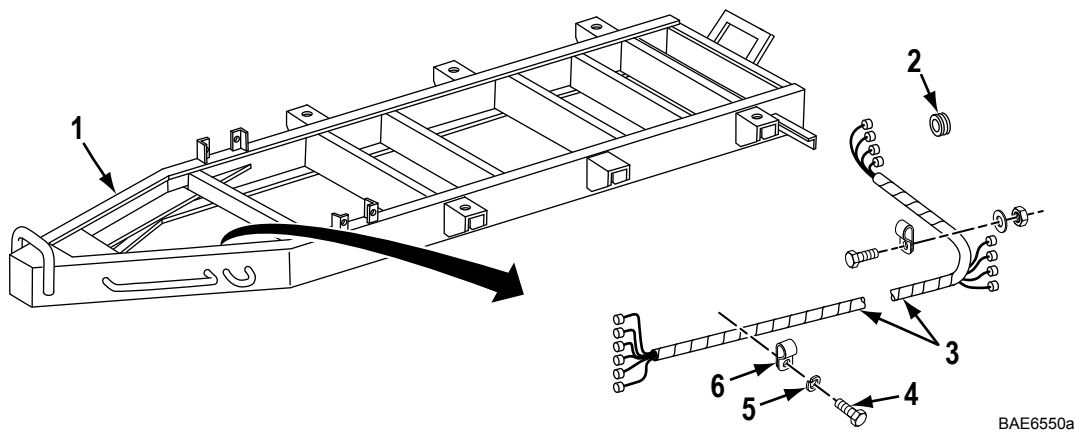


Figure 1. Clearance Marker Light Wiring Harness Removal.

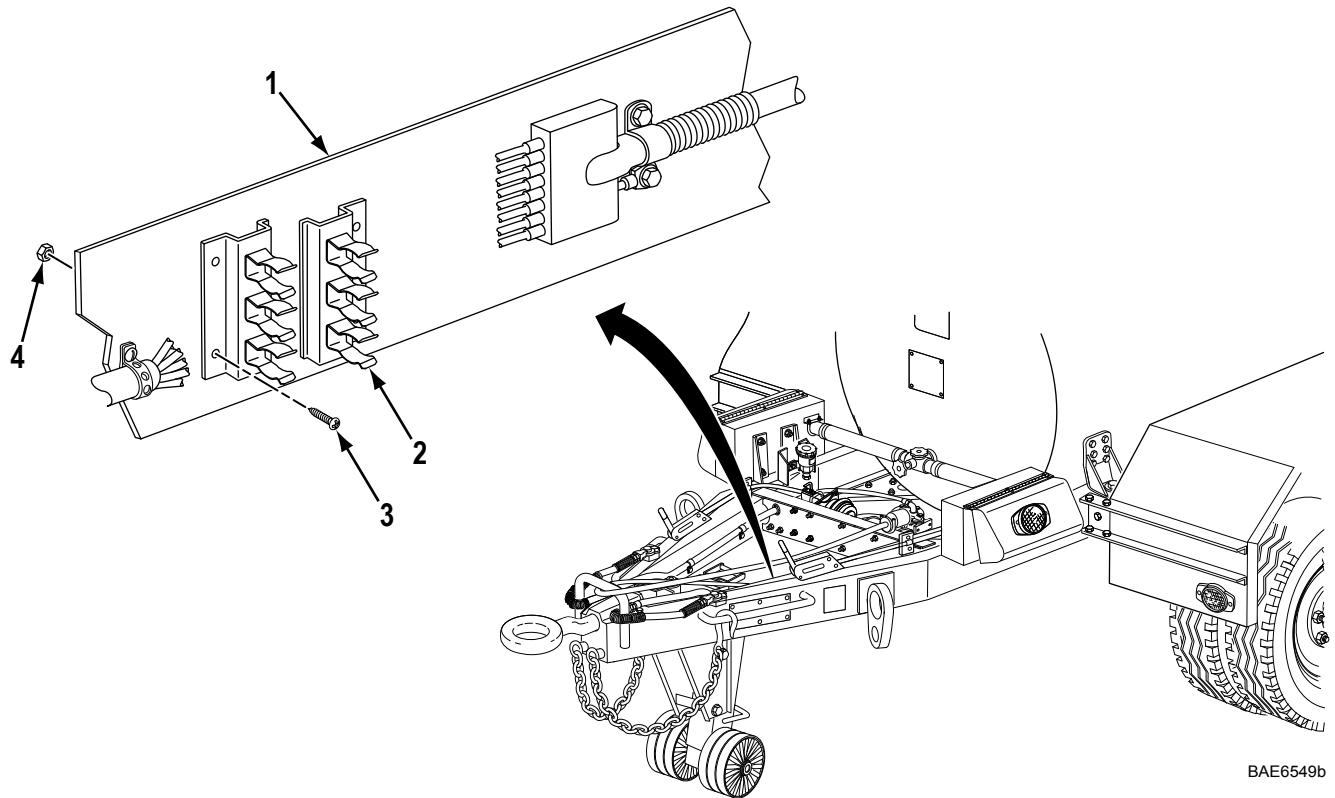
END OF TASK**INSPECTION**

1. Inspect clearance marker light wiring harness (Figure 1, Item 3) for bends, breaks, and damage. Replace clearance marker light wiring harness (Figure 1, Item 3) if any of these conditions are found.
2. Inspect clearance marker light wiring harness (Figure 1, Item 3) for damaged or missing tags. Replace tags if any of these conditions are found.

END OF TASK

INSTALLATION**NOTE**

- Clearance marker light wiring harness schematics may be used to assist with chassis wiring harness installation.
 - Only perform Step 1 if clips were removed.
1. Install clip (Figure 2, Item 2) to trailer frame (Figure 2, Item 1) with four nuts (Figure 2, Item 4) and bolts (Figure 2, Item 3).



BAE6549b

Figure 2. Clearance Marker Light Wiring Harness Clip Installation.

INSTALLATION - Continued

2. Install two new grommets (Figure 3, Item 2) into trailer frame (Figure 3, Item 1).
3. Route clearance marker light wiring harness (Figure 3, Item 3) through two grommets (Figure 3, Item 2).
4. Install two self-tapping screws (Figure 3, Item 4), washers (Figure 3, Item 5), and new tiedown straps (Figure 3, Item 6) to clearance marker light wiring harness (Figure 3, Item 3) and frame (Figure 3, Item 1).
5. Connect six electrical connectors connecting clearance marker light wiring harness (Figure 3, Item 3) to intervehicular wiring harness.

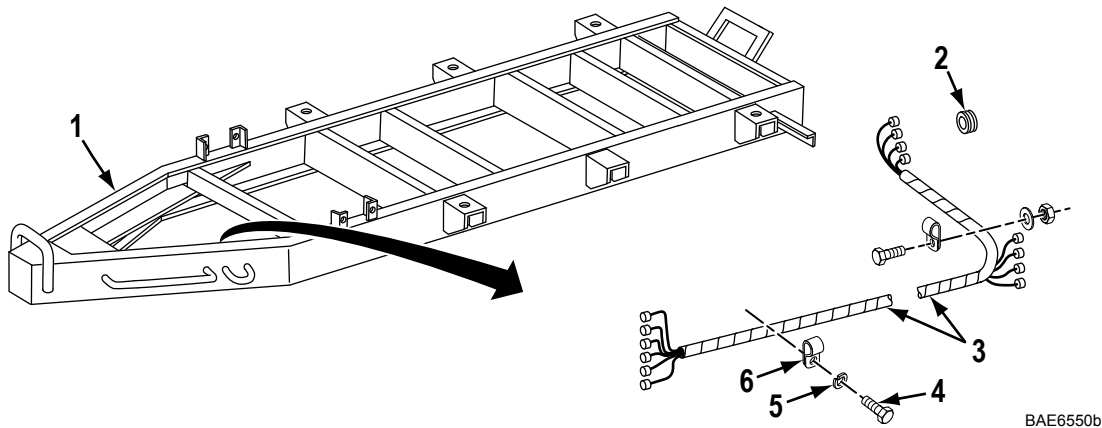


Figure 3. Clearance Marker Light Wiring Harness Installation.

END OF TASK**FOLLOW ON TASK**

1. Connect clearance marker lights (WP 0042).
2. Connect light assemblies (WP 0043).
3. Connect intervehicular connector and check for proper operation (WP 0005).

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
WIRING HARNESS AND CABLE REPAIR**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Tool Kit, Electrical (WP 0119, Table 1, Item 7)
Etcher, Electric (WP 0119, Table 1, Item 4)

Materials/Parts (cont.)

Contact, Electrical (WP 0085, Figure 3, Item 2)
Contact, Electrical (WP 0085, Figure 3, Item 19)
Terminal, Lug (WP 0086, Figure 4, Item 3)
Terminal Set, Quick Disconnect
(WP 0086, Figure 4, Item 5)

Materials/Parts

Band, Marker (WP 0086, Figure 4, Item 2)
Band, Marker (WP 0086, Figure 4, Item 8)

Equipment Condition

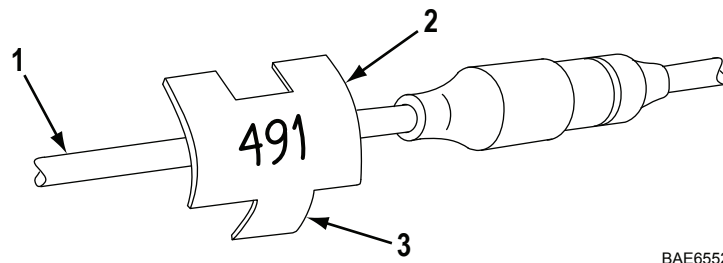
Intervehicular cable disconnected (WP 0005)

WARNING

Ensure all power sources are disconnected prior to performing any maintenance on electrical system. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

IDENTIFICATION BAND REPLACEMENT

1. Remove identification band (Figure 1, Item 2) from wire lead (Figure 1, Item 1). Discard identification band (Figure 1, Item 2).
2. Etch new identification band (Figure 1, Item 2).
3. Install new identification band (Figure 1, Item 2) on wire lead (Figure 1, Item 1).
4. Secure new identification band (Figure 1, Item 2) to wire lead (Figure 1, Item 1) by bending tab (Figure 1, Item 3).



BAE6552

Figure 1. Identification Band Replacement.

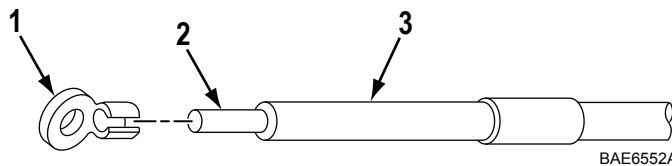
END OF TASK**TERMINAL REPLACEMENT**

1. Remove terminal (Figure 2, Item 1) from wire lead (Figure 2, Item 2). Discard terminal (Figure 2, Item 1).

CAUTION

Remove only enough insulation to fill cavity on new terminal. Failure to comply may result in damage to, or destruction of, equipment or mission.

2. Remove insulation (Figure 2, Item 3) from wire lead (Figure 2, Item 2).
3. Install new terminal (Figure 2, Item 1) on wire lead (Figure 2, Item 2).



BAE6552A

Figure 2. Terminal Replacement.

END OF TASK**MALE CONNECTOR REPAIR**

1. Position shell (Figure 3, Item 5) from contact (Figure 3, Item 1) and remove washer (Figure 3, Item 4) from insulation (Figure 3, Item 3).
2. Remove wire contact (Figure 3, Item 1) from wire lead (Figure 3, Item 2). Discard contact (Figure 3, Item 1).

MALE CONNECTOR REPAIR - Continued**CAUTION**

Remove only enough insulation to fill cavity on new terminal. Failure to comply may result in damage to, or destruction of, equipment or mission.

3. Remove insulation (Figure 3, Item 3) from wire lead (Figure 3, Item 2).
4. Install new contact (Figure 3, Item 1) on wire lead (Figure 3, Item 2).
5. Install washer (Figure 3, Item 4) on insulation (Figure 3, Item 3) and position shell (Figure 3, Item 5) over contact (Figure 3, Item 1).

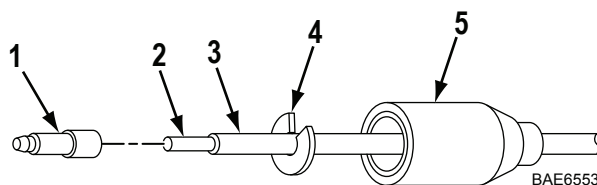


Figure 3. Male Connector Repair

END OF TASK**FEMALE CONNECTOR REPAIR**

1. Position shell (Figure 4, Item 5) from insulator (Figure 4, Item 4) and terminal (Figure 4, Item 1) on wire lead (Figure 4, Item 2).
2. Remove terminal (Figure 4, Item 1) from wire lead (Figure 4, Item 2). Discard terminal (Figure 4, Item 1).

CAUTION

Remove only enough insulation to fill cavity on new terminal. Failure to comply may result in damage to, or destruction of, equipment or mission.

3. Remove insulation (Figure 4, Item 3) from wire lead (Figure 4, Item 2).
4. Install new terminal (Figure 4, Item 1) on wire lead (Figure 4, Item 2).
5. Position insulator (Figure 4, Item 4) and shell (Figure 4, Item 5) over terminal (Figure 4, Item 1) on insulation (Figure 4, Item 3).

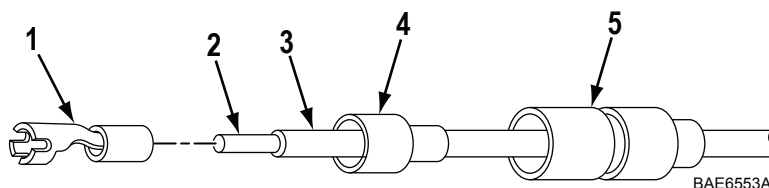


Figure 4. Female Connector Repair.

END OF TASK

FOLLOW ON TASK

Connect intervehicular connector and check for proper operation (WP 0005).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE INTERVEHICULAR CABLE MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Equipment Condition

Parking brake set and chocked wheels
(WP 0005)
Intervehicular cable disconnected (WP 0005)

Materials/Parts

Strap, Tiedown (WP 0118, Table 1, Item 11)
Tag, Marker (WP 0118, Table 1, Item 12)

References

WP 0045
WP 0081

WARNING



Ensure all power sources are disconnected prior to performing any maintenance on electrical system. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Tag all wires, hoses, tubing, and connections prior to removal for ease of installation.
- Note wiring harness routing during removal to assist with installation. Route intervehicular cable towards front of trailer during removal.
- Testing the intervehicular cable harness consists of a continuity check of the individual wires contained in the harness assembly. Before disconnecting any wires, ensure that identification bands are present. For wire function and identification, refer to wiring diagram (WP 0081).

REMOVAL

1. Remove two screws (Figure 1, Items 7), washers (Figure 1, Item 8), ground wire (Figure 1, Item 9), and tiedown strap (Figure 1, Item 4) from intervehicular cable (Figure 1, Items 3). Discard tiedown strap (Figure 1, Item 4).
2. Remove two screws (Figure 1, Items 6) and retaining straps (Figure 1, Items 5) from intervehicular cable (Figure 1, Items 3).
3. Remove six electrical connectors (Figure 1, Item 11) from mounting brackets (Figure 1, Item 1).
4. Disconnect six chassis wiring harness electrical connectors (Figure 1, Item 11) from intervehicular electrical connectors (Figure 1, Item 10).
5. Remove intervehicular cable (Figure 1, Item 3) from frame assembly (Figure 1, Item 2).

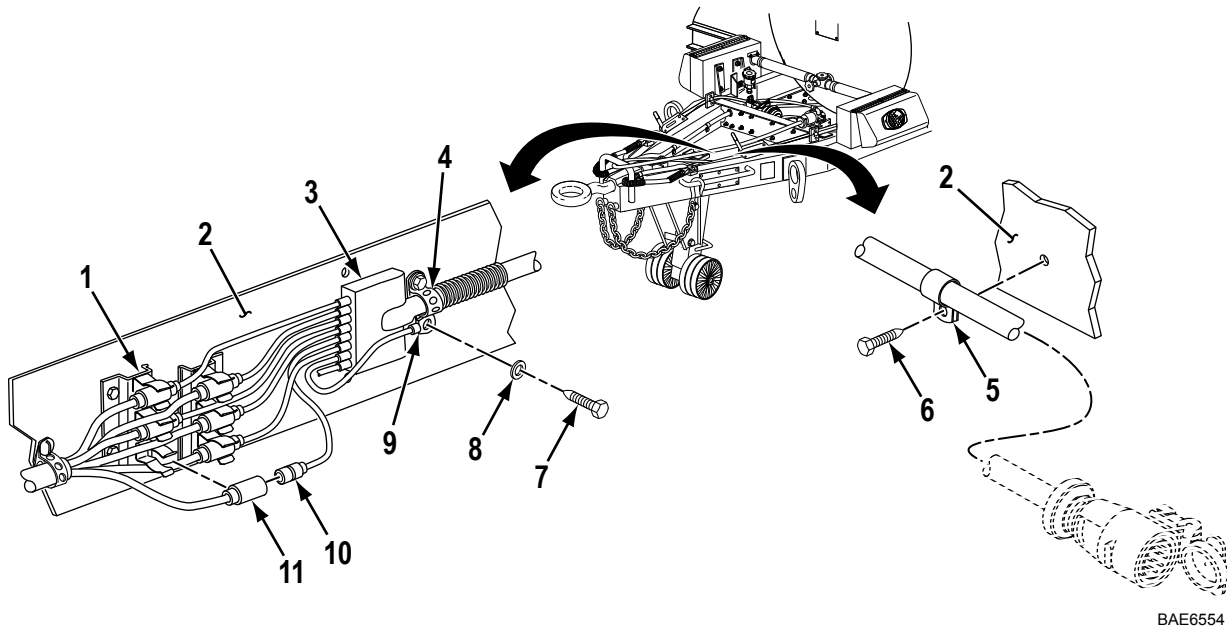


Figure 1. Intervehicular Cable Replacement.

END OF TASK**INSPECTION**

Inspect intervehicular cable (Figure 1, Item 3) for bends, breaks, missing bands, and damage. Replace missing bands (WP 0045) or intervehicular cable (Figure 1, Item 3) if any of these conditions are found.

END OF TASK

INSTALLATION**NOTE**

Intervehicular cable schematics may be used to assist with intervehicular cable installation.

1. Install intervehicular cable (Figure 1, Item 3) and ground wire (Figure 1, Item 9) on trailer frame (Figure 1, Item 2) with one new tiedown strap (Figure 1, Item 4), two screws (Figure 1, Item 7), and washers (Figure 1, Item 8).
2. Connect six intervehicular harness electrical connectors (Figure 1, Item 10) to chassis wiring harness electrical connectors (Figure 1, Item 11).
3. Secure intervehicular cable (Figure 1, Item 3) to trailer frame (Figure 1, Item 2) with two screws (Figure 1, Item 6) and retaining straps (Figure 1, Item 5) on intervehicular cable (Figure 1, Item 3).
4. Secure intervehicular harness connectors (Figure 1, Item 11) to mounting brackets (Figure 1, Item 1).

END OF TASK**FOLLOW ON TASK**

Connect intervehicular cable to Prime Mover and check for proper operation (WP 0005).

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
CROSS AXLE REPLACEMENT**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Qty: (8) (WP 0100, Figure 18, Item 17)

Materials/Parts

Nut, Self-Locking
Qty: (2) (WP 0087, Figure 5, Item 8)
Seal, Plain
Qty: (2) (WP 0087, Figure 5, Item 7)
Washer, Lock

Personnel Required

Two

Equipment Condition

Walking beam removed (WP 0048)
Shock absorbers removed (WP 0069)

WARNING

Cross axle weighs 125 lbs (57 kg). Two people are required to lift axle. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

REMOVAL

1. Remove bolt (Figure 1, Item 12), two washers (Figure 1, Item 13), clamp (Figure 1, Item 11), brake hose (Figure 1, Item 10), and self-locking nut (Figure 1, Item 15) from axle stop (Figure 1, Item 14). Discard self-locking nut (Figure 1, Item 15).
2. Remove spacer (Figure 1, Item 17), seal (Figure 1, Item 16), and axle stop (Figure 1, Item 14) from cross axle (Figure 1, Item 18). Discard seal (Figure 1, Item 16).
3. Remove screw (Figure 1, Item 7), washer (Figure 1, Item 8), and bracket (Figure 1, Item 9) with clamp (Figure 1, Item 6), and handbrake cable assembly (Figure 1, Item 5) from cross axle (Figure 1, Item 18).
4. Repeat Steps 1, 2, and 3 for the other side of the trailer.

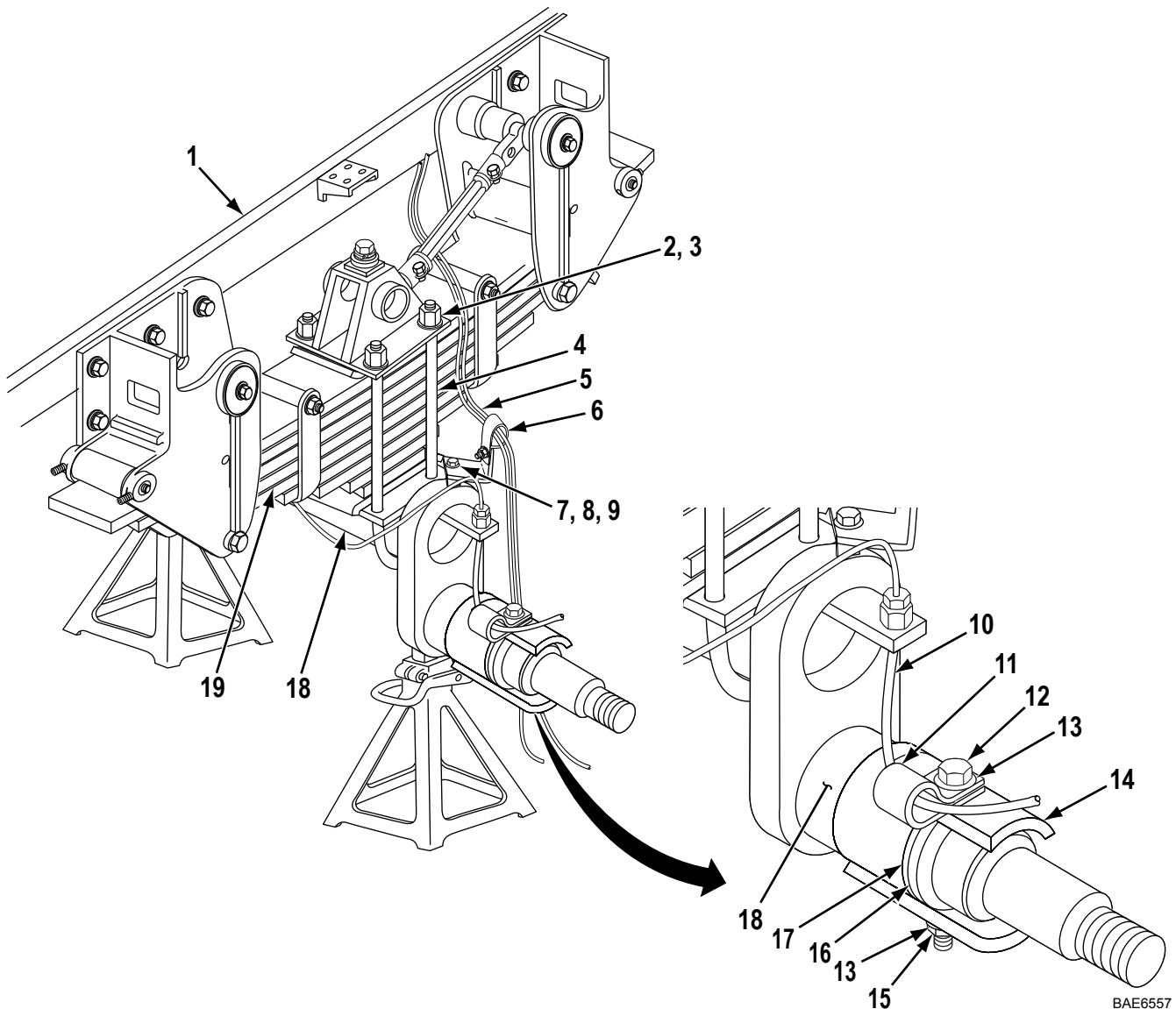


Figure 1. Cross Axle with Attaching Parts.

REMOVAL - Continued

5. Remove eight nuts (Figure 1, Item 2), lockwashers (Figure 1, Item 3), and four U-bolts (Figure 1, Item 4) from cross axle (Figure 1, Item 18). With the aid of an assistant, remove cross axle (Figure 1, Item 18) from trailer (Figure 1, Item 1). Discard lockwashers (Figure 1, Item 3).

END OF TASK**INSTALLATION**

1. With the aid of an assistant, position cross axle (Figure 1, Item 18) on suitable supports underneath trailer (Figure 1, Item 1). Align spring assembly (Figure 1, Item 19) and cross axle (Figure 1, Item 18) locators.
2. Install four U-bolts (Figure 1, Item 4) on cross axle (Figure 1, Item 18) with eight nuts (Figure 1, Item 2) and new lockwashers (Figure 1, Item 3).
3. Install bracket (Figure 1, Item 9), clamp (Figure 1, Item 6), and handbrake cable (Figure 1, Item 5) to cross axle (Figure 1, Item 18) with screw (Figure 1, Item 7), and washer (Figure 1, Item 8).
4. Install axle stop (Figure 1, Item 14), spacer (Figure 1, Item 17), and new seal (Figure 1, Item 16) on cross axle (Figure 1, Item 18).
5. Align holes in cross axle (Figure 1, Item 18) and axle stop (Figure 1, Item 14). Install bolt (Figure 1, Item 12), two washers (Figure 1, Item 13), clamp (Figure 1, Item 11), brake hose (Figure 1, Item 10), and new self-locking nut (Figure 1, Item 15).
6. Repeat Steps 3, 4, and 5 for other side of trailer.

END OF TASK**FOLLOW ON TASK**

1. Install walking beam (WP 0048).
2. Install shock absorbers (WP 0069).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE WALKING BEAM REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)
Wrench, Torque
(WP 0119, Table 1, Item 10)

Personnel Required

Two

References

WP 0049
WP 0056

Materials/Parts

Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Nut, Self-Locking (WP 0087, Figure 5, Item 10)
Plate, Retaining (WP 0087, Figure 5, Item 9)
Rag, Wiping (WP 0118, Table 1, Item 9)

Equipment Condition

Inner and outer service brakes removed
(WP 0052)
Hydraulic lines, hoses, and fittings disconnected
(WP 0054)

WARNING



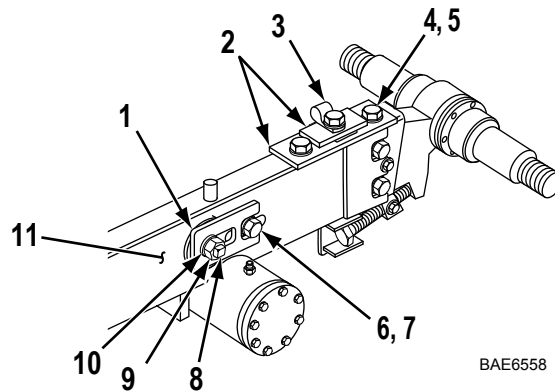
Walking beam weighs 225 lbs (102 kg). To prevent injury to personnel and damage to equipment, two people are required to remove walking beam from cross axle. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

This trailer has two walking beams. This procedure replaces one walking beam. The other walking beam is replaced the same way.

REMOVAL

1. Loosen nut (Figure 1, Item 9) on setscrew (Figure 1, Item 8). Remove setscrew (Figure 1, Item 8), washer (Figure 1, Item 10), nut (Figure 1, Item 9), and strapping (Figure 1, Item 1) from outer walking beam (Figure 1, Item 11).
2. Remove bolt (Figure 1, Item 6) and two washers (Figure 1, Item 7) from outer walking beam (Figure 1, Item 11).
3. Remove three bolts (Figure 1, Item 4), three washers (Figure 1, Item 5), clamp (Figure 1, Item 3), and two plates (Figure 1, Item 2) from outer walking beam (Figure 1, Item 11).



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Figure 1. Walking Beam Hardware Locations.

4. Remove screw (Figure 2, Item 5), washer (Figure 2, Item 6), two bolts (Figure 2, Item 4), and plate (Figure 2, Item 2) from the walking beam (Figure 2, Item 1).
5. Remove inner walking beam (Figure 2, Item 3) from outer walking beam (Figure 2, Item 1).
6. Remove bolt (Figure 2, Item 7), washer (Figure 2, Item 8), and retaining bracket (Figure 2, Item 10) from adjustment bolt (Figure 2, Item 9).
7. Remove adjustment bolt (Figure 2, Item 9) from outer walking beam (Figure 2, Item 1).
8. Remove eight screws (Figure 2, Item 11), washers (Figure 2, Item 12), and axle cover (Figure 2, Item 13) from outer walking beam (Figure 2, Item 1).

REMOVAL - Continued

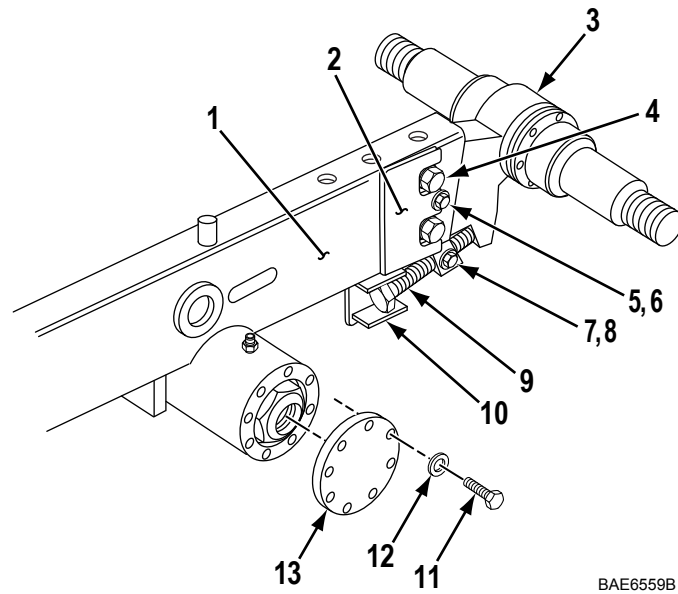


Figure 2. Walking Beam Mounting Hardware Location and Axle.

9. Remove self-locking nut (Figure 3, Item 3) from walking beam (Figure 3, Item 1). Discard self-locking nut (Figure 3, Item 3).
10. With the aid of an assistant, remove outer walking beam (Figure 3, Item 1) from trailer.
11. Remove seal (Figure 3, Item 2) from outer walking beam (Figure 3, Item 1). Discard seal (Figure 3, Item 2).

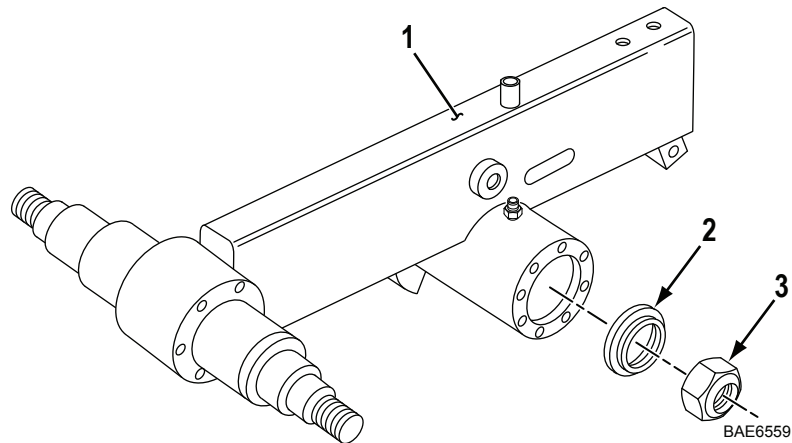


Figure 3. Walking Beam Axle.

END OF TASK

CLEANING AND INSPECTION

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

CLEANING AND INSPECTION - Continued**NOTE**

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
 - Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.
1. Clean all parts with cleaning solvent and clean dry rag.
 2. Inspect front and rear frame assemblies and outer walking beam bearings for damage. Replace any damaged parts.

END OF TASK**INSTALLATION**

1. Install new seal (Figure 4, Item 2) on outer walking beam (Figure 4, Item 1).
2. With the aid of an assistant, install outer walking beam (Figure 4, Item 1) on trailer.
3. Tighten new self-locking nut (Figure 4, Item 3) until a slight drag is felt when moving outer walking beam (Figure 4, Item 1).
4. Install axle cover (Figure 4, Item 4) on outer walking beam (Figure 4, Item 1) with eight screws (Figure 4, Item 6) and washers (Figure 4, Item 5). Torque screws (Figure 4, Item 6) to 10 lb ft (14 N·m).

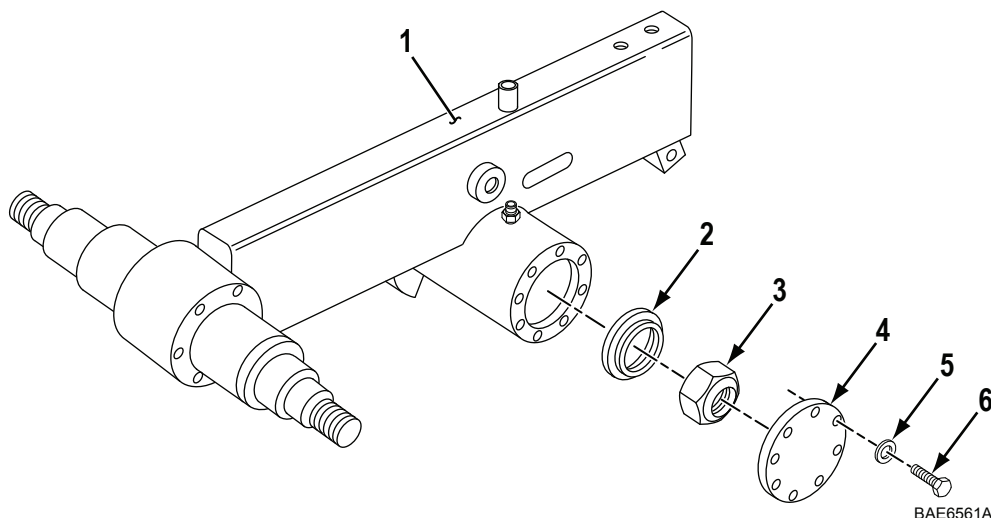
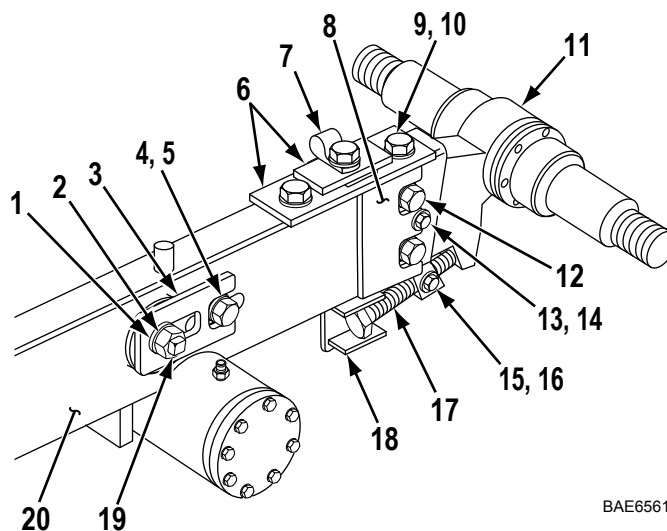


Figure 4. Walking Beam and Axle.

INSTALLATION - Continued

5. Loosely install adjustment bolt (Figure 5, Item 17) on outer walking beam (Figure 5, Item 20).
6. Install retaining bracket (Figure 5, Item 18), washer (Figure 5, Item 15), and bolt (Figure 5, Item 16) on adjustment bolt (Figure 5, Item 17).
7. Install inner walking beam (Figure 5, Item 11) in outer walking beam (Figure 5, Item 20).
8. Loosely install two bolts (Figure 5, Item 12) on outer walking beam (Figure 5, Item 20). Loosely install plate (Figure 5, Item 8), washer (Figure 5, Item 14), and bolt (Figure 5, Item 13).
9. Loosely install two plates (Figure 5, Item 6), clamp (Figure 5, Item 7), three washers (Figure 5, Item 10), and bolts (Figure 5, Item 9) on outer walking beam (Figure 5, Item 20).
10. Loosely install bolt (Figure 5, Item 4) and two washers (Figure 5, Item 5) on outer walking beam (Figure 5, Item 20).
11. Loosely install setscrew (Figure 5, Item 19), washer (Figure 5, Item 1), nut (Figure 5, Item 2), and strapping (Figure 5, Item 3) on outer walking beam (Figure 5, Item 20).



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Figure 5. Walking Beam Hardware Location and Axle Cover Plate.

END OF TASK**FOLLOW ON TASK**

1. Connect hydraulic lines, hoses, and fittings (WP 0054).
2. Assemble and adjust inner and outer service brakes (WP 0052).
3. Align walking beam (WP 0049).
4. Bleed brakes (WP 0056).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE WALKING BEAM ALIGNMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Wrench, Torque
(WP 0119, Table 1, Item 10)

Equipment Condition

Rear outer tire assembly removed (WP 0038)

ALIGNMENT

1. Raise cross axle (Figure 1, Item 17) until wheel (Figure 1, Item 6) is clear of ground. Support cross axle (Figure 1, Item 17) with suitable support. Lower and remove suitable lifting device.
2. Remove bolt (Figure 1, Item 4), clamp (Figure 1, Item 3), washer (Figure 1, Item 5), and guard (Figure 1, Item 2).
3. Loosen two bolts (Figure 1, Item 1).
4. Remove screw (Figure 1, Item 8), washer (Figure 1, Item 9), and retainer (Figure 1, Item 10).
5. Loosen two bolts (Figure 1, Item 7).
6. Remove screw (Figure 1, Item 11), washer (Figure 1, Item 12), and bracket (Figure 1, Item 14).
7. Loosen adjusting bolt (Figure 1, Item 13).
8. Loosen setscrew nut (Figure 1, Item 18) and setscrew (Figure 1, Item 16) and slide strapping (Figure 1, Item 19) forward until clear of bolt (Figure 1, Item 15).
9. Loosen bolt (Figure 1, Item 15).

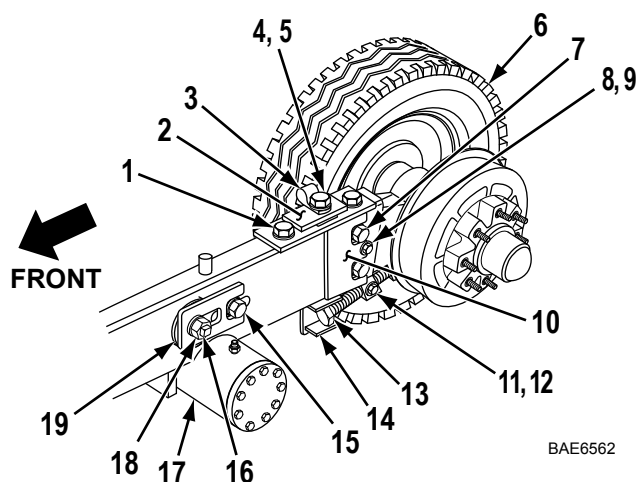


Figure 1. Walking Beam Alignment.

ALIGNMENT - Continued

10. Push rear tire (Figure 2, Item 6) towards rear of trailer until fully extended.
11. Torque bolts (Figure 2, Item 1) between 120-130 lb ft (163-176 N·m) until capscrew aligns with guard (Figure 2, Item 2).
12. Install guard (Figure 2, Item 2), clamp (Figure 2, Item 3), washer (Figure 2, Item 5), and bolt (Figure 2, Item 4).
13. Tighten bolt (Figure 2, Item 15) enough to align with strapping (Figure 2, Item 18). Slide strapping (Figure 2, Item 18) on bolt (Figure 2, Item 15).
14. Tighten setscrew (Figure 2, Item 16) enough to engage inner walking beam. Tighten setscrew nut (Figure 2, Item 17).
15. Tighten adjusting bolt (Figure 2, Item 13) enough to engage stop. Continue tightening until adjusting bolt flats align with bracket (Figure 2, Item 14).
16. Install bracket (Figure 2, Item 14), washer (Figure 2, Item 12), and screw (Figure 2, Item 11).
17. Loosely tighten two bolts (Figure 2, Item 7) enough to engage inner walking beam. Continue tightening until capscrews flats align with retainer (Figure 2, Item 10).
18. Install retainer (Figure 2, Item 10), washer (Figure 2, Item 9), and screw (Figure 2, Item 8).

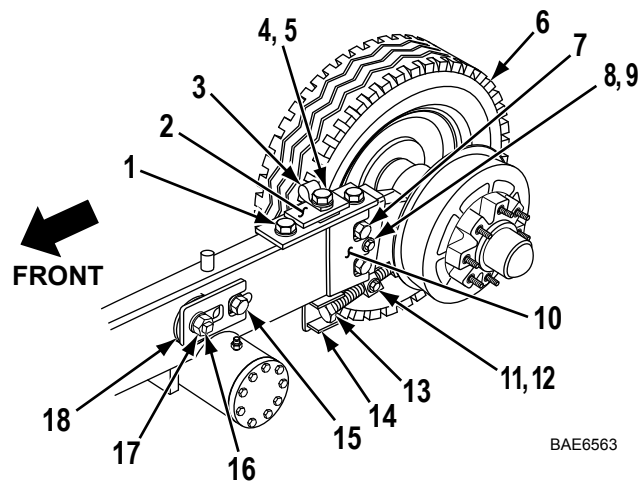


Figure 2. Walking Beam Hardware Location.

END OF TASK**FOLLOW ON TASK**

Install rear outer tire assembly (WP 0063).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE HANDBRAKE LEVER ASSEMBLY REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References

WP 0037

Equipment Condition

Trailer parked on level ground (WP 0005)

Materials/Parts

Nut, Self-Locking (WP 0089, Figure 7, Item 6)
Nut, Self-Locking (WP 0089, Figure 7, Item 18)
Pin, Cotter (WP 0089, Figure 7, Item 14)

WARNING



If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

This trailer has two handbrake lever assemblies. This procedure replaces one handbrake lever assembly. The other handbrake lever assembly is replaced the same way.

FOLLOW ON TASK

Adjust handbrake lever assembly (WP 0037).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE HANDBRAKE CABLE ASSEMBLY REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References

WP 0037

Materials/Parts

Nut, Self-Locking
Qty: (3) (WP 0089, Figure 7, Item 6)
Washer, Lock
Qty: (4) (WP 0089, Figure 7, Item 10)

Equipment Condition

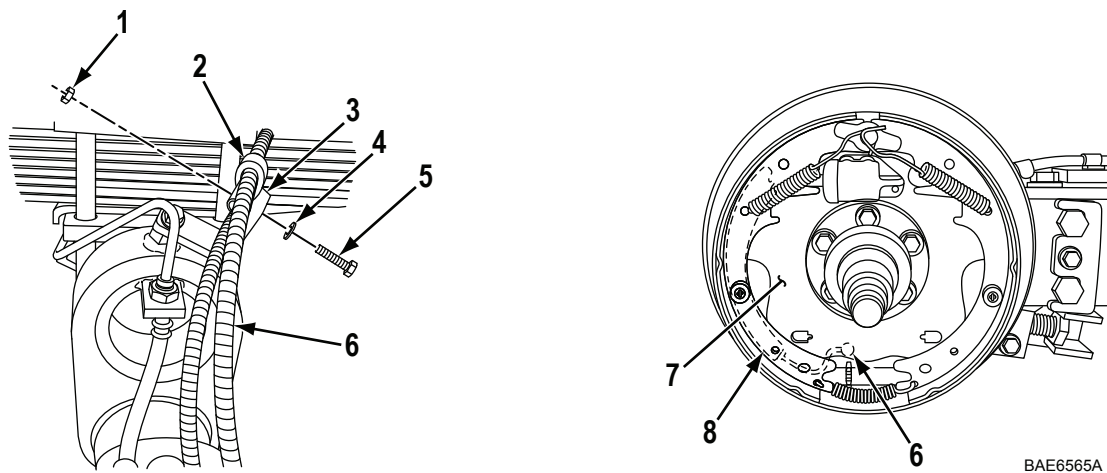
Front inner and outer brake drums removed
(WP 0062)
Cables disconnected from handbrake lever
(WP 0050)

NOTE

This trailer has two handbrake cable assemblies. This procedure replaces one handbrake cable assembly. The other handbrake cable assembly is replaced the same way.

REMOVAL

1. Remove bolt (Figure 1, Item 5), washer (Figure 1, Item 4), self-locking nut (Figure 1, Item 1), clamp (Figure 1, Item 2), and two handbrake cable assemblies (Figure 1, Item 6) from bracket (Figure 1, Item 3) on cross axle. Discard self-locking nut (Figure 1, Item 1).
2. Remove handbrake cable assembly (Figure 1, Item 6) from parking brake lever (Figure 1, Item 8) and back of backing plate (Figure 1, Item 7).



BAE6565A

Figure 1. Handbrake Cable Routing on Trailer.

REMOVAL - Continued

3. Remove two bolts (Figure 2, Item 16), washers (Figure 2, Item 15), self-locking nuts (Figure 2, Item 14), clamps (Figure 2, Item 17), and handbrake cable assemblies (Figure 2, Item 6) from trailer frame. Discard self-locking nuts (Figure 2, Item 14).
4. Remove two bolts (Figure 2, Item 12), four lockwashers (Figure 2, Item 10), two nuts (Figure 2, Item 9), brackets (Figure 2, Item 11), and handbrake cable assemblies (Figure 2, Item 6) from bracket (Figure 2, Item 13) on trailer frame. Discard lockwashers (Figure 2, Item 10).

END OF TASK**INSTALLATION**

1. Push each handbrake cable assembly (Figure 2, Item 6) through backing plate (Figure 2, Item 7) and attach handbrake cable (Figure 2, Item 6) to parking brake lever (Figure 2, Item 8).
2. Route handbrake cable assembly (Figure 2, Item 6) through frame and to bracket (Figure 2, Item 13) on trailer frame.
3. Install two handbrake cable assemblies (Figure 2, Item 6) on bracket (Figure 2, Item 13) with two brackets (Figure 2, Item 11), bolts (Figure 2, Item 12), four new lockwashers (Figure 2, Item 10), and two nuts (Figure 2, Item 9).
4. Install handbrake cable assemblies (Figure 2, Item 6) on trailer frame with clamps (Figure 2, Item 17), bolts (Figure 2, Item 16), washers (Figure 2, Item 15), and new self-locking nuts (Figure 2, Item 14).
5. Install handbrake cable assemblies (Figure 2, Item 6) to bracket (Figure 2, Item 3) on cross axle with clamp (Figure 2, Item 2), bolt (Figure 2, Item 5), washer (Figure 2, Item 4), and new self-locking nut (Figure 2, Item 1).

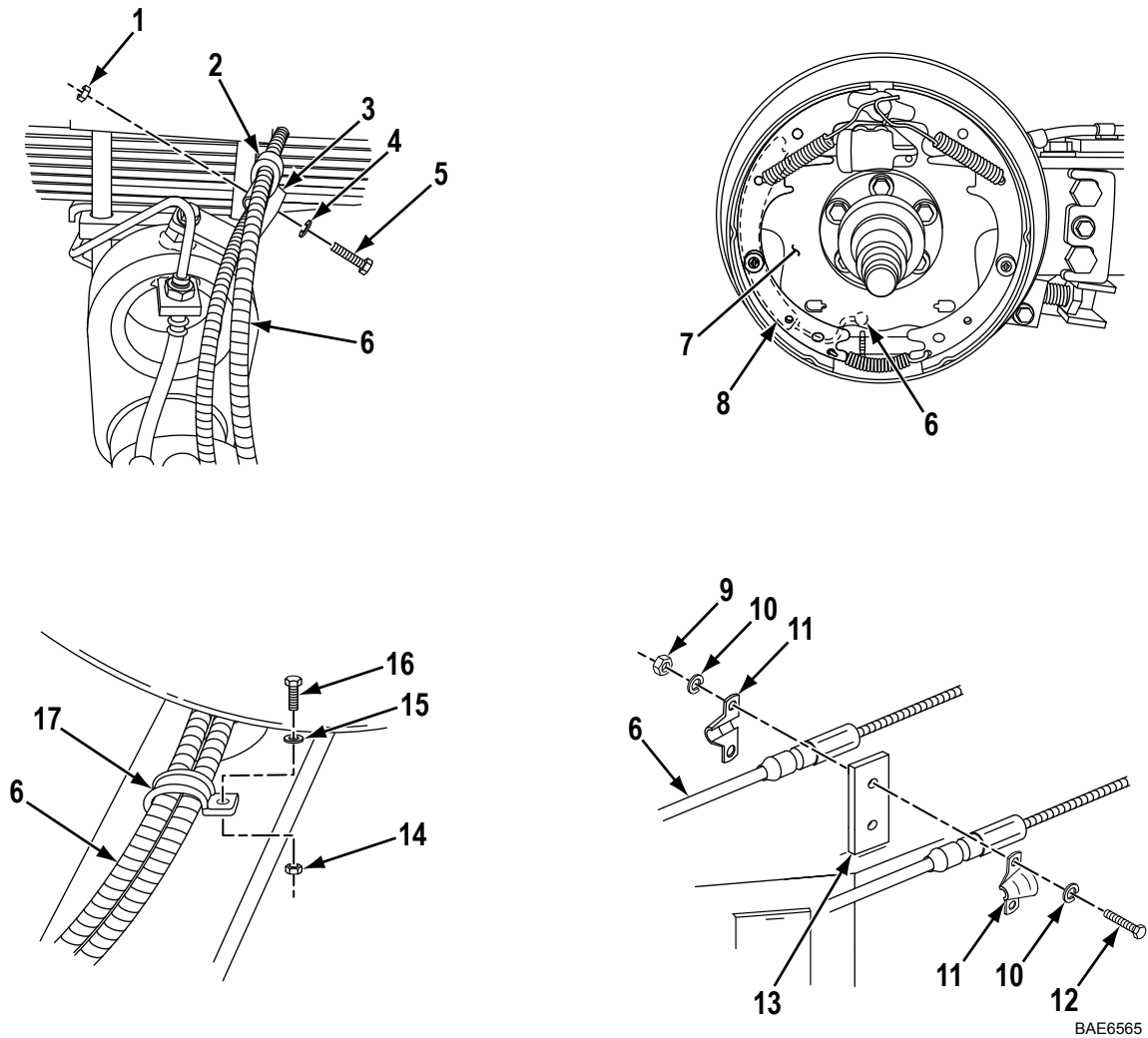
INSTALLATION - Continued

Figure 2. Handbrake Cable Routing on Trailer.

END OF TASK**FOLLOW ON TASK**

1. Install front inner and outer brake drum (WP 0062).
2. Connect cables to handbrake lever assembly (WP 0050).
3. Adjust handbrake lever assembly (WP 0037).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE BRAKE SHOE ASSEMBLY MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Adjusting Tool, Brake Shoe
(WP 0119, Table 1, Item 1)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts (cont.)

(WP 0090, Figure 8, Item 10)
Rag, Wiping (WP 0118, Table 1, Item 9)

References

WP 0050
WP 0053
WP 0056

Materials/Parts

Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Clip, Spring Tension

Equipment Condition

Brake drum removed (WP 0062)

WARNING



- DO NOT handle brake shoes, brake drums, or other brake components unless area has been properly cleaned. There may be brake dust on these components which can be dangerous if touched or inhaled. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result in serious illness or death to personnel. Seek medical attention in the event of an injury.
- Wear eye protection to prevent eye injury when working with components that could fly through the air. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

There are eight service brakes. This procedure replaces one service brake. The others are replaced the same way.

REMOVAL

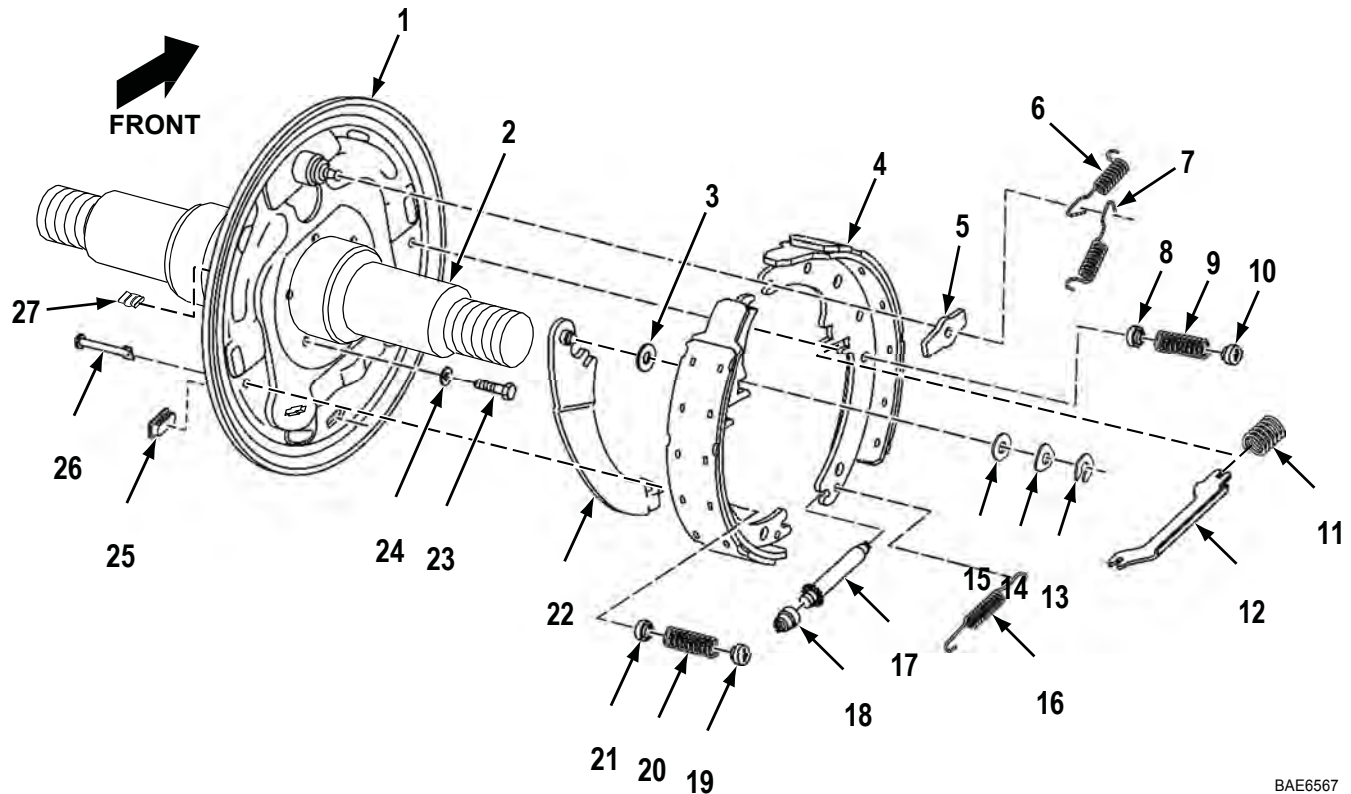
1. Remove spring (Figure 1, Item 16) from brake shoes (Figure 1, Item 4) and two springs (Figure 1, Items 6 and 7) and spacer plate (Figure 1, Item 5) from backing plate (Figure 1, Item 1).
2. To provide slack, back off adjusting screw (Figure 1, Item 17) from brake shoes (Figure 1, Item 4) a few turns.
3. Spread apart lower ends of brake shoes (Figure 1, Item 4). Remove adjusting screw (Figure 1, Item 17) and socket (Figure 1, Item 18) from brake shoes (Figure 1, Item 4).
4. Spread apart upper ends of brake shoes (Figure 1, Item 4). Remove parking brake strut (Figure 1, Item 12) and spring (Figure 1, Item 11) from brake shoes (Figure 1, Item 4).
5. While holding head of toggle pin (Figure 1, Item 26), compress spring (Figure 1, Item 9 or 20) and turn toggle pin (Figure 1, Item 26) from outside to disengage from cup (Figure 1, Item 10 or 19).
6. Remove toggle pin (Figure 1, Item 26), spring (Figure 1, Item 9 or 20), two cups (Figure 1, Items 8 and 10) or (Figure 1, Items 19 and 21), and brake shoe (Figure 1, Item 4) from backing plate (Figure 1, Item 1).
7. Remove brake shoes (Figure 1, Item 4) from backing plate (Figure 1, Item 1).
8. Repeat Step 5 for other brake shoe.
9. Remove clip (Figure 1, Item 13) from parking brake lever (Figure 1, Item 22). Remove two washers (Figure 1, Items 3 and 15), spring washer (Figure 1, Item 14), and parking brake lever (Figure 1, Item 22) from brake shoe (Figure 1, Item 4). Discard clip (Figure 1, Item 13).

NOTE

Perform Steps 9 and 10 only if backing plate needs to be removed.

10. Remove wheel cylinder (WP 0053).
11. Remove five bolts (Figure 1, Item 23), washers (Figure 1, Item 24), and backing plate (Figure 1, Item 1) from spindle (Figure 1, Item 2).
12. Remove covers (Figure 1, Items 25 and 27) from backing plate (Figure 1, Item 1).

REMOVAL - Continued



BAE6567

Figure 1. Brake Shoe Disassembly.

END OF TASK

CLEANING AND INSPECTION

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

CLEANING AND INSPECTION - Continued

WARNING

- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

- 1.
2. Clean all parts with cleaning solvent and clean dry rags.
3. Inspect all parts for damage. Replace any damaged parts.

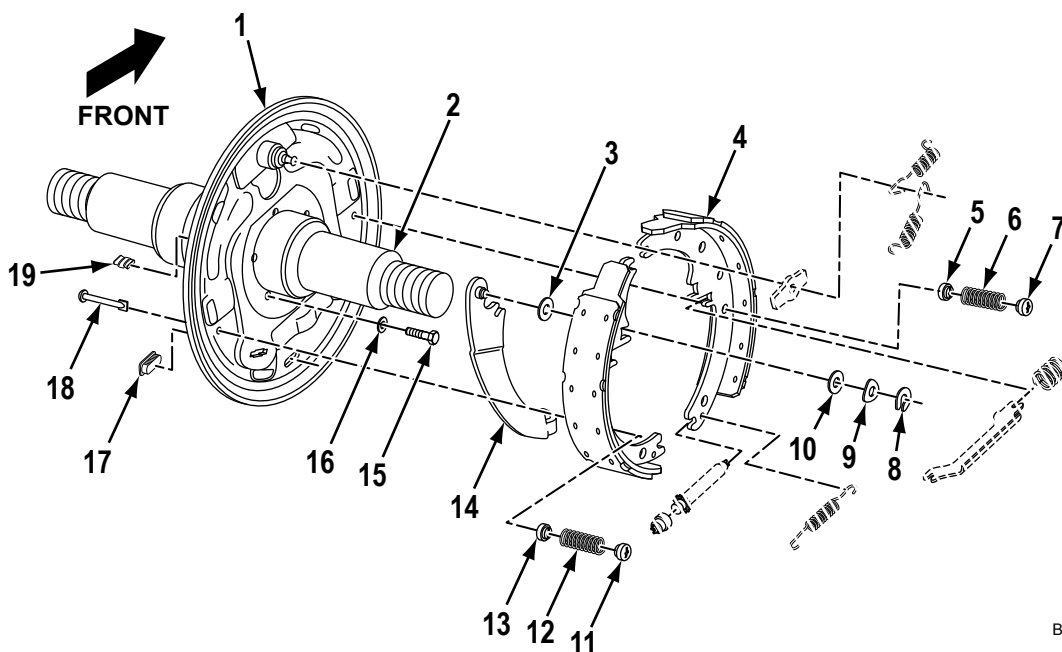
CLEANING AND INSPECTION - Continued

3. Inspect brake shoe surfaces for cracks, distortion, and excessive wear. Brake shoe linings should have a minimum thickness of 0.125 in. (3.2 mm). Replace brake shoes if cracked or if lining thickness is less than 0.125 in. (3.2 mm).

END OF TASK**INSTALLATION****NOTE**

Perform Steps 1, 2, and 3 only if backing plate was removed.

1. Install wheel cylinder (WP 0053).
2. Install covers (Figure 2, Items 17 and 19) in backing plate (Figure 2, Item 1).
3. Install new backing plate (Figure 2, Item 1) on spindle (Figure 2, Item 2) with five bolts (Figure 2, Item 15) and washers (Figure 2, Item 16).
4. Install washer (Figure 2, Item 3) and parking brake lever (Figure 2, Item 14) on brake shoe (Figure 2, Item 4) with washer (Figure 2, Item 10), spring washer (Figure 2, Item 9), and new clip (Figure 2, Item 8).
5. Position brake shoes (Figure 2, Item 4) on backing plate (Figure 2, Item 1).
6. Install toggle pin (Figure 2, Item 18), spring (Figure 2, Item 6 or 12), and two cups (Figure 2, Items 5 and 7) through brake shoes (Figure 2, Item 4).
7. Install spring (Figure 2, Item 6 or 12) and two cups (Figure 2, Items 5 and 7) or (Figure 2, Items 11 and 13) on toggle pin (Figure 2, Item 18).
8. Compress spring (Figure 2, Item 6 or 12) and turn cup (Figure 2, Item 7 or 11) until locked.
9. Repeat Steps 6 and 7 for other brake shoe.

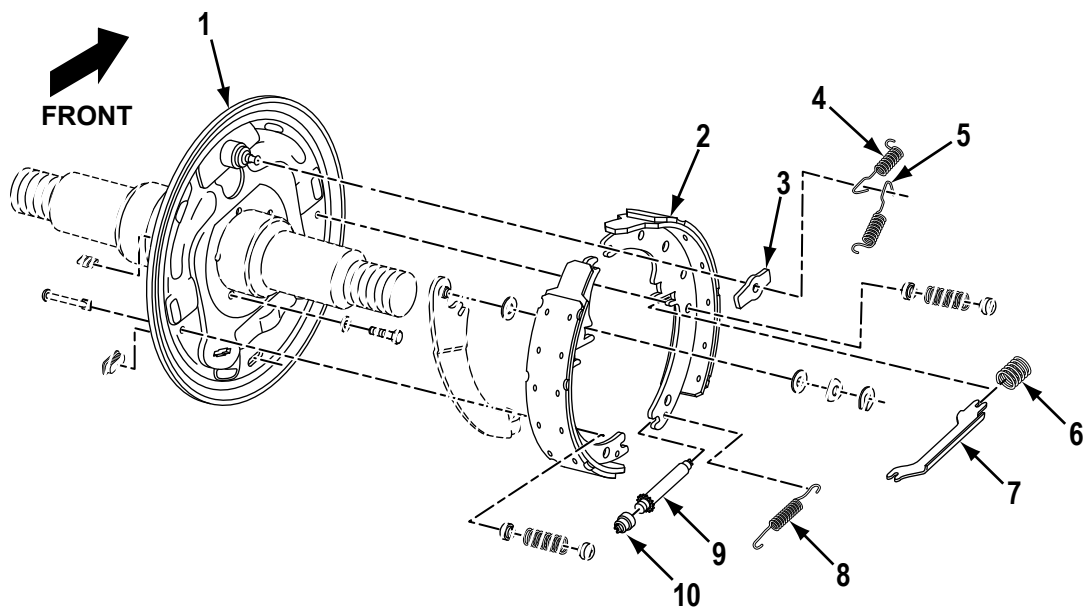


BAE6568b

Figure 2. Brake Shoe Assembly.

INSTALLATION - Continued

10. Spread apart upper ends of brake shoes (Figure 3, Item 2) and install parking brake strut (Figure 3, Item 7) and spring (Figure 3, Item 6).
11. Spread apart lower ends of brake shoes (Figure 3, Item 2) and install adjusting screw (Figure 3, Item 9) and socket (Figure 3, Item 10).
12. Position spacer plate (Figure 3, Item 3) on backing plate (Figure 3, Item 1).
13. Install three springs (Figure 3, Items 4, 5, and 8) on brake shoes (Figure 3, Item 2) and backing plate (Figure 3, Item 1).



BAE6568a

Figure 3. Brake Shoe Installation.

END OF TASK**FOLLOW ON TASK**

Install wheels (WP 0063).

END OF TASK

ADJUSTMENT**CAUTION**

To avoid damage to cross axle, make sure lifting device is placed as close as possible to suspension springs when lifting trailer. Failure to comply may result in damage to, or destruction of, equipment or mission.

1. Apply parking brake and block the wheel opposite the wheel that is being adjusted.
2. Using suitable lifting device, raise cross axle (Figure 4, Item 2) until wheels (Figure 4, Item 3) are clear of ground. Support cross axle (Figure 4, Item 2) with suitable supports. Lower and remove suitable lifting device.
3. Remove dust cover (Figure 4, Item 5) from backing plate (Figure 4, Item 1).
4. Using brakeshoe adjusting tool, adjust service brakes by turning adjusting screw (Figure 4, Item 4) until a slight drag is felt when wheel is spun.
5. Back off adjusting screw (Figure 4, Item 4) so wheel (Figure 4, Item 3) spins freely.
6. Install access cover (Figure 4, Item 5) in backing plate (Figure 4, Item 1).
7. Using suitable lifting device, raise cross axle (Figure 4, Item 2) until clear of suitable supports. Remove suitable supports and lower suitable lifting device.

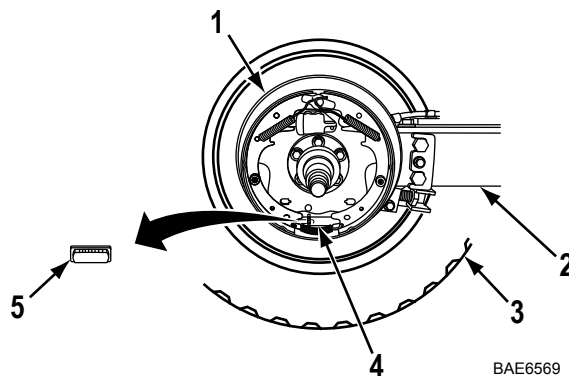


Figure 4. Servicing Points of Drum Brake.

END OF TASK**FOLLOW ON TASK**

1. Bleed brakes (WP 0056).
2. Adjust handbrake lever (WP 0050).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE WHEEL CYLINDER REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References

WP 0056

Materials/Parts

Screw
Qty: (2) (WP 0090, Figure 8, Item 2)

Equipment Condition

Service brake disassembled (WP 0052)
Brake drum removed (WP 0062)

CAUTION

All brake cylinder links must point forward. Brakes will not operate if links are not pointed forward. Failure to comply may result in damage to, or destruction of, equipment or mission.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.
- This trailer has eight wheel cylinders. This procedure replaces one inner wheel cylinder. The other wheel cylinders are replaced the same way.

REMOVAL

1. Position drain pan to catch hydraulic brake fluid.
2. Disconnect tube assembly (Figure 1, Item 5) from wheel cylinder (Figure 1, Item 2).
3. Remove bleeder valve (Figure 1, Item 4) from wheel cylinder (Figure 1, Item 2).
4. Remove two screws (Figure 1, Item 1) and wheel cylinder (Figure 1, Item 2) from backing plate (Figure 1, Item 6). Discard screws (Figure 1, Item 1).
5. Remove cylinder link (Figure 1, Item 3) from wheel cylinder (Figure 1, Item 2).

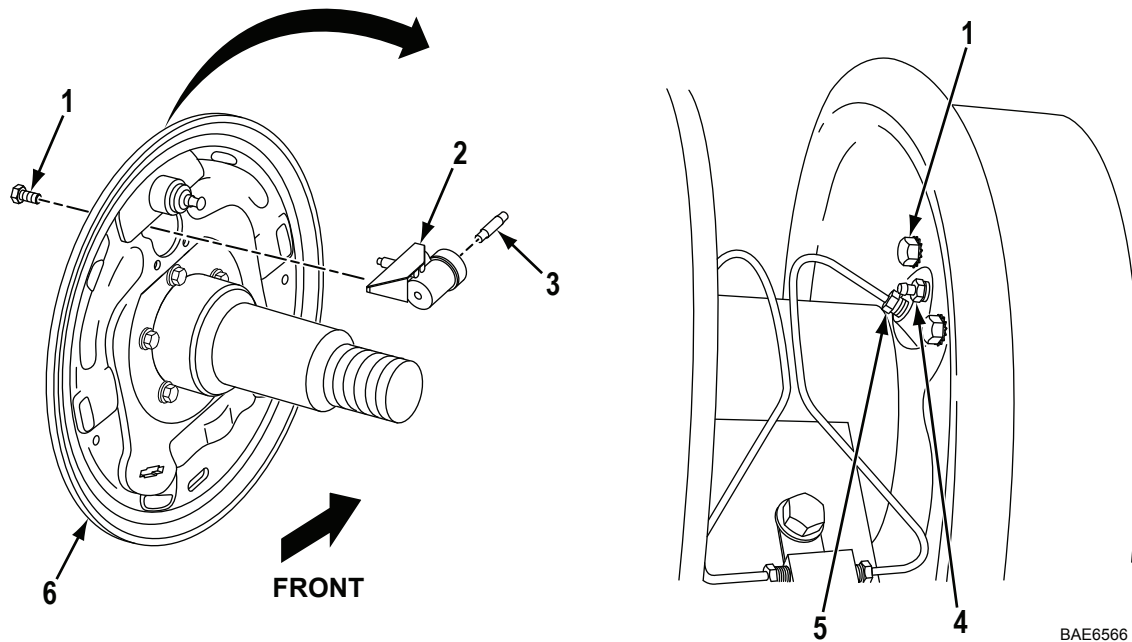


Figure 1. Brake Wheel Cylinder Replacement.

END OF TASK**INSTALLATION**

1. Install bleeder valve (Figure 1, Item 4) on wheel cylinder (Figure 1, Item 2).
2. Install cylinder link (Figure 1, Item 3) on wheel cylinder (Figure 1, Item 2).
3. Install wheel cylinder (Figure 1, Item 2) on backing plate (Figure 1, Item 6) with two new screws (Figure 1, Item 1).
4. Connect tube assembly (Figure 1, Item 5) to wheel cylinder (Figure 1, Item 2).

END OF TASK

FOLLOW ON TASK

1. Install brake shoe assembly (WP 0052).
2. Bleed brakes (WP 0056).
3. Adjust service brake (WP 0052).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE

HYDRAULIC LINES, HOSES, AND FITTINGS REPLACEMENT

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts (cont.)

Qty: (2) (WP 0091, Figure 9, Item 21)
Rag, Wiping (WP 0118, Table 1, Item 9)
Washer, Lock (WP 0091, Figure 9, Item 24)

Materials/Parts

Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Nut, Self-Locking (WP 0087, Figure 5, Item 8)
Nut, Self-Locking

References

WP 0056

Equipment Condition

Trailer parked on level ground (WP 0005)

WARNING

If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.
- This trailer has roadside and curbside hydraulic lines, hoses, and fittings. This procedure maintains one side of hydraulic lines, hoses, and fittings. The other side is maintained the same way.

REAR BRAKE LINES REMOVAL

1. Disconnect hose assembly (Figure 1, Item 2) and two cross axle tube assemblies (Figure 1, Item 1) from connector (Figure 1, Item 3).
2. Remove screw (Figure 1, Item 4), washer (Figure 1, Item 5), and connector (Figure 1, Item 3) from cross axle assembly.
3. Remove cross axle tube assembly (Figure 1, Item 1) from cross axle bracket (Figure 1, Item 8).
4. Remove plain nut (Figure 1, Item 9) and hose assembly (Figure 1, Item 6) from cross axle bracket (Figure 1, Item 8).
5. Disconnect hose assembly (Figure 1, Item 6) from tee (Figure 1, Item 13).
6. Remove self-locking nut (Figure 1, Item 12), two washers (Figure 1, Item 11), bolt (Figure 1, Item 10), clamp (Figure 1, Item 7), and hose assembly (Figure 1, Item 6) from rear axle. Discard self-locking nut (Figure 1, Item 12).

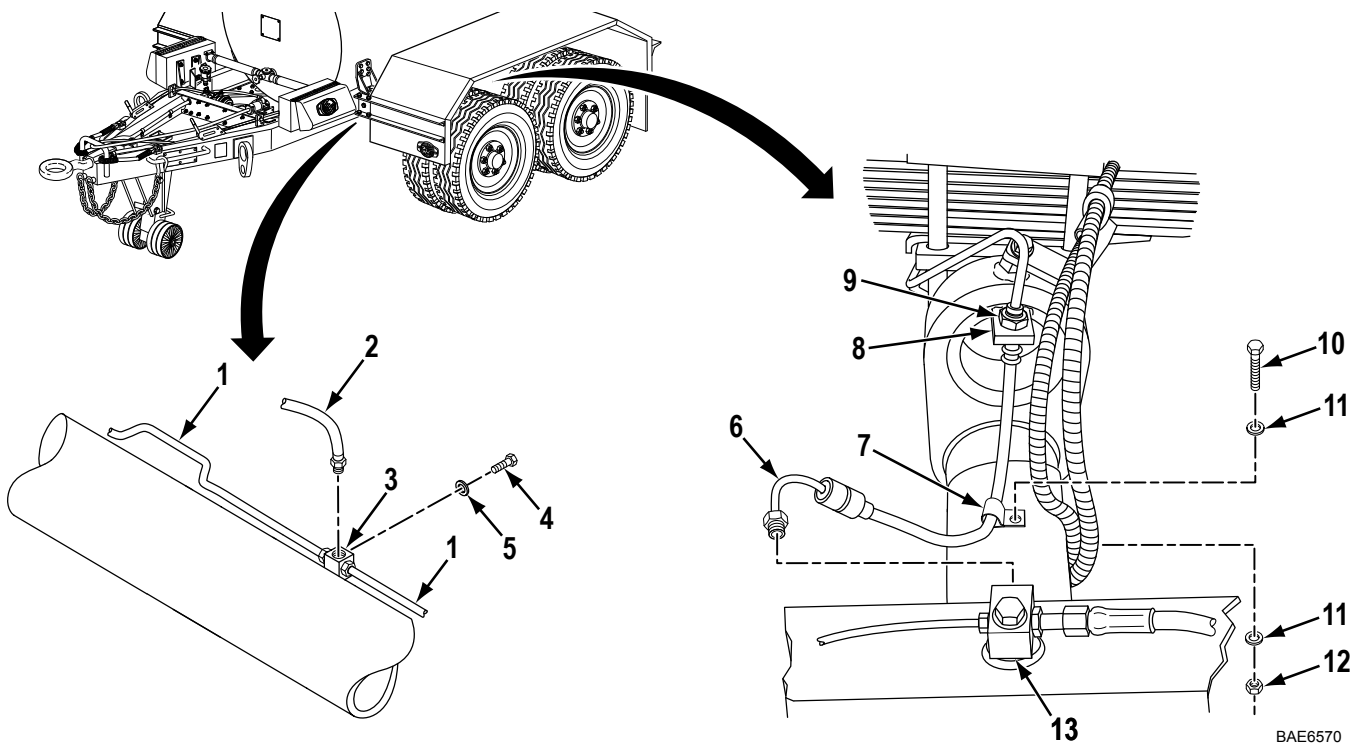
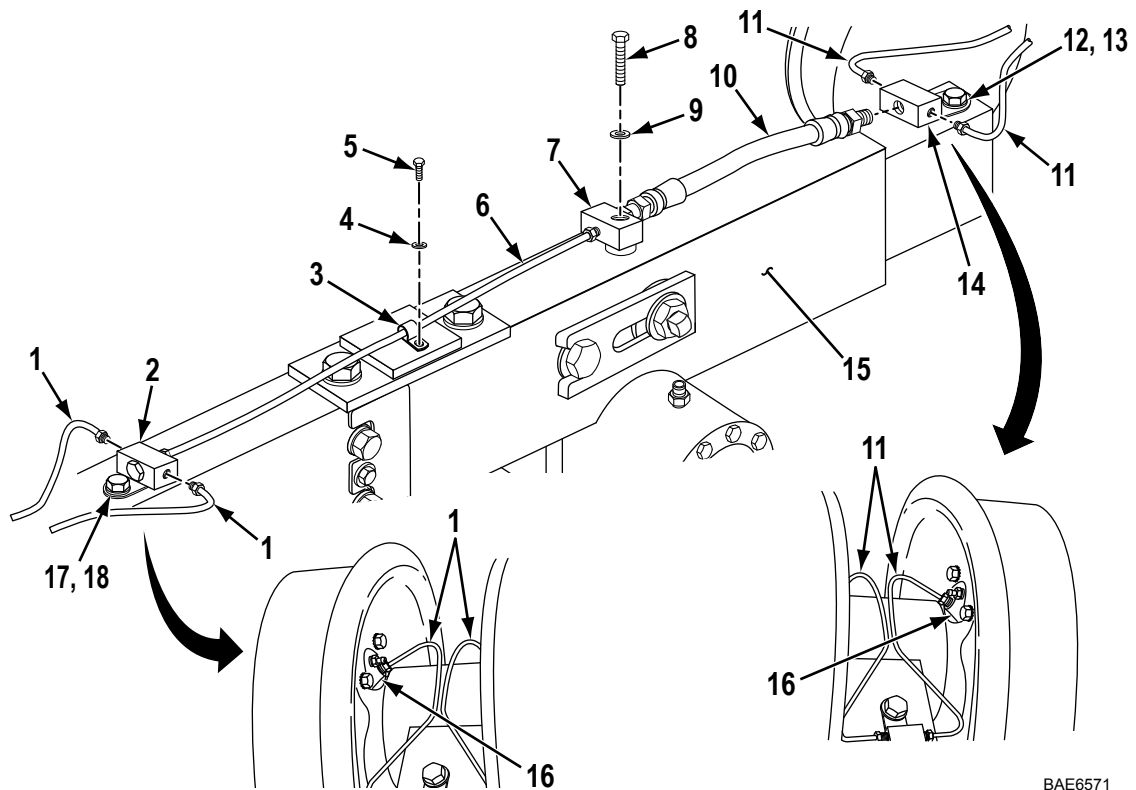


Figure 1. Hydraulic Lines Removed From Cross Axle.

7. Remove screw (Figure 2, Item 5), washer (Figure 2, Item 4), clamp (Figure 2, Item 3), and hose assembly (Figure 2, Item 6) from walking beam (Figure 2, Item 15).
8. Remove tube assembly (Figure 2, Item 6) from tee (Figure 2, Item 7) and tee (Figure 2, Item 2).
9. Remove two tube assemblies (Figure 2, Item 1) from tee (Figure 2, Item 2) and from two wheel cylinders (Figure 2, Item 16).
10. Remove screw (Figure 2, Item 17), washer (Figure 2, Item 18), and tee (Figure 2, Item 2) from walking beam (Figure 2, Item 15).
11. Remove hose assembly (Figure 2, Item 10) from tee (Figure 2, Item 14) and tee (Figure 2, Item 7).

REAR BRAKE LINES REMOVAL - Continued

12. Remove screw (Figure 2, Item 8), washer (Figure 2, Item 9), and tee (Figure 2, Item 7) from walking beam (Figure 2, Item 15).
13. Remove two tube assemblies (Figure 2, Item 11) from tee (Figure 2, Item 14) and two wheel cylinders (Figure 2, Item 16).
14. Remove screw (Figure 2, Item 12), washer (Figure 2, Item 13), and tee (Figure 2, Item 14) from walking beam (Figure 2, Item 15).



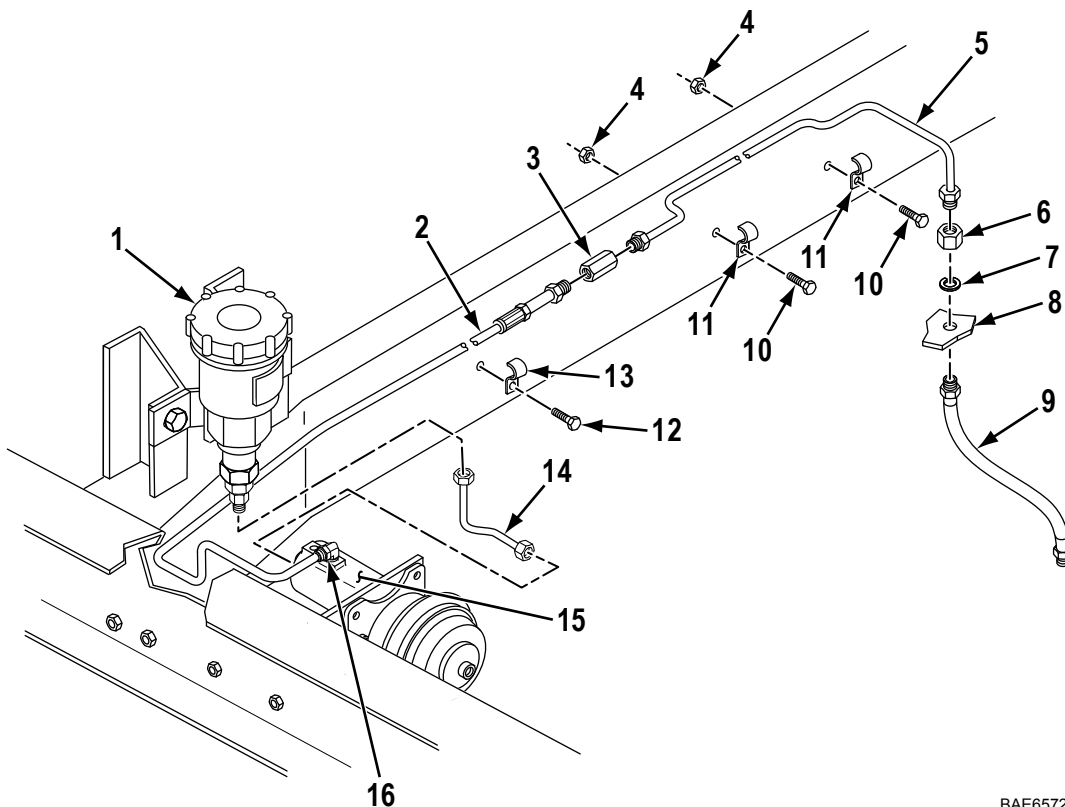
BAE6571

Figure 2. Hydraulic System Parts Removal.

END OF TASK

FRONT BRAKE LINES REMOVAL

1. Disconnect tube assembly (Figure 3, Item 5) and tube assembly (Figure 3, Item 2) from coupling (Figure 3, Item 3).
2. Disconnect tube assembly (Figure 3, Item 5) from hose assembly (Figure 3, Item 9).
3. Remove nut (Figure 3, Item 6), lockwasher (Figure 3, Item 7), and hose assembly (Figure 3, Item 9) from bracket (Figure 3, Item 8). Discard lockwasher (Figure 3, Item 7).
4. Remove two screws (Figure 3, Item 10), self-locking nuts (Figure 3, Item 4), clamps (Figure 3, Item 11), and tube assembly (Figure 3, Item 5) from frame. Discard self-locking nuts (Figure 3, Item 4).
5. Remove screw (Figure 3, Item 12) and clamp (Figure 3, Item 13) from line assembly (Figure 3, Item 2).
6. Disconnect line assembly (Figure 3, Item 2) from elbow (Figure 3, Item 16) on master cylinder (Figure 3, Item 15).
7. Disconnect hose assembly (Figure 3, Item 14) from hydraulic brake fluid reservoir (Figure 3, Item 1) and master cylinder (Figure 3, Item 15).



BAE6572

Figure 3. Hydraulic Line Removal.

END OF TASK

CLEANING AND INSPECTION**WARNING**

- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

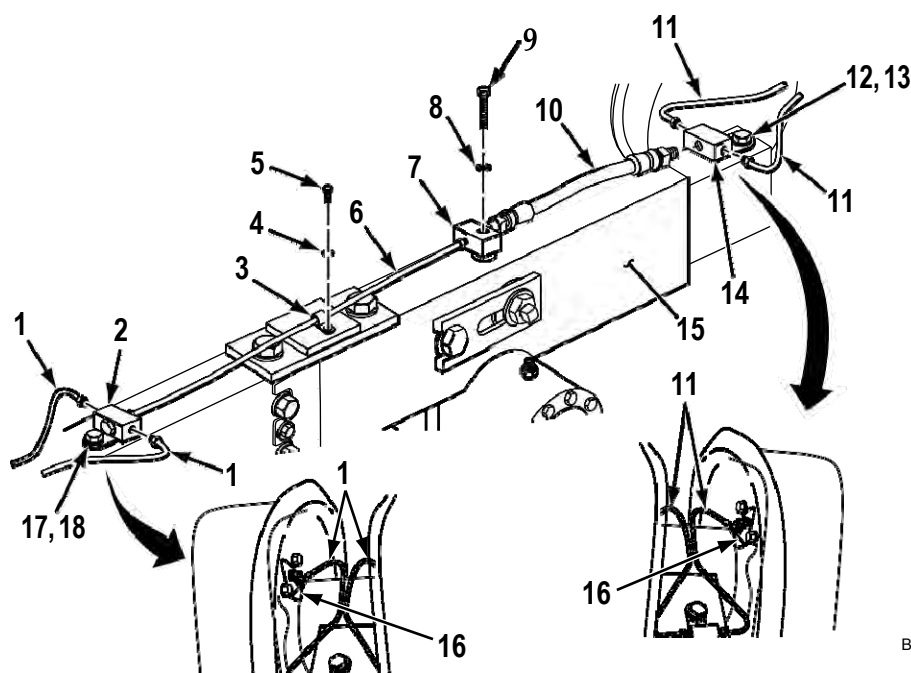
- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

CLEANING AND INSPECTION - Continued

1. Clean all parts with cleaning solvent and clean dry rag.
2. Inspect hoses, tee assembly, and connectors for damage and replace if necessary.
3. Inspect tube assemblies for cracks, breaks, bends, or damaged nuts. Replace any damaged tube assemblies, Fabricate any not available or assembled.

END OF TASK**REAR BRAKE LINE INSTALLATION**

1. Install screw (Figure 4, Item 8), washer (Figure 4, Item 9), and tee (Figure 4, Item 7) on walking beam (Figure 4, Item 15).
2. Install two tube assemblies (Figure 4, Item 11) on tee (Figure 4, Item 14) and on two wheel cylinders (Figure 4, Item 16).



BAE6572c

Figure 4. Brake Hydraulic Line Installation.

REAR BRAKE LINE INSTALLATION - Continued

3. Install screw (Figure 4, Item 13), washer (Figure 4, Item 12), and tee (Figure 4, Item 14) on walking beam (Figure 4, Item 15).
4. Install hose assembly (Figure 4, Item 10) on tee (Figure 4, Item 7) and tee (Figure 4, Item 14).
5. Install screw (Figure 4, Item 17), washer (Figure 4, Item 18), and tee (Figure 4, Item 2) on walking beam (Figure 4, Item 15).
6. Install two tube assemblies (Figure 4, Item 1) on tee (Figure 4, Item 2) and two wheel cylinders (Figure 4, Item 16).
7. Install tube assembly (Figure 4, Item 6) on tee (Figure 4, Item 7) and tee (Figure 4, Item 2).
8. Install screw (Figure 4, Item 5), washer (Figure 4, Item 4), and clamp (Figure 4, Item 3) on walking beam (Figure 4, Item 15).
9. Install new self-locking nut (Figure 5, Item 12), washers (Figure 5, Item 11), bolt (Figure 5, Item 10), clamp (Figure 5, Item 7), and hose assembly (Figure 5, Item 6) on trailer.
10. Install hose assembly (Figure 5, Item 6) on tee (Figure 5, Item 13).
11. Install plain nut (Figure 5, Item 9) and hose assembly (Figure 5, Item 6) on cross axle bracket (Figure 5, Item 8).
12. Install cross axle tube assembly (Figure 5, Item 1) on hose bracket (Figure 5, Item 8).
13. Install screw (Figure 5, Item 4), washer (Figure 5, Item 5), and connector (Figure 5, Item 3) on cross axle assembly.
14. Connect two cross axle tube assemblies (Figure 5, Item 1) and hose assembly (Figure 5, Item 2) to connector (Figure 5, Item 3).

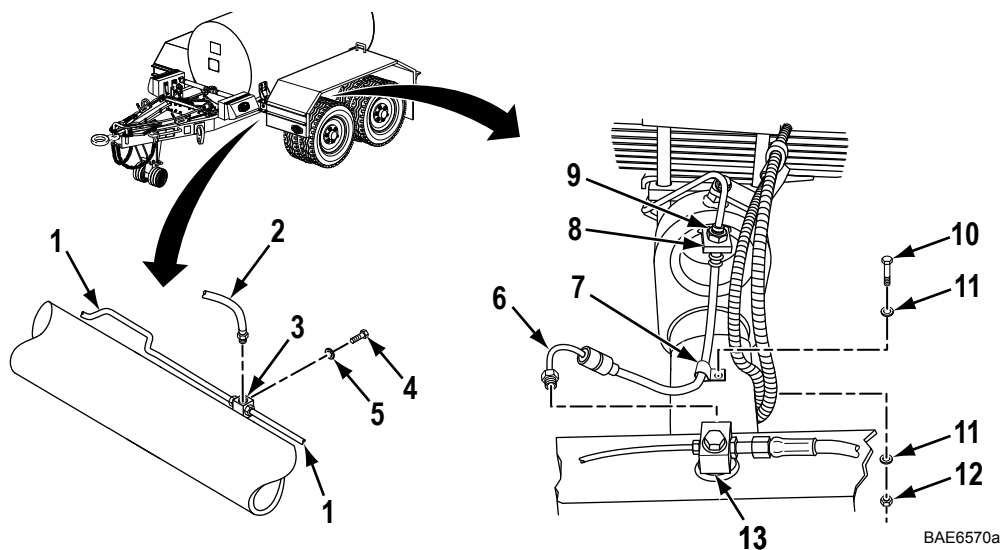


Figure 5. Hydraulic Lines to Cross Axle Installation.

END OF TASK

FRONT BRAKE LINES INSTALLATION

1. Install tube assembly (Figure 6, Item 14) on hydraulic brake fluid reservoir (Figure 6, Item 1) and master cylinder (Figure 6, Item 15).
2. Install tube assembly (Figure 6, Item 2) on elbow (Figure 6, Item 16) on master cylinder (Figure 6, Item 15).
3. Install clamp (Figure 6, Item 13) and screw (Figure 6, Item 12) on tube (Figure 6, Item 2).
4. Install two screws (Figure 6, Item 10), new self-locking nuts (Figure 6, Item 4), clamps (Figure 6, Item 11), and tube assembly (Figure 6, Item 5) on frame.
5. Install nut (Figure 6, Item 6), new lockwasher (Figure 6, Item 7), and hose assembly (Figure 6, Item 9) on bracket (Figure 6, Item 8).
6. Install tube assembly (Figure 6, Item 5) on hose assembly (Figure 6, Item 9).
7. Install tube assembly (Figure 6, Item 5) and tube assembly (Figure 6, Item 2) to coupling (Figure 6, Item 3).

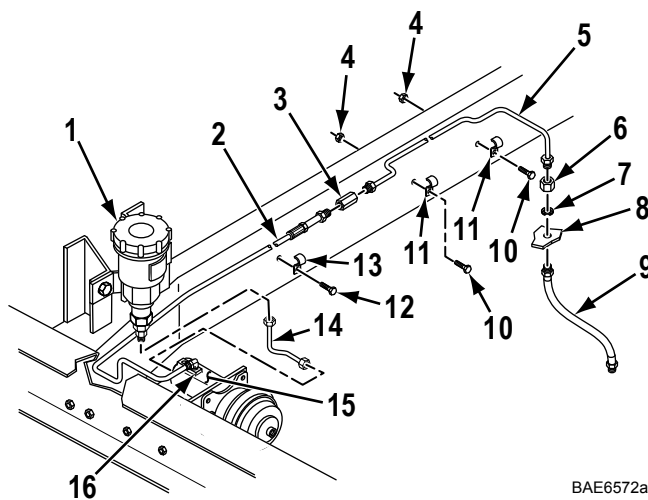


Figure 6. Hydraulic System Parts and Line Routing Installation.

END OF TASK**FOLLOW ON TASK**

Bleed brakes (WP 0056).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE HYDRAULIC FLUID RESERVOIR REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References

WP 0079

Materials/Parts

Nut, Self-Locking
Qty: (2) (WP 0091, Figure 9, Item 18)

Equipment Condition

Air reservoir drain valve opened (WP 0035)
Trailer parked on level ground (WP 0005)

WARNING



If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

REMOVAL

1. Disconnect tube assembly (Figure 1, Item 3) from hydraulic reservoir (Figure 1, Item 2).
2. Remove two bolts (Figure 1, Item 4), self-locking nuts (Figure 1, Item 5), and hydraulic fluid reservoir (Figure 1, Item 2) from bracket (Figure 1, Item 1). Discard self-locking nuts (Figure 1, Item 5).

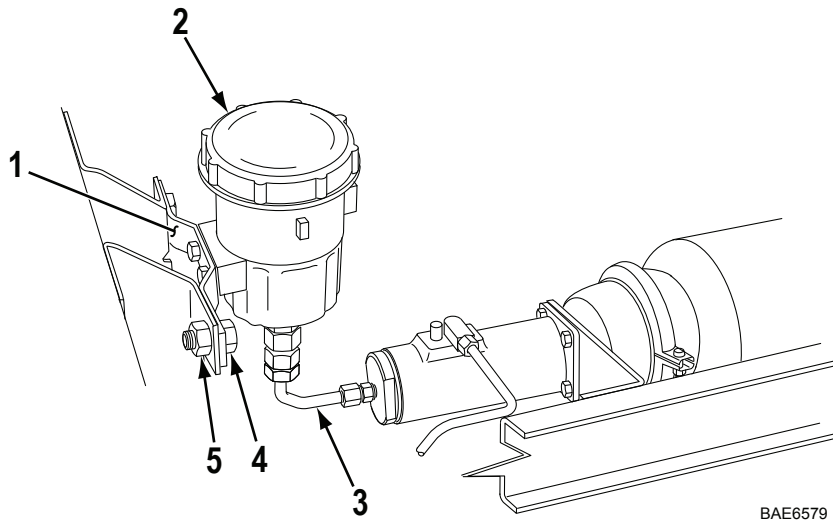


Figure 1. Hydraulic Reservoir Replacement.

END OF TASK**INSTALLATION**

1. Install hydraulic fluid reservoir (Figure 1, Item 2) on bracket (Figure 1, Item 1) and secure with two bolts (Figure 1, Item 4) and new self-locking nuts (Figure 1, Item 5).
2. Install tube assembly (Figure 1, Item 3) on hydraulic reservoir (Figure 1, Item 2).

END OF TASK**FOLLOW ON TASK**

1. Bleed brakes (WP 0056).
2. Close air reservoir drain valve (WP 0035).

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
BLEEDING HYDRAULIC BRAKE SYSTEM**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts

Brake Fluid, Automotive
(WP 0118, Table 1, Item 2)
Cleaning Compound, Solvent

Materials/Parts (cont.)

(WP 0118, Table 1, Item 4)
Rag, Wiping (WP 0118, Table 1, Item 9)

Personnel Required

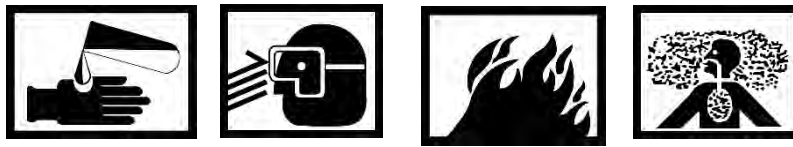
Two

Equipment Condition

Trailer coupled (WP 0005)

WARNING

If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

WARNING

- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.
- The trailer has one master cylinder and eight wheel cylinders.
- The master cylinder reservoir must be kept full during bleeding procedures to prevent air from entering the hydraulic system.

BLEEDING HYDRAULIC BRAKE SYSTEM

1. Clean bleeder valve (Figure 1, Item 1) with cleaning solvent and rags.
2. Install one end of plastic tube over bleeder valve (Figure 1, Item 1). Place free end of plastic tube in clean, one quart or one liter size container.
3. Fill one quart container half full with hydraulic brake fluid. Make sure free end of plastic tube is below the level of hydraulic brake fluid in one quart or one liter size container.
4. With the aid of an assistant, apply Prime Mover vehicle brakes.

NOTE

Air coming out of plastic tube will show up as bubbles in hydraulic brake fluid.

5. Open bleeder valve (Figure 1, Item 1) to release air from the hydraulic brake system.

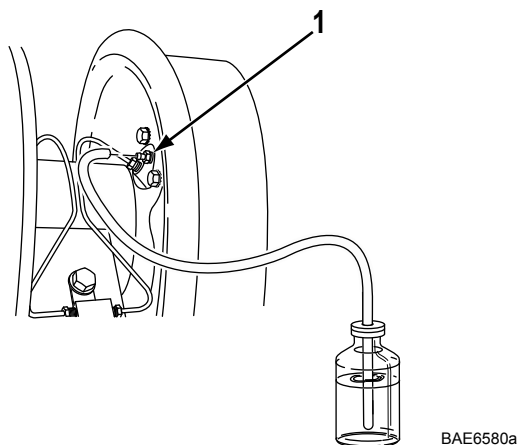


Figure 1. Bleeding Hydraulic Brake System.

BLEEDING HYDRAULIC BRAKE SYSTEM - Continued**NOTE**

Prime Mover brakes must be applied and released until all bubbles cease to come from plastic tube.

6. Close bleeder valve (Figure 2, Item 1) when bubbles cease and release Prime Mover brakes.
7. Repeat Steps 1 through 6 for each wheel cylinder, starting with the wheel farthest from master cylinder.
8. Verify hydraulic brake fluid level in reservoir is filled to the proper level.

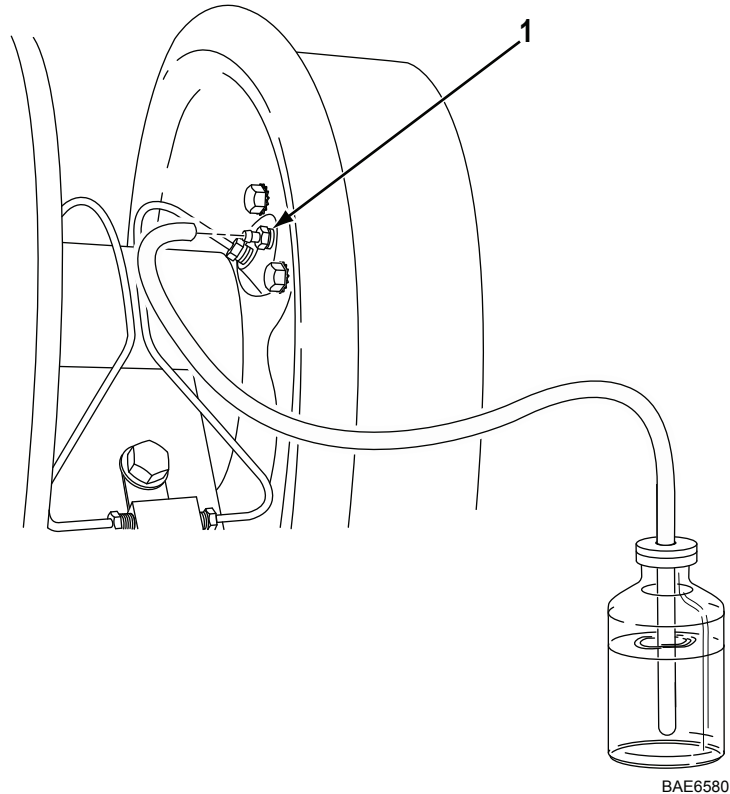


Figure 2. Hydraulic Brake System.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

MASTER CYLINDER AND AIRBRAKE CHAMBER REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

References

WP 0056

Materials/Parts

Nut, Self-Locking
Qty: (4) (WP 0092, Figure 10, Item 6)
Washer, Lock
Qty: (2) (WP 0092, Figure 10, Item 7)

Equipment Condition

Trailer parked on level ground (WP 0005)
Air reservoir drain valve opened (WP 0035)

WARNING



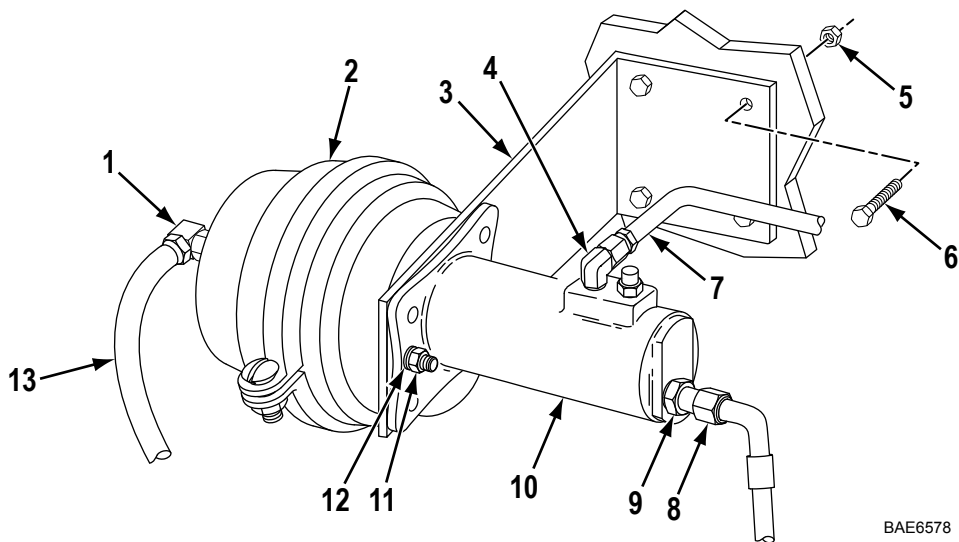
If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

REMOVAL

1. Disconnect tube assembly (Figure 1, Item 7) from elbow (Figure 1, Item 4) on master cylinder (Figure 1, Item 10).
2. Disconnect tube assembly (Figure 1, Item 8) from adapter (Figure 1, Item 9) on master cylinder (Figure 1, Item 10).
3. Disconnect tube assembly (Figure 1, Item 13) from elbow (Figure 1, Item 1) on airbrake chamber (Figure 1, Item 2).
4. Remove four bolts (Figure 1, Item 6), self-locking nuts (Figure 1, Item 5), and bracket (Figure 1, Item 3) with airbrake chamber (Figure 1, Item 2) and master cylinder (Figure 1, Item 10) from trailer. Discard self-locking nuts (Figure 1, Item 5).
5. Remove two nuts (Figure 1, Item 11), lockwashers (Figure 1, Item 12), airbrake chamber (Figure 1, Item 2), and master cylinder (Figure 1, Item 10) from bracket (Figure 1, Item 3). Discard lockwashers (Figure 1, Item 12).
6. Remove elbows (Figure 1, Items 1 and 4) from airbrake chamber (Figure 1, Item 2) and master cylinder (Figure 1, Item 10).
7. Remove adapter (Figure 1, Item 9) from master cylinder (Figure 1, Item 10).



BAE6578

Figure 1. Master Cylinder and Airbrake Chamber Replacement.

END OF TASK

INSTALLATION

1. Install adapter (Figure 1, Item 9) to master cylinder (Figure 1, Item 10).
2. Install elbows (Figure 1, Items 1 and 4) on airbrake chamber (Figure 1, Item 2) and master cylinder (Figure 1, Item 10).
3. Install airbrake chamber (Figure 1, Item 2) and master cylinder (Figure 1, Item 10) on bracket (Figure 1, Item 3) with two nuts (Figure 1, Item 11) and new lockwashers (Figure 1, Item 12).
4. Install bracket (Figure 1, Item 3) with airbrake chamber (Figure 1, Item 2) and master cylinder (Figure 1, Item 10) with four bolts (Figure 1, Item 6) and new self-locking nuts (Figure 1, Item 5).
5. Connect tube assembly (Figure 1, Item 13) to elbow (Figure 1, Item 1) on airbrake chamber (Figure 1, Item 2).
6. Connect tube assembly (Figure 1, Item 7) to elbow (Figure 1, Item 4) on master cylinder (Figure 1, Item 10).
7. Connect tube assembly (Figure 1, Item 8) to adapter (Figure 1, Item 9) on master cylinder (Figure 1, Item 10).

END OF TASK**FOLLOW ON TASK**

1. Close air reservoir drain valve (WP 0035).
2. Bleed brakes (WP 0056).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE AIR LINES, HOSES, AND FITTINGS REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Equipment Condition

Air reservoir drain valve opened (WP 0035)

Materials/Parts

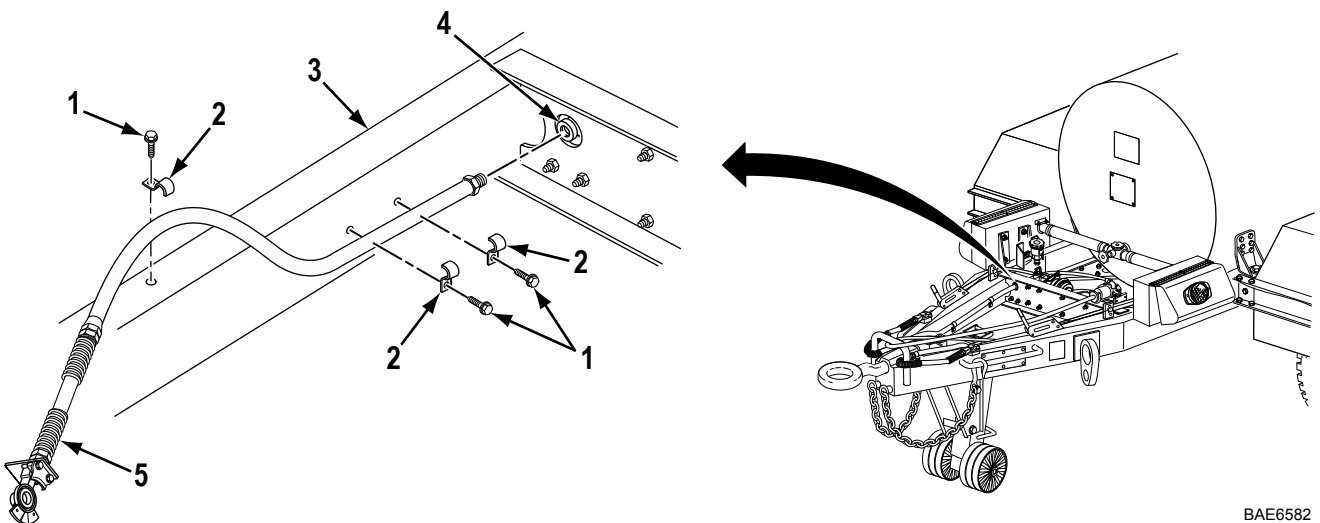
Insert, Tube Fitting (WP 0093, Figure 11, Item 2)

REMOVAL

NOTE

Service and Emergency air lines are replaced the same way. Steps 1 and 2 are for the Service air line.

1. Remove three self-tapping screws (Figure 1, Item 1), clamps (Figure 1, Item 2), and air hose assembly (Figure 1, Item 5) from trailer frame (Figure 1, Item 3).
2. Remove air hose assembly (Figure 1, Item 5) from air filter assembly (Figure 1, Item 4).

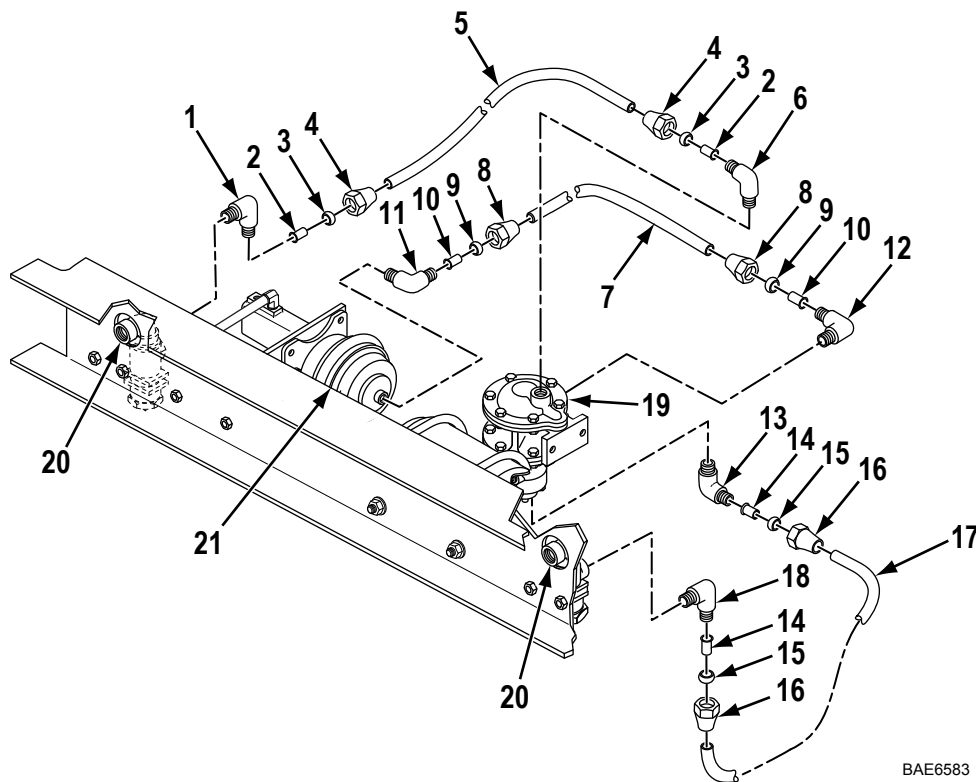


BAE6582

Figure 1. Service and Emergency Air Lines Removal.

REMOVAL - Continued

3. Loosen two nuts (Figure 2, Item 4) on tube assembly (Figure 2, Item 5) from fittings (Figure 2, Items 1 and 6) and remove two inserts (Figure 2, Item 2), sleeves (Figure 2, Item 3), and nuts (Figure 2, Item 4) from tube assembly (Figure 2, Item 5). Discard inserts (Figure 2, Item 2).
4. Loosen two nuts (Figure 2, Item 8) on tube assembly (Figure 2, Item 7) from two fittings (Figure 2, Items 11 and 12) and remove two inserts (Figure 2, Item 10), sleeves (Figure 2, Item 9), and nuts (Figure 2, Item 8) from tube assembly (Figure 2, Item 7). Discard inserts (Figure 2, Item 10).
5. Loosen two nuts (Figure 2, Item 16) on tube assembly (Figure 2, Item 17) from two fittings (Figure 2, Items 13 and 18) and remove two inserts (Figure 2, Item 14), sleeves (Figure 2, Item 15), and nuts (Figure 2, Item 16) from tube assembly (Figure 2, Item 17). Discard inserts (Figure 2, Item 14).
6. Remove three fittings (Figure 2, Items 6, 12, and 13) from relay valve (Figure 2, Item 19).
7. Remove two fittings (Figure 2, Items 1 and 18) from air filters (Figure 2, Item 20).
8. Remove fitting (Figure 2, Item 11) from brake chamber (Figure 2, Item 21).



BAE6583

Figure 2. Brake Air Lines and Brake Removal.

END OF TASK**INSTALLATION**

1. Install fitting (Figure 2, Item 11) on brake chamber (Figure 2, Item 21).
2. Install two fittings (Figure 2, Items 1 and 18) on air filters (Figure 2, Item 20).
3. Install three fittings (Figure 2, Items 6, 12, and 13) on relay valve (Figure 2, Item 19).

INSTALLATION - Continued

4. Install two nuts (Figure 2, Item 16), new inserts (Figure 2, Item 14), and sleeves (Figure 2, Item 15) on tube assembly (Figure 2, Item 17).
5. Install tube assembly (Figure 2, Item 17) with two nuts (Figure 2, Item 16) on fittings (Figure 2, Items 13 and 18).
6. Install two nuts (Figure 2, Item 8), new inserts (Figure 2, Item 10), and sleeves (Figure 2, Item 9) on tube assembly (Figure 2, Item 7).
7. Install tube assembly (Figure 2, Item 7) with two nuts (Figure 2, Item 8) on fittings (Figure 2, Items 11 and 12).
8. Install two nuts (Figure 2, Item 4), new inserts (Figure 2, Item 2), and sleeves (Figure 2, Item 3) on tube assembly (Figure 2, Item 5).
9. Install tube assembly (Figure 2, Item 5) with two nuts (Figure 2, Item 4) on fittings (Figure 2, Items 1 and 6).

NOTE

Service and Emergency air lines are replaced the same way. Steps 8 and 9 are for the Service air line.

10. Install air hose assembly (Figure 3, Item 5) on air filter assembly (Figure 3, Item 4).
11. Install air hose assembly (Figure 3, Item 5) on trailer frame (Figure 3, Item 3) with three self-tapping screws (Figure 3, Item 1) and clamps (Figure 3, Item 2).

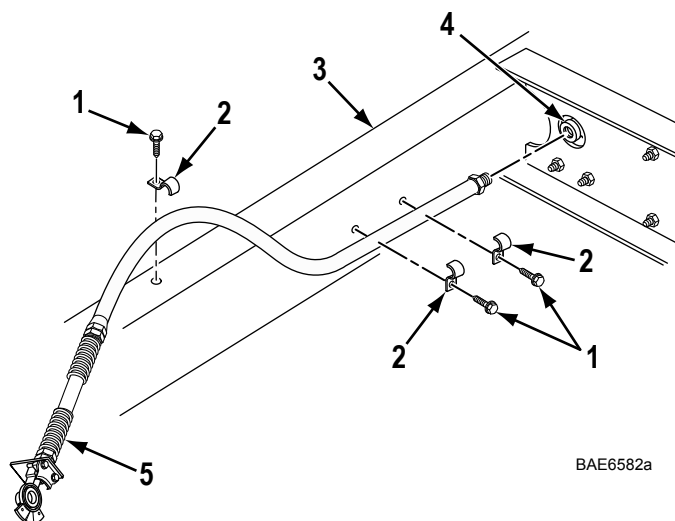


Figure 3. Brake Air Lines Installation.

END OF TASK**FOLLOW ON TASK**

Close air reservoir drain valve (WP 0035).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE RELAY VALVE REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Equipment Condition

Trailer parked on level ground (WP 0005)
Disconnect air lines and fittings from relay valve
(WP 0058)

Materials/Parts

Tape, Antiseizing (WP 0118, Table 1, Item 13)

REMOVAL

1. Remove relay valve (Figure 1, Item 3) and nipple (Figure 1, Item 2) from air reservoir (Figure 1, Item 1).
2. Remove nipple (Figure 1, Item 2) from relay valve (Figure 1, Item 3).

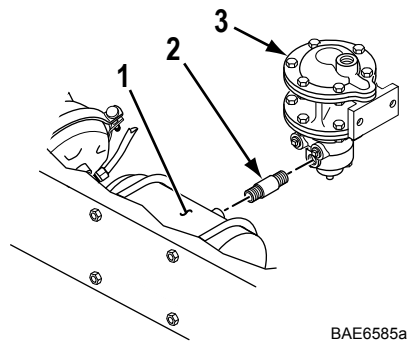


Figure 1. Relay Valve and Air Reservoir Tank Lines Removal.

END OF TASK

INSTALLATION

1. Apply antiseize tape to nipple (Figure 2, Item 2) and install nipple (Figure 2, Item 2) in relay valve (Figure 2, Item 3).
2. Apply antiseize tape to other end of nipple (Figure 2, Item 2) and install nipple (Figure 2, Item 2) and relay valve (Figure 2, Item 3) on air reservoir (Figure 2, Item 1).

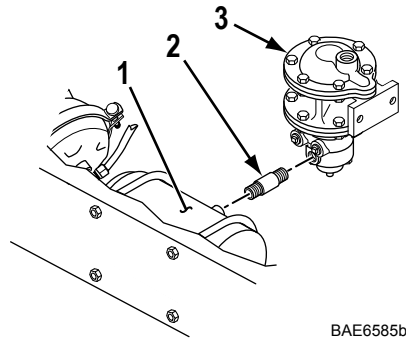


Figure 2. Relay Valve and Air Reservoir Tank Lines Installation.

END OF TASK**FOLLOW ON TASK**

Connect air lines and fittings to relay valve (WP 0058).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE
AIR RESERVOIR REPLACEMENT

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Qty: (4) (WP 0093, Figure 11, Item 10)

Materials/Parts

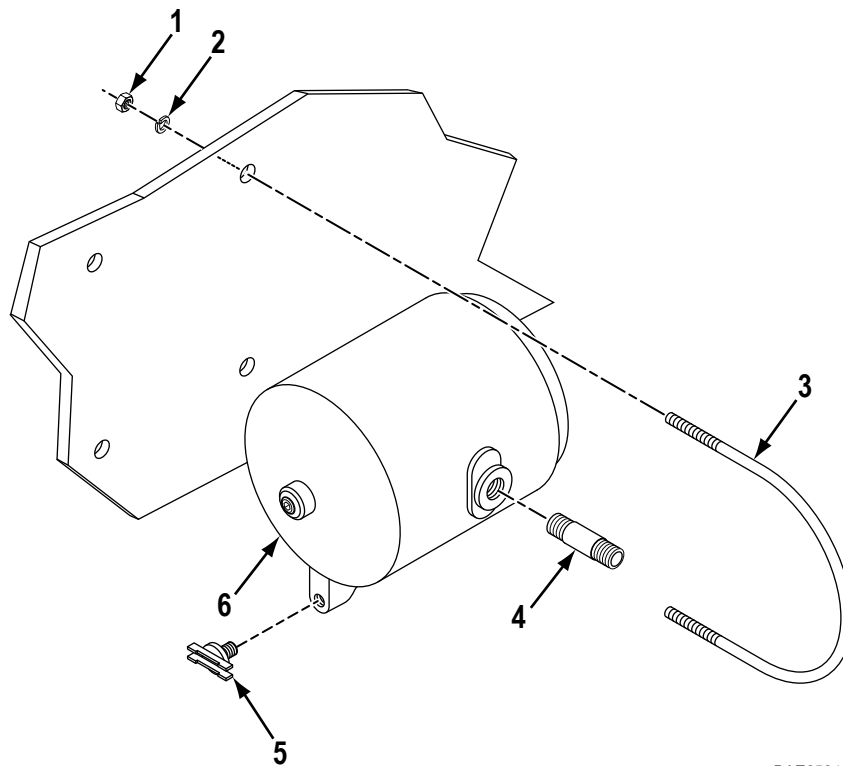
Washer, Lock

Equipment Condition

Relay valve removed (WP 0059)

REMOVAL

1. Remove four nuts (Figure 1, Item 1), lockwashers (Figure 1, Item 2), two U-bolts (Figure 1, Item 3), and air reservoir (Figure 1, Item 6) from trailer. Discard lockwashers (Figure 1, Item 2).
2. Remove drain valve (Figure 1, Item 5) and nipple (Figure 1, Item 4) from air reservoir (Figure 1, Item 6).



BAE6584

Figure 1. Air Reservoir Tank and Fittings Removal.

END OF TASK

INSTALLATION

1. Install drain valve (Figure 2, Item 5) and nipple (Figure 2, Item 4) in air reservoir (Figure 2, Item 6).
2. Install air reservoir (Figure 2, Item 6) on trailer with two U-bolts (Figure 2, Item 3), four new lockwashers (Figure 2, Item 2), and nuts (Figure 2, Item 1).

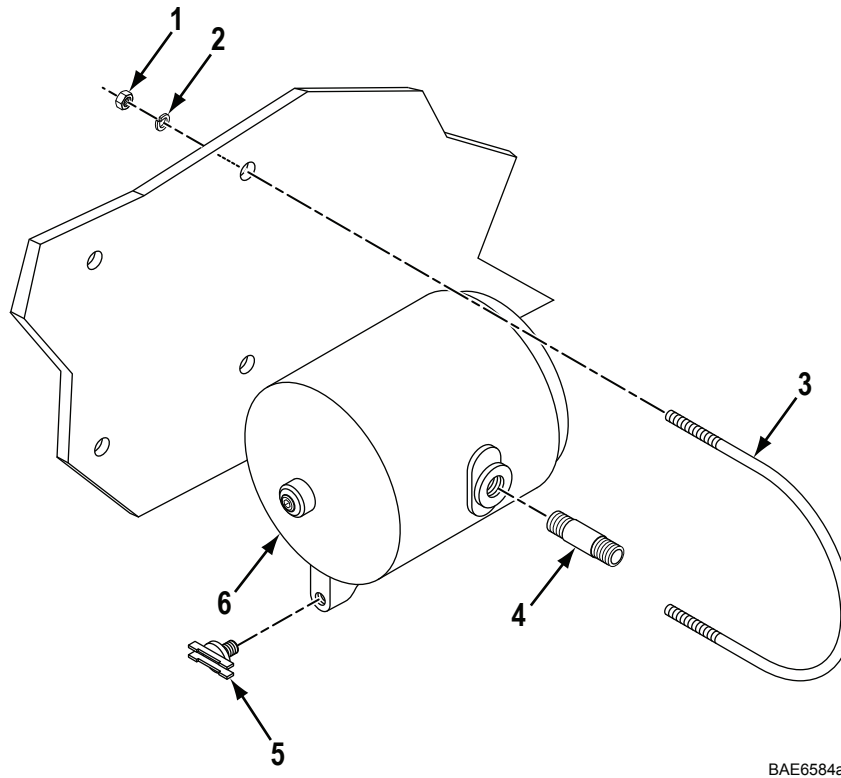


Figure 2. Air Reservoir Tank and Fittings Installation.

END OF TASK

FOLLOW ON TASK

Install relay valve (WP 0059).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

AIR FILTER ASSEMBLY MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Spring (WP 0094, Figure 12, Item 6)
Washer, Lock
Qty: (2) (WP 0094, Figure 12, Item 10)

Materials/Parts

Filter Element, Fluid
(WP 0094, Figure 12, Item 4)
Gasket (WP 0094, Figure 12, Item 7)
Sealing Compound (WP 0118, Table 1, Item 10)

Equipment Condition

Trailer parked on level ground (WP 0005)
Air reservoir drain valve opened (WP 0035)

REMOVAL

1. Disconnect air hose (Figure 1, Item 8) from air filter assembly (Figure 1, Item 2).
2. Disconnect air line (Figure 1, Item 5) from fitting (Figure 1, Item 4) and remove fitting (Figure 1, Item 4) from air filter assembly (Figure 1, Item 2).
3. Remove two nuts (Figure 1, Item 7), lockwashers (Figure 1, Item 6), U-bolt (Figure 1, Item 3), and air filter assembly (Figure 1, Item 2) from frame (Figure 1, Item 1). Discard lockwashers (Figure 1, Item 6).

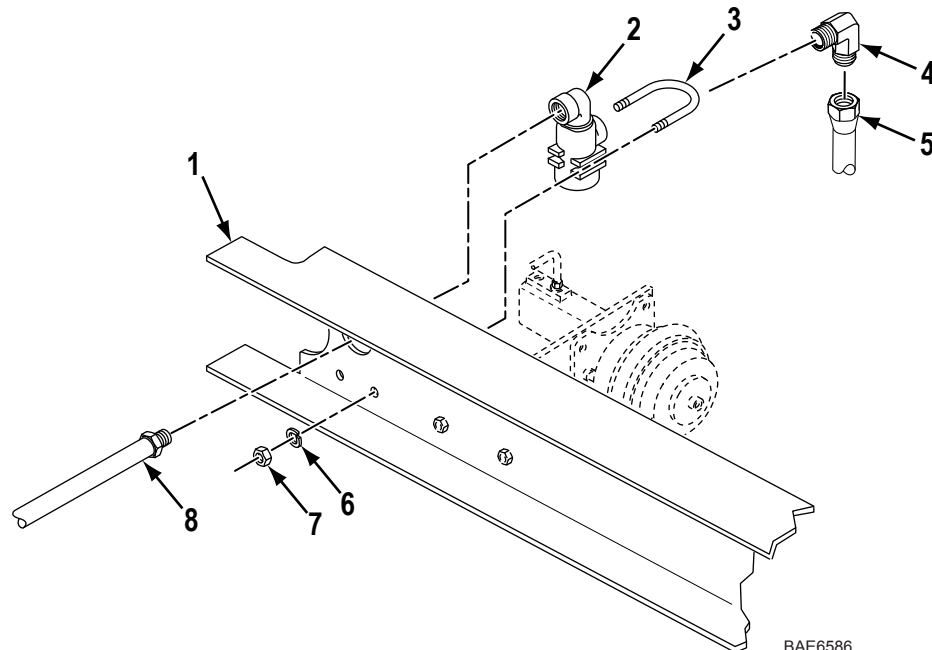


Figure 1. Air Filter Assembly Removal.

END OF TASK

DISASSEMBLY

Remove plug (Figure 2, Item 7), adapter (Figure 2, Item 6), gasket (Figure 2, Item 5), spring (Figure 2, Item 4), spring washer (Figure 2, Item 3), and filter element (Figure 2, Item 2) from filter housing (Figure 2, Item 1). Discard filter element (Figure 2, Item 2), spring (Figure 2, Item 4), and gasket (Figure 2, Item 5).

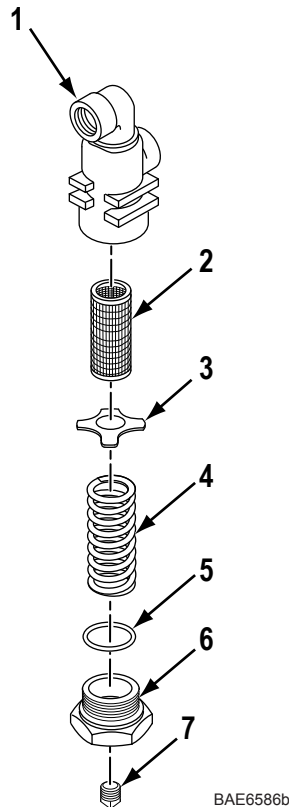


Figure 2. Air Filter Housing Maintenance.

END OF TASK**ASSEMBLY****NOTE**

Apply a small amount of sealing compound on male threads of plug prior to installation.

Install new filter element (Figure 2, Item 2), spring washer (Figure 2, Item 3), new spring (Figure 2, Item 4), and new gasket (Figure 2, Item 5) in air filter housing assembly (Figure 2, Item 1) with adapter (Figure 2, Item 6) and plug (Figure 2, Item 7).

END OF TASK

INSTALLATION

1. Install air filter assembly (Figure 3, Item 2) on frame (Figure 3, Item 1) with U-bolt (Figure 3, Item 3), two new lockwashers (Figure 3, Item 6), and nuts (Figure 3, Item 7).
2. Connect air lines (Figure 3, Items 8) to air filter assembly (Figure 3, Item 2).
3. Install fitting (Figure 3, Item 4) in air filter assembly (Figure 3, Item 2) and air hose (Figure 3, Items 5) on fitting (Figure 3, Item 4).

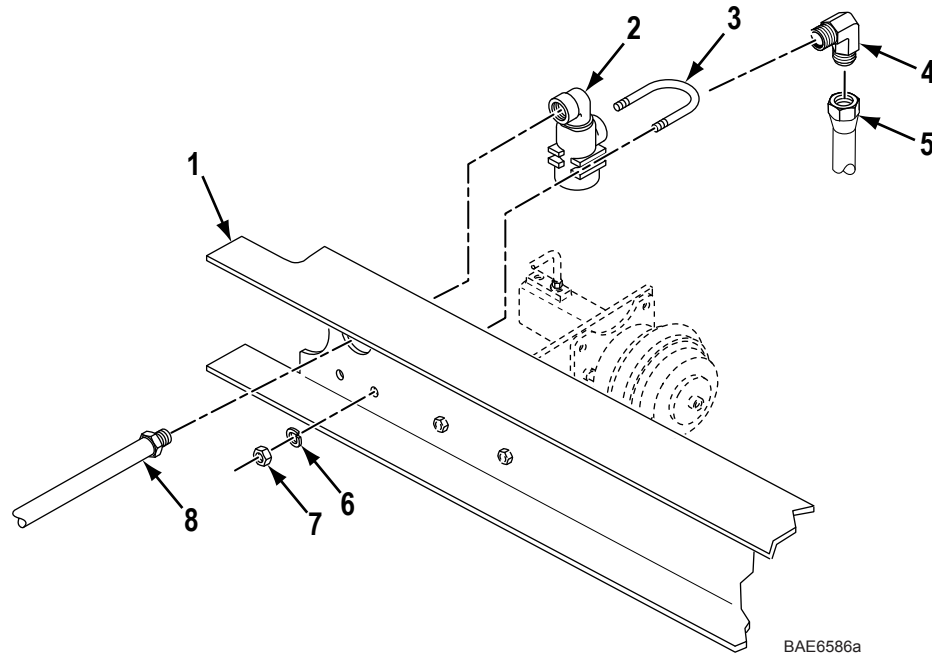


Figure 3. Air Filter Assembly Installation.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE BRAKE DRUM, BEARING, AND SEAL MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)
Socket, Socket Wrench
(WP 0119, Table 1, Item 6)

Materials/Parts

Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Grease, Automotive and Artillery

Materials/Parts (cont.)

(WP 0118, Table 1, Item 7)
Pin, Cotter
(WP 0095, Figure 13, Item 1)
Rag, Wiping (WP 0118, Table 1, Item 9)
Seal, Plain (WP 0095, Figure 13, Item 13)

References

TM 9-214
WP 0037

Equipment Condition

Wheel assembly removed (WP 0038)

WARNING



DO NOT handle brake shoes, brake drums, or other brake components unless area has been properly cleaned. There may be brake dust on these components which can be dangerous if touched or inhaled. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

REMOVAL

1. Remove grease cap (Figure 1, Item 8) from brake drum (Figure 1, Item 10).
2. Remove cotter pin (Figure 1, Item 7), slotted nut (Figure 1, Item 9), and washer (Figure 1, Item 6) from spindle (Figure 1, Item 13). Discard cotter pin (Figure 1, Item 7).

NOTE

Release parking brake prior to removing brake drum.

3. Pull brake drum (Figure 1, Item 10) from spindle (Figure 1, Item 13) to loosen outer wheel bearing cone (Figure 1, Item 5). Remove outer wheel bearing cone (Figure 1, Item 5) from brake drum (Figure 1, Item 10) and spindle (Figure 1, Item 13).
4. Remove brake drum (Figure 1, Item 10) from spindle (Figure 1, Item 13).
5. Remove inner wheel bearing cone (Figure 1, Item 2) and grease seal (Figure 1, Item 1) from brake drum (Figure 1, Item 10). Discard grease seal (Figure 1, Item 1).

NOTE

Spacer may or may not be present. If present, discard spacer.

6. Remove spacer (Figure 1, Item 12) from spindle (Figure 1, Item 13). Discard spacer (Figure 1, Item 12) and do not reinstall.

END OF TASK**DISASSEMBLY****NOTE**

Only perform Steps 1 and 2 if parts need to be replaced.

1. Remove inner and outer bearing races (Figure 1, Items 3 and 4) from brake drum (Figure 1, Item 10).
2. Remove shoulder bolt (Figure 1, Item 11) from brake drum (Figure 1, Item 10).

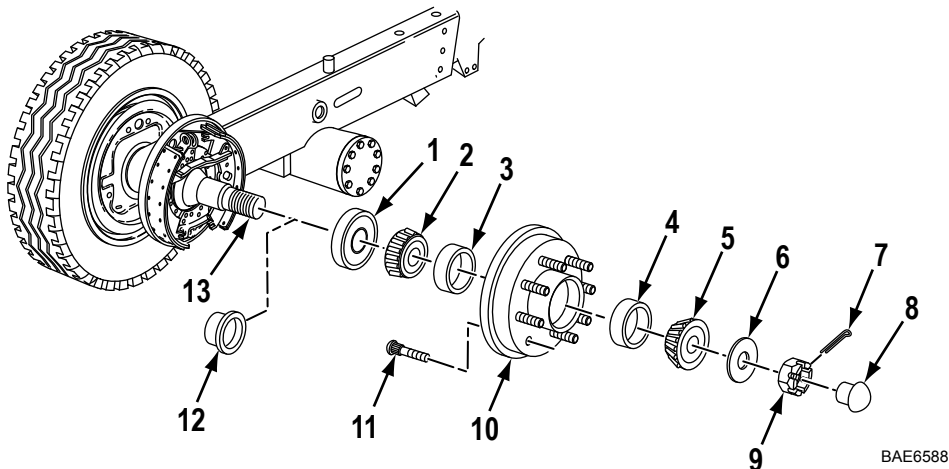


Figure 1. Brake Drum Removal.

END OF TASK

CLEANING**WARNING**

- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

CLEANING - Continued**NOTE**

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

Using cleaning solvent, clean all parts.

END OF TASK**ASSEMBLY****NOTE**

Only perform Steps 1 and 2 if parts were removed.

1. Install inner and outer bearing races (Figure 2, Items 3 and 4) in brake drum (Figure 2, Item 10).
2. Install shoulder bolt (Figure 2, Item 11) in brake drum (Figure 2, Item 10).

END OF TASK**INSTALLATION****NOTE**

Instructions on packing wheel bearing cones can be found in TM 9-214.

1. Pack inner wheel bearing cone (Figure 2, Item 2) with grease and install in brake drum (Figure 2, Item 10).
2. Install new grease seal (Figure 2, Item 1) in brake drum (Figure 2, Item 10) so that the flat side of seal is facing the inner bearing, toward the threaded end of the spindle.
3. Position brake drum (Figure 2, Item 10) on spindle (Figure 1, Item 12).
4. Pack outer wheel bearing cone (Figure 2, Item 5) with grease.
5. Position outer wheel bearing cone (Figure 2, Item 5) in brake drum (Figure 2, Item 10), on spindle (Figure 1, Item 12), and install washer (Figure 2, Item 6) and slotted nut (Figure 2, Item 9) on spindle (Figure 2, Item 12).

END OF TASK

WHEEL BEARING ADJUSTMENT**NOTE**

Acceptable wheel end play is 0.001 in. (0.0254 mm) to 0.010 in. (0.254 mm).

1. Tighten slotted nut (Figure 2, Item 9) while turning brake drum (Figure 2, Item 10) until drag is felt.
2. Rotate brake drum (Figure 2, Item 10) one full turn.
3. Slightly loosen slotted nut (Figure 2, Item 9) until slot and opening in spindle (Figure 2, Item 12) line up.
4. Install new cotter pin (Figure 2, Item 7) on spindle (Figure 2, Item 12).
5. Install grease cap (Figure 2, Item 8) on brake drum (Figure 2, Item 10).

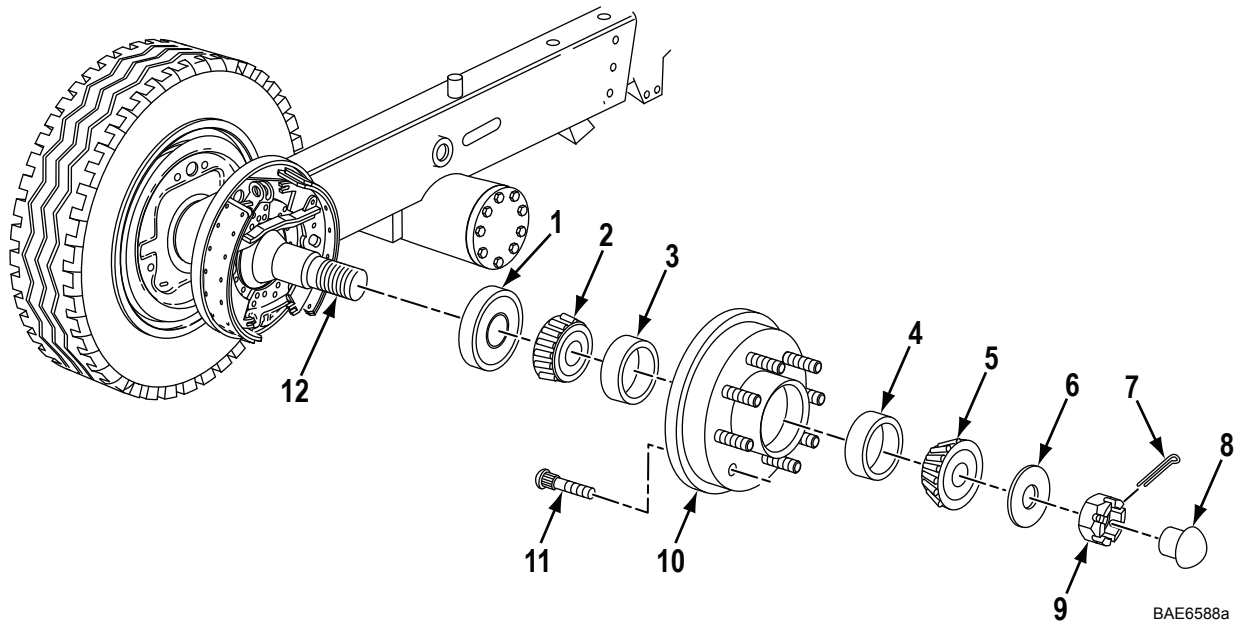


Figure 2. Brake Drum Installation.

END OF TASK**FOLLOW ON TASK**

1. Install wheel assembly (WP 0038).
2. Adjust service brakes (WP 0037).

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
WHEEL AND TIRE ASSEMBLY REPAIR**

INITIAL SETUP:

References

TM 9-2610-200-14

For inspection, repair, or replacement, refer to TM 9-2610-200-14.

END OF WORK PACKAGE

FIELD MAINTENANCE
DRAWBAR RING AND SAFETY CHAIN REPLACEMENT

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Wrench, Torque
(WP 0119, Table 1, Item 11)

Materials/Parts (cont.)

Pin, Cotter (WP 0097, Figure 15, Item 19)
Washer, Lock (WP 0097, Figure 15, Item 14)

Equipment Condition

Trailer parked on level ground (WP 0005)

Materials/Parts

Pin, Cotter (WP 0097, Figure 15, Item 2)

WARNING

If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

DRAWBAR RING REMOVAL

1. Remove cotter pin (Figure 1, Item 4) from slotted nut (Figure 1, Item 3). Discard cotter pin (Figure 1, Item 4).
2. Remove slotted nut (Figure 1, Item 3), washer (Figure 1, Item 2), and drawbar ring (Figure 1, Item 1) from frame (Figure 1, Item 5).

END OF TASK**DRAWBAR RING INSTALLATION**

1. Position drawbar ring (Figure 1, Item 1) on frame (Figure 1, Item 5) with washer (Figure 1, Item 2) and slotted nut (Figure 1, Item 3) on frame (Figure 1, Item 5). Torque nut between 400-500 lb ft (542-610 N·m).
2. Install new cotter pin (Figure 1, Item 4) on drawbar ring (Figure 1, Item 1).

END OF TASK**SAFETY CHAIN REMOVAL**

Remove nut (Figure 1, Item 6), lockwasher (Figure 1, Item 7), and safety chain (Figure 1, Item 12) from frame (Figure 1, Item 5). Discard lockwasher (Figure 1, Item 7).

END OF TASK**SAFETY CHAIN DISASSEMBLY**

1. Remove cotter pin (Figure 1, Item 11), pin (Figure 1, Item 9), and hook (Figure 1, Item 10) from safety chain (Figure 1, Item 12). Discard cotter pin (Figure 1, Item 11).

NOTE

Perform Steps 2 and 3 only if shortening safety chain.

2. With trailer attached to Prime Mover, measure distance between clevis of hook (Figure 1, Item 10) and end of safety chain (Figure 1, Item 12).
3. Remove connecting link (Figure 1, Item 8) joining extended chain and existing safety chain (Figure 1, Item 12).

END OF TASK**SAFETY CHAIN ASSEMBLY****NOTE**

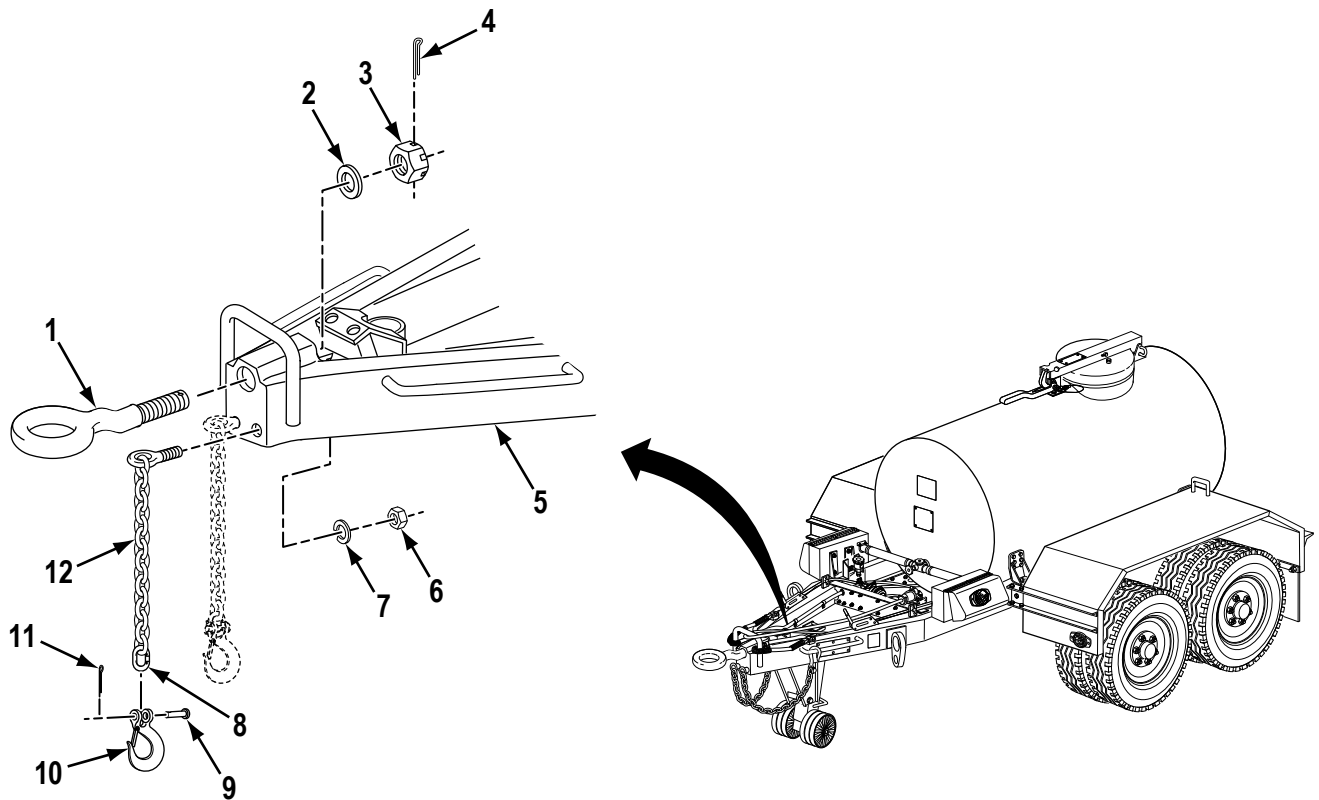
Perform Step 1 only if lengthening safety chain.

1. Install extended chain to existing chain (Figure 1, Item 12) with connecting link (Figure 1, Item 8).
2. Install hook (Figure 1, Item 10), pin (Figure 1, Item 9), and new cotter pin (Figure 1, Item 11) to chain (Figure 1, Item 12).

END OF TASK

SAFETY CHAIN INSTALLATION

Install safety chain (Figure 1, Item 12), new lockwasher (Figure 1, Item 7), and nut (Figure 1, Item 6) on frame (Figure 1, Item 5).



BAE6593

Figure 1. Drawbar Ring and Safety Chain Replacement.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE SUSPENSION BRACKET REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts

Washer, Lock

Materials/Parts (cont.)

Qty: (7) (WP 0097, Figure 15, Item 9)

Equipment Condition

Radius rod removed (WP 0070)

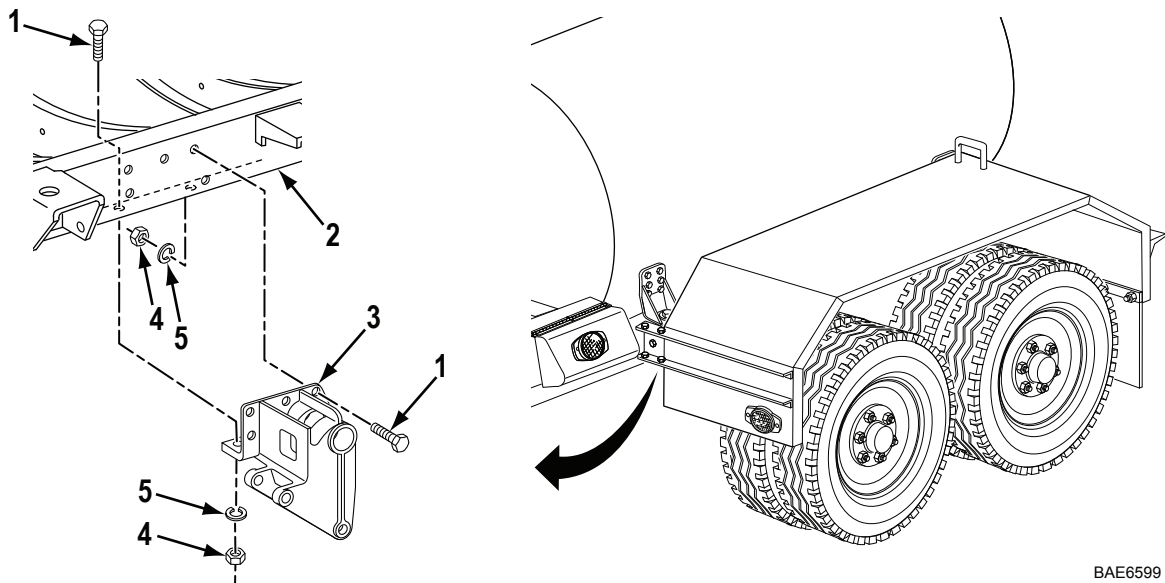
Spring assembly removed (WP 0068)

NOTE

This trailer has front and rear suspension brackets. This procedure replaces the front suspension bracket. The rear suspension bracket is replaced the same way.

REMOVAL

Remove seven nuts (Figure 1, Item 4), lockwashers (Figure 1, Item 5), screws (Figure 1, Item 1), and suspension bracket (Figure 1, Item 3) from frame assembly (Figure 1, Item 2). Discard lockwashers (Figure 1, Item 5).



BAE6599

Figure 1. Suspension Bracket Removal.

END OF TASK

INSTALLATION

Install suspension bracket (Figure 2, Item 3) on frame assembly (Figure 2, Item 2) with seven nuts (Figure 2, Item 4), new lockwashers (Figure 2, Item 5), and screws (Figure 2, Item 1).

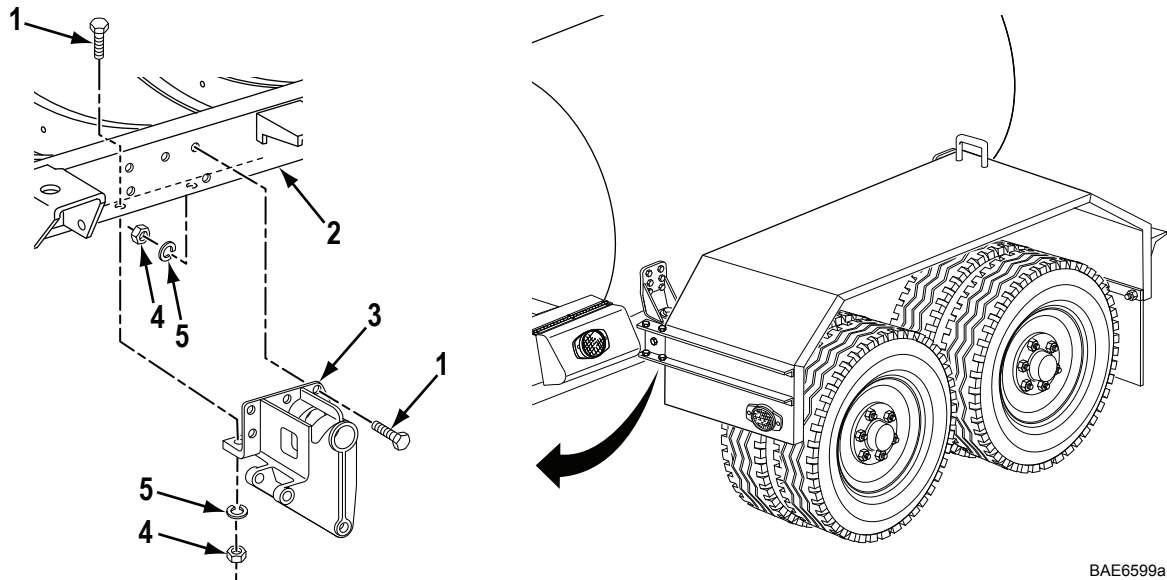


Figure 2. Suspension Bracket Installation.

END OF TASK**FOLLOW ON TASK**

1. Install radius rod (WP 0071).
2. Install spring assembly (WP 0069).

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
FAUCET BOX REPAIR**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Qty: (6) (WP 0098, Figure 16, Item 5)
Washer, Lock
Qty: (4) (WP 0098, Figure 16, Item 12)

Materials/Parts

Nut, Self-Locking
Qty: (2) (WP 0106, Figure 24, Item 5)
Washer, Lock

Equipment Condition

Hoses and faucets removed (WP 0075)

NOTE

This trailer has two faucet boxes. This procedure replaces one faucet box. The other faucet box is replaced the same way.

REMOVAL

1. Remove four nuts (Figure 1, Item 4), lockwasher (Figure 1, Item 3), and bolts (Figure 1, Item 2) from faucet box assembly (Figure 1, Item 1). Discard lockwashers (Figure 1, Item 3).
2. Remove faucet box assembly (Figure 1, Item 1) from trailer.

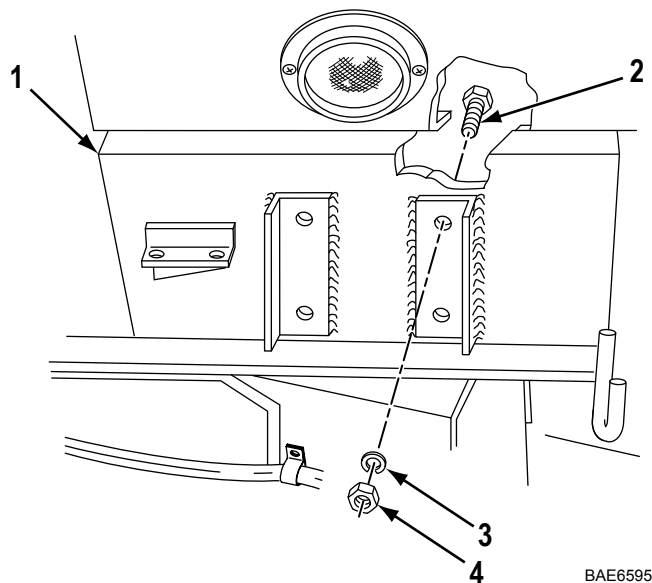


Figure 1. Faucet Box Removal.

END OF TASK

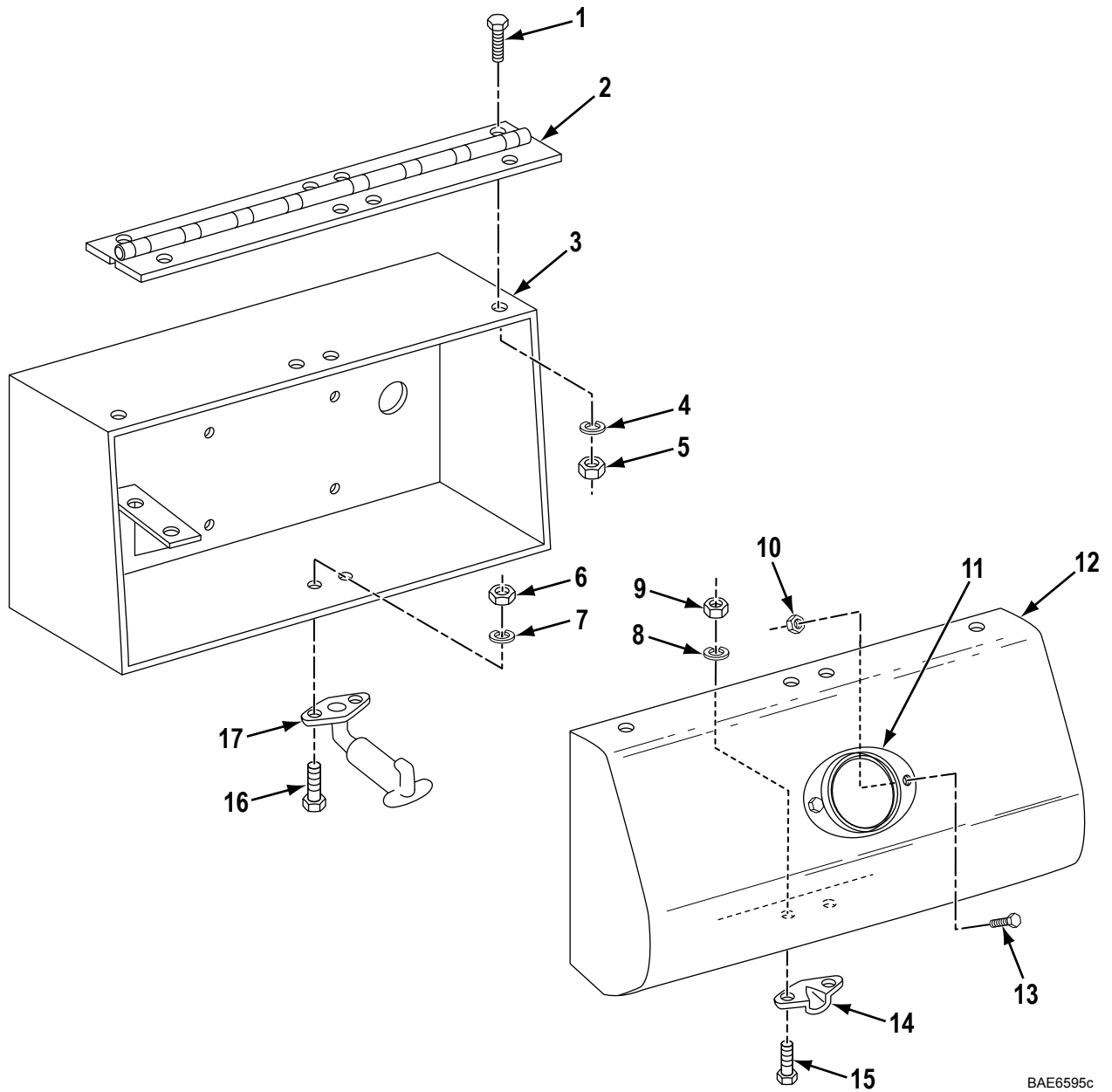
DISASSEMBLY

1. Remove two nuts (Figure 2, Item 6), bolts (Figure 2, Item 16), lockwashers (Figure 2, Item 7), and release fastener (Figure 2, Item 17) from faucet box (Figure 2, Item 3). Discard lockwashers (Figure 2, Item 7).
2. Remove four bolts (Figure 2, Item 1), nuts (Figure 2, Item 5), lockwashers (Figure 2, Item 4), and access cover (Figure 2, Item 12) with hinge (Figure 2, Item 2), from faucet box (Figure 2, Item 3). Discard lockwashers (Figure 2, Item 4).
3. Remove four bolts (Figure 2, Item 1), nuts (Figure 2, Item 5), lockwashers (Figure 2, Item 4), and hinge (Figure 2, Item 2) from access cover (Figure 2, Item 12). Discard lockwashers (Figure 2, Item 4).
4. Remove two nuts (Figure 2, Item 9), bolts (Figure 2, Item 15), lockwashers (Figure 2, Item 8), and latch bracket (Figure 2, Item 14) from access cover (Figure 2, Item 12). Discard lockwashers (Figure 2, Item 8).
5. Remove two bolts (Figure 2, Item 13), self-locking nuts (Figure 2, Item 10), and reflector (Figure 2, Item 11) from access cover (Figure 2, Item 12). Discard self-locking nuts (Figure 2, Item 10).

END OF TASK**ASSEMBLY**

1. Position fastener (Figure 2, Item 17) on box (Figure 2, Item 3) and install two bolts (Figure 2, Item 16), new nuts (Figure 2, Item 6), and new lockwashers (Figure 2, Item 7) on box (Figure 2, Item 3).
2. Position latch bracket (Figure 2, Item 14) on access cover (Figure 2, Item 12) and install two bolts (Figure 2, Item 15), nuts (Figure 2, Item 9), and new lockwashers (Figure 2, Item 8) on access cover (Figure 2, Item 12).
3. Position hinge (Figure 2, Item 2) on access cover (Figure 2, Item 12), and install four bolts (Figure 2, Item 1), nuts (Figure 2, Item 5), and new lockwashers (Figure 2, Item 4) on access cover (Figure 2, Item 12).
4. Position access cover (Figure 2, Item 12) and hinge (Figure 2, Item 2) on box (Figure 2, Item 3) and install four bolts (Figure 2, Item 1), nuts (Figure 2, Item 5), and new lockwashers (Figure 2, Item 4) on box (Figure 2, Item 3).
5. Position reflector (Figure 2, Item 11) on access cover (Figure 2, Item 12) and secure with two bolts (Figure 2, Item 13) and new self-locking nuts (Figure 2, Item 10).

ASSEMBLY - Continued



BAE6595c

Figure 2. Faucet Box Disassembly and Assembly.

END OF TASK

INSTALLATION

1. Position faucet box assembly (Figure 3, Item 1) on trailer.
2. Install four screws (Figure 3, Item 2), new lockwashers (Figure 3, Item 3), and nuts (Figure 3, Item 4) on faucet box assembly (Figure 3, Item 1).

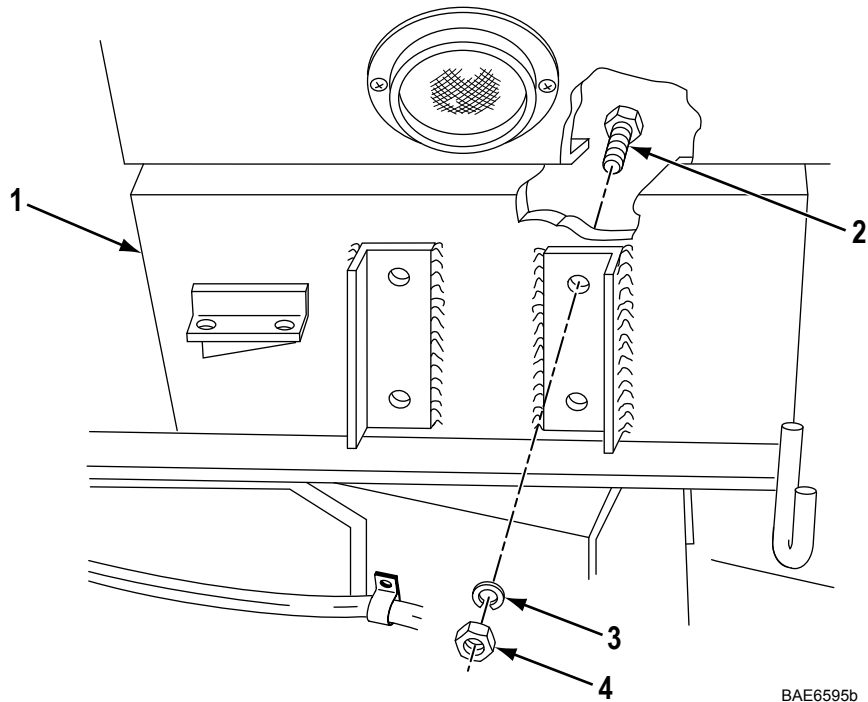


Figure 3. Faucet Box Installation.

END OF TASK**FOLLOW ON TASK**

Install hoses and faucets (WP 0075).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE LANDING LEG ASSEMBLY MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts

Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Nut, Self-Locking (WP 0099, Figure 17, Item 2)
Nut, Self-Locking (WP 0099, Figure 17, Item 4)
Nut, Self-Locking (WP 0099, Figure 17, Item 21)
Nut, Self-Locking
Qty: (2) (WP 0099, Figure 17, Item 23)
Nut, Self-Locking (WP 0099, Figure 17, Item 28)
Pin, Spring
Qty: (2) (WP 0099, Figure 17, Item 17)
Pin, Spring

Materials/Parts (cont.)

Qty: (2) (WP 0099, Figure 17, Item 31)
Rag, Wiping (WP 0118, Table 1, Item 9)
Washer, Lock
Qty: (2) (WP 0099, Figure 17, Item 11)
Washer, Lock
Qty: (4) (WP 0099, Figure 17, Item 32)

Personnel Required

Two

References

WP 0079

Equipment Condition

Trailer parked on level ground (WP 0005)

WARNING



- Weight of trailer must be supported on suitable supports at all times. Do not support weight of trailer on lifting device. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Landing leg weighs 150 lbs (68 kg). Two people are required to lift landing leg. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

REMOVAL

1. Raise front of trailer and position two suitable supports under frame (Figure 1, Item 3).
2. With the aid of an assistant, remove self-locking nut (Figure 1, Item 1), washer (Figure 1, Item 2), landing leg assembly (Figure 1, Item 6), and washer (Figure 1, Item 4) from mounting stud (Figure 1, Item 5) and frame (Figure 1, Item 7). Discard self-locking nut (Figure 1, Item 1).

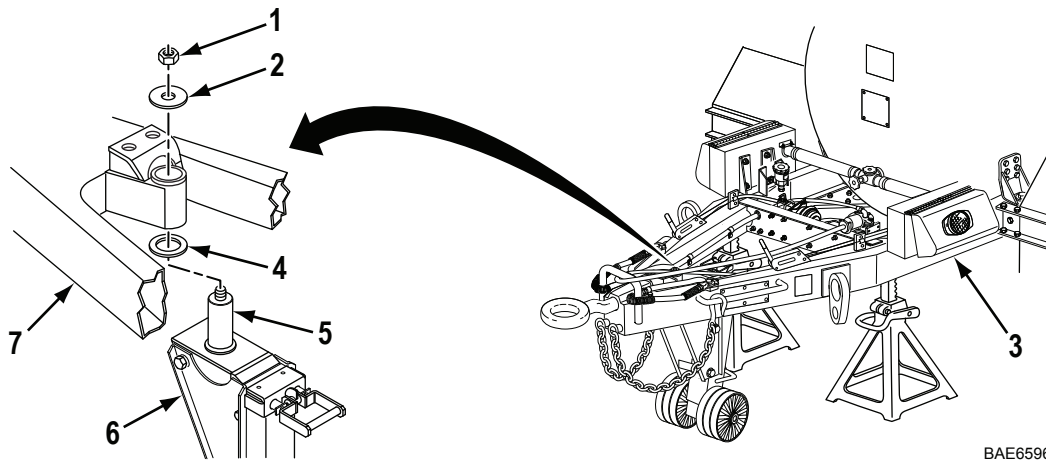


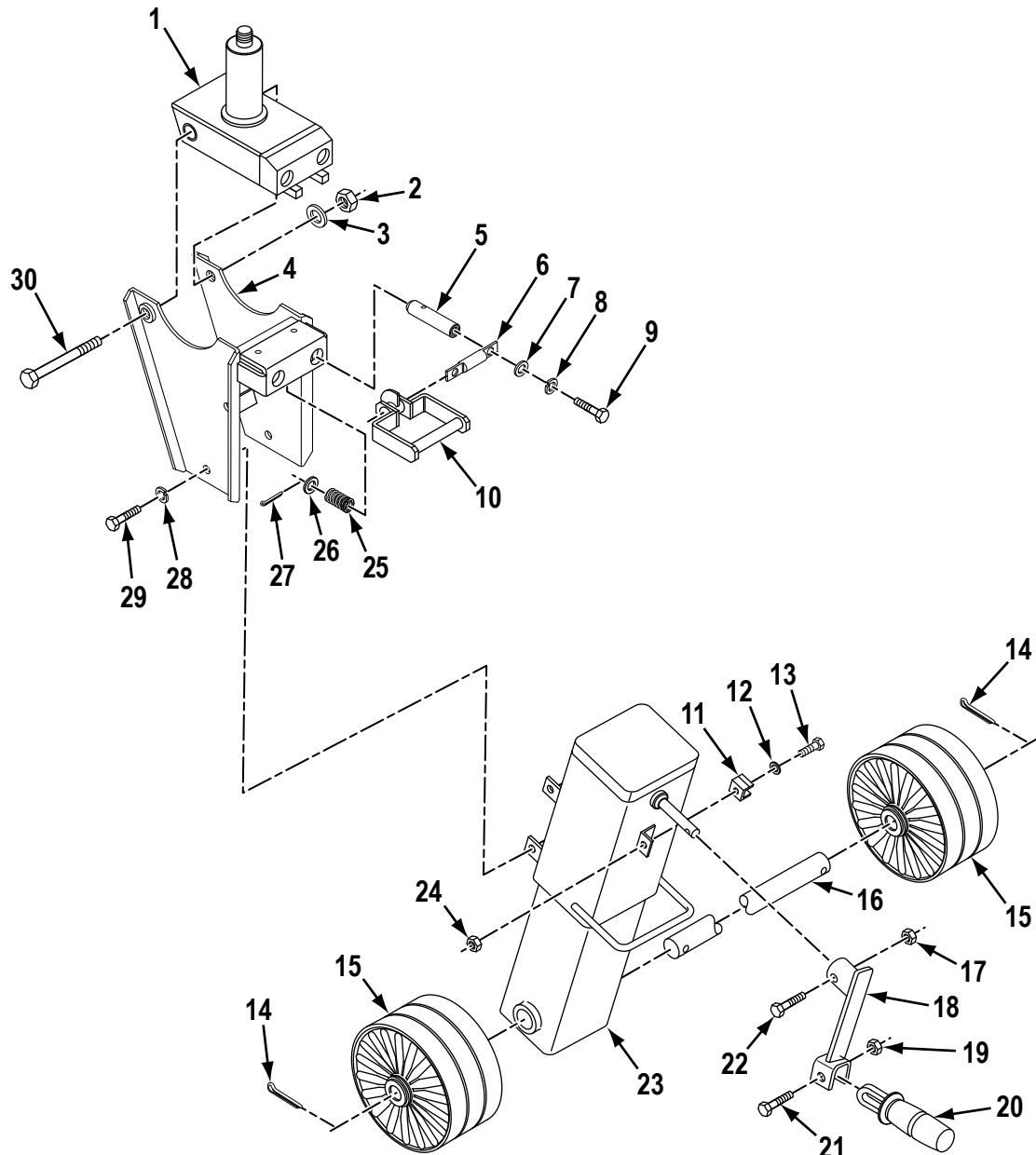
Figure 1. Landing Leg Removal.

END OF TASK

DISASSEMBLY

1. Remove self-locking nut (Figure 2, Item 2), washer (Figure 2, Item 3), and bolt (Figure 2, Item 30) from retainer leg assembly (Figure 2, Item 4) and spindle (Figure 2, Item 1). Discard self-locking nut (Figure 2, Item 2).
2. Remove spindle (Figure 2, Item 1) from retainer leg assembly (Figure 2, Item 4).
3. Remove two spring pins (Figure 2, Item 27), two springs (Figure 2, Item 25), washers (Figure 2, Item 26), and manual control handle (Figure 2, Item 10) from retainer leg assembly (Figure 2, Item 4). Discard spring pins (Figure 2, Item 27).
4. Remove two bolts (Figure 2, Item 9), lockwashers (Figure 2, Item 8), washers (Figure 2, Item 7), and straight pins (Figure 2, Item 5) from shoulder pin (Figure 2, Item 6). Discard lockwashers (Figure 2, Item 8).
5. Remove shoulder pin (Figure 2, Item 6) from handle (Figure 2, Item 10).
6. Remove four bolts (Figure 2, Item 29), lockwashers (Figure 2, Item 28), and retainer leg assembly (Figure 2, Item 4) from support (Figure 2, Item 23). Discard lockwashers (Figure 2, Item 28).
7. Remove self-locking nut (Figure 2, Item 19), bolt (Figure 2, Item 21), and handle (Figure 2, Item 20) from hand crank arm (Figure 2, Item 18). Discard self-locking nut (Figure 2, Item 19).
8. Remove self-locking nut (Figure 2, Item 17), bolt (Figure 2, Item 22), and hand crank arm (Figure 2, Item 18) from support (Figure 2, Item 23). Discard self-locking nut (Figure 2, Item 17).
9. Remove two spring pins (Figure 2, Item 14), wheels (Figure 2, Item 15), and axle shaft (Figure 2, Item 16) from leg assembly (Figure 2, Item 23). Discard spring pins (Figure 2, Item 14).
10. Remove self-locking nut (Figure 2, Item 24), bolt (Figure 2, Item 13), washer (Figure 2, Item 12), and clip (Figure 2, Item 11) from support (Figure 2, Item 23). Discard self-locking nut (Figure 2, Item 24).

DISASSEMBLY - Continued



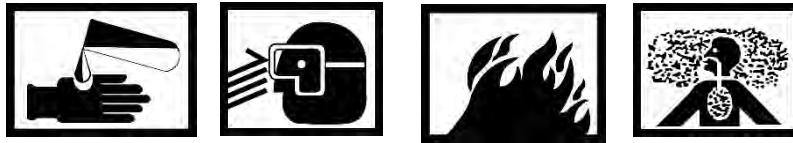
BAE6597

Figure 2. Landing Leg Disassembly.

END OF TASK

CLEANING AND INSPECTION

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

CLEANING AND INSPECTION - Continued**NOTE**

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

1. Clean all parts with cleaning solvent. Dry thoroughly.
2. Inspect all parts for damage. Replace any damaged parts.

END OF TASK**ASSEMBLY**

1. Install clip (Figure 3, Item 2) on support (Figure 3, Item 1) with bolt (Figure 3, Item 4), washer (Figure 2, Item 3), and new self-locking nut (Figure 3, Item 14).
2. Install axle shaft (Figure 3, Item 7) and two wheels (Figure 3, Item 6) on support (Figure 3, Item 1) with two new spring pins (Figure 3, Item 5).
3. Install hand crank arm (Figure 3, Item 9) on support (Figure 3, Item 1) with bolt (Figure 3, Item 13) and new self-locking nut (Figure 3, Item 8).
4. Install handle (Figure 3, Item 11) on hand crank arm (Figure 3, Item 9) with bolt (Figure 3, Item 12) and new self-locking nut (Figure 3, Item 10).

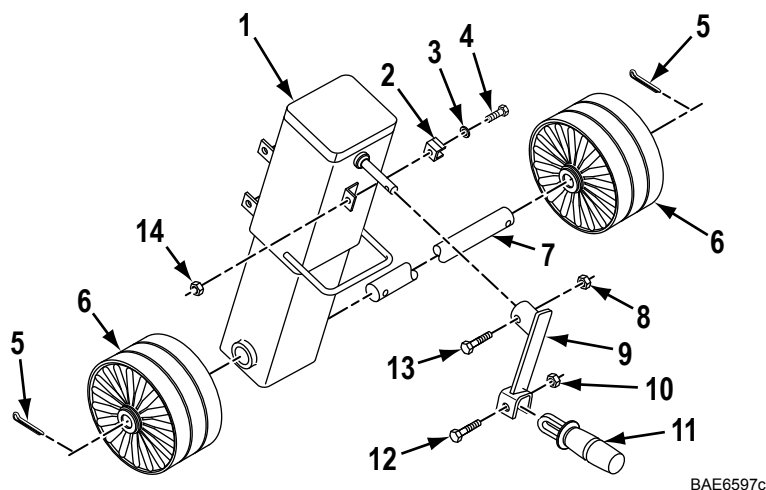
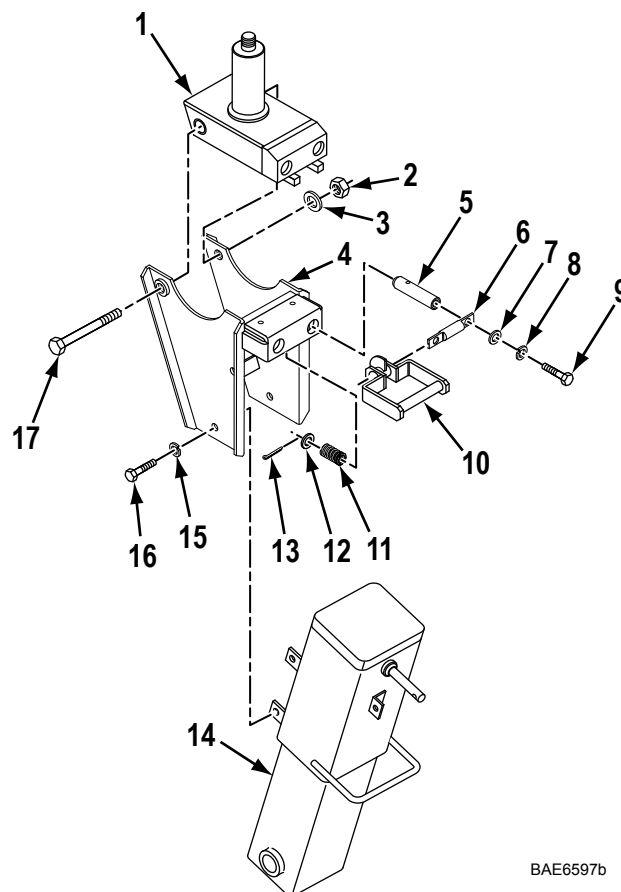


Figure 3. Landing Leg Support Assembly.

ASSEMBLY - Continued

5. Install retainer leg assembly (Figure 4, Item 4) on support (Figure 4, Item 14) with four new lockwashers (Figure 4, Item 15) and bolts (Figure 4, Item 16).
6. Install shoulder pin (Figure 4, Item 6) in handle (Figure 4, Item 10).
7. Install two straight pins (Figure 4, Item 5) on shoulder pin (Figure 4, Item 6) with two screws (Figure 4, Item 9), new lockwashers (Figure 4, Item 8), and washers (Figure 4, Item 7).
8. Position two washers (Figure 4, Item 12), springs (Figure 4, Item 11), new spring pins (Figure 4, Item 13), and straight pins (Figure 4, Item 5) on retainer leg assembly (Figure 4, Item 4).
9. Position spindle (Figure 4, Item 1) on retainer leg assembly (Figure 4, Item 4).
10. Install bolt (Figure 4, Item 17), washer (Figure 4, Item 3), and new self-locking nut (Figure 4, Item 2) through retainer leg assembly (Figure 4, Item 4) and spindle (Figure 4, Item 1).



BAE6597b

Figure 4. Landing Leg Assembly.

END OF TASK

INSTALLATION

1. Install washer (Figure 5, Item 3) on mounting stud (Figure 5, Item 4).
2. With the aid of an assistant, align landing leg assembly (Figure 5, Item 5) and mounting stud (Figure 5, Item 4) with frame (Figure 5, Item 6). Install landing leg assembly (Figure 5, Item 5) to frame (Figure 5, Item 6) with washer (Figure 5, Item 2) and new self-locking nut (Figure 5, Item 1).

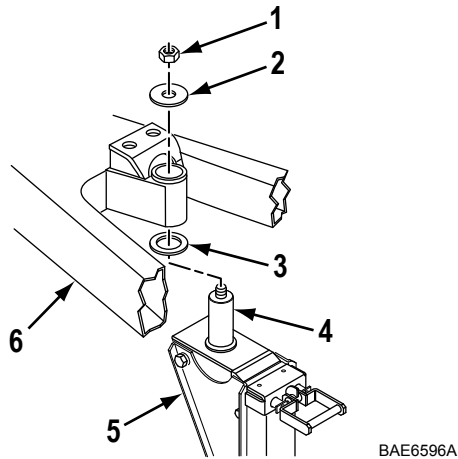


Figure 5. Landing Leg Installation.

END OF TASK**FOLLOW ON TASK**

Lubricate landing leg assembly (WP 0079).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE SPRING ASSEMBLY REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Personnel Required

Two

Equipment Condition

Cross axle removed (WP 0047)

Materials/Parts

Nut, Self-Locking
Qty: (2) (WP 0100, Figure 18, Item 13)

WARNING



- Radius rod and bracket will swing freely. Radius rod and bracket must be tied to frame assembly to prevent injury to personnel and damage to equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Spring assembly weighs 105 lbs (39 kg). Use caution, provide adequate support, and use assistance during removal. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

This trailer has two spring assemblies. This procedure replaces one spring assembly. The other spring assembly is replaced the same way.

REMOVAL

1. Lift radius rod (Figure 1, Item 1) and bracket (Figure 1, Item 2) clear of spring assembly (Figure 1, Item 4) and secure radius rod (Figure 1, Item 1) to frame assembly (Figure 1, Item 3).

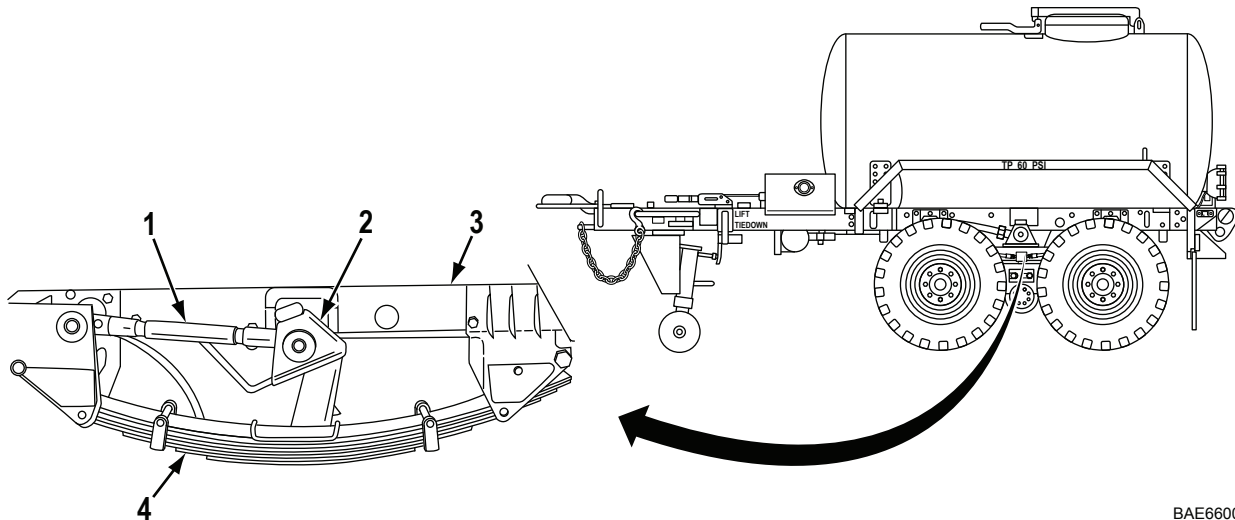


Figure 1. Radius Rod and Spring Assembly Removal.

2. Remove two bolts (Figure 2, Item 9) and self-locking nuts (Figure 2, Item 2) from two brackets (Figure 2, Item 1), and spring assembly (Figure 2, Item 8) at each end of spring assembly. Discard self-locking nuts (Figure 2, Item 2).
3. With the aid of an assistant, remove spring assembly (Figure 2, Item 8) from two brackets (Figure 2, Item 1).
4. Loosen two setscrews (Figure 2, Item 3) and tap pin (Figure 2, Item 4) free of one of two brackets (Figure 2, Item 1).
5. Remove two bushings (Figure 2, Item 6) and roller assembly (Figure 2, Item 7) from bracket (Figure 2, Item 1).
6. Remove grease fitting (Figure 2, Item 5) from pin (Figure 2, Item 4).
7. Repeat Steps 4 through 6 for remaining bracket (Figure 2, Item 1).

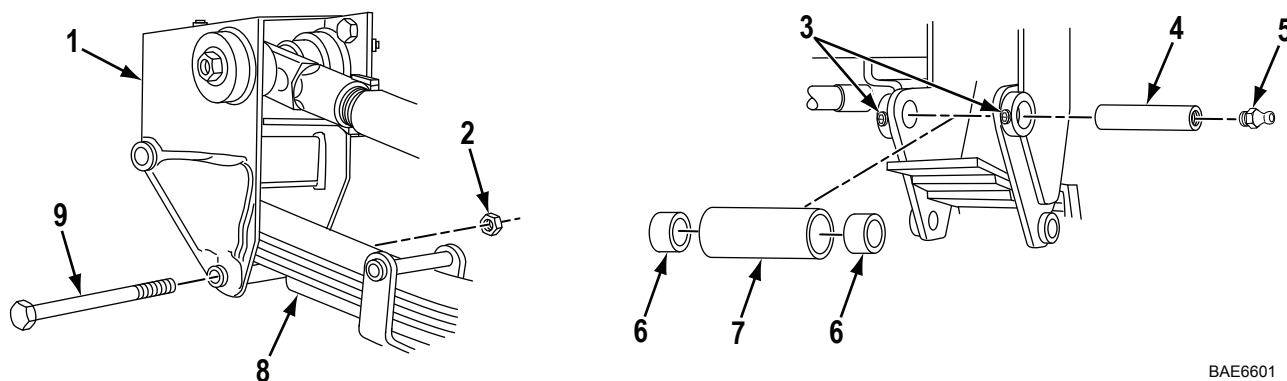
REMOVAL - Continued

Figure 2. Spring Assembly Mounting Replacement.

END OF TASK**INSTALLATION**

1. Install grease fitting (Figure 2, Item 5) in pin (Figure 2, Item 4).
2. Position two bushings (Figure 2, Item 6) and roller assembly (Figure 2, Item 7) in one of two brackets (Figure 2, Item 1).

CAUTION

Do not tap end of pin with grease fitting. Failure to comply may result in damage to, or destruction of, equipment or mission.

3. Tap pin (Figure 2, Item 4) into position and tighten two setscrews (Figure 2, Item 3).
4. Repeat Steps 1 through 3 for remaining bracket (Figure 2, Item 1).
5. With the aid of an assistant, position and support spring assembly (Figure 2, Item 8) on two brackets (Figure 2, Item 1).
6. Install two bolts (Figure 2, Item 9) and new self-locking nuts (Figure 2, Item 2) in two brackets (Figure 2, Item 1).
7. Untie radius rod (Figure 1, Item 2) and bracket (Figure 1, Item 3) from frame assembly. Swing down into position at top of spring assembly (Figure 1, Item 4).

END OF TASK**FOLLOW ON TASK**

Install cross axle (WP 0047).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE SHOCK ABSORBER REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Qty: (2) (WP 0101, Figure 19, Item 4)

Materials/Parts

Washer, Lock

Equipment Condition

Trailer parked on level ground (WP 0005)

WARNING



If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

This trailer has two shock absorbers. This procedure replaces one shock absorber. The other shock absorber is replaced the same way.

REMOVAL

1. Remove two nuts (Figure 1, Item 6), lockwashers (Figure 1, Item 5), recessed washers (Figure 1, Item 4), and shock absorber (Figure 1, Item 3) from frame stud (Figure 1, Item 1) and axle stud (Figure 1, Item 7). Discard lockwashers (Figure 1, Item 5).
2. Remove four rubber bushings (Figure 1, Item 2) from shock absorber (Figure 1, Item 3). Replace rubber bushings if damaged.

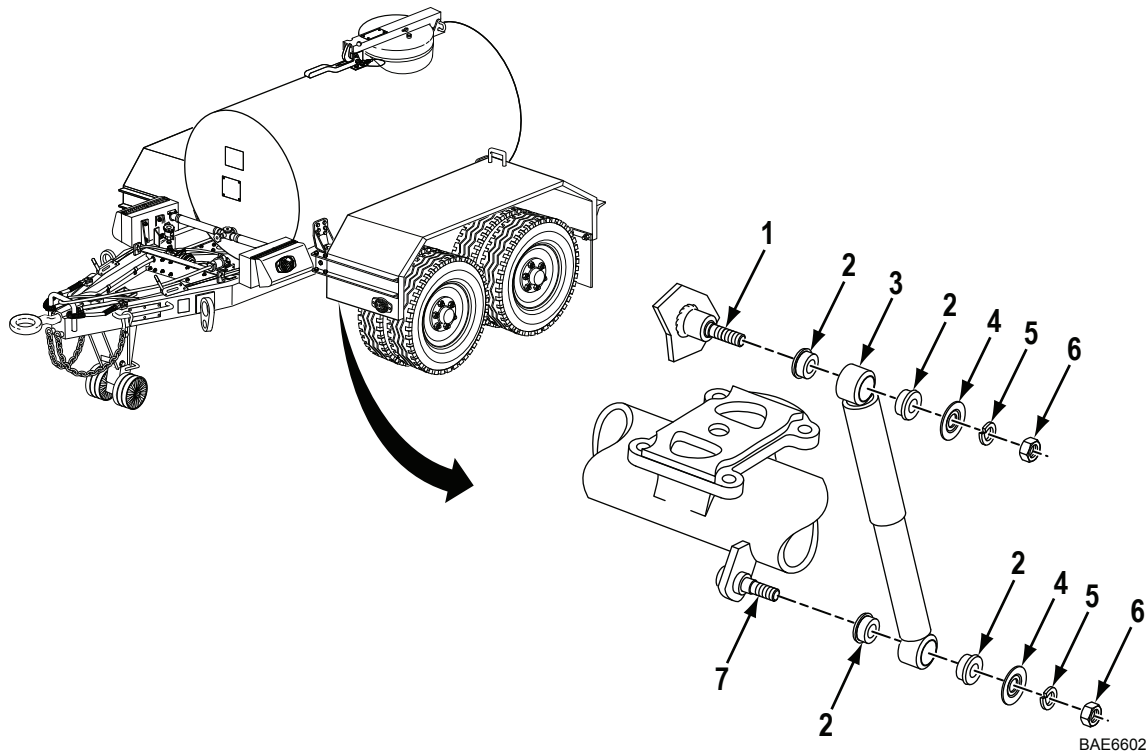


Figure 1. Shock Absorber Replacement.

END OF TASK**INSTALLATION**

1. Install four rubber bushings (Figure 1, Item 2) in shock absorber (Figure 1, Item 3). Position shock absorber (Figure 1, Item 3) on frame stud (Figure 1, Item 1) and axle stud (Figure 1, Item 7).
2. Install two recessed washers (Figure 1, Item 4), new lockwashers (Figure 1, Item 5), and nuts (Figure 1, Item 6) on frame stud (Figure 1, Item 1) and axle stud (Figure 1, Item 7). Make sure nuts are fully tightened.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE RADIUS ROD MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Qty: (2) (WP 0102, Figure 20, Item 4)

Materials/Parts

Washer, Lock
(WP 0100, Figure 18, Item 3)
Washer, Lock

Equipment Condition

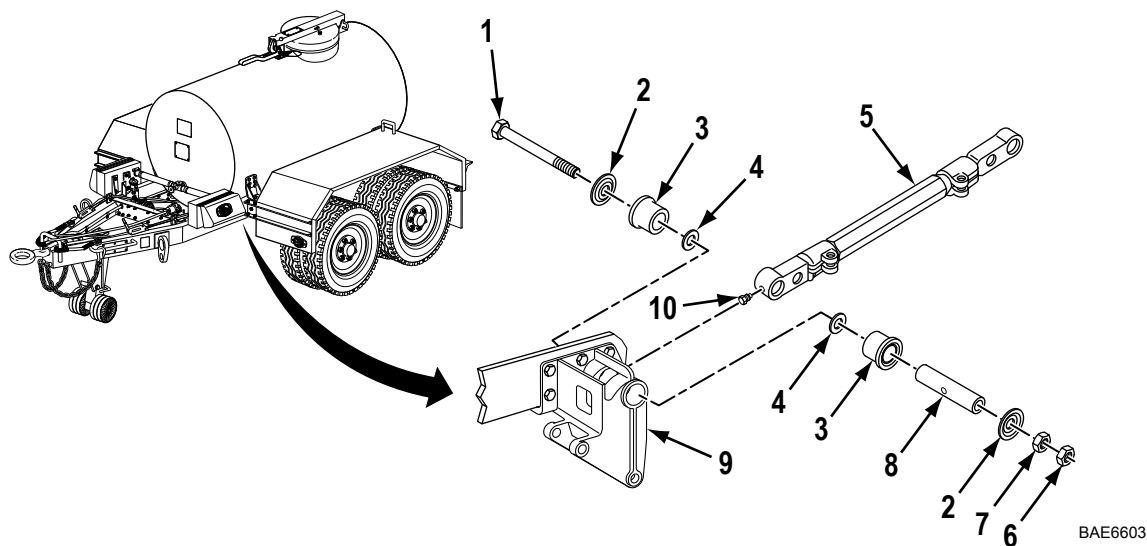
Suspension bracket removed (WP 0065)
Spring assembly removed (WP 0068)

NOTE

This trailer has two radius rods. This procedure replaces one radius rod. The other radius rod is replaced the same way.

REMOVAL

1. Remove nut (Figure 1, Item 6), nut (Figure 1, Item 7), bolt (Figure 1, Item 1), and two shouldered washers (Figure 1, Item 2) from radius rod (Figure 1, Item 5) and bracket (Figure 1, Item 9).
2. Loosen setscrew (Figure 1, Item 10) and remove spacer (Figure 1, Item 8) from radius rod (Figure 1, Item 5) and bushings (Figure 1, Item 3).
3. Remove radius rod (Figure 1, Item 5), washers (Figure 1, Item 4), and bushings (Figure 1, Item 3) from bracket (Figure 1, Item 9).



BAE6603

Figure 1. Radius Rod Removal.

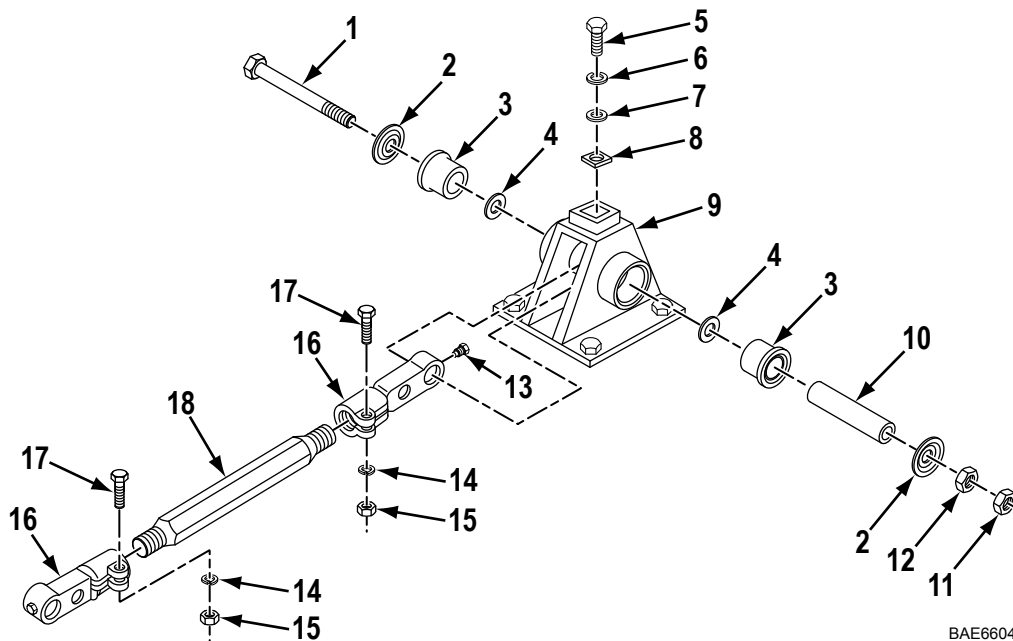
REMOVAL - Continued

4. Remove nut (Figure 2, Item 11), nut (Figure 2, Item 12), bolt (Figure 2, Item 1), and two shouldered washers (Figure 2, Item 2) from radius rod connector (Figure 2, Item 16) and bracket (Figure 2, Item 9).
5. Loosen setscrew (Figure 2, Item 13) and remove spacer (Figure 2, Item 10) from radius rod connector (Figure 2, Item 16) and bushings (Figure 2, Item 3).

NOTE

Measure and record distance between connectors before removing radius rod.

6. Remove radius rod (Figure 2, Item 18), connector (Figure 2, Item 16), washers (Figure 2, Item 4), and bushings (Figure 2, Item 3) from bracket (Figure 2, Item 9).



BAE6604

Figure 2. Radius Rod To Bracket Installation.

END OF TASK**DISASSEMBLY****NOTE**

- Disassembly does not apply to curbside radius rod.
- Measure and record distance between connectors before removing them from radius rod.

1. Remove two nuts (Figure 2, Item 15), lockwashers (Figure 2, Item 14), and bolts (Figure 2, Item 17) from connectors (Figure 2, Item 16). Discard lockwashers (Figure 2, Item 14).
2. Remove two connectors (Figure 2, Item 16) from radius rod (Figure 2, Item 18).

DISASSEMBLY - Continued

3. Remove bolt (Figure 2, Item 5), lockwasher (Figure 2, Item 6), washer (Figure 2, Item 7), and bumper (Figure 2, Item 8) from bracket (Figure 2, Item 9). Discard lockwasher (Figure 2, Item 6).

END OF TASK**ASSEMBLY****NOTE**

- Assembly does not apply to curbside radius rod.
 - Ensure that distance between connectors is the same as recorded before Disassembly.
1. Install bumper (Figure 2, Item 8) to bracket (Figure 2, Item 9) with washer (Figure 2, Item 7), new lockwasher (Figure 2, Item 6), and bolt (Figure 2, Item 5).
 2. Install two connectors (Figure 2, Item 16) on radius rod (Figure 2, Item 18).
 3. Install two bolts (Figure 2, Item 17), new lockwashers (Figure 2, Item 14), and nuts (Figure 2, Item 15) on connectors (Figure 2, Item 16).

END OF TASK**INSTALLATION**

1. Install radius rod (Figure 2, Item 18), connector (Figure 2, Item 16), and washers (Figure 2, Item 4) in bracket (Figure 2, Item 9) with spacer (Figure 2, Item 10).
2. Install bushings (Figure 2, Item 3) in bracket (Figure 2, Item 9) and secure connector (Figure 2, Item 16) to spacer (Figure 2, Item 10) with setscrew (Figure 2, Item 13).
3. Install radius rod connector (Figure 2, Item 16) on bracket (Figure 2, Item 9) with two shouldered washers (Figure 2, Item 2), bolt (Figure 2, Item 1), nut (Figure 2, Item 12), and nut (Figure 2, Item 11).

INSTALLATION - Continued

4. Install radius rod (Figure 3, Item 5) and washers (Figure 3, Item 4) in bracket (Figure 3, Item 9) with spacer (Figure 3, Item 8).
5. Install bushings (Figure 3, Item 3) in bracket (Figure 3, Item 9) and secure radius rod (Figure 3, Item 5) to spacer (Figure 3, Item 8) with setscrew (Figure 3, Item 10).
6. Install radius rod (Figure 3, Item 5) on bracket (Figure 3, Item 9) with two shouldered washers (Figure 3, Item 2), bolt (Figure 3, Item 1), nut (Figure 3, Item 7), and nut (Figure 3, Item 6).

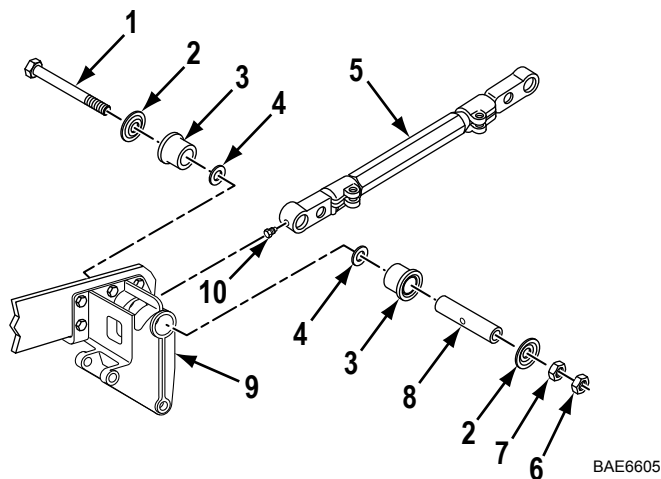


Figure 3. Radius Rod Installation.

END OF TASK**ADJUSTMENT****NOTE**

Make sure that distance between connectors is the same as that recorded when radius rod was removed.

1. Measure distance between connectors (Figure 4, Item 2). If measurement is the same as measurement recorded during removal, adjustment is correct. If adjustment is not correct, go to Step 2.
2. Loosen bolts (Figure 4, Item 3) and turn radius rod (Figure 4, Item 1) clockwise to shorten and counterclockwise to lengthen distance between connectors (Figure 4, Item 2).
3. When measurement between connectors (Figure 4, Item 2) is same as recorded during removal, secure bolts (Figure 4, Item 3).

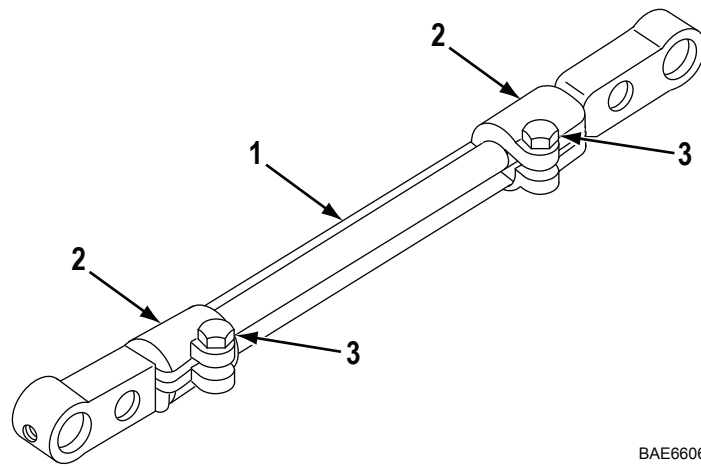
ADJUSTMENT - Continued

Figure 4. Radius Rod Length Adjustment.

END OF TASK**FOLLOW ON TASK**

1. Install spring assembly (WP 0068).
2. Install suspension bracket (WP 0065).

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
FENDER REPLACEMENT**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Wrench, Torque
(WP 0119, Table 1, Item 10)

Materials/Parts (cont.)

Qty: (14) (WP 0103, Figure 21, Item 3)
Washer, Lock
Qty: (5) (WP 0103, Figure 21, Item 9)

Materials/Parts

Washer, Lock
Qty: (4) (WP 0097, Figure 15, Item 9)
Washer, Lock

Personnel Required

Three

Equipment Condition

Trailer parked on level ground (WP 0005)

WARNING

Fender weighs 130 lbs (59 kg). Three people are required to remove fender from frame. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

This trailer has two fenders. This procedure replaces one fender. The other fender is replaced the same way.

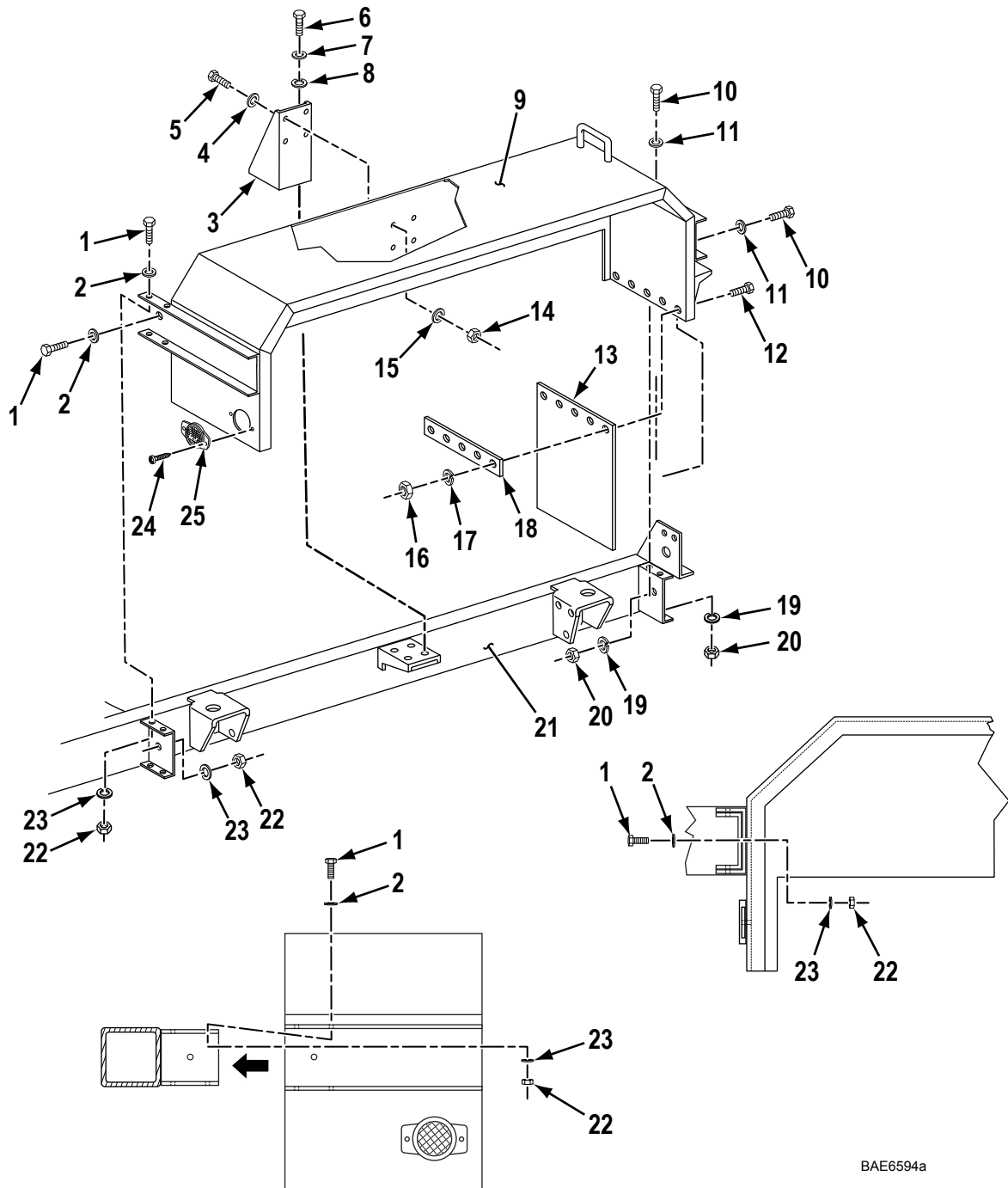
REMOVAL

1. Remove five nuts (Figure 1, Item 16), lockwashers (Figure 1, Item 17), bolts (Figure 1, Item 12), mounting plate (Figure 1, Item 18), and splash guard (Figure 1, Item 13) from fender (Figure 1, Item 9). Discard lockwashers (Figure 1, Item 17).
2. Remove five nuts (Figure 1, Item 20), lockwashers (Figure 1, Item 19), washers (Figure 1, Item 11), and bolts (Figure 1, Item 10) from fender (Figure 1, Item 9). Discard lockwashers (Figure 1, Item 19).
3. Remove five nuts (Figure 1, Item 22), lockwashers (Figure 1, Item 23), washers (Figure 1, Item 2), and bolts (Figure 1, Item 1) from fender (Figure 1, Item 9). Discard lockwashers (Figure 1, Item 23).
4. With the aid of assistants to support fender, remove four bolts (Figure 1, Item 6), lockwashers (Figure 1, Item 7), and washers (Figure 1, Item 8), from frame (Figure 1, Item 21). Discard lockwashers (Figure 1, Item 7).
5. Slide fender (Figure 1, Item 9) from frame (Figure 1, Item 21).
6. Remove four nuts (Figure 1, Item 14), lockwashers (Figure 1, Item 15), washers (Figure 1, Item 4), and bolts (Figure 1, Item 5) from center fender bracket (Figure 1, Item 3). Remove center fender bracket (Figure 1, Item 3) from fender (Figure 1, Item 9). Discard lockwashers (Figure 1, Item 15).
7. Remove four self-tapping screws (Figure 1, Item 24) and front and rear reflector (Figure 1, Item 25) from fender (Figure 1, Item 9).

END OF TASK**INSTALLATION**

1. Position front and rear reflector (Figure 1, Item 25) on fender (Figure 1, Item 9) and secure with four self-tapping screws (Figure 1, Item 24).
2. Position center fender bracket (Figure 1, Item 3) on fender (Figure 1, Item 9) and secure four bolts (Figure 1, Item 5), washers (Figure 1, Item 4), nuts (Figure 1, Item 14), and new lockwashers (Figure 1, Item 15). Torque nuts (Figure 1, Item 14) between 50-55 lb ft (67.8-74.6 N·m).
3. With the aid of assistants to support fender position (Figure 1, Item 9) on frame (Figure 1, Item 21), loosely secure with five rear bolts (Figure 1, Item 10), washers (Figure 1, Item 11), nuts (Figure 1, Item 20), and new lockwashers (Figure 1, Item 19).
4. With fender (Figure 1, Item 9) on frame (Figure 1, Item 21) loosely secure with five front bolts (Figure 1, Item 1), washers (Figure 1, Item 2), nuts (Figure 1, Item 22), and new lockwashers (Figure 1, Item 23).
5. Secure center fender bracket (Figure 1, Item 3) to frame (Figure 1, Item 21) using four bolts (Figure 1, Item 6), washers (Figure 1, Item 8), and new lockwashers (Figure 1, Item 7).
6. Torque four frame bolts (Figure 1, Item 6) between 50-55 lb ft (67.8-74.6 N·m). Torque five front nuts (Figure 1, Item 22) and five rear nuts (Figure 1, Item 20) between 50-55 lb ft (67.8-74.6 N·m).
7. Position splash guard (Figure 1, Item 13) on fender (Figure 1, Item 9) and secure with five bolts (Figure 1, Item 12), mounting plate (Figure 1, Item 18), nuts (Figure 1, Item 16), and new lockwashers (Figure 1, Item 17).

INSTALLATION - Continued



BAE6594a

Figure 1. Fender Replacement.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE WATER TANK MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts

Brush, Scrub (WP 0118, Table 1, Item 3)
Dishwashing Compound
(WP 0118, Table 1, Item 6)

Personnel Required

Two

References

FM 21-10
TB MED 577

Equipment Condition

Parking brake set and wheels chocked
(WP 0005)
Water tank drained (WP 0005)
Manhole cover removed (WP 0074)
Faucets, main valve, and pipes removed
(WP 0075)
Disconnect water tank body brackets from tank
(WP 0073)

WARNING



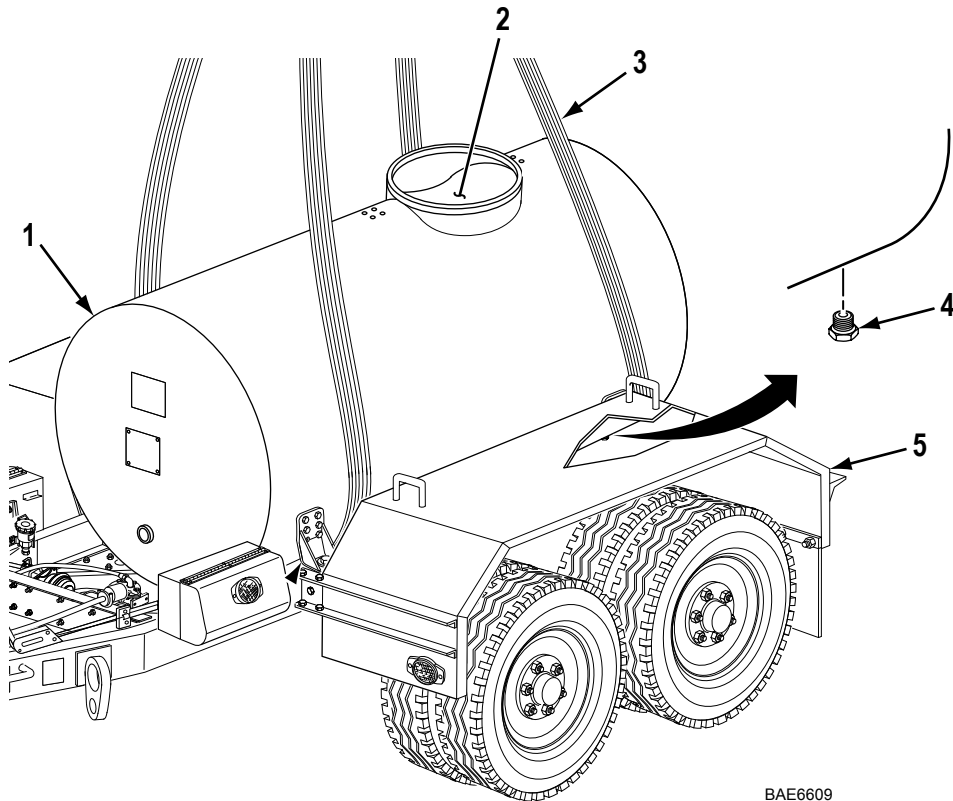
- If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Lifting device must have a weight capacity greater than 7,160 lbs (3,251 kg), the weight of the trailer and cargo. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- All personnel must stand clear of Prime Mover and trailer during coupling and uncoupling operations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

This trailer has four water tank body brackets. This procedure maintains one water tank body bracket. The other water tank body brackets are maintained the same way.

REMOVAL

1. Using suitable lifting device (Figure 1, Item 3), support water tank (Figure 1, Item 1) from trailer frame (Figure 1, Item 5).
2. Remove water tank (Figure 1, Item 1) from trailer frame (Figure 1, Item 5).



BAE6609

Figure 1. Water Tank Removal.

END OF TASK**CLEANING AND REPAIR****WARNING**

- Tank interior is a confined space with potential oxygen deficiency and toxic fume hazards. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- An adequate air evacuation system must be used to quickly exhaust fumes from inside tank assembly. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

CLEANING AND REPAIR - Continued**WARNING**

- Personnel must wear rubber gloves, canvas sleeves, safety shoes, rubberized apron or jacket, and protective mask while performing abrasive cleaning operation. A portable air filter must also be used. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- NEVER WORK ALONE INSIDE tank assembly. A safety rope must be secured around chest and under arms of person entering water tank. Opposite end of safety rope must be held by a person stationed at the manhole opening. This will allow for quick removal of a person from water tank in the event of accident or personal injury. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

For field hygiene and disinfecting procedures, refer to FM 21-10 and TB MED 577.

1. Remove drain plug (Figure 1, Item 4) from water tank (Figure 1, Item 1).
2. Using a brush and dishwashing compound, scrub interior of water tank (Figure 1, Item 2).
3. Rinse interior of water tank (Figure 1, Item 2) repeatedly with warm water, 120°F (49°C), until soapy solution is removed.
4. Install drain plug (Figure 1, Item 4) in water tank body (Figure 1, Item 1).

END OF TASK**INSTALLATION**

Using suitable lifting device (Figure 1, Item 3), lower water tank (Figure 1, Item 1) on trailer frame (Figure 1, Item 5).

END OF TASK**FOLLOW ON TASK**

1. Connect body brackets to tank (WP 0073).
2. Install faucets, main valve, and pipes (WP 0075).
3. Install manhole cover (WP 0074).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE WATER TANK BODY BRACKET REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

(WP 0118, Table 1, Item 14)

Materials/Parts

Gasket (WP 0104, Figure 22, Item 23)
Nut, Self-Locking
Qty: (4) (WP 0104, Figure 22, Item 28)
Wire, Non-Electrical

References

WP 0072

Equipment Condition

Wheels chocked (WP 0005)
Water tank body supported (WP 0005)

WARNING



- If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Lifting device must have a weight capacity greater than 5,800 lbs (2,630 kg), the weight of the trailer and cargo. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- This trailer has four water tank body brackets. This procedure replaces one water tank body bracket. All other water tank body brackets are replaced the same way.
- If replacing more than one water tank body bracket, remove the water tank from the trailer (WP 0072).

REMOVAL

1. Remove lock wire (Figure 1, Item 5) and six bolts (Figure 1, Item 4) from water tank (Figure 1, Item 1) and bracket (Figure 1, Item 3). Discard lock wire (Figure 1, Item 5).
2. Remove self-locking nut (Figure 1, Item 6), washer (Figure 1, Item 7), bolt (Figure 1, Item 13), washer (Figure 1, Item 12), spacer plate (Figure 1, Item 11), packing (Figure 1, Item 10), spacer ring (Figure 1, Item 9), mount (Figure 1, Item 8), bracket (Figure 1, Item 3), and gasket (Figure 1, Item 2) from trailer frame (Figure 1, Item 14) and water tank (Figure 1, Item 1). Discard gasket (Figure 1, Item 2) and self-locking nut (Figure 1, Item 6).

END OF TASK

INSTALLATION

1. Install new gasket (Figure 1, Item 2) and bracket (Figure 1, Item 3) on water tank (Figure 1, Item 1) with six bolts (Figure 1, Item 4). Do not tighten bolts (Figure 1, Item 4) at this time.

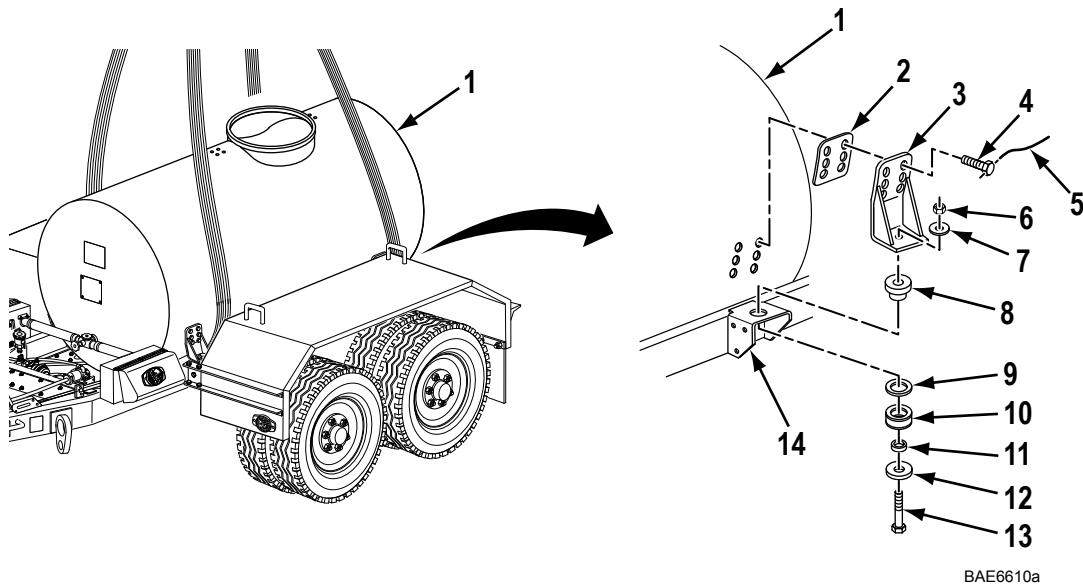


Figure 1. Water Tank Bracket Replacement.

2. Install mount (Figure 1, Item 8) on trailer frame (Figure 1, Item 14).
3. Secure water tank (Figure 1, Item 1) to trailer frame bracket (Figure 1, Item 14) with spacer ring (Figure 1, Item 9), packing (Figure 1, Item 10), spacer plate (Figure 1, Item 11), washer (Figure 1, Item 12), bolt (Figure 1, Item 13), washer (Figure 1, Item 7), and new self-locking nut (Figure 1, Item 6).
4. Tighten six bolts (Figure 1, Item 4) and secure to bracket (Figure 1, Item 3) with new lock wire (Figure 1, Item 5).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE MANHOLE COVER MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts

Adhesive (WP 0118, Table 1, Item 1)
Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Nut, Self-Locking
(WP 0104, Figure 22, Item 21)
Pin, Cotter

Materials/Parts (cont.)

(WP 0104, Figure 22, Item 15)
Rag, Wiping (WP 0118, Table 1, Item 9)
Seal (WP 0104, Figure 22, Item 4)
Washer, Lock
Qty: (8) (WP 0104, Figure 22, Item 9)

References

TM 9-2330-267-13&P

Equipment Condition

Trailer parked on level ground (WP 0005)

WARNING



If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

The manhole cover may have latching assembly used on the M149A2 Water Trailer. Parts information for this latch can be found in TM 9-2330-267-13&P.

REMOVAL

1. Lift and release cover hold-down clamp (Figure 1, Item 17) from bar (Figure 1, Item 20).
2. Remove four screws (Figure 1, Item 5), lockwashers (Figure 1, Item 6), bracket (Figure 1, Item 8), spacer plate (Figure 1, Item 12), spacers (Figure 1, Item 13) with manhole cover assembly (Figure 1, Item 21) from tank assembly (Figure 1, Item 14). Discard lockwashers (Figure 1, Item 6).
3. Remove four screws (Figure 1, Item 19), lockwashers (Figure 1, Item 18), spacers (Figure 1, Item 15), detention assembly pin (Figure 1, Item 16), and cover hold-down clamp (Figure 1, Item 17) from tank assembly (Figure 1, Item 14). Discard lockwashers (Figure 1, Item 18).

END OF TASK**DISASSEMBLY**

1. Remove cotter pin (Figure 1, Item 3), straight pin (Figure 1, Item 1), and bar (Figure 1, Item 20) from manhole cover (Figure 1, Item 21). Discard cotter pin (Figure 1, Item 3).
2. Remove self-locking nut (Figure 1, Item 11), washer (Figure 1, Item 10), spring (Figure 1, Item 9), spacer (Figure 1, Item 2), hook bolt (Figure 1, Item 7), and bracket (Figure 1, Item 8) from bar (Figure 1, Item 20). Discard self-locking nut (Figure 1, Item 11).

NOTE

Perform Steps 3 and 4 only if vacuum valve and/or gasket are damaged.

3. Remove vacuum valve (Figure 1, Item 4) from manhole cover (Figure 1, Item 21).
4. Remove gasket (Figure 1, Item 22) from manhole cover (Figure 1, Item 21). Discard gasket (Figure 1, Item 22).

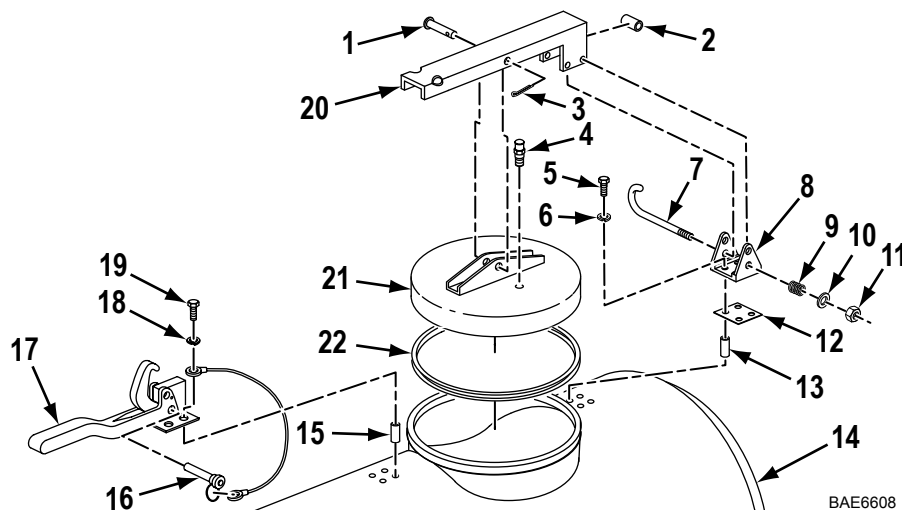


Figure 1. Manhole Cover Removal and Disassembly.

END OF TASK

ASSEMBLY

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.
- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

ASSEMBLY - Continued**NOTE**

- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

1. Clean mating surfaces thoroughly with cleaning solvent and clean dry rag.
2. Inspect vacuum valve (Figure 2, Item 4). If plugged, discard and replace vacuum valve (Figure 2, Item 4).

WARNING

Adhesive causes immediate bonding on contact with eyes, skin, or clothing and also gives off harmful vapors. Wear *gloves*, eye protection and use *adhesive product* only in a well-ventilated areas. If adhesive *makes contact with eyes or skin*, flush *thoroughly* with water for 15 minutes. Try to keep eyes open. Get immediate medical attention. *If ingested, DO NOT induce vomiting. Keep individual calm and seek immediate medical attention.* Failure to comply may result in death or injury to personnel. Dispose of clean-up cloths or rags IAW local policy and ordinances. *Keep contaminated cloths and / or rags clear of open flame or ignition sources.*

3. Apply adhesive to mating surfaces of new gasket (Figure 2, Item 22) and manhole cover (Figure 2, Item 21), and install gasket (Figure 2, Item 22) on manhole cover (Figure 2, Item 21).
4. Install vacuum valve (Figure 2, Item 4) on manhole cover (Figure 2, Item 21).
5. Position bracket (Figure 2, Item 8) on bar (Figure 2, Item 20) and install spacer (Figure 2, Item 2), hook bolt (Figure 2, Item 7), spring (Figure 2, Item 9), washer (Figure 2, Item 10), and new self-locking nut (Figure 2, Item 11) in bracket (Figure 2, Item 8).
6. Position bar (Figure 2, Item 20) on manhole cover (Figure 2, Item 21), and install straight pin (Figure 2, Item 1) and new cotter pin (Figure 2, Item 3) on manhole cover (Figure 2, Item 21).

END OF TASK

INSTALLATION

1. Install four spacers (Figure 2, Item 15) on tank assembly (Figure 2, Item 14).
2. Position cover hold-down clamp (Figure 2, Item 17) on tank assembly (Figure 2, Item 14), and install detention assembly pin (Figure 2, Item 16), four new lockwashers (Figure 2, Item 18), and screws (Figure 2, Item 19) on tank assembly (Figure 2, Item 14).
3. Position four spacers (Figure 2, Item 13) on tank assembly (Figure 2, Item 14).
4. Position spacer plate (Figure 2, Item 12) and bracket (Figure 2, Item 8) on tank assembly (Figure 2, Item 14), and install four new lockwashers (Figure 2, Item 6) and screws (Figure 2, Item 5) on bracket (Figure 2, Item 8).
5. Lift and secure latch cover hold-down clamp (Figure 2, Item 17) to bar (Figure 2, Item 20).

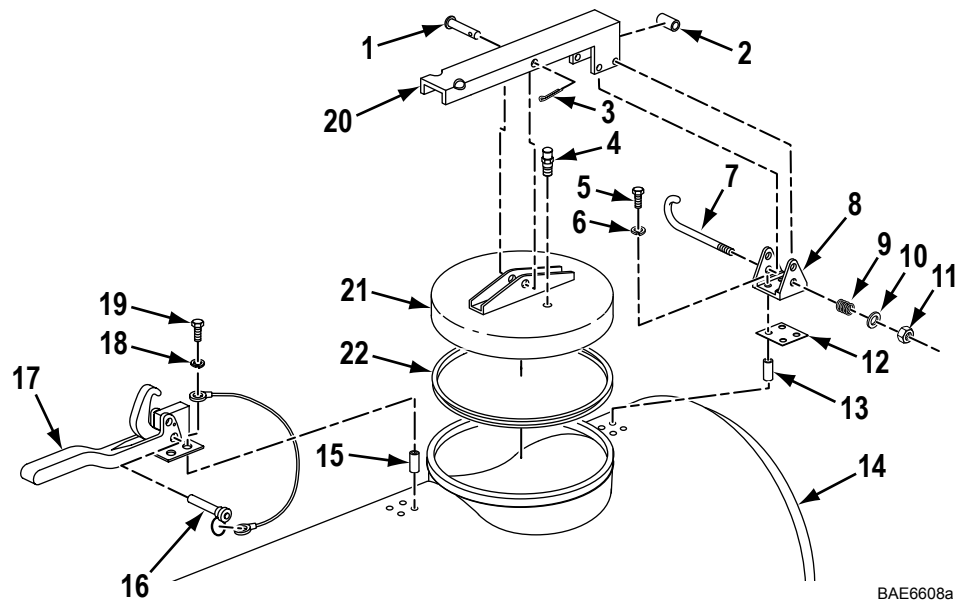


Figure 2. Manhole Cover Assembly and Installation.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE HOSES AND FAUCET MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Qty: (2) (WP 0105, Figure 23, Item 2)
Washer, Lock
Qty: (8) (WP 0105, Figure 23, Item 9)

Materials/Parts

O-Ring
Qty: (2) (WP 0105, Figure 23, Item 3)
O-Ring (WP 0105, Figure 23, Item 4)
Pin, Spring

Equipment Condition

Manifold valve in OFF position (WP 0005)
Water tank drained (WP 0005)

WARNING



- If trailer is not coupled to Prime Mover, ensure that wheels are chocked. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

- Remove only the fittings or components that need to be replaced. This procedure covers all components and fittings.
- Note location and direction of fittings prior to removal to assist with installation.

REMOVAL

1. Remove four hose clamps (Figure 1, Item 22) and two hoses (Figure 1, Item 23) from four straight adapters (Figure 1, Items 4, 9, 15, and 24).
2. Remove two straight adapters (Figure 1, Items 4 and 24) from manifold valve assembly (Figure 1, Item 3).
3. Remove manifold valve assembly (Figure 1, Item 3) from water tank (Figure 1, Item 2).
4. Remove eight nuts (Figure 1, Item 5), lockwashers (Figure 1, Item 6), washers (Figure 1, Item 7), two straps (Figure 1, Item 8), and four U-bolts (Figure 1, Item 14) from faucet boxes (Figure 1, Item 1). Discard lockwashers (Figure 1, Item 6).
5. Remove four faucets (Figure 1, Item 11) with attached parts from faucet boxes (Figure 1, Item 1).
6. Remove two faucets (Figure 1, Item 11) from two pipe tees (Figure 1, Item 10) and remove two faucets (Figure 1, Item 11) from two elbows (Figure 1, Item 13).
7. Remove two elbows (Figure 1, Item 13) from nipple (Figure 1, Item 12) and nipple (Figure 1, Item 18).
8. Remove two straight adapters (Figure 1, Items 9 and 15) from two pipe tees (Figure 1, Item 10).
9. Remove nipple (Figure 1, Item 16) from pipe tee (Figure 1, Item 10) and pipe tee (Figure 1, Item 17).
10. Remove nipple (Figure 1, Item 18) from pipe tee (Figure 1, Item 17) and coupling half (Figure 1, Item 21) from pipe tee (Figure 1, Item 17).
11. Remove plug (Figure 1, Item 19) and gasket (Figure 1, Item 20) from coupling half (Figure 1, Item 21).
12. Remove nipple (Figure 1, Item 12) from pipe tee (Figure 1, Item 10).

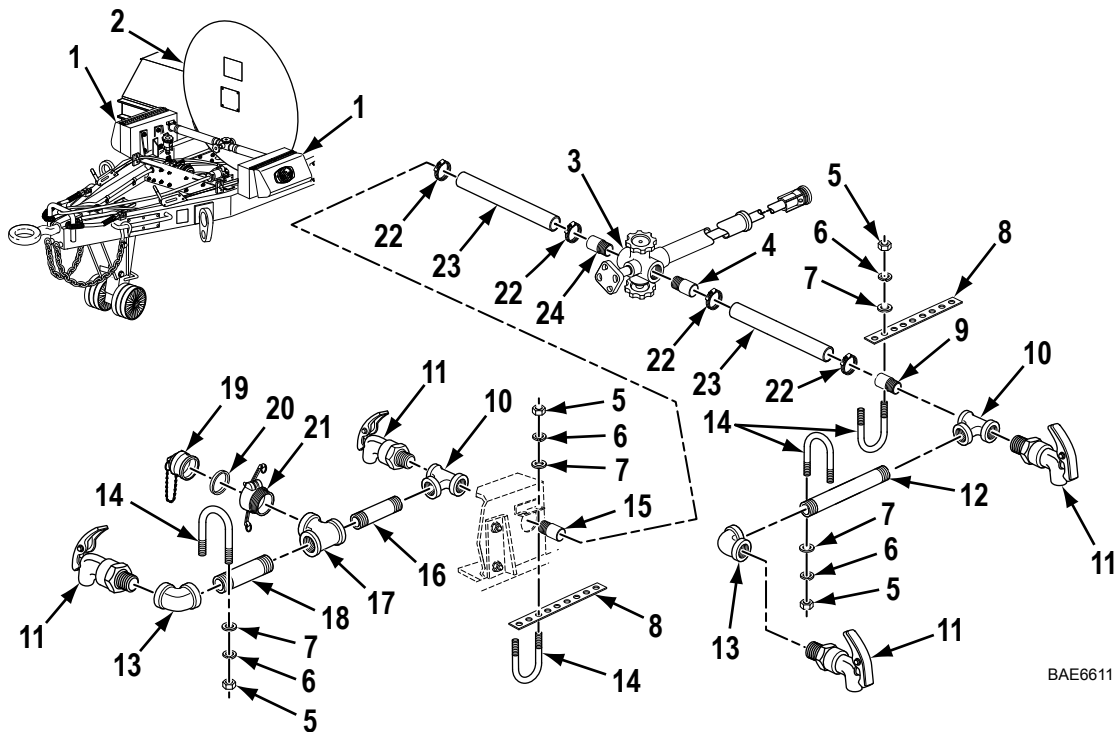


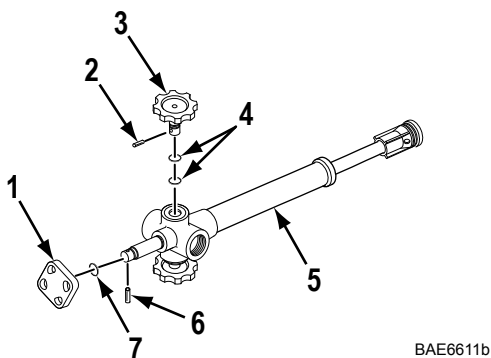
Figure 1. Water Tank Distribution Plumbing Removal.

END OF TASK

DISASSEMBLY**NOTE**

Perform disassembly and assembly only if main valve was removed and needs repair.

1. Remove spring pin (Figure 2, Item 2), handle (Figure 2, Item 3), and two O-rings (Figure 2, Item 4) from main valve (Figure 2, Item 5). Discard O-rings (Figure 2, Item 4) and spring pin (Figure 2, Item 2).
2. Remove spring pin (Figure 2, Item 6), handle (Figure 2, Item 1), and O-ring (Figure 2, Item 7) from main valve (Figure 2, Item 5). Discard O-ring (Figure 2, Item 7) and spring pin (Figure 2, Item 6).



BAE6611b

Figure 2. Main Valve Disassembly.

END OF TASK**CLEANING AND INSPECTION****NOTE**

If any steel-iron fitting or component is found, discard and replace.

1. Clean all parts and inspect for cracks, damaged threads, and evidence of leakage.
2. Replace any damaged parts.

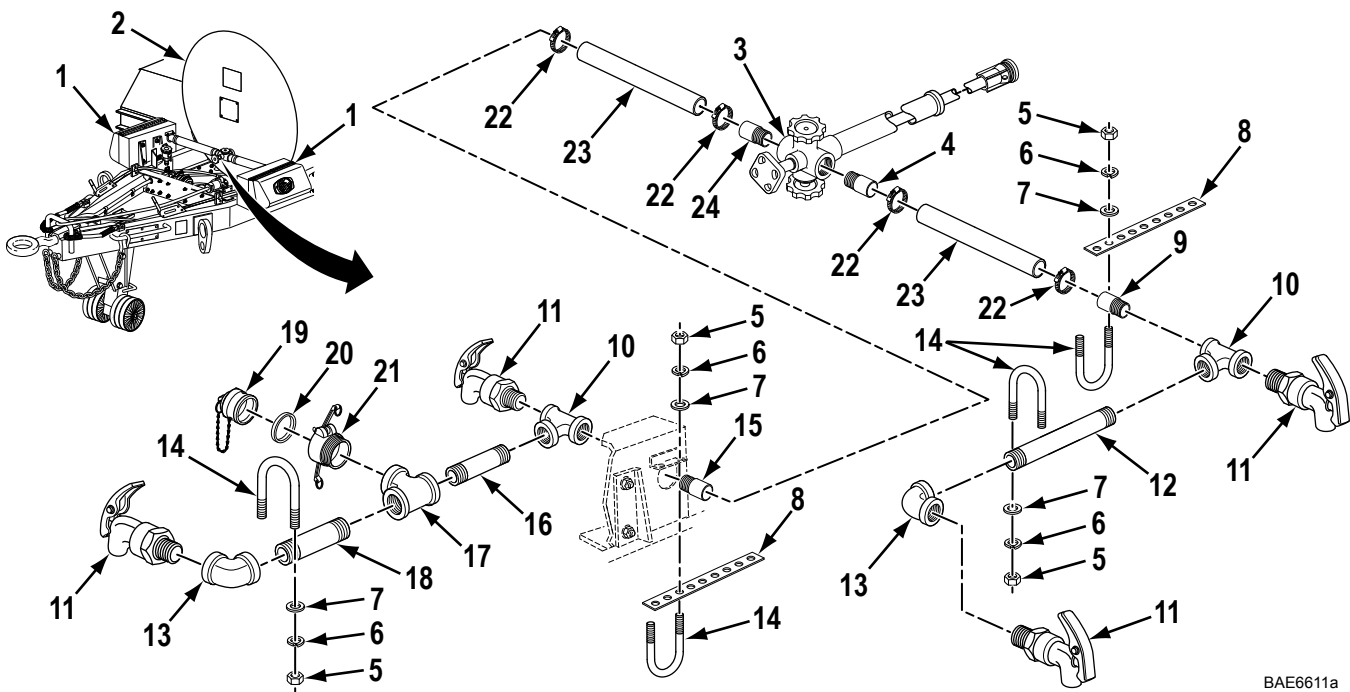
END OF TASK**ASSEMBLY**

1. Install two new O-rings (Figure 2, Item 4) on main valve (Figure 2, Item 5) with handle (Figure 2, Item 3) and new spring pin (Figure 2, Item 2).
2. Install new O-ring (Figure 2, Item 7) on main valve (Figure 2, Item 5) with handle (Figure 2, Item 1) and new spring pin (Figure 2, Item 6).

END OF TASK

INSTALLATION

1. Install two straight adapters (Figure 3, Items 9 and 15) in pipe tee (Figure 3, Item 10).
2. Install two nipples (Figure 3, Items 16 and 18) in pipe tee (Figure 3, Item 17).
3. Install gasket (Figure 3, Item 20), plug (Figure 3, Item 19), and coupling half (Figure 3, Item 21) in pipe tee (Figure 3, Item 17).
4. Install nipple (Figure 3, Item 16) in pipe tee (Figure 3, Item 10).
5. Install two elbows (Figure 3, Item 13) on nipple (Figure 3, Item 12) and nipple (Figure 3, Item 18).
6. Install four faucets (Figure 3, Item 11) in two pipe tees (Figure 3, Item 10) and elbows (Figure 3, Item 13).
7. Position four faucets (Figure 3, Item 11) with attached hardware in two faucet boxes (Figure 3, Item 1) and install four U-bolts (Figure 3, Item 14), two straps (Figure 3, Item 8), eight new lockwashers (Figure 3, Item 6), washers (Figure 3, Item 7), and nuts (Figure 3, Item 5) on faucet boxes (Figure 3, Item 1).
8. Install manifold valve assembly (Figure 3, Item 3) in water tank (Figure 3, Item 2). Connect two straight adapters (Figure 3, Items 4 and 24) to manifold valve assembly (Figure 3, Item 3).
9. Position two hoses (Figure 3, Item 23) and four hose clamps (Figure 3, Item 22) on four straight adapters (Figure 3, Items 4, 9, 15, and 24). Tighten hose clamps (Figure 3, Item 22).



BAE6611a

Figure 3. Water Tank Distribution Plumbing Installation.

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
REFLECTORS REPLACEMENT**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)

Materials/Parts (cont.)

Qty: (2) (WP 0106, Figure 24, Item 5)

Materials/Parts

Nut, Self-Locking

Equipment Condition

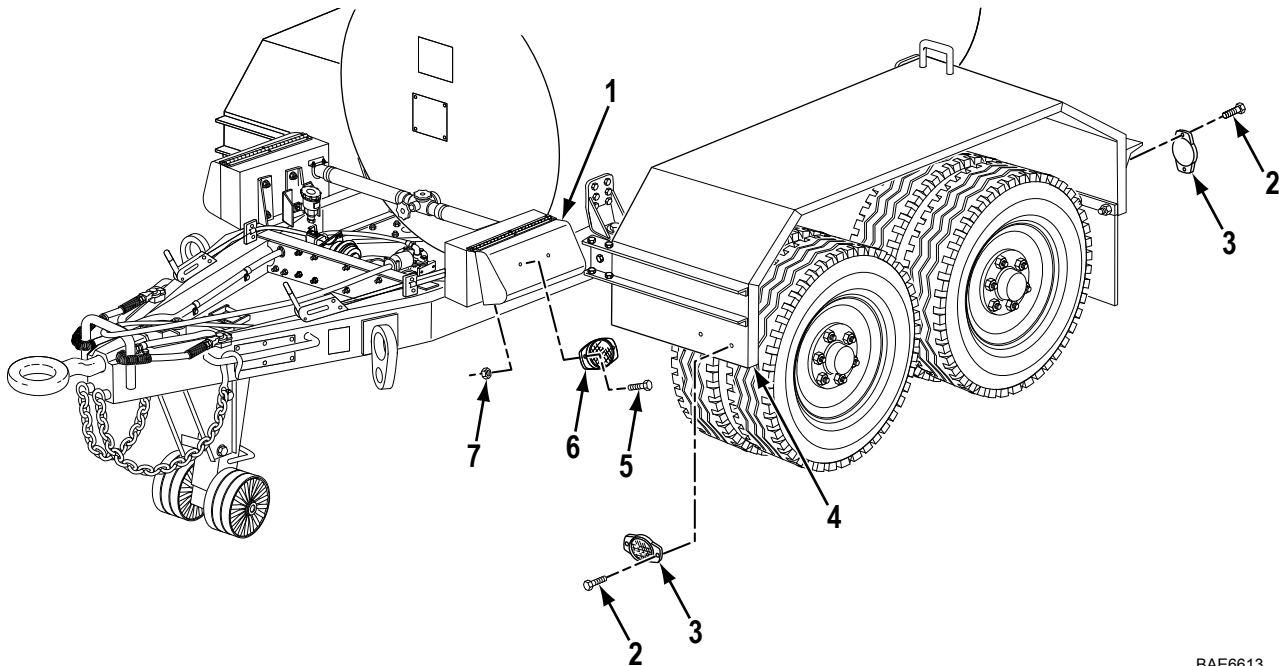
Trailer parked on level ground (WP 0005)

NOTE

This trailer has six reflectors: two on faucet box covers, four on fenders. This procedure replaces the one faucet box cover reflector and one fender reflectors. The other faucet box cover reflector and fender reflectors are replaced in the same way.

REMOVAL

1. Remove two self-locking nuts (Figure 1, Item 7), screws (Figure 1, Item 5), and reflector (Figure 1, Item 6) from faucet box cover (Figure 1, Item 1). Discard self-locking nuts (Figure 1, Item 7).
2. Remove two self-tapping screws (Figure 1, Item 2) and reflector (Figure 1, Item 3) from fender (Figure 1, Item 4).



BAE6613

Figure 1. Reflector Replacement.

END OF TASK**INSTALLATION**

1. Install reflector (Figure 1, Item 3) on fender (Figure 1, Item 4) with two self-tapping screws (Figure 1, Item 2).
2. Install reflector (Figure 1, Item 6) on faucet box cover (Figure 1, Item 1) with two screws (Figure 1, Item 5) and new self-locking nuts (Figure 1, Item 7).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE DATA PLATES AND DECAL REPLACEMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's
(WP 0119, Table 1, Item 8)
Drill, Electric, Portable
(WP 0119, Table 1, Item 3)
Drill Set, Twist
(WP 0119, Table 1, Item 2)

Materials/Parts

Screw, Drive
Qty: (8) (WP 0107, Figure 25, Item 3)

References

WP 0002

NOTE

All data plates and decals are replaced the same way with exception the quantity of screws may vary. For the location of data plates and warning decal, refer to (WP 0002).

REMOVAL

1. Remove six screws (Figure 1, Item 8) and vehicle identification data plate (Figure 1, Item 9) from frame assembly (Figure 1, Item 7).
2. Remove six screws (Figure 1, Item 6) and transportation data plate (Figure 1, Item 5) from frame assembly (Figure 1, Item 7).
3. Remove tank welding warning decal (Figure 1, Item 3) from water tank assembly (Figure 1, Item 4).
4. Remove four drive screws (Figure 1, Item 1) and tank identification data plate (Figure 1, Item 2) from water tank assembly (Figure 1, Item 4). Discard drive screws (Figure 1, Item 1).

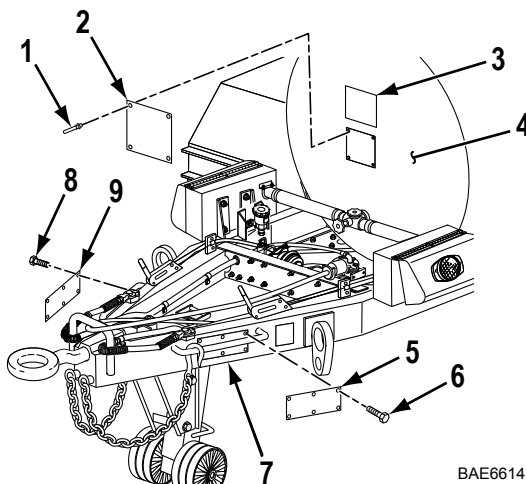


Figure 1. Data Plate and Decal Removal.

REMOVAL - Continued

5. Remove four drive screws (Figure 2, Item 1) and tank cleaning and sanitation plate (Figure 2, Item 2) from manhole cover (Figure 2, Item 3). Discard drive screws (Figure 2, Item 1).

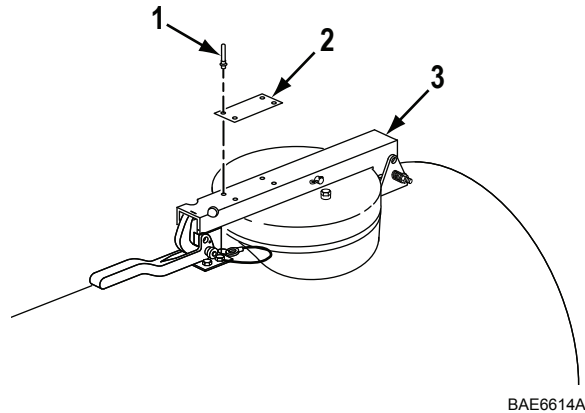


Figure 2. Tank Cleaning and Sanitation Plate Replacement.

END OF TASK**INSTALLATION****NOTE**

When replacing warning decal, make sure new warning decal reads as shown in Figure 3.

1. Peel backing off new tank welding warning decal (Figure 3) and install where old decal was removed (Figure 4, Item 3).

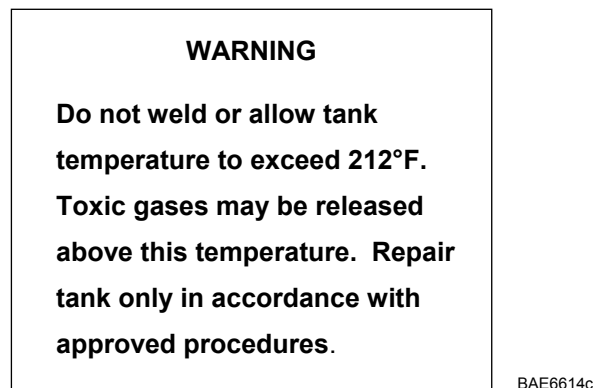
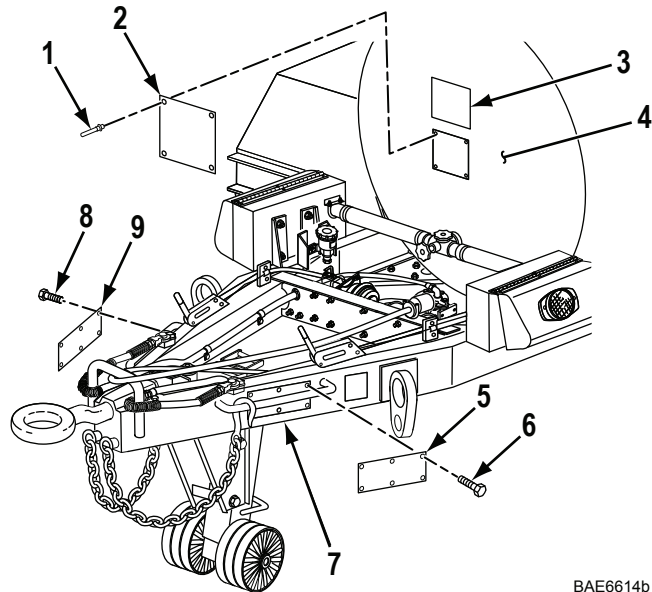


Figure 3. Tank Welding Warning Decal.

2. Install tank cleaning and sanitation instruction plate (Figure 2, Item 2) on manhole cover (Figure 2, Item 3) with four new drive screws (Figure 2, Item 1).
3. Install tank identification data plate (Figure 4, Item 2) on water tank assembly (Figure 4, Item 4) with four new drive screws (Figure 4, Item 1).

INSTALLATION - Continued

4. Install transportation data plate (Figure 4, Item 5) on frame assembly (Figure 4, Item 7) with six screws (Figure 4, Item 6).
5. Install vehicle identification data plate (Figure 4, Item 9) on frame assembly (Figure 4, Item 7) with six screws (Figure 4, Item 8).



BAE6614b

Figure 4. Data Plate and Decal Installation.

END OF TASK**END OF WORK PACKAGE**

**FIELD MAINTENANCE
PREPARATION FOR STORAGE AND SHIPMENT**

INITIAL SETUP:**References**

DA Form 2404/5988-E
DA Form 2407/5990-E
DA PAM 750-8
DD Form 1397
SB 740-98-1

References (cont.)

SF Form 364
TM 43-0139
TM 55-2200-001-12
WP 0040
WP 0079

GENERAL

This Work Package (WP) contains requirements and procedures for administrative storage of equipment that is issued to and in use by Army activities worldwide.

The requirements specified herein are necessary to maintain equipment in administrative storage in such a way as to achieve the maximum readiness condition.

Equipment that is placed in administrative storage should be capable of being readied to perform its mission within a 24-hour period, or as otherwise may be prescribed by the approving authority. Before equipment is placed in administrative storage, a current Preventive Maintenance Checks and Services (PMCS) must be completed and deficiencies corrected.

Report equipment in administrative storage as prescribed for all reportable equipment.

Perform inspections, maintenance services, and lubrication as specified herein.

Records and reports to be maintained for equipment in administrative storage are those prescribed by DA PAM 750-8 for equipment in use.

A 10 percent variance is acceptable on time, running hours, or mileage used to determine the required maintenance actions.

Accomplishment of applicable PMCS, as mentioned throughout this WP will be on a quarterly basis.

DEFINITION OF ADMINISTRATIVE STORAGE

The placement of equipment in administrative storage can be for short periods of time when a shortage of maintenance effort exists. Items should be ready for use within the time factors as determined by the directing authority. During the storage period, appropriate maintenance records will be kept.

WARNING

Use a drain pan or appropriate containment equipment to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Immediately clean up spilled fluid before proceeding with any task. Comply with local regulations when disposing of clean up material and leaked and spilled fluids. Failure to comply may cause damage to environment and health of personnel. Seek medical attention in the event of an injury.

PREPARATION OF EQUIPMENT FOR ADMINISTRATIVE STORAGE**Storage Site**

Select the best available site for administrative storage. Separate stored equipment from equipment in use. Conspicuously mark the area "ADMINISTRATIVE STORAGE."

Covered space is preferred. When sufficient covered space for all items to be stored is not available, priority should be given to items which are most susceptible to deterioration from the elements. SB 740-98-1 should be used as a guide for establishing which items are most susceptible to deterioration. Open sites should be improved hardstand, if possible. Unimproved sites should be firm, well drained, and kept free of excessive vegetation.

PREPARATION OF EQUIPMENT FOR ADMINISTRATIVE STORAGE - Continued**Storage Plan**

1. Store equipment so as to provide maximum protection from the elements and to provide access for inspection, maintenance, and exercising. Anticipate removal or deployment problems and take suitable precautions.
2. Take into account environmental conditions, such as extreme heat or cold, high humidity, blowing sand or loose debris, soft ground, mud, heavy snow, and take adequate precautions.
3. Establish a fire plan and provide for adequate firefighting equipment and personnel.

Maintenance Services and Inspection

1. Prior to storage, perform the next scheduled organizational PMCS.
2. Inspect and approve the equipment prior to storage. Do not place equipment in storage in a non-mission capable condition.
3. Lubricate equipment in accordance with applicable lubrications instructions located in (WP 0079).

Additional Authorization List (AAL) Items

1. Process AAL items simultaneously with the major item to which they are assigned.
2. If possible, store AAL items with the major item.
3. If stored apart from the major item, mark AAL items with tags indicating the major item, its registration or serial number, and location, and store in protective-type closures. In addition, place a tag or list indicating the location of the removed items in a conspicuous place on the major item.

Correction of Shortcomings and Deficiencies

Correct all shortcomings and deficiencies prior to storage, or obtain a waiver from the approving authority.

General Cleaning, Painting, and Preservation**CAUTION**

Do not direct water or steam, under pressure, against electrical wires or any exterior opening. Failure to comply may result in damage to, or destruction of, equipment or mission.

1. Clean all equipment of dirt, grease, and other contaminants in accordance with applicable provisions of this manual. Do not use vapor degreasing. Remove foreign objects that are wedged in tire treads.
2. Remove rust and damaged paint by scraping, wire brushing, sanding, or buffing. Sand to a smooth finish and spot paint as necessary. Refer to TM 43-0139.
3. After cleaning and drying, immediately coat unpainted metal surfaces with oil or grease, as appropriate.

NOTE

Air circulation under draped covers reduces deterioration from moisture and heat.

4. Place equipment and provide blocking or framing to allow ventilation and water drainage. Support cover away from item surfaces, which may rust, rot, or mildew.

END OF TASK

CARE OF EQUIPMENT IN ADMINISTRATIVE STORAGE

Maintenance Services

After equipment has been placed in administrative storage, inspect, service, and exercise as specified in this manual.

Inspection

Inspection will usually be visual and must consist of at least a walk-around examination of all equipment to detect any deficiencies. Inspect equipment in open storage weekly and equipment in covered storage monthly. Inspect all equipment immediately after any severe storm or environmental change. The following are examples of things to look for during a visual inspection:

1. Low or flat tires
2. Condition of preservatives, seals, and wraps
3. Torn, frayed, or split canvas covers and tops
4. Corrosion or other deterioration
5. Missing or damaged parts
6. Water in components
7. Any other readily recognizable shortcomings or deficiencies

Repair during Administrative Storage

Keep equipment in an optimum state of readiness. Accomplish the required services and repairs as expeditiously as possible. Whenever possible, perform all maintenance on-site.

Exercising

Exercise equipment in accordance with Table 1, Exercise Schedule, and the following instructions:

1. **Vehicle Major Exercise.** Depreserve equipment by removing only that material restricting exercise. Close all drains, remove blocks, latch tailgates, and perform all before-operation checks. Couple trailer to Prime Mover, and drive for at least 25 miles (40 km). Make several right and left 90 degree turns. Make several hard braking stops without skidding. Do the following during exercising when it is convenient and safe: operate all other functional components and perform all during- and after-operation checks.
2. **Scheduled Services.** Scheduled services will include inspection per "Inspection" above, and will be conducted in accordance with Table 1, Exercise Schedule. Lubricate in accordance with instructions in (WP 0079).
3. **Corrective Action.** Immediately take action to correct shortcomings and deficiencies noted. Record inspection and exercise results on DA Form 2404/5988-E. Record and report all maintenance actions on DA Form 2407/5990-E. After exercising, restore the preservation to the original condition.

Weeks	2	4	6	8	10	12	14	16	18	20	22	24
PMCS						X						X
Scheduled Services		X		X		X		X		X		
Major Exercise												X

CARE OF EQUIPMENT IN ADMINISTRATIVE STORAGE - Continued**Rotation**

To ensure utilization of all assigned materiel, rotate items in accordance with rotational plan that will keep equipment in operational condition and reduce maintenance efforts.

END OF TASK**PROCEDURES FOR COMMON COMPONENTS AND MISCELLANEOUS ITEMS****Tires**

Visually inspect tires during each walk-around inspection. This inspection includes checking tires with a tire gauge. Inflate, repair, or replace as necessary those found to be low, damaged, or excessively worn. Mark inflated and repaired tires with a crayon for checking at the next inspection.

Seals

Seals may develop leaks during storage, or shortly thereafter. If leaking persists, refer to the applicable maintenance work package in this manual for corrective maintenance procedures.

END OF TASK**REMOVAL OF EQUIPMENT FROM ADMINISTRATIVE STORAGE****Activation**

Restore the equipment to normal operating condition in accordance with the instructions contained in (WP 0040).

Servicing

Resume the maintenance service schedule in effect at the commencement of storage, or service the equipment before the scheduled dates in order to produce a staggered maintenance workload.

END OF TASK

PREPARATION OF EQUIPMENT FOR SHIPMENT

For additional instructions on processing, storage, and shipment of material, refer to TM 55-2200-001-12.

Trailers that have been removed from storage for shipment do not have to be reprocessed if they will reach their destination within the administrative storage period. Reprocess only if inspection reveals any corrosion, or if anticipated in-transit weather conditions make it necessary.

When a trailer is received that has already been processed for domestic shipment, as indicated on DD Form 1397, the trailer does not have to be reprocessed for storage unless corrosion and deterioration are found during the inspection upon receipt. List on SF Form 364 all discrepancies found because of poor preservation, packaging, packing, marking, handling, loading, storage, or excessive preservation. Repairs that cannot be handled by the receiving unit must have tags attached listing needed repairs. A report of these conditions will be submitted by the unit commander for action by an ordnance maintenance unit.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE LUBRICATION INSTRUCTIONS

INITIAL SETUP:

Tools and Special Tools

Gloves, Chemical and Oil Protective
(WP 0119, Table 1, Item 5)

Materials/Parts (cont.)

(WP 0118, Table 1, Item 7)
Lubricating Oil (WP 0118, Table 1, Item 8)
Rag, Wiping (WP 0118, Table 1, Item 9)

Materials/Parts

Cleaning Compound, Solvent
(WP 0118, Table 1, Item 4)
Grease, Automotive and Artillery

References

TM 4-33.31
TM 9-214

WARNING



- Solvent cleaning compound MIL-PRF-680 may be irritating to the eyes and skin. Wear protective gloves and eye protection. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- Store, transport, and dispose virgin/used solvents and solvent contaminated rags in compliance with local procedures and regulations. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of injury.

WARNING

- Use solvent cleaning compound MIL-PRF-680 in a well ventilated area. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract. May cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: DO NOT induce vomiting. Seek immediate medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.
- MIL-PRF-680 solvent is combustible; DO NOT use or store near heat, sparks, flame, or other ignition sources. Use mechanical ventilation whenever product is used in confined space, heated above ambient temperatures, or agitated. When not using MIL-PRF-680 solvents, ensure MIL-PRF-680 solvent container is closed.
- Immediately wipe any solvent spills. Keep cloths away from open flame and/or ignition sources. Refer to local procedures and plans for preventing and responding to spills. Comply with local regulations when disposing of clean up materials.
- Improper cleaning methods and use of unauthorized cleaning liquids or solvents can injure personnel and damage equipment. Failure to comply may result in death or injury to personnel. Seek medical attention in the event of an injury.

NOTE

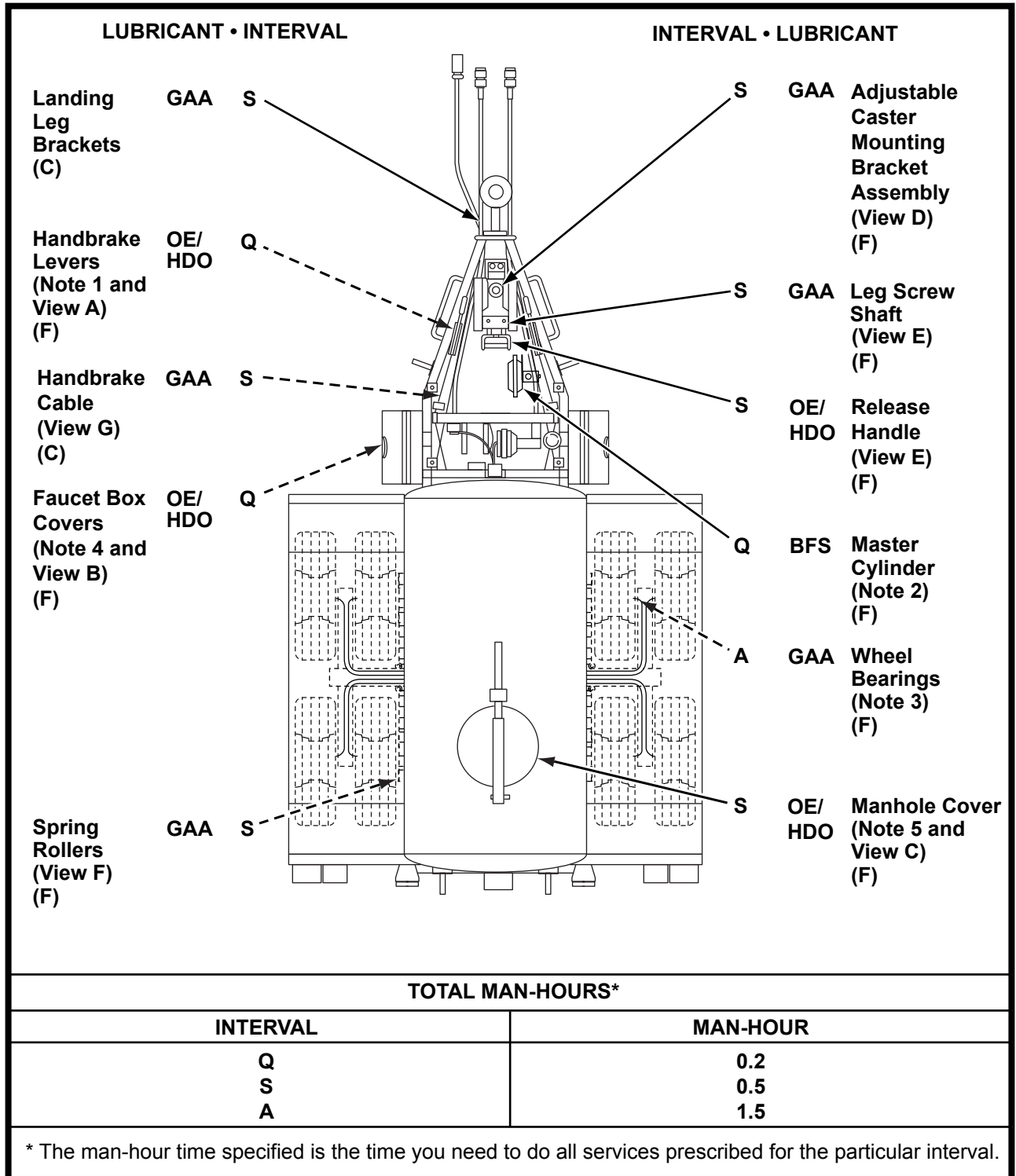
- Use a drain pan to capture any draining or leaking fluid. Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Refer to local procedures and plans for preventing and responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and leaked and spilled fluids.
- Immediately clean up spilled fluid before proceeding with any task. Refer to local procedures and plans for responding to fluid spills or leaks. Comply with local regulations when disposing of clean up material and spilled fluids.

GENERAL

This Work Package (WP) contains lubrication instructions, showing location, intervals, and proper materials for lubricating the M1112 trailer. Refer to the NOTES section of the chart for specific components to be lubricated. These instructions are mandatory.

The KEY lists lubricants to be used in all temperature ranges and shows the intervals.

LUBRICATION CHART



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Figure 1. Lubrication Chart – View 1.

LUBRICATION CHART - Continued

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 (MIL-PRF-2104) Lubricating Oil, Internal Combustion Engine, Tactical Service	OE/HDO-30	OE/HDO-30	—	Q - Quarterly S - Semiannual A - Annual
OEA (MIL-PRF-46167) Lubricating Oil, Internal Combustion Engine, Arctic	—	—	OEA	
BFS (MIL-B-46176) Brake Fluid, Silicone, Automotive	All Temperatures			
GAA (MIL-PRF-10924) Grease, Automotive and Artillery	All Temperatures			

FOR ARCTIC OPERATIONS REFER TO FM 9-207

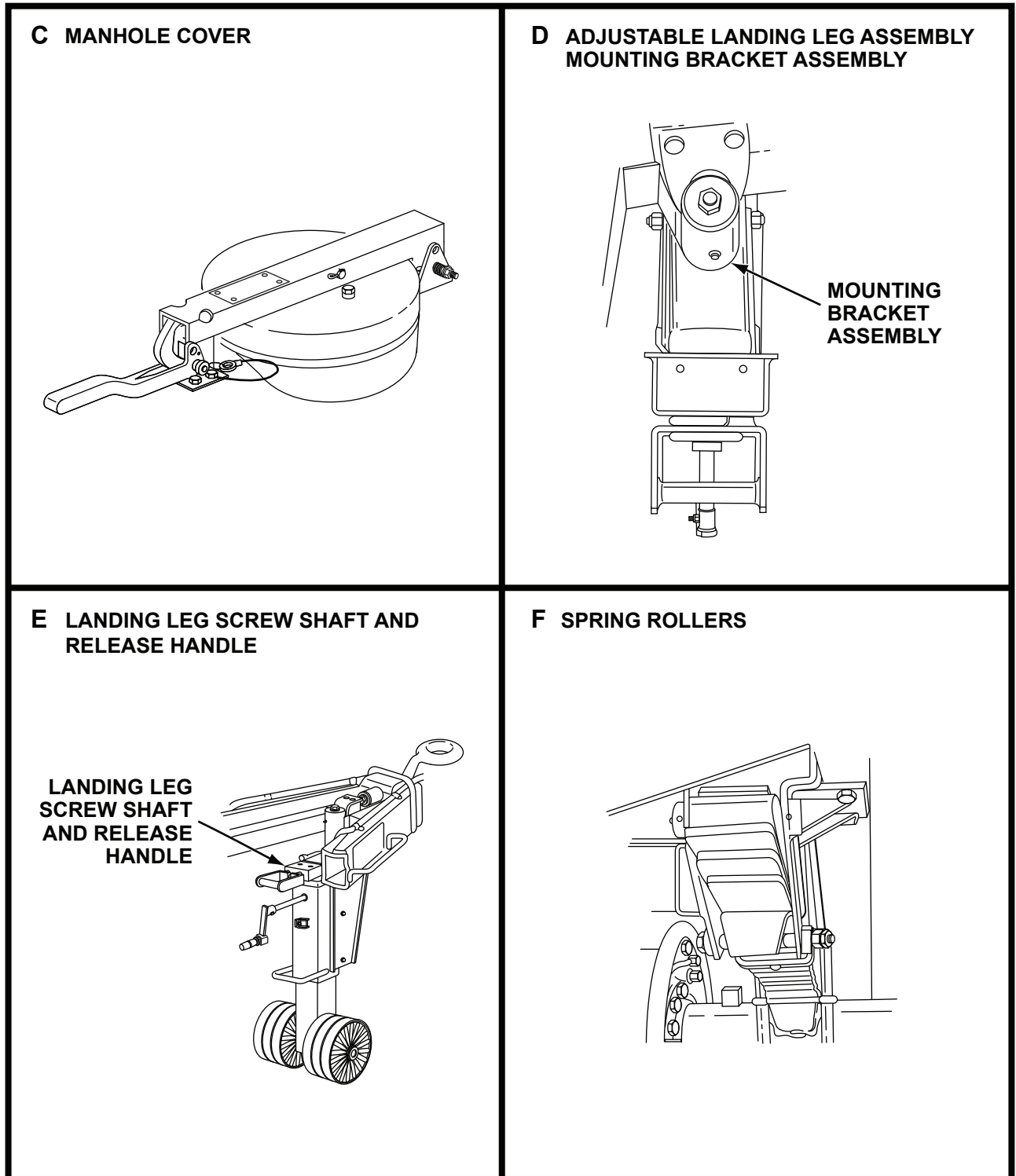
A HANDBRAKE LEVER

B FAUCET BOX COVERS

BAE6657

Figure 2. Lubrication Chart – View 2.

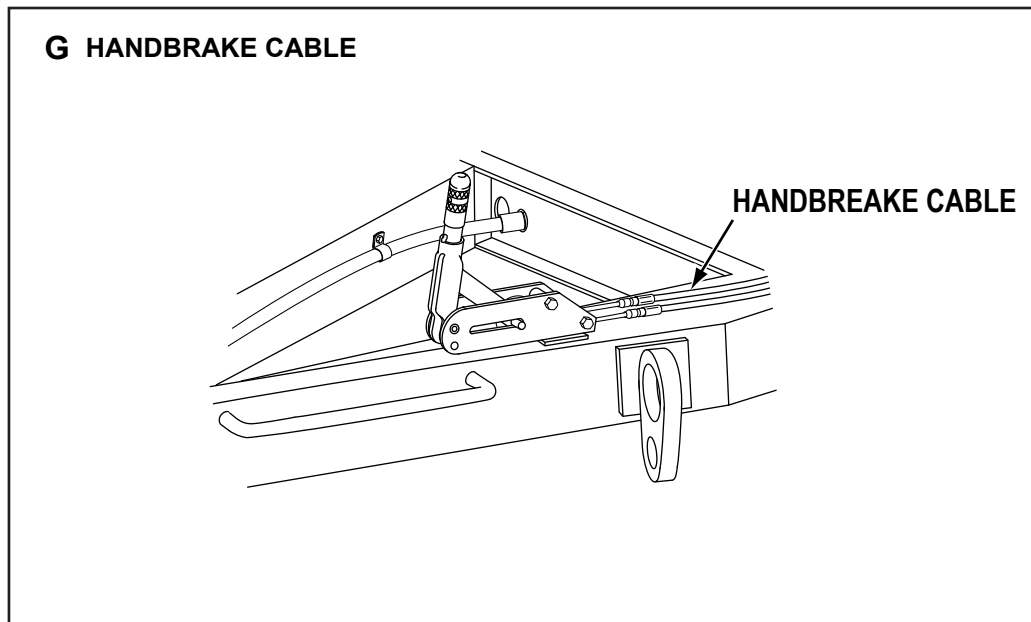
LUBRICATION CHART - Continued



BAE6656

Figure 3. Lubrication Chart – View 3.

LUBRICATION CHART - Continued



BAE6658

Figure 4. Lubrication Chart – View 4.

NOTE

- **FOR OPERATION OF TRAILER IN EXPECTED COLD TEMPERATURES BELOW -10°F (-23°C).** Remove lubricants prescribed in the key for temperatures above -10°F (-23°C). Clean parts with solvent. Lubricate with lubricants specified in the key for temperature 0°F to -65°F (-18°C to -54°C).
- Oil Can Points. Every 6 months and after washing or fording, lubricate handbrake, linkage, bushings, pins, clevises, moving parts, and all exposed adjusting threads with OE/HDO.

Note 1. (Handbrake Lever, Pivot Points, Linkage, and Moving Parts): Every six months lubricate wheel lug threads, landing leg, landing leg spindle, and landing leg handle springs with appropriate Lubricating Oil, Preservative (PL).

Note 2. (Master Cylinder): Every three months check fluid level. Add fluid to within 0.5 in (13 mm) from top.

Note 3. (Wheel Bearings): Every twelve months remove, clean, and pack with GAA. Refer to TM 9-214.

Note 4. (Faucets Box Covers): Lubricate hinges and swivel bases of faucet box cover latch sparingly with OE/HDO.

Note 5. (Manhole Cover): Lubricate hinges sparingly with OE/HDO.

DETAILED LUBRICATION INFORMATION

Clean lubrication points, grease fittings, and surrounding areas before applying lubricant.

Clean all lubrication points after lubricating to prevent accumulation of foreign matter.

Clean and lubricate bearings as specified in TM 9-214.

SPECIFIC LUBRICATION INSTRUCTIONS

CAUTION

- Wipe excess lubricant from area of brake shoe linings to avoid grease soaking linings. If brake shoes linings become soaked, replace them. Failure to comply may result in damage to, or destruction of, equipment or mission.
- Do not lubricate springs. Failure to comply may result in damage to equipment.

NOTE

- **MASTER CYLINDER.** Every three months, check fluid level. Add fluid to master cylinder.
- **FORDING OPERATIONS.** Refer to lubrication instructions before and after fording operations.
- **LANDING LEG.** Semiannually, extend, clean, and coat appropriate.
- In sandy areas, halve lubrication interval.

Keep all lubricants in closed containers and store in a clean, dry place away from extreme heat. Keep container covers clean and do not allow dust, dirt, or other foreign material to mix with lubricants. Keep all lubrication equipment clean and ready for use.

Keep all external parts of equipment not requiring lubrication clean of lubricants.

For lubrication instruction in cold weather, refer to TM 4-33.31.

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.

END OF WORK PACKAGE

FIELD MAINTENANCE TORQUE LIMITS

SCOPE

This work package lists standard torque values and provides general information for applying torque. Special torque values and tightening sequences are indicated in the maintenance procedures for applicable components.

GENERAL

1. Always use torque values listed in Tables 2 and 3 when a maintenance procedure does not give a specific torque value.
 - a. Table 2 provides torque limits for SAE standard fasteners.
 - b. Table 3 provides torque limits for metric fasteners.
2. Unless otherwise indicated, standard torque tolerance shall be ± 10 percent.
3. Torque values listed are based on 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.

CAUTION

If replacement capscrews are of higher grade than originally supplied, use torque specifications for the original. This will prevent equipment damage due to over-torquing. Failure to comply may result in damage to, or destruction of, equipment or mission.

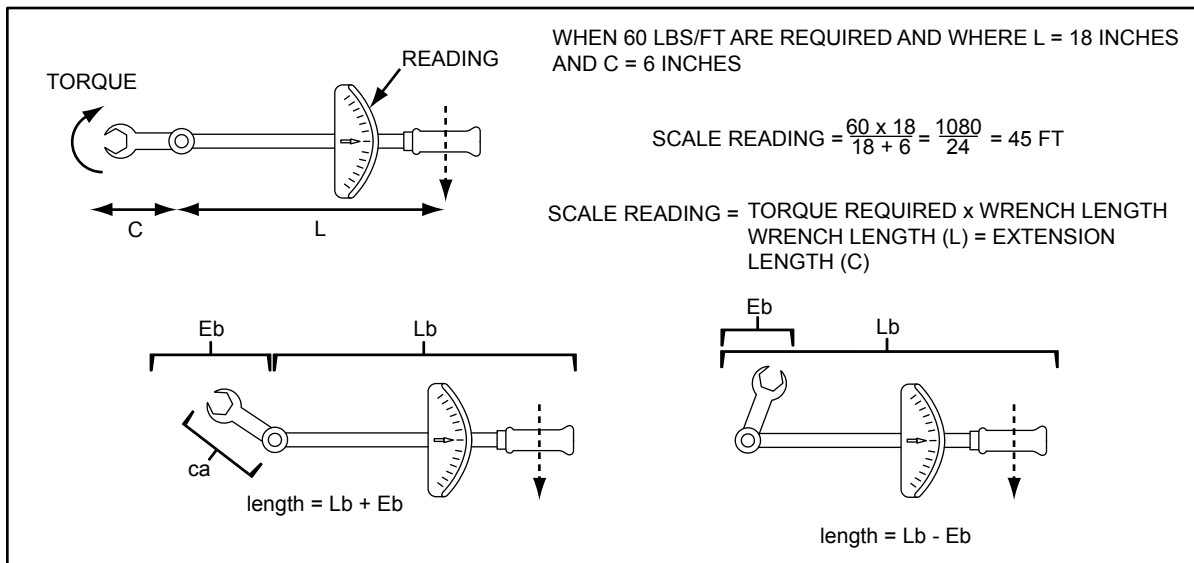
TIGHTENING METAL FASTENERS

When torquing a fastener, select a torque wrench with a range fitting the required torque value. Torque wrenches are most accurate from 25 to 75 percent of its stated range. A torque wrench with a stated range of 0 to 100 lb ft (0 to 136 N·m) will be most accurate from 25 to 75 lb ft (34 to 102 N·m). The accuracy of readings will decrease as you approach 0 lb ft or 100 lb ft (136 N·m). Ranges in Table 1 are based on this principle.

Table 1. Metal Fasteners.

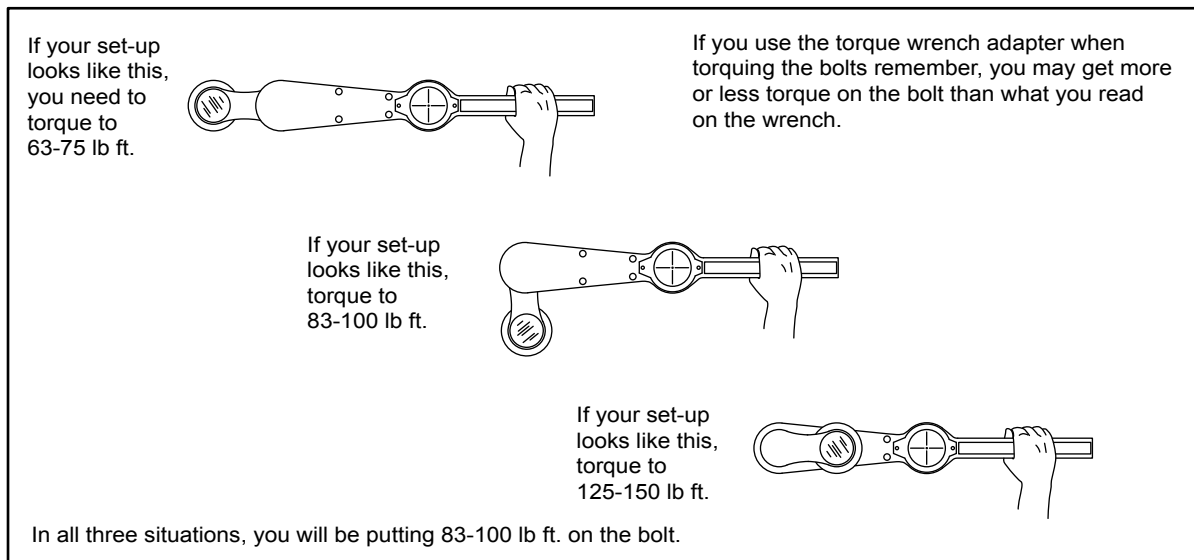
STATED RANGE		MOST EFFECTIVE RANGE	
0-200 lb in.	(0-23 N·m)	50-150 lb in.	(6-17 N·m)
0-600 lb ft	(0-813 N·m)	50-450 lb ft	(68-610 N·m)
0-170 lb ft	(0-230 N·m)	44-131 lb ft	(60-178 N·m)
15-75 lb ft	(20-102 N·m)	30-60 lb ft	(41-81 N·m)

TIGHTENING METAL FASTENERS - Continued



BAE6653

Figure 1. Torque Wrench Formula.



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Figure 2. Torque Wrench Adapter Setups.

INSTALLATION AND TORQUING




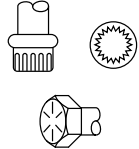
1. **Matching Nuts.** Matching nuts require a minimum height equal to the basic diameter of the bolt. The same is true of tapped holes. In tapped softer materials, the depth of the tapped hole should be 1-1/2 times the basic diameter of the bolt.

INSTALLATION AND TORQUING - Continued

2. **Threaded Protrusion.** In all installations, bolts, studs, and screws must extend through the nut at least a length equivalent to two complete threads. This applies to both self-locking and plain nuts.
3. **Torquing Self-Locking Nuts.** To obtain the correct recommended torque value on self-locking nuts, the nut must be tightened until it is one turn from the beginning of seating. At this point, if the torque is less than 1/3 of the recommended torque, it should be disregarded and the nut tightened to the recommended torque value. If the torque is 1/3 or more of the recommended torque, it should be added to the recommended torque. Example: The recommended torque is 50-70 lb in. (6-8 N·m). The torque at one turn from seating is 30 lb in. (3 N·m). The correct torque wrench reading would be 80-100 lb in. (9-11 N·m).
4. **Re-torquing Fasteners.** Procedures intended for installing metal fasteners can cause incorrect readings when used to check or re-torque already installed fasteners during maintenance. Before checking or re-torquing an already installed threaded fastener, first mark the fastener and its companion components so the marks are in line. Second, back it off a 1/4 turn to loosen it. Torque it to the specification with an even steady pull on the torque wrench. The marks should be in line; if not, the marks will indicate the fastener was under- or over-torqued.
5. **Standard Torque Charts.** Standard torque charts have been established for dry and wet torque conditions. Surface variations such as thread roughness, scale paint, lubrication (oil, grease, etc.), hardening, and plating may alter these values considerably. Tables 2 and 3 are standard torque charts.
6. To find the grade of the screw that is to be installed, match the markings on the head to the correct picture of CAPSCREW HEAD MARKINGS in Tables 2 and 3. Manufacturer's marks may vary.

INSTALLATION AND TORQUING - Continued

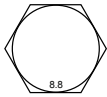
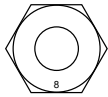
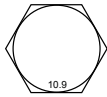
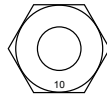
Table 2. Torque Limits - SAE Fasteners.

QUALITY OF MATERIAL	INDETERMINATE	MINIMUM COMMERCIAL	MEDIUM COMMERCIAL	BEST COMMERCIAL
SAE Grade Number	1 or 2	5	6 or 7	8
Capscrew Head Markings				
CAPSCREW BODY SIZE IN. - THREAD	TORQUE LB FT (N•m)	TORQUE LB FT (N•m)	TORQUE LB FT (N•m)	TORQUE LB FT (N•m)
1/4 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 (1,234)
14	250 (339)	660 (895)		990 (1,342)

BAE 6648

INSTALLATION AND TORQUING - Continued

Table 3. Torque Limits - Metric Fasteners.

Thread Diameter – Pitch	 CLASS 8.8 BOLT	 CLASS 8 NUT	 CLASS 10.9 BOLT	 CLASS 10 NUT
	TORQUE: LB FT (N•m)		TORQUE: LB FT (N•m)	
M6	5 (7)		7 (9)	
M8	12 (16)		17 (23)	
M8 x 1	13 (18)		18 (24)	
M10	24 (33)		34 (46)	
M10 x 1.25	27 (37)		38 (52)	
M12	42 (57)		60 (81)	
M12 x 1.5	43 (58)		62 (84)	
M14	66 (89)		95 (129)	
M14 x 1.5	72 (98)		103 (140)	
M16	103 (140)		148 (201)	
M16 x 1.5	110 (149)		157 (213)	
M18	147 (199)		203 (275)	
M18 x 1.5	165 (224)		229 (310)	
M20	208 (282)		288 (390)	
M20 x 1.5	213 (313)		320 (434)	
M22	283 (384)		392 (531)	
M22 x 1.5	315 (427)		431 (584)	
M24	360 (488)		498 (675)	
M24 x 2	392 (531)		542 (735)	
M27	527 (715)		729 (988)	
M27 x 2	569 (771)		788 (1,068)	
M30	715 (969)		990 (1,342)	
M30 x 2	792 (1,074)		1,096 (1,486)	

BAE 6649

* All plated and unplated fasteners should be coated with oil before installation.

† Use these torque values if either the bolt or nut is lubricated or plated (zinc phosphate conversion-coated, cadmium-plated, or waxed).

FASTENER SIZE AND THREAD PATTERN

Threaded fasteners are categorized according to diameter of the fastener shank. Thread styles are divided into broad groups, the two most common being coarse (Unified Course-UNC) and fine (Unified Fine-UNF). These groups are defined by the number of threads per inch in the bolt shanks. In addition, threads are categorized by thread class, which is a measure of the degree between threads of the bolt or screws (external threads) and threads of attaching nut or tapped hole (internal threads of attaching nut or tapped hole) (internal threads). The most common thread class for bolts and screws is Class 2.

FASTENER SIZE AND THREAD PATTERN - Continued

Table 4. Thread Classes and Description.

EXTERNAL	INTERNAL	INTERNAL
1A	1B	LOOSE FIT
2A	2B	MEDIUM FIT
3A	3B	CLOSE FIT

BAE6659

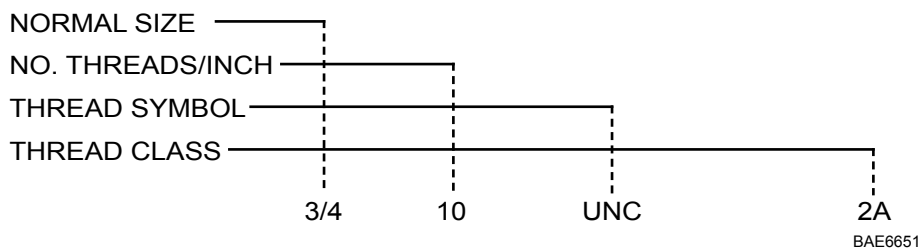


Figure 3. Fastener Size.

NOTE

Unless followed with "LH" (e.g., 3/4-10 UNC-2A-LH), threads are right-hand.

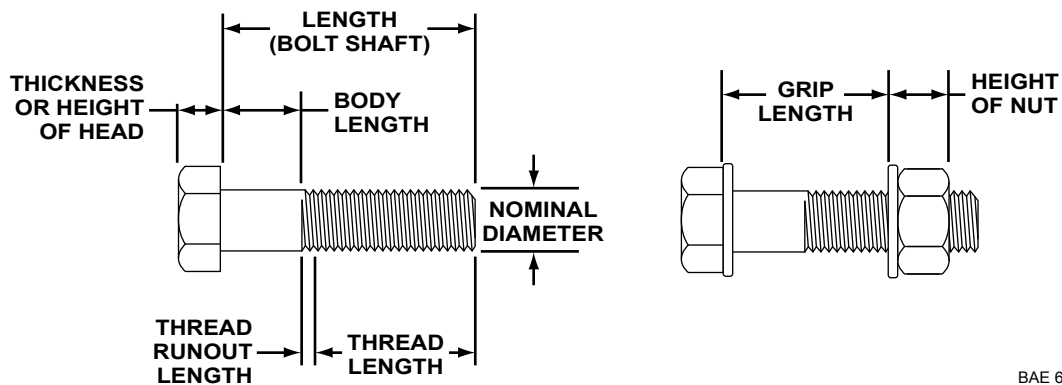


Figure 4. Thread Pattern.

END OF TASK

END OF WORK PACKAGE

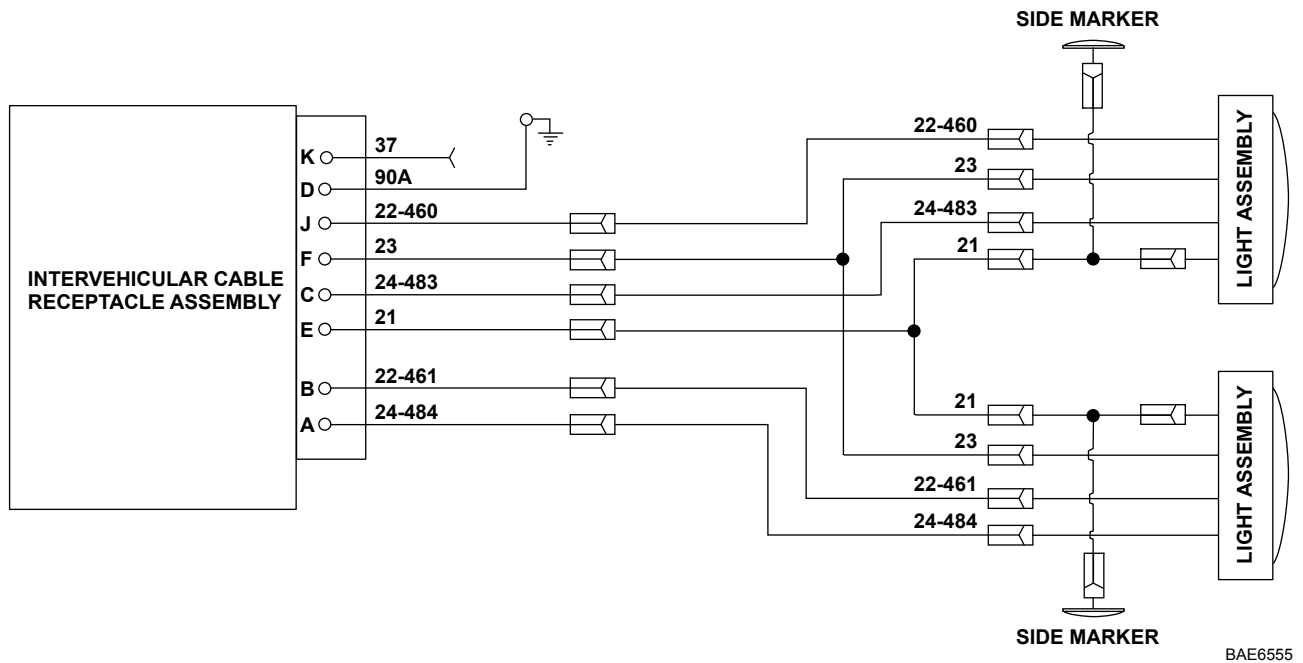
FIELD MAINTENANCE WIRING DIAGRAMS

INITIAL SETUP:

Not Applicable

NOTE

This Work Package (WP) contains the trailer wiring diagram. Refer to this diagram when performing electrical troubleshooting and when performing repair and maintenance.



BAE6555

Figure 1. Wiring Diagram.

END OF WORK PACKAGE

CHAPTER 7

REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

FIELD MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) INTRODUCTION

INTRODUCTION

SCOPE

This RPSTL lists the authorized spares and repair parts; special tools; special Test, Measurement, and Diagnostic Equipment (TMDE); and other special support equipment required for performance of Field Maintenance of the Trailer, Tank, Water: 400 Gallon, 1-1/2 Ton, 8-Wheel with Stainless Steel Tank Body M1112. It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the Source, Maintenance, and Recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages:

1. **Repair Parts List Work Packages.** Work packages containing lists of spare and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include 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. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.
2. **Special Tools List Work Packages.** Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.
3. **Cross-Reference Indexes Work Packages.** There are two cross-reference indexes work packages in this RPSTL: the National Stock Number (NSN) Index work package and the Part Number (P/N) Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

EXPLANATION OF ENTRIES IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

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

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout. This entry may be subdivided into four subentries, one for each service.

Table 1. SMR Code Explanation.

<u>Source Code</u>	<u>Maintenance Code</u>	<u>Recoverability Code</u>
<u>XX</u>	<u>XX</u>	<u>X</u>
1st two positions: How to get an item.	3rd position: Who can install, replace, or use the item.	4th position: Who can do complete repair on the item.
		5th position: Who determines disposition action on unserviceable items.

NOTE

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.

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

<u>Source Code</u>	<u>Application/Explanation</u>
--------------------	--------------------------------

PA

PB

PC

NOTE

Items coded PC are subject to deterioration.

PD

PE	Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the third position of the SMR code.
----	---

PF

PG

PH

PR

PZ

KD	Items with these codes are not to be requested/requisitioned individually. They are part of a kit that is authorized to the maintenance level indicated in the third position of the SMR code.
----	--

KF

KB

MF-Made at field	Items with these codes are not to be requisitioned/requested 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 work package of the RPSTL. If the item is authorized to you by the third position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.
MH-Made at below depot/sustainment level	
ML-Made at SRA	

MD-Made at depot

MG-Navy only

AF-Assembled by field	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 third position 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 below depot/sustainment level	
AL-Assembled by SRA	
AD-Assembled by depot	
AG-Navy only	
XA	Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)
XB	If an item is not available from salvage, order it using the CAGEC and part number.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's part number.
XD	Item is not stocked. Order an XD-coded item through local purchase or normal supply channels using the CAGEC and part number given, if no NSN is available.

NOTE

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

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:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following classes of maintenance:

<u>Maintenance Code</u>	<u>Application/Explanation</u>
F -	Field maintenance can remove, replace, and use the item.
H -	Below Depot Sustainment maintenance can remove, replace, and use the item.
L -	Specialized repair activity can remove, replace, and use the item.
G -	Afloat and ashore intermediate maintenance can remove, replace, and use the item. (Navy only)
K -	Contractor facility can remove, replace, and use the item.
Z -	Item is not authorized to be removed, replace, or used at any maintenance level.
D -	Depot can remove, replace, and use the item.

NOTE

Army will use C in the third position. However, for joint service publications, Army will use O.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (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.

<u>Maintenance Code</u>	<u>Application/Explanation</u>
F -	Field is the lowest level that can do complete repair of the item.
H -	Below Depot Sustainment is the lowest level that can do complete repair of the item.
L -	Specialized repair activity (enter specialized repair activity or TASMG designator) 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.
G -	Both afloat and ashore intermediate levels are capable of complete repair of item. (Navy only)
K -	Complete repair is done at contractor facility.
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

<u>Recoverability Code</u>	<u>Application/Explanation</u>
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
F -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the field level.
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the below depot sustainment level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.

**Recoverability
Code**

Application/Explanation

L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A -	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.
G -	Field level reparable item. Condemn and dispose at either afloat or ashore intermediate levels. (Navy only)
K -	Reparable item. Condemnation and disposal to be performed at contractor facility.

NSN (Column (3)). The NSN(s) for the item is listed in this column.

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

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

NOTE

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

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The federal item name, and when required, a minimum description to identify the item.
2. Part numbers of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.
3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

QTY (Column (7)). 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 instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. **National Stock Number (NSN) Index Work Package.** NSN's in this index are listed in National Item Identification Number (NIIN) sequence.
STOCK NUMBER Column. This column lists the NSN in NIIN sequence. The NIIN consists of the last nine digits of the NSN. When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number. For example, if the NSN is 5385-01-574-1476, the NIIN is 01-574-1476.
FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

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.

2. **Part Number (P/N) Index Work Package.** Part numbers in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations 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).

PART NUMBER Column. This column indicates the part number assigned to the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

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

SPECIAL INFORMATION

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC:..." in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identification of the UOCs used in the RPSTL are:

<u>Code</u>	<u>Used On</u>
TRW	M1112

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 NSN/Part Number (P/N) Index work packages and the bulk material list in the repair parts list work package.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or Part Numbers Are Not Known.

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

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.
2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one for which you are looking.
3. When Part Number Is Known.

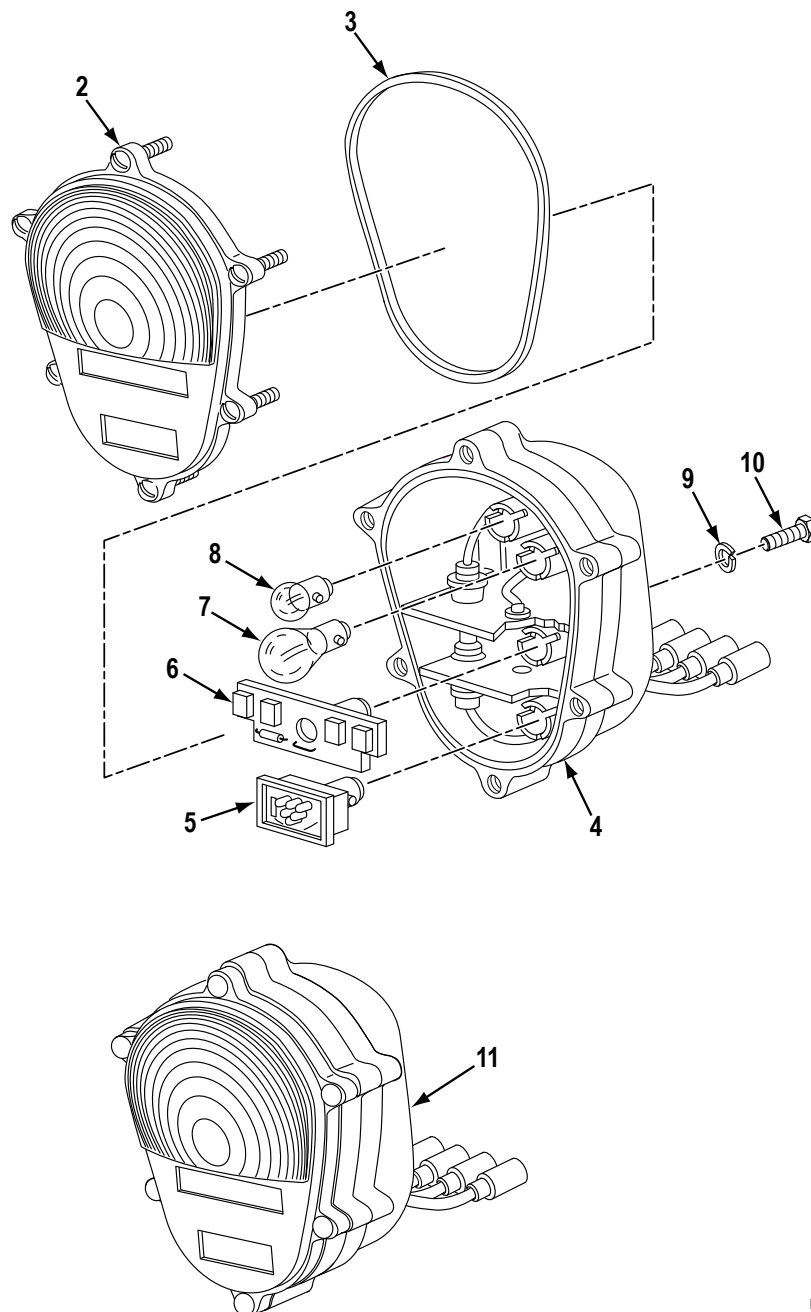
First. If you have the part number and not the NSN, look in the PART NUMBER column of the part number index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

END OF WORK PACKAGE

FIELD MAINTENANCE
LIGHT ASSEMBLY

1
2 THRU 8



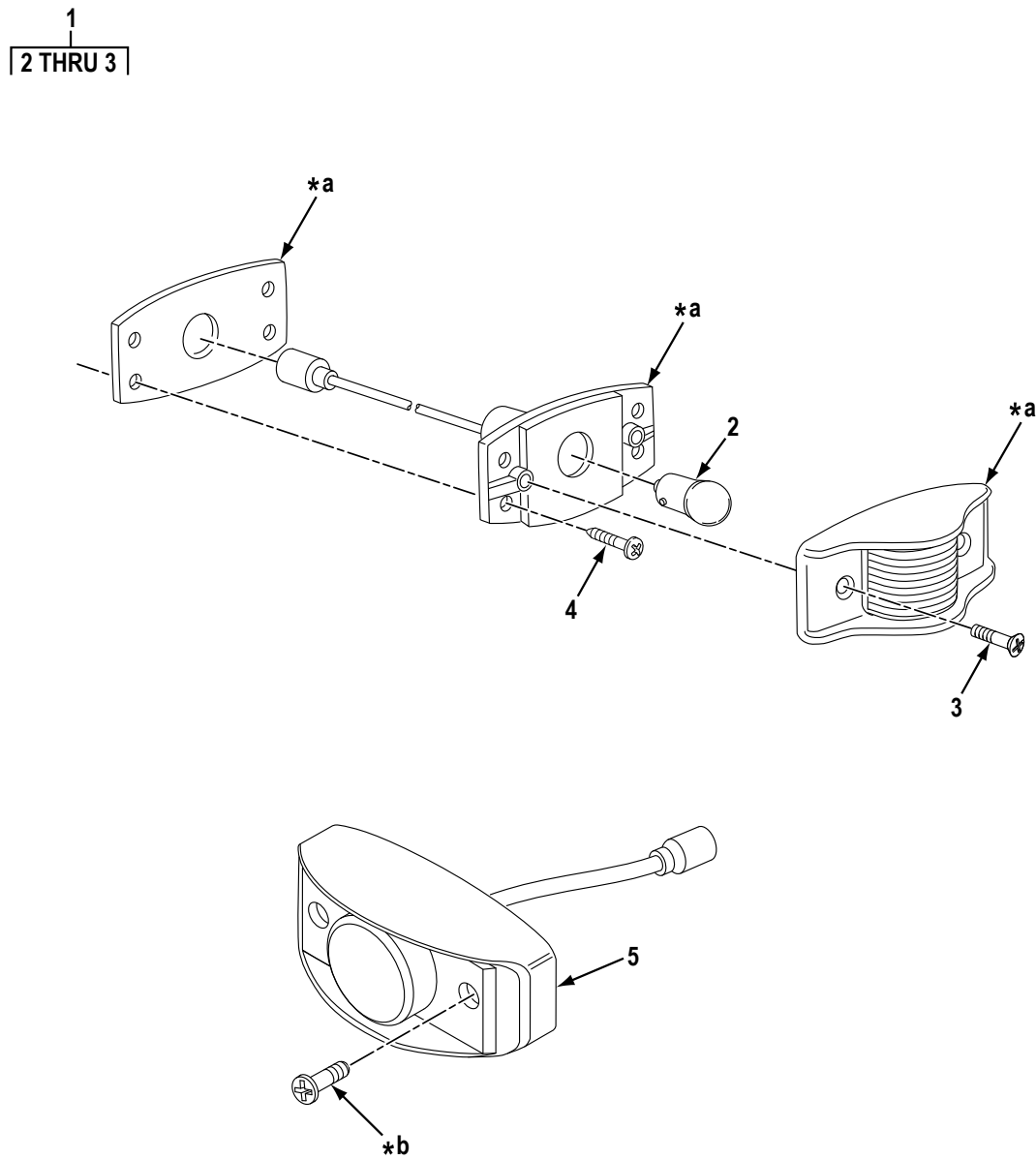
M1112-R01

Figure 1. Light Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0609 LIGHTS						
FIG. 1. LIGHT ASSEMBLY.						
1	PAFFF	6220-01-093-4439	81349	MS52125-2	STOP LIGHT-TAILLIGHT OLD CONFIGURATION.....	2
2	PAFZZ	6220-00-179-4324	19207	11639535	. LENS,LIGHT.....	1
3	PCFZZ	5331-00-462-0907	19207	11639519-2	. O-RING.....	1
4	PAFZZ	6220-01-067-4717	19207	11639520	. HOUSING,LIGHT.....	1
5	PAFZZ	6220-01-297-3217	19207	12360870-2	. STOP LIGHT,VEHICULA.....	1
6	PAFZZ	6220-01-284-2709	19207	12360850-1	. LIGHT,MARKER,CLEARA.....	1
7	PAFZZ	6240-01-447-3779	58536	AA524463-B10	. LAMP,INCANDESCENT.....	1
8	PAFZZ	6240-00-019-3093	58536	AA52463-A09	. LAMP,INCANDESCENT.....	1
9	PAFZZ	5310-00-637-9541	65035	P49866-11	WASHER,LOCK 3/8.....	4
10	PAFZZ	5305-00-115-9526	80204	B1821BH038C075D	SCREW,CAP,HEXAGON H 3/8-16 x 3/4.....	4
11	PAFZZ	6210-01-550-0490	13548	07426	LIGHT EMITTING DIOD NEW CONFIGURATION.....	2

END OF FIGURE

FIELD MAINTENANCE
CLEARANCE MARKER LIGHT



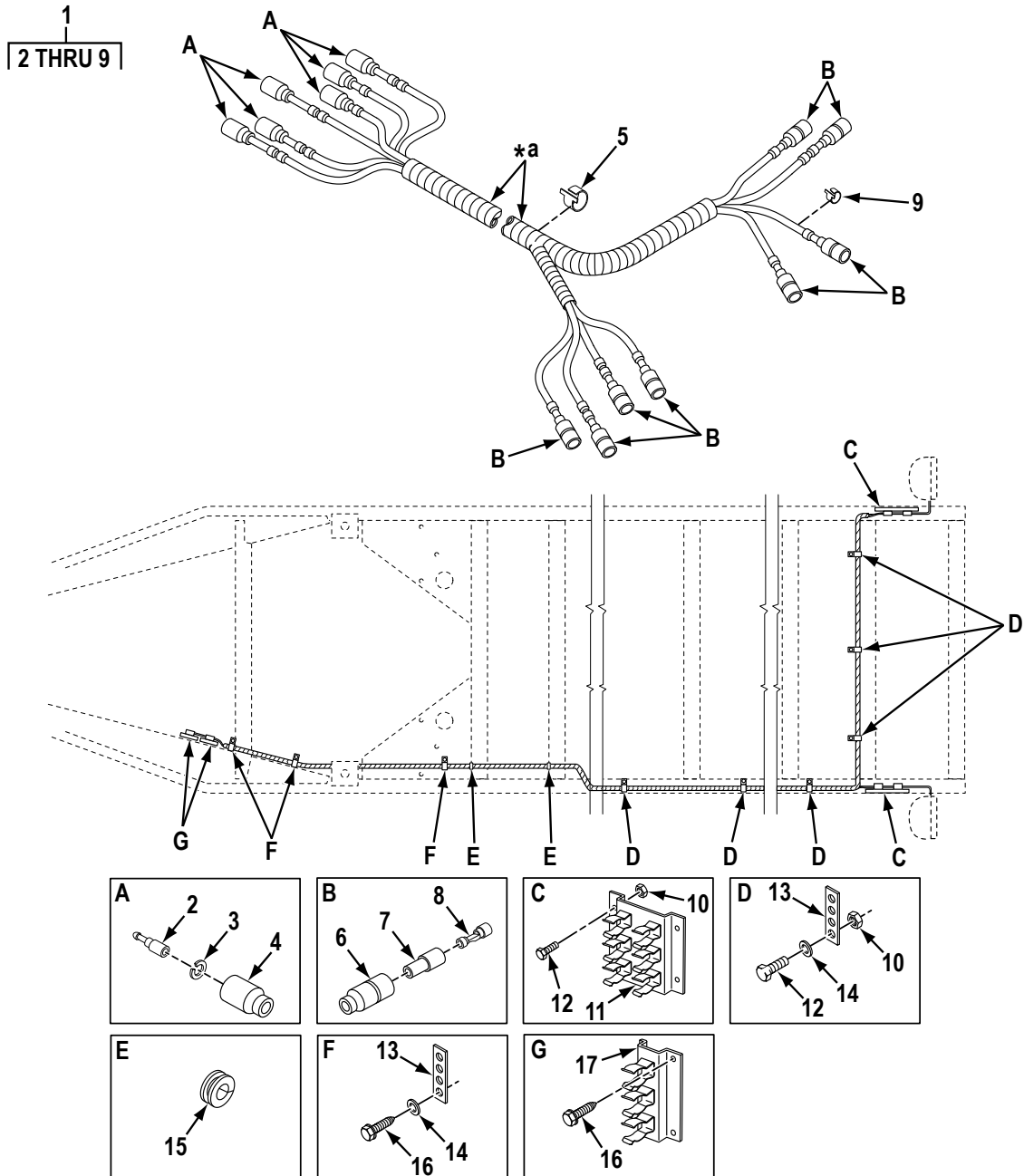
*a PART OF ITEM 1
*b PART OF ITEM 5

M1112-R02

Figure 2. Clearance Marker Light.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0609 LIGHTS						
FIG. 2. CLEARANCE MARKER LIGHT.						
1	PAFFF	6220-01-417-3311	96906	M3976/1-2-R-28	LIGHT,MARKER,CLEARA.....	2
2	PAFZZ	6240-00-019-0877	58536	AA52463-A08	. LAMP,INCANDESCENT.....	2
3	PAFZZ	5305-00-984-6214	80205	MS35206-267	. SCREW,MACHINE.....	2
4	PAFZZ	5305-00-855-0956	80205	MS24629-47	SCREW,TAPPING.....	4
5	PAFZZ	6220-01-482-6113	13548	07406	LIGHT,MARKER,CLEARA LED,RED.....	2
END OF FIGURE						

FIELD MAINTENANCE CHASSIS WIRING HARNESS



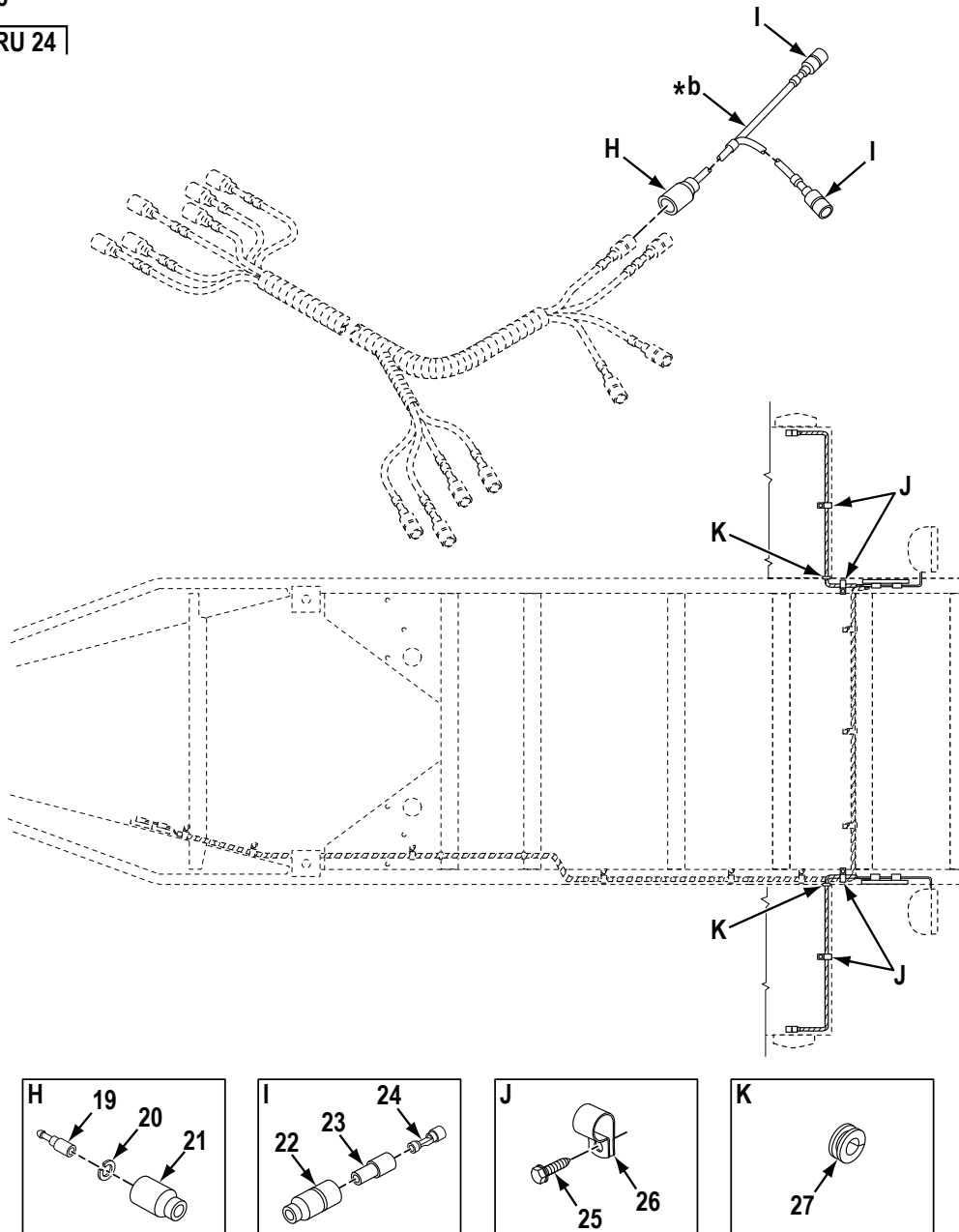
*a PART OF ITEM 1

M1112-R03_1

Figure 3. Chassis Wiring Harness (Sheet 1 of 2).

18

19 THRU 24



M1112-R03_2

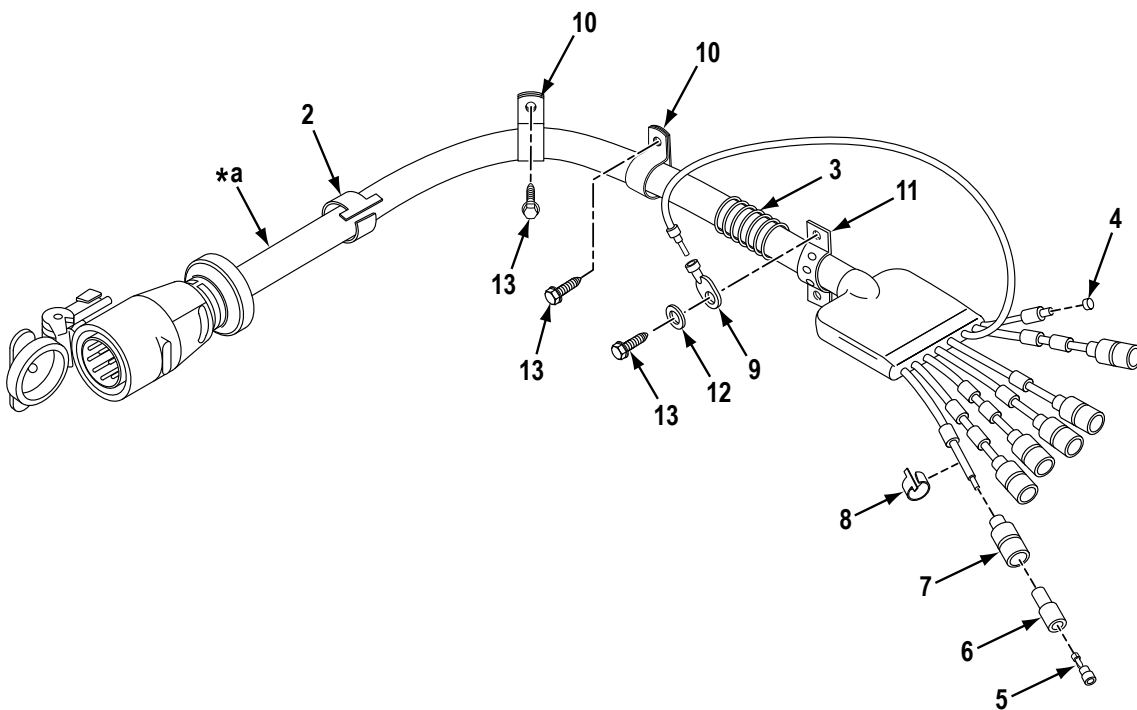
Figure 3. Chassis Wiring Harness (Sheet 2 of 2).

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0613 HULL OR CHASSIS WIRING HARNESS						
FIG. 3. CHASSIS WIRING HARNESS.						
1	PAFFF	2590-01-178-7374	19207	11597762	WIRING HARNESS,BRAN.....	1
2	PAFZZ	5999-00-057-2929	58536	AA52536-2	. CONTACT,ELECTRICAL.....	6
3	PAFZZ	5310-00-833-8567	19207	8338567	. WASHER,SLOTTED.....	6
4	PCFZZ	5935-00-572-9180	19207	8338566	. SHELL,ELECTRICAL CO.....	6
5	PAFZZ	9905-00-841-4445	81349	M43436/1-2	. BAND,MARKER.....	1
6	PCFZZ	5935-00-833-8561	19207	8338561	. SHELL,ELECTRICAL CO.....	8
7	PAFZZ	5970-00-833-8562	19207	8338562	. INSULATOR,BUSHING.....	8
8	PAFZZ	5940-00-399-6676	19207	8338564	. TERMINAL SET,QUICK.....	8
9	PAFZZ	9905-00-752-4649	34623	99242R1	. BAND,MARKER.....	22
10	PAFZZ	5310-00-768-0319	96906	MS51968-2	NUT,PLAIN,HEXAGON.....	14
11	PAFZZ	5340-01-048-2239	19207	10935126	BRACKET,MOUNTING.....	2
12	PAFZZ	5306-00-068-0513	60285	6893-2	BOLT,MACHINE.....	14
13	MFFZZ		19207	10905840-8	STRAP,TIEDOWN ELECT MAKE FROM P/N 10905840 (19207) 8 INCHES LONG.....	9
14	PAFZZ	5310-00-809-3078	96906	MS27183-11	WASHER,FLAT.....	9
15	PCFZZ	5325-00-290-3777	96906	MS35489-77	GROMMET,NONMETALLIC.....	2
16	PAFZZ	5305-01-137-3938	96906	MS51871-3	SCREW,TAPPING 1/4 X .75.....	7
17	PAFZZ	5340-00-611-7883	19207	8747908	STRAP,RETAINING.....	2
18	AFFFF		19207	12474722	WIRING HARNESS,BRAN CLEARANCE LIGHT HARNESS.....	2
19	PAFZZ	5999-00-057-2929	58536	AA52536-2	. CONTACT,ELECTRICAL.....	1
20	PAFZZ	5310-00-833-8567	19207	8338567	. WASHER,SLOTTED.....	1
21	PCFZZ	5935-00-572-9180	19207	8338566	. SHELL,ELECTRICAL CO.....	1
22	PAFZZ	9905-00-752-4649	34623	99242R1	. BAND,MARKER.....	2
23	PCFZZ	5935-00-833-8561	19207	8338561	. SHELL,ELECTRICAL CO.....	2
24	PAFZZ	5970-00-833-8562	19207	8338562	. INSULATOR,BUSHING.....	2
25	PAFZZ	5305-00-432-4205	80205	MS51861-49	SCREW,TAPPING.....	4
26	PAFZZ	5340-00-057-2891	80205	MS21333-4	CLAMP,LOOP.....	4
27	XBFZZ		19207	12474734	GROMMET,STRESS RELI.....	2

END OF FIGURE

FIELD MAINTENANCE
INTERVEHICULAR CABLE

1
2 THRU 9



*a PART OF ITEM 1

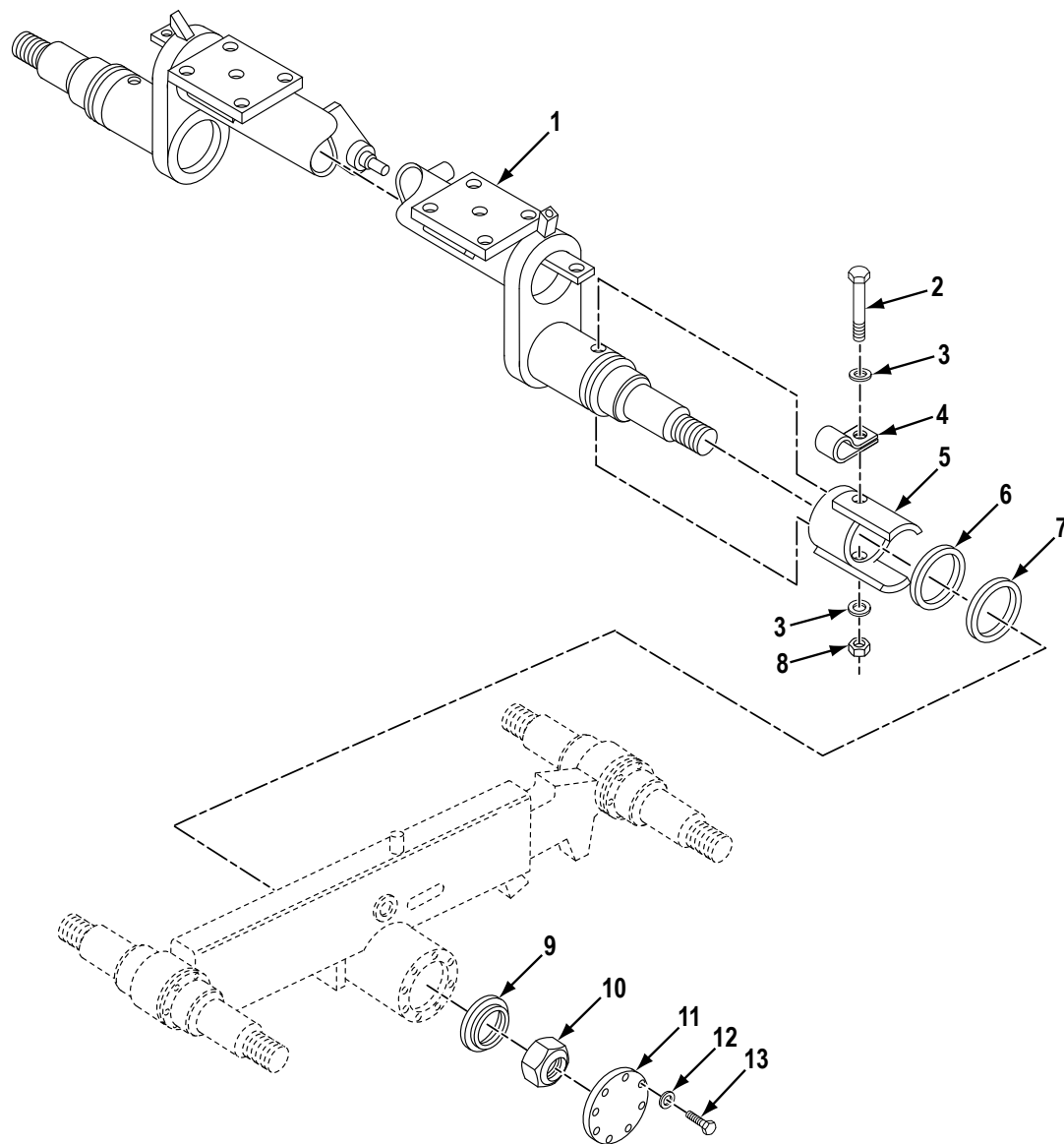
M1112-R04a

Figure 4. Intervehicular Cable.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0613 HULL OR CHASSIS WIRING HARNESS						
FIG. 4. INTERVEHICULAR CABLE.						
1	PAFFF	6150-00-777-3068	19207	7055100	WIRING HARNESS.....	1
2	PAFZZ	9905-00-893-3570	81349	M43436/1-3	. BAND,MARKER.....	1
3	XAFZZ		96906	MS93134-1	. SPRING,HELICAL,COMP.....	1
4	PAFZZ	5340-01-041-5052	19207	8347216	. CAP,PROTECTIVE,DUST.....	1
5	PAFZZ	5940-00-399-6676	19207	8338564	. TERMINAL SET,QUICK.....	6
6	PAFZZ	5970-00-833-8562	19207	8338562	. INSULATOR,BUSHING.....	6
7	PCFZZ	5935-00-833-8561	19207	8338561	. SHELL,ELECTRICAL CO.....	6
8	PAFZZ	9905-00-752-4649	34623	99242R1	. BAND,MARKER.....	12
9	PAFZZ	5940-00-230-0515	30554	88-22119-18	. TERMINAL,LUG.....	1
10	PAFZZ	5340-00-809-1500	80205	MS21333-107	CLAMP,LOOP.....	2
11	MFFZZ		19207	10905840-8	STRAP,TIEDOWN ELECT MAKE FROM P/N 10905840 (19207) 8 INCHES LONG.....	1
12	PAFZZ	5310-00-809-3078	96906	MS27183-11	WASHER,FLAT.....	2
13	PAFZZ	5305-01-137-3938	96906	MS51871-3	SCREW,TAPPING.....	4

END OF FIGURE

FIELD MAINTENANCE
CROSS AXLE



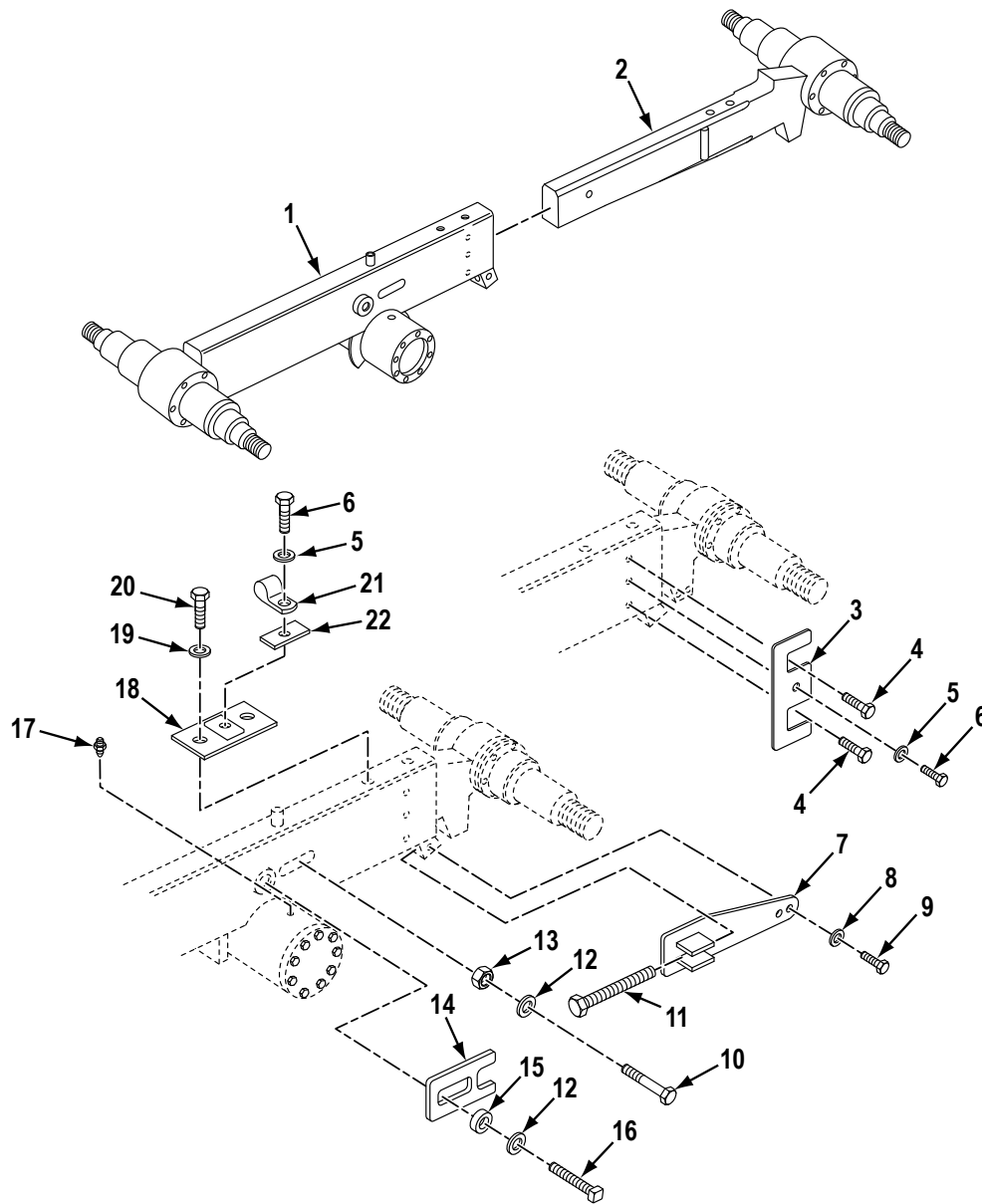
M1112-R05

Figure 5. Cross Axle.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1100 REAR AXLE ASSEMBLY						
FIG. 5. CROSS AXLE.						
1	PFFZZ	3040-01-440-9824	19207	12448082	AXLE, SHOULDERED CROSS AXLE.....	2
2	PAFZZ	5305-00-177-5651	80204	B1821BH075C113N	SCREW, CAP, HEXAGON H.....	2
3	PAFZZ	5310-00-809-8533	96906	MS27183-23	WASHER, FLAT.....	4
4	PAFZZ	5340-01-432-5616	19207	12461847	CLAMP, LOOP.....	2
5	PAFZZ	5340-01-449-3771	19207	12448099	STOP, MECHANICAL.....	2
6	PAFZZ	5365-01-449-3695	19207	12469550	SPACER, RING.....	2
7	PAFZZ	5330-01-398-1419	04627	1337052	SEAL, PLAIN.....	2
8	PAFZZ	5310-00-067-6356	81349	M45913/2-12CG5C	NUT, SELF-LOCKING, HE 0.75 X 10.....	2
9	PAFZZ	5340-01-440-8093	19207	12448092	PLATE, RETAINING, SEA.....	2
10	PAFZZ	5310-01-032-2319	81349	M45913/3-24FG8C	NUT, SELF-LOCKING, HE 1.5 X 14.....	2
11	PAFZZ	5340-01-440-6666	19207	12448104	COVER, ACCESS.....	2
12	PAFZZ	5310-01-274-3255	96906	MS27183-52	WASHER, FLAT.....	16
13	PAFZZ	5305-00-068-0508	05047	AES01C250750AW9 A91	SCREW, CAP, HEXAGON H 1/4-20 X .75.....	16

END OF FIGURE

FIELD MAINTENANCE
WALKING BEAM



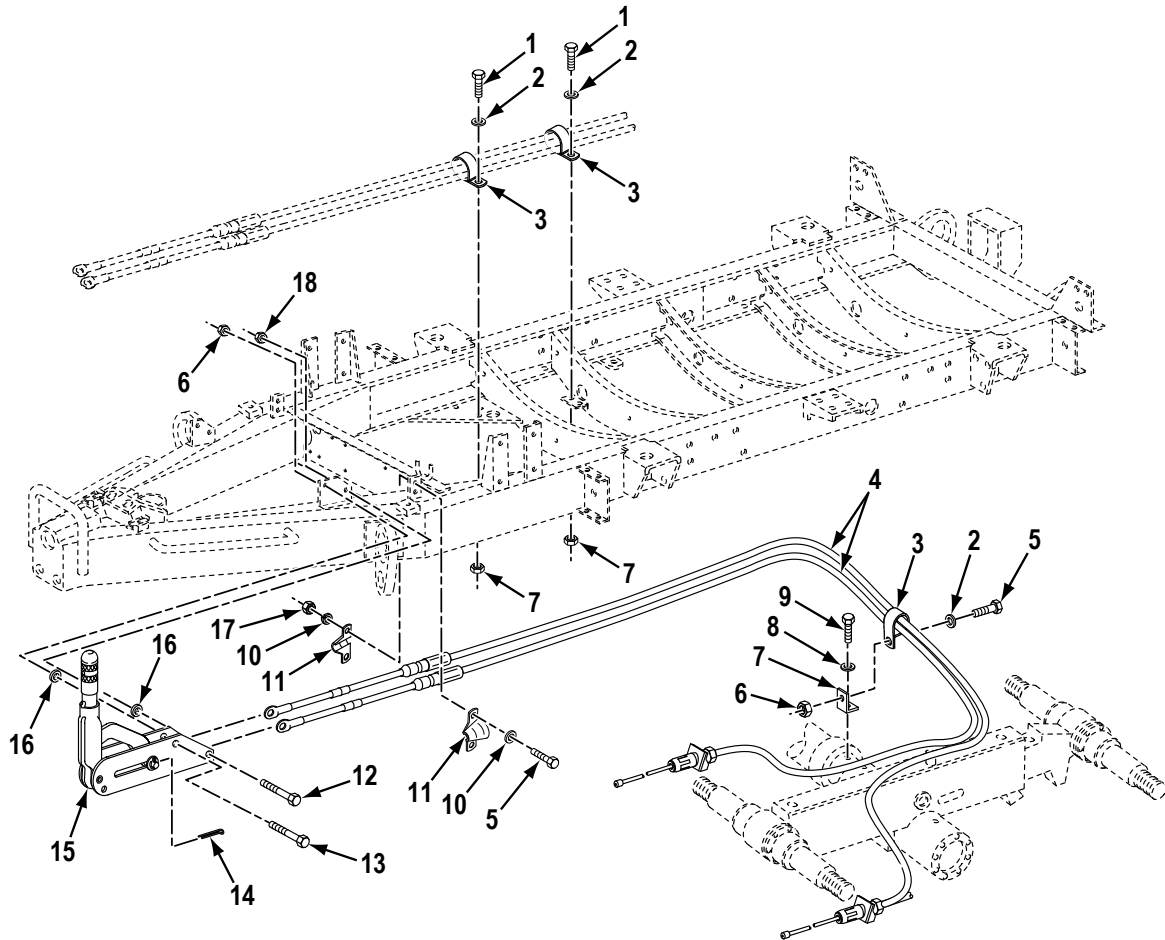
M1112-R06

Figure 6. Walking Beam.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1108 WALKING BEAMS, STUB AXLES, AND PARTS						
FIG. 6. WALKING BEAM.						
1	PFFZZ	2510-01-444-6654	19207	12448089	FRAME SECTION,STRUC R. H. OUTER WALKING BEAM.....	1
1	PFFZZ	2510-01-441-2859	31902	12448095	FRAME SECTION,STRUC L. H. OUTER WALKING BEAM.....	1
2	PAFZZ	2530-01-441-2767	31902	12461816	ARM,PIVOTING WHEEL INNER WALKING BEAM.....	2
3	PAFZA	5330-01-448-3347	19207	12448102	RETAINER,PACKING.....	2
4	PAFZZ	5305-01-277-0456	80204	B1821BH075C088N	SCREW,CAP,HEXAGON H 3/4-10 X 7/8.....	4
5	PAFZZ	5310-00-080-6004	96906	MS27183-14	WASHER,FLAT 3/8.....	4
6	PAFZZ	5305-00-068-0510	80204	B1821BH038C100N	SCREW,CAP,HEXAGON H 3/8-16 X 1.....	4
7	PAFZZ	2590-01-449-2464	19207	12461848	BRACKET,VEHICULAR C.....	2
8	PAFZZ	5310-00-809-5998	96906	MS27183-18	WASHER,FLAT.....	4
9	PAFZZ	5305-00-071-2075	80204	B1821BH050C300N	SCREW,CAP,HEXAGON H 1/2-13 X 3.....	4
10	PAFZZ	5305-00-724-7223	80204	B1821BH063C225N	SCREW,CAP,HEXAGON H 11-5/8 X 2.25.....	2
11	PAFZZ	5305-00-990-8416	80204	B1821BH100C600N	SCREW,CAP,HEXAGON H 1.0-8 X 6.....	2
12	PAFZZ	5310-00-823-8803	96906	MS27183-21	WASHER,FLAT 5/8.....	4
13	PAFZZ	5310-00-891-3404	96906	MS35691-50	NUT,PLAIN,HEXAGON 11-5/16.....	2
14	PAFZZ	5340-01-440-6676	19207	12448101	STRAPPING.....	2
15	PFFZA	5310-00-168-6459	99862	CL4SW	WASHER ASSORTMENT.....	2
16	PAFZZ	5305-01-432-1119	96906	MS51054-94	SETSCREW.....	2
17	PAFZZ	4730-00-050-4208	0W357	5800	FITTING,LUBRICATION.....	2
18	PAFZZ	5340-01-449-3777	19207	12448105	PLATE,MOUNTING.....	2
19	PAFZZ	5310-00-809-8533	96906	MS27183-23	WASHER,FLAT.....	4
20	PAFZZ	5305-00-938-1539	80204	B1821BH075C200N	SCREW,CAP,HEXAGON H 3/4-10 X 2.....	4
21	PAFZZ	5340-00-989-1771	80205	MS21333-123	CLAMP,LOOP.....	2
22	XBZZ		19207	12448107	BRACKET.....	4

END OF FIGURE

**FIELD MAINTENANCE
HANDBRAKES, CONTROLS AND LINKAGE**



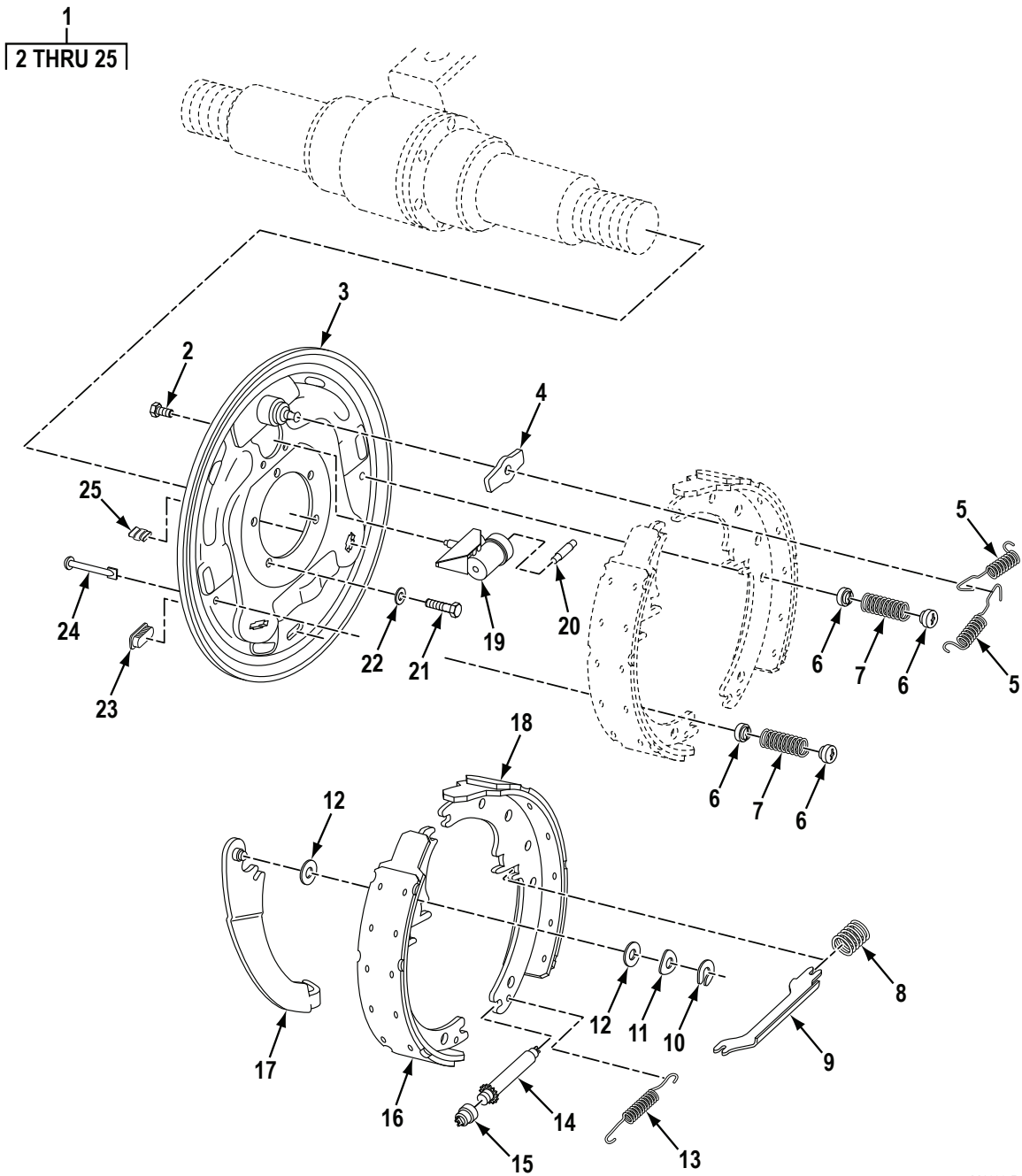
M1112-R07

Figure 7. Handbrakes, Controls and Linkage.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1201 HANDBRAKES						
FIG. 7. HANDBRAKES, CONTROLS AND LINKAGE.						
1	PAFZZ	5306-00-226-4825	80204	B1821BH031C075N	BOLT,MACHINE 5/16-18 X 0.75.....	4
2	PAFZZ	5310-00-081-4219	96906	MS27183-12	WASHER,FLAT.....	6
3	PAFZZ	5340-00-088-1254	80205	MS21333-104	CLAMP,LOOP.....	6
4	PAFZZ	2530-01-433-3012	19207	11686101-2	CABLE AND CONDUIT A.....	4
5	PAFZZ	5306-00-225-8499	80205	MS90725-34	BOLT,MACHINE 5/16-18 X 1.....	4
6	PAFZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT,SELF-LOCKING,HE 5/16-18.....	10
7	XBZZ		19207	12474720	BRACKET,SUPPORT BAR.....	2
8	PAFZZ	5310-00-080-6004	96906	MS27183-14	WASHER,FLAT 3/8.....	2
9	PAFZZ	5305-00-068-0510	80204	B1821BH038C100N	SCREW,CAP,HEXAGON H 3/8-16 X 1.....	2
10	PAFZZ	5310-00-407-9566	80205	MS35338-45	WASHER,LOCK.....	4
11	PAFZZ	5342-00-408-9177	19207	5303461	BRACKET,BRAKE CABLE.....	4
12	PAFZZ	5305-00-782-9489	80204	B1821BH038C200N	SCREW,CAP,HEXAGON H 3/8-16 X 2 INCHES LONG.....	2
13	PAFZZ	5306-00-226-4833	80204	B1821BH031C200N	BOLT,MACHINE 5/16-20 X 2 INCHES LONG.....	2
14	PAFZZ	5315-00-842-3044	80205	MS24665-283	PIN,COTTER.....	2
15	PAFZZ	5340-01-587-9026	081X2	2002-DP	LEVER,MANUAL CONTRO.....	2
16	PAFZZ	5310-01-139-2070	19207	10926094	WASHER,FLAT.....	4
17	PAFZZ	5310-01-551-8749	07070	94831A030	NUT,PLAIN,EXTENDED.....	4
18	PAFZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT,SELF-LOCKING,HE 3/8-16.....	2

END OF FIGURE

**FIELD MAINTENANCE
BRAKE ASSEMBLY**



M1112-R08

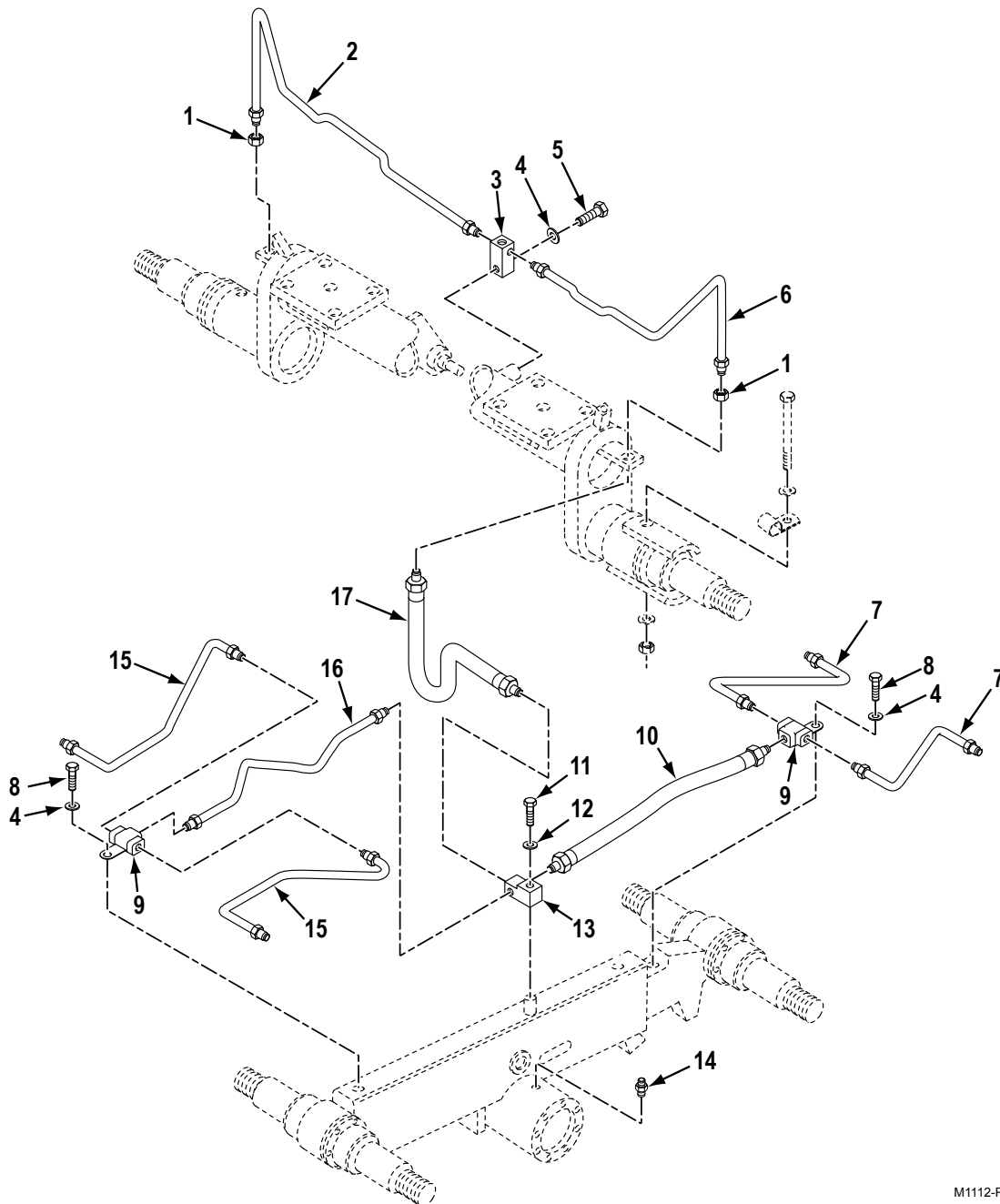
Figure 8. Brake Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1202 SERVICE BRAKES						
FIG. 8. BRAKE ASSEMBLY.						
1	AFFFF		1TUY2	23512	BRAKE ASSEMBLY RIGHT-HAND.....	4
1	AFFFF		1TUY2	23513	BRAKE ASSEMBLY LEFT-HAND.....	4
2	PFFZZ	5305-01-321-3522	1TUY2	23457	. SCREW ASSEMBLY,PANE.....	2
3	PFFZZ	2530-01-287-6869	1TUY2	4485900042	. PLATE,BACKING,BRAKE.....	1
4	PAFZZ	5365-01-396-3906	15460	5-113	. SPACER,PLATE.....	1
5	PFFZZ	5360-01-287-7297	1TUY2	9791	. SPRING,HELICAL,COMP BLACK.....	2
6	PFFZZ	2530-01-263-7061	1TUY2	0978900	. CUP,HYDRAULIC BRAKE SPRING HOLDDOWN.....	4
7	PFFZZ	5360-01-288-5870	1TUY2	0978600	. SPRING,HELICAL,EXTE ORANGE.....	2
8	PAFZZ	5360-01-454-5761	15460	046-103-00	. SPRING,HELICAL,COMP PARKING STRUT.....	1
9	PAFZZ	2530-01-074-7001	19207	12448035	. STRUT,PARKING BRAKE.....	1
10	PFFZZ	5340-01-277-0300	1TUY2	9795	. CLIP,SPRING TENSION.....	1
11	PFFZZ	5310-01-466-0901	83445	9794	. WASHER,SPRING TENSI.....	1
12	PFFZZ	5310-01-462-3212	1TUY2	44869	. WASHER,FLAT.....	2
13	PFFZZ	5360-01-320-5815	1TUY2	9784	. SPRING,HELICAL,COMP YELLOW.....	1
14	PFFZZ	2530-01-288-3979	1TUY2	23323	. ADJUSTING SCREW ASSY.....	1
15	PFFZZ	2530-01-287-9409	1TUY2	18836	. SOCKET,BRAKE ADJUST.....	1
16	PFFZZ	2530-01-289-2365	1TUY2	23492	. BRAKE SHOE FRONT SHOE.....	1
17	PAFZZ	2530-01-320-1686	1TUY2	4486500	. LINK,PARKING BRAKE CONNECTING.....	1
17	XDFZZ		20076	4486600	. LEVER,PARKING BRAKE LEFT-HAND.....	1
18	PFFZZ	2530-01-287-4451	1TUY2	18503	. BRAKE,SHOE TYPE REAR SHOE.....	1
19	PFFZZ	2530-00-161-7575	1TUY2	9776	. CYLINDER ASSEMBLY,H RIGHT HAND.....	1
19	PFFZZ	2530-00-161-7576	1TUY2	9777	. CYLINDER ASSEMBLY,H LEFT HAND.....	1
20	PAFZZ	2530-01-289-2433	1TUY2	9783	. LINK,WHEEL CYLINDER.....	1
21	PAFZZ	5305-01-407-9006	80204	B1821BH038C112N	. SCREW,CAP,HEXAGON H 3/8-16 X 1.12.....	5
22	PAFZZ	5310-00-080-6004	96906	MS27183-14	. WASHER,FLAT 3/8.....	5
23	PCFZZ	5342-01-087-9679	1TUY2	0925400	. COVER.....	1
24	PFFZZ	5315-01-287-8770	1TUY2	18508	. PIN,TOGGLE,HEADED SHOE HOLD DOWN PIN.....	2

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
25	XBZZ		1TUY2	47446	. COVER,DUST,PARKIN.....	1

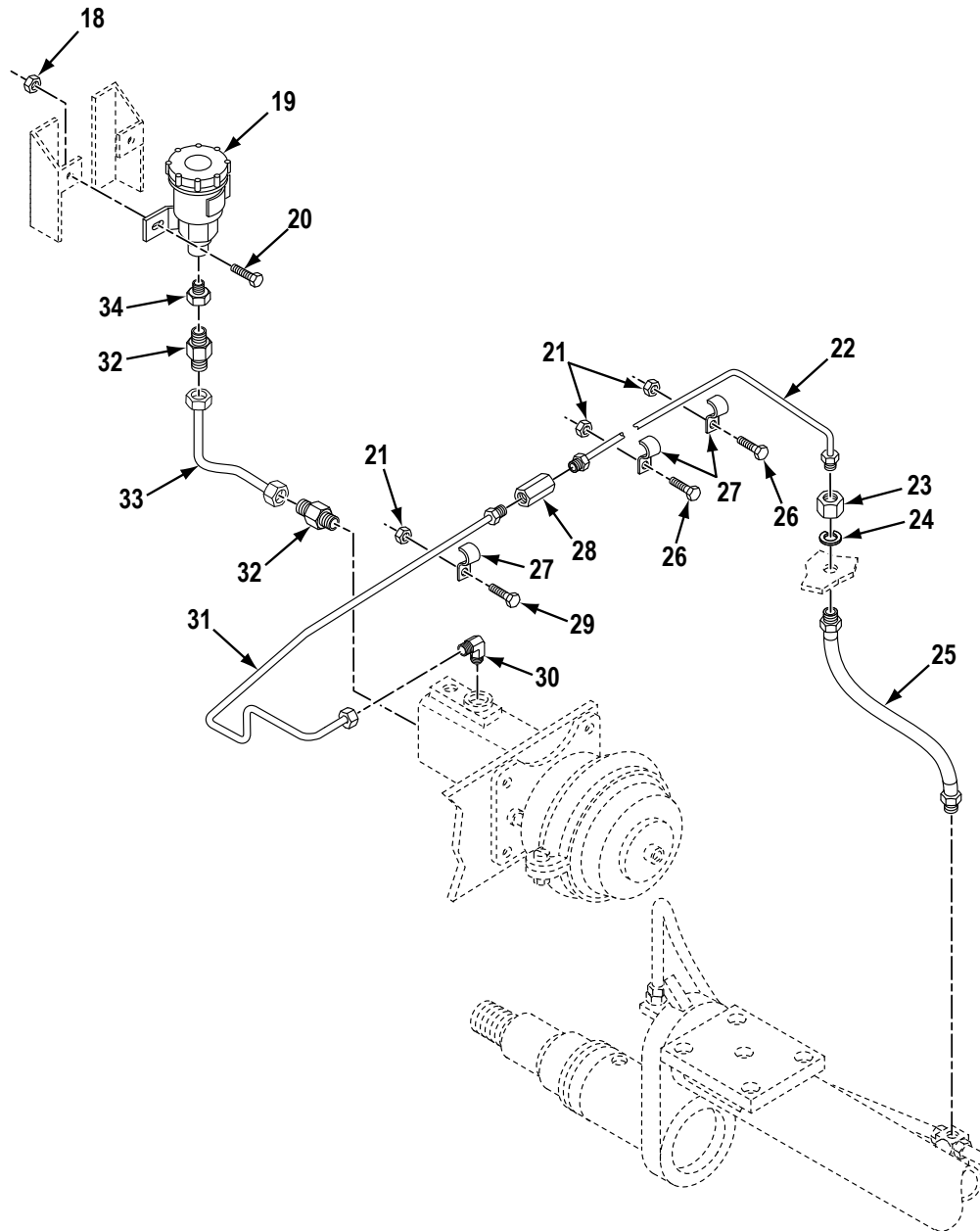
END OF FIGURE

FIELD MAINTENANCE
REAR HYDRAULIC BRAKE LINES, HOSES, AND FITTINGS



M1112-R09_1

Figure 9. Rear Hydraulic Brake Lines, Hoses, and Fittings (Sheet 1 of 2).



M1112-R09_2

Figure 9. Rear Hydraulic Brake Lines, Hoses, and Fittings (Sheet 2 of 2).

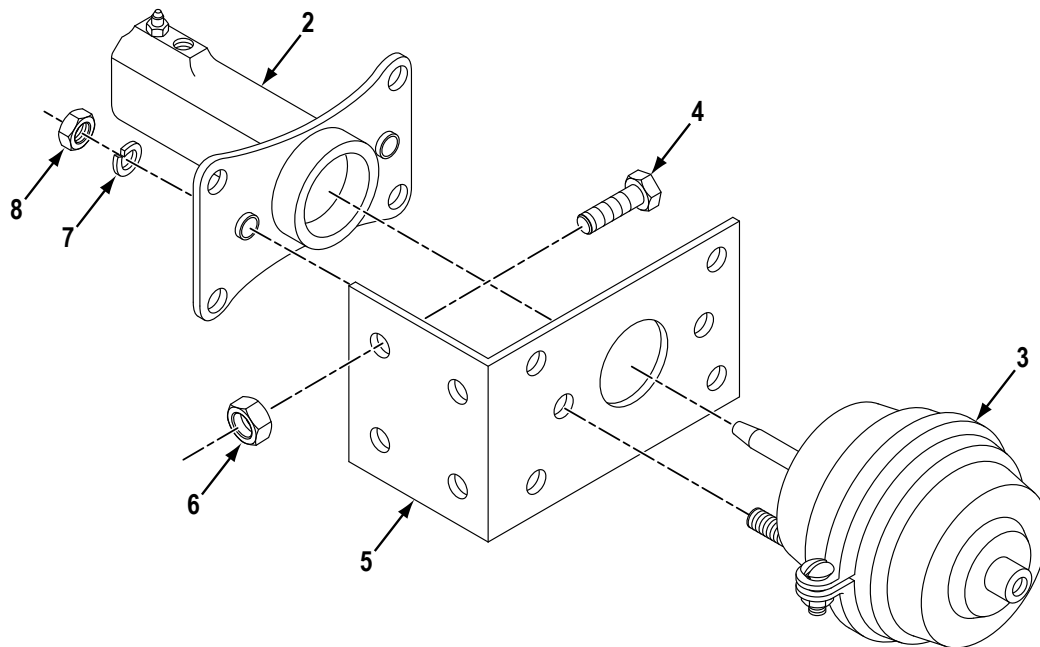
(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1204 HYDRAULIC BRAKE SYSTEM						
FIG. 9. REAR HYDRAULIC BRAKE LINES, HOSES, AND FITTINGS.						
1	PAFZZ	5310-00-891-3405	96906	MS35691-54	NUT,PLAIN,HEXAGON 5/8-18.....	4
2	PAFZZ	4710-01-433-8268	19207	12448083	TUBE ASSEMBLY,METAL.....	4
3	PAFZZ	4730-00-463-1588	19207	5167679	CONNECTOR,MULTIPLE,.....	1
4	PAFZZ	5310-00-080-6004	96906	MS27183-14	WASHER,FLAT 3/8.....	5
5	PAFZZ	5305-00-068-0511	05047	AES01C375A25AW9 A91	SCREW,CAP,HEXAGON H 3/8-16 X 1.25.....	1
6	PAFZZ	4710-01-433-8270	19207	12448084	TUBE ASSEMBLY,METAL.....	1
7	PAFZZ	4710-01-433-8271	19207	12448087	TUBE ASSEMBLY,METAL.....	4
8	PAFZZ	5305-00-543-4372	80204	B1821BH038C075N	SCREW,CAP,HEXAGON H 3/8-16 X 0.75.....	2
9	PAFZZ	4730-01-377-3452	11083	8T2927	TEE ASSEMBLY,FLANGE.....	4
10	PCFZZ	4720-01-436-0768	58429	D-162162-1575-A	HOSE ASSEMBLY,NONME.....	4
11	PAFZZ	5306-00-226-4827	80204	B1821BH031C100N	BOLT,MACHINE 5/16-18 X 1.....	2
12	PAFZZ	5310-00-081-4219	96906	MS27183-12	WASHER,FLAT.....	2
13	PAFZZ	4730-01-420-3846	06625	112-08047	TEE,TUBE.....	2
14	PAFZZ	4730-00-050-4208	0W357	5800	FITTING,LUBRICATION.....	2
15	PAFZZ	4710-01-433-7186	19207	12448085	TUBE ASSEMBLY,METAL.....	4
16	PAFZZ	4710-01-433-8273	19207	12448086	TUBE ASSEMBLY,METAL.....	2
17	PCFZZ	4720-01-435-6253	19207	12448108	HOSE ASSEMBLY,NONME.....	2
18	PAFZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT,SELF-LOCKING,HE 3/8-16.....	2
19	PAFZZ	2530-01-220-7021	92865	20-920-509	RESERVOIR,BRAKE FLU.....	1
20	PAFZZ	5305-00-068-0510	80204	B1821BH038C100N	SCREW,CAP,HEXAGON H 3/8-16 X 1.....	2
21	PAFZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT,SELF-LOCKING,HE.....	2
22	PAFZZ	4710-01-449-2468	19207	12461811	TUBE ASSEMBLY,METAL.....	1
23	PAFZZ	5310-00-835-2037	96906	MS35691-53	NUT,PLAIN,HEXAGON.....	1
24	PAFZZ	5310-00-543-4385	96906	MS35333-46	WASHER,LOCK.....	1
25	PCFZZ	4720-00-774-4040	23834	4440	HOSE ASSEMBLY,NONME.....	1
26	PAFZZ	5305-00-068-0502	80205	MS90725-6	SCREW,CAP,HEXAGON H.....	2
27	PAFZZ	5340-00-057-8689	96906	MS21333-11	CLAMP,LOOP.....	3
28	PAFZZ	4730-01-434-5154	81343	SAE J512 4-4 040101B	CONNECTOR,TUBING,ST.....	1
29	PAFZZ	5305-01-137-3938	96906	MS51871-3	SCREW,TAPPING.....	1

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
30	PAFZZ	4730-01-043-5999	81343	SAE J512 4-2 040202BA	ELBOW,PIPE TO TUBE.....	1
31	PAFZZ	4710-01-436-4034	19207	12448054	TUBE ASSEMBLY,METAL.....	1
32	PAFZZ	4730-00-540-2612	81343	4-2 040102B	ADAPTER,STRAIGHT,PI.....	2
33	PAFZZ	4710-01-434-5405	19207	12448053	TUBE ASSEMBLY,METAL.....	1
34	PCFZZ	4730-01-497-9439	81343	J514 4-2 140140B	BUSHING,PIPE.....	1

END OF FIGURE

**FIELD MAINTENANCE
AIR BRAKE CHAMBER ASSEMBLY**

1
2 AND 3



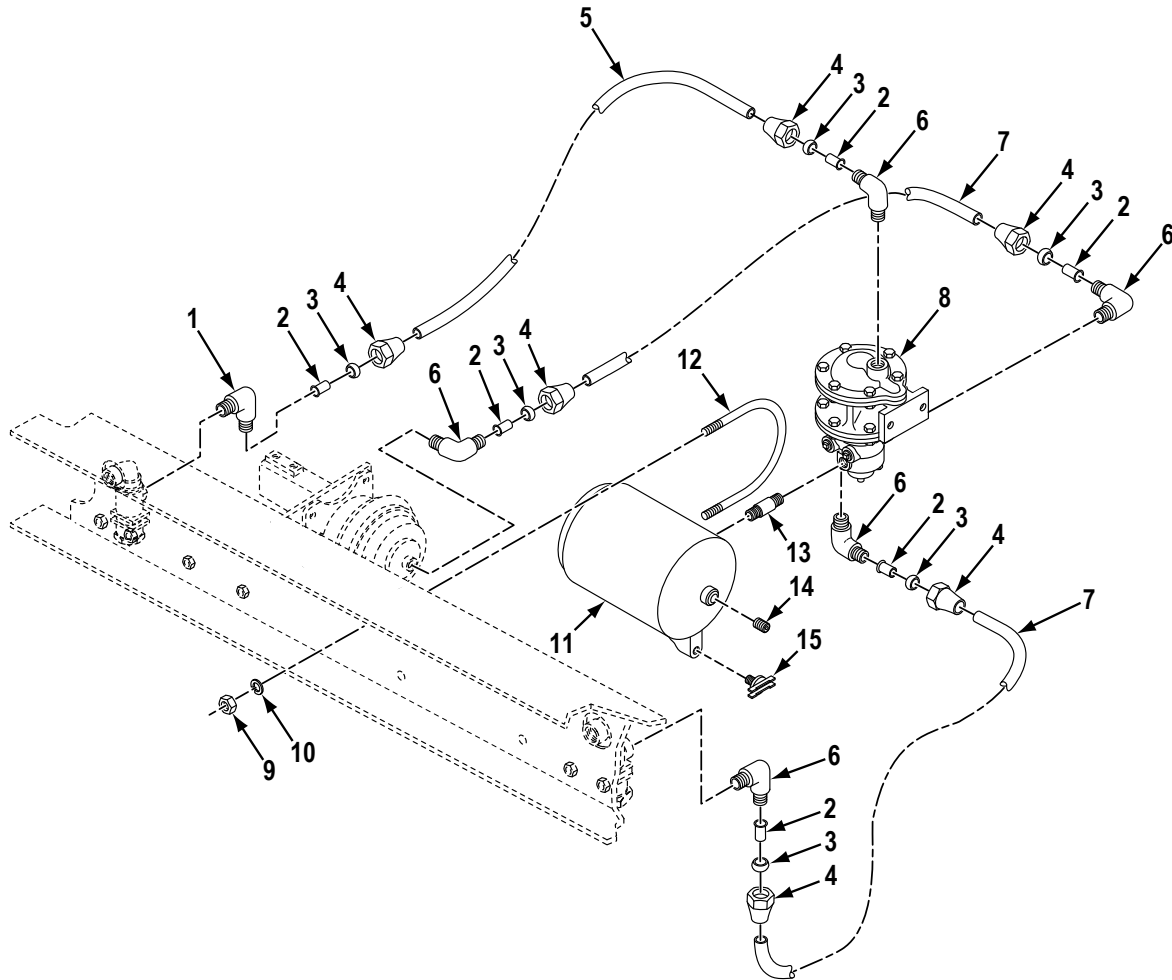
M1112-R10

Figure 10. Air Brake Chamber Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1204 HYDRAULIC BRAKE SYSTEM						
FIG. 10. AIR BRAKE CHAMBER ASSEMBLY.						
1	PAFFF	2530-01-433-7084	92865	12-460-015	ACTUATOR ASSEMBLY,A.....	1
2	PAFZZ	2530-01-447-9821	92865	02-460-061	. CYLINDER,HYDRAULIC MASTER CYLINDER, BRAKE.....	1
3	PAFZZ	2530-01-447-9804	92865	40-530-010	. CHAMBER,AIR BRAKE.....	1
4	PAFZZ	5305-00-068-0511	05047	AES01C375A25AW9 A91	SCREW,CAP,HEXAGON H 9/16 HEX,3/8- 16 UNC-2A, RH THD, 1 1/4 INCHES LONG	4
5	PAFZZ	2530-01-435-4923	92865	32-260-011	PLATE,BRAKE CHAMBER.....	1
6	PAFZZ	5310-00-087-4652	96906	M45913/1-6CG5C	NUT,SELF-LOCKING HE 9/16 HEX, 3/8-16 UNC-2B RH THD	4
7	PAFZZ	5310-00-209-0965	80205	MS35338-47	WASHER,LOCK.....	2
8	PAFZZ	5310-00-880-7745	96906	MS51968-11	NUT,PLAIN,HEXAGON 7/16-20.....	2

END OF FIGURE

**FIELD MAINTENANCE
AIR BRAKE SYSTEM**



M1112-R11

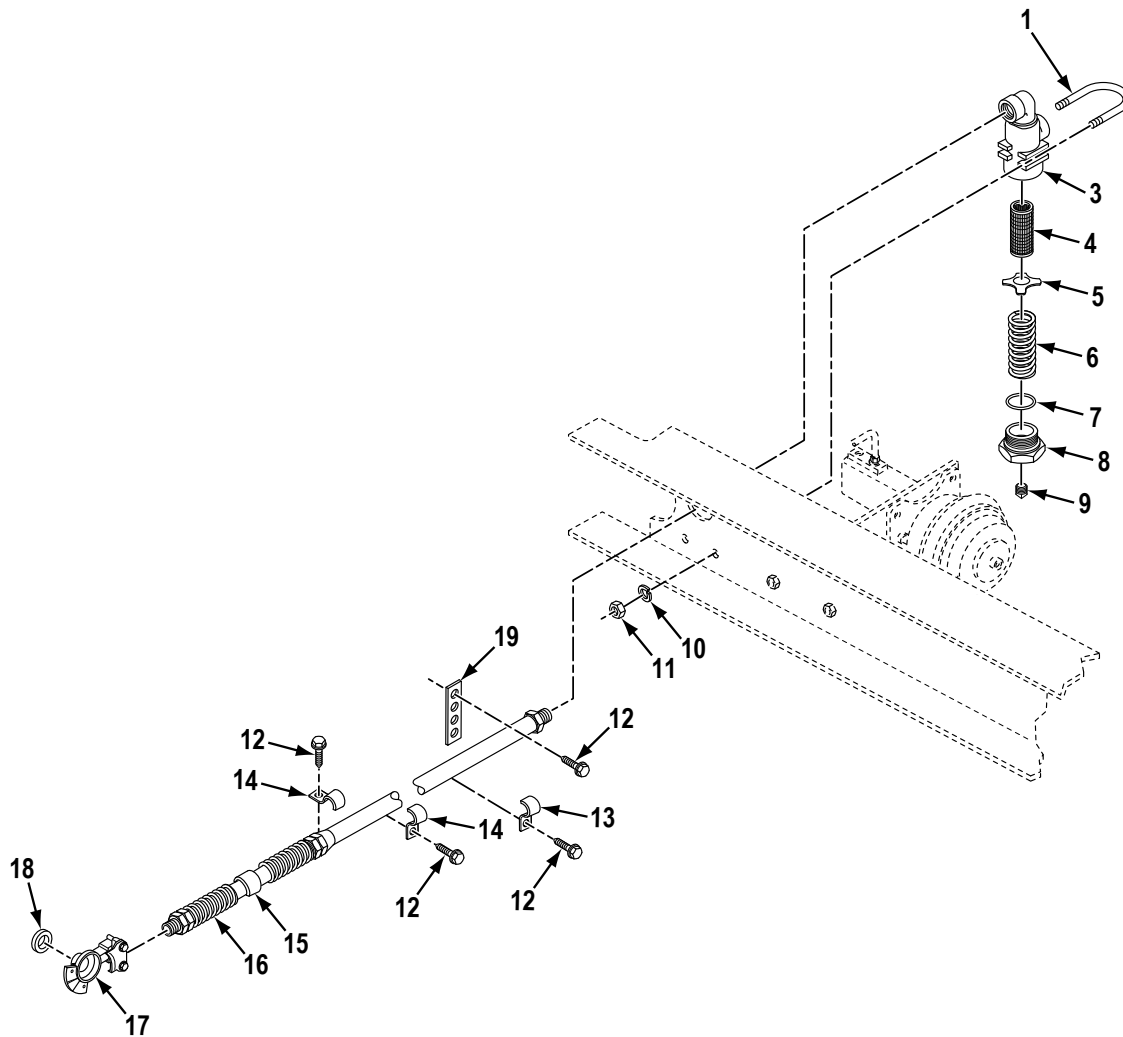
Figure 11. Air Brake System.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1208 AIR BRAKE SYSTEM						
FIG. 11. AIR BRAKE SYSTEM.						
1	PAFZZ	4730-01-066-9484	81343	SAE J246 6-4 120302BA	ELBOW,PIPE TO TUBE.....	1
2	PAFZZ	4730-01-079-8821	19207	CPR102321-1	INSERT,TUBE FITTING.....	6
3	PAFZZ	4730-01-434-5156	81343	SAE J246 6-120111BA	SLEEVE,COMPRESSION,.....	6
4	PAFZZ	4730-00-293-7108	81343	SAE J246 6 120115B	SLEEVE,COMPRESSION.....	6
5	MFFZZ		81343	J844TYBSIZE 3/8 BLACK-32	HOSE,NONMETALLIC MAKE FROM P/N J844TYBSIZE 3/8 BLACK (81343) 32 INCHES LONG.....	1
6	PAFZZ	4730-00-069-1187	81343	SAE J246 6-4 100202BA	ELBOW,PIPE TO TUBE.....	6
7	MFFZZ		81343	J844TYBSIZE 3/8 BLACK-18	HOSE,NONMETALLIC MAKE FROM P/N J844TYBSIZE 3/8 BLACK (81343) 18 INCHES LONG.....	2
8	PAFZZ	2530-00-021-2366	58536	A52485-2	PARTS KIT,RELAY VAL.....	1
9	PAFZZ	5310-00-880-7746	96906	MS51968-5	NUT,PLAIN,HEXAGON.....	4
10	PAFZZ	5310-00-407-9566	80205	MS35338-45	WASHER,LOCK.....	4
11	PAFZZ	2530-01-042-0683	19207	11625104	TANK,PRESSURE.....	1
12	PAFZZ	5306-01-043-5702	19207	11625105	BOLT,U.....	2
13	PAFZZ	4730-00-196-1505	81346	A733S-101CFG	NIPPLE,PIPE.....	1
14	PAFZZ	4730-00-057-5555	81343	6 130109NC	PLUG,PIPE.....	1
15	PAFZZ	4820-00-849-1220	58536	A-A-59440/1-005	COCK,DRAIN.....	1

END OF FIGURE

FIELD MAINTENANCE
AIR LINE FILTER ASSEMBLY

2
3 THRU 9



M1112-R12

Figure 12. Air Line Filter Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1208 AIR BRAKE SYSTEM						
FIG. 12. AIR LINE FILTER ASSEMBLY.						
1	PAFZZ	5306-00-797-9296	19207	7979296	BOLT,U.....	2
2	PAFFF	2530-00-797-9295	06721	N12969	AIR FILTER,BRAKE LI.....	2
3	XAFZZ		06721	N-12970-A	. ELBOW BODY,AIR LINE.....	1
4	KFFZZ		06721	N-12971-B	. FILTER ELEMENT,FLUI PART OF KIT P/N RN-13-A.....	1
5	XAFZZ		06721	N12972	. WASHER,SPRING TENS.....	1
6	KFFZZ		19207	7979612	. SPRING,HELICAL,COMP PART OF KIT P/N RN-13-A.....	1
7	KFFZZ		19207	8329823	. GASKET PART OF KIT P/N RN-13-A.....	1
8	PAFZZ	4730-00-580-8457	19207	7979613	. ADAPTER BUSHING.....	1
9	XDFZZ		81343	AS4862SIZE01MOD	. PLUG,PIPE.....	1
10	PAFZZ	5310-00-407-9566	80205	MS35338-45	WASHER,LOCK.....	4
11	PAFZZ	5310-00-880-7746	96906	MS51968-5	NUT,PLAIN,HEXAGON.....	4
12	PAFZZ	5305-00-137-3938	96906	MS51871-3	SCREW,TAPPING.....	8
13	PAFZZ	5340-00-057-2891	80205	MS21333-4	CLAMP,LOOP.....	2
14	PAFZZ	5340-00-281-1446	19207	8331536	STRAP,RETAINING.....	4
15	XDFZZ		19207	1235543-1	BAND,MARKER EMERGENCY.....	1
15	PAFZZ	9905-01-441-1063	19207	12355943-2	BAND,MARKER SERVICE.....	1
16	PAFZZ	4720-00-018-2296	19207	8741770	HOSE ASSEMBLY,NONME.....	2
17	PAFZZ	4730-00-595-0083	58536	A52484-1	COUPLING HALF,QUICK.....	2
18	PAFZZ	5330-01-504-8614	45152	4HA892	SEAL,PLAIN RED.....	1
18	PAFZZ	5330-01-504-8610	45152	4HA891	SEAL,PLAIN BLUE.....	1
19	MFFZZ		19207	10905840-AR	STRAP,TIEDOWN,ELECT MAKE FROM P/N 10905840 (19207) LENGTH AS REQUIRED.....	2

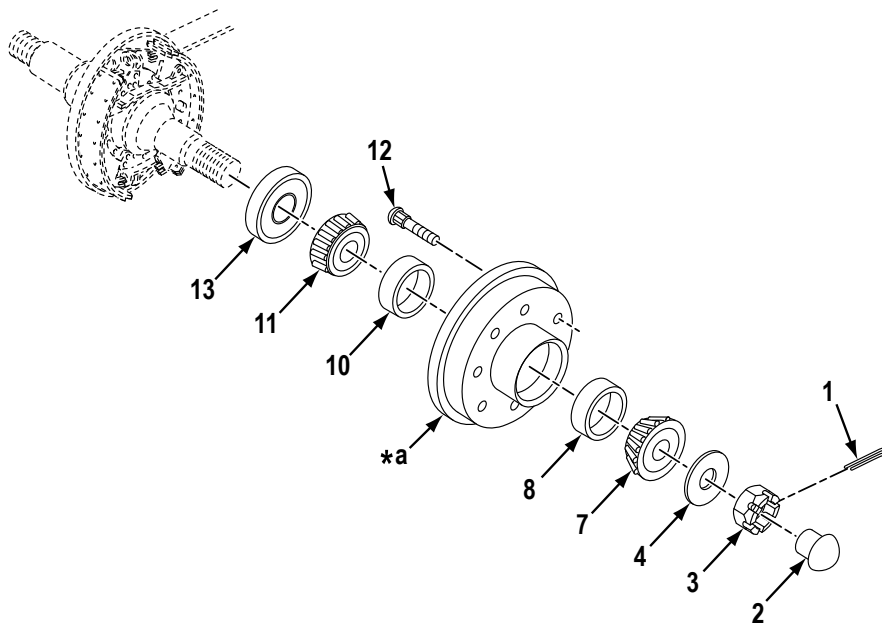
END OF FIGURE

FIELD MAINTENANCE
UNDERCARRIAGE GROUP

5
6 THRU 12

6
7 THRU 8

9
10 THRU 11



*a PART OF ITEM 5

M1112-R13b

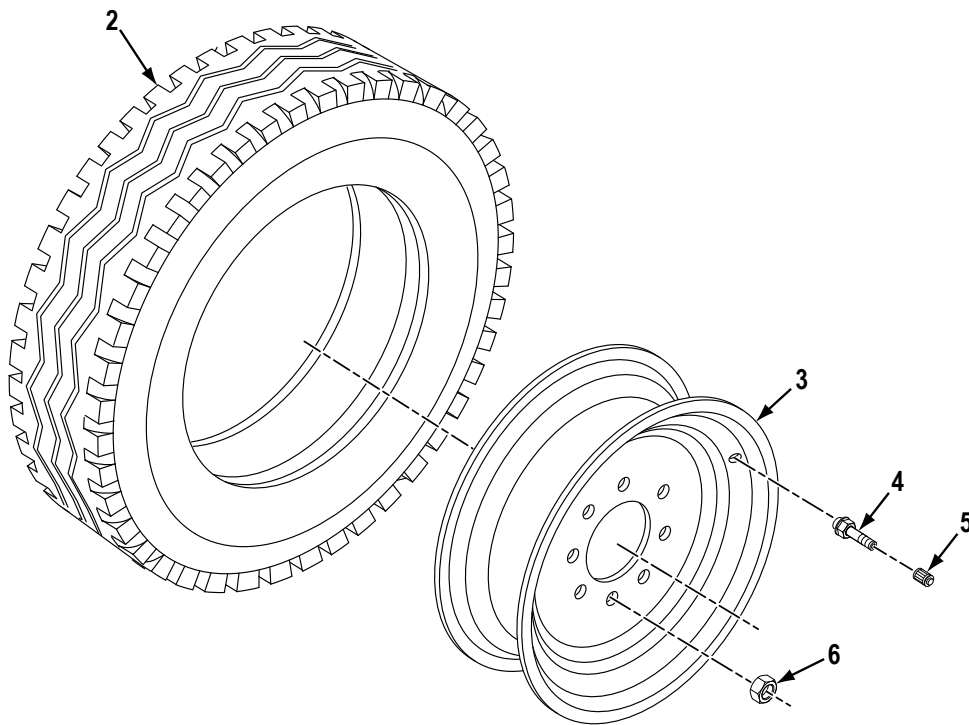
Figure 13. Undercarriage Group.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1313 TIRES, TUBES, TIRE CHAINS						
FIG. 13. UNDERCARRIAGE GROUP.						
1	PAFZZ	5315-00-013-7228	80205	MS24665-423	PIN,COTTER.....	8
2	PAFZZ	3040-01-149-5061	61125	1605	CAP,GREASE.....	8
3	PFFZZ	5310-01-226-8735	04627	249289	NUT,PLAIN,SLOTTED,H.....	8
4	PAFZZ	5310-00-809-8541	96906	MS27183-27	WASHER,FLAT.....	8
5	PAFFF	2530-01-396-7770	15460	8-219-4	HUB,WHEEL,VEHICULAR.....	8
6	PAFFF	3110-00-100-5997	96906	MS19081-186	. BEARING,ROLLER,TAPE (OUTER).....	1
7	PAFZZ	3110-00-100-6004	60038	14125A14274	. . BEARING,ROLLER,TAPE (OUTER).....	1
8	PAFZZ	3110-00-100-0516	60038	14276	. . CUP,TAPERED ROLLER (OUTER).....	1
9	PAFFF	3110-00-100-5303	58536	AA59649-267	. BEARING,ROLLER,TAPE (INNER).....	1
10	PAFZZ	3110-00-100-0544	60038	25520	. . CUP,TAPERED ROLLER (INNER).....	1
11	PAFZZ	3110-00-100-3541	51588	25580	. . CONE AND ROLLERS,TA (INNER).....	1
12	PAFZZ	5306-01-432-9779	1GD20	ST-504	. BOLT,RIBBED SHOULDE.....	1
13	PCFZZ	5330-01-412-4447	01212	12449388	SEAL,PLAIN ENCASED.....	8

END OF FIGURE

**FIELD MAINTENANCE
WHEEL AND TIRE ASSEMBLY**

1
2 THRU 5



M1112-R13a

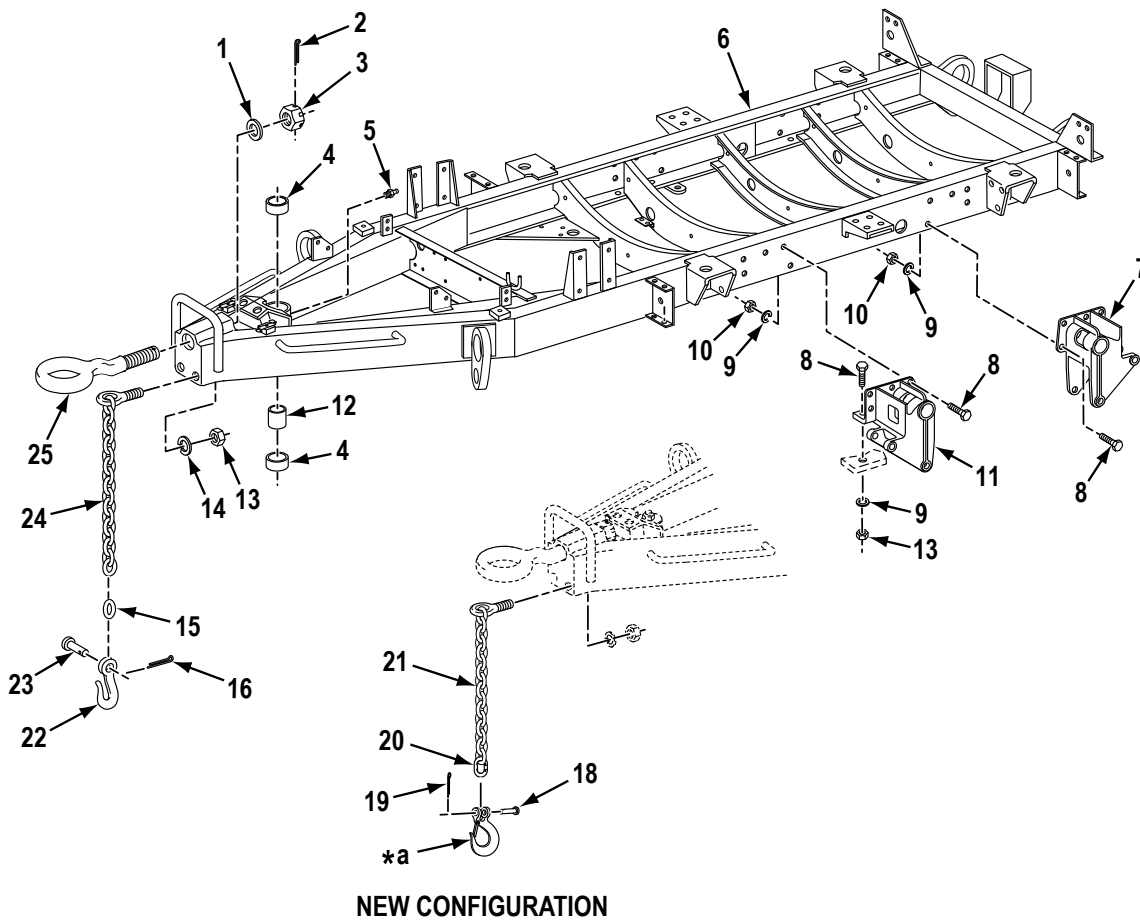
Figure 14. Wheel and Tire Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1313 TIRES, TUBES, TIRE CHAINS						
FIG. 14. WHEEL AND TIRE ASSEMBLY.						
1	PCCFF	2530-01-435-1913	20076	S70066800060	WHEEL,PNEUMATIC TIR.....	8
2	PCFZZ	2610-01-439-6222	19207	12504938	. TIRE,PNEUMATIC,VEHI.....	1
3	PAFZZ	2530-01-528-7038	02686	129374	. RIM,WHEEL,PNEUMATIC.....	1
4	PAFZZ	2640-00-555-2829	58536	A-A-52611-2-2- TR501	. VALVE,PNEUMATIC TIR.....	1
5	PAFZZ	2640-00-255-9346	58536	A-52611-4-1-TR VC3	. CAP,PNEUMATIC VALVE.....	1
6	PAFZZ	5310-01-441-1666	1GD20	STN-506	NUT,PLAIN,HEXAGON.....	8

END OF FIGURE

FIELD MAINTENANCE
FRAME ASSEMBLY

17
18 THRU 19



*a PART OF ITEM 20

M1112-R14

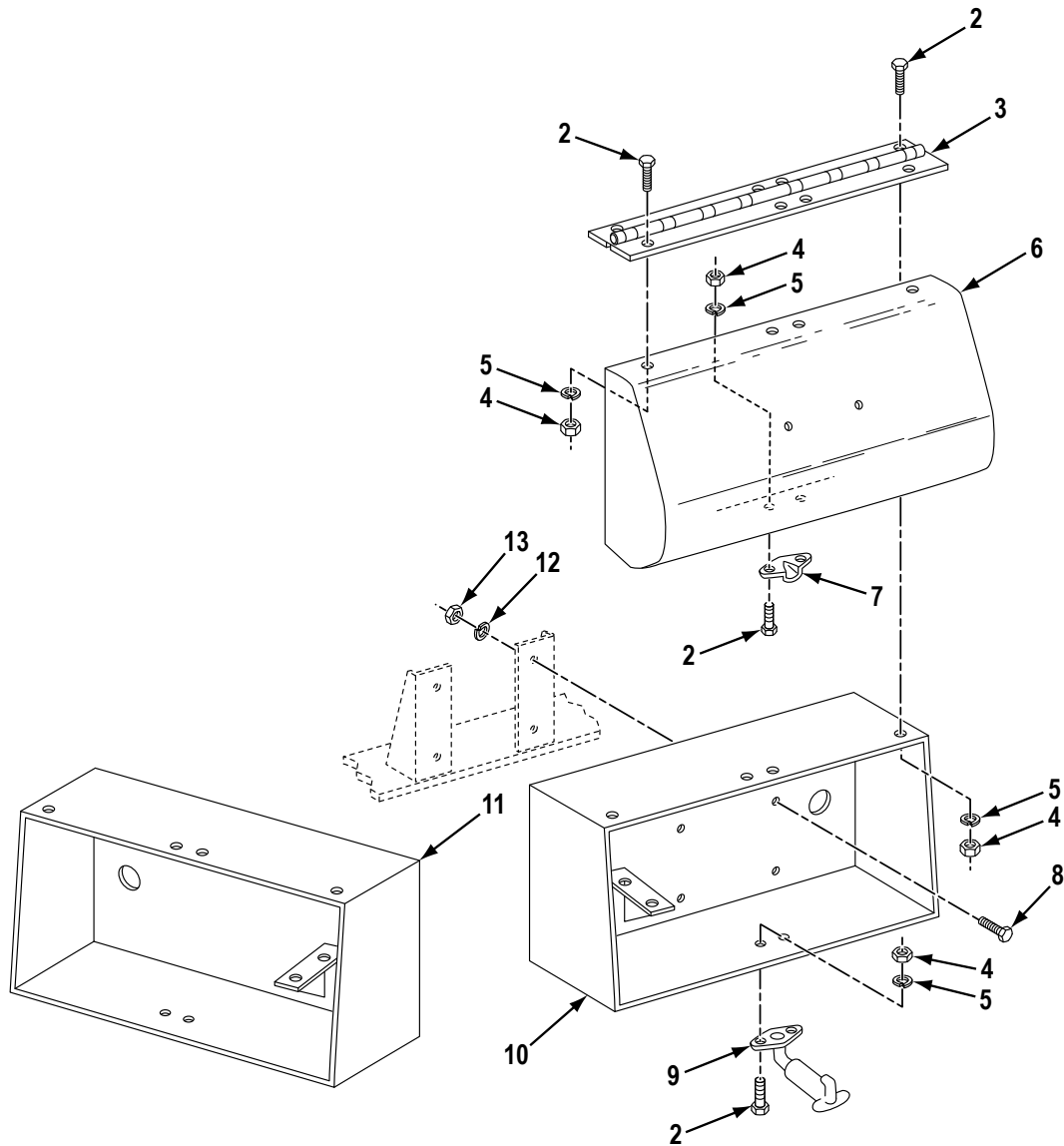
Figure 15. Frame Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1501 FRAME ASSEMBLY						
FIG. 15. FRAME ASSEMBLY.						
1	PAFZZ	5310-00-044-6284	81348	FF-W-92 TY A GR 1 CL A	WASHER,FLAT.....	1
2	PAFZZ	5315-00-234-1664	80205	MS24665-495	PIN,COTTER.....	1
3	PAFZZ	5310-00-741-1028	19207	7411028	NUT,PLAIN,HEXAGON.....	1
4	PAFZZ	3120-00-347-5900	19207	7979962	BEARING,SLEEVE.....	2
5	PAFZZ	4730-00-050-4203	81343	AS15001-1	FITTING,LUBRICATION.....	1
6	XBFZZ		19207	12447268	FRAME ASSEMBLY.....	1
7	XBFZZ		19207	7059565	BRACKET,MOUNTING.....	2
8	PAFZZ	5305-00-719-5235	05047	AES01F500A75AW9 A91	SCREW,CAP,HEXAGON H 1/2-20 X 1.75.....	28
9	PAFZZ	5310-00-584-5272	80205	MS35338-48	WASHER,LOCK.....	20
10	PAFZZ	5310-00-732-0560	96906	MS51968-14	NUT,PLAIN,HEXAGON.....	28
11	XBFZZ		19207	7059533	BRACKET,MOUNTING.....	2
12	PAFZZ	5365-01-432-8663	19207	11644768	SPACER,SLEEVE.....	1
13	PAFZZ	5310-00-763-8922	96906	MS51967-24	NUT,PLAIN,HEXAGON 3/4-10.....	2
14	PAFZZ	5310-00-584-7888	FAHK8	MS35338-51	WASHER,LOCK.....	2
15	PAFZZ	4010-01-112-8082	96906	MS87008-3	LINK,CHAIN,CONNECTI.....	2
16	PAFZZ	5315-00-842-3044	80205	MS24665-283	PIN,COTTER.....	2
17	PAFZZ	4030-01-531-2978	75535	1225091	HOOK, HOIST.....	2
18	PAFZZ	5315-00-957-0765	80205	MS20392-5C47	. PIN,STRAIGHT,HEADED.....	2
19	PAFZZ	5315-00-842-3044	80205	MS24665-283	. PIN,COTTER.....	2
20	PAFZZ	4010-01-041-9751	81348	RR-C-271,TY XIV,SZLINK,DETACHABLE..... 3/8 IN		2
21	PAFZZ	4010-00-286-5645	81348	RR-C-271 TY1 CL5 ST2	CHAIN,WELDED.....	2
22	PAFZZ	4030-01-438-1803	75535	1027560	HOOK,SLIP.....	2
23	PAFZZ	5315-00-957-0765	80205	MS20392-5C47	PIN,STRAIGHT,HEADED.....	2
24	PAFZZ	4010-01-458-3852	19207	12461851-3	CHAIN ASSEMBLY,SING.....	2
25	PAFZZ	2540-00-999-5584	58536	A-A-52464B	COUPLER,DRAWBAR,RIN.....	1

END OF FIGURE

FIELD MAINTENANCE
FAUCET BOX ASSEMBLY

1
2 THRU 10



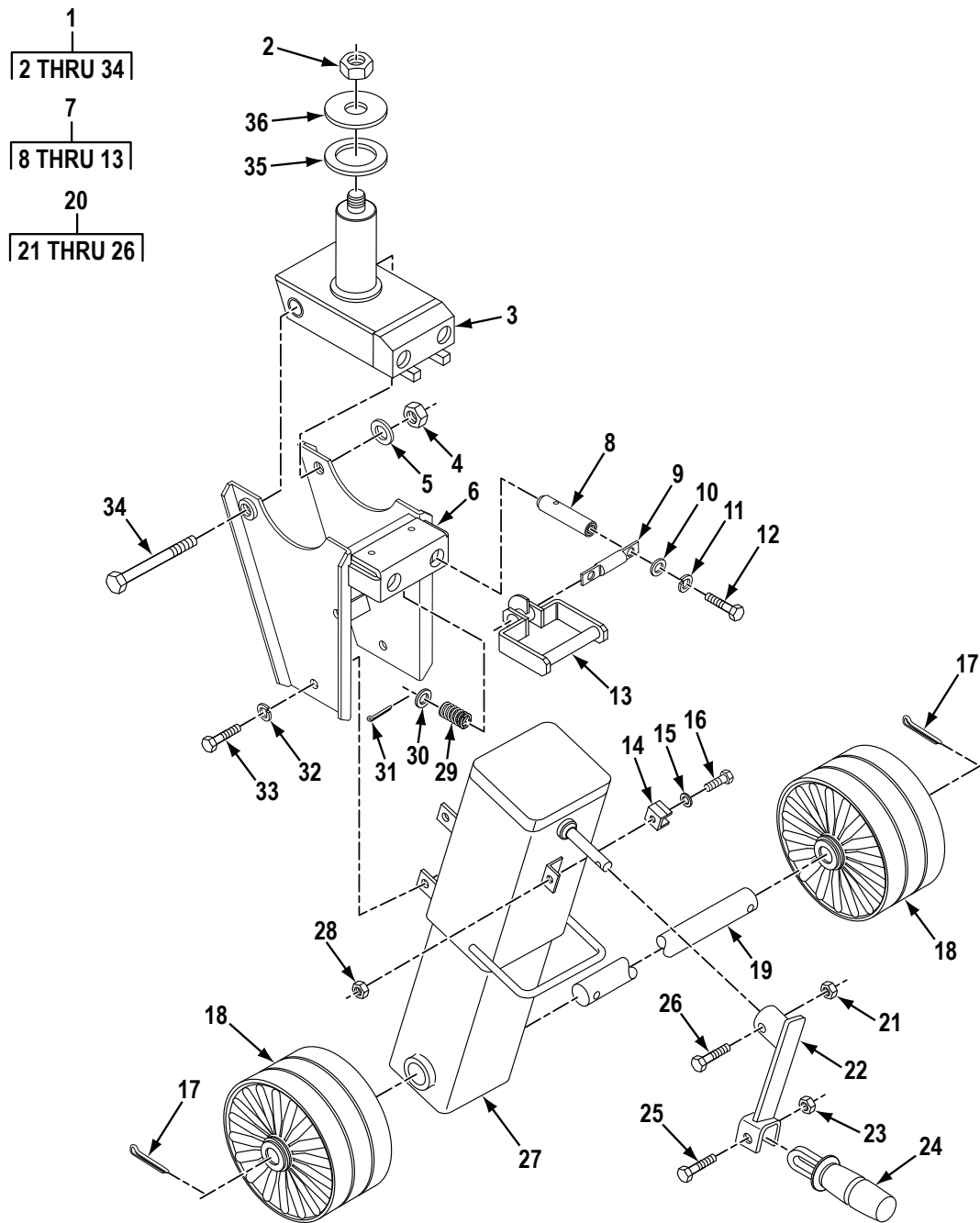
M1112-R15

Figure 16. Faucet Box Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1501 FRAME ASSEMBLY						
FIG. 16. FAUCET BOX ASSEMBLY.						
1	PAFFF	2540-01-168-9876	19207	7035486	BOX,ACCESSORIES STO LEFT HAND.....	1
2	PAFZZ	5305-00-470-3321	96906	MS51849-74	. SCREW,MACHINE.....	12
3	MFFZZ		19207	7037002-17	. HINGE,BUTT MAKE FROM P/N A- A-55590-16D (58536) 17 INCHES LONG.....	1
4	PAFZZ	5310-00-934-9758	43551	06436	. NUT,PLAIN,HEXAGON 3/16-24.....	12
5	PAFZZ	5310-00-045-3296	80205	MS35338-43	. WASHER,LOCK 3/16.....	12
6	PAFZZ	5340-01-008-6088	19207	7034748	. COVER,ACCESS.....	1
7	PAFZA	2510-00-769-7483	19207	7697483	. BRACKET HOOD CATCH.....	1
8	PAFZZ	5305-00-267-8953	80204	B1821BH025F063N	. SCREW,CAP,HEXAGON H 1/4-28 X 5/8 INCH LONG.....	8
9	PAFZZ	2590-00-040-2075	19207	10245310	. FASTENER,CYLINDER,S.....	1
10	PAFZZ	2540-01-086-1667	19207	7035451	. BOX,ACCESSORIES STO LEFT.....	1
11	PAFZZ	8115-01-086-1666	19207	7035452	BOX,SMALL PARTS RIGHT.....	1
12	PAFZZ	5310-00-582-5965	80205	MS35338-44	WASHER,LOCK.....	8
13	PAFZZ	5310-00-768-0319	96906	MS51968-2	NUT,PLAIN,HEXAGON.....	8

END OF FIGURE

FIELD MAINTENANCE
LANDING LEG ASSEMBLY



M1112-R16

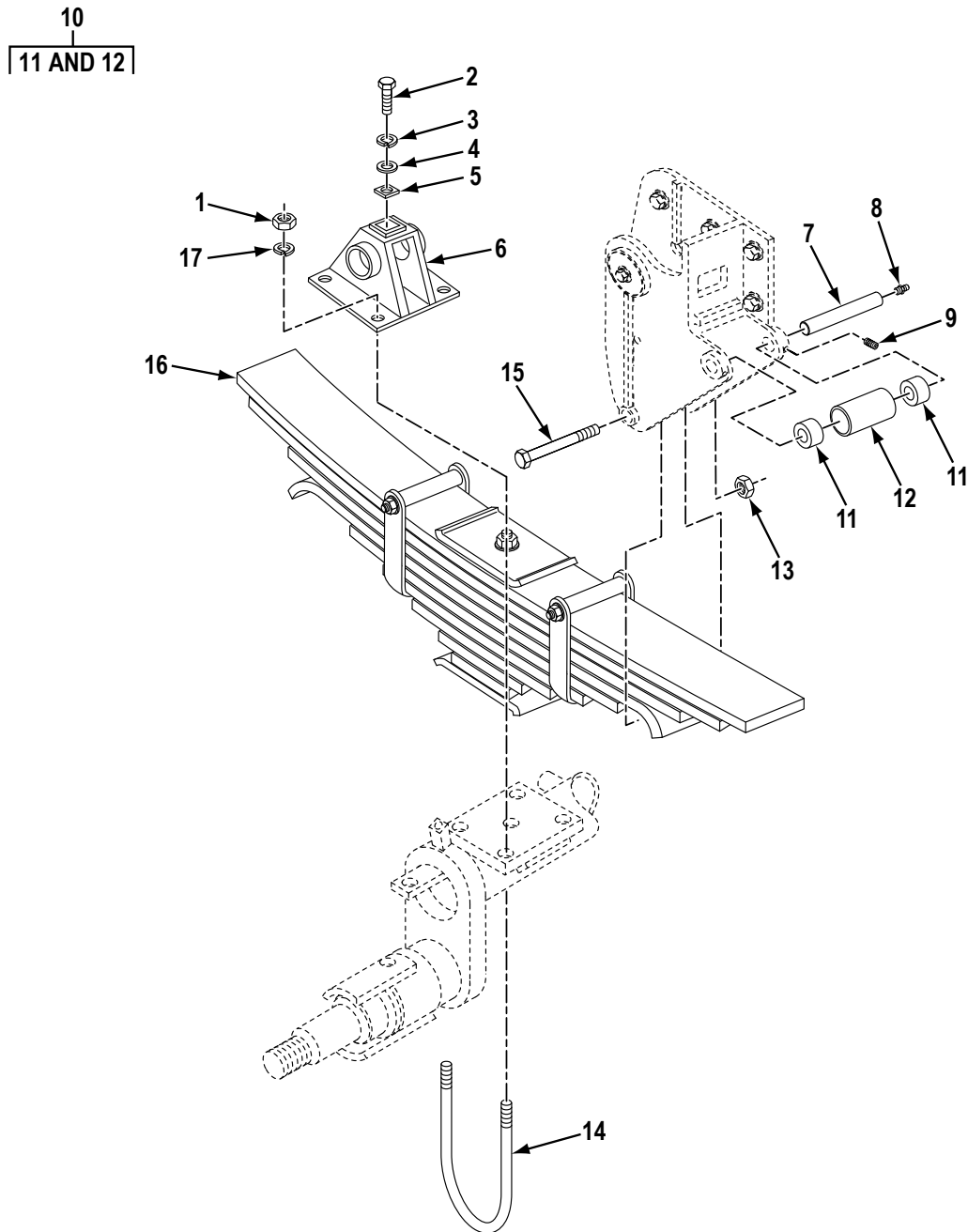
Figure 17. Landing Leg Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1507 LANDING GEAR, LEVELING JACKS (MECHANICAL OR HYDRAULIC)						
FIG. 17. LANDING LEG ASSEMBLY.						
1	PFFFF	2590-01-254-6554	19207	12259830-1	LEG,SEMITRAILER RET.....	1
2	PFFZZ	5310-00-982-6810	80205	MS21044N12	. NUT,SELF-LOCKING,HE.....	1
3	PFFZZ	2530-00-693-0736	19207	8331539	. SPINDLE,WHEEL,DRIVI.....	1
4	PAFZZ	5310-00-982-6808	80205	MS21044N9	. NUT,SELF-LOCKING,HE.....	1
5	PFFZZ	5310-00-823-8803	96906	MS27183-21	. WASHER,FLAT 5/8.....	1
6	PFFZZ	2590-01-210-8843	19207	12259839	. LEG,SEMITRAILER RET.....	1
7	PAFFF	5340-01-438-2335	19207	12461862	. HANDLE,MANUAL CONTR.....	1
8	PFFZZ	5315-01-439-7765	19207	12461861	. . PIN,STRAIGHT,HEADLE.....	2
9	XBFZZ		19207	12461860	. . PIN,SHOULDER,HEADLE.....	1
10	PFFZZ	5310-00-081-4219	96906	MS27183-12	. . WASHER,FLAT.....	2
11	PFFZZ	5310-00-407-9566	80205	MS35338-45	. . WASHER,LOCK.....	2
12	PFFZZ	5306-00-226-4826	80204	B1821BH031C088N	. . BOLT,MACHINE.....	2
13	PFFZZ	4730-01-440-5261	31902	12461859	. . HANDLE,WELDMENT,DOU.....	1
14	PFFZZ	5340-01-222-5247	19207	12312996	. CLIP,SPRING TENSION.....	1
15	PFFZZ	5310-00-014-5850	96906	MS27183-42	. WASHER,FLAT.....	1
16	PFFZZ	5305-00-989-7435	80205	MS35207-264	. SCREW,MACHINE.....	1
17	PFFZZ	5315-01-186-0829	80205	MS171656	. PIN,SPRING.....	2
18	PFFZZ	2530-01-215-3389	19207	12259845	. WHEEL,METAL TIRE.....	2
19	PFFZZ	3040-01-209-0497	19207	12259831	. SHAFT,STRAIGHT.....	1
20	PAFFF	5340-01-209-0475	19207	12259835	. CRANK,HAND.....	1
21	PFFZZ	5310-00-483-8792	80205	MS17829-4C	. . NUT,SELF-LOCKING,HE.....	1
22	PFFZZ	5340-01-209-0503	19207	12259840	. . ARM,HAND CRANK.....	1
23	PFFZZ	5310-00-660-3381	80205	MS21083N5	. . NUT,SELF-LOCKING,HE.....	1
24	PFFZZ	5340-01-209-0500	19207	12259837	. . HANDLE,MANUAL CONTR.....	1
25	PFFZZ	5305-00-225-9093	80205	MS90726-38	. . SCREW,CAP,HEXAGON H.....	1
26	PFFZZ	5305-00-068-0509	80204	B1821BH025C125N	. . SCREW,CAP,HEXAGON H.....	1
27	PFFZZ	2590-01-183-6816	19207	12259830	. SUPPORT,RETRACTABLE.....	1
28	PFFZZ	5310-00-877-5797	80205	MS21044N3	. NUT,SELF-LOCKING,HE.....	1
29	PFFZA	5360-00-699-8489	19207	8331541	. SPRING,HELICAL,COMP.....	2
30	PFFZZ	5310-00-220-6848	0AHP5	27D252	. WASHER,FLAT.....	2
31	PFFZZ	5315-01-305-7675	96906	MS171658	. PIN,SPRING.....	2

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
32	PFFZZ	5310-00-584-5272	80205	MS35338-48	. WASHER,LOCK.....	4
33	PFFZZ	5305-00-071-2066	80204	B1821BH050C100N	. SCREW,CAP,HEXAGON H.....	4
34	PFFZZ	5306-00-174-4246	19207	7979972	. BOLT,SHOULDER.....	1
35	PFFZZ	5310-00-270-8834	19207	8330813	WASHER,FLAT.....	1
36	PAFZZ	5310-00-270-8832	19207	8330821	WASHER,FLAT.....	1

END OF FIGURE

FIELD MAINTENANCE
SPRINGS



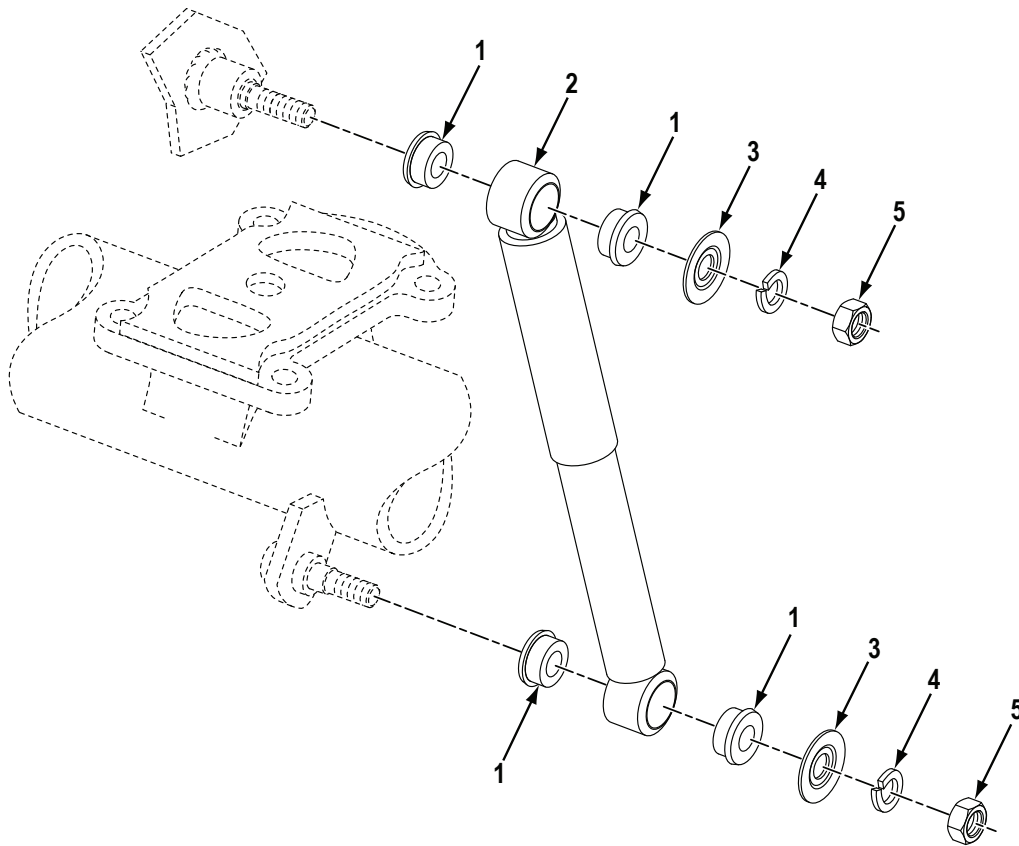
M1112-R17

Figure 18. Springs.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1601 SPRINGS						
FIG. 18. SPRINGS.						
1	PAFZZ	5310-00-427-0043	19207	7411041	NUT,PLAIN,HEXAGON.....	8
2	PAFZZ	5305-00-068-0511	05047	AES01C375A25AW9	SCREW,CAP,HEXAGON H.....	2
				A91		
3	PAFZZ	5310-00-595-7237	80205	MS35333-42	WASHER,LOCK.....	2
4	PAFZZ	5310-00-809-4061	96906	MS27183-15	WASHER,FLAT.....	2
5	PAFZZ	5340-00-656-3638	19207	7522436	BUMPER.....	2
6	PAFZZ	3040-01-245-2522	19207	7350779	BRACKET,EYE,ROTATIN.....	2
7	PAFZZ	2510-00-056-4799	19207	8389735	PIN,VEHICULAR LEAF.....	4
8	PAFZZ	4730-00-050-4203	81343	AS15001-1	FITTING,LUBRICATION.....	4
9	PAFZZ	5305-00-728-6281	80205	MS51973-54	SETSCREW.....	8
10	PAFFF	2510-00-017-9588	19207	10929946	ROLLER ASSEMBLY,HAN.....	4
11	PAFZZ	3120-01-093-8325	19207	8389733	. BUSHING,SLEEVE.....	2
12	PAFZZ	3120-00-056-2173	19207	8389734	. BEARING,SLEEVE.....	1
13	PAFZZ	5310-00-225-6408	81349	M45913/1-10FG5C	NUT,SELF-LOCKING,HE.....	4
14	PAFZZ	5306-00-053-0512	19207	8389628	BOLT,U.....	4
15	PAFZZ	5305-00-726-2572	05047	AES01F625F00AW9	SCREW,CAP,HEXAGON H.....	4
				A91		
16	PAFZA	2510-00-056-2174	19207	8389626	SPRING ASSEMBLY,LEA.....	2
17	PAFZZ	5310-00-052-6454	96906	MS35340-51	WASHER,LOCK.....	8

END OF FIGURE

**FIELD MAINTENANCE
SHOCK ABSORBERS**



M1112-R18

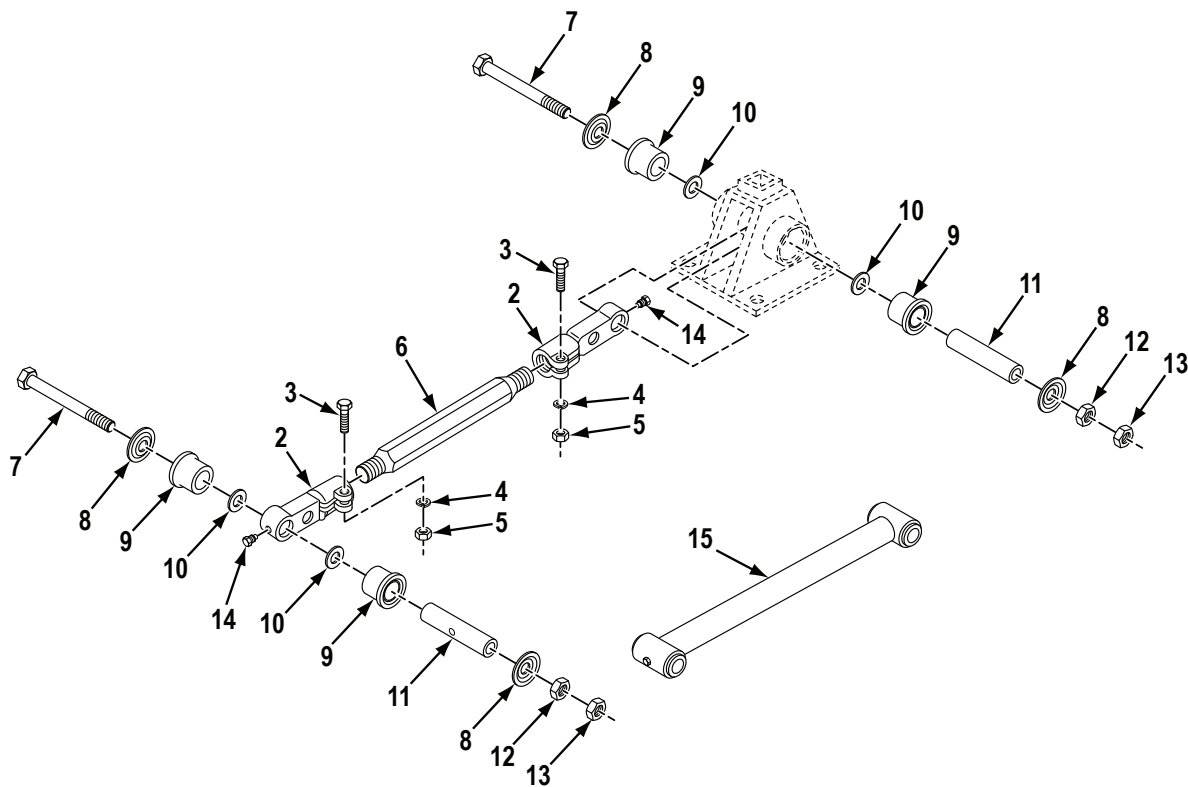
Figure 19. Shock Absorbers.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1604 SHOCK ABSORBER EQUIPMENT						
FIG. 19. SHOCK ABSORBERS.						
1	PCFZZ	5365-00-275-4519	19207	7339466	BUSHING,NONMETALLIC.....	8
2	PAFZZ	2510-00-886-8061	19207	8716992	SHOCK ABSORBER,DIRE.....	2
3	PAFZZ	5310-00-733-9465	19207	7339465	WASHER,RECESSED.....	4
4	PAFZZ	5310-00-004-5034	26916	004-003005-059	WASHER,LOCK.....	4
5	PAFZZ	5310-00-763-8905	96906	MS51968-20	NUT,PLAIN,HEXAGON 5/8.....	4

END OF FIGURE

FIELD MAINTENANCE
RADIUS RODS

1
2 THRU 6



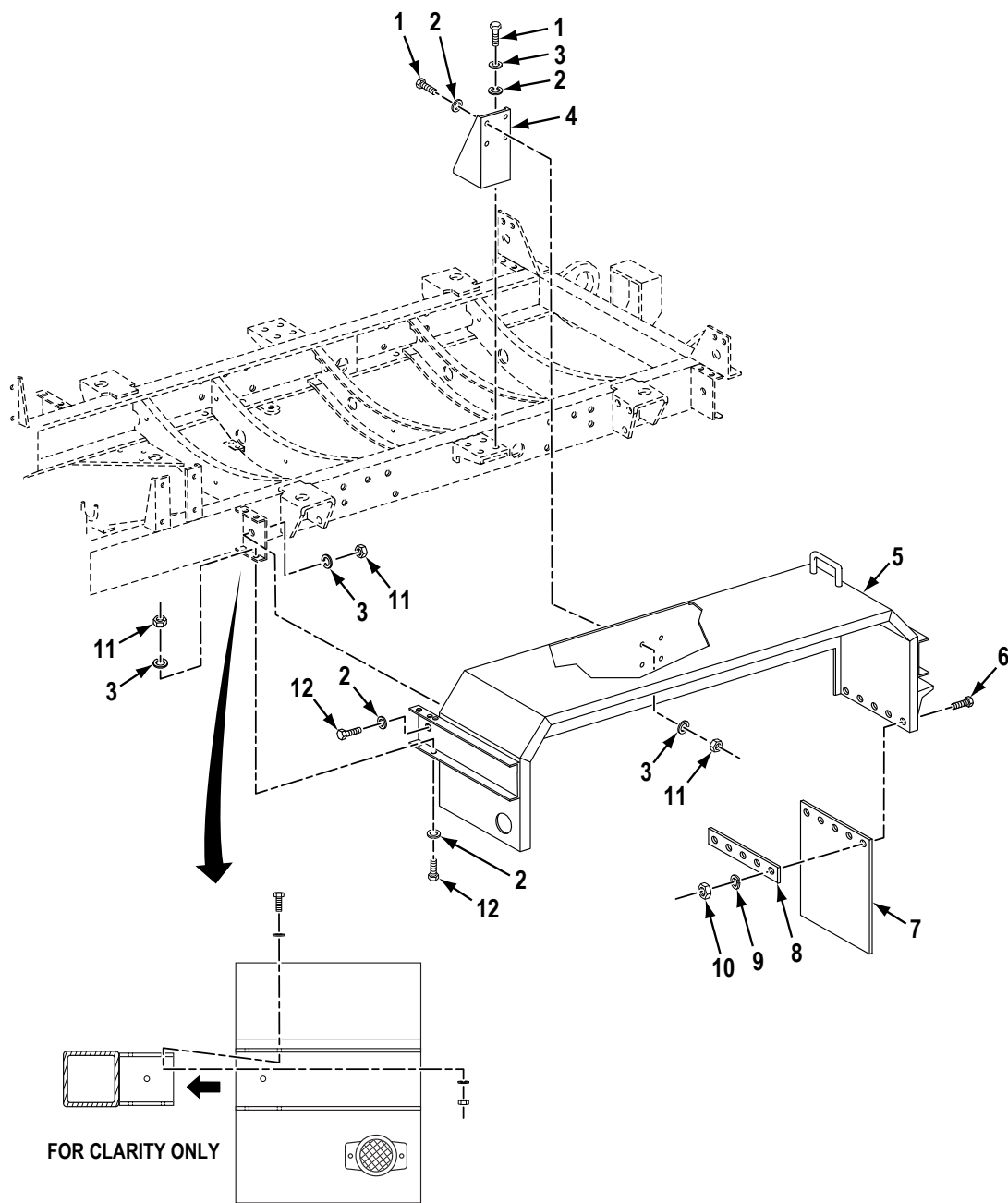
M1112-R19

Figure 20. Radius Rods.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1605 TORQUE, RADIUS, AND STABILIZER RODS						
FIG. 20. RADIUS RODS.						
1	PAFFF	2530-01-093-8270	19207	7366478-1	ROD ASSEMBLY,RADIUS L.H.....	1
2	PAFZZ	5340-00-421-7242	19207	7349017	. CONNECTOR,ROD END L.H.....	1
2	PAFZZ	5340-00-427-0080	19207	7349016	. CONNECTOR,ROD END R.H.....	1
3	PAFZZ	5305-00-716-8183	77640	GL81709	. SCREW,CAP,HEXAGON H.....	2
4	PAFZZ	5310-00-584-5272	80205	MS35338-48	. WASHER,LOCK.....	2
5	PAFZZ	5310-00-732-0560	96906	MS51968-14	. NUT,PLAIN,HEXAGON.....	2
6	PAFZZ	2530-01-093-8271	19207	7366480-1	. ROD,ALIGNING,VEHICU.....	1
7	PAFZZ	5305-00-726-2572	05047	AES01F625F00AW9 A91	SCREW,CAP,HEXAGON H.....	4
8	PAFZZ	5310-00-424-1452	19207	7349028	WASHER,SHOULDERED.....	8
9	PCFZZ	5365-00-350-0155	19207	7974916	BUSHING,NONMETALLIC.....	8
10	PAFZZ	5310-00-424-1456	19207	7349029	WASHER,FLAT.....	8
11	PAFZZ	5365-00-624-0255	19207	7974917	SPACER,SLEEVE.....	4
12	PAFZZ	5310-00-763-8905	96906	MS51968-20	NUT,PLAIN,HEXAGON 5/8.....	4
13	PAFZZ	5310-00-835-2037	96906	MS35691-53	NUT,PLAIN,HEXAGON.....	4
14	PAFZZ	5305-00-679-3189	19207	8363970	SETSCREW.....	4
15	PAFZZ	2530-01-087-1003	19207	11625147	ROD ASSEMBLY,RADIUS R.H.....	1

END OF FIGURE

FIELD MAINTENANCE
FENDER

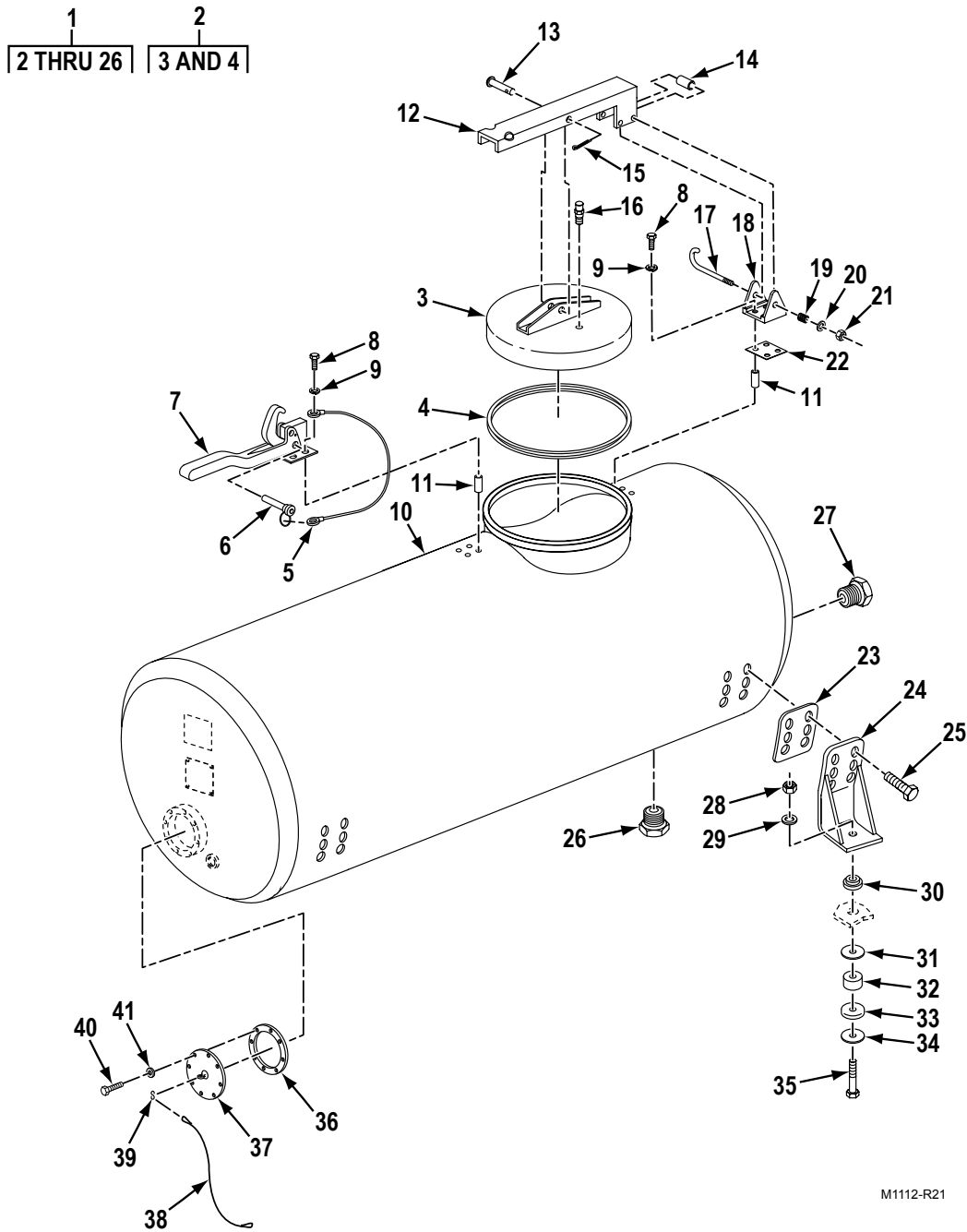


M1112-R20

Figure 21. Fender.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1802 FENDERS, RUNNING BOARDS WITH MOUNTING AND ATTACHING PARTS, WINDSHIELD, GLASS, ETC.						
FIG. 21. FENDER.						
1	PAFZZ	5305-00-071-1786	80204	B1821BH044C100N	SCREW,CAP,HEXAGON H 7/16-14x1	16
2	PAFZZ	5310-00-186-7411	96906	MS27183-60	WASHER,FLAT.....	28
3	PAFZZ	5310-00-584-5272	80205	MS35338-48	WASHER,LOCK.....	36
4	PAFZZ	2590-01-449-2456	19207	12461888	BRACKET,VEHICULAR C.....	2
5	PAFZZ	2510-01-441-2787	31902	12448013	FENDER,VEHICULAR.....	2
6	PAFZZ	5305-00-071-2237	80205	MS90725-14	SCREW,CAP,HEXAGON H.....	10
7	PAFZZ	2540-01-435-0325	19207	11597666-2	GUARD,SPLASH,VEHICU.....	2
8	PAFZZ	5340-01-432-9808	19207	11597745-1	PLATE,MOUNTING.....	2
9	PAFZZ	5310-00-582-5965	80205	MS35338-44	WASHER,LOCK.....	10
10	PAFZZ	5310-00-761-6882	96906	MS51967-2	NUT,PLAIN,HEXAGON.....	10
11	PAFZZ	5310-00-732-0560	96906	MS51968-14	NUT,PLAIN,HEXAGON 1/2-20.....	28
12	PAFZZ	5305-00-071-2055	80204	B1821BH044C150N	SCREW,CAP,HEXAGON H 7/16-14 X 1.5 INCHES LONG.....	12
END OF FIGURE						

FIELD MAINTENANCE
TANK BODIES



M1112-R21

Figure 22. Tank Bodies.

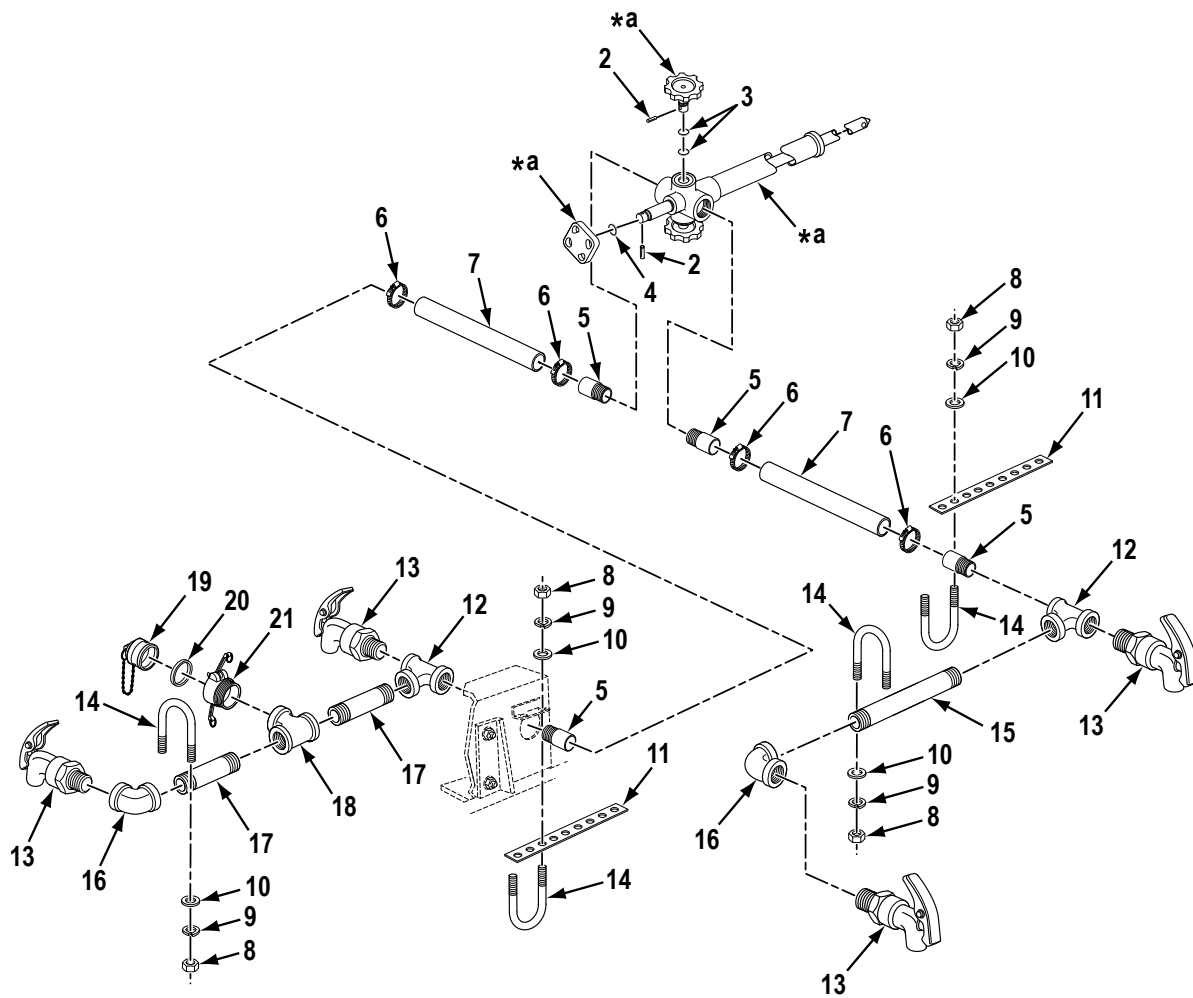
(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1811 TANK BODIES						
FIG. 22. TANK BODIES.						
1	PAFFF	2510-01-091-5167	19207	12269886	TANK,WATER,TRLR MTD.....	1
2	PAFFF	2510-01-095-2422	19207	12269951	. COVER,MANHOLE.....	1
3	XAFZZ		19207	12269958	. . COVER.....	1
4	PAFZZ	5330-01-317-9640	19207	12354242	. . SEAL,NONMETALLIC SP.....	1
5	PAFZZ	4010-00-903-0463	19207	10947252	. WIRE ROPE ASSEMBLY,.....	1
6	PAFZZ	5315-00-904-1670	80205	MS17984C421	. PIN,QUICK RELEASE.....	1
7	XBFZZ		19207	12474732	. CLAMP,COVER HOLD-DO ASSEMBLY	1
8	PAFZZ	5305-00-207-2297	80205	MS35307-312	. SCREW,CAP,HEXAGON H.....	8
9	PAFZZ	5310-00-933-8121	80205	MS35338-139	. WASHER,LOCK.....	8
10	XBFZZ		19207	12269250	. TANK WATER,INSULATE.....	1
11	XBFZZ		19207	12296261	. SPACER,SLEEVE.....	8
12	PAFZZ	9520-01-087-3068	19207	12269960	. STRUCTURAL SECTION.....	1
13	PAFZZ	5315-00-904-1643	80205	MS20392-7C75	. PIN,STRAIGHT,HEADED.....	1
14	PAFZZ	5315-01-267-7578	19207	12269972	. PIN,HOLLOW.....	1
15	PAFZZ	5315-01-359-1451	80205	MS24665-285	. PIN,COTTER.....	1
16	PAFZZ	4820-00-856-1722	19207	7034882	. VALVE,VACUUM BREAKI.....	1
17	PAFZZ	5306-01-088-1962	19207	12269970	. BOLT,HOOK.....	1
18	PAFZZ	3040-01-254-5369	19207	12296219	. BRACKET,EYE,NONROTA.....	1
19	PAFZZ	5360-01-078-5574	81343	MS24585C507	. SPRING,HELICAL,COMP.....	1
20	PAFZZ	5310-00-087-7493	96906	MS27183-13	. WASHER,FLAT.....	1
21	PAFZZ	5310-00-984-3807	81349	M45913/1-5FG5C	. NUT,SELF-LOCKING,HE.....	1
22	PAFZZ	5365-01-380-2806	19207	12331705-2	. SPACER,PLATE.....	1
22	PAFZZ	5365-01-380-2891	19207	12331705-3	. SHIM.....	1
22	PAFZZ	5365-01-380-2796	19207	12331705-4	. SHIM.....	1
22	PAFZZ	5365-01-380-2715	19207	12331705-1	. SPACER,PLATE.....	1
23	PAFZZ	5330-01-084-5991	19207	12269895 REV C	. GASKET.....	4
24	PAFZZ	5340-01-343-1795	19207	12331710	. BRACKET,DOUBLE ANGL.....	4
25	PAFZZ	5305-00-939-0608	80204	B1821BH038F125D	. SCREW,CAP,HEXAGON H.....	24
26	PAFZZ	4730-01-086-1620	19207	8741782-1	. PLUG,PIPE.....	1
27	PAFZZ	4730-01-190-1028	96906	MS14304-7P16	PLUG,PIPE.....	1
28	PAFZZ	5310-00-225-6408	81349	M45913/1-10FG5C	NUT,SELF-LOCKING,HE 5/8-18.....	4
29	PAFZZ	5310-01-372-9444	96906	MS27183-63	WASHER,FLAT.....	4

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
30	PCFZZ	5342-00-537-2212	19207	8331543	MOUNT,RESILIENT,WEA.....	4
31	PAFZZ	5310-01-130-1226	19207	11597768	WASHER,FLAT.....	4
32	PAFZZ	5330-00-575-9791	19207	8331544	PACKING WITH RETAIN.....	4
33	PAFZZ	5365-01-432-8664	19207	12355810	SPACER,PLATE.....	4
34	PAFZZ	5310-01-432-6741	19207	12355811	WASHER,FLAT.....	4
35	PAFZZ	5305-00-726-2558	80204	B1821BH063F375N	SCREW,CAP,HEXAGON H.....	4
36	PCFZZ	5330-01-433-5806	19207	12440420-1	GASKET.....	1
37	PAFZZ	5340-01-432-4851	19207	12440419	COVER,ACCESS.....	1
38	PAFZZ	4010-01-172-7685	19207	12270017-2	WIRE ROPE ASSEMBLY,.....	1
39	PAFZZ	4030-00-729-6054	96906	MS87006-63	HOOK,CHAIN,S.....	1
40	PAFZZ	5305-00-543-4372	80204	B1821BH038C075N	SCREW,CAP,HEXAGON H 3/8-16 X 3/4 INCH LONG.....	8
41	PAFZZ	5310-00-903-2612	81343	MS9321-12	WASHER,FLAT.....	8

END OF FIGURE

FIELD MAINTENANCE
TANK PLUMBING

1
2 THRU 4



*a PART OF ITEM 1

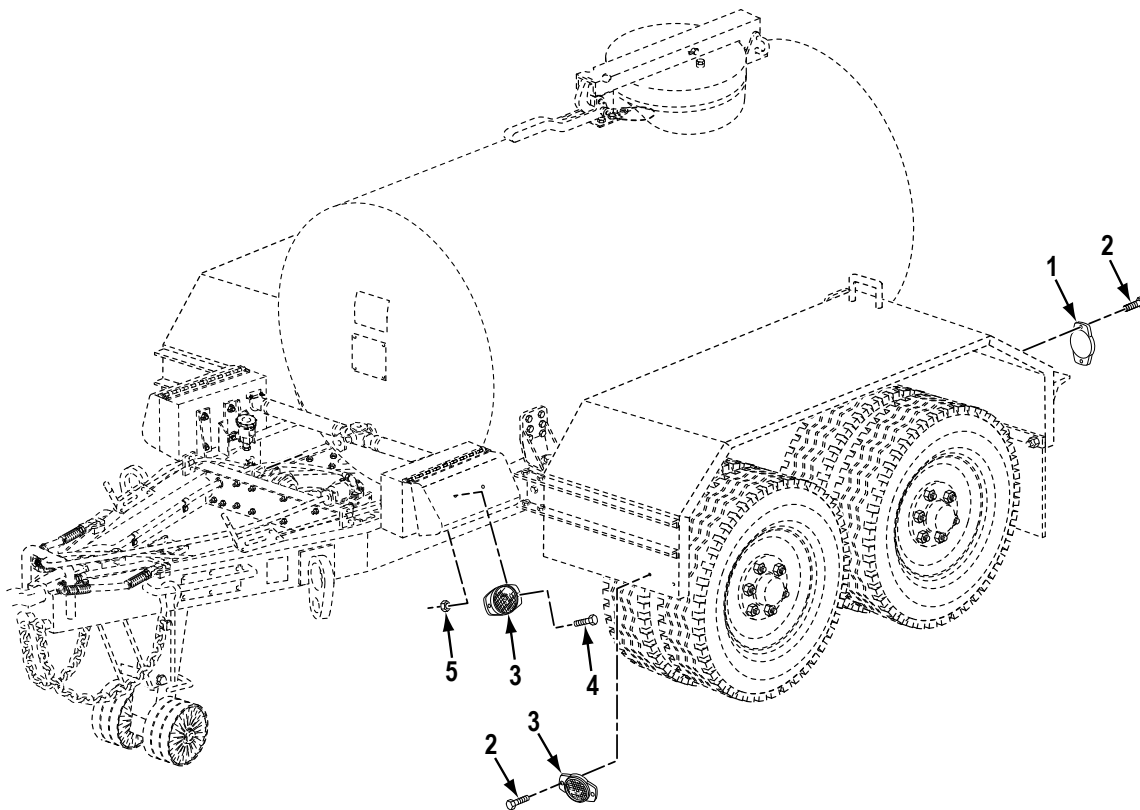
M1112-R22

Figure 23. Tank Plumbing.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 1811 TANK BODIES						
FIG. 23. TANK PLUMBING.						
1	PAFFF	4820-01-384-7555	3W359	70-2351	VALVE ASSEMBLY, MANI.....	1
2	PAFZZ	5315-00-841-4442	80205	MS16562-224	. PIN, SPRING.....	2
3	PCFZZ	5331-01-183-0990	81343	M83461/1-224	. O-RING.....	2
4	PCFZZ	5331-01-182-7410	81343	M83461/1-210	. O-RING.....	1
5	PAFZZ	4730-00-168-2075	19207	7065947	ADAPTER, STRAIGHT, PI.....	4
6	PAFZZ	4730-00-909-8627	58536	AA52506-F-36	CLAMP, HOSE.....	4
7	PCFZZ	4720-01-440-9299	19207	8724753-1	HOSE ASSEMBLY, NONME.....	2
8	PAFZZ	5310-00-905-0762	96906	MS51967-3	NUT, PLAIN, HEXAGON.....	1
9	PAFZZ	5310-00-550-1130	80205	MS35333-40	WASHER, LOCK.....	8
10	PAFZZ	5310-00-809-4058	96906	MS27183-10	WASHER, FLAT.....	8
11	PAFZZ	5975-00-483-5756	19207	8724501	STRAP, TIEDOWN ELECT.....	2
12	PAFZZ	4730-01-433-2618	96906	MS14309-30	TEE, PIPE.....	2
13	PAFZZ	4510-01-433-0396	69K66	7034881	FAUCET, SINGLE.....	4
14	PAFZZ	5306-00-937-1312	19207	8724754	BOLT, U.....	4
15	PAFZZ	4730-00-196-2017	81346	B687R-122B	NIPPLE, PIPE.....	1
16	PAFZZ	4730-01-380-2931	96906	MS14308-8	ELBOW, PIPE M149A2 CURRENT CONFIGURATION.....	1
17	PAFZZ	4730-00-168-2074	19207	7035450	NIPPLE, PIPE.....	2
18	PAFZZ	4730-01-134-6995	96906	MS14309-24	TEE, PIPE.....	1
19	PAFZZ	4730-01-036-7498	58536	AA59326/11-3-B	PLUG, QUICK DISCONNE.....	1
20	PCFZZ	5330-00-088-9167	96906	MS27030-3	GASKET.....	1
21	PAFZZ	4730-00-084-7436	58536	AA59326/7-3-B-2	COUPLING HALF, QUICK.....	1

END OF FIGURE

FIELD MAINTENANCE
REFLECTORS



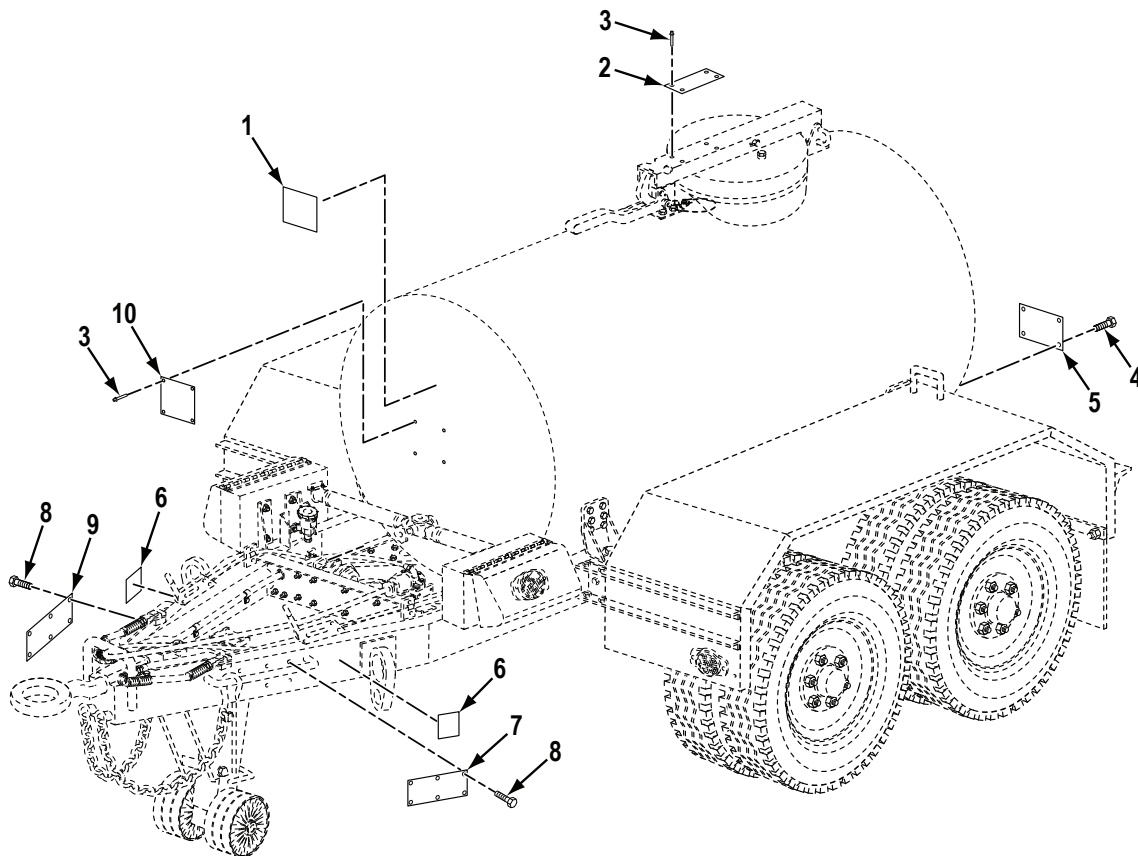
M1112-R23

Figure 24. Reflectors.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 2202 ACCESSORY ITEMS						
FIG. 24. REFLECTORS.						
1	PAFZZ	9905-00-205-2795	18876	8161509	REFLECTOR,INDICATIN RED.....	2
2	PAFZZ	5305-00-052-6921	80205	MS24629-57	SCREW,TAPPING.....	8
3	PAFZZ	9905-00-202-3639	19207	7348221	REFLECTOR,INDICATIN AMBER.....	4
4	PAFZZ	5305-00-071-2506	05047	AES01C250500AW9 A91	SCREW,CAP,HEXAGON H.....	4
5	PAFZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT,SELF-LOCKING,HE.....	4

END OF FIGURE

FIELD MAINTENANCE
DATA PLATES



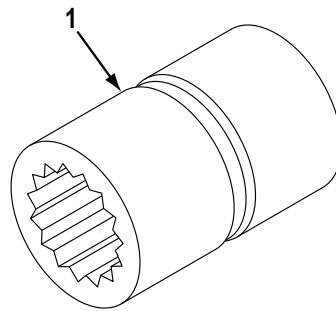
M1112-R24

Figure 25. Data Plates.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 2210 DATA PLATES AND INSTRUCTION HOLDERS						
FIG. 25. DATA PLATES.						
1	PFFZZ	7690-01-362-6547	19207	12362734	DECAL.....	1
2	PFFZZ	9905-01-435-3496	19207	12355946	PLATE,IDENTIFICATIO.....	1
3	PAFZZ	5305-00-850-5841	80205	MS21318-37	SCREW,DRIVE.....	8
4	PAFZZ	5305-00-052-6921	80205	MS24629-57	SCREW,TAPPING.....	4
5	XBFZZ		19207	12362732	PLATE,IDENTIFICATI.....	1
6	PCFZZ	7690-01-446-1396	19207	12441062	LABEL WARNING, LANDING LEG.....	1
7	PFFZZ	9905-01-333-0796	19207	12331771	PLATE,IDENTIFICATIO.....	1
8	PAFZZ	5305-00-253-5633	80205	MS21318-59	SCREW,DRIVE.....	12
9	PFFZZ	9905-01-086-1580	19207	12269949	PLATE,IDENTIFICATIO.....	1
10	PFFZZ	9905-01-097-7047	19207	10929816-1	PLATE,IDENTIFICATIO.....	1

END OF FIGURE

FIELD MAINTENANCE
SPECIAL TOOLS



M1112-R25

Figure 26. Special Tools.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
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GROUP 2604 SPECIAL TOOLS

FIG. 26. SPECIAL TOOLS.

1	PAFZZ	5120-00-199-7771	81343	AS954	SOCKET, SOCKET WRENC.....	1
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END OF FIGURE

FIELD MAINTENANCE
KITS

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
--------------------	-----------------	------------	--------------	--------------------	--	------------

GROUP 9401 KITS**FIG. KITS.**

1	PAFZZ	4330-00-696-0351	06721	RN-13-A	PARTS KIT,FLUID PRE.....	1
					FILTER,ELEMENT,FL (001)	12-4
					U	
					GASKET (001)	12-7
					SPRING,HELICAL (001)	12-6

END OF FIGURE

FIELD MAINTENANCE
BULK

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
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GROUP 9501 BULK MATERIALS**FIG. BULK.**

1	PAFZZ	5340-01-189-9985	58536	A-A-55590-16D	HINGE,BUTT.....	1
2	PAFZZ	4720-01-014-4915	81343	J844TYBSIZE 3/8 BLACK	HOSE,NONMETALLIC.....	1
3	PAFZZ	5975-00-345-8055	19207	10905840	STRAP,TIEDOWN,ELECT.....	1
4	PAFZZ	9505-00-293-4208	00624	900010-32C	WIRE,NONELECTRICAL.....	1

END OF FIGURE

**FIELD MAINTENANCE
NATIONAL STOCK NUMBER INDEX**

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-004-5034	19	4		8	22
5315-00-013-7228	13	1		9	4
5310-00-014-5850	17	15	5310-00-081-4219	7	2
2510-00-017-9588	18	10		9	12
4720-00-018-2296	12	16		17	10
6240-00-019-0877	2	2	4730-00-084-7436	23	21
6240-00-019-3093	1	8	5310-00-087-4652	7	18
2530-00-021-2366	11	8		9	18
2590-00-040-2075	16	9		10	6
5310-00-044-6284	15	1	5310-00-087-7493	22	20
5310-00-045-3296	16	5	5310-00-088-1251	9	21
4730-00-050-4203	15	5		24	5
	18	8	5340-00-088-1254	7	3
4730-00-050-4208	6	17	5330-00-088-9167	23	20
	9	14	3110-00-100-0516	13	8
5310-00-052-6454	18	17	3110-00-100-0544	13	10
5305-00-052-6921	24	2	3110-00-100-3541	13	11
	25	4	3110-00-100-5303	13	9
5306-00-053-0512	18	14	3110-00-100-5997	13	6
3120-00-056-2173	18	12	3110-00-100-6004	13	7
2510-00-056-2174	18	16	5305-00-115-9526	1	10
2510-00-056-4799	18	7	5305-00-137-3938	12	12
5340-00-057-2891	3	26	2530-00-161-7575	8	19
	12	13	2530-00-161-7576	8	19
5999-00-057-2929	3	2	4730-00-168-2074	23	17
	3	19	4730-00-168-2075	23	5
4730-00-057-5555	11	14	5310-00-168-6459	6	15
5340-00-057-8689	9	27	5306-00-174-4246	17	34
5310-00-067-6356	5	8	5305-00-177-5651	5	2
5305-00-068-0502	9	26	6220-00-179-4324	1	2
5305-00-068-0508	5	13	5310-00-186-7411	21	2
5305-00-068-0509	17	26	4730-00-196-1505	11	13
5305-00-068-0510	6	6	4730-00-196-2017	23	15
	7	9	5120-00-199-7771	26	1
	9	20	9905-00-202-3639	24	3
5305-00-068-0511	9	5	9905-00-205-2795	24	1
	10	4	5305-00-207-2297	22	8
	18	2	5310-00-209-0965	10	7
5306-00-068-0513	3	12	5310-00-220-6848	17	30
4730-00-069-1187	11	6	5310-00-225-6408	18	13
5305-00-071-1786	21	1		22	28
5305-00-071-2055	21	12	5306-00-225-8499	7	5
5305-00-071-2066	17	33	5305-00-225-9093	17	25
5305-00-071-2075	6	9	5306-00-226-4825	7	1
5305-00-071-2237	21	6	5306-00-226-4826	17	12
5305-00-071-2506	24	4	5306-00-226-4827	9	11
5310-00-080-6004	6	5	5306-00-226-4833	7	13
	7	8	5940-00-230-0515	4	9

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5315-00-234-1664	15	2	5340-00-611-7883	3	17
5305-00-253-5633	25	8	5365-00-624-0255	20	11
2640-00-255-9346	14	5	5310-00-637-9541	1	9
5305-00-267-8953	16	8	5340-00-656-3638	18	5
5310-00-270-8832	17	36	5310-00-660-3381	17	23
5310-00-270-8834	17	35	5305-00-679-3189	20	14
5365-00-275-4519	19	1	2530-00-693-0736	17	3
5340-00-281-1446	12	14	4330-00-696-0351	KITS	1
4010-00-286-5645	15	21	5360-00-699-8489	17	29
5325-00-290-3777	3	15	5305-00-716-8183	20	3
9505-00-293-4208	BULK	4	5305-00-719-5235	15	8
4730-00-293-7108	11	4	5305-00-724-7223	6	10
5975-00-345-8055	BULK	3	5305-00-726-2558	22	35
3120-00-347-5900	15	4	5305-00-726-2572	18	15
5365-00-350-0155	20	9		20	7
5940-00-399-6676	3	8	5305-00-728-6281	18	9
	4	5	4030-00-729-6054	22	39
5310-00-407-9566	7	10	5310-00-732-0560	15	10
	11	10		20	5
	12	10		21	11
	17	11	5310-00-733-9465	19	3
5342-00-408-9177	7	11	5310-00-741-1028	15	3
5340-00-421-7242	20	2	9905-00-752-4649	3	9
5310-00-424-1452	20	8		3	22
5310-00-424-1456	20	10		4	8
5310-00-427-0043	18	1	5310-00-761-6882	21	10
5340-00-427-0080	20	2	5310-00-763-8905	19	5
5305-00-432-4205	3	25		20	12
5331-00-462-0907	1	3	5310-00-763-8922	15	13
4730-00-463-1588	9	3	5310-00-768-0319	3	10
5305-00-470-3321	16	2		16	13
5975-00-483-5756	23	11	2510-00-769-7483	16	7
5310-00-483-8792	17	21	4720-00-774-4040	9	25
5342-00-537-2212	22	30	6150-00-777-3068	4	1
4730-00-540-2612	9	32	5305-00-782-9489	7	12
5305-00-543-4372	9	8	2530-00-797-9295	12	2
	22	40	5306-00-797-9296	12	1
5310-00-543-4385	9	24	5340-00-809-1500	4	10
5310-00-550-1130	23	9	5310-00-809-3078	3	14
2640-00-555-2829	14	4		4	12
5935-00-572-9180	3	4	5310-00-809-4058	23	10
	3	21	5310-00-809-4061	18	4
5330-00-575-9791	22	32	5310-00-809-5998	6	8
4730-00-580-8457	12	8	5310-00-809-8533	5	3
5310-00-582-5965	16	12		6	19
	21	9	5310-00-809-8541	13	4
5310-00-584-5272	15	9	5310-00-823-8803	6	12
	17	32		17	5
	20	4	5935-00-833-8561	3	6
	21	3		3	23
5310-00-584-7888	15	14		4	7
4730-00-595-0083	12	17	5970-00-833-8562	3	7
5310-00-595-7237	18	3		3	24

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
	4	6	5340-01-048-2239	3	11
5310-00-833-8567	3	3	4730-01-066-9484	11	1
	3	20	6220-01-067-4717	1	4
5310-00-835-2037	9	23	2530-01-074-7001	8	9
	20	13	5360-01-078-5574	22	19
5315-00-841-4442	23	2	4730-01-079-8821	11	2
9905-00-841-4445	3	5	5330-01-084-5991	22	23
5315-00-842-3044	7	14	9905-01-086-1580	25	9
	15	16	4730-01-086-1620	22	26
	15	19	8115-01-086-1666	16	11
4820-00-849-1220	11	15	2540-01-086-1667	16	10
5305-00-850-5841	25	3	2530-01-087-1003	20	15
5305-00-855-0956	2	4	9520-01-087-3068	22	12
4820-00-856-1722	22	16	5342-01-087-9679	8	23
5310-00-877-5797	17	28	5306-01-088-1962	22	17
5310-00-880-7745	10	8	2510-01-091-5167	22	1
5310-00-880-7746	11	9	6220-01-093-4439	1	1
	12	11	2530-01-093-8270	20	1
2510-00-886-8061	19	2	2530-01-093-8271	20	6
5310-00-891-3404	6	13	3120-01-093-8325	18	11
5310-00-891-3405	9	1	2510-01-095-2422	22	2
9905-00-893-3570	4	2	9905-01-097-7047	25	10
4010-00-903-0463	22	5	4010-01-112-8082	15	15
5310-00-903-2612	22	41	5310-01-130-1226	22	31
5315-00-904-1643	22	13	4730-01-134-6995	23	18
5315-00-904-1670	22	6	5305-01-137-3938	3	16
5310-00-905-0762	23	8		4	13
4730-00-909-8627	23	6		9	29
5310-00-933-8121	22	9	5310-01-139-2070	7	16
5310-00-934-9758	16	4	3040-01-149-5061	13	2
5306-00-937-1312	23	14	2540-01-168-9876	16	1
5305-00-938-1539	6	20	4010-01-172-7685	22	38
5305-00-939-0608	22	25	2590-01-178-7374	3	1
5315-00-957-0765	15	18	5331-01-182-7410	23	4
	15	23	5331-01-183-0990	23	3
5310-00-982-6808	17	4	2590-01-183-6816	17	27
5310-00-982-6810	17	2	5315-01-186-0829	17	17
5310-00-984-3806	7	6	5340-01-189-9985	BULK	1
5310-00-984-3807	22	21	4730-01-190-1028	22	27
5305-00-984-6214	2	3	5340-01-209-0475	17	20
5340-00-989-1771	6	21	3040-01-209-0497	17	19
5305-00-989-7435	17	16	5340-01-209-0500	17	24
5305-00-990-8416	6	11	5340-01-209-0503	17	22
2540-00-999-5584	15	25	2590-01-210-8843	17	6
5340-01-008-6088	16	6	2530-01-215-3389	17	18
4720-01-014-4915	BULK	2	2530-01-220-7021	9	19
5310-01-032-2319	5	10	5340-01-222-5247	17	14
4730-01-036-7498	23	19	5310-01-226-8735	13	3
5340-01-041-5052	4	4	3040-01-245-2522	18	6
4010-01-041-9751	15	20	3040-01-254-5369	22	18
2530-01-042-0683	11	11	2590-01-254-6554	17	1
5306-01-043-5702	11	12	2530-01-263-7061	8	6
4730-01-043-5999	9	30	5315-01-267-7578	22	14

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-01-274-3255	5	12	4710-01-433-8270	9	6
5340-01-277-0300	8	10	4710-01-433-8271	9	7
5305-01-277-0456	6	4	4710-01-433-8273	9	16
6220-01-284-2709	1	6	4730-01-434-5154	9	28
2530-01-287-4451	8	18	4730-01-434-5156	11	3
2530-01-287-6869	8	3	4710-01-434-5405	9	33
5360-01-287-7297	8	5	2540-01-435-0325	21	7
5315-01-287-8770	8	24	2530-01-435-1913	14	1
2530-01-287-9409	8	15	9905-01-435-3496	25	2
2530-01-288-3979	8	14	2530-01-435-4923	10	5
5360-01-288-5870	8	7	4720-01-435-6253	9	17
2530-01-289-2365	8	16	4720-01-436-0768	9	10
2530-01-289-2433	8	20	4710-01-436-4034	9	31
6220-01-297-3217	1	5	4030-01-438-1803	15	22
5315-01-305-7675	17	31	5340-01-438-2335	17	7
5330-01-317-9640	22	4	2610-01-439-6222	14	2
2530-01-320-1686	8	17	5315-01-439-7765	17	8
5360-01-320-5815	8	13	4730-01-440-5261	17	13
5305-01-321-3522	8	2	5340-01-440-6666	5	11
9905-01-333-0796	25	7	5340-01-440-6676	6	14
5340-01-343-1795	22	24	5340-01-440-8093	5	9
5315-01-359-1451	22	15	4720-01-440-9299	23	7
7690-01-362-6547	25	1	3040-01-440-9824	5	1
5310-01-372-9444	22	29	9905-01-441-1063	12	15
4730-01-377-3452	9	9	5310-01-441-1666	14	6
5365-01-380-2715	22	22	2530-01-441-2767	6	2
5365-01-380-2796	22	22	2510-01-441-2787	21	5
5365-01-380-2806	22	22	2510-01-441-2859	6	1
5365-01-380-2891	22	22	2510-01-444-6654	6	1
4730-01-380-2931	23	16	7690-01-446-1396	25	6
4820-01-384-7555	23	1	6240-01-447-3779	1	7
5365-01-396-3906	8	4	2530-01-447-9804	10	3
2530-01-396-7770	13	5	2530-01-447-9821	10	2
5330-01-398-1419	5	7	5330-01-448-3347	6	3
5305-01-407-9006	8	21	2590-01-449-2456	21	4
5330-01-412-4447	13	13	2590-01-449-2464	6	7
6220-01-417-3311	2	1	4710-01-449-2468	9	22
4730-01-420-3846	9	13	5365-01-449-3695	5	6
5305-01-432-1119	6	16	5340-01-449-3771	5	5
5340-01-432-4851	22	37	5340-01-449-3777	6	18
5340-01-432-5616	5	4	5360-01-454-5761	8	8
5310-01-432-6741	22	34	4010-01-458-3852	15	24
5365-01-432-8663	15	12	5310-01-462-3212	8	12
5365-01-432-8664	22	33	5310-01-466-0901	8	11
5306-01-432-9779	13	12	6220-01-482-6113	2	5
5340-01-432-9808	21	8	4730-01-497-9439	9	34
4510-01-433-0396	23	13	5330-01-504-8610	12	18
4730-01-433-2618	23	12	5330-01-504-8614	12	18
2530-01-433-3012	7	4	2530-01-528-7038	14	3
5330-01-433-5806	22	36	4030-01-531-2978	15	17
2530-01-433-7084	10	1	6210-01-550-0490	1	11
4710-01-433-7186	9	15	5310-01-551-8749	7	17
4710-01-433-8268	9	2	5340-01-587-9026	7	15

END OF WORK PACKAGE

FIELD MAINTENANCE PART NUMBER INDEX

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
A-52611-4-1-TR VC3	14	5	B1821BH063C225N	6	10
A-A-52464B	15	25	B1821BH063F375N	22	35
A-A-52611-2-2-TR501	14	4	B1821BH075C088N	6	4
A-A-55590-16D	BULK	1	B1821BH075C113N	5	2
A-A-59440/1-005	11	15	B1821BH075C200N	6	20
A52484-1	12	17	B1821BH100C600N	6	11
A52485-2	11	8	B687R-122B	23	15
A733S-101CFG	11	13	CL4SW	6	15
AA524463-B10	1	7	CPR102321-1	11	2
AA52463-A08	2	2	D-162162-1575-A	9	10
AA52463-A09	1	8	FF-W-92 TY A GR 1 CL A	15	1
AA52506-F-36	23	6	GL81709	20	3
AA52536-2	3	2	J514 4-2 140140B	9	34
	3	19	J844TYBSIZE 3/8 BLACK	BULK	2
AA59326/11-3-B	23	19	J844TYBSIZE 3/8 BLACK-18	11	7
AA59326/7-3-B-2	23	21	J844TYBSIZE 3/8 BLACK-32	11	5
AA59649-267	13	9	M3976/1-2-R-28	2	1
AES01C250500AW9A91	24	4	M43436/1-2	3	5
AES01C250750AW9A91	5	13	M43436/1-3	4	2
AES01C375A25AW9A91	9	5	M45913/1-10FG5C	18	13
	10	4		22	28
	18	2	M45913/1-4CG5C	9	21
AES01F500A75AW9A91	15	8		24	5
AES01F625F00AW9A91	18	15	M45913/1-5CG5C	7	6
	20	7	M45913/1-5FG5C	22	21
AS15001-1	15	5	M45913/1-6CG5C	7	18
	18	8		9	18
AS4862SIZE01MOD	12	9		10	6
AS954	26	1	M45913/2-12CG5C	5	8
B1821BH025C125N	17	26	M45913/3-24FG8C	5	10
B1821BH025F063N	16	8	M83461/1-210	23	4
B1821BH031C075N	7	1	M83461/1-224	23	3
B1821BH031C088N	17	12	MS14304-7P16	22	27
B1821BH031C100N	9	11	MS14308-8	23	16
B1821BH031C200N	7	13	MS14309-24	23	18
B1821BH038C075D	1	10	MS14309-30	23	12
B1821BH038C075N	9	8	MS16562-224	23	2
	22	40	MS171656	17	17
B1821BH038C100N	6	6	MS171658	17	31
	7	9	MS17829-4C	17	21
	9	20	MS17984C421	22	6
B1821BH038C112N	8	21	MS19081-186	13	6
B1821BH038C200N	7	12	MS20392-5C47	15	18
B1821BH038F125D	22	25		15	23
B1821BH044C100N	21	1	MS20392-7C75	22	13
B1821BH044C150N	21	12	MS21044N12	17	2
B1821BH050C100N	17	33	MS21044N3	17	28
B1821BH050C300N	6	9	MS21044N9	17	4

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
MS21083N5	17	23		11	10
MS21318-37	25	3		12	10
MS21318-59	25	8		17	11
MS21333-104	7	3	MS35338-47	10	7
MS21333-107	4	10	MS35338-48	15	9
MS21333-11	9	27		17	32
MS21333-123	6	21		20	4
MS21333-4	3	26		21	3
	12	13	MS35338-51	15	14
MS24585C507	22	19	MS35340-51	18	17
MS24629-47	2	4	MS35489-77	3	15
MS24629-57	24	2	MS35691-50	6	13
	25	4	MS35691-53	9	23
MS24665-283	7	14		20	13
	15	16	MS35691-54	9	1
	15	19	MS51054-94	6	16
MS24665-285	22	15	MS51849-74	16	2
MS24665-423	13	1	MS51861-49	3	25
MS24665-495	15	2	MS51871-3	3	16
MS27030-3	23	20		4	13
MS27183-10	23	10		9	29
MS27183-11	3	14		12	12
	4	12	MS51967-2	21	10
MS27183-12	7	2	MS51967-24	15	13
	9	12	MS51967-3	23	8
	17	10	MS51968-11	10	8
MS27183-13	22	20	MS51968-14	15	10
MS27183-14	6	5		20	5
	7	8		21	11
	8	22	MS51968-2	3	10
	9	4		16	13
MS27183-15	18	4	MS51968-20	19	5
MS27183-18	6	8		20	12
MS27183-21	6	12	MS51968-5	11	9
	17	5		12	11
MS27183-23	5	3	MS51973-54	18	9
	6	19	MS52125-2	1	1
MS27183-27	13	4	MS87006-63	22	39
MS27183-42	17	15	MS87008-3	15	15
MS27183-52	5	12	MS90725-14	21	6
MS27183-60	21	2	MS90725-34	7	5
MS27183-63	22	29	MS90725-6	9	26
MS35206-267	2	3	MS90726-38	17	25
MS35207-264	17	16	MS93134-1	4	3
MS35307-312	22	8	MS9321-12	22	41
MS35333-40	23	9	N-12970-A	12	3
MS35333-42	18	3	N-12971-B	12	4
MS35333-46	9	24	N12969	12	2
MS35338-139	22	9	N12972	12	5
MS35338-43	16	5	P49866-11	1	9
MS35338-44	16	12	RN-13-A	KITS	1
	21	9	RR-C-271 TY1 CL5 ST2	15	21
MS35338-45	7	10	RR-C-271,TY XIV,SZ 3/8 IN	15	20

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
S70066800060	14	1	12269886	22	1
SAE J246 6 120115B	11	4	12269895 REV C	22	23
SAE J246 6-120111BA	11	3	12269949	25	9
SAE J246 6-4 100202BA	11	6	12269951	22	2
SAE J246 6-4 120302BA	11	1	12269958	22	3
SAE J512 4-2 040202BA	9	30	12269960	22	12
SAE J512 4-4 040101B	9	28	12269970	22	17
ST-504	13	12	12269972	22	14
STN-506	14	6	12270017-2	22	38
004-003005-059	19	4	12296219	22	18
02-460-061	10	2	12296261	22	11
046-103-00	8	8	12312996	17	14
06436	16	4	12331705-1	22	22
07406	2	5	12331705-2	22	22
07426	1	11	12331705-3	22	22
0925400	8	23	12331705-4	22	22
0978600	8	7	12331710	22	24
0978900	8	6	12331771	25	7
10245310	16	9	12354242	22	4
1027560	15	22	1235543-1	12	15
10905840	BULK	3	12355810	22	33
10905840-8	3	13	12355811	22	34
	4	11	12355943-2	12	15
10905840-AR	12	19	12355946	25	2
10926094	7	16	12360850-1	1	6
10929816-1	25	10	12360870-2	1	5
10929946	18	10	12362732	25	5
10935126	3	11	12362734	25	1
10947252	22	5	12440419	22	37
112-08047	9	13	12440420-1	22	36
11597666-2	21	7	12441062	25	6
11597745-1	21	8	12447268	15	6
11597762	3	1	12448013	21	5
11597768	22	31	12448035	8	9
11625104	11	11	12448053	9	33
11625105	11	12	12448054	9	31
11625147	20	15	12448082	5	1
11639519-2	1	3	12448083	9	2
11639520	1	4	12448084	9	6
11639535	1	2	12448085	9	15
11644768	15	12	12448086	9	16
11686101-2	7	4	12448087	9	7
12-460-015	10	1	12448089	6	1
1225091	15	17	12448092	5	9
12259830	17	27	12448095	6	1
12259830-1	17	1	12448099	5	5
12259831	17	19	12448101	6	14
12259835	17	20	12448102	6	3
12259837	17	24	12448104	5	11
12259839	17	6	12448105	6	18
12259840	17	22	12448107	6	22
12259845	17	18	12448108	9	17
12269250	22	10	12449388	13	13

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
12461811	9	22	70-2351	23	1
12461816	6	2	7034748	16	6
12461847	5	4	7034881	23	13
12461848	6	7	7034882	22	16
12461851-3	15	24	7035450	23	17
12461859	17	13	7035451	16	10
12461860	17	9	7035452	16	11
12461861	17	8	7035486	16	1
12461862	17	7	7037002-17	16	3
12461888	21	4	7055100	4	1
12469550	5	6	7059533	15	11
12474720	7	7	7059565	15	7
12474722	3	18	7065947	23	5
12474732	22	7	7339465	19	3
12474734	3	27	7339466	19	1
12504938	14	2	7348221	24	3
129374	14	3	7349016	20	2
1337052	5	7	7349017	20	2
14125A14274	13	7	7349028	20	8
14276	13	8	7349029	20	10
1605	13	2	7350779	18	6
18503	8	18	7366478-1	20	1
18508	8	24	7366480-1	20	6
18836	8	15	7411028	15	3
20-920-509	9	19	7411041	18	1
2002-DP	7	15	7522436	18	5
23323	8	14	7697483	16	7
23457	8	2	7974916	20	9
23492	8	16	7974917	20	11
23512	8	1	7979296	12	1
23513	8	1	7979612	12	6
249289	13	3	7979613	12	8
25520	13	10	7979962	15	4
25580	13	11	7979972	17	34
27D252	17	30	8-219-4	13	5
32-260-011	10	5	8161509	24	1
4-2 040102B	9	32	8329823	12	7
40-530-010	10	3	8330813	17	35
4440	9	25	8330821	17	36
4485900042	8	3	8331536	12	14
4486500	8	17	8331539	17	3
4486600	8	17	8331541	17	29
44869	8	12	8331543	22	30
47446	8	25	8331544	22	32
4HA891	12	18	8338561	3	6
4HA892	12	18		3	23
5-113	8	4		4	7
5167679	9	3	8338562	3	7
5303461	7	11		3	24
5800	6	17		4	6
	9	14	8338564	3	8
6 130109NC	11	14		4	5
6893-2	3	12	8338566	3	4

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
	3	21	8747908	3	17
8338567	3	3	88-22119-18	4	9
	3	20	8T2927	9	9
8347216	4	4	900010-32C	BULK	4
8363970	20	14	94831A030	7	17
8389626	18	16	9776	8	19
8389628	18	14	9777	8	19
8389733	18	11	9783	8	20
8389734	18	12	9784	8	13
8389735	18	7	9791	8	5
8716992	19	2	9794	8	11
8724501	23	11	9795	8	10
8724753-1	23	7	99242R1	3	9
8724754	23	14		3	22
8741770	12	16		4	8
8741782-1	22	26			

END OF WORK PACKAGE

CHAPTER 8

SUPPORTING INFORMATION

FIELD MAINTENANCE REFERENCES

SCOPE

This Work Package (WP) lists all forms, manuals, bulletins, and other publications referenced in this manual and which apply to the operation, unit, direct support, and general support maintenance of the M1112 Series water tank trailer applicable to material covered in this technical manual.

PUBLICATION INDEXES AND GENERAL REFERENCES

DA PAM 25-30, Consolidated Index of Army Publications and Blank Forms, should be consulted frequently for latest changes or revisions and for new publications relevant to material covered in this technical manual.

FORMS

For instructions on the use of maintenance forms pertaining to this material, refer to PAM 750-8, The Army Maintenance Management System (TAMMS).

OTHER PUBLICATIONS

The following publications contain information pertinent to the major item material and associated equipment.

DA PAMPHLETS

DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual
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FIELD MANUALS

FM 4-25.11	First Aid
FM 21-10	Field Hygiene and Sanitation

FORMS

DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2404/5988-E	Equipment Inspection and Maintenance Worksheet
DA Form 2407/5990-E	Maintenance Request
DD Form 1397	Processing and Deprocessing Record for Shipment, Storage and Issue of Vehicles and Spare Engines
SF Form 364	Report of Discrepancy (ROD)
SF Form 368	Product Quality Deficiency Report

MISCELLANEOUS

AR 70-12	Fuels and Lubricants Standardization Policy for Equipment Design, Operation, and Logistic Support
AR 702-7	Product Quality Deficiency Report Program
CTA 8-100	Army Medical Department Expendable/Durable Items
CTA 50-909	Field and Garrison Furnishings and Equipment
CTA 50-970	Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items)
SB 740-98-1	Storage and Serviceability Standard: Tracked Vehicles, Wheeled Vehicles, and Component Parts
TC 21-305-20	Manual for the Wheeled Vehicle Operator

TECHNICAL BULLETINS

TB 43-0213	Corrosion Prevention and Control (CPC) for Tactical Vehicles
TB MED 577	Occupational and Environmental Health Sanitary Control and Surveillance of Field Water Supplies

TECHNICAL MANUALS

TM 4-33.31	Operation and Maintenance of Ordnance Materiel in Cold Weather
TM 9-214	Inspection Care and Maintenance of Antifriction Bearings
TM 9-2330-267-13&P	Operators, Organizational, Direct and General Support Maintenance Manual (Including Repair Parts and Special Tools List) For Trailer, Tank: Water, 400 Gallon; 1 1/2-Ton, 2-Wheel W/E M149
TM 9-2610-200-14	Operators, Unit, Direct Support and General Support Maintenance Manual For Care, Maintenance Repair and Inspection Of Pneumatic Tires and Inner Tubes
TM 10-4130-237-14	Operator's, Unit, Direct Support and General Support Maintenance Manual for Small Mobile Water Chiller Model LCW 2685 (NSN 4130-01-131-2685) Model LCC 2685 (4130-01-315-7583)
TM 43-0139	Painting Instructions for Army Material
TM 55-2200-001-12	Transportability Guidance for Application of Blocking, Bracing and Tiedown Materials for Rail Transport (Reprinted w/Basic Incl C1-4)

TECHNICAL MANUALS - Continued

TM 750-244-6

Procedures for Destruction of Tank-Automotive Equipment
to Prevent Enemy Use**END OF WORK PACKAGE**

FIELD MAINTENANCE MAINTENANCE ALLOCATION CHART (MAC) INTRODUCTION

INTRODUCTION

This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.

This MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field - includes two subcolumns, Crew (C) Maintainer (F)

Sustainment - includes two subcolumns, Below Depot (H) Depot (D)

The maintenance to be performed at field and sustainment levels is described as follows:

1. **Crew Maintenance.** The responsibility of a using organization to perform maintenance on its assigned equipment. It normally consists of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. The replace function for this level of maintenance is indicated by the letter "C" in the third position of the SMR code. A "C" appearing in the fourth position of the SMR code indicates complete repair is possible at the crew maintenance level.
2. **Field Maintenance.** Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "F" appearing in the third position of the SMR code. An "F" appearing in the fourth position of the SMR code indicates complete repair is possible at the field maintenance level. Items are returned to the user after maintenance is performed at this level.
3. **Below Depot Sustainment.** Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "H" appearing in the third position of the SMR code. An "H" appearing in the fourth position of the SMR code indicates complete repair is possible at the below depot sustainment maintenance level. Items are returned to the supply system after maintenance is performed at this level.
4. **Depot Sustainment.** Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "D" or "K" appearing in the third position of the SMR code. Depot sustainment maintenance can be performed by either depot personnel or contractor personnel. A "D" or "K" appearing in the fourth position of the SMR code indicates complete repair is possible at the depot sustainment maintenance level. Items are returned to the supply systems after maintenance is performed at this level.

The tools and test equipment requirements table (immediately following the MAC) lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks table (immediately following the tools and test equipment requirements) contains supplemental instructions and explanatory notes for a particular maintenance function.

INTRODUCTION - Continued

MAINTENANCE FUNCTIONS

Maintenance functions are limited to and defined as follows:

1. **Inspect.** To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gaugings and evaluation of cannon tubes.
2. **Test.** To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.
3. **Service.** Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms. The following are examples of service functions:
 - a. **Unpack.** To remove from packing box for service or when required for the performance of maintenance operations.
 - b. **Repack.** To return item to packing box after service and other maintenance operations.
 - c. **Clean.** To rid the item of contamination.
 - d. **Touch up.** To spot paint scratched or blistered surfaces.
 - e. **Mark.** To restore obliterated identification.
4. **Adjust.** To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
5. **Align.** To adjust specified variable elements of an item to bring about optimum or desired performance.
6. **Calibrate.** To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
7. **Remove/Install.** To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.
8. **Paint (ammunition only).** To prepare and spray color coats of paint so that the ammunition can be identified and protected. The color indicating primary use is applied, preferably, to the entire exterior surface as the background color of the item. Other markings are to be repainted as original so as to retain proper ammunition identification.
9. **Replace.** To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.
10. **Repair.** The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

INTRODUCTION - Continued**NOTE**

- The following definitions are applicable to the “repair” maintenance function:
 - Services. Inspect, test, service, adjust, align, calibrate, and/or replace.
 - Fault 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).
 - Disassembly/assembly. The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i .e., identified as maintenance significant).
 - Actions. Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.
11. **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. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
12. **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 material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

EXPLANATION OF COLUMNS IN THE MAC

Column (1). Group Number. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

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

Column (3). Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to “Maintenance Functions” outlined above).

Column (4). Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as man hours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

INTRODUCTION - ContinuedField:

C Crew Maintenance
F Maintainer Maintenance

Sustainment:

L Specialized Repair Activity (SRA)
H Below Depot Maintenance
D Depot Maintenance

NOTE

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

Column (5). Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6). Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

EXPLANATION OF COLUMNS IN THE TOOLS AND TEST EQUIPMENT REQUIREMENTS

Column (1) - Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) - Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) - Nomenclature. Name or identification of the tool or test equipment.

Column (4) - National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) - Tool Number. The manufacturer's part number.

EXPLANATION OF COLUMNS IN THE REMARKS

Column (1) - Remarks Code. The code recorded in column (6) of the MAC.

Column (2) - Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

END OF WORK PACKAGE

**FIELD MAINTENANCE
MAINTENANCE ALLOCATION CHART (MAC)**

Table 1. Maintenance Allocation Chart.

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REFERENCE CODE	(6) REMARKS CODE
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
00	M1112 WATER TANK TRAILER							
0000-01	PMCS (Before)	Inspect	0.4					
		Service	0.1					
0000-02	PMCS (During)	Inspect	0.1					
0000-03	PMCS (After)	Inspect	0.1					
0000-04	PMCS (Weekly)	Inspect	0.3					
0000-05	PMCS (Quarterly)	Inspect		0.2				
		Service		0.2				
0000-06	PMCS (Semiannual)	Inspect		0.4				
		Service		0.5				
0000-07	PMCS (Annual)	Inspect		0.4				
		Service		1.5				
06	ELECTRICAL SYSTEM							
0609	Stop Light - Taillight	Replace		0.3			1	
		Repair		0.6			1	A
	Light Marker Clearance	Replace		0.3				
		Repair		0.6				

Table 1. Maintenance Allocation Chart - Continued.

(1)	(2)	(3)	(4)				(5)	(6)
GROUP NUMBER	COMPONENT/ ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE LEVEL				TOOLS AND EQUIPMENT REFERENCE CODE	REMARKS CODE
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
0613	Wiring Harness	Replace		0.2			1	B
		Repair		0.5			1	
		Test		0.1			1	
	Wiring Harness, Clearance Light	Replace		0.7			1	B
		Repair		0.4				
	Intervehicular Cable	Replace		0.5			1	B
		Repair		0.2				
	11	REAR AXLE						
	1100	Cross Axle Group	Replace		1.5			1
1108	Walking Beam Assembly	Replace		2.5			1	C
		Adjust		0.5			1	
12	BRAKES							
1201	Lever, Manual Control	Replace		0.5			1	C
	Cable and Conduit Assembly	Replace		1.3			1	
1202	Brake Group	Replace		1.4			1	C
		Test		0.2			1	
	Cylinder, Hydraulic	Replace		1.0			1	C
1204	Tube Assembly	Replace		0.6			1	
	Master Cylinder	Replace		0.4			1	
1208	Hose Assembly	Replace		0.5			1	

Table 1. Maintenance Allocation Chart - Continued.

(1)	(2)	(3)	(4)				(5)	(6)
GROUP NUMBER	COMPONENT/ ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE LEVEL				TOOLS AND EQUIPMENT REFERENCE CODE	REMARKS CODE
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
13	Relay Valve	Replace		0.3			1	
	Tank, Pressure	Replace		0.4			1	
	Air Filter, Brake Line	Replace		0.4			1	C
		Repair		0.2			1	C
1313	WHEELS							
15	Undercarriage Group							
	Brake Drum	Replace		0.9			1, 2, 3	
	Wheel and Tire Assembly	Replace	0.4					
		Repair		TBD				D
1501	Frame, Towing Attachments, Drawbar, and Articulation System							
1501	Box, Faucet	Replace		1.5			1	C
		Repair		0.5			1	
	Fender	Replace		1.5			1	C
	Coupler, Drawbar Ring	Replace		0.5			1	
1507	Bracket, Leaf Spring Rear	Replace		2.0			1	C
	Bracket, Leaf Spring Front	Replace		2.0			1	C
	Support, Retractable	Replace		0.3			1	
		Repair		1.4			1	

Table 1. Maintenance Allocation Chart - Continued.

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REFERENCE CODE	(6) REMARKS CODE
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
16	SPRINGS AND ABSORBERS							
1601	Spring Assembly, Leaf	Replace		2.8			1	C
1604	Shock Absorber	Replace		0.5			1	C
1605	Rod Assembly, Radius	Replace		3.0			1	C
18	BODY, CAB, AND HOOD							
	Piping	Replace		2.0			1	
	Tank, Water	Replace		3.0			1	
	Cover, Manhole	Replace		0.3			1	
		Repair		1.2			1	
	Bracket, Mounting	Replace		1.0			1	C
	Faucet, Single	Replace		0.7			1	C
22	BODY AND CHASSIS ACCESSORY ITEMS							
2202	Reflector, Indicating	Replace		0.1			1	C
2210	Plate	Replace		0.2			1	C

Table 2. Tools and Test Equipment.

TOOLS OR TEST EQUIPMENT	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	TOOL NUMBER
1	F	Tool Kit, General Mechanic's	5180-01-548-7634	PD484
2	F	Tool Set, SATS, Base	4910-01-490-6453	KTC-S2000
3	F	Socket, Socket Wrench	8120-00-199-7771	AS954

Table 3. Remarks.

REMARK CODE	REMARKS
A	Light assembly repair is limited to lens, O-ring and replace.
B	Wiring harness and intervehicular cable assembly repair is limited to terminal, lug, insulator, and hardware.
C	Time is for one assembly only.
D	Tire repair will be in accordance with TM 9-2610-200-14.

END OF WORK PACKAGE

**FIELD MAINTENANCE
COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LIST**

The M1112 1-1/2 Ton, 8-Wheel 400 Gallon Water Tank Trailer currently does not have any assigned components of end item or basic issue items.

END OF WORK PACKAGE

**FIELD MAINTENANCE
ADDITIONAL AUTHORIZATION LIST (AAL)**

INTRODUCTION**SCOPE**

This Work Package (WP) lists additional items you are authorized for the support of the M1112 1-1/2 Ton, 8-Wheel 400 Gallon Water Tank Trailer.

GENERAL

This list identifies items that do not have to accompany the M1112 Trailer and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

EXPLANATION OF COLUMNS IN THE AAL

Column (1) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (2) Description, Part Number/(CAGEC). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (3) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

Column (4) U/I. Unit of Issue (U/I) indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (1).

Column (5) Qty Recm. Indicates the quantity recommended.

Table 1. Additional Authorization List (AAL).

(1) NATIONAL STOCK NUMBER (NSN)	(2) DESCRIPTION, PART NUMBER/ (CAGEC)	(3) USABLE ON CODE	(4) U/I	(5) QTY RECM
4130-01-353-6086	Handle, Manual, Control 6810695 (22978)		1	1
4130-01-131-2685	Water Chiller 13226E1800 (97403)		1	1

END OF WORK PACKAGE

**FIELD MAINTENANCE
EXPENDABLE AND DURABLE ITEMS LIST (EDIL)**

INTRODUCTION**SCOPE**

This Work Package (WP) lists expendable and durable items that you will need to operate and maintain the M1112 1-1/2 Ton 8-Wheel 400 Gallon Water Tank Trailer. This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items), CTA 50-909, Field and Garrison Furnishings and Equipment or CTA 8-100, Army Medical Department Expendable/Durable Items.

EXPLANATION OF COLUMNS IN THE EXPENDABLE/DURABLE ITEMS LIST

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., Use hydraulic brake fluid (WP 0098, Item 5)).

Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item (C = Crew; F = Maintainer or ASB).

Column (3) National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) Item Name, Description, Part Number/(CAGEC). This column provides the other information you need to identify the item. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) U/I. Unit of Issue (U/I) code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Table 1. Expendable and Durable Items List (EDIL).

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, PART NUMBER/ (CAGEC)	(5) U/I
1	F	8040-00-157-8677	ADHESIVE MMM-A-134 (81348)	CA
2	C	9150-01-102-9455	BRAKE FLUID, AUTOMOTIVE 1 Gallon Can MIL-PRF-46176 (81349)	GL
3	F	7920-00-061-0038	BRUSH SCRUB H-B-1490 (81348)	EA
4	F	6850-01-472-2717	CLEANING COMPOUND, SOLVENT 5 Gallon Can MIL-PRF-680 (81349)	CN
5	C	5350-00-221-0872	CLOTH, ABRASIVE, 50 Sheets A-A-1206 (58536)	PG
6	F	7930-00-899-9534	DISHWASHING COMPOUND, HAND 5 Gallon Can P-D-410 (81348)	CN
7	F	9150-01-197-7693	GREASE, AUTOMOTIVE AND ARTILLERY 14 Ounce Can MIL-PRF-10924 (81349)	CA
8	F	9150-00-189-6727	LUBRICATING OIL, ENGINE, OE/HDO 1 Quart Can MIL-PRF-2104 (81349)	QT
9	F	7920-00-205-1711	RAG, WIPING 50 Pound Bale A-A-531 (58536)	BE
10	F	8030-00-081-2329	SEALING COMPOUND 10 Cubic cm Bottle ASTM D5363 (81346)	BX
11	F	5975-00-984-6582	STRAP, TIEDOWN ELECTRICAL COMPONENTS 100 Each MS3367-1-0 (96906)	HD
12	F	9905-00-537-8954	TAG, MARKER 50 Each 9905-00-537-8954 (64067)	BD
13	F	8030-00-067-7368	TAPE, ANTISEIZING 1/4 Inch Wide, 54 Feet Long TEMPRTH (71643)	EA
14	F	9505-00-555-8648	WIRE, NONELECTRICAL ASTM A580 (81346)	SL

END OF WORK PACKAGE

FIELD MAINTENANCE TOOL IDENTIFICATION LIST (TIL)

SCOPE

This Work Package (WP) lists all common tools and supplements and special tools/fixtures needed to maintain the M1112 1-1/2 Ton 8-Wheel 400-Gallon Water Tank Trailer.

EXPLANATION OF COLUMNS IN THE TOOL IDENTIFICATION LIST

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the initial setup to identify the item (e.g., Extractor (WP 0090, Item 32)).

Column (2) Item Name. This column lists the item by noun nomenclature and other descriptive features (e.g., Gage, belt tension).

Column (3) National Stock Number (NSN). This is the National Stock Number (NSN) assigned to the item; use it to requisition the item.

Column (4) Part Number/(CAGEC). 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. The manufacturer's Commercial and Government Entity Code (CAGEC) is also included.

Column (5) Reference. This column identifies the authorizing supply catalog or RPSTL for items listed in this work package.

Table 1. Tool Identification List (TIL).

(1) ITEM NO.	(2) ITEM NAME	(3) NATIONAL STOCK NUMBER (NSN)	(4) PART NUMBER / (CAGEC)	(5) REFERENCE
1	ADJUSTING TOOL, BRAKE SHOE		KTC S0125 (00NS2)	SATS CL 4910-95-A81
2	DRILL SET, TWIST		KTC S0194 (00NS2)	
3	DRILL, ELECTRIC, PORTABLE		KTC S0189 (00NS2)	
4	ETCHER, ELECTRIC	5130-00-233-1840	SS-750K (16979)	
5	GLOVES, CHEMICAL AND OIL PROTECTIVE	8415-00-009-1900	N36 (86523)	
6	SOCKET, SOCKET WRENCH	5120-00-795-0946	7950946 (19207)	
7	TOOL KIT, ELECTRICAL	5180-00-876-9336	5180-00-876-9336 (80244)	

Table 1. Tool Identification List (TIL) - Continued.

(1) ITEM NO.	(2) ITEM NAME	(3) NATIONAL STOCK NUMBER (NSN)	(4) PART NUMBER /(CAGEC)	(5) REFERENCE
8	TOOL KIT, GENERAL MECHANIC'S	5180-01-548-7634	PD484 (19200)	
9	TOOL SET, SATS, BASE	4910-01-490-6453	KTC-S2000 (00NS2)	
10	WRENCH, TORQUE: 0.50 IN. DRIVE, 0-250 LB FT CAPACITY		KTC S0991 (00NS2)	SATS CL 4910-95- A81
11	WRENCH, TORQUE: 0.75 IN. DRIVE, 0-600 LB FT CAPACITY		KTC S0988 (00NS2)	SATS CL 4910-95- A81

END OF WORK PACKAGE

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TO (Forward to proponent of publication or form) (Include ZIP Code) U.S. Army TACOM Life Cycle Management Command ATTN: AMSTA-LCL-IMP/TECH PUBS MS 727 6501 E. 11 Mile Road, Warren, MI 48397-5000						FROM (Activity and location) (Include ZIP Code) <i>Your mailing address</i>	
PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS							
PUBLICATION/FORM NUMBER <i>TM Number</i>						DATE <i>Date of the TM</i>	TITLE <i>Title of the TM</i>
ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON (Exact wording of recommended change must be given)	
	0007-3					<i>Figure 2, Item 9 should show a lockwasher. Currently shows a flat washer.</i>	
	0018-2					<i>Cleaning and inspection, Step 6, reference to governor support pin (14) is wrong reference. Reference should be change to (12).</i>	
<h1>SAMPLE</h1>							
TYPED NAME, GRADE OR TITLE <i>Your Name</i>						TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION <i>Your Phone Number</i>	
						SIGNATURE <i>Your Signature</i>	

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PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS									
PUBLICATION/FORM NUMBER <i>TM Number</i>				DATE <i>Date of the TM</i>		TITLE <i>Title of the TM</i>			
PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION	
<div style="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 100px; font-weight: bold; opacity: 0.5;">SAMPLE</div> </div>									
PART III – REMARKS <i>(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)</i>									
TYPED NAME, GRADE OR TITLE <i>Your Name</i>				TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION <i>Your Phone Number</i>			SIGNATURE <i>Your Signature</i>		

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PUBLICATION/FORM NUMBER <i>TM 9-2330-397-13&P</i>						DATE <i>07 December 2015</i>	TITLE <i>Trailer, Tank, Water: 400 Gallon, 1-1/2 Ton, 8-Wheel with Stainless Steel Tank Body M1112</i>
ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON	
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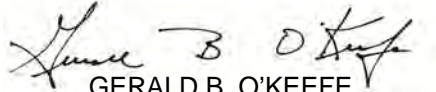
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By Order of the Secretary of the Army:

Official:

A handwritten signature in black ink, appearing to read "Gerald B. O'Keefe", is written over a light gray rectangular background.

GERALD B. O'KEEFE
*Administrative Assistant to the
Secretary of the Army*

1532005

MARK A. MILLEY
*General, United States Army
Chief of Staff*

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THE METRIC SYSTEM AND EQUIVALENTS

<p>Linear Measure</p> <p>1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches 1 Meter = 100 Centimeters = 1,000 Millimeters = 39.37 Inches 1 Kilometer = 1,000 Meters = 0.621 Miles</p> <p>Weights</p> <p>1 Gram = 0.001 Kilograms = 1,000 Milligrams = 0.035 Ounces 1 Kilogram = 1,000 Grams = 2.2 Pounds 1 Metric Ton = 1,000 Kilograms = 1 Megagram = 1.1 Short Tons</p> <p>Liquid Measure</p> <p>1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces 1 Liter = 1,000 Milliliters = 33.82 Fluid Ounces</p>	<p>Square Measure</p> <p>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 = 0.0386 Sq Miles</p> <p>Cubic Measure</p> <p>1 Cu Centimeter = 1,000 Cu Millimeters = 0.06 Cu Inches 1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet</p> <p>Temperature</p> <p>$5/9 (^{\circ}\text{F} - 32) = ^{\circ}\text{C}$ $9/5 ^{\circ}\text{C} + 32 = ^{\circ}\text{F}$ 32° Fahrenheit is equivalent to 0° Celsius 90° Fahrenheit is equivalent to 32.2° Celsius 212° Fahrenheit is equivalent to 100° Celsius</p>
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APPROXIMATE CONVERSION FACTORS

To Change	To	Multiply By
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Sq Inches	Sq Centimeters	6.451
Sq Feet	Sq Meters	0.093
Sq Yards	Sq Meters	0.836
Sq Miles	Sq Kilometers	2.590
Acres	Sq 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 Sq Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

To Change	To	Multiply By
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Sq Centimeters	Sq Inches	0.155
Sq Meters	Sq Feet	10.764
Sq Meters	Sq Yards	1.196
Sq Kilometers	Sq Miles	0.386
Sq 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 Sq Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621

PIN: 105795-000