

# TM 9-2330-251-14

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

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OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT,  
AND

GENERAL SUPPORT MAINTENANCE MANUAL  
(INCLUDING REPAIR PARTS & SPECIAL TOOLS LIST)

TRAILER, CARGO, 1/4-TON, 2 WHEEL  
M416 (2330-706-5495), M416B1 (2330-017-9589)  
TRAILER, CHASSIS, 1/4-TON, 2 WHEEL

M569 (2330-884-4817),

M569B1 (2330-226-5649)

TRAILER, CHASSIS, 3/4-TON,  
2 WHEEL M762 (2330-933-7462)

TRAILER, CABLE SPLICER, 1/4-TON,  
2 WHEEL M716 (2330-782-6062)

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HEADQUARTERS, DEPARTMENT OF THE ARMY

6 OCTOBER 1970

## TECHNICAL MANUAL

NO. 9-2330-251-14

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DEPARTMENT OF THE ARMY  
WASHINGTON, 25, D. C., 6 October 1970

**TRAILER, CARGO, 1 / 4-TON, 2 WHEEL****M416 (2330-706-5495), M416B1 (2330-017-9589)****TRAILER, CHASSIS, 1 / 4-TON, 2 WHEEL****M569 (2330-884-4817), M569B1 (2330-226-5649)****TRAILER, CHASSIS, 3 / 4-TON, 2 WHEEL M762 (2330-933-7462)****TRAILER, CABLE SPLICER, 1 / 4-TON, 2 WHEEL M716 (2330-782- 6062)**

CHAPTER		Paragraph	Page
CHAPTER 1.	INTRODUCTION		
Section	I. General .....	1-1	3
	II. Description and data .....	1-3	3
CHAPTER 2.	INSTALLATION AND OPERATING INSTRUCTIONS		
Section	I. Service upon receipt of materiel .....	2-1	11
	II. Movement to a new work site .....	2-4	11
	III. Controls and instruments .....	2-6	11
	IV. Operation under usual conditions .....	2-8	12
	V. Operation under unusual conditions .....	2-10	12
CHAPTER 3.	OPERATOR'S AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS		
Section	I. Operator's and organizational maintenance repair parts, tools and equipment .....	3-1	14
	II. Lubrication .....	3-3	14
	III. Preventive maintenance checks and services .....	3-5	17
	IV. Operator's maintenance .....	3-7	19
	V. Troubleshooting .....	3-9	20
	VI. Organizational maintenance .....	3-11	21
CHAPTER 4.	SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE		
Section	I. Shipment and limited storage .....	4-1	33
	II. Demolition of materiel to prevent enemy use .....	4-6	36
CHAPTER 5.	DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE INSTRUCTIONS		
Section	I. General .....	5-1	38
	II. Description and data .....	5-3	38
	III. Repair parts, special tools, and equipment .....	5-5	38
CHAPTER 6.	REPAIR INSTRUCTIONS	6-1	39

\* This manual supersedes TM 9-2330-251-14P, 27 March 1962, including all changes

APPENDIX A.	REFERENCES	
APPENDIX B.	MAINTENANCE ALLOCATION CHART	41
APPENDIX C.	ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT	42
APPENDIX D.	REPAIR PARTS AND SPECIAL TOOLS LIST	44

		Figure	Page
GROUP	06 ELECTRICAL SYSTEM		50
	0609 Lights .....	C2	
	0613 Chassis wiring harness .....	C3, C4	
GROUP	10 FRONT AXLE		52
	1000 Axle Assembly .....	C5	
GROUP	12 BRAKES		52
	1201 Hand brakes .....	C6, C7, C8	
GROUP	13 WHEELS		54
	1311 Wheel assembly .....	C9	
	1313 Tires and Tubes .....	C9	
GROUP	15 FRAME, TOWING ATTACHMENTS		54
	1503 Pintle and towing attachments .....	C10	
GROUP	16 SPRINGS AND SHOCK ABSORBERS		55
	1601 Springs .....	C11	
	1604 Shock absorber equipment .....	C11	
GROUP	18 BODY AND HULL		56
	1804 Drain plugs .....	C12	
	1810 Cargo body .....	C13	
GROUP	22 BODY CHASSIS OR HULL AND ACCESSORY ITEMS		57
	2201 Canvas item .....	C14	
	2202 Accessory items .....	C14	
	2210 Data plates .....	C14	

# CHAPTER 1

## INTRODUCTION

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### Section I. GENERAL

#### 1-1. Scope

This manual contains instructions for the use of operator, organizational, direct and general support maintenance personnel maintaining: M416 Cargo Trailer, ¼ Ton, 2-Wheel; M416B1 Cargo Trailer, ¼ Ton, 2-Wheel; M762 Trailer Chassis; M569 Trailer Chassis, ¼ Ton, 2-Wheel; M569B1 Trailer Chassis, ¼ Ton, 2-Wheel, and M716 Cable Splicer Trailer, ¼ Ton, 2-Wheel, as allocated by the Maintenance Allocation Chart. It provides information for the operation, lubrication, preventive maintenance checks and services, and repair of the equipment, accessories, components, and attachments. The Basic Issue Items List, Maintenance Allocation Chart, and Repair Parts

and Special Tool List are contained in the appendices to this manual.

#### 1-2. Forms and Records

a. DA Forms and records used for equipment maintenance will be those prescribed in TM 38-750.

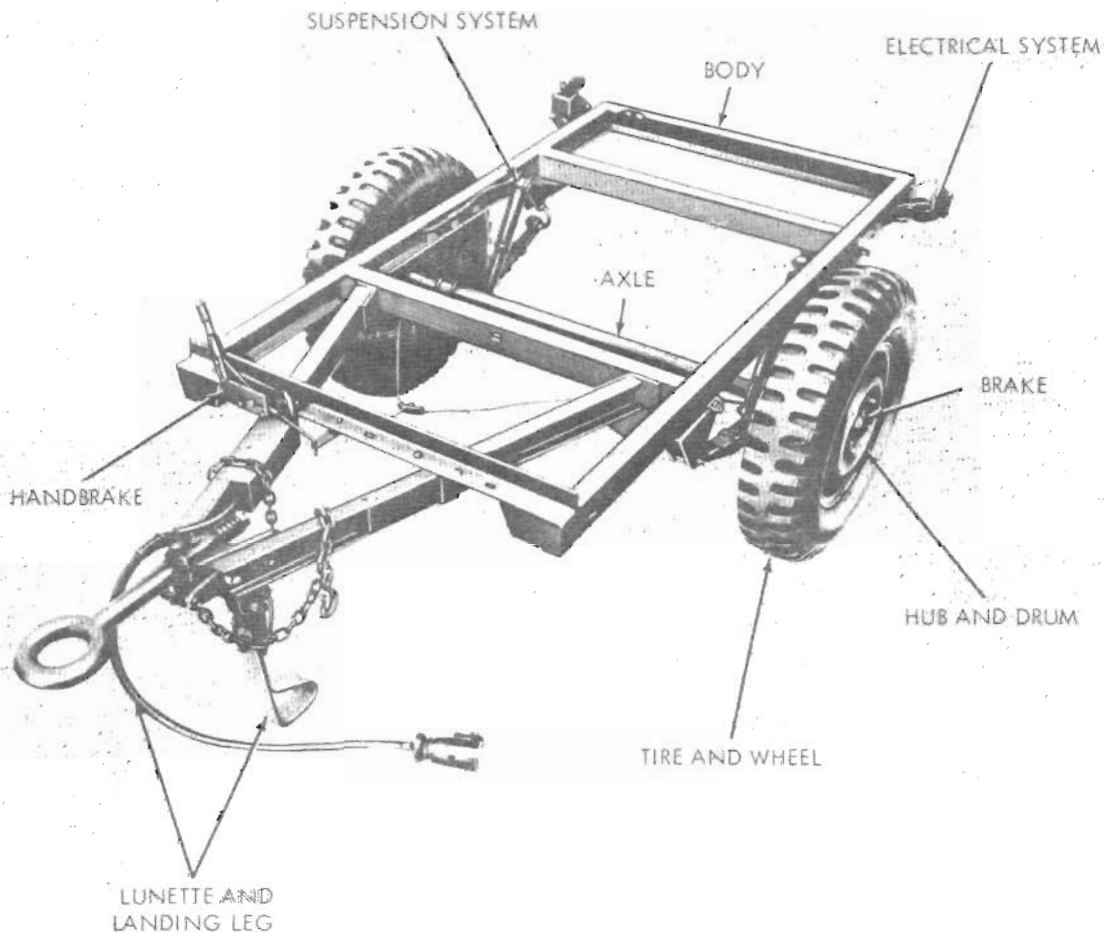
b. Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028, Recommended Changes to DA Publications, and forwarded direct to Commanding General, U.S. Army Tank — Automotive Command. ATTN; AMSTA-MTP, Warren, Michigan 48090.

### Section II. DESCRIPTION AND DATA

#### 1-3. Description

a. *General.* The trailers described in this manual are single axle, two-wheeled, steel frame trailers designed to be towed by a ¾ ton passenger vehicle or truck passenger vehicle. The trailers are equipped with shock absorbers, springs, and an A-frame drawbar which is bolted to the trailer frame (fig. 1-1). The drawbar incorporates a two position

lunette bracket and a landing leg. The landing leg is used to support the trailer when it is detached from a towing vehicle. The trailer lighting system is connected to the vehicle electrical system by an intervehicular cable. The lights are operated from the towing vehicle. Each trailer is equipped with a hand operated parking brake.



AT 26926

Figure 1-1. Chassis component location.

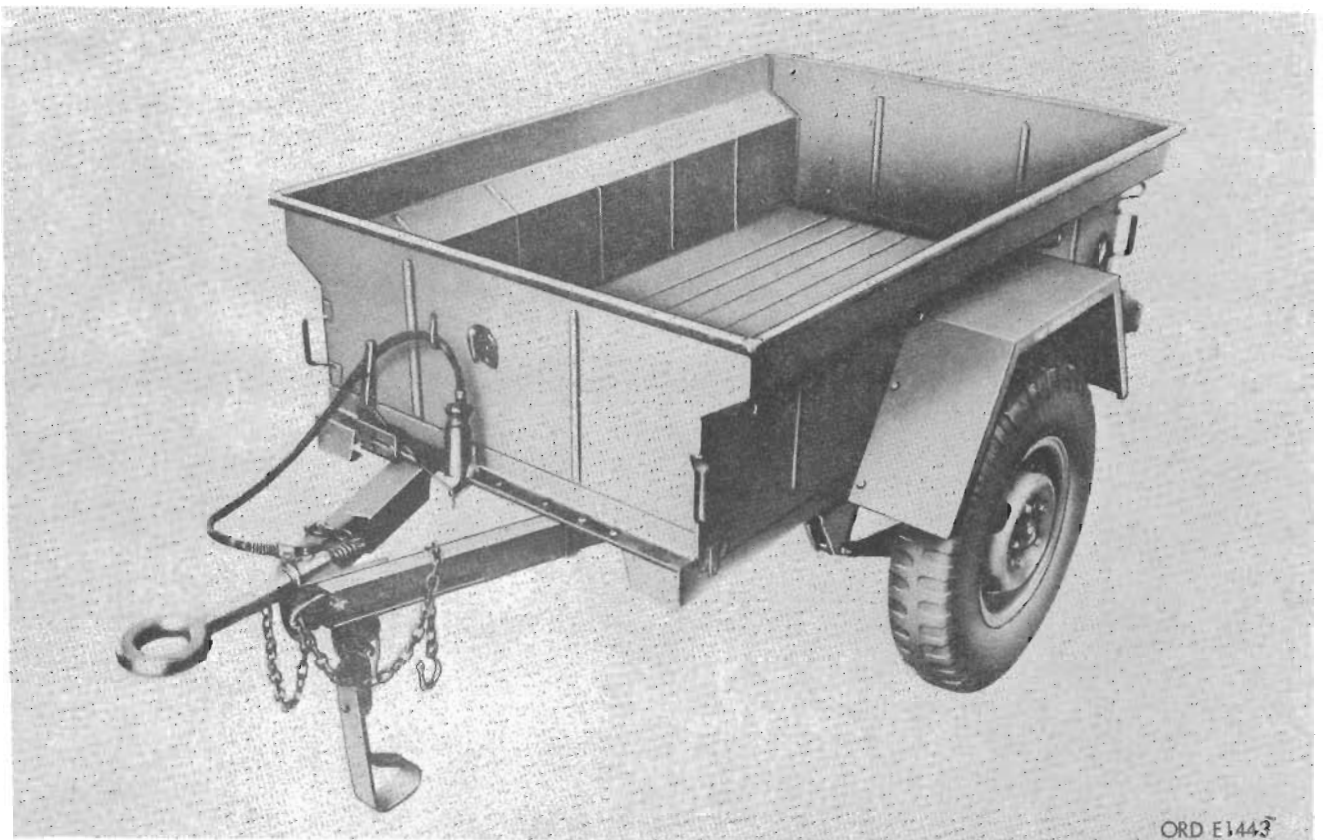
**b. Trailer Chassis.** The trailer chassis is used to mount the cargo body or the cable splicer body, or to transport portable equipment such as generators or field stoves.

**c. Cargo Trailers.** The cargo trailer (figs. 1-2, 1-3, 1-4) is a general purpose cargo carrier designed to carry a load of 500 pounds cross country. The

body is of one piece welded construction, bolted to the chassis. The body is watertight and will float the trailer and load during fording operations. Two drain valves are provided, one in the left front, and one in the right rear of the floor. The trailer is equipped with a paulin to cover the cargo; the paulin fastens to hooks welded to the trailer body.

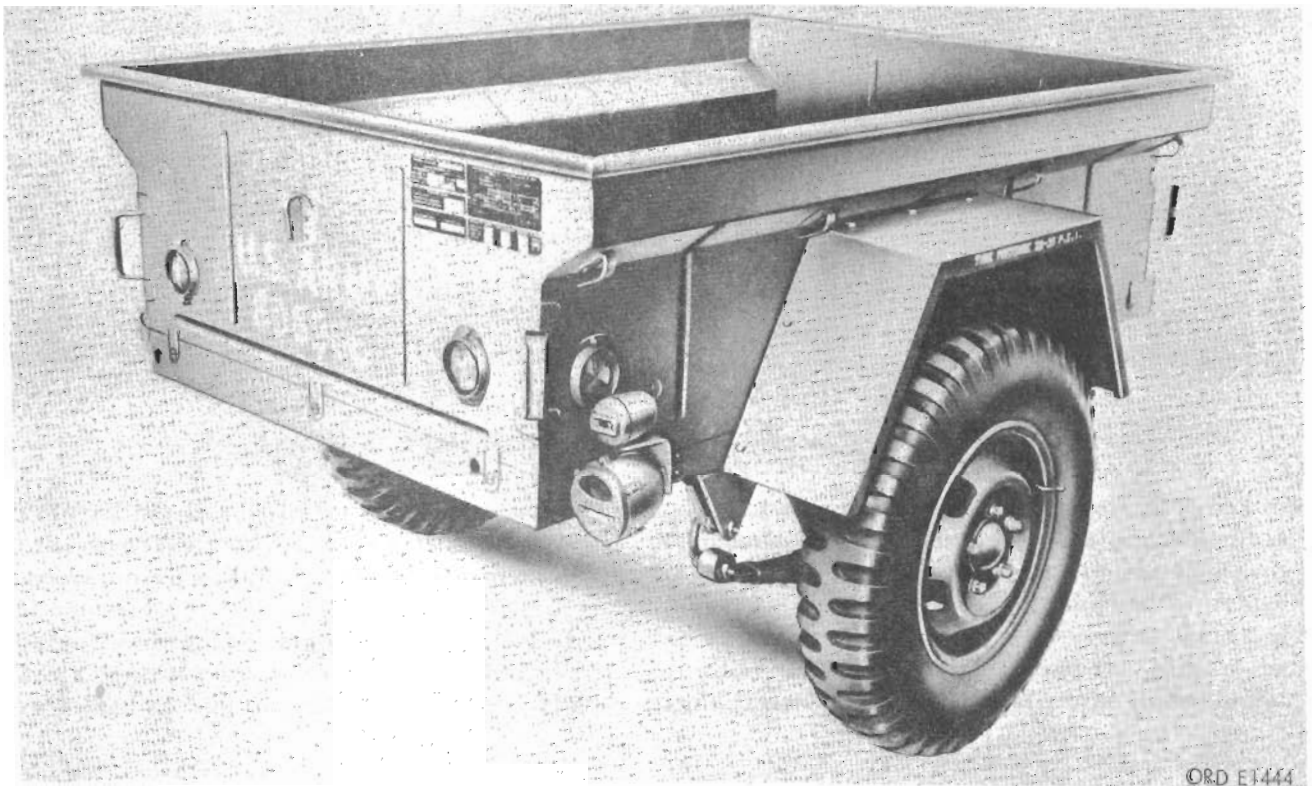


*Figure 1-2. Left front 3/4 view, with paulin, M416.*



ORD E1443

*Figure 1-3. Left front  $\frac{3}{4}$  view, without paulin, M416.*



ORD E1444

*Figure 1-4. Right rear  $\frac{3}{4}$  view, M416.*



d. *Cable Splicer Trailer.* The cable splicer trailer (figs. 1-5, 1-6) is a single-purpose trailer designed for use by field personnel in the installation or

repair of transmission lines. The two chests installed in the body contain tools and equipment. A paulin is provided for the trailer.

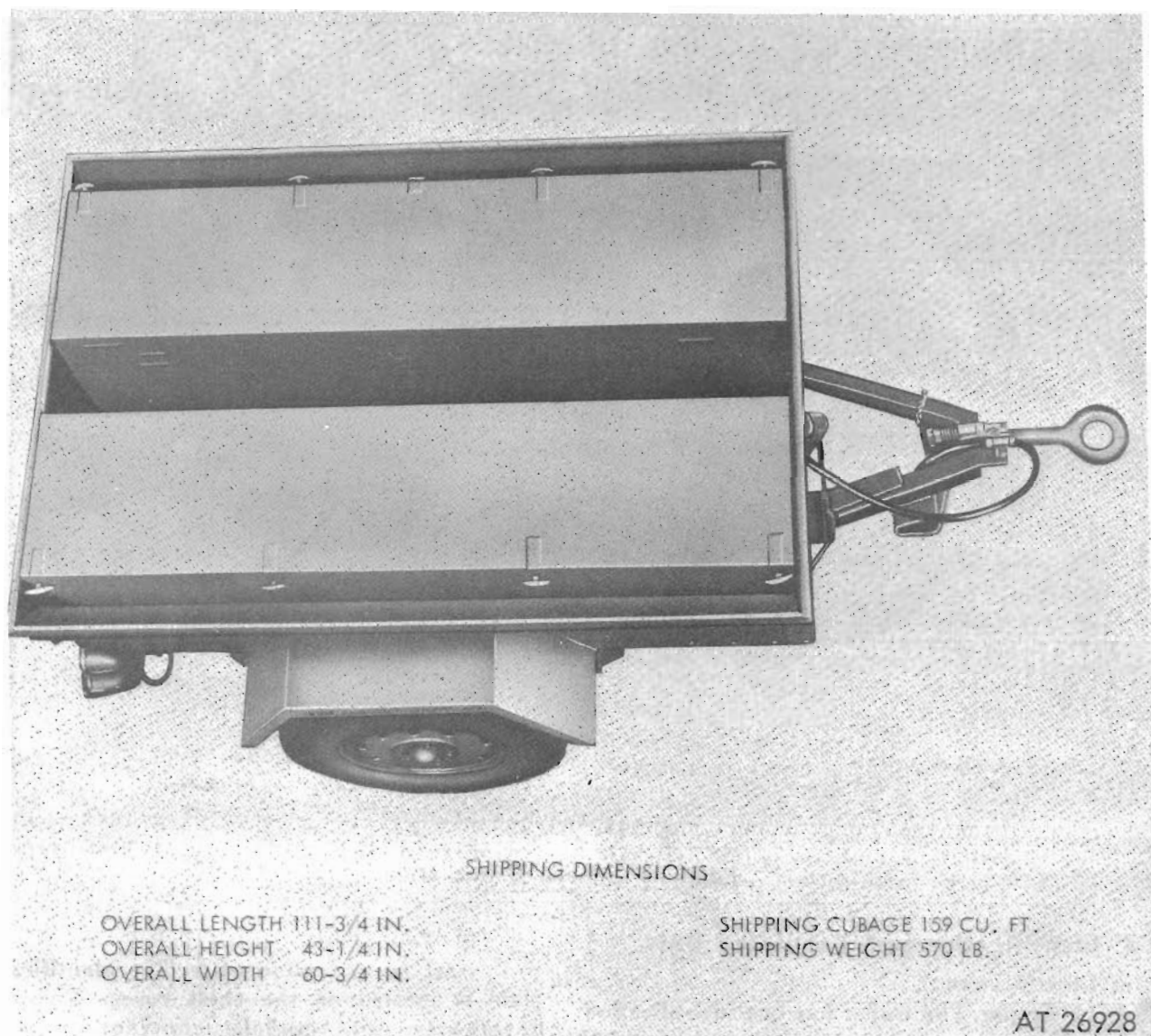
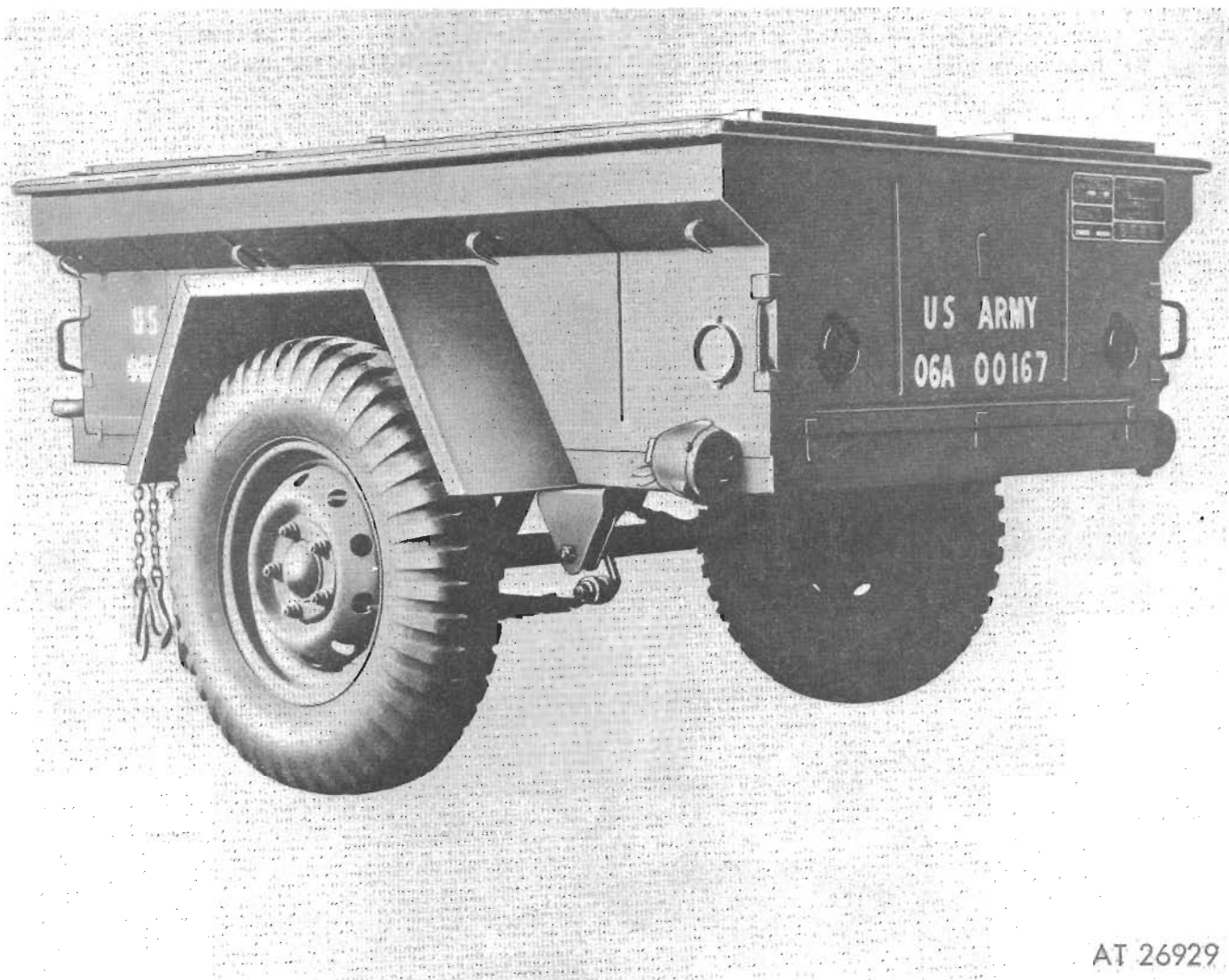


Figure 1-5. Top view, M716.





AT 26929

Figure 1-6. Left rear  $\frac{3}{4}$  view, M716.

#### 1-4. Identification and Tabulated Data

##### a. Identification.

(1) *Trailer.* The trailer has one identification plate. The plate designates the type, model, manufacturer, shipping weights and dimensions, list of publications, delivery date, and inspection date.

(a) *M416 and M416B1.* The identification plate is located on the outside upper right rear corner of the cargo body.

(b) *M569, M569B1, M762.* The identification plate is located on the left channel of the drawbar.

(c) *M716.* The identification plate is located on the outside upper right rear corner of the cargo body.

##### (2) Tool chests.

(a) *Identification plate.* The identification plate is located on the chest cover. The plate designates the model, contract number, manufacturer, serial number, and weight.

(b) *Decalcomania.* Located on the inside of the chest cover, the decal specifies the contents of the chest.

##### b. Tabulated Data.

###### (1) General.

Manufacturer . . .	Stevens Mfg. Co.
Models . . . . .	M416, M416B1 Cargo Trailer
	M569, M569B1, M762 Trail-
	er Chassis M716 Cable
	Splicer Trailer

Angle of departure	
(loaded) . . . . .	20 ° . . . . .

Center of gravity forward of the rear axle  
 Empty ..... 23 in.  
 Loaded ..... 41-1 / 2 in.  
 (2) *Overall dimensions.* (see fig 1-2  
 and 1-5 for shipping dimensions)

Cargo body (inside)  
 Length ..... 8 ft  
 Width ..... 3 ft, 5 in.  
 Height ..... 11 in.

(3) *Weight.* (see figs. 1-2 and 1-5 for  
 shipping weights)

Payload  
 Cross country ..... 500 lb  
 Highway ..... 750 lb

Weight on landing leg  
 Empty ..... 80 lb  
 Cross country ..... 102 lb  
 Highway ..... 104 lb

Weight on wheels  
 Empty ..... 350 lb  
 Cross country ..... 828 lb  
 Highway ..... 1076 lb  
 (4) *Lunette height.* ..... 2 ft, 2 in.  
 (Two position) ..... 1 ft, 11 in.

(5) *Axle.*

Length ..... 4 ft, 10-3 / 4 in.  
 Type ..... Tubular  
 Diameter ..... 2-9 / 32 in.  
 Spindle ..... 1-25 / 32 in.

(6) *Springs.*

Type ..... Semi-elliptical  
 Length (centerline  
 of eyes, flat) ..... 3 ft, 1 / 4 in.

Width ..... 1-3 / 4 in.  
 Thickness of leaves ..... 0.206 in.

(7) *Shock absorbers.*

Type ..... Non-adjustable, non-refillable  
 Length

Collapsed ..... 10.87 in.  
 Extended ..... 17.44 in.  
 Average stroke ..... 6.57 in.

(8) *Handbrake.*

Type ..... Expanding shoe  
 Control ..... Hand  
 Actuation ..... Mechanical

(9) *Electrical system.* ..... 24vdc

(10) *Tires.*

Number ..... 2  
 Size

M416, M716, M762,  
 M569 ..... 7.00 x 16  
 M416B1, M569B1 ..... 6.00 x 16  
 Ply ..... 6 rating

(11) *Tire inflation.*

Highway ..... 25 psi  
 Cross country ..... 22 psi  
 Mud, sand, snow ..... 18 psi

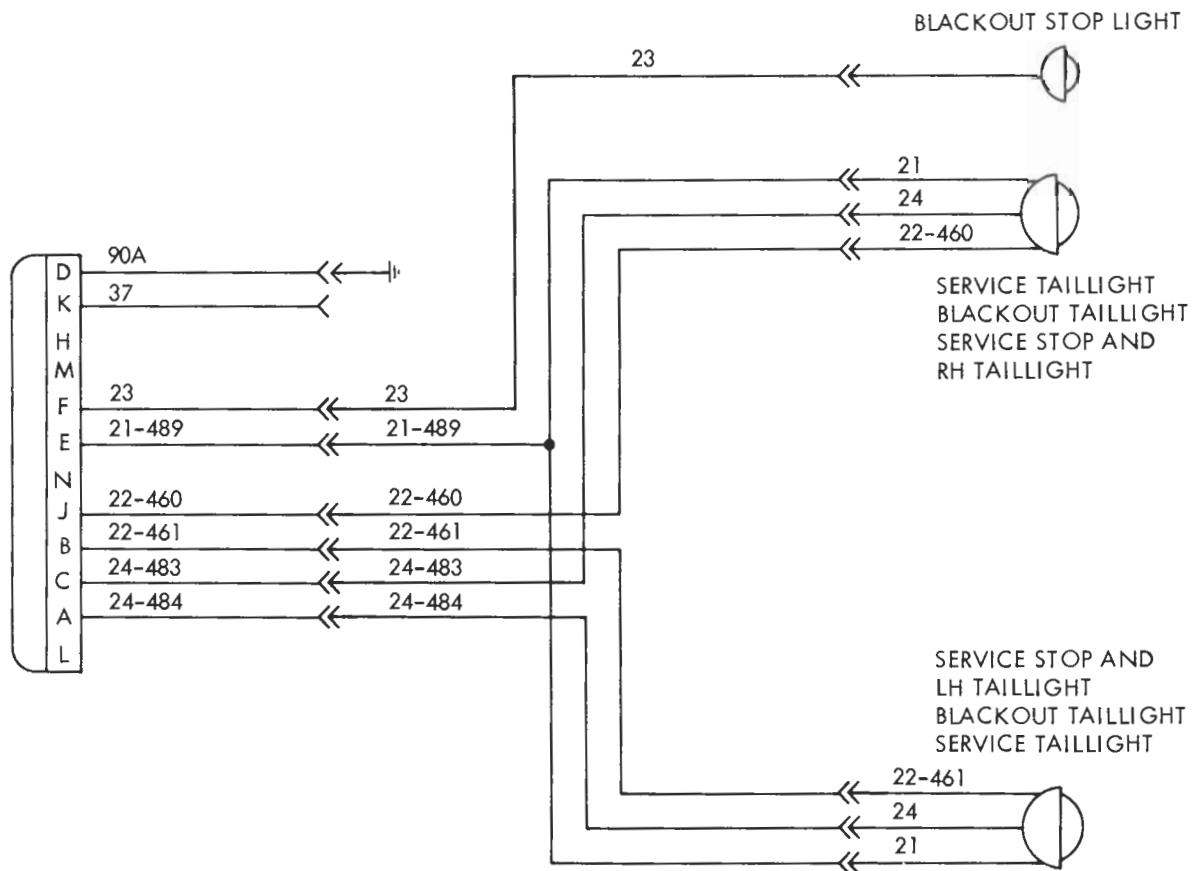
(12) *Wheels.*

Diameter of stud circle ..... 5.50 in.  
 Number of studs ..... 5  
 Rim size ..... 16 x 4.50  
 Material ..... Magnesium alloy

(13) *Chests.*

Length ..... 62 in.  
 Height ..... 16 in.  
 Number ..... 2  
 Material ..... Steel

(14) *Wiring diagram.* (see fig. 1-7)



AT 26930

Figure 1-7. Wiring diagram.

(15) *Maintenance and operating supplies.* No maintenance and operating supplies are required.

### 1-5. Differences in Models

*a. Trailer Chassis.* The difference between the M569 and the M569B1 are the tire size and in-

stallation of water cans on the M569B1. The M762 differs in that it has a flat bed.

*b. Cargo Trailers.* The M416 trailer used the M569 chassis and the M416B1 uses the M569B1 chassis.

## CHAPTER 2

### INSTALLATION AND OPERATING INSTRUCTIONS

#### Section I. SERVICE UPON RECEIPT OF MATERIEL

##### 2-1. Inspecting and Servicing the Equipment

###### a. Inspection.

- (1) Inspect the tires for cuts and scuffing.
- (2) Inspect the trailer for physical damage.
- (3) Inspect the electrical wiring and lights for damage.
- (4) Check the operation of the handbrake.
- (5) Check nuts and bolts for secureness.

###### b. Servicing.

- (1) Check tire pressure. Inflate or deflate as required.
- (2) Lubricate in accordance with the current lubrication chart.

- (3) Remove preservatives, if applicable.

##### 2-2. Installation of Separately Packaged Components. Not applicable.

##### 2-3. Installation or Setting Up Instructions

Select level terrain. Lower landing leg and detach trailer from towing vehicle. Apply handbrake. If the trailer is to be towed by a M151 truck, position the lunette in the top hole in the lunette bracket. If the towing vehicle is to be a M422 truck, position the lunette in the lower hole. To change lunette position, remove securing nut, spring, and washers. Change position and resecure.

#### Section II. MOVEMENT TO A NEW WORK SITE

##### 2-4. Dismantling for Movement

Under most circumstances, no dismantling of the trailer is necessary for movement to a new work site. Movement is generally by towing. Two trailers

may be stacked for movement.

##### 2-5. Reinstallation After Movement

Refer to paragraph 2-3.

#### Section III. CONTROLS AND INSTRUMENTS

##### 2-6. General

This section describes the operation of the handbrake used on the cargo trailers, trailer chassis, and cable splicer trailer.

##### 2-7. Handbrake Control

The handbrake control is mounted on the right front of the trailer frame. The control is fitted with a spring-loaded adjustment. The adjustment is in the top of the handle. Rotating the handle clockwise will remove slack from the brake cable. Counterclockwise rotation will produce slack in the cable (fig. 2-1). To apply the handbrake, press the control lever to the horizontal position. Release by lifting up on the handle.



Figure 2-1. Handbrake cable tension adjustment.

## Section IV. OPERATION UNDER USUAL CONDITIONS

### 2-8. General

a. The instructions in this section are published for the information and guidance of personnel responsible for operation of the cargo trailer, trailer chassis, and cable splicer trailer.

b. The operator must know how to perform every operation of which the cargo trailer, trailer chassis, or cable splicer trailer is capable. This section gives instructions on attaching the trailers to the towing vehicle and on coordinating the basic motions to perform the specific tasks for which the equipment is designed.

### 2-9. Operation of Equipment

#### a. Preparation for Use.

(1) Perform the before-operation services (para 3-6).

(2) Inspect the towing attachments on the towing vehicle.

#### b. Connection to Towing Vehicle.

(1) Place the lunette over the towing vehicle pintle.

(2) Connect the safety chains.

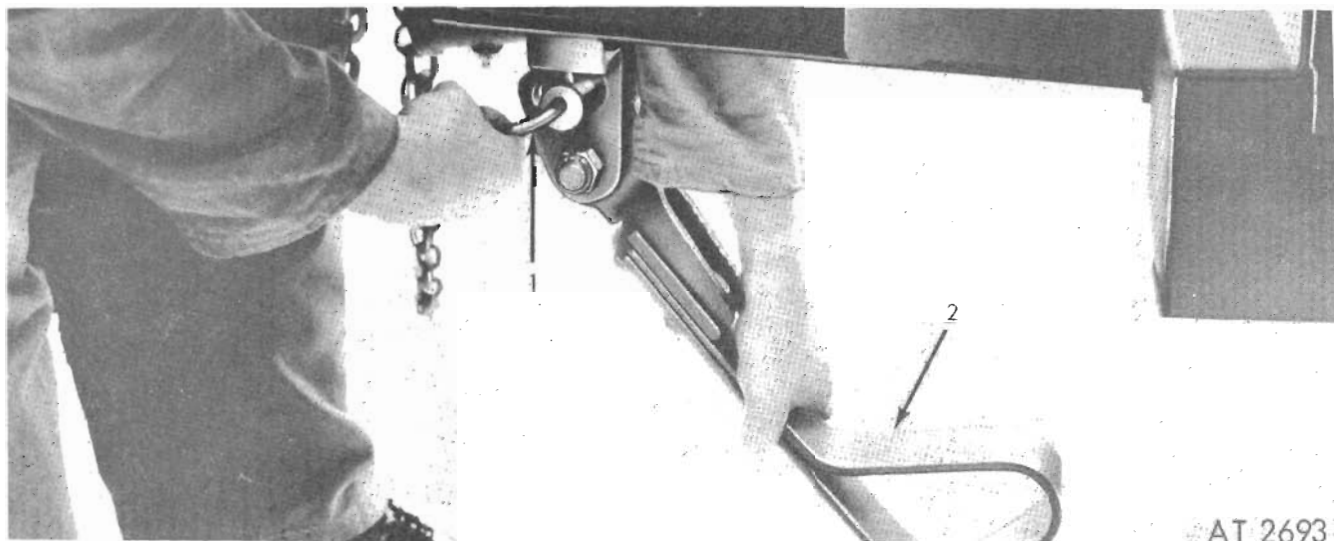
(3) Plug the intervehicular connection cable into the plug on the towing vehicle. Check for proper operation of trailer lights.

(4) Pull the landing leg locking pin (fig. 2-2) outward and rotate it 90 degrees.

(5) Rotate the landing leg upward and lock it in the stowed position with the locking pin. Turn the pin so that the handle points down to lock the leg in position.

(6) Release the handbrake by rotating control lever upward.

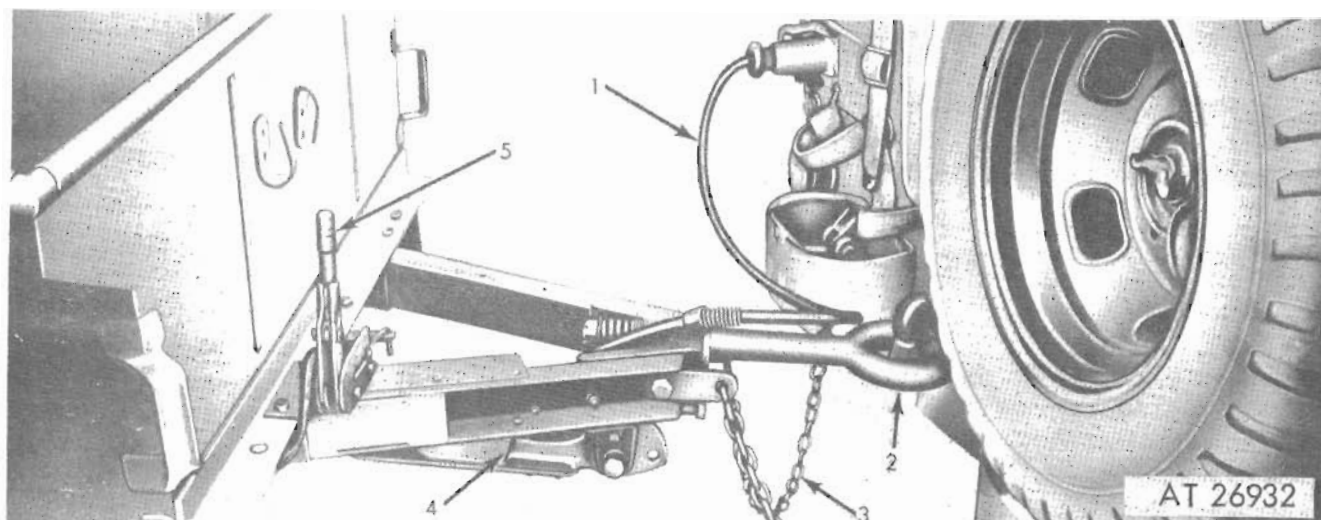
(7) Check to make certain the trailer is properly connected to the towing vehicle (fig. 2-3).



1-Locking pin  
2-Landing leg

Figure 2-2. Landing leg stowage.

AT 26931



- 1-Intervehicular cable
- 2-Lunette
- 3-Safety chain
- 4-Landing leg
- 5-Handbrake

Figure 2-3. Trailer connected to towing vehicle.

*c. Disconnecting from Towing Vehicle.*

Disconnect the trailer from the towing vehicle by reversing the connection procedure.

*d. Paulin Installation.*

Spread the paulin over the trailer body and cargo. Tie the paulin to the hooks welded to the trailer body.

## Section V. OPERATION UNDER UNUSUAL CONDITIONS

### 2-10. Operation in Extreme Cold

a. Avoid using handbrake, if possible, as brakes may freeze. Block the wheels front and rear with wood chocks.

b. Keep the electrical connections covered when not in use.

### 2-11. Operation in Extreme Heat

a. Maintain proper tire pressure.

b. Park the trailer in shade whenever possible.

c. Make frequent inspections of the electrical wiring.

### 2-12. Operation in Dusty or Sandy Areas

a. Shorten the lubrication interval to prevent excessive wear. The interval should be shortened according to prevailing conditions. Refer to current lubrication chart.

b. Keep all surfaces as clean as possible. Clean immediately after use.

c. Cover electrical connectors when not in use.

### 2-13. Operation Under Rainy or Humid Conditions

a. Cover electrical connectors when not in use.

b. Treat the paulin with a mildew preventive. Do not store the paulin when it is damp.

c. Keep all surfaces and components clean.

### 2-14. Operation in Salt Water Areas

a. Keep the trailer clean. Wash with fresh water, when available.

b. Inspect frequently for signs of corrosion. Touch up paint as required.

c. Cover electrical connectors when not in use.

## CHAPTER 3

### OPERATOR'S AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

#### Section I. OPERATOR'S AND ORGANIZATIONAL MAINTENANCE REPAIR PARTS, TOOLS, AND EQUIPMENT

##### 3-1. Tools and Equipment

a. Basic issue tools and repair parts issued with or authorized for the cargo trailers, trailer chassis, and cable splicer trailer are listed in the Basic Issue Items List, Appendix C of this manual.

b. The special tools required to perform organizational maintenance on the trailers are

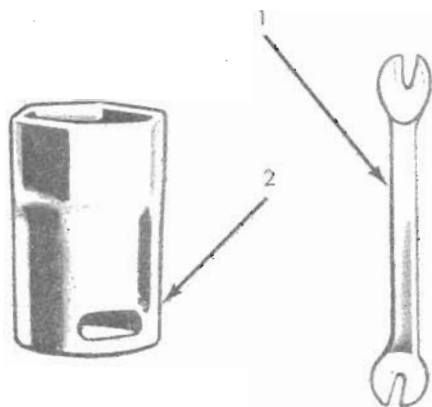
listed in table 1 and Appendix C. The five-digit number preceding the stock number is the Federal supply code number for the manufacturers of the tools. No special equipment is required by operator maintenance personnel or direct and general support maintenance personnel performing maintenance on the trailers.

Table 1. Special Tools

Item	FSN	Fig. No.	Ref. Para No.	Use
Wrench, open end, fixed	5120-708-0100	3-1	3-20	Adjusting brake shoe
Wrench, socket	5120-596-1370	3-1	3-17	Adjusting wheel bearing nut

##### 3-2. Organizational Maintenance Repair Part

Organizational maintenance repair parts are listed and illustrated in Appendix C of this manual.



AT 26933

- 1-Wrench, open end, fixed 5120-708-0100  
2-Wrench, socket 5120-596-1370

Figure 3-1. Special tools.

#### Section II. LUBRICATION

##### 3-3. General Lubrication Information

a. This paragraph contains a lubrication chart and lubrication instructions which are sup-

plemental to, and not specifically covered in the lubrication chart. Refer to figures 3-2 and 3-3.

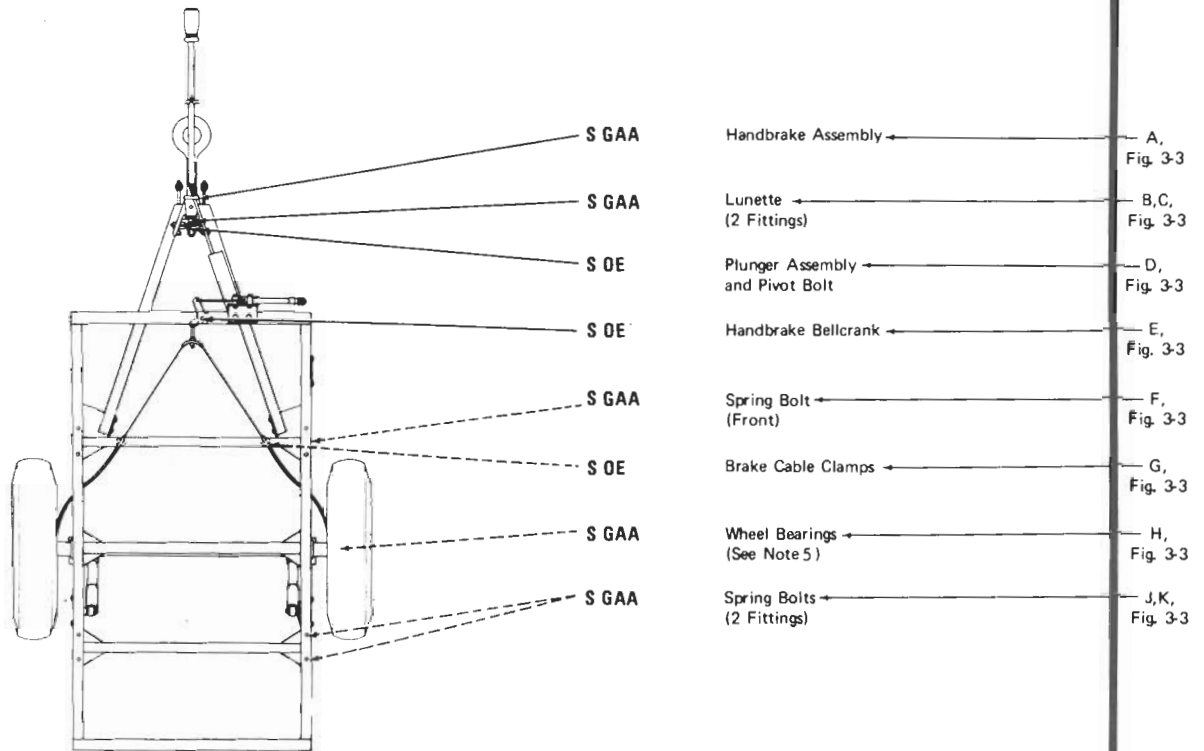


## LUBRICATION CHART

### TRAILER, CARGO, 1/4 TON M416 AND M416B1 TRAILER, FLAT BED, 3/4 TON, M762 TRAILER, CABLE SPLICER, 1/4 TON M716 CHASSIS, 1/4 TON, M569 AND M569B1

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

Clean fittings before lubricating. Clean parts with THINNER, paint, volatile mineral spirits (TPM) or SOLVENT, dry cleaning (CD). Dry before lubricating. Lubricate dotted arrow points on both sides of the equipment.



#### KEY

LUBRICANTS	EXPECTED TEMPERATURE			For arctic operation refer to TM 9-207	INTERVALS
	above +32°F	+40°F to -10°F	0°F to -65°F		
OE - Lubricating oil, internal combustion engine	OE 30	OE 10			S - Semi-annual (6 months)
OES - Lubricating oil, internal combustion engine (sub-zero)			OES		A - Annually every second semi-annual "S" P.M. Service.
GAA - Grease, lubr, automotive and artillery	GAA	GAA	GAA		

#### -NOTES-

##### 1. Oil Can Points

Lubricate handbrake, hinges, latches, brackets, lever assembly and linkages semiannually with OE.

##### 3. Do Not Lubricate

Springs.

5. Apply a light coating of sealing compound grade CV, MIL-S-22473 (FSN 8030-081-2339), or equivalent, to outer surface of flange of cap prior to pressing cap in the hub.

##### 2. Lubrication Intervals

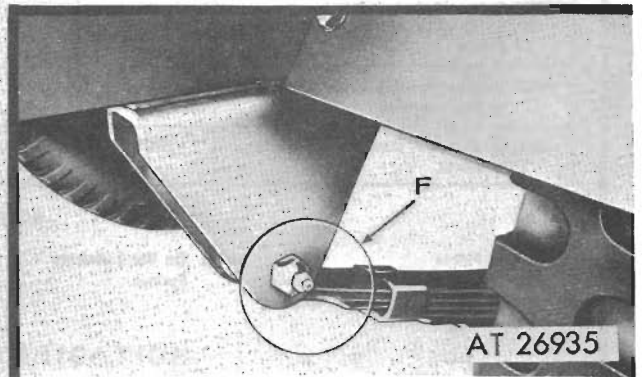
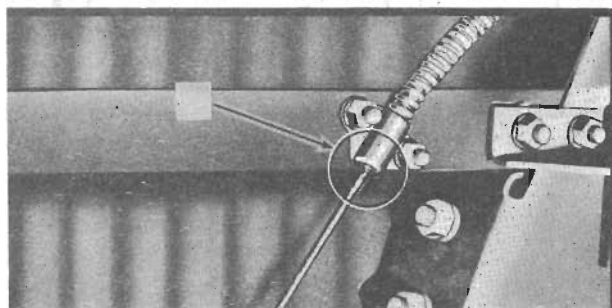
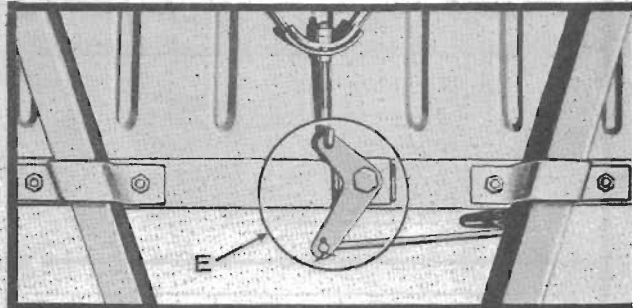
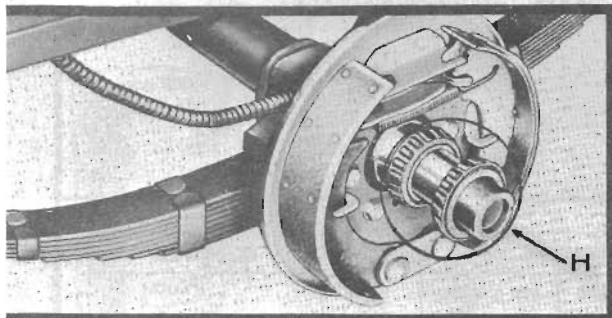
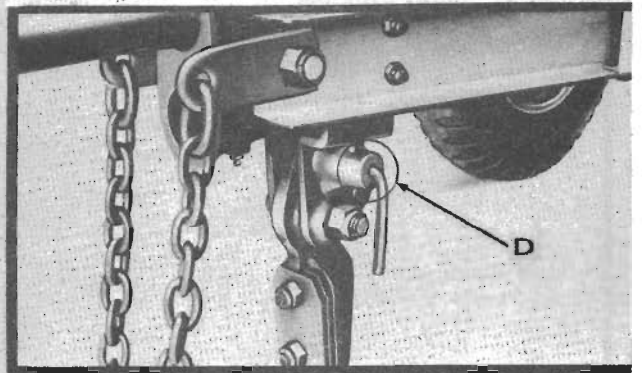
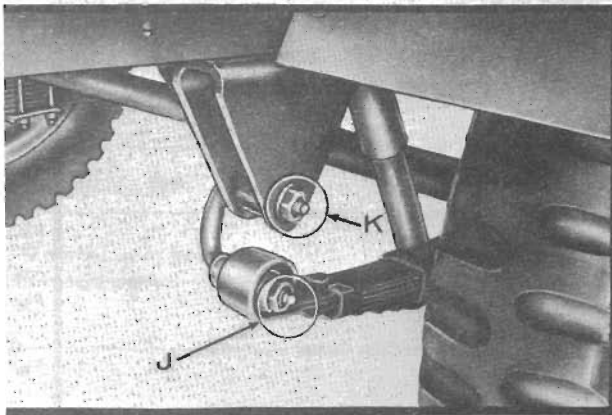
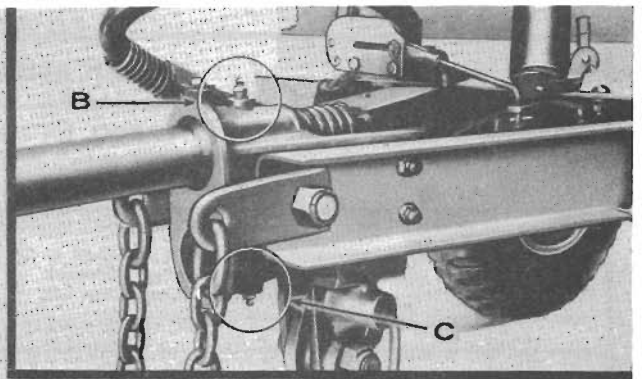
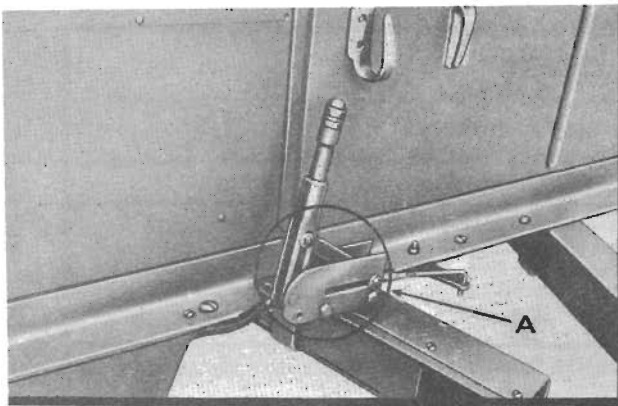
Intervals marked "S" may be lubricated by operator if supervised by a qualified mechanic.

##### 4. Intervals

Lubrication intervals will be scheduled and performed during regular scheduled P.M. Services wherever possible.

AT 26934

Figure 3-2. Lubrication chart.



AT 26935

Figure 3-3. Lubrication points.

b. It is recommended that lubricated parts be exercised at least once monthly.

### 3-4. Detailed Lubrication Information

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

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

c. *Points of Lubrication.* Service the lubrication points at proper intervals as illustrated in figures 3-2 and 3-3.

## Section III. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

### 3-5. General

To insure that the trailer is ready for operation at all times, inspect systematically so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance checks and services to be performed are listed in paragraph 3-6. The item numbers indicate the sequence of minimum inspection requirements. Note defects discovered during operation of the unit for future correction, to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment if operation were continued. Record all deficiencies and shortcomings together with the corrective action taken in the Equipment Log Book at the earliest possible opportunity.

### 3-6. Preventive Maintenance Checks and Services

a. *General.* The preventive maintenance checks and services are listed in table 2.

b. *Special Cleaning.* Any special cleaning instructions required for mechanisms or parts are contained in the pertinent section. General cleaning instructions are as follows:

(1) Use dry-cleaning solvent or mineral spirits paint thinner to clean or wash grease or oil from all metal parts.

(2) A solution of one part grease-cleaning compound to four parts of dry-cleaning solvent or mineral spirits paint thinner may be used for dissolving grease and oil from chassis and other parts. After cleaning, use cold water to rinse off any solution which remains.

(3) After the parts are cleaned, rinse and dry thoroughly. Apply a light grease or oil to all polished metal surfaces (other than optical instruments) to prevent rusting.

(4) Do not use diesel fuel oil, gasoline, or benzine, (benzol) for cleaning.

(5) To prevent formation of damaging mildew, shake out and air the canvas for several hours at frequent intervals.

(6) Nameplates, caution plates, and instructions plates made of steel rust very rapidly. When found in a rusty condition, thoroughly clean and heavily coat them with an application of clear lacquer. Refer to TM 9-213.

c. *Before-Operation Service.* A brief service to ascertain that the material is ready for operation; mainly a check to see if conditions affecting the material's readiness have changed since the last after-operation service.

d. *During-Operation Service.* This service consists of detecting unsatisfactory performance. While driving, the driver of the towing vehicle should be alert for any unusual noises, steering irregularities, or other indications of malfunction of any part of the materiel. Every time the driver applies the brakes, shifts gears, or turns the vehicle, he should instinctively consider it a test and note any unusual or unsatisfactory performance.

e. *After-Operation Service.* This service consists of investigating any deficiencies noted during operation and repeating part of the before-operation service. It is the basic daily service for tactical materiel and consists of correcting, insofar as possible, any operating deficiencies. Thus, the materiel is prepared to operate upon a moment's notice.

f. *Preparation of Materiel for Services.* The driver or operator should present the materiel for a scheduled preventive maintenance service in a clean condition.

Table 2. Preventive Maintenance Checks and Services

Item Number	Interval Operator Daily			D	S	B—Before operation D—During operation A—After operation	Items to be inspected	D—Daily S—Semi-annual	Procedure	Reference
	B	D	A							
1	X				X		Vehicle equipment.		Visually inspect towing connections, tools, mounted equipment, publications and necessary forms.	1-3
2	X				X		Landing leg.		Check operation of landing leg if coupled to towing vehicle. Inspect electrical cable receptacles, covers and cable.	2-9
3	X				X		Tires.		Remove penetrating objects or those capable of penetrating such as nails or glass.	3-8
4	X				X		Electrical wiring.		Note any loss of air, unusual wear, or missing valve caps. Gage tires for correct air pressure. Inspect wiring harness, light assemblies, clips receptacles, shells, grommets, and electrical access covers for correct assembly and good condition.	3-12
5	X				X		Brakes.		Apply trailer brakes and observe if they operate effectively.	2-7
6		X			X		Tracking.		With the vehicle moving straight ahead, see if there is any tendency to wander, shimmy, or pull to the side; may be caused by axle misalignment, improperly adjusted wheel bearings or brakes.	2-9
7		X			X		Suspension, axle and bearings.		During the road test, be alert for unusual or excessive noises that may indicate looseness defects, or deficient lubrication in these components.	2-9 3-21
8		X			X		Lamps; tail, stop, service, and blackout; reflectors.		During stops, test the operation of exterior lights and also the operation of the light switch. Note condition of lights and safety reflectors.	2-1
9			X		X		Wheel hub and brake drum.		Immediately after road test, feel brake drums and hubs cautiously. An overheated wheel hub or brake drum indicates an improperly adjusted, defective or dry wheel bearing or a dragging brake.	3-17 3-20
10			X		X		Operating faults.		Investigate and correct or report any faults noted during operation.	3-5
11					X		Lunette and safety chains.		Inspect lunette and safety chains.	3-23
12					X		Frame and body.		Wash and clean.	3-27
13					X		Lubrication.		Note: Lubricate in accordance with lubrication chart.	
14					X		Tires.		Lubricate vehicle in accordance with lubrication chart. Coordinate lubrication with inspection and disassembly operations to avoid duplication.	3-4
15					X		Frame, surface paint, markings and data plates.		Inspect for unusual wear, penetrating objects, and proper matching. Rotate and match according to tread design and degree of wear. See TM 9-1870-1 for acceptable limits in matching.	2-9 3-25
16	X				X		Final road check; repaired or adjusted items.		Inspect frame, especially the landing leg. Observe condition of paint and legibility of markings and data plates. Perform the final road test; pay special attention to items which have been repaired or adjusted.	2-9

## Section IV. OPERATOR'S MAINTENANCE

### 3-7. Lamps

#### a. Removal (Fig. 3-4).

- (1) Remove screws attaching door to shell.
- (2) Remove door.
- (3) Remove gasket.
- (4) Remove lamp.

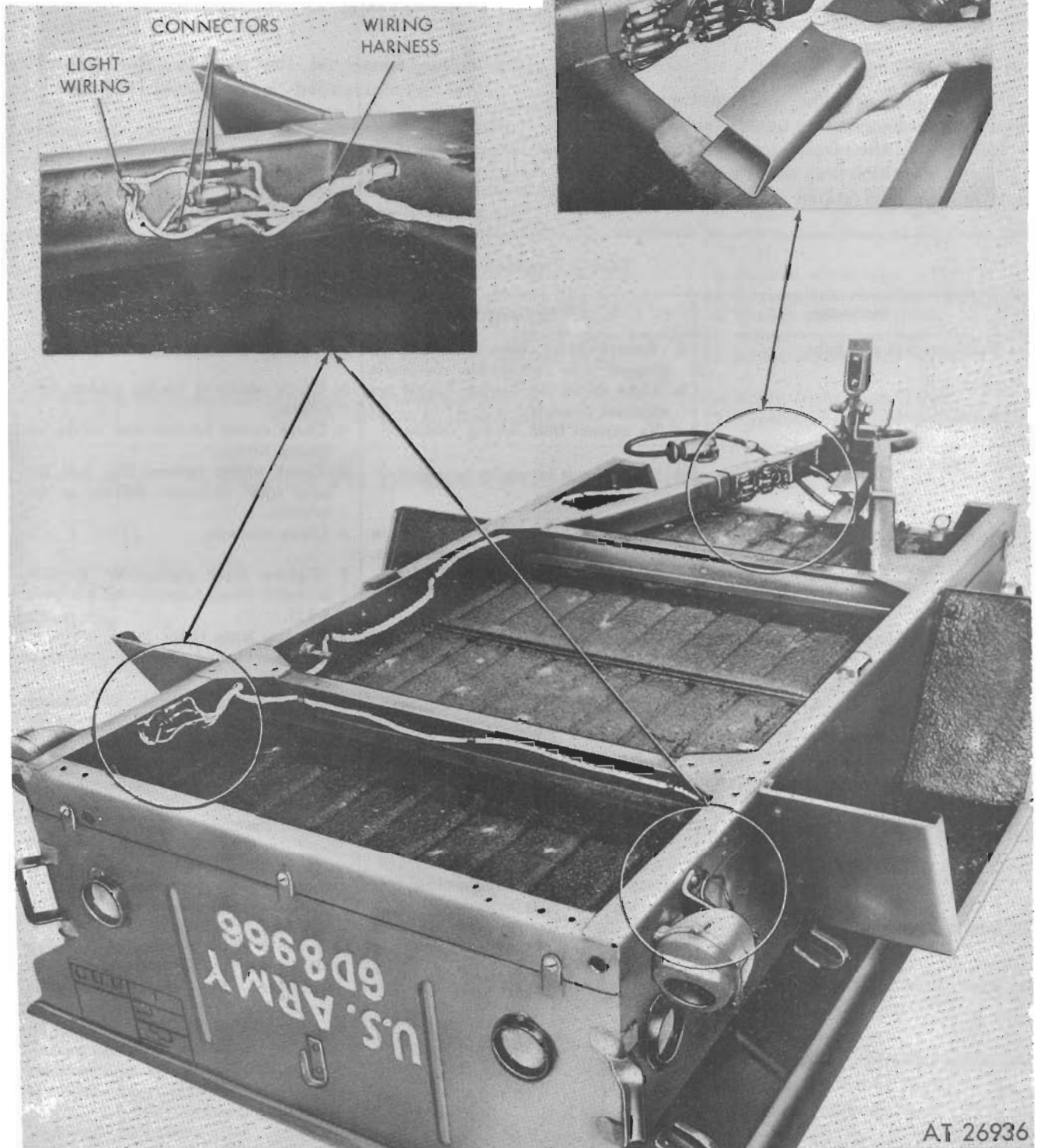


Figure 3-4. Trailer electrical components.

b. *Installation.* Install in reverse order of removal

### 3-8. Tire and Wheel Assembly

#### a. *Removal.*

- (1) Block opposite tire, front and rear.
- (2) If trailer is not attached to the towing

vehicle, lower the landing leg.

(3) Place a jack under the spring clip plate and raise the side of the trailer.

(4) Remove the hub stud nuts.

(5) Remove tire and wheel assembly.

b. *Installation.* Install in reverse order of removal.

## Section V. TROUBLESHOOTING

### 3-9. General

This section provides information useful in diagnosing and correcting unsatisfactory operations or failure of the trailer and its components. Malfunctions which may occur are listed in table 3. Each malfunction stated is followed by a list of

probable causes of the trouble. The corrective action recommended is described opposite the probable cause.

### 3-10. Troubleshooting

Refer to table 3 for operator and organizational maintenance level troubleshooting.

*Table 3. Troubleshooting*

Malfunction	Probable causes	Corrective action
1. Taillights will not light.	<ol style="list-style-type: none"> <li>a. Intervehicular cable not properly plugged into two-vehicle receptacle.</li> <li>b. Light switch on towing vehicle not adjusted properly.</li> <li>c. No current from towing vehicle.</li> <li>d. Short circuit in wiring harness.</li> <li>e. Dirty or corroded contacts in receptacle or on intervehicular cable.</li> <li>f. Loose connection or broken wires.</li> </ol>	<ol style="list-style-type: none"> <li>a. Pull out plug and reinsert fully.</li> <li>b. Check setting of towing vehicle light switch.</li> <li>c. Check circuit breaker and wiring on towing vehicle.</li> <li>d. Check wiring harness (fig. 3-4) for bare spots or other defects in insulation.</li> <li>e. Clean contacts.</li> <li>f. Tighten loose connection. Replace defective wiring harness (fig. 3-4, para 3-12).</li> </ol>
2. One or more lamps (but not all) will not light.	<ol style="list-style-type: none"> <li>a. Burned out lamp.</li> <li>b. Wiring harness and taillight cable connections improperly connected.</li> <li>c. Broken or shorted wiring.</li> <li>d. Dirty or corroded contacts in receptacle or on intervehicular cable plug.</li> <li>e. Dirty or corroded lamp sockets.</li> <li>f. Damaged taillight assembly.</li> </ol>	<ol style="list-style-type: none"> <li>a. Replace lamp (para 3-7).</li> <li>b. Disassemble and assemble connectors properly.</li> <li>c. Check wiring harness and taillight cables for breaks and bare spots or other defects in insulation. Replace defective wiring harness (fig. 3-4, para 3-12) or replace defective taillight assembly (para 3-11).</li> <li>d. Clean contacts.</li> <li>e. Remove lamp and clean socket.</li> <li>f. Replace taillight assembly (para 3-11).</li> </ol>
3. Dim or flickering lights.	<ol style="list-style-type: none"> <li>a. Loose, dirty, or corroded terminals.</li> <li>b. Intervehicular cable improperly grounded.</li> <li>c. Taillight assembly improperly grounded.</li> </ol>	<ol style="list-style-type: none"> <li>a. Clean and tighten terminals.</li> <li>b. Remove screw and washer securing cable ground wire to connector clip assembly. Clean and tighten cable terminal and clean surface or clip assembly. Position cable terminal on clip and secure with screw and washer.</li> <li>c. Remove two screws and washers securing taillight assembly to mounting bracket (fig. 3-3). Clean screws, and mounting bracket. Position taillight on bracket and install two screws and washers. Tighten screws securely.</li> </ol>



Table 3. Troubleshooting (Cont.)

Malfunction	Probable causes	Corrective action
3. Dim or flickering lights.—Cont.	d. Defective lamp. e. Dirty or corroded lamp sockets or contacts in receptacle or on plug.	d. Replace lamp (para 3-7). e. Remove lamp and clean sockets. Clean contacts.
4. Hand brakes will not hold vehicle.	a. Brakes out of adjustment. b. Hand brake linkage out of adjustment.	a. Adjust brakes (fig. 3-13, para 3-20). b. Adjust linkage (para 3-14).
5. Hand brakes drag.	a. Hand brake linkage out of adjustment. b. Lack of lubrication.	a. Adjust linkage (para 3-14). b. Lubricate hand brake lever assembly and flexible control link (fig. 3-2).
6. Trailer pulls to one side.	a. Improper wheel bearing adjustment. b. Bent axle assembly.	a. Adjust wheel bearings (fig. 3-11, para 3-17). b. Replace axle assembly (para 3-22).
7. Improper spring action.	a. Loose U-bolts. b. Broken spring leaves. c. Broken spring center bolt or clips.	a. Tighten U-bolt nuts. b. Replace spring (para 3-21). c. Replace spring (para 3-21).
8. Excessively worn, scuffed, or cupped tires.	a. Improper tire pressure. b. Loose wheels. c. Improper wheel bearing adjustment.	a. Inflate tires to correct pressure. b. Tighten wheel stud nuts. c. Adjust wheel bearings (fig. 3-11, para 3-17).
9. Trailer pulls, wanders, or shimmies.	d. Bent rim or wheel. e. Bent axle assembly. a. Axle misaligned. b. Improperly adjusted wheel bearings. c. Improperly adjusted brakes.	d. Replace wheel (para 3-15). e. Replace axle assembly (para 3-22). a. Realign axle (para 3-22). b. Adjust wheel bearings (para 3-17). c. Adjust brakes (para 3-20).
10. Wheel hub or brake drum overheats.	a. Brake dragging. b. Wheel bearing dry.	a. Adjust brake (para 3-20). b. Replace wheel bearings (para 3-17).

## Section VI. ORGANIZATIONAL MAINTENANCE

### 3-11. Lights

#### a. Removal (fig. 3-4).

(1) Disconnect light from wiring harness, at connectors.

(2) Remove grommet and pull wires, attached to light, through hole in chassis.

(3) Remove screws attaching light to mounting bracket.

(4) Remove light.

#### b. Disassembly.

(1) Remove screws attaching door to shell.

(2) Remove door.

(3) Remove gasket.

(4) Remove lamp.

(5) Remove screws and washers attaching shell/socket and wiring assembly to body of light.

(6) Remove insulator (blackout light only).

(7) Remove shell/socket and wiring assembly.

#### c. Cleaning, inspection, and repair.

(1) Clean all contacts, leads, and component parts with an approved solvent.

(2) Inspect for cracks, breaks in wire, and corrosion.

(3) Replace any damaged or broken parts.

d. Reassembly. Reassemble in reverse order of disassembly.

e. Installation. Install in reverse order of removal.

### 3-12. Wiring Harness

#### a. Removal (fig. 3-4).

(1) Disconnect lights at connectors.

(2) Remove screws, washers, and nuts attaching connection cover to drawbar.

(3) Remove connection cover.

(4) Disconnect vehicular cable at connectors.

(5) Remove screws attaching wiring harness clips to chassis.

(6) Pull wiring harness through holes in frame.

b. Installation. Install in reverse order of removal.

### 3-13. Intervehicular Cable

#### a. Removal (fig. 3-4).

(1) Remove screws, washers, and nuts attaching connection cover to drawbar.

(2) Remove connection cover.

(3) Disconnect vehicular cable at connectors.

(4) Disconnect cable terminal lug.

(5) Remove screws, washers, and nuts attaching clamp to drawbar.

(6) Remove clamp.

(7) Remove intervehicular cable.





(4) Remove screws (24), washers (4), and nuts (3) attaching lever assembly (1) to bracket (5), and remove lever assembly (1).

(5) Remove screws, washers, and nuts attaching lever assembly bracket (5) to drawbar, and remove bracket.

(6) Remove clevis (22).

(7) Remove cotter pin (21) from bellcrank rod (6), and remove bellcrank rod.

(8) Remove cotter key (7) from castle nut (8).

(9) Remove castle nut (8) and pivot pin (20) attaching bellcrank (9) to drawbar, and remove bellcrank.

(10) Remove nuts (16) attaching adjusting rod (19) to equalizer (18).

(11) Remove adjusting rod (19) and equalizer (18).

(12) Remove screws (15), washers (10), and nuts (11) attaching clips (14) to chassis.

(13) Remove clips.

(14) Remove cotter pin (13) from pin (12) attaching cable (17) to lever (on back plate), and remove pin (12).

(15) Remove cable (17).

*b. Cleaning, inspection, and repair.*

(1) Clean all parts with an approved solvent.

(2) Inspect for worn, damaged, or corroded parts.

(3) Replace any worn, damaged, or corroded parts.

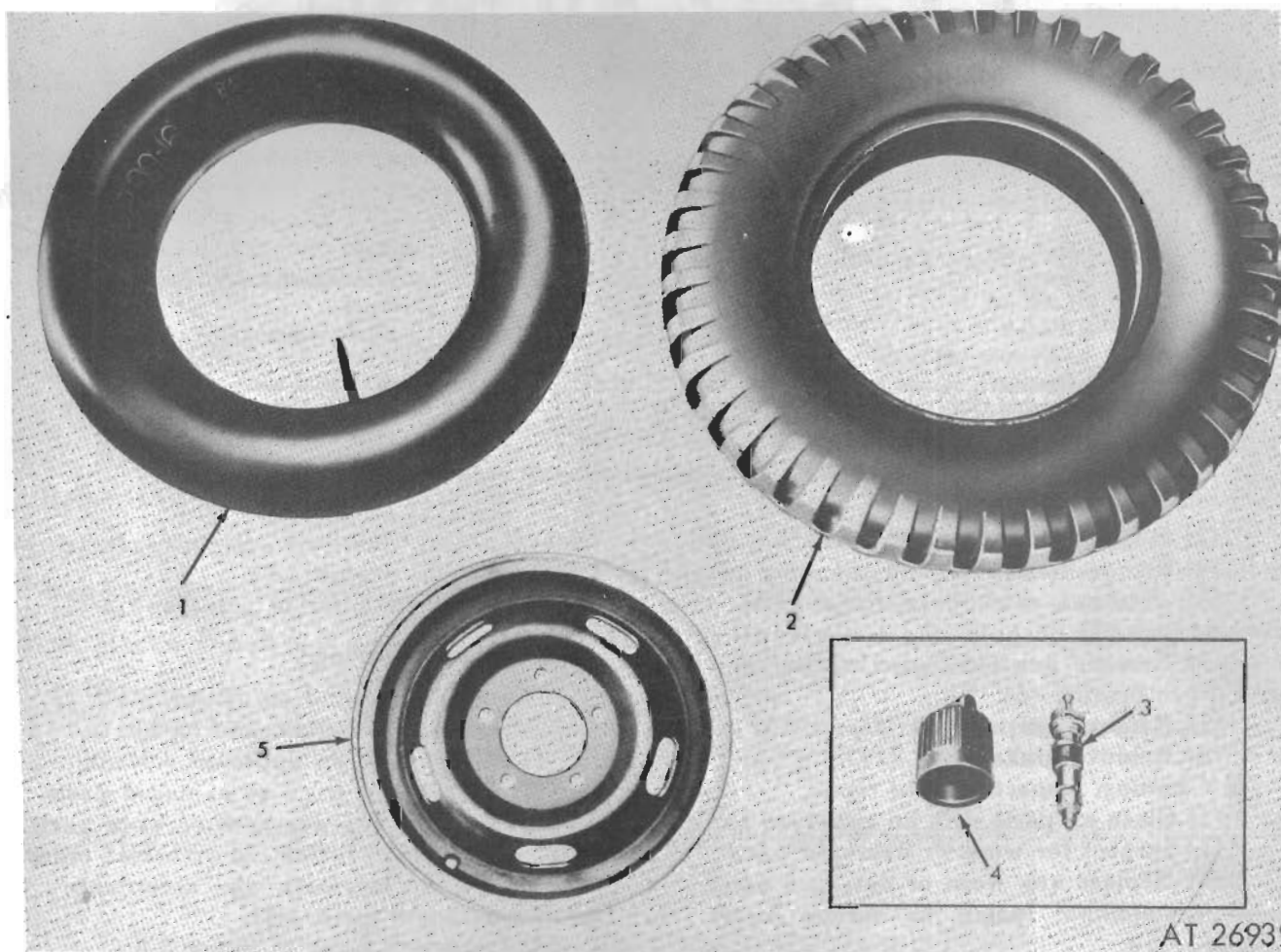
*c. Installation.* Install in reverse order of removal, and lubricate in accordance with lubrication chart (fig. 3-3).

*d. Adjustment.* Adjust tension on the cable by turning the adjustment knob clockwise to increase tension and counterclockwise to reduce tension.

### 3-15. Tire and Wheel Assembly

*a. Removal.* Refer to paragraph 3-8.

*b. Disassembly* (fig. 3-7).



AT 26939

1-Inner tube  
2-Tire  
3-Valve core

4-Cap  
5-Wheel

Figure 3-7. Tire and wheel assembly.

(1) Remove cap (4) from valve stem, and remove valve core (3) to deflate tire.

(2) Pry outer tire bead over outer edge of wheel, being careful not to pinch inner tube (1).

(3) Remove inner tube (1).

(4) Pry inner tire bead over outer edge of wheel, and remove tire from wheel.

*c. Reassembly.* Reassemble in reverse order of disassembly.

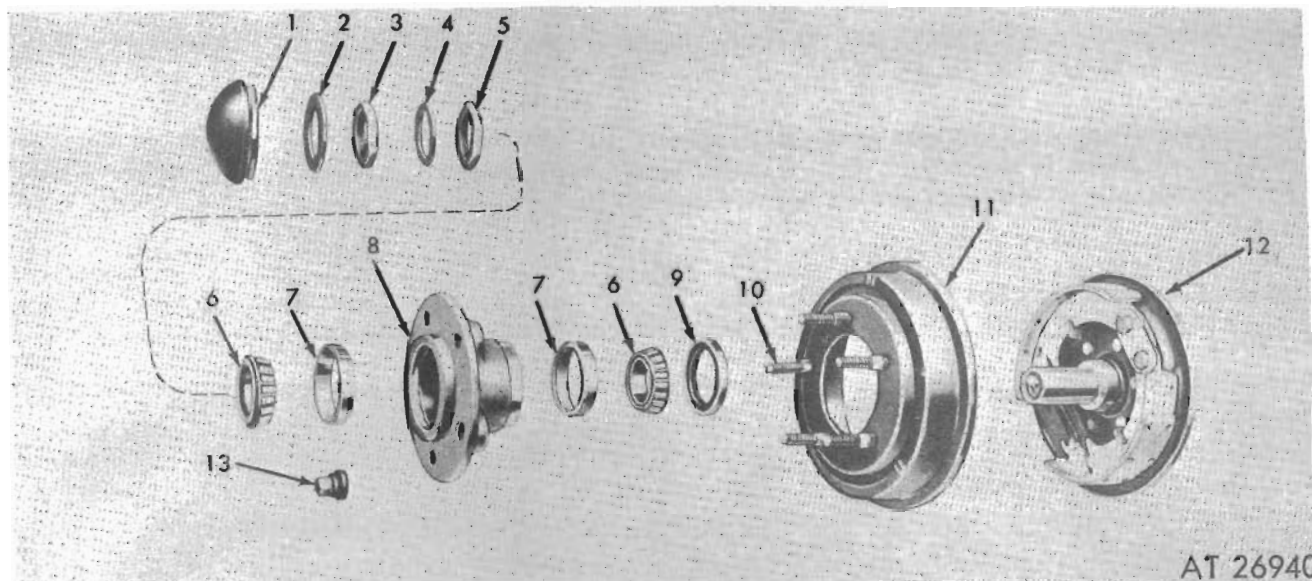
*d. Installation.* Refer to paragraph 3-8.

### 3-16. Wheel, Hub and Drum Assembly

*a. Removal.*

(1) Remove tire and wheel assembly (para 3-8).

(2) Remove hub cap (1, fig. 3-8).



1-Hub cap  
2-Washer  
3-Lock nut  
4-Washer  
5-Adjusting nut  
6-Bearing  
7-Bearing cup

8-Hub  
9-Bearing seal  
10-Stud  
11-Brake drum  
12-Brake shoe assembly  
13-Hub stud nut

Figure 3-8. Hub and drum assembly, exploded view.

(3) Remove washer (2) and lock nut (3).

(4) Remove washer (4) and adjusting nut (5).

(5) Remove outer bearing (6) and outer bearing cup (7).

(6) Remove hub (8), inner bearing cup (7), and inner bearing (6).

(7) Remove bearing seal (9).

(8) Remove brake drum (11).

*b. Cleaning, inspection, and repair.*

(1) Clean all parts with an approved solvent.

(2) Inspect for worn or damaged parts.

(3) Replace any worn or damaged parts.

*c. Installation.* Install in reverse order of

removal, and lubricate in accordance with lubrication chart (para 3-3).

*d. Adjustment.* Refer to paragraph 3-17.

### 3-17. Wheel Bearings

*a. Removal.* Refer to paragraph 3-16.

*b. Cleaning, inspection, and repair.*

(1) Clean with an approved solvent.

(2) Inspect for worn or damaged parts.

(3) Replace any damaged or worn parts.

*c. Installation.* Install in reverse order of removal, and lubricate in accordance with lubrication chart (para 3-3).

*d. Adjustment.* Refer to figure 3-9.

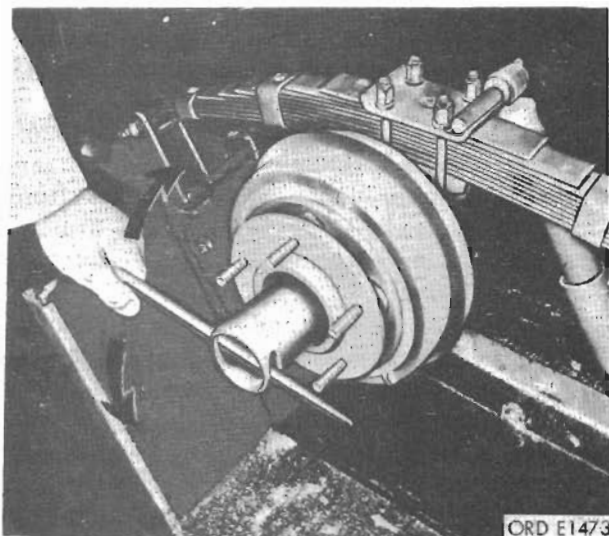


Figure 3-9. Wheel bearing adjustment.

(1) Remove hub cap, washer, lock nut, and inner washer.

(2) Release brake.

(3) Using wheel bearing nut wrench 5120-596-1370, loosen adjusting nut (turn counterclockwise) until hub and drum rotate freely.

(4) Tighten adjusting nut until hub and drum bind or no longer turn freely.

(5) Loosen adjusting nut one-sixth turn or until hub and drum rotate freely.

(6) Install inner washer, lock nut, and outer washer.

(7) Bend side of outer washer over one flat of lock nut.

(8) Install hub cap.

### 3-18. Bearing Seal

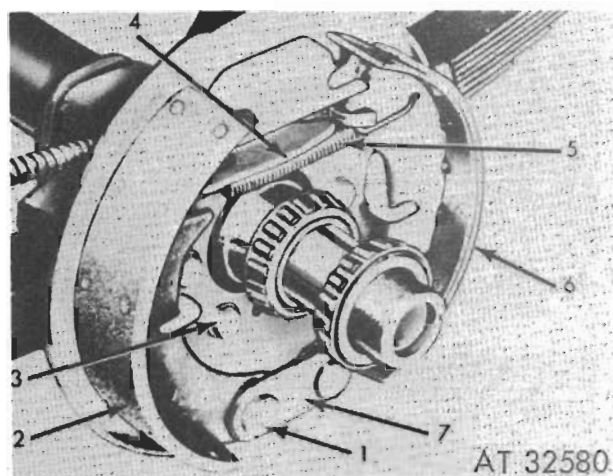
Refer to paragraph 3-16.

### 3-19. Brake Drum

Refer to paragraph 3-16.

### 3-20. Brake Shoes

a. *Removal.* Refer to figure 3-10.



1-Anchor pin

2-Front brake shoe

3-Bolt

4-Strut

5-Spring

6-Rear brake shoe

7-Cam plate

Figure 3-10. Brake shoe and support assembly.

(1) Remove tire and wheel assembly (para 3-15).

(2) Remove wheel hub and drum assembly (para 3-16).

(3) Release brake.

(4) Remove spring (5).

(5) Remove nut, washers and cam (7) from anchor pin (1).

(6) Remove anchor pin and cam plate.

(7) Remove brake shoes (2 and 6).

(8) Remove cotter pin and pin attaching strut (4) to lever, and remove strut.

(9) Remove cotter pin and pin attaching lever to cable, and remove lever.

(10) Remove nuts, washers, and bolts (3) attaching back plate to axle assembly.

(11) Remove back plate.

#### b. *Cleaning, inspection, and repair.*

(1) Clean all parts with an approved solvent.

(2) Inspect for worn or damaged parts.

(3) Replace any worn or damaged parts.

c. *Installation.* Install in reverse order of removal.

d. *Adjustment.* Refer to figure 3-11.

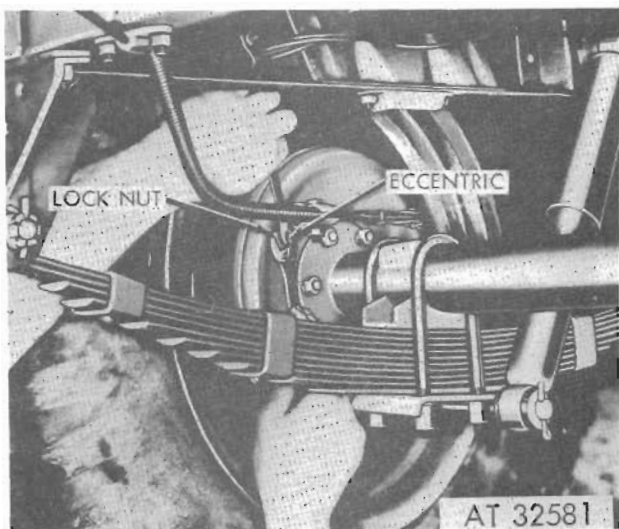
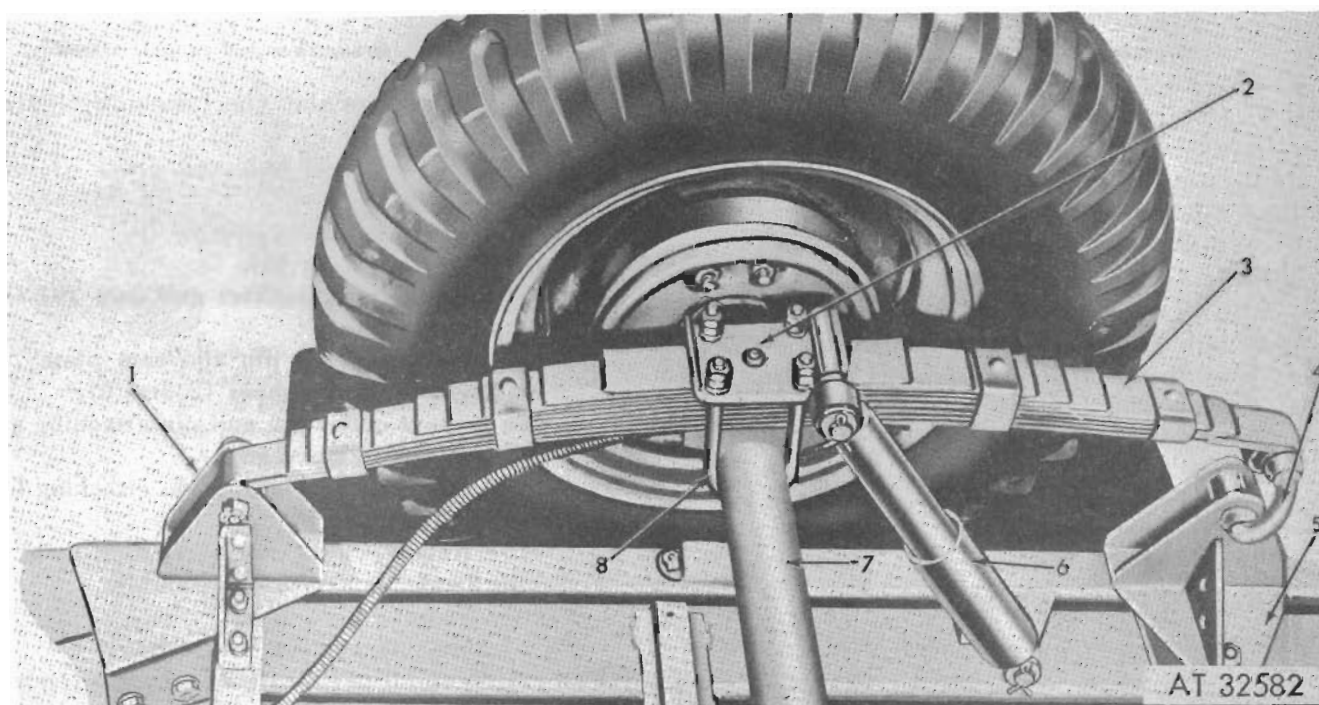


Figure 3-11. Brake adjustment.

- (1) Jack trailer up so that wheel clears ground (para 3-8).
- (2) Pull up hand brake lever one-third distance from fully released position.
- (3) Loosen eccentric lock nuts on back of the brake backing plate.
- (4) Turn forward eccentric toward front of vehicle until brake shoe strikes brake drum.
- (5) While turning wheel, release eccentric until wheel turns freely.
- (6) Hold eccentric and tighten lock nut.
- (7) Repeat procedure for reverse shoe, but turn reverse eccentric toward rear of vehicle.

### 3-21. Suspension System

a. *Removal.* Refer to figure 3-12.



- 1-Front bracket
- 2-Spring clip plate
- 3-Spring assembly
- 4-Shackle bolt

- 5-Rear bracket
- 6-Shock absorber
- 7-Axle
- 8-U-Bolt

Figure 3-12. Suspension system.

- (1) Turn trailer upside down.
- (2) Remove pin securing shock absorber (6) to bracket.
- (3) Remove pin securing shock absorber (6) to spring clip plate (2).
- (4) Remove bushings, and shock absorber.
- (5) Remove nuts, washers, and screws attaching bracket to chassis, and remove bracket.

*Note:* Support axle assembly before removing spring assembly.

- (6) Remove cotter pin, nut, and bolt attaching spring assembly (3) to front bracket (1).
- (7) Remove lubrication fitting from bolt.
- (8) Remove lubrication fittings, bushings, seals, and retainers from shackle (4).
- (9) Remove shackle.

(10) Remove nuts, washers, and U-bolts (8) attaching spring clip plate (2) to axle assembly (7).

(11) Remove spring clip plate and spring assembly.

(12) Remove nuts, washers, and screws attaching front bracket to chassis, and remove front bracket.

(13) Remove nuts, washers, and screws attaching rear bracket to chassis, and remove rear bracket.

(14) Remove nuts, washers, and bolts attaching bumper to chassis, and remove bumper.

*b. Cleaning, inspection, and repair.*

(1) Clean all parts with an approved solvent.

(2) Inspect for wear or damaged parts.

(3) Replace any damaged or worn parts.

*c. Installation.* Install in reverse order of removal.

### **3-22. Axle Assembly**

*a. Removal.*

(1) Turn trailer upside down.

(2) Remove tire and wheel assemblies (para 3-15).

(3) Remove wheel hub and drum assemblies (para 3-16).

(4) Remove brake shoes (para 3-20).

(5) Remove nuts, washers, and U-bolts attaching axle assembly to spring clip plates, and remove spring clip plates.

(6) Remove axle assembly.

*b. Cleaning, inspection, and repair.*

(1) Clean with an approved solvent.

(2) Inspect for corrosion and damage.

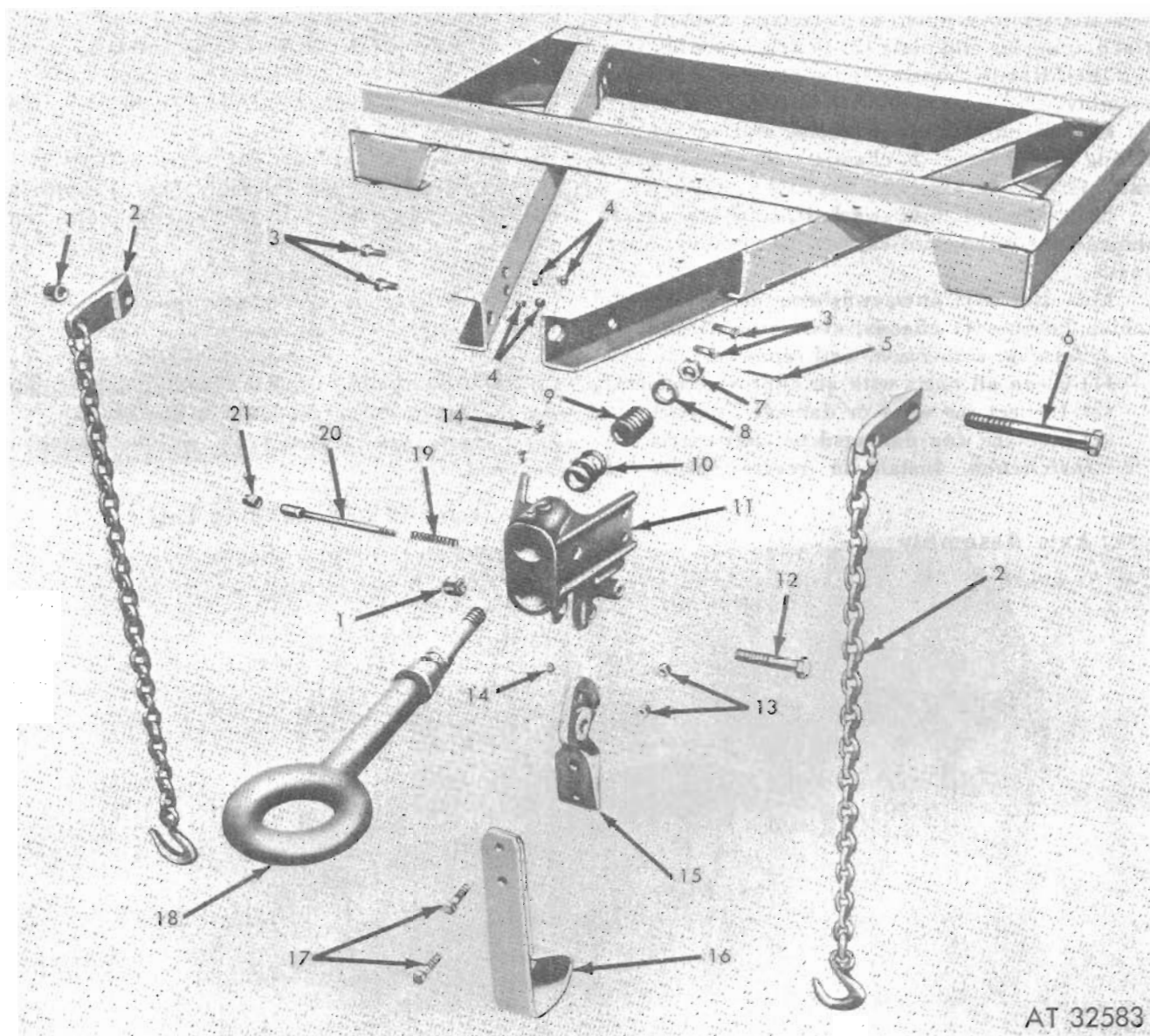
(3) Remove corrosion, and touchup with paint. Replace axle assembly if damaged.

*c. Installation.* Install in reverse order of removal.

### **3-23. Lunette and Landing Leg**

*a. Removal.* Refer to figure 3-13.





- 1-Nut
- 2-Safety chain assembly
- 3-Screw
- 4-Nut
- 5-Cotter pin
- 6-Screw
- 7-Lunette nut
- 8-Washer
- 9-Compression spring
- 10-Washer
- 11-Lunette bracket

- 12-Screw
- 13-Nut
- 14-Lubrication fitting
- 15-Leg bracket
- 16-Leg
- 17-Screw
- 18-Lunette (coupler)
- 19-Plunger spring
- 20-Plunger
- 21-Plug

Figure 3-13. Lunette and landing leg, exploded view



(1) Block up front of trailer.

(2) Remove nut (1) and screw (6) attaching safety chains (2) to chassis, and remove safety chains.

(3) Remove nuts (13) and screws (17) attaching leg (16) to leg bracket (15), and remove leg.

(4) Remove nut (1) and screw (12) attaching leg bracket (15) to lunette bracket (11), and remove leg bracket.

(5) Straighten plunger (20).

(6) Remove plug (21), plunger (20), and spring (19).

(7) Remove lubrication fittings (14).

(8) Remove cotter pin (5), lunette nut (7), washer (8), compression spring (9), and washers (10) attaching lunette (18) to lunette bracket (11).

(9) Remove lunette.

(10) Remove nuts (4) and screws (3) attaching lunette bracket (11) to chassis, and remove lunette bracket.

*b. Cleaning, inspection, and repair.*

(1) Clean all parts with an approved solvent.

(2) Inspect for corroded, worn, or damaged parts.

(3) Remove corrosion and touchup with paint. Replace any worn or damaged parts.

*c. Installation.* Install in reverse order of removal, and lubricate in accordance with lubrication chart (para 3-3).

*d. Adjustment.*

(1) Remove cotter pin (5) from nut (7) attaching lunette (8) to lunette bracket (11).

(2) Insert 0.010 in. thick feeler gage between coils of compression spring (9).

(3) Tighten lunette nut (7) until feeler gage can be inserted and removed with a slight drag.

(4) Install cotter pin (5).

### 3-24. Paulin

*a. Removal.* Untie paulin from hooks, and remove paulin. Refer to figure 3-14.



Figure 3-14. Paulin tie-downs.

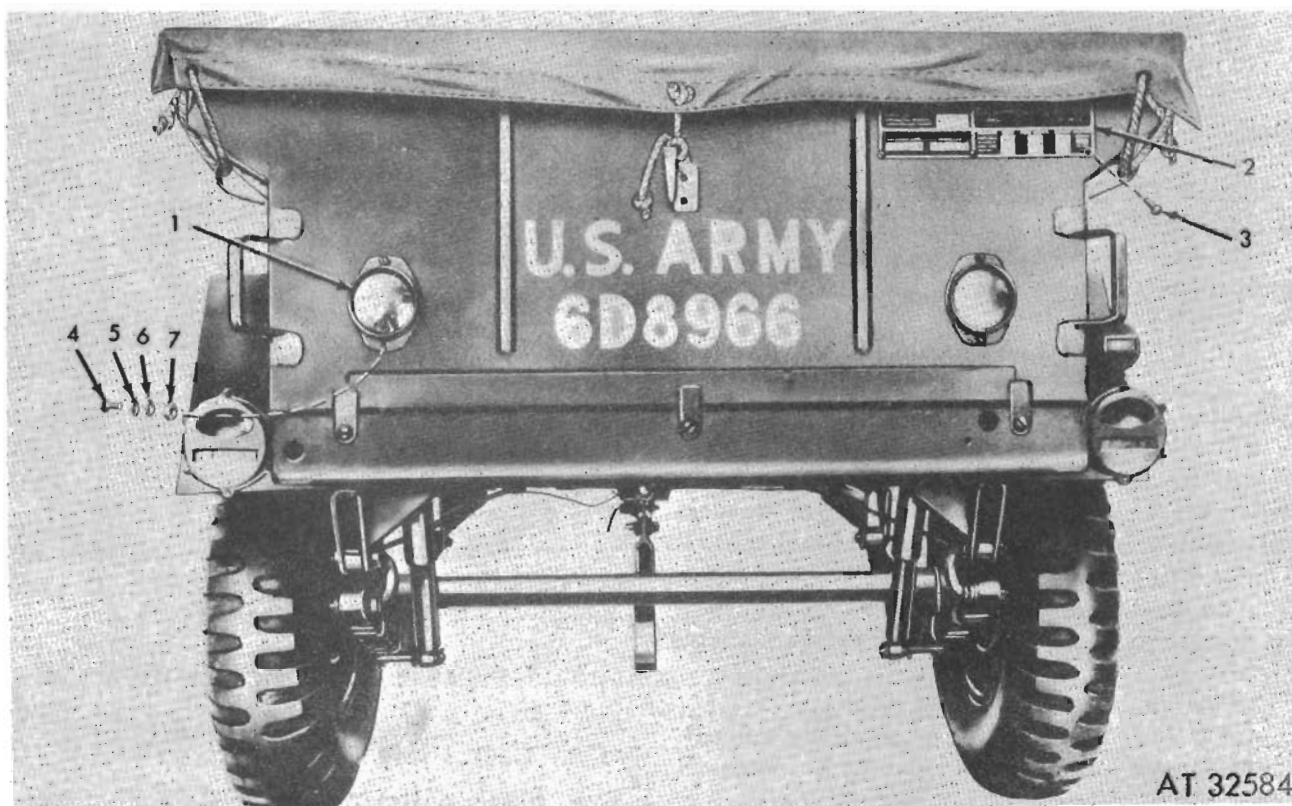
*b. Installation.* Install in reverse order of removal.

### 3-25. Data Plate

*a. Removal.* Refer to figure 3-15.

(1) Remove rivets attaching data plate to body.

(2) Remove data plate.



AT 32584

1-Reflector  
2-Data plate  
3-Rivet  
4-Screw

5-Washer  
6-Washer  
7-Nut

Figure 3-15. Reflector and data plate.

*b. Installation.* Install in reverse order of removal.

### 3-26. Reflector

*a. Removal.* Refer to figure 3-15.

(1) Remove nut (7), washers (5 and 6), and screw (4) attaching reflector (1) to body.

(2) Remove reflector.

*b. Cleaning, inspection, and repair.*

(1) Clean with an approved solvent.

(2) Inspect reflector for damage.

(3) Replace damaged reflector.

*c. Installation.* Install in reverse order of removal.

### 3-27. Body

*a. Removal.* Refer to figure 3-16.

(1) Remove nuts, washers, and bolts attaching body to chassis.

(2) Remove body.

(3) Remove nuts, washers, and bolts attaching fender to body.

(4) Remove fender.



#### REMOVING BODY FROM CHASSIS

TO REMOVE BODY FROM CHASSIS, REMOVE BOLTS, WASHERS AND NUTS AT 14 LUG LOCATIONS. SLIDE BODY TO REAR TO CLEAR 3 FRONT LUGS, LIFT UP AND OFF.

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Figure 3-16. Body.

*b. Cleaning, inspection, and repair.*

(1) **Clean** with an approved solvent.

(2) **Inspect** for corrosion or damage.

(3) Remove corrosion and touchup with paint.

Replace damaged part.

*c. Installation.* Install in reverse order of removal.

### 3-28. Fender

Refer to paragraph 3-27.

### 3-29. Drain Valve Assembly

*a. Removal.* Refer to figure 3-17.

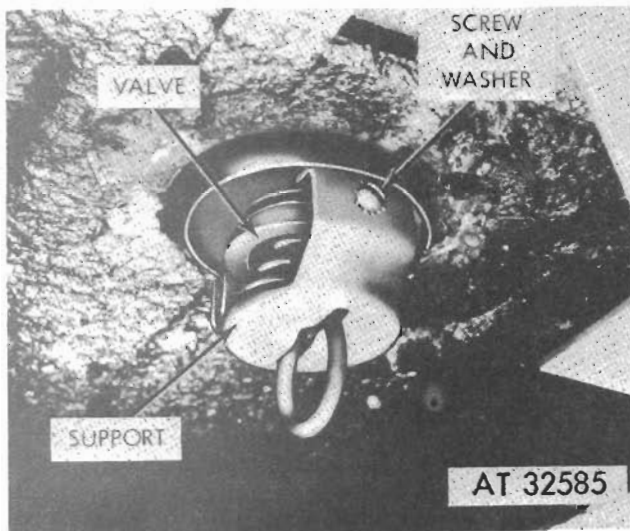


Figure 3-17. Drain valve assembly.

(1) Place valve in closed position and remove screws and washers attaching support to body.

(2) Remove support and valve.

*b. Installation.* Install in reverse order of removal.

### 3-30. Spring Assembly

Refer to paragraph 3-21.

### 3-31. Shock Absorber

Refer to paragraph 3-21.

### 3-32. Tool Chests

*a. Removal*

(1) Remove tools and equipment from tool chest.

(2) Remove cotter pins and flathead pins attaching tool chests to body.

(3) Remove tool chest.

*b. Cleaning, inspection, and repair.*

(1) Clean with an approved solvent.

(2) **Inspect** for corrosion or damage.

(3) Remove corrosion and touchup with paint.

Replace damaged tool chest.

*c. Installation.* Install in reverse order of removal.

### 3-33. Drawbar

*a. Removal.*

(1) Remove the nuts, washers, and bolts attaching the drawbar to the central crossmember of the frame.

(2) Remove the nuts, washers, capscrews and brackets that attach the drawbar to the front crossmember of the frame.

(3) Remove the drawbar.

*b. Installation.* Install in reverse order of removal.

## CHAPTER 4

# SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE

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### Section I. SHIPMENT AND LIMITED STORAGE

#### 4-1. General

Commanders are responsible for insuring that all materiel issued or assigned to their command is maintained in a serviceable condition and properly cared for, and that personnel under their command comply with technical instructions. Lack of time, trained personnel, or proper tools may result in a unit being incapable of performing maintenance for which it is responsible. In such cases, unit commanders, with the approval of major commanders, may place materiel that is beyond the maintenance capability of the unit, in administrative storage or return it to supply agencies. When preparing the trailers for administrative storage or for shipment, the unit commander will be responsible for processing the materiel, including all tools and equipment, in such a manner as to protect it against corrosion, deterioration, and damage during shipment or during periods of administrative storage.

*Note: For ordnance field and depot maintenance personnel, SB 9-43 and TB 9-299/1 are authorized as reference documents for processing, storage and shipment of materiel in conjunction with instructions contained herein.*

#### 4-2. Shipping Instructions

*a. Preparation for Shipment.* Preservation and

other protective measures taken in the preparation of materiel and accompanying tools and equipment for shipment must be sufficient to protect the materiel against deterioration and damage during shipment.

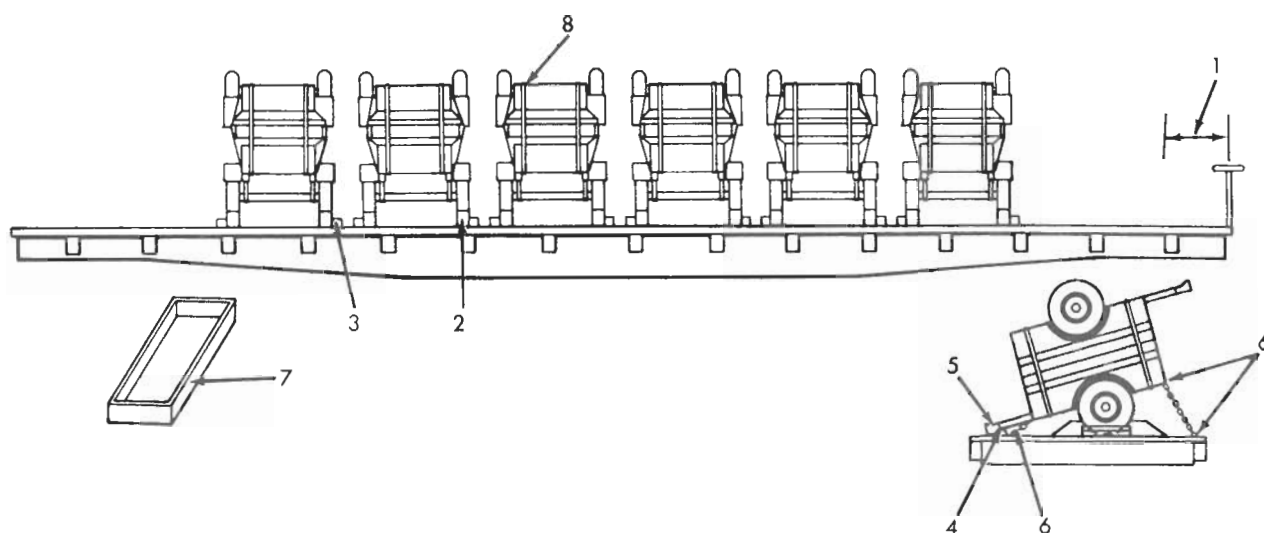
(1) *Preservation.* Protect all critical unpainted metal surfaces during shipment. Oil or grease listed in the lubrication section may be used for this purpose but this type of protection is effective for only a few days and equipment so protected must be frequently watched for signs of corrosion. Selection of preservatives will be such that their application, use, or removal will not damage the surface to which they are applied.

(2) *Marking.* Accomplish marking and identification of trailer according to existing regulations.

*b. Army Shipping Documents.* Prepare all Army shipping documents accompanying freight in accordance with AR 725-5.

#### 4-3. Loading on or in Railroad Cars

On rail cars 9 ft, 6 in. wide, load the trailers crosswise as shown in figure 4-1. On rail cars 10 ft wide, or wider, load the trailers side by side as shown in figure 4-2.



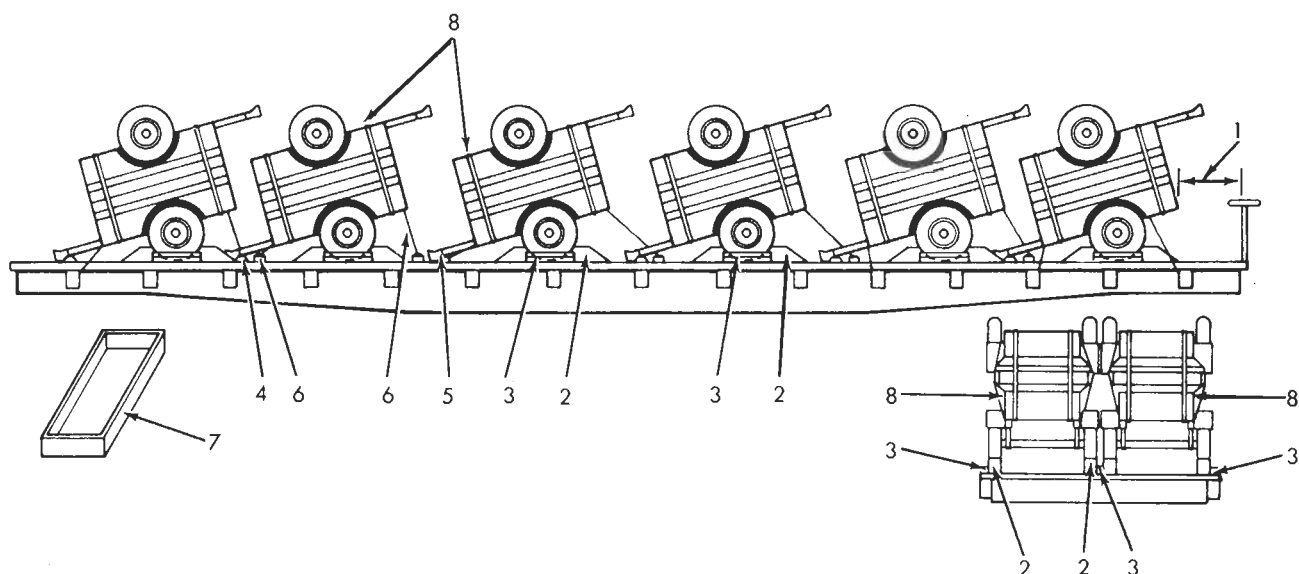
Item	No. of Pcs.	Description
1		Brake wheel clearance.
2	4 ea. bottom unit.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheel. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
3	As required.	Each to consist of two pieces of 2 in. x 4 in. Locate one against tires of outside wheels of units and one between tires of wheels on side by side units. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
4	As required.	2 in. x 4 in. x 24 in. Locate one under tongue and one between units, as shown. Secure each to floor with five 30-D nails.
5	2 ea. bottom unit.	Each to consist of four strands No. 8 gage black annealed wire. Attach to tongue of unit on each side, as shown, and around Item "4."
6	4 ea. bottom unit.	Each to consist of four strands No. 8 gage black annealed wire. Attach to each corner of unit and through stake pockets, or underneath Items "4."
7	As required.	Frame, built up of two lengthwise and two crosswise 2 in. x 6 in., length and width to fully equal inside dimensions of body of unit. Locate inside of truck bodies between each top and bottom unit.
8	As required.	1-1/4 in. x .035 in. high tension bands. Locate two crosswise and one lengthwise, or one crosswise and two lengthwise, around bodies of each top and bottom unit.

Items "7" must be of sufficient height to extend at least two inches inside truck body of top unit.

Suitable cushioning material must be used between Items "3" and tires to prevent chafing.

AT 32586

*Figure 4-1. Loading crosswise on railroad cars.*



Item	No. of Pcs.	Description
1		Brake wheel clearance.
2	4 ea. bottom unit.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheel. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
3	As required.	Each to consist of two pieces of 2 in. x 4 in. Locate one against tires of outside wheels of units and one between tires of wheels on side by side units. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
4	As required.	2 in. x 4 in. x 24 in. Locate one under tongue and one between units, as shown. Secure each to floor with five 30-D nails.
5	2 ea. bottom unit.	Each to consist of four strands No. 8 gage black annealed wire. Attach to tongue of unit on each side, as shown, and around Item "4."
6	4 ea. bottom unit.	Each to consist of four strands No. 8 gage black annealed wire. Attach to each corner of unit and through stake pockets, or underneath Items "4."
7	As required.	Frame, built up of two lengthwise and two crosswise 2 in. x 6 in., length and width to fully equal inside dimensions of body of unit. Locate inside of truck bodies between each top and bottom unit.
8	As required.	1-1/4 in. x .035 in. high tension bands. Locate two crosswise and one lengthwise, or one crosswise and two lengthwise, around bodies of each top and bottom unit.

Items "7" must be of sufficient height to extend at least two inches inside truck body of top unit.

Suitable cushioning material must be used between Items "3" and tires to prevent chafing.

AT 32598

*Figure 4-2. Loading side by side on railroad cars.*



a. Load and unload materiel with the use of hoisting equipment, when applicable.

*Note: The height and width of materiel, when prepared for rail transportation, must not exceed the limitations indicated in the loading table in TM 55-200. Whenever possible, local transportation officers must be consulted about the limitations of the particular railroad lines to be used, in order to avoid delays, dangerous conditions, and damage to equipment.*

b. When suitable hoisting equipment is not applicable and other methods of loading and pivoting materiel into balanced position on flatcar are necessary, refer to flatcar loading table in TM 55-200.

*Note: Any other loading instructions, regardless of source, which appear to be in conflict with this publication or existing loading rules of the carriers, must be submitted for approval to the proper authorities.*

#### 4-4. Shipment by Truck

The trailers can be shipped by truck. The loading pattern will vary according to truck size and controlling regulations.

#### 4-5. Limited Storage

a. *Time Limitations.* Administrative storage is restricted to a period of 90 days and must not be extended unless the vehicle is reprocessed (b. below).

b. *Storage Procedure.* Limit disassembly to that necessary to clean and preserve surfaces. Except as otherwise noted, and to the maximum extent consistent with safe storage, place materiel in administrative storage in as nearly a completely assembled condition as practicable. Install equipment and make adjustments so that the materiel may be placed in service and operated with a minimum of delay.

(1) Store materiel on level ground in the most favorable location available, preferably one which

affords protection from exposure to the elements and from pilferage.

(2) Perform a semi-annual preventive maintenance (PM) service on materiel intended for administrative storage. This maintenance will consist of inspecting, cleaning, servicing, preserving, lubricating, adjusting, and minor replacement of repair parts, if required.

(3) Provide adequate drainage for materiel.

(4) Store all boxed materiel in outdoor storage on suitable dunnage.

(5) Provide access to the materiel to permit inspection, servicing, and subsequent removal from storage.

(6) Mark the materiel "Administrative Storage" (using tags, or other convenient method). Materiel so marked will not be operated while in this category.

#### c. Inspection in Administrative Storage.

(1) Conduct visual inspection of materiel in administrative storage at least once each month and immediately following hard rains, heavy snow storms, wind storms, or other severe weather conditions. Disassemble as necessary to ascertain fully the extent of any deterioration or damage found. Maintain a record of these inspections for each materiel in administrative storage and attach it to the materiel in such a manner as to protect the record from the elements.

(2) When rust or deterioration is found on any unpainted area, necessary reprocessing for administrative storage will be immediately accomplished. Promptly repair damage caused to the materiel by severe weather conditions. Repair as necessary deterioration or damage to on-vehicle equipment (OVE) packaging. Thoroughly clean, dry and repaint painted surfaces showing evidence of deterioration, using paint of the same quality and color as the original paint.

## Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

#### 4-6. General

a. *Destruction* of the ¼-ton 2-wheel cargo trailer or chassis trailer, when subject to capture or abandonment in the combat zone, will be undertaken by the using arm only when, in the judgement of the unit commander concerned, such action is necessary in accordance with orders of, or policy established by, the army commander.

b. *The information* which follows is for guidance only. Certain of the procedures outlined require the use of explosives and incendiary grenades which normally may not be authorized items for the vehicle. The issue of these and related materials,

and the conditions under which destruction will be effected, are command decisions in each case, according to the tactical situation. Of the several means of destruction, those most generally applicable are:

Mechanical	Requires axe, pick mattock, sledge, crowbar, or similar implement.
Burning	Requires gasoline, oil, incendiary grenades, or other inflammables.
Demolition	Requires suitable explosives or ammunition.

## Gunfire

Includes artillery, machine guns, rifles using rifle grenades, and launchers using antitank rockets. Under some circumstances hand grenades may be used.

In general, destruction of essential parts, followed by burning will usually be sufficient to render the materiel useless. However, selection of the particular method of destruction requires imagination and resourcefulness in the utilization of the facilities at hand under the existing conditions. Time is usually critical.

c. If destruction to prevent enemy use is resorted to, the materiel must be so badly damaged that it cannot be restored to a usable condition in the combat zone either by repair or cannibalization. Adequate destruction requires that all parts essential to the operation of the materiel, including essential spare parts, be destroyed or damaged beyond repair. However, when lack of time and personnel prevents destruction of all parts, give priority to the destruction of those parts most difficult to replace. Equally important, destroy the same essential parts on all like materiel so that the enemy cannot construct one complete unit from several damaged ones.

d. If destruction is directed, due consideration should be given to:

(1) Selection of a point of destruction that will cause greatest obstruction to enemy movement and also prevent hazard to friendly troops from fragments of ricocheting projectiles which may occur incidental to the destruction.

(2) Observance of appropriate safety precautions.

## 4-7. Destruction of Equipment

### a. Method No. 1 — With Demolition Materials.

(1) Prepare two 2-pound charges of TNT (two 1-lb blocks or equivalent per charge together with the necessary detonating cord). Set the two charges on the axle—one close to the left spring and the other close to the right spring. Connect the two charges for simultaneous detonation with detonating cord. Provide for dual priming to minimize the possibility of a misfire.

(2) For priming, use either a nonelectric blasting cap crimped to at least 5 feet of safety fuse (safety fuse burns at the rate of 1 foot in 30 to 45 seconds-test before using), or an electric blasting

cap and firing wire. Protect the safety fuse, which contains black powder, and blasting caps from moisture at all times. Ignite the safety fuse with a fuse lighter or a match; the electric blasting cap requires a blasting machine or equivalent source of electricity.

**WARNING: Keep the blasting caps, detonating cord, and safety fuse separated from the charges until required for use.**

*Note: For the successful execution of methods of destruction involving the use of demolition materials, all personnel concerned will be thoroughly familiar with the provisions of FM 5-25. Training and careful planning are essential.*

(3) Destroy the tires by placing an incendiary grenade under each tire. Delay the detonation of the explosive charges until the incendiary fires are well started; this will prevent the fires from being extinguished by the blast when the charges are detonated.

(4) Detonate the charges. If primed with nonelectric blasting cap and safety fuse, ignite and take cover. If primed with electric blasting cap, take cover before firing the charges. Elapsed time: about 5 minutes.

### b. Method No. 2 — By Gunfire.

(1) Destroy the tires by use of incendiary grenades (a. (3) above). If grenades are not available, destroy the tires by slashing. If tires are inflated, exercise care to prevent injury should the tires blow out while being slashed. Whenever practicable, deflate tires before slashing.

**WARNING: Firing at ranges of 500 yards or less should be from cover.**

(2) Destroy the trailer by gunfire using artillery, machine guns, rifles using rifle grenades, or launchers using antitank rockets. Fire on the trailer aiming at the wheels, axles, and towing bracket. Although one well placed direct hit may destroy the trailer, several hits are usually required for complete destruction. Elapsed time: about 4 minutes.

**WARNING: When igniting gasoline, be cautious; gasoline and its vapor are highly flammable. Carelessness in its use may result in painful burns.**

c. Method No. 3 — By Burning. Destruction of essential parts followed by burning in an intense fire will usually render the trailer useless. However, effective destruction by burning requires large amounts of combustible. Elapsed time: about 5 minutes.

## CHAPTER 5

# DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE INSTRUCTIONS

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### Section I. GENERAL

#### 5-1. Scope

This chapter contains instructions for the use of direct support and general support maintenance personnel maintaining the trailers as allocated by the Maintenance Allocation Chart. It provides information on the maintenance of the equipment

which is beyond the scope of the tools, equipment, personnel, or supplies normally available to organizational level maintenance.

#### 5-2. Forms and Records

Refer to paragraph 1-2.

### Section II. DESCRIPTION AND DATA

#### 5-3. Description

For complete description of the trailers see paragraph 1-3.

#### 5-4. Tabulated Data

Refer to paragraph 1-4.

### Section III. REPAIR PARTS, SPECIAL TOOLS, AND EQUIPMENT

#### 5-5. Special Tools and Equipment

The special tools required to perform direct support and general support level maintenance on the trailers are listed in table 1 and appendix C of this manual. References indicating the use of these tools are listed in the table.

repair parts are listed and illustrated in appendix C of this manual.

#### 5-6. Direct Support and General Support Maintenance Repair Parts

Direct support and general support maintenance

#### 5-7. Specially Designed (Fabricated) Tools and Equipment

No specially designed tools or equipment are required for direct support and general support maintenance level maintenance of the trailers.

## CHAPTER 6

### REPAIR INSTRUCTIONS

#### 6-1. General

The following instructions cover the repair of the trailers on the direct and general support maintenance levels.

#### 6-2. Brake Shoes

a. *Removal.* Remove the brake shoe (para 3-10).

b. *Cleaning, inspection, and repair.*

(1) Clean the brake shoe with an approved solvent and dry thoroughly. Use compressed air to remove residue left by deteriorated brake linings.

(2) Inspect brake lining and replace if worn beyond safe limits.

(3) Punch out rivets holding brake linings to brake shoes (both front and rear).

(4) Rivet new lining in place on both shoes.  
c. *Installation.* Install brake shoe by reversing the removal procedures (para 3-10).

#### 6-3. Axle

a. *Removal.* Remove trailer axle (para 3-11).

b. *Cleaning, inspection, and repair.*

(1) Clean axle with an approved solvent.

(2) Inspect positioning pads, spring seats, and brake backing plate flange for cracks in the weld (fig. 6-1).

(3) Weld any loose positioning pads, spring seats or brake backing plates flanges in place (fig. 6-1).

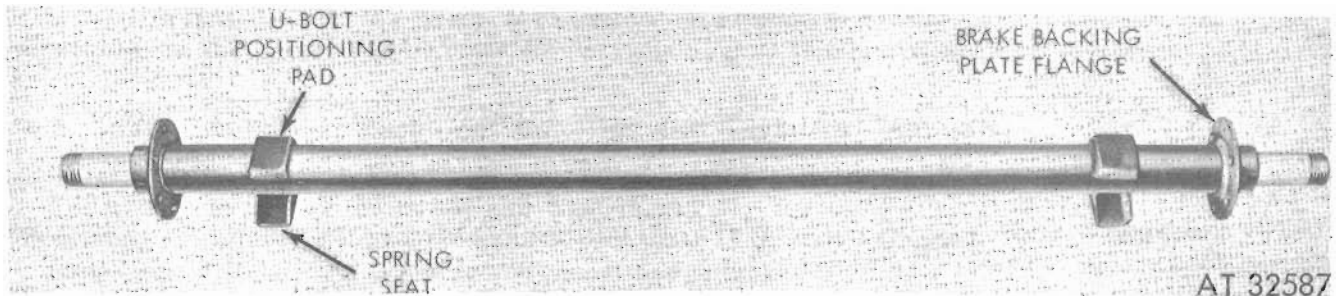


Figure 6-1. Axle assembly.

#### 6-4. Brake Drum

a. *Removal.* Refer to paragraph 3-13.

b. *Cleaning, inspection, and repair.*

(1) Use compressed air to remove residue left by deteriorated brake lining.

(2) Inspect inner surface of drum for scratches or scoring.

(3) Turn brake drum on a lathe. Remove enough material to eliminate scratches and scoring.

c. *Installation.* Install brake drum by reversing removal procedure (para 3-13).

#### 6-5. Drawbar

a. *Removal.* Remove drawbar assembly (para 3-33).

b. *Disassembly.*

(1) Remove lunette (18, fig. 3-13) by removing cotter pin (5) and attaching nut (7). Remove compression spring (9) and washers (10).

(2) Remove lunette bracket (11), support leg (16), and safety chains (2) by removing bolt (6).

(3) Remove support leg from the support leg bracket.

c. *Cleaning, inspection, and repair.*

(1) Clean all parts with a suitable solvent.

(2) Inspect all parts for cracks or breaks in the weld.

(3) Repair cracks or breaks in the weld by welding. All welds should be in accordance with TM 9-237.

(4) Reassemble drawbar assembly reversing disassembly procedure.

(5) Install drawbar by reversing removal instructions (para 3-33).

#### 6-6. Springs

a. *Removal.* Remove springs from trailer (para 3-17).

b. *Cleaning, inspection, and repair.*

(1) Clean away accumulation of dirt and grease at ends of springs using suitable solvent.

(2) Inspect spring for broken leaves.

(3) Replace any leaves found broken. Canabalize from a disabled vehicle.

c. *Installation.* Install springs by reversing the removal procedures (para 3-17).

## **6-7. Body**

*a. Removal.* Remove body and fenders from chassis (para 3-27).

*b. Disassembly.* Remove fenders from body by removing capscrews holding them in place.

*c. Cleaning, inspection, and repair.*

(1) Inspect body for cracks or breaks in the weld.

(2) Repair cracks and / or breaks by welding according in accordance with TM 9-237.

*d. Reassembly.* Reassemble body and fenders by reversing disassembly procedures.

*e. Installation.* Install body and fenders by reversing removal procedures.

## **6-8. Canvas Paulin**

*a. Removal.* Remove paulin from trailer box (para 3-24).

*b. Repair.* Repair any tears or pulled seams by sewing to Federal Standard 751 (type 301).

*c. Installation.* Secure paulin to trailer box (para 3-24).

## APPENDIX A

### REFERENCES

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#### A-1. Publication Indexes

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

Index of Army Motion Pictures, Television Recordings and Film Strips	DA PAM 108-1
Military Publication:	
Index of Administrative Publications	DA PAM 310-1
Index of Blank Forms	DA PAM 310-2
Index of Training Publications	DA PAM 310-3
Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8 and 9), Supply Bulletins and Lubrication orders.	DA PAM 310-4
Index of Graphic Training Aids and Devices	DA PAM 310-5
Index of Supply Manuals — Ordnance Corps	DA PAM 310-29

#### A-2. Forms

Refer to TM 38-750, the Army Maintenance Management System (TAMMS), for instructions on the use of maintenance forms pertaining to this materiel.

#### A-3. Supply Bulletins, Technical Bulletins and Technical Manuals.

General Supply: Storage and Shipment of Rubber Tires (Unmounted). Tubes, Rubber Repair Materials and Camelback	SB 9-43
Processing of Unboxed Self-propelled and Towed Class II Ordnance General Supplies and Related Materiel for Shipment and Storage	TB9-299 / 1
Functional Grouping Codes: Combat, Tactical, and Support Vehicles and Special Purpose Equipment	TB750-93-1
Painting Instructions for Field Use	TM 9-213
Operator's Manual: Welding Theory and Application (To 34W4-1-5)	TM 9-237
Care and Maintenance of Pneumatic Tires	TM 9-1870-1
Army Maintenance Management System (TAMMS)	TM 38-750
Railway Operating Rules (TO 45-1-5)	TM 55-200

## APPENDIX B

### MAINTENANCE ALLOCATION CHART

#### B-1. General

The maintenance allocation chart (MAC) assigns authorized maintenance functions to each maintenance category. These functions are assigned to the lowest available maintenance category based on past experience in the following considerations:

- a. Skills Available.
- b. Time Required
- c. Tools and Test Equipment Authorized

If the maintenance function is a replacement function only, the item is not listed in the MAC. Such an item, if included in the Repair Parts and Special Tool List for the end item, is automatic authority to replace at the lowest maintenance level to which the part is authorized. Deviation from maintenance operations as allocated in the MAC is authorized only upon approval of the Army Commander representative.

#### B-2. Definitions

Maintenance functions will be limited to and defined as follows:

- a. *Inspect.* To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.
- b. *Test.* To verify serviceability and to detect electrical or mechanical failure by use of test equipment.
- c. *Service.* To clean, preserve, charge, and add fuel, lubricants, cooling agents, and air.
- d. *Adjust.* To rectify to the extent necessary to bring into proper operating range.
- e. *Align.* To adjust specified variable elements of an item to bring to optimum performance.
- f. *Calibrate.* To determine the corrections to be made in the readings of instruments or test equipment used in precise measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.
- g. *Install.* To set up for use in an operational environment such as an emplacement, site, or vehicle.
- h. *Replace.* To replace unserviceable items with serviceable assemblies, subassemblies, or parts.
- i. *Repair.* Those maintenance operations necessary to restore an item to serviceable condition through correction of material damage or a specific

failure. Repair may be accomplished at each category of maintenance.

j. *Overhaul.* Normally, the highest degree of maintenance performed by the Army in order to minimize time work is in process consistent with quality and economy of operation. It consists of that maintenance necessary to restore an item to completely serviceable condition as prescribed by maintenance standards in technical publications for each item of equipment. Overhaul normally does not return an item to like new, zero mileage, or zero hour condition.

k. *Rebuild.* The highest degree of materiel maintenance. It consists of restoring equipment as nearly as possible to new condition in accordance with original manufacturing standards. Rebuild is performed only when required by operational considerations or other paramount factors and then only at the depot maintenance category. Rebuild reduces to zero the hours or miles the equipment, or component thereof, has been in use.

#### B-3. Symbols

The letters placed in the columns indicate the level responsible for performing the particular maintenance function. The letters indicate the category of maintenance involved as follows:

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

#### B-4. Explanation of Columns

a. *Group Number (Column 1).* This column lists the functional grouping codes as assigned in TB 750-93-1.

b. *Functional Group (Column 2).* This column lists the noun names of components, assemblies, and subassemblies on which maintenance is authorized.

c. *Maintenance Functions (Column 3).* Refer to paragraph B-2 above.

d. *Tools and Equipment (Column 4).* This column will either list the tool by code or provide a reference in the manual that outlines the procedure and tool required to perform the designated function.

e. *Remarks (Column 5).* This column will list any special information or special conditions required for performance of the designated maintenance function.



**MAINTENANCE ALLOCATION CHART  
FOR  
TRAILER, CARGO, M416, M416B1, TRAILER, CHASSIS, M569  
M569B1, M762 AND TRAILER, CABLE SPLICER, M716**

(1) Group number	(2) Functional group	(3) Maintenance function											(4) Tools and equipment	(5) Remarks
		Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild		
	<b>GROUP—06</b>													
	Electrical System													
0609	Lamps	C							C					
	Lights	C							O	O				
0613	Harness, Wiring Chassis	O							O					
	Cable, Intervehicular	C							O					
	<b>GROUP—11</b>													
	Rear Axle													
1100	Rear Axle Assembly	O							O	F				
	<b>GROUP—12</b>													
	Brakes													
1201	Hand Brakes, Control and Linkage	O							O	O				
	Brake Shoe	O			O				O	F				
	<b>GROUP—13</b>													
	Wheels and Tracks													
1311	Wheel	O							O					
	Drum	O							O	F				
	Hub	O							O					
	Stud	O							O					
	Seal, Oil	O							O					
1313	Tires, Tubes, Tire Chains													
	Tires	C							O					
	Tubes	O							O					
	<b>GROUP—15</b>													
	Frame, Towing Attachments and													
	Drawbars													
1503	Bar, Drawbar	O							O	F				
	Bracket, Lunette	O		C	O				O					
	Lunette	O							O					
	Chain, Safety	C							O	F				
1507	Leg, Support	O		C					O					
	<b>GROUP—16</b>													
	Springs and Shock Absorbers													
1601	Spring	O		C					O	F				
	Bumper, Rubber	O							O					
1604	Absorber, Shock	O							O					
	<b>GROUP—18</b>													
	Body, Cab, Hood and Hull													
1801	Body	O		C					O	F				
1802	Fenders	O		C					O	F				
1804	Valve, Drain	C												
	<b>GROUP—22</b>													
	Body, Chassis or Accessory Items													
2201	Paulin, Canvas	C								F				
2202	Reflector	C							O					
	Cap, Hub	O							O					
2210	Plate, Vehicle Data	C							O					
	Decalcomania	C							O					
	Diagram													
	Plate, Name							O	O					
	<b>GROUP—80</b>													
	Storage Equipment components													
	Chest	C												

## APPENDIX C

### ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT

#### REPAIR PARTS AND SPECIAL TOOLS LIST

##### Section I. INTRODUCTION

###### C-1. Scope

This manual lists basic issue items, repair parts and special tools required for the performance of organizational, direct support and general support maintenance of the trailers.

###### C-2. General

a. Individual parts and major assemblies in the repair parts list are listed alphabetically by item name within the numbered functional groups.

b. This Basic Issue Items, Repair Parts and Special Tools List is divided into the following sections:

(1) *Basic Issue Items — Section II.* A list of items which accompany the Cargo Trailer, M416, M416B1, Chassis Trailer M569, M569B1, M762 and Cable Splicer Trailer M716 and are required by the operator / crew for installation, operation, or maintenance.

(2) *Maintenance and Operating Supplies.* Not applicable.

(3) *Prescribed Load Allowance (PLA) — Section III.* A consolidated listing of repair parts quantitatively allocated for initial stockage at the organizational level. This is a mandatory minimum stockage allowance.

(4) *Special Tools, Test and Support Equipment — Section IV.* A list of special tools, test and support equipment authorized for the performance of maintenance at the organizational, direct support and general support levels.

(5) *Repair Parts — Section V.* A list of repair parts authorized for the performance of maintenance at the organizational and direct and general support levels.

(6) *Federal Stock Number and Reference Number Index — Section VI.* A list of Federal stock numbers followed by reference numbers, appearing in all the listings, in ascending alphanumeric sequence cross-referenced to index number.

###### C-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists in sections II through V.

a. *Source, Maintenance, and Recoverability Codes (SMR).*

(1) *Source Code.* Indicates the selection status and source for the listed item. Source codes used are:

Code	Explanation
P	Applied to repair parts which are stocked in or supplied from DSA/GSA or Army supply system, and authorized for use at indicated maintenance categories.
X	Applied to parts and assemblies which are not procured or stocked, the mortality of which is normally below that of the applicable end item, and the failure of which should result in retirement of the end item from the supply system.
X1	Applied to repair parts which are not procured or stocked, the requirement for which will be supplied by use of the next higher assembly or components.
X2	Applied to repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain them through cannibalization or salvage; if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels. Note: Source code and level of maintenance are not shown on common hardware items known to be readily available in Army supply channels and through local procurement.

(2) *Maintenance Code.* Indicates the lowest category of maintenance authorized to install the listed item. The maintenance level codes are:

Code	Explanation
O	Organizational maintenance
F	Direct support maintenance
H	General support maintenance

(3) *Recoverability Code.* Indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are:

Code	Explanation
R	Applied to repair parts and assemblies which are economically repairable at direct and general support maintenance levels and normally will be replaced by supply on an exchange basis.
T	Applied to high dollar valve repair parts which are subject to special handling and are most economically repaired, overhauled, or rebuilt at depot maintenance level. These repair parts will be recovered at the depot maintenance level and will be replaced from supply on an exchange basis.

**Code****Explanation**

U Applied to repair parts specifically selected for salvage because of precious metal content, critical materials; high-dollar value, reusable casing or casting material, etc. These repair parts will be recovered at the maintenance level prescribed by the commodity command.

*b. Federal Stock Number.* Indicates the Federal stock number for the item.

*c. Description.* Indicates the Federal item name and any additional description of the item required. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses. Repair parts quantities included in the kits, sets, and assemblies are shown in front of the repair part name.

*d. Unit of Measure.* A two character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g. ft, ea, pr, etc.

*e. Quantity Incorporated in Unit Pack.* Indicates the actual quantity contained in the unit pack.

*f. Quantity Incorporated in Unit.* Indicates the quantity of repair parts in a functional group.

*g. Quantity Furnished with the Equipment.* Indicates the quantity of an item furnished with the equipment (BIIL only).

*h. Fifteen-Day Organizational Maintenance Allowances.*

(1) The allowance columns are divided into four subcolumns. Indicated in each subcolumn opposite the first appearance of each item is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the allowance columns. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for organizational level of maintenance represent one initial prescribed load for a 15-day period for the number of equipments supported. Units and organizations authorized additional prescribed loads will multiply the number of prescribed loads authorized by the quantity of repair parts reflected in the appropriate density column to obtain the total quantity of repair parts authorized.

(3) Organizational units providing maintenance for more than 100 of these equipments shall determine the total quantity of parts required by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. Example, authorized allowance for 51-100

equipments is 12; for 140 equipments multiply 12 by 1.40 or 16.80 rounded off to 17 parts required.

(4) Subsequent changes to allowances will be limited as follows: no change in the range of items is authorized. If additional items are considered necessary, recommendation should be forwarded to Commanding General, U.S. Army Tank-Automotive Command, Warren, Michigan. ATTN: AMSTA-MT, for exception or revision to the allowance list. Revisions to the range of items authorized will be made by U. S. Army Tank-Automotive Command, based upon engineering experience, demand data, or TAERS information.

*i. Thirty-Day DS / GS Maintenance Allowances.*

(1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn, opposite the first appearance of each item is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the applicable allowance columns. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for DS / GS levels of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100 of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. Example, authorized allowance for 51-100 equipments is 40; for 150 equipments, multiply 40 by 1.50 or 60 parts required.

*j. One-Year Allowances Per 100 Equipments / Contingency Planning Purposes.* Indicates opposite the first appearance of each item the total quantity required for distribution and contingency planning purposes. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for one year.

*k. Illustration.*

(1) *Figure Number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item Number.* Indicates the callout number used to reference the item in the illustration.

#### **C-4. Special Information**

*a. Identification of the usable on codes of this publication are:*

<i>Code</i>	<i>Used On</i>
A	M416
B	M416B1
C	M569
D	M569B1
E	M762
F	M716

b. Repair parts mortality has been based on 2080 hours of operation per year.

c. Parts which require manufacture or assembly at a category higher than that authorized for installation will indicate in the source column the higher category.

### C-5. How to Locate Repair Parts

a. When Federal stock number or reference number is unknown:

(1) First. Using the table of contents, determine the functional group or subgroup within which the repair part belongs. This is necessary since illustrations are prepared for functional groups and listings are divided into the same groups.

(2) Second. Find the illustration covering the functional group, to which the repair part belongs.

(3) Third. Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(4) Fourth. Using the Repair Parts Listing, find the functional group to which the repair part belongs and locate the illustration figure and item number noted on the illustration.

b. When Federal stock number or reference number is known:

(1) First. Using the Index of Federal Stock Numbers and Reference Numbers, find the pertinent Federal stock number or reference number. This index is in ascending FSN sequence followed by a list of reference numbers in alpha-numeric sequence, cross referenced to the illustration figure number and item number.

(2) Second. Using the Repair Part Listing, find the functional group of the repair part and the illustration figure number and item number referenced in the Index of Federal Stock Numbers and Reference Numbers.

### C-6. Abbreviations

<i>Abbreviations</i>	<i>Explanation</i>
b.o. ....	blackout
r.h. ....	right hand
l.h. ....	left hand
brg ....	bearing
ret ....	retainer

### C-7. Federal Supply Codes for Manufacturers

<i>Code</i>	<i>Manufacturer</i>
19207	Army Tank-Automotive Command
96906	Military Standards—Standardization Div. Directorate of Logistic Services DSA

## Section II. BASIC ISSUE ITEMS

(1) SMR Code	(2) Federal Stock Number	(3)		(4) Unit of Meas	(5) Qty Inc in Unit	(6) Qty Furn With Equip	(7) Illustration	
		Reference Number and Mfr. Code	Description  Usable On Code				(a) Figure No.	(b) Item No.
NR NR NR NR NR NR			<b>GROUP 3100</b>					
	2330-706-5495		TRAILER, CARGO: ¼ Ton, 2-wheel M416 w / e					
	2330-017-9589		TRAILER, CARGO: ¼ Ton, 2-wheel M416B1					
	2330-884-4817		TRAILER, CHASSIS, ¼ Ton, 2-wheel M569					
	2330-226-5649		TRAILER, CHASSIS ¼ Ton, 2-wheel M569B1					
	2330-933-7462		TRAILER, CHASSIS, ¾ Ton, 2-wheel M762					
	2330-782-6062		TRAILER, CABLE SPLICER, ¼ Ton, 2-wheel M716					
			<i>Publications</i>					
			DA Form 2409					
			TM 9-2330-251-14					
	2540-863-5598		PAULIN: cargo body, mfg installed (stowed on trailer floor)					

### Section III. PRESCRIBED LOAD ALLOWANCE

(1) FEDERAL STOCK NUMBER	(2) DESCRIPTION	(3) 15-Day Organizational Maintenance Allowance			
		(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
	GROUP 06—ELECTRICAL SYSTEM				
	0609—LIGHTS				
5330-297-7106	PACKING, PREFORMED	*	1	2	3
6220-678-9047	GASKET	*	1	2	3
6220-775-2384	DOOR ASSEMBLY, SIGNAL LAMP	*	1	2	3
6240-019-0877	LAMP, INCANDESCENT	2	3	6	9
6240-044-6914	LAMP, INCANDESCENT	2	3	6	9
	GROUP 13—WHEELS				
	1311—WHEEL ASSEMBLY				
2530-678-1759	SEAL, PLAIN, ENCASED	1	1	1	2
3110-678-1862	CUP, TAPERED ROLLER	1	1	1	2
3110-727-6901	BEARING, ROLLER, TAPERED	1	1	1	2
	1313—TIRES AND TUBES				
2610-269-7332	INNER TUBE, 7.00-16	*	1	2	3
2610-350-9975	INNER TUBE, 6.00-16	B *	1	2	3
2610-678-1363	TIRE, PNEUMATIC, 7.00-16	B *	1	2	3
2610-752-7610	TIRE, PNEUMATIC, 6.00-16	B *	1	2	3
2640-050-1229	VALVE CORE	*	1	2	3
2640-052-0944	CAP, TIRE VALVE	*	1	2	3
	GROUP 16—SPRINGS AND SHOCK ABSORBERS				
	1601—SPRINGS				
2510-732-8358	SPRING ASSEMBLY, LEAF	1	1	2	2
5306-575-5421	BOLT, "U"	1	1	2	2
5310-050-2341	WASHER, "U" BOLT	1	1	2	2
5310-732-8296	NUT, PLAIN, HEXAGON, "U" BOLT	1	1	2	2
5340-732-8323	SEAL, SHACKLE, L AND R	*	1	1	2
	1604—SHOCK ABSORBER EQUIPMENT				
2540-769-7442	SHOCK ABSORBER	1	1	1	2
5340-734-3032	BUSHING, RUBBER	*	1	1	2
	GROUP 22—ACCESSORY ITEMS				
	2202—ACCESSORY ITEM				
9905-205-2795	REFLECTOR	A *	1	1	2
	GROUP 26—TOOLS AND TEST EQUIPMENT				
	2604—SPECIAL TOOLS				
5120-596-1370	WRENCH	1	1	1	1
5120-708-0100	WRENCH	1	1	1	1

**Section IV. SPECIAL TOOLS, TEST AND SUPPORT EQUIPMENT FOR ORGANIZATIONAL,  
DIRECT AND GENERAL SUPPORT MAINTENANCE**

(1) Source, Maint & Recov. Code			(2) Federal Stock Number	(3) Description	(4) Unit of Meas	(5) Qty Inc in Unit	(6) 15-Day Org Maint Alw.				(7) 30-Day D / S Maint Alw.			(8) 30-Day G / S Maint Alw.			(9) 1-Yr. Alw. Per 100 Equip Cntgcy Planning	(10) Illustration	
(a)	(b)	(c)					(a)	(b)	(c)	(d)	(a)	(b)	(c)	(a)	(b)	(c)		(a)	(b)
Source	Maint	Recov					1- 5	6- 20	21- 50	51- 100	1- 20	21- 50	51- 100	1- 20	21- 50	51- 100		Fig. No.	Item No.
			5120-596-1370	WRENCH: socket			1	1	1	1								C1	1
			5120-708-0100	WRENCH: open end, fixed			1	1	1	1								C1	2



## Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

(1) Source, Maint & Recov. Code			(2) Federal Stock Number	(3) Description	(4) Unit of Meas	(5) Qty Inc in Unit	(6) 15-Day Org Maint Alw.			(7) 30-Day D / S Maint Alw.			(8) 30-Day G / S Maint Alw.			(9) 1-Yr. Alw. Per 100 Equip Cntgcy Planning	(10) Illustration	
(a) Source	(b) Maint	(c) Recov					(a) 1- 5	(b) 6- 20	(c) 21- 50	(d) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) 1- 20	(b) 21- 50		(c) 51- 100	(a) Fig. No.
				GROUP 06 ELECTRICAL SYSTEM														
				0609 LIGHTS														
X2	O			BRACKET: 71770 (19207)	EA	1											C2	6
X2	O			BRACKET: 7328268 (19207)	EA	1											C2	3
X2	O			BRACKET: b.o. light 7328267 (19207)	EA	1											C2	13
P	O		6220-775-2384	DOOR: w / lens, b.o. light 8741646 (19207)	EA	1	*	1	2	3	2	4	6	2	4	6	C2	21
P	O		6220-752-6020	DOOR: tail and stoplight 7526020 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C2	25
P	O		6220-678-9047	GASKET: b.o. light 8694464 (19207)	EA	1	*	1	2	3	2	4	6	2	4	6	C2	20
X2	O			INSULATOR: 7064900 (19207)	EA	2											C2	16
P	O		6240-019-0877	LAMP: incandescent MS15570-1251 (96906)	EA	5	2	3	6	9	5	9	15	5	9	15	C2	19
P	O		6240-044-6914	LAMP: incandescent MS35478-1683 (96906)	EA	2	2	3	6	9	5	9	15	5	9	15	C2	23
P	O		6220-846-9745	LIGHT: b.o. 8741645 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C2	12
P	O		6220-669-5523	LIGHT: tail and stop 8738785 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C2	1
X2	O			NUT: 120369 (19207)	EA	4											C2	5
P	O		5330-297-7106	PACKING: preformed 7320658 (19207)	EA	2	*	1	2	3	2	4	6	2	4	6	C2	24
P	O		5305-022-7139	SCREW: b.o. light, door 7320691 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C2	22
P	O		5305-637-4037	SCREW: taillight, attaching MS35291-59 (96906)	EA	2	*	*	*	*	*	*	*	*	*	*	C2	14
X2	O			SCREW: 11720-2818 (19207)	EA	2											C2	8
X2	O			SCREW: 11721 (19207)	EA	1											C2	9
X2	O			SCREW: 120741 (19207)	EA	4											C2	11
X2	O			SCREW: 8335233 (19207)	EA	2											C2	18
X2	O			SCREW: 8741645 (19207)	EA	6											C2	26
X2	O			SCREW: 121749 (19207)	EA	2											C2	27
X2	O			SCREW: 121882 (19207)	EA	2											C2	29
X2	O			SHELL: 7982399 (19207)	EA	1											C2	15
X2	O			SOCKET AND WIRING ASSEMBLY: 8378661 (19207)	EA	1											C2	30
P	O		5310-012-0214	WASHER: blackout light, attaching MS35338-26 (96906)	EA	1	*	*	*	*	*	*	*	*	*	*	C2	10
P	O		5310-017-8551	WASHER: taillight attaching 178551 (19207)	EA	4	*	*	*	*	*	*	*	*	*	*	C2	2

# Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

(1) Source, Maint & Recv. Code			(2) Federal Stock Number	(3) Description	(4) Unit of Meas	(5) Qty in Unit	(6) 15-Day Org Maint Alw.			(7) 30-Day D./S Maint Alw.			(8) 30-Day G./S Maint Alw.			(9) E-Yr. Alw. Per 100 Equip Cntry Planning	(10) Illustration	
(a) Source	(b) Maint	(c) Recv					(a) 1- 5	(b) 6- 20	(c) 21- 50	(d) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) Fig. No.	(b) Item No.
P	O		5310-637-8541	WASHER: taillight, attaching MS3338-46 (96906)	EA	4	*	*	*	*	*	*	*	*	*	*	C2	7
X2	O			WASHER: MS3338-26 (96906)	EA	4											C2	4
X2	O			WASHER: 8386476 (19207)	EA	2											C2	17
X2	O			WASHER: 121841 (19207)	EA	2											C2	28
X2	O		9905-752-4649	0613 CHASSIS WIRING HARNESS BAND: circuit marker MS39020-1 (96906)	EA	13											C3	20
X2	O		2590-446-3159	BODY ASSEMBLY: cable plug 8724316 (19207)	EA	1											C3	9
X2	O		5365-507-1031	BUSHING: 7358188 (19207)	EA	1											C3	8
X2	O		2590-830-6663	CABLE ASSEMBLY: power, electrical 8683516 (19207)	EA	1											C3	1
X2	O		2590-855-9304	CABLE: 7056684 (19207)	EA	AR											C3	15
X2	O		2590-401-0887	CABLE: 7720853 (19207)	IN	AR											C3	2
X2	O			CLAMP: 8382973 (19207)	EA	1											C3	7
X2	O		5935-485-8955	CLIP: 7392324 (19207)	EA	1											C3	12
X2	O			CONTACT PINS: 7716521 (19207)	EA	12											C3	10
X2	O			INSERT: 8701274 (19207)	EA	1											C3	11
X2	O			MARKER BAND: 10875481 (19207)	EA	13											C3	19
P	O		5310-012-1743	NUT: cable clamp 121743 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C3	6
P	O		5310-012-1742	SCREW: cable clamp 121742 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C3	4
P	O		5310-637-4028	SCREW: cable clip MS35291-3 (96906)	EA	1	*	*	*	*	*	*	*	*	*	*	C3	14
P	O		4935-833-8561	SHELL: male, single 8338561 (19207)	EA	7	*	*	*	*	*	*	*	*	*	*	C3	16
P	O		5970-833-8562	SLEEVE: 8338562 (19207)	EA	7	*	*	*	*	*	*	*	*	*	*	C2	17
X2	O		4730-906-7923	SPRING CABLE: anti-kink MS39134- 1 (96906)	EA	1	*	*	*	*	*	*	*	*	*	*	C3	3
P	O		5940-399-6676	TERMINAL ASSEMBLY: female 8338564 (19207)	EA	7	*	*	*	*	*	*	*	*	*	*	C3	18
P	O		5940-542-9967	TERMINAL: ground MS25036-54 (96906)	EA	1	*	*	*	*	*	*	*	*	*	*	C3	21
P	O		5310-012-1744	WASHER: cable clamp 121744 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C3	5
P	O		5310-582-5965	WASHER: cable clip MS3538-44 (96906)	EA	1	*	*	*	*	*	*	*	*	*	*	C3	13
X2	O			0613 WIRING HARNESS BAND: MS39020-1 (96906)	EA	23											C4	17
X2	O			BAND: MS39020-3 (96906)	EA	1											C4	12
P	O		2590-860-0555	BRACKET: 3 clip 822870 (19207)	EA	4	*	*	*	*	*	*	*	*	*	*	C4	21
X2	O			CABLE: 7720853 (19207)	IN	AR	*	*	*	*	*	*	*	*	*	*	C4	18

## Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

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# Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

(1) Source, Maint & Recov. Code			(2) Federal Stock Number	(3) Description	(4) Unit of Meas	(5) Qty In Unit	(6) 15-Day Org Maint Alw.				(7) 30-Day D / S Maint Alw.			(8) 30-Day G / S Maint Alw.			(9) 1-Yr. Alw. Per 100 Equip Cntgcy Planning	(10) Illustration	
(a)	(b)	(c)					(a)	(b)	(c)	(d)	(a)	(b)	(c)	(a)	(b)	(c)		(a)	(b)
Source	Maint	Recov					1- 5	6- 20	21- 50	51- 100	1- 20	21- 50	51- 100	1- 20	21- 50	51- 100		Fig. No.	Item No.
P	O		2530-870-2108	LEVER ASSY: handbrake 10920594 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*		C8	1
X2	O			LEVER: 7324348 (19207)	EA	2												C7	10
P	O		5310-655-9371	NUT: anchor pin, attaching MS35690-825 (96906)	EA	4	*	*	*	*	*	*	*	*	*	*		C7	14
P	O		5310-543-5653	NUT: cable clip, attaching MS35690-522 (96906)	EA	4	*	*	*	*	*	*	*	*	*	*		C8	10
P	O		5310-543-5653	NUT: lever attaching MS35690-622	EA	4	*	*	*	*	*	*	*	*	*	*		C8	3
X2	O			NUT: 120369 (19207)	EA	12												C7	11
P	O		2530-352-1909	PIN: brake shoe, anchor 6264233 (19207)	EA	4	*	*	*	*	*	*	*	*	*	*		C7	1
X2	O			PIN: cotter 121223 (19207)	EA	2												C7	13
P	O		5315-753-8333	PIN: cotter, clevis pin 590155 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*		C8	16
P	O		5315-842-3651	PIN: cotter, clevis to lever	EA	1	*	*	*	*	*	*	*	*	*	*		C8	21
P	O		5315-699-8495	PIN: clevis, rod to lever 8331945 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*		C8	2
X2	O			PIN: pivot 7328333 (19207)	EA	1												C8	20
X2	O			PIN: 7971302 (19207)	EA	2												C7	9
X2	O			PIN: 7735847 (19207)	EA	1												C8	15
P	O		2530-863-5603	ROD: hand brake, adjusting 10924581 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*		C8	19
P	O		2530-863-5600	ROD: lever to bellcrank 10942507 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*		C8	6
P	O		5306-754-4208	SCREW: cable to back plate attaching MS35292-36 (96906)	EA	2	*	*	*	*	*	*	*	*	*	*		C8	14
P	O		5306-559-0474	SCREW: cable clip attaching MS90726-32 (96906)	EA	4	*	*	*	*	*	*	*	*	*	*		C8	11
X2	O			SCREW: 7328298 (19207)	EA	2												C7	6
X2	O			SCREW: 1179 (19207)	EA	2												C8	23
X2	O			SHOE: brake 8678964 (19207)	EA	4												C7	5
X2	O			STRUT: 7324344 (19207)	EA	2												C7	7
P	O		5310-584-5272	WASHER: anchor pin attaching MS35338-48 (96906)	EA	4	*	*	*	*	*	*	*	*	*	*		C7	15
P	O		5310-047-9566	WASHER: cable clip attaching MS35338-26 (96906)	EA	6	*	*	*	*	*	*	*	*	*	*		C8	13
P	O		5310-637-9541	WASHER: lever attaching MS35338-46 (96906)	EA	2	*	*	*	*	*	*	*	*	*	*		C8	4
X2	O			WASHER: MS35338-27 (96906)	EA	12												C7	12
P	O		2530-664-7691	SPRING: brake shoe ret. (19207)	EA	2	*	*	*	*	*	*	*	*	*	*		C7	4

## Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

(1) Source, Maint & Recov. Code			(2) Federal Stock Number	(3) Description	(4) Unit of Meas	(5) Qty Inc in Unit	(6) 15-Day Org Maint Alw.				(7) 30-Day D / S Maint Alw.			(8) 30-Day G / S Maint Alw.			(9) 1-Yr. Alw. Per 100 Equip Cntgcy Planning	(10) Illustration	
(a)	(b)	(c)					(a) 1- 5	(b) 6- 20	(c) 21- 50	(d) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100		(a) Fig. No.	(b) Item No.
				GROUP 13 WHEELS															
				1311 WHEEL ASSY.															
X2	O			WHEEL: 8342414 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*		C9	5
P	O		3110-727-6901	BEARING: roller tapered	EA	4	1	1	1	2	1	2	2	1	2	2			
P	O		2530-863-5599	BRAKE DRUM	EA	2	*	*	*	*	*	*	*	*	*	*		C6	10
P	O		2530-863-5606	CAP, hub 33116-43438 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*		C6	1
P	O		3110-678-1862	CUP, hub bearing cone 7536132 (19207)	EA	4	1	1	1	2	1	2	2	1	2	2		C6	6
X2				HUB 71770-43434	EA	2												C6	7
P	O		5310-737-1106	NUT, hub outer brg adj. 7371106 (19207)	EA	4	*	*	*	*	*	*	*	*	*	*		C6	3
P	O		2530-678-2974	NUT, hub stud, wheel 8342315 (19207)	EA	10	*	*	*	*	*	*	*	*	*	*		C6	11
P	O		2530-678-1759	SEAL, hub bearing	EA	2	1	1	1	2	1	2	2	1	2	2		C6	8
P	O		5306-850-7069	STUD: bolt hub 33116-43436 (19207)	EA	10	*	*	*	*	*	*	*	*	*	*		C6	9
P	O		5310-769-6521	WASHER, hub outer brg lock 7696521 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*		C6	4
P	O		5310-769-6520	WASHER, hub outer brg ret. 7696520 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*		C6	2
				1313 TIRES, TUBES															
P	O		2640-052-0944	CAP: tire valve MS51375-1 (96906)	EA	2	*	1	2	3	2	4	6	2	4	6		C9	4
P	O		2610-269-7332	INNER TUBE: 7:00 X 16 MS35392-8 (96906)	EA	2	*	1	2	3	2	4	6	2	4	6		C9	1
P	O		2610-350-9975	INNER TUBE: 6:00-16 MS35392-81 (96906) B	EA	2	*	1	2	3	2	4	6	2	4	6		C9	1
P	O		2610-678-1363	TIRE: pneumatic, 7:00 X 16 MS35388-93 (96906)	EA	2	*	1	2	3	2	4	6	2	4	6		C9	2
P	O		2610-752-7610	TIRE: pneumatic MS35388-108 (96906) B	EA	2	*	1	2	3	2	4	6	2	4	6		C9	2
P	O		2640-050-1229	VALVE CORE: MS51377T-1 (96906)	EA	2	*	1	2	3	2	4	6	2	4	6		C9	3
				GROUP 15 FRAME, TOWING ATTACHMENTS 1503 PINTELS AND TOWING ATTACHMENTS															
X2	O			BRACKET: 10924577 (19207)	EA	1												C10	11
X2	O			BRACKET: 10924578 (19207)	EA	1												C10	15
P	O		2540-732-8311	COUPLER: (Lunette) drawbar, ring 7328311 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*		C10	18
P	O		4730-050-4208	FITTING: lubrication MS15003-1 (96906)	EA	2	*	*	*	*	*	*	*	*	*	*		C10	14
P	O		2510-734-3007	LEG: support 7343007 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*		C10	16

# Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

(1) Source, Maint & Recov. Code			(2) Federal Stock Number	(3) Description	(4) Unit of Meas	(5) Qty Inc in Unit	(6) 15-Day Org Maint Alw.				(7) 30-Day D / S Maint Alw.				(8) 30-Day G / S Maint Alw.			(9) 1-Yr. Alw. Per 100 Equip Cntlgy Planning	(10) Illustration	
(a) Source	(b) Maint	(c) Recov					(a) 1- 5	(b) 6- 20	(c) 21- 50	(d) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) Fig. No.		(b) Item No.	
P	O		5310-576-2330	NUT: lunette attaching MS35692-1426 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C10	7		
P	O		5310-275-2049	NUT: safety MS20365-820C (96906)	EA	2	*	*	*	*	*	*	*	*	*	*	C10	13		
X2	O			NUT: 503335 (19207)	EA	3											C10	1		
X2	O			NUT: 503257 (19207)	EA	4											C10	4		
P	O		5315-013-7238	PIN: cotter 137238 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C10	5		
X2	O			PLUG: 143935 (19207)	EA	1											C10	21		
X2	O			PLUNGER: 7001417 (19207)	EA	1											C10	20		
P	O		2540-863-5601	SAFETY CHAIN ASSY: 10944739 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C10	2		
P	P		5305-012-0235	SCREW: cap 120235 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C10	17		
X2	O			SCREW: 428829 (19207)	EA	1											C10	12		
X2	O			SCREW: 123567 (19207)	EA	4											C10	3		
X2	O			SCREW: 595444 (19207)	EA	1											C10	6		
P	O		2540-200-7022	SPRING: compression 7328313 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C10	9		
P	O		2530-663-3110	SPRING: plunger 7328310 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C10	19		
P	O		5310-731-8314	WASHER: 7328314 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C10	8		
X1				WASHER: 7328312 (19207)	EA	1											C10	10		
				GROUP 16 SPRINGS AND SHOCK ABSORBERS																
				1601 SPRINGS																
P	O		5306-732-8328	BOLT: pivot spring 7328328 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C11	30		
P	O		5306-737-1055	BOLT: spring center 7371055 (19207)	EA	2	*	*	*	*	*	*	*	*	*	*	C11	29		
P	O		5306-575-5421	BOLT: "U" 8741536 (19207)	EA	4	1	1	2	2	1	2	3	1	2	3	C11	8		
X2	O			BOLT: 122007 (19207)	EA	4											C11	4		
P	O		3120-732-8324	BEARING: bushing type; rear shackle	EA	1	*	*	*	*	*	*	*	*	*	*	C11	22		
				Lh. 7328324 (19207)																
P	O		2510-732-8325	BEARING: bushing type; rear shackle	EA	3	*	*	*	*	*	*	*	*	*	*	C11	23		
				r.h. 7328325 (19207)																
X2	O			BRACKET: front 71770-8276 (19207)	EA	2											C11	1		
X2	O			BRACKET: 71770-8258 (19207)	EA	2											C11	10		
X2	O			BRACKET: 71770-8258 (19207)	EA	2											C11	13		
X2	O			BUMPER: 7338987 (19207)	EA	2											C11	7		
P	O		4370-050-4208	FITTING: lubrication, shackle	EA	6	*	*	*	*	*	*	*	*	*	*	C11	28		
				MS15003-1 (96906)																
X2	O			NUT: pivot bolt MS35692-925 (96906)	EA	2											C11	2		
P	O		5310-723-2737	NUT: spring center bolt MS35690-524 (96906)	EA	2	*	*	*	*	*	*	*	*	*	*	C11	29		
P	O		5310-732-8296	NUT: "U" bolt 7328296 (19207)	EA	8	1	1	2	2	1	2	3	1	2	3	C11	27		

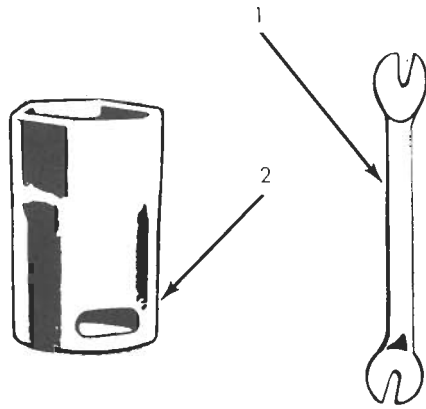
## Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

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# Section V. REPAIR PARTS FOR ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE

(1) Source, Maint & Recov. Code			(2) Federal Stock Number	(3) Description	(4) Unit of Meas	(5) Qty Inc in Unit	(6) 15-Day Org Maint Alw.			(7) 30-Day D / S Maint Alw.			(8) 30-Day G / S Maint Alw.			(9) 1-Yr. Alw. Per 100 Equip Crngcy Planning	(10) Illustration	
(a) Source	(b) Maint	(c) Recov					(a) 1- 5	(b) 6- 20	(c) 21- 50	(d) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) 1- 20	(b) 21- 50	(c) 51- 100	(a) Fig. No.	(b) Item No.
P	O		2540-863-5598	GROUP 22 BODY CHASSIS OR HULL AND ACCESSORY ITEMS 2201 CANVAS ITEM PAULIN: cargo body 10913205 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C14	1
P	O		5310-012-0367	2202 ACCESSORY ITEMS NUT: reflector, attaching MS35690- 425 (96906)	EA	4	*	*	*	*	*	*	*	*	*	*	C14	6
P	O		9905-205-2795	REFLECTOR: red lens MS35387-1 (96906)	EA	4	*	1	1	2	1	2	2	1	2	2	C14	2
P	O		5305-637-6631	SCREW: reflector, attaching MS35226-79 (96906)	EA	8	*	*	*	*	*	*	*	*	*	*	C14	3
P	O		5310-732-8316	WASHER: reflector, attaching 7328316 (19207)	EA	8	*	*	*	*	*	*	*	*	*	*	C14	4
P	O		5310-582-5965	WASHER: reflector, attaching MS35338-44 (96906)	EA	8	*	*	*	*	*	*	*	*	*	*	C14	5
P	O		2590-863-5605	2210 DATA PLATES PLATE: vehicular data 71770-8352 (19207)	EA	1	*	*	*	*	*	*	*	*	*	*	C14	7
P	O		5320-013-7948	RIVET: plate, attaching 137948 (19207)	EA	6	*	*	*	*	*	*	*	*	*	*	C14	8



AT 26933

*Figure C1. Special tools*

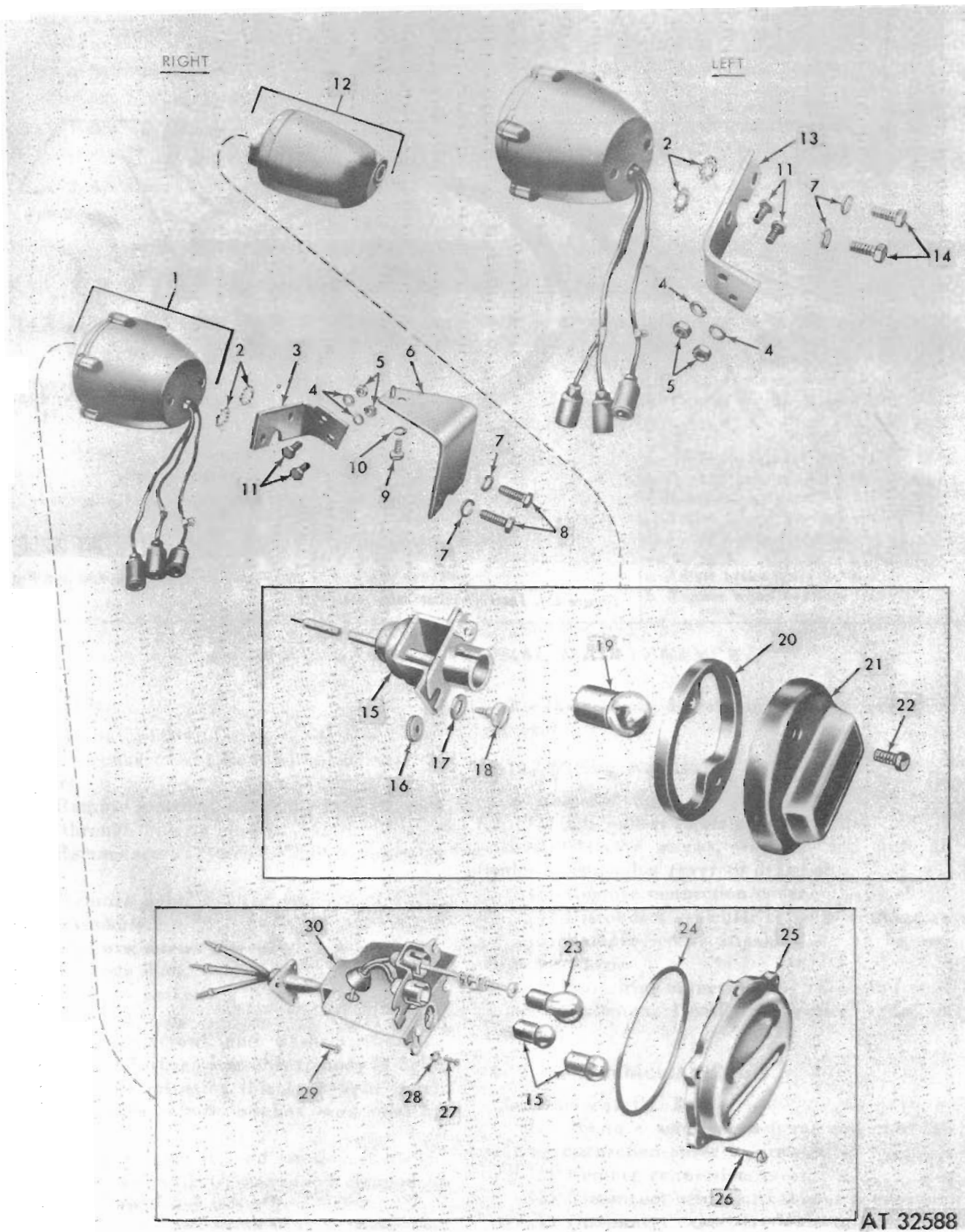


Figure C2. Taillight stop and blackout lights, exploded view

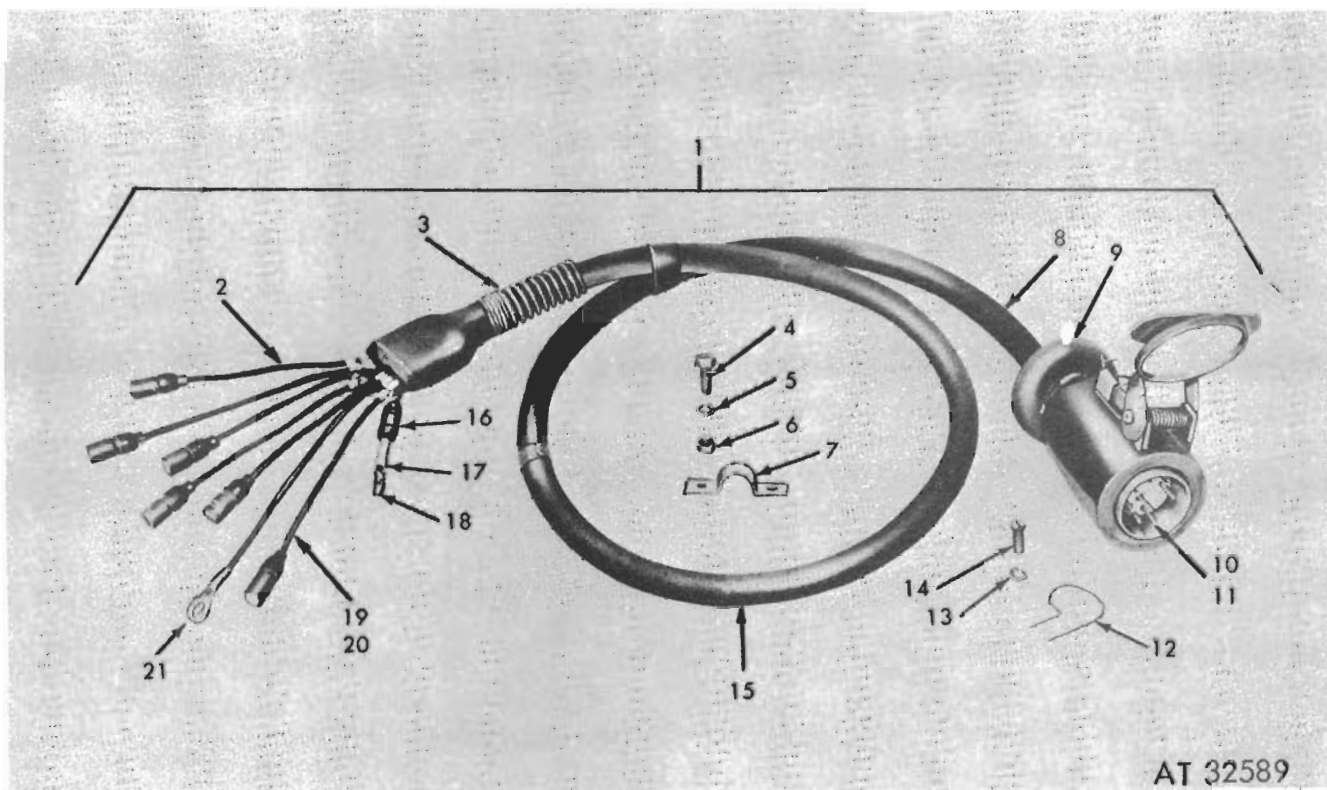


Figure C3. Intervehicular cable assembly

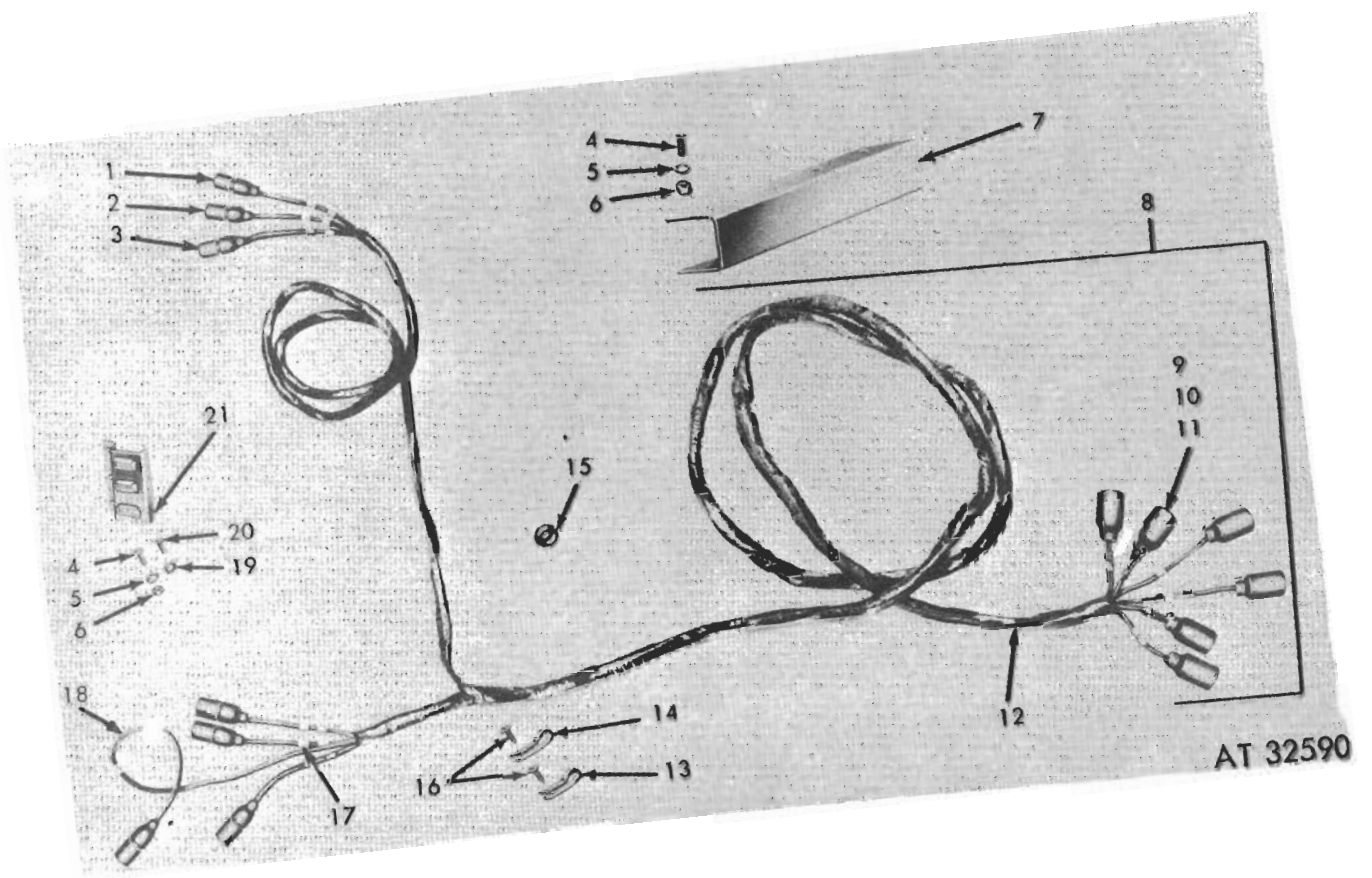


Figure C4. Wiring harness

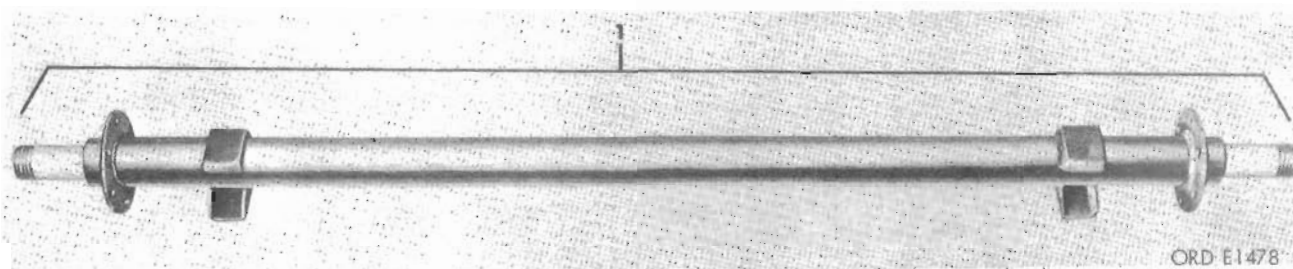


Figure C5. Axle assembly

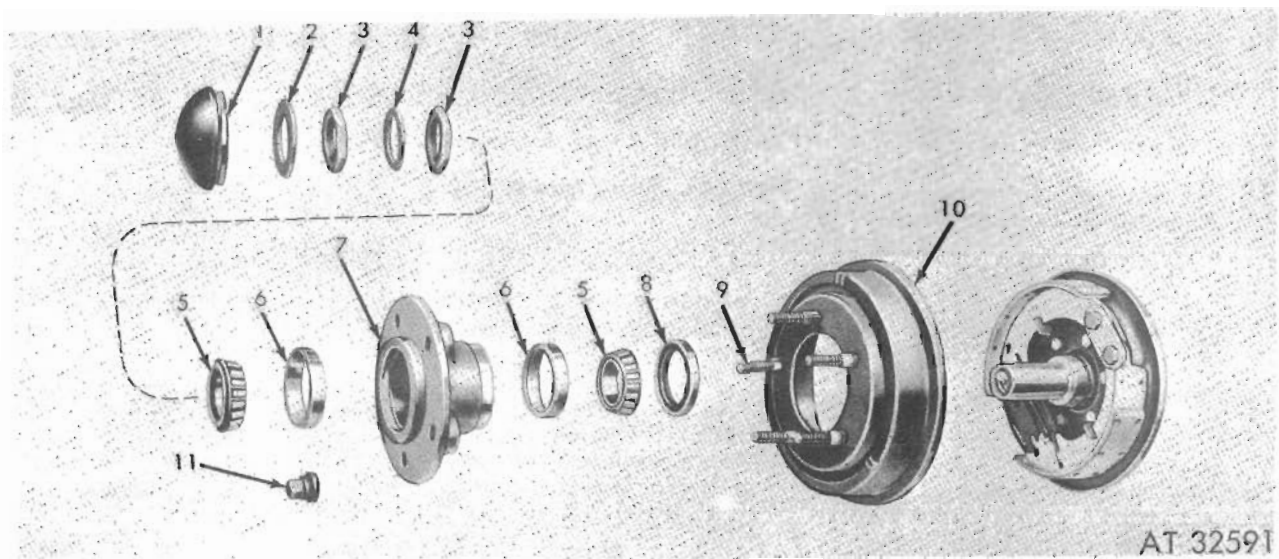
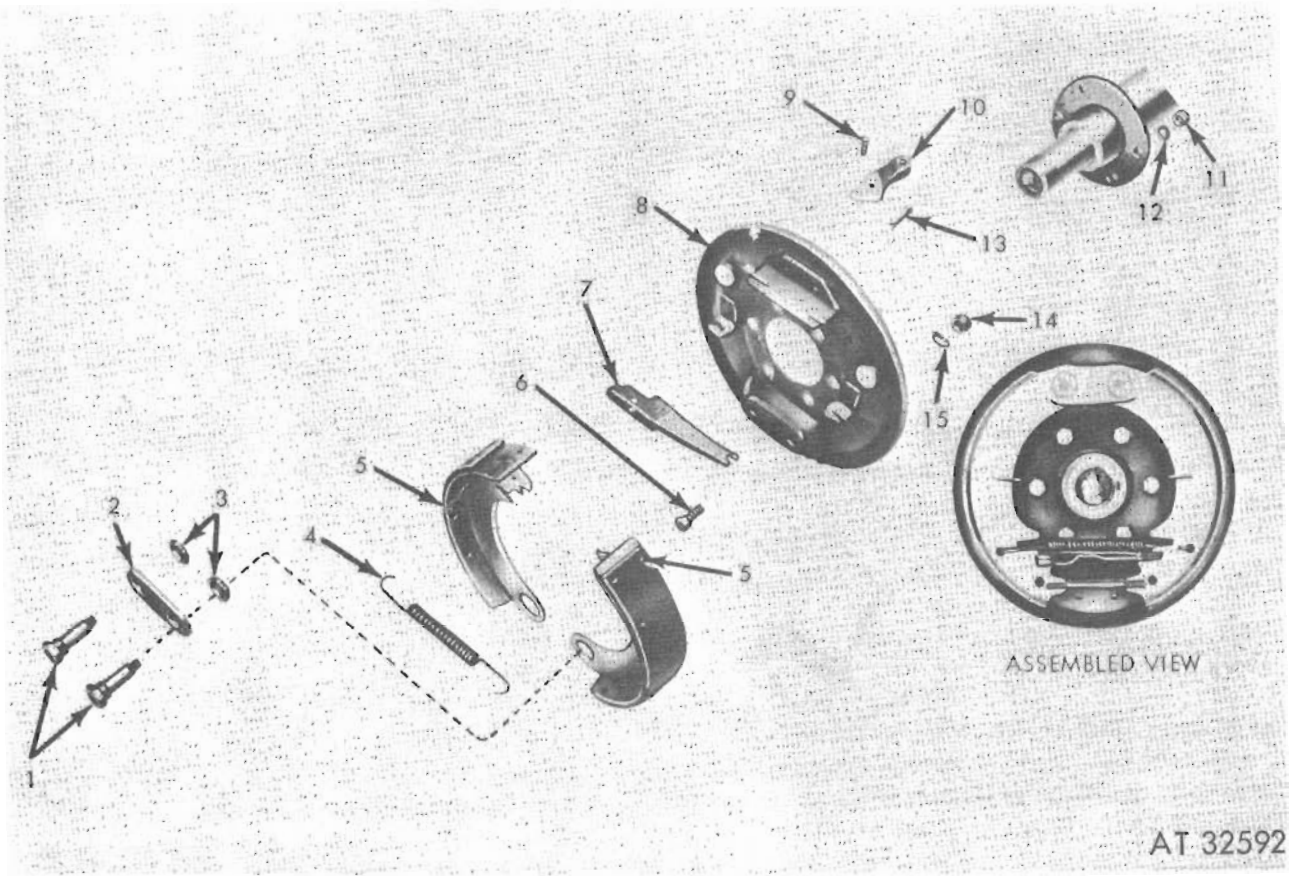
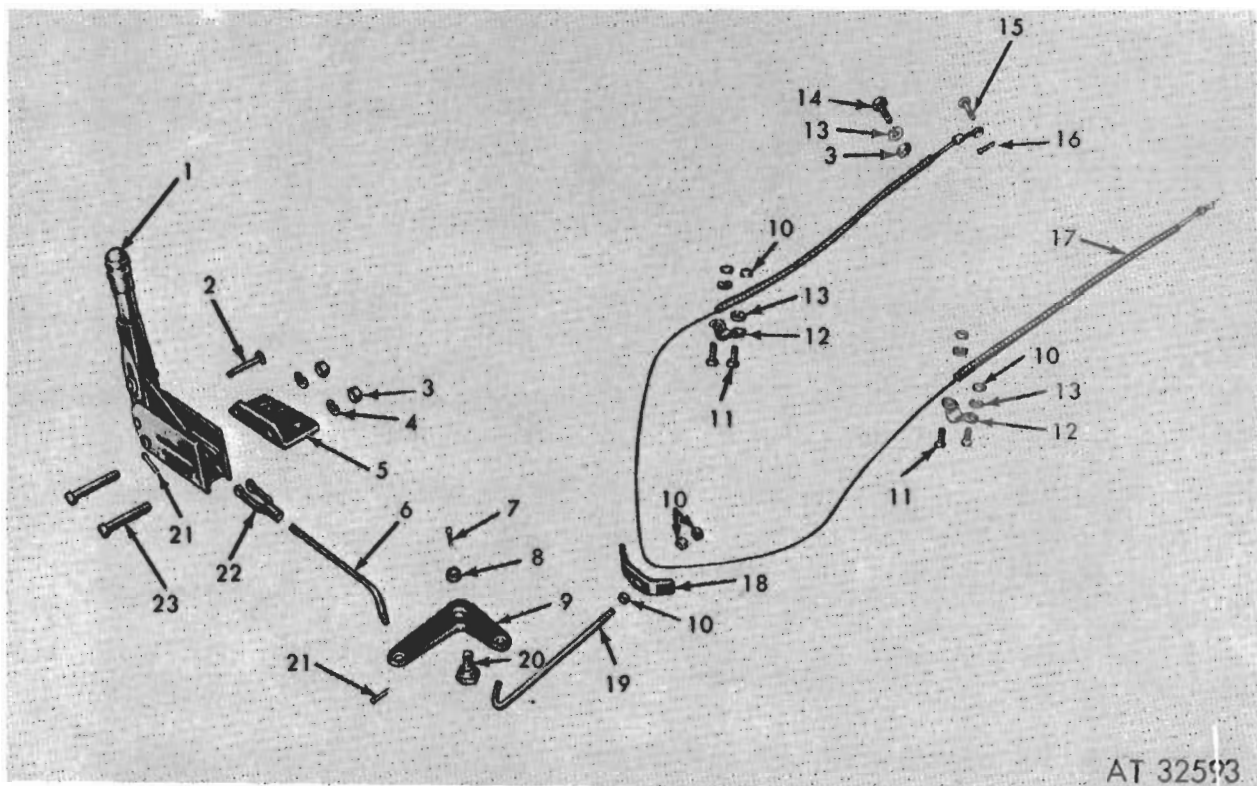


Figure C6. Hub and drum assembly, exploded view



**Figure C7. Brake shoe and support assembly, exploded view**





AT 32593

*Figure C8. Handbrake assembly, exploded view*

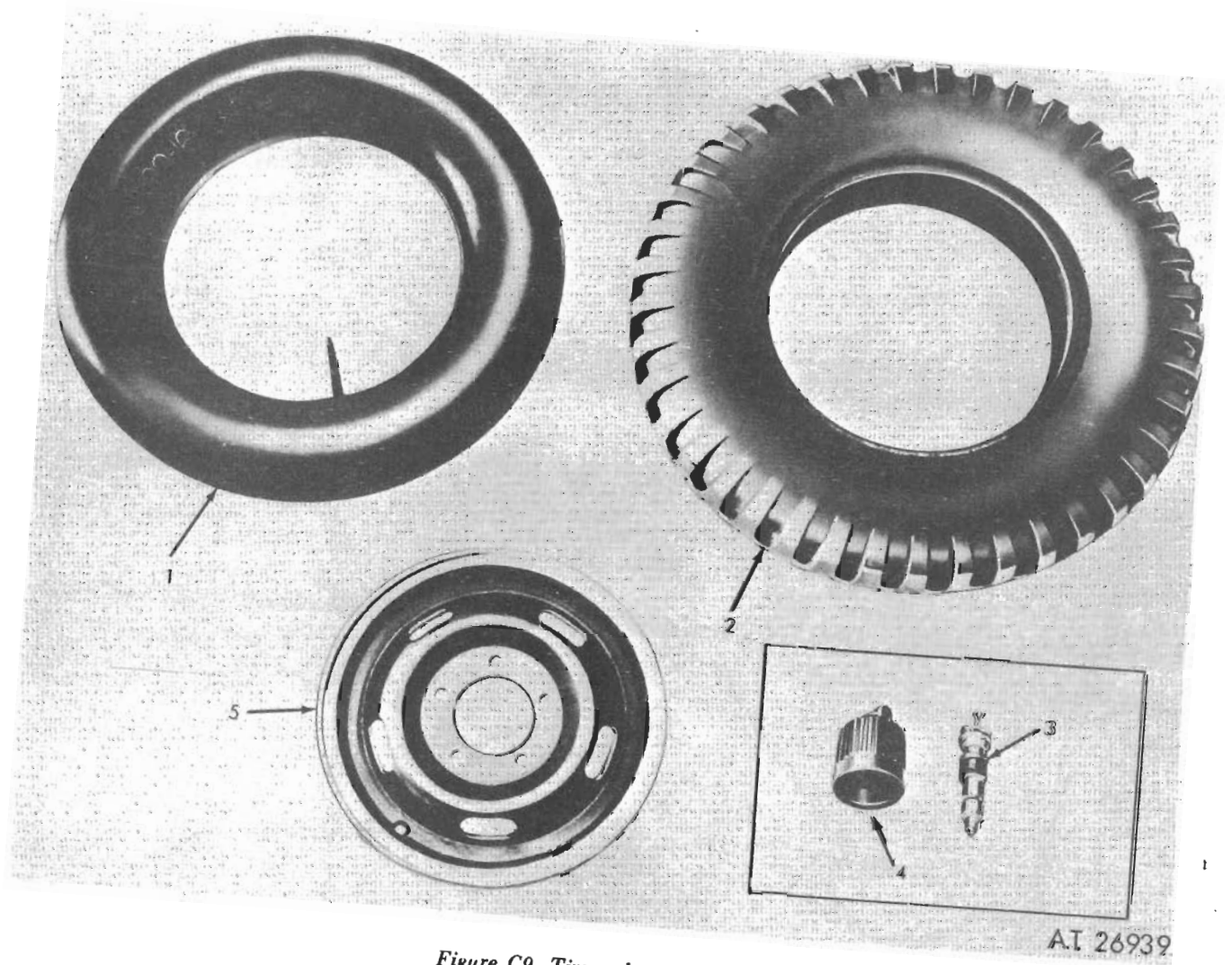
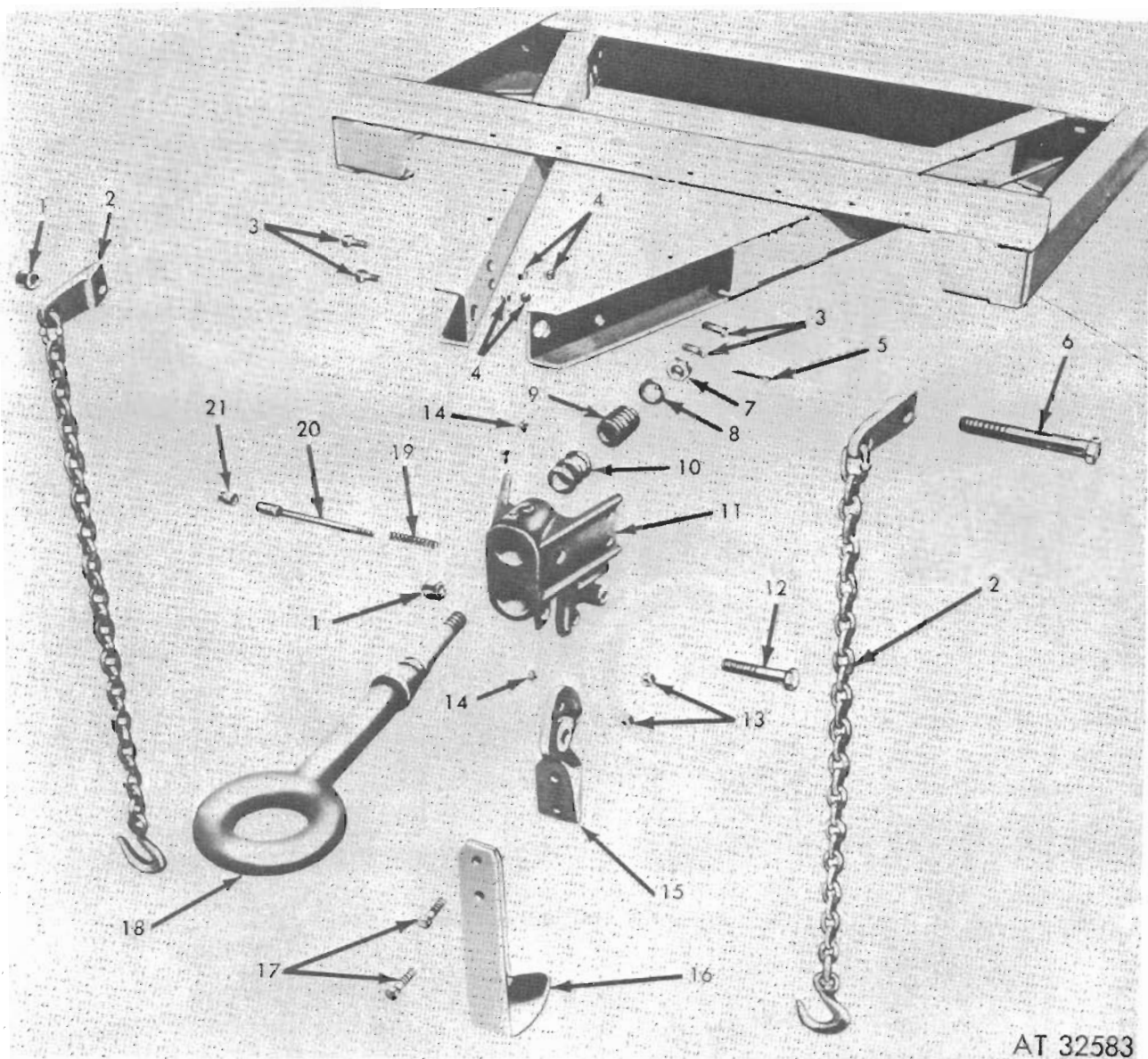


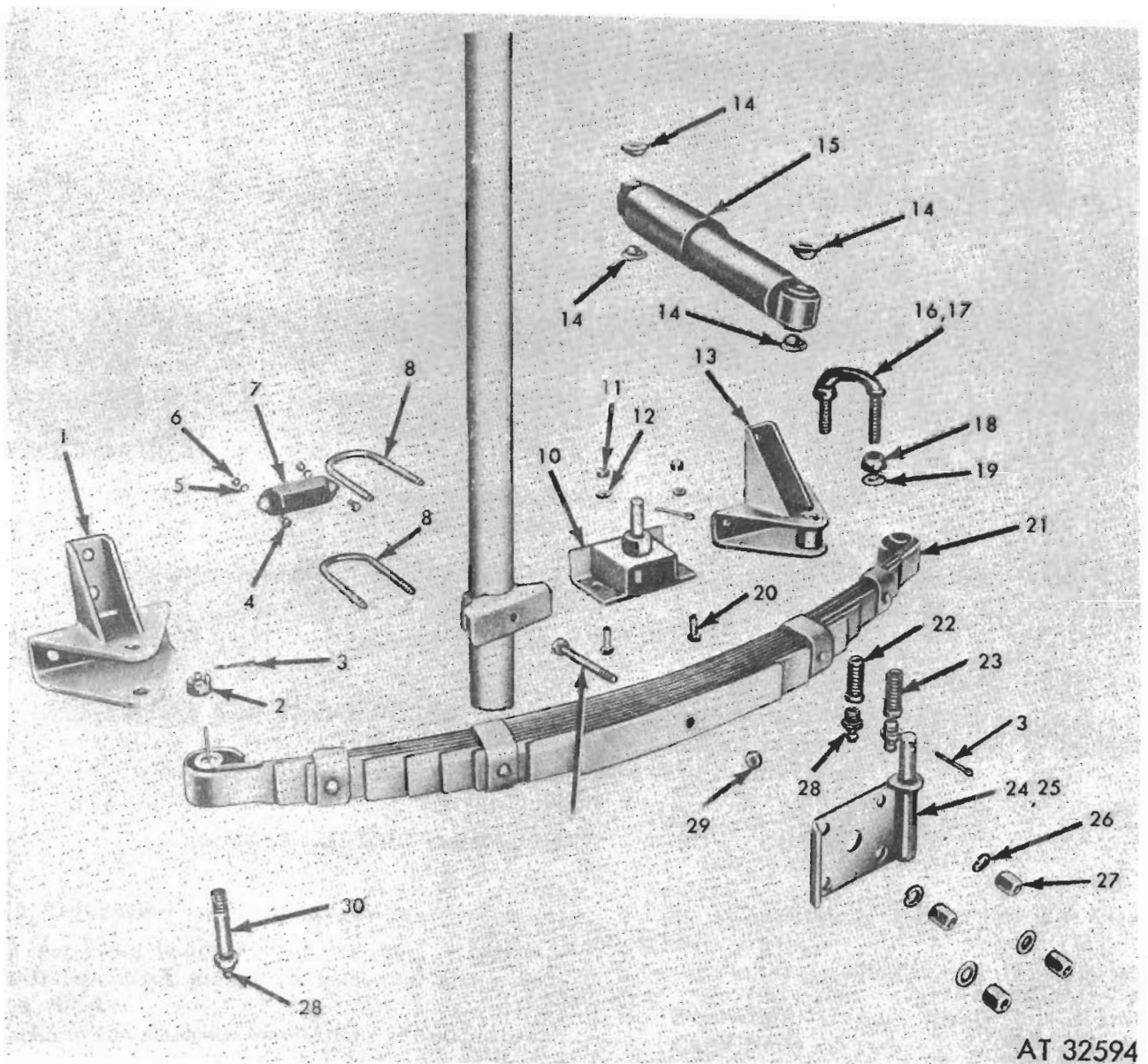
Figure C9. Tire, tube and wheel

AI 26939



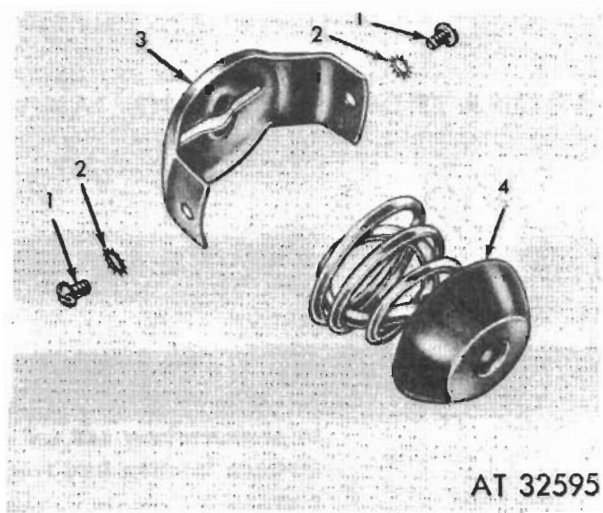
AT 32583

Figure C10. Lunette and landing leg, exploded view

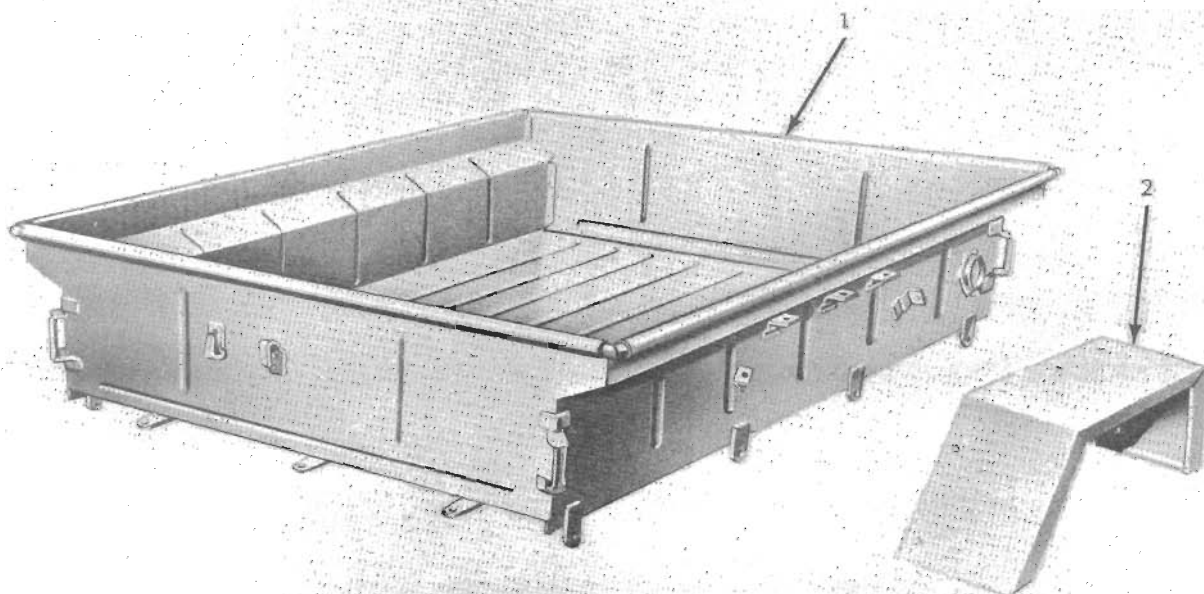


AT 32594

Figure C11. Springs and shock absorbers



*Figure C12. Drain valve assembly, exploded view*



AT 32596

*Figure C13. Body and fenders*

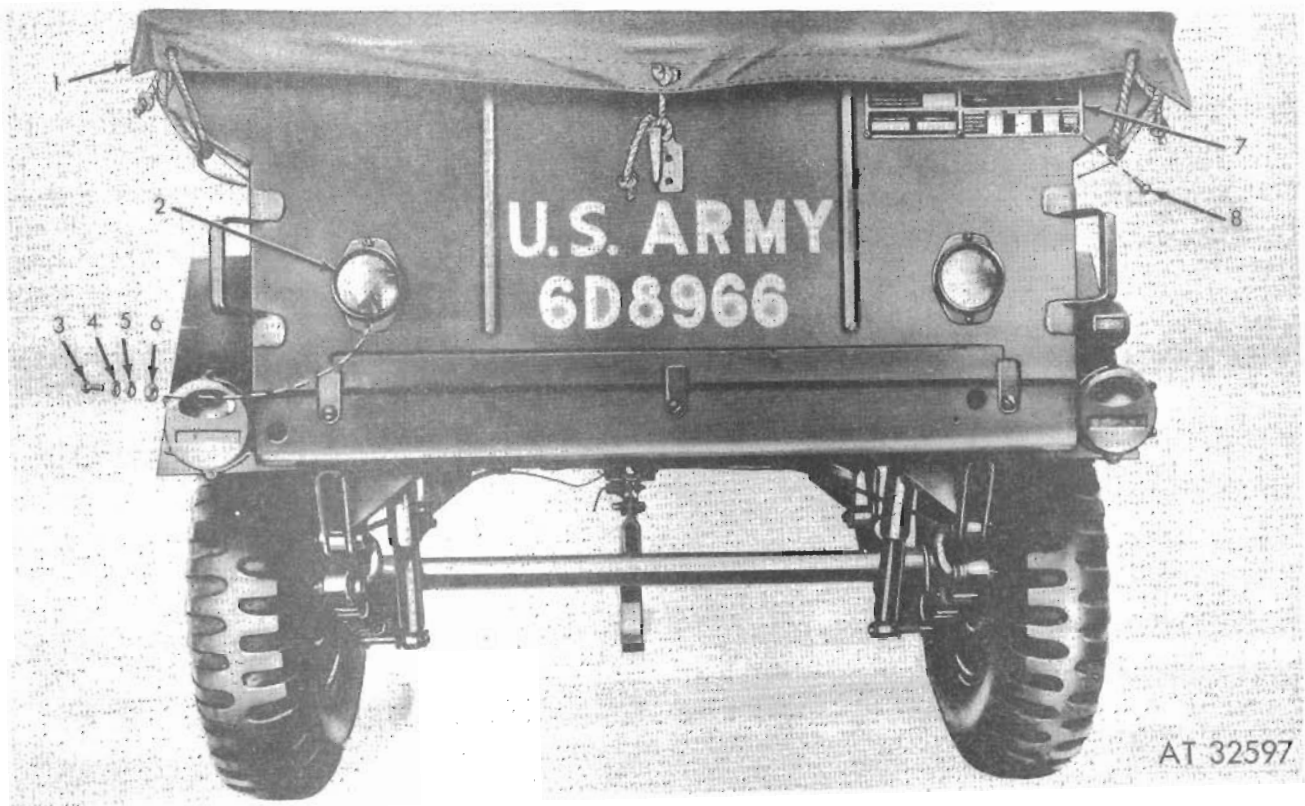


Figure C14. Reflector, paulin and data plate

# **List of Art Boards (with Captions) for RP and STL portion of Manual**

<i>Figure</i>	<i>Caption</i>	<i>Illustration Number</i>
C1	Special Tools .....	AT 26933
C2	Taillight stop and blackout lights, exploded view .....	AT 32588
C3	Intervehicular cable assembly .....	AT 32589
C4	Wiring harness .....	AT 32590
C5	Axle assembly .....	ORD E1478
C6	Hub and drum assembly, exploded view .....	AT 32591
C7	Brake shoe and support assembly, exploded view .....	AT 32592
C8	Handbrake assembly, exploded view .....	AT 32593
C9	Tire, tube and wheel .....	AT 26939
C10	Lunette and landing leg, exploded view .....	AT 32583
C11	Springs and shock absorbers .....	At 32594
C12	Drain valve assembly, exploded view .....	AT 32595
C13	Body and fenders .....	AT 32596
C14	Reflector, paulin and data plate .....	AT 32597



# Section VI. INDEX — FEDERAL STOCK NUMBER AND REFERENCE NUMBER

## CROSS-REFERENCE TO FIGURE AND ITEM NUMBER

STOCK NUMBER	FIGURE NO	ITEM NO	STOCK NUMBER	FIGURE NO	ITEM NO
2510-732-8322	C11	18	5310-012-0214	C2	10
2510-732-8325	C11	23	5310-012-0214	C8	13
2510-732-8336	C12	4	5310-012-0367	C14	6
2510-732-8358	C11	21	5310-012-1742	C3	4
2510-734-3007	C10	16	5310-012-1743	C3	6
2510-737-1090	C11	16	5310-012-1743	C4	6
2510-773-5833	C11	17	5310-012-1744	C3	5
2530-352-1909	C7	1	5310-012-1744	C4	5
2530-663-3110	C10	19	5310-013-8479	C12	2
2530-678-1759	C6	8	5310-017-8378	C4	19
2530-678-2974	C7	8	5310-017-8551	C2	2
2530-732-8239	C8	17	5310-050-2341	C11	26
2530-863-5599	C6	10	5310-275-2049	C10	13
2530-863-5600	C8	6	5310-543-5653	C8	3
2530-863-5603	C8	19	5310-543-5653	C8	10
2530-863-5604	C5	1	5310-576-2330	C10	7
2530-863-5606	C6	1	5310-582-5965	C3	13
2530-863-5607	C7	3	5310-582-5965	C14	5
2530-870-2108	C8	1	5310-584-5272	C7	15
2540-200-7022	C10	9	5310-637-4028	C3	14
2540-732-8311	C10	18	5310-637-8541	C2	7
2540-769-7442	C11	15	5310-637-9541	C8	4
2540-863-5598	C14	1	5310-655-9371	C7	14
2540-863-5601	C10	2	5310-723-2737	C11	29
2590-855-9304	C3	15	5310-732-8296	C11	27
2590-860-0555	C4	21	5310-732-8314	C10	8
2590-863-5062	C4	8	5310-732-8316	C14	4
2590-863-5605	C14	7	5310-737-1106	C6	3
2610-269-7332	C9	2	5310-769-6520	C6	2
2610-350-9975	C9	2	5310-769-6521	C6	4
2610-678-1363	C9	3	5315-013-7185	C11	3
2610-752-7610	C9	3	5315-013-7238	C10	5
2640-050-1229	C9	4	5315-699-8495	C8	2
2640-052-0944	C9	5	5315-753-8333	C8	16
3110-678-1862	C6	6	5315-842-3651	C8	21
3110-678-1863	C6	5	5320-013-7948	C14	8
3120-732-8324	C11	22	5325-733-8991	C4	15
4390-050-4208	C11	28	5330-297-7106	C2	25
4730-050-4208	C10	14	5340-732-8323	C11	19
5305-012-0235	C10	17	5340-734-3032	C11	14
5305-012-1742	C4	4	5935-833-8561	C3	16
5305-012-8151	C4	16	5940-399-6676	C3	18
5305-013-2900	C12	1	5940-542-9967	C3	21
5305-017-1507	C4	20	5970-833-8562	C2	17
5305-022-7139	C2	22	6220-669-5623	C2	1
5305-637-4037	C2	14	6220-678-9047	C2	20
5305-637-6631	C14	3	6220-752-6020	C2	25
5306-254-4208	C8	14	6220-775-2384	C2	21
5306-559-0474	C8	11	6220-846-9745	C2	12
5306-575-5421	C11	8	6240-019-0877	C2	19
5306-732-8328	C11	30	6240-044-6914	C2	23
5306-737-1055	C11	29	9905-205-2795	C14	2
5306-850-7069	C6	9			

REFERENCE NUMBER	MFG CODE	FIG NO	ITEM NO	REFERENCE NUMBER	MFG CODE	FIG NO	ITEM NO
MS15003-1	96906	C10	14	121742	19207	C4	4
MS15003-1	96906	C11	28	121743	19207	C3	6
MS15570-1251	96906	C2	19	121743	19207	C4	6
MS20365-820C	96906	C10	13	121744	19207	C3	5
MS25036-54	96906	C3	21	121744	19207	C4	5
MS24665-295	96906	C8	21	121749	19207	C2	27
MS25690	96906	C11	29	121841	19207	C2	28
MS27148-2	96906	C4	10	121882	19207	C2	29
MS34665	96906	C11	3	122007	19207	C11	4
MS35226-79	96906	C14	3	123567	19207	C10	3
MS35291-3	96906	C3	14	12507	19207	C8	8
MS35291-59	96906	C2	14	128151	19207	C4	16
MS35335	96906	C12	2	132900	19207	C12	1
MS35337-28	96906	C11	26	137238	19207	C10	5
MS35338-26	96906	C2	4	137948	19207	C14	8
MS35338-26	96906	C2	10	143935	19207	C10	21
MS35338-26	96906	C8	13	171507	19207	C4	20
MS35338-26	96906	C11	5	178378	19207	C4	19
MS35338-27	96906	C7	12	178551	19207	C2	2
MS35338-27	96906	C11	12	22043	19207	C8	22
MS35338-44	96906	C3	13	33116-43436	19207	C6	9
MS35338-44	96906	C14	5	33116-43438	19207	C6	1
MS35338-46	96906	C2	7	428829	19207	C10	12
MS35338-46	96906	C8	4	501229	19207	C9	4
MS35338-48	96906	C7	15	503257	19207	C10	4
MS35387-1	96906	C14	2	503335	19207	C10	1
MS35388	96906	C9	3	520944	19207	C9	5
MS35392-8	96906	C9	2	5304070	19207	C7	3
MS35392-81	96906	C9	2	590155	19207	C8	16
MS35478-1683	96906	C2	23	595444	19207	C10	6
MS35690-425	96906	C14	6	6264233	19207	C7	1
MS35690-522	96906	C8	10	7001417	19207	C10	20
MS35690-622	96906	C8	3	7056684	19207	C3	15
MS35690-825	96906	C7	14	7064900	19207	C2	16
MS35692-1426	96906	C10	7	71770-43434	19207	C6	7
MS35692-925	96906	C11	2	71770-4372	19207	C6	10
MS39020-1	96906	C3	20	71770-8258	19207	C11	10
MS39020-1	96906	C4	17	71770-8285	19207	C11	13
MS39020-3	96906	C4	12	71770-8276	19207	C11	1
MS39134-1	96906	C3	3	71770-8343	19207	C8	5
MS90726-32	96906	C8	11	71770-8352	19207	C14	7
MS90726-66	96906	C8	14	7320658	19207	C2	25
10875481	19207	C3	19	7320691	19207	C2	22
10913205	19207	C14	1	7324344	19207	C7	7
10920594	19207	C8	1	7324348	19207	C7	10
10924552	19207	C4	8	7328267	19207	C2	13
10924559	19207	C13	1	7328268	19207	C2	3
10924577	19207	C10	11	7328296	19206	C11	27
10924578	19207	C10	15	7328298	19207	C7	6
10924581	19207	C8	19	7328310	19207	C10	19
10924598	19207	C5	1	7328311	19207	C10	18
10924507	19207	C8	6	7328312	19207	C10	10
10944739	19207	C10	2	7328313	19207	C10	9
11717	19207	C11	20	7328314	19207	C10	8
11720-2818	19207	C2	8	7328316	19207	C14	4
11721	19207	C2	9	7328322	19207	C11	18
1179	19207	C8	23	7328323	19207	C11	19
120235	19207	C10	17	7328324	19207	C11	22
120369	19207	C2	5	7328325	19207	C11	23
120369	19207	C7	11	7328328	19207	C11	30
120369	19207	C11	11	7328329	19207	C8	17
120376	19207	C11	6	7328331	19207	C8	12
120741	19207	C2	11	7328332	19207	C8	9
121222	19207	C8	7	7328333	19207	C8	20
121223	19207	C7	13	7328334	19207	C8	18
121742	19207	C3	4	7328336	19207	C12	4

REFERENCE NUMBER	MFG CODE	FIG NO	ITEM NO	REFERENCE NUMBER	MFG CODE	FIG NO	ITEM NO
7328340	19207	C12	3	7996804	19207	C6	8
7328358	19207	C11	21	8330140	19207	C4	7
7338987	19207	C11	7	8331945	19207	C8	2
7338991	19207	C4	15	8335233	19207	C2	18
7343007	19207	C10	16	8338561	19207	C3	16
7343032	19207	C11	14	8338561	19207	C4	9
7343076	19207	C11	25	8338562	19207	C2	17
7358188	19207	C3	8	8338562	19207	C4	2
7371055	19207	C11	29	8338564	19207	C3	18
7371090	19207	C11	16	8338564	19207	C4	3
7371106	19207	C6	3	8338566	19207	C4	1
737747	19207	C7	8	8338567	19207	C4	11
7392324	19207	C3	12	8342315	19207	C7	8
7411003	19207	C4	13	8342414	19207	C9	1
7526020	19207	C2	25	8378661	19207	C2	30
7536131	19207	C6	5	8382973	19207	C3	7
7536132	19207	C6	6	8386476	19207	C2	17
7696520	19207	C6	2	8678964	19207	C7	5
7696521	19207	C6	4	8683516	19207	C3	1
7697442	19207	C11	15	8694464	19207	C2	20
7697848	19207	C11	29	8701274	19207	C3	11
7716521	19207	C3	10	8722870	19207	C4	21
7720853	19207	C3	2	8724316	19207	C3	9
7720853	19207	C4	18	8738785	19207	C2	1
7735833	19207	C11	17	8741536	19207	C11	8
7735847	19207	C8	15	8741645	19207	C2	12
7971302	19207	C7	9	8741645	19207	C2	26
7979250	19207	C4	14	8741646	19207	C2	21
7982399	19207	C2	15	8757332	19207	C9	3

# INDEX

A			G		
	Paragraphs	Pages		Paragraphs	Pages
Adjustment:			General Lubrication Information	3-3	14
Brake Shoes	3-20	25			
Lunette and Landing Leg	3-23	27			
Wheel Bearings	3-17	24			
Wheel, Hub and Drum Assembly	3-16	24			
Axle Assembly:					
Cleaning, Inspection, and Repair	3-22	27			
Installation	3-22	27			
Removal	3-22	27			
B			H		
Body:			Handbrake Assembly:		
Cleaning, Inspection, and Repair	3-27	32	Cleaning, Inspection, and Repair	3-14	23
Installation	3-27	32	Installation	3-14	23
Removal	3-27	30	Removal	3-14	22
Brake Shoes:			Handbrake Control	2-7	11
Adjustment	3-20	25			
Cleaning, Inspection, and Repair	3-20	25			
Installation	3-20	25			
Removal	3-20	25			
C			I		
Cleaning, Inspection, and Repair:			Identification and Tabulated Data	1-4	8
Axle Assembly	3-22	27	Inspecting and Servicing the		
Body	3-27	32	Equipment	2-1	11
Brake Shoes	3-20	25	Installation:		
Handbrake Assembly	3-14	23	Axle Assembly	3-22	27
Lights	3-11	21	Body	3-27	32
Lunette and Landing Leg	3-23	29	Brake Shoes	3-20	25
Reflector	3-26	30	Data Plate	3-25	30
Suspension System	3-21	27	Drain Valve Assembly	3-29	32
Tool Chests	3-32	32	Drawbar	3-33	32
Wheel Bearings	3-17	24	Handbrake Assembly	3-14	23
Wheel, Hub and Drum Assembly	3-16	24	Intervehicular Cable	3-13	22
			Lamps	3-7	20
			Lights	3-11	21
			Lunette and Landing Leg	3-23	29
			Paulin	3-24	29
			Reflector	3-26	30
			Suspension System	3-21	27
			Tire and Wheel Assembly	3-15	24
			Tool Chests	3-32	32
			Wheel Bearings	3-17	24
			Wheel, Hub and Drum Assembly	3-16	24
			Wiring Harness	3-12	21
			Installation of Separately Packaged		
			Components	2-2	11
			Installation or Setting Up		
			Instructions	2-3	11
			Intervehicular Cable:		
			Installation	3-13	22
			Removal	3-13	21
D			L		
Data Plate:			Lamps:		
Installation	3-25	30	Removal	3-7	19
Removal	3-25	29	Installation	3-7	20
Demolition of Material to Prevent			Lights:		
Enemy Use	4-6	36	Cleaning, Inspection and Repair	3-11	21
Description	1-3	3	Disassembly	3-11	21
Destruction of Equipment	4-7	37	Installation	3-11	21
Detailed Lubrication Information	3-4	17	Reassembly	3-11	21
Differences in Models	1-5	10	Removal	3-11	21
Direct Support and General Support			Limited Storage	4-5	36
Maintenance Repair Parts	5-6	38	Loading On or In Railroad		
Disassembly:			Cars	4-3	33
Lights	3-11	21	Lunette and Landing Leg:		
Tire and Wheel Assembly	3-15	23	Adjustment	3-23	29
Dismantling for Movement	2-4	11	Cleaning, Inspection, and Repair	3-23	29
Drain Valve Assembly:			Installation	3-23	29
Installation	3-29	32	Removal	3-23	27
Removal	3-29	32			
Drawbar:					
Installation	3-33	32			
Removal	3-33	32			
F					
Forms and Records	1-2	3			

# INDEX (CON'T)

O	Paragraphs	Pages
Operation in Dusty or Sandy Areas	2-12	13
Operation in Extreme Cold	2-10	13
Operation in Extreme Heat	2-11	13
Operation of Equipment	2-9	12
Operation Under Rainy or Humid Conditions	2-13	13
Organizational Maintenance Repair		
Parts	3-2	14

P	Paragraphs	Pages
Paulin:		
Installation	3-24	29
Removal	3-24	29
Preventive Maintenance Checks and Services	3-6	17

R	Paragraphs	Pages
Reassembly:		
Lights	3-11	21
Tire and Wheel Assembly	3-15	24
Reflector:		
Cleaning, Inspection, and Repair	3-26	30
Installation	3-26	30
Removal	3-26	30
Reinstallation After Movement	2-5	11
Removal:		
Axle Assembly	3-22	27
Body	3-27	30
Brake Shoes	3-20	25
Data Plate	3-25	29
Drain Valve Assembly	3-29	32
Drawbar	3-33	32
Handbrake Assembly	3-14	22
Intervehicular Cable	3-13	21
Lamps	3-7	19
Lights	3-11	21
Lunette and Landing Leg	3-23	27
Paulin	3-24	29
Reflector	3-26	30
Suspension System	3-21	26
Tire and Wheel Assembly	3-15	23
Tool Chests	3-32	32
Wheel Bearings	3-17	24
Wheel, Hub and Drum Assembly	3-16	24
Wiring Harness	3-12	21

S	Paragraphs	Pages
Scope	1-1	3
Shipment and Limited Storage	4-1	33
Shipment by Truck	4-4	36
Shipping Instructions	4-2	33
Specially Designed (Fabricated)		
Tools and Equipment	5-7	38
Special Tools and Equipment	5-5	38
Suspension System:		
Cleaning, Inspection, and Repair	3-21	27
Installation	3-21	27
Removal	3-21	26

T	Paragraphs	Pages
Tabulated Data	5-4	38
Tire and Wheel Assembly:		
Disassembly	3-15	23
Installation	3-15	24
Reassembly	3-15	24
Removal	3-15	23
Tools and Equipment	3-1	14
Tool Chests:		
Cleaning, Inspection, and Repair	3-32	27
Installation	3-32	27
Removal	3-32	27

W	Paragraphs	Pages
Wheel Bearings:		
Adjustment	3-17	24
Cleaning, Inspection, and Repair	3-17	24
Installation	3-17	24
Removal	3-17	24
Wheel, Hub and Drum Assembly:		
Adjustment	3-16	24
Cleaning, Inspection, and Repair	3-16	24
Installation	3-16	24
Removal	3-16	24
Wiring Harness:		
Installation	3-12	21
Removal	3-12	21

By Order of the Secretary of the Army:

W. C. WESTMORELAND,  
*General, United States Army,*  
*Chief of Staff.*

Official:

KENNETH G. WICKHAM,  
*Major General, United States Army,*  
*The Adjutant General.*

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To be distributed in accordance with DA Form 12-39 (qty rqr block No. 53) operator maintenance requirements for Trailer, Cargo, ¼ Ton, 2-Wheel, M416.