TECHNICAL MANUAL

OPERATOR'S, AVIATION UNIT AND INTERMEDIATE MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS)

TRANSPORTER, AIRMOBILE,

MODEL D761, PART NUMBER 46692-01,

NATIONAL STOCK NUMBER 1740-01-065-0571

HEADQUARTERS, DEPARTMENT OF THE ARMY

9 MARCH 1981

CHANGE
NO 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 21 May 1987

Operator's, Aviation Unit and
Intermediate Maintenance Manual
(Including Repair Parts and Special Tools Lists)

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TM 55-1740-202-13&P, 9 March 1981, is changed as follows:

1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
i and ii	i and ii
1-1 and 1-2	1-1 and 1-2
A-1/A-2	A-1/A-2
B-3 and B-4	B-3 and B-4
C-1 through C-13	C-1 through C-26

2. Retain this sheet in front of manual for reference purposes.

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
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The Adjutant General

DISTRIBUTION:

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WARNING

Do not work under transporter unless parts are blocked to prevent them from falling onto personnel.

Do not attempt to lift heavy mechanical assemblies without help.

Clean up all spilled hydraulic fluid to prevent personnel from being injured.

A minimum of two persons is required to disconnect the front and rear transporter assemblies.

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TECHNICAL MANUAL

No. 55-1740-202-13&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C. *9 March 1981*

Operator's, Aviation Unit, and Intermediate
Maintenance Manual

TRANSPORTER, AIRMOBILE, MODEL D761,
PART NUMBER 46692-01
NATIONAL STOCK NUMBER 1740-01-065-0571

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Aviation Systems Command, ATTN: AMSAVMPSD, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished directly to you.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE. This manual contains maintenance and overhaul instructions for Airmobile Transporter, Model D761 (fig. 1-1), hereinafter called the transporter. The transporter is manufactured by Craig Systems Corp., Lawrence, Massachusetts under part number 46692-01. The transporter consists of two halves and is a highly mobile, lightweight four-wheeled vehicle. The transporter can be transported by air or towed over varying terrain separately or coupled to a mating unit (airmobile shelter or X-4 field containers).

1-2. FORMS AND RECORDS. Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are specified by and listed in DA PAM 738-751.

Section II. DESCRIPTION AND LEADING PARTICULARS

1-3. FUNCTIONAL DESCRIPTION. The front and rear transporter assemblies (figures 1-2 and 1-3) are towed as a unit. They are coupled together through the holes in each tine, using hardware supplied. In addition, a safety cable ties the two assemblies together (see fig. 1-1). Once at the shelter site, the transporter assemblies are uncoupled and attached to the shelter by special mating devices on the shelter and the transporter assemblies. Quick clamps on the front transporter assembly provide storage areas for the coupling hardware when the transporter assemblies are attached to a shelter (see fig. 1-4). The lifting jacks are used to lift the transporter and its load to travel configuration prior to attachment to the tow vehicle. Additional quick clamps provide storage areas for the jack handles when not in use. The tow vehicle can tow the transporter at speeds up to 50 mph on paved roads and up to 15 mph on unimproved roads.

1-4. TECHNICAL CHARACTERISTICS. The transporter is subdivided into five groups: suspension frame group (common to front and rear assemblies); front axle group; rear axle group; brake group; and wheel group.

a. Suspension Frame Group. Each front and rear assembly contains a suspension frame group that includes the following parts:

(1) Suspension frame.

(2) Hydraulic jack.

(3) Two lockout struts.

(4) Two reflector brackets, each supporting two red or amber reflectors.

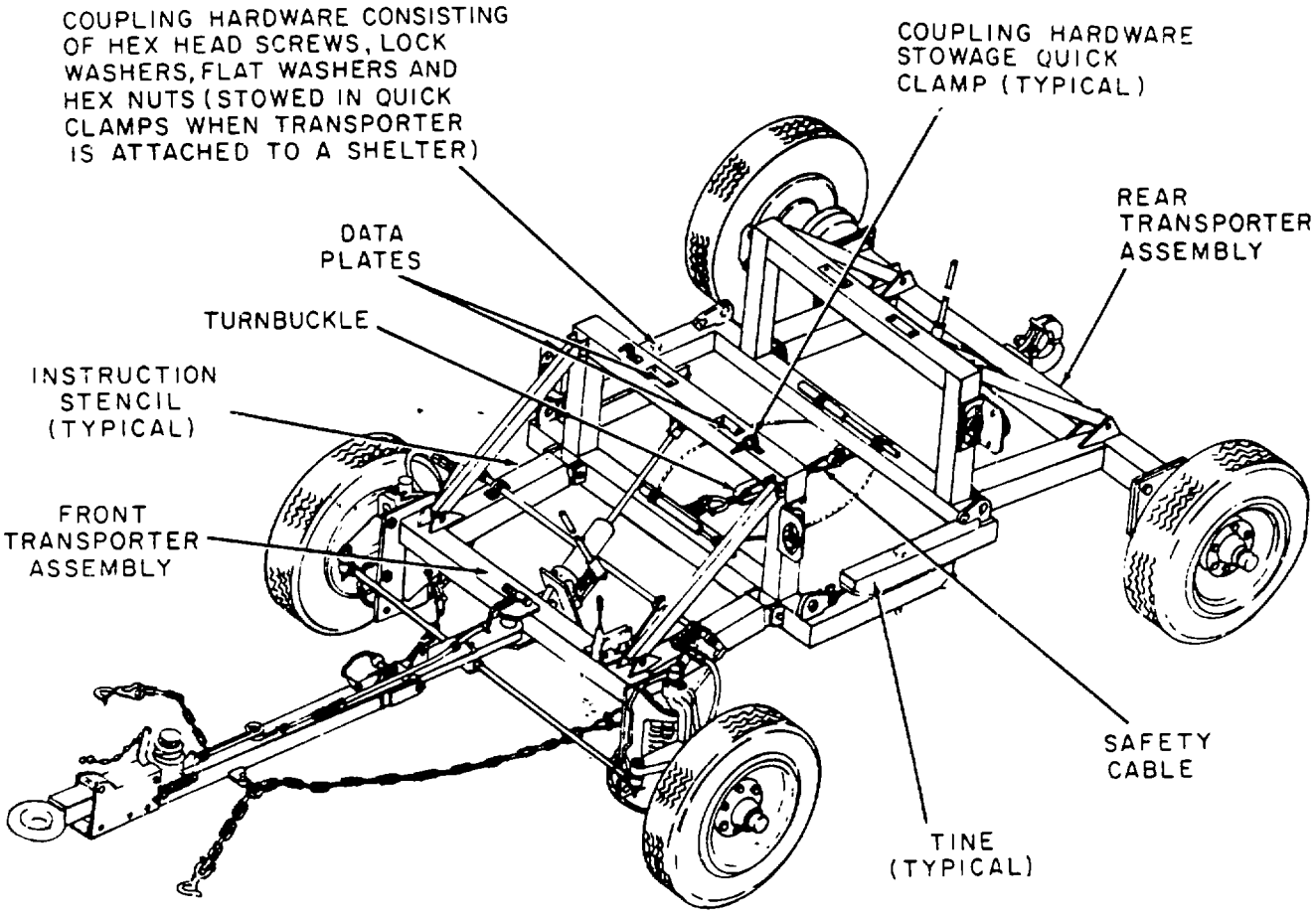


Figure 1-1. Airmobile transporter, Model D761

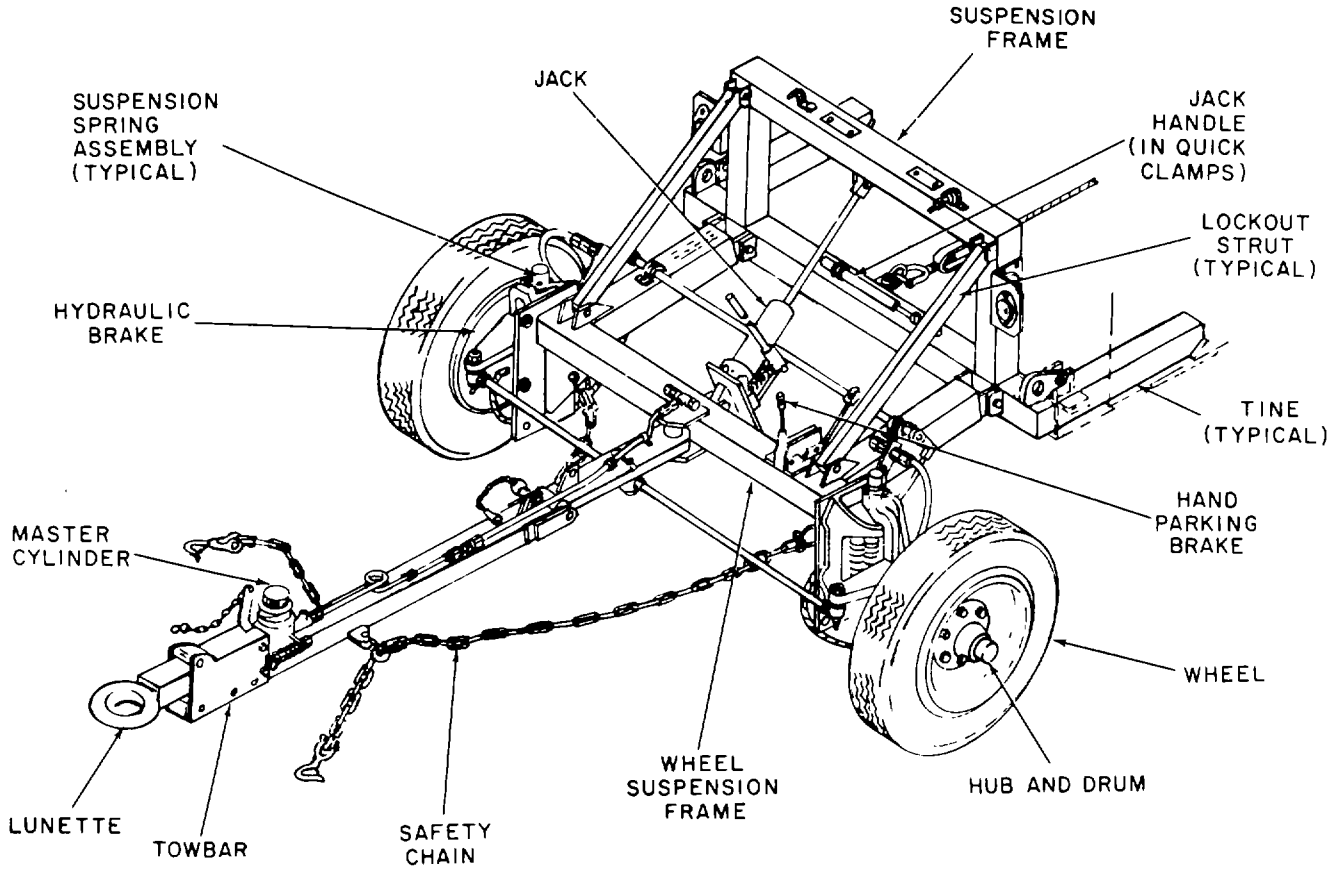


Figure 1-2. Front transporter assembly.

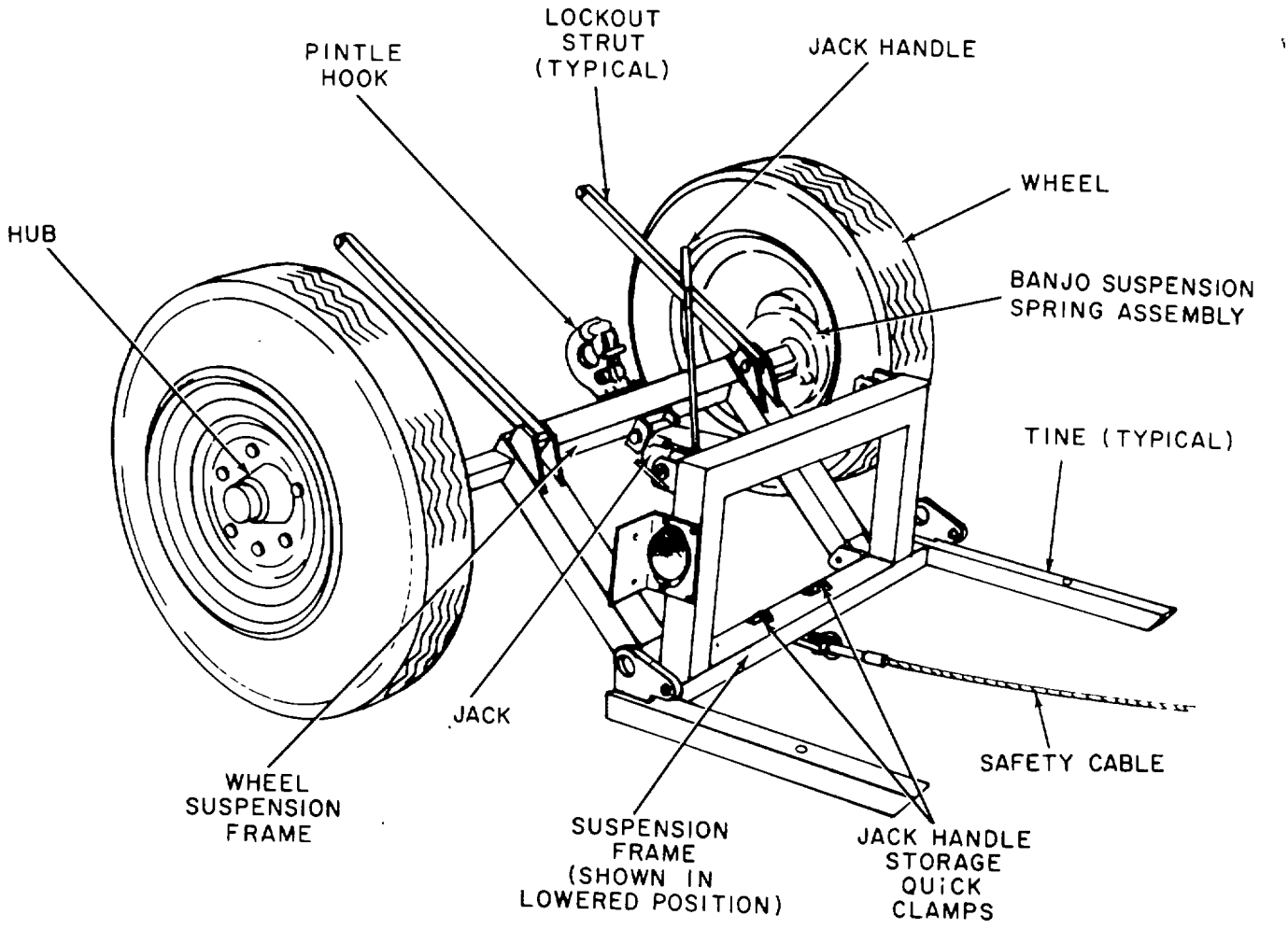


Figure 1-3. Rear transporter assembly.

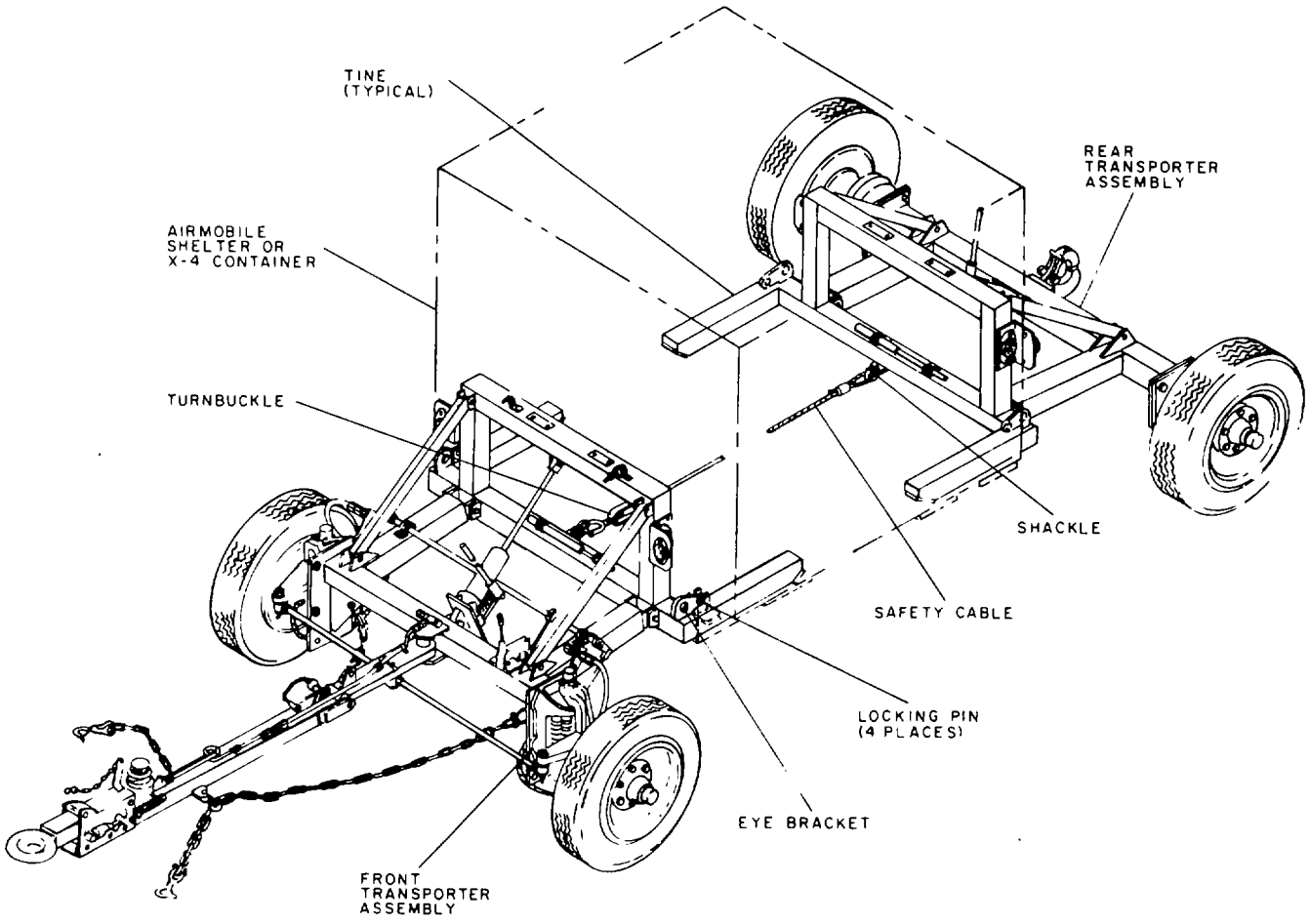


Figure 1-4. Shelter connected for towing.

b. Front Axle Group. The front axle group includes the following parts:

(1) Wheel suspension frame.

(2) Two wheel mount shock-absorbing spring assemblies.

(3) Two tie-rod assemblies.

(4) Towbar.

(5) Safety chain.

c. Rear Axle Group. The rear axle group includes the following parts:

(1) Wheel suspension frame.

(2) Two banjo suspension spring assemblies.

(3) Pintle hook.

d. Brake Group. The brake group, located on the front transporter assembly, consists of the following parts:

(1) Mechanical parking brake lever and linkage (linked to hydraulic brake shoes and lining).

(2) Hydraulic brake actuator assembly (located on towbar).

(3) Wheel cylinders and brake shoes.

e. Wheel Group. The wheel group consists of the following parts:

(1) Tires and tubes.

(2) Wheels.

(3) Hub assemblies (rear) or drum and hub assemblies (front).

(4) Two seals.

(5) Two inner bearings.

(6) Two outer bearings.

f. Wheel Suspension and Braking. The rear wheels are mounted on banjo spring assemblies. Each banjo spring assembly contains seven springs that absorb road shock at the rear wheels. The front wheels are mounted on wheel mount shock-absorbing spring assemblies. Each wheel mount shock-absorbing spring assembly contains six springs that absorb road shock at the front wheels. Each front assembly includes a kingpin as the steering pivot point. The brakes at the front wheels are actuated by the hand parking brake linkage or by hydraulic pressure. When connected to a tow vehicle, the hydraulic brake system is controlled by an actuator on the towbar. When the brakes on the tow vehicle are applied, the trailer pushes against the tow vehicle, causing the actuator to compress and exert a force on the master cylinder that supplies hydraulic pressure to the front brakes.

g. Steering. The steering center arm assembly is connected to the front axle by the center arm pin. Tie rods connect the steering arm assembly to the wheel mount shock-absorbing spring assemblies. The maximum turning radius is limited by safety chains connecting the front wheel suspension frame and towbar. Incorporated in the center arm pivot is a hydraulic brake hose tee fitting.

h. Towbar. The towbar is connected to the two vehicle with a lunette eye and two safety chains and to the steering center arm with a hinge pin. The towbar includes a detent pin for locking it upright when not in use, two clevis links for securing the safety chains, and, on the front, the hydraulic system actuator.

i. Lifting Jacks. A lifting jack is centrally located on each transporter assembly, connected between the suspension frame and the wheel suspension frame. These jacks are used to raise and lower the suspension frame and shelter or container.

1-5. LEADING PARTICULARS. Leading particulars for the transporter are listed in table 1-1.

Table 1-1. Leading Particulars

Model number	D761
Part number	44692-01
Weight:	
Transporter empty	1200 pounds (544 kg)
Transporter capacity	4000 pounds (1814 kg)
Tow vehicle	
Dimensions:	
Width	6.0 feet (1.8 m)
Height with towbar up	6 feet, 3 inches (1.9 m)
Height with towbar down	3 feet, 1-3/4 inches (95.89 cm)
Length with towbar up	9.0 feet (2.75 m)
Maximum towing speed:	
Paved roads	50 mph (31.1 km/hr)
Unimproved roads	15 mph (9.32 km/hr)
Tires:	
Type	MS35338-9
Size	7:00-16
Tire pressure:	
Off-road service and air transport	25 psi (1757.7 gm/sq cm)
Highway service	45 psi (3163.8 gm/sq cm)

Section III. TEST EQUIPMENT, SPECIAL TOOLS, AND MATERIALS

1-6. TEST EQUIPMENT. No test equipment is required for maintaining or overhauling the transporter.

1-7. SPECIAL TOOLS. No special tools are required for maintaining or overhauling the transporter.

1-8. EXPENDABLE SUPPLIES AND MATERIALS. Table 1-2 lists the expendable supplies and materials required to maintain and overhaul the transporter.

Table 1-2. Expendable Supplies and Materials

Item number	Nomenclature	Specification
1	Automotive and artillery grease	MIL-G-10924
2	Dry-cleaning solvent	P-D-680
3	Heavy-duty brake fluid SAE 70 RE	VV-H-910 (H-58)
4	Hydraulic fluid	VV-H-910
5	Phosphate coating	MIL-F-14072
6	Red oxide primer	MIL-F-14072
7	ODX paint, color 24087	FED-STD-595

1-9. TEST EQUIPMENT, SPECIAL TOOL, AND SUPPORT EQUIPMENT. Not applicable.

CHAPTER 2

OPERATING INSTRUCTIONS

2-1. PREPARATION FOR TOWING. Before operating the transporter, per- form the daily preventive maintenance inspections listed in table 2-1.

2-2. TOWING TRANSPORTER AS A UNIT. The transporter is towed as follows:

a. Attach the front and rear transporter assemblies together, using the hardware stowed in the quick clamps.

b. Attach the safety cable between the front and rear transporter assemblies and tighten the turnbuckle.

NOTE

Wind the additional length of safety cable around the rear transporter suspension frame before hooking it up to the rear transporter assembly.

c. Connect the lunette eye of the towbar into the pintle hook of the tow vehicle. Lock the pintle hook and secure the pintle hook safety chain.

d. Connect the two towing safety chains and the brake safety chain to the tow vehicle.

e. Release the hand parking brake on the transporter. The transporter can now be towed.

Table 2-1. Daily Inspection Requirements

Item	Major assembly	Requirements
Tires	Front and rear transporter assemblies	Check for cracks, excess wear, and low pressure.
Safety chains	Between front and rear trans- porter assemblies	Check for damage.
Hydraulic jacks	Front and rear transporter assemblies	Check for leaks.

Table 2-1. Daily Inspection Requirements (Cont)

Item	Major assembly	Requirements
Transporter suspension frame	Front and rear transporter assemblies	Check that coupling hardware and jack handles are stowed in quick clamps.
Reflectors	Front and rear transporter suspension frame assemblies	Check for cracks and other damage.
Cotter pins	Front and rear transporter assemblies	Check that all cotter pins are installed (fig. 4-4 and 4-6).
Master cylinder	Front transporter assembly	Check fluid levels and associated hydraulic hoses for leaks. If necessary, add fluid.
Hand parking brake	Front transporter assembly	Check linkage and cables for damage and for correct operation.

NOTE

The transporter brakes are of the surge type. That is, when the transporter pushes against the tow vehicle, the actuator of the braking system telescopes together and applies a force to the master cylinder supplying hydraulic pressure to the brakes.

CAUTION

When the tow vehicle attempts to back up with the transporter attacked, braking action occurs. Therefore, backing up will damage the transporter. TRANPORTER SHALL NOT BE BACKED UP.

2.3. ATTACHING TRANSPORTER ASSEMBLIES TO SHELTER OR CONTAINER. The front and rear assemblies of the transporter are attached to the shelter or container as follows:

a. Uncouple the transporter from the tow vehicle and apply the hand brake.

WARNING

A minimum of two persons is required to disconnect the front and rear transporter assemblies.

b. Unwind the safety cable from the rear transporter assembly, making sure that the safety cable remains attached to front transporter assembly.

CAUTION

Ensure that the rear assembly cannot move or roll.

c. Disconnect the front and rear assemblies.

d. Align the transporter assemblies so that the front of the tines is directly in line with the outer tine brackets of the shelter or container.

e. Disconnect the strut lockouts by removing the top T-pins. Pivot the strut lockouts away from the transporter tines.

f. Bleed the hydraulic lifting jacks to the fully retracted position. The transporter assembly can now be positioned so that the tines of the assemblies can be inserted in the tine brackets of the shelter or container base.

g. Align the hole in the shelter mounting bracket with the hole in the transporter shelter mounting bracket.

h. Attach the two mounting brackets together, using the shelter locking pins. Secure all four corners. The transporter and shelter or container are now ready to be lifted to the proper road clearance level.

2-4. LIFTING TRANSPORTER AND SHELTER OR CONTAINER TO TRAVEL CONFIGURATION. After securing the shelter or container to the transporter assembly, proceed as follows:

a. Remove lifting jack handles stowed beneath front and rear suspension frames.

b. Close the bleed valve on the hydraulic lifting jack and then insert each handle in its associated jack.

c. Pump each jack until the jack piston exerts a lifting pressure on the transporter assembly. When each jack has reached this point, the shelter is ready for lifting.

d. Station a man at each jack and raise the shelter by pumping the jacks in unison.

e. Extend the jacks until the strut lockouts can be pivoted into position without striking the shelter or container. Continue extending the jacks until the T-pins can secure the lockout struts in their top brackets. Secure the T-pins with cotter hairpins.

f. Apply the hand brake.

g. Using extreme caution, attach the safety cable to the rear transporter assembly and tighten turnbuckle.

h. Remove and stow extension jack handles on the front and rear suspension frames.

i. Attach the tow vehicle to the transporter (paragraph 2-2, steps c, d, and e). The transporter is now ready for towing.

CHAPTER 3

AVIATION UNIT MAINTENANCE INSTRUCTIONS

Section I. PREPARATION FOR INSTALLATION, STORAGE AND SHIPMENT

3-1. INSTALLATION. See paragraph 2-1.

3-2. STORAGE. When the transporter is not to be used for an extended period of time, it may be necessary to store it. To store, lubricate all parts listed in paragraph 3-5, step c, set tire pressure to 25 psi, and support off the ground on blocks in a warm, dry environment.

3-3. SHIPMENT. See paragraph 2-1 for transporter shipment and see paragraph 2-3 for transporter shipment with shelter or container.

Section II. INSPECTION AND SERVICING

3-4. INSPECTION REQUIREMENTS. The transporter must be inspected at daily (eight hours of operational time) and periodic (100 to 120 hours of operational time) inspection intervals. Daily inspection requirements are given in table 2-1 and periodic inspection requirements are given in table 3-1. All defects discovered during inspection will be corrected before malfunctioning or serious damage occurs.

3-5. SERVICING. The transporter requires service checks for the following:

a. Tire Pressure. If the transporter is in storage or is being shipped by air, transportation or being used for cross country movement, set the tire pressure to 25 psi.

b. Brake System. Before using the transporter, check the fluid level of the master cylinder located on the towbar. If required, fill with SAE 70 R3 heavy-duty brake fluid or equivalent.

c. Lubrication. The transporter is lubricated at the points shown in fig. 3-1. Lubrication is performed after 500 hours of normal operation, after washing, or after fording. Lubricate the transporter as follows:

(1) Clean all fittings before lubricating.

(2) Clean parts with dry-cleaning solvent.

(3) Lubricate points, indicated by arrows, on both sides of the transporter.

(4) Use automotive and artillery grease at all lubrication points.

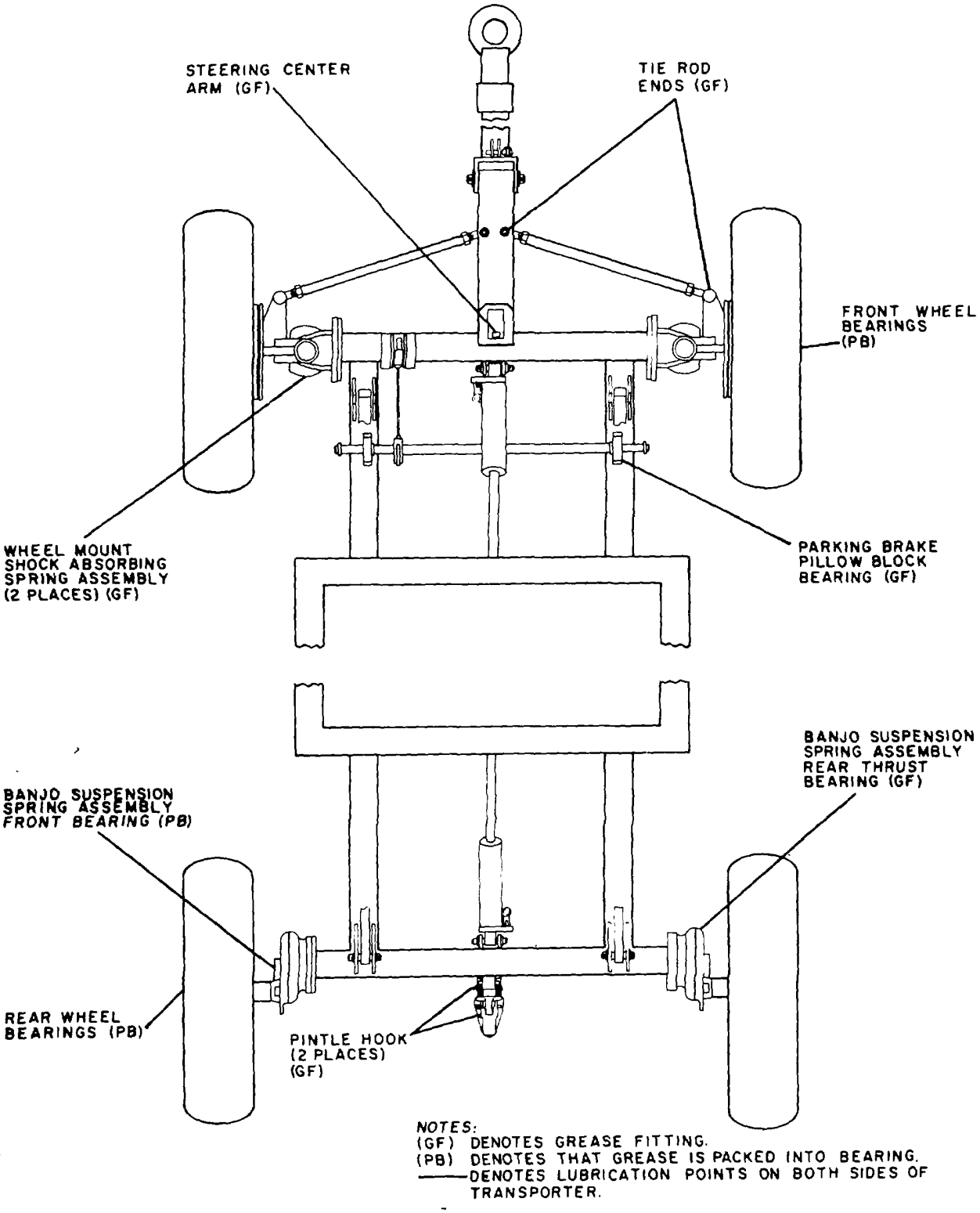


Figure 3-1. Lubrication point

Table 3-1. Periodic Inspection Requirements

Item	Major assembly	Requirements
Brake linings	Front transporter assembly	Check for wear.
Wheel cylinders	Front transporter assembly	Check for leakage.
Wheel bearings	Front and rear transporter assemblies	Check for wear or damage.
Tie rods	Front and rear transporter assemblies	Check for damage, wear, or out-of-adjustment condition.
Wheel mount shock- absorbing spring assemblies	Front transporter assembly	Check for looseness or other damage.
Banjo suspension spring assemblies	Rear transporter assembly	Check for looseness or other damage.
Parking brake	Front transporter assembly	Check for correct adjustment.
Hydraulic jacks	Front and rear transporter assemblies fluid.	Check fluid level. If necessary, add

Section III. PREVENTIVE MAINTENANCE

3-6. CLEANING. The transporter should be kept free of excessive dirt and corrosive materials. Clean by hosing down all surfaces with soap and water.

3-7. REPAINTING. Touch up damaged painted surfaces as follows:

a. Surface preparation. Use fine sandpaper to remove damaged paint and corrosion on base metal. Apply phosphate coating, Military Specification MIL-F-14072, to bare metal.

b. Prime Coating. Coat the prepared surface with red oxide primer, Military Specification MIL-F-14072.

c. Final Coating. Cover the prime coat with paint conforming to ODX color 24087 of Federal Standard FED-STD-595.

Section IV. PARTS LISTING

3-8. PARTS NUMBERS. Table 3-2 lists the part numbers for all the parts identified in fig. 4-1 through 4-13. The following manufacturers are listed in the FSCM column of table 3-2.

Federal Supply Code for Manufacturers	Manufacturer's Name and Address
01276	Aeroquip Corp. Industrial Div Van Wert Plant 1225 W. Main St Van Wert, OH 45891
06848	Bendix Energy Controls Div 717 North Bendix Drive South Bend, IN 46620
07707	USM Corp. USM Fastener Div 510 River Rd Shelton, CT 06484
19207	US Army Tank-Automotive Command TACON Warren, MI 48090
19691	Crosby-Laughlin Div American Hoist and Derrick Co. 140 Fore St Portland, ME 04111
84256	Avibank Mfg. Inc. PO Box 391 210 South Victory Blvd. Burbank, CA 91503

Federal Supply Code for Manufacturers	Manufacturer's Name and Address
20988	Essick Mfg. Div A-T-C Inc. 1950 Santa Fe Ave. Los Angeles, CA 90021
30327	I-T-E Imperial Corp. Subsidiary of Gould Inc. Valve and Fittings Div 6300 W Howard St Chicago, IL 60648
36251	Lincoln St Louis Division of McNeil Corp. 4010 Goodfellow Blvd. St. Louis, MO 63120
43766	Nice Products Div of SKF Industries Detwiler Rd PO Box 307 Kulpsville, PA 19443
56988	Century Spring Co. Inc. 222 E 16th Street PO Box 15287 Los Angeles, CA 90015
57733	Stewart-Warner Corp. 1826 Diversey Pkway Chicago, IL 60614
60038	The Timken Co. 1835 Dueber Ave. SW Canton, OH 44706
63477	Wagner Electric Corp. Wagner Div 6400 Plymouth Ave. St Louis, MO 63133
71286	Rexnord Inc. Specialty Fastner Div 22 Spring Valley Rd PO Box 98 Paramus, NJ 07652

Federal Supply Code for Manufacturers	Manufacturer's Name and Address
81902	Craig Systems Corp. 360 Merrimac St Lawrence, MA 01842
83445	Aerol Co. 3235 San Fernando Rd Los Angeles, CA 90065
88044	Aeronautical Standard Group Department of Navy and Air Force
94189	Dico Co. Inc. 200 SW 16th Des Moines, IA 50305
96906	Military Standards Promulgated by Military Departments Under Authority of Defense Standardization Manual 4120 3-M
98349	TRW Inc. Michigan Div Van Dyke Plant 34201 Van Dyke Ave. Warren, MI 48092
(FSCM not available)	Rolero Inc. 4933 E 154th Cleveland, OH 44128
(FSCM not available)	Perfect Parts Inc. 33 Commerce Rd Carlstadt, NJ 07072

Table 3-2. Parts Listing

ILLUSTRATION (a) FIG NO.	ILLUSTRATION (b) ITEM NO.	SMR CODE	Part Number	FSCM	DESCRIPTION	U/M	QTY INC. IN UNIT
4-1	1		23436	20988	NUT, Cone	ea	24
4-1	2		MS35388-93	96906	TIRE	ea	4
4-1	3		MS35392-8	96906	TUBE	ea	4
4-1	4		MS51375	96906	CAP, Valve	ea	4
4-1	5		MS51357-2	96906	VALVE	ea	4
4-1	6		MS35388-9	96906	FLAP	ea	4
4-1	7		40196	20988	WHEEL	ea	4
4-2	1		23135	20988	CAP, Grease	ea	2
4-2	2		16003	20988	PIN, Cotter	ea	2
4-2	3		16082	20988	NUT, Spindle	ea	2
4-2	4		16054	20988	WASHER, Key	ea	2
4-2	5		23121	20988	CONE, Outer Bearing	ea	2
4-2	6		23111	20988	CUP, Outer Bearing	ea	2
4-2	7		28586	20988	RING, Snap	ea	2
4-2	8		22689	20988	HUB	ea	2
4-2	9		Deleted				
4-2	10		23602	20988	SEAL, Grease	ea	2
4-2	11		23122	20988	CONE, Inner Bearing	ea	2
4-2	12		23114	20988	CUP, Inner Bearing	ea	2
4-2	13		23606	20988	O-Ring	ea	2
4-2	14		16033	20988	Z-Ring	ea	2
4-3	1		23135	20988	CAP, Grease	ea	2
4-3	2		16003	20988	PIN, Cotter	ea	2
4-3	3		16082	20988	NUT, Spindle	ea	2
4-3	4		16054	20988	WASHER, Key	ea	2
4-3	5		23121	20988	CONE, Outer Bearing	ea	2
4-3	6		23111	20988	CUP, Outer Bearing	ea	2
4-3	7		28586	20988	RING, Snap	ea	2
4-3	8		25903	20988	HUB AND DRUM	ea	2
4-3	9		Deleted				
4-3	10		23602	20988	SEAL, Grease	ea	2
4-3	11		23122	20988	CONE, Inner Bearing	ea	2
4-3	12		23114	20988	CUP, Inner Bearing	ea	2
4-3	13		23606	20988	O-RING	ea	2
4-3	14		16033	20988	Z-RING	ea	2
4-4	1		C46430G1	81902	BANJO SUSPENSION SPRING ASSEMBLY	ea	2
4-4	2		MS90725-114	96906	SCREW, Hex Head	ea	8
4-4	3		MS35338-48	96906	LOCKWASHER	ea	8
4-4	4		MS51967-14	96906	NUT, Hex	ea	8
4-4	5		D46637G1	81902	FRAME, Wheel Suspension	ea	1
4-4	6		MS9245-65	96906	PIN, Cotter	ea	8
4-4	7		AN960-1216	96906	WASHER, Flat	ea	8

Table 3-2. Parts Listing (Cont)

ILLUSTRATION (a) FIG NO.	ILLUSTRATION (b) ITEM NO.	SMR CODE	Part Number	FSCM	DESCRIPTION	U/M	QTY INC. IN UNIT
4-4	8		B46594P1	81902	PIN, Straight	ea	4
4-4	9		BSK8766	81902	JACK, Hydraulic	ea	1
4-4	10		11602356-1	19207	HAIRPIN, Cotter	ea	2
4-4	11		B46686G1	81902	PIN, Lockout Strut	ea	2
4-4	12		B46685P1	81902	STRUT, Lockout	ea	2
4-4	13		B46594P2	81902	PIN, Straight	ea	2
4-5	1		MS24665-357	96906	PIN, Cotter	ea	2
4-5	2		AS310-1216	83445	NUT	ea	2
4-5	3		50264	83445	WASHER, Seal	ea	2
4-5	4		LM11949	60038	FRONT BEARING ASSEMBLY	ea	2
4-5	5		5033	36251	GREASE FITTING	ea	2
4-5	6		C46430G1	81902	FRONT PLATE ASSEMBLY	ea	2*
4-5	7		D89	56988	SPRING	ea	14
4-5	8		51925-50	83445	WASHER, Felt	ea	2
4-5	9		6230-18	83445	O-RING	ea	2
4-5	10		7075	43766	BEARING, Thrust	ea	2
4-5	11		52146	83445	MOUNTING PLATE, Back	ea	2
4-5	12		11406-24	83445	KINGPIN	ea	2
4-6	1		MS51967-20	96906	NUT	ea	2
4-6	2		MS35338-50	96906	LOCKWASHER	ea	2
4-6	3		MS27183-21	96906	WASHER, Flat	ea	4
4-6	4		MS90725-177	96906	BOLT, Hex Head	ea	2
4-6	5		G-209	19691	CHAIN SHACKLE	ea	2
4-6	6		C47302G1	81902	CABLE ASSEMBLY	ea	1
4-6	7		G-228	19691	TURNBUCKLE	ea	1
4-6	8		B46746P1	81902	PLATE Identification	ea	1
4-6	9		B42607P1	81902	PLATE Identification	ea	1
4-6	10		AN535-2-4	88044	SCREW, Drive	ea	8
4-6	11		7C27-10BA	71286	QUICK CLAMP	ea	6
4-6	12		MS35207-263	96906	SCREW, Panhead	ea	8
4-6	13		MS3533843	96906	LOCKWASHER	ea	8
4-6	14		B46975P1	81902	JACK HANDLE	ea	2
4-6	15		7C1-14W	71286	QUICK CLAMP	ea	2
4-6	16		MS35387-1	96906	REFLECTOR (Front)	ea	4
4-6	16		MS35387-2	96906	REFLECTOR (Back)	ea	4
4-6	17		MS35207-260	96906	SCREW, Panhead	ea	8
4-6	18		MS35338-44	96906	LOCKWASHER	ea	8
4-6	19		B46694P1	81902	BRACKET, Reflector	ea	4

*Individual part not procurable. Order the next higher assembly listed

Table 3-2. Parts Listing (Cont)

ILLUSTRATION (a) FIG NO.	ILLUSTRATION (b) ITEM NO.	SMR CODE	Part Number	FSCM	DESCRIPTION	U/M	QTY INC. IN UNIT
4-6	20		MS35207-279	96092	SCREW, Panhead	ea	16
4-6	21		MS9245-65	96092	PIN, Cotter	ea	12
4-6	22		AN960-1216	88044	WASHER, Flat	ea	12
4-6	23		B465894P2	81902	PIN, Straight	ea	2
4-6	24		B465894P2	81902	PIN, Straight	ea	4
4-6	25		11602356-1	81902	HAIRPIN, Cotter	ea	2
4-6	26		B46686G1	81902	PIN, Lockout Strut	ea	2
4-6	27		B46685P1	81902	STRUT, Lockout	ea	2
4-6	28		BSK8766	81092	JACK, Hydraulic	ea	1
4-6	29		D46638G1	81902	FRAME, Front Transporter Suspension	ea	1
4-6	29		D46638G1	81902	FRAME, Rear Transporter Suspension	ea	1
4-7	1		78786	06848	SPRING, Shoe Return	ea	4
4-7	2		29716	06848	SPRING, Adjusting Assembly	ea	2
4-7	3		48031	06848	PIVOT NUT	ea	2
4-7	4		48032	06848	SOCKET	ea	2
4-7	5		29491	06848	SCREW, Adjusting	ea	2
4-7	6		23969	06848	CUP, Hold-down	ea	8
4-7	7		23960	96906	SPRING, Hold-down	ea	4
4-7	8		26320	96906	PIN, Hold-down	ea	4
4-7	9		3202053	96906	SERVICE REPLACEMENT SHOES and LINING	ea	2
4-7	10		41029	06848	RETAINER	ea	2
4-7	11		41647	06848	WASHER, Anti-rattle Spring	ea	2
4-7	12		48834	06868	LEVER ASSEMBLY Parking Brake (Left-Hand)	ea	1
4-7	12		48835	06848	LEVER ASSEMBLY Parking Brake (Right-Hand)	ea	1
4-7	13		302143	06848	EQUALIZER LEVER	ea	2
4-7	14		41199	06848	SPRING, Equalizer Lever	ea	2
4-7	15		47865	06848	CONNECTING LINK, Wheel Cylinder	ea	4
4-7	16		310333	06848	SCREW AND LOCKWASHER ASSEMBLY	ea	4
4-7	17		616200	06848	WHEEL-CYLINDER (Left-Hand)	ea	1
4-7	17		516201	06848	WHEEL-CYLINDER (Right-Hand)	ea	1
4-7	18		32594	06848	PLATE, Shoe Guide	ea	2
4-7	19		301055	06848	COVER, Dust	ea	2

Table 3-2. Parts Listing (Cont)

ILLUSTRATION (a) FIG NO.	ILLUSTRATION (b) ITEM NO.	SMR CODE	Part Number	FSCM	DESCRIPTION	U/M	QTY INC. IN UNIT
4-7	20		MS90726-62	96909	SCREW	ea	10
4-7	21		MS35338-46	96909	LOCKWASHER	ea	10
4-7	22		MS51968-9	96909	NUT, Hex Head	ea	10
4-7	23		3202060	06848	BACKING PLATE ASSEMBLY (Left Hand)	ea	1
4-7	23		3202061	06848	BACKING PLATE ASSEMBLY (Right Hand)	ea	1
4-8	1		518948-43	20988	CABLE, Emergency Brake	ea	2
4-8	2		49232	20988	PIN, Cotter	ea	3
4-8	3		20870	20988	PIN, Clevis	ea	3
4-8	4		20869	20988	CLEVIS	ea	2
4-8	5		19669	20988	NUT, Stop	ea	3
4-8	6		MS35338-45	96906	LOCKWASHER	ea	3
4-8	7		19691	20988	SCREW, Hex Head Cap	ea	3
4-8	8		20817	20988	CRANK, Brake Rod	ea	3
4-8	9		MS90725-64	96906	SCREW	ea	4
4-8	10		MS35338-46	96906	LOCKWASHER	ea	4
4-8	11		27183-14	20988	WASHER, Flat	ea	4
4-8	12		29793	20988	PILLOW BLOCK	ea	2
4-8	13		919015	20988	COLLAR	ea	2
4-8	14		20815	20988	SHAFT, Cross	ea	1
4-8	15		MS51967-5	96906	NUT	ea	2
4-8	16		MS35338-40	96906	WASHER	ea	2
4-8	17		MS90725-40	96906	SCREW	ea	2
4-8	18		18947-6.5	20988	HANDLE, Rod	ea	1
4-8	19		18860	20988	HANDLE, Brake	ea	1
4-9	1		1641-B	57733	GREASE FITTING	ea	4
4-9	2		MS24665-285	96906	PIN, Cotter	ea	4
4-9	3		MS9358-13	96906	NUT	ea	4
4-9	4		ES323L	98349	TIE ROD END, Left-Hand	ea	2
4-9	5		MS45905-S10	96906	NUT, Left-Hand Plain Hex	ea	2
4-9	6		ES323R	98349	TIE ROD END, Right-Hand	ea	2
4-9	7		MS51968-20	96906	NUT, Right-Hand Plain Hex	ea	2
4-9	8		B46683P1	81902	TIE ROD	ea	2
4-9	9		MS90725-8	96906	SCREW, Hex Head	ea	1
4-9	10		MS35338-44	96906	LOCKWASHER	ea	1
4-9	11		B46689GC1	81902	PIN, Center Arm	ea	1
4-9	12		C46744G1	81902	ARM, Steering Center	ea	1

Table 3-2. Parts Listing (Cont)

ILLUSTRATION (a) FIG NO.	ILLUSTRATION (b) ITEM NO.	SMR CODE	Part Number	FSCM	DESCRIPTION	U/M	QTY INC. IN UNIT
4-9	13		MS51967-14	96906	NUT, Hex	ea	12
4-9	14		MS35338-43	96906	LOCKWASHER	ea	12
4-9	15		MS90725-115	96906	SCREW, Hex-Head	ea	12
4-9	16		D46974G1	81902	LEFT-HAND WHEEL MOUNT SHOCK-ABSORBING SPRING ASSEMBLY	ea	1
4-9	17		D46974G2	81902	RIGHT-HAND WHEEL MOUNT SHOCK- ABSORBING SPRING ASSEMBLY	ea	1
4-9	18		C46745G1	81902	HOSE, Flexible	ea	1
4-9	19		F46691P48	81902	FRAME TEE	ea	1
4-9	20		D46636G1	81902	FRAME, Wheel Suspension	ea	1
4-10	1		MS15001-1	96906	GREASE FITTING	ea	4
4-10	2		AS65-4-6	83445	SCREW	ea	6
4-10	3		MS122032	96906	LOCKWASHER	ea	6
4-10	4		51536	83445	CAP	ea	2
4-10	5		59001	83445	CAPSCREW	ea	2
4-10	6		51519-1525	83445	KINGPIN	ea	2
4-10	7		55021	83445	SPRING	ea	12
4-10	8		51598	83445	COVER, Dust	ea	6
4-10	9		8257-3	83445	SUPPORT ASSEMBLY, Spring	ea	2
4-10	10		11143	83445	WASHER	ea	2
4-10	11		51658	83445	GUIDE, Spring	ea	6
4-10	12		D4697G2	81902	KNUCKLE, (Left-Hand)	ea	1
4-10	12		D4697G1	81902	KNUCKLE,(Right-Hand)	ea	1
4-10	13		82009-1	83445	BRACKET	ea	2
4-11	1		202124-3-4S	01276	REDUCER	ea	2
4-11	2		C47135G1	81902	HOSE, Flexible	ea	2
4-11	3		2239-2-4S	01276	CONNECTOR, Flare Bulkhead	ea	2
4-11	4		C47136P5	81902	MOUNTING BRACKET	ea	2
4-11	5		48-W-3/16 FX1/8NPT		CONNECTOR, Male	ea	2
4-11	6		C47136G1	81902	TUBE, Brake Line	ea	2
4-11	7		47-W-3/16 FX1/4M	30327	ADAPTER	ea	2
4-11	8		FC3933	63477	FRAME TEE	ea	1
4-11	9		MS35207-263	96906	SCREW, Panhead	ea	2
4-11	10		MS35338-43	96906	LOCKWASHER	ea	2
4-11	11		M52191GD8	96906	CLAMP	ea	2
4-11	12		42-W-3/16	30327	UNION	ea	1
4-11	13		202124-3-4S	01276	REDUCER	ea	1

Table 3-2. Parts Listing (Cont)

ILLUSTRATION (a) FIG NO.	ILLUSTRATION (b) ITEM NO.	SMR CODE	Part Number	FSCM	DESCRIPTION	U/M	QTY INC. IN UNIT
4-11	14		C46745G1	81902	HOSE, Flexible	ea	1
4-11	15		C47137P1	81902	TUBING	ea	1
4-12	1		MS35207-263	96906	SCREW, Panhead	ea	1
4-12	2		MS35338-43	96906	LOCKWASHER	ea	1
4-12	3		MS21919DG8	96906	CLAMP	ea	1
4-12	4		C47139P1	81902	TUBING	ea	1
4-12	5		17773	94189	PIN, Master	ea	1
4-12	6		8152	94189	PIN, Cotter	ea	1
4-12	7		8291	94189	ROLLER, Rear	ea	2
4-12	8		17772	94189	PIN, Damper	ea	1
4-12	9		8152	94189	PIN, Cotter	ea	1
4-12	10		12426	94189	DAMPER	ea	1
4-12	11		17766	94189	PIN, Front Roller	ea	1
4-12	12		7997	94189	PIN, Cotter	ea	1
4-12	13		17763	94189	COVER, Front Roller	ea	1
4-12	14		17763	94189	ROLLER ASSEMBLY, Front	ea	1
4-12	15		10209	94189	BEARING	ea	2
4-12	16		7768	94189	CHAIN	ea	1
4-12	17		10667	94189	S-HOOK	ea	1
4-12	18		17802	94189	BREAKAWAY LEVER	ea	1
4-12	19		17803	94189	BREAKAWAY SPRING	ea	1
4-12	20		17815	94189	BOLT, Self-Tapping Hex	ea	4
4-12	21		12489	94189	LOCKWASHER, External Star	ea	4
4-12	22		12098	94189	CONNTECTOR	ea	1
4-12	23		17777	94189	BLOCK, Push Rod	ea	1
4-12	24		17775	94189	PUSH ROD	ea	1
4-12	25		7976	94189	NUT, Hex	ea	2
4-12	26		7820	94189	WASHER	ea	2
4-12	27		10274	94189	SPRING	ea	2
4-12	28		10273	94189	BOLT, Hex	ea	2
4-12	29		10271	94189	MASTER CYLINDER	ea	1
4-12	30		17556	94189	CAP	ea	1
4-12	31		17762	94189	MOUNTING PLATE Cylinder	ea	1
4-13	1		MS35207-263	96906	SCREW, Panhead	ea	1
4-13	2		MS35338-43	96906	LOCKWASHER	ea	1
4-13	3		MS21919DG8	96906	CLAMP	ea	1
4-13	4		C46745G1	81902	HOSE, Flexible	ea	1
4-13	5		G-210	19691	SHACKLE, Chain	ea	6
4-13	6		S-4055	19691	LATCH, Safety	ea	2

Table 3-2. Parts Listing (Cont)

ILLUSTRATION (a) FIG NO.	ILLUSTRATION (b) ITEM NO.	SMR CODE	Part Number	FSCM	DESCRIPTION	U/M	QTY INC. IN UNIT
4-13	7		S-320C	19691	HOOK, Eye	ea	2
4-13	8		F46691P48	81902	CHAIN	ea	2
4-13	9		MS9245-65	96906	PIN, Cotter	ea	1
4-13	10		AN960-1616	88044	WASHER, Flat	ea	1
4-13	11		B46688P1	81902	HINGE PIN, Towbar	ea	1
4-13	12		BLDC8-11L4	84256	DETENT PIN AND LAN-YARD ASSEMBLY	ea	1
4-13	13		AD45H	07707	RIVET, Pop	ea	1
4-13	14		D46687G1	81902	TOWBAR	ea	1

CHAPTER 4

AVIATION INTERMEDIATE MAINTNEANCE INSTRUCTIONS

Section I. PREPARATION FOR MAINTENANCE, STORAGE, AND RESHIPMENT

4-1. PREPARATION FOR MAINTENANCE. Prepare the transporter for intermediate maintenance by raising both transporter assemblies (front and rear) with suitable shop jacks or lifting devices. Transporter assemblies must be supported by wooden blocks or horses to prevent accidental movement when being overhauled.

4-2. PREPARATION FOR STORAGE. Prepare the transporter for storage by securing both transporter assemblies (front and rear) together with hardware stowed in quick clamps of front transporter assembly and deflating tires to 25 psi. If the transporter is to be stored for more than six months, it is to be supported off the ground on blocks or horses to protect tires from dry rot.

4-3. PREPARATION FOR RESHIPMENT. Prepare the transporter for reshipment by securing both transporter assemblies (front and rear) together with hardware stowed in quick clamps of front transporter assembly and inflating tires to 45 psi.

Section II. CHECKOUT AND ANALYSIS

4-4. CHECKOUT INSTRUCTIONS. To check out the transporter, perform the operating instructions specified in Chapter 2. If the transporter malfunctions, refer to trouble analysis, paragraph 4-5.

4-5. TROUBLE ANALYSIS. Trouble analysis providing adjustment and replacement procedures for the transporter is given in table 4-1. Corrective action for isolating any malfunctioning component assembly is provided. Refer to Section III for repair procedures.

Table 4-1. Trouble Analysis

Malfunction	Probable cause	Corrective action
	Handbrake system	
1. Handbrakes will not hold transporter	a. Brakes out of adjustment	Adjust brakes.
	b. Handbrake linkage out of adjustment.	Adjust linkage.
	c. Broken linkage	Replace linkage.
	d. Worn or broken brake shoe	Replace brake shoe.
2. Handbrakes will not release	Broken return spring spring.	Replace return
	Hydraulic brake system	
1. Brakes will not operate when actuated	a. No hydraulic fluid in master brake cylinder	Add fluid and bleed brake system.
	b. Leak in hoses or connections	Tighten or replace hose or connection and bleed system.
	c. Actuator not operational	Replace actuator or faulty actuator part.
2. Brakes pull tranporter to one side when applied	Uneven brake adjustment	Adjust brakes.
3. Brakes make noise when applied	Worn brake assembly parts	Replace worn parts.
4. Brakes will not release	Broken return spring	Replace return spring

Table 4-1. Trouble Analysis (cont)

Malfunction	Probable cause	Corrective action
	Suspension system	
1. Transporter pulls to one side	Improper tire pressure	Check tire pressure.
2. Excessively worn tires	a. Improper tire pressure b. Loose wheels c. Bent rim or wheel d. Tie rods set to incorrect length	Inflate tires to correct pressure Tighten wheel stud nuts. Replace wheel Adjust tie rods.
3. Noisy wheel bearings	Dry or worn wheel bearings	Lubricate or replace wheel bearings.
4. Binding wheel bearings	Dry or worn wheel bearings	Lubricate or replace wheel bearings.
5. Faulty steering	a. Tie rods set to incorrect length b. Tie rods or tie rod ends damaged	Adjust the rods. Replace damaged parts and adjust tie rods.
	Hydraulic jacks.	
Jacks will not maintain load	a. Insufficient fluid b. Leak in jack c. Jack release valve not fully closed	Add fluid. level in reservoir Repair jack. Close valve.

Section III. REPAIR PROCEDURES

4-6. REMOVAL AND DISASSEMBLY. Before overhaul procedures can start, the transporter must be prepared for maintenance as specified in paragraph 4-1. To disassemble the transporter, proceed as follows:

a. Wheel, Tire, and Tube Assembly.

(1) Loosen but do not remove cone nuts (1, fig. 4-1).

(2) Raise wheel to be removed off ground, using a suitable jacking method.

(3) Remove six nuts securing wheel (7) to wheel hub. Remove wheel.

(4) If necessary, remove tire (2), tube (3), and flap (6) from wheel (7).

b. Hub.

(1) Remove grease cap (1, fig. 4-2).

(2) Remove cotter pin (2) and unscrew spindle nut (3). Remove key washer (4) and outer bearing assembly (5 and 6). If necessary, remove snap ring (7).

(3) Remove hub (8).

(4) If necessary, remove Z-ring (14), and O-ring (13), grease seal (10), and inner bearing assembly (11 and 12).

c. Hub and Drum.

(1) Remove grease cap (1, fig. 4-3).

(2) Remove cotter pin (2) and unscrew spindle nut (3). Remove key washer (4) and outer bearing assembly (5 and 6). If necessary, remove snap ring (7).

(3) Slowly remove hub and drum (8).

(4) If necessary, remove Z-ring (14), O-ring (13), grease seal (10), and inner bearing assembly (11 and 12).

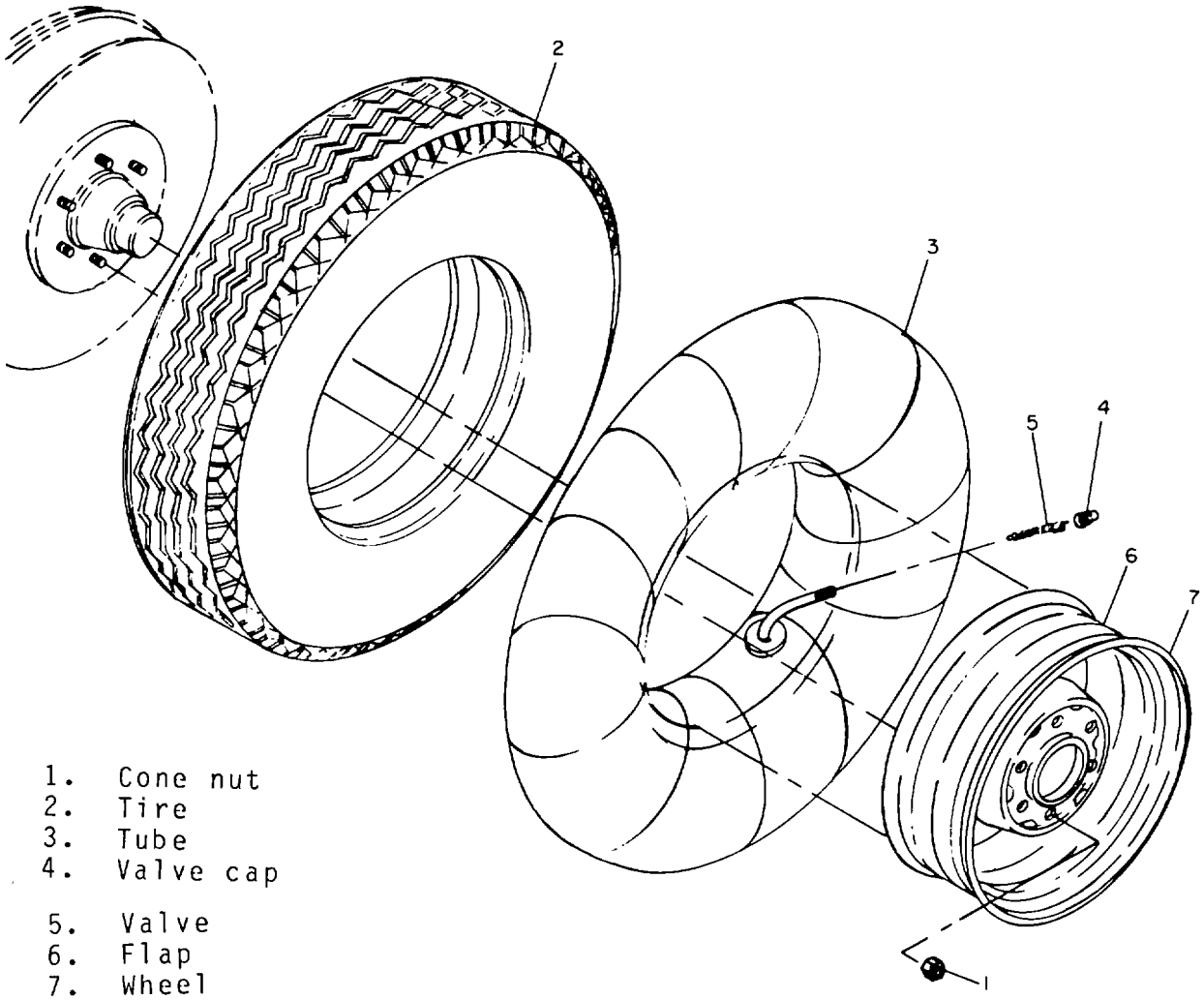


Figure 4-1. Wheel, Tire, and Tube

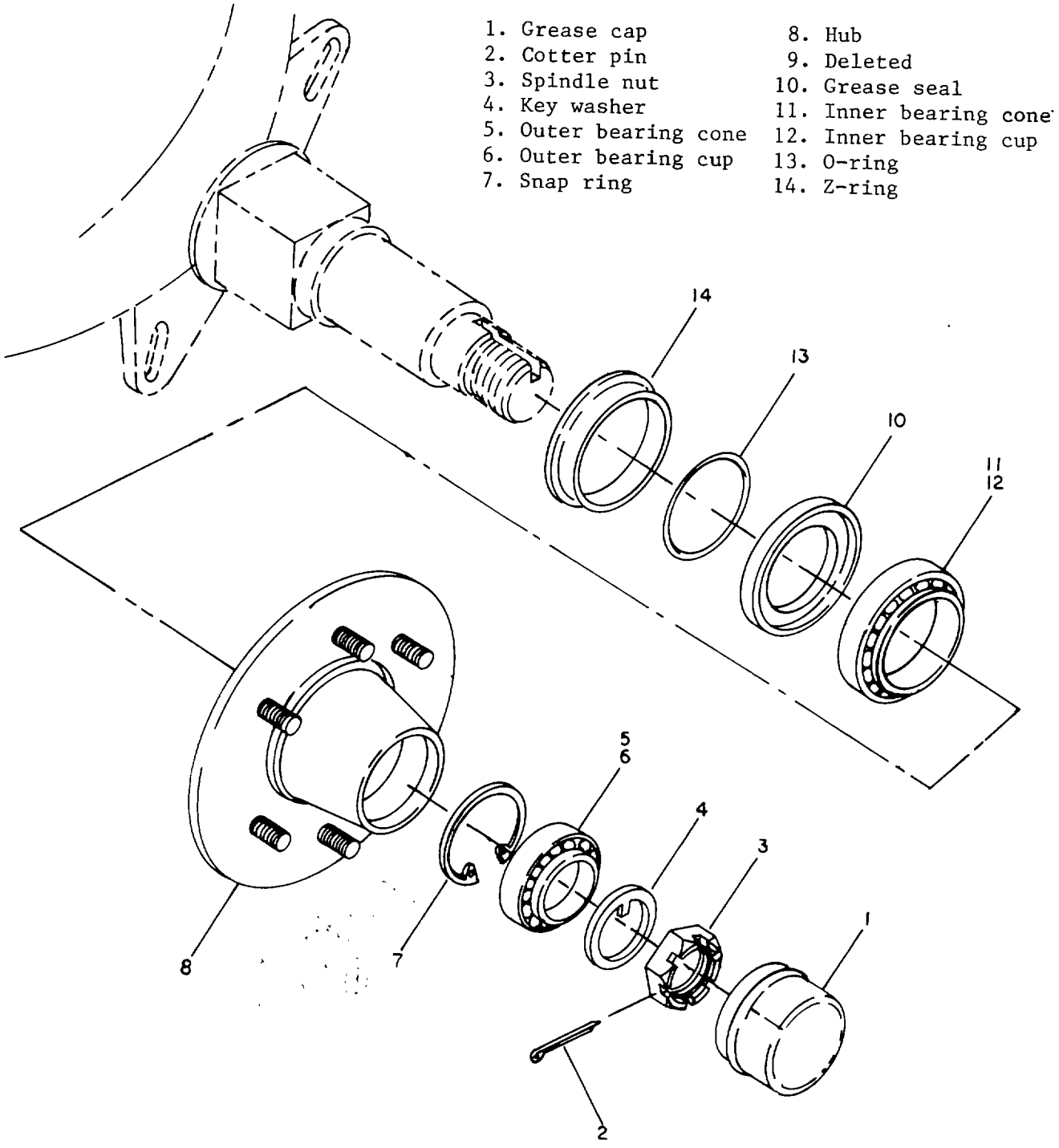
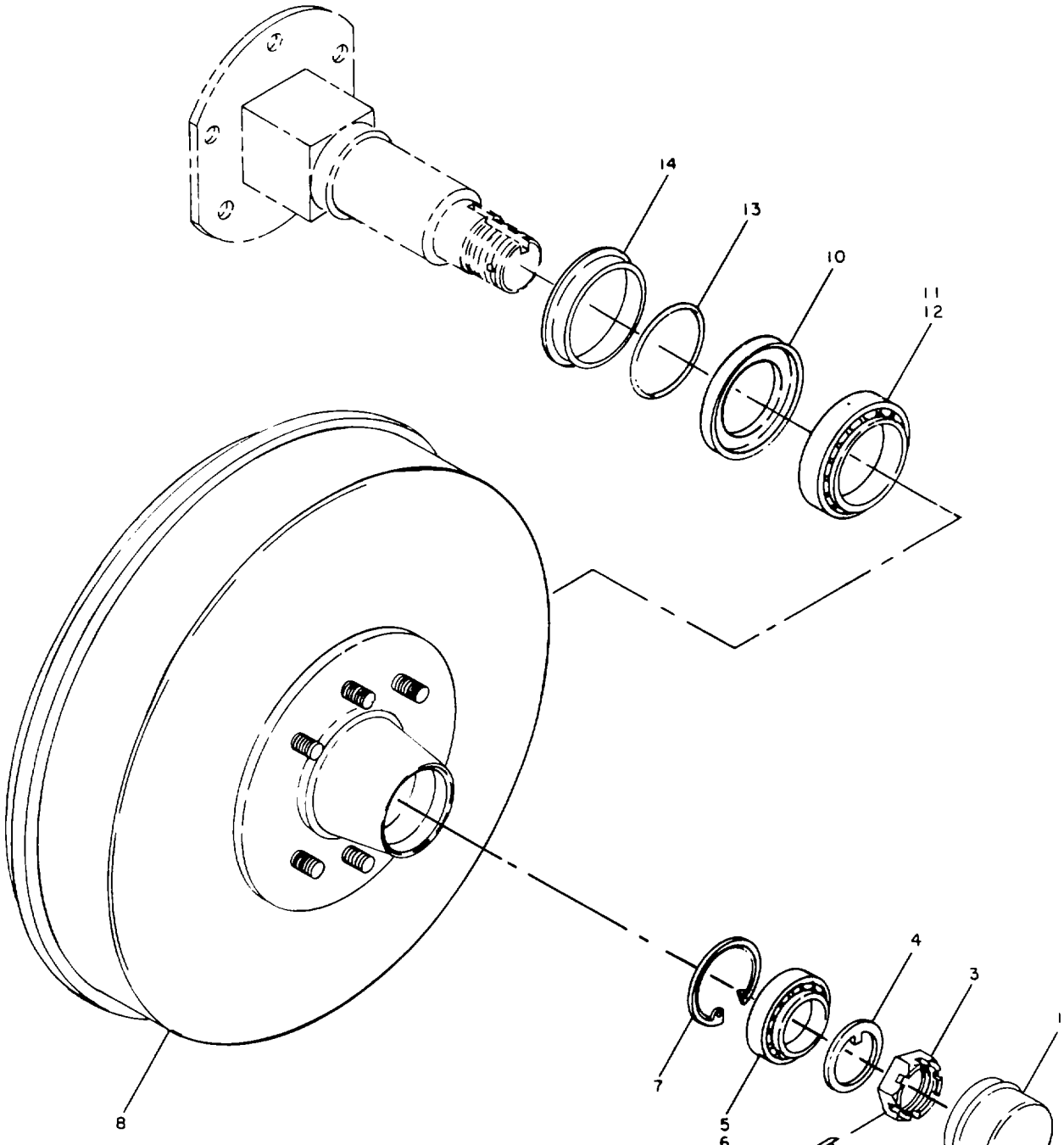


Figure 4-2. Hub (used on rear transporter assembly only)



1. Grease cap
2. Cotter pin
3. Spindle nut
4. Key washer
5. Outer bearing cone
6. Outer bearing cup
7. Snap ring
8. Hub and drum
9. Deleted
10. Grease seal
11. Inner bearing cone
12. Inner bearing cup
13. O-ring
14. Z-ring

Figure 4-3. Hub and drum (used on front transporter assembly only)

d. Rear Axle Assembly.

(1) Remove hex head screws (2, fig 4-4), lockwashers (3), hex nuts (4) and banjo suspension spring assemblies (1).

(2) Remove cotter pins (6), flat washers (7), straight pins (8), and hydraulic jack (9).

(3) Remove cotter hairpins (10), lockout strut pins (11), cotter pins (6), .flat washers (7), straight pins (8), and lockout struts (12).

(4) Remove remaining cotter pins (6), remaining flat washers (7), straight pins (13), and transporter suspension frame.

Legend for fig. 4-4:

1. Banjo suspension spring assembly
2. Hex head screw
3. Lockwasher
4. Hex nut
5. Wheel suspension frame
6. Cotter pin
7. Flat washer
8. Straight pin
9. Hydraulic jack
10. Cotter hairpin
11. Lockout strut pin
12. Lockout strut
13. Straight pin

e. Banjo Suspension Spring Assembly.

(1) Remove cotter pin (1. fig. 4-5) and nut (2).

(2) Remove seal washer (3) and front bearing assembly (4).

(3) Slowly remove front plate assembly (6).

(4) Remove seven springs (7).

(5) Remove felt washer (8), O-ring (9), and thrust bearing (10).

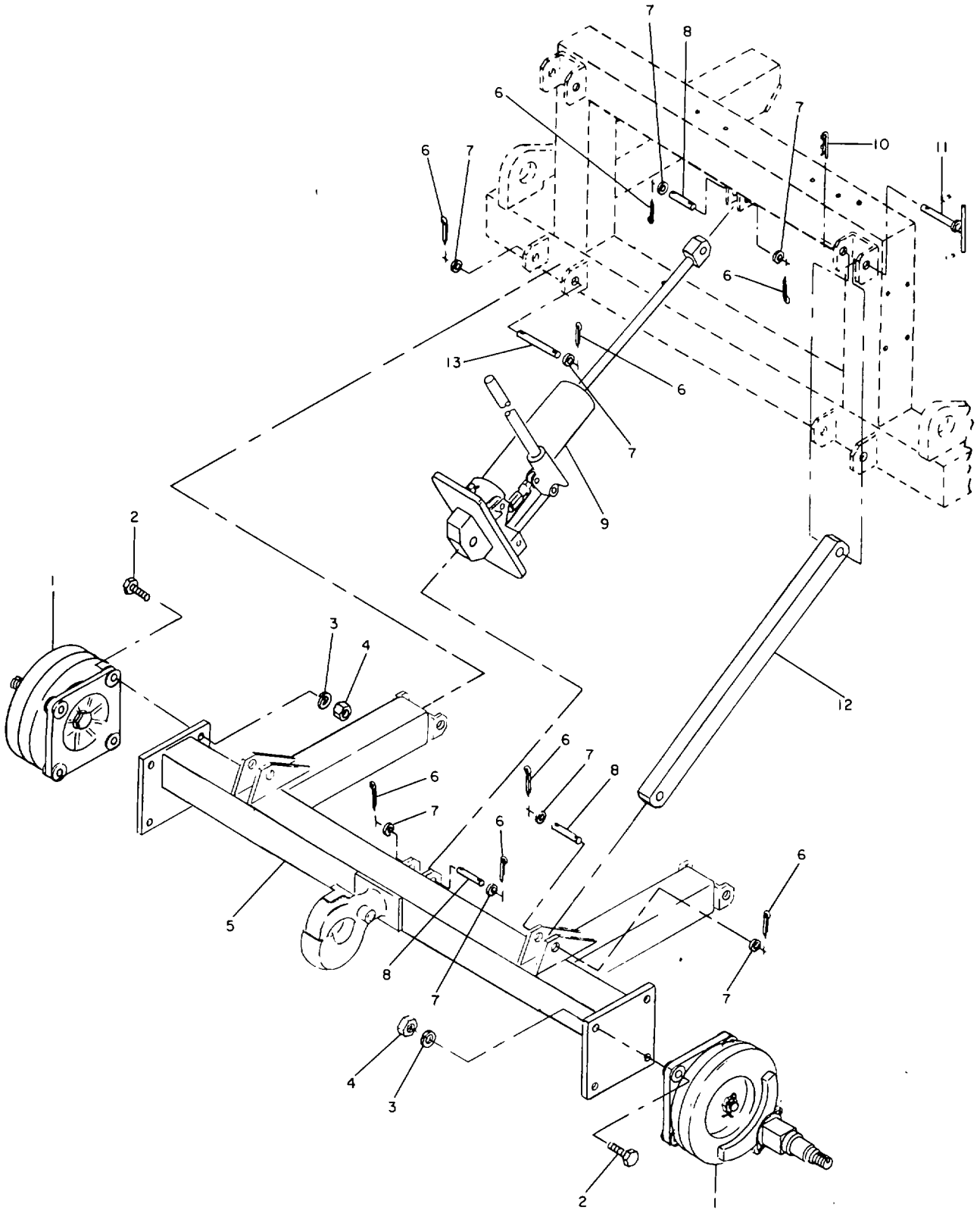


Figure 4-4. Rear axle assembly

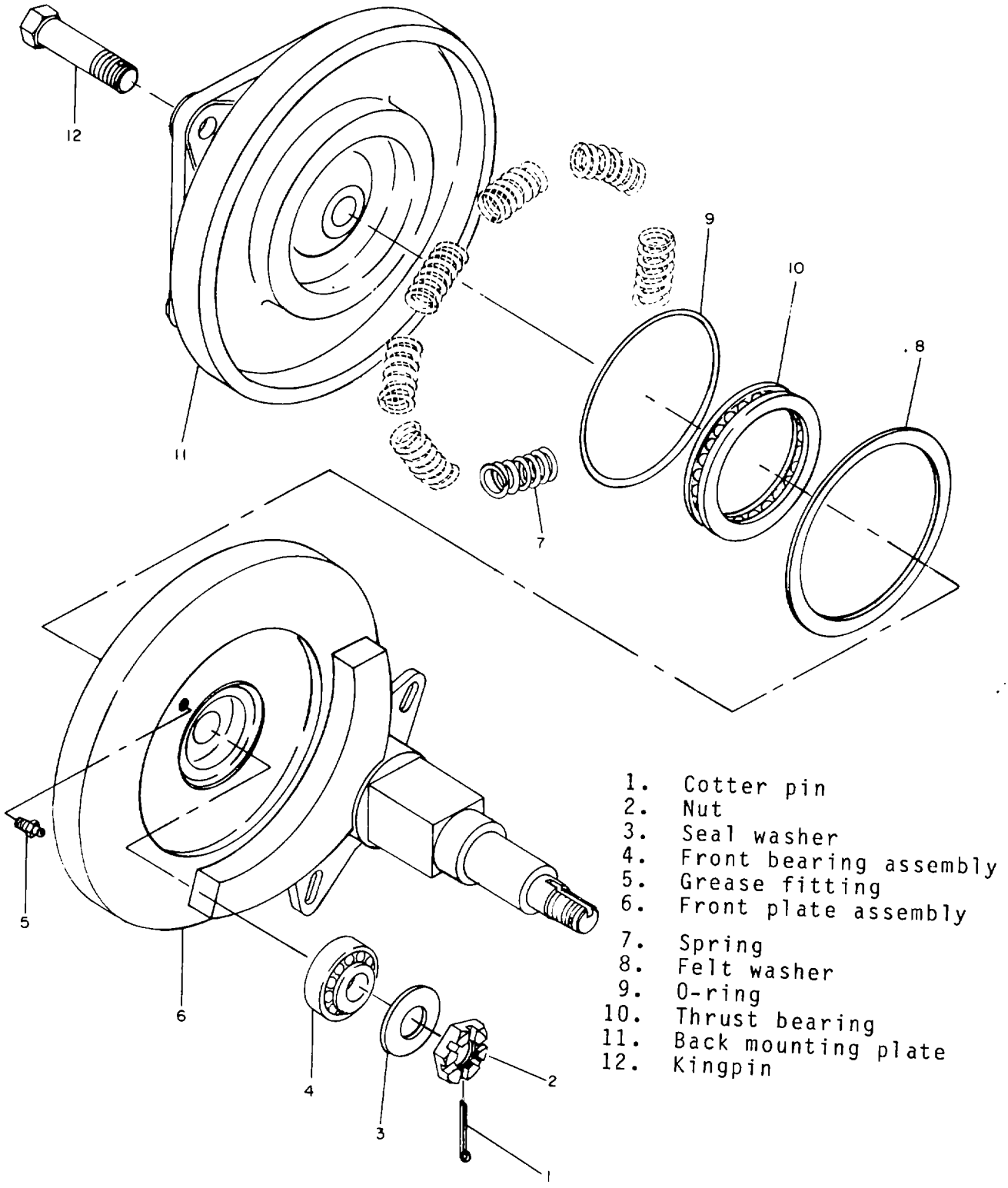


Figure 4-5. Banjo suspension spring assembly (used on rear transporter assembly)

f. Transporter Suspension Frame Assembly.

(1) Disengage hydraulic jack (28, fig. 4-6) from wheel suspension frame (fig. 4-4 or 4-9) and transporter suspension frame (29, fig. 4-6) by removing cotter pin (21) and flat washer (22) from one side of straight pin (24). If necessary, use a hammer to remove straight pin (24).

(2) Disengage lockout struts (27) from wheel suspension frame (fig. 4-4 or 4-9) by removing cotter pin and flat washer from one side of straight pin. If necessary, use a hammer to remove straight pin.

(3) Disengage lockout struts (27, fig. 4-6) from transporter suspension frame (29) by removing cotter hairpin (25) and lockout strut pin (26).

(4) Disengage transporter suspension frame (29) from wheel suspension frame tube bracket by removing cotter pin (21) and flat washer (22) from one side of each straight pin (23). If necessary, use a hammer to remove straight pin (23).

(5) If necessary, remove cable assembly (6) from chain shackle (5) and turnbuckle (7).

(6) If necessary, remove nuts (1), lockwashers (2), flat washers (3), and hex head bolts (4) to disengage front and rear transporter suspension frames (29).

g. Hydraulic Brakes.

(1) Remove shoe return springs (1, fig. 4-7), using suitable brake tool.

(2) Remove equalizer lever (13) and equalizer lever spring (14).

(3) Remove hold-down cup (6) and hold-down springs (7).

(4) Remove adjusting assembly spring (2).

(5) Remove pivot nut (3), socket (4), and adjusting screw (5) as an assembly.

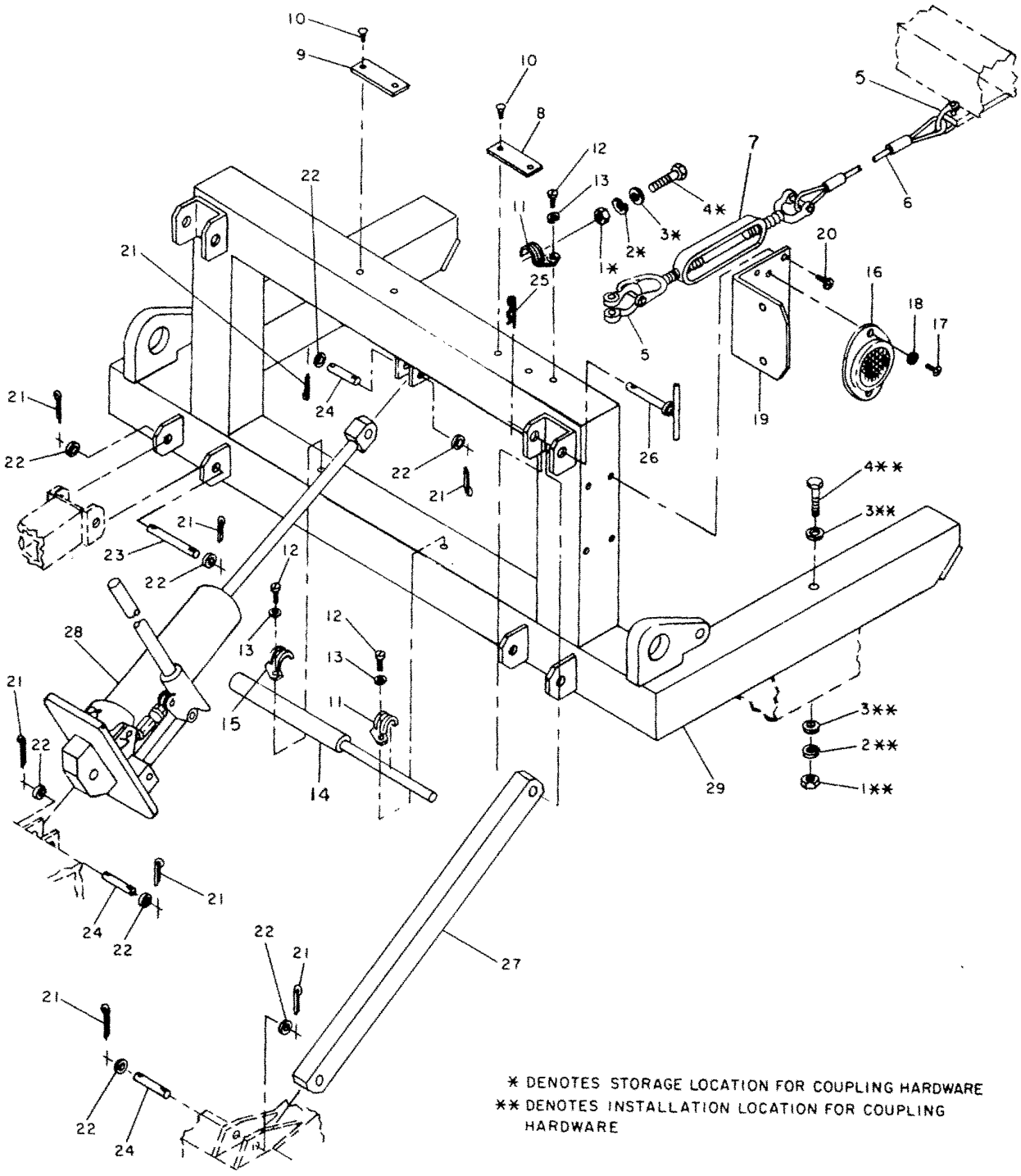


Figure 4-6. Transporter Suspension frame

Legend for fig. 4-6:

*1. Nut
*2. Lockwasher
*3. Flat washer
*4. Hex head bolt
5. Chain shackle
6. Cable assembly
7. Turnbuckle
**8. Identification plate
**9. Identification plate
**10. Drive screw
***11. Quick clamp
12. Panhead screw
13. Lockwasher
14. Jack handle
15. Quick clamp
16. Amber or red flector
17. Panhead screw
18. Lockwasher
19. Reflector bracket
20. Panhead screw
21. Cotter pin
22. Flat washer
23. Straight pin
24. Straight pin
25. Cotter hairpin
26. Lockout strut pin
27. Lockout strut
28. Hydraulic jack
29. Transporter suspension frame

*These parts (used to connect front and rear transporter) on front frame only.
**Identification plates and hardware on front frame only.
***Two quick clamps (on top of frame) on front frame only.

(6) Remove service replacement shoes and linings (9). If necessary, disconnect parking brake cable.

(7) If necessary, remove retainer (10) and anti-rattle spring washers (11) and separate parking brake lever assembly (12) from service replacement shoes and linings (9).

(8) If necessary, remove screws (20), lockwashers (21), hex head nuts (22) and backing plate assembly (23).

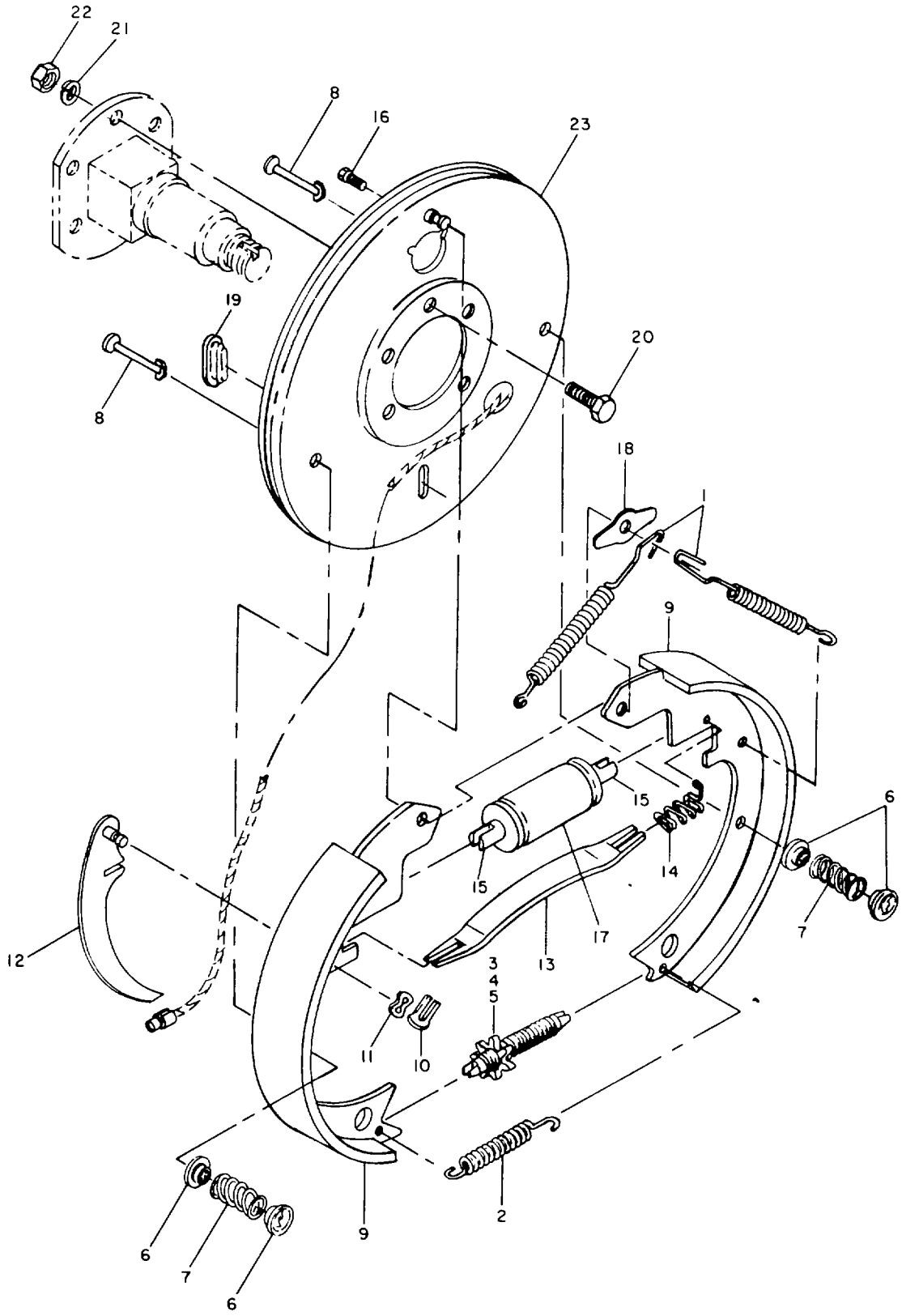


Figure 4-7. Hydraulic brakes (used on front transporter assembly only)

Legend for fig. 4-7:

1. Shoe return spring
2. Adjusting assembly spring
3. Pivot nut
4. Socket
5. Adjusting screw
6. Hold-down cup
7. Hold-down spring
8. Hold-down pin
9. Service replacement shoes and linings
10. Retainer
11. Anti-rattle spring washer
12. Parking brake lever assembly
13. Equalizer lever
14. Equalizer lever spring
15. Wheel cylinder connecting link
16. Screw and lockwasher assembly
17. Wheel cylinder
18. Shoe guide plate
19. Dust cover
20. Screw
21. Lockwasher
22. Hex head nut
23. Backing plate assembly

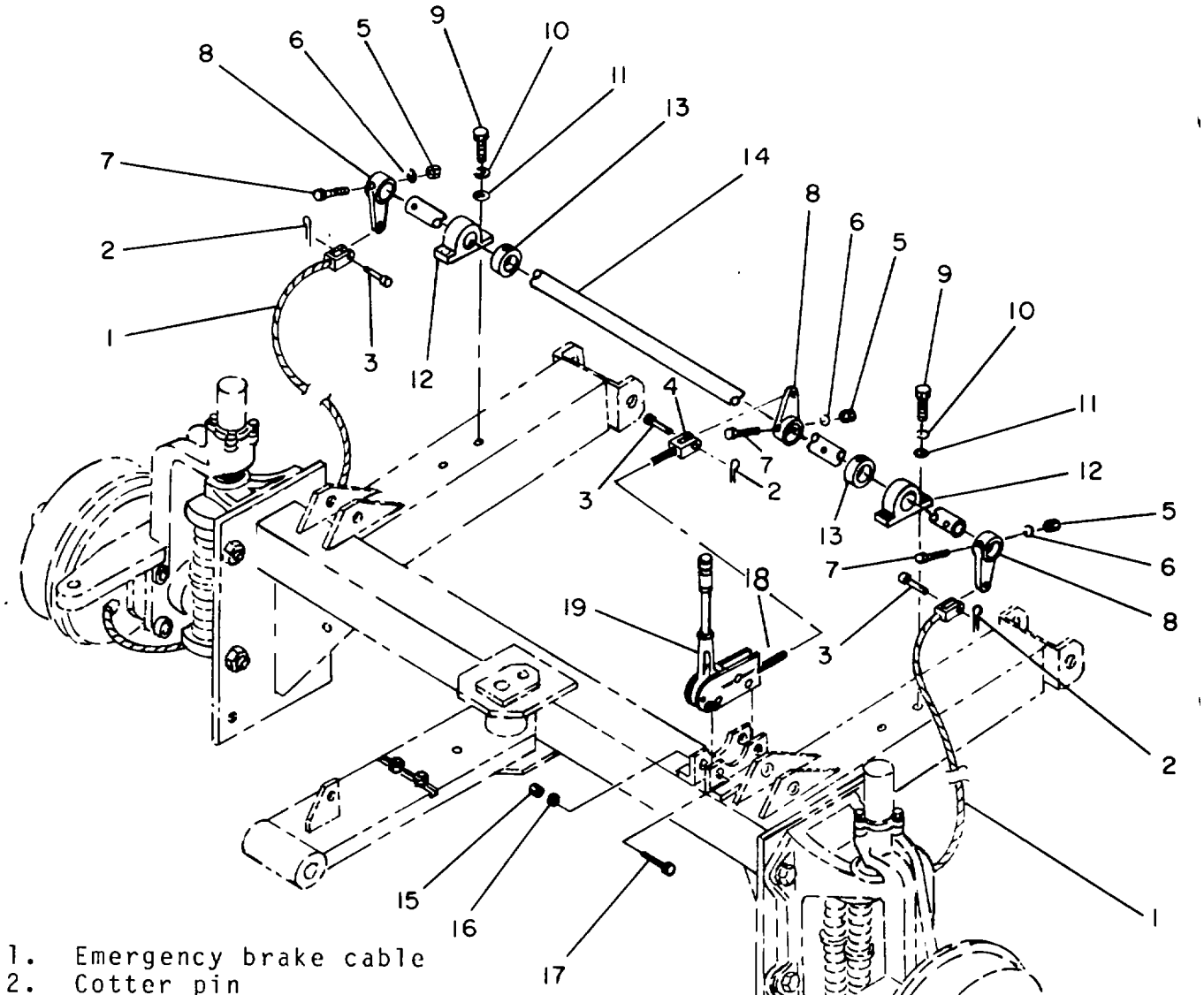
h. Parking Brake Assembly.

(1) If necessary, disconnect emergency brake cable (1, fig. 4-8) from brake rod crank (8) by removing cotter pin (2) and clevis pin (3).
(2) Remove stop nut (5), lockwashers (6), and hex head cap screw (7) from brake rod cranks (8). Slide off brake rod cranks from cross shaft (14).
(3) Remove screws (9) and slide off pillow block (12).
(4) Remove cotter pin (2) and clevis pin (3).
(5) Loosen setscrew and remove collar (13) and then remove remaining brake rod crank (8).
(6) Remove screws (17), washers (16), nuts (15), and brake handle (19).

i. Front Axle Assembly.

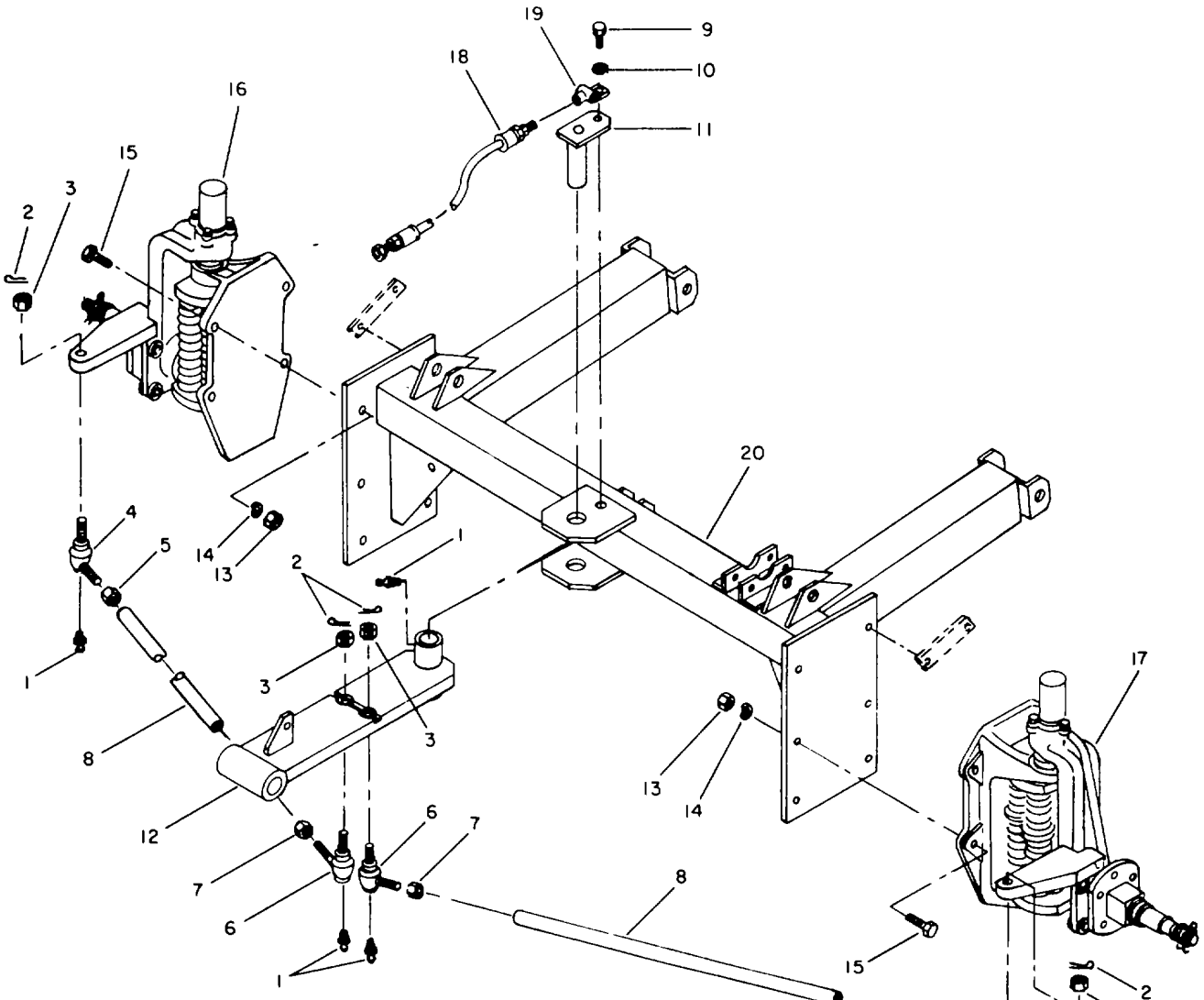
NOTE

If left-hand and right-hand wheel mount shock-absorbing spring assemblies (16 and 17, fig. 4-9) are removed with the hydraulic brakes (fig. 4-7) in place, disconnect flexible hoses (2, fig. 4-11) from wheel cylinders (17, fig. 4-7).



1. Emergency brake cable
2. Cotter pin
3. Clevis pin
4. Clevis
5. Stop nut
6. Lockwasher
7. Hex head cap screw
8. Brake rod crank
9. Screw
10. Lockwasher
11. Flat washer
12. Pillow block
13. Collar
14. Cross shaft
15. Nut
16. Washer
17. Screw
18. Handle rod
19. Brake handle

Figure 4-8. Parking brake (used on front transporter assembly only)



1. Grease fitting
2. Cotter pin
3. Nut
4. Left-hand tie rod end
5. Left-hand plain hex nut
6. Right-hand tie rod end
7. Right-hand plain hex nut
8. Tie rod
9. Hex head screw
10. Lockwasher
11. Center arm pin
12. Steering center arm
13. Hex nut
14. Lockwasher
15. Hex head screw
16. Left-hand wheel mount shock-absorbing spring assembly
17. Right-hand wheel mount shock-absorbing spring assembly
18. Flexible hose
19. Frame tee
20. Wheel suspension frame

Figure 4-9. Front Axle Assembly

(1) Remove cotter pin (2, fig. 4-9) and unscrew nut (3) from the left-hand tie rod end (4) associated with the wheel mount shock-absorbing spring assembly being removed. Use a suitable spreader tool to disengage tie rod end from wheel mount assembly.

(2) Remove cotter pin (2) and unscrew nut (3) from the right-hand tie rod end (6) to be removed. Use a suitable spreader tool to disengage tie rod end from steering center arm (12).

(3) Disconnect flexible hose (18) from frame tee (19). Remove hex head screw (9) and lockwasher (10) from center arm pin (11). Slowly disengage center arm pin (11) and steering center arm (12).

(4) Remove hex nut (13), lockwasher (14), and hex head screw (15) and disengage left or right-hand wheel mount shock-absorbing spring assemblies (16 or 17) from wheel suspension frame (20).

j. Wheel Mount Shock-Absorbing Spring Assembly.

(1) If necessary, remove wheel, hub and drum, hydraulic brake backing plate, and tie rod end. Remove wheel mount shock-absorbing spring assembly from front axle assembly.

Legend for fig. 4-10.:

1. Grease fitting
2. Screw
3. Lockwasher
4. Cap
5. Capscrew
6. Kingpin
7. Spring
8. Dust cover
9. Spring support assembly
10. Washer
11. Spring guide
12. Knuckle
13. Bracket

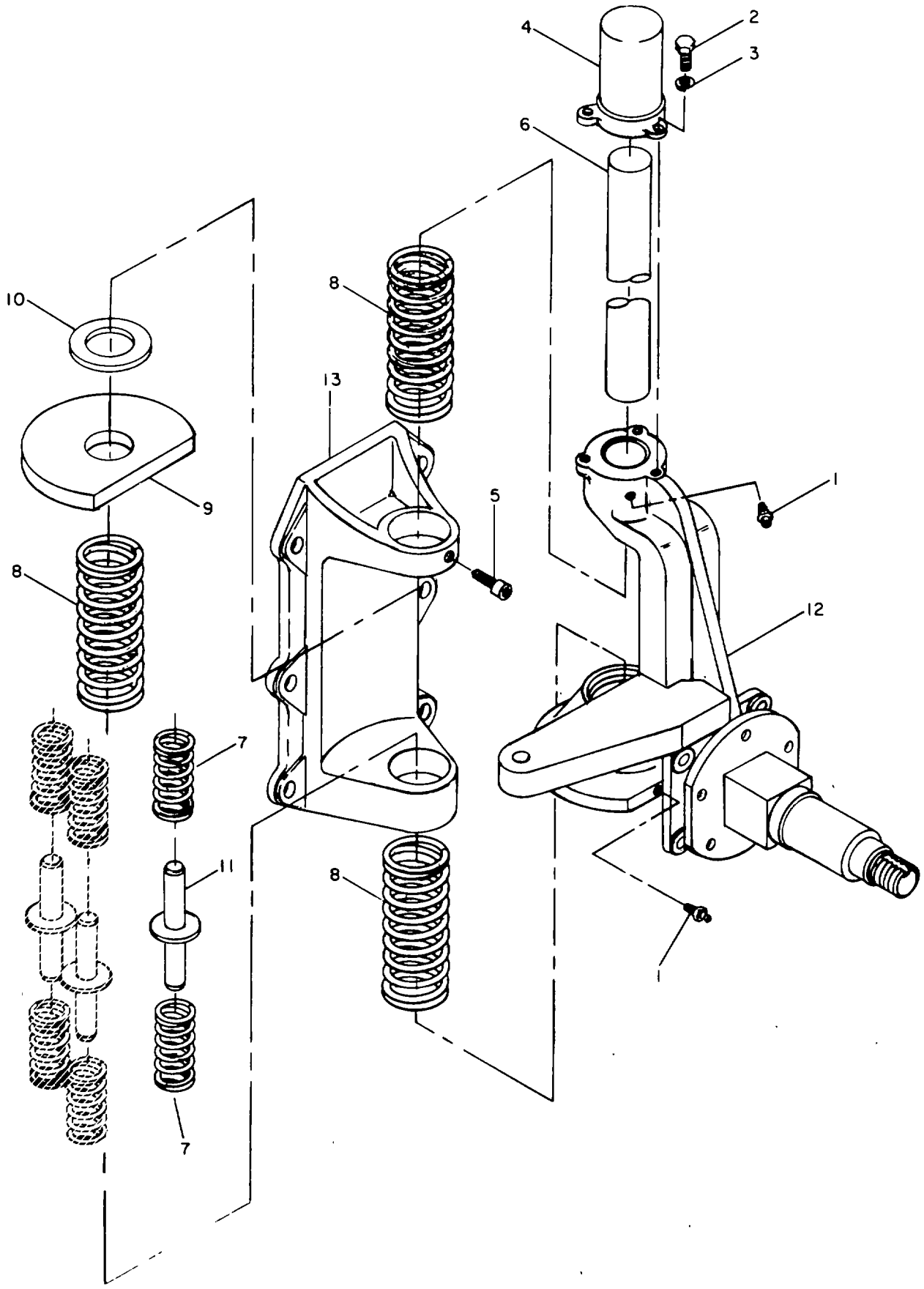


Figure 4-10. Wheel mount shock-absorbing spring assembly (used on front transporter assembly only)

(2) Remove screws (2) and lockwashers (3) from cap (4).

(3) Remove capscrew (5) and kingpin (6).

(4) Note location of dust covers (8), washer (10), and spring assembly components (7 and 11). Then remove bracket (13).

(5) Remove dust covers (8), washer (10), spring support assembly (9), springs (7), and spring guides (11).

(6) Remove springs (7) from spring guides (11).

k. Brake Lines and Actuator.

(1) Remove flexible hose (2, fig. 4-11) from brake and remove brake line tube (6) from frame tee (8). Disconnect two hoses from mounting brackets (4).

(2) Remove panhead screws (9), lockwashers (10), and clamps (11).

(3) Remove flexible hose (14) from frame tee (8) and reducer (13).

(4) Remove tubing (15) from connector (22, fig. 4-12).

(5) Remove self-tapping hex bolts (20), external star lockwashers (21), and cylinder mounting plate (31) from outer case assembly.

(6) Remove master cylinder (29) from outer case assembly.

(7) Remove chain (16), S-hook (17), breakaway lever (18), and breakaway spring (19).

(8) Remove push rod assembly (23 and 24) from master cylinder (29).

(9) Remove hex nuts (25), washers (26), springs (27), hex bolts (28), and cylinder mounting plate (31).

(10) If necessary, remove cotter pin (12), front roller pin (11), front roller assembly (14), and front roller cover (13).

(11) If necessary, remove cotter pin (6), master pin (5), and rear rollers (7).

(12) If necessary, remove cotter pin (9), damper pin (8), and damper (10).

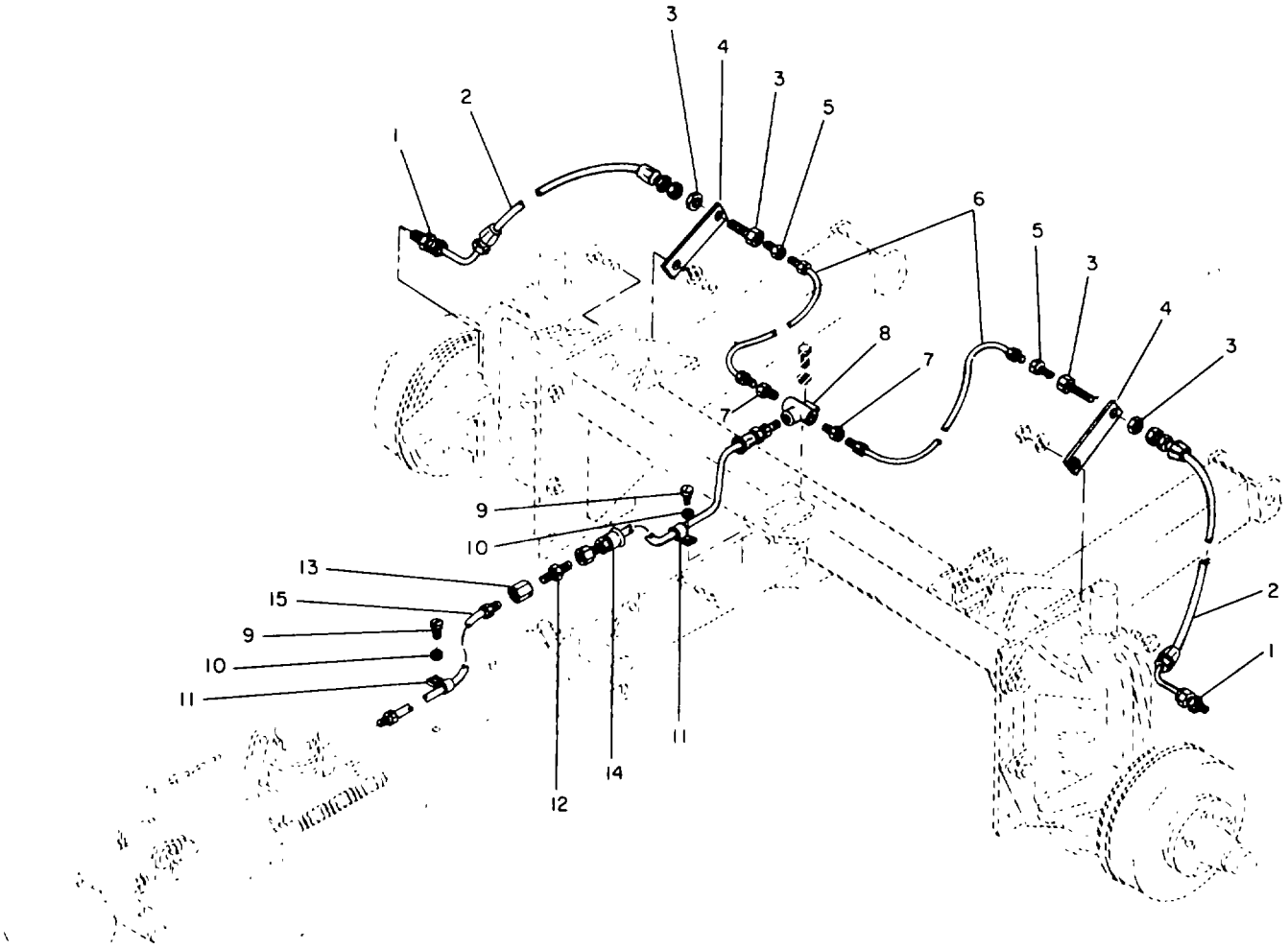
l. Towbar and Chains.

(1) If necessary, remove flexible hose (14, fig. 4-11) from reducer (13).

(2) If necessary, remove chains (8, fig. 4-13) from chain shackles (5) at towbar (14).

(3) Remove cotter pin (9) and flat washer (10) from one end of towbar hinge pin (11). Remove towbar hinge pin (11) and separate towbar (14) from steering center arm.

(4) If necessary, remove tubing (4, fig. 4-12) from connector (22).



1. Reducer
2. Flexible hose
3. Flare bulkhead connector
4. Mounting bracket
5. Male connector
6. Brake line tube
7. Adapter
8. Frame tee
9. Panhead screw
10. Lockwasher
11. Clamp
12. Union
13. Reducer
14. Flexible hose
15. Tubing

Figure 4-11. Brake lines

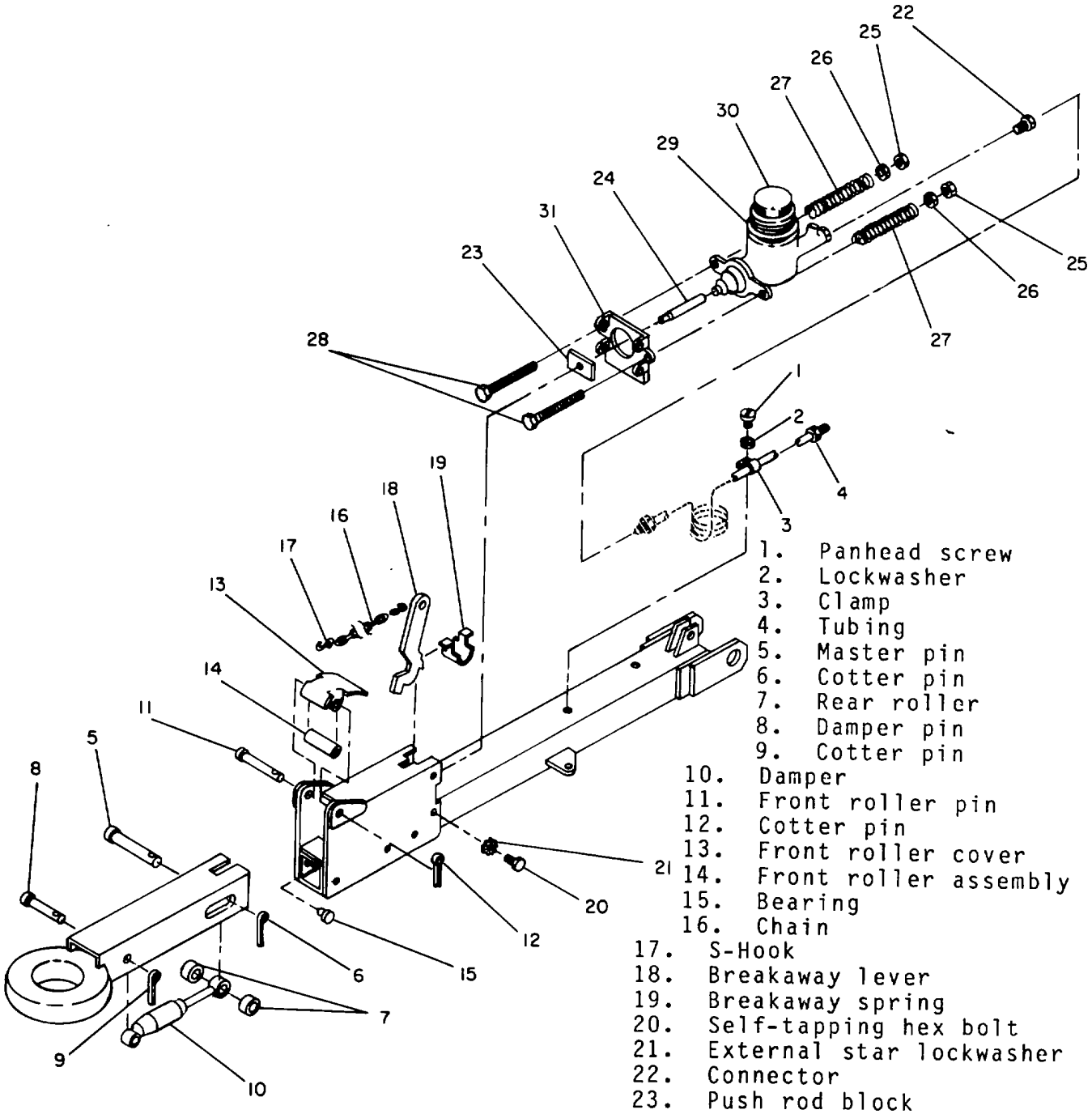
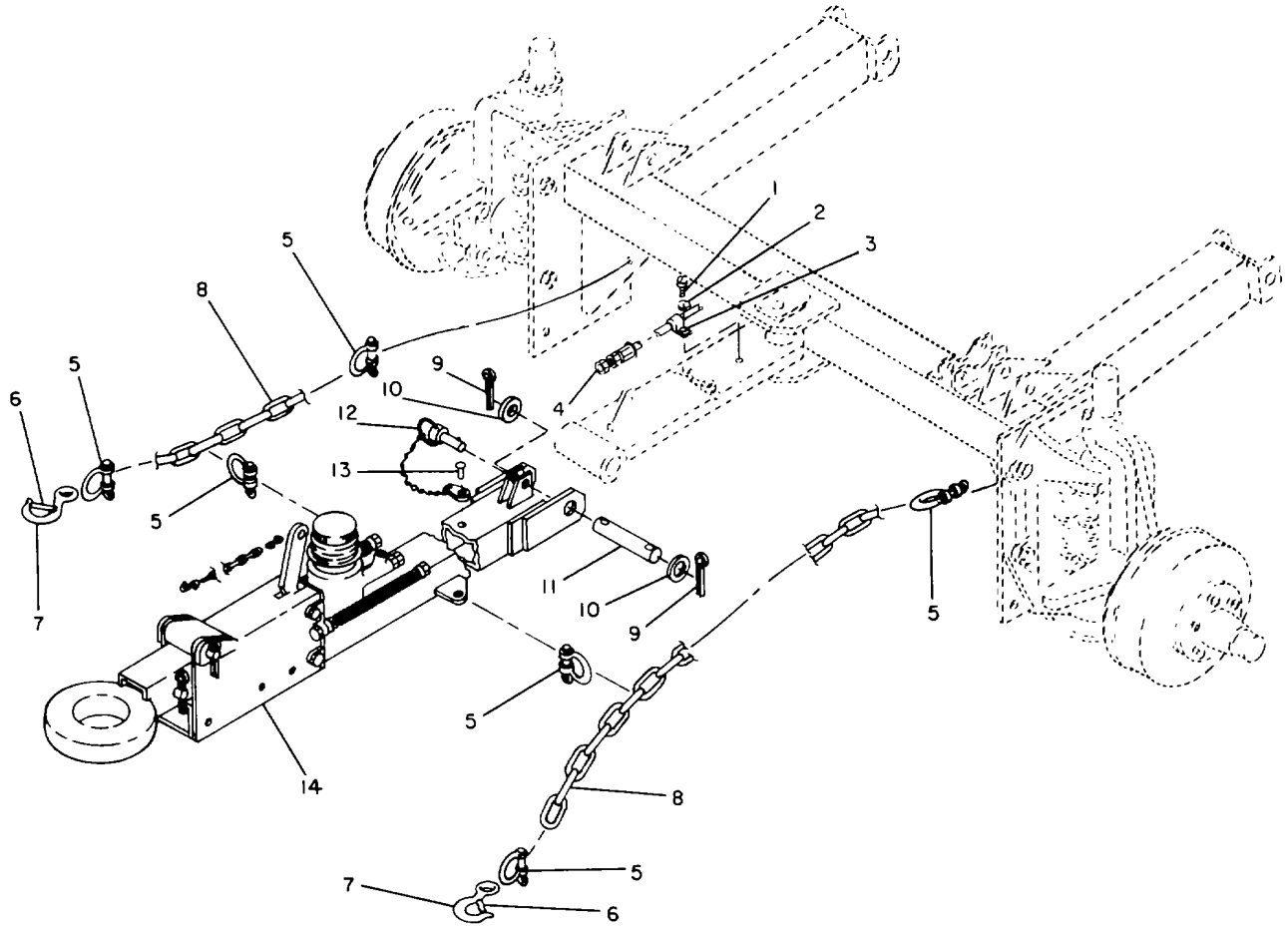


Figure 4-12. Brake actuator



1. Panhead screw
2. Lockwasher
3. Clamp
4. Flexible hose
5. Chain shackle
6. Safety latch
7. Eye hook
8. Chain
9. Cotter pin
10. Flat washer
11. Towbar hinge pin
12. Detent pin and lanyard assembly
13. Pop rivet
14. Towbar

Figure 4-13. Towbar and chains

4-7. CLEANING OF DISASSEMBLED PARTS. Clean greasy or dirty metal parts with dry-cleaning solvent, Federal Specification P-D-680.

4-8. INSPECTION OF DISASSEMBLED PARTS.

a. Wheel, Tire, and Tube.

(1) Check tires (2, fig. 4-1) for wear.

(2) Check flaps (6) for cuts.

(3) Check wheels (7) for damage to tire mounting surfaces.

b. Hub.

(1) Check wheel bolts on hub (8, fig. 4-2) for stripped or broken threads.

(2) Check nuts for stripped threads.

(3) Inspect bearing assemblies (5 and 6 and 11 and 12) for wear.

c. Hub and Drum.

(1) Check wheel bolts on hub and drum (8, fig. 4-3) for stripped or broken threads.

(2) Check nuts for stripped threads.

(3) Inspect bearing assemblies (5 and 6 and 11 and 12) for wear.

(4) Inspect drums of hub and drum (8) for scoring.

d. Banjo Suspension Spring Assembly.

(1) Inspect spindle portion of front plate assembly (6, fig. 4-5) for scoring from bearing assembly (5 and 6, fig. 4-2). Inspect threaded portion for damage.

(2) Inspect front bearing assembly (4, fig. 4-5) and thrust bearing (10) for wear.

(3) Inspect springs (7) for damage.

(4) Inspect kingpin (12) for damage to threads and to scoring of bearing surface.

e. Hydraulic Brakes.

(1) Inspect springs (1, 2, 7, and 14, fig. 4-7) for stretching and damaged hooks.

(2) Inspect service replacement shoes and linings (9) for wear.

(3) Inspect wheel cylinders (17) for signs of leakage. If leakage is noted, replace cylinder.

f. Parking Brake.

(1) Check emergency brake cables (1, fig. 4-8) for broken strands, stretching, and for damage to end terminations.

(2) Check pillow blocks (12) for wear.

(3) Check brake handle (19) for proper operation.

g. Front Axle Assembly.

(1) Check tie rod ends (4 and 6, fig. 4-9) for wear at pivots and for damaged threads.

(2) Check tie rods (8) for bends and for damaged threads.

(3) Check center arm pin (11) for wear.

h. Wheel Mount Shock-Absorbing Spring Assembly.

(1) Check inside bore of cap (4, fig. 4-10) for wear.

(2) Check kingpin (6) for wear.

(3) Check springs (7) for damage.

(4) Check dust covers (8) for tears.

(5) Check spindle on knuckle (12) for worn bearing surfaces and for damaged threads.

i. Brake Lines and Actuator.

(1) Check flexible hoses (2 and 14, fig. 4-11) for leaks.

(2) Check brake line tube (6) and tubing (15) for leaks and damage.

(3) Check chain (16, fig. 4-12), S-hook (17), breakaway lever (18), and breakaway spring (19) for damage.

(4) Check damper (10) for leaks and for proper operation.

(5) Check springs (27) for damage.

(6) Check master cylinder (29) for leaks. If master cylinder is leaking, replace it.

j. Towbar and Chains.

(1) Check chain shackles (5, fig. 4-13), safety latches (6),eye hooks (7), and chains (8) for damage.

(2) Check towbar hinge pin (11) for wear.

4-**9. REPAIR OF DISASSEMBLED PARTS.**

a. General. Replace all damaged or worn parts.

b. Hub and Drum. If the drums of hub and drum (8, fig. 4-3) are scored, resurface the drums or replace the hub and drum assemblies.

c. Banjo Suspension Spring Assembly. If spindle portion of front plate assembly (6, fig. 4-5) is damaged, replace the banjo suspension spring assembly.

d. Front Axle Assembly. If tie rod ends (4 and 6, fig. 4-9) or tie rods (8) are replaced, assemble parts but do not tighten plain hex nuts (5 and 7). These nuts will be tightened when wheels are aligned.

f. Wheel Mount Shock-Absorbing Spring Assembly. If spindle or other area of knuckle (12, fig. 4-10) is worn, replace the entire assembly.

Section IV. REASSEMBLY AND ALIGNMENT

4-10. REASSEMBLY. Assemble the transporter as follows:

a. Towbar and Chains.

(1) If it was removed, connect tubing (4, fig. 4-12) to connector (22).

(2) Attach towbar (14, fig. 4-13) to steering center arm, using towbar hinge pin (11). Secure in place with flat washer (10) and cotter pin (9).

(3) If necessary, attach chains (8) to towbar (14), using chain shackles (5).

b. Brakes Lines and Actuator.

(1) If necessary, install damper (10, fig. 4-12), damper pin (8), and cotter pin (9).

(2) If necessary, install rear rollers (7), master pin (5), and cotter pin (6).

(3) If necessary, install front roller cover (13), front roller assembly (14), front roller pin (11), and cotter pin (12).

(4) Assembly master cylinder (29), cylinder mounting plate (31), hex bolts (28), springs (27), washers (26), and hex nuts (25).

(5) Assemble push rod assembly (23 and 24) to master cylinder (29).

(6) Install breakaway spring (19), breakaway lever (18), S-hook (17), and chain (16) to outer case assembly.

(7) Align screw holes in cylinder mounting plate (31) with screw holes in outer case assembly and install self-tapping hex bolts (20) and external star lockwashers (21).

(8) Connect tubing (15, fig. 4-11) to connector (22, fig. 4-12).

(9) Connect flexible hose (14, fig. 4-11) to frame tee (8) and reducer (13).

(10) Install panhead screws (9), lockwashers (10), and clamps (11).

(11) Connect the two hoses to mounting brackets (4). Connect brake line tube (6) to frame tee (8). Connect flexible hoses (2) to brake wheel cylinders.

(12) Fill master cylinder (29) with hydraulic fluid and bleed the lines.

c. Wheel Mount Shock-Absorbing Spring Assembly.

(1) Install kingpin (6, fig. 4-10) through the bottom hole of bracket (13) so that one inch of the kingpin protrudes from the top of the hole.

(2) Install one dust cover (8) on the one-inch part of kingpin (6) and compress, the dust cover.

(3) Assembly spring support assembly (9) and knuckle (12).

(4) Position knuckle (12) over installed dust cover (8) and kingpin (6).

(5) Push kingpin (6) through the bottom hole of knuckle (12) and place one dust cover (8) on the kingpin.

(6) Push kingpin (6) through dust cover (8) into spring support assembly (9).

(7) Install washer (10) between the top of spring support assembly (9) and bracket (13). Push kingpin (6) through the hole in bracket (13).

(8) Slide knuckle (12) toward the top of bracket (13) and install a dust cover (8) over the top of kingpin (6).

(9) Push kingpin (6) through top hole in knuckle (12) align hole in kingpin with small hole in bracket (13) and install capscrew (5).

(10) Position springs (7) on spring guides (11) and place each spring assembly in position on spring support assembly (9). With hand or screwdriver pressure, place spring assembly in position on knuckle (12).

(11) Install cap (4), lockwashers (3), and screws (2).

d. Front Axle Assembly.

(1) Install wheel mount shock-absorbing spring assemblies (16 and 17, fig. 4-9) to wheel suspension frame (20) with hex head screws (15), lockwashers (14), and hex nuts (13). Be sure to secure mounting bracket (4, fig. 4-11) with one hex head screw (15, fig. 4-9).

(2) Position steering center arm (12) and secure with center arm pin (11), hex head screw (9) lockwasher (10).

(3) If removed, install right-hand tie rod end (6) to tie rod (8).

(4) Install right-hand tie rod end (6) to steering center arm (12). Secure with nut (3) and cotter pin (2).

(5) If removed, install left-hand tie rod end (4) to tie rod (8) .

(6) Install left-hand tie rod end (4) to wheelmount shock absorbing spring assemblies (16 and 17). Secure with nut (3) and cotter pin (2).

(7) Connect flexible hose (18) to frame tee (19).

(8) Bleed brake lines and add brake fluid if necessary.

e. Parking Brake Assembly.

(1) Install brake handle (19, fig. 4-8) with screws (17), washers (16), and nuts (15).

(2) Install center brake rod crank (8) with hex head cap screw (7), lockwasher (6), and stop nut (5).

(3) Install collar (13) and tighten setscrew.

(4) Install pillow block (12) with screws (9), lockwashers (10), and flat washers (11).

(5) Install outer brake rod crank (8) with hex head cap screws (7), lockwashers (6), and stop nuts (5).

(6) Screw emergency brake cables (1) into clevis (4) and install clevis to brake rod crank (8) with clevis pin (3) and cotter pin (2).

(7) Connect emergency brake cables (1) to parking brake lever assembly (12, fig. 4-7).

f. Hydraulic Brakes.

(1) If removed, install backing plate assembly (23, fig. 4-7) with screws (20), lockwashers (21), and hex head nuts (22).

(2) If disconnected, connect emergency brake cables (1, fig. 4-8).

(3) Install parking brake lever assembly (12, fig. 4-7) and service replacement shoes and linings (9) and secure with hold-down pins (8), hold-down springs (7), and hold-down cups (6).

(4) Assembly and install adjusting screw components (4, 5, and 6) and adjusting assembly spring (2).

(5) Install equalizer lever (13, fig. 4-7) and equalizer lever spring (14).

(6) Install shoe return springs (1).

g. Transporter Suspension Frame Assembly.

(1) If removed, install front and rear transporter suspension frames (29, fig. 4-6) with hex head bolts (4), flat washers (3), lockwashers (2), and nuts (1).

(2) If removed, install chains and chain shackles (5).

(3) Install transporter suspension frame (29) to wheel suspension frame tube bracket with straight pins (23), flat washers (22), and cotter pins (21).

(4) Install transporter suspension frame (29) to lockout struts (27) with lockout strut pins (26) and cotter hairpins (25).

(5) Install wheel suspension frame to lockout struts (27) with straight pin (24), flat washer (22), and cotter pins (21).

(6) Install hydraulic jack (28) to wheel suspension frame and transporter suspension frame (29) with straight pins (24), flat washers (22),and cotter pins (21).

h. Banjo Suspension Spring Assembly.

(1) If necessary, install kingpin (12, fig. 4-5) into back mounting plate (11).

(2) Install thrust bearing (10), O-ring (9), and felt washer (8) into back mounting plate (11).

(3) Install seven springs (7) (the eighth compartment, aligned with the spindle, remains empty).

NOTE

Pack front bearing assembly (4) with grease before installing

(4) Install front plate assembly (6), front bearing assembly (4), and seal washer (3). Install nut (2) and cotter pin (1).

i. Rear Axle Assembly.

(1) Attach transporter suspension frame to wheel suspension frame (5, fig. 4-4), using straight pins (13), flat washers (7), and cotter pins (6).

(2) Install lockout struts (12) to wheel suspension frame (5), using cotter hairpins (10) and lockout strut pins (11).

(3) Install lockout struts (12) to transporter suspension frame, using straight pins (8), flat washers (7), and cotter pins (6).

(4) Install hydraulic jack (9, fig. 4-4) to wheel suspension frame (5) and transporter suspension frame, using straight pins (8), flat washers (7), and cotter pins (6).

(5) Install banjo suspension spring assemblies (1) with hex head screws (2), lockwashers (3), and hex nuts (4).

j. Hub and Drum.

NOTE

Pack bearing cones (5 and 11, fig. 4-3) with grease before proceeding.

(1) If removed, install Z-ring (14) and 0-ring (13) onto spindle of knuckle (12, fig. 4-10).

(2) If removed, install inner bearing cup (12, fig. 4-3), inner bearing cone (11), and grease seal (10) into hub and drum (8).

(3) If removed, install snap ring (7) and outer bearing cup (6) into hub and drum (8).

(4) Install hub and drum (8) onto knuckle spindle.

(5) Install outer bearing cone (5), key washer (4), spindle nut (3), and cotter pin (2).

(6) Install grease cap (1).

k. Hub.

NOTE

Pack bearing cones (5 and 11, fig 4-2) with grease before procedures.

(1) If removed, install Z-ring (14) and O-ring (13) onto spindle of front plate assembly (6, fig 4-5).

(2) If removed, install inner bearing cup (12, fig 4-2), inner bearing cone (11), and grease seal (10) into hub (8).

(3) If removed, install snap ring (7) and outer bearing cup (6) into hub (8).

(4) Install hub (8) onto spindle.

(5) Install outer bearing cone (5), key washer (4), spindle nut (3), and cotter pin (2).

(6) Install grease cap (1).

l. Wheel, Tire, and Tube Assembly.

(1) If removed, install tube (3, fig. 4-1) and tire (2) on- to wheel (7).

(2) Install wheel (7) to wheel hub with cone nuts (1).

4-11. LUBRICATION. With the exception of the bearing assemblies in the wheels and in the banjo suspension spring assemblies, which were lubricated during assembly, lubricate the transporter assembly as specified in paragraph 3-5, step c.

4-12. ALIGNMENT. Align the transporter assembly as follows:

a. Hydraulic Brakes.

NOTE

Be sure parking brake is not set at this time.

(1) Block the rear wheels and jack up transporter assembly so that front wheels are clear of ground.

(2) Turn each adjusting screw (5, fig. 4-7) until each lining is firmly against the brake drum.

(3) If necessary, pump the master cylinder and bleed hydraulic lines at the wheel cylinders.

(4) Back off each adjusting screw (5, fig. 4-7) until the wheel spins without interference.

b. Parking Brake Assembly.

(1) Block the rear wheels and. jack up the transporter assembly so that front wheels are clear of ground.

(2) Rotate the takeup adjustment on brake handle (19, fig. 4-8) for minimum takeup. Then set the brake handle to the off position.

(3) Disconnect each clevis (4) from associated brake rod crank (8). Adjust each clevis to take out all slack from emergency cables (1). Then connect the clevis to the cranks (8).

(4) Check that both wheels turn freely.

(5) Set brake handle (19) to the fully on position and check that both wheels are locked. If necessary, rotate the takeup adjustment on the brake handle for additional brake adjustment.

c. Steering.

(1) Place the transporter assembly on a flat surface, with the front wheels and towbar facing straight ahead.

(2) Adjust each tie rod assembly to provide 23-1/8 inches between the centers of tie rod ends (4 and 6, fig. 4-9).

(3) Check the distance between the backs of the front wheels and the fronts of the front wheels. The front distance

APPENDIX A

REFERENCES

A-1. Dictionaries of Terms and Abbreviations.

AR 310-25	Dictionary of United States Army Terms
AR 310-50	Authorized Abbreviations and Brevity Codes

A-2. Publication Index.

DA PAM 310-1	Consolidated Index of Army Publications and Blank Forms
DA PAM 738-751	Functional Users Manual for the Army Maintenance Management System - Aviation (TAMMS-A)

A-3. Logistics and Storage.

TM 740-00-1	Administrative Storage of Equipment
TM 743-200-1	Storage and Materials Handling

A-4. Maintenance of Supplies and Equipment.

AR 750-1	Army Material Maintenance Concepts and Policies
TM-9-213	Painting Instructions for Field Use
TM 55-405-10	Army Aviation Maintenance Engineering Manual: Ground Handling Test and Service Equipment

A-5. Other Publications

TM 750-244-1-4	Procedures for the Destruction of Aviation Ground Support Equipment (FSC 4920) to Prevent Enemy Use
AR 420-90	Fire Prevention and Protection

APPENDIX B

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. Maintenance Allocation Chart.

a. This Maintenance Allocation Chart (MAC) assigns maintenance functions in accordance with the Three Levels of Maintenance Concept for army aircraft. These maintenance levels: Aviation Unit Maintenance (AVUM), Aviation Intermediate Maintenance (AVIM) and Depot Maintenance are depicted on the MAC as:

AVUM which corresponds to the 0 code in the Repair Parts and Special Tools List (RPSTL).

AVIM which corresponds to the F code in the Repair Parts and Special Tools List (RPSTL).

DEPOT which corresponds to the D code in the Repair Parts and Special Tools List (RPSTL).

b. The maintenance to be performed below depot and in the field is described as follows:

(1) Aviation Unit Maintenance (AVUM). AVUM activities will be staffed and equipped to perform high frequency "On-Equipment" maintenance tasks required to retain or return equipment to a serviceable condition. The maintenance capability of the AVUM will be governed by the MAC and limited by the amount and complexity of support equipment. facilities required, and number of spaces and critical skills available. The range and quantity of authorized spare modules/components will be consistent with the mobility requirements dictated by the air mobility concept. (Assignment of maintenance tasks to divisional company size aviation units will consider the overall maintenance capability of the division, the requirement to conserve personnel and equipment resources and air mobility requirements).

(a) Company Size Aviation Units. Perform those tasks which consist primarily of preventive maintenance and maintenance repair and replacement functions associated with sustaining a high level of equipment operational readiness. Perform maintenance inspections and servicing to include daily, intermediate, periodic and special inspections as authorized by the MAC or higher headquarters. Identify the cause of equipment/system malfunctions using applicable technical manual troubleshooting instructions, Built-In-Test Equipment (BITE), installed instruments, or easy to use Test Measurement and Diagnostic Equipment (TMDE). Replace

worn of damaged modules/components which do not require complex adjustments or system alignment and which can be removed/installed with available skills, tools and equipment. Perform operational and continuity checks and make minor repairs. Perform servicing, functional adjustments and minor repair/replacement. Evacuate unserviceable nodules/components and end item beyond the repair capability of AVUM to the supporting AVIM.

(b) Less than Company Size Aviation Units. Aviation elements organic to brigade, group, battalion headquarters and detachment size units are normally small and have less than ten aircraft assigned. Maintenance tasks performed by the aircraft crew chief or assigned aircraft repairman will normally be limited to preventive maintenance, inspections, servicing, spot painting, stop drilling, minor adjustments, module/component fault diagnosis and replacement of selected modules/components. Repair functions will normally be accomplished by the supporting AVIM unit.

(2) Aviation Intermediate Maintenance (AVIM). Avim provides mobile responsive "One Stop" maintenance support. (Maintenance functions which are not conductive to sustaining air mobility will be assigned to depot maintenance.) Performs all maintenance functions authorized to be done at AVUM. Repair of equipment for return to user will emphasize support or operational readiness requirements. Authorized maintenance includes replacement and repair of modules/components and end items which can be accomplished efficiently with available skills, tools, and equipment. Establishes the Direct Exchange (DX) program for AVUM units be repairing selected items for return to stock when such repairs cannot be accomplished at the AVUM level. Inspects, troubleshoots, tests, diagnoses, repairs, adjusts, calibrates, and aligns system modules/components. Module/components disassembly and repair will support the DX program and will normally be limited to tasks requiring cleaning and the replacement of seals, fittings and items of common hardware. Unservicable reparable modules/components and end items which are beyond the capability of AVIM to repair will be evacuated to Depot Maintenance. This level will perform special inspections which exceed AVUM capability. Provides quick response maintenance support, on-the-job-training, and technical assistance through the use of mobile maintenance contact teams. Maintains authorized operational readiness float. Provides collections and classification services for serviceable/ unserviceable material. Operates a cannibalization activity in accordance with AR 750-50. (The aircraft maintenance company within the maintenance battalion of a division will perform AVIM functions consistent with air mobility requirements and conservation of personnel and equipment resources. Additional intermediate maintenance support will provided by the supporting non-divisional AVIM unit.)

B-2. Use of the Maintenance Allocation Chart.

a. The MAC assigns maintenance functions to the lowest level of maintenance based on past experience and the following consideration:

(1) Skills available.
(2) Time required.
(3) Tools and test equipment required and/or available.

b. Only the lowest level of maintenance authorized to perform a maintenance function is indicated. If the lowest level of maintenance cannot perform all tasks of any single maintenance function (e.g., test, repair), then the higher maintenance level(s) that can accomplish additional tasks will also be indicated.

c. A maintenance function assigned to a maintenance level will automatically be authorized to be performed am any higher maintenance level.

d. A maintenance function that cannot be performed at the assigned level of maintenance for any reason may be evacuated to the next higher maintenance organization. Higher maintenance levels will perform the maintenance functions of lower maintenance levels when required or directed by the appropriate commander.

e. The assignment of a maintenance function will not be construed as authorization to carry the associated repair parts in stock. Authority to requisition, stock, or otherwise secure necessary repair parts will be as specified in the repair parts and special tools list appendix.

f. Normally there will be no deviation from the assigned level of maintenance. In cases of operational necessity, maintenance functions assigned to a maintenance level may, on a one-time basic and at the request of the lower maintenance level, be specifically authorized by the maintenance officer of the level of maintenance to which the function is assigned. The special tools, equipment, etc. required by the lower level of maintenance to perform this function will be furnished by the maintenance level to which the function is assigned. This transfer of a maintenance function to a lower maintenance level does not relieve the higher maintenance level of the responsibility of the function. The highest level of maintenance has the authority to determine:

(1) If the lower level is capable of performing the work.
(2) If the lower level will require assistance or technical supervision and on-site inspection.
(3) If the authorization will be granted.

g. Organizational through depot maintenance of the US Army Electronics Command equipment will be performed by designated US Army Electronics Command personnel.

h. Changes to the MAC will be based on continuing evaluation and analysis by responsible technical personnel and on reports received from field activities.

B-3. Definitions

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 detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. To clean, to preserve, to change, and to add fuel, lubricants, cooling agents and air.

d. Adjust. To rectify to the extent necessary to bring into proper operating range.

e. Aline. 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 or test equipment 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. To restore an item to serviceable condition through correction of a specified failure or unserviceable condition. This includes, but is not limited to, inspection, cleaning, preserving, adjusting, replacing, welding, riveting, and strengthening.

j. Overhaul. To restore an item to a completely serviceable condition as prescribed by maintenance serviceability standards prepared and published for the specific to be overhauled.

k. Rebuild. To restore an item to a standard as nearly as possible to the original or new condition in appearance, performance, and life expectancy. This is accomplished through the maintenance technique of complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements (items) using original manufacturing tolerances and specifications, and subsequent reassembly of the item.

B-4. Functional Groups.

Standard functional groupings are not considered feasible for aviation ground support equipment due to variation and complexity. Therefore, variations to functional groupings may occur.

B-5. Maintenance Categories and Work Times.

The maintenance categories (levels) AVUM, AVIM, and DEPOT are listed on the Maintenance Allocation Chart with individual columns that indicate the work times for maintenance functions at each maintenance level. Work time presentations such as 0.1 indicate the average time it requires a maintenance level to perform a specified maintenance function. If a work time has not been established, the columnar presentation shall indicate "-.-". Maintenance levels higher than the level of maintenance indicated are authorized to perform the indicated function.

B-6. Tools and Test Equipment (Section III).

Common tool sets (not individual tools), special tools, test and support equipment required to perform maintenance functions are listed alphabetically with a reference number to permit cross-referencing to column 5 in the MAC. In addition, the maintenance category authorized to use the device is listed along with the item National Stock Number (NSN) and, if applicable, the tool number to aid in identifying the tool/device.

Section II. MAINTENANCE ALLOCATION CHART

NOMENCLATURE OF END ITEMS **Transporter, Airmobile**
Model D761, Part Number 46692-01

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY AVUM	AVIM	DEPOT	(5) TOOLS AND EQUIPMENT	(6) REMARKS
00	Transporter, Airmobile						
0101	Transporter Assemblies Front and Rear	Inspect	.3				
		Service	.8			102	
		Repair		1.0		102	
0102	Axle Assemblies	Inspect	.3				
		Service	.5			102	
		Repair		1.0		102-117	
0103	Tie Rods and Ends	Inspect	.2				
		Service	.3				
		Repair		1.5		102	B
		Replace		1.0		102	B
0104	Wheels and Tires	Inspect	.3				
		Service	.3			102	
		Repair		1.0		102	B
0105	Bearings	Inspect	1.0				
		Service	1.0			102	
		Replace	.8			102	
0106	Towbar	Inspect	.3				
		Service	.5			102	
		Repair		1.0		102, 110 117	
0107	Brake Assembly	Inspect	.5				
		Test					A
		Service	.8			102	
		Repair		1.0		102	B
		Replace		1.0		102	B
0108	Suspension Assembly	Inspect	.3				
		Service	.5			102	
		Repair		1.0		102	
		Replace		1.5		102	

NOMENCLATURE OF END ITEMS **Transporter, Airmobile**
Model D761, Part Number 46692-01

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY AVUM	AVIM	DEPOT	(5) TOOLS AND EQUIPMENT	(6) REMARKS
02	Hydraulic System						
0201	Master Cylinder	Inspect	.3				
		Service	.3			102	
		Repair		1.5		110	
		Replace		.8		104	
0202	Wheel Cylinders	Inspect	.3				
		Service	.3				
		Repair		1.0		110	
		Replace		.5		104	
0203	Brakes Lines, Hoses, and Connections	Inspect	.3				
		Replace		1.0		104	

Remarks

Transporter, Airmobile

Reference Code	Remarks
A	Operational test can be performed with component installed on end item
B	Use available motor pool tools

Section III. TOOL AND TEST EQUIPMENT EQUIPMENTS

Reference Code	Maintenance Category	Nomenclature	NSN	Tool Number
100	0	Tool Set, AVUM, Set No. 1	4920-00-159-8727	SC492099CLA90
101	0	Tool Set, AVUM Set No. 2	4920-00-567-0476	SC492099CLA92
102	0	Tool Kit, Acft Mech Gen	5180-00-323-4692	SC518099CLA01
103	0	Tool Kit, Arfm Rpmn	5180-00-323-4876	SC518099CLA02
104	0	Tool Kit, Hyd Rpmn	5180-00-323-4891	SC518099CLA03
105	0	Tool Kit, Inst Rpmn	5180-00-323-4193	SC518099CLA05
106	0	Tool Kit, Elec Rpmn	5180-00-323-4915	SC518099CLA06
107	0	Tool Kit, Eng Rpmn	5180-00-323-4944	SC518099CLA07
108	0	Tool Kit, Pwr Trn	5180-00-003-5267	SC518099CLA13

Section III. TOOL AND TEST EQUIPMENT EQUIPMENTS (Cont)

Reference Code	Maintenance Category	Nomenclature	NSN	Tool Number
109	F	Shop Set, AVIM, Set No. 1	4920-00-165-1453	SC492099CLA91-ELAM
110	F	Shop Set, AVIM Hyd	4920-00-165-1454	SC492099CLA91-HYAM
111	F	Shop Set, AVIM Machine Shop	4920-00-405-9279	SC492099CLA91-MAAM
112	F	Shop Set, AVIM Pwr Trn	4920-00-001-4132	SC492099CLA91-PTAM
113	AVIM	Shop Set, AVIM Rtr Shop	4920-00-405-9270	SC492099CLA91-ROAM
114	AVIM	Shop Set, AVIM Sheet Metal	4920-00-166-5505	SC492099CLA91-SMAM
115	AVIM	Shop Set, AVIM Tool Crib	4920-00-472-4183	SC492099CLA91-TCAM
116	AVIM	Shop Set, AVIM Turbine Eng	4920-00-224-3684	492099CLA91-ENTAM
117	AVIM	Shop Set, AVIM Welding	4920-00-163-5093	492099CLA91-WEAM

APPENDIX C

REPAIR PARTS AND SPECIAL TOOLS LIST

SECTION I. INTRODUCTION

C-1. Scope. This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of Aviation Unit and Aviation Intermediate maintenance of the Transporter, Airmobile, P/N 46692-01. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

C-2. General. In addition to Section I. Introduction, this Repair Parts and Special Tools List is divided into the following sections:

***a. Section II. Repair Parts List*.** A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. "he list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Repair parts kits are listed separately in their own functional group within Section II. Repair parts for repairable special tools are also listed in this section. Items listed are shown on the associated illustration(s) figure(s).

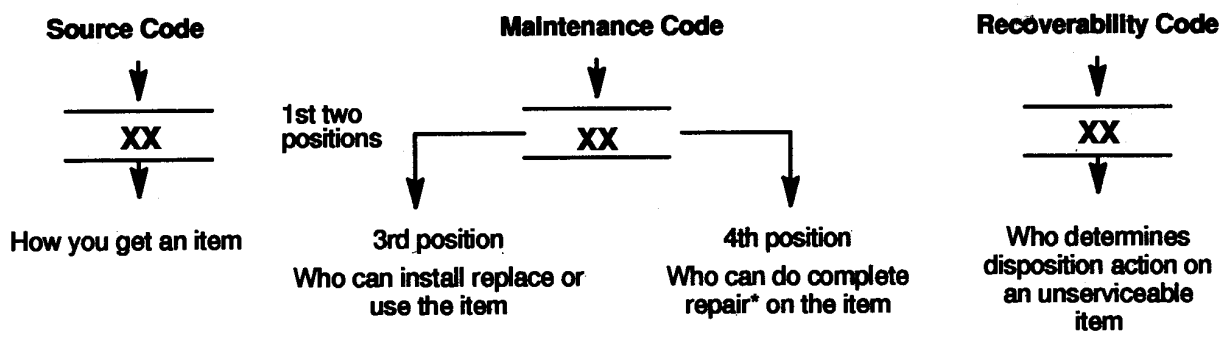
***b. Section III. Special Tools** List*. A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE column) for the performance of maintenance. (Not applicable)

c. Section IV. National Stock Number and Part Number Index. A list, in National item identification number INIIN} sequence, of all National stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

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

a. Item No. (Column (1)). Indicates the number used to identify items called out in the illustration.

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



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

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

Code	Explanation
PA PB PC** PD PE PF PG	Stocked items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3d position of the SMR code. **NOTE: Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3d position of the SMR code. The complete kit must be requisitioned and applied.

Code	Explanation
MO- (Made at org/ AVUM Level) MF- (Made at DS/ AVUM Level) MH- (Made at GS Level) ML- (Made at Spe- (cialized Repair Act (SRA) MD- (Made at Depot)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the Bulk Material group of the repair parts list in this RPSTL. If the item is authorized to you by the 3d position code of the - SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.

Code	Explanation
AO- (Assembled by org/AVUM Level) AF- (Assembled by DS/AVIM Level) AH- (Assembled by GS Category) AL- (Assembled by SRA) AD- (Assembled by Depot)	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3d position code of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.

XA - Do not requisition an "XA"-coded item. Order its next higher assembly. (Also, refer to the NOTE below.)
XB - If an "XB" item is not available from salvage, order it using the FSCM and part number given.
XC- Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.
XD - Item is not stocked. Order an "XD"-coded item through normal supply channels using the FSCM and part number given, if no NSN is available.

NOTE:
Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 700-42.

(2) Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the SMR Code as follows:

(a) The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following levels of maintenance.

Code	Application/Explanation
C	- Crew or operator maintenance done within organizational or aviation unit maintenance.
O	- Organizational or aviation unit category can remove, replace, and use the item.
F	- Direct support or aviation intermediate level can remove, replace, and use the item.
H	- General support level can remove, replace, and use the item.
L	- Specialized repair activity can remove, replace, and use the item.
D	- Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions.) (NOTE: Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.) This position will contain one of the following maintenance codes.

Code	Application/Explanation
O	-Organizational or (aviation unit) is the lowest level that can do complete repair of the item.
F	-Direct support or aviation intermediate is the lowest level that can do complete repair of the item.
H	-General support is the lowest level that can do complete repair of the item.
L	-Specialized repair activity (designate the specialized repair activity) is the lowest level that can do complete repair of the item.
D	-Depot is the lowest level that can do complete repair of the item.
Z	-Nonreparable. No repair is authorized.
B	-No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B" coded item). However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

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

Recoverability Codes	Application/Explanation
Z	-Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
O	-Reparable item. When uneconomically reparable, condemn and dispose of the item at organizational or aviation unit level.
F	-Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support or aviation intermediate level.
H	-Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D	-Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L	-Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
A	-Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. FSCM (Column (3)). The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. Part Number (Column (4)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specification standards, and inspection requirements to identify an item or range of items.

NOTE:

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

e. Description and Usable On Code (UOC) (Column (5)). This column includes the following information.

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

(2) The physical security classification of the item is indicated by the parenthetical entry (insert applicable physical security classification abbreviation, e.g., Phy Sec C1 (C) - Confidential, Phy Sec C1 (S) -Secret, Phy Sec C1 (T) - Top Secret).

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

(4) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

(5) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.

(6) When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC).

(7) The Usable On Code, when applicable (see paragraph 5, Special information).

(8) In the Special Tools List section, the basis of issue (BOI) appears as the last line(s) in the entry for each special tool, special TMDE, and other special support equipment. When density of equipments supported exceeds density spread indicated in the basis of issue, the total authorization is increased proportionately.

(9) The statement "END OF FIGURE" appears just below the last item description in Column 5 for a given figure in both Section II and Section III.

f. QTY (Column (6)). The QTY (quantity per figure column) indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

C-4. Explanation of Columns (Section IV).

a. National Stock Number (NSN) Index.

(1) Stock Number Column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN

NSN

consists of the last nine digits of the NSN (i.e., 5305-01-674-1467). When using this column to locate an item, ignore the

NIIN

first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

(2) Fig. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in Section II and Section III.

(3) Item Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

b. Part Number Index. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

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

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

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

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

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

C-5. Special Information. Use the following subparagraphs as applicable:

a. Usable On Code. Not Applicable.

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

c. Associated Publications. Not Applicable.

C-6. How to Locate Repair Parts.

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

(1) First. Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

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

(3) Third. Identify the item on the figure and note the item number.

(4) Fourth. Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.

(5) Fifth. Refer to the Part Number Index to find the NSN, if assigned.

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

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

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

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 01. WHEEL AND TIRE FIGURE 4-1. WHEEL, TIRE AND TUBE	
1	PAOZZ	20988	23434	LUG NUT	6
2	PAOZZ	96906	MS35388-93	TIRE, PNEUMATIC	1
3	PAOZZ	96906	MS35392-8	INNER TUBE, PNEUMATIC	1
4	PAOZZ	96906	MS51375-1	VALVE CAP	1
5	PAOZZ	96906	MS51357-2	VALVE	1
6	PAOZZ	81349	MILT12459	TIRE, PNEUMATIC	1
7	XDOZZ	65635	540110	WHEEL	1
				END OF FIGURE	

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 02. HUB, REAR FIGURE 4-2. HUB	
1	PAOZZ	20988	23135	CAP, GREASE	1
2	PACZZ	20988	16003	PIN, COTTER	1
3	PAOZZ	20988	16082	NUT, SPINDLE	1
4	PAOZZ	20988	16054	WASHER, KEY	1
5	PAOZZ	20988	23121	CONE, BEARING, OUTER	1
6	PAOZZ	20988	23111	OUTER BRG CUP	1
7	PAOZZ	20988	28586	SNAP RING	1
8	PAOZZ	20988	22689	HUB	1
10	XDOZZ	65635	523602	SEAL:GREASE	1
11	PAOZZ	20988	23122	CONE, BEARING, INNER	1
12	PAOZZ	20988	23114	INNER BRG CUP	1
13	PAOZZ	65635	523606	PACKING, PREFORMED	1
14	PAOZZ	20988	16033	Z-RING	1
				END OF FIGURE	

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 03. HUB, FRONT FIGURE 4-3. HUB AND DRUM	
1	PAOZZ	20988	23135	CAP, GREASE	1
2	PAOZZ	20988	16003	PIN, COTTER	1
3	PAOZZ	20988	16082	NUT, SPINDLE	1
4	PAOZZ	20988	16054	WASHER, KEY	1
5	PAOZZ	20988	23121	OUTER BRNG CONE	1
6	PAOZZ	20988	23111	CUP, BEARING, OUTER	1
7	PAOZZ	20988	28586	SNAP RING	1
8	XDOZZ	20988	25903	HUB & DRUM	1
10	XDOZZ	65635	523602	SEAL, GREASE	1
11	PAOZZ	20988	23122	CONE, BEARING, INNER	1
12	PAOZ7	20988	23114	CUP, BEARING, INNER	1
13	PAOZZ	20988	23606	PACKING, PREFORMED	1
14	PAOZZ	20988	16033	Z RING	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 04. REAR AXLE ASSY FIGURE 4-4. REAR AXLE ASSEMBLY	
1	PADZZ	81902	C46430G1	BANJO	2
2	PAOZZ	96906	MS90725-114	HEX HD SCREW	8
3	PAOZZ	96906	MS35338-48	WASHER, LOCK	8
4	PAOZZ	96906	MS51967-14	NUT, PLAIN, HEXAGON	8
5	XDFFF	81902	D46637GL	FRAME, SUSPENSION	1
6	PAOZZ	96906	MS9245-65	PIN, COTTER	2
7	PAOZZ	96906	AN960-1216	WASHER, FLAT	12
B	PAOZZ	81902	B46594P1	PIN, STRAIGHT	4
9	PAOZZ	81902	BSK8766	JACK, HYDRAULIC, HAND	1
10	PAOZZ	19207	11602356-1	PIN, LOCK	1
11	PAOZZ	81902	B6686G1	PIN, LOCKOUT STRUT	2
12	PAOZZ	81902	B6685PL	STRUT, LOCKOUT	2
13	PAOZZ	81902	B46594P2	PIN, STRAIGHT	2

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 05. SPRING ASSY, REAR	
				FIGURE 4-5. BANJO SUSPENSION SPRING ASSEMBLY	
1	PAOZZ	96906	MS24665-357	PIN, COTTER	1
2	PAFZZ	83445	AS310-1216	NUT	1
3	PAOZZ	83445	50264	SEAL WASHER	1
4	PAFZZ	60038	LM11949	CONE AND ROLLERS, TA	1
5	PAOZZ	36251	5033	FITTING, GREASE	1
6	PAFZZ	81902	C46430G1	BANJO SUSPEN SPR AS FRONT	1
7	PAFZZ	56988	D89	SPRING	7
8	PAFZZ	83445	51925-50	WASHER, FELT	1
9	PAOZZ	83445	6230-18	O-RING	1
10	PAFZZ	43766	7075	BEARING, THRUST	1
11	XDFZZ	83445	52146	PLATE, BACK MOUNTING	1
12	PAFZZ	83445	11406-24	KING PIN	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 06. SUSPENSION FRAME FIGURE 4-6. TRANSPORTER SUSPENSION FRAME	
1	XDOZZ	96906	MS51967-14	NUT, PLAIN, HEXAGON	1
2	PAOZZ	96906	MS35338-50	WASHER, LOCK	1
3	PAOZZ	96906	MS27183-21	WASHER, FLAT	1
	PAOZZ	96906	MS90725-177	SCREW, CAP,HEXAGON H	1
5	XDOZZ	19691	G-209	SHACKLE, CHAIN	1
6	PAOZZ	81902	C47302G1	CABLE ASSEMBLY	1
7	PAOZZ	19691	G-228	TURNBUCKLE.	1
8	XDOZZ	81902	B46746P1	PLATE, IDENTIFICATIO	1
9	XDOZZ	81902	B42607P1	PLATE IDENT	1
10	PAOZZ	88044	AN535-2-4	SCREW, DRIVE	4
11	PADZZ	71286	7C27-10BA	CLAMP, LOOP	2
12	PAOZZ	96906	MS35207-263	SCREW, MACHINE	1
13	PAOZZ	96906	MS35338-43	WASHER, LOCK	1
14	XBOZZ	81902	B46975P1	JACK HANDLE	1
15	PAOZZ	71286	7C1-14W	CLAMP, LOOP	1
16	PAOZZ	96906	MS35387-1	AMBER REFLECTOR	2
17	PAOZZ	96906	MS35207-260	SCREW, MACHINE	8
18	PAOZZ	96906	MS35338-44	WASHER, LOCK	2
19	XDOZZ	81902	B46694P1	BRACKET	2
20	PAOZZ	96906	MS35207-279	SCREW, MACHINE	4
21	PAOZZ	96906	MS9245-65	PIN, COTTER	2
22	PAOZZ	88044	AN960-1216	WASHER, FLAT	2
23	PAOZZ	81902	B46594P2	PIN, STRUT	2
24	PAOZZ	81902	B46594P1	PIN, STRAIGHT	4
25	PAOZZ	19207	11602356-1	PIN, LOCK	2
26	PAOZZ	81902	B46686G1	LOCKOUT STRUT PIN	2
27	PAOZZ	81902	B46685P1	STRUT, LOCKOUT	2
28	PAOZZ	81902	BSK8766	JACK, HYDRAULIC, HAND	1
29	XDFFF	81902	D46638G1	FRAME, SUSPENSION	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 07. HYDRAULIC BRAKES FIGURE 4-7. HYDRAULIC BRAKES	
	XDOOO	20988	18170	BRAKE ASSEMBLY, LH	1
	XDOOO	20988	18171	BRAKE ASSEMBLY, RH	1
1	XDFZZ	06848	78786	SHOE RETRN SPRNG	1
2	XDFZZ	06848	29716	ADJ SPRING ASSY	1
3	PAFZZ	06848	29491	SCREW ADJUSTING	1
4	XDFZZ	06848	48032	SOCKET	1
5	PAOZZ	06848	29491	SCREW ADJUSTING	1
6	XDFZZ	06848	23969	HOLD DOWN CUP	1
7	XDFZZ	06848	23960	HOLD DOWN SPRING	1
8	XDFZZ	06848	26320	HOLD DOWN PIN	1
9	PAOZZ	14892	3202053	BRAKE SHOE SET, INTE	1
10	PAOZZ	06848	41029	RETAINER	1
11	PAOZZ	06848	41647	WASHER ANTIRATTLE	1
12	PAFZZ	06848	48834	LEVER ASSY EM BRK L	1
12	PAOZZ	06848	48835	LEVER ASSY EM BRK R	1
13	XDFZZ	06848	302143	LEVER, EQUALIZER	1
14	PAOZZ	06484	41199	SPRING EAQVALIZER	1
15	PAOZZ	06848	47865	CONNECTING LINK	2
16	PAOZZ	06848	310333	SCREW CLOCKWASHER A	1
17	PAOZZ	06848	616200	CYLINDER ASSEMBLY, WHEEL, LH	1
17	PAOZZ	06848	616201	CYLINDER ASSEMBLY, WHEEL, RH	1
18	XDOZZ	06848	32594	PLATE SHOE GUIDE	1
19	PAOZZ	06848	301055	COVER, DUST	1
20	PAOZZ	96906	M590726-62	SCREW, CAP, HEXAGON H	5
21	PAOZZ	96906	MS35338-46	LOCKWASHER	5
22	PAOZZ	96906	MS51968-9	NUT, PLAIN, HEXAGON	5
23	XDFZZ	06848	3202060	BACK PLATE, LH	1
23	XDFZZ	06848	3202061	BACK PLATE, RH	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 08. PARKING BRAKE FIGURE 4-8. PARKING BRAKE	
1	PAOZZ	99832	518949-43	CABLE, BRAKE EMERGENCY	2
2	XDOZZ	20988	49232	PIN, COTTER	3
3	PAOZZ	20988	20870	PIN, CLEVIS	2
4	PAOZZ	20988	20869	CLEVIS	2
5	PAOZZ	20988	19669	NUT, STOP	3
6	PAOZZ	96906	MS35338-45	WASHER, LOCK	3
7	PAOZZ	20988	19691	SCREW, CAP HEX HEAD	3
8	XDOZZ	20988	20817	CRANK, BRAKE ROD	3
9	PAOZZ	96906	MS90725-64	SCREW, CAP, HEXAGON H	4
10	PAOZZ	96906	MS35338-46	WASHER, LOCK	5
11	XDOZZ	20988	27183	WASHER, FLAT	4
12	XDOZZ	20988	29793	PILLOW BLOCK	2
13	XDOZZ	20988	919015	COLLAR	2
14	XDOZZ	20988	20815	SHAFT, CROSS	1
15	PAOZZ	96906	MS51967-5	NUT, PLAIN, HEXAGON	2
16	PAOZZ	96906	MS35338-40	WASHER, LOCK	2
17	PAOZZ	96906	MS90725-40	BOLT, MACHINE	2
18	PAOZZ	20988	18947-6-5	ROD, BRAKE.	1
19	PAOZZ	20988	18860	BRK HANDLE	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 09. FRONT AXLE ASSY FIGURE 4-9. FRONT AXLE ASSEMBLY	
1	PAOZZ	57733	1641-B	FITTING, GREASE	1
2	PAOZZ	96906	MS24665-285	PIN, COTTER	4
3	PAOZZ	96906	MS9358-13	NUT	4
4	PAOZZ	98349	ES323L	END, TIE ROD LH	1
5	PAOZZ	96906	MS45905-C10	NUT.LEFT HAND	1
6	PAOZZ	98349	ES323R	END, TIE ROD RH	1
7	PAOZZ	96906	MS51968-20	NUT, PLAIN, HEXAGON	1
8	PAOZZ	81902	B46683P1	TIE ROD	1
9	PAOZZ	96906	M5S90725-8	SCREW, CAP, HEXAGON H	1
10	PAOZZ	96906	MS35338-44	WASHER, LOCK	1
11	XDOZZ	81902	B46689G1	PIN, CENTER ARM	1
12	XDOZZ	81902	C46744G1	ARM, STEERING, CENTER	1
13	PAOZZ	96906	MS51967-14	NUT, PLAIN, HEXAGON	6
14	PAOZZ	96906	MS35338-43	WASHER.LOCK	6
15	PADZZ	96906	MS51095-416	SCREW, CAP, HEXAGON H	6
16	PAOFF	81902	G46974G1	RT HAND SHCK ABS	1
17	PAFZZ	81902	D46974G2	SHOCK ABSORBER, RH	1
18	PAOZZ	81902	C46745G1	HOSE, FLEXIBLE	1
19	XDOZZ	81902	F46691P48	FRAME, TEE	1
20	XDFFF	81902	D46636G1	FRAME, SUSPENSION	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 10. WHEEL MOUNT SPRING ASSY FIGURE 4-10. WHEEL MOUNT SHOCK ABSORBING SPRING ASSEMBLY	
1	PAFZZ	96906	MS15001-1	FITTING, LUBRICATION..... V	
2	PAFZZ	83445	AS65-4-6	SCREW.....	3
3	PAFZZ	96906	MS122032	WASHER, LOCK.....	3
4	PAFZZ	83445	51536	CAP.....	1
5	PAFZZ	83445	59001	CAPSCREW	1
6	PAFZZ	83445	51519-1525	KING PIN	1
7	PAFZZ	83445	55021	SPRING	3
8	PAFZZ	83445	51598	COVER, DUST.....	3
9	PAFZZ	83445	82057-3	SUPPORT ASSEMBLY, SPRING	1
10	PAFZZ	83445	11143	WASHER	1
11	PAFZZ	83445	51658	GUIDE, SPRING	3
12	XAFZZ	81902	D46974G2	KNUCKLE, LH.....	1
12	XAFZZ	81902	D46974G1	KNUCKLE, RH	1
13	XAOZZ	83445	82009-1	BRACKET	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 11. BRAKE LINES FIGURE 4-11. BRAKE LINES	
1	PAOZZ	01276	202124-3-4S	REDUCER	1
2	PAOZZ	81902	C47135G1	HOSE, FLEXIBLE	1
3	PAOZZ	01276	2239-2-4S	CONNECTOR .	2
4	XDOZZ	81902	C47136P5	BRACKET	1
5	XDOZZ	30327	48-W-3/16FX1/8 NPT	CONNECTOR MALE	2
6	MFFZZ	81902	C47136G1	TUBE BRAKE LINE	1
7	XDOZZ	30327	48W3/16FX1/8NPT	ADAPTER	2
8	XDOZZ	81902	FC3933	TEE, FRAMER	1
9	PAOZZ	96906	MS35207-263	SCREW, MACHINE	1
10	PAOZZ	96906	MS35338-43	WASHER, LOCK	1
11	PAOZZ	96906	MS21919GD8	CLAMP	1
12	PAOZZ	30327	42-W-3/16	UNION	1
13	PAOZZ	01276	202124-3-4S	REDUCER	1
14	PAOZZ	81902	C46745G1	HOSE, FLEXIBLE	1
15	PAOZZ	81902	C47137P1	TUBING	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 12. BRAKE ACTUATOR FIGURE 4-12. BRAKE ACTUATOR	
1	PAOZZ	96906	M35207-263	SCREW, PANHO	1
2	PAOZZ	96906	MS35338-43	WASHER, LOCK	1
3	PAOZZ	96906	MS2191GD8	CLAMP	1
4	PAOZZ	81902	C47139P1	TUBING	1
5	PAOZZ	94189	17773	PIN	1
6	PAOZZ	94189	8152	PIN, COTTER	1
7	PAOZZ	94189	8291	REAR ROLLER	2
8	PAOZZ	94189	17772	PIN, DAMPER	1
9	PAOZZ	94189	8152	PIN, COTTER	1
10	PAOZZ	94189	12426	DAMPER	1
11	PAOZZ	94189	17766	PIN, FRONT ROLLER	1
12	PAOZZ	94189	7997	PIN, COTTER	1
13	PAOZZ	94189	17763	ROLLER ASSEMBLY, FRONT	1
14	XAOZZ	94189	17763	ROLLER, FRONT	1
15	PAOZZ	94189	10209	BEARING	1
16	PAOZZ	94189	7768	CHAIN, BREAKAWAY	1
17	PAOZZ	94189	10667	S HOOK	1
18	XDOZZ	94189	17802	LEVER, BRAKE	1
19	PAOZZ	94189	17803	SPRING, BREAKAWAY	1
20	PAOZZ	94189	17815	SELF TAPPING BOLT	1
21	XDOZZ	94189	12489	WASHER, LOCK EXTERNAL STAR	1
22	PAOZZ	94189	12099	CONNECTOR	1
23	XDOZZ	94189	17777	BLOCK, PUSH ROD	1
24	PAOZZ	94189	17775	PUSH ROD	1
25	PAOZZ	94189	7976	NUT, HEXAGON	2
26	PAOZZ	94189	7820	WASHER	2
27	PAOZZ	94189	10274	SPR[NG	2
28	PAOZZ	94189	10273	BOLT, HEX HEAD	2
29	PAOZZ	94189	10271	CYLINDER ASSEMBLY, H BRAKE	1
30	PAOZZ	94189	17556	CAP	1
31	XDOZZ	94189	17762	PLATE, MOUNTING CYLINDER	1

END OF FIGURE

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 13. TOWBAR AND CHASSIS FIGURE 4-13. TOWBAR AND CHASSIS	
1	PAOZZ	96906	MS35207-263	SCREW, MACHINE	1
2	XDOZZ	96906	MS35338-43	WASHER, LOCK	1
3	PAOZZ	96906	MS2191G08	CLAMP	1
4	PAOZZ	81902	C46745G1	HOSE, FLEXIBLE	1
5	XDOZZ	81902	G-210	SHACKLE, CHAIN	1
6	XAOZZ	19691	S-4055	LATCH, SAFETY	1
7	PAOZZ	19691	S-320C	EYE HOOK	1
8	XDOZZ	81902	F46691P48	CHAIN	1
9	PAOZZ	96906	M59245-65	PIN, COTTER	2
10	PAOZZ	88044	AN960-1616	WASHER, FLAT	2
11	PAOZZ	81902	B46688P1	PIN, HINGE TOW BAR	1
12	PAOZZ	84256	BLDC8-11L4	PIN AND CHAIN, QUICK	1
13	PAOZZ	07707	AD45H	RIVET, BLIND.	1
14	XDOFF	81902	D46687G1	TOWBARD	1

END OF FIGURE

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STOCK NUMBER	FIG	ITEM
5315-00-005-0442	4-9	2
5310-00-045-3296	4-6	13
	4-9	14
	4-11	10
	4-12	2
4730-00-050-4203	4-9	1
	4-10	1
2640-00-060-3550	4-1	4
5305-00-071-2070	4-4	2
5305-00-088-9044	4-6	17
5310-00-159-6209	4-10	3
5310-00-167-0826	4-6	22
5310-00-167-0828	4-13	10
9905-00-205-2795	4-6	16
5305-00-225-3839	4-9	9
5306-00-225-8504	4-8	17
5305-00-253-5612	4-6	10
5305-00-269-2805	4-7	20
5305-00-269-3214	4-8	9
2610-00-269-7332	4-1	3
5315-00-298-1481	4-5	1
5310-00-407-9566	4-8	6
5310-00-543-2410	4-8	16
5310-00-582-5965	4-6	18
	4-9	10
5310-00-584-5272	4-4	3
3110-00-606-1839	4-5	4
5310-00-637-9541	4-8	10
2610-00-678-1363	4-1	2
5305-00-724-6757	4-6	4
5340-00-751-9754	4-6	11
5310-00-763-8905	4-9	7
5310-00-785-1762	4-7	22
5310-00-820-6653	4-6	2
5310-00-823-8803	4-6	3
5320-00-874-4471	4-13	13
5310-00-880-7744	4-8	15
5315-00-926-5767	4-4	6
	4-6	21
	4-13	9
5305-00-964-0589	4-9	15
5310-00-986-1002	4-5	2
5305-00-989-7434	4-6	12
	4-11	9
	4-13	1
5305-00-993-2463	4-6	20
2540-01-011-0614	4-12	10
5340-01-013-8118	4-6	15
2530-01-050-9193	4-7	9
5310-01-070-2105	4-4	4
5310-01-070-2105	4-9	13
5120-01-110-2039	4-4	9
	4-6	28
1740-01-112-2990	4-6	26
5315-01-114-9109	4-4	10
	4-6	25
2530-01-121-0786	4-12	29
4720-01-143-4208	4-9	18
	4-11	14
	4-13	4
4710-01-143-4209	4-11	15
1740-01-180-0969	4-12	16
2530-01-216-9478	4-8	1
2530-01-219-6802	4-9	6
5330-01-238-3913	4-2	13

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FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
07707	AD45H	5320-00-874-4471	4-13	13
88044	AN535-2-4	5305-00-253-5612	4-6	10
96906	AN960-1216		4-4	7
		5310-00-167-0826	4-6	22
88044	AN960-1616	5310-00-167-0828	4-13	10
83445	AS310-1216	5310-00-986-1002	4-5	2
83445	AS65-4-6		4-10	2
84256	BLDC8-1114		4-13	12
81902	BSK8766	5120-01-110-2039	4-4	9
			4-6	28
81902	B42607P1		4-6	9
81902	B46594P1		4-4	8
			4-6	24
81902	B46594P2		4-4	13
			4-6	23
81902	B46683P1		4-9	8
81902	B46685P1		4-6	27
81902	B46686G1	1740-01-112-2990	4-6	26
81902	B46688P1		4-13	11
81902	B46689G1		4-9	11
81902	B46694P1		4-6	19
81902	B46746P1		4-6	8
81902	B46975P1		4-6	14
81902	B6685P1		4-4	12
81902	B6686G1		4-4	11
81902	C46430G1		4-4	1
			4-5	6
81902	C46744G1		4-9	12
81902	C46745G1	4720-01-143-4208	4-9	18
			4-11	14
			4-13	4
81902	C47135G1		4-11	2
81902	C47136G1		4-11	6
81902	C47136P5		4-11	4
81902	C47131P1	4710-01-143-4209	4-11	15
81902	C47139P1		4-12	4
81902	C47302G1		4-6	6
81902	D46636G1		4-9	20
81902	D46637G1		4-4	5
81902	D46638G1		4-6	29
81902	D46687G1		4-13	14
81902	D46974G1		4-10	12
81902	D46974G2		4-9	17
			4-10	12
56988	D89		4-5	7
98349	ES323L		4-9	4
98349	ES323R	2530-01-219-6802	4-9	6
81902	FC3933		4-11	8
81902	F46691P48		4-9	19
			4-13	8
19691	G-209		4-6	5

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FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
81902	G-210		4-13	5
19691	G-228		4-6	7
81902	G46974G1		4-9	16
60038	LM11949	3110-00-606-1839	4-5	4
81349	MILT12459		4-1	6
96906	MS122032	5310-00-159-6209	4-10	3
96906	MS15001-1	4730-00-050-4203	4-10	1
96906	MS2191GD8		4-12	3
			4-13	3
96906	MS21919GD8		4-11	11
96906	MS24665-285	5315-00-005-0442	4-9	2
96906	MS24665-357	5315-00-298-1481	4-5	1
96906	MS27183-21	5310-00-823-8803	4-6	3
96906	MS35207-260	5305-00-088-9044	4-6	17
96906	MS35207-263	5305-00-989-7434	4-6	12
			4-11	9
			4-13	1
96906	MS35207-279	5305-00-993-2463	4-6	20
96906	MS35338-40	5310-00-543-2410	4-8	16
96906	MS35338-43	5310-00-045-3296	4-6	13
			4-9	14
			4-11	10
			4-12	2
			4-13	2
96906	MS35338-44	5310-00-582-5965	4-6	18
			4-9	10
96906	MS35338-45	5310-00-407-9566	4-8	6
96906	MS35338-46		4-7	21
		5310-00-637-9541	4-8	10
96906	MS35338-48	5310-00-584-5272	4-4	3
96906	MS35338-50	5310-00-820-6653	4-6	2
96906	MS35387-1	9905-00-205-2795	4-6	16
96906	MS35388-93	2610-00-678-1363	4-1	2
96906	MS35392-8	2610-00-269-7332	4-I	3
96906	MS45905-C10		4-9	5
96906	MS51095-416	5305-00-964-0589	4-9	15
96906	MS51357-2		4-1	5
96906	MS51375-1	2640-00-060-3550	4-1	4
96906	MS51967-14	5310-01-070-2105	4-4	4
			4-6	1
			4-9	13
96906	MS51967-5	5310-00-880-7744	4-8	15
96906	MS51968-20	5310-00-763-8905	4-9	7
96906	MS51968-9	5310-00-785-1762	4-7	22
96906	MS90725-114	5305-00-071-2070	4-4	2
96906	MS90725-177	5305-00-724-6757	4-6	4
96906	MS90725-40	5306-00-225-8504	4-8	17
96906	MS90725-64	5305-00-269-3214	4-8	9
96906	M5S90725-8	5305-00-225-3839	4-9	9
96906	MS90726-62	5305-00-269-2805	4-7	20
96906	MS9245-65	5315-00-926-5767	4-4	6

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FSCM	PART NUMBER	STOCK NUMBER	FIG.	ITEM
96906	MS9245-65	5315-00-926-5767	4-6	21
			4-13	9
96906	MS9358-13		4-9	3
96906	M35207-263		4-12	1
19691	S-320C		4-13	7
19691	S-4055		4-13	6
94189	10209		4-12	15
94189	10271	2530-01-121-0786	4-12	29
94189	10273		4-12	28
94189	10274		4-12	27
94189	10667		4-12	17
83445	11143		4-10	10
83445	11406-24		4-5	12
19207	11602356-1	5315-01-114-9109	4-4	10
			4-6	25
94189	12099		4-12	22
94189	12426	2540-01-011-0614	4-12	10
94189	12489		4-12	21
20988	16003		4-2	2
			4-3	2
20988	16033		4-2	14
			4-3	14
20988	16054		4-2	4
			4-3	4
20988	16082		4-2	3
			4-3	3
57733	1641-8	4730-00-050-4203	4-9	1
94189	17556		4-12	30
94189	17762		4-12	31
94189	17763		4-12	13
			4-12	14
94189	17766		4-12	11
94189	17772		4-12	8
94189	17773		4-12	5
94189	17775		4-12	24
94189	17777		4-12	23
94189	17802		4-12	18
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20988	18170		4-7	
20988	18171		4-7	
20988	18860		4-8	19
20988	18947-6-5		4-8	18
20988	19669		4-8	5
20988	19691		4-8	7
01276	202124-3-4S		4-11	1
			4-11	13
20988	20815		4-8	14
20988	20817		4-8	8
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PART NUMBER INDEX

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20988	23114		4-2	12
			4-3	12
20988	23121		4-2	5
			4-3	5
20988	23122		4-2	11
			4-3	11
20988	23135		4-2	1
			4-3	1
20988	23434		4-1	1
20988	23606		4-3	13
06848	23960		4-7	7
06848	23969		4-7	6
20988	25903		4-3	8
06848	26320		4-7	8
20988	27183		4-8	11
20988	28586		4-2	7
			4-3	7
06848	29491		4-7	3
			4-7	5
06848	29716		4-7	2
20988	29793		4-8	12
06848	301055		4-7	19
06848	302143		4-7	13
06848	310333		4-7	16
14892	3202053	2530-01-050-9193	4-7	9
06848	3202060		4-7	23
06848	3202061		4-7	23
06848	32594		4-7	18
06848	41029		4-7	10
06484	41199		4-7	14
06848	41647		4-7	11
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36848	47865		4-7	15
30327	48-W-3/16FX1/8 NPT		4-11	5
30327	48W3/16FX1/8NPT		4-11	7
06848	48032		4-7	4
06848	48834		4-7	12
06848	48835		4-7	12
20988	49232		4-8	2
83445	50264		4-5	3
36251	5033		4-5	5
83445	51519-1525		4-10	6
83445	51536		4-10	4
83445	51598		4-10	8
83445	51658		4-10	11
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PART NUMBER INDEX

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83445	52146		4-5	11
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65635	523606	5330-01-238-3913	4-2	13
65635	540110		4-1	7
83445	55021		4-10	7
83445	59001		4-10	5
06848	616200		4-7	17
06848	616201		4-7	17
83445	6230-18		4-5	9
71286	7C1-14W	5340-01-013-8118	4-6	15
71286	7C27-10BA	5340-00-751-9754	4-6	11
43766	7075		4-5	10
94189	7768	1740-01-180-0969	4-12	16
94189	7820		4-12	26
06848	78786		4-7	1
94189	7976		4-12	25
94189	7997		4-12	12
94189	8152		4-12	6
			4-12	9
83445	82009-1		4-10	13
83445	82057-3		4-10	9
94189	8291		4-12	7
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By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

J. C. PENNINGTON
Major General, United States Army
The Adjutant General

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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .035 ounce
1 decagram = 10 grams = .35 ounce
1 hectogram = 10 decagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) =100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

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