



Parts Manual

Model 15D Carton Clamp

Serial Number SELP-32697 R1

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corporation

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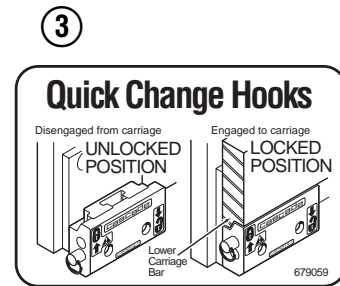
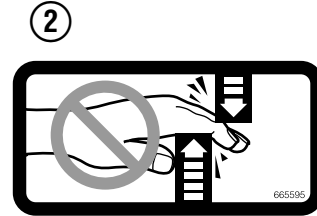
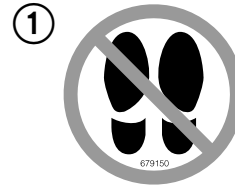
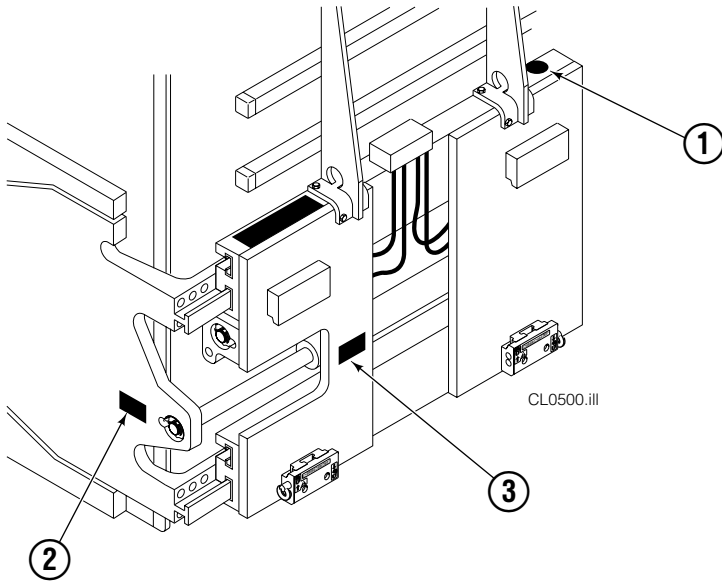
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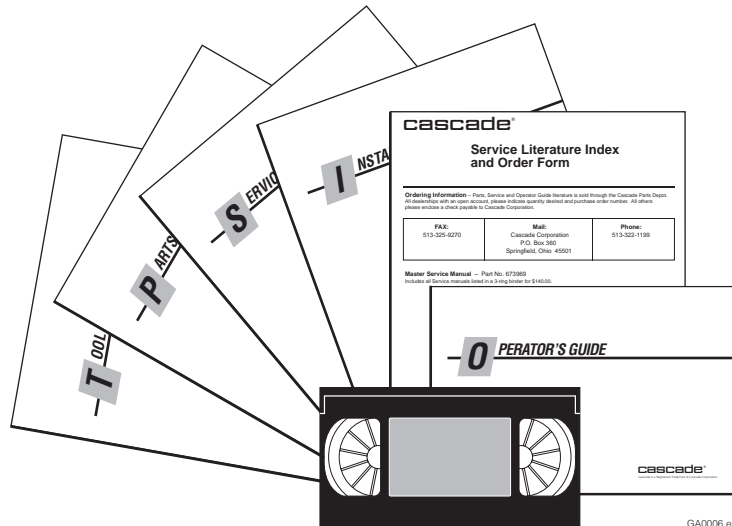
Internet: www.cascorp.com

Safety Decals



REF	QTY	PART NO.	DESCRIPTION
1	1	679150	No Step Decal
2	2	665595	No Hand Hold Decal
3	1	679059	Quick Change Hook Decal

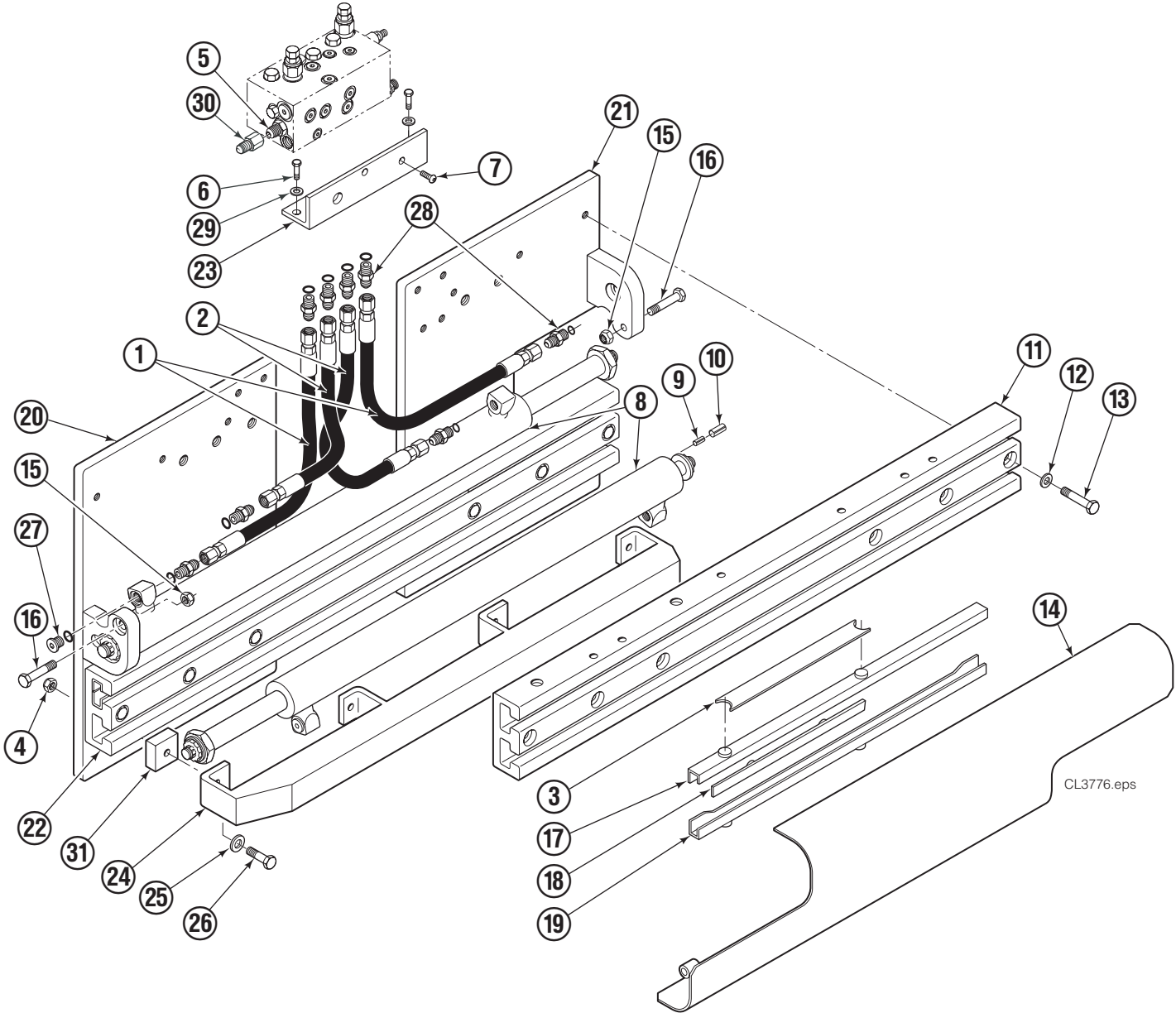
Publications



GA0006.eps

PART NO.	DESCRIPTION
670487	Service Manual
670834	Operators Guide
670488	Installation Instructions
680664	Servicing Cascade Cylinders-VHS
679929	Tool Catalog
673964	Literature Index Order Form

Base Unit Group

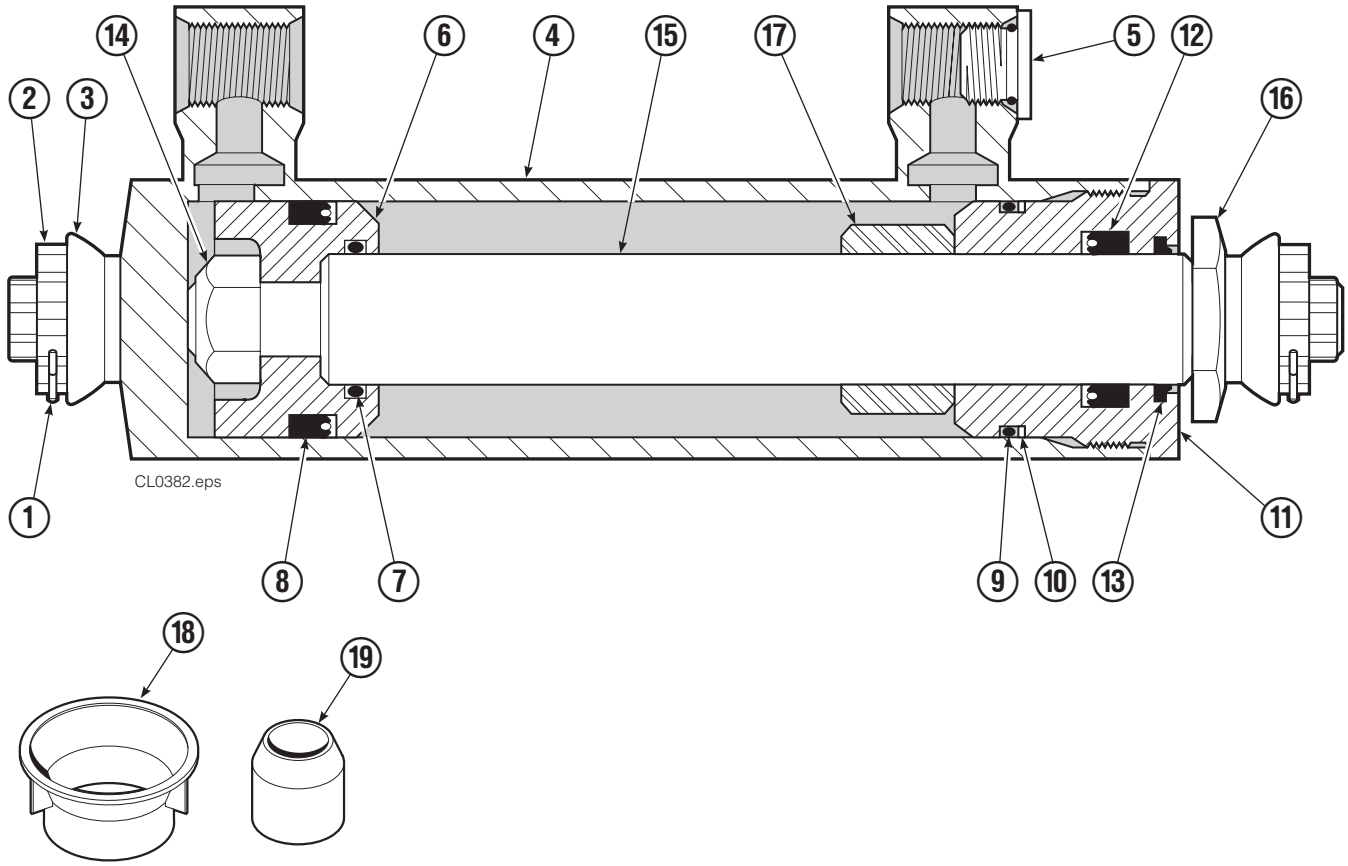


Base Unit Group

15D			
REF	QTY	PART NO.	DESCRIPTION
		6058293	Base Unit Group
1	2	676086	Hose, 29.20 in.
2	2	688695	Hose, 18.75 in.
3	●	675326	Shim Kit
4	4	773842	Nut, M12
5	1	601377	Fitting, 8-8
6	2	766646	Capscrew, M10 x 20
7	2	783608	Capscrew, M10 x 16
8	2	6026425	Cylinder ▲
9	2	768953	Roll Pin
10	2	769009	Roll Pin - Outer
11	1	3010751	Frame - Upper
12	12	667910	Washer, .50 in.
13	12	684659	Capscrew, M12 x 75
14	1	319458	Bumper
15	2	763025	Nut
16	2	768414	Capscrew, M12 x 65
17	4	208858	Bearing
18	4	667663	Bearing
19	4	208857	Bearing
20	1	6047981	Mounting Plate - RH
21	1	6047982	Mounting Plate - LH
22	1	3010752	Frame - Lower
23	1	6043983	Bracket
24	1	671545	Lower Bumper
25	4	6205	Washer, M12
26	4	202407	Capscrew, M12 x 60
27	2	602580	Fitting, 8
28	10	611288	Fitting, 6-8
29	2	209021	Washer, M10
30	2	6019053	Fitting, 8-6
31	4	6075309	Spacer
	1	6061983	Valve Assembly ◆

- Includes two .015 Shims and eight .020 Shims.
- ▲ See Cylinder page for parts breakdown.
- ◆ See Valve Assembly page for parts breakdown.

Cylinder Assembly



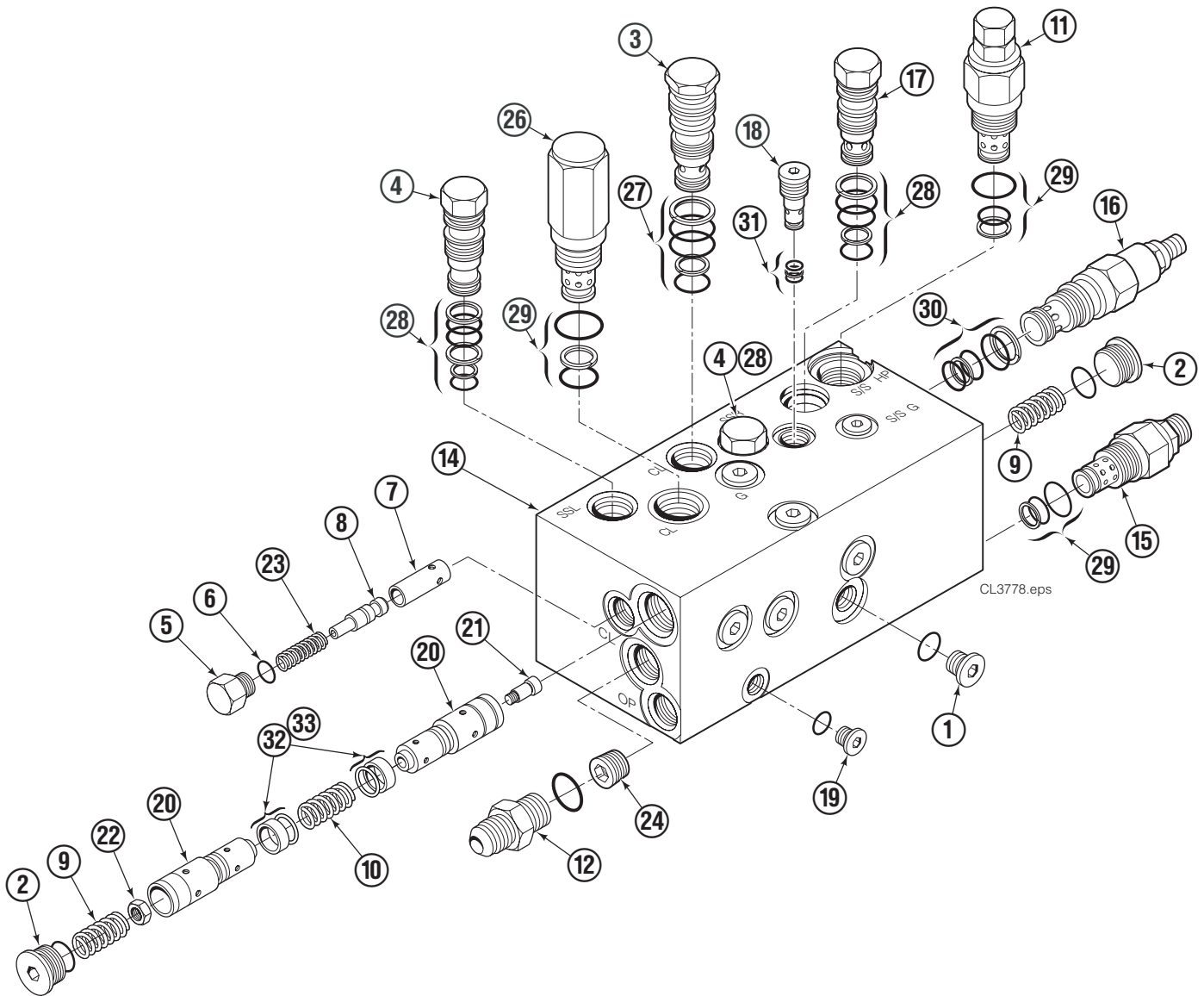
15D			
REF	QTY	PART NO.	DESCRIPTION
		6026425	Cylinder Assembly
1	2	6510	■ Cotter Pin
2	2	667624	■ Nut Retainer
3	2	667625	■ Nut
4	1	6026426	Shell
5	1	602580	Fitting
6	1	559702	Piston
7	1	2716	▲ O-Ring
8	1	662450	▲ Seal
9	1	2722	▲ O-Ring
10	1	615126	▲ Back-Up Ring
11	1	413799	Retainer
12	1	662448	▲ Seal
13	1	636853	▲ Wiper
14	1	667623	Nut
15	1	6026427	Rod
16	1	667626	Washer
17	1	—	Spacer
18	1	671047	▲ Seal Loader, Piston
19	1	671051	▲ Seal Loader, Retainer
		560729	Service Kit

■ Included in Nut Service Kit 668926.

▲ Included in Service Kit 560729.

Reference: ST-0283, ST-0284.

Valve Assembly



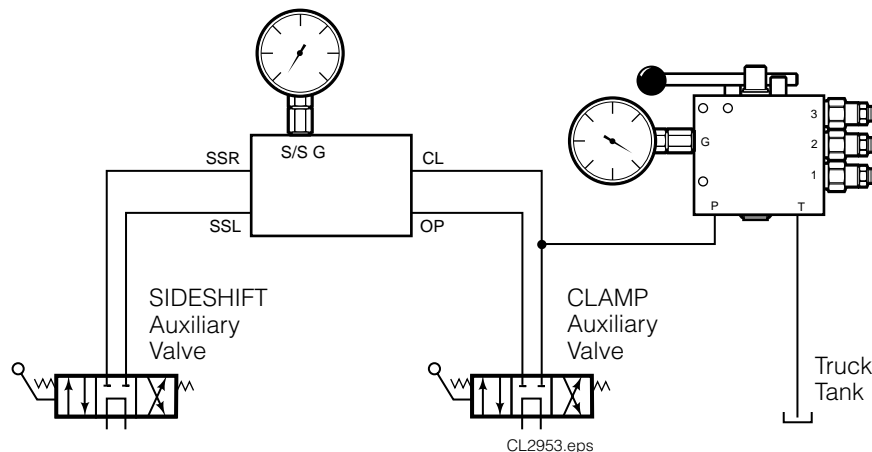
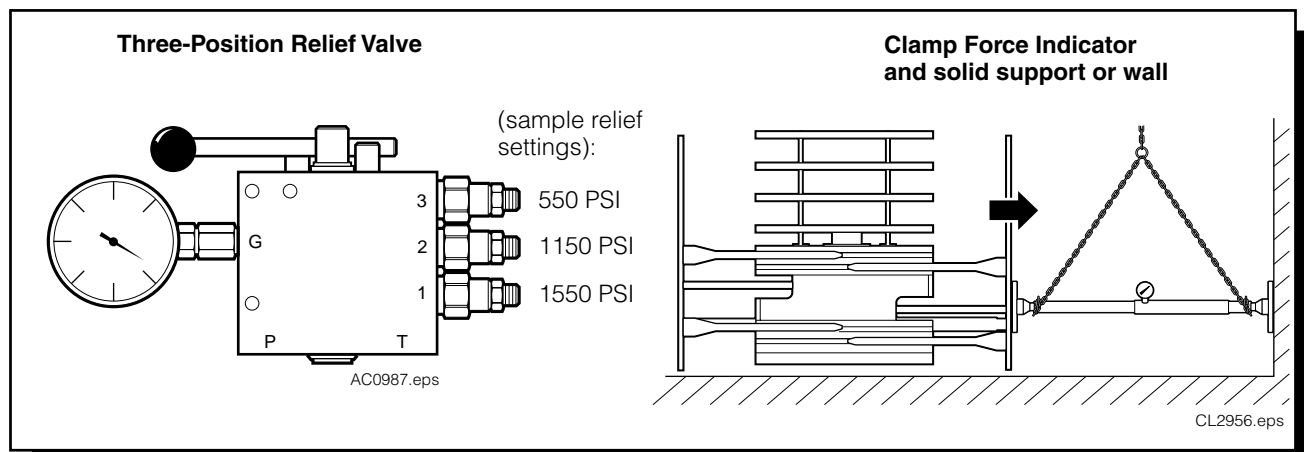
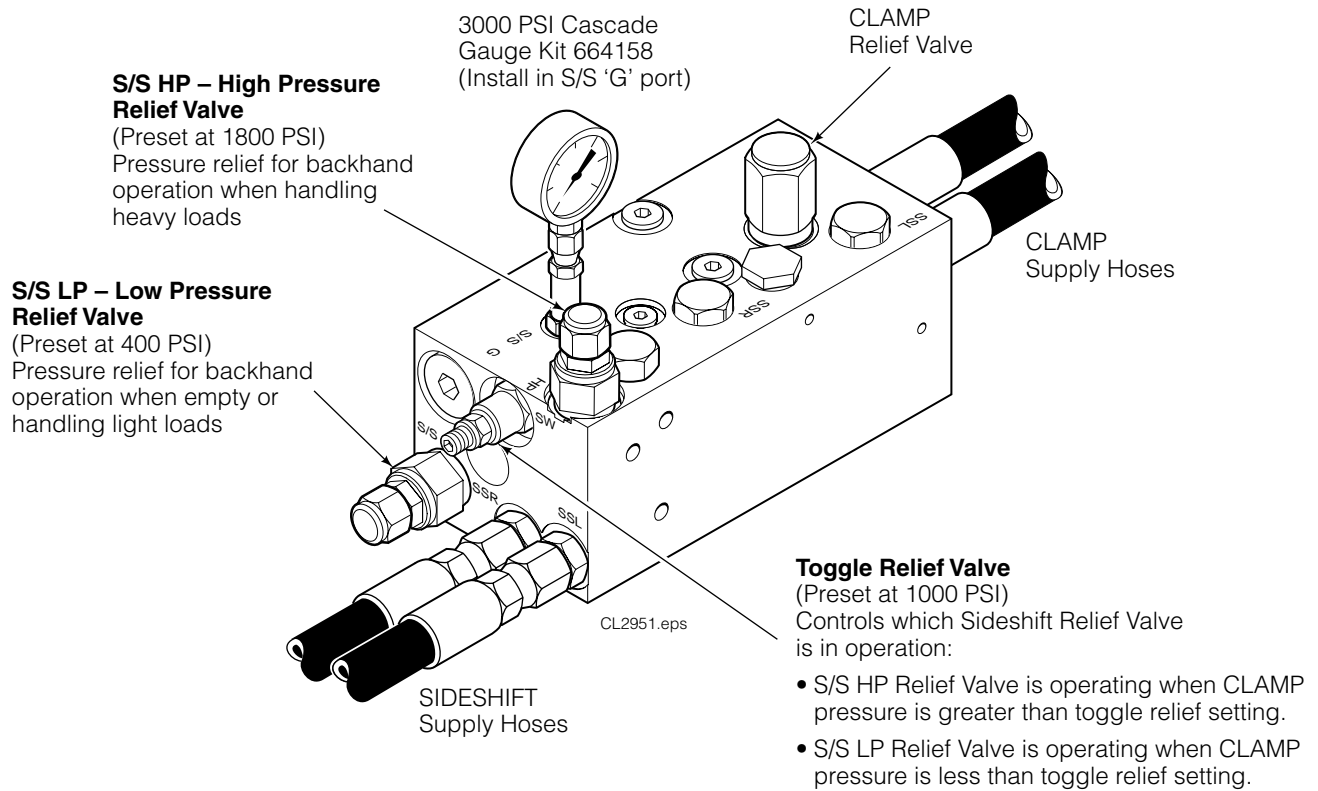
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6061983	Valve Assembly	17	1	6002071	Check Valve
1	6	604510	Plug	18	1	220869	Check Valve
2	2	609453	Plug	19	1	663694	Plug, 3
3	1	678270	Check Valve	20	2	673064	● Spool
4	2	6038929	Check Valve - PO	21	1	673063	● Shoulder Screw
5	2	667494	Fitting	22	1	6095	● Nut
6	2	2840	■ O-Ring	23	2	673098	Spring
7	2	667491	Sleeve	24	1	673271	Plug
8	2	667492	Poppet	25	1	609234	Plug
9	2	667487	Spring	26	1	6071506	Crossover Relief Valve
10	1	667488	● Spring	27	1	661347	■ Service Kit
11	1	215876	Crossover Relief Valve	28	2	667516	■ Service Kit
12	1	601377	Fitting, 8-8	29	3	682170	Service Kit
13	1	673271	Plug	30	1	667510	Service Kit
14	1	6043943	Valve Body	31	1	6025595	Service Kit
15	1	6045016	Relief Valve	32	2	673061	● Bushing
16	1	6035551	Relief Valve	33	2	673062	● Retaining Ring

■ Included in Service Kit 667513.

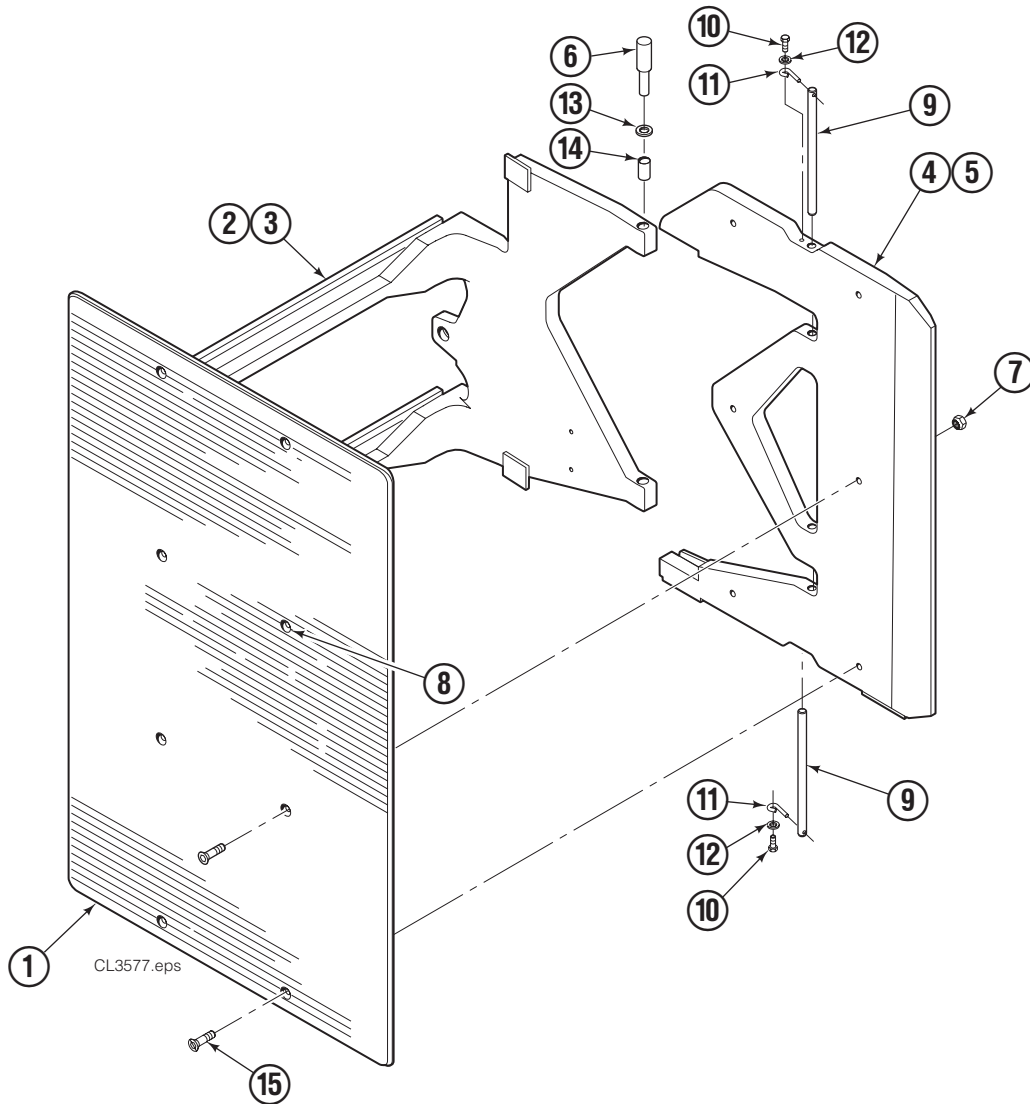
● Included in Low Flow Spool Assembly 679846.

Clamp Valve Assembly 6044017

Sideshift Crossover Relief & Sideshift Force Limitation



Contact Pad & Arm Group



15D							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
1	2	6058279	Contact Pad - 34 x 54 ◆	9	4	210161	Pin
2	1	6058273	Arm - LH	10	4	787372	Capscrew, M8 x 20
3	1	6058276	Arm - LH	11	4	6020429	Eye Pin
4	1	6058285	Stabilizer - LH	12	4	787398	Washer, M8
5	1	6058286	Stabilizer - RH	13	■	675620	Washer, M10
6	1	675626	Bushing Driver Tool	14	8	200590	Bushing
7	12	773842	Nut, M12	15	12	768706	Capscrew, M12 x 35
8	▲	676841	Contact Pad Repair Kit				

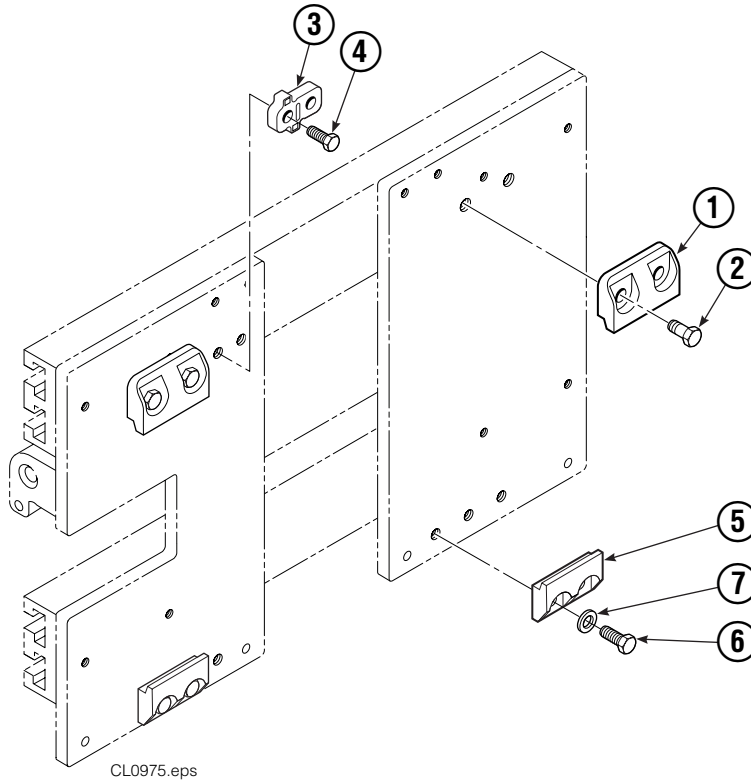
◆ Width x Height.

■ Quantity as required.

Reference: Common Parts 6061994, Stabilizer Group 6058291.

▲ Repairs one hole.

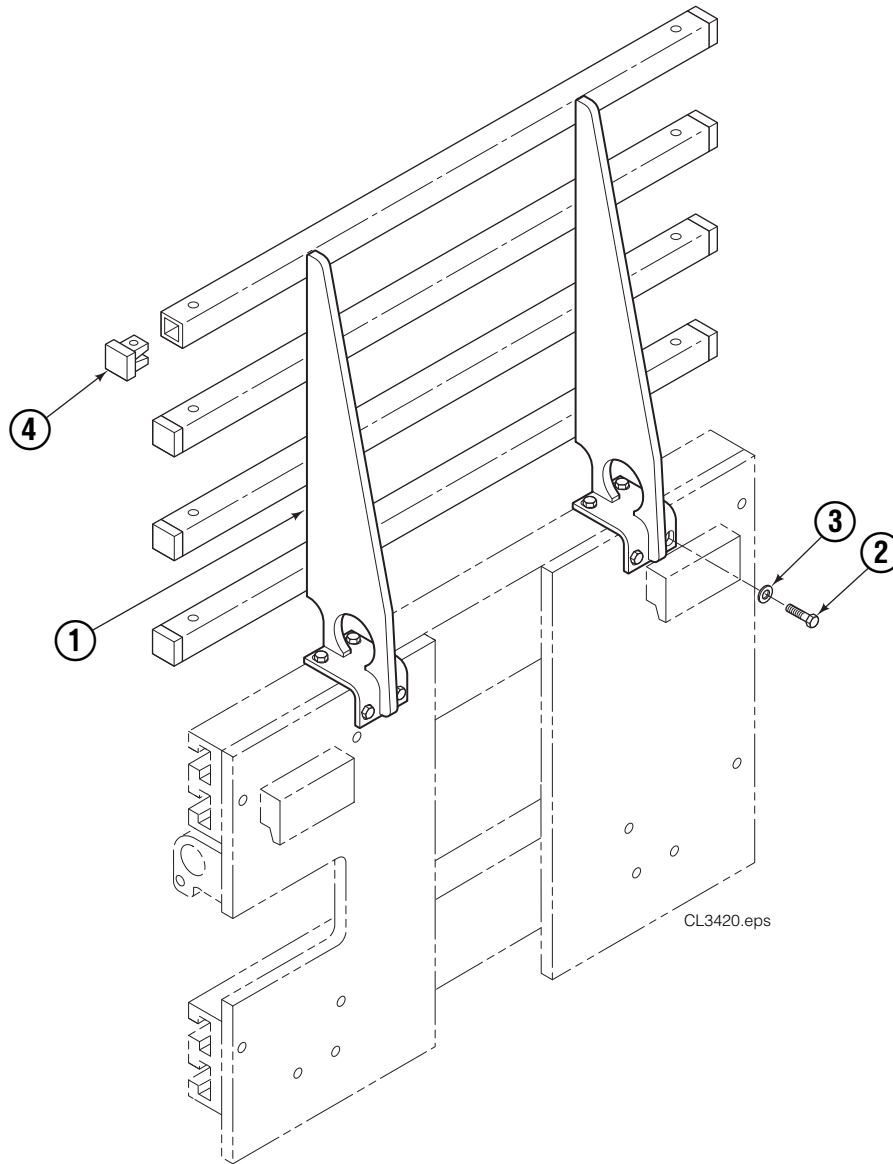
Bolt-On Mounting Group



Class II			
REF	QTY	PART NO.	DESCRIPTION
		211162	Upper Mounting Group ◆
		211173	Lower Mounting Group ●
1	2	210491	Upper Hook
2	4	768577	Capscrew, M20 x 35
3	1	212999	Center Key
4	2	211129	Capscrew, M16 x 35
5	2	675968	Lower Hook
6	4	211128	Capscrew, M16 x 30
7	4	667225	Washer, 5/8 in.

- ◆ Includes items 1–4.
- Includes items 5–7.

Backrest Group



4-Tube Backrest Shown

15D			
REF	QTY	PART NO.	DESCRIPTION
		6058292	Backrest Group
1	1	6058271	Backrest
2	8	767810	Capscrew, M12 x 25
3	8	667910	Washer
4	10	674356	Tube End

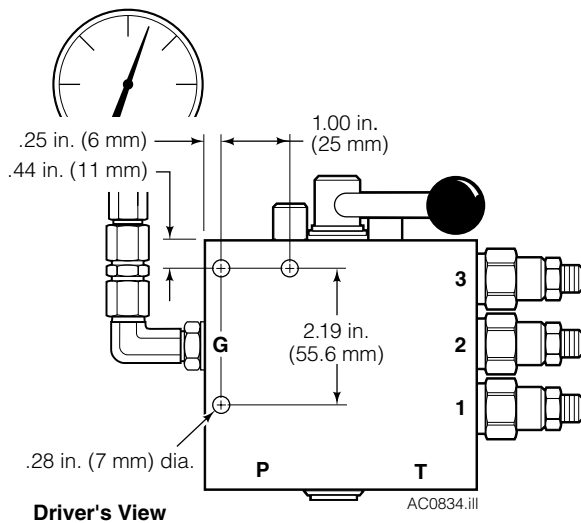


Installation Instructions

Three-Position Pressure Relief Valve 660412

This sheet provides installation instructions for Three-Position Pressure Relief Valve 660412. The valve enables up to four pressure selections, allowing the clamp force to be varied from load to load. Three pressure relief cartridges can be adjusted to relieve pressure between 100 and 3000 psi, a fourth position flows straight through at truck relief pressure. Maximum flow rate through the valve is 20 GPM.

- 1 Determine a convenient location on the truck cowl or overhead guard, within safe reach and view of the driver. Use the mounting hole dimensions shown to mount the valve.

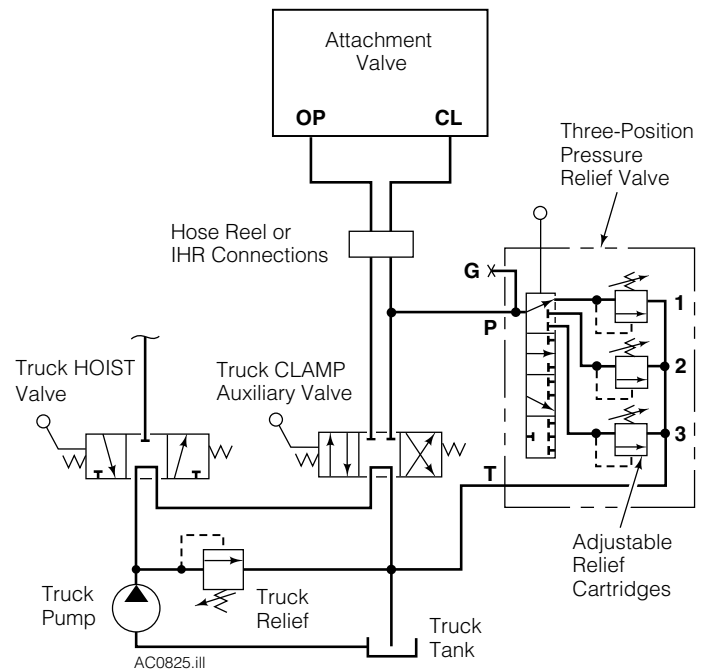
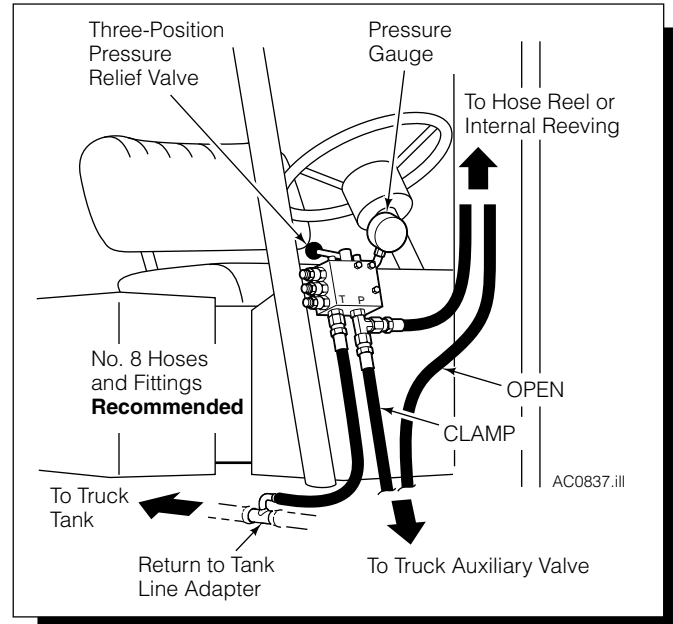


WARNING: Before removing hydraulic hoses, relieve pressure in the attachment hydraulic system. Turn the truck off and move the auxiliary control lever several times in both directions.

- 2 Install hoses and fittings between the Pressure Relief Valve, truck auxiliary valve, truck tank, and attachment valve. **No. 8 hoses and fittings with 13/32 in. (10 mm) minimum ID. recommended.**

CAUTION: A dedicated return-to-tank line is required from the relief valve T port to the truck tank. Kits available:

- Part No. 214062** – .75 in. (19 mm) inside dia. tank line
- Part No. 211745** – 1.00 in. (25 mm) inside dia. tank line
- Part No. 214066** – 1.25 in. (31 mm) inside dia. tank line
- Part No. 6037507** – 1.50 in. (38 mm) inside dia. tank line



Part No. 664827-R5

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- 3** Four stop configurations are shown (relief valve mounted as shown in this sheet). Many different configurations are possible by rearranging the stops, or by sliding the lever within the valve spool. Position the stops for your specific requirements. The standard three-position setup as supplied is shown on top.

IMPORTANT: Numbers stamped around base of lever correspond to relief valve cartridge selected. Positions 1 and 2 are duplicated and can be selected 180 degrees opposite from each other. Position 'X' blocks flow to the relief valve cartridges, truck relief pressure is supplied to the attachment.

- 4** To set the valve relief cartridges, install a 5000 psi (345 bar) pressure gauge (Cascade Part No. 664158) in the valve **G** gauge port.

Sample Settings*

3-Position (as supplied)

Pos. X – Not Available
Pos. 1 – 1400 psi
Pos. 2 – 1600 psi
Pos. 3 – 1800 psi

4-Position

Pos. X – 2300 (Truck Pressure)
Pos. 1 – 1800 psi
Pos. 2 – 1600 psi
Pos. 3 – 1400 psi

* **IMPORTANT:** Cartridges are preset to 1000 psi.

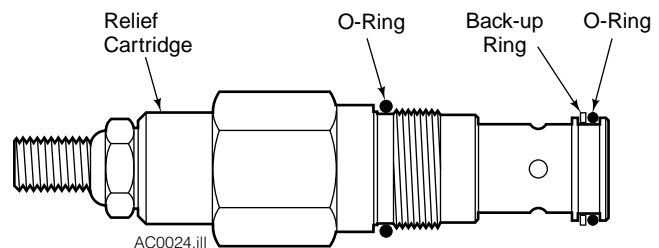
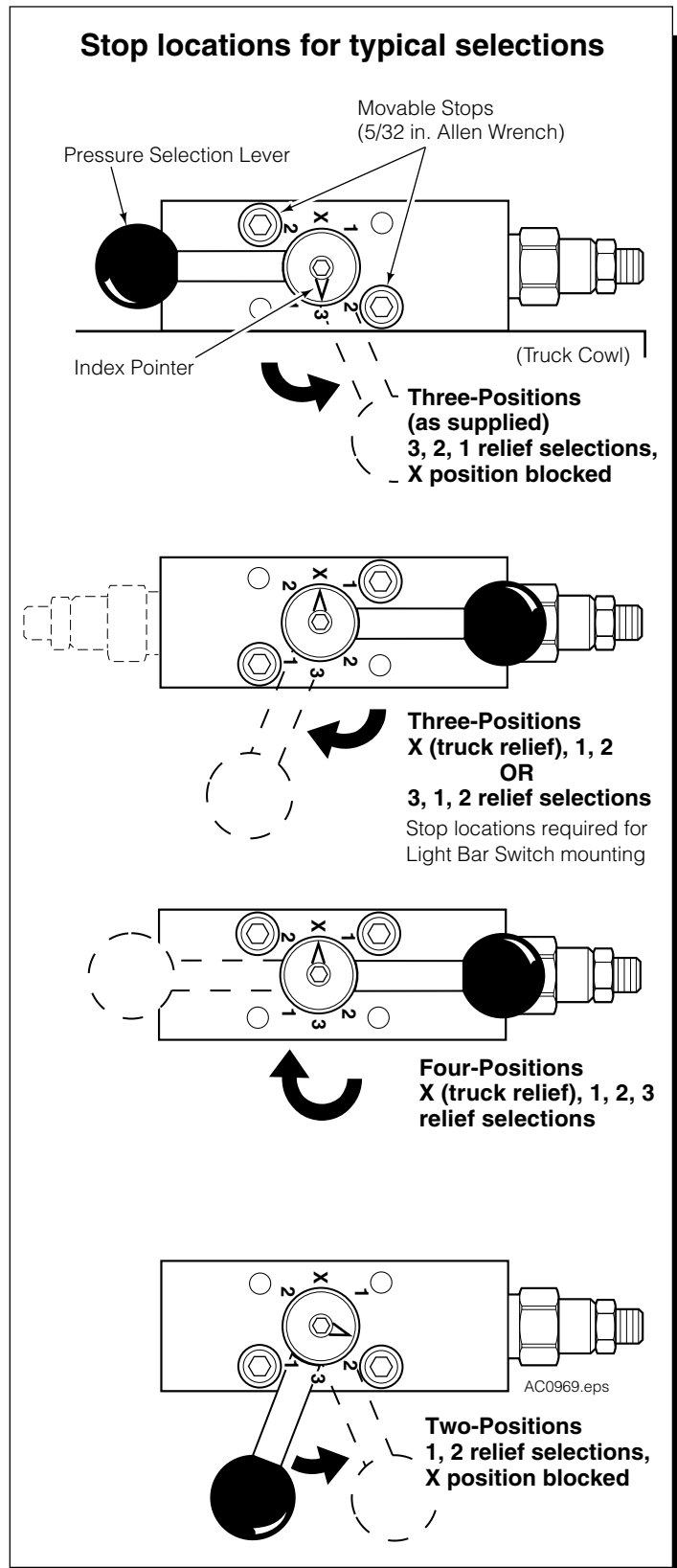
Relief pressure for each cartridge must be adjusted for your application. Four stop positions are not available when a Light Bar Switch is mounted on valve.

- 5** Shift the valve lever index pointer to position **1** stamped on the valve body.
- 6** Loosen the jam nut on the No. 1 relief cartridge. Adjust the relief cartridge (3/16-in. Allen hex wrench) inward (CW) to raise pressure or outward (CCW) to lower the pressure.
- 7** Clamp a load and check the pressure. Readjust as required. Tighten the jam nut.
- 8** Shift the valve lever pointer to position **2** stamped on the valve body. Repeat step 6 and 7 for No. 2 relief cartridge.
- 9** Shift the valve lever pointer to position **3** stamped on the valve body. Repeat step 6 and 7 for No. 3 relief cartridge.
- 10** With the valve lever pointer at position **X**, flow to the relief valve cartridges is blocked, and the valve has no effect. Pressure to the attachment is determined by the truck system relief pressure. The 'X' position selection may be blocked by positioning the stops as shown.

CAUTION: Do not remove the rotating spool from the valve body. Permanent damage will occur due to the spring loaded detents and will void the warranty. Replace valve as a complete assembly.

Replacement Parts

Qty	Description	Part No.
3	Relief Cartridge with Seals	204134
3	Seal Service Kit	669597





Installation Instructions

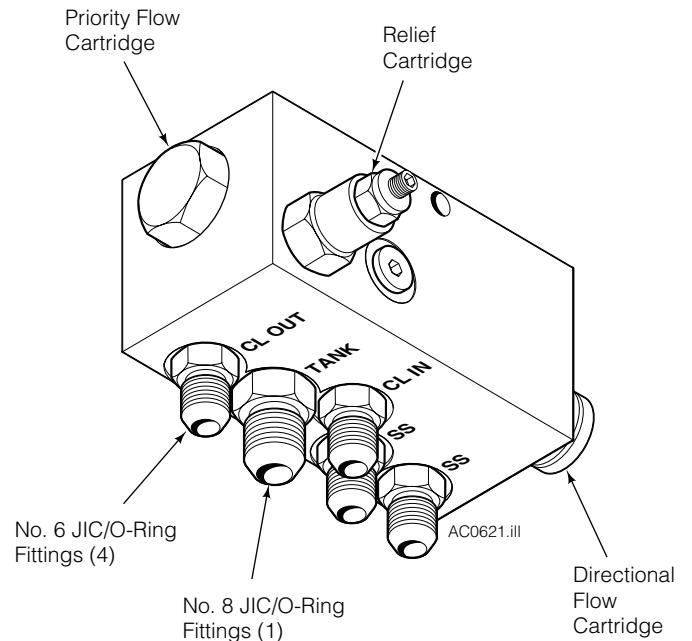
Anti-Spiking Valve Kit 6027353

This Installation Sheet provides a description and installation instructions to install a Cascade Anti-Spiking Valve into the CLAMP & SIDESHIFT hydraulic circuits on attachments.

Description:

The Anti-Spiking Valve prevents the auxiliary valve control lever from being used to 'spike' or 'milk' the CLAMP hydraulic circuit to increase clamp force. The Valve also minimizes clamp force fluctuations during sideshifting. The result is load damage reduction and increased Clamp life due to use of lower clamping pressures.

The CLAMP line must be plumbed through the valve. SIDE-SHIFT lines are connected to the valve using 'tee' connections. The valve requires a dedicated return-to-tank line.



Valve and Hose Installation

IMPORTANT: Leave approximately 3 in. (75 mm) clearance between components to allow for fittings and hoses.

- 1 Determine a suitable location on the truck cowl to install the Anti-Spiking Valve. A preferable location is near the 3-position or other selectable relief valve if used.

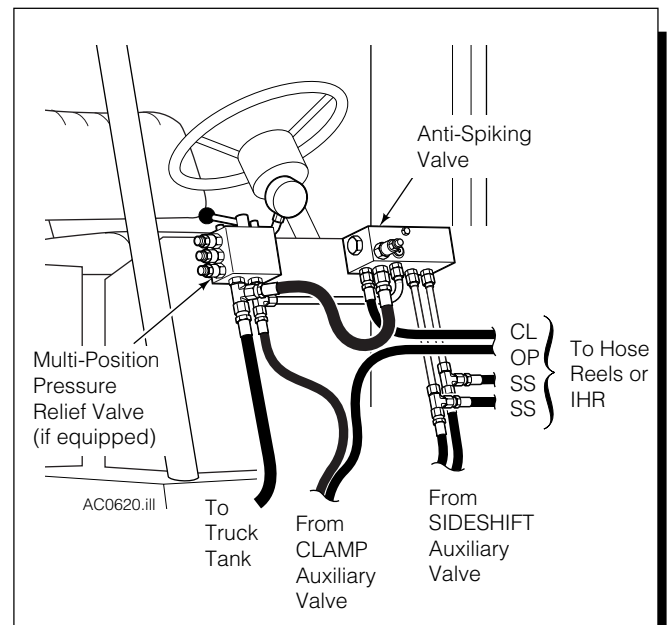


WARNING: Before removing hydraulic lines or components, relieve pressure in the Attachment hydraulic system. Turn the truck off and move the auxiliary control levers several times in both directions.

- 2 Prepare hoses or tubing and connect as shown on the schematic (back page). Hose and fitting size should be equal to existing. Valve supply ports are No. 6 fittings, Return-to-tank port is a No. 8 fitting.

IMPORTANT: Relief cartridge in Anti-Spiking Valve is factory-adjusted for optimum operation - **do not adjust**.

- 3 Test the Clamp through five complete cycles to assure proper operation before returning it to the job.



Part No. 6026827 R-1

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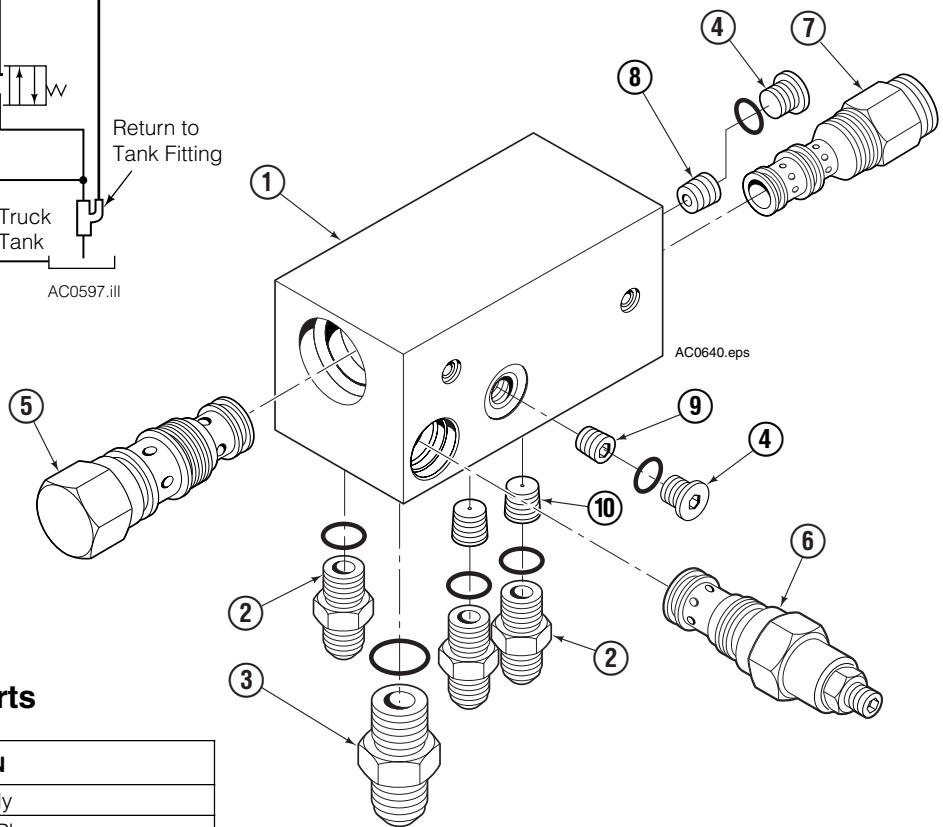
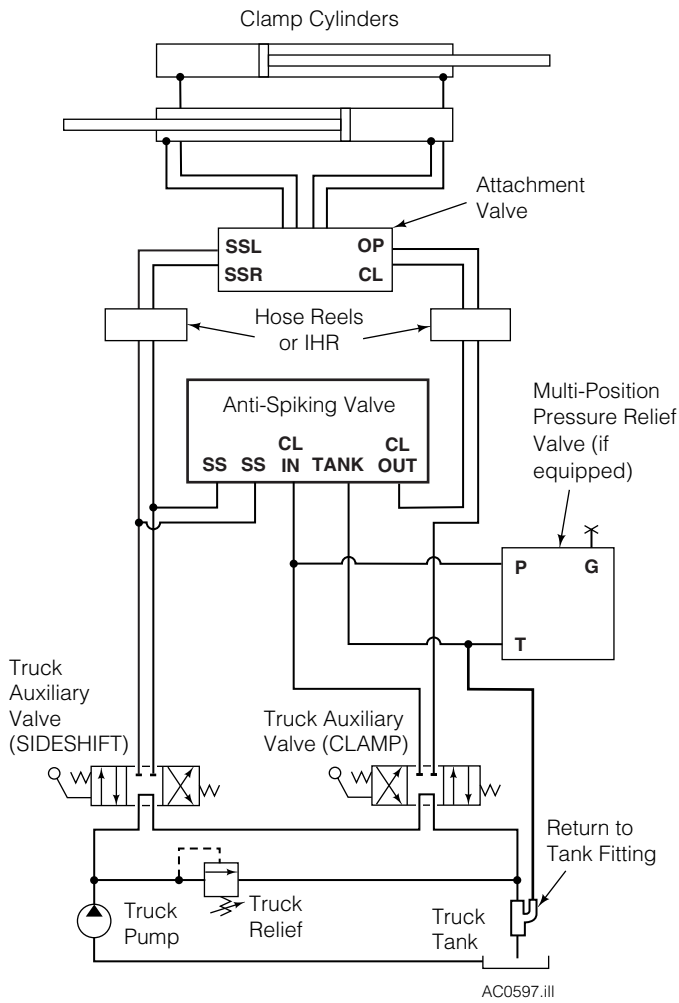
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Hydraulic Connection Diagram



Replacement Parts

REF	QTY	PART NO.	DESCRIPTION
		6026828	Valve Assembly
1	1	6026849	Valve Body w/Plugs
2	4	604511	Fitting, 6
3	1	601377	Fitting, 8
4	2	609234	Fitting, 4
5	1	6026857	Priority Flow Valve Cartridge
6	1	6026853	Relief Valve Cartridge
7	1	6026861	Directional Valve Cartridge
8	1	6026895	Orifice .150
9	1	6026890	Orifice .052
10	2	6026897	Orifice .052



Installation Instructions

Low Pressure Tank Line Adapter Kits

This sheet describes the installation of a low pressure hydraulic return line from an attachment accessory valve connecting to the truck tank low pressure return line.

Each kit includes an adapter tee for the truck low pressure tank line hose, a length of low pressure hose, fittings for connection to the attachment accessory valve and hose clamps.

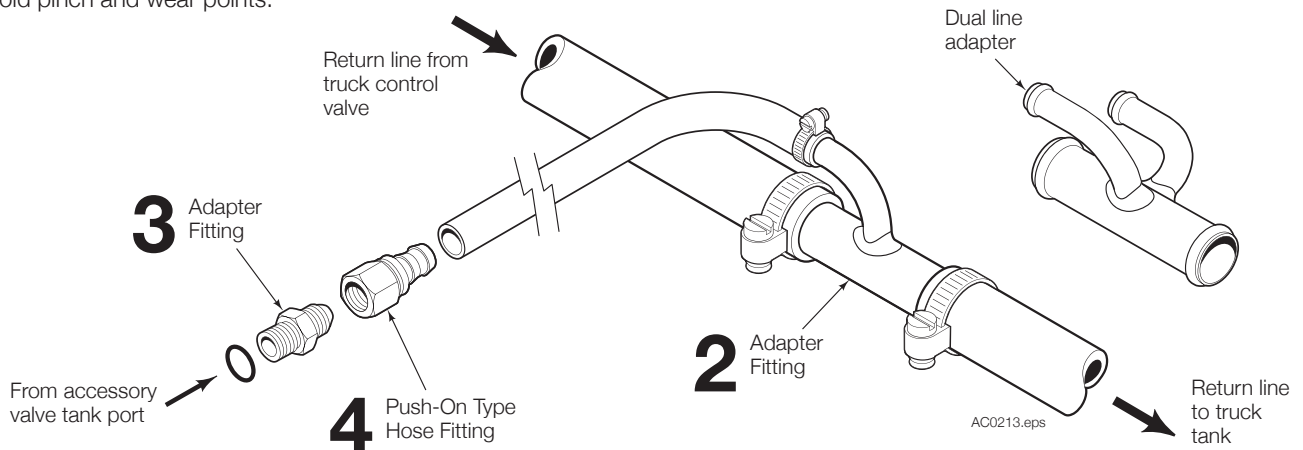
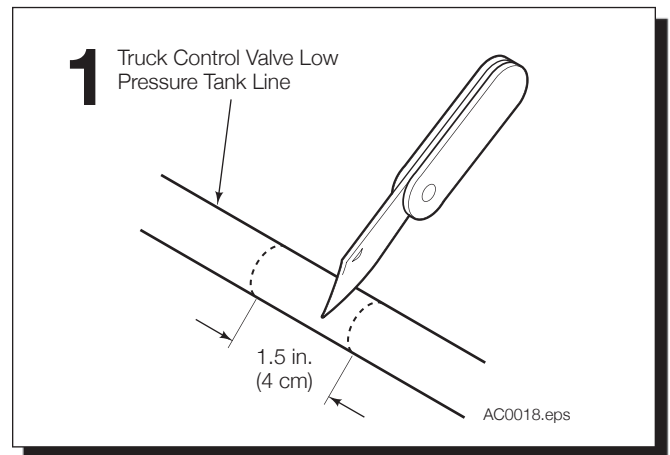
NOTE: This installation requires splicing into the truck control valve low pressure tank line.



WARNING: Do not install the tank line adapter fitting in the power steering or braking system return line. Improper installation can cause erratic brake or steering functions.

- 1 Locate the existing truck control valve low pressure tank line. In a suitable location, cut and remove a 1.5 in. (4 cm) section of hose as shown.
- 2 Install the adapter tee and hose clamps to the low pressure tank line. Tighten the hose clamps.
- 3 Install the adapter fitting in the attachment accessory valve tank port.
- 4 Install the push on hose fitting (Push-Lok JIC female) to the low pressure hose supplied with the kit. Determine the low pressure hose length required and cut to length. Attach the hose to the attachment accessory valve fitting. Install the other hose end to the adapter tee. Avoid pinch and wear points. Tighten hose fittings and clamps.

CAUTION: Secure the hose with cable ties as necessary to avoid pinch and wear points.



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Recommended Spare Parts List

15D Carton Clamp SELP-32697 R1				
PART NUMBER	DESCRIPTION	ATTACHMENTS SERVICED		
		1-5	6-19	20-50
	BASE UNIT			
676086	Hose	0	1	2
688695	Hose	0	1	2
3010751	Frame-Upper	0	1	2
3010752	Frame-Lower	0	1	2
319458	Bumper	0	0	1
208857	Bearing	4	8	12
208858	Bearing	4	8	12
667663	Bearing	4	8	12
674356	Backrest Tube End	4	8	12
599489	Graphite Lubricant, 16 oz. Aerosol	2	4	6
	CYLINDER			
6026425	Cylinder Assembly	0	0	1
6026426	Shell	0	0	1
559702	Piston	0	0	2
413799	Retainer	0	0	2
6026427	Rod	0	1	2
560729	Service Kit	1	2	4
	VALVE			
6061983	Valve Assembly	0	0	1
6038929	Check Valve-PO	1	2	4
6002071	Check Valve-PO	1	1	2
667516	Service Kit-PO	2	3	6
678270	Check Valve-VPO	1	1	2
661347	Service Kit-VPO	1	1	2
6071506	Crossover Relief Valve		1	1
215876	Crossover Relief Valve	1	1	2
6018082	Crossover Relief Valve	1	1	2
682170	Service Kit-Crossover Relief	3	3	6
6035551	Relief Valve	1	1	2
667510	Service Kit-Relief Valve	1	1	2
667513	Service Kit	1	2	4
	LOWER MOUNTING GROUP			
675968	Lower Hook	2	4	8
211128	Capscrew	4	8	16
	UPPER MOUNTING GROUP			
210491	Upper Hook	2	4	6
768577	Capscrew	4	8	12
212999	Center Key	1	2	3
211129	Capscrew	2	4	6
	ARMS			
210161	Pin	2	4	6
200590	Bushing	8	16	32

2

Recommended Spare Parts List

15D Carton Clamp SELP-32697 R1				
PART NUMBER	DESCRIPTION	ATTACHMENTS SERVICED		
		1-5	6-19	20-50
685660	PAINT 12 oz. Aerosol Heritage White	1	2	2
	PUBLICATIONS			
	Parts Manual	1	1	2
670487	Service Manual	1	1	2
670488	Installation Instructions	1	1	2
670834	Operator's Guide	1	1	2
679929	Tool Catalog	1	1	2
673964	Literature Index Order Form	1	1	2
	VIDEO			
680664	Servicing Cascade Cylinders	1	1	1
677553	Driver Training Video	1	1	1

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