



Parts Manual

Model 30A Layer Picker

Serial Number SELP-41599

cascade®
corporation

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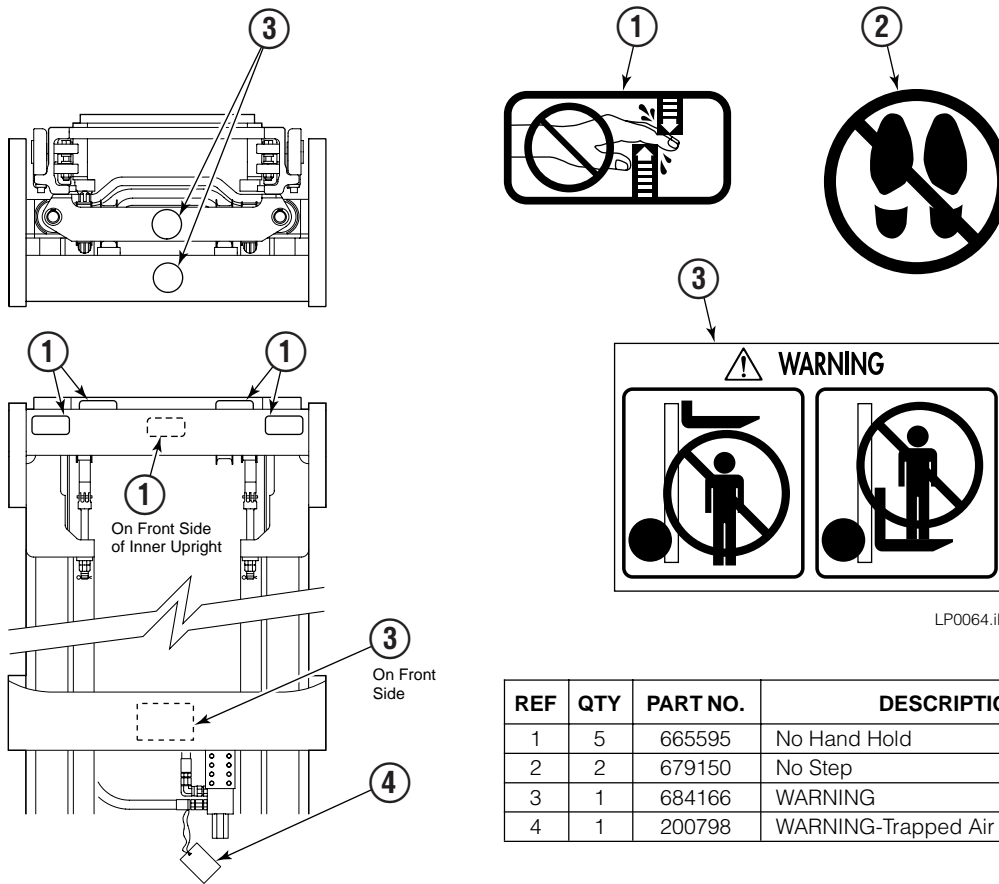
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OR

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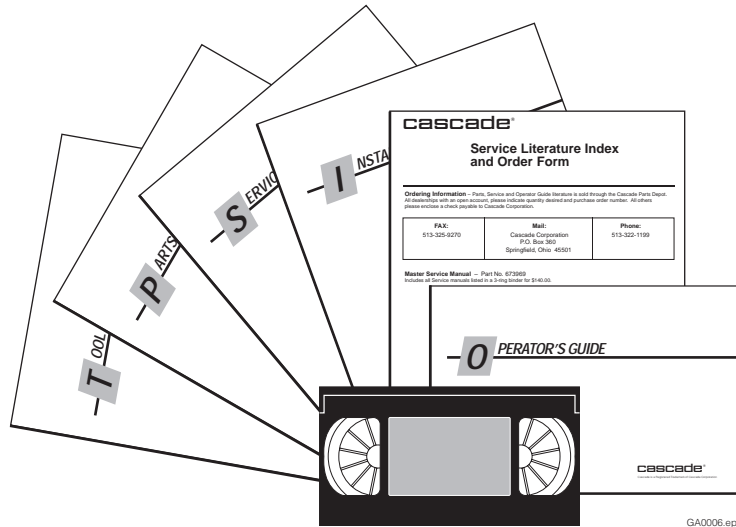
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Safety Decals



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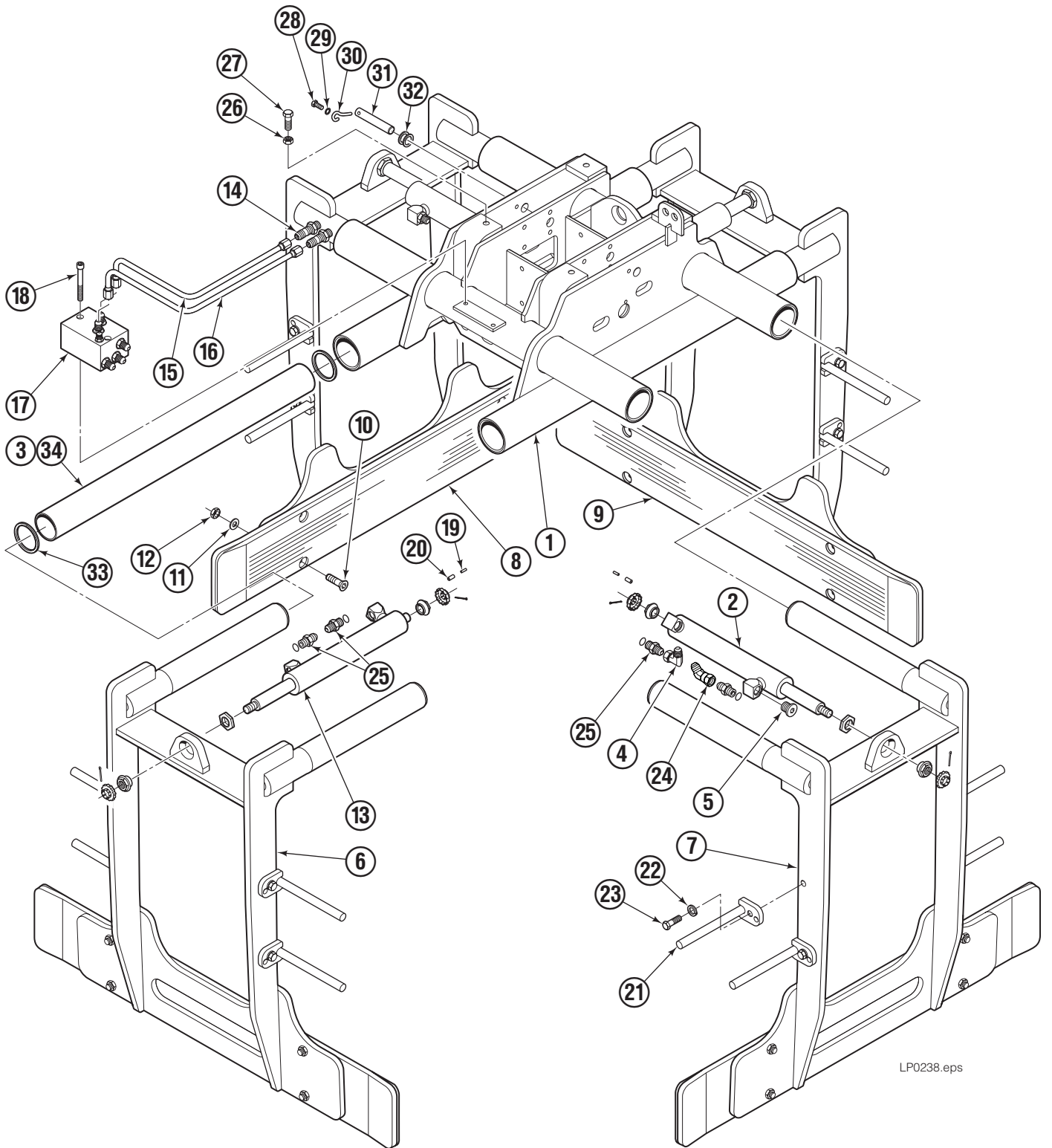
Publications



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PART NO.	DESCRIPTION
-	Parts Manual
-	Service Manual
222964	Installation Instructions
222225	Operators Guide
679929	Tool Catalog
673964	Literature Index Order Form

Clamp Assembly



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Clamp Assembly

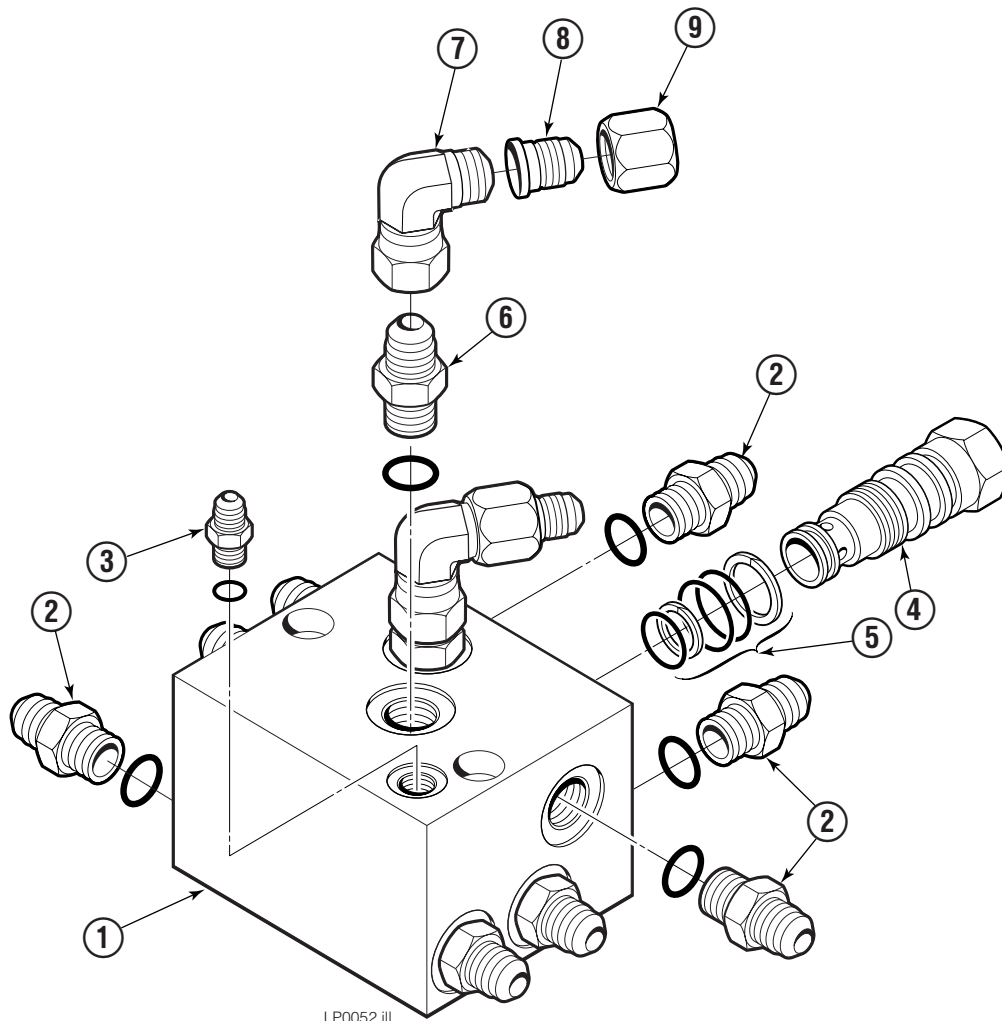
30A			
REF	QTY	PART NO.	DESCRIPTION
		6137680	Clamp Assembly
1	1	6137674	Frame (28321)
2	2	6137650	Cylinder - LA ▲
3	2	21066-0985	Bushing
4	6	2680	Fitting, 6-6
5	8	602580	Plug
6	2	6137657	Arm – Short (21075)
7	2	6103610	Arm – Long (21075)
8	2	6106451	Contact Pad, 42 x 9 in. (21031)
9	2	6107245	Contact Pad, 38 x 9 in. (21031)
10	16	755028	Capscrew, M12 x 50
11	16	200456	Washer, M12
12	16	205979	Nut, M12
13	2	6137651	Cylinder - SA ▲
14	2	2375	Fitting, 6-6
15	1	6116409	Tube
16	1	6116410	Tube
17	1	219694	Valve ●
18	2	768802	Capscrew, M8 x 70
19	4	7861	Roll Pin – Inner
20	4	7962	Roll Pin – Outer
21	16	221199	Bracket
22	16	683822	Lockwasher, M12
23	16	763021	Capscrew, M12 x 30
24	2	605230	Fitting, 6-6
25	8	611288	Fitting, 6-6
26	4	688387	Jam Nut, M12
27	4	768555	Capscrew, M12 x 40
28	2	787372	Capscrew, M8 x 20
29	2	787398	Washer, M8
30	2	6020429	Eye Pin
31	2	218169	Pin
32	4	399469	Shim
33	8	222901	Retaining Ring
34	2	21066-0805	Bushing

▲ See Cylinder page(s) for parts breakdown.

● See Valve page for parts breakdown.

Reference: Common Parts Group 6116436-R1, S-28320.

Clamp Valve



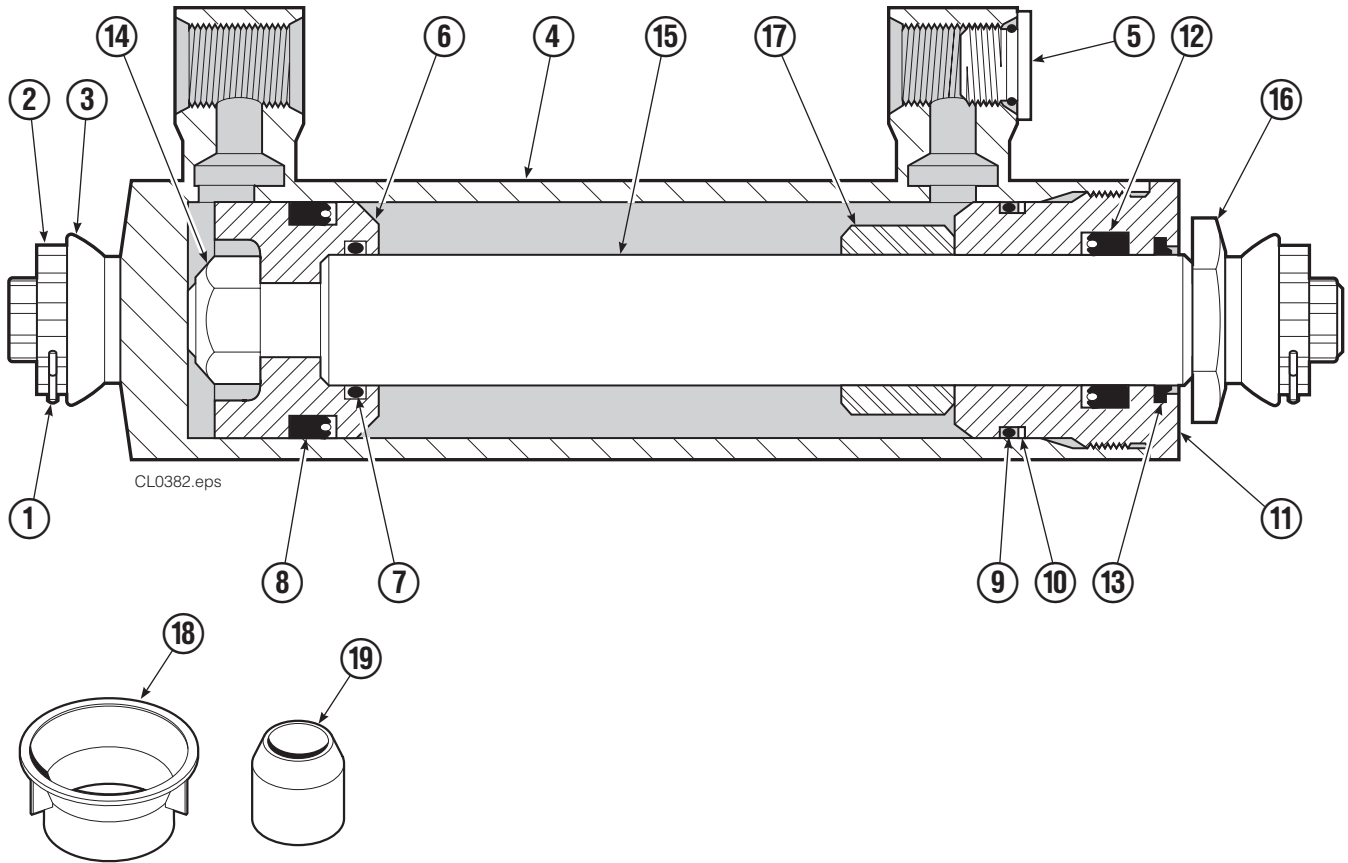
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REF	QTY	PART NO.	DESCRIPTION
		219694	Valve Assembly
1	1	219693	Body
2	8	611288	Fitting, 6-8
3	1	617915	Fitting, 4-4
4	1	659058	Check Valve - PO
5	1	667516	Service Kit
6	2	601377	Fitting, 8-8
7	2	605761	Fitting, 8-8 ▲
8	2	2671	Fitting, 8 ▲
9	2	2618	Nut, 8 ▲

▲ Not included in Valve Assembly.

Reference: Hydraulic Group 222080.

Cylinder Assembly



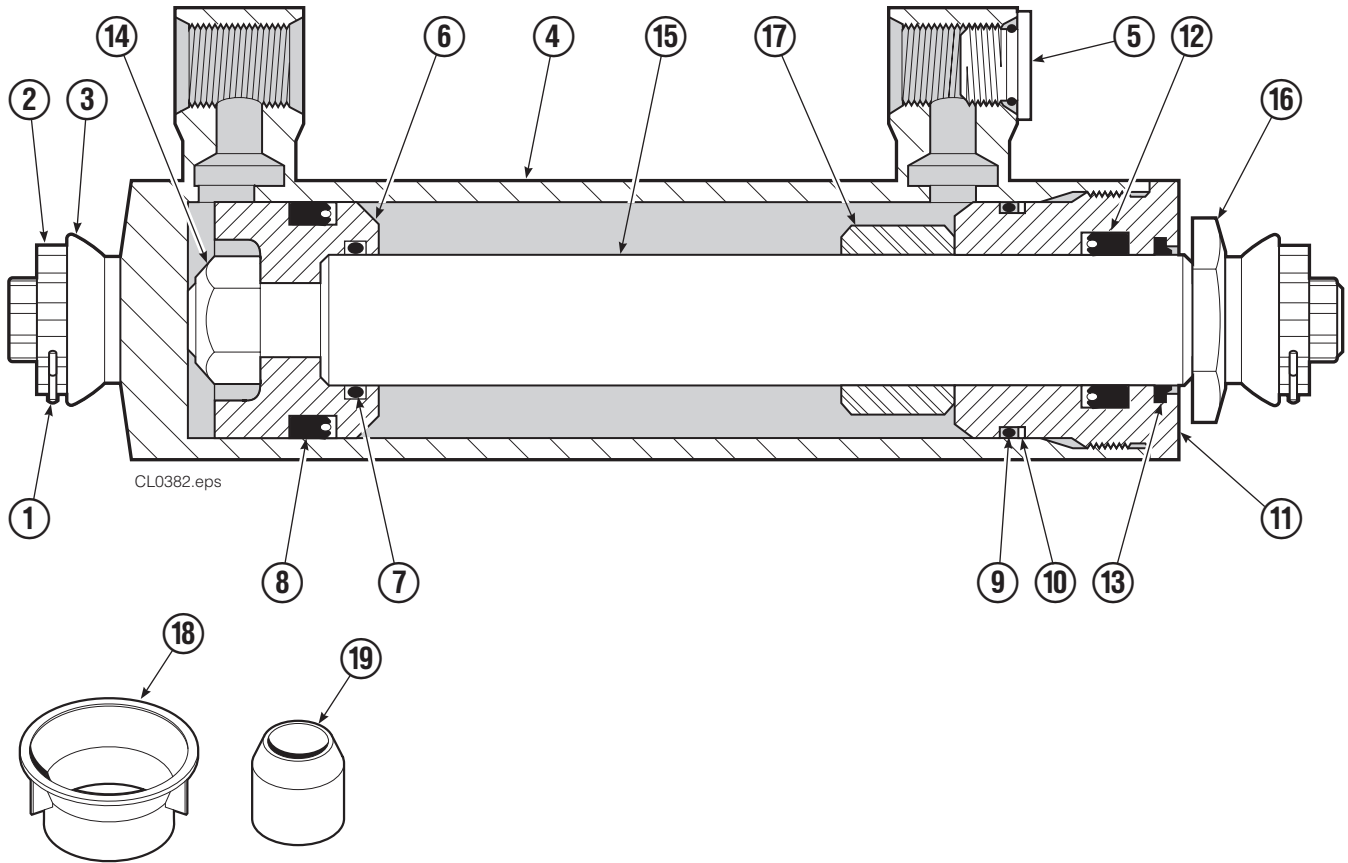
REF	QTY	PART NO.	DESCRIPTION
		6137651	Cylinder Assembly
1	2	6510	■ Cotter Pin
2	2	667624	■ Nut Retainer
3	2	667625	■ Nut
4	1	6128454	Shell
5	1	602580	Fitting
6	1	559702	Piston
7	1	2716	▲ O-Ring
8	1	662450	▲ Seal
9	1	2722	▲ O-Ring
10	1	615126	▲ Back-Up Ring
11	1	413799	Retainer
12	1	662448	▲ Seal
13	1	636853	▲ Wiper
14	1	667623	Nut
15	1	6127221	Rod
16	1	667626	Washer
17	1	3013066	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.

Cylinder Assembly



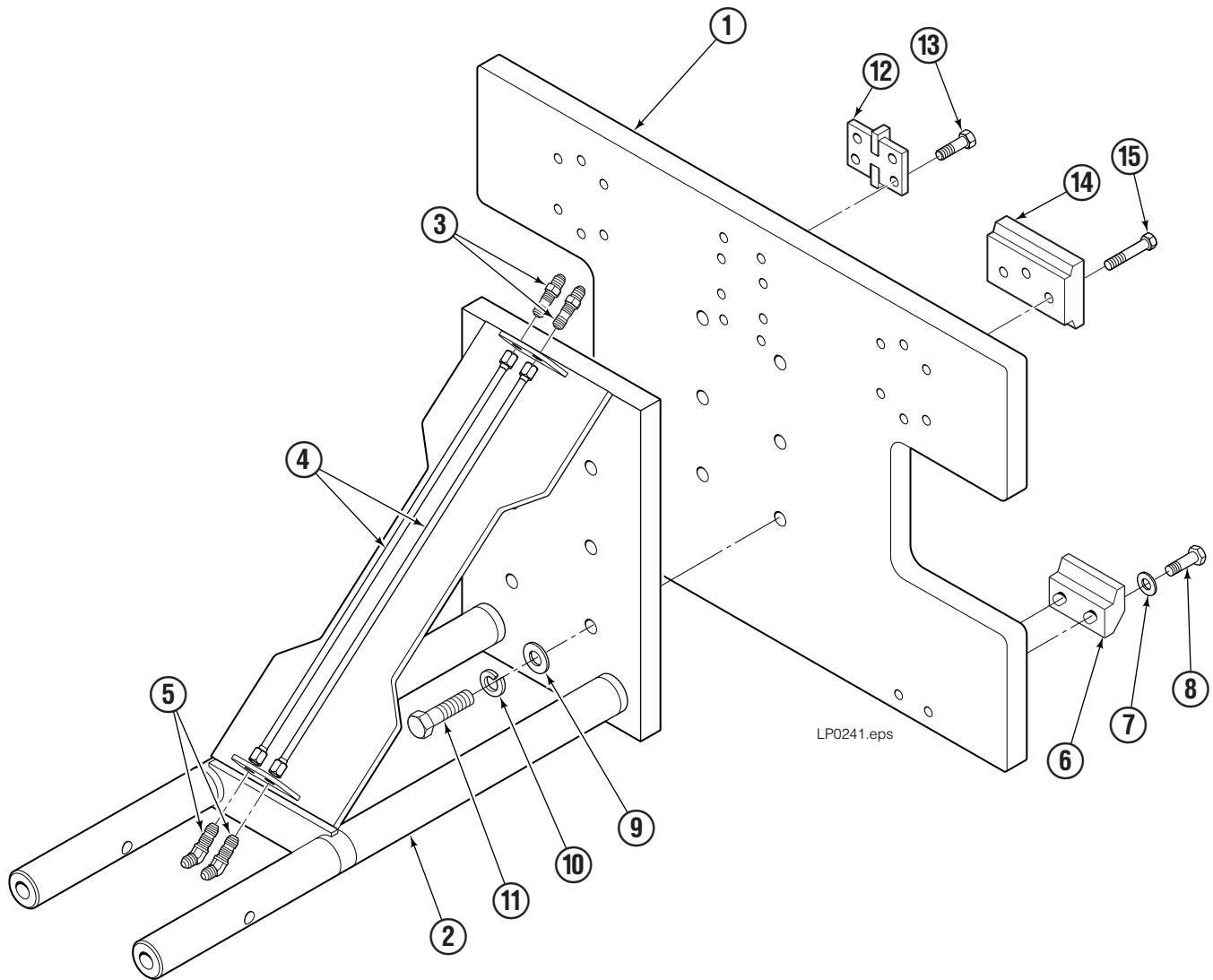
REF	QTY	PART NO.	DESCRIPTION
		6137650	Cylinder Assembly
1	2	6510	■ Cotter Pin
2	2	667624	■ Nut Retainer
3	2	667625	■ Nut
4	1	6115690	Shell
5	1	602580	Fitting
6	1	559702	Piston
7	1	2716	▲ O-Ring
8	1	662450	▲ Seal
9	1	2722	▲ O-Ring
10	1	615126	▲ Back-Up Ring
11	1	413799	Retainer
12	1	662448	▲ Seal
13	1	636853	▲ Wiper
14	1	667623	Nut
15	1	6120343	Rod
16	1	667626	Washer
17	1	6137652	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.

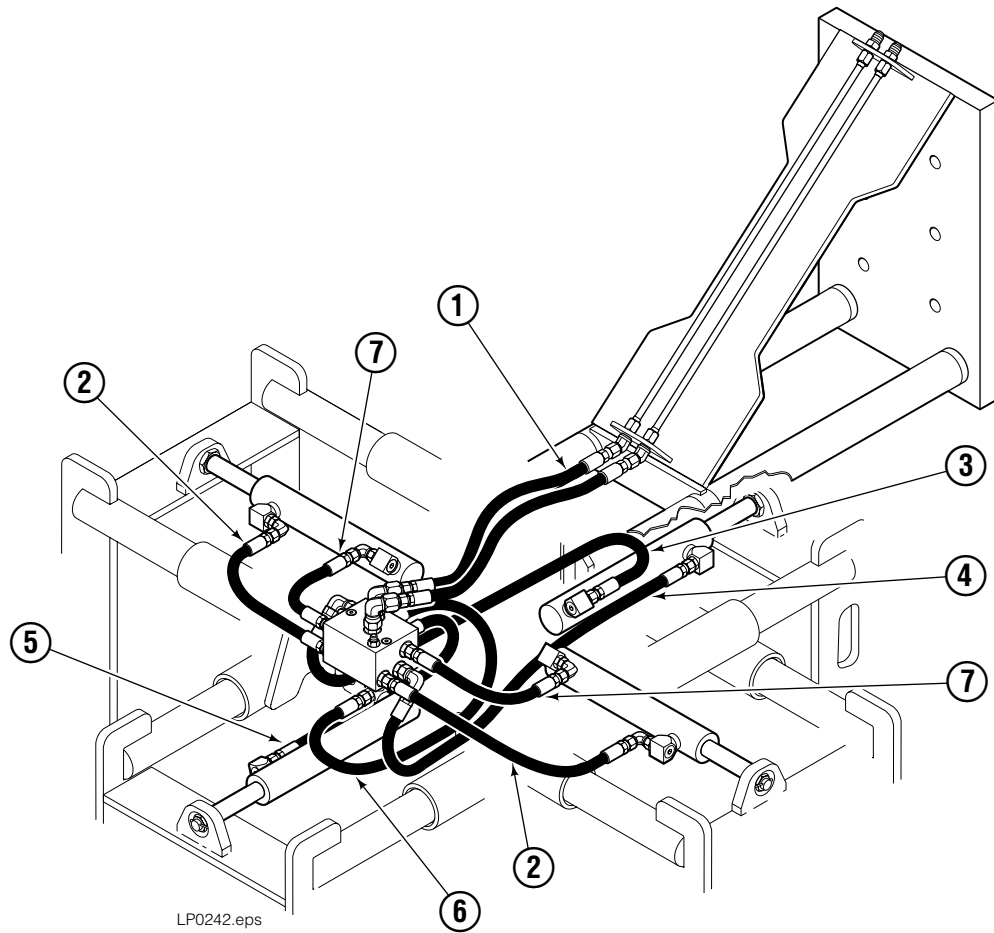
Reference: ST-0283, ST-0284.

Mounting/Frame Assembly



REF	QTY	PART NO.	DESCRIPTION
		6137634	Mounting/Frame Assembly
1	1	6115449	Mounting Plate
2	1	6137635	Frame
3	2	2375	Fitting, 6-6
4	2	3018912	Tube
5	2	2492	Fitting, 6-6
6	2	675969	Lower Hook
7	14	684586	Washer, M16
8	4	218117	Capscrew, M16 x 30
9	6	215419	Washer, M20
10	6	681467	Lockwasher, M20
11	6	768582	Capscrew, M20 x 80
12	1	3005793	Key Plate
13	4	684633	Capscrew, M16 x 50
14	2	3005795	Upper Hook
15	6	751511	Capscrew, M16 x 55

Hose Group



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REF	QTY	PART NO.	DESCRIPTION
		6100368	Hose Group - modified
1	1	6011624	Hose, Tinline 32.0 in.
2	2	221654	Hose, 35.5 in.
3	1	221652	Hose, 30.0 in.
4	1	205226	Hose, 34.25 in.
5	1	201256	Hose, 21.0 in.
6	1	686472	Hose, 25.5 in.
7	2	221653	Hose, 24.5 in.

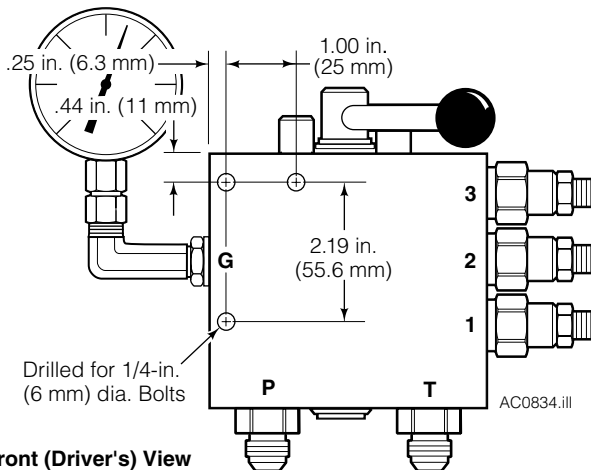


Installation Instructions

Four-Position Pressure Relief Valve 660412

This sheet provides installation instructions for the Four-Position Pressure Relief Valve 660412. The valve enables up to four (4) pressure selections, allowing the clamping 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 blocks flow to all relief cartridges enabling straight-through truck relief pressure. Maximum flow rate through the valve is 20 GPM.

- 1 Determine a convenient location on the truck cowl or safety cage upright, within safe reach and view of the driver (see illustration opposite). Use the mounting hole dimensions shown to mount the valve securely.



Front (Driver's View)

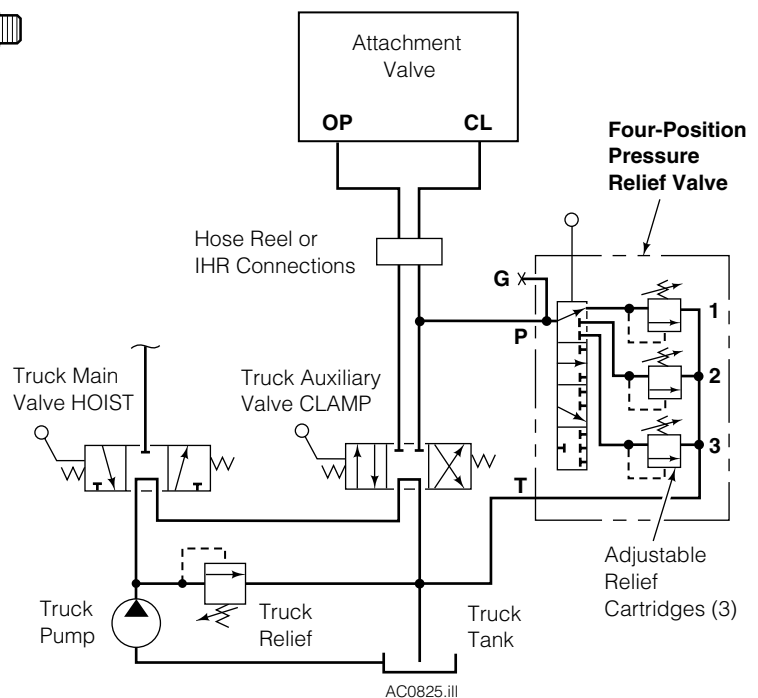
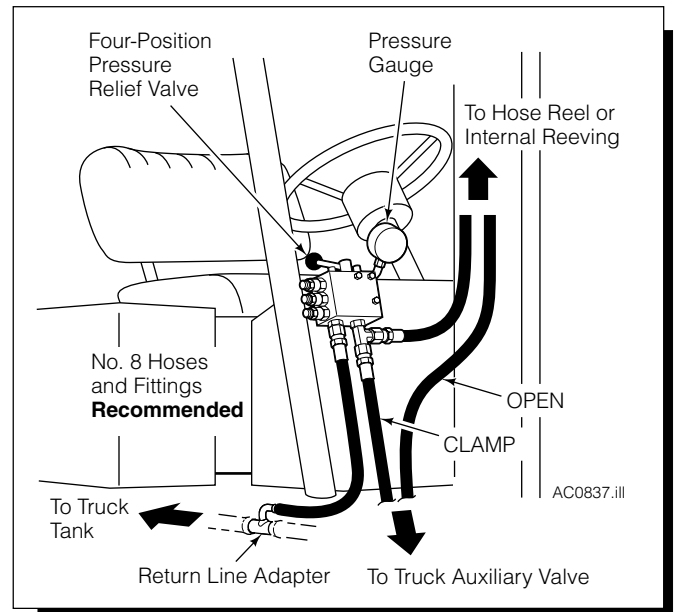


WARNING: Before removing hydraulic hoses, relieve pressure in the Attachment hydraulic system. Turn the truck off and move the auxiliary control lever several times in both directions.

- 2 Attach hoses and fittings between the Pressure Relief Valve, truck auxiliary valve, truck tank, and attachment valve using the diagram and hydraulic schematic. **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 'TANK' port to the truck tank. Return Line Adapter Kits available:

Part No. 214062 (.75 in. dia. line)
Part No. 211745 (1.0 in. dia. line)
Part No. 214066 (1.25 in. dia. line)



Part No. 664827-R4

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- 3** Four basic stop configurations are shown in the illustration opposite (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 desired movement of the lever depending on your specific requirements.

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 the flow to all relief valve cartridges so the valve has no effect. Truck relief pressure is then delivered to the attachment.

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

Sample Settings*

3-Position	4-Position
Pos. X – Not Available	Pos. X – 2300 (Truck Pressure)
Pos. 1 – 1400 psi	Pos. 1 – 1800 psi
Pos. 2 – 1600 psi	Pos. 2 – 1600 psi
Pos. 3 – 1800 psi	Pos. 3 – 1400 psi

* **IMPORTANT: Cartridges are not factory pre-set.**

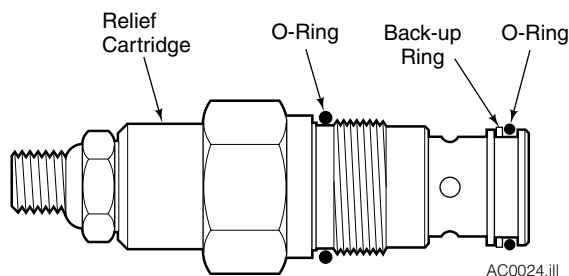
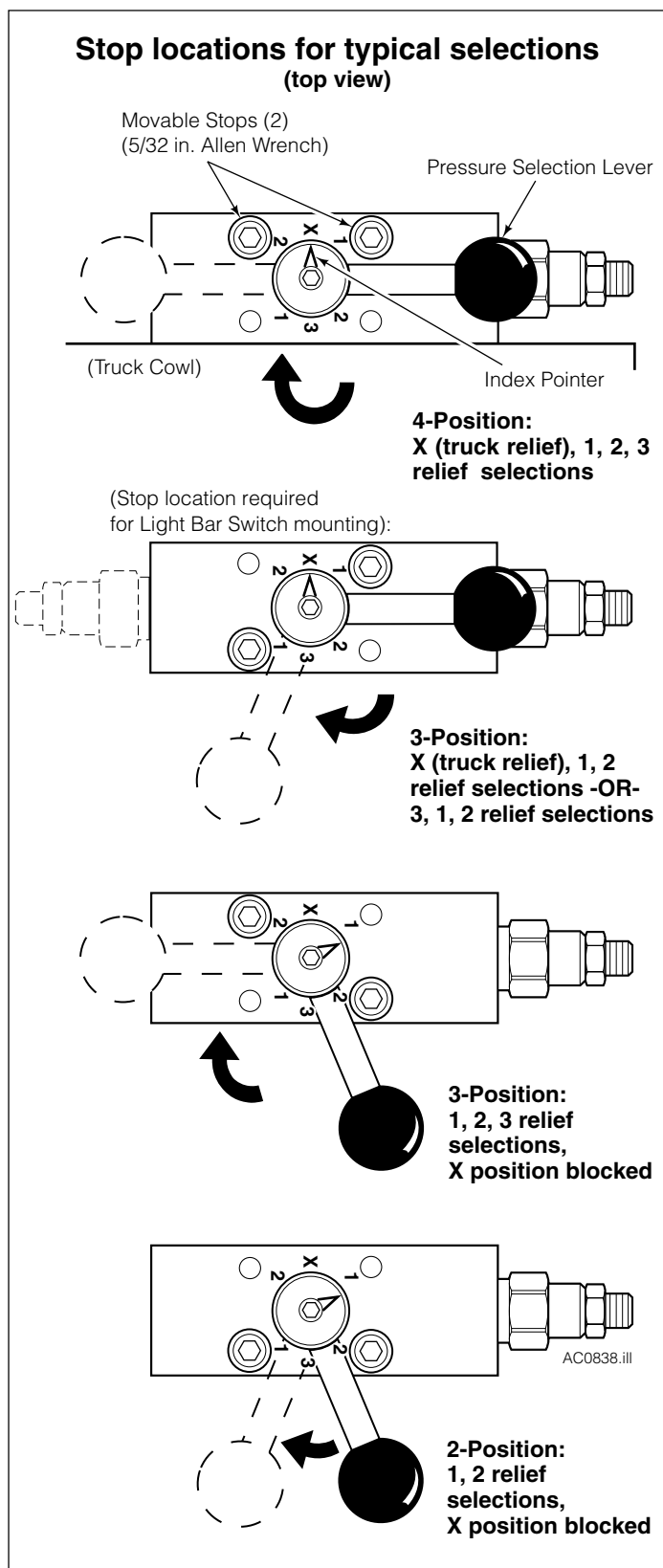
Pressures must be adjusted for your application. Four (4) positions not available when Light Bar Switch is mounted on valve.

- 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 up on the 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', all ports to the relief valve cartridges are blocked, and the valve has no effect. Pressure to the attachment is determined by 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	661676
3	Seal Service Kit	669597



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