



Parts Manual

Model Push-Pull

Serial Number 45E-PA-027

cascade[®]

For Technical Assistance and to Order Parts . . .

Call: 1-800-CASCADE or 503-669-6300

OR

Write: Cascade Corporation, P.O. Box 20187, Portland, OR 97294-0187

Publications

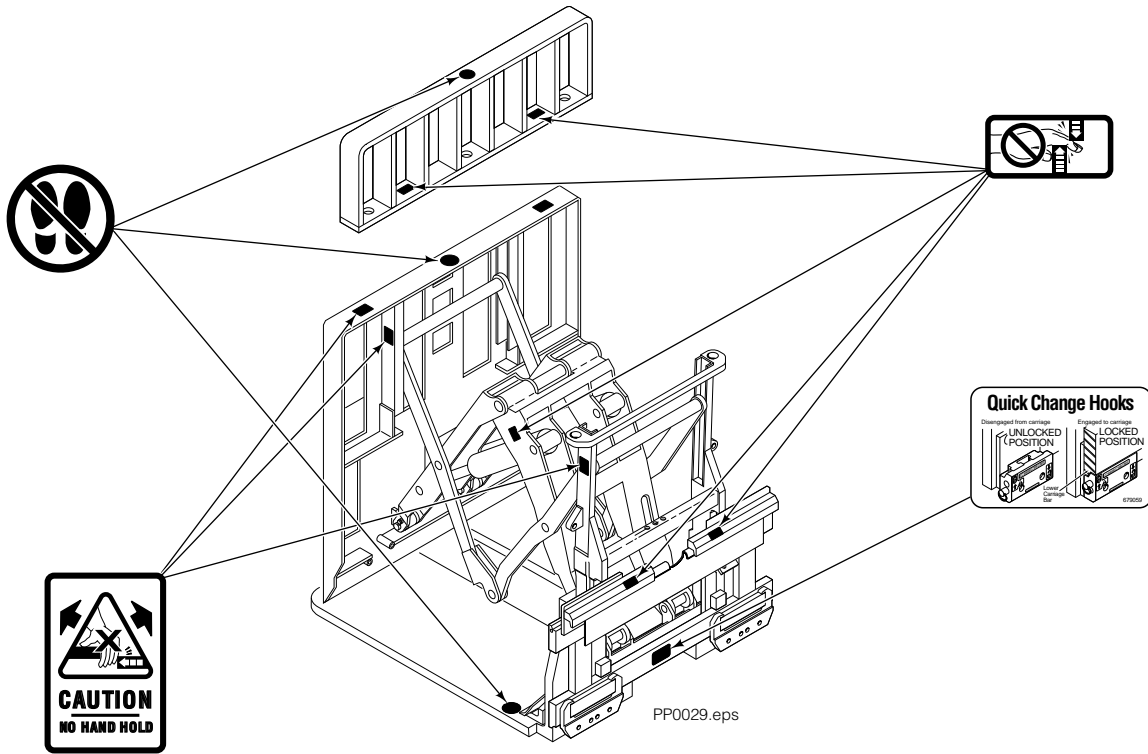


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PART NO.	DESCRIPTION
	Parts Manual
686455	Service Manual
684945	Operators Guide
685531	Operators Pocket Guide
684944	Installation Instructions
680664	Servicing Cascade Cylinders-VHS
679929	Tool Catalog
673964	Literature Index Order Form

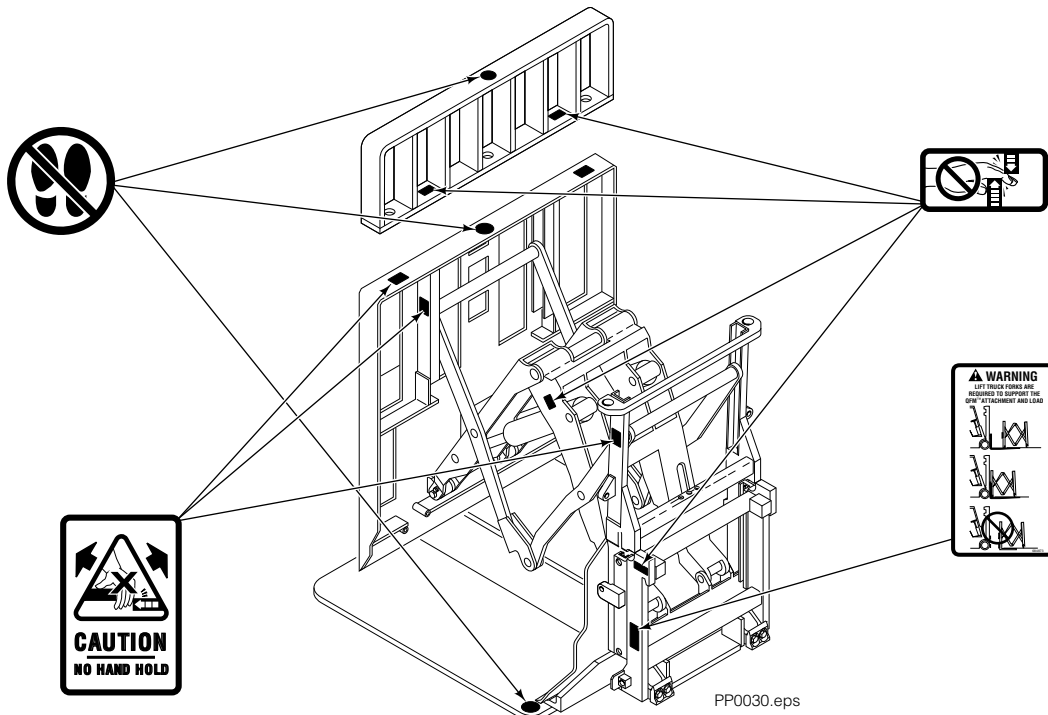
Decals

35E/45E Sheet-Sav

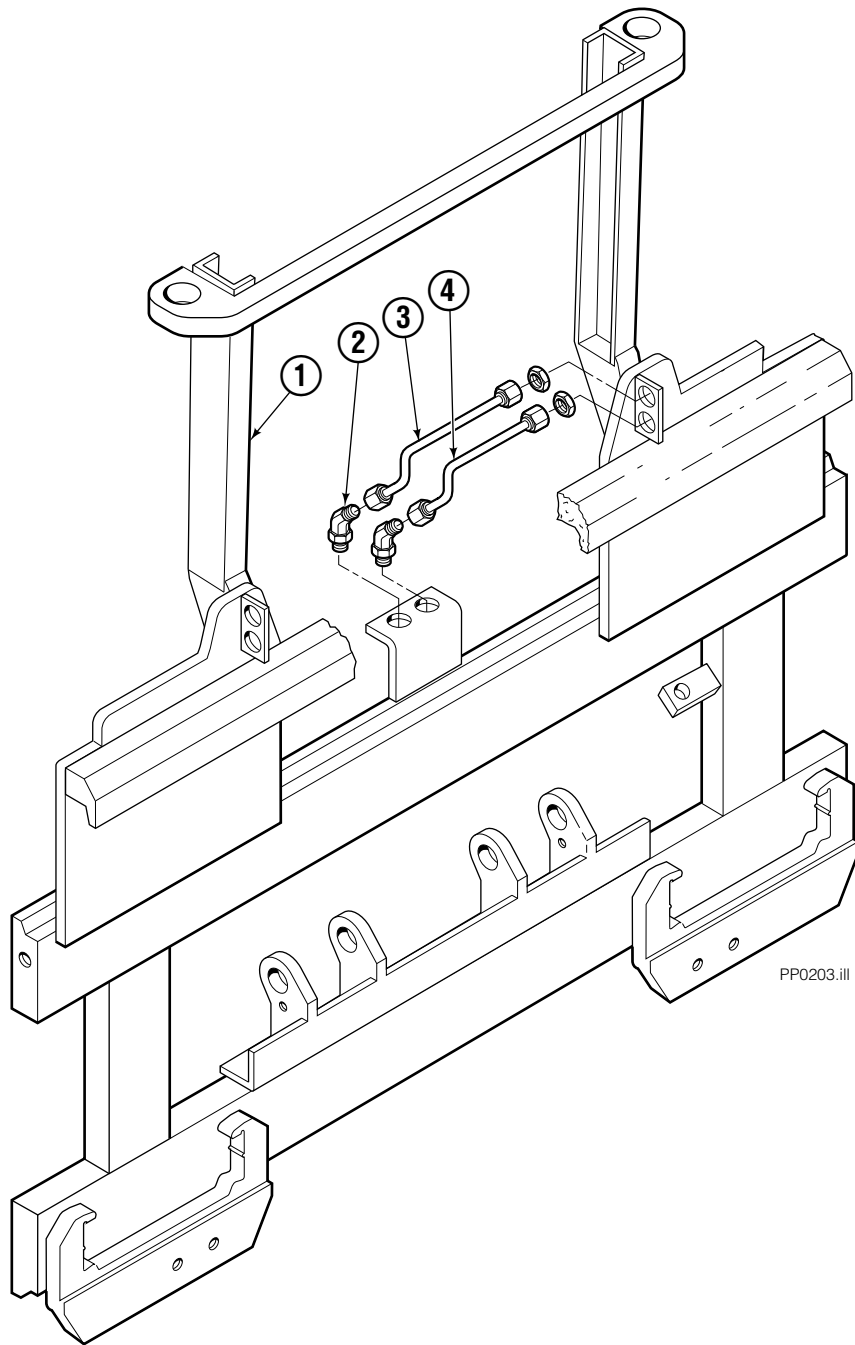


Decals

35E/45E QFM™ Sheet-Sav



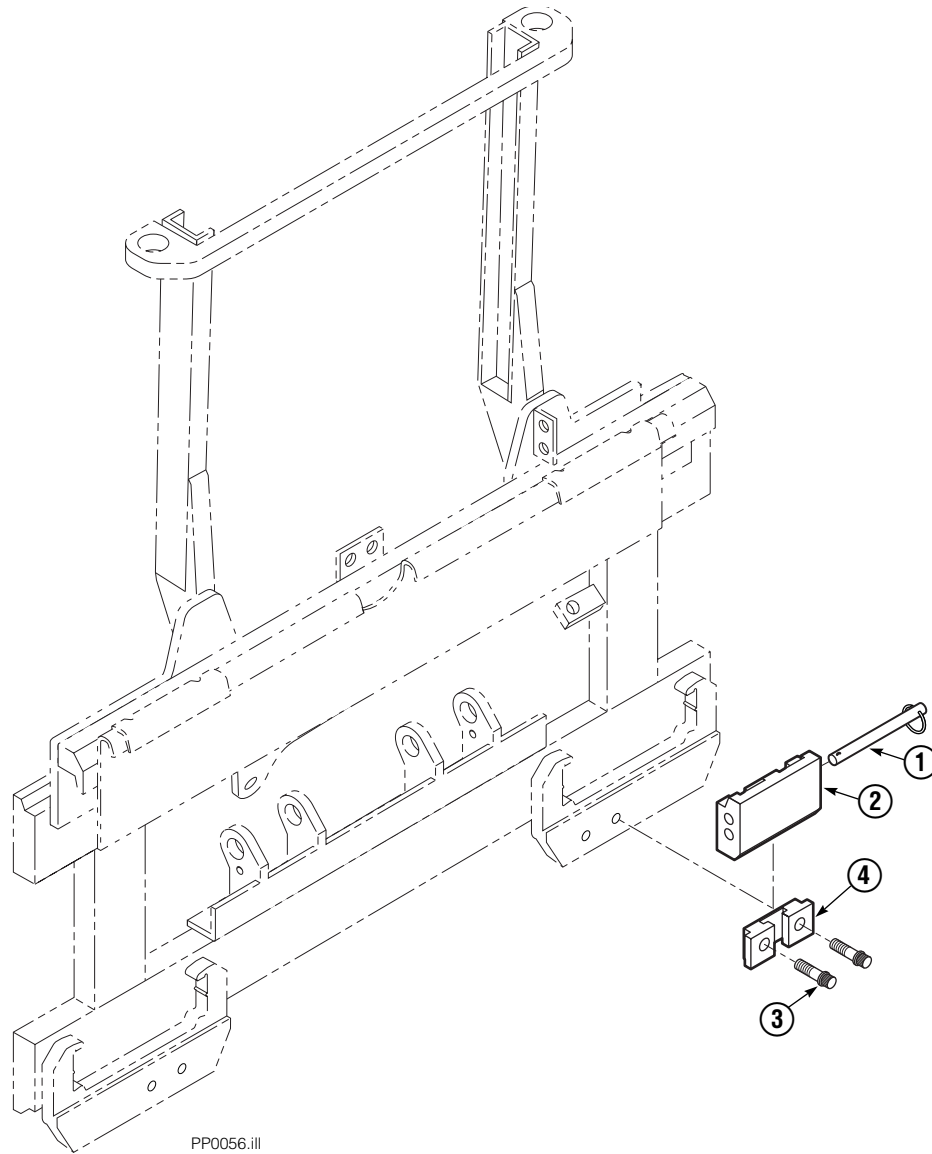
Frame Group ITA III



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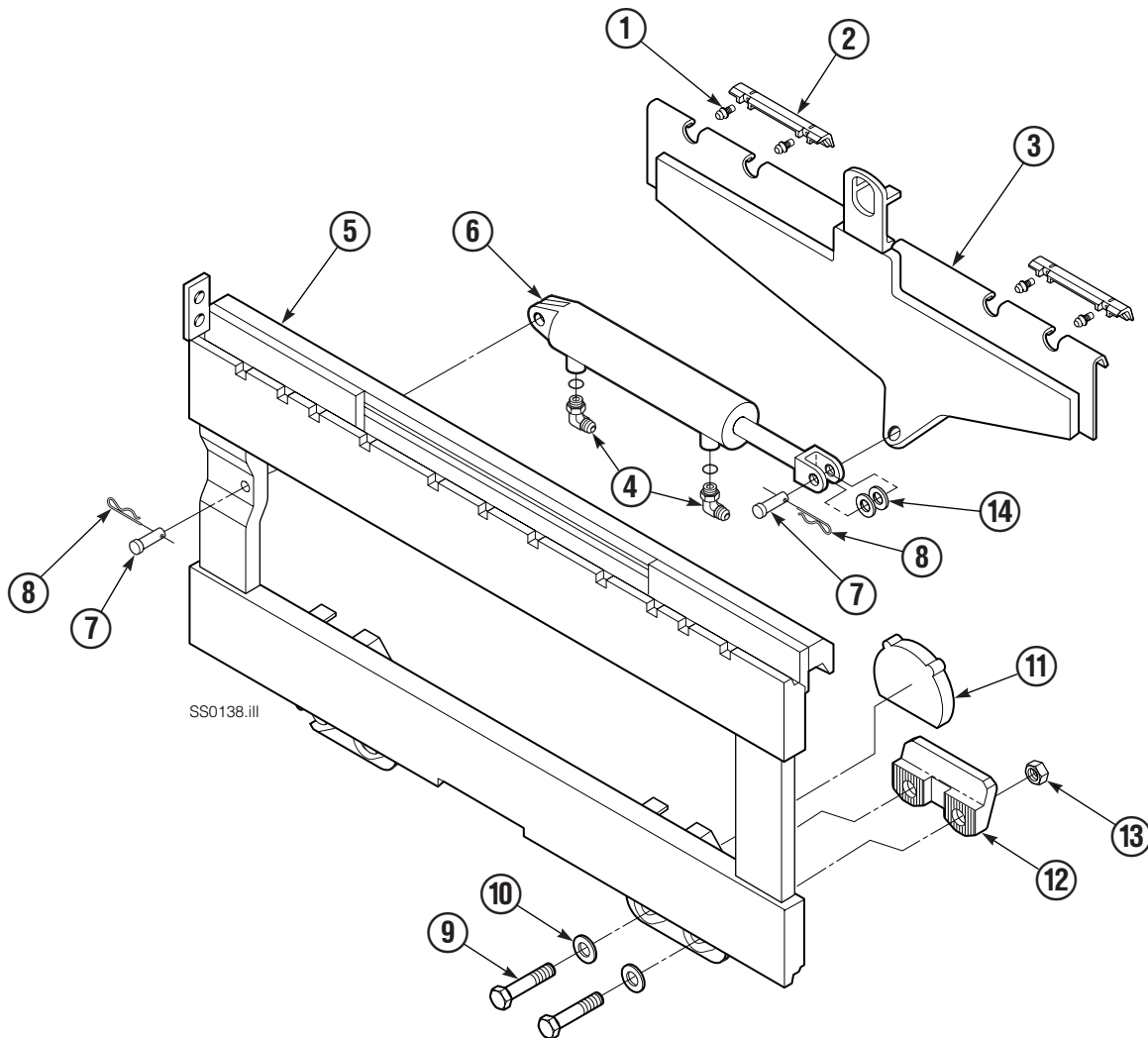
45E			
REF	QTY	PART NO.	DESCRIPTION
		345663	Frame Group, ITA III
1	1	345664	Frame
2	2	2492	Fitting, 6-6
3	1	682992	Tube
4	1	682991	Tube

Quick-Change Lower Hook Group ITA II



35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		683179	Lower Hook Group ITA II
1	2	678832	Pin
2	2	675514	Hook
3	4	683182	Capscrew
4	2	675515	Guide

Sideshifter Group



55D

REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		347121	Sideshift Group	9	4	681047	Capscrew, 5/8 NC x 1.50 GR5
1	4	7403	Grease Fitting ■	10	4	667225	Washer
2	2	671165	Bearing Segment ■	11	2	675662	Lower Bearing ◆
3	1	676837	Anchor Bracket	12	2	677160	Lower Hook
4	2	601676	Fitting, 6-6	13	4	553857	Nut
5	1	● 347122	Faceplate	14	2	6207	Washers
6	1	347123	Cylinder Assembly ★			671423	Service Kit
7	2	678525	Clevis Pin			675854	Service Kit
8	2	672726	Hairpin Cotter				

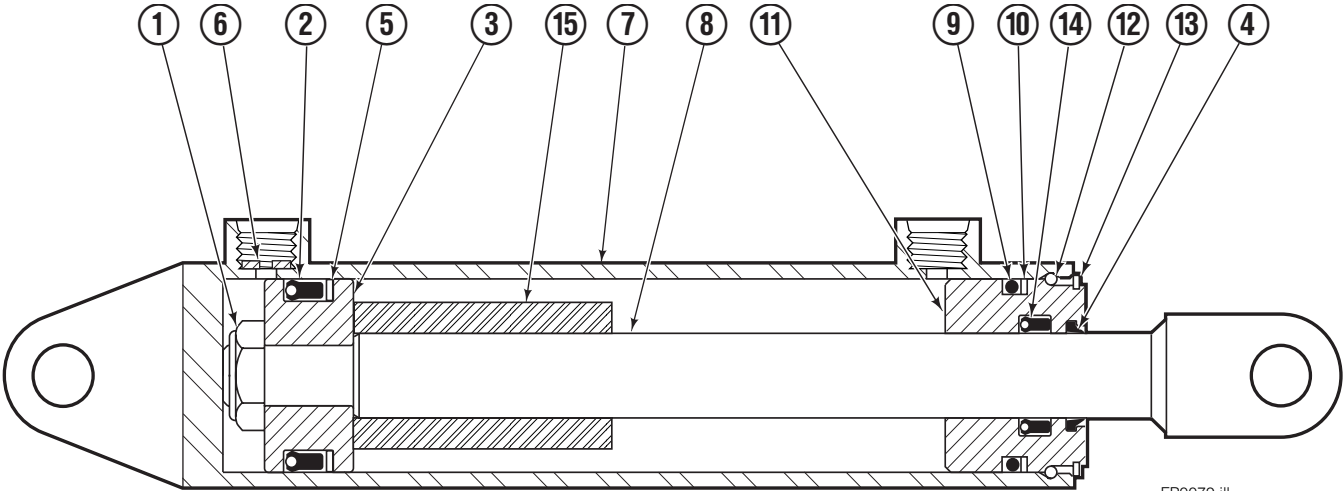
● If the faceplate needs replacing, your best value is to order the complete sideshift assembly.

■ Included in Service Kit 671423.

◆ Included in Service Kit 675854.

★ See Sideshift Cylinder page for parts breakdown.

Sideshift Cylinder

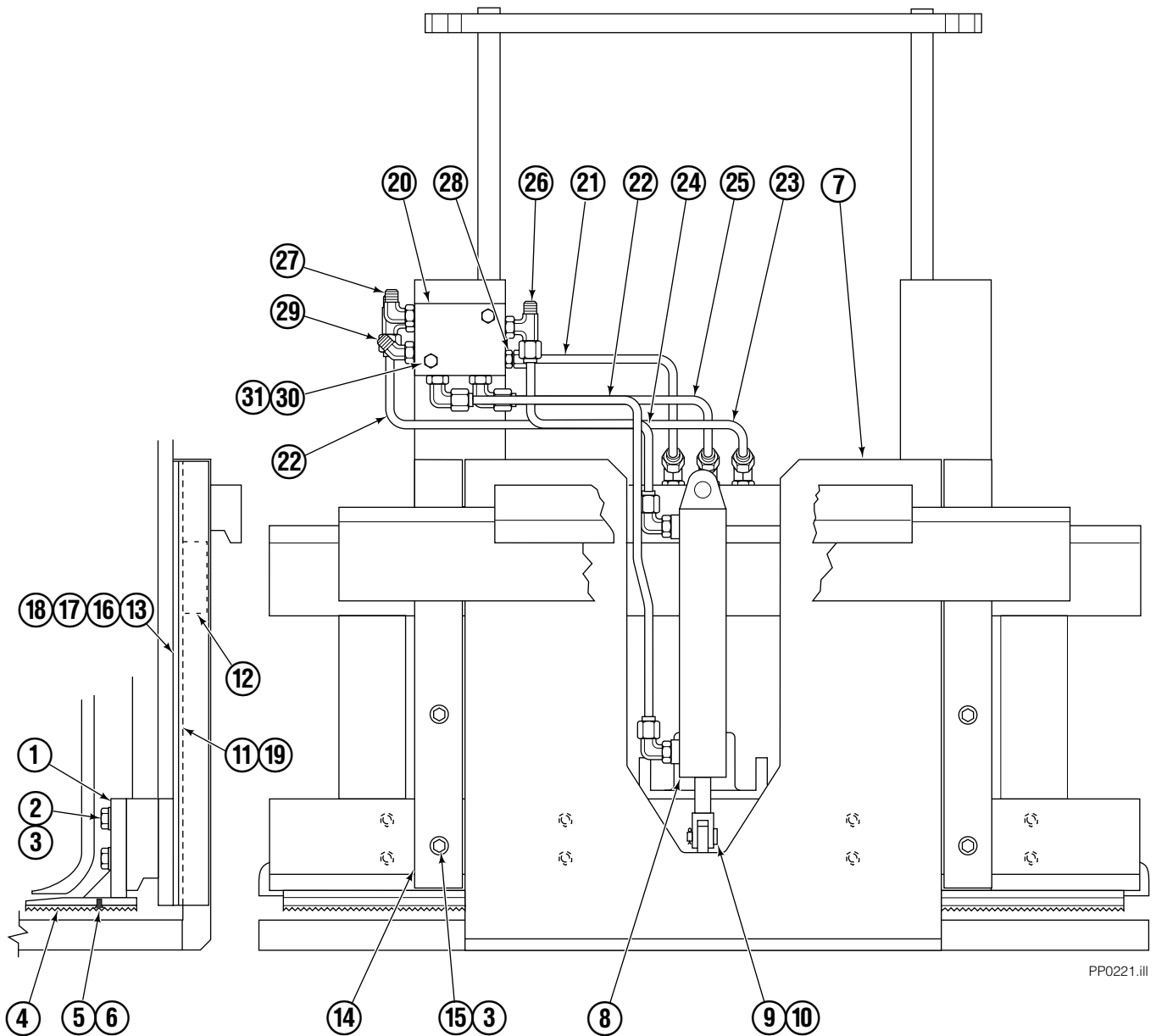


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REF	QTY	PART NO.	DESCRIPTION
		347123	Cylinder Assembly
1	1	553857	Nut
■ 2	1	662452	Seal
3	1	553501	Piston
■ 4	1	636851	Wiper
■ 5	1	638247	Back-up Ring
6	1	675550	Washer (orifice .085)
7	1	560907	Shell
8	1	553499	Rod
■ 9	1	2785	O-Ring
■ 10	1	615128	Back-up Ring
11	1	553500	Retainer
12	1	553856	Retaining Ring
13	1	7202	Snap Ring
■ 14	1	641835	Seal
15	1	---	Spacer
		553861	Service Kit

■ Included in Service Kit 553861.

Sheet Retainer Group



35E/45E

REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		347016	Sheet Retainer Group	16	1	672696	Shim (as required)
1	1	345654	Sheet Retaining Bar	17	1	672697	Shim (as required)
2	8	768557	Capscrew	18	1	672698	Shim (as required)
3	14	6290	Lockwasher, 1/2	19	1	613797	Shim (as required)
4	1	670173	Contact Pad	20	1	677783	Valve Assembly ●
5	10	4638	Capscrew	21	1	345649	Tube
6	10	609310	Washer	22	1	345650	Tube
7	1	346971	Carrier	23	1	345651	Tube
8	1	660415	Cylinder ▲	24	1	345652	Tube
9	2	661571	Clevis Pin	25	1	345653	Tube
10	2	6517	Cotter Pin	26	2	611311	Fitting, 6-6
11	4	613792	Bearing Strip	27	3	601676	Fitting, 6-6
12	6	659743	Bearing Segment	28	1	604511	Fitting, 6-6
13	2	670180	Bar	29	1	611302	Fitting, 6-6
14	2	670179	Guide	30	2	768521	Capscrew
15	6	768556	Capscrew	31	2	6286	Lockwasher, 1/4

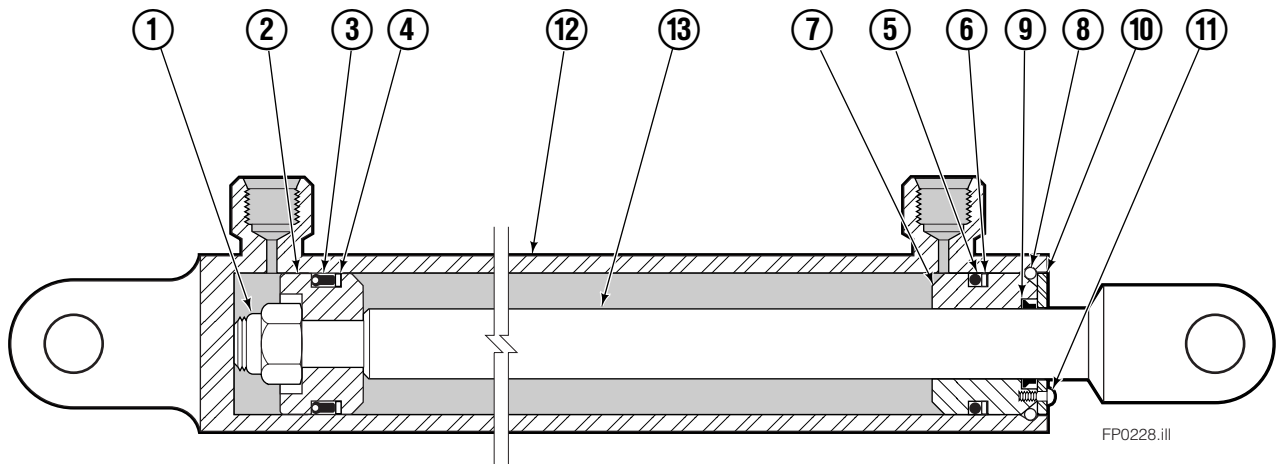
▲ See Cylinder page for parts breakdown.

● See Valve page for parts breakdown.

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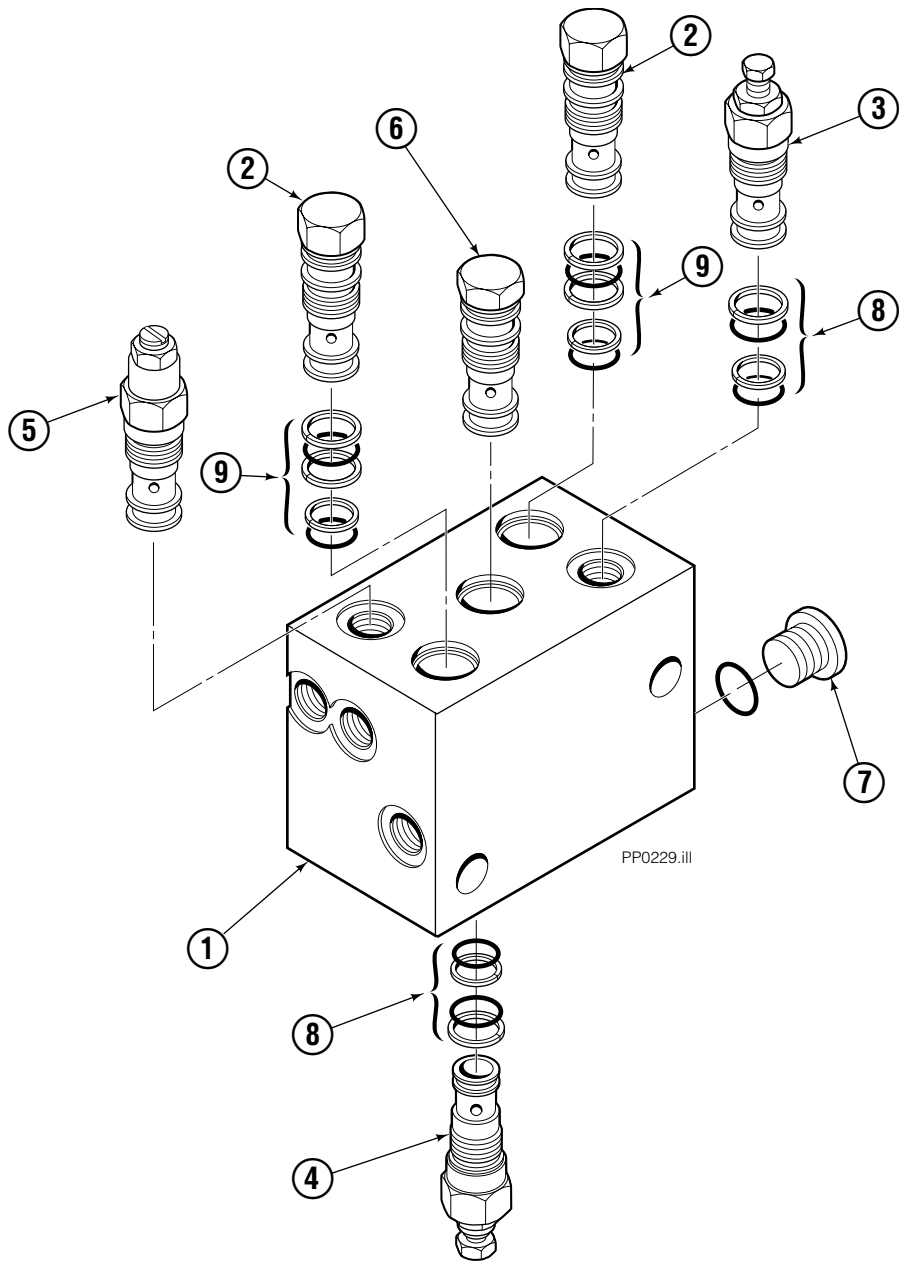
Cylinder



REF	QTY	PART NO.	DESCRIPTION
		660415	Cylinder
1	1	5878	Nut
2	1	664810	Piston
3	1	641515	Seal ▲
4	1	638245	Back-Up Ring ▲
5	1	2722	O-Ring ▲
6	1	615126	Back-Up Ring ▲
7	1	660420	Retainer
8	1	661015	Ring
9	1	646540	Wiper Seal ▲
10	1	660421	Washer
11	3	667515	Capscrew
12	1	660417	Shell
13	1	660418	Rod
		664814	Seal Kit

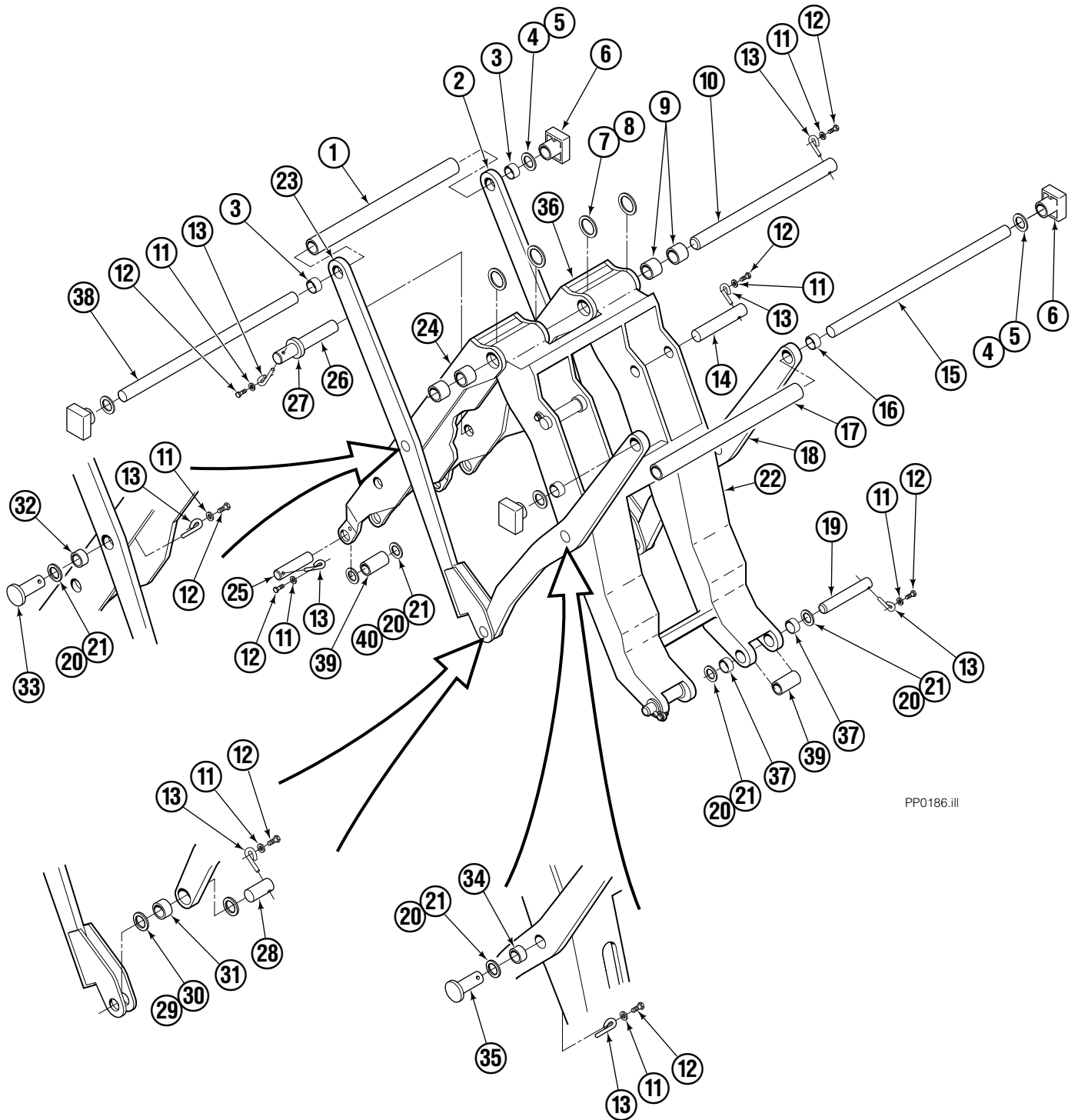
▲ Included in Service Kit 664814.

Valve Assembly



45E			
REF	QTY	PART NO.	DESCRIPTION
		677783	Valve Assembly
1	1	677784	Body
2	2	659058	Check Valve -- PO
3	1	333363	Relief Valve
4	1	677125	Relief Valve
5	1	677126	Counter Balance Valve
6	1	677786	Check Valve
7	1	604510	Plug
8	1	669597	Service Kit
9	2	667516	Service Kit

Mechanism Group



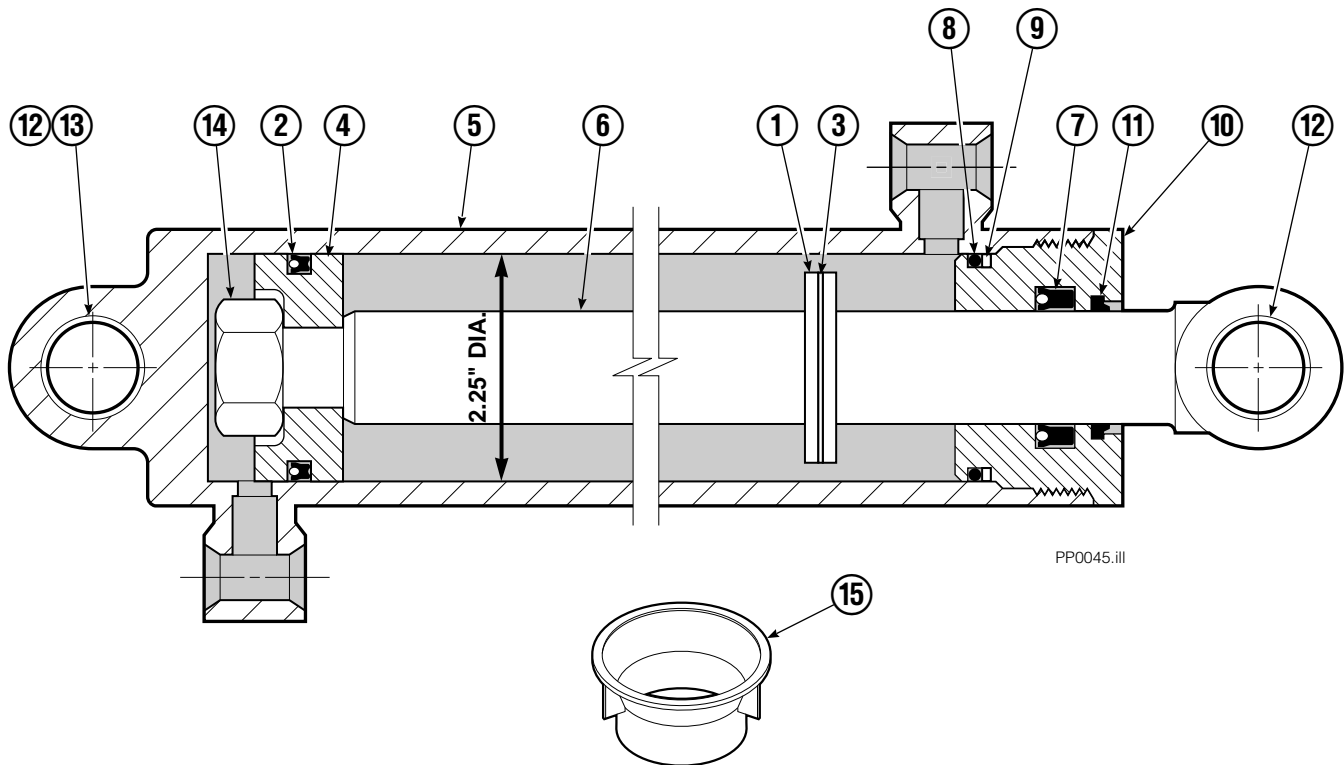
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Mechanism Group

35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		682829	Mechanism Group
1	1	682818	Tube
2	1	683000	Arm-Secondary Outer R. H.
3	2	683154	Bushing
4	●	683161	Shim (.030)
5	●	683162	Shim (.060)
6	4	682866	Bearing
6	4	688396	Bearing - Heavy Duty
7	●	683163	Shim (.030)
8	●	683164	Shim (.060)
9	4	683155	Bushing
10	1	682821	Pin
11	15	6229	Washer
12	15	685661	Capscrew, M8x1.25x14-8.8
13	15	682999	Eye-Pin
14	2	682822	Pin-Head
15	1	682815	Pin
16	2	683153	Bushing
17	1	682817	Tube
18	2	682543	Arm-Outer Primary
19	2	682819	Pin-Frame
20	●	683159	Shim
21	●	683160	Shim
22	1	682598	Arm-Inner Primary
23	1	682540	Arm-Secondary Outer L. H.
24	1	682588	Arm-Inner Secondary L. H.
25	2	682820	Pin-Faceplate
26	2	682823	Pin-Rod
27	2	683165	Spacer
28	2	682824	Pin-Outer
29	●	683158	Shim
30	●	683157	Shim
31	2	683149	Bushing
32	2	683152	Bushing
33	2	682826	Pin-Secondary Outer
34	2	683151	Bushing
35	2	682825	Pin-Primary Outer
36	1	682589	Arm-Inner Secondary R.H.
37	4	683150	Bushing
38	1	682816	Pin
39	4	685127	Spacer
40	●	685838	Shim

● Quantity as required.

Cylinder

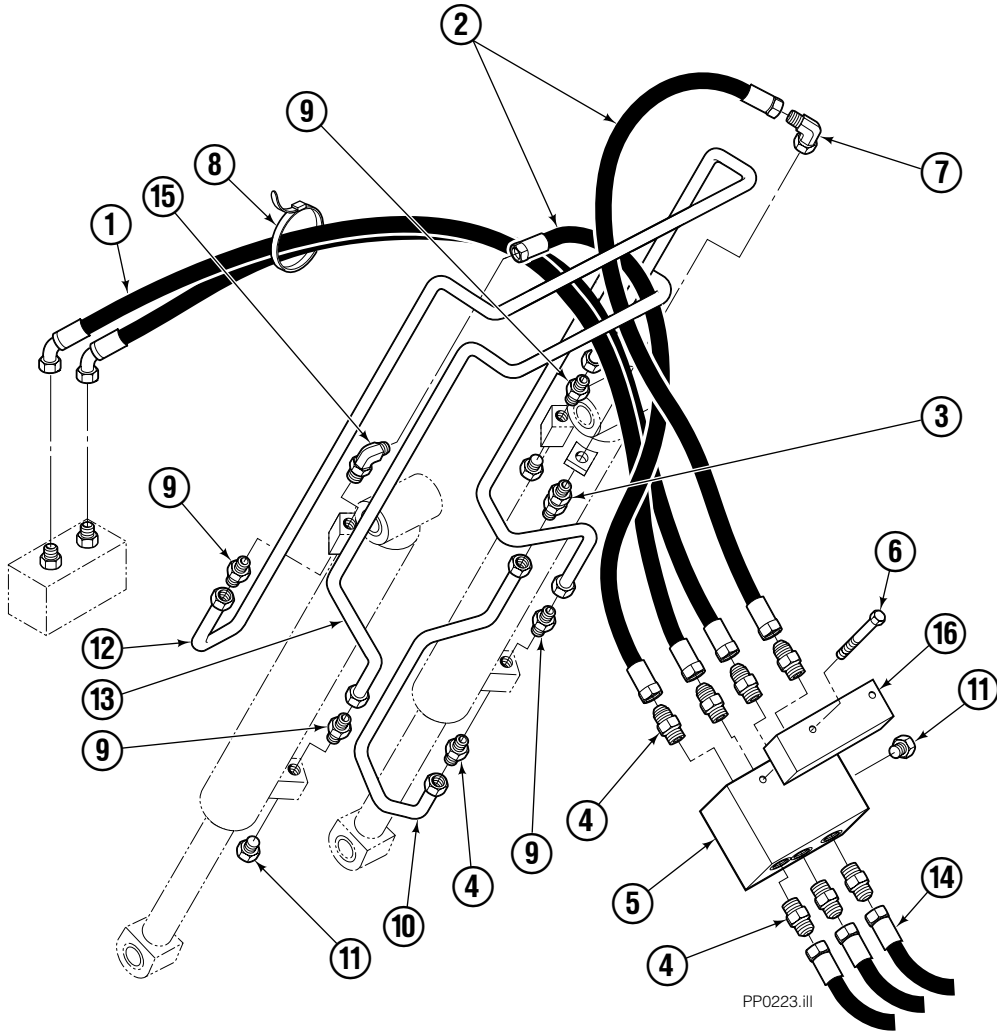


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REF	QTY	PART NO.	DESCRIPTION
		580240	Cylinder Assembly
1	1	---	Spacer
2	1	661649	Seal ■
3	1	7348	Snap Ring
4	1	558623	Piston
5	1	558624	Shell
6	1	558626	Rod
7	1	559705	Seal ■
8	1	2787	O-Ring ■
9	1	615130	Back-Up Ring ■
10	1	558628	Retainer
11	1	636853	Wiper ■
12	4	559697	Bearing
13	1	559698	Spacer
14	1	553717	Nut
15	1	672905	Seal Loader Kit ■

■ Included in Service Kit 559521.

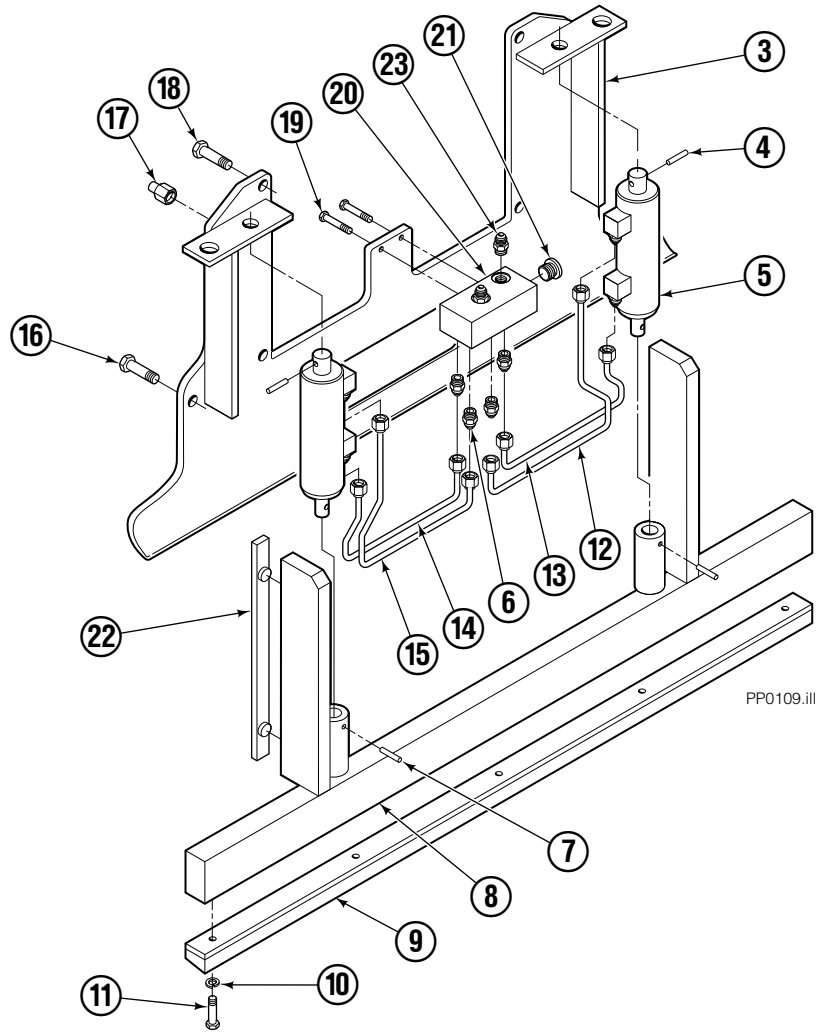
Hydraulic Group



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35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		346731	Hydraulic Group
1	1	685831	Hose
2	2	683173	Hose
3	1	2375	Fitting, 6-6
4	2	604511	Fitting, 6-6
5	1	345668	Junction Block
6	2	768527	Capscrew, M8 x 50
7	1	605230	Fitting, 6-6
8	2	684956	Cable tie
9	4	605235	Fitting 6-6
10	1	200647	Tube
11	2	604510	Fitting, 6
12	1	200649	Tube
13	1	200648	Tube
14	3	685979	Hose
15	1	661302	Fitting
16	1	347124	Spacer

Faceplate Group

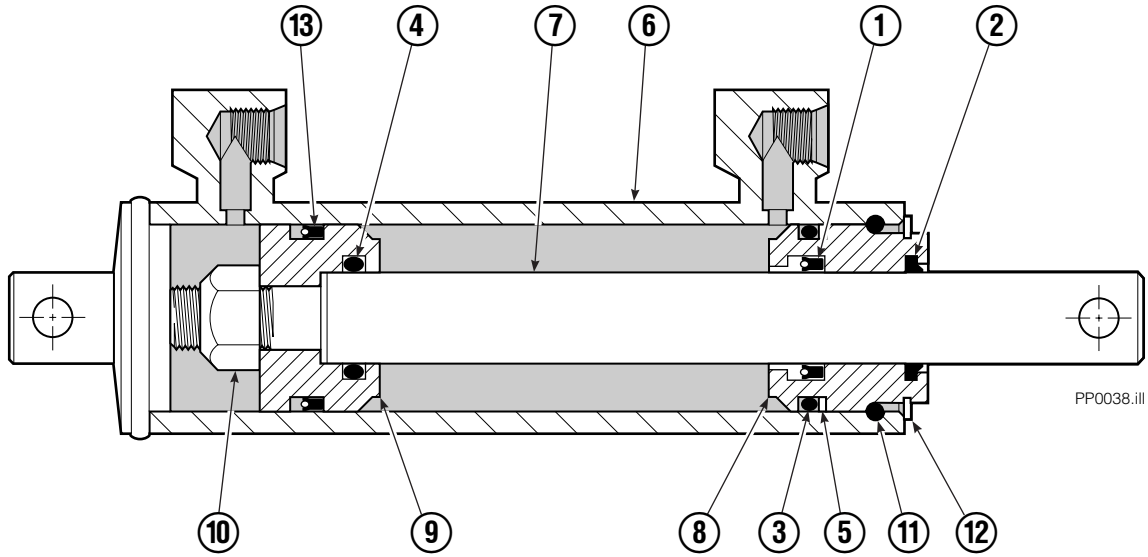


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35E/45E							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		685667	Faceplate Group 40" x 40" ■	12	1	682847	Tube
		686570	Gripper Jaw Assembly ●	13	1	682846	Tube
1	1	682591	Faceplate 40" x 40" ■	14	1	682848	Tube
2	4	683150	Bushing	15	1	682849	Tube
3	1	682583	Gripper Jaw	16	2	768710	Capscrew
4	2	673385	Drive Pin	17	4	682850	Stop
5	2	682844	Gripper Cylinder ▼	18	4	779010	Capscrew
6	8	617915	Fitting, 4-4	19	2	763166	Capscrew, M8x1,25x25-8.8
7	2	200877	Drive Pin	20	1	685832	Junction Block
8	1	686571	Gripper Bar	21	2	609234	Plug, 4
9	1	672712	Gripper Pad	22	2	686573	Bearing
10	5	6444	Lockwasher	23	2	604511	Fitting, 6-6
11	5	768794	Capscrew, M8x1,25x20-8.8				

- Width x height.
- Includes items 2 through 20.
- ▼ See Gripper Cylinder page for parts breakdown.

Gripper Cylinder

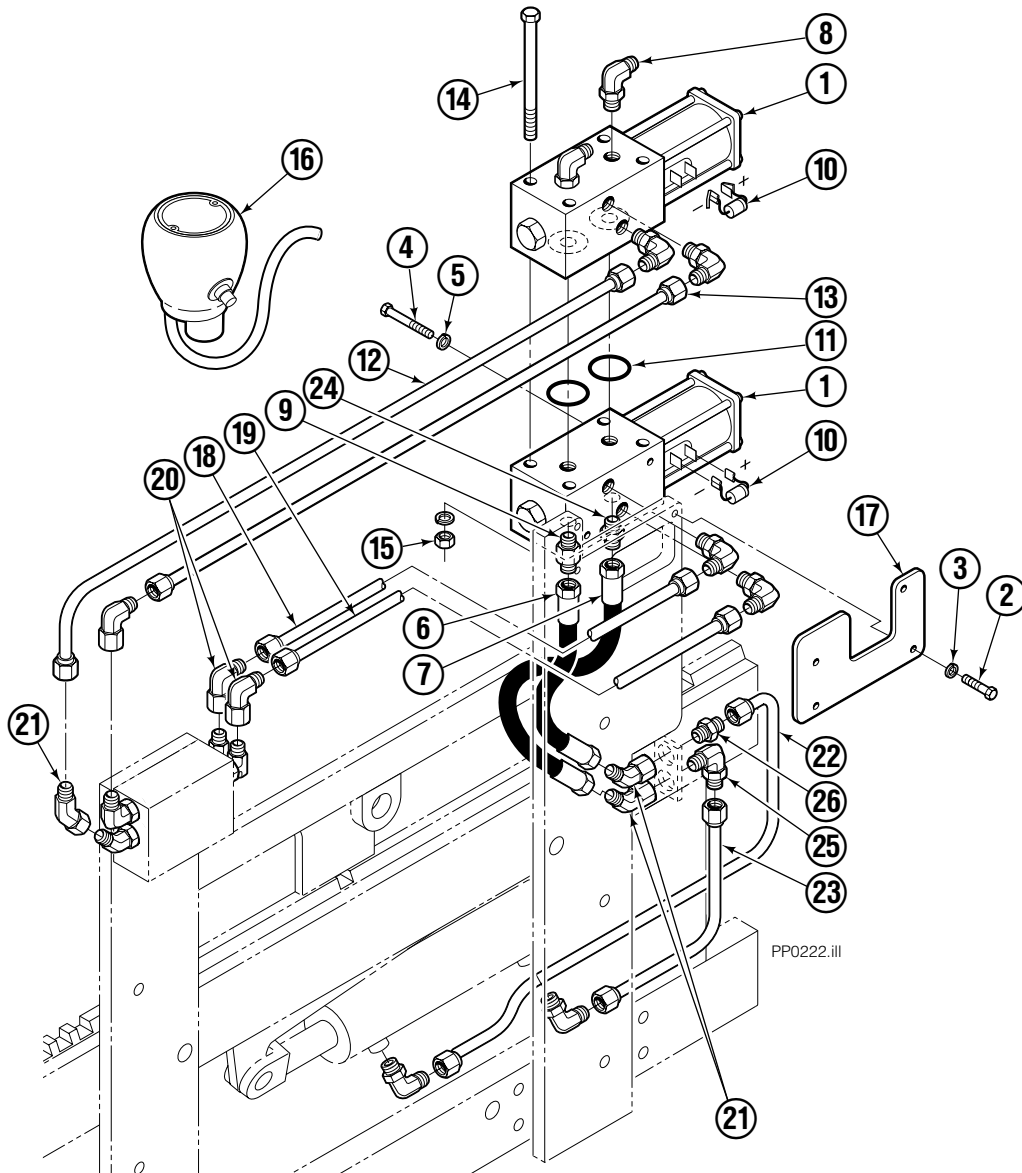


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35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		682844	Gripper Cylinder
▼ 1	1	646540	Seal
▼ 2	1	636850	Wiper
▼ 3	1	2718	O-Ring
▼ 4	1	2710	O-Ring
▼ 5	1	615122	Back-Up Ring
6	1	685662	Shell
7	1	685663	Rod
8	1	685664	Retainer
9	1	685665	Piston
10	1	563462	Nut
11	1	563916	Ring
12	1	684284	Snap Ring
▼ 13	1	663728	Piston Seal

▼ Included in Service Kit 684827.

Solenoid Group



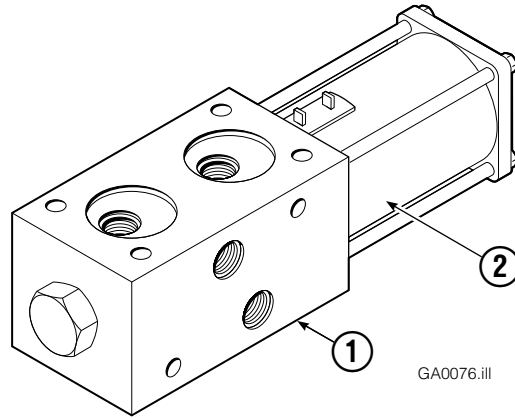
35E/45E

REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		349532	Solenoid Group	14	4	683242	Capscrew, M8 x 140
1	2	614089	Solenoid Valve ▲	15	4	767414	Nut, M8
2	3	763166	Capscrew, M8 x 20	16	1	673133	Control Knob ●
3	7	6287	Lockwasher, 5/16	17	1	356111	Mounting Plate
4	2	768521	Capscrew, M6 x 20	18	1	347073	Tube
5	2	6201	Lockwasher, M6	19	1	347074	Tube
6	1	674757	Hose	20	5	2680	Fitting, 6-6
7	1	685985	Hose - 36.50 in.	21	3	605230	Fitting, 6-6
8	8	601676	Fitting, 6-6	22	1	349533	Tube
9	1	605743	Fitting, 6-6	23	1	349534	Tube
10	2	669432	Diode	24	1	604511	Fitting, 6-6
11	2	2716	O-Ring	25	1	2453	Fitting, 6-6
12	1	347071	Tube	26	1	2375	Fitting, 6-6
13	1	347072	Tube				

▲ See Solenoid Valve page for parts breakdown.

● See Control Knob page for parts breakdown.

Solenoid Valves

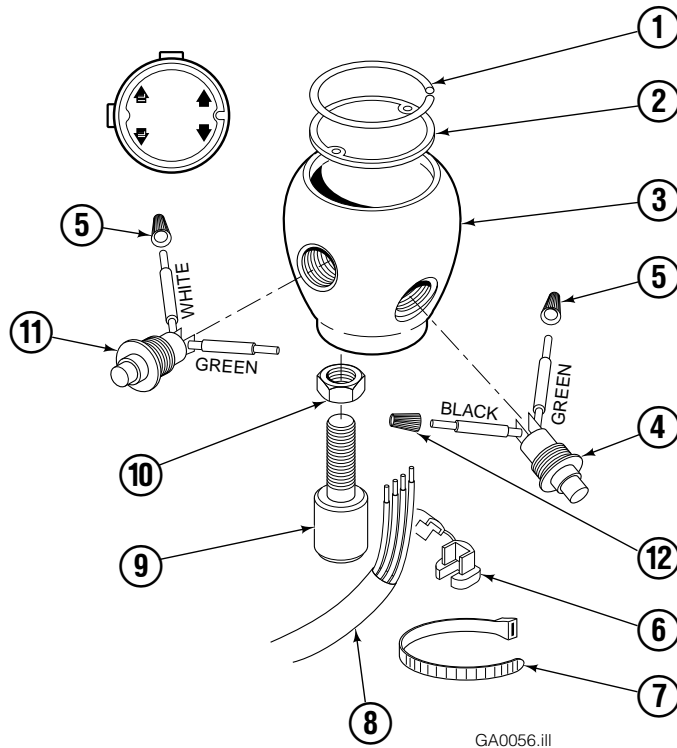


Racine

REF	QTY	PART NO.	DESCRIPTION
1	1	614089	Solenoid Valve - 12V
2	1	665044	Coil - 12V
		685012	Service Kit

Control Knob

Three Function – Sideshift with Adjustable Platens



35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		673133	Knob Group
1	1	665250	Snap Ring
2	1	673134	Cover
3	1	667753	Knob
4	1	673873	■ Switch
5	2	667752	Connector-Gray
6	1	669385	Strain Relief
7	1	665249	Tie
8	1	673874	Cable Assembly
9	1	665081	Adapter
10	1	5902	Nut, 3/8 NC
11	1	673872	■ Switch
12	1	671900	Connector-Orange

■ This switch may be purchased without wires. Order part number 665004. Soldering is required.

Do you have questions you need answered right now? Call your nearest Cascade Parts Department.

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