



Parts Manual

Model Push-Pull

Serial Number 45E-PHS-174

cascade[®]

For Technical Assistance call: 800-227-2233, Fax: 888-329-8207

To Order Parts call: 888-227-2233, Fax: 888-329-0234

OR

Write: Cascade Corporation, P.O. Box 20187, Portland, OR 97220

Internet: www.cascorp.com

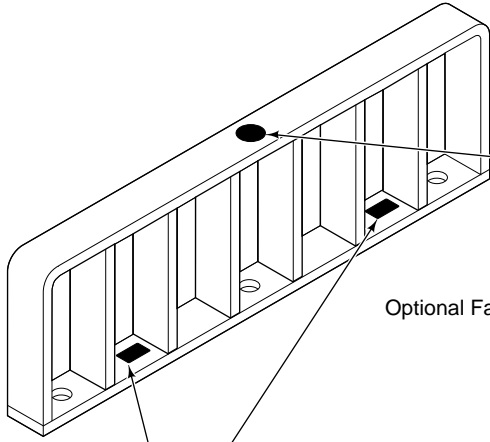
Publications



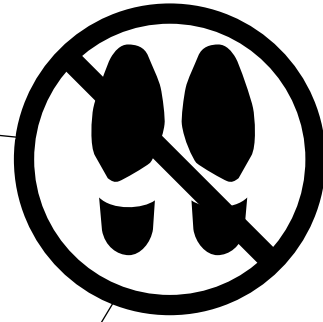
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PART NO.	DESCRIPTION
	Parts Manual
686455	Service Manual
684945	Operators Guide
685531	Operators Pocket Guide
684944	Installation Instructions
680664	Servicing Cascade Cylinders-VHS
679929	Tool Catalog
673964	Literature Index Order Form

Decals



Optional Faceplate Extension



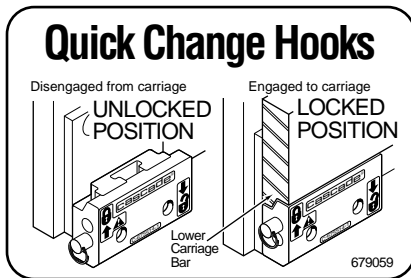
Part No. 679150
(1 Place & 1 optional)



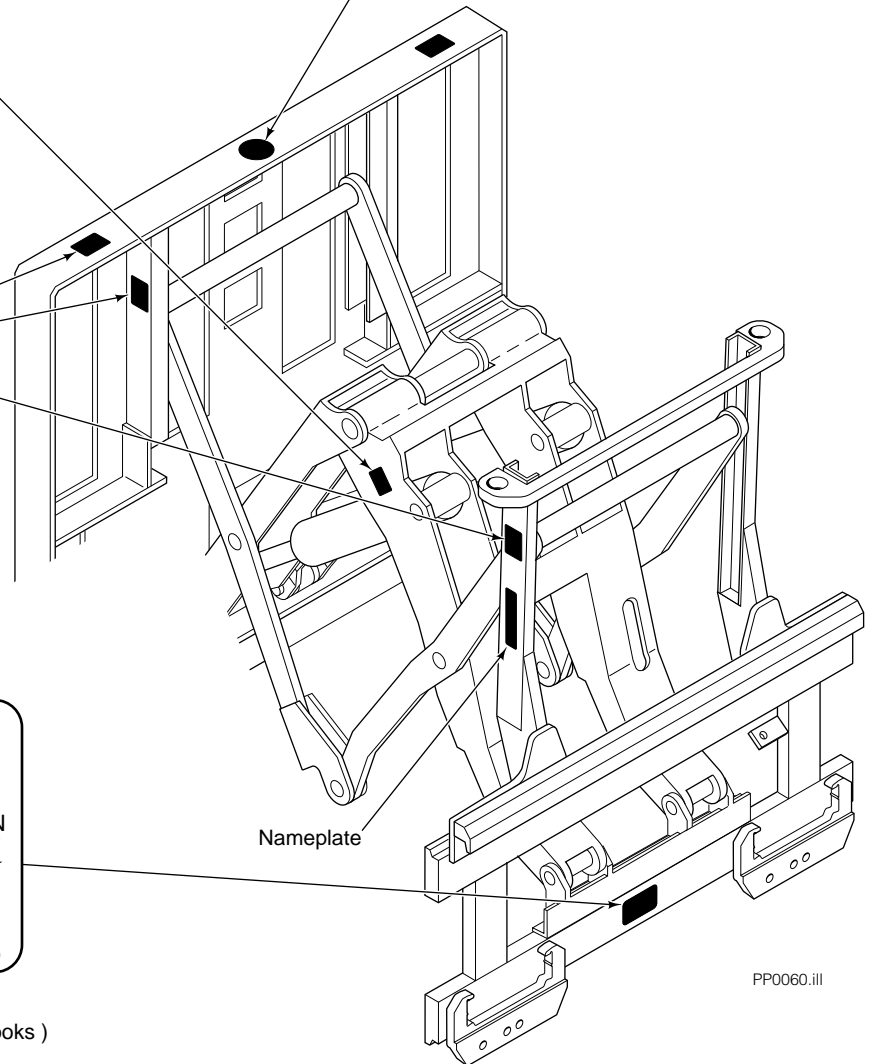
Part No. 665595
(2 Place & 2 optional)



Part No. 656038
(6 Places)



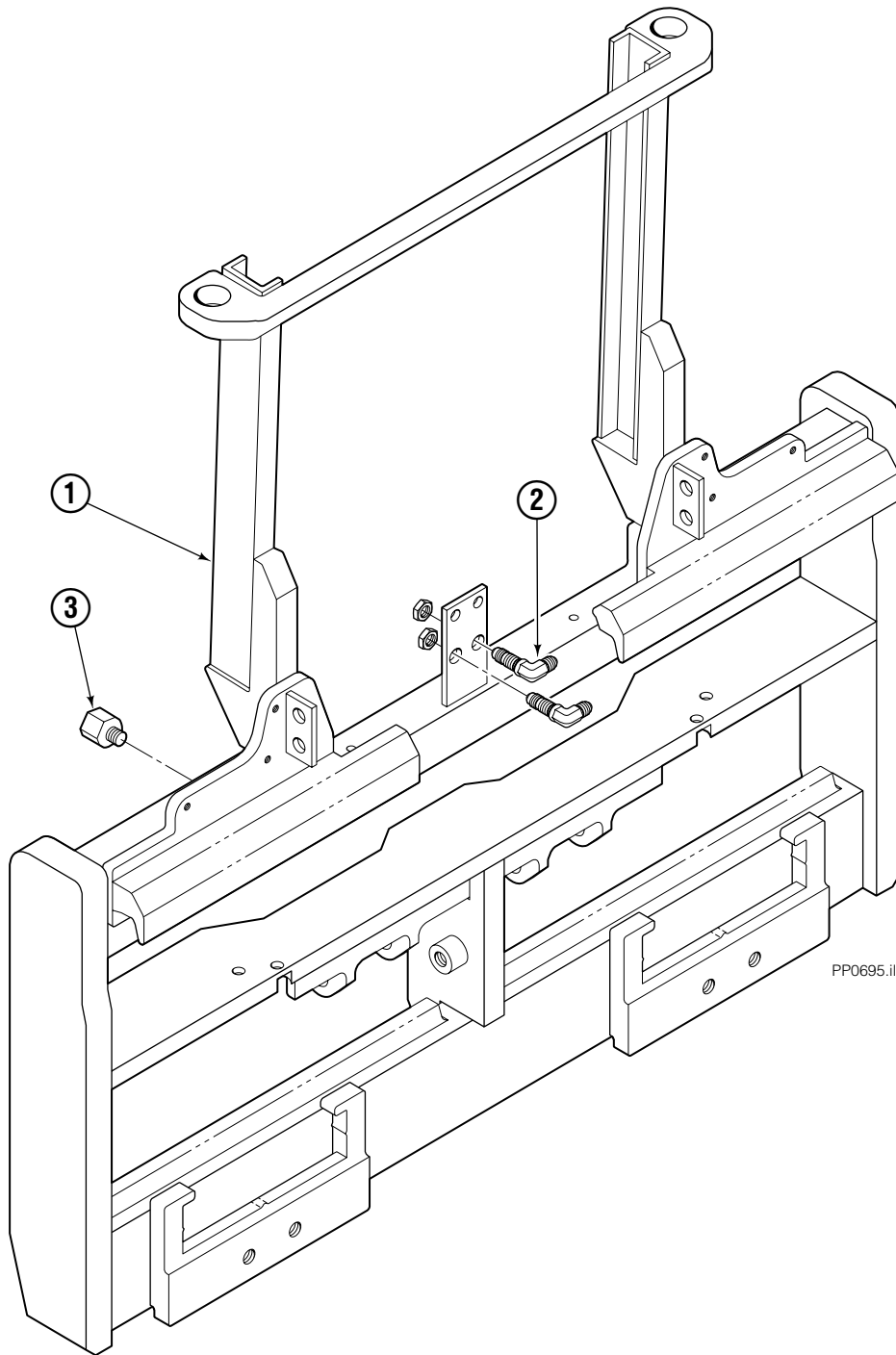
Part No. 679059
(1 Place if equipped with Quick Change Hooks)



Nameplate

PP0060.iii

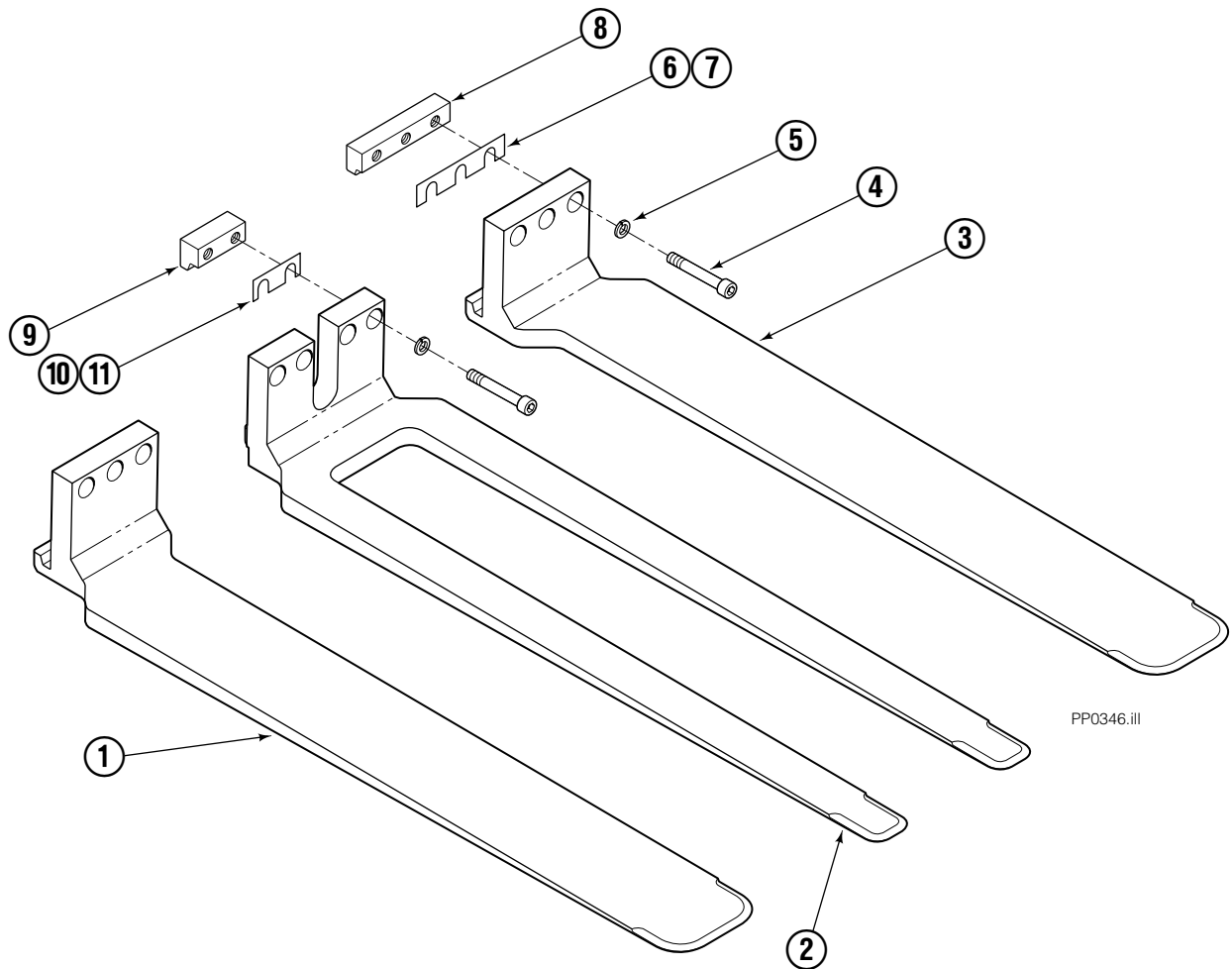
Frame Group



PP0695.ill

45E			
REF	QTY	PART NO.	DESCRIPTION
		6014140	Frame Group
1	1	6014141	Frame
2	2	2453	Fitting, 6-6
3	2	3008564	Stop

Platen Group



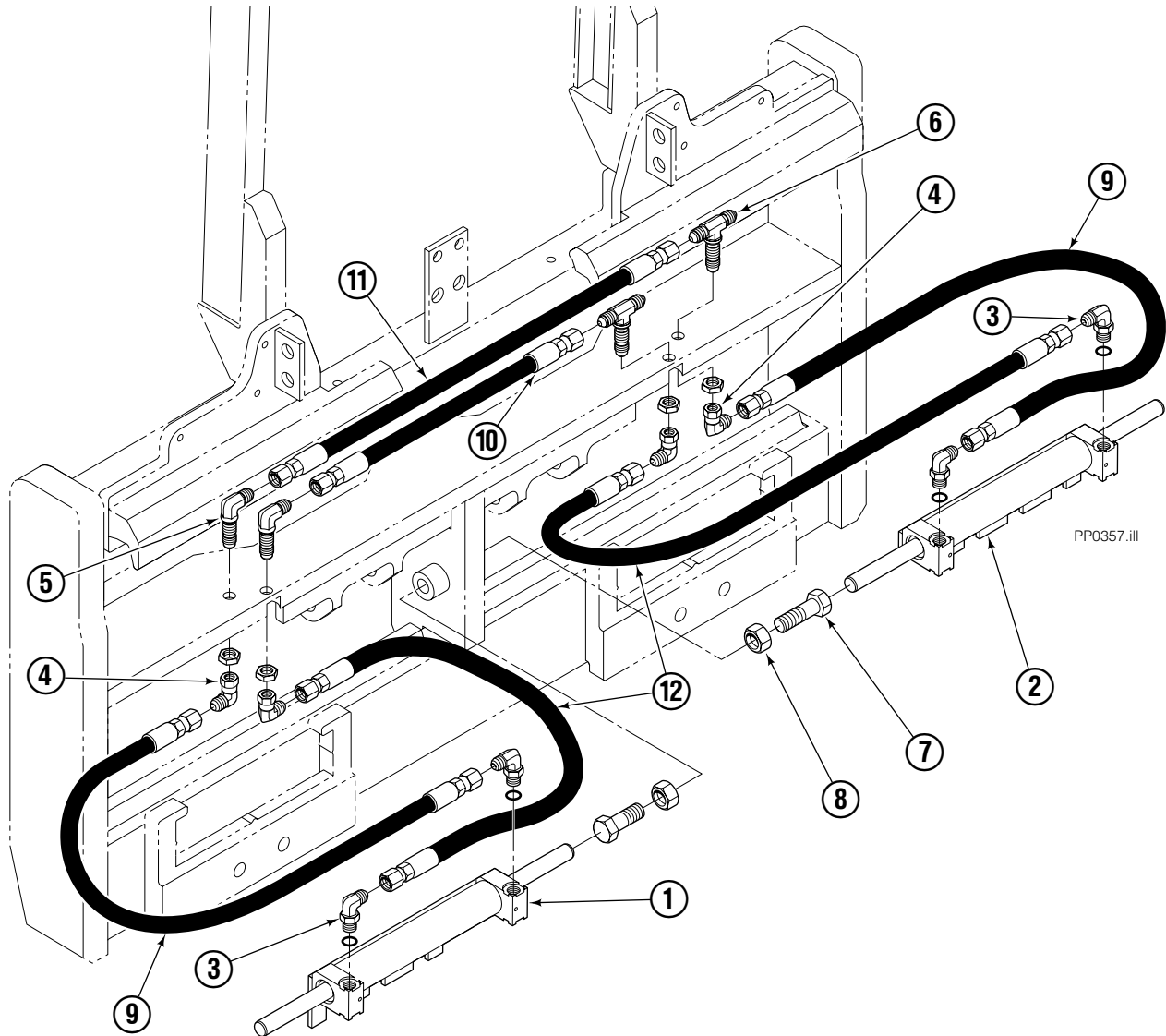
PP0346.iii

45E			
REF	QTY	PART NO.	DESCRIPTION
		3008460	Platen Group
1	1	3008498	Platen - R.H.
2	1	3008501	Platen - Center
3	1	3008495	Platen - L.H.
4	10	769583	Capscrew
5	10	681467	Lockwasher
6	◆	3008509	Shim - .030 in. (.762 mm)
7	◆	3008510	Shim - .021 in. (.533 mm)
8	2	3008508	Hook
9	2	3008504	Hook
10	◆	3008505	Shim - .030 in. (.762 mm)
11	◆	3008506	Shim - .021 in. (.533 mm)
12	1	3008465	Hydraulic Component Group ■

◆ Quantity as required.

■ See Hydraulic Components page for part breakdown.

Platen Hydraulic Group

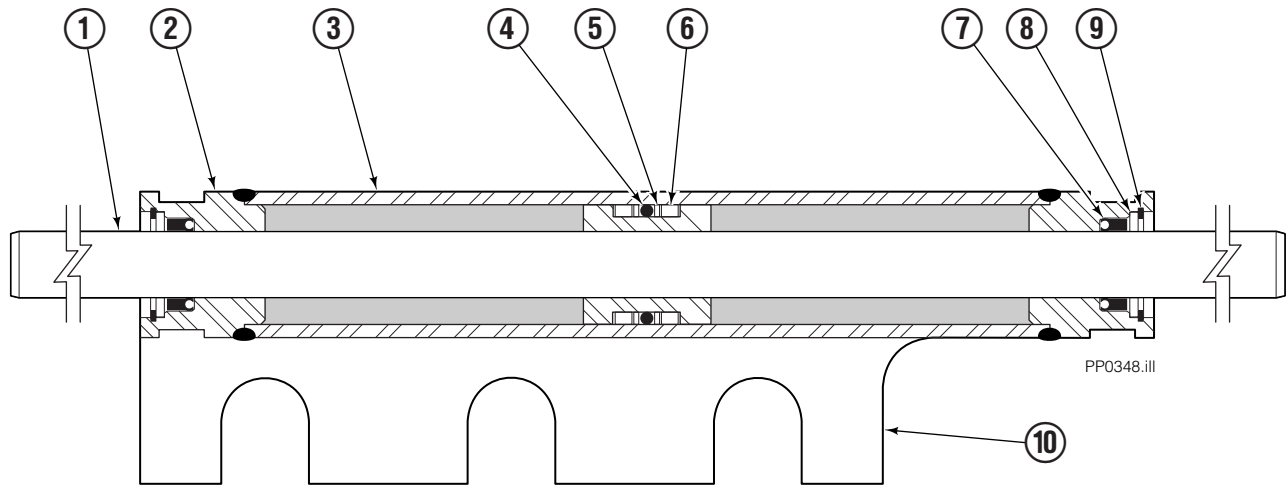


45E			
REF	QTY	PART NO.	DESCRIPTION
		3008465	Hydraulic Component Group
1	1	3008466	Cylinder – L.H. ♦
2	1	3008467	Cylinder – R.H. ♦
3	4	617917	Fitting, 4-4
4	4	617641	Fitting, 4-4
5	2	2451	Fitting, 4-4
6	2	222939	Fitting, 4-4
7	2	763024	Capscrew
8	2	679828	Nut
9	2	3008477	Hose ■
10	1	3008478	Hose ■
11	1	3008479	Hose ■
12	2	6002109	Hose ■

♦ See Cylinder page for parts breakdown.

■ Included in Hose Group 3009543.

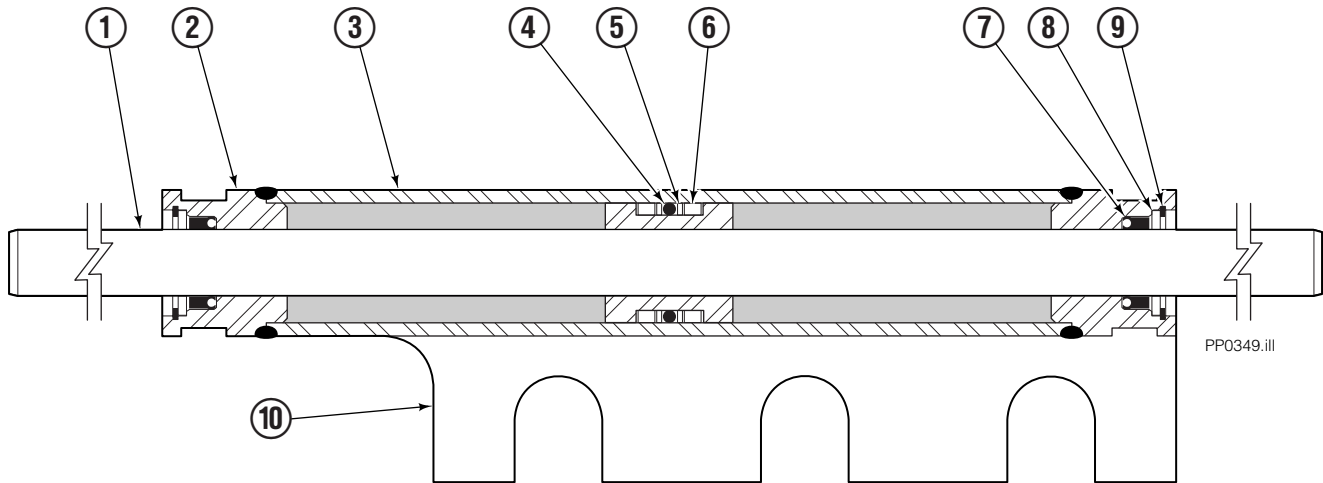
Left-Hand Cylinder



45E			
REF	QTY	PART NO.	DESCRIPTION
		3008466	Cylinder - L.H.
1	1	3008471	Piston Rod ♦
2	2	3008470	Retainer ♦
3	1	3008469	Tube ♦
4	1	2712	O-Ring ♦
5	2	615116	Back-up Ring ♦
6	2	3008474	Nylon Ring ♦
7	2	641332	Seal
8	2	3008476	Washer
9	2	3017	Snap Ring
10	1	3008475	Plate ♦

♦ Parts cannot be serviced.
Order complete Cylinder if replacement needed.

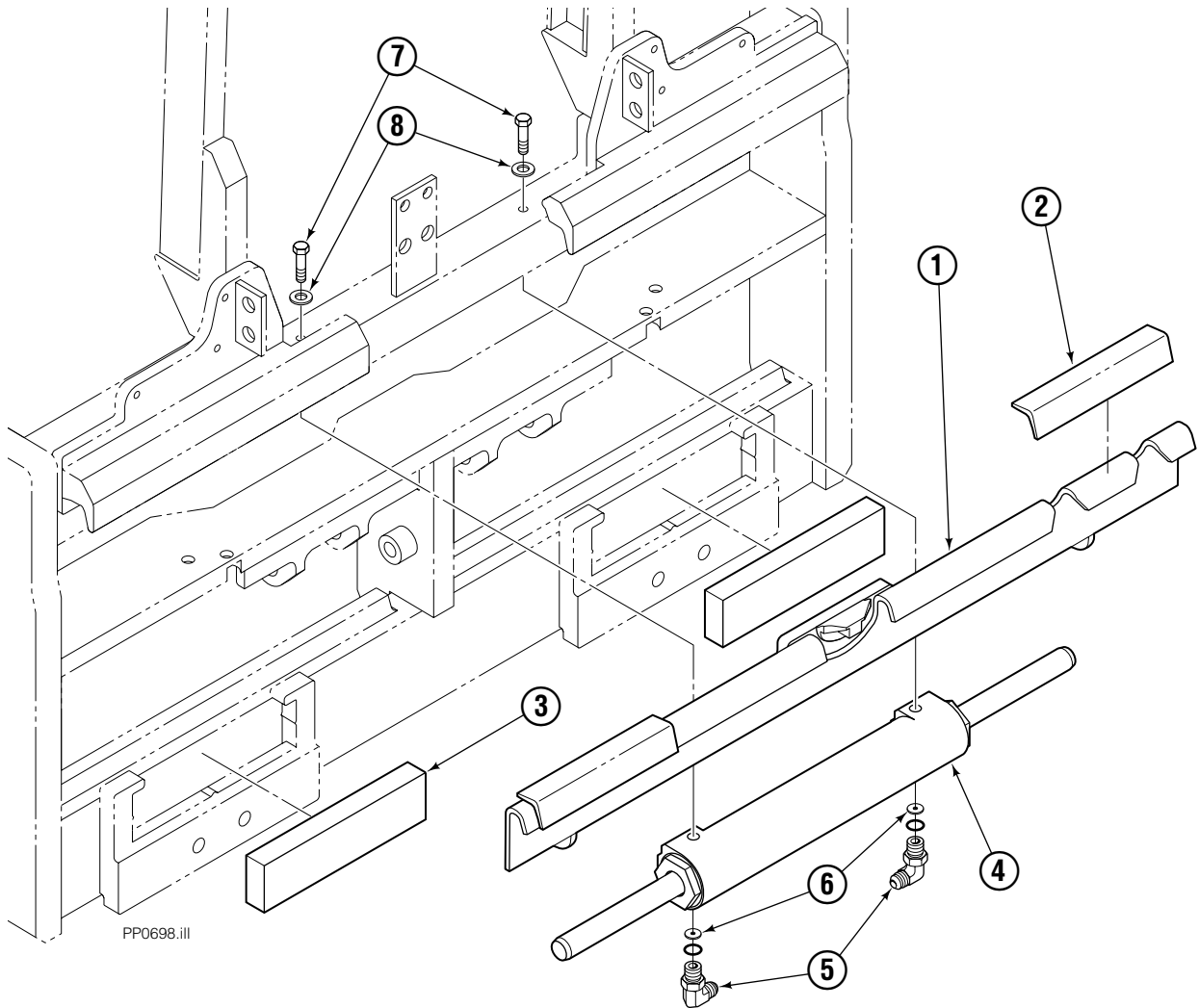
Right-Hand Cylinder



45E			
REF	QTY	PART NO.	DESCRIPTION
		3008467	Cylinder - R.H.
1	1	3008471	Piston Rod ♦
2	2	3008470	Retainer ♦
3	1	3008469	Tube ♦
4	1	2712	O-Ring ♦
5	2	615116	Back-up Ring ♦
6	2	3008474	Nylon Ring ♦
7	2	641332	Seal
8	2	3008476	Washer
9	2	3017	Snap Ring
10	1	3008475	Plate ♦

♦ Parts cannot be serviced.
Order complete Cylinder if replacement needed.

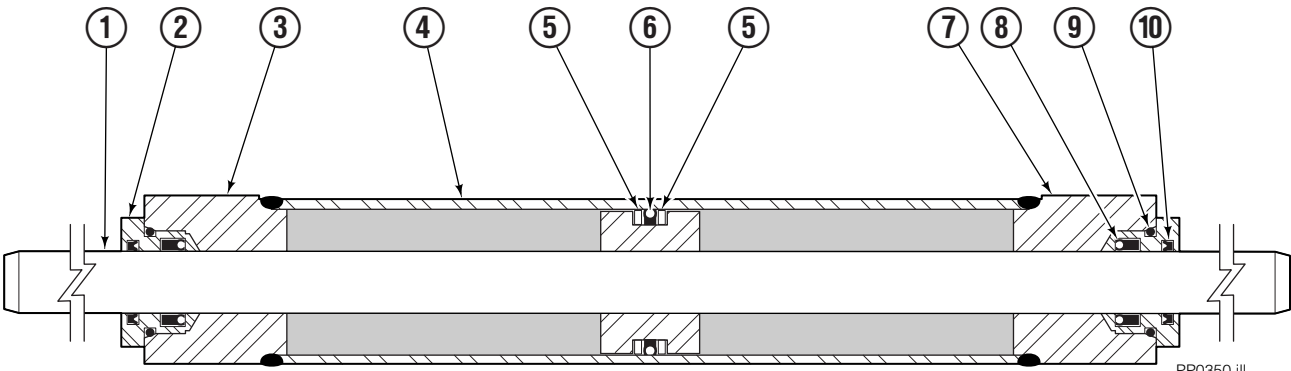
S/S Mounting Group



45E			
REF	QTY	PART NO.	DESCRIPTION
		6014145	Mounting Group
1	1	6014146	Anchor Bracket
2	2	671165	Upper Bearing
3	2	682814	Lower Bearing
4	1	3008624	Sideshift Cylinder ♦
5	2	666984	Fitting, 4-6
6	2	675550	Restrictor Washer
7	2	768529	Capscrew, M8 x 60
8	2	787398	Washer, M8

♦ See Sideshift Cylinder page for parts breakdown.

Sideshift Cylinder

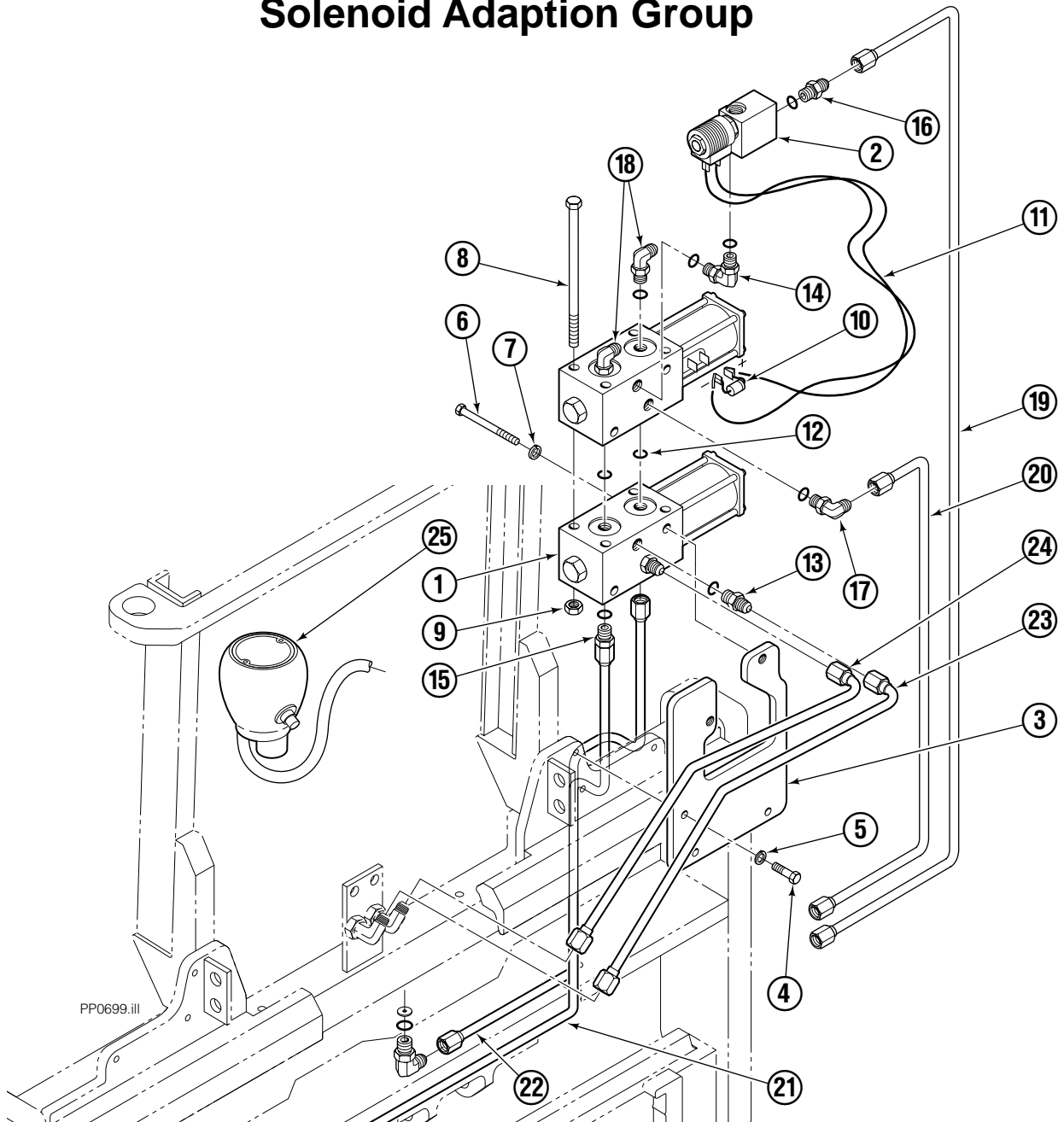


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45E			
REF	QTY	PART NO.	DESCRIPTION
		3008624	Sideshift Cylinder
1	1	10042-615	Piston Rod ◆
2	2	218324	Threaded Retainer
3	1	218323	Retainer ◆
4	1	10041-245	Tube ◆
5	2	218326	Back-up Ring ◆
6	1	218325	Piston Seal ◆
7	1	218322	Retainer ◆
8	2	562132	Rod Seal
9	2	415866	O-Ring
10	2	562131	Wiper

◆ Parts cannot be serviced.
 Order complete Cylinder if replacement needed.

Solenoid Adaption Group



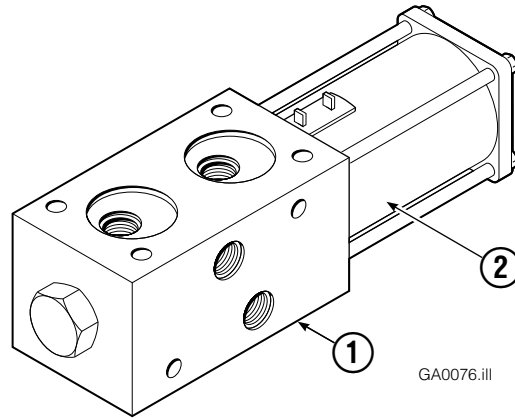
45E

REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6014144	Solenoid Adaption Group	13	2	604511	Fitting, 6-6
1	2	◆	Solenoid Valve	14	1	619235	Fitting, 6-6
2	1	◆	Solenoid Valve	15	2	627850	Fitting, 4-6
3	1	3008565	Plate	16	1	617915	Fitting, 4-4
4	3	765329	Capscrew, M8 x 20	17	1	666984	Fitting, 4-6
5	3	6287	Lockwasher, .312	18	2	601676	Fitting, 6-6
6	2	768520	Capscrew, M6 x 75	19	1	3009532	Tube
7	2	6201	Lockwasher, .25	20	1	3009533	Tube
8	2	683242	Capscrew, M8 x 140	21	1	6014148	Tube
9	2	767414	Nut, M8	22	1	6014149	Tube
10	2	669432	Diode Assembly	23	1	3009536	Tube
11	2	204977	Wire Assembly	24	1	3009537	Tube
12	2	2716	O-Ring	25	1	673132	Knob Assembly ●

◆ See Solenoid Valve page for parts breakdown.

● See Knob Assembly page for parts breakdown.

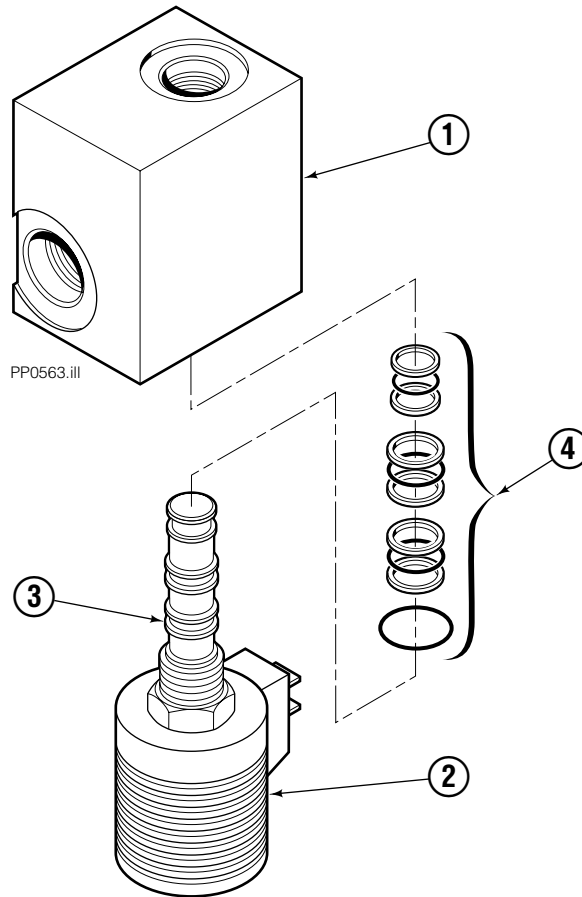
Solenoid Valves



Racine

REF	QTY	PART NO.	DESCRIPTION
1	1	614093	Solenoid Valve - 48V
2	1	665047	Coil - 48V
		685012	Service Kit

Solenoid Valves

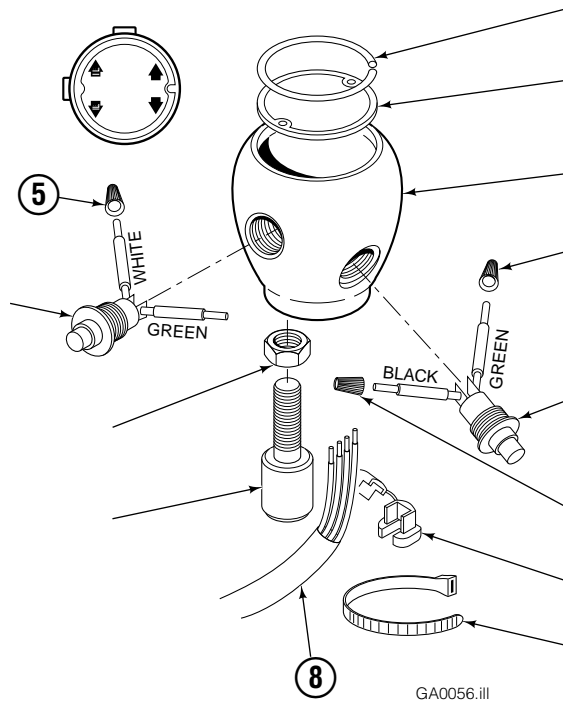


REF	QTY	PART NO.	DESCRIPTION
		6009149	Solenoid Valve Assy
1	1	204978	Valve Body
2	1	6000359	Coil - 48V
3	1	6002084	Valve Cartridge
4	1	6009164	Service Kit

Reference: S-21076.

Control Knob

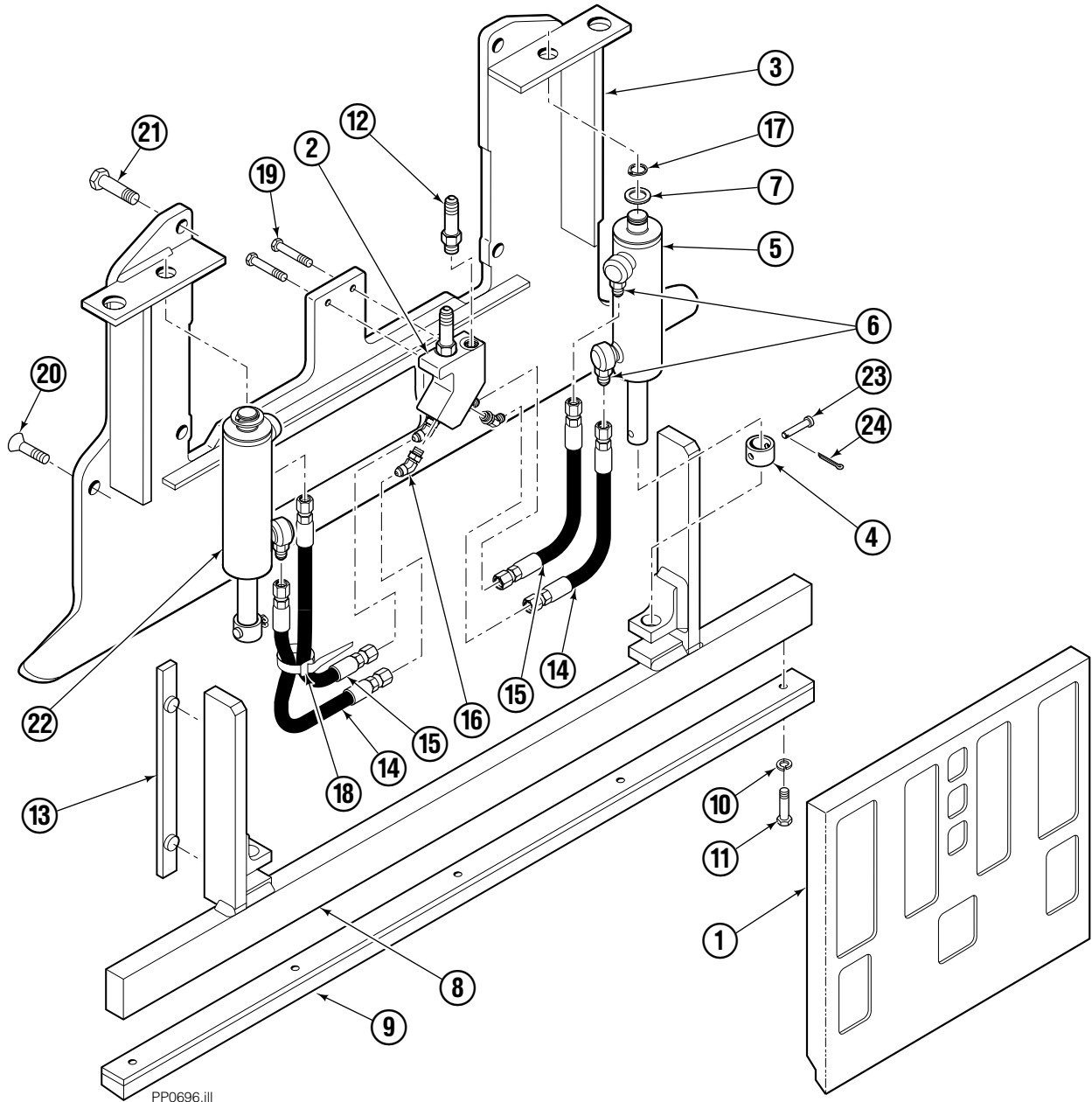
Three Function – Sideshift with Adjustable Platens



35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		673132	Knob Group
1	1	665250	Snap Ring
2	1	673131	Cover
3	1	667753	Knob
4	1	673872	■ 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.

Faceplate Group



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45E

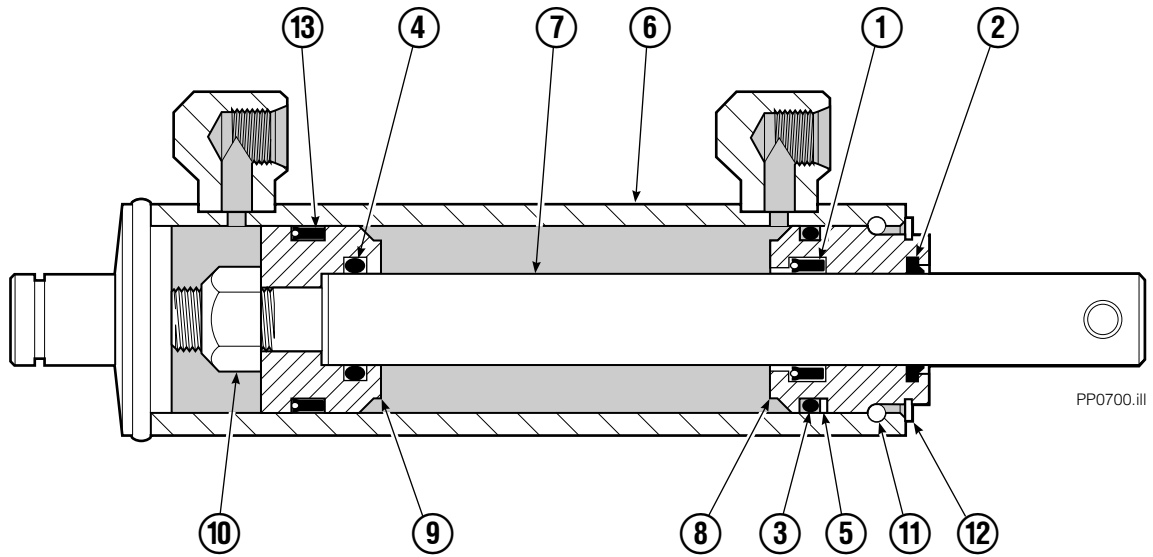
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6002169	Faceplate Group 40" x 40" ■	12	2	605743	Fitting, 6-6
		6014095	Gripper Jaw Assembly ●	13	2	686573	Bearing
1	1	6002170	Faceplate 40" x 40" ■	14	2	6002138	Hose
2	1	6002134	Valve	15	2	6002139	Hose
3	1	206396	Gripper Jaw	16	4	617918	Fitting, 4-4
4	2	6020451	Sleeve	17	2	6003718	Retaining Ring
5	1	6020456	Gripper Cylinder, LH ▼	18	4	684956	Wire Tie
6	4	617915	Fitting, 4-4	19	2	787373	Capscrew, M8x20
7	2	6001555	Washer	20	2	768714	Capscrew, M16
8	1	6002135	Gripper Bar	21	4	225346	Capscrew, M16
9	1	672712	Gripper Pad	22	1	6020455	Gripper Cylinder, RH ▼
10	5	680253	Lockwasher, M8	23	2	664762	Clevis Pin
11	5	787375	Capscrew, M8x20	24	2	6507	Cotter Pin

■ Width x height.

● Includes items 2 through 19, 22.

▼ See Gripper Cylinder page for parts breakdown.

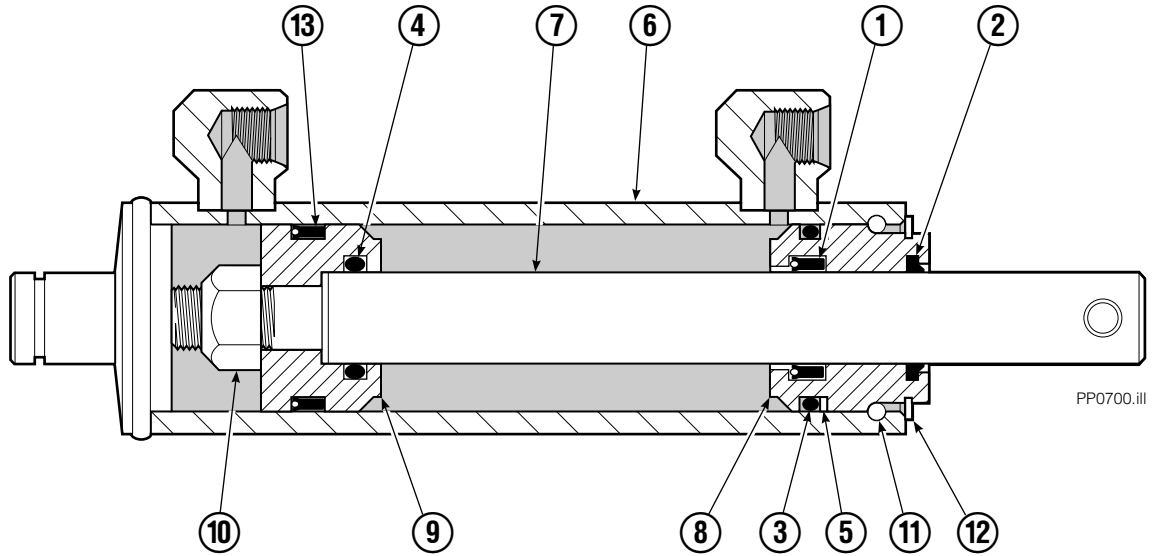
Gripper Cylinder Left Hand



REF	QTY	PART NO.	DESCRIPTION
		6020456	Gripper Cylinder - LH
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	6002131	Shell
7	1	6020445	Rod
8	1	685664	Retainer
9	1	685665	Piston
10	1	563462	Nut
11	1	563916	Ring
12	1	3137	Ring
13	1	663728	▼ Piston Seal

▼ Included in Service Kit 684827.

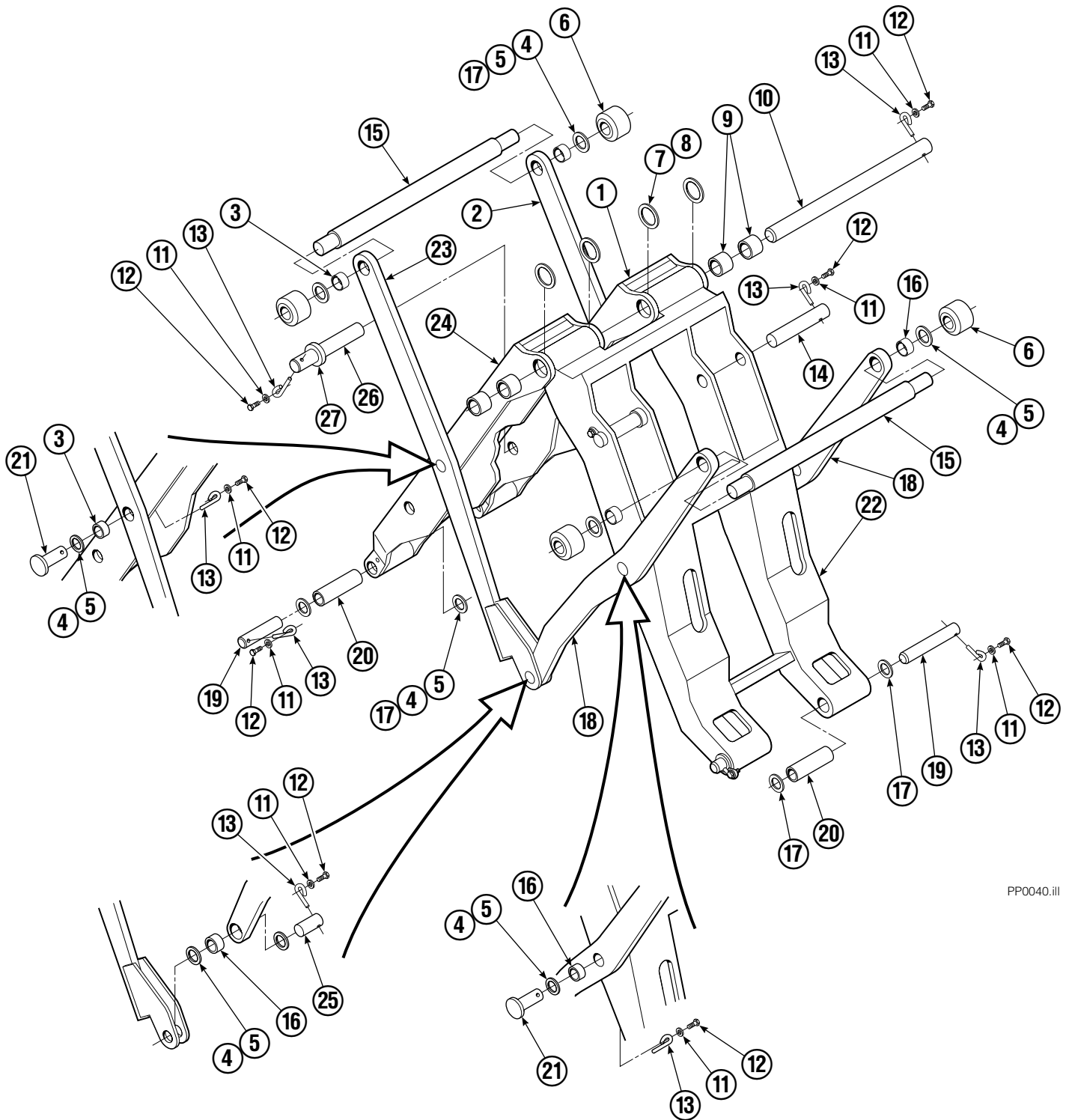
Gripper Cylinder Right Hand



REF	QTY	PART NO.	DESCRIPTION
		6020455	Gripper Cylinder – RH
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	6014091	Shell
7	1	6020445	Rod
8	1	685664	Retainer
9	1	685665	Piston
10	1	563462	Nut
11	1	563916	Ring
12	1	3137	Ring
13	1	663728	▼ Piston Seal

▼ Included in Service Kit 684827.

Mechanism Group



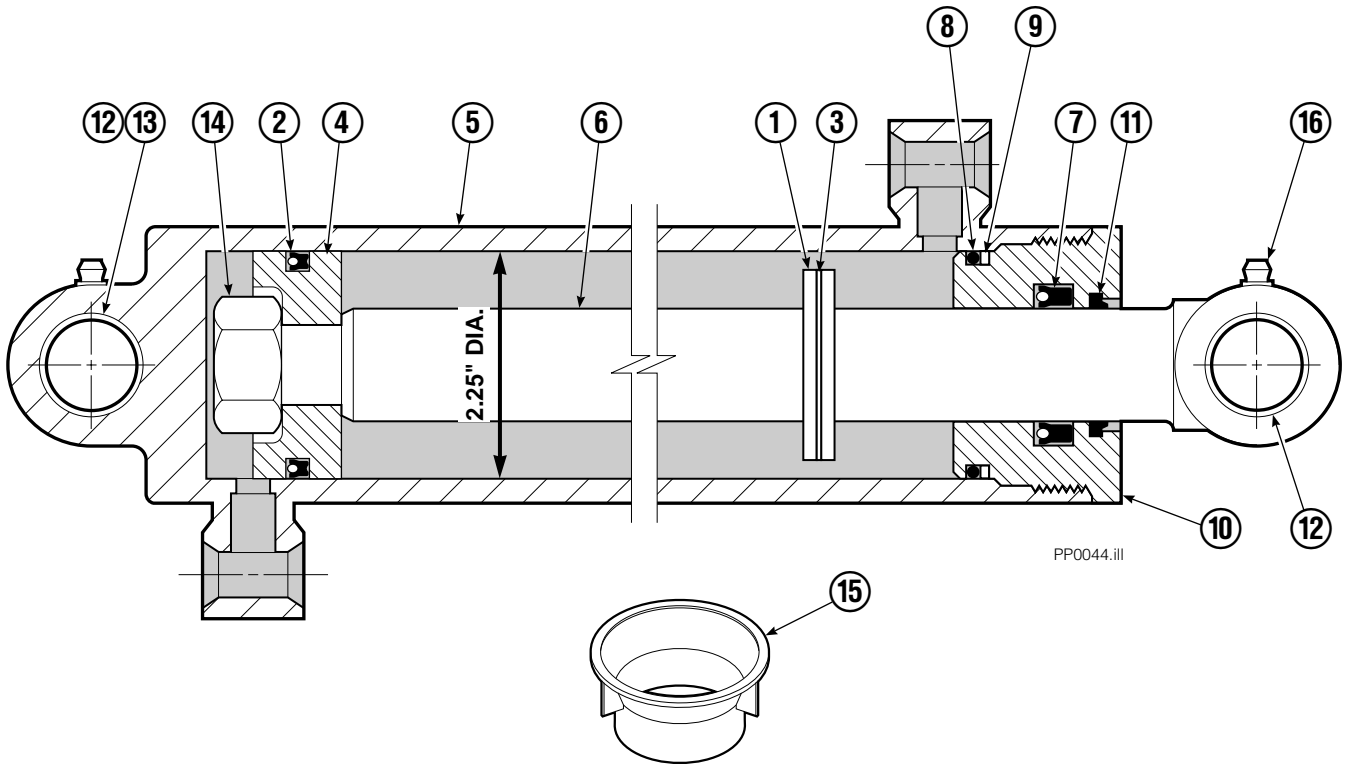
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Mechanism Group

35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		364009	Mechanism Group
1	1	364240	Arm-Inner Secondary R.H.
2	1	204692	Arm-Secondary Outer R.H.
3	4	683154	■ Bushing
4	●	683161	Shim (.030)
5	●	683162	Shim (.060)
6	4	205070	Roller
7	●	683163	Shim (.030)
8	●	683164	Shim (.060)
9	4	683155	■ Bushing
10	1	682821	Pin
11	15	6229	Washer
12	15	685661	Capscrew
13	15	682999	Eye-Pin
14	2	682822	Pin-Head
15	2	205065	Pin
16	6	683153	■ Bushing
17	●	204532	Shim (.12)
18	2	204694	Arm-Outer Primary
19	4	204533	Pin-Frame
20	4	204535	■ Bushing
21	4	204695	Pin
22	1	364238	Arm-Inner Primary
23	1	204693	Arm-Secondary Outer L.H.
24	1	364239	Arm-Inner Secondary L.H.
25	2	204696	Pin-Outer
26	2	682823	Pin-Rod
27	2	683165	Spacer
28	6	7401	Grease Fitting

- Quantity as required.
- Included in Bushing Service Kit 205075.

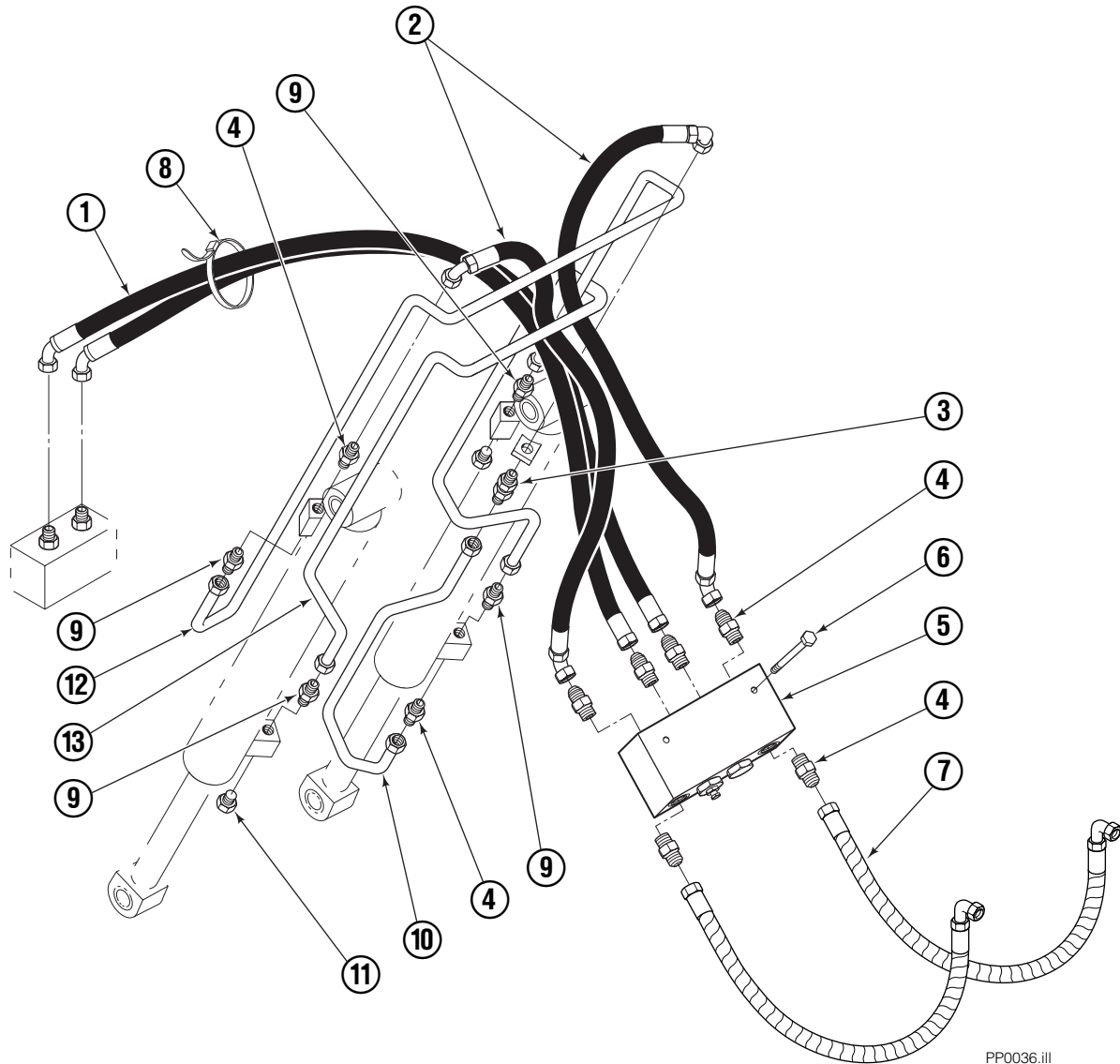
Cylinder



REF	QTY	PART NO.	DESCRIPTION
		358091	Cylinder Assembly
1	1	353370	Spacer
2	1	562553	Seal ■
3	1	7348	Snap Ring
4	1	562333	Piston
5	1	364727	Shell
6	1	364715	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	678019	Nut
15	1	671048	Seal Loader Kit ■
16	2	7401	Grease Fitting

■ Included in Service Kit 562339.
Ref: S-8434

Hydraulic Group



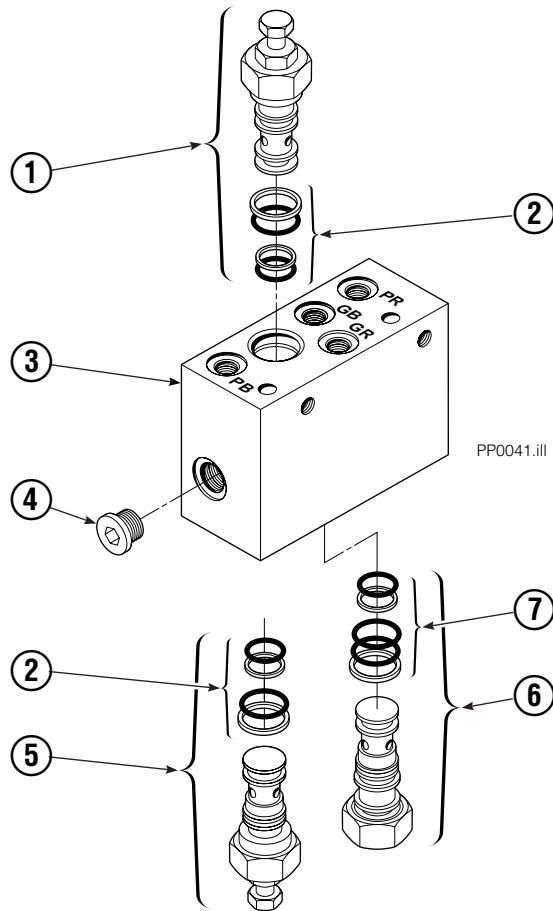
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35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		685828	Hydraulic Group ITA II
1	1	685831	Hose
2	2	683173	Hose
3	1	2375	Fitting, 6-6
4	8	604511	Fitting, 6-6
5	1	682812	■ Valve
6	2	765329	Capscrew, M8x1.25x20-8.8
7	2	685978	Hose ITA II
8	2	684956	Cable tie
9	4	605235	Fitting 5-6
10	1	200647	Tube
11	2	604510	Plug, 6
12	1	200649	Tube
13	1	200648	Tube

■ See Valve page for parts breakdown.

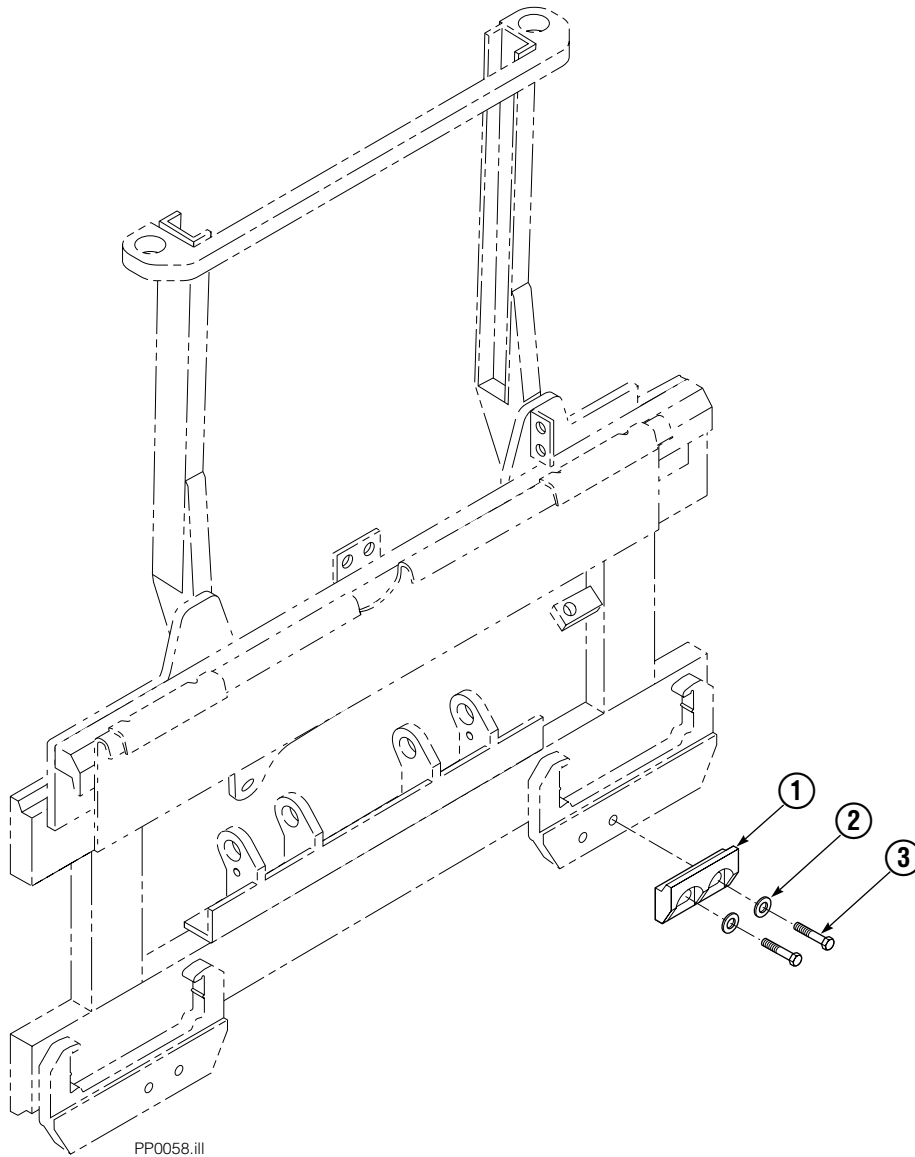
Valve

Load Push/Pull



35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		682812	Valve Assembly
1	1	677125	Sequence Valve (Retract)
2	2	669597	Service Kit
3	1	682813	Body
4	5	663694	Fitting, 3
5	1	677124	Sequence Valve (Extend)
6	1	659058	Gripper Check Valve
7	1	667516	Service Kit

Bolt-On Lower Hook Group ITA II



REF	QTY	PART NO.	DESCRIPTION
		683178	Lower Hook Group ITA II
1	2	679360	Hook
2	4	667225	Washer
3	4	779010	Capscrew

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

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