



Parts Manual

Model Push/Pull

Serial Number 35E-PHS-165

cascade[®]
corporation

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

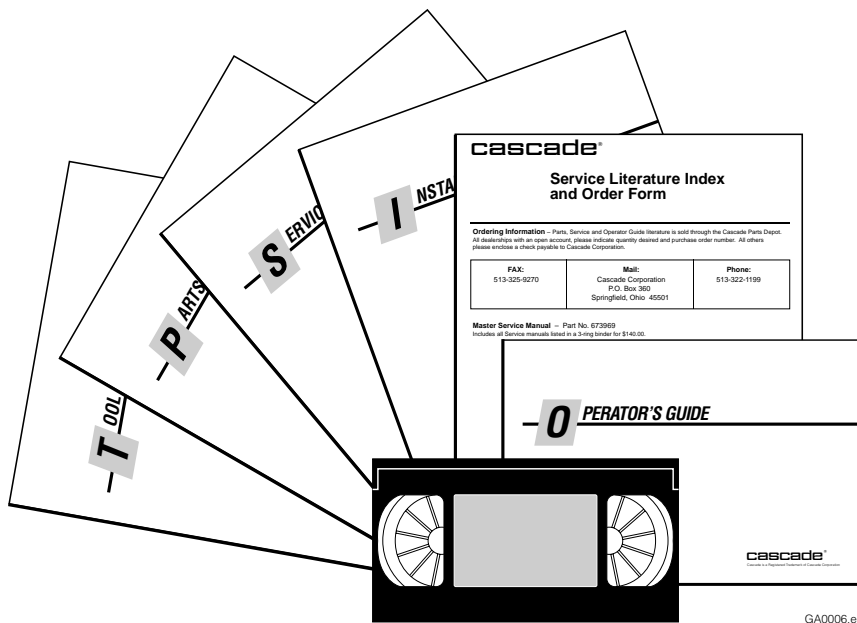
To Order Parts call: 888-227-2233, Fax: 888-329-0234

OR

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

Internet: www.cascorp.com

Publications



GA0006.eps

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)

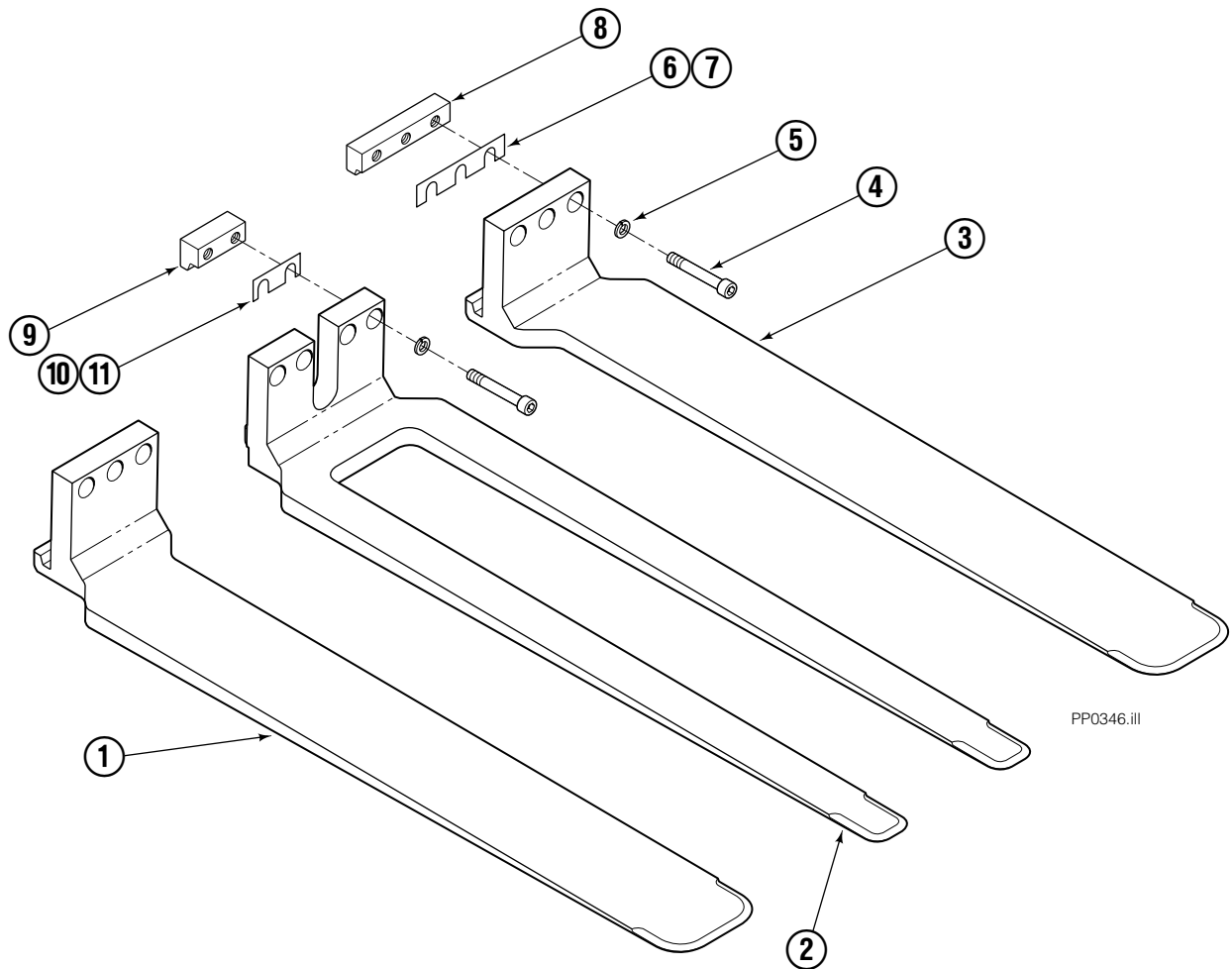


Part No. 679059
(1 Place if equipped with Quick Change Hooks)



PP0060.iii

Platen Group



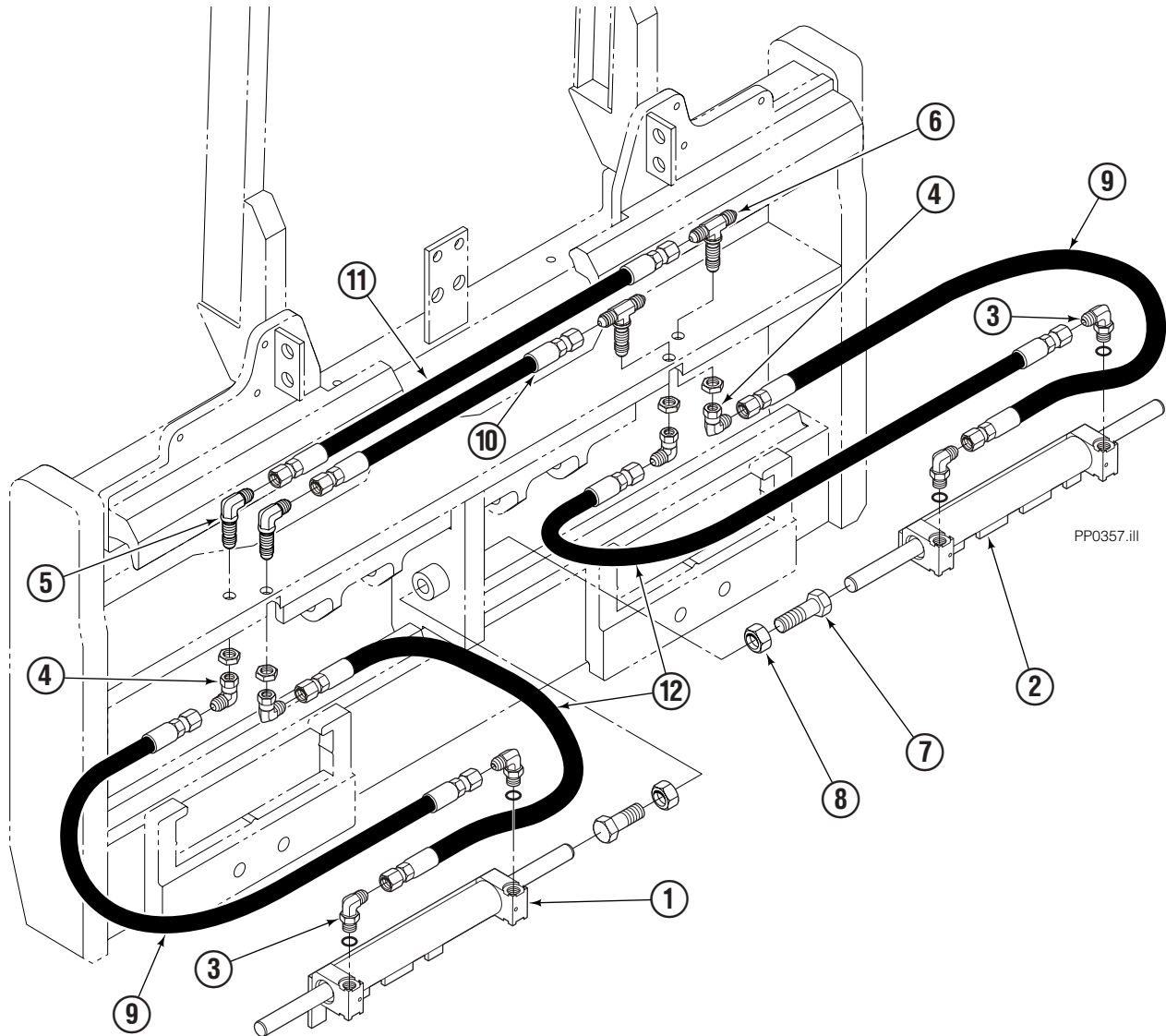
PP0346.iii

45E			
REF	QTY	PART NO.	DESCRIPTION
		6034472	Platen Group
1	1	6034475	Platen - R.H.
2	1	6034486	Platen - Center
3	1	6034473	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



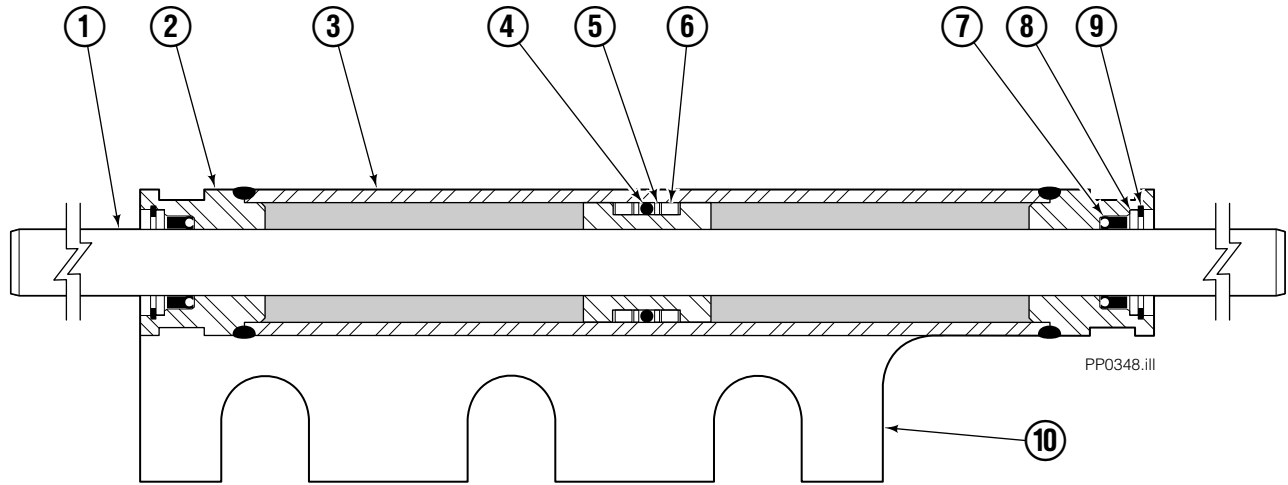
35E

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.

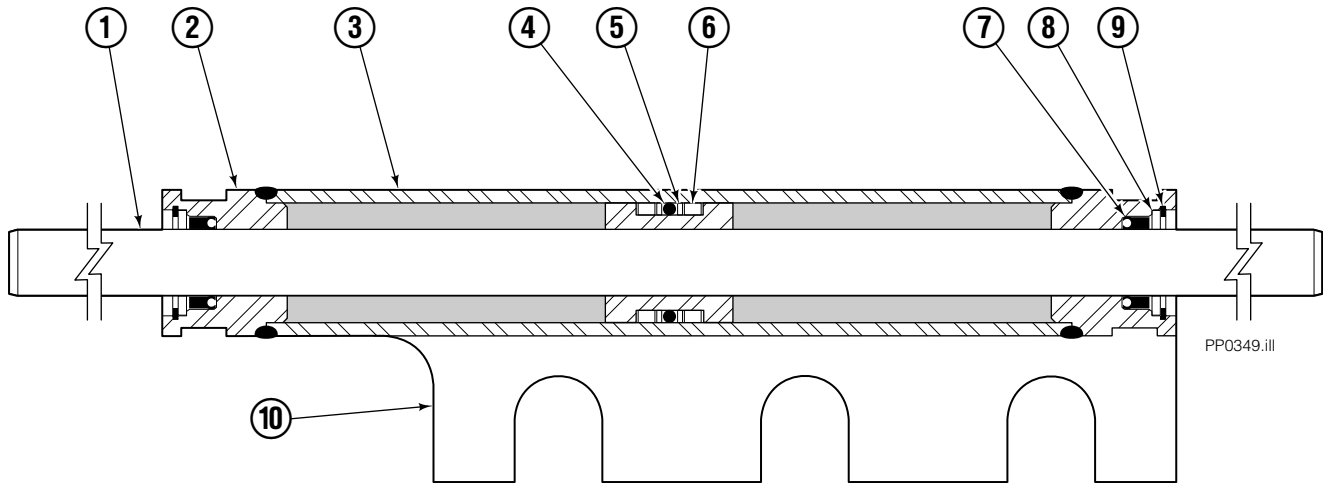
Left-Hand Cylinder



35E			
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.

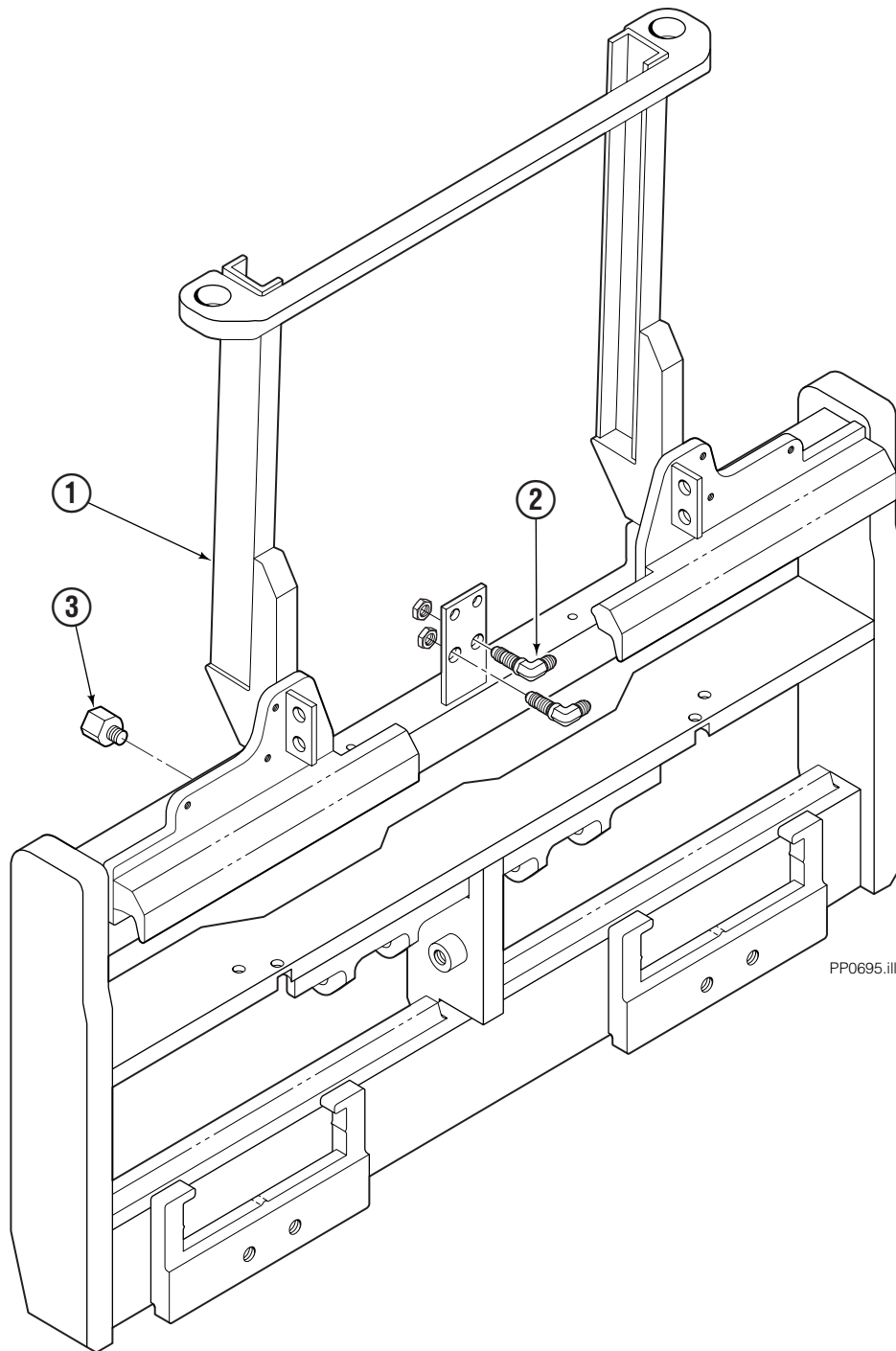
Right-Hand Cylinder



35E			
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.

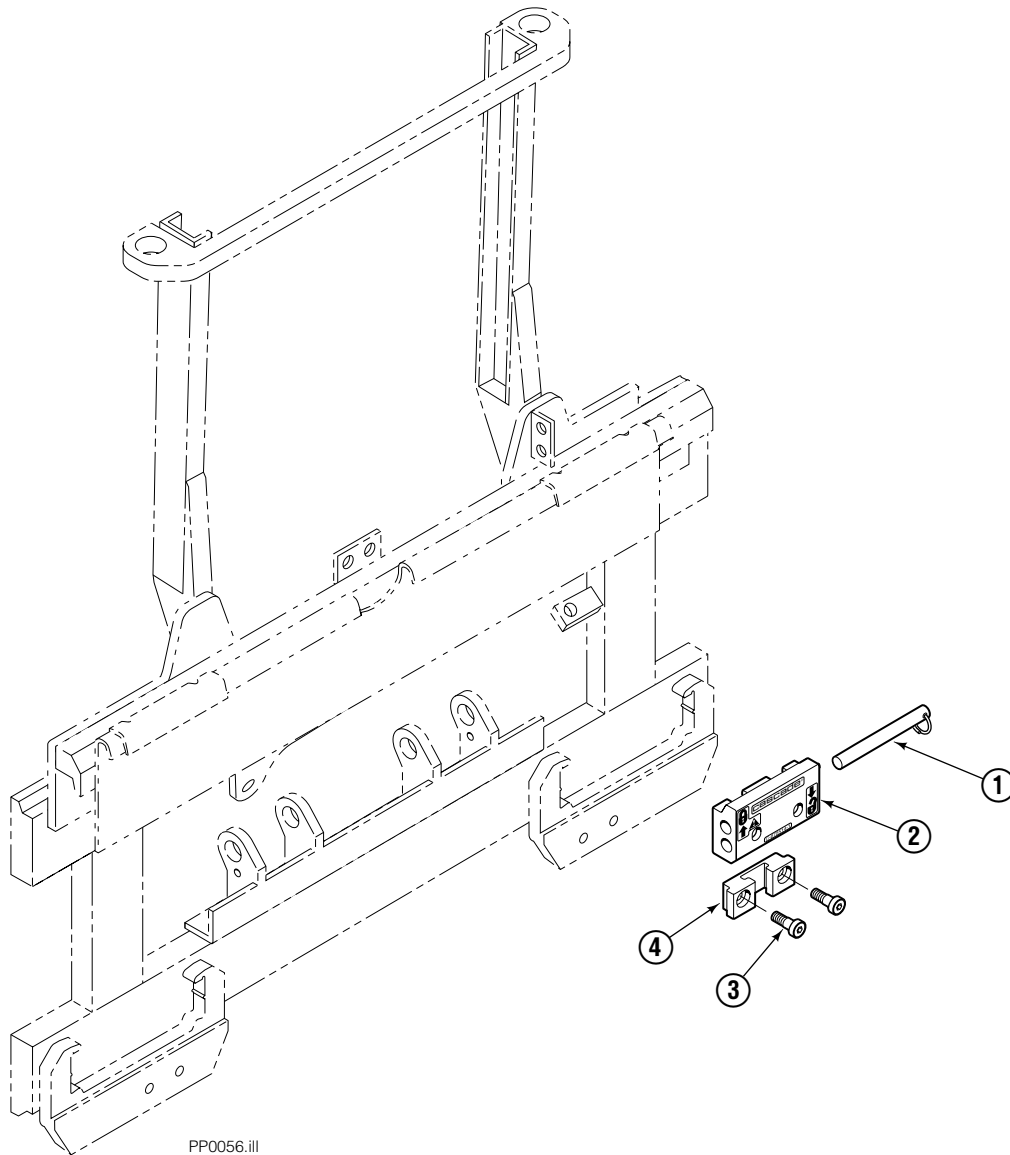
Frame Group



PP0695.ill

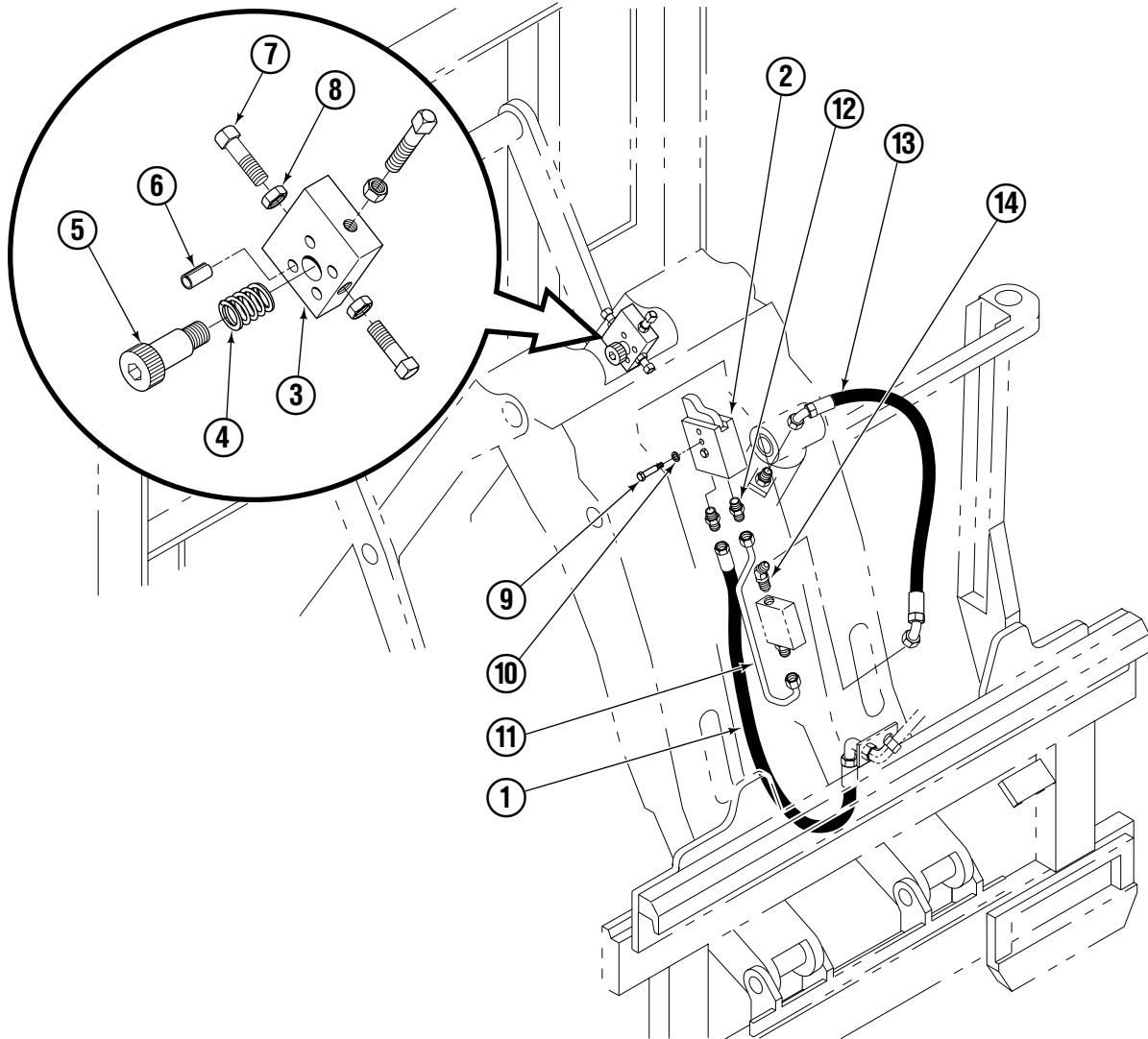
35E			
REF	QTY	PART NO.	DESCRIPTION
		6014750	Frame Group
1	1	6013400	Frame
2	2	2453	Fitting, 6-6
3	2	3008564	Stop

Quick-Change Lower Hook Group ITA II



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

Hydraulic Stop Group

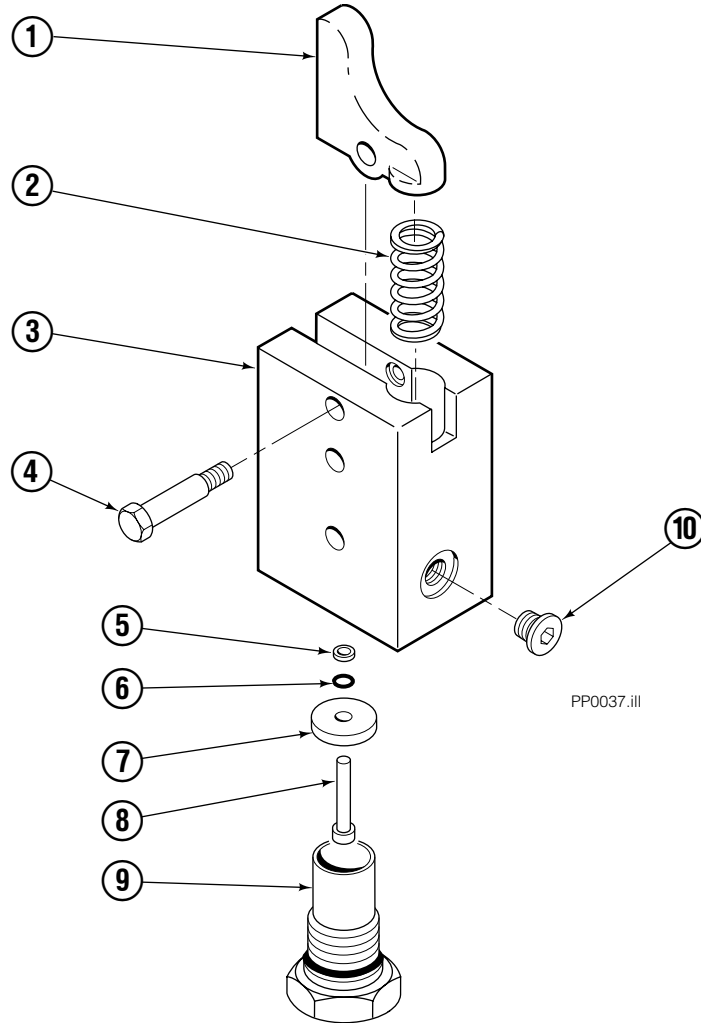


PP0034.ill

REF	QTY	PART NO.	DESCRIPTION
		684567	Hydraulic Stop Group – ITA II
1	1	684568	Hose – ITA II
2	1	684572	■ Valve
3	1	684578	Selector Body
4	1	684580	Spring
5	1	685659	Shoulder Bolt
6	1	769026	Roll Pin
7	3	684582	Capscrew
8	3	684583	Nut
9	2	768527	Capscrew, M8x1,25x50-8.8
10	2	6287	Lockwasher
11	1	684584	Tube
12	2	604511	Fitting, 6-6
13	1	211970	Hose
14	1	611302	Fitting, 6

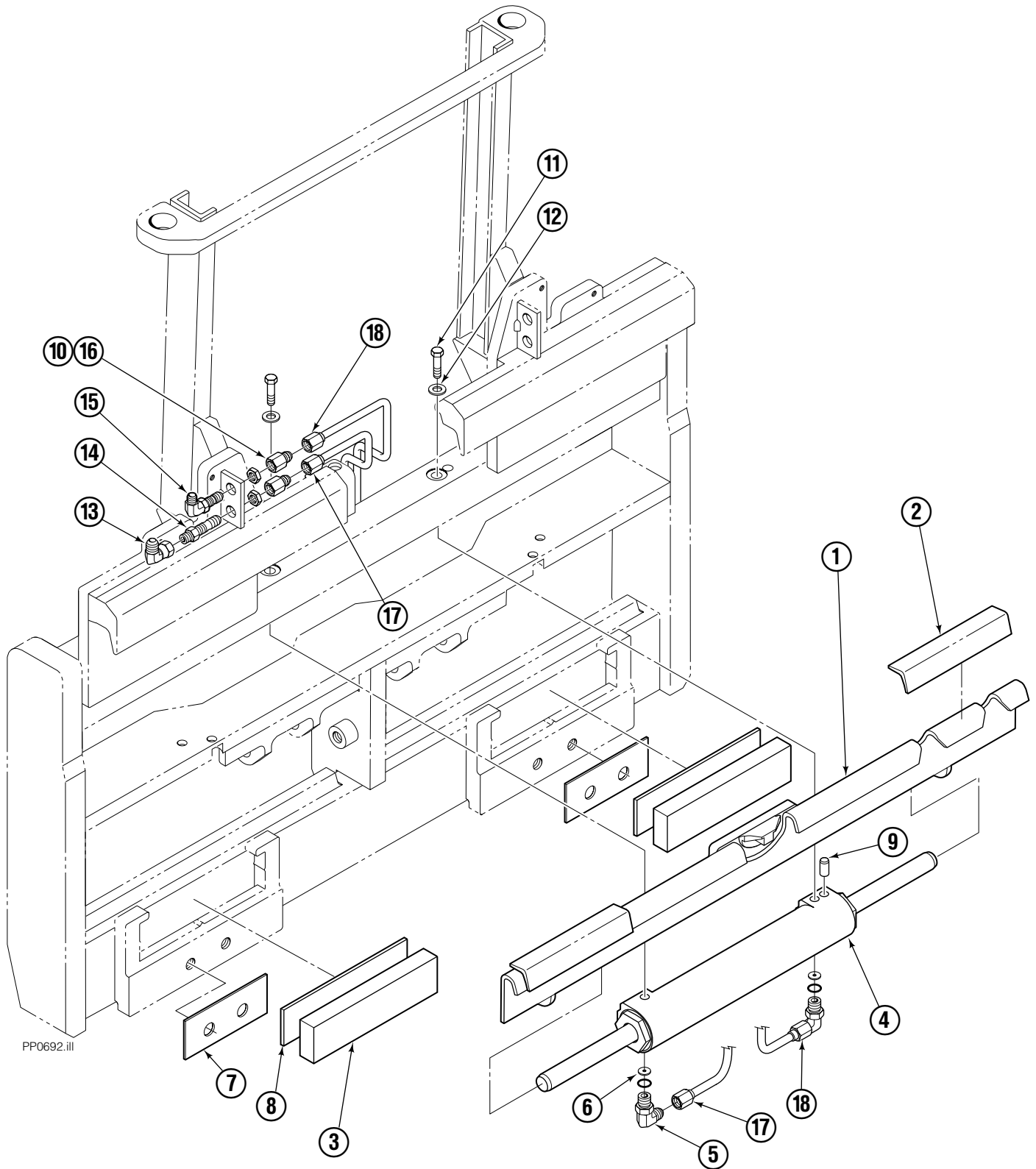
■ See Valve page for parts breakdown.

Hydraulic Stop Valve



REF	QTY	PART NO.	DESCRIPTION
		684572	Hydraulic Stop Valve
1	1	684575	Actuator
2	1	630041	Spring
3	1	684573	Body
4	1	684576	Shoulder Screw
5	1	615000	Back-up Ring
6	1	2696	O-Ring
7	1	669310	Spacer
8	1	684577	Plunger
9	1	671690	Valve Cartridge
10	1	663694	Fitting, 3

S/S Mounting Group ITA II



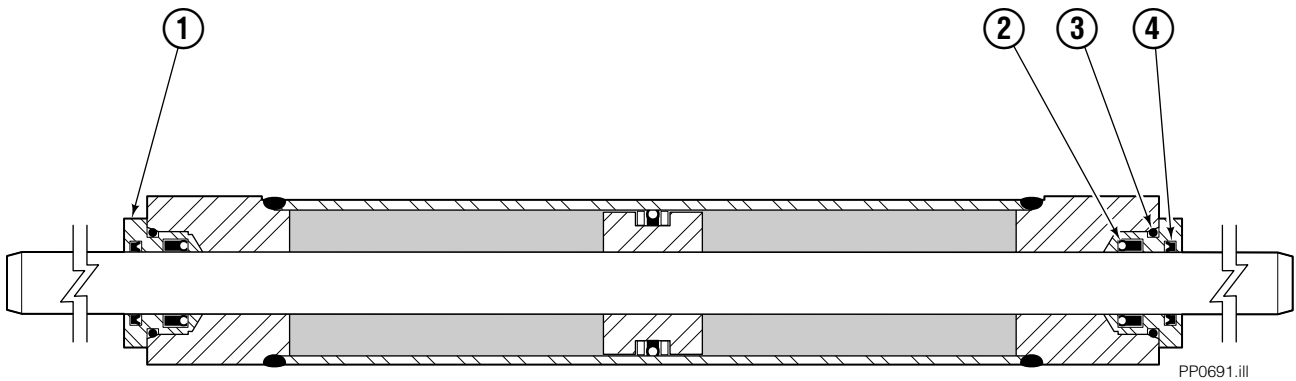
PP0692.ill

S/S Mounting Group ITA II

35E			
REF	QTY	PART NO.	DESCRIPTION
		6013645	Mounting Group
1	1	6013403	Anchor Bracket
2	2	671165	Upper Bearing
3	2	682814	Lower Bearing
4	1	6002591	Sideshift Cylinder ■
5	2	666984	Fitting, 4-6
6	2	675550	Restrictor
7	2	---	Spacer
8	2	---	Strip
9	1	6012865	Dowel Pin
10	2	2617	Fitting, 6-6
11	2	213774	Capscrew
12	2	6013090	Washer
13	1	2680	Fitting, 6-6
14	1	2375	Fitting, 6-6
15	1	2453	Fitting, 6-6
16	2	2669	Fitting, 6-4
17	1	6013406	Tube
18	1	6013405	Tube

■ See Sideshift Cylinder page for parts breakdown.

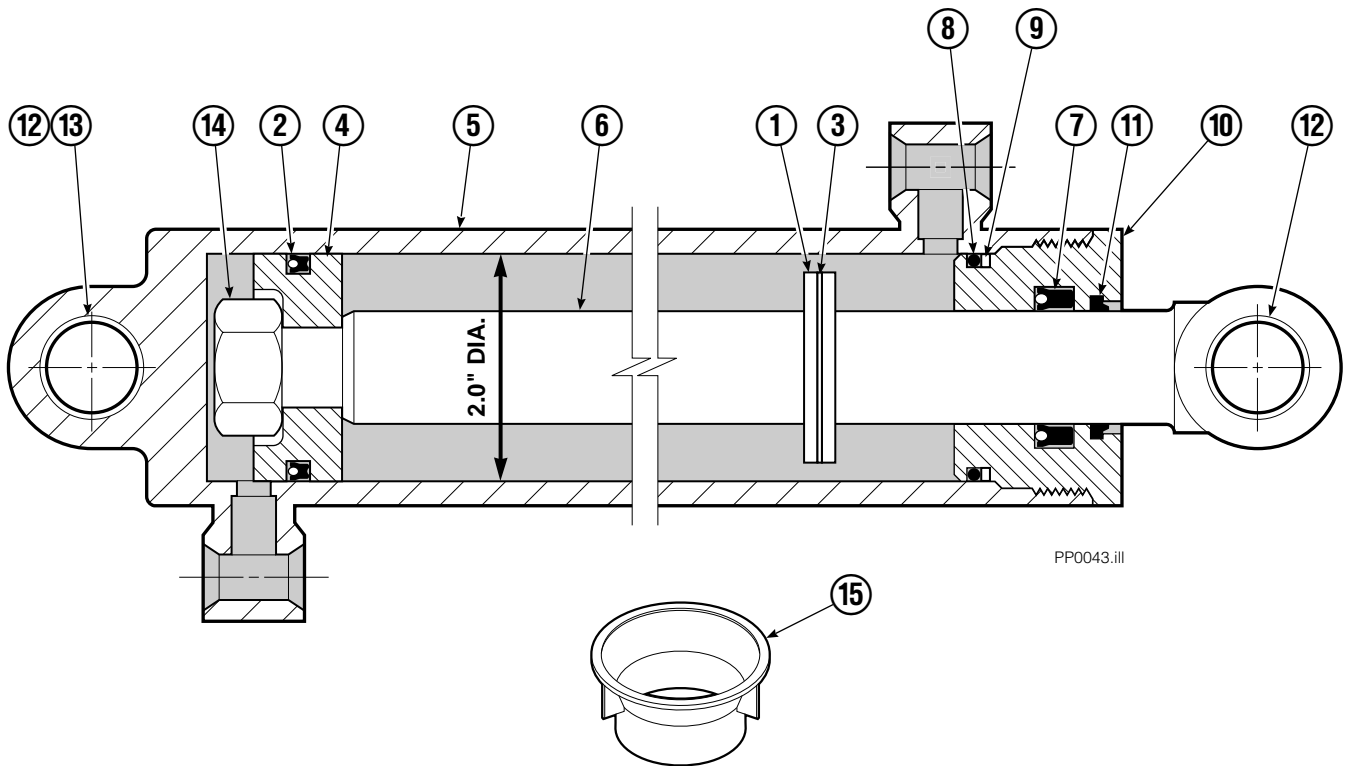
Sideshift Cylinder



PP0691.ill

35E			
REF	QTY	PART NO.	DESCRIPTION
		6002591	Sideshift Cylinder
1	2	218324	Threaded Retainer
2	2	562132	Rod Seal
3	2	415866	O-Ring
4	2	562131	Wiper

Cylinder



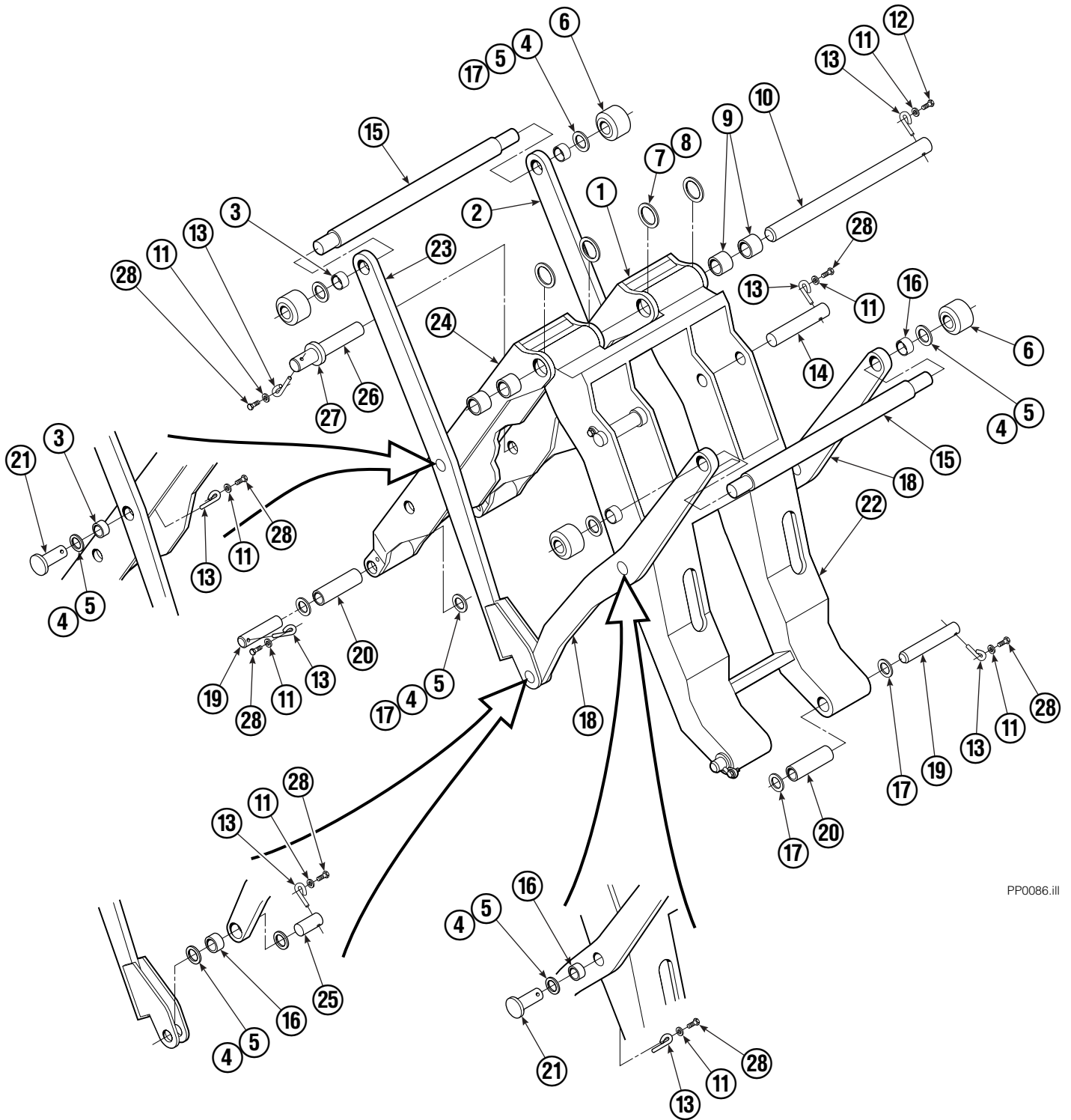
PP0043.ill

REF	QTY	PART NO.	DESCRIPTION
		582635	Cylinder Assembly
1	1	—	Spacer
2	1	562552	■ Seal
3	1	7348	Snap Ring
4	1	562334	Piston
5	1	562716	Shell
6	1	558626	Rod
7	1	559705	■ Seal
8	1	2785	■ O-Ring
9	1	615128	■ Back-Up Ring
10	1	559696	Retainer
11	1	636853	■ Wiper
12	4	559697	Bearing
13	1	559698	Spacer
14	1	678019	Nut
15	1	671047	■ Seal Loader Kit

■ Included in Service Kit 562338.

Reference: S-3424.

Mechanism Group



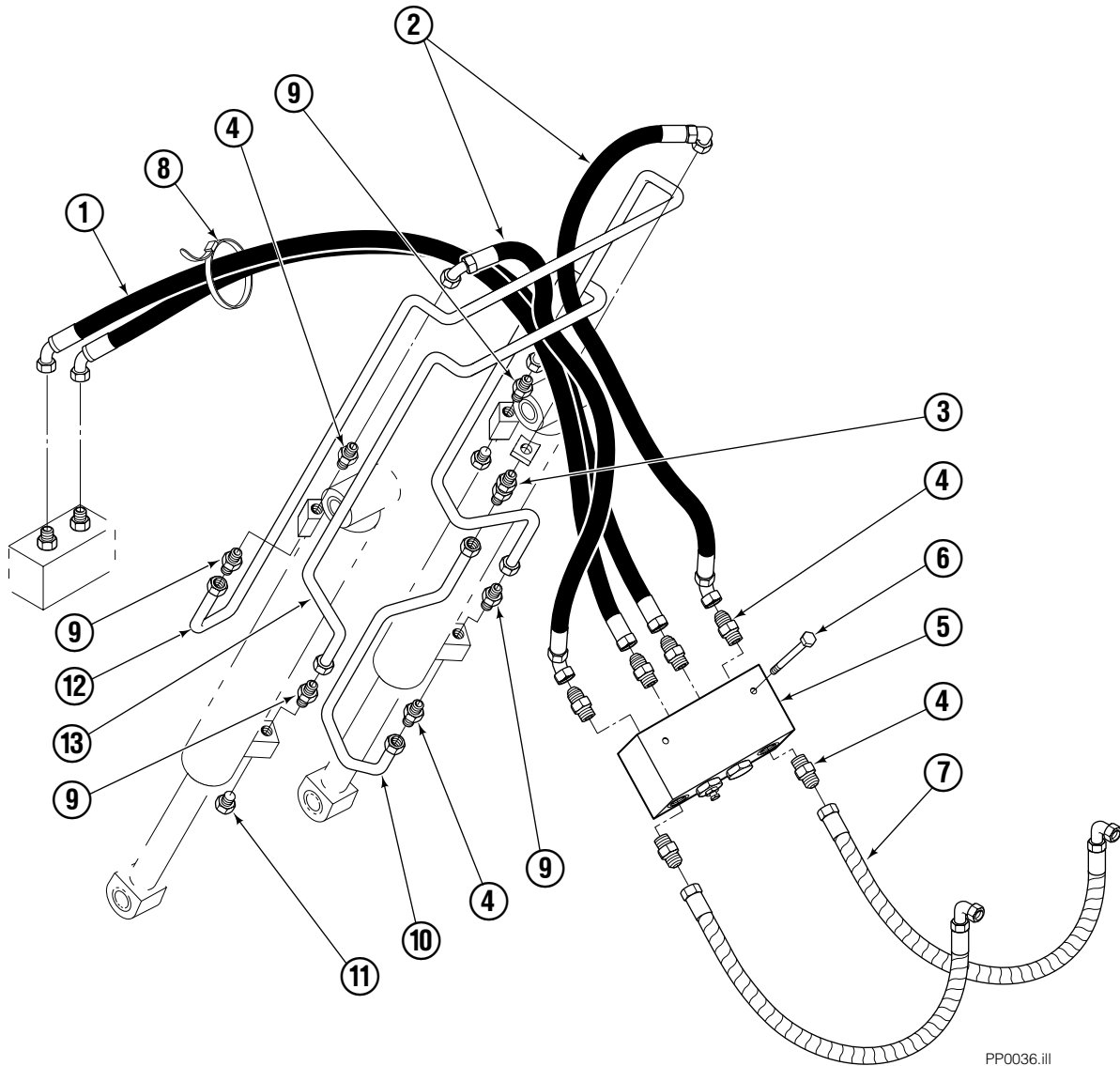
PP0086.ill

Mechanism Group

35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		204645	Mechanism Group (hydraulic stop)
1	1	204691	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	2	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	204689	Arm-Inner Primary (hydraulic stop)
23	1	204693	Arm-Secondary Outer L. H.
24	1	204690	Arm-Inner Secondary L. H.
25	2	204696	Pin-Outer
26	2	682823	Pin-Rod
27	2	683165	Spacer
28	13	767961	Capscrew

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

Hydraulic Group



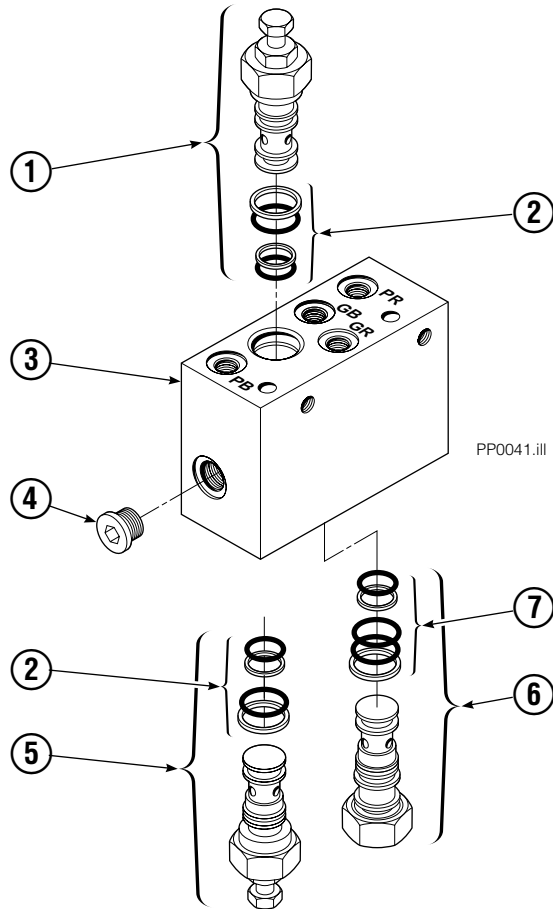
PP0036.ill

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.

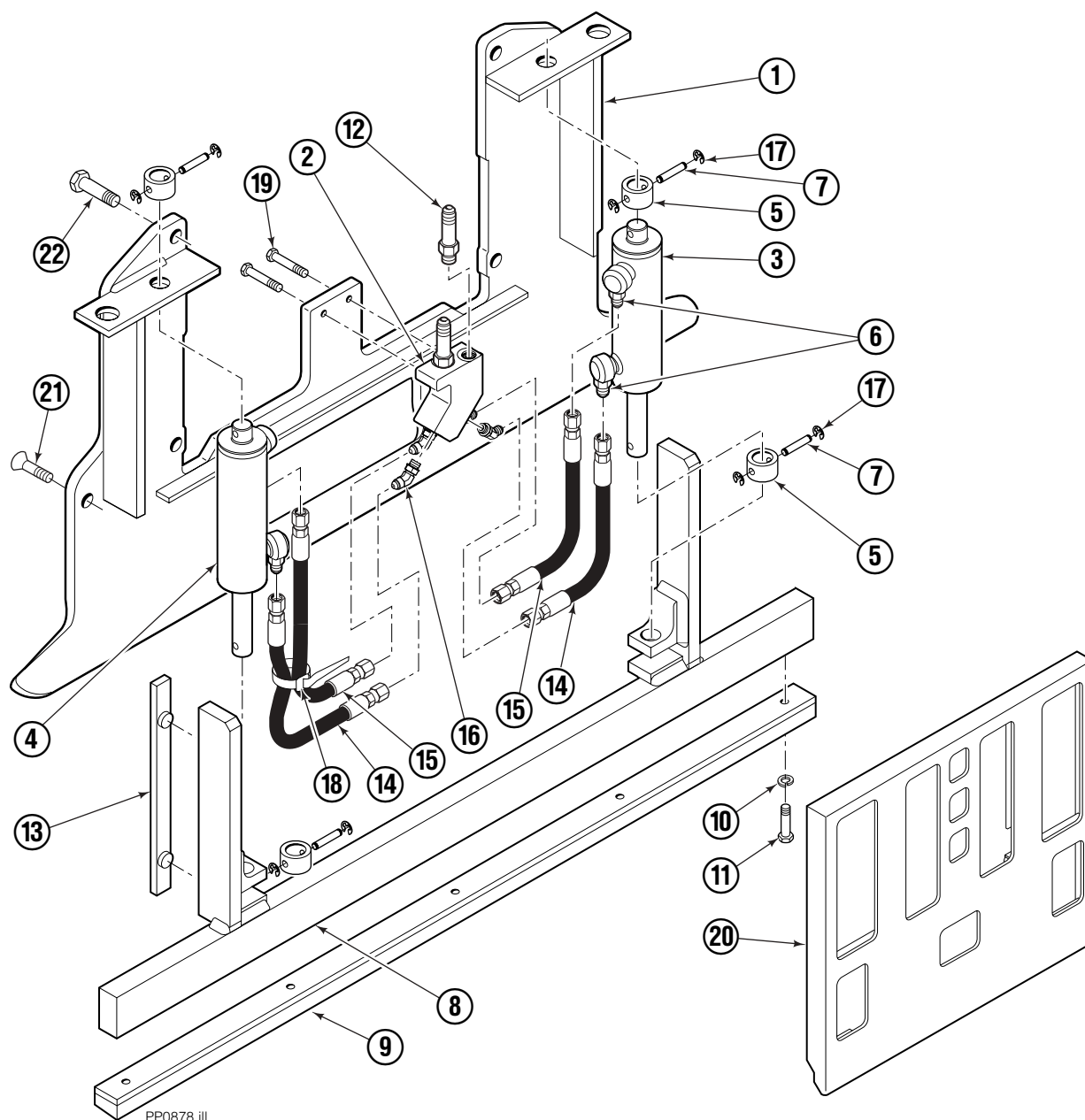
Valve

Load Push/Pull



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

Faceplate Group



PP0878.ill

35E

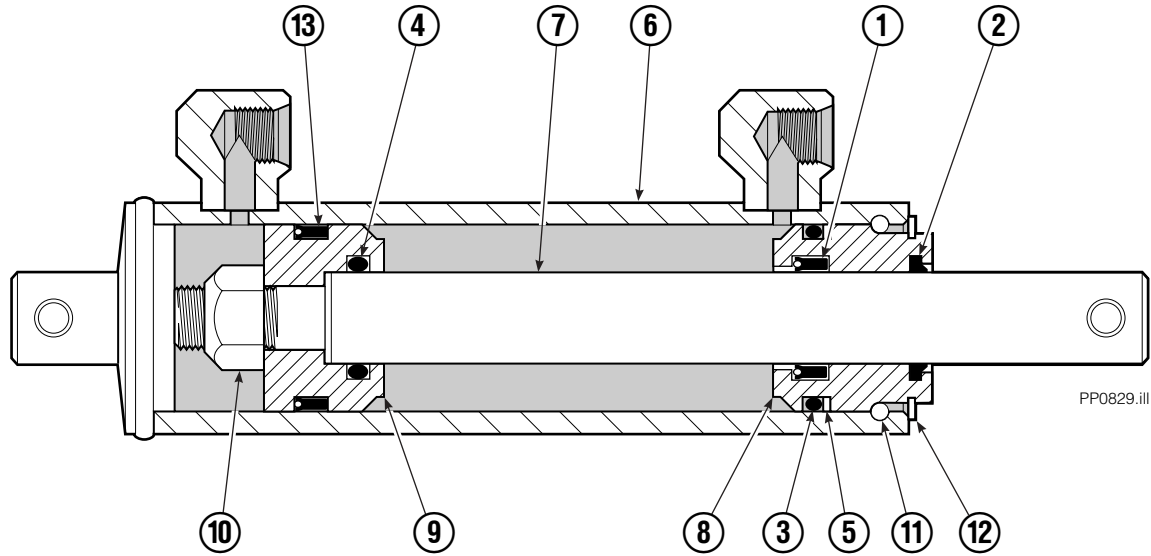
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6019141	Faceplate Group, 40 x 40 in. ■	11	5	787375	Capscrew, M8 x 20
		6019055	Gripper Jaw Assembly ●	12	2	605743	Fitting, 6-6
1	1	206396	Gripper Jaw	13	2	686573	Bearing
2	1	6002134	Valve	14	2	6002138	Hose, 315 mm
3	1	6020444	Gripper Cylinder, LH ◆	15	2	6002139	Hose, 450 mm
4	1	6020443	Gripper Cylinder, RH ◆	16	4	617918	Fitting, 4-4
5	4	6020462	Collar	17	8	669894	Retaining Ring
6	4	617915	Fitting, 4-4	18	4	684956	Wire Tie
7	4	6014089	Pin	19	2	787373	Capscrew, M8 x 20
8	1	6002135	Gripper Bar	20	1	6002170	Faceplate, 40 x 40 in. ■
9	1	672712	Gripper Pad	21	2	768714	Capscrew, M16 x 60
10	5	680253	Lockwasher, M8	22	4	225346	Capscrew, M16 x 60

■ Width x height.

◆ See Gripper Cylinder page for parts breakdown.

● Includes items 1-19.

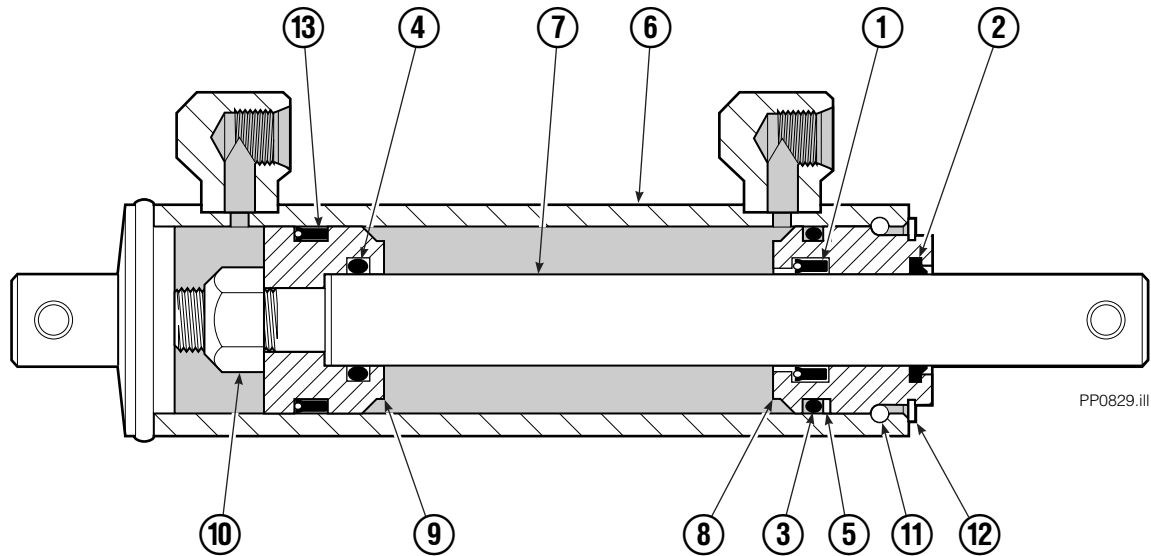
Gripper Cylinder Left Hand



REF	QTY	PART NO.	DESCRIPTION
		6020444	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	6020453	Shell
7	1	6020461	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

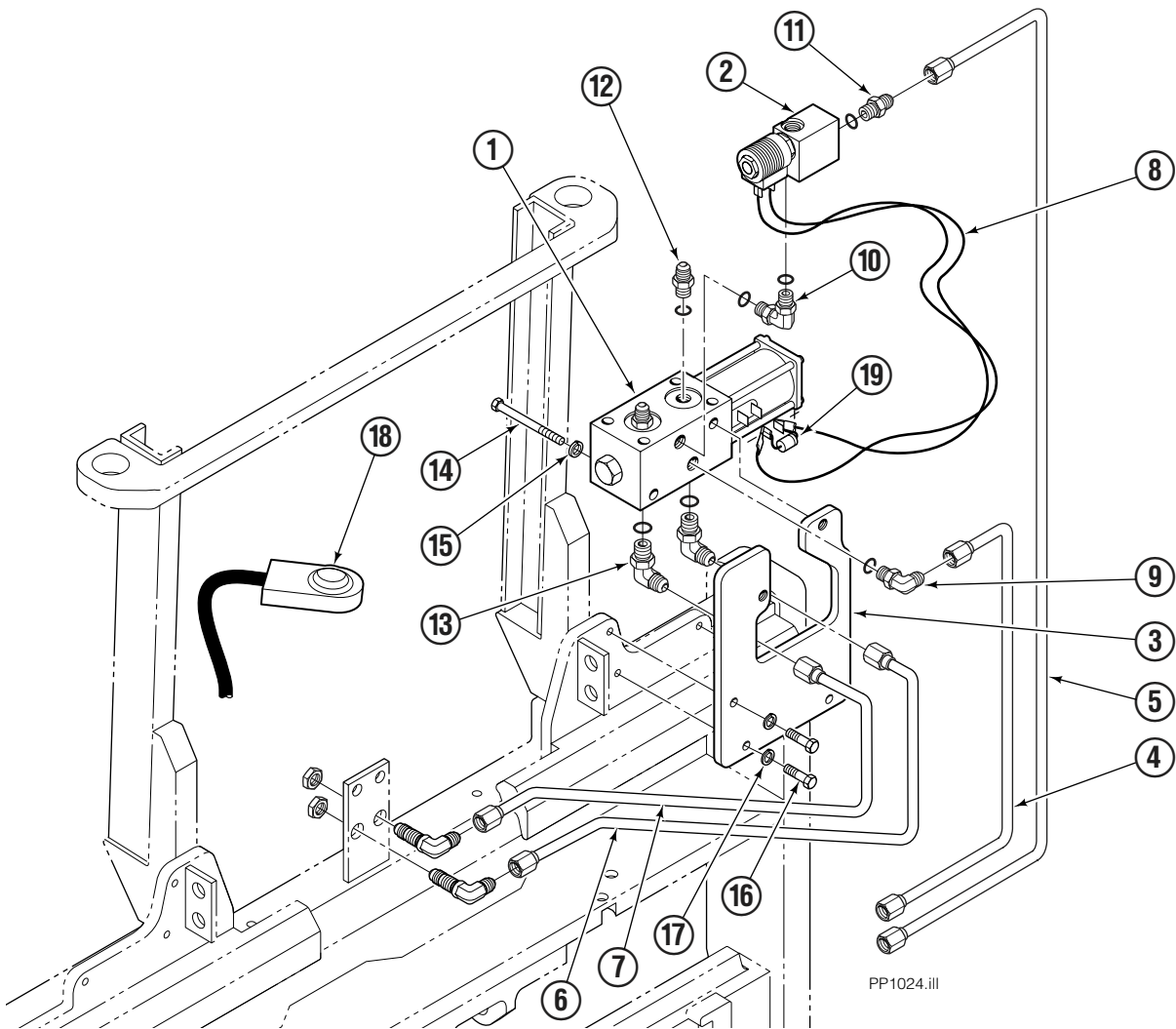


PP0829.iii

REF	QTY	PART NO.	DESCRIPTION
		6020443	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	6020452	Shell
7	1	6020461	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.

Solenoid Adaption Group



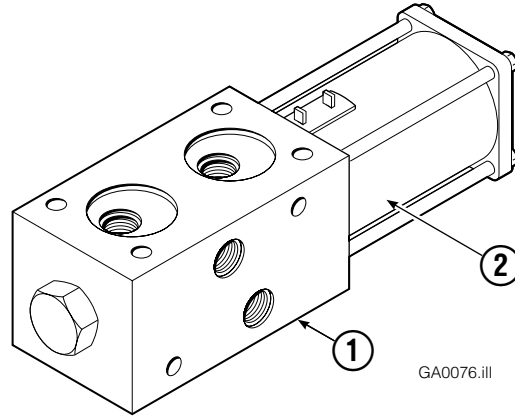
PP1024.iii

35E			
REF	QTY	PART NO.	DESCRIPTION
		6034231	Solenoid Adaption Group
1	1	■	Solenoid Valve
2	1	■	Solenoid Valve
3	1	3008565	Plate
4	1	3008566	Tube
5	1	3008567	Tube
6	1	3008657	Tube
7	1	3008658	Tube
8	2	204977	Wire Assembly
9	1	666984	Fitting, 4-6
10	1	619235	Fitting, 6-6
11	1	617915	Fitting, 4-4
12	2	604511	Fitting, 6-6
13	2	601676	Fitting, 6-6
14	2	768520	Capscrew
15	2	6201	Washer
16	3	765329	Capscrew
17	3	6287	Lockwasher
18	1	6014880	▲ Operator Control Switch
19	1	669432	Diode Assembly

■ See Solenoid Valve page for parts breakdown.

▲ See Operator Control Switch Assembly page for parts breakdown.

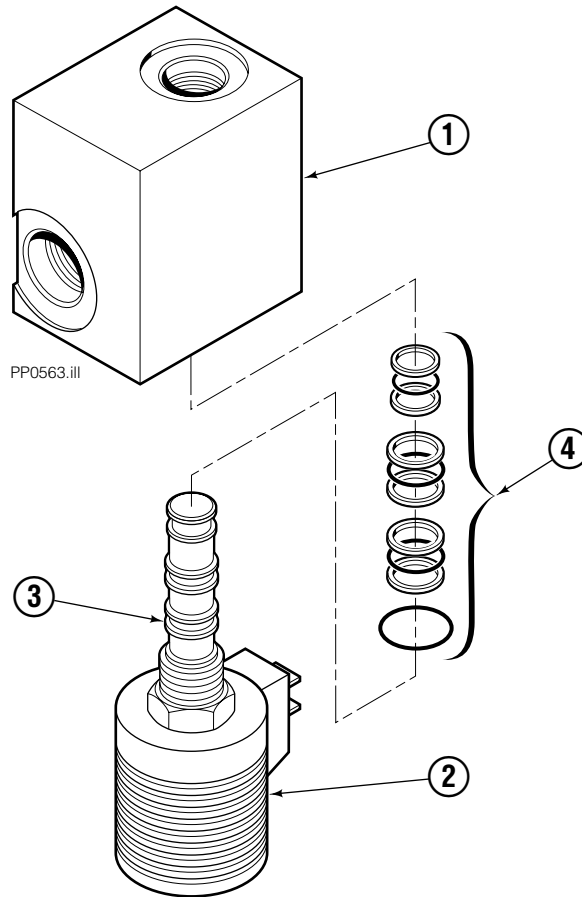
Solenoid Valves



Racine

REF	QTY	PART NO.	DESCRIPTION
1	1	614092	Solenoid Valve – 36V
2	1	665046	Coil – 36V
		685012	Service Kit

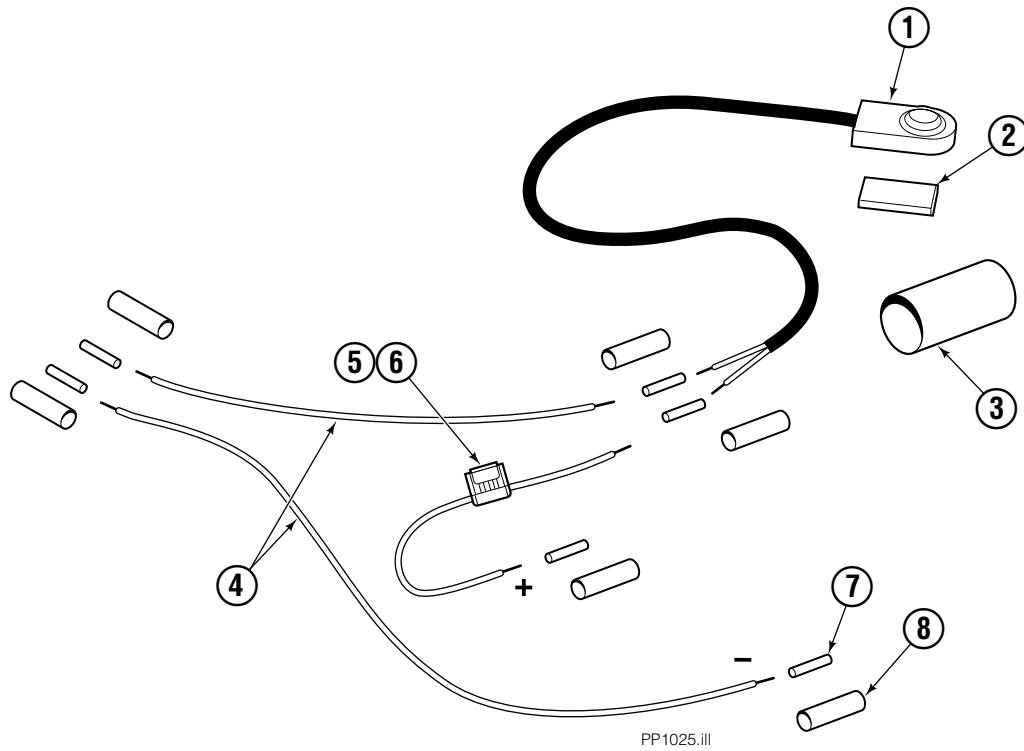
Solenoid Valves



REF	QTY	PART NO.	DESCRIPTION
		6009148	Solenoid Valve Assy
1	1	204978	Valve Body
2	1	6002106	Coil - 36V
3	1	6002084	Valve Cartridge
4	1	6009164	Service Kit

Reference: S-21076.

Operator Control Switch Assembly



REF	QTY	PART NO.	DESCRIPTION
		6014880	Solenoid Adaption Group
1	1	6009928	Switch
2	1	6014987	Double Sided Tape
3	1	6001641	Shrink Tube
4	1	6014990	Wire - 18 AWG
5	1	228154	Fuse - 7.5 Amp
6	1	219402	Fuse Holder
7	6	6014986	Connector
8	6	6016648	Shrink Tube

Do you have questions you need answered right now? Call your nearest Cascade Parts Department. Visit us online at www.cascorp.com

Cascade Corporation

2501 Sheridan Avenue
Springfield, OH 45505
Tel: 888-CASCADE (227-2233)
FAX: 888-329-0234

Cascade Canada Inc.

5570 Timberlea Blvd.
Mississauga, Ontario
Canada L4W-4M6
Tel: 905-629-7777
FAX: 905-629-7785

Cascade GmbH

Dahlener Strasse 570
41239 Mönchengladbach
Germany
Tel: 02166-68230
FAX: 02166-682323

Cascade Finland

A. Petreliuksenkatu 3
01370 Vantaa
Finland
Tel: 09-8361925
FAX: 09-8361935

**Cascade N.V.
Benelux Sales and Service**

Damsluisweg 56
PO Box 3009
1300 El Almere
The Netherlands
Tel: 036-5492950
FAX: 036-5492974

Cascade (UK) Ltd.

Unit 5, Eden Close
Hellaby Lane Ind. Estate
Heellaby,
Rotherham S66 8RW
England
Tel: 01709-704500
FAX: 01709-704501

**Sales Scotland
Macade Systems Ltd.**

18 Melford Road
Righead Ind. Estate
Bellshill ML4 3LR
Scotland
Tel: 01698-845777
FAX: 01698-845888

Cascade (Africa) Pty. Ltd.

PO Box 625, Isando 1600
60A Steel Road
Sparton, Kempton Park
South Africa
Tel: 975-9240
FAX: 394-1147

Cascade Scandinavia AB

Hammarvägen 10
PO Box 124
S-56723 Vaggeryd
Sweden
Tel: 039-336950
FAX: 039-336959

**Cascade France
S.A.R.L. MHP**

1D Rue De Charaintru
BP 18,
91360 Epinay-Sur-Orge
France
Tel: 01-6454-7500
FAX: 01-6454-7501

Cascade Hispania S.A.

Carrer 5, Sector C
Zona Franca Duanera
Poligono de la Zona Franca
08040 Barcelona
Spain
Tel: 93-264-07-30
FAX: 93-264-07-31

Sales Italy

Via Ponzano 11
50047 Prato
Italy
Tel: 0574-571726
FAX: 0574-571726
Mobile Phone: 0337-673029

**Sales Portugal FAG
Santos Lda**

Rua do Mercado
Lte 6, Loja 2-Tires
2785-630
S. Domingos De Rana
Portugal
Tel: 214-448-083
FAX: 214-458-098

**Sales Switzerland
Fahrzeugbedarf**

8810, Horgen
Switzerland
Tel: 01-7279797
FAX: 01-7279798

Sales Poland

Targowa 35/61
03-728 Warszawa
Tel: 022-619 00 49
FAX: 022-619 00 49
Mobile Phone: 0501-27 29 55

Sales Russia

EMCG Material Handling
Equipment
Moscow
Tel: 095-795-2400
FAX: 095-795-2475
Email: emcg@dol.ru

Cascade Japan Ltd.

5-5-41,
Torikai Kami
Settsu, Osaka
Japan, 566
Tel: 81-726-53-3490
FAX: 81-726-53-3497

Cascade Korea

108B Namdong Ind. Complex
658-3 Gojan-Dong
Namdong-Gu
Inchon, 405-310 Korea
Tel: 82-32-821-2051
FAX: 82-32-821-2055

Cascade Australia

1445 Ipswich Road
Rocklea, QLD 4106
Australia
Tel: 1-800227-223
FAX: (07) 3373-7333

Cascade New Zealand

15 Ra Ora Drive
East Tamaki, Auckland
New Zealand
Tel: 9-273-9136
FAX: 9-273-9137

Cascade-Xiamen

No. 668 Yangguang Rd.
Xinyang Industrial Zone
Haicang, Xiamen City
Fujian Province
P.R. China 361026
Tel: 86-592-651-2500
FAX: 86-592-651-2571

**Cascade (Singapore)
Trading Co.**

Four Seasons Park
Autumn Block - Apt. 1802
12 Cuscaden Walk
Singapore
Tel: 65-834-1935
FAX: 65-834-1936

