



# Parts Manual

---

Model Push Pull

Serial Number 45E-PPB-280

---

**cascade**<sup>®</sup>  
**corporation**

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

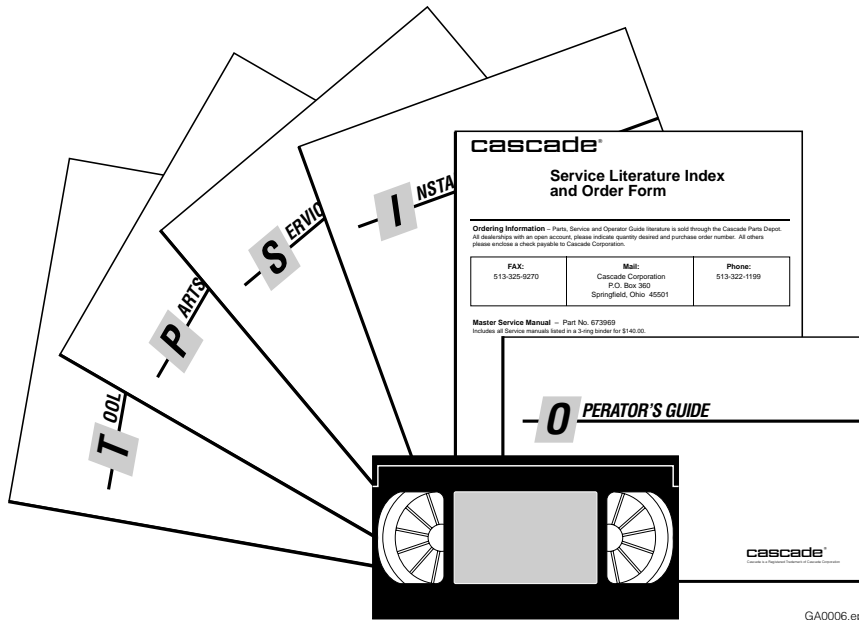
**To Order Parts call:** 888-227-2233, Fax: 888-329-0234

**OR**

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

**Internet:** [www.cascorp.com](http://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)

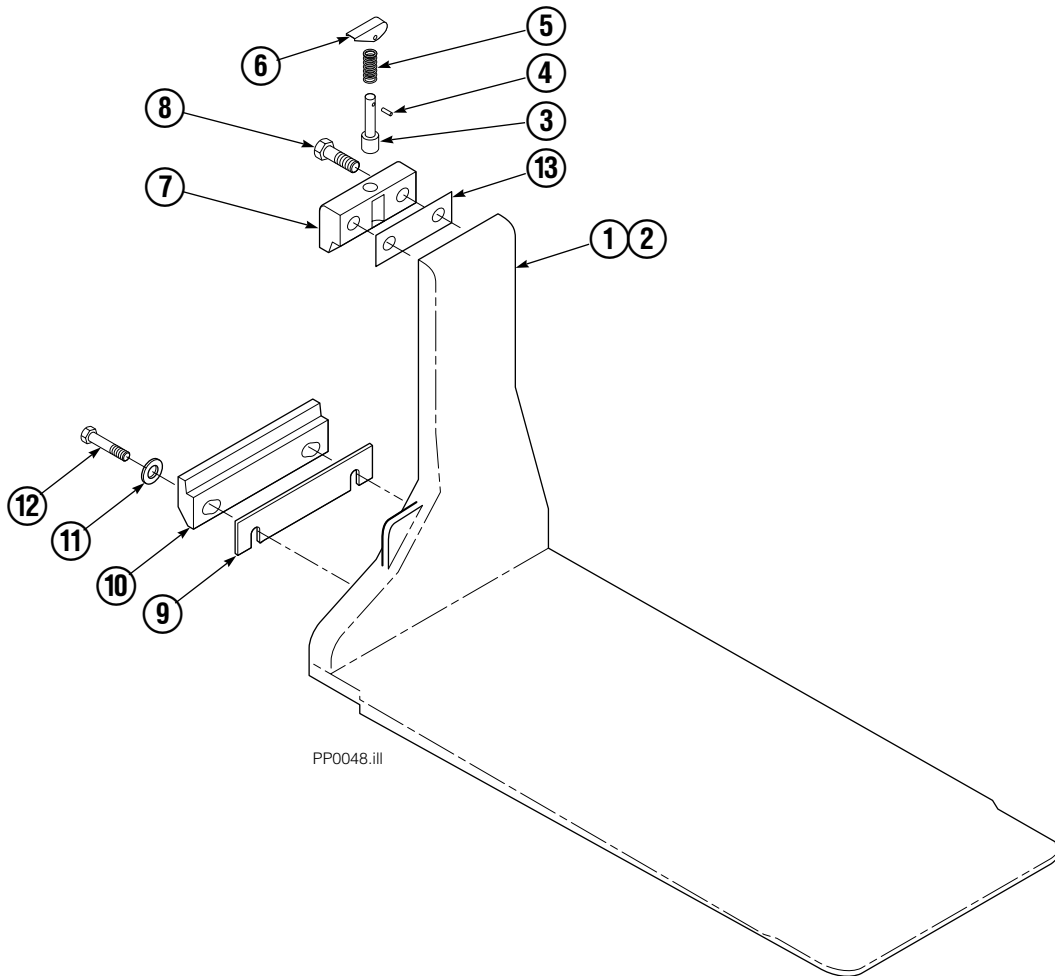


Part No. 679059  
(1 Place if equipped with Quick Change Hooks)



PP0060.iii

# Platens



PP0048.ill

**Note:** Usable platen lengths are determined by measuring from the faceplate (fully retracted position) to the platen tip or total platen length minus 4 1/2".

REF	QTY	PART NO.	DESCRIPTION
		6007432	Platen Group
1	1	6007433	Platen L. H.
2	1	6007434	Platen R. H.
3	2	622907	Pin
4	2	8007	Rivet
5	2	622908	Spring
6	2	622897	Handle
7	2	688386	Upper Hook Assembly ■
8	4	685677	Capscrew
9	★	682858	Shim
10	2	682851	Lower Hook
11	4	667225	Washer
12	4	209016	Capscrew
13	●	688379	Shim

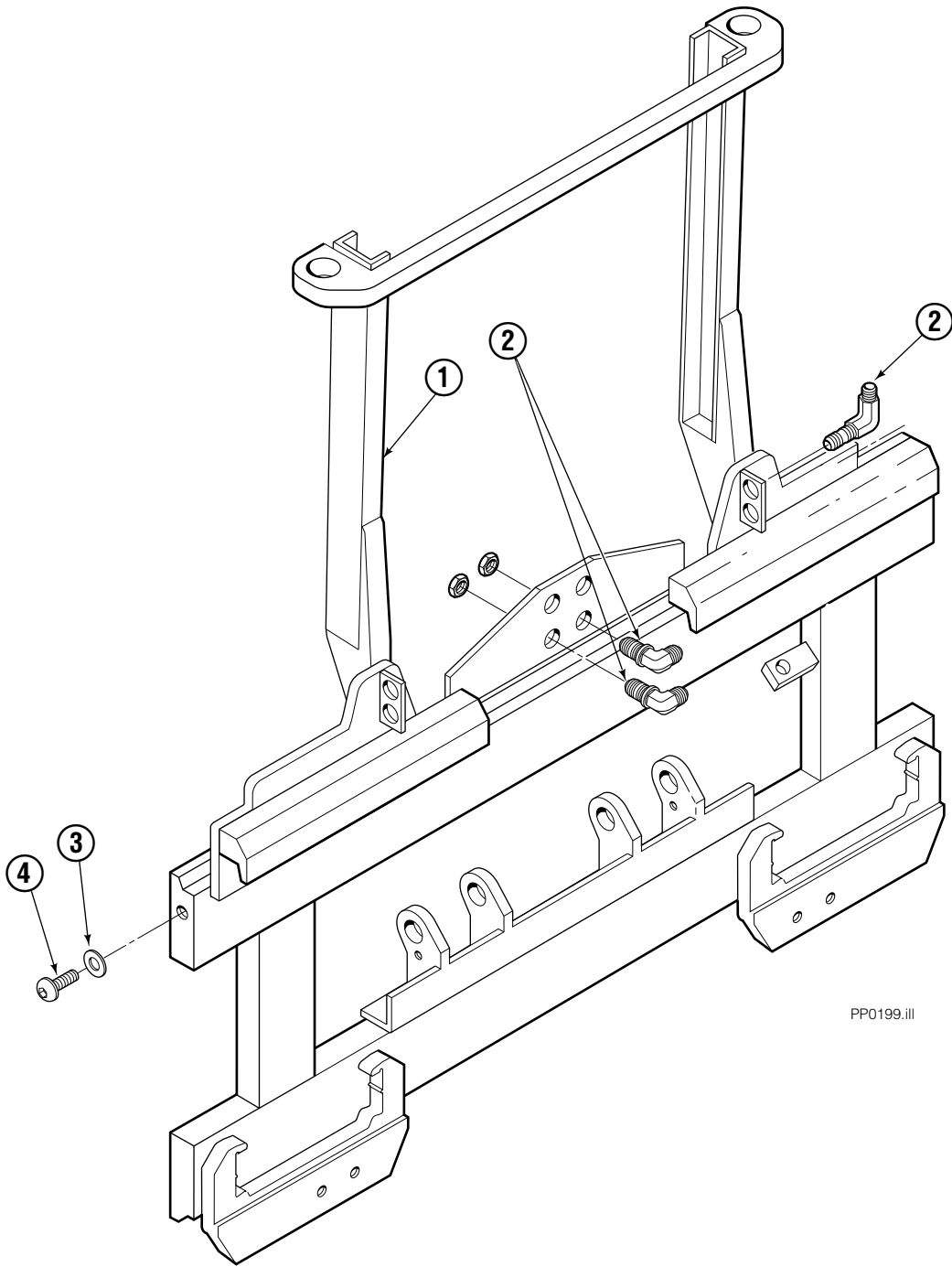
★ As required.

● As required (2 maximum)

■ Items 3 through 6 are included in Upper Hook Assembly 688386.

Ref: S-3408

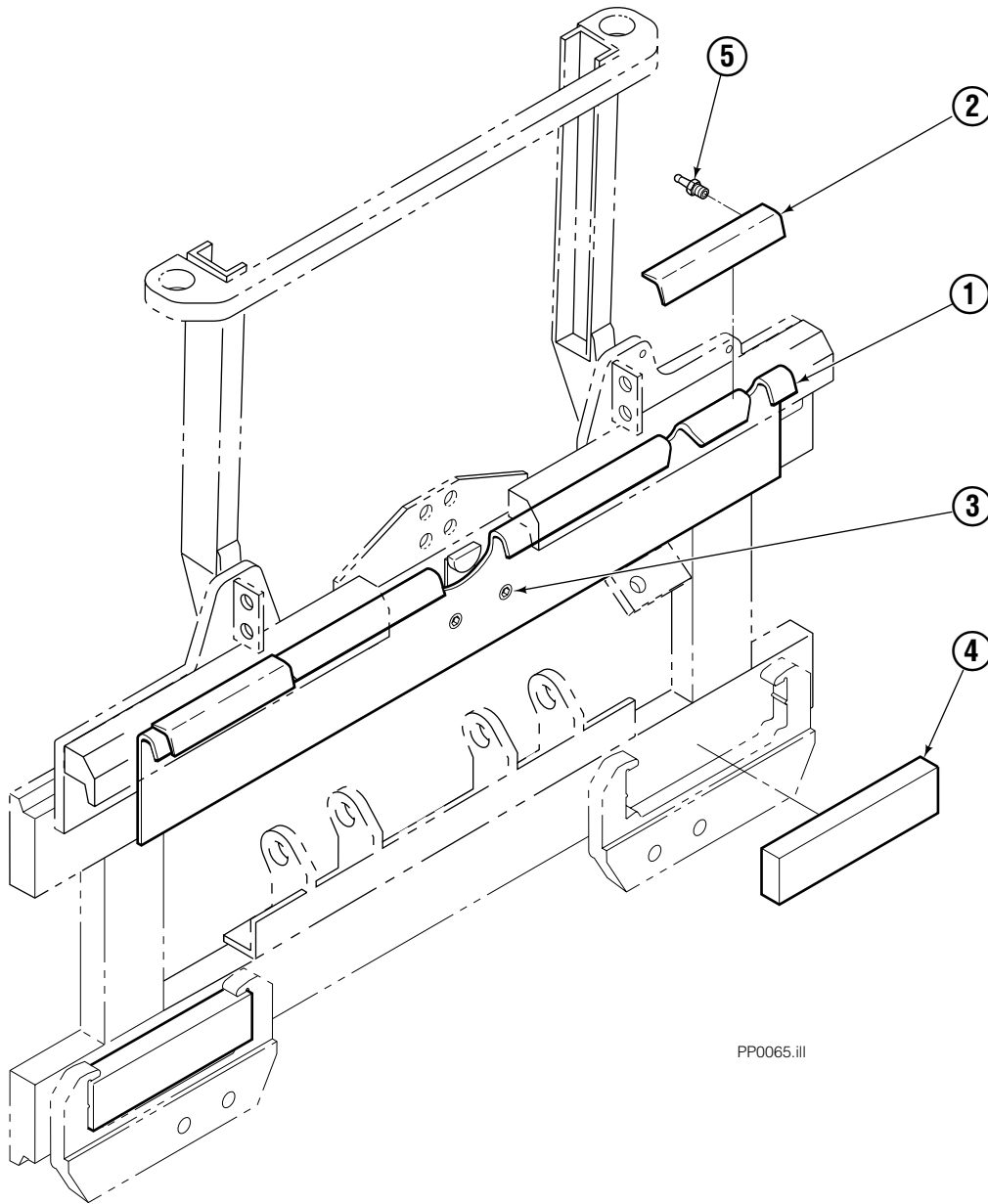
# Frame Group ITA II



PP0199.iii

35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		393478	Frame Group
1	1	204651	Frame
2	3	2453	Fitting, 6-6
3	2	683001	Washer
4	2	683142	Capscrew

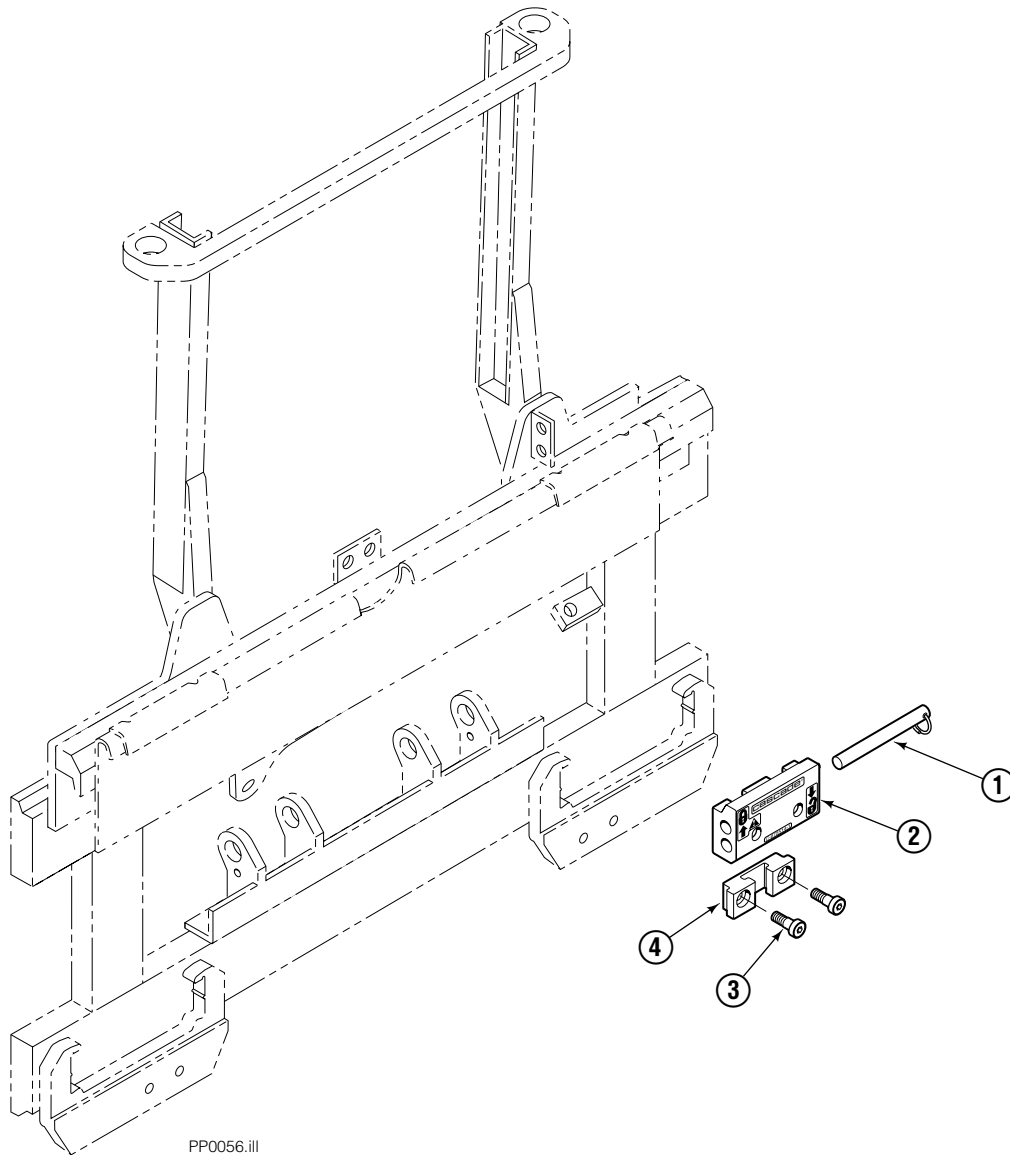
# Non S/S Mounting Group ITA II



PP0065.III

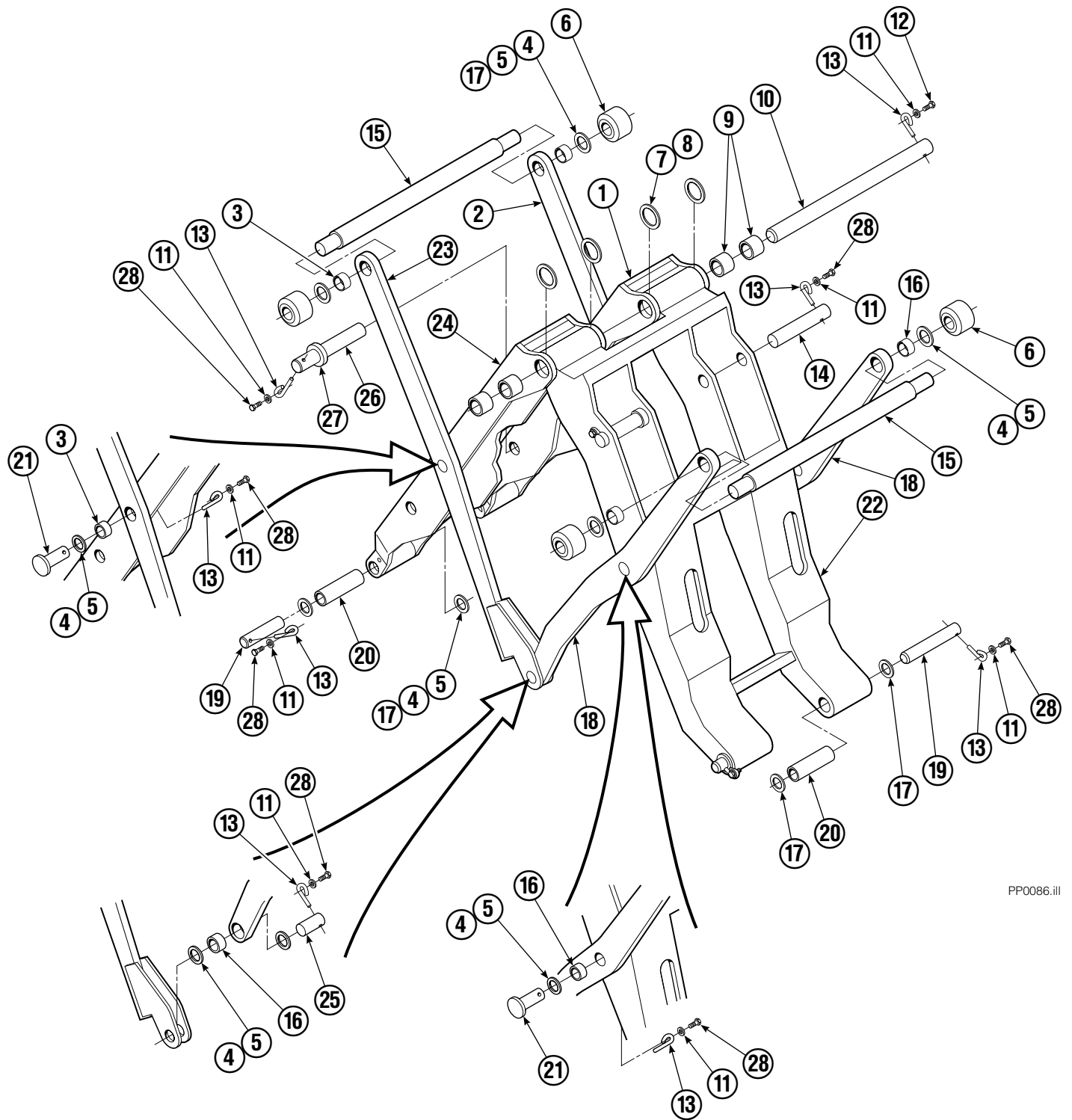
35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		682832	Mounting Group-39" Wide
1	1	682550	Anchor Bracket-39" Wide
2	2	671165	Bearing Segment
3	2	768759	Setscrew
4	2	682814	Bearing
5	4	7403	Grease Fitting

# 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

# Mechanism Group



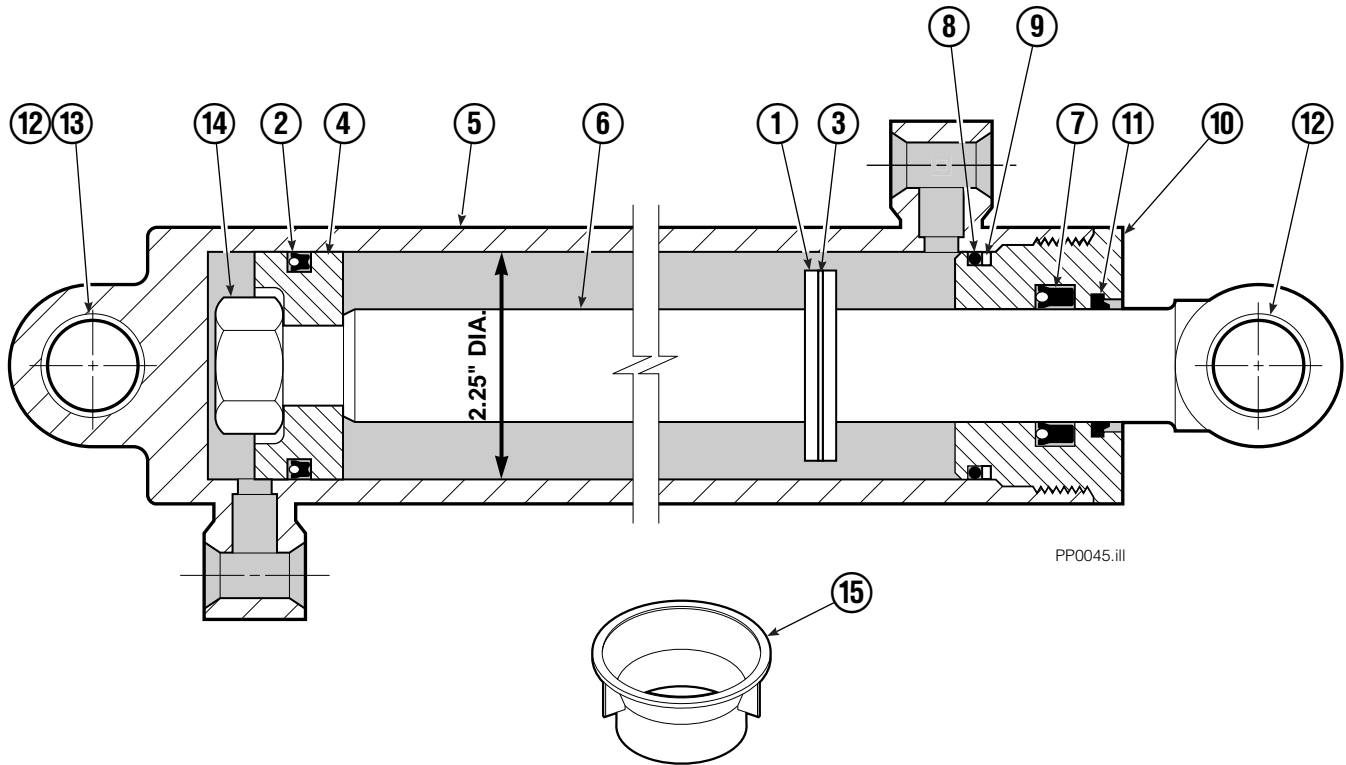
PP0086.ill

# Mechanism Group

<b>35E/45E</b>			
<b>REF</b>	<b>QTY</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
		204644	Mechanism Group
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	204604	Arm-Inner Primary
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.

# Cylinder

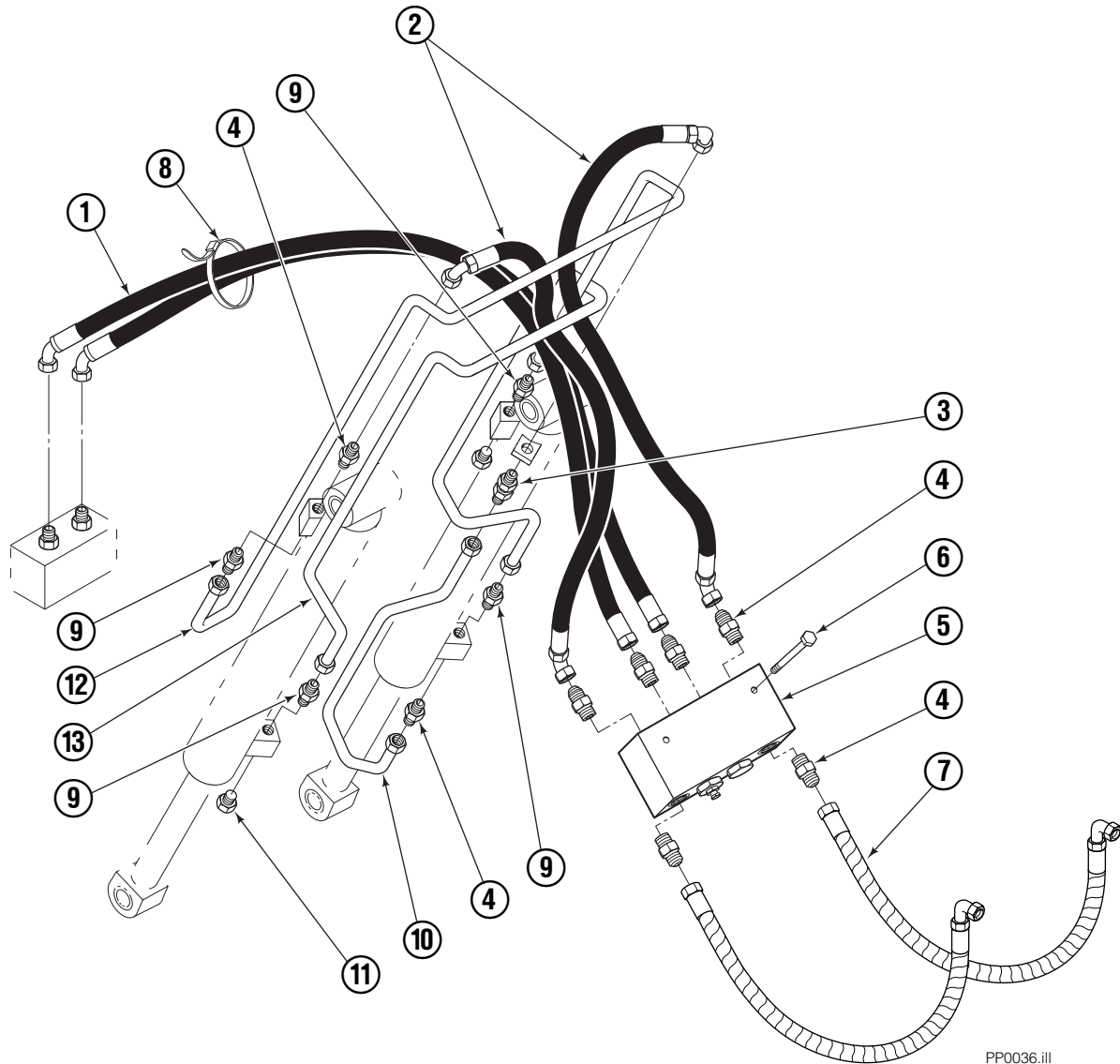


REF	QTY	PART NO.	DESCRIPTION
		582636	Cylinder Assembly
1	1	-	Spacer
2	1	564159	Seal ■
3	1	7348	Snap Ring
4	1	564161	Piston
5	1	562717	Shell
6	1	558626	Rod
7	1	662448	Seal ■
8	1	2787	O-Ring ■
9	1	615130	Back-Up Ring ■
10	1	558628	Retainer
11	1	636853	Wiper ■
12	4	559697	Bearing
13	1	559698	Spacer
14	1	678019	Nut
15	1	671048	Seal Loader Kit ■

■ Included in Service Kit 562339.

Ref: S-3424

# Hydraulic Group



PP0036.ill

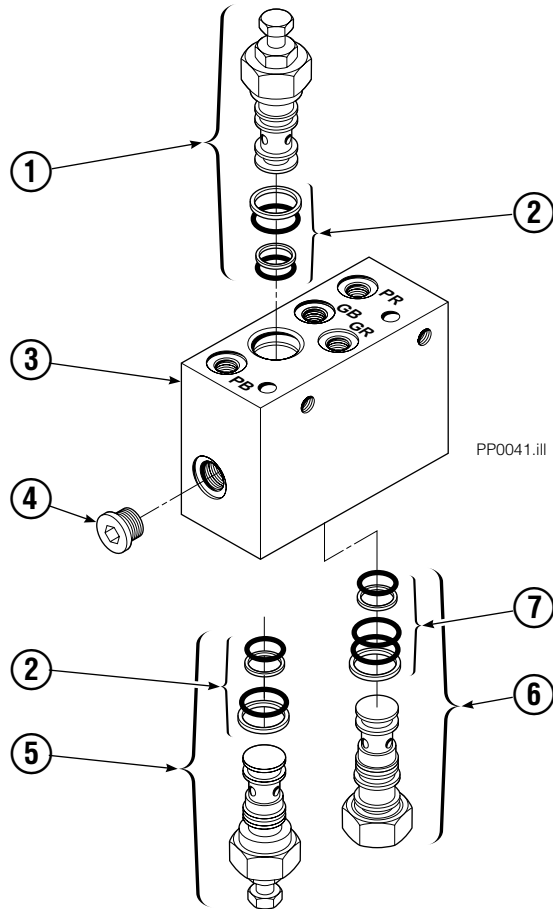
## 35E/45E

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.

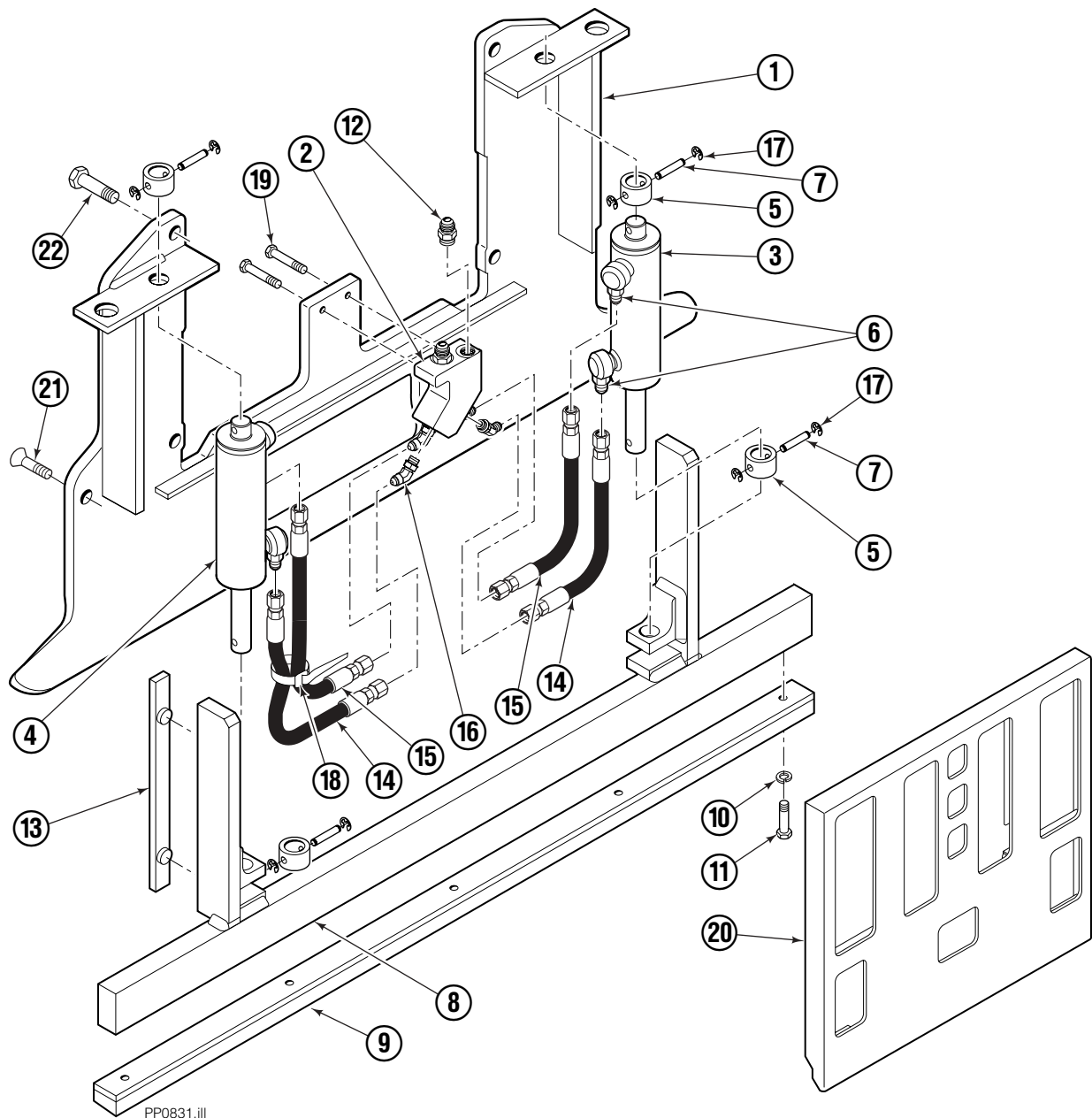
# Valve

## 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



PP0831.ill

## 45E

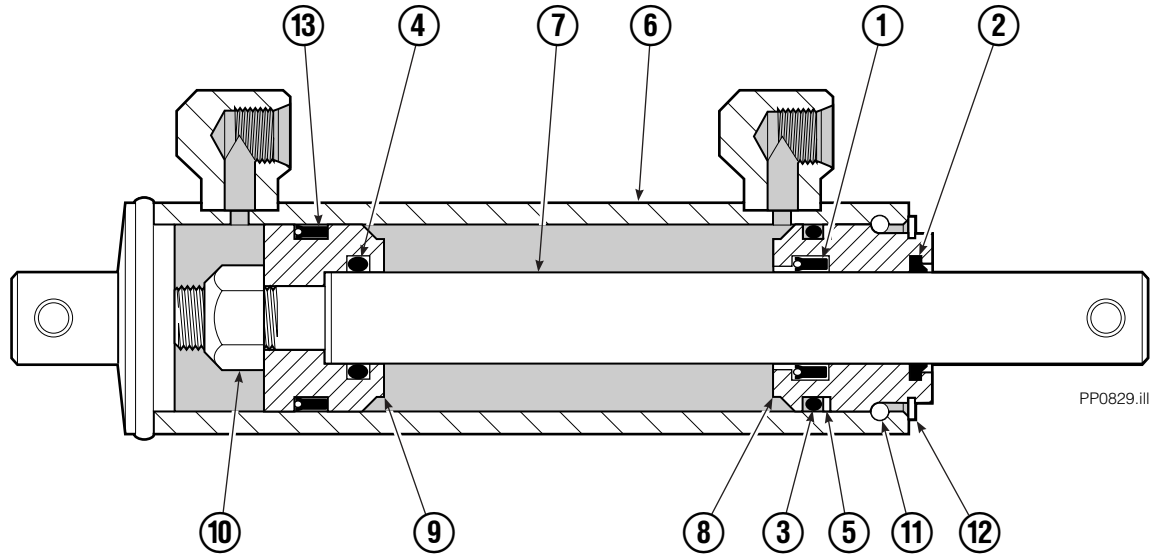
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6019140	Faceplate Group, 40 x 40 in. ■	11	5	787375	Capscrew, M8 x 20
		6020440	Gripper Jaw Assembly ●	12	2	604511	Fitting, 6-6
1	1	206396	Gripper Jaw	13	2	686573	Bearing
2	1	6002134	Valve	14	2	6002138	Hose, 315 mm
3	1	6020444	Gripper Cylinder, 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	6002142	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.

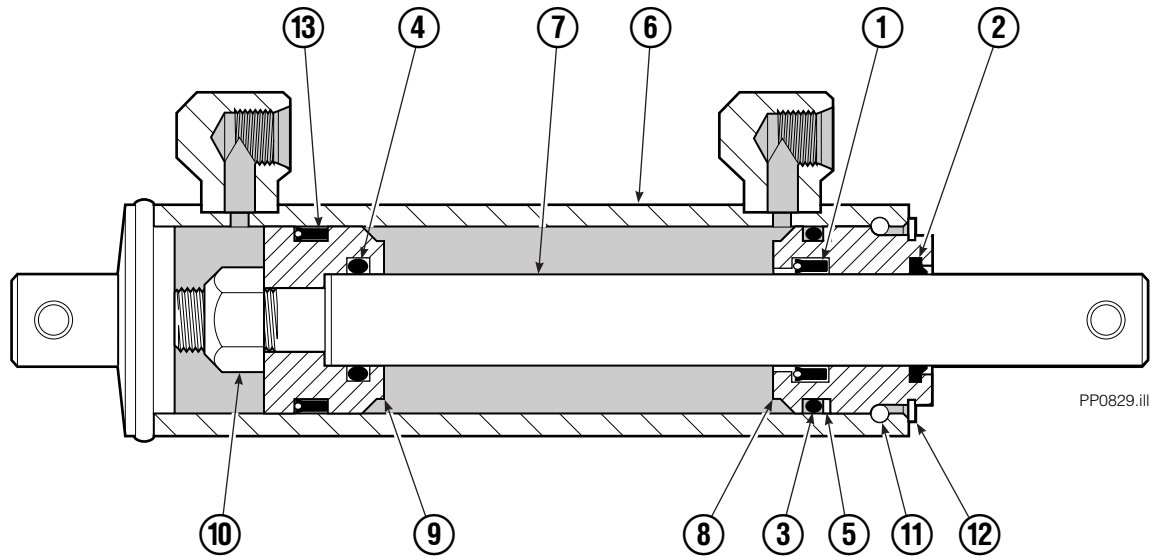
# Gripper Cylinder Left Hand



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



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.

**Do you have questions you need answered right now?** Call your nearest Cascade Parts Department. Visit us online at [www.cascorp.com](http://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**  
D-41199 Monchengladbach  
Klosterhofweg 52  
Germany  
Tel: 49-216-668230  
FAX: 49-216-6682323

**Cascade Finland**  
Albert Petreliuksenkatu 3  
01370 Vantaa  
Finland  
Tel: 358-9-836-1925  
FAX: 358-9-836-1935

**Cascade N.V.  
European Headquarters**  
P.O. Box 3009  
1300 El Almere  
Damluisweg 56  
1332 ED Almere  
The Netherlands  
Tel: 31-36-5492911  
FAX: 31-36-5492964

**Cascade N.V.  
Benelux Sales and Service**  
P.O. Box 3009  
1300 El Almere  
Damluisweg 56  
1332 ED Almere  
The Netherlands  
Tel: 31-36-5492950  
FAX: 31-36-5492974

**Cascade (UK) Ltd.**  
15, Orgreave Crescent  
Dore House Industrial Estate  
Handsworth  
Sheffield S13 9NQ  
England  
Tel: 742-697524  
FAX: 742-695121

**Cascade Scandinavia AB**  
Box 124  
Hammarvägen 10  
567 23 Vaggeryd  
Sweden  
Tel: 42-0-393-36950  
FAX: 46-0-393-36959

**Cascade Norway**  
Østerliveien 37A  
1153 Oslo  
Norway  
Tel: 47-22-743160  
FAX: 47-22-743157

**Cascade France S.A.R.L.**  
1D Rue De Charaintru  
BP 18, 91360 Epinay-Sur-Orge  
Morangis Cedex, France  
Tel: 33-1- 64547500  
FAX: 33-1-64547501

**Cascade Hispania S.A.**  
Carrer 5 Sector C  
Zona Franca Duanera  
Poligono de la Zon Franca  
08040 Barcelona, Spain  
Office No. 256  
Tel: 93-264-07-30  
FAX: 93-264-07-31

**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 (Africa) Pty. Ltd.**  
P.O. Box 625, Isando 1600  
60A Steel Road  
Sparton, Kempton Park  
South Africa  
Tel: 27-11-975-9240  
FAX: 27-11-394-1147

**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

