



# Parts Manual

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Model Sheet-Sav™ Push/Pull

Catalog Number 45E-PAS-304

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**cascade**®  
**corporation**

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

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

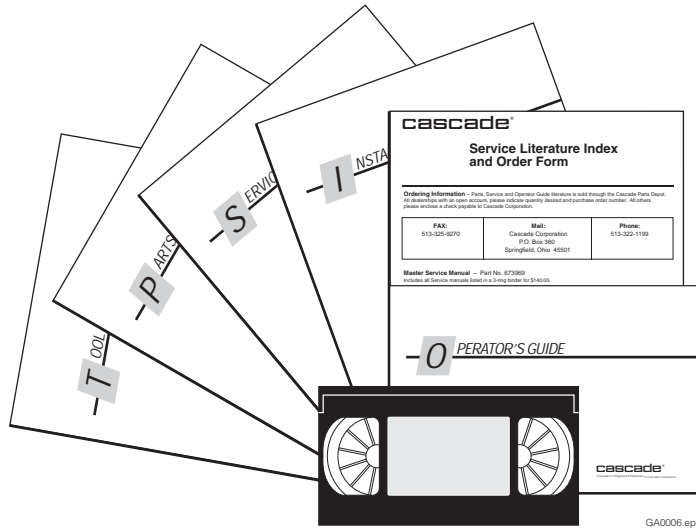
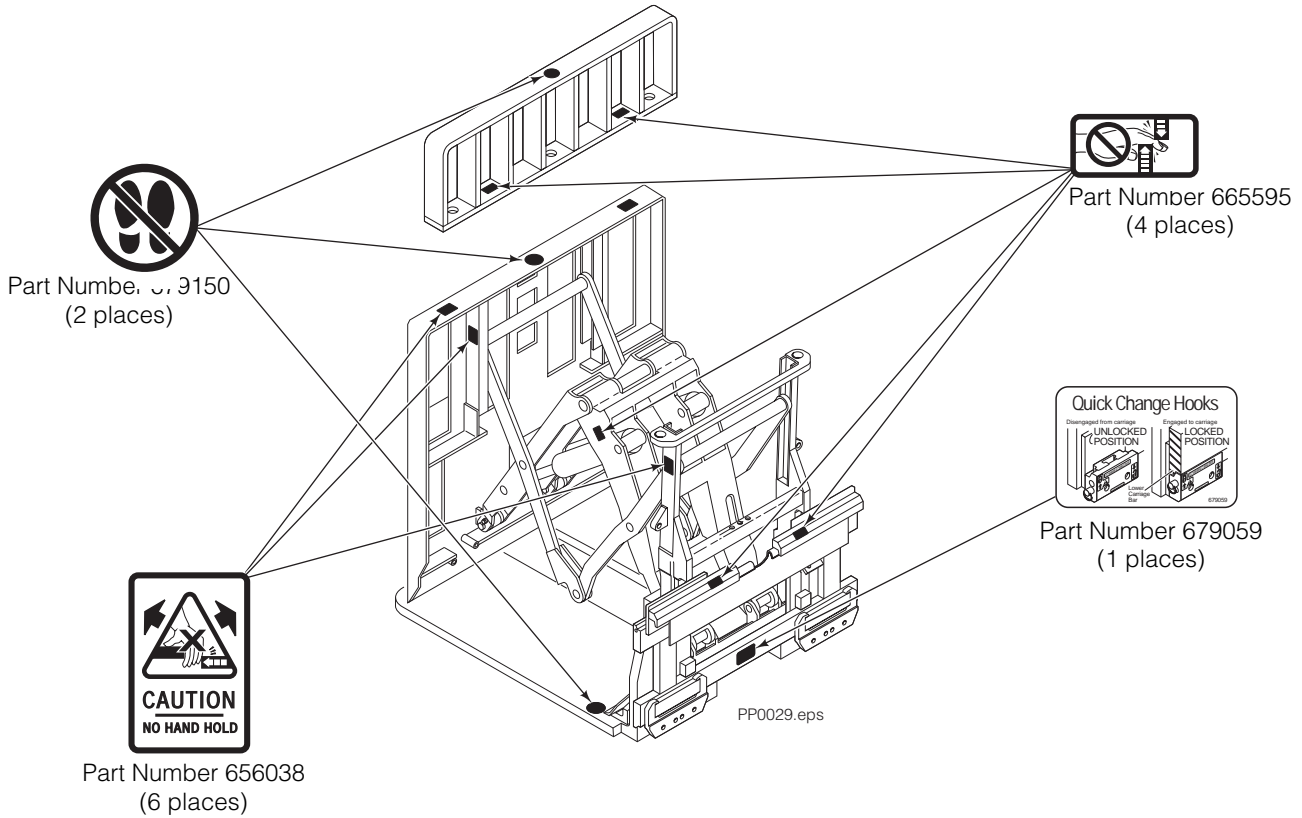
**OR**

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

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

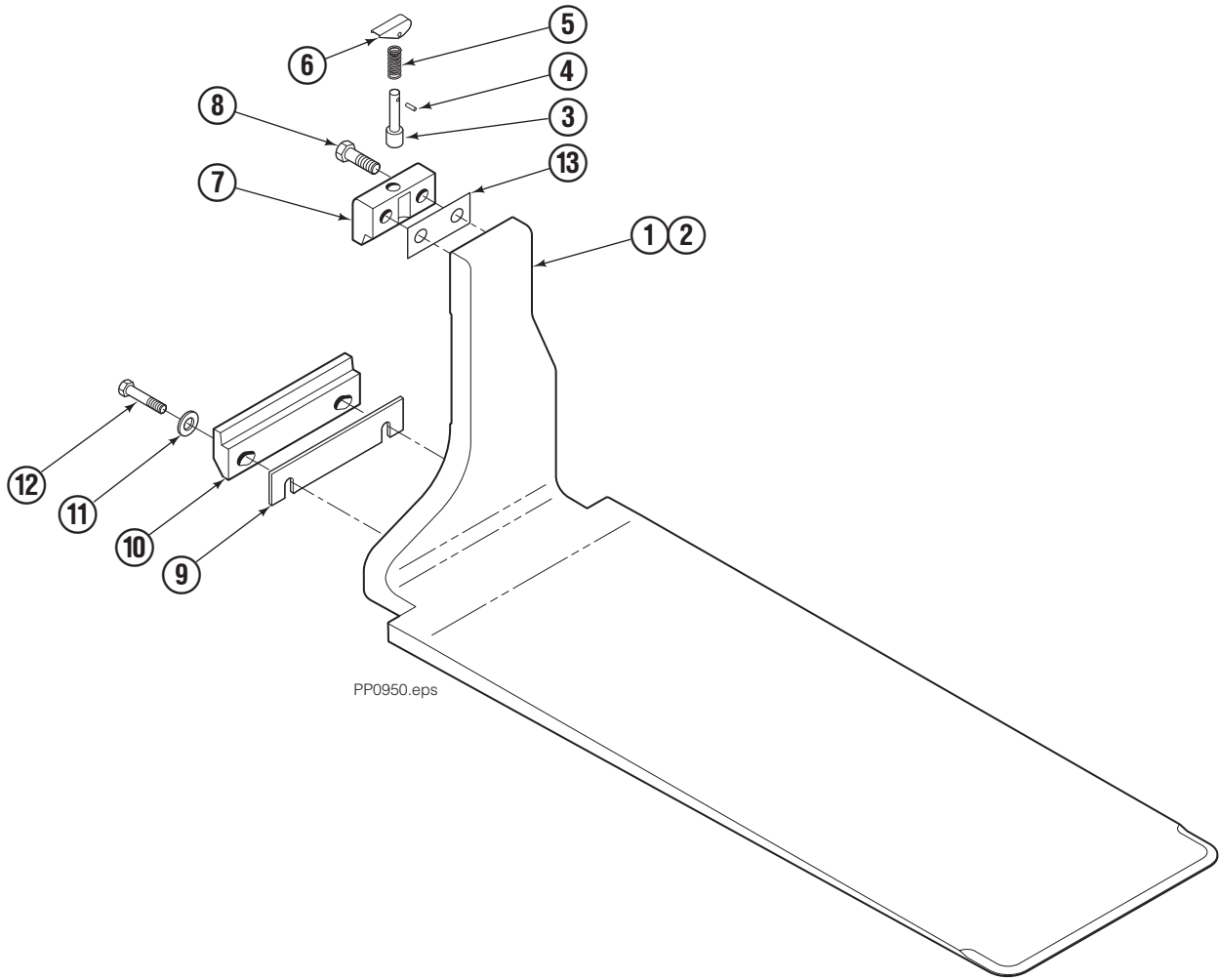
# Decals

## 35E/45E Sheet-Sav



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

# Platen Group

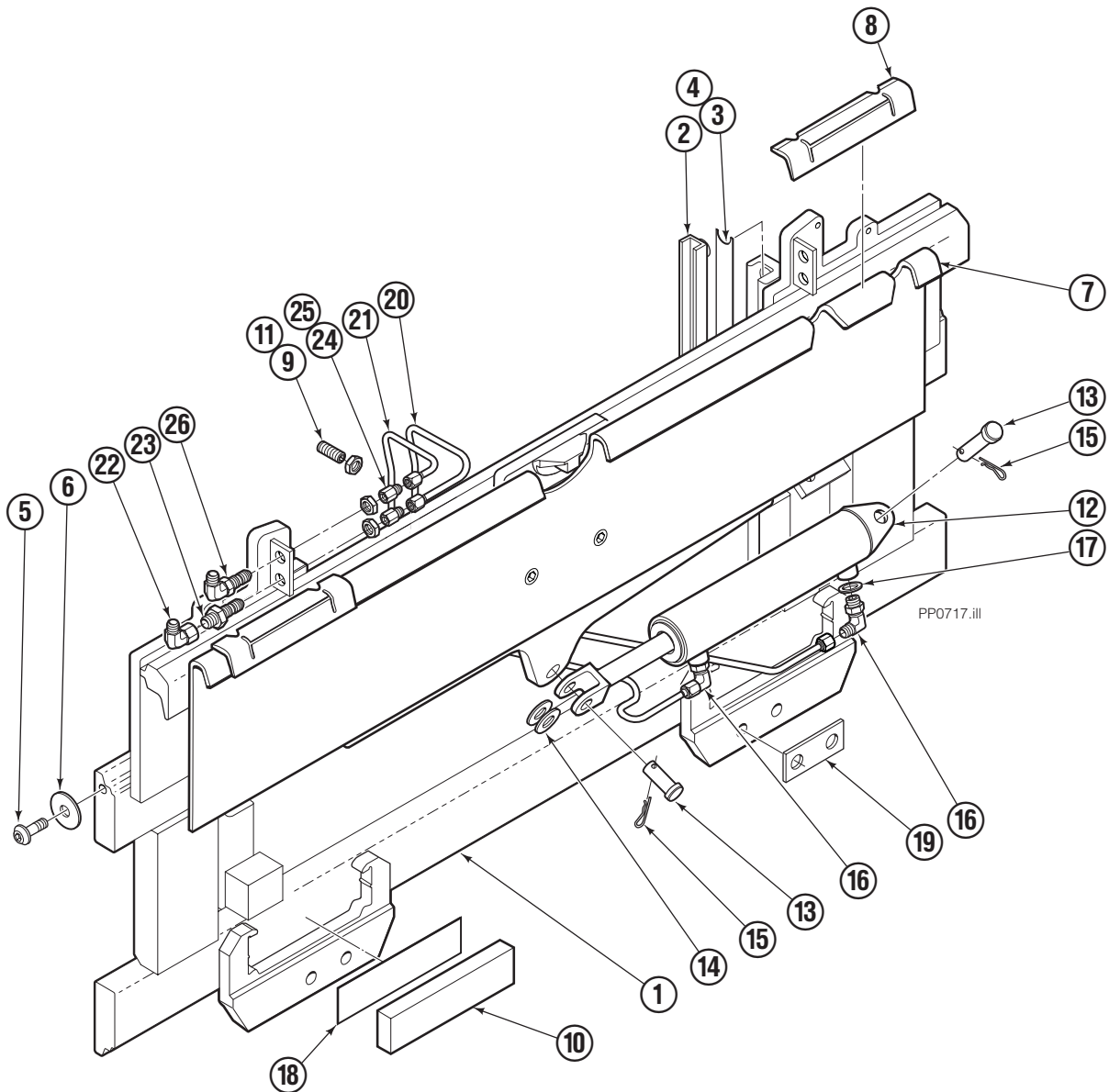


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REF	QTY	PART NO.	DESCRIPTION
		6063799	Platen Group
1	1	6063802	Platen - LH
2	1	6063801	Platen - RH
3	2	622907	◆ Pin
4	2	8007	◆ Rivet
5	2	622908	◆ Spring
6	2	622897	◆ Handle
7	2	685533	◆ Upper Hook
8	4	685534	Capscrew, M16 x 50
9	■	206969	Shim (.030)
10	2	682851	Lower Hook
11	4	667225	Washer
12	4	779010	Capscrew, M16 x 35
13	●	688379	Shim (.060)

- ◆ Included in Upper Hook Assembly 688386.
- As required for proper adjustment.
- As required (2 maximum).

# S/S Platen Carrier Group ITA III



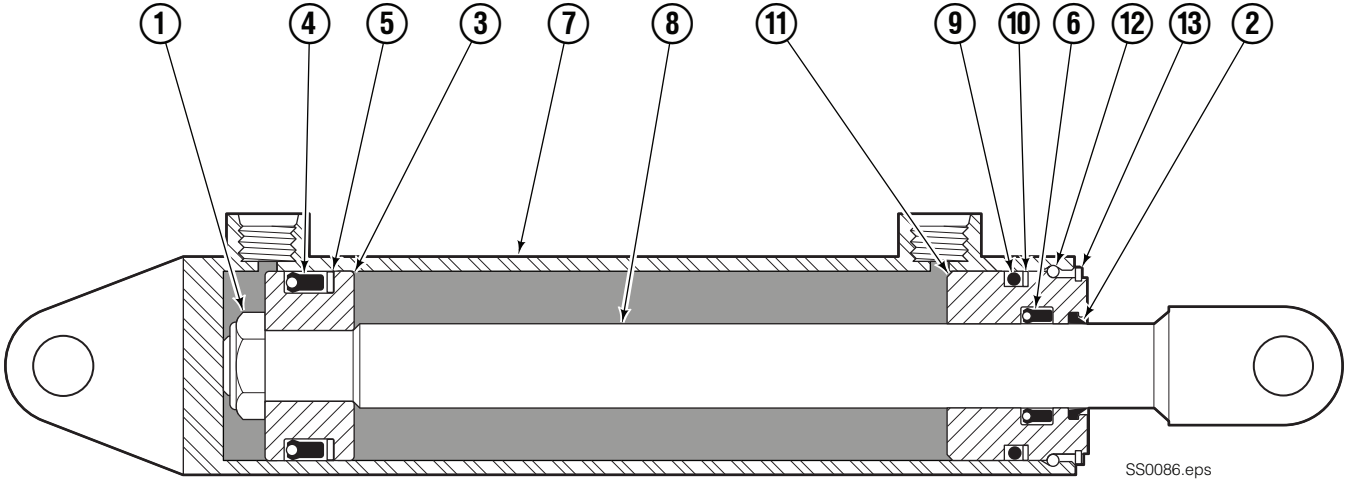
35E/45E							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6061402	Platen Carrier Group	14	2	6234	Washer
1	1	6064776	Platen Carrier	15	2	6517	Cotter Pin
2	2	6061177	Bearing	16	2	666984	Fitting, 6-6
3	●	674298	Shim (.015)	17	1	675550	Washer
4	●	674299	Shim (.020)	18	2	683250	Strip
5	2	683142	Capscrew, M12 x 20	19	2	683218	Spacer
6	2	683001	Washer, M12	20	1	207047	Tube
7	1	682557	Anchor Bracket	21	1	207048	Tube
8	2	804065	Bearing	22	1	2680	Fitting, 6-6
9	2	768759	Setscrew	23	1	2453	Fitting, 6-6
10	2	682814	Bearing	24	2	2617	Fitting, 6
11	2	688387	Jam Nut	25	2	2669	Fitting, 4-6
12	1	675548	Cylinder Assembly ♦	26	1	2375	Fitting, 6-6
13	2	214036	Clevis Pin				

♦ See Cylinder page for parts breakdown.

● As required for proper adjustment.

Reference: 6008229 Mounting Assembly, SK-5986.

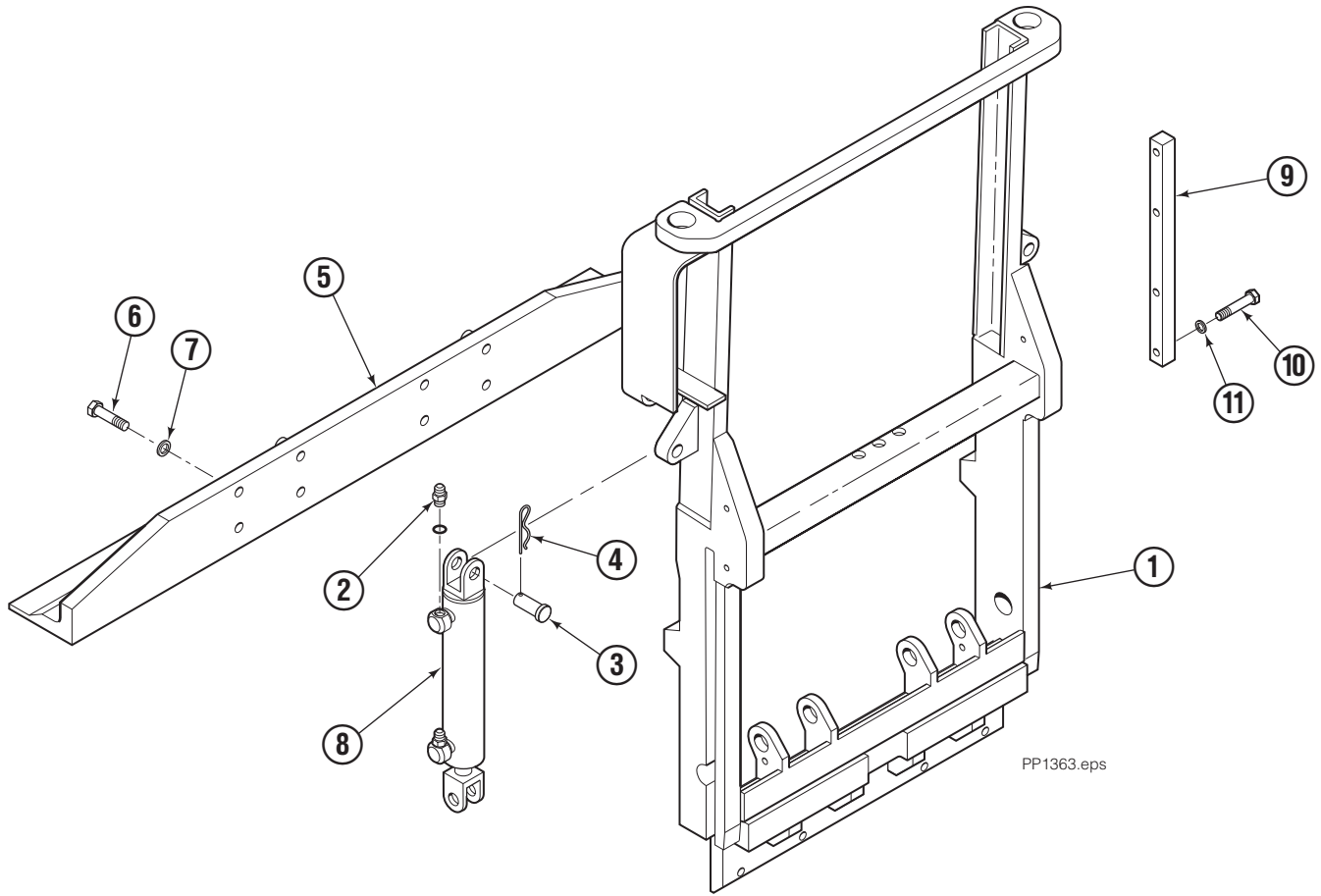
# Sideshift Cylinder



REF	QTY	PART NO.	DESCRIPTION
		675548	Cylinder Assembly
1	1	553857	Nut
2	1	636851	■ Wiper
3	1	553501	Piston
4	1	662452	■ Seal
5	1	638247	■ Back-up Ring
6	1	641835	■ Seal
7	1	675549	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	Retaining Ring
		553861	Service Kit

■ Included in Service Kit 553861.

# Frame Group

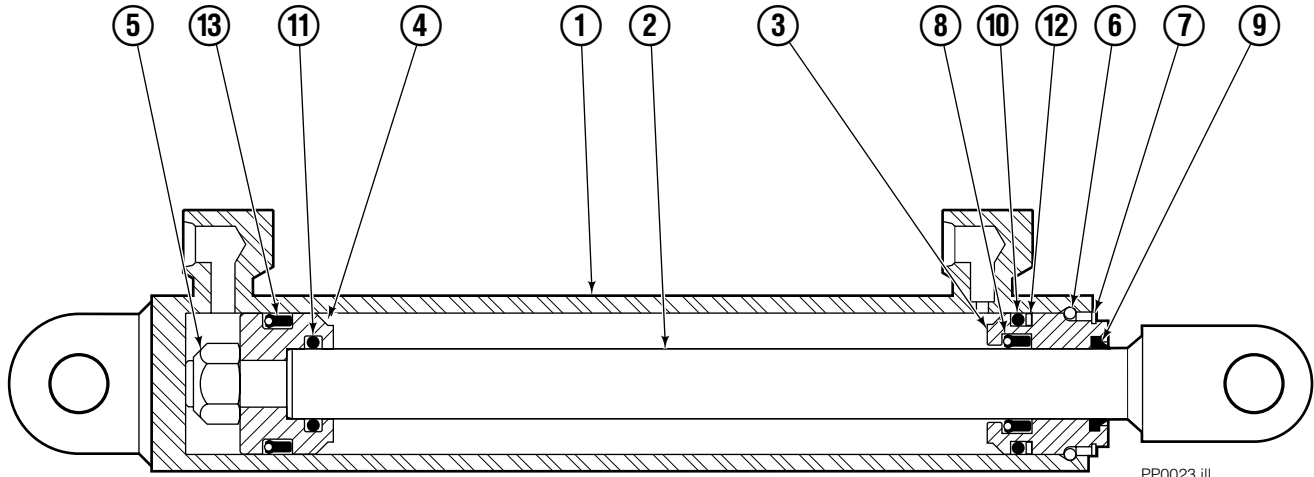


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35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		6061450	Frame Group
1	1	6063208	Frame
2	4	617915	Fitting, 4-4
3	4	678525	Clevis Pin
4	4	672726	Cotter Pin
5	1	206955	Foot
6	8	766929	Capscrew, M12 x 40
7	8	678991	Lockwasher, M12
8	2	583942	Cylinder ♦
9	1	206954	Bar
10	2	768525	Capscrew, M8 x 40
11	2	686119	Lockwasher, M8

♦ See Cylinder page for parts breakdown.  
Reference: SK-5986, SK-8713.

# Sheet-Sav Cylinder

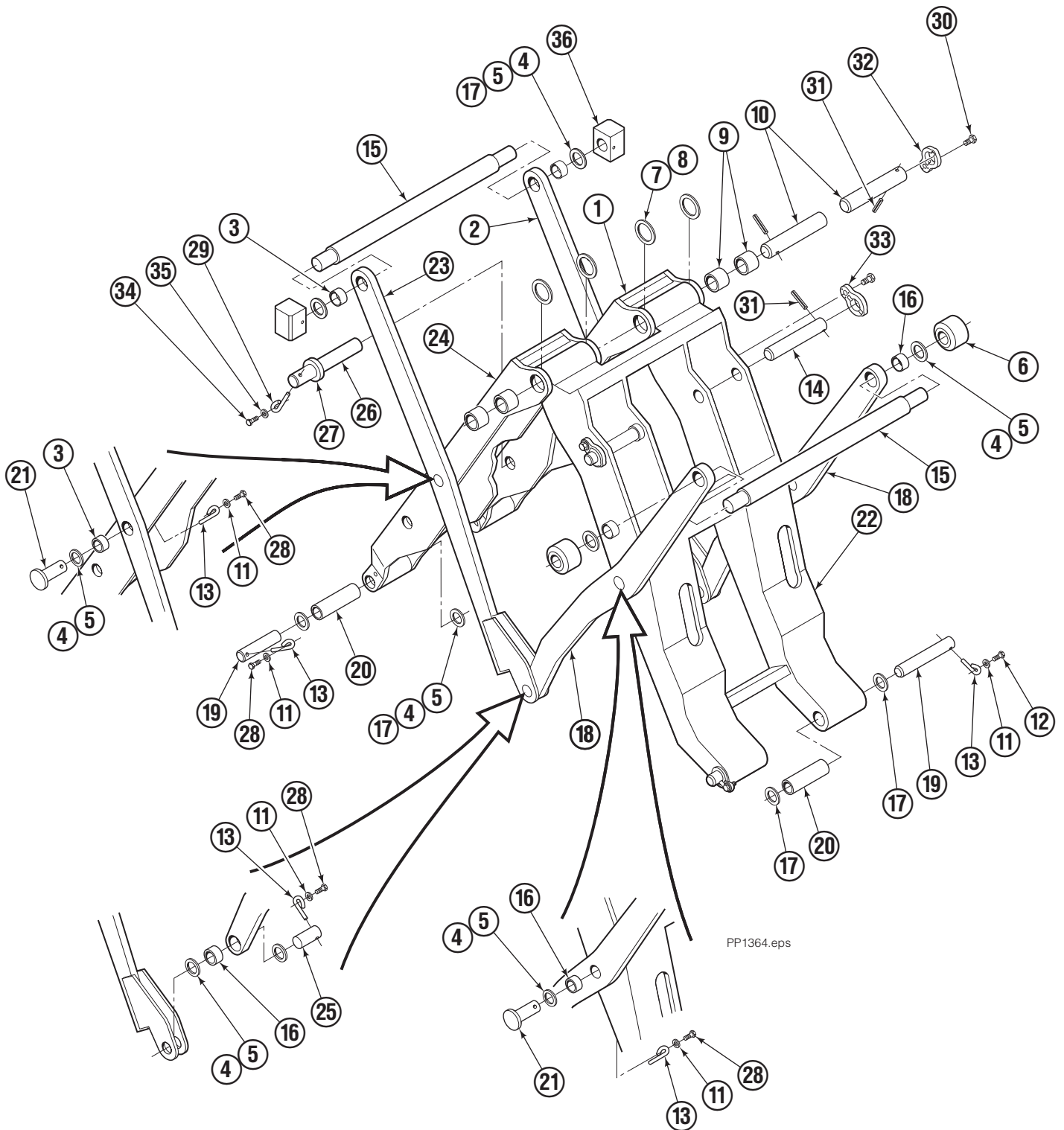


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35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		583942	Cylinder Assembly
1	1	564162	Shell
2	1	564165	Rod
3	1	685664	Retainer
4	1	685665	Piston
5	1	563462	Nut
6	1	563916	Seal
7	1	3137	Retaining Ring
8	1	646540	■ Seal
9	1	636850	■ Wiper
10	1	2718	■ O-Ring
11	1	2710	■ O-Ring
12	1	615122	■ Back-up Ring
13	1	663728	■ Seal

■ Included in Service Kit 684827.

# Mechanism Group

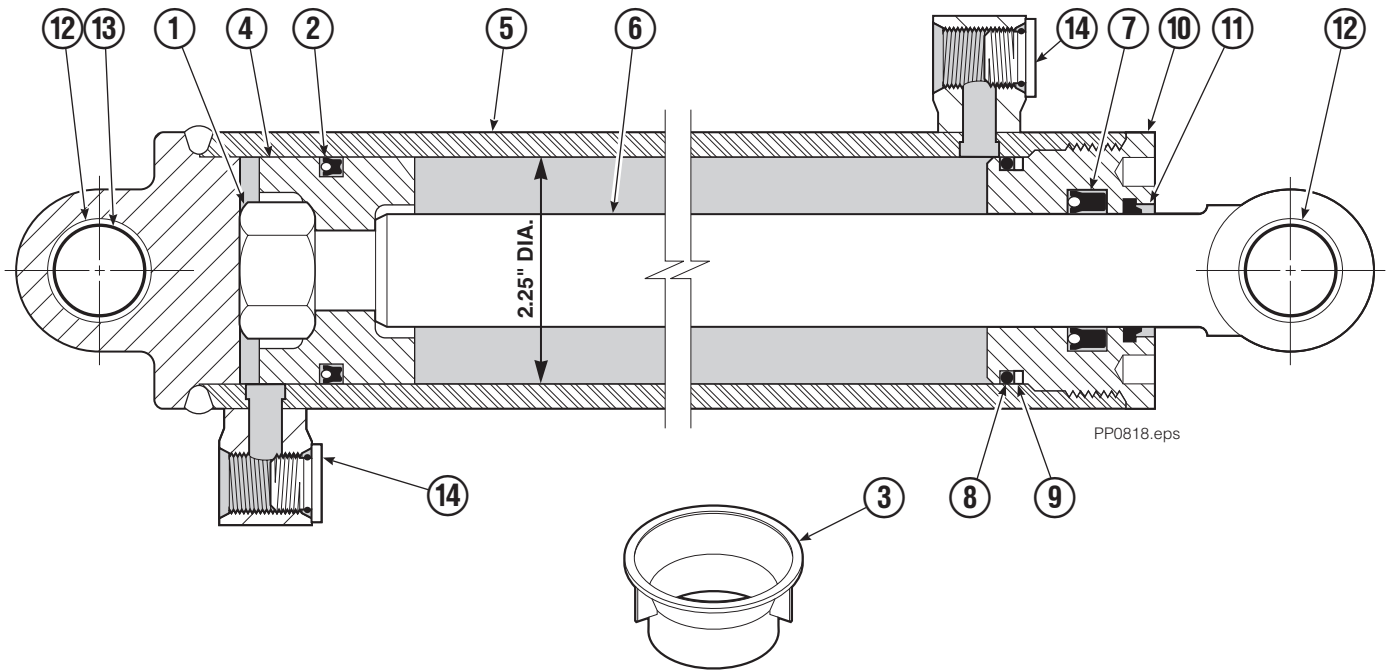


# Mechanism Group

35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		6061190	Mechanism Group
1	1	6052743	Arm – Secondary Inner – RH
2	1	204692	Arm – Secondary Outer – RH
3	4	683154	◆ Bushing
4	●	683161	Shim (.030)
5	●	683162	Shim (.060)
6	2	205070	Roller
7	●	683163	Shim (.030)
8	●	683164	Shim (.060)
9	4	683155	◆ Bushing
10	2	6052034	Pin – Primary/Secondary Inner
11	10	6229	Washer
12	2	685661	Capscrew, M8 x 14
13	10	6020429	Eye Pin
14	2	682822	Pin – Head
15	2	205065	Pin
16	6	683153	◆ Bushing
17	●	204532	Shim (.120)
18	2	204694	Arm – Outer Primary
19	4	204533	Pin – Frame
20	4	204535	◆ Bushing
21	4	204695	Pin – Primary Outer
22	1	204604	Arm – Inner Primary
23	1	204693	Arm – Secondary Outer – LH
24	1	6052744	Arm – Secondary Inner – LH
25	2	204696	Pin – Primary/Secondary Outer
26	2	6052711	Pin – Rod
27	2	683165	Spacer
28	10	767961	Capscrew, M8 x 16
29	2	6045586	Eye Pin
30	4	6047151	Capscrew, M8 x 16
31	4	7913	Roll Pin
32	2	6047125	Retainer
33	2	6045015	Retainer
34	2	684594	Capscrew, M10 x 20
35	2	209021	Washer, M10
36	2	6061191	Block Roller

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

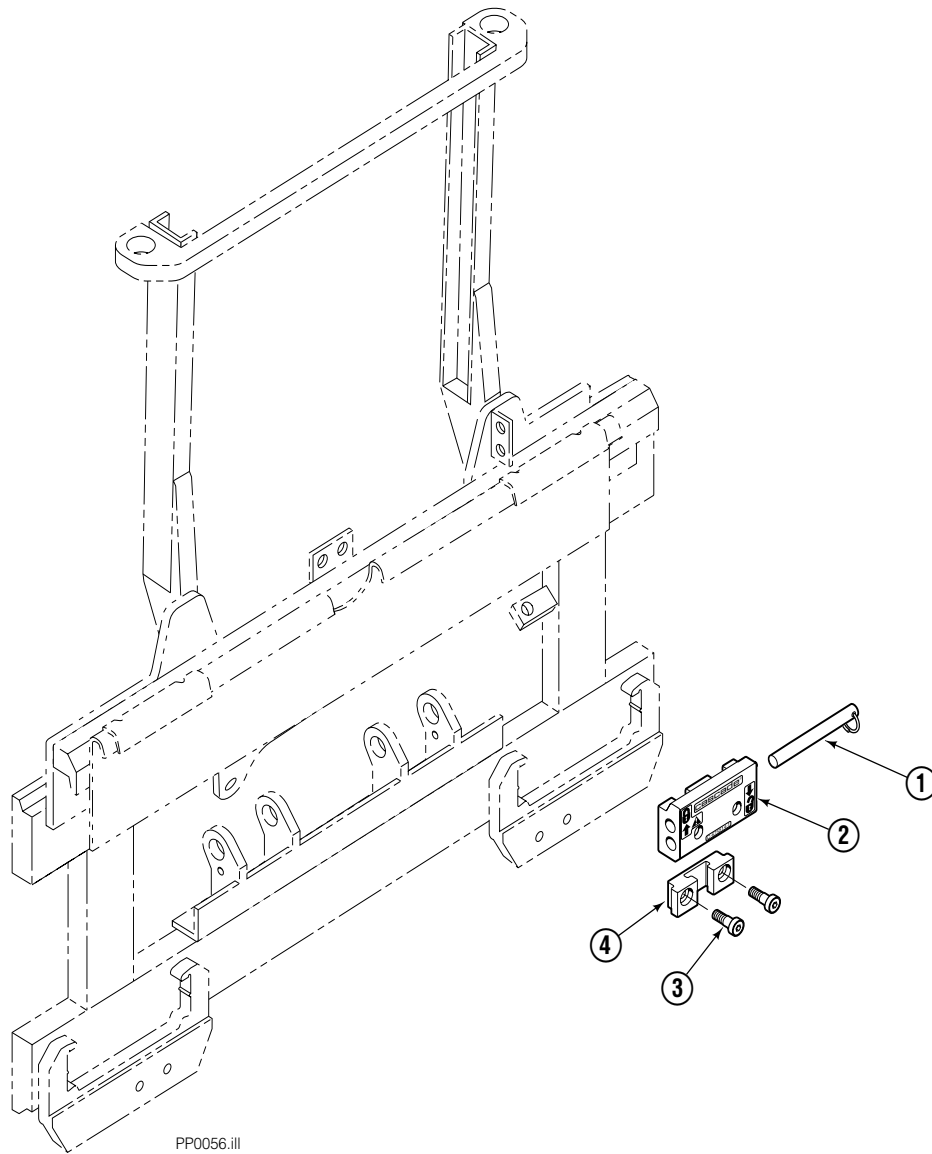
# Cylinder Assembly



45E			
REF	QTY	PART NO.	DESCRIPTION
		582636	Cylinder Assembly
1	1	678019	Nut
2	1	564159	◆ Seal
3	1	671048	◆ Seal Loader Kit
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	2	604510	Fitting, 6
		562339	Cylinder Service Kit

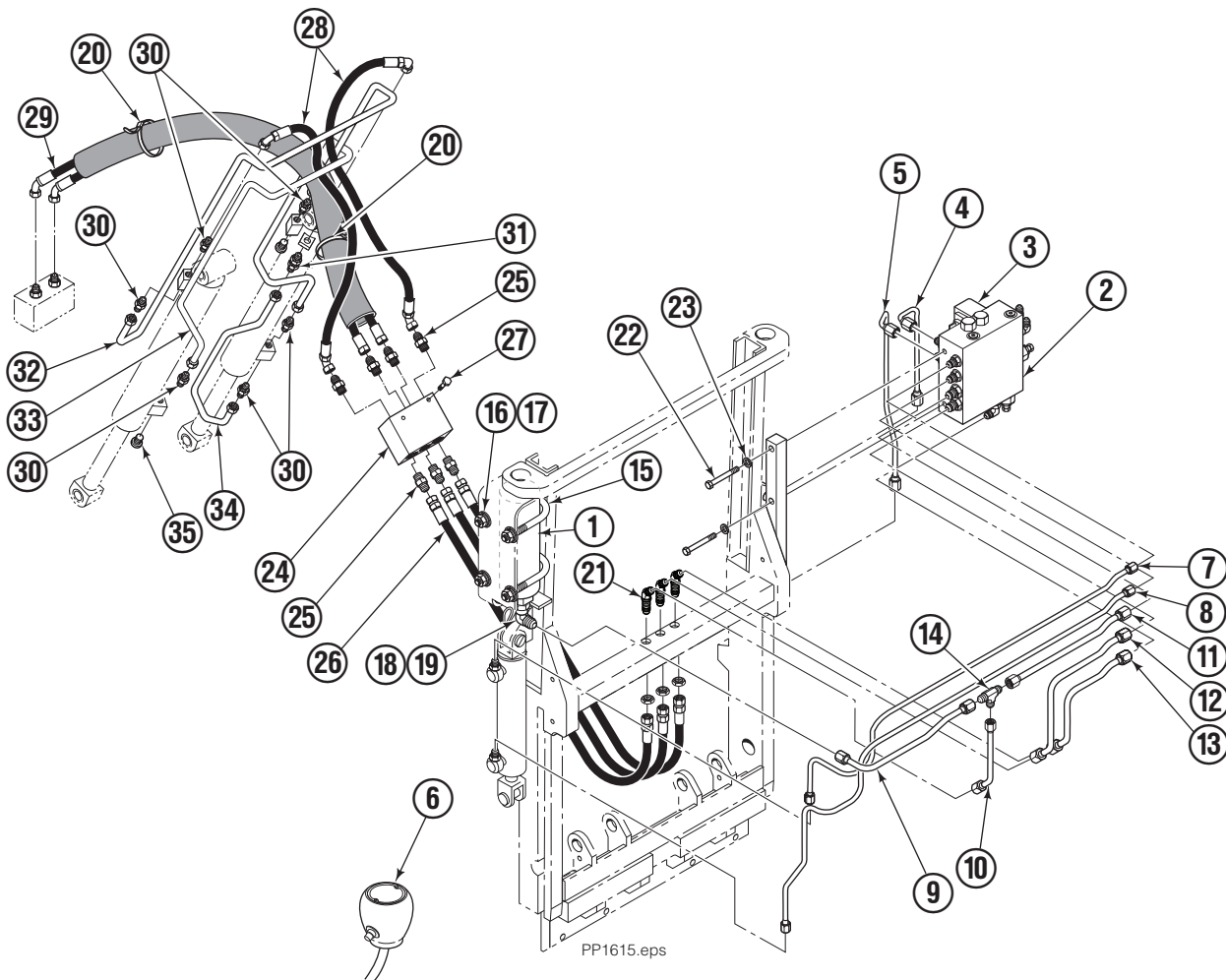
◆ Included in Service Kit 562339.

# Quick-Change Lower Hook Group – ITA III



REF	QTY	PART NO.	DESCRIPTION
		683181	Lower Hook Group ITA III
1	2	678832	Pin
2	2	675957	Hook
3	4	779019	Capscrew, M16 x 35 Class 8.8
4	2	675958	Guide

# Hydraulic Group



## 45E

REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6063674	Hydraulic Group R2	18	1	205855	Fitting, 12-6
1	1	6033052	Accumulator	19	1	2680	Fitting, 6-6
2	1	206942	Valve ■	20	2	684956	Wire Tie
3	2	669432	Diode	21	3	2492	Fitting, 6-6
4	1	6063672	Tube	22	2	768525	Capscrew, M8 x 40
5	1	6063673	Tube	23	2	686119	Lockwasher, M8
6	1	206939	Control Knob ▲	24	1	206927	Junction Block
7	1	6063670	Tube	25	7	604511	● Fitting, 6-6
8	1	6063671	Tube	26	3	6051100	Hose, 21.00 in.
9	1	6033055	Tube	27	2	765329	◆ Capscrew, M8 x 20
10	1	6033054	Tube	28	2	209669	◆ Hose, 15.50 in.
11	1	6033053	Tube	29	1	6061018	Hose, 40.00 in.
12	1	206936	Tube	30	6	604511	◆ Fitting, 6-6
13	1	206935	Tube	31	1	2375	◆ Fitting, 6-6
14	1	2576	Fitting, 6	32	1	209668	◆ Tube
15	2	364099	U-Bolt	33	1	209667	◆ Tube
16	4	6288	Lockwasher	34	1	200647	◆ Tube
17	4	6230	Washer	35	2	604510	◆ Fitting, 6

■ See Valve page for parts breakdown.

▲ See Control Knob page for parts breakdown.

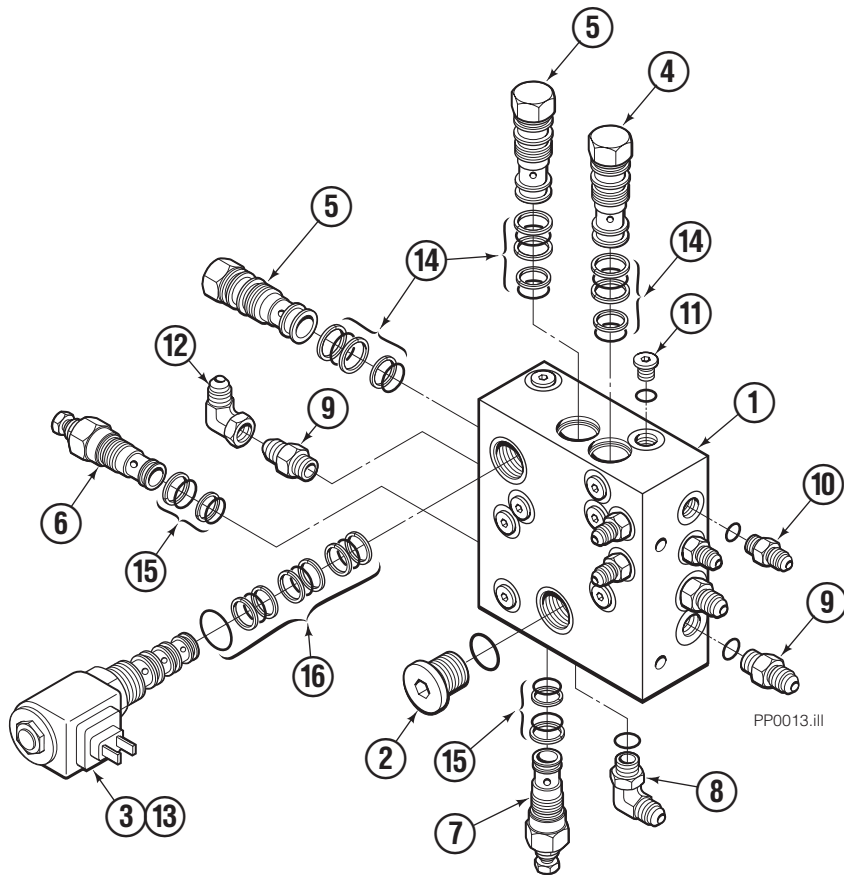
Reference: SK-9126.

● Included in Junction Block Assembly 206927.

◆ Included in Hydraulic Components 209672.

# Valve

## Without Independent Gripper Control

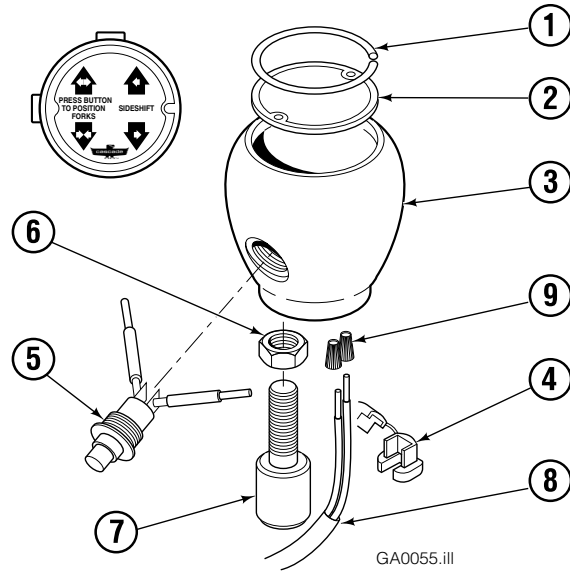


<b>35E/45E</b>			
REF	QTY	PART NO.	DESCRIPTION
		206942	Valve Assembly
1	1	206943	Valve Body
2	1	609453	Fitting, 10
3	1	206991	Solenoid Valve
4	1	206944	Check Valve
5	2	659058	Check Valve
6	1	677125	Relief Valve
7	1	677124	Relief Valve
8	2	601676	Fitting, 6-6
9	3	604511	Fitting, 6-6
10	4	617915	Fitting, 4-4
11	12	609234	Fitting, 4
12	1	2680	Fitting, 6-6
13	1	<b>206995</b>	Coil - 12V
13	1	206996	Coil - 24V ●
13	1	206997	Coil - 36V ●
13	1	206998	Coil - 48V ●
14	3	667516	Service Kit
15	2	669597	Service Kit
16	1	667379	Service Kit

● Not included in Valve Assembly.

# Control Knob

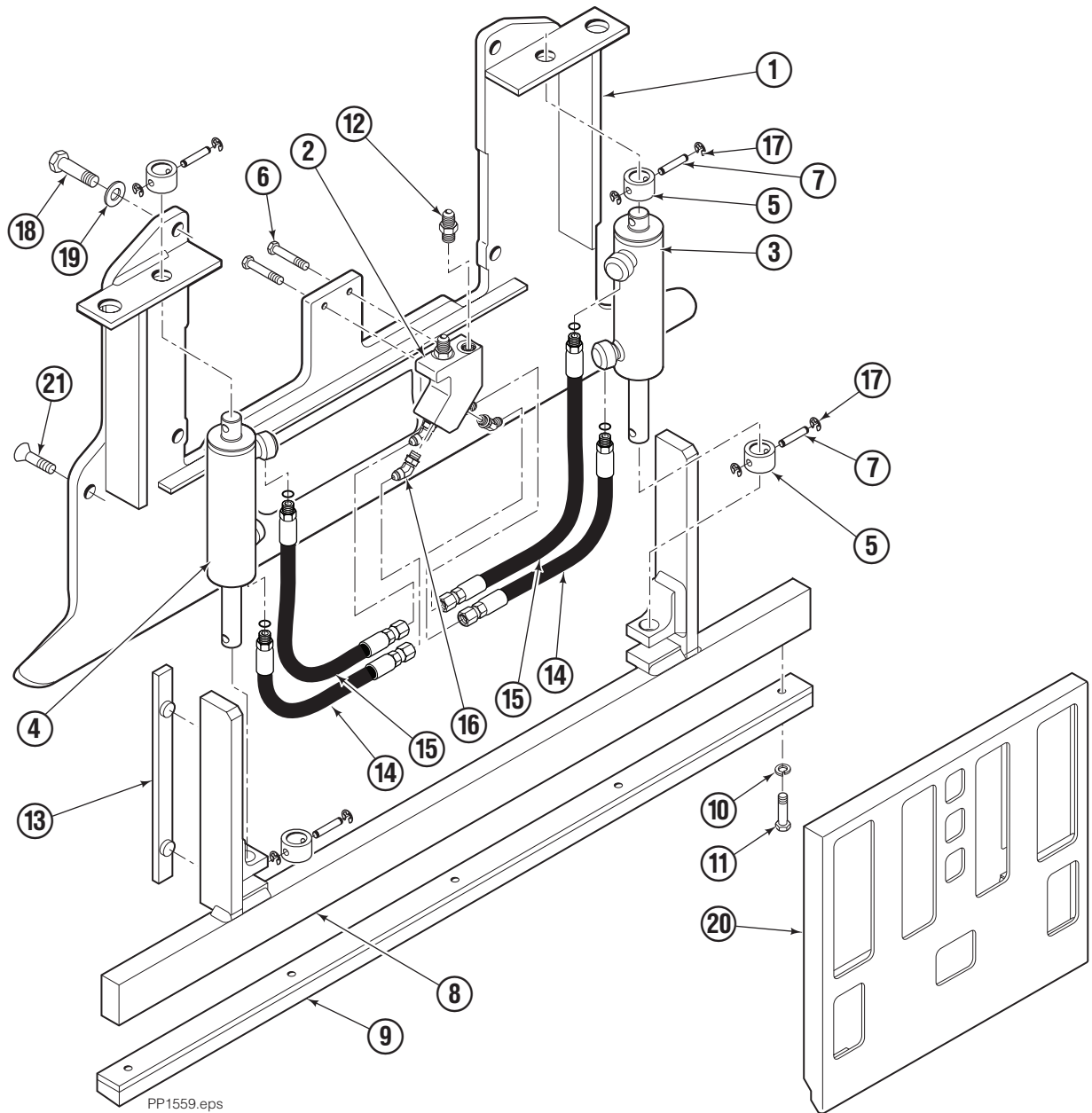
## Without Gripper Control



35E/45E			
REF	QTY	PART NO.	DESCRIPTION
		206939	Knob Group
1	1	665250	Snap Ring
2	1	206986	Cover
3	1	665012	Knob
4	1	665076	Strain Relief
5	1	677112	■ Switch
6	1	5902	Nut, 3/8 NC
7	1	665081	Adapter
8	1	667718	Cable Assembly
9	2	667752	Connector – Gray

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

# Faceplate Group



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## 35E/45E

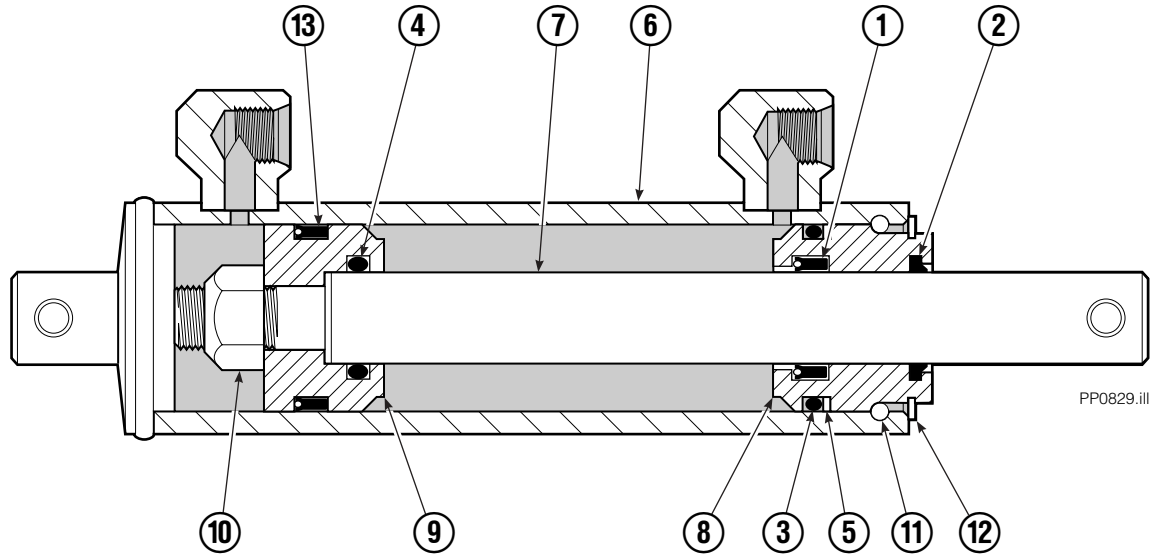
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6029838	Faceplate Group (R5)	11	5	787375	Capscrew, M8 x 20
		6020440	Gripper Jaw Assembly (R5) ●	12	2	604511	Fitting, 6-6
1	1	206396	Gripper Jaw	13	2	686573	Bearing
2	1	6002134	Valve	14	2	6002138	Hose, 315 mm
3	1	6020444	Gripper Cylinder, LH ◆	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	2	787373	Capscrew, M8 x 20	18	4	225346	Capscrew, M16 x 60
7	4	6014089	Pin	19	4	675620	Washer
8	1	6002135	Gripper Bar	20	1	6019106	Faceplate, 40 x 40 in. ■
9	1	672712	Gripper Pad	21	2	768714	Capscrew, M16 x 60
10	5	680253	Lockwasher, M8				

◆ See Gripper Cylinder page for parts breakdown.

■ Width x height.

● Includes items 1-17.

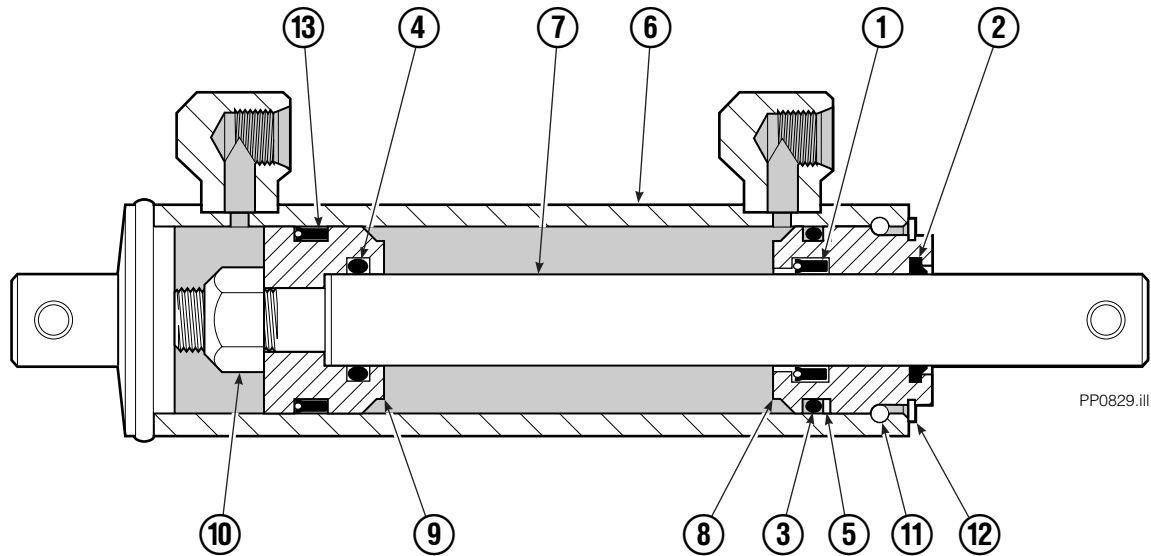
# Gripper Cylinder Left Hand



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.

# Recommended Spare Parts List

Push/Pull 45E-PAS-304				
PART NUMBER	DESCRIPTION	ATTACHMENTS SERVICED		
		1-5	6-19	20-50
<b>PLATEN GROUP</b>				
622907	Platen Pin	1	2	4
622908	Spring	1	2	4
8007	Rivet	4	8	8
622897	Handle	2	2	8
682851	Lower Platen Hook	1	2	2
779010	Capscrew – Lower Hook	1	1	2
685533	Upper Platen Hook	0	2	4
685534	Capscrew – Upper Hook	2	4	4
<b>PLATEN CARRIER GROUP</b>				
804065	Upper Bearing	2	4	4
682814	Lower Bearing	2	4	6
6061177	Frame Bearing	2	4	4
675548	Sideshift cylinder	0	1	2
553861	Sideshift Cylinder Service Kit	1	2	4
<b>FRAME GROUP</b>				
583942	Sheet-Sav Cylinder	0	2	2
684827	Sheet-Sav Cylinder Service Kit	2	2	2
<b>LOWER HOOKS</b>				
675957	Lower Hook	2	4	6
675958	Guide	2	4	6
678832	Pin	2	4	6
<b>MECHANISM GROUP</b>				
205070	Rollers	4	8	8
205075	Bushing Service Kit	2	4	6
■	Shims (all)	8	16	30
6020429	Eye Pin	4	8	16
<b>PUSH/PULL CYLINDER</b>				
582636	Cylinder	0	2	2
562339	Cylinder Service Kit	2	4	6
<b>HYDRAULIC GROUP</b>				
604511	Fitting, 6-6	2	4	6
6051100	Hose (valve)	2	4	6
209669	Hose (cylinder)	2	4	6
6061018	Hose (junction block)	2	4	6
■	Tubes (all)	1	2	4
206942	Valve Assembly	0	1	2
677125	Cartridge (relief)	1	1	1
—	Cartridge (counter balance)	1	1	1
659058	Cartridge (check)	1	1	1
677124	Cartridge (relief)	1	1	1
206944	Cartridge (check)	1	1	1
<b>FACEPLATE GROUP</b>				
6020444	Gripper Cylinder – LH	0	2	4
6020443	Gripper Cylinder – RH	0	2	4
684827	Gripper Cylinder Service Kit	2	4	8
6002138	Hose	1	2	2
6002139	Hose	1	2	2
686573	Gripper Bearing	2	4	4

◆ See specific parts page.

# Recommended Spare Parts List

Push/Pull 45E-PAS-304				
PART NUMBER	DESCRIPTION	ATTACHMENTS SERVICED		
		1-5	6-19	20-50
685660	<b>PAINT</b> 12 oz. Aerosol Heritage White	1	2	2
	<b>PUBLICATIONS</b>			
	Parts Manual	1	1	2
686455	Service Manual	1	1	2
684944	Installation Instructions	1	1	2
684945	Operator's Guide	1	1	2
685531	Operator's Pocket Guide	1	1	2
679929	Tool Catalog	1	1	2
673964	Literature Index Order Form	1	1	2
	<b>VIDEO</b>			
680664	Servicing Cascade Cylinders	1	1	1

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