



# WARNING



WESTERN STATES CENTRIFUGES ARE DESIGNED AND MANUFACTURED TO VERY CLOSE TOLERANCES. IT HAS BEEN BROUGHT TO OUR ATTENTION THAT SOME USERS OF PRODUCTS MANUFACTURED BY US ARE USING PARTS NOT MADE IN ACCORDANCE WITH OUR SPECIFICATIONS. PLEASE BE ADVISED THAT THE USE OF PARTS THAT DO NOT MEET WITH OUR SPECIFICATIONS, INCLUDING MATERIALS, MAY RESULT IN INJURY OR DEATH.



# PRECAUCION



LAS CENTRIFUGAS WESTERN STATES HAN SIDO DISEÑADAS Y CONTRUIDAS CON TOLERANCIAS MUY ESTRICITAS. HEMOS TOMADO CONOCIMIENTO QUE ALGUNOS DE NUESTROS USUARIOS ESTAN USANDO PARTES DE REPUESTO QUE NO ESTAN HECHAS DE ACUERDO CON NUESTRAS ESPECIFICACIONES. POR FAVOR TENGAN EN CUENTA QUE EL USO DE PARTES QUE NO CUMPLEN CON NUESTRAS ESPECIFICACIONES, INCLUYENDO LOS MATERIALES, PUEDE CAUSAR DAÑOS FISICOS, INCLUYENDO HASTA LA MUERTE.

REPLACEMENT PARTS CATALOG  
FOR  
WESTERN STATES G-SERIES  
BATCH CENTRIFUGALS  
Rev 1.0  
March, 2001  
PN 099900

Western States goal is to provide all of our customers with quality replacement parts manufactured to the original specifications. Replacement parts originally manufactured by Western States will always be available. Western States maintains original bills of material on all centrifugals built and all parts requests are double checked to assure the correct part for your specific centrifugal is being supplied. If you have any questions regarding a replacement part please contact our customer service department. They will be glad to assist you.

When ordering replacement parts from this catalog please provide the following information:

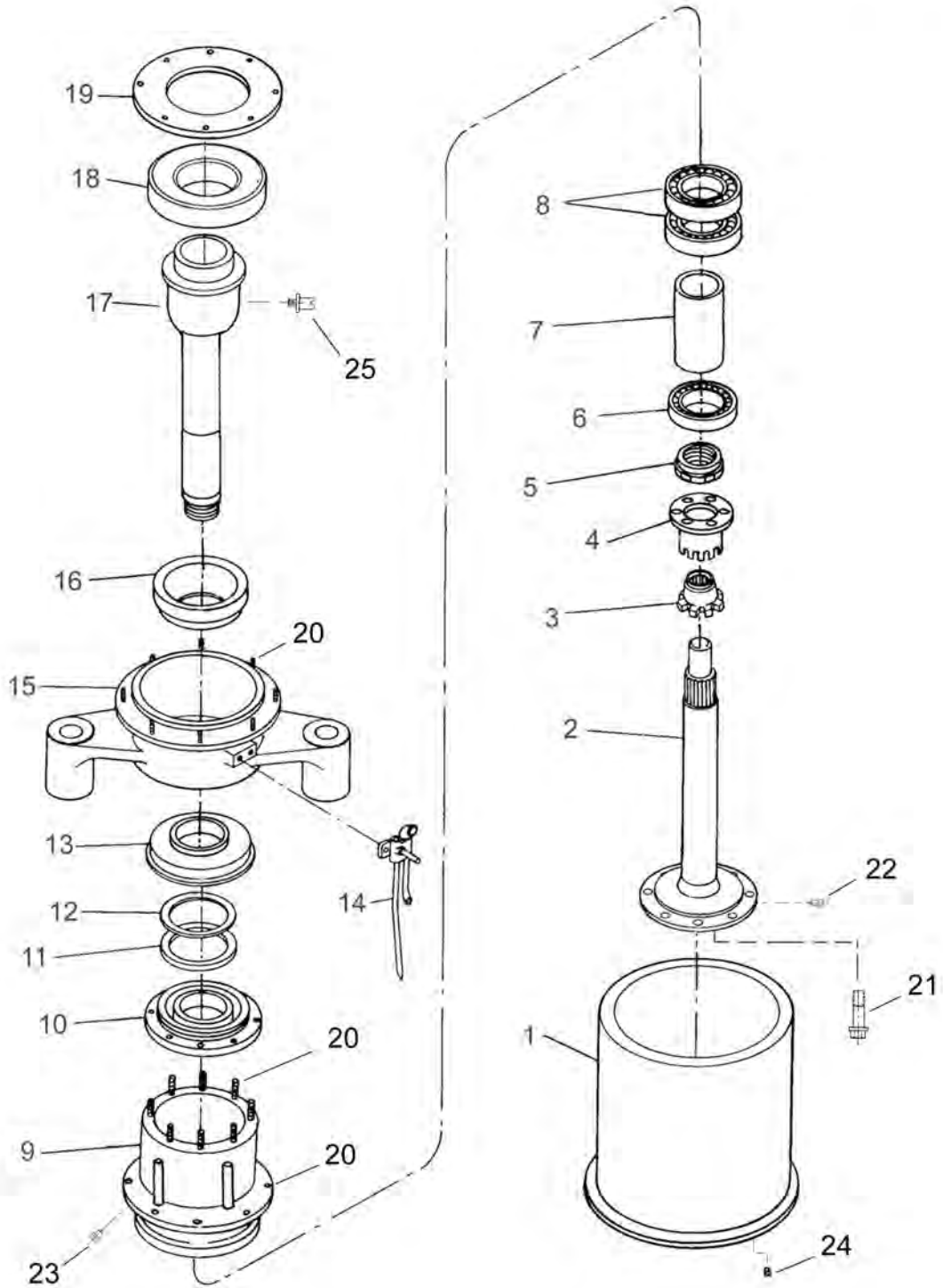
1. Centrifugal serial number.
2. If serial number is not known indicate the basket size and type of drive.
3. Description, part number and drawing number
4. Quantity being ordered
5. Year purchased and purchase order number

CONTACT INFORMATION

E-mail: [parts@westernstates.com](mailto:parts@westernstates.com)  
Web site: <http://www.westernstates.com>  
Phone: 513-863-4758  
Fax: 513-863-3846

All information contained herein is complete and correct to the best of our knowledge at the time of publication. The Western States Machine Co. reserves the right to make changes to the information herein without prior notice.

# HEAD G-8A



## HEAD G-8A

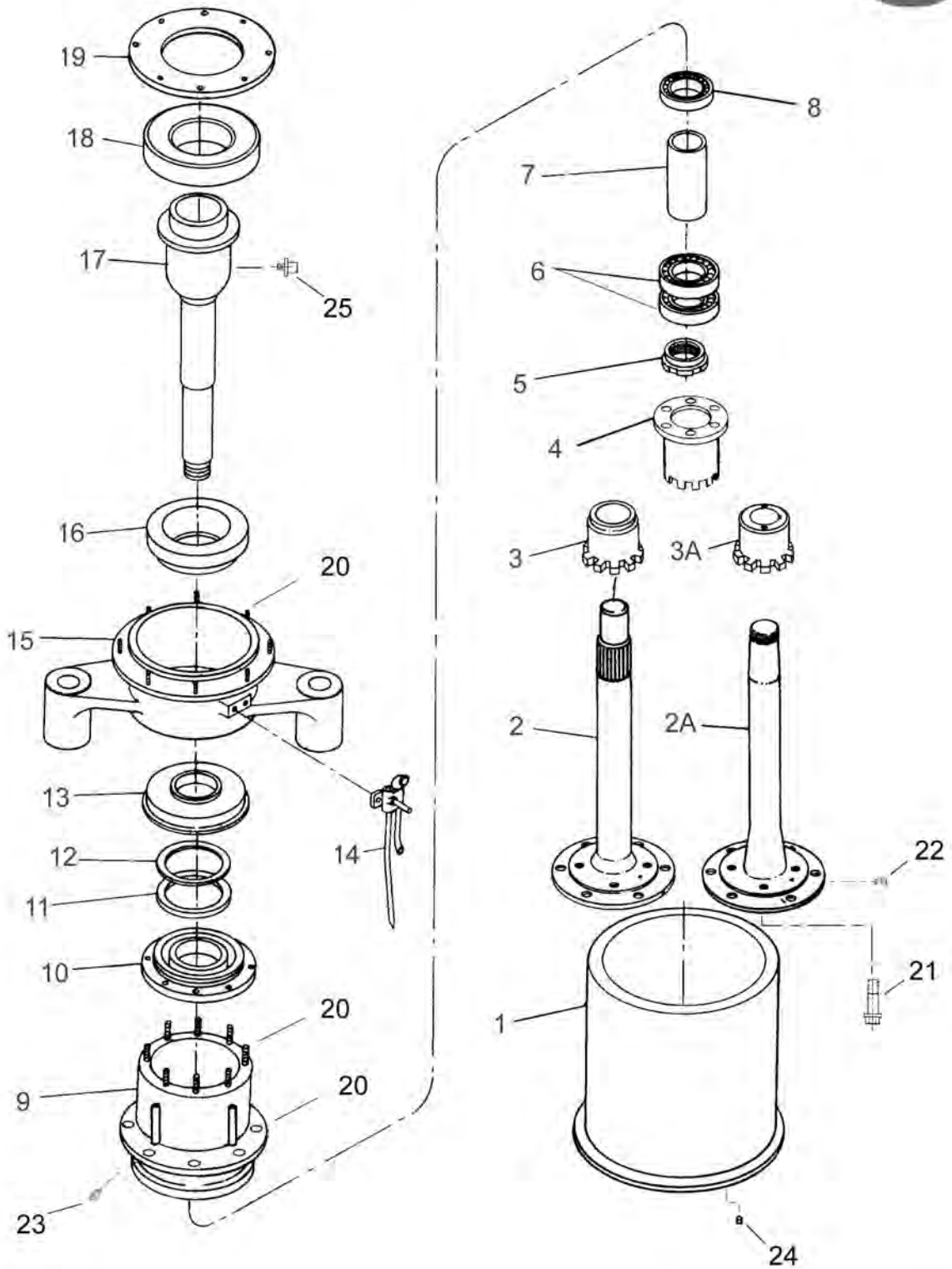
No	Description	PN	Dwg No	Qty
1	Brake drum	004961	E-604	1
C	Gasket, brake drum	023509	C-5017	1
C	Brake drum overflow pipe	009099	C-5024	1
2	Drive shaft	013579	C-5006-A	1
3	Coupling, head (lower half)	006419	C-5028-A	1
4	Head coupling, motor half	019069	C-5051	1
5	Sleeve bearing nut	017492	C-5008	1
6	Ball bearing	027594		1
7	Bearing spacer	015491	C-5007-A	1
8	Ball bearing	026191		2
9	Bearing housing	009845	C-5000-A	1
C	Gasket, housing cap	023508	C-5016	1
20	Studs, buffer clamp with nuts and lockwashers	015957	C-5020	8
10	Housing cap	009829	C-5009-B	1
11	Seal, retaining ring	012734	C-5013-A	1
12	Seal ring	013463	C-5014-A	1
13	Housing cap cover	005545	C-5011-B	1
C	Gasket, drive shaft	023507	C-5015	1
C	Bearing housing cap spacer	015492	C-5012	1
20	Studs, bearing housing cap with nuts and lockwashers	015957	C-5020	8
14	Pipe bracket	017622	C-5029	1
15	Hanger bracket	017621	C-5002-B	1
16	Ball socket	015449	C-5037	1
17	Ball and quill assembly	019067	C-5005-A-1	1
18	Rubber buffer C 48" x 30"	020644	C-5021	1
	Rubber buffer C 48" x 36"	020571	C-5021-B	1
19	Buffer clamp	006062	C-5019-A	1
20	Studs, brake drum with nuts & lockwashers	015957	C-5020	8
21	Spindle cap screw , includes lockwasher PN 020573	040011	093-1274-00-2	6
22	Sealing plug (fill)	020556		1
23	Sealing plug (level)	020556		1
24	Pipe plug (drain)	020559		1
25	Stop pin	015423	C-5023	1

### COMPLETE ASSEMBLIES AND KITS

	Description	PN
	Complete head assembly	004110
	Head coupling, motor half kit. Includes head coupling assembly PN 019069; Cover PN 006549; coupling plate gasket PN 023511.	045626

C Items not shown

# HEAD G-10



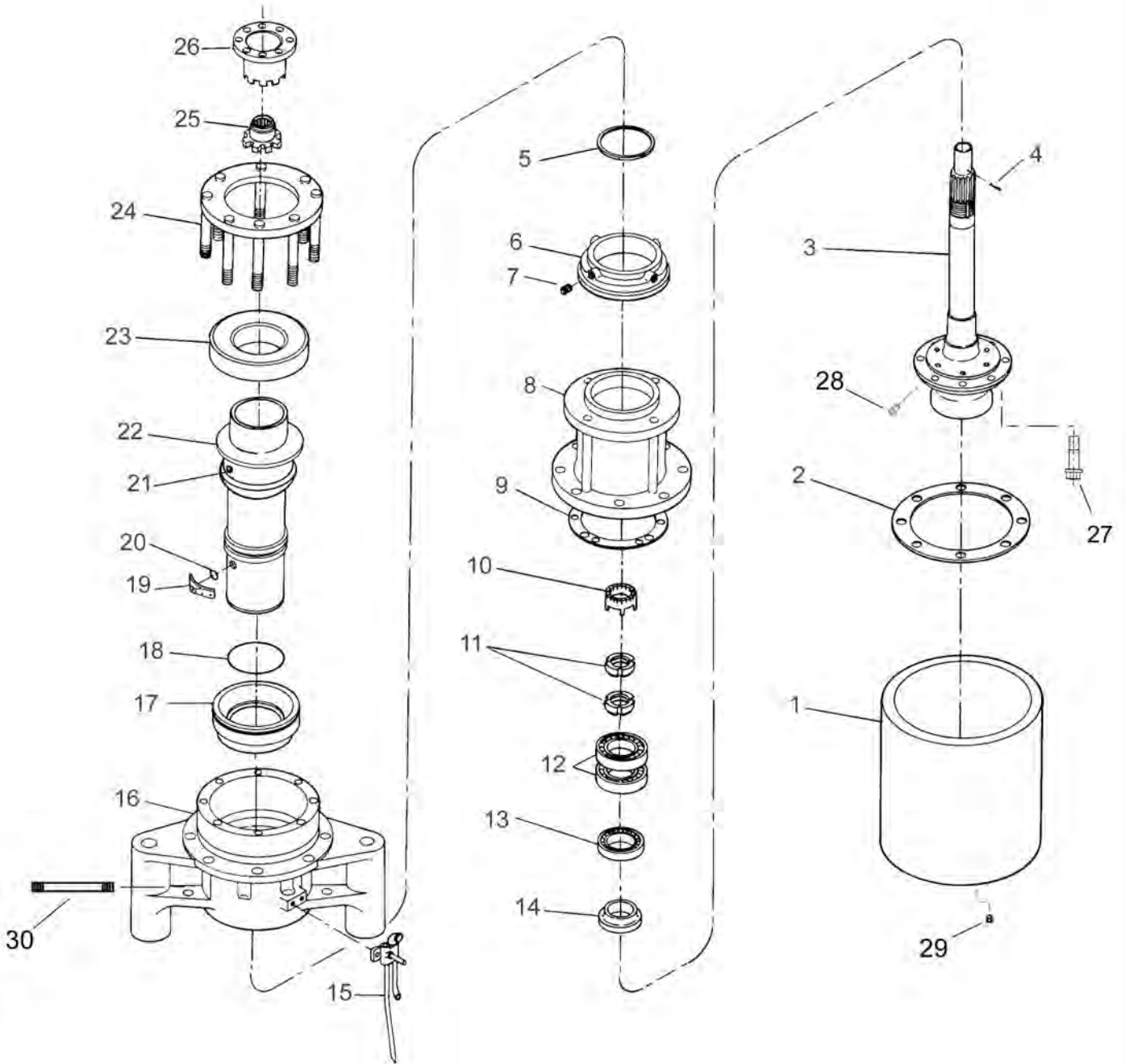
## HEAD G-10

No	Description	PN	Dwg No	Qty
1	Brake drum	004959	E-104-E	1
c	Gasket, brake drum	022305	E-126	1
c	Overflow pipe	011394	E-112-A	1
2	Head spindle (drive shaft) (spline)	013625	E-108-D	1
2A	Head spindle (drive shaft) (taper)	013623	E-108-C	1
3	Coupling, spindle half (spline) <sup>1</sup>	006440	E-102-B	1
3A	Coupling, spindle half (taper) <sup>1</sup>	006439	E-102-A	1
4	Head coupling, motor half	003774	E-101-A	1
5	Sleeve bearing nut	012330	E-125	1
6	Angular contact ball bearing	020508		2
7	Bearing spacer	015529	E-116	1
8	Roller bearing	026095		1
9	Bearing housing	009880	E-103-B	1
c	Gasket, bearing housing	022307	E-128	1
c	Oil splash pin	015833	E-116-B	1
10	Housing cap	005435	E-117-C	1
c	Bearing housing cap spacer	005565	E-120	1
c	Gasket, bearing housing cap	022306	E-127	1
11	Head seal retaining ring	014043	E-121-A	1
12	Head seal ring	013465	E-122-A	1
13	Housing cap cover	005547	E-119-E	1
14	Water scoop assembly	043478	033-0295-00-2	1
15	Hanger bracket	017764	E-114-F-2	1
16	Ball socket	019452	E-111	1
17	Ball and quill assembly	019115	E-107	1
18	Head buffer	022297	E-123	1
19	Buffer clamp	006090	E-124	1
20	Studs, buffer clamp with nuts & lockwashers	015957	C-5020	8
	Studs, brake drum with nuts & lockwashers	015957	C-5020	8
	Studs, bearing housing cap with nuts & lockwashers	015957	C-5020	8
21	Spindle cap screw, includes lockwasher PN 020573	040011	093-1274-00-2	6
22	Sealing plug (fill)	020556		1
23	Sealing plug (level)	020556		1
24	Pipe plug	020559		1
25	Stop pin	015433	E-135	1

<sup>1</sup> Refer to Motor Coupling page for coupling parts if geared coupling is used.

c Items not shown

# HEAD G-12



## HEAD G-12

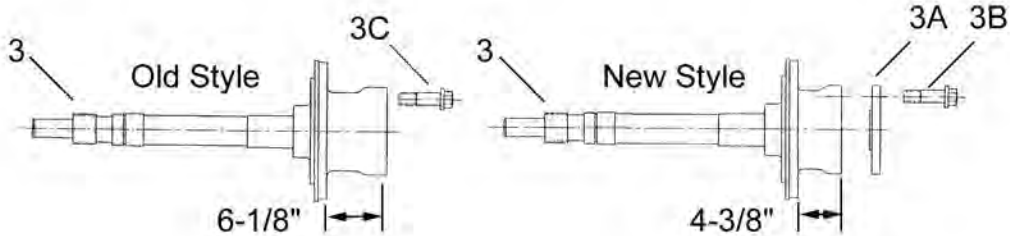
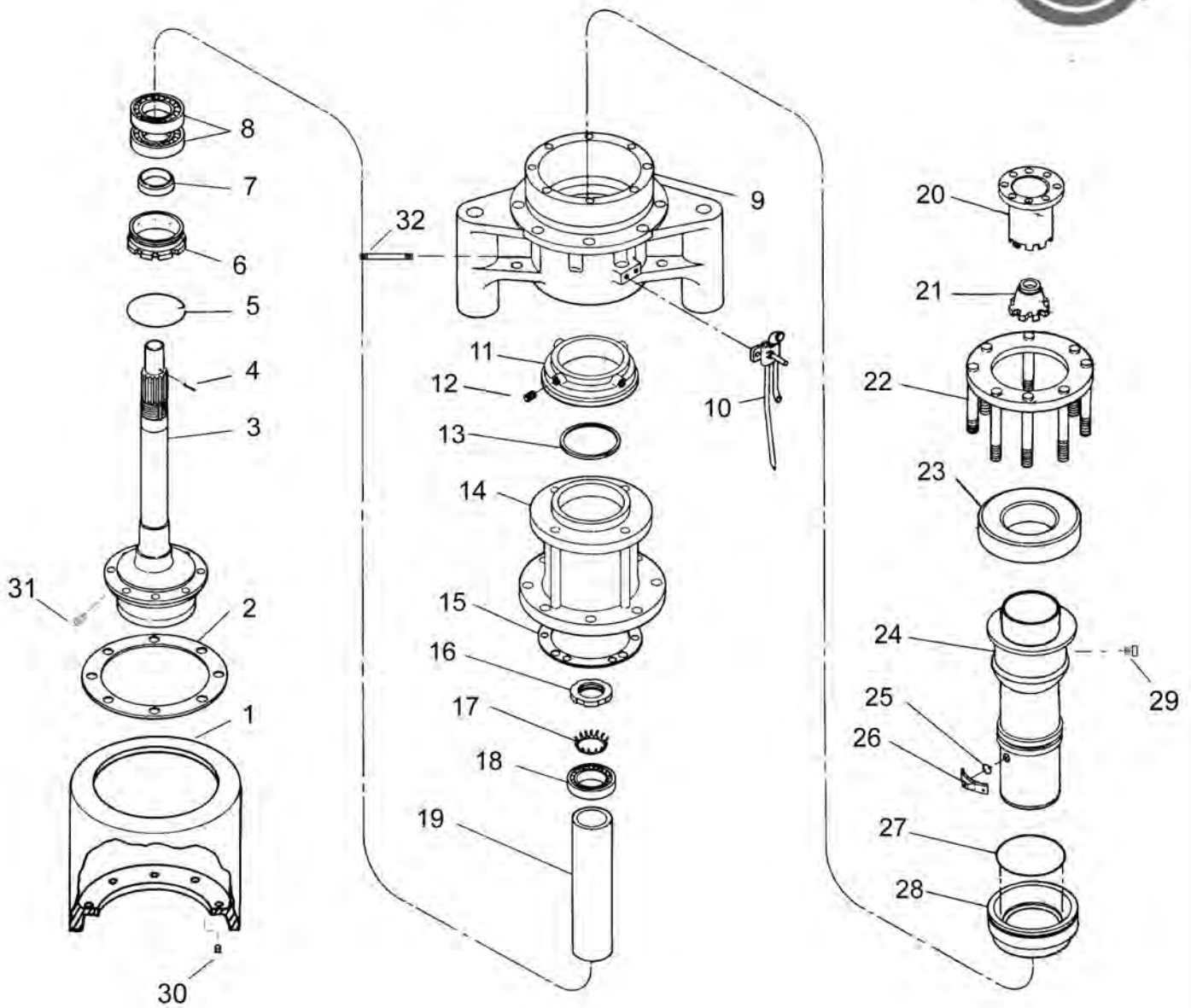
No	Description	PN	Dwg No	Qty
1	Brake drum	004960	E-504	1
2	Brake drum gasket	022402	E-528	1
3	Head spindle	015726	E-508-B	1
4	Cotter pin	001353		1
5	Seal ring	014047	E-522	1
6	Oil reservoir cap	005437	E-519	1
7	Oil reservoir set screw	001105		4
8	Oil reservoir	012698	E-503	1
9	Oil reservoir gasket	022401	E-527	1
10	Lock ring	010500	E-526	1
11	Bearing nut	005098	E-525	2
12	Ball bearing	026019		2
13	Roller bearing	026017		1
14	Bearing, shoulder ring	014046	E-517	1
15	Brake cooling water bracket	043320	033-0295-01-2	1
c	Brake water scoop mounting bolts	000235		2
16	Hanger bracket	017771	E-514	1
17	Ball seat	013492	E-511	1
18	Ball seat "O" ring	028807		1
19	Oil scoop	012793	E-506	1
c	Oil scoop mounting bolts	027649		2
20	Oil scoop "O" ring	020569		1
21	Pipe plug, hex head countersunk	001372		1
22	Bearing housing	009881	E-505-A	1
23	Rubber buffer C 48" x 30"	022297	E-123	1
	Rubber buffer C 48" x 36"	023602	E-123-B	
24	Buffer clamp	006091	E-524	1
c	Buffer clamp nuts	000007		8
25	Coupling, inner half	006443	E-502-C	1
26	Head coupling motor half	003774	E-101-A	1
27	Spindle cap screw, includes lockwasher PN 020573	040011	093-1274-00-2	6
28	Sealing plug (drain)	020556		1
29	Pipe plug (drain)	020599		1
30	Restriction nipple	044598	033-0037-01-1	1

### COMPLETE ASSEMBLY

	Description	PN	Dwg No	
	Complete assembly	004114	A-3306	

c Items not shown

# HEAD G-8C & G-8D



## HEAD G8-C & G8-D

No	Description	PN	Dwg No	Qty
1	Brake drum	004961	E-604	1
2	Brake drum gasket	020506	E-617	1
c	Brake drum overflow pipe	011398	E-610	1
c	Brake drum studs with lockwashers and nuts	015957	C-5020	8
3	Head spindle C G8-C (New style)	009759	E-603-E-1	1
	Head spindle C G8-D (New style)	009760	E-603-H-5	1
3A	Spacer C G8-C (New style)	015532	E-619	1
	Spacer C G8-D (New style)	015535	E-619-C	1
3B	Spindle cap screw (New style) with lockwasher PN 020573	040005	093-1273-00-2	6
3C	Spindle cap screw (Old style) with lockwasher PN 020573	040011	093-1274-00-2	6
3	Head spindle C G8-C (Old style)	015735	E-603-H-1	1
	Head spindle C G8-D (Old style)	015737	E-603-H-3	1
4	Cotter pin	001359		1
5	Bearing nut locking spring	020505	E-616	1
6	Lower bearing lock nut	010488	E-613	1
7	Lower bearing spacer	015531	E-612	1
8	Ball bearing	020508		2
9	Hanger bracket	017773	E-600	1
10	Pipe bracket	017622	C-5029	1
c	Brake water scoop mounting bolts	000235		2
11	Oil reservoir cap	012776	E-606	1
12	Oil reservoir set screw	001105		4
13	Sealing ring	014049	E-615	1
14	Oil reservoir	012700	E-602	1
15	Oil reservoir gasket	020507	E-618	1
16	Lock nut, upper bearing	010516	E-614	1
17	Lockwasher, shaft	020566		1
18	Roller bearing	026017		1
19	Head spindle sleeve	013866	E-611	1
20	Motor half coupling	006416	C-5026-H	1
21	Head coupling, lower half C G8-C <sup>1</sup>	006444	033-0250-00-2	1
	Head coupling, lower half C G8-D <sup>1</sup>	006445	033-0252-00-2	1
c	Coupling retainer washer	018539	C-5028-A-1	1
22	Buffer clamp	006092	E-608	1
c	Buffer clamp nuts	001569		8
23	Rubber buffer C G8-C, 48" x 30"	020644	C-5021	1
	Rubber buffer C G8-C, 48" x 36"	020571	C-5021-B	1
	Rubber buffer C G8-D, 54" x 40"	020571	C-5021-B	1
24	Bearing housing C G8-C	009883	E-601-A	1
	Bearing housing C G8-D	009883	E-601-A	1
25	Oil scoop "O" ring	020569		1
26	Oil scoop	012794	E-506-A	1
c	Oil scoop mounting bolts	027649		2
27	Ball seat "O" ring	020561		1

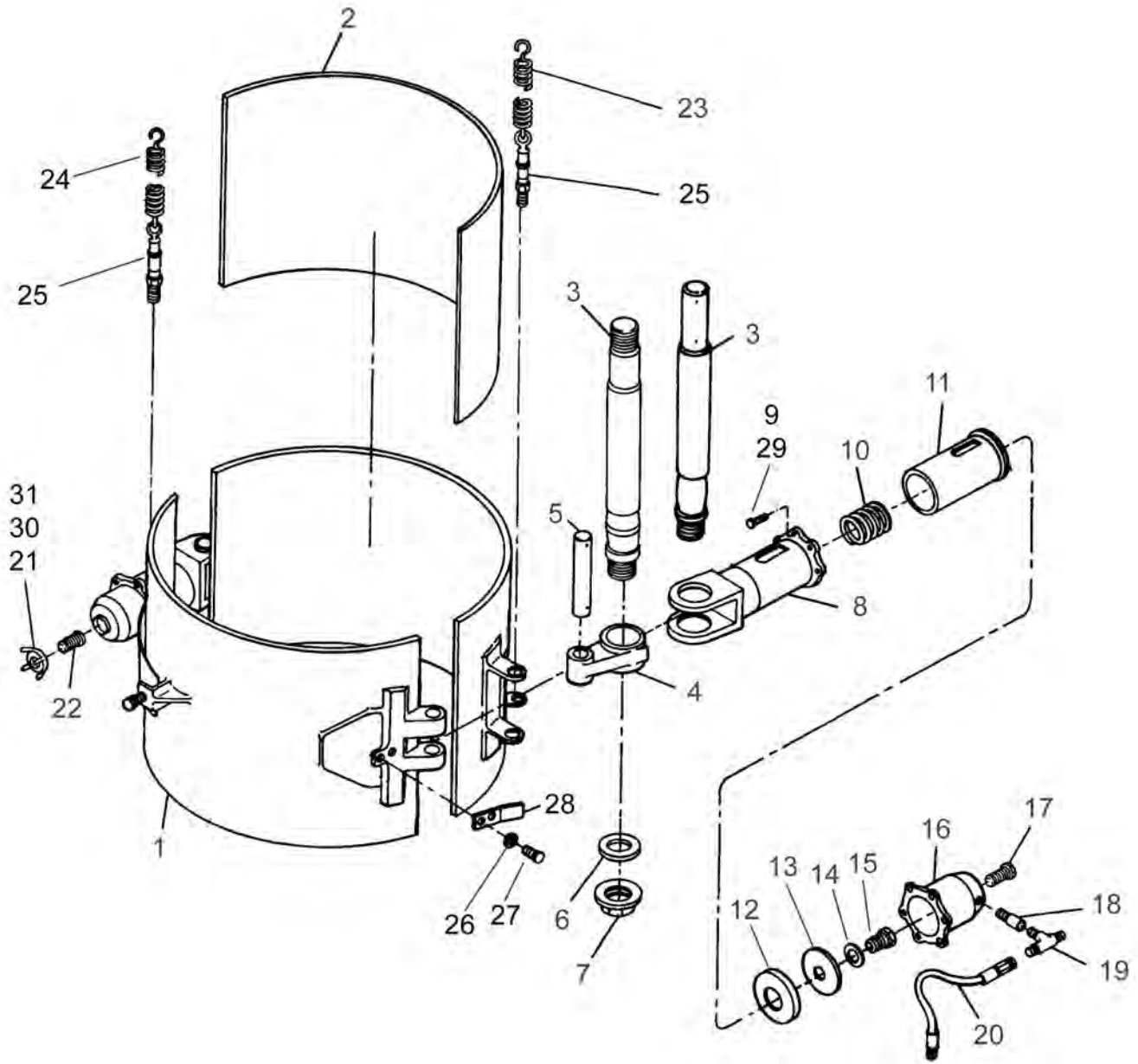
28	Ball seat	019454	E-605	1
29	Anti rotation screw	001013		1
30	Pipe plug	020599		1
31	Sealing plug (drain)	020566		1
32	Restriction nipple	044598	033-0037-01-2	1

COMPLETE ASSEMBLIES AND KITS

	Description	PN
	Complete head assembly C G8-D	020760
	Complete head assembly C G8-C	046007
	Brake drum kit. Includes brake drum, PN 004961 & brake drum gasket, PN 020506	045431
	G8-C spindle kit. Includes head spindle, PN 009759; spacer, PN 015532 & spindle cap screws, PN 040005.	050241
	G8-D spindle kit. Includes head spindle, PN 009760; spacer, PN 015532 & spindle cap screws, PN 040005.	050311

<sup>1</sup> Refer to the Motor Coupling page if geared or elastomeric coupling is used  
 c Items not shown

# AIR OPERATED BRAKE G-10 & G-12



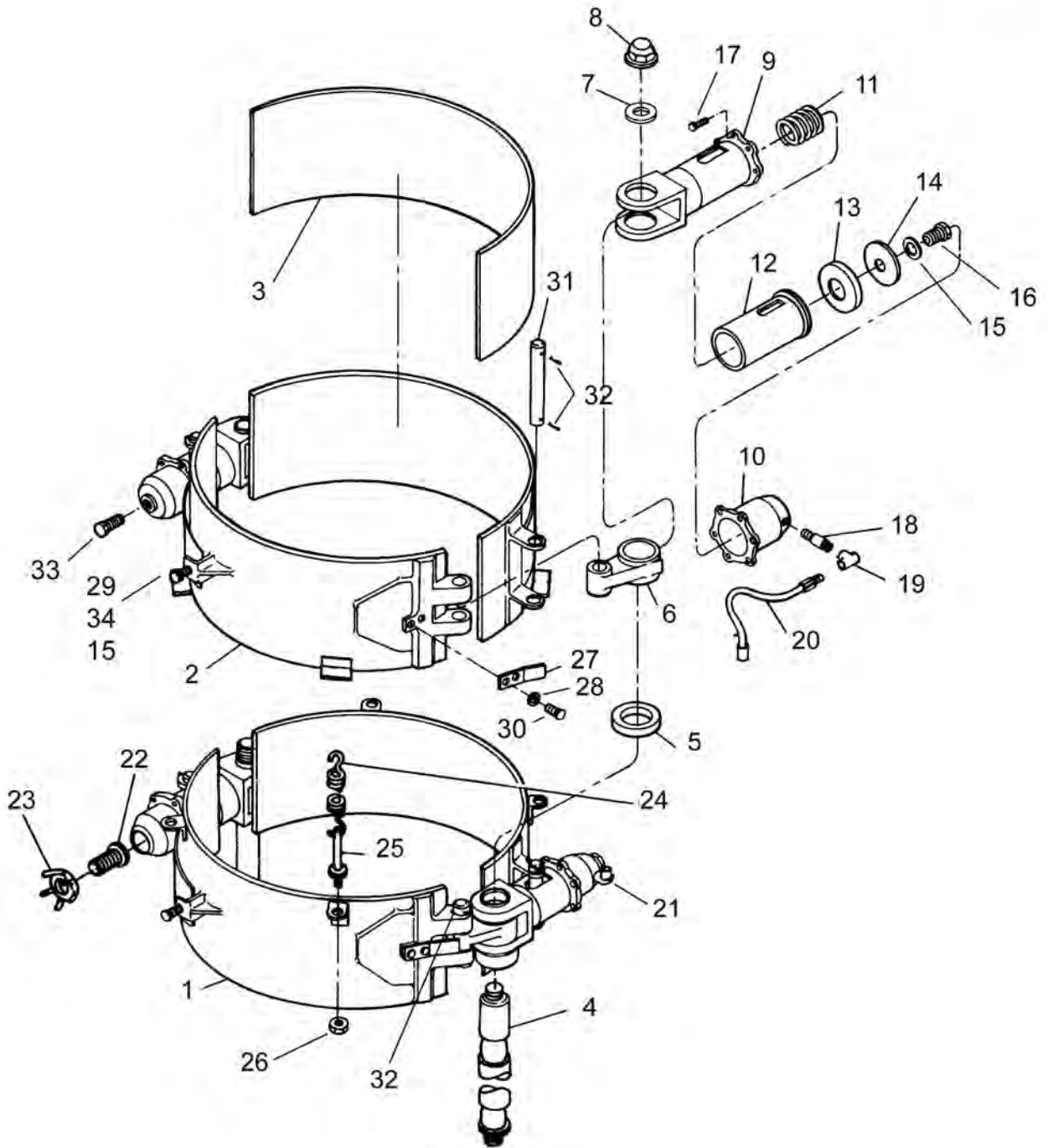
**AIR OPERATED BRAKE  
G-10 & G-12**

No	Description	PN	Dwg No	Qty
1	Brake band assembly (set)	004948	E-200-D-B	1
2	Brake lining (Bonded)	022301	033-0397-00-3	2
3	Brake support stud C G-10, 1.5 inch diameter	015996	E-217	2
	Brake support stud C G-12, 1.75 inch diameter	015998	E-217-G	2
4	Brake release lever C G-10	011625	E-215-B	2
	Brake release lever C G-12	011623	E-215-A	2
5	Brake hinge pin	011273	E-216	2
6	Washer, flat	001467		2
7	Self-locking locknut	001575		2
8	Brake cylinder C G-10 (for 1.5 inch diameter brake shaft)	007922	E-253	2
	Brake cylinder C G-12 (for 1.75 inch diameter brake shaft)	007923	E-253-A	2
9	Screw	000968		12
10	Brake plunger spring	020688	E-218	2
11	Brake plunger	012549	E-255-A	2
12	Plunger cup	020695	E-258-A	2
13	Cup washer	020693	E-256	2
14	Lockwasher	020125		2
15	Screw, hex head, cap	000680	E-259	2
16	Brake cylinder cap	005436	E-254	2
17	Screw, brake cylinder cap	013372	E-261	2
18	Short nipple, brass	002748		2
19	Tee, brass	020153		2
20	5/16" rubber hose assembly with fittings, 25.31" long	003081		2
21	Handwheel, brake cylinder	009722	E-260	1
22	Screw, brake cylinder	013371	E-259	1
23	Brake band support spring (Center) C G-10	022288	E-284-A	1
	Brake band support spring (Center) C G-12	020699	E-284-B	1
24	Brake band support spring (End)	022233	E-284	1
25	Brake band support eye bolt with nuts C G-10	008417	MC-145-B	2
	Brake band support eye bolt with nuts C G-12	020700	MC-145-B-1	4
26	Lockwasher	020125		4
27	Nut, hex, jam	001489		4
28	Spring, tip	054865	CD-324	4
29	Screw, hex head, cap	000678		4
30	Screw, socket head, dog point	001054		1
31	Screw, socket head, cup point	001053		1

**COMPLETE CYLINDERS AND REBUILD KITS**

	Description	PN
	Complete brake cylinder without handwheel C G-10	0258608
	Complete brake cylinder with handwheel C G-10	025870
	Complete brake cylinder without handwheel C G-12	025860
	Complete brake cylinder with handwheel C G-12	025870
	Repair kit for brake cylinder, G-10 & G-12	041731
	Epoxy adhesive kit C NOTE: 1 year shelf-life	020678

# AIR OPERATED BRAKE G8-A, G8-C & G8-D



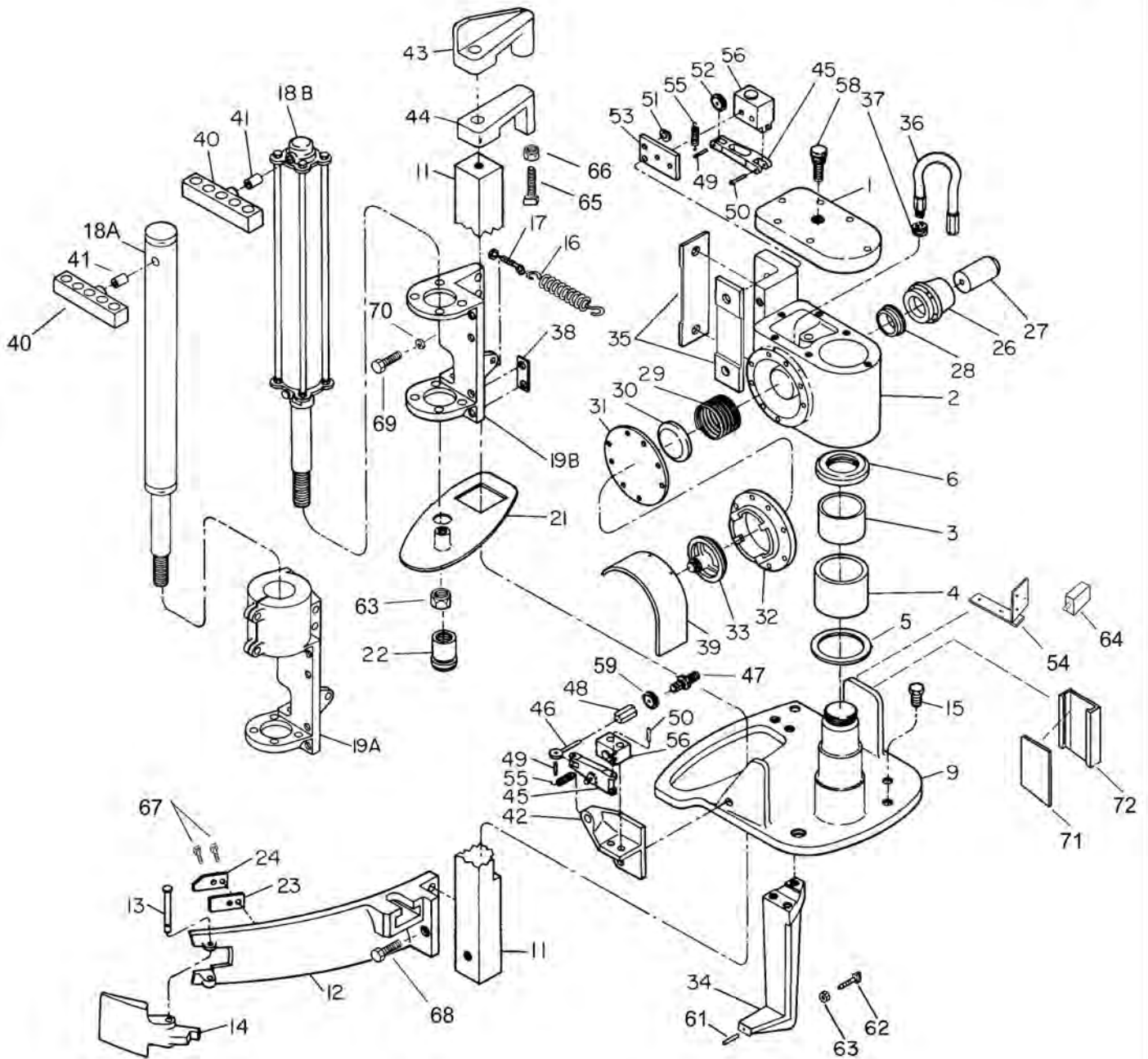
**AIR OPERATED BRAKE  
G8-A, G8-C & G8-D**

No	Description	PN	Dwg No	Qt
1	Lower brake band assembly, set of 2 pieces	004943	E-200-J-1-B	1
2	Upper brake band assembly, set of 2 pieces	004951	E-200-J-B	1
3	Brake lining	020679	033-0395-00-3	4
4	Brake shaft, G8-C and G8-D	013631	E-217-H-6	2
	Brake shaft, G8-A	013627	E-217-F	2
5	Brake shaft collar	005767	E-217-E-1	2
6	Brake release lever	011625	E-215-B	4
7	Washer, flat	001467		4
8	Self-locking lock nut	001575		4
9	Brake cylinder	007923	E-253-A	4
10	Brake cylinder cap	005436	E-254	4
11	Brake plunger spring	020688	E-218	4
12	Brake plunger	012549	E-255-A	4
13	Plunger cup	020695	E-258-A	4
14	Cup washer	020693	E-256	4
15	Lockwasher	020125		8
16	Screw, hex head, cap	000680		4
17	Screw, socket head, cap	000968		24
18	Short nipple, brass	002748		2
19	Tee, brass	020153		2
20	5/16" rubber hose assembly, 11.81" long	003078		2
21	Elbow, brass	002701		2
22	Brake cylinder screw	013371	E-259	1
23	Brake cylinder handwheel	009722	E-260	1
24	Brake band support spring	020699	E-284-B	4
25	Adjusting eye bolt	020700	MC-145-B-1	4
26	Adjusting eye bolt nut with nuts	001490		8
27	Spring, tip	054865	CD-324	4
28	Lockwasher	020125		8
29	Screw, square head, set	001235		4
30	Screw, hex head, cap	000678		8
31	Brake hinge pin	011273	E-216	8
32	Cotter pin	000513		15
33	Brake cylinder cap screw	013372	E-261	3
34	Nut, hex, jam	001489		4

**COMPLETE CYLINDERS AND REBUILD KITS**

	Description	PN
	Complete brake cylinder without handwheel	035238
	Complete brake cylinder with handwheel	035238
	Repair kit for brake cylinder including: spring (PN 020688); cup, plunger (PN 020695); washer, cup (PN 020693)	041731
	Epoxy adhesive kit C NOTE: 1 year shelf-life	020678

# DISCHARGER - AIR SEQUENCED



## DISCHARGER - AIR SEQUENCED

No	Description	PN	Dwg No	Qty
1	Housing cover	006662	CD-808	1
2	Housing	009869	CD-803	1
3	Bushing	005281	CD-717	1
4	Bushing	005287	CD-718	1
5	Washer, brass	018563	CD-722-A	1
	Washer, nylon	048199	CD-733-A-1	1
6	Retaining nut	012327	CD-709	1
9	Base plate C 40"	011070	CD-800-B	1
	Base plate C 48"	011075	CD-800-D-2	1
	Base plate, 304 stainless steel C 48"	017916	CD-800-D-3-A	1
	Base plate, 316 stainless steel C 48"	017918	CD-800-D-5-A	1
	Base plate C 54"	017911	CD-800-D-6-A	1
	Base plate, 304 stainless steel C 54"	017921	CD-800-D-6-D	1
11	Ram (3" shoe) C 40" x 30" (316 Stainless steel)	012659	030-0279-00-3	1
	Ram (4" shoe) C 40" x 24" (Chrome plated)	012638	CD-813-E	1
	Ram (4" shoe) C 40" x 30" (Chrome plated)	012630	030-0846-00-3	1
	Ram (4" shoe) C 48" x 30" (Chrome plated)	012633	CD-813-C-4	1
	Ram (4" shoe) C 48" x 36" (316 Stainless steel)	012632	CD-813-C-3	1
	Ram (5" shoe) C 40" x 24" (316 Stainless steel)	012639	CD-813-F-1	1
	Ram (5" shoe) C 40" x 30", 48" x 30" (Chrome plated)	012634	030-0845-00-3	1
	Ram (5" shoe) C 40" x 30", 48" x 30" (316 Stainless steel)	012633	CD-813-C-4	1
	Ram (5" shoe) C 48" x 36" (Chrome plated)	012635	030-0844-00-3	1
	Ram (5" shoe) C 48" x 36" (316 Stainless steel)	012636	CD-813-D-3	1
	Ram (5" shoe) C 54" x 40" (Chrome plated)	012635	030-0847-00-3	1
	Ram (5" shoe) C 54" x 40" (316 Stainless steel)	012654	CD-1013-A	1
15	Spring stud	015989	CD-812	1
16	Housing return spring	022690	CD-814	1
	Housing return spring	022691	CD-814-A	1
17	Eye bolt with nuts	020700	MC-145-B-1	1
18A	See separate discharger air cylinder sheet			
18 B	See separate discharger air cylinder sheet			
19A	Cylinder ram support C 40"	016722	CD-804-A	1
	Cylinder ram support C 48" (Clamp type)	016727	CD-804-C	1
19B	Cylinder ram support C 48" (Tie rod cylinder)	016731	CD-804	1
	Cylinder ram support C 54"	016732	CD-804-M	1
21	Base cover, carbon steel C 40"	006668	CD-835-M	1
	Base cover, carbon steel C 48"	036784	030-0921-00-2 Line A	1
	Base cover, stainless steel C 54"	033833	030-0921-00-2 Line B	1
22	Shoe anchor, brass 3-3/8" long C 48"	003292	CD-831	1
	Shoe anchor, brass 2-3/8" long C 58"	003293	CD-831-C	1
	Shoe anchor, 316 stainless steel 2-3/8" long C 58"	003294	CD-831-C-!	1
	Shoe anchor, 316 stainless steel 3-3/8" long C 48"	013765	CD-831-D	1
	Shoe anchor, 304 stainless steel 3-3/8" long C 48"	003296	CD-831-F	1
26	Piston guide C 40" & 48"	009282	CD-805	1
	Piston guide C 54"	009283	CD-805-B	1
27	Piston C 2 1/2" diameter	010864	CD-811	1

	Piston C 2 3/4" diameter	010865	CD-811-B	1
28	Packing C for 2 1/2" diameter piston <sup>1</sup>	023576	CD-817	1
	Piston guide gasket for 2 3/4" diameter piston <sup>1</sup>	023582	CD-867	1
	Quad ring seal for 2 3/4" diameter piston <sup>1</sup>	028642		1
29	Damper spring	023578	CD-820	1
30	Spring cup	023577	CD-819	1
31	Diaphragm	023573	CD-810	1
32	Damper ring	014039	CD-807	1
33	Damper plunger	012546	CD-806	1
34	Ram stop bracket, aluminum C 40"	017715	CD-809-D-4	1
	Ram stop bracket, 316 stainless steel C 40"	035994	CD-809-D-2-A	1
	Ram stop bracket, aluminum C 48" & 54"	017727	CD-809-V	1
	Ram stop bracket, 304 stainless steel C 48" & 54"	028218	CD-809-V-1	1
	Ram stop bracket, 316 stainless steel C 48" & 54"	017729	CD-809-V-2	1
	Ram stop bracket, aluminum for 5" shoe with 8" tip C 48"	017718	CD-809-E-2	1
35	Wearing plate, brass	011082	CD-815	2
	Wearing plate, Delrin 1/4" thick	018621	CD-815-G	2
c	Wearing plate, Delrin 1/16" thick	018622	CD-815-G-1	2
36	5/16@Dia. Rubber hose with fittings, 11.81@long	003078		2
	5/16@Dia. Rubber hose with fittings, 19.31@long	003080		5
	5/16@Dia. Rubber hose with fittings, 13.31@long (2nd cut only)	003079		1
	5/16@Dia. Rubber hose with fittings, 25.31@long	003081		1
37	Orifice Plug	012473	CD-818	1
38	Laminated shims (13 piece set)	020496	CD-816	4
	Laminated shims, stainless steel (13 piece set)	028225	CD-816	4
39	Snubber guard	008887	CD-833	1
40	Manifold	010669	CD-759-C-2	1
	Manifold (2nd cut only)	010668	CD-759-C-1	1
41	Spacer	015509	CD-759-D	1
	Spacer (2nd cut only)	015510	CD-759-D-1	1
42	Air Valve Bracket	004741	SQC-1	1
43	Vertical trip arm C 40" x 24", 40' x 30", 48" x 30"	003368	SQC-2	1
44	Vertical trip arm C 48" x 36"	018197	SQC-4-C	1
	Vertical trip arm C 54" x 40"	003370	SQC-4-A	1
45	Air valve lever	011671	SQC-3	2
46	Valve operating pin	011294	SQC-5	1
47	Stud	016051	SQC-6	1
48	Adjusting nut	003210	SQC-7	1
49	Roller spring stud	016053	SQC-8	2
50	Air valve pin	011295	SQC-9	2
51	Valve pin disc	011325	SQC-10	1
52	Pilot air valve roller	014260	SQC-8-A	1
53	Valve mounting pad	012891	SQC-10-A	1
54	Bracket C 54"	004761	SQC-11-T	1
55	Spring	023714	SQC-12	2
56	3 Way air limit valve	027683		2
	Repair kit for item 56	029227		
58	Oil level screw	013365	CD-834	1
59	In motion lockout	010519	SQC-6-D	1
61	Wearing plug	018626	CD-2073-B	1
62	Set screw	020779		1

	Set screw, stainless steel	000424		1
63	Hex nut	001489		1
	Hex nut, stainless steel	000041		1
64	Micro switch	020923		1
65	Screw, square head, set	001245		1
66	Lock nut	001565		1
69	Screw, hex head cap	000722		8
70	Washer	055403		8
71	Wear pad	018620	CD-801-C-1	1
72	Wear pad retainer	006235	CD-801-C	1

**DISCHARGER SHOES, SHOE TIPS AND TIP SPRINGS**

No	Description	PN	Dwg No	Qty
12	Discharger shoe (4"), bronze C 40"	008072	CD-825-B	1
	Discharger shoe (4"), 304 stainless steel C 40"	013761	CD-825-B-1	1
	Discharger shoe (4"), 316 stainless steel C 40"	008063	CD-825-B-3	1
	Discharger shoe (5"), bronze C 48"	013799	CD-825-A	1
	Discharger shoe (5"), 316 stainless steel C 48"	013800	CD-825-G	1
	Discharger shoe (5") , bronze, Posi-Latch C 48"	033071	030-0900-00-4	1
	Discharger shoe (5"), 316 stainless steel, Posi-Latch C 48"	049384	030-1207-00-4	1
	Discharger shoe (5"), bronze C 54"	013801	CD-825-J	1
	Discharger shoe (5"), 316 stainless steel C 54"	008044	CD-825-J-1	1
	Discharger shoe (5"), bronze, Posi-Latch C 54"	025924	030-0767-00-4	1
13	Tip shaft (4"), titanium	017299	CD-764-C	1
	Tip shaft (5")	013615	CD-829	1
	Tip shaft (5"), 316 stainless steel	013618	CD-829-E	1
	Tip shaft (5"), titanium	017304	CD-829-E-2	1
14	Discharger tip (4"), with stellite	013781	CD-761-D-2	1
	Discharger tip (5"), 316 Stainless steel	018742	030-0251-00-2	1
	Discharger tip (5"), 316 stainless steel C G-16	055677	030-1385-00-2	1
23	Paddle tip spring, stainless steel	054639	030-1204-00-2	2
24	Paddle tip spring, stainless steel	021981	030-0727-00-1	3
67	Screw, hex head cap	000319		2
c	Lockwasher, for item 67	000073		2
68	Screw, socket head cap	000255		3

**COMPLETE DISCHARGER SHOE ASSEMBLIES**

	Description	PN	Dwg No	
	4" bronze C 40"	047177		1
	4" 304 stainless steel C 40"	041522	030-1066-00-4	1
	4" 316 stainless steel C 40"	045442	030-1066-01-4	1
	5" bronze C 48"	022713	030-0827-00-4	1
	5" 316 stainless steel C 48"	046188	030-1151-00-4	1
	5" 316 stainless steel with teflon tip C 48"	050672		1
	5" bronze with 8" tip C 48"	050448		1
	5" bronze, Posi-Latch C 48"	033074	030-0901-00-4	1
	5" 316 stainless steel, Posi-Latch C 48"	049437	030-1208-00-4	1
	5" bronze C 54"	022712	030-0881-00-4	1
	5" 316 stainless steel C 54"	033733	030-0881-01-4	1
	5" bronze, Posi-Latch C 54"	031121	030-0875-00-4	1

**3-WAY AIR VALVE KITS**

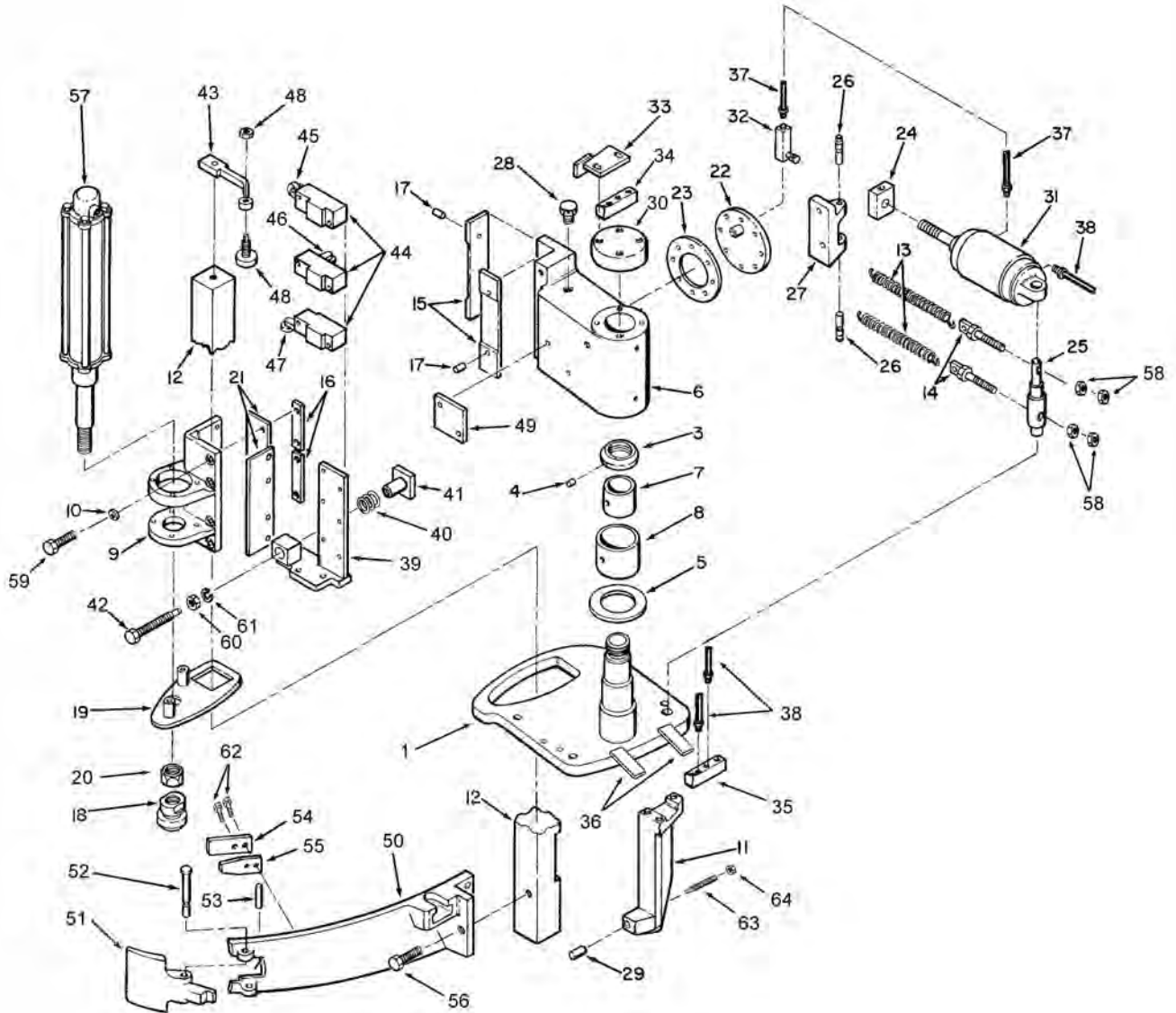
	Description	PN
56	Complete replacement valve including: valve (PN 027683), lever (PN 011672), stud (PN 016053) and pin (PN 011295)	045621

56	Valve repair kit	029227
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Ⓒ Item not shown

<sup>1</sup> Confirm piston diameter before ordering packing

# DISCHARGER ELECTRIC SEQUENCED



## DISCHARGER - ELECTRIC SEQUENCED

No	Description	PN	Dwg No	Qty
1	Base plate w/curb mounted gyration switch, plated	017942	030-0386-00-3	1
	Base plate w/curb mounted gyration switch, stainless steel	017943	030-0386-01-3	1
	Base plate w/base mounted gyration switch	017944	030-0461-00-3	1
3	Retaining Nut	012327	CD-709	1
4	Plug	012471	CD-646	1
5	Washer	018563	CD-733-A	1
6	Housing	009945	030-0286-00-4	1
7	Bushing	005281	CD-717	1
8	Bushing	005287	CD-718	1
9	Cylinder and ram support, Delrin wear plate C 48" x 30"	016731	CD-804-K	1
	Cylinder and ram support, brass wear plate C 48" x 30" & 48" x 36"	016721	CD-804	1
	Cylinder and ram support, brass wear plate, 5" shoe with 8" tip C 48" x 30"	016726	CD-804-B	1
	Cylinder and ram support, Delrin wear plate C 54" x 40"	016733	CD-804-M-1	1
	Cylinder and ram support, brass wear plate C 54" x 40"	016732	CD-804-M	1
10	Washer	055403		8
11	Ram stop bracket, aluminum C 40"	017715	CD-809-D-4	1
	Ram stop bracket, 316 stainless steel C 40"	035994	CD-809-D-2-A	1
	Ram stop bracket, aluminum C 48" & 54"	017727	CD-809-V	1
	Ram stop bracket, 304 stainless steel C 48" & 54"	028218	CD-809-V-1	1
	Ram stop bracket, 316 stainless steel C 48" & 54"	017729	CD-809-V-2	1
	Ram stop bracket, aluminum for 5" shoe with 8" tip C 48"	017718	CD-809-E-2	1
12	Ram (4@shoe) C 40" x 30" (Chrome plated)	012630	030-0846-00-3	1
	Ram (4@shoe) C 40" x 30" (304 Stainless steel)	012631	CD-813-C-2	1
	Ram (4@shoe) C 40" x 30" (316 Stainless steel)	012633	CD-813-C-4	1
	Ram (4@shoe) C 48" x 36" (316 Stainless steel)	012632	CD-813-C-3	1
	Ram (5@shoe) C 48" x 30" (Chrome plated)	012634	030-0845-00-3	1
	Ram (5@shoe) C 48" x 30" (316 Stainless steel) with curb top mounted gyration switch	012642	CD-813-L	1
	Ram (5@shoe) C 48" x 36" (Chrome plated)	012635	030-0844-00-3	1
	Ram (5@shoe) C 48" x 36" (316 Stainless steel)	012636	CD-813-D-3	
	Ram (5@shoe) C 54" x 40" (Chrome plated)	012653	030-0847-00-3	1
	Ram (5@shoe) C 54" x 40" (316 Stainless steel)	012654	CD-1013-A	1
13	Housing return spring	020781	CD-814-D-1	2
14	Eye bolt	008414	CD-417	2
15	Wearing plate, brass <sup>2</sup>	011082	CD-815	2
	Wearing Plate, Delrin <sup>2</sup>	018621	CD-815-G	2
16	Shim, laminated (13 Piece set)	020496	CD-816	4
17	Wearing Plate Pin	011260	CD-645	4
18	Shoe Anchor, brass 3-3/8" long C 48"	003292	CD-831	1
	Shoe Anchor, brass 2-3/8" long C 54"	003293	CD-831-C	1
	Shoe Anchor, 316 stainless steel 2-3/8" long C 54"	003294	CD-831-C-1	1
	Shoe Anchor, 316 stainless steel 3-3/8" long C 48"	013765	CD-831-D	1
	Shoe Anchor, 304 stainless steel 3-3/8" long C 48"	003296	CD-831-F	1
19	Base cover, 304 Stainless steel C 48"	036784	030-0921-00-2 Line A	1

	Base cover, 304 Stainless steel C 54"	033833	030-0921-00-2 Line B	1
20	Nut, hex, jam, heavy, brass	009679		1
	Nut, hex, jam, heavy, stainless steel	000046		1
21	Wearing plate, delrin <sup>2</sup>	018622	CD-815-G-1	2
22	Oil reservoir cover	006676	CD-894	1
23	Cover gasket	009447	CD-895	1
24	Rod end	014219	CD-892-B	1
25	Cylinder stud	007888	CD-893-D-1	1
26	Rod anchor pin	011265	CD-890	2
27	Rod end anchor	003301	CD-889-B	1
28	Vent cap	018465	CD-899	1
29	Wearing plug	018626	CD-2073-B	1
30	Cover	020836	CD-710-D	1
31	Air cylinder 3@ dia x 2@stroke <sup>3</sup>	021153	030-0684-00-2	1
32	Flow control valve	040071		3
33	Shoe-On-Rest trip limit switch trip	020840	030-0547-00-2	1
34	Manifold, upper	020849	030-0592-00-2	1
35	Manifold, lower C 48"	020851	030-0548-00-2	1
36	Bracket, lower manifold C 48"	020853	030-0549-00-2	2
	Bracket, lower manifold C 54"	031131	030-0549-02-2	2
37	Rubber hose w/adapters 5/16@ x 13.31@lg. C 48"	003079		1
	Rubber hose w/adapters 5/16@ x 11.81@lg. C 54"	003078		1
38	Rubber hose w/adapters 5/16@ x 13.31@lg. C 48"	003079		3
	Rubber hose w/adapters 5/16@ x 19.31@lg. C 54"	003080		3
39	Limit switch bracket	004779	030-0282-00-4	1
40	Actuator spring	015122	030-0289-00-2	1
41	Limit switch actuator	003105	030-0293-01-2	1
42	Screw, square head set	016393	030-0292-00-2	1
43	Vertical trip arm	003396	030-0281-00-3	1
44	Limit switch	020667		3
45	Offset roller	020669		1
46	Standard roller	020670		1
47	Standard roller	020671		1
48	Adjusting screw	036338	030-0967-00-2	1
49	Striker plate	013123	030-0356-00-2	1
50 - 51 C	See separate listing for discharger shoes & shoe tips			
57	See separate discharger air cylinder sheet			
58	Nut, hex	000024		4
59	Screw, hex head cap	000722		8
60	Nut, hex jam	001501		1
61	Lockwasher	020401		1
63	Screw, square head set	020779		1
64	Nut, hex jam	001489		1

### DISCHARGER SHOES, SHOE TIPS AND TIP SPRINGS

No	Description	PN	Dwg No	Qty
50	Discharge Shoe (4@), bronze C 40"	008072	CD-825-B	1
	Discharge Shoe (4@), 304 stainless steel C 40"	013761	CD-825-B-1	1

	Discharge Shoe (4@), 316 stainless steel C 40"	008063	CD-825-B-3	1
	Discharge Shoe (5"), bronze C 48"	013799	CD-825-A	1
	Discharge Shoe (5"), 316 stainless steel C 48"	013800	CD-825-G	1
	Discharge Shoe (5"), bronze, Posi-Latch C 48"	033071	030-0900-00-4	1
	Discharge Shoe (5"), 316 stainless steel, Posi-Latch C 48"	049384	030-1207-00-4	1
	Discharge Shoe (5"), bronze C 54"	013801	CD-825-J	1
	Discharge Shoe (5"), 316 stainless steel C 54"	008044	CD-825-J-1	1
	Discharge Shoe (5"), bronze, Posi-Latch C 54"	025924	030-0767-00-4	1
51	Discharger tip (4")	017238	CD-761-A-1	1
	Discharger tip (4"), with stellite	013781	CD-761-D-2	1
	Discharger Tip (5"), stainless steel C 48"	018742	030-0251-00-2	1
	Discharger Tip (5"), stainless steel C 54"	055677	030-1385-00-2	1
52	Tip Shaft (4@)	013612	CD-764	1
	Tip Shaft (4@)	017299	CD-764-C	1
	Tip Shaft (5")	013615	CD-829	1
	Tip Shaft (5"), stainless steel	013618	CD-829-E	1
53	Tip Stop (4"), 316 stainless steel	015429	CD-763-A-1	1
	Tip Stop (4"), 304 stainless steel	011263	CD-763-A	1
	Tip Stop (5")	017307	CD-830	1
	Tip Stop	015398	CD-830-B	1
54	Paddle tip spring, stainless steel	054639	030-1204-00-2	2
55	Paddle tip spring, stainless steel	049318	030-1205-00-2	3
56	Screw, socket head, cap	000255		3
62	Screw, hex head cap	000319		2
c	Lockwasher, for item 62	000073		2

### COMPLETE DISCHARGER SHOE ASSEMBLIES

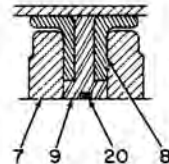
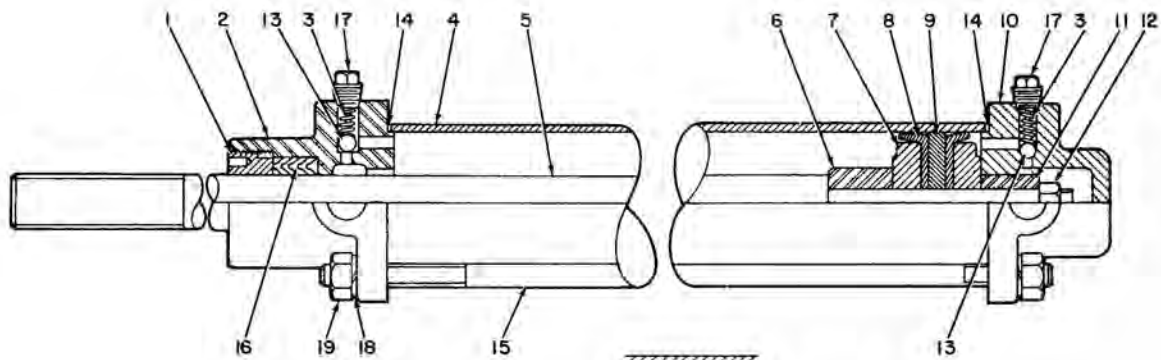
	4" bronze C 40"	047177		1
	4" 304 stainless steel C 40"	041522	030-1066-00-4	1
	4" 316 stainless steel C 40"	045442	030-1066-01-4	1
	5" bronze C 48"	022713	030-0827-00-4	1
	5" 316 stainless steel C 48"	046168	030-1151-00-4	1
	5" 316 stainless steel with teflon tip C 48"	050672		1
	5" bronze with 8" tip C 48"	050448		1
	5" bronze, Posi-Latch C 48"	033074	030-0901-00-4	1
	5" 316 stainless steel, Posi-Latch C 48"	049437	030-1208-00-4	1
	5" bronze C 54"	022712	030-0881-00-4	1
	5" 316 stainless steel C 54"	033733	030-0881-01-4	1
	5" bronze, Posi-Latch C 54"	031121	030-0875-00-4	1

c Item not shown

<sup>1</sup> No item no. 2

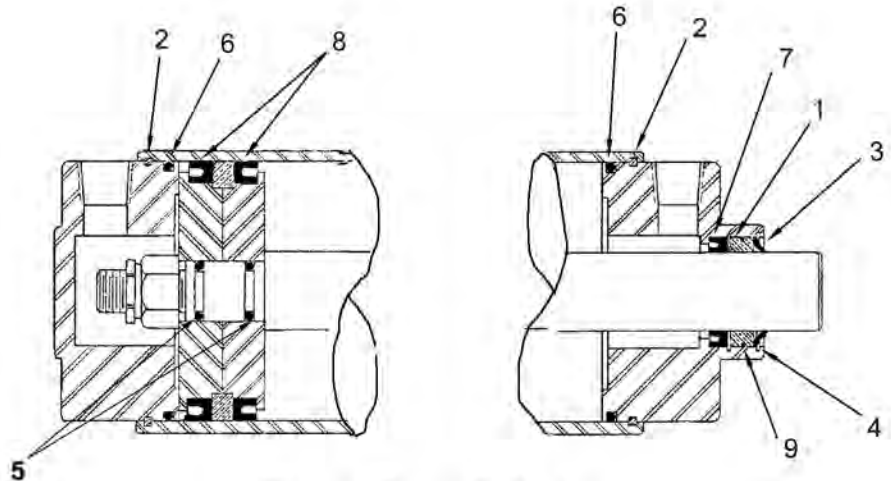
<sup>2</sup> If item 15 is brass (PN 011082), item 21 (PN 018622), is not required

# DISCHARGER AIR CYLINDER AIR & ELECTRIC SEQUENCED



30-CY-35  
CYLINDER  
ONLY

Tierod Cylinder



Clamp Type Cylinder

DISCHARGER AIR CYLINDER C AIR & ELECTRIC SEQUENCED  
TIE ROD AIR CYLINDER

No	Description	PN	Dwg No	Qty
1	Gland nut	008845	4-CY-13-A	1
2	Cylinder head (rod end) C 48"	014231	25-CY-24-B	1
	Cylinder head (rod end) C 54"	014234	30-CY-35-D	1
3	Check valve spring	020352	25-CY-45-K-1	2
4	Air cylinder barrel C 48" x 30" w/8" shoe	019538	25-CY-21-C-1	1
	Air cylinder barrel C 48" x 30"	019541	25-CY-24-C-6	1
	Air cylinder barrel C 48" x 30" w/4" shoe	019543	25-CY-25-C-1	1
	Air cylinder barrel C 48" x 36"	019542	25-CY-24-C-7	1
	Air cylinder barrel C 54" x 40"	019551	30-CY-35-C-1	1
5	Piston rod C 48" x 30" w/8" shoe	010891	25-CY-21-D	1
	Piston rod C 48" x 30"	010895	25-CY-24-D	1
	Piston rod C 48" x 30", 316 SST	010896	25-CY-24-D-3	1
	Piston rod C 48" x 30" w/4" shoe	010898	25-CY-25-D	1
	Piston rod C 48" x 30" w/4" shoe, 316 SST	010900	25-CY-25-D-5	1
	Piston rod C 48" x 36"	014203	30-CY-35-A	1
	Piston rod C 48" x 36", 304 SST	010904	30-CY-35-A-1	1
	Piston rod C 54" x 40"	014203	30-CY-35-A	1
	Piston rod C 54" x 40", 304 SST	010904	30-CY-35-A-1	1
	Piston rod C 54" x 40", 316 SST	046358	030-1153-00-2	1
6	Cushion plug	007810	25-CY-24-E	1
7	Cup Washer C 48"	018610	25-CY-45-F	2
	Cup Washer C 54"	007033	30-CY-4	2
8	Piston Cup C 48"	002910	25-CY-45-M	2
	Piston Cup C 54"	002912	30-CY-5	2
9	Piston Spacer C 48"	015623	25-CY-45-H	1
	Piston Spacer C 54"	015624	30-CY-3	1
10	Cylinder Head (cap end) C 48"	005550	25-CY-45-J	1
	Cylinder Head (cap end) C 54"	005552	30-CY-2	1
11	Cushion plug	012519	25-CY-45-E	1
12	Self-locking locknut	001567		1
13	5/16@ Brass ball	020387		2
14	Gasket	020173	25-CY-45-L	2
	Gasket	020409	30-CY-6	2
15	Tie rod C 48" x 30" w/8" shoe	017209	25-CY-21-G	4
	Tie rod C 48" x 30"	017210	25-CY-24-G	4
	Tie rod C 48" x 30" w/4" shoe	017214	25-CY-25-G	4
	Tie rod C 48" x 36"	017213	25-CY-24-G-5	4
	Tie rod C 54" x 40"	021035	30-CY-35-B	4
16	"V" packing, set	021029		1
17	Counter sunk hex socket pipe plug 1/8@	000532		2
18	1/8@ Lockwasher	020125		8
19	3/8" Hex nut	001512		16
20	"O" ring	020416		1

## COMPLETE CYLINDER

Cylinder	PN	Basket	Stroke
25-CY-21	003926	48" x 30" w/8" shoe	21-13/16"
25-CY-24	003923	48" x 30"	24-13/16"
25-CY-25	003928	48" x 30" w/4" shoe	25-13/16"
25-CY-31	003924	48" x 36"	30-13/16"
30-CY-35	003250	54" x 40"	34-13/16"

## REPAIR KIT

	Description	PN
	Repair kit for 25-CY-21, 25-CY-24, 25-CY-25 and 25-CY-31. Including: two(2) ball (PN 020387); one (1) "V" packing set (PN 021029); two (2) check valve spring (PN 020352); two (2) cylinder head gasket (PN 020173); two (2) piston cup (PN 002910)	039570
	Repair kit for 30-CY-35. Including: Including: two(2) ball (PN 020387); one (1) "V" packing set (PN 021029); two (2) check valve spring (PN 020352); two (2) cylinder gasket (PN 020409); two (2) piston cup (PN 002912)	043878

## CLAMP TYPE CYLINDER 2 1/2" DIAMETER C UP/DOWN 3" DIAMETER C IN/OUT

No	Description	PN	Dwg No	Qty
1	Rod bearing	included		1
2	Internal key	in		2
3	Rod scraper	repair		1
4	Rod gland snap ring	kits		1
5	Piston seal "O" ring	listed		2
6	End cover "O" ring	below		2
7	Rod packing	:		1
8	Piston packing	:		2
9	Cartridge "O" ring	:		1

## COMPLETE CYLINDER

Cylinder	PN	Basket	Stroke
CD-837-U	044560	40" X 24" w/ 4" shoe	19-13/16"
CD-837-C-2	029455	40" X 30" & 48" X 30" w/4" shoe	31-13/16"
CD-837-C-1	029848	40" X 30" & 48" X 30", SST, w/4" shoe	25-13/16"
CD-837-B	028343	40" X 24"	24-13/16"
CD-837-T	029202	48" X 36" w/5" shoe	30-13/16"
030-0684-00-2	021153	In and Out	2"

## REPAIR KIT

	Description	PN
	Repair kit for 2-1/2" diameter up/down cylinder includes items 1-9 plus one tube of grease	028340

	Repair kit for 3" diameter in/out cylinder includes items 1-9 plus one tube of grease	029693
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### DOUBLE CUT AIR CYLINDER

	Description	PN
	Double cut air cylinder, 1" diameter x 1" stroke	041517
	Repair kit for 1" diameter double cut cylinder	045944

## COMPLETE CYLINDER

Cylinder	PN	Basket	Stroke
25-CY-21	003926	48" x 30" w/8" shoe	21-13/16"
25-CY-24	003923	48" x 30"	24-13/16"
25-CY-25	003928	48" x 30" w/4" shoe	25-13/16"
25-CY-31	003924	48" x 36"	30-13/16"
30-CY-35	003250	54" x 40"	34-13/16"

## REPAIR KIT

	Description	PN
	Repair kit for 25-CY-21, 25-CY-24, 25-CY-25 and 25-CY-31. Including: two(2) ball (PN 020387); one (1) "V" packing set (PN 021029); two (2) check valve spring (PN 020352); two (2) cylinder head gasket (PN 020173); two (2) piston cup (PN 002910)	039570
	Repair kit for 30-CY-35. Including: Including: two(2) ball (PN 020387); one (1) "V" packing set (PN 021029); two (2) check valve spring (PN 020352); two (2) cylinder gasket (PN 020409); two (2) piston cup (PN 002912)	043878

## CLAMP TYPE CYLINDER 2 1/2" DIAMETER C UP/DOWN 3" DIAMETER C IN/OUT

No	Description	PN	Dwg No	Qty
1	Rod bearing	included		1
2	Internal key	in		2
3	Rod scraper	repair		1
4	Rod gland snap ring	kits		1
5	Piston seal "O" ring	listed		2
6	End cover "O" ring	below		2
7	Rod packing	:		1
8	Piston packing	:		2
9	Cartridge "O" ring	:		1

## COMPLETE CYLINDER

Cylinder	PN	Basket	Stroke
CD-837-U	044560	40" X 24" w/ 4" shoe	19-13/16"
CD-837-C-2	029455	40" X 30" & 48" X 30" w/4" shoe	31-13/16"
CD-837-C-1	029848	40" X 30" & 48" X 30", SST, w/4" shoe	25-13/16"
CD-837-A		40" X 24" w/5" shoe	18-13/16"
CD-837-B	028343	40' X 24"	24-13/16"
CD-837-T	029202	48" X 36" w/5" shoe	30-13/16"
030-0684-00-2	021153	In and Out	2"

## REPAIR KIT

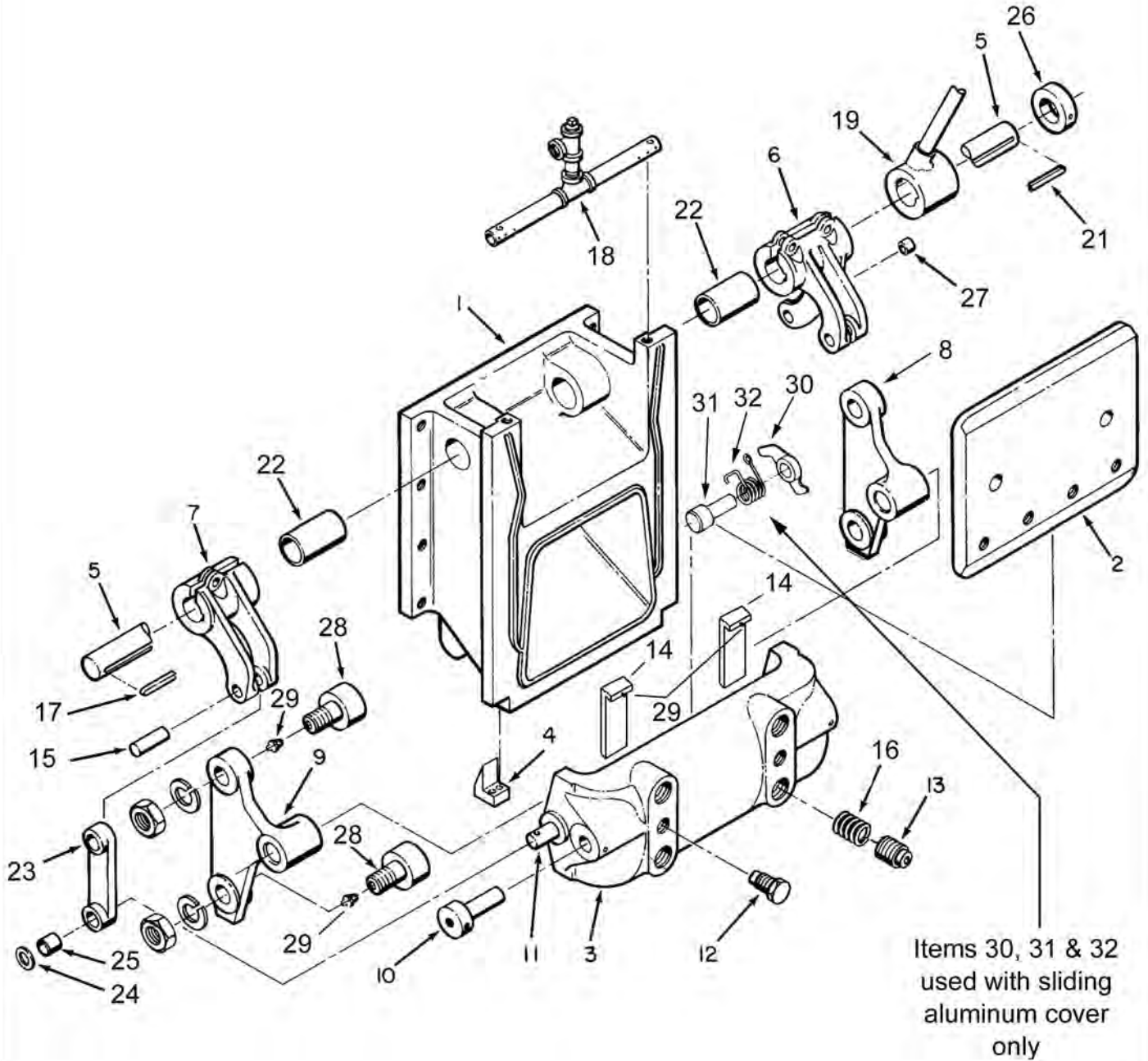
	Description	PN
	Repair kit for 2-1/2" diameter up/down cylinder includes items 1-9 plus one tube of	028340

	grease	
	Repair kit for 3" diameter in/out cylinder includes items 1-9 plus one tube of grease	029693

### DOUBLE CUT AIR CYLINDER

	Description	PN
	Double cut air cylinder, 1" diameter x 1" stroke	041517
	Repair kit for 1" diameter double cut cylinder	045944

# LOADING GATE ROLLER WEDGE TYPE



## LOADING GATE C ROLLER WEDGE TYPE

No	Description	PN	Dwg No	Qty
1	Gate body C 48", carbon steel	009618	SG-800-D-8 Line A	1
	Gate body C 48", carbon steel with stainless flange	031796	045-0292-00-4	1
	Gate body C 48", 304 stainless steel	033828	SG-800-D-8 Line B	1
	Gate body C 54", carbon steel	009636	045-0078-00-4	1
	Gate body C 54", carbon steel with stainless flange	045939	SG-800-JB	1
	Gate body C 54", 304 stainless steel	020648	045-0078-01-4	1
2	Gate cover C 48", 410 stainless steel	009650	045-0099-00-2	1
	Gate cover C 54", 410 stainless steel	009649	045-0077-01-2	1
3	Gate cross head C 48"	034287	045-0015-02-4	1
	Gate cross head C 54"	027493	045-0264-00-4	1
4	Roller wedge	018652	045-0106-00-2	2
c	Screw, socket head, cap (for roller wedge)	034531		4
5	Gate shaft C 48"	008713	045-0063-00-2	1
	Gate shaft C 54"	008715	045-0076-00-2	1
6	Right hand gate operating lever <sup>1</sup>	011693	045-0007-00-2	1
7	Left hand gate operating lever <sup>1</sup>	011694	045-0008-00-2	1
8	Roller carrier - RH	005574	045-0013-00-3	1
9	Roller carrier - LH	005575	045-0014-00-3	1
10	Pivot pin	010927	045-0011-01-2	2
11	Crosshead pin	007008	045-0004-00-2	2
12	Gate cover support screw	016588	045-0012-00-2	2
c	Lockwasher (for cover support screw)	001458		2
13	Wedge screw	021752	045-0053-01-2	4
14	Wedge block	0346642	045-0309-00-2	2
15	Gate link pins	011886	SG-815-A	2
16	Cross head spring C Standard	021162	SG-816	4
c	Cross head spring C Heavy duty	028971		2
17	Gate shaft key	014534	SG-817	1
18	Gate spray pipe assy C 48", brass	021206	SG-759-A	1
	Gate spray pipe assy C 54", brass	010764	SG-759-E	1
	Gate spray pipe assy C 54", 304 stainless steel	010768	SG-759-F	1
19	Emergency hand lever	011692	045-0005-00-2	1
21	Gate shaft key	014536	SG-817-B	1
22	Gate shaft bushing	021157		2
23	Connecting link	011847	045-0016-00-2	2
24	Washer	055405		2
25	Bushing, pin	021154	SG-114	4
26	Stop collar	005785	SG-726	1
27	Bushing, toggle lever	021159	C-1281-F	2
28	Sealed cam follower	021189		4
29	Lubrication fitting	001332		2
30	Interlock lever <sup>2</sup>	036812	045-0318-00-2	1
31	Interlock lever stud <sup>2</sup>	011760	SG-820	1
32	Interlock lever spring <sup>2</sup>	020658	SG-821	1

## KITS

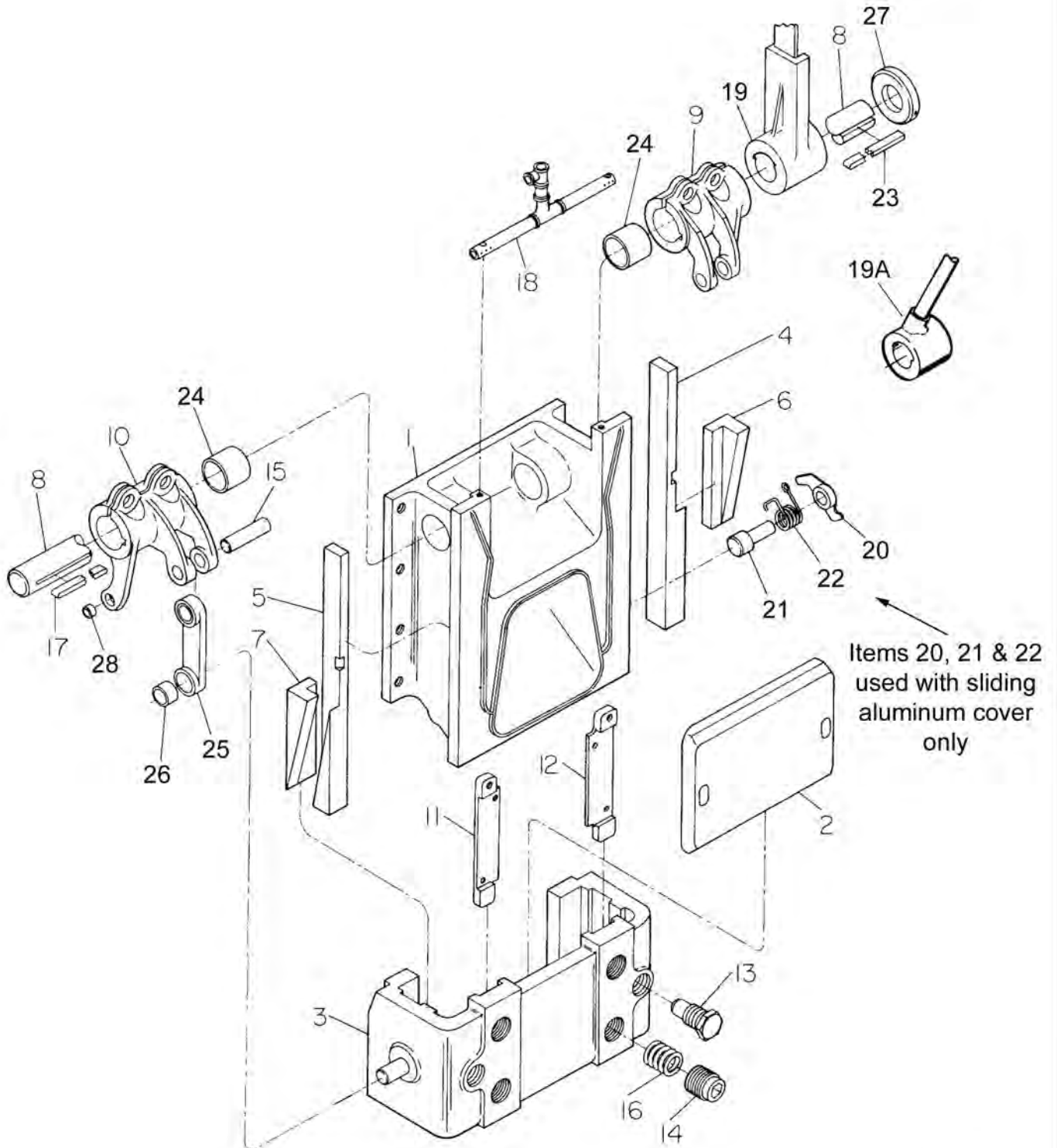
	Description	PN
	Cross head and wedge block replacement kit for 48" centrifugal. Includes gate crosshead PN 034287 and two (2) wedge blocks PN 034664	050271

### c Items not shown

<sup>1</sup> When ordered as a spare part the right keyway is cut and the left keyway must be located and cut by the customer

<sup>2</sup> Used with aluminum sliding cover only

# LOADING GATE SLIDING WEDGE TYPE



## LOADING GATE - SLIDING WEDGE TYPE

No	Description	PN	Dwg No	Qty
1	Gate body C 54", carbon steel	021209	SG-800-E Line A	1
	Gate body C 54", carbon steel with stainless flange	016359	SG-800-JA	1
	Gate body C 54", 304 stainless steel	034802	SG-800-E Line B	1
	Gate body C 40" or 48", carbon steel	009612	SG-800-D Line A	1
	Gate body C 40" or 48", carbon steel with stainless flange	009409	SG-800-FB	
	Gate body C 40" or 48", 304 stainless steel	034801	SG-800-D Line B	
2	Gate cover C 54"	009653	045-0104-00-2	1
	Gate cover C 40" or 48"	009651	045-0099-01-2	1
3	Gate cross head — 54" with Vertimatic	009765	SG-803-F-1	1
	Gate cross head — 54" without Vertimatic	007000	SG-803-E	
	Gate cross head — 48" with Vertimatic	007002	SG-803-H	1
	Gate cross head — 48" without Vertimatic	006997	SG-803	
4	Right hand gate wedge	018644	SG-804-B	1
5	Left hand gate wedge	018645	SG-805-B	1
6	Right hand cross head wedge	018646	SG-806-B	1
7	Left hand cross head wedge	018647	SG-807-B	1
8	Gate shaft C 54"	014384	SG-808-E	1
	Gate shaft C 40" or 48"	014383	SG-808	1
9	Right hand gate operating lever <sup>1</sup>	011752	SG-809-D	1
10	Left hand gate operating lever <sup>1</sup>	011729	SG-810-D	1
11	Left hand wedge block	018654	SG-811	1
12	Right hand wedge block	016292	SG-812	1
13	Gate cover support screw	013383	SG-813-A	2
14	Wedge screws	013385	SG-814-A	4
15	Gate link pins	011886	SG-815-A	2
16	Cross head springs C Standard	021162	SG-816	4
C	Cross head springs C Heavy duty	028971		
17	Gate shaft key	014534	SG-817	1
18	Gate spray pipe assy C 54"	010767	SG-759-E	1
	Gate spray pipe assy C 40" or 48"	021206	SG-759-A	1
19	Emergency hand lever (flat handle)	010570	SG-760-D	1
19A	Emergency hand lever (round handle)	011692	045-0005-00-2	1
20	Interlock lever <sup>2</sup>	036812	045-0318-00-2	1
21	Interlock lever stud <sup>2</sup>	011760	SG-820	1
22	Interlock lever spring <sup>2</sup>	020658	SG-821	1
23	Gate shaft key C 54"	010257	SG-725-L	1
	Gate shaft key C 40" or 48"	014530	SG-725-C	1
24	Gate shaft bushing	021157	SG-718	2
25	Connecting link	011845	SG-711	2
26	Bushing, pin	021154	SG-114	4
27	Stop collar	005785	SG-726	1

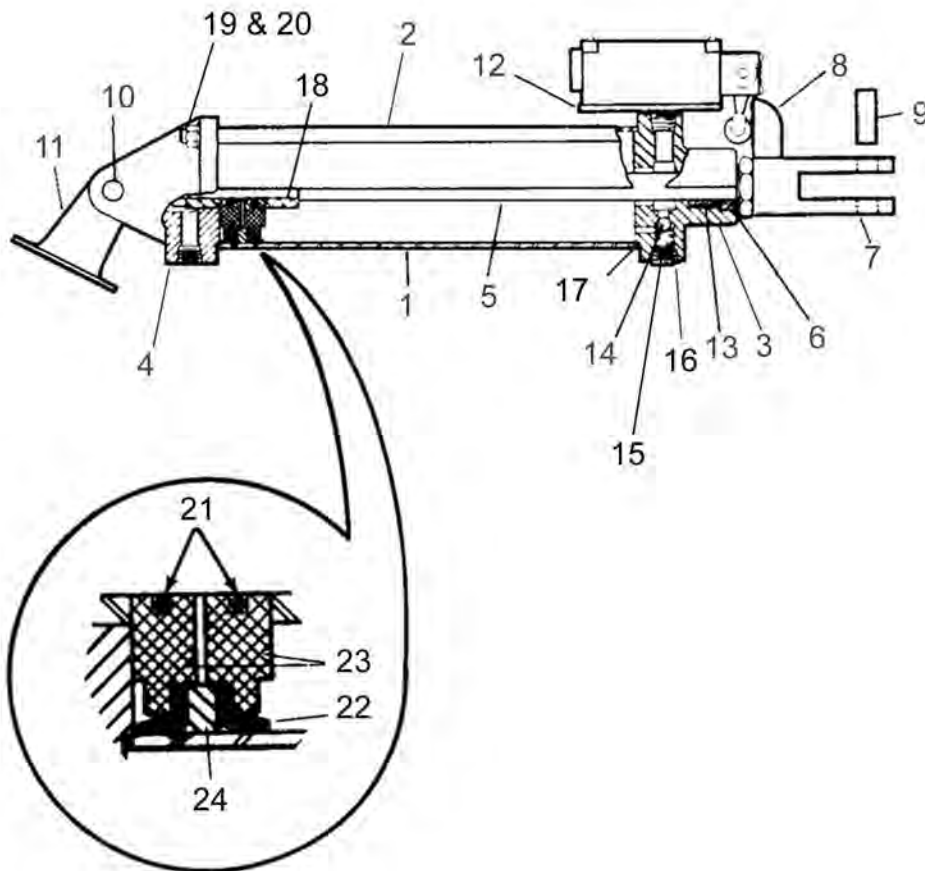
28	Bushing, toggle lever	021159	C-I281-F	2
c	Lube fitting	001332		2
c	Cotter pin	000517		1

c Items not shown

<sup>1</sup> When ordered as a spare part the right keyway is cut and the left keyway must be located and cut by the customer

<sup>2</sup> Used with aluminum sliding cover only

# GATE AIR CYLINDER 54", 48" & 40"



**GATE AIR CYLINDER**  
54", 48" & 40"

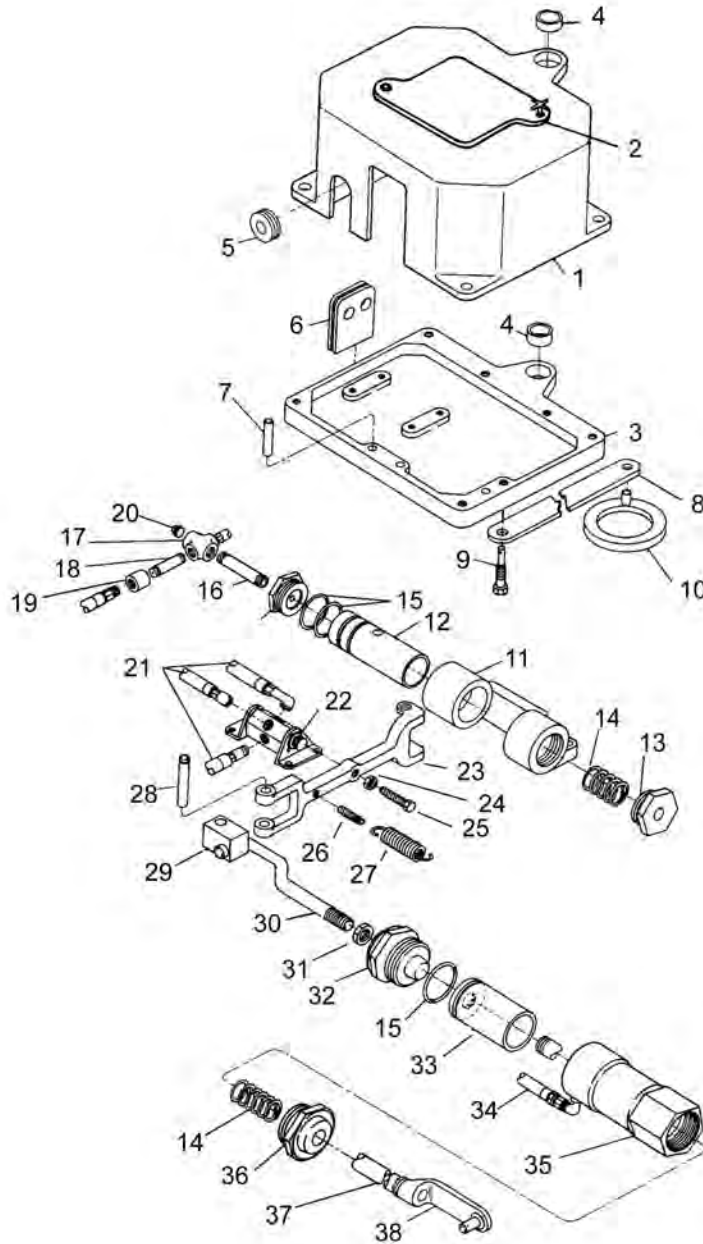
No	Description	PN	Dwg No	Qty
1	Cylinder barrel	019534	4-CY-13-C-3	1
2	Tie rods	017205	4-CY-13-G-1	4
3	Cylinder head, rod end	014228	4-CY-13-B	1
4	Cylinder head, cap end	005549	4-CY-13-J	1
5	Piston rod	010888	4-CY-13-D-1	1
6	Gland nut	008846	4-CY-13-A-1	1
c	"O" ring for gland nut, item 6	020955		1
7	Piston rod clevis, left (without limit switch trip arm)	006204	4-CY-13-M	1
8	Piston rod clevis, right (with limit switch trip arm)	021168	4CY-13-P-2	1
9	Clevis pin	011288	S-G-202	1
10	Gate cylinder pin	011289	SG-206	1
11	Gate cylinder bracket	004842	045-0219-00-2	1
12	Limit switch bracket	004718	SG-515-E	1
13	"V" packing, set (1" ID x 1-5/8" OD)	021029		1
14	Ball bearing	021525		2
15	Check valve spring	021176	4-CY-13-K	2
16	Plug, countersunk hex head, pipe	001375		2
17	Cylinder head gasket	021177	4-CY-13-L	2
18	Cushion plug	012517	4-CY-13-E	2
19	Hex nut	001513		8
20	Lock washer	020659		8
21	"O" ring packing	021179		2
22	Cup, piston	021178	4-CY-13-N	2
23	Cup washer	018609	4-CY-13-F-1	2
24	Spacer	015621	4-CY-13-H	1

**COMPLETE CYLINDER AND REPAIR KIT**

	Description	PN
	Complete air cylinder assembly, without clevis	033325
	Repair kit. Including (2) check balls and springs, (2) gaskets, (2) cups, (2) "O" rings and (1) set of packing	039510

c Item not shown

# SERVO UNIT



## SERVO UNIT

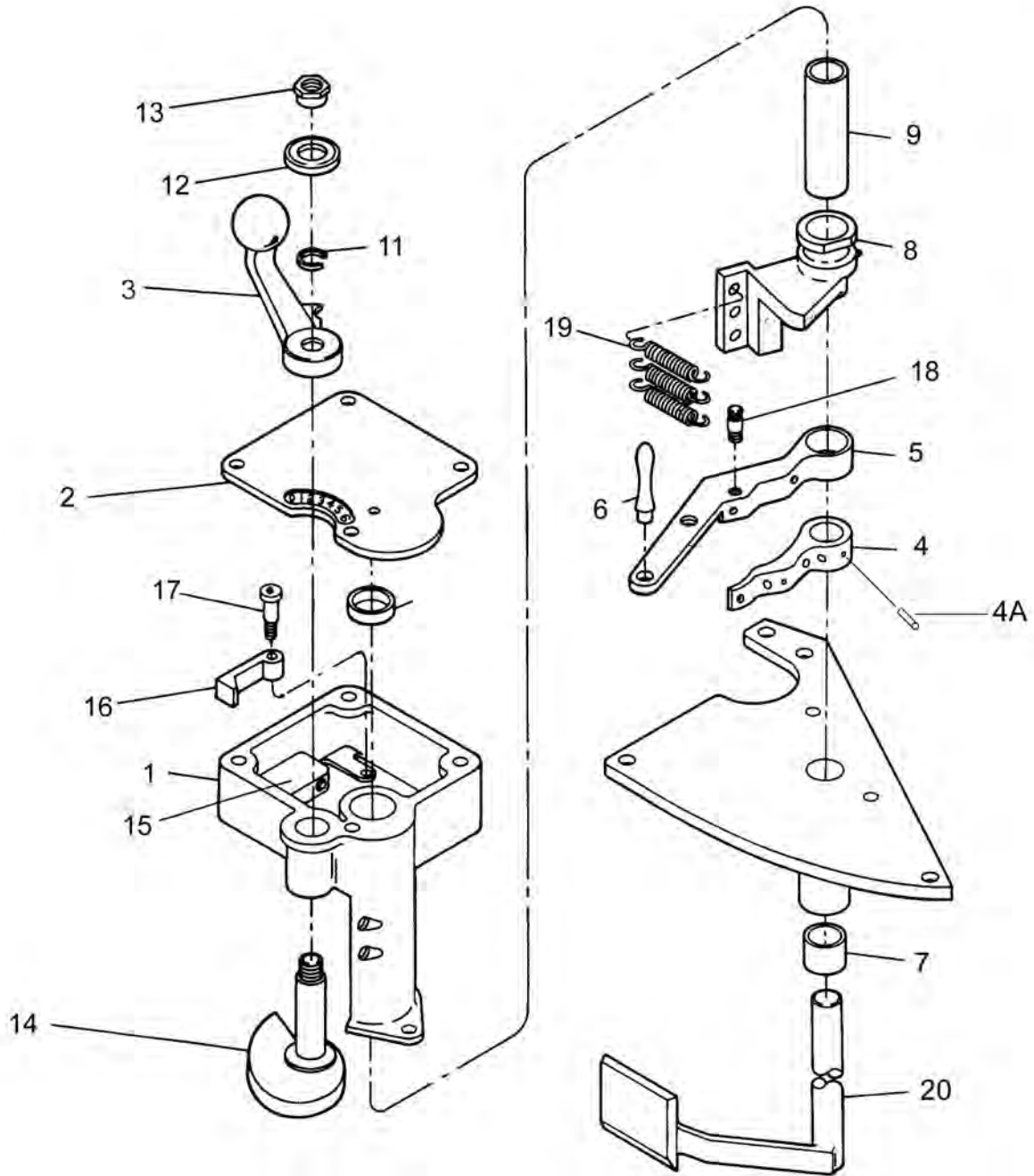
No	Description	PN	Dwg No	Qty
1	Servo cover	006529	AL-101-C	1
2	Inspection door	006530	AL-101-C-1	1
3	Servo body	016318	AL-100-D	1
4	Bushing	020946	AI-208-A	2
5	Grommet	020951		1
6	Hose sealing grommet	020966	AL-113-A	1
7	Stop pin	015423	AL-108-B	2
8	Link	011807	AL-302-A	1
9	Link Screw	011891	AL-303-G	1
10	Operating collar	005743	AL-303-F	1
11	Servo air cylinder	007900	AL-114-A	1
12	Piston	010856	AL-115-A	1
13	Cylinder cap	005401	AL-116-A	2
14	Piston spring	046265	052-0788-00-2	2
15	"O" ring	020955		3
16	1/4" brass nipple	002764		1
17	1/4" brass tee	002671		1
18	1/4" brass restricted nipple	012713	AL-125	1
19	1/4" brass coupling	002646		1
20	1/4" brass plug	001391		1
21	5/16" rubber hose with fittings, 31.31" long <sup>1</sup>	003082		1 or 3
	5/16" rubber hose with fittings, 49.31" long <sup>1</sup>	003083		2
22	Valve	020958		1
23	Servo lever	013539	AL-103-B	1
24	Nut, hex jam	001489		1
25	Square head set screw	020949		1
26	Spring screw	013333	AL-107-B	1
27	Spring, coil	047217	052-0797-00-2	1
28	Piston pin	010880	AL-118	2
29	Link block	016268	AL-110	1
30	Bent link	019400	AL-301-G	1
31	Nut, hex jam	000042		2
32	Cylinder end cap	008328	AL-308	1
33	Piston	010857	AL-307	1
34	5/16" rubber hose with fittings, 25.31" long	003081		1
35	Cylinder	007901	AL-306	1
36	Cylinder gland	008819	AL-309	1
37	Straight link for 40", stainless steel	011806	AL-301-L	1
	Straight link for 48" w/ Posi-Latch, stainless steel	033089	AL-301-H-5	1
	Straight link for 48", stainless steel	011804	AL-301-H	1
	Straight link for 54" W/ Posi-Latch, stainless steel	011895	AL-301-L-2	1
	Straight link for 54", stainless steel	011805	AL-301-H-2	1
38	Link end	011873	AL-300	1
39	5/16" rubber hose with fittings, 13.31" long	003079		1

## COMPLETE ASSEMBLIES, AIR CYLINDERS AND REBUILD KITS

	Description	PN
	Complete servo link assembly including bent link, cylinder, straight link and link end	
	For 54" with Posi-Latch valve	041353
	For 48" with Posi-Latch valve	041350
	For 54" with straddle valve lifter	041354
	For 48" with straddle valve lifter	041351
	For 40" with straddle valve lifter	041352
	Complete link air cylinder assembly	039560
11	Link air cylinder rebuild kit including: two(2) "O" ring (PN 020955); piston spring (PN 046265)	045483
	Complete servo air cylinder assembly	039490
35	Servo air cylinder rebuild kit: two(2) "O" ring (PN 020955); piston spring (PN 046265)	045483
	Complete servo assembly without items 8 and 10 for twin cylinder gate	041619
	Complete servo assembly without items 8 and 10 for single cylinder gate	041620

<sup>1</sup> For single cylinder loading gate (1) PN 003082 and (2) PN 003083 required  
 For twin cylinder loading gate (3) PN 003082 required

# LOAD CONTROL



## LOAD CONTROL

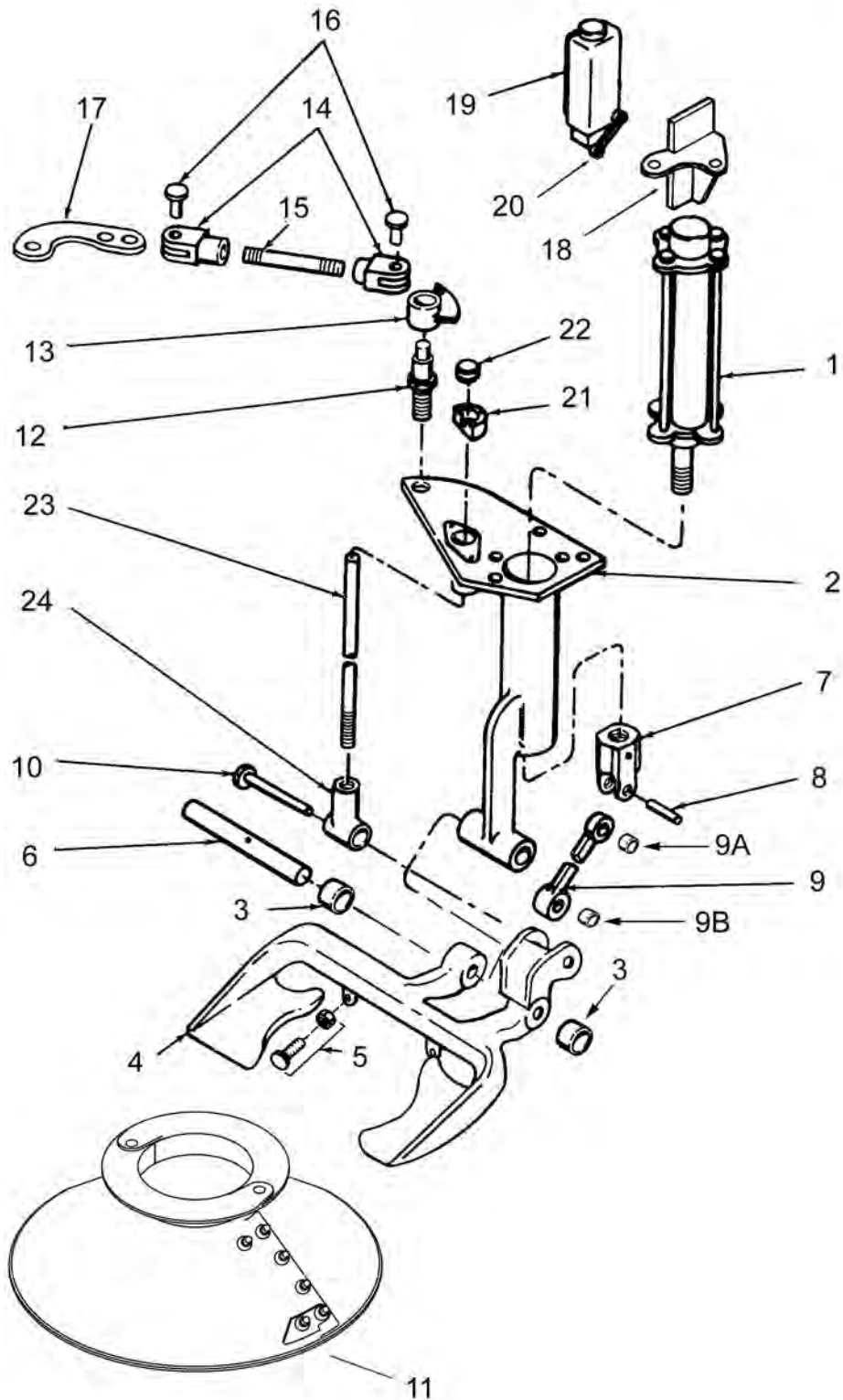
No	Description	PN	Dwg No	Qty
1	Control box	020913	AL-200-H	1
2	Control box cover	006532	AL-202-C	1
3	Cam lever	005395	AL-210-G	1
4	Feeler lever	011560	AL-203-A	1
4A	Taper pin	001424		1
5	Servo lever C for sliding wedge style loading gate	011562	AL-204-B	1
	Servo lever C for roller wedge style loading gate	027709	AL-204-C	1
6	Over ride handle	009665	AL-214	1
7	Bushing, control box bracket, brass bushing	020367	AL-209	1
	Bushing, control box bracket, titanium bushing	005235	AL-209-B	1
8	Cam	033322	AL-205-B-1	1
9	Bushing, operating cam	005233	AL-207	1
10	Bushing, control box	020929	AL-208	1
11	Lockwasher	020550		1
12	Spring retainer	012733	AL-210-D	1
13	Retainer nut	012312	AL-210-E	1
14	Cam, limiting	005378	AL-210-C	1
15	Limit switch	020923		1
16	Limit switch trip arm	003336	AL-211-A	1
17	Socket shoulder screw	020937		1
18	Servo lever pin	011201	AL-108	1
19	Spring, coil	047217	052-0797-00-2	3
20	Pallet, 40" with 5" shoe <sup>1</sup>	012975	AL-212-D	1
	Pallet, 48" with straddle valve lifter <sup>1</sup>	012976	AL-212-E	1
	Pallet, 48" with Posi-Latch <sup>1</sup>	035697	052-0634-00-4	1
	Pallet, 54" with straddle valve lifter <sup>1</sup>	012977	AL-212-G	1
	Pallet, 54" with Posi-Latch <sup>1</sup>	036191	052-0639-00-4	1

### COMPLETE ASSEMBLIES

Description	PN
Complete control assembly for sliding wedge gate	
For 54" with Posi-Latch valve	041357
For 48" with Posi-Latch valve	041358
For 54" with straddle valve lifter	041361
For 48" with straddle valve lifter	041359
For 40" with 5" shoe	041360
Complete control assembly for roller wedge gate	
For 54" with Posi-Latch valve	041362
For 48" with Posi-Latch valve	033198
For 54" with straddle valve lifter	041363
For 48" with straddle valve lifter	041364
For 40" with 5" shoe	041365
Pallet AL-212-G (PN 012977) assembled with feeler lever AL-203-A (PN 011560)	049413
Pallet AL-212-D (PN 012975) assembled with feeler lever AL-203-A (PN 011560)	049403
Pallet AL-212-E (PN 012976) assembled with feeler lever AL-203-A (PN 011560)	049408

<sup>1</sup> When ordered as a replacement part the hole in the shaft must be taper reamed during assembly

# STRADDLE VALVE LIFTER



## STRADDLE VALVE LIFTER

No	Description	PN	Dwg No	Qt
1	Air cylinder C 48"	018747	25-CY45-T	1
	Air cylinder C 54"	003929	30-CY-65-A	1
2	Valve & lifter support assembly, carbon steel C 48" x 30" <sup>1</sup>	016528	BV-101-N-1-A	1
	Valve & lifter support assembly, 304 stainless C 48" x 30" <sup>1</sup>	016530	BV-101-N-3-A	1
	Valve & lifter support assembly, carbon steel C 48" x 36" <sup>1</sup>	016529	BV-101-N-1-G	1
	Valve & lifter support assembly, 304 stainless C 48" x 36" <sup>1</sup>	016538	BV-101-N-1-G-3	1
	Valve & lifter support assembly, carbon steel C 54" x 40" <sup>1</sup>	019009	BV-415	1
	Valve & lifter support assembly, 304 stainless C 54" x 40" <sup>1</sup>	016601	BV-415-E	1
3	Bushing, valve hook support, bronze	020376		2
	Bushing, valve hook support, 316 stainless steel	005243		2
	Bushing, valve hook support, titanium	005242		2
4	Valve lifter fork, nickel plated, with stainless steel connecting pin C 40"	011764	BV-152-B	1
	Valve lifter fork, 316 stainless steel, with stainless steel connecting pin C 40"	003342	BV-152-F	1
	Valve lifter fork, 304 stainless steel, with adjusting screws and brass bushings C 48"	009138	051-0089-01-4	1
	Valve lifter fork, 304 stainless steel, with adjusting screws and titanium bushings C 48"	031185	051-0089-04-4	1
	Valve lifter fork, 316 stainless steel, with adjusting screws and 316 stainless steel bushings C 48"	033023	051-0089-05-4	1
	Valve lifter fork, 304 stainless steel, with adjusting screws and brass bushings C 54"	031930	051-00540-00-3 Line 2	1
	Valve lifter fork, 304 stainless steel, with adjusting screws and titanium bushings C 54"	031929	051-00540-00-3 Line 1	1
	Adjusting screw, 304 stainless steel C 48"	013389	051-0055-00-2	2
Adjusting screw, 316 stainless steel C 48"	033045	051-0055-02-2	2	
Adjusting screw, 304 stainless steel C 54"	020983	051-0199-00-2	2	
6	Valve fork pin, 304 stainless steel	009141	BV-107-A	1
	Valve fork pin, 316 stainless steel	009142	BV-107-B	1
	Valve fork pin, titanium	009143	BV-107-B-2	1
7	Clevis, brass	006171	BV-109-D	1
	Clevis, 304 stainless steel	006172	BV-109-D-1	1
	Clevis, 316 stainless steel	006173	BV-109-D-2	1
8	Clevis pin, 304 stainless steel	011219	BV-110	1
	Clevis pin, 316 stainless steel	006213	BV-110-A-2	1
	Clevis pin, titanium	006212	BV-110-A-1	
9	Lifter link, bronze C 48" x 30"	011769	BV-113-H	1
	Lifter link, 316 stainless steel C 48" x 30"	011812	BV-113-H-1	1
	Lifter link, bronze C 48" x 36"	011814	BV-113-N	1
	Lifter link, 316 stainless steel C 48" x 36"	011770	BV-113-N-1	1
	Lifter link, bronze C 54" x 40"	011576	BV-417	1
Lifter link, 316 stainless steel C 54" x 40"	011577	BV-417-A	1	

9A	Bushing, lifter link (only for stainless steel link)	005251	BV-228-A-1	1
9B	Bushing, lifter link (only for stainless steel link)	005248	BV-229-A-1	1
10	Connecting link pin, 304 stainless steel C 48"	011879	BV-108-A	1
	Connecting link pin, 316 stainless steel C 48"	011880	BV-108-B	1
	Connecting link pin, Titanium C 48"	011881	BV-108-B-2	1
	Connecting link pin, 304 stainless steel C 54"	011884	BV-408	1
11	Split basket valve C 40"	018415	051-0176-00-3	1
	Split basket valve for single hook valve lifter C 48"	020380	051-0191-00-4	1
	Split basket valve C 48"	026827	051-0427-00-4	1
	Split basket valve C 54"	028188	051-0502-00-4	1
12	Cam stud	005400	C-7285	1
13	Interlock cam C 48"	005381	C-7282	1
	Interlock cam C 54"	005382	C-7282-A	1
14	Interlock clevis	006183	C-7284	2
15	Horizontal interlock rod C 48"	010161	C-7283-A	1
	Horizontal interlock rod C 54"	014160	BV-407	1
16	Clevis studs	015966	C-7286	2
17	Discharge interlock lever C 48"	011605	C-7281	1
	Discharge interlock lever C 54"	011606	C-7281-A	1
18	Limit switch support <sup>2</sup> C 48"	016965	051-0091-00-3	1
	Limit switch support <sup>2</sup> C 54"	016966	051-0092-00-3	1
19	Limit switch	020667		1
20	Limit switch arm	020422		1
21	Interlock guide collar	005760	C-7287-B	1
22	Mono ball	020419	C-7292	1
23	Vertical interlock rod, 304 stainless steel C 48" x 30"	014148	BV-132	1
	Vertical interlock rod, 316 stainless steel C 48" x 30"	014149	BV-132-A	1
	Vertical interlock rod, 304 stainless steel C 48" x 36"	014151	BV-132-F	1
	Vertical interlock rod, 304 stainless steel C 54" x 40"	014162	BV-414	1
24	Vertical rod end, brass C 48"	014211	BV-134-A	1
	Vertical rod end, 304 stainless steel C 48"	014213	BV-134-B	1
	Vertical rod end, 316 stainless steel C 48"	014212	BV-134-A-1	1
	Vertical rod end, brass C 54"	014210	BV-134	1
	Vertical rod end, 304 stainless steel C 54"	014214	BV-134-C	1

## REPAIR KITS

	DESCRIPTION	PN
	Set of screws and lockwashers for split basket valve, 48" and 54". Including (4) PN 032497 conical valve screw, (4) PN 032555 conical valve screw, (4) PN 038159 flat head socket screws and (12) PN 032668 countersunk lockwashers	045025

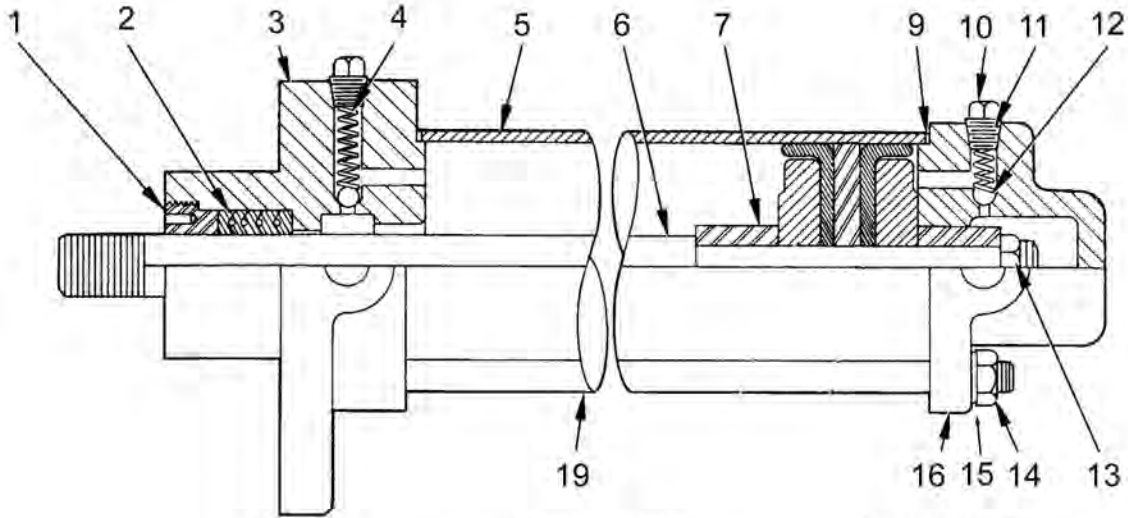
## COMPLETE ASSEMBLIES

	DESCRIPTION	PN
	Complete lifter link assembly for 48" x 36", stainless steel with titanium bushings including: (1) PN 011770 lifter link, (1) PN 005251 bushing, lifter link and (1) PN 005248 bushing, lifter link	045456
	Complete lifter link assembly for 54" x 40", stainless steel with titanium bushings including: (1) PN 011577 lifter link, (1) PN 005251 bushing, lifter link and (1) PN 005248 bushing, lifter link	045458

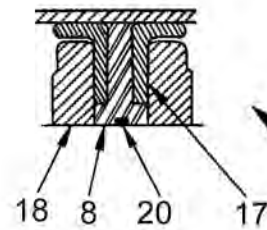
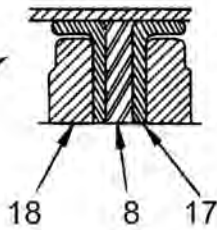
<sup>1</sup> Valve lifter support assemblies have been supplied in many different configurations. To insure the correct assembly is supplied it is necessary to provide the centrifugal serial number when ordering.

<sup>2</sup> Direct replacement for brass casting limit switch support

# STRADDLE VALVE LIFTER AIR CYLINDER



25-CY-45-T  
2-1/2" CYLINDER  
48" X 30" &  
48" X 36"



30-CY-65-A  
3" CYLINDER  
54" X 40"

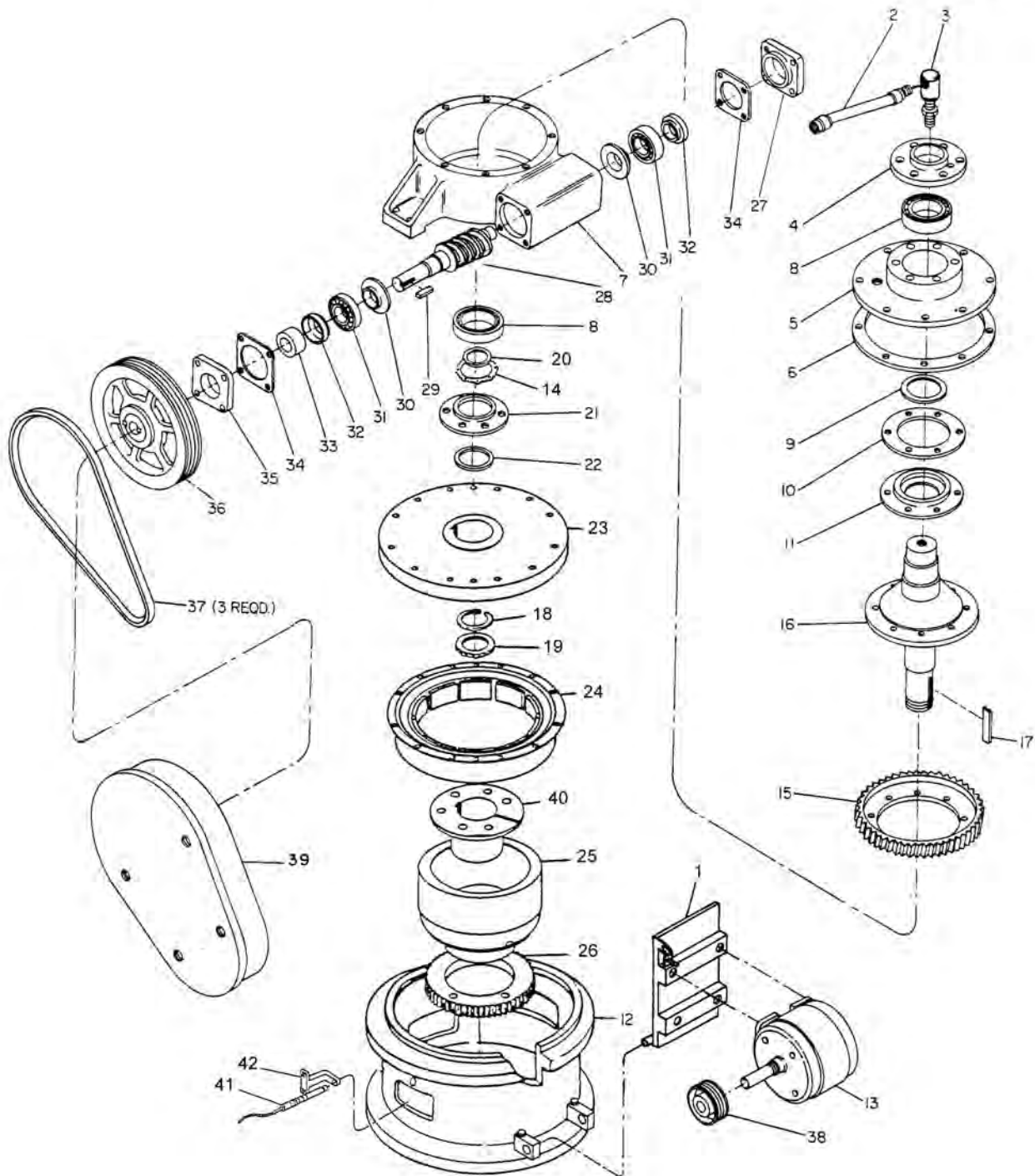
## STRADDLE VALVE LIFTER AIR CYLINDER

No	Description	PN	Dwg No	Qty
1	Gland nut	008847	25-CY-45-A	1
2	Packing, "V" set, 3/4" ID x 1-3/8" OD	020388		1
3	Cylinder head (rod end) C 48"	014232	25-CY-45-B	1
	Cylinder head (rod end) C 54"	014233	30-CY-1	1
4	Check valve spring	020383	25-CY-45-K	1
5	Cylinder barrel C 48"	007851	25-CY-45-C-6	1
	Cylinder barrel C 54"	019550	30-CY-7-A-1	1
6	Piston rod, ground and polished	010903	25-CY-45-D-3	1
	Piston rod, stainless steel	014201	25-CY-45-D-3-A	1
7	Cushion plug	012519	25-CY-45-E	2
8	Piston spacer C 48"	015623	25-CY-45-H	1
	Piston spacer C 54"	015624	30-CY-3	1
9	Gasket C 48"	020173	25-CY-45-L	2
	Gasket C 54"	020409	30-CY-6	2
10	1/8" Pipe plug	000532		2
11	Check valve spring	020352	25-CY-45-K-1	1
12	5/16" Brass ball	020387		2
13	1/2"-20 S.A.E. self-lock locknut	001567		1
14	3/8 Hex nut	001512		4
15	Lockwasher	020125		4
16	Cylinder head (cap end) C 48"	005550	25-CY-45-J	1
	Cylinder head (cap end) C 54"	005552	30-CY-2	1
17	Piston cup C 48"	002910	25-CY-45-M	2
	Piston cup C 54"	002912	30-CY-5	2
18	Cup washer C 48"	018610	25-CY-45-F	2
	Cup washer C 54"	007033	30-CY-4	2
19	Tie rod	017217	25-CY-45-G-2	4
20	1" O.D. Ring C 54"	020416		1

## COMPLETE AIR CYLINDERS AND REPAIR KITS

	Complete air cylinder C 48"	018747	25-CY-45-T	
	Air cylinder repair kit C 48" includes (2) PN 020387, ball; (1) PN 020388, "V" packing set; (1) PN 020383, check valve spring; (1) PN 020352, check valve spring; (2) PN 020173, gasket; (2) PN 002910, piston cup	039500		
	Complete air cylinder C 54"	003929	30-CY-65-A	
	Air cylinder repair kit C 54" includes (2) PN 020387, ball; (1) PN 020388, "V" packing set; (1) PN 020383, check valve spring; (1) PN 020352, check valve spring; (2) PN 020409, gasket; (2) PN 002912, piston cup; (1) PN 020416 "O" ring	028981		

# TURNTORK DISCHARGE DRIVE



## TURNTORK DISCHARGE DRIVE

No	Description	PN	Dwg No	Qty
1	Motor base C 48", 50 Hz & 60 Hz; 54", 60 Hz	026116	048-0064-00-4	1
	Motor base C 54", 50 Hz	028051	048-0064-01-4	1
2	Hose assembly	020179		1
3	Rotorseal with bushing	045028		1
4	Gear housing cover cap	006919	D-123	1
5	Worm gear housing cover	006680	D-113	1
6	Gear housing cover gasket	020170	D-127	1
7	Worm gear housing	009875	D-111-A	1
8	Worm gear shaft bearing	020171		2
9	Garlock Klosure	020163		1
10	Housing cover cap gasket	020165	D-124	1
11	Upper gear housing cap	005432	D-122	1
12	Worm gear housing support	038830	048-0083-01-4	1
13	Motor, 3 HP, 60 Hz C 48"	020128		1
	Motor, 5 HP, 60 Hz C 54"	020131		1
	Motor, 3 HP, 50 Hz C 48"	020130		1
	Motor, 5 HP, 50 Hz C 54"	020132		1
14	Shim, .005"	020159		4
	Shim, .003"	030075		4
	Shim, .010"	030074		2
15	Worm rim gear	008797	D-101	1
16	Worm gear shaft	013620	D-126	1
17	Cylinder housing key	049715	D-128-A	1
18	Gear shaft lockwasher	020177		1
19	Gear shaft locknut	020176		1
20	Garlock Klosure	020162		1
21	Lower gear housing cap	005431	D-121	1
22	Cylinder head gasket	020173	25-CY-45-L	1
23	Clutch adapter	026079	048-0057-00-4	1
24	Clutch element assembly <sup>1</sup>	002927		1
25	Clutch drum	039505	048-0058-02-4	1
26	Tachometer gear with hardware	035638	048-0086-00-2	1
27	Worm shaft cap	005430	D-103-A	1
28	Worm shaft	020144	D-100-A	1
29	Worm shaft key	010235	D-108	1
30	Worm shaft slinger	014761	D-107	2
31	Worm shaft bearing	020172		2
32	Worm shaft slinger	014760	D-105	2
33	Bushing	005303	D-106	1
34	Worm shaft cap shim (set)	028631	D-104	1
35	Worm shaft cap	005429	D-103	1
36	Sheave, driven, 9.4" PD, 1-1/2" bore	014552	D-359-A	1
	Sheave, driven, 7.0" PD, 1- 1/2" bore	033675	048-0085-00-3	1
37	V-belt for discharge speed 45 RPM, (set of 3 required)	020124	B-48	3
	V-belt for discharge speed 30 RPM, (set of 3 required)	002902	B-46	3
38	Sheave, drive, 3.4" PD, 1-1/8" bore	014553	D-360 Line A	1
	Sheave, drive, 3.4" PD, 1-3/8" bore	034268	D-360 Line B	1

	Sheave, drive, 5.2" PD, 1-1/8" bore	014554	D-360-D	1
	Sheave, drive, 5.4" PD, 1-1/8" bore	034218	D-360-D-5	1
39	Safety guard, with inspection cover (old style)	023595	D-265-E	1
	Safety guard, cover (new style)	008928	048-0020-00-3	1
	Safety guard, mounting plate (new style)	012418	048-0006-00-3	1
40	Clutch drum adapter locking hub	020174	D-114-L-1	1
41	Magnetic pickup and cable assembly	035711		1
42	Tachometer bracket	036094	048-0088-00-2	1

### SPEED SENSING CONFIGURATIONS FOR UPGRADE<sup>1</sup>

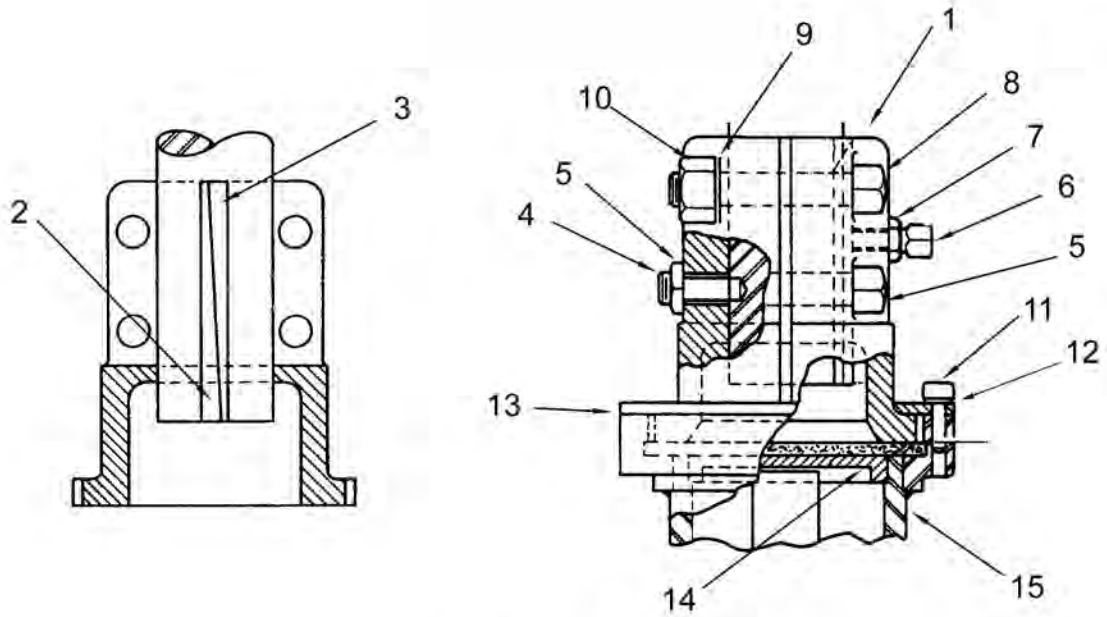
	Description	Kit PN	Dwg
1	Electronic speed sensing with 70 tooth sprocket bolted to the drum adapter	039469	048-0009-00-4
2	Electronic speed sensing with 60 tooth gear bolted to drum adapter	039711	048-0009-01-4
3	Zero speed switch with sheave with center hub	041806	048-0009-02-4
4	Zero speed switch with machined sheave	041808	048-0009-03-4

### REPAIR KITS

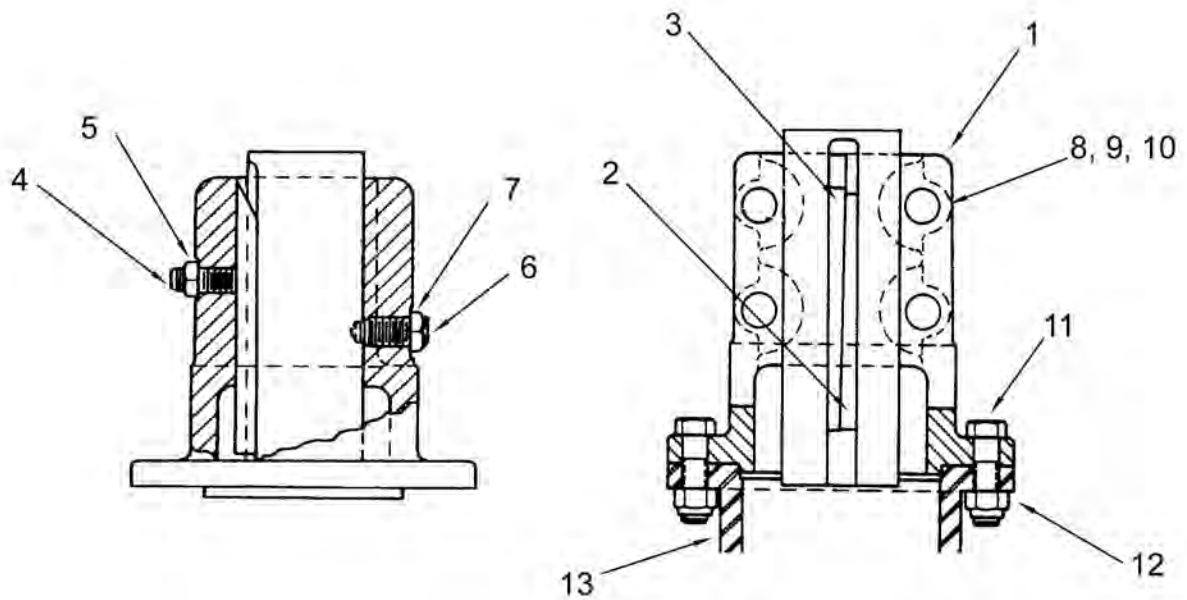
	Description	Kit PN	Dwg
1	Repair kit for clutch element. Including 10 friction shoe (PN 06225), 14 lockwires (PN 042313), 20 shoe pins (PN 042312)	042311	

<sup>1</sup> In 1983, the clutch drum arrangement was redesigned. If the clutch element now in use was installed prior to 1983, it is no longer available. It will be necessary to upgrade to the new design. The upgrade kits are available. If your configuration is not listed above, please contact Western States for assistance.

# MOTOR COUPLING



GEARED TYPE



FLANGED TYPE

## MOTOR COUPLING GEAR TYPE

No	Description	PN	Dwg No.	Qty
1	Motor coupling	006420	C-5050	1
2	Motor coupling key	010220	C-5043-B	1
3	Motor coupling key	006401	C-5043-C	1
4	Set screw, dog point	001132		1
5	Hex jam nut	001501		1
6	Set screw, cup point	001122		1
7	Hex jam nut	020411		1
8	Hex head cap screw	000783		4
9	Lockwasher	044496		4
10	Hex nut	021692		4
11	Screw, allen head socket	000999		6
12	Lockwasher	020659		6
13	Coupling plate	011017	C-5055	1
14	Coupling plate gasket	023511	C-5056	1
15	Cover	006549	C-5054	1
16	Head half coupling assy	019069	C-5051	1

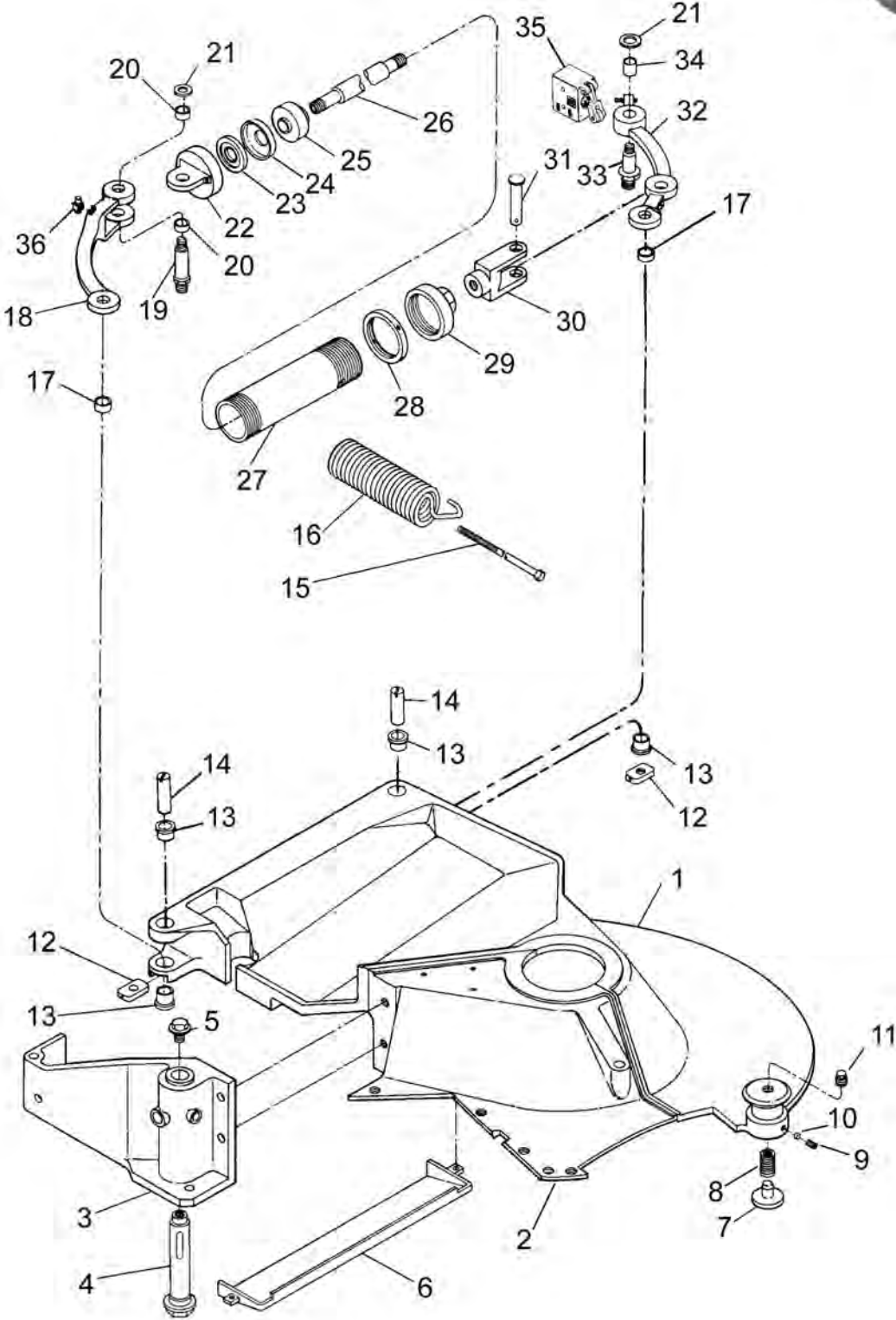
## FLANGE TYPE

No	Description	PN	Dwg No	Qty
1	Motor coupling	006412	C-5026-F	1
2	Motor coupling key	010220	C-5043-B	1
3	Motor coupling key	006401	C-5043-C	1
4	Set screw, cup point	001122		1
5	Hex jam nut	020411		1
6	Set screw, dog point	001132		1
7	Hex jam nut	001501		1
8	Hex head cap screw	000783		4
9	Lockwasher	044496		4
10	Hex nut	021692		4
11	Hex head cap screws	000746		8
12	Locknuts, full height	001571		8
13	Coupling, motor half	006416	C-5026-H	1

## COMPLETE ASSEMBLIES

	Description	PN
	Complete motor coupling (gear type) consisting of items 1 C 10 above	045170
	Complete motor half coupling (gear type) consisting of items 13 C 16 above	045626
	Complete motor coupling (flange type) consisting of items 1 C 10 above	045357

# SLIDING COVER



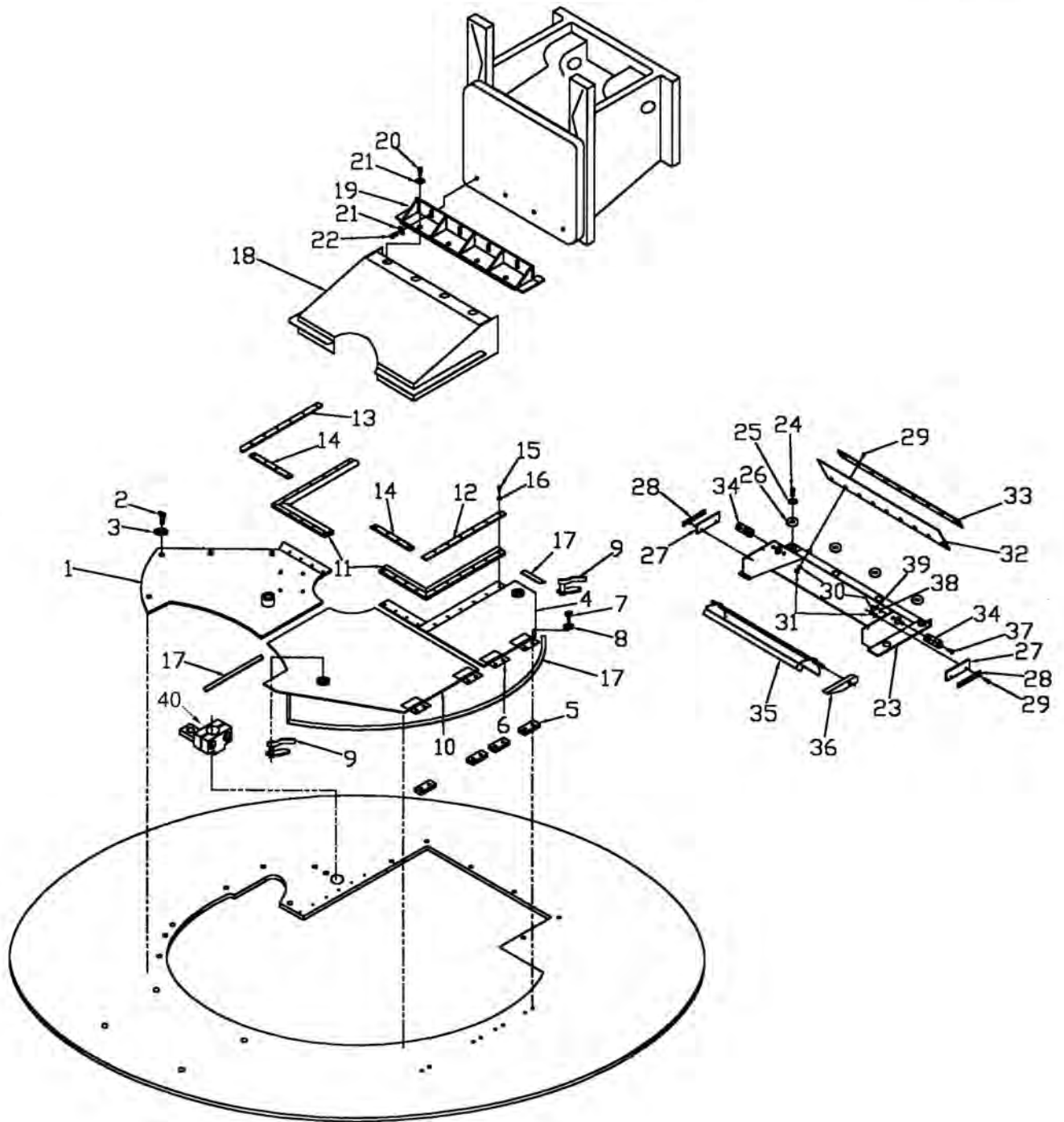
## SLIDING COVER

No	Description	PN	Dwg No	Qty
1	Sliding cover	006577	C-7251-B	1
2	Stationary cover	023523	C-7251-C	1
3	Spray nozzle support	016685	C-7253-C	1
4	Nozzle support	016690	C-7254	1
5	Screw	013335	ASC-696-N-2	1
6	Drip pan	032823	C-7267	1
7	Runner	014277	C-7260-C-1	1
8	Adjusting screw	003223	C-7260-C	1
9	Socket head set screw	000473		1
10	Plug, brass	022309		1
11	Countersunk socket hex head plug	000534		1
12	Runner	014278	C-7266-B	2
13	Bushing, sliding cover	005228	C-7261	4
14	Runner stud	015965	C-7259	2
15	Spring bolt	016382	C-7280-A	1
16	Cover spring	023527	C-7276-C	1
17	Bushing, link	011871	C-7265	2
18	Link, left hand	011868	C-7255	1
19	Fulcrum stud, left hand	015963	C-7257	1
20	Bushing, left link	023524	C-7262	2
21	Washer	018544	C-7264-A	2
22	Cylinder end cap	008338	C-7269	1
23	Plunger cup washer	018545	C-7275	1
24	Plunger cup	023514	C-5355	1
25	Plunger	012533	C-7273	1
26	Plunger rod	014168	C-7272	1
27	Cylinder, aluminum	007913	C-7271-B-1	1
28	Cylinder jam nut	010171	C-7270-B	1
29	Cylinder end cap, rod end	008339	C-7270-A	1
30	Clevis	006181	C-7278	1
31	Cylinder pin	011249	C-7277	1
32	Link, right hand	011890	C-7256	1
33	Fulcrum stud, right hand	015964	C-7258	1
34	Bushing, right link	023525	C-7263	1
35	Pilot air valve	027684		1
36	Spring stud fulcrum	009394	C-7279	1

## COMPLETE CYLINDERS AND REPAIR KITS

	Description	PN
27	Complete air cylinder assembly	028251
35	Pilot air valve repair kit	029227

# VERTIMATIC COVER WITH MANUAL OPERATED DRIP TRAY (FOR ROLLER WEDGE GATE)



VERTIMATIC COVER WITH  
MANUAL OPERATED DRIP TRAY

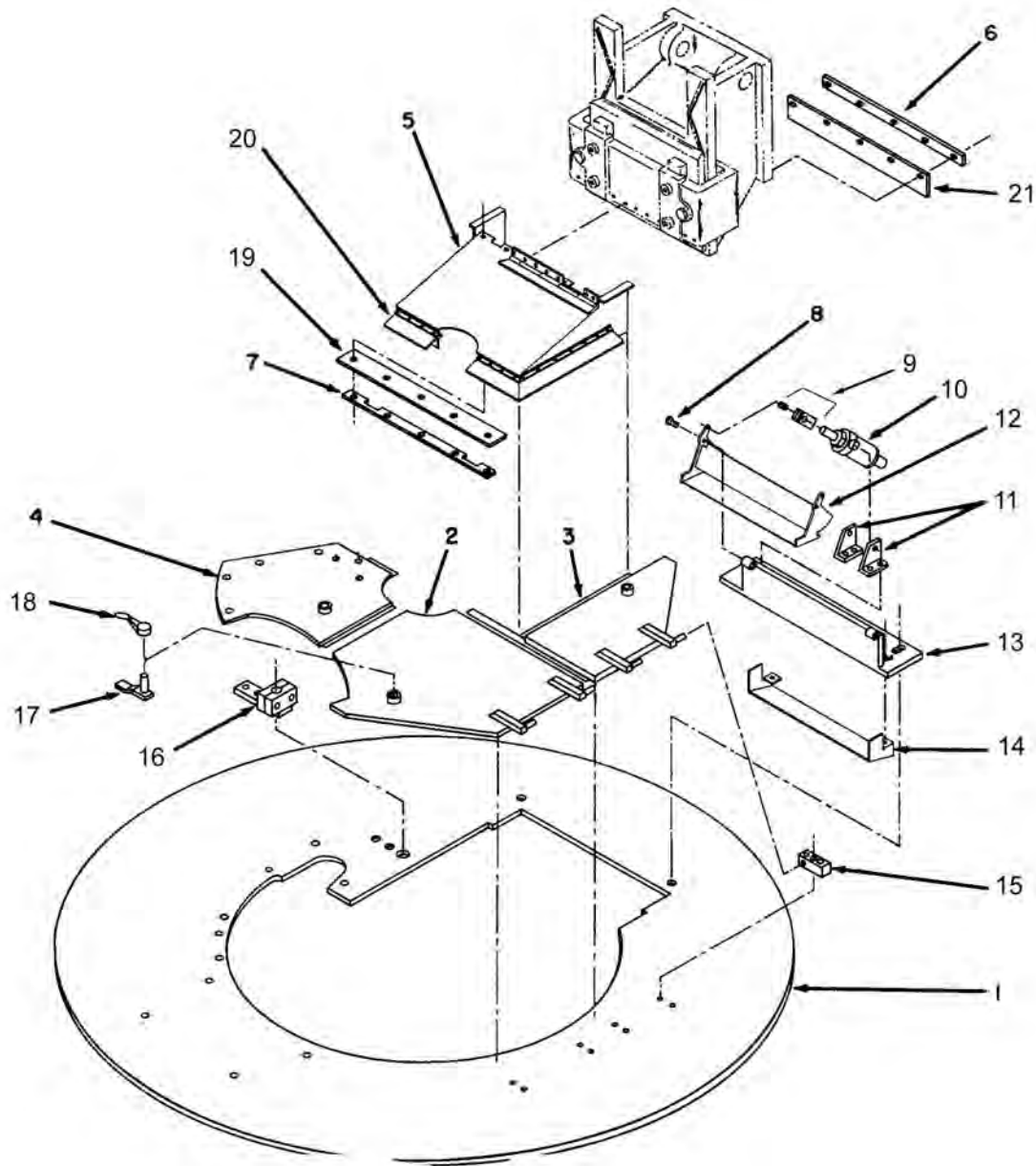
No	Description	PN	Dwg. No.	Qty
1	Stationary cover C 48@	006797	050-0069-00-3	1
2	Stationary cover C 54@	006801	050-0096-00-3	1
	Hex head cap screws C 48@	000343		4
3	Hex head cap screws C 54@	000343		5
	Lockwashers C 48@	000075		4
	Lockwashers C 54@	000075		5
4	Rear hinge cover C 48@	018133	050-0070-00-3	1
	Rear hinge cover C 54@	007023	050-0095-00-3	1
5	Hinge shim	009781	050-0075-00-2	4
6	Curb top cover hinge	010439	084-0170-01-2	4
7	Pan head machine screws	021318		4
8	Lockwashers	048206		4
9	Hinged curb top cover latch	010323	C-9339-A	2
10	Front hinged cover C 48@	006799	050-0071-00-3	1
	Front hinged cover C 54@	035424	050-0530-00-3	1
11	Vertimatic cover seal C 48@	006977	050-0067-00-2	2
	Vertimatic cover seal C 54@	006979	050-0106-00-2	2
12	Backing strip, right hand C 48@	019408	050-0068-00-2	1
	Backing strip, right hand C 54@	019411	050-0105-00-2	1
13	Backing strip, left hand C 48@	019407	050-0065-00-2	1
	Backing strip left hand C 54@	019411	050-0105-00-2	1
14	Front backing strip C 48@	015910	050-0108-00-2	1
	Front backing strip C 54@	019412	050-0109-00-2	1
15	Pan head machine screws C 48@	031575		20
	Pan head machine screws C 54@	031575		22
16	Lockwasher, internal tooth C 48@	000095		20
	Lockwasher, internal tooth C 54@	000095		22
17	Gaskets, hinged cover C48@ (4 piece set.)	009513	050-0072-00-3	1
	Gaskets, hinged cover C 54@ (5 piece set.)	009594	050-0093-00-3	1
18	Vertimatic cover C 48@	006800	050-0083-00-3	1
	Vertimatic cover C 54@	018463	050-0100-00-3	1
19	Hinge bracket C 48@	004846	050-0076-00-3	1
	Hinge bracket C 54@	004847	050-0101-00-3	1
20	Hex head cap screws	000319		4
21	Lockwashers	000073		8
22	Hex head cap screws	000318		4
23	Drip pan cover assembly C 48@	036404	050-0554-01-3	1
	Drip pan cover assembly C 54@	035294	050-0299-01-3	1
24	Hex head cap screws	000318		6
25	Lockwashers	000073		6
26	Flat washer	054747		6
27	Drip pan cover seal	006978	050-0077-00-2	2

28	Backing strip	019409	050-0078-00-2	2
29	Pan head machine screws C 48@	031574		13
	Pan head machine screws C 54@	031574		14
30	Lockwashers C 48@	000069		13
	Lockwashers C 54@	000069		14
31	Hex nut C 48@	000019		13
	Hex nut C 54@	000019		14
32	Rear seal C 48@	012676	050-0085-00-2	1
	Rear seal C 54@	012677	050-0103-00-2	1
33	Rear seal backing strip C 48@	015909	050-0086-00-2	1
	Rear seal backing strip C 54@	019410	050-0102-00-2	1
34	Bushing cartridge	005578	050-0081-00-2	2
35	Drip pan C 48@	008181	050-0082-00-3	1
	Drip pan C 54@	008183	050-0099-00-3	1
36	Drip pan lever	011696	050-0080-00-2	1
37	Flat head machine screw	000133		4
38	Lockwashers	000097		4
39	Hex nut	000022		4
40	Spray nozzle bracket (brass)	035733	050-0548-00-2	1
	Spray nozzle bracket (304 SST)	035735	050-0548-00-2	1

### COMPLETE ASSEMBLIES

	Vertimatic cover assy. C 48@ Including item 18, PN 006800; item 19, PN 004846; item 23, PN 036404; item 27 (2), PN 006978; item 28 (2), 019409; item 32, PN 012676; item 33, PN 015909; item 34 (2), PN 005578; item 35, PN 008181; item 37 (4), PN 000133; item 38 (4), PN 000022; item 39 (4), PN 000097	036524	050-0063-01-4	1
	Vertimatic cover assy. C 54@ Including item 18, PN 018463; item 19, PN 004847; item 23, PN 035294; item 27 (2), PN 006978; item 28 (2), 019409; item 32, PN 012677; item 33, PN 019410; item 34 (2), PN 005578; item 35, PN 008183; item 37 (4), PN 000133; item 38 (4), PN 000022; item 39 (4), PN 000097	036534	050-0092-03-4	1
	Vertimatic cover assy. C 48@ (covers & doors) Including item 1, PN 006797; item 4, PN 018133; item 10, PN 006799; item 12, PN 019408; item 13, PN 019407; item 14, PN 015910; item 17, PN 009513	036410	050-0063-01-4	1
	Vertimatic cover assy. C 54@ (covers & doors) Including item 1, PN 006797; item 4, PN 007023; item 10, PN 035424; item 12, PN 019411; item 13, PN 019411; item 14, PN 019412; item 17, PN 009494	036260	050-0092-03-4	1

# VERTIMATIC COVER WITH AIR OPERATED DRIP TRAY (FOR SLIDING WEDGE GATE)

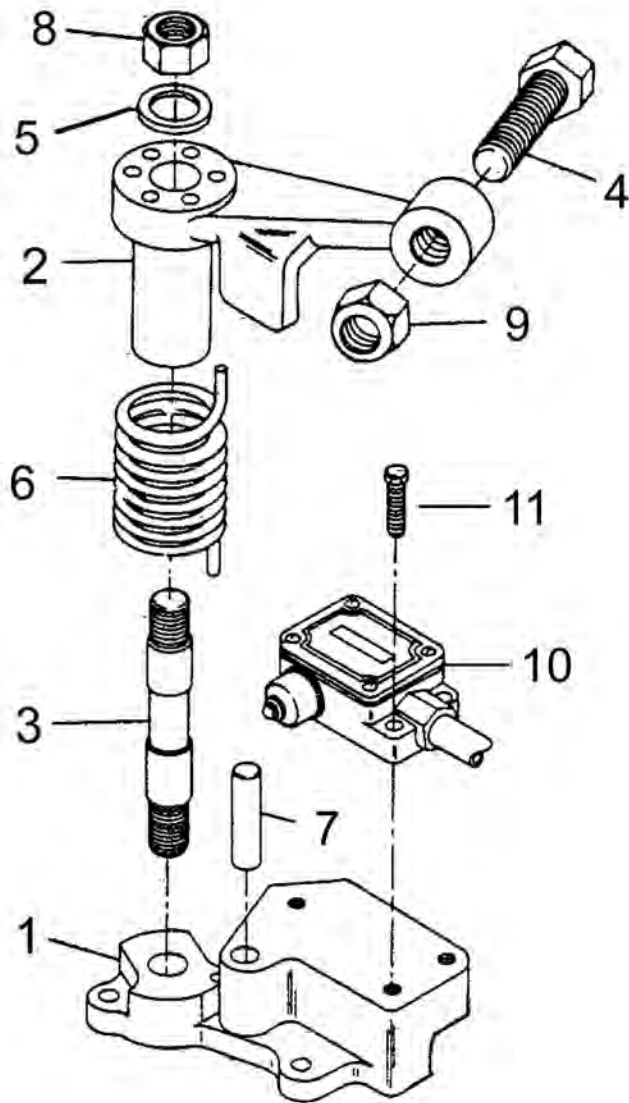


VERTIMATIC COVER  
WITH AIR OPERATED DRIP TRAY

No	Description	PN	Dwg No	Qty
1	Curb top C 54" <sup>1</sup>	003649	C-9100-E	1
	Curb top C 48" <sup>1</sup>	007564	C-8850-G-1	1
2	Front hinged cover C 54"	013508	C-9341-A	1
	Front hinged cover C 48"	006614	C-9341-B	1
3	Rear hinged cover C 54"	013509	C-9326-A	1
	Rear hinged cover C 48"	018126	C-9326-B	1
4	Top stationary cover C 54"	015339	C-9327-A	1
	Top stationary cover C 48"	006603	C-9327-B	1
5	Curb top cover C 54"	006608	C-9333-A	1
	Curb top cover C 48"	018124	C-9333-B	1
6	Gate backing strip C 54"	015897	C-9344-A	1
	Gate backing strip C 48"	015900	C-9344-D	1
7	Cover backing strip C 54"	015898	C-9344-B	1
	Cover backing strip C 48"	015899	C-9344-C	1
8	Hinge pin	011252	C-9338-B	1
9	Rod clevis, nut & pin	032041		1
10	Air cylinder	029671		1
11	Trunnion bracket	017634	C-9348	1
12	Moving drip pan C 54"	008163	C-9334-A-1	1
	Moving drip pan C 48"	008164	C-9334-B	1
13	Drip pan bracket C 54"	017633	C-9336-A-1	1
	Drip pan bracket C 48"	008168	C-9336-B	1
14	Stationary drip pan C 54"	012994	C-9336-A	1
	Stationary drip pan C 48"	008166	C-9336-B	1
15	Curb hinge	010394	C-9340-A	1
16	Spray nozzle bracket C 54"	017551	ASC-696-P-3	1
	Spray nozzle bracket C 48"	017546	ASC-696-M-1	1
17	Latch	010323	C-9339-A	1
18	Handle	021322		1
19	Seal strip, 1/8" x 1-3/4" wide C 48"	049255		1
	Seal strip, 1/8" x 4-3/4" wide C 54"	063637		1
20	Gasket, right hand C 48"	006620	C-9354	1
	Gasket, left hand C 48"	006621	C-9355	1
	Gasket, right hand C 54"	013407	C-9352	1
	Gasket, left hand C 54"	013408	C-9353	1
21	Seal strip, 1/8" x 2" x 19-1/4" long C 54"	036877		1

<sup>1</sup> There are many curb top variations. When ordering a replacement curb top you must supply the serial number of the centrifugal being converted.

# GYRATION SWITCH FOR 48" & 54" CENTRIFUGAL WITH ALUMINUM COVER



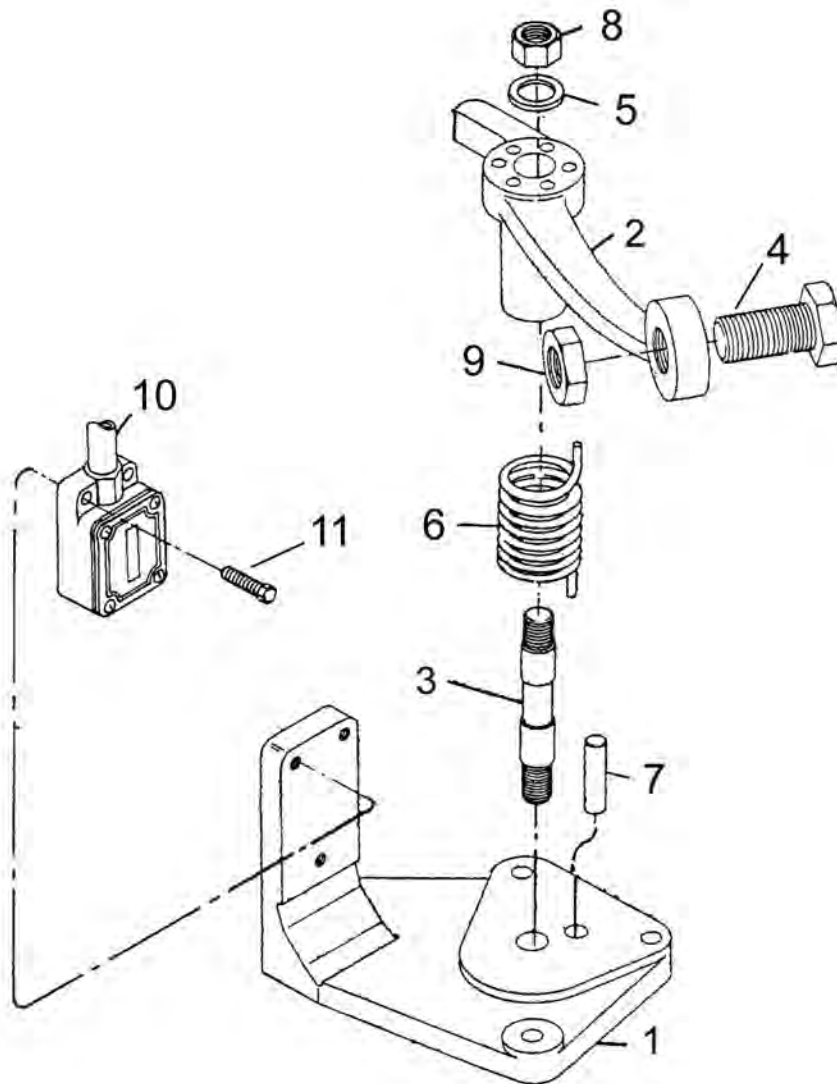
GYRATION SWITCH FOR 48" & 54" CENTRIFUGAL  
WITH ALUMINUM COVER

No	Description	PN	Dwg No	Qty
1	Base	017825	GYS-1	1
2	Lever	011634	GYS-3	1
3	Mounting stud	017108	GYS-6-A	1
4	Adjusting screw C 48"	013376	GYS-7	1
	Adjusting screw C 54"	003225	GYS-7-A	1
5	Washer	016482	GYS-8	1
6	Spring, right hand turn	023646	GYS-9-A	1
7	Pin, stop	015434	GYS-10	1
8	Hex nut	000011		1
9	Hex jam nut	001549		1
10	Micro switch	020923		1
11	Screw	000218		3

COMPLETE ASSEMBLY

	Description	PN
	Complete gyration switch assembly C 48"	004519
	Complete gyration switch assembly C 54"	063282

# GYRATION SWITCH FOR 48" x 36" CENTRIFUGAL WITH ALUMINUM COVER



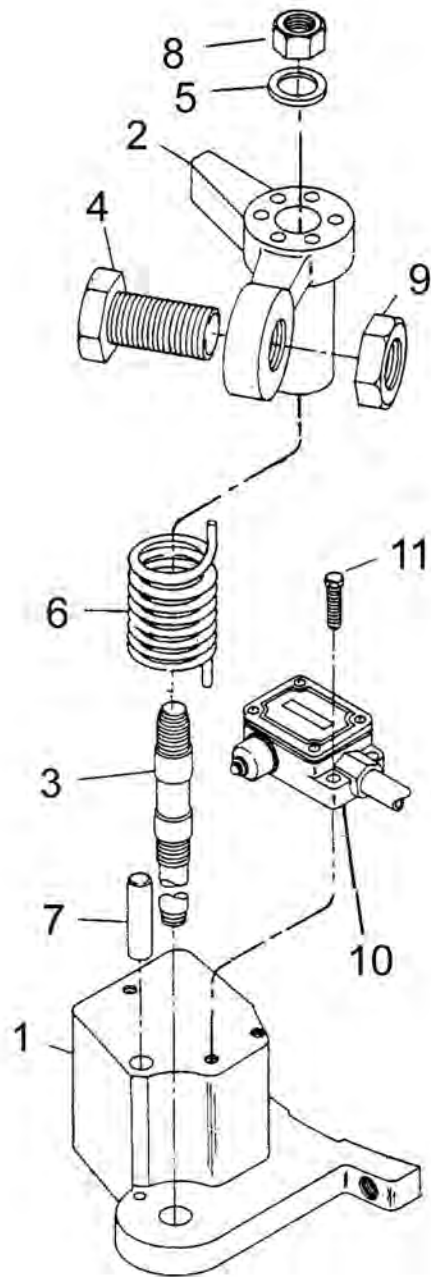
GYRATION SWITCH FOR 48" x 36" CENTRIFUGAL  
WITH ALUMINUM COVER

No	Description	PN	Dwg No	Qty
1	Base	009381	GYS-1-F	1
2	Lever	011638	GYS-3-F	1
3	Mounting stud	016018	GYS-6-A-2	1
4	Adjusting screw	013376	GYS-7	1
5	Washer	016482	GYS-8	1
6	Spring, right hand turn	023646	GYS-9-A	1
7	Stop pin	015435	GYS-10-A	1
8	Hex nut	000011		1
9	Hex jam nut	001549		1
10	Micro switch	020923		1
11	Screw	000295		3

COMPLETE ASSEMBLY

	Description	PN
	Complete gyration switch assembly	004557

# GYRATION SWITCH FOR 40" CENTRIFUGAL WITH OPEN CURB TOP



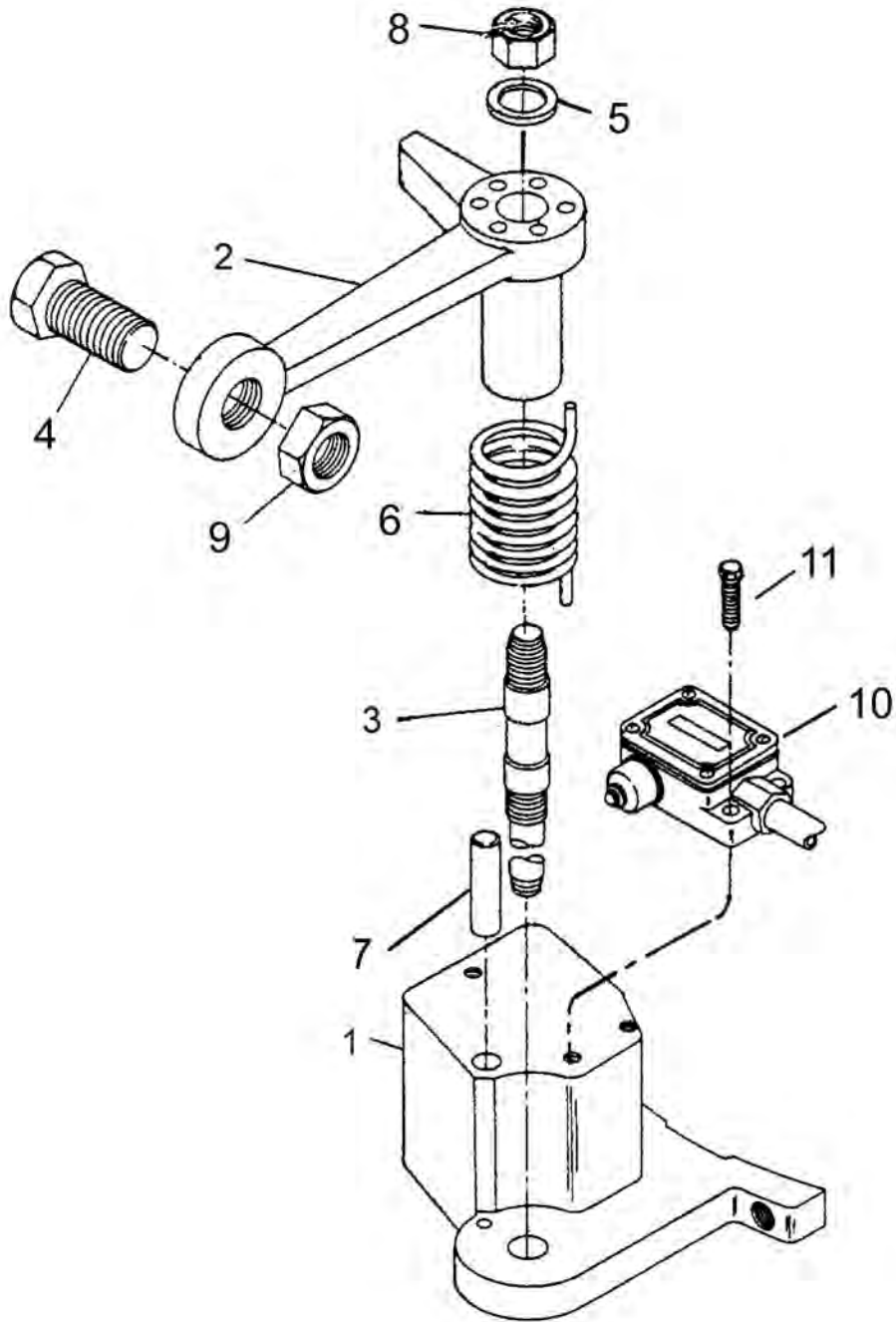
GYRATION SWITCH FOR 40" CENTRIFUGAL  
WITH OPEN CURB TOP

No	Description	PN	Dwg No	Qty
1	Base	016959	GYS-2	1
2	Lever	011640	GYS-5	1
3	Mounting stud	016020	GYS-6-E	1
4	Adjusting screw	013376	GYS-7	1
5	Washer	016482	GYS-8	1
6	Spring, left hand turn	023645	GYS-9	1
7	Pin, stop	015434	GYS-10	1
8	Hex nut	000011		1
9	Hex jam nut	001549		1
10	Micro switch	020923		1
11	Screw	000218		1

COMPLETE ASSEMBLY

	Description	PN
	Complete gyration switch assembly	004521

# GYRATION SWITCH FOR 48" CENTRIFUGAL WITH OPEN CURB TOP



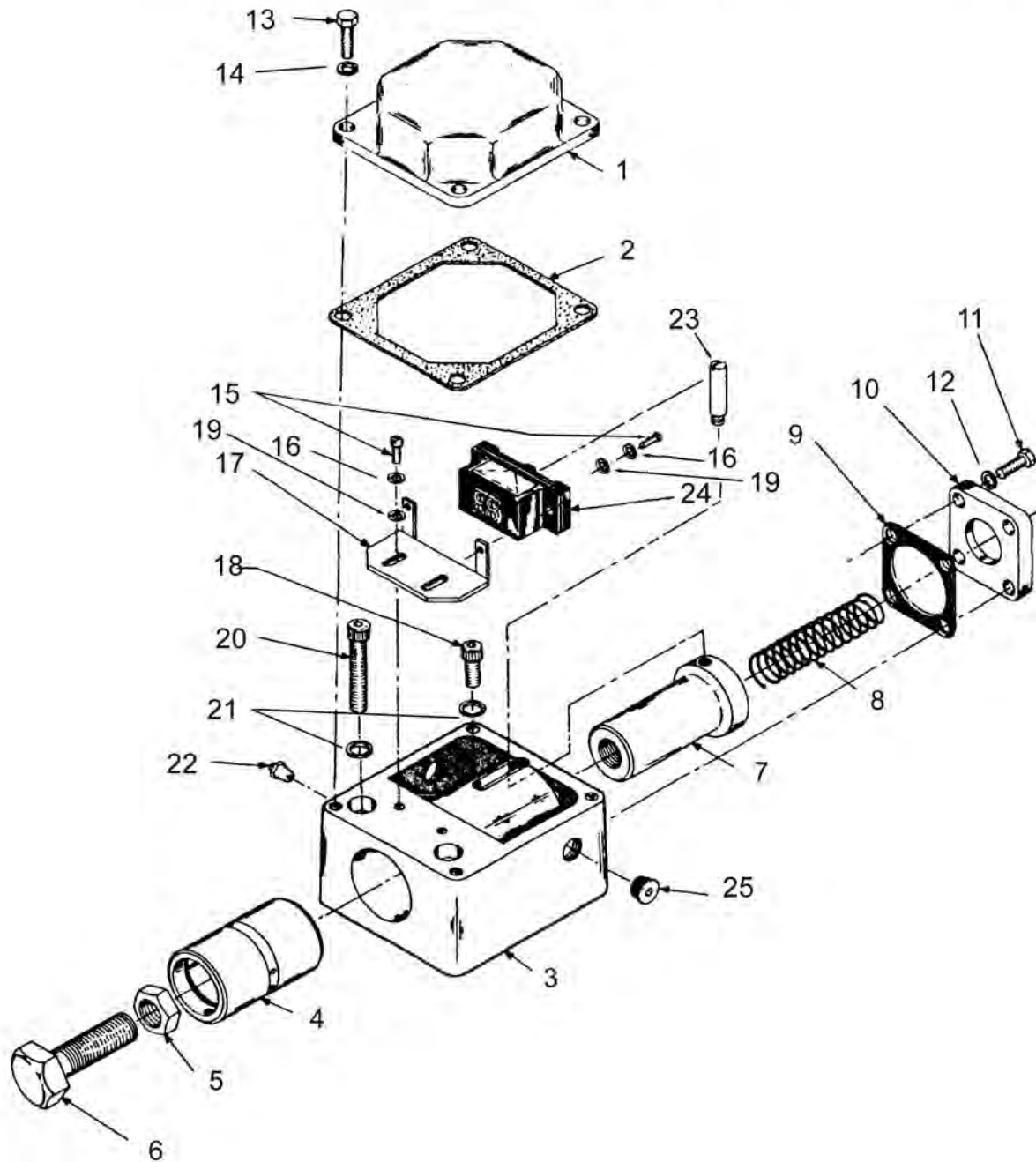
GYRATION SWITCH FOR 48" CENTRIFUGAL  
WITH OPEN CURB TOP

No	Description	PN	Dwg No	Qty
1	Base	016959	GYS-2	1
2	Lever	016972	GYS-4	1
3	Mounting stud C 4" SHOE	016020	GYS-6-E	1
	Mounting stud C 5" SHOE	017107	GYS-6	1
	Mounting stud C 8" SHOE	017109	GYS-6-B	1
4	Adjusting screw	013376	GYS-7	1
5	Washer	016482	GYS-8	1
6	Spring, right hand	023645	GYS-9	1
7	Pin, stop	015434	GYS-10	1
8	Hex nut	000011		1
9	Hex jam nut	001549		1
10	Micro switch	020923		1
11	Screw	000218		3

COMPLETE ASSEMBLY

	Description	PN
	Complete gyration switch assembly	004107

# GYRATION SWITCH FOR 48" & 54" CENTRIFUGALS WITH VERTI-MATIC COVER



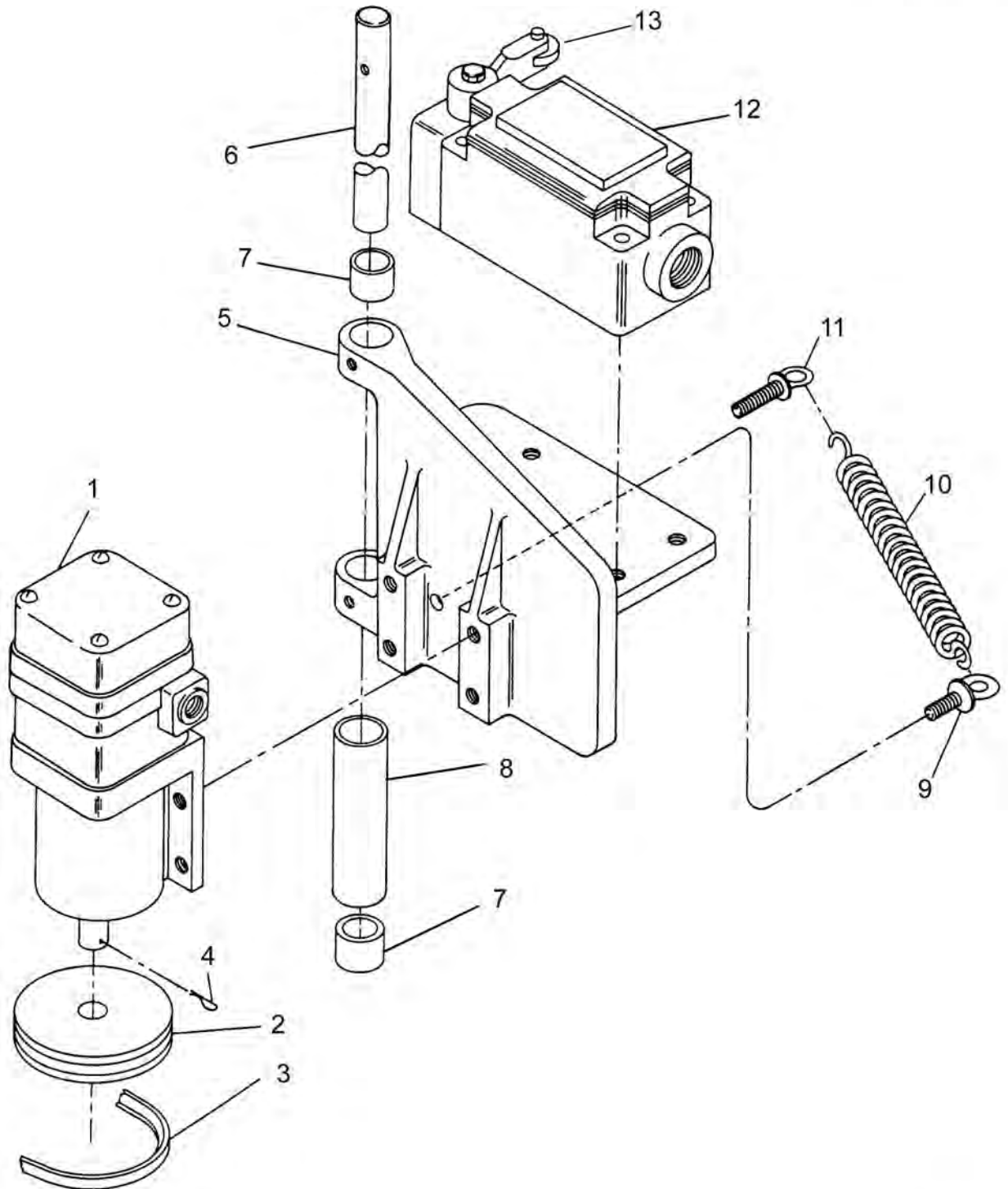
**GYRATION SWITCH FOR 48" & 54" CENTRIFUGALS  
WITH VERTI-MATIC COVER**

No	Description	PN	Dwg No	Qty
1	Cover	016969	056-0029-00-3	1
2	Gasket	009519	056-0036-00-2	1
3	Housing	016957	056-0028-00-4	1
4	Bearing sleeve	019364	056-0035-00-2	1
5	Hex jam nut	020411		1
6	Adjusting screw for Posi-Latch, brass	003229	056-0031-00-2	1
	Adjusting screw for Posi-Latch, stainless steel	013390	056-0055-00-2	1
	Adjusting screw, brass	022557	056-0091-00-2	1
7	Plunger	012557	056-0034-00-2	1
8	Spring	021352	ASC-3010	1
9	Gasket	009520	056-0037-00-2	1
10	End plate	013181	056-0033-00-2	1
11	Screw	000659		4
12	Lockwasher	020672		4
13	Screw	000659		4
14	Lockwasher	020672		4
15	Screw	000444		4
16	Lockwasher	026616		4
17	Mounting bracket	016961	056-0030-00-3	1
18	Screw	000980		2
19	Flat washer	043070		4
20	Screw	000987		2
21	Lockwasher	001444		4
22	Lube fitting	020168		1
23	Switch trip	017114	056-0032-00-2	1
24	Micro switch	021344		1
25	Pipe plug	000535		1

**COMPLETE ASSEMBLY**

	Description	PN
	Complete gyration switch assembly, 48" & 54" with Posi-Latch basket valve	016956
	Complete gyration switch assembly, 48" & 54" with standard basket valve	024117

# ZERO SPEED SWITCH WITH BELT LIMIT SWITCH



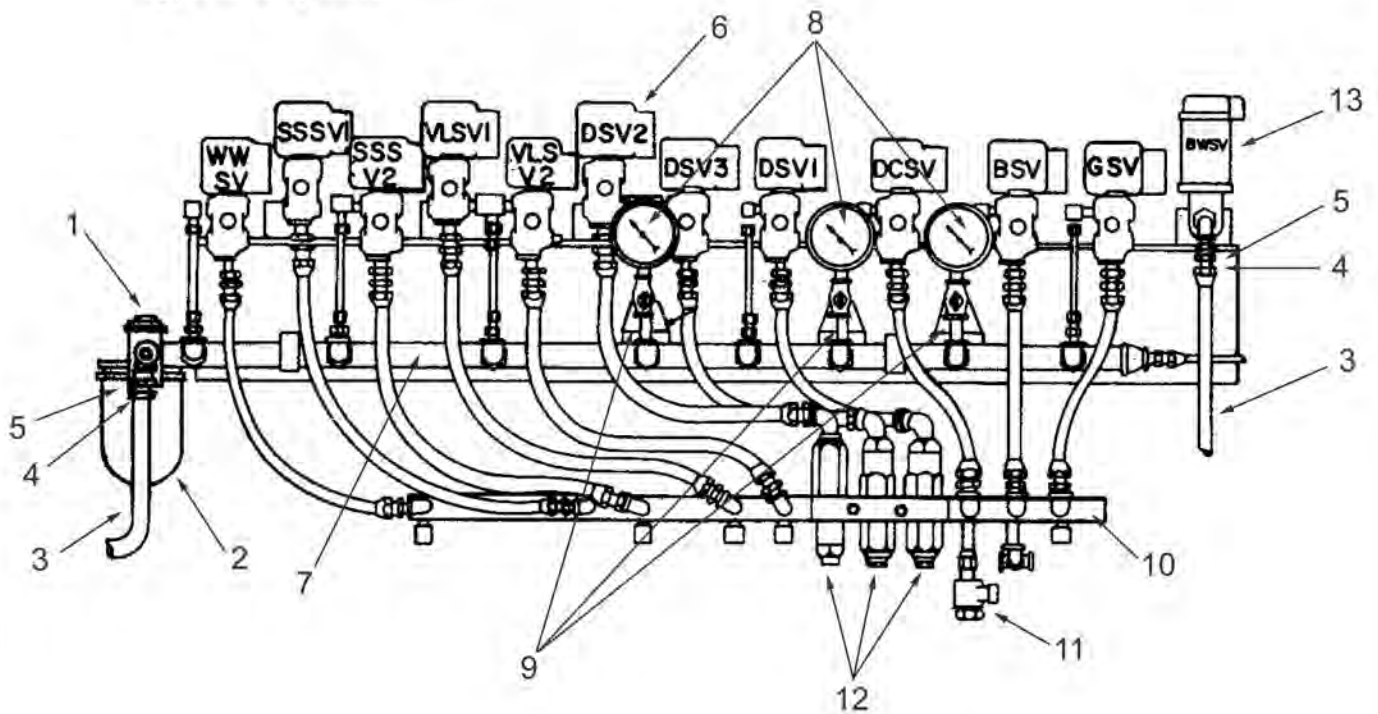
ZERO SPEED SWITCH WITH  
BELT LIMIT SWITCH

No	Description	PN	Dwg No	Qty
1	Euclid zero speed switch, complete	057037		1
2	Sheave	023597	D-451-B	1
3	"V" belt C 40"	002904		1
	"V" belt C 48"	029305		1
4	Cotter pin	001355		1
5	Switch bracket C 40"	017756	D-450-H-5	1
	Switch bracket C 48"	017754	D-450-H-4	1
6	Shaft	013622	D-330	1
7	Bushing	023596	D-328	2
8	Spacer	015525	D-327	1
9	Eye bolt with nuts	022739	MC-146-C	1
10	Spring	023567	CD-512	1
11	Eye bolt	020700	MC-145-B-1	1
12	Limit switch	020667		1
13	Limit switch arm	021188		1

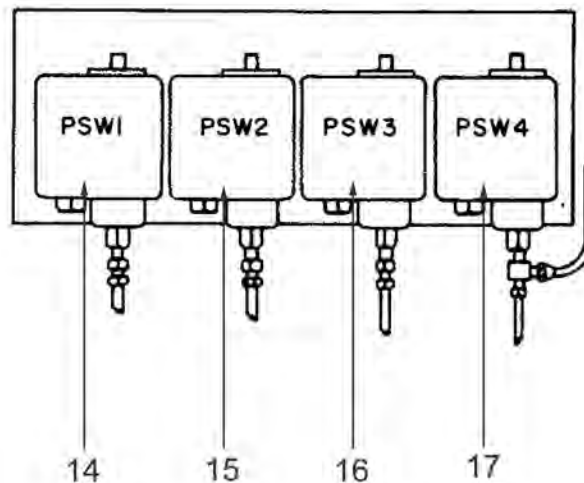
# AIR ELECTRIC AUTOMATIC CONTROL WITH ASCO SOLENOID VALVES & SQUARE D PRESSURE SWITCHES



Actual number of solenoid valves will vary with centrifugal type and options



Actual number of pressure switches will vary with centrifugal type



AIR ELECTRIC AUTOMATIC CONTROL WITH  
 ASCO SOLENOID VALVES  
 SQUARE D PRESSURE SWITCHES  
 BRAKE COOLING WATER SOLENOID VALVE

No	Description	PN	Dwg No	Qty
1	1/2@ air strainer	022145		1
2	Air lubricator	022139		1
3	Hose	022143		as req
4	Swivel connector	003053		1
5	Hose coupling	003055		2
6	Solenoid valve <sup>1</sup>	028349		as req
7	Control valve manifold	010636		1
8	Pressure gage	028632		3
9	Pressure regulator	028543		3
10	Air manifold	010625		1
11	Weatherhead fitting with nut <sup>4</sup>	020856		1
12	Flow control	003770	EC-500	3

PRESSURE SWITCHES <sup>2</sup>

14	Pressure switch for water, PSW-1 (Sure Wash)	022148		1
15	Pressure switch for air, PSW-2, (Discharger IN)	022148		1
16	Pressure switch for air, PSW-3, (Discharger DOWN)	022148		1
17	Pressure switch for air, PSW-4, (Discharger clutch)	023448		1

BRAKE COOLING WATER <sup>3</sup>

3	Hose	022143		as req
4	Swivel connector	003051		1
5	Hose coupling	003055		2
13	Solenoid valve	021349		1

REPAIR KITS AND COIL

	Description	PN
	Repair kit	029229
	Coil	029293

<sup>1</sup> The number of solenoid valves supplied will vary be centrifugal type and options. PN 028349 is a universal valve which replaces the old form F and form G valves

<sup>2</sup> Pressure switches supplied varies with centrifugal type

PSW-1 is supplied on all centrifugals for wash water interlock

PSW-2 and PSW-3 is required with an air sequenced discharger

PSW-4 is required for a two-speed motor with Turn Tork reverse drive

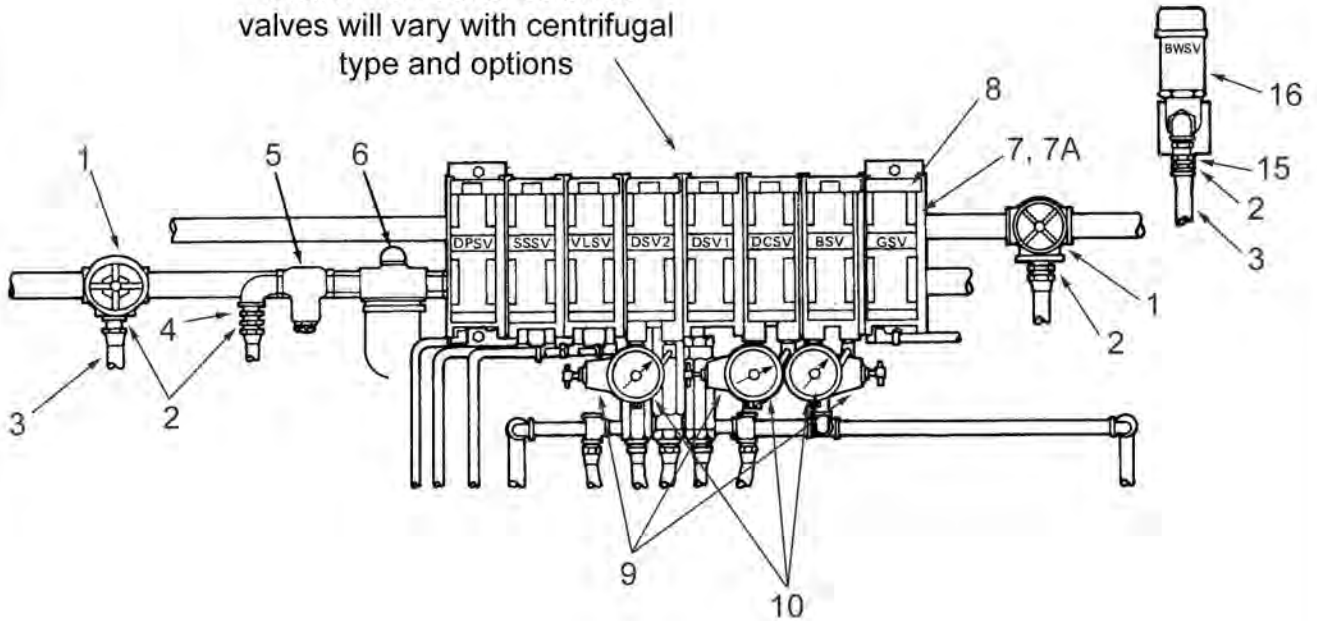
<sup>3</sup> Brake cooling water required for two-speed motor with mechanical braking

<sup>4</sup> Quick release fitting has been replaced by this item.

# AIR ELECTRIC AUTOMATIC CONTROL WITH MANIFOLD MOUNTED EAGLE/KAY SOLENOID VALVES & SQUARE D PRESSURE SWITCHES

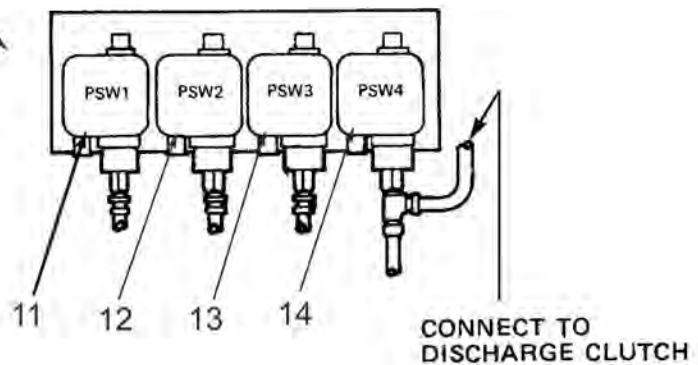


Actual number of solenoid valves will vary with centrifugal type and options



Actual number of pressure switches will vary with centrifugal type

- PSW-1 = 11
- PSW-2 = 12
- PSW-3 = 13
- PSW-4 = 14



AIR ELECTRIC AUTOMATIC CONTROL WITH  
EAGLE/KAY VALVES, MANIFOLD MOUNTED  
SQUARE D PRESSURE SWITCHES  
BRAKE COOLING WATER SOLENOID VALVE

When ordering complete solenoid valves or replacement coils please provide the serial number of the centrifugal and the control voltage.

No	Description	PN	Dwg No	Qty
1	1/2" angle valve, brass	022142		1
2	Hose coupling	003055		2
3	Hose	022143		as req
4	Swivel connector	003053		1
5	1/2" air strainer	022145		1
6	Air lubricator	022139		1
7	Valve base <sup>1</sup>	031471		as req
7A	Regulator base <sup>1</sup> (required for valves with pressure regulator)	029031		3
8	Solenoid valve <sup>1</sup> , 110 volt / 60 Hz	040188		as req
	Solenoid valve <sup>1</sup> , 110 volt / 50 Hz	040423		as req
9	Pressure regulator	028543		3
10	Pressure gage	002952		3

NOTE: Effective 1 January, 1999 the Eagle valve and all associated parts are no longer available. Please contact Western States for assistance in choosing a proper replacement.

PRESSURE SWITCHES <sup>2</sup>

11	Pressure switch for water, PSW-1 (Sure Wash)	022148		1
12	Pressure switch for air, PSW-2, (Discharger IN)	022148		1
13	Pressure switch for air, PSW-3, (Discharger DOWN)	022148		1
14	Pressure switch for air, PSW-4, (Discharger clutch)	023448		1

BRAKE COOLING WATER <sup>3</sup>

1	1/2" angle valve, brass	022142		1
2	Hose coupling	003055		2
3	Hose	022143		as req
15	Swivel connector	003051		1
16	Solenoid valve	021349		1

## REPAIR KIT AND COIL

	Description	PN
	Repair kit	028979
	Coil for 60 Hz (specify control voltage)	037809
	Coil for 50 Hz (specify control voltage)	037812

<sup>1</sup> The number of solenoid valves supplied will vary with centrifugal type and options

<sup>2</sup> Pressure switches supplied varies with centrifugal type

PSW-1 is supplied on all centrifugals for wash water interlock

PSW-2 and PSW-3 is required with an air sequenced discharger

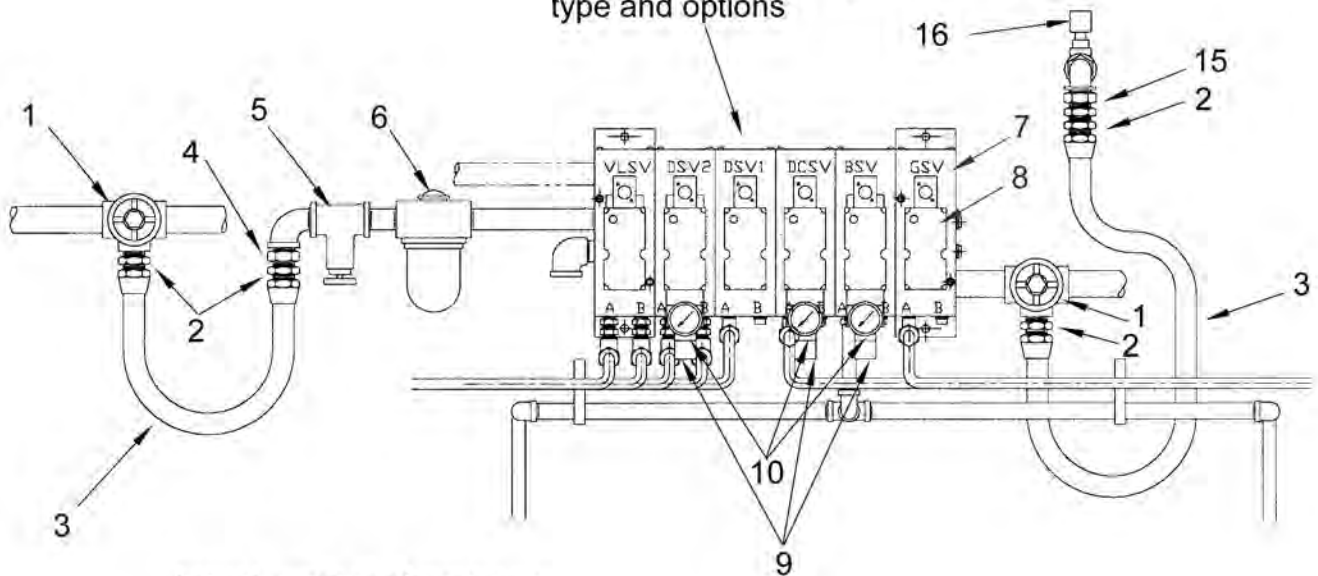
PSW-4 is required for a two-speed motor with Turn Tork reverse drive

<sup>3</sup> Brake cooling water required for two-speed motor with mechanical braking

# AIR ELECTRIC AUTOMATIC CONTROL WITH MANIFOLD MOUNTED MAC SOLENOID VALVES & SQUARE D PRESSURE SWITCHES

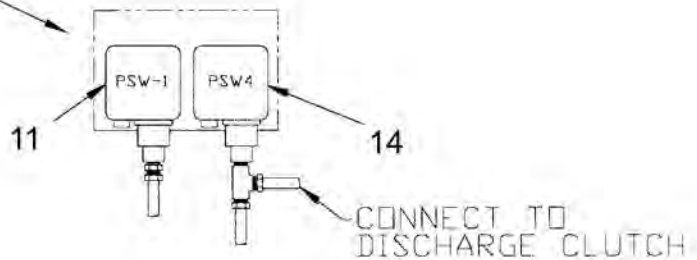


Actual number of solenoid valves will vary with centrifugal type and options



Actual number of pressure switches will vary with centrifugal type

- PSW-1 = 11
- PSW-2 = 12
- PSW-3 = 13
- PSW-4 = 14



AIR ELECTRIC AUTOMATIC CONTROL WITH  
MAC SOLENOID VALVES<sup>4</sup>, MANIFOLD MOUNTED  
SQUARE D PRESSURE SWITCHES  
BRAKE COOLING WATER SOLENOID VALVE

No	Description	PN	Dwg No	Qty
1	1/2" angle valve, brass	022142		1
2	Hose coupling	003055		2
3	Hose	022143		as req
4	Swivel connector	003053		1
5	1/2" air strainer	022145		1
6	Air lubricator	022139		1
7	Valve base <sup>1</sup>	048369		as req
8	Solenoid valve <sup>1</sup>	048368		as req
9	Pressure regulator	048543		3
10	Pressure gage	048545		3

PRESSURE SWITCHES <sup>2</sup>

11	Pressure switch for water, PSW-1 (Sure Wash)	022148		1
12	Pressure switch for air, PSW-2, (Discharger IN)	022148		1
13	Pressure switch for air, PSW-3, (Discharger DOWN)	022148		1
14	Pressure switch for air, PSW-4, (Discharger clutch)	023448		1

BRAKE COOLING WATER <sup>3</sup>

1	1/2" angle valve, brass	022142		1
2	Hose coupling	003055		2
3	Hose	022143		as req
15	Swivel connector	003051		1
16	Solenoid valve	021349		1

REPAIR KIT AND COIL

	Description	PN
	Repair kit	048353
	Coil	048544

<sup>1</sup> The number of solenoid valves supplied will vary with centrifugal type and options

<sup>2</sup> Pressure switches supplied varies with centrifugal type

PSW-1 is supplied on all centrifugals for wash water interlock

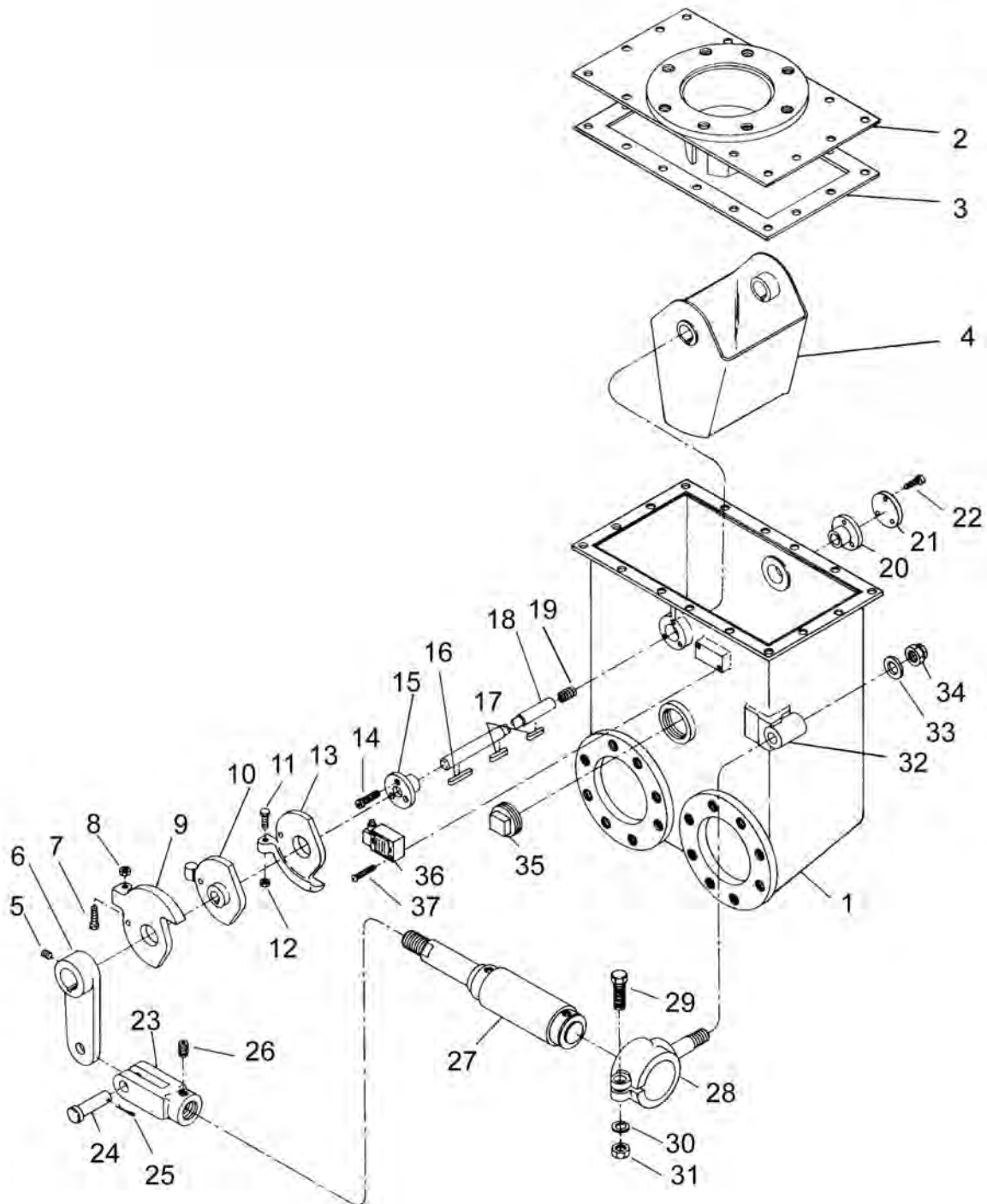
PSW-2 and PSW-3 is required with an air sequenced discharger

PSW-4 is required for a two-speed motor with Turn Tork reverse drive

<sup>3</sup> Brake cooling water required for two-speed motor with mechanical braking

<sup>4</sup> For conversion on centrifugals with straddle valve lifter two flow controls (PN 04007) will be supplied in place of the fixed orifices.

# SWING SPOUT SYRUP SEPARATOR



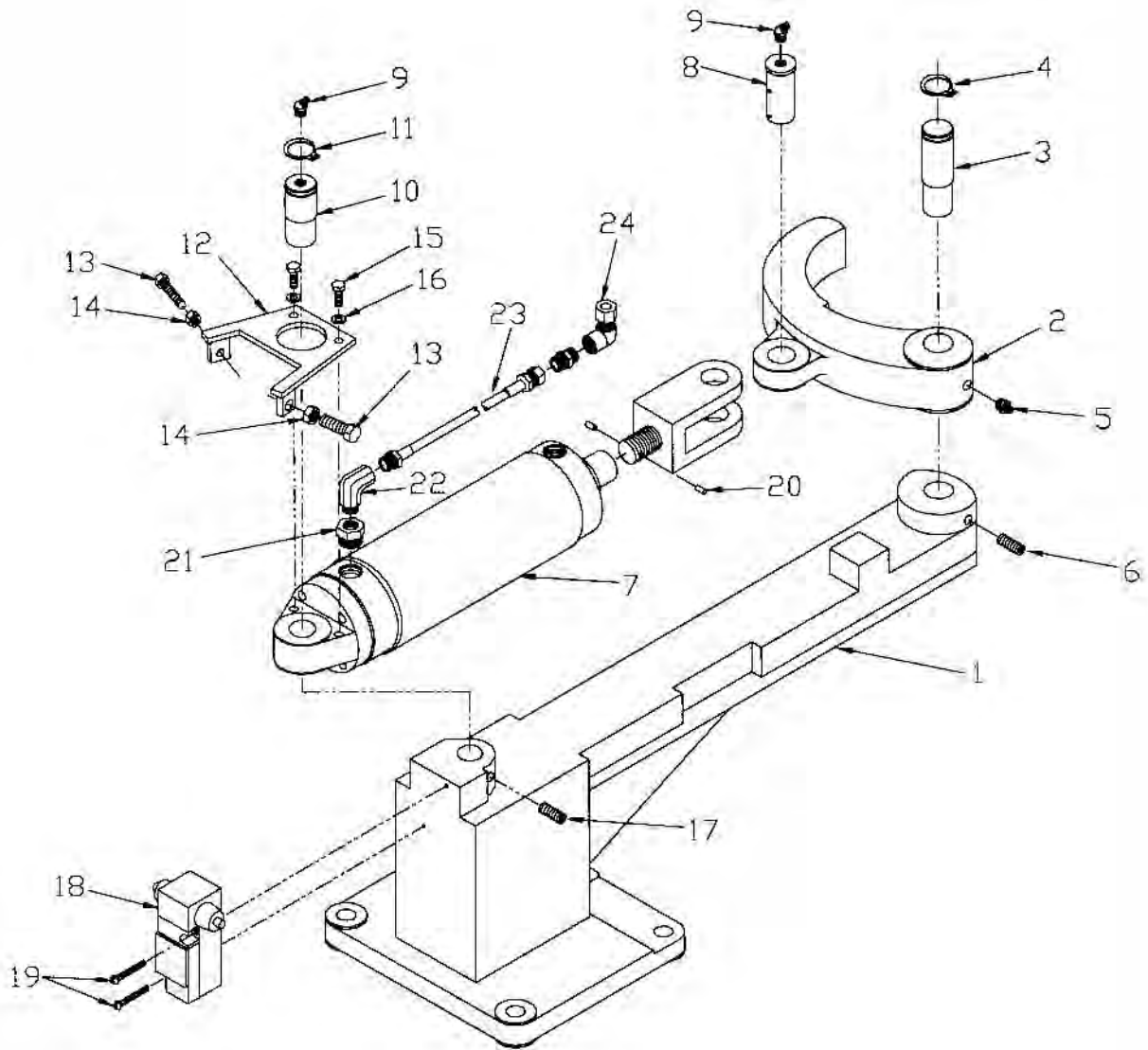
## SWING SPOUT SYRUP SEPARATOR

No	Description	PN	Dwg No	Qty
1	Separator tank — 40"	017074	566-C-100	1
	Separator tank — 48"	017074	566-C-100	1
2	Separator tank cover — 40"	017085	566-C-100-F-1	1
	Separator tank cover — 48"	006891	566-C-100-B	1
3	Gasket — 40"	023528	157-C-112	1
	Gasket — 48"	021236	527-C-100-A	1
4	Syrup spout — 40"	016087	566-C-107-A	1
	Syrup spout — 48"	016086	566-C-107	1
5	Set screw	001081		1
6	Lever — 40"	011597	C-976-E	1
	Lever — 48"	011704	546-C-165	1
7	Adjusting screw	001071		1
8	Adjusting screw nut	001511		1
9	Switch plate	011009	C-976-K	1
10	Switch plate spacer	015489	C-976-G	1
11	Adjusting screw	001071		1
12	Adjusting screw nut	001511		1
13	Switch plate	011009	C-976-K	1
14	Screw	000953		3
15	Bushing — 48"	005361	546-C-163-A	1
16	Key — 40"	010273	157-C-108	1
	Key — 48"	010274	157-C-108-A	1
17	Key	010279	546-C-164-A	2
18	Syrup spout shaft — 40"	014478	267-C-101-A	1
	Syrup spout shaft — 48"	014480	566-C-154	1
19	Spring	021246	C-745-E	1
20	Bushing — 48"	005360	546-C-163	1
21	Cover plate	012413	157-C-106	1
22	Screw	000955		3
23	Clevis	006164	ASC-810-B	1
24	Clevis pin	011211	ASC-815-A	1
25	Cotter pin	000512		1
26	Set screw	001048		1
27	Air cylinder	021380		1
28	Trunion	018211	ASC-563-D-2	1
29	Screw	000707		1
30	Lockwasher	020659		1
31	Nut	001513		1
32	Fulcrum Bracket	017540	ASC-563-D-1	1
33	Lockwasher	001465		1
34	Nut	001571		1
35	Square head pipe plug	021231		1
36	Limit switch	020674		1

## REPAIR KIT

	Description	PN
	Air cylinder (item 27) including rod bearing, internal key (2), rod scraper, rod gland snap ring, piston seal "O" ring (2), end cover "O" ring (2), rod packing, piston packing (2), cartridge "O" ring	028344

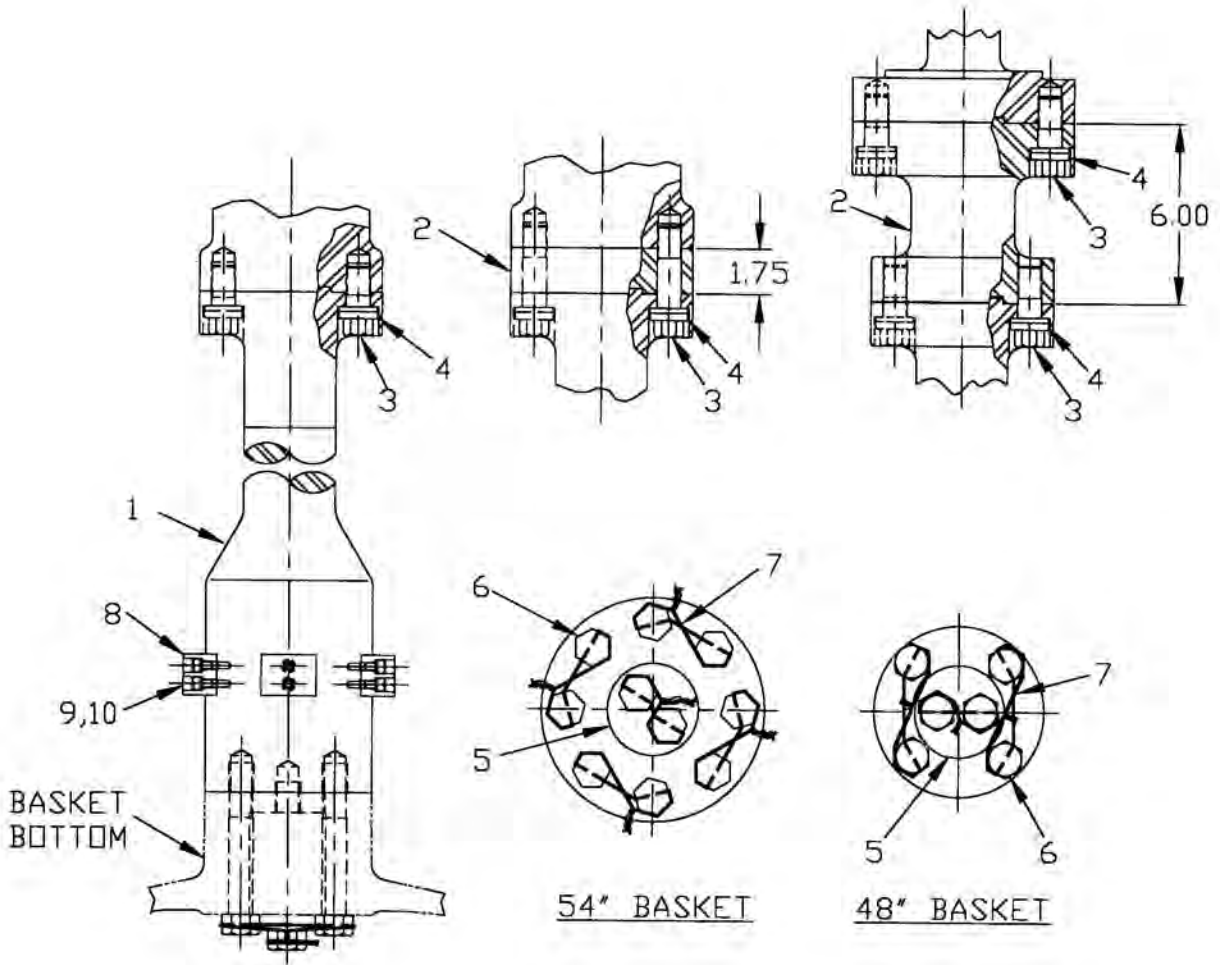
# STABILIZER



## STABILIZER

No	Description	PN	Dwg No	Qty
1	Stabilizer body C 48"	015327	029-0005-00-4	1
	Stabilizer body C 54"	016343	029-0010-00-4	1
2	Stabilizer finger C 48"	008602	029-0011-00-3	1
	Stabilizer finger C 54"	008601	029-0004-00-3	1
3	Stabilizer finger clevis pin	006223	029-0002-00-1	1
4	Retaining ring	022161		1
5	Lubrication fitting, straight	020168		1
6	Screw, socket set, cup point	001089		1
7	Air cylinder with clevis	022217		1
8	Clevis pin	006224	029-0006-00-1	2
9	Lubrication fitting, 30 degree	001328		2
10	Retaining pin	012717	029-0001-00-1	1
11	Retaining ring	022216		1
12	Stabilizer air cylinder lever arm	011707	029-0003-00-2	1
13	Screw, hex head cap	000683		2
14	Nut, hex	001512		2
15	Screw, hex head cap	000659		2
16	Lockwasher	020672		2
17	Screw, socket set, cup point	001081		1
18	Limit switch	020674		1
19	Screw, round head	043009		2
20	Locking plug	012505	029-0007-00-1	2
21	Reducing bushing	002628		1
22	Street ell	002701		1
23	Hose assembly	003081		1
24	Elbow, female	022138		1

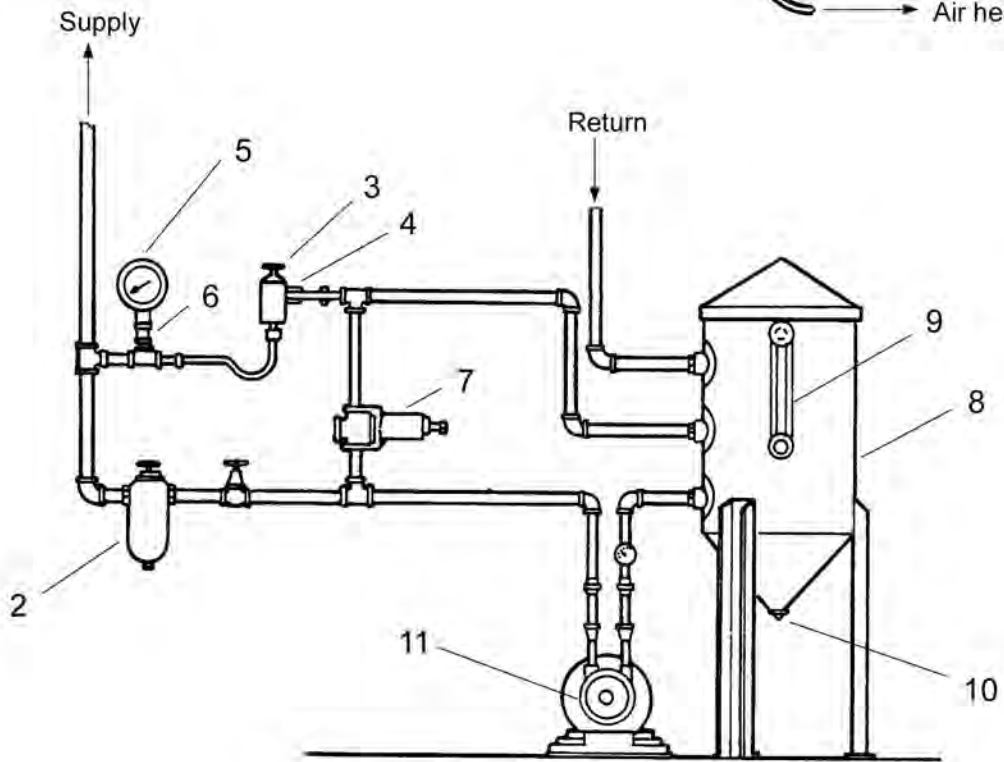
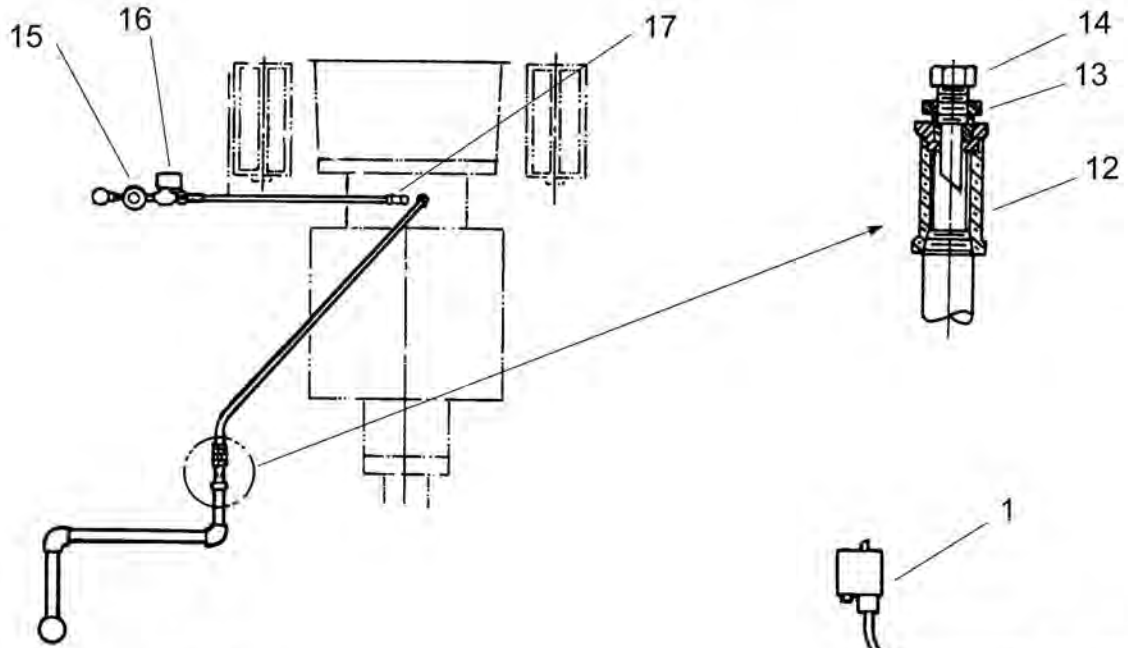
# SPINDLE



## SPINDLE

No	Description	PN	Dwg No.	Qty
1	Outside spindle C 48" x 30"	015699	C-5033-C	1
	Outside spindle C 48" x 30", plated	024662	093-0721-00-3	1
	Outside spindle C 48" x 30", 316 SST	045714	093-1409-00-3	1
	Outside spindle C 48" x 36"	015709	C-5033-T	1
	Outside spindle C 48" x 36", Posi-Latch	032983	093-0861-00-3	1
	Outside spindle C 54" x 40"	015708	C-5033-R	1
	Outside spindle C 54" x 40", plated	032000	093-0815-01-3	1
	Outside spindle C 54" x 40", Posi-Latch	032388	093-0830-01-3	1
2	Spacer C 48" x 30", 48" x 36", 48" x 36" with Posi-Latch	015532	E-619	1
	Spacer (1-3/4") C 54" x 40"	015535	E-619-C	1
	Spacer (1-3/4") C 54" x 40" with Posi-Latch	025608	051-0370-00-2	1
	Spacer (6") C 48" x 30" conversion to 48" x 36"	015533	E-619-A	1
3	Spindle cap screw, 3.44" long C 48" x 30" and 48" x 36" without spacer	040011	093-1274-00-2	6
	Spindle cap screw, 4.91" long C 48" x 30" and 48" x 36" without spacer	040005	093-1273-00-2	6
4	Lockwasher	020573		6
5	Safety plate	011015	C-5033-B-1	1
	Safety plate, for plated spindle	011016	C-5033-B-2	1
6	Spindle bolt, 6-5/8" long C 48" x 30", 48" x 36"	039894	093-1252-00-2	6
	Spindle bolt, 6-5/8" long C 48" x 30", plated	042112	093-1252-00-2	6
	Spindle bolt, 8-1/4" long C 48" x 36" with Posi-Latch	016378	C-5036-G	6
	Spindle bolt, 8-1/4" long C 54" x 40"	016378	C-5036-G	10
	Spindle bolt, 8-1/4" long C 54" x 40", plated	040155	093-1278-00-2	10
	Spindle bolt, 10-3/8" long C 54" x 40" with Posi-Latch	016402	093-0319-00-2	10
7	Lock wire C 48" x 30", 48" x 36"	020574		60"
	Lock wire C 54" x 40"	020574		84"
8	Guide bushing, C 48" x 36" with Posi-Latch	022943	093-0677-00-2	4
	Guide bushing, C 54" x 40" with Posi-Latch	025468	051-0351-00-2	4
9	Socket head cap screw	025586		8
10	Lockwasher	025582		8

# LUBRICATION SYSTEM



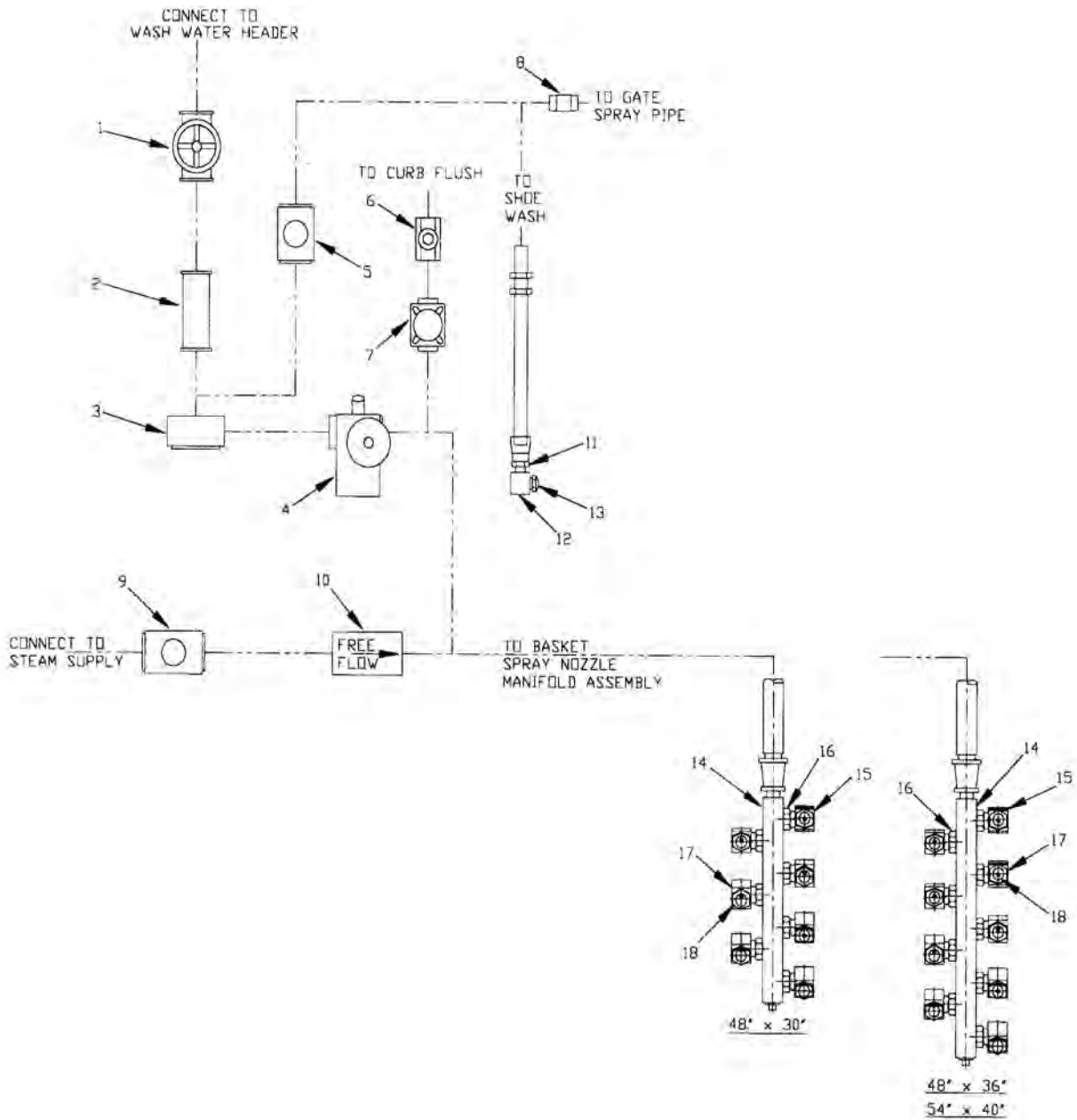
## LUBRICATION SYSTEM

No	Description	PN	Dwg No.	Qty
1	Pressure switch	056681		1
2	Filter, full flow auto clean	002934		1
3	Filter, cartridge type	002932		1
4	Filter restrictor	012714	C-1043-E	1
5	Gauge	002945		1
6	Stop cock	021359		1
7	Pressure relief valve	021348		1
8	Oil tank	021360	MC-165-K	1
9	Water gauge	021353		1
10	Drain plug, magnetic	032361		1
11	Pump, base and coupling assembly without motor	021367		1
	Pump, base and coupling assembly with motor <sup>1</sup>	031511		1
	Pump only	031694		1
	Coupling, complete with spider	029612		1
	Spider only (flexible element for coupling)	047606		1
12	Oil line gauge	002962		1
13	Oil drip fitting	008608	MC-165-T	1
14	Oil drip pipe	008185	MC-165-T-1	1
15	Globe valve	022132		1
16	Solenoid valve	021349		1
17	Restriction nipple	044598	033-0037-01-2	1
c	Motor starter complete with heaters	021357		1
18	Start/Stop push-button station	021358		1

## REPAIR KITS

No.	Description	PN
	Filter cartridge for item 3	002930
	Packing set for oil pump	051922
	Glass for oil line gauge	042623
	Solenoid valve repair kit	030326
	Coil for solenoid valve	031934

# WASH AND STEAM PIPING



## WASH AND STEAM PIPING

No	Description	PN	Dwg No.	Qty
1	Globe valve	022158		1
2	Water strainer	022151		1
3	Pressure gauge	002952		1
4	Solenoid and check valve assembly	064656	036-0151-01-3	1
5	Solenoid valve, 2-way	064655		1
6	Check valve	03008		1
7	Globe valve	022132		1
8	Restriction nipple, brass	012238	SG-296	1
	Restriction nipple, 304 SST	012711	SG-296-A	1
9	Solenoid valve, 2-way`	033352		1
10	Check valve	032310		1
11	Spray nozzle lock nut, brass	021683	ASC-693-E	1
	Spray nozzle lock nut, 304 SST	010485	ASC-693-E-5	1
12	Spray nozzle body, brass	012253	ASC-690-G-1	1
	Spray nozzle body, 304 SST	016319	ASC-690-G-3	1
13	Spray nozzle tip, 1/16" orifice	012265	ASC-691-G-6	1
14	Manifold, 7 nozzle, brass C 48" x 30"	010608	ASC-694-U-1	1
	Manifold, 7 nozzle, 304 SST C 48" x 30"	010610	ASC-694-U-6	1
	Manifold, 9 nozzle, brass C 48" x 36", 54" x 40"	010618	ASC-794-D	1
	Manifold, 9 nozzle, 304 SST C 48" x 36", 54" x 40"	010620	ASC-794-F	1
15	Spray nozzle body w/splash guard, brass	008874	036-0228-00-2	1
	Spray nozzle body w/splash guard, 304 SST	034284	036-0228-00-2	1
	Spray nozzle body w/splash guard, 316 SST	034285	036-0228-00-2	1
16	Locknut, brass C 48" x 30"	010510	ASC-693-E-2	7
	Locknut, brass C 48" x 36", 54" x 40"	010510	ASC-693-E-2	9
17	Spray nozzle body, brass C 48" x 30"	012256	ASC-690-U-1	7
	Spray nozzle body, brass C 48" x 36", 54" x 40"	012256	ASC-690-U-1	9
	Spray nozzle body, 316 SST C 48" x 30"	012257	ASC-690-U-3	7
	Spray nozzle body, 316 SST C 48" x 36", 54" x 40"	012257	ASC-690-U-3	9
18	Spray nozzle tip, 1/16" orifice, 17-4 SST C 48" x 30"	012265	ASC-691-G-6	7
	Spray nozzle tip, 1/16" orifice, 17-4 SST C 48" x 36", 54" x	012265	ASC-691-G-6	9
	Spray nozzle tip, 5/32" orifice, 17-4 SST C 48" x 30"	017224	ASC-690-M-10	7
	Spray nozzle tip, 5/32" orifice, 17-4 SST C 48" x 36", 54" x	017224	ASC-690-M-10	9

## GAUGE FOR SETTING SPRAY NOZZLE ANGLE

	Nozzle setting gauge, 9 nozzle, 54" x 40"	029224	099-0216-00-2	1
	Nozzle setting gauge, 9 nozzle, 48" x 36"	029225	099-0217-00-2	1
	Nozzle setting gauge, 7 nozzle, 48" x 30"	029226	099-0218-00-2	1
	Nozzle setting gauge, 6 nozzle, 48" x 30", with loading cone	031490	099-0230-00-2	1

## COMPLETE SPRAY NOZZLE MANIFOLD ASSEMBLIES

	Description	PN	Dwg No.	
	7 nozzle assembly including spray nozzle body, tip and locknut C brass	035774	036-0207-04-3	
	7 nozzle assembly including spray nozzle body, tip and locknut C SST	033341	036-0207-00-3	
	9 nozzle assembly including spray nozzle body, tip and locknut C brass	021684	036-0207-01-3	
	9 nozzle assembly including spray nozzle body, tip and locknut C SST	034394	036-0207-02-3	

## SOLENOID VALVE COILS & REPAIR KITS

	Description	PN
	Repair kit for washwater solenoid valve (PN 064656)	064725
	Coil for washwater solenoid valve (PN 064656)	064726
	Repair kit for gate flush solenoid valve (PN 021349)	030023
	Coil for gate flush solenoid valve (PN 021349)	031934