



# Parts Manual

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Model \_\_\_\_\_ **Paper Roll Clamp**

Serial Number \_\_\_\_\_ **90FX-RCS-21CR1**

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

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

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

**OR**

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

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

# Safety Decals

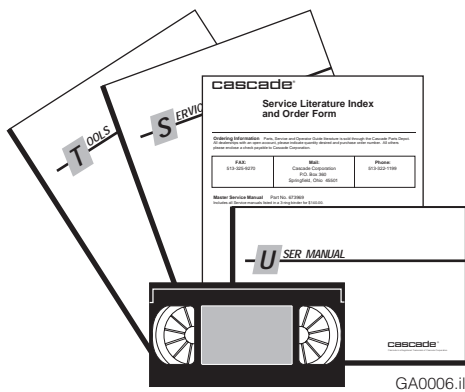


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Roll Clamp Safety Decals			
REF	QTY	PART NO.	DESCRIPTION
1	6	665595	No Hand Hold Decal
2	3	660269	Short Arm Rotation Position Decal
3	4	656038	Caution Decal
4	4	679150	No Step Decal
5	4	665677	Trapped Pressure Decal
6	1	679059	Quick-Change Hook Decal

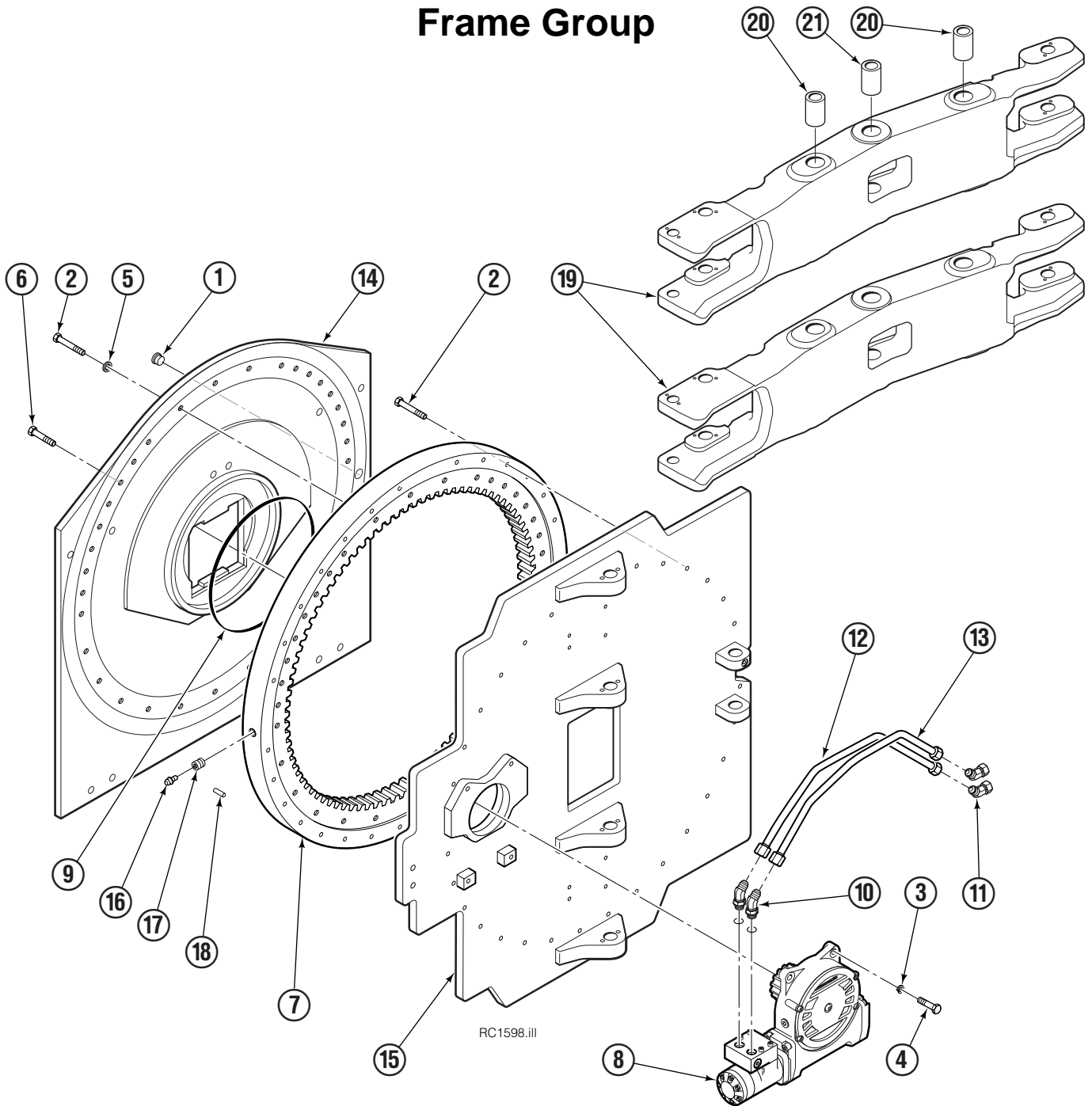
# Publications



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Roll Clamp Publications	
674512	Service Manual
674509	Operator's Guide – Fixed Frame
676268	Operator's Guide – Swing Frame
674510	Installation Instructions – Fixed Frame
674511	Installation Instructions – Swing Frame
677555	Driver Training Video – VHS
678363	Troubleshooting Video – VHS
680664	Servicing Cascade Cylinders – VHS
679929	Tool Catalog
673964	Literature Index Order Form

# Frame Group



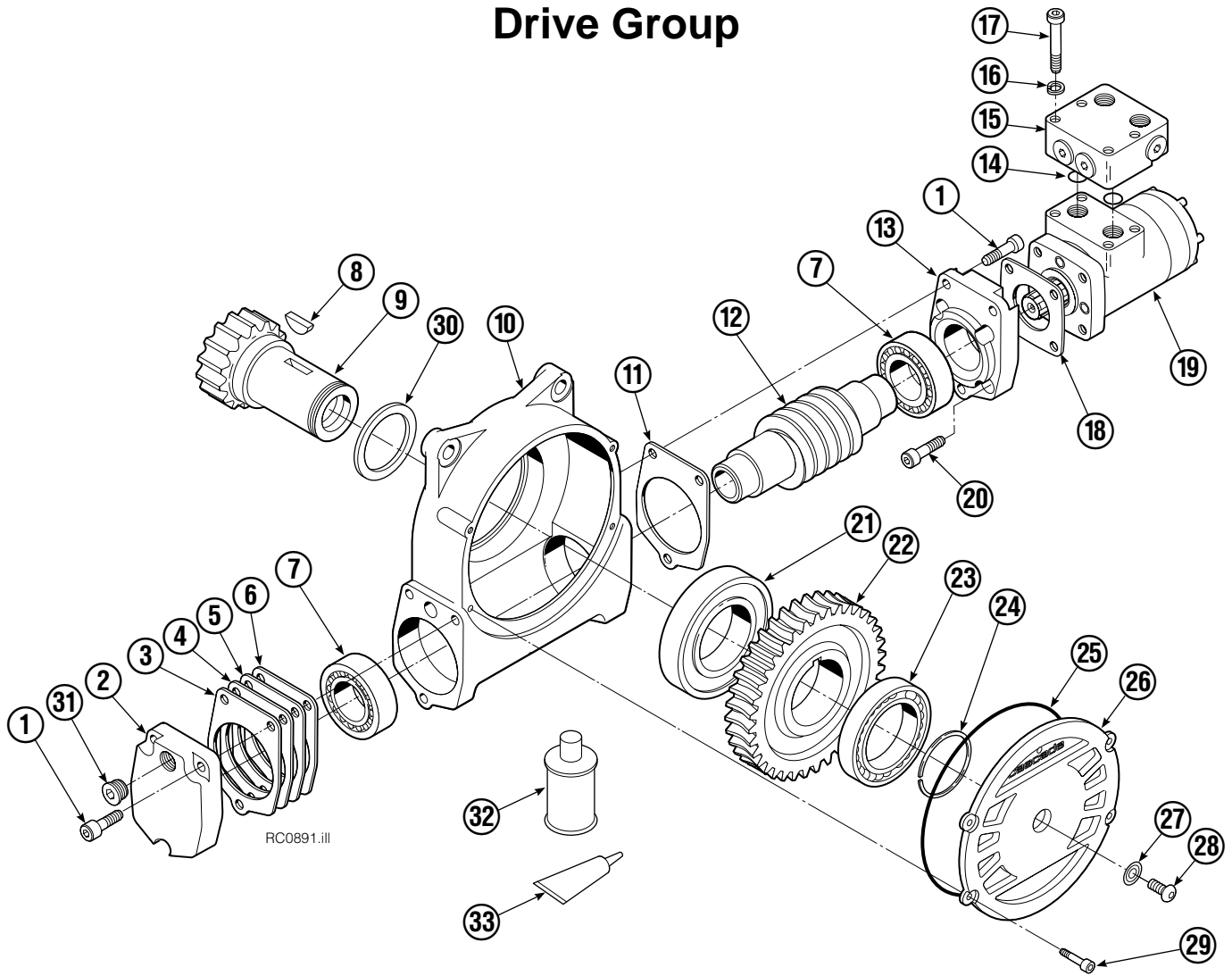
90F							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6007003	Frame Group	11	2	605948	Fitting, 8-8
1	1	664071	Plug	12	1	6001454	Tube
2	49	213633	Capscrew, M12 x 55	13	1	6001455	Tube
3	4	6290	Lockwasher, .50	14	1	6006987	Baseplate
4	4	763021	Capscrew, M12 x 30	15	1	6013029	Faceplate
5	32	681473	Lockwasher, M12	16	1	7401	Grease Fitting
6	15	206174	Capscrew, M12 x 45	17	1	670680	Plug
7	1	3014859	Bearing Assembly	18	1	670681	Drive Pin
8	1	3014867	Drive Group ▲	19	2	381130	Swing Frame ◆
9	1	6001004	Seal	20	8	675008	Bushing ◆
10	2	611303	Fitting, 8-8	21	4	675006	Bushing ◆

▲ See Drive Group page for parts breakdown.

◆ Included in Swing Frame Group 381129.

Reference: Common Parts 6000993.

# Drive Group



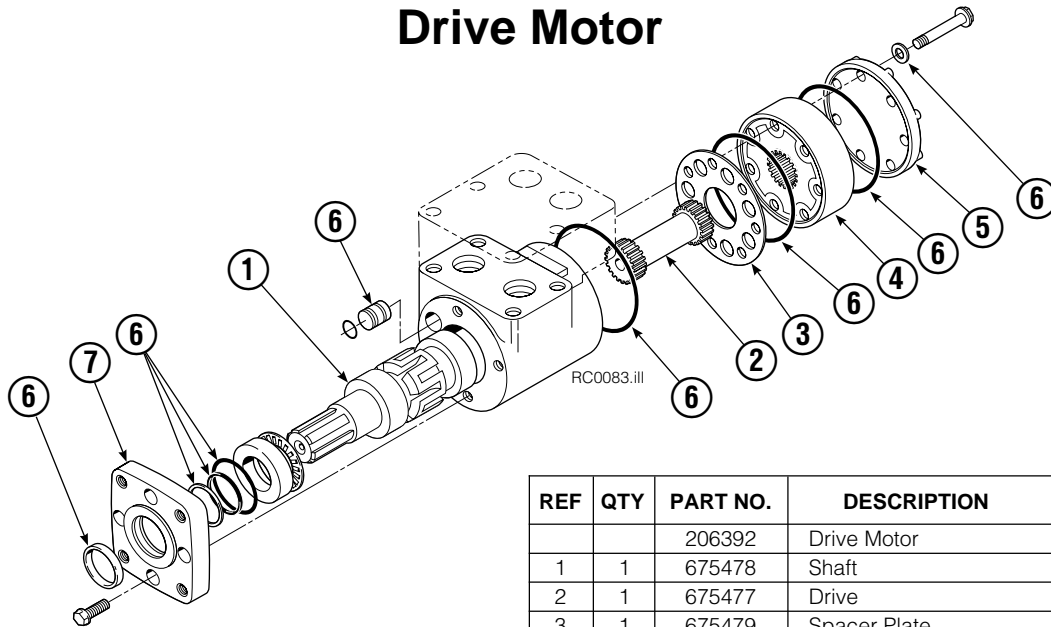
90F							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		3014867	Drive Group with 2.8 c.i. Motor	19	1	206392	Drive Motor – 2.8 c.i. ◆
1	6	769570	Capscrew, M12 x 25	20	4	4468	Capscrew, 3/8 NC x .75 GR8
2	1	676855	Cover	21	1	670580	Bearing
3	●	674513	Shim – .005" (blue)	22	1	675609	Worm Gear
4	●	670574	Shim – .010" (brown)	23	1	670581	Bearing
5	●	671757	Shim – .015" (pink)	24	1	7214	Snap Ring
6	●	671758	Shim – .020" (yellow)	25	1	643423	O-Ring
7	2	670579	Bearing	26	1	775552	Cover
8	1	670582	Key	27	1	783609	Seal
9	1	3014871	Pinion	28	1	783608	Capscrew, M12 x 16
10	1	6000607	Housing	29	4	200882	Capscrew, M8 x 20
11	1	686465	Gasket	30	1	3014870	Seal
12	1	675608	Worm	31	1	604510	Fitting, 6
13	1	775553	Adapter	32	1	656300	Gear Box Lube – 48 oz.
14	2	2705	O-Ring	33	1	668184	Sealant
15	1	670549	Check Valve ▲			670578	Shim Service Kit (items 3-6,25,33)
16	4	6444	Lockwasher			675637	Bearing Service Kit (items 21 & 33)
17	4	607059	Capscrew, 5/16 NC x 1.75 GR8			675638	Bearing Service Kit (items 3-7,25)
18	1	670575	Gasket			685227	Motor Kit-4.5 (items 4,14,18)

● Quantity as required.

▲ See Check Valve page for parts breakdown.

◆ See Drive Motor page for parts breakdown.

## Drive Motor



REF	QTY	PART NO.	DESCRIPTION
		206392	Drive Motor
1	1	675478	Shaft
2	1	675477	Drive
3	1	675479	Spacer Plate
4	1	675480	■ Gerotor Set (101-1768-007)
4	1	685075	■ Gerotor Set (101-1768-009)
5	1	675482	End Cap
6	1	206405	● Service Kit
7	1	685089	■ Flange (101-1768-007)
7	1	685090	■ Flange (101-1768-009)

Cascade provides service replacement parts for the listed parts only. Due to cost, if others parts need replacement, the complete drive motor should be replaced.

■ See Nameplate under valve for correct part number of Gerotor Set and Flange.

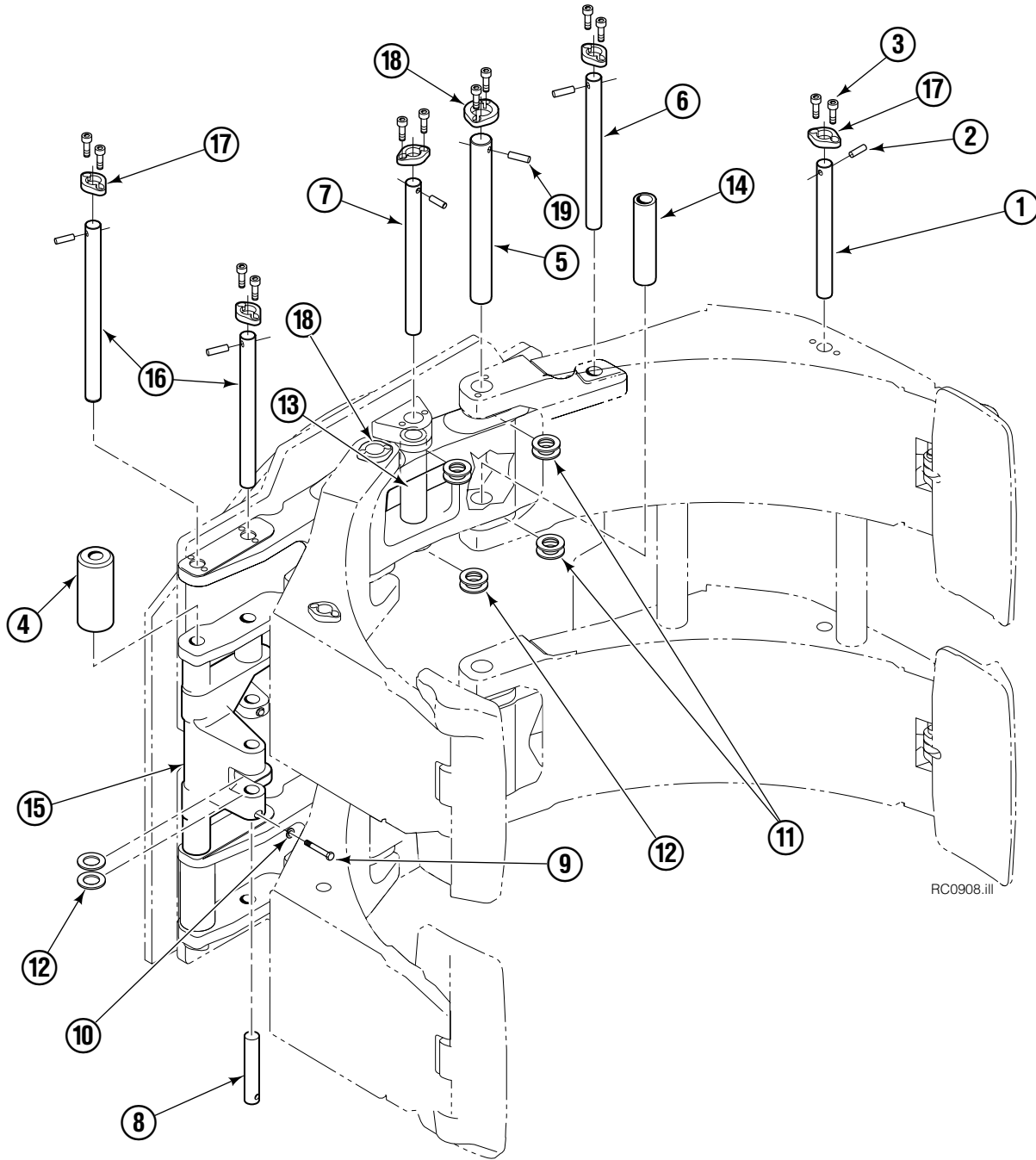
● Compatible with water glycol based hydraulic fluids.

## Check Valve



REF	QTY	PART NO.	DESCRIPTION
		670549	Check Valve Assembly
1	2	609453	Fitting, 10
2	2	670552	Spring
3	2	670551	Guide
4	2	7020	Ball
5	2	602580	Fitting, 8
6	2	673989	Spring
7	1	670550	Body
8	1	670553	Spool

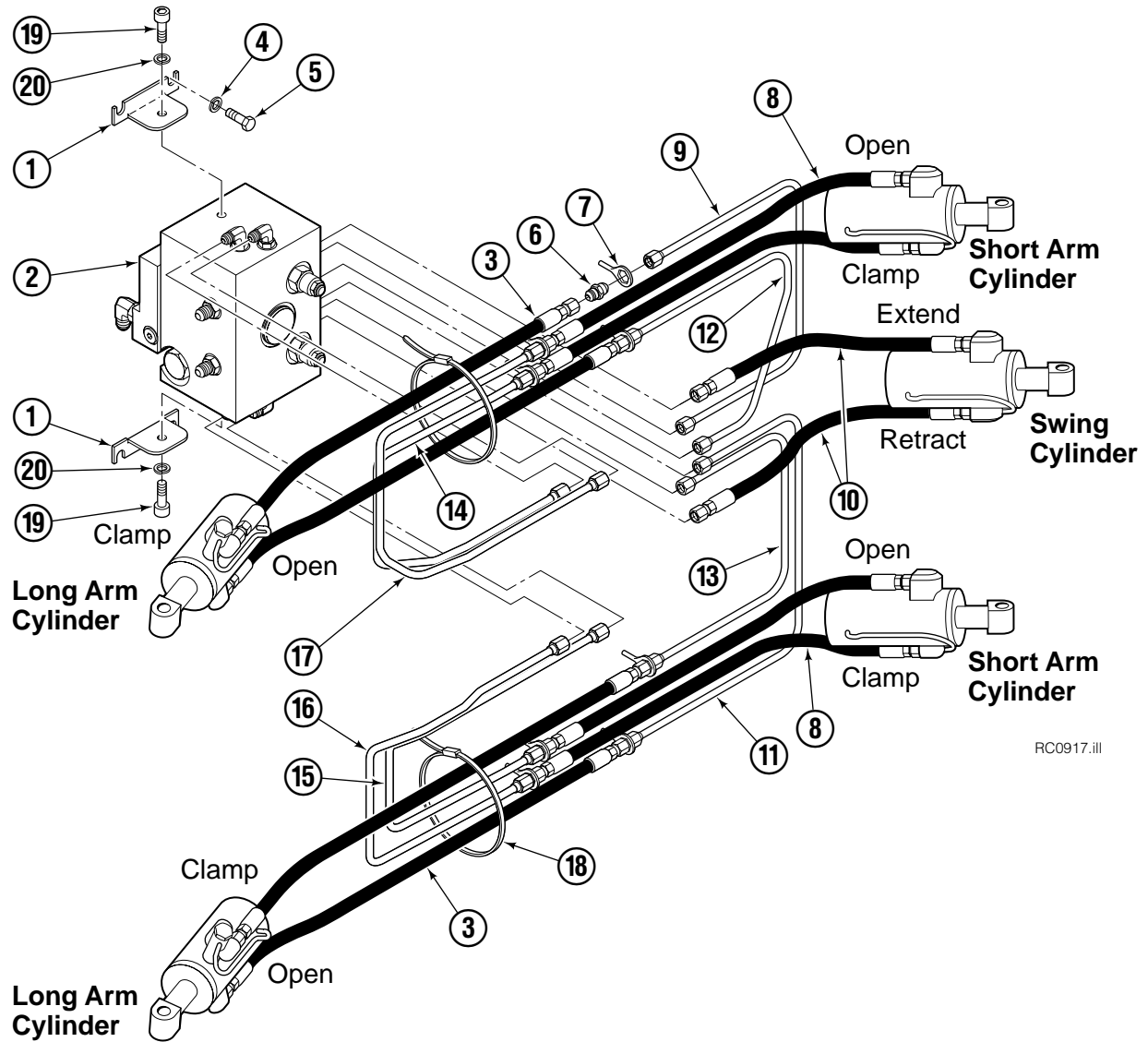
# Common Components Group



90F							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6001262	Components Group	10	2	6287	Lockwasher, 5/16 ID
1	4	676088	Pin	11	16	673379	Shim
2	12	673385	Drive Pin	12	16	660200	Shim
3	32	4466	Capscrew, 3/8 NC x .50 GR8	13	2	681668	Spacer
4	2	675024	Roller	14	4	681672	Spacer
5	4	675022	Pin	15	1	6001248	Swing Weldment
6	2	680029	Pin	16	4	6001258	Pin
7	2	675019	Pin	17	12	206589	Retainer
8	2	675023	Pin	18	4	206591	Retainer
9	2	643518	Capscrew, 5/16 NC x 2.25 GR8	19	4	675086	Drive Pin

Reference: SK-5189.

# Swing Frame Hosing Group

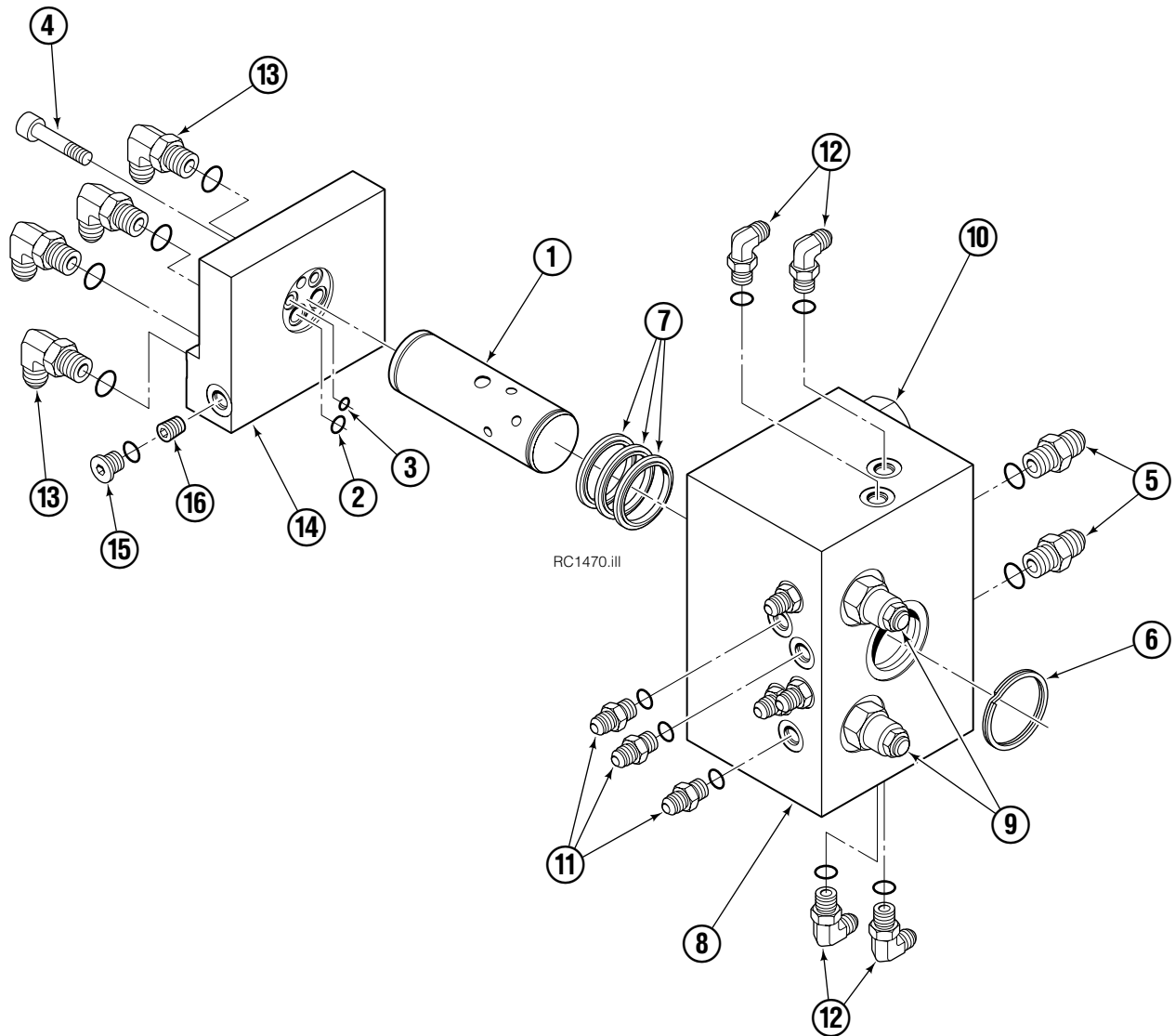


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90F							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6006972	Hosing Group	11	1	6001205	Tube
1	2	6000986	Bracket	12	1	6001200	Tube
2	1	6006942	Revolving Connection ▲	13	1	6001206	Tube
3	4	675067	Hose, 34.00 in.	14	1	6001230	Tube
4	4	6288	Lockwasher, .375	15	1	6001218	Tube
5	4	3600	Capscrew, .375 x .625	16	1	6001219	Tube
6	8	2347	Fitting, 6-6	17	1	6001229	Tube
7	8	674743	Eye Bolt	18	2	649086	Cable Tie
8	4	381146	Hose, 26.30 in.	19	2	767961	Capscrew, M8 x 16
9	1	6001199	Tube	20	2	206315	Lockwasher, M8
10	2	675055	Hose, 17.50 in.				

▲ See Revolving Connection page for parts breakdown.  
Reference: SK-5831.

# Revolving Connection

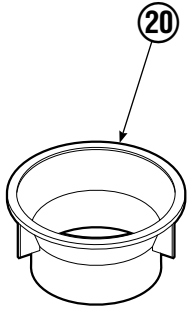
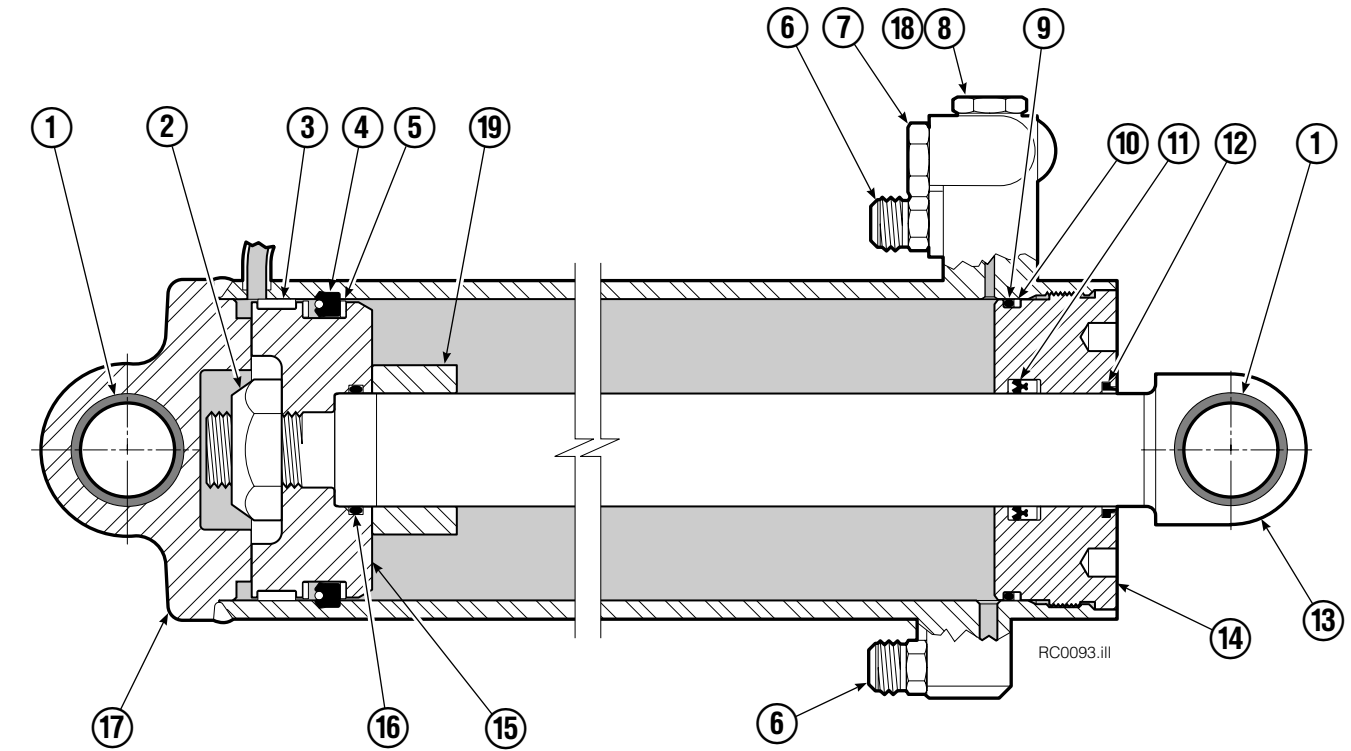


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90F			
REF	QTY	PART NO.	DESCRIPTION
		6006942	Revolving Connection
1	1	6000403	Shaft
2	2	643336	O-Ring
3	2	643335	O-Ring
4	2	768796	Capscrew, M8 x 35
5	2	601377	Fitting, 8-8
6	2	7350	Retaining Ring
7	6	212932	Shaft Seal
8	1	6000377	● Valve Body
9	2	674732	● Counterbalance Valve
10	1	6000423	● Directional Valve
11	6	604511	Fitting, 6-6
12	4	601676	Fitting, 6-6
13	4	601250	Fitting, 8-8
14	1	6006941	End Block
15	1	604510	Fitting, 6
16	1	6025144	Orifice

● Included in Valve Body 6000422.

# Short Arm Cylinder

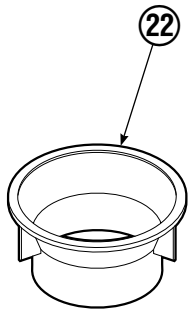
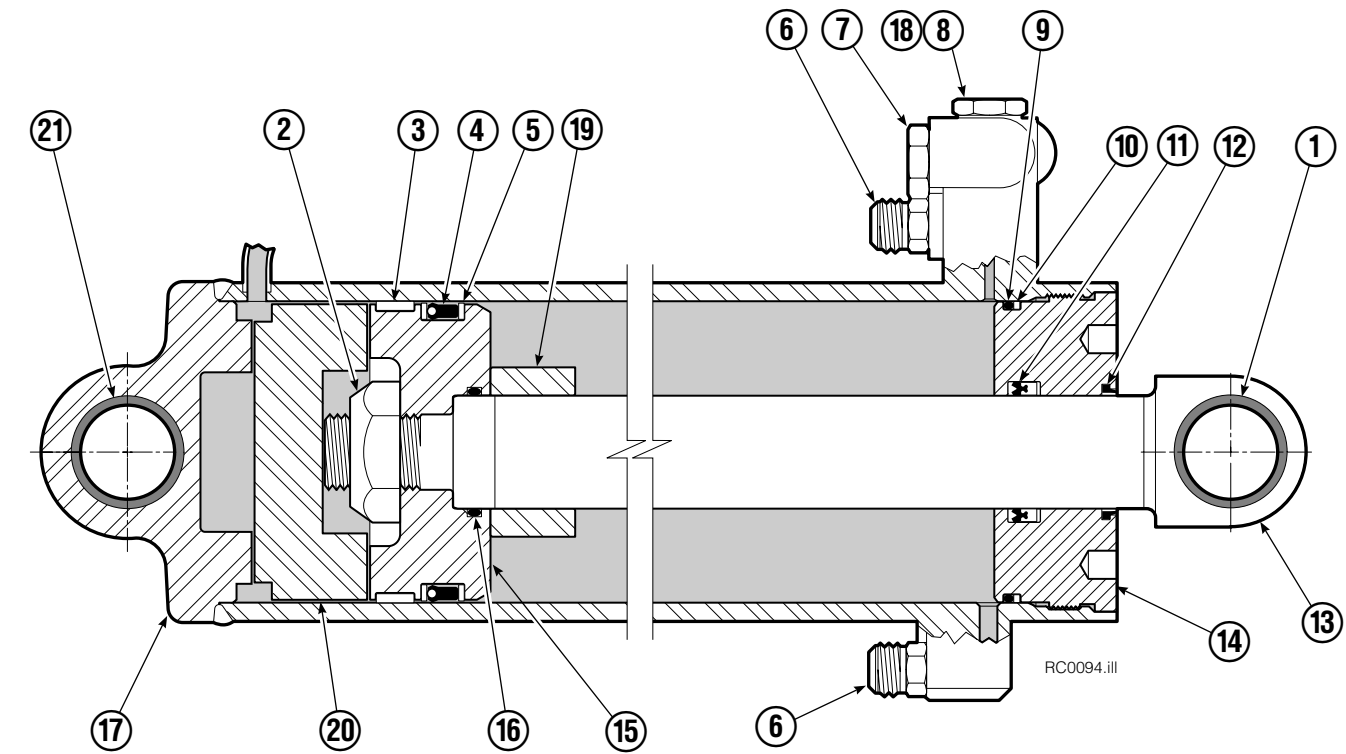


REF	QTY	PART NO.	DESCRIPTION
		385089	Cylinder Assembly
1	3	674843	Bearing
2	1	667990	Nut
3	1	660769	◆ Bearing
4	1	662462	◆ Seal
5	2	638295	◆ Back-Up Ring
6	2	604511	Fitting, 6-6
7	1	556852	Fitting, 4
8	1	557212	Check Valve
9	1	2801	◆ O-Ring
10	1	562731	◆ Back-Up Ring
11	1	554598	◆ Seal
12	1	564930	◆ Wiper
13	1	584302	Rod
14	1	555724	Retainer
15	1	557389	Piston
16	1	2722	◆ O-Ring
17	1	584300	Shell
18	1	667516	Check Valve Service Kit
19	1	—	Spacer
20	1	669243	◆ Seal Loader
		555725	Service Kit

◆ Included in Service Kit 555725.

Reference: S-5313, S-5314.

# Long Arm Cylinder

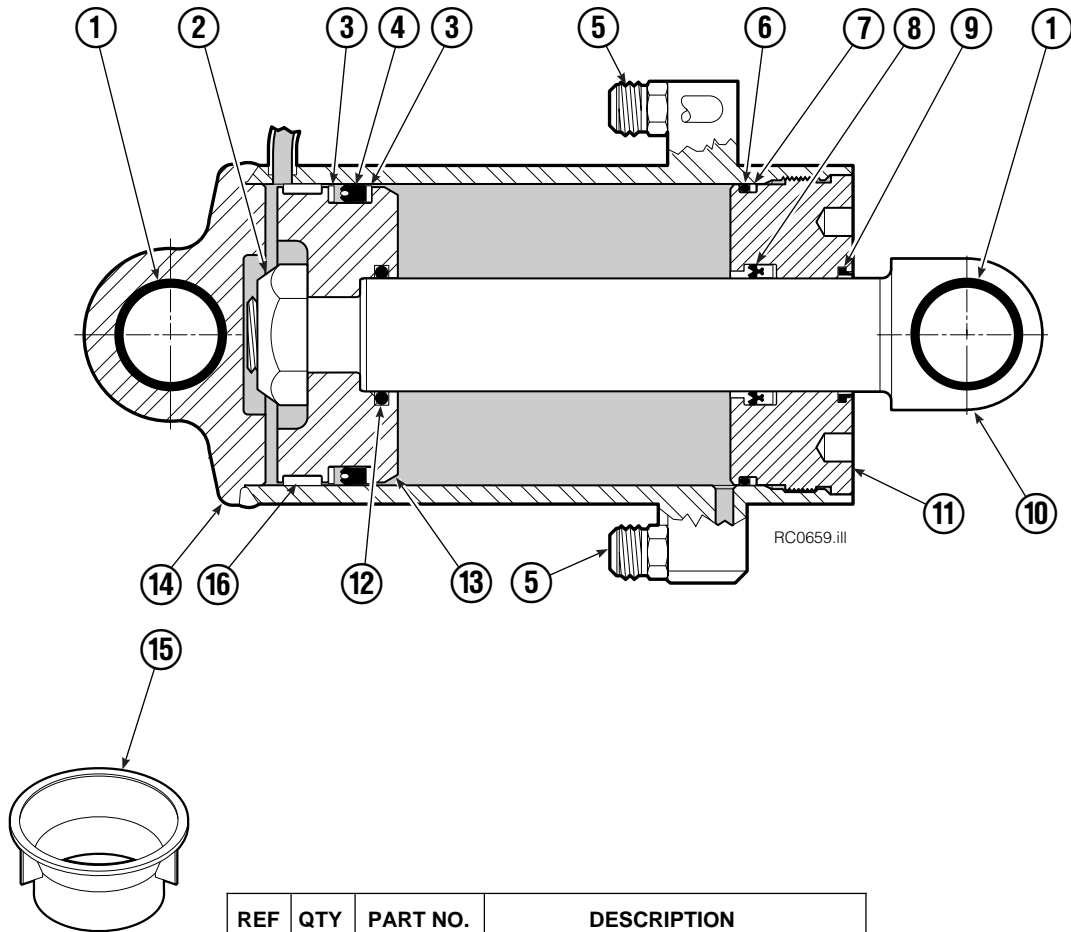


REF	QTY	PART NO.	DESCRIPTION
		381131	Cylinder Assembly
1	1	674843	Bearing
2	1	560997	Nut
3	1	660769	◆ Bearing
4	1	662462	◆ Seal
5	2	638295	◆ Back-Up Ring
6	2	604511	Fitting, 6-6
7	1	556852	Fitting, 4
8	1	557212	Check Valve
9	1	2801	◆ O-Ring
10	1	562731	◆ Back-Up Ring
11	1	554598	◆ Seal
12	1	564930	◆ Wiper
13	1	584299	Rod
14	1	555724	Retainer
15	1	557389	Piston
16	1	2722	◆ O-Ring
17	1	584297	Shell
18	1	667516	Check Valve Service Kit
19	1	—	Spacer
20	1	—	Spacer
21	2	674843	Bearing
22	1	669243	◆ Seal Loader
		555725	Service Kit

◆ Included in Service Kit 555725.

Reference: S-5320.

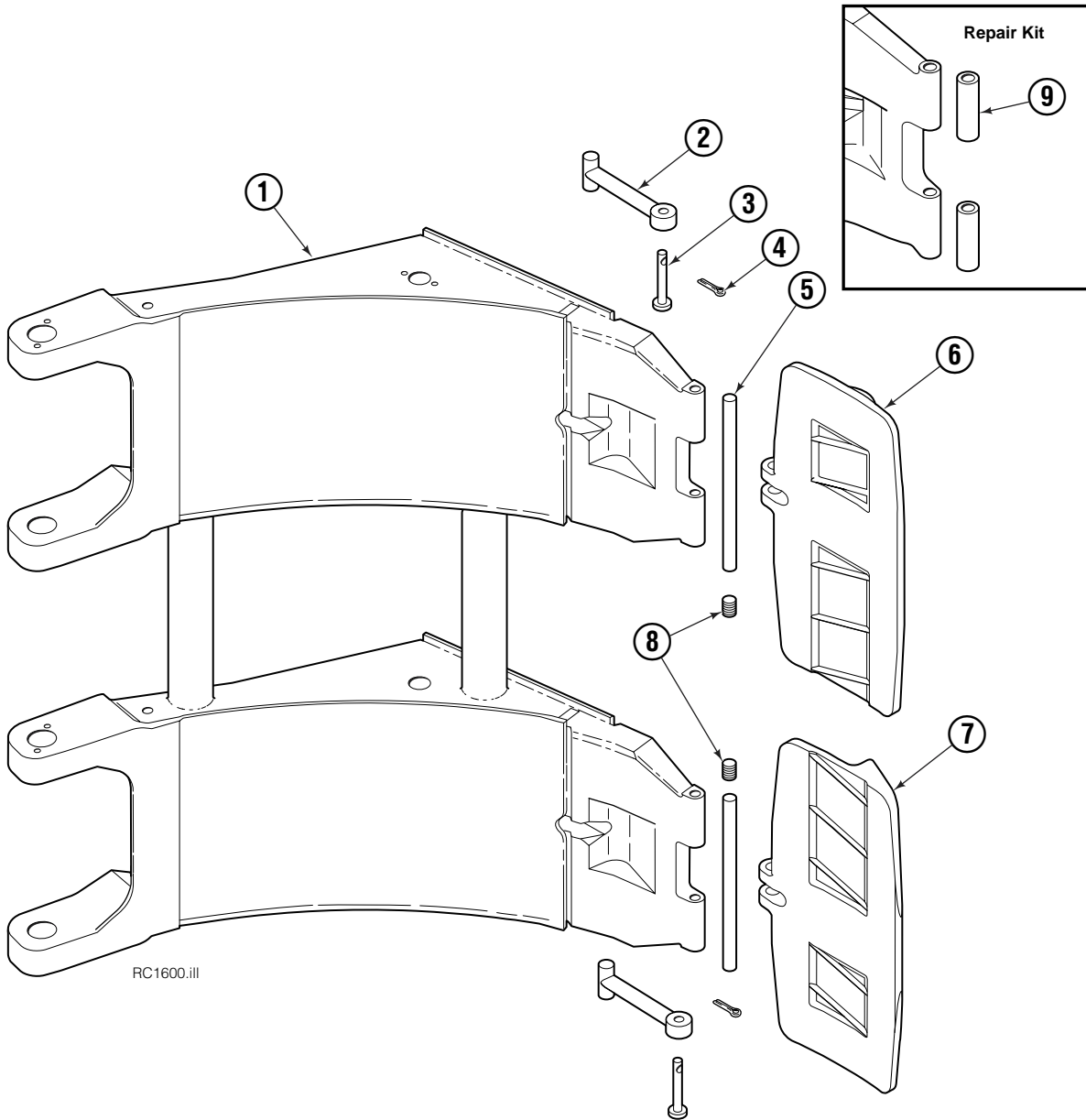
# Swing Cylinder



REF	QTY	PART NO.	DESCRIPTION
		580034	Cylinder Assembly
1	3	674843	Bearing
2	1	561997	Nut
3	2	638295	◆ Back-Up Ring
4	1	557446	◆ Seal
5	2	604511	Fitting, 6-6
6	1	2801	◆ O-Ring
7	1	563977	◆ Back-Up Ring
8	1	554598	◆ Seal
9	1	564930	◆ Wiper
10	1	557713	Rod
11	1	555724	Retainer
12	1	2722	◆ O-Ring
13	1	557389	Piston
14	1	555776	Shell
15	1	672910	◆ Seal Loader
16	1	660769	Bearing
		555725	Service Kit

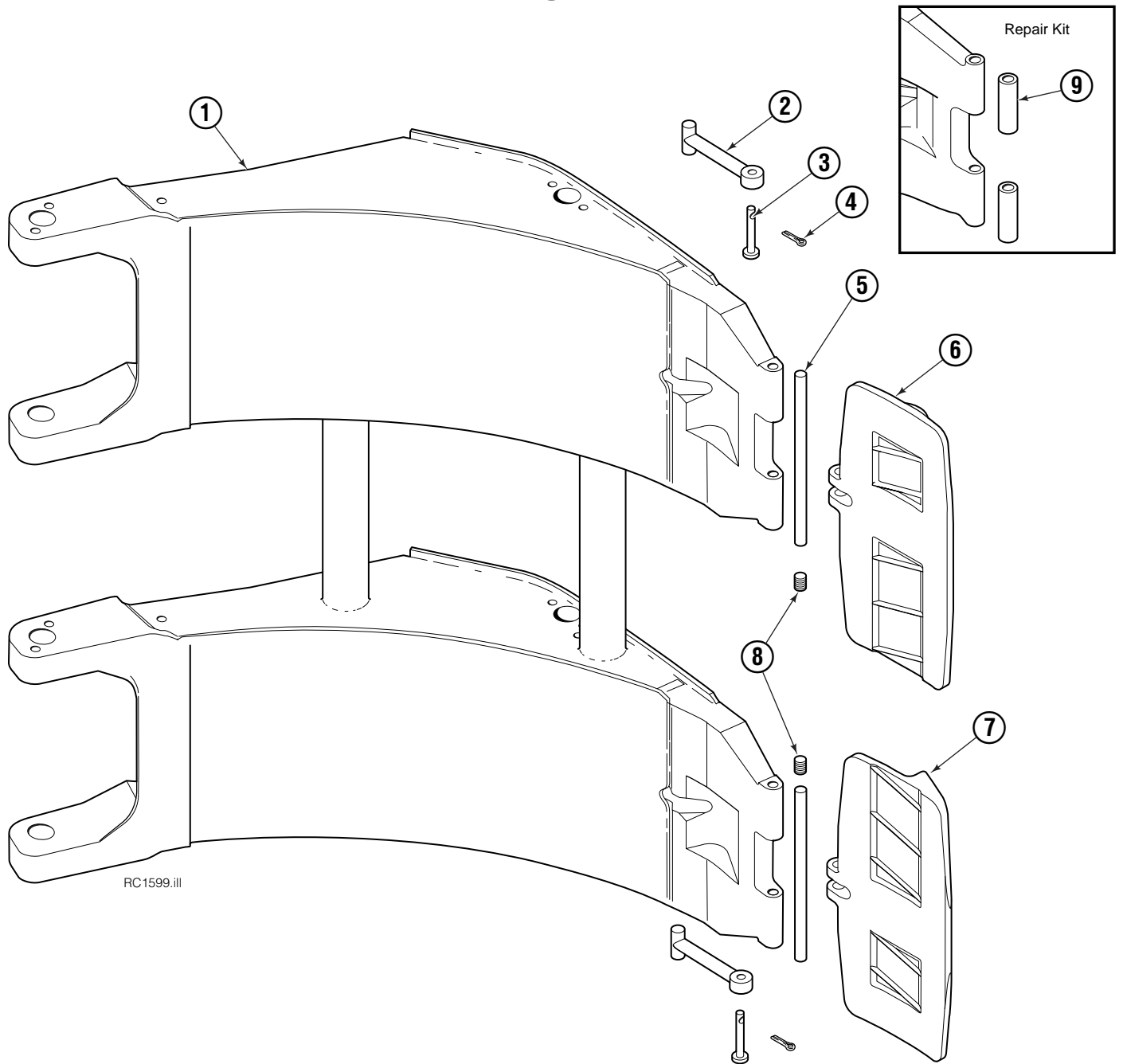
◆ Included in Service Kit 555725.

# Short Arm



90F			
REF	QTY	PART NO.	DESCRIPTION
		3016440	Contact Pad Group
1	1	6000750	Short Arm
2	2	674994	Link
3	2	682978	Clevis Pin
4	2	6525	Cotter Pin
5	2	674993	Pin
6	1	3014872	Contact Pad
7	1	3014873	Contact Pad
8	2	689900	Plug
9	1	676810	Arm Tip Repair Kit

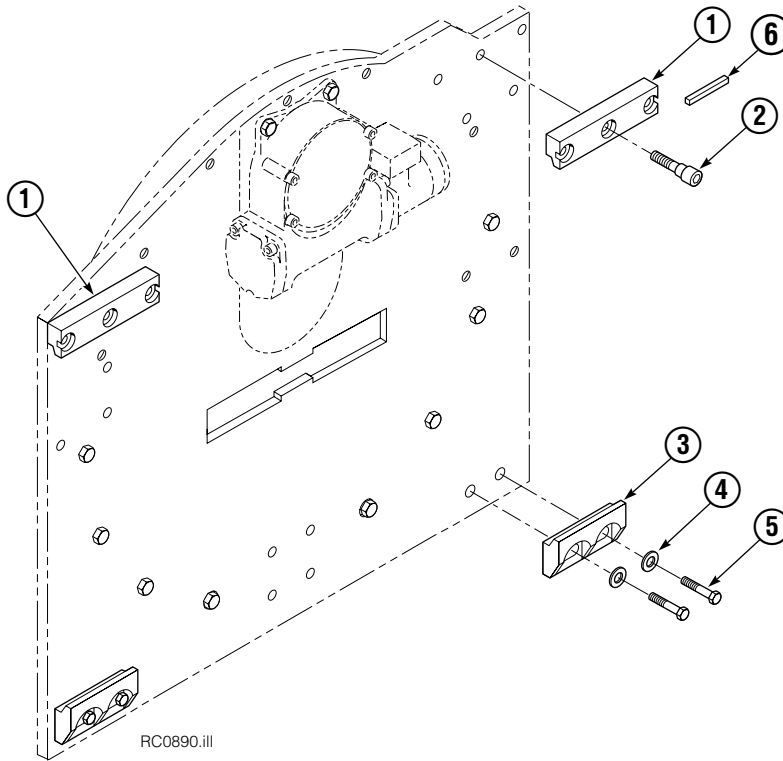
# Long Arm



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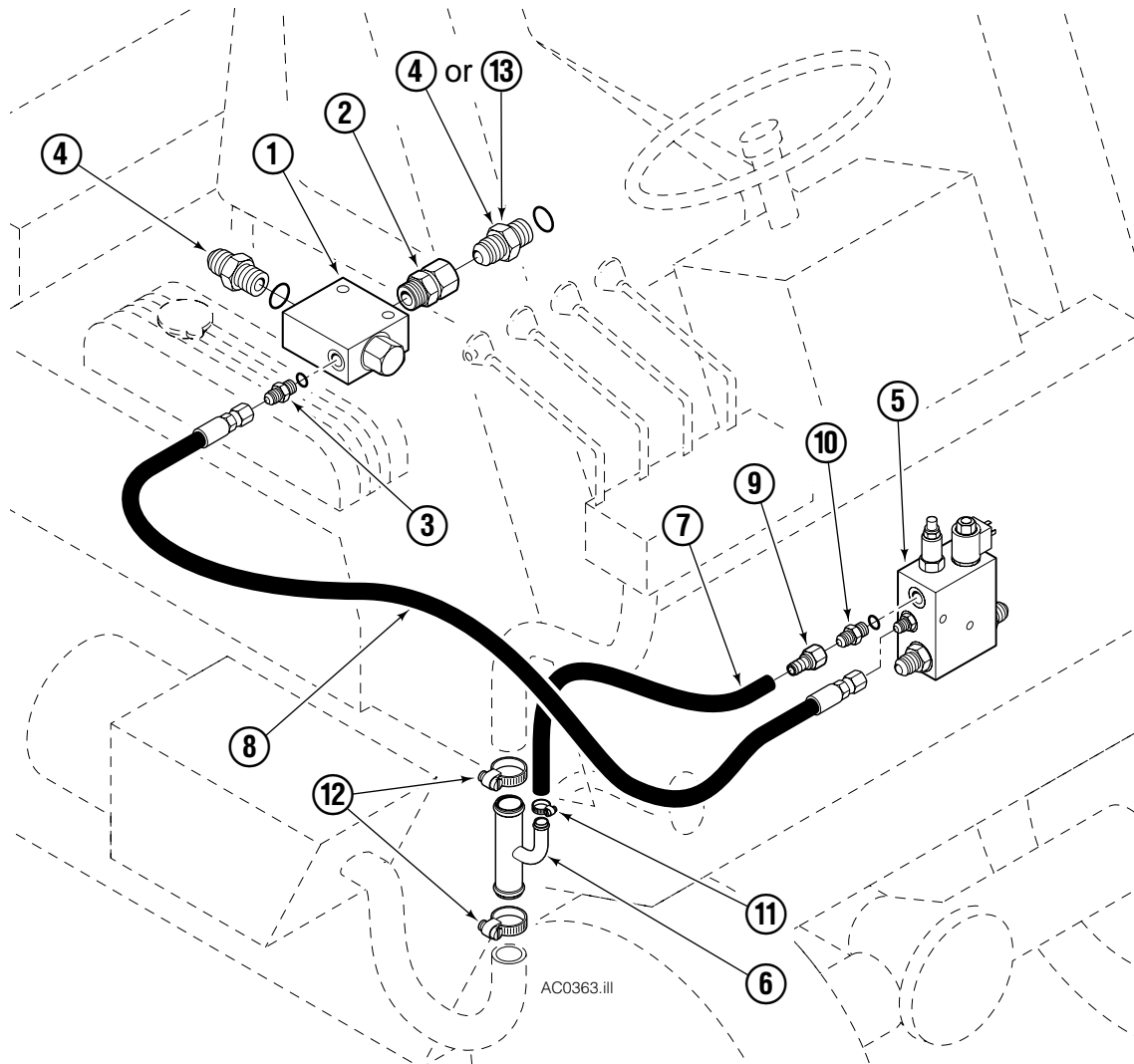
90F			
REF	QTY	PART NO.	DESCRIPTION
		3016436	Contact Pad Group
1	1	6000746	Long Arm
2	2	674994	Link
3	2	682978	Clevis Pin
4	2	6525	Cotter Pin
5	2	674993	Pin
6	1	3014872	Contact Pad
7	1	3014873	Contact Pad
8	2	689900	Plug
9	1	676810	Arm Tip Repair Kit

# Bolt-On Mounting Group



Class IV			
REF	QTY	PART NO.	DESCRIPTION
		3016435	Mounting Group
1	2	3014880	Upper Hook
2	6	676801	Capscrew, M20 x 50
3	2	679832	Lower Hook
4	4	670692	Washer, 3/4 in. ID
5	4	779020	Capscrew, M20 x 45
6	1	670704	Stop Block Kit

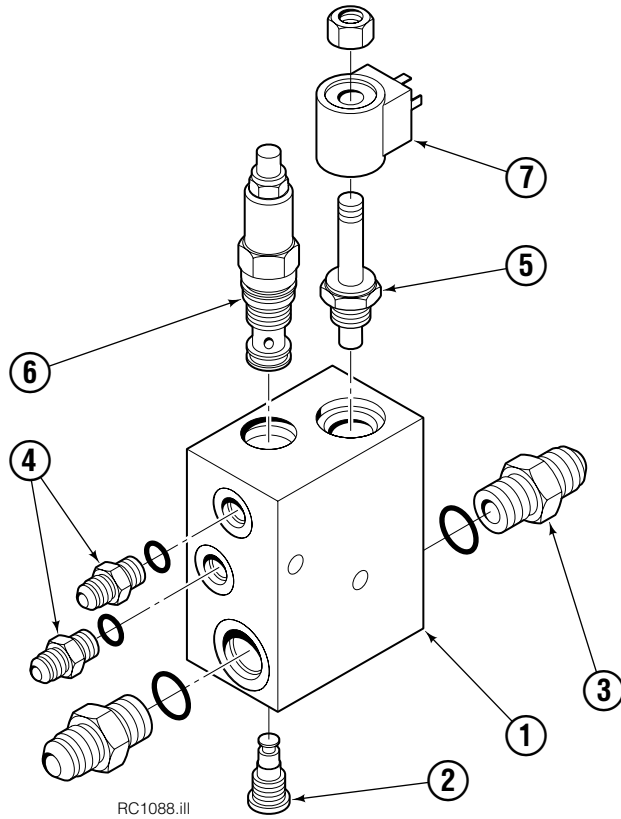
# Truck Adapter Kit



90F			
REF	QTY	PART NO.	DESCRIPTION
		6003973	Truck Adapter Kit
1	1	6001175	Priority Flow Valve
2	1	210342	Fitting, 12-12
3	1	627850	Fitting, 4-6
4	2	611293	Fitting, 12-12
5	1	6000381	Valve ♦
6	1	211739	Adapter Tee
	1	214056	Adapter Tee
	1	2577	Tube Fitting, 8-8
7	1	211740	Hose, 72 in.
8	1	673582	Hose, 80 in.
9	4	211741	Fitting
10	1	6003890	Fitting, 4-8
11	1	211742	Hose Clamp, 6
12	2	211743	Hose Clamp, 12
13	1	6003892	Fitting, 10-12

♦ See Valve page for parts breakdown.

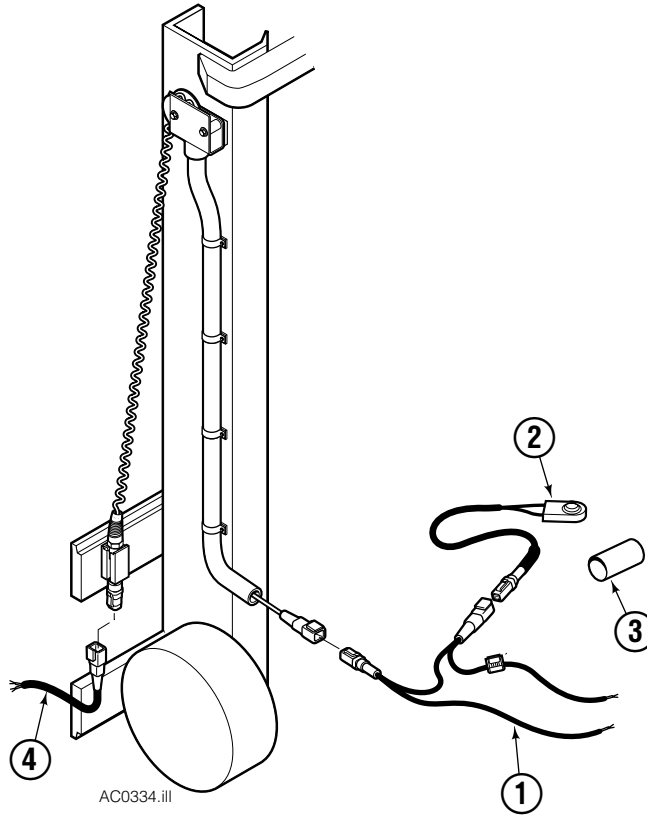
# Valve Assembly



90F			
REF	QTY	PART NO.	DESCRIPTION
		6000381	Valve Assembly
1	1	6000382	Valve Body
2	1	220869	Check Valve
3	2	601377	Fitting, 8-8
4	2	617915	Fitting, 4-4
5	1	6000492	Solenoid Valve
6	1	6000507	Relief Valve
7	1	220632	Solenoid Coil, 12V ♦

♦ Included in Electrical Kit 6004001.

# Switch Assembly



90F			
REF	QTY	PART NO.	DESCRIPTION
		6003984	Switch Assembly ♦
1	1	6001647	Wire Harness
2	1	6001637	Switch
3	1	6001641	Shrink Tube
4	1	6003942	Solenoid Cable

♦ Included in Electrical Kit 6004001.

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

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

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

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

**Cascade N.V.  
Benelux Sales and Service**  
Damsluisweg 56  
PO Box 3009  
1300 El Almere  
The Netherlands  
Tel: 036-5492950  
FAX: 036-5492974

**Cascade (UK) Ltd.**  
Unit 5, Eden Close  
Hellaby Lane Ind. Estate  
Heellaby,  
Rotherham S66 8RW  
England  
Tel: 01709-704500  
FAX: 01709-704501

**Sales Scotland  
Macade Systems Ltd.**  
18 Melford Road  
Righead Ind. Estate  
Bellshill ML4 3LR  
Scotland  
Tel: 01698-845777  
FAX: 01698-845888

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

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

**Cascade France  
S.A.R.L. MHP**  
1D Rue De Charaintru  
BP 18,  
91360 Epinay-Sur-Orge  
France  
Tel: 01-6454-7500  
FAX: 01-6454-7501

**Cascade Hispania S.A.**  
Carrer 5, Sector C  
Zona Franca Duanera  
Poligono de la Zona Franca  
08040 Barcelona  
Spain  
Tel: 93-264-07-30  
FAX: 93-264-07-31

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

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FAX: 095-795-2475  
Email: [emcg@dol.ru](mailto:emcg@dol.ru)

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

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

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

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

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

**Cascade (Singapore)  
Trading Co.**  
Four Seasons Park  
Autumn Block - Apt. 1802  
12 Cuscaden Walk  
Singapore  
Tel: 65-834-1935  
FAX: 65-834-1936

