



# Parts Manual

---

Model 90FX Roll Clamp

Serial Number 90FX-RCP-01CR2

---

**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

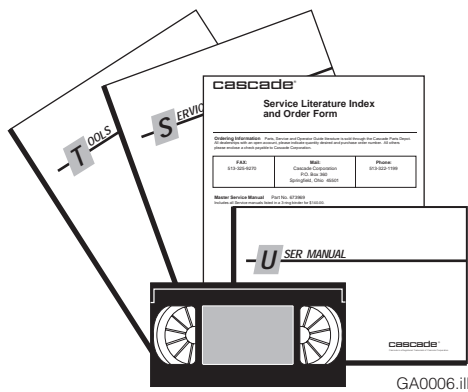


RC0636.ill



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

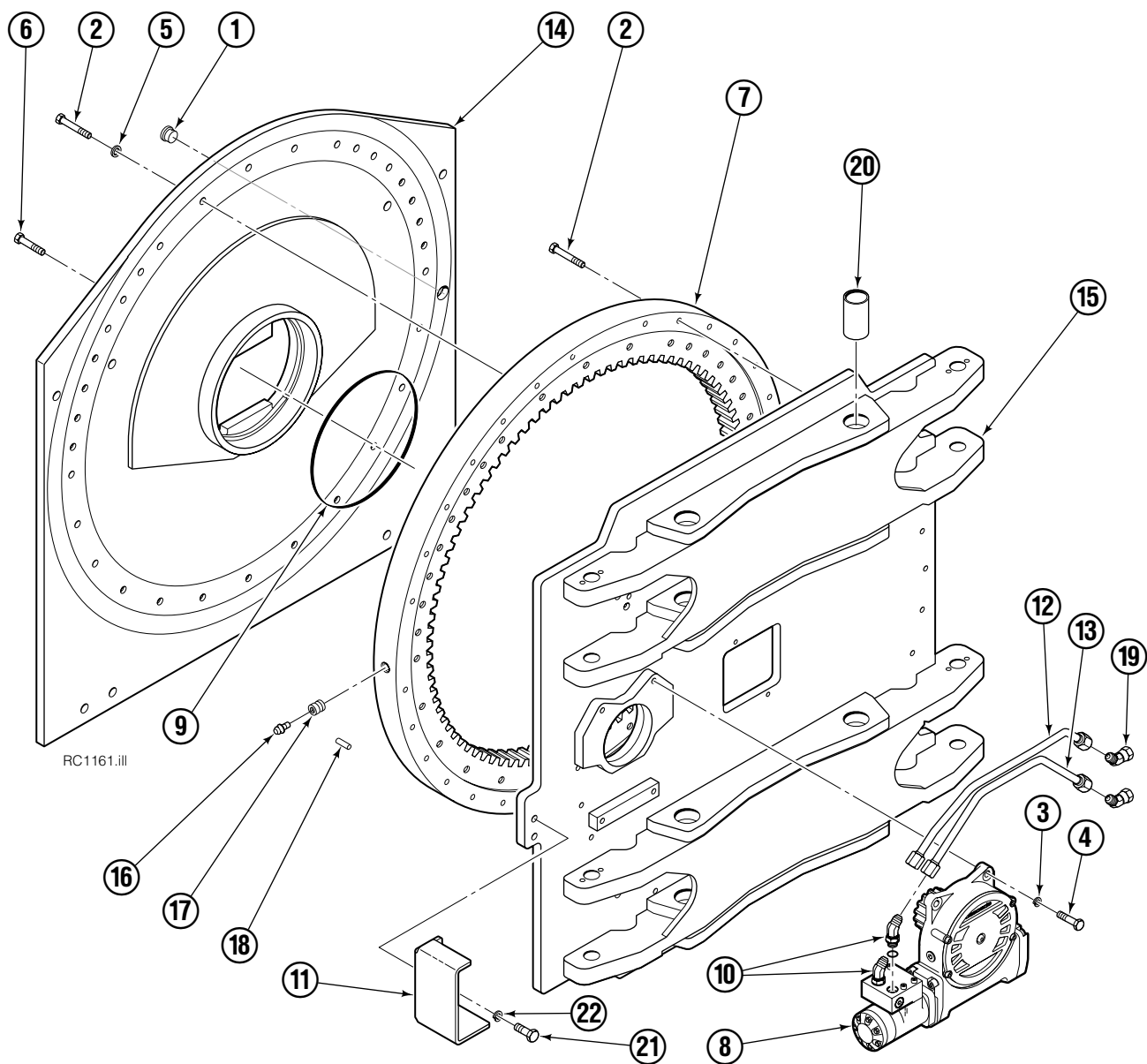
# Publications



GA0006.ill

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

# Base Unit Group



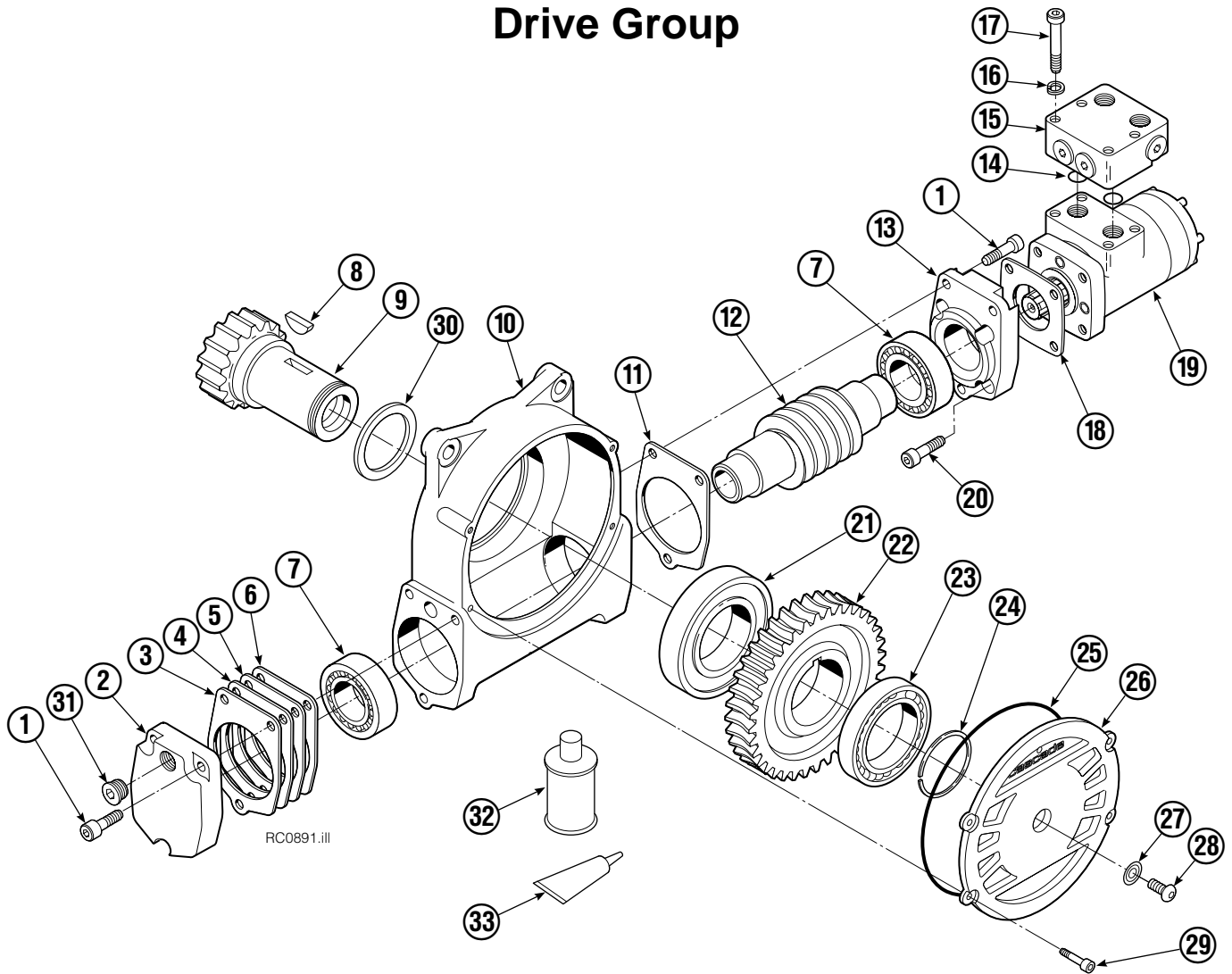
## 90FX

REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		3016432	Base Unit Group	12	1	6002862	Tube
1	1	664071	Plug	13	1	6002872	Tube
2	49	213633	Capscrew, M12 x 55	14	1	3014862	Baseplate
3	4	6290	Lockwasher, .50	15	1	3014874	Frame
4	4	214487	Capscrew, M12 x 40	16	1	7401	Grease Fitting
5	32	681473	Lockwasher, M12	17	1	670680	Plug
6	15	206174	Capscrew, M12 x 45	18	1	670681	Drive Pin
7	1	3014859	Bearing Assembly	19	2	605948	Fitting, 8-8
8	1	3014867	Drive Group ▲	20	8	3007666	Bearing
9	1	670931	Seal	21	2	779010	Capscrew, M16 x 35
10	2	611303	Fitting, 8-8	22	2	684355	Lockwasher, M16
11	1	6015267	Guard				

▲ See Drive Group page for parts breakdown.

Reference: Common Parts 3016431.

# 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

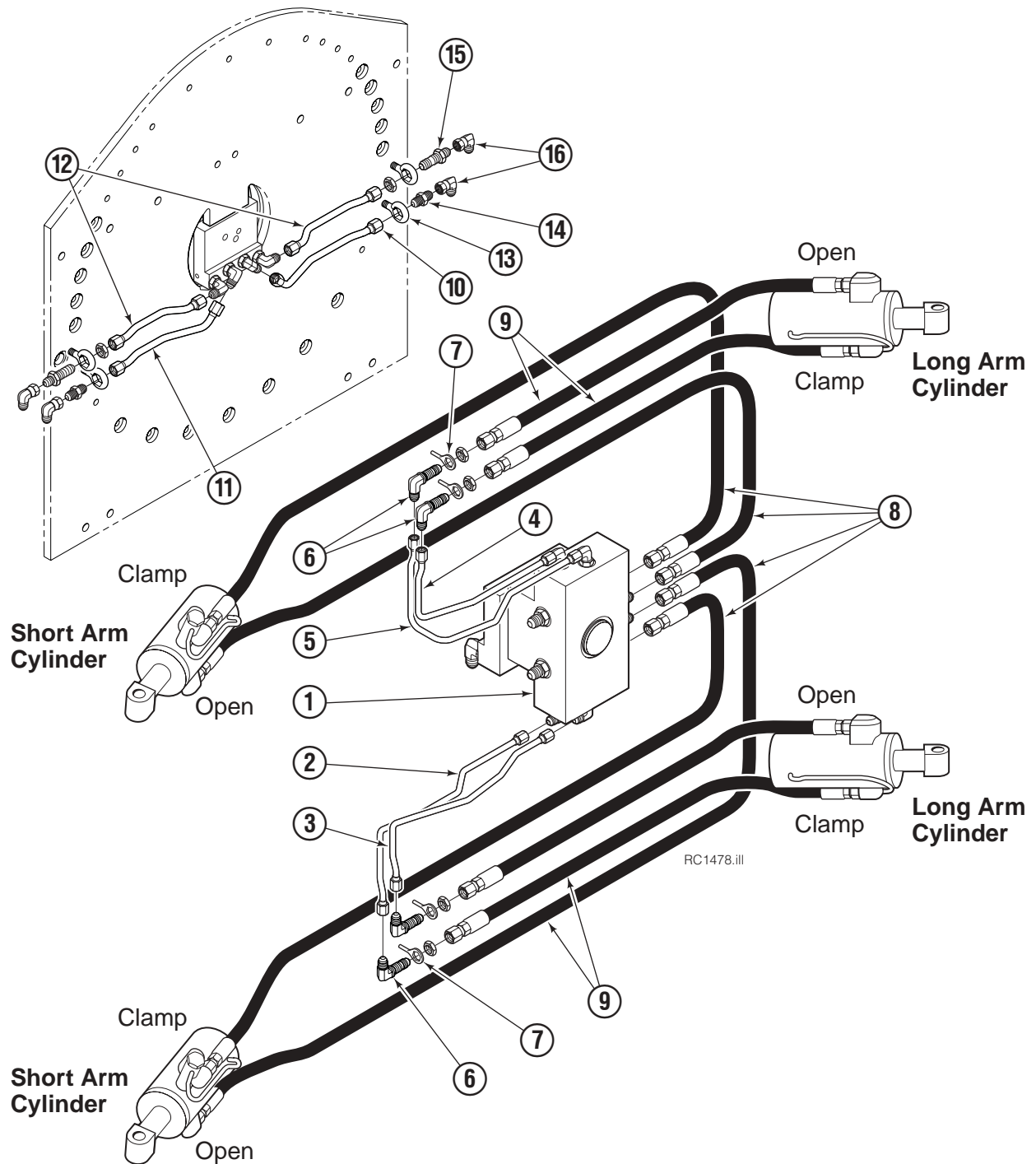
# Common Components



RC0126.iii

90F			
REF	QTY	PART NO.	DESCRIPTION
		3016434	Components Group
1	8	660200	Shim
2	24	768809	Capscrew, M10 x 16
3	8	206589	Retainer
4	8	680651	Pin
5	8	673385	Drive Pin
6	4	206591	Retainer
7	4	675022	Pin
8	4	359294	Spacer
9	16	673379	Shim
10	4	675086	Drive Pin

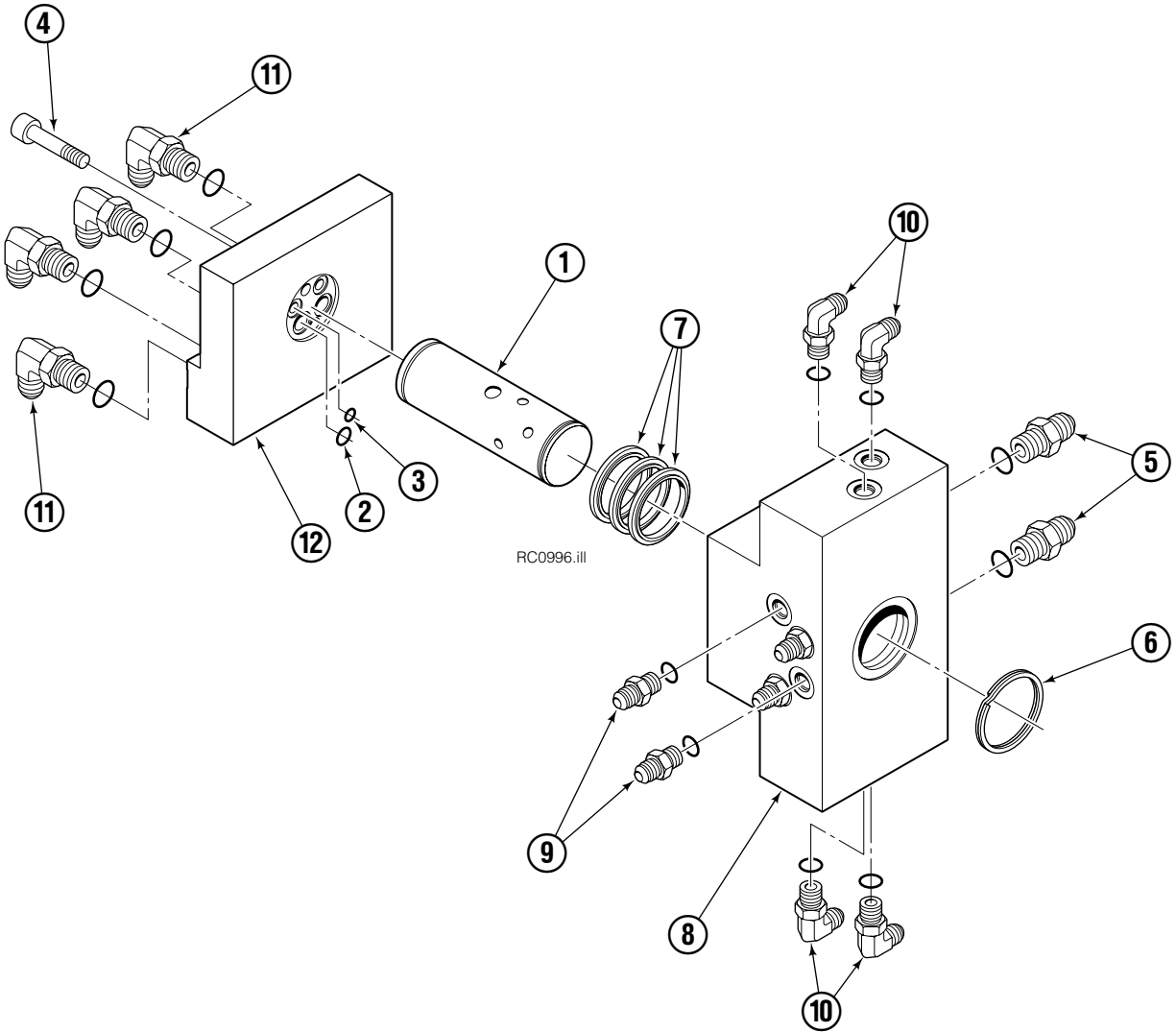
# Hosing Group



90F							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		6028102	Hosing Group	9	4	680221	Hose, 51.75 in.
1	1	3016428	Revolving Connection ♦	10	1	6017879	Tube
2	1	6028067	Tube	11	1	6017880	Tube
3	1	6028066	Tube	12	2	6017888	Tube
4	1	6002940	Tube	13	4	6030710	Eye Bolt
5	1	6002941	Tube	14	2	2348	Fitting, 8-8
6	4	2453	Fitting, 6-6	15	2	2376	Fitting, 8-8
7	4	674743	Eye Bolt	16	4	605761	Fitting, 8-8
8	4	202406	Hose, 62.75 in.				

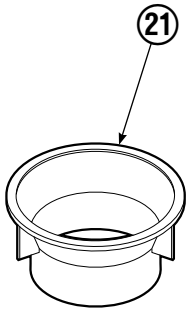
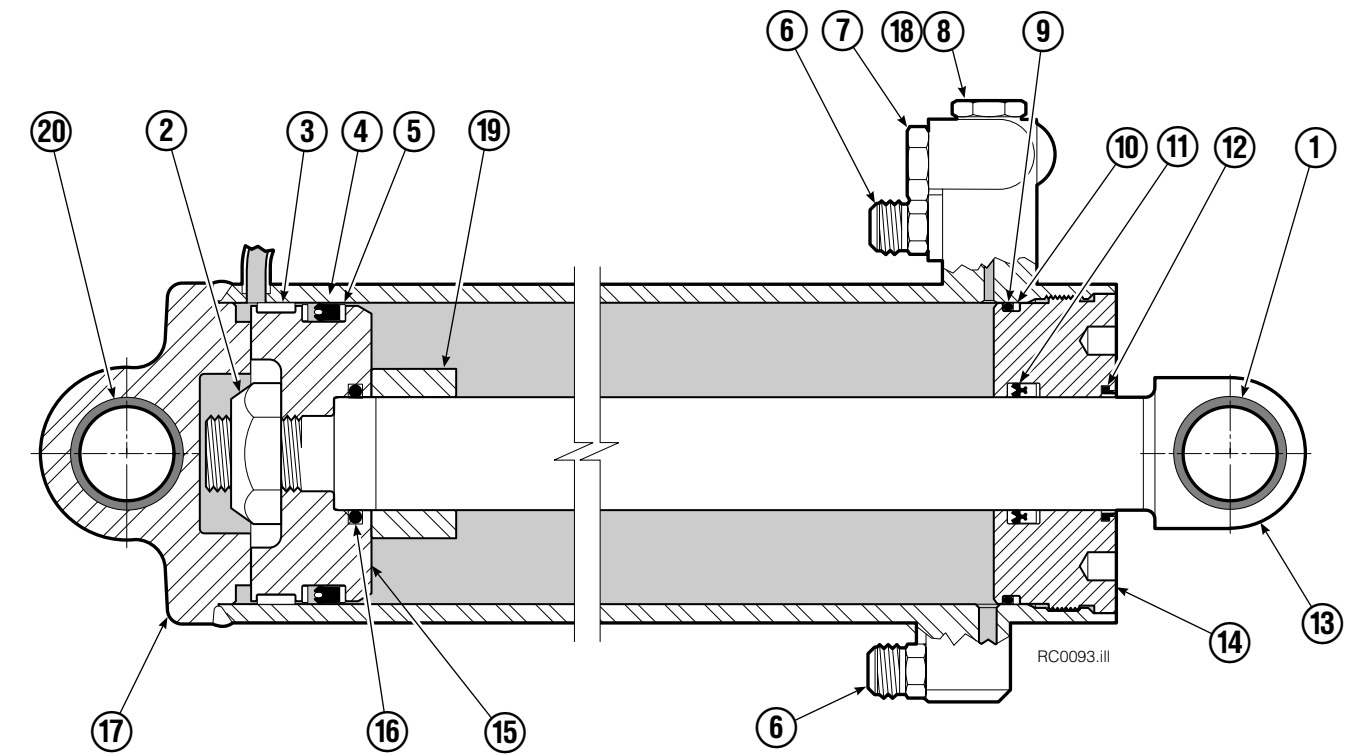
♦ See Revolving Connection page for parts breakdown.

# Revolving Connection



<b>90F</b>			
REF	QTY	PART NO.	DESCRIPTION
		3016428	Revolving Connection
1	1	3016429	Shaft
2	2	624737	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	5	212932	Shaft Seal
8	1	3016430	Valve Body
9	4	604511	Fitting, 6-6
10	4	601676	Fitting, 6-6
11	4	601250	Fitting, 8-8
12	1	6001497	End Block

# Short Arm Cylinder

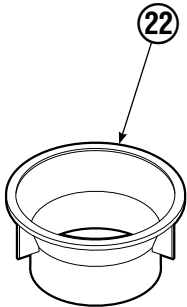
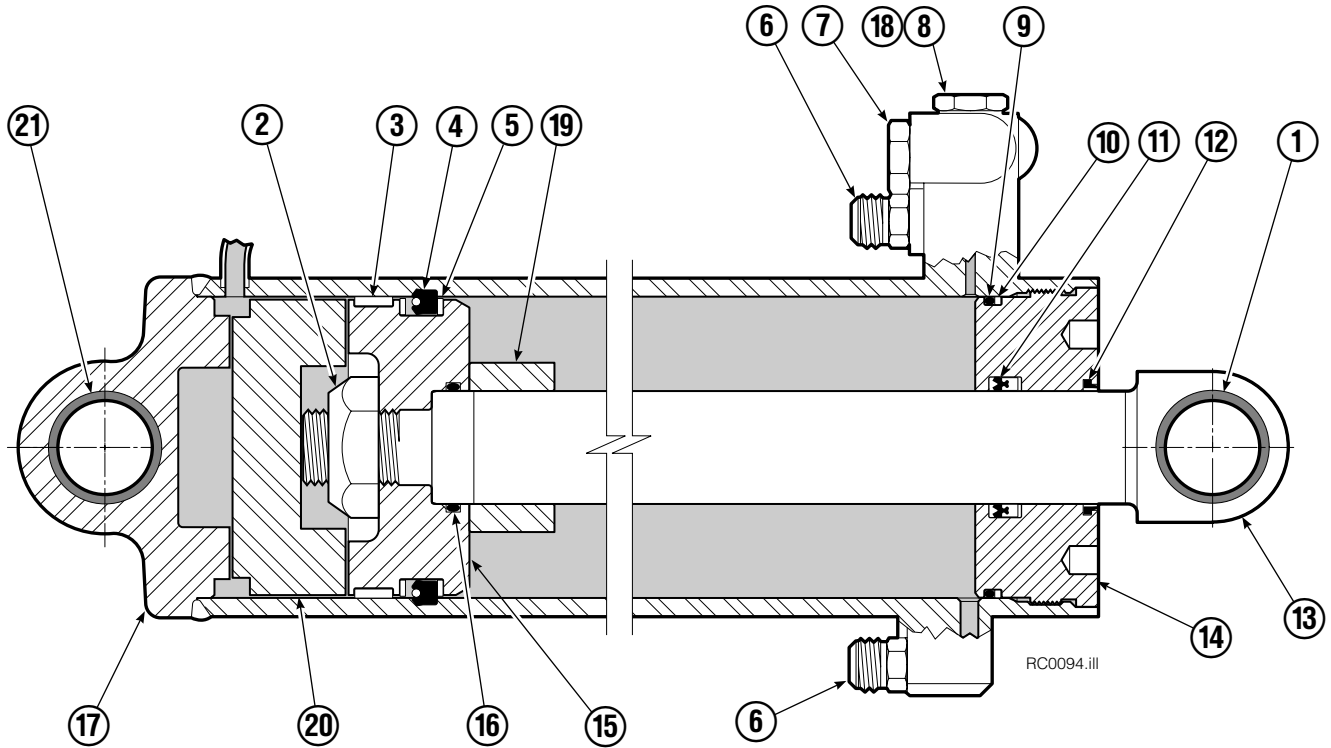


REF	QTY	PART NO.	DESCRIPTION
		3004364	Cylinder Assembly
1	1	674843	Bearing
2	1	560997	Nut
3	1	660769	◆ Bearing
4	1	662462	◆ Seal
5	2	638295	◆ Back-Up Ring
6	2	604511	Fitting, 6-6
7	1	556852	Fitting, 4
8	1	557212	Check Valve
9	1	2801	◆ O-Ring
10	1	563977	◆ Back-Up Ring
11	1	554598	◆ Seal
12	1	564930	◆ Wiper
13	1	3004377	Rod
14	1	555724	Retainer
15	1	557389	Piston
16	1	2722	◆ O-Ring
17	1	3004375	Shell
18	1	667516	Check Valve Service Kit
19	1	-	Spacer
20	2	675006	Bearing
21	1	669243	Seal Loader
		555725	Service Kit

◆ Included in Service Kit 555725.

Ref: S-5313, S-5314.

# Long Arm Cylinder

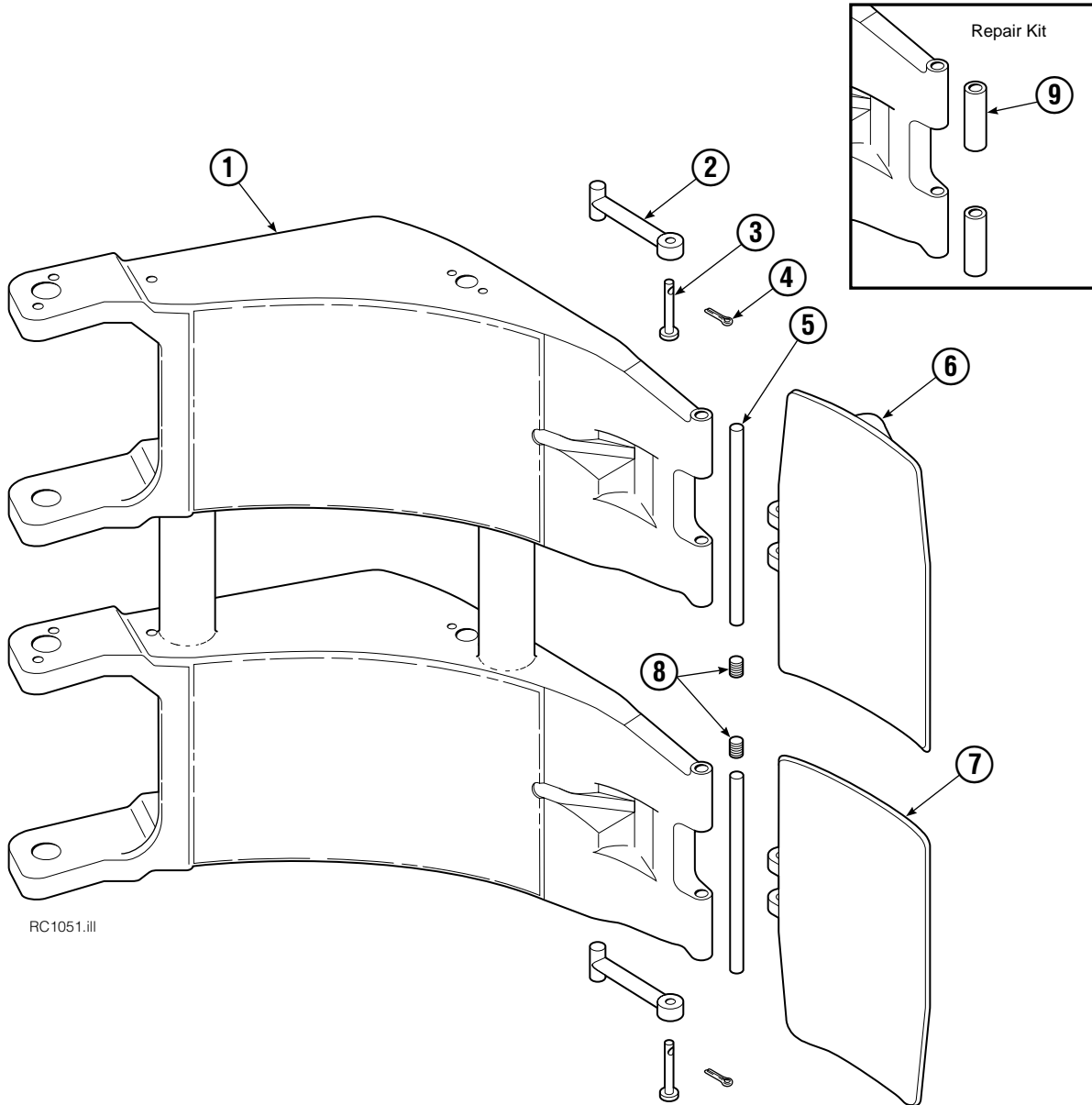


REF	QTY	PART NO.	DESCRIPTION
		3004410	Cylinder Assembly
1	1	674843	Bearing
2	1	560997	Nut
3	1	660769	◆ Bearing
4	1	662462	◆ Seal
5	2	638295	◆ Back-Up Ring
6	2	604511	Fitting, 6-6
7	1	556852	Fitting, 4
8	1	557212	Check Valve
9	1	2801	◆ O-Ring
10	1	563977	◆ Back-Up Ring
11	1	554598	◆ Seal
12	1	564930	◆ Wiper
13	1	3004374	Rod
14	1	555724	Retainer
15	1	557389	Piston
16	1	2722	◆ O-Ring
17	1	3004372	Shell
18	1	667516	Check Valve Service Kit
19	1	—	Spacer
20	1	—	Spacer
21	2	675006	Bearing
22	1	669243	Seal Loader
		555725	Service Kit

◆ Included in Service Kit 555725.

Ref: S-5320, S-5321.

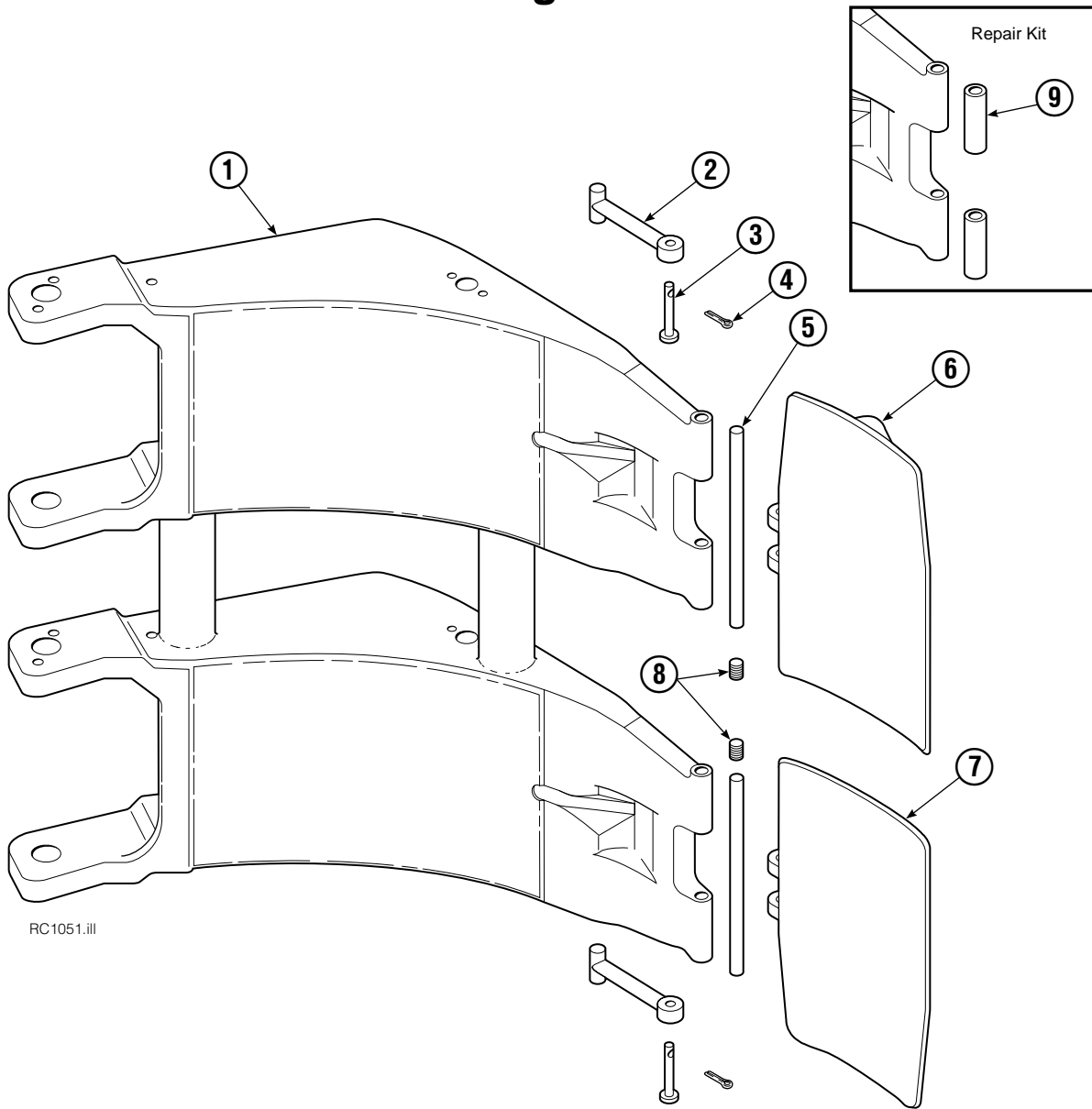
# Short Arm



RC1051.iii

90F			
REF	QTY	PART NO.	DESCRIPTION
		3016440	Contact Pad Group
1	1	3016439	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

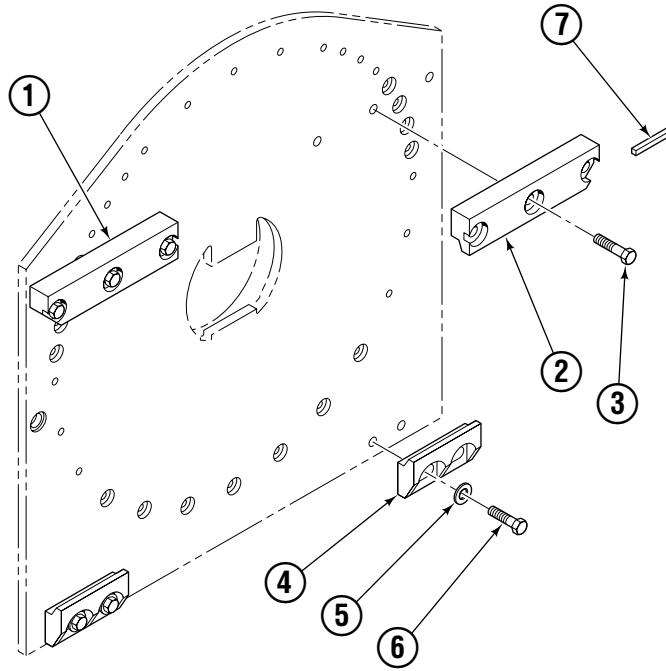
# Long Arm



RC1051.iii

90F			
REF	QTY	PART NO.	DESCRIPTION
		3016436	Contact Pad Group
1	1	3016438	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	1	6002347	Upper Hook, LH
2	1	6002348	Upper Hook, RH
3	6	676801	Capscrew, M20 x 50
4	2	679832	Lower Hook
5	4	670692	Washer, 3/4 in. ID
6	4	779020	Capscrew, M20 x 45
7	1	670704	Stop Block Kit

**Do you have questions you need answered right now?** Call your nearest Cascade Parts Department. Visit us online at [www.cascorp.com](http://www.cascorp.com)

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

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

**Cascade GmbH**  
D-41199 Monchengladbach  
Klosterhofweg 52  
Germany  
Tel: 49-216-668230  
FAX: 49-216-6682323

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

