



# Parts Manual

---

Model 90F Roll Clamp

Serial Number 90F-RCS-126

---

**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

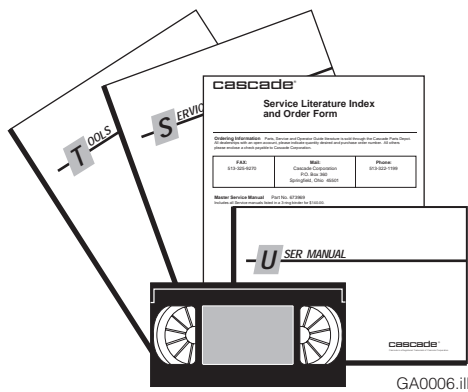


RC0636.ill



| 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           |

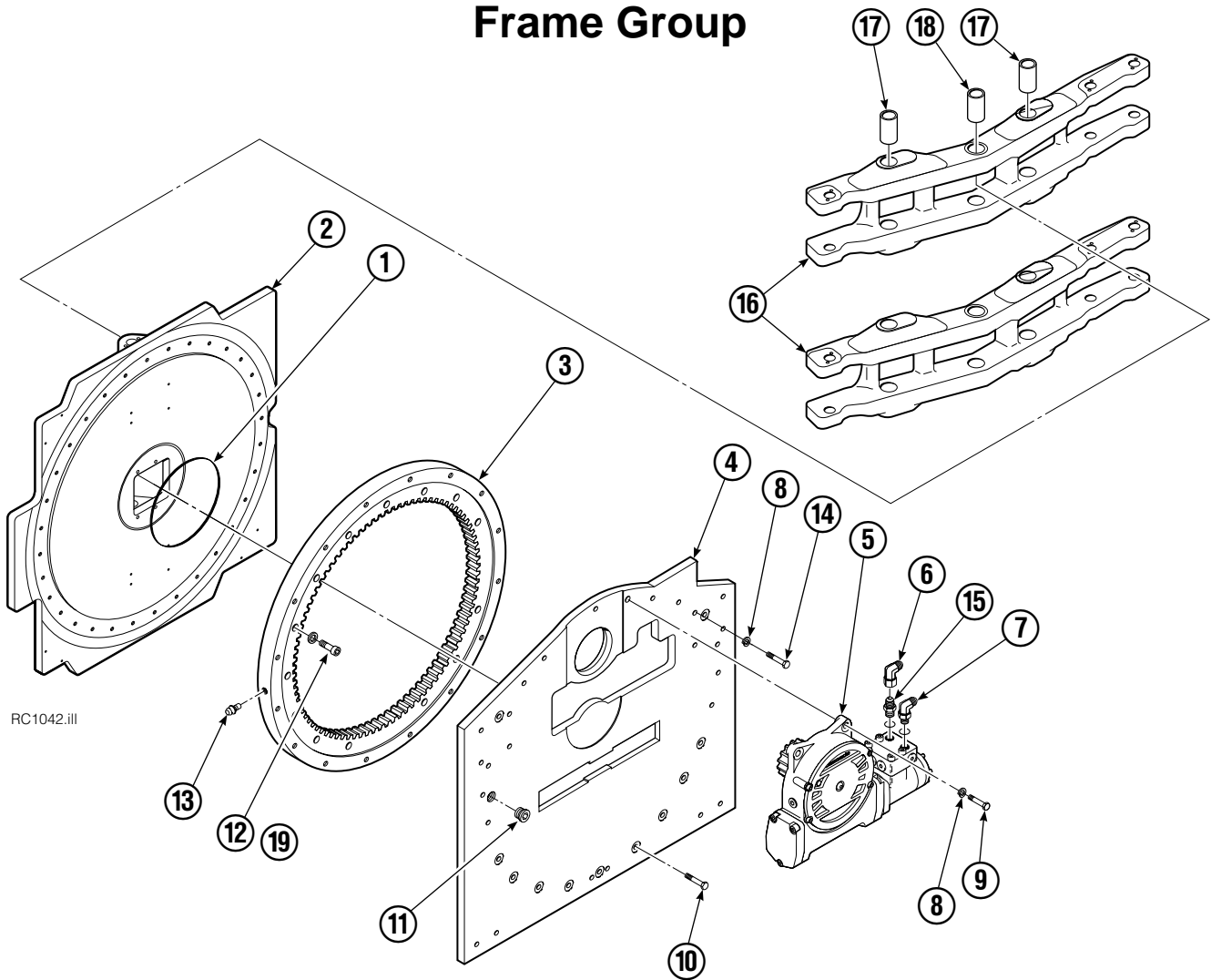
# Publications



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             |

# Frame Group



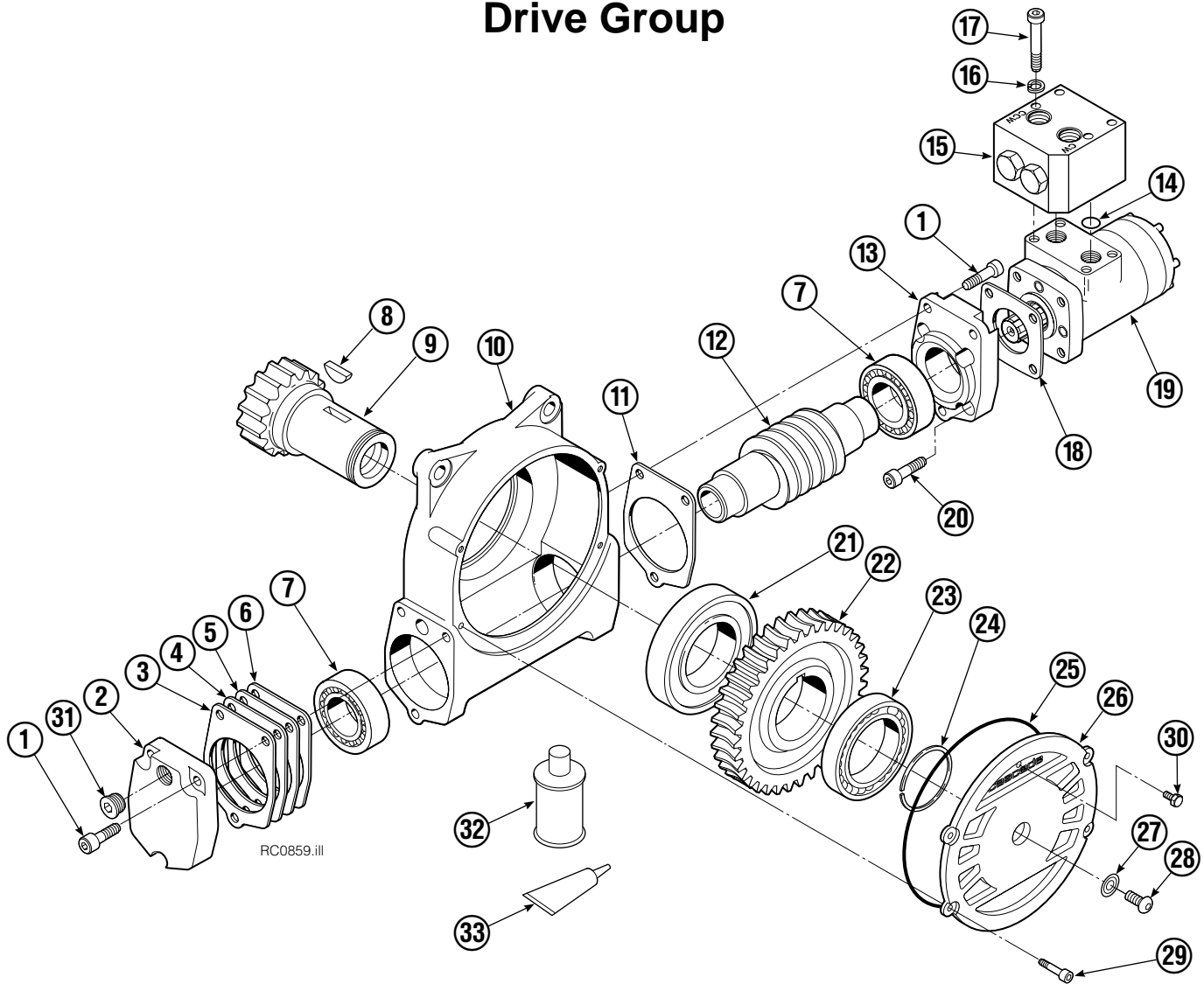
| 90F |     |          |                    |
|-----|-----|----------|--------------------|
| REF | QTY | PART NO. | DESCRIPTION        |
|     |     | 6013479  | Frame Group        |
| 1   | 1   | 670931   | Seal               |
| 2   | 1   | 393458   | Faceplate          |
| 3   | 1   | 214481   | Bearing Assembly   |
| 4   | 1   | 214484   | Baseplate          |
| 5   | 1   | 6013477  | Drive Group ●      |
| 6   | 1   | 605761   | Fitting, 8-8       |
| 7   | 1   | 601250   | Fitting, 8-8       |
| 8   | 4   | 6290     | Lockwasher, 1/2 ID |
| 9   | 4   | 763021   | Capscrew, M12 x 30 |
| 10  | 13  | 206174   | Capscrew, M12 x 45 |
| 11  | 1   | 664071   | Plug               |
| 12  | 32  | 753221   | Capscrew, M12 x 50 |
| 13  | 1   | 7401     | Grease Fitting     |
| 14  | 19  | 213633   | Capscrew, M12 x 55 |
| 15  | 1   | 601377   | Fitting, 8-8       |
| 16  | 2   | 381130   | Swing Frame ▲      |
| 17  | 8   | 675008   | Bushing ▲          |
| 18  | 4   | 675006   | Bushing ▲          |
| 19  | 32  | 681473   | Lockwasher, M12    |

● See Drive Group page for parts breakdown.

▲ Included in Swing Frame Group 381129.

Reference: SK-6189, 393464, 223703.

# Drive Group



| 90F |     |          |                                 |     |     |          |                                     |
|-----|-----|----------|---------------------------------|-----|-----|----------|-------------------------------------|
| REF | QTY | PART NO. | DESCRIPTION                     | REF | QTY | PART NO. | DESCRIPTION                         |
|     |     | 6013477  | Drive Group with 2.8 c.i. Motor | 19  | 1   | 215903   | Drive Motor – 3.0 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   | 670556   | Pinion                          | 28  | 1   | 783608   | Capscrew, M12 x 16                  |
| 10  | 1   | 775551   | Housing                         | 29  | 4   | 200882   | Capscrew, M8 x 20                   |
| 11  | 1   | 686465   | Gasket                          | 30  | 1   | 644010   | Relief Fitting                      |
| 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   | 6000553  | 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)       |

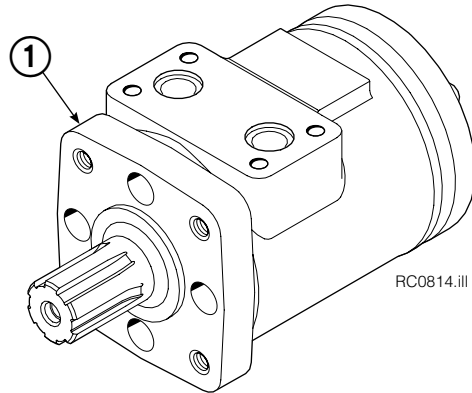
● Quantity as required.

◆ See Valve page for parts breakdown.

▲ See Drive Motor page for parts breakdown.

Reference: Common Parts 795490.

# Drive Motor

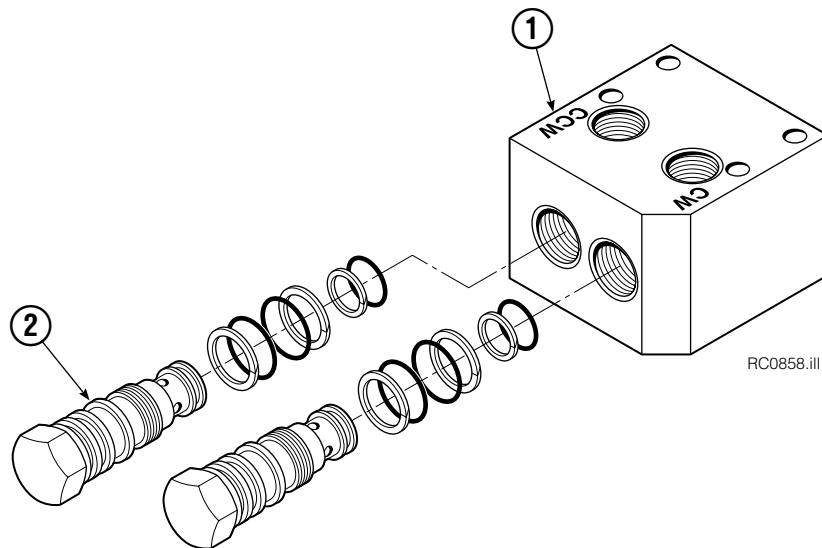


| REF | QTY | PART NO. | DESCRIPTION |
|-----|-----|----------|-------------|
| 1   | 1   | 215903   | Drive Motor |
| ●   | 1   | 206405   | Service Kit |

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.

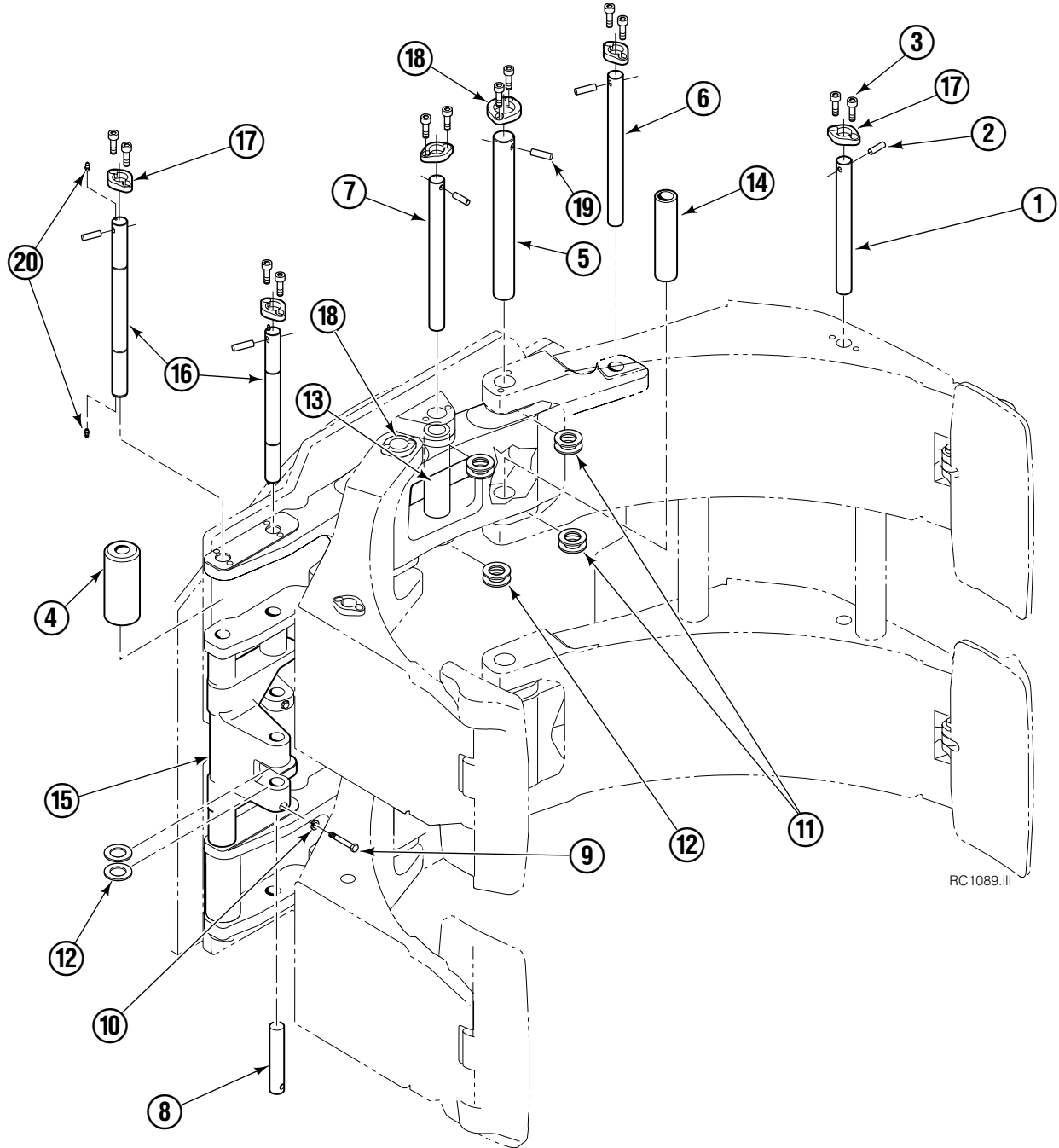
- Compatible with water glycol based hydraulic fluids.

# Check Valve



| REF | QTY | PART NO. | DESCRIPTION          |
|-----|-----|----------|----------------------|
|     |     | 6000553  | Check Valve Assembly |
| 1   | 1   | 6002747  | Body                 |
| 2   | 2   | 227790   | Check Valve          |

# Common Components Group

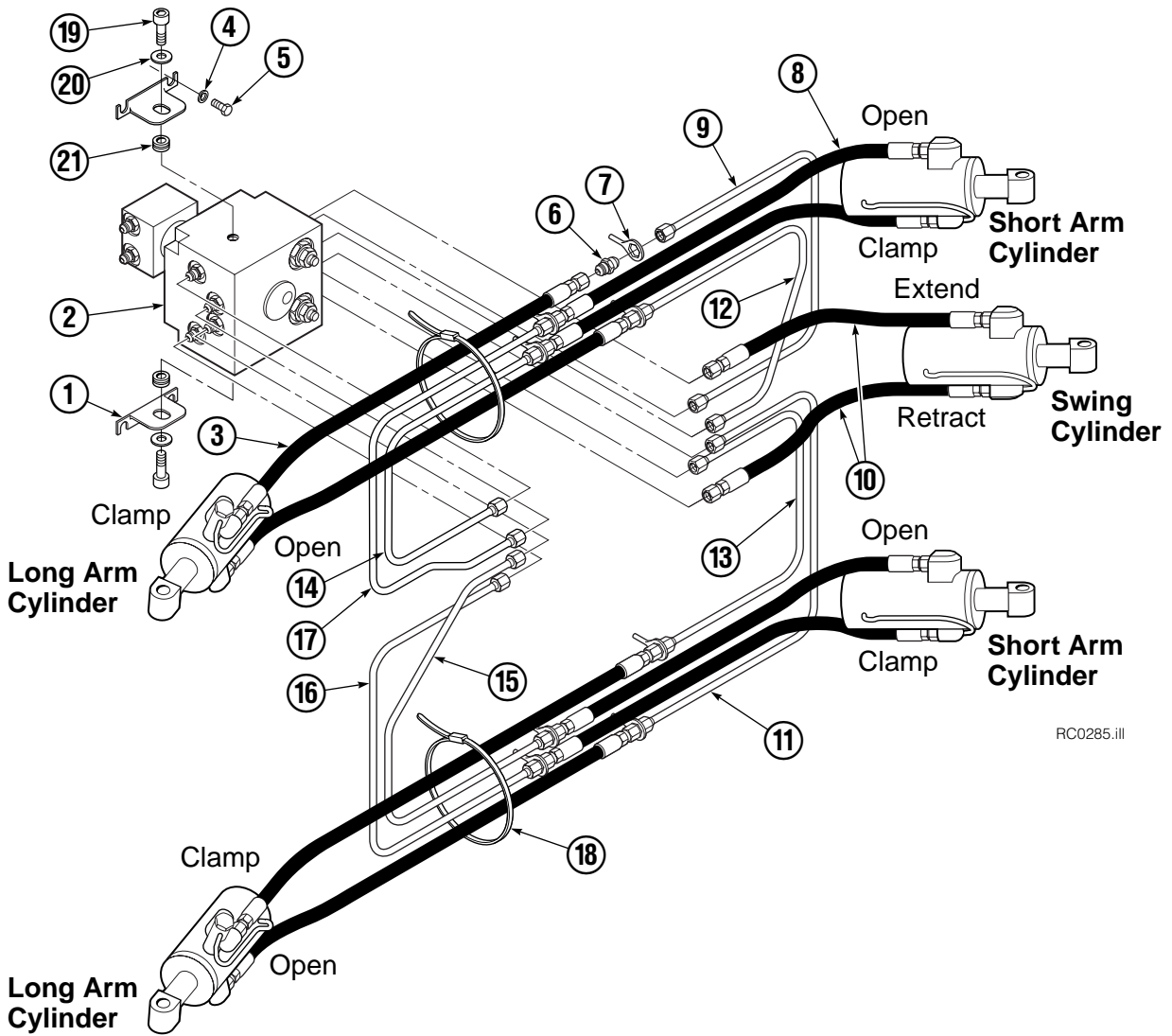


RC1089.ill

| 90F |     |          |                              |     |     |          |                |
|-----|-----|----------|------------------------------|-----|-----|----------|----------------|
| REF | QTY | PART NO. | DESCRIPTION                  | REF | QTY | PART NO. | DESCRIPTION    |
|     |     | 6013468  | Components Group             | 11  | 16  | 673379   | Shim           |
| 1   | 4   | 676088   | Pin                          | 12  | 16  | 660200   | Shim           |
| 2   | 11  | 673385   | Drive Pin                    | 13  | 2   | 681668   | Spacer         |
| 3   | 30  | 4466     | Capscrew, 3/8 NC x .50 GR8   | 14  | 4   | 681672   | Spacer         |
| 4   | 2   | 675024   | Roller                       | 15  | 1   | 356185   | Swing Weldment |
| 5   | 4   | 675018   | Pin                          | 16  | 4   | 6010540  | Pin            |
| 6   | 1   | 675021   | Pin                          | 17  | 11  | 674828   | Retainer       |
| 7   | 2   | 675019   | Pin                          | 18  | 4   | 674830   | Retainer       |
| 8   | 2   | 675023   | Pin                          | 19  | 4   | 675086   | Drive Pin      |
| 9   | 2   | 643518   | Capscrew, 5/16 NC x 2.25 GR8 | 20  | 8   | 7400     | Grease Fitting |
| 10  | 2   | 6287     | Lockwasher, 5/16 ID          |     |     |          |                |

Reference: SK-5189.

# Swing Frame Hosing Group

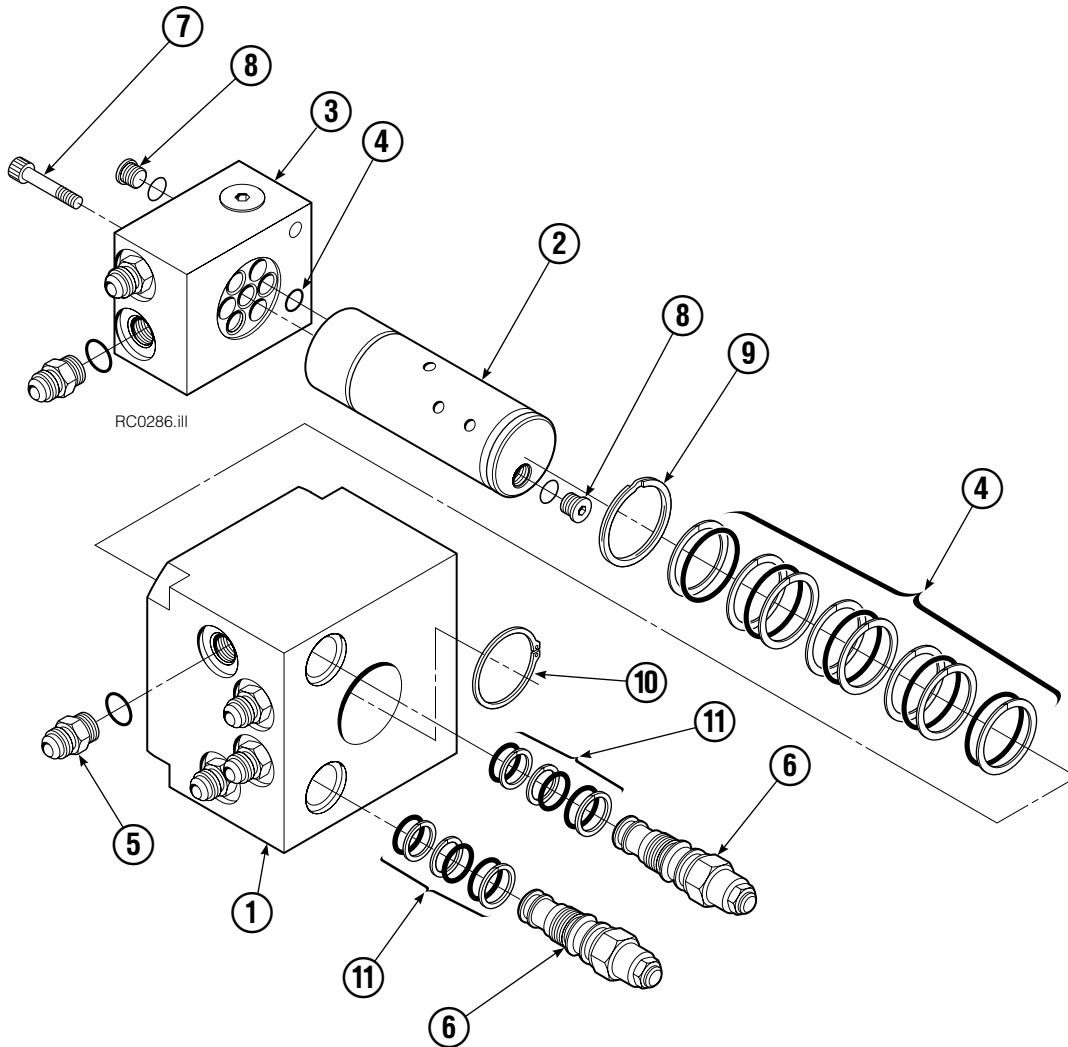


RC0285.iii

| REF | QTY | PART NO. | DESCRIPTION            |
|-----|-----|----------|------------------------|
|     |     | 381128   | Hosing Group           |
| 1   | 2   | 206606   | Angle                  |
| ● 2 | 1   | 208798   | Revolving Connection   |
| 3   | 4   | 381145   | Hose                   |
| 4   | 4   | 6288     | Lockwasher, 3/8"       |
| 5   | 4   | 3600     | Capscrew, 3/8 NC x .62 |
| 6   | 8   | 2347     | Fitting, 6-6           |
| 7   | 8   | 674743   | Eye Bolt               |
| 8   | 4   | 381146   | Hose                   |
| 9   | 1   | 675051   | Tube                   |
| 10  | 2   | 675058   | Hose                   |
| 11  | 1   | 675049   | Tube                   |
| 12  | 1   | 675050   | Tube                   |
| 13  | 1   | 675048   | Tube                   |
| 14  | 1   | 675047   | Tube                   |
| 15  | 1   | 675045   | Tube                   |
| 16  | 1   | 675044   | Tube                   |
| 17  | 1   | 675046   | Tube                   |
| 18  | 2   | 649086   | Cable Tie              |
| 19  | 2   | 665992   | Shoulder Bolt          |
| 20  | 2   | 209021   | Washer                 |
| 21  | 2   | 208765   | Grommet                |

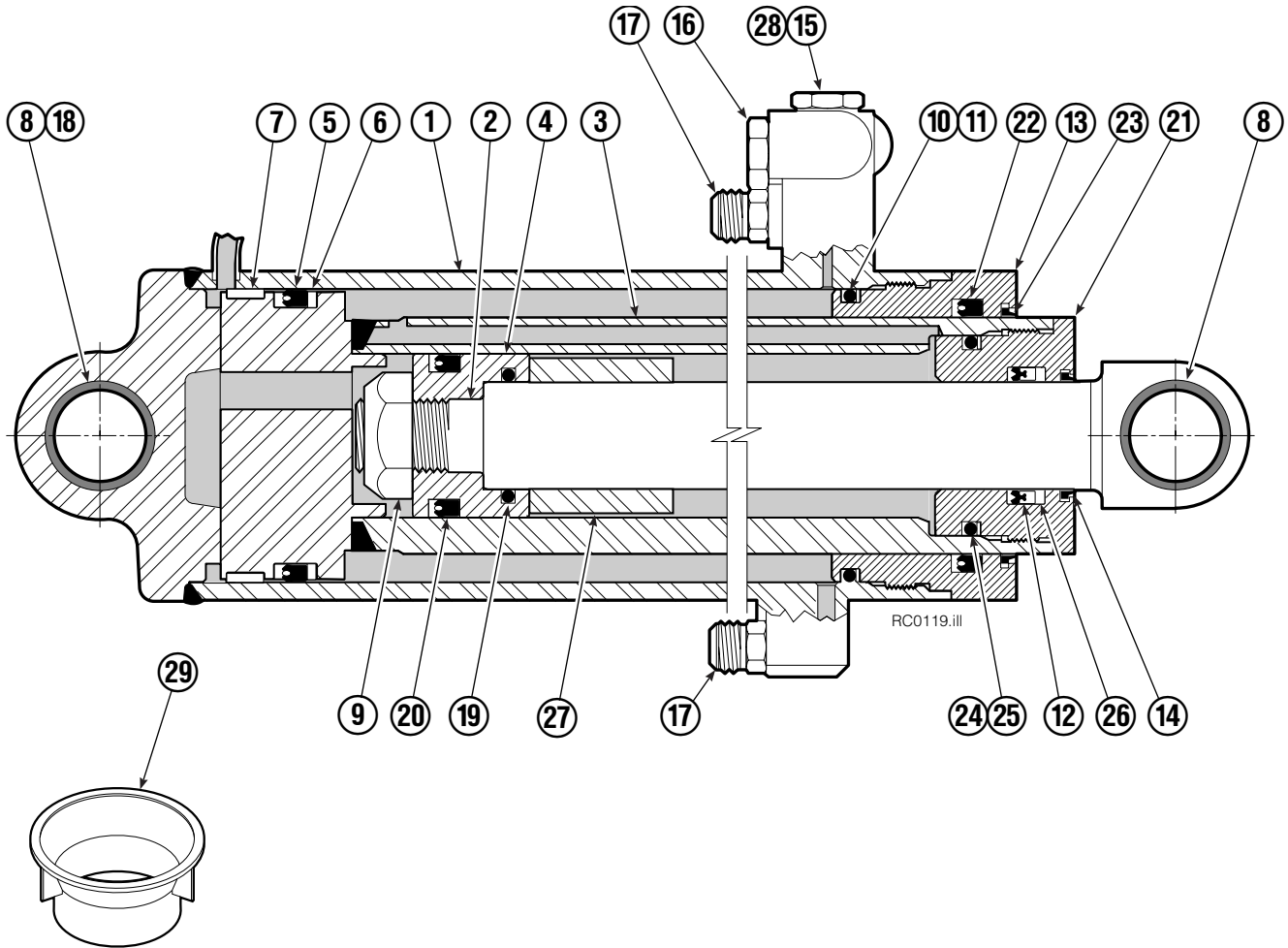
● See Revolving Connection page for parts breakdown.

# Swing Frame Revolving Connection



| 90F |     |          |                              |
|-----|-----|----------|------------------------------|
| REF | QTY | PART NO. | DESCRIPTION                  |
|     |     | 208798   | Revolving Connection         |
| 1   | 1   | 207443   | Body                         |
| 2   | 1   | 680449   | Shaft                        |
| 3   | 1   | 680451   | End Block                    |
| 4   | 1   | 674777   | Service Kit                  |
| 5   | 14  | 604511   | Fitting, 6-6                 |
| 6   | 2   | 674732   | Counterbalance Valve         |
| 7   | 3   | 768800   | Capscrew, M8 x 1.25 x 45-8.8 |
| 8   | 5   | 663694   | Fitting, 3                   |
| 9   | 1   | 7341     | Snap Ring                    |
| 10  | 1   | 3138     | Snap Ring                    |
| 11  | 1   | 667516   | Service Kit                  |

# Cylinder

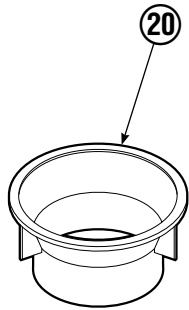
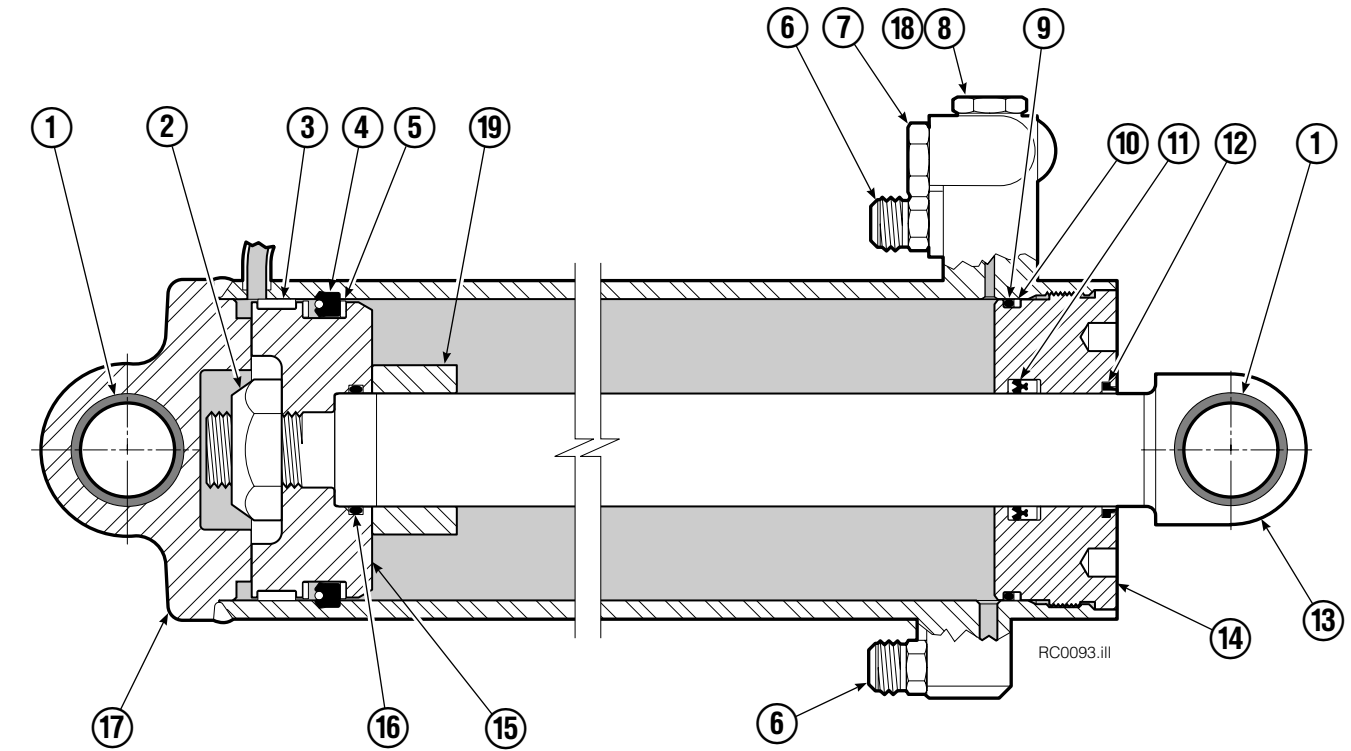


| REF | QTY | PART NO. | DESCRIPTION       | REF | QTY | PART NO. | DESCRIPTION     |
|-----|-----|----------|-------------------|-----|-----|----------|-----------------|
|     |     | 392459   | Cylinder Assembly | 16  | 1   | 556852   | Fitting, 4      |
| 1   | 1   | 556597   | Shell             | 17  | 2   | 604511   | Fitting, 6-6    |
| 2   | 1   | 558839   | Rod               | 18  | 1   | 558835   | Sleeve          |
| 3   | 1   | 563799   | Plunger           | ◆19 | 3   | 2722     | O-Ring          |
| 4   | 1   | 559684   | Piston            | ◆20 | 1   | 647870   | Seal            |
| ◆5  | 1   | 557446   | Seal              | 21  | 1   | 563036   | Retainer        |
| ◆6  | 2   | 638295   | Nylon Ring        | ◆22 | 1   | 553524   | Seal            |
| ◆7  | 1   | 660769   | Ring - Wear       | ◆23 | 1   | 636860   | Wiper           |
| ◆8  | 3   | 674843   | Bushing           | ◆24 | 1   | 2791     | O-Ring          |
| 9   | 1   | 561997   | Nut               | ◆25 | 1   | 615134   | Back-up Ring    |
| ◆10 | 1   | 2801     | O-Ring            | ◆26 | 1   | 638246   | Nylon Ring      |
| ◆11 | 1   | 615144   | Back-up Ring      | 27  | 1   | 214658   | Spacer          |
| ◆12 | 1   | 554598   | Seal              | 28  | 1   | 667516   | Service Kit     |
| 13  | 1   | 563796   | Retainer          | ◆29 | 1   | 672910   | Seal Loader Kit |
| ◆14 | 1   | 628047   | Wiper             |     | 1   | 559837   | Service Kit     |
| ■15 | 1   | 557212   | Valve             |     |     |          |                 |

◆ Included in Service Kit 559837.

■ Included in Service Kit 667516.

# Short Arm Cylinder

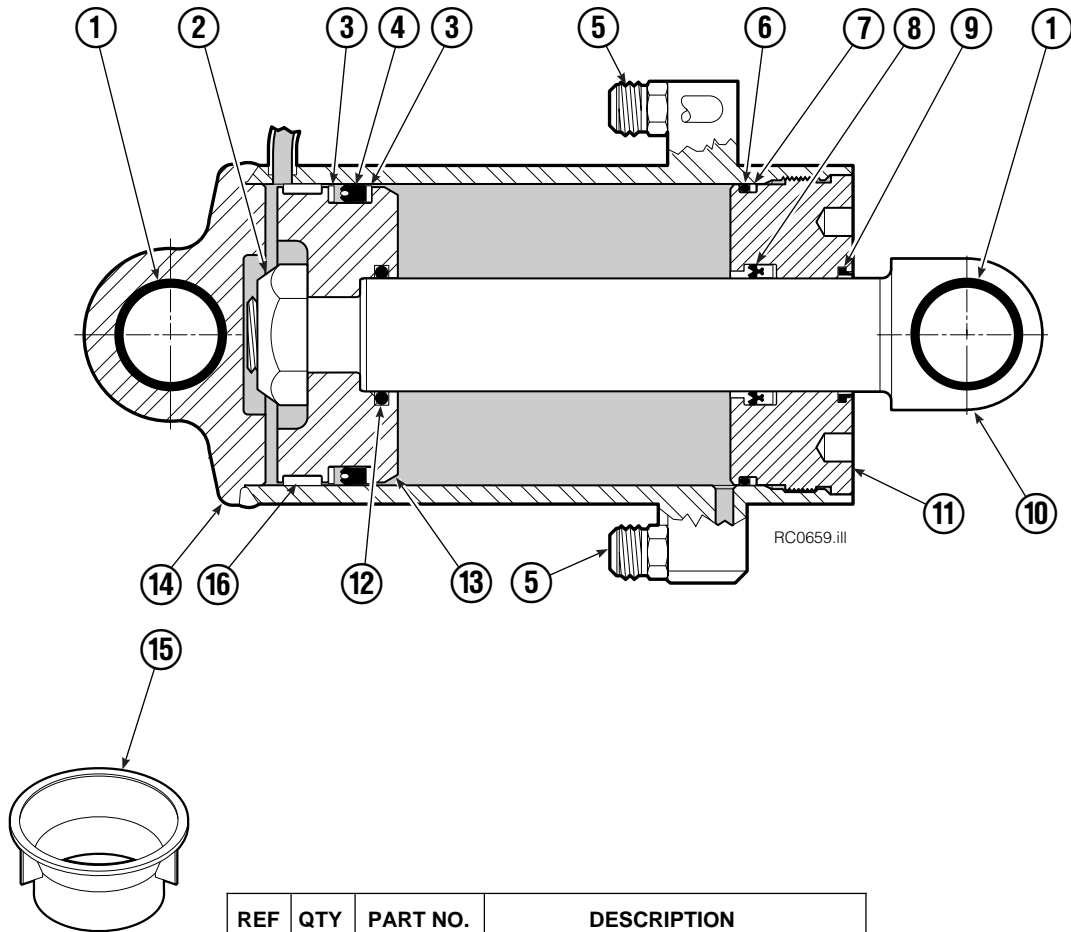


| REF | QTY | PART NO. | DESCRIPTION             |
|-----|-----|----------|-------------------------|
|     |     | 385089   | Cylinder Assembly       |
| 1   | 3   | 674843   | Bearing                 |
| 2   | 1   | 667990   | Nut                     |
| 3   | 1   | 660769   | Bearing ♦               |
| 4   | 1   | 557446   | 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   | 615144   | Back-Up Ring ♦          |
| 11  | 1   | 554598   | Seal ♦                  |
| 12  | 1   | 628047   | 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   | 672910   | Seal Loader             |
|     |     | 555725   | Service Kit             |

♦ Included in Service Kit 555725.

Reference: S-5313, S-5314.

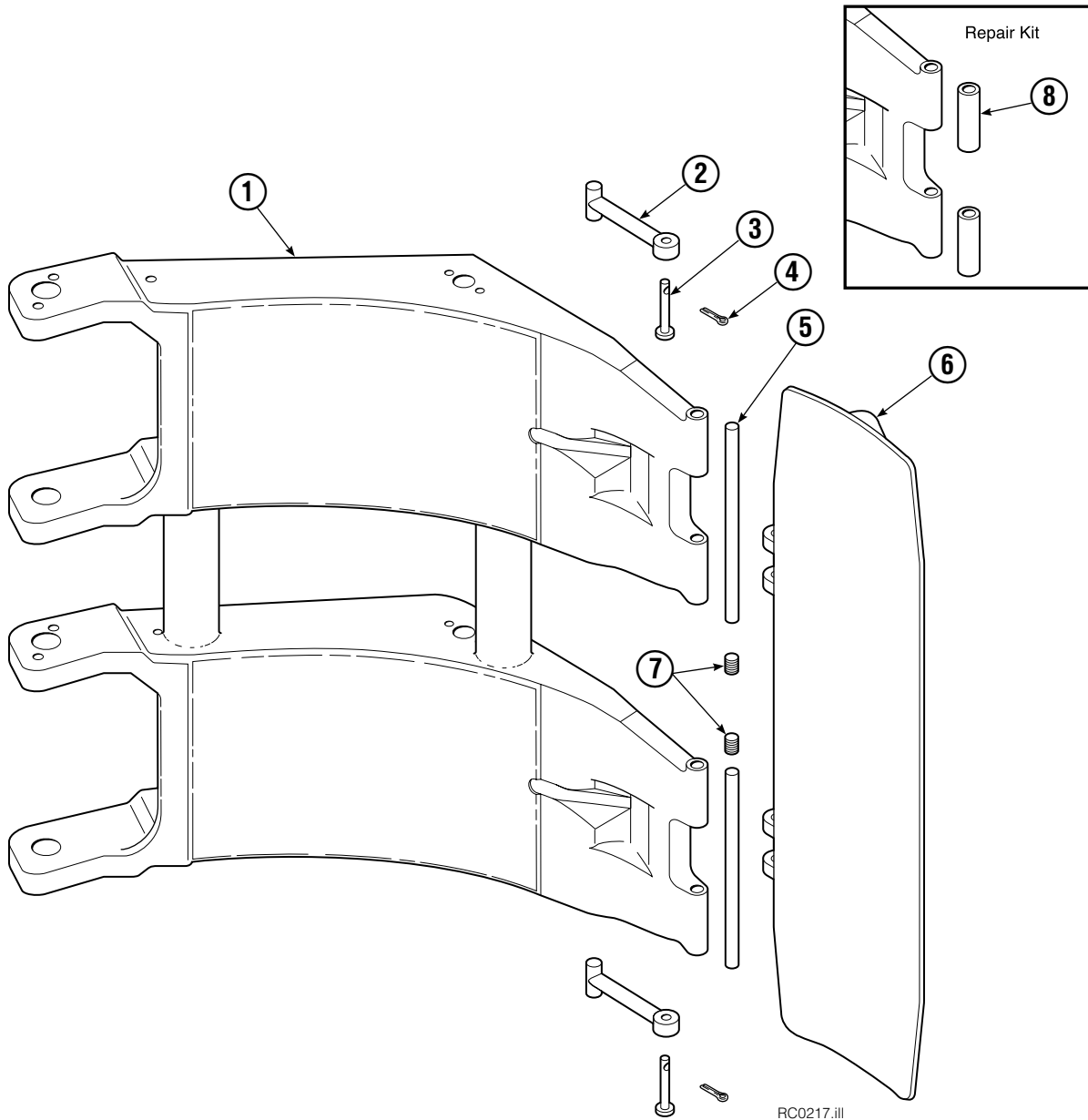
# Swing Cylinder



| 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

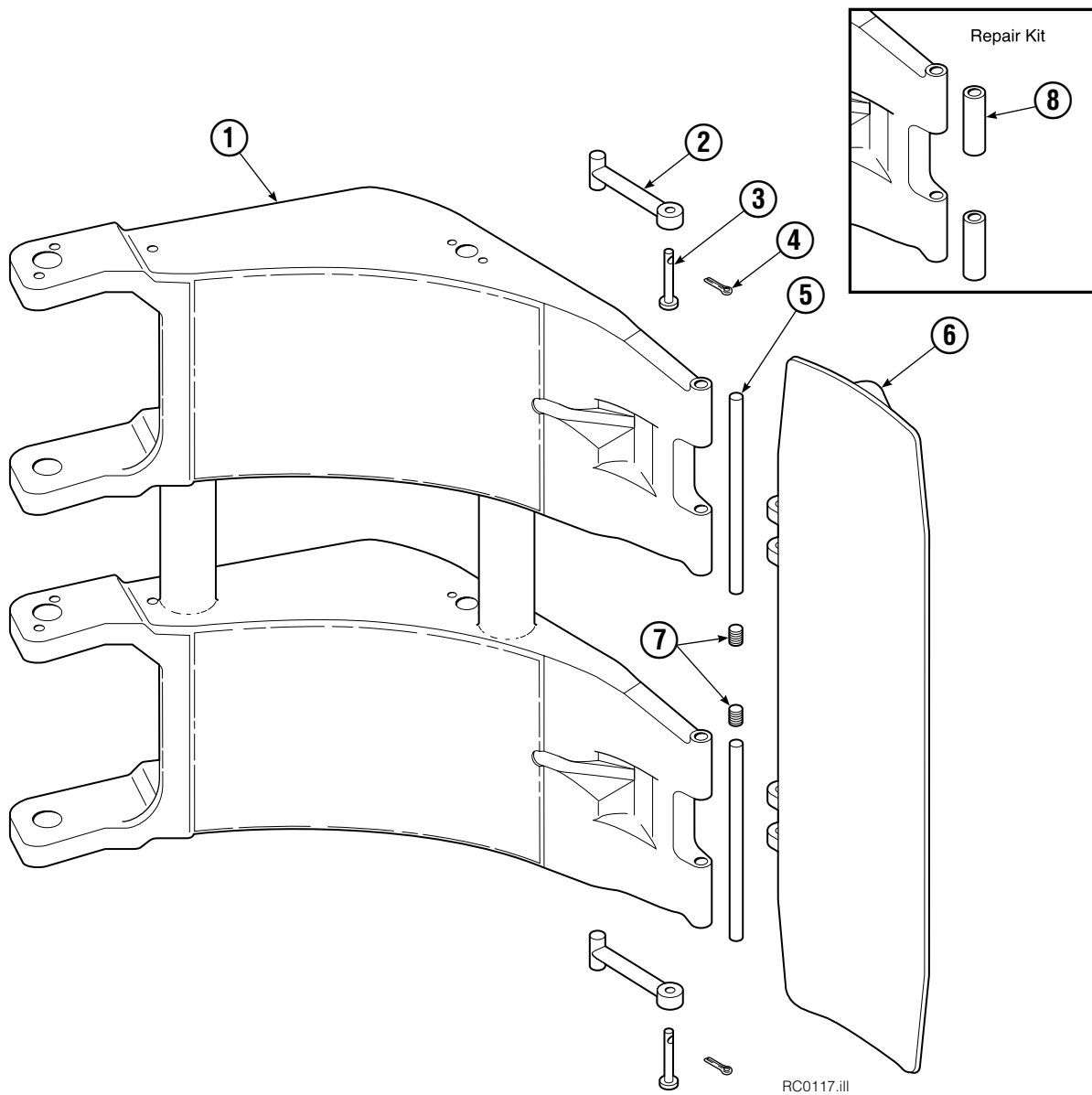


RC0217.ill

| 90F |     |          |                    |
|-----|-----|----------|--------------------|
| REF | QTY | PART NO. | DESCRIPTION        |
|     |     | 6013466  | Short Arm Group    |
| 1   | 1   | 385093   | Short Arm          |
| 2   | 2   | 674994   | Link               |
| 3   | 2   | 682978   | Clevis Pin         |
| 4   | 2   | 6525     | Cotter Pin         |
| 5   | 2   | 674993   | Pin                |
| 6   | 1   | 674962   | Contact Pad        |
| 7   | 2   | 689900   | Plug               |
| 8   | 1   | 676810   | Arm Tip Repair Kit |

674948 Contact Pad Group items 2-7.

# Long Arm

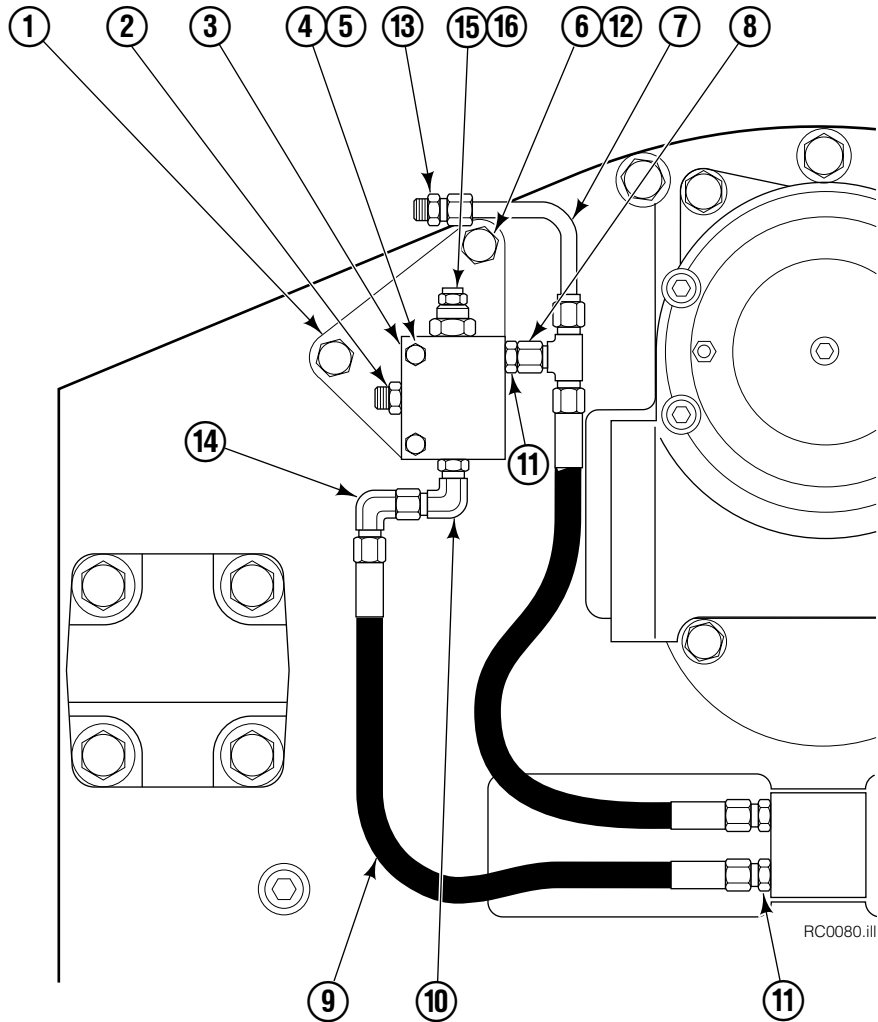


RC0117.iii

| 90F |     |          |                    |
|-----|-----|----------|--------------------|
| REF | QTY | PART NO. | DESCRIPTION        |
|     |     | 6013453  | Long Arm Group     |
| 1   | 1   | 381133   | Long Arm           |
| 2   | 2   | 674994   | Link               |
| 3   | 2   | 682978   | Clevis Pin         |
| 4   | 2   | 6525     | Cotter Pin         |
| 5   | 2   | 674993   | Pin                |
| 6   | 1   | 206601   | Contact Pad        |
| 7   | 2   | 689900   | Plug               |
| 8   | 1   | 676810   | Arm Tip Repair Kit |

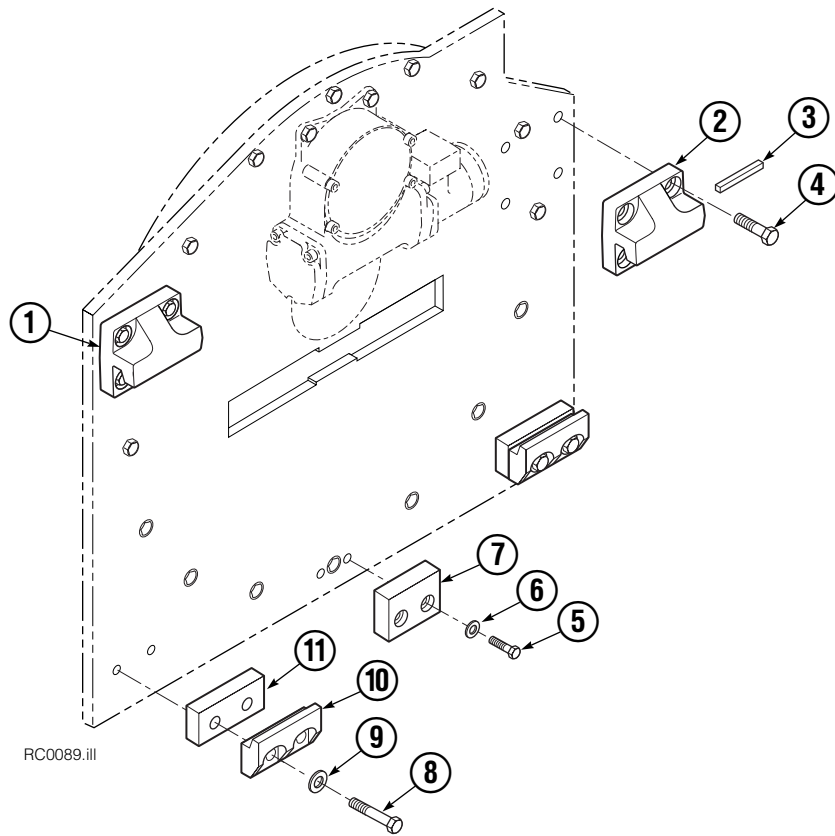
Reference: Contact Pad Group 206598 (items 2-7).

# Counterbalance Valve Kit



| 90F |     |         |                             |
|-----|-----|---------|-----------------------------|
| REF | QTY | PART NO | DESCRIPTION                 |
|     |     | 359185  | Counterbalance Valve Kit    |
| 1   | 1   | 358460  | Bracket                     |
| 2   | 1   | 601377  | Fitting, 8-8                |
| 3   | 1   | 358455  | Valve Assembly              |
| 4   | 2   | 360785  | Capscrew                    |
| 5   | 2   | 6287    | Lockwasher                  |
| 6   | 2   | 762448  | Capscrew                    |
| 7   | 1   | 382350  | Tube                        |
| 8   | 1   | 611334  | Fitting, 8-8-8              |
| 9   | 2   | 211571  | Hose – 18.75"               |
| 10  | 1   | 601250  | Fitting, 8-8                |
| 11  | 3   | 662187  | Fitting, 8-6                |
| 12  | 2   | 6290    | Lockwasher                  |
| 13  | 1   | 2348    | Fitting, 8-8                |
| 14  | 1   | 605761  | Fitting, 8-8                |
| 15  | 1   | 201267  | Valve Cartridge             |
| 16  | 1   | 667516  | Valve Cartridge Service Kit |

# Bolt-On Mounting Group



| Class IV, 1.8° |     |          |                    |
|----------------|-----|----------|--------------------|
| REF            | QTY | PART NO. | DESCRIPTION        |
|                |     | 684880   | Mounting Group     |
| 1              | 1   | 684877   | Upper Hook – LH    |
| 2              | 1   | 675061   | Upper Hook – RH    |
| 3              | 1   | 670704   | Stop Kit           |
| 4              | 8   | 679082   | Capscrew, M20 x 35 |
| 5              | 2   | 768810   | Capscrew, M10 x 30 |
| 6              | 2   | 680030   | Lockwasher, M10    |
| 7              | 1   | 681057   | Center Spacer      |
| 8              | 4   | 676854   | Capscrew, M20 x 60 |
| 9              | 4   | 670692   | Washer             |
| 10             | 2   | 679832   | Lower Hook         |
| 11             | 2   | 681056   | Spacer             |

Reference: SK-5286.

**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

