



# Parts Manual

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Model 90F Roll Clamp

Serial Number 90F-RCP-110

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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**

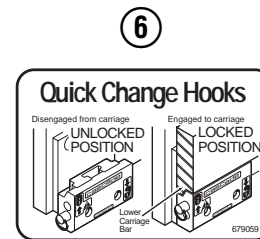
**Write:** Cascade Corporation, P.O. Box 20187, Portland, OR 97220

**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           |

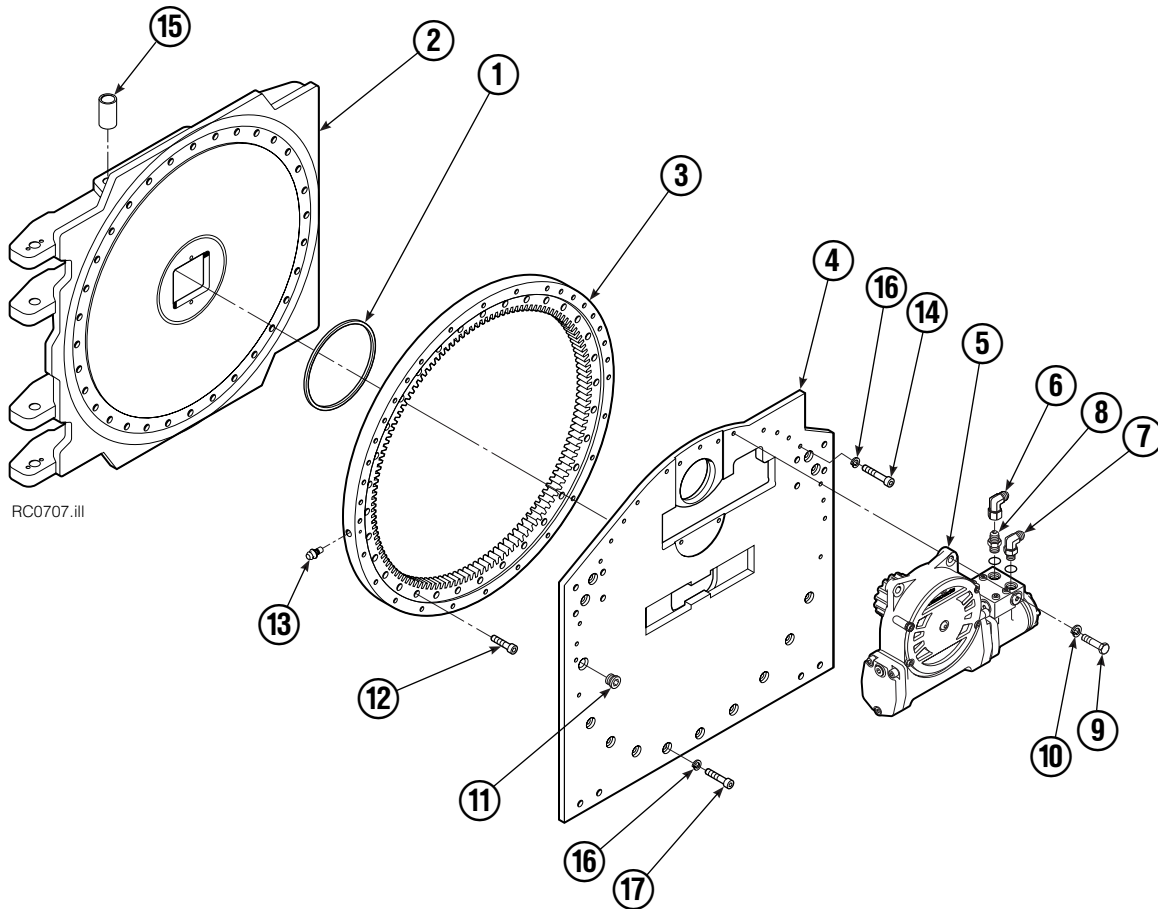
# Publications



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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



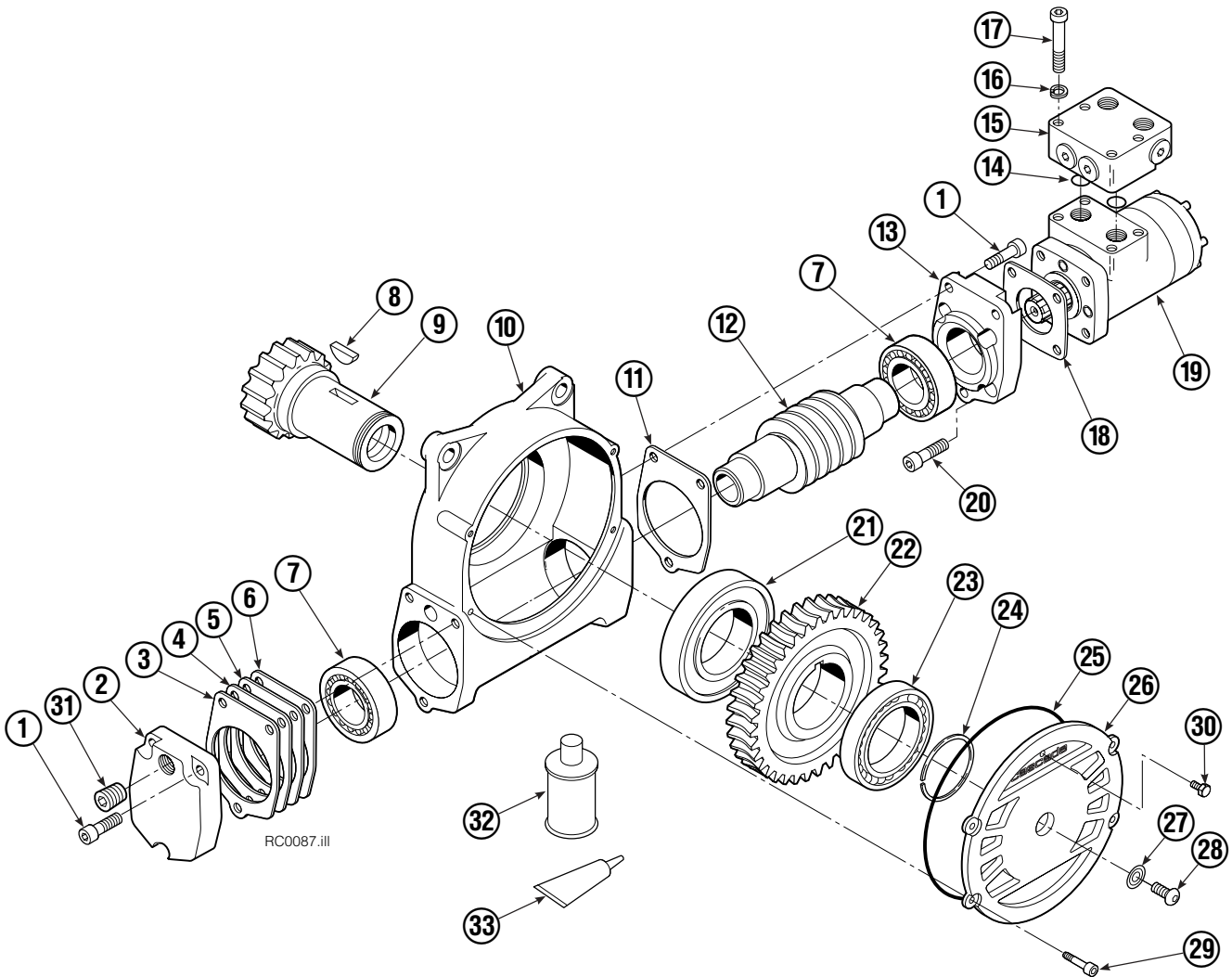
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| 90F |     |          |                    |
|-----|-----|----------|--------------------|
| REF | QTY | PART NO. | DESCRIPTION        |
|     |     | 223034   | Frame Group        |
| 1   | 1   | 670931   | Seal               |
| 2   | 1   | 223050   | Faceplate          |
| 3   | 1   | 214481   | Bearing Assembly   |
| 4   | 1   | 214484   | Baseplate          |
| 5   | 1   | 795492   | Drive Group ▲      |
| 6   | 1   | 605761   | Fitting, 8-8       |
| 7   | 1   | 601250   | Fitting, 8-8       |
| 8   | 1   | 601377   | Fitting, 8-8       |
| 9   | 4   | 763021   | Capscrew, M12 x 30 |
| 10  | 4   | 6290     | Lockwasher, 1/2    |
| 11  | 1   | 664071   | Plug               |
| 12  | 32  | 753221   | Capscrew, M12 x 50 |
| 13  | 1   | 7401     | Grease Fitting     |
| 14  | 19  | 213633   | Capscrew, M12 x 55 |
| 15  | 8   | 675007   | Bushing            |
| 16  | 32  | 681473   | Washer, M12        |
| 17  | 13  | 206174   | Capscrew, M12 x 45 |

▲ See Drive Group page for parts breakdown.

Reference: Common Parts Group 223023, SK-6189.

# Drive Group



| REF | QTY | PART NO. | DESCRIPTION                     | REF | QTY | PART NO. | DESCRIPTION                            |
|-----|-----|----------|---------------------------------|-----|-----|----------|--|
|     |     | 795492   | 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   | 670556   | Pinion                          | 28  | 1   | 783608   | Capscrew, M10 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   | 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                          |     |     | 206394   | Motor Kit-2.8 c.i. (items 11,14,18,19) |

● Quantity as required.

■ See Drive Motor page for parts breakdown.

▲ See Check Valve 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

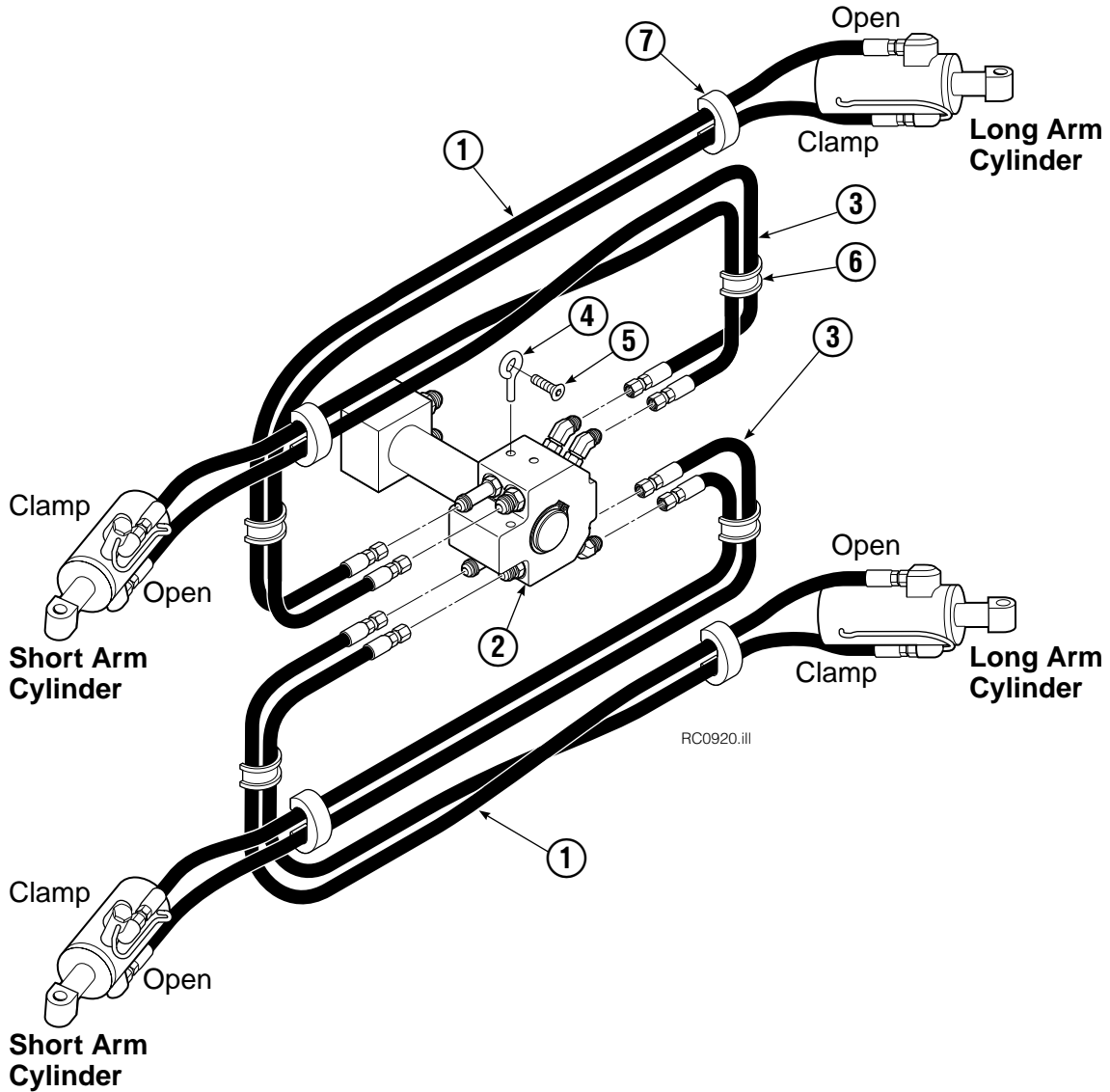


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| 90F |     |          |                       |
|-----|-----|----------|-----------------------|
| REF | QTY | PART NO. | DESCRIPTION           |
|     |     | 206686   | Components Group      |
| 1   | 8   | 660200   | Shim                  |
| 2   | 24  | 768809   | Capscrew, M8 x 16-8.8 |
| 3   | 8   | 206589   | Retainer              |
| 4   | 8   | 680651   | Pin                   |
| 5   | 8   | 673385   | Drive Pin             |
| 6   | 4   | 206591   | Retainer              |
| 7   | 4   | 675022   | Pin                   |
| 8   | 4   | 681673   | Spacer                |
| 9   | 16  | 673379   | Shim                  |
| 10  | 4   | 675086   | Drive Pin             |

Reference: SK-5314, SK-5315.

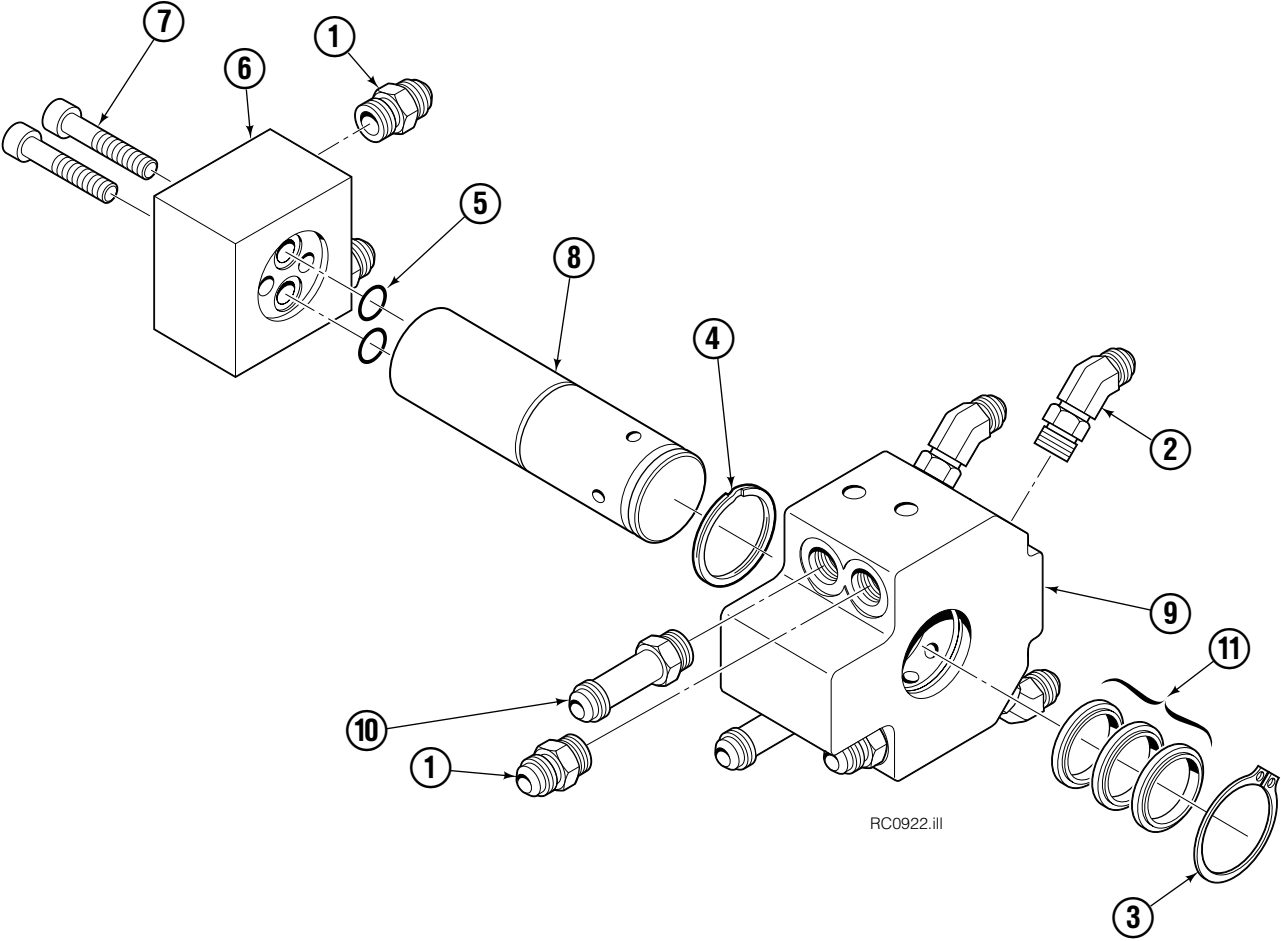
# Hosing Group



| 90F |     |          |                        |
|-----|-----|----------|------------------------|
| REF | QTY | PART NO. | DESCRIPTION            |
|     |     | 223425   | Hosing Group           |
| 1   | 4   | 680238   | Hose, 58.75in.         |
| 2   | 1   | 222681   | Revolving Connection ▲ |
| 3   | 4   | 681286   | Hose, 65 in.           |
| 4   | 2   | 227962   | Eye Pin                |
| 5   | 2   | 768697   | Capscrew               |
| 6   | 4   | 680114   | Insert                 |
| 7   | 4   | 673417   | Segment                |

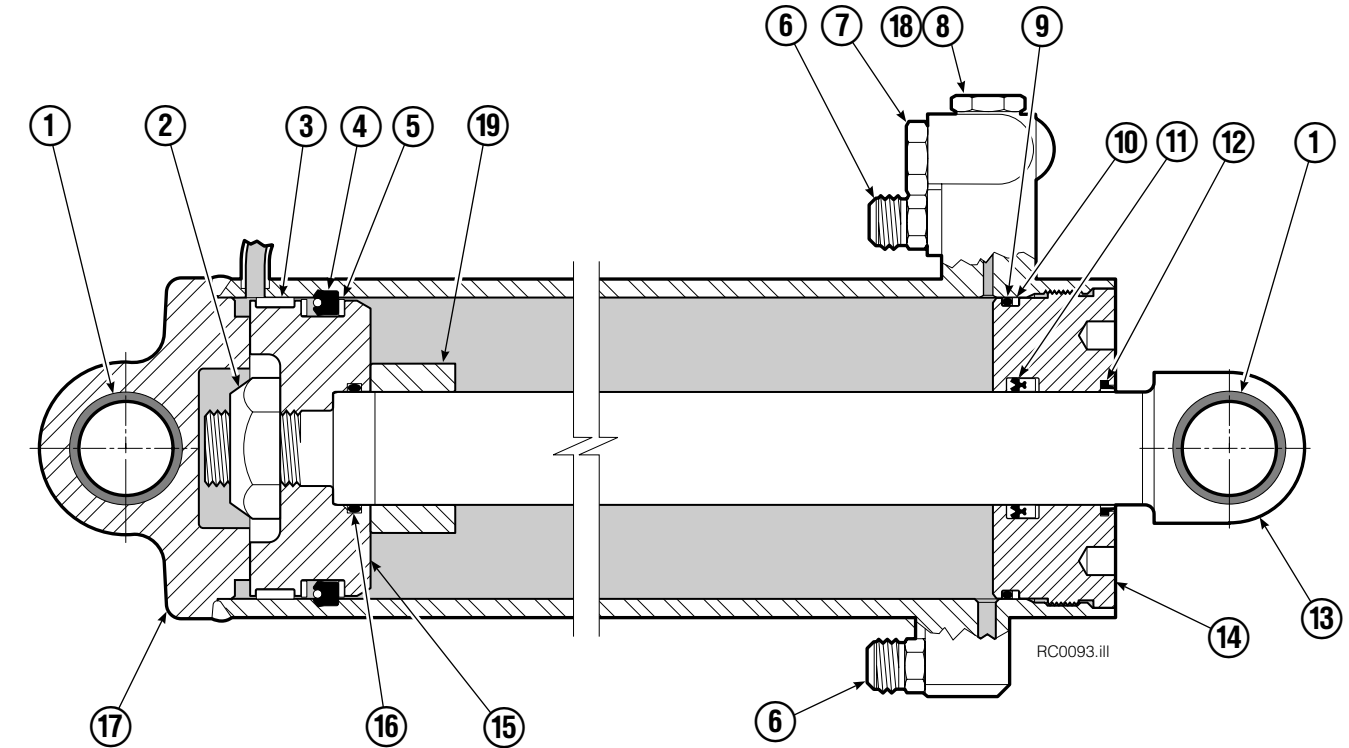
▲ See Revolving Connection page for parts breakdown.  
Reference: Common Parts Group 223426.

# Revolving Connection



| REF | QTY | PART NO. | DESCRIPTION          |
|-----|-----|----------|----------------------|
|     |     | 222681   | Revolving Connection |
| 1   | 4   | 604511   | Fitting, 6-6         |
| 2   | 4   | 611302   | Fitting, 6-6         |
| 3   | 1   | 3138     | Snap Ring            |
| 4   | 1   | 7341     | Snap Ring            |
| 5   | 2   | 564448   | O-Ring               |
| 6   | 1   | 222684   | End Block            |
| 7   | 2   | 768798   | Capscrew, M8 x 40    |
| 8   | 1   | 222674   | Shaft                |
| 9   | 1   | 222671   | Body                 |
| 10  | 2   | 605743   | Fitting Adapter      |
| 11  | 3   | 214649   | Seal                 |
|     |     | 222694   | Service Kit          |

# Short Arm Cylinder

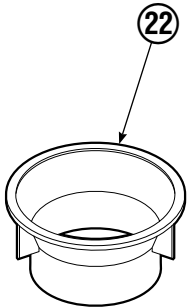
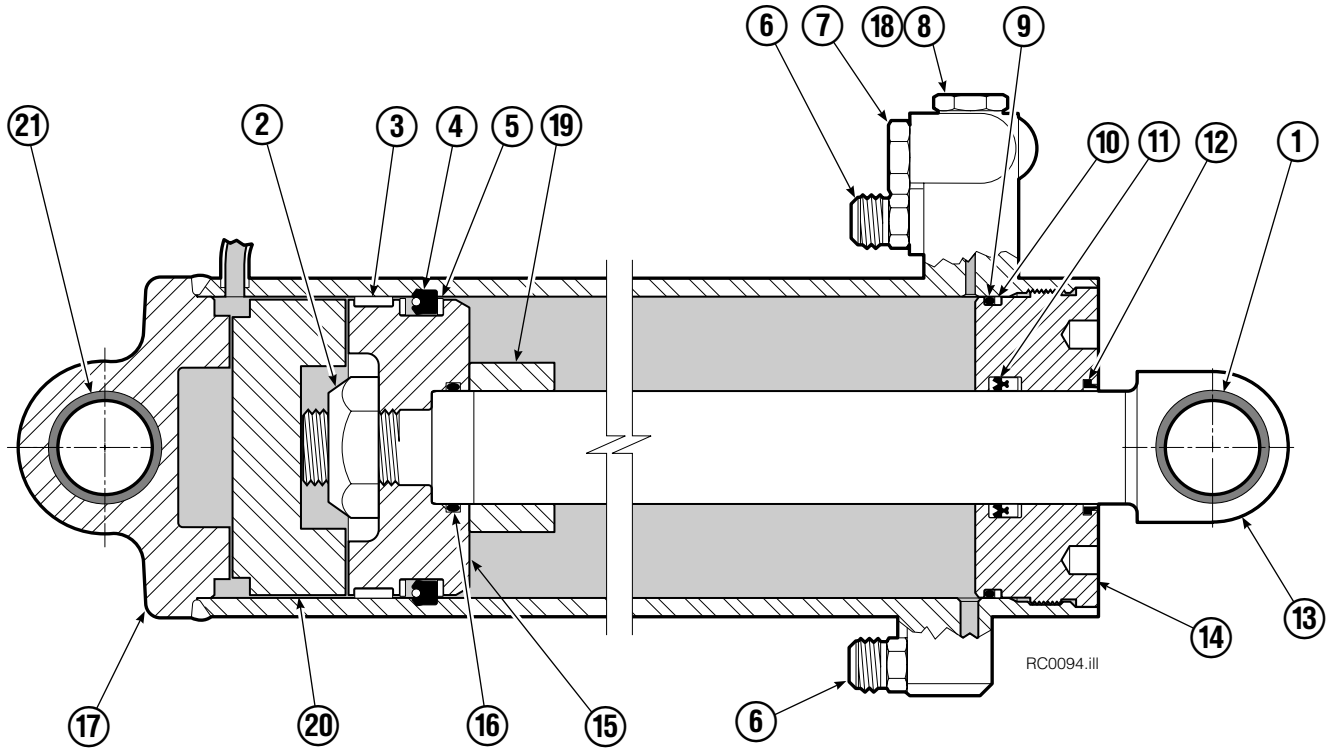


| REF | QTY | PART NO. | DESCRIPTION             |
|-----|-----|----------|-------------------------|
|     |     | 557363   | Cylinder Assembly       |
| 1   | 3   | 674843   | Bearing                 |
| 2   | 1   | 560997   | Nut                     |
| 3   | 1   | 674843   | ◆ Bearing               |
| 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   | 628047   | ◆ Wiper                 |
| 13  | 1   | 555393   | Rod                     |
| 14  | 1   | 555724   | Retainer                |
| 15  | 1   | 557389   | Piston                  |
| 16  | 1   | 2722     | ◆ O-Ring                |
| 17  | 1   | 555741   | 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

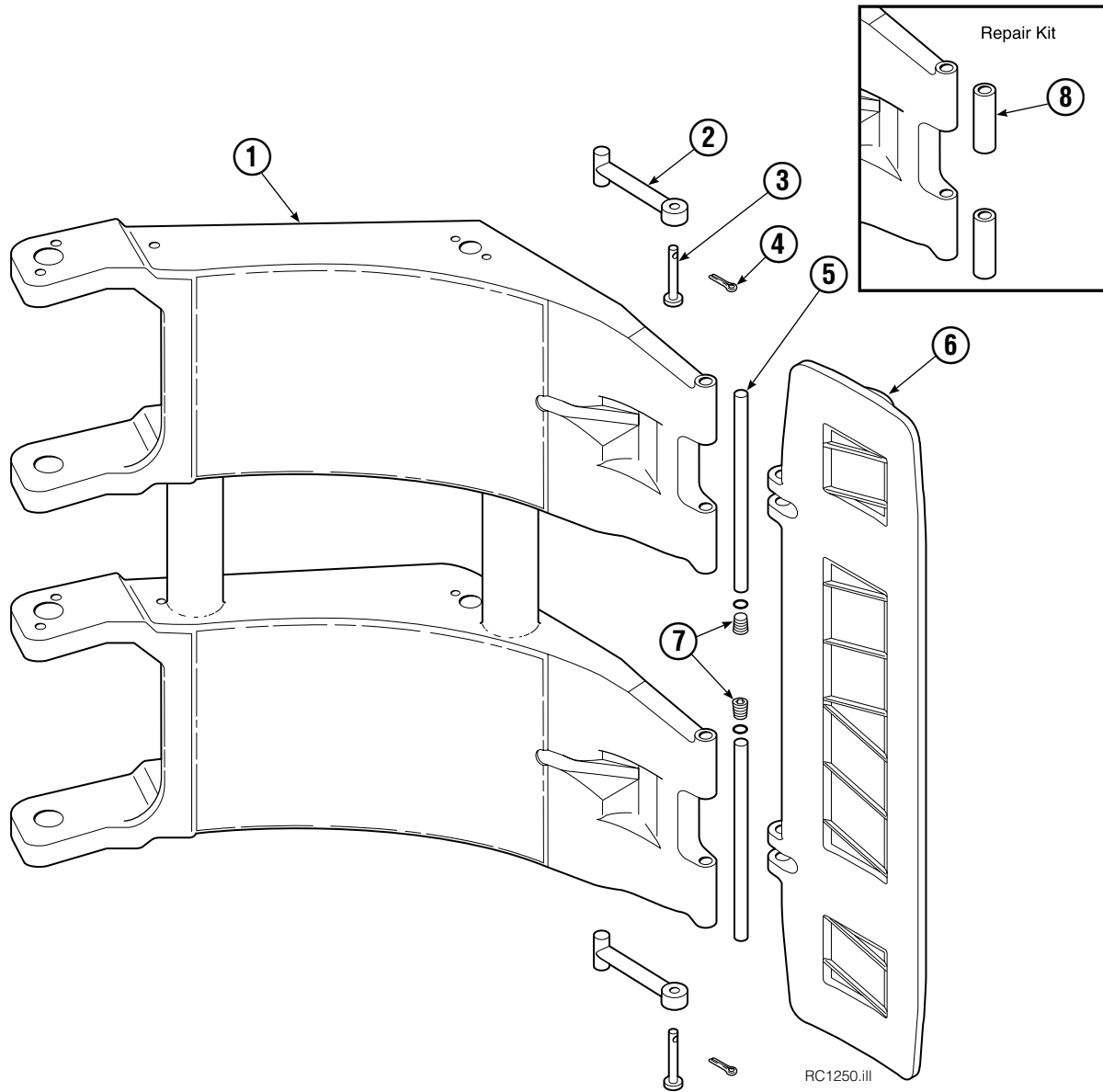


| REF | QTY | PART NO. | DESCRIPTION             |
|-----|-----|----------|-------------------------|
|     |     | 580171   | Cylinder Assembly       |
| 1   | 1   | 674843   | Bearing                 |
| 2   | 1   | 560997   | Nut                     |
| 3   | 1   | 660769   | ◆ Bearing               |
| 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   | 583977   | ◆ Back-Up Ring          |
| 11  | 1   | 554598   | ◆ Seal                  |
| 12  | 1   | 628047   | ◆ Wiper                 |
| 13  | 1   | 557405   | Rod                     |
| 14  | 1   | 555724   | Retainer                |
| 15  | 1   | 557389   | Piston                  |
| 16  | 1   | 2722     | ◆ O-Ring                |
| 17  | 1   | 558353   | 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.

Reference: S-5320, S-5321.

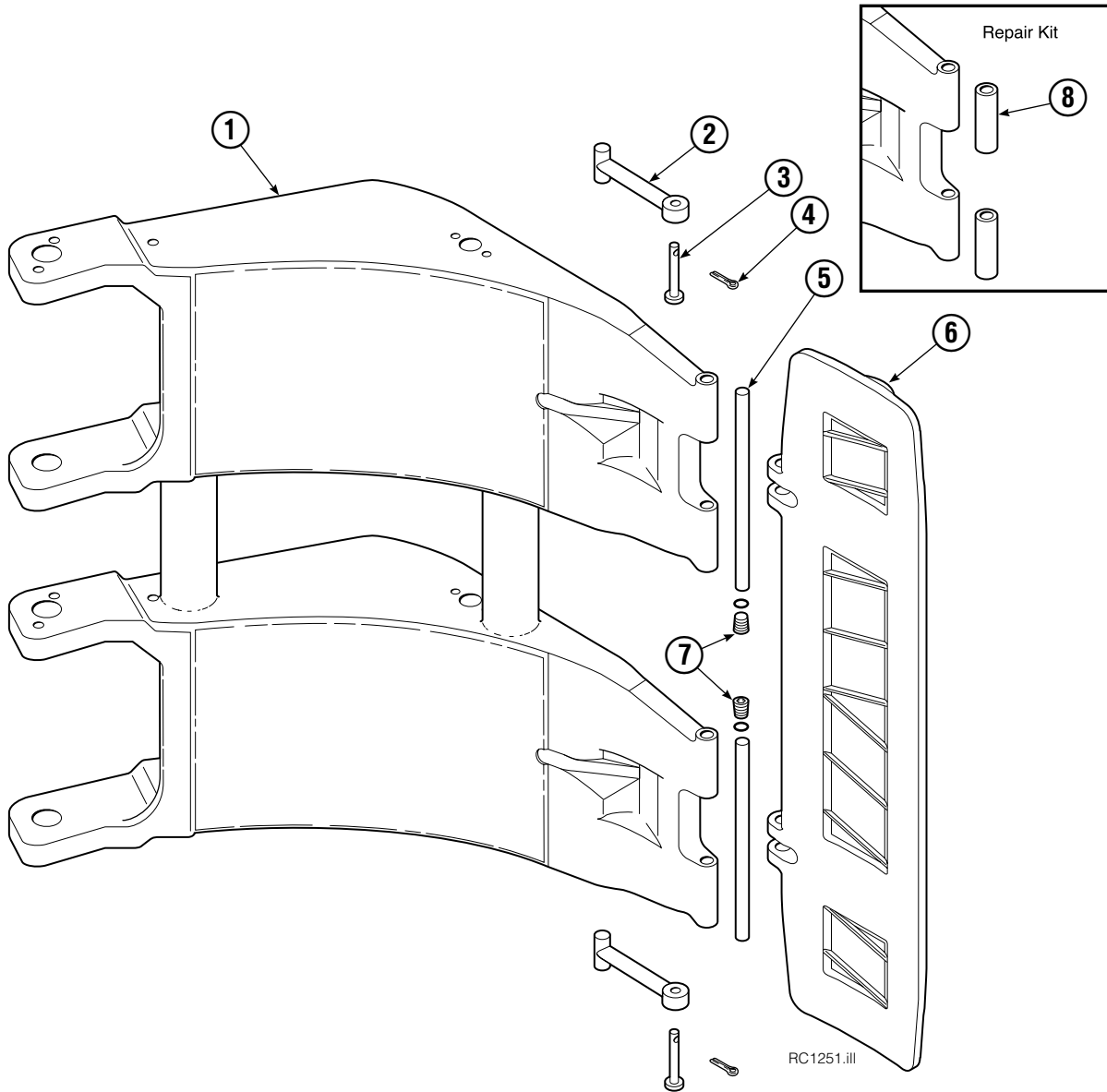
# Contact Pad and Short Arm



| 77F |     |          |                     |
|-----|-----|----------|---------------------|
| REF | QTY | PART NO. | DESCRIPTION         |
|     |     | 398938   | Contact Pad Group ● |
| 1   | 1   | 206672   | Short Arm           |
| 2   | 2   | 674994   | Link                |
| 3   | 2   | 682978   | Clevis Pin          |
| 4   | 2   | 6525     | Cotter Pin          |
| 5   | 2   | 674993   | Pin                 |
| 6   | 1   | 338707   | Contact Pad         |
| 7   | 2   | 689900   | Plug                |
| 8   | 1   | 676810   | Arm Tip Repair Kit  |

● Includes items 2 through 7 only.

# Contact Pad and Long Arm



| 77F |     |          |                     |
|-----|-----|----------|---------------------|
| REF | QTY | PART NO. | DESCRIPTION         |
|     |     | 398938   | Contact Pad Group ● |
| 1   | 1   | 206673   | Long Arm            |
| 2   | 2   | 674994   | Link                |
| 3   | 2   | 682978   | Clevis Pin          |
| 4   | 2   | 6525     | Cotter Pin          |
| 5   | 2   | 674993   | Pin                 |
| 6   | 1   | 338707   | Contact Pad         |
| 7   | 2   | 689900   | Plug                |
| 8   | 1   | 676810   | Arm Tip Repair Kit  |

● Includes items 2 through 7 only.

# 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.

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