

# CARCO<sup>®</sup>

## WINCH PARTS MANUAL

### MODEL 30B PS

**NOTE:** This manual covers all common winch parts only. For all other parts, refer to the installation and parts manual for your specific tractor. Because this manual covers several winch configurations, not all parts shown will apply to your winch. Care should be taken to properly identify parts before replacements are ordered.

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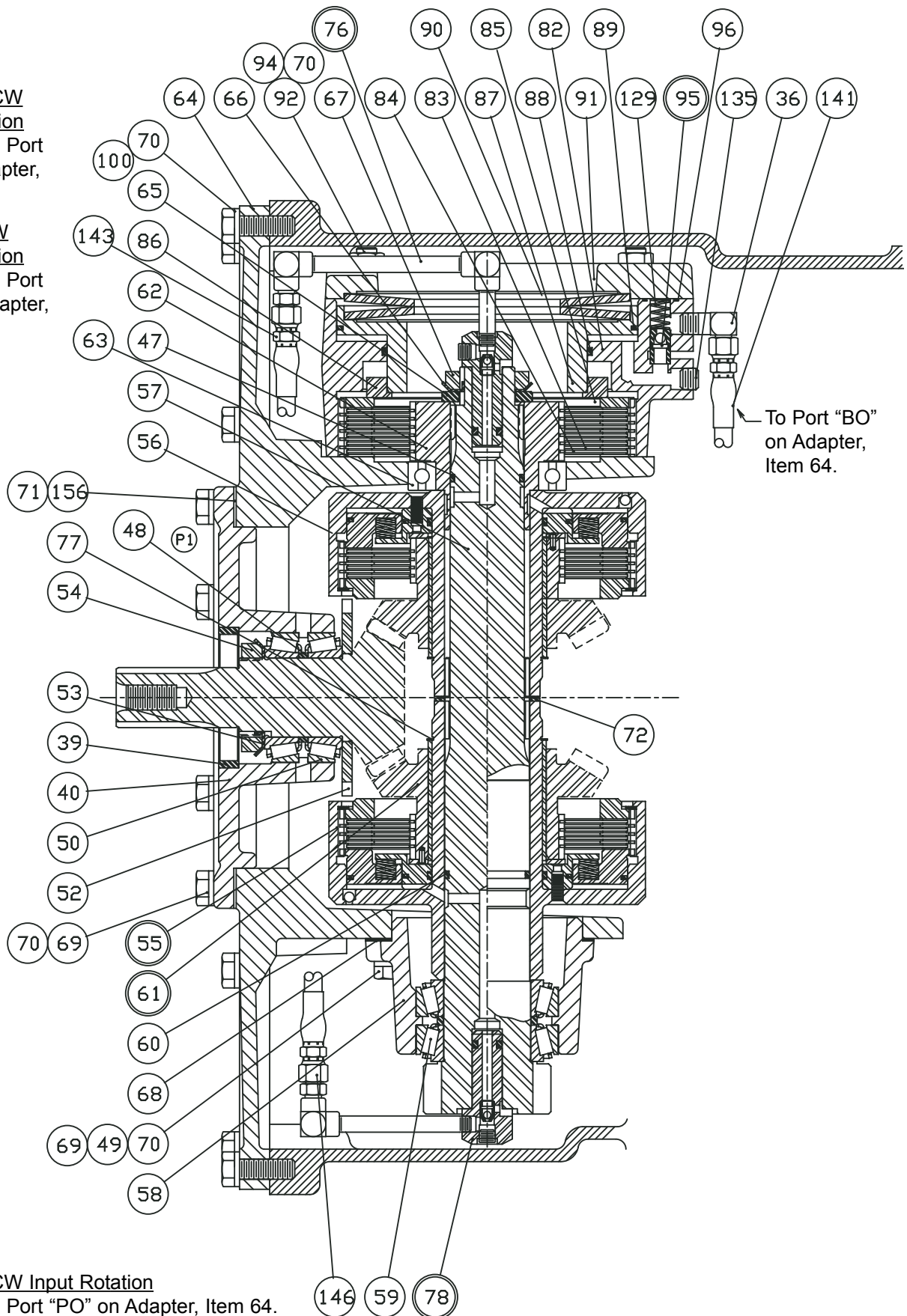
### MODEL NUMBER DESCRIPTION

| 30B-PS            | C                                                    | 0          | 0                      | 0                                             | 0                                                                                       | 0                                             |
|-------------------|------------------------------------------------------|------------|------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------|
| Basic Winch Model | Bevel Gear Ratio<br>C-1.64:1<br>D-2.11:1<br>E-2.79:1 | 0-OVERWIND | 0-HAUL-IN<br>1-PAY-OUT | 0-WITHOUT TOWING HITCH<br>1-WITH TOWING HITCH | 0-FOUR SHAFT WINCH<br>(31.047 base ratio)<br>1-THREE SHAFT WINCH<br>(17.249 base ratio) | 0-NO FAIRLEAD<br>3 - 3 ROLLER<br>4 - 4 ROLLER |

# ADAPTER ASSEMBLY (3-SHAFT STANDARD SPEED) - PRIOR TO S.N. 0200234

3-Shaft, CCW  
Input Rotation  
Item 143 to Port  
"HI" on Adapter,  
Item 64.

3-Shaft, CW  
Input Rotation  
Item 143 to Port  
"PO" on Adapter,  
Item 64.



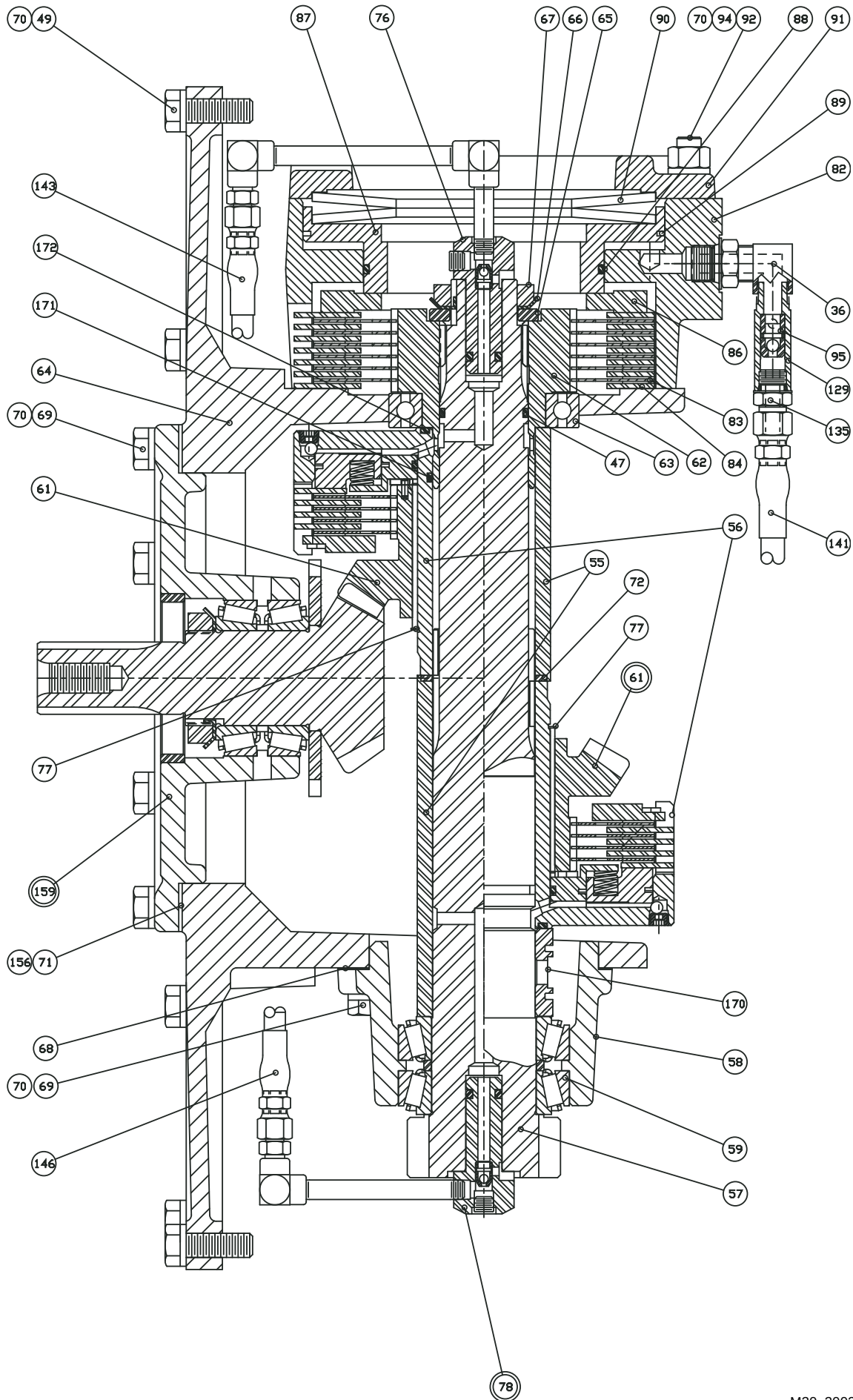
3-Shaft, CCW Input Rotation  
Item 146 to Port "PO" on Adapter, Item 64.

3-Shaft, CW Input Rotation  
Item 146 to Port "HI" on Adapter, Item 64.

# ADAPTER ASSEMBLY (3-SHAFT STANDARD SPEED) - PRIOR TO S.N. 0200234

| ITEM NO. | PART NO. | DESCRIPTION                                                                                                                          | QTY. |
|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------|------|
| 36       | 31342    | ELBOW, 90°                                                                                                                           | 1    |
| 39       | 27882    | PILOT RING                                                                                                                           | 1    |
| 40       | 27881    | PTO CARRIER                                                                                                                          | 1    |
| 47       | 13838    | O-RING                                                                                                                               | 1    |
| 49       | 13413    | CAPSCREW (1/2 NC X 1-1/2, HEX, G5)                                                                                                   | 12   |
| 50       | 27983    | BEARING SPACER                                                                                                                       | 1    |
|          | 30952    | BEARING CUP                                                                                                                          | 2    |
|          | 30953    | BEARING CONE                                                                                                                         | 2    |
| 51       | 26156    | BEVEL PINION (STD SPEED, C RATIO) 22T                                                                                                | 1    |
|          | 26158    | BEVEL PINION (D RATIO) 18T                                                                                                           | 1    |
|          | 26160    | BEVEL PINION (SLOW SPEED, E RATIO) 14T                                                                                               | 1    |
| 52       | 69947    | PUMP PINION                                                                                                                          | 1    |
| 53       | 26220    | BEARING LOCKWASHER                                                                                                                   | 1    |
| 54       | 22366    | BEARING LOCKNUT                                                                                                                      | 1    |
| 55       | 81778    | CLUTCH ASSEMBLY (PAYOUT) (FOR WINCHES WITH PAYOUT) ( SEE PAGE 8)                                                                     | 1    |
|          | 26061    | SPACER (FOR WINCHES WITH HAUL-IN CLUTCH ONLY)                                                                                        | 1    |
| 56       | 81779    | CLUTCH ASSEMBLY (HAUL-IN) (SEE PAGE 8)                                                                                               | 1    |
| 57       | 27894    | CLUTCH SHAFT                                                                                                                         | 1    |
| 58       | 27544    | CLUTCH CARRIER                                                                                                                       | 1    |
| 59       | 70080    | BEARING CUP                                                                                                                          | 2    |
|          | 70081    | BEARING CONE                                                                                                                         | 2    |
|          | 27626    | SPACER                                                                                                                               | 1    |
| 60       | 72101    | O-RING                                                                                                                               | 1    |
| 61       | 81783    | BEVEL GEAR (STD SPEED, C RATIO ) 36T                                                                                                 | *    |
|          | 81780    | BEVEL GEAR (D RATIO) 38T*                                                                                                            | *    |
|          | 81782    | BEVEL GEAR (SLOW SPEED, E RATIO) 39T                                                                                                 | *    |
|          | * NOTE:  | For items 61, 61A, 61B and 77 - 2 each required for Payout equipped winches.<br>For Haul-In winches - 1 each on brake side of shaft. |      |
| 61A      | 75297    | PIN (SUPPLIED WITH ITEM 61)                                                                                                          | *    |
| 61B      | 26118    | BUSHING (SUPPLIED WITH ITEM 61)                                                                                                      | *    |
| 62       | 27897    | BRAKE HUB                                                                                                                            | 1    |
| 63       | 26122    | BEARING                                                                                                                              | 1    |
| 64       | 26049    | ADAPTER                                                                                                                              | 1    |
| 65       | 27899    | WASHER                                                                                                                               | 1    |
| 66       | 26219    | BEARING LOCKWASHER                                                                                                                   | 1    |
| 67       | 31073    | BEARING NUT                                                                                                                          | 1    |
| 68       | 26173    | CLUTCH CARRIER SHIM SET                                                                                                              | 1    |
| 69       | 13938    | CAPSCREW (1/2 NC X 1-1/4, HEX, G5)                                                                                                   | 10   |
| 70       | 11026    | LOCKWASHER (1/2)                                                                                                                     | 22   |
| 71       | 26172    | PTO CARRIER SHIM SET                                                                                                                 | 1    |
| 72       | 26168    | SPACER / SHIM SET                                                                                                                    | 1    |
| 74       | 10318    | DOWEL PIN (NOT SHOWN)                                                                                                                | 1    |
| 76       | 82059    | TUBE ASSEMBLY (SEE PAGE 15)                                                                                                          | 1    |
| 77       | 26596    | SNAP RING                                                                                                                            | 1    |
| 78       | 81824    | TUBE ASSEMBLY - PAYOUT ONLY (SEE PAGE 15)                                                                                            | 1    |
| 82       | 26052    | BRAKE HOUSING                                                                                                                        | 1    |
| 83       | 70636    | FRICTION DISC                                                                                                                        | 6    |
| 84       | 69699    | WAVED DISC                                                                                                                           | 6    |
| 85       | 70293    | PRESSURE PLATE                                                                                                                       | 1    |
| 86       | 26059    | BRAKE SPACER                                                                                                                         | 1    |
| 87       | 26054    | BRAKE PISTON                                                                                                                         | 1    |
| 88       | 10330    | O-RING                                                                                                                               | 1    |
| 89       | 26102    | LATHE CUT RING                                                                                                                       | 1    |
| 90       | 70255    | BRAKE SPRING                                                                                                                         | 2    |
| 91       | 26053    | COVER, BRAKE HOUSING                                                                                                                 | 1    |
| 92       | 26167    | STUD                                                                                                                                 | 4    |
| 94       | 26145    | NUT, HEX (1/2 NC, G8)                                                                                                                | 4    |
| 95       | 81765    | SPOOL ASSEMBLY                                                                                                                       | 1    |
| 96       | 22454    | O-RING                                                                                                                               | 1    |
| 97       | 26667    | DOWEL PIN (NOT SHOWN)                                                                                                                | 2    |
| 98       | 78468    | CAPSCREW (3/4 NC X 1-1/2, HEX, G5)                                                                                                   | 6    |
| 99       | 13435    | LOCKWASHER (3/4)                                                                                                                     | 6    |
| 129      | 26329    | SPRING                                                                                                                               | 1    |
| 135      | 70120    | PLUG                                                                                                                                 | 1    |
| 141      | 26414    | HOSE ASSEMBLY                                                                                                                        | 1    |
| 143      | 26414    | HOSE ASSEMBLY                                                                                                                        | 1    |
| 146      | 26415    | HOSE ASSEMBLY (PAYOUT ONLY)                                                                                                          | 1    |
| 156      | 26341    | PTO CARRIER GASKET                                                                                                                   | 1    |

# ADAPTER ASSEMBLY (3-SHAFT STANDARD SPEED) - BEGINNING WITH S.N. 0200234

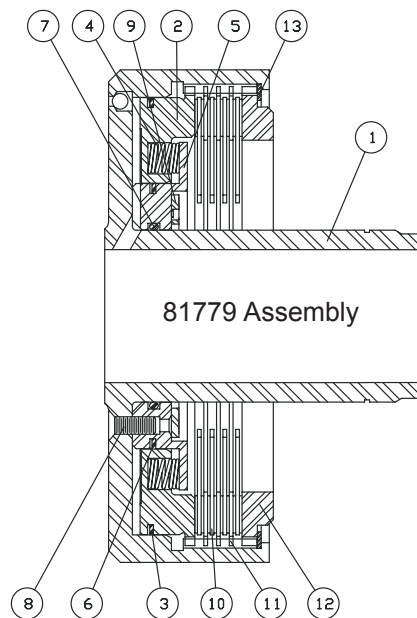
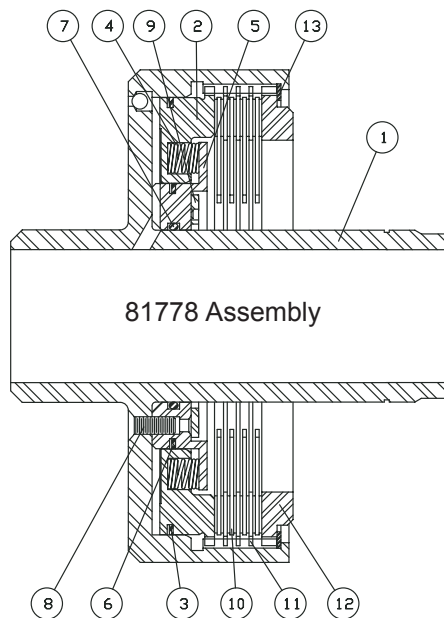


# ADAPTER ASSEMBLY (3-SHAFT STANDARD SPEED) - BEGINNING WITH S.N. 0200234

| ITEM NO. | PART NO. | DESCRIPTION                                                  | QTY     |         |
|----------|----------|--------------------------------------------------------------|---------|---------|
|          |          |                                                              | HAUL-IN | PAY-OUT |
| 36       | 70186    | ELBOW, 90°                                                   | 1       | 1       |
| 39       | 27882    | PILOT RING                                                   | 1       | 1       |
| 40       | 27881    | PTO CARRIER                                                  | 1       | 1       |
| 47       | 13838    | O-RING                                                       | 1       | 1       |
| 49       | 104322   | CAPSCREW (1/2 - 13 X 1-1/2 G8 HEX HD)                        | 12      | 12      |
| 50       | 30953    | BEARING CONE                                                 | 2       | 2       |
|          | 30952    | BEARING CUP                                                  | 2       | 2       |
|          | 27893    | CONE SPACER                                                  | 1       | 1       |
| 51       | 26156    | BEVEL PINION (C RATIO) - 22T                                 | 1       | 1       |
|          | 26160    | BEVEL PINION (E RATIO) - 14T                                 | 1       | 1       |
| 52       | 69947    | PUMP PINION                                                  | 1       | 1       |
| 53       | 26220    | BEARING LOCKWASHER                                           | 1       | 1       |
| 54       | 22366    | BEARING LOCKNUT                                              | 1       | 1       |
| 55       | 26060    | SPACER (USED ON UNITS WITH HAUL-IN ONLY - GEAR SIDE CLUTCH)  | 1       | --      |
|          | 26061    | SPACER (USED ON UNITS WITH HAUL-IN ONLY - BRAKE SIDE CLUTCH) | 1       | --      |
| 56       | 82958    | CLUTCH ASSY (BEGINNING WITH WINCH S/N 0200234)               | 1       | 2       |
|          | 81778    | CLUTCH ASSEMBLY - GEAR SIDE (PRIOR TO WINCH S/N 0200234)     | 1 A/R   | 1       |
|          | 81779    | CLUTCH ASSEMBLY - BRAKE SIDE (PRIOR TO WINCH S/N 0200234)    | 1 A/R   | 1       |
| 57       | 27894    | CLUTCH SHAFT (3-SHAFT WINCHES)                               | 1       | 1       |
|          | 27895    | CLUTCH SHAFT (4-SHAFT WINCHES)                               | 1       | 1       |
| 58       | 61739    | CLUTCH CARRIER (3-SHAFT WINCHES)                             | 1       | 1       |
|          | 27544    | CLUSTER GEAR ASSEMBLY (4-SHAFT WINCHES - SEE PAGE XX)        | 1       | 1       |
| 59       | 70080    | BEARING CUP                                                  | 2       | 2       |
|          | 70081    | BEARING CONE                                                 | 2       | 2       |
|          | 27626    | CONE SPACER                                                  | 1       | 1       |
| 60       | 72101    | O-RING (USED WITH OLDER STYLE CLUTCH ASSEMBLIES ONLY)        | 1       | 2       |
| 61       | 81783    | BEVEL GEAR ASSEMBLY (C RATIO) - 36T                          | 1       | 2       |
|          | 81782    | BEVEL GEAR ASSEMBLY (E RATIO) - 39T                          | 1       | 2       |
| 61A      | 75297    | PIN (SUPPLIED WITH ITEM 61)                                  | 1       | 2       |
| 61B      | 26118    | BUSHING (SUPPLIED WITH ITEM 61)                              | 1       | 2       |
| 62       | 103829   | BRAKE HUB                                                    | 1       | 1       |
| 63       | 26122    | BALL BEARING                                                 | 1       | 1       |
| 64       | 26048    | ADAPTER                                                      | 1       | 1       |
| 65       | 27899    | WASHER                                                       | 1       | 1       |
| 66       | 26219    | BEARING LOCKWASHER                                           | 1       | 1       |
| 67       | 31073    | BEARING LOCKNUT                                              | 1       | 1       |
| 68       | 26173    | CLUTCH CARRIER SHIM SET                                      | 1       | 1       |
| 69       | 104174   | CAPSCREW (1/2 - 13 X 1-1/4 G8 HEX HD)                        | 10      | 10      |
| 70       | 11026    | LOCKWASHER (1/2)                                             | 26      | 26      |
| 71       | 26172    | PTO CARRIER SHIM SET                                         | 1       | 1       |
| 72       | 26168    | SPACER SHIM SET                                              | --      | 1       |
| 76       | --       | TUBE ASSEMBLY (SEE PAGE XX)                                  | 1       | 1       |
| 77       | 26596    | SNAP RING                                                    | 2       | 2       |
| 78       | --       | TUBE ASSEMBLY (SEE PAGE XX)                                  | --      | 1       |
| 82       | 102960   | BRAKE HOUSING (BEGINNING WITH WINCH S/N 0200234)             | 1       | 1       |
|          | 26052    | BRAKE HOUSING (PRIOR TO WINCH S/N 0200234)                   | 1       | 1       |
| 83       | 101378   | FRICTION DISC (BEGINNING WITH WINCH S/N 0200234)             | 6       | 6       |
|          | 70636    | FRICTION DISC (PRIOR TO WINCH S/N 0200234)                   | 6       | 6       |
| 84       | 101377   | BRAKE PLATE (BEGINNING WITH WINCH S/N 0200234)               | 7       | 7       |
|          | 69699    | WAVED DISC (PRIOR TO WINCH S/N 0200234)                      | 6       | 6       |
| 85       | 70293    | PRESSURE PLATE (PRIOR TO WINCH S/N 0200234)                  | 1       | 1       |
| 86       | 103658   | BRAKE SPACER (BEGINNING WITH WINCH S/N 0200234)              | 1       | 1       |
|          | 26059    | BRAKE SPACER (PRIOR TO WINCH S/N 0200234)                    | 1       | 1       |
| 87       | 103659   | BRAKE RELEASE PISTON (BEGINNING WITH WINCH S/N 0200234)      | 1       | 1       |
|          | 26054    | BRAKE RELEASE PISTON (PRIOR TO WINCH S/N 0200234)            | 1       | 1       |
| 88       | 31579    | O-RING (BEGINNING WITH WINCH S/N 0200234)                    | 1       | 1       |
|          | 10330    | O-RING (PRIOR TO WINCH S/N 0200234)                          | 1       | 1       |
| 89       | 26102    | LATHE CUT RING                                               | 1       | 1       |
| 90       | 70255    | BRAKE SPRING                                                 | 2       | 2       |
| 91       | 102959   | BRAKE HOUSING COVER (BEGINNING WITH WINCH S/N 0200234)       | 1       | 1       |
|          | 26053    | BRAKE HOUSING COVER (PRIOR TO WINCH S/N 0200234)             | 1       | 1       |
| 92       | 26167    | STUD                                                         | 4       | 4       |
| 94       | 26145    | HEX NUT (1/2 - 13)                                           | 4       | 4       |
| 95       | 81765    | SPOOL ASSEMBLY, BRAKE DUMP                                   | 1       | 1       |
| 97       | 26667    | DOWELL (NOT SHOWN)                                           | 2       | 2       |
| 98       | 102008   | CAPSCREW (3/4 - 10 X 1-1/2 G8 HEX HD)                        | 6       | 6       |
| 99       | 13435    | LOCKWASHER (3/4)                                             | 6       | 6       |
| 129      | 103958   | DUMP VALVE BODY (BEGINNING WITH WINCH S/N 0200234)           | 1       | 1       |
|          | 26329    | SPRING (PRIOR TO WINCH S/N 0200234)                          | 1       | 1       |
| 135      | 75069    | CONNECTOR (BEGINNING WITH WINCH S/N 0200234)                 | 1       | 1       |
|          | 70120    | PLUG (PRIOR TO WINCH S/N 0200234)                            | 1       | 1       |
| 141      | 26414    | HOSE ASSEMBLY                                                | 1       | 1       |
| 143      | 26415    | HOSE ASSEMBLY                                                | 1       | 1       |
| 146      | 26414    | HOSE ASSEMBLY                                                | --      | 1       |
| 156      | 26341    | PTO CARRIER GASKET                                           | 1       | 1       |
| 170 *    | 103687   | SLEEVE (BEGINNING WITH WINCH S/N 0200234)                    | 1 *     | 1       |
| 171      | 22574    | O-RING                                                       | 1       | 2       |
| 172      | 26722    | O-RING                                                       | 1       | 2       |

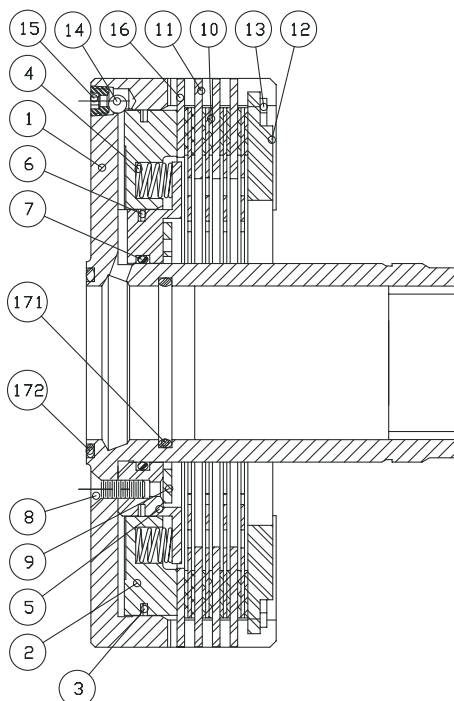
\* - ITEM 170 REQUIRED ONLY WHEN CLUTCH IS ASSEMBLED ON GEAR SIDE OF WINCH

## CLUTCH ASSEMBLIES (3-SHAFT STANDARD SPEED) - PRIOR TO S.N. 0200234



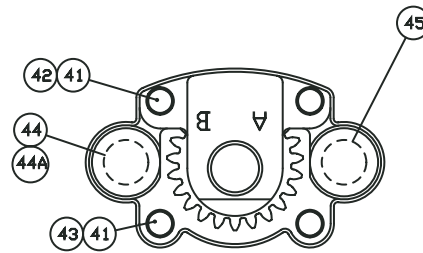
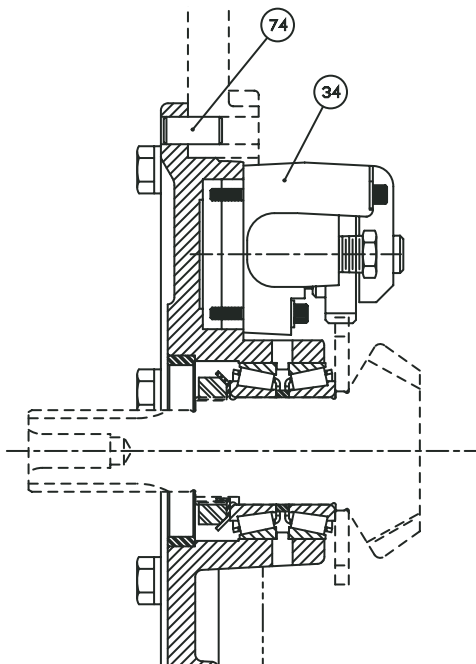
| ITEM NO. | PART NO | DESCRIPTION                                        | QTY. |
|----------|---------|----------------------------------------------------|------|
| 1        | 26062   | CLUTCH HOUSING (81778 ASSEMBLY)                    | 1    |
|          | 26063   | CLUTCH HOUSING (81779 ASSEMBLY)                    | 1    |
| 2        | 26065   | CLUTCH PISTON                                      | 1    |
| 3        | 26103   | LATHE CUT RING                                     | 1    |
| 4        | 26137   | SPRING                                             | 8    |
| 5        | 26554   | CLUTCH PILOT                                       | 1    |
| 6        | 26104   | LATHE CUT RING                                     | 1    |
| 7        | 72103   | O-RING                                             | 1    |
| 8        | 21333   | CAPSCREW (1/4 - 20 X 3/4, GD8, HEX SOCKET FLAT HD) | 3    |
| 9        | 26117   | THRUST WASHER                                      | 1    |
| 10       | 70636   | FRICTION DISC                                      | 4    |
| 11       | 69699   | WAVED DISC                                         | 3    |
| 12       | 26755   | PRESSURE PLATE                                     | 1    |
| 13       | 26147   | RETAINING RING                                     | 1    |

## CLUTCH ASSEMBLY (3-SHAFT STANDARD SPEED) - BEGINNING WITH S.N. 0200234

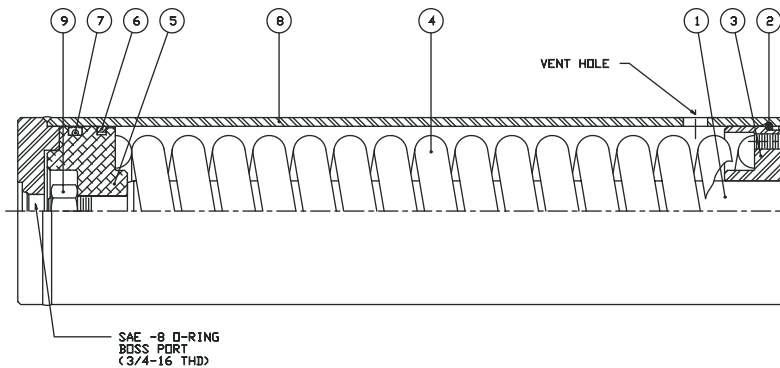


| ITEM NO. | PART NO | DESCRIPTION                                       | QTY. |
|----------|---------|---------------------------------------------------|------|
| 1        | 102958  | CLUTCH HOUSING                                    | 1    |
| 2        | 103415  | CLUTCH PISTON                                     | 1    |
| 3        | 26103   | LATHE CUT RING                                    | 1    |
| 4        | 26137   | SPRING                                            | 8    |
| 5        | 26554   | CLUTCH PILOT                                      | 1    |
| 6        | 26104   | LATHE CUT RING                                    | 1    |
| 7        | 72103   | O-RING                                            | 1    |
| 8        | 21333   | CAPSCREW (1/4 - 20 X 3/4, GD8 HEX SOCKET FLAT HD) | 3    |
| 9        | 26117   | THRUST WASHER                                     | 1    |
| 10       | 101378  | FRICTION DISC                                     | 4    |
| 11       | 101377  | BRAKE PLATE                                       | 3    |
| 12       | 103109  | CLUTCH RETAINER PLATE                             | 1    |
| 13       | 103111  | RETAINING RING                                    | 1    |
| 14       | 70126   | STEEL BALL                                        | 1    |
| 15       | 70241   | VALVE SEAT                                        | 1    |
| 16       | 103427  | SEPARATOR PLATE                                   | 1    |
| 171      | 22574   | O-RING                                            | 1    |
| 172      | 26722   | O-RING                                            | 1    |

## PUMP AND ACCUMULATOR



| ITEM NO. | PART NO | DESCRIPTION                                     | QTY. |
|----------|---------|-------------------------------------------------|------|
| 34       | 68772   | PUMP                                            | 1    |
| 41       | 11015   | LOCKWASHER (1/4)                                | 4    |
| 42       | 25866   | CAPSCREW (1/4 - 20 X 3, GD8, HEX SOCKET HD)     | 2    |
| 43       | 75231   | CAPSCREW (1/4 - 20 X 1-1/2, GD8, HEX SOCKET HD) | 2    |
| 44       | 26240   | MALE CONNECTOR                                  | 1    |
| 44A      | 72098   | O-RING                                          | 1    |
| 45       | 26403   | ELBOW, 45°                                      | 1    |
| 74       | 10318   | DOWEL PIN                                       | 1    |



### ⚠ WARNING ⚠

#### 2,000 LB (900 Kg) SPRING PRELOAD

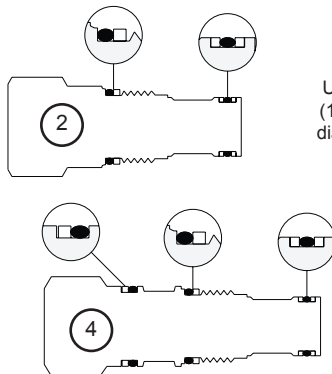
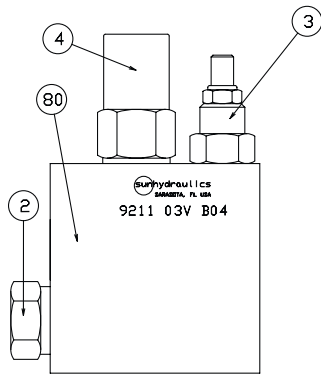
**USE PRESS FOR DISASSEMBLY PER SERVICE INSTRUCTIONS IN SERVICE BULLETIN 95. PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH MAY RESULT IF ROD GUIDE REMOVAL IS ATTEMPTED WITHOUT A PRESS.**

| ITEM NO. | PART NO | DESCRIPTION                        | QTY. |
|----------|---------|------------------------------------|------|
| --       | 81959   | ACCUMULATOR ASSEMBLY               | 1    |
| 1        | NSS     | ROD                                | 1    |
| 2        | 27836   | RETAINING RING                     | 1    |
| 3        | NSS     | ROD GUIDE                          | 1    |
| 4        | NSS     | SPRING                             | 1    |
| 5        | NSS     | PISTON                             | 1    |
| 6        | 27833   | CAST IRON PISTON RING              | 1    |
| 7        | 27832   | SEAL ASSEMBLY                      | 1    |
| 8        | NSS     | TUBE ASSEMBLY                      | 1    |
| 9        | NSS     | NUT                                | 1    |
| --       | 62131   | SEAL KIT (CONTAINS ITEMS 2, 6 & 7) | --   |

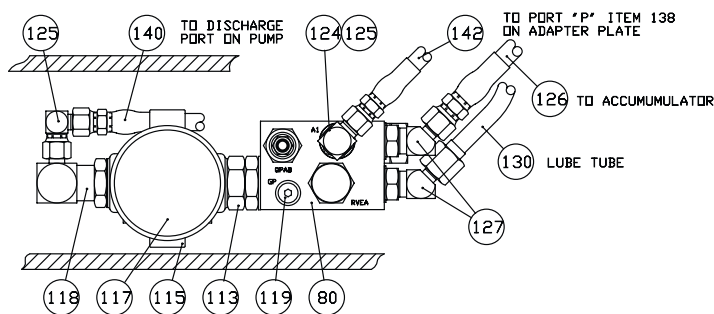
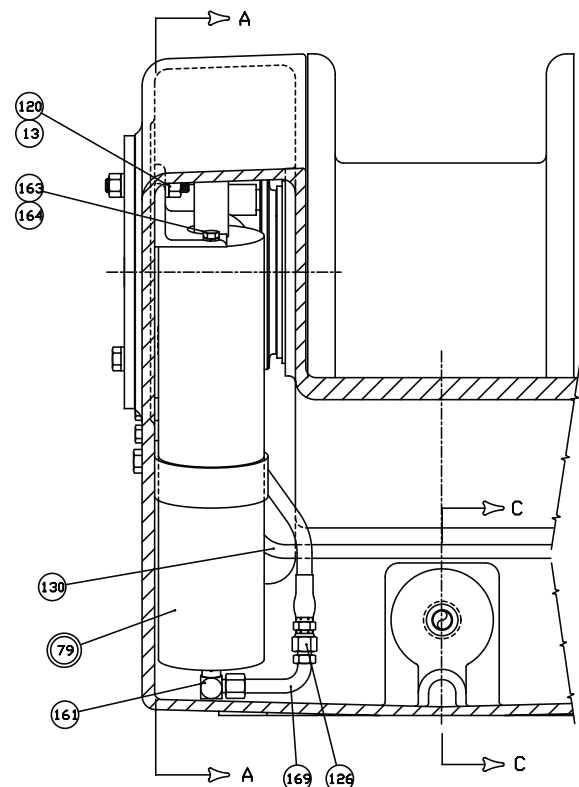
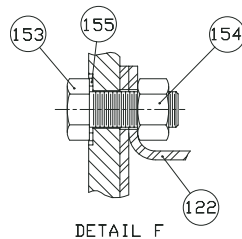
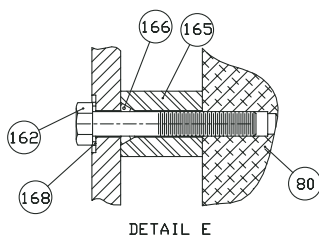
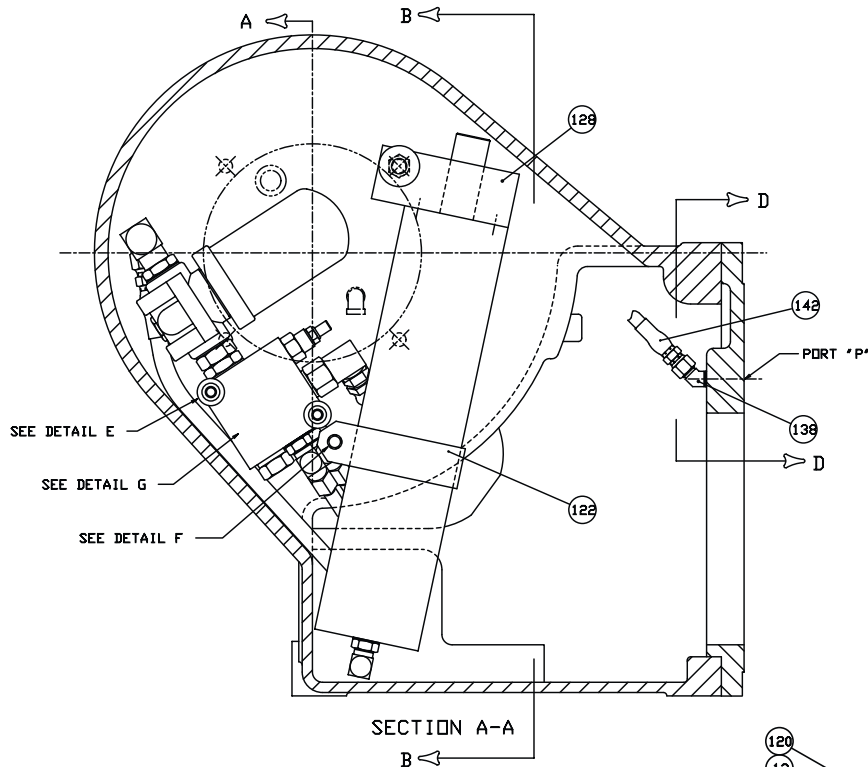
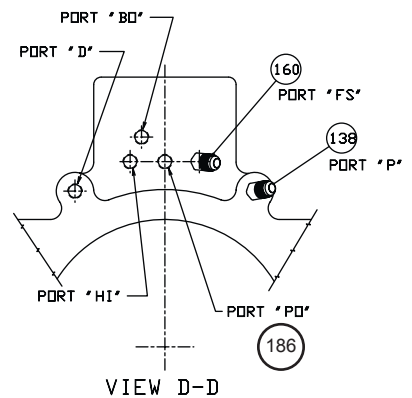
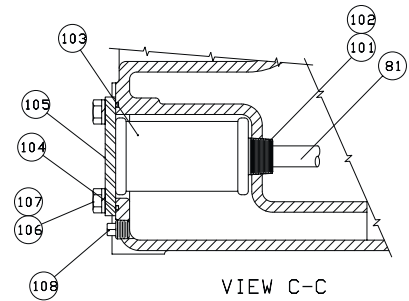
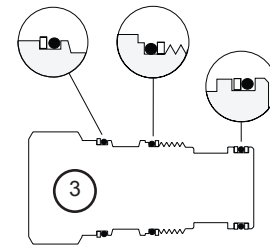
NSS - NOT SOLD SEPARATELY



# HYDRAULIC GROUP



**NOTE!**  
Use only 1/16 in.  
(1.6 mm) nominal  
diameter O-Rings.



DETAIL G

SECTION B-B



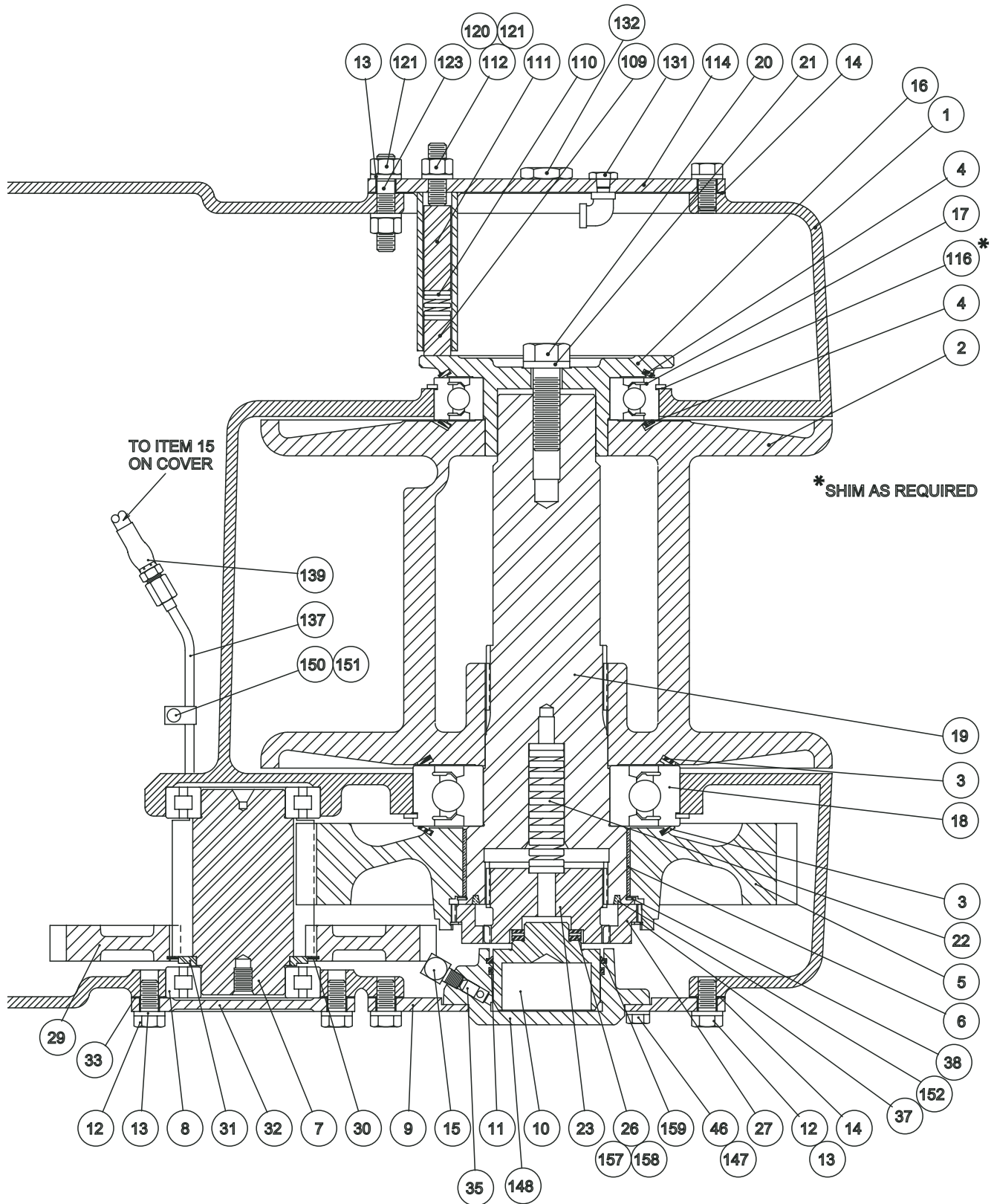
## HYDRAULIC GROUP

| ITEM NO. | PART NO. | DESCRIPTION              | QTY |
|----------|----------|--------------------------|-----|
| 80       | 29646    | UNLOADING VALVE ASSEMBLY | 1   |
| 2        | 40165    | CHECK VALVE              | 1   |
|          | 29873    | SEAL KIT *               | 1   |
| 3        | 40166    | UNLOADING VALVE          | 1   |
|          | 29874    | SEAL KIT *               | 1   |
| 4        | 40167    | RELIEF VALVE             | 1   |
|          | 29872    | SEAL KIT *               | 1   |

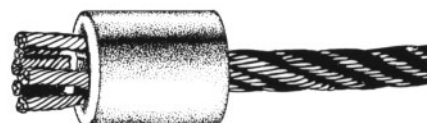
**\*NOTE:** Seal Kits contain 2 sets of o-rings and back-up rings. Be sure to use the 1/16" (1.6 mm) thick o-rings and back-up rings.

| ITEM NO. | PART NO. | DESCRIPTION                                       | QTY |
|----------|----------|---------------------------------------------------|-----|
| 79       | 81959    | ACCUMULATOR ASSEMBLY (REFER TO PREVIOUS PAGE)     | 1   |
| 80       | 29646    | UNLOADING VALVE ASSEMBLY                          | 1   |
| 81       | 26232    | SUCTION TUBE (LOW PTO)                            | 1   |
|          | 26231    | SUCTION TUBE (HIGH PTO)                           | 1   |
| 101      | 26164    | NIPPLE                                            | 1   |
| 102      | 24429    | O-RING                                            | 1   |
| 103      | 70189    | SUCTION STRAINER                                  | 1   |
| 104      | 21283    | O-RING                                            | 1   |
| 105      | 26174    | STRAINER COVER                                    | 1   |
| 106      | 22697    | CAPSCREW (1/2 NC X 1 IN. HEX HD G5)               | 4   |
| 107      | 11026    | LOCKWASHER (1/2)                                  | 4   |
| 108      | 23095    | PLUG                                              | 2   |
| 113      | 29650    | UNION                                             | 1   |
| 115      | 29644    | FILTER HEAD                                       | 1   |
| 117      | 29645    | FILTER                                            | 1   |
| 118      | 29647    | ELBOW 90°                                         | 1   |
| 119      | 69325    | PLUG                                              | 1   |
| 120      | 23583    | JAM NUT (1/2 NC)                                  | 2   |
| 122      | 29649    | ACCUMULATOR BRACKET                               | 1   |
| 124      | 26891    | ADAPTER                                           | 1   |
| 125      | 31426    | UNION, 90°                                        | 2   |
| 126      | 29823    | HOSE ASSEMBLY                                     | 1   |
| 127      | 69605    | ELBOW, 45°                                        | 2   |
| 128      | 28809    | ACCUMULATOR MOUNTING ANGLE                        | 1   |
| 130      | 29651    | LUBE TUBE                                         | 1   |
| 138      | 31334    | ELBOW, 45°                                        | 1   |
| 140      | 29648    | HOSE ASSEMBLY                                     | 1   |
| 142      | 29657    | HOSE ASSEMBLY                                     | 1   |
| 153      | 13968    | CAPSCREW (1/2 NC X 1-1/4, HEX HD G5)              | 1   |
| 155      | 72144    | SEAL WASHER                                       | 1   |
| 160      | 31333    | ELBOW, 45°                                        | 1   |
| 161      | 70109    | ELBOW, 90°                                        | 1   |
| 162      | 11778    | CAPSCREW (3/8 NC X 2-1/2, HEX HD G8)              | 2   |
| 163      | 11766    | CAPSCREW (5/16 NC X 7/8, HEX HD G5)               | 2   |
| 164      | 11024    | LOCKWASHER (5/16)                                 | 2   |
| 165      | 29652    | STANDOFF SPACER                                   | 2   |
| 166      | 25958    | O-RING                                            | 2   |
| 168      | 72142    | SEAL WASHER                                       | 2   |
| 169      | 29817    | ELBOW, 90°                                        | 1   |
| 186      | 70120    | PLUG (USED IN WINCHES EQUIPPED WITH HAUL-IN ONLY) | 1   |

# DRUM GROUP



| ITEM  | DESCRIPTION               |
|-------|---------------------------|
| 29422 | FERRULE - 5/8 in. (16 mm) |
| 29423 | FERRULE - 3/4 in. (19 mm) |

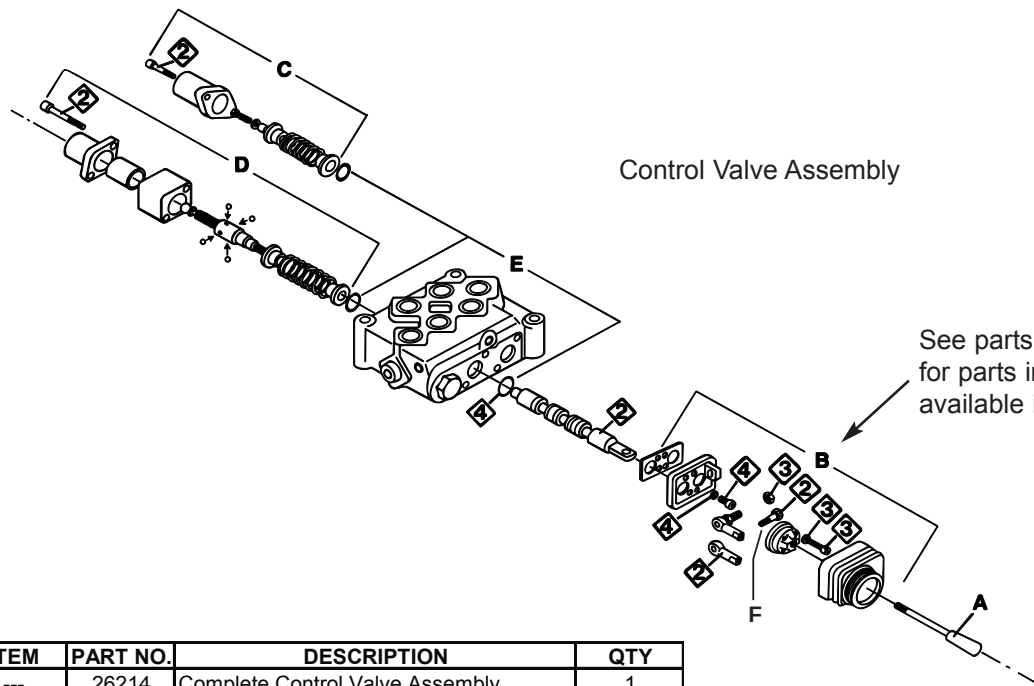


USE WITH 6 STRAND, IWRC WIRE ROPE ONLY

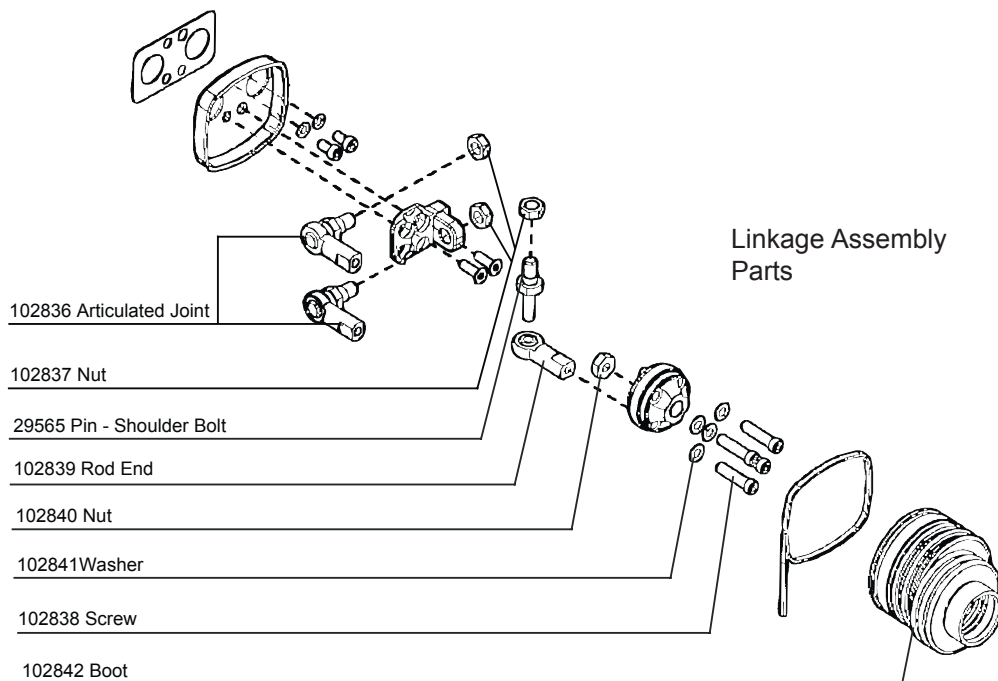
## DRUM GROUP

| ITEM NO. | PART NO | DESCRIPTION                                                                      | QTY. |
|----------|---------|----------------------------------------------------------------------------------|------|
| 1        | 27546   | WINCH HOUSING                                                                    | 1    |
| 2        | 27520   | CABLE DRUM                                                                       | 1    |
| 3        | 26100   | LATHE CUT RING                                                                   | 2    |
| 4        | 26101   | LATHE CUT RING                                                                   | 2    |
| 5        | 27383   | BULL GEAR                                                                        | 1    |
| 6        | 27400   | BUSHING                                                                          | 1    |
| 7        | 26779   | INTERMEDIATE GEAR                                                                | 1    |
| 8        | 26116   | ROLLER BEARING                                                                   | 2    |
| 9        | 27379   | COVER PLATE - GEAR SIDE                                                          | 1    |
| 10       | 27378   | FREESPOOL PISTON                                                                 | 1    |
| 11       | 69858   | O-RING                                                                           | 1    |
| 12       | 22697   | CAPSCREW $\frac{1}{2}$ - 13 X 1, HEX HD)                                         | 11   |
| 13       | 11073   | LOCKWASHER ( $\frac{1}{2}$ )                                                     | 13   |
| 14       | 26171   | COVER GASKET                                                                     | 2    |
| 15       | 21163   | ELBOW, 90°                                                                       | 1    |
| 16       | 27755   | DRAG BRAKE SPINDLE ADAPTER                                                       | 1    |
| 17       | 26115   | BALL BEARING W/ SNAP RING                                                        | 1    |
| 18       | 26114   | BALL BEARING W/ SNAP RING                                                        | 1    |
| 19       | 26077   | DRUM SHAFT                                                                       | 1    |
| 20       | 78453   | CAPSCREW $\frac{1}{4}$ - 10 X 2 $\frac{1}{2}$ , GD8, HEX HD)                     | 1    |
| 21       | 13435   | LOCKWASHER ( $\frac{1}{4}$ )                                                     | 1    |
| 22       | 27387   | FREESPOOL SPRING                                                                 | 1    |
| 23       | 27715   | SPOOL GEAR                                                                       | 1    |
| 26       | 24305   | BEARING                                                                          | 1    |
| 27       | 27406   | COLLAR GEAR                                                                      | 1    |
| 29       | 26777   | REDUCTION GEAR                                                                   | 1    |
| 30       | 26775   | SNAP RING                                                                        | 1    |
| 31       | 26776   | SPACER                                                                           | 1    |
| 32       | 26109   | COVER PLATE                                                                      | 1    |
| 33       | 26170   | COVER GASKET                                                                     | 1    |
| 35       | 81913   | DUMP VALVE SPOOL                                                                 | 1    |
| 37       | 27391   | RETAINING RING                                                                   | 1    |
| 38       | 27401   | THRUST WASHER                                                                    | 1    |
| 46       | 104135  | CAPSCREW $\frac{3}{8}$ - 10 X $\frac{3}{4}$ , GD 8, HEX HD)                      | 3    |
| 109      | 27321   | DRAG BRAKE DISC                                                                  | 1    |
| 110      | 26139   | SPRING                                                                           | 1    |
| 111      | 26162   | SPACER BAR                                                                       | 1    |
| 112      | 26151   | SET SCREW                                                                        | 1    |
| 114      | 29660   | BRAKE SIDE COVER                                                                 | 1    |
| 116      | 27476   | BRAKE BEARING SHIM                                                               | A/R  |
| 120      | 25829   | SEAL WASHER(USE $\frac{1}{2}$ in. WASHER BETWEEN NUT, ITEM 121, AND SEAL WASHER) | 1    |
| 121      | 11788   | HEX NUT ( $\frac{1}{2}$ - 13)                                                    | 3    |
| 123      | 28805   | STUD                                                                             | 1    |
| 131      | 69777   | BREATHER                                                                         | 1    |
| 132      | 70118   | FILL PLUG                                                                        | 1    |
| 137      | 27326   | FREESPOOL TUBE                                                                   | 1    |
| 139      | 26412   | HOSE ASSEMBLY (-4 X 15.25 in.)                                                   | 1    |
| 147      | 72142   | SEAL WASHER                                                                      | 3    |
| 148      | 27561   | FREESPOOL CYLINDER                                                               | 1    |
| 150      | 30990   | HOSE CLAMP                                                                       | 1    |
| 151      | 31218   | SCREW                                                                            | 1    |
| 152      | 27550   | FELT SEAL                                                                        | 1    |
| 157      | 24306   | THRUST WASHER                                                                    | 1    |
| 158      | 73294   | THRUST RACE                                                                      | 1    |
| 159      | 27420   | ROD WIPER                                                                        | 1    |
| --       | 26404   | TIE BAR (NOT SHOWN)                                                              | 1    |
| --       | 29695   | COTTER PIN (FOR TIE BAR - NOT SHOWN)                                             | 2    |

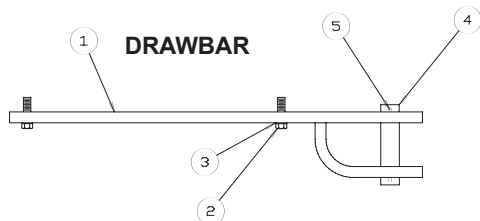
## CONTROL VALVE



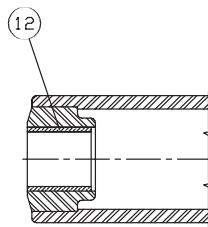
| ITEM | PART NO. | DESCRIPTION                          | QTY |
|------|----------|--------------------------------------|-----|
| ---  | 26214    | Complete Control Valve Assembly      | 1   |
| A    | 62039    | Handle                               | 1   |
| B    | 62040    | Linkage Assembly                     | 1   |
| 1    | 102836   | Articulated Joint                    | 2   |
| 2    | 102837   | Nut                                  | 3   |
| 3    | 29565    | Pin, Shoulder                        | 1   |
| 4    | 102839   | Rod End                              | 1   |
| 5    | 102840   | Nut                                  | 4   |
| 6    | 102841   | Washer                               | 4   |
| 7    | 102838   | Screw                                | 4   |
| 8    | 102842   | Boot, Rubber                         | 1   |
| C    | 62041    | Centering Spring Assembly            | 1   |
| D    | 62042    | Centering Spring and Detent Assembly | 1   |
| E    | 62043    | Spool O-Ring Set                     | 1   |



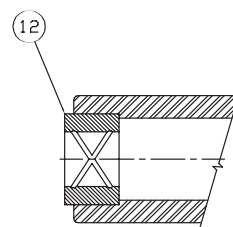
## FAIRLEAD ASSEMBLY AND DRAWBAR



Clean tapped holes in winch housing before installing drawbar. Torque capscrews to 380 LB-FT (515 N-m)

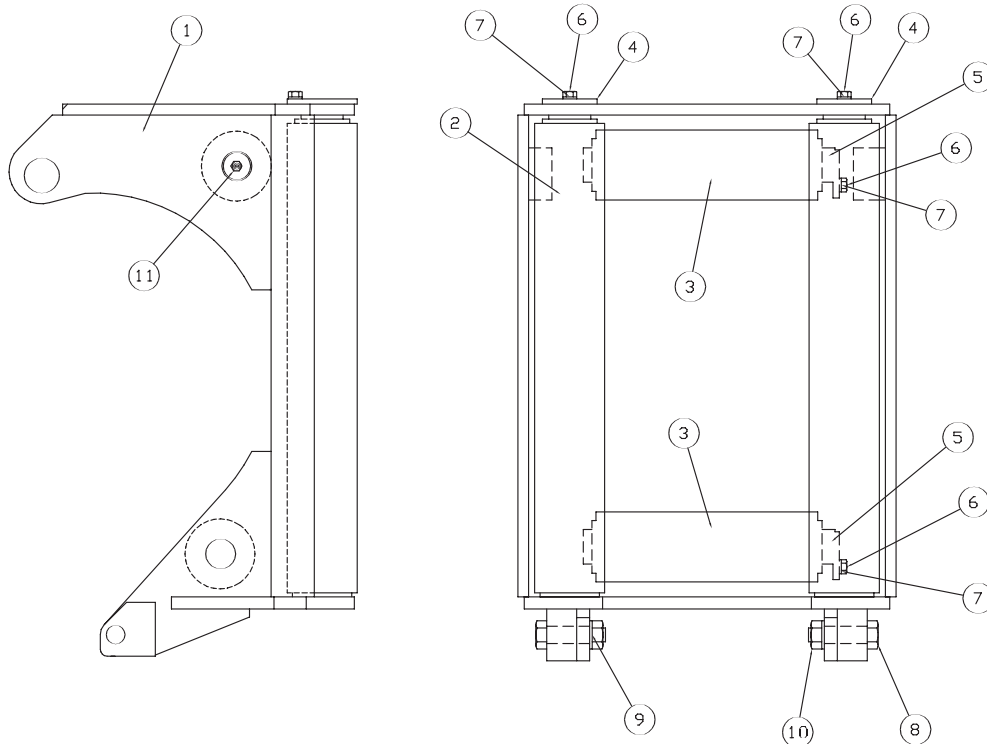


EARLY DESIGN



CURRENT DESIGN

ROLLER BUSHING DETAIL



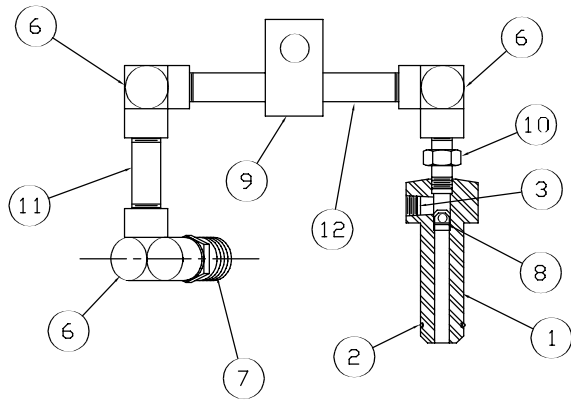
FAIRLEAD

| ITEM NO. | PART NO | DESCRIPTION                                          | QTY.     |          |
|----------|---------|------------------------------------------------------|----------|----------|
|          |         |                                                      | 3-ROLLER | 4-ROLLER |
| --       | 81820   | FAIRLEAD ASSEMBLY - 4 ROLLER (COMPLETE)              | --       | 1        |
| --       | 81821   | FAIRLEAD ASSEMBLY - 3 ROLLER (COMPLETE)              | 1        | --       |
| 1        | NSS     | FAIRLEAD BODY                                        | 1        | 1        |
| 2        | 82189   | ROLLER ASSEMBLY - LONG (INCLUDES BUSHINGS, ITEM 12)  | 2        | 2        |
| 3        | 82188   | ROLLER ASSEMBLY - SHORT (INCLUDES BUSHINGS, ITEM 12) | 1        | 2        |
| 4        | 81840   | ROLLER SHAFT (LONG)                                  | 2        | 2        |
| 5        | 81837   | ROLLER SHAFT (SHORT)                                 | 1        | 2        |
| 6        | 104135  | CAPSCREW (3/8 - 16 X 3/4, GD8, HEX HD)               | 3        | 4        |
| 7        | 18003   | LOCKWASHER (3/8)                                     | 3        | 4        |
| 8        | 72366   | CAPSCREW (3/4 - 10 X 3-1/4, GD8, HEX SOCKET HD)      | 2        | 2        |
| 9        | 13435   | LOCKWASHER (3/4)                                     | 2        | 2        |
| 10       | 13444   | HEX NUT (3/4 - 10)                                   | 2        | 2        |
| 11       | 18047   | GREASE FITTING                                       | 6        | 8        |
| 12       | 77344   | BUSHING - EARLY DESIGN 1.625 in. (41.3 mm) O.D.      | 6        | 8        |
|          | 40249   | BUSHING - CURRENT DESIGN 2.375 in. (60.3 mm) O.D.    | 6        | 8        |
| --       | 63069   | 4th ROLLER KIT (INCLUDES ITEMS 3, 5, 6, 7, 11)       | OPT.     | OPT.     |

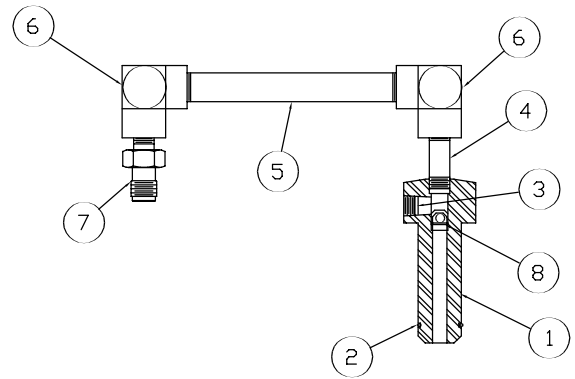
DRAWBAR KIT

| ITEM NO. | PART NO | DESCRIPTION                          | QTY. |
|----------|---------|--------------------------------------|------|
| --       | 61926   | DRAWBAR KIT - COMPLETE               | OPT. |
| 1        | NSS     | DRAWBAR                              | 1    |
| 2        | 70691   | CAPSCREW (3/4 - 10 X 2, GD8, HEX HD) | 6    |
| 3        | 13435   | LOCWASHER (3/4)                      | 6    |
| 4        | 27241   | DRAWBAR PIN                          | 1    |
| 5        | 27242   | COTTER PIN                           | 2    |

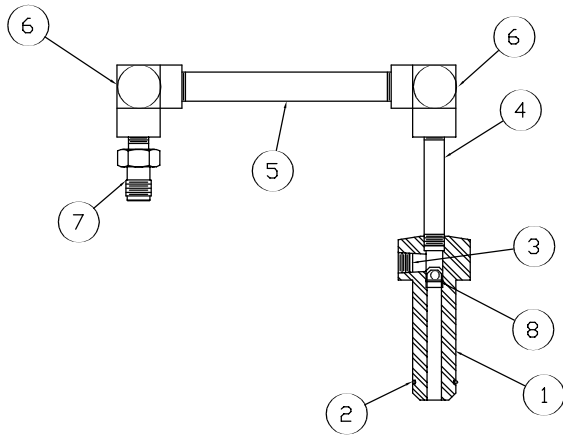
## CLUTCH TUBE ASSEMBLIES



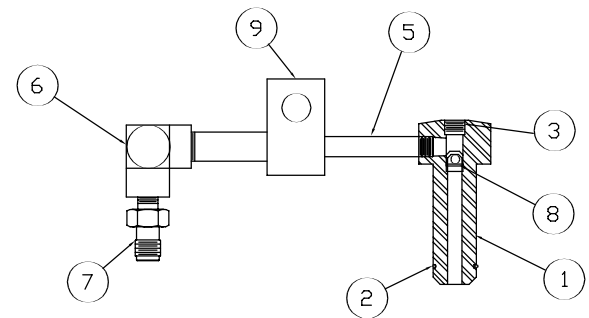
**81825**  
4-Shaft, Gear Side



**82059**  
3-Shaft, Brake Side  
(Current Production)



**81823**  
4-Shaft, Brake Side  
(Older Units - Prior to Dec 1995)



**81824**  
3-Shaft, Gear Side

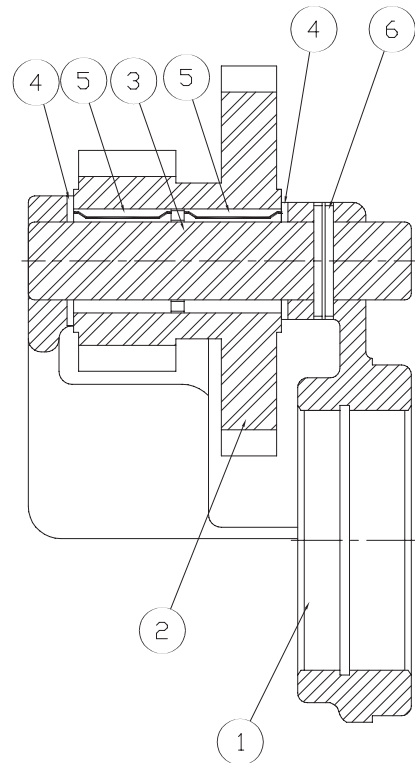
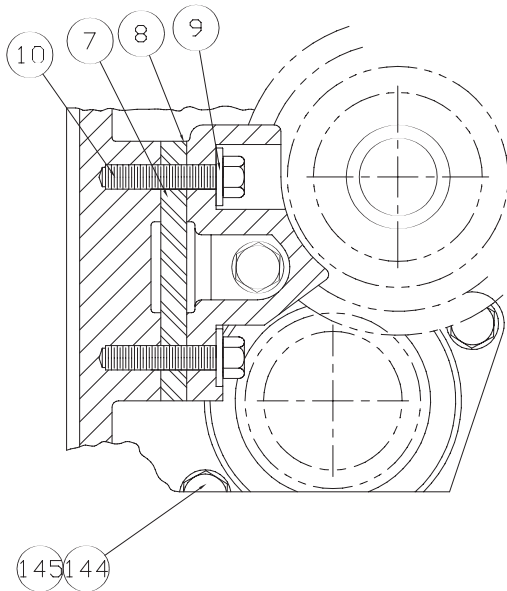
| ITEM NO. | PART NO. | DESCRIPTION            | QTY.  |       |       |       |
|----------|----------|------------------------|-------|-------|-------|-------|
|          |          |                        | 81823 | 81824 | 81825 | 82059 |
| 1        | 26163    | HYDRAULIC TUBE         | 1     | 1     | 1     | 1     |
| 2        | 26201    | O-RING                 | 1     | 1     | 1     | 1     |
| 3        | 22374    | PIPE PLUG              | 1     | 1     | 1     | 1     |
| 4        | 27898    | PIPE NIPPLE            | 1     | --    | --    | 1     |
| 5        | 26246    | PIPE NIPPLE            | 1     | 1     | --    | 1     |
| 6        | 24524    | FEMALE PIPE ELBOW, 90° | 2     | 1     | 3     | 2     |
| 7        | 75956    | MALE CONNECTOR         | 1     | 1     | 1     | 1     |
| 8        | 81913    | DUMP VALVE SPOOL       | 1     | 1     | 1     | 1     |
| 9        | 26427    | GUIDE BLOCK            | --    | 1     | 1     | --    |
| 10       | 24528    | PIPE NIPPLE            | --    | --    | 1     | --    |
| 11       | 76118    | PIPE NIPPLE            | --    | --    | 1     | --    |
| 12       | 26425    | PIPE NIPPLE            | --    | --    | 1     | --    |

## 4-SHAFT SLOW SPEED CLUSTER GEAR ASSEMBLY

**i** NOTE: The three parts listed below are for 4-Shaft winches ONLY, and replace those shown in the Adapter Assembly earlier in this manual.

On 4-Shaft winches with CCW PTO rotation, the haul-in clutch is on the brake side of the clutch shaft and the pay-out clutch is on the gear side.

| ITEM NO.* | PART NO. | DESCRIPTION                       | QTY |
|-----------|----------|-----------------------------------|-----|
| 57        | 27895    | CLUTCH SHAFT                      | 1   |
| 76        | 81823    | TUBE ASSEMBLY (SEE PREVIOUS PAGE) | 1   |
| 78        | 81825    | TUBE ASSEMBLY (SEE PREVIOUS PAGE) | 1   |



| ITEM NO. | PART NO. | DESCRIPTION                                                       | QTY. |
|----------|----------|-------------------------------------------------------------------|------|
| 1        | 26068    | CLUTCH CARRIER                                                    | 1    |
| 2        | 26097    | CLUSTER GEAR                                                      | 1    |
| 3        | 26099    | CLUSTER GEAR SHAFT                                                | 1    |
| 4        | 24306    | THRUST WASHER                                                     | 2    |
| 5        | 26120    | ROLLER BEARING                                                    | 2    |
| 6        | 75310    | ROLLPIN (5/16 X 1 in.)                                            | 1    |
| 7        | 26578    | SPACER                                                            | 1    |
| 8        | 26570    | SHIM SET (2 EA. - .005 in., .007 in.)                             | 1    |
| 9        | 32220    | WASHER                                                            | 2    |
| 10       | 13421    | CAPSCREW (1/2 - 13 X 2 in., GD5, HEX HD)                          | 2    |
| 144      | 26425    | STUD (REQUIRED ON UNITS WITH GEAR SIDE CLUTCH ONLY)               | 1    |
| 145      | 11788    | HEX NUT (1/2 - 13) (REQUIRED ON UNITS WITH GEAR SIDE CLUTCH ONLY) | 1    |

### **i** NOTES:

Item 1 must be mounted in place prior to assembly of remaining parts group items.

When a gear side clutch is used with these parts, items 144 and 145 are installed in the location shown.