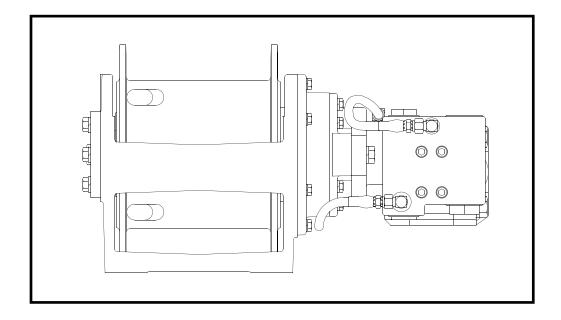
**BRADEN**®

BG6B

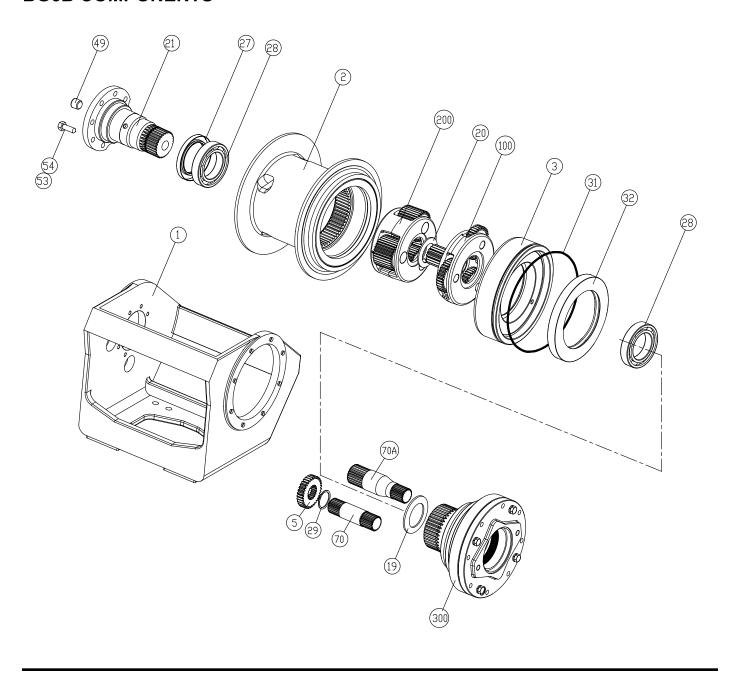
# **MATERIAL LIST**



**PACCAR WINCH DIVISION**P.O. BOX 547 BROKEN ARROW, OK U.S.A. 74013
PHONE (918) 251-8511 FAX (918) 259-1575

www.paccarwinch.com

## **BG6B COMPONENTS**



**SEAL KIT P.N. 61774** 

| ITEM | PART NO. | DESCRIPTION                 | QTY |
|------|----------|-----------------------------|-----|
| 24   | 25727    | O-Ring (013 Motor Group)    | 1   |
| 27   | 25582    | Oil Seal (Bearing Support)  | 1   |
| 31   | 10450    | O-Ring (Drum Closure)       | 1   |
| 32   | 25918    | Oil Seal (Brake Cylinder)   | 1   |
| 36   | 25594    | U-Cup Seal (Brake Cylinder) | 1   |
| 46   | 70138    | O-Ring (Brake Cylinder)     | 1   |
| 49   | 70117    | Plug (Bearing Support)      | 1   |
|      | 25366    | O-Ring (Motor Groups)       | 2   |
|      | 21063    | O-Ring (Motor Groups)       | 1   |

**NOTE:** Items shown are those listed in this Material List. Seal Kits typically service multiple options and may contain additional items not required for your winch.

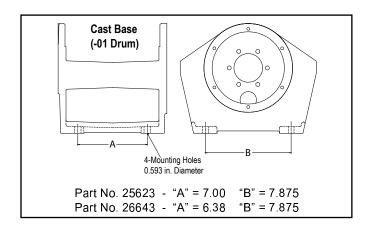
**64581 - BEARING KIT** 

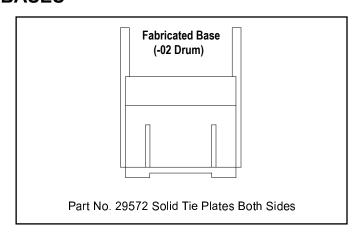
| DESCRIPTION              | PART NO. | QTY. |
|--------------------------|----------|------|
| BALL BEARING             | 25917    | 2    |
| THRUST RACE              | 13680    | 1    |
| THRUST RACE              | 25590    | 1    |
| THRUST WASHER            | 24914    | 6    |
| BEARING ROLLER           | 24915    | 3    |
| ROLLPIN                  | 12025    | 3    |
| PLANET GEAR SHAFT        | 25543    | 3    |
| THRUST BEARING           | 24167    | 6    |
| ROLLER BEARING           | 24175    | 6    |
| BEARING SPACER           | 25548    | 3    |
| ROLLPIN                  | 21049    | 3    |
| OUTPUT PLANET GEAR SHAFT | 25545    | 3    |

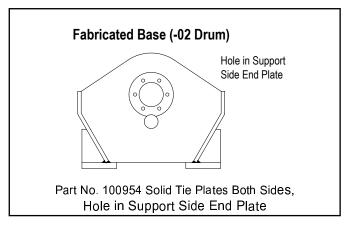
## **BG6B MATERIAL LIST**

| ITEM NO. | DESCRIPTION   | PART NO. | QTY. |
|----------|---|----------|------|
| 100      | Primary Planet Carrier Assembly                       |          | 1    |
| 200      | Output Planet Carrier Assembly                        |          | 1    |
| 300      | Brake Cylinder Assembly                               |          | 1    |
| 1        | Base (see below)                                      |          | 1    |
|          | Cable Drum (02)                                       | 29031    | 1    |
| 2        | Cable Drum (01)                                       | 25624    | 1    |
| 2        | Cable Drum (02-1)                                     | 100955   | 1    |
|          | Cable Drum (01-1)                                     | 26644    | 1    |
| 3        | Cable Drum Closure                                    | 25626    | 1    |
| 5        | Primary Sun Gear (29:1 ratio only)                    | 25547    | 1    |
| 5        | Primary Sun Gear (67:1 ratio only)                    | 26288    | 1    |
| 19       | Thrust Race   | 25590    | 1    |
| 20       | Thrust Race   | 13680    | 1    |
| 21       | Bearing Support                                       | 29517    | 1    |
| 27       | Oil Seal  | 25582    | 1    |
| 28       | Ball Bearing  | 25917    | 2    |
| 29       | Snap Ring (29:1 ratio only)                           | 25589    | 1    |
| 31       | O-Ring  | 10450    | 1    |
| 32       | Oil Seal  | 25918    | 1    |
| 49       | Plug  | 70117    | 1    |
| 49       | Sight Gauge (-1 Personnel Handling)                   | 26705    | 1    |
| 52       | Hex Head Plug (not shown)                             | 25663    | 2    |
| 53       | Lockwasher  | 11025    | 6    |
| 54       | Capscrew, 7/16 - 14 x 1 1/4 GD8                       | 69386    | 6    |
| 55       | Cable Wedge Std. (5/16" - 1/2" Wire Rope) (not shown) | 26095    | 1    |
| 55       | Cable Wedge Optional (1/4" Wire Rope) (not shown)     | 28779    | 1    |
| 70       | Input Shaft (29:1 ratio)                              | 26524    | 1    |
| 70A      | Input Shaft (29:1 ratio)                              | 26092    | 1    |

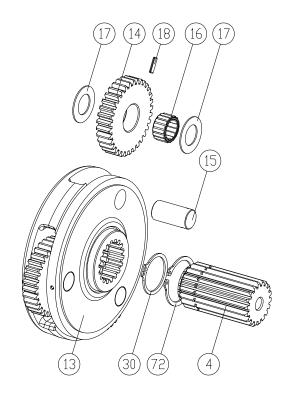
#### **WINCH BASES**





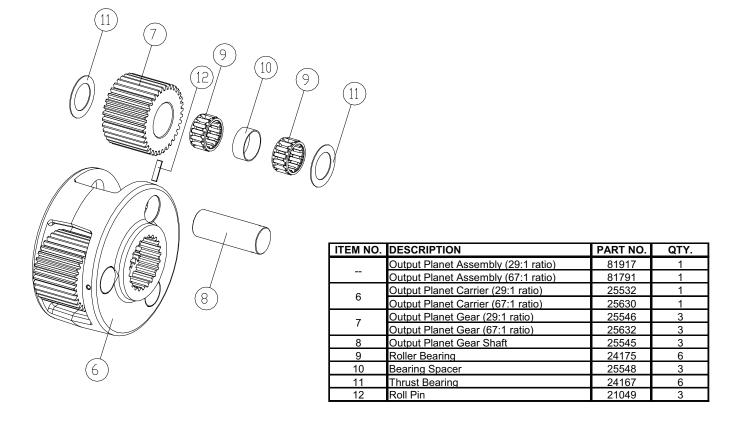


#### PRIMARY PLANET CARRIER ASSEMBLY

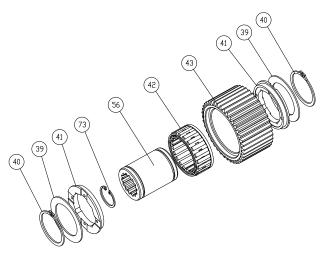


| ITEM NO. | DESCRIPTION                          | PART NO. | QTY. |
|----------|--------------------------------------|----------|------|
|          | Primary Planet Assembly (29:1 ratio) | 81915    | 1    |
|          | Primary Planet Assembly (67:1 ratio) | 81790    | 1    |
| 4        | Output Sun Gear (29:1 ratio)         | 25544    | 1    |
| 4        | Output Sun Gear (67:1 ratio)         | 25634    | 1    |
| 13       | Primary Planet Carrier (29:1 ratio)  | 25531    | 1    |
| 13       | Primary Planet Carrier (67:1 ratio)  | 25629    | 1    |
| 14       | Primary Planet Gear (29:1 ratio)     | 25556    | 3    |
| 14       | Primary Planet Gear (67:1 ratio)     | 25631    | 3    |
| 15       | Planet Gear Shaft                    | 25543    | 3    |
| 16       | Bearing Roller                       | 24915    | 3    |
| 17       | Thrust Washer                        | 24914    | 6    |
| 18       | Rollpin                              | 12025    | 3    |
| 30       | Snap Ring (29:1 ratio)               | 13023    | 1    |
| 30       | Snap Ring (67:1 ratio)               | 11953    | 1    |
| 72       | Snap Ring (29:1 ratio)               | 25588    | 1    |
| 12       | Snap Ring (67:1 ratio)               | 11953    | 1    |

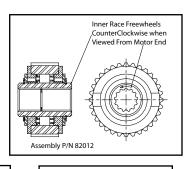
#### **OUTPUT PLANET CARRIER ASSEMBLY**



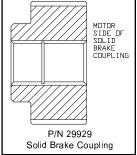
#### **BRAKE CLUTCH ASSEMBLIES**



| Assembly P/N 27540 |
|--------------------|
|--------------------|







| IIEM NO. | DESCRIPTION                         | PART NO. | QIY. |
|----------|-------------------------------------|----------|------|
| 39       | Thrust Bearing                      | 24421    | 2    |
| 40       | Retaining Ring                      | 24934    | 2    |
| 41       | Spacer Bushing                      | 25849    | 2    |
| 42       | Sprag Clutch                        | NSS      | 1    |
| 43       | Outer Brake Race                    | NSS      | 1    |
| 56       | Inner Brake Race                    | NSS      | 1    |
| 36       | Inner Brake Race                    | NSS      | 1    |
| 73       | Retaining Ring - used in Assy 27539 | 104055   | 1    |
|          | Retaining Ring - ALL OTHERS         | 32115    | 1    |

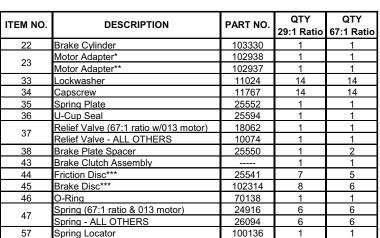
NSS - Not Serviced Separately. Replace complete assembly.

EM NO IDECCRIPTION

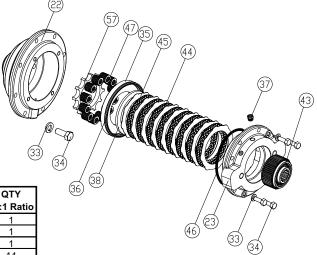
#### **Complete Assemblies**

| PART NO. | DESCRIPTION                                 |
|----------|---|
| 27539    | 013 motor                                   |
| 82012    | UNDERWIND (-020, -029, -039 motors)         |
| 27540    | STANDARD Rotation (-020, -029, -039 motors) |
| 29929    | Solid Brake Coupling                        |

## **BRAKE CYLINDER ASSEMBLY**



<sup>\* 2</sup> Bolt "A", 4.19 in. between motor bolt holes



64097 - BRAKE + SEAL REPAIR KIT

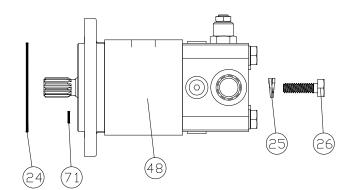
| DESCRIPTION               | PART NO. | QTY. |
|---------------------------|----------|------|
| OIL SEAL                  | 25582    | 1    |
| OIL SEAL                  | 25918    | 1    |
| SPRING                    | 26094    | 12   |
| U-CUP SEAL                | 25594    | 1    |
| FRICTION DISC             | 25541    | 8    |
| BRAKE DISC                | 102314   | 9    |
| O-RING                    | 70138    | 1    |
| GASKET - MOTOR 2B A MOUNT | 23108    | 1    |
| O-RING                    | 12463    | 2    |
| O-RING, BRAKE VALVE       | 106744   | 2    |

<sup>\*\* 2</sup> Bolt "B", 5.75 in. between motor bolt holes

<sup>\*\*\*</sup> Quantity shown in assembly drawing is for representational purposes only

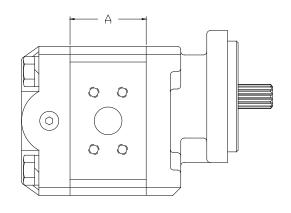
## **MOTOR GROUP PARTS**

## **HYDRAULIC MOTOR GROUP (013)**



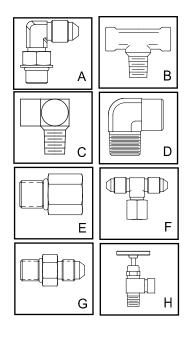
| ITEM NO. | DESCRIPTION | PART NO. | QTY. |
|----------|-------------|----------|------|
| 24       | O'Ring      | 25727    | 1    |
| 25       | Lockwasher  | 27152    | 2    |
| 26       | Capscrew    | 104309   | 2    |
| 48       | Motor (013) | 105392   | 1    |
| 71       | O'Ring      | 24520    | 1    |

## **GEAR MOTORS**



| PART NO. | MOTOR CODE | "A" DIM. |
|----------|------------|----------|
| 25385    | 029        | 2.25 in. |
| 25386    | 020        | 1.75 in. |
| 25515    | 039        | 2.75 in. |

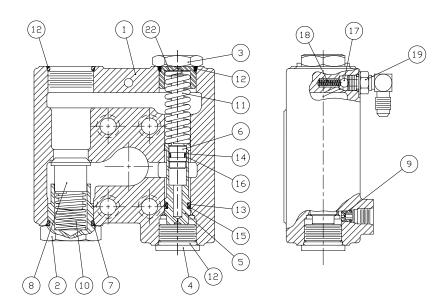
## **FITTINGS**



| Part No. | Description                                       | Ref. Dwg. |
|----------|---|-----------|
| 25302    | Elbow, -4 JIC to -4 ORB                           | Α         |
| 25131    | Elbow, -4 JIC to -6 ORB                           | Α         |
| 22934    | Tee, 1/8-27 NPT-F Run to 1/8-27 NPT-M Branch      | В         |
| 24236    | Street Elbow, Reducer, 1/4-18M to 1/8-27F         | С         |
| 13708    | Street Elbow, 1/8-27                              | D         |
| 24784    | Adapter, 7/16 ORB to 1/8-27 NPT-F                 | E         |
| 25748    | Swivel Tee, -4 JIC M Run X -4 JIC F Swivel Branch | F         |
| 25864    | Adapter, -4 JIC to -4 ORB                         | G         |
| 25258    | Needle Valve                                      | Н         |
| 70182    | Cap, -4 JIC                                       |           |

Warning Tag (-1 winches only) - Part No. 25257

## BRAKE VALVE Part No. 81715 - All except 013 Motor)



| ITEM | DESCRIPTION          | QTY. | PART NO. |
|------|----------------------|------|----------|
| 1    | Valve Housing        | 1    | NSS*     |
| 2    | Check Valve Retainer | 1    | 24424    |
| 3    | Spring Retainer      | 1    | 24183    |
| 4    | Plug                 | 1    | 22450    |
| 5    | Spool                | 1    | NSS*     |
| 6    | Damper Piston        | 1    | NSS*     |
| 7    | O-Ring               | 2    | 24186    |
| 8    | Check Valve Poppet   | 1    | 24423    |
| 9    | Pilot Orifice        | 1    | 24200    |
| 10   | Check Valve Spring   | 1    | 24190    |
| 11   | Spool Spring         | 1    | 24192    |
| 12   | O-Ring               | 1    | 23601    |
| 13   | O-Ring               | 1    | 24193    |
| 14   | O-Ring               | 1    | 24194    |
| 15   | Back-up Ring         | 1    | 24195    |
| 16   | Back-up Ring         | 1    | 24196    |
| 17   | Check Ball (1/4 in.) | 1    | 21158    |
| 18   | Check Ball Spring    | 1    | 25480    |
| 19   | Elbow Fitting        | 1    | 25302    |
| 22   | Shim                 | A.R. | 25661    |

<sup>\*</sup> NSS - Not Services Separately. If any of these parts needs replacement, the entire brake valve must be replaced.

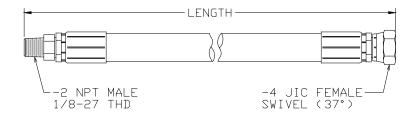
#### **CAPSCREWS AND LOCKWASHERS**

| PART NO. | DESCRIPTION                             |
|----------|---|
| 13544    | 3/8 NC x 1-1/2 G8, Socket Head EARLY    |
| 13827    | 3/8 NC x 1-1/4 G8, Socket Head CURRENT  |
| 25622    | 3/8 NC x 2-3/4 G8, Socket Head          |
| 104174   | 1/2 NC x 1-1/4 G8, Zinc Plated Hex Head |
| 104322   | 1/2 NC x 1-1/2 G8, Zinc Plated Hex Head |
| 11026    | 1/2 Split, Zinc Plated                  |

#### **BRAKE VALVE SEAL KIT P/N 61567**

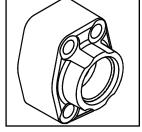
| ITEM | PART NO. | DESCRIPTION  | QTY |
|------|----------|--------------|-----|
| 7    | 24186    | O-Ring       | 1   |
| 12   | 23601    | O-Ring       | 2   |
| 13   | 24193    | O-Ring       | 1   |
| 14   | 24194    | O-Ring       | 1   |
| 15   | 24195    | Back-up Ring | 1   |
| 16   | 24196    | Back-up Ring | 1   |

#### **HOSE ASSEMBLIES**

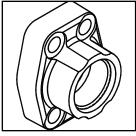


| PART NO. | LENGTH |
|----------|--------|
| 13704    | 12 in. |
| 13706    | 16 in. |
| 13707    | 17 in. |
| 13710    | 8 in.  |
| 13711    | 10 in. |
|          |        |

## **SPLIT FLANGE ADAPTER**



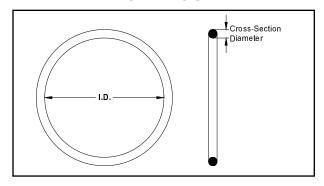
EARLY - Use socket head capscrews 13544.



**CURRENT - Use socket** head capscrews 13827.

| PART NO. | DESCRIPTION          |
|----------|----------------------|
| 25539    | Split Flange Adapter |

#### **O-RINGS**



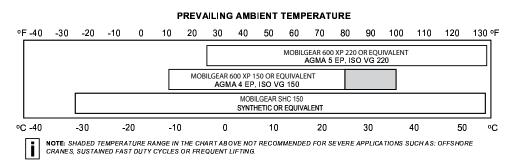
| PART NO | I.D.  | CROSS-SECTION DIA. |
|---------|-------|--------------------|
| 25366   | 1.296 | 0.139              |
| 21063   | 3.984 | 0.139              |

#### RECOMMENDED PLANETARY GEAR OIL

Field experience, supported by engineering endurance tests, indicates the use of the proper gear oil and a program of regular preventive maintenance will help provide extended gear train life and reliable winch brake performance. For this reason, BRADEN has published the following specifications to assist in determining which lubricant is best suited to your application.

For simplicity, BRADEN has listed available products in each temperature range that have been tested and found to meet our specifications. This is not to say that other lubricant brands would not perform equally as well.

If the following lubricant brands are not available in your area, make certain your lubricant vendor supplies you with oil that is equivalent to those products listed below.



Planetary hoists are factory filled with Mobilgear 600 XP 150, or equivalent. Consult your oil supplier for other equivalent oils if required.

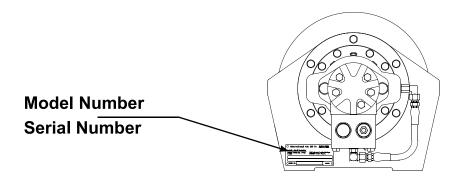
| Mobil                | Shell     | Chevron               | Техасо     |
|----------------------|-----------|-----------------------|------------|
| Mobilgear 600 XP 150 | Omala 150 | Gear Compounds EP 150 | Meropa 150 |
| Mobilgear 600 XP 220 | Omala 220 | Gear Compounds EP 220 | Meropa 220 |

Unless otherwise specified, it is recommended that the gear oil be changed after the first one hundred (100) hours or thirty (30) days of machine operation, then every one thousand (1,000) hours or twelve (12) months, whichever occurs first. The gear oil should also be changed whenever the ambient temperature changes significantly and an oil from a different temperature range would be more appropriate.

A warm-up procedure is recommended at each start-up and is essential at ambient temperatures below +40°F (4°C).

The prime mover should be run at its lowest recommended RPM with the hydraulic winch control valve in neutral allowing sufficient time to warm up the system. The winch should then be operated at low speeds, forward and reverse, several times to prime all lines with warm hydraulic oil and to circulate gear lubricant through the planetary gear sets.

If you have any questions regarding your BRADEN planetary winch, please contact the BRADEN Product Support Department at 1-918-251-8511, Monday through Friday from 08:00 to 16:30 hours CT, or by fax at 1-918-259-1575.



The BRADEN BG6B winch has the model and serial numbers stamped into the brake cylinder endplate. *Always* reference both of these numbers when ordering replacement parts. Our goal is to ship the correct parts, the first time

#### FOR BEST RESULTS, ALWAYS USE GENUINE BRADEN REPLACEMENT PARTS

#### TO ORDER PARTS:

- 1. List model and serial numbers of the winch.
- 2. Refer to drawings and select the component(s) needed and list the item number(s).
- 3. Find item number(s) on material list; show part number, description and quantity required on your order.
- 4. Refer to parts price list and show price for each part or assembly.