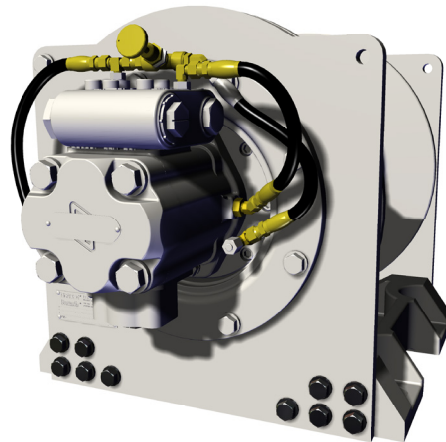


PARTS LIST

Hydraulic Hoist Series

PD10-75B, PD10-77B, PD15-75B, PD15-77B



WRITE HOIST SERIAL NUMBER BELOW

--	--	--	--	--	--	--	--

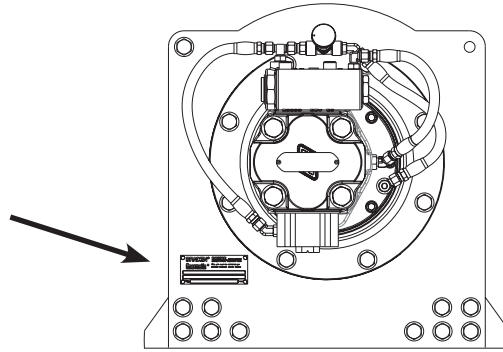


**First 2 numbers indicate
year manufactured**

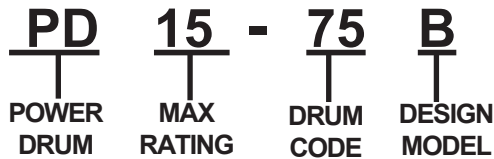
For serial number location, see page 2

Visit our Web site at www.paccarwinch.com for the most comprehensive collection of winch, hoist, and drive information on the Internet. Most publications and specification sheets are available for downloading.

Model numbers and serial numbers are located on a nameplate attached to the left-hand side of the hydraulic motor. Always refer to the model number and serial number when requesting information or service parts.



EXPLANATION OF MODEL NUMBER



- PD** DESIGNATES POWER DRUM
- 15** DESIGNATES 15,000 LB. FIRST LAYER LINE PULL
- 75** DESIGNATES THE DRUM CODE
- B** DESIGNATES THE MODEL SERIES RELATING TO DESIGN CHANGES

TO ORDER:

- (1) List model and serial numbers of the winch.
- (2) Refer to exploded view, select the component(s) needed, and note item number.
- (3) Find item number on Parts List. Show part number, description, and quantity required on your order.
- (4) Refer to Parts List and show price for each component or assembly.

RECOMMENDED PLANETARY GEAR OIL

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

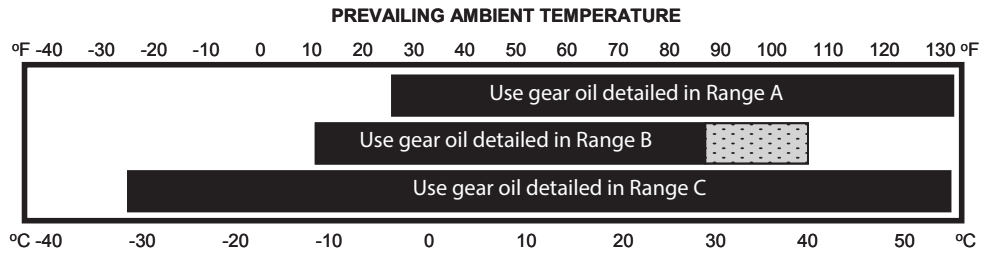
For simplicity, BRADEN has listed available products in each temperature range that have been tested and found to meet our specifications. This is not to say that other lubricant brands would not perform equally as well.

If the following lubricant brands are not available in your area, make certain your lubricant vendor supplies you with oil equivalent to those products listed on page 3.

⚠ WARNING ⚠

Failure to use the proper type and viscosity of planetary gear oil may contribute to intermittent brake clutch slippage, which could result in property damage, severe personal injury, or death. Some gear lubricants contain large amounts of extreme-pressure (EP) and antifriction additives, which may contribute to brake clutch slippage or damage to brake friction discs or seals. **NOTE: DO NOT use oil that is labeled as meeting "API Service GL-5."** Oil viscosity, affected by ambient temperature, is also critical to reliable brake clutch operation. Our tests indicate excessively heavy or thick gear oil may contribute to intermittent brake clutch slippage. Make certain the gear oil viscosity used in your hoist is correct for your prevailing ambient temperature.

RECOMMENDED GEAR OIL



SHADED TEMPERATURE RANGE IN THE CHART ABOVE NOT RECOMMENDED FOR SEVERE APPLICATIONS SUCH AS SUSTAINED FAST DUTY CYCLES OR FREQUENT WINCHING.

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

	Mobil	Shell	Chevron	Texaco
Range A	Mobilgear 600 XP 220	Omala S2 G 220	Gear Compounds EP 220	Meropa 220
Range B	Mobilgear 600 XP 150	Omala S2 G 150	Gear Compounds EP 150	Meropa 150
Range C	Mobilgear SHC 150	Omala S4 GX 150		

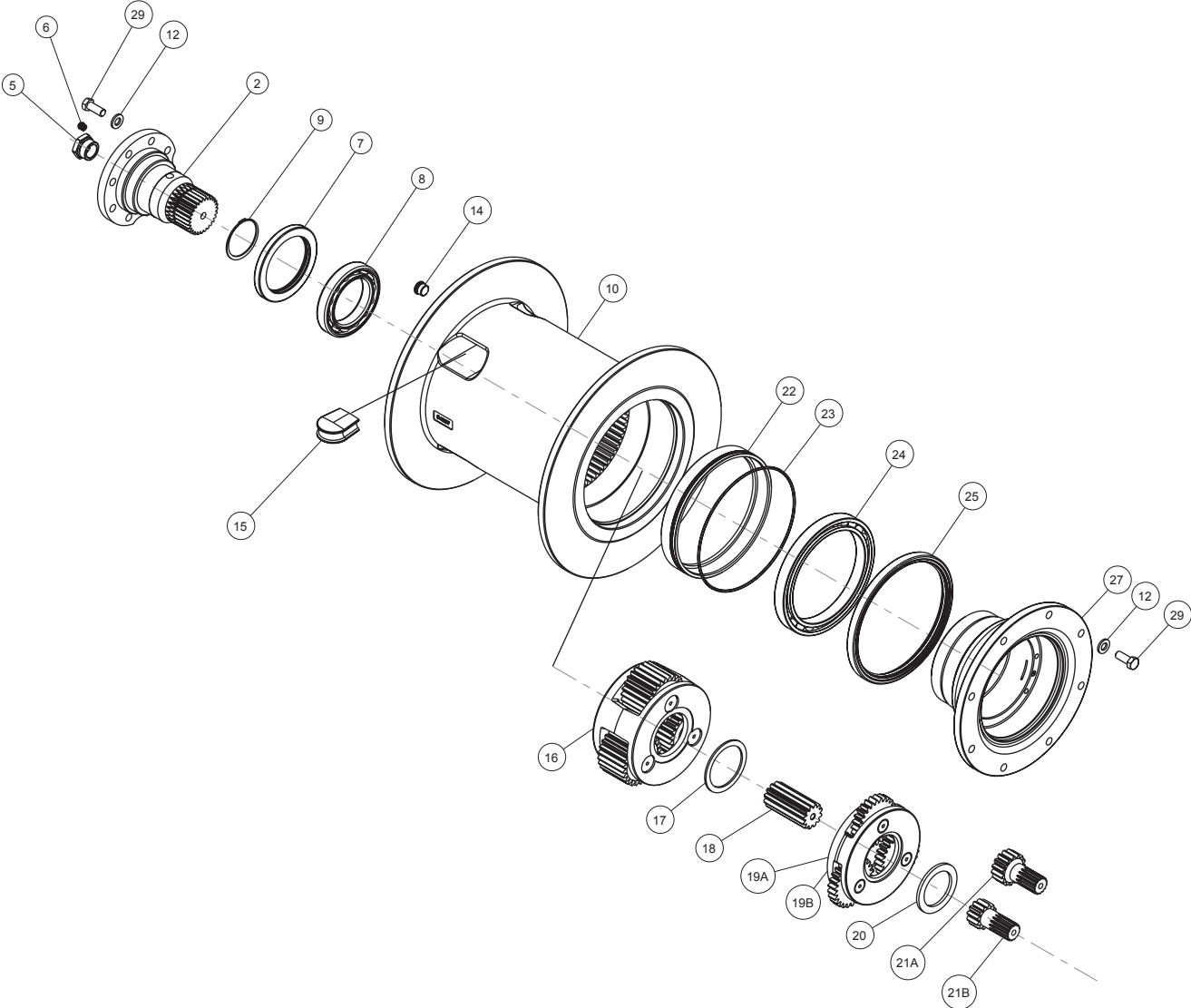
Unless otherwise specified, it is recommended to change gear oil after the first 100 hours or two months of machine operation, then every 1,000 hours or six months, whichever occurs first. The gear oil should also be changed whenever the ambient temperature changes significantly and an oil from a different 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 hoist control valve in the neutral position allowing sufficient time to warm up the system. The hoist should then be operated at low speeds; raise and lower several times to prime all lines with warm hydraulic oil and to circulate gear lubricant through the planetary gear sets.

⚠ WARNING ⚠

Failure to properly warm up the hoist, particularly under low ambient temperature conditions, may result in temporary brake slippage due to high back pressures attempting to release the brake. This also could result in property damage, severe personal injury or death.

BRADEN PD15-75B MAIN ASSEMBLY COMPONENTS



NOTE: Standard PD15-75B configurations are defined in this publication. Nonstandard or OEM-specific units may require further information. Please contact PACCAR Winch for help with nonstandard or OEM-specific assemblies.

BRADEN PD15-75B MAIN ASSEMBLY COMPONENTS

ITEM NO.	DESCRIPTION	PART NO.	QTY.
5	Sight gauge	25958	1
6	Relief valve, 7-1/2 to 15 PSI	18062	1
7	Oil seal *	24109	1
8	Ball bearing	24110	1
9	Retaining ring, external	70575	1
12	Washer	100859	38
14	Drain plug	32411	1
	O-ring * for item no. 14	23950	1
15	Cable wedge	40130	1
16	Output planet carrier assembly (Page 10)	81845	1
17	Output thrust washer	40129	1
18	Output sun gear	100854	1
19A	Primary planet carrier assembly (Page 9), PD10-75B, PD10-77B	82343	1
19B	Primary planet carrier assembly (Page 9), PD15-75B, PD15-77B	82342	1
20	Primary thrust washer	40128	1
21A	Primary sun gear (34:1 ratio), PD10-75B, PD10-77B	110938	1
21B	Primary sun gear (41:1 ratio), PD15-75B, PD15-77B	110939	1
22	Cable drum closure	111216	1
23	O-ring *	25108	1
24	Ball bearing	109749	1
25	Lip seal	111074	1
27	Brake cylinder assembly, 2-bolt (Page 8)	84605	1
29	Capscrew (hex head 1/2 x 1-1/4)	104174	16
	Oil-seal kit*	65189	1

O-RING AND SEAL KITS

Part Number 65188 - Bearing Kit

Contains all bearings to service Braden PD10-75B/77B and PD15-75B/77B hydraulic hoists.

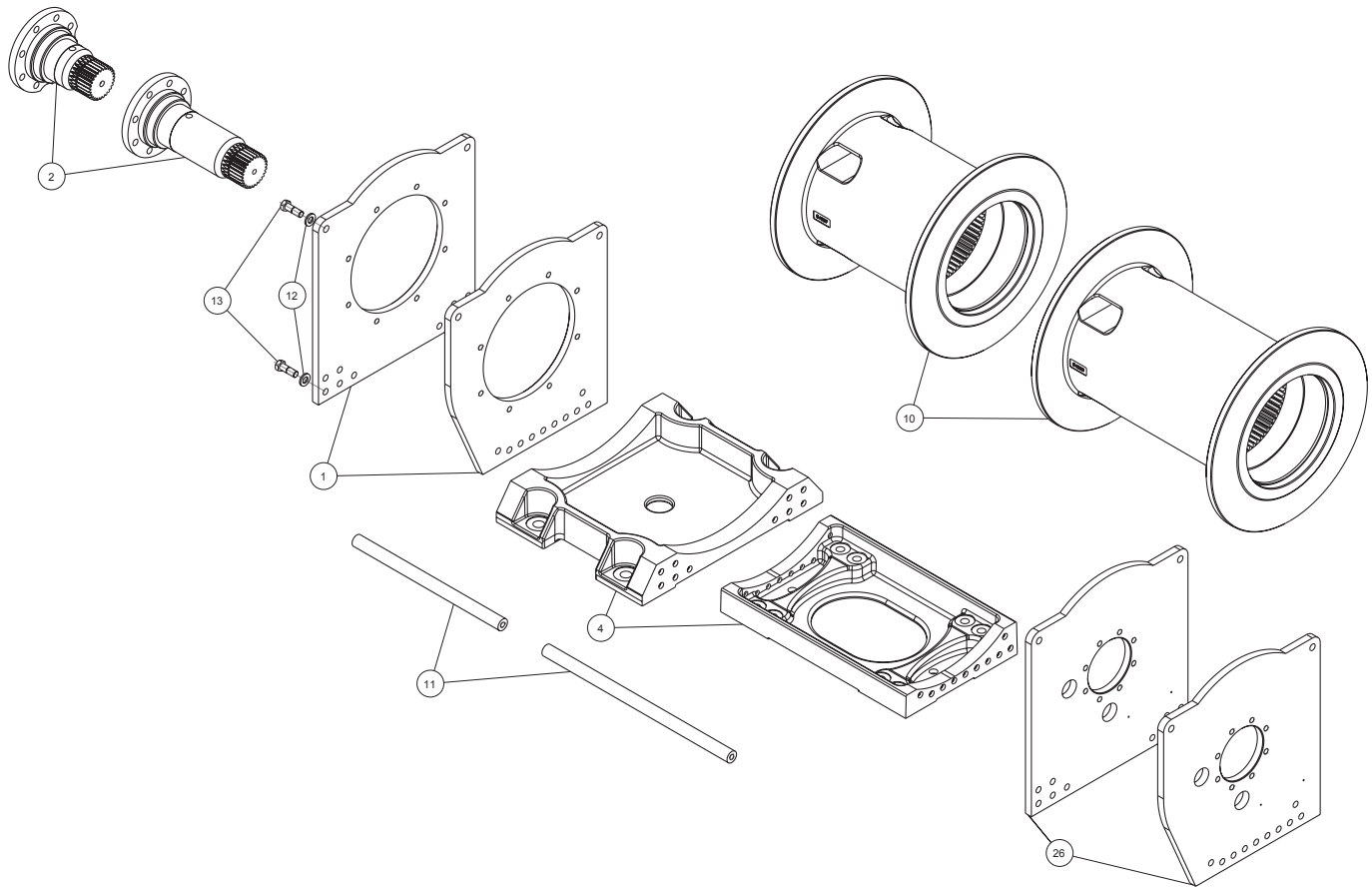
Part Number 65189 - Seal Kit

Contains all seals and O-rings to service any Braden PD10-75B/77B or PD15-75B/77B winch. Not all parts in this kit will be used on any one winch.

* indicates part in seal kit

PARTS LIST VARIABLES

WINCH MODEL	WINCH PART NO.	CABLE DRUM	SIDE-PLATE MOTOR END	SIDE-PLATE BEARING SUPPORT	BASE	BEARING SUPPORT	SPACER BAR	WASHER	CAP-SCREW
ITEM NO.	N/A	10	1	26	4	2	11	12	13
PD10-75B	06936	111089	111083	111084	111086	110940	100620	100859	103314
PD15-75B	06938	111089	111083	111084	111086	110940	100620		
PD10-77B	06935	111088	111081	111082	111087	110956	26223		
PD15-77B	06937	111088	111081	111082	111087	110956	26223		

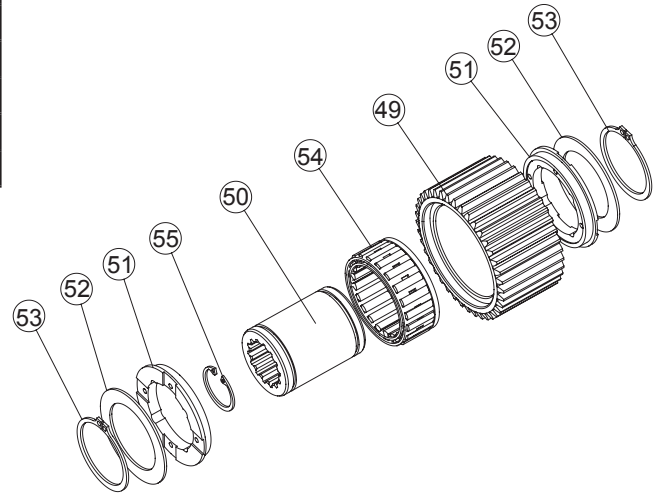


BRAKE CLUTCH COMPONENTS

Part number 81716

ITEM NO.	DESCRIPTION	PART NO.	QTY.
49	Outer brake race	NSS	1
50	Inner brake race	NSS	1
51	Sprag bearing	27684	2
52	Thrust washer	24581	2
53	Retaining ring	12034	2
54	Sprag clutch	NSS	1
55	Retaining ring	24506	1

NSS - Not sold separately. Replace complete assembly.

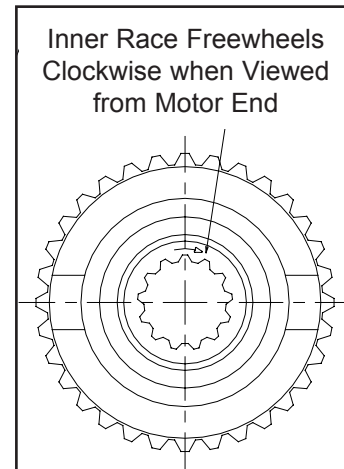
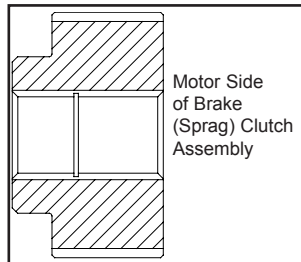


BRAKE (SPRAG) CLUTCH ROTATION

Note: Designation of cable drum rotation is determined by viewing winch from hydraulic motor end while hoisting.

On the BRADEN PD15-75B, the inner race of the brake clutch sprag assembly, when viewed from the motor side, must freewheel in the opposite direction from the cable drum during hoisting.

PART NO. 81716

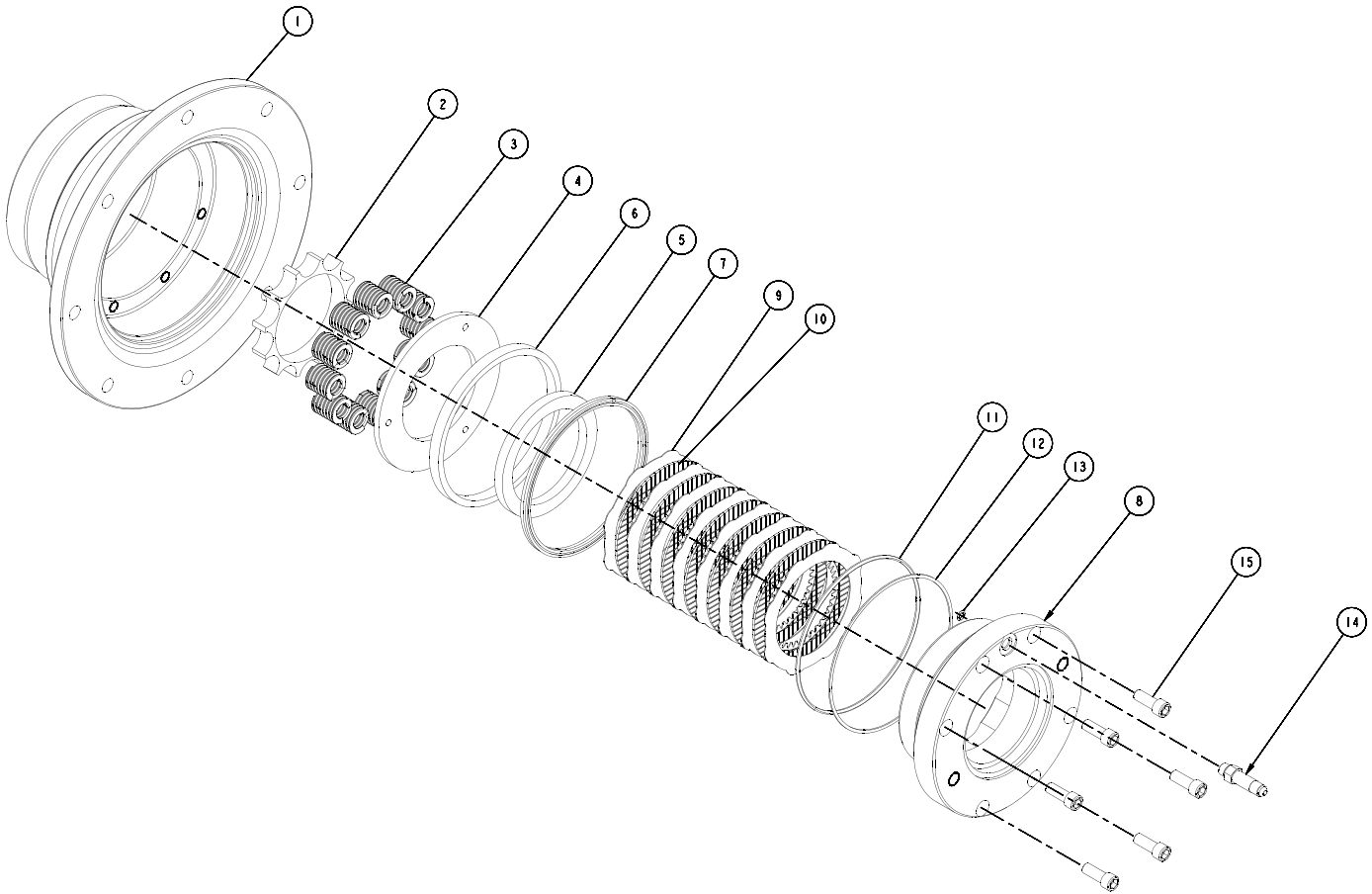


COMPLETE BRAKE (SPRAG) CLUTCH ASSEMBLY

PART NO.	DESCRIPTION	APPLICATION
81716	SAE C 14T	RH base overwind, LH base underwind

BRAKE CYLINDER ASSEMBLY

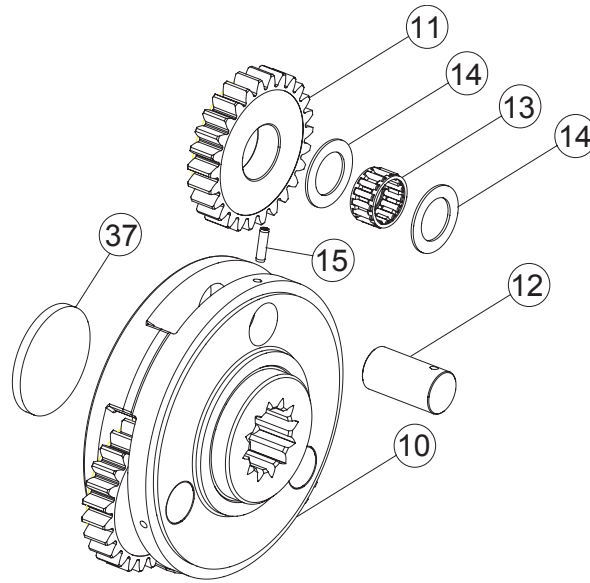
Part number 84605



ITEM NO.	DESCRIPTION	PART NO.	QTY.
1	Brake cylinder	111093	1
2	Spring spacer	100200	1
3	Die spring	25644	12
4	Pressure plate	25635	1
5	Spacer	25637	1
6	Piston backup ring	25636	1
7	Brake piston seal	25642	1
8	Motor adapter (2 bolt B)	111091	1
9	Brake disc steel (lobed)	100027	8
10	Friction disk	21036	7
11	O-ring	24981	1
12	Backup ring	25643	1
13	O-ring	23600	1
14	Adapter, straight, long	29720	1
15	Capscrew (3/8 NC x 1)	13567	6

PRIMARY PLANET CARRIER ASSEMBLY

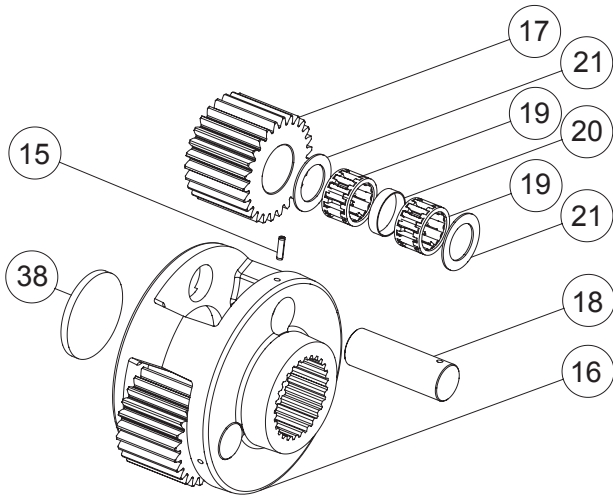
Part numbers 82342 and 82343



ITEM NO.	DESCRIPTION	PART NO.		QTY.
		34:1 RATIO	41:1 RATIO	
019	Primary planet carrier assembly	82343	82342	1
10	Primary planet carrier	100853	100852	1
11	Primary planet gear	40237	26466	3
12	Planet gear shaft	25614	25614	3
13	Roller bearing	24175	24175	3
14	Thrust washer	25361	25361	6
15	Spiral roll pin (3/16 X 3/4)	24113	24113	3
37	Primary thrust plate	25729	25729	1

OUTPUT PLANET CARRIER ASSEMBLY

Part number 81845



ITEM NO.	DESCRIPTION	PART NO.	QTY.
-	Output carrier assembly	81845	1
15	Spiral roll pin (3/16 X 1)	23584	3
16	Output planet carrier	25602	1
17	Output planet gear	26467	3
18	Output planet gear shaft	25613	3
19	Roller bearing	25292	6
20	Bearing spacer	25443	1
21	Thrust bearing	24306	6
38	Output thrust plate	25638	1

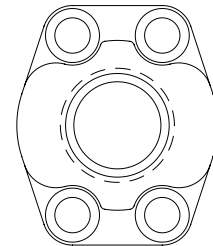
MOTOR GROUP PARTS

GEAR MOTORS

MODEL NO.	ASSEMBLY NO.	PART NO.	FLANGE MOUNT
PD10-77B	06935	111059	2 bolt B
PD10-75B	06936		
PD15-77B	06937	111060	
PD15-75B	06938		

FLANGE ADAPTER

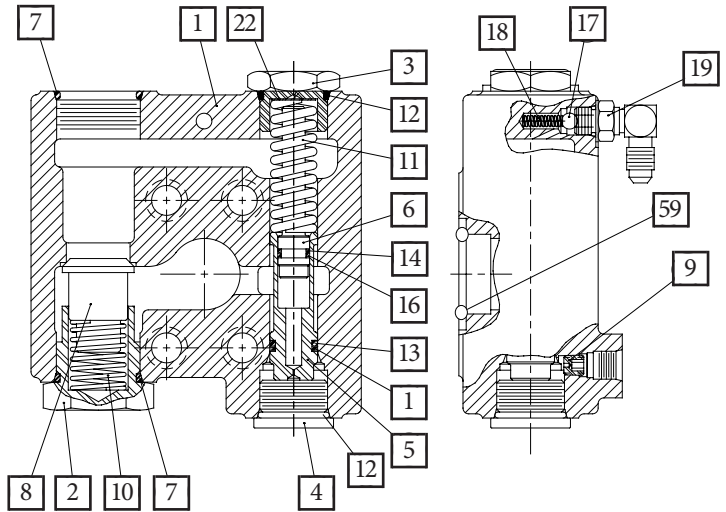
PART NO.	DESCRIPTION	O-RING
27434	1-1/4 inches code 61 to -16 ORB	21150



BRAKE VALVE PARTS

Part number 81712

ITEM NO.	DESCRIPTION	PART NO.	QTY.
1	Break valve housing	NSS	1
2	Valve spring retainer	24424	1
3	Spring retainer	24183	1
4	Plug	22450	1
5	Spool	NSS	1
6	Damper piston	NSS	1
7	O-ring *	24186	2
8	Check-valve poppet	24423	1
9	Pilot orifice	24200	1
10	Check-valve spring	24190	1
11	Spool spring	24192	1
12	O-ring *	23601	2
13	O-ring *	24193	1
14	O-ring *	24194	1
15	Back-up ring *	24195	1
16	Back-up ring *	24196	1
17	Steel ball	21158	1
18	Compression spring	25480	1
19	Elbow fitting	25302	1
19	Hex head plug (-4 ORB)	25663	1
22	Shim, valve spring	25661	-
59	O-ring *	13838	1



STANDARD GEAR MOTOR VALVE
PART NO. 81712

PARTS IN
81712
BRAKE
VALVE

ITEM NO.	DESCRIPTION	PART NO.	QTY.
17	Steel ball .250 SS	21158	1
18	Compression spring	25480	
19	Elbow fitting	25302	

NSS - Not sold separately

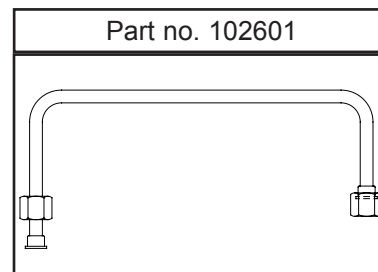
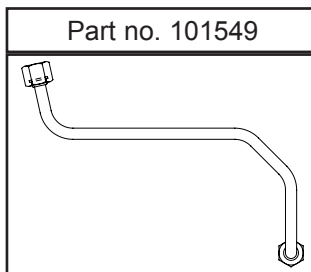
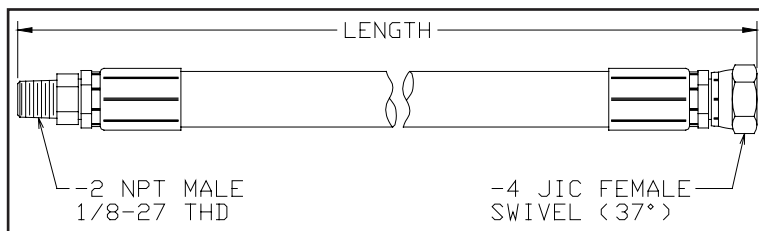
* - Included in brake O-ring kit No. 61567

CAPSCREWS AND LOCKWASHERS

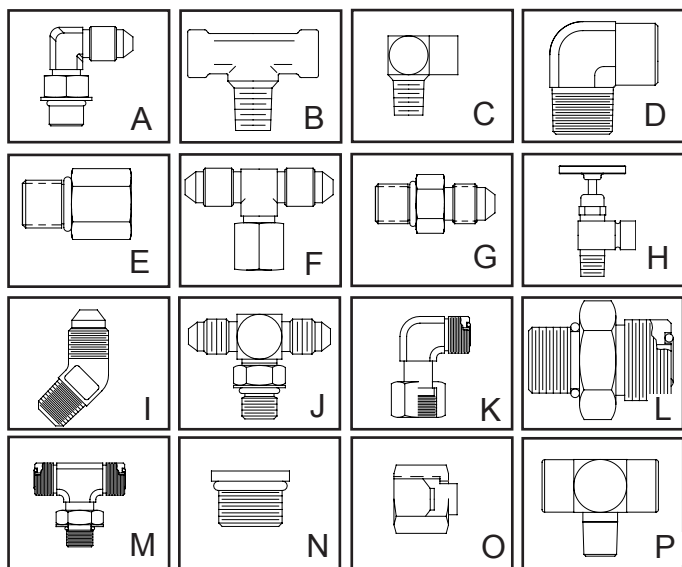
PART NO.	DESCRIPTION
21135	7/16 NC x 1-1/2 GD8, socket head
104318	7/16 NC x 1-3/4 GD8, hex head
21144	7/16 NC x 2 GD8, socket head
21134	7/16 NC x 3 GD8, socket head
101150	7/16 NC x 3-3/4 GD8, socket head
104174	1/2 NC x 1-1/4 GD8, hex head
104322	1/2 NC x 1-1/2 GD8, hex head
21908	1/2 NC x 1-1/2 GD8, socket head
29855	1/2 NC x 2 GD8, socket head
103249	5/8 NC x 1-3/4 GD8, hex head
11026	Lockwasher, 1/2 split
102423	Lockwasher, 5/8 split

HOSE ASSEMBLIES

PART NO.	LENGTH	FITTINGS
13704	12 inches	NPT -2 to JIC -4
13706	16 inches	NPT -2 to JIC -4
13707	17 inches	NPT -2 to JIC -4
13710	8 inches	NPT -2 to JIC -4
13711	10 inches	NPT -2 to JIC -4
13731	22 inches	NPT -2 to JIC -4
24948	30 inches	NPT -2 to JIC -4
25749	22.5 inches	JIC -4 both ends
25750	17 inches	JIC -4 both ends
106270	17 inches	ORFS swivel -8
106269	14 inches	ORFS swivel -8
102601	tube	ORFS swivel -8
101549	tube	ORFS swivel -8



FITTINGS



PART NO.	DESCRIPTION	DRAW-ING
23508	Reducer pipe -4 to -2	-
25302	Elbow -4 JIC to -4 ORB	A
25131	Elbow -4 JIC to -6 ORB	A
22934	Tee, 1/8-27 NPT-F run to 1/8-27 NPT-M branch	B
22934	Tee, female pipe to male pipe -2	B
24236	Street elbow, reducer, 1/4-18M to 1/8-27F	C
13708	Street elbow, 1/8-27	D
24784	Adapter, -4 ORB to -2 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	H
21165	Elbow (45°) -2 NPT to -4 JIC	I
21163	Elbow (90°) -2 NPT to -4 JIC	I
29078	Tee, -4 ORB to -4 JIC	J
100945	Elbow, ORFS swivel	K
100946	Adapter, -4 ORB to -6 ORFS	L
102632	Tee, -4 ORFS to -6 ORB	M
69325	Plug, -4 ORB	N
70182	Cap, -4 JIC	O

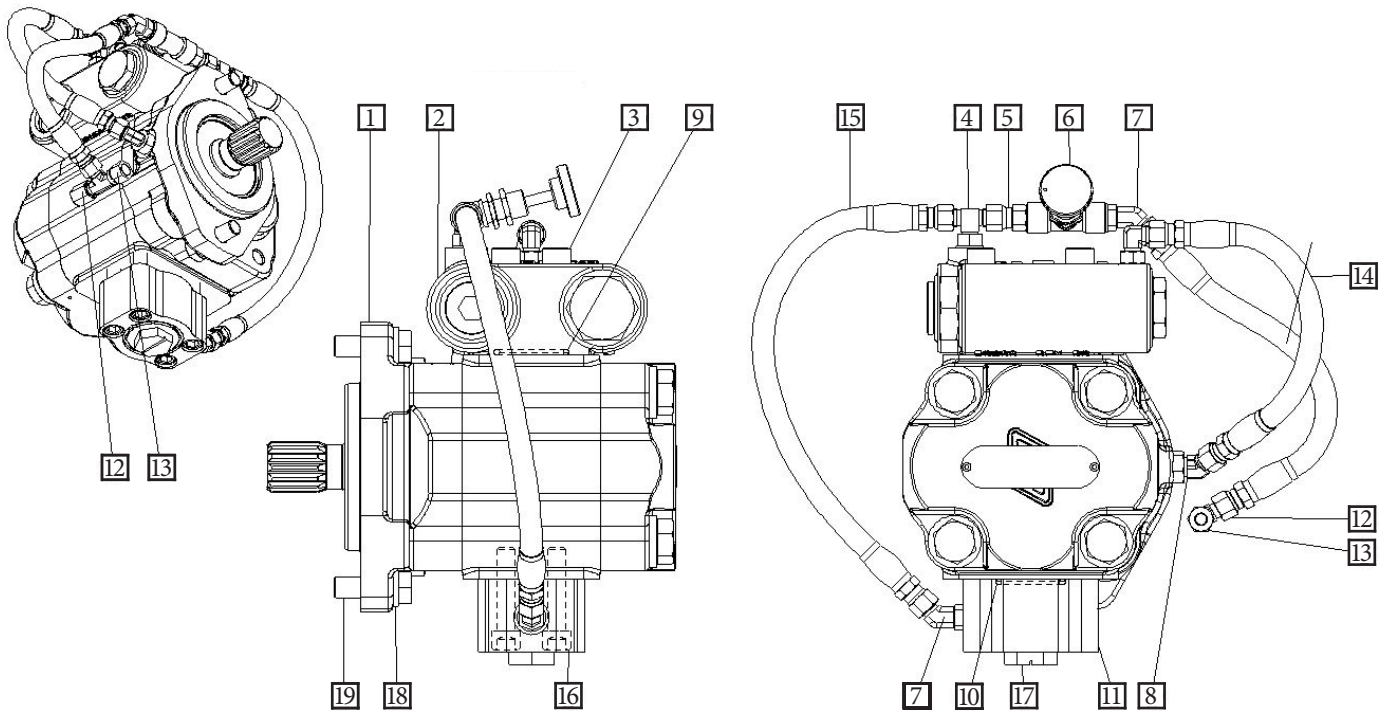
RECOMMENDED FASTENER TORQUE

Bolt Dia. Inches	Thds Per Inch	Torque (LB-FT)			
		Grade 5		Grade 8	
		Dry	Lubed	Dry	Lubed
1/4	20 28	8	6	12	9
5/16	18 24	17	13	24	18
3/8	16 24	31	23	45	35
7/16	14 20	50	35	70	50
1/2	13 20	75	55	110	80
9/16	12 18	110	80	150	110
5/8	11 18	150	115	210	160

Bolt Dia. Inches	Thds Per Inch	Torque (LB-FT)			
		Grade 5		Grade 8	
		Dry	Lubed	Dry	Lubed
3/4	10 16	265	200	380	280
7/8	9 14	420	325	600	450
1	8 14	640	485	910	680
1 1/8	7 12	790	590	1290	970
1 1/4	7 12	1120	835	1820	1360
1 3/8	6 12	1460	1095	2385	1790
1 1/2	6 12	1940	1460	3160	2370

HYDRAULIC MOTOR GROUPS

Part numbers 65155 and 65156



NOTE: This drawing represents standard configurations. Verify hoses, fittings, and capscrews using tables found on pages 11 and 12.

ITEM NO.	DESCRIPTION	PART NO.	QTY.
1A	Hydraulic motor, gear PD10-75B, PD10-77B	111059	1
1B	Hydraulic motor, gear PD15-75B, PD15-77B	111060	1
2	Brake valve assembly, 1.25-6	81712	1
3	Capscrew	29399	4
4	Tee, -4 ORB	29078	1
5	Adapter, 4 ORB/-4 JIC swivel	103947	1
6	Needle valve	103936	1
7	Elbow, 45 ORB to JIC -4	100265	2
8	Elbow, 45° to JIC -4	101920	1
9	O-ring *	13838	1
10	O-ring *	21150	1
11	Manifold	27434	1
12	Swivel tee	26002	1
13	Cap nut	70182	1
14	Hose assembly	25936	2
15	Hose assembly	25935	1
16	Capscrew	21144	4
17	Shipping plug	25487	1
18	Lockwasher	11026	2
19	Capscrew	104322	2

METRIC CONVERSION TABLE

English to Metric

Metric to English

English to Metric			Metric to English		
LINEAR					
inches (in.)	X 25.4	= millimeters (mm)	millimeters (mm)	X 0.03937	= inches (in.)
feet (ft.)	X 0.3048	= meters (m)	meters (m)	X 3.281	= feet (ft.)
miles (mi.)	X 1.6093	= kilometers (km)	kilometers (km)	X 0.6214	= miles (mi.)
AREA					
inches ² (sq.in.)	X 645.15	= millimeters ² (mm ²)	millimeters ² (mm ²)	X 0.000155	= inches ² (sq.in.)
feet ² (sq.ft.)	X 0.0929	= meters ² (m ²)	meters ² (m ²)	X 10.764	= feet ² (sq.ft.)
VOLUME					
inches ³ (cu.in.)	X 0.01639	= liters (l)	liters (l)	X 61.024	= inches ³ (cu.in.)
quarts (qts.)	X 0.94635	= liters (l)	liters (l)	X 1.0567	= quarts (qts.)
gallons (gal.)	X 3.7854	= liters (l)	liters (l)	X 0.2642	= gallon (gal.)
inches ³ (cu.in.)	X 16.39	= centimeters ³ (cc)	centimeters ³ (cc)	X 0.06102	= inches ³ (cu.in.)
feet ³ (cu.ft.)	X 28.317	= liters (l)	liters (l)	X 0.03531	= feet ³ (cu.ft.)
feet ³ (cu.ft.)	X 0.02832	= meters ³ (m ³)	meters ³ (m ³)	X 35.315	= feet ³ (cu.ft.)
fluid ounce (fl.oz.)	X 29.57	= milliliters (ml)	milliliters (ml)	X 0.03381	= fluid ounce (fl.oz.)
MASS					
ounces (oz.)	X 28.35	= grams (g)	grams (g)	X 0.03527	= ounces (oz.)
pounds (lbs.)	X 0.4536	= kilograms (kg)	kilograms (kg)	X 2.2046	= pounds (lbs.)
tons (2000 lbs.)	X 907.18	= kilograms (kg)	kilograms (kg)	X 0.001102	= tons (2000 lbs.)
tons (2000 lbs.)	X 0.90718	= metric tons (t)	metric tons (t)	X 1.1023	= tons (2000 lbs.)
tons (long) (2240 lbs.)	X 1013.05	= kilograms (kg)	kilograms (kg)	X 0.000984	= tons (long) (2240 lbs.)
PRESSURE					
inches Hg (60°F)	X 3600	= kilopascals (kPa)	kilopascals (kPa)	X 0.2961	= inches Hg (60°F)
pounds/sq.in. (PSI)	X 6.895	= kilopascals (kPa)	kilopascals (kPa)	X 0.145	= pounds/sq.in. (PSI)
pounds/sq.in. (PSI)	X 0.0703	= kilograms/sq.cm. (kg/cm ²)	kilograms/sq.cm. (kg/cm ²)	X 14.22	= pounds/sq.in. (PSI)
pounds/sq.in. (PSI)	X 0.069	= bars	bars	X 14.5	= pounds/sq.in. (PSI)
inches H ₂ O (60°F)	X 0.2488	= kilopascals (kPa)	kilopascals (kPa)	X 4.0193	= inches H ₂ O (60°F)
bars	X 100	= kilopascals (kPa)	kilopascals (kPa)	X 0.01	= bars
POWER					
horsepower (hp)	X 0.746	= kilowatts (kW)	kilowatts (kW)	X 1.34	= horsepower (hp)
ft.-lbs./min.	X 0.0226	= watts (W)	watts (W)	X 44.25	= ft.-lbs./min.
TORQUE					
pound-inches (in.-lbs.)	X 0.11298	= newton-meters (N-m)	newton-meters (N-m)	X 8.851	= pound-inches (in.-lbs.)
pound-feet (ft.-lbs.)	X 1.3558	= newton-meters (N-m)	newton-meters (N-m)	X 0.7376	= pound-feet (ft.-lbs.)
pound-feet (ft.-lbs.)	X .1383	= kilograms/meter (kg-m)	kilogram/meter (kg-m)	X 7.233	= pound-feet (ft.-lbs.)
VELOCITY					
miles/hour (m/h)	X 0.11298	= kilometers/hour (km/hr)	kilometers/hour (km/hr)	X 0.6214	= miles/hour (m/h)
feet/second (ft./sec.)	X 0.3048	= meter/second (m/s)	meters/second (m/s)	X 3.281	= feet/second (ft./sec.)
feet/minute (ft./min.)	X 0.3048	= meter/minute (m/min)	meters/minute (m/min)	X 3.281	= feet/minute (ft./min.)
TEMPERATURE					
°Celsius = 0.556 (°F - 32)			°Fahrenheit = (1.8°C) + 32		
COMMON METRIC PREFIXES					
mega	(M)	= 1,000,000 or 10 ⁶	deci	(d)	= 0.1 or 10 ⁻¹
kilo	(k)	= 1,000 or 10 ³	centi	(c)	= 0.01 or 10 ⁻²
hecto	(h)	= 100 or 10 ²	milli	(m)	= 0.001 or 10 ⁻³
deka	(da)	= 10 or 10 ¹	micro	(μ)	= 0.000.001 or 10 ⁻⁶

