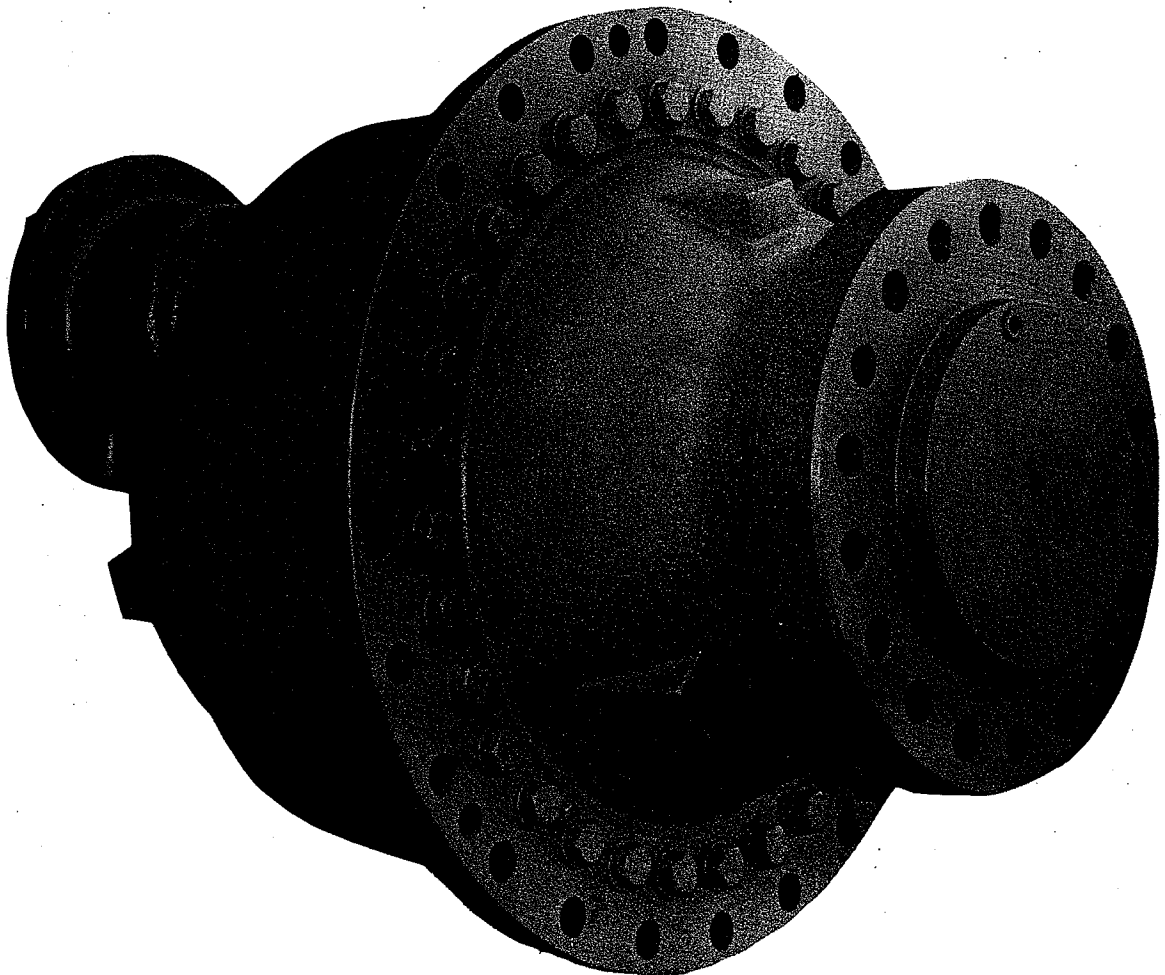


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# BRADEN®

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## 900, 1200, 1400 SERIES PLANETARY DRIVES



## PARTS MANUAL

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PB-214  
6/93  
Printed in U.S.A.

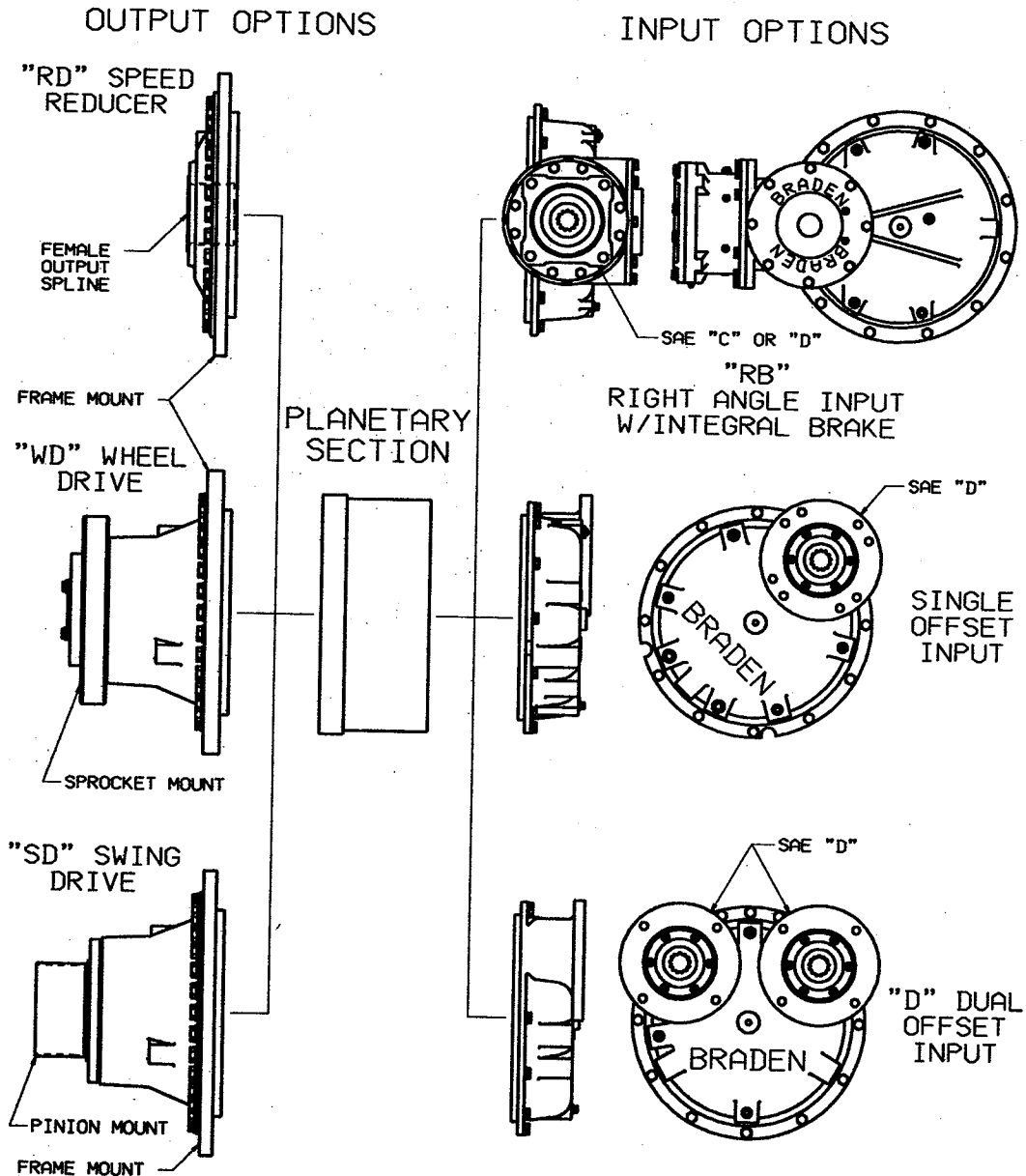
**PACCAR WINCH DIVISIONS**

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PHONE (918) 251-8511 • FAX (918) 258-4822

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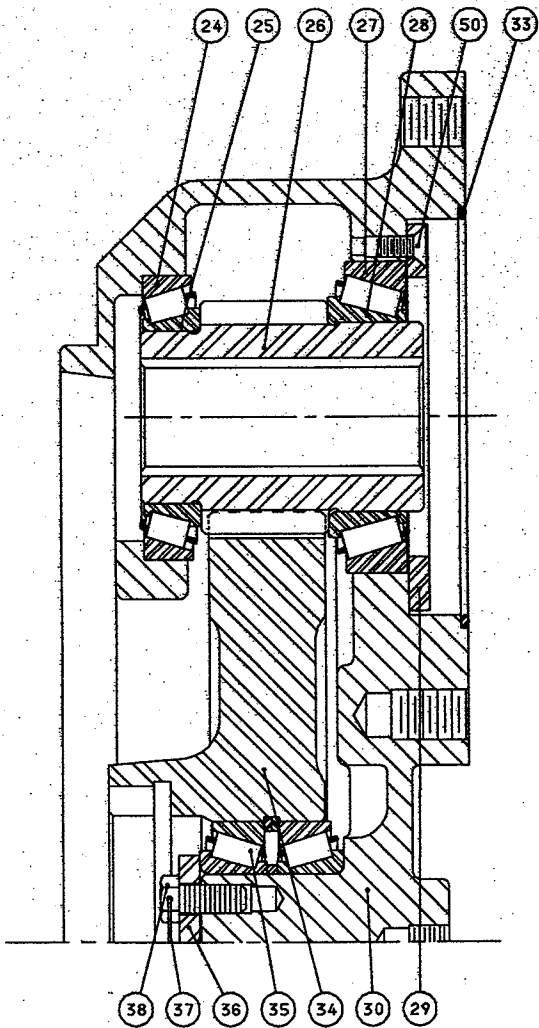
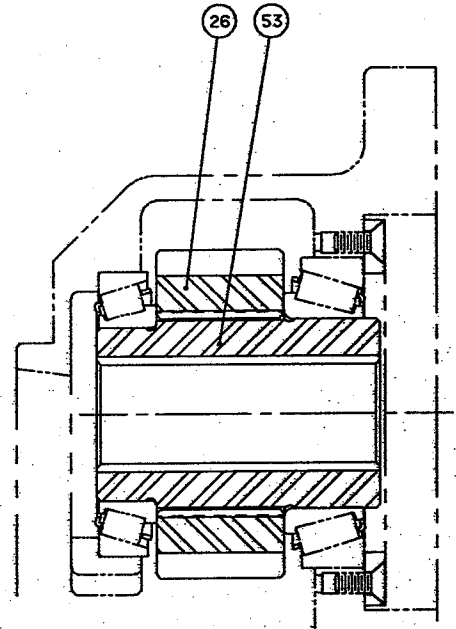
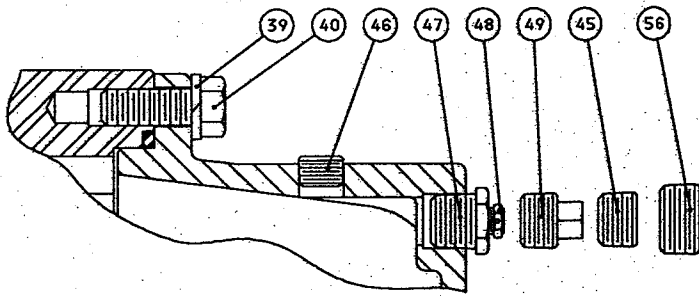
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## INPUT AND OUTPUT OPTION IDENTIFICATION



# Single and Dual Straight Input Section

Item	Part No.	Description	Qty	
			Single Input	Dual Input
24	26383	Bearing Cup	1	2
25	26384	Bearing Cone	1	2
26	29051	Pinion Gear (66:1, Dual Input)	-	2
	29260	Pinion Gear (96:1)	1	-
	27993	Pinion Gear (114:1)	1	-
	29034	Pinion Gear (128:1, 1200 Series)	1	-
	29606	Pinion Gear (128:1, 1400 Series)	1	-
27	26386	Bearing Cup	1	2
28	26387	Bearing Cone	1	2
29	26388	Bearing Retainer	1	2
30	26389	Input Housing (Single Input)	1	-
	29048	Input Housing (Dual Input)	-	1
33	10052	O-ring	1	2
	29052	Bull Gear (66:1, Dual Input)	-	1
34	29261	Bull Gear (96:1)	1	-
	27994	Bull Gear (114:1)	1	-
	29035	Bull Gear (128:1, 1200 Series)	1	-
	29607	Bull Gear (128:1, 1400 Series)	1	-
35	26393	Bearing Assembly	1	1
36	26394	Retainer Plate	1	1
37	-----	Safety Wire	As req'd	As req'd
38	26395	Capscrew	3	3
39	24128	Lockwasher (900, 1200 Series)	12	10
	24128	Lockwasher (1400 Series)	12	-
40	26396	Capscrew (900, 1200 Series)	12	10
	26396	Capscrew (1400 Series)	12	-
45	19045	Plug	2 or 3	2
46	23095	Plug	1	-
47	18066	Reducer Bushing	1	1
48	18062	Breather	1	1
49	72215	Magnetic Plug	1	1
50	21043	Capscrew	6	12
53	29062	Input Pinion Shaft (66:1, Dual Input)	-	2
56	23381	Plug (1200, 1400 Series)	4	-



**Single and Dual  
Straight Input Section**

## Right Angle Input Section

Item	Part No.	Description	Qty
1	27363	Motor Adapter	1
2	27374	Back-up Ring	1
3	27646	O-ring	1
4	27647	Seal	1
5	24490	Steel Brake Disc (900 & 1200 Series w/o over-running clutch)	12
	24490	Steel Brake Disc (1400 Series)	11
	24490	Steel Brake Disc (900 Series w/over-running clutch)	10
6	25530	Friction Disc (900 & 1200 Series)	9
	25530	Friction Disc (1400 Series)	10
	27649	Friction Disc (900 Series w/over-running clutch)	9
7	27365	Brake Piston	1
8	27441	Retaining Ring	1
9	62353	Bevel Gear Set	1
10	27443	Bearing Spacer	1
11	27471	Spring Separator	1
12	27444	Spring (All 1200 Series & 900 Series w/o over-running clutch)	10
	27444	Spring (All 1400 Series & 900 Series w/over-running clutch)	12
14	22721	O-ring	1
15	27635	Brake Housing	1
	29735	Brake Housing (900 Series w/over-running clutch)	1
16	27447	Bearing Cup	2
17	27448	Bearing Cone	2
21	27445	Bearing Cup	2
22	27446	Bearing Cone	1
23	27410	Bearing Cone	1
26	26395	Capscrew	3
27	-----	Safety Wire (0.050 in. steel)	As req'd
28	26394	Retaining Plate	1
29	26393	Bearing Set	1
30	27437	Input Housing	1
31	13413	Capscrew	27
32	11026	Lockwasher	27
33	25108	O-ring	1
34	27438	Cover	1
	29573	Cover (w/input speed pickup)	1
36	27366	Brake Spacer	1
37	27440*	Brake Shaft	1
38	26083	Shipping Plug (-4)	1
39	10052	O-ring (units w/over-running clutch, qty is 2)	1
40	10074	Vent Plug (units w/over-running clutch, qty is 2)	1
42	18063	Plug (units w/over-running clutch, qty is 5)	6
43	72215	Magnetic Plug	2
44	18066	Reducer Bushing	1
45	11310	Spring	3
46	19045	Plug	2
47	27462	Shim (0.003)	As req'd
48	27463	Shim (0.005)	As req'd
49	27464	Shim (0.015)	As req'd
50	27465	Shim (0.003)	As req'd
51	27466	Shim (0.005)	As req'd
52	27467	Shim (0.015)	As req'd
53	27468	Shim (0.003)	As req'd
54	27469	Shim (0.005)	As req'd
55	27470	Shim (0.015)	As req'd
58	27472	Bleeder Fitting	1

59	29374	Shim (0.030)	As req'd
60	29373	Shim (0.030)	As req'd
64	29575	Capscrew	4
65	11945	Shaft Seal	1
66	29574	Cover	1
80	24128	Lockwasher	10
81	26396	Capscrew	10

**Parts used only in units with over-running clutch**

Item	Part No.	Description	Qty
13	27458	Seal	1
18	25700	Retaining Ring	1
19	27459	Plug	1
20	27460	O-ring	1
37	N.S.S.	Outer Race/Brake Shaft	1
41	23508	Reducer Bushing	1
61	29736*	Motor Adapter Extension (D/D)	1
63	29044*	Capscrew	4
67	27648	Wave Spring	9
68	28735	Retaining Ring	1
69	28715	Spacer	2
70	27929	Spacer	1
71	N.S.S.	Over-running Clutch	1
72	N.S.S.	Inner Race	1
74	29045	Lockwasher (3/4 Hi-Collar)	4

N.S.S. = Not Serviced Separately

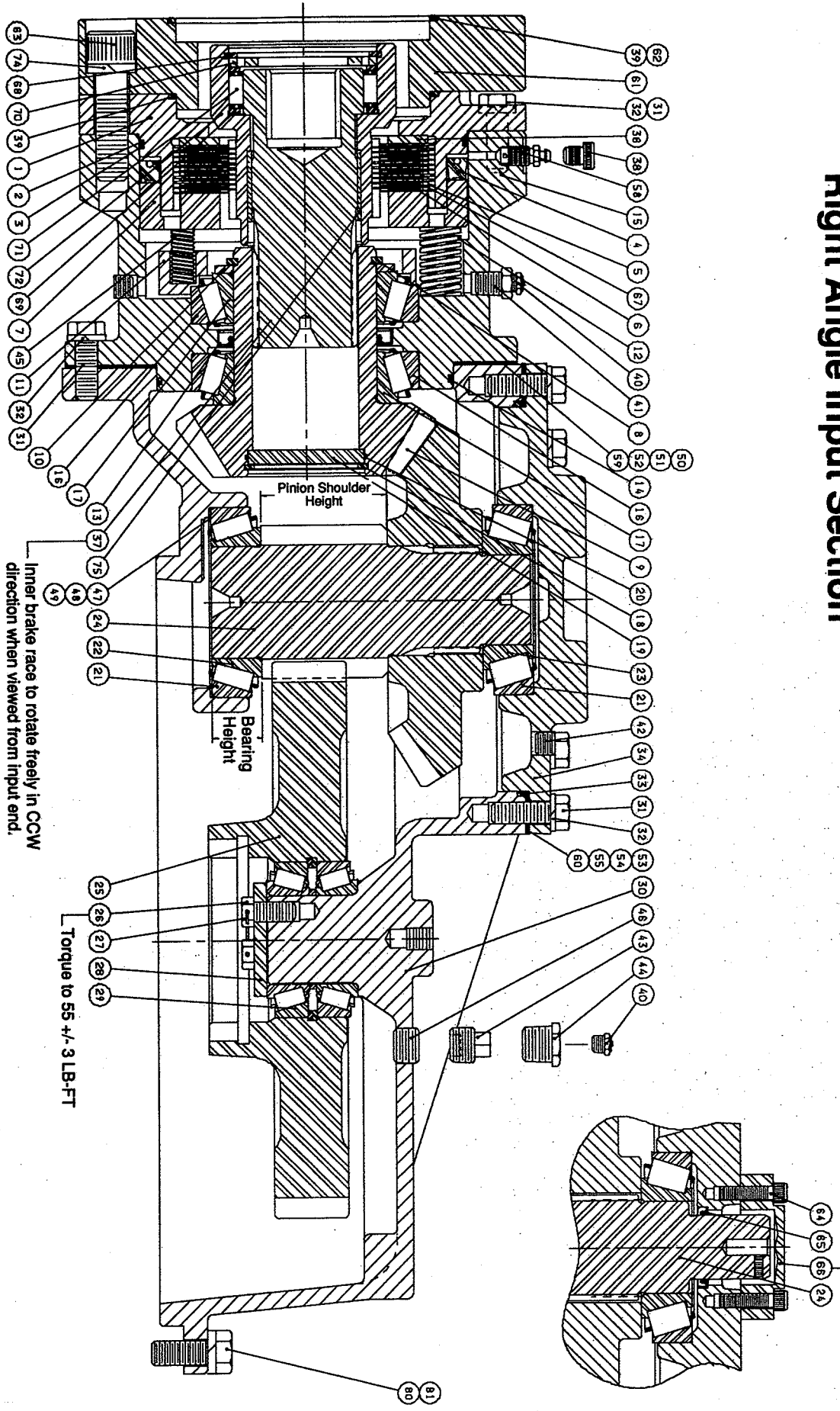
**\* Units with SAE "C" motor input w/o over-running clutch, use the following parts:**

Item	Part No.	Description	Qty
37	29475	Brake Shaft	1
61	29476	Motor Adapter Extension (C/D)	1
62	10330	O-ring	1
63	28937	Capscrew	4

## Input Pinion and Bull Gears

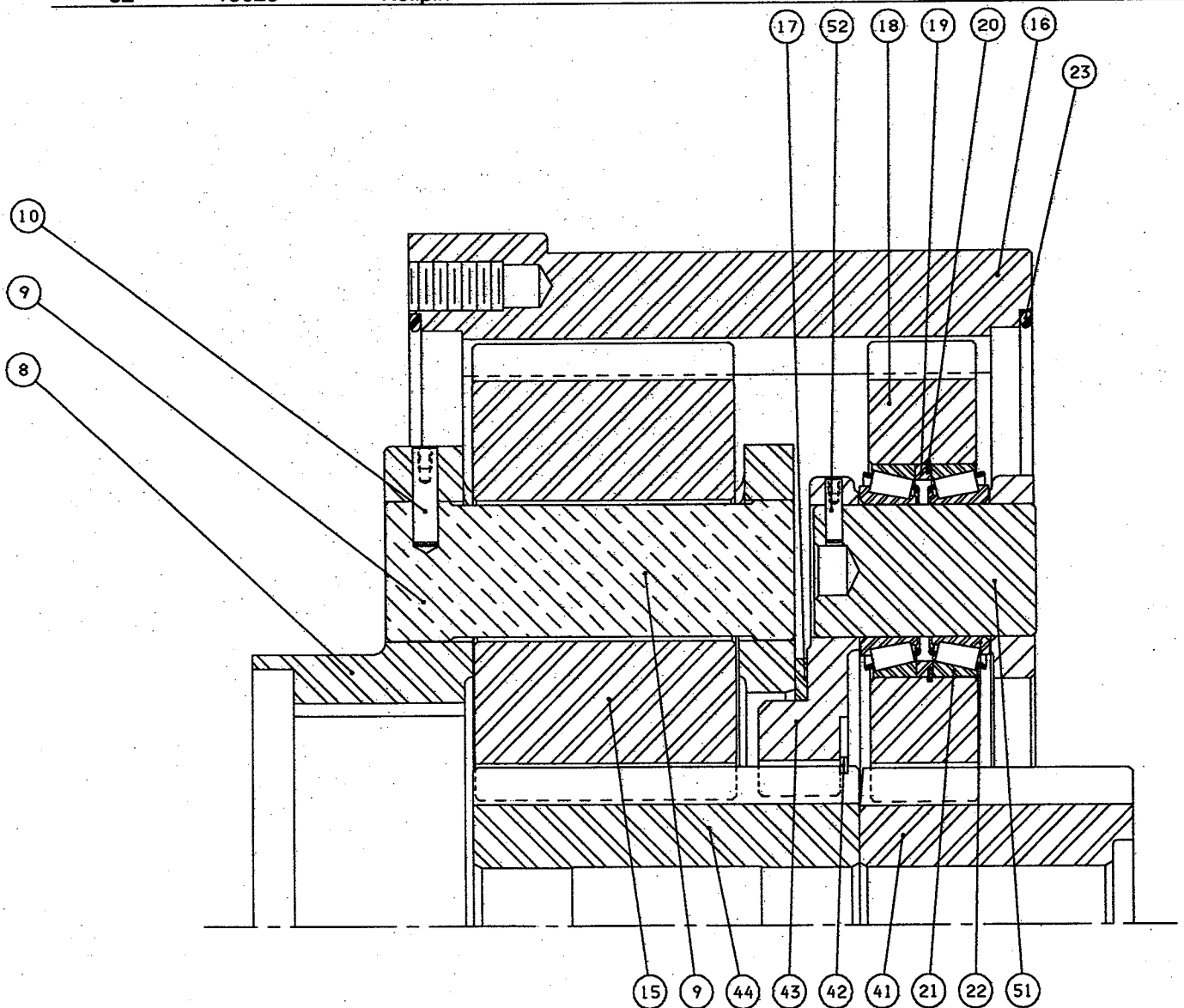
Item	Part No.	Description	Qty
24	29119	Pinion (135:1)	1
	27439	Pinion (174:1)	1
	29567	Pinion (176:1) (with input speed pickup)	1
	29037	Pinion (192:1)	1
	29740	Pinion (207:1)	1
25	29118	Bull Gear (135:1)	1
	27543	Bull Gear (174:1)	1
	29566	Bull Gear (176:1)	1
	29035	Bull Gear (192:1)	1
	29741	Bull Gear (207:1)	1

# Right Angle Input Section



# 900 Series Center Section

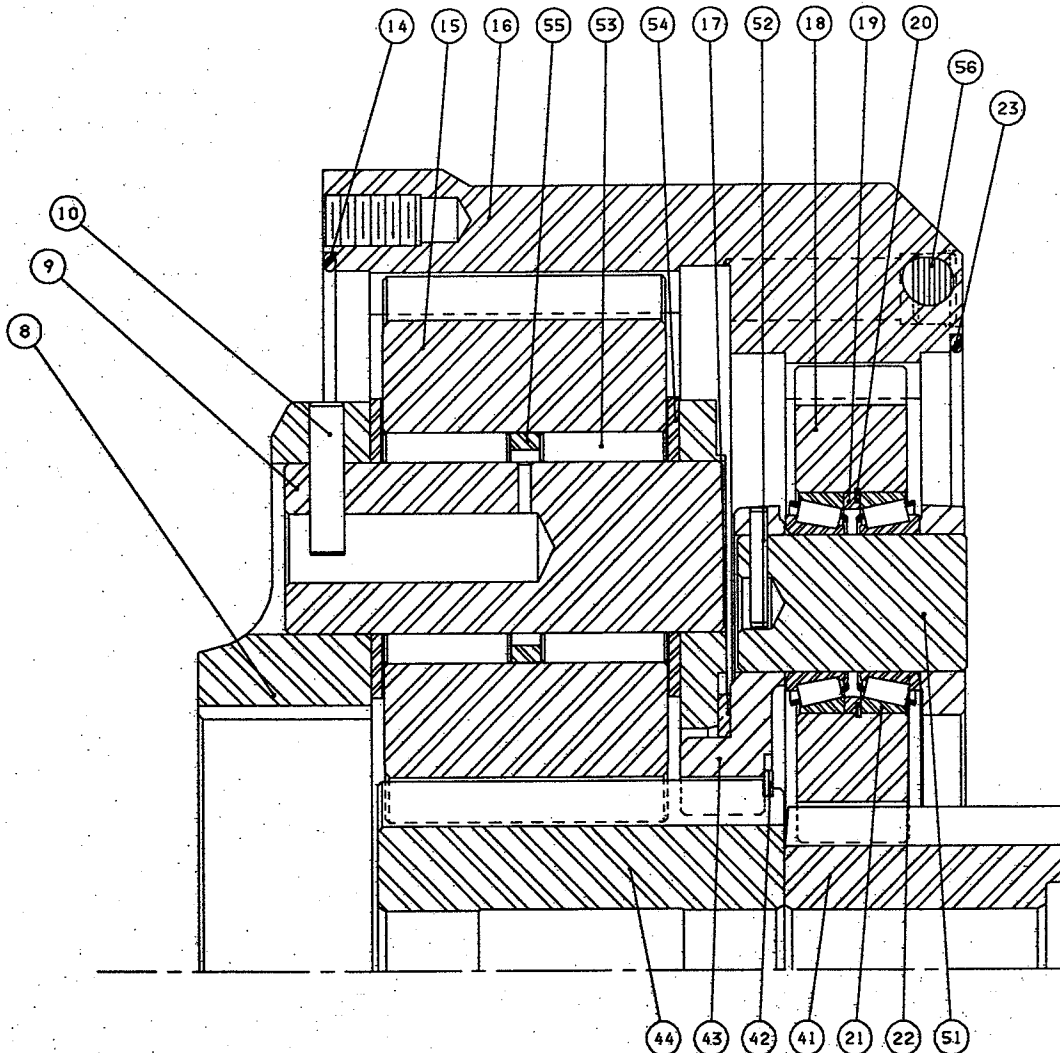
Item	Part No.	Description	Qty
8	27968	Final Planet Carrier (Wheel Drive, Swing Drive)	1
	29049	Final Planet Carrier (Reducer Drive)	1
9	26368	Final Planet Gear Shaft	4
10	26439	Pin	4
15	27972	Final Planet Gear	4
16	27970	Ring Gear	1
17	26376	Thrust Washer	1
18	26377	Primary Planet Gear	3
19	26378	Bearing Spacer	3
20	26379	Retaining Ring	3
21	30952	Bearing Cup	6
22	26381	Bearing Cone	6
23	26382	O-ring	2
41	27492	Primary Sun Gear (Right Angle Input)	1
	26397	Primary Sun Gear (Straight Input)	1
42	28721	Retaining Ring	1
43	27995	Primary Planet Carrier	1
44	27971	Final Sun Gear	1
51	27191	Primary Planet Gear Shaft	3
52	13028	Rollpin	3





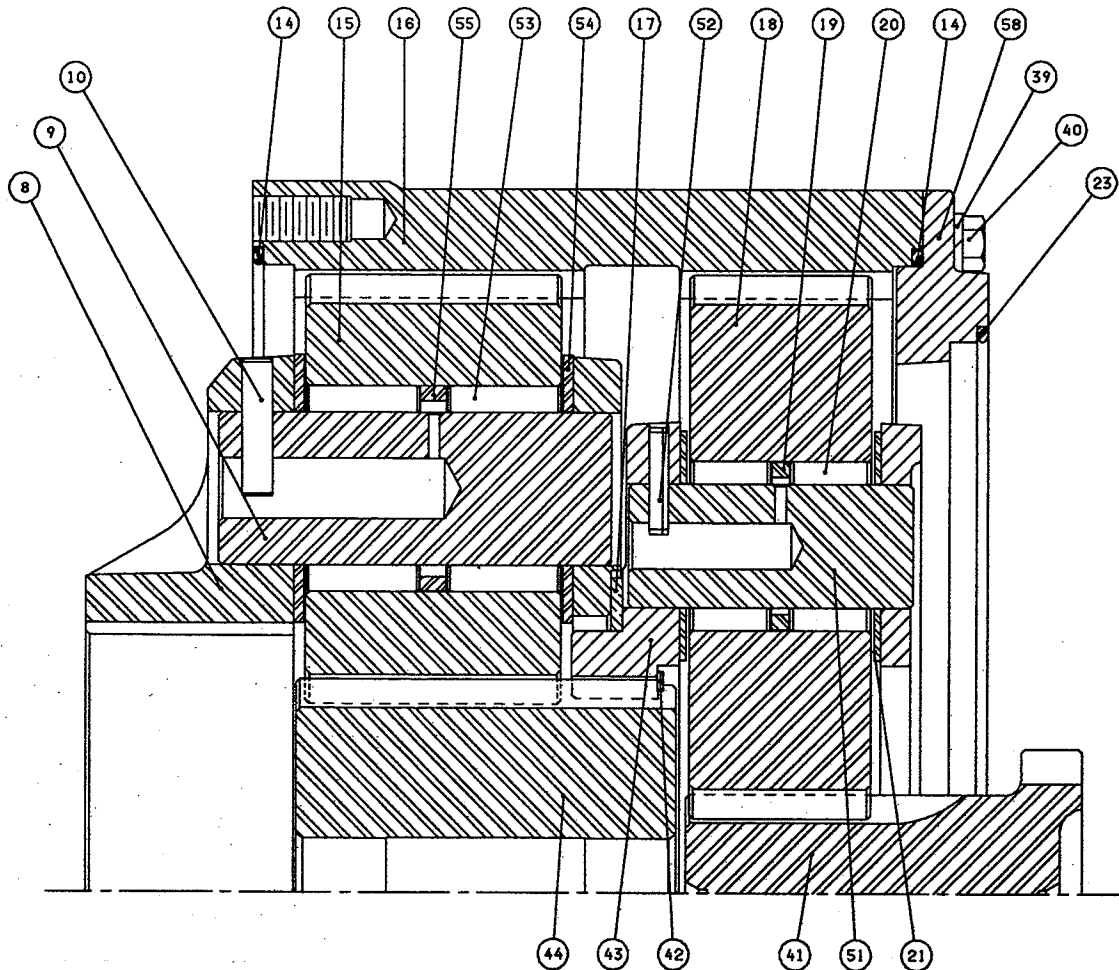
# 1200 Series Center Section

Item	Part No.	Description	Qty
8	28983	Final Planet Carrier (Wheel Drive)	1
	29025	Final Planet Carrier (Reducer Drive)	1
9	28986	Final Planet Gear Shaft	3
10	29004	Pin	3
14	26373	O-ring	1
15	28984	Final Planet Gear	3
16	28997	Ring Gear	1
17	26376	Thrust Washer	1
18	26377	Primary Planet Gear	3
19	26378	Bearing Spacer	3
20	26379	Retaining Ring	3
21	30952	Bearing Cup	6
22	26381	Bearing Cone	6
23	26382	O-ring	1
41	27492	Primary Sun Gear (Right Angle Input)	1
	26397	Primary Sun Gear (Straight Input)	1
42	26398	Retaining Ring	1
43	28995	Primary Planet Carrier	1
44	28985	Final Sun Gear	1
51	27191	Primary Planet Gear Shaft	3
52	13028	Rollpin	3
53	29001	Final Planet Gear Bearings	126
54	29002	Thrust Washer	6
55	29003	Bearing Spacer	3
56	23381	Plug	2



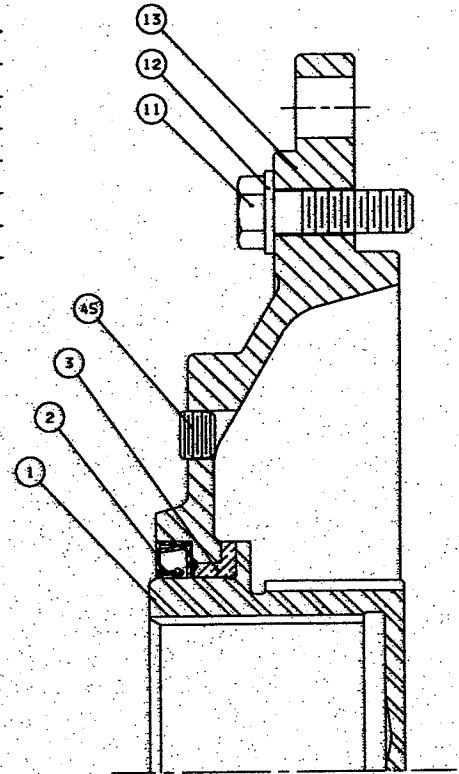
# 1400 Series Center Section

Item	Part No.	Description	Qty
8	29604	Final Planet Carrier (Wheel Drive)	1
	29544	Final Planet Carrier (Reducer Drive)	1
9	28986	Final Planet Gear Shaft	5
10	29004	Pin	5
14	26373	O-ring	2
15	29546	Final Planet Gear	5
16	29610	Ring Gear (Wheel Drive)	1
	29545	Ring Gear (Reducer Drive)	1
17	29553	Thrust Washer	1
18	29548	Primary Planet Gear	3
19	29563	Bearing Spacer	3
20	27911	Primary Planet Gear Bearings	120
21	29568	Thrust Washer	6
23	26382	O-ring	1
39	24128	Lockwasher	12
40	26396	Capscrew	12
41	29605	Primary Sun Gear (Wheel Drive)	1
	29549	Primary Sun Gear (Reducer Drive)	1
42	29569	Retaining Ring	1
43	29560	Primary Planet Carrier	1
44	29547	Final Sun Gear	1
51	29561	Primary Planet Gear Shaft	3
52	75130	Rollpin	3
53	29001	Final Planet Gear Bearings	210
54	29002	Thrust Washer	10
55	29003	Bearing Spacer	5
58	29608	Ring Gear Adapter (Wheel Drive)	1
	29537	Ring Gear Adapter (Reducer Drive)	1



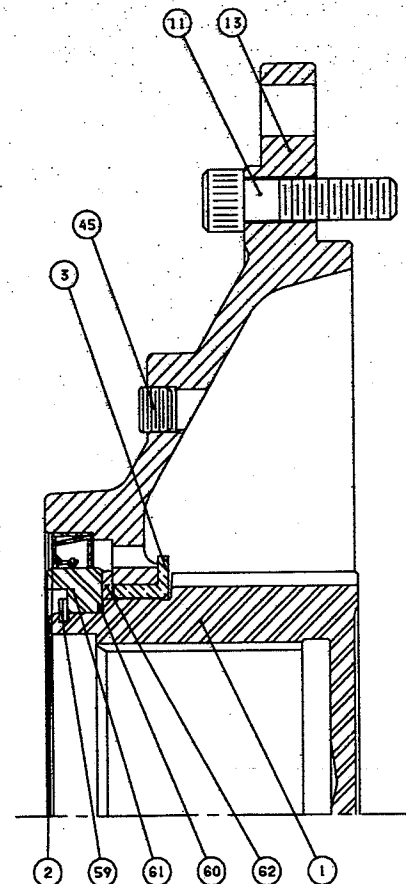
## 900 & 1200 Series Reducer Drive Output Section

Item	900 Series	1200 Series	Description	Qty
1	29043	29024	Output Adapter	1
2	29061	70167	Seal	1
3	29050	29026	Output Bushing	1
11	26370	29044	Capscrew	32
12	26371	----	Washer	32
13	29047	29022	Output Cover	1
45	19045	19045	Plug	1



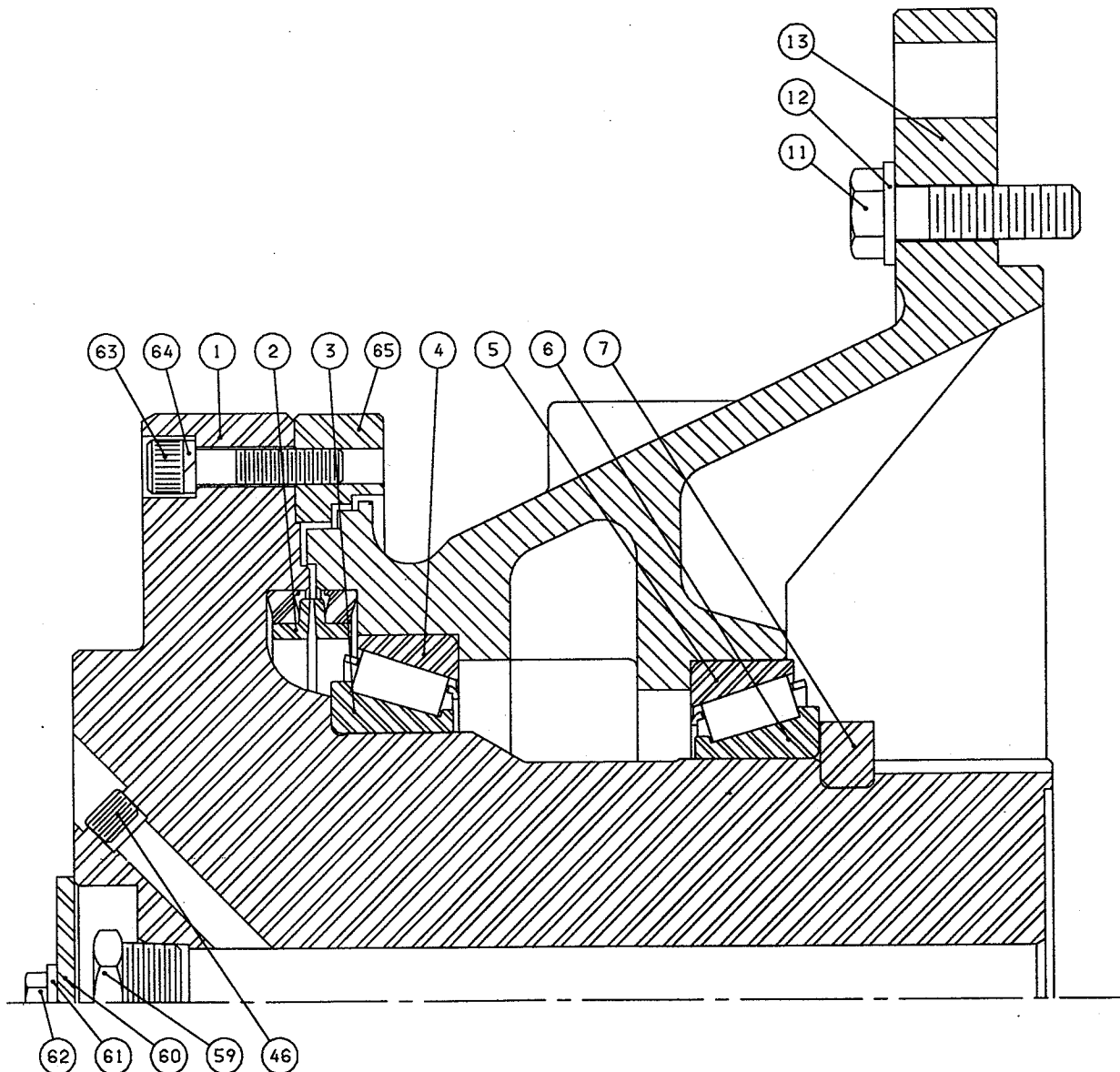
## 1400 Series Reducer Drive Output Section

Item	Part No.	Description	Qty
1	29558	Output Adapter	1
2	29554	Seal	1
3	29550	Output Bushing	1
11	29044	Capscrew	32
13	29543	Output Cover	1
45	19045	Plug	1
59	29570	Retaining Ring	1
60	77208	O-ring	1
61	29552	Seal Ring	1
62	29551	Thrust Washer	1



# Wheel Drive Output Section

Item	Part No.	Description	Qty
1	26360	Output Shaft	1
2	26361	Shaft Seal	1
3	26362	Bearing Cone	1
4	26363	Bearing Cup	1
5	26364	Bearing Cup	1
6	26365	Bearing Cone	1
7	26366	Split Ring	1
11	26370	Capscrew	32
12	26371	Washer	32
13	27969	Output Housing (Standard)	1
	26372	Output Housing (w/wire guard)	1
46	23095	Plug	2
59	29102	Sight Gauge	1
60	29257	Cover	1
61	27248	Hardened Washer	2
62	13938	Capscrew	2
63	72845	Capscrew	6
64	29468	Lockwasher (1/2 Hi-Collar)	6
65	29751	Wire Guard Ring	1



# Swing Drive Output Section

Item	Part No.	Description	Qty
1	29480	Output Shaft	1
2	26361	Shaft Seal	1
3	26362	Bearing Cone	1
4	26363	Bearing Cup	1
5	26364	Bearing Cup	1
6	26365	Bearing Cone	1
7	26366	Split Ring	1
11	26370	Capscrew	32
12	26371	Washer	32
13	29478	Output Housing	1
64	29479	Seal Ring	1
65	21033	O-ring	1

