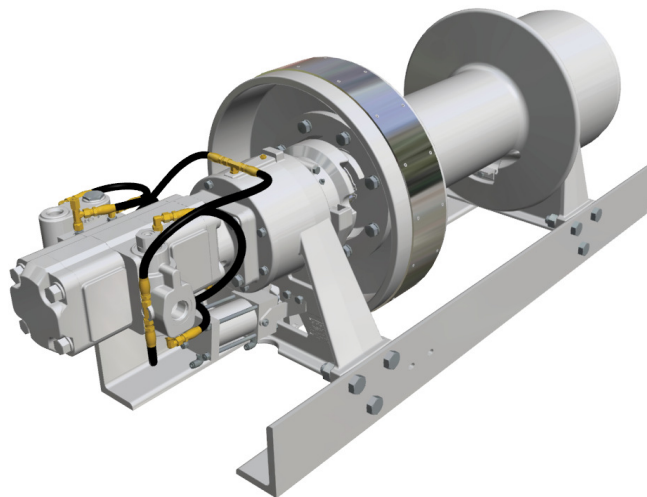


BRADEN[®]

HP80A

MATERIAL LIST



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Pacific Marine & Industrial
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PACCAR WINCH

P.O. BOX 547 Broken Arrow, OK 74013
Tel 918-251-8511 / Fax 918-259-1575
www.paccarwinch.com

FOREWORD

Read this entire publication and retain it for future reference.

If you have any questions regarding your Braden HP80A Winch or this publication, call the Braden Service Department at 1-918-251-8511, 08:00-16:30 hours Central Time Zone, Monday through Friday.

Some illustrations in this manual may show details or attachments that are different from your winch. Also, some components have been removed for illustrative purposes. Illustrations and pictures in this manual are of a “typical” unit sold through our distribution channels. Some winches, particularly those sold to original equipment manufacturers, may differ slightly in appearance.

Whenever a question arises regarding your Braden Winch, please contact the Braden Service Department for the latest available information.

PACCAR Winch Division
Service Department
P.O. Box 547
Broken Arrow, Oklahoma 74013-0547 United States of America
www.paccarwinch.com

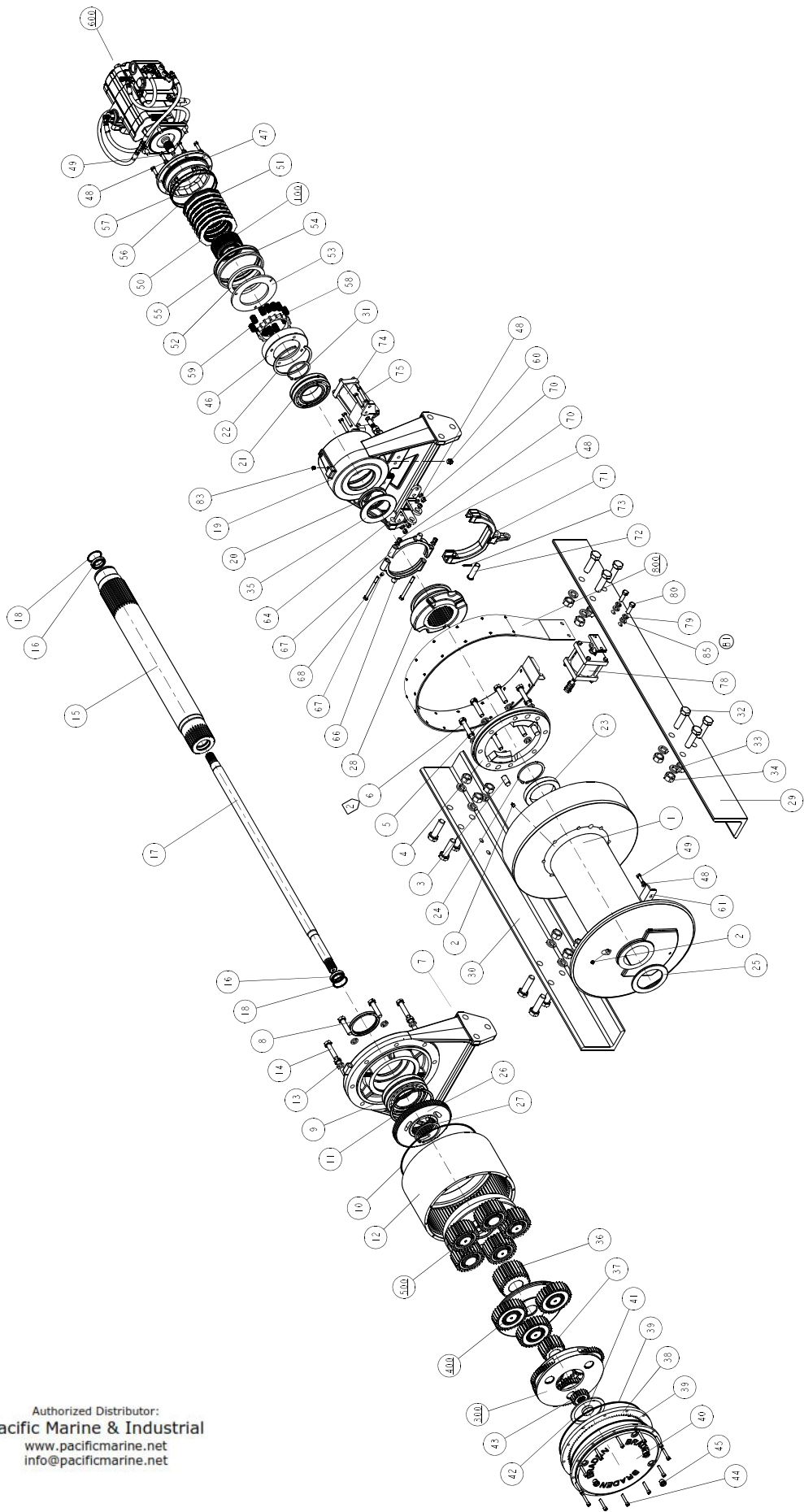
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MAIN WINCH ASSEMBLY



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MAIN WINCH ASSEMBLY PARTS

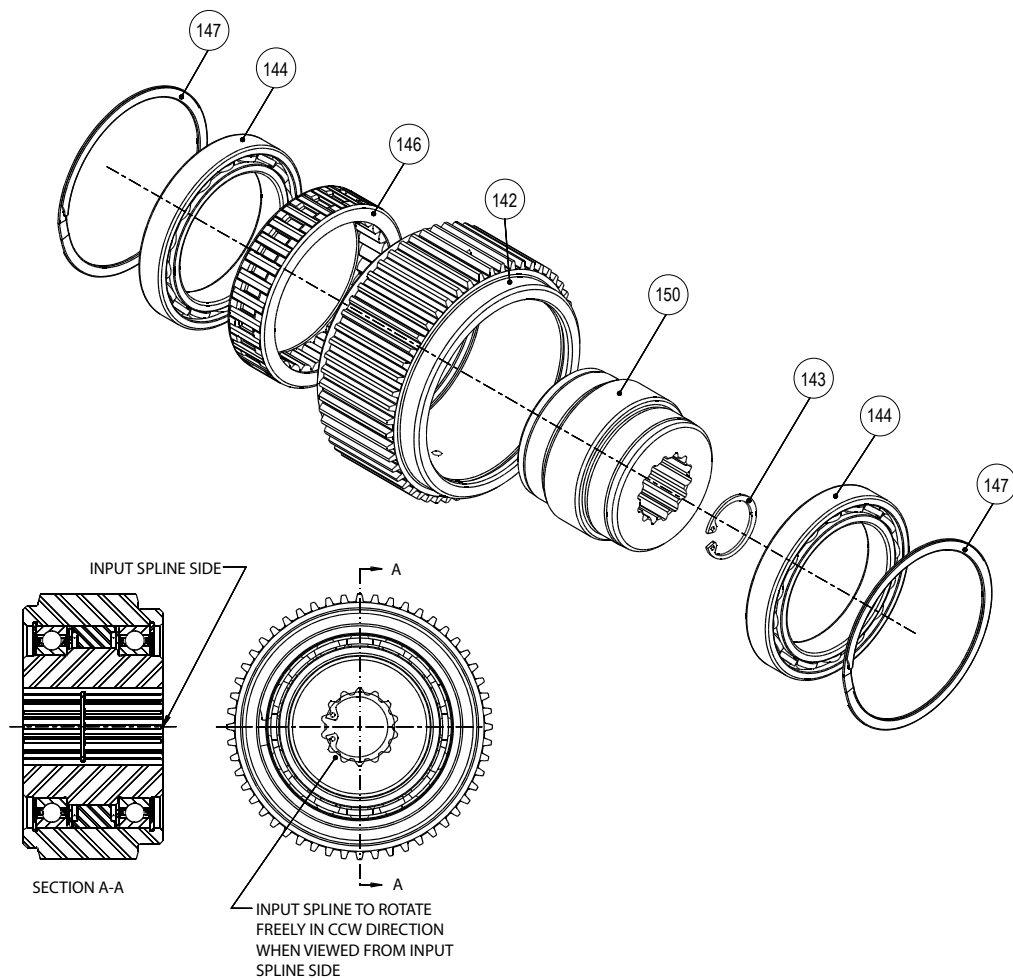
ITEM	DESCRIPTION	PART NO	QTY
44	CAPSCREW (3/4-10 X 2 GD8 Z)	109175	12
45	METRIC PLUG	108107	3
46	SPRING STOP	109469	1
47	MOTOR ADAPTER	109448	1
48	LOCKWASHER (3/8 Z)	27152	15
49	CAPSCREW (3/8-16 X 1-1/4 GD8 Z)	104132	9
50	BRAKE DISC	102954	11
51	FRICTION DISC	103167	6
52	BRAKE PLATE SPACER	103169	1
53	PRESSURE PLATE	103168	1
54	PISTON BACKUP RING	25746	1
55	SEAL	103441	1
56	O-RING	22357	1
57	BACK-UP WASHER	77278	1
58	SPRING SPACER	103147	1
59	BRAKE SPRING	24108	12
60	PLUG	26686	1
61	ANCHOR RETAINER PLATE	101950	1
64	SHIFT FORK BRACKET	11656	2
65	CLUTCH RIDER	11671	1
66	CLUTCH RIDER	11672	1
67	GREASE FITTING	18047	1
68	CAPSCREW (3/8-16 X 4-1/4 GD8 Z)	107505	2
70	NUT	104729	6
71	SHIFTER FORK	109496	1
72	SHIFT FORK PIVOT PIN	11657	1
73	COTTER PIN	13959	1
74	AIR CLUTCH KIT	84247	1
75	CAPSCREW	104134	4
78	AIR BRAKE KIT	84257	1
79	LOCKWASHER (1/2 Z)	11026	2
80	CAPSCREW (1/2-13 X 1-1/2 GD8 Z)	104322	2
81	NAMEPLATE	76381	1
82	DRIVE SCREW	11842	4
83	RELIEF VALVE	18062	1
84	CABLE FERRULE - 1 INCH	29427	1
85	WASHER (PLAIN 1/2 Z)	100859	2
100	OVERRUNNING CLUTCH (PAGE 6)	82908	1
300	PRIMARY PLANET CARRIER ASSEMBLY (PAGE 7)	84080	1
400	SECONDARY PLANET CARRIER ASSEMBLY (PAGE 8)	84058	1
500	OUTPUT PLANET CARRIER ASSEMBLY (PAGE 9)	84239	1
700	HYDRAULIC MOTOR ASSEMBLY (PAGE 10)	64774	1
800	BRAKE BAND ASSEMBLY (PAGE 11)	84243	1

ITEM	DESCRIPTION	PART NO	QTY
1	CABLE DRUM	109379	1
2	GREASE FITTING	18047	2
3	DOWEL PIN	12769	2
4	CLUTCH PLATE	11654	1
5	LOCKWASHER (5/8 Z)	102423	8
6	CAPSCREW (5/8-18 X 2-3/4 GD8 Z)	13982	8
7	END BRACKET	109367	1
8	SEAL	109486	1
9	BEARING	109485	1
10	O-RING	72801	1
11	RETAINING RING	28814	1
12	RING GEAR	109461	1
13	LOCKWASHER (5/8 Z)	102423	8
14	CAPSCREW	109488	8
15	CABLE DRUM SHAFT	109458	1
16	BEARING	109483	2
17	PRIMARY SUN GEAR DRIVE SHAFT	109470	1
18	RETAINING RING	109490	2
19	END BRACKET	109373	1
20	SEAL	109487	1
21	BEARING	109484	1
22	RETAINING RING	109489	1
23	DRUM SPACER	109462	1
24	RETAINING RING	32097	1
25	DRUM SPACER	109464	1
26	ADAPTER	109378	1
27	RETAINING RING	100931	1
28	SLIDING CLUTCH	109453	1
29	BASE ANGLE	109480	1
30	BASE ANGLE	109481	1
31	RETAINING RING	109509	1
32	CAPSCREW (7/8-9 X 3 G8 Z)	24708	12
33	LOCKWASHER (7/8 Z)	13447	12
34	NUT (7/8 HEAVY DUTY)	22886	12
35	DRUM SPACER	109463	1
36	OUTPUT SUN GEAR	109172	1
37	SECONDARY SUN GEAR	109173	1
38	RING GEAR	109165	1
39	O-RING	72112	2
40	COVER	109135	1
41	THRUST BUTTON	102322	1
42	THRUST WASHER	28727	1
43	PRIMARY SUN GEAR	109479	1



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OVERRUNNING CLUTCH ASSEMBLY



ITEM	DESCRIPTION	PART NO	QTY
100	OVERRUNNING CLUTCH	82908	-
142	OUTER RACE	NSS	1
143	RETAINING RING	24506	1
144	BALL BEARING	103104	2
146	CLUTCH	NSS	1
147	RETAINING RING	103110	2
150	INNER RACE	NSS	1

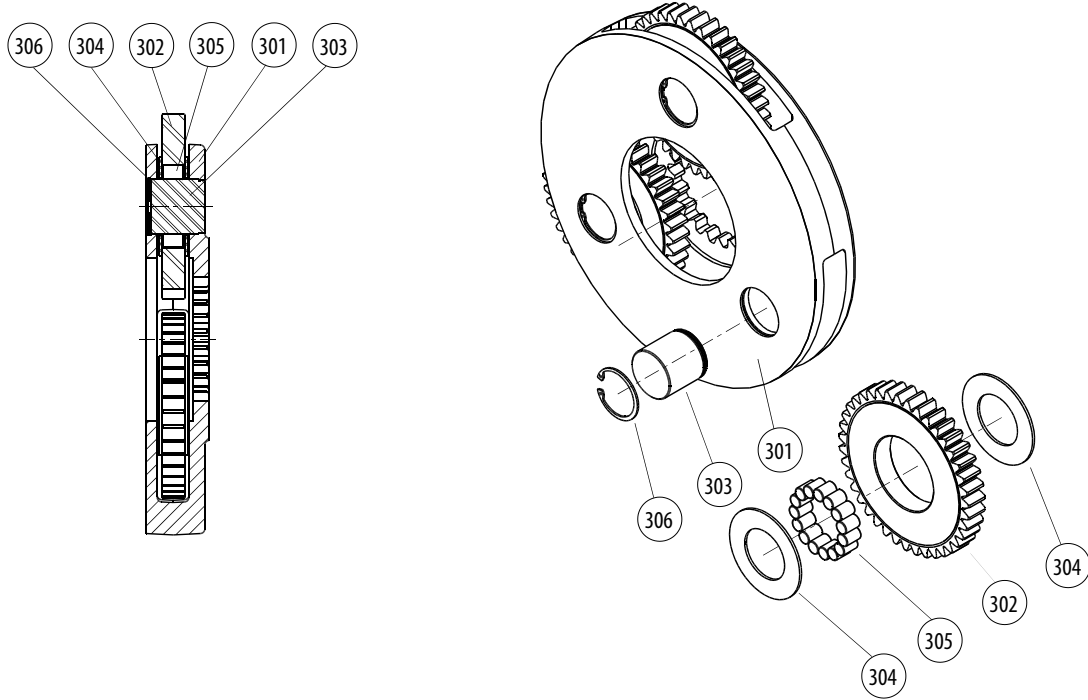
*NSS = Not Serviced Separately

Order entire overrunning clutch assembly



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PRIMARY PLANET CARRIER ASSEMBLY

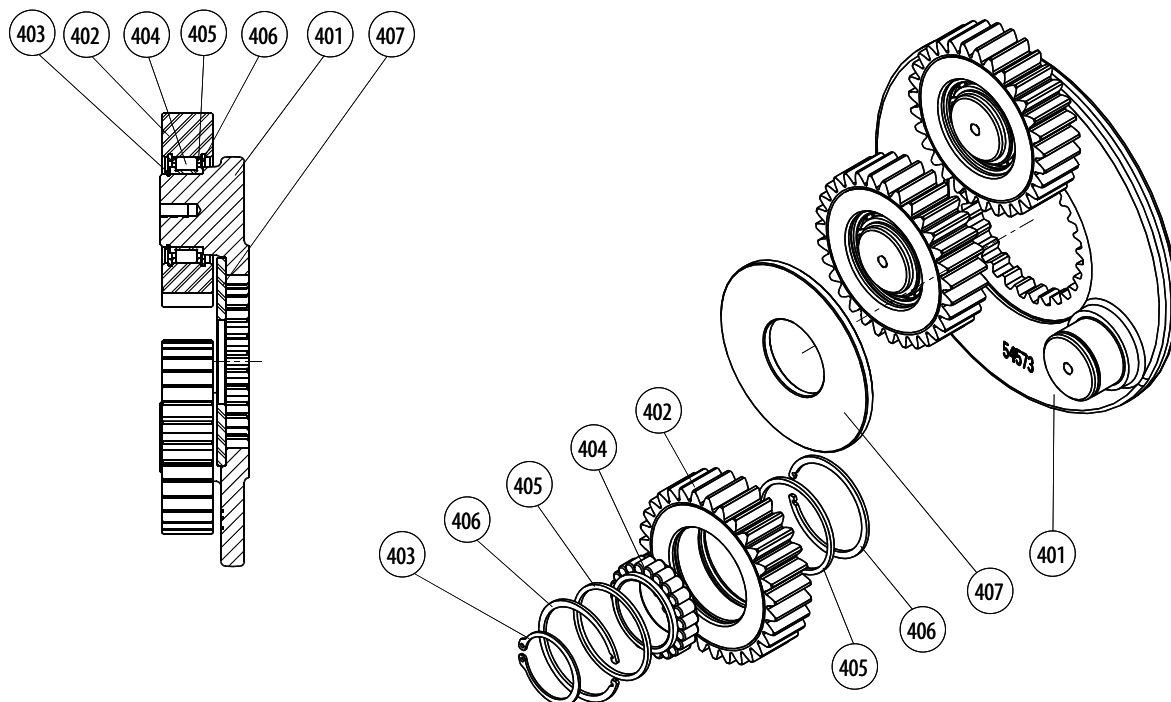


ITEM	DESCRIPTION	PART NO	QTY
300	PRIMARY PLANET CARRIER ASSEMBLY	84080	-
301	PRIMARY PLANET CARRIER	109237	1
302	PRIMARY PLANET GEAR	109238	3
303	PRIMARY PLANET PIN	101921	3
304	THRUST WASHER	102324	6
305	BEARING	102325	45
306	RETAINING RING	28734	3



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SECONDARY PLANET CARRIER ASSEMBLY

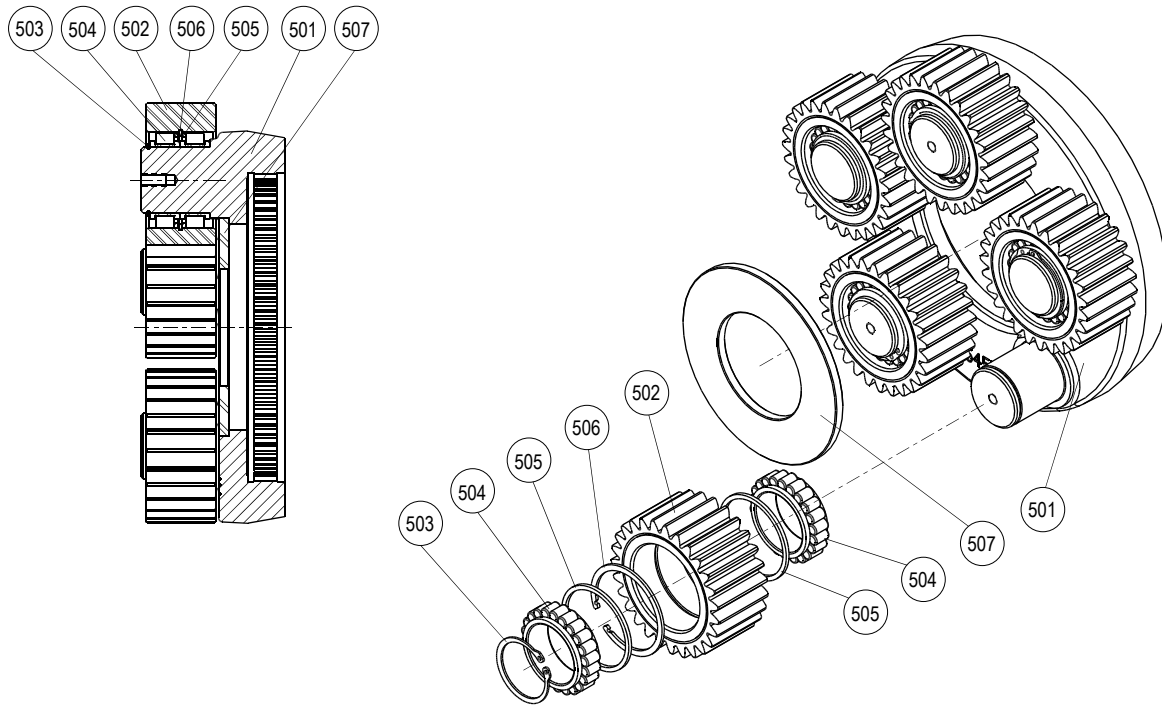


ITEM	DESCRIPTION	PART NO	QTY
400	SECONDARY PLANET CARRIER ASSEMBLY	84058	-
401	SECONDARY PLANET CARRIER	109124	1
402	SECONDARY PLANET GEAR	109128	3
403	SNAP RING	21149	3
404	BEARING	108228	3
405	SPACER	108229	6
406	RETAINING RING	108230	6
407	SPACER	102339	1



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OUTPUT PLANET CARRIER ASSEMBLY

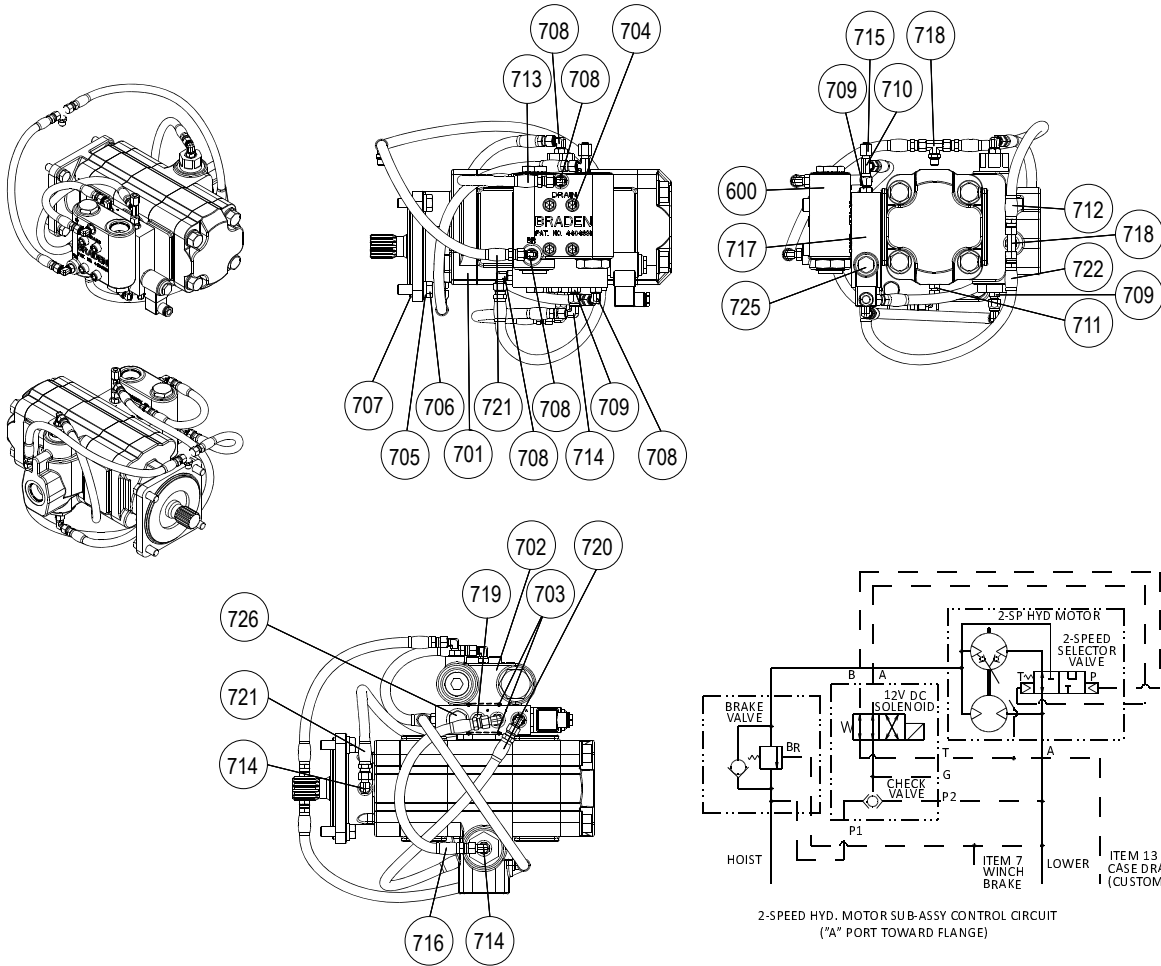


ITEM	DESCRIPTION	PART NO	QTY
500	OUTPUT PLANET CARRIER ASSEMBLY	84239	-
501	OUTPUT PLANET CARRIER	109468	1
502	OUTPUT PLANET GEAR	109129	5
503	SNAP RING	21149	5
504	BEARING	108228	10
505	SPACER	108229	10
506	RETAINING RING	108230	5
507	SPACER	109131	1



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HYDRAULIC MOTOR ASSEMBLY



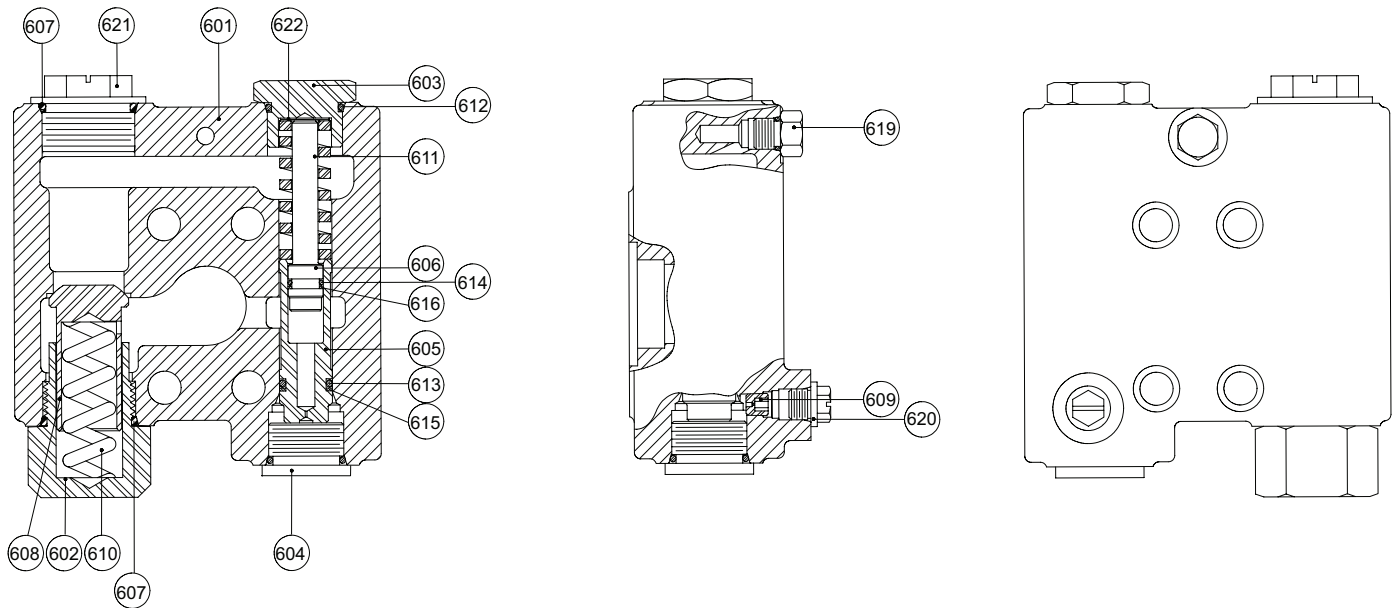
2-SPEED HYD. MOTOR SUB-ASSY CONTROL CIRCUIT
("A" PORT TOWARD FLANGE)

ITEM	DESCRIPTION	PART NO	QTY
701	MOTOR, 2-SPEED HYDRAULIC	109504	1
600	BRAKE VALVE (SEE PG. 11)	81984	1
703	O-RING	13838	2
704	CAPSCREW (7/16-14 x 4-1/2 G8 SKT HD)	102476	4
705	LOCKWASHER (1/2 Z)	11026	4
706	CAPSCREW (1/2 - 13 X 1-1/4 G8 Z)	104322	4
707	O-RING	10330	1
708	ELBOW FITTING	25302	6
709	ADAPTER	25864	3
710	SWIVEL TEE	26002	1
711	ADAPTER	26001	1
712	HOSE ASSEMBLY (JIC-4, 20 IN., 508 MM)	25952	1
713	HOSE ASSEMBLY (JIC-4, 10 IN., 254 MM)	25936	1
714	SWIVEL NUT 90 DEG. ELBOW	26140	3
715	CAP NUT (JIC-4)	70182	1
716	HOSE ASSEMBLY (JIC-4, 14 IN., 355 MM)	25935	1
717	MANIFOLD	102922	1
718	BRANCH TEE	25554	2
719	HEX HEAD PLUG (-4SAE)	25663	1
720	HOSE ASSEMBLY (JIC-4, 22 IN., 559 MM)	25749	1
721	HOSE ASSEMBLY (JIC-4, 17 IN., 432 MM)	25750	2
722	HOSE ASSEMBLY (JIC-4, 16 IN., 406 MM)	76499	1
723	WARNING TAG	29080	1
725	SOLENOID VALVE (INCLUDES COIL AND CONNECTOR)	107197	1
725A	SOLENOID VALVE COIL	104007	1
725B	CONNECTOR DIN	103171	1
n/a	SOLENOID VALVE SEAL KIT	104004	1
726	SHUTTLE VALVE	104006	1
n/a	SHUTTLE VALVE SEAL KIT	104005	1



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BRAKE VALVE ASSEMBLY



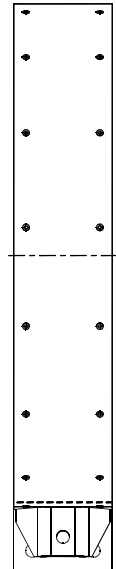
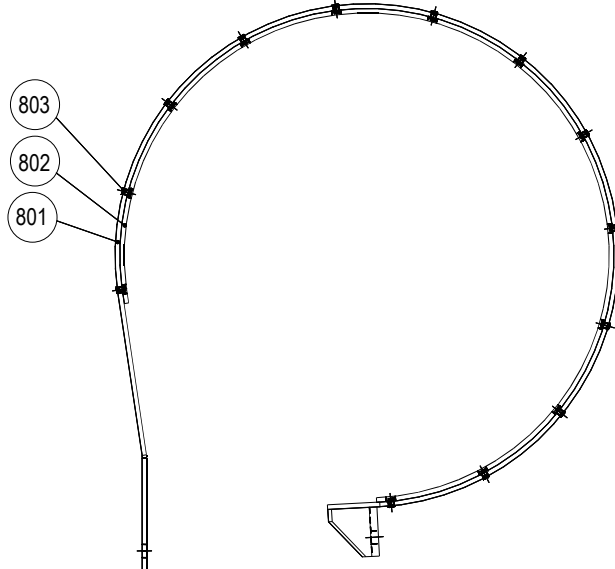
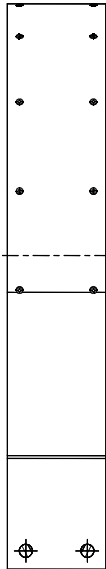
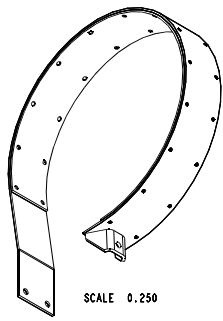
ITEM	DESCRIPTION	PART NO.	QTY.
600	BRAKE VALVE ASSEMBLY	81984	
601	BRAKE VALVE HOUSING	NSS	1
602	RELIEF VALVE RETAINER	24424	1
603	SPRING RETAINER	24183	1
604	PLUG	22450	1
605	SPOOL	NSS	1
606	DAMPER PISTON	NSS	1
607	O-RING	24186	2
608	CHECK VALVE POPPET	24423	1
609	PILOT ORIFICE	24200	1
610	CHECK VALVE SPRING	24190	1
611	SPOOL SPRING	24192	1
612	O-RING	23601	1
613	O-RING	24193	1
614	O-RING	24194	1
615	BACK-UP RING	24195	1
616	BACK-UP RING	24196	1
619	HEX HEAD PLUG	25663	1
620	SHIPPING PLUG HYD	NSS	1
621	SHIPPING PLUG	NSS	1
622	SHIM, VALVE SPRING	NSS	1

NSS - NOT SERVICED SEPARATELY



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BRAKE BAND ASSEMBLY



ITEM	DESCRIPTION	PART NO	QTY
800	BRAKE BAND ASSEMBLY	84253	-
801	BRAKE BAND	109497	1
802	BRAKE BAND LINING	109505	1
803	RIVET	18076	26



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METRIC CONVERSION TABLE

English to Metric

Metric to English

LINEAR					
inches (in.)	X 25.4	= millimeters (mm)	millimeters (mm)	X 0.3937	= 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 X °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

