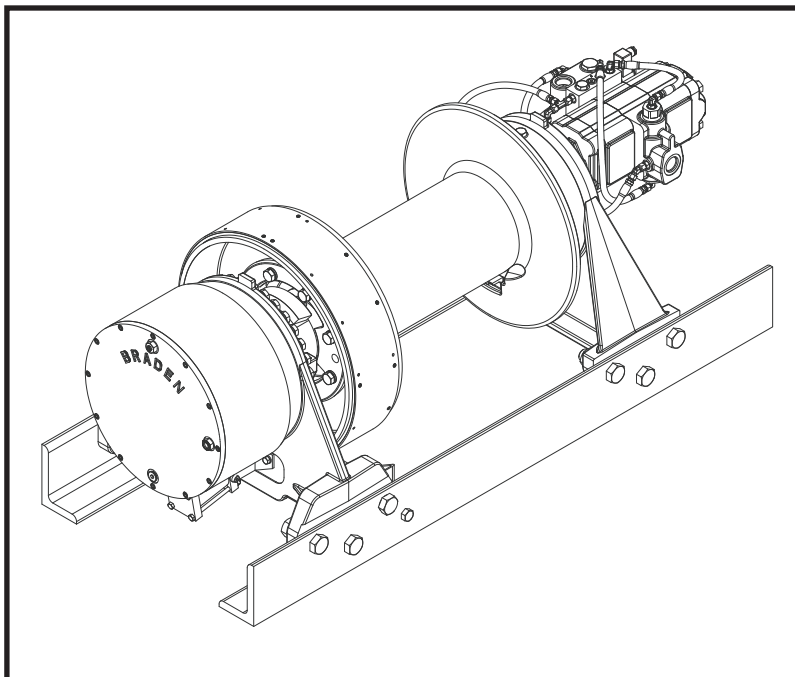


BRADEN®

HP130A

MATERIAL LIST



Authorized Distributor:
Pacific Marine & Industrial
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PACCAR WINCH DIVISION
P.O. BOX 547 BROKEN ARROW, OK U.S.A. 74013
PHONE (918) 251-8511 FAX (918) 259-1575
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FOREWORD

Read this entire publication and retain it for future reference.

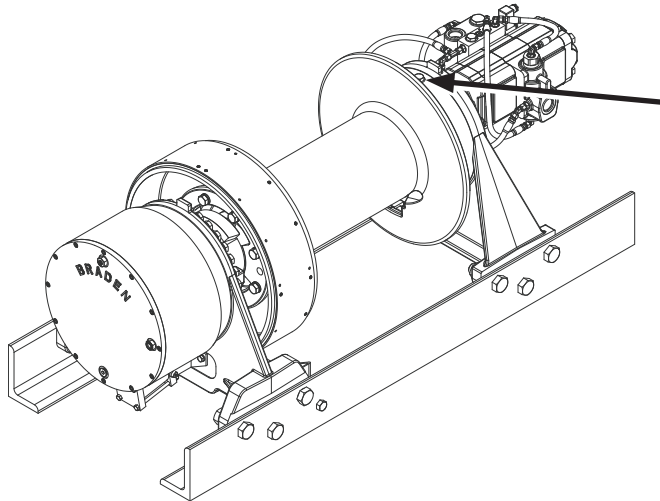
If you have any questions regarding your Braden HP130A Winch or this publication, call the Braden Service Department at 1-918-251-8511, 08:00-16:30 hours Central Time Zone, Monday through Friday.

Some pictures 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

UNIT IDENTIFICATION



**MODEL NUMBER
AND
SERIAL NUMBER**

When information is needed, always refer to the model number and serial number. Both are located on the top portion of brake cylinder assembly

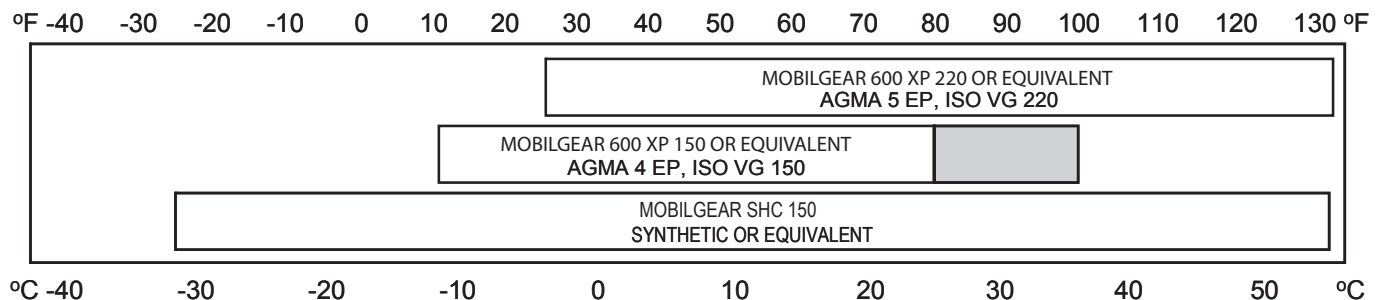
EXPLANATION OF MODEL NUMBER

HP 130 A - 157 128/064 - 01

HP	DESIGNATES HYDRAULIC PLANETARY
130	DESIGNATES 130,000 POUND FIRST LAYER LINE PULL
A	DESIGNATES THE MODEL SERIES RELATING TO DESIGN CHANGES
157	DESIGNATES TOTAL GEAR REDUCTION
128/064	DESIGNATES HYDRAULIC MOTOR DISPLACEMENT (128/064 - 12.8/6.4 CU IN/REV)
01	DESIGNATES THE DRUM OPTION

RECOMMENDED PLANETARY GEAR OIL

PREVAILING AMBIENT TEMPERATURE

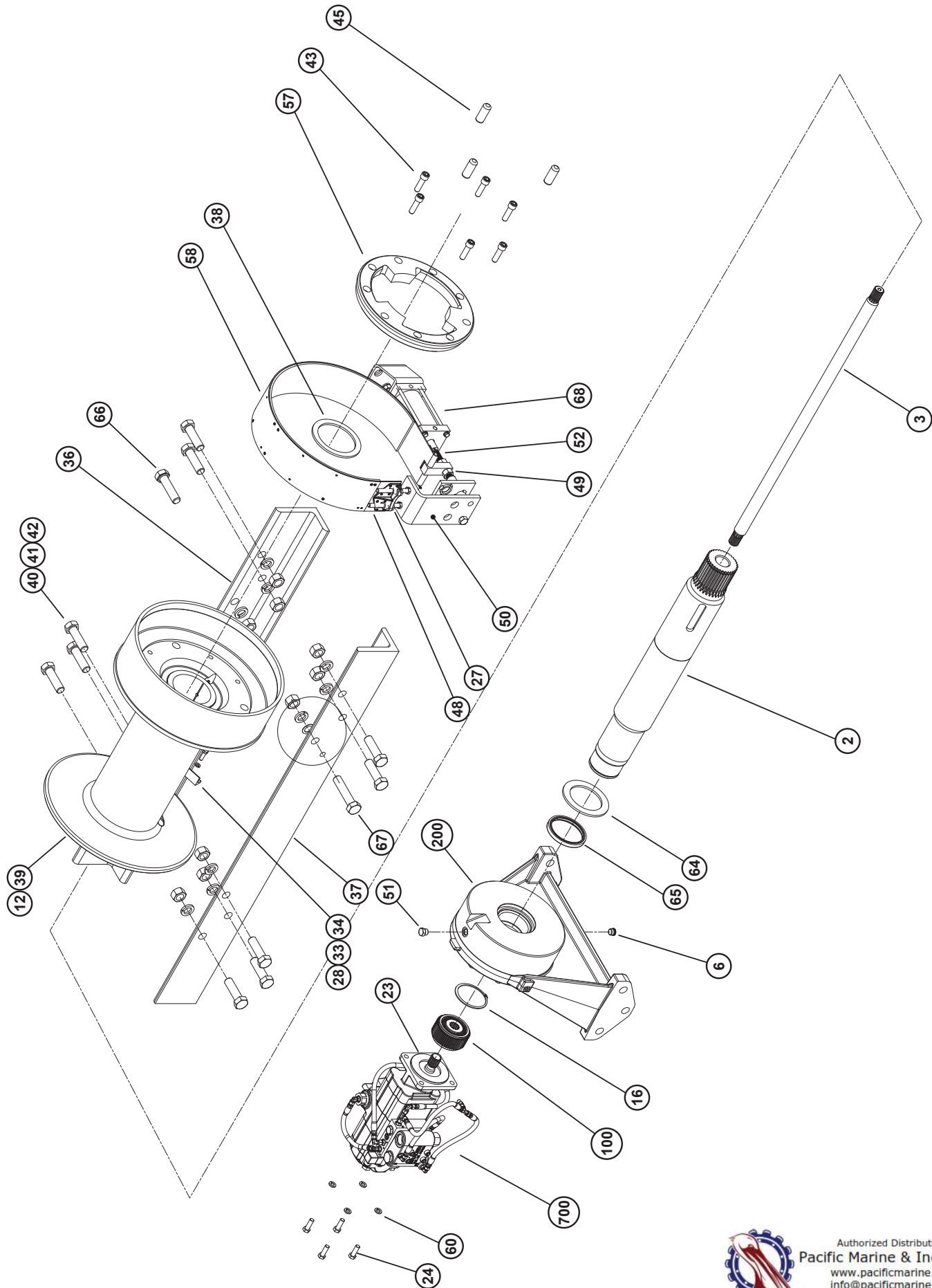


NOTE: SHADED TEMPERATURE RANGE IN THE CHART ABOVE NOT RECOMMENDED FOR SEVERE APPLICATIONS SUCH AS: OFFSHORE CRANES, SUSTAINED FAST DUTY CYCLES OR FREQUENT LIFTING.

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

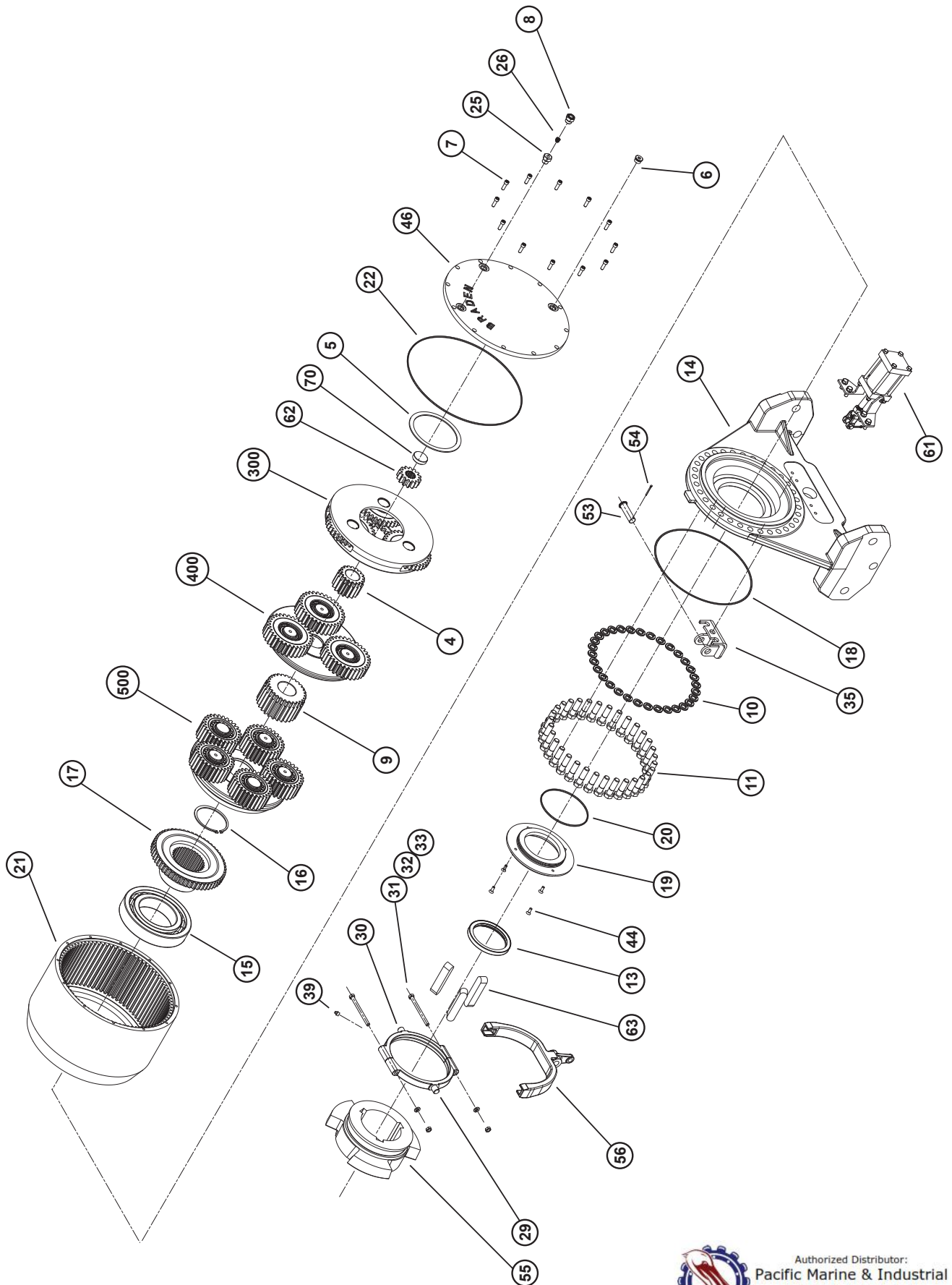
Mobil	Shell	Chevron	Texaco
Mobilgear 600 XP 150	Omala 150	Gear Compounds EP 150	Meropa 150
Mobilgear 600 XP 220	Omala 220	Gear Compounds EP 220	Meropa 220

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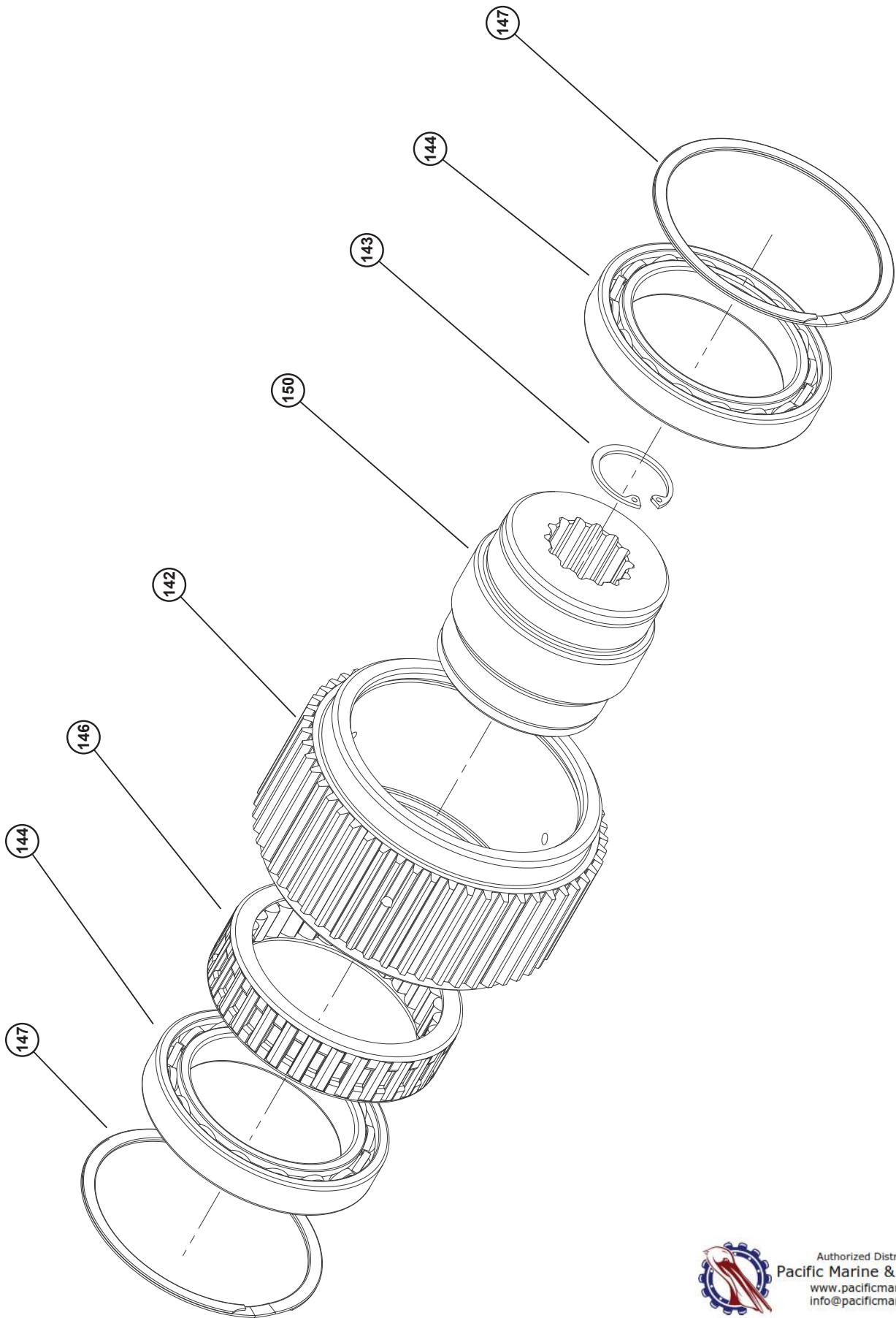
ITEM	DESCRIPTION	PART	QTY
1	DECAL, CLUTCH CONTROL	100600	1
2	CABLE DRUM SHAFT	108424	1
3	PRIMARY SUN GEAR SHAFT	108425	1
4	GEAR, SUN	102323	1
5	WASHER, THRUST	28728	1
6	PLUG,O-RING FLUSH	32411	2
7	CAPSCREW 5/16-18 X 1 GD5 SKT HD	24286	12
8	SIGHT GAUGE	26705	1
9	GEAR,FINAL SUN	102408	1
10	LOCKWASHER (5/8 Z)	102423	32
11	CAPSCREW 5/8-11 X 2-1/4 NC GD8 Z HX HD	100051	32
12	CABLE DRUM ASSY	108666	1
13	LIPSEAL - 4.25X5.25X.50	103062	1
14	DRIVE SUPPORT	108420	1
15	BEARING, BALL	101706	1
16	RETAINING RING	70158	2
17	ADAPTER, OUTPUT	103896	1
18	O-RING	72801	1
19	SEAL CONTAINER	108521	1
20	O-RING	24981	1
21	GEAR, RING	103874	1
22	O-RING	25016	1
23	O-RING	10330	1
24	CAPSCREW 1/2-13 X 1-1/2 NC GD8 Z HX HD	104322	4
25	REDUCER STR THD ADAPTER	26868	1
26	RELIEF VALVE 7.5-15 PSI	18062	1
27	NUT-JAM	23583	4
28	PLATE, ANCHOR RETAINER	101950	1
29	CLUTCH RIDER	108652	1
30	CLUTCH RIDER W/GREASE FITTIN	108653	1
31	CAPSCREW 3/8-16 X 4-12 NC ASTM A574 Z HX HD	104177	2
32	NUT	11779	2
33	LOCKWASHER (3/8 Z)	27152	3
34	CAPSCREW 3/8-16 X 1-1/4 NC GD8 Z HX HD	104132	1
35	SHIFT BRACKET WMT.	108448	1
36	BASE ANGLE	108422	1

ITEM	DESCRIPTION	PART	QTY
37	BASE ANGLE	108423	1
38	THRUST WASHER	108668	1
39	GREASE FITTING	18047	3
40	CAPSCREW H100-350 NC GD8 Z	103580	10
41	LOCKWASHER	13986	12
42	NUT-HEAVY	22887	12
43	CAPSCREW 5/16-18 X 2-1/4 NF ASTM A574 SKT HD	108622	6
44	CAPSCREW F 1/4-20 X 3/4 NC ASTM F835 N	21333	4
45	DOWEL PIN	108800	3
46	COVER	101956	1
47	THRUST BUTTON	102322	1
48	STUD	105027	2
49	NUT, HEX	101439	4
50	BRAKE BAND LOCATING BRACKET	108511	1



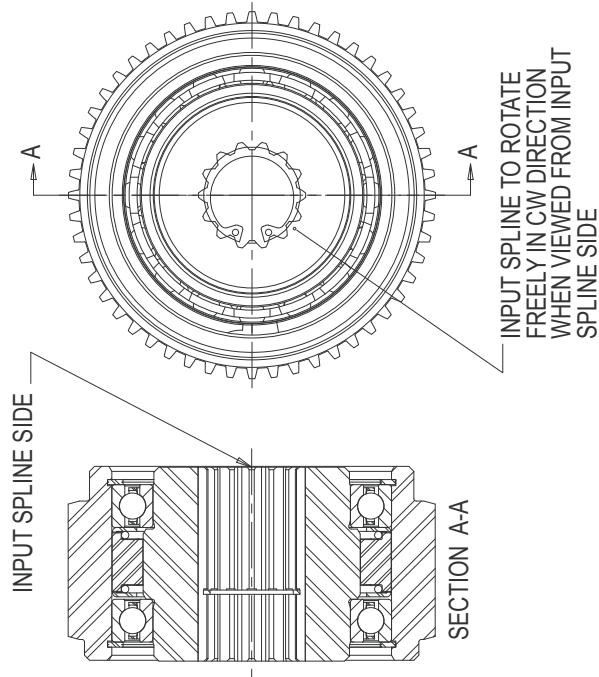
ITEM	DESCRIPTION	PART	QTY
51	16166-8 PLUG	70117	1
52	91C-130 BRAKE BAND PIN	12773	1
53	M50-143B CL SH FK PV PN	11657	1
54	COTTER PIN	13959	1
55	CLUTCH	108421	1
56	CLUTCH FORK	108419	1
57	CLUTCH PLATE	108623	1
58	BRAKE BAND ASSY	83216	1
59	FERRULE	29429	1
60	LOCKWASHER (1/2 Z)	11026	4
61	CLUTCH,AIR SHIFT CYL.GROUP	64462	1
62	PRIMARY SUN GEAR	108426	1
63	KEY	108427	3
64	THRUST WASHER	108520	1
65	SEAL	108523	1
66	CAPSCREW 1-8 X 4 NC GD8 Z HX HD	103640	1
67	CAPSCREW 1-8 X 4-3/4 NC GD8 Z HX HD	104274	1
68	BRAKE,AIR SHIFT CYL.GROUP	64479	1
69	NAMEPLATE, GH5, PD5 WINCHES	76381	1
70	DRIVE SCREW	11842	2
71	BEARING RACE	25361	1
100	OVERRUNNING CLUTCH ASSY	83148	1
200	BRAKE CYLINDER SUB-ASSY	83847	1
300	PLANET CARRIER SUB-ASSY	83079	1
400	PLANET CARRIER SUB-ASSY	83080	1
500	PLANET CARRIER SUB-ASSY	82780	1
700	HYD MOTOR SUB-ASSY	63215	1

OVERRUNNING CLUTCH ASSEMBLY



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OVERRUNNING CLUTCH ASSEMBLY

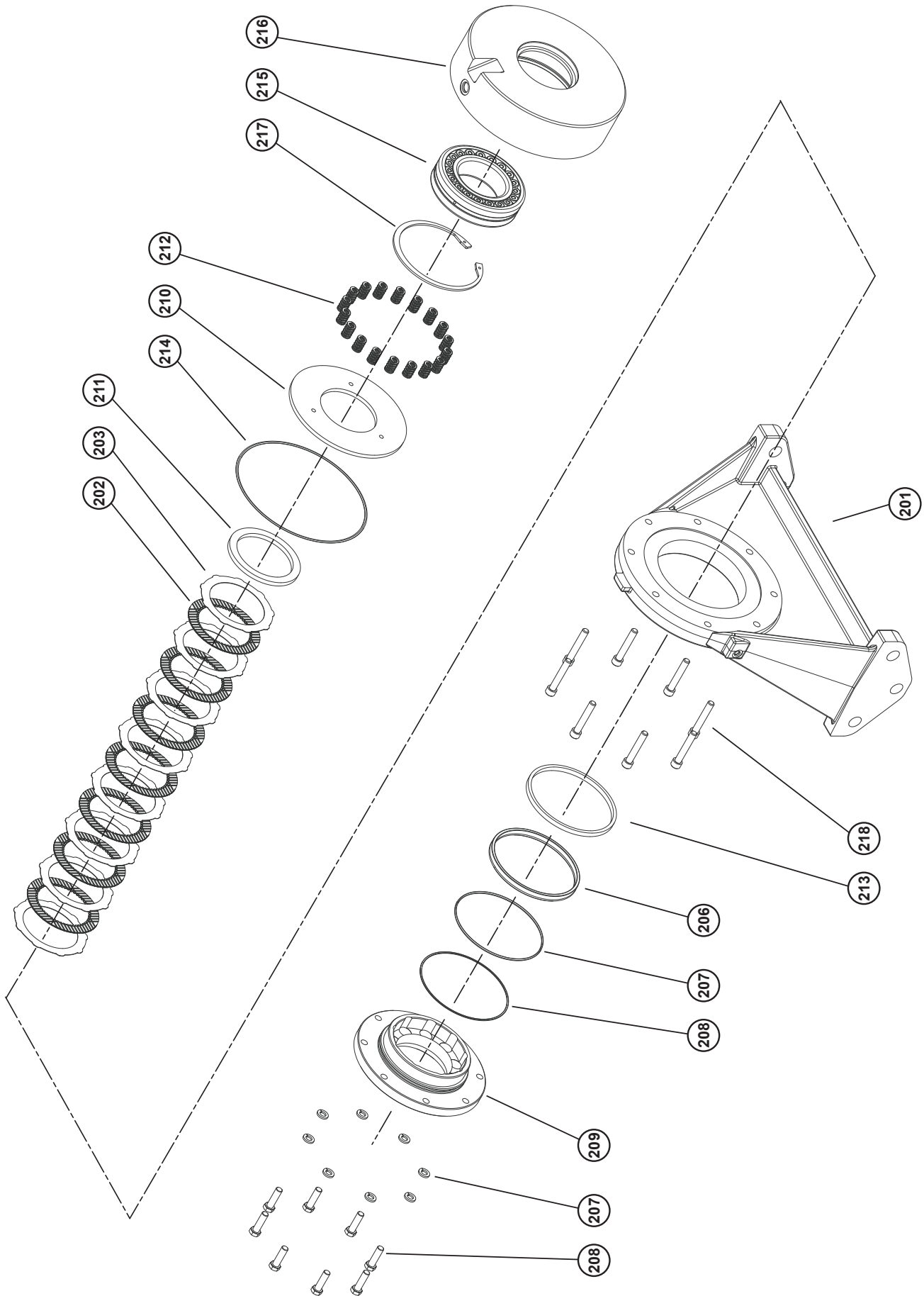


ITEM	DESCRIPTION	PART	QTY
100	OVERRUNNING CLUTCH ASSY	83148	1
142	OUTER RACE	NSS	1
143	RETAINING RING	24506	1
144	BALL BEARING	103104	2
146	OVERRUNNING CLUTCH	NSS	1
147	RETAINING RING	103110	2
150	INNER RACE	NSS	1

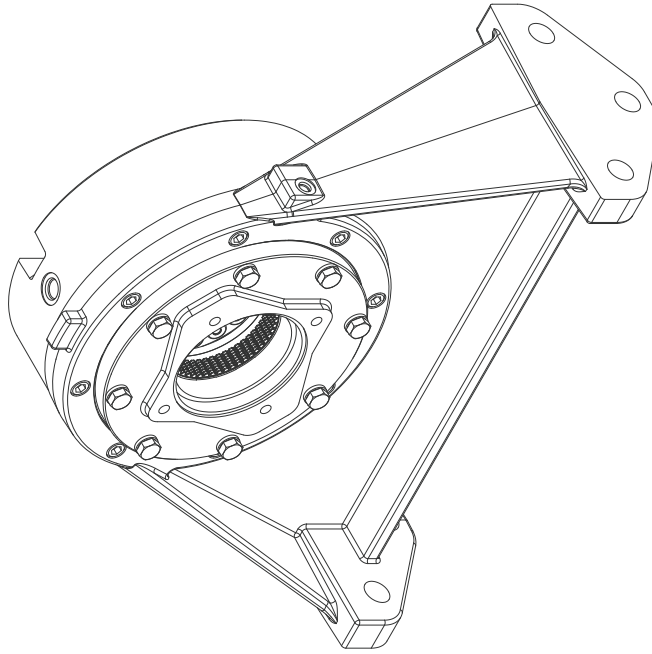


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BRAKE CYLINDER ASSEMBLY



BRAKE CYLINDER ASSEMBLY

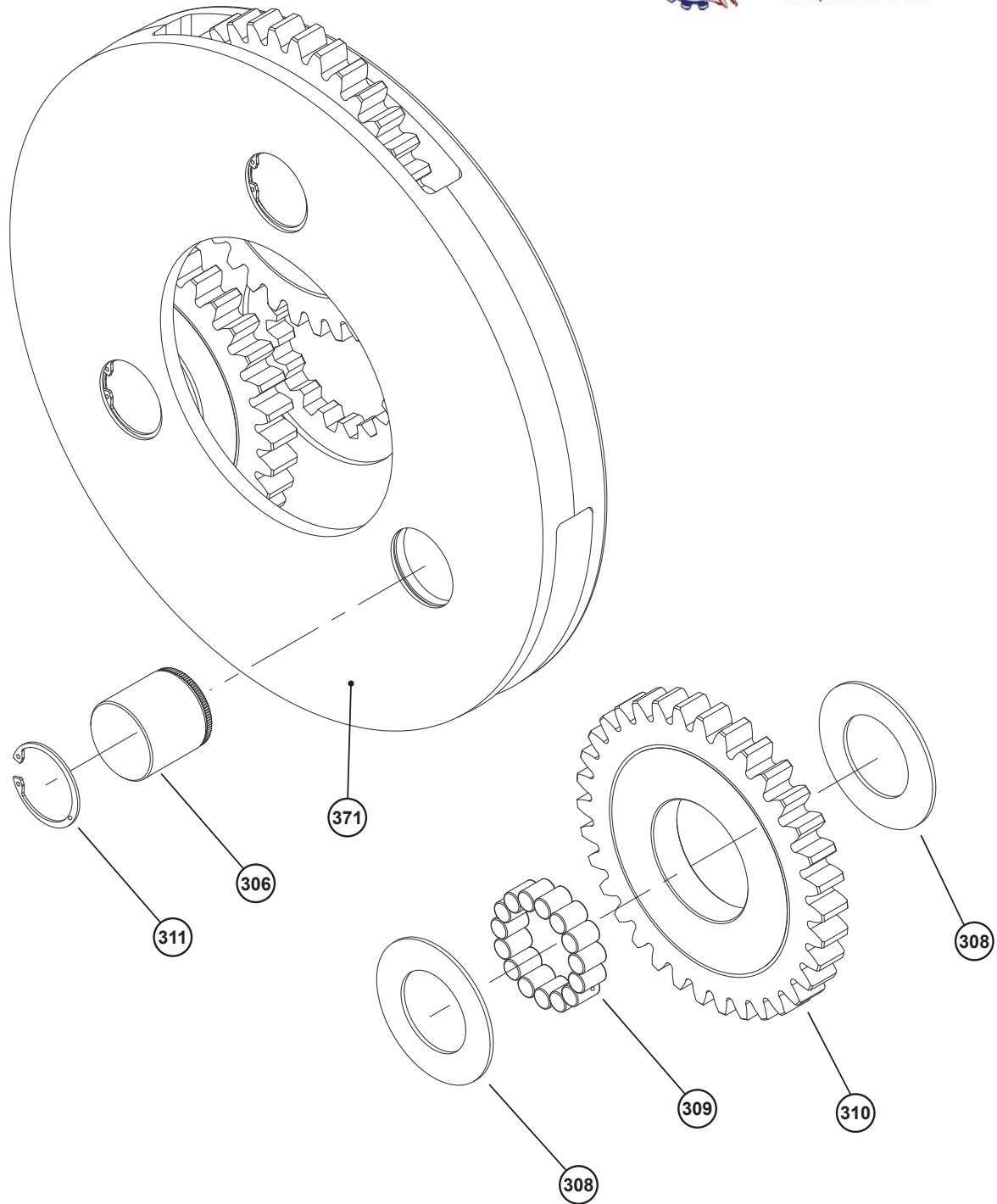


ITEM	DESCRIPTION	PART	QTY
200	BRAKE CYLINDER SUB-ASSY	83847	1
201	BRAKE SUPPORT	108418	1
202	FRICTION DISC	103167	7
203	BRAKE DISC	102954	8
204	BACK-UP WASHER	77278	1
205	O-RING	22357	1
206	U-CUP SEAL	103441	1
207	LOCKWASHER	11026	8
208	CAPSCREW	104323	8
209	MOTOR ADAPTER	103905	1
210	PRESSURE PLATE	108512	1
211	BRAKE PLATE SPACER	103169	1
212	BRAKE SPRING	24108	18
213	PISTON BACK-UP RING	25746	1
214	O-RING	72111	1
215	BEARING	28929	1
216	BRAKE BEARING PLATE	108417	1
217	INTERNAL RETAINING RING	27925	1
218	CAPSCREW	75861	1

PRIMARY PLANET CARRIER

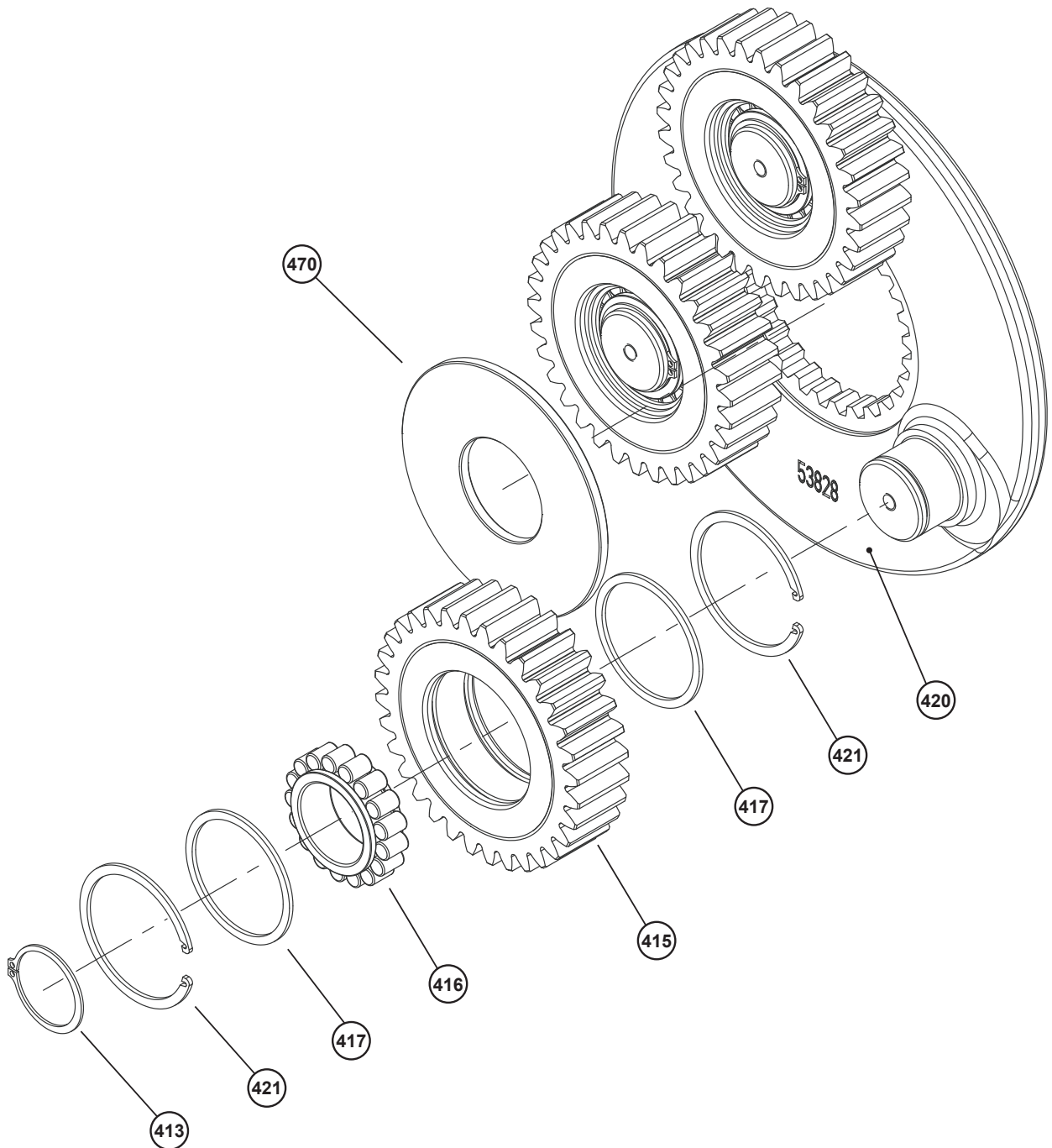


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ITEM	DESCRIPTION	PART	QTY
300	PLANET CARRIER SUB-ASSY	83079	1
306	PRIMARY PLANET PIN	101921	3
308	THRUST WASHER	102324	6
309	ROLLER BEARING	102325	45
310	PLANET GEAR	102396	3
311	INTERNAL RETAINING RING	28734	3
371	PLANET CARRIER	102744	1

SECONDARY PLANET CARRIER

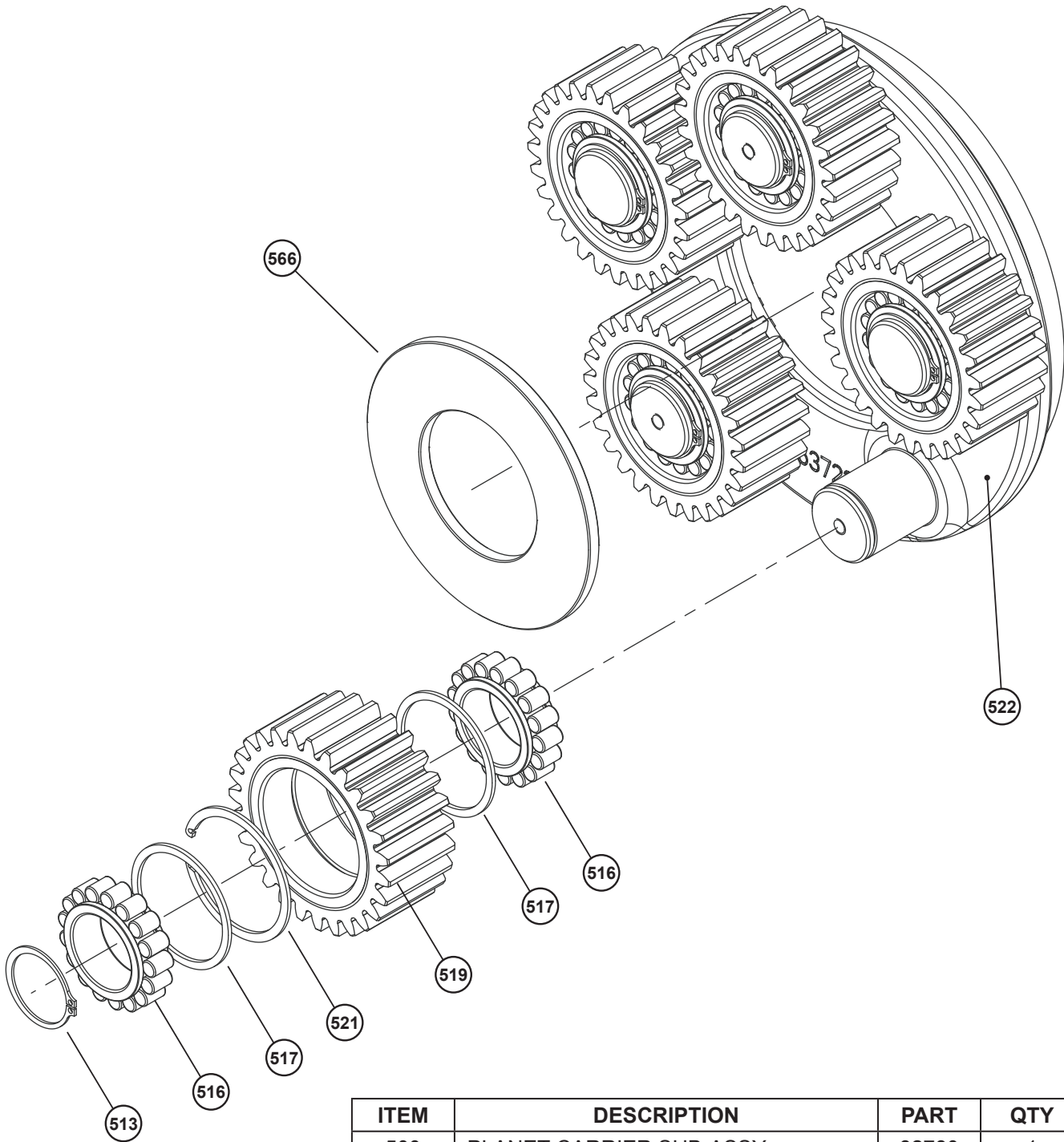


ITEM	DESCRIPTION	PART	QTY
400	PLANET CARRIER SUB-ASSY	83080	1
413	SNAP RING	12034	3
415	PLANET GEAR	102376	3
416	CYLINDRICAL ROLLER BEARING	102288	3
417	THRUST SPACER	102296	6
420	PLANET CARRIER	102739	1
421	INTERNAL RETAINING RING	102330	6
470	THRUST SPACER	102339	1

FINAL PLANET CARRIER

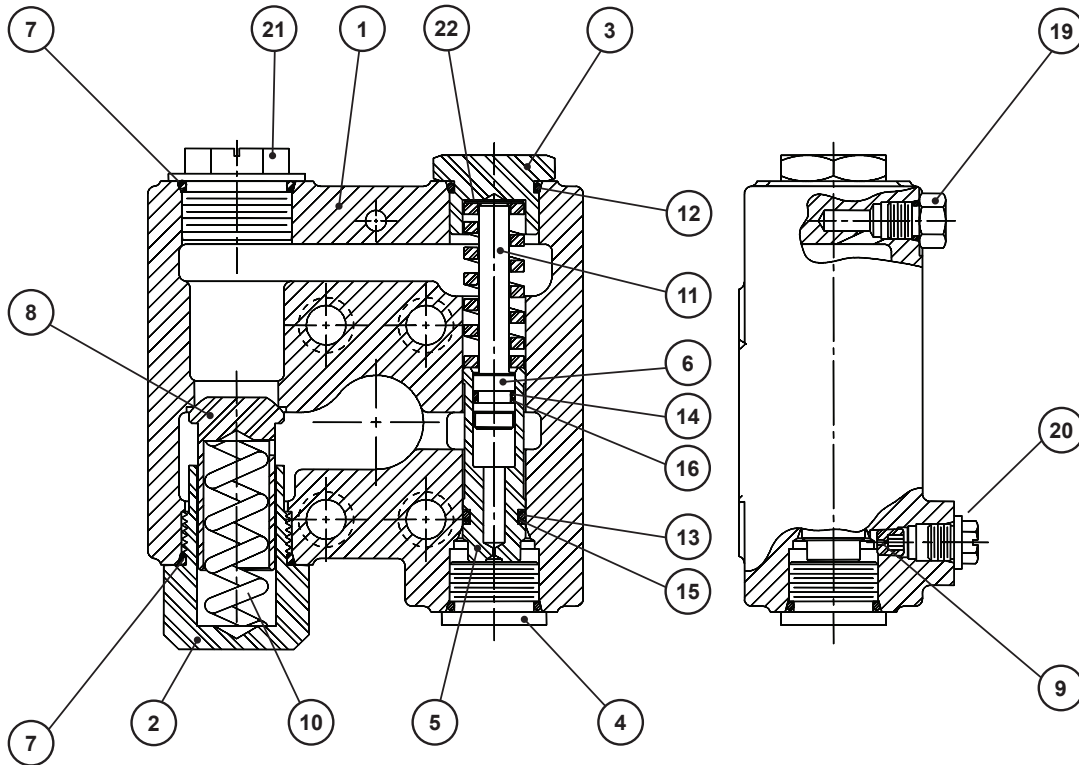


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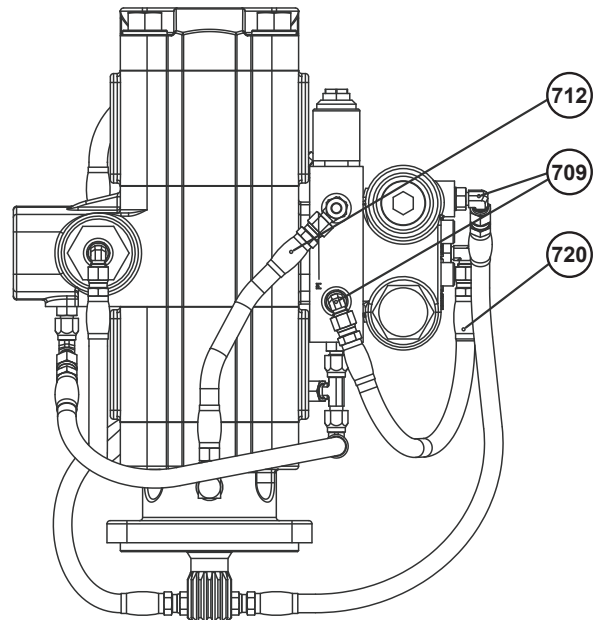
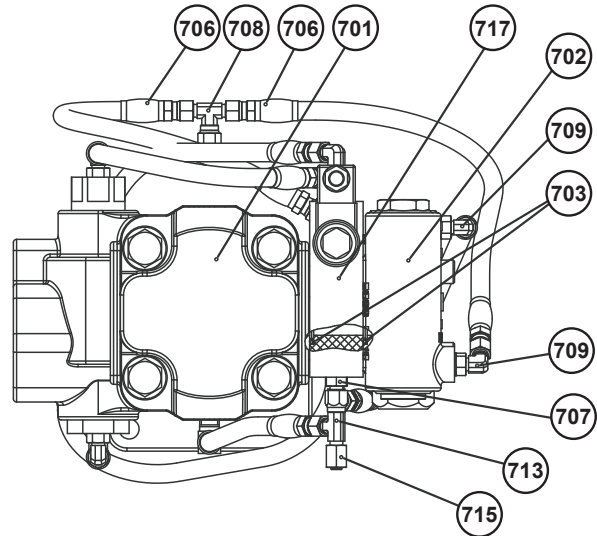
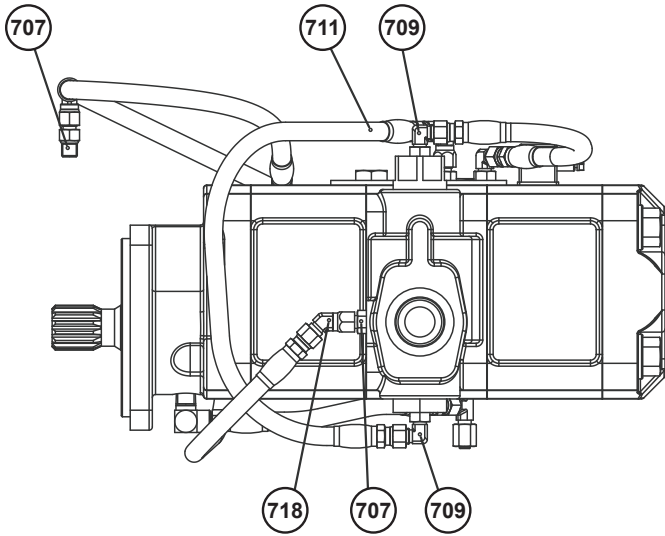
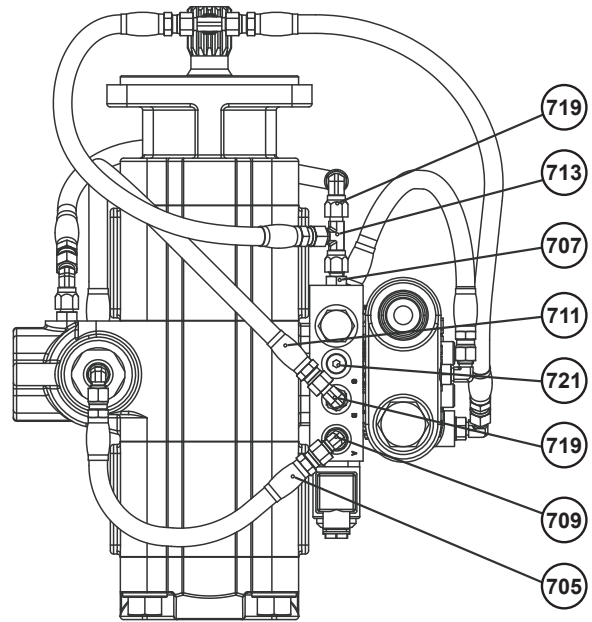
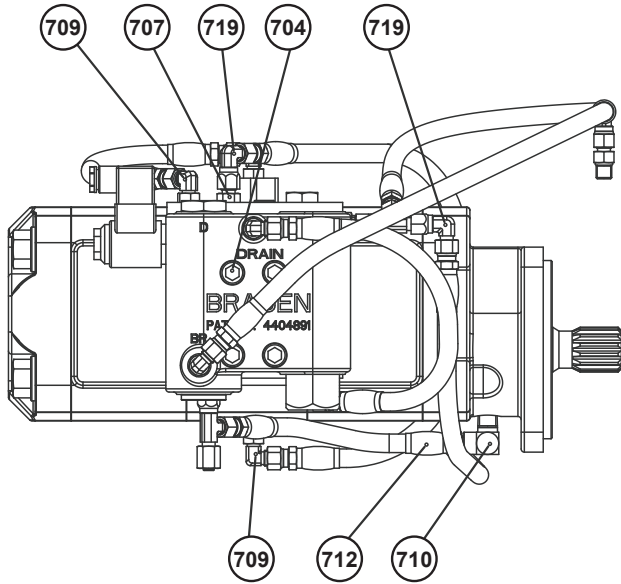
ITEM	DESCRIPTION	PART	QTY
500	PLANET CARRIER SUB-ASSY	82780	1
513	SNAP RING	12034	5
516	CYLINDRICAL ROLLER BEARING	102288	10
517	THRUST SPACER	102296	10
519	FINAL PLANET GEAR	102332	5
521	INTERNAL RETAINING RING	102330	5
522	FINAL PLANET CARRIER	101868	1
566	THRUST SPACER	102338	1

BRAKE VALVE ASSEMBLY



ITEM	DESCRIPTION	PART	QTY
*	BRAKE VALVE ASSY	81984	1
1	BRAKE VALVE HOUSING	25448	1
2	RELIEF VALVE RETAINER	24424	1
3	SPRING RETAINER	24183	1
4	PLUG	22450	1
5	SPOOL	24184	1
6	DAMPER PISTON	24185	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	1
13	O-RING	24193	1
14	O-RING	24194	1
15	BACK-UP RING	24195	1
16	BACK-UP RING	24196	1
19	HEX HEAD PLUG	25663	1
20	SHIPPING PLUG HYD	25403	1
21	SHIPPING PLUG	25487	1
22	VALVE SPRING SHIM	25661	1

HYDRAULIC MOTOR ASSEMBLY



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HYDRAULIC MOTOR ASSEMBLY

ITEM	DESCRIPTION	PART	QTY
700	HYD MOTOR SUB-ASSY	63215	1
701	2-SPEED HYD MOTOR	25651	1
702	BRAKE VALVE ASSY	81984	1
703	O-RING	13838	2
704	CAPSCREW	102476	4
705	HOSE ASSY	25936	1
706	HOSE ASSY	25750	3
707	ADAPTER	25864	5
708	SWIVEL TEE	25748	1
709	ELBOW FITTING	25302	6
710	REDUCER ELBOW	24236	1
711	HOSE ASSY	25952	1
712	HOSE ASSY	13711	1
713	SWIVEL TEE	26002	2
714	WARNING TAG	29080	1
715	CAP NUT	70182	1
717	MANIFOLD	102922	1
718	MALE UNION 45°	70122	1
719	SWIVEL NUT 90°	26140	2
720	HOSE ASSY	25935	1
721	PLUG	69325	1



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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