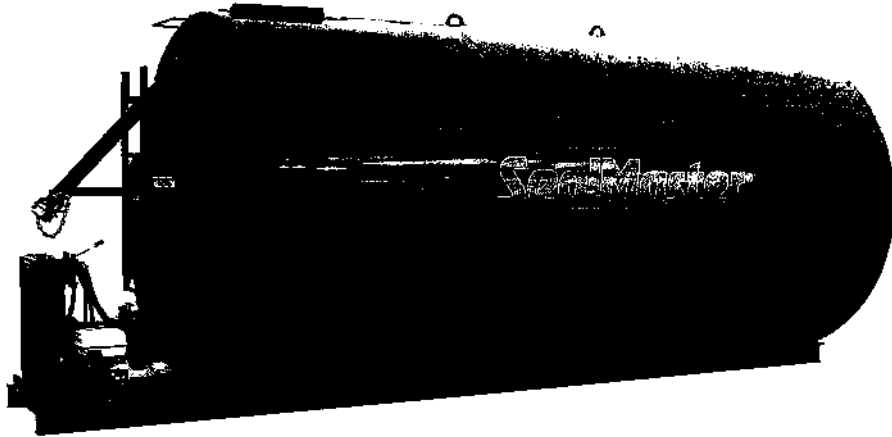


# **BULK STORAGE TANKS**

## **Operating Instructions & Parts Manual**



**SealMaster®**  
  
**Pavement Products & Equipment**

PO Box 2277 • Sandusky, Ohio 44870 • 419-626-4375

**SealMaster®**

# ThorWorks Industries, Inc.

Item Purchased: \_\_\_\_\_ Model No.: \_\_\_\_\_  
Serial No.: \_\_\_\_\_ Acceptance/Ship Date: \_\_\_\_\_  
Company: \_\_\_\_\_ Contact: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_  
Zip/Postal Code: \_\_\_\_\_ State: \_\_\_\_\_ Country: \_\_\_\_\_

## CORRESPONDENCE

All correspondence regarding this equipment or general correspondence should be addressed to:

**ThorWorks Industries, Inc.**  
**PO Box 2277**  
**Sandusky, OH 44870**

In referring to the equipment, kindly state the Model Number, Serial Number and any Part Number involved.

INDUSTRIES  
**THORWORKS™**  
EST. 1972



## ThorWorks Industries Inc. Limited Warranty for Equipment

ThorWorks warrants that its products are of quality material and workmanship. ThorWorks agrees to replace, within a one (1) year period from date of delivery, or at its option, repair without charge, any part of their manufacture which proved defective. The repair or replacement will be free of charge F.O.B. Sandusky Ohio, providing the damaged part or parts are returned freight prepaid to ThorWorks and investigation show such repair or replacement is made necessary by inherent defect of material or workmanship. Obvious damage by misuse or abuse voids any liability on ThorWorks part. Should you request the replacement part or parts be sent via 'next day air', you will be charged the difference between ground service and 'next day air'.

It is hereby understood that engines, motors, pumps, or other components purchased by ThorWorks for use on its equipment are not warranted by ThorWorks and are sold only with the standard warranty of the manufacturer of that component. ThorWorks will send the returned component back to the respective manufacturer for evaluation. Should the manufacturer deny the warranty claim, then ThorWorks will not honor any warranty and you will be required to pay ThorWorks for the replacement item that was shipped to you.

Any claims for defective material or workmanship must be made prior to the expiration of thirty (30) days from the date the failure occurs, and in all cases prior to the expiration of the warranty period of one (1) year. It is the intent of this paragraph to limit ThorWorks liability solely to the cost of replacement parts, F.O.B. factory, or at the option of ThorWorks, to repair of the defective part or parts. No allowances for damages, lost revenues or lost time will be recognized.

This warranty is null and void if other than genuine ThorWorks parts are used. ThorWorks is constantly striving to improve their products. Changes in design and improvement will be made whenever the manufacturer believes the efficiency of the product will be improved, without incurring any obligation to incorporate such improvements in any machines which have been shipped or are in service.

In an effort to continue to improve product quality, ThorWorks reserves the right to change specifications without notice. Any modification or alteration of this machine without prior approval of the manufacturer may void the warranty.

1. **BEFORE OPERATING YOUR NEW SEALMASTER UNIT** - Check all the nuts and bolts for tightness. Bolts and nuts are machine tightened before leaving the factory. However, some loosening may occur during shipment.
2. Read operating instructions and all component manuals before operating equipment.

### **Before Starting Engine**

1. Check Oil - Keep at full.
2. Check Hydraulic Oil - Maintain level at 3 inches below tank top (see Hydraulic Oil in this section for proper oil grade).
3. Check gas supply
4. Be sure all hydraulic valves are in neutral position.

### **To Start Engine**

Refer To Engine Operations Manual

## Hydraulic Oil

Hydraulic oil should be changed at least once each year. Use grade 68, ASTM Grade 315, Viscosity 330 SUS 100°F hydraulic oil. Maintain oil level at 3 inches below tank top.

## Maintenance

1. **Packard Gland** - Packing glands should be greased at the start of each day's operation. Tighten the nut on packing gland after the first two hours of operation and periodically thereafter.
2. **Bearings** - Grease all bearings at least once each month.
3. Read and follow operating procedures and maintenance schedules as listed in respective manuals provided for the engine, motors, pumps and valves.

## Caution

DO NOT OPERATE ENGINE WITH CHAIN GUARDS REMOVED

DO NOT PLACE HANDS OR SOLID OBJECTS INTO MATERIAL HOPPER WITH ENGINE RUNNING

OPEN MANHOLE COVER BEFORE PUMPING OUT MATERIAL. THIS TANK IS NOT EQUIPPED WITH AN AIR VENT AND OPERATING PUMP WITH LID CLOSED MAY CREATE A VACUUM.

## **Reversible Material Pump**

The material pump is placed into operations by use of the "Control Valve" #9, as shown on Hydraulic Schematic. Downward pressure on the control valve handle will pump material out and raising the handle will result in suction.

To install a 2-inch discharge hose, screw male fitting on end of hose directly into pump. Never attach the female end of the hose (with nipple) or other fitting directly to the pump.

To pump material from drums into the tank, it will be helpful to attach a section of 2-inch pipe, two to three feet long, to the end of the hose. Before sucking material from drum, press down on #9 "Control Valve" handle to reduce air in lines. If material has settled in drum, draw off approximately one-half the contents of the drum, press the hose to bottom of drum and pump material back into drum. This will agitate and mix the material. The entire contents of drum can be pumped out.

**IMPORTANT** - Man hole cover must be open when material pump is in operation. Tank is not vented and pumping with cover closed will create a vacuum. Do not pump a sand mixture unless tank is equipped with a Bowie pump or equivalent.

On cold morning, and with all new pumps regardless of temperature, it may be necessary to heat the material pump before the day's initial usage. Use a large propane torch and heat until pump is free. **DO NOT OVER HEAT.**

## **Reversible Agitator**

The agitator is operated by moving the "Agitator Control Valve" #12 up or down, depending on which way you want your agitator to turn. The farther you move it, the faster it will go. Material left in tank should be agitated daily.

Do not leave a sand and sealer mixture in tank without agitation for more than two or three hours. Do not mix more than will be used by day's end.

TANK GAUGE CHART

MATERIAL DEPTH IN INCHES	4000 GAL. 96" X 131"	6000 GAL. 96" X 196"	8000 GAL. 96" X 261"	10,000 GAL. 120" X 217"
	GALLONS	GALLONS	GALLONS	GALLONS
1	7	11	15	14
2	21	31	41	39
3	38	57	76	71
4	58	88	117	109
5	81	122	162	151
6	107	160	213	199
7	134	201	267	250
8	163	244	325	304
9	194	291	387	362
10	227	339	452	423
11	261	390	520	487
12	296	443	590	553
13	333	498	663	622
14	371	555	738	693
15	410	613	816	766
16	450	673	896	842
17	491	734	978	920
18	533	797	1062	999
19	576	861	1147	1081
20	620	927	1234	1164
21	664	994	1323	1249
22	710	1062	1414	1335
23	756	1131	1506	1423
24	802	1201	1599	1513
25	850	1272	1693	1604
26	898	1344	1789	1696
27	947	1416	1886	1789
28	996	1490	1984	1884
29	1046	1565	2083	1980
30	1096	1640	2183	2077
31	1147	1716	2284	2175
32	1198	1792	2386	2274
33	1249	1869	2489	2375
34	1301	1947	2592	2476
35	1353	2025	2696	2578
36	1406	2104	2801	2681
37	1459	2183	2906	2784
38	1512	2262	3012	2889
39	1565	2342	3119	2994
40	1619	2422	3225	3100
41	1673	2503	3333	3207
42	1726	2583	3440	3314
43	1781	2664	3548	3422
44	1835	2745	3656	3530

TANK GAUGE CHART

MATERIAL DEPTH IN INCHES	4000 GAL. 96" X 131" GALLONS	6000 GAL. 96" X 196" GALLONS	8000 GAL. 96" X 261" GALLONS	10,000 GAL. 120" X 217" GALLONS
45	1889	2827	3764	3639
46	1944	2908	3872	3748
47	1988	2989	3981	3858
48	2052	3071	4089	3968
49	2107	3152	4198	4079
50	2161	3234	4306	4190
51	2216	3315	4414	4301
52	2270	3396	4522	4413
53	2324	3477	4630	4525
54	2378	3558	4738	4637
55	2432	3639	4846	4749
56	2486	3719	4953	4862
57	2539	3800	5060	4974
58	2593	3879	5166	5087
59	2646	3959	5272	5199
60	2699	4038	5377	5312
61	2751	4117	5482	5425
62	2804	4195	5586	5538
63	2856	4272	5689	5650
64	2907	4349	5792	5763
65	2958	4426	5894	5875
66	3009	4502	5995	5987
67	3059	4577	6095	6099
68	3109	4651	6194	6211
69	3158	4725	6292	6323
70	3207	4798	6389	6434
71	3255	4870	6485	6545
72	3302	4941	6579	6656
73	3349	5011	6673	6766
74	3395	5080	6765	6876
75	3441	5148	6855	6985
76	3485	5215	6944	7094
77	3529	5280	7031	7203
78	3572	5344	7117	7310
79	3614	5407	7200	7418
80	3655	5469	7282	7524
81	3695	5529	7362	7630
82	3734	5587	7440	7735
83	3772	5644	7515	7840
84	3809	5698	7588	7944
85	3844	5751	7659	8047
86	3878	5802	7726	8149
87	3910	5851	7791	8250
88	3941	5897	7853	8350



TANK GAUGE CHART

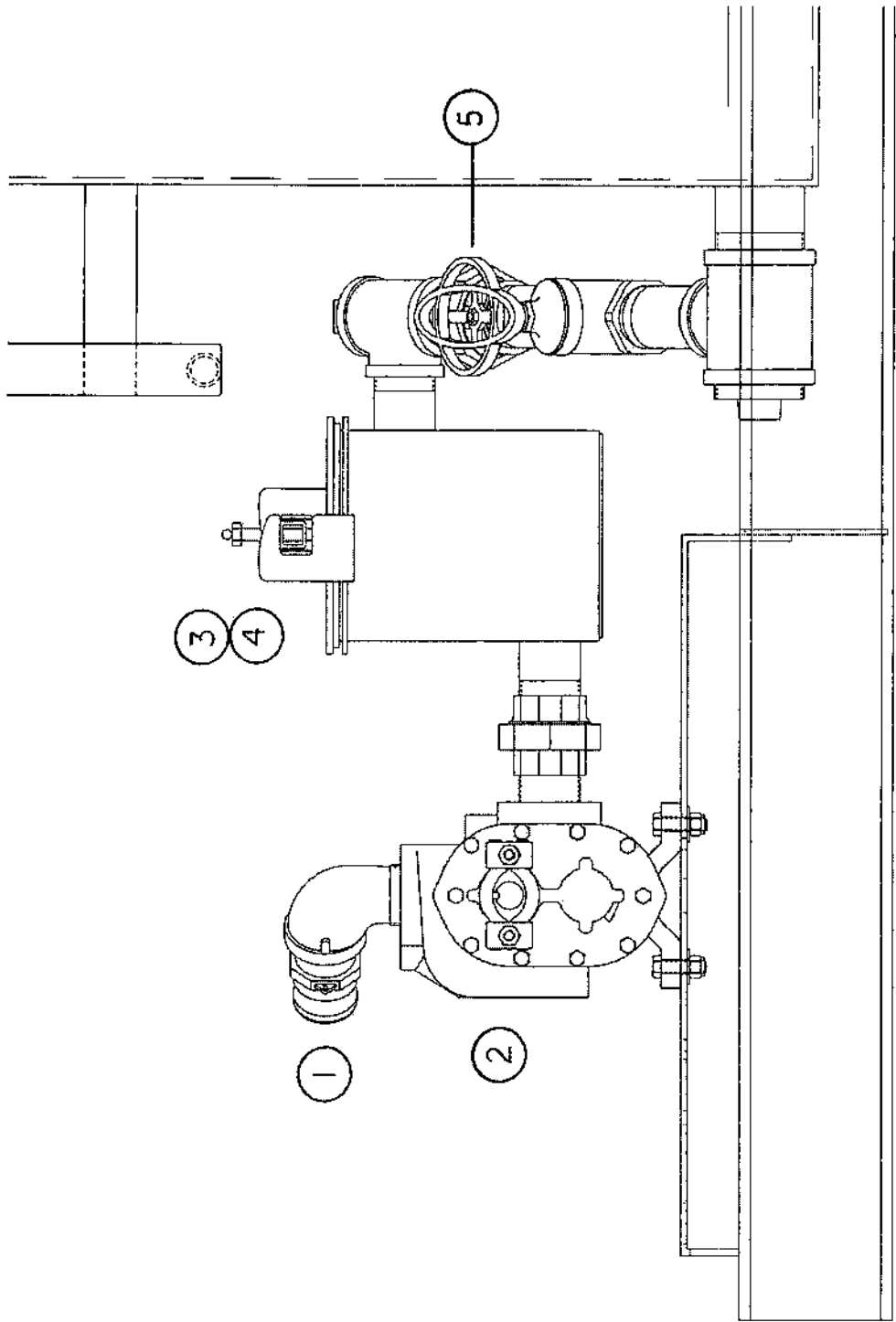
MATERIAL	4000 GAL. 96" X 131"	6000 GAL. 96" X 196"	8000 GAL. 96" X 261"	10,000 GAL. 120" X 217"
DEPTH IN	GALLONS	GALLONS	GALLONS	GALLONS
INCHES				
89	3971	5941	7911	8449
90	3998	5982	7965	8547
91	4023	6020	8016	8644
92	4046	6054	8062	8740
93	4067	6085	8102	8835
94	4084	6110	8137	8929
95	4097	6130	8164	9021
96	4105	6142	8178	9112
97				9201
98				9289
99				9376
100				9460
101				9544
102				9625
103				9705
104				9782
105				9858
106				9931
107				10002
108				10071
109				10138
110				10201
111				10262
112				10320
113				10375
114				10426
115				10473
116				10516
117				10554
118				10586
119				10611
120				10624

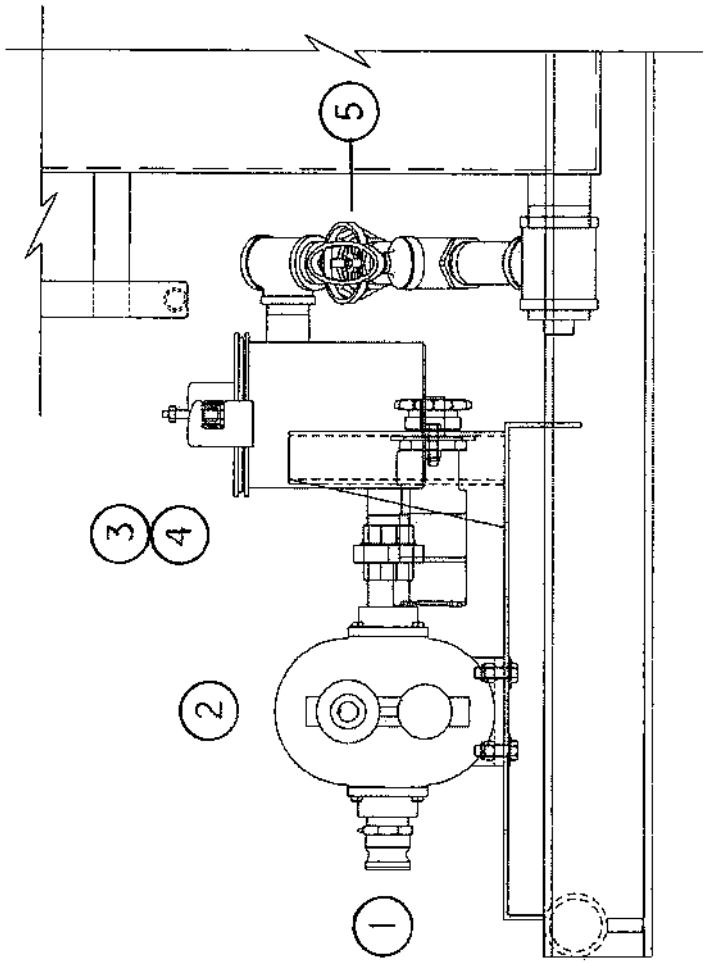
PARTS LIST

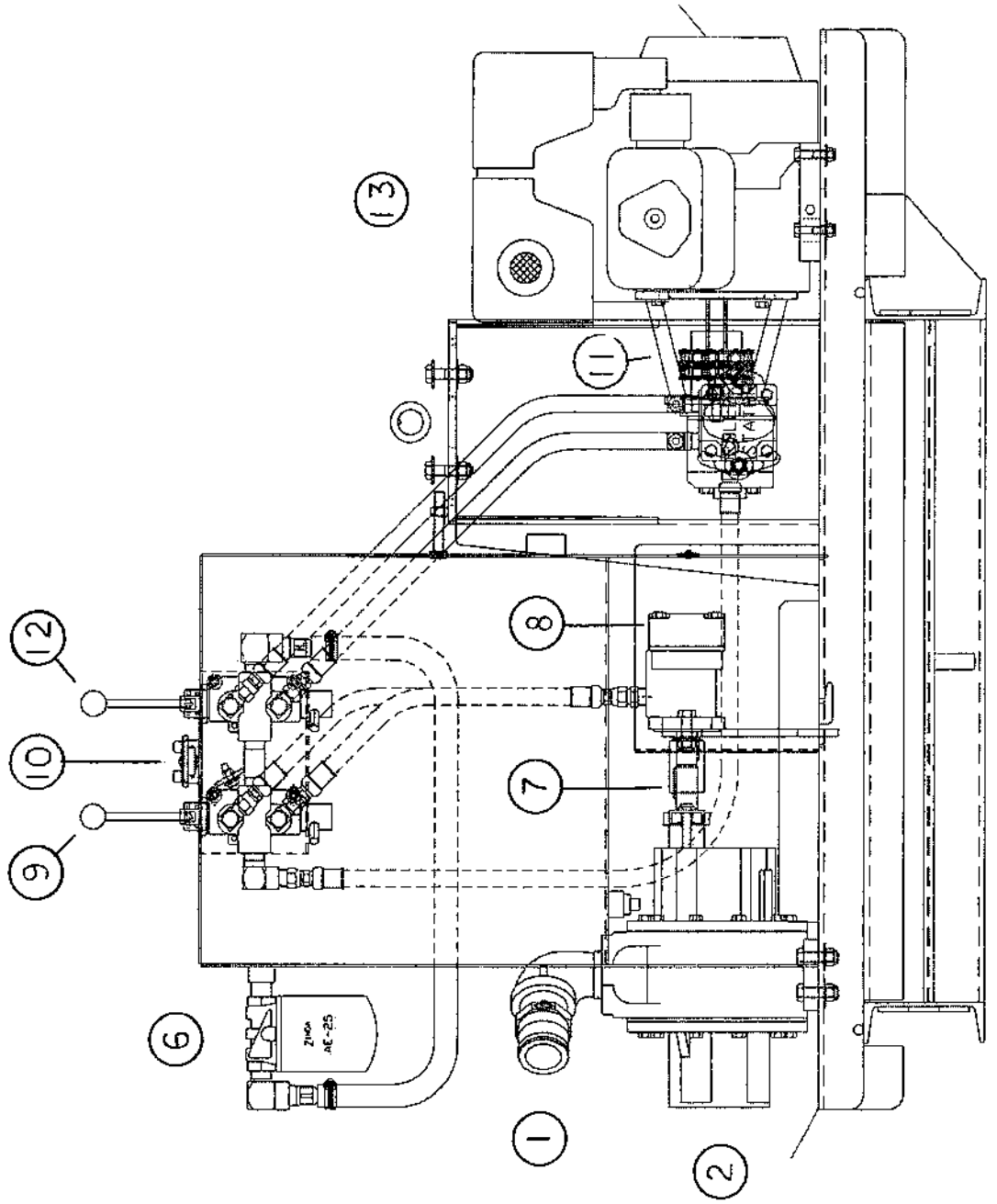
ITEM #	DESCRIPTION	6000 REGULAR	8000 REGULAR	10,000 REGULAR	6000 - 8000 HD	10,000 PLANT
1-	MALE CAMLOCK	P477A001	P477A001	P477A001	P477A001	P477A003
2-	MATERIAL PUMP	P640A071	P640A071	P640A071	P640A005	P640A025
3-	BASKET STRAINER	P50147B002	P50147B002	P50147B002	P50147B002	P50147B005
4-	STRAINER BASKET	P50313Q	P50313Q	P50313Q	P50313Q	P50313XLQ
5-	SHUT OFF VALVE	P399A004	P399A004	P399A004	P399A004	P398A009
6-	OIL FILTER	P908A003	P908A003	P908A003	P908A003	P908A003
7-	COUPLER	P498A002	P498A002	P498A002	P498A003	P498A003
8-	HYDRAULIC MOTOR	P474A029	P474A029	P474A029	P474A035	P474A024
9-	PUMP CONTROL	P472A016	P472A016	P472A016	P472A016	P472A016
10-	TANK CAP	P464A002	P464A002	P464A002	P464A002	P464A002
11-	HYD. PUMP MOUNT	P604A001	P604A001	P604A001	P604A001	P50108B
12-	AGITATOR CONTROL	P472A016	P472A016	P472A016	P472A016	P472A016
13-	ENGINE / MOTOR	P458A023	P458A023	P458A023	P458A023	P941A007
14-	BATTERY	P466A001	P466A001	P466A001	P466A001	N/A
15-	SHAFT COUPLER	P630A031	P630A031	P631A031	P631A031	P630A012
16-	SHAFT COUPLER	P630A032	P630A032	P630A032	P630A032	P630A024
17-	COUPLER INSERT	P631A005	P631A005	P631A005	P631A005	P631A002
18-	HYDRAULIC PUMP	P601A006	P601A006	P601A006	P601A035	P601A004

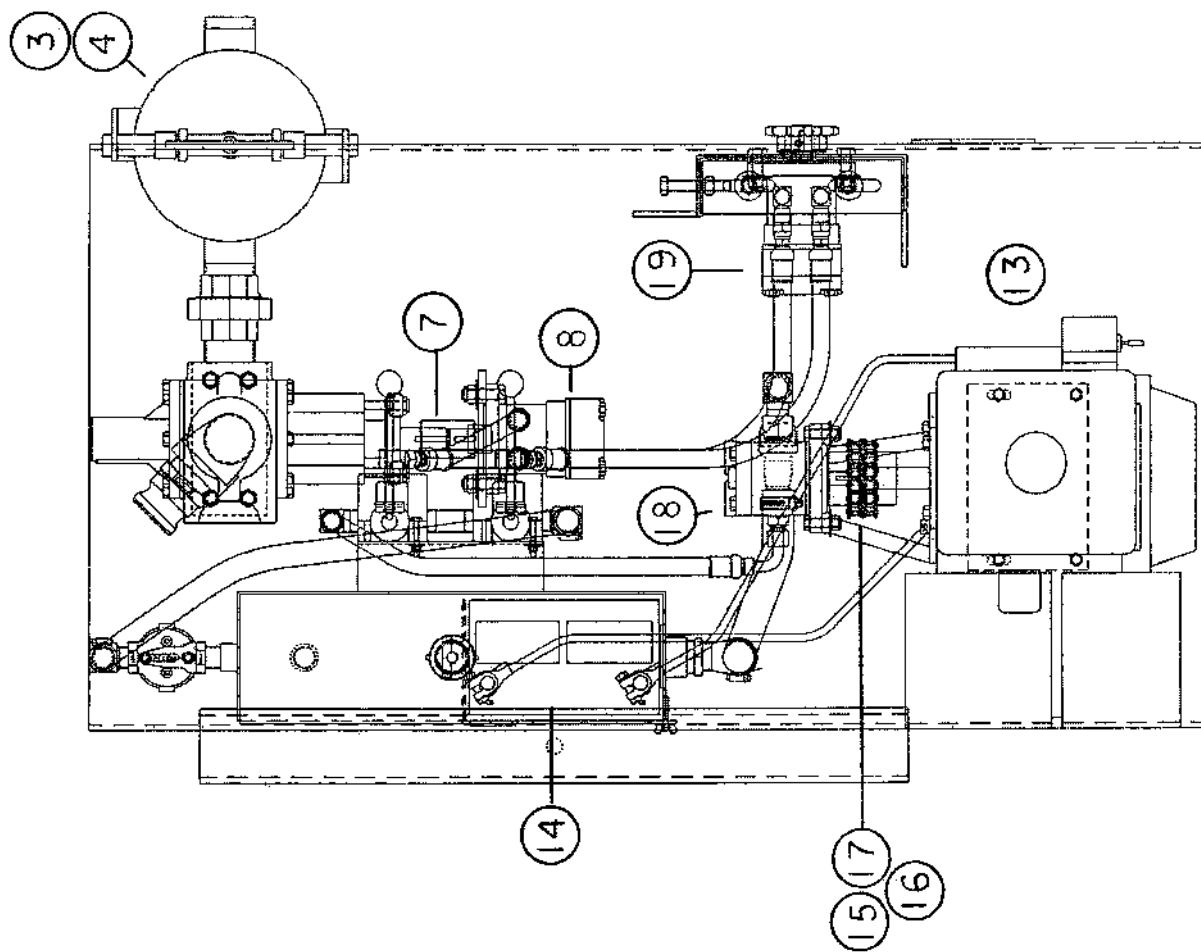
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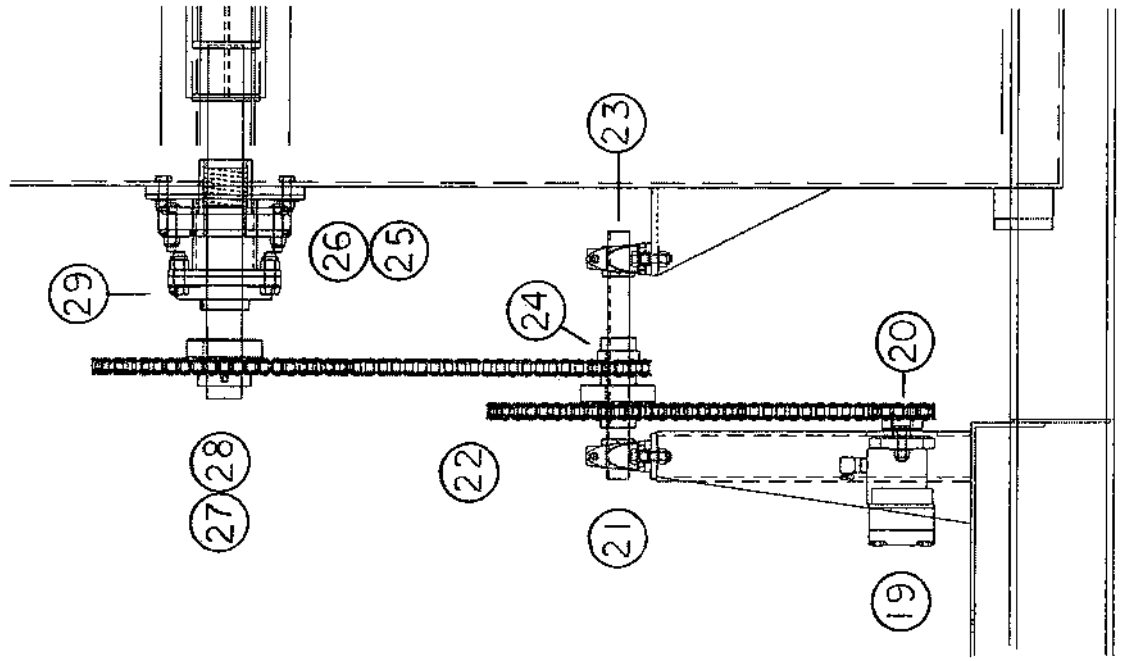
ITEM #	DESCRIPTION	6000 REGULAR	8000 REGULAR	10,000 REGULAR	6000 - 8000 HD	10,000 PLANT
19-	HYDRAULIC MOTOR	P474A003	P474A003	P474A003	P474A056	P474A003
20-	SPROCKET	P428A002	P428A002	P429A006	P428A001	P429A006
21-	BEARING	P435A003	P435A003	P435A004	N/A	P435A004
22-	SPROCKET	P428A011	P428A011	P429A019	N/A	P429A019
23-	JACK SHAFT	P50109A	P50109A	P50109B	N/A	P50109B
24-	SPROCKET	P428A012	P428A012	P429A018	N/A	P429A018
25-	PACKING GLAND	P50138C	P50138C	P50138D	P50138D	P50138D
26-	PACKING	P638A006	P638A006	P638A006	P638A006	P638A006
27-	SPROCKET	P428A003	P428A003	P429A014	P429A020	P429A014
28-	BUSHING	N/A	N/A	P740A012	P740A012	P740A012
29-	BEARING	P434A004	P434A004	P434A006	P434A006	P434A006
30-	SHAFT SEAL	P50137B007	P50137B007	P50137B012	P50137B012	P50137B012
31-	GASKET	P459A019	P459A019	P459A019	P459A019	P459A019
<b>NOT SHOWN:</b>						
	TRANSFER HOSE	P482A001	P482A001	P482A001	P482A001	P482A002
	ROLLER CHAIN	P1040A000	P1040A000	P1041A000	P1041A000	P1041A000
	MASTER LINK	P1035A003	P1035A003	P1035A004	P1035A004	P1035A004



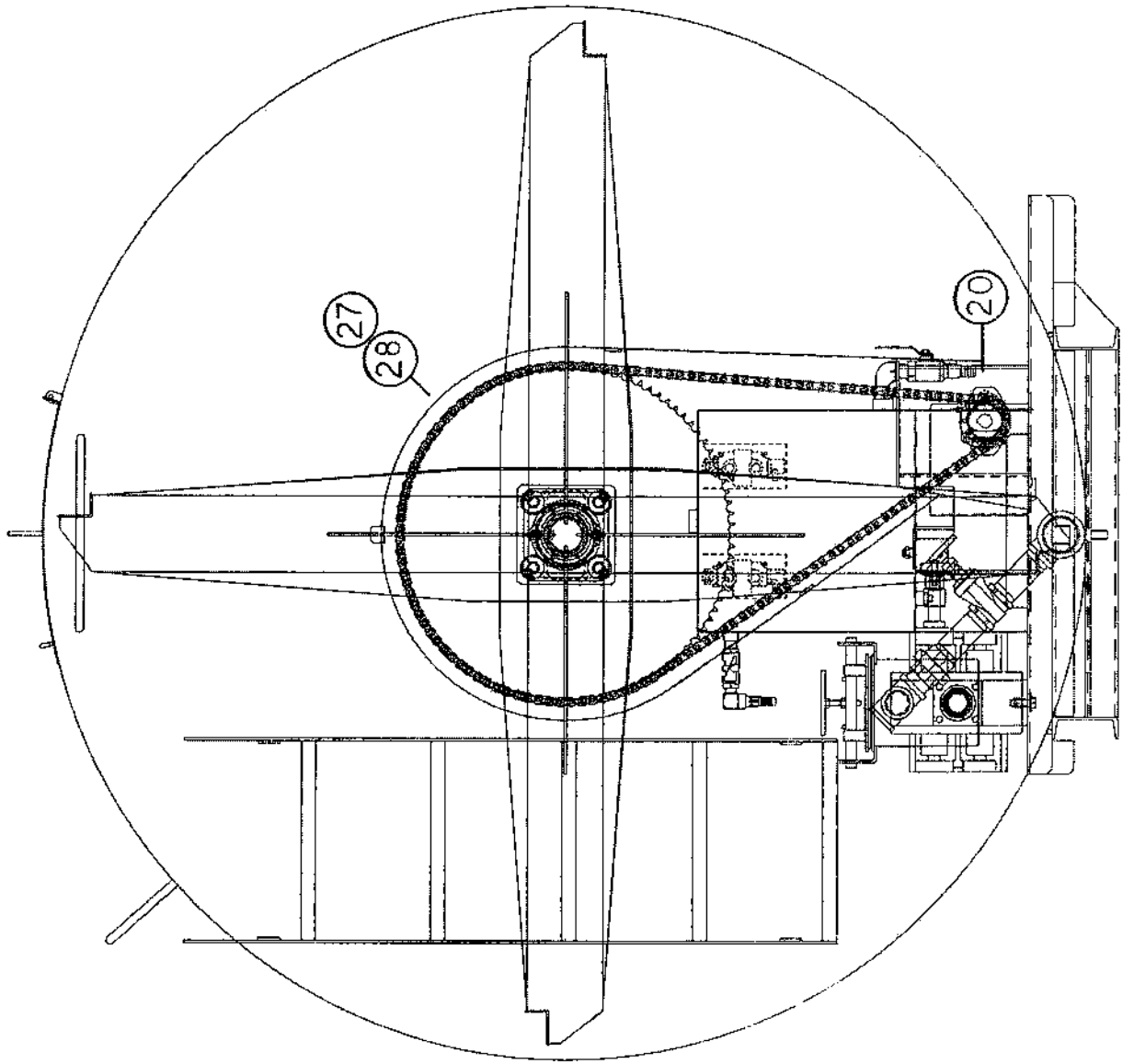


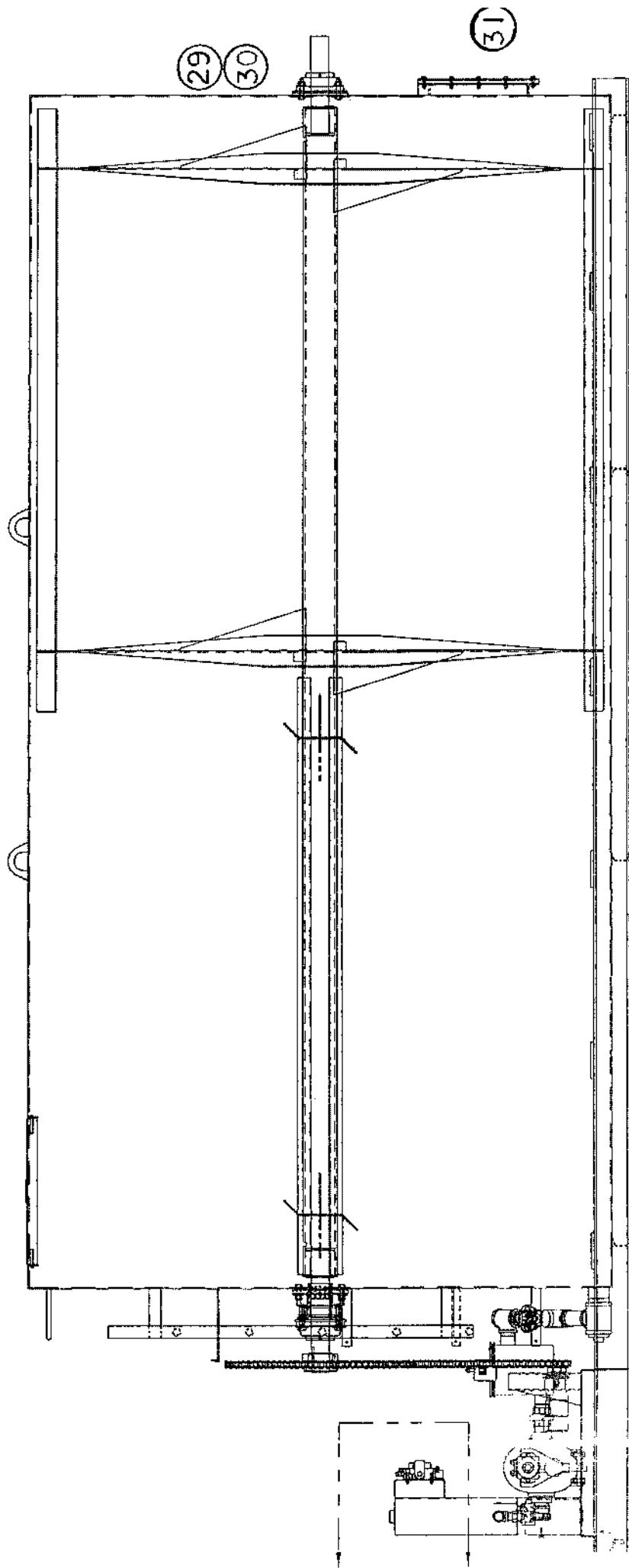










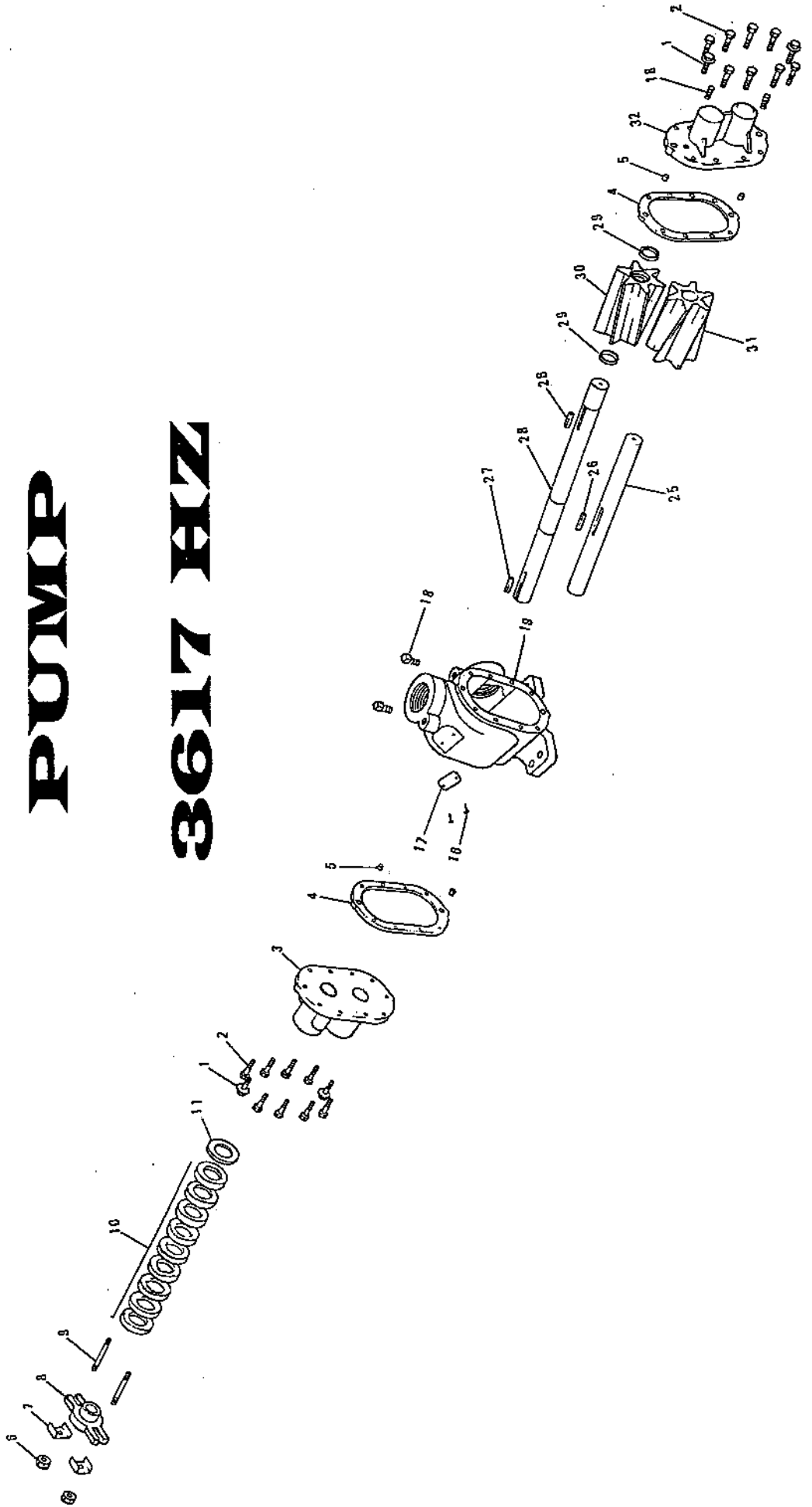


# ROPER

# MATERIAL

# PUMP

# 3617 HZ

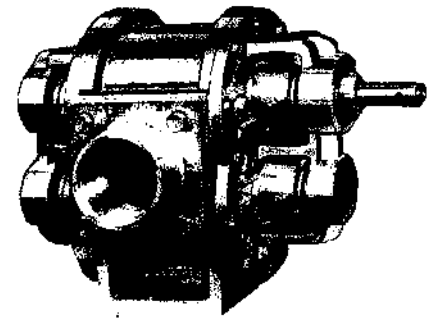


## PARTS LIST

ITEM #	DESCRIPTION	6000 REGULAR	8000 REGULAR	10,000 REGULAR	6000 - 8000 HD	10,000 PLANT
1-	CAPSCREW	P904A013	P904A013	P904A013		
2-	CAPSCREW	P904A014	P904A014	P904A014		
3-	BACKPLATE ASS'Y	P905A001	P905A001	P905A001		
	BRG.LONG,BRZ	P904A003	P904A003	P904A003		
	BRG.SHORT,BRZ	P904A012	P904A012	P904A012		
4-	CASE GASKET	P904A004	P904A004	P904A004		
5-	DOWEL PIN	P904A016	P904A016	P904A016		
6-	LOCKNUT	P904A017	P904A017	P904A017		
7-	CLIP,GLAND	P905A005	P905A005	P905A005		
8-	PACKING GLAND	P904A002	P904A002	P904A002		
9-	STUD	P905A016	P905A016	P905A016		
10-	PACKING SET	P904A001	P904A001	P904A001		
11-	WASHER,GLAND	P905A008	P905A008	P905A008		
16-	DRIVE SCREW	P904A019	P904A019	P904A019		
17-	NAME PLATE	P904A031	P904A031	P904A031		
18-	PIPE PLUG	P904A020	P904A020	P904A020		
19-	CASE	P906A009	P906A009	P906A009		
25-	SHAFT,IDLER	P906A010	P906A010	P906A010		
26-	KEY	P904A021	P904A021	P904A021		
27-	KEY	P904A021	P904A021	P904A021		
28-	SHAFT,DRIVE	P906A011	P906A011	P906A011		
29-	RETAINING RING	P905A012	P905A012	P905A012		
30-	GEAR,DRIVE LH	P906A013	P906A013	P906A013		
31-	GEAR,IDLER RH	P906A014	P906A014	P906A014		
32-	FACEPLATE ASS'Y	P905A015	P905A015	P905A015		
	BRG.LONG,BRZ	P904A003	P904A003	P904A003		



# "400" Series OUTBOARD BALL BEARING



## PARTS LIST

### 2-INCH OUTBOARD BALL BEARING PUMP

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
2400/OB	Outboard Bowie Pump	2400/OBSS	Outboard Bowie Pump w/S. Steel Shafts
2400/OB/F	Outboard Bowie Pump w/ Adptr. Flngs	2400/OBSS/F	Outboard Bowie Pump w/S. Steel Shafts and Adapter Flanges

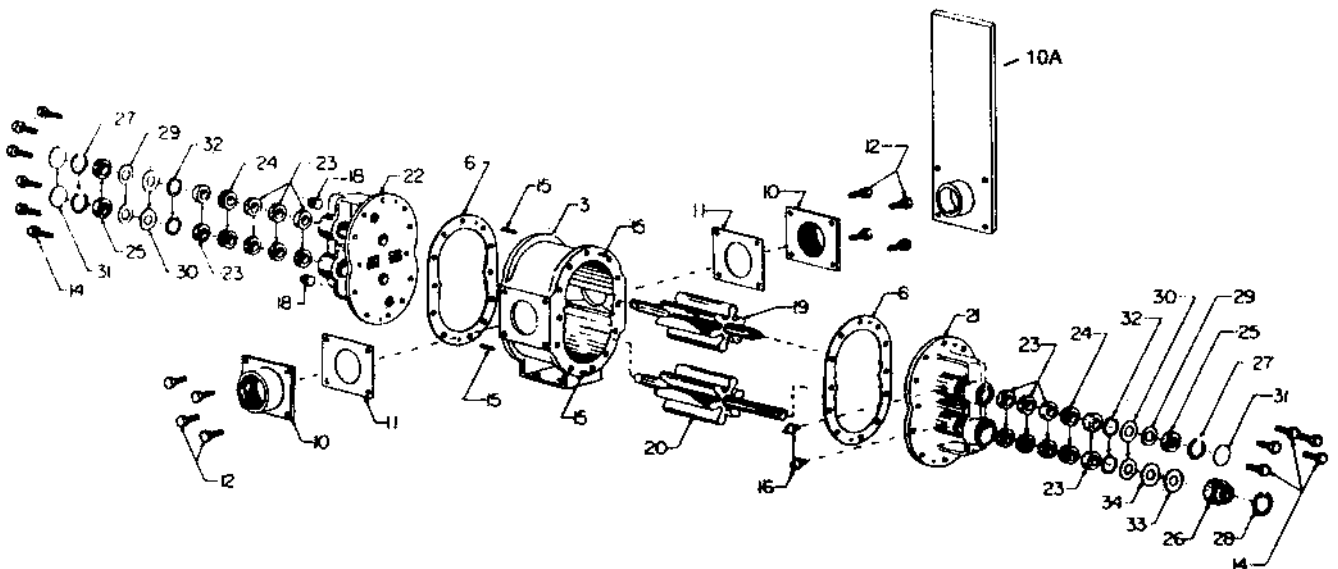
Available options: extended drive shaft

### PARTS

REF NO	PART NUMBER	DESCRIPTION	NO REG
3	2403	Center Case	1
6	406	Pump Gasket	8
10	2410	Adapter Flange	2
10A	2410A	Mounting Flange	1
11	2411	Adapter Flange Gasket	2
12	2412	Adapter Flange Bolt	8
14	414	End Plate Bolt	24
15	415	Taper Pin	4
16	416	Grease fitting	4
18	418	Drain Plug	2
19	2419	Hy Car Gear w/Reg Idler Shaft	1
19	2419SS	Hy Car Gear w/S. Steel Idler Shaft	1
19	2419A	Reg. Idler Shaft	1
19	2419SSA	Stainless Steel Idler Shaft	1
19	419K	Gear Key	2
19	2419G	2" Gear Only	2
20	2420	Hy Car Gear w/Reg Drive Shaft	1
20	2420SS	Hy Car Gear w/S. Steel Drive Shaft	1

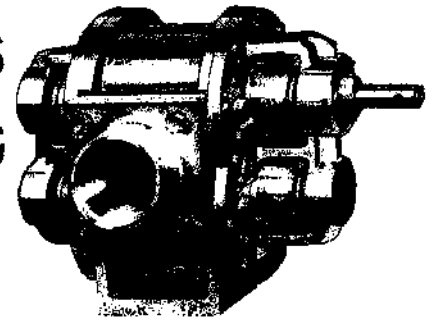
REF NO	PART NUMBER	DESCRIPTION	NO REG
20	2420A	Reg Drive Shaft	1
20	2420SSA	Stainless Steel Drive Shaft	1
21	421	Outboard Front Plate	1
22	422	Outboard Back Plate	1
23	423	Outboard Seal	16
24	424	Outboard Lantern Ring	4
25	425	Outboard Small Bearing	3
26	426	Outboard Main Drive Bearing	1
27	427	Outboard 2" Bearing Lock Ring	3
28	428	Outboard 3" Drive Bearing Lock Rg	1
29	429	Red Rubber Washer	3
30	430	Black Rubber Slinger Washer	4
31	431	Expansion Plug	3
32	432	Outboard 2" Seal Lock Ring	4
33	433	Shield Washer for Main Dr. Bearing	1
34	434	Steel Washer for Main Drive Bearing	1

Note: Four digit part numbers beginning with #2 denotes parts for 2" Pump only  
 Four digit part numbers beginning with #3 denotes parts for 3" Pump only  
 Three digit part numbers represent parts that are interchangeable between the two & three " 400 series pumps.





# "400" Series OUTBOARD BALL BEARING



## PARTS LIST

### 3-INCH OUTBOARD BALL BEARING PUMP

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
3400/OB	Outboard Bowie Pump	3400/OBSS	Outboard Bowie Pump w/S. Steel Shafts
3400/OB/F	Outboard Bowie Pump w/ Adptr. Flngs	3400/OBSS/F	Outboard Bowie Pump w/S. Steel Shafts and Adapter Flanges

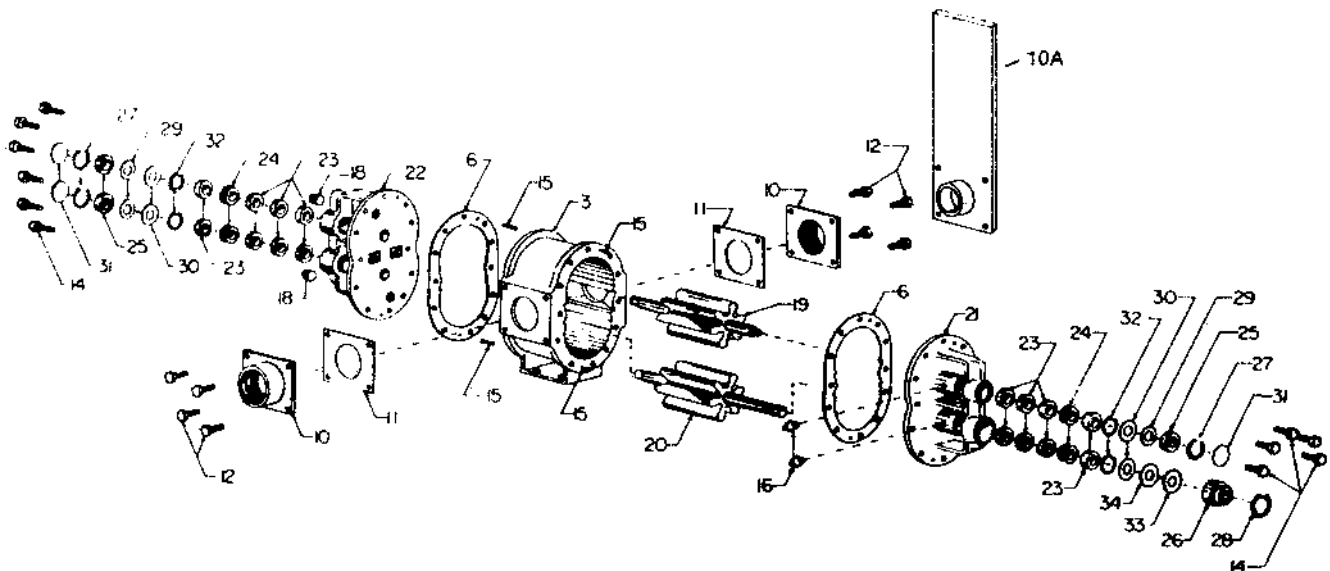
Available options: extended drive shaft

### PARTS

REF NO	PART NUMBER	DESCRIPTION	NO REG
3	3403	Center Case	1
6	3406	Pump Gasket	8
10	3410	Adapter Flange	2
10A	3410A	Mounting Flange	1
11	3411	Adapter Flange Gasket	2
12	3412	Adapter Flange Bolt	8
14	414	End Plate Bolt	24
15	415	Taper Pin	4
16	416	Grease fitting	4
18	418	Drain Plug	2
19	3419	Hy Car Gear w/Reg Idler Shaft	1
19	3419SS	Hy Car Gear w/S. Steel Idler Shaft	1
19	3419A	Reg. Idler Shaft	1
19	3419SSA	Stainless Steel Idler Shaft	1
19	3419K	Gear Key	2
19	3419G	3" Gear Only	2
20	3420	Hy Car Gear w/Reg Drive Shaft	1
20	3420SS	Hy Car Gear w/S. Steel Drive Shaft	1

REF NO	PART NUMBER	DESCRIPTION	NO REG
20	3420A	Reg Drive Shaft	1
20	3420SSA	Stainless Steel Drive Shaft	1
21	421	Outboard Front Plate	1
22	422	Outboard Back Plate	1
23	423	Outboard Seal	16
24	424	Outboard Lantern Ring	4
25	425	Outboard Small Bearing	3
26	426	Outboard Main Drive Bearing	1
27	427	Outboard 2" Bearing Lock Ring	3
28	428	Outboard 3" Drive Bearing Lock Rg	1
29	429	Red Rubber Washer	3
30	430	Black Rubber Slinger Washer	4
31	431	Expansion Plug	3
32	432	Outboard 2" Seal Lock Ring	4
33	433	Shield Washer for Main Dr. Bearing	1
34	434	Steel Washer for Main Drive Bearing	1

Note: Four digit part numbers beginning with #2 denotes parts for 2" Pump only  
 Four digit part numbers beginning with #3 denotes parts for 3" Pump only  
 Three digit part numbers represent parts that are interchangeable between the two & three " 400 series pumps.



PARTS LIST

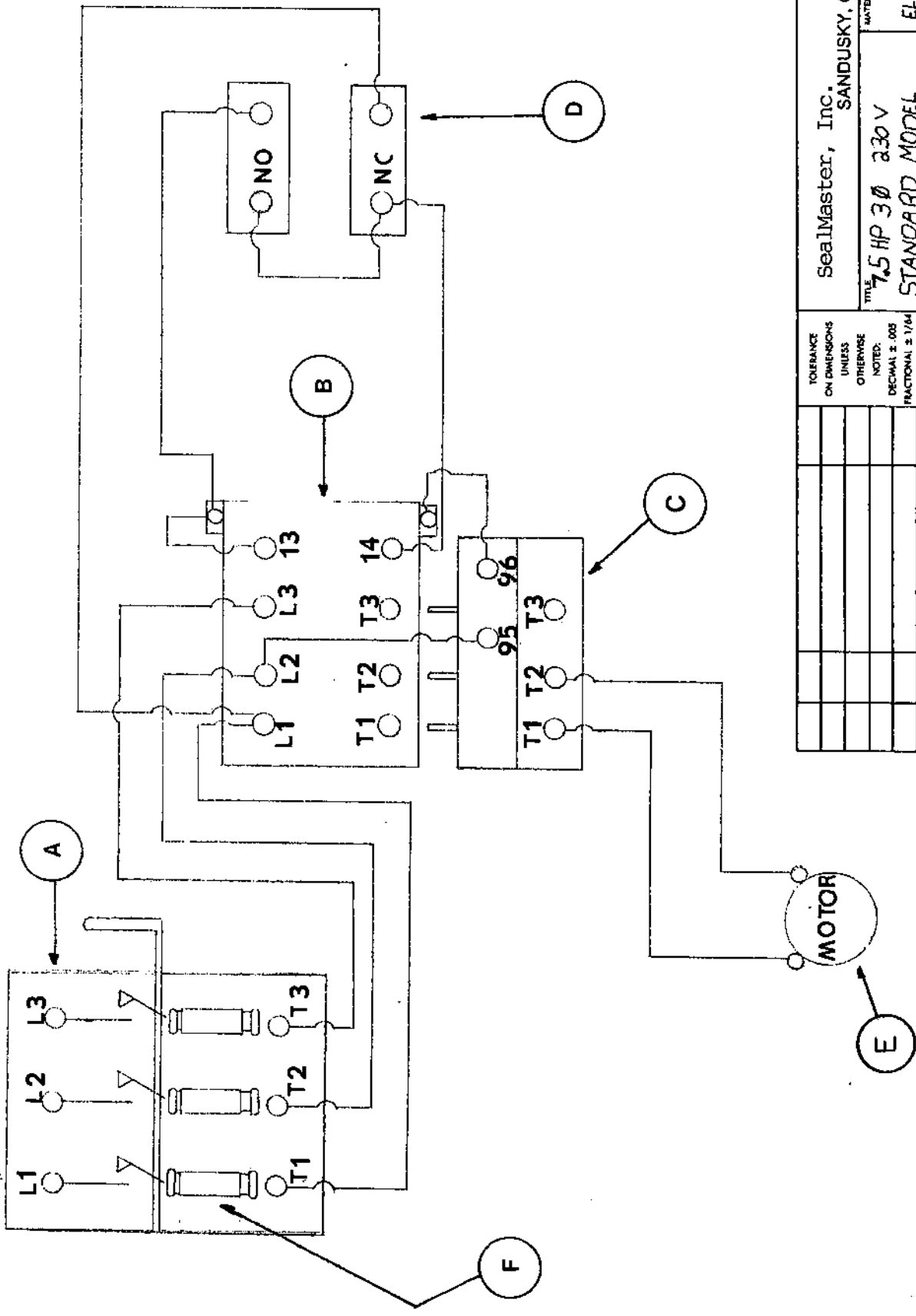
ITEM #	DESCRIPTION	6000 REGULAR	8000 REGULAR	10,000 REGULAR	6000 - 8000 HD	10,000 PLANT
<b>2" 2400 SERIES BOWIE PUMP:</b>						
3-	CENTER CASE				P741A001	
6-	CASE GASKET				P741A002	
19-	RUBBER IDLER GEAR/SHAFT				P741A010	
20-	RUBBER DRIVE GEAR/SHAFT				P741A011	
21-	OUTBOARD FRONT PLATE				P741A012	
22-	OUTBOARD REAR PLATE				P741A013	
N/S	HARDEND STEEL WEAR PLATE				P741A025	
	REBUILD KIT ( REQUIRED ANY TIME PUMP IS TAKEN APART )				P741A047	
<b>3" 3400 SERIES BOWIE PUMP</b>						
3-	CENTER CASE					P741A026
6-	CASE GASKET					P741A027
19-	STEEL IDLER GEAR/SHAFT					P741B033
	RUBBER IDLER GEAR/SHAFT					P741A033
20-	STEEL DRIVE GEAR/SHAFT					P741B034
	RUBBER IDLER GEAR/SHAFT					P741A034
21-	OUTBOARD FRONT PLATE					P741A035
22-	OUTBOARD REAR PLATE					P741A036
	N/S					P741A025
	REBUILD KIT ( REQUIRED ANY TIME PUMP IS TAKEN APART )					P741A047

# **Parts For Electrical Set Up**

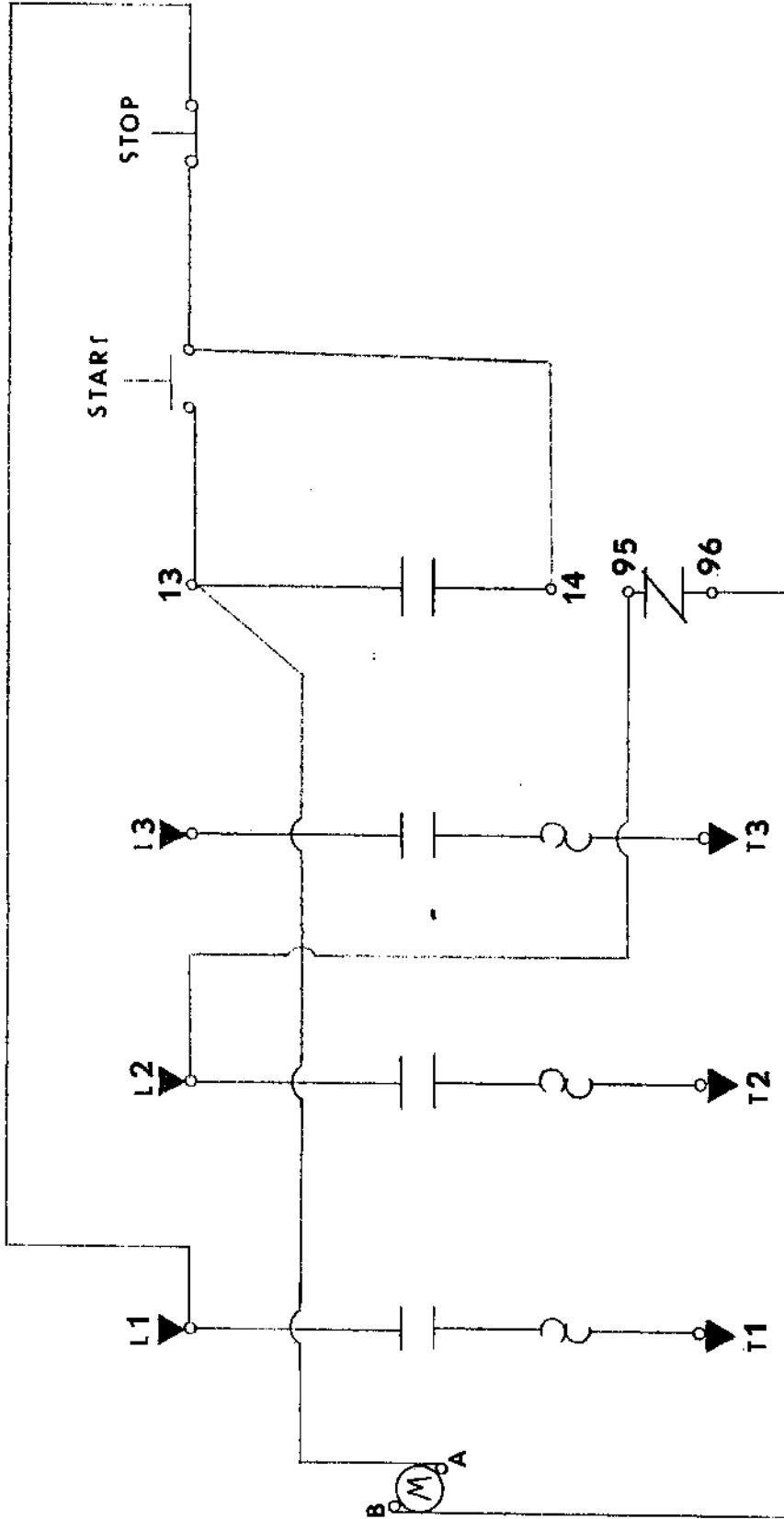


PARTS LIST

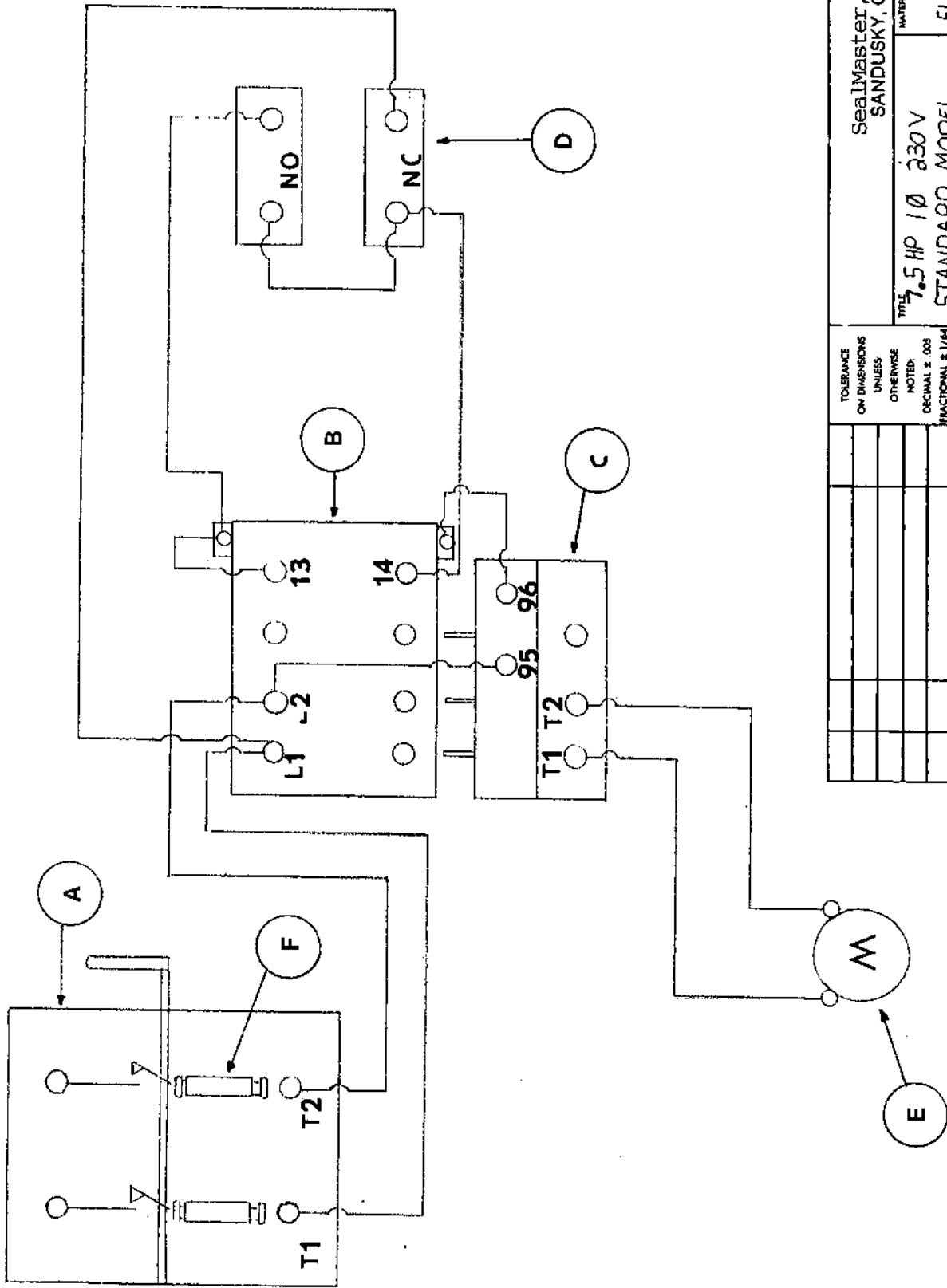
ITEM #	DESCRIPTION	6000 REGULAR	8000 REGULAR	10,000 REGULAR	6000 - 8000 HD	10,000 PLANT
<b>7.5 HP/10 HP THREE PHASE ELECTRIC SYSTEM</b>						
A	DISCONNECT	P943A006	P943A006	P943A006	P943A006	P943A006
B	STARTER	P943A005	P943A005	P943A005	P943A005	P943A005
C	OVERLOAD	P943A008	P943A008	P943A008	P943A008	P943A008
D	COVER KIT	P943A007	P943A007	P943A007	P943A007	P943A007
E	7.5 HP THREE PH	P941A006	P941A006	P941A006	P941A006	
	10 HP THREE PH					P941A007
F	60 AMP FUSE	P595A006	P595A006	P595A006	P595A006	P595A006
<b>7.5 HP/10 HP SINGLE PHASE ELECTRIC SYSTEM</b>						
A	DISCONNECT	P943A006	P943A006	P943A006	P943A006	P943A006
B	STARTER	P943A004	P943A004	P943A004	P943A004	P943A004
C	OVERLOAD	P943A008	P943A008	P943A008	P943A008	P943A008
D	COVER KIT	P943A007	P943A007	P943A007	P943A007	P943A007
E	7.5 HP SINGLE PH	P941A018	P941A018	P941A018	P941A018	
	10 HP SINGLE PH					P941A015
F	60 AMP FUSE	P595A006	P595A006	P595A006	P595A006	P595A006



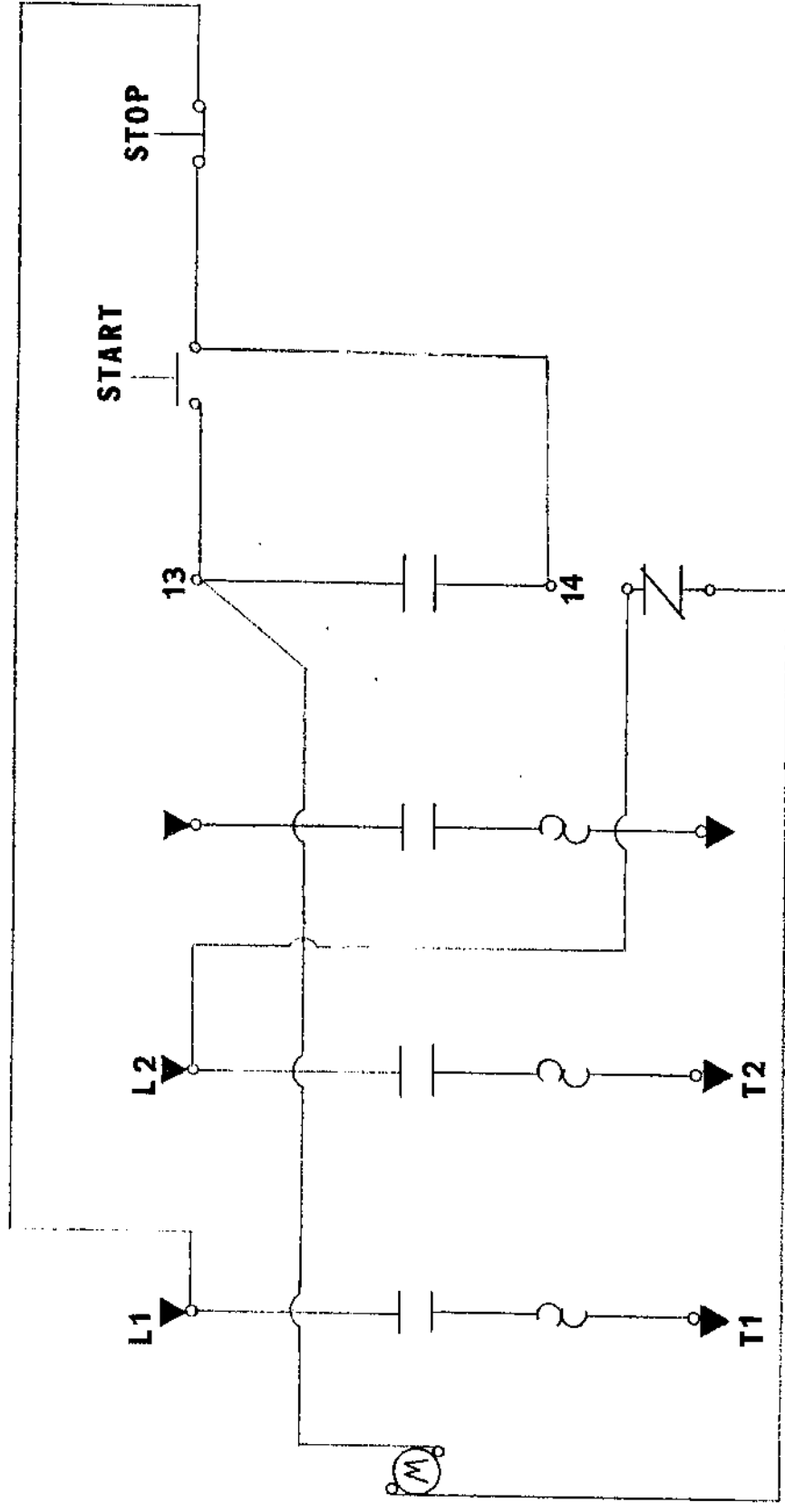
SeaMaster, Inc. SANDUSKY, OHIO		MATERIAL HANDY MANS		SCALE	
TITLE 7.5 HP 3Ø 230 V		STANDARD MODEL		ELECTRIC MAP	
DRAWN BY M.V.P.		DATE 5/60		PART NO	
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE NOTED:		DECIMAL ± .005		FRACTIONAL ± 1/64	
		ANGULAR ± 1/2°		APPRO BY	
REV	LET	ECN	REVISION	DATE	



SeaMaster, Inc. SANDUSKY, OHIO		MATERIAL ELECTRICIAN	
TITLE 7.5 HP 3Ø 230 V		SCALE MAP	
STANDARD MODEL		USED ON STORAGE TANKS	
DRAWN BY MWB	DATE 5/89	REV	PART NO.
TOLEANCE ON DIMENSIONS UNLESS OTHERWISE NOTED:	DECIMAL ± .005	APP'D BY	DATE
	FRACTIONAL ± 1/64		
	ANGULAR ± 1/2°	REV	REVISION
		ECN	DATE



SeaMaster, Inc. SANDUSKY, OHIO		MATERIAL HANDY MANS		PART NO.	
TITLE 7.5 HP 10 230V STANDARD MODEL		ELECTRIC MAP		SCALE	
DRAWN BY M.V.P.		DATE 5/29		REV.	
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE NOTED: DECIMAL ± .005 FRACTIONAL ± 1/64 ANGULAR ± 1/2°		APP'D BY		DATE	
REV.	LET	ECN	REVISION	DATE	



SeaMaster, Inc. SANDUSKY, OHIO		MATERIAL ELECTRICIAN	
TITLE 7.5 HP 1Ø 230V		MAP	
STANDARD MODEL		SCALE	
USED ON STORAGE TANKS		DATE 5/89	PART NO.
DRAWN BY MWB		REV	NO.
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE NOTED:		APP'D BY	
DECIMAL ± .005		DATE	
FRACTIONAL ± 1/16"		REVISION	
ANGULAR ± 1/2°		ECN	
REV LET	ECN	REVISION	DATE

# TROUBLE SHOOTING GUIDE

## 1. Engine

- A. Refer to engine owner's manual for oil specifications and operating instructions.
- B. Always move the fuel shutoff valve to the off position when finished. Fuel can migrate down into the oil crankcase if the valve is left open. If an electric motor is used, move disconnect lever to the off position.

## 2. Material pump

- A. Material flow is reduced. Basket strainer or plumbing leading to the pump is partially plugged. Or the pump could be worn internally and needs new gears or replaced. Also check the rotation speed of the pump and hydraulic motor. Should the pump be rotating slower than normal, the hydraulic motor and hydraulic pump need to be tested for wear. Before removing them for testing there is an adjustment that can be tried. On the side of the fwd-rev control valve is a tiny plug that takes an Allen wrench. Remove this plug and there is an Allen head adjustment screw. Turn this clockwise one full turn. If this doesn't solve the problem then the hydraulic pump and motor need testing or replacing.
- B. Hydraulic motor turns but the pump doesn't. Inspect the coupler for wear or possibly a sheared key either on the pump shaft or hydraulic motor shaft.
- C. Material leaks from around the pump shaft. A Roper pump has packing around the shaft. Remove the two nuts that are on either side of the pump shaft and then remove the two piece packing gland. The gland will look like it is broke, ignore this as it is a casting that has been snapped in half. Purchase Roper pump packing and add the packing rings until the cavity is full. Replace the gland and snug the nuts down. Do not over tighten as the shaft can be damaged. If the pump is a Bowie, the pump will have to be disassembled to replace the ring seals.

## 3. Agitation system

- A. Agitator will not rotate or moves extremely slow. Does the material pump turn at the proper speed? If yes, try the adjustment listed above. Agitator should now rotate properly. If it doesn't then the agitator motor needs replacing. Does the motor shaft turn but the sprockets do not? Check the motor for a sheared key. If the material pump doesn't rotate at the proper speed either, have the hydraulic pump tested.
- B. Hydraulic oil level. The level should be 4" down from the tank top. Use grade AW68, SAE 10w20 or 10w30 hydraulic oil.
- C. Sealer leaks from around the shaft. If sealer is leaking from the sprocket end of the shaft, packing needs to be added to the packing gland. As long as sealer hasn't been allowed to get into the bearing it will not need replacing. Behind the bearing are two bolts, one at 6 o'clock and the other at 12 o'clock. Remove the nuts and pull the packing sleeve towards the

bearing. When a gap opens up this is where you will add  $\frac{1}{4}$ " packing. Wrap the packing around the shaft and cut rings. Push these rings into the gap and alternate the ends of the packing. Push in as much as possible and push the packing sleeve back into the gland and snug down the two nuts. You may have to repeat this procedure 2-3 times to fill the housing.

- D. The rear seal requires cutting the bearing off of the shaft. Clean the shaft well with emery cloth before attempting to install the new seal and bearing.