

MasterMix Bulk Storage Tanks

OWNERS MANUAL



SealMaster®
Pavement Products & Equipment

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

MASTERMIX™ BULK STORAGE TANKS

Owner's Manual

Version 3.2

Issue Date: October 2024

Effective Date: October 2021

Version	Date	Changes	Approval
1.0	5/21	Original Issue	DS
2.0	10/21	Motor – Material	JG
2.1	1/22	Change Engine Oil – Note	JG
2.2	4/22	Added Paint Page	JG
2.3	8/22	Added Bowie 3" 3400	JG
2.4	9/22	Honda Engine used w/Cooler	JG
2.5	9/22	2" ARO Parts Updates	JG
2.6	2/23	Added Cleanout Cover & Seal	JG
2.7	3/23	Added Electric C- Face Motor	JG
2.8	3/23	Added 3" H.O.D.D. II Pump	JG
2.9	2/24	Change to P50147B023	JG
3.0	6/24	Rear Set-Up Added	JG
3.1	6/24	Added P50147B021	JG
3.2	10/24	Added Hydraulic agitation pressure test/change & Warning Page	JG

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ThorWorks Industries, Inc.

Purchased by _____ Model NO. _____
Company Name _____ Serial NO. _____
Address _____ Acceptance Date _____
City _____ State _____ Zip _____

CORRESPONDENCE

All Correspondence regarding this equipment, as well as 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



SealMaster® LIMITED WARRANTY

SealMaster warrants that its products are of quality material and workmanship. SealMaster agrees to replace, within a period of one (1) year 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 SealMaster and investigation shows such repair or replacement is made necessary by an inherent defect of material or workmanship.

It is hereby understood that engines, motors, pumps, or other components purchased by SealMaster for use on its equipment are not warranted by SealMaster and are sold only with the standard warranty of the manufacturer of that component.

SealMaster will make no allowances for repairs or alterations completed by outside sources unless authorization is in writing and approved by an authorized SealMaster representative.

Any claims for defective material or workmanship must be made prior to the expiration of thirty (30) days from the date 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 SealMaster's liability solely to the cost of replacement parts, F.O.B. factory, or at the option of SealMaster to repair of the defective part or parts. No allowances for damages, lost time, or any other claim will be recognized.

This warranty is null and void if other than genuine SealMaster parts are used.

SealMaster 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, SealMaster reserves the right to change specifications without notice.

Any modification or alteration of this machine without prior approval of the manufacturer may void this warranty.

SAFETY PRECAUTIONS AND CAUTIONS

PRECAUTIONS

- **Always** wear **eye** and **ear** protection, and **gloves**.



- Be aware of all **CAUTION, WARNING, and DANGER** signs on the unit.
- Read all Owners Manuals that come with this unit.
- Make sure the operator is familiar with the units' operation.
- Replace any hoses that show signs of wear, fraying, or splitting.
- Be sure all fittings and joints are tight and leakproof.
- Check all the nuts and bolts for tightness. Bolts and nuts are machined tightened before leaving the factory. However, some loosening may occur during shipment.
- Do not do maintenance work on the machine while in operation.
- The machine should not be left unattended when running.

CAUTIONS

- Keep hands, feet, and clothing away from moving parts.
- Do not operate the machine without all guards in place.
- Do not operate Agitator with the chain guard removed.
- Do not operate Agitator with Manhole cover open.
- Open Manhole cover before pumping material out. This Tank is equipped with an Air Vent and operating a Pump with the lid closed may create a vacuum if the vent is plugged.

MASTERMIX™ STORAGE TANKS

EQUIPPED WITH HONDA ENGINE

STARTUP



1- BEFORE STARTING THE ENGINE-HONDA

- **Note:** Make sure you check the appropriate **oil** level.
- Check **Hydraulic Oil** – Maintain level at 4 inches below tank top, when **COLD**. See Hydraulic Oil in this section for proper oil grade. Make certain the shut-off valve on the tank is **open**.
- Check gas supply.
- Be sure all hydraulic valves are in a **neutral** position.

STARTING THE ENGINE

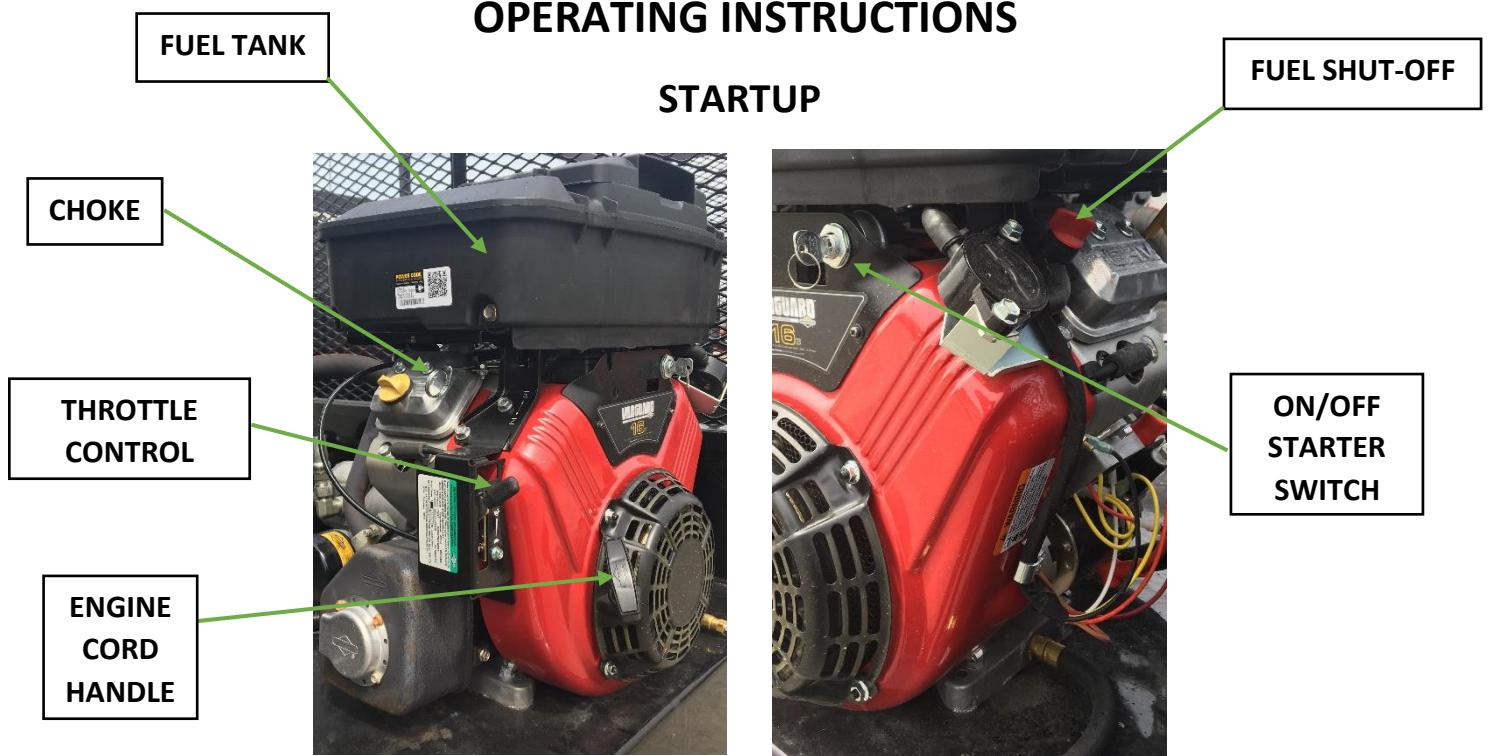
- Set the **fuel** shutoff and **choke** levers to the **on** position.
- Set the **throttle** lever at $\frac{1}{2}$ open.
- Turn the **engine** switch to the start position.
- It is important that when you are done running the engine that the **fuel** shutoff lever is turned to the **off** position. This keeps gasoline from mixing with the oil.

MASTERMIX™ STORAGE TANKS

EQUIPPED WITH VANGUARD ENGINE

OPERATING INSTRUCTIONS

STARTUP



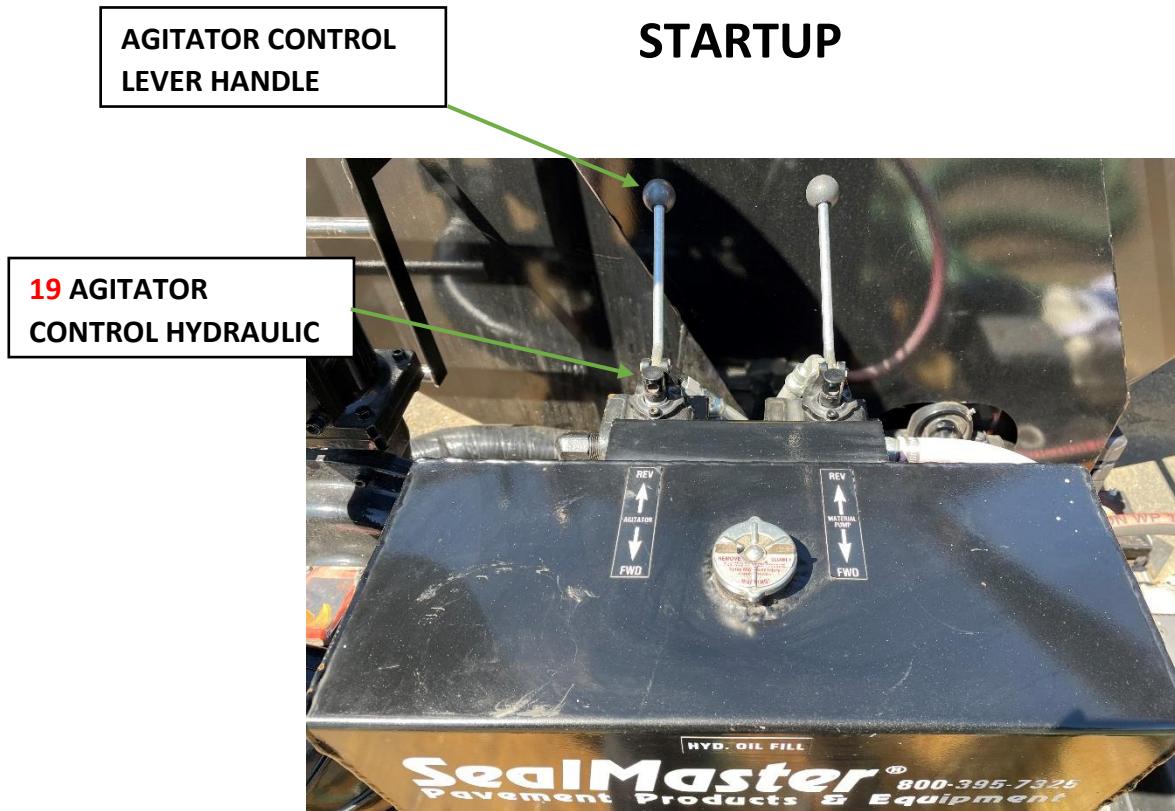
2- BEFORE STARTING THE ENGINE-VANGUARD BEFORE 3/23

- **Note:** Make sure you check the appropriate **oil** level.
- Check **Hydraulic Oil** – Maintain level at 4 inches below tank top, when **COLD**. See Hydraulic Oil in this section for proper oil grade. Make certain the shut-off valve on the tank is **open**.
- Check gas supply.
- Be sure all hydraulic valves are in a **neutral** position.

3- STARTING THE ENGINE

- Set the **throttle** and **choke** levers to the **on** position.
- Set **fuel shut-off** to the **on** position.
- Set the engine **on/off** switch to **run** position.
- Start the engine.
- It is important that when you are done running the engine that the **fuel shutoff** lever is turned to the **off** position. This keeps gasoline from mixing with the oil.

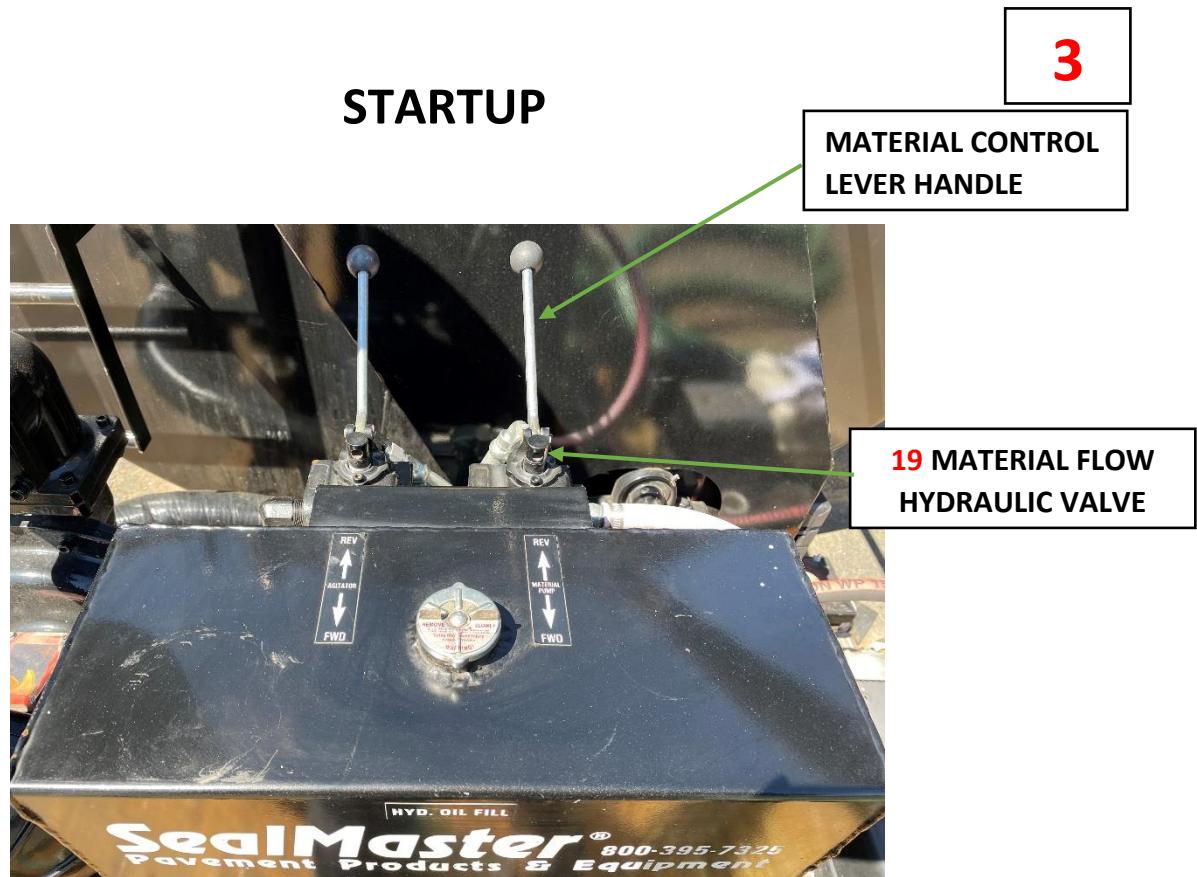
MASTERMIX™ STORAGE TANKS OPERATING INSTRUCTIONS



4-AGITATOR

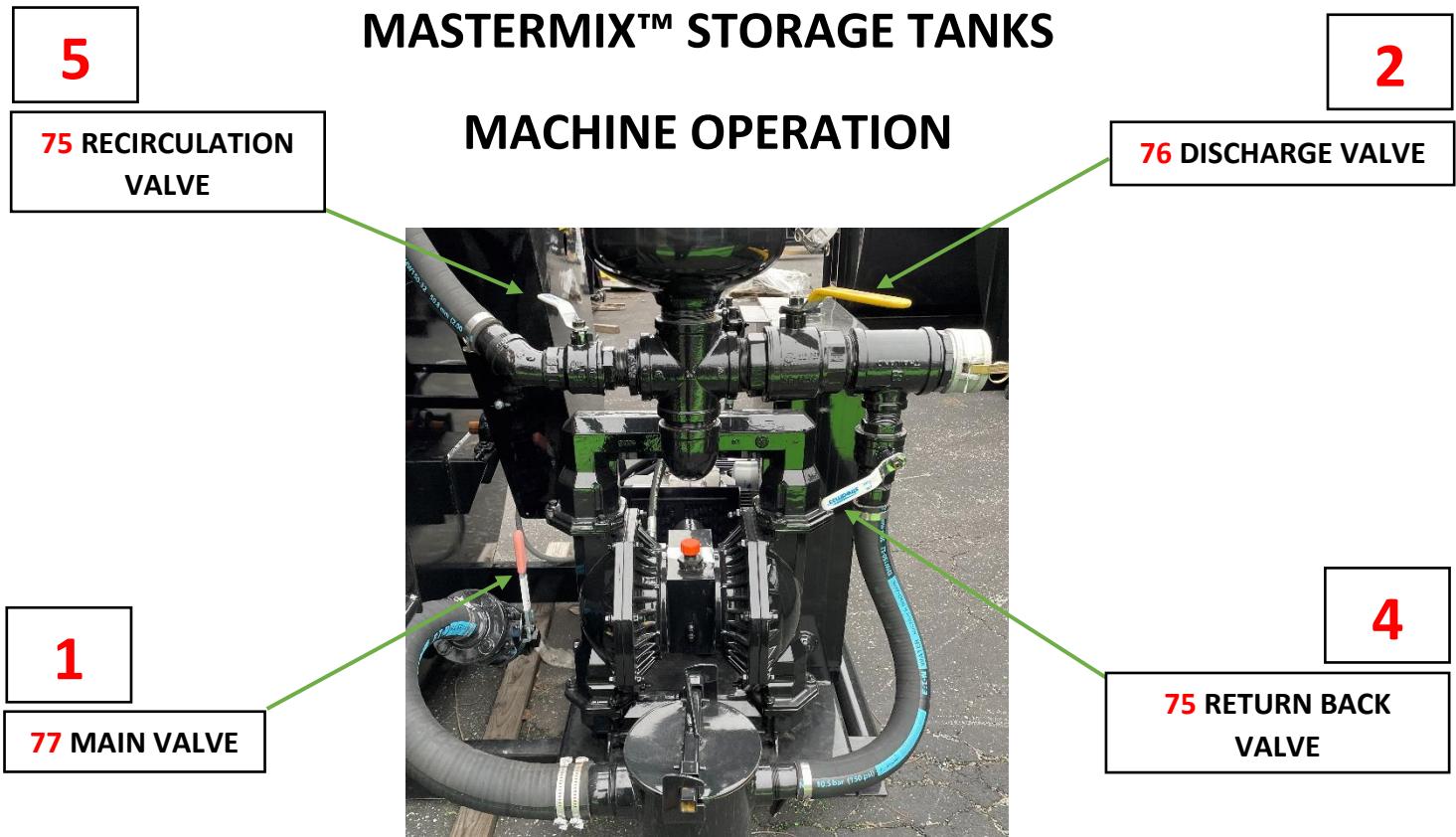
- The agitator can operate in either direction. The agitator control hydraulic valve #19 meters oil flow, which means how far the lever handle is moved, determines rotation speed. Material left in the tank should be agitated 10 to 15 minutes. Do not leave a sand and sealer mixture in the tank without agitation for more than one day.

MASTERMIX™ STORAGE TANKS OPERATING INSTRUCTIONS



5-MATERIAL PUMP

- The material flow hydraulic valve #19 meters oil flow also, so lever handle movement determines gallons per minute output.



DIAPHRAGM PUMP

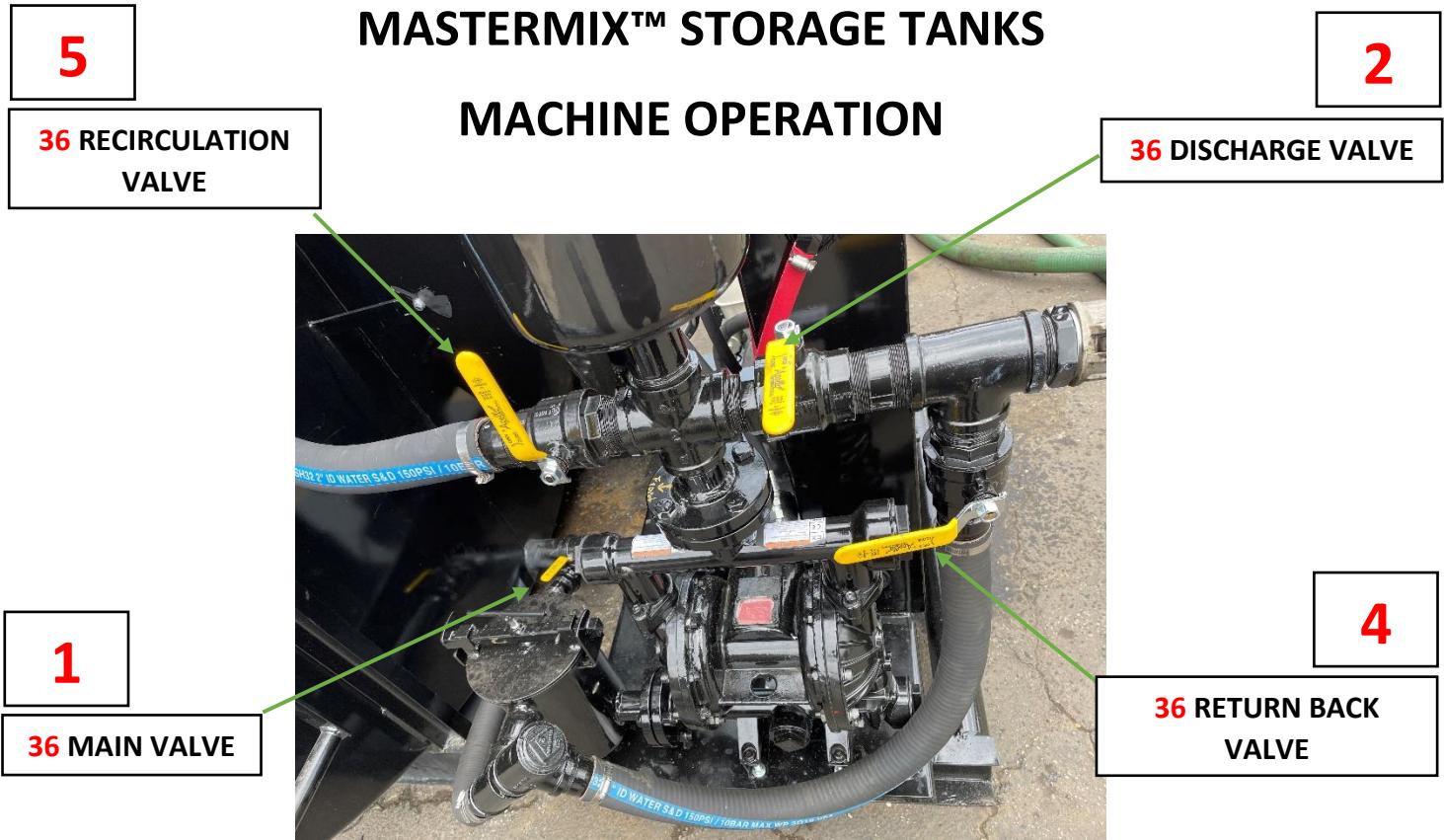
6-DISCHARGE MATERIAL OUT OF TANK – (SHOWN 3" HODD II PUMP)

- | | |
|----------|----------------------------------|
| 1 | Open Main valve |
| 2 | Open Discharge valve |
| 4 | Close Return back valve |
| 5 | Close Recirculation valve |

- Start Engine. Pull Material control lever handle **3** in forward position.

WHEN FINISHED: Empty the discharge hoses.

- | | |
|----------|---------------------------------|
| 1 | Close Main valve |
| 2 | Close Discharge valve |
| 4 | Open Return back valve |
| 5 | Open Recirculation valve |



DIAPHRAGM PUMP

6-DISCHARGE MATERIAL OUT OF TANK – (SHOWN STEIN PUMP BEFORE 3/23)

- | | |
|----------|----------------------------------|
| 1 | Open Main valve |
| 2 | Open Discharge valve |
| 4 | Close Return back valve |
| 5 | Close Recirculation valve |

- Start Engine. Pull Material control lever handle **3** in forward position.

WHEN FINISHED: Empty the discharge hoses.

- | | |
|----------|---------------------------------|
| 1 | Close Main valve |
| 2 | Close Discharge valve |
| 4 | Open Return back valve |
| 5 | Open Recirculation valve |

MASTERMIX™ STORAGE TANKS

MACHINE OPERATION



7-FILL MATERIAL IN TANK

- All valves should be **closed**.
- Turn fill tube 3" gate valve #2 to **open**.

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MACHINE MAINTENANCE

MAINTENANCE SCHEDULE

Follow maintenance procedures listed in the engine and pump manuals.

MAINTAIN	8 HRS	1 WEEK	1 MONTH	6 MONTHS	1 YEAR
CHECK ENGINE OIL LEVELS	✓				
CHANGE ENGINE OIL *1					
CHECK ENGINE AIR FILTER		✓			
CHANGE ENGINE AIR FILTER					✓
CHECK HYDRAULIC OIL LEVELS	✓				
CHANGE HYDRAULIC OIL *2					✓
CHANGE HYDRAULIC OIL FILTER					✓
CHECK MATERIAL PUMP *3 OIL OR GREASE LEVEL		✓			
GREASE AGITATOR BEARINGS *4		<u>10 pumps</u> ✓			
GREASE-ROUND HOUSING FLANGE BEARINGS		✓			
INSPECT ALL HOSES	✓				

*1 CHANGE ENGINE OIL - OIL SPECIFICATIONS / REFER TO ENGINE MANUAL

Vanguard Recommends 5hrs Initial Start / every 100hrs or 12 mons. After

Honda Recommends 20hrs Initial Start / every 100hrs or 6 mons. After

*2 Use a good quality **AW68 hydraulic oil** with a rating of 352 SUS @100 F. Do not use a 150 rated hydraulic oil as it is too light.

*3 The **3" HODD** hydraulic diaphragm pump, use API-GL-5 **Gear Oil** 85W-140

*3 The **STEIN** large hydraulic diaphragm pump, requires greasing of the **center chamber**. With daily use, 4-5 pumps weekly. Use a #2 **synthetic grease**.

*4 The Agitator Bearings in Housing, need 10 pumps weekly of **Bearing Grease**.

MASTERMIX™ STORAGE TANKS

MACHINE MAINTENANCE

MAINTENANCE SCHEDULE – STEIN-O-GLAND



**GREASE BEARING HOUSING
ONCE PER WEEK WITH 10
PUMPS OF GREASE.**

SealMaster
Pavement Products & Equipment

MASTERMIX™ STORAGE TANKS

TROUBLESHOOTING GUIDE

1. ENGINE

- Refer to the engine owner's manual for all specifications and operating instructions.
- **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 the disconnect lever to the off position.

2. MATERIAL PUMP

- **Material flow is reduced.** The Basket Strainer or plumbing leading to the pump is partially plugged. Or the pump could be worn internally and needs new check balls and ball seats 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. Roper and Bowie Pumps could have worn gears and also the center case. 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.
- **The 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.
- **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 broken, 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 overtighten as the shaft can be damaged. If the pump will have to be disassembled to replace the ring seals.

MASTERMIX™ STORAGE TANKS

MACHINE MAINTENANCE

TROUBLESHOOTING GUIDE

3. AGITATION SYSTEM

- **The Agitator will not rotate or moves extremely slow.** Does the material pump turn at the proper speed? If yes, try the adjustment listed above. The 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.
- **Hydraulic oil level.** The level should be 4" down from the tank top. Use grade AW68, SAE 10w20, or 10w30 hydraulic oil.
- **If sealer leaks from around the shaft.** If the sealer is leaking from the sprocket end of the shaft, the seal needs replaced. As long as the sealer hasn't been allowed to get into the bearing, it will not need replacing. If rear bearing needs replacing, clean shaft well with emery cloth before attempting to install new seals and bearing.
- **If the tank has a packing gland.** Packing needs to be added.

MASTERMIX™ STORAGE TANKS

MACHINE MAINTENANCE

TROUBLESHOOTING GUIDE-CHART

PROBLEM	POSSIBLE CAUSES/SOLUTIONS
AGITATOR DOES NOT ROTATE	SHUTOFF VALVE IS CLOSED / OPEN HYDRAULIC OIL LOW / OIL LEVEL 4" FROM TOP OF TANK COUPLER / REPLACE THE SHEARED KEY HYDRAULIC PUMP / HAVE TESTED OR REPLACED
ENGINE	OIL SPECIFICATIONS / REFER TO OWNER'S MANUAL OPERATING INSTRUCTIONS / REFER TO OWNER'S MANUAL FUEL IN OIL CRANKCASE / FUEL SHUT-OFF VALVE IN OFF POSITION WHEN FINISHED
MATERIAL PUMP MATERIAL FLOW IS REDUCED	BASKET STRAINER IS PLUGGED / UNPLUG PLUMBING LEADING TO PUMP IS PLUGGED / UNPLUG PUMP WORN / NEEDS NEW BALLS AND BALL SEATS REPLACED MATERIAL TOO THICK/ THIN WITH WATER
SURGE TANK - NOTE EXCESSIVE PULSATION	TANK PLUGGED / CLEAN OUT TANK
BASKET STRAINER EXCESSIVE PLUGGING	MATERIAL CHUNKS/ EMPTY TANK-FLUSH WITH WATER EXCESSIVE SAND / LACK OF SEALER VISCOSITY MODIFIER MATERIAL / TOO MUCH WATER HAS BEEN ADDED

SURGE TANK – **NOTE: WEARING OF A FACE SHIELD IS RECOMMENDED**

PRESSURE CAN BE RELIEVED FROM THE SYSTEM BY OPENING THE RECIRCULATION VALVES.

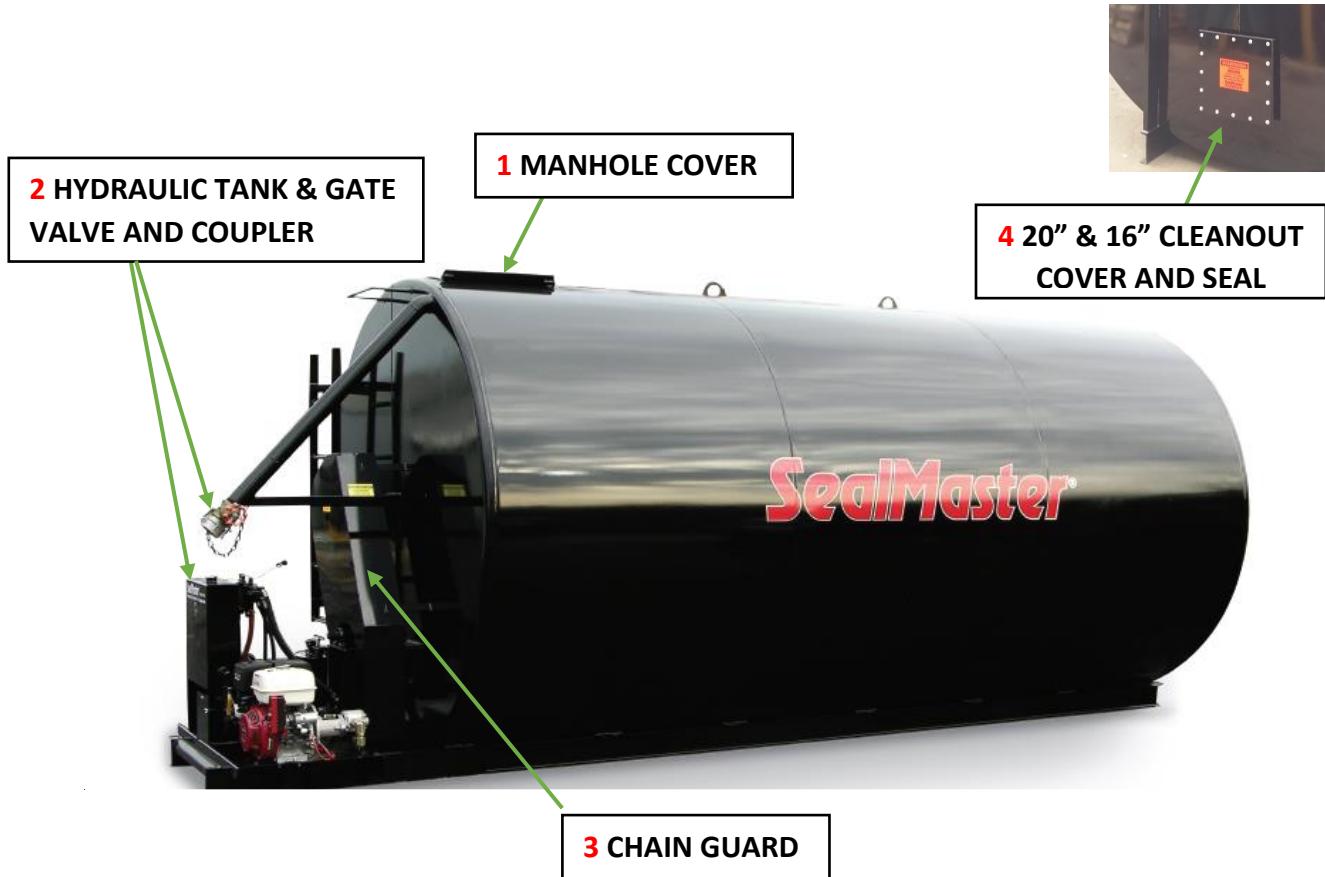
KEEP IN MIND THE PLUMBING CONNECTING THE PUMP TO THE SURGE TANK COULD ALSO BE PLUGGED, AND THERE MAY BE RESIDUAL PRESSURE STILL IN THE SYSTEM.

TANK CAPACITY CHART							
GALLONS ARE APPROXIMATE AND MAY VARY SLIGHTLY TANK TO TANK							
MATERIAL DEPTH AND GALLON VOLUME							
MATERIAL DEPTH	6000 GALLONS 96"x196"	8000 GALLONS 96"x261"	10000 GALLONS 120"x217"	MATERIAL DEPTH	6000 GALLONS 96"x196"	8000 GALLONS 96"x261"	10000 GALLONS 120"x217"
INCHES	GALLONS	GALLONS	GALLONS	INCHES	GALLONS	GALLONS	GALLONS
1	11	15	14	34	1947	2592	2476
2	31	41	39	35	2025	2696	2578
3	57	76	71	36	2104	2801	2681
4	88	117	109	37	2183	2906	2784
5	122	162	151	38	2262	3012	2889
6	160	213	199	39	2342	3119	2994
7	201	267	250	40	2422	3225	3100
8	244	325	304	41	2503	3333	3207
9	291	387	362	42	2583	3440	3314
10	339	452	423	43	2664	3548	3422
11	390	520	487	44	2745	3656	3530
12	443	590	553	45	2827	3764	3639
13	498	663	622	46	2908	3872	3748
14	555	738	693	47	2989	3981	3858
15	613	816	766	48	3071	4089	3968
16	673	896	842	49	3152	4198	4079
17	734	978	920	50	3234	4306	4190
18	797	1062	999	51	3315	4414	4301
19	861	1147	1081	52	3396	4522	4413
20	927	1234	1164	53	3477	4630	4525
21	994	1323	1249	54	3558	4738	4637
22	1062	1414	1335	55	3639	4846	4749
23	1131	1506	1423	56	3719	4953	4862
24	1201	1599	1513	57	3800	5060	4974
25	1272	1693	1604	58	3879	5166	5087
26	1344	1789	1696	59	3959	5272	5199
27	1416	1886	1789	60	4038	5377	5312
28	1490	1984	1884	61	4117	5482	5425
29	1565	2083	1980	62	4195	5586	5538
30	1640	2183	2077	63	4272	5689	5650
31	1716	2284	2175	64	4349	5792	5763
32	1792	2386	2274	65	4426	5894	5875
33	1869	2489	2375	66	4502	5995	5987

TANK CAPACITY CHART							
GALLONS ARE APPROXIMATE AND MAY VARY SLIGHTLY TANK TO TANK							
MATERIAL DEPTH AND GALLON VOLUME							
MATERIAL DEPTH	6000 GALLONS 96"x196"	8000 GALLONS 96"x261"	10000 GALLONS 120"x217"	MATERIAL DEPTH	6000 GALLONS 96"x196"	8000 GALLONS 96"x261"	10000 GALLONS 120"x217"
INCHES	GALLONS	GALLONS	GALLONS	INCHES	GALLONS	GALLONS	GALLONS
67	4577	6095	6099	99			9376
68	4651	6194	6211	100			9460
69	4725	6292	6323	101			9544
70	4798	6389	6434	102			9625
71	4870	6485	6545	103			9705
72	4941	6579	6656	104			9782
73	5011	6673	6766	105			9858
74	5080	6765	6876	106			9931
75	5148	6855	6985	107			10002
76	5215	6944	7094	108			10071
77	5280	7031	7203	109			10138
78	5344	7117	7310	110			10201
79	5407	7200	7418	111			10262
80	5469	7282	7524	112			10320
81	5529	7362	7630	113			10375
82	5587	7440	7735	114			10426
83	5644	7515	7840	115			10473
84	5698	7588	7944	116			10516
85	5751	7659	8047	117			10554
86	5802	7726	8149	118			10586
87	5851	7791	8250	119			10611
88	5897	7853	8350	120			10624
89	5941	7911	8449				
90	5982	7965	8547				
91	6020	8016	8644				
92	6054	8062	8740				
93	6085	8102	8835				
94	6110	8137	8929				
95	6130	8164	9021				
96	6142	8178	9112				
97			9201				
98			9289				

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST



PARTS LIST PICTURE-1 TANK

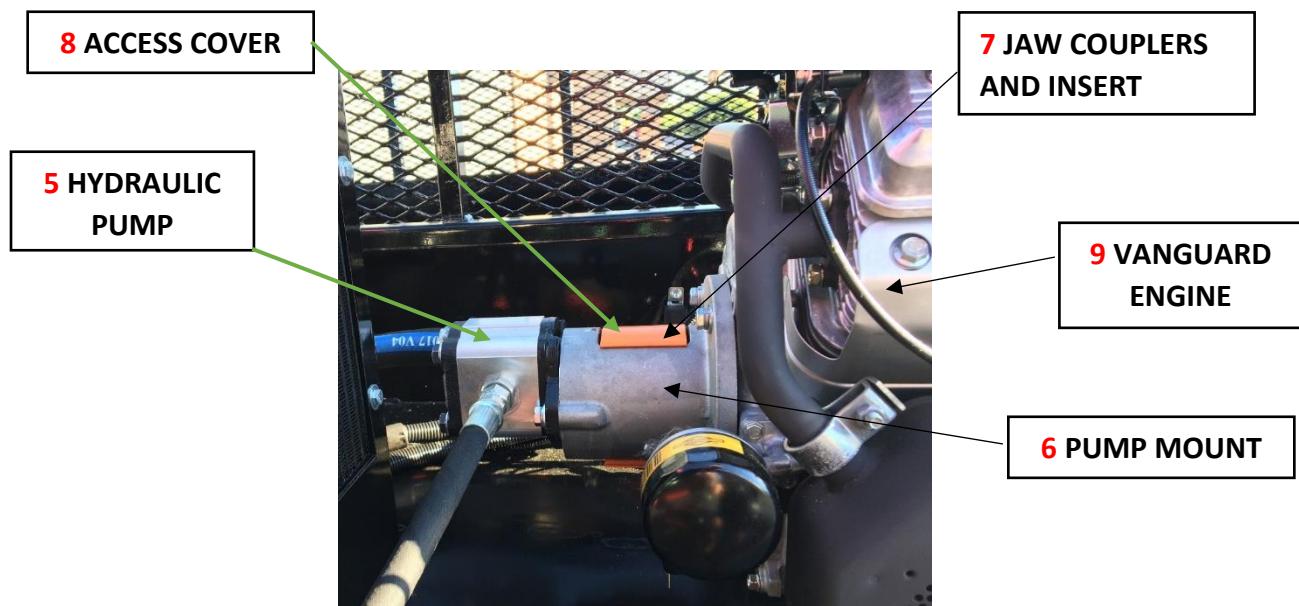
ITEM #	PART#	QTY.	DESCRIPTION
1	P50271E	1	MANHOLE COVER – 6K/8K
	P50271C	1	MANHOLE COVER – 10K
2	P50211G	1	HYDRAULIC TANK ASSEMBLY
	P399A005	1	3" GATE VALVE
	P477A013	1	3" COUPLER ON FILL TUBE
	P477A006	1	PLUG FOR 3" COUPLER
3	P50168B	1	CHAIN GUARD – 6K/8K
	P50168D	1	CHAIN GUARD – 10K
4	P50229F001	1	24" CLEANOUT COVER 20" OPENING
	P50229F002	1	CLEANOUT SEAL 1/2" X 24" X 24"
	P50229C001	1	20" CLEANOUT COVER 16" OPENING
	P50229C002	1	CLEANOUT SEAL 1/2" X 20" X 20"

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

PARTS LIST PICTURE-2 OPTIONAL BEFORE 3/23

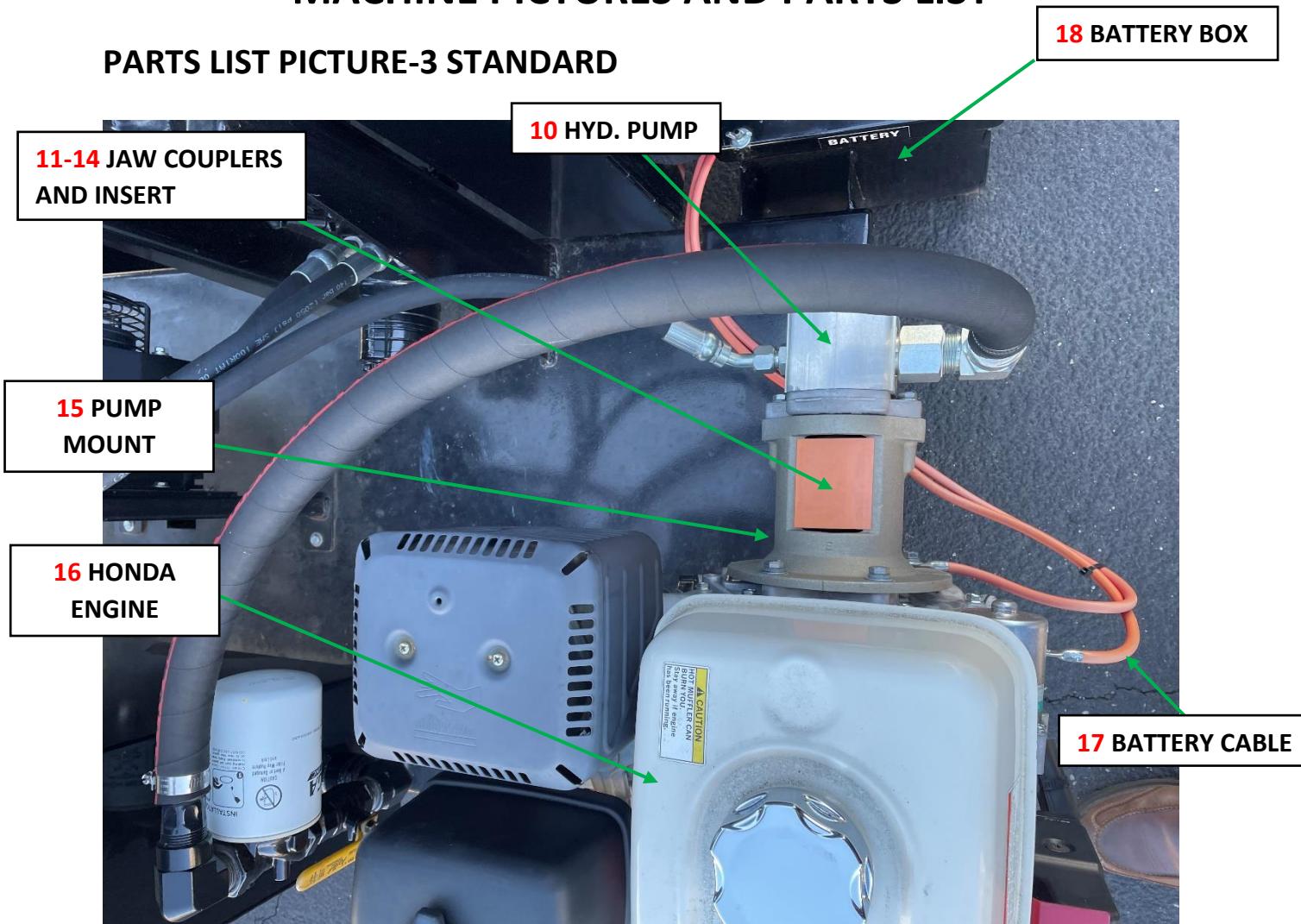
ITEM #	PART#	QTY.	DESCRIPTION
5	P601A006	1	HYDRAULIC PUMP
6	P604A014	1	PUMP MOUNT
7	P630A031	1	JAW COUPLER 5/8" BORE WITH 5/32" KEY
	P630A032	1	JAW COUPLER 1" BORE WITH 1/4" KEY
	P631A005	1	COUPLER INSERT FOR JAW COUPLER
8	P604A002	1	ACCESS COVER
9	P458A014	1	"VANGUARD" 16HP ENGINE



MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

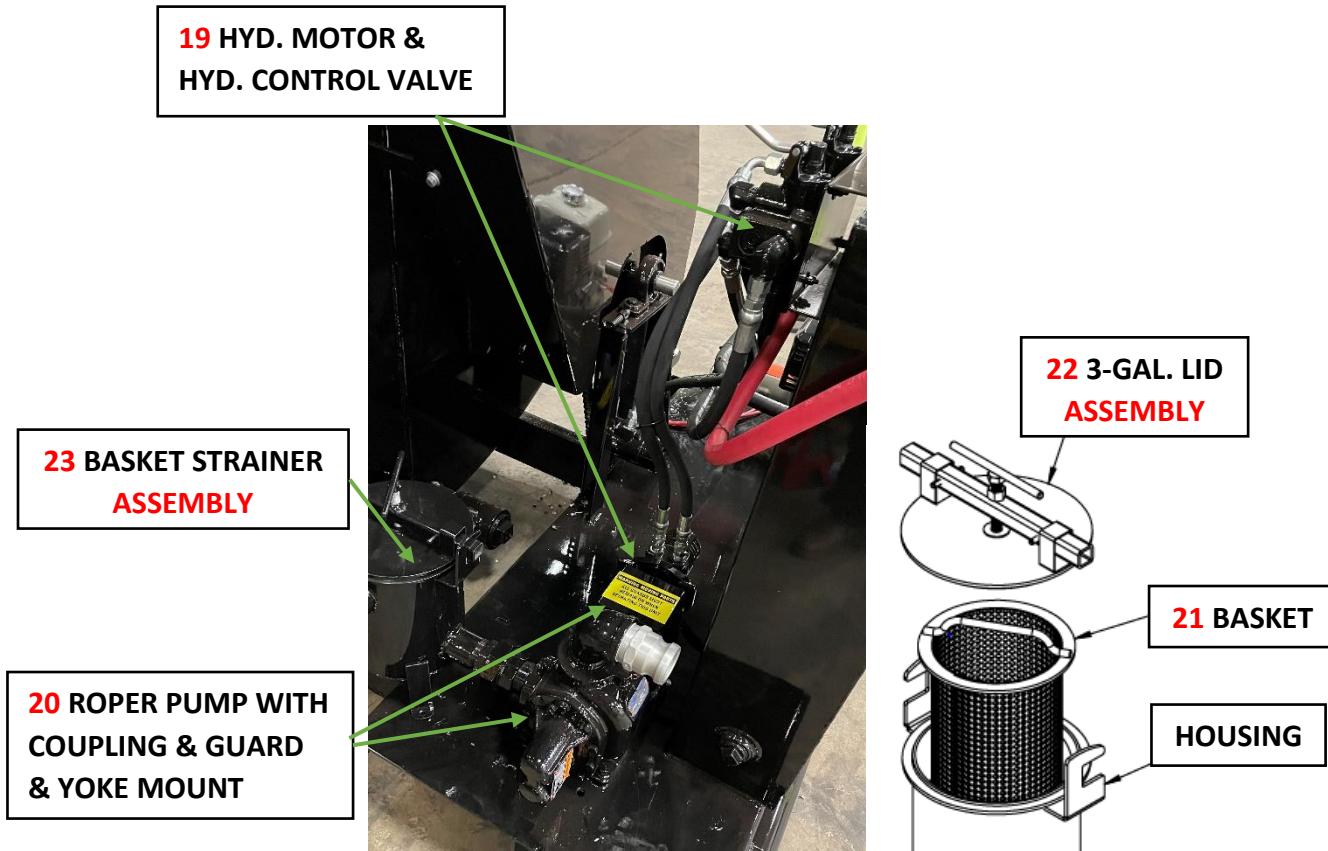
PARTS LIST PICTURE-3 STANDARD



ITEM #	PART#	QTY.	DESCRIPTION
10	P601A006	1	HYD. PUMP
11	P630A031	1	JAW COUPLING TYPE LO95 x 5/8"x 5/32"
12	P630A032	1	JAW COUPLING TYPE LO95 x 1"x 1/4"
13	P631A005	1	INSERT-RUBBER HYTREL
14	P604A008	1	ACCESS COVER 3"
15	P604A001	1	PUMP MOUNT
16	P458A087	1	"HONDA" GAS ENGINE USED W/ Hydraulic Cooler
	P716A005	1	HYDRAULIC COOLER
17	P475B006	2	42" BATTERY CABLE
18	P29838C	1	BATTERY BOX

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST



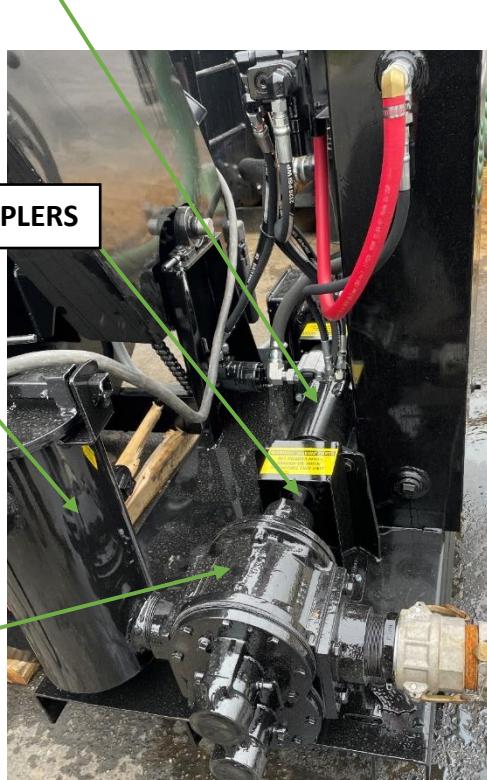
PARTS LIST PICTURE-4 STANDARD

ITEM #	PART#	QTY.	DESCRIPTION
19	P474A087	1	MOTOR-HYD.
	P472A016	2	HYD. CONTROL VALVE
	P939A025	1	HYD. VALVE – SEAL KIT (Brand M)
20	P640A071	1	“ROPER” 2” PUMP-MATERIAL
	P498A002	1	COUPLING
	P50000C004	1	COUPLING GUARD
	P72000C027	1	YOKE MOUNT
21	P50313Q	1	BASKET – 1GAL. 1/4 HOLES
22	50147D	1	1-3GAL. LID ASSEMBLY
23	P50147B023	1	1GAL. BASKET STRAINER ASSEMBLY

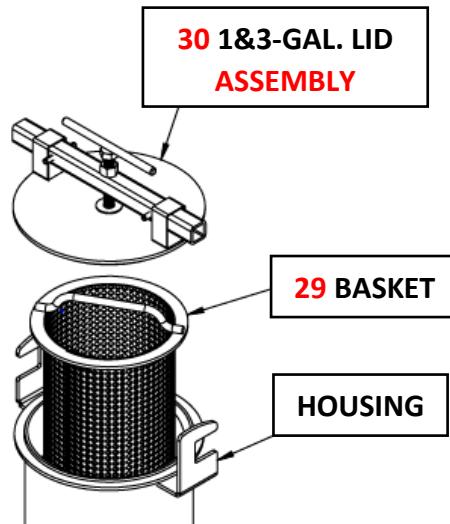
MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

24 HYD. MOTOR-HIGH SPEED



30 1&3-GAL. LID ASSEMBLY



PARTS LIST PICTURE-5 OPTIONAL

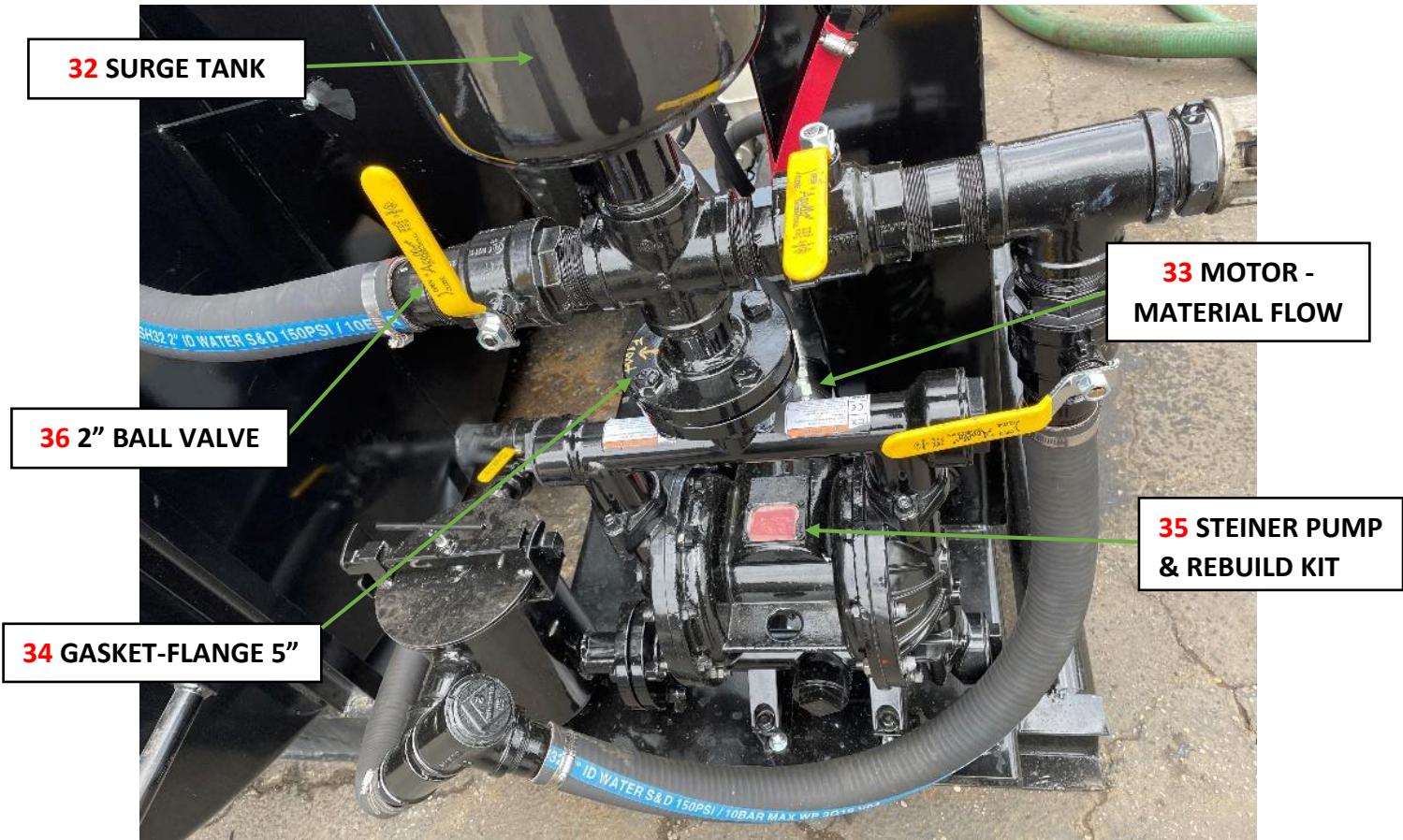
ITEM #	PART#	QTY.	DESCRIPTION
24	P474A024	1	MOTOR-HYD.- HIGH SPEED
25	P640A025	1	3"BOWIE 3400 STEEL PUMP-MATERIAL
	P640A010	1	3"BOWIE 3400 RUBBER PUMP-MATERIAL
26	P630A011	1	5016 CHAIN COUPLING 1" BORE 1/4" KEY
27	P630A034	1	5016 CHAIN COUPLING 1-1/8" BORE 1/4" KEY
28	P631A002	1	5016 CHAIN
29	P50313XLQ	1	BASKET – 3GAL. 1/4 HOLES
30	50147D	1	1&3GAL. LID ASSEMBLY
31	P50147B005	1	3GAL. BASKET STRAINER ASSEMBLY

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

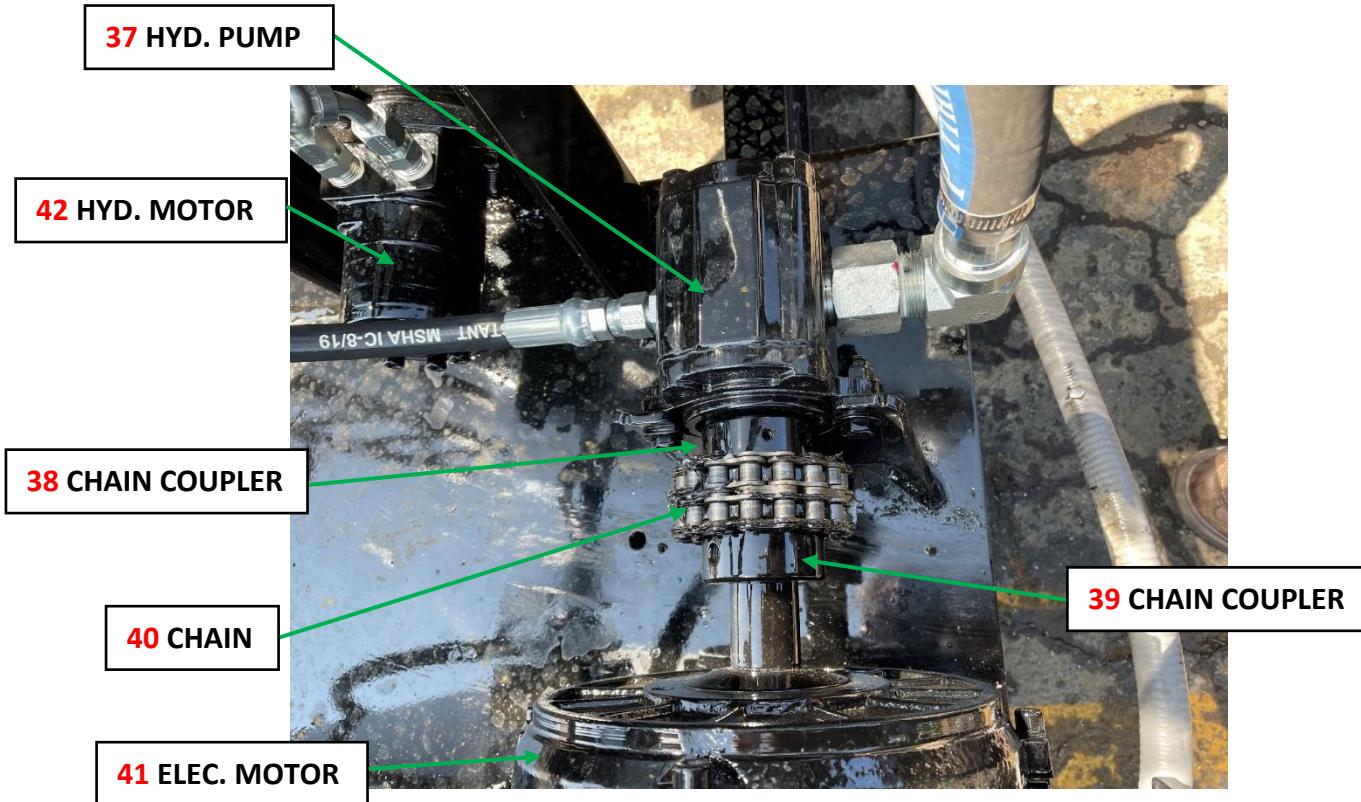
PARTS LIST PICTURE-6 STANDARD & OPTIONAL BEFORE 3/23

ITEM #	PART#	QTY.	DESCRIPTION
32	P30003D	1	SURGE TANK - LARGE
33	P474A088	1	MOTOR – MATERIAL FLOW
34	P479A008	2	GASKET-FLANGE 5" RING
35	P640A079	1	PUMP -MATERIAL-HYD. DIAPHRAGM SMALL
	P981A021	1	PUMP – REBUILD KIT
	P640A087	1	PUMP -MATERIAL-HYD. DIAPHRAGM LARGE
	P980B025	1	PUMP – REBUILD KIT
	P716E000	1	HYD. COOLER LARGE PUMP ONLY
36	P397A002	4	2" BALL VALVE - BRASS



MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

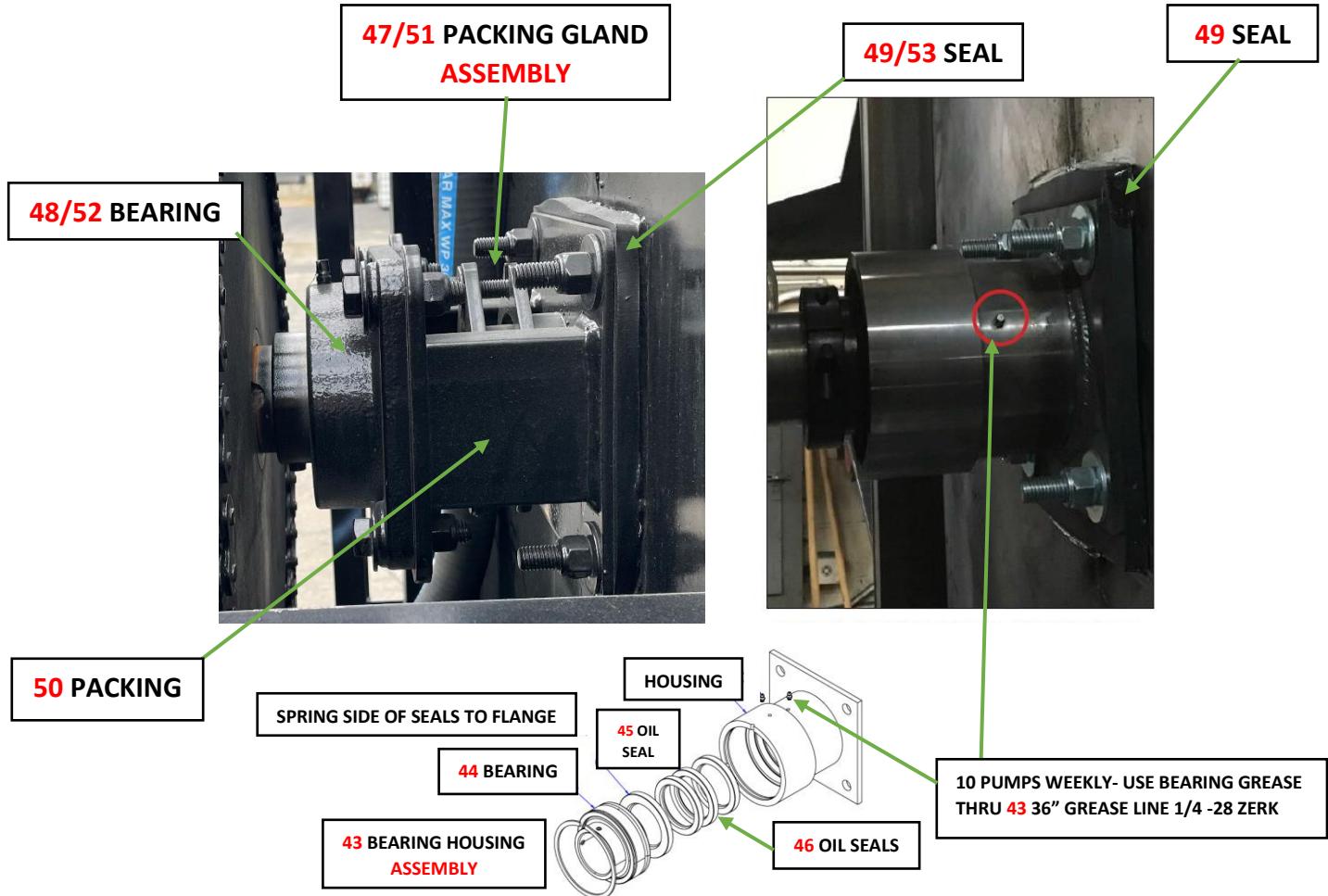


PARTS LIST PICTURE-7 PUMP W/ ELECTRIC MOTOR OPTIONAL

ITEM #	PART#	QTY.	DESCRIPTION
37	P601A004	1	HYDRAULIC PUMP
38	P630A024	1	5016 Chain Coupling 5/8"bore w/ 5/32" Key
39	P630A012	1	5016 Chain Coupling 1-3/8" bore w/ 5/16 Key
40	P631A002	1	5016 Chain
41	P941A018	1	MOTOR-ELECT. 7.5 HP 1 PHASE 1725 RPM
	P941A006	1	MOTOR-ELECT. 7.5 HP 3 PHASE 1800 RPM
	P941A015	1	MOTOR-ELECT. 10 HP 1 PHASE 1750 RPM
	P941A007	1	MOTOR-ELECT. 10 HP 3 PHASE 1800 RPM
42	P474A088	1	HYD. MOTOR W/SAE PORT – NEW
	P567A006	2	HYD. FITTING

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST



PARTS LIST PICTURE-8 BEARING HOUSINGS – FRONT SET-UPS

ITEM #	PART#	QTY.	DESCRIPTION
43	P50138E	1	STEINER BEARING HOUSING ASSEMBLY
82	P1029B003	1	36" GREASE LINE WITH 1/4 – 28 ZERK
44	P476A007	1	BEARING
45	P462A003	1	OIL SEAL - LARGE
46	P462A002	3	OIL SEAL
49	P50137B012	1	SEAL PACKING GLAND STEINER
47	P50138D	1	2-15/16" SHAFT DIA. ASSEMBLY PACKING GLAND
48	P434A006	1	BEARING
49	P50137B012	1	SEAL PACKING GLAND
51	P50138B	1	2" SHAFT DIA. ASSEMBLY PACKING GLAND
52	P434A004	1	BEARING
53	P50137B001	1	SEAL PACKING GLAND
50	P638A006	1	PACKING SYNTHETIC YARN 1/4"

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

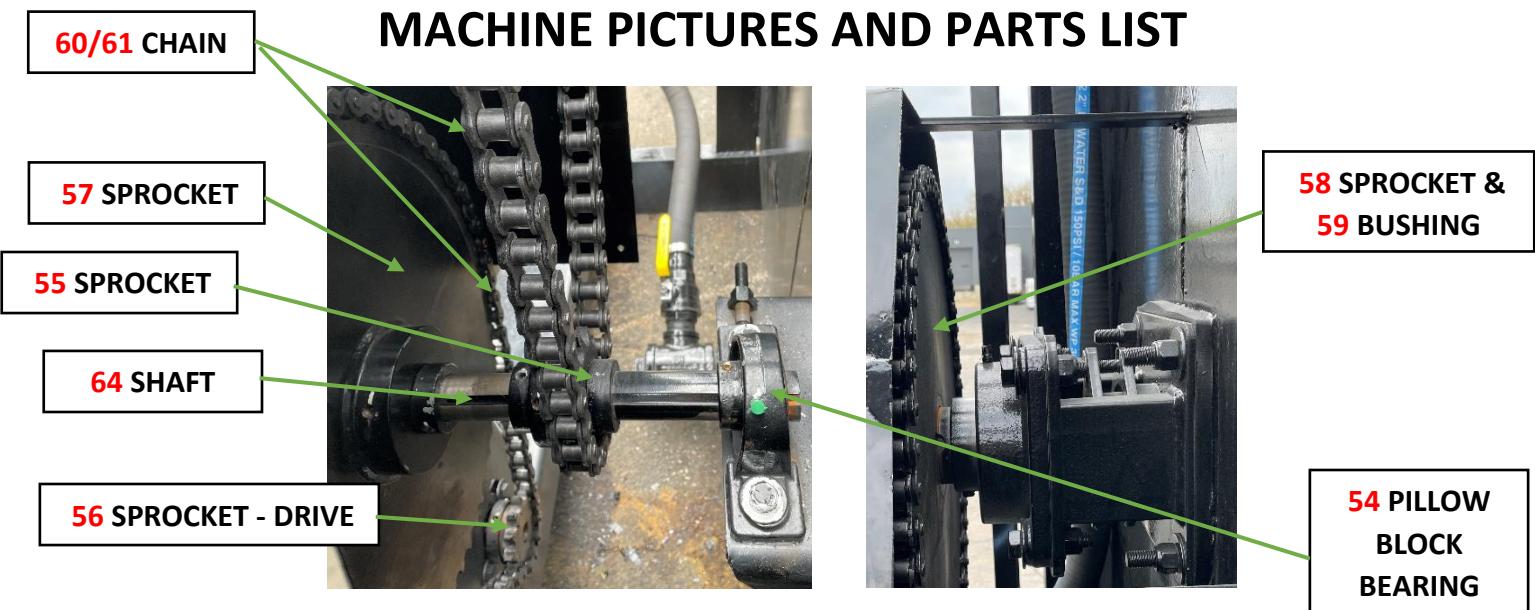


PARTS LIST PICTURE-8 BEARING HOUSINGS – REAR SET-UPS

ITEM #	PART#	QTY.	DESCRIPTION
43	P50138E	1	STEINER BEARING HOUSING ASSEMBLY
82	P1029B003	1	36" GREASE LINE WITH 1/4 - 28 ZERK
44	P476A007	1	BEARING
45	P462A003	1	OIL SEAL - LARGE
46	P462A002	3	OIL SEAL
49	P50137B012	1	SEAL – FOR BACKING PLATE
			2-15/16" SHAFT DIA. REAR SET-UP
48	P434A006	1	BEARING
49	P50137B012	1	SEAL
80	P50137B011	1	BACKING PLATE
			2" SHAFT DIA. REAR SET-UP
52	P434A004	1	BEARING
63	P50137B007	1	SEAL
81	P50137B006	1	BACKING PLATE

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

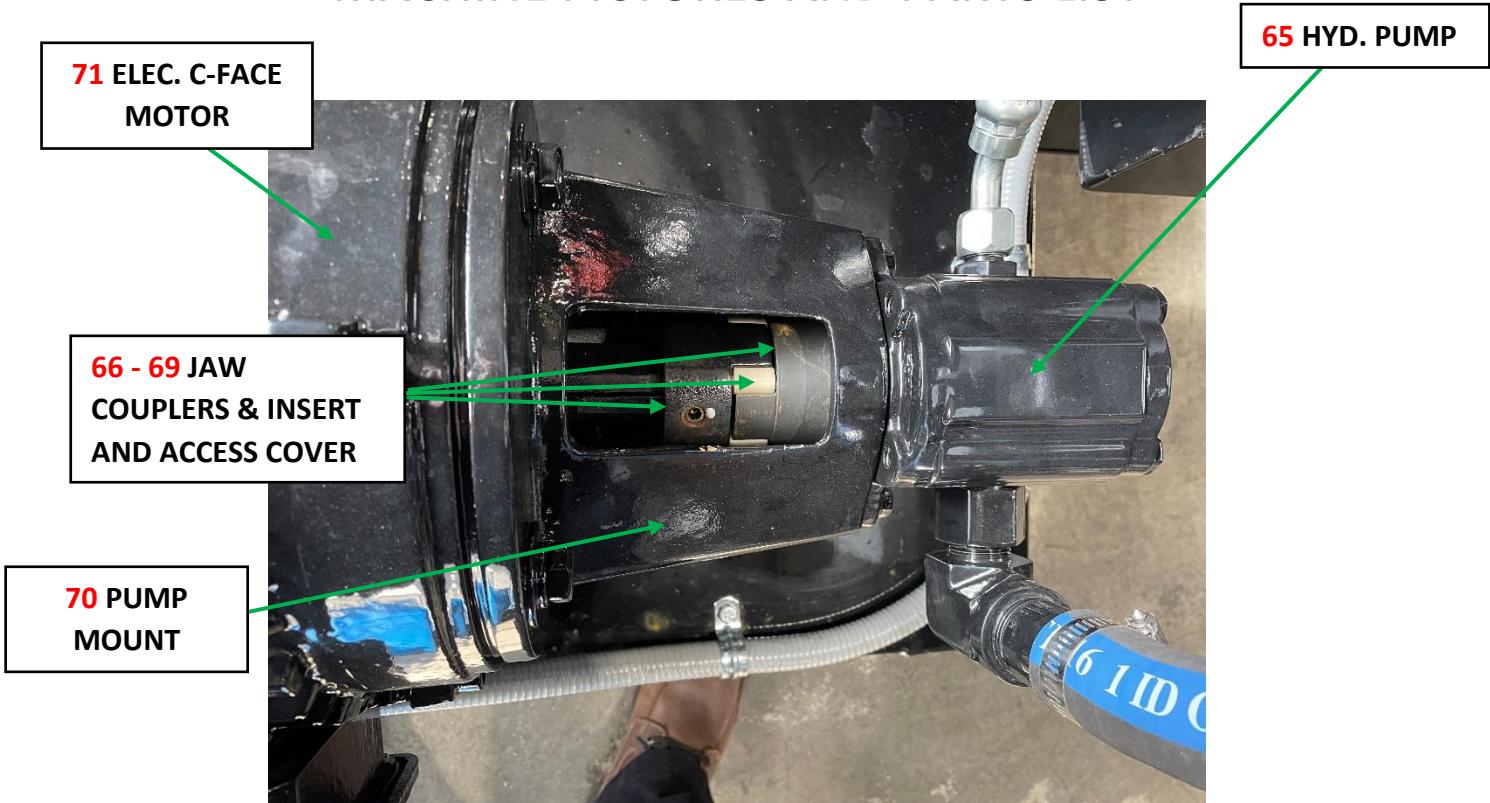


PARTS LIST PICTURE-9 CHAIN DRIVE

ITEM #	PART#	QTY.	DESCRIPTION
54	P435A003	2	PILLOW BLOCK BEARING
	P435A004	2	PILLOW BLOCK BEARING 10K & ALL EXTREME
55	P428A012	1	SPROCKET -60B13 1-1/4"x1/4"
	P429A018	1	SPROCKET 80B12 1-1/2 bore x 5/16 key 10K & ALL EXTREME
56	P428A002	1	SPROCKET- DRIVE -60B13 1"x 1/4" key
	P429A006	1	SPROCKET- DRIVE 80B12 1"bore x 1/4" key 10K & ALL EXT.
57	P428A011	1	SPROCKET 60B60 1-1/4"bore x 1/4"key
	P429A019	1	SPROCKET 80B60 1-1/2 bore x 5/16 key 10K & ALL EXTREME
58	P428A003	1	SPROCKET 60B60 2" bore x 1/2"key
	P429A014	1	SPROCKET 80R60 10K & ALL EXTREME
59	P740A012	1	BUSHING R1x2 15/16 10K & ALL EXTREME
60	P1040A000	1	CHAIN – SOLD PER FOOT
	P1035A003	1	CHAIN – MASTER LINK
61	P1041A000	1	CHAIN – SOLD PER FOOT 10K & ALL EXTREME
	P1035A004	1	CHAIN – MASTER LINK 10K & ALL EXTREME
64	P50109A	1	JACK STAND SHAFT
	P50109B	1	JACK STAND SHAFT 10K & ALL EXTREME

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST



PARTS LIST PICTURE-10 PUMP W/ ELECTRIC C FACE MOTOR **OPTIONAL**

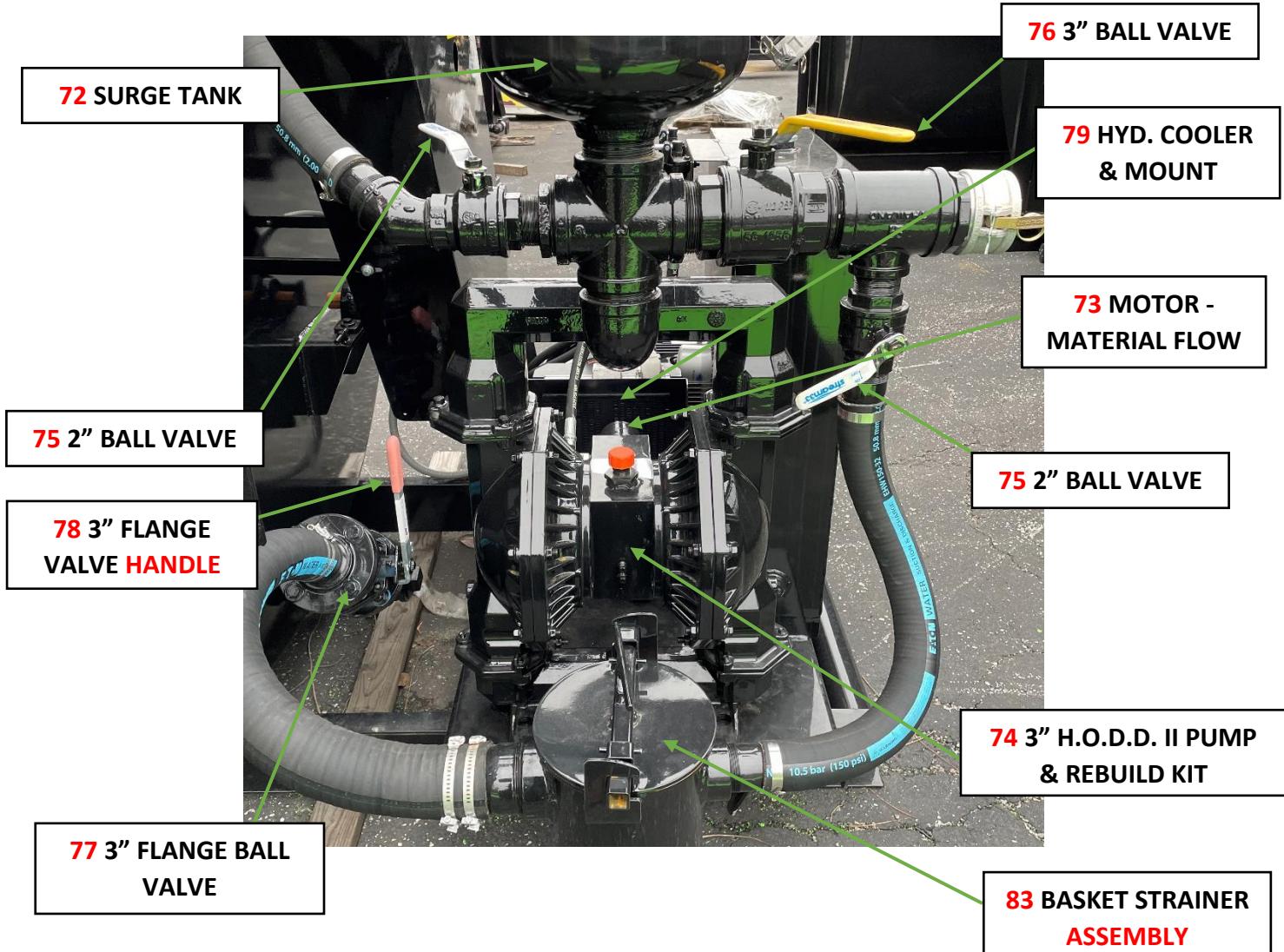
ITEM #	PART#	QTY.	DESCRIPTION
65	P601A004	1	HYDRAULIC PUMP
66	P630A069	1	JAW COUPLING – MOTOR 1-3/8"x 5/16"
67	P630A070	1	JAW COUPLING – PUMP 5/8"x 5/32"
68	P631A006	1	INSERT-RUBBER HYTREL
69	P604A026	1	ACCESS COVER
70	P604A025	1	PUMP MOUNT
71	P941A057	1	MOTOR-ELECT. 7.5 HP 1 PHASE 1740 RPM
	P941A054	1	MOTOR-ELECT. 7.5 HP 3 PHASE 1750 RPM
	P941A056	1	MOTOR-ELECT. 10 HP 1 PHASE 1750 RPM
	P941A055	1	MOTOR-ELECT. 10 HP 3 PHASE 1750 RPM

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST

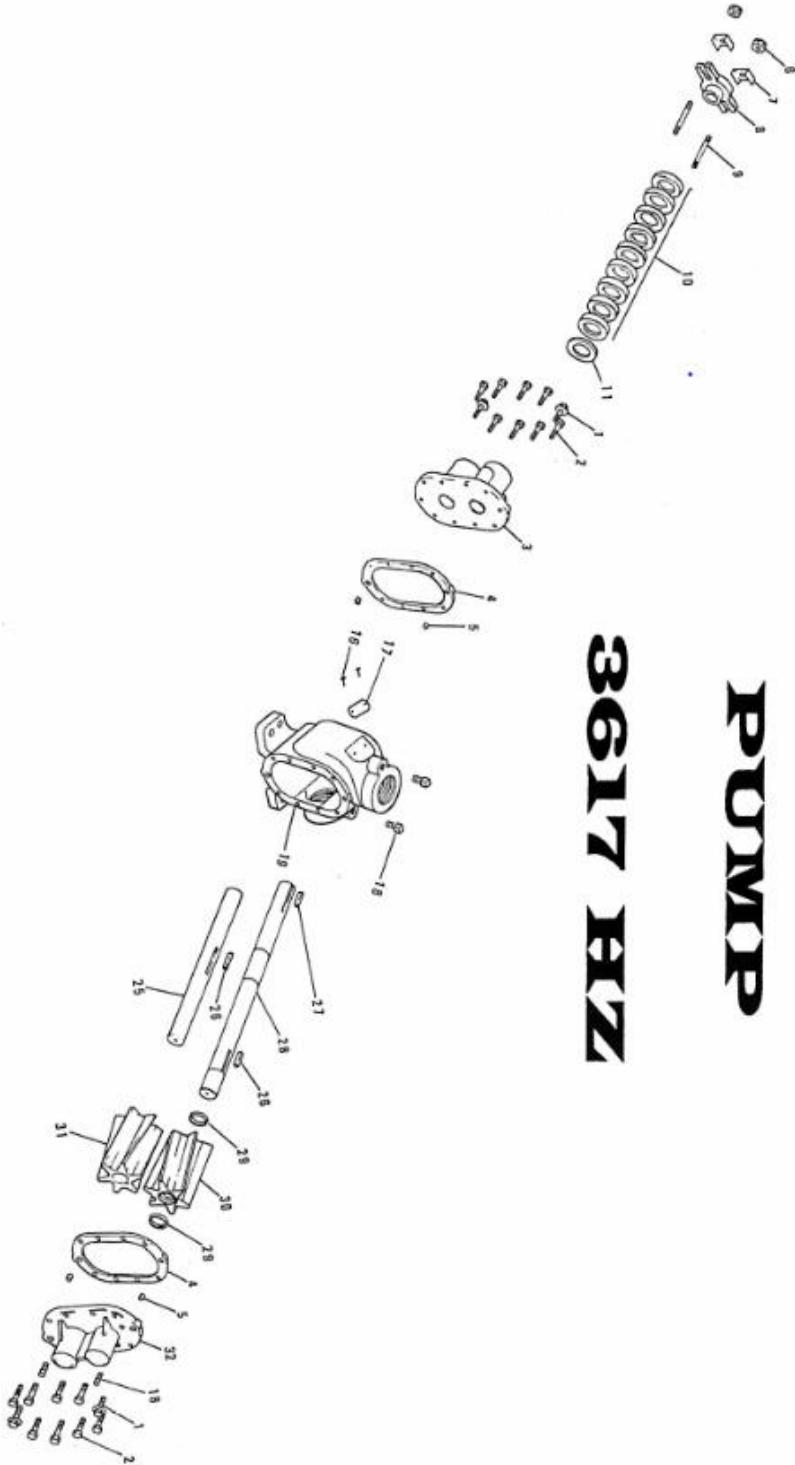
PARTS LIST PICTURE-11 MATERIAL PUMP STANDARD

ITEM #	PART#	QTY.	DESCRIPTION
72	P30003L	1	SURGE TANK – LARGE
73	P474A095	1	MOTOR – MATERIAL FLOW
74	P640A092	1	PUMP – MATERIAL 3" H.O.D.D. II
	P978A026	1	PUMP – REBUILD KIT
75	P397A002	2	2" BALL VALVE – BRASS
76	P397A008	1	3" BALL VALVE – BRASS
77	P397A039	1	3" FLANGE BALL VALVE
78	P397B039	1	3" FLANGE BALL VALVE HANDLE
79	P716E000	1	HYD. COOLER
	P50900B003	1	HYD. COOLER MOUNT
83	P50147B021	1	3GAL. BASKET STRAINER ASSEMBLY
84	P50313XLD	1	BASKET – 3GAL. 1/4 DIAMOND
85	50147D	1	1&3GAL. LID ASSEMBLY



MASTERMIX™ STORAGE TANKS

PUMP DIAGRAM



3617 EZ

MAVERICK

ROPER

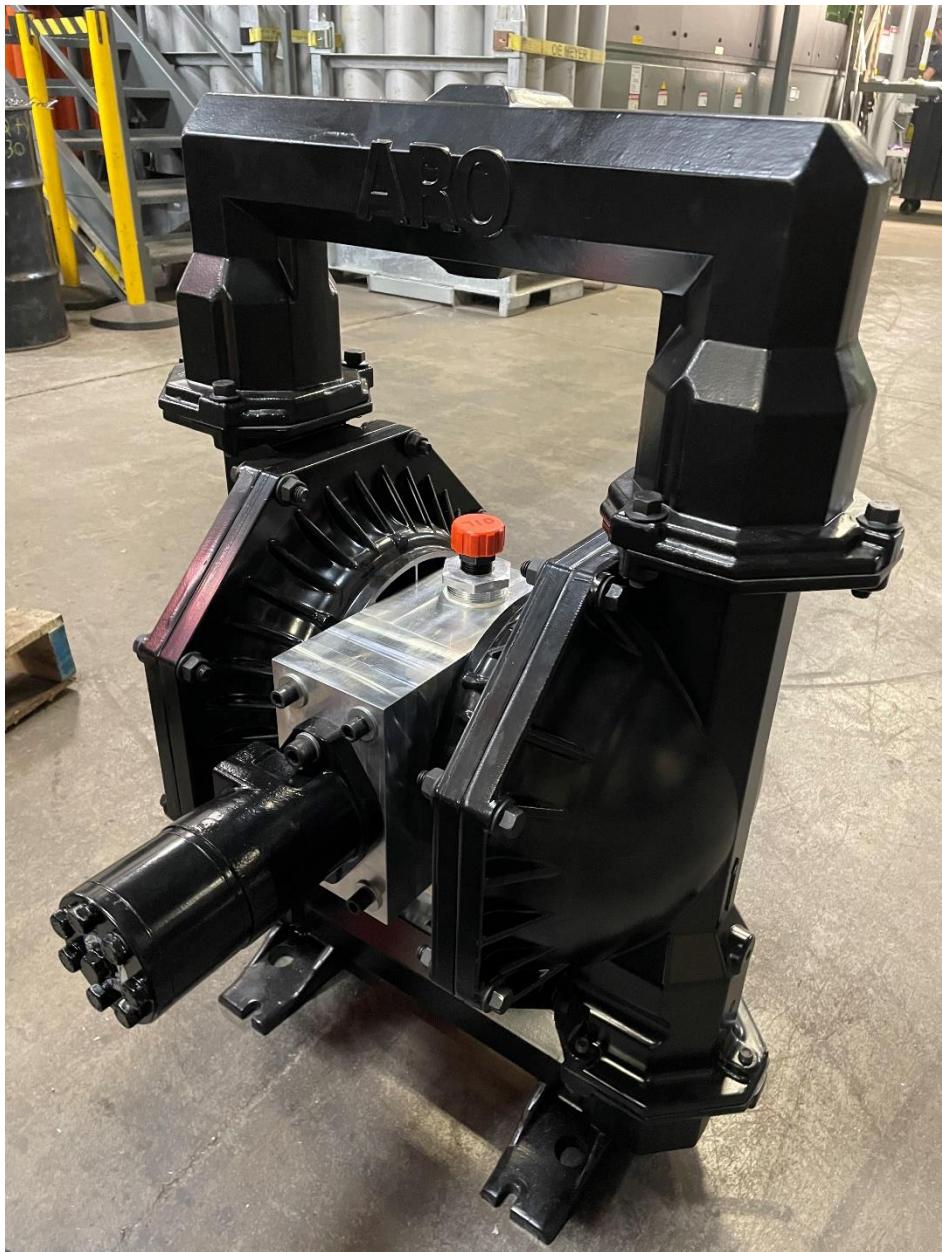
MASTERMIX™ STORAGE TANKS

PARTS LIST FOR 2" ROPER PUMP 3617 HZ - STANDARD

ITEM	DESCRIPTION	S/M PART #	QTY.
	PUMP - ROPER 2"	P640A071	1
1	WASH. HD. CAP SCREW	P904A013	4
2	HEX HD. CAP SCREW	P904A014	16
3	BACK PLATE ASSEMBLY	P905A017	1
	BRG. LONG BRONZE	P904A032	1
	BRG. SHORT BRONZE	P904A033	1
4	GASKET, CASE	P904A004	2
5	DOWEL PIN, HOLLOW	P904A016	4
6	LOCK NUT	P904A017	2
7	CLIP, PACKING GLAND	P905A005	2
8	PACKING GLAND	P904A002	1
9	STUD	P905A016	2
10	PACKING SET	P904A001	1
11	WASHER – PACKING	P905A008	1
16	DRIVE SCREW	P904A019	2
17	NAMEPLATE	P904A031	1
18	PIPE PLUG	P904A020	4
19	CASE	P906A009	1
25	IDLER SHAFT	P906A010	1
26	KEY	P904A021	2
27	KEY	P904A021	1
28	DRIVE SHAFT	P906A011	1
29	RETAINING RING	P905A012	2
30	GEAR LEFT HAND	P906A013	1
31	GEAR RIGHT HAND	P906A014	1
32	FACEPLATE ASSEMBLY	P905A018	1
	BRG. LONG BRONZE	P904A032	2

WEARABLE PARTS –HIGH LIGHTED IN YELLOW

" H.O.D.D. II HYDRAULIC MATERIAL PUMP



3" H.O.D.D. II Hyd. Material Pump

Owner's Manual

Revision 06

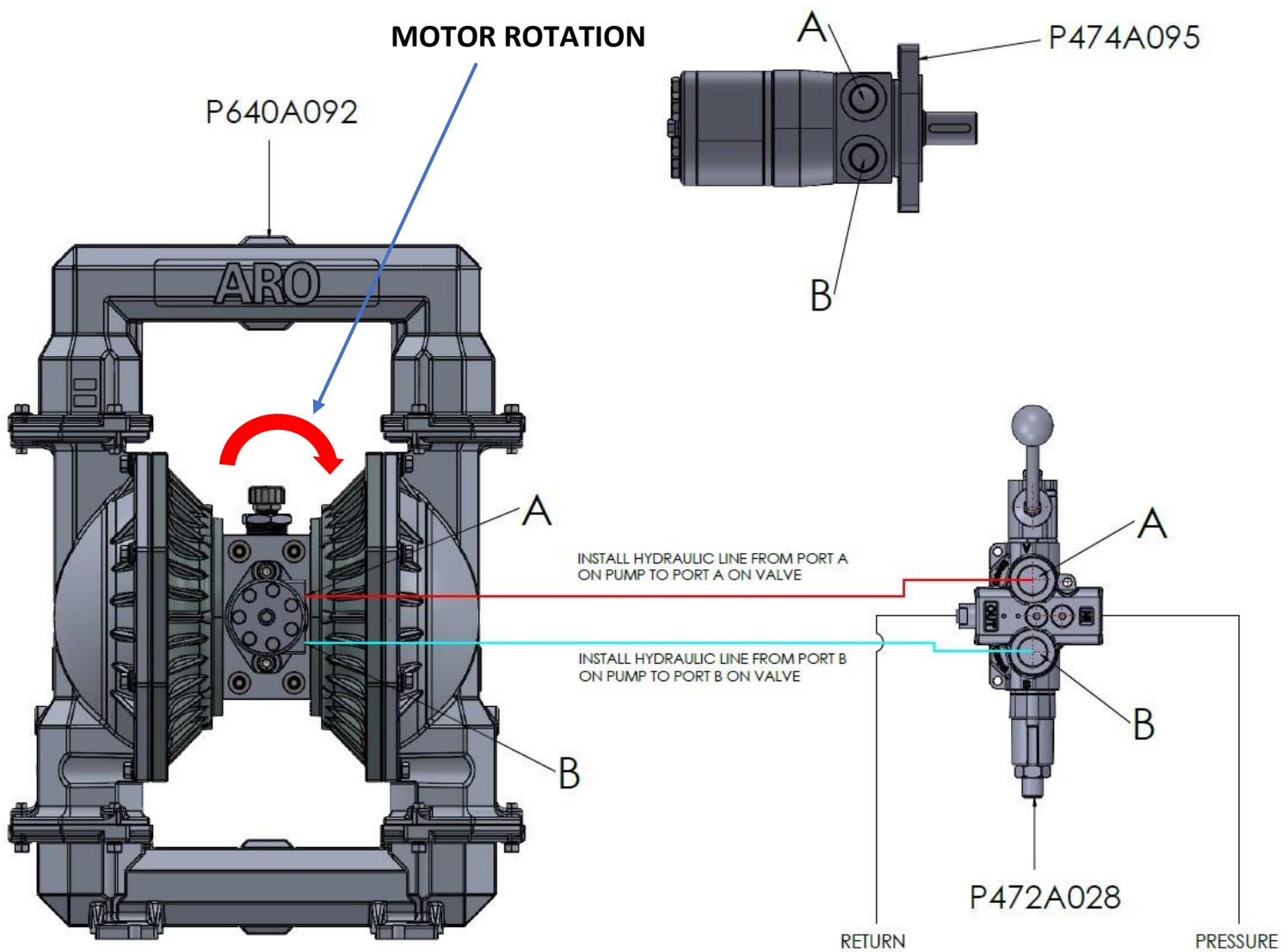
Issue Date: September 2024

Effective Date: October 2022

Rev.	Date	Changes	Approval
00	10/22	New Format and Updates	JG
01	3/23	Changed Housing to add a Third Bearing	SH
02	6/23	Added Note #4 to Include Gasket Sealant in the Assembly	SH
03	8/23	Changed Bolt Torque on Note #2	SH
04	10/23	Changed Notes #1 &2 Exploded View	SH
05	6/24	Changed Ball Seat to P978A002	SH
06	9/24	Added Hydraulic agitation pressure test/change & Warning Page	SH

WARNING

1. Read the operator's manual before using the pump for the first time. Failure to do so may damage the pump.
2. Always check the oil level before operation.
3. The Hydraulic motor **MUST** operate in a clockwise rotation.
4. One-way hydraulic valve (PN# 472A028) must be used with this pump. Hydraulic pressure for the pump is set at this valve and should not exceed 900 psi.



3" H.O.D.D. II HYDRAULIC MATERIAL PUMP – P640A092

This ARO Model PD30A-AAS-AAA-C has been retrofitted to be a **Hydraulically** Actuated Material Pump.

The replacement parts for this pump are available only through the SealMaster distribution network.

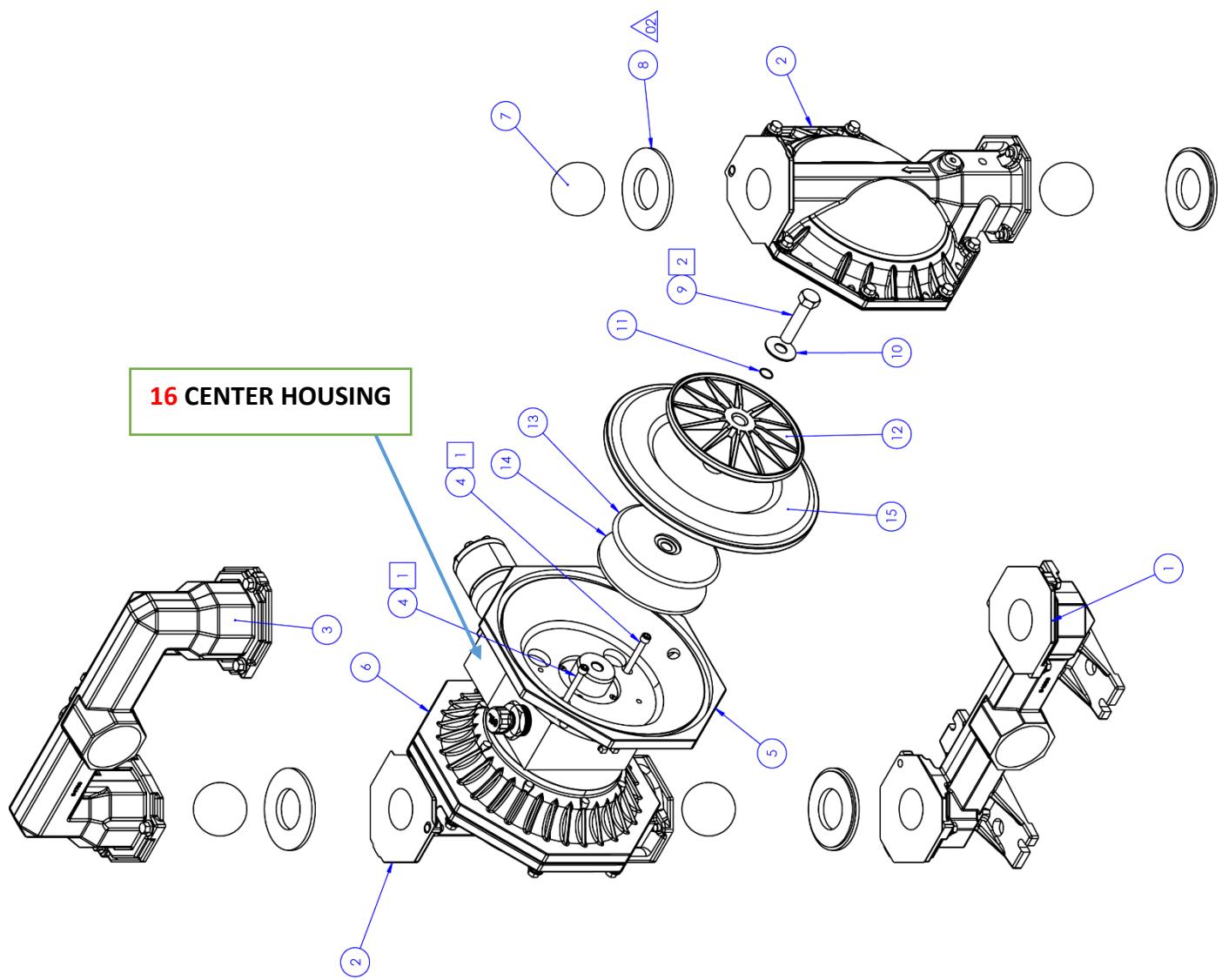
Visit our website sealmaster.net, or you can call the ThorWorks Parts Department at 1-800-395-7325

(ARO 3" **Air** Actuated Material Pump is still available.)

BODY VIEW
TORQUE REQUIREMENTS

- ①. APPLY LOCTITE 242 TO THREADS,
 TORQUE TO 35 - 40 FT LBS
 ②. APPLY LOCTITE 242 TO THREADS,
 TORQUE TO 100 FT LBS.


APPLY LUBRIPLATE FML-2 GREASE TO ALL
 O-RINGS, U-CUPS & MATING PARTS.
 APPLY ANTI-SEIZE COMPOUND TO THREADS
 AND BOLT AND NUT FLANGE HEADS WHICH
 CONTACT PUMP CASE WHEN USING
 STAINLESS STEEL FASTENERS

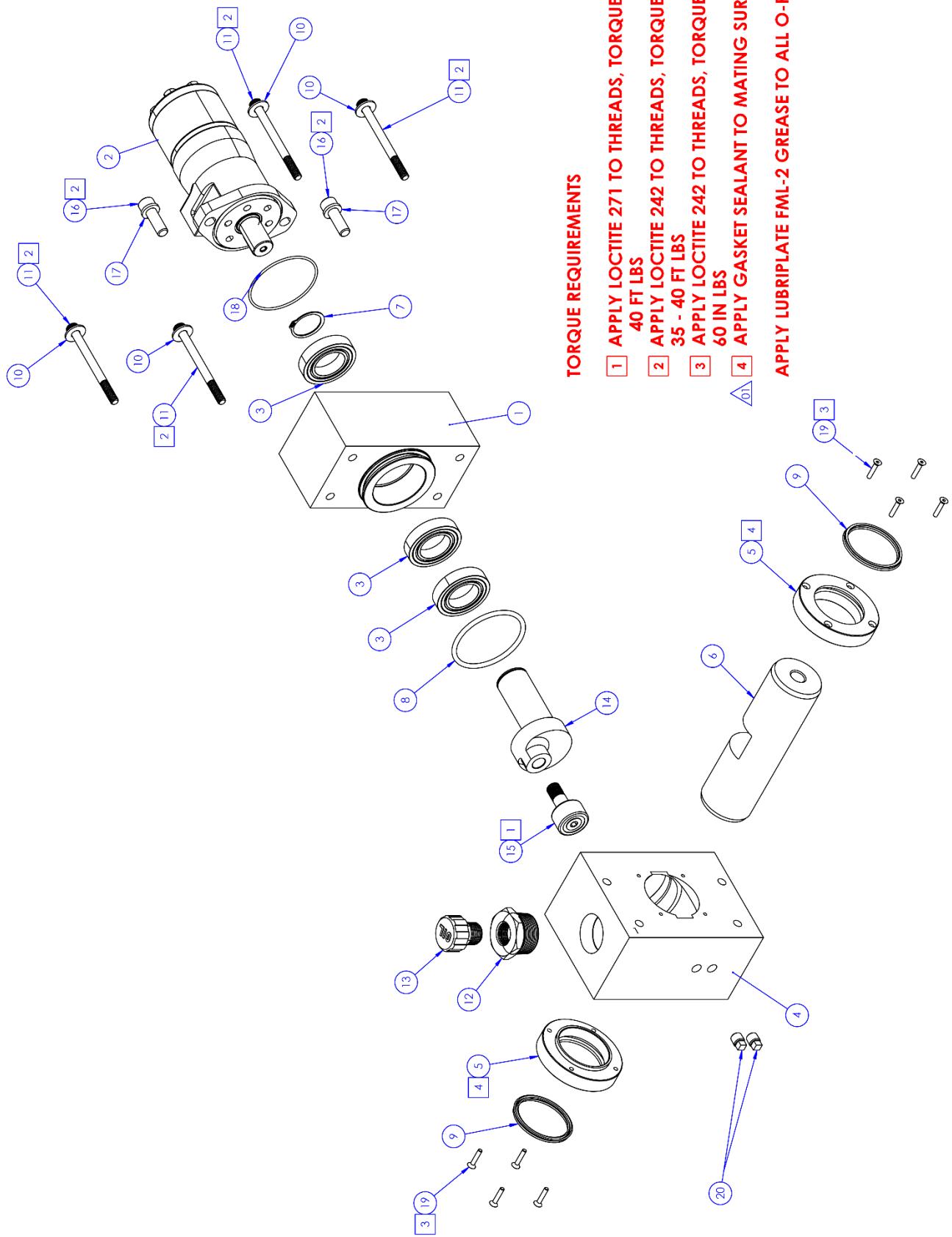


PARTS LIST FOR 3" H.O.D.D. II" HYDRAULIC MATERIAL PUMP – BODY VIEW

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	P978A003	MANIFOLD – INLET	1
2	P978A011	FLUID CAP	2
3	P978A013	MANIFOLD – OUTLET	1
4	P978A025	HEX CAP SCREW 3/8"-16 X 4-3/4" LONG	4
5	P978A016	AIR CAP – RIGHT	1
6	P978A015	AIR CAP – LEFT	1
7	P978A012	CHECK BALL	4
8	P978A002	BALL SEAT – SANTOPRENE	4
9	P978A008	HEX HEAD BOLT - 3/4 -16" X 3-1/4" GRADE 8	2
10	P978A009	3/4" FLAT WASHER	2
11	P978A006	O-RING 1/8" X 1" OD	2
12	P978A005	FLUID SIDE WASHER	2
13	P978A020	CUSHION	2
14	P978A019	BACKUP WASHER	2
15	P978A010	DIAPHRAGM	2
16		CENTER HOUSING – SEE EXPLODED VIEW	

REBUILD KIT P978A026 – HIGHLIGHTED IN YELLOW

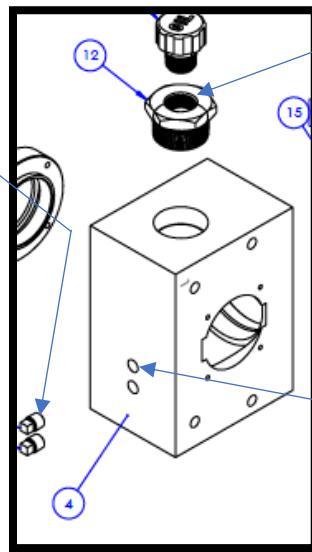
CENTER HOUSING – EXPLODED VIEW



PARTS LIST FOR 3" H.O.D.D. II **HYDRAULIC** MATERIAL PUMP – CENTER HOUSING

EXPLODED VIEW

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	P980B017	DRIVE HOUSING	1
2	P474A095	HYDRAULIC DRIVE MOTOR	1
3	P980B022	1-1/2" X 2-5/8" X 9/16 SEALED BALL BEARING	3
4	P980B031	CENTER BLOCK HOUSING	1
5	P980B032	SHAFT BEARING	2
6	P980B016	PITTMAN SHAFT	1
7	P980B033	1-1/2" SHAFT EXTERNAL RETAINING RING	1
8	P968A111	O-RING 3.225" ID X 0.21"	1
9	P980B024	U-CUP SEAL 1/4" GROOVE WIDTH, 2.5" ID X 2.938" OD X 0.218 WIDE	2
10	P1017A003	3/8" FLAT WASHER - ZINC	4
11	P1036A034	SOC. HEAD CAP SCREW 3/8"-16 X 4-1/2" LONG	4
12	P978A021	1-1/2" TO 3/4" BUSHING REDUCER - NYLON	1
13	P978A022	BREATHER VENT 3/4"	1
14	P980B014	ECCENTRIC SHAFT	1
15	P980B021	1-1/2" CAM FOLLOWER	1
16	P1036A005	SOC. HEAD CAP SCREW 1/2"-13 X 1-1/2" LONG	2
17	P1018A005	1/2" LOCK WASHER	2
18	P978A023	O-RING 3/32" X 3-7/16" OD	1
19	P978A024	HEX COUNTERSUNK HEAD SCREW – #10-32 X 1-1/4"	8
20	P1008A008	1/4" NPT – SQ. HD PLUG – DRAIN FILL INDICATOR	2



DRAIN FILL INDICATOR **TOP PLUG**

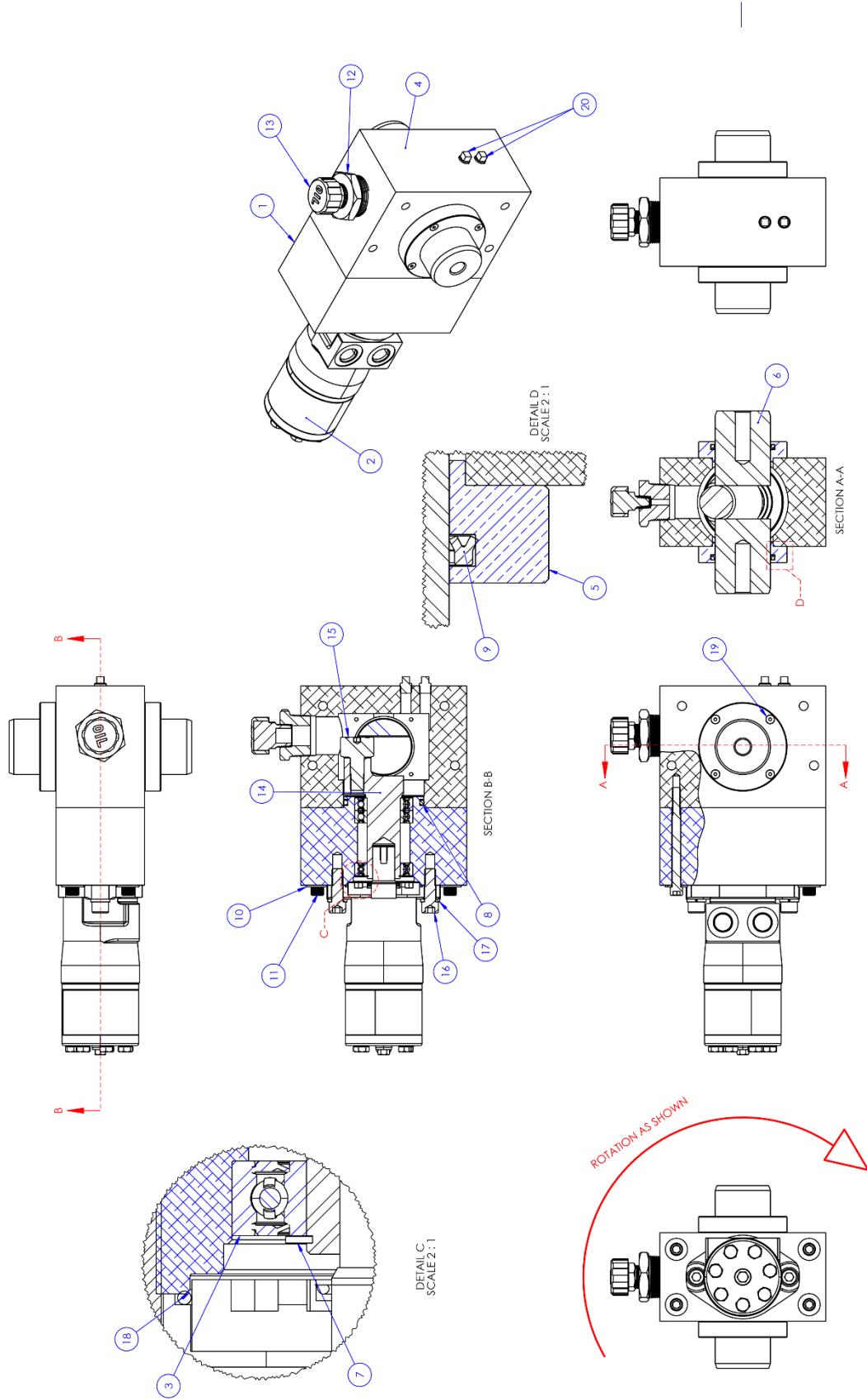
NOTE: RECOMMEND CHECKING OIL EVERY 20 HRS.

ALSO, CHANGE OIL YEARLY

ADD GEAR OIL HERE –
API-GL-5 GEAR OIL 85W-140

NOTE: REMOVE **TOP PLUG** #20 AND FILL UNTIL YOU SEE OIL COMING OUT OF **TOP PLUG** #20, THEN IMMEDIATELY REPLACE THE PLUG.

MAX. HYD. PUMP PRESSURE IS 900 PSI



Hydraulic agitation pressure test/change

To test agitation or pump pressure you will need a 3000 psi gauge w/female & male JIC fittings.

Start by making sure the machine is not running and break loose one of the hydraulic lines (doesn't matter which one) that go directly to either the agitation or the material pump.

The gauge comes with plugs for both male and female, take the loose line completely off and plug that line.



Hydraulic agitation pressure test/change

Put the gauge on the fitting on the valve you just removed the line from. Make sure to tighten up the gauge and the cap/plug on the line and the other side of the gauge.

On the side of the valve is a relief that has a plug in the center of it that has an Allen wrench hole. Hold on to the relief with a 9/16" wrench and use a 1/8" Allen wrench to remove the plug.



Hydraulic agitation pressure test/change

Once the plug is removed inside that hole is another Allen wrench hole. 5/32", go ahead and insert the Allen wrench.

You can now start the machine. Push or pull the valve lever in the direction of the line that you put the gauge on. For example, in the pictures following this, my gauge is on the top line, so I will pull the lever up towards that line.

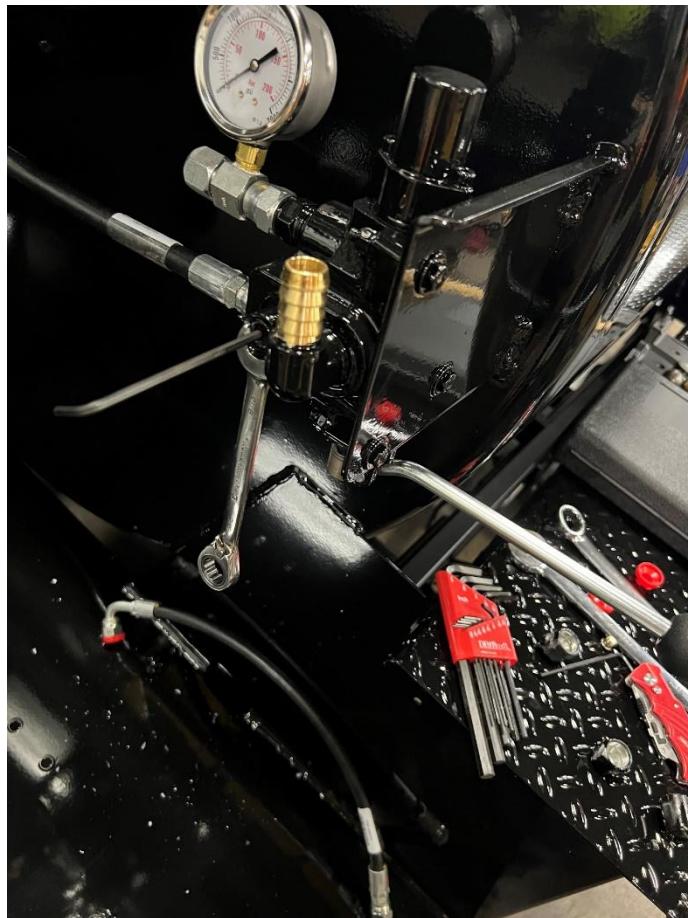


Hydraulic agitation pressure test/change

If you are raising your pressure you'll turn the Allen wrench **clockwise**, if you are decreasing the pressure, you will turn it **countrerclockwise**.

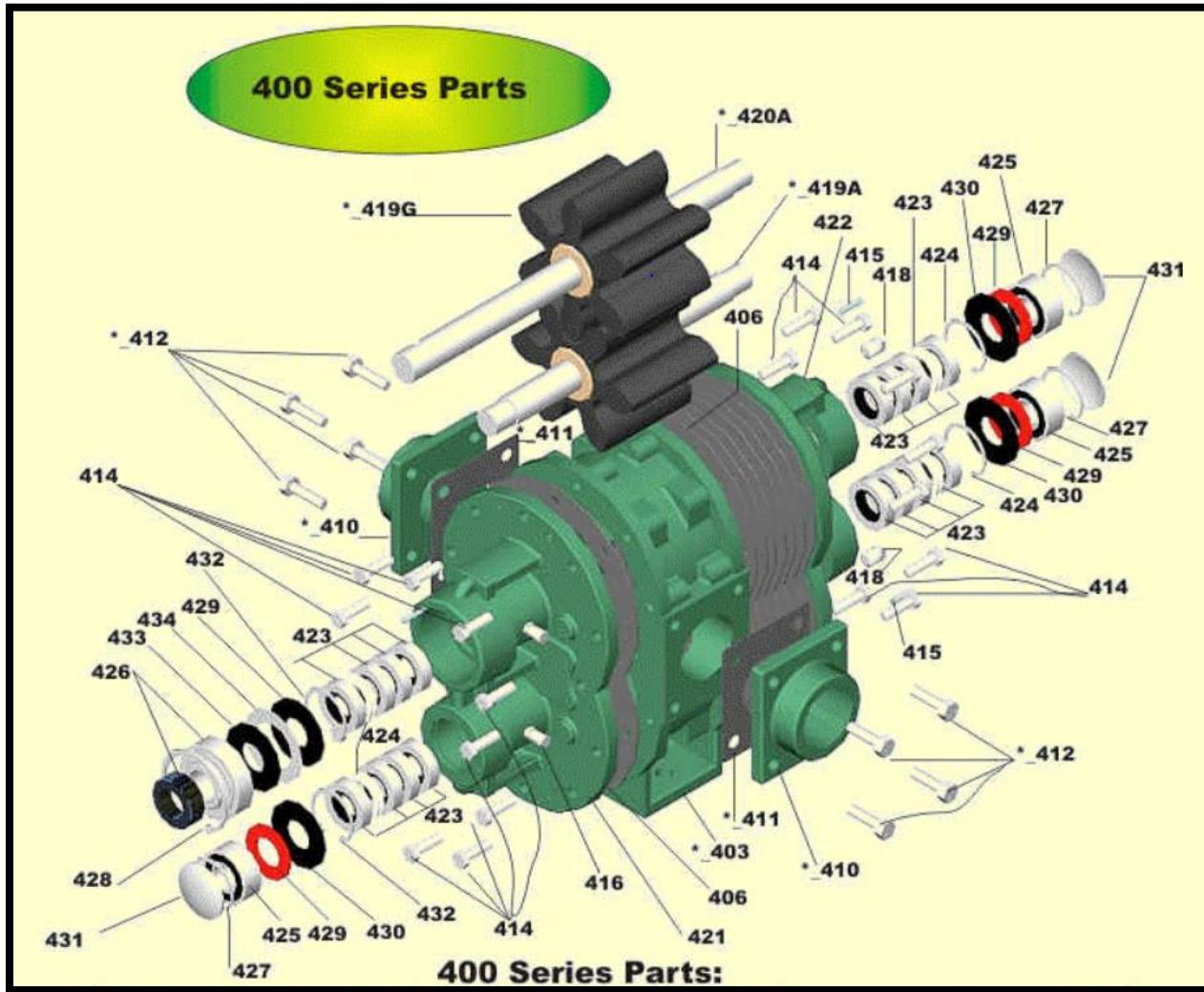
Once you have reached the pressure you want to turn the machine off, pull out the Allen wrench, you may consider putting a small piece of cut rubber in the hole before putting the plug back on, it will keep the machine's vibration from turning your pressure back down.

Put the plug back in, remove the gauge, and put the hydraulic line back on.



MASTERMIX™ BULK STORAGE TANK MACHINE

2" BOWIE PUMP OPTIONAL



PARTS LIST FOR 2" 2400 SERIES BOWIE PUMP OPTIONAL

BOWIE ITEM	S/M PART#	QTY.	DESCRIPTION
	P640A030	1	2" BOWIE PUMP 2400 SERIES -STEEL
2419C	P741B010	1	STEEL GEAR & IDLER SHAFT
2420C	P741B011	1	STEEL GEAR & DRIVE SHAFT
	P640A005	1	2" BOWIE PUMP 2400 SERIES - RUBBER
2419	P741A010	1	HYCAR GEAR & IDLER SHAFT
2420	P741A011	1	HYCAR GEAR & DRIVE SHAFT

MASTERMIX™ BULK STORAGE TANK MACHINE

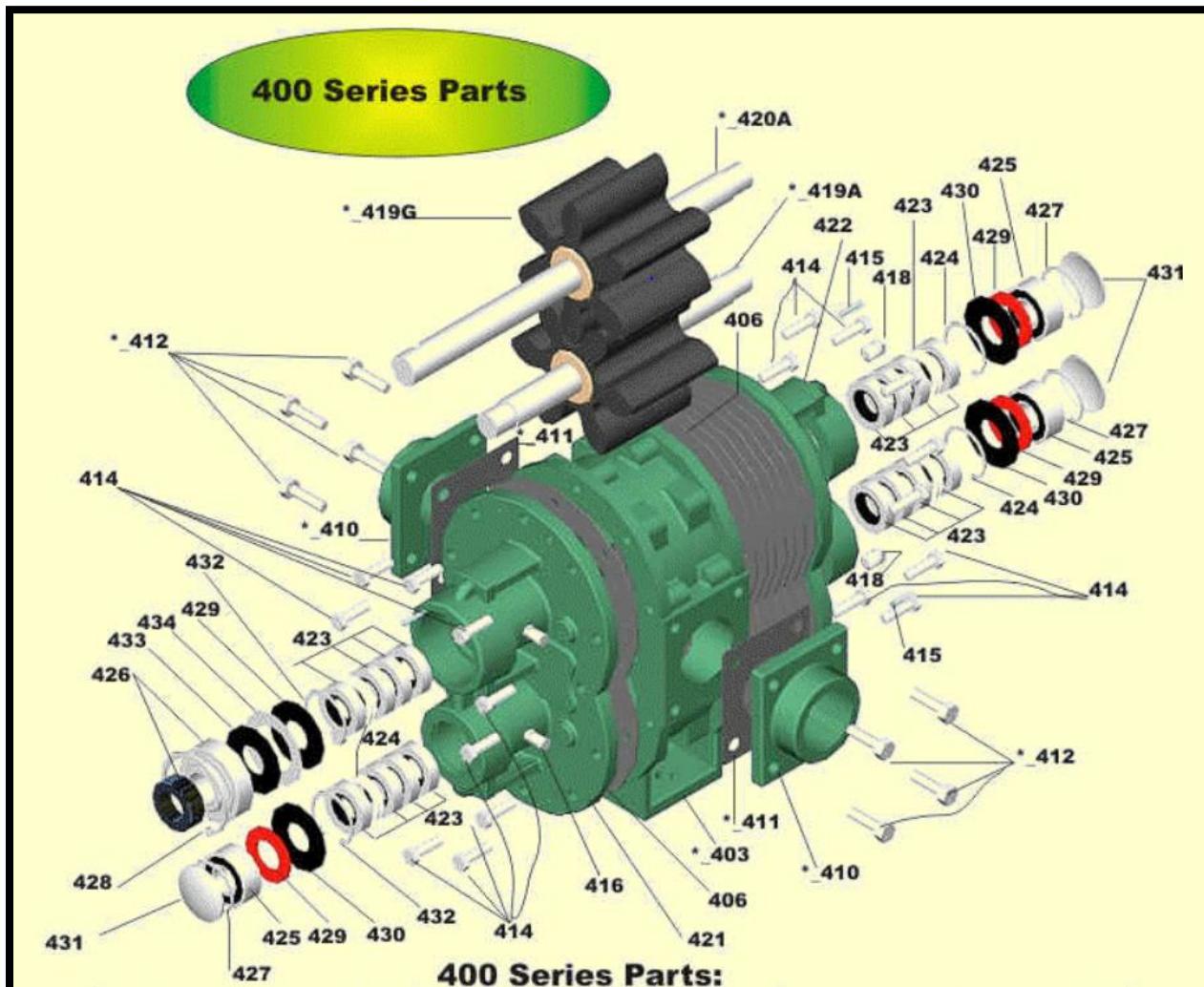
OPTIONAL 2" BOWIE PUMP

BOWIE ITEM	S/M PART#	QTY.	DESCRIPTION
2403	P741A001	1	CENTER CASE
2406	P741A002	8	PLATE GASKET
2410	P741A003	2	ADAPTER FLANGE
2411	P741A004	2	ADAPTER FLANGE GASKET
2412	P741A005	8	ADAPTER FLANGE BOLT
2414	P741A006	24	END PLATE BOLT
2415	P741A007	4	TAPER PIN
2416	P741A008	4	GREASE FITTING
2418	P741A009	2	DRAIN PLUG
2421	P741A012	1	STANDARD FRONT PLATE
2422	P741A013	1	STANDARD BACK PLATE
2423	P741A014	16	SHAFT SEAL
424	P741B014	4	LANTERN RING
2425	P741A015	3	SMALL RING
2426	P741A016	1	LARGE BEARING
2427	P741A017	3	LOCK RING 2" BEARING
2428	P741A018	1	LOCK RING 3" BEARING
2429	P741A019	3	WASHER – RED SLINGER
2430	P741A020	4	WASHER – BLACK SLINGER
2431	P741A021	3	EXPANSION PLUG
2432	P741A022	4	RING – LOCK SEAL
2433	P741A023	1	WASHER – BEARING SHIELD
2434	P741A024	1	WASHER – STEEL
2422HP	P741A025	2	WEAR PLATE – HARDENED STEEL

REBUILD KIT 2" BOWIE PUMP – CONSIST OF PARTS BELOW

BOWIE ITEM	S/M PART#	QTY.	DESCRIPTION
	P741A047	1	2" BOWIE PUMP 2400 SERIES REBUILD KIT
406	P741A002	8	PLATE GASKET
415	P741A007	4	TAPER PIN
416	P741A008	4	GREASE FITTING
423	P741A014	16	SHAFT SEAL
426	P741A016	1	LARGE BEARING
427	P741A017	3	LOCK RING 2" BEARING
428	P741A018	1	LOCK RING 3" BEARING
430	P741A020	4	WASHER – BLACK SLINGER
431	P741A021	3	EXPANSION PLUG
432	P741A022	4	RING – LOCK SEAL

OPTIONAL 3" BOWIE PUMP



PARTS LIST FOR 3" 3400 SERIES BOWIE PUMP OPTIONAL

BOWIE ITEM	S/M PART#	QTY.	DESCRIPTION
	P640A025	1	3" BOWIE PUMP 3400 SERIES -STEEL
3419C	P741B033	1	STEEL GEAR & IDLER SHAFT
3420C	P741B034	1	STEEL GEAR & DRIVE SHAFT
	P640A010	1	3" BOWIE PUMP 3400 SERIES - RUBBER
3419	P741A033	1	HYCAR GEAR & IDLER SHAFT
3420	P741A034	1	HYCAR GEAR & DRIVE SHAFT

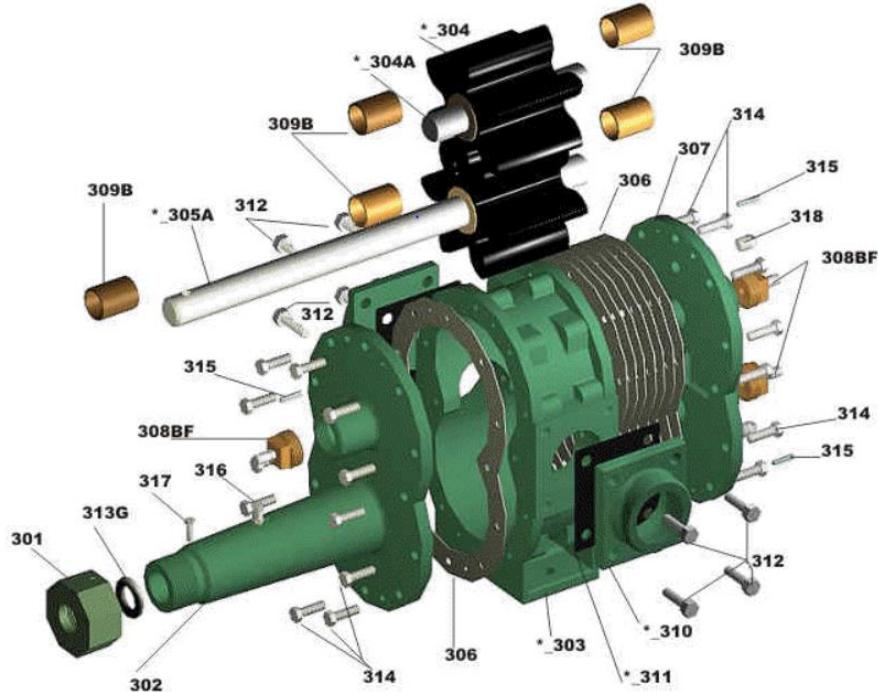
OPTIONAL 3" BOWIE PUMP

BOWIE ITEM	S/M PART#	QTY.	DESCRIPTION
3403	P741A026	1	CENTER CASE
3406	P741A027	8	PLATE GASKET
3410	P741A028	2	ADAPTER FLANGE
3411	P741A029	2	ADAPTER FLANGE GASKET
3412	P741A030	8	ADAPTER FLANGE BOLT
3414	P741A031	24	END PLATE BOLT
3415	P741A032	4	TAPER PIN
3416	P741A032G	4	GREASE FITTING
3418	P741A032D	2	DRAIN PLUG
3421	P741A035	1	STANDARD FRONT PLATE
3422	P741A036	1	STANDARD BACK PLATE
3423	P741A037	16	SHAFT SEAL
3424	P741A038	4	LANTERN RING
3425	P741A039	3	SMALL RING
3426	P741A040	1	LARGE BEARING
3427	P741B040	3	LOCK RING 2" BEARING
3428	P741A041	1	LOCK RING 3" BEARING
3429	P741A042	3	WASHER – RED SLINGER
3430	P741A043	4	WASHER – BLACK SLINGER
3431	P741B043	3	EXPANSION PLUG
3432	P741A044	4	RING – LOCK SEAL
3433	P741A045	1	WASHER – BEARING SHIELD
3434	P741A046	1	WASHER – STEEL
2422HP	P741A025	2	WEAR PLATE – HARDENED STEEL

REBUILD KIT 3" BOWIE PUMP – CONSIST OF PARTS BELOW

BOWIE ITEM	S/M PART#	QTY.	DESCRIPTION
	P741A047	1	3" BOWIE PUMP 3400 SERIES REBUILD KIT
406	P741A002	8	PLATE GASKET
415	P741A007	4	TAPER PIN
416	P741A008	4	GREASE FITTING
423	P741A014	16	SHAFT SEAL
426	P741A016	1	LARGE BEARING
427	P741A017	3	LOCK RING 2" BEARING
428	P741A018	1	LOCK RING 3" BEARING
430	P741A020	4	WASHER – BLACK SLINGER
431	P741A021	3	EXPANSION PLUG
432	P741A022	4	RING – LOCK SEAL

OPTIONAL 3" BOWIE PUMP



PARTS LIST FOR 3" 3300 SERIES BOWIE PUMP OPTIONAL

BOWIE ITEM #	S/M PART#	QTY.	DESCRIPTION
	P640A059	1	3" BOWIE PUMP 3300 SERIES HD -STEEL
3304CHD	P742A045	1	STEEL GEAR & IDLER SHAFT
3305CHD	P742A046	1	STEEL GEAR & DRIVE SHAFT
	P640A066	1	3" BOWIE PUMP 3300 SERIES HD - RUBBER
3304HD	P742A043	1	HYCAR GEAR & IDLER SHAFT
3305HD	P742A044	1	HYCAR GEAR & DRIVE SHAFT

BOWIE ITEM #	S/M PART#	QTY.	DESCRIPTION
301	P742A021	1	PACKING UNIT
302	P742A022	1	STANDARD FRONT PLATE
3303	P742A023	1	CENTER CASE
306	P742A028	8	PUMP GASKET
307	P742A029	1	STANDARD BACK PLATE
308B	P742A030	3	END PLUG
309BHD	P742A042	5	BRONZE BUSHING
3310	P742A032	2	ADAPTER FLANGE
3311	P742A033	2	ADAPTER FLANGE GASKET
3312	P742A034	8	ADAPTER FLANGE BOLT
313G	P742A036	1	GRAPH PACKING – (3PCS. PER PUMP)
314	P742A037	24	END PLATE BOLT
315	P742A038	4	TAPER PIN
316	P742A039	1	GREASE FITTING
317	P742A040	1	LOCK SCREW
318	P742A041	2	DRAIN PLUG

MASTERMIX™ STORAGE TANKS

PARTS LIST FOR 2" ARO PUMP OPTIONAL

DESCRIPTION	S/M PART #	QTY.
ROD	P977A001	1
BACKUP WASHER	P977A002	2
DIAPHRAGM WASHER	P977A003	2
DIAPHRAGM	P977A004	2
WASHER	P977A005	2
SCREW 5/8"-18 X 2-1/2"	P977A006	2
FLUID CAP OUTER CHAMBER	P977A007	2
SEAT	P977A008	4
BALL	P977A009	4
SCREW M10 X 1.5-6G X 35MM	P977A010	8
SCREW M10 X 1.5-6G X 45MM	P977A011	16
NUT M10 X 1.5-6H	P977A012	16
GROUND LUG	P977A013	1
OUTLET MANIFOLD	P977A014	1
INLET MANIFOLD	P977A015	1
PIPE PLUG 2" N.P.T.	P977A016	2
AIR CAP INNER CHAMBER	P977A017	1
AIR CAP INNER CHAMBER	P977A018	1
GASKET	P977A019	2
SCREW M10 X 1.5-6G X 120MM	P977A020	4
U CUP 3/16" X 1-3/8" O.D.	P977A021	2
O-RING 3/32" X 1" O.D.	P977A022	2
WASHER .406 I.D. X .031" THICK	P977A023	4

MASTERMIX™ STORAGE TANKS

PARTS LIST FOR 2" ARO PUMP **OPTIONAL**

DESCRIPTION	S/M PART #	QTY.
CENTER BODY	P977A024	1
BUSHING	P977A025	1
INLET PLUG	P977A026	1
PISTON	P977A027	1
U CUP 1-3/8" O.D.	P977A028	1
SPOOL	P977A029	1
WASHER 1.556" O.D.	P977A030	5
O-RING 1/8" X 1-1/4" O.D.	P977A031	5
O-RING 3/32" X 1-9/16" O.D.	P977A032	7
SPACER	P977A033	4
SPACER	P977A034	1
ACTUATOR PIN .250 X 2.276 LONG	P977A035	2
SLEEVE	P977A036	2
90 DEG. ST. ELBOW 1-1/2-11-1/2 N.P.T.	P977A037	1
GASKET – VALVE BODY	P977A038	1
LOCK WASHER 1/4"	P977A039	3
SCREW M6 X 1.0-6G X 16MM	P977A040	4
VALVE BLOCK	P977A041	1
PISTON PLUG	P977A042	1
TRACK GASKET	P977A043	1
PILOT PISTON - WITH O-RING & U CUP	P977A044	1
O-RING 3/32" X 5/8" O.D.	P977A045	2
U CUP 1/8" X 7/8" O.D.	P977A046	1

SPRAY MASTER TANK TRAILER & SKID-MOUNTED

NOTE: WITH **MAXX-AIR** SYSTEM - **ARO 2"** PUMP IS STANDARD

TR 575 – TR 750 – TR 1000 PRO-AIR & PRO-AIR EXTENDED DECK AND

SK 575 – SK 750 – SK 1000 PRO-AIR **ARO 2"** PUMP IS **OPTIONAL**

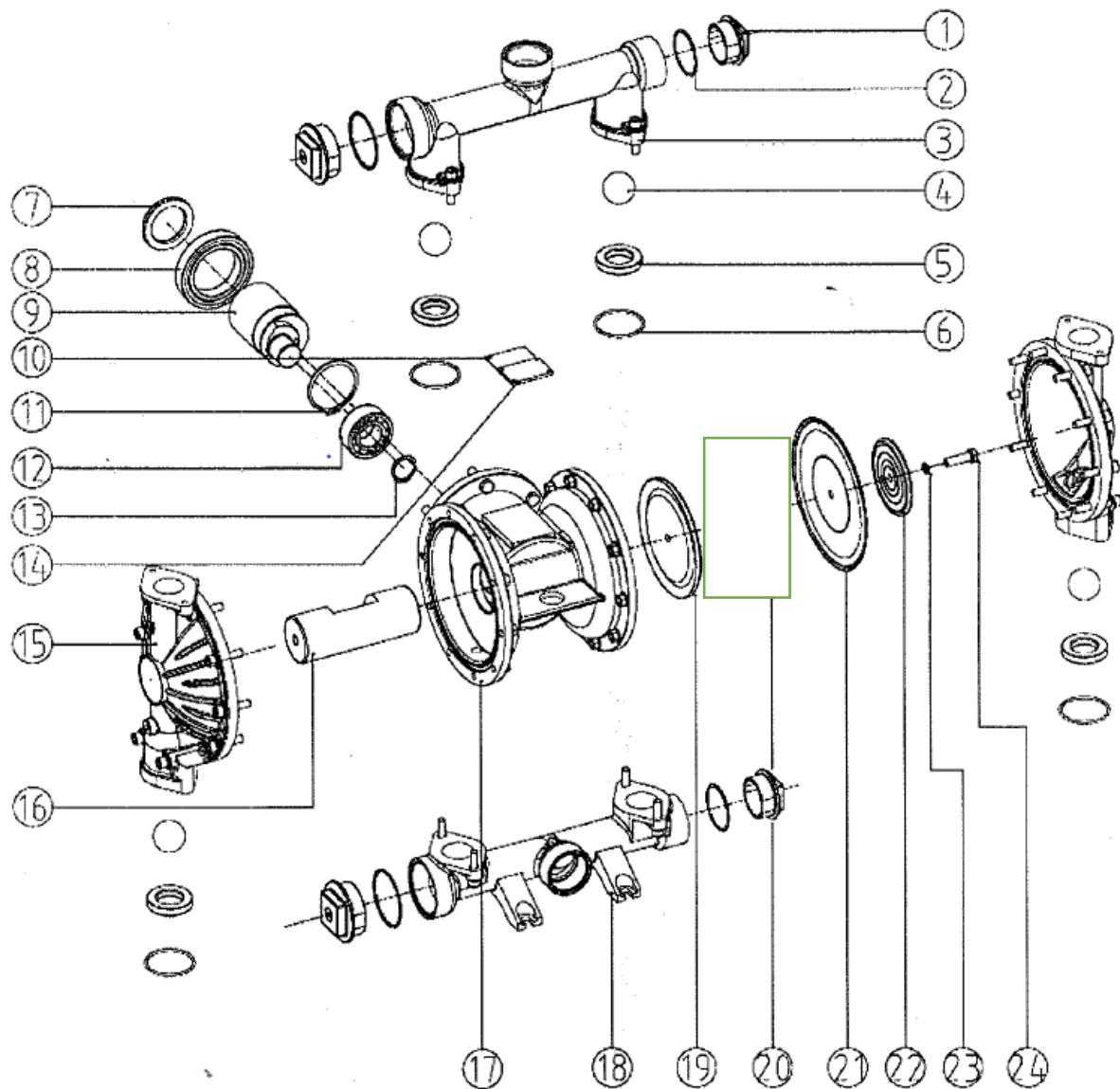
PARTS LIST FOR ARO 2" PUMP

DESCRIPTION	S/M PART #	QTY.
PISTON SLEEVE	P977A047	1
O-RING 3/32" X 1-1/8" O.D.	P977A048	1
O-RING 1/16" X 1-1/8" O.D.	P977A049	1
O-RING 1/16" X 1-3/8" O.D.	P977A050	2
O-RING 1/8" X 1/2" O.D.	P977A051	2
DIAPHRAGM CHECK VALVE	P977A052	2
RETAINING RING	P977A053	1
MUFFLER	P977A054	1
FML-2 GREASE	P977A055	1
GREASE PACKETS	P977A056	1
MAJOR VALVE ASSEMBLY	P977A057	1
AIR VALVE SERVICE KIT – STYLE "A"	P977A058	1
MATERIAL PUMP REBUILD KIT	P977A059	1
MAJOR VALVE ASSEMBLY	P977B057	1
AIR VALVE SERVICE KIT – STYLE "B"	P977B058	1



**MASTERMIX™ BULK STORAGE TANK
MACHINE PICTURES AND PARTS LIST
SMALL-DIAPHRAGM PUMP**

PUMP DIAGRAM



MASTERMIX™ BULK STORAGE TANK

MACHINE PICTURES AND PARTS LIST

SMALL-DIAPHRAGM PUMP VERSION II

PARTS LIST FOR SMALL-DIAPHRAGM PUMP BEFORE 3/23

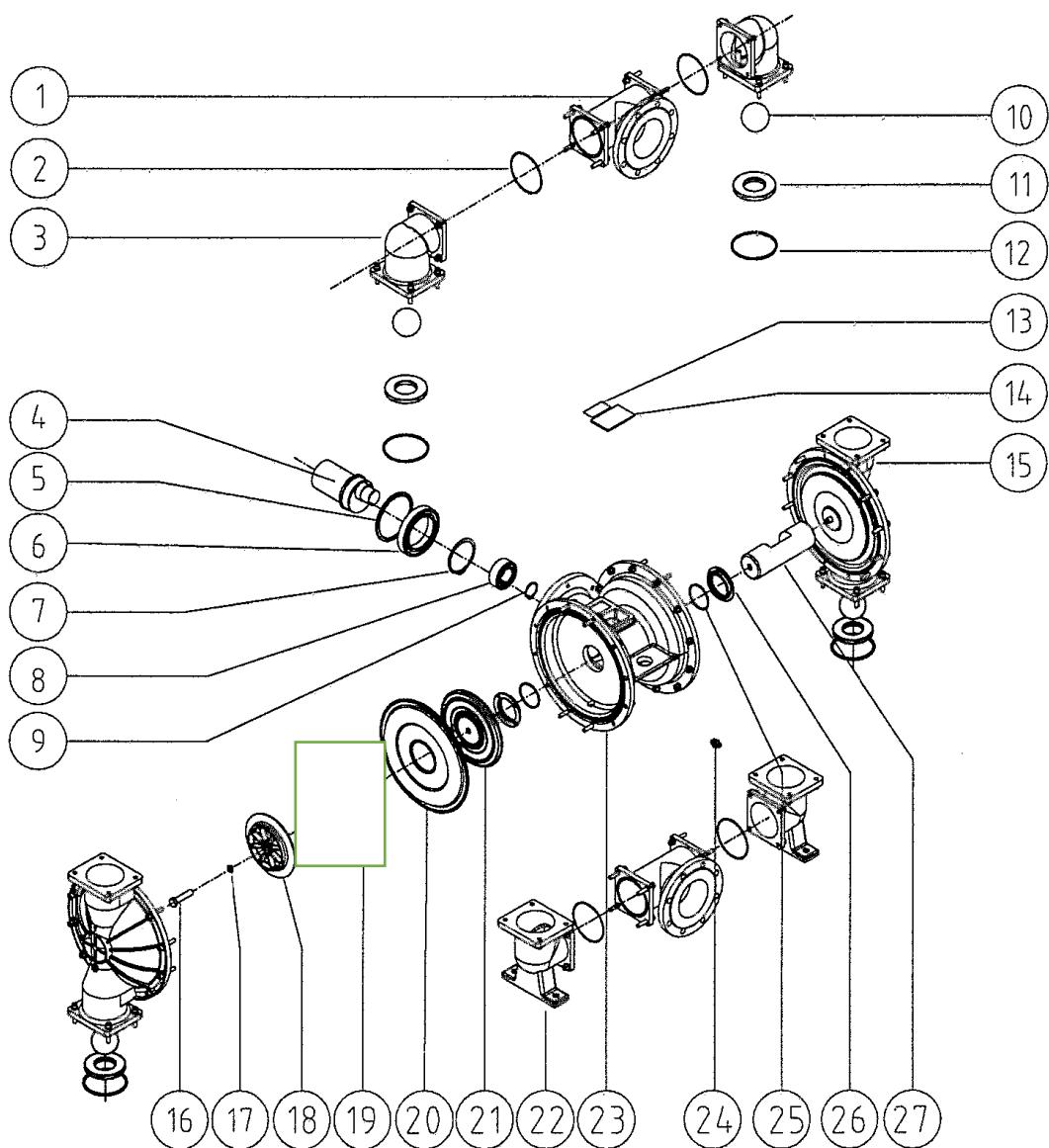
ITEM #	PART#	QTY.	DESCRIPTION
	P640A079	1	SMALL DIAPHRAGM PUMP ASSEMBLY
1	P981A001	4	END CAP
2	P981A002	4	SEAL RING
3	P981A003	1	DISCHARGE MANIFOLD
4	P981A004	4	VALVE BALL
5	P981B005	4	VALVE SEAT
6	P981A006	4	SEAL RING
7	P981A007	1	SEAL RING
8	P981A008	1	BIG BEARING
9	P981A009	1	ECCENTRIC SHAFT
10	P981A010	1	NAME PLATE
11	P981A011	1	BIG SNAP RING
12	P981A012	1	SMALL BEARING
13	P981A013	1	SMALL SNAP RING
14	P981A014	1	INSPECTION WINDOW
15	P981A015	2	FLUID CHAMBER
16	P981A016	1	PITMAN SHAFT
17	P981A017	1	CENTER BLOCK
18	P981A018	1	INTAKE MANIFOLD
19	P981A019	1	INNER PLATE
20			N/A
21	P981A021	1	DIAPHRAGM
22	P981A022	1	OUTER PLATE
23	P981A023	1	O-RING
24	P981A024	1	SCREW

REBUILD KIT P981B025 –HIGH LIGHTED IN YELLOW

MASTERMIX™ BULK STORAGE TANK MACHINE PICTURES AND PARTS LIST

LARGE-DIAPHRAGM PUMP VERSION II

PUMP DIAGRAM



MASTERMIX™ BULK STORAGE TANK MACHINE

MACHINE PICTURES AND PARTS LIST

LARGE-DIAPHRAGM PUMP VERSION II

PARTS LIST FOR LARGE-DIAPHRAGM PUMP **BEFORE 3/23**

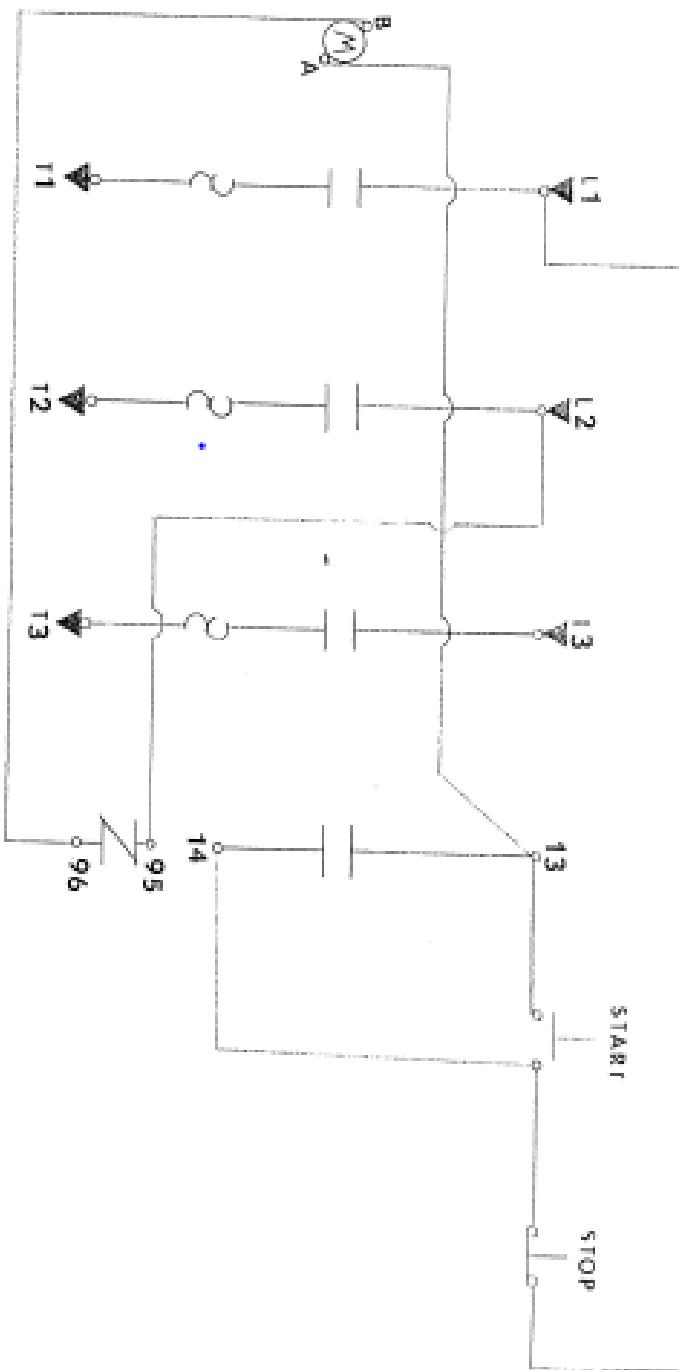
ITEM #	PART#	QTY.	DESCRIPTION
	P640A087	1	LARGE DIAPHRAGM PUMP ASSEMBLY
1	P980A026	2	THREE-WAY FLANGE
2	P980A027	4	SEAL RING
3	P980A028	2	INLET MANIFOLD
4	P980A007	1	ECCENTRIC SHAFT
5	P980A005	1	SNAP RING
6	P980A006	1	BIG BEARING
7	P980A009	1	BIG SNAP SPRING
8	P980A010	1	SMALL BEARING
9	P980A011	1	SMALL SNAP SPRING
10	P980A002	4	VALVE BALL
11	P980A029	4	VALVE SEAT
12	P980A030	4	SEAL RING
13	P980A012	1	INSPECTION WINDOW
14	P980A008	1	NAME PLATE
15	P980A031	2	FLUID CHAMBER
16	P980A022	1	SCREW
17	P980A021	2	O-RING
18	P980A020	1	OUTER PLATE
19			N/A
20	P980A019	1	3" DIAPHRAGM
21	P980A017	1	INNER PLATE
22	P980A032	2	MANIFOLD
23	P980A015	1	CENTER BLOCK
24		1	5/16-24 GREASE NIPPLE
25	P980A033	2	SHAFT SEAL
26	P980A034	2	SHAFT SLEEVE
27	P980A014	1	PITMAN SHAFT

REBUILD KIT **P980B025** –HIGH LIGHTED IN YELLOW

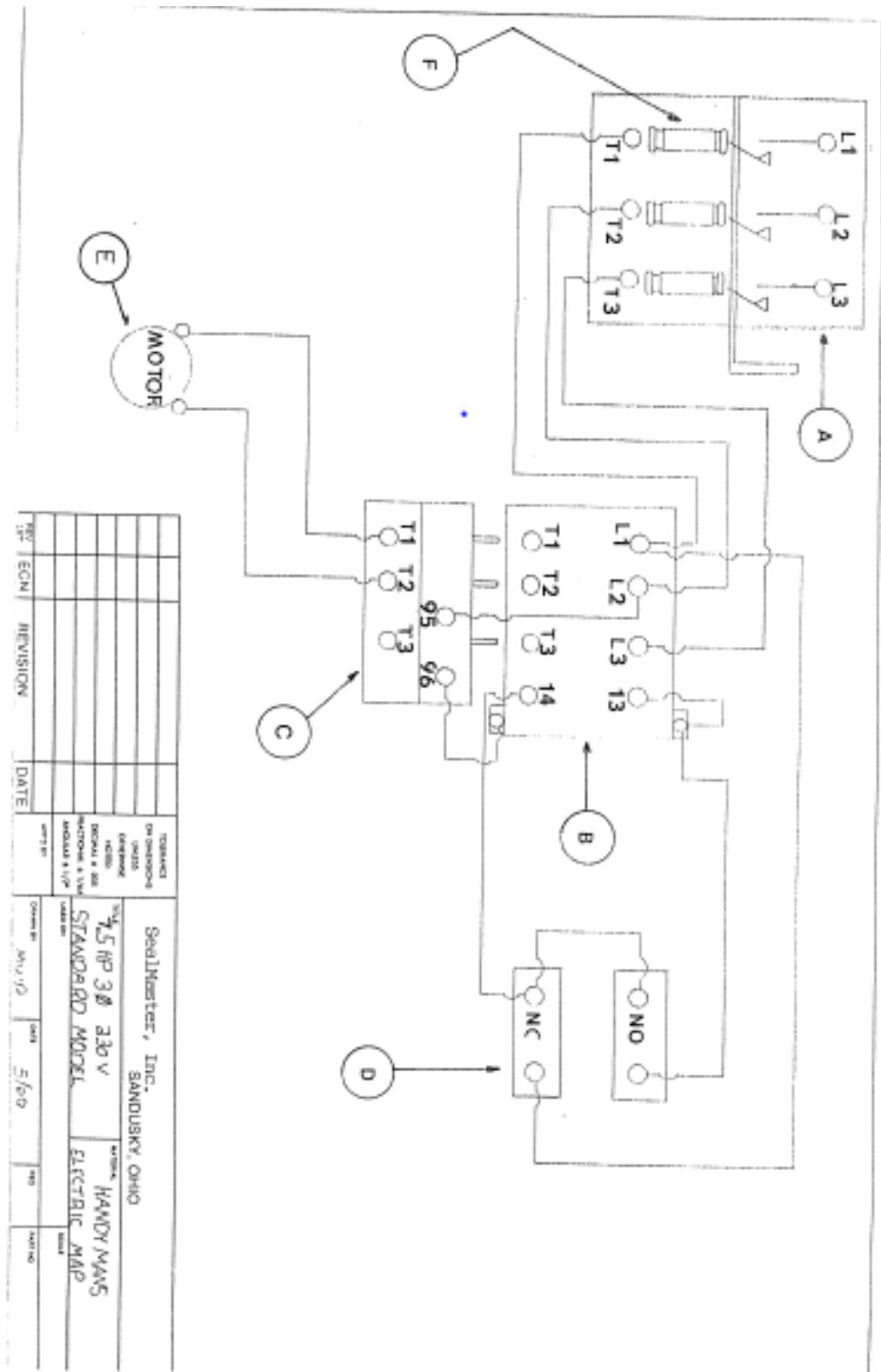
PARTS FOR ELECTRICAL SET-UP

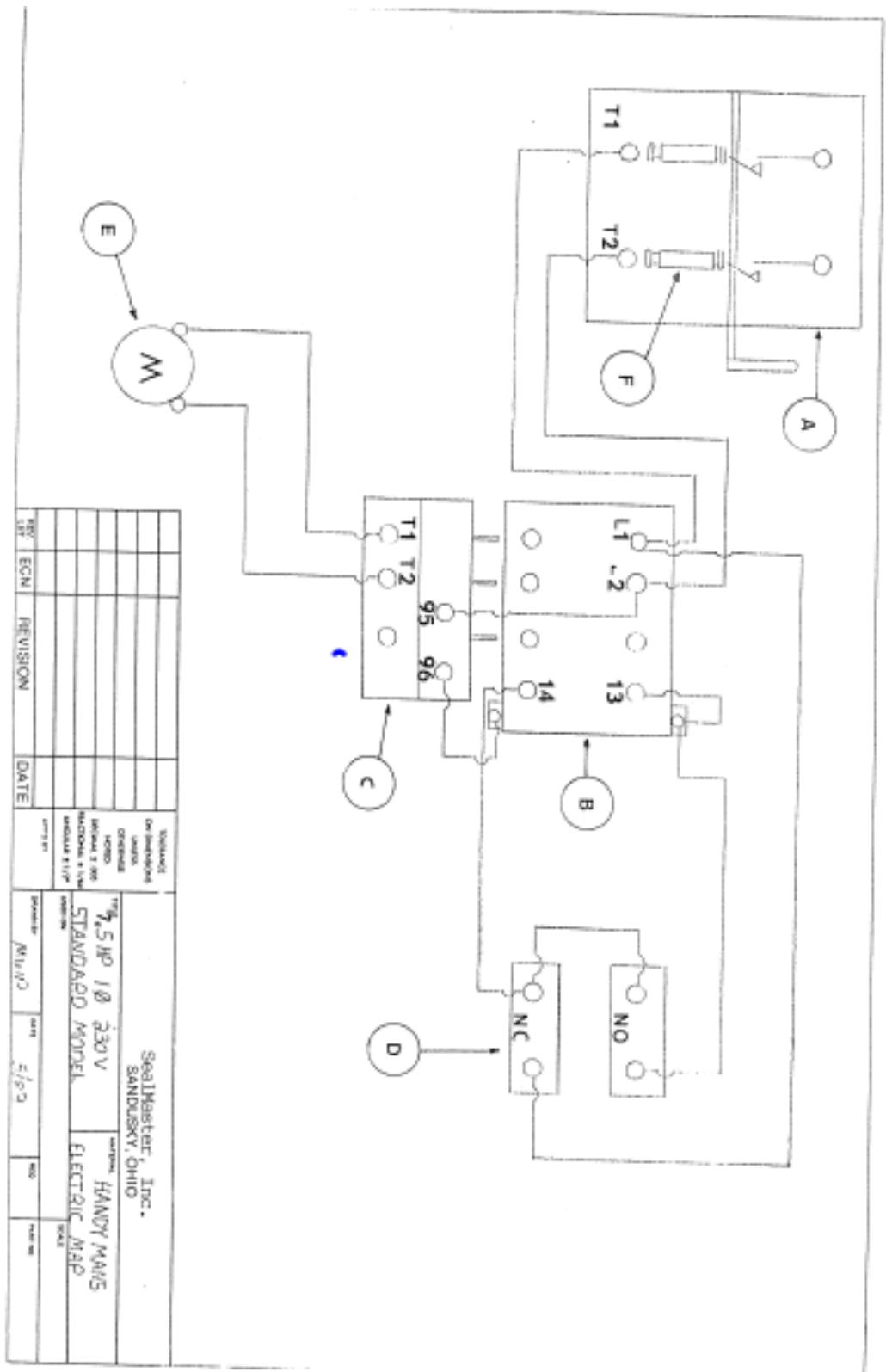
PARTS LIST

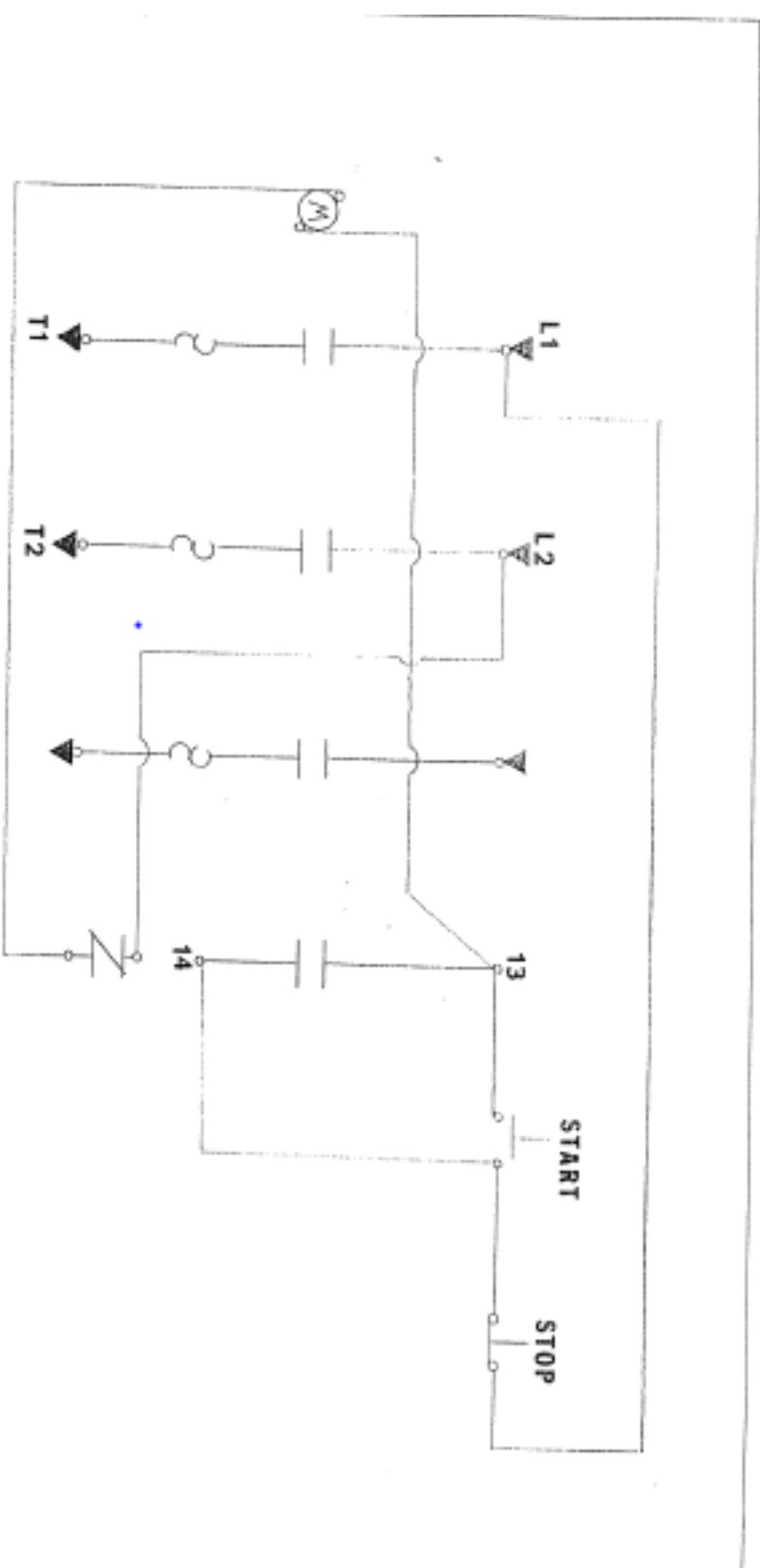
ITEM #	DESCRIPTION	6000 REGULAR	8000 REGULAR	10,000 REGULAR	6000 - 8000 HD	10,000 PLANT
7.5 HP/10 HP THREE PHASE ELECTRIC SYSTEM						
A	DISCONNECT	P943A006	P943A006	P943A006	P943A006	P943A006
B	STARTER	P943A005	P943A005	P943A005	P943A005	P943A005
C	OVERLOAD	P943A008	P943A008	P943A008	P943A008	P943A008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



SealMaster, Inc.
SANDUSKY, OHIO







SANDMASTER[®] INC.
SANDUSKY, OHIO

MAINTENANCE AND STORAGE

MAINTENANCE

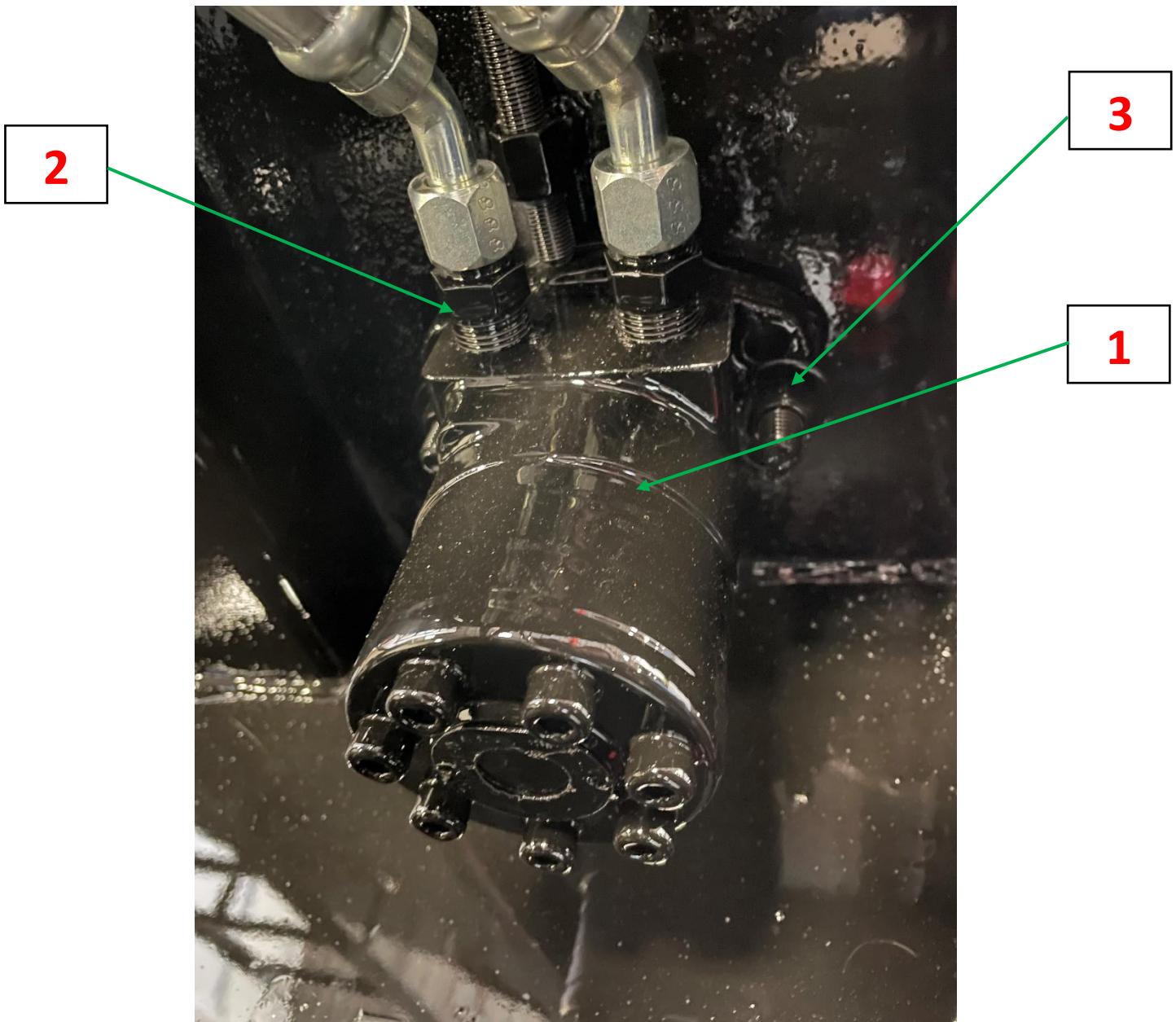
During the lubrication stop, inspect all operating parts. Should any damage or excessive wear be evident, replace parts immediately. Straighten any parts as soon as possible. Clean and re-paint all exposed parts using touch-up kit P3020B034 **yellow** paint or touch-up kit P3020B033 **black** paint.

STORAGE

Perform all required maintenance and lubrication procedures. Coat all shafts with grease. Clean and re-paint all exposed parts using touch-up kit P3020B034 **yellow** paint or touch-up kit P3020B033 **black** paint.

Each touch-up kit includes:

1-pint paint can --- 1 pair of gloves --- 1 touch-up paintbrush

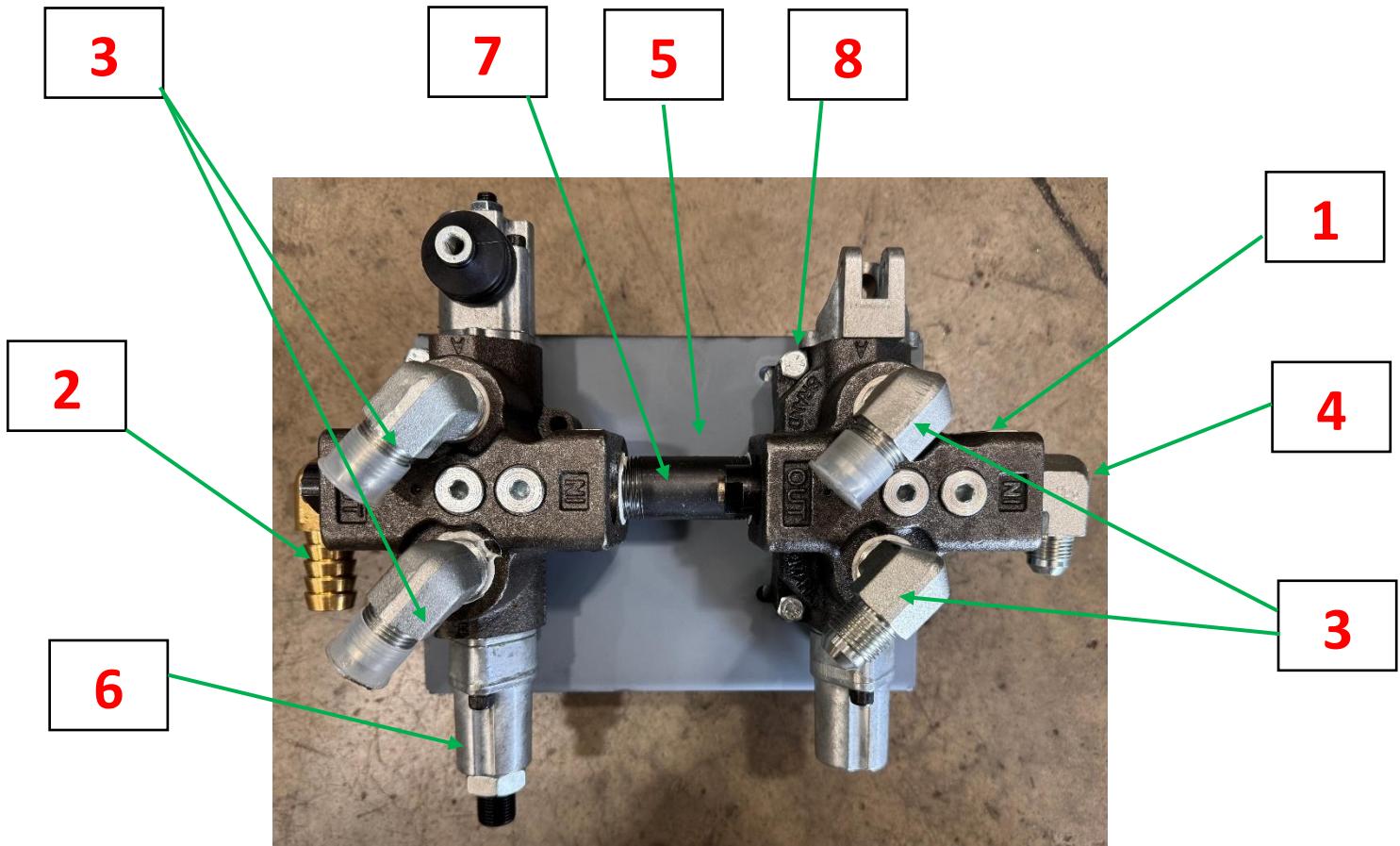


PARTS FOR PLUMBING

Parts for Plumbing Set-Up

PICTURE-1 AGITATION

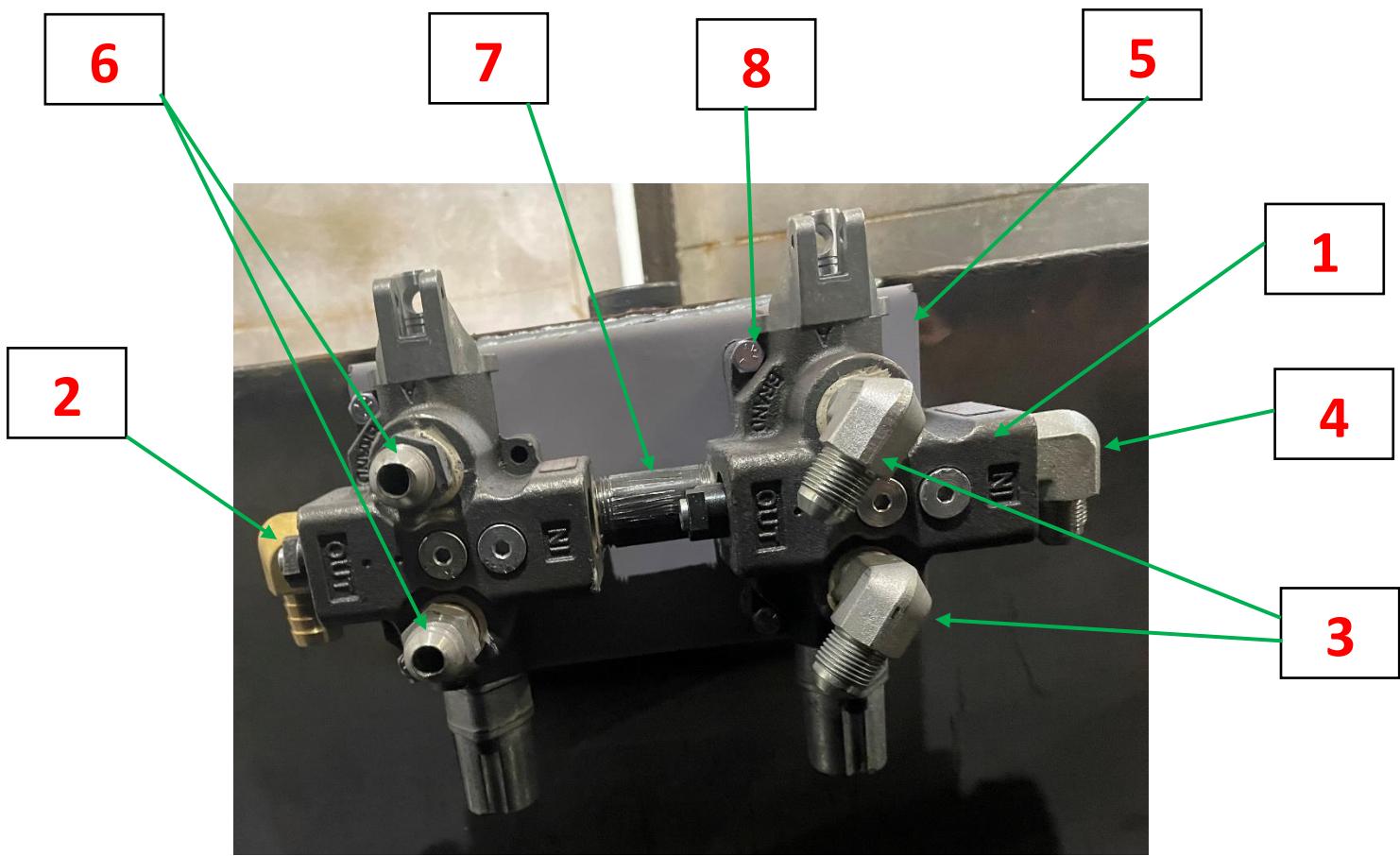
LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P474A088	1	HYD. MOTOR W/SAE PORT – NEW
	2	P567A006	2	HYD. FITTING
		P474A003	1	HYD. MOTOR W/SAE PORT - OLD
		P567A013	2	HYD. FITTING
	3	P1014A155	2	1/2 – 13 X 2-1/4" LONG HEX HD
			2	1/2 – 13 LOCK NUT
			2	1/2 FLAT WASHER



Parts for Plumbing Set-Up

PICTURE-2-CONTROL VALVES FOR 3" H.O.D.D. HYD. PUMP ONLY

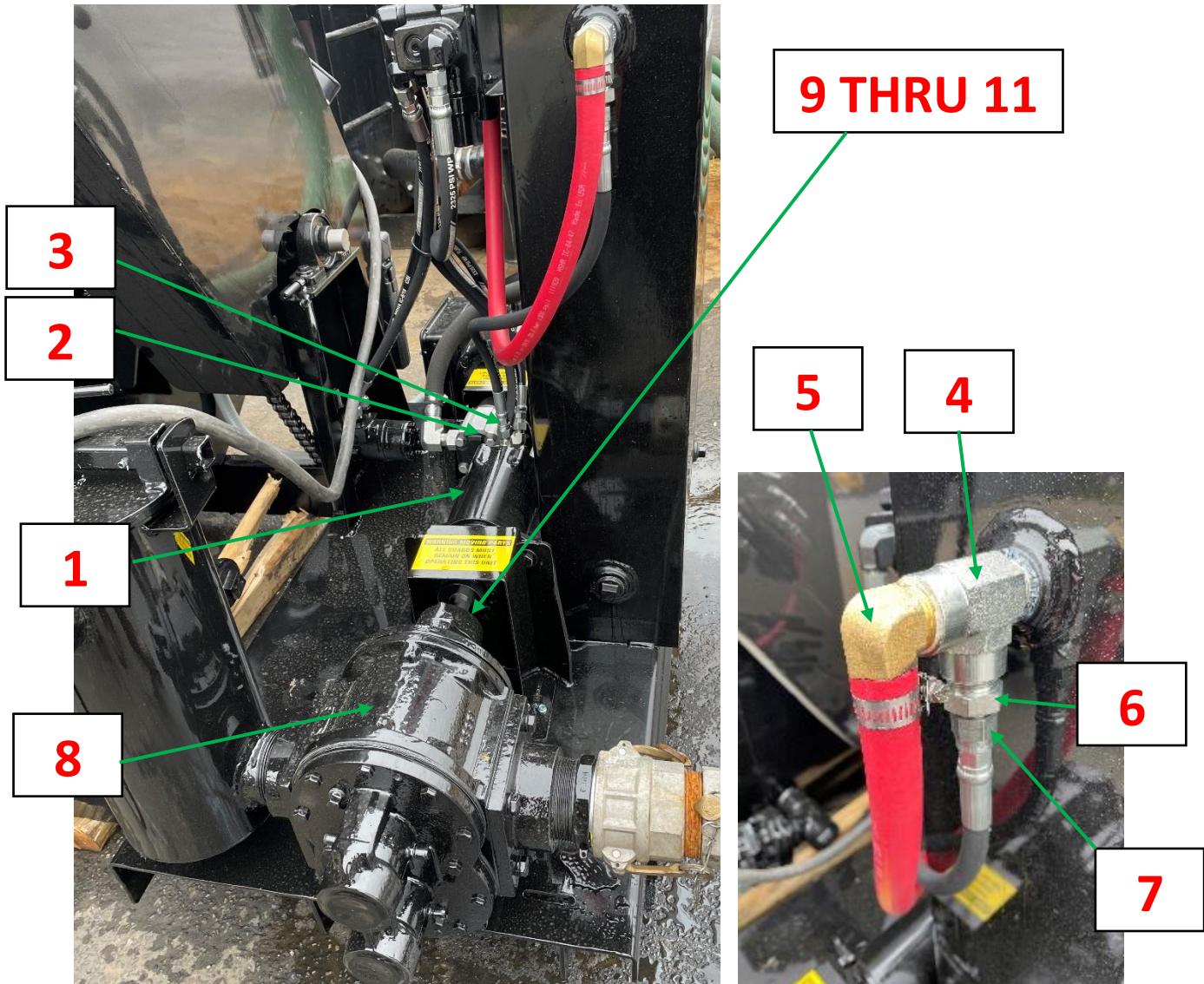
LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P472A016	1	HYDRAULIC CONTROL VALVE
		P939A025	1	HYD. VALVE – SEAL KIT (Brand M)
2	P751A020		1	BRASS ELBOW 90°
3	P565A004		4	2501-08-08F Hyd. Fitting
4	P560A083		1	2501-08-12F Hyd. Fitting
5	P72000C013		1	HYDRAULIC VALVE MOUNT
6	P472A028		1	HYDRAULIC CONTROL VALVE
		P939A025	1	HYD. VALVE – SEAL KIT (Brand M)
7	P1000A012		1	3/4"x 3" SCH. 40 PIPE NIPPLE
8	P1014A004		4	Screw-Hex Hd. Cap unc-2A 1/4-20 x1.75
			4	1/4 – 20 LOCK NUT
			4	1/4 FLAT WASHER



PICTURE-3-CONTROL VALVES FOR ALL MATERIAL PUMPS (EXCEPT 3" H.O.D.D)

LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P472A016	2	HYDRAULIC CONTROL VALVE
		P939A025	1	HYD. VALVE – SEAL KIT (Brand M)
2		P751A020	1	BRASS ELBOW 90°
3		P565A004	2	2501-08-08F Hyd. Fitting
4		P560A083	1	2501-08-12F Hyd. Fitting
5		P72000C013	1	HYDRAULIC VALVE MOUNT
6		P567A013	2	2404-08-08 Hyd. Fitting
7		P1000A012	1	3/4"x 3" SCH. 40 PIPE NIPPLE
8		P1014A004	4	Screw-Hex Hd. Cap unc-2A 1/4-20 x1.75
			4	1/4 – 20 LOCK NUT
			4	1/4 FLAT WASHER

Parts for Plumbing Set-Up

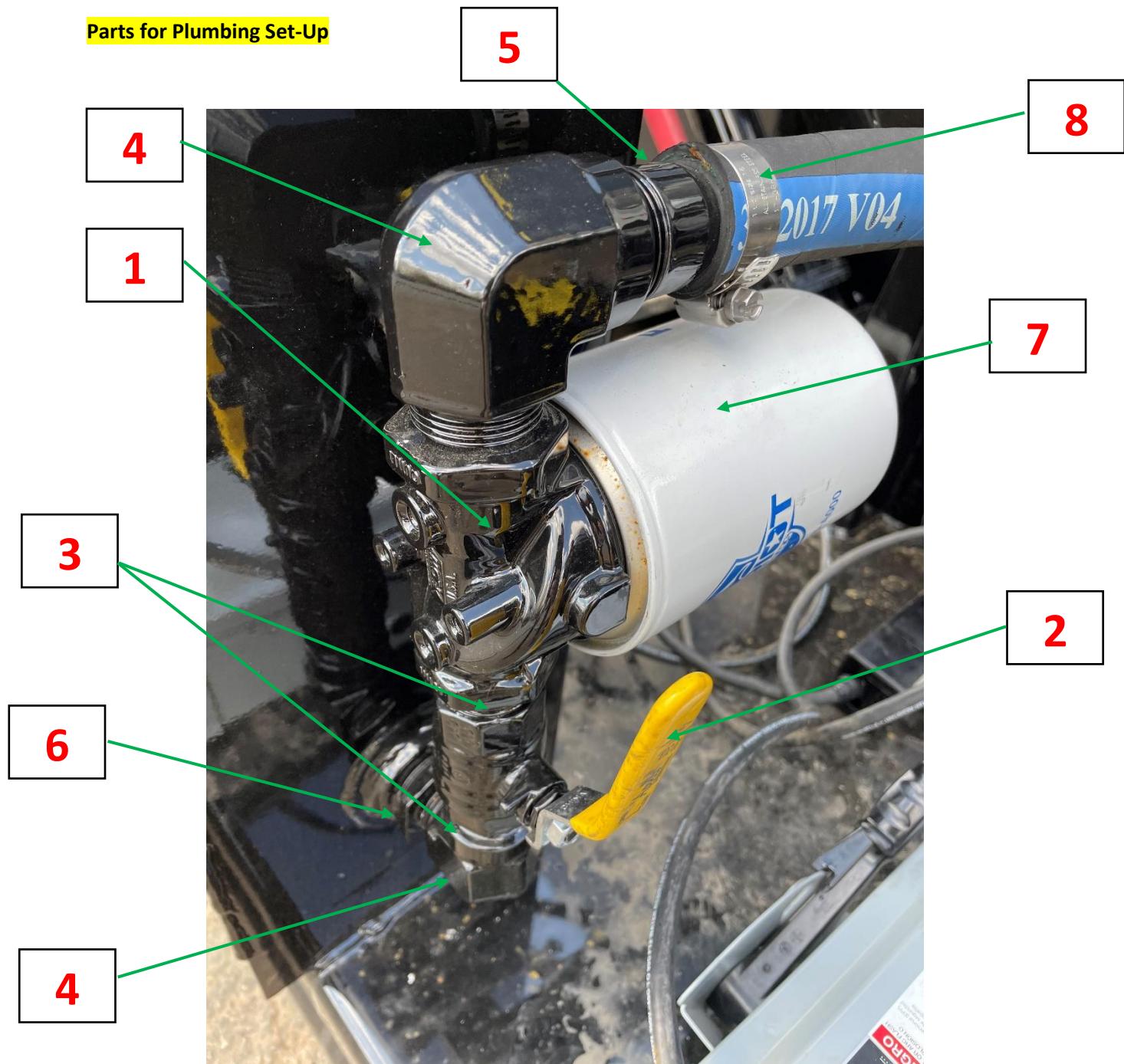


PICTURE-4 3" BOWIE & HIGH-SPEED MOTOR - OPTIONAL

LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P474A024	1	Motor-Hyd.- HIGH SPEED
	2	P567A018	2	6400-08-12 Hyd. Fitting
	3	P569A005	1	6801-08-06F Hyd. Fitting
	4	P560A026	1	5602-12-12-12F Hyd. Fitting
	5	P751A020	1	139E-1212 Hose End
	6	P1010A007	1	3/4x1/2 Hex Bushing Steel
	7	P567A013	1	2404-08-08 Hyd. Fitting
	8	P640A025	1	3" Bowie 3400 Pump-Material
	9	P630A011	1	5016 Chain Coupling 1" bore 1/4" key
	10	P630A034	1	5016 Chain Coupling 1-1/8" bore 1/4" key
	11	P631A002	1	5016 Chain

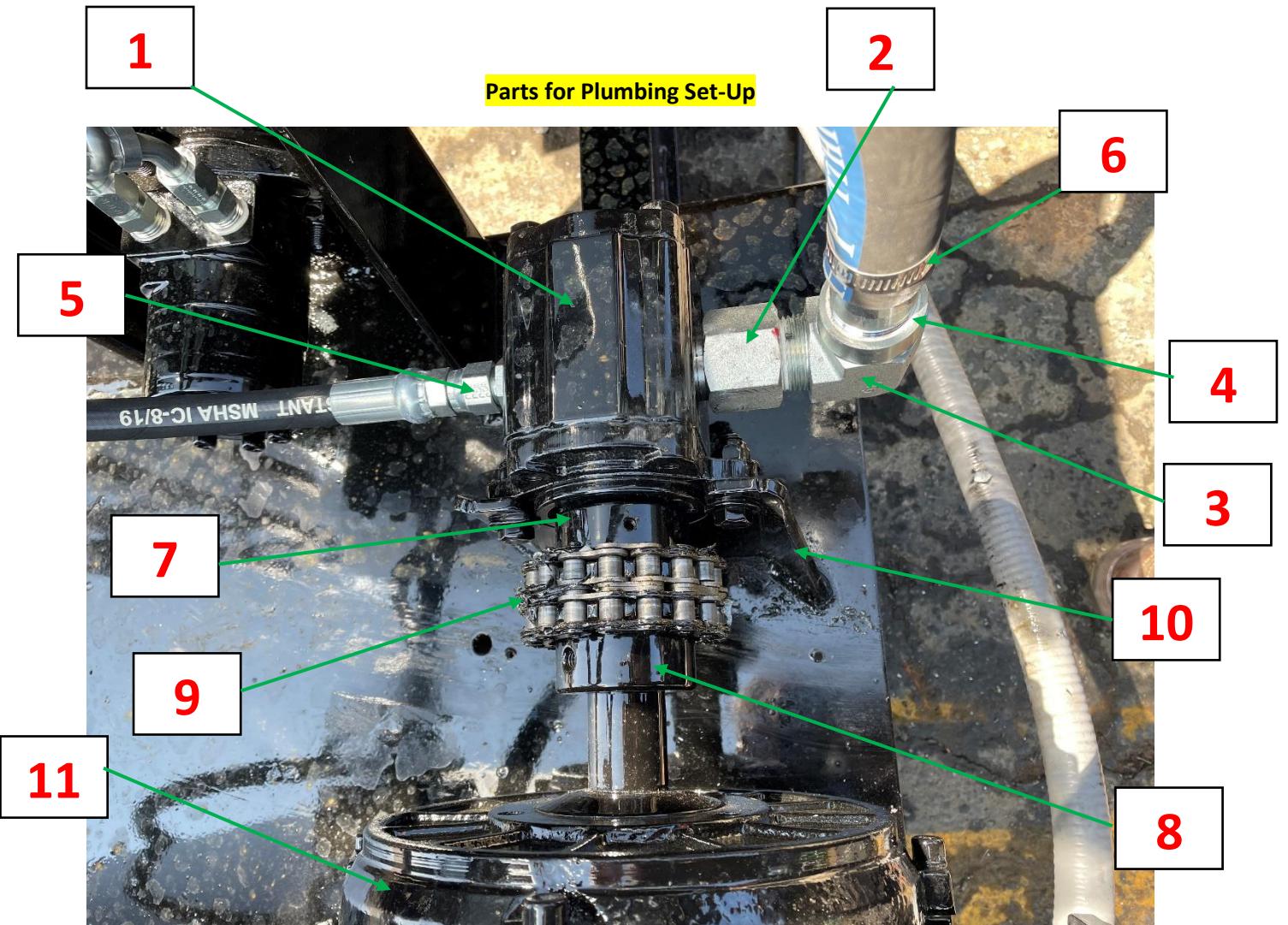
Parts for Plumbing Set-Up

Parts for Plumbing Set-Up



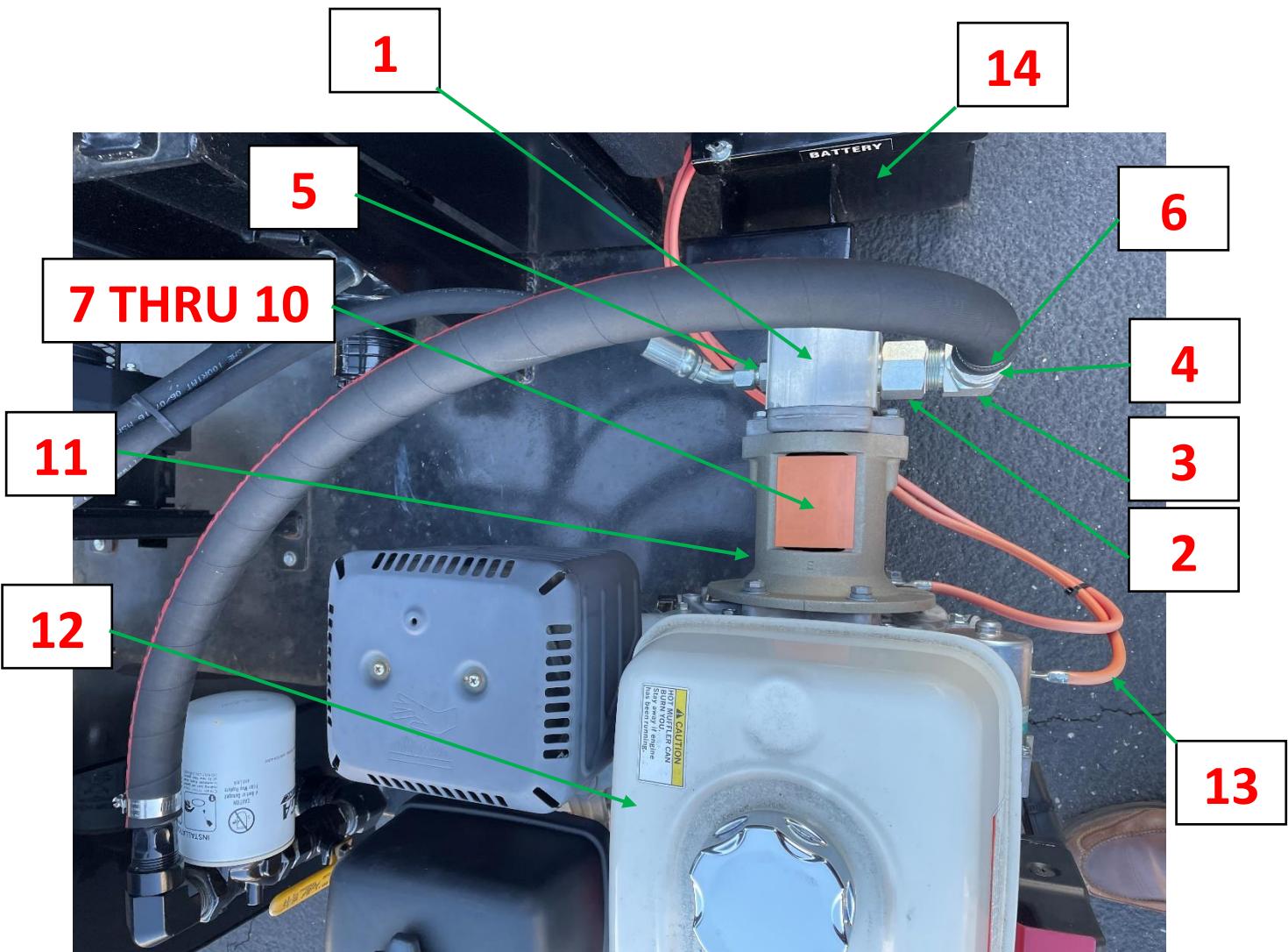
PICTURE-5 FILTER PLUMBING

LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P909A008	1	FILTER HEAD-SMALL
	2	P397A013	1	1" BALL VALVE
	3	P1000A016	2	1" CLOSE NIPPLES
	4	P560A052	2	HYDRAULIC 90° ELBOW -1" MALE / 1" FEMALE
	5	P1012A004	1	1" HOSE ADAPTER
	6	P1010A022	1	BUSHING 1-1/4 X 1"
	7	P908A003	1	FILTER
	8	P1023A005	1	Clamp-Hose #16-SS



PICTURE-6 PUMP WITH ELECTRIC MOTOR OPTIONAL

LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P601A004	1	HYDRAULIC PUMP
	2	P570A015	1	HYDRAULIC FITTING
	3	P560A052	1	HYDRAULIC 90° ELBOW -1" MALE / 1" FEMALE
	4	P1012A004	1	1" HOSE ADAPTER
	5	P567A006	1	HYDRAULIC FITTING
	6	P1023A005	1	Clamp-Hose #16-SS
	7	P630A024	1	5016 Chain Coupling 5/8"bore w/ 5/32" Key
	8	P630A012	1	5016 Chain Coupling 1-3/8" bore w/ 5/16 Key
	9	P631A002	1	5016 Chain
	10	P50108B	1	PUMP MOUNT
	11	P941A018	1	MOTOR-ELECT. 7.5 HP 1 PHASE 1725 RPM



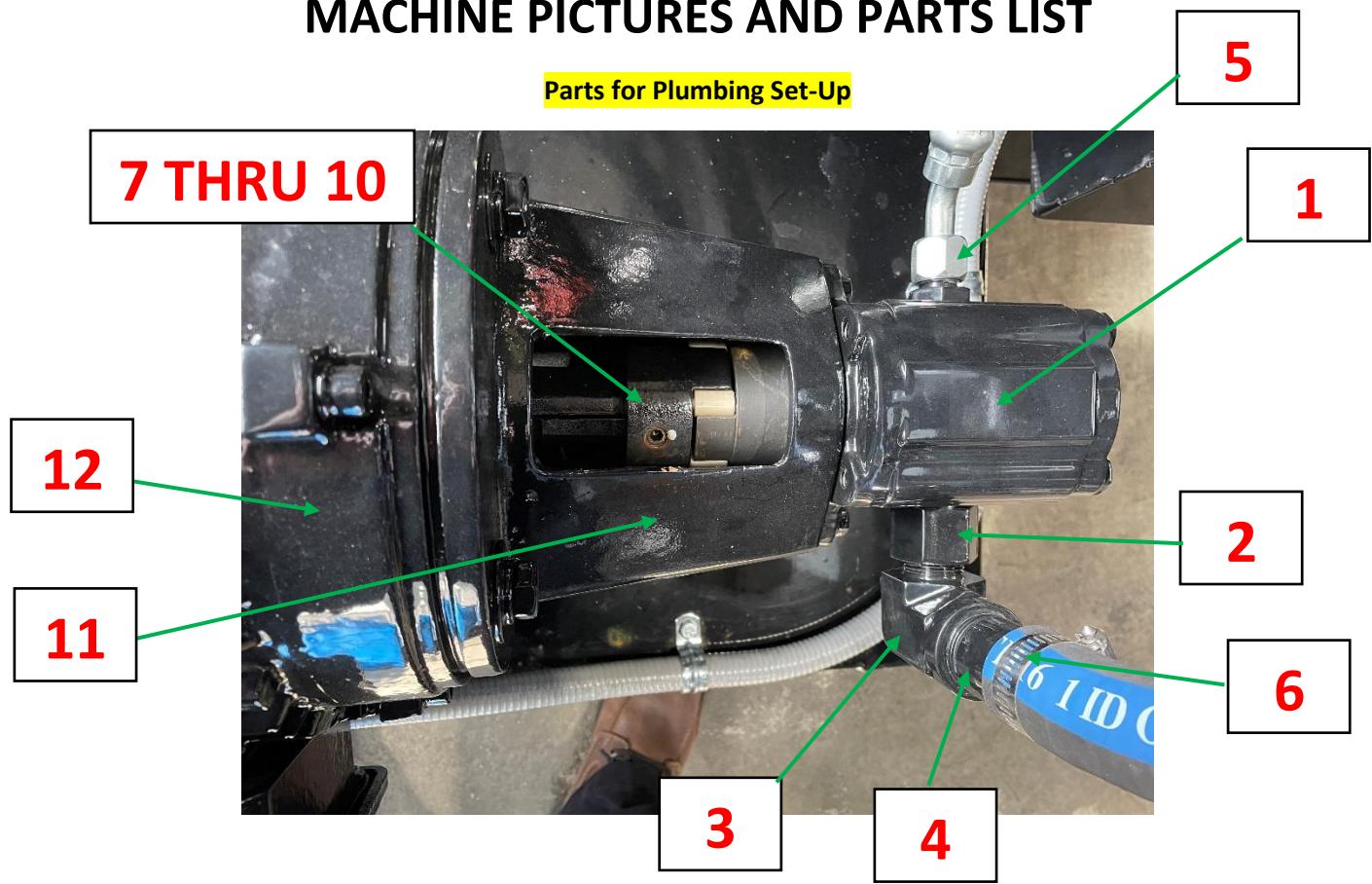
PICTURE-7 PUMP WITH GAS ENGINE - STANDARD

LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P601A006	1	HYD. Pump
	2	P570A015	1	HYD. Fitting
	3	P560A052	1	HYD. 90° Elbow -1" Male / 1" Female
	4	P1012A004	1	1" Hose Adapter
	5	P567A006	1	HYD. Fitting
	6	P1023A005	1	Clamp-Hose #16-SS
	7	P630A031	1	Jaw Coupling Type LO95 x 5/8"x 5/32"
	8	P630A032	1	Jaw Coupling Type LO95 x 1"x 1/4"
	9	P631A005	1	Insert-Rubber Hytrel
	10	P604A008	1	Access Cover 3"
	11	P604A001	1	Pump Mount
	12	P458A087	1	Engine – Gas used with Hydraulic Cooler
	13	P475B006	2	42" Battery Cable
	14	P29838C	1	Battery Box

Parts for Plumbing Set-Up

MASTERMIX™ STORAGE TANKS

MACHINE PICTURES AND PARTS LIST



PICTURE-8 PUMP W/ ELECTRIC C FACE MOTOR OPTIONAL

LOCATION	ITEM #	PART#	QTY.	DESCRIPTION
	1	P601A004	1	HYDRAULIC PUMP
	2	P570A015	1	HYDRAULIC FITTING
	3	P560A052	1	HYDRAULIC 90° ELBOW -1" MALE / 1" FEMALE
	4	P1012A004	1	1" HOSE ADAPTER
	5	P567A006	1	HYDRAULIC FITTING
	6	P1023A005	1	Clamp-Hose #16-SS
	7	P630A069	1	JAW COUPLING – MOTOR 1-3/8"x 5/16"
	8	P630A070	1	JAW COUPLING – PUMP 5/8"x 5/32"
	9	P631A006	1	INSERT-RUBBER HYTREL
	10	P604A026	1	ACCESS COVER
	11	P604A025	1	PUMP MOUNT
	12	P941A057	1	MOTOR-ELECT. 7.5 HP 1 PHASE 1725 RPM
		P941A054	1	MOTOR-ELECT. 7.5 HP 3 PHASE 1750 RPM
		P941A056	1	MOTOR-ELECT. 10 HP 1 PHASE 1750 RPM
		P941A055	1	MOTOR-ELECT. 10 HP 3 PHASE 1750 RPM