

**Morse Pump Power Pack - Part # M3500-P**

Used from Dec. 2018 to Feb. 2022

**START-UP Procedure**

Machine is shipped with hydraulic fluid.

1. Install provided hydraulic control levers (threaded rods with black ball handles).
2. **IMPORTANT:** BEFORE operation, remove the **RED** shipping plug from the hydraulic reservoir, and replace with the provided **BLACK** breather as shown below.



Remove **RED** shipping plug from the hydraulic reservoir



Remove **BLACK** breather from storage position



Install **BLACK** breather in place of **RED** shipping plug

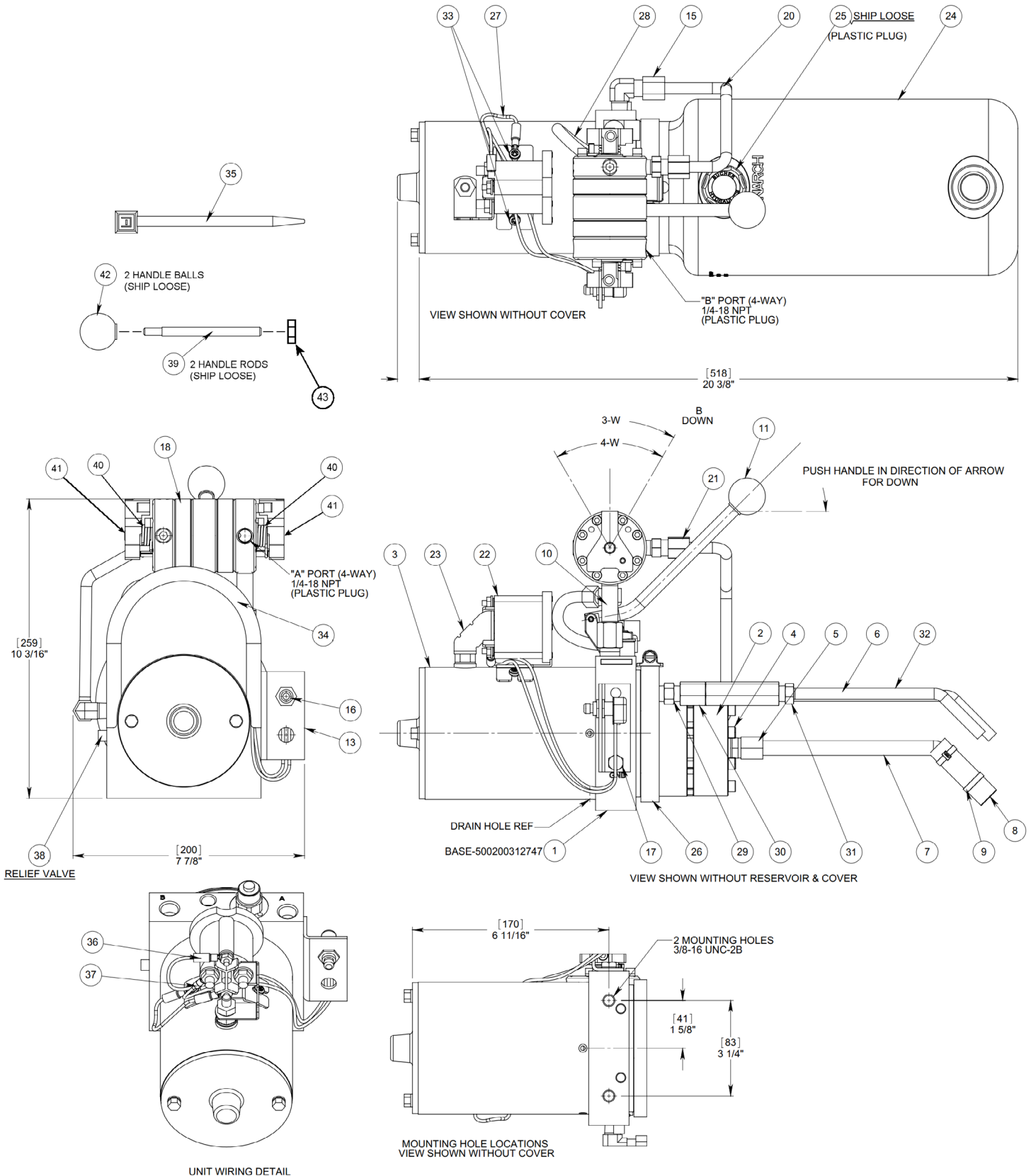


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ITEM	QTY.	PART #	DESCRIPTION
1	1	M12748-P	BASE ASM, M4507, STD MTR MNT
2	1	M12171-200-P	PUMP ASM, DC
3	1	M08111-P	MOTOR, DC, 12V, 4.5", 1 TERM
4	4	M07819-P	SHCS, 1/4-20 X 2-3/4, MON
5	1	M01490-P	CONNECTOR ASM, BRASS 1/2TX3/8
6	1	M13021-1050-P	TUBE, RETURN, 45 DEG, 1/8 NPTF
7	1	M04297-08-P	TUBE, SUCTION, 45 DEG 1/2 ALUM
8	1	M01315-P	FILTER, SUCTION, MON
9	2	M01073-P	CLAMP, CABLE TIE, 1/16-1.75D
10	1	M01319-P	ADAPTER, PUMP VALVE, 3-3/8
11	1	M10803-P	HANDLE ASM, MANUAL RELEASE
12	1	M10802-P	VALVE, MANUAL, 2W/2P, NC
13	1	M01290-P	BRACKET, 2 TOGGLE SWITCH
14	1	M04196-P	FIT, ELBOW, 90 DEG, PIPE STL
15	1	M01487-P	ELBOW, COMP, STL, 90 3/8TX1/4
16	1	M025482-P	SWITCH, MOMENTARY W/ LEADS
17	1	M07767-P	HHCS, 5/16-18 X 3/4, MON
18	1	M11012-P	VALVE ASM, CMP, 7/W, 4/W RD (INCLUDES ITEMS 38-41)
19	2	M03578-P	FIT, ELBOW, 90 DEG, COMP, 3/8
20	1	M13151-P	TUBE, RETURN, 180 DEG
21	1	M01488-P	CONNECTOR ASM, 3/8T X 1/4
22	1	M17744-P	SWITCH, SOLENOID, 12V DC
23	1	M13155-P	STRAP, MOTOR-SOLENOID
24	1	M14136-P	RESERVOIR, POLY, 6" DIA X 13"
25	1	M01143-P	PLUG, BREATHER, FILLER MON
26	1	M07900-P	CLAMP, HOSE, WORM GEAR, RSV
27	1	M07550-07-P	WIRE ASM, CONTROL, 16 AWG, HS
28	1	MTUB-044-P	TUBING, NYLON, 3/8 OD, .093W
29	1	M01080-P	NIPPLE, MALE PIPE, HEX 1/4-18
30	1	M01028-.75-P	VALVE ASM, PCFC, .75 GPM
31	1	M01085-P	BUSHING, REDUCER, 1/4M X 1/8F
32	1	M13021-5.5-P	TUBE, RETURN, 45 DEG 1/8 NPTF
33	2	M17071-P	SCREW, PAN HD, 10-32 X 5/16
34	1	M07940-P	COVER, SOLENOID, DC PUMP
35	1	M04678-P	STRAP, SOLENOID COVER, DC PUMP
36	1	M13191-12-P	WIRE ASM, CONTROL, 1/4F #10
37	1	M13190-12-P	WIRE ASM, CONTROL, 1/4F 5/16
38	2	M22555-P	VALVE ASM, BLUE, >1000PSI MON
39 *	2	M01326-P	ROD, VALVE HANDLE, MON
40 *	2	M00018-P	SPRING, TORSION, MON
41	2	M00173-P	HANDLE BASE, MON
42*	2	M01157-P	BALL, PLASTIC, HANDLE, MON
43	2	M07790-P	NUT, 5/16-18 HEX, MON

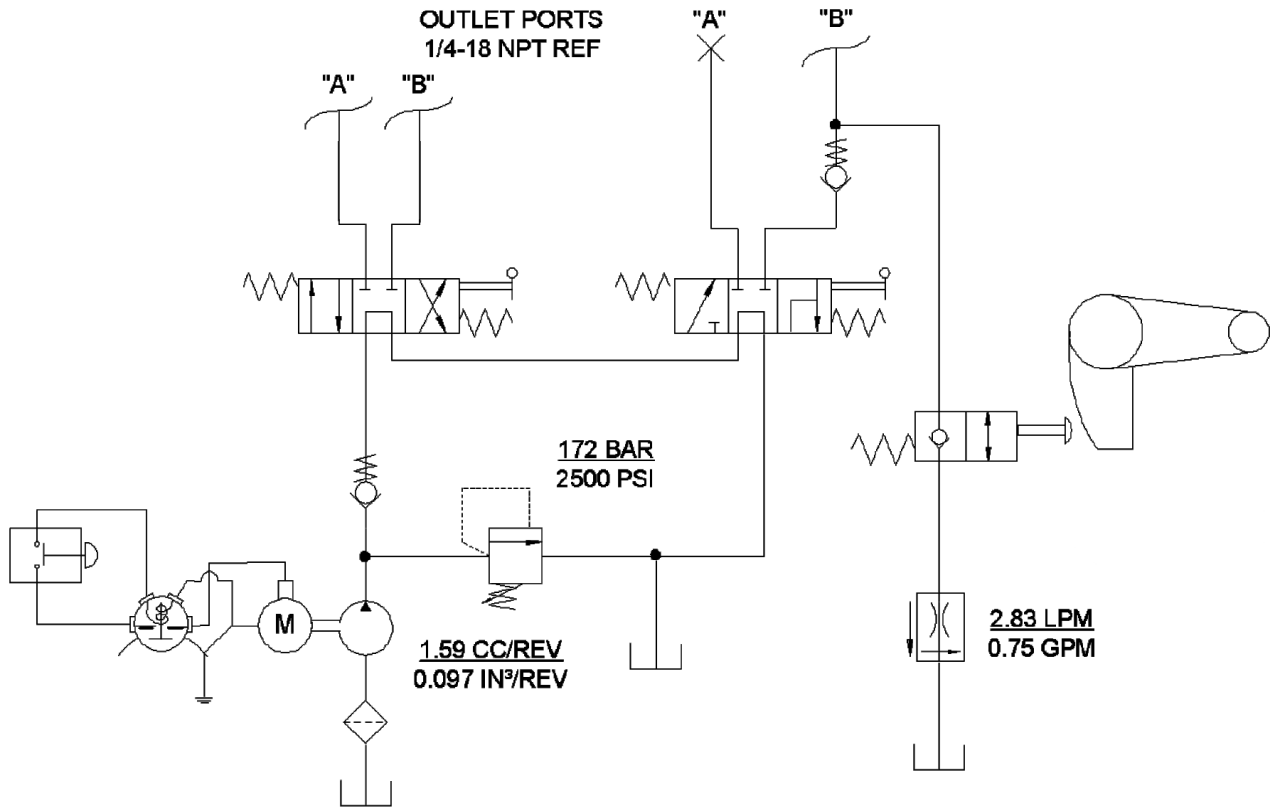
\* Recommended spare parts.

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**SCHEMATIC**



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**Maintenance info for Hydraulic Pump**

Recommended oil is petroleum based Dexron III ATF or equivalent (non-synthetic).  
Change oil yearly.

**Recommended Operating Conditions:**

- Oil Temperature Range: 10°F to 170°F (-25°C to 77°C)
- Operating Temperature: 50°F to 130°F (10°C to 54°C)

**Oil Viscosity:**

- Optimum 100 to 350 SUS (Cst = .22 X SUS – 135/SUS)
- Minimum 100 SUS at Operating
- Maximum Start Up 4000 SUS

**Recommended Filtration:**

- 10 micron nominal or better

The system should not be disassembled in the field for maintenance. These are pass or fail components.

If the valve or pump fails it will need to be replaced due to wear on components.

The root cause for the failure needs to be taken into account to avoid contaminating the new components or to avoid exposing them to the same fail parameters.