

START-UP Procedure

Machine is shipped with hydraulic fluid.

1. Install hydraulic control levers (provided 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



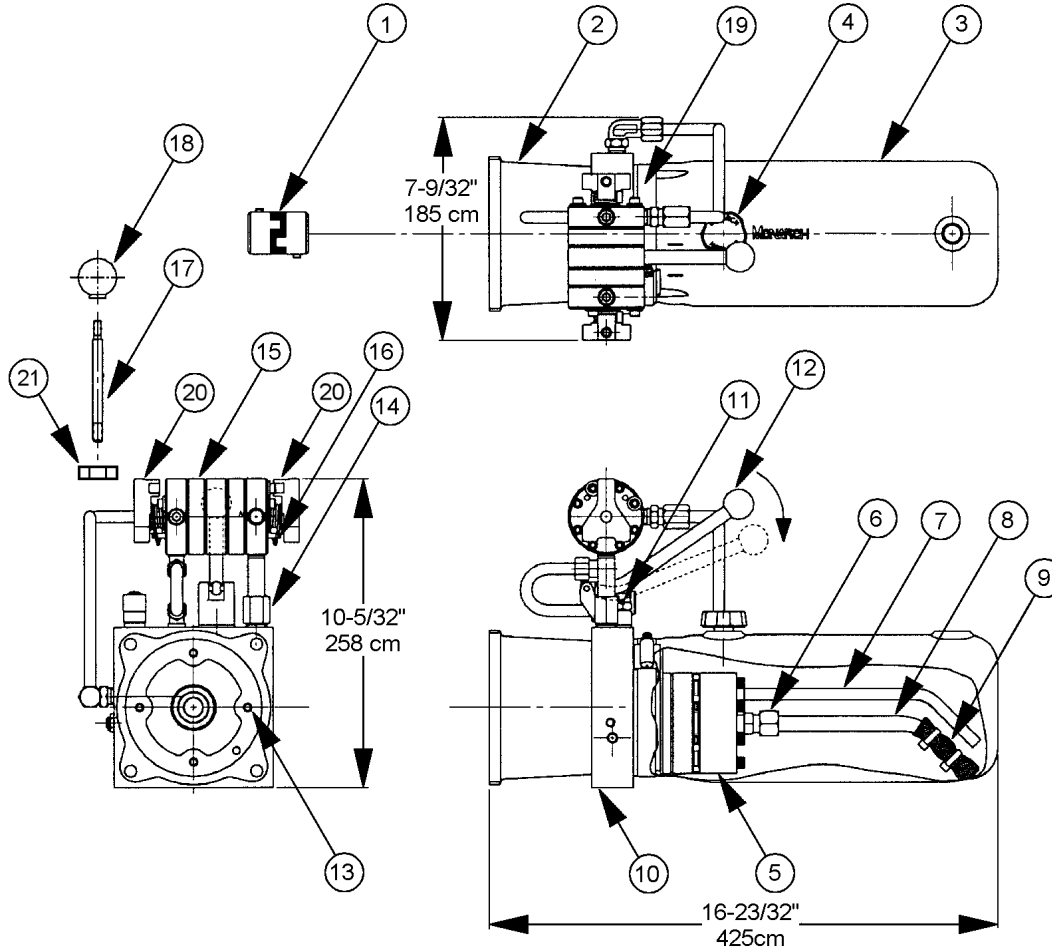
Install **BLACK** breather in place of **RED** shipping plug



Parts List and Diagram for Morse Part # M4507-P Hydraulic Power Pack

Used on:

- 400, 405 and 500 Series with 110 or 114 Power Option and serial number 1202 to ____ (MMYY)
- 410 Series with 110 or 114 Power Option and serial number 1210 to ____ (MMYY)



ITEM	QTY.	PART #	DESCRIPTION
1	1	M18002-P	COUPLING ASM, M4509, M4507
2	1	M01615-P	HOUSING, PUMP/ MOTOR ADAPTER
3	1	M04618-P	RESERVOIR, POLY, 4.5 X 12
4	1	M03171-P	PLUG, BREATHER, 3/8 NPT
5	1	M12172-200-P	PUMP ASM, M4509, M4507
6	1	M01490-P	CONNECTOR ASM, BRASS 1/2TX3/8
7	1	M13021-1050-P	TUBE, RETURN, 45DEG, 1/8 NPTF
8	1	M04297-08-P	TUBE, SUCTION, 45DEG 1/2 ALUM
9	1	M01315-P	FILTER, SUCTION, MON
10	1	M12748-P	BASE ASM, M4507, STD MTR MNT
11	1	M10802-P	VALVE, MANUAL, 2W/2P, NC

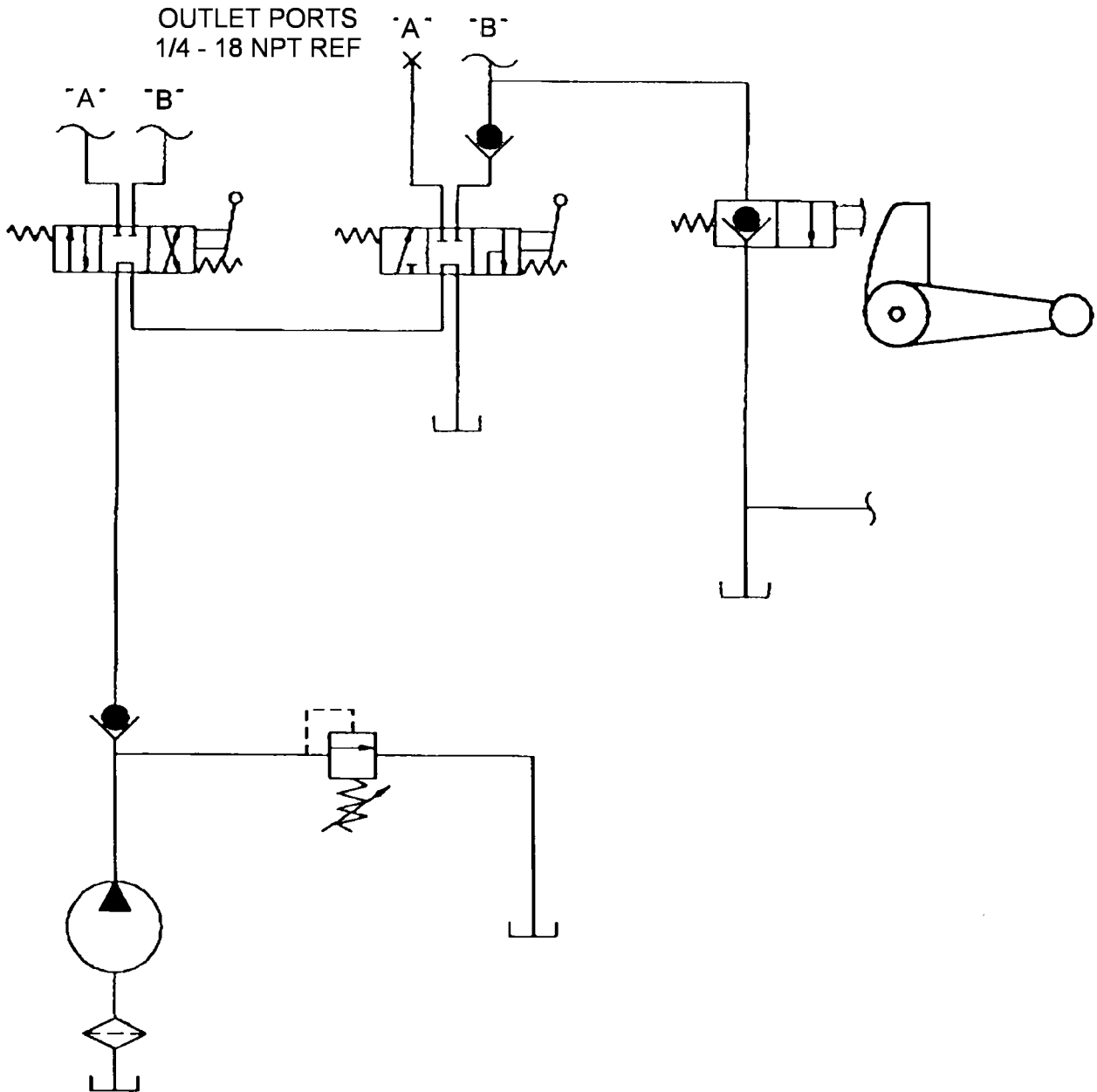
ITEM	QTY.	PART #	DESCRIPTION
12	1	M10803-P	HANDLE ASM, MANUAL RELEASE
13	4	M07818-P	SHCS, 1/4-20 X 3
14	1	M01319-P	ADAPTER, PUMP VALVE, 3-3/8
15	1	M11012-P	VALVE ASM, CMP, 7/W, 4/W RD
16 *	2	M00018-P	SPRING, TORSION, MON
17 *	2	M01326-P	ROD, VALVE HANDLE, MON
18 *	2	M01157-P	BALL, PLASTIC, HANDLE, MON
19	1	M07900-P	CLAMP, HOSE, WORM GEAR, RSV
20	2	M00173-P	HANDLE BASE, MON
21	2	M07790-P	NUT, 5/16-18 HEX, MON

* Recommended spare parts

Hydraulic Schematic for Morse Part # M4507-P Hydraulic Power Pack

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- 400, 405 and 500 Series with 110 or 114 Option and serial number 1202 to ____ (MMYY)
- 410 Series with 110 or 114 Option and serial number 1210 to ____ (MMYY)



Maintenance for Hydraulic Power Pack

Maintenance info for Hydraulic Pump

Recommended oil is Dexron III ATF or equivalent. 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

Recommended Fluid for indoor use:

- Mobil DTE 24 or equal

Recommended Fluid for outdoor use:

- Mobil DTE 13 or equal

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.