

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



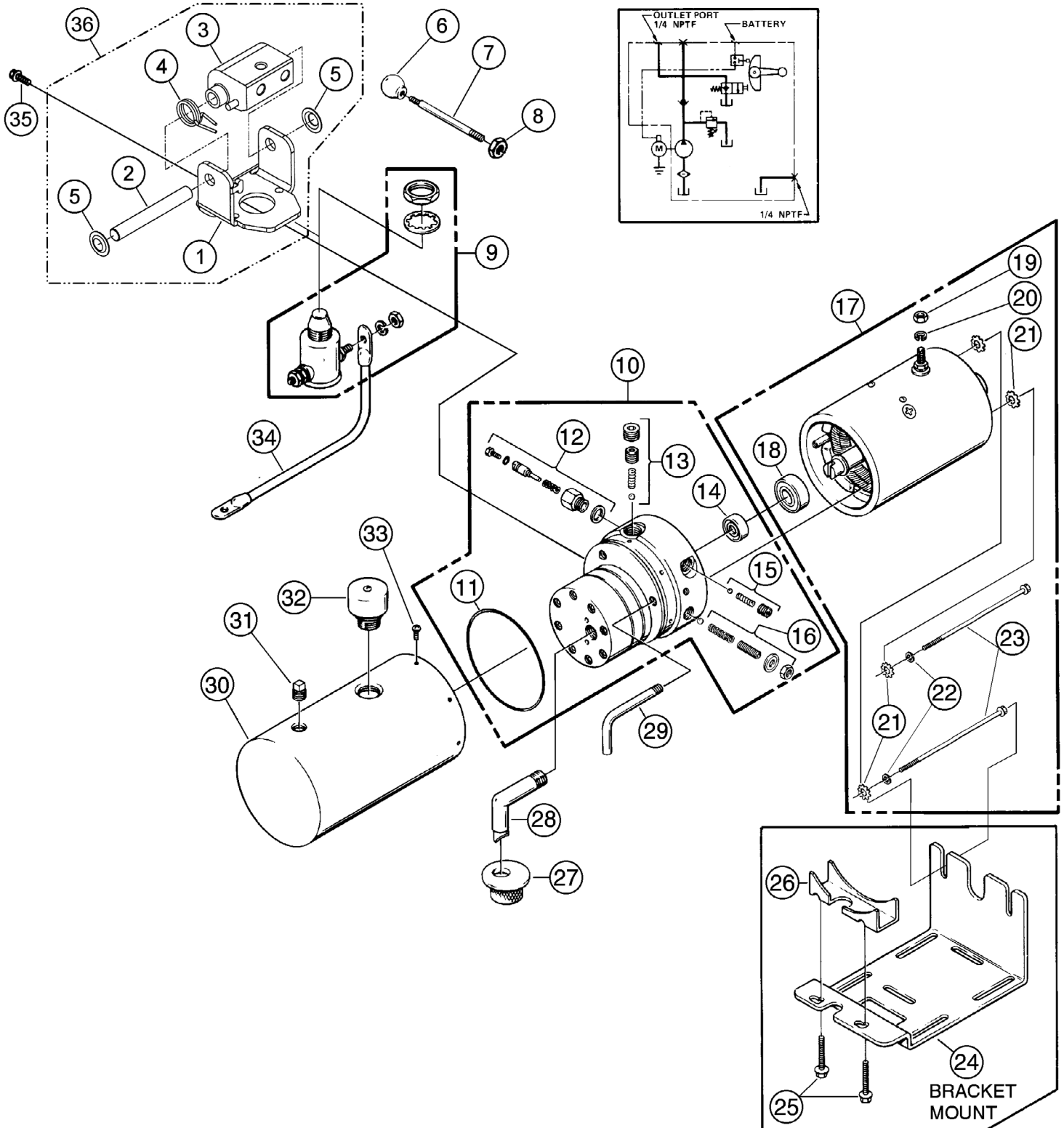
Install **BLACK** breather in place of **RED** shipping plug

Parts List and Diagram for Morse Part # M301-P
used from Dec. 2010 to _____

ITEM	QTY.	PART #	DESCRIPTION
1	1	M04561-P	BRACKET, START SWITCH, PM CAN
2	1	M00650-P	SHAFT, CAM, M301, W/ RETAINER
3	1	M00652-P	CAM, LOW VALVE, START SWITCH
4 *	1	M00071-P	SPRING, CENTERING, TORSION
5	2	M03793-P	RING, SHAFT RETAINER, PUSH ON
6 *	1	M01157-P	BALL, PLASTIC, HANDLE, MON
7 *	1	M01326-P	ROD, 4"L, VALVE HANDLE, MON
8	1	M07790-P	NUT, 5/16-18 HEX, MON
9	1	M03322-P	START SWITCH CANISTER, M301
10	1	M02627-P	PUMP ASM, GEAR CODE 43, M301
11	1	M02352-P	O-RING, 3-5/8 X 3-7/8 X 1/8
12	1	M00235-P	KIT, PLUNGER PARTS, M301
13	1	M00075-P	KIT, MAIN CHECK VALVE PARTS
14	1	M02159-P	SEAL, PUMP ASM, DC
15	1	M00078-P	KIT, CHECK VALVE PARTS, M301
16	1	M03766-P	KIT, RELIEF VALVE PARTS, DC
17	1	M08111-P	MOTOR, DC, 12V, 4.5", 1 TERM
18	1	M02318-P	BEARING, BASE, MOTOR, DC
19	1	M07625-P	NUT, 5/16-24 HEX, DC
20	1	M07781-P	WASHER, 5/16" LOCK, DC
21	4	M07737-P	WASHER, 1/4" STAR, DC
22	2	M07795-P	WASHER, 1/4" LOCK, DC
23	2	M07738-P	HHCS, 1/4-20 X 6-1/2 DC MON
24	1	M02238-P	BRACKET, MOUNTING, DC MON
25	2	M07717-P	SCREW, 1/4-20 X 1-3/8, DC
26	1	M01329-P	ADAPTER, PUMP MOUNT, DC MON
27	1	M01134-P	FILTER SCREEN, SUCTION MON
28	1	M01209-P	TUBE, FILTER SUCTION, DC
29	1	M01274-P	TUBE, RETURN, 1/8" NPT
30	1	M06665-P	RESERVOIR, 4-1/2 X 12, DC
31	1	M01108-P	PLUG, 1/4 NPT, M301
32	1	M01143-P	PLUG, BREATHER, FILLER MON
33	6	M07703-P	SCREW, 10-24 X 3/8 TF
34	1	M01373-P	CABLE, W/ LUGS, 9", 6GA, M301
35	4	M07815-P	SCREW, 1/4-20 X 5/8, M301
36	1	M04572-P	BRACKET ASM, M301, M3301

* Recommended spare parts

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 used from Dec. 2010 to _____



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.