

Operator's Manual

Hydraulic Power Pack # M404-310-P used on 310 Series Tilt-To-Load Drum Tumblers
with Serial Number 419862 to _____

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

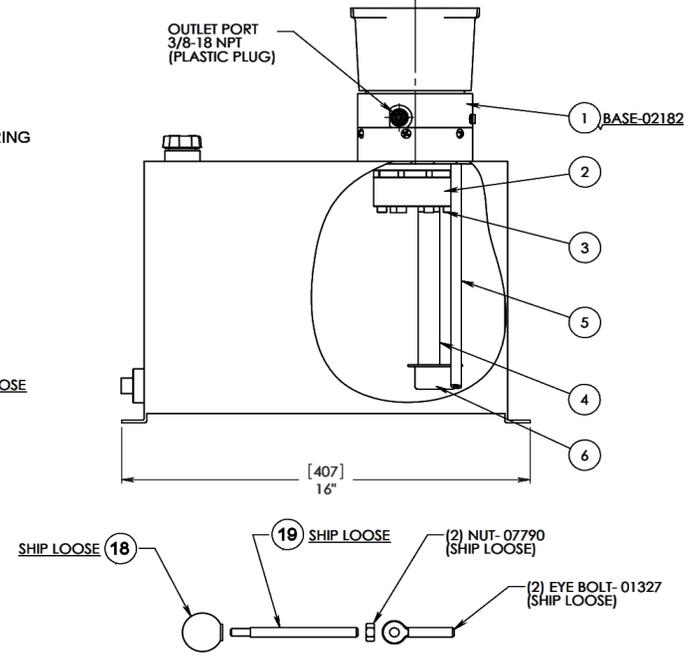
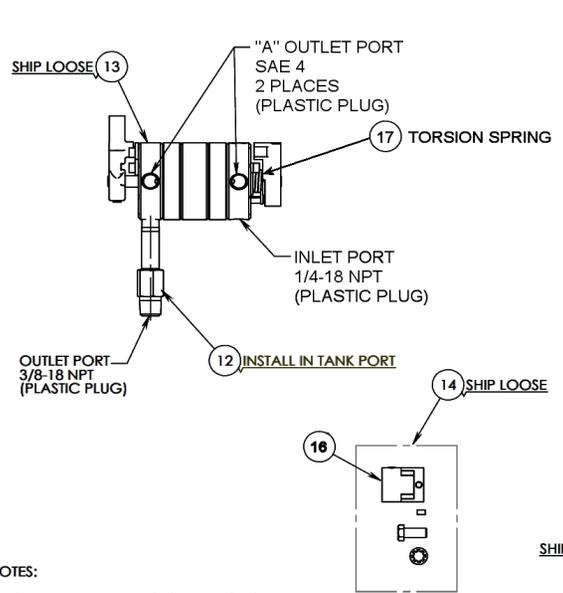
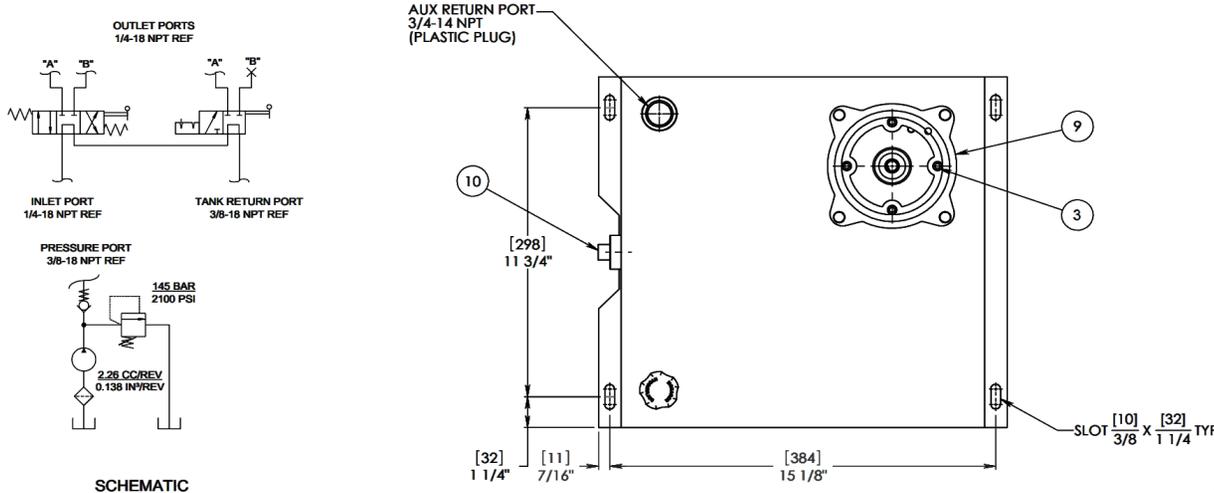
The system should not be disassembled in the field for maintenance.
These are pass or fail components.

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

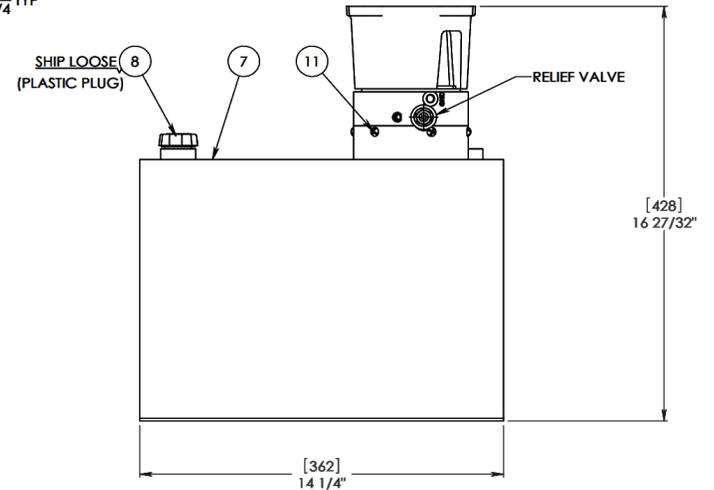
The root cause for the failure needs to be taken into account to avoid
contaminating the new components or to avoid exposing them to the same fail
parameters.

Operator's Manual

Hydraulic Power Pack # M404-310-P used on 310 Series Tilt-To-Load Drum Tumblers with Serial Number 419862 to _____



ITEM	QTY.	PART #	DESCRIPTION
1	1	M12526-P	BASE ASM, M404, MOD, STD MTR
2	1	M12533-270-P	PUMP ASM, GEAR CODE 270, 310
3	8	M07818-P	SHCS, 1/4-20 X 3
4	1	M13016-07.75-P	TUBE, SUCTION, 1/2 NPT, NYLON
5	1	M01479-10-P	TUBE, RETURN, 1/8 NPT, NYLON
6	1	M13015-P	RESERVOIR, RECTANGULAR, 310
7	1	M14082-P	FILTER, SUCTION, 1/2", MON
8	1	M01143-P	PLUG, BREATHER, FILLER MON
9	1	M01615-P	HOUSING, PUMP/ MOTOR ADAPTER
10	1	M01075-P	PLUG, PIPE, SQ HEAD, 5/8, MON
11	6	M07703-P	SCREW, 10-24 X 3/8 TF
12	1	M01319-P	ADAPTER, PUMP VALVE, 3-3/8
13	1	M07381-SAE-P	VALVE, 3-4 WAY, 456, 310, SAE
14	1	M17079-P	PARTS KIT, MON, 456, 310
15	1	LAB-010	LABEL, USE DEXRON A.T.F. ONLY
16	1	M18002-P	COUPLING ASM, 5/8 TO 7/16, MON
17	2	M00018-P	SPRING, TORSION, MON
18	2	M01157-P	BALL, PLASTIC, HANDLE, MON
19	2	M01326-P	ROD, 4"L, VALVE HANDLE, MON



- NOTES:
2. USE FLUID LABEL LAB-010 IN PLACE OF AC FLUID LABEL LAB-041 ON THIS PUMP UNIT
 1. RESERVOIR TO BE PAINTED BLUE

- WAS 6-2416		DESCRIPTION		SIZE: D
REV				REV BY: -
DESCRIPTION: PUMP UNIT, M-404-0131, VERT MT, AC		CUSTOMER: MORSE MFG		REV DATE: -
NON-SPECIFIED TOLERANCES: .XX ± .010 .XXX ± .005 FRACT. ± 1/32 ANGLES ± 1/2°		DATE: 7/18/2007	DRAWN BY: ALC	EWR: 12031
THIS PRINT IS THE PROPERTY OF MONARCH HYDRAULICS INC., AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTEREST		MONARCH HYDRAULICS INC. GRAND RAPIDS, MI USA		REV: -
BREAK EDGES .005-.010 REMOVE BURRS		DO NOT SCALE	SHEET 1 OF 1	DRAWING #: M-404-0131
[MILLIMETER] INCH				