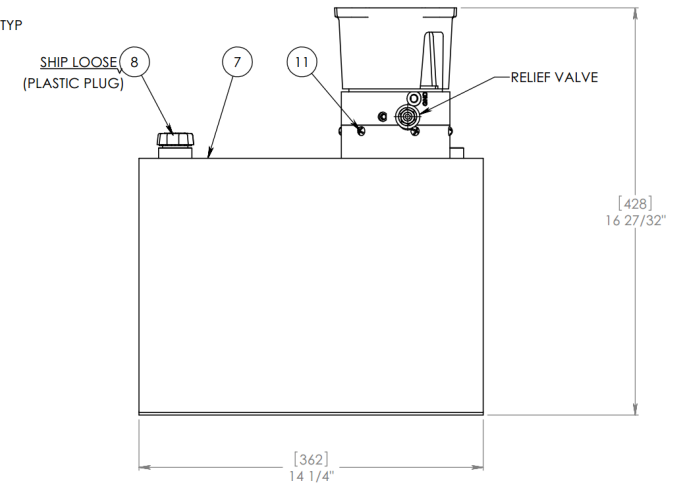
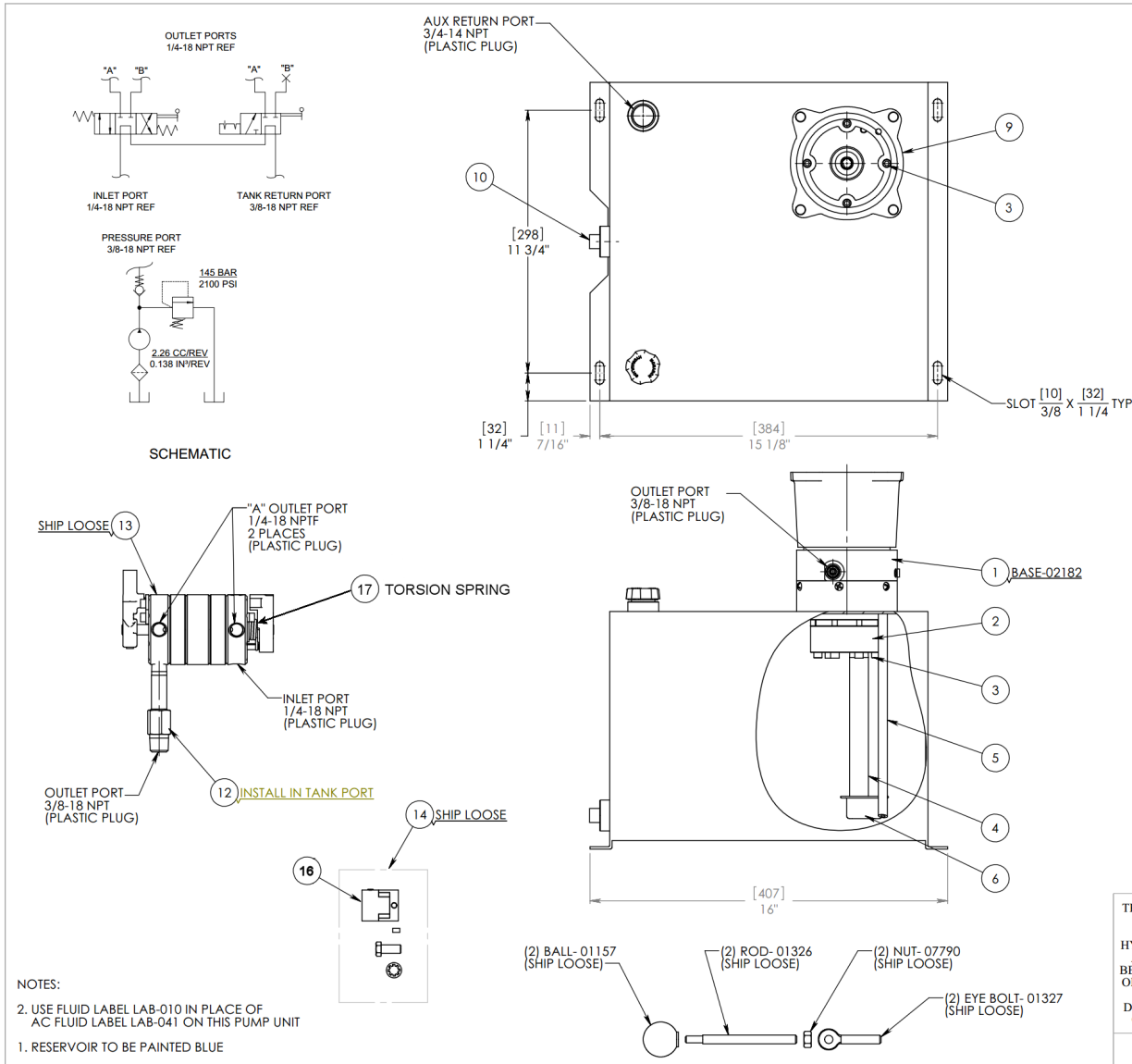


Parts List and Diagram for Hydraulic Power Pack - Morse Part # M404-310-P for 310 Series Tilt-To-Load Drum Tumblers with Serial Number 186037 to _____

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	FILTER, SUCTION, 1/2", MON
7	1	M14082-P	RESERVOIR, RECTANGULAR, 310
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-P	VALVE, 3-4 WAY, 456, 310
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



REV	DESCRIPTION	SIZE
-	WAS 6-2416	D
DESCRIPTION:	PUMP UNIT, M-404-0131, VERT MT, AC	REV BY:
CUSTOMER:	MORSE MFG	REV DATE:
MONARCH HYDRAULICS INC. GRAND RAPIDS, MI USA	DATE: 7/18/2007	DRAWN BY: ALC
DO NOT SCALE	SHEET 1 OF 1	EWR: 12031
	DRAWING #: M-404-0131	REV: -

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NON-SPECIFIED TOLERANCES:
.XX ± .010
.XXX ± .005
FRACT. ± 1/32
ANGLES ± 1/2°

BREAK EDGES .005-010 REMOVE BURRS

[MILLIMETER] INCH

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.