



## Hi-Tech Systems

1190 N. Del Rio Pl., Ontario, CA 91764

[www.hitechpolyurea.com](http://www.hitechpolyurea.com)

(800) 454-5530

### SB-2009 PUMP MANUAL



## SAFETY

1. Become completely familiar with the SB-2009 pump before operation and read all safety recommendations on the SDS of the material you will be pumping.
2. Keep hands and clothing free from all moving chains, gears and moving parts.
3. Secure the pump and use the wheel brakes when transporting.
4. Always use the same tanks (Isocyanate or Polyol) with similar chemicals or mixed material will cure inside of the tanks, pumps, hoses, etc...
5. Never alter the machine from its original condition for safety purposes.

## OPERATION

1. Fill tanks - Iso in Iso tank, Polyol in Polyol tank. Never allow pumps to run dry – keep them wet with oil if not polyol or isocyanate.
2. Check all connections for leaks and tightness. Chain adjustment: loosen the nut on the idler sprocket and slide up or down for approximately ½” of play.
3. Connect pump to power supply, (See #8 below if connecting to the battery/inverter/charger), and open tank lid air vents, or remove lids.
4. Main power switch is located on the aluminum box – switch it to “ON” and use the red rocker thumb switch to turn the pump on or off. Adjust speed control with the dial knob on the hand applicator and verify pump is working. Attach nozzle to manifold with retaining nut, purge product to test for proper mixing, then begin pumping.
5. When finished, turn “OFF” the red thumb switch, then turn off the main switch located on the aluminum box, disconnect your power source, close lid air vents, remove nozzle and grease manifold until grease flows out. Add a small amount of grease to the manifold threads before replacing night cap and nut. Be sure your pumps and supply lines remain wet with product or oil.
6. Seal the tanks air tight with a sheet of clear plastic or the best option is to add a layer of dry compressed nitrogen for approximately 3 – 5 seconds quickly closing the lid after adding the nitrogen.
7. For detailed instructions, please view the videos on our website, [www.hitechpolyurea.com](http://www.hitechpolyurea.com).
8. Battery/Inverter/Charger: Be sure the battery is charged and connected to the inverter with the quick disconnects. (The quick disconnects connect the battery to the inverter, and quickly unplug to connect the battery to the charger as needed). To power up, turn on the inverter – green light illuminates and fan within inverter starts running, plug the SB2009 into the inverter, turn on the machine.

## CLEANING/MAINTENANCE

1. Empty tanks and purge the system out with Formula 83, xylene, or like material. Cycle cleaner through system for 10 minutes using ratio valves on the manifold, but also purge through the manifold to clean it out. Wipe tanks clean then purge cleaner out with clean oil leaving it within the lines, manifold, valves, and the pumps. Always check and clean debris from strainers at base of tanks. **DO NOT USE ACETONE.**
2. Grease manifold through fittings and add grease to manifold threads.
3. Replace night cap securely with nut.
4. Hi-Tech ISO GONE is a great product for cleaning the geared pumps and tanks where material has hardened.
5. For detailed instructions, please view the videos on our website, [www.hitechpolyurea.com](http://www.hitechpolyurea.com).

## SPECIFICATIONS

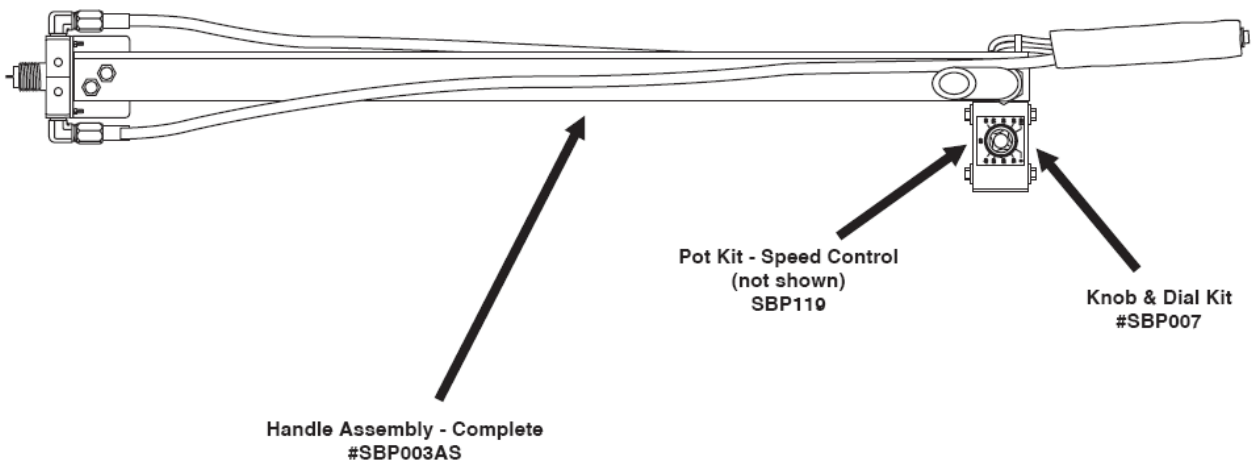
1. Weight: 190 lbs. dry.
2. Height: 37-1/2". Width: 21-1/2". Length: 21"
3. Motor: 1/2HP DC Gear motor w/separate heat sink, RPM: 0 - 500, Volts: 90-130, Torque: 202 In. Lbs., Amps: 5.5. Power: 110 Volt
4. Pumps: Cast iron dual internal rotary gear pumps
5. Tanks: 3 gallon, 14 gauge 304 stainless steel (ss) tanks w/ss lids, w/custom welded ss mounting nipples for ss suction line strainers and pump mounts, attached to frame with ss worm gear clamps
6. Hoses: 3/8" x 10' stainless steel braided hoses coupled with a protective sleeve
7. Wheels: 3" non-marring gray balloon cushion wheels - swivel wheels have brakes
8. Dispensing Unit: Extended lightweight aluminum handle with a dual port manifold, thumb operated on/off switch and speed control knob
9. Viscosity: 50 – 2,000 cps. Flow Rate: 1 gallon per minute
10. Ratios: 1:1, easily geared to other ratios

## SIX MONTH LIMITED WARRANTY

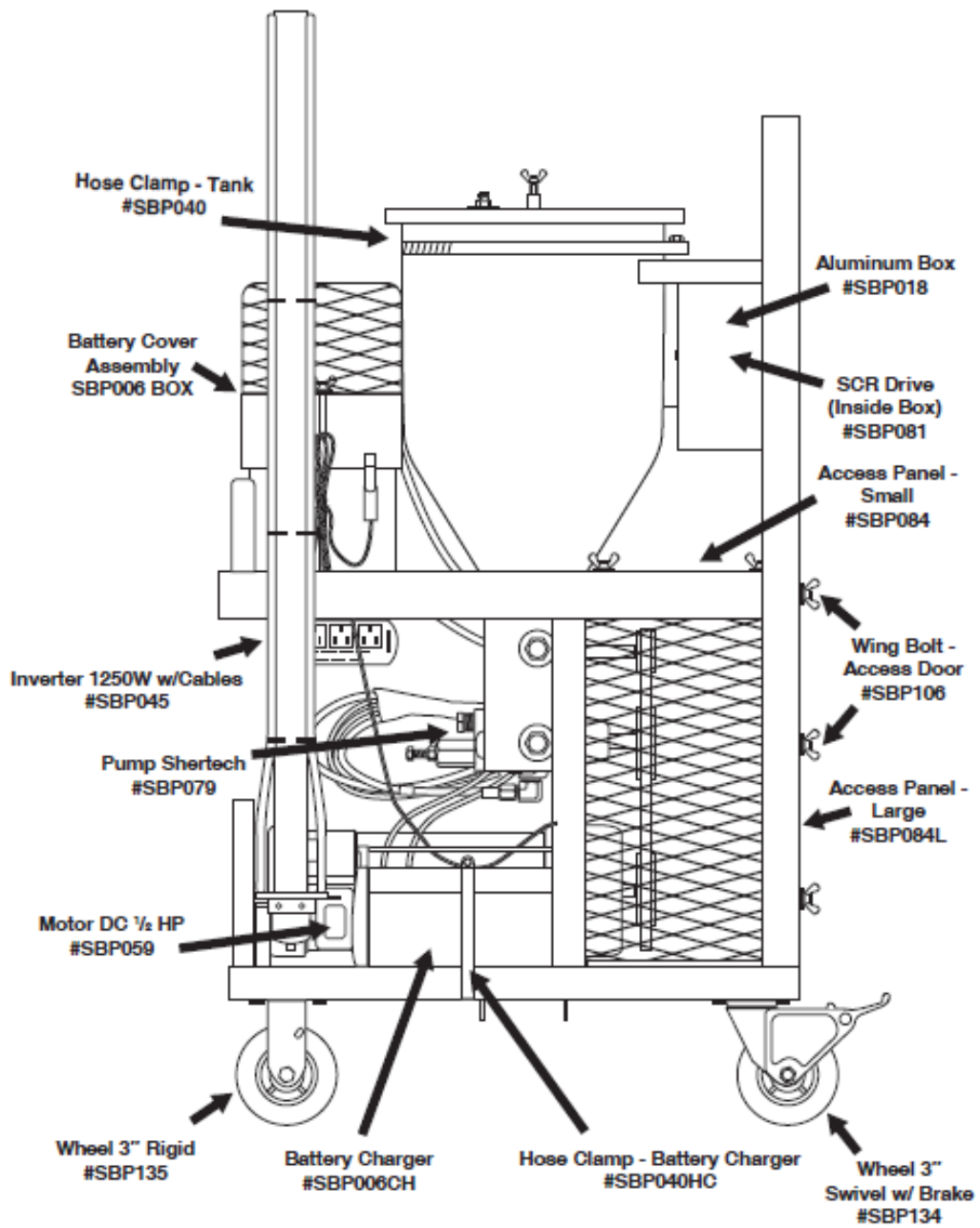
Hi-Tech Systems (HTS) will repair or replace, at its expense and its option, any part of the SB2009 Pump, which in the course of normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to HTS within six (6) months from the date of the original purchase and provides HTS with a reasonable opportunity to verify the alleged defect by inspection. Parts may need to be sent to the manufacturer for inspection and repair or replacement. HTS will not be responsible for any asserted defect, which has resulted from misuse, abuse or repair or alteration made or specifically authorized by anyone other than HTS. Under no circumstances will HTS be liable for incidental or consequential damages resulting from defective products. This warranty is HTS's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by HTS.

## SCHEMATICS

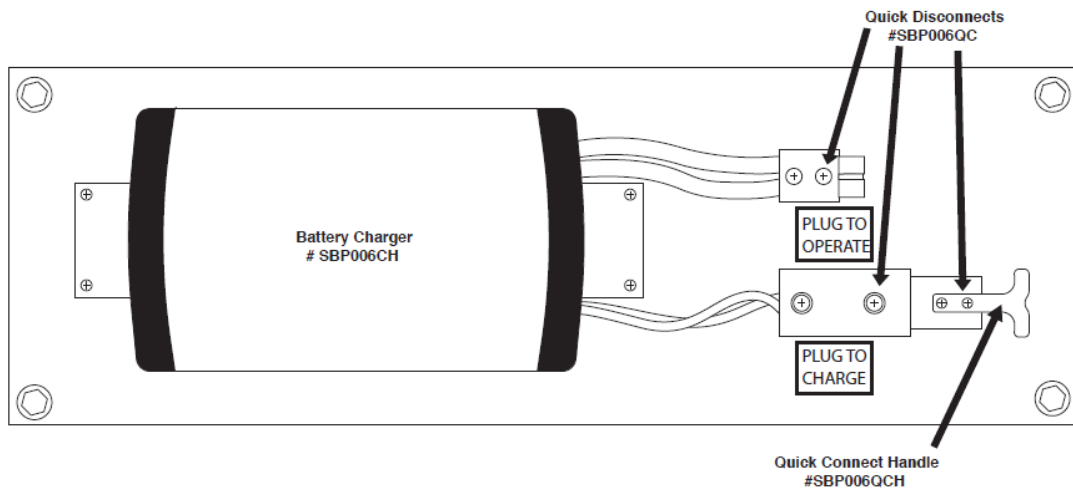
### **HANDLE:**



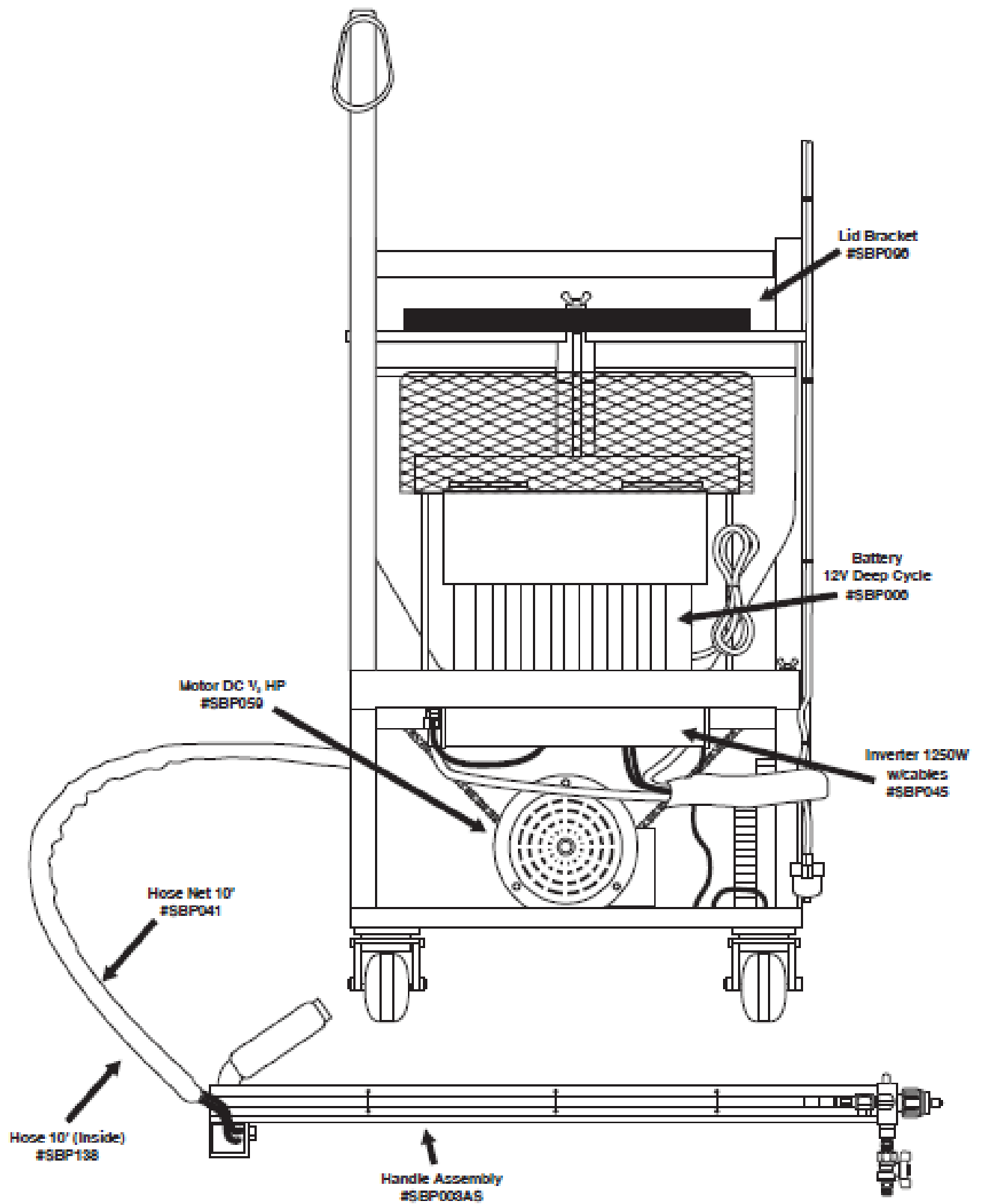
**SIDE VIEW:**



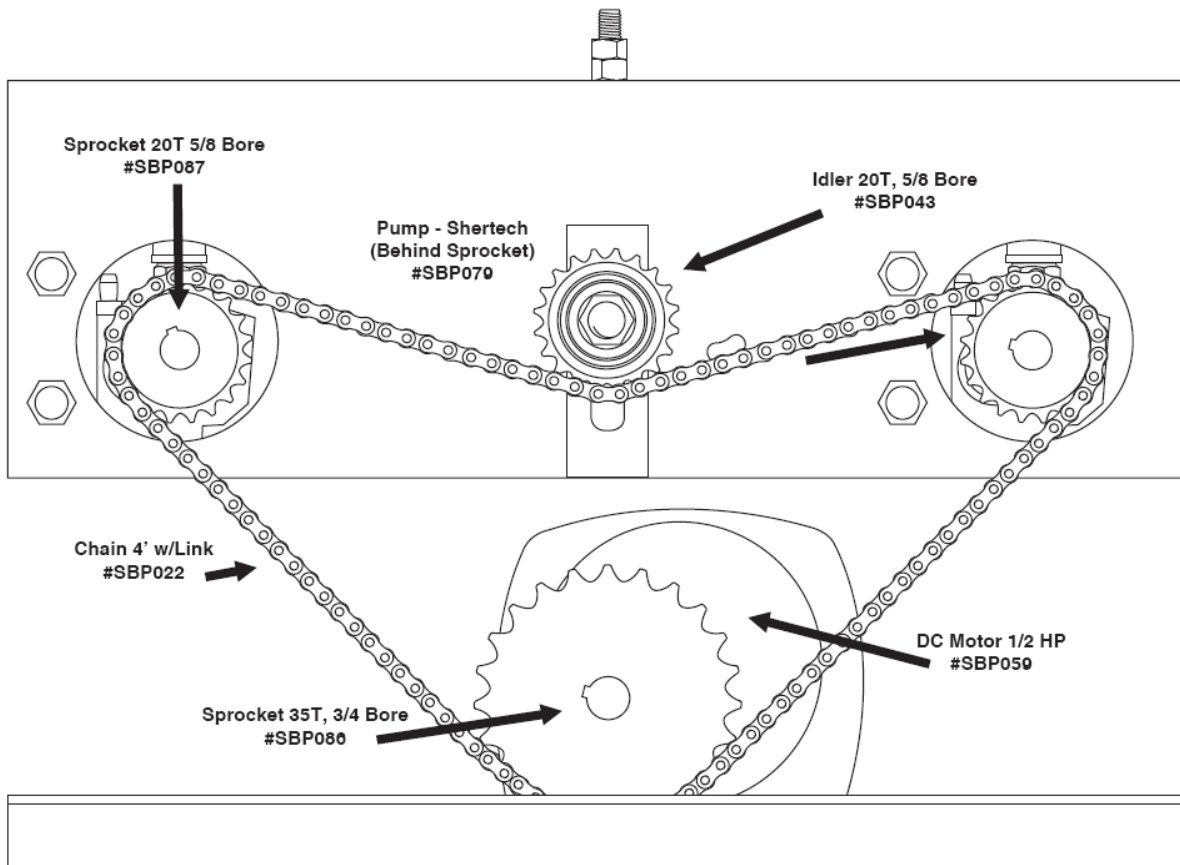
**BATTERY CONNECTIONS:**



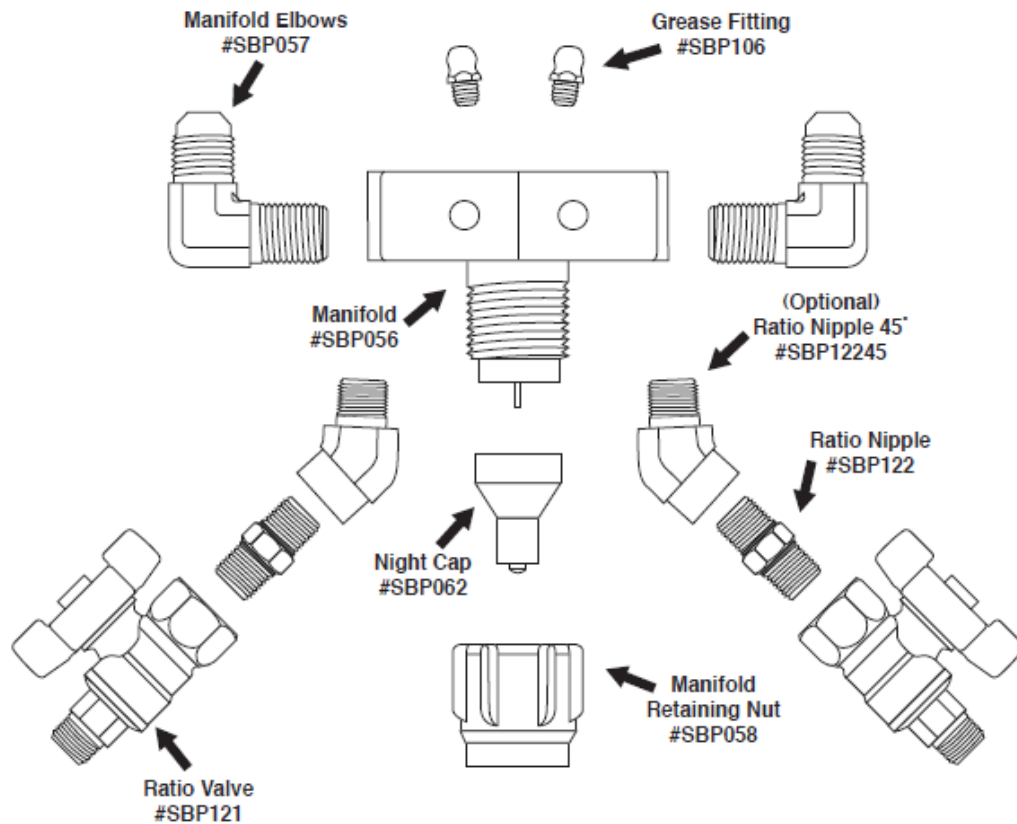
**FRONT VIEW:**



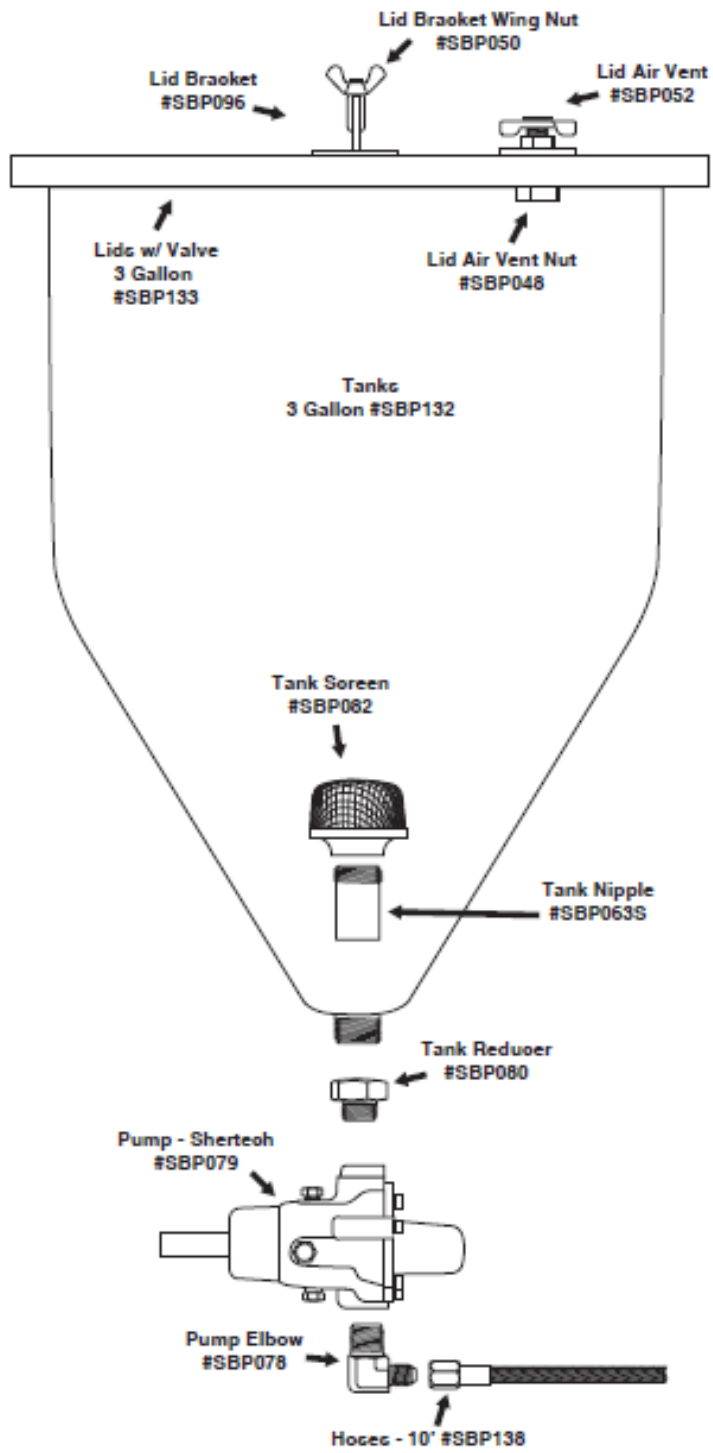
## GEAR BOX:



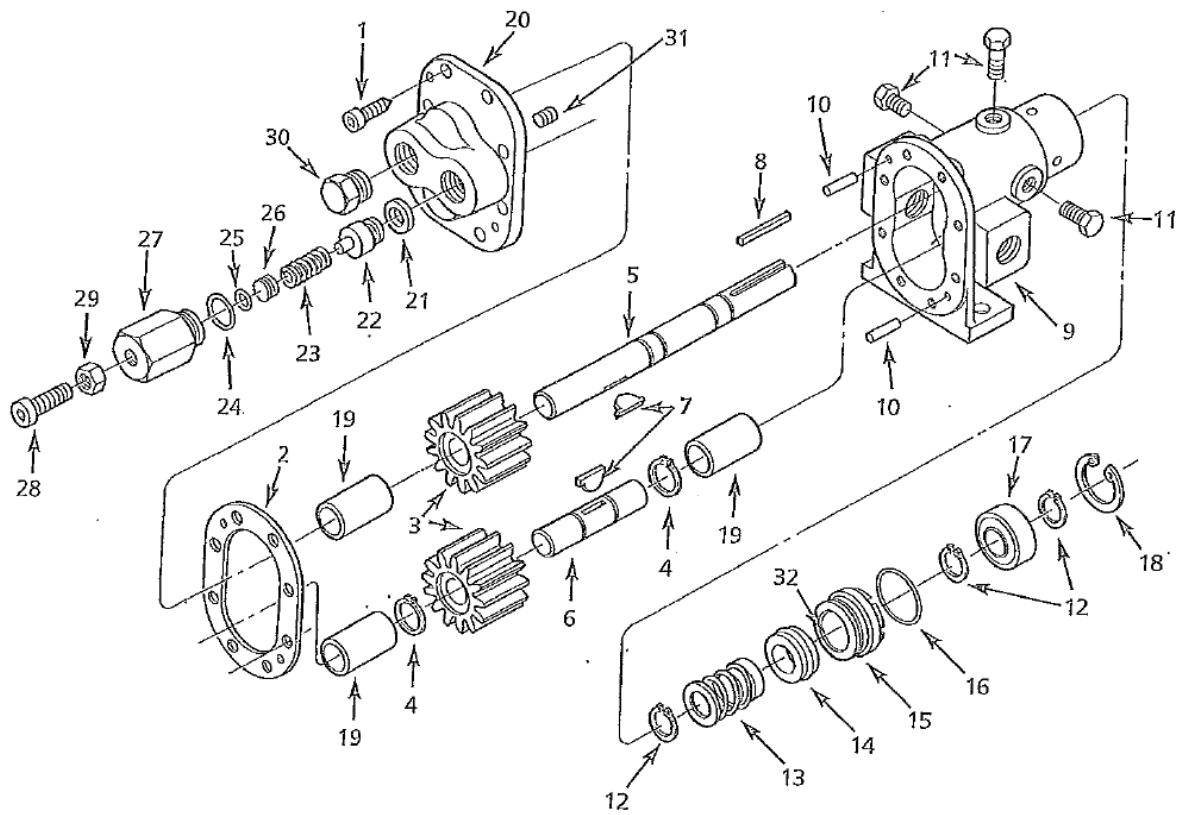
## MANIFOLD ASSEMBLY:



# TANK:



# PUMP BREAKDOWN:



1		Soc. Hd. Cap Screw - SS (1 shown)	11	2	Seal & Prime Flush Plug-Steel
2	1	Gasket (Vellumoid) Std.	12	2	Ret. Ring (Ext.) - SS
Optional		High Temperature Gasket Kit	*13/14	2	Mech Seal/Seal Seat (Viton) Std.
3	1	Gear - (Steel) Std.	Optional		Mech Seal/Seal Seat (Buna)
Optional		Gears - Ryton (PPS)	**Optional		Mech Seal/Seal Seat (Teflon)
4	1	Gear Ret. Ring (Ext.)	15	2	Seat Retainer
5	2	Drive Shaft - Steel	16		O-Ring (Viton) Std.
6		Idler Shaft - Steel	Optional		O-Ring (Buna)
7	1	Key - Steel	Optional		O-Ring (Teflon)
8		Key - Square	17	2	Bearing - Steel
9		Body	18		Ret. Ring (Int.) - Steel
10		Dwl. Pin	19		Bushing - Cast Iron
			20		Relief Valve Cover - Cast Iron (Std.)
			Optional		Non-Relief Valve Cover - Cast Iron