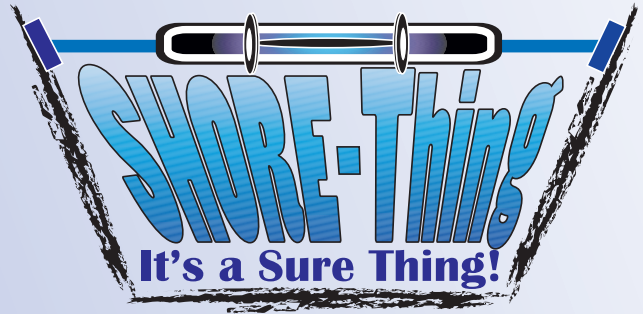


SHORING PRESSURE PUMPS

Model ST-312 • 3 GPM • 2000 PSI



RICE Hydro introduces our new gas powered hydraulic shoring pressure pump, the ST-312; it's a SHORE-Thing! Designed for use with bio-degradable anti-freeze the ST-312 offers a 20 gallon tank reservoir, a pressure adjusting valve up to 2000 PSI with bypass relief, and NO flat polyurethane tires. Constructed in a vertical ergonomic design the ST-312 has increased mobility, with reduced operator stress and user fatigue. A heavy gauge welded steel eye-hook allows for quick and easy jobsite relocation. Developed under the guidance of a local rental yard and two major construction companies, the ST-312 carries a 1 year FULL product warranty from manufacturer's defect.

- Heavy duty welded steel eye-hook for job site relocation
- Stainless-steel liquid filled gauge for accurate readings
- Available in gas or pneumatic driven
- Enclosed in a rugged roll cage for pump protection

S P E C I F I C A T I O N S

- INLET: 4" fill, with twist lock cap
- OUTLET: 50 foot high pressure outlet hose
Pressure regulating valve to 2000 PSI
- PUMP: Triplex Ceramic Plunger pump, with inner oil bath
- OUTPUT FLOW: 3 GPM
- OUTPUT PRESSURE: 2000 PSI
- ENGINE: 5.5 HP 163 CC, Honda engine with oil alert
- SHIPPING DIMENSIONS: 26 x 28 x 48
- SHIPPING WEIGHT: 200 pounds
- UNIT WEIGHT: 175 pounds



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W W W . R I C E H Y D R O . C O M

RICE HYDRO, INC.
MANUFACTURER'S OPERATING INSTRUCTIONS
ST-312, SHORE - THING

FOR WARRANTY REGISTRATION CALL: 1-800-245-4777

REMEMBER THESE CAUTIONS

1. Check all fluid levels prior to operating pump.
2. Use a sound 3/8" or larger outlet hose rated for at least 2000 psi.
3. DO NOT run dry or pump chlorine thru unit, if water or chlorinated water has been ran thru the unit, you must immediately flush system with anti-freeze to neutralize chlorine and prevent rust or corrosion damage.
4. Protect the pump from freezing, FLUSH with anti-freeze.

BEFORE USING ST-312:

1. Check oil level in engine, use 10W30. Unleaded gasoline.
2. Visually inspect components and all aspects of unit; loose fittings, hoses for rips or tears, gauge set on zero, and overall operating condition.

OPERATING THE PUMP:

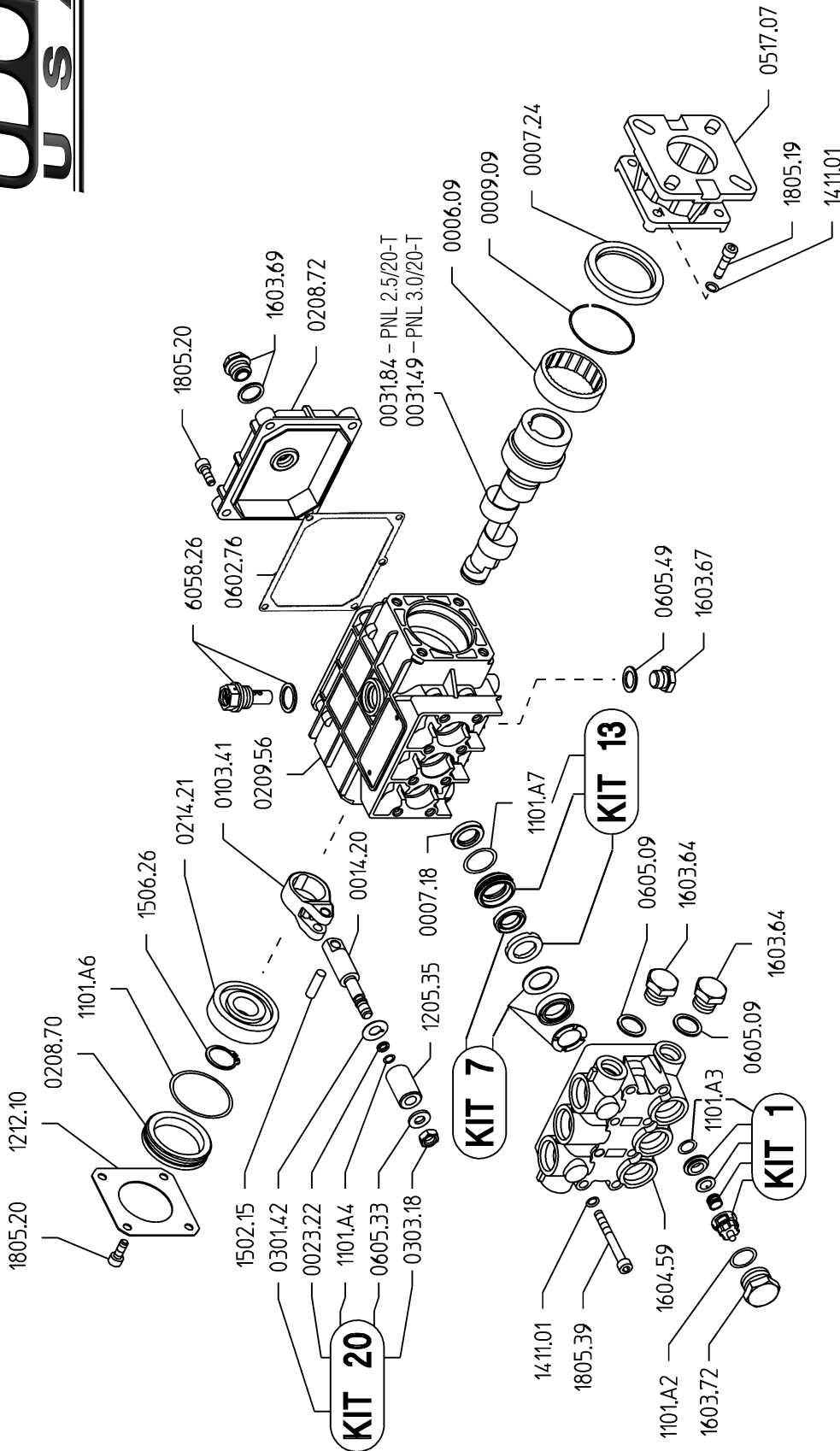
1. Fill the tank with fluid (designed for use with biodegradable anti-freeze).
2. Connect the high pressure outlet hose provided, to the outlet port on unit located down line from pressure gauge.
3. Connect hose to shoring ram or device.
4. Start the engine.
5. Turn off the **Bleed** ballvalve that is located to the right of the gauge, closing the system from running in bypass, allowing pressure to build.
6. Control handle with black knob on valve; push handle forward to engage valve and pressure will begin to build. Handle will lock forward and continue to build pressure up to around 600 PSI. This is a valve with a detent-pin, after 600 PSI you will need to manually hold the handle forward allowing pressure to continue to build. This is a built in safety feature, to prevent damage from over pressurizing, or personal injury. Valve is set to a maximum of 1200 PSI, at which time the unit will kick into bypass and fluid will be recirculated back to reservoir tank.
7. Once desired pressure is met, pull control handle back into neutral position, there is an inline one-way checkvalve to prevent pressure from bleeding off or back into the unit. Close or disconnect hose from shoring device. At this time open bleedvalve and relieve fluid in hose still under pressure back into reservoir tank.
8. Repeat steps as necessary; remember when shutting down the unit or when moving hose between devices to open bleedvalve and relieve pressure from hose. Not doing so will stop you from being able to get the hose quick release to actually disconnect.

RECOMMENDED PERIODIC MAINTENANCE PROCEDURE

Change engine oil after the first 5 hours of operation thereafter every 80 hours of use or every season.

PNL 2.5/20-T & PNL 3.0/20-T

Revised 10-1-2005



PNL 2.5/20-T & PNL 3.0/20-T Quick Reference

Max. Flow	PNL 2.5/20-T2.5 GPM	Valve Kit	04-KIT UD-1
	PNL 3.0/20-T3.0 GPM	Seal Kit.....	04-KIT UD-7
Maximum Pressure2000 PSI	Brass Kit	04-KIT UD-13
Rated Pump Speed3400 RPM	Plunger Bolt Kit	04-KIT UD-20
Oil Capacity12 oz. UDOR LUBE	Plunger Part #	04-1205.35
	or SAE 30W Non-Detergent Oil	Plunger Diameter.....	15 MM

PNL 2.5/20-T
PNL 3.0/20-T

PARTS BREAKDOWN FOR MODEL ST-312
RICE HYDRO, INC.

PART NUMBER..	DESCRIPTION..	QTY REQ'D
UD04-0006.09	BEARING	1
UD04-0007.18	SEAL	3
UD02-0007.24	SEAL	1
UD04-0009.09	RETAINER CLIP	1
UD04-0014.20	PLUNGER ROD P SERIES	3
UD04-0023.22	SUPPORT RING	1
UD04-0031.84	CRANKSHAFT	1
UD04-0103.41	CONNECTING ROD P SERIES	3
UD04-0208.70	BEARING COVER	1
UD04-0208.72	BACK COVER P SERIES	1
UD04-0209.56	CRANKCASE P SERIES	1
UD04-0214.21	BEARING	1
UD04-0301.42	SLINGER RING	1
UD04-0303.18	PLUNGER NUT	1
UD04-0517.07	FLANGE P SERIES GAS	1
UD04-0602.76	GASKET	1
UD02-0605.09	GASKET	2
UD04-0605.33	PLUNGER WASHER	1
UD04-0605.49	WASHER	1
UD04-1101.A2	O-RING	6
UD04-1101.A3	VALVE O-RING	6
UD04-1101.A4	O-RING	1
UD04-1101.A6	O-RING	1
UD04-1101.A7	O-RING	1
UD04-1205.35	PLUNGER 15MM	3
UD04-1212.10	END PLATE	1
UD04-1411.01	WASHER P - PUMP	8
UD04-1502.15	CONNECTING ROD PIN	3
UD04-1506.26	SNAP RING	1
UD04-1603.64	DISCHARGE PLUG 3/8	2
UD02-1603.67	DRAIN PLUG	1
UD04-1603.69	SIGHT GLASS	1
UD04-1603.72	VALVE CAP P SERIES	6
UD04-1604.59	MANIFOLD P SERIES 15MM	1
UD04-1805.19	BOLT	4
UD04-1805.20	BOLT	8
UD04-1805.39	BOLT	8
UD04-6058.26	OIL VENT CAP P SERIES	1

MISC PARTS..

HONDA-GX200UT2-QX2	196 CC FLANGE MOUNT HONDA ENGINE	1
SPEC-PNL3.0/20-T	TRIPLEX PLUNGER PUMP	1
VALVE-RELIEF-2000PSI	200-2000 PSI PRESSURE REGULATOR	1
GAUGE-2000	0-2000 PSI GAUGE	1
BALLVALVE-3/4	3/4" BALLVALVE	1
BALLVALVE-3/8HP	3/8" HIGH PRESSURE BALLVALVE	1
CHECKVALVE-1/2M	1/2" MXM INLINE CHECKVALVE	1
LINESTRAINER-3/4-80	80 MESH LINESTRAINER ASSEMBLY	1
HYD-VALVE-SHORE	HYDRAULIC VALVE	1
TANK-B200-LD	TANK FOR SHORING UNIT	1
TANK-CAP-ASSY	LID, FLANGE, SCREWS & CHAIN	1
QC-BODY-1/4-2WAY	QUICK CONNECT ENDS OF HOSE	2
QC-PLUG-1/4-2WAY	QUICK CONNECT ON UNIT	1
HOSE-SHORING-ST312	1/4" 50 FOOT OUTLET HOSE	1
WHEEL	NO FLAT TIRES	4
LABEL-KIT-ST312	INSTRUCTION AND CAUTION STICKERS	1

KITS..

KITS ARE ALL INCLUSIVE

UD04-KIT-UD1	VALVE KIT P-SERIES	1
UD04-KIT-UD7	SEAL KIT P 15MM	1
UD04-KIT-UD13	BRASS KIT P 15MM	1
UD04-KIT-UD20	PLUNGER O-RING KIT P 15MM	1