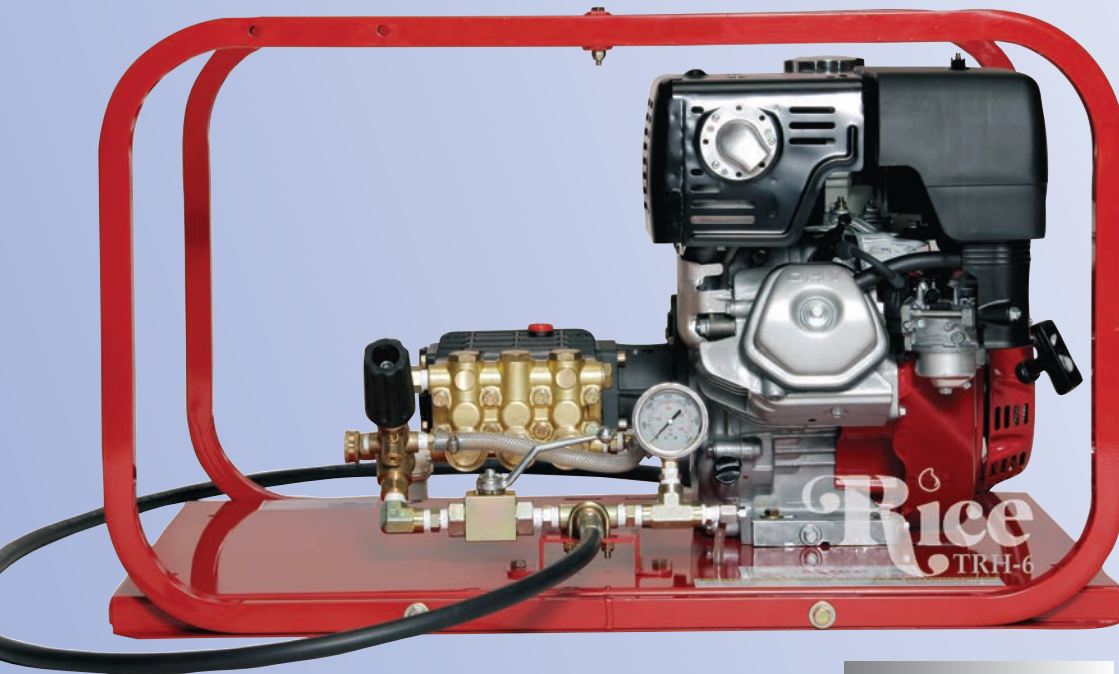


**HYDROSTATIC TEST PUMPS**

**Model TR-Series • Up to 5.5 GPM • 5000 PSI**



The TR-Series are large volume, high pressure hydrostatic pumps. Designed for testing boilers, vessels, process piping, steam and gas lines. The ceramic plunger pump, has an inner oil bath, ensuring long life and increased stability. Their high flow characteristics for pumps in this pressure range will speed testing as it quickly removes air from the test environment. There are no external moving parts for operator safety and reduced liability risks. Virtually indestructible, the TR-Series is enclosed in a rugged roll cage of welded heavy gauge steel. These units are available with gas, diesel or electric power sources. Special order options available, pumps can be built to suit.

- **Automatic Pressure Regulator with Inlet Bypass**
- **Stainless Steel Liquid-Filled Gauge Ensure Accurate Readings, with Less Flutter**
- **Enclosed in a Rugged Roll Cage & Heavy Gauge Steel Base**
- **Stainless Steel Ballvalve to Isolate Pressure**



3500 Arrowhead Drive  
Carson City  
Nevada  
89706

web site:  
[www.ricehydro.com](http://www.ricehydro.com)

e-mail:  
[sales@ricehydro.com](mailto:sales@ricehydro.com)

Phone:  
(775) 885-1280

Fax:  
(800) 998-7423

T R S E R I E S						
Pump	TRH-2	TRE-6	TRH-8	TRE-8	TRH-10	TRD-8E
PSI	2000	2700	3600	3600	5000	3500
GPM	3	4	4	4	4.5	4
Inlet	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Outlet	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Motor/Engine	Honda 6.5 HP 163 CC	Baldor 7 1/2 HP 60 HZ	Honda 13 HP 389 CC	Baldor 10 HP 60 HZ	Honda 20 HP 614 CC	Diesel 7.3 KW 462 CC
Shipping Dimensions	25X21X17	35X25X19	35X25X19	35X25X19	35X25X21	35X25X21
Shipping Weight	120 LBS	255 LBS	177 LBS.	286 LBS	250 LBS	250 LBS
<b>Options:</b>	Engines: Briggs & Stratton, Honda or Diesel					
<b>Motors:</b>	Explosion proof, Variation in Hertz, Voltage and Phase					

RICE HYDRO, INC. - MANUFACTURER'S OPERATING INSTRUCTIONS  
TR-SERIES MODEL TEST PUMPS  
**FOR WARRANTY REGISTRATION CALL: 1-800-245-4777**

**REMEMBER THESE CAUTIONS:**

1. **Electric Models** - Power source must meet voltage, phase, hertz and amperage requirements of electric motor, as stated on label. If an extension cord is used, requires at least 12 gauge 3 wire with maximum of 25 foot length.
2. Check all fluid levels prior to operating pump.
3. Use a sound 3/4" or larger supply hose.
4. DO NOT run dry or pump chlorine through the unit.
5. Protect the pump from freezing, FLUSH with anti-freeze.

**CONNECTING THE PUMP:**

1. Check oil level of engine as well as the oil level of pump thru sight glass, use 10W30 non-detergent as needed. **Electric Models** - With motor switch in the off position, connect power cord of motor to a standard wall outlet. Extension cord: when needed, requires a 12 gauge 3 wire, maximum 25 foot length plugged into a 20 or larger amp breaker, depending on individual motor requirements.
2. Connect **CLEAN** pressurized water source (minimum 3/4") to the inlet of the pump. It is recommended that the unit be pressure fed. For gravity feed locate water within 8 feet and above level of unit, and then prime the pump.
3. Connect high pressure outlet hose to the pump and your test environment.

**OPERATING THE PUMP:**

1. Turn the outlet ballvalve to the open position, begin water flow and start the engine. The engine RPM is preset at the factory, **DO NOT ADJUST!**
2. The pressure regulator has been preset at the factory. **To change this setting you must make this adjustment while the water is flowing freely, and under NO pressure.** To adjust the pressure, first loosen the locknut. Turn the T-handle/Knob clockwise to increase and counter-clockwise to decrease the pressure. Place a ballvalve or similar open and close valve at the end of the outlet hose, open and close this valve multiple times as needed, to check pressure setting and re-adjust as necessary. It is also recommended that you open and close the hosebib located under the gauge to bleed excess air from piping and ensure accurate pressure gauge readings. Upon reaching desired pressure setting, tighten locknut and prepare to begin test.
3. With the ballvalve open begin building pressure in the test environment. Be sure to bleed the air from hosebib under gauge at least once during this process. Once test pressure has been reached, **close the ballvalve and shut-off engine.**
4. Once the outlet ballvalve is closed and your test begins, you have now isolated the test pump from the test environment, any loss of pressure is due to leaks or trapped air being compressed in the test environment.

**RECOMMENDED PERIODIC MAINTENANCE PROCEDURE**

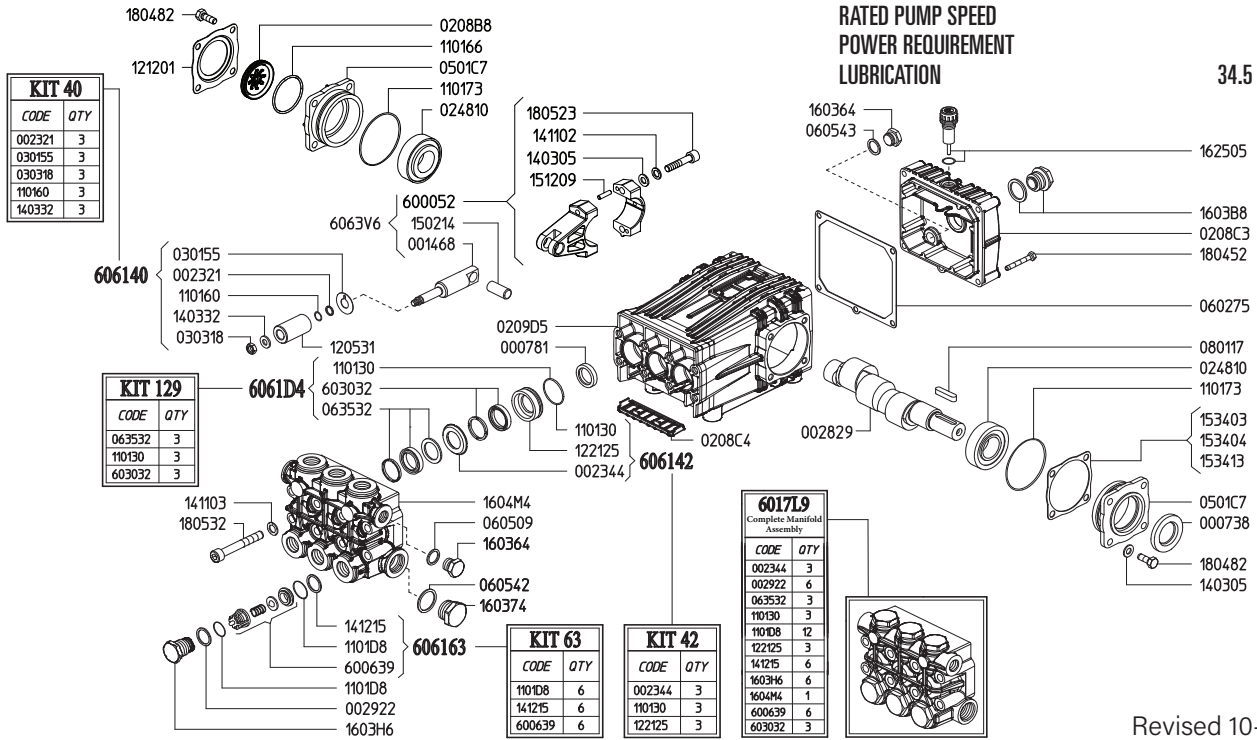
1. Plunger pump - Change oil in the pump body after first 50 hours of use, and every 250 hours thereafter. Change oil in the engine after first 5 hours of use, and every 80 hours thereafter.



**WARNING:** Operating, servicing and maintaining this equipment can expose you to chemicals including engine exhaust, carbon monoxide and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, operate and service your equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing your equipment. For more information go to: [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

MAX FLOW  
MAX PRESSURE  
RATED PUMP SPEED  
POWER REQUIREMENT  
LUBRICATION

4.5 GPM @ 17.0 L/MIN  
5075 PSI / 360 BAR  
1450 RPM  
20.0 HP GAS  
34.5 OZ UDOR LUBE



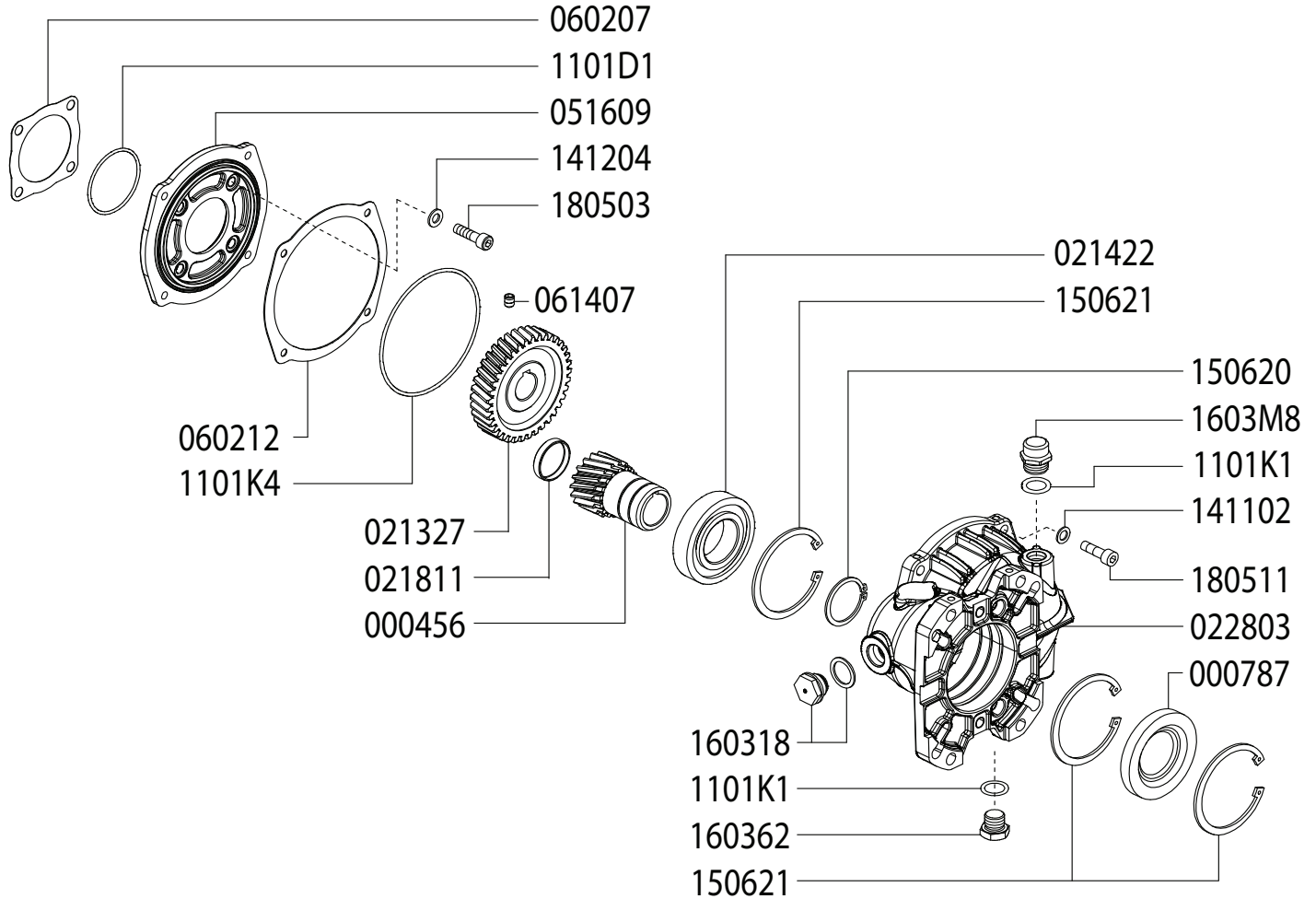
Revised 10-27-2023

Part #	Description	Qty
0007.38	OIL SEAL D30	1
0007.81	OIL SEAL D20	3
0014.68	PLUNGER GUIDE D20 "C/CK"	3
0023.21	RING D8.3 <sup>B</sup>	3
0023.44	UPPER RING D20 "CK" 350BAR <sup>D E</sup>	3
0028.29	MALE SHAFT D24	1
0029.22	RING "CK" D15.2 <sup>E</sup>	6
0208.B8	OIL SIGHT GLASS	1
0208.C3	BACK COVER "C/CK"	1
0208.C4	COVER "CK"	1
0209.D5	CRANKCASE "C/CK/CH"	1
0248.10	ROLLER BEARING D30	2
0301.55	SLINGER RING D18/20 <sup>B</sup>	3
0303.18	NUT INOX <sup>B</sup>	3
0501.C7	BEARING HOLLOW FLANGE	2
0602.75	BACK COVER GASKET	1
0605.09	GASKET D17	1
0605.42	GASKET D27	1
0605.43	GASKET D17	1
0635.32	HIGH PRESSURE SEAL KIT D20 <sup>C</sup>	3
0801.17	KEY A8X7X35	1
1101.30	O-RING - PRESSURE RING <sup>C D</sup>	3
1101.60	O-RING - PLUNGER <sup>B</sup>	3
1101.66	O-RING - OIL SIGHT GLASS	1
1101.73	O-RING - BEARING FLANGE	2
1101.D8	O-RING - VALVE <sup>A E</sup>	6
1101.D8	O-RING - VALVE PLUG <sup>E</sup>	6
1205.31	CERAMIC PLUNGER D20	3
1212.01	RETAINER - OIL SIGHT GLASS	1
1221.25	PRESSURE RING D20 "CK" 350BAR <sup>D E</sup>	3
1403.05	WASHER D8.4	10

Part #	Description	Qty
1403.32	WASHER D8.5 <sup>B</sup>	3
1411.02	SERATED WASHER D8	6
1411.03	SERATED WASHER D10	8
1412.15	RING 400BAR <sup>A E</sup>	6
1502.14	PIN D14X32	3
1512.09	PLUG D5X20 UNI1707	6
1534.03	SHIM 0.1MM	-
1534.04	SHIM 0.2MM	-
1534.13	SHIM 0.05MM	-
1603.64	PLUG G3/8	2
1603.74	PLUG G3/4	1
1603.B8	OIL PLUG G3/4 + GASKET	1
1603.H6	VALVE PLUG "CK" PISTON D20 <sup>E</sup>	6
1604.M4	HEAD "CK" D18/20 <sup>E</sup>	1
1625.05	OIL PLUG G3/8	1
1804.52	HEX BOLT M6X45	5
1804.82	HEX BOLT M8X22	8
1805.23	ALLEN BOLT M8X40	6
1805.32	ALLEN BOLT M10X75	8
6000.52	ROD ASSEMBLY	3
6006.39	VALVE ASSY 400BAR W/O O-RING <sup>A E</sup>	6
6017.L9	COMPLETE MANIFOLD ASSEMBLY	1
6030.32	LOW PRESSURE SEAL KIT D20 <sup>C E</sup>	3
6061.40	KIT 40 PLUNGER KIT D20 350BAR	1
6061.42	KIT 42 BRASS RING KIT D20 "CK" 350BAR	1
6061.63	KIT 63 VALVE KIT 400BAR	1
6061.D4	KIT 129 WATER SEAL KIT D20 "CK"	1

<sup>A</sup> Parts in 6061.63 (Kit 63).  
<sup>B</sup> Parts in 6061.40 (Kit 40).  
<sup>C</sup> Parts in 6061.D4 (Kit 129).  
<sup>D</sup> Parts in 6061.42 (Kit 42).  
<sup>E</sup> Parts in 6017.L9 (Complete Manifold Assembly).

**GAS ENGINE GEAR REDUCTION FOR  
B/BK/MS/MWT/C/CS/CWT/CK/CX SERIES PLUNGER PUMPS  
on GAS ENGINES with 1" SHAFTS  
REQUIRES 9.0 OZ. 90W GEAR LUBE**

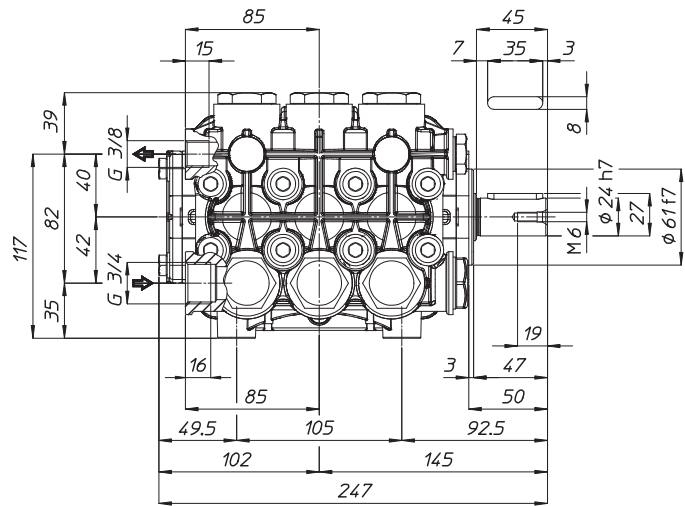
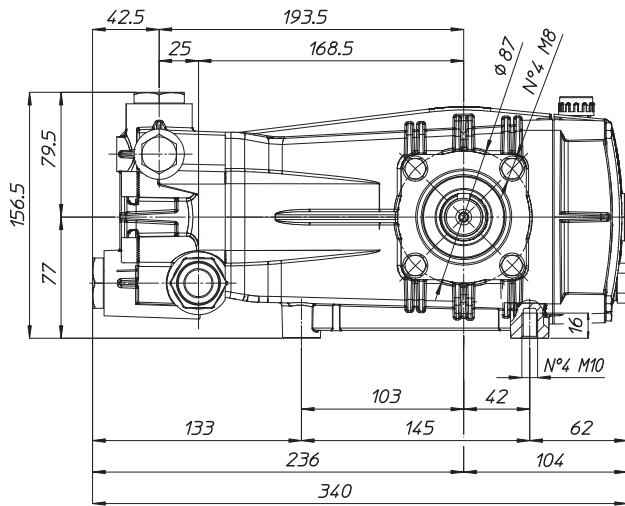


Revised 10-27-2023

Part #	Description	Qty	Part #	Description	Qty
0004.56	GEAR SHAFT "RC122" 1"	1	1101.K1	O-RING - OIL PLUG / OIL CAP	2
0007.87	SEAL	1	1403.05	WASHER D8,4	4
0213.27	GEAR "RM122" IP	1	1411.02	SERATED WASHER D8	4
0214.22	BALL BEARING D40 "RC122K"	1	1412.04	BONDED WASHER D8.3	4
0218.11	CAP - D37X7	1	1506.20	SNAP RING D40	1
0228.03	COUPLER "RC122"	1	1506.21	SNAP RING D80	3
0516.09	FLANGE "RC122"	1	1603.18	OIL PLUG G1/2 + GASKET	1
0602.07	GASKET "RC122"	1	1603.62	PLUG G1/2	1
0614.07	SET SCREW M8X10 UNI5929	1	1603.K6	OIL CAP - RC122	1
1101.75	O-RING - RC122 FLANGE - INSIDE	1	1805.03	ALLEN SCREW M8X30	4
1101.D1	O-RING - RC122 FLANGE - OUTSIDE	1	1805.11	ALLEN SCREW M8X25	4

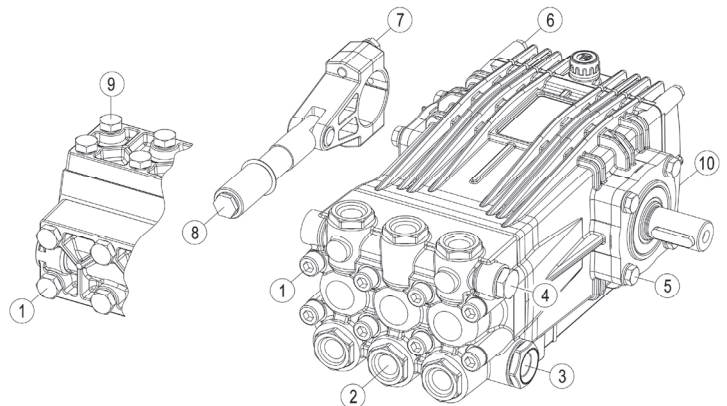
*Dimensional Drawings are  
Shown in Millimeters.  
To Convert to Inches,  
Multiply Dimension x 0.03937*

## CK SERIES PUMPS BELOW 10 GPM



## TORQUE SPECS

Ref.	Description	Ft./lb.	Nm	Loctite®
1	Head Bolts	37	50	-
2	Valve Caps	103	140	243
3	Inlet Cap	103	140	-
4	Outlet Cap	103	140	243
5	Bearing Flange Bolts	19	25	-
6	Rear Cover Bolts	8	11	-
7	Connecting Rod Bolts	19	25	270
8	Plunger Bolts	15	20	270
9	Valve Cover Bolts	-	-	-
10	Oil Drain Plug	8	11	-



PARTS BREAKDOWN FOR MODEL TRH-10  
RICE HYDRO, INC.

PART NUMBER..	DESCRIPTION..	QTY REQ'D
UD04-0007.38	OIL SEAL	1
UD04-0007.81	OIL SEAL	3
UD04-0014.68	PLUNGER GUIDE	3
UD04-0023.21	SUPPORT RING	3
UD04-0023.44	UPPER RING	3
UD04-0028.29	CRANKSHAFT	1
UD04-0029.22	RING	6
UD04-0208.B8	OIL SIGHT GLASS	1
UD04-0208.C3	BACK COVER	1
UD04-0208.C4	COVER	1
UD04-0209.D5	CRANKCASE	1
UD04-0248.10	ROLLER BEARING	2
UD04-0301.55	SLINGER RING	3
UD04-0303.18	NUT INOX	3
UD04-0501.C7	BEARING HOLLOW FLANGE	2
UD04-0602.75	BACK COVER GASKET	1
UD04-0605.09	GASKET	1
UD04-0605.42	GASKET	1
UD04-0605.43	GASKET	1
UD04-0635.32	HIGH PRESSURE SEAL KIT	3
UD04-0801.17	KEY	1
UD04-1101.30	O-RING - PRESSURE RING	3
UD04-1101.60	O-RING - PLUNGER	3
UD04-1101.66	O-RING - OIL SIGHT GLASS	1
UD04-1101.73	O-RING - BEARING FLANGE	2
UD04-1101.D8	O-RING - VALVE	6
UD04-1101.D8	O-RING - VALVE PLUG	6
UD04-1205.31	CERAMIC PLUNGER	3
UD04-1212.01	RETAINER - OIL SIGHT GLASS	1
UD04-1221.25	PRESSURE RING	3
UD04-1403.05	WASHER	10
UD04-1403.32	WASHER	3
UD04-1411.02	SERATED WASHER	6
UD04-1411.03	SERATED WASHER	8
UD04-1412.15	RING	6
UD04-1502.14	PIN	3
UD04-1512.09	PLUG	6
UD04-1534.03	SHIM 0.1MM	
UD04-1534.04	SHIM 0.2MM	
UD04-1534.13	SHIM 0.05MM	
UD04-1603.64	PLUG	2
UD04-1603.74	PLUG	1
UD04-1603.B8	OIL PLUG + GASKET	1
UD04-1603.H6	VALVE PLUG	6
UD04-1604.M4	HEAD	1
UD04-1625.05	OIL PLUG	1
UD04-1804.52	HEX BOLT M6X45	5
UD04-1804.82	HEX BOLT M8X22	8
UD04-1805.23	ALLEN BOLT M8X40	6
UD04-1805.32	ALLEN BOLT M10X75	8
UD04-6000.52	ROD ASSEMBLY	3
UD04-6006.39	VALVE ASSY W/O O-RING	6
UD04-6017.L9	COMPLETE MANIFOLD ASSEMBLY	1
UD04-6030.32	LOW PRESSURE SEAL KIT	3

PARTS BREAKDOWN FOR MODEL TRH-10  
RICE HYDRO, INC.

PART NUMBER..	DESCRIPTION..	QTY REQ'D
GEAR REDUCTION..		
UD04-0004.56	1" GEAR SHAFT	1
UD04-0007.87	SEAL	1
UD04-0213.27	GEAR	1
UD04-0214.22	BALL BEARING	1
UD04-0218.11	CAP	1
UD04-0228.03	COUPLER	1
UD04-0516.09	FLANGE	1
UD04-0602.07	GASKET	1
UD04-0614.07	SET SCREW	1
UD04-1101.75	O-RING - FLANGE - INSIDE	1
UD04-1101.D1	O-RING - FLANGE - OUTSIDE	1
UD04-1101.K1	O-RING - OIL PLUG/OIL CAP	2
UD04-1403.05	WASHER	4
UD04-1411.02	SERATED WASHER	4
UD04-1412.04	BONDED WASHER	4
UD04-1506.20	SNAP RING	1
UD04-1506.21	SNAP RING	3
UD04-1603.18	OIL PLUG + GASKET	1
UD04-1603.62	PLUG	1
UD04-1603.K6	OIL CAP	1
UD04-1805.03	ALLEN SCREW M8x30	4
UD04-1805.11	ALLEN SCREW M8x25	4
MISCELLANOUS PARTS..		
GAUGE-6000	0-6000 PSI LIQUID FILLED GAUGE	1
NEEDLEVALVE-1/4	AIR BLEED VALVE	1
BALLVALVE-7250-3/8	OUTLET BALLVALVE	1
UNLOADER-5000PSI	500-5000 PSI PRESSURE REGULATOR	1
CARTON-TR6	EXTRA LARGE SHIPPING BOX	1
LINESTRAINER-1/2	INLINE STRAINER	1
HOSESWIVEL-1/2	SWIVEL HOSE INLET	1
PUMP-4.5/5000PSI	TRIPLEX PLUNGER PUMP	1
HONDA-GX630RHQZB3	630CC 20HP HONDA ENGINE	1
HONDA-HD660870	MUFFLER FOR ENGINE	1
BATTERY-ACCESSORIES	BATTERY AND ACCESSORIES	1
LABEL-KIT-TR	INSTRUCTION AND CAUTION STICKERS	1
OUTLET HOSE..		
HOSE-3/8-5000X8-RH	8' FOOT OUTLET HOSE	1
<i>*3/8" Male Rigid Fitting &amp; 3/8" Male Swivel Fitting included on 8ft outlet hose</i>		
COUPLERBODY-S-3/8	FEMALE PUMP OUTLET - HOSE	1
COUPLERPLUG-S-3/8	MALE PUMP OUTLET - PIPING	1
HOSE-HYD-3/8-HP	CUSTOMER SPECIFY LENGTH OF HOSE	
3/8" Male Rigid Fitting & 3/8" Male Swivel Fitting		1
KITS..		
<i>*Kits are all inclusive</i>		
UD04-6061.40	PLUNGER KIT (KIT 40)	1
UD04-6061.42	BRASS RING KIT (KIT 42)	1
UD04-6061.63	VALVE KIT (KIT 63)	1
UD04-6061.D4	WATER SEAL KIT (KIT 129)	1