

RICE HYDRO, INC.
MANUFACTURER'S OPERATING INSTRUCTIONS
TR-SERIES (TRH2, TRH8, TRH10) MODEL TEST PUMPS

FOR WARRANTY REGISTRATION CALL 800-245-4777.

CONNECTING THE PUMP:

1. Check oil level of engine, thru sight glass, use 10W30 as needed. Also oil level of pump thru sight glass, use 30 non-detergent as needed.
2. Connect **CLEAN** pressurized water source (minimum ¾") 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 engine. **DO NOT ADJUST ENGINE RPM**, it has been preset at the factory.
2. The pressure regulator has been preset at factory also. **To change this setting you must make this adjustment while the water is flowing freely, under no pressure.** To adjust pressure, first loosen the locknut. Turn the **T-handle/knob** clockwise to increase and counter-clockwise to decrease the pressure. Place a ballvalve at the end of outlet hose, open and close ballvalve to check pressure setting and re-adjust as necessary. It is also recommended that you open and close the RICE bleed valve to remove excess air from piping and ensure accurate pressure readings. Once desired pressure setting is reached, **IT IS VERY IMPORTANT THAT YOU RE-TIGHTEN THE LOCK/JAM NUT**, do not leave adjustment handle free to move or vibrate out of setting. If unloader valve handle does fall out see attached diagram to replace parts correctly. **CAUTION: IT IS VERY COMMON TO REPLACE POPPET/BUTTON BACKWARDS, THE LONGER LEG WITH STEEL BALL FACES AWAY FROM THE SPRING.** With the ballvalve open begin building pressure in test environment. Bleed air thru RICE bleed valve at least once during this process. Once test pressure has been reached, **close ballvalve and shut off engine.**
4. Once the outlet ballvalve is closed and your test begins, you have now isolated the test pump from your test environment; any loss of pressure is due to leaks or trapped air in the line.

REMEMBER THESE CAUTIONS:

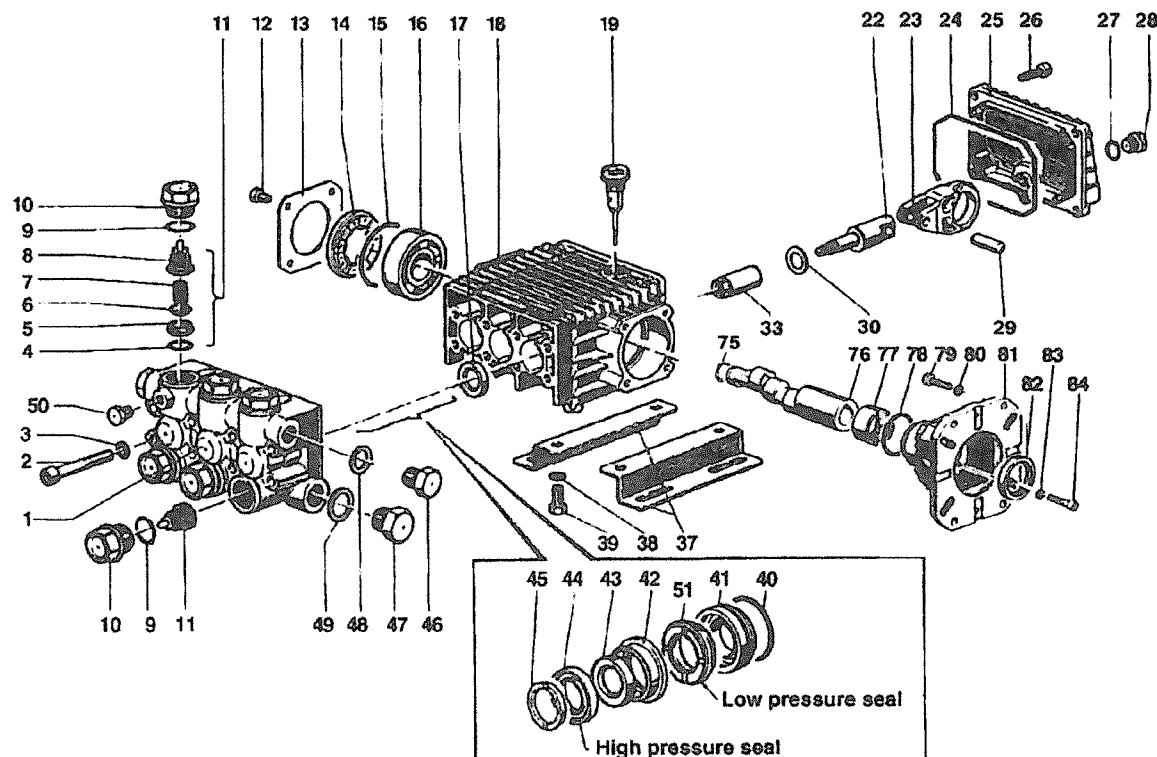
1. Check all oil/fluids in unit before operation.
2. Use a sound ¾" or larger supply hose.
3. DO NOT run dry or pump chlorine through the unit.
4. Protect the pump from freezing, FLUSH with anti-freeze.

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 engine after first 5 hours of use, and every 80 hours thereafter.

EZ Series 44 - Triplex

GENERAL PUMP *A member of the Interpump Group*



PARTS LIST

ITEM	PART NO.	DESCRIPTION	KIT NO.	QTY.	ITEM	PART NO.	DESCRIPTION	KIT NO.	QTY.	ITEM	PART NO.	DESCRIPTION	KIT NO.	QTY.
1.	44120641	Manifold		1	23.	44030022	Connecting Rod		3	48.	96738000	Washer		1
2.	99317500	Screw		8	24.	90392000	O-ring		1	49.	96751400	Washer		1
3.	96701400	Washer		8	25.	44160022	Rear Cover		1	50.	98196600	Cap Screw		1
4.	90384100	O-ring	123	6	26.	99183700	Screw		5	51.	90260300	Seal, Low Pressure	153,156	1
5.	36200366	Valve Seat	123	6	27.	90358500	O-ring		1	75.	90063500	Retaining Ring		1
6.	36200176	Valve	123	6	28.	98204100	Cap Screw		1	76.	44022165	Crankshaft (EZ4040G)		1
7.	94737600	Spring	123	6	29.	97734000	Pin		3		44021265	Crankshaft (EZ4035G34)		1
8.	36202551	Valve Cage	123	6	30.	96696700	Washer		3		44020965	Crankshaft (EZ4030G34)		1
9.	90384700	O-ring	124	6	33.	44040266	Plunger, 13 mm		3	77.	91856800	Roller Bearing		1
10.	98222600	Cap Screw	124	6	37.	50200074	Rail		2	78.	90409700	O-ring		1
11.	36711501	Valve Assembly	123	6	38.	96701600	Washer		4	79.	99275500	Screw, 5/16 x 1		4
12.	99180700	Screw		4	39.	99303700	Nut		4		99334500	Screw, 3/8 x 1		4
13.	50150074	Bearing Cover		1	40.	90361200	O-ring	156	3	80.	96702000	Washer, 8 mm		4
14.	44211801	Spacer		1	41.	44080370	Packing Retainer	156	3		96710400	Washer, 10 mm		4
15.	90409700	O-ring		1	42.	44216270	Intermediate Ring	156	3	81.	10051822	Gas Flange		1
16.	91832800	Ball Bearing		1	43.	90507600	Packing	153,156	3	82.	90169000	Oil Seal		1
17.	90161400	Oil Seal	23	3	44.	90260200	Packing	153,156	3	83.	96693800	Washer		4
18.	44010022	Crankcase		1	45.	44100251	Head Ring	156	3	84.	99191200	Screw		4
19.	98210300	Oil Dip Stick		1	46.	98210000	Cap Screw		1					
22.	44050166	Piston Guide		3	47.	98217600	Cap Screw		1					

REPAIR KITS

KIT NO.	K23	K123	K124	K153	K156
ITEM NO's INCLUDED IN KIT	17	4, 5, 6, 7, 8, (11)	9, 10	43, 44, 51	40, 41, 42, 43, 44, 45, 51
NUMBER OF ASSEMBLIES IN KIT	3	6	6	3	1
NUMBER OF CYLINDERS KIT WILL SERVICE	3	3	3	3	1

TORQUE SPECS*

Pos.	Ft/lb	N-M
2	14.7	20
10	95.9	130
12	7.3	10
26	7.3	10
28	14.7	20
46	29.4	40
47	29.4	40
50	9.6	13
79	14.7	20
84	7.3	10

* Decrease torque by 20% if threads are lubricated

Ref 300071 Rev. H
04-11

GENERAL PUMP 1174 Northland Drive • Mendota Heights, MN 55120

Phone: (651)686-2199 • Fax: (800)535-1745 • e-mail: sales@gpcompanies.com • www.generalpump.com



PARTS BREAKDOWN FOR MODEL TRH8
RICE HYDRO, INC.

PART NUMBER..	DESCRIPTION..	QTY REQ'D
1 GP-44120641	MANIFOLD	1
2 GP-99317500	SCREW	8
3 GP-96701400	WASHER	8
4 GP-90384100	O-RING (KIT 123 ONLY)	6
5 GP-36200366	VALVE SEAT (KIT 123 ONLY)	6
6 GP-36200176	VALVE (KIT 123 ONLY)	6
7 GP-94737600	SPRING (KIT 123 ONLY)	6
8 GP-36202551	VALVE CAGE (KIT 123 ONLY)	6
9 GP-90384700	O-RING (KIT 124 ONLY)	6
10 GP-98222600	CAP SCREW (KIT 124 ONLY)	6
11 GP-36711501	VALVE ASSEMBLY (KIT 123 ONLY)	6
12 GP-99180700	SCREW	4
13 GP-50150074	BEARING COVER	1
14 GP-44211801	SPACER	1
15 GP-90409700	O-RING	1
16 GP-91832800	BALL BEARING	1
17 GP-90161400	OIL SEAL	3
18 GP-44010022	CRANKCASE	1
19 GP-98210300	OIL DIP STICK	1
22 GP-44050166	PISTON GUIDE	3
23 GP-44030022	CONNECTING ROD	3
24 GP-90392000	O-RING	1
25 GP-44160022	REAR COVER	1
26 GP-99183700	SCREW	5
27 GP-90358500	O-RING	1
28 GP-98204100	CAP SCREW	1
29 GP-97734000	PISTON PIN	3
30 GP-96696700	WASHER	3
33 GP-44040266	PLUNGER, 13 MM	3
37 GP-50200074	RAIL	2
38 GP-96701600	WASHER	4
39 GP-99303700	NUT	4
40 GP-90361200	O-RING	3
41 GP-44080370	PACKING RETAINER	3
42 GP-44216270	INTERMEDIATE RING	3
43 GP-90507600	PACKING RETAINER	3
44 GP-90260200	PACKING	3
45 GP-44100251	HEAD RING	3
46 GP-98210000	CAP SCREW	1
47 GP-98217600	CAP SCREW	1
48 GP-96738000	WASHER	1
49 GP-96751400	WASHER	1
50 GP-98196600	CAP SCREW	1
51 GP-90260300	SEAL, LOW PRESSURE	1
75 GP-90063500	RETAINING RING	1
76 GP-44022165	CRANKSHAFT	1
77 GP-91856800	ROLLER BEARING	1
78 GP-90409700	O-RING	1
79 BOLT-5/16X24X1-GR8	SCREW 5/16 X 1	4
80 FLATWASHER-1/4	WASHER 8 MM	4
82 GP-90169000	OIL SEAL	1
83 GP-96693800	WASHER	4
84 GP-99191200	SCREW	4

PARTS BREAKDOWN FOR MODEL TRH-8
RICE HYDRO, INC.

MISC PARTS..

UNLOADER-500/4000PSI	PRESSURE REGULATOR	1
NEEDLEVALVE-1/4	BLEED VALVE	1
BALLVALVE-7250-3/8	OUTLET BALLVALVE	1
GAUGE-4000	LIQUID FILLED GAUGE	1
COUPLERPLUG-S-3/8	MALE PUMP OUTLET PIPING QC	1
COUPLERBODY-S-3/8	FEMALE CONNECT TO OUTLET HOSE	1
HOSE-3/8-5000X8-RH	8 FOOT OUTLET HOSE	1
FITTING-3/8-MPIPE	RIGID HOSE END	1
FITTING-3/8-MPX	SWIVEL HOSE END	1
HOSE-HYD-3/8HP	HIGH PRESSURE OUTLET HOSE	8
	CUSTOMER CAN SPECIFY LENGTH	
LINESTRAINER-1/2	INLET LINE STRAINER	1
HONDA-GX390UT2-QA2	13 HP GAS ENGINE TR8	1
PUMP-TRH8-G	TRIPLEX PLUNGER PUMP	1

KITS:

KITS ARE ALL INCLUSIVE

GEN-KIT-K23	OIL SEAL	1
GEN-KIT-K123	VALVE KIT	1
GEN-KIT-K124	VALVE CAP & ORING	1
GEN-KIT-K153	HIGH/LOW PRESSURE SEAL	1
GEN-KIT-K156	SEAL KIT	3