

Fire Hose Testers

The FH series is the most versatile, reliable, and sought-after Fire Hose Tester on the market today. Models in this series offer “gallon per minute” flow rates up to 26 (GPM); with “pounds per square inch” testing capabilities up to 1000 (PSI). These hose testers are designed to safely test any diameter fire hose in accordance with NFPA 1962 testing standards. Available in Gasoline, Electric and Pneumatic driven models. RICE units can be “Build to Suit” with various voltage, phase, hertz, and explosion-proof motor configurations offered. A large 2 & 1/2 inch swivel inlet aids in the ability to quickly fill and eliminate excess air from the test environment. The FH Series is a safe, less costly and more efficient way to test your fire hose, keeping your pumper ready for action, where it should be.



FH3 3 GPM 500 PSI

- Five Year Full Product Warranty
- Four independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines, and expedites the elimination of excess air
- 1 HP Electric motor TEFC, 110V or 220V, 50/60HZ
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 4 inch, 2 Rigid & 2 Swivel



EL-FHT 3 GPM 500 PSI

- Five Year Full Product Warranty
- Two independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- Dual inlets - 3/4 inch and 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 1 HP Electric motor TEFC, 110V or 220V, 50/60HZ
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Optional: Casters - 4 inch, 2 Rigid & 2 Swivel



FH2-H 3.5 GPM 1000 PSI

- Five Year Full Product Warranty
- Four Independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 196 CC 6.5 HP, air cooled 4 cycle, with engine oil alert
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 4 inch, 2 Rigid & 2 Swivel



FH-12.5/500 12.5 GPM 500 PSI

- Five Year Full Product Warranty
- Four independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 270 CC 9 HP, air cooled 4 cycle, with engine oil alert
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 6 inch, 4 Swivel

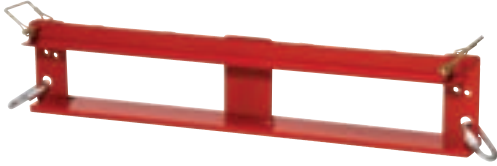


FH5-E 5 GPM 800 PSI

FH4-E 4 GPM 1000 PSI

- Five Year Full Product Warranty
- Four independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 3 HP Electric motor TEFC, 220V, 60HZ
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 4 inch, 2 Rigid & 2 Swivel

FH Series Accessories



LINEAGE-1

- Meets NFPA 1962 requirements of securing and anchoring firehoses while being tested.
US Patent #7,905,455
- Locking hitch pins enclose and secure the hose into the Lineage
- Quick links for fast and easy anchoring of this device
- Safely limits the movement of the line in the event of rupture
- The Lineage is designed with multiple locking holes to accommodate various hose sizes
- Heavy gauge welded steel frame, powder coated to withstand the elements.



FHWA-1

- Ideal for Haz-Mat and contaminated equipment wash down
- Dual tips offer the option of either spraying water only or a soap and water solution
- 50 feet of high-pressure hose for long range mobility
- Adjustable injector for soap and other cleaning solvents
- Quick disconnects for easy on/off hose connection
- Only available for the EL-FHT and FH3 models



Adapters

- Machined Brass for durability
- Male NST adapters facilitate test pump to hose connections
- Included: 1 & 1/2 male (NST) on all FH-Series hose testers, one adapter per outlet
- Optional: 1 & 1/2 X 2 & 1/2 male (NST)
- Made in the USA



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RICE HYDRO, INC.
MANUFACTURER'S OPERATING INSTRUCTIONS - FIRE HOSE TESTER SERIES
FOR WARRANTY REGISTRATION CALL: 1-800-245-4777

Hose Testing guidelines and procedures follow: NFPA 1962

CAUTIONS:

1. 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 the unit.
3. Protect the pump from freezing, FLUSH with anti-freeze.
4. DO NOT run dry or pump chlorine thru the unit.
5. **Supplying the unit with water, inlet pressure should not exceed 90 PSI.**
6. **Before use: Remove "shipping plug" on pump and replace with vented plug.**

CONNECTING THE PUMP:

1. Check oil level of pump use 30WT non-detergent, and engine use 10W30 oil.
 2. Connect inlet to fire hydrant.
 3. Connect fire hose to be tested to suitable adapters on manifold outlets. Hose should have nozzles on the end to bleed the air from the lines at full flow. Hoses should be lying up hill from pump if possible.
 4. Connect garden hose to back bleed & direct to a drain away for dry test area.
 5. ASSURE MOTOR IS "OFF". Connect the power cord to a standard wall outlet.
- Extension cord: when needed, a 12 gauge 3 wire, maximum 25 ft. length, plugged into a 20 amp breaker is required.**

OPERATING THE PUMP:

1. Close all ballvalves, slightly crack open the 1/2" bleeder ballvalve.
2. Open inlet ballvalve. Open outlet ballvalves one at a time and allow each hose to be filled through manifold. Do not turn pump on at this time.
3. To ensure air is safely bled from hoses, bleed each hose, one line at a time with hydrant volume and pressure, utilizing a nozzle at the end of each hose.
4. When each line is filled, free of air, with nozzle closed, close the ballvalve at the manifold outlet to seal the line. Bleed **ALL** outlets whether or not in use for testing. All air must be removed.
5. With back bleed open, turn on the pump. This will bleed air out of the pressure side of the pump - out to the drain area.
6. **Close the 1 1/2" ballvalve at the inlet of manifold/unit, directing water flow from the hydrant to pressure side of pump. No pressure will build until this ballvalve is closed.**
7. Slowly close the 1/2" back bleed ballvalve, check the gauge to verify pressure setting of relief valve.

8. 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 counterclockwise to decrease the pressure. To check pressure setting and re-adjust as necessary. Upon reaching desired pressure setting, tighten locknut and prepare to begin test.
9. Open one of the 1½" ballvalves at the outlets and begin building pressure in one of the lines at a time. In the event there is an acceptable leak in the system that must be overcome by leaving the pump running.. Crack the ½" back bleed valve allowing a small amount of clean fresh water to flow while in bypass. **Once pressure has been reached, you may close all ballvalves and shut off pump, check for leaks; open ballvalves as needed to monitor existing pressure. If ballvalves are in the open position with the unit running during test duration, you must crack the back bleedvalve to allow the unit to pull in fresh cool water; leaving the unit running in bypass for long periods of time will cause the water to heat and possibly damage the pump.**
10. If the air has been bled as outlined, the pump will build pressure quickly and safely with only hose stretch to overcome. If a hose ruptures, the only volume of water available is through GPM of the pump. NO SURGE OF VOLUME, NO WILD LINE.
11. It is impossible to ensure that air is not caught behind couplings. If air is caught behind a coupling that fails - it could cause an explosion and fragmentary effect. **DO NOT BEND OVER THE TOP OF THE PUMP.** Treat hoses and couplings under pressure as dangerous.

NOTE: When dealing with existing pressured hoses or to re-pressurize hose, unit's existing manifold/piping pressure must be bled back down to 70 psi. **DO NOT LOWER PRESSURE ON HOSES OR TEST ENVIRONMENT**, just in manifold/piping section of pump. High existing "head pressure" will cause motor to stall, not start at all, or pump to fail. Examples: hoses are pre-filled and have existing pressure of 120 PSI, and you need to build to 150 PSI, the positive displacement pump will struggle with overcoming this existing head pressure. **TO OVERCOME:** with 1½" outlet ballvalves closed holding existing pressure, open back bleed ½" ballvalve to release pressure in piping/manifold down to 70 PSI or below. Turn motor/unit on and close ½" back bleed ballvalve building pressure within piping/manifold to at least 30 psi above existing test pressure (this will allow the pump to overcome the existing head pressure) and begin to open individually the 1 ½" ballvalves.

TROUBLE SHOOTING:

NOT building pressure

Inlet ballvalve has not been closed.

AIR, AIR AND MORE AIR

*Ensure air is bled from hoses, manifold, piping.
The length of time to build pressure and test hoses
is directly related to overcoming air buildup.*

Motor will not Run

*Verify plugged directly into wall outlet, or using
minimum 12 gauge 3 wire, maximum 25' extension cord.
Push thermal overload button to reset.*

GAUGE

Pegged or faulty, order new gauge.



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

Piston Stack Parts Kits

Leather Cup Kit No. 3430-0037 (STD)

Consists of two each of the following parts: No. 2220-0013 Piston Cap Screw (Ref. 6A), No. 2270-0012 Washer (Ref. 6B), No. 1720-0030 O-Ring (Ref. 6C), No. 2150-0001 Leather Cup (Ref. 6D), No. 1720-0065 O-Ring (Ref. 6E) and No. 1440-0012 Seal Ring (Ref. 6F).

Fabric Cup Kit No. 3430-0039

Same as Leather Cup Kit except with two No. 2150-0012 Fabric Cups.

Rubber Cup Kit No. 3430-0189

Same as Leather Cup Kit except with two No. 2150-0042 Rubber Cups.

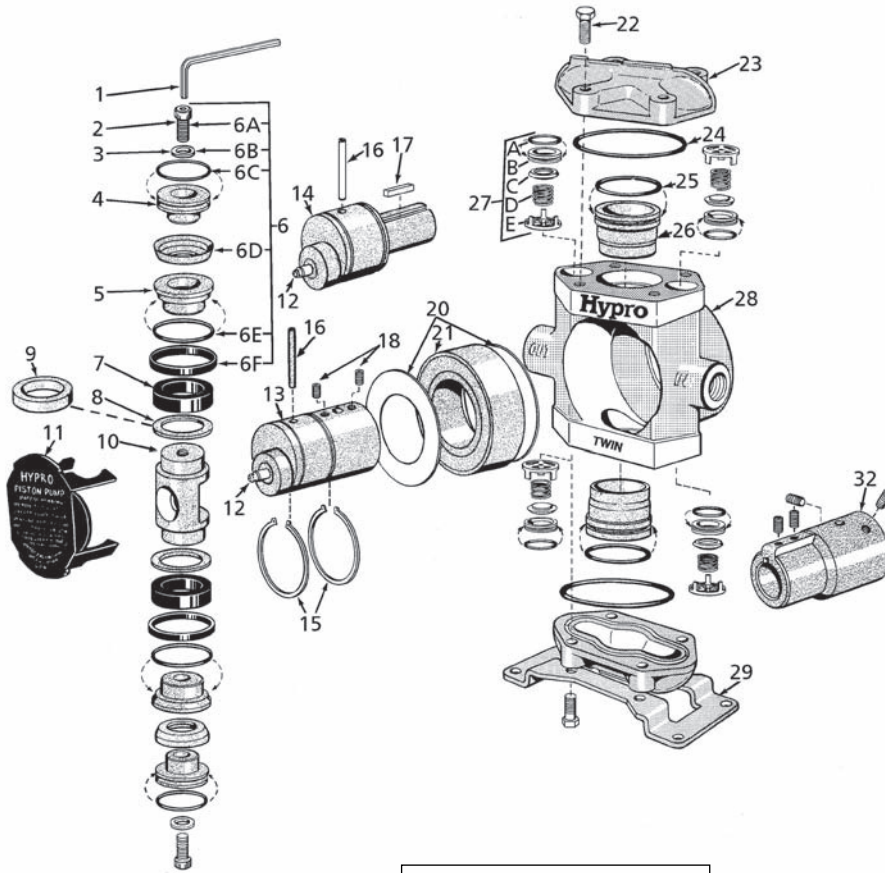
Crankshaft Assemblies

Sub-Assemblies

Include Grease Fitting (Ref. 12), Crankshaft with cam bearing (Ref. 13 or 14) and Crankpin Retainer (Ref. 16).

Complete Assemblies

Include Sub-Assembly components plus Retaining Rings (Ref. 15), slinger rings (Ref. 20) and Bearing (Ref. 21).



NOTE: When ordering parts, give **quantity, part number, description, and complete model number.** Reference numbers are used **ONLY** to identify parts in the drawing and are **NOT** to be used as order numbers.

Ref. No.	Qty. Req'd.	Part No.	Description
1	1	3020-0008	Allen Wrench (Optional)
2	2	2220-0013	Piston Cap Screw
3	2	2270-0012	Washer
4	2	1830-0039	Piston Cup Spreader
5	2	1410-0054	Cup Backing Plate
6	1	3430-0037	Piston Stack Parts Kit with Leather Cups (Standard)
6	1	3430-0039	Piston Stack Parts Kit with Fabric Cups (Models 5200-F)
6	1	3430-0189	Piston Stack Parts Kit with Buna-N Cups (Models 5200-R)
7	2	1440-0005	Piston Guide
8	2	1410-0018	Support Ring For 5210 Models Only
9	2	1410-0020	Support Ring For 5206 Models Only
10	1	0503-5200	Connecting Rod
11	1	0602-5200	Safety Cover
12	1	2405-0006	Grease Fitting Assembly
13	1	See Listing	Crankshaft (Solid Shaft Models)
14	1	See Listing	Crankshaft (Hollow Shaft Models)
15	2	1810-0001	Retainer Ring
16	1	1600-0013	Crankpin Retainer

Sub-Assembly PART NO.	Complete Assembly PART NO.	Pump Model Number
with 1-3/8" Hollow PTO Shaft (Ref. 13)		
5503-5206	5501-5206	5206C-H
5503-5210	5501-5210	5210C-H
with 1" Solid Shaft (Ref. 14)		
5003-5206	5001-5206	5206C
5003-5210	5001-5210	5210C

Ref. No.	Qty. Req'd.	Part No.	Description
17	1	1610-0005	Key (Solid Shaft Models)
18	2	2230-0003	Set Screw
20	2	1410-0006	Slinger Ring
21	1	2005-0002	Main Bearing
22	8	2210-0062	Cylinder Head Bolt
23	2	0203-5200CB	Cylinder Head
24	2	1720-0028	O-Ring – for cylinder head
25	2	1720-0019	O-Ring – for cylinder sleeve
26	2	3550-0007	Cylinder Sleeve
27	4	3400-0038	Valve Assembly—Consists of: O-ring (Ref. A), Valve Seat (Ref. B), Valve Poppet (Ref. C), Valve Spring (Ref. D) and Valve Spring Retainer (Ref. E)
28	1	0100-5200C	Body
29	1	1510-0024	Base
32	1	1320-0081	Adapter-Adapts 1" solid shaft to 1-3/8" 6-spline PTO hollow shaft. (Includes set screws.)

PARTS BREAKDOWN FOR MODEL FH10-SERIES

RICE HYDRO INC.

PUMP PARTS:

REF#	PART NUMBER..	DESCRIPTION..	QTY REQ'D
2	HYPRO-2220-0013	PISTON CAP SCREW	2
3	HYPRO-2270-0012	WASHER	2
4	HYPRO-1830-0039	PISTON CUP SPREADER	2
5	HYPRO-1410-0054	CUP BACKING PLATE	2
7	HYPRO-1440-0005	PISTON GUIDE	
		<i>*NOT SOLD SEPARATELY, ONLY IN KIT HYPRO-3430-0961*</i>	
8	HYPRO-1410-0018	**NO LONGER AVAILABLE**	NA
10	HYPRO-0503-5200	CONNECTING ROD	1
11	HYPRO-0602-5200	SAFETY COVER	1
12	HYPRO-2405-0006A	GREASE FITTING ASSEMBLY	1
14	HYPRO-5003-5210	**NO LONGER AVAILABLE**	NA
14	HYPRO-5001-5210	**NO LONGER AVAILABLE**	NA
15	HYPRO-1810-0001	RETAINER RING	2
16	HYPRO-1600-0013	CRANKPIN RETAINER	1
17	HYPRO-1610-0005	KEY FOR SOLID SHAFT	1
20	HYPRO-1410-0006	SLINGER RING	2
21	HYPRO-2005-0006	MAIN BEARING	1
22	HYPRO-2210-0062	CYLINDER HEAD BOLT	8
23	HYPRO-0203-5200CB	**NO LONGER AVAILABLE**	NA
24	HYPRO-1720-0028	O-RING FOR CYLINDER HEAD	2
25	HYPRO-1720-0019	**NO LONGER AVAILABLE**	NA
26	HYPRO-3550-0007	**NO LONGER AVAILABLE**	NA
27	HYPRO-3400-0038	VALVE ASSEMBLY	4
28	HYPRO-0100-5200C	PUMP BODY	1
29	HYPRO-1510-0024	**NO LONGER AVAILABLE**	NA

MISCELLANEOUS PARTS:

NA	BRIGG-130G52-0182-F1	5.5 HP 206 CC ENGINE W/GR	1
NA	HONDA-GX160UT2-HX2	5.5 HP 163 CC ENGINE W/GR	1
NA	CHECKVALVE-1/2CON	1/2" FEMALE CHECKVALVE	1
NA	BALLVALVE-1/2	1/2" BALLVALVE	1
NA	BALLVALVE-S-1&1/2	STAINLESS STEEL BALLVALVE	5
NA	SPRAY-6815-700-3/4	PRESSURE REGULATOR	1
NA	ADAPTER-NST-1&1/2	1&1/2" NPT X NST OUTLET ADAPTER	4
NA	SWIVEL-INLET-FH3	2&1/2" FEMALE SWIVEL INLET	1
NA	COUPLING-LVJ-3/4	3/4" COUPLING LOVEJOY (ENG SIDE)	1
NA	COUPLING-LVJ-ENG-1"	1" COUPLING LOVEJOY (PUMP SIDE)	1
NA	CENTERDISK-5210	URETHANE SPIDER 5210 (WHITE)	1
NA	CASTER-RIGID-4	4" RIGID CASTER	2
NA	CASTER-SWIVEL-4	4" SWIVEL CASTER	2
NA	GAUGE-600	0-600 PSI LIQUID FILLED GAUGE	1
NA	GAUGE-SNUBBER-1/4	1/4" VIBRATION SNUBBER	1
NA	HYPRO-5210C-FL	**NO LONGER AVAILABLE**	NA
NA	LABEL-KIT-FH	INSTRUCTION AND CAUTION STICKERS	1

KITS:

HYPRO-3430-0037	**NO LONGER AVAILABLE**	NA
HYPRO-3430-0039	PISTON REPAIR KIT--FABRIC: PISTON STACK PARTS KIT W/ FABRIC CUPS REF. #6	
HYPRO-3430-0961	**NO LONGER AVAILABLE**	NA

**** Hypro 5200 Series Pump has been discontinued, contact factory for availability ****