



Hydraulic Hand Pump

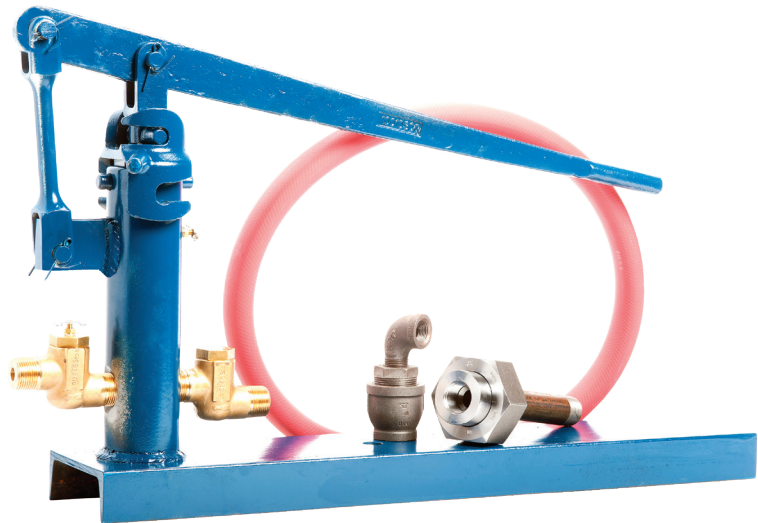
Introduction

The Portable Hydraulic Hand Pump is used for all types of low and high pressure testing, and many other shop, laboratory, and oilfield uses such as removing cores from core barrels, removing plungers from insert liner pumps, and testing valves, fittings, tubing, and casing. It is also used for setting Cement Retainers where mud or cement pumps are not available, and as an actuator for hydraulically controlled valves and hydraulically operated systems.

Benefits/Features

Compact. The Portable Hydraulic Hand Pump is an efficient, rugged, two stage force pump in a package weighing only 73 lb. It is small enough to be carried through manholes, into restricted quarters or to remote areas for spot testing.

Easy to Operate. The pump operates equally well whether the hydraulic medium is water or oil. Changing from the low to high pressure range requires only seconds.



Constructions

The two pistons of the Hand Pump are positioned concentrically. The Low Pressure Piston has a 1-1/2 in. OD and 4-1/2 in. stroke; its capacity is 0.030 gal/stroke. The High Pressure Piston has a 3/4 in. OD and a 4-1/2 in. stroke with a capacity of 0.008 gal/stroke.

Operation

Using the Low Pressure Piston, pressures up to 1,000 psi can be developed easily by hand; with the Handle Extension, up to 2,500 psi can be generated. Operation on the High Pressure Piston is accomplished simply by turning the Pressure Shifter; no disassembly or tools are required. With the pump operating on the High Pressure Piston, pressures up to 6,000 psi can be developed.

High-Pressure Discharge Hose

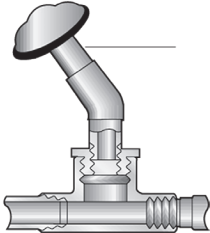
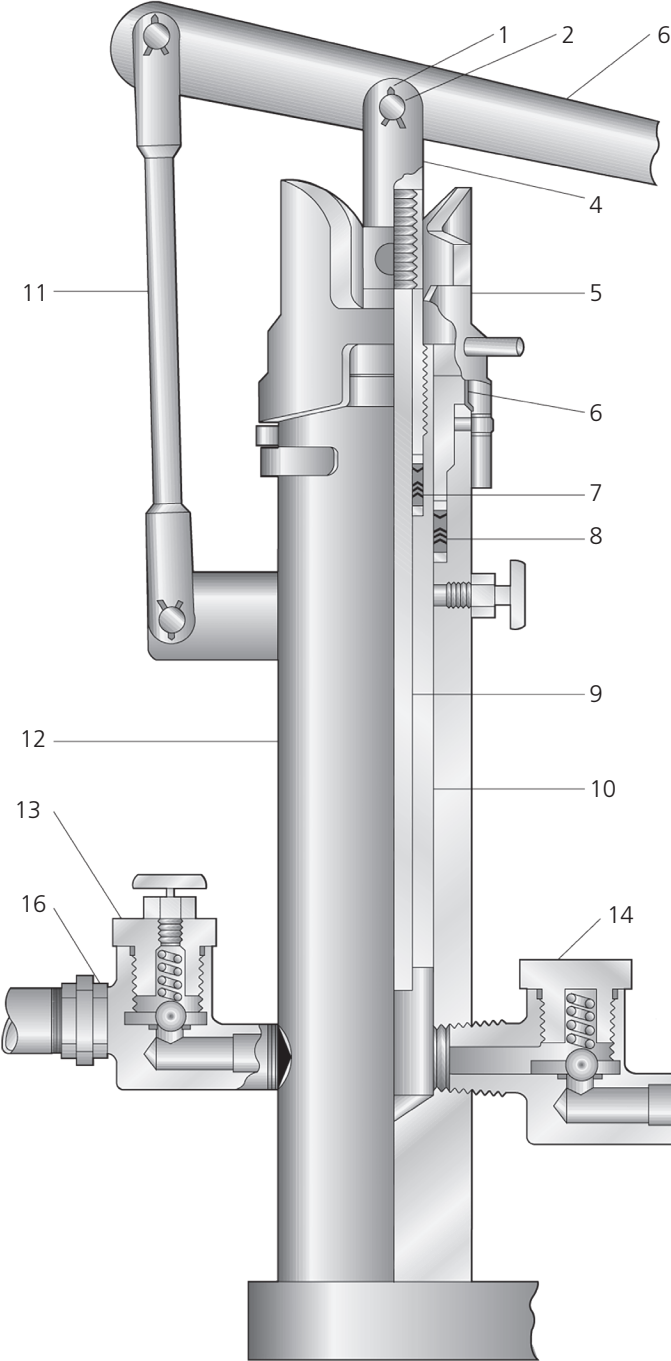
This unit is designed for use with the Portable Hydraulic Hand Pump for high pressure operation. It is a flexible, rubber covered hose with a tough, smooth exterior over a strong wire braid reinforcement. The interior of the hose is also smooth and made of special oil resistant rubber. The hose is equipped with small compact connections and has 1/2 in. NPT-pipe threads on both ends. A special 1 x 1/2 in. Extra Heavy Hydraulic Reducer is furnished with each hose order to facilitate connection of the hose to the Hand Pump.

Pump Assembly and Spare Parts

Description		Material No.	Weight	Dim
Portable Hydraulic Hand Pump for 6,000 WP	Buna-N	540010000	821b	30 X 6 X 22 in.
	Viton®Seals	540010010		
All Hoses:				
10 ft High-Pressure Discharge Hose		540090110	71b	-
15 ft High-Pressure Discharge Hose		540090115	101b	
20 ft High-Pressure Discharge Hose		540090120	141b	
25 ft High-Pressure Discharge Hose		540090125	181b	
30 ft High-Pressure Discharge Hose		540090130	221b	
50 ft High-Pressure Discharge Hose		540090150	301b	
100 ft High-Pressure Discharge Hose		540091000	601b	
Repair Kit contains:		070789800	2 1b	4 x 4x 4 in.
1 each: 011851100, 011851200				
2 each: WWB213H40, 010339600, WWT20500, WWB115H40				
Above Repair Kit with:				
Stainless Steel Ball		070789801	2 1b	
Viton® Seals and Stainless Steel Ball		070789802	2 1b	

Product Family No. H54001

Parts Illustration



Packing Assembly Instructions

Low-Pressure Piston Packing Assembly:
Slide the Back-up Ring, four [4] V-rings (lips down), and center Spacer into the cylinder body. Slip the Back-up Ring and one [1] V-ring (lips up) onto head end of Low-Pressure Piston, then slide Piston into place. Assemble V-rings for High-Pressure Piston Packing Assembly in a similar fashion. This will reduce premature seal cutting.

Parts and Weights

Item No.	Description	No. Req'd	Material No.	Wt lb	Dimensions in.
1	Cotter Pin	6	WWWX00319	0.1	3/16 x 1 in.
2	Link and Cross Head Pin	3	010010800	0.2	-
3	Handle	1	010010300	8.5	-
4	Piston Cross-Head	1	010010900	2	-
5	Pressure Shifter	1	011301800	3	-
6	Low-Pressure Packing Nut	1	010011100	7	-
7	High-Pressure Piston Packing Assembly	1	011851100	0.1	-
8	Low-Pressure Piston Packing Assembly	1	011851200	0.1	-
9	High-Pressure Piston	1	010011200	1.5	-
10	Low-Pressure Piston	1	010011300	3	-
11	Compensating Link	1	010011500	2	-
12	Cylinder Body and Base Plate Assembly	1	013176501	44	30 x 6 x 2 in.
13	Discharge Valve Assembly*	1	013246600	3	-
	Discharge Valve Bonnet	1	012264700	0.2	-
	O-ring	1	WWB213H40	0.1	-
	Spring	1	010339600	0.1	-
	Steel Ball^	1	WWT20S000	0.4	3/4 in. Dia
	Body	1	013246500	0.2	-
	O-ring	1	WWB115H40	0.1	-
	Petcock	1	WWWX00007	0.1	1/8 in.
14	Suction Valve Assembly*	1	013246700	3	-
	Suction Valve Bonnet	1	012250900	0.3	-
	O-ring	1	WWB213H40	0.1	-
	Spring	1	010339600	0.1	-
	Steel Ball^	1	WWT20S000	0.4	3/4 in. Dia
	Body	1	013246500	2	-
	O-ring	1	WWB115H40	0.1	-
Accessory Equipment					
16	Discharge Attachment Assembly*	1	015590600	3	-
	Extra Strong Nipple	1	WWW00F011	0.1	1 x 6 in.
	Forged Steel GJ Union	1	WWW00L002	0.1	1 in.
17	Suction Hose Assembly*	1	015864000	3	-
	Standard Pipe Nipple	1	WWW00F001	0.1	3/4 x 4 in.
	Punch Lok Band, No. 8	1	WWW007008	0.1	-
	Hose, Neoprene	1	WWW001004	0.1	1 x 54 in.
18	Suction Strainer Assembly*	1	015590700	2	-
	Standard Pipe Reducer	1	WWWX00010	0.1	-
	Brass Strainer	1	WWWX00005	0.1	-
	Bushing	1	WWW00K001	0.1	1-1/2 x 3/4 in.
	Standard Street Ell	1	WWW00J003	0.1	3/4 x 3/4 in.
Accessory Equipment (When Ordered Only)					
19	Gauge Assembly*	1	018400800	9	-
	Standard Ell	1	WWW00J004	0.1	1/2 x 45 in.
	Nipple, Extra Heavy	1	WWW00F012	0.1	1/2 x 6 in.
	Bushing	1	WWW00K002	0.1	1 x 1/2 in.
	Tee, 6,000 lb	1	WWW00H001	0.1	1 in.
	Nipple, Extra Heavy	1	WWW00F013	0.1	1 x 4 in.
-	Handle Extension	1	014492900	15	-

*These **should** be ordered as subassembly.

^Stainless Steel Ball (WWT21S0SS) available upon request.

Hand Pump Priming Instructions

1. Move Pressure Shifter item 5 to low pressure position.
2. Connect fluid supply to item 14 (oil or water).
3. Connect pressure gage and "dead head" to item 13.
4. Remove bonnet of item 14, remove spring and make sure ball is free. For now leave bonnet cap off.
5. Using the palm of your hand cover the top of item 14. Move handle from low position to high position. Remove your hand.
6. Allow the handle to come down a little - see that fluid comes out of the top of item 14. Replace the spring and bonnet and tighten. Do not let the handle come down during the reassemble of item 14.
7. Open the wing nut on item 13 and on the side of the vertical cylinder.
8. Move the handle down to the bottom of its stroke. Fluid and air should come out of the wing nut.
9. Close the wing nut on item 13. Move handle to up position.
10. Stroke down - air should come out of the cylinder wing nut. Move handle down until it is solid. Close the wing nut.
11. Open the wing nut on item 13. Move the handle to the bottom of the stroke. Close the wing nut on item 13.
12. Shift item 5 to the high pressure position. Move handle to top of stroke.
13. Open wing nut on side of cylinder. Move handle down. Air should bleed out the wing nut. Move handle until it is solid.
14. Pump should be primed at this point.

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Our Core Values

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Integrity

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Customer focused

Our products enhance our customer's performance and we listen to their needs and work with them to solve their challenges.

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