

# INSTRUCTION MANUAL REPAIR PARTS LIST

PUMP UNIT FP-10-3

PART CODE H 29000

## ⚠ WARNING

1. READ, STUDY AND UNDERSTAND ALL WARNING LABELS AND OPERATING INSTRUCTIONS FURNISHED WITH THIS EQUIPMENT PRIOR TO USE. IF ANY PORTION OF THIS MATERIAL IS UNCLEAR CONTACT YOUR REPRESENTATIVE FOR CLARIFICATION.
2. NEVER ALLOW UNSKILLED OR IMPROPERLY TRAINED PERSONNEL TO OPERATE THIS EQUIPMENT.
3. USE THIS PUMP ONLY WITH RAMS, HOSES, EQUIPMENT AND ACCESSORIES RATED FOR 10,000 PSI OIL PRESSURE.
4. DO NOT OVERLOAD. OVERLOADING IS OFTEN INDICATED BY BOWING EXTENSION TUBES OR SLIPPING ATTACHMENTS AND CAN RESULT IN PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT.
5. ALWAYS USE A PRESSURE FORCE GAUGE IN THE SYSTEM TO MONITOR PUMP OUTPUT PRESSURE OR SYSTEM FORCE.
6. DO NOT CONNECT PUMP TO ANY HYDRAULIC CYLINDER THAT IS EXTENDED OR PARTIALLY EXTENDED.
7. PRIOR TO USE ALWAYS BLEED HYDRAULIC SYSTEM TO REMOVE ALL AIR FROM HOSES AND HYDRAULIC EQUIPMENT.
8. DO NOT OPEN RESERVOIR FILLER SCREW UNLESS HYDRAULIC CYLINDER IS FULLY RETRACTED.
9. MAINTAIN PROPER OIL LEVEL IN PUMP RESERVOIR. OVERFILLING WILL CAUSE DAMAGE TO OR FAILURE OF THE PUMP. USE ONLY HYDRAULIC OIL RECOMMENDED BY THE MANUFACTURER. DO NOT USE BRAKE, TRANSMISSION OR FIRE RESISTANT FLUIDS.
10. BE CERTAIN ALL HYDRAULIC CONNECTIONS ARE TIGHT AND LEAK FREE. LOOSE FITTINGS OR COUPLINGS MAY RESULT IN EQUIPMENT MALFUNCTION.
11. DO NOT OVERTIGHTEN ANY CONNECTIONS. EXCESSIVE TIGHTENING MAY CAUSE FAILURE AT PRESSURES BELOW RATED CAPACITY.
12. THIS IS A PUMPING DEVICE ONLY. DO NOT USE PUMP TO MAINTAIN HYDRAULIC PRESSURE ON EQUIPMENT. SECURE LOADS BY OTHER APPROPRIATE MEANS.
13. RELEASE ALL HYDRAULIC PRESSURE BEFORE DISCONNECTING HOSES OR ACCESSORIES.
14. THIS PUMP IS TO BE USED ONLY WITH HOSES OR ACCESSORIES SUPPLIED, APPROVED OR CERTIFIED BY THE MANUFACTURER.
15. NEVER USE A HOSE THAT HAS BEEN DAMAGED, WORN, CUT, KINKED OR SUBJECTED TO HYDRAULIC SHOCK LOADING.
16. WHEN USING PUMP AND RAM TO PUSH, BEND OR STRAIGHTEN, BE CERTAIN THAT THE CONTACT POINT IS SECURE AGAINST THE OBJECT BEING WORKED UPON.
17. DO NOT EXTEND HANDLE LENGTH OR USE A CHEATER PIPE OR OTHER HANDLE EXTENSION. USE ONLY THE HANDLE PROVIDED BY THE MANUFACTURER.
18. WHEN OFFSET ATTACHMENTS ARE USED, THE RATED CAPACITY IS ALWAYS REDUCED BY 50%. FOR EACH EXTENSION TUBE USED IN THE SETUP, THE OVERALL RATED CAPACITY IS REDUCED AN ADDITIONAL 50%. REFER TO THE OPERATING INSTRUCTIONS PROVIDED FOR TYPICAL SETUPS AND CORRESPONDING LOAD CAPACITIES.
19. PRIOR TO APPLYING A LOAD, INSURE THAT ALL ATTACHMENTS AND EXTENSION TUBES ARE FULLY ENGAGED.
20. INSURE LOAD IS CENTRALLY APPLIED TO ATTACHMENTS AND RAM SADDLE, TO MINIMIZE AN OFF CENTER LOAD CONDITION.
21. DO NOT CONTINUE TO PUMP WHEN RAM IS FULLY EXTENDED.
22. IT IS THE OWNER'S RESPONSIBILITY TO KEEP ALL WARNING LABELS AND INSTRUCTIONAL LITERATURE LEGIBLE AND INTACT. REPLACEMENT LABELS AND LITERATURE ARE AVAILABLE FROM THE FACTORY.
23. FAILURE TO HEED THESE WARNINGS WILL RESULT IN EQUIPMENT AND/OR PROPERTY DAMAGE AND/OR PERSONAL OR FATAL INJURY.

## OWNER'S RESPONSIBILITY

**Operation.** The owner and/or operator shall have an understanding of these operating instructions and warnings before operating this equipment. Warning information shall be emphasized and understood. If the user is not fluent in English, the instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

**Maintenance.** This equipment shall be maintained in accordance with instructions listed under "Maintenance."

### Inspection

1. Visual inspection shall be made before each use of this equipment checking for leaking hydraulic fluid and worn or damaged hose and fittings.
2. Each piece of equipment shall be inspected by an authorized Hein-Werner service center immediately, if subjected to an abnormal load or shock.
3. Owners and/or users should be aware that repair of this equipment may require specialized knowledge and facilities. It is recommended that an annual inspection of this equipment be made by an authorized Hein-Werner service center and that any defective parts, decals or warning labels be replaced with genuine Hein-Werner parts. A list of authorized service centers is available from Hein-Werner.

**Damaged Equipment.** Any equipment which appears to be damaged in any way, is found to be badly worn, or operates abnormally **SHALL BE REMOVED FROM SERVICE** until necessary repairs are made by an authorized Hein-Werner service center.

## BASIC PRINCIPLES OF OPERATION (See Figure 1)

1. To prepare the pump and ram for operation, connect hose to ram and tighten all connections. Use a gauge to verify actual load being applied for various set-ups being used.

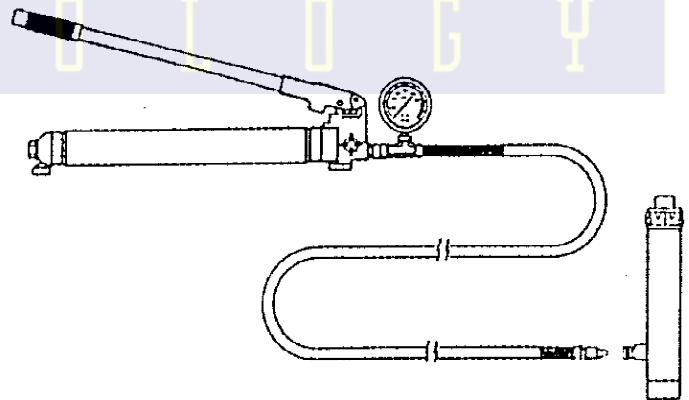


FIGURE 1

2. **Operation.** To operate - close the release valve by turning clockwise until snug (do not overtighten). Operate pump handle which pumps oil through hose to the ram, causing the ram plunger to extend until it contacts the workpiece. Continue pumping until the desired operation is completed.

**NOTE:** The pump is equipped with an overload valve that will by-pass (pump oil back into reservoir) when the system reaches maximum pressure. At this point, continued pumping may not lift or sustain the load.

Be careful, however, to watch for signs that the system is overloading or that the equipment setup is unstable.

To release the pump and retract the ram plunger, slowly turn the release valve counterclockwise. The release speed can be controlled by the amount the release valve is turned.

### PUMP OPERATING POSITIONS (See Figures 2 and 3)

When the pump is used in a horizontal position, the handle must be on top as shown in figure 2. When the pump is used in a vertical position, the hose must be pointed downwards (fig. 3). Any other position will result in an inoperable system.



FIGURE 2



FIGURE 3

### MAINTENANCE

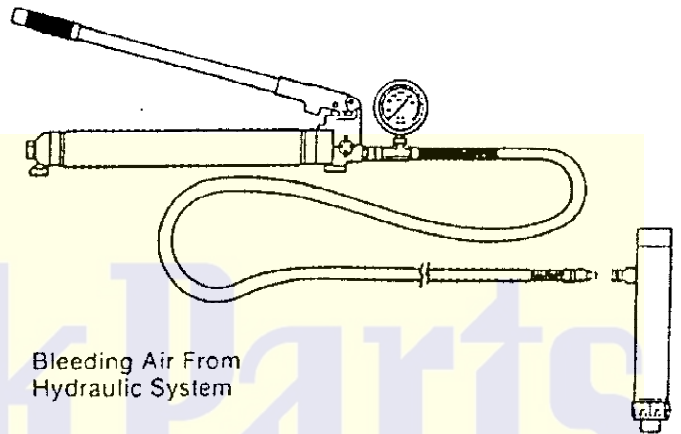
1. When the equipment is not in use, keep the ram retracted and the pump release valve closed.
2. Keep equipment clean. Lubricate moving parts on pump handle. Store in box when not in use. Avoid sharp kinks in hose.
3. Check oil level frequently. Oil level must be within indicator marks on filler plug indicator (item 29). With

ram fully retracted, add or drain oil as necessary to maintain proper oil level. Replace filler plug. Use only Hein-Werner hydraulic jack oil. Do not use brake fluid.

### OPERATION

#### TROUBLESHOOTING

1. Occasionally during transit or storage, or through use, the pump or ram can become low on fluid, or air can be introduced into the system causing it to become "air-bound."
2. To bleed hydraulic system - place pump in a horizontal position and place ram so that the ram plunger is pointed downward (Figure 4). The ram and hose must be lower than the pump discharge port. Open release valve fully, and pump handle full stroke 10-12 times. Close release valve. Pump to extend ram plunger fully, then release. Repeat two or three times if required.



Bleeding Air From Hydraulic System

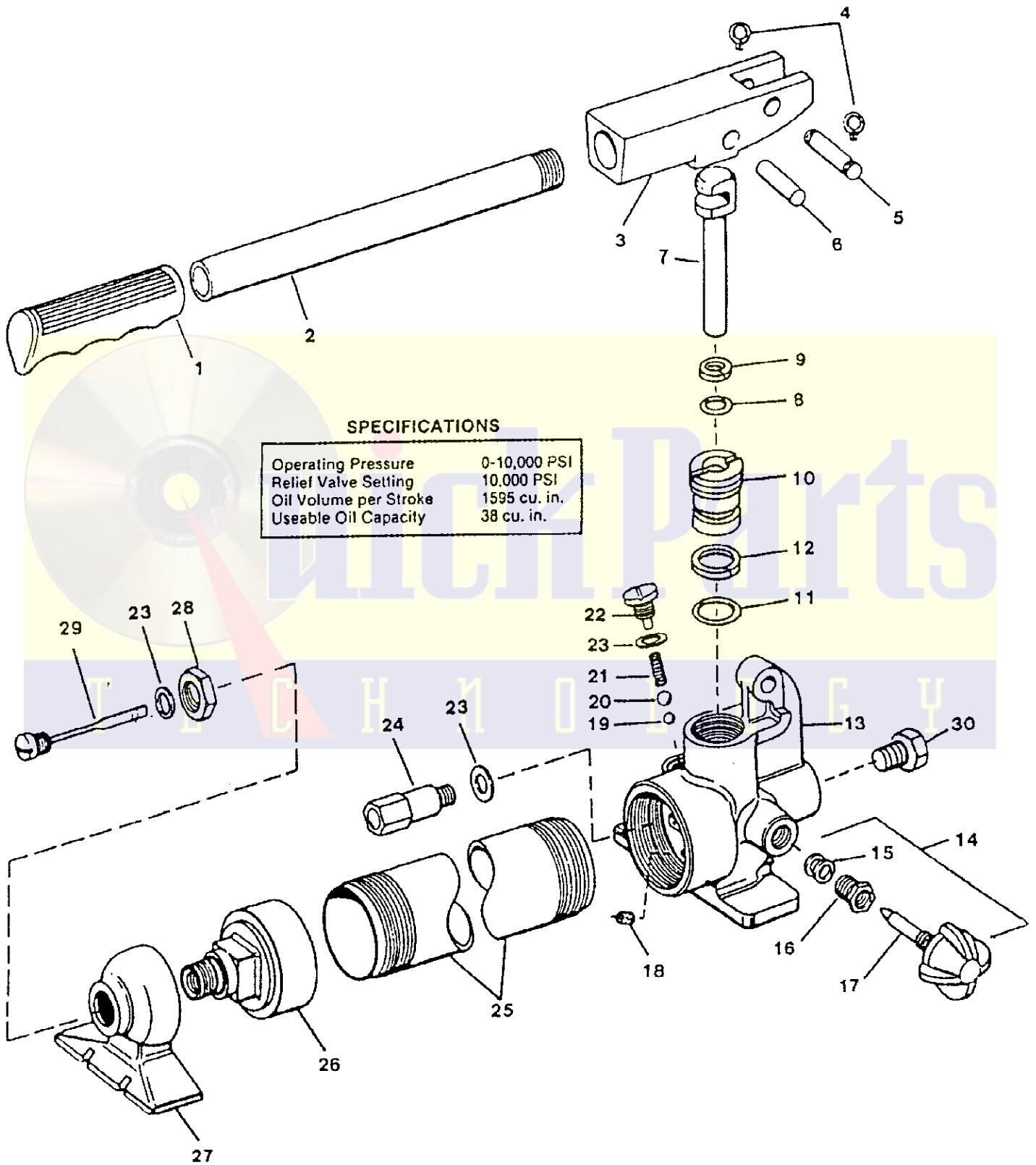
FIGURE 4

### PUMP UNIT FP-10-3

Item No.	Part Code	Description	Qty. Required	Item No.	Part Code	Description	Qty. Required
1	BB525550	Grip	1	18	BP307180	Oil Screen	1
2	BB524070	Handle	1	19	H0334500	Ball	2
3	BB113060	Handle Socket	1	20	H0256900	Ball	1
4	CB415044	Retaining Ring	2	21	BS118300	Spring	1
5	CB334060	Handle Socket Pin	1	22	BK300600	Valve Plug	1
6	BP755700	Piston Pin	1	23	BB159167	Gasket	3
7	BP165100	Pump Piston	1	24	BP181190	Overload Cartridge	1
8	B1112803	O-Ring	1	25	BP162500	Reservoir	1
9	B1112569	Back-Up Ring	1	26	P75266-1	Reservoir Cap	1
10	CN204446	Piston Guide	1	27	P75267-1	End Cap	1
11	B1117903	O-Ring	1	28	BP751810	Nut	1
12	B1117565	Back-Up Ring	1	29	BB110900	Filler Plug Indicator	1
13	H2900300	Base Assembly	1	30	BR515245	Plug	1
14	H2901400	Valve Assembly, Release	1	31	H2903200	Warning Decal (Not Shown)	1
15	B1001503	O-Ring	1	32	H2903300	Product Decal (Not Shown)	1
16	BMJ11-10	Packing Nut	1				
17	CU689900	Release Valve	1				

• Included in Repair Kit H2903100

† Included in Base Assembly H2900300



**SPECIFICATIONS**

Operating Pressure	0-10,000 PSI
Relief Valve Setting	10,000 PSI
Oil Volume per Stroke	1595 cu. in.
Useable Oil Capacity	38 cu. in.

**Machine Parts**

**T H O G Y**