



Stainless Steel Hydraulic Hand Pump

Owner's Manual

GZ50000



Stainless Steel Hydraulic Hand Pump Model GZ50000

Manually operated, horizontally mounted. Our pump is designed to operate our complete line of Girard Hydraulic Products as well as competitor's products on both IBC Containers and Tank Trailers.

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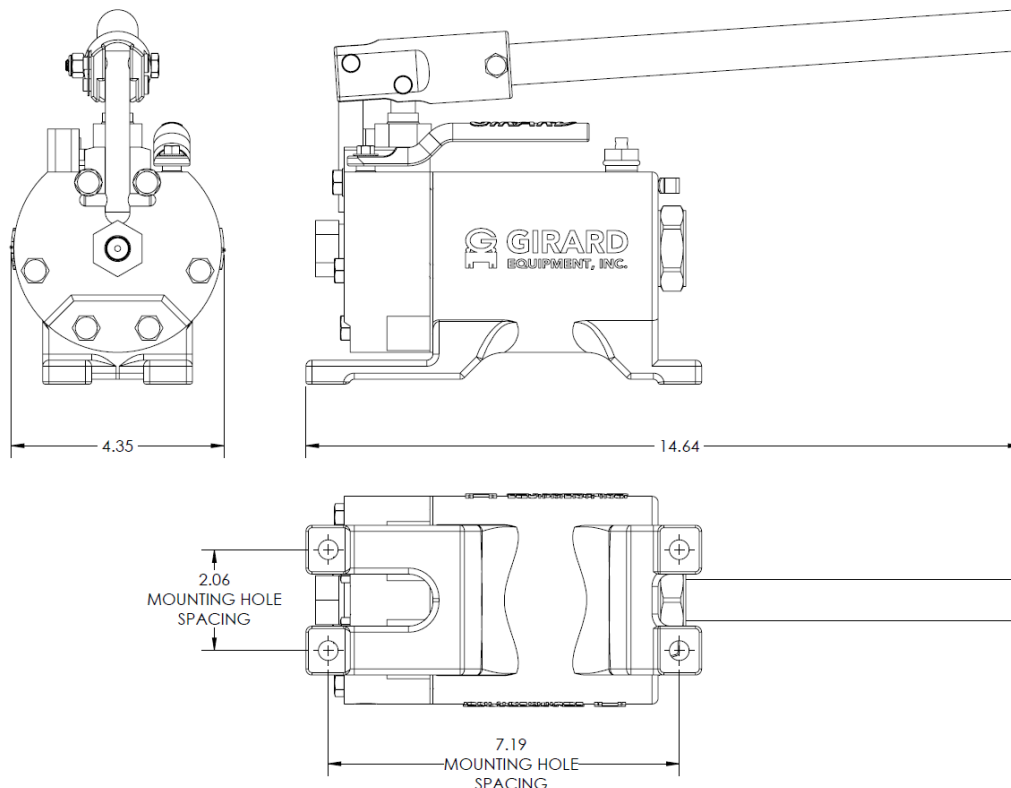
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Technical Data

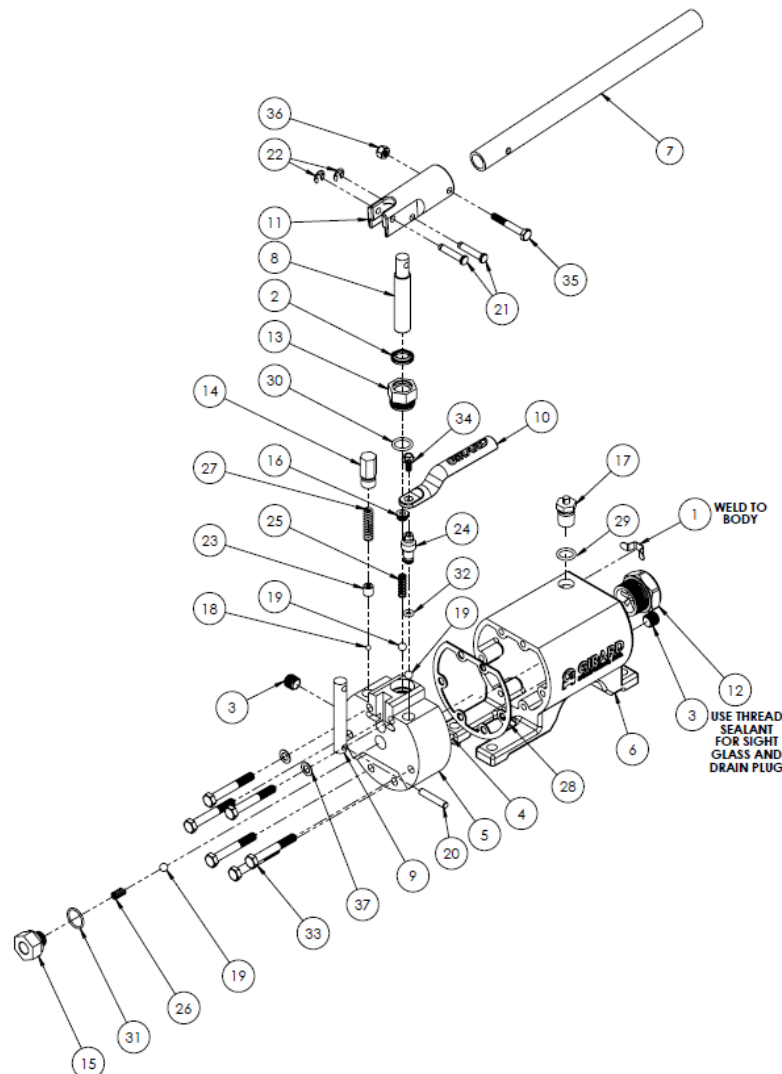
- 1) Overall height: 7.6", Overall length: 14.7", Overall width: 4.6"
- 2) Overall weight: 16.2 lbs.
- 3) All cast components constructed from CF8 cast grade stainless steel (304 SS wrought equivalent)
- 4) Bypass pressure factory set to approximately 3000-4000 psi
- 5) Pump should be ordered with factory settings not to exceed the pressure rating of the component(s) to be controlled with the pump.
- 6) Mounts to IBC container or tank trailer frame using industry standard bolt pattern
- 7) Approximate reservoir fluid capacity: 23 fl. oz. (Recommended fill capacity: to sight glass, or approx. 12 fl. oz.)
- 8) Displacement per stroke: 0.34 in³
- 9) Girard recommends Mobil DTE 24 or 25 Hydraulic Oil based on region.



Exploded View of Product

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REPAIR KIT?
1	GO40500	GE WELD-ON SEAL TAB	1	
2	GQ85452	GE CHEMOVATION QR VALVE 5/8" DTW WIPER	1	Y
3	GZ30188	GE 1/4" NPT X .46" LG; SSFP	2	Y
4	GZ30530	GE WIRE CLOTH FILTER, 40 MESH	1	Y
5	GZ50100	GE VALVE BLOCK, 4.25" OD X 1.76" THK	1	
6	GZ50110	GE RESERVOIR	1	
7	GZ50120	GE HANDLE, .84 OD X 12" LG	1	
8	GZ50200	GE PISTON, 5/8" OD X 3.44" LG	1	
9	GZ50210	GE LINKAGE, 1/2" OD X 3.29" LG	1	
10	GZ50220	GE PRESSURE RELEASE HANDLE	1	
11	GZ50230	GE HANDLE BASE, 1-3/8" OD X 3.58" LG	1	
12	GZ50300	GE SIGHT GLASS, 1" NPT	1	
13	GZ50320	GE BUSHING, 1" HEX, 1"-20 UNEF	1	
14	GZ50330	GE BYPASS CAP, 9/16" HEX, 9/16"-12 UNC	1	
15	GZ50340	GE OUTLET FITTING, 1" HEX, 5/8"-18 UNF	1	
16	GZ50350	GE SPRING RETAINER, 7/16"-20 UNF	1	
17	GZ50360	GE VENT PLUG, 3/8" NPT	1	Y
18	GZ50400	GE BALL, 3/16"	1	Y
19	GZ50410	GE BALL, 5/16"	3	Y

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REPAIR KIT?
20	GZ50420	GE DOWEL PIN, 1/4", 1-3/8" LG	1	
21	GZ50430	GE CLEVIS PIN, 1/4", 1-1/8" LG	2	Y
22	GZ50435	GE RETAINING RING	2	
23	GZ50440	GE BYPASS SPACER	1	
24	GZ50450	GE RELEASE STEM	1	
25	GZ50500	GE SPRING, 0.3" OD, .938" LG, RATE 4.6 LB/IN, SS	1	Y
26	GZ50505	GE SPRING, 0.3" OD, .938" LG, RATE 9.6 LB/IN, SS	1	Y
27	GZ50510	GE SPRING, HIGH PRESSURE, 0.36" OD X 1.75" LG.	1	Y
28	GZ50700	GE GASKET, 4-1/4" OD	1	Y
29	GZ50720	GE O-RING, .755 OD, .549 ID	1	Y
30	GZ50730	GE O-RING, .818 OD, .612 ID	1	Y
31	GZ50740	GE O-RING, .879 OD, .739 ID	1	Y
32	GZ50750	GE O-RING, .412 OD, .206 ID	1	Y
33	GZ50800	GE HEX HEAD SCREW, 5/16"-18, 2-1/4" LG	6	
34	GZ50810	GE SERRATED-FLANGE HEX HEAD SCREW	1	
35	GZ50820	GE HEX HEAD SCREW, 1/4"-20, 1.75" LG, 18-8 SS	1	
36	GZ50830	GE LOCKNUT, 1/4"-20, 18-8 SS	1	
37	GZ50840	GE WASHER, 5/16"	2	



Safety

General Safety Information



WARNING: All safety regulations must be followed during the operation of this product. Follow maintenance instructions as set forth in this manual to avoid serious injury. Do not attempt to disassemble the device unless you have been properly trained by a Girard Equipment representative. It is strongly recommended that this entire manual be read prior to the operation of this equipment.

Product Storage

- Temperature Range: -40° F to 250° F
- Humidity Range: N/A
- Altitude Range: N/A

Store the empty device in its original container, to maintain a dust-free environment. Pumps are shipped dry, with no hydraulic fluid. The pump will require priming before use.

Product Handling

Follow OSHA practices for lifting of heavy objects.

Disposal Requirements

No special requirements when empty. When filled, follow standard OSHA disposal requirements for hydraulic fluid used.

Installation Instructions

Positioning and Mounting

Step 1

Before mounting, ensure location will allow pump handle to clear all objects while in the up position and that the operator can operate the handle with no interference. Also ensure the release valve handle is accessible by the operator while installed.

Step 2

Bolt the hydraulic pump to an ISO container or tank trailer frame in a horizontal orientation by bolting through the 4 holes in the mounting feet, using appropriate anti-vibration hardware.

Filling Pump

Step 3

Remove vent plug (GZ50360) from top of reservoir. Fill with 12 fl. oz. of Mobil DTE 24 or 25 hydraulic oil (to the middle of the sight glass). Do not overfill. Reinstall vent plug.

Connecting and Priming Pump

Step 4

Ensure pump is filled with enough fluid as outlined above. Remove shipping plug and connect hydraulic line to the pump via ¼" NPT male pipe fitting and Teflon® tape. Connect other end of line to a valve. With the release handle in the open (counterclockwise) position, pump until primed. A small amount of resistance should be felt on the handle once the pump is primed.

Note: While pumping, a small amount of bubbles/turbulence may be seen through the sight glass to indicate successful priming.

Bleeding of Hydraulic Lines

Step 5

All air must be bled from hydraulic lines before hydraulic device is used. Ensure reservoir is filled to the middle of the sight glass to avoid getting air in the line(s).

- a. With hydraulic line attached to the pump, disconnect hydraulic line from all valve(s). Start with the closest valve, bleed the line, and repeat for all other valves.
- b. With the release handle in the closed/locked (clockwise) position, pump until fluid comes through the end of the line, with no apparent bubbles. Reconnect the hydraulic line to the valve. Repeat for each line leading to a component within the system.
- c. After all lines are bled, refill pump reservoir to middle of sight glass as needed, and reinstall vent plug.

Operation Instructions

It is the responsibility of all persons performing any operation of the Hydraulic Hand Pump to read and understand this procedure before starting work. Before using a Girard or competitor's valve with a hydraulic actuator installed, follow the procedure for priming the pump and the bleeding hydraulic lines, located in the Installation Instructions section of this manual.

Prior to use, a visual inspection should be performed to ensure all safety components are intact.

***When the pump is not in use or is in transport, ensure the handle is in the down position.

Operating the release handle (GZ50220)

- a) Turn release handle clockwise to closed position to pressurize the line. This allows the hand pump to operate the connected equipment.
- b) Return release handle to original counterclockwise position to relieve hydraulic pressure in the line. This prevents pressure from reaching the equipment.

Operating the main handle (GZ50120)

Pump handle up and down to increase hydraulic pressure as needed to operate equipment.

Maintenance Instructions

Girard recommends that all products be placed on a regular maintenance schedule which includes a visual inspection for leaks. The end user must determine their own schedule based on use and environment. Ensure the schedule meets regulations and the operators are aware of all applicable codes.

The Hydraulic Hand Pump should be visually inspected periodically. The following items are recommended to be done during the time of the visual inspection.

- 1) If leaks are found, use the Troubleshooting section of the manual to stop the leak.
- 2) Ensure mounting bolts are securely tightened.
- 3) Clean and remove any debris that may have accumulated around the vent plug (GZ50360). The plug does not need to be removed for this.

Test Instructions

Girard Hydraulic Hand Pumps are factory tested and are set at customer specified pressures. No additional testing required.

Troubleshooting and Repair

Leak around piston	<ol style="list-style-type: none"> 1. Replace rod wiper (GQ85452). 2. Remove piston (GZ50200) and replace O-ring (GZ50730). Reinstall the piston.
Leak around release valve	<ol style="list-style-type: none"> 1. Using a 5/16" wrench, remove the serrated screw (GZ50810), release handle (GZ50220), and release stem (GZ50450). Replace O-ring (GZ50750). Reinstall the release valve assembly.
Leak around outlet port	<ol style="list-style-type: none"> 1. Remove the outlet fitting (GZ50340). Wipe clean. Replace O-ring (GZ50740). Reinstall outlet fitting.
Pump does not build or hold pressure- Air trapped in the system or Vapor Lock	<ol style="list-style-type: none"> 1. All air must be bled from the entire length of the hydraulic lines at the point of connection to all hydraulically operated components. (See Installation Instructions Step 4). If vapor lock is present, see Step 3, Connecting and Priming the Pump.
Pump does not build or hold pressure- Release valve contaminated with debris	<ol style="list-style-type: none"> 1. Flush release valve to be sure all debris is removed.
Pump does not build or hold pressure- Filter is clogged	<ol style="list-style-type: none"> 1. Replace filter (GZ30530).
Pump does not prime	<ol style="list-style-type: none"> 1. Remove clevis pin (GZ50430) connecting piston to handle. Move handle away and remove piston (GZ50200). Fill piston chamber half full with hydraulic fluid. Replace piston and reconnect handle.

Replacement Parts

See page 4 for repair kit parts.

Note: GZ50360 and GZ50720 should be purchased together as both are needed for the vent plug.

Warranty

All goods manufactured by Girard Equipment, Inc. from “genuine” Girard parts are warranted to be free from defects and will be replaced free of charge if failure occurs within 5 years of date of shipment, provided that these parts have been used in accordance with seller’s recommendations. Our liability in any case shall be limited to the sale price of the product and will not extend to any consequential damage.

Contact Information

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