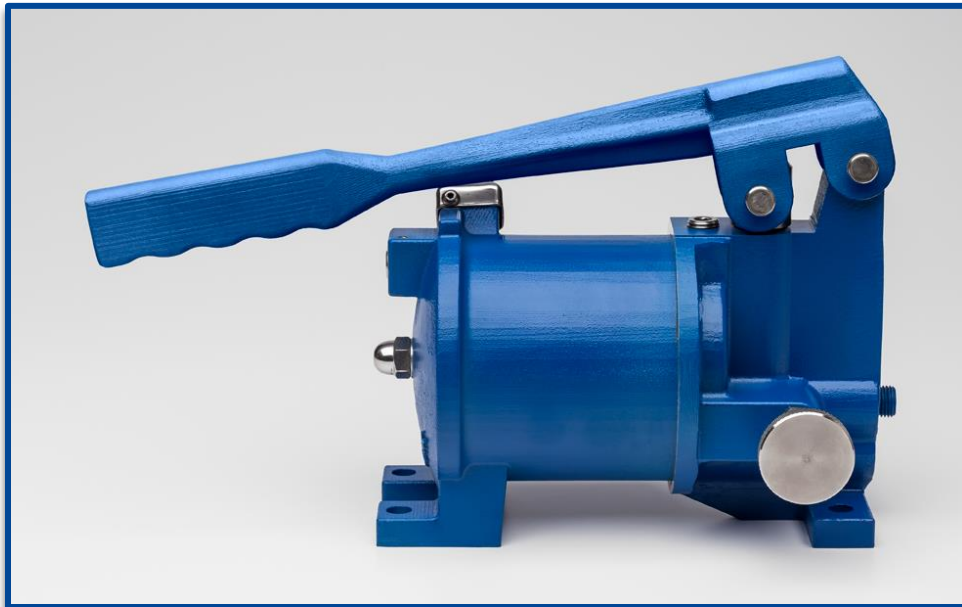




Hydraulic Hand Pump

Owner's Manual

GZ30000, GZ30010



Hydraulic Hand Pump Model GZ30000

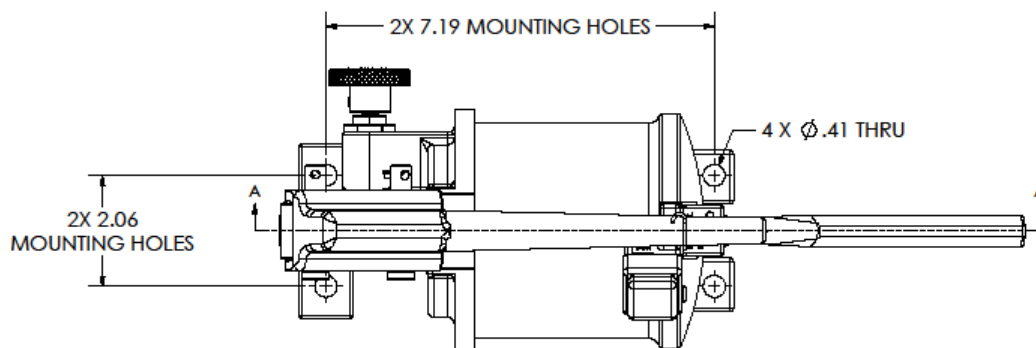
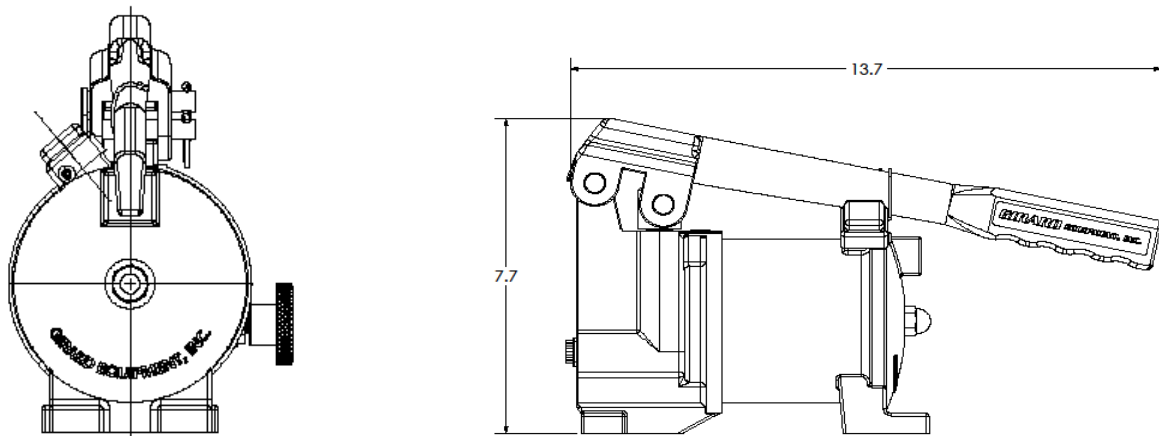
Manually operated hydraulic pump that can be mounted horizontally, vertically, or at an angle. Our pump is designed to operate our complete line of Girard Hydraulic Products as well as competitor's products on both IBC Containers and Tank Trailers.

Table of Contents

Technical Data	3
Exploded View of Product	4
Safety.....	5
General Safety Information.....	5
Product Storage	5
Product Handling.....	5
Disposal Requirements	5
Installation Instructions	6
Operation Instructions	9
Maintenance Instructions	10
Test Instructions	10
Troubleshooting and Repair	11
Replacement Parts	13
Warranty	13
Contact Information	13

Technical Data

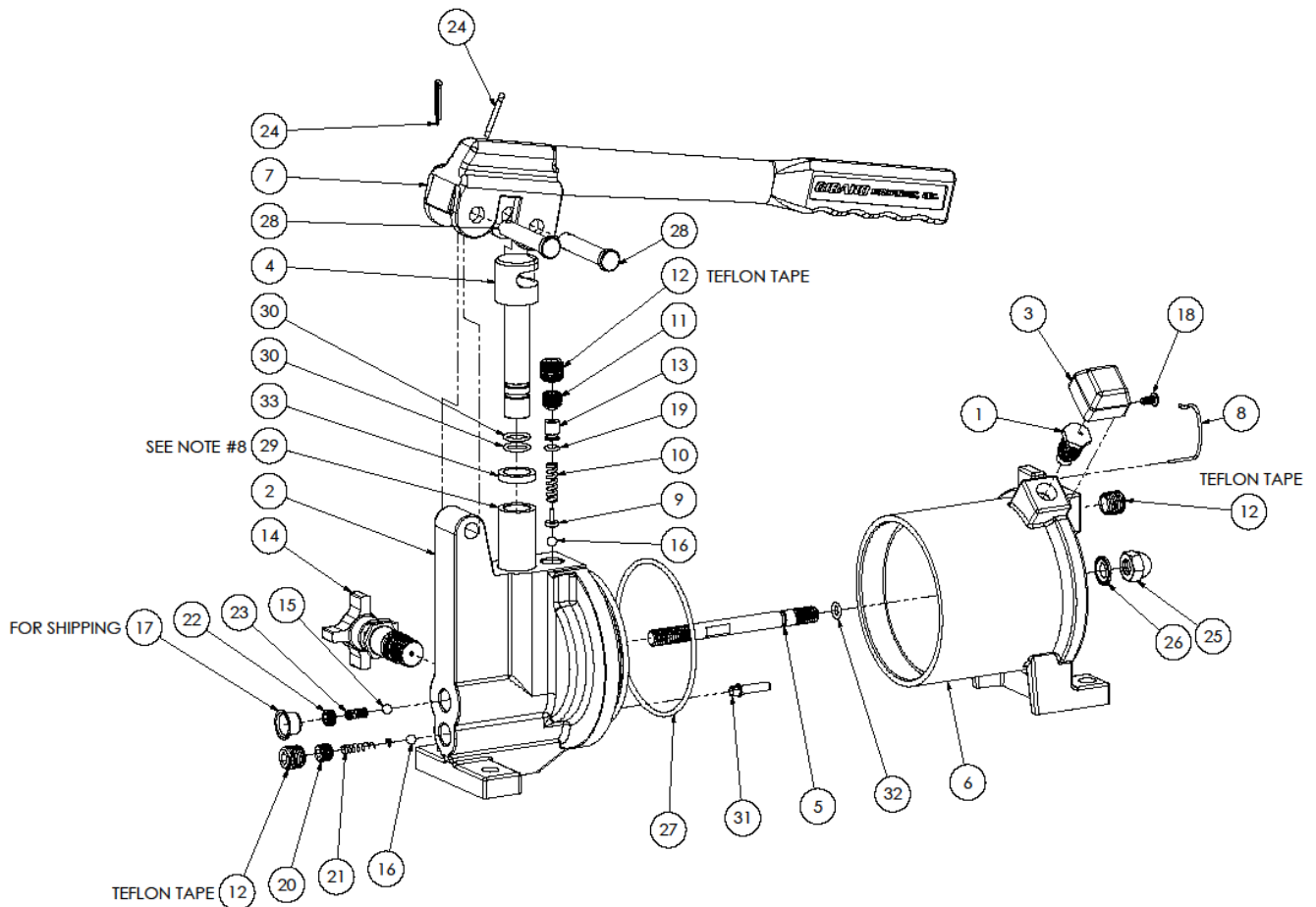
- 1) Overall height: 7.7" Overall length: 13.7" Overall width: 5.3"
- 2) Overall weight: 6.9 lbs
- 3) All cast components constructed from A356-T6 Aluminum
- 4) Factory adjustable hydraulic pressure settings up to 3000 PSI Max
- 5) Pump should be ordered with factory settings not to exceed the pressure rating of the component(s) to be controlled with the pump.
- 6) Mounts to IBC container or tank trailer frame using a common bolt pattern
- 7) Approximate fluid capacity: 34 in³
- 8) Displacement per stroke: 0.41 in³
- 9) Girard recommends Mobil DTE 24 or 25 Hydraulic Oil based on region.
- 10) Manufactured and assembled in the USA



Exploded View of Product

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GZ30050	RESERVOIR VENT ASSEMBLY	1
2	GZ30100	MANIFOLD BLOCK	1
3	GZ30106	VENT COVER	1
4	GZ30120	PISTON	1
5	GZ30130	THREADED CLAMP ROD	1
6	GZ30140	END CAP, ALUMINUM	1
7	GZ30155	HANDLE, POWDER COATED	1
8	GZ30159	HANDLE RETAINER	1
9	GZ30182	SPRING PIN, PRV	1
10	GZ30184	HIGH PRESSURE SPRING	1
11	GZ30186	7/16-20 x 3/8" LG. SSCP	1
12	GZ30188	1/4 NPT PIPE PLUG	3
13	GZ30190	PRESSURE RELIEF VENT PLUNGER	1
14	GZ30200	RELEASE VALVE ASSEMBLY	1
15	GZ30208	COMPOSITE BALL	1
16	GZ30210	STEEL BALL BEARING	2
17	GZ30214	VINYL PLUG FOR 1/4 NPT TAP	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
18	GZ30230	8-32 X 5/16" LG. BHCS, 316 SS	1
19	GZ30280	O-RING	1
20	GZ30300	1/8" NPT PIPE PLUG, SH	1
21	GZ30310	SPRING	1
22	GZ30330	3/8"-24 X 3/16" LG. SHSS, W/ THRU HOLE	1
23	GZ30340	SPRING	1
24	GZ30360	1/8" DIA X 3/4" LG. COTTER PIN	2
25	GZ30370	3/8"-16 ACORN NUT	1
26	GZ30375	PRESSURE SEALING WASHER	1
27	GZ30380	VITON O-RING	1
28	GZ30420	CLEVIS PIN	2
29	GZ30510	PISTON BUSHING	1
30	GZ30520	VITON O-RING	2
31	GZ30530	WIRE CLOTH FILTER, #40 MESH	1
32	GZ30540	VITON O-RING	1
33	GZ30550	OIL SEAL WIPER	1



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

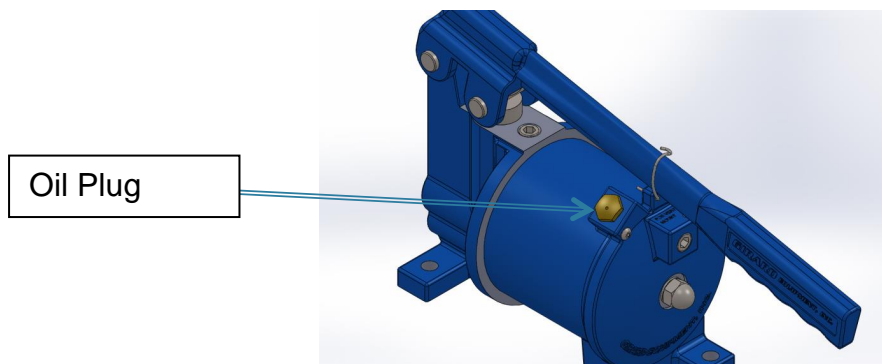
Step 1

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 knob is accessible by the operator while installed.

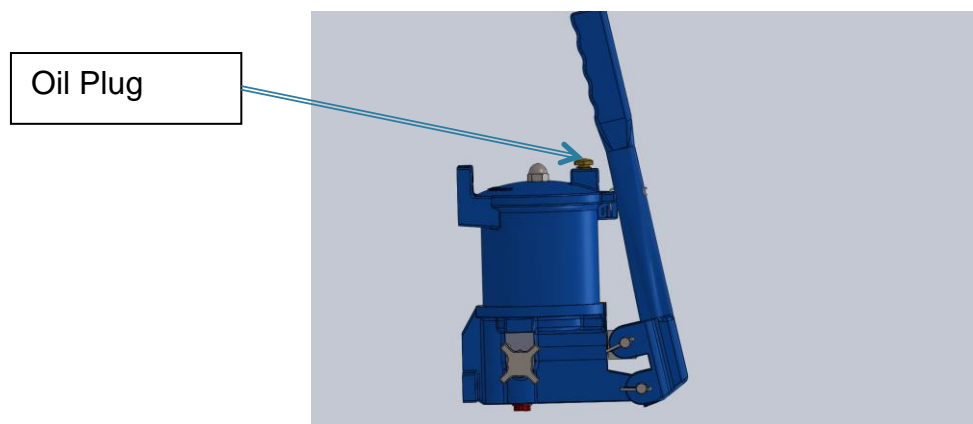
Step 2

Bolt the hydraulic pump to an ISO container or tank trailer frame according to your specific mounting location needs by bolting through the 4 holes in the mounting feet, using appropriate anti-vibration hardware.

If mounted horizontally, keep pipe plug (GZ30188), vent plug (GZ30050), vent cap (GZ30106) and button head screw (GZ30230) in same locations as shipped.



If mounting vertically, switch location of pipe plug (GZ30188), vent plug (GZ30050), vent cap (GZ30106) and button head screw (GZ30230) as shown.



****All fill ports must be located at the top of the pump, when installed and the output port facing down.**

Filling Pump

Step 3

Remove button head screw (GZ30230) and vent cover (GZ30106) from the end cap (GZ30140). Remove the vent plug (GZ30050). Fill pump reservoir with solution to the bottom of the vent plug hole threads.

Reinstall vent plug (GZ30050), vent cover (GZ30106) and button head screw (GZ30230) as directed in step 2, based on the desired mounting position.

Priming Pump

Step 4

Remove the 1/4" pipe plug directly below the hydraulic line coming out of the pump. Take off the brass fill plug and make sure there is fluid up to the top. Pump the handle slowly 2 or 3 times, until fluid comes out of the bottom hole. Reinstall the 1/4" pipe plug with teflon tape, It will then be ready to use.

Connecting Pump

Step 5

Remove shipping plug. Attach pump to the existing lines, using a male 1/4" NPT pipe fitting and Teflon® tape.

Bleeding of Hydraulic Lines

Step 6

All air must be bled from hydraulic lines before hydraulic device is used. After every 15 pumps, fill the reservoir as needed to avoid getting air in the line(s).

- a. Remove vent plug (GZ30050) from hydraulic pump and fill reservoir with hydraulic fluid as shown in Fig. B. (next page)

Girard recommends using Mobil DTE 24 or 25 Hydraulic Oil

- b. Bleeding one line at a time, pump hydraulic fluid through the hydraulic line using the pump until a steady stream of hydraulic fluid comes through the end of the line, with no apparent bubbles. Reconnect the bled line.

Repeat Step b for each line leading to a component within the system.

Note: Fill reservoir as necessary to avoid getting air in the lines

- c. Top off reservoir with hydraulic fluid and reinstall vent plug (GZ30050) as shown in Fig. B.

Note: With two valves in series it should take 5-7 pumps on average to open both. If more than 10 pumps are required, it is an indication the system is not properly charged and may still have air in the system. Steps to purge system (Step 5, a-c) will need to be repeated.

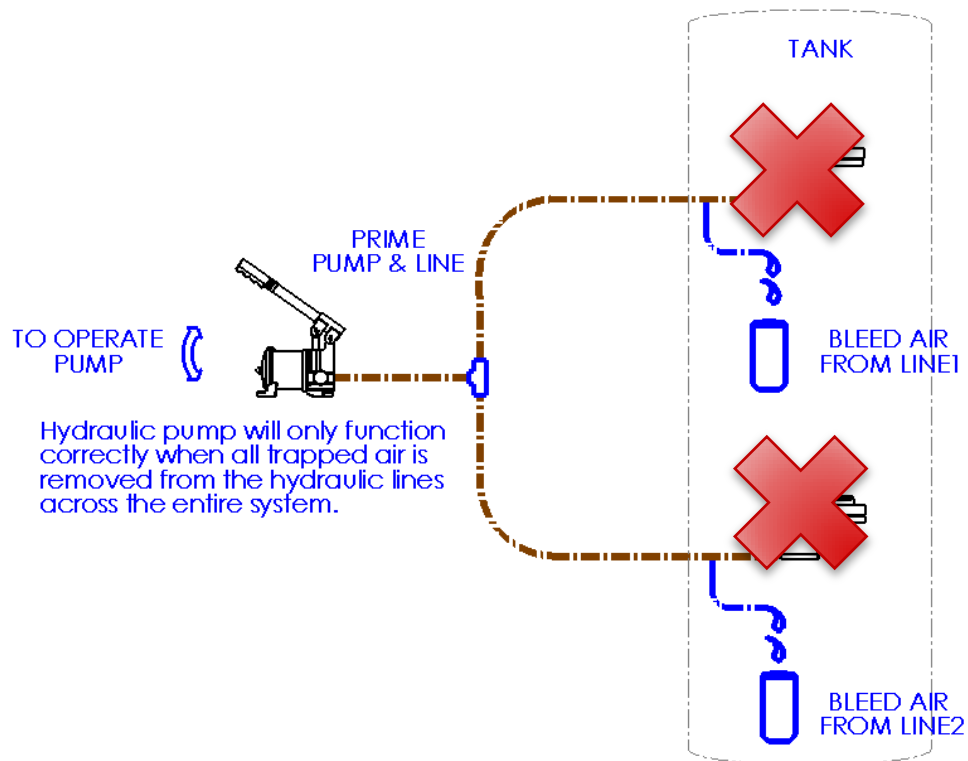


Fig. A

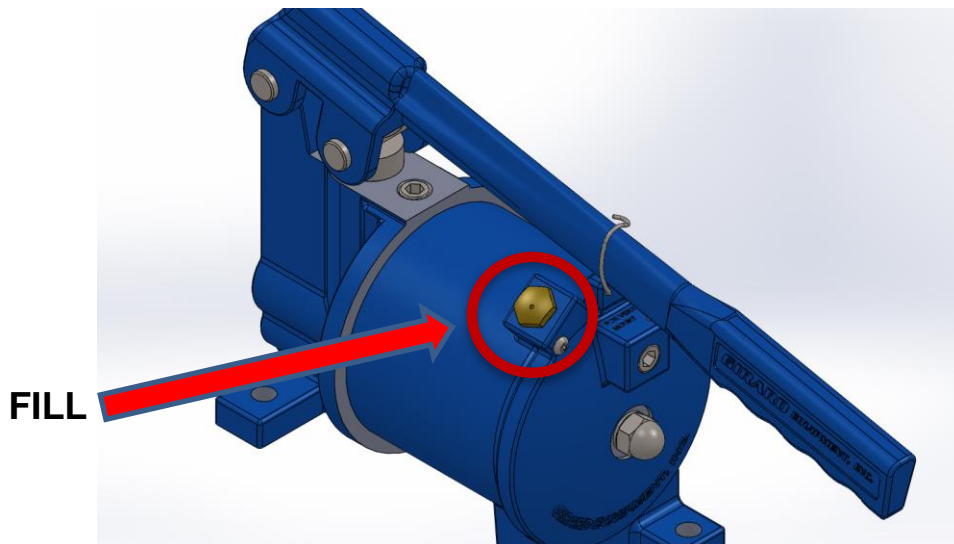


Fig. B

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 and secured by the handle retaining clip.

Operating the release knob (GZ30200)

- a) Turn valve knob (GZ30200) clockwise until it stops to pressurize the line. This allows the hand pump to operate the connected equipment.
- b) Turn valve knob (GZ30200) counterclockwise to relieve hydraulic pressure in the line. This stops the pressure from reaching the equipment.

Operating the handle (GZ30155)

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) The slot in the piston (GZ30120) and clevis pins (GZ30420) should be lubricated occasionally.
- 3) Ensure mounting bolts are securely tightened.
- 4) Remove the vent cover (GZ30106) to clean and remove any debris that may have accumulated around the vent plug (GZ30050). 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.

Troubleshooting and Repair

Leak around piston	<ol style="list-style-type: none">1. Replace rod wiper (GZ30550)2. Remove piston (GZ30120) and replace O-rings (GZ30520). Reinstall the piston.
Leak around release valve	<ol style="list-style-type: none">1. Using a 13/16" wrench, remove the release valve assembly (GZ30200) (do not remove the smaller hex). Replace both GZ30270 O-rings. Reinstall the release valve (GZ30200).2. If leaking around the threaded stem, replace the entire release valve.
Leak around output port	<ol style="list-style-type: none">1. Remove the fitting and existing Teflon® tape. Wipe clean. Apply new Teflon® tape.2. Replace old fitting with a new fitting and apply Teflon® tape.
Leak around end cap seal (with acorn nut)	<ol style="list-style-type: none">1. Remove acorn nut (GZ30370) and replace sealing washer (GZ30375). Reinstall acorn nut (GZ30370).2. Uninstall the entire hydraulic pump. Drain fluid. Remove acorn nut (GZ30370) and separate the reservoir (GZ30140) from the manifold block (GZ30100). Replace the O-ring (GZ30540) on the threaded clamp rod (GZ30130). Lubricate and replace the large O-ring (GZ30380). Inspect filter (GZ30530) and replace if necessary. Remove any debris from inside of the end cap. Reassemble. Fill reservoir and bleed lines as shown in Installation Instructions Steps 3 & 5.

<p>Leak around fill port with vent plug</p>	<ol style="list-style-type: none"> 1. Remove button head screw (GZ30230), vent cover (GZ30106) and vent plug (GZ30050). Remove and discard both O-rings (GZ30400 & GZ30540). Clean holes in vent plug (GZ30050). Lightly lubricate O-ring grooves on vent plug (GZ30050). Replace 2 O-rings (GZ30400 & GZ30540). Wipe excess lubrication and apply Teflon® tape (without covering the O-rings). Reinstall vent plug (GZ30050).
<p>Leak around fill port with pipe plug</p>	<ol style="list-style-type: none"> 1. Remove pipe plug (GZ30188). Remove existing Teflon® tape from pipe plug (GZ30188). Wipe plug clean. Replace Teflon® tape. Reinstall pipe plug (GZ30188).
<p>Pump does not build or hold pressure- Air trapped in the system</p>	<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 5)
<p>Pump does not build or hold pressure- Release valve contaminated with debris</p>	<ol style="list-style-type: none"> 1. Flush release valve (GZ30200) to be sure all debris is removed.
<p>Pump does not build or hold pressure- Filter is clogged</p>	<ol style="list-style-type: none"> 1. Replace filter (GZ30530)
<p>Pump does not build or hold pressure- Missing or damaged ball from outlet port</p>	<ol style="list-style-type: none"> 1. Replace ball (GZ30208)
<p>Pump does not build or hold pressure- Missing or damaged ball in the suction port (opposite filter)</p>	<ol style="list-style-type: none"> 1. Replace ball (GZ30210)
<p>Pump does not build or hold pressure- Ice or frozen fluid in system</p>	<ol style="list-style-type: none"> 1. Remove fluid, flush entire reservoir (GZ30140) and manifold block (GZ30100). Replace fluid with appropriate mixture for operating temperatures (see Step 2 under “Leak around end cap seal (with acorn nut)” above.

Replacement Parts

QTY	PART NUMBER	DESCRIPTION
1	GZ30200	Release Valve Assembly
2	GZ30210	Steel ball bearing for suction port
1	GZ30208	Composite ball bearing for outlet port
2	GZ30270	O-rings for Release Valve
1	GZ30400	O-ring for Vent Plug *SEE NOTE
1	GZ30540	O-ring for Vent Plug *SEE NOTE
2	GZ30520	O-rings for Piston
1	GZ30530	Wire cloth filter, #40 Mesh

*GZ30400 and GZ30540 should be purchased together as both are need 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

GIRARD
EQUIPMENT, INC.

4360 Old Dixie Hwy
Vero Beach, FL 32967
(908) 862-6300

www.GirardEquip.com

