

# Chapter 4

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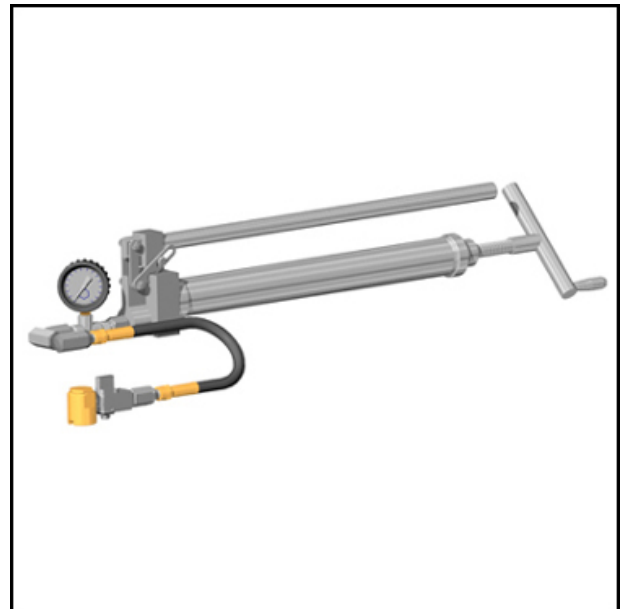
## Screw-Primed Hand-Held Sealant Injection Pumps

### Sealweld® SuperGun®

The SuperGun® is a hand-held manual sealant injection gun which can generate up to 15,000 PSI if required. The SuperGun® was developed in an effort to correct design deficiencies in the older styles of screw-primed guns.



Generates up to 15,000 psi  
Discharge 1 ounce / 25 strokes of the handle  
Barrel holds up to 16 ounces of sealant  
Reload with cartridge, gun pack, J or K stick sealant  
Features replaceable piston cartridge, handle latch, T-handle crank  
Extra heavy duty construction, designed for rugged field use

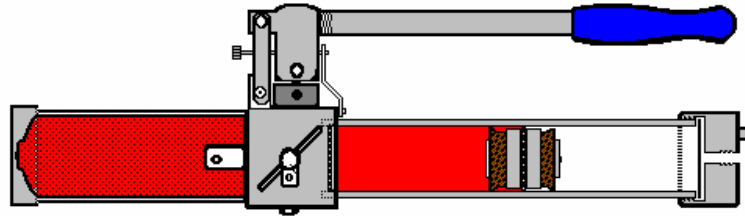


The added replaceable sleeve over the pump piston cuts repair costs by over 75% compared to similar equipment. The sealant barrel was enlarged 33% so that less refills would be required and so that it would hold the contents of a regular (16 oz.) sixteen ounce grease gun cartridge. Several other enhancements were added to make the gun more durable, easy to carry and pump faster. The SuperGun® will discharge (1 oz.) one ounce of lubricant / sealant with every (25) twenty-five strokes of the handle, making it the valve technicians favorite gun for routine topping-up procedures when only small quantities of lubricant / sealant are required.

## Hydraulic Hand-Held Sealant Injection Pump

The hydraulic hand gun has been improved recently by the addition of a locking handle clasp. This makes carrying the gun much easier and eliminates one of the main causes of the gun breaking down in the field.

### Hand Held Hydraulic Sealant Injection Pump



- Generates up to 10,000 psi
- Discharge 1 oz/ 50 strokes of handle
- Barrel holds up to 12 oz. of sealant
- Reload with cartridge, gun-pack or J stick sealant
- Generate hydraulic pressure easily

**ALWAYS USE A HIGH PRESSURE INJECTION GAUGE**

There exists the risk for a dangerous problem with corrosion occurring on some hydraulic guns internal hydraulic relief valves. Some of the older styles of hydraulic hand guns utilized an internal relief valve which was not zinc plated. Over time, as air and water got into the hydraulic system, these un-plated relief valves would begin to corrode and then not relieve properly. This resulted in some guns building up to 20,000 PSI before thread failure would occur and the gun barrel blew out. Several valve technicians were injured before the problem was identified. All Sealweld® hydraulic hand guns have a zinc plated relief valve. If you suspect some of your existing hydraulic guns may have the old un-plated relief valve, Sealweld® can inspect or repair them and / or teach your personnel how to do their own gun repairs.

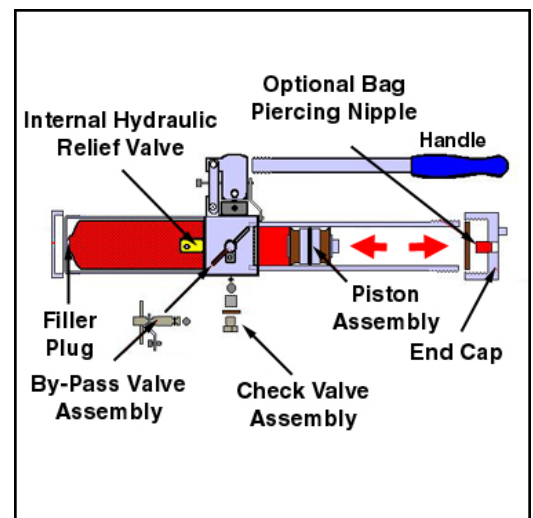
Another improvement included the introduction of a nylon sealant piston cup seal instead of the old hardened leather type. The nylon has superior wear resistance and sealing ability which prevents the hydraulic fluid in the gun from being contaminated by the lubricant / sealant.

## Instructions for Re-Filling Hydraulic Hand Gun Fluid Bag

This procedure will determine if your gun needs repair or is simply low on hydraulic fluid.

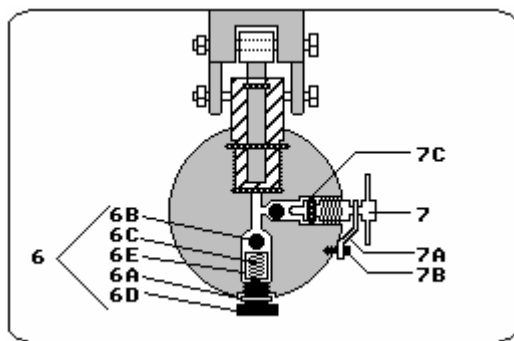
Many types of hydraulic fluids can be used, but you should not mix different types of oil in the same system. Guns operated in extremely cold climates require special cold temperature / high-pressure hydraulic fluid.

If the re-filling procedure does not solve your gun problem, we recommend you tag the gun for repair. Send the gun in for repair if you do not know the repair procedure; we can also provide an instructor to teach you how to repair your own equipment.



## Fluid Bag Filling Instructions

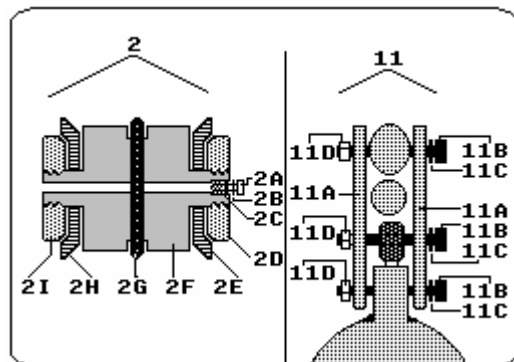
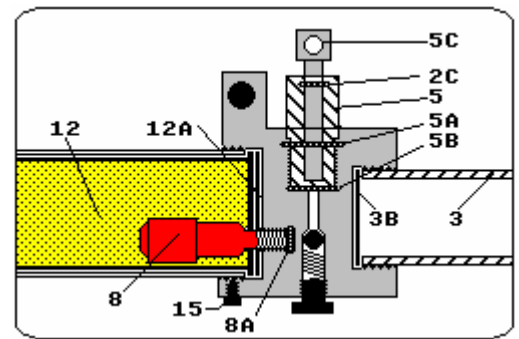
1. Open by-pass valve # 4, check gauge to make sure all internal pressure has been relieved from the system.
2. Remove grease cap # 1 with hose assembly from gun. Unscrew the handle # 10 and use it as a lever if the cap # 1 is difficult to remove.
3. Push the barrel piston # 2 to the bottom of barrel # 3 with handle # 10. Be careful not to scratch the inside of the barrel with the handle.
4. Turn the gun over so that the grease barrel # 3 points down (towards ground). Secure in a vise if possible.
5. Close by-pass valve # 4 and replace pump handle # 10. Pump handle (50) fifty strokes.
6. Open by-pass valve # 4 to relieve pressure.
7. Remove end cap # 1 from fluid bag barrel. Some older versions have the end cap secured by small set screws. Remove the set screws before unscrewing end cap.
8. Remove Allen screw from the end of the fluid bag # 12. The hole in the fluid bag should be pointing straight up.
9. To top-up fluid bag # 12 with hydraulic fluid, use a squeeze bottle and add fluid slowly. Work your fingers around the top of the fluid bag in an attempt to dislodge air bubbles which may be trapped inside. Leave the Allen screw out while trapped air continues to escape; overnight is ideal.
10. Top-up the fluid bag and leave open until bubbles are no longer seen escaping.
11. Replace Allen screw and tighten. Replace end cap # 14 and tighten.
12. Reload the barrel with valve cleaner or lubricant / sealant. Replace end cap # 1 and tighten in place.
13. Close by-pass valve # 4. Attach gun coupler to valve fitting and begin pumping handle to build pressure. Read the high-pressure gauge to determine what is happening inside the valve.



Body Profile



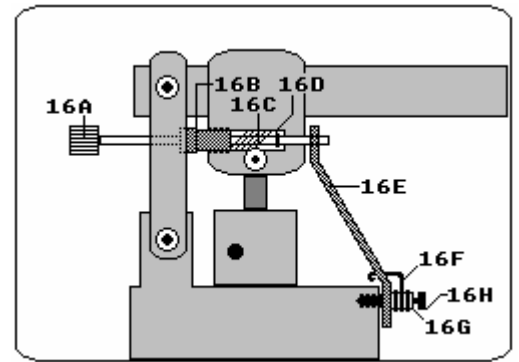
Body Cross Section



Piston Assembly & Linkage Assembly



Handle Latch Assembly



## Hydraulic Hand Gun Parts List

Item #	Description	Part #	KIT #	Qty Req'd
1	Sealant Barrel Cap	R-HG07		1
2	Piston Assembly	R-HG08		1
2A	Cap Screw	R-HG08A		1
2B	Washer	R-HG08BA		1
2C	O-Ring	R-HG08B		2
2D	Outer Washer Nut	R-HG08C		1
2E	Outer Nylon Cup	R-A8-20C	XX	1
2F	Piston Body	R-HG08E		1
2G	Piston O-Ring	R-HG08F	X	1
2H	Inner Leather Cup	R-HG08H	XX	1
2I	Inner Washer Nut	R-HG08I		1
3	Sealant Barrel	R-HG09		1
3A	Barrel Gasket	R-HG10A	XX	1
3B	Body Barrel O-Ring	R-HG10	X	1
4	Body Assembly	R-HG11		1
4A	Body (Bare)	R-HG11A		1
5	Hydraulic Pump Cylinder	R-HG11B	XXX	1
5A	Cylinder Neck O-Ring	R-HG11C	X	1
5B	Bottom Cylinder O-Ring	R-HG11D	X	1
5C	Pump Piston	R-HG11E	XXX	1
6	Check Valve Assembly	R-HG11F	XX	1
6A	Copper Washer	R-HG11FA		1
6B	Ball	R-HG11FB		1
6C	Spring	R-HG11FC		1
6D	Check Valve Screw	R-HG11FD		1
6E	Check Valve Screen	R-HG11FE		1
7	By-Pass Valve Assembly	R-HG11G	XX	1
7A	By-Pass Stop	R-HG11H		1
7B	Cap Screw	R-HG11I		1
7C	O-Ring	R-HG31	X	1
8	Hydraulic Relief Valve	R-HG11J		1
8A	Hydraulic Relief O-Ring	R-HG11K	X	1
9	Fulcrum Assembly	R-HG12		1
10	Handle	R-HG13		1
11	Linkage Assembly	R-HG14		1
11A	Link	R-HG14A		2
11B	Bolts	R-HG14B		3
11C	Washers	R-HG14D		3
11D	Lock Nuts	R-HG14C		3
	Hydraulic Fluid	R-HOPINT	XX	1
12	Fluid Bag	R-HG15	XX	1
12A	Fluid Bag Seal	R-HG15A		1

Item #	Description	Part #	KIT #	Qty Req'd
13	Fluid Bag Barrel	R-HG16		1
14	Fluid Barrel Cap	R-HG17		1
15 *	Set Screw (Optional)	R-HG33		1
16	Handle Latch Assembly	R-HG30		1
16A	Stem & Knob	R-HG30A		1
16B	Latch Screw	R-HG30B		1
16C	Spring	R-HG30C		1
16D	Retainer	R-HG30D		1
16E	Latch Arm	R-HG30E		1
16F	Spring	R-HG30F		1
16G	Latch Sleeve	R-HG30G		1
16H	Cap Screw	R-HG30H		1
X	O-Ring Repair Kit	R-HGOREP		1
XX	Minor Repair Kit	R-HGMIN		1
XXX	Major Repair Kit	R-HGMAJ		1
	Latch Conversion	R-HG-LC		1

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