

1 (800) 249-1349 phone  
(952) 873-4117 fax  
[www.Hennes-Johnson.com](http://www.Hennes-Johnson.com)

## Cold Process Application Equipment

### INSTRUCTIONS-PARTS LIST

Model 4520

GAS POWERED, HYDRAULIC DRIVEN SUPPLY PUMP

### COLD PROCESS SPRAY UNIT

WITH BUILT-IN HYDRAULIC LIFT

4000 psi (275 bar) MAXIMUM WORKING PRESSURE

#### TABLE OF CONTENTS

WARNINGS.....	1-2
PRESSURE RELIEF PROCEDURE..	3
OPERATION.....	4
FLUSHING GUIDELINES.....	5
SHUT DOWN PROCEDURE.....	5
MAINTENANCE.....	6
TROUBLESHOOTING.....	7
PARTS DRAWINGS.....	8-10
DISPLACEMENT PUMP SERVICE..	11-15
REMOVING DEBRIS FROM PUMP..	16-18
PARTS LIST.....	19
WARRANTY.....	20



# **SAFETY WARNINGS**

**HIGH PRESSURE SPRAY CAN CAUSE SERIOUS INJURY. FOR PROFESSIONAL USE ONLY. OBSERVE ALL WARNINGS.** Read and understand all instruction manuals before operating equipment.

## **FLUID INJECTION HAZARD**

This equipment generates very high fluid pressure. Spray from the gun, leaks or ruptured components can inject fluid through your skin and into your body and cause extremely serious bodily injury, including the need for amputation. Also, fluid injected or splashed into the eyes or on the skin can cause serious damage.

NEVER point the spray gun at anyone or at any part of the body.  
NEVER put hand or fingers over the spray tip.  
ALWAYS have the tip guard on the spray gun when spraying.

ALWAYS follow the **Pressure Relief Procedure**, page 3, before cleaning any system equipment.

NEVER try to stop or deflect leaks with your hand or body.

Be sure equipment safety devices are operating properly before each use.

## **Medical Alert--Airless Spray Wounds**

If any fluid appears to penetrate your skin, get **EMERGENCY MEDICAL CARE AT ONCE. DO NOT TREAT AS A SIMPLE CUT.** Tell the doctor exactly what fluid was injected.

## **Spray Tip Safety**

Use extreme caution when cleaning or changing spray tips. If the tip clogs while spraying, point tip away from you and anyone else, reverse the tip and trigger gun to blow out the clog.

NEVER wipe off build up around the spray tip until pressure is fully relieved.

## **Spray Gun Safety Devices**

Be sure all gun safety devices are operating properly before each use. Do not remove or modify any part of the gun, this can cause a malfunction and result in serious bodily injury.

## **Tip Guard**

ALWAYS have the tip guard in place on the gun while spraying. The tip guard alerts you to the fluid injection hazard and helps reduce, but does not prevent, the risk of accidentally placing your fingers or any part of your body close to the spray tip.

## **Grounding**

To reduce the risk of static sparking, ground the sprayer and all other spray equipment used or located in the spray area.

## **MOVING PARTS HAZARD**

KEEP CLEAR of moving parts when starting or operating the sprayer. Follow the pressure relief procedure before checking or servicing the sprayer to prevent it from starting accidentally.

## **GENERAL SAFETY**

Misuse of the equipment or accessories, such as using incompatible chemicals and fluids, or worn or damaged parts, can cause them to rupture.

NEVER alter or modify any part of this equipment, doing so could cause it to malfunction.

CHECK all spray equipment regularly and repair or replace worn or damaged parts immediately.

Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.

## **FLUID AND SOLVENT COMPATIBILITY**

Be sure all fluids and solvents used are chemically compatible with the wetted parts of this pump. Always read the fluid and solvent manufacturer's literature before using them in this sprayer.

Do not use 1,1,1-Trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in this equipment, which contains aluminum and/or zinc parts. Such use could result in a serious chemical reaction, with the possibility of explosion.

## **HOSE SAFETY**

High-pressure fluid in the hoses can be very dangerous. If the hose develops a leak, split or rupture due to any kind of wear, damage or misuse, replace it immediately. NEVER try to mend a hose with tape or other device. A repaired hose cannot contain the high-pressure fluid.

# PRESSURE RELIEF PROCEDURE

To reduce the risk of serious bodily injury, including fluid injection, splashing fluid or solvent in the eyes or on the skin, or injury from moving parts or electric shock, follow this procedure whenever you shut off the sprayer, check or service any part of the spray system, install, clean or change spray tips, and whenever you stop spraying.

1. Make sure pump control valve is in the center (neutral) position.
2. Turn the engine off
3. Hold a metal part of the gun firmly to the side of a grounded metal barrel or pail, and trigger the gun to relieve pressure.
4. Open the priming/pressure drain valve on the outlet of the material pump. Have a container ready to catch the drainage. **DO NOT USE VALVE TO DRAIN MAIN PRESSURE FROM LINES.** Leave the valve open until you are ready to spray again. **Not overnight.**

## SETUP

### 1. connect the hose and gun

Don't use thread sealant on the swiveling nut of the hose couplings. **Don't install the spray tip yet.**

### 2. Fill the Packing Nut/Wet Cup 1/3 full with throat seal liquid (TSL) or a lightweight oil

### 3. Check the Hydraulic Oil Level

- a. Unscrew the oil level plug on the side of the tank. The oil should be just showing or start flowing out of the opening.
- b. Add oil as needed to the proper level. A completely full hydraulic system contains about 20 gallons of oil. Do not over fill. The oil will expand as it warms up

### 4. Check The Engine Oil Level

- a. Pull out the dipstick.
- b. Check to be sure the oil is up to the top mark on the dipstick.
- c. If oil is needed, see below for the recommended oil type and weight.

**RECOMMENDED ENGINE OIL:** use a high quality, detergent oil classified **API SERVICE SJ**, for regular use and for the breaking in of a new engine.

**General use:** SAE 10W-30. See engine manual for other viscosities

**Crankcase capacity:** 1.48 quarts (1.4 liters)

### 5. Fill the Fuel Tank

**WARNING** Fuel spilled on hot surfaces can cause a fire or explosion. Always shut off engine and let it cool before filling the tank. Remove the tank from unit and carefully fill the tank with **CLEAN, FRESH WELL-KNOWN BRANDS OF UNLEADED REGULAR GRADE GASOLINE.**

**FUEL TANK CAPACITY** approx. 6 gallons (22.75 liters)

## OPERATION

**1. PREPARE THE MATERIAL TO BE SPRAYED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.**

**2. FOLLOW SETUP PROCEDURE AS DESCRIBED PREVIOUSLY.**

**3. STARTING THE SPRAYER.**

- a. Make sure the pump control valve is in the center(neutral) position.
- b. Turn the pressure control knob counterclock-wise until all spring tension is relieved. You will be able to feel it. The sprayer is now set at the lowest pressure setting.
- c. Open the fuel tank breather by screwing it out approximately halfway.
- d. If the engine is cold, close the choke by moving the choke lever to the **ON** position.
- e. Turn the key clockwise to the **START** position and hold until the engine "catches", then release the key. If the engine does not start, open the choke a little. If the engine floods, open the choke all the way and try again.

**NOTE:** in cold weather, run the engine for about 15 minutes with the bypass valve open before starting the displacement pump, to help avoid hydraulic motor stalling.

- f. Follow the **Pressure Relief Procedure**, to shut off the sprayer.

**4. PRIME THE PUMP**

- a. Be sure the hoses are connected.
- b. Don't install the spray tip yet!
- c. Start engine as described previously
- d. Using hydraulic control lever, raise pump over barrel or pail.
- e. Roll machine into position so that pump is directly over barrel or pail.
- f. Using hydraulic control lever, lower pump into barrel or pail so that the suction tube is covered with material. Keeping the intake valve above the material level will make clean up easier. Lower the pump as needed.
- g. Open priming/pressure relief valve at pump outlet.
- h. Close bypass valve.
- i. Slowly turn the pressure control knob clockwise just enough to start the pump.
- j. When material comes through valve, close it.
- k. **With the tip OFF**, Trigger the gun and hold it open over a scrap container. This will allow debris to be pushed through the lines and out of the system without contaminating the job.
- l. **To start spraying.** Screw the tip onto the gun

**5. ADJUST THE PRESSURE.**

- a. Turn the pressure control knob clockwise to increase and counterclockwise to decrease pressure. Tighten the knob locknut to set.
- b. Always use the lowest pressure setting necessary to completely atomize the fluid. Excess pressure will cause excess overspray.
- c. If more coverage is needed, use a larger tip rather than increasing pressure.
- d. Check the spray pattern. The tip size and angle determines the pattern width and flow rate.

**6. SHUTTING OFF THE SPRAYER**

- a. Whenever you stop spraying, even for a short break, follow the **Pressure Relief Procedure**.
  - b. Clean the tip and gun.
  - c. If flushing is necessary, follow the **Flushing Guidelines**, next page.
  - d. For long term shutdown or storage, always fill the sprayer with mineral spirits to prevent pump corrosion.
- NEVER STORE WATER OR WATER BASED MATERIALS IN PUMP FOR LONG PERIODS OF TIME.**

# FLUSHING GUIDELINES

## When to Flush

**Daily flushing** is required if using a two-part material, water based material when freezing will occur, and when spraying pressure sensitive materials.

1. **New Sprayer.** Your new Sprayer was factory tested in oil, which was left in to protect pump parts from corrosion.

**Before** using **oil-based material** flush with mineral spirits only.

**Before** using **water-based material** flush with mineral spirits, followed by soapy water, then a clean water flush.

2. **Changing material** Flush with a solvent compatible to the material being sprayed.
3. **Changing from water-base to oil-base.** Flush with soapy water, then mineral spirits.
4. **Changing from oil-base to water-base.** Flush with mineral spirits, followed by soapy water, Then a clean water flush.

## HOW TO FLUSH

**WARNING: FOLLOW THE PRESSURE RELIEF PROCEDURE BEFORE FLUSHING.**

1. Be sure there is no tip on the gun.
2. Pour enough clean, compatible solvent into a large, empty, grounded metal pail to fill the pump and hoses.
3. Place pail under pump. Then lower pump into solvent pail.
4. Turn the pressure control knob counterclockwise until all spring tension is relieved.
5. Open priming valve, use a scrap pail to catch material and solvent. Close valve when solvent comes through.
6. Point the gun into the scrap pail, trigger the gun to push out the material in the lines. When solvent appears release the trigger.
7. Point the gun into the solvent pail, trigger the gun and circulate the solvent until the system is thoroughly flushed.
8. Release the trigger. **BE SURE TO FOLLOW THE PRESSURE RELIEF PROCEDURE AFTER COMPLETION OF FLUSHING. DO NOT LEAVE PRESSURE IN SYSTEM WHEN SHUT DOWN!!**

## RECOMMENDED PROCEDURE FOR SHUTTING DOWN SPRAY UNIT OVER NIGHT OR WEEKEND

1. Open by-pass to shut off pump.

(warm weather operation)

2. Remove pump from material and clean outside of intake, lower pump into pail of solvent compatible to hose and material being sprayed

--or--

Cover material and pump to keep air off.

3. Turn off engine.
4. Reverse or remove tip from gun, trigger gun to remove pressure from material line. Replace tip, cover gun or put end of gun in pail of solvent.

**In cold weather flushing the pump is recommended. Follow the same steps for shutting down, leaving the solvent in the line and pump. Start up in the morning with the tip off the gun while priming the system with material**



# MAINTENANCE

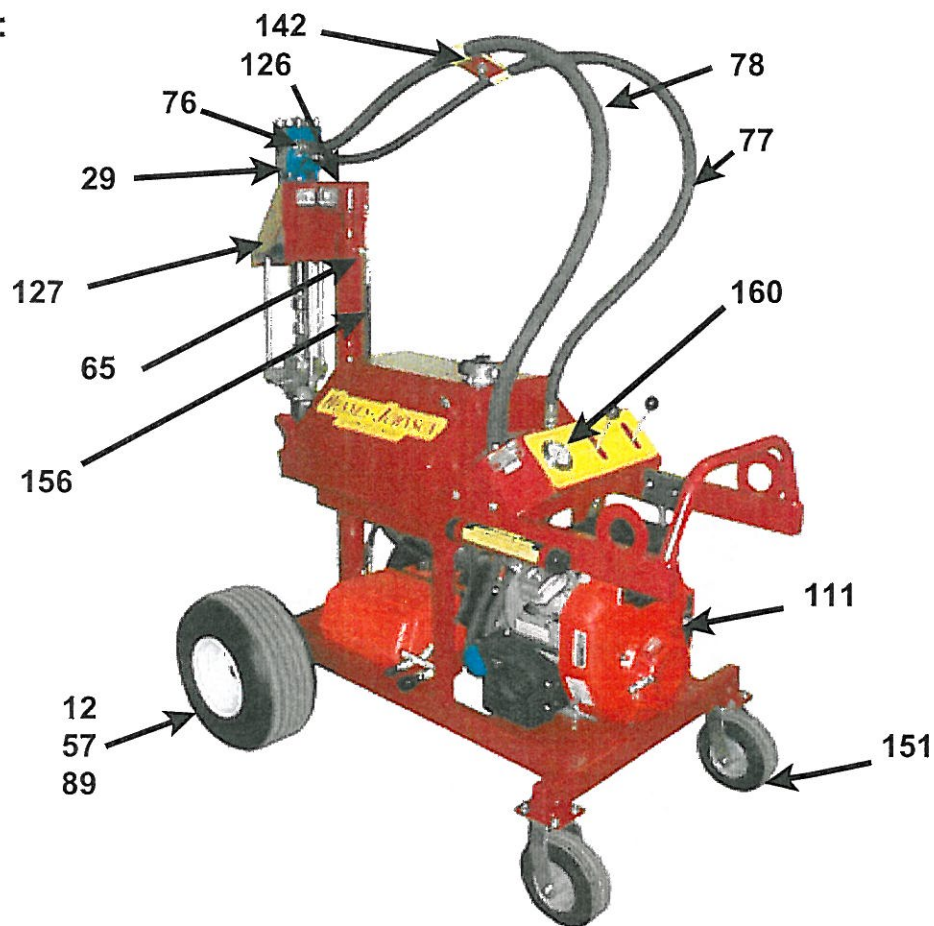
1. **Always stop the pump at the bottom of its stroke.** When you take a break and at the end of the day. This helps keep the fluid from drying on the rod and damaging the packings.
2. **Keep the displacement pump packing nut/wet cup 1/3 full of TSL** at all times. The TSL helps protect the packings and rod.
3. **Check the tightness of the packing nut daily.** It should be tight enough to stop leakage but no tighter.
4. **Check the hydraulic oil level weekly.** Remove the plug on the side of the tank. If oil is present the tank is full. Do not over fill, the oil will expand as it warms up.
5. **Check the engine oil daily.**
6. **Inspect the return line filter frequently** for clogging. Replace it after every 500 hours of operation or every 3 months, whichever comes first. A clogged or worn out filter reduces filter capability and will damage the hydraulic pump.
7. **Check the battery water level** periodically and refill as necessary.
8. **Change the hydraulic oil after every 1000 hours** of operation or every 6 months, whichever comes first. For continuous operation in temps. above 85 degrees change the oil after every 500 hours or 3 months of use.
9. **TO CHANGE THE HYDRAULIC OIL:**
  - a. Follow the **Pressure Relief Procedure.**
  - b. Place a waste container under the drainage plug of the hydraulic reservoir. Unscrew the plug and drain the reservoir. Reinstall the plug before proceeding.
  - c. Remove the return line filter and install a new filter element.
  - d. Inspect the inlet filter and replace it if needed.
  - e. Fill the reservoir with **good quality** hydraulic oil. (**ISO 68 FOR SUMMER, ISO 46 FOR COLDER TEMPS.**)

# Sprayer Troubleshooting

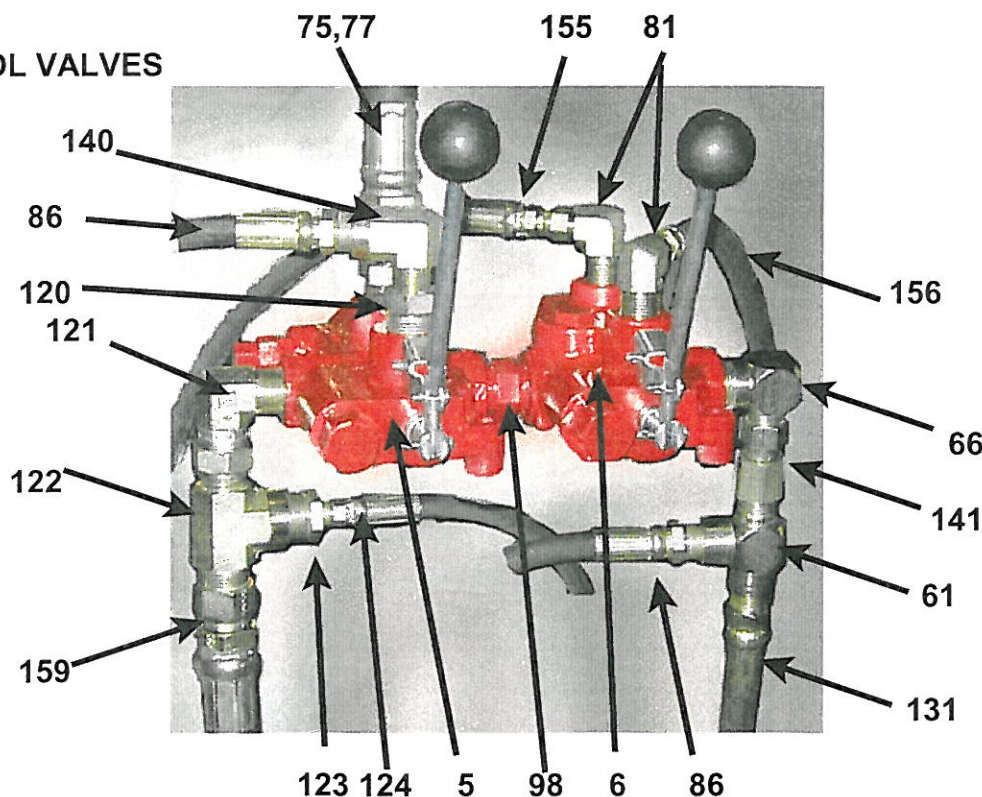
<u>Symptom</u>	<u>Possible cause</u>	<u>Remedy</u>
Starts spraying under good pressure, then drops off	Tip too large Material too heavy or cold Worn packings	Decrease tip size Warm or thin material Repack pump
Spray pattern pulses	Debris between intake valve ball & seat Debris between upper piston ball & seat	Remove and clean intake valve ball & seat Disassemble piston & clean..
Gradual loss of pressure	Worn packings Pressure control knob out of adjustment	Repack pump Reset control knob to proper setting.
Material leaks into wet cup	Loose wet cup Worn packings	Tighten just enough to stop leakage. Repack pump
Pump will not prime	Material too heavy	Remove material hose & prime pump directly from the outlet.
Engine runs but hydraulic motor will not stroke	By-pass valve is in the open position Hydraulic motor reset button has tripped(stalled)  Pressure is set too low Hydraulic fluid level too low Hydraulic pump worn or damaged Hydraulic motor worn or damaged Displacement pump rod seized by dried material	Place valve in the closed position. Shut down the unit and reset motor. Firmly press straight down on the motor reset button. Restart sprayer .  Increase pressure Shut off sprayer and add fluid immediately.  Return for repair Return for repair Service pump
Hydraulic motor reset button trips frequently	Material too cold or heavy	Warm material
Spray pattern is uneven and spurts air occasionally or loses prime.	Material too heavy	Remove screen or thin material
Spray tip clogs frequently	Tip too small Fibred material has settled and come out of suspension. Improper flushing between material changes.	Increase tip size. Mix material thoroughly. Flush system with material compatible solvents. Refer to service manual for flushing guidelines.
Material delivery is too low	Hose length too long causing line pressure drop Material too cold.	Reduce hose length. Warm material
No spray pattern (shoots in stream only)	Blown tip Tip too large.	Replace tip. Reduce tip size.



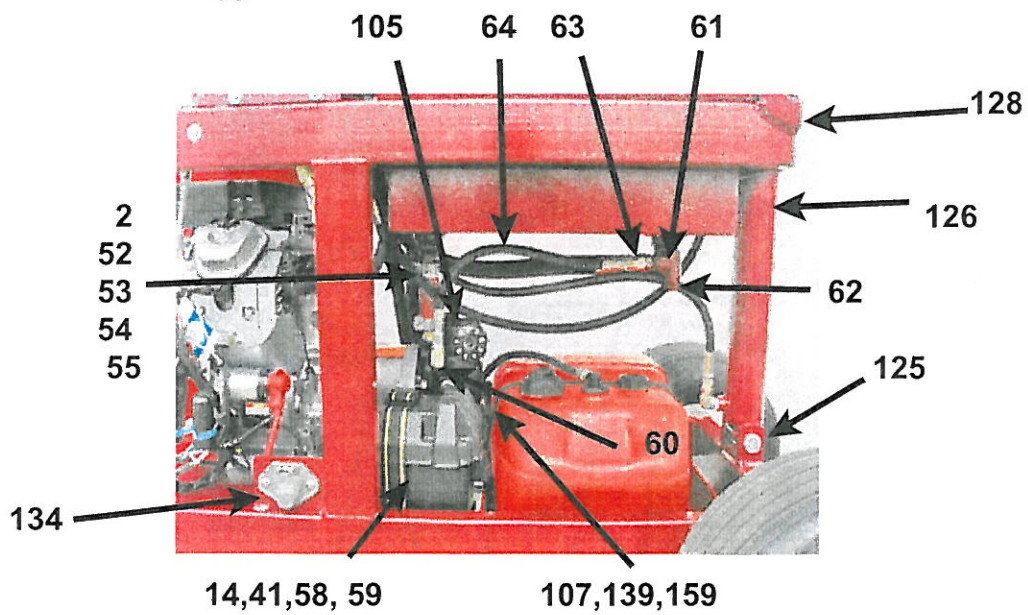
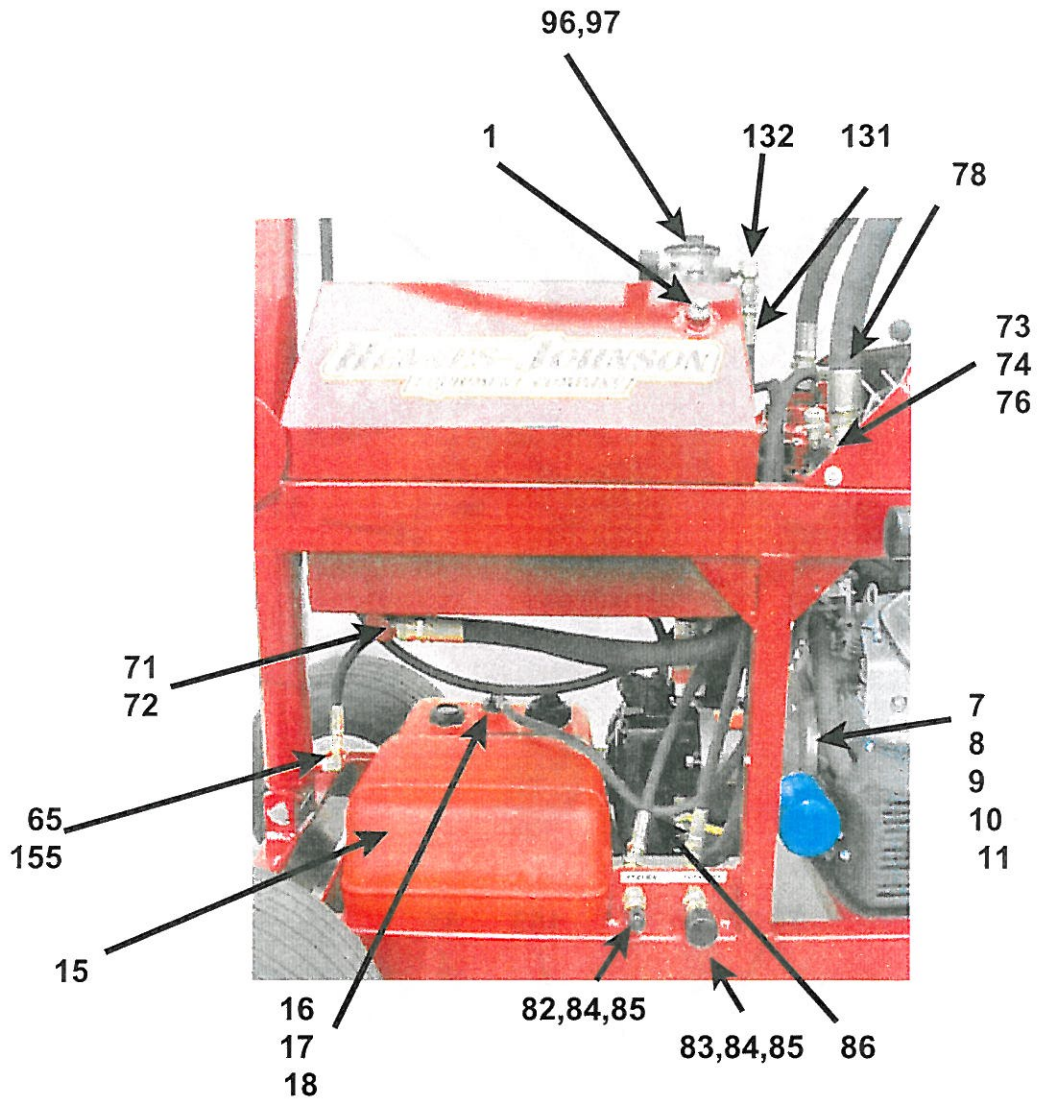
**PARTS:**



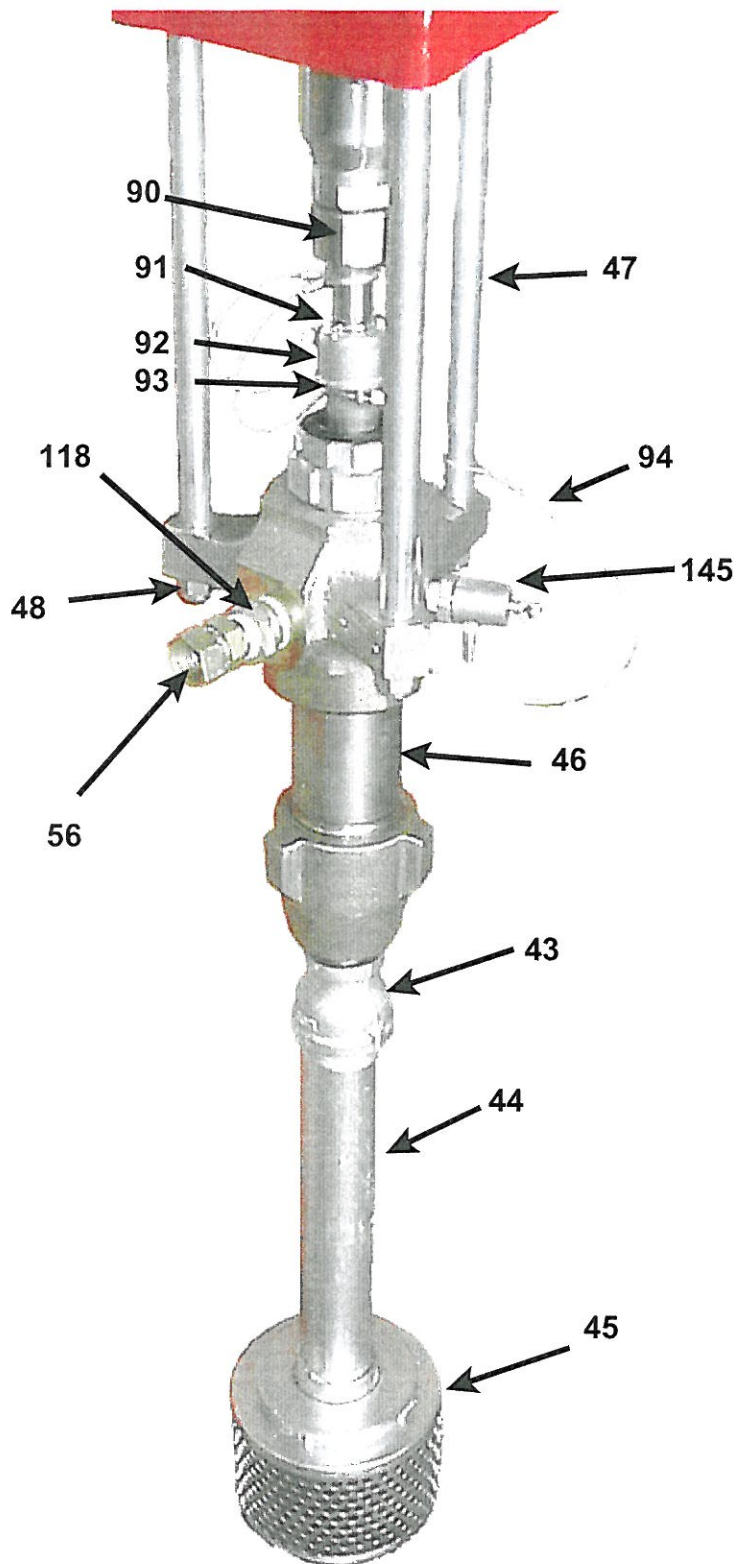
**CONTROL VALVES**



# SIDE VIEWS



## DISPLACEMENT PUMP ASSY





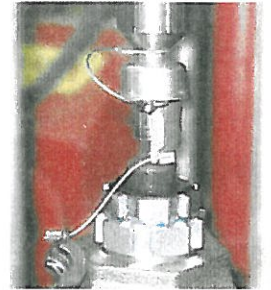
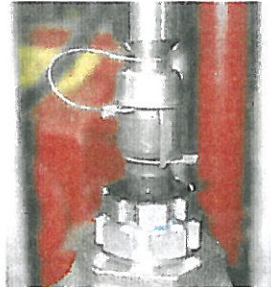
## DISPLACEMENT PUMP SERVICE.

For best pump performance, use all parts supplied in kit **RK4050X**

### DISCONNECT THE DISPLACEMENT PUMP

Service on machine or remove for service. Use only non sparking tools.

1. Flush the pump if possible. Stop the pump on the down stroke.
2. Follow the Pressure Relief Procedure on page 3.
3. Remove the fluid hose from the displacement pump.
4. Remove locking clip & collar assembly to disconnect displacement pump from hydraulic motor.



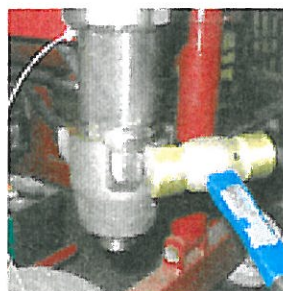
5. Cycle pump slowly to raise hydraulic motor piston away from displacement rod.



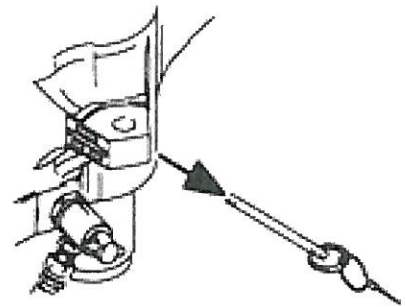
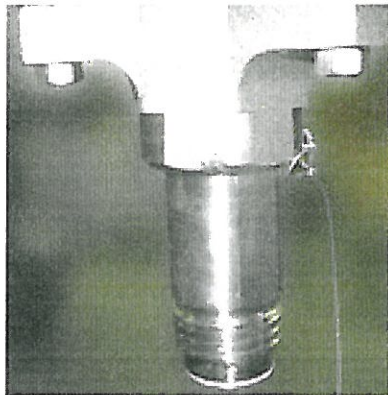
6. Loosen Wet Cup/ Packing nut.



7. Remove Intake valve



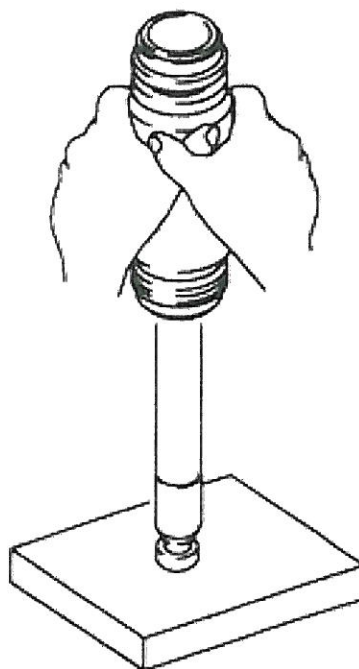
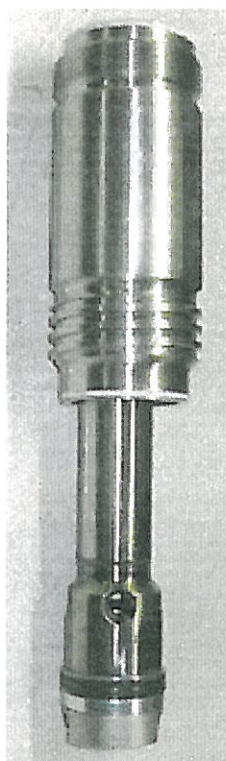
8. Remove locking pin from cylinder. Cylinder may need to be rotated to line up flats with pin.



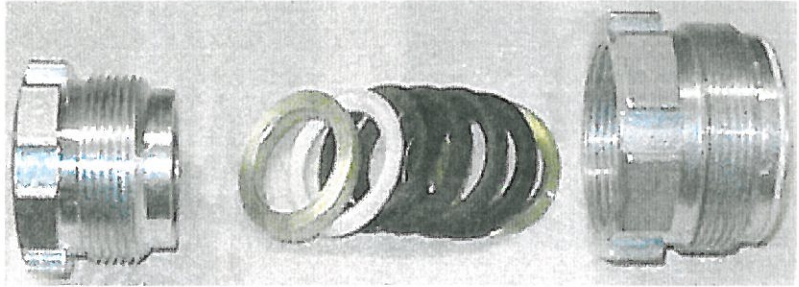
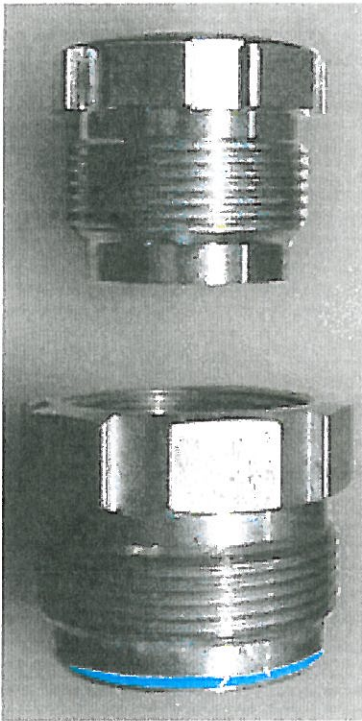
9. Remove cylinder. The displacement rod should come out with the cylinder.



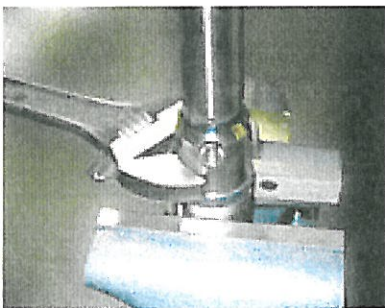
10. Remove displacement rod by pulling or pushing it out of the cylinder. If the rod cannot be removed by hand, drive the rod out of the cylinder. **CAUTION;** Always use a plastic or wooden block to drive the rod out of the cylinder. Damage to the rod end will shorten pump life.



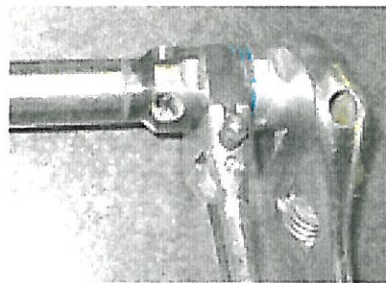
11. Remove wet cup/ packing nut. Replace packings & seals. Lubricate all seals, inside of cartridge, and outside of wet cup. Tighten the wet cup down until it lightly comes in contact with the gland.



12. Remove piston from displacement rod. Replace ball, packings & seals. Clean all parts with a compatible solvent and inspect them for wear or damage. Lubricate packings with a light coating of grease. DO NOT Soak packings in oil before assembly. Use thread sealant on piston. Torque to 190-210 ft.lb.

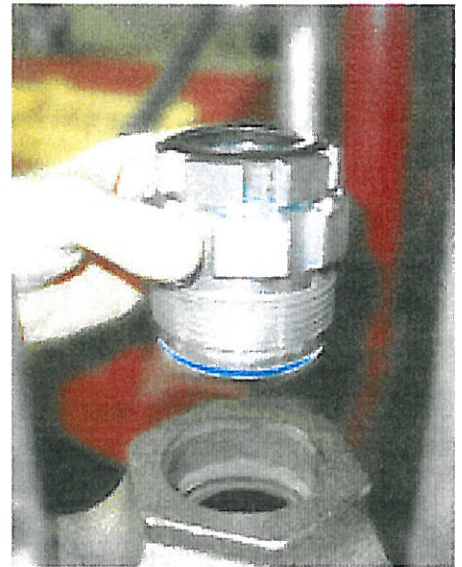


OR

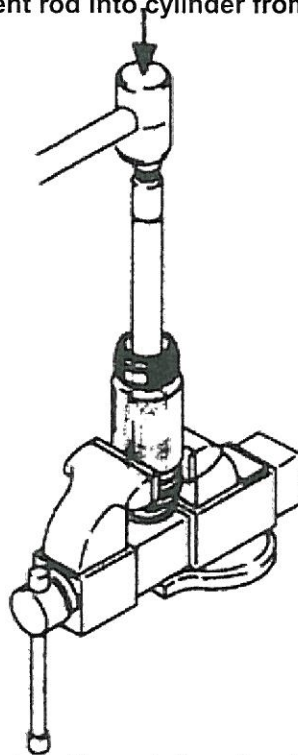




13. Replace packing nut/ wet cup assembly into the pump housing.

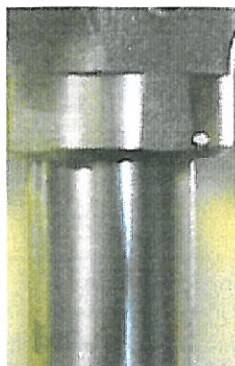


14. Replace seals on cylinder. Push displacement rod into cylinder from the top. Push by hand or drive in with non-metal hammer.

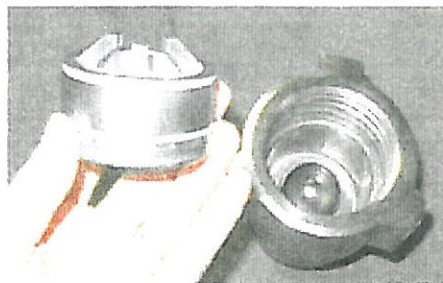
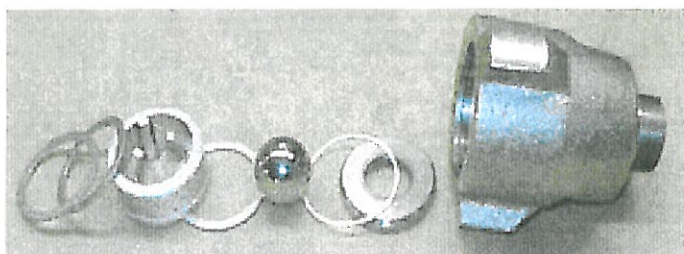


15. Lubricate rod and cylinder threads. Slide rod up through housing & wet cup & begin screwing cylinder into housing.

16. Screw cylinder into outlet housing until cylinder bottoms out on outlet housing. Unscrew(loosen) cylinder until hole on outlet housing lines up flat on cylinder (should be less than 1/4 turn), and insert locking pin into cylinder.



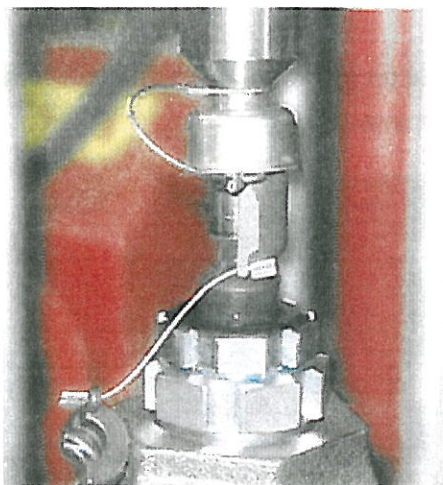
17. Replace ball & seals in intake valve. Lubricate & replace intake valve.



18. Reconnect pump to hydraulic motor. Replace locking clip.



1



2



3

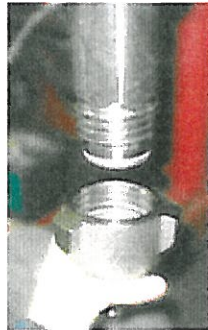


4

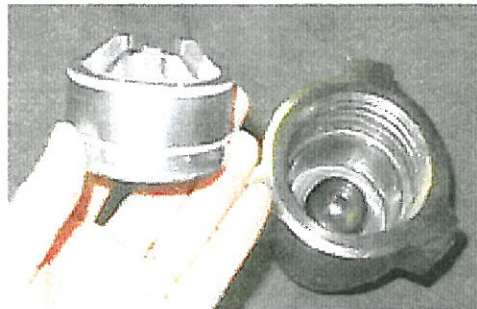


## REMOVING DEBRIS / UNPLUGGING THE DISPLACEMENT PUMP.

1. Flush the pump if possible. Stop the pump on the down stroke.
2. Follow the Pressure Relief Procedure on page 3.
3. Remove the Intake valve using a non-sparking hammer.

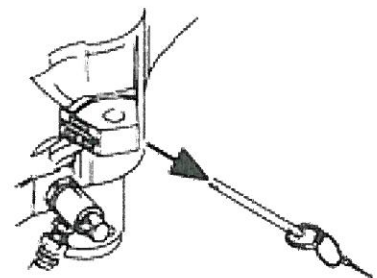
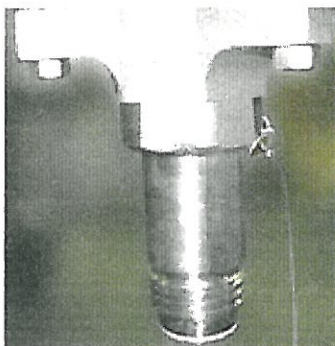


4. Remove ball guide & ball. Check for debris.



5. To check for debris in the upper ball. Remove the cylinder. This can be done without disconnecting the displacement rod from the hydraulic motor using the following procedure. If disconnecting the pump is preferred, refer to steps 1-10 in the previous section on servicing the pump.

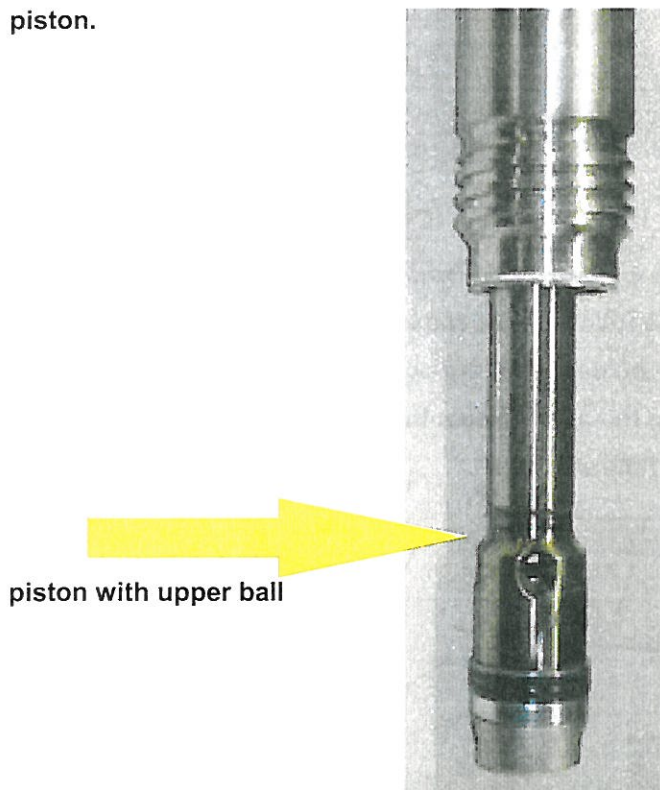
To check/clean the upper ball without disconnecting the pump, begin by removing the locking pin from the cylinder. Cylinder may need to be rotated to line up flats with pin.



6. Remove cylinder by unscrewing it & pulling down.



7. If there is debris around the ball inside the piston. It can usually be removed without unscrewing the piston.



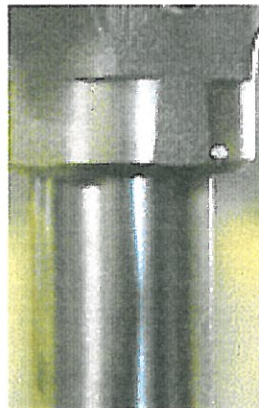
8. If debris cannot be removed easily, unscrew the piston as described in step 12 of servicing the pump.

**Re-assembly:**

9. Lubricate the piston, Slide the cylinder up over the piston and screw into the housing. You may need to drive the cylinder over the piston using a block of wood to protect the end of the cylinder. **NEVER POUND ON THE END OF THE CYLINDER DIRECTLY WITH A HAMMER.** Be careful not to damage the teflon seals on both ends of the cylinder.



10. Screw the cylinder up into the outlet housing until it bottoms out on the outlet housing. Unscrew (loosen) cylinder until hole on outlet housing lines up flat on cylinder (should be less than 1/4 turn), and insert locking pin into cylinder.



11. Replace intake valve.

## PARTS LIST

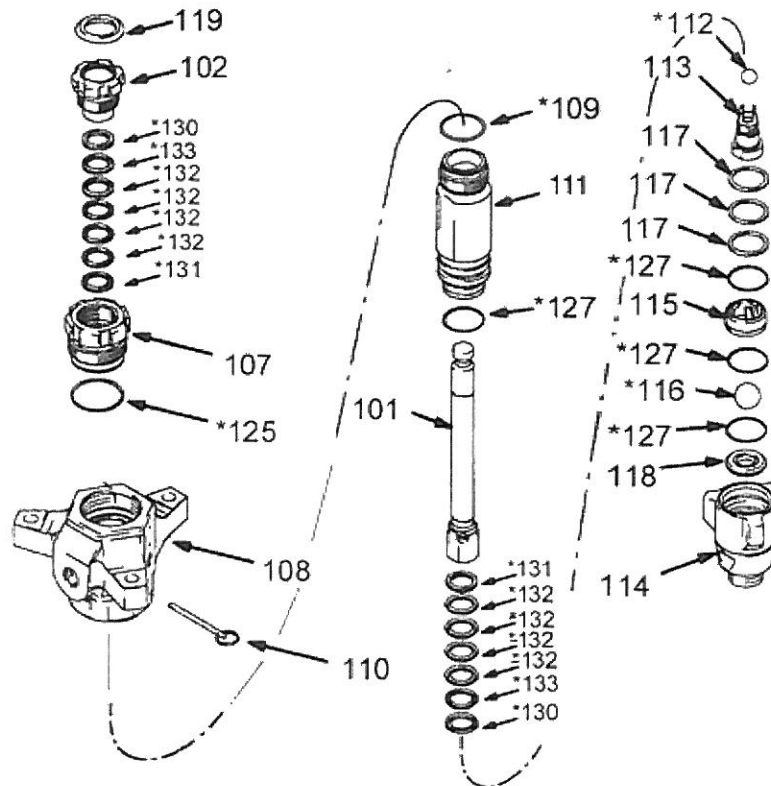
<u>REF.</u> <u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>REF.</u> <u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	12pp	PLUG, oil level	1	86	382-0030	HOSE, aux. Port	2
2	4518 STRAINER	STRAINER, inlet	1	89	18112cp	PIN, cotter, .125 x 1.5"	3
5	HCV 2036	CONTROL, pump / aux.	1	90	197-341	ADAPTER, rod	1
6	HCV	CONTROL, hyd. elevator	1	91	244-820	CLIP & lanyard	1
7	PUMP MOUNT	HYD. PUMP MOUNT	1	92	191-340	COVER, coupling	1
8	L100-1-1/8	COUPLER, 1-1/8 X 1/4	1	93	244-819	COUPLING assy	1
9	20-05	COVER, pump mount	2	94	244-826	PIN with ring	1
10	L-100 INSERT	INSERT	1	96	4518X FILTER	FILTER ASSEMBLY	1
11	L100-3/4	COUPLER, 3/4 X 3/16	1	97	ERB11NCC	FILTER ELEMENT	1
12	4518 WHEEL	WHEEL	2	98	2083-12	ADAPTER, 3/4 npt (m)	1
15	FUEL TANK	FUEL TANK	1	105	219-099	KNOB, pump	1
16	FUEL PLUG	Male quick coupler	1	107	178-872	PUMP, vane hydraulic	1
17	FUEL COUPLER	Female quick coupler	1	111	GX620	ENGINE, 20 HP	1
18	14clamp	Hose clamp	2	118	2081-16-12	BUSHING, 1npt X 3/4 npt(m)	1
19	BATTERY,	12 volt	1	120	2081-12-8	BUSHING, 3/4 X 1/2npt	1
29	217-022	MOTOR, hydraulic	1	121	6501-12	ELBOW, 12fj x 3/4 mp	1
		see 307-158 for parts		122	2602-12	TEE, 12mj x 12mj x 12fp	1
41	POS CABLE	CABLE, battery,		123	2081-12-4	BUSHING, 3/4 x 1/4 npt	1
		positive 12"; 4 awg	1	124	142-0027	HOSE, 1/4 x 27"	1
43	2114PR	REDUCER	1	125	1pin	PIN, 1"	1
44	200-015	INTAKE, 2" npt	1	126	909-136	CYLINDER, hydraulic	1
45	45-7903	SCREEN, intake	1	127	4518 shelf	SHELF	1
46	244-416	DISPLACEMENT PUMP ASSY	1	128	CYL CLAMP	SUPPORT, hyd. cylinder	2
47	198-592	ROD, tie 14.6"	3	131	122-0029	HOSE, return to filter	1
48	101-712	NUT, lock, 5/8-11	3	132	6801-8	ELBOW, 8mo x 8mj	1
52	344pn	INSERT, hose; 3/4 npt	1	134	1000 PLUG	SOCKET, 12vdc	1
53	INTAKE HOSE	HOSE, suction; 1" id'	1	139	2021-8-12	ADAPTER, 8mp x 12mj	1
54	112HC	CLAMP, hose		140	2089-8	ELBOW, 1/2 npt(m) x 1/2 npt (f)	1
		for 13/16 to 1-1/2 od hose	2	141	2242-8	ADAPTER, 8fj x 1/2 npt (f)	1
55	4404-16	INSERT, hose, 1" npt	1	142	CLAMP ASSY	Hose separating clamp	1
56	2018-12	UNION, 3/4 npt(m) x 3/4 jic(f)	1	145	245-143	VALVE, press. drain	1
57	4518 AXLE	AXLE	1	151	CASTER, AIR	WHEEL, swivel caster	2
58	NEG CABLE	CABLE, battery		155	382-0048	HOSE, cylinder bottom	1
		negative 24", 4 AWG	1	156	382-0068	HOSE, cylinder top	1
59	BATTERY BOX	Battery box w/cover	1	159	342-0023	HOSE, pressure from pump	1
60	2089-6	ELBOW	1	160	4518X GAUGE	GAUGE, hyd. Oil pressure	1
61	2092-8	TEE	2				
62	12pp	PLUG, drain	1				
63	2021-8	ADAPTER 1/2npt x -8jic(m)	1				
64	382-0016	HOSE, case drain	1				
65	2024-6	ELBOW 3/8npt x 3/8jic(m)	2				
66	2024-12-8	ELBOW, 3/4 npt x 1/2 jic(m)	1				
71	2024-16	ELBOW, 1npt x 1jic (m)	1				
72	102-0024	HOSE, return.	1				
73	2023-16	ELBOW, 1npt x 1jic (m) 45	1				
74	209-916	ADAPTER BRACKET	1				
75	2021-12	ADAPTER, 3/4 npt x 12jic(m)	1				
76	2021-16	ADAPTER, 1 npt x 1 jic(m)	2				
77	342-0090	HOSE, hyd. PRESSURE	1				
78	102-0090	HOSE, hyd. RETURN	1				
81	2024-8-6	ELBOW, 1/2 npt x 3/8 jic(m)	2				
82	PRS PLUG	PLUG, quick coupler	1				
83	PRS COUPLER	SOCKET, quick coupler	1				
84	2706-LN-8-6	BULKHEAD FITTING	2				
85	2071-8	ELBOW, 8mj x 8fj	2				

For pump service, see your Hennes-Johnson equipment dealer for repair kit # RK4050X.



## RK4050X 4000PSI PUMP REPAIR KIT

### PARTS DRAWING



### PARTS LIST

REF NO.	PART NO.	DESCRIPTION	QTY	REF NO.	PART NO.	DESCRIPTION	QTY
101	197-323	ROD, displacement	1	119	247-395	PLUG, throat seal	1
102	15K-031	NUT,packing	1	125*	244-891#	PACKING,o-ring(blue)	1
107	197-328	CARTRIDGE, throat	1	127*	244-894#	PACKING, o-ring	4
108	197-335	HOUSING, outlet	1	130*	183-641	GLAND, female	2
109*	244-893#	PACKING, o-ring	1	131*	183-642	GLAND, male	2
110	244-826	PIN, self locking w/ring	1	132*	167-897	V-PACKING;leather	8
111	197-318	CYLINDER, pump	1	133*	167-898	V-PACKING; Teflon	2
112*	244-898#	BALL, piston	1	*supplied in repair kit RK4050X			
113	197-312	PISTON	1	#Recommended tool box spare parts.			
114	197-304	HOUSING,inlet	1	Part numbers are Bulk packs. Teflon o-rings: 10/pk.			
115	197-308	GUIDE, ball	1	Balls: 3/pk			
116*	245-129#	BALL, intake	1				
117	244-856	SHIM, inlet	3				
118	197-344	SEAT, carbide	1				

# TECHNICAL DATA

MAXIMUM WORKING PRESSURE.....4500 psi (315 bar)  
FLUID INLET SIZE (displacement pump).....1-1/4" npt(m)  
FLUID OUTLET SIZE.....1" npt(f)

## LIMITED WARRANTY

Hennes-Johnson Equipment Company warrants products manufactured by it and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for a period of one (1) full year. Serviceable expected wear items such as tips, packing sets, closure seals, lubricants, batteries, tires, and other normal maintenance items are excluded from the one year warranty and are the sole responsibility of the purchaser.

To obtain warranty service, you must take the product, or deliver the product prepaid, in its original shipping package or packaging offering an equal degree of protection to the Hennes-Johnson Equipment Company point of manufacturing or to the Hennes-Johnson Equipment Company Dealer location from where the product was originally purchased. Permission for warranty service performed at the purchasers location or job site must be given in advance by Hennes-Johnson Equipment Company or the purchaser may be liable for all service charges. If defect claim is verified, Hennes-Johnson Equipment Company will warrant as follows:

1. **LABOR:** for a period of one (1) year from the date of purchase, if this product is determined to be defective, Hennes-Johnson equipment Company will repair or replace the product, at its option, at no charge, or pay the labor charges to the authorized Hennes-Johnson Equipment Company service facility. After the warranty, the purchaser must pay for all labor costs.
2. **PARTS:** In addition, Hennes-Johnson Equipment Company will supply at no charge, new or rebuilt replacement parts for a period of one (1) year. After the warranty period, the purchaser must pay for all parts costs.
3. **ACCESSORIES:** Parts and labor for all accessories will be warranted from defect in material or workmanship for a period of one (1) year.
4. **SHIPPING:** If the defect claim is verified, Hennes-Johnson Equipment Company will return the product to the original purchaser, transportation prepaid.

If inspection of the product does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which may include the cost of parts, labor, and transportation.

Hennes-Johnson Equipment Company shall not be held liable for any malfunction, or damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non Hennes-Johnson Equipment Company parts. At no time shall Hennes-Johnson Equipment Company be held liable for lost time, lost wages, failure to meet deadlines, etc., due to a warranty failure.

The terms of this warranty constitute the purchasers sole and exclusive remedy and are in lieu of any other warranties either expressed or implied warranty of fitness for a particular purpose. Every form of liability for direct, special or consequential damages or loss is expressly denied. Hennes-Johnson Equipment Company makes no warranty, and disclaims all implied warranties regarding components not manufactured by Hennes-Johnson Equipment Company (such as engines, switches, hoses, valves, etc.) These items sold by but not manufactured by Hennes-Johnson Equipment Company are subject to warranty by the original manufacturer. Hennes-Johnson Equipment Company will provide the purchaser reasonable assistance in making claims for breach of these warranties.



1 (800) 249-1349 phone  
(952) 447-1379 fax  
[www.Hennes-Johnson.com](http://www.Hennes-Johnson.com)