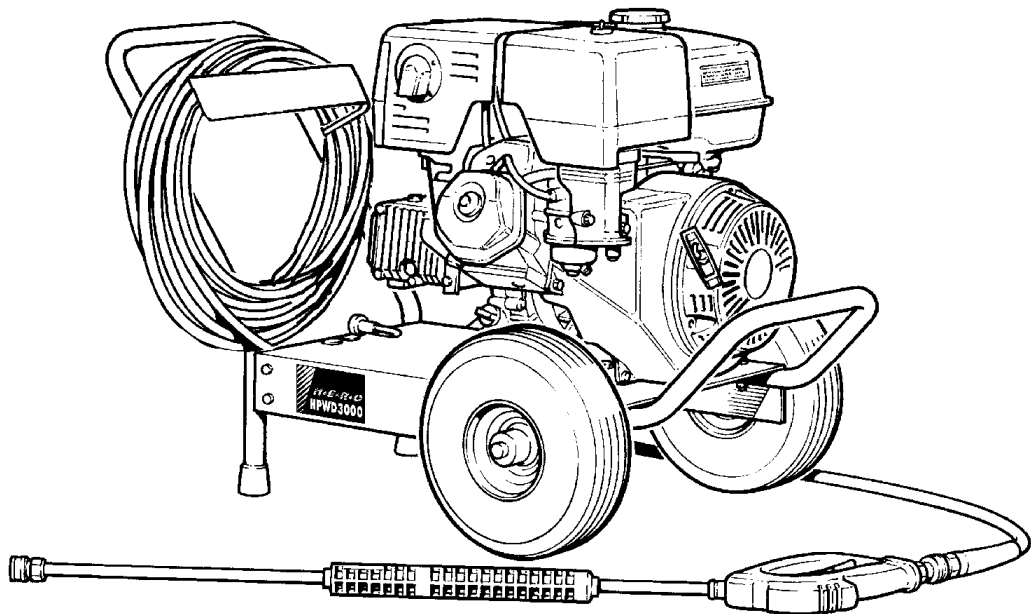


# **H.E.R.O.**

Industries

## ***Pressure Washers***

# **PW2530-AC**



## **H.E.R.O. Industries**

a division of Middlefield Bancorp Limited

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<b>Table of Contents</b>	
Safety Instructions	3
Important Operating / Maintenance Precautions	3
Start-Up	4
Nozzle Selection	5
Trouble Shooting	5
Pump Schematic & Parts List	6
Unloader and Injector Control Schematic & Parts List	7
Repair Kits	7
Chassis Parts, Gun, & Hose	8
Pump Service	9
Accessories	10

## WARRANTY

This product is warranted to be free from defects in materials and workmanship under normal use and service, for a period of two years from the date of purchase, when operated and maintained in accordance with the Maintenance and Operation Instructions supplied with the unit. The warranty does not cover misuse or negligence.

This warranty is extended only to the original purchaser. Hoses, spray guns, wands and other accessories are warranted for 30 days. Warranty is void if repairs are attempted by anyone other than an Authorized Service Center.

H.E.R.O. Industries liability under warranty is limited to repair of product and /or replacement of parts, and is given to the purchaser in lieu of all other remedies including incidental and consequential charges. There are no expressed warranties other than those specified herein.

## IMPORTANT SAFETY PRECAUTIONS

This manual has important information for the use and safe operation of this machine. Read and understand all warnings before you start working.

### WARNING - WHEN USING THIS MACHINE:

- Read all the instructions before using machine
- To reduce risk of injury, close supervision is necessary when the machine is used near children
- Know how to stop the machine and bleed pressure quickly. Be quite familiar with the Stay alert! Watch what you are doing.
- Keep operating area clear of all persons.
- Follow the maintenance instructions specified in the manual.
  
- Do not operate the machine when fatigued or under the influence of alcohol or drugs.
- Do not overreach or stand on unstable support. Keep good footing and balance at all times.
- To prevent fire hazard, do not use with or near inflammables such as; gasoline, grain dust, solvents and thinners.
- Never add gasoline to a hot engine as this can result in a fire or explosion.
- Never direct spray at pressure washer unit.

### ***Warning***

**Risk of injection or injury.**

**Do not direct discharge stream at persons or animals. The high pressure water stream can cause injury or death!**

## IMPORTANT OPERATION / MAINTENANCE PRECAUTIONS

- Change oil in pump after the first 50 hours, then every 500 hours.  
**Use SAE30 Non-Detergent Motor oil.**
- Change engine oil as specified by the Honda. See Honda owners manual.
- Do Not** run washer longer than 3 minutes with gun closed, as this can result in damage to the seals. Heat generated by the re-circulating water can damage seals.
- Avoid **freezing** pump. Drain unit prior to storage, or run an antifreeze solution through pump. Ensure the pump and hoses are completely bled of all liquid.

# START-UP AND OPERATION INTRODUCTION

1. Verify that the vented **YELLOW** dip stick is installed in pressure washer pump. **Remove the RED shipping plug ( if present ) from top of the pump and replace it with the YELLOW oil level dipstick provided. Fig. 1**

2. Before first use, check engine and pump oil levels.

**Note: For shipping purposes, engine oil has not been added.**

Before each use, check engine oil level by unscrewing the oil dipstick. Add motor oil (consult Honda manual for correct grade) as required to bring to proper level, approximately mid-way on dipstick.

3. Check water supply volume. To operate correctly, the unit requires a water supply 25% greater than the units output. ( i.e. Model PW-3540-AC = 5 GPM, of water flow ).

4. Connect a standard garden hose to the water inlet or bottom connection on the pump head ( Female hose connector ). Fig. 2.

5. Connect the high pressure hose to the water "Outlet" or upper connection on the pump head. ( Male quick connect nipple ). Fig. 2.

6. Turn the unloader knob on top of the pump head counter clockwise to reduce the pressure prior to starting the machine.

7. Select the desired tip for the job. Insert tip into wand ( quick-connect fittings ).

**RED-0°, Narrow Fan, Direct or Concentrated Cleaning.**

**YELLOW - 15°, Medium Fan, General Use.**

**WHITE - 40°, Wide Fan, Soft Pattern, For Rinsing.**

**BLACK - 65°, Chemical Injector Tip. Must be used when operating chemical injector**

8. Turn on the water supply and trigger the spray gun to purge all air from the system, **PRIOR** to starting engine.

9. Start the engine by following this procedure:

- Turn the ON/OFF switch to ON.
- Turn the GAS to ON.
- Turn the CHOKE to FULL.
- Push the THROTTLE lever to the ON position.
- Pull the STARTING cord.

- Once the engine has started, reduce the CHOKE until it is OFF, and open the THROTTLE to full ON. *Use these instructions in conjunction with instructions provided in the Honda manual.*

10. At this point, the gun is triggered to evacuate any remaining air in the system. Then trigger the gun and begin turning the **BLACK** un loader knob in a clockwise direction as far as it will turn. You should now have full pressure.

11. To introduce chemicals/detergent to the spray,
- Turn unit off, and trigger gun to relieve all internal fluid pressure.
  - Connect the chemical injector components.
  - Place the suction line filter end into the chemical/detergent jug.
  - Install "Black" injector tip into gun. **VERY IMPORTANT.**
  - Re-start pump and set pressure to low.

**Injector siphoning is best at very low pressure. Once the injector material stream has been established, the pump operating pressure can be increased.**

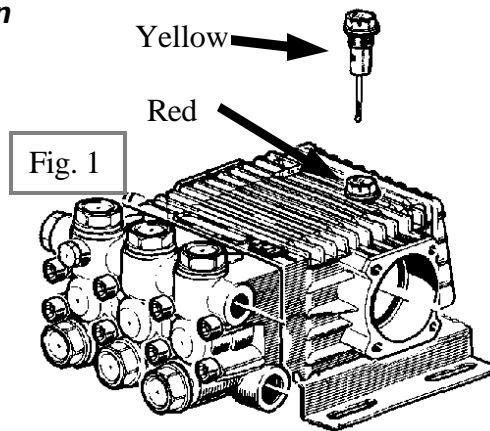
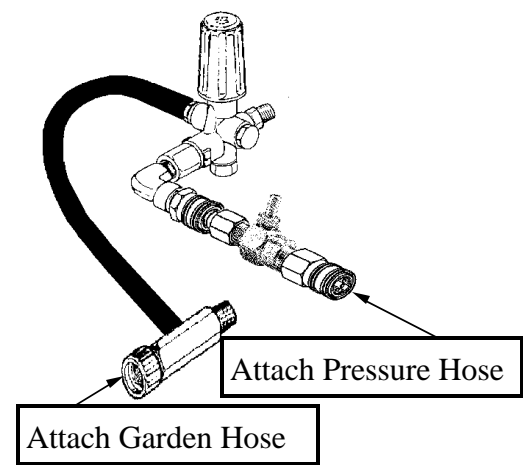


Fig. 2



## NOZZLE SELECTION

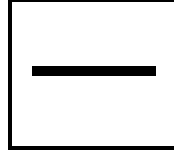
For your convenience, we have provided a selection of nozzles to choose from.

Your machine is equipped with a 0°, 15°, 40°, and a chemical nozzle.

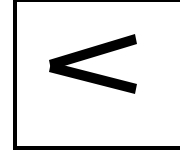
If you require a different cleaning action, we suggest selecting the correct tip for the job.

1. RED = 0° Angle - High impact, solid stream.
2. YELLOW = 15° Angle - Narrow width spray pattern.
3. WHITE = 40° Angle - Wide width spray pattern.
4. BLACK = Chemical Injector

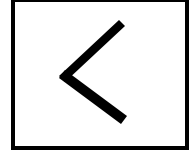
0° Angle



15° Angle



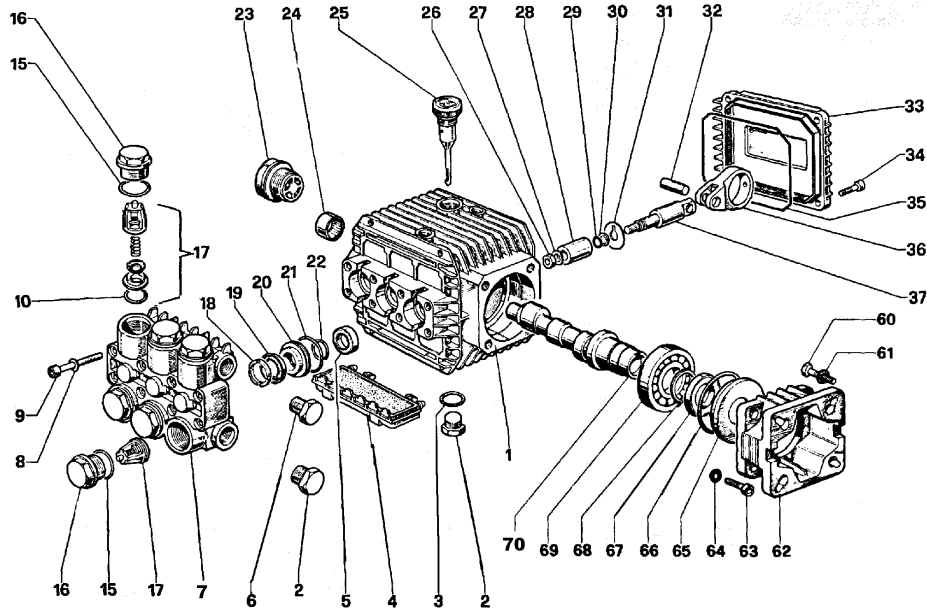
40° Angle



## TROUBLE SHOOTING

FAULT	CAUSE	REMEDY
Pump running normally but pressure does not achieve rated pressure.	Pump sucking air. Valves worn or dirty. Insufficient water flow. Unloader valve packing worn. Nozzle incorrect or worn. Worn piston packing.	Check that hoses and fittings are tight. Check, clean or replace. Increase water supply. Check and replace. Check and replace. Check and replace.
Fluctuating pressure	Valves worn, dirty or stuck. Pump sucking air. Worn piston packing. Insufficient water flow.	Check, clean or replace. Check that hoses and fittings are tight. Check and replace. Increase water supply. May require new water supply source.
Pressure drops after period of normal use.	Nozzle worn. Valves worn, dirty or stuck. Unloader valve packing worn. Worn piston packing.	Check and replace. Check, clean or replace. Check, clean or replace. Check and replace.
Pump noisy	Pump sucking air. Valves dirty or worn. Worn bearings. Water too hot.	Check that hoses and fittings are tight. Check, clean or replace. Check and replace if necessary. Reduce temperature.
Presence of water in oil	High humidity in air. Piston packing and oil seal worn.	Check and change oil twice as often. Check and replace.
Water dripping from under pump.	Piston packing worn. Piston plungers cracked. Thermal relief valve opened.	Check and replace. Check and replace. Check and replace.
Oil dripping.	Oil seal worn.	Check and replace.
Engine will not start.	Low fuel level. Low oil level. Worn spark plug .	Add fuel. Add oil. Replace.

# PW2530-AC - Pump Assembly



REF	PART #	DESCRIPTION	QTY	REF	PART #	DESCRIPTION	QTY
	PW-2710	Pump / Un loader Assy.		28	PW-51.0400.09	Piston	3
1	PW-51.0106.22	Crankcase	1	29	PW-90.3572.00	O-Ring	3
2	PW-98.2100.00	Cap	2	30	PW-90.5022.00	Anti-Extrusion Ring	3
3	PW-90.3833.00	O-Ring	1	31	PW-96.7070.00	Washer	3
4	PW-51.2090.51	Cover	1	32	PW-97.7310.00	Piston Pin	3
5	PW-90.1565.00	Oil Seal Kit 83	3	33	PW-51.1600.22	Crankcase Cover	1
6	PW-98.2041.00	Cap	1	34	PW-99.1867.00	Screw	4
7	PW-51.1200.41	Manifold	1	35	PW-90.3917.00	O-Ring	1
8	PW-96.6938.00	Washer	8	36	PW-51.0300.22	Connecting Rod	3
9	PW-99.1943.00	Screw	8	37	PW-51.0500.56	Valve Guide	3
10	PW-90.3841.00	O-Ring Kit 123	6	60	PW-99.2730.00	Screw	4
15	PW-90.3847.00	O-Ring Kit 84	6	61	PW-96.7014.00	Washer	4
16	PW-98.2218.00	Cap Kit 84	6	62	PW-10.0346.22	Flange	1
17	PW-36.7032.01	Valve Unit Kit 123	6	63	PW-99.1867.00	Screw	4
18	PW-51.1000.51	Head Ring Kit 96-97	3	64	PW-96.6938.00	Washer	4
19	PW-90.2620.00	Packing Kit 96-97	3	65	PW-50.2115.51	Spacer	1
20	PW-51.0800.70	Packing Retainer Kit 86-96	3	66	PW-90.4097.00	O-Ring	1
21	PW-90.3604.00	O-Ring Kit 86-96-97	3	67	PW-90.1644.00	Oil Seal	1
22	PW-90.3835.00	O-Ring Kit 86-96-97	3	68	PW-90.0667.00	Circlip	1
23	PW-97.5968.00	Oil Level Indicator	1	69	PW-91.8373.00	Bearing	1
24	PW-91.8014.00	Bearing	1	70	PW-51.0221.65	Crankshaft,	1
25	PW-98.2103.00	O-Ring	1	71	PW-1077	Thermal Protection	1
26	PW-92.2216.00	Nut	3	72	PW-1405	Tubing, Relief Valve	1
27	PW-96.7008.00	Washer	3				

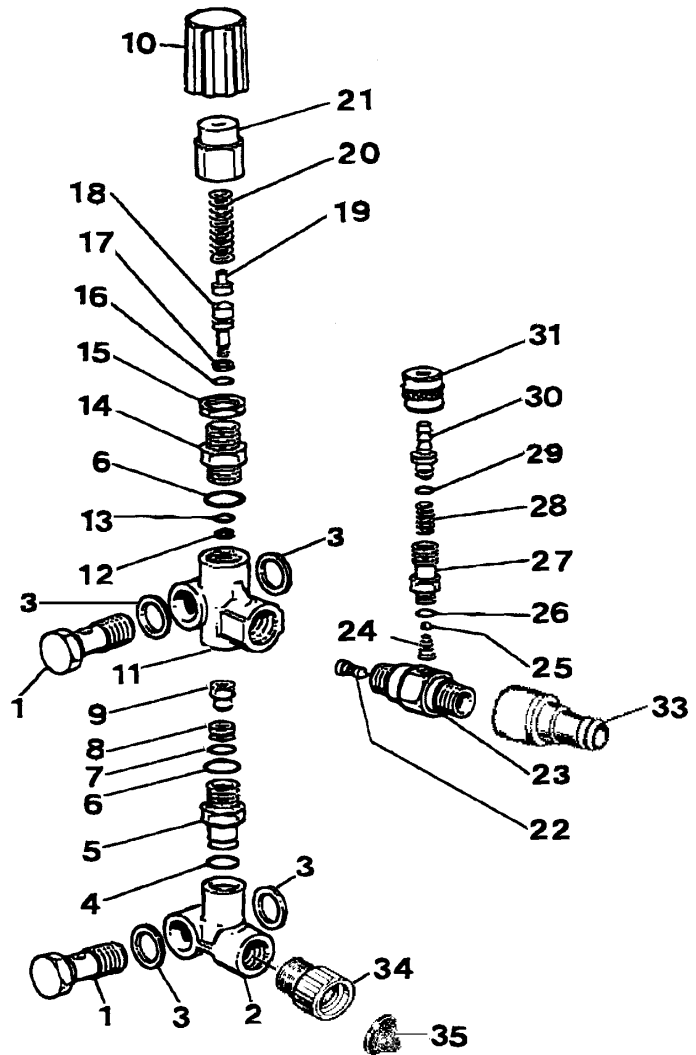
Repair Kits			
Part #	Description	Ref# Included	# Pieces
PW-RKI086	High & Low Pressure Seals	20, 21, 22	3
PW-RKI096	Repair Kit, Seal Kit Complete 3 Kits needed per unit	18, 19, 20, 21, 22	1
PW-RKI097	Repair Kit, Packing	18, 19, 21, 22	3
PW-RKI123	Repair Kit, Valve,	4,5,6,7,8,11	6

# UNLOADER AND INJECTOR CONTROLS - PW-1130

**HPWD2000 Only  
( Model WP10  
Unloader With  
Injector)**

## Unloader Service

The unloader is made up of many small o-rings, springs and check balls. Repair kits are available to replace these "Soft Goods". Repairs requiring the replacement of valve bodies or "Hard Goods" may be more economically solved through the replacement of the entire "Bolt On" unloader. Shop labor may make an unloader repair a poor economical choice.



REF	PART #	DESCRIPTION	QTY
	PW-1130	Un loader, complete	1
2	PW-60.0821.35	Lower Body	1
3	PW-14.4100.00	Washer	4
4	PW-10.3109.96	O-Ring	1
5	PW-60.0396.31	Connector	1
6	PW-10.3066.01	O-Ring	3
7	PW-10.3005.00	O-Ring	1
8	PW-60.0311.51	Seat	1
9	PW-60.0333.21	Ball Holder	1
10	PW-60.0315.84	Adjustment Knob	1

<b>REF #</b>	<b>PART #</b>	<b>DESCRIPTION</b>	<b>QTY</b>
11	PW-60.0801.35	Valve Body	1
12	PW-10.4006.00	Seal	1
13	PW-10.3051.01	O-Ring	1
14	PW-60.0303.31	Connector	1
15	PW-60.0317.31		1
16	PW-10.3055.00	O-Ring	1
17	PW-10.4008.00		1
18	PW-60.0331.51	Piston	1
19	PW-60.0310.61	Spring Support	1
20	PW-60.0313.61	Spring	1
21	PW-60.0304.31	Valve Cap	1
22	PW-21.0212.51	Nozzle	1
23	PW-21.0211.31	Injector Body	1
24	PW-21.0160.51	Spring	1
25	PW-14.7420.01	Ball	1
26	PW-10.3049.00	O-Ring	1
27	PW-21.0161.31	Nipple	1
28	PW-21.0158.31	Spring	1
29	PW-10.3043.01	O-Ring	1
30	PW-21.0155.31	Injector Nipple, Hose	1
31	PW-21.0156.31	Knob	1
33	PW-1055	Outlet Plug, Quick-Disconnect, 3/8" Female	1
34	PW-1400	Inlet, Garden Hose, Female	1
35	PW-1060	Washer, Filter	1



## CHASSIS PARTS, GUN, HOSE & TIPS

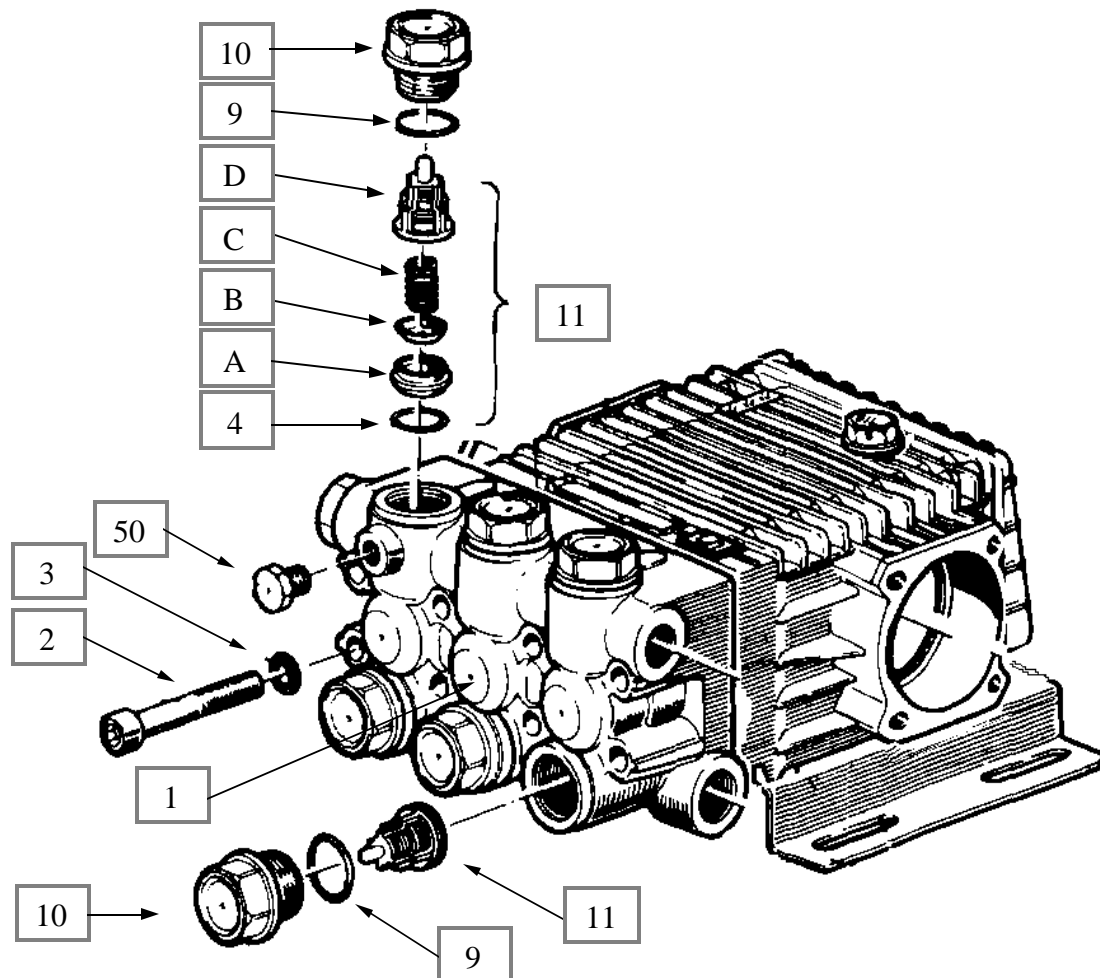
PART #	DESCRIPTION
PW-4335	Cart, Aluminum
PW-4075	Grommet, Tip Holding
PW-3052	Engine, Gas, Honda, 13 HP, c/w Oil Alert
PW-1020	Strainer & Hose, Chemical Suction
PW-1430	Gun / Wand Assembly.
PW-1055	Plug, Quick-Disconnect, 3/8 Steel, Male
PW-1470	Pressure Washer Hose, 50', c/w fittings
PW-1100-0004	Spray Nozzle, 0 Degree, RED
PW-1100-1504	Spray Nozzle, 15 Degree, YELLOW
PW-1100-4004	Spray Nozzle, 40 Degree, WHITE
PW-1100-6540	Wash Nozzle, 65 Degree, BLACK,
97B	Decal " Quality By Design "
PW-4085	Decal, Warning, Pressure Washing

## PUMP SERVICE

All inlet and discharge valves can be serviced without disrupting the inlet or discharge plumbing. The inlet and discharge valves are identical on all H.E.R.O. models. See pages 8-10.

### VALVE ASSEMBLIES

1. To service any valve, remove valve cap ( ref # 10 ) and extract valve assembly ( ref # 4-A-D-9 ).
2. Examine o-rings and replace if there is any evidence of cuts, abrasions or distortion.
3. Remove valve assembly ( ref # A-D ) from valve cavity.
4. Remove o-ring ( ref # 4 ) from valve cavity.
5. Only one valve kit is necessary to repair all the valves in the pump. The kit includes new o-rings, valve seat, poppet, spring and retainer, ( ref # 4, A-D ) all pre-assembled.
6. Install new o-ring in valve cavity.
7. Insert assembly into valve cavity.
8. Replace valve cap ( ref # 10 ) and torque to 74 foot pounds.



## ACCESSORIES

PART #	DESCRIPTION
PW-1062	In-Line Strainer ( Inlet water filter )
PW-1010	Wand, w/insulator, 36',
PW-1012	Wand, w/ insulator, 48',
PW-1014	Wand, w/insulator, 79',
PW-1015	Wand, twin-lance, less fittings,
PW-9012	Telescopic Wand, 6 ft to 12 ft
PW-9016	Telescopic Wand, 8 ft to 16 ft
PW-9024	Telescopic Wand, 12 ft to 24 ft
PW-9050	Gutter Hook – Telescopic Wand
PW-9060	Hard Surface Brush – Telescopic Wand
PW-9065	Window Brush – Telescopic Wand
PW-9070	Adapter
PW-1070	Gauge, 0-4000 psi
PW-1110	Nozzle, rotating, 3000 psi, less q/c
PW-1120	Plug, quick-disconnect, 1/4 male,
PW-1117	Assembly, sandblast head, HPWD 3000
PW-FSC24	Flat Surface Cleaner, 24" diameter
PW-FSCBVK	Ball Valve Kit – Flat Surface Cleaner
PW-5000	Degreaser, 4 Liter
PW-5005	Universal Cleaner, 4 Liter
PW-5010	Vehicle Wash, 4 Liter
PW-5015	Pressure Washer Pump Oil, 1 Liter
PW-5020	3 Pack, Degreaser, Universal, Vehicle.

