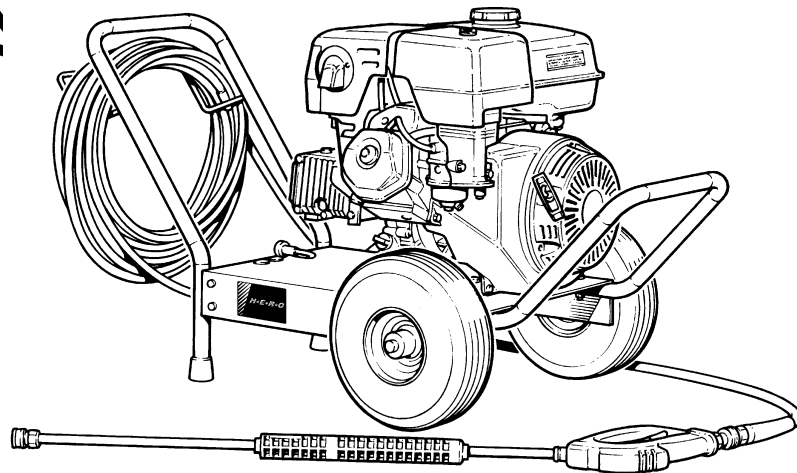


# **H.E.R.O.**

## ***Pressure Washers***

# **PW3540-AC**

**NEW**



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

a division of Middlefield Bancorp Limited

2719 Lake City Way,

Burnaby, B.C., Canada

Phone: ( 604 ) 420-6543 Fax: ( 604 ) 420-8725

Toll Free: 1-800-494-4376

E-mail: [sales@hero.ca](mailto:sales@hero.ca) Website: [//www.hero.ca](http://www.hero.ca)

U.S. mail: P.O. Box 75, Custer, WA 98240-0052

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## 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 book 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

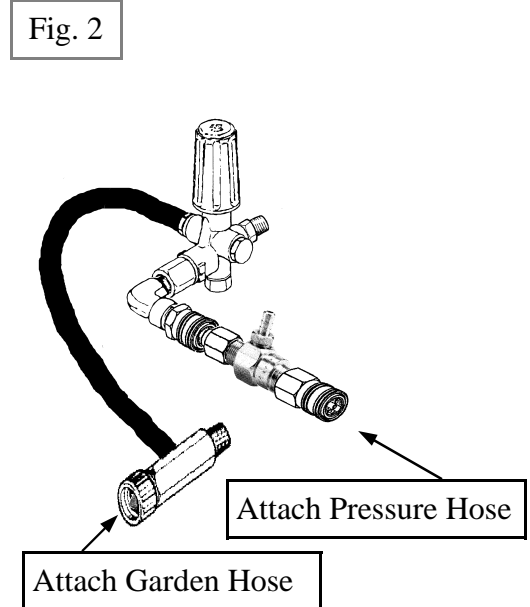
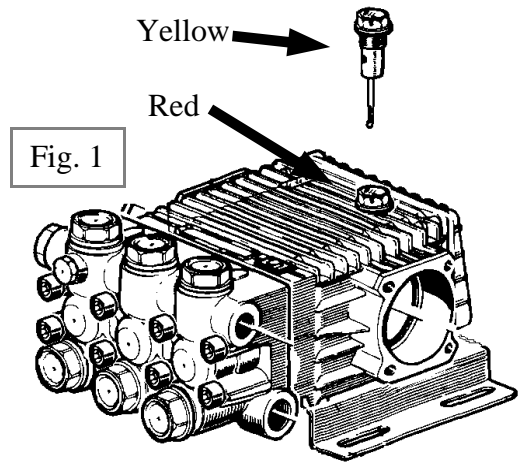
- ☑ Change oil in pump after the first 50 hours, then every 500 hours.  
**Use SAE30 Non-Detergent Motor oil.**
- ☑ Change engine oil as specified by the Honda. See Honda owners manual.
- ☒ **Do Not** run washer longer than 3 minutes with gun closed, as this can result in damage to the seals. Heat generated 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 bleed 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 ).

### **To test water supply output;**

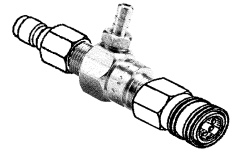
- a) Turn water flow to full maximum output.
  - b) Place a 5 gallon pail or container under water flow for exactly 1 minute ( 60 seconds).
  - c) Measure contents to determine water flow.
4. Connect a standard garden hose to the water inlet or bottom connection on the pump head ( Female hose connector ). 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.



## START-UP AND OPERATION INTRODUCTION

7. Select the desired tip for the job. Insert tip into wand ( quick-connect fittings ). See page 6.  
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. If you are not going to be using injector system, remove the injector components from the out put side of the unloader. All components feature quick release fittings. Store for future use.



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

10. 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.*

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

12. To introduce chemicals/detergent to the spray,

- Turn unit off, and trigger gun to relieve all internal fluid pressure.
- Re-connect the chemical injector components as removed in step 8.
- Connect the detergent/chemical suction line to the fitting marked “Injector” and place the 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.***

## 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.

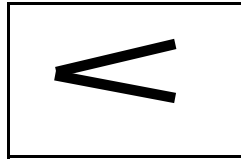
If you require a different cleaning action, we suggest selecting the correct tip for the job.

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

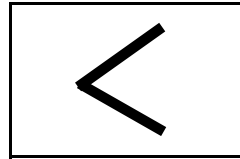
0° Angle



15° Angle



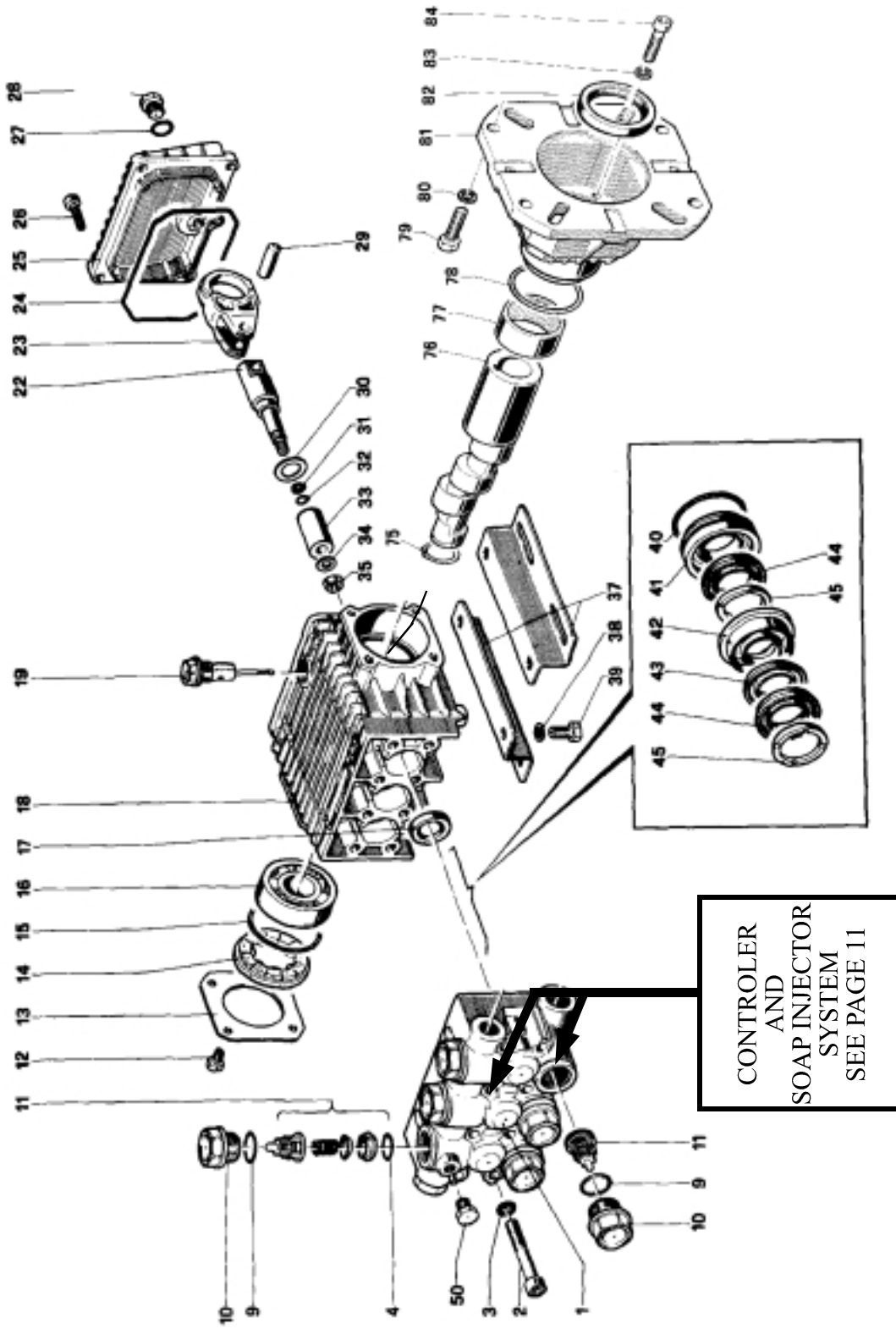
40° Angle



## 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 air 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 air 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 air 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. The O-rings of piston guide or retainer worn. 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 or gap.	Add fuel. Add oil. Replace.

# PW3540-AC - WW965 Pump Assembly



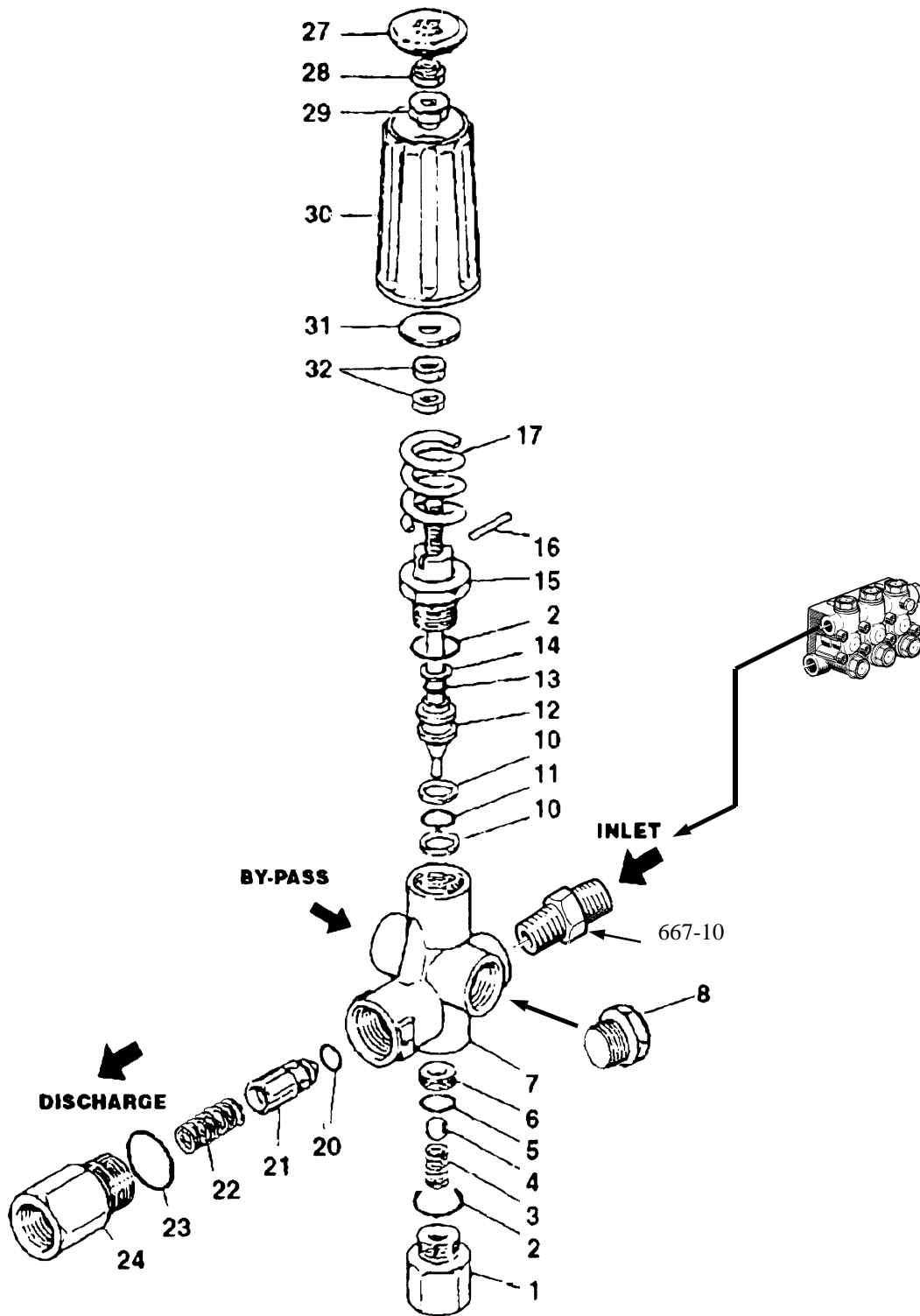


REF #	PART #	DESCRIPTION	QTY
Assy	PW-3110	Pump & Unloader Assembly, <b>PW-3540-AC</b> c/w thermal valve, WW965	
Assy	PW-3080	Pump Only, Less fittings	
1	PW-44.1206.41	Manifold ( Ø 13 Piston )	1
2	PW-99.3175.00	Screw	8
3	PW-96.7014.00	Washer	8
4	PW-90.3841.00	O-Ring	Kit 123 6
5		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
6		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
7		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
8		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
9	PW-90.3847.00	O-Ring	Kit 124 6
10	PW-98.2226.00	Cap	Kit 124 6
11	PW-36.7115.01	Valve Unit	Kit 123 6
12	PW-99.1807.00	Screw	4
13	PW-50.1500.74	Side Cover	1
14	PW-44.2118.01	Indicator Spacer	1
15	PW-90.4097.00	O-Ring	1
16	PW-91.8328.00	Bearing	1
17	PW-90.1614.00	Oil Seal	Kit 23 3
18	PW-44.0100.22	Crankcase	1
19	PW-98.2103.00	Oil Dip Stick	1
22	PW-44.0501.66	Piston Guide ( Ø 13 Piston )	3
23	PW-44.0300.22	Connecting Rod	3
24	PW-90.3920.00	O-Ring	1
25	PW-44.1600.22	Rear Cover	1
26	PW-99.1837.00	Screw	5
27	PW-90.3585.00	O-Ring	1
28	PW-98.2041.00	Cap	1
29	PW-97.7340.00	Piston Pin	3
30	PW-96.6967.00	Washer ( Ø 13 Piston )	3

REF #	PART #	DESCRIPTION	QTY
33	PW-44.0402.66	Plunger ( Ø 13 Piston )	3
37	PW-50.2000.74	Foot	2
38	PW-96.7016.00	Washer	4
39	PW-99.3037.00	Screw	4
40	PW-90.3612.00	O-Ring	Kit 125, 130, 152 - 156
41	PW-44.0803.70	Packing Retainer Ø 13	Kit 152, 156
42	PW-44.2162.70	Intermediate Ring Ø 13	Kit 154 – 156
43	PW-90.5076.00	Backup Ring Ø 13	Kit 153 – 156
44	PW-90.2602.00	Packing Ø 13	Kit 153 – 156
45	PW-44.10002.51	Head Ring Ø 13	Kit 155 – 156
46	PW-98.2100.00	Cap	1
47	PW-98.2176.00	Cap	1
48	PW-96.7380.00	Washer	1
49	PW-96.7514.00	Washer	1
50	PW-98.1966.00	Cap	1
51	PW-90.2603.00	Low Pressure Seal Ø 13	Kit 153 – 156
52	PW-1075	Valve, Thermal Protection, 1/2,	1
53	PW-1405	Tubing, P.R.V.	1
75	PW-90.0635.00	Circlip	1
76	PW-44.0221.65	Crankshaft, WW965,	1
77	PW-91.8568.00	Bushing	1
78	PW-90.4097.00	O-Ring	1
79	PW-99.2755.00	Screw	4
80	PW-96.7020.00	Washer	4
81	PW-10.0518.22	Motor Flange	1
82	PW-90.1690.00	Oil Seal	1
83	PW-96.6938.00	Washer	4
84	PW-99.1912.00	Screw	4

Part #	Description	Kit	Ref# Included	# Pieces
PW-RKI023	Repair Kit, Oil Seal, 2500, 3000	23	17	3
PW-RKI123	Repair Kit, Valve,	123	4,5,6,7,8,11	6
PW-RKI124	Valve Cap ( Brass ) & O-ring,	124	9, 10	6
PW-RKI125	Low Pressure Brass Ring & O-Ring	125	40, 41	3
PW-RKI152	Repair Kit, Packing, 13mm,	152	40, 41	3 each
PW-RKI153	Repair Kit	153	43, 44, 51	3 each
PW-RKI154	Repair Kit	154	42	3 each
PW-RKI155	Repair Kit	155	45	3 each
PW-RKI156	Repair Kit	156	40, 41, 42, 43, 44, 45, 51	3 each

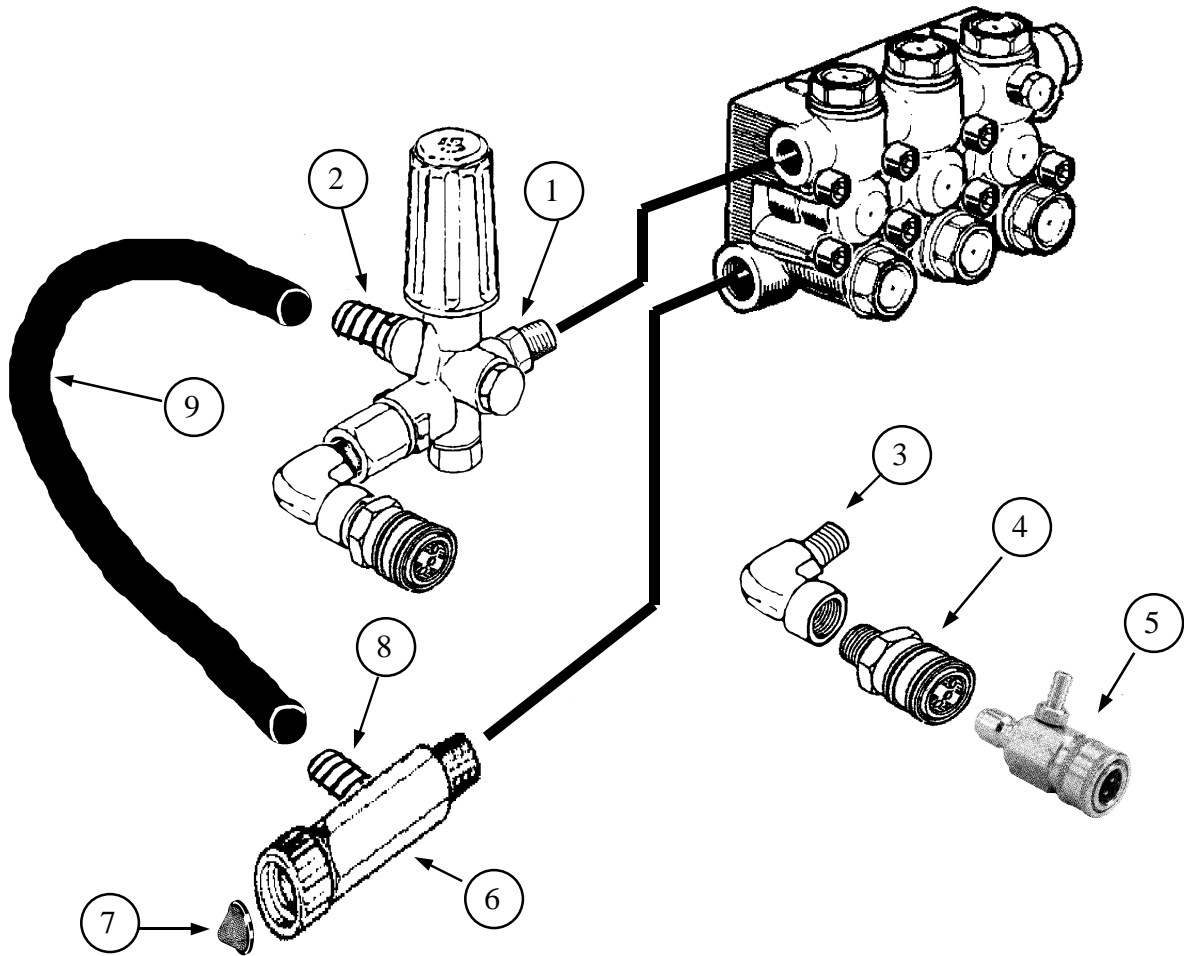
# UNLOADER PW-1195



## UNLOADER - PW-1195

REF #	PART #	DESCRIPTION	QTY
<b>1-40</b>	<b>PW-1140</b>	<b>UNLOADER ONLY, less chemical injector</b>	<b>ASSY</b>
1	PW-60.0030.31	Inlet Fitting/Plug, 3/8 NPT-F	1
2	PW-10.3068.00	O-Ring	2
3	PW-60.0015.51	Ball Spring	1
4	PW-14.7461.00	Ball, S.S.	1
5	PW-10.3059.01	O-Ring	1
6	PW-60.0254.51	S.S. Seal	1
7	PW-60.0057.35	Brass Body	1
8	PW-60.0025.31	Plug	8
10	PW-10.4021.00	Backup Ring	2
11	PW-10.3175.08	O-Ring	2
12	PW-60.0061.23	S.S. Piston	2
13	PW-10.3170.08	O-Ring	1
14	PW-10.4020.00	Backup Ring	1
15	PW-60.0064.31	Piston Housing	1
16	PW-15.1021.00	Locking Pin	5
17	PW-60.0033.61	Blue Spring	1
20	PW-10.3213.08	O-Ring	1
21	PW-60.0052.31	Check Valve	1
22	PW-60.0053.51	S.S. Spring	2
23	PW-10.3070.02	O-Ring	1
24	PW-60.0059.31	Outlet Fitting	1
27	PW-60.0002.84	Plastic Plug For Knob	1
28	PW-11.4589.10	Zinc Nut	1
29	PW-60.0001.31	Insert	1
30	PW-60.0003.84	Plastic Knob	1
31	PW-14.3720.40	Washer	1
32	PW-11.4573.31	Brass Nut	2

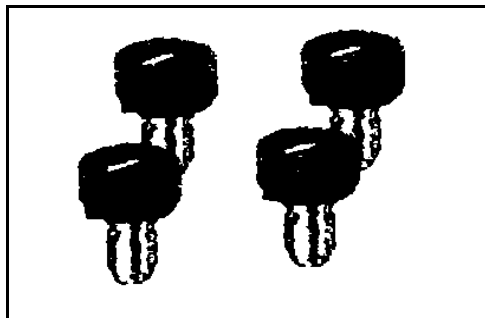
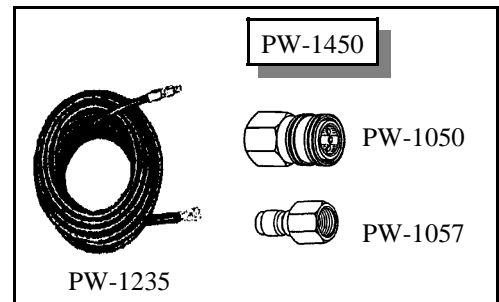
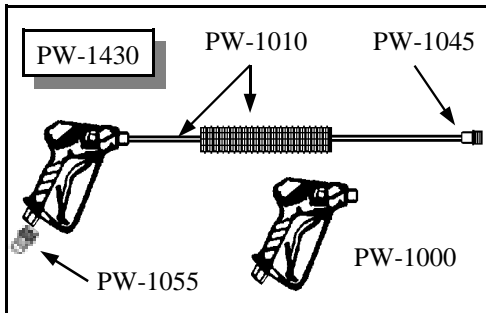
## UNLOADER, INJECTOR, LAYOUT



REF #	PART #	DESCRIPTION	QTY
1	667-10	Connector, 3/8 male x 3/8 male	1
2	PW-1165	Fitting, 3/8 hose x 3/8 NPT	1
3	PW-1250	Elbow,	
4	PW-1052	Body, Quick Disconnect, Female x 3/8 Male threads	1
5	PW-1255	Chemical Injector only	1
6	PW-1175	Garden Hose Inlet Manifold	1
7	PW-1060	Washer, Filter	1
8	PW-1155	Fitting, 3/8 hose x 1/4 MPT	1
9	PW-1185	Bypass Hose	1

## CHASSIS PARTS, GUN, HOSE & TIPS

PART #	DESCRIPTION	QTY
PW-4335	Cart, Aluminum	1
PW-4075	Grommet, Tip Holding	4
PW-3052	Engine, Gas, Honda, 13 HP, c/w Oil Alert	1
PW-1020	Strainer & Hose, Chemical Suction	1
PW-1430	Gun / Wand Assembly. C/W: PW-1000, 1010, 1045, 1055	Assy
PW-1055	Plug, Quick-Disconnect, 3/8 Steel, Male	1
PW-1470	Assembly, Pressure Washer Hose, 50', complete with fittings PW-1057 = Male plug, PW-1050 = female Q.D., PW-1235 hose )	Assy
PW-1100-0004	Spray Nozzle, 0 Degree, RED	1
PW-1100-1504	Spray Nozzle, 15 Degree, YELLOW	1
PW-1100-4004	Spray Nozzle, 40 Degree, WHITE	1
PW-1100-6540	Wash Nozzle, 65 Degree, BLACK,	1
97B	Decal " Quality By Design "	1
PW-4085	Decal, Warning, Pressure Washing	1

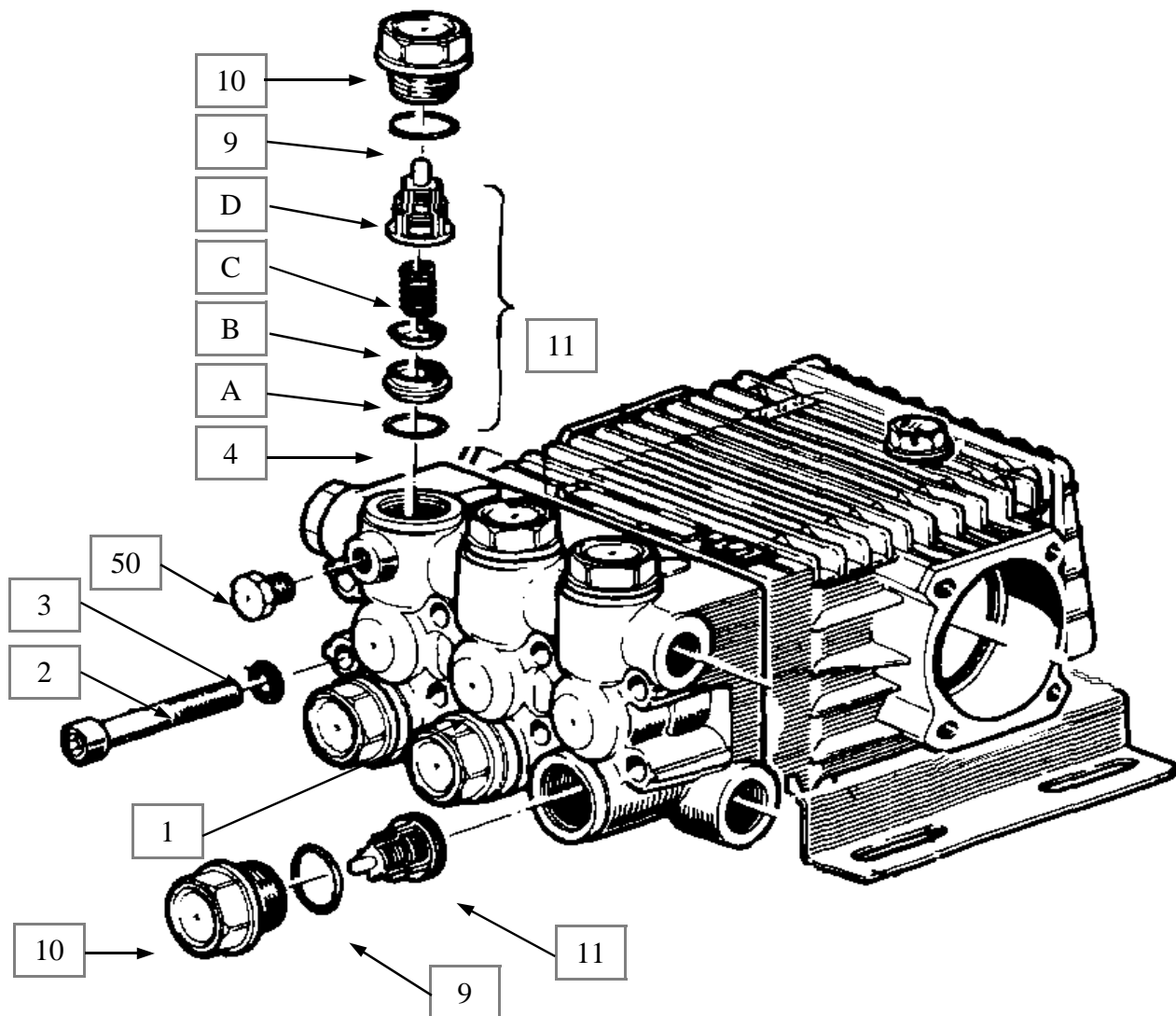


## PUMP SERVICE

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.

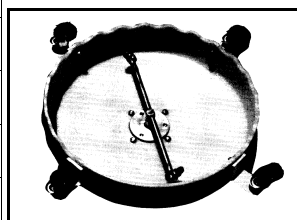
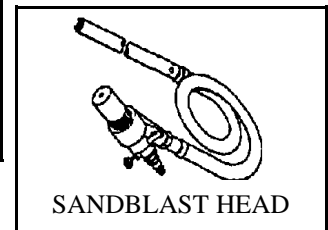
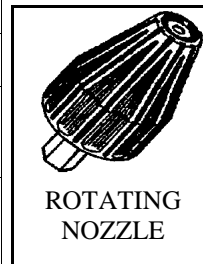
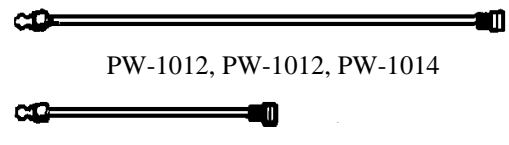
### VALVE ASSEMBLIES

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-1065	Gauge, 0-3000 psi
PW-1070	Gauge, 0-4000 psi
PW-1110	Nozzle, rotating, 3000 psi, less q/c fitting, HPWD 2500 – 3000 only
PW-1120	Plug, quick-disconnect, 1/4 male, for rotating nozzle
PW-1115	Assembly, sandblast head, HPWD 1500
PW-1116	Assembly, sandblast head, HPWD 2500
PW-1117	Assembly, sandblast head, HPWD 3000
10-WW-18	Whirl-a-way, 18'
10-WW-24	Whirl-a-way, 24'
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.





# **H E R O**

# ***Pressure Washers***

MODEL # \_\_\_\_\_

SERIAL # \_\_\_\_\_

PURCHASED ON \_\_\_\_\_

PURCHASED FROM: \_\_\_\_\_