



This manual contains **IMPORTANT WARNINGS** and **INSTRUCTIONS READ AND RETAIN FOR REFERENCE**

HYDRA-CLEAN® 1026, 1530, 2340 Pressure Washers

HYDRA-CLEAN 1026, 3 HP ENGINE

P/N 800-682, Series A

*1000 psi (69 bar) OPERATING PRESSURE
1400 psi (97 bar) MAXIMUM WORKING PRESSURE*

HYDRA-CLEAN 1530, 4 HP ENGINE

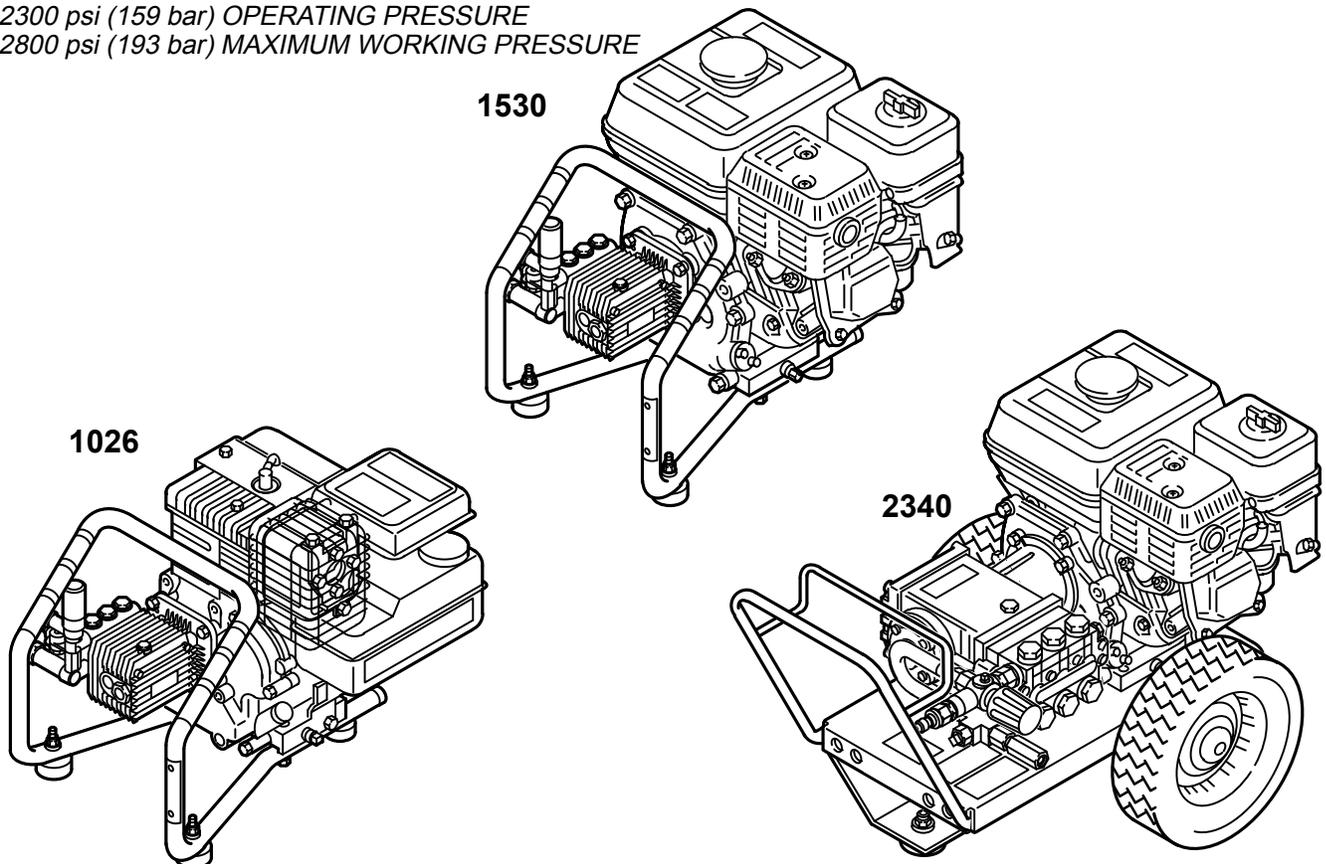
P/N 800-717, Series A

*1500 psi (103 bar) OPERATING PRESSURE
1900 psi (131 bar) MAXIMUM WORKING PRESSURE*

HYDRA-CLEAN 2340, 8 HP ENGINE

P/N 800-654, Series A

*2300 psi (159 bar) OPERATING PRESSURE
2800 psi (193 bar) MAXIMUM WORKING PRESSURE*



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WARNING

**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

General Safety

This pressure washer 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 or wand at anyone or at any part of the body. *NEVER* put hand or fingers over the spray tip.

ALWAYS follow the **Pressure Relief Procedure**, before cleaning or servicing any part of the sprayer.

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

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

Medical Treatment

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

NOTE TO PHYSICIAN: *Injection in the skin is a traumatic injury. It is important to treat the injury surgically as soon as possible. Do not delay treatment to research toxicity. Toxicity is a concern with some exotic coatings injected directly into the bloodstream. Consultation with a plastic surgeon or reconstructive hand surgeon may be advisable.*

Pressure Relief Procedure

To reduce the risk of serious bodily injury, including fluid injection and splashing in the eyes or on the skin, always follow this procedure whenever you stop spraying for more than 10 minutes, when shutting down, and before checking or repairing any part of the system.

1. Engage the trigger safety latch.
2. Turn the sprayer off.
3. Remove the ignition cable from the spark plug.
4. Shut off the water supply.
5. Disengage the trigger safety latch and trigger the gun to relieve pressure, and then engage the trigger safety latch again.
6. Before long-term (overnight) storage or transporting of unit, disconnect the water supply and turn off the fuel supply valve.

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.

SAFETY LATCH: Whenever you stop spraying for a moment, always set the gun safety latch in the engaged or "safe" position, making the gun inoperative. Failure to properly set the safety latch can result in accidental triggering of the gun.

SPRAY TIP SAFETY : Use extreme caution when cleaning or changing spray tips. If a spray tip clogs while spraying, engage the gun safety latch immediately. *ALWAYS* follow the **Pressure Relief Procedure** and then remove the spray tip to clean it.

EQUIPMENT MISUSE HAZARD

General Safety

Any misuse of the pressure washer or accessories, such as overpressurizing, modifying parts, using incompatible chemicals and fluids, or using worn or damaged parts, can cause them to rupture and result in fluid injection, splashing in the eyes or on the skin, or other serious bodily injury, fire, explosion or property damage.

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 and appropriate clothing. If using a chemical injector, read and follow the chemical manufacturer's literature for

recommendations on additional protective equipment, such as a respirator.

System Pressure

This sprayer can develop high operating pressures. Be sure that all spray equipment and accessories are rated to withstand the maximum working pressure of this sprayer. *DO NOT* exceed the maximum working pressure of any component or accessory used in the system.

Chemical Compatibility

BE SURE that all chemicals used in the chemical injector are compatible with the wetted parts of the hose, gun, wand and tip, as given in the Technical Data (inside back cover). Always read the chemical manufacturer's literature before using any chemical in this pressure washer.

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, the high pressure spray emitted from it can cause a fluid injection injury or other serious bodily injury or property damage.

ALL FLUID HOSES MUST HAVE STRAIN RELIEFS ON BOTH ENDS. The strain reliefs help protect the hose from kinks or bends at or close to the coupling, which can result in hose rupture.

TIGHTEN all fluid connections securely before each use. High pressure fluid can dislodge a loose coupling or allow high pressure spray to be emitted from the coupling.

NEVER use a damaged hose. Before each use, check entire hose for cuts, leaks, abrasion, bulging cover, or damage or movement of the hose couplings. If any of these conditions exist, replace the hose immediately. *DO NOT* try to recouple high pressure hose or mend it with tape or any other device. A repaired hose cannot contain the high pressure fluid.

HANDLE AND ROUTE HOSES CAREFULLY. Do not pull on hoses to move the pressure washer. Do not use chemicals which are not compatible with the inner tube and cover of the hose. *DO NOT* expose Graco hose to temperatures above 200° F (93° C) or below -40° F (-40° C).

FUEL AND EMISSION HAZARDS

NEVER fill the fuel tank while the unit is running or hot. The fuel used in this unit is combustible and when spilled on a hot surface can ignite and cause a fire. *ALWAYS* fill tank slowly to avoid spilling.

NEVER operate the unit in a closed building. The exhaust contains carbon monoxide, a poisonous, odorless, invisible gas which can cause serious injury or death if inhaled.

NEVER alter the throttle setting, which is factory set. Tampering with this adjustment can damage the pressure washer and will void the warranty.

MOVING PARTS HAZARD

Moving parts can pinch or amputate fingers or other body parts. *KEEP CLEAR* of moving parts when starting or operating the pressure washer.

NEVER operate the pressure washer without all guards and interlocks installed and functioning. Follow the

Pressure Relief Procedure before checking or servicing the pressure washer to prevent discharging high pressure fluid from the gun.

TERMS

WARNING: Alerts user to avoid or correct conditions that could cause bodily injury.

NOTE: Identifies helpful procedures and information.

CAUTION: Alerts user to avoid or correct conditions that could cause damage to the equipment.

IMPORTANT

United States Government safety standards have been adopted under the Occupational Safety and Health Act. These standards—particularly the General Standards, Part 1910, and the Construction Standards, Part 1926—should be consulted.

INSTALLATION

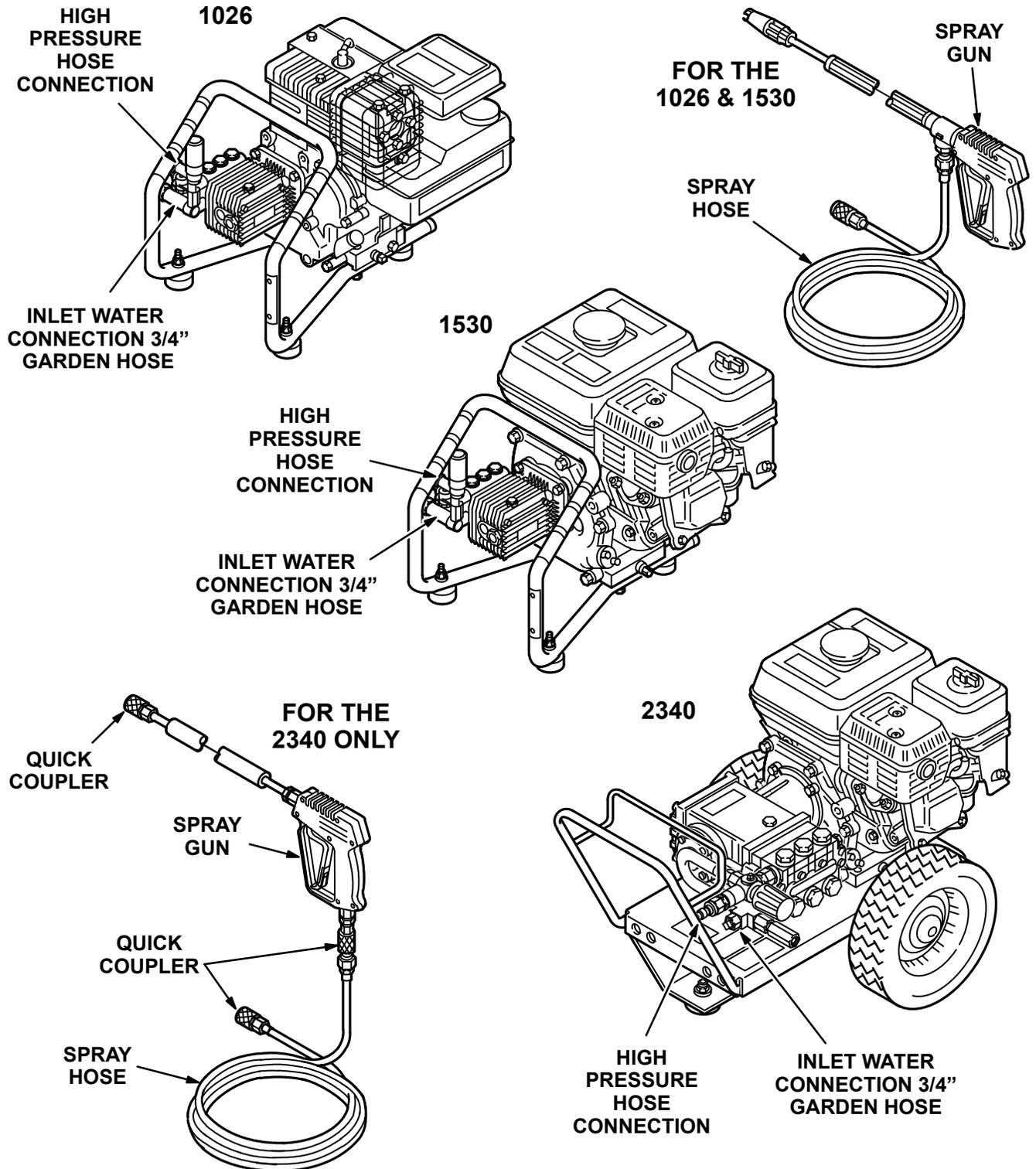


Figure 1

Check for Shipping Damage

Check the unit for any damage that may have occurred in shipping. **Notify the carrier immediately** if there is any damage.

Set Up (1026 & 1530)

Connect the high pressure hose between the pump outlet and the gun inlet. Both of these are pipe connections. Use liquid pipe thread sealant or PTFE tape on the threads during assembly.

Set Up (2340)

If you are using a downstream chemical injector, install it between the pump unloader and the high pressure hose, using the quick couplers provided.

Connect the high pressure hose between the pump outlet and the gun inlet. Both of these connections are made with quick couplers.

CAUTION

Up to 100 ft (30 m) of high pressure hose may be used. Longer hoses may affect sprayer performance, and chemical injector performance, if used.

Install the appropriate spray tip on the wand. See *Installing and Changing Spray Tips*. If you are using a sandblaster kit, see its separate manual for installation instructions.

Connect to Water Supply

CAUTION

Before attaching to the water supply, check your local plumbing code regarding cross-connection to the water supply. A backflow preventer, P/N 801-133, is available to prevent backflow of contaminated water into the fresh water supply. Install it upstream from the pump.

If inlet water pressure is over 60 psi (4.1 bar) a regulating water valve, P/N 800-258, must be installed at the garden hose connection.

Do not exceed 160 ° F (70 ° C) inlet water temperature.

Connect a hose with at least a 3/4 inch (19 mm) ID from the water supply to the unit's 3/4 inch garden hose inlet. The supply hose should not be more than 50 ft (15 m) long.

NOTE: The water source at the unit *must* have a minimum flow rate equal to that of the unit (see Technical Data, inside back cover).

STARTUP

Always use this startup procedure to ensure that the unit is started safely and properly.

1. Check oil levels.

Engine: Add SAE 30 or 10W–30 weight detergent oil as necessary.

Pump: Add SAE 20 or 30 weight non–detergent oil as necessary.

NOTE: Some units are equipped with a low–oil sensor that shuts the engine off if the oil level falls below a certain level. If the unit stops unexpectedly, check both the oil and the fuel levels. Check the oil level each time the unit is refueled.

2. Check fuel level.

WARNING

DO NOT refuel a hot engine. Refueling a hot engine could cause a fire. Use only fresh, clean regular or unleaded gasoline. Close the fuel shutoff valve during refueling.

3. Turn on the water supply.

CAUTION

Never run the unit dry. Costly damage to the pump will result. Always be sure the water supply is completely turned on before operating.

4. Trigger the gun until water sprays from the tip indicating that the air is purged from the system.
5. Open the fuel shutoff valve. Be sure the spark plug ignition cable is pushed firmly onto the spark plug. On those units equipped with an ignition shutoff switch, put the switch in the “on” position and put the throttle in the “run” position.
6. Start the engine.

NOTE: For easier starting, have one person start the pressure washer while another person triggers the spray gun.

If the engine is cold, completely close the engine choke. Grasp the starter rope, brace one foot on the pressure washer chassis and pull rope rapidly and firmly. Continue holding the rope as it returns. Pull and return the rope until the engine starts. In cool weather, the choke may have to be kept closed for 10 to 30 seconds before opening it to keep the engine running. Otherwise, open the choke as soon as the engine starts.

If the engine is warm, leave the choke open, or just partly close it. Start the engine as described in the preceding paragraph. When it starts, be sure to open the choke completely.

CAUTION

On recoil start engines, never let the starter rope return by itself. It could jam the recoil system.

7. *ALWAYS* engage the gun’s trigger safety latch whenever you stop spraying, even for a moment, to reduce the risk of fluid injection or splashing in the eyes or on the skin if the gun is bumped or triggered accidentally.
8. *ALWAYS* observe the following **CAUTIONS** to avoid costly damage to the pressure washer.

CAUTION

DO NOT allow the pressure washer to idle for more than 10 minutes. Doing so may cause the recirculating water to overheat and seriously damage the pump. Turn off the pressure washer if it will not be spraying or cleaning at least every 10 minutes. If heated inlet water is used, reduce this time further.

DO NOT run the pump dry, which will quickly damage the pump. Be sure the water supply is fully turned on before starting the pump.

DO NOT operate the pressure washer with the inlet water screen removed. This screen helps keep abrasive sediment out of the pump, which could clog or scratch the pump. Keep this screen clean.

DO NOT pump caustic materials; such materials may corrode the pump components.

9. See the chemical injector or sandblaster kit manual for detailed cleaning information if these accessories are used (2340 only).

Chemical Injector

BE SURE that all chemicals used in the chemical injector are compatible with the wetted parts of the hose, gun, wand and tip, as given in the Technical Data (inside back cover). Always read the chemical manufacturer's literature before using any chemical in this pressure washer.

WARNING

Observe chemical manufacturer's safety precautions regarding use of goggles, protective clothing or respirators.

1026 & 1530: A downstream chemical injector is provided with the pressure washer. Insert the chemical strainer (attached with clear tubing to the chemical injector) into the container of chemical. Push the nozzle holder on the end of the wand away from the gun. This causes a drop in pressure that actuates the chemical injector. Pull the nozzle holder to deactivate the chemical injector and produce high pressure for rinsing. The flowrate of the chemical is regulated by turning the chemical adjustment knob on the injector. Maximum chemical flow is at a full two turns counterclockwise from the closed (clockwise) position. Twisting the nozzle holder will change the spray fan angle.

2340: The chemical injector is an accessory. See the chemical injector instruction manual.

WARNING

DO NOT attempt to open or close the adjustable nozzle when the spray gun is in use. Be sure that the trigger safety latch on the gun is in the "ON" position before adjusting to avoid serious bodily injury or fluid injection.

Check the distance that you will need to hold the spray nozzle from the surface by test spraying on a scrap of similar material. For soft surfaces, such as wood, hold nozzle 3 ft (1 m) from the surface and gradually bring it closer, checking to see if the high pressure spray is damaging the surface.

Mist the wet surface with cleaning solution. Let it soak briefly, then use the high pressure rinse to "chisel" off the soil. Keep the nozzle at an angle to the surface and at a distance determined to be best for the surface. If some soil remains, repeat the procedure, letting the chemical soak a little longer. Stubborn soil can be cleaned off better with a stronger, heated cleaning solution.

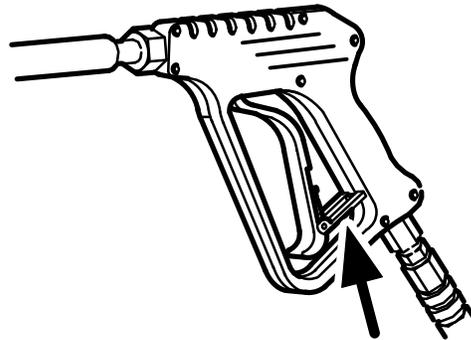
Protect surfaces that might be damaged by the cleaning solution or the high pressure spray. Rinse the solution before it dries.

Trigger Safety Latch

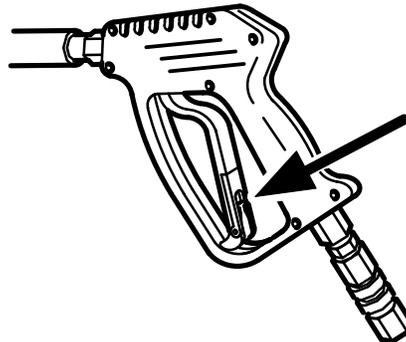
WARNING

To reduce the risk of serious bodily injury, including fluid injection, splashing in the eyes or on the skin, **ALWAYS** engage the trigger safety latch whenever spraying stops, even for a moment.

In the engaged position, the trigger safety latch prevents the gun from being triggered accidentally by hand or if it is dropped or bumped. Be sure the latch is pushed fully down when engaging it or it cannot prevent the gun from being triggered. See Figure 2.



TRIGGER SAFETY LATCH SHOWN ENGAGED



TRIGGER SAFETY LATCH SHOWN
DISENGAGED

Figure 2

Installing and Changing Spray Tips (2340)

WARNING

To reduce the risk of serious bodily injury, including fluid injection or splashing in the eyes or onto the skin, use extreme caution when changing spray tips. *ALWAYS* follow the procedure below.

1. Follow the **Pressure Relief Procedure**.
2. Point the gun and wand away from yourself and anyone else.
3. Without holding your hand over the spray tip (A), pull back the quick coupler ring (B). Remove the old tip and/or install a new one, and then release the ring. See Figure 3.
4. Be sure the tip is secure before starting to spray again.
5. Tip holding holes are provided on the chassis.

CAUTION

To avoid blowing the o-ring out of the quick coupler, due to the high pressure in the system, never operate the pressure washer without a tip securely mounted in the quick coupler.

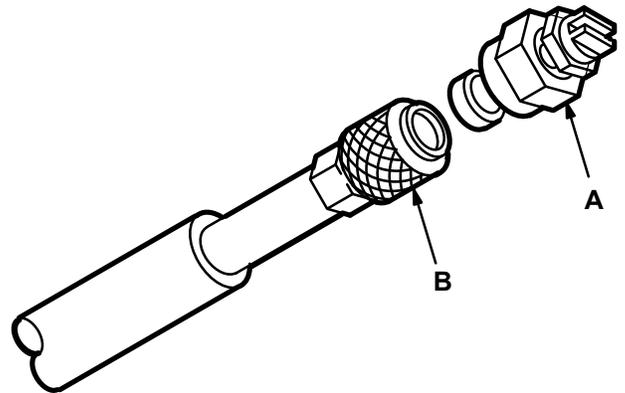


Figure 3

SHUTDOWN, FLUSHING AND STORAGE

WARNING

Pressure Relief Procedure

To reduce the risk of serious bodily injury, including fluid injection and splashing in the eyes, or on the skin, always follow this procedure whenever you stop spraying for more than 10 minutes, when shutting down, and before checking or repairing any part of the system.

1. Engage the trigger safety latch.
 2. Turn the sprayer off.
 3. Remove the ignition cable from the spark plug.
 4. Shut off the water supply.
 5. Disengage the trigger safety latch and trigger the gun to relieve pressure, and then engage the trigger safety latch again.
 6. Before long-term (overnight) storage or transporting of unit, disconnect the water supply, and turn off the fuel supply valve.
1. If the pressure washer will be exposed to freezing temperatures, drain all water out of the pump. If it must be stored in freezing temperatures, flush the unit with a 50% anti-freeze solution. Relieve pressure. Flush the pressure washer before using it again to remove the anti-freeze.

NOTE: An anti-freeze flush kit, P/N 802-327, is available to make flushing easier.

CAUTION

If water does freeze in the pressure washer, thaw it in a warm room before trying to start it. *DO NOT* pour hot water on or into the pump; it may crack the ceramic plungers!

2. After each use, wipe all surfaces of the pressure washer with a clean, damp cloth.
3. Perform the appropriate maintenance. See maintenance chart.

MAINTENANCE

Observing regular maintenance intervals helps ensure that you get maximum performance and life from the pressure washer.

There is a break-in period for the engine and pump. After changing the oil in these components following their respective break-in periods, the interval between required changes is longer.

If the unit is operating in dusty conditions, these maintenance checks should be made more often.

WARNING

To reduce the risk of serious bodily injury, including fluid injection, splashing in the eyes or on the skin or injury from moving parts, always follow the **Pressure Relief Procedure Warning** before proceeding.

Interval	What to do
Daily	Clean water inlet screen and filter. Check engine and pump oil levels. Fill as necessary. Check gasoline level. Fill as necessary.
After first 5 hours of operation	Change engine break-in oil. Drain oil when warm. Use SAE 30 or 10W-30 detergent oil.
Each 25 hours of operation	Clean and remove air cleaner foam. Wash with water and detergent. Dry thoroughly. Rub with oil and squeeze to distribute oil.
After first 50 hours of operation	Change pump break-in oil. Use SAE 20 or 30 non-detergent oil.
Each 100 hours of operation or 3 months	Clean or replace paper air cleaner cartridge. Tap gently to remove dirt. Change engine oil. Use SAE 30 or 10W-30 detergent oil.
Each 500 hours of operation or 6 months	Change pump oil. Use SAE 20 or 30 non-detergent oil.

TROUBLESHOOTING CHART

WARNING

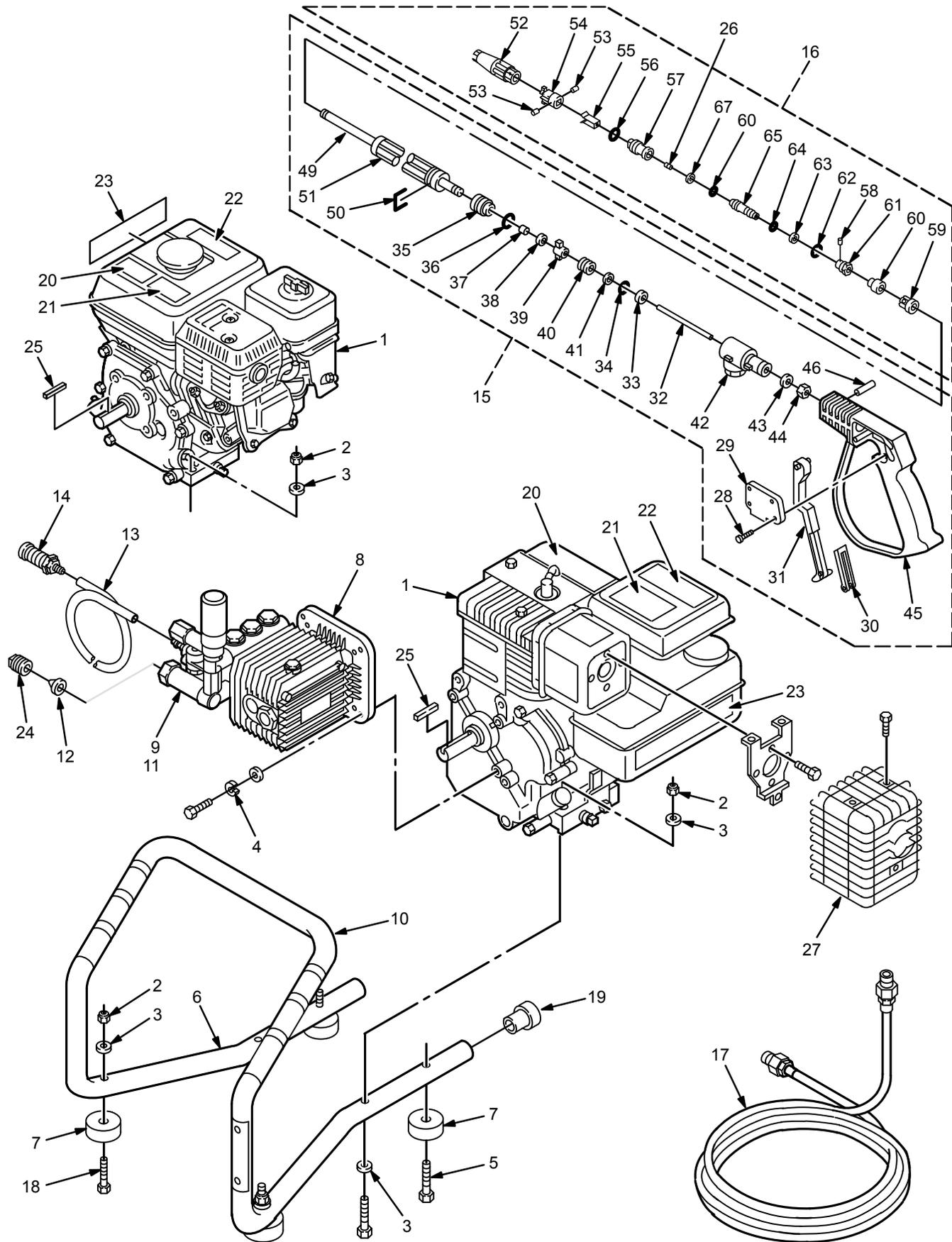
To reduce the risk of serious bodily injury, including fluid injection, splashing in the eyes or on the skin or injury from moving parts, always follow the **Pressure Relief Procedure Warning** before proceeding.

PROBLEM	CAUSE	SOLUTION
Engine will not start or is hard to start	No gasoline in fuel tank or carburetor. Low oil Start/Stop switch in Stop position. Water in gasoline or old fuel. Choked improperly. Flooded engine. Dirty air cleaner filter. Spark plug dirty, wrong gap or wrong type. Spray gun closed.	Fill the tank with gasoline, open fuel shut off valve. Check fuel line and carburetor. Add to proper level. Move switch to start position. Drain fuel tank and carburetor. Use new fuel and dry spark plug. Open choke and crank engine several times to clear out gas. Remove and clean. Clean, adjust the gap or replace. Trigger spray gun.
Engine misses or lacks power	Partially plugged air cleaner filter. Spark plug dirty, wrong gap or wrong type.	Remove and clean. Clean, adjust the gap or replace.
Low pressure and/or pump runs rough	Worn or wrong size tip. Inlet filter clogged. Worn packings, abrasives in water or natural wear. Inadequate water supply. Fouled or dirty inlet or discharge valves. Even a small particle can cause the valve to stick. Restricted inlet. Worn inlet or discharge valves. Leaking high pressure hose.	Replace with tip of proper size. Clean. Check more frequently. Check filter. Replace packings. See PUMP SERVICE. Check water flow rate to pump. Clean inlet and discharge valve assemblies. Check filter. Check garden hose, may be collapsed or kinked. Replace worn valves. Replace high pressure hose.
Water leakage from under pump manifold	Worn packings.	Install new packings. See PUMP SERVICE.
Water in pump	Humid air condensing inside crankcase. Worn packings. Oil seals leaking.	Change oil as specified in MAINTENANCE. Install new packings. See PUMP SERVICE. Install new oil seals. See PUMP SERVICE.
Frequent or premature failure of the packings	Scored, damaged or worn plungers. Abrasive material in the fluid being pumped. Inlet water temperature too high. Overpressurizing pump. Excessive pressure due to partially plugged or damaged tip. Pump running too long without spraying. Running pump dry.	Install new plungers. See PUMP SERVICE. Install proper filtration on pump inlet plumbing. Check water temperature; may not exceed 160°F. Do not modify any factory-set adjustments. See EQUIPMENT MISUSE HAZARD. Clean or replace tip. See Installing and Changing Spray Tips. Never run pump more than 10 minutes without spraying. Do not run pump without water.
Strong surging at the inlet and low pressure on the discharge side	Foreign particles in the inlet or discharge valve or worn inlet and/or discharge valves.	Clean or replace valves. See PUMP SERVICE.
Oil leakage between the engine and the pump	Worn oil seals and/or o-ring.	Replace oil seals and/or o-ring. See SERVICE SECTION.

PARTS DRAWING

800-682 Hydra-Clean® 1026 Pressure Washer

800-717 Hydra-Clean® 1530 Pressure Washer



PARTS LIST

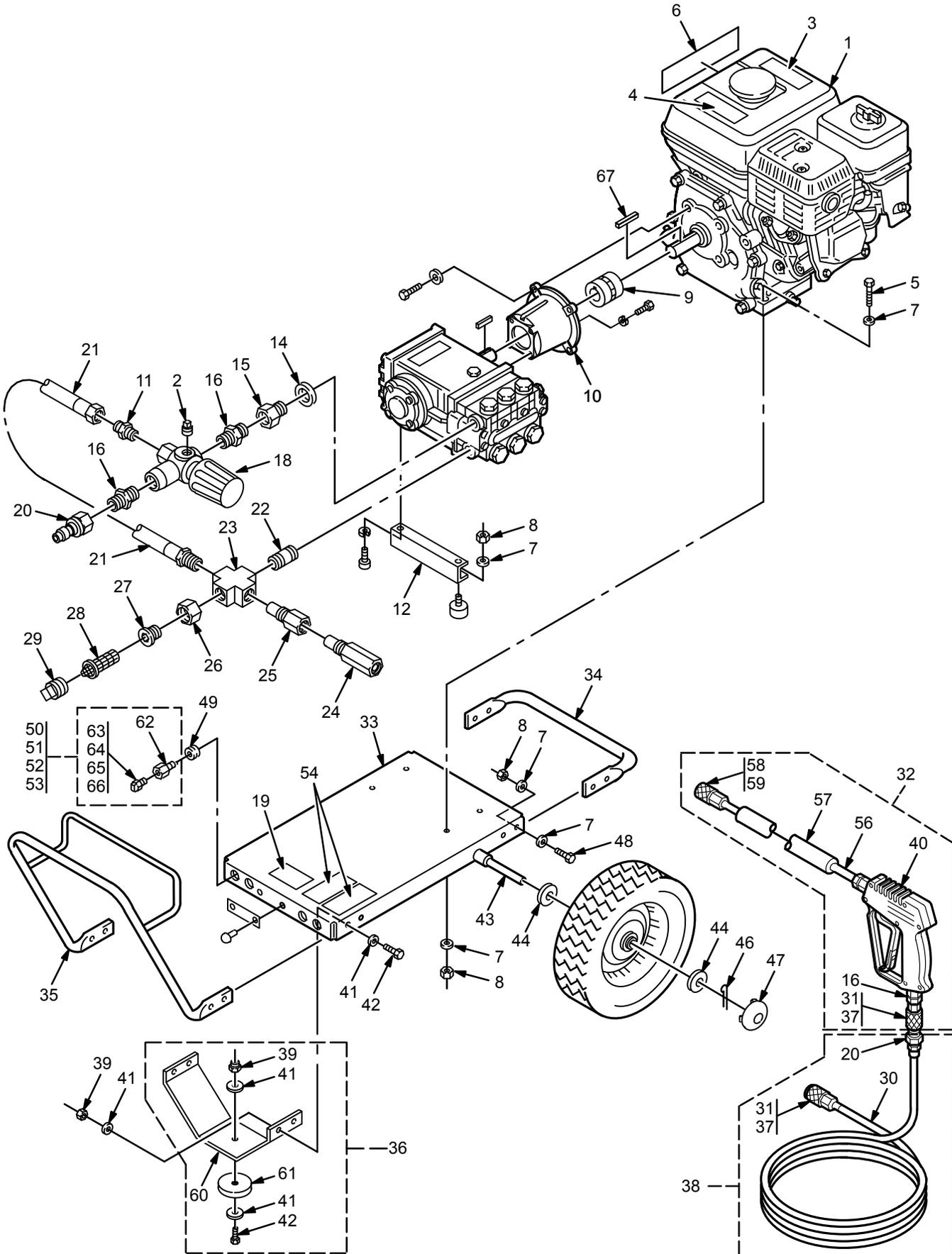
800-682 Hydra-Clean® 1026 Pressure Washer

800-717 Hydra-Clean® 1530 Pressure Washer

REF NO.	PART NO.	DESCRIPTION	QTY	REF NO.	PART NO.	DESCRIPTION	QTY
1	803-930	ENGINE, 3 hp, Briggs & Stratton I/C (used on 800-682 only)	1	27	804-338	GUARD, Muffler (used on 800-682 only)	1
	804-285	ENGINE, 4 hp, Honda OHV (used on 800-717 only)	1	28	803-890	SCREW, Self Tapping, pan hd.	4
2	111-040	NUT, Lock 5/16-18	6	29	803-989	COVER	1
3	100-023	WASHER, Flat 5/16	8	30	803-991	LOCK, Trigger	1
4	100-214	WASHER, Lock 5/16	4	31	803-990	TRIGGER	1
5	802-277	SCREW, Cap, hex hd. 5/16-18 x 2-1/2	4	32	803-985	ROD, Piston	1
6	804-050	HANDLE		33	KIT 2200	RING, Backup	1
7	801-217	BUMPER, Rubber	4	34	KIT 2200	O-RING	1
8	803-931	PUMP AND UNLOADER ASSEMBLY (see page 16)	1	35	803-983	FITTING, Outlet	1
9	155-500	O-RING	1	36	KIT 2200	O-RING	1
10	179-885	LABEL, Warning	1	37	KIT 2200	RING	1
11	804-030	CONNECTOR, Garden Hose	1	38	KIT 2200	SEAT	1
12	801-112	STRAINER, Garden Hose	1	39	803-982	SHUTTER	1
13	804-275	TUBING, Chemical 1/4	1	40	803-984	SPRING	1
14	801-683	STRAINER, Chemical	1	41	803-986	WASHER	1
15	803-934	GUN AND WAND ASSEMBLY (includes 28-51)	1	42	803-981	HOUSING	1
16	803-935	TIP HOLDER, Variable Angle (includes 52-67)	1	43	803-979	WASHER	1
17	803-936	HOSE ASSEMBLY, High Pressure 3/8 x 25'	1	44	803-978	NUT	1
18	102-547	SCREW, Cap, hex hd. 5/16-18 x 1-1/2	2	45	803-988	HOUSING	1
19	801-895	CLOSURE, Tube	2	46	803-987	PIN	1
20	803-083	LABEL, Keep From Freezing	1	49	803-996	WAND, 24"	1
21	181-867	LABEL, Warning	1	50	803-994	CLIP, C	1
22	802-363	LABEL, Caution	1	51	803-995	SLEEVE	1
23	803-938	LABEL, Graco Cleaning Systems	1	52	803-951	KNOB, Regulation	1
24	402-278	PLUG, Plastic	1	53	803-965	PIN	2
25	802-781	KEY, Square 3/16 x 1-1/2	1	54	803-950	HOLDER, Blade	1
26	803-966	TIP, Spray 05 (used on 800-682 only)	1	55	803-955	BLADE, Guide	1
	804-322	TIP, Spray 04 (used on 800-717 only)	1	56	803-960	O-RING	1
				57	803-952	CYLINDER	1
				58	803-964	PIN	1
				59	803-956	RING, Locking	1
				60	803-963	NIPPLE	1
				61	803-954	PLUG	1
				62	803-961	O-RING	1
				63	803-962	RING, Backup	1
				64	803-958	O-RING	1
				65	803-953	PISTON, Regulating	1
				66	803-959	O-RING	1
				67	803-957	PACKING	1

Kit No.	Repair Kit Part No.	Ref No.	Description	Qty.
2200	803-997 Spray Gun	33	RING, Backup	1
		34	O-RING	1
		36	O-RING	1
		37	RING	1
		38	SEAT	1

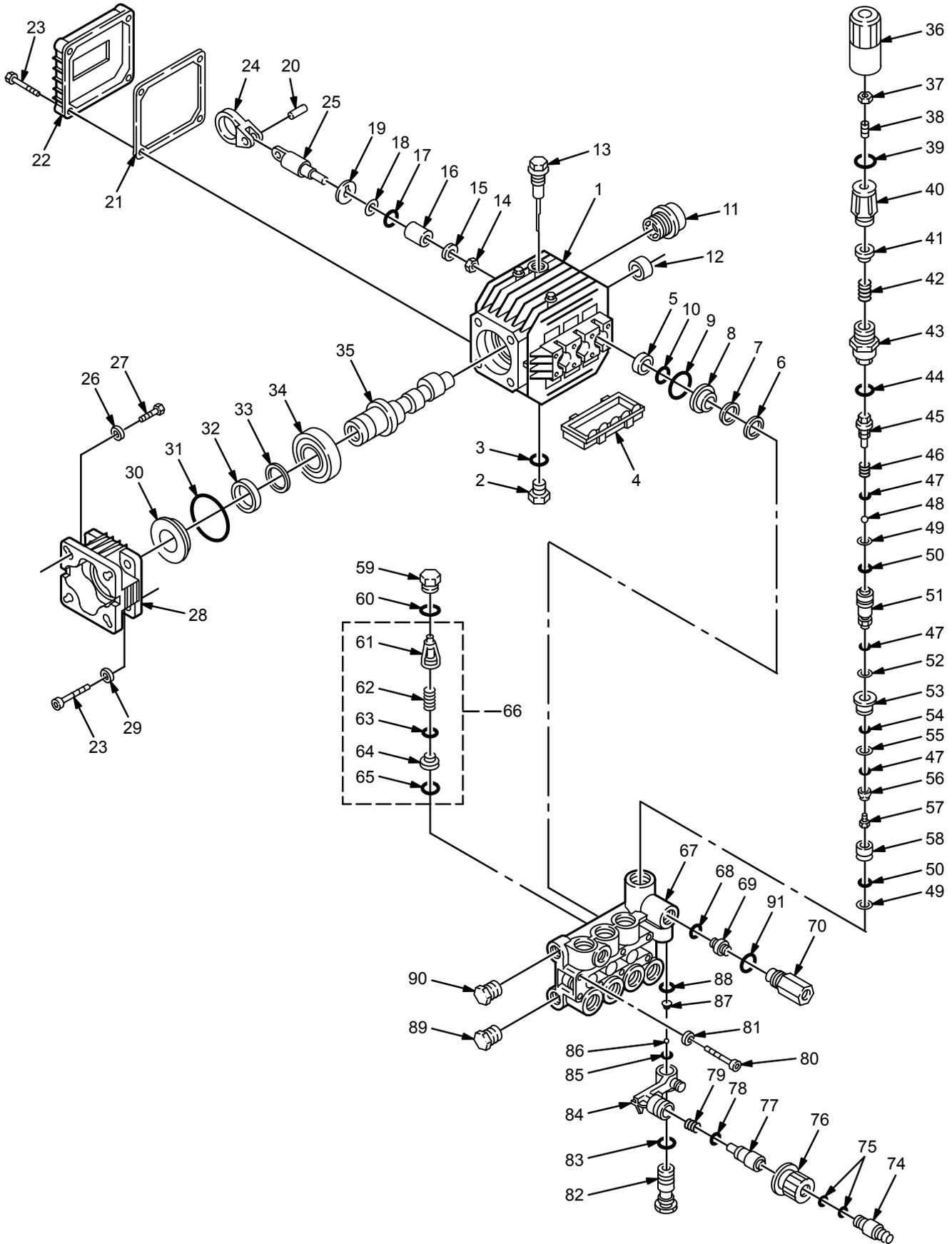
PARTS DRAWING
800-654 Hydra-Clean® 2340 Pressure Washer



PARTS LIST
800-654 Hydra-Clean® 2340 Pressure Washer

REF NO.	PART NO.	DESCRIPTION	QTY	REF NO.	PART NO.	DESCRIPTION	QTY
1	802-998	ENGINE, 8 hp, Honda OHV	1	37	156-082	O-RING, Quick Coupler 3/8	2
2	802-627	NIPPLE, Hex 3/8 NPSM x 1/4 NPT	1	38	800-377	HOSE ASSEMBLY W/QUICK COUPLERS (incl. 20, 30, 31)	1
3	802-363	LABEL, Caution	1	39	101-566	NUT, Lock 3/8-16	5
4	181-867	LABEL, Warning	1	40	803-350	GUN, Spray (see Instruction Manual 308-511)	1
5	802-127	SCREW, Cap, hex hd. 5/16-18 x 1-3/4	4	41	100-023	WASHER, Flat 3/8	10
6	804-274	LABEL, Graco Cleaning Systems	1	42	801-546	SCREW, Cap, hex hd. 3/8-16 x 1-3/4	5
7	100-527	WASHER, Flat 5/16	18	43	802-139	AXLE	1
8	111-040	NUT, Lock 5/16-18	10	44	154-636	WASHER, Flat 5/8	4
9	803-215	COUPLER	1	45	106-062	WHEEL & TIRE ASSEMBLY	2
10	803-871	HOUSING, Coupler	1	46	101-545	PIN, Cotter 1/8 x 1-1/2	2
11	803-911	PUMP ASSEMBLY (see page 19)	1	47	104-811	HUB CAP	2
12	803-834	BRACKET, Support	1	48	801-941	SCREW, Cap, hex hd. 5/16-18 x 1	4
13	801-367	BUMPER, Rubber	2	49	801-012	GROMMET, Rubber	4
14	801-907	WASHER, Flat	1	50	800-128	TIP ASSEMBLY, 2505 (incl. 62, 63)	1
15	801-905	ADAPTER, 3/8 G x 3/8 NPT	1	51	800-129	TIP ASSEMBLY, 4005 (incl. 62, 64)	1
16	156-849	NIPPLE, Hex 3/8	2	52	800-131	TIP ASSEMBLY, 0005 (incl. 62, 65)	1
17	801-709	PLUG, Square Hd. 1/4	1	53	800-137	TIP ASSEMBLY, 1505 (incl. 62, 66)	1
18	800-655	UNLOADER, Preset	1	54	179-885	LABEL, Warning, chassis	1
19	803-334	LABEL, Model 2340	1	55	803-083	LABEL, Keep From Freezing	1
20	801-568	QUICK COUPLER, Male 3/8	2	56	801-134	WAND, 32"	1
21	803-869	HOSE, Bypass	1	57	801-674	SLEEVE, 28"	1
22	801-523	NIPPLE 1/2 x 2	1	58	801-009	QUICK COUPLER, Female 1/4 (incl. 59)	1
23	801-622	CROSS 1/2	1	59	154-594	O-RING, Quick Coupler 1/4	1
24	800-115	VALVE, Thermal Relief	1	60	801-858	BRACKET, Front Leg	1
25	804-073	ADAPTER, 1/2	1	61	801-504	BUMPER, Rubber	1
26	801-111	NUT, Garden Hose	1	62	801-090	QUICK COUPLER, Male 1/4	1
27	801-110	ADAPTER, Garden Hose	1	63	801-614	TIP, Spray 2505	1
28	804-051	STRAINER/FILTER	1	64	801-615	TIP, Spray 4005	1
29	402-278	PLUG, Plastic	1	65	801-640	TIP, Spray 0005	1
30	802-579	HOSE, High Pressure, 3/8 x 50'	1	66	801-667	TIP, Spray 1505	1
31	801-569	QUICK COUPLER, Female 3/8 (incl. 37)	2	67	801-137	KEY, Square 1/4 x 2	1
32	800-392	GUN & WAND ASSEMBLY (incl. 16, 31, 40, 56, 57, 58)	1				
33	800-661	CHASSIS	1				
34	801-539	BUMPER	1				
35	803-925	HANDLE	1				
36	800-175	FRONT LEG ASSEMBLY (incl. 39, 41, 42, 60, 61)	1				

PARTS DRAWING
803-931 Pump and Unloader Assembly

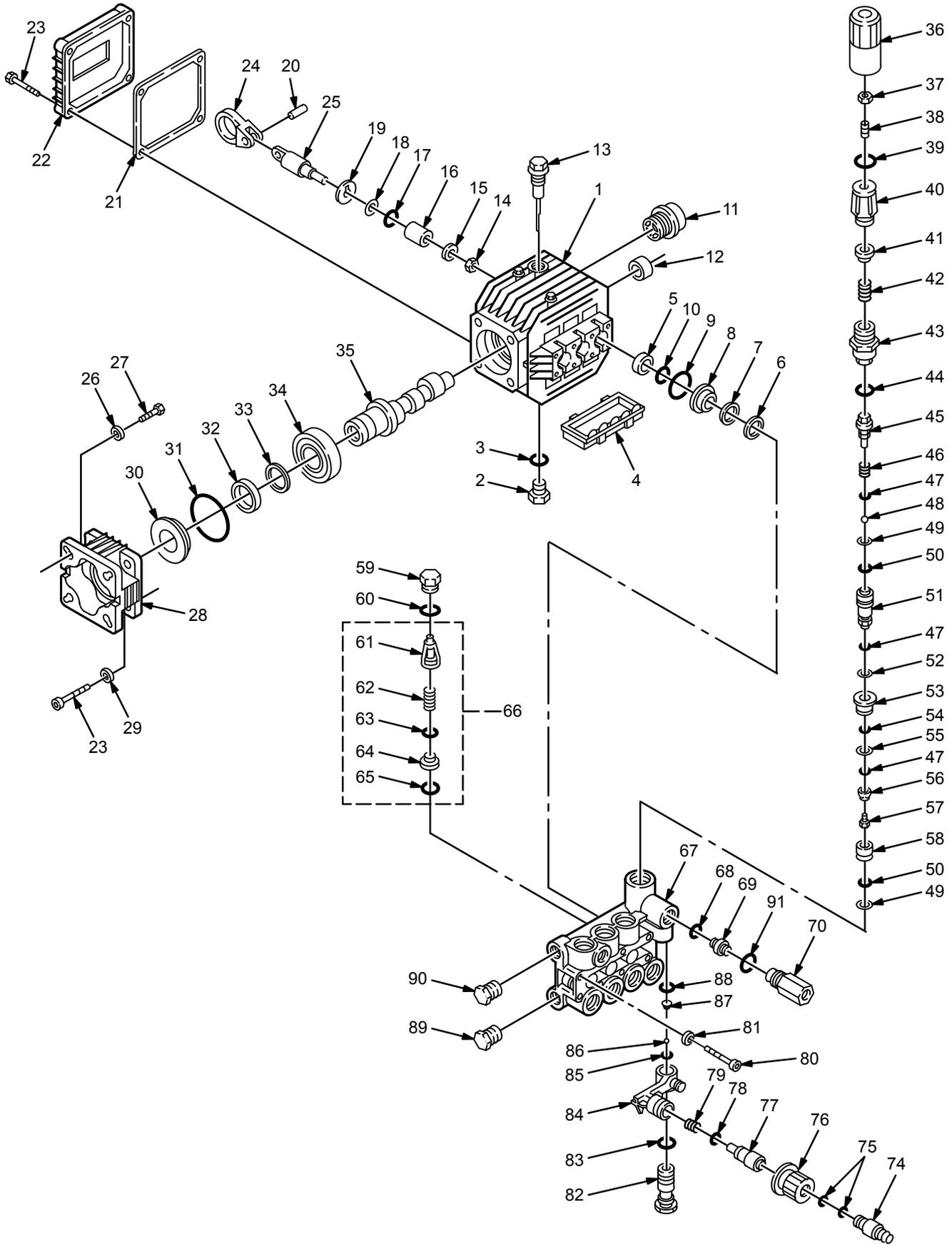


PARTS LIST
803-931 Pump and Unloader Assembly

REF NO.	PART NO.	DESCRIPTION	QTY
1	804-008	CRANKCASE	1
2	801-484	PLUG, Oil Drain	1
3	802-344	O-RING	1
4	804-014	PAN, Collection	1
5	KIT 83	SEAL, Oil	
6	KIT 96,97	RING, Head	
7	KIT 96,97	PACKING	
8	KIT 96	RETAINER, Packing	
9	KIT 96,97	O-RING	
10	KIT 96,97	O-RING	
11	802-345	GAUGE, Sight, oil level	1
12	804-021	BEARING, Needle	1
13	801-659	DIPSTICK	1
14	803-920	NUT, Hex	3
15	803-921	WASHER	3
16	804-011	PLUNGER, Ceramic	3
17	803-918	O-RING	3
18	804-020	RING, Backup	3
19	803-922	WASHER, Flinger	3
20	804-026	PIN, Connecting Rod	3
21	804-015	GASKET, Cover	1
22	804-013	COVER, Crankcase	1
23	803-651	SCREW, Cap, socket hd.	8
24	804-010	ROD, Connecting	3
25	804-012	ROD, Piston	3
26	801-652	WASHER, Lock	4
27	804-028	SCREW, Cap, hex hd.	4
28	803-999	FLANGE, Gasoline Engine	1
29	804-025	WASHER, Lock	4
30	803-281	SPACER	1
31	803-268	O-RING	1
32	804-018	SEAL, Oil	1
33	804-017	RING, Snap	1
34	804-022	BEARING, Ball	1
35	804-009	CRANKSHAFT	1
36	804-007	KNOB, Adjustment, unloader	1
37	804-023	NUT, Hex	1
38	804-029	SCREW, Adjusting	1
39	804-019	O-RING	1
40	804-006	REGULATOR, Pressure	1
41	804-004	SEAT	1
42	804-024	SPRING, Helical Coil	1
43	KIT 102	BUSHING	
44	KIT 102	O-RING	
45	KIT 102	STOPPER	

Kit No.	Repair Kit Part No.	Ref No.	Description	Qty.
1	801-472 Valve	61	GUIDE, Valve	6
		62	SPRING	6
		63	PLATE, Valve	6
		64	SEAT, Valve	6
		65	O-RING	6
		66	VALVE ASSEMBLY	6
83	804-033 Oil Seal	5	SEAL, Oil	3
84	804-034 Valve Cap	59	CAP, Valve	6
		60	O-RING	6
94	803-335 Chemical Injector	50	O-RING	1
		68	O-RING	1
		75	O-RING	1
		78	O-RING	1
		79	SPRING	1
		83	O-RING	1
		85	O-RING	1
		86	BALL	1
		87	SPRING	1
		88	O-RING	1
		91	O-RING	1
96	804-036 Packing & Retainer	6	RING, Head	1
		7	PACKING	1
		8	RETAINER, Packing	1
		9	O-RING	1
		10	O-RING	1
97	804-037 Packing	6	RING, Head	3
		7	PACKING	3
		9	O-RING	3
		10	O-RING	3
102	804-038 Unloader	43	BUSHING	1
		44	O-RING	1
		45	STOPPER	1
		46	SPRING	1
		47	O-RING	3
		48	BALL	1
		49	RING, Backup	3
		50	O-RING	2
		51	PISTON, Control	1
		52	RING, Backup	1
		53	GUIDE, Valve	1
		54	O-RING	1
		55	RING, Backup	1
56	VALVE	1		
57	SCREW	1		
58	SEAT, Valve	1		

PARTS DRAWING (Continued)
803-931 Pump and Unloader Assembly

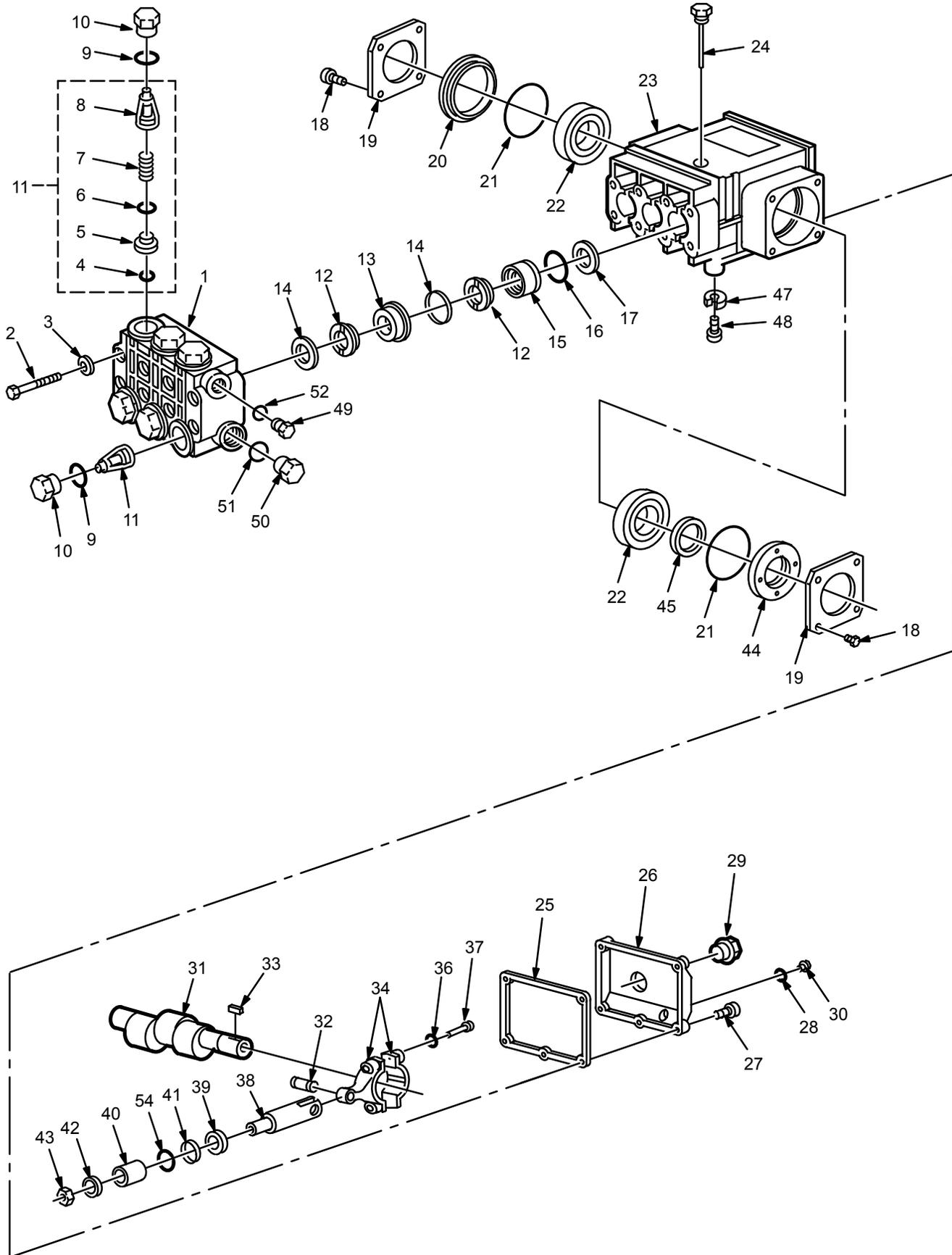


PARTS LIST (Continued)
803-931 Pump and Unloader Assembly

REF NO.	PART NO.	DESCRIPTION	QTY
46	KIT 102	SPRING	
47	KIT 102	O-RING	
48	KIT 102	BALL	
49	KIT 102	RING, Backup	
50	KIT 102,94	O-RING	
51	KIT 102	PISTON, Control	
52	KIT 102	RING, Backup	
53	KIT 102	GUIDE, Valve	
54	KIT 102	O-RING	
55	KIT 102	RING, Backup	
56	KIT 102	VALVE	
57	KIT 102	SCREW	
58	KIT 102	SEAT, Valve	
59	KIT 84	CAP, Valve	
60	KIT 84	O-RING	
61	KIT 1	GUIDE, Valve	
62	KIT 1	SPRING	
63	KIT 1	PLATE, Valve	
64	KIT 1	SEAT, Valve	
65	KIT 1	O-RING	
66	KIT 1	VALVE ASSEMBLY	
67	804-016	MANIFOLD	1
68	KIT 94,102	O-RING	
69	803-998	NOZZLE	1
70	804-284	FITTING, Outlet	1
74	804-003	FITTING, Chemical Injector	1
75	KIT 94	O-RING	
76	804-002	KNOB, Adjustment, chemical injector	1
77	804-001	NEEDLE	1
78	KIT 94	O-RING	
79	KIT 94	SPRING	
80	804-027	SCREW, Cap, socket hd.	8
81	803-278	WASHER, Lock	8
82	804-000	SEAT, Valve	1
83	KIT 94	O-RING	
84	804-005	BODY CHEMICAL INJECTOR	1
85	KIT 94	O-RING	
86	KIT 94	BALL	
87	KIT 94	SPRING	
88	KIT 94	O-RING	
89	802-793	PLUG, Hex Hd.	1
90	801-484	PLUG, Hex Hd.	1
91	KIT 94	O-RING	

Kit No.	Repair Kit Part No.	Ref No.	Description	Qty.
1	801-472 Valve	61	GUIDE, Valve	6
		62	SPRING	6
		63	PLATE, Valve	6
		64	SEAT, Valve	6
		65	O-RING	6
		66	VALVE ASSEMBLY	6
83	804-033 Oil Seal	5	SEAL, Oil	3
84	804-034 Valve Cap	59	CAP, Valve	6
		60	O-RING	6
94	803-335 Chemical Injector	50	O-RING	1
		68	O-RING	1
		75	O-RING	1
		78	O-RING	1
		79	SPRING	1
		83	O-RING	1
		85	O-RING	1
		86	BALL	1
		87	SPRING	1
		88	O-RING	1
		91	O-RING	1
96	804-036 Packing & Retainer	6	RING, Head	1
		7	PACKING	1
		8	RETAINER, Packing	1
		9	O-RING	1
		10	O-RING	1
97	804-037 Packing	6	RING, Head	3
		7	PACKING	3
		9	O-RING	3
		10	O-RING	3
102	804-038 Unloader	43	BUSHING	1
		44	O-RING	1
		45	STOPPER	1
		46	SPRING	1
		47	O-RING	3
		48	BALL	1
		49	RING, Backup	3
		50	O-RING	2
		51	PISTON, Control	1
		52	RING, Backup	1
		53	GUIDE, Valve	1
		54	O-RING	1
		55	RING, Backup	1
56	VALVE	1		
57	SCREW	1		
58	SEAT, Valve	1		

PARTS DRAWING
803-911 Pump Assembly, 2300 psi



PARTS LIST
803-911 Pump Assembly, 2300 psi

REF NO.	PART NO.	DESCRIPTION	QTY	REF NO.	PART NO.	DESCRIPTION	QTY
1	803-913	MANIFOLD	1	27	803-273	SCREW, Cap, socket hd.	5
2	801-651	SCREW, Cap, socket hd.	8	28	801-488	O-RING	1
3	801-652	WASHER, Lock	8	29	802-345	GAUGE, Sight	1
4	KIT 1	O-RING		30	802-793	PLUG, Oil Drain	1
5	KIT 1	SEAT, Valve		31	803-915	CRANKSHAFT	1
6	KIT 1	PLATE, Valve		32	803-275	PIN, Wrist	3
7	KIT 1	SPRING		33	803-976	KEY	1
8	KIT 1	GUIDE, Valve		34	803-276	ROD, Connecting	3
9	KIT 4	O-RING		36	803-977	WASHER, Lock	6
10	KIT 4	CAP		37	803-279	SCREW, Cap, socket hd.	6
11	KIT 1	VALVE ASSEMBLY		38	803-917	GUIDE, Piston	3
12	KIT 88,92	PACKING		39	803-922	WASHER, Flinger	3
13	KIT 92	RETAINER, Packing		40	803-916	PLUNGER, Ceramic	3
14	KIT 92	RING, Head		41	803-919	RING, Backup	3
15	KIT 92	RETAINER, Packing		42	803-921	WASHER	3
16	KIT 92	O-RING		43	803-920	NUT, Piston	3
17	KIT 23	SEAL, Oil		44	803-281	SPACER	1
18	803-265	SCREW, Cap, hex hd.	8	45	803-282	SEAL, Crankshaft	1
19	803-266	COVER, Crankcase	2	47	802-317	WASHER, Lock	2
20	803-267	SPACER	1	48	802-318	SCREW, Cap, socket hd.	2
21	803-268	O-RING	2	49	801-484	PLUG, Hex	1
22	803-269	BEARING, Ball	2	50	801-482	PLUG, Hex	1
23	803-326	CRANKCASE	1	51	801-483	WASHER, Flat	1
24	801-659	DIPSTICK	1	52	801-485	WASHER, Flat	1
25	803-327	GASKET, Cover	1	53	KIT 88,92	PACKING	
26	802-526	COVER, Crankcase	1	54	803-918	O-RING	1

Kit No.	Repair Kit Part No.	Ref No.	Description	Qty.
1	801-472 Valve	4	O-RING	6
		5	SEAT, Valve	6
		6	PLATE, Valve	6
		7	SPRING	6
		8	GUIDE, Valve	6
		11	VALVE ASSY.	6
4	802-306 Valve Cap	9	O-RING	6
		10	CAP	6
23	801-658 Oil Seal	17	SEAL, Oil	6
88	803-923 Packing	12	PACKING	6
		53	PACKING	3
92	803-924 Packing & Retainer	12	PACKING	2
		13	RETAINER, Packing	1
		14	RING, Head	2
		15	RETAINER, Packing	1
		16	O-RING	1
		53	PACKING	1

WARNING

To reduce the risk of serious bodily injury, including fluid injection, splashing in the eyes or on the skin, or injury from moving parts, always follow the **Pressure Relief Procedure Warning** before proceeding.

NOTE: The following metric wrenches are needed: M10, M13 and M30. Repair kits are available. Refer to the individual repair sections and the pump parts page for more details. For the best results, use all parts in the kits.

NOTE: There are two different tool kits to aid in servicing the pump. P/N 800–298 is used to ease installation of packings. P/N 800–271 includes the items in 800–298 and tools to aid in the removal of packing retainers.

Valves

NOTE: For a set of six valves, order P/N 801–472.

1. Remove the hex plug from the manifold using an M30 wrench.
2. Examine the o-ring under the hex plug and replace it if it is cut or distorted.
3. Remove the valve assembly from the cavity; the assembly may come apart.
4. Install the new valve. Install the o-ring and hex plug; torque to 75 ft-lb (103 Nm).

NOTE: Retorque the plug after 5 hours of operation.

Pumping Section

1. Remove the eight capscrews and lockwashers from the manifold using an M13 wrench.
2. Carefully separate the manifold from the crankcase.

NOTE: It may be necessary to tap the manifold lightly with a soft mallet to loosen.

CAUTION

Keep the manifold properly aligned with the ceramic plungers when removing to avoid damage to the plunger or seals.

3. Carefully examine each plunger for any scoring or cracking and replace as necessary.

Servicing the Plungers

NOTE: Plunger repair kit, P/N 801–474 is available to replace retainers, o-rings, washers and backup rings for three cylinders.

1. Loosen the plunger retaining screw five to six turns, using an M10 wrench. Push the plunger towards the crankcase to separate the plunger and retaining screw.
2. Remove the screw from the plunger and examine the o-ring, backup ring and copper bearing/gasket washer. Replace these parts, if necessary, using kit 801–474.
3. Remove the plunger and flinger from the plunger shaft. Clean, examine and replace parts as necessary.
4. Inspect the plunger shaft for oil leakage from the crankcase. If leaking is obvious, replace the oil seals. Otherwise, DO NOT remove these seals as they cannot be reused. An oil seal kit is available to replace the seals.
5. Lightly grease the flinger and oil seal, if it is being replaced and replace them on the plunger shaft. Then install the plunger.
6. Lightly grease the retaining screw and the outer end of the plunger. Place the washer, o-ring and backup ring around the screw and install the screw through the plunger. Torque to 14.4 ft-lb (19.5 Nm).

NOTE: If you plan to replace the packings, refer to Servicing the V-Packings.

7. Lubricate the outside of each plunger. Slide the manifold onto the crankcase, being careful not to damage the seals.
8. Install the capscrews and washers finger-tight. Torque the screws to 21.7 ft-lb (29 Nm) following the tightening pattern (Figure 4). Uneven tightening may cause the manifold to bind or jam.

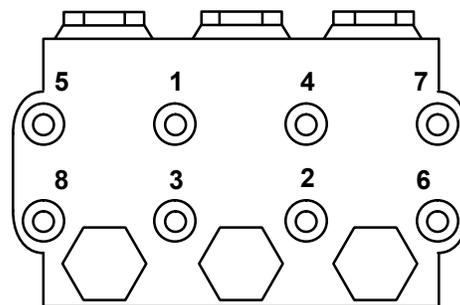


Figure 4

Servicing the V-Packings

NOTE: There are two types of packing kits: one is just packings only, the other includes the packings, rings and retainers.

1. Remove the manifold as outlined in the Pumping Section.
2. Carefully pull the packing retainer from the manifold. Examine the o-ring and replace it if it is cut or damaged.
3. Remove the v-packing and head ring. Pull out the intermediate retainer ring. Remove the second v-packing and second head ring.
4. Inspect all parts and replace as necessary.

5. Thoroughly clean the packing cavities and examine for debris and damage.
6. Lightly grease the packing cavities and then replace the packings in the following order: head ring, v-packing, intermediate ring, head ring, v-packing and packing retainer with the o-ring installed in the retainer groove.

CAUTION

Install the parts in the proper order and facing the correct direction. Improperly installed parts will cause a malfunction.

7. Reassemble the manifold as instructed in Servicing the Plungers.

ACCESSORIES

(Must be purchased separately)

DOWNSTREAM CHEMICAL INJECTOR KIT 800-117 & 800-649 (2340)

For injecting harsh cleaning chemicals downstream from the pump. 800-649 is all stainless steel wetted parts.

UPSTREAM CHEMICAL INJECTOR KIT 800-257

For injecting mild cleaning chemicals upstream into the pump.

CHASSIS & WHEELS ASSEMBLY 800-719 (1026 & 1530)

Complete chassis with semi-pneumatic wheels for portability.

BACKFLOW PREVENTOR 801-133

Prevent back-up of contaminated water into fresh supply. Install upstream of pump.

ANTI-FREEZE FLUSH KIT 802-327

For flushing system with 50% anti-freeze solution prior to transporting or storing pressure washer in below freezing temperatures.

INLET PRESSURE REGULATOR 800-258

Regulates inlet water pressure to 60 psi (4 bar) maximum.

TECHNICAL DATA

	Model 800-682	Model 800-717	Model 800-654
Engine (air-cooled, 4 cycle)	3 hp Briggs & Stratton I/C	4 hp Honda OHV	8 hp Honda OHV
Gasoline Tank Capacity	2 quarts (1.9 liter)	2.6 quarts (2.5 liter)	6.2 quarts (6 liter)
Water Pump Maximum Working Pressure	1000 psi (69 bar)	1500 psi (103 bar)	2300 psi (159 bar)
Water Pump Maximum Flow	2.6 gpm (10 lpm)	3.0 gpm (11 lpm)	4 gpm (15 lpm)
Inlet Hose Connection	3/4" garden hose (f)	3/4" garden hose (f)	3/4" garden hose (f)
Weight	50 lb (23 kg)	50 lb (23 kg)	158 lb (70 kg)
Dimensions			
Length	19" (483 mm)	19" (483 mm)	36" (914 mm)
Width	14" (356 mm)	14" (356 mm)	21" (533 mm)
Height	22" (559 mm)	22" (559 mm)	22.5" (572 mm)
Maximum Inlet Water Temperature	160° F (70° C)	160° F (70° C)	160° F (70° C)
Wetted Parts	Acrylonitrile and Buna-N cover and tube Synthetic yarn and EPDM Anodized aluminum, Aluminum or bronze alloys, Brass Copper, Nylon-PTFE® composite, Ceramic, Buna-N, Cotton phenolic, 303, 304, and 316 Stainless steel, Polyimide-12 thermoplastic, PTFE®, Carbon steel, Zinc with or without yellow chromate plate PTFE is a registered trademark of the DuPont Company.		

THE GRACO WARRANTY

WARRANTY AND DISCLAIMERS

Graco warrants all equipment manufactured by it and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. As purchaser's sole remedy for breach of this warranty, Graco will, for a period of twenty four months from date of sale, repair or replace any part of the equipment proven defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for, any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility with Graco equipment of structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective for examination by Graco to verify the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor and transportation.

DISCLAIMERS AND LIMITATIONS

THE TERMS OF THIS WARRANTY CONSTITUTE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AND ARE IN LIEU OF ANY OTHER WARRANTIES (EXPRESS OR IMPLIED), INCLUDING WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY NON-CONTRACTUAL LIABILITIES, INCLUDING PRODUCT LIABILITIES, BASED ON NEGLIGENCE OR STRICT LIABILITY. EVERY FORM OF LIABILITY FOR DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OR LOSS IS EXPRESSLY EXCLUDED AND DENIED. IN NO CASE SHALL GRACO'S LIABILITY EXCEED THE AMOUNT OF THE PURCHASE PRICE. ANY ACTION FOR BREACH OF WARRANTY MUST BE BROUGHT WITHIN THREE (3) YEARS OF THE DATE OF SALE.

EQUIPMENT NOT COVERED BY GRACO WARRANTY

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motor, switches, hose, etc.) are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

IMPORTANT PHONE NUMBERS

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify the distributor closest to you: **1-800-328-0211 Toll Free**

FOR TECHNICAL ASSISTANCE, service repair information or assistance regarding the application of Graco equipment: **1-800-543-0339 Toll Free**

Factory Branches: Atlanta, Chicago, Dallas, Detroit, Los Angeles, West Caldwell (N.J.)
Subsidiary and Affiliate Companies: Canada; England; Switzerland; France; Germany; Hong Kong; Japan; Korea

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Parts Change Notice

Some parts in Rev. A of manual 308-537 have changed but have not yet been changed in the instruction manual. Please note the changes below and mark them in your manual or keep this sheet with your manual.

Pressure washer 800-682 has been obsoleted and is no longer covered by this manual.

The following changes apply to the page 13 parts list for 800-717:

Assembly No.	Series Letter Change	Part That Changed	Ref No.	Part Description	Description of Change
Model 800-717	-	181-867	21	Label	Replaced by 290-013
		803-938	23	Label	Replaced by 804-273

The following changes apply to the page 15 parts list for 800-654:

Assembly No.	Series Letter Change	Part That Changed	Ref No.	Part Description	Description of Change
Model 800-654	B	181-867	4	Label	Replaced by 290-013
		801-907	14	Washer, flat	Deleted
		801-905	15	Adapter	Deleted
		803-334	19	Label	Replaced by 804-334
		801-568	20	Quick coupler, male, 3/8"	Replaced by 804-498
		804-073	25	Adapter	Deleted
		179-885	54	Label	Replaced by 804-501
		800-131	52	Tip assembly, 0005	Replaced by 805-553
		800-137	53	Tip assembly, 1505	Replaced by 805-554
		800-128	50	Tip assembly, 2505	Replaced by 805-551



The following changes apply to the page 15 parts list for 800–654:

Assembly No.	Series Letter Change	Part That Changed	Ref No.	Part Description	Description of Change
Model 800–654		800–129	51	Tip assembly, 4005	Replaced by 805–552
		801–640	65	Spray Tip, 0005	Deleted
		801–667	66	Spray Tip, 1505	Deleted
		801–614	63	Spray Tip, 2505	Deleted
		801–615	64	Spray Tip, 4005	Deleted
		NEW	–	Chemical injector	Added 804–388
		NEW	–	Tube, chemical injector	Added 804–275
		NEW	–	Strainer, chemical injector	Added 801–683
		NEW	–	Tip, chemical injector	Added 805–634

