



- - -

308-525

Rev A

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

HYDRA-CLEAN® 3050, 3540, 4043 Pressure Washer

HYDRA-CLEAN[®] 3050, 13 HP ENGINE P/N 800-681, Series A

3000 psi (207 bar) OPERATING PRESSURE 3400 psi (234 bar) MAXIMUM WORKING PRESSURE

HYDRA-CLEAN[®] 3540, 13 HP ENGINE P/N 800–635, Series A P/N 800–636, Series A

3500 psi (241 bar) OPERATING PRESSURE 3900 psi (269 bar) MAXIMUM WORKING PRESSURE

HYDRA-CLEAN[®] 4043, 16 HP ENGINE P/N 800–637, Series A

4000 psi (276 bar) OPERATING PRESSURE 4300 psi (296 bar) MAXIMUM WORKING PRESSURE



GRACO INC. P.O. Box 1441 MINNEAPOLIS, MN 55440-1441

©COPYRIGHT 1991, GRACO INC.

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 the unit, disconnect the water supply and disconnect the fuel supply.

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.

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,

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

odorless, invisible gas which can cause serious injury or death if inhaled.

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

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).

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

TERMS

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

NOTE: Identifies helpful procedures and information.

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

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.



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

Fill the battery cells with electrolyte and water. Charge the battery. Be sure the battery connections are correct and secure. Connect the fuel line to the engine using the quick coupler provided. Squeeze the priming bulb 3 to 5 times. 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:** This pressure washer is 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 cables are pushed firmly onto the spark plugs. Put the ignition shutoff switch in the "on" position and 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. Press the start button. 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 partially closed. Start the engine as described in the preceding paragraph. When the engine starts, be sure to open the choke completely.

- 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.

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



Figure 2

Installing and Changing Spray Tips

- 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.



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 the unit, disconnect the water supply, and disconnect the fuel supply.
- 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. |

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 | No gasoline in fuel tank or carburetor. | Fill the tank with gasoline, open fuel shut off valve. | |
| is hard to start | | Check fuel line and carburetor. | |
| | Low oil level. | Add to proper level. | |
| | Start/Stop switch in Stop position. | Move switch to start position. | |
| | Water in gasoline or old fuel. | Drain fuel tank and carburetor. Use new fuel and dry spark plug. | |
| | Loose or wrong battery connection. | Check and tighten battery connections. | |
| | Battery not properly charged. | Check electrolyte level of cells, recharge battery. | |
| | Choked improperly. Flooded engine. | Open choke and crank engine several times to clear out gas. | |
| | Dirty air cleaner filter. | Remove and clean. | |
| | Spark plug dirty, wrong gap or wrong type. | Clean, adjust the gap or replace. | |
| | Spray gun closed. | Trigger spray gun. | |
| Engine misses or | Partially plugged air cleaner filter. | Remove and clean. | |
| lacks power | Spark plug dirty, wrong gap or wrong type. | Clean, adjust the gap or replace. | |
| | Incorrect ignition timing. | Time engine. | |
| Low pressure and/or | Worn or wrong size tip. | Replace with tip of proper size. | |
| pump runs rough | Inlet filter clogged. | Clean. Check more frequently. | |
| | Worn packings, abrasives in water or natural wear. | Check filter. Replace packings. See PUMP SERVICE. | |
| | Inadequate water supply. | Check water flow rate to pump. | |
| | Belt slippage. | Tighten or replace; use correct belts and replace both at same time. | |
| | Fouled or dirty inlet or discharge valves. Even a small particle can cause the valve to stick. | Clean inlet and discharge valve assemblies. Check filter. | |
| | Restricted inlet. | Check garden hose, may be collapsed or kinked. | |
| | Worn inlet or discharge valves. | Replace worn valves. | |
| | Leaking high pressure hose. | 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. | Change oil as specified in MAINTENANCE. | |
| | Worn packings. | Install new packings. See PUMP SERVICE. | |
| | Oil seals leaking. | Install new oil seals. See PUMP SERVICE. | |
| Frequent or | Scored, damaged or worn plungers. | Install new plungers. See PUMP SERVICE. | |
| premature failure of the packings | Abrasive material in the fluid being pumped. | Install proper filtration on pump inlet plumbing. | |
| | Inlet water temperature too high. | Check water temperature; may not exceed 160°F. | |
| | Overpressurizing pump. | Do not modify any factory-set adjustments. See EQUIPMENT MISUSE HAZARD. | |
| | Excessive pressure due to partially plugged or damaged tip. | Clean or replace tip. See Installing and Changing Spray Tips. | |
| | Pump running too long without spraying. | Never run pump more than 10 minutes without spraying. | |
| | Running pump dry. | 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. | |

PARTS DRAWING

800–635 & 800–636 Hydra–Clean® 3540 Pressure Washer



| | TS LIST 635 & 800 | ⊢636 Hydra–Clean® 3540 Pr | essure | Washe | er | | |
|-----|----------------------|---------------------------------|--------|-------|----------|-----------------------------|-----|
| DEE | PART | | | DEE | PART | | |
| NO. | NO. | DESCRIPTION | QTY | NO. | NO. | DESCRIPTION | QTY |
| | | | | | | | |
| 1 | 100–188 | NUT, Hex 5/16–18 | 11 | 47 | 177–144 | LABEL, Belt Guard | 1 |
| 2 | 100–214 | WASHER, Lock 5/16 | 13 | 48 | 803–535 | SCREW, Cap, Hex hd | |
| 3 | 803–945 | BELT, Drive | 2 | | | (used on 800–635 only) | 1 |
| 4 | 803–800 | SHEAVE, Engine | 1 | | 801–559 | SCREW, Cap, Hex hd | |
| 5 | 100-023 | WASHER, Flat 5/16 | 26 | | | (used on 800–636 only) | 1 |
| 6 | 801–941 | SCREW, Cap, Hex hd | | 49 | 803–942 | SHEAVE, Pump | 1 |
| U | 001 041 | 5/16–18 x 1 | 9 | 50 | 801-898 | HUB, Engine | 1 |
| 7 | 000 504 | | | | | | 4 |
| 7 | 803–534 | LABEL, Belt Guard | 1 | 51 | 801–135 | HUB, Pump | |
| 8 | 803–926 | BELT GUARD | 1 | 52 | 801–959 | TERMINAL PROTECTOR, Bla | CK1 |
| 9 | 803–525 | BOLT, Battery | 2 | 53 | 801–945 | CABLE, Battery 12" Long | 1 |
| 10 | 804–282 | BRACKET, Battery | 1 | 54 | 803–077 | LABEL, BATTERY | 1 |
| 11 | 801–972 | PAD, Battery | 1 | 55 | 801–954 | BATTERY, 12 Volt, 30 Amp | 1 |
| 12 | 801–550 | WHEEL & TIRE ASSEMBLY | 2 | 56 | 100–527 | WASHER, Flat 1/4 | 2 |
| 13 | 801–612 | WASHER, Flat 1/2 | 2 | 57 | 100-016 | WASHER, Lock 1/4 | 4 |
| 14 | 801-020 | NUT, Lock 1/2–13 | 2 | 58 | 100-015 | NUT, Hex 1/4–20 | 4 |
| | | | 2 | | | | |
| 15 | 800–676 | CHASSIS | - | 59 | 801–964 | BOLT, Carriage 1/4–20 x 1 | 2 |
| 16 | 801–556 | AXLE | 1 | 60 | 801–946 | CABLE, Battery 24" Long | 1 |
| 17 | 800–678 | BRACKET, Rail Stiffener | 1 | 61 | 801–958 | TERMINAL PROTECTOR, Red | 1 L |
| 18 | 801–546 | SCREW, Cap, Hex hd | | 62 | 803–531 | BASEPLATE, Belt Guard | 1 |
| | | 3/8–16 x 1–1/4 | 4 | 63 | 801–022 | SCREW, Cap, Hex hd | |
| 19 | 100–133 | WASHER, Lock 3/8 | 4 | | | 5/16–18 x 3/4 | 4 |
| 20 | 100-132 | WASHER, Flat 3/8 | 4 | 64 | 107–069 | BRACKET, Battery | 1 |
| | | | 4 | | | | 4 |
| 21 | 800–160 | FRONT LEG ASSEMBLY | | 65 | 801–009 | QUICK COUPLER, Female 1/4 | + |
| | | (incl. 5, 78 through 84) | 1 | | | (incl. 27) | 1 |
| 22 | 803–905 | LABEL, Model 3540 | 1 | 66 | 801–134 | WAND, 32" | 1 |
| 23 | 111–040 | NUT, Lock 5/16–18 | 4 | 67 | 801–674 | SLEEVE, 28" | 1 |
| 24 | 803–925 | HANDLE | 1 | 68 | 803–350 | GUN, Spray (see Instruction | |
| 25 | 803-298 | SCREW, Cap, Hex hd | | | | Manual 308–511) | 1 |
| 20 | 000 200 | 5/16–18 x 3–1/2 | 1 | 69 | 156–849 | NIPPLE, Hex 3/8 | 1 |
| 26 | 150 000 | | | | | | |
| 26 | 156-082 | O–RING, Quick Coupler 3/8 | 2 | 70 | 801-090 | QUICK COUPLER, Male 1/4 | 4 |
| 27 | 154–594 | O–RING, Quick Coupler 1/4 | 1 | 71 | 803–106 | TIP, Spray 00045 | 1 |
| 28 | 802–016 | BRACKET, Rail Stiffener | 1 | 72 | 803–107 | TIP, Spray 15045 | 1 |
| 29 | 801–522 | SCREW, Cap, Hex hd | 2 | 73 | 803–108 | TIP, Spray 25045 | 1 |
| 30 | 176–250 | LABEL, Chassis | 1 | 74 | 803–109 | TIP, Spray 40045 | 1 |
| 31 | 801–548 | GROMMET, Rubber | 5 | 75 | 800–375 | HOSE ASSEMBLY W/QUICK | |
| 32 | 172–981 | LABEL, Chassis | 1 | | | COUPLERS (incl 41, 42, 43) | 1 |
| 33 | 800–314 | TIP ASS'Y, 00045 (incl. 70, 71) | | 76 | 802–363 | LABEL, Caution | 1 |
| | | | | | | | 1 |
| 34 | 800–315 | TIP ASS'Y, 15045 (incl. 70, 72) | | 77 | 181-867 | LABEL, Warning | |
| 35 | 800–316 | TIP ASS'Y, 25045 (incl. 70, 73) | | 78 | 801–531 | SCREW, Cap, Hex hd | |
| 36 | 800–317 | TIP ASS'Y, 40045 (incl. 70, 74) | 1 | | | 3/8–16 x 7 | 1 |
| 37 | 803–883 | ENGINE, 12.5 HP, Briggs & | | 79 | 801–504 | BUMPER, Rubber | 1 |
| | | Stratton Vanguard OHV | | 80 | 801–505 | RETAINER, Spring | 1 |
| | | (used on 800–635 only) | 1 | 81 | 801–593 | SPRING | 1 |
| | 803–967 | ENGINE, 13 HP, Honda OHV | | 82 | 801–506 | BOOT | 1 |
| | 000-907 | | 4 | | | | 4 |
| | | (used on 800–636 only) | 1 | 83 | 801–537 | LEG, Front | 1 |
| 38 | | PUMP ASS'Y (see page 16) | 1 | 84 | 801–499 | NUT, Lock 3/8–16 | 1 |
| 39 | 800–652 | FUEL TANK ASSEMBLY | | 85 | 802–907 | CONNECTOR, Fuel | |
| | | (incl 40, 87, 89, 90, 91, 92) | | | | (used on 800–635 only) | 1 |
| | | (used on 800–635 only) | 1 | 86 | 801–919 | BRACKET, Fuel Connector | |
| 40 | 801–733 | BARB, Hose 1/4 | • | | | (used on 800–635 only) | 1 |
| 40 | 001 700 | (used on 800–635 only) | 1 | 87 | 801–971 | CLAMP, Hose | |
| 4.4 | 004 574 | | | 07 | 001-971 | | ~ |
| 41 | 801–571 | HOSE, High Pressure 3/8 x 50' | 1 | ~~ | | (used on 800–635 only) | 3 |
| 42 | 801–569 | QUICK COUPLER, Female 3/8 | | 88 | 801–629 | LINE, Fuel | |
| | | (incl. 26) | 2 | | | (used on 800–635 only) | 1 |
| 43 | 801–568 | QÙICK CÓUPLER, Male 3/8 | 2 | 89 | 801–716 | LABEL, Warning | |
| 44 | 800–392 | GUN & WAND ASSEMBLY | | - | | (used on 800–635 only) | 2 |
| | 505 00L | (incl. 42, 65, 66, 67, 68, 69) | 1 | 90 | 803–881 | LINE, Fuel w/Squeeze Bulb | - |
| 15 | 100 000 | | I | 50 | 505-00 i | | 1 |
| 45 | 100–023 | WASHER, Flat 5/16 | 4 | 04 | 000 005 | (used on 800–635 only) | 1 |
| | 0.00 | (used on 800–635 only) | 1 | 91 | 802–025 | TANK, Fuel | |
| | 803–526 | SPACER (used on | | | | (used on 800–635 only)1 | |
| | | 800–636 only) | 1 | 92 | 801–008 | LABEL, Graco G | |
| 46 | 801–217 | BUMPER, Rubber | 1 | | | (used on 800–635 only) | 1 |
| | | | | | | • • • | |

PARTS DRAWING 800–637 Hydra–Clean[®] 4043 Pressure Washer



PARTS LIST

800–637 Hydra–Clean[®] 4043 Pressure Washer

| REF | PART | | | REF | PART | | |
|----------|--------------------|-----------------------------------|--------|----------|---------|---|-----|
| NO. | NO. | DESCRIPTION | QTY | NO. | NO. | DESCRIPTION | QTY |
| 1 | 100–188 | NUT, Hex 5/16–18 | 11 | 46 | 801–217 | BUMPER, Rubber | 1 |
| 2 | 100–214 | WASHER, Lock 5/16 | 13 | 47 | 177–144 | LABEL, Belt Guard | 1 |
| 3 | 803–889 | BELT, Drive | 2 | 48 | 803–535 | SCREW, Cap, Hex hd | 1 |
| 4 | 803–943 | SHEAVE, Engine | 1 | 49 | 803–944 | SHEAVE, Pump | 1 |
| 5 | 100–023 | WASHER, Flat 5/16 | 26 | 50 | 801–898 | HUB, Engine | 1 |
| 6 | 801–941 | SCREW, Cap, Hex hd | | 51 | 801–135 | HUB, Pump | 1 |
| | | 5/16–18 x 1 | 9 | 52 | 801–959 | TERMINAL PROTECTOR, Blac | ck1 |
| 7 | 803–534 | LABEL, Belt Guard | 1 | 53 | 801–945 | CABLE, Battery 12" Long | 1 |
| 8 | 803–926 | BELT GUARD | 1 | 54 | 803–077 | LABEL, BATTERY | 1 |
| 9 | 803–525 | BOLT, Battery | 2 | 55 | 801–954 | BATTERY, 12 Volt, 30 Amp | 1 |
| 10 | 803–530 | BRACKET, Battery | 1 | 56 | 100–527 | WASHER, Flat 1/4 | 2 |
| 11 | 801–972 | PAD, Battery | 1 | 57 | 100–016 | WASHER, Lock 1/4 | 4 |
| 12 | 801–550 | WHEEL & TIRE ASSEMBLY | 2 | 58 | 100–015 | NUT, Hex 1/4–20 | 4 |
| 13 | 801–612 | WASHER, Flat 1/2 | 2 | 59 | 801–964 | BOLT, Carriage 1/4–20 x 1 | 2 |
| 14 | 801–020 | NUT, Lock 1/2–13 | 2 | 60 | 801–946 | CABLE, Battery 24" Long | 1 |
| 15 | 800–676 | CHASSIS | 1 | 61 | 801–958 | TERMINAL PROTECTOR, Rec | 1 |
| 16 | 801–556 | AXLE | 1 | 62 | 803–531 | BASEPLATE, Belt Guard | 1 |
| 17 | 800–678 | BRACKET, Rail Stiffener | 1 | 63 | 801–022 | SCREW, Cap, Hex hd | |
| 18 | 801–546 | SCREW, Cap, Hex hd | | | | 5/16–18 x 3/4 | 4 |
| | | 3/8–16 x 1–1/4 | 4 | 64 | 107–069 | BRACKET Battery | 1 |
| 19 | 100–133 | WASHER, Lock 3/8 | 4 | 65 | 801–009 | QUICK COUPLER, Female 1/4 | |
| 20 | 100–132 | WASHER, Flat 3/8 | 4 | | | (incl. 27) | 1 |
| 21 | 800–160 | FRONT LEG ASSEMBLY | | 66 | 801–134 | WAND, 32" | 1 |
| | | (incl. 5, 78 thru 84) | 1 | 67 | 801–674 | SLEEVE, 28" | 1 |
| 22 | 803–906 | LABEL, Model 4043 | 1 | 68 | 803–351 | GUN, Spray (see Instruction | |
| 23 | 111-040 | NUT, Lock 5/16–18 | 4 | ~~ | 150 040 | Manual 308–511) | 1 |
| 24 | 803–925 | HANDLE | 1 | 69 | 156-849 | NIPPLE, Hex 3/8 | 1 |
| 25 | 803–298 | SCREW, Cap, Hex hd | | 70 | 801-090 | QUICK COUPLER, Male 1/4 | 4 |
| 20 | 450 000 | 5/16–18 x 3–1/2 | 1 | 71 | 803-106 | TIP, Spray 00045 | 1 |
| 26 | 156-082 | O–RING, Quick Coupler 3/8 | 2 | 72 | 803-107 | TIP, Spray 15045 | 1 |
| 27 | 154-594 | O–RING, Quick Coupler 1/4 | 1 | 73 74 | 803-108 | TIP, Spray 25045 | 1 |
| 28 29 | 802-016 | BRACKET, Rail Stiffener | 1 2 | | 803-109 | TIP, Spray 40045 | I |
| 29 30 | 801–522 176–250 | SCREW, Cap, Hex hd | | 75 | 800–450 | HOSE ASSEMBLY W/QUICK | 1 |
| 30 31 | 801–548 | LABEL, Chassis GROMMET, Rubber | 1 5 | 76 | 802–363 | COUPLERS (incl. 41, 42, 43) LABEL, Caution | 1 |
| 32 | 172–981 | LABEL, Chassis | 1 | 77 | 181-867 | LABEL, Warning | 1 |
| 33 | 800–314 | TIP ASS'Y, 00045 (incl. 70, 71) | • | 78 | 801–531 | SCREW, Cap, Hex hd | I |
| 34 | 800-315 | TIP ASS'Y, 15045 (incl. 70, 71) | | 70 | 001-001 | 3/8–16 x 7 | 1 |
| 35 | 800-316 | TIP ASS'Y, 25045 (incl. 70, 73) | 1 | 79 | 801–504 | BUMPER, Rubber | 1 |
| 36 | 800-317 | TIP ASS'Y, 40045 (incl. 70, 74) | | 80 | 801-505 | RETAINER, Spring | 1 |
| 37 | 803–884 | ENGINE, 16 HP, Briggs & | 1 | 81 | 801–593 | SPRING | 1 |
| 57 | 000 004 | Stratton Vanguard OHV | 1 | 82 | 801–506 | BOOT | 1 |
| 38 | | PUMP ASS'Y (see page 16) | 1 | 83 | 801–537 | LEG, Front | 1 |
| 39 | 800–652 | FUEL TANK ASSEMBLY | • | 84 | 801-499 | NUT, Lock 3/8–16 | 1 |
| 00 | 000 002 | (incl. 40, 87, 89, 90, 91, 92) | 1 | 85 | 802-907 | CONNECTOR, Fuel | 1 |
| 40 | 801–733 | BARB, Hose 1/4 | 1 | 86 | 801–919 | BRACKET, Fuel Connector | 1 |
| 41 | 803–519 | HOSE, High Pressure 3/8 x 50' | | 87 | 801-971 | CLAMP, Hose | 3 |
| 42 | 803–157 | QUICK COUPLER, Female 3/8 | | 88 | 801–629 | LINE, Fuel | 1 |
| | | (incl. 26) | 2 | 89 | 801-716 | LABEL, Warning | 2 |
| 43 | 801–568 | QUICK COUPLER, Male 3/8 | 2 | 90 | 803-881 | LINE, Fuel w/Squeeze Bulb | 1 |
| 44 | 800-429 | GUN & WAND ASSEMBLY | - | 91 | 802-025 | TANK, Fuel | 1 |
| | | (incl. 42, 45, 65 thru 69) | 1 | 92 | 801-008 | LABEL, Graco G | 1 |
| 45 | 802–851 | HANDLE, Tee | 1 | | | , | |
| - | | , | | | | | |

PARTS DRAWING 800–681 Hydra–Clean[®] 3050 Pressure Washer



PARTS LIST

800–681 Hydra–Clean® 3050 Pressure Washer

| REF NO. 1 2 3 4 5 6 | PART NO. 100–188 100–214 801–285 803–941 100–023 801–941 | DESCRIPTION NUT, Hex 5/16–18 WASHER, Lock 5/16 BELT, Drive SHEAVE, Engine WASHER, Flat 5/16 SCREW, Cap, Hex hd 5/16–18 x 1 | QTY 11 13 2 1 26 9 | REF NO. 45 46 47 48 49 50 51 | PART NO. 803–526 801–217 177–144 801–559 801–004 801–898 801–135 | DESCRIPTION SPACER BUMPER, Rubber LABEL, Belt Guard SCREW, Cap, Hex hd SHEAVE, Pump HUB, Engine HUB, Pump | 2TY 1 1 1 1 1 1 |
|--|---|---|---|---|--|--|--|
| 7 | 803–534 | LABEL, Belt Guard | 1 | 52 | 801-959 | TERMINAL PROTECTOR, Blac | k1 |
| 8 | 803–926 | BELT GUARD | 1 | 53 | 801–945 | CABLE, Battery 12" Long | 1 |
| 9 | 803-525 | BOLT, Battery | 2 | 54 | 803-077 | LABEL, BATTERY | 1 |
| 10 | 804–282 | BRACKET, Battery | 1 | 55 | 801–954 | BATTERY, 12 Volt, 30 Amp | 1 |
| 11 | 801–972 | PAD, Battery | 1 | 56 | 100–527 | WASHER, Flat 1/4 | 2 |
| 12 | 801–550 | WHEEL & TIRE ASSEMBLY | 2 | 57 | 100–016 | WASHER, Lock 1/4 | 4 |
| 13 | 801–612 | WASHER, Flat 1/2 | 2 | 58 | 100–015 | NUT, Hex 1/4–20 | 4 |
| 14 | 801–020 | NUT, Lock 1/2–13 | 2 | 59 | 801–964 | BOLT, Carriage 1/4–20 x 1 | 2 |
| 15 | 800–676 | CHASSIS | 1 | 60 | 801–946 | CABLE, Battery 24" Long | 1 |
| 16 | 801–556 | AXLE | 1 | 61 | 801–958 | TERMINAL PROTECTOR, Red | 1 |
| 17 | 800–678 | BRACKET, Rail Stiffener | 1 | 62 | 803–531 | BASEPLATE, Belt Guard | 1 |
| 18 | 801–546 | SCREW, Cap, Hex hd | | 63 | 801–022 | SCREW, Cap, Hex hd | |
| | | 3/8–16 x 1–1/4 | 4 | | | 5/16–18 x 3/4 | 4 |
| 19 | 100–133 | WASHER, Lock 3/8 | 4 | 64 | 107–069 | BRACKET, Battery | 1 |
| 20 | 100–132 | WASHER, Flat 3/8 | 4 | 65 | 801–009 | QUICK COUPLER, Female 1/4 | |
| 21 | 800–160 | FRONT LEG ASSEMBLY | | | | (incl. 27) | 1 |
| | | (incl. 5, 78 thru 84) | 1 | 66 | 801–134 | WAND, 32" | 1 |
| 22 | 803–949 | LABEL, Model 3050 | 1 | 67 | 801–674 | SLEEVE, 28" | 1 |
| 23 | 111–040 | NUT, Lock 5/16–18 | 4 | 68 | 803–350 | GUN, Spray (see Instruction | |
| 24 | 803–925 | HANDLE | 1 | ~~ | | Manual 308–511) | 1 |
| 25 | 803–298 | SCREW, Cap, Hex hd | | 69 | 156-849 | NIPPLE, Hex 3/8 | 1 |
| 00 | 450.000 | 5/16–18 x 3–1/2 | 1 | 70 | 801-090 | QUICK COUPLER, Male 1/4 | 4 |
| 26 | 156-082 | O–RING, Quick Coupler 3/8 | 2 | 71 | 801–665 | TIP, Spray 0006 | 1 |
| 27 | 154–594 | O–RING, Quick Coupler 1/4 | 1 | 72 | 801–666 | TIP, Spray 1506 | 1 |
| 28 | 802-016 | BRACKET, Rail Stiffener | 1 | 73 | 801-552 | TIP, Spray 2506 | 1 |
| 29 | 801-522 | SCREW, Cap, Hex hd | 2 | 74 75 | 801-553 | TIP, Spray 4006 | 1 |
| 30 | 176-250 | LABEL, Chassis | 1 5 | 75 | 800–375 | HOSE ASSEMBLY W/QUICK | |
| 31 32 | 801–548 172–981 | GROMMET, Rubber LABEL, Chassis | 5 1 | 76 | 802–363 | COUPLERS (incl. 41, 42, 43) LABEL, Caution | 1 |
| 33 | 800–135 | TIP ASS'Y, 0006 (incl. 70, 71) | 1 | 77 | 181-867 | LABEL, Warning | 1 |
| 33 34 | 800–135 | TIP ASS'Y, 1506 (incl. 70, 71) | | 78 | 801–531 | SCREW, Cap, Hex hd | 1 |
| 35 | 800-060 | TIP ASS'1, 1500 (incl. 70, 72) TIP ASS'Y, 2506 (incl. 70, 73) | 1 | 10 | 001-001 | 3/8–16 x 7 | 1 |
| 36 | 800-060 | TIP ASS'1, 2000 (incl. 70, 73) TIP ASS'Y, 4006 (incl. 70, 74) | 1 | 79 | 801–504 | BUMPER, Rubber | 1 |
| 37 | 803–967 | ENGINE, 13 HP, Honda OHV | 1 | 80 | 801–505 | RETAINER, Spring | 1 |
| 38 | 000 001 | PUMP ASS'Y (see page 16) | 1 | 81 | 801–593 | SPRING | 1 |
| 41 | 801–571 | HOSE, High Pressure 3/8 x 50 | | 82 | 801–506 | BOOT | 1 |
| 42 | 801–569 | QUICK COUPLER, Female 3/8 | | 83 | 801–500 | LEG, Front | 1 |
| 74 | 001 000 | (incl. 26) | 2 | 84 | 801–337 | NUT, Lock 3/8–16 | 1 |
| 43 | 801–568 | QUICK COUPLER, Male 3/8 | 2 | 0. | 201 100 | | • |
| 44 | 800-392 | GUN & WAND ASSEMBLY | - | | | | |
| | 200 002 | (incl. 42, 65, 66, 67, 68, 69) | 1 | | | | |
| | | (,,,,,,, | - | | | | |

Pump Assembly, 3000 psi (used on Model 3050), 3500 & 4000 psi (used on Models 3540 & 4043)



| | - | y, 3000 psi (used on Moo | iei 3050), | | - | (usea o | n ivi | odels 3540 & 4 | 104: |
|-----|----------------|----------------------------|------------|----------|------------------------------------|-------------------|----------|-------------------------|--------|
| | PART | | | | PART | | | | |
| NO. | | DESCRIPTION | QTY | - | NO. | DESCR | | | Q |
| | 801–467 | MANIFOLD, 3000 psi | 1 | 55 | 801–624 | PUMP, | | | 1 |
| | 803–504 | MANIFOLD, 3500 & 4000 psi | 1 | = 0 | 803-508 | | | &_4000_psi | 1 |
| | 801-468 | SCREW, Cap, hex hd | 8 | 56 | 803–083 | | | p From Freezing, | |
| | 801-469 | WASHER, Lock | 8 | | 000 517 | 3000 | | - From Fronzing | 1 |
| 4 | Kit 1 | O-RING | | | 803–517 | | | p From Freezing, | 4 |
| | Kit 1 | SEAT, Valve | | 57 | 802–085 | | | 00 psi | 1 |
| | Kit 1 Kit 1 | PLATE, Valve SPRING | | 57 58 | 802-085 | NIPPLE TEE 1/2 | | | 1 1 |
| | Kit 1 | GUIDE, Valve | | 58 | 800–113 | | | Instruction | I |
| | Kit 4 or 106 | O–RING | | 59 | 800-113 | | | 1–744) | 1 |
| | Kit 4 or 106 | CAP | | 60 | 801–111 | NUT, G | | | 1 |
| | Kit 1 | VALVE ASSEMBLY | | 61 | 801–110 | | | Garden hose | 1 |
| | 803–283 | SCREW, Cap, socket hd | 8 | 62 | 801–112 | | | Garden hose | 1 |
| | 803-284 | COVER, Crankcase, 3000 psi | 1 | 63 | 803–141 | HOSE, | | | 1 |
| | 803-506 | COVER, Crankcase, | | 64 | 803–142 | NIPPLE | : He | k 1/2 NPSM x | • |
| | 000 000 | 3500 & 4000 psi | 1 | 04 | 000 142 | 3/8 N | PT 3 | 000 psi | 1 |
| | 802–500 | O–RING, Crankcase cover | 2 | | 802–534 | | | x 1/2 NPSM x | • |
| | 803-324 | BEARING, Tapered roller | 2 | | 002 004 | | | 500 & 4000 psi | 1 |
| | Kit 2 | SEAL, Oil | £ | 65 | 800–325 | | DFR | , 3000 psi | 1 |
| | 803–286 | BUSHING, Piston | 3 | 00 | 800-689 | | DFR | , 3500 psi | |
| | 802-895 | CRANKCASE, 3000 psi | 1 | | 800-427 | | | , 4000 psi | 1 |
| | 803-501 | CRANKCASE, | • | 66 | 801-868 | | | k 3/8, 3000 psi | 1 |
| | 000 001 | 3500 & 4000 psi | 1 | 00 | 801–236 | | | x 1/2x3/8, | • |
| | 801–475 | DIPSTICK | 1 | | | | | 00 psi | 2 |
| | 803–144 | GASKET, Cover | 1 | 67 | 801–568 | COUPL | ER. I | Male 3/8 | 1 |
| | 803–287 | CRANKSHAFT | 1 | | 001 000 | 000. | , . | | |
| | 803-288 | RING, Retaining | 6 | Kit | Repair Kit | | Ref | i | 1 |
| | 802-794 | KEY | 1 | No. | Part No. | | No. | Description | Q |
| | 803-289 | PIN, Wrist | 3 | 1 | 801-472 | | 4 | O-RING | |
| | 803–325 | GUÍDE, Piston, 3000 psi | 3 | | Valve | | 5 | SEAT, Valve | |
| | 803–503 | GUIDE, Piston, | | | Valve | | 6 | PLATE, Valve | |
| | | 3500 & 4000 psi | 3 | | | | 7 | SPRING | |
| ; | 803–291 | ROD, Connecting | 3 | | | | 8 | GUIDE, Valve | |
| | 803-292 | SCREW, Cap, socket hd | 5 | | | | 11 | VALVE ASSEMBLY | |
| | 803-293 | COVER, Crankcase, 3000 psi | 1 | 2 | 801-473 | | 16 | SEAL, Oil | |
| | 803-507 | COVER, Crankcase, | - | - | Oil Seal | | | 01.11, 01. | |
| | | 3500 & 4000 psi | 1 | 3 | 802–511 | | 41 | SEAL, Oil | |
| | 802–345 | GAUGE, Sight | 1 | 5 | Crankshaft S | al | 41 | JLAL, OII | |
|) | 802–793 | PLUG, Óil drain | 1 | 4 | | | 0 | | (|
| | Kit 6 or 107 | O-RING | | 4 | 802–306 Valve Cap, 30 | 000 nei | 9 10 | O-RING CAP | |
| | 803–294 | SCREW, Cap, socket hd | 6 | | - | oo psi | - | | |
| | 803-652 | WASHER, Lock | 6 | 6 | 801-474 | • | 31 | O-RING | |
| | Kit 6 or 107 | WASHER, Flinger | | | Plunger Repa | ur, | 34 | WASHER, Flinger | |
| | 801–490 | PLUNGEŔ, Ceramic | 3 | | 3000 psi | | 36 37 | RING, Backup WASHER | |
| | 803–502 | PLUNGER, Ceramic | 3 | | | | 38 | SCREW, Piston | |
| | Kit 6 or 107 | RING, Backup | | 8 | 801-468 | | 44 | PACKING | + |
| | Kit 6 or 107 | WASHER | | 0 | Packing, 300 |) psi | 44 | I AUNING | |
| | Kit 6 or 107 | SCREW, Piston | | | - | | 40 | | |
| | 803–295 | COVER, Crankcase, 3000 psi | 1 | 28 | 801–487 Packing & Re | tainer | 42 43 | O-RING RETAINER, | |
| | 803–505 | COVER, Crankcase, | | | 3000 psi | and, | 43 44 | Packing | |
| | | 3500 & 4000 psi | 1 | | 0000 p3i | | 44 | PACKING | |
| | 803–296 | SHIM | 2 | | | | 46 | RING, Head | |
| | Kit 3 | SEAL, Oil | | | | | 47 | RETAINER, | |
| | Kit 28 or 109 | O-RING | | | | | | Packing | |
| | Kit 28 or 109 | RETAINER, Packing | | | | | | RING, Long Life | |
| | | PACKING | | 106 | 803-509 | | 9 | O-RING | |
| | Kit 8 or 112 | | | | Valve Cap, | no: | 10 | CAP | |
| | Kit 28 or 109 | RING, Head | | | 3500 & 4000 | psi | | | |
| | Kit 28 or 109 | RETAINER, Packing | | 107 | 803-510 | | 31 | O-RING | |
| | Kit 28 or 109 | RING, Long Life | | | Plunger Repa | | 34 | WASHER, Flinger | |
| | 801–526 | BRACKET, Pump | 2 | | 3500 & 4000 | psi | 36 | RING, Backup | |
| | 802-305 | SCREW, Cap, socket hd | 4 | | | | 37 38 | WASHER SCREW, Piston | |
| | 802–304 | WASHER, Lock | 2 | 100 | | | | | |
| | 801–482 | PLUG, Hex | 1 | 109 | 803–511 Docking ⁸ Bo | toinor | 42 | | |
| | 801–483 | WASHER, Flat | 1 | | Packing & Re 3500 & 4000 | nainer, | 43 44 | RETAINER, Packing | |
| | 801–484 | PLUG, Hex | 1 | | 3300 & 4000 | poi | 44 45 | PACKING | |
| | 801–485 | WASHER, Flat | 1 | | | | 46 | RING, Head | |
| | 001-400 | | | | | | | | |
| | 001-400 | | | | | | 47 | RETAINER, | |
| | 001-405 | | | | | | | RETAINER, Packing | |
| | 601–465 | | | | 803-512 | | | RETAINER, | , |

803–512 Packing, 3500 & 4000 psi

PUMP SERVICE

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 or 803–510 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 or 803–510.
- 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.





Servicing the V–Packings

- **NOTE:** There are two types of packing kits: one is 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.

ACCESSORIES

(Must be purchased separately)

DOWNSTREAM CHEMICAL INJECTOR KIT 800–117 (3540)

800-649 (3540 & 4043)

For injecting harsh cleaning chemicals downstream from the pump. 800–649 is stainless steel construction.

UPSTREAM CHEMICAL INJECTOR KIT 800–257

For injecting mild cleaning chemicals upstream into the pump.

BACKFLOW PREVENTOR 801–133

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

TECHNICAL DATA

- 5. Thoroughly clean the packing cavities and examine for debris and damage.
- 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.

WATER SANDBLASTING KIT 800–120

For abrasive cleaning of stubborn dirt and paint. Requires a spray tip which is not included in kit (3245 uses 801–667, 4040 uses 801–600).

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.

| | Model 800-681 | Model 800-635 | Model 800-636 | Model 800-637 | | |
|--|---|---|---|---|--|--|
| Engine (4 cycle, air-cooled) | 13 HP Honda OHV | 12.5 HP Briggs & Stratton OHV | 13 HP Honda OHV | 16 HP Briggs & Stratton OHV | | |
| Battery | 12 Volt, 30 AMP 250 CCA | 12 Volt, 30 AMP 250 CCA | 12 Volt, 30 AMP 250 CCA | 12 Volt, 30 AMP 250 CCA | | |
| Gasoline Tank Capacity | 2 Gallon (7.6 Liter) | 6 Gallon (23 Liter) | 2 Gallon (7.6 Liter) | 6 Gallon (23 Liter) | | |
| Water Pump Maximum Working Pressure | 3000 psi (207 bar) | 3500 psi (241 bar) | 3500 psi (241 bar) | 4000 psi (276 bar) | | |
| Water Pump Maximum Flow | 5 gpm (19 lpm) | 4 gpm (15 lpm) | 4 gpm (15 lpm) | 4.25 gpm (16 lpm) | | |
| Inlet Hose Connection | 3/4" garden hose (f) | 3/4" garden hose (f) | 3/4" garden hose (f) | 3/4" garden hose (f) | | |
| Weight | 255 lbs (116 kg) | 255 lbs (116 kg) | 255 lbs (116 kg) | 255 lbs (116 kg) | | |
| Dimensions Length Width Height | 49" (1245 mm) 30" (762 mm) 26.5" (673 mm) | 49" (1245 mm) 30" (762 mm) 26.5" (673 mm) | 49" (1245 mm) 30" (762 mm) 26.5" (673 mm) | 49" (1245 mm) 30" (762 mm) 26.5" (673 mm) | | |
| Maximum Inlet Water Temperature | 160°F (70°C) | 160°F (70°C) | 160°F (70°C) | 160°F (70°C) | | |
| Wetted Parts High Pressure Hose Bypass Hose Pressure Washer (including fittings) | 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, Polymide–12 thermoplastic, PTFE, Carbon steel, Zinc with or without yellow chromate plate | | | | | |

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

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440–1441

PRINTED IN U.S.A. 308-525 1/91

3X8-525

Rev. D

Parts Change Notice

Some parts in Rev. A of manual 308–525 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.

The following pressure washers have been obsoleted and are no longer covered by this manual:

800–681 800–635 800–637

| Assembly No. | Series Letter Change | Part That Changed | Ref No. | Part Description | Description of Change |
|---------------|----------------------------|----------------------|------------|------------------------------------|-----------------------|
| Model 800–636 | В | 176–250 | 30 | Label | Replaced by 804–500 |
| | | 801–548 | 31 | Rubber grommet | Replaced by 801–012 |
| | | 172–981 | 32 | Label | Deleted |
| | | 801–571 | 41 | Hose, high pressure, 3/8" x 50' | Replaced by 804–427 |
| | | 801–568 | 43 | Quick coupler, male, 3/8" | Replaced by 804–498 |
| | | 177–144 | 47 | Label | Replaced by 804–495 |
| | | 181–867 | 77 | Label | Replaced by 290–013 |
| | | 800–314 | 33 | Tip assembly, 00045 | Replaced by 805–547 |
| | | 800–315 | 34 | Tip assembly, 15045 | Replaced by 805–548 |
| | | 800–316 | 35 | Tip assembly, 25045 | Replaced by 805–549 |
| | | 800–317 | 36 | Tip assembly, 40045 | Replaced by 805–550 |
| | | 803–106 | 71 | Spray tip, 00045 | Deleted |
| | | 803–107 | 72 | Spray tip, 15045 | Deleted |
| | | 803–108 | 73 | Spray tip, 25045 | Deleted |
| | | 803–109 | 74 | Spray tip, 40045 | 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 |
| | | NEW | _ | Adapter | Added 100–081 |

The following changes apply to the page11 parts list for 800–636:

The following two pages replace page 17 of manual 308-525:



Pump Assembly – Parts

USE ONLY GENUINE GRACO PARTS AND ACCESSORIES

| Ref | | | • | Ref. | | | • |
|----------|--------------------|--------------------------------------|--------|----------|---------------|--|--------|
| No. | Part No. | Description | Qty | No. | Part No. | Description | Qty |
| 1 | 801–467 | MANIFOLD | 1 | 37 | KIT 6 or 107 | WASHER | |
| | 803–504 | MANIFOLD, 3500 & 4000 psi | 1 | 38 | | SCREW, Piston | |
| 2 | 801-468 | SCREW, Cap, hex hd | 8 | 39 | 803–295 | COVER, Crankcase | 1 |
| 3 | 801–469 | WASHER, lock | 8 | | 803–505 | COVER, Crankcase, | |
| 4 | KIT 1 | O-RING | | | | 3500 & 4000 psi | 1 |
| 5 | KIT 1 | SEAT, Valve | | 40 | 803–296 | SHIM | 2 |
| 6 | KIT 1 | PLATE, Valve | | 41 | KIT 3 | SEAL, Oil | |
| 7 | KIT 1 | SPRING | | 42 | KIT 28 or 112 | | |
| 8 | KIT 1 | GUIDE, Valve | | 43 | KIT 28 or 112 | 2 RETAINER, Packing | |
| 9 | KIT 4 or 106 | O-RING | | 44 | KIT 28 or 112 | 2 PACKING | |
| 10 | KIT 4 or 106 | CAP | | | Kit 8 or 109 | | |
| 11 | KIT 1 | VALVE ASSEMBLY | | 45 | KIT 28 or 112 | 2 RING, Head | |
| 12 | 803–283 | SCREW, Cap, socket hd | 8 | 46 | KIT 28 or 112 | 2 RETAINER, Packing | |
| 13 | 803–284 | COVER, Crankcase. | 1 | 47 | | 2 RING, Long Life | |
| | 803–506 | COVER, Crankcase, | | 48 | 801–526 | BRACKET, Pump | 2 |
| | | 3500 & 4000 psi | 1 | 49 | 802–305 | SCREW, Cap, socket hd | 2 2 |
| 14 | 802–500 | O–RING, Crankcase Cover | 2 | 50 | 802–304 | WASHER, Lock | |
| 15 | 803–324 | BEARING, Tapered Roller | 2 | 51 | 801–482 | PLUG, Hex | 1 |
| 16 | KIT 2 | SEAL, Oil | | | 801–483 | WASHER, Flat | 1 |
| 17 | 803–286 | BUSHING, Piston | 1 | 53 | 801–484 | PLUG, Hex | 1 |
| 18 | 802–895 | CRANKCASE | 1 | 54 | 801–485 | WASHER, Flat | 1 |
| | 803–501 | CRANKCASE, | | 55 | 801–624 | PUMP, 3000 psi | 1 |
| | | 3500 & 4000 psi | 1 | | 803–508 | PUMP, 3500 & 4000 psi | 1 |
| 19 | 801–475 | DIPSTICK | 1 | 56 | 803–083 | LABEL, Keep From Freezing | 1 |
| 20 | 803–144 | GASKET, Cover | 1 | | | 3000 psi | 1 |
| 21 | 803–287 | CRANKSHAFT | 1 | | 803–517 | LABEL, Keep From Freezing | |
| 22 | 803–288 | RING, Retaining | 6 | | | 3500 & 4000 psi | 1 |
| 23 | 802–794 | KEY | 1 | 57 | 802-085 | NIPPLE 1/2 | 1 |
| 24 | 803–289 | PIN, Wrist | 3 | 58 | 801–106 | TEE 1/2 | 1 |
| 25 | 803-325 | GUIDE, Piston, 3000 psi | 3 | 59 | 800–113 | FILTER (see Instruction | 4 |
| | 803–503 | GUIDE, Piston, | 2 | <u> </u> | 001 111 | Manual 801–744) | 1 |
| 20 | 002 004 | 3500 & 4000 psi | 3 | 60 | 801–111 | NUT, Garden Hose | 1 |
| 26 | 803-291 | ROD, Connecting | 3 | 61 | 801-110 | ADAPTER, Garden Hose | 1 |
| 27 | 803-292 | SCREW, Cap, socket hd | 5 1 | 62 | 801–112 | STRAINER, Garden Hose | 1 1 |
| 28 | 803-293 | COVER, Crankcase | I | 63 | 803-141 | HOSE, Bypass | I |
| | 803–507 | COVER, Crankcase, 3500 & 4000 psi | 1 | 64 | 803–142 | NIPPLE, Hex 1/2 NPSM x | 1 |
| 20 | 002 245 | | | | 002 524 | 3/8 NPT 3000 psi | 1 |
| 29 | 802–345 802–793 | GAUGE, Sight | 1 1 | | 802–534 | NIPPLE, Hex 1/2 NPSM x | 1 |
| 30 31 | KIT 6 or 107 | PLUG, Oil Drain O-RING | I | 65 | 800–325 | 1/2 NPT, 3500 & 4000 psi UNLOADER, 3000 psi | 1 1 |
| 32 | 803–294 | SCREW, Cap, socket hd | 6 | 05 | 800–525 | UNLOADER, 3500 psi | 1 |
| 33 | 8033-652 | WASHER, Lock | 6 6 | | 800–689 | UNLOADER, 4000 psi | 1 |
| 34 | | WASHER, Flinger | 3 | 66 | 801-868 | NIPPLE, Hex 3/8, 3000 psi | 1 |
| 35 | 801–490 | PLUNGER, Ceramic | 3 | 00 | 801–236 | NIPPLE, Hex 1/2x3/8, | I |
| 00 | 803–502 | PLUNGER, Ceramic | 3 | | 001 200 | 3500 & 4000 psi | 2 |
| 36 | | RING, Backup. | 0 | 67 | 801–568 | COUPLER, Male 3/8 | 1 |
| 00 | | | | 01 | 000 | | ' |



| Kit No. | Repair Kit Part No. | Ref No. | Description | Qty. |
|------------|--|---------------------------------------|---|------------------------|
| 1 | 801–472 Valve | 4 5 6 7 8 11 | O–RING SEAT, Valve PLATE, Valve SPRING GUIDE, Valve VALVE ASSEMBLY | 6 6 6 6 6 6 6 6 6 6 |
| 2 | 801–473 Oil Seal | 16 | SEAL, Oil | 3 |
| 3 | 802–511 Crankshaft Seal | 41 | SEAL, Oil | 2 |
| 4 | 802–306 Valve Cap, 3000 psi | 9 10 | O-RING CAP | 6 6 |
| 6 | 801–474 Plunger Repair, 3000 psi | 31 34 36 37 38 | O–RING WASHER, Flinger RING, Backup WASHER SCREW, Piston | 1 1 1 1 |
| 8 | 801–486 Packing, 3000 psi | 44 | PACKING | 6 |
| 28 | 801–487 Packing & Retainer, 3000 psi | 42 43 44 45 46 47 | O-RING RETAINER, Packing PACKING RING, Head RETAINER, Packing RING, Long Life | 1 1 2 1 1 |
| 106 | 803–509 Valve Cap, 3500 & 4000 psi | 9 10 | O-RING CAP | 6 6 |
| 107 | 803–510 Plunger Repair, 3500 & 4000 psi | 31 34 36 37 38 | O–RING WASHER, Flinger RING, Backup WASHER SCREW, Piston | 1 1 1 1 |
| 109 | 803–511 Packing, 4000 psi | 44 47 - | PACKING RING, Long life PACKING | 3 3 3 |
| 112 | 803–512 Packing & Retainer,4000 psi | 42 43 44 45 46 47 - | O-RING RETAINER, packing PACKING RING, head RETAINER, packing RING, Long life PACKING | 1 1 2 1 1 |

The following changes apply to the page17 parts list for pump asssembly of Models 3540 and 4043 only:

| Assembly No. | Series Letter Change | Part That Changed | Ref No. | Part Description | Description of Change |
|--|----------------------------|----------------------|------------|-------------------------|---|
| Pump asssembly for Models 3540 and 4043 only | _ | 804–497 | | Unloader outlet fitting | Added replacement part no. 804–497 for the unloader out- let fitting.This outlet fitting is only used on Pressure Wash- er Models 3540 and 4043 |

