

LANDA®

MHC

OPERATOR'S MANUAL

■ MHC3-25124 1.110-037.0

■ MHC3-30324 1.110-038.0

■ MHC4-30324 1.110-039.0

■ MHC4-30324E/S 1.110-041.0

■ MHC4-35324E 1.110-042.0

■ MHC4-30324E 1.110-040.0



For technical assistance or the dealer nearest you,
consult our web page at www.landa.com

9.800-950.0

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Warranty	

Model Number _____

Serial Number _____

Date of Purchase _____

The model and serial numbers will be found on a decal attached to the pressure washer. You should record both serial number and date of purchase and keep in a safe place for future reference.

INTRODUCTION & IMPORTANT SAFETY INFORMATION

Thank you for purchasing this Pressure Washer. We reserve the right to make changes at any time without incurring any obligation.

Owner/User Responsibility:

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

The operator must know how to stop the machine quickly and understand the operation of all controls. Never permit anyone to operate the engine without proper instructions.

SAVE THESE INSTRUCTIONS

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number. Use only identical replacement parts.

This machine is to be used only by trained operators.

IMPORTANT SAFETY INFORMATION

! WARNING



READ OPERATOR'S MANUAL THOROUGHLY PRIOR TO USE.

WARNING: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.
2. Know how to stop the machine and bleed pressure quickly. Be thoroughly familiar with the controls.
3. Stay alert — watch what you are doing.

! WARNING



KEEP WATER SPRAY AWAY FROM ELECTRICAL WIRING.

WARNING: Keep wand, hose, and water spray away from electric wiring or fatal electric shock may result.

4. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details.

! WARNING



EAR PROTECTION MUST BE WORN

WARNING: This machine exceeds 85 db appropriate ear protection must be worn.

! WARNING



USE PROTECTIVE EYE WEAR AND CLOTHING WHEN OPERATING THIS EQUIPMENT.

WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds. To avoid personal injury, eye, hand and foot safety devices must be worn.

5. Eye, hand, and foot protection must be worn when using this equipment.
6. Keep operating area clear of all persons.

! WARNING



RISK OF EXPLOSION: OPERATE ONLY WHERE OPEN FLAME OR TORCH IS PERMITTED

WARNING: Flammable liquids can create fumes which can ignite, causing property damage or severe injury.

WARNING: Risk of explosion — Operate only where open flame or torch is permitted.

! WARNING



RISK OF FIRE. DO NOT ADD FUEL WHEN OPERATING MACHINE.

WARNING: Risk of fire — Do not add fuel when the product is operating or still hot.

WARNING: Do not use gasoline crankcase draining or oil containing gasoline, solvents or alcohol. Doing so will result in fire and/or explosion.

WARNING: Risk of fire — Do not Spray flammable liquids.

7. Allow engine to cool for 1-2 minutes before refueling. If any fuel is spilled, make sure the area is dry before testing the spark plug or starting the engine. (Fire and/or explosion may occur if this is not done.)
Gasoline engines on mobile or portable equipment shall be refueled:
 - a. outdoors;
 - b. with the engine on the equipment stopped;
 - c. with no source of ignition within 10 feet of the dispensing point; and
 - d. with an allowance made for expansion of the fuel should the equipment be exposed to a higher ambient temperature.

IMPORTANT SAFETY INFORMATION

In an overfilling situation, additional precautions are necessary to ensure that the situation is handled in a safe manner.

WARNING: Risk of injury. Disconnect battery ground terminal before servicing.

8. When in use, do not place machine near flammable objects as the engine is hot.
9. Oil burning appliances shall be installed only in locations where combustible dusts and flammable gases or vapors are not present. Do not store or use gasoline near this machine.
10. Use No. 1 or No. 2 heating oil (ASTM D306) only. **NEVER** use gasoline in your fuel oil tank. Gasoline is more combustible than fuel oil and could result in a serious explosion. **NEVER** use crankcase or waste oil in your burner. Fuel unit malfunction could result from contamination.
11. Do not confuse gasoline and fuel oil tanks. Keep proper fuel in proper tank.

! WARNING



RISK OF INJURY. HOT SURFACES CAN CAUSE BURNS

WARNING: Risk of injury. Hot surfaces can cause burns. Use only designated gripping areas of spray gun and wand. Do not place hands or feet on non-insulated areas of the pressure washer.

12. Transport/Repair with fuel tank EMPTY or with fuel shut-off valve OFF.

! CAUTION



HOT DISCHARGE FLUID: DO NOT TOUCH OR DIRECT DISCHARGE STREAM AT PERSONS.

CAUTION: Hot discharge fluid. Do not touch or direct discharge stream at persons.

WARNING: This machine produces hot water and must have insulated components attached to protect the operator.

13. To reduce the risk of injury, close supervision is necessary when a machine is used near children. Do not allow children to operate the pressure washer. **This machine must be attended during operation.**

! WARNING



TRIGGER GUN KICKS BACK - HOLD WITH BOTH HANDS

WARNING: Grip cleaning wand securely with both hands before starting. Failure to do this could result in injury from a whipping wand.

14. Never make adjustments on machine while in operation.

15. Be certain all quick coupler fittings are secured before using pressure washer.

! WARNING



RISK OF INJECTION OR SEVERE INJURY TO PERSONS. KEEP CLEAR OF NOZZLE.

WARNING: High pressure developed by these machines will cause personal injury or equipment damage. Keep clear of nozzle. Use caution when operating. Do not direct discharge stream at people, or severe injury or death will result.

! WARNING



PROTECT FROM FREEZING

WARNING: Protect machine from freezing.

16. To keep machine in best operating conditions, it is important you protect machine from freezing. Failure to protect machine from freezing could cause malfunction of the machine and result in death, serious bodily injury, and/or property damage. Follow storage instructions specified in this manual.

17. Inlet water must be clean fresh water and no hotter than 90°F.

! WARNING



RISK OF ASPHYXIATION. USE THIS PRODUCT ONLY IN A WELL VENTILATED AREA.

WARNING: Risk of asphyxiation. Use this product only in a well ventilated area.

18. Avoid installing machines in small areas or near exhaust fans. Adequate oxygen is needed for combustion or dangerous carbon monoxide will result.

19. Manufacturer will not be liable for any changes made to our standard machines or any components not purchased from us.

20. The best insurance against an accident is precaution and knowledge of the machine.

! WARNING



RISK OF INJURY FROM FALLS WHEN USING LADDER.

WARNING: Be extremely careful when using a ladder, scaffolding or any other relatively unstable location. The cleaning area should have adequate slopes and drainage to reduce the possibility of a fall due to slippery surfaces.

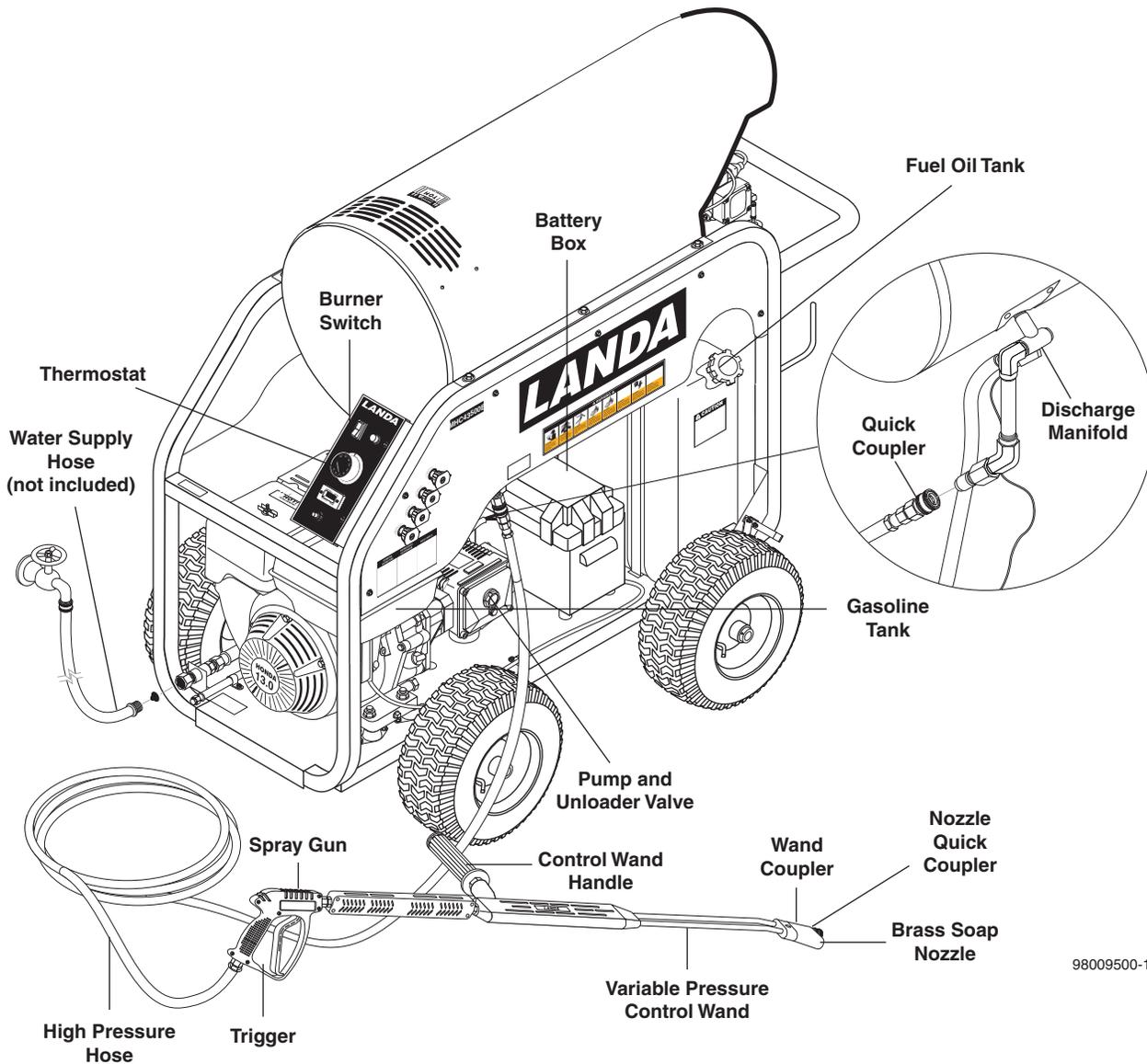
IMPORTANT SAFETY INFORMATION

21. Do not allow acids, caustic or abrasive fluids to pass through the pump.
22. Never run pump dry or leave spray gun closed longer than 1-2 minutes.
23. Machines with shut-off spray gun should not be operated with the spray gun in the off position for extensive periods of time as this may cause damage to the pump.
24. Protect discharge hose from vehicle traffic and sharp objects. Inspect condition of high pressure hose before using or bodily injury may result.
25. Before disconnecting discharge hose from water outlet, turn burner off and open spray gun to allow water to cool below 100° before stopping the machine. Then open the spray gun to relieve pressure. Failure to properly cool down or maintain the heating coil may result in a steam explosion.
26. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
27. Do not operate this machine when fatigued or under the influence of alcohol, prescription medications, or drugs.
28. In oil burning models, use only kerosene, No. 1 home heating fuel, or diesel. If diesel is used, add a soot remover to every tankful.



Follow the maintenance instructions specified in the manual.

COMPONENT IDENTIFICATION



98009500-1

Pump — Delivers a specific gpm to the high pressure nozzle which develops pressure.

Spray Gun — Controls the application of water and detergent onto cleaning surface with trigger device. Includes safety latch.

Detergent Injector — Allows you to siphon and mix detergents.

Wand — Must be connected to the spray gun.

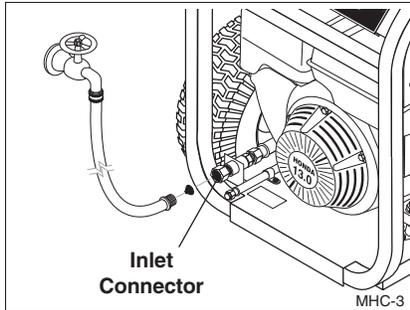
High Pressure Hose — Connect one end to water pump high pressure discharge nipple and the other end to spray gun.

Rupture Disk — Secondary pressure release in the unlikely event the unloader valve fails.

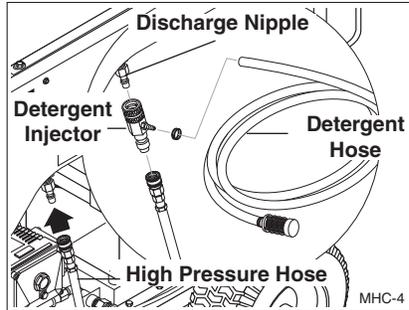
Unloader Valve — Safety device which, when the spray gun closes, prevents over pressurization.

NOTE: If trigger on spray gun is released for more than 2 minutes, water will leak from the pump protector. Warm water will discharge from pump protector onto floor. This system prevents internal pump damage.

ASSEMBLY INSTRUCTIONS

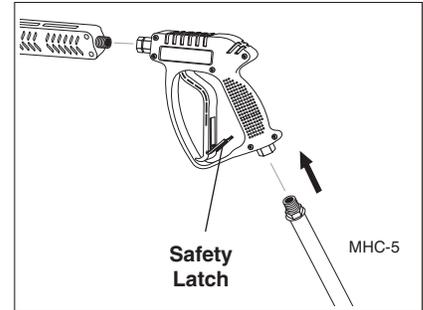


STEP 1: Attach a 5/8" garden hose to inlet connector. Minimum flow should be 5 gpm.

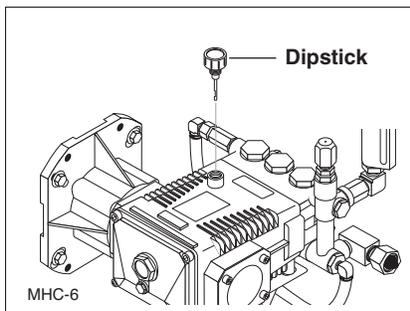


STEP 2: Attach high pressure hose to discharge nipple using quick coupler. Lock coupler securely into place by pulling back coupler collar and inserting it onto discharge nipple, then pushing collar forward to lock in place.

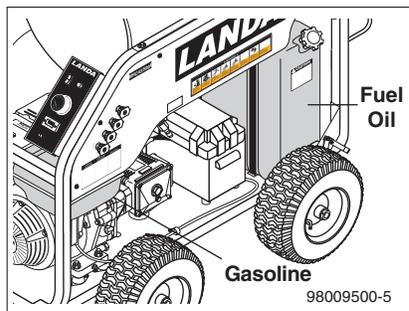
NOTE: If using detergent injector, attach detergent injector to discharge nipple using quick coupler. Attach high pressure hose to other end of detergent injector.



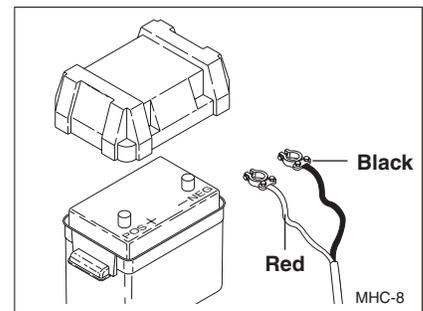
STEP 3: Attach wand to spray gun using teflon tape on threads to prevent leakage. Attach swivel connector on discharge hose to spray gun using teflon tape on threads. Attach swivel connector on high pressure hose to spray gun using teflon tape on threads. Engage safety latch to prevent from triggering gun.



STEP 4: Check oil level on sight glass on side of pump. Oil should be visible one-half way up sight glass (SAE 30W non-detergent). The oil level can also be checked by using the dipstick on the top of the pump.



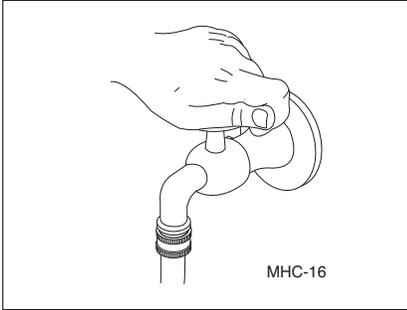
STEP 5: Fill gasoline tank and check engine oil. Fill fuel tank. Do not confuse gasoline and fuel oil (diesel) tanks. Keep proper fuel in proper tanks.



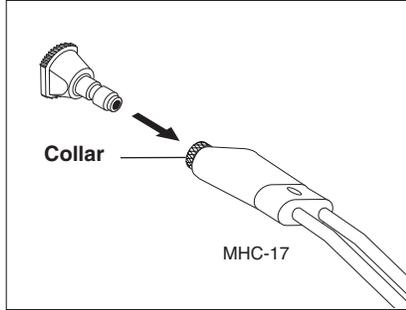
STEP 6: On electric start models only, you will need to install a battery making sure that the red cable is attached to the positive terminal. Use a Group U1 garden tractor style type of battery rated for 300 CCA (battery not included).

CAUTION: These machines are intended to be protected from outside environments.

OPERATION INSTRUCTIONS

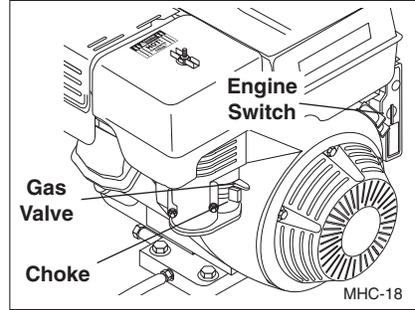


STEP 1: Turn on water at faucet and pull trigger on spray gun allowing water to flow until all air has discharged from system. Check for water leaks; tighten as needed.

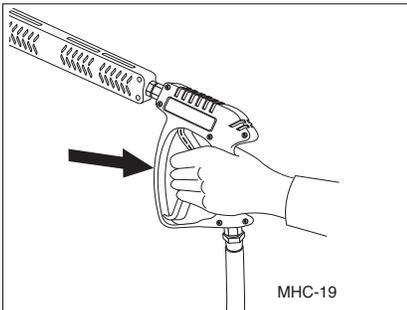


STEP 2: Before installing nozzle, turn on water supply and run machine allowing water to flush through the system until clear. Pull wand coupler collar back and insert desired pressure nozzle into coupler then secure by pushing coupler collar forward.

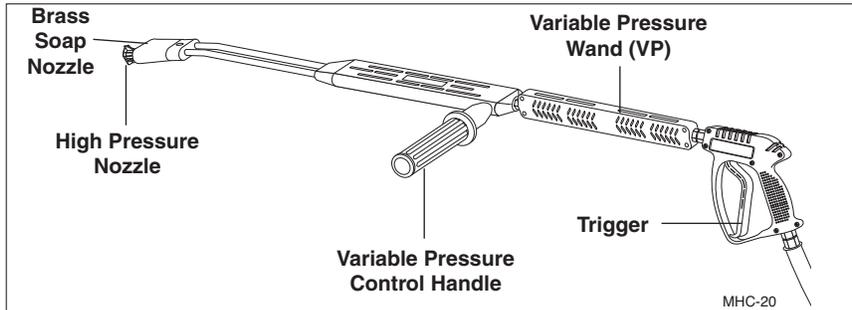
NOTE: Variable pressure control wand handle must be turned clockwise to enable water to flow out of the high pressure nozzle.



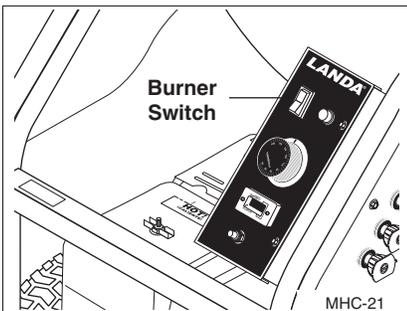
STEP 3: Read engine manual, turn on gas valve and choke. Turn the engine switch to the START position and hold it there until the engine starts. **NOTE:** Do not use the electric starter for more than five seconds at a time. If the engine fails to start, release the switch and wait ten seconds before operating the starter again. When the engine starts, allow the engine switch to return to the ON position. If the engine is to be started without the battery, turn switch to start position and pull rope to start. Turn off choke.



STEP 4: With spray nozzle pointed away from you or anyone else, press trigger on spray gun to obtain pressurized cold water spray.



Selection of high or low pressure is accompanied by turning the handle. **Note:** High pressure nozzle must be inserted at end of wand to obtain high pressure. To apply soap read Detergents and General Operating Techniques section.



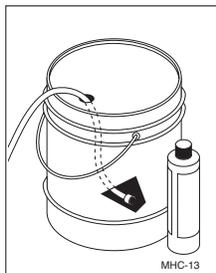
STEP 5: For hot water, turn burner switch ON when a steady stream of water flows out of the spray gun. Burner will light automatically.

NOTE: Do not start machine with burner switch on.

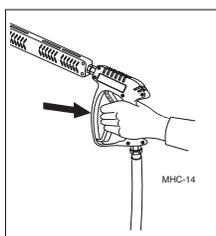
DETERGENTS AND GENERAL OPERATING TECHNIQUES



WARNING: *Some detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning. The harmful elements may cause property damage or severe injury.*



STEP 1: Use detergent designed specifically for pressure washers. Household detergents could damage the pump. Prepare detergent solution as required by the manufacturer. Fill a container with pressure washer detergent. Place the filter end of detergent suction tube into the detergent container.



STEP 2: Apply safety latch to spray gun trigger. Secure black detergent nozzle into quick coupler. **NOTE:** Detergent cannot be applied using the Yellow nozzle.

STEP 3: With the motor running, pull trigger to operate machine. Liquid detergent is drawn into the

machine and mixed with water. Apply detergent to work area. Do not allow detergent to dry on surface.

IMPORTANT: *You must flush the detergent injection system after each use by placing the suction tube into a bucket of clean water, then run the pressure washer in low pressure for 1-2 minutes.*

THERMAL PUMP PROTECTION

If you run your pressure washer for 3-5 minutes without pressing the trigger on the spray gun, circulating water in the pump can reach high temperatures. When the water reaches this temperature, the pump protector engages and cools the pump by discharging the warm water onto the ground. This thermal device prevents internal damage to the pump.

CLEANING TIPS

Pre-rinse cleaning surface with fresh water. Place detergent suction tube directly into cleaning solution and apply to surface at low pressure (for best results, limit your work area to sections approximately 6 feet square and always apply detergent from bottom to top). Allow detergent to remain on surface 1-3 minutes. Do not allow detergent to dry on surface. If surface appears to be drying, simply wet down surface with fresh water. If needed, use brush to remove stubborn dirt. Rinse at high pressure from top to bottom in an even sweeping motion keeping the spray nozzle approximately 1 foot

from cleaning surface. Use overlapping strokes as you clean and rinse any surface. For best surface cleaning action spray at a slight angle.

Recommendations:

- Before cleaning any surface, an inconspicuous area should be cleaned to test spray pattern and distance for maximum cleaning results.
- If painted surfaces are peeling or chipping, use extreme caution as pressure washer may remove the loose paint from the surface.
- Keep the spray nozzle a safe distance from the surface you plan to clean. High pressure wash a small area, then check the surface for damage. If no damage is found, continue to pressure washing.

CAUTION - Never use:

- Bleach, chlorine products and other corrosive chemicals
- Liquids containing solvents (i.e., paint thinner, gasoline, oils)
- Tri-sodium phosphate products
- Ammonia products
- Acid-based products

These chemicals will harm the machine and will damage the surface being cleaned.

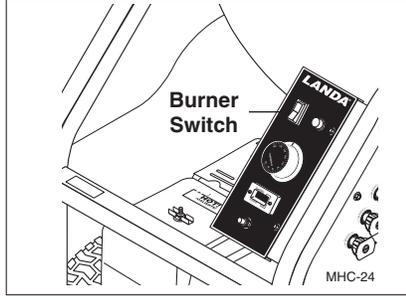
RINSING

It will take a few seconds for the detergent to clear. Apply safety latch to spray gun. Remove black soap nozzle from the quick coupler. Select and install the desired high pressure nozzle. **NOTE:** You can also stop detergent from flowing by simply removing detergent siphon tube from bottle.

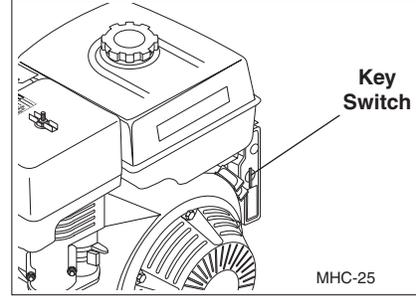
SHUTDOWN INSTRUCTIONS



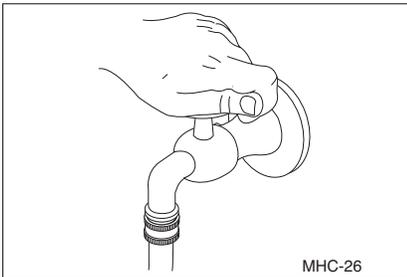
STEP 1: Remove detergent suction tube from container and insert into one (1) gallon of fresh water. Pull trigger on spray gun and siphon water for one minute.



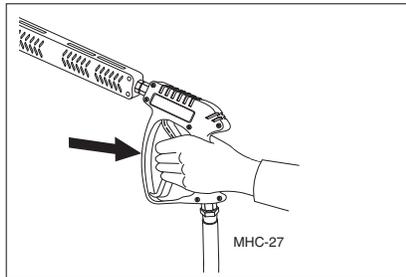
STEP 2: Turn burner switch off and continue spraying, allowing the water to cool below 100° F.



STEP 3: Turn engine off.



STEP 4: Turn off water supply.



STEP 6: Open spray gun to relieve remaining pressure.

STORAGE

CAUTION: Always store your pressure washer in a location where the temperature will not fall below 32°F (0°C). The pump in this machine is susceptible to permanent damage if frozen. FREEZE DAMAGE IS NOT COVERED BY WARRANTY.

1. Stop the pressure washer, squeeze spray gun trigger to release pressure.
2. Detach water supply hose and high pressure hose.
3. Turn on the machine for a few seconds, until remaining water exits. Turn engine off immediately.
4. Drain the gas and oil from the engine.
5. Do not allow high pressure hose to become kinked.
6. Store the machine and accessories in a room which does not reach freezing temperatures.

CAUTION: Failure to follow the above directions will result in damage to your pressure washer.

When the pressure washer is not being operated or is being stored for more than one month, follow these instructions:

1. Replenish engine oil to upper level.
2. Drain gasoline from fuel tank, fuel line, fuel valve and carburetor.
3. Pour about one teaspoon of engine oil through the spark plug hole, pull the starter grip several times and replace the plug. Then pull the starter

grip slowly until you feel increased pressure which indicates the piston is on its compression stroke and leave it in that position. This closes both the intake and exhaust valves to prevent rusting of cylinder.

4. Cover the pressure washer and store in a clean, dry place that is well ventilated away from open flame or sparks. **NOTE:** The use of a fuel additive, such as STA-BIL®, or an equivalent, will minimize the formulation of fuel deposits during shortage. Such additives may be added to the gasoline in the fuel tank of the engine, or to the gasoline in a storage container.

After Extended Storage



CAUTION: Prior to restarting, thaw out any possible ice from pressure washer hoses, spray gun or wand.

Engine Maintenance

During the winter months, rare atmospheric conditions may develop which will cause an icing condition in the carburetor. If this develops, the engine may run rough, lose power and may stall. This temporary condition can be overcome by deflecting some of the hot air from the engine over the carburetor area. **NOTE:** Refer to the engine manufacturer's manual for service and maintenance of the engine.

MAINTENANCE

PREVENTATIVE MAINTENANCE

1. Check to see that the water pump is properly lubricated.
2. Follow winterizing procedures to prevent freeze damage to the pump and coils.
3. Always neutralize and flush detergent from system after use.
4. If water is known to be high in mineral content, use a water softener in your water system or de-scale as needed.
5. Do not allow acidic, caustic or abrasive fluids to be pumped through system.
6. Always use high grade quality Landa cleaning products.
7. Never run pump dry for extended periods of time.
8. Use clean fuel-kerosene, No. 1 fuel oil or diesel. Replace fuel filter every 100 hours of operation. Avoid water contaminated fuel as it will seize up the fuel pump.
9. If machine is operated with smoking or eye burning exhaust, coils will soot up, not letting water reach maximum operating temperature. (See section on Air Adjustments.)
10. Never allow water to be sprayed on or near engine or burner assembly or any electrical component.
11. Periodically delime coils as per instructions.
12. Check to see that engine is properly lubricated.

It is advisable, periodically, to visually inspect the burner. Check air inlet to make sure it is not clogged or blocked. Wipe off any oil spills and keep this equipment clean and dry.

The areas around the pressure washer should be kept clean and free of combustible materials, gasoline and other flammable vapors and liquids.

The flow of combustion and ventilating air to the burner must not be blocked or obstructed in any manner.

MAINTENANCE AND SERVICE

Unloader Valves:

Unloader valves are preset and tested at the factory before shipping. Tampering with the factory setting may cause personal injury and/or property damage, and will void the manufacturer's warranty.

Winterizing Procedure:

Damage due to freezing is not covered by warranty. Adhere to the following cold weather procedures whenever the washer must be stored or operated outdoors under freezing conditions.

During winter months, when temperatures drop below 32°F, protecting your machine against freezing is necessary. Store the machine in a heated room. If this is not possible then mix a 50/50 solution of anti-freeze/water into a 5 gallon bucket. Place a short section of garden hose into the bucket and connect it to the machine. Elevate the bucket and turn the pump on to siphon the anti-freeze through the machine. If compressed air is available, an air fitting can be screwed into the inlet connector and, by injecting compressed air, all water will be blown out of the system.

High Limit Hot Water Thermostat:

For safety, each machine is equipped with a high limit control switch. In the event that the temperature of the water should exceed its operating temperature, the high limit control will turn the burner off until the water cools.

Pumps:

Use only SAE 30W non-detergent oil. Change oil after the first 50 hours of use. Thereafter, change the oil every three months or at 500 hour intervals. Oil level should be checked by using the dipstick found on top of the pump or the red dot visible through the oil gauge window. Oil should be maintained at that level.

Cleaning of Coils:

In alkaline water areas, lime deposits can accumulate rapidly inside the coil pipes. This growth is increased by the extreme heat build up in the coil. The best prevention for liming conditions is to use high quality cleaning detergents. In areas where alkaline water is an extreme problem, periodic use of Landa Deliming Powder (part #9-028008) will remove lime and other deposits before coil becomes plugged. (See Deliming Instructions for use of Landa Deliming Powder.)

Deliming Coils:

Periodic flushing of coils is recommended.

1. Fill a container or optional float tank with 4 gallons of water, then add 1 lb. of deliming powder. Mix thoroughly.
2. Remove wand assembly from spray gun and put spray gun into container. Secure the trigger on the spray gun into the open position.
3. Attach a short section (3-5 ft.) of garden hose to machine to siphon solution from an elevated container. Turn pump switch on, allowing solution to be pumped through coils back into the container. Solution should be allowed to circulate 2-4 hours.
4. After circulating solution flush entire system with fresh water. Reinstall wand assembly to spray gun.

MAINTENANCE & SERVICE

Rupture Disk:

If pressure from pump or thermal expansion should exceed safe limits, the rupture disk will burst allowing high pressure to be discharged through hose to ground. When disk ruptures it will need to be replaced.

Fuel:

Use clean fuel oil that is not contaminated with water and debris. Replace fuel filter and drain tank every 100 hours of operation.

Use No. 1 or No. 2 Heating Oil (ASTM D306) only. **NEVER** use gasoline in your burner tank. Gasoline is more combustible than fuel oil and a serious explosion could result. **NEVER** use crankcase or waste oil in your burner. Fuel unit malfunction could result from contamination.

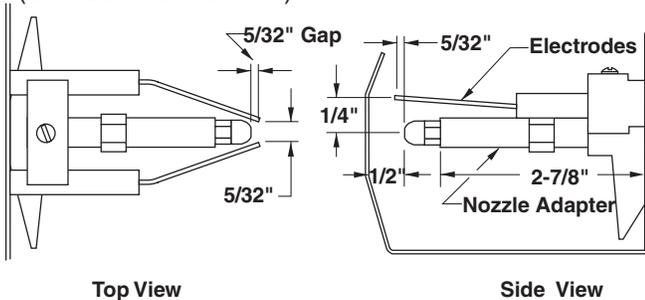
Fuel Control System:

These machines utilize a fuel solenoid valve located on the fuel pump to control the flow of fuel to the combustion chamber. This solenoid valve, which is normally closed, is activated by a flow switch when water is flowing through it. When an operator releases the trigger on the spray gun, the flow of water through the flow switch stops, turning off the current to the fuel solenoid. The solenoid then closes, shutting off the supply of fuel to the combustion chamber. Controlling the flow of fuel in this way allows for an instantaneous burn or no burn situation, thereby eliminating high and low water temperatures, and combustion smoke normally associated with machines incorporating a spray gun.

CAUTION: Periodic inspection is recommended to insure that the fuel solenoid valve functions properly. This can be done by operating the machine and checking to see that when the trigger on the spray gun is in the off position, the burner is not firing.

Electrode Setting:

(See illustration below.)



Periodically check wiring connections. If necessary to adjust electrodes, use diagram.

Burner Nozzle:

Keep the tip free of surface deposits by wiping it with a clean, solvent-saturated cloth, being careful not to plug or enlarge the nozzle. For maximum efficiency, replace the nozzle each season.

Beckett Burner Air Adjustment:

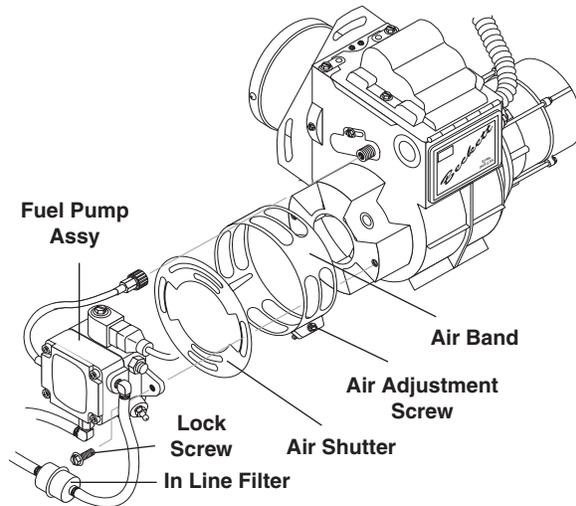
The oil burner on this machine is preset for operation at altitudes below 1000 feet. If operated at higher altitudes, it may be necessary to adjust the air band setting. Adjust air band for a #1 or #2 smoke spot on the Bacharach scale. A one-time initial correction for your location will pay off in economy, performance and extended service life. If a smoking or eye-burning exhaust is being emitted from the stack, two things should be checked. First, check the fuel to be certain that kerosene or No. 1 home heating fuel is being used. Next, check the air adjustment on the burner.

Initial Air Adjustments:

Allow sufficient air to obtain a clean burning flame by loosening the lock screws and moving the air shutter and if necessary the bulk air band.

Reduce the air supply until the flame tips appear slightly smoky then increase the air just enough to cause the flame tips to appear absolutely clean.

Beckett Burner Air Adjustment



MHC-12

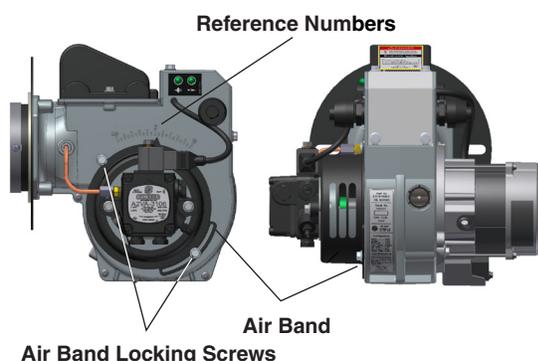
MAINTENANCE & SERVICE

Landa Sure Fire Oil Burner

Burner Air Adjustment: The oil burner on this machine is preset for operation at altitudes below 1000 feet. If operated at higher altitudes, it may be necessary to adjust the air band for a #1 or #2 smoke spot on the Bacharach scale.

To adjust, start machine and turn burner ON. Loosen two locking screws found on the air band and close air band until black smoke appears from burner exhaust vent. Note air band position. Next, slowly open the air band until white smoke just starts to appear. Turn air band halfway back to the previously noted position. Tighten locking screws.

Landa Sure Fire Burner Air Adjustment



CAUTION: If white smoke appears from burner exhaust vent during start-up or operation, discontinue use and readjust air bands.

NOTE: If a flue is installed, have a professional serviceman adjust your burner for a #1 or #2 smoke spot on the Bacharach scale.

Fuel Pressure Adjustment:

To adjust fuel pressure, turn the adjusting screw clockwise to increase, counterclockwise to decrease. Do not exceed 200 psi. **NOTE:** When changing the fuel pump, a bypass plug must be installed in the return port or the fuel pump will not prime.

Removal of Soot and Heating Coil:

In the heating process, fuel residue in the form of soot deposits may develop on the heating coil and block air flow which will affect burner combustion. When soot has been detected on visual observation, the soot on the coil must be washed off after following the coil removal steps.

1. Remove the tank head assembly by unscrewing the three Tek screws and lifting the tank head off.
2. Remove the two pipe nipples and associated fittings.
3. Lift the coil out of the outer wrap.

CAUTION: The coil weighs about 80 lbs. Use proper lifting techniques.

4. Clean, repair and replace the coil by reversing the above steps.

Coil Reinstallation:

Reinstall by reversing the above steps 4 through 1.

FINAL NOTE:

The 12 VDC burner systems can draw as much as 18 amps! For such motors to run properly, the battery and engine charging system must be kept in good condition, and the engine must run fast enough to adequately charge the battery. Do not throttle down the engine for any length of time.

PREVENTATIVE MAINTENANCE

This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions.

MAINTENANCE SCHEDULE		
Engine Oil	Inspect	Daily
	Change	Every 25 hours
	Filter	Every 50 hours
Air Cleaner	Inspect	Every 50 hours or monthly
	Clean	Every 3 months
Battery Level		Check monthly
Engine Fuel Filter		500 hours or 6 months
Spark Plug Maintenance		500 hours or 6 months
Clean Fuel Tank(s)		Annually
Replace Fuel Lines		Annually
Pump Oil (Non-detergent 10/40W)	Inspect	Oil level daily
	Change	After first 50 hours, then every 500 hours or annually
Clean Burner Filter		Monthly (More often if fuel quality is poor)
Remove Burner Soot		Annually
Burner Adjustment/Cleaning		Annually
Replace Burner Nozzle		Annually
Descale Coil		Annually (More often if required)
Replace High Pressure Nozzle		Every 6 months
Replace Quick Connects		Annually
Clean Water Screen/Filter		Weekly
Replace HP Hose		Annually

OIL CHANGE RECORD

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change	Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LOW OPERATING PRESSURE	Water supply is insufficient	Use larger supply hose; clean filter at water inlet.
	Spray nozzle is old, worn or incorrect	Match the nozzle number to the machine and/or replace with new nozzle.
	Belt slips	Tighten or replace belt; use correct belt.
	Plumbing or hose is leaking	Check plumbing system for leaks. Re-tape leaks with teflon tape.
	Unloader is faulty or mis-adjusted	Adjust unloader for proper pressure. Install repair kit when necessary or replace.
	Packing in pump is worn	Install new packing kit.
	Discharge valve in pump or inlet is fouled or dirty	Check inlet and discharge valve.
	Discharge valve or inlet is worn	Replace with valve kit.
	Spray nozzle has obstruction	Remove obstruction.
	Steam pressure control valve is leaking (where applicable)	Rebuild or replace as necessary.
	Engine RPM is slow	Set engine speed at proper specifications. See serial plate. The gasoline engine is preset for operation at altitudes below 1000 feet above sea level. If operated at higher altitudes, it may be necessary to install a high altitude main jet in the carburetor. Contact you local authorized engine sales and service center for details.
BURNER WILL NOT LIGHT	There is little or no fuel	Fill tank with fuel.
	Improper fuel or water in fuel	Drain fuel tank and fill with proper fuel.
	Fuel line is clogged	Clean or replace fuel line.
	Fuel filter is plugged	Replace fuel filter as needed.
	Burner air bands are mis-adjusted	Readjust air bands for clean burn.
	Little or no fuel pressure from fuel pump	Increase fuel pressure to specification and/or replace fuel pump.
	Burner transformer is faulty	Test transformer for proper arc between contacts. Replace as needed.
	Electrical wiring is disconnected or has short in it	All wire contacts should be clean and tight with no breaks in wire.
	Flex coupling is slipping on fuel pump shaft or burner motor shaft	Replace if needed.
	ON-OFF switch is defective	Check for electrical current reaching burner assembly with burner switch on. Replace switch if needed.
	Heavy sooting on coil and burner can cause interruption of air flow and shorting of electrodes	Clean as required.
	Electrode setting is improper	Check and reset according to diagram in manual.
	30 amp circuit breaker tripped	Push in reset button.
	Bridge rectifier defective	Test and replace.
	12V DC relay defective	Test and replace.
	Fuel is not reaching combustion chamber	Check fuel pump for proper flow. Check solenoid flow switch on machines with spray gun control for proper on-off flow control.

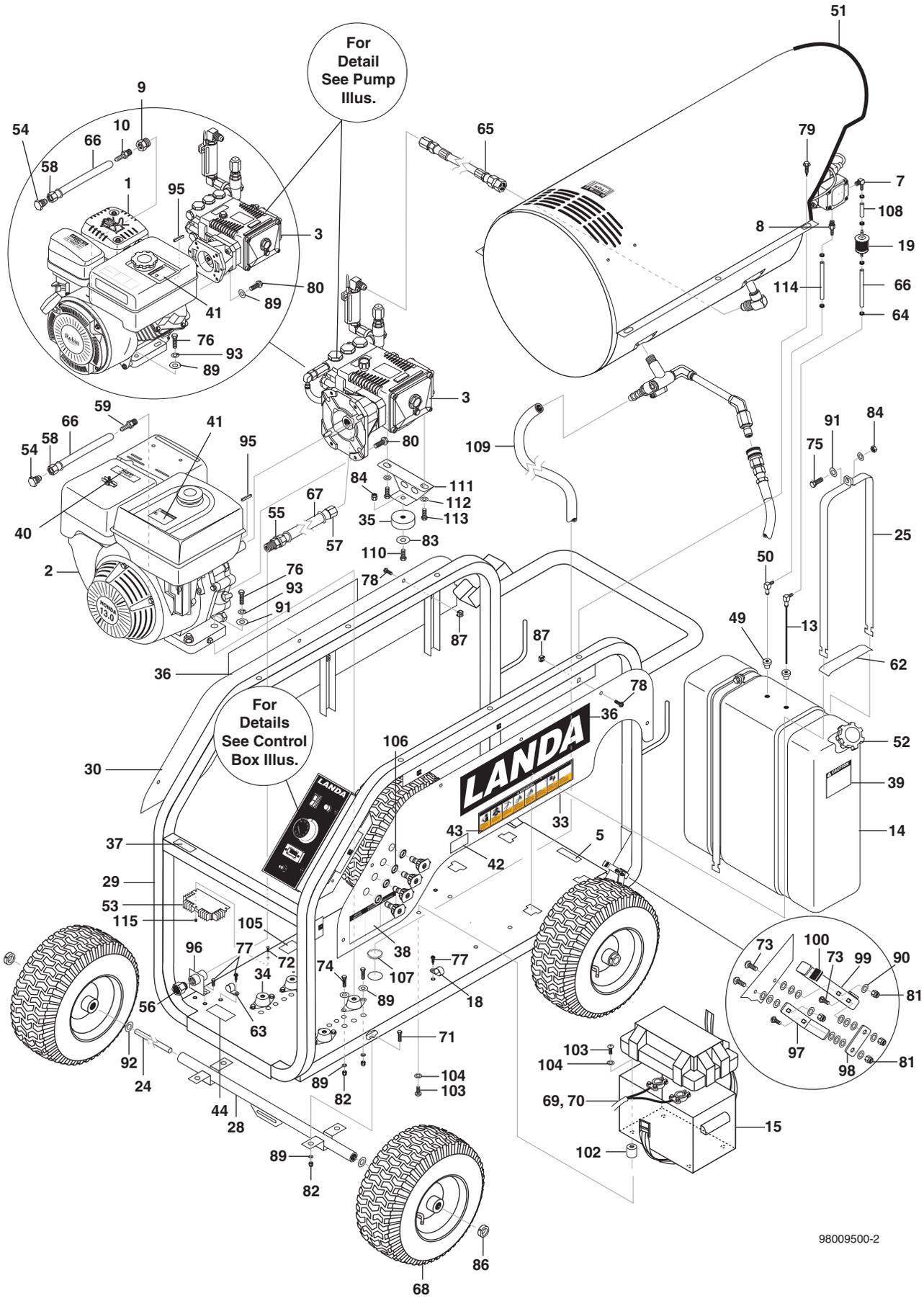
TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
BURNER WILL NOT LIGHT	Burner nozzle is clogged	Clean as required.
	Thermostat has malfunctioned	Test and replace if needed.
	Fuel solenoid has malfunctioned	Test and replace if needed.
MACHINE SMOKES	Fuel is improper or water is in fuel	Drain tank and replace contaminated fuel.
	Air adjustment is improper	Readjust air bands on burner assembly.
	Fuel pressure is low	Adjust fuel pump pressure to specifications.
	Burner nozzle is plugged or dirty	Replace nozzle. Check parts breakdown for nozzle size.
	Burner nozzle spray pattern is faulty	Replace nozzle. Check parts breakdown for nozzle size.
	Coil and burner assembly have heavy accumulation of soot	Remove coils and burner assembly, clean thoroughly. Call local dealer.
	Electrode setting is misaligned	Realign electrodes to specifications.
	Smoke stack has obstruction	Check for blockage or other foreign objects.
	Engine RPM is low	Increase RPM to correct specs. See serial plate.
LOW WATER TEMPERATURE	Fuel is improper or has water in it	Replace with clean and proper fuel.
	Fuel pressure is low	Increase fuel pressure.
	Fuel pump is weak	Check fuel pump pressure. Replace pump if needed.
	Fuel filter is partially clogged	Replace as needed.
	Soot buildup on coils is not allowing heat transfer	Clean coils.
	Burner nozzle is improper	Call your local dealer for proper nozzle.
WATER TEMPERATURE TOO HOT	Incoming water to machine is warm or hot	Lower incoming water temperature.
	Fuel pump pressure is too high	Call your local dealer for proper fuel pressure.
	Fuel pump is defective	Replace fuel pump.
	Fuel nozzle is incorrect size	See parts breakdown or serial plate for proper size.
	Water supplied is insufficient	Check water GPM to machine.
	Water flow is restricted	Check nozzle for obstruction and proper size. Check serial plate for correct size.
PRESENCE OF WATER IN OIL	Oil seal is worn	Check and replace if necessary.
	Air humidity is high	Check and change oil twice as often.
	Packing is worn or bad	Check and replace if necessary.
DETERGENT NOT DRAWING	Air is leaking	Tighten all clamps. Check detergent lines for holes.
	Filter screen on detergent suction hose is plugged	Clean or replace.
	Detergent has high viscosity	Dilute detergent to specifications.
	Injector head may be blocked, dirty or damaged.	Clean and make sure ball and spring behind detergent hose barb or injector body are working properly.
	Not using soap nozzle	Insert soap nozzle into wand coupler.

TROUBLESHOOTING

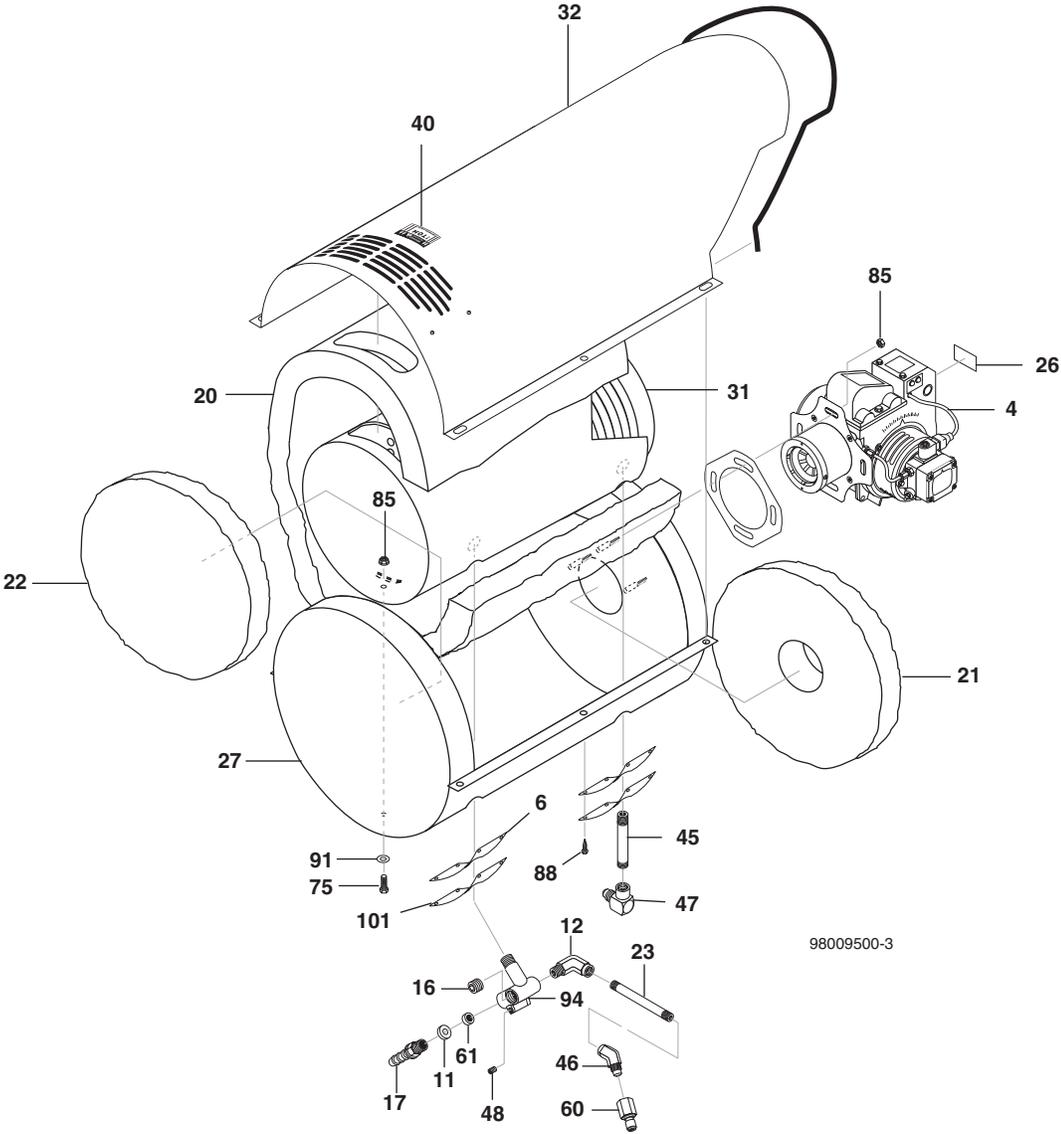
PROBLEM	POSSIBLE CAUSE	SOLUTION
DETERGENT NOT DRAWING	Detergent level is low	Add detergent if needed.
PUMP RUNNING NORMALLY BUT PRESSURE LOW ON INSTALLATION	Pump is sucking air	Check water supply and possibility of air seepage.
	Valves are sticking	Check and clean or replace if necessary.
	Unloader valve seat is faulty	Check and replace if necessary.
	Nozzle sized incorrectly	Check and replace if necessary (see serial plate for proper size).
	Packing piston is worn	Check and replace if necessary.
FLUCTUATING PRESSURE	Valves are worn	Check and replace if necessary.
	Valve has a blockage	Check and replace if necessary.
	Pump is sucking air	Check water supply and air seepage at joint in suction line.
	Packing piston is worn	Check and replace if necessary.
	Gasoline Engine Altitude	The gasoline engine is preset for operation at altitudes below 1000 feet above sea level. If operated at higher altitudes, it may be necessary to install a high altitude main jet in the carburetor. Contact your local authorized engines sales and service center for details.
PUMP NOISY	Air is in suction line	Check water supply and connections on suction line.
	Inlet or discharge valve springs are weak or broken	Check and replace if necessary.
	Excessive matter is in valves	Check and replace if necessary.
	Bearings are worn	Check and replace if necessary.
WATER DRIPPING FROM UNDER PUMP	Piston packing is worn	Check and replace if necessary.
	O-Ring plunger retainer is worn	Check and replace if necessary.
	Piston is cracked	Check and replace if necessary.
	Pump protector is worn	Lower water supply pressure. Do not run the spray gun closed longer than 5 minutes.
OIL DRIPPING	Oil seal is worn	Check and replace if necessary.
EXCESSIVE VIBRATION IN DELIVERY LINE	Valves are functioning irregularly	Check and replace if necessary.
BURNER MOTOR WILL NOT RUN	Fuel pump has seized	Replace fuel pump.
	Burner fan loose or misaligned	Position correctly and tighten set screw.
	Control switch is defective	Replace switch.
	There is a loose wire	Check and replace or tighten wiring.
	Burner motor is defective	Replace motor.
RELIEF VALVE LEAKS WATER	Relief valve is defective	Replace or repair relief valve.

EXPLODED VIEW



98009500-2

EXPLODED VIEW - COIL DETAIL



EXPLODED VIEW PARTS LIST

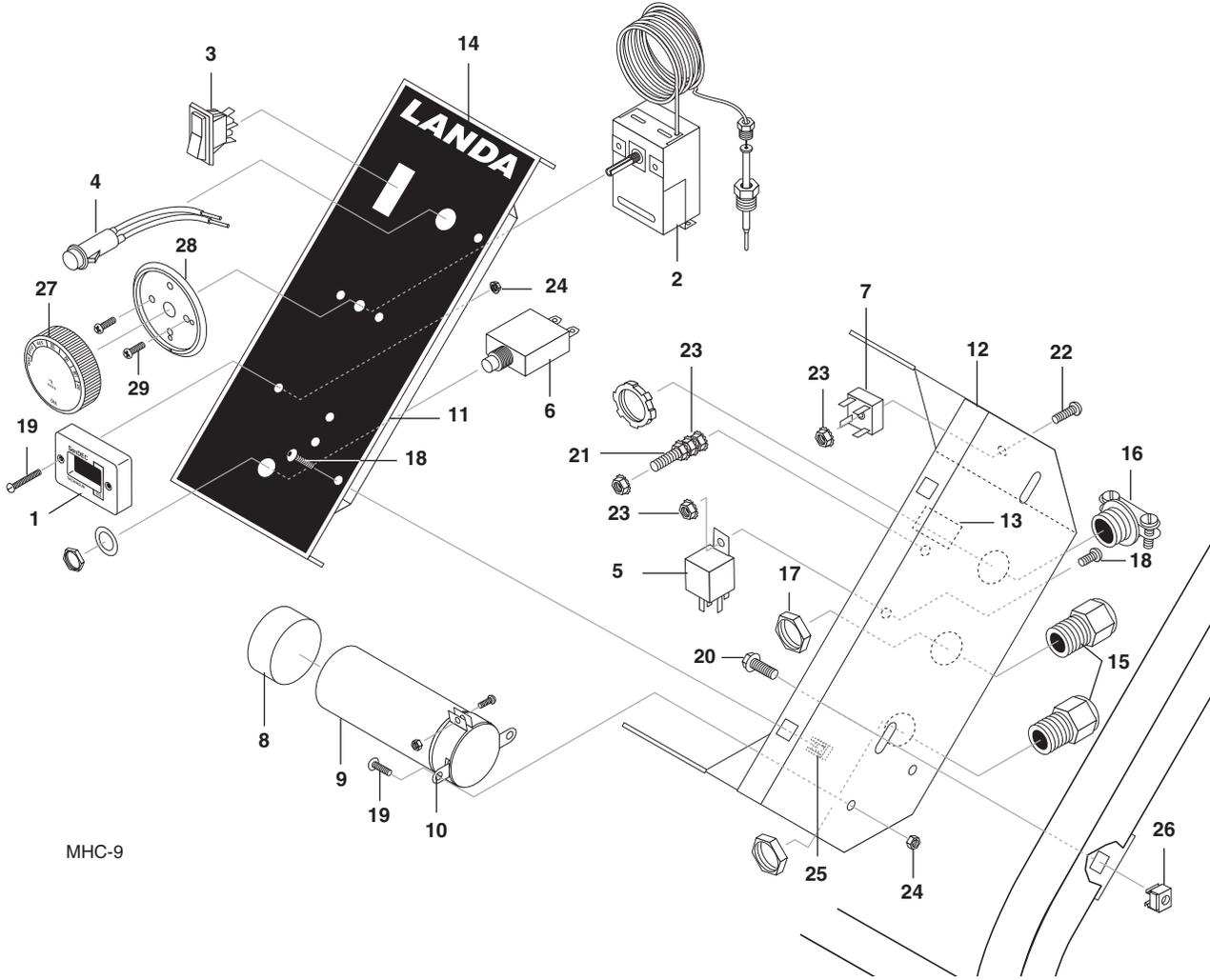
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-314.0	Engine, Robin Ex21 (211CC), W/200 Watt System (3-25124)	1	21	8.731-284.0	Fiber, Disk Donut, Horz MHC	1
2	8.750-576.0	Engine, Honda, 18 Amp (270 CC) GX270UT2QAR2 (3-30324)	1	22	8.735-002.0	Fiber, Disk, Horiz MHC	1
	8.750-577.0	Engine, Honda, 18 Amp (389 CC) GX340UT2QAH2 (4-30324)	1	23	8.705-445.0	Nipple, 3/8" x 4"	1
	8.750-578.0	Engine, Honda E/S 18 Amp (389 CC) GX340UT2QNR2 (4-30324E)	1	24	8.911-227.0	Axle, 5/8" x 28.5"L	2
	8.750-579.0	Engine, Honda, E/S 18 Amp (389 CC) GX390UT2QNR2 (4-30324E/S, 4-35324E)	1	25	8.912-699.0	Strap, Fuel Tank w/Hole	4
3	8.915-322.0	Pump Assy, Horiz (3-25124)	1	26	9.801-265.0	Label, Landa Sure Fire	1
	8.915-321.0	Pump Assy, Horiz (3-30324)	1	27	8.914-946.0	Bottom Wrap Assembly	1
	8.918-611.0	Pump Assy, Horiz (4-30324, 4-30324E, 4-35324E)	1	28	8.914-947.0	Assembly, Axle	2
4	9.802-559.0	Burner, Beckett 14VDC	1	29	8.914-952.0	Assy, Horiz MHC Frame, -07	1
	8.918-919.0	Landa, Sure Fire Burner, 12VDC	1	30	8.914-960.0	Panel, Side Cover	1
	9.802-582.0	▲ Nozzle, Burner, 1.25 B 90° (3-25124)	1	31	8.914-962.0	Coil, MHC Dura, 14.5" Dia Sch 80"	1
	8.717-348.0	▲ Nozzle, Burner, 1.50 A 90° (3-30324)	1	32	8.914-969.0	SS Top Wrap	1
	8.717-272.0	▲ Nozzle, Burner, 1.75 B 90° (4-30324E, 4-30324, 4-30324E/S, 4-35324E)	1	33	8.914-972.0	Panel, Control Side	1
	9.802-428.0	▲ Cord, Electric 12/3 SJOWA Coleman	6 ft	34	8.932-992.0	Mount, Rubber Vibration 3/8", 70 Duro (Honda)	4
	9.802-515.0	▲ Strain Relief, STRT, LQ Tite 3200	1		9.803-308.0	Mount, Rubber Vibration 5/16" (Robin)	4
	9.802-525.0	▲ Locknut 1/2	1	35	9.802-066.0	Pad, Soft Rubber	1
5	9.800-018.0	Label, Tip Hazard	1	36	9.800-975.0	Label, Landa Logo	2
6	8.933-009.0	Gasket, Burner Plate	2	37	8.900-282.0	Label, RPM Factory Set	1
7	8.706-958.0	Hose Barb, 90°, 1/4" Barb x 1/4" Pipe	1	38	8.940-051.0	Label, Skid Op Instructions	1
8	8.706-941.0	Hose Barb, 1/4" Barb x 1/4" Pipe, Brass	1	39	9.800-002.0	Label, Use Only Kerosene	1
9	9.803-052.0	Reducer, M14 to 1/4"F, Robin Ex21 (211CC), (3-25124)	1	40	9.800-006.0	Label, "Hot/Caliente" w/Arrows Warning	2
10	8.706-941.0	Hose Barb, 1/4" Barb x 1/4" ML Pipe (3-25124)	1	41	9.800-008.0	Label, Danger Cool Engine	1
11	9.184-030.0	Spacer	1	42	9.800-021.0	Label, Hot Water Outlet	1
12	8.706-207.0	Elbow, 3/8" Street	1	43	9.800-976.0	Label, MHC Warning	1
13	8.706-496.0	Diptube Assy, Plastic, 17.75"L	1	44	9.800-049.0	Label, Manf Cleaning	1
14	8.706-603.0	Tank, Fuel, 10 Gal Poly, Yellow	1	45	9.802-013.0	Nipple, 1/2" x 2-1/2", Galv Sch 80	1
15	8.706-652.0	Battery Box, Small (Electric Start Only)	1	46	9.802-041.0	Elbow, 3/8" STL, Street 45° MxF	1
	9.802-091.0	▲ Plate, Battery Box, Small Polypro (Electric Start Only)	1	47	9.802-043.0	Elbow, 1/2 JIC x 1/2 FEM 90°	1
16	8.706-248.0	Plug, 3/8"	1	48	9.196-012.0	Screw, 10-24 x 1/4"	1
17	8.707-019.0	Push-on, 1/2" Barb x 3/8" MPT	1	49	9.802-053.0	Bushing, Rubber, Nitrile	2
18	8.709-090.0	Clip, .75 ID Round (Elec. Start)	1	50	9.802-054.0	Elbow, Fuel Tank Zinc	1
19	8.709-152.0	Filter, Fuel, Disposable	1	51	9.802-071.0	Trim, 750B2 x 1/16, Black	2.75 ft
20	9.802-896.0	Insulation, Blanket, No Foil 24" x 57"	1	52	9.802-089.0	Cap, Fuel Tank, Plastic H60-AV	1
				53	9.802-531.0	Regulator, Voltage, 15V (Pull Start)	1
					9.803-835.0	Regulator/Rectifier 18 Amp (Electric Start)	1
				54	9.802-125.0	Plug, 1/4" JIC	1
				55	8.707-020.0	Push-on, 1/2" MPT x 3/4 Barb	1
				56	9.802-146.0	Swivel, 1/2" MP x 3/4" GHF w/Strainer	1

EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
57	9.802-152.0	Swivel, 3/4" JIC Fem, Push-on	1	87	9.802-794.0	Nut, Cage, 1/4" x 12 Ga.	12
58	9.802-153.0	Swivel, 1/4" JIC Fem, Push-on	1	88	9.802-797.0	Screw, SS #10 x 1/2" Hex Head, Tek	8
59	9.802-154.0	Plug, Push-on, Oil Drain, Honda	1	89	8.718-980.0	Washer, 5/16" Flat (Honda) (7 HP Robin)	24 32
60	9.802-170.0	Coupler, 3/8 Plug, Fem Steel	1	90	9.802-802.0	Washer, 1/4" SAE, Flat	16
61	8.725-944.0	Rupture Disc, 8000#	1	91	9.802-807.0	Washer, 3/8" SAE, Flat (7-Hp Robin) (Honda)	5 9
62	9.802-193.0	Gasket, Neoprene, SC41-W/PSA. Per/Ft	1.25 ft	92	9.802-810.0	Washer, 5/8" SAE, Flat	4
63	9.802-207.0	Clamp, Round, 0.687 Dia	1	93	9.802-814.0	Washer, 3/8" Lock, Split Ring (Honda)	4
64	6.390-126.0	Clamp, Hose	6		9.802-813.0	Washer, 5/16 Lock (7 HP Robin)	4
65	8.918-424.0	Hose, 3/8" x 25", 2 Wire, Pressure Loop	1	94	9.149-003.0	Manifold, Coil Outlet	1
66	9.802-254.0	Hose, 1/4" Push-on, Fuel Line Per/Ft.	12 in	95	9.802-959.0	Key, 0.247 SQR x 2.125" (Honda)	1
67	9.802-261.0	Hose, 3/4" Push-on (3-24124) (3-3000) (4-3000, 4-3500)	13 in 16 in 18.5 in		9.802-958.0	Key .185 x 1.75 (Robin)	1
68	9.802-271.0	Wheel & Tire Assy, 6" Steel Rim w/Tube	4	96	9.802-961.0	Hose, Connection Bracket	1
69	9.802-503.0	Cable, Battery, 32" Red, 4 Ga. (Electric Start Only)	1	97	9.802-996.0	Bracket, Brake Pad, Black	1
70	9.802-504.0	Cable, Battery, 36" Black, 4 Ga. (Electric Start Only)	1	98	9.802-997.0	Linkage, Brake, Black	1
71	8.718-625.0	Bolt, 5/16"-18 x 3/4", NC Crrge Znc	8	99	9.802-966.0	Lever, Brake Black	1
72	9.802-762.0	Screw, 10/32 x 1-1/4 RH Black (Elec Start)	2	100	9.804-608.0	Cap, Vinyl Flat (Yellow)	1
	9.802-771.0	Screw, 10/32 x 3/4, BH SOC (Pull Start)	3	101	9.803-132.0	Insulation Retainer Plate	2
73	9.802-705.0	Bolt, Carriage, Zinc, 1/4-20 x 1.0 PLT	4	102	9.803-532.0	Isolator, 5/16" Thrd, Fem x Fem 1" x 1" (Electric Start Only)	4
74	9.802-710.0	Bolt, 5/16" x 1", NC HH	8	103	9.803-541.0	Screw, 5/16-18 x 1/2 CS,SOC, BH, NC, ZN (Electric Start Only)	8
75	9.802-727.0	Bolt, 3/8" x 1-3/4", Tap	3	104	9.803-542.0	Washer, 5/16", Star, External (Electric Start Only)	8
76	9.802-727.0	Bolt, 3/8" x 1-3/4", Tap	4	105	8.932-968.0	Label, Outdoor Use	1
	9.802-713.0	Bolt, 5/16" x 1-3/4", NC HH (7 HP Robin)	4	106	9.802-064.0	Grommet, Rubber Nozzle Holder	4
77	9.802-753.0	Screw, 1/4" x 3/4" Whiz	4	107	8.706-546.0	Grommet, 1-3/8" x 2-1/8" x 3/8"	1
78	9.802-754.0	Screw, 1/4" x 1/2" HH NC, Whiz Loc	12	108	9.802-254.0	Hose, 1/4" Push-on	4 in
79	9.802-766.0	Screw, 3/8 x 1 HX Wash Head Sheet Metal ZN	6	109	9.802-259.0	Hose, 1/2" Push-on	27 in
80	9.802-768.0	Screw, 3/8" x 1-1/4" Whiz Loc (Honda)	4	110	9.802-722.0	Bolt, 3/8 x 1-1/4	1
	9.802-707.0	Bolt, 5/16-24 x 3/4" (7HP Robin)	4	111	8.933-024.0	Rail, Pump Support, Honda 11 HP, 13 HP	1
81	9.802-773.0	Nut, 1/4" ESNA, NC	4		9.804-533.0	Rail, Pump Support, Honda 9 HP	1
82	9.802-776.0	Nut, 5/16" ESNA, NC	16	112	9.802-816.0	Washer, 7/16 Lock, Honda 11 HP, 13 HP	2
83	9.802-817.0	Washer, 3/4 x 1"	1		9.802-813.0	Washer, 5/16" Lock, Honda 9 HP	2
84	9.802-779.0	Nut, 3/8", ESNA, NC	3	113	9.802-744.0	Bolt, 10mm x 20mm Honda 11 HP, 13 HP	2
85	9.802-781.0	Nut, 3/8" Flange, Whiz Loc, NC	4		9.802-741.0	Bolt, 8mm x 16mm Honda 9 HP	2
86	9.802-782.0	Collar, 5/8" Bore Shaft 3010	4	114	9.802-254.0	Hose, 1/4" Push-on	14 in
				115	9.802-695.0	Nut, 10/32 Keps (Elec. Start) (Pull Start)	2 3

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CONTROL PANEL - EXPLODED VIEW AND PARTS LIST



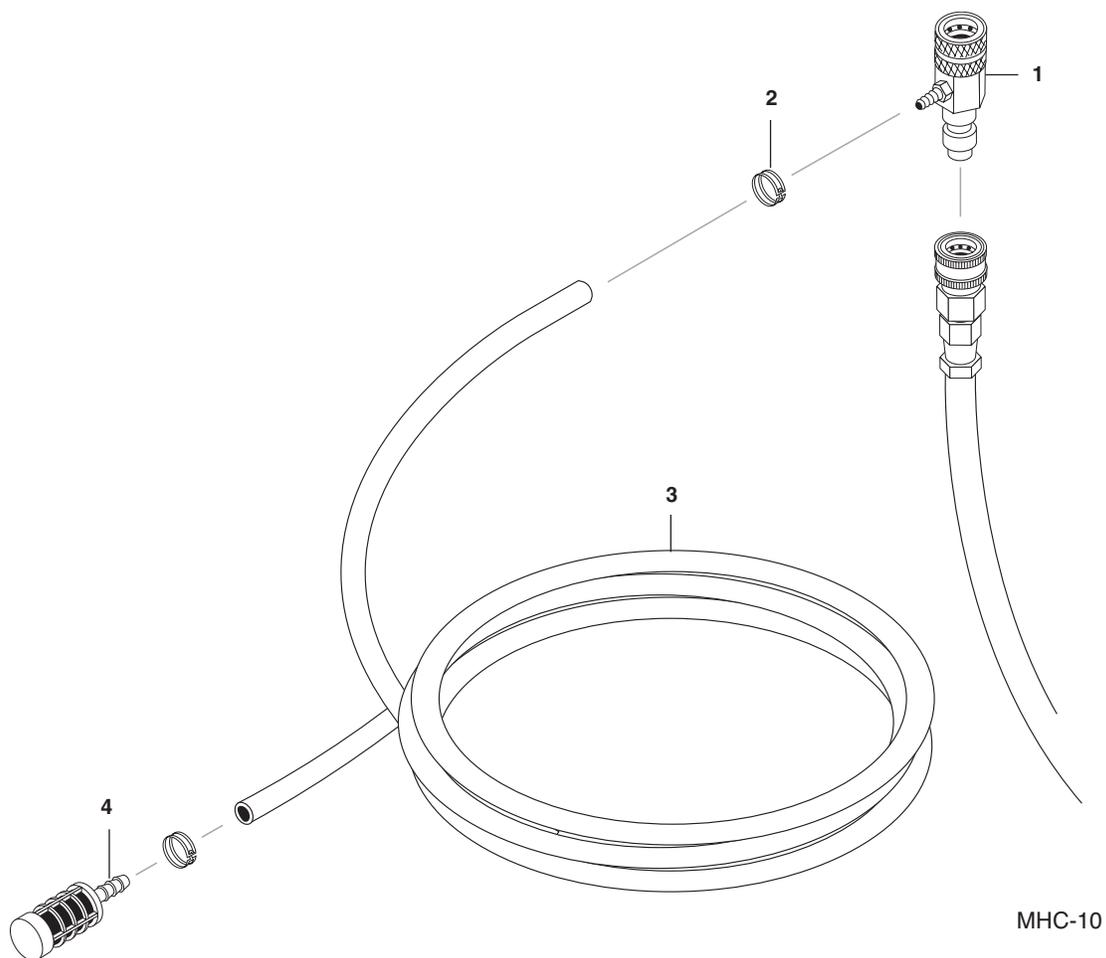
MHC-9

ITEM	PART NO.	DESCRIPTION	QTY
1	8.904-540.0	Meter, Tach/Hr, 12VDC	1
2	8.750-095.0	Thermostat, Adj., 240°F	1
3	9.802-453.0	Switch, Curvette	1
4	9.802-456.0	Light, Indicator, Green 14V	1
5	9.802-470.0	Relay, 12V	1
6	9.802-485.0	Breaker, 1658-G41-02-P10-25A	1
7	9.802-530.0	Rectifier, Bridge (Electric Start)	1
8	9.803-048.0	Cap, Capcitr, 1.37 x 1.50 x .060 Blk, w/o Hole (Pull Start)	1
9	9.802-528.0	Capacitor (Pull Start)	1
10	9.802-529.0	Bracket, Capacitor (Pull Start)	1
11	8.914-973.0	Electrical Box Lid	1
12	8.914-974.0	Electrical Box	1
13	9.800-040.0	Label, Ground Symbol	1
14	8.915-329.0	Label, Horz MHC, Control Panel	1
15	9.802-515.0	Strain Relief, STRT, LQ TITE 3200	2
16	9.802-519.0	Strain Relief, 1/2" Metal, Two Screw	1

ITEM	PART NO.	DESCRIPTION	QTY
17	9.802-525.0	Locknut, 1/2"	2
18	9.802-759.0	Screw, 10/32 x 1/2 Blk	4
19	9.802-748.0	Screw, 6/32" x 3/8" Rnd HD MCH (Elec Start) (Pull Start)	2
20	9.802-754.0	Screw, 1/4" x 1/2" HH NC, Whiz Loc	2
21	9.802-762.0	Screw, 10/32" x 1-1/4" RH SL, BLK	1
22	9.802-771.0	Screw, 10/32" x 3/4" BH SOC CS	1
23	9.802-695.0	Nut, 10/32" Keps	6
24	9.802-784.0	Nut, 6-32 Keps (Elec Start) (Pull Start)	2
25	9.802-791.0	Nut, Cage, 10/32" x 16 Ga.	3
26	9.802-794.0	Nut, Cage, 1/4" x 12 Ga	2
27	8.750-097.0	Knob, Thermostat, 120°C/240°F	1
28	8.712-190.0	Bezel, Thermostat	1
29	8.718-779.0	Screw, 4mm x 6mm	2

DOWNSTREAM INJECTOR ASSEMBLY

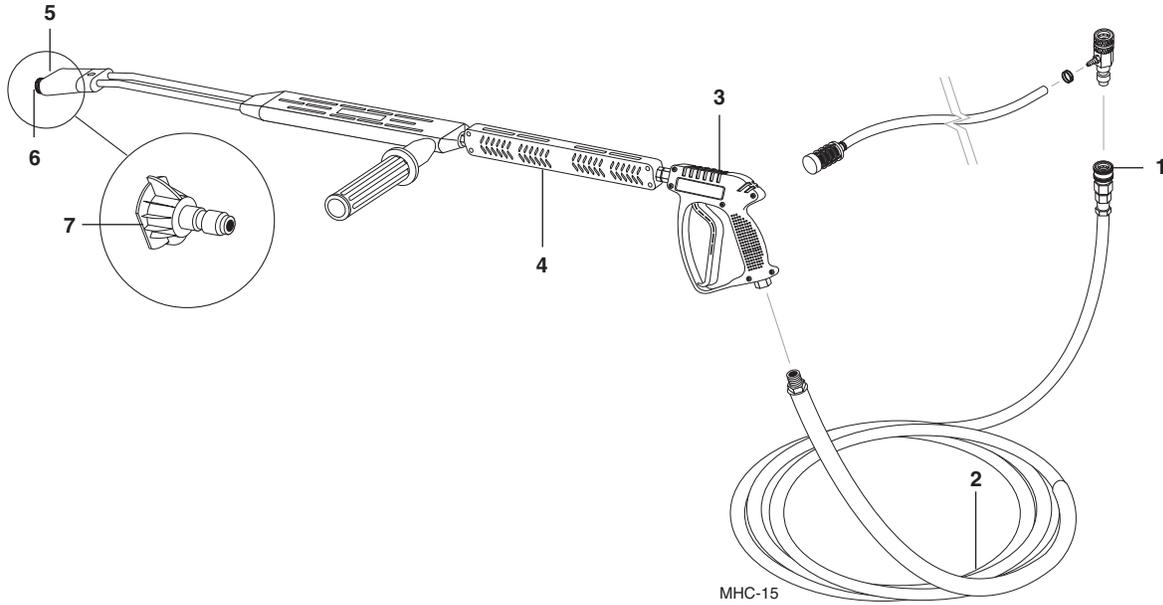
#9.802-225.0



DOWNSTREAM INJECTOR PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-216.0	Injector, Det, Non-Adjust #3	1
2	6.390-126.0	Clamp, Hose	2
3	9.802-251.0	Tube, 1/4" x 1/2", Clear Vinyl	6 ft.
4	8.707-057.0	Strainer, 1/4", Hose Barb	1

HOSE & SPRAY GUN ASSEMBLY



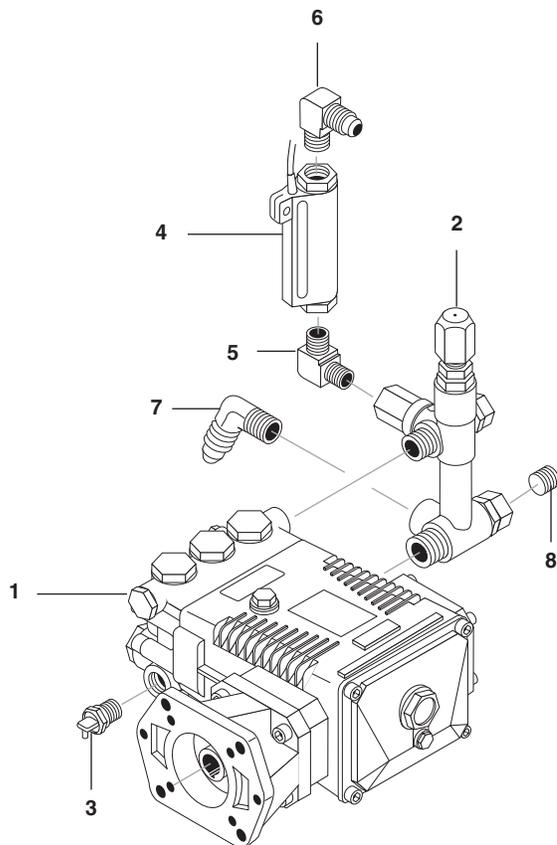
HOSE & SPRAY GUN PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-166.0	Coupler, 3/8" Female	1	7	8.712-346.0	Nozzle, SAQCMEG 1504, Yellow (4-3000)	1
	9.802-100.0	▲ Quick Coupler O-Ring LG	1		8.712-345.0	Nozzle, SAQCMEG 0004, Red, (4-3000)	1
2	8.916-740.0	Hose, 3/8" x 50', 1-Wire, Tuff-Skin (3-3000, 4-3000)	1		8.712-347.0	Nozzle, SAQCMEG 2504, Green, (4-3000)	1
	8.916-741.0	Hose, 3/8" x 50', 2-Wire, Tuff-Skin (4-3500)	1		8.712-348.0	Nozzle, SAQCMEG 4004, White, (4-3000)	1
3	8.751-234.0	Gun, Landa, L1050, 5000 PSI, 10.4 GPM	1		8.712-338.0	Nozzle, SAQCMEG 1535, Yellow (4-3500)	1
4	8.711-293.0	Wand, V.P. Zinc 1/4" (AL344) w/Coupler w/Soap Nozzle	1		8.712-337.0	Nozzle, SAQCMEG 003.5, Red, (4-3500)	1
	83-SSVPKIT	▲ AR Wand Repair Kit, Stainless Seat	1		8.712-339.0	Nozzle, SAQCMEG 2503.5, Green, (4-3500)	1
5	9.802-286.0	Brass Soap Nozzle Only, 1/8"	1		8.712-340.0	Nozzle, SAQCMEG 4003.5, White, (4-3500)	1
6	9.802-165.0	Coupler, 1/4" Male	1		8.712-333.0	Nozzle, SAQCMEG 1530, Yellow (3-3000, 3-25124)	1
	9.802-096.0	▲ Quick Coupler O-Ring Sm	1		8.712-331.0	Nozzle, SAQCMEG 0003, Red, (3-3000, 3-25124)	1
					8.712-334.0	Nozzle, SAQCMEG 2503, Green, (3-3000, 3-25124)	1
					8.712-335.0	Nozzle, SAQCMEG 4003, White, (3-3000, 3-25124)	1

▲ Not Shown

PUMP ASSEMBLY EXPLODED VIEWS

8.915-322.0 • MHC3-25124



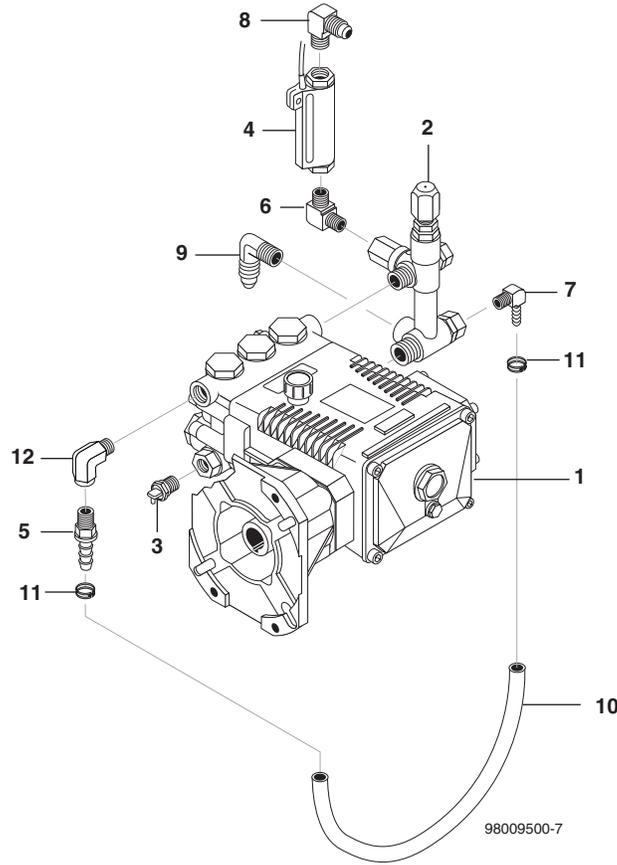
MHC-22

PUMP ASSEMBLY PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	8.904-893.0	Pump, Landa, LG2530G, 2.5@3000, 3400 RPM	1
2	9.175-018.0	Unloader, UU1 (Replacement Part Only)	1
	9.175-016.0	Unloader Valve (Production Only)	1
3	8.707-256.0	Pump Protector, 140°	1
4	8.933-006.0	Switch, Flow MV60	1
5	8.706-168.0	Elbow, 3/8" Male, Pipe	1
6	9.802-039.0	Elbow, 1/2" JIC x 3/8" MPT	1
7	9.802-132.0	Elbow, 3/4" JIC x 1/2" MPT, 90°	1
8	8.706-865.0	Plug, 1/4" Countersunk	1

PUMP ASSEMBLY EXPLODED VIEWS

8.915-321.0
MHC3-30324

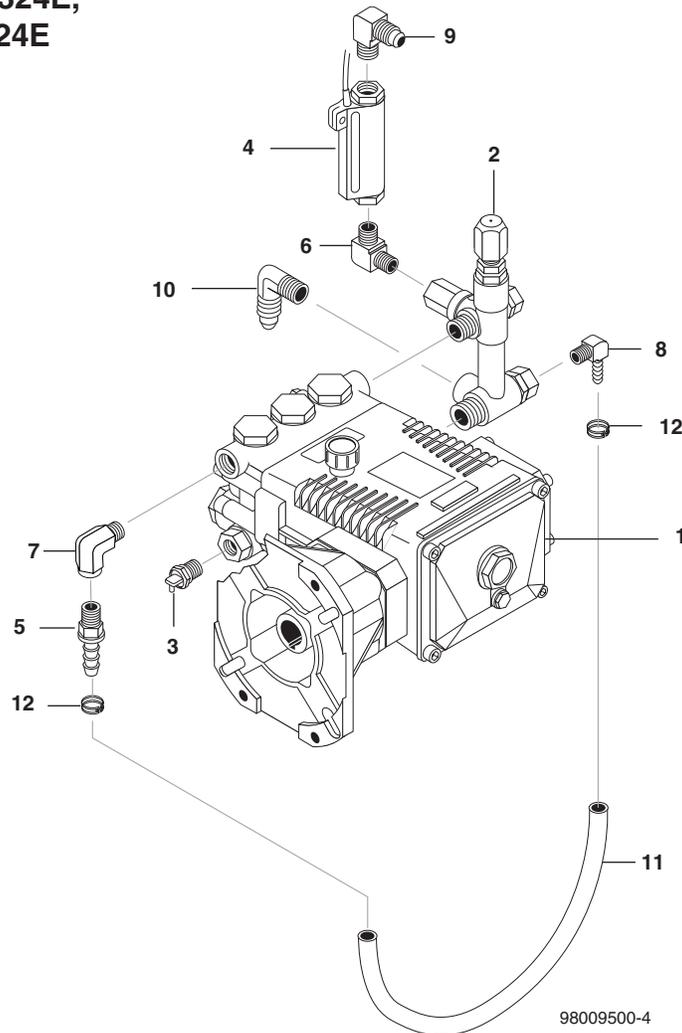


PUMP ASSEMBLY PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8.904-897.0	Pump, Landa LG3035G1, 3@3500, 3400 RPM	1	6	8.706-168.0	Elbow, 3/8" Male, Pipe	1
2	9.175-018.0	Unloader, UU1 (Replacement)	1	7	8.706-958.0	Hose Barb, 1/4" Barb x 1/4" Pipe 90°	1
	9.175-016.0	Unloader Valve (Production Only)	1	8	9.802-039.0	Elbow, 1/2 JIC x 3/8 MPT	1
3	8.707-256.0	Pump Protector, 1/2" PTP, 140°	1	9	9.802-132.0	Elbow, 3/4" JIC x 1/2" MPT, 90°	1
4	8.933-006.0	Switch, Flow MV60	1	10	9.802-254.0	Hose, 1/4"	14.5 in
5	8.751-265.0	Valve, EZ Start, 3/8", NPT 5/16" Hose barb	1	11	6.390-126.0	Hose Clamp	2
				12	8.706-207.0	Elbow, 3/8", Street 90°	1

PUMP ASSEMBLY EXPLODED VIEWS

8.918-611.0
MHC4-30324, 4-30324E,
4-30324E/S, 4-35324E



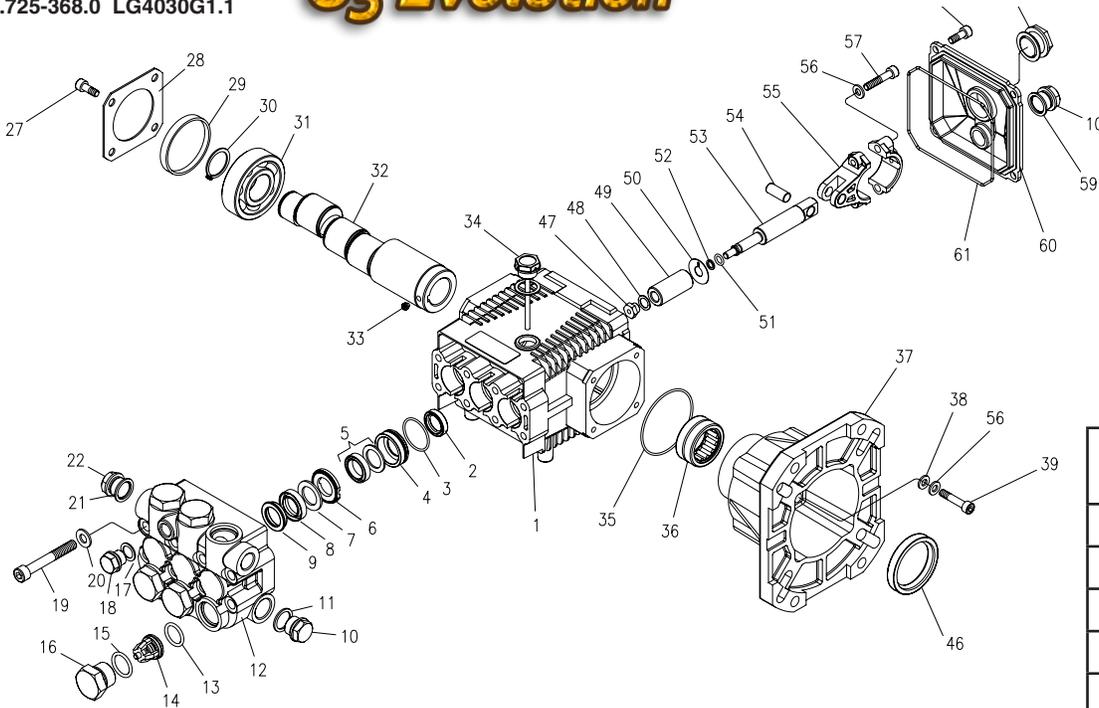
PUMP ASSEMBLY PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8.751-176.0	Pump, Landa LS3540G, 3.5 @ 4000, 3400 RPM	1	8	8.706-958.0	Hose Barb, 1/4" Barb x 1/4" Pipe 90°	1
2	9.803-900.0	Unloader	1	9	9.802-039.0	Elbow, 1/2" JIC x 3/8" MPT	1
3	9.803-670.0	Pump Protector, 1/2", 190°	1	10	9.802-132.0	Elbow, 3/4" JIC x 1/2" MPT, 90°	1
4	8.933-006.0	Switch, Flow MV60	1	11	9.802-254.0	Hose, 1/4"	14 in
5	8.751-265.0	Valve, EZ Start, 3/8" NPT 5/16" Hose Barb	1	12	6.390-126.0	Hose Clamp	2
6	8.706-168.0	Elbow, 3/8" Male, Pipe	1				
7	8.706-207.0	Elbow, 3/8", Street 90°	1				

LG-1.1 SERIES PUMP EXPLODED VIEW

8.904-897.0 LG3035G1.1
 8.904-899.0 LG3535G1.1
 8.725-368.0 LG4030G1.1

G3 Evolution



TORQUE SPECS	
Item #	Ft.-lbs
16	65
19	18
27	7.6
39	8
47	7
57	13

LG-1.1 SERIES PUMP EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.803-938.0	Crankcase	1	19	9.803-952.0	Manifold Stud Bolt	8
2*	See Kit Below	Plunger Oil Seal	3	20	9.802-884.0	Washer	8
3*	See Kit Below	O-Ring Ø1.78 x 31.47	3	21	9.803-198.0	Copper Washer 3/8"	1
4*	See Kit Below	Pressure Ring, 15mm	3	22	9.802-925.0	Brass Plug 3/8"	2
5*	See Kit Below	U Seal Assy, 15mm	3	27	9.802-939.0	Hexagonal Screw	9
6*	See Kit Below	Intermediate Ring 15mm	3	28	9.803-953.0	Bearing Cover	1
7*	See Kit Below	Backup Ring, 15mm	3	29	9.803-954.0	Seal Bearing	1
8*	See Kit Below	U-Seal Assy, 15mm	3	30	9.802-914.0	Snap Ring	1
9*	See Kit Below	Support Ring 15mm	3	31	9.803-955.0	Ball Bearing	1
10	9.802-926.0	Brass Plug, 1/2"	1	32	8.730-825.0	Crankshaft (3035G1)	1
11	9.803-199.0	Copper Washer 1/2"	1		8.730-826.0	Crankshaft (3535G1)	1
12	9.803-946.0	Manifold Housing	1		8.730-827.0	Crankshaft (4030G1)	1
13*	9.803-947.0	O-Ring Ø1.78 x 15.54	6	33	9.802-945.0	Set Screw	1
14*	See Kit Below	Valve Assembly	6	34	9.803-957.0	Oil Dip Stick	1
15*	9.803-948.0	O-Ring Ø2.62 x 18.77	6	35	9.804-581.0	O-Ring 3.53 x 55.56	1
16	9.803-949.0	Valve Plug	6	36	9.803-161.0	Needle Roller Bearing	1
17	9.803-950.0	Washer, Copper	1	37	9.803-183.0	Engine Flange	1
18	9.803-951.0	Brass Plug G1/4	1	38	9.803-210.0	Spring Washer	4

LG-1.1 SERIES PUMP EXPLODED VIEW PARTS LIST (CONT)

ITEM	PART NO.	DESCRIPTION	QTY
39	8.933-020.0	Flange Screw	4
46	9.803-142.0	Crankshaft Seal	1
47*	See Kit Below	Plunger Nut	3
48*	See Kit Below	Copper Washer	3
49*	See Kit Below	Plunger, 15mm	3
50*	See Kit Below	Copper Spacer	3
51*	See Kit Below	O-Ring Ø1.78x5.28	3
52*	See Kit Below	Teflon Ring	3
53	9.803-964.0	Plunger Rod	3
54	9.803-965.0	Connecting Rod Pin	3
55	9.803-966.0	Connecting Rod	3
56	9.803-218.0	Spring Washer	10
57	8.933-020.0	Connecting Rod Screw	6
58	9.803-202.0	Sight Glass, G3/4	1
59	9.803-197.0	Gasket, G3/4	1
60	9.803-968.0	Crankcase Cover	1
61	9.803-969.0	O-Ring 2.62 x 107.62	1

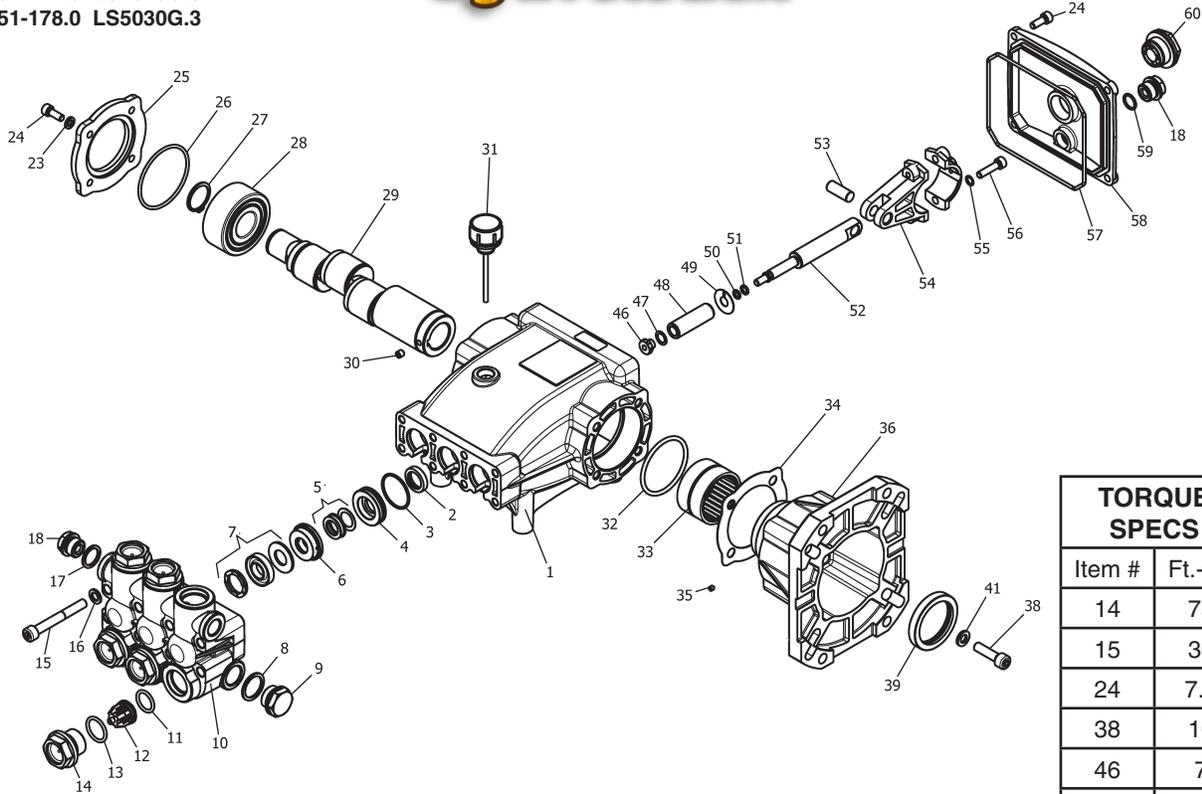
* Part available in kit (See below)

REPAIR KIT NUMBER	8.725-354.0	8.725-355.0	9.803-934.0	9.803-936.0	9.803-937.0
KIT DESCRIPTION	Plunger Seal 15mm	Complete Seal Packing 15mm	Plunger 15mm	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	3, 5, 7, 8, 9	3, 4, 5, 6, 7, 8, 9	47, 48, 49, 50, 51, 52	13, 14, 15	2
NUMBER OF CYLINDERS KIT WILL SERVICE	3	1	1	6	3

LS.3 SERIES PUMP EXPLODED VIEW

8.751-175.0 LS3040G.3
 8.751-176.0 LS3540G.3
 8.751-177.0 LS4040G.3
 8.751-178.0 LS5030G.3

G3 Evolution



TORQUE SPECS	
Item #	Ft.-lbs
14	75
15	30
24	7.6
38	10
46	7
56	13

LS.3 SERIES PUMP EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8.751-217.0	Crankcase	1	23	9.803-210.0	Washer, M6 x 16	4
2*	See Kit Below	Plunger Oil Seal	3	24	9.802-939.0	Hexagonal Screw	9
3*	See Kit Below	O-Ring Ø1.78 x 31.47	3	25	9.803-184.0	Closed Bearing Housing	1
4*	See Kit Below	Pressure Ring	3	26	8.717-225.0	O-Ring Ø 2.62 x61.6	1
5*	See Kit Below	U-Seal, 15mm	3	27	9.802-914.0	Snap Ring	1
6*	See Kit Below	Intermed. Ring 15mm	3	28	9.803-168.0	Double Row Ball Bearing	1
7*	See Kit Below	U-Seal, 15mm	3	29	9.803-150.0	Crankshaft (3040G.3)	1
8	9.803-199.0	Copper Washer 1/2"	1		9.803-151.0	Crankshaft (3540G.3)	1
9	9.802-926.0	Brass Plug, 1/2"	1		9.803-152.0	Crankshaft (4040G.3)	1
10	8.751-218.0	Manifold Housing	1		9.803-153.0	Crankshaft (5030G.3)	1
11*	9.803-191.0	O-Ring Ø2.62 x 17.13	6	30	9.802-945.0	Set Screw	1
12*	See Kit Below	Valve Assembly	6	31	9.802-921.0	Oil Dip Stick	1
13*	9.803-193.0	O-Ring Ø2.62 x 20.29	6	32	9.804-581.0	O-Ring Ø 3.53 x 55.56	1
14	9.802-928.0	Valve Plug	6	33	9.803-161.0	Needle Roller Bearing	1
15	9.802-938.0	Manifold Stud Bolt	8	34	8.751-230.0	Gasket	1
16	9.802-884.0	Washer	8	35	8.717-544.0	Screw, Set	1
17	9.803-198.0	Copper Washer 3/8"	1	36	9.803-183.0	Engine Flange	1
18	9.802-925.0	Brass Plug 3/8"	2	38	9.803-240.0	Flange Screw	4

LS.3 SERIES PUMP EXPLODED VIEW PARTS LIST

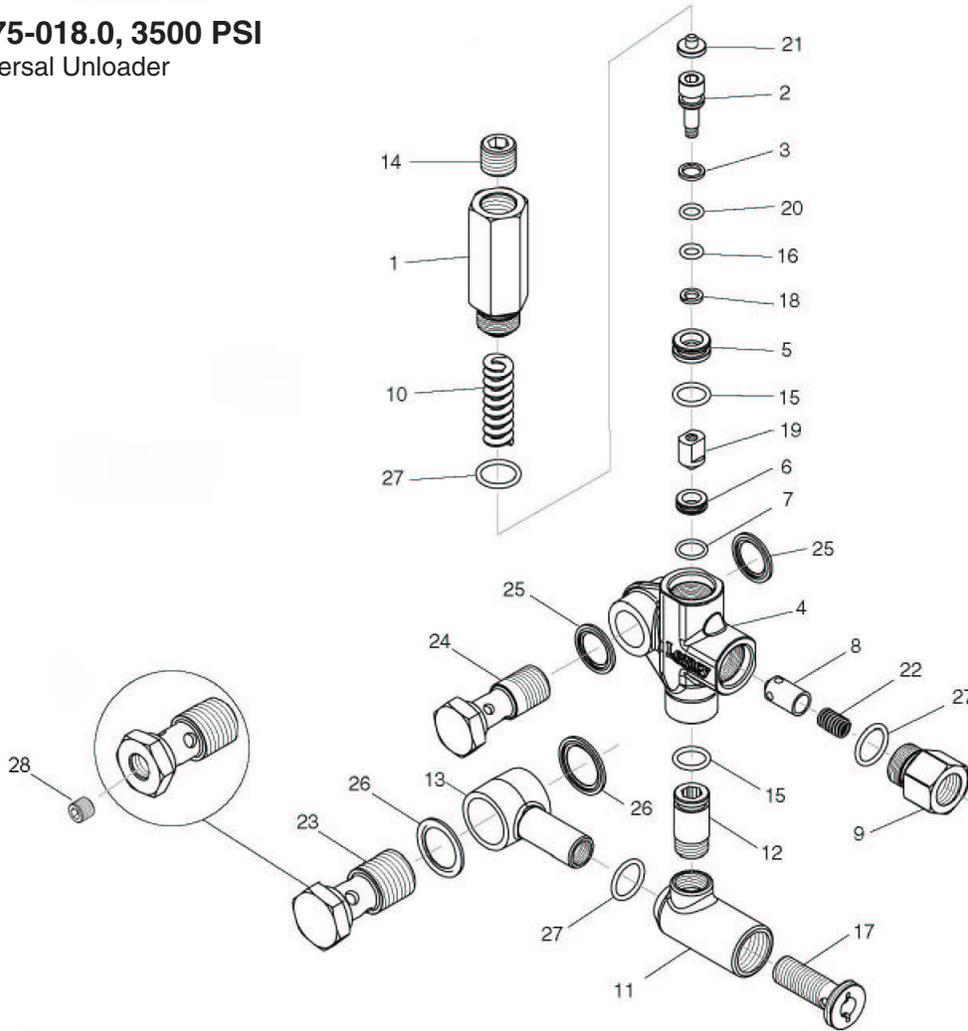
ITEM	PART NO.	DESCRIPTION	QTY
39	9.803-142.0	Crankshaft Seal	1
41	9.803-221.0	Spring Washer	4
46*	See Kit Below	Plunger Nut, M6	3
47*	See Kit Below	Washer, Copper, 9.2 x 13.5	3
48*	See Kit Below	Plunger, 15mm	3
49*	See Kit Below	Copper Spacer	3
50*	See Kit Below	O-Ring Ø1.78x5.28	3
51*	See Kit Below	Teflon Ring	3
52	8.751-225.0	Plunger Rod	3
53	8.751-228.0	Connecting Rod Pin	3
54	9.803-158.0	Connecting Rod	3
55	9.803-218.0	Spring Washer	6
56	9.803-238.0	Connecting Rod Screw	6
57	8.933-016.0	O-Ring 2.62 x 126.67	1
58	8.751-229.0	Crankcase Cover	1
59	9.803-197.0	O-Ring, Ø 1.78 x 14	1
60	9.803-202.0	Sight Glass, G3/4	1

* Part available in kit (See below)

REPAIR KIT NUMBER	8.725-358.0	8.725-359.0	8.933-023.0	9.802-603.0	9.802-609.0
KIT DESCRIPTION	Plunger U-Seal 15mm	Complete U-Seal Packing 15mm	Plunger 15mm	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	3, 5, 7	3, 4, 5, 6, 7	46, 47, 48, 49, 50, 51	11, 12, 13	2
NUMBER OF CYLINDERS KIT WILL SERVICE	3	1	1	6	3

UU1 UNLOADER VALVE EXPLODED VIEW

9.175-018.0, 3500 PSI
 Universal Unloader

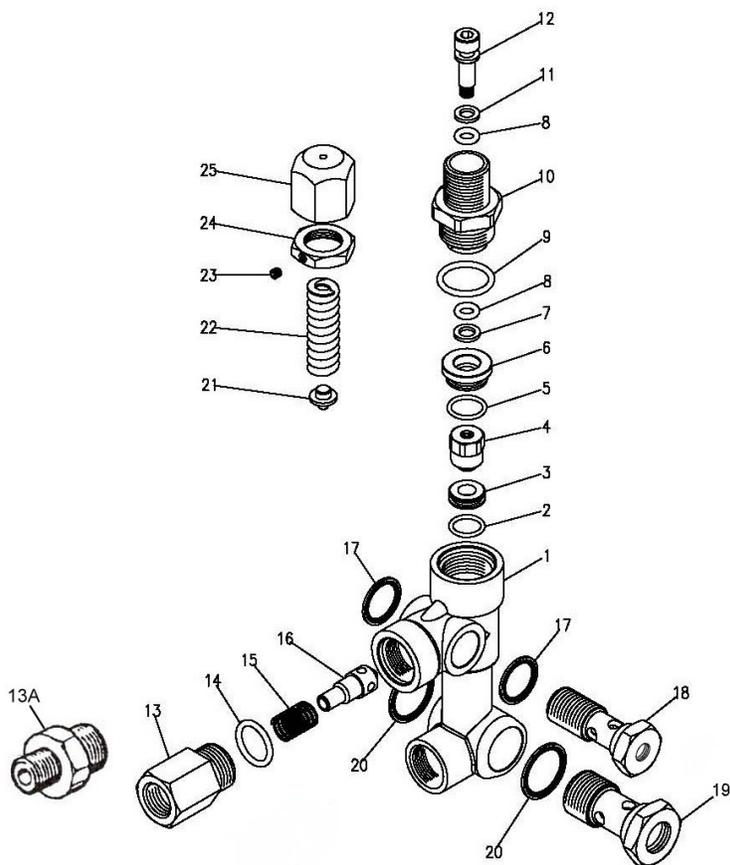


UU1 UNLOADER VALVE EXPLODED VIEW PARTS LIST

ITEM	PART #	DESCRIPTION	KIT	QTY	ITEM	PART #	DESCRIPTION	KIT	QTY
1		Piston Housing	A	1	17	9.149-006.0	Sliding Connector Guide		1
2		Piston	C	1	18		O-Ring Back up	A	1
3	8.749-795.0	Piston O-Ring Back up		1	19		Conical Seal	C	1
4	8.749-796.0	Main Block		1	20		O-Ring 6.75 x 1.78 BN80	A	1
5	9.152-372.0	Piston Ring		1	21		Spring Seat	C	1
6		Ball Seat	C	1	22		Plunger Spring	B	1
7		O-Ring, 10.5 ID x 1.5 CS	A,C	1	23	8.762-001.0	Banjo Bolt, 1/2"		1
8		Plunger	B	1		8.762-011.0	Banjo Bolt, 1/2" - 1/4" NPT		1
9	9.152-016.0	Plunger Housing		1		8.762-000.0	Banjo Bolt 3/8"		1
10		Bypass Spring	C	1	24	8.762-000.0	Banjo Bolt 3/8"		1
11	9.149-001.0	Low Pressure Port		1	25	9.802-893.0	Seal Washer 3/8"		2
12	9.152-017.0	Sliding Connector, 30 mm		1	26	9.803-921.0	Seal Washer, 1/2" (0120, 0130)		2
	8.762-005.0	Sliding Connector, 40 mm		1		9.802-893.0	Seal Washer 3/8" (0140)		2
13	9.149-002.0	Sliding Connector H 1/2"		1	27		O-Ring 15 ID x 2 CS	A,B	3
	9.149-005.0	Sliding Connector H 3/8"		1	28	8.706-865.0	Plug, 1/4"		1
14	9.196-011.0	Plug, 5/8 - 18 UNF		1					
15		O-Ring 12 ID x 2 CS	A	2	KIT A	9.104-038.0	O-Ring Repair Kit		
16		O-Ring 6 ID x 2 CS	A	1	KIT B	9.104-039.0	Outlet Kit		
					KIT C	9.104-040.0	Stem Repair Kit		

VBA 35 UNLOADER VALVE EXPLODED VIEW

9.803-900.0

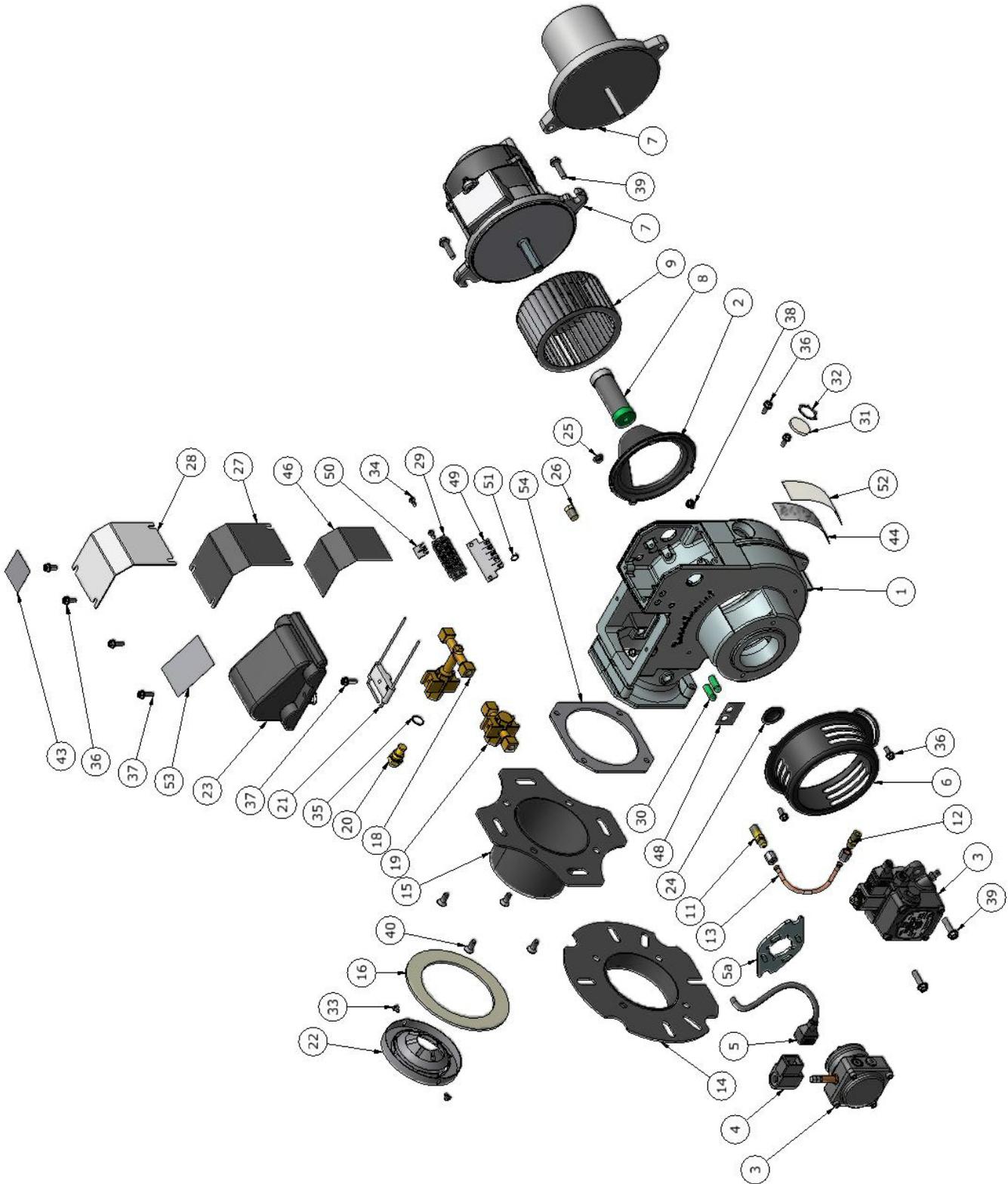


VBA 35 UNLOADER VALVE PARTS LIST

ITEM	PART NO.	DESCRIPTION	KIT	QTY	ITEM	PART NO.	DESCRIPTION	KIT	QTY
1		Body Valve		1	18	9.803-915.0	Banjo Bolt 3/8" w/ 1/8" Pilot		1
		Body Valve		1		9.803-919.0	Banjo Bolt 3/8" (solid cap)		
2		O-Ring	A,C	1	19	9.803-920.0	Banjo Bolt 1/2" w/ 1/4" Pilot		1
3		Seat	C	1		8.750-105.0	Banjo Bolt 1/2" (solid cap)		
4		Ball, Sub-assy	C	1		9.803-919.0	Banjo Bolt 3/8" (solid cap)		
5		O-Ring	A	1	20	9.803-921.0	Seal Washer 1/2		2
6	9.803-907.0	Guide Bushing		1	21		Plate	C	1
7		Teflon Ring		1	22		Spring	C	1
8		O-Ring	A	2	23	8.933-021.0	Set Screw		1
9		O-Ring	A	1	24	9.803-925.0	Nut		1
10	9.803-911.0	Connector		1	25	9.803-926.0	Brass Handle		1
11		Teflon Ring	A	1	Kit A	8.717-672.0	O-Ring Repair Kit		
12		Stem	C	1	Kit B	8.717-673.0	Outlet Kit		
13	9.803-914.0	Connector, Female		1	Kit C	8.717-674.0	Stem Repair Kit		
13A	9.802-892.0	Connector, Male							
14		O-Ring	A,B	1					
15		Spring	B	1					
16		Poppet	B	1					
17	9.802-893.0	Seal Washer 3/8		2					

LANDA SURE FIRE BURNER REPLACEMENT PARTS

For best performance specify genuine Landa Sure Fire replacement parts



LANDA SURE FIRE BURNER REPLACEMENT PARTS

For best performance specify genuine Landa Sure Fire replacement parts

Item #	Part #	Description	Qty
25	8.750-830.0	PLUG, HOLE 0.285 PLASTIC	1
26	8.751-134.0	PLUG, 1/8" NPT x HEX SHOULDER	1
27	8.918-454.0	GASKET, JUNCTION BOX	1
28	8.750-542.0	COVER, JUNCTION BOX	1
29	8.750-116.0	BLOCK, TERMINAL, 5 POLE	1
30	8.750-817.0	LIGHT, INDICATOR, GREEN 14V	2
30	8.750-818.0	LIGHT, INDICATOR, GREEN 28V	1
30	8.750-819.0	LIGHT, INDICATOR, GREEN 125V	1
30	8.750-820.0	LIGHT, INDICATOR, GREEN 250V	1
31	8.750-784.0	SITE GLASS	1
32	8.750-785.0	RING, PUSH ON INTERNAL, 1305-112	1
33	8.733-001.0	SCREW, 8 x 1/4" HI LOW THREAD CUT, PPH	2
34	8.718-762.0	SCREW, 8-32 X 1/2", M PH RDH PL	2
35	8.752-137.0	WASHER, COPPER	1
36	8.718-810.0	SCREW, 10/32 x 1/2", WHIZ LOC FLANGE	6
37	8.750-770.0	SCREW, 10/32 x 5/8", WHIZ LOC FLANGE	3
38	8.750-816.0	SCREW, 10/32 X 1/4" GROUNDING	1
39	8.750-768.0	SCREW, 1/4-20 x 1", WHIZ LOC FLANGE	4
40	8.750-771.0	SCREW, 1/4-20 X 1/2", PHIL FHMS	4
42	—	LABEL, BRAND NAME	1
43	9.801-268.0	LABEL, DISCONNECT POWER SUPPLY	1
44	—	LABEL, SERIAL PLATE	1
46	9.807-339.0	LABEL, WIRING DIAGRAM, BURNER 115V-115V	1
46	9.807-340.0	LABEL, WIRING DIAGRAM, BURNER 230V-230V	4
46	9.807-341.0	LABEL, WIRING DIAGRAM, BURNER 230V-115V	1
46	9.807-342.0	LABEL, WIRING DIAGRAM, BURNER 115V-24V	1
46	9.807-343.0	LABEL, WIRING DIAGRAM, BURNER 230V-24V	1
46	9.807-344.0	LABEL, WIRING DIAGRAM, BURNER 12VDC	1
48	9.801-274.0	LABEL, BURNER LIGHTS	1
49	8.919-105.0	PLATE, TERMINAL BLOCK NUMBERS	1
50	8.716-451.0	TERMINAL, JUMPER SPADE	1
51	9.802-510.0	CABLE, TIE, 4" BLACK	2
52	9.807-348.0	LABEL, CLEAR MYLAR	1
53	9.807-345.0	LABEL, IGNITER 120V	1
53	9.807-346.0	LABEL, IGNITER 230V	1
53	9.807-347.0	LABEL, IGNITOR 12VDC	1
54	8.751-354.0	GASKET, BURNER TUBE	1

Item #	Part #	Description	Qty
1	8.919-050.0	BURNER HOUSING ASSEMBLY	1
2	8.751-160.0	AIR GUIDE	1
3	8.700-758.0	FUEL PUMP, SUNTEC A2VA-3106 12-24V SOL	1
3	8.700-759.0	FUEL PUMP, SUNTEC A2VA-3106 120V SOL	1
3	8.700-760.0	FUEL PUMP, SUNTEC A2VA-3106 230V SOL	1
3	8.753-000.0	FUEL PUMP, DANFOSS 071N1298	1
4	8.750-762.0	COIL, SOLENOID DANFOSS 230V	1
4	8.750-763.0	COIL, SOLENOID DANFOSS 115V	1
4	8.750-764.0	COIL, SOLENOID DANFOSS 12-24V	1
5	8.750-765.0	CABLE, SOLENOID COIL, DANFOSS	1
5a	8.750-783.0	MOUNTING KIT, FLANGE/HUB, DANFOSS	1
6	8.750-541.0	AIR BAND	1
7	8.750-517.0	MOTOR, 1/6 HP 115V 60Hz	1
7	8.750-518.0	MOTOR, 1/6 HP 230V 60Hz	1
7	8.751-074.0	MOTOR, 1/7 HP 12VDC AMETEK	1
8	8.750-543.0	COUPLING, FLEX, 1/2" x 5/16"	1
8	8.751-073.0	COUPLING, FLEX, 5/16" x 5/16"	1
9	8.750-520.0	FAN, 4.53" X 2.42", 1/2" BORE, F115-62S	1
9	8.751-072.0	FAN, 4.53" x 2.42" x .313 BORE, F115-62S	1
11	8.750-547.0	CONNECTOR, 37 DEG FLARE X 1/8" NPT, LONG	1
12	8.750-545.0	CONNECTOR, 37 DEG FLARE X 1/8" NPT	1
13	8.749-000.0	FUEL LINE ASSEMBLY	1
14	8.752-034.0	FLANGE, KNA BURNER, 1" TUBE	1
15	8.752-035.0	FLANGE, KNA BURNER, 3" TUBE	1
16	8.750-539.0	GASKET, FLANGE	1
18	8.750-526.0	GUN, ELECTRODE / NOZZLE, 3"	1
19	8.750-525.0	GUN, ELECTRODE / NOZZLE, 1"	1
20	Varies	NOZZLE, FUEL	1
21	8.750-778.0	ELECTRODE, IGNITION, AC	1
21	8.751-342.0	ELECTRODE, IGNITION, DC	1
22	8.750-779.0	CONE, AIR F4	1
22	8.750-782.0	CONE, AIR F6	1
22	8.750-780.0	CONE, AIR F12	1
22	8.750-781.0	CONE, AIR F22	1
23	8.919-114.0	IGNITOR, BURNER 120V	1
23	8.919-115.0	IGNITOR, BURNER 230V	1
23	8.919-116.0	IGNITOR, BURNER 12VDC	1
24	8.751-165.0	PLUG, HOLE 0.875 PLASTIC	1

LANDA®

LANDA LIMITED NEW PRODUCT WARRANTY PRESSURE WASHERS WHAT THIS WARRANTY COVERS

All LANDA pressure washers are warranted by LANDA to the original purchaser to be free from defects in materials and workmanship under normal use, for the periods specified below. This Limited Warranty is subject to the exclusions shown below, is calculated from the date of the original purchase, and applies to the original components only. Any parts replaced under this warranty will assume the remainder of the part's warranty period.

SEVEN YEAR PARTS AND ONE YEAR LABOR WARRANTY:

Components manufactured by LANDA, such as frames, handles, top and bottom wraps, float tanks, fuel tanks, belt guards, and internal components on the oil-end of Landa manufactured pumps. General, AR, Liberty, Comet and swash and wobble plate pumps have a one year warranty. Heating coils have a five year warranty from date of original machine purchase.

ONE YEAR PARTS AND ONE YEAR LABOR WARRANTY:

All other components, excluding normal wear items as described below, will be warranted for one year on parts and labor. Parts and labor warranty on these parts will be for one year regardless of the duration of the original component manufacturer's part warranty.

WARRANTY PROVIDED BY OTHER MANUFACTURERS:

Motors, generators, and engines, which are warranted by their respective manufacturers, are serviced through these manufacturers' local authorized service centers. LANDA is not authorized and has no responsibility to provide warranty service for such components.

WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover the following items:

1. Normal wear items, such as nozzles, spray guns, discharge hoses, wands, quick couplers, seals, filters, gaskets, O-rings, packings, pistons, pump valve assemblies, strainers, belts, brushes, rupture disks, fuses, pump protectors.
2. Damage or malfunctions resulting from accidents, abuse, modifications, alterations, incorrect installation, improper servicing, failure to follow manufacturer's maintenance instructions, or use of the equipment beyond its stated usage specifications as contained in the operator's manual.
3. Damage due to freezing, chemical deterioration, scale build up, rust, corrosion, or thermal expansion.
4. Damage to components from fluctuations in electrical or water supply.
5. Normal maintenance service, including adjustments, fuel system cleaning, and clearing of obstructions.
6. Transportation to service center, field labor charges, or freight damage.

WHAT YOU MUST DO TO OBTAIN WARRANTY SERVICE

While not required for warranty service, we request that you register your LANDA pressure washer by returning the completed registration card. In order to obtain warranty service on items warranted by LANDA, you must return the product to your Authorized LANDA Dealer, freight prepaid, with proof of purchase, within the applicable warranty period. If the product is permanently installed, you must notify your Authorized LANDA Dealer of the defect. Your Authorized LANDA Dealer will file a claim with Landa, who must subsequently verify the defect. In most cases, the part must be returned to LANDA freight prepaid with the claim. For warranty service on components warranted by other manufacturer's, your Authorized LANDA Dealer can help you obtain warranty service through these manufacturers' local authorized service centers.

LIMITATION OF LIABILITY

LANDA'S liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall LANDA'S liability exceed the purchase price of the product in question. LANDA makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply a warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations and specifications. Our obligation under this warranty is expressly limited at our option to the replacement or repair at a service facility or factory designated by us, of such part or parts as inspection shall disclose to have been defective. **THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.** LANDA does not authorize any other party, including authorized LANDA Dealers, to make any representation or promise on behalf of LANDA, or to modify the terms, conditions, or limitations in any way. It is the buyer's responsibility to ensure that the installation and use of LANDA products conforms to local codes. While LANDA attempts to assure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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