



MODEL NO. 07346

OPERATOR'S
MANUAL

1/3 AREA PRESSURE WASHER

For Workman® 3000 Series

! SAFETY INSTRUCTIONS



The safety alert symbol means **CAUTION, WARNING or DANGER** — “personal safety instruction”. Read and understand the instruction because it has to do with safety. Failure to comply with the instruction may result in personal injury.

1. Read and understand the contents of this manual and the Operator Manuals for the Workman Vehicle, Electric Clutch, Hand Throttle and Power Platform before operating the pressure washer. Become familiar with all controls and know how to stop quickly. Free replacement manuals are available by sending complete Model and Serial Number to:

The Toro Company
8111 Lyndale Avenue South
Bloomington, Minnesota 55420-1196

2. Never allow children to operate the machine. Do not allow adults to operate machine without proper instruction. Only trained operators who have read this manual should operate this machine.

3. Never operate the machine when under the influence of drugs or alcohol.

4. Keep all shields and safety devices in place. If a shield, safety device or decal is illegible or damaged, repair or replace it before operation is commenced. Also tighten any loose nuts, bolts and screws to assure machine is in safe operating condition.

5. Always wear safety goggles or glasses when using a pressure washer. Never point any nozzle or sprayer toward a person or any part of the body.

6. Release all pressure within the system before servicing any component.

7. Drain all liquids from the system before servicing any components.

WARNING: Do Not Pump Flammable or Explosive Fluids Such as Gasoline, Fuel Oil, Kerosene, Etc. Do Not Use in Explosive Atmospheres. The Pump Should be Used Only with Liquids that have a Viscosity Very Close to Water and are Compatible with the Pump Component Materials. Failure to Follow this Warning Can Result in Personal Injury and/or Property Damage and Will Void the Product Warranty.

8. Do not run the pump faster than maximum recommended speed.

9. Do not pump at pressures higher than the maximum recommended pressure.

10. Maximum liquid temperature is 140° F. For better packing and valve life when water temperatures are above 110° F, a pressure feed system of 40 to 60 psi should be incorporated.

11. Secure the discharge lines before starting the pump. An unsecured line may whip, causing personal injury and/or property damage.

12. Check hose for weak or worn condition before each use. Make certain that all connections are tight and secure.

13. Periodically inspect the pump and the system components. Perform routine maintenance as required.

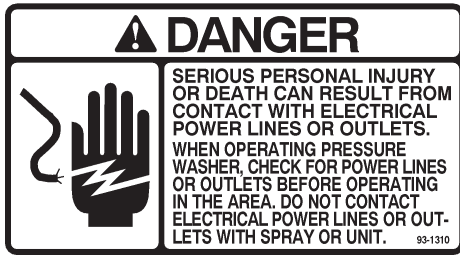
14. Do not operate a gasoline engine in an enclosed area. Be sure the area is well ventilated.

WARNING: Gasoline is a Highly Combustible Fuel. Improper Use, Handling or Storage of Gasoline Can be Dangerous. Never Touch or Fill a Hot Engine.

15. Do not use these pumps for pumping water or other liquids for human or animal consumption.

SAFETY AND INSTRUCTION DECALS

The following decals are installed on the pressure washer. If any become damaged or illegible, replace them. The decal part numbers are listed below and in your parts catalog. Replacement decals can be ordered from your Authorized Toro Distributor.



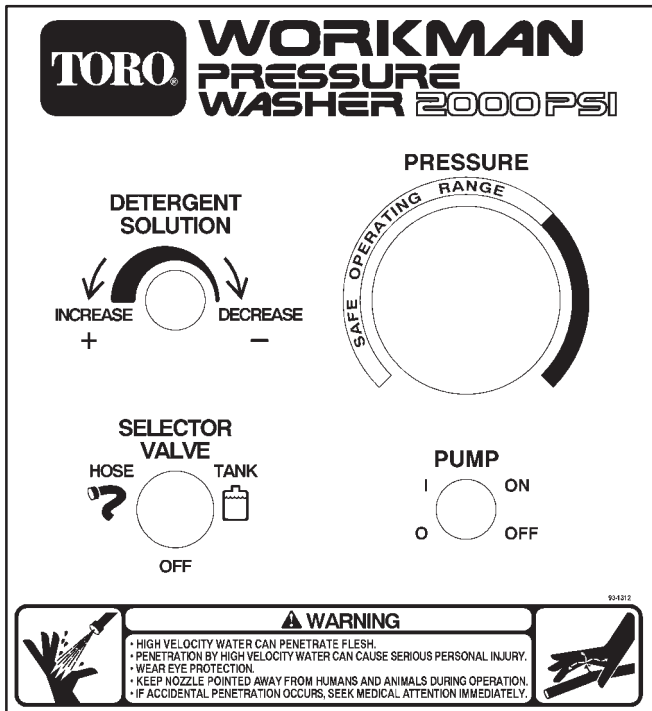
ON TOP SHIELD
(Part No. 93–1310)



ON FRAME
(Part No. 85–8880)

IMPORTANT: DO NOT USE FLAMMABLE OR TOXIC FLUIDS, SUCH AS FUELS, SOLVENTS OR FERTILIZERS. USE ONLY DETERGENT SOLUTIONS DESIGNED FOR PRESSURE WASHER SYSTEMS.

ON FRAME
(Part No. 92–2819)



ON CONTROL PANEL
(Part No. 93–1312)



ON TOP SHIELD
(Part No. 80–8040)



ON TOP SHIELD
(Part No. 93–1311)



ON TOP SHIELD
(Part No. 65–3090)



ON TANK BASE
(Part No. 92–2826)

SPECIFICATIONS

Required Equipment:

Workman 3000 Vehicle
 Model 07401 APU (for liquid cooled gas vehicle)
 Model 07402 APU (for liquid cooled diesel vehicle)
 Model 07399 APU (for air cooled gas vehicle)
 Model 07341 1/3 Flat Bed
 Model 07345 Power Platform
 Model 07404 Electric Clutch
 Model 07416 Hand Throttle Control Kit

Application: Mounts in the 1/3 area on the Power Platform and is driven with a V– belt drive from the APU to a plunger–type pump. An adjustable nozzle spray wand is provided with 50 feet of hose. A two position nozzle allows application of soap solutions or pressure spray rinse. The system unloads the pump when the spray gun trigger is released.

The pressure washer pump is thermally protected at 140 degrees F when in the stand–by (Unloaded) mode. A pressure gauge shows the system pressure. The unloader valve provides for a means of adjustment of the system pressure. The safety relief valve is set for 3000 psi. The tank is equipped with a special outlet fitting(*) to alert the operator (by a sputtering spray delivery*) when the water level is low.

WATER SUPPLY: (Selectable) 30 gallon on–board polyethylene tank, with 50 mesh stainless steel strainer or garden hose connection from remote supply.

Soap/Detergent(Chemical) Supply: Housing to fit either round or oblong 1 gallon size containers.

Recommended Solutions: Any soap or detergent solution for pressure washers.

WARNING: Do Not Use flammable fluids, solvents, fertilizers or other chemicals that could have environmental impact.

Controls:

The pump is engaged with an electric clutch switch on the vehicle instrument panel and at the Pressure Washer control panel connected in series.

Water Selection Valve turns the water on from either the tank or remote hose supply. Pressure Regulator /Unloader Valve is adjustable to set the system pressure.

Solution Injector Valve adjusts the amount of solution that is mixed in the outlet spray. Spray Wand Trigger and Adjustable Nozzle to control the Spray Pattern.

OPERATING SPECIFICATIONS:

Output Flow – 3.0 gpm @ 3600 engine RPM.

Input – Input of 1750 Pump RPM V–Belt Drive from Power Platform

Unloader/Regulator – Up to 2000 psi water output pressure

Water Reservoir – 30 gallon (113,5 l) and low level alert*

Safety Relief Valve – 3000 psi

Thermal Relief Valve – 140 degrees F

Weight: 146 pounds (66,2 kg) in carton

* Patent pending

LOOSE PARTS CHART

Note: Use this chart as a checklist to assure all parts necessary for assembly have been received. Without these parts, total set-up cannot be completed. Some parts may have already been assembled at factory.

Pressure Washer Pump Assembly	1	Mount to Power Platform
Capscrews 3/8–16 x 1" lg.	4	
Flatwashers	4	
Belt	1	
Pressure Washer Tank Assembly	1	Mount to Power Platform
Capscrews 3/8–16 x 1" lg.	4	
Flatwashers	4	
Wire Harness	1	Connect to Electric Clutch
Cable Ties	3	
Registration Card	1	Fill out and return to Toro Read before operating machine.
Operator's Manual	1	
Parts Catalog	1	

SET-UP INSTRUCTIONS

1. Position pressure washer pump assembly onto power platform aligning frame mounting holes with holes in platform (Fig. 1).
2. Remove belt shield from power platform.
3. Install belt around pressure washer pulley and power platform jackshaft pulley (Fig. 1).
4. Secure pressure washer assembly frame to platform with (4) 3/8–16 x 1" lg. capscrews and flatwashers (Fig. 1).
5. Loosen (4) capscrews securing pump base to pressure washer frame. Tension belt by adjusting nut on tensioner. Belt should deflect 1/2" when 10 lb. of force is applied to belt midway between the jackshaft pulley and pump flywheel. Tighten capscrews securing pump to frame.
6. Position pressure washer tank assembly onto power platform aligning frame mounting holes with holes in platform (Fig. 1).
7. Secure pressure washer tank assembly frame to platform with (4) 3/8–16 x 1" lg. capscrews and flatwashers (Fig. 1).
8. Connect pressure washer wire harness to power platform harness. Remove jumper wire from power platform, if necessary.
9. Apply pipe sealant to fittings on each end of hose assembly. Connect one end of hose to fitting on bottom of pressure washer tank and other end to selector valve fitting behind control panel. Do not connect hose to fitting for remote water supply.
10. Reinstall belt shield to power platform.
11. When not using pressure washer, secure spray gun to pressure washer frame with (2) rubber hold downs and wind hose around the (3) storage hooks. (Fig. 1).

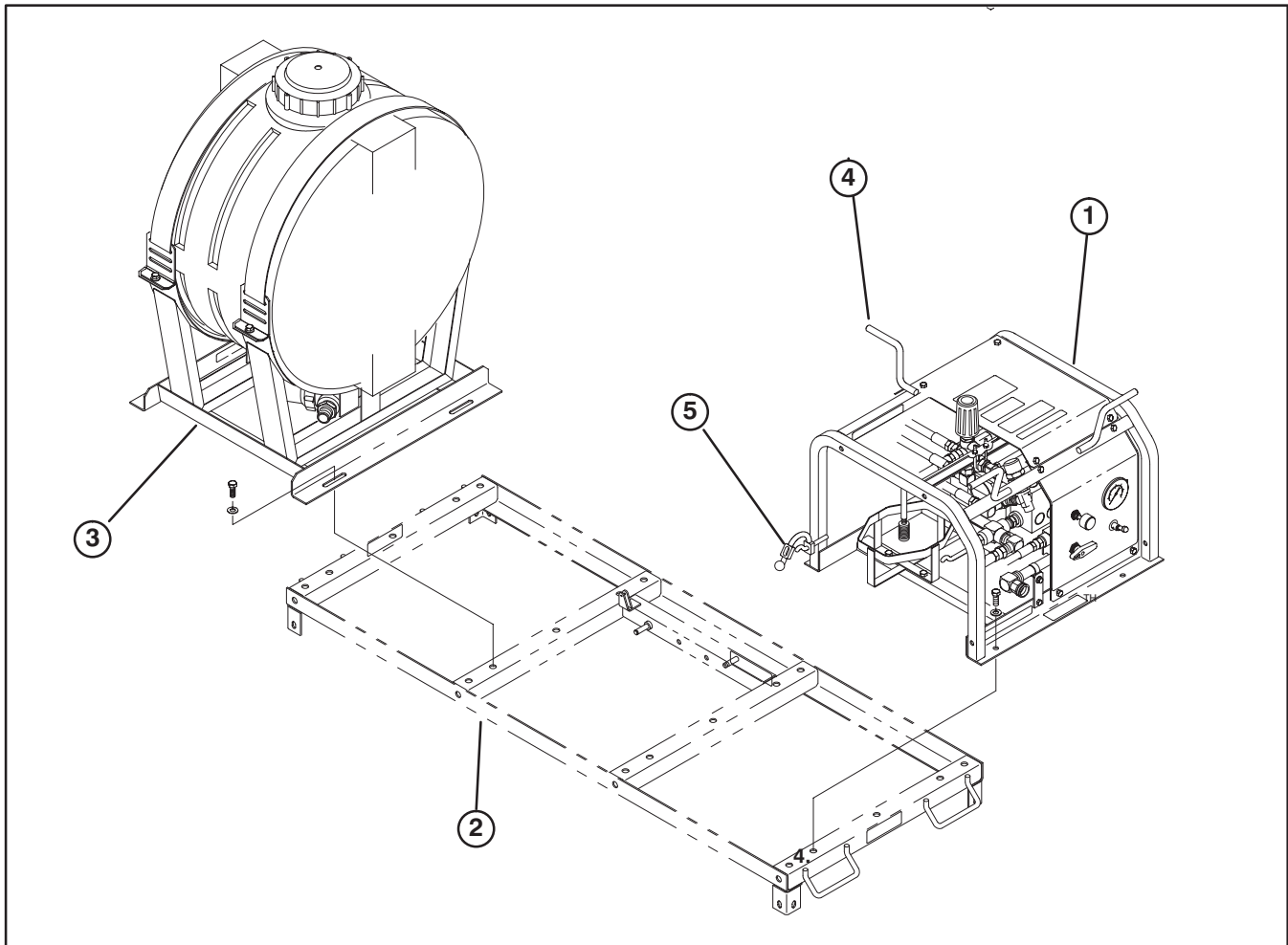


Figure 1

1. Pressure washer pump assembly
2. Power platform
3. Pressure washer tank assembly
4. Storage hook
5. Rubber hold down

BEFORE OPERATING

CHECK OIL LEVEL IN PUMP

The correct lubricant is essential to the proper operation of your pressure washer. The oil level in the pump crankcase must be checked daily.

1. Position vehicle / pressure washer on a level surface.
2. Check level of oil on pump sight gauge (Fig. 2). Oil level should be up to middle of gauge window.

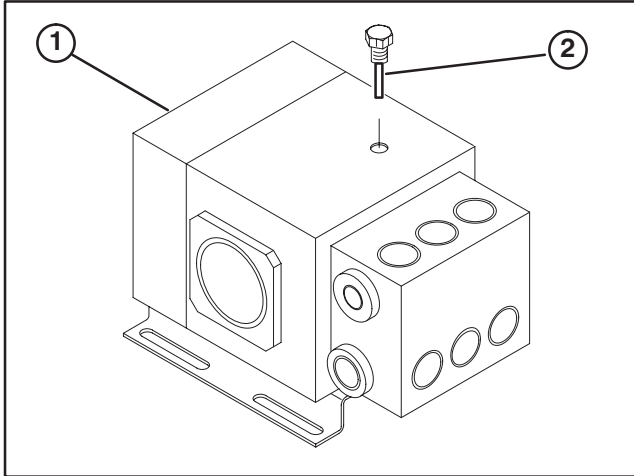


Figure 2

1. Sight glass
2. Dipstick / filler cap

3. If oil level is low, remove dipstick/ filler cap and add enough SAE 30W detergent motor oil to bring oil up to proper level.

4. Install oil fill plug.

IMPORTANT: The oil should be changed after the first 50 hours of operation.

PRIMING THE PUMP

1. Adjust the pressure regulator / unloader valve to its lowest pressure setting (Fig. 3).

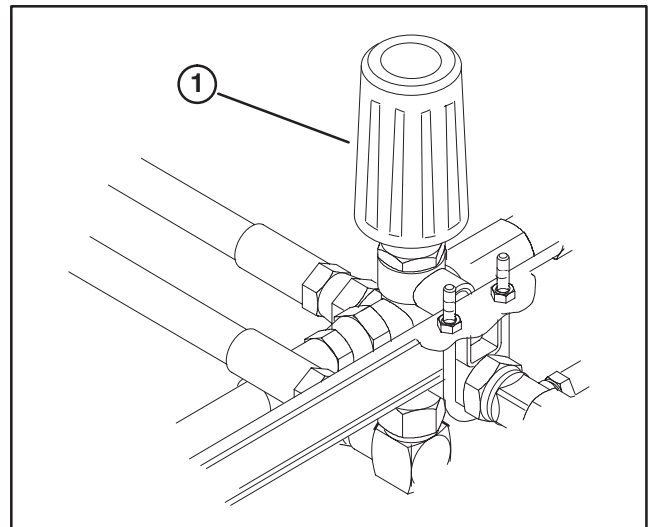


Figure 3

1. Pressure regulator / unloader valve

2. After starting pump, open and close the gun to aid priming and to clear the valves of air. If the pump does not prime within a few seconds, stop the motor and inspect the installation for suction line leaks and obstructions. In general, keep suction lift to a minimum and avoid unnecessary bends in the suction line. The unloader valve must be readjusted after the prime has been obtained.

CHECK WATER SUPPLY

When using a remote water supply, make sure the inlet water flow is sufficient (ideally twice the volume of the pump is required).

NOTE: When using remote water supplies, an auxiliary filter may be added to the system. Order Filter Assembly, part no. 80-8600 with rope filter, part no. 80-9590 from your local Toro Distributor.

Maximum temperature of pumped liquid is 140° F, maximum remote water pressure (measured at the pump inlet) is 145 psi.

CONTROLS

Water Pressure Gauge (Fig. 4) – Registers water supply pressure in the system. Check gauge frequently to monitor water pressure.

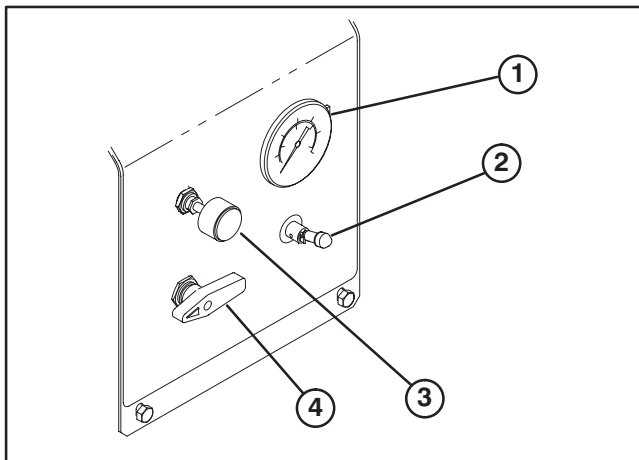


Figure 4

1. Water pressure gauge
2. Pump switch
3. Solution injector valve
4. Water selector valve

Pump Switch (Fig. 4) – Used in conjunction with vehicle electric clutch switch to engage pressure washer pump.

Solution Injector Valve (Fig. 4) – Adjusts amount of solution that is mixed with outlet spray.

Water Selector Valve (Fig. 4) – Turns water “On” from either the tank or remote hose supply.

Pressure Regulator / Unloader Valve (Fig. 5) – Adjusts system operating water pressure.

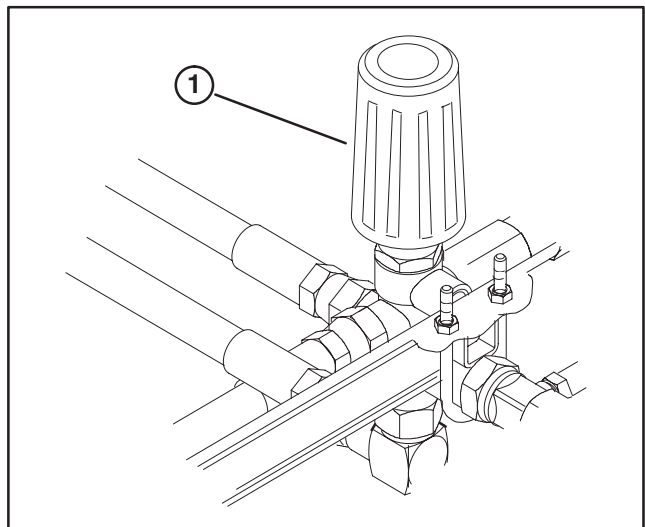


Figure 5

1. Pressure regulator / unloader valve

Spray Gun Trigger (Fig. 6) – Pull to start pressure spray application of soap solutions or pressure spray rinse.

Spray Gun Nozzle (Fig. 6) – Pull / push nozzle to start application of soap solutions or pressure spray rinse. Rotate nozzle to adjust spray pattern.

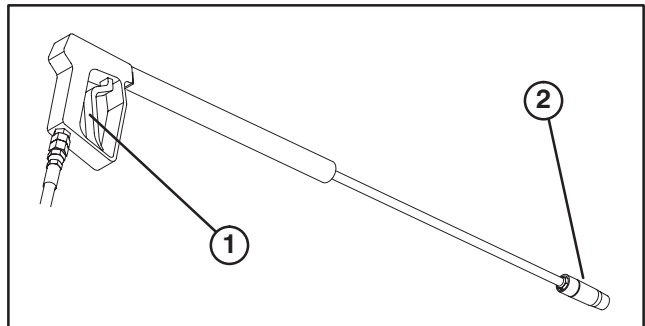


Figure 6

1. Spray gun trigger
2. Spray gun nozzle

OPERATION

INPUT WATER SUPPLY

Use liquids free from impurities (such as sand or other solid particles which will affect the efficiency of the valves, the plungers and the packings). Replace the strainer as soon as it becomes clogged to avoid noisy operation and pulsations that can damage the mechanical parts of the pump.

WARNING: DO NOT pump flammable or explosive liquids such as gasoline, kerosene, etc.

IMPORTANT: DO NOT pump corrosive or abrasive liquids as these will cause rapid wear or deterioration of plungers, valves and seals in the pump. The pump should be used only with liquids compatible with pump component materials.

NOTE: When using remote water supplies, an auxiliary filter may be added to the system. Order Filter Assembly, part no. 80–8600 with Rope Filter, part no. 80–9590 from your local Toro Distributor.

IMPORTANT: Do not exceed maximum specified rpm and pressure.

Maximum temperature of pumped liquid is 140° F, maximum remote water pressure (measured at the pump inlet) is 145 psi.

OPERATION

1. Position vehicle and pressure washer on a level surface, stop engine and apply parking brake.
2. Each day, check sight glass to ensure level of oil in pump is at required level.

OPERATION

3. If using a soap solution, insert line strainer into solution container and insert container into holder on pressure washer (Fig. 7).

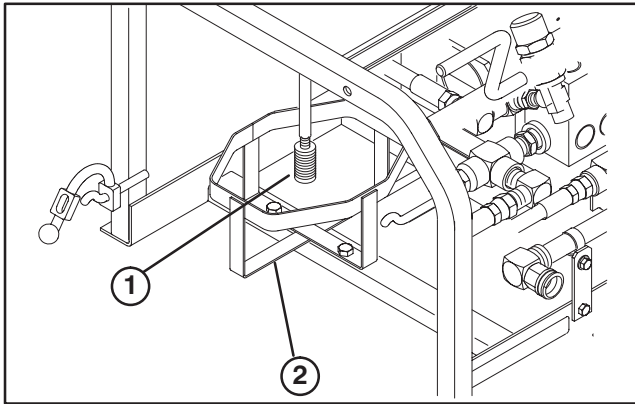


Figure 7

1. Line strainer
2. Solution container holder

4. Check water level in tank or connect remote water supply hose to fitting on pressure washer pump assembly (Fig. 8).

5. Rotate water selector valve to hose or tank setting (Fig. 8).

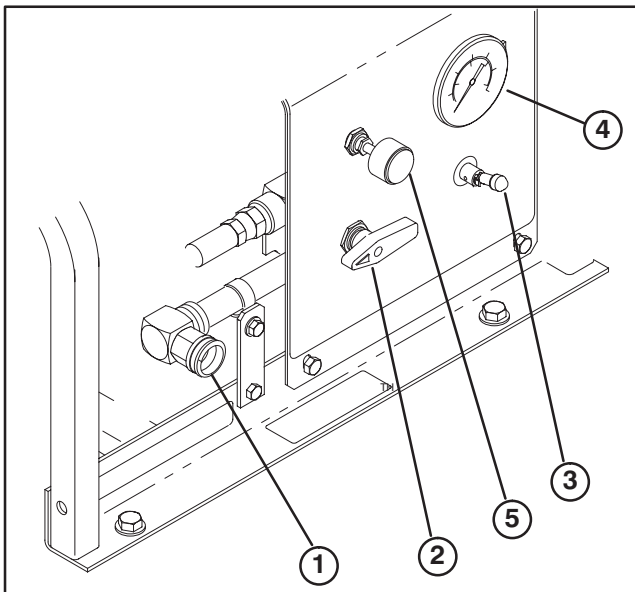


Figure 8

1. Remote water supply hose fitting
2. Water selector valve
3. Pump switch
4. Pressure gauge
5. Solution injector valve

6. Start the Workman.
7. Adjust hand throttle to 3600 rpm.
8. Turn ON vehicle electric clutch switch.
9. Turn ON pressure washer pump switch (Fig. 8).
10. Operate spray gun and check water pressure on gauge (Fig. 8).

Note: If spray sputters or is intermittent, check water level in tank or check to assure remote hose is not restricted.



WARNING

High velocity water can penetrate flesh.

- Penetration by high velocity water can cause serious personal injury.
- Wear eye protection.
- Keep nozzle pointed away from humans and animals during operation.
- If accidental penetration occurs, seek medical attention immediately.

11. Rotate nozzle on end of gun to adjust spray width (Fig. 6).

12. If using a soap solution, pull spray gun nozzle toward handle to activate solution (Fig. 6).

13. Adjust solution injector valve (Fig. 8) to attain the desired amount of solution mixed with outlet spray.

14. Adjust pressure regulator / unloader valve (Fig. 5) to appropriate operating pressure for work to be done.

- **800–1500 psi** – Cleaning or rinsing soft woods or painted surfaces.
- **1500–2000 psi** – Heavy cleaning of brick, metal or rust removal.

IMPORTANT: When spraying soft materials, such as wood, begin with low water pressure and gradually increase it until desired results are attained. Spraying soft materials with full system pressure may cause damage to the material.



WARNING

Personal injury may result from damaged components when operating system over 2000 psi.

- Do not exceed 2000psi

DURING OPERATION

If the pump circuit recycles thru the unloader, avoid running the pump for longer than five minutes without pulling the trigger, since this heats the liquid and could damage the seals. The thermal relief releases when the circuit reaches 140 degrees F to aid in protecting the circuit.

Note: If spray sputters or is intermittent, check water level in tank or check to assure remote hose is not restricted.

TO STOP OPERATION

1. Turn OFF pressure washer pump switch (Fig. 8).
2. Release pressure in system by pulling trigger on spray gun.
3. Disengage hand throttle.
4. Turn OFF vehicle electric clutch switch.
5. Turn OFF workman ignition switch.

MAINTENANCE

CHANGE PUMP OIL

Initially, change oil in pump after 50 hours of operation, thereafter change oil after every 500 hours of operation.

1. Position machine on level surface.
2. Remove drain plug allowing oil to drain from pump crankcase (Fig. 9).

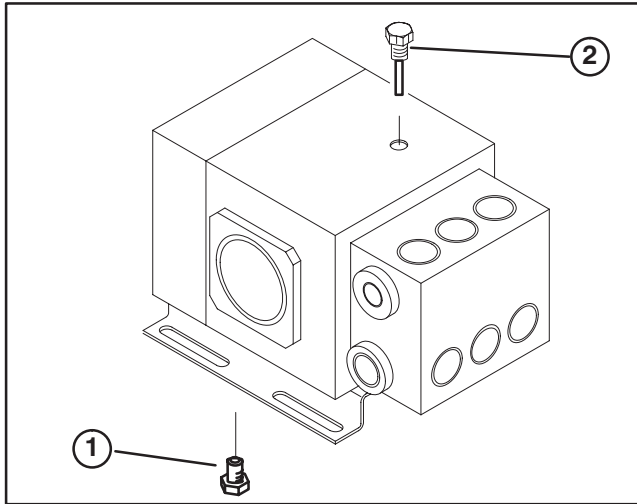


Figure 9

1. Drain plug
2. Fill plug

3. Install drain plug.
4. Remove fill plug and add enough SAE 30W motor oil to bring oil up to proper level on sight gauge.

CLEANING STRAINER

A dirty strainer will reduce the pressure washers performance and life. To avoid any internal contamination of the pump, clean strainer weekly. Do not allow the strainer to become filled with dirt.

1. Unscrew bowl from strainer (Fig. 10).

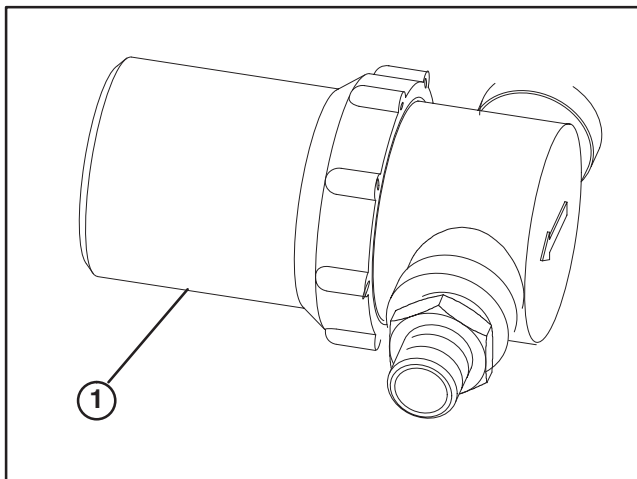


Figure 10

1. Strainer bowl

2. Check condition of O-ring seal and replace if damaged.
3. Rinse out strainer and replace.

TESTING FOR LEAKS

Check to assure all connections are tight. A small leak in any of the hoses or connections will substantially reduce the performance of your pressure washer. Do not overtighten any connections. Use a piece of card board to check for leaks.

ADJUSTING DRIVE BELT TENSION

Proper belt tension and pulley alignment must be maintained for maximum drive efficiency and belt life. The correct tension exists if a deflection of 1/2" occurs by placing 10 lb. of force midway between the jackshaft pulley and the pump flywheel (Fig. 11). Loosen (4) capscrews securing pump base to pressure washer frame. Tension belt by adjusting nut on tensioner. After desired belt tension is attained, tighten capscrews.

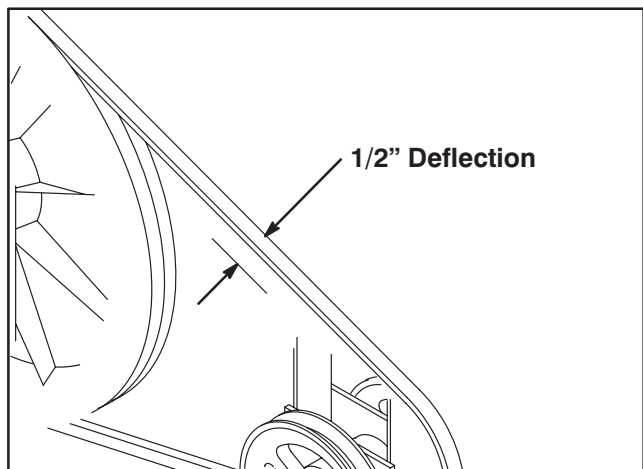


Figure 11

STORAGE

Before storing the pressure washer for a prolonged period, use compressed air to clean all dust and debris from the pressure washer.

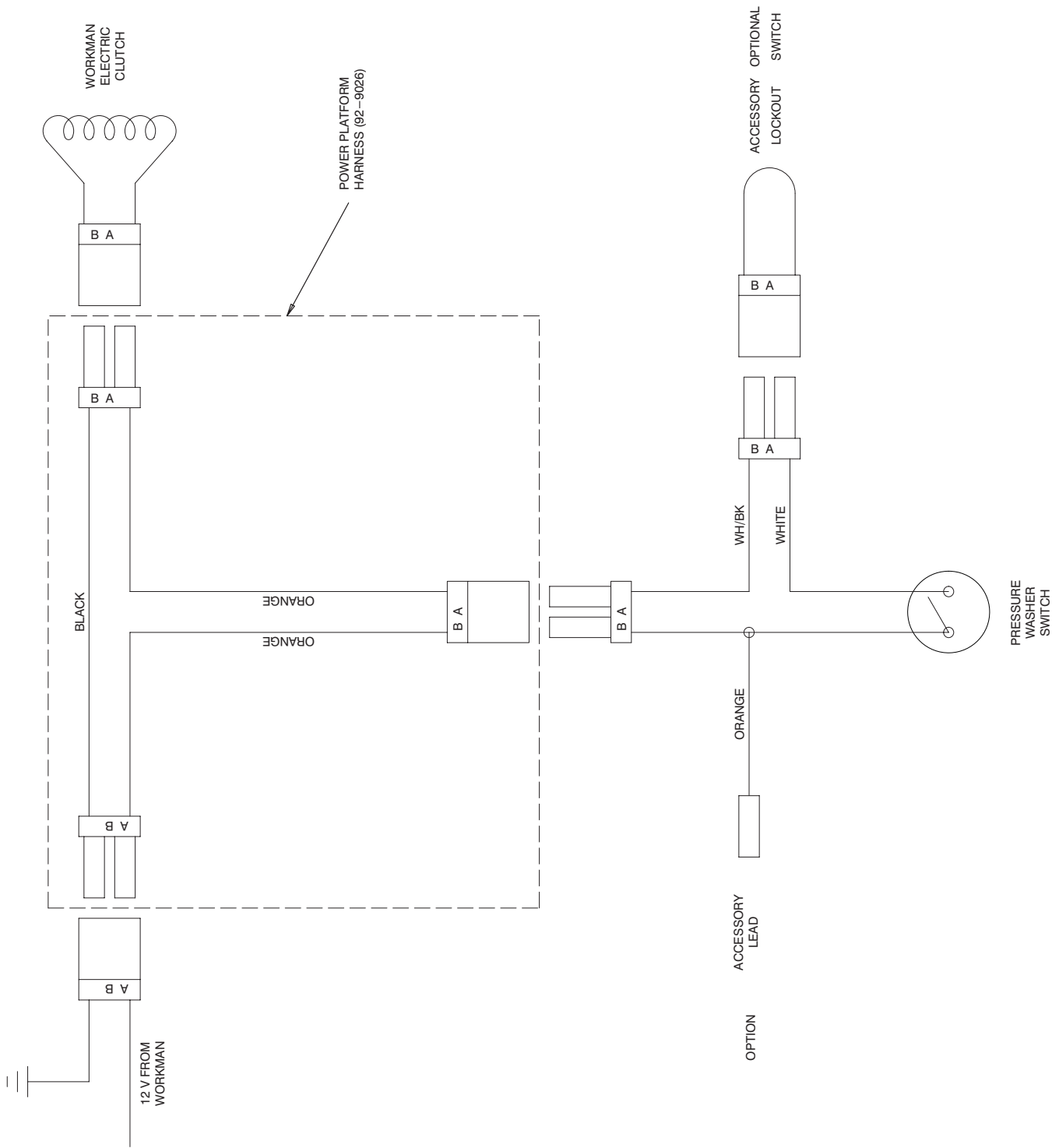
Clean strainer and replace if necessary.

Drain tank completely and purge system with compressed air or add a 50% mixture of RV anti-freeze and water.

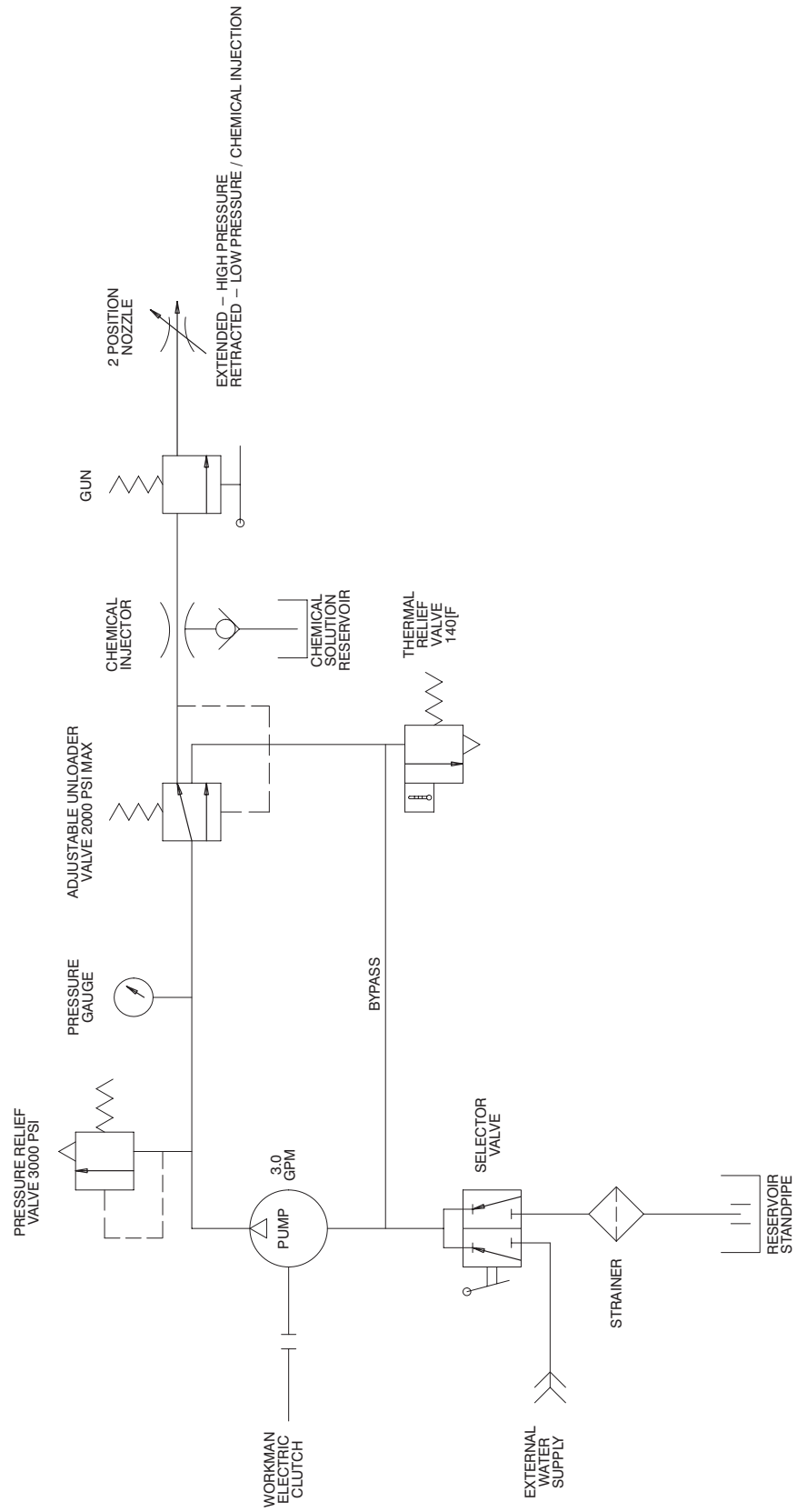
Drain the oil from the pump crankcase and replace it with new oil.

Cover the entire unit to protect it from moisture and dust.

ELECTRICAL SCHEMATIC



WATER SYSTEM SCHEMATIC



NOTES

