



PRODUCT MANUAL Model 758

WARNINGS
TECHNICAL INFORMATION
JET APPLICATIONS AREAS
TOWING INSTRUCTIONS
PUMP AND PRESSURE SYSTEM
HIGH PRESSURE WATER JETTING
WATER TANK FILLING
OPERATOR CONTROLS
ENGINE OPERATION PROCEDURE
OPERATION SET UP
POWER REWIND OPERATING INSTRUCTIONS
PULSATION
LUBRICATION & MAINTENANCE
FUEL & OIL RECOMMENDATIONS
OPERATING INSTRUCTIONS
Operating hints
Pipe jetting procedure
Encountering obstructions
WASH DOWN GUN
1/4" Drain hose
Mobile Hose Reel - 73816800
Venturi Pump
OPTIONAL ACCESSORIES
COLD WEATHER PROTECTION 27

Contents

TROUBLESHOOTING	28
HOW TO USE PARTS & ACCESSORIES	30
SPECIAL NOTE	30
TIRE SAFETY INFORMATION	31
SAFETY INFORMATION	34
WARRANTY INFORMATION	35
APPENDIX A DIAGRAMS PUBLISHED IN 2013 MANUAL	37
Electrical Components	
Wiring Diagrams	
758 Final Assembly - 75800000	
758 Pump Assembly - 75802700.	
HandGun Lance Vnozzle Assembly - 77799800.	
Wash Down Accessory Package - 73817300.	
Assy, Reel High Pressure 740 - 74024200.	
Assy, Upper Cover Enc 75821900	
Assy, High Pressure Pipe 73807300	
Assy, Wire Harness-Relay 75817800.	
758 Power Pak - 75820200	
Engine, 758 27 HP Kawasaki 75818000	
758 Engine Control Box - 75818400.	
Assy, Com Fill Reel 74027000	
Hitch Tube Assembly - 73806800	
758 Water Tank Assembly - 75813400	
Axle - 2300 LB 73804300	
Assy, Tire & Wheel 73803700	
758 Pump - Exploded View	
758 Pump Parts List	
Discharge Valve Assy. Kit (75800568)	69
Plunger Packing Kit (75800566)	
758 Pump Torque Specifications	
758 Pump Repair Kits	
Inlet Valve Assy. Kit (75800567)	
Unloader Repair Kit (75802823)	
Unloader - 75802800	

Contents

Assy, Hand Crank - 79827300	. 7
Assembly, 3/8" Anti-Turn Around 75866500	. 7
758 Accessories	. 72





- Read the safety and operating instructions before using any Spartan Tool product. Drain and sewer cleaning can be dangerous if proper procedures are not followed and appropriate safety gear is not utilized. Read the engine owners' manual for instructions and safety precautions on engine operation.
- Gasoline is extremely flammable and is explosive under certain conditions.
 - Refuel in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.
 - Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling, make sure the tank cap is closed properly and securely.
- Before starting unit, be sure to wear personal protective equipment such as safety goggles or face shield and protective clothing such as gloves, coveralls or raincoat, rubber boots with metatarsal guards, and hearing protection.
- Carbon monoxide exhaust and/or gasoline fumes from this equipment can create a hazardous atmosphere in confined spaces (which may include, but are not limited to, manholes and septic tanks), closed garages or other areas which may not be properly ventilated. In particular, excess gasoline fumes can create an explosion hazard. Such hazardous atmospheres can cause death or severe injury. Do not operate this equipment with its cart (used to house the engine and gasoline tank) located in any confined space or area with inadequate ventilation. Operate this equipment only when the cart is located outdoors or in an open, well-ventilated area.
- Ensure the jet hose has been placed in the pipe a minimum of 6 feet before engaging the water pressure to prevent the hose from coming out of the pipe prematurely and causing injury.
- Always shut off the water pressure before pulling the hose out of the pipe. Mark the hose a minimum of 6 feet from the end to help ensure the hose is not accidentally pulled out of the pipe while still under pressure. Shut off the water pressure when the hose mark is encountered.
- Never point the wash gun at anyone while operating the unit. Injury may result.
- Drains and sewer can carry bacteria and other infectious micro-organisms or materials which can cause death or severe illness. Avoid exposing eyes, nose, mouth, ears, hands, and cuts and abrasions to waste water or other potentially infectious materials during drain and sewer cleaning operations. To further help protect against exposure to infectious materials, wash hands, arms and other areas of the body, as needed, with hot, soapy water and, if necessary, flush mucous membranes with water. Also, disinfect potentially contaminated equipment by washing such surfaces with a hot soapy wash using a strong detergent.
- For any questions, contact Spartan Tool at the address shown below.



CAUTION: Portions of the system can still be under pressure even if the unit is not operating.

CONTACT US

Spartan Tool LLC 1618 Terminal Rod Niles, MI 49120 800.435.3866 SpartanTool.com

CALIFORNIA PROP. 65

This product may contain an extremely small amount of lead in the coating. Lead is a material known to the State of California to cause cancer or reproductive toxicity.

Technical Information

GENERAL

Pipe Sizes: up to 12" diameter

Max Water Pressure: 3,000 psi

Max Water Flow: 12 GPM

TRAILER

· Gross Vehicle Weight Rating (GVWR): 2430 lbs

• Hitch: 2" Ball Type (Class II)

• Tires: ST 175-80-R13, Blackwall

• Trailer Weight (Empty): 1180 lbs.

Max Tongue Weight: 75 lbs.

Length x Width x Height: 120" x 57" x 48"

Tank Capacity: 150 Gal.

Wheels: 13"

· Maximum Recommended Towing Speed: 55 mph

ENGINE

Model: ECH749

· Horsepower: 26.5

Cylinders: 2

Bore & Stroke: 3.07" x 3.07"

· Fuel: Gasoline, Unleaded 87 Octane Minimum

· Fuel Tank Capacity: 8 Gal.

· Cooling: Air Cooled

· Oil Capacity (with filter): 2.0 US qt

Alternator: 20 Amp

Starter: Electric 12 VDC

Battery: 12 VDC

PUMP

Max Pressure: 3,000 psi

Max Water Output: 12 GPM

Max Temperature: 140° F

RPM: 1420

Plungers: 3

FEATURES

Equipped with 3/8" x 350' high pressure jetting hose

· Open and Closed nozzles for 3/8 inch hose

Easily accessible pump inlet filter assembly

 Axles are torsion deign with fully independent wheel suspension

· Pre-Wired lighting with standard 7-Pole plug

Pivoting hitch jack with caster wheel provided on trailer tongue

Unloader pressure control

100' of 5/8 water supply hose

• Powered hose rewind + foot pedal valve for reel rewind control

· Rear mounted operator's controls

Low engine oil protection

High engine temperature protection

Locking tool box

· Quick connect washdown gun & spray lance

· Manhole hose protection

Air purge system for cold weather protection

1/4" x 50' Drain Hose

5-position nozzle holder

• 8-gallon fuel tank

SAFETY

Low water shut off

Bright colored 15' leader hose

Technical Information

SKID-MOUNTED

- · Compact installation for vans, trucks, pick-ups, and flatbed vehicles
- Adjustable pump pulsation for maximum cleaning distance
- 90° pivoting multi-position hose reel

TRAILER

- Manual pump pulsation for maximum cleaning distance
- Rear-mounted operator controls
- Manhole hose protection
- Wide-track chassis
- 13" tires with spoke wheels
- 150-gallon water tank
- Hinged lockable shrouding around engine
- Folding jack stand with wheel

Jet Applications Areas

There are a wide variety of uses for the Spartan Model 758 Water Jet. Here are just a few:

Apartments/Hotels

Mains and garage drains, remove all grease and debris from main lines under the buildings.

Factories

Food processing plants and foundries have frequent drain and sewer blockages. Set up preventive maintenance contracts to avoid risk of total plant shutdown.

· Farms, Rural

Clean and spray barns, pens and heavy farm equipment, revitalize drain field in septic systems and field tile. Clear blockages in liquid manure system.

Housing Authorities

Any drains, laundry lines, garbage chutes, clean-outs and many grease-removing applications.

Institutions

Clean-running drains and sewer lines are a "must" in hospitals, schools, prisons. Use in kitchens, remove lime deposits on buildings and clean parking lot drains.

Municipals

Open culverts for proper flood control, wash down manholes, clean lines in wastewater treatment plants.

Residential

Clean drain lines, septic lines, field tiles, culverts, swimming pools, surface cleaning and sandblasting.

Restaurants

Grease in drains is always a problem - Your Spartan Water Jet actually removes grease from the lines instead of simply punching a hole through the blockage, risking reaccumulation downstream.

Towing Instructions





Before hitching and towing on public roads, check that the tow vehicle uses a 2" ball on a hitch rated class II minimum, make sure keeper engages ball to secure hitch. Adjust if necessary.



Because of the inherent water tank sloshing when towing, pull your jet empty at all times.

The following 2 rules may limit your vehicles towing capacity and the tank fill level when towed. Determine towing capacity as described below and follow guidelines in using the lowest value from the 2 rules.

TRAILER HITCH

Check rating of vehicle's trailer hitch



WARNING: Class 1 hitches often uses 1 7/8 ball which is unsafe to couple with a 2" hitch.

• Class 2 - 3,500 lbs. Towing capacity is required.

VEHICLE GCWR (GROSS COMBINED WEIGHT RATING)

Towing capacity = GCWR minus vehicle weight minus cargo weight minus passenger weight.

• **Note:** GCWR is provided on your vehicle or in vehicle manual.

VEHICLE TOWING CAPACITY

- Refer to the Vehicle Owners Manual for listed trailer towing capacity.
- Trailer towing capacity should equal GCWR minus vehicle weight, cargo weight, people weight, and (vehicle) fluids weight.
- Check axle load rotatings.

Wire the plug receptacle to your vehicle as show below.

• Note: The wire colors used on the jet running lights are also indicated in Fig. 7-1 for re-wiring to a different plug design.



- Always use safety chains.
- Always use trailer lights.

VIEW LOOKING TOWARD RECEPTACLE

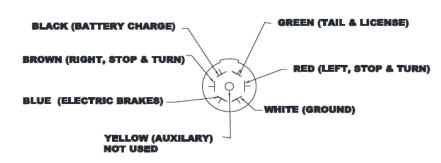
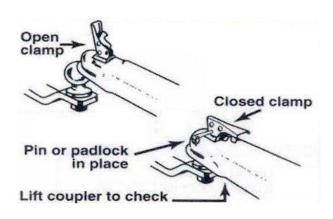


FIG. 7-1

Towing Instructions







NOTE: The coupler will need to be adjusted up or down depending on vehicle hitch height to ensure the jetter is towed level.

TOWING

- 1. Check that ball size is same as coupler.
- 2. Check that Ball Load Rating is the same or greater than Coupler Load Rating
- 3. Open clamp on hitch coupler.
- 4. Position hitch coupler above trailer hitch ball.
- 5. Lower trailer tongue until ball rests in ball socket.
- 6. Close hitch coupler clamp and secure with a pin or padlock.
- 7. Cross safety chains underneath coupler. Allow slack for trailer to turn. Attach chain hooks securely to tow vehicle frame.



CAUTION: Avoid sharp turns. This could bend, create extreme stress or fracture either the actuator or trailer tongue.

- 8. Fully retract hitch jack and remove caster wheel. This will provide adequate ground clearance for transport.
- 9. Return high pressure reel to towing position, engage the transit lock, and confirm reel lock is engaged.
- 10. You are now ready to tow your trailer. The maximum recommended towing speed is 55 mph.



CAUTION: Always use safety chains. Chains hold trailer if connection fails.

Pump and Pressure System



The pump and relief valve are the heart of your jet. They have been specifically designed for use with cold water (140°F max) for pipe jetting but can provide useful water flow for many other cleaning jobs using the optional wash down gun and special attachments. The positive displacement pump (each crankshaft revolution has to move a certain amount of water) uses 3 plungers (similar to pistons in an engine) to create water flow. Pressure is not created until the pump outlet is restricted with a valve or nozzle. The pump, valving, and hoses can support pressures up to 3,000 PSI.

- The regulator valve acts to direct the water flow to the water tank when the hose reel and gun valves are off or if nozzles provide too much restriction for total flow.
- Always use clean water to keep the regulator valve operating properly.
- The hose and nozzle are designed to allow full flow at 3,000 psi (3,200 engine rpm), and the wash down gun operates at 1,600 psi max pressure.
- If leaks develop in the system between the relief valve and hose reel valve (or gun valve) you will hear intermittent engine surges in by-pass as the by-pass pressure gradually drops and is built up again by the pump. Tighten or otherwise repair the leaks for smooth running.
- Always stop engine and release pressure before any plumbing changes or repairs.



CAUTION: Because of the inherent hazards with high pressure, use only Spartan high pressure hoses and components when repairing your machine.

If the nozzles become worn or if the gun is used with the jet hose, the regulator valve allows the same total flow but at a lower pressure because the restriction is lower. Replace the nozzles in order to maintain the desired pressure.

If nozzles become plugged, the regulator valve will direct some of the flow back to the water tank while providing pressures over 3000 psi. If these pressures are seen with normal engine speed (3,200 RPM), check and clean the nozzles. When using optional lengths of 1/4" hose the operating pressure can also be over 3000 psi at full GPM. Reducing engines RPM will produce lower pressures to prevent regulator valve from by-passing off and on. Continued operation at pressures over 3,000 PSI can cause engine overheat and reduce engine life.



High Pressure Water Jetting

High pressure water jetting is the utilization of high pressure water combined with sufficient water flow to remove debris in drain/sewer pipes. High pressure water jetting alone cannot do the job. You need proper flow to wash debris downstream where it can be collected and removed. High pressure water jetting can also be used to remove debris on surfaces.

A high pressure water jet consists of a pump, a motor or engine, a hose reel, a given length of hose, and a various assortment of nozzles.

A pipe is cleaned with a high pressure water jet by directing water pressure and flow through a nozzle. Controlled water pressure and flow propels a water jet through the sewer pipe allowing it to remove and wash away the obstruction (See Fig. 11-1).

Ideally, a sewer pipe is cleaned from the lower end of the pipe and the hose propels itself to the higher end of the pipe. By slowly withdrawing the jet hose, the water pressure and flow cleans the line most effectively. When it is impossible to clean from the lower end of the pipe, the pipe must be water jetted several times to remove all the debris. A skilled operator can effectively clean a drain/sewer regardless of the obstacles in his or her way.

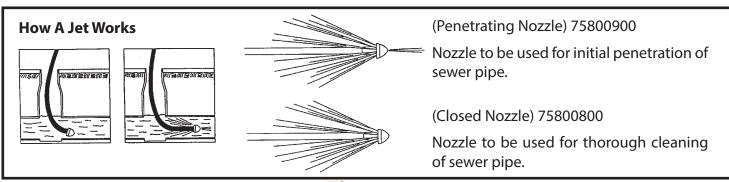


Fig. 11-1



Water Tank Filling

Fill the water tank from a clean water source. Always flush rust out of hydrants before connecting fill hose (with garden hose fitting) to top fill valve. Your water supply hose may remain connected for further filling by controlling water flow at fill valve.



NOTE: If the next 4 items are not followed, cavitation of the pump could occur and reduce operating efficiency and severely damage the pump.

- Use water temperatures under 140°F.
- Ensure that water strainer is clean (check daily as needed).
- Make sure the strainer valve (between the tank and the pump) is fully open during operations. This valve stops tank flow to allow strainer service
- The pump drain valve must be closed. It must not drip when engine is off and strainer valve is open.

Operator Controls





Operator Controls



Water Supply Valve

Pulsation Control (See Pulsation section of manual)

Air Blow Out



Filter Cup

Engine Operation Procedure



START UP

- 1. Check water tank level. This water jet is equipped with a low water shut-off switch that will prevent the engine from starting at low water levels.
- 2. Check fuel level.
 - Note: Also check engine and pump oil levels per manufacturer specifications (attached).
- 3. Turn high pressure reel supply valve "off".
- 4. Hold in yellow relay button and key start the engine.
- 5. Allow the engine to warm up at idle for 3 to 5 minutes before putting engine under load.

ENGINE SHUT-DOWN

- Turn high pressure reel supply valve "off".
- 2. Allow engine to idle for 1 to 2 minutes.
- 3. Turn the engine key switch OFF. (The engine key switch must be OFF when the engine is not running to avoid battery draining.)



Operation Set Up

Always locate the jet in the driest and safest place possible. Avoid high traffic areas and use flashers and safety cones. Position the jet so that the hose can be pulled directly off of the reel for use. Remember that jetting is most effective when you jet against the water flow. See Fig. 15-1 for the recommended positioning of the jet for best visibility during manhole work. (See pages 15 and 16 for instructions on using upper and lower manhole guides).



NOTE: Loosening the hose and damaging corners are minimized when the jet is parked as shown.

When operating upon unlevel ground, position the trailer with the hitch (tanksump) end pointed downhill.

Trailer must be level for low water shutdown to operate correctly. When trailer is on an incline with hitch end at the down hill side and tank is empty, enough water can be held in the lower front corner of tank to keep float switch in the operating position.

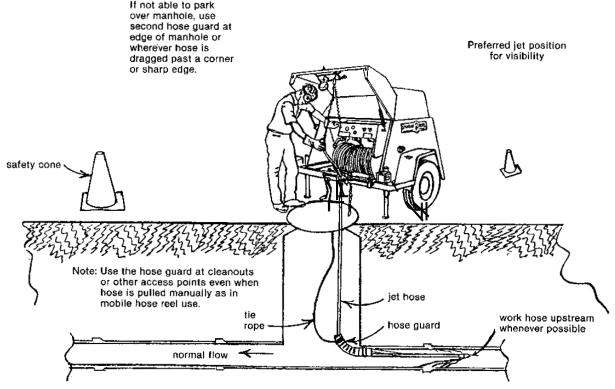
For non-manhole use, allow extra space for handling the hose before it is wound back on the reel or run the hose directly to the pipe inlet using extra hose guards to protect the hose from cutting when going around corners.



WARNING: Do not unhitch or operate trailer jet unhitched upon unlevel ground.

When unhitching the machine from towing vehicle, always follow these steps:

- 1. Place wheel chocks around trailer jet wheels
- 2. Lower hitch jack and pin clamp securely.
- 3. Disconnect ball hitch by raising the lever and jacking hitch up. Disconnect safety chains and light cord before driving away.



Power Rewind Operating Instructions



TO REWIND HOSE ON REEL

- Release reel lock.
- Use panel mounted push button switch to energize rewind motor.

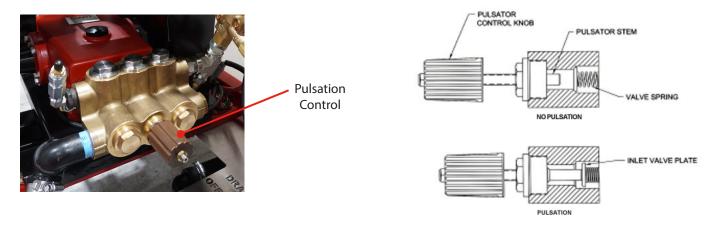


NOTE: Avoid pushbutton switch when rewind is not in use to avoid accidentally activating rewind.



Pulsation

Pulsation is activated when control knob is turned "in" (see activating pulsator procedure below). As control knob is turned in, the pulsator stem will force the inlet valve plate open, compressing the valve spring. With inlet valve held open, center plunger cannot develop pressurized flow. Pulsating action results since only two of the three plungers are developing pressurized flow.



To activate pulsator, follow the steps below:

- 1. Start engine. (Refer to engine operating procedure on page 15)
- 2. Insert jetting hose several feet into pipe opening. (Refer to setup section on page 16)
- 3. Advance engine to full throttle and place the reel supply valve in the "on" position (up). (Refer to operating instructions on page 23)
- 4. Start turning pulsator control knob "in" (clockwise). You may start to hear a clicking sound made by the inlet valve plate moving back and forth against pulsator valve stem. Continue turning control knob "in" until clicking sound disappears and pulsation is evident in jetting hose. (Refer to drawing above)



WARNING: Turning pulsator control knob too far into pump will cause damage to inlet valve plate, spring, and spring retainer. Increased resistance should be felt when valve spring is reaching full compression. This is an indicator that you are turning pulsator control knob too far into pump.

5. Pulsation is now fully activated.

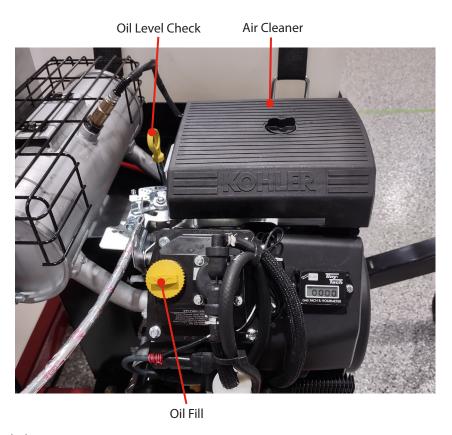
To deactivate pulsation, turn pulsation control knob completely out (counter clockwise).

NOTE: Operating pressure will decrease and fluctuate when pulsation is activated. At full throttle, pressure is approximately 100-1700 psi.

Lubrication & Maintenance



Engine



See Periodic Maintenance Chart below.

For fuel and oil recommendations see page 22.

See Engine Owner's Manual for additional information.

Periodic Maintenance - Engine

MAINTENANCE	INTERVAL							
	Daily	First 8 hr.	Every 25 hr.	Every 50 hr.	Every 100 hr.	Every 200 hr.	Every 300 hr.	Every 400 hr.
Check and add engine oil	•							
Check for loose or lost nuts and screws	•							
Check for fuel and oil leakage	•							
Check battery electrolyte level	•							
Check and clean radiator screen	•							
Tighten nuts and screws			•					
 Clean air cleaner foam element 			•					
 Clean air cleaner paper element 					•			
Change engine oil		•	-		•			
Clean and regap spark plug					•			
Change oil filter								
* Replace air cleaner paper element							•	
K Clean combustion chamber							•	
K Check and adjust valve clearance							•	
K Clean and lap valve seating surface							•	
K Inspect radiator and hoses						•		
K Check fan belt conditions and tension						•		
K Change coolant								

The service intervals indicated are to be used as a guide. Service should be performed more frequently as necessary by operating condition.

Service more frequently under dusty conditions. Have an authorized Kawasaki engine dealer perform these services.

Lubrication and Maintenance

General Maintenance

- Check entire unit daily for water, fuel, and oil leaks.
- · Inspect machine daily for loose or lost nuts, bolts, etc.



- 1. Clean inlet filter daily.
- 2. Check battery electrolyte level every week or 10 hours. Fill with distilled water if needed.

Pump



Change pump oil after first 50 hours of operation, then at regular intervals of 500 hours or less depending on operating conditions. Use SAE 90 Gear Oil.

Lubrication and Maintenance

High Pressure Reel Assembly



Oil Rewind Drive Chain every 50 hours (SAE 30 or Heavier).



Fuel & Oil Recommendations

FUEL

Use only clean, fresh, unleaded regular grade gasoline.



CAUTION: Do not mix oil with gasoline.

Octane Rating The octane rating of a gasoline is a measure of its resistance to "knocking". Use a minimum of 87 octane of the antiknock is recommended. The antiknock index is posted on service station pumps in the U.S.A.

Note: If "knocking or pinging" occurs, use a different brand of gasoline or higher octane rating.

Oxygenated Fuel Oxygenates (either ethanol or MTBE) are added to the gasoline. If you use the oxygenated fuel be sure it is unleaded and meets the minimum octane rating requirements.

The following are the EPA approved percentages of fuel oxygenates.

ETHANOL: (Ethyl or Grain Alcohol) You may use gasoline containing up to 10% ethanol by volume.

MTBE: (Methyl Tertiary Butyl Ether) You may use gasoline containing up to 15% MTBE by volume.

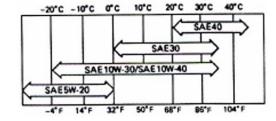
METHANOL: (Methyl or Wood Alcohol) You may use gasoline containing up to 5% methanol by volume, as long as it also contains cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of your fuel system.

ENGINE OIL

The following engine oils are recommended.

API Service Classifications: SF, SG, SH or SJ.

Oil Viscosity Choose the viscosity according to the temperance in the above chart.



Note: Using multi grade oils (5W-20, 10W30, and 10W40) will increase oil consumption. Check oil level more frequently when using them.

Operating Instructions



- Release the reel lock and disengage rewind engagement handle so reel can free spin. Select and install the nozzle, hose guard(s) and roller guides.
- Always insert sewer hose several feet into the pipe opening before actuating hose reel valve. Never stand in front of the pipe opening when nozzle is near pipe opening. As described in "Setup Section," work upstream whenever possible.
- You are ready to start pipe cleaning operations after tank filling and engine starting procedures are followed. Advance engine throttle to full speed.



NOTE: At this time, put on safety goggles to prevent eye injury from flying water and debris.

- Now move the hose reel valve ON (up) and let out the hose as the nozzle pulls into the pipe. Untwist hose kinks as necessary before they enter the pipe. Since it is impossible to know exactly what the nozzle "sees" as it advances in a pipe, always proceed slowly and cautiously.
- Pull back 1-2 feet for every 4-5 feet of progress to make sure the hose is not burying itself or tying itself up in an open cavity or larger pipe. Continue working up the line while watching and feeling for speed changes as the nozzle makes its way into a blockage.
- When working over a manhole, you often will see dirty water, chunks of grease or debris flow past as the nozzle penetrates a blockage. When backed up water flows, the line is probably open. Continue working up the line to open restrictions as desired.



WARNING: Do NOT let engine run at full throttle without load (hose reel valve OFF) for longer than 1-2 minutes.

• Pull the "working" nozzle back slowly to re-clean and scour the pipe walls. When working through heavy and long blockages you may have to flush debris back to the machine every 5-10 feet. Repeat until the water runs clean from the pipe.



HINT: Wind white tape around hose (a minimum of 6 feet from the end recommended) to warn of nozzle being too close to the pipe opening.

• The Model 758 will put out past 250' feet but you will find the going slower due to the pressure loss from the extra hose length.

Unless longer operation is common, we recommend the hose extensions be added only when needed. If moving the jet before the job is done, the hose can be disconnected from the jet to avoid pulling hose completely out of the pipe and restarting.



REMINDER: Engine key switch must be off to prevent battery drain when not using. Reverse setup instructions, drain tank and disconnect fill hose.

- When finished, turn the water valve off (down) before removing the nozzle from the pipe.
- Wind hose back onto reel, remove hose guard and install the hose end and nozzle in the holder. Put the pin in place. Lock the reel. Store all parts in tool box compartment. Follow engine shut down procedure. *Reminder:* Engine key switch must be off to prevent battery drain when not using.
- Replace the manhole cover or pipe caps and clean up the machine before leaving the job site.

Operating Instructions

OPERATING HINTS

The following techniques can be tried if the going gets slow.

- Grab the hose into an "S" shape and twist the hose to help it get around corners and off of pipe edges (see Fig. 7).
- Turn the water valve off and pull the hose back out of the line. Look for traces of clay or other material to determine if nozzle is burying itself outside of the pipe.
- · Try different nozzle or different pipe openings.
- Walk to nearby buildings and manholes and listen for a water sound to determine if hose is going where it should. The hose may tie itself up in a manhole and need help going into the next pipe. Use a pole or pipe to guide hose so entering the manhole can be avoided.

PIPE JETTING PROCEDURE

- Although the Model 758 is capable of various high pressure cleaning operations, jetting pipes of 4" 12" is typically the major work required of the jet. The hose reel is designed for outdoor applications. See sections on the mobile hose reel and 1/4" drain hose for indoor or remote applications and for lines smaller than 6".
- For **safety** reasons, always operate with 2 people when the pipe entrance is away from the jet location; one person should stay near the jet to control the machine operation while the other person works the hose and nozzle. The mobile hose reel should be used for remote control whenever the second person cannot be seen or heard by the machine operator.
- The sewer hose should always be replaced when the reinforcement cord can be seen due to a worn cover.
- The Model 758 nozzles are designed to match the pressure and flow performance of your jet. They are key to efficient operation because they convert all of the engine and pump power to water speed for hose pull and for cleaning impact.
- Nozzles "758 Closed" (75800800) and "758 Open" (75800900) are standard equipment. See parts section for part numbers to order additional nozzles or root cutters. Nozzle holes will wear after several months of continuous use. If the system operating pressure drops, try a new nozzle to check for wear. Check for nozzle plugging occasionally by removing the nozzle from the hose and holding up to the light. Clean by inserting small diameter wire if necessary. Plugged nozzles will cause poor hose pull even though the gauge pressure will show higher.

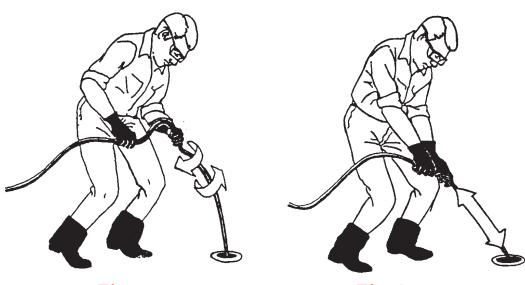


Fig. 7

Fig. 8

Operating Instructions

ENCOUNTERING OBSTRUCTIONS

- When obstruction or corners are encountered it may be necessary to manually rotate the hose (See Fig. 7) to enable feed through that area. The rotation will cause the jetting nozzle to jump over or around those areas. When it becomes necessary to manually rotate the hose to clear obstructions, any rotations in one direction must be followed by an equal number in the opposite direction to prevent kinks from building in the hose.
- At times, it will be necessary to move the hose slightly in and out of the drain line to assist the jetting nozzle in clearing stubborn clogs, obstructions, or tight corners (See Fig. 8).

Wash Down Gun



Wash Down Kit - 73817300

To use the wash-down gun, do the following:

- 1. Turn off by-pass valve (down).
- 2. Connect wash-down gun hose to end of 250 ft. hose.
- 3. Start unit and operate wash-down gun with hose reel valve in on (up) position.

The wash down gun is used to control the spray lance. The lance is attached by pulling back on the ring of the guns quick connect fitting. Insert adapter nipple of lance (or 1/4" hose) until ring can slide back to original position. The lance is equipped with an adjustable spray nozzle for general use. The wash down gun can also be used with the optional portable hose reel with 1/4" drain hose.



CAUTION: HOLD HAND GUN/WASH WAND WITH TWO HANDS AT ALL TIMES. Back pressure buildup on the wash wand/hand gun requires two hands firmly gripping the wand when the trigger is initially pulled.



CAUTION: Under no circumstances should you ever operate the wash down gun in the direction of any other person(s). To do so may cause serious damage to eyes or other bodily tissue and may even cause death.



Optional Accessories

1/4" DRAIN HOSE

The 1/4" hose and nozzle may be used to clean smaller diameter lines. Attach the 1/4" hose to the forward end of the wash down gun as described above.

Use the 1/4" drain hose on lines 2"-4" similar to the reel hose. Again, use care not to discharge water unless the hose is in the pipe. On inside lines, use short bursts of the gun to limit water backup.



NOTE: If 50′, 75′ or 100′ 1/4″ hoses are used with the reel hose, the pressure gauge may read more than 1750 psi. Adjust engine speed to reduce to desired pressure to avoid engine overheat.

Standard Equipment

Part #	Description
77719400	1/4" x 50' Hose

Optional Equipment

Part #	Description
77719500	1/4" x 75' Hose
77708700	1/4" x 100' Hose

MOBILE HOSE REEL - 73816800

The mobile hose reel is for remote use and control of the sewer hose. 400' total length of hose is in the practical maximum with the 250' or 150' length on the machine reel and the balance on the mobile reel.

To use, attach the machine reel hose to the valve of the mobile reel. Attach nozzle to mobile reel hose and make sure the mobile reel valve is off (handle perpendicular to valve body). Start jet as usual and open machine hose reel valve.

Now move the mobile reel to the pipe opening and use as before, using the mobile valve to control water flow (put hose in pipe before opening valve). To rewind hose, stand on front plate and use crank provided.

Jetter HP In. Discharge Hose Out

VENTURI PUMP -

How the Venturi Effect works:

The venturi effect uses the venturi pumping attachment and your Spartan Jetter to create a vacuum effect to drain standing water. In Fig. 9, the black circles represent water from the jetter and the white circles represent the water to be pumped. The venturi has two parts: the Venturi Throat, which is a restricted section of the suction tube; and above that is the venturi itself which is the part where the tube widens and connects to the discharge hose. The water from your Spartan Jetter is accelerated through a venturi restiction which causes it to increase speed causing a pressure drop and creates the vacuum that sucks in more water at the base of the attachment.

Venturi Pumping Attachment Operating Instructions

- 1. Attach high pressure hose directly to the suction head of the venturi attachment.
- 2. Lower suction head into water or liquid to be pumped. The discharge hose is 15 ft. long and this determines the maximum depth or distance liquids can be pumped.
- 3. At a depth of 15 ft., the venturi attachment will pump 35-40 gpm. If additional lengths of discharge hose are added, the pumped volume will decrease accordingly.
- 4. Be sure to keep the pumping head submerged at all times to ensure steady, continuous operation.
- Start engine and bring jet to full pressure. Use the ball valve on high pressure hose reel to control venturi operation.

Cold Weather Protection



Winterize machine when stored below 32° F.

Your machine can also be protected from freezing by using non alcohol based anti-freeze as follows:

METHOD 1

Use pressurized air to blow out any remaining water left inside pump and hose by using the air blow-out feature (see page 14).

METHOD 2

- Drain tank completely.
- Add 50/50 mix anti-freeze to tank as follows:

- Remove nozzle and feed reel jetting hose into tank, open reel valve.
- Start engine and circulate water through system for 1 minute.
- Close reel valve and discharge water through gun and 1/4" hose if necessary.
- Check freeze protection of mix with tester and add more anti-freeze if necessary.
- Replace nozzle and hose.



NOTE: Some anti-freeze mixture can be caught and reused, but will have to be strengthened as necessary for adequate protection.



PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION	
	Worn packing seals.	Replace packing seals.	
	Broken valve spring.	Replace spring.	
	Belt slippage.	Tighten or Replace belt.	
	Worn or Damaged nozzle.	Replace nozzle.	
	Fouled discharge valve.	Clean valve assembly.	
Pressure and/or Delivery Drops	Fouled inlet strainer.	Clean strainer.	
	Worn or Damaged hose.	Repair/Replace hose.	
	Worn or Plugged relief valve on pump.	Clean, Reset, and Replace worn parts.	
	Cavitation.	Check suction lines on inlet of pump for restrictions.	
	Unloader.	Check for proper operation.	
Water in Crankcase	High humidity.	Reduce oil change interval.	
water iii Crankcase	Worn seals.	Replace seals.	
Noisy Operation	Worn bearings.	Replace bearings, refill crankcase oil with recommended lubricant.	
	Cavitation.	Check inlet lines for restrictions and/or proper sizing.	
	Worn packing.	Replace packing.	
	Inlet restriction.	Check system for stoppage, air leaks, correctly sized inlet plumbing to pump.	
Rough/Pulsating Operation with Pressure Drop	Accumulator pressure.	Recharge/Replace accumulator.	
	Unloader.	Check for proper operation.	
	Cavitation.	Check inlet lines for restrictions and/or proper size.	
Pressure Drop at Gun	Restricted discharge plumbing.	Re-size discharge plumbing to flow rate of pump.	
	Worn plungers.	Replace plungers.	
Excessive Leakage	Worn packing/seals.	Adjust or Replace packing seals.	
	Excessive vacuum.	Reduce suction vacuum.	
	Cracked plungers.	Replace plungers.	
	Inlet pressure too high.	Reduce inlet pressure.	
High Combiner Town	Wrong grade of oil.	Use SAE 90 Gear Oil.	
High Crankcase Temperature	Improper amount of oil in crankcase.	Adjust oil level to proper amount.	

Troubleshooting

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION			
	No Fuel.	Fill fuel tank.			
Engine will not run	Low Water Level.	Fill water tank or Check low water float switch.			
	Low Oil Pressure.	Check oil level. Check oil pressure switch.			
	Refer To Kawasaki Owner's Manual for additional troubleshooting				
	Clogged inlet filter.	Clean inlet filter element.			
Low pressure or flow	Jetting nozzle worn.	Check for wear n orifice of jetting nozzle, replace if necessary. Use only improved jetting nozzles.			
	Worn or dirty pump valves.	Replace or clean.			
Erratic Flow or Pressure	Worn or dirty regulator parts.	Replace or clean.			
	Worn jetting nozzle.	Replace jetting nozzle.			
	Low pump oil level.	Add oil.			
Pump Noisy	Worn or dirty valves.	Replace or clean.			
	Bad bearings.	Inspect bearings, replace as required.			
Water Leaking from Pump Head	Pump seals worn.	Replace pump seals.			



How To Use Parts & Accessories

Spartan Tool will supply all parts or accessories you require as quickly as possible. In order to do so, we must have information from you, including machine serial number and part numbers.

Please record the VIN number of your machine in the space provided below:

Spartan M	odel 758	
Vin No		

To order parts, look through the pictures until you find the part you require or an indication of where the part should be. Using the item number from the picture, go to that number on the adjacent page and check the description to determine if it is the part you desire.

Using the part numbers, please contact your Spartan Territory Manager or the factory in Niles, Michigan or online at www.spartantool. com.

Thank You.

Spartan Tool LLC 1618 Terminal Rod Niles, MI 49120 800.435.3866 SpartanTool.com



Special Note

Though much of your Model 758 Jet is user serviceable, trained professional mechanics may be needed with pump, plumbing, engine, lights, hitch and axle experience.

- Engine repair is best performed by your local engine repairman.
- Contact Spartan Tool or consult the Pump Repair Manual for all pump repair or troubleshooting.
- All plumbing repairs should use Spartan parts. The high pressure plumbing has been designed for pressures greater than 3000 psi. Substituting parts is dangerous and voids Spartan warranties. Use standard pipe sealing compound or "Teflon" tape to seal all joints except swivel joints and hose nozzles (o-rings, seals, and tapered seat designs do not require sealing materials).

Tire Safety Information



This portion of the User's Manual contains tire safety information as required by 49 CFR 575.6.

The National Traffic Safety Administration (NHTSA) has published a brochure (DOT HS 809 361) that discusses all aspects of Tire Safety, as required by CFR 575.6. It can be obtained and downloaded, free of charge, from the NHTSA website.

Tire Safety Terminology Glossary

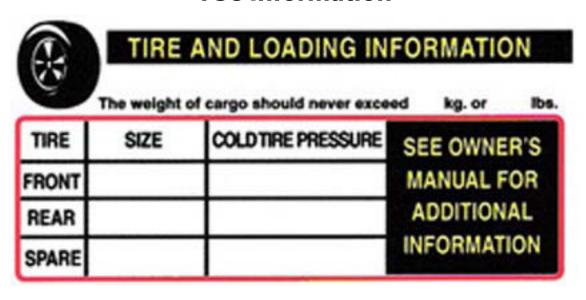
- Cold tire inflation pressure the pressure in the tire before you drive
- **Gross Axle Weight Rating (GAWR)** The maximum weight that any axle can support, as published on the Certification / VIN label on the front left side of the trailer. Actual weight determined by weighing each axle on a public scale, with the trailer attached to the towing vehicle.
- **Gross Vehicle Weight Rating (GVWR)** The maximum weight of the fully loaded trailer, as published on the Certification / VIN label. Actual weight determined by weighing trailer on a public scale, without being attached to the towing vehicle.
- Load rating The maximum load that a tire is rated to carry for a given inflation pressure.
- Maximum load rating The load rating for a tire at the maximum permissible inflation pressure for that tire.
- Maximum permissible inflation pressure The maximum cold inflation pressure to which a tire may be inflated.
- Outer diameter The overall diameter of an inflated new tire.
- **Recommended inflation pressure** The inflation pressure provided by the vehicle manufacturer on the Tire Information label and the Certification/VIN tag.
- Rim a metal support for a tire or a tire and tube assembly upon which the tire beads are seated.
- **Vehicle maximum load on the tire** The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two.

Tire Information Placard

The Spartan 738's Federal Certification/VIN label is located on the forward half of the left (road) side of the unit. The VIN label will identify the units GVWR and GAWR.

The Spartan 738's Tire Information Placard can be located adjacent to the trailer's VIN (Certification) label at the left front of the trailer. The placard includes the 738's tire size, cold tire inflation pressure, and load limitations. The load limitation statement will give an indication of the maximum cargo capacity. Any items (cargo) added to the 758 must not cause the total weight of the 758 to exceed the stated GVWR.

758 Information



Tire Safety Information

Steps for Determining Correct Load Limit

- 1. Locate the statement "The weight of cargo should never exceed 1157 kg or 2550 lbs" on your tire information placard.
- 2. This figure equals the available amount of cargo and luggage load capacity.
- 3. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity.

General Tire Information

- Tire inflation pressure is the level of air in the tire that provides the load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure a tire requires to be properly inflated. Since tires are designed to be used on more than one type of vehicle, tire manufacturers list the "maximum permissible inflation pressure" on the tire sidewall. This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.
- Improper inflation is the main cause of tire failure. Excessive loads and/or under inflation cause tire overloading, which leads to abnormal tire flexing. Check the cold tire inflation pressures at least once a week for proper inflation levels.
- The proper air pressure may be found on the Certification/VIN label and/or the Tire Information placard.
 High speed towing in hot conditions degrades the life of the 738's tires. The internal heat generated form high speeds breaks down the tire's internal structure. It is recommended to drive at moderate speeds.
- If the trailer is stored for an extended period of time, the tires should be fully inflated to the maximum rated pressure. The 758 should be stored in a cool, dry place. Use tire covers to protect the trailer tires from the harsh effects of the sun.

Tire Maintenance

Checking Tire Pressure

• The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper PSI when a tire is cold. A cold tire is one that has not been driven on for at least three hours. Since driving raises the tires temperature, the internal air pressure also increases. To prevent inflated tire readings, the tire must be measured when cold.

Maintaining Proper Tire Pressure

- a. Locate the recommended tire pressure on the vehicle's tire information placard, certification label, or in the Owner's Manual.
- b. Record the tire pressure of all tires.
- c. If the tire pressure is too high in any tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until the correct pressure is reached.
- d. If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. Add the missing pounds of air pressure to each tire that is under inflated.
- e. Check all the tires to make sure they have the same air pressure.



NOTE: If the tires are warm due to driving, but testing confirms under inflation, fill the tire to the recommended cold inflation pressure. While the tire may be slightly under inflated due to extra pressure in the warm tire, it is safer to drive a slightly under inflated tire then to drive a significantly under inflated tire. Since this is a temporary fix, the tire must be re-checked and adjusted once a cold reading can be obtained.

Tire Size and Tread

- Tires should be replaced when the tread is worn down 1/16 of an inch.
- Treadwear indicators on the bottom of the tire can be used as a guide. The indicators are raised sections spaced intermittently in the bottom of the tread groves. If they appear even with the outside of the tread, the tire should be replaced.
- Replacement tires should be the same size as the 738's original tires. To prevent error and maintain safety, it is recommended that all replacement parts be purchased through Spartan Tool LLC.

Tire Safety Information

Tire Balance and Wheel Alignment

• Tires must be properly balanced to avoid vibrations and shaking of the trailer. A wheel alignment adjusts the angles of the wheels to position them correctly relative to the trailer's frame. Such adjustments can maximize the life of the tires, but should be performed by a qualified technician.

Tire Repair

• A punctured tire can be repaired by plugging the hole and patching the area that surrounds the puncture hole. A small puncture in the tire tread can be repaired, but punctures to the sidewall should not. Tires should be removed from the rim to be properly inspected before plugging.

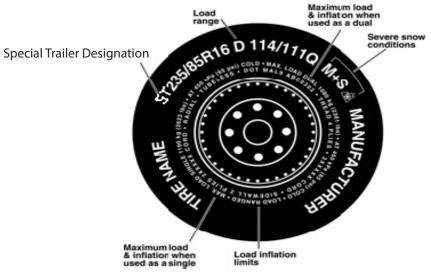


Fig. 36-1

Tire Fundamentals

• Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire. It also provides a tire identification number for safety standard certification and in case of a recall.

Tire Safety Tips

Preventing Tire Damage

- Slow down before driving over a pothole or other object in the road.
- Do not run over curbs or other foreign objects in the roadway.

Tire Safety Checklist

- Check tire pressure regularly (at least once a month).
- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.
- Remove bits of glass and foreign objects wedged in the tread.
- Make sure tire valves have valve caps.
- Check tire pressure before any long trips.
- Do not overload trailer. Check the Tire Information Placard for the maximum recommended trailer load.

Safety Information

Confirm that:

- The coupler is secured to the hitch and is locked.
- Electrical connections are made.
- There is appropriate slack in the safety chains.
- The tires are not visibly low on pressure, and the cargo is secure and in good condition.

Reporting Safety Defects

If you believe that your vehicle has a defect that could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Spartan Tool LLC.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Spartan Tool LLC.

To contact NHTSA, you may either call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153), go to http://www.safecar.gov; or write to

Administrator

NHTSA

1200 New Jersey Avenue S.E.

Washington, DC 20590

You can also obtain other information about motor vehicle safety from

http://www.safecar.gov.

Spartan Tool LLC 1618 Terminal Road Niles, MI 49120

Warranty Information



For our terms and conditions, including warranty, please visit https://spartantool.com/pages/terms-and-conditions. For warranty assistance, please contact us at (800) 435-3866 or customerservice@spartantool.com.

CONTACT US

Spartan Tool LLC 1618 Terminal Road Niles, MI 49120 800.435.3866 Spartan Tool.com

Notes

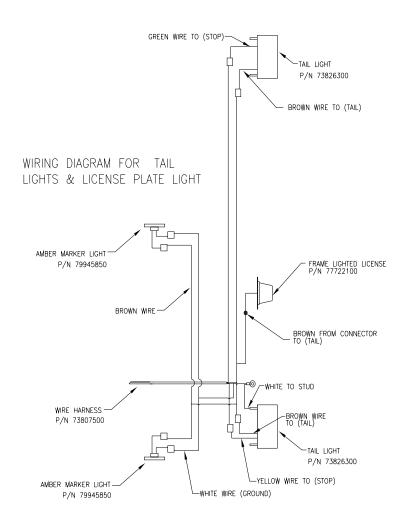


ELECTRICAL COMPONENTS

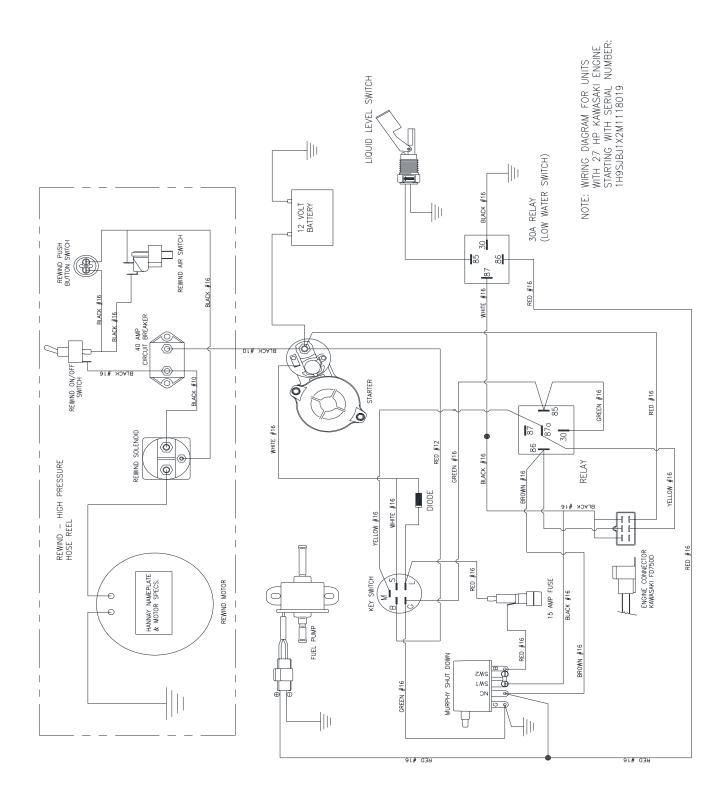
Part Number	Description
44036500	Receptacle: Vehicle - (mounts on vehicle)
44055000	Plug: Trailer Lights - (inserted into above receptacle)
77731600	Connector Plug Set

Other wiring supplies are easily obtained at local parts stores and therefore, are not listed.

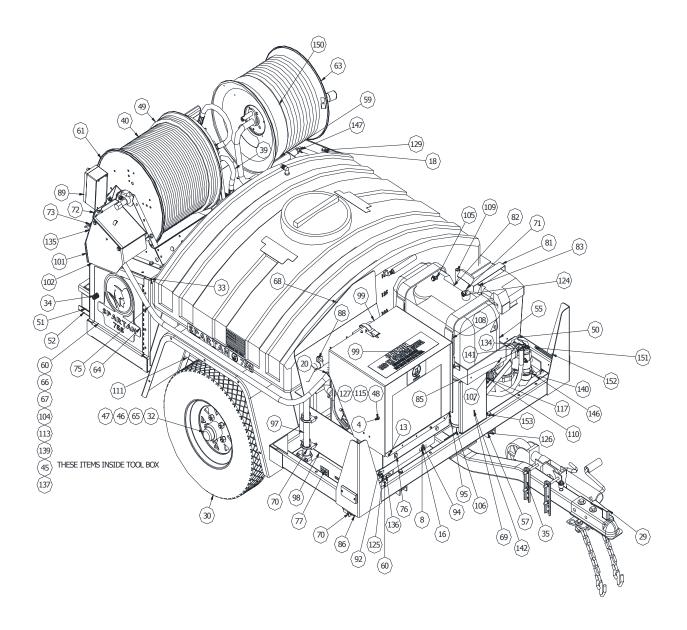
WIRING DIAGRAMS

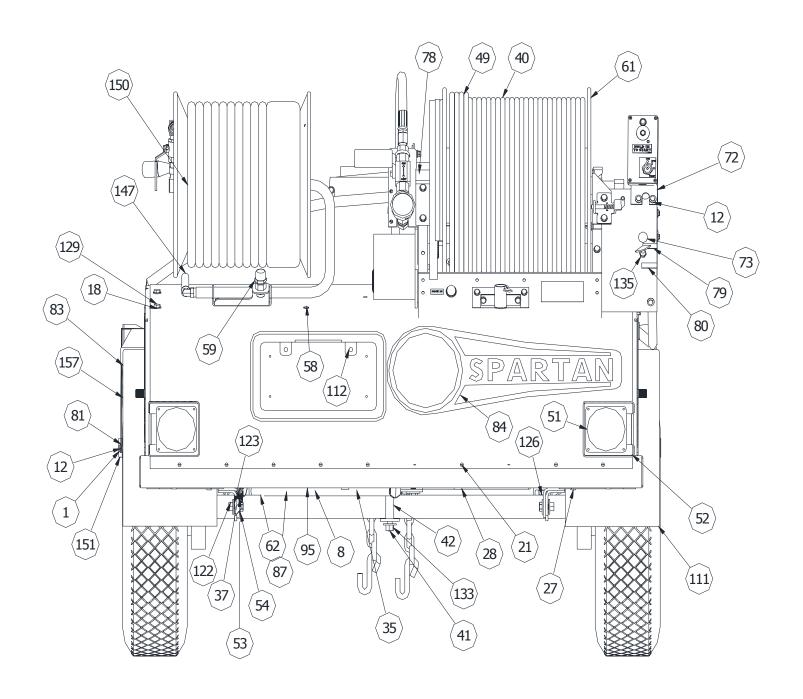


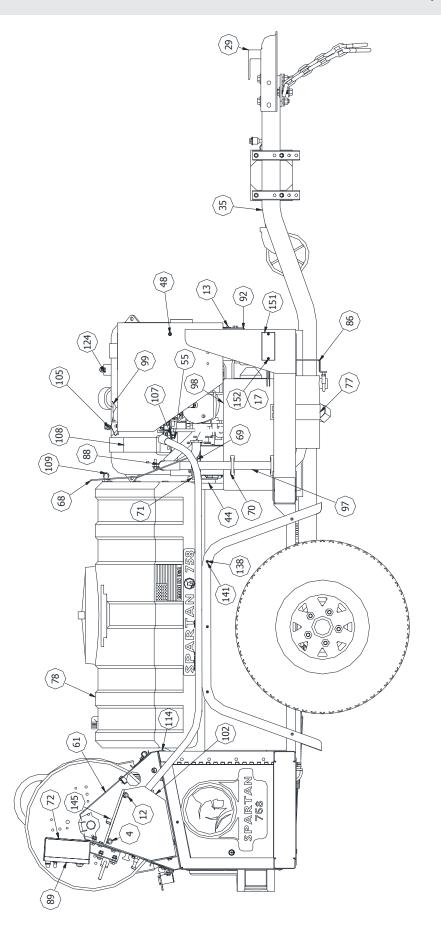
Appendix A Diagrams Published in 2013 Manual Wiring Diagrams

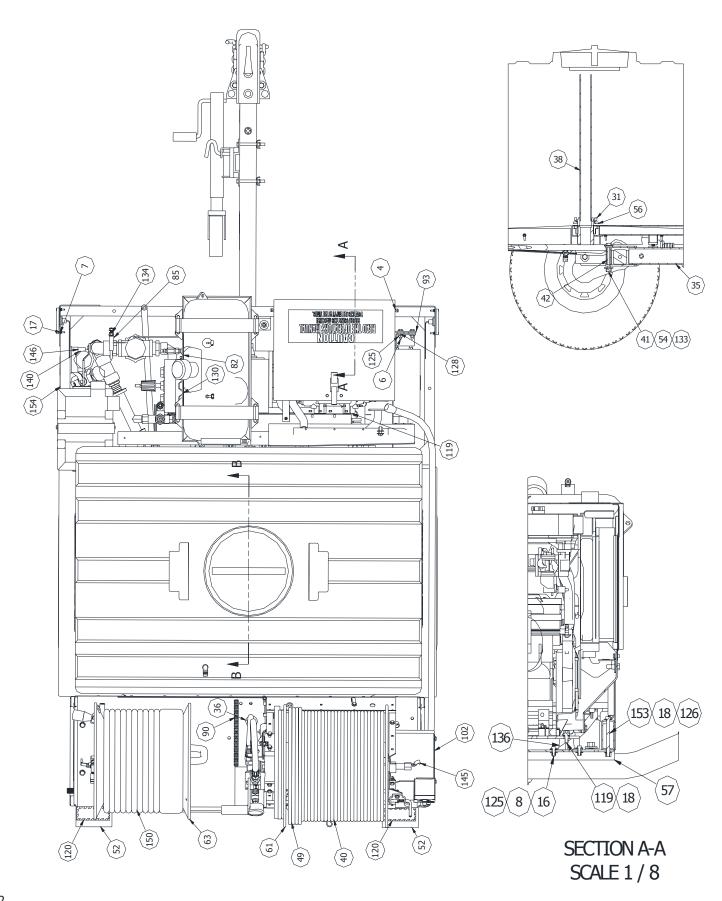


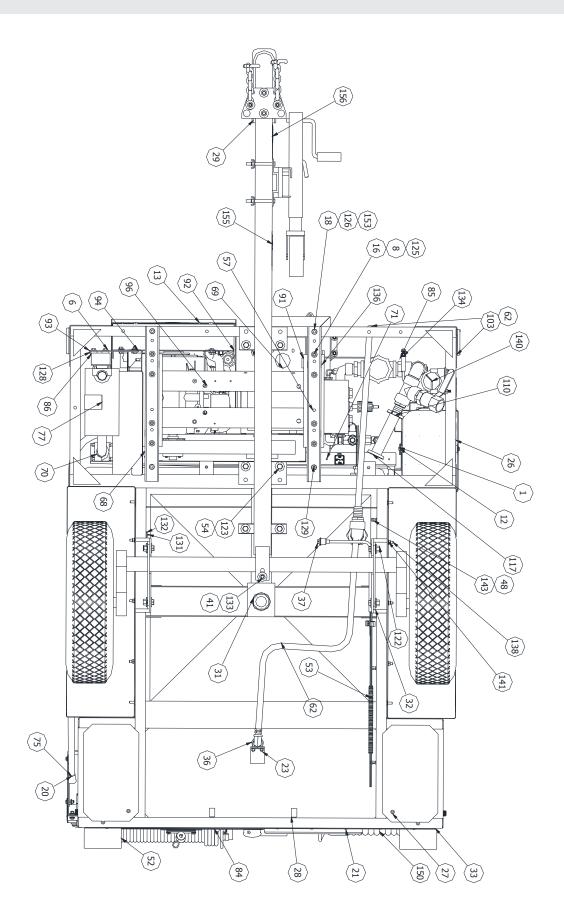
758 FINAL ASSEMBLY - 75800000

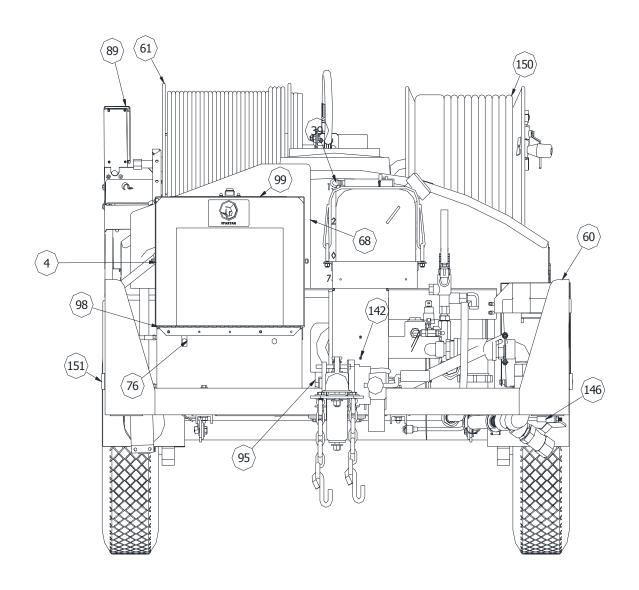


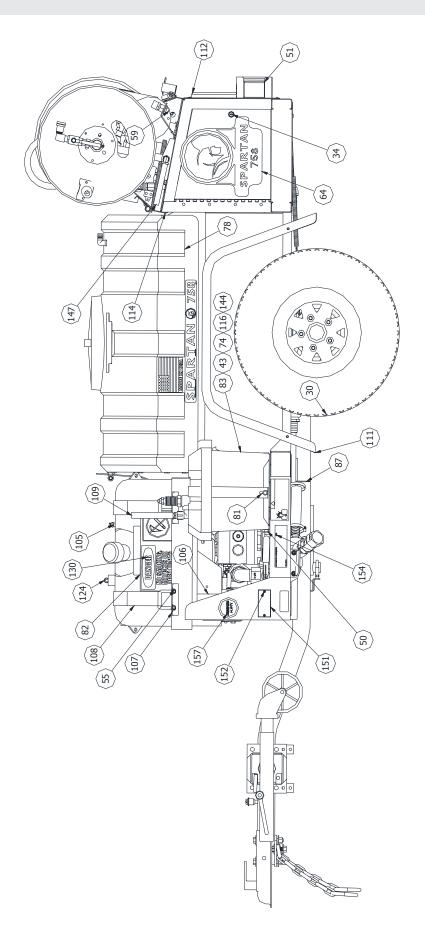












Item	Part Number	Description	Qty.
1	00113500	Screw, Hex Hd 1/4-20 x 1/2	4
2	00113600	Screw, Hex Hd 1/4-20 x 5/8	1
3	00113700	Screw, Hex Hd 1/4-20 x 3/4	3
4	00113901	Screw, Hex Hd 1/4-20 x 1 ZN	7
5	00115100	Screw, Hex Hd 5/16-18 x 1"	1
6	00115300	Screw, Hex Hd 5/16-28 x 1-1/4	2
7	00162400	Washer, Flat 3/16 USS	4
8	00162600	Washer, Flat 5/16 USS	26
9	00165300	Washer, Lock Split #10	1
10	01950800	Nut, 1/4-20 Hex Kep	4
11	02821200	Nut, Nylock Jam 1/4-20	3
12	02825100	Washer, Flat 1/4 USS	23
13	02826800	Screw, Sckt Hd 10-32 x 1/2	5
14	02828100	Sheet Metal Screw #8 x 1/2"	1
15	02899200	Washer, Flat 3/8 SAE	2
16	02939000	Screw, Hex Hd 5/16-18 x 3/4	11
17	03312001	Nut, Hex Kep 8-32	4
18	03366300	Washer, Flat 3/8 SAE	36
19	03850100	Nut, Hex Kep 10-32 Zinc Pltd	12
20	04699800	Mounting Tip, Rubber	2
21	04723100	Screw, Machine 10-32 x 5/8"	10
22	521012-03	Screw, Hex Hd 1/4-20 x 3/4	10
23	521400-04	U-Bolt 1 x 1-3/4 1/4-20 Zinc	1
24	522122-00	Nut, Lock 5/16-18	2
25	522132-00	Nut, Nylon Locking 3/8-16	11
26	585463-01	Decal, Battery	1
27	62009500	Grommet, Rubber 9/32 ID	4
28	72715100	Clamp, Hose 1-1/8 ID Coated	2
29	73803300	Coupler, Tongue 2-1/2"	1
30	73803700	Wheel, 175/80 R13	2
31	73803800	Adapter 1-1/2" Tank	1
32	73804300	Axle, 2300 LB	1
33	73805100	Cover, Toolbox	1
34	73806200	Lock, Door	2

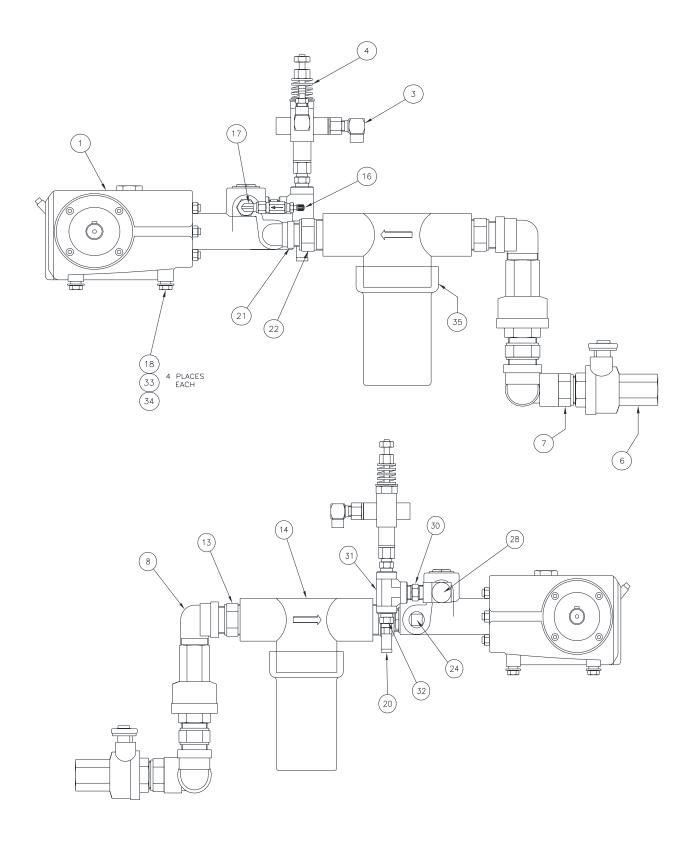
ltem	Part Number	Description	Qty.
35	73806800	Assy, Hitch Tube	1
36	73807400	Grommet, 7/8" ID	2
37	73807500	Assy Wiring Harness	1
38	73808000	Pipe, Overflow	1
39	73808100	Hose, HP 1/2 NPT x 19" Long	1
40	73808600	Hose, High Press 3/8" x 250'	1
41	73808800	Bolt 1/2-20 x 4 GR 9	1
42	73815100	Tube, Towbar Spacer	1
43	73815300	Cable, Neg Battery 60" Lg	1
44	73815400	Spacer, Rubber	2
45	73817300	Washdown Accessory Pack	1
46	73819400	Protector, Bearing	2
47	73819500	Bra, Bearing Protect	2
48	73821200	Nut, Nylon Locking 1/4-20	13
49	73821500	Hose, Leader 3/8 x 15' Orange	1
50	73824600	Weldment, Battery Tray	1
51	73826300	Light, Tail	2
52	73826400	Weldment, Tail Light	2
53	73826800	Loom, Split 3/8	22 ft
54	73826900	Washer, Flat 1/2 USS	22
55	73829700	U-Bolt, SQ 2" x 2-5/8" (3/8-16)	4
56	73852700	Gasket-Tank 4x4x2-5/8 Dia	1
57	74012070	Stringer, 738-758	2
58	74017200	Plug, 7/16" Black Plastic	2
59	74021800	Assy, Hose Holster	1
60	74023100	Frame, 740 Trailer	1
61	74024200	Assy, HP Reel 740	1
62	74026000	Assy, HP Pipe	1
63	74027000	Assy, Com Fill Reel	1
64	75800100	Decal, Spartan 758	2
65	75800700	Plug, EZ Lube	2
66	75800800	Nozzle, Open 758	1
67	75800900	Nozzle, Open 758	1
68	75801900	Shield, Heat - Rear	1

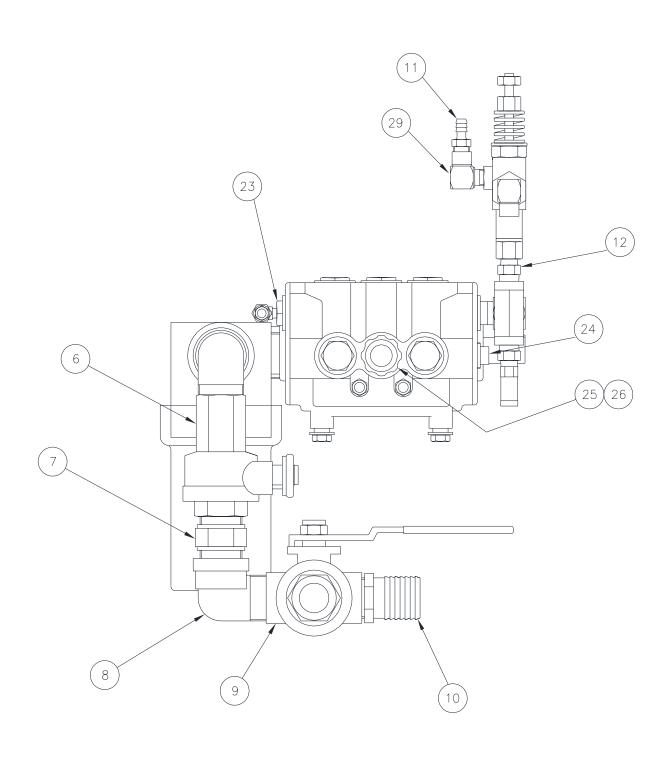
ltem	Part Number	Description	Qty.
69	75802300	Sheet, Gas Tank Mount	1
70	75803100	Clamp, Muffler 1-1/4"	4
71	75805400	Angle, Gas Tank	1
72	75806500	Plate, Control Box Mount	1
73	75807400	Choke Cable	1
74	75808500	Cable, Pos Battery 60" Lg	1
75	75808700	Conduit, Throttle Control	1
76	75811200	U-Nut 3/8-16	2
77	75813000	Muffler, 758	1
78	75813400	Assy, Water Tank - 758	2
80	75814000	Decal, Throttle	1
81	75814700	Strap, Battery Hold Down	1
82	75815100	Decal, Gasoline Only	1
83	75815300	Box, Battery (Modified)	1
84	75815400	Decal, Spartan	1
85	75817000	Support, Plumbing	1
86	75817200	Support, Muffler	1
87	75817800	Assy, Wire Harness-Relay	1
88	75818010	Clamp, Kawasaki 27 HP	1
89	75818400	Assy, Engine Control Box	1
90	75819400	Harness, Wiring 758 (27 HP)	1
91	75819500	Angle, Plumbing Support	1
92	75819800	Weldment, Lower Eng.	1
93	75819900	Strip, Muffler Support	1
94	75820100	Angle, Lower Engine Encl	2
95	75820200	Assy, Power Pak 758 (27HP)	1
96	75821300	Screw, Hex Hd M8 x 16	2
97	75821500	Weldment, Exhaust Ext	1
98	75821800	Shield, Heat (Side)	1
99	75821900	Assy, Upper Cover Encl	1
100	75822400	Spacer, Nylon 1/2 DI	2
101	75828100	Weldment, Control Mount	1
102	75828130	Plate, 130	1
103	75866100	Decal, 758 Tire & Load	1

ltem	Part Number	Description	Qty.
104	75866500	Assy, 3/8 Anti-Turn Around	1
105	75871600	Tank, 8 Gal Gasoline	1
106	75871610	Canister, Charcoal	1
107	75871700	Weldment, Gas Tank	1
108	75871800	Strap, 8 Gal Gas Tank	2
109	77705000	Push Lok Hose	2 ft
110	77710200	Hose 1-1/4 x 4 Spiral Sm	1.4 ft
111	77710500	Fender-Painted	2
112	77722100	Frame, Lighted License	1
113	77724000	Bushing 1/2 x 3/8 NPT	1
114	77726500	Rivet, Blind 3/16 Dia.	20
115	77726800	Chain, #5 Double Loop	2 ft
116	77728900	Cap, Cable #5704 Red	1
117	77736900	Clamp, Hose 1-9/16 - 2-1/2 #32	2
118	77738100	Screw, Cap Hex Hd 3/8-16 x 1	4
119	77738300	Screw, Cap Hex Hd 3/8-16 x 3/4	5
120	77739800	Decal, Caution (Read Man)	2
121	77739900	Decal, Warning (Insert)	1
122	77744800	Nut, Stover Lock 1/2-13 UNC	10
123	77745800	Screw, Hex Hd 1/2-13 x 1-1/4	10
124	77746000	Clamp, Hose 7/32 - 5/8 S.S.	2
125	77747800	Nut, Hex 5/16-18	13
126	77748000	Nut, Stover Lock 3/8-16 UNC	20
127	77749400	Tubing, Heat Shrink 3/8	2 ft
128	77755000	Washer, Robo 3/8"	9
129	77759900	Screw, Cap Hx 3/8-16 x 1-1/4	10
130	77766300	Label, Danger "No Smoking"	1
131	77768800	Tie Wire - Plastic	28
132	77768900	Holder, Wire Tie	16
133	77769300	Lock-Nut 1/2-20 UNF Grade 9	1
134	77770400	Clamp, Muffler 2-1/4" Zinc Pl	1
135	77771501	Throttle Control, Locking	1
136	77785200	Mount, Motor	4
137	77800600	Assy, Hose Guard 2"	1

Item	Part Number	Description	Qty.
138	77805100	Bolt, Carriage 5/16-18 x 1	6
139	79827300	Assy, Hand Crank	1
140	79829300	Clamp, Muffler 1-1/2" Zinc	1
141	79838800	Nut, Flanged Hex 5/16-18	20
142	79842100	Clamp, Hose 3/16	2
143	79842200	Clamp, Hose 1/2	4
144	79847800	Battery, Diesel 875 CCA	1
145	79860000	Clamp, Vinyl Coated 5/8"	3
146	79872000	Saddle, Valve Clamp	1
147	79904483	1/2" Push-On Hose	3 ft
148	79920159	Screw, Phil Fl Hd 1/4-20 x 1	2
149	79925700	Connector-Push-On 2 Wire	5
150	79944100	Hose, Garden 5/8 x 100'	1
151	79945850	Light, Side Marker Amber	2
152	79945860	Screw, 8-32x1-1/4 Flt Hd Znc	4
153	79947360	Screw, 3/8-16 x 3-3/4 Hx Hd	2
154		Decal, VIN Number	1
155	79952300	Decal, Wheel & Lug Nuts	1
156	79952400	Decal, Safety Chains	1
157	79952700	Decal, NATM Compliance	1

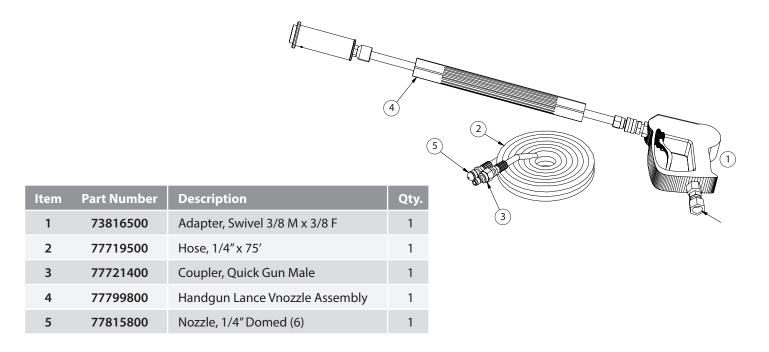
758 PUMP ASSEMBLY - 75802700



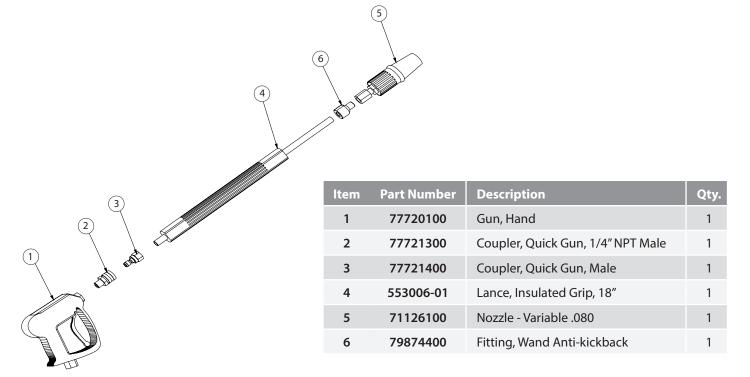


ltem	Part Number	Description	Qty.
1	75800500	Pump	1
3	77705101	Elbow, 90° Street 1/2NPT	1
4	75802800	Unloader	1
6	75806000	Valve, Ball 1-1/4 FNPT x 1-1/4 FNPT	2
7	75802900	Nipple, Close 1-1/4 Polypropylene	2
8	79811300	Elbow 90° 1-1/4 (MPT) x 1-1/4 (FPT) Poly	2
9	75803000	Tee 1-1/4" FNPT Polypropylene	1
10	79812000	Barb, Hose 1-1/4" (MNPT) x 1-1/4" Poly	1
11	77704900	Fitting, Push Lok 1/2-14	1
12	73811700	Nipple, 3/4 x 1/2 Steel	1
13	79811600	Nipple, 1-1/2" x 1-1/4" MPT Polypropylene	1
14	79811700	Filter, 1-1/2" FPT Polypropylene	1
16	71707400	Valve, Check w/ Air Valve	1
17	71707300	Elbow, 90° Male 1/4 x 1/8	1
18	78700200	Washer, Flat M12	4
20	75805100	Valve, Pop Off	1
21	75803200	Elbow, 90° Street 1" Polypropylene	1
22	75803300	Nipple, 1" x 1-1/2" Polypropylene	1
23	75803400	Bushing, Reducer 3/4" MNPT x 1/8" FNPT	1
24	75803500	Plug 1" MNPT Stainless	1
25	75807000	Assembly, Pulsation Plunger	1
26	75824200	Stop, Pulsation Knob	1
27	7581930P	Weldment, Pump Mount	1
28	79816200	Elbow, 90° Street 3/4 H.P.	1
29	73818000	Elbow, 90° 1/2" Male x 1/2" Female	1
30	79825300	Nipple, 3/4" x 2" H.P.	1
31	79816100	Tee, 3/4" x FPT H.P.	1
32	79816300	Bushing, Reducer 3/4" x 1/4"	1
33	44181400	Washer, Lock-Split M12	4
34	75823100	Screw, Hex Hd M12 x 25mm	4
35	73827000	Filter Gasket	1

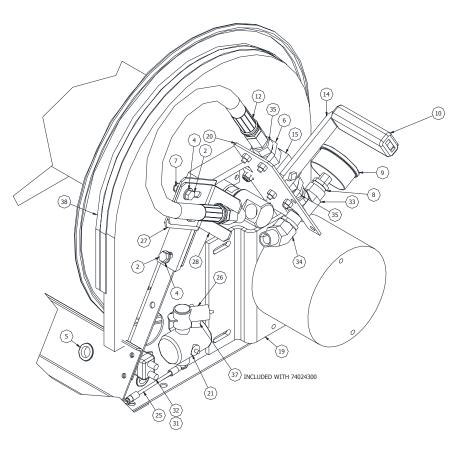
WASH DOWN ACCESSORY PACKAGE - 73817300

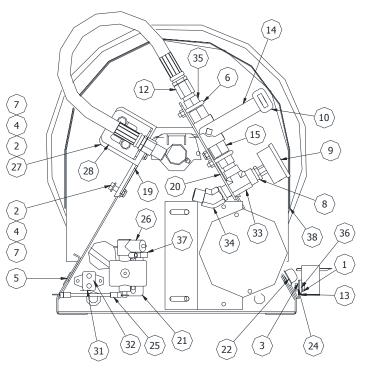


HANDGUN LANCE VNOZZLE ASSEMBLY - 77799800

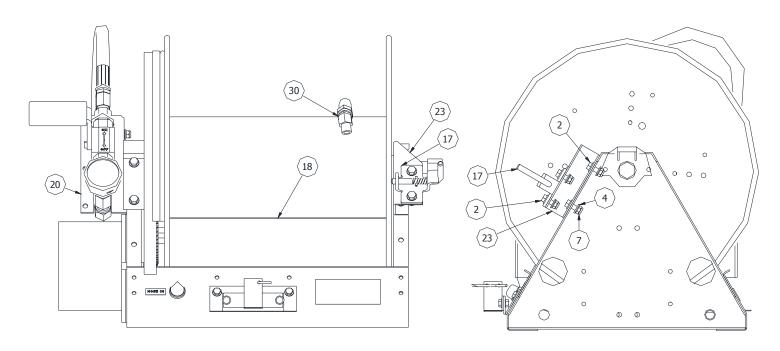


ASSY, REEL HIGH PRESSURE 740 - 74024200





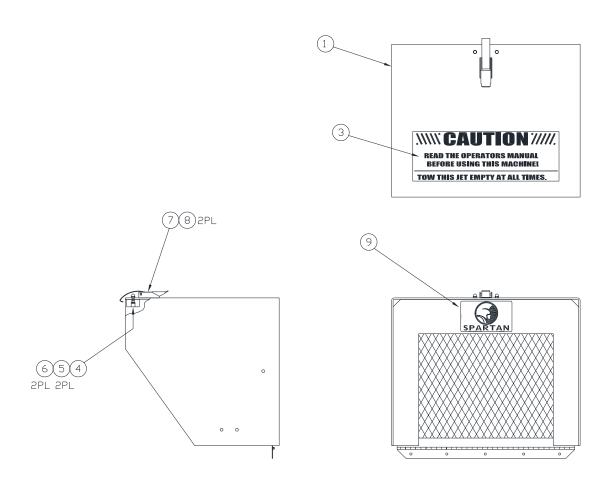
Appendix A Diagrams Published in 2013 Manual Assy, Reel High Pressure 740 - 74024200



Item	Part Number	Description	Qty.
1	00113500	Screw, Hex Hd Cap 1/4-20 x 1/2	4
2	00115100	Screw, Hex Hd Cap 5/16-18 x 1	10
3	01950800	Nut, 1/4-20 Hex Kep	4
4	02899200	Washer, Flat 5/16	20
5	44121300	Grommet	2
6	521400-04	U-Bolt 1 x 1-3/4 1/4-20	2
7	522122-00	Nut, Lock 5/16-18	10
8	542104-05	Bushing, Reducer 1/2 x 1/4	1
9	544000-01	Gauge, 5000 PSI	1
10	71102500	Grip, Foam Black	1
11	72707800	Decal, Warning HP Water	1
12	73808100	Hose, HP 1/2NPT x 19" Long	1
13	73816000	Weldment, Hose Holster	1
14	73816100	Handle, HP Valve	1
15	73816200	Valve, 12 NPT HP	1
16	73817800	Decal, Ball Valve On-Off	1
17	73825500	Lock, Reel	1
18	74024210	Rubber Strip, Adhesive Back	1
19	74024300	HP Reel 740	1

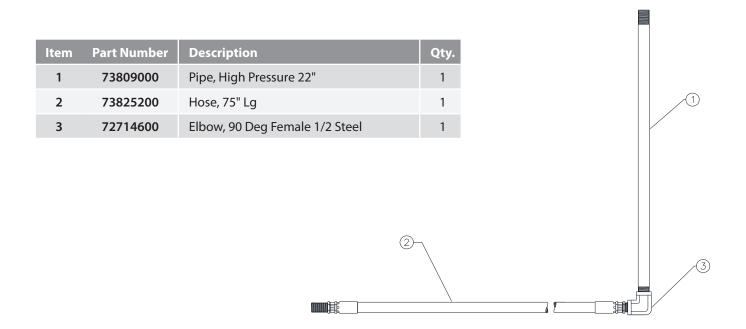
Item	Part Number	Description	Qty.
20	74024530	Bracket, HP Valve	1
21	74024600	Solenoid 12 VDC (Part of 74024300)	1
22	74024700	Push Button with Boot (Part of 74024300)	1
23	74024710	Bracket, Reel Lock	1
24	74024800	Adapter, Hose Holster	1
25	74024900	Jumper Wire 12" Black	1
26	74025400	Boot, Ring Terminal Red	1
27	74026200	Angle, Anti-Torque	1
28	74026300	Fork, Anti-Torque	1
29	75814200	Decal, Hose In	1
30	75828200	Elbow, 45 Deg 1/2 F Swiv x 3/8	1
31	75869300	Circuit Breaker 40 Amp	1
32	75869310	Boot, Circuit Breaker Red	1
33	77711301	Tee, Male Run 1/2 NPT	1
34	77763900	Elbow, 45 Deg Street 1/2 NPT	1
35	77770800	Nipple, Hex 1/2 NPT	2
36	79908200	Washer, Flat 1/4 SAE	4
37	79946170	Terminal, 3/8 Ring 12-10 AWG	2
38	79961150	Edge Grip, Rubber Seal	3 ft
39	77737100	Pin, Hair 9 Gauge 2.45" Long	1

ASSY, UPPER COVER ENC 75821900

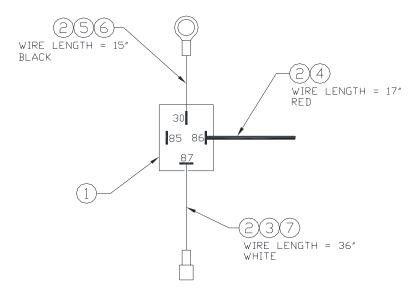


Item	Part Number	Description	Qty.
1	75804400	Weldment, Upper Cover Enclosure	1
3	73817200	Decal, Caution Read Manual	1
4	75818100	Bumper, Rubber (758 Hood Enc.)	1
5	04725200	Acorn Nut, #10-32 Zinc Plated	2
6	04723100	Machine Screw 10-32 x 5/8 Rd	2
7	75821200	Latch, Over Center Draw	1
8	77726500	Rivet, Pop 3/16 x 3/16 Grip	2
9	44297900	Decal, Spartan 3" x 5"	1

ASSY, HIGH PRESSURE PIPE 73807300

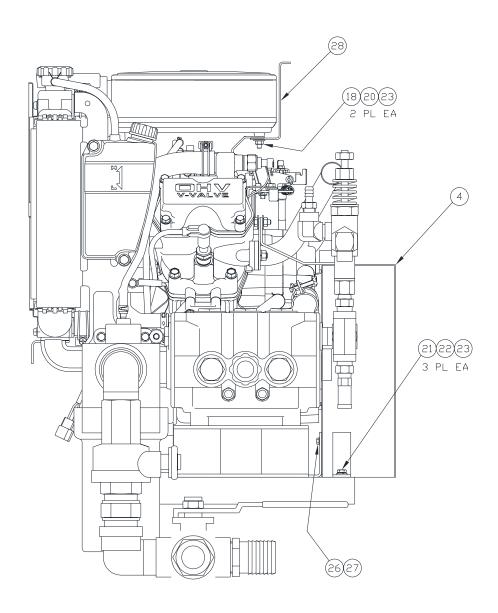


ASSY, WIRE HARNESS-RELAY 75817800

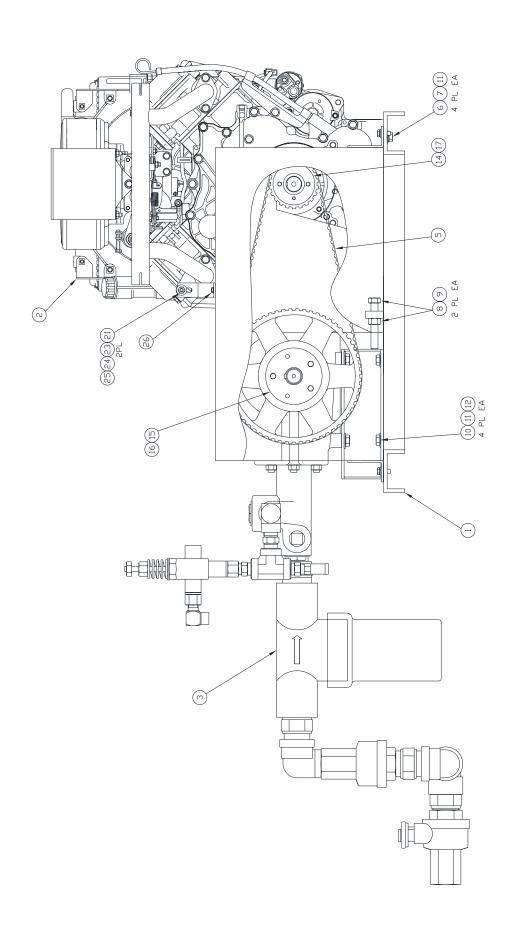


Item	Part Number	Description	Qty.
1	75823600	Relay	1
2	44216100	Disconnect, .250 Female 16-14	3
3	77733000	Wire, 16 AWG Stranded White	3
4	77733100	Wire, 16 AWG Red Stranded Cu	1.42
5	44222400	Wire, Hook-Up 16 AWG- Black	1.25
6	77733300	Terminal, Ring 5/16"	1
7	77751600	Disconnect, .250 Female Bullet	1

758 POWER PAK - 75820200



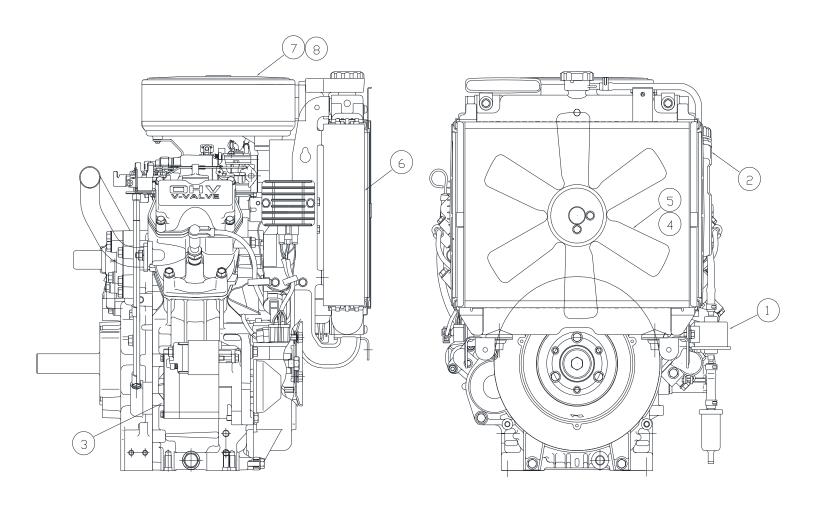
Appendix A Diagrams Published in 2013 Manual 758 Power Pak - 75820200



Appendix A Diagrams Published in 2013 Manual 758 Power Pak - 75820200

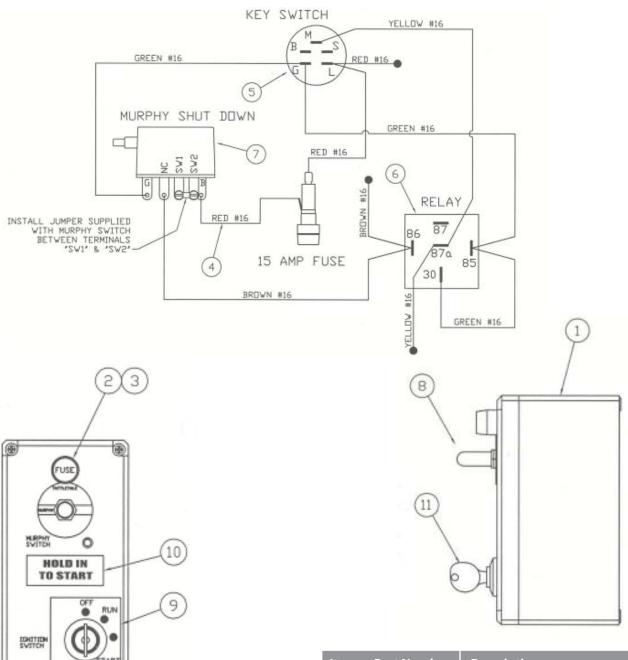
ltem	Part Number	Description	Qty.
1	73801600	Weldment, Power Pak 738-758	1
2	75818000	27HP Engine	1
3	75802700	Pump Assembly	1
4	75820300	Weldment, Belt Guard (27HP)	1
5	75820400	Belt, 480H200	1
6	75822800	Screw, Cap Hex Head M10 - 25mm (Metric)	4
7	44029500	Lock Washer, M10 (Metric)	4
8	77727100	Adjusting Bolt, 1/2-13 x 2 1/4	2
9	00778000	Nut, 1/2 - 13	2
10	77738100	Bolt, Hex Head 3/8 - 16 x 1	4
11	00162700	Flat Washer, 3/8	8
12	522132-00	Nylock Nut, 3/8 - 16	1
14	75820500	Sheave, Drive	1
15	75820600	Sheave, Driven	1
16	73810500	Bushing, Driven	1
17	75820700	Bushing, Drive	1
18	75821000	Screw, M6 x 22mm (metric)	2
20	75821100	Nylock Nut, M6 (metric)	2
21	00113600	Bolt, 1/4 - 20 x 3/4	4
22	00165400	Lock Washer, 1/4"	3
23	02825100	Flat Washer, 1/4"	7
24	75820800	Belt Guard Bracket (Top)	1
25	02821200	Nylock Nut, 1/4 - 20	1
26	44119500	Self Tapping Screw, 10-24 x 1/2	2
27	75820900	Belt Guard Bracket (Bottom)	1
28	75820000	Latch Bracket (Engine Enclosure)	1

ENGINE, 758 27 HP KAWASAKI 75818000



Item	Part Number	Description	Qty.
1	75816700	Pump, Fuel Electric Kawasaki	1
2	75817300	Tank, Coolant-Kawasaki	1
3	75824000	Starter, 27 HP Kawasaki	1
4	75824100	Fan, 27 HP Kawasaki	1
5	75825100	Shoud, Fan 27 HP	1
6	75826000	Radiator, 758 Jet 27 HP	1
7	75826500	Air Filter Element Kawa 27 HP	1
8	75826600	Outer Foam Element, Kawa 27 HP	1

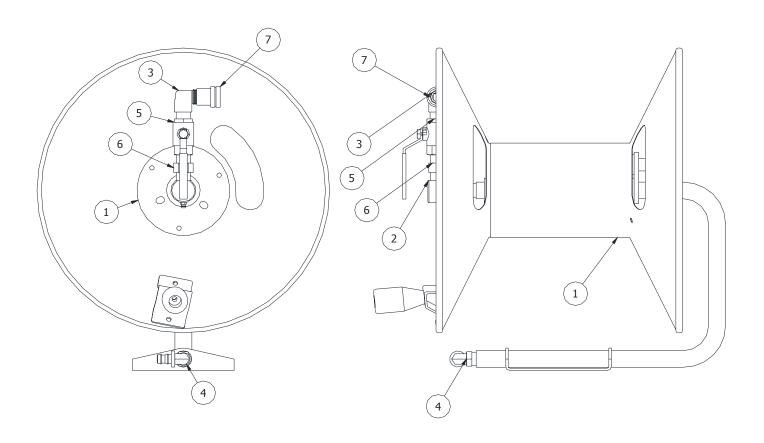
758 ENGINE CONTROL BOX - 75818400



Item	Part Number	Description	Qty.
1	75818200	Box, Ignition / Murphy (27 HP)	1
2	61018000	Fuse Holder	1
3	79850400	Fuse, 15 AMP	1
4	75810500	Wire Assy, Fuse - Murphy (Red)	1
5	75818300	Ignition Switch	1

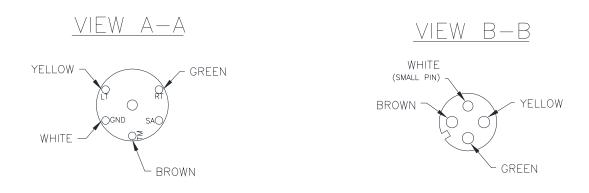
Item	Part Number	Description	Qty.
6	75823600	Relay	1
7	75815800	Switch, Murphy Shutdown	1
8	75823700	Dust Boot	1
9	75818600	Decal, Key Switch	1
10	75814100	Decal, Hold In To Start	1
11	75815927	Ignition Key	1
12	75822700	Wiring Assy, Relay / Ignition	1

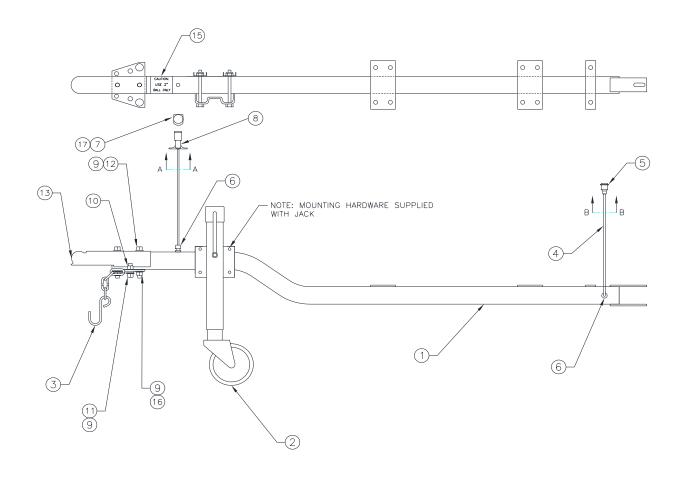
ASSY, COM FILL REEL 74027000



Item	Part Number	Description	Qty.
1	72727500	Reel, HP Hose	1
2	79962100	Swivel, HP Reel 1/2"	1
3	79904464	St El 90D 1/2 NPT Brass	1
4	79904478	El 90D 1/2 NPT - Barb Brass	1
5	72704800	Valve, Ball 1/2M x 1/2F	1
6	77770800	Nipple Hex, 1/2 NPT	1
7	75867040	Adapter, 3/4 FGHT - 1/2 FNP	1

HITCH TUBE ASSEMBLY - 73806800



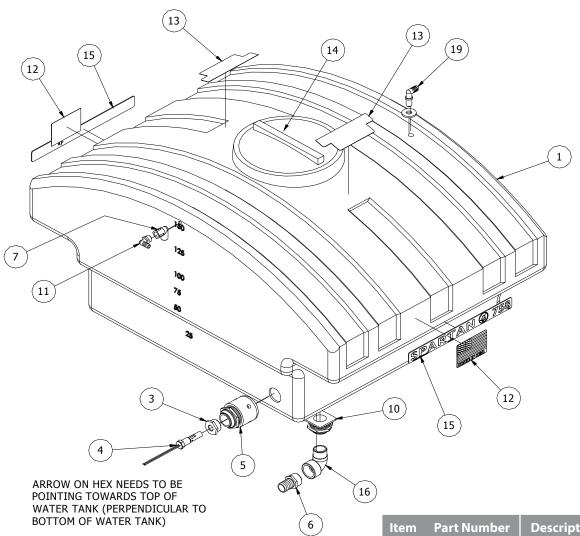


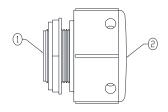
Appendix A Diagrams Published in 2013 Manual Hitch Tube Assembly - 73806800



Item	Part Number	Description	Qty.
1	73808700	Weldment, Hitch Tube	1
2	73852800	Assy., Jack	1
3	79960000	Chain, Safety	2
4	77731500	Wire, Trailer Primary Jacketed	10.5'
5	77731600	Connector, Plug Set	1
6	77764200	Grip, Cord	2
7	44036500	Trailer Connector, Vehicle End	1
8	44055000	Trailer Connector, Trailer End	1
9	73826900	Washer, 1/2" Flat High Strength	6
10	77744800	Locknut, 1/2-13 Stover	2
11	77745800	Screw, Hex HD Cap 1/2-13 x 1/4	2
12	73808800	Bolt, 1/2-20 x 4"	2
13	73803300	Tongue Coupler 2-1/2" Sq.	1
15	77749500	Decal, 2" Ball Only	1
16	77769300	Lock-Nut 1/2-20 UNF	2
17	77770900	Rubber Boot (Not Shown) for Item 7	1

758 WATER TANK ASSEMBLY - 75813400



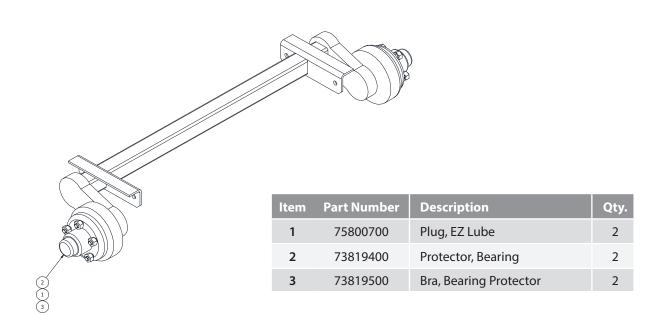


Item 5 (73827800) Bulk head Fitting

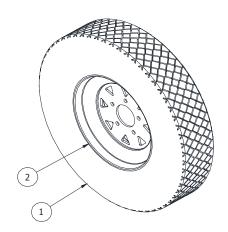
Item	Part Number	Description	Qty.
1	73827700	Bulkhead Fitting, 1-1/4	1
2	73827500	Cap, PVC 2-1/12 NPT	1

Item	Part Number	Description	Qty.
1	73801800	Water Tank w/holes	1
3	73827600	Bushing, Reducer 1 1/4 x 1/2	1
4	75823200	Switch, Liquid Level (Compac)	1
5	73827800	Bulkhead Fitting	1
6	79812000	Barb, Hose 1 1/4	1
7	73818000	Elbow, 90 Street 1/2 NPT	1
10	79818500	Bulkhead Fitting 1 1/4	1
11	75811700	Elbow, 90 Deg Hose Barb 1/2	1
12	73817400	USA Label	2
13	75800100	Decal, Spartan 758	2
14	73817600	Water Tank Cover	1
15	75826100	Decal, 758 Water Tank	2
16	79811300	Elbow, 90 Street 1 1/4 Poly	1
19	75867300	Elbow, Nozzle Body	1

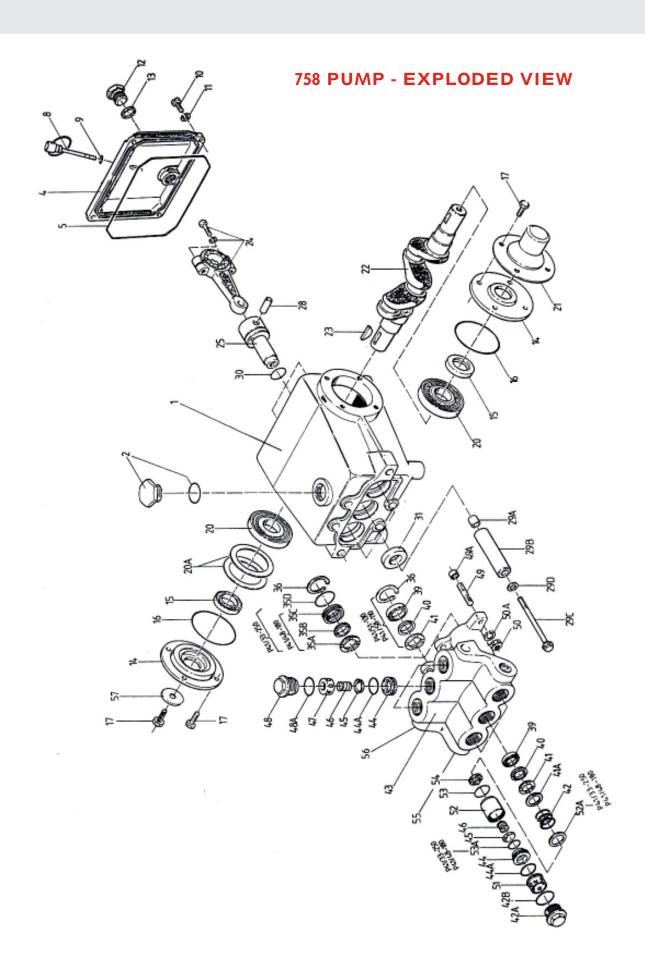
AXLE - 2300 LB 73804300



ASSY, TIRE & WHEEL 73803700



Item	Part Number	Description	Qty.
1	73803500	Tire, 13" Radial-Repair Part	1
2	73803600	Wheel, 13 x 4-1/2 - Repair Part	1



758 PUMP PARTS LIST

Item	Part Number	Description	Qty.
1	75800505	Crankcase	1
2	75800506	Oil Filler Cap	1
3	75800507	O-Ring, Filler Cap	1
4	75800508	Cover, Crankcase	1
5	75800509	O-Ring, Crankcase Cover	1
8	75800510	Oil Dip Stick	1
9	75800511	O-Ring, Dip Stick	1
10	75800512	Screw, Crankcase Cover	4
11	75800513	Spring Washer	12
12	75800514	Oil Drain Plug	1
13	75800515	Gasket, Oil Drain Plug	1
14	75800516	Bearing Cover	2
15	75800517	Seal, Crankshaft	2
16	75800518	O-Ring, Bearing Cover	2
17	75800519	Hex Screw, Bearing Cover	8
20	75800520	Rolling Bearing, Tapered	2
20A	75800521	Shim	3
21	75800522	Shaft Protector	1
22	75800523	Crankshaft	1
23	75800524	Key	1
24	75800525	Connecting Rod	3
24A&B	75800526	Hex Screw w/Washer	6
25	75800527	Crosshead Complete	3
28	75800528	Crosshead Pin	3
29A	75800529	Centering Sleeve	3
29B	75800530	Ceramic Plunger, 24mm	3
29C	75800531	Bolt, Sold only w/#07258	3
29D	75800532	Seal Washer	3
30	75800533	Flinger	3
31	75800534	Crankcase Oil Seal	3

Item	Part Number	Description	Qty.
35A	75800535	Rear Support Ring	3
35B	75800536	Rear V-Sleeve	3
35C	75800537	Rear Pressure Ring	3
36	75800538	Snap Ring	3
39	75800539	Pressure Ring	3
40	75800540	V-Sleeve	3
41	75800541	Support Ring	3
41A	75800542	Spacer	3
42	75800543	Tension Spring	3
42A	75800544	Tension Plug	3
42B	75800545	O-Ring	3
43	75800546	Manifold Head	1
43A	75800547	Plug	2
43B	75800548	Plug	2
44	75800549	Valve Seat	3
44A	75800550	O-Ring, Valve Seat	3
45	75800551	Valve Plate	3
46	75800552	Valve Spring	3
47	75800553	Spring Retainer, Discharge	3
48	75800554	Plug, SS	3
48A	75800555	O-Ring Plug	
49	75800556	Stud, Manifold	6
49A	75800557	Shim, Stud	2
50	75800558	Nut, Manifold Stud	3
50A	75800559	Spring Washer	6
51	75800560	Spacer	6
52	75800561	Valve Housing	3
52A	75800562	Spacer Ring	3
53	75800563	O-Ring	3
53A	75800564	O-Ring	3
54	7580055	Spring Retainer, Inlet	3

758 PUMP TORQUE SPECIFICATIONS

Item	Part Number	Description	Torque Amount
17	75800519	Hex Screw, Bearing Cover	125 in lbs.
24A	75800526	Hex Screw, Connecting Rod	250 in lbs.
29C	75800531	Bolt, Plunger	300 in Ibs.
50	75800558	Nut, Manifold Stud	700 in Ibs.

758 PUMP REPAIR KITS

DISCHARGE VALVE ASSY. KIT (75800568)

Item	Part Number	Description	Qty.
48A	75800555	O-Ring, Plug	3
47	75800553	Spring Retainer	3
46	75800552	Valve Spring	3
44A	75800550	O-Ring, Valve-Seat	3
44	75800549	Valve Seat	3
45	75800551	Valve Plate	3

PLUNGER PACKING KIT (75800566)

Item	Part Number	Description	Qty.
40	75800540	V-Sleeve	3
35B	75800536	Rear V-Sleeve	3

INLET VALVE ASSY. KIT (75800567)

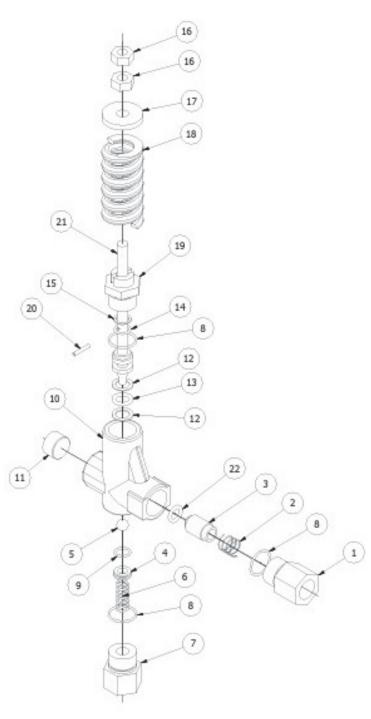
ltem	Part Number	Description	Qty.
42B	75800545	O-Ring Tension Plug	3
44A	75800550	O-Ring, Valve-Seat	3
44	75800549	Valve Seat	3
53A	75800564	O-Ring	3
45	75800551	Valve Plate	3
46	75800552	Valve Spring	3
53	75800563	O-Ring	3
54	75800565	Spring Retainer	3

Item	Part Number	Description	Qty.
1	75802801	Connection	1
2	75802802	Spring	1
3	75802803	Piston Housing	1
4	75802804	Seat	1
5	75802805	Ball	1
6	75802806	Spring	1
7	75802807	Inlet Fitting	1
8	75802808	O-Ring	3
9	75802809	O-Ring	1
10	75802810	Valve Housing	1
11	75802811	Plug	1
12	75802812	Back Ring	2
13	75802813	O-Ring	1
14	75802814	O-Ring	1
15	75802815	Back Ring	1
16	75802816	Nut	2
17	75802817	Spring Guide	1
18	75802818	Spring	1
19	75802819	Piston Housing	1
20	75802820	Pin	1
21	75802821	Piston	1
22	75802822	O-Ring	1

UNLOADER REPAIR KIT (75802823)

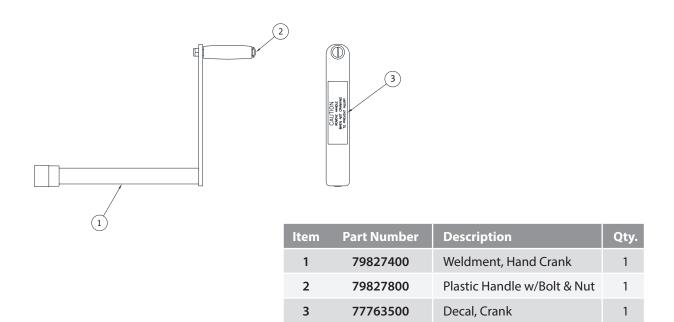
Item	Part Number	Description	Qty.
4	75802804	Seat	1
5	75802805	Ball	1
8	75802808	O-Ring	3
9	75802809	O-Ring	1
12	75802812	Back Ring	2
13	75802813	O-Ring	1
14	75802814	O-Ring	1
15	75802815	Back Ring	1
22	75802822	O-Ring	1

UNLOADER - 75802800

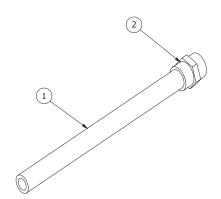


NOTE: Always remember to generously lubricate all moving parts with a light weight oil for easy reassembly and to give the moving parts protection when "running in" the unloader.

ASSY, HAND CRANK - 79827300



ASSEMBLY, 3/8" ANTI-TURN AROUND 75866500



Item	Part Number	Description	Qty.
1	75866510	Nipple, 3/8" x 9" Long	1
2	73818400	Coupler, Female 3/8 Hose	1

758 ACCESSORIES

Part Number	Description
75800900	Nozzle, Open
75800800	Nozzle, Closed
77724000	Reducer 1/2 x 3/8
73808600	3/8 x 250 ft. Hose
73808601	3/8 x 75 ft. Hose
73808602	3/8 x 150 ft. Hose
73808603	3/8 x 350 ft. Hose
77708600	1/4 x 33 ft. Hose
77719400	1/4 x 50 ft. Hose
77719500	1/4 x 75 ft. Hose
77708700	1/4 x 100 ft. Hose
73816800	Mobile Hose Reel
73820500	Grenade Nozzle
73700100	Rocket Nozzle
75700200	Q-Nozzle
73700300	Rotary Nozzle
77721800	0° Nozzle Lance
71701700	Hose S.S. Trap 50'
71701800	Hose S.S. Trap 75'
71702900	Hose S.S. Trap 100'
71701900	Jet Head Brass Ball 1- 1/4" Dia x 1/8 NPT
71701901	Jet Head Brass Ball 1" Dia x 1/8 NPT
73817300	Wash Down Accessory Kit Includes *Items
*77799800	Hand gun Lance Vari-Nozzle Assembly
*77721400	Coupler, Quick Gun, Male
*77719401	1/4 x 50 ft. Hose
*77701401	1/4" Nozzle Domed
*73816500	Swivel Adapter, 3/8 Male to 3/8 Female
34/3-1	3" - Model 34 Root Cutter
34/3-2	4" - Model 34 Root Cutter
34003701	Root Cutter Adapter Hose
44237200	Model 468 Root Cutter & Toolbox (*accessories included w/468 Rootcutter)

Part Number	Description
	Model 468 Accessories
*44236800	4"Tri-Blade Cutter
*44236900	6"Tri-Blade Cutter
*44237000	8"Tri-Blade Cutter
44260500	10"Tri-Blade Cutter
*44235100	4" Operating Skid
*44235200	6" Operating Skid
*44235300	8" Operating Skid
44260600	10" Operating Skid
*44236000	Installation Hardware
34003701	Leader Hose (Highly Recommended)



CONTACT US

Spartan Tool LLC 1618 Terminal Road Niles, MI 49120

800.435.3866

SpartanTool.com