

# SPARTAN

## 7 5 8 Skid Mount Water Jet

**Owner's Manual** 

Record the VIN Number of your

**Model 758** 

and give the number to the factory when ordering parts.

Serial Number



Spartan Tool L.L.C. 800.435.3866 www.spartantool.com





### Warning





- Read the safety and operating instructions before using any Spartan Tool products. 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 instruction 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 in any confined space or area with inadequate ventilation. Operate this equipment only when located outdoors or in an open, well ventilated area.
- Insure the jet hose has been placed in the pipe (minimum of 6 feet suggested) before engaging the water pressure to prevent the hose from coming out of the pipe prematurely and causing injury.
- Always shut the water pressure off before pulling the hose out of the pipe. Mark the hose a minimum of 6 feet from the end to help insure 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. WARNING: Portions of the system can still be under pressure even if the unit is not operating.
- 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 the company at the address shown below.

"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."

SPARTAN TOOL L.L.C.

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Page 2



### **Table of Contents**



Warning 2	758 Skid Mount Assembly - 75824300	31-36
Table of Contents	758 Pump Assembly - 75824500	37
OPERATING SECTION	Strainer Assembly - 75824800	38
Model 758 Water Jet Specifications 4	758 Fill Reel Assembly - 75867000	39
Model 758 Water Jet Features5	758 H.P. Reel Assembly - 75824900	40-41
Jet Applications Areas 6	High Pressure Reel- 73814500	42
Uncrating and Prep7-8	Chain Guard Assembly - 75812300	42
Pump and Pressure System 8	758 Skid Mount Power Pak - 75825000	44-45
High Pressure Water Jetting9	Upper Cover Assembly - 75821900	46
Water Tank Filling 10	758 Engine- 75818000	47
Operator Controls10-11	758 Engine Control Box - 75818400	48
Engine Operating Procedure 12	758 Control Panel - 75808300	49
Setting up for Operation	758 Water Pump 75824500	50-51
Power Rewind Operating Instructions 14	Pump Torque Spec & Repair Kits	52
Pulsation	Unloader - 75802800	53
Lubrication & Maintenance 16-18	Air Bulb & Hose 44225800	54
Fuel, Oil & Coolant Recommendations 19	Antiturn Around 75866500	54
Operating Instructions20-21	Washdown Kit & Hangun Lance	55
Pipe Jetting Procedure	Water Tank w/ Frame 73829500	56
When Obstruction Are Encountered 22	Water Tank Assembly - 73829400	57
1/4" Drain Hose	Bulkhead Fitting 73827800	57
Wash Down Kit - 7381730023	Swing Arm 73829900	58
Mobile Hose Reel - 73816800 (Optional) 23	Swivel Lock 79816600	59
Venturi Pump - 77763700 (Optional) 24	Wire Harness- Relay 758179800	59
Cold Weather Protection 24	Skid Mount Frame 73837000	60-6
758 Pump System Malfunction Chart 25	Water Tank Frame 73836000	62
Troubleshooting	758 Decal Package - 75814400	63
PARTS & ACCESSORIES SECTION	758 Accessories	64
How To Use Parts & Accessories Section 27		
Special Note		
758 Skid Mount w/ Tank28-29		
Wiring Diagram30		



### **Model 758 Water Jet Specifications**



#### General

— Pipe Sizes Up to 12" in Diameter

Max Water Delivery
Max Pressure Delivery
Water Tank
12 GPM
3000 PSI
100 Gal.

Engine					
<ul><li>Horsepower</li></ul>	27 HP V-Twin				
<ul><li>Cylinders</li></ul>	2				
— Bore & Stroke	3.07" x 3.07"				
— Fuel / Tank Capacity	Gasoline / 8.25 Gal.				
<ul> <li>Cooling / Capacity</li> </ul>	Water Cooled / 2.9 qts.				
<ul><li>Oil Capacity (w/filter)</li></ul>	2.1 qts.				
— Starter	Electric				
<ul><li>— Alternator</li></ul>	20 Amp				
<ul><li>Battery</li></ul>	12 VDC				

	Pump
<ul><li>Max Pressure</li></ul>	3000 PSI
<ul> <li>Max Water Output</li> </ul>	12.6 GPM
<ul> <li>Max Temperature</li> </ul>	140°F
— RPM	1420
<ul><li>— Plungers</li></ul>	3



### **Model 758 Water Jet Features**



#### **Features**

- Equipped with 3/8" x 250' high pressure jetting hose
- Open and Closed nozzles for 3/8 inch hose
- Easily accessible pump inlet filter assembly
- Low water shut down protection
- Pulsation
- Unloader pressure control
- 150' of 5/8 water supply hose
- Foot pedal valve
- Powered hose rewind
- Rear mounted operator's control
- Low engine oil protection
- High engine temperature protection
- Tool box
- Washdown gun & spray lance
- Manhole hose protection
- Air purge system for cold weather protection
- 1/4" x 50' HP Hose



### **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.



### **Uncrating and Prep**



If you received your machine crated, follow the steps below.



- 1.) Remove the 8 bolts that secure the jetter frame and the water tank frame to the crate.
- 2.) Position the unit inside your van or truck bed in a location that best fits your application.
- 3.) Secure the two units together by using the included (2)  $3/8-16 \times 4-1/2$ " screws, (4) 3/8 flat washers, and (2) 3/8-16 locking nuts.
- 4.) Next you'll want to plan out the exhaust routing and the frame mounting points. If required, use the flexible exhaust pipe (cut to length) and elbow supplied with this unit. Be sure to avoid any brake and fuel lines, fuel tank, spare tire mounts, etc. Once the desired position is achieved, mark the hole locations for the exhaust port and the frame mounts. (See Fig. 1)
- 5.) Using the skid mount frame holes as a guide, drill (8) 13/32 diameter holes through the floor of the vehicle.
- 6.) Place the (8) rubber pads between the frame and the vehicle floor and then secure the skid mount unit to the vehicle using the (8) 3/8-16 x 3" screws, (16) 3/8 flat washers, and (8) 3/8-16 locking nuts.
- 7.) Cut or drill an opening in the vehicle floor and mount the exhaust port. Use the supplied muffler clamps to secure the flexible pipe and elbow to the muffler.
- 8.) Remove the battery cover and connect the positive cable (red) to the positive post of the battery. Replace cover.
- 9.) Connect the fill hose and bypass hose to the water tank. No clamps required (See Fig. 2)
- 10.) Connect the water tank to the pump using the supply hose (short hose included with unit) and (2) hose clamps (included with unit) (See Fig. 3 on next page)
- 11.) Connect the low water switch. (See Fig. 4 on next page)

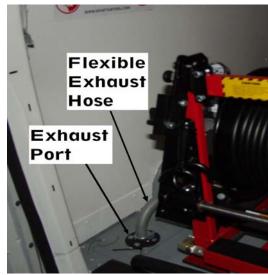


Fig. 1



Fig. 2



### **Uncrating and Prep**







Fig. 3 Fig. 4



### **Pump and Pressure System**





The pump and relief valve are the heart of your jet. They have been specially designed for use with water (temperatures up to 140°F) 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 to 3000 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 3000 psi (at 3200 engine rpm) and the wash down gun operates at 1600 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 bypass as the bypass 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.



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 lower pressure because the restriction is lower. To maintain desired PSI - replace nozzles.

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 (3200 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 bypassing off and on. Continued operation at pressures over 3000 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 alone cannot do the job. You need proper flow to wash the 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. 3. below)

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.

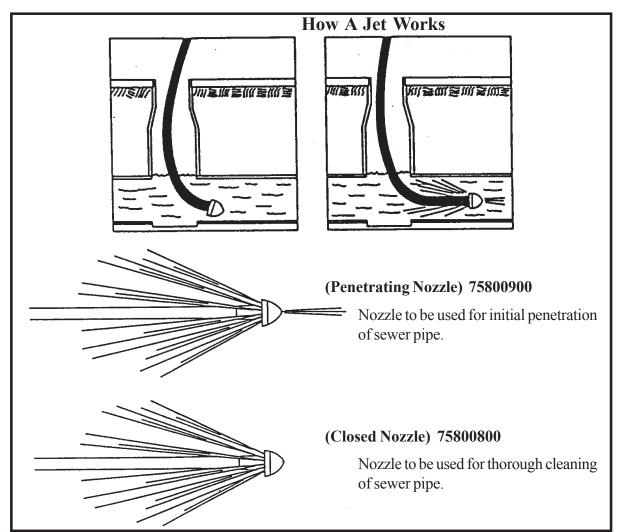


Fig. 3



### **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.

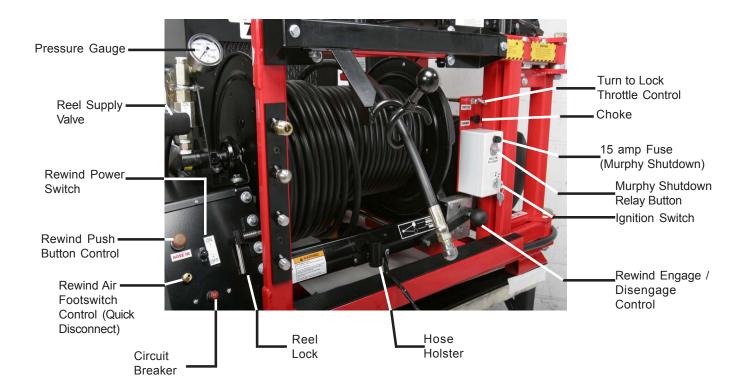
*Important Note:* (If the next 4 items are not followed, cavitation of the pump could occur and reduce operating efficiency and severely damage the pump.)

- Use water temperatures under 140°F.
- Ensure that water strainer is clean (check daily or 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**

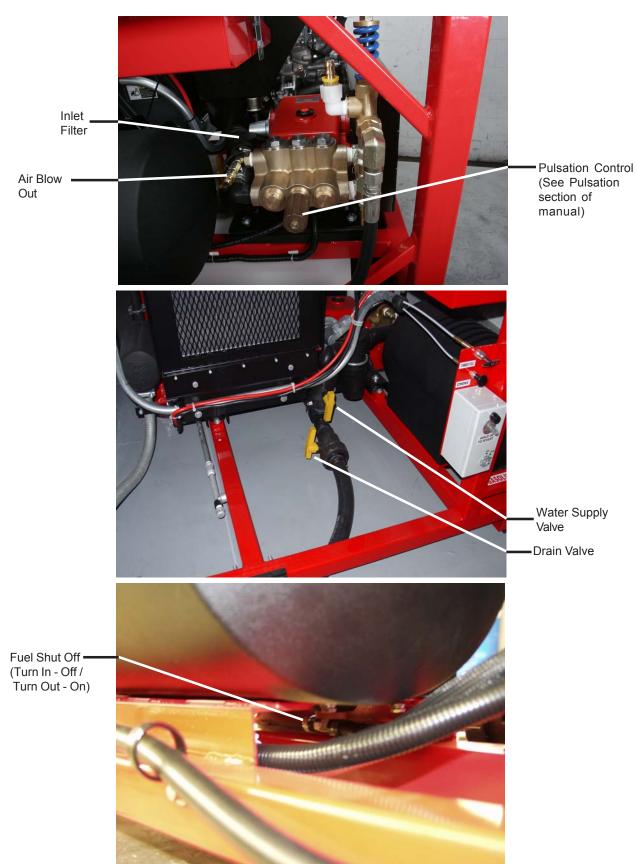






## **Operator Controls (cont.)**





Page 11



### **Engine Operating Procedure**



#### Start Up

- 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.
- Check fuel level.
   Note: Also Check engine and pump oil levels per manufacturer specifications (attached).
- Turn fuel valve **ON**.
- Turn high pressure reel supply valve "off".
- Hold in red relay button and key sart the engine. Choke as necessary.
- 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".
- Allow engine to idle for 1 to 2 minutes
- Turn the engine key switch **OFF**. (The engine key switch must be OFF when the engine is not running to avoid battery draining.)
- Turn the fuel valve OFF.



#### **Setting up for Operation**



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 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. 4 for the recommended positioning of the jet for best visibility during manhole work. Note that loose hose and damaging corners are minimized when the jet is parked as shown. (See pages 15 and 16 for instructions on using upper and lower manhole guides.)



*Warning:* The truck must be level for low water shutdown to operate correctly. When the truck 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.

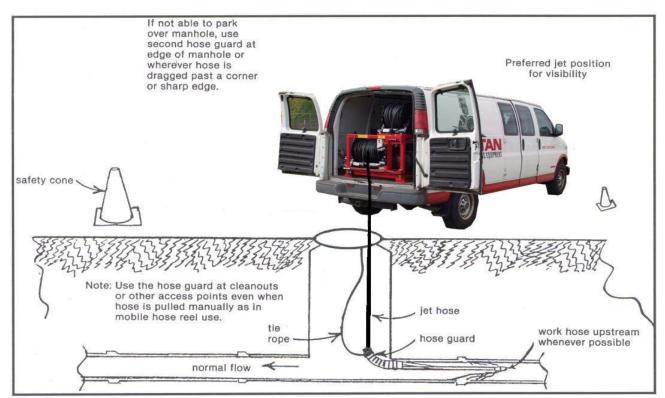


Fig. 4



### **Power Rewind Operating Instructions**



#### To Rewind Hose on Reel

- Release reel lock.
- Move rewind engagement handle to "engage" position.
- Turn power switch "on".
- Use panel mounted push button or air foot switch to energize rewind motor.



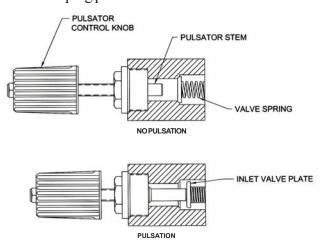
*Note*: Turn power switch "OFF" when rewind is not in use to avoid accidently activating rewind.



#### **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.





Pulsation

Control

To activate pulsator, follow these steps below:

- 1. Start engine. (Refer to engine operating procedure on page 13)
- 2. Insert jetting hose several feet into pipe opening. (Refer to setup section on page 14)
- 3. Advance engine to full throttle and place the reel supply valve in the "on" position (up). (Refer to operation instructions on page 22)
- 4. Start turning pulsator control knob "in" (clockwise). You may start to hear a clicking sound made by the invalve plate moving back and forth against pulsator valve stem. Continue turning control knob "in" unclicking 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 value, spring, and spring retainer. Increased resistance should be felt when valve spring is reaching tell compression. This is an indicator that you are turning pulsator control knob too far into pun

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 approximately 1400-1700 psi.



### **Lubrication & Maintenance**



#### Engine



See Periodic Maintenance Chart below.

For fuel, oil, and coolant recommendations see page 21.

See Owner's manual for additional information.

#### Periodic Maintenance

2070-2019	INTERVAL							
MAINTENANCE	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	•							41
Tighten nuts and screws			•					
* Clean air cleaner foam element			•		() Charles			
* Clean air cleaner paper element					•			
Change engine oil		•	12		•			
Clean and regap spark plug					•			
Change oil filter						•	900000 Cent	
* 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	100000000000000000000000000000000000000					•		
K Check fan belt conditions and tension						•		
K Change coolant								

Note: 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.

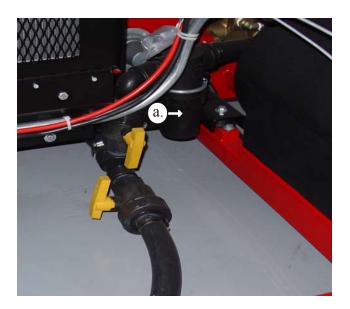


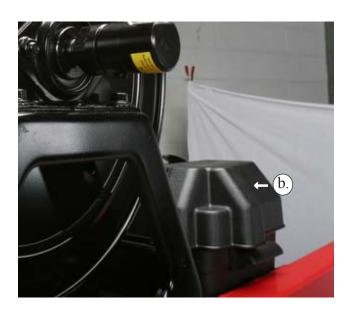
### **Lubrication & Maintenance (cont.)**



#### General Maintenance

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





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



### **Lubrication & Maintenance (cont.)**

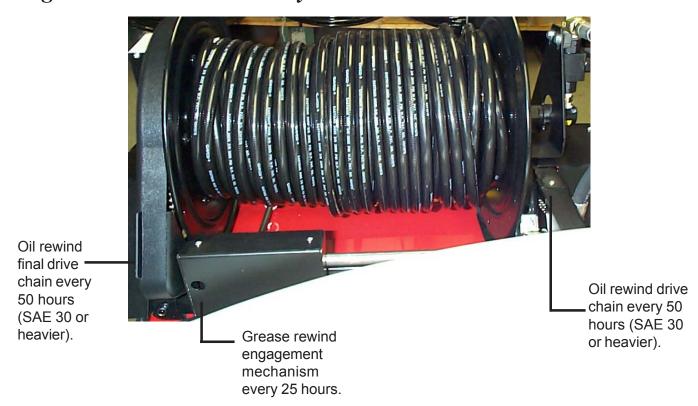


Pump



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.

#### High Pressure Reel Assembly





#### Fuel, Oil & Coolant 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 requirement.

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.

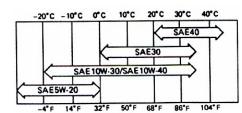
MTBE: (Methyl Tertiary Butyl Ether) You may use gasoline containing up to 15% MTBE by volume.

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 temperature 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.

#### **Engine Coolant**

DEXCOOL® Extended Life Antifreeze/Coolant.



*Note:* Do not mix with other coolants.

Mixed Ratio: 50% mix.



### **Operating Instructions**



#### **Operation:**

Release the reel lock and disengage rewind engagement handle so reel can free spin. Select and install nozzle, hose guards(s) and roller guides.

Always insert sewer hose several feet into pipe opening before actuating hose reel valve. Never stand in front of 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 hose reel valve ON (up) and let out hose as nozzle pulls into 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 that 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. Now 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 machine every 5-10 ft. Repeat until water runs clean from the pipe.

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

The Model 758 will pull out past 250' but you will find the going slower because of the pressure loss from 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 pipe and restarting.

When finished, turn water valve off (down) before removing nozzle from pipe.



*Hint:* Wind white tape around hose (a minimum of 6 ft. from end recommended) to warn of nozzle being to close to pipe opening.

Wind hose back onto reel, remove hose guard and install hose end and nozzle in holder. Put pin in place. Lock 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. Reverse setup instructions, drain tank and disconnect fill hose. Replace manhole cover or pipe caps and clean up machine before leaving job site.



### **Operating Instructions (cont.)**



#### **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 page 24.)
- Turn water valve off and pull hose back out of line. Look for traces of clay or other material to determine if nozzle is burying itself outside of pipe.
- Try different nozzle or different pipe openings.



— Walk to nearby buildings and manholes and listen for 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**



#### **Equipment:**

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 cord reinforcement can be seen because of 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 gradually 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.



#### When Obstruction Are Encountered





Fig. 7 Fig. 8

- 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).



#### 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.



If 50', 75' or 100' 1/4" hoses are used with the reel hose, the pressure gauge may read more than 2800 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



### Wash Down Kit - 73817300



*Note:* To use wash-down gun do the following:

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

The wash down gun is used to control the spray lance and the 1/4" drain hose. 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 a spray nozzle for general use.



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!

Contents of Kit: 1/4" x 50' hose, lance assembly, 1/4" nozzle, hand gun.



#### Mobile Hose Reel - 73816800 (Optional)





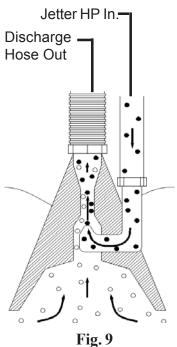
The mobile hose reel is used for remote use and control of the sewer hose. 400' total length of hose is the practical maximum with the 250' or 150' length on the machine reel and the balance on the mobile reel. To use, attach the machine reel hose to the valve of the mobile reel. Attach nozzle to mobile 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.



#### **Venturi Pump Attachment-77763700 (Optional)**





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 restriction 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 35-40gpm. 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.
- 5. 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 degrees F by following these steps:

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 12).

#### Method 2

- Drain tank completely.
- Add 50/50 mix anti-freeze to tank as follows:  $0^{\circ}$  4 gal.

 $-30^{\circ}$  - 6 gal.

- 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.



## 758 Pump System Malfunction Chart



MALFUNCTION	CAUSE	REMEDY
The Pressure and/ or the Delivery Drops	Worn packing seals Broken valve spring Belt slippage Worn or Damaged nozzle Fouled discharge valve Fouled inlet strainer Worn or Damaged hose Worn or Plugged relief valve on pump Cavitation Unloader	Replace packing seals Replace spring Tighten or Replace belt Replace nozzle Clean valve assembly Clean strainer Repair/Replace hose Clean, Reset, and Replace worn parts Check suction lines on inlet of pump for restrictions Check for proper operation
Water in crankcase	High humidity Worn seals	Reduce oil change interval Replace seals
Noisy Operation	Worn bearings  Cavitation	Replace bearings, Refill crankcase oil with recommended lubricant Check inlet lines for restrictions and/or proper sizing
Rough/Pulsating Operation with Pressure Drop	Worn packing Inlet restriction	Replace packing Check system for stoppage, air leaks, correctly sized inlet plumbing to pump
	Accumulator pressure Unloader Cavitation	Recharge/Replace accumulator Check for proper operation 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
Excessive Leakage	Worn plungers Worn packing/seals Excessive vacuum Cracked plungers Inlet pressure too high	Replace plungers Adjust or Replace packing seals Reduce suction vacuum Replace plungers Reduce inlet pressure
High Crankcase Wrong Grade of oil Temperature Improper amount of oil in crankcase		Use SAE 90 Gear Oil Adjust oil level to proper amount



## **Troubleshooting**



Symptom	Possible Causes	Corrective Action
Engine will not run	No fuel Fuel valve "off" Low water level  Low oil pressure High coolant temperature	Fill fuel tank Turn fuel valve "ON" Fill water tank or check low water float switch. Check oil level. Check coolant level and thermostat, replace if necessary.
Refer to Kawasaki Owner's Ma	nual (page 38) for additional tro	publeshooting.
Low pressure or flow	Clogged inlet filter Jetting nozzle worn	Clean inlet filter element Check for wear or orifice of jetting nozzle, replace nozzle if necessary. Use only approved jetting nozzles.
Erratic flow or pressure	Worn or dirty pump valves Worn or dirty regulator parts Worn jetting nozzle	Replace or clean Replace or clean Replace jetting nozzle
Pump noisy	Low oil level Worn or dirty valves Bad bearings	Add oil replace or clean Inspect bearings, replace as required
Water leaking from pump head	Pump seals worn	Replace pump seals



### **How To Use Parts & Accessories Section**



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 Model 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 Mendota, Illinois or online at www.spartantool.com.

Thank You

Customer Service, Spartan Tool 1506 W. Division Street Mendota, IL 61342 Phone (800)435-3866 Fax (888)876-2371



#### **Special Note**



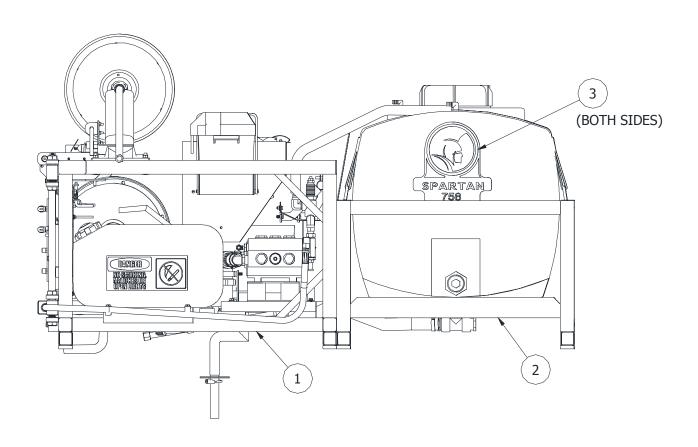
Though much of your Model 758 Jet is user serviceable, trained professional mechanics may be needed with pump, plumbing, engine, and lights.

- Engine repair is best performed by your local Kawasaki 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).



### 758 Skid Mount w/Tank 7580000SM

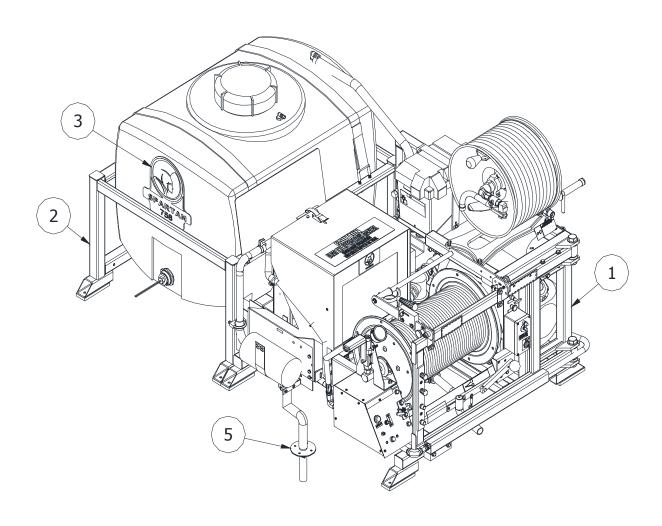






### 758 Skid Mount w/Tank 7580000SM



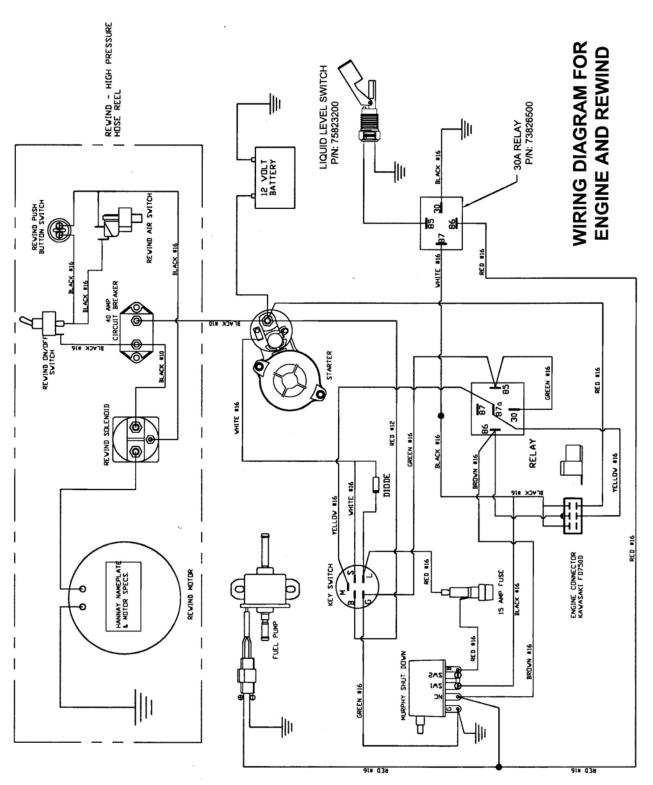


	ITEM	QTY	PART#	DESCRIPTION
Ī	1	1	75824300	ASSY, 758 SKID MOUNT
	2	1	73829500	ASSY, WATER TANK W/FRAME SKID
	3	2	75800100	DECAL, SPARTAN 758
	5	1	73833400	ADAPTER, EXHAUST (738 SKID)
	7	1	75866500	ASSY, 3/8" ANTI-TURN AROUND



### Wiring Diagram



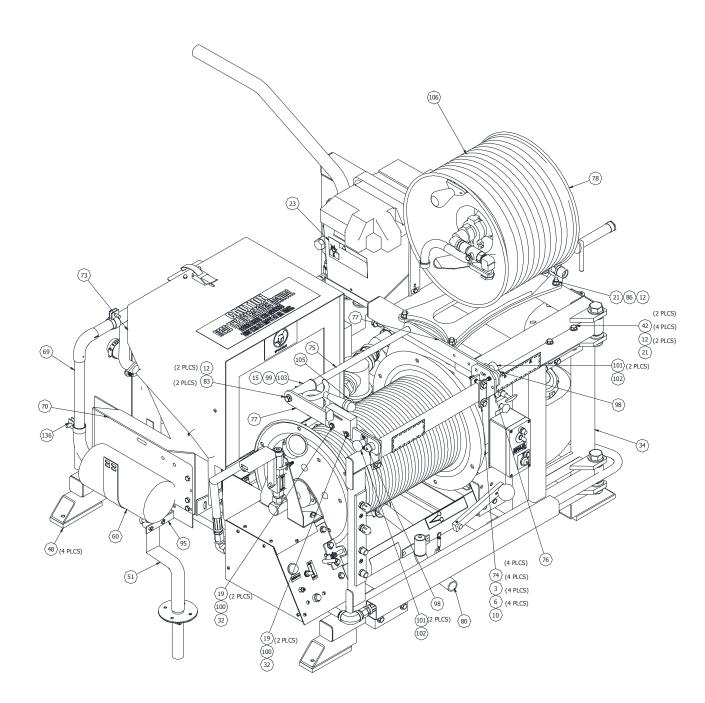


WIRING HARNESS - ENGINE/REWIND P/N: 75807800



### 758 Skid Mount Assembly 75824300

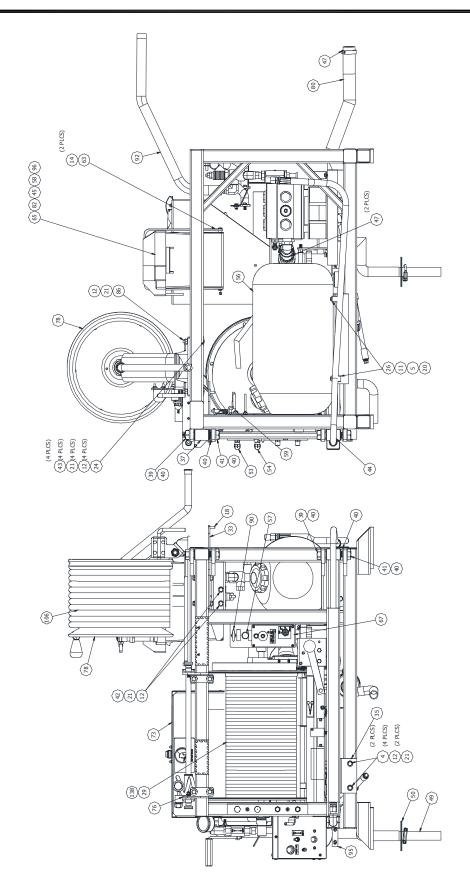






# 758 Skid Mount Assembly 75824300



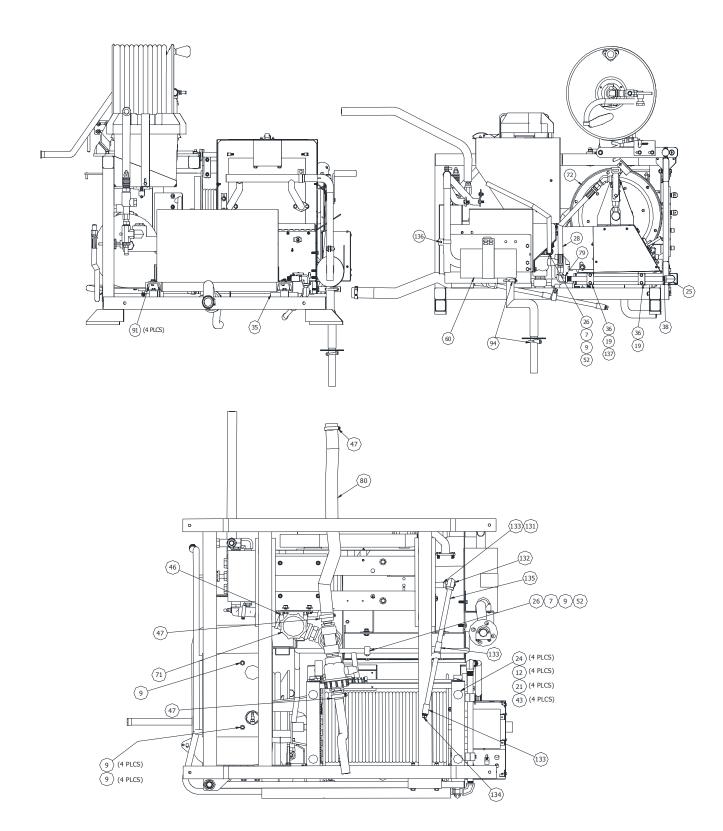


Page 32



# 758 Skid Mount Assembly 75824300







## 758 Skid Mount Assembly - 75824300



ITEM #	QTY	PART#	DESCRIPTION
3	4	0011700	SCREW, HEX HD 3/8-16 X 2
4	2	00117500	SCREW, HEX HD 3/8-16 X 4
5	2	00162600	WASHER, FLAT 5/16 USS
6	4	00162700	WASHER, FLAT 3/8
7	2	00165400	WASHER, LOCK SPLIT 1/4
9	2	02825100	WASHER, FLAT 1/4 USS
10	4	02934100	NUT, HEX 3/8-16
11	2	02939000	SCREW, CAP HEX HD 5/16-18 X 3/4
12	24	03366300	WASHER, FLAT 3/8 SAE
13	1	44225800	AIR BULB & HOSE ASSEMBLY
14	2	04728200	SCREW, HEX HD 1/4-20 X 3/8
15	1	44218300	ZERK, GREASE 1/4 PRESS FIT
16	1	44235901	TOOL BOX- MODEL 468
17	1	44298100	KEYCHAIN SPARTAN LOGO
18	1	50209200	PIN, DOWEL 5/16 X 1
19	6	521012-04	SCREW, HEX HD 1/4-20 X 1-1/2
20	2	522122-00	NUT, LOCK 5/16-18
21	14	522132-00	NUT, NYLON LOCKING 3/8-16
23	1	585463-01	DECAL, BATTERY
24	8	61030600	PLUG, SNAP-IN 1-1/4"
25	1	72714600	ELBOW, 90 DEG FEMALE 1/2
26	2	72715100	CLAMP, HOSE 1-1/8 I.D. RUBBER COATED
28	1	73808100	HOSE, HP 1/2NPT X 19" LONG
29	1	73808600	HOSE, HIGH PRESSURE 3/8 X 250'
31	1	73817300	KIT, WASHDOWN ACCESSORY
32	2	73821200	NUT,NYLON LOCKING 1/4-20
33	1	73828700	PLATE, SKID MOUNT INDEX
34	1	73837000	ASSY, SKID MOUNT FRAME
35	1	73829070	BLOCK, SWING ARM SUPPORT
36	2	73829200	CLAMP, 1/2 PIPE (2 HALVES)
37	1		ASSY,SWING ARM (SKID MOUNT)
38	1	73830000	PIPE, 1/2" STAINLESS STEEL 18"
39	2	73830300	BOLT, HEX HD 7/8-14 X 4-1/2



## 758 Skid Mount Assembly - 75824300



ITEM #	QTY	PART #	DESCRIPTION
40			WASHER, FLAT 7/8 SAE
41	6 2	73830400 73830500	NUT, NYLON LOCKING JAM 7/8-14
		73830600	
42	4		SCREW, HEX HD 3/8-16 X 2-3/4
43	4	73830700	SCREW, HEX FLANGE HD 3/8-16 X 3/4
44	1	73830800	HOSE, HP 1/2 NPT X 87" LONG
45	1	73830900	CABLE, NEGATIVE BATTERY 60" LONG
46	1	73831000	U-BOLT, 3" TUBE OD W/ NUTS
47	5	73831200	CLAMP, HOSE 1-1/16 - 2" # 24
48	4	73832500	PAD, RUBBER ISOLATOR
49	1	73833200	WELDMENT, EXHAUST BULKHEAD
50	2	73833300	GASKET, EXHAUST BULKHEAD
51	5FT	73833500	PIPE, FLEXIBLE EXHAUST
52	4	73833700	SCREW, SELF DRILLING 1/4-20 X 1
53	1	75800800	NOZZLE, CLOSED 758
54	1	75800900	NOZZLE, OPEN 758
56	1	75813500	ASSY, GAS TANK
57	1	75807400	CHOKE CABLE
58	1	75808500	CABLE POSITIVE BATTERY 60" LG
59	1	79816600	ASSY, SWIVEL LOCK
60	1	75813000	MUFFLER 758
63	1	75814700	STRAP, BATTERY HOLD DOWN
65	1	75815300	BOX, BATTERY (MODIFIED)
66	1	75817800	ASSEMBLY, WIRE HARNESS-RELAY
67	1	75818400	ASSY, ENGINE CONTROL BOX 27 HP
68	1	75819400	HARNESS, WIRING 758 (27HP)
69	1	75821500	WELDMENT, EXHAUST EXTENTION
70	1	75821800	SHIELD, HEAT (SIDE)
71	1	75824800	ASSY, STRAINER (SKID MOUNT)
72	1	75824900	ASSY 758 SKID MOUNT
73	1	75825000	ASSY, POWER PACK (SKID MOUNT)
74	2	75825400	BRACKET, HOSE GUIDE FRONT
75	1	75826200	SHAFT, HOSE GUIDE (SIDEWINDER)
76	2	75826300	WELDMENT, HOSE GUIDE MOUNT-SKID
77	2	75826400	WELDMENT, HOSE GUIDE ARM
78	1	75867000	FILL REEL ASSY, 2010
79	1	77705101	ELBOW, 90 DEG STREET 1/2"
80	10	77710200	HOSE, 1-1/4" ID X 4 SPIRAL SM
81	1	77705000	PUSH LOC HOSE BYPASS
82	1	77728900	CAP, CABLE #5704 RED
83	2	77738100	SCREW, HEXHD 3/8-16 X1



## 758 Skid Mount Assembly - 75824300

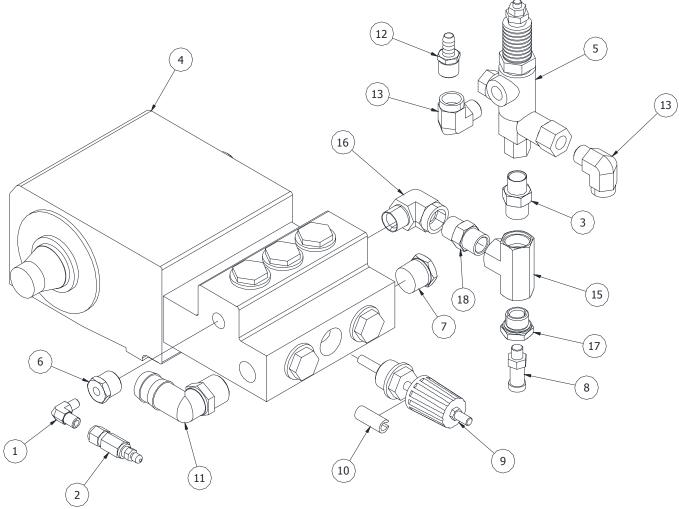


ITEM#	QTY	PART #	DESCRIPTION
88	12	77768800	TIE, WIRE-PLASTIC
89	12	77768900	HOLDER, WIRE TIE ADHESIVE
90	1	77771501	THROTTLE CONTROL, LOCKING
91	4	77785200	MOUNT MOTOR
92	1	77785900	HOSE, PUSH LOK 3/4
93	1	77800600	ASSEMBLY, HOSE GUARD
94	2	79823800	CLAMP, MUFFLER 1-1/2
96	1	79847800	BATTERY, DIESEL 875 CCA
97	1	79849800	HOSE, FUEL 5/16 ID
98	2	79901350	SCREW, SHOULDER 1/2 DIA X 3/4
99	1	79906700	HANDLE, HOSE GUIDE
100	4	79908200	WASHER, FLAT 1/4
101	2	79910800	LATCH, SPRING LOADED 5/16 PIN
102	4	79910900	*
103	1	79911600	ASSY, COILED HOSE GUIDE
104	1	79911800	ASSY, SPRING LATCH
105	1	79912400	RING, SPRING LATCH
106	1	79944100	HOSE, GARDEN 5/8 X 100 FT
120	1	73825500	ASSY, REEL LOCK
131	1	75860200	3/8" NPT CLOSE NIPPLE
132	2	75860210	ELBOW 90 DEG STREET 3/8"
133	3	75860220	3/8"NPT COUPLER
134	1	75860250	3/8" NPT PLUG
135	2	75866510	NIPPLE, 3/8 NPT x 9" LONG GALV
136	1	75818010	CLAMP, KAWASAKI
137	2	73829210	COVER PLATE 1/2" PIPE CLAMP
138	1FT	79827900	TUBING, HEAT SHRINK 1.1" 3.8"



# **Assy, Pump 758 Skid Mount 75824500**



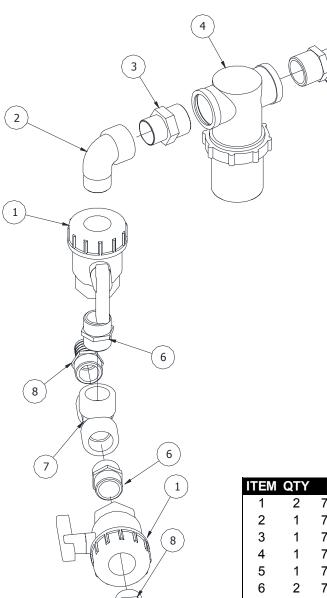


	<b>O</b> 4	
Item #	Qty	Part # Description
1	1	71707300 ELBOW, 90 DEG MALE 1/4 X 1/8
2	1	71707400 VALVE, CHECK W/ AIR VALVE
3	1	73811700 NIPPLE, REDUCER 3/4 X 1/2 HP
4	1	75800500 PUMP SPECK P41/48-220
5	1	75802800 UNLOADER, GIANT
6	1	75803400 BUSHING, RED. 3/4 MNPT X 1/8 FNT
7	1	75803500 PLUG, 1" MNPT STAINLESS STL
8	1	75805100 VALVE, POP OFF
9	1	75807000 PULSATION PLUNGER ASSEMBLY
10	1	75824200 STOP, PULSATION KNOB
11	1	75824600 ELBOW, 1" NPT X 1-1/4 HOSE BARB
12	1	77704900 FITTING, PUSH LOK 1/2-14
13	1	77705101 ELBOW, 90 DEG STREET 1/2 STEEL
15	1	79816100 TEE, 3/4 NPT STEEL
16	1	79816200 ELBOW, 90 DEG STREET 3/4 STEEL
17	1	79816300 REDUCER BUSHING 3/4 X 1/4
18	1	79825300 NIPPLE,HEX 3/4" X 2" STEEL



# Assy, Strainer (Skid Mount) 75824800





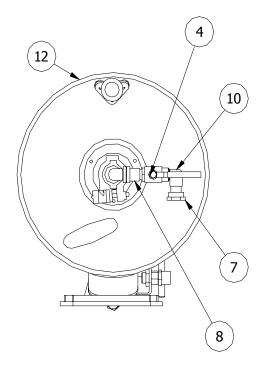
ITEM	QTY	PART#	DESCRIPTION
1	2	79811500	VALVE, BALL 1-1/4 FNPT X 1-1/4
2	1	79811300	ELBOW 90 DEG ST 1-1/4 MPTX 1-1/4
3	1	79811600	NIPPLE 1-1/2 X 1-1/4 MPT POLYPRO
4	1	79811700	FILTER 1-1/2 FPT POLYPRO
5	1	75824700	HOSE BARB, 1-1/2 MPT X 1-1/4
6	2	75802900	NIPPLE, CLOSE 1-1/4 POLYPRO
7	1	75803000	TEE 1-1/4 FNPT PROLYPRO
8	2	79812000	BARB, HOSE 1-1/4 MPT X1-1/4 POLYPRO

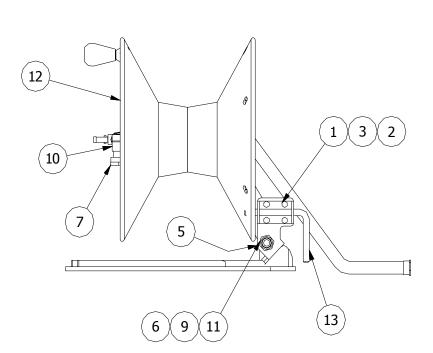


### 75867000 Fill Reel Assembly



ITEM	QTY	PART #	DESCRIPTION
1	4	00113901	SCREW, HX HD CAP 1/4-20 X 1 ZN
2	4	02821200	NUT, NYLOCK JAM 1/4-20
3	4	02825100	WASHER, FLAT 1/4 USS
4	1	72704800	VALVE, BALL 1/2 M X 1/2 F
5	1	75867010	BRACKET, FILL REEL LATCH - 2010
6	1	75867020	LOCKNUT, PIPE 1/2" NPT
7	1	75867030	ADAPTER, 3/4 GHT SWVL - 1/2 NPT
8	1	75867040	ADAPTER, 3/4 FGHT - 1/2 FNPT
9	1	77770800	NIPPLE, HEX 1/2 NPT
10	1	79904464	ST EL 90D 1/2NPT BRASS
11	1	79904492	ADAPTER, GARDEN HOSE 3/4M-1/2FM
12	1	79940300	RAPID REEL, 2008 FILL
13	1	79966320	LATCH, SPRING BOLT ZN PLT

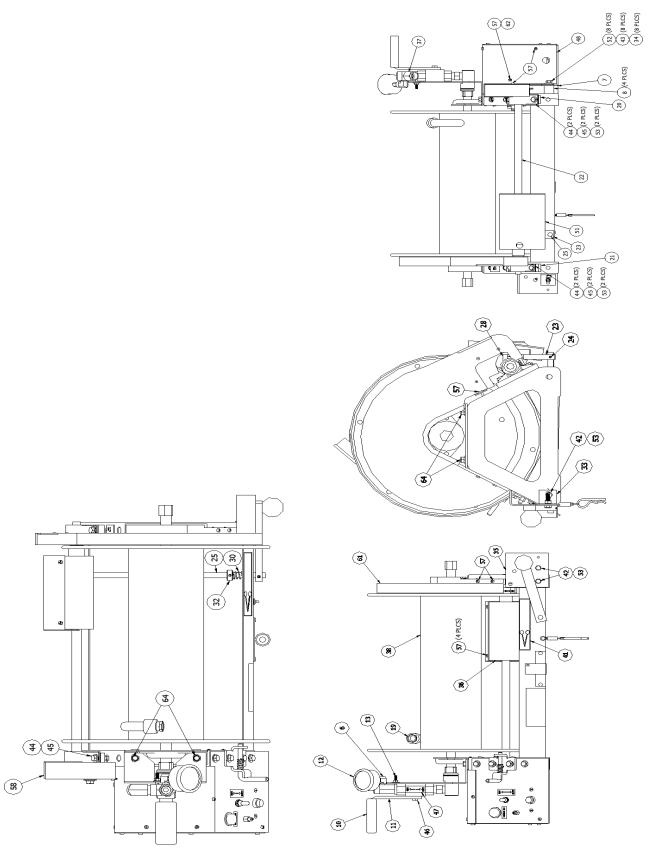






### Assy, HP Reel 75824900



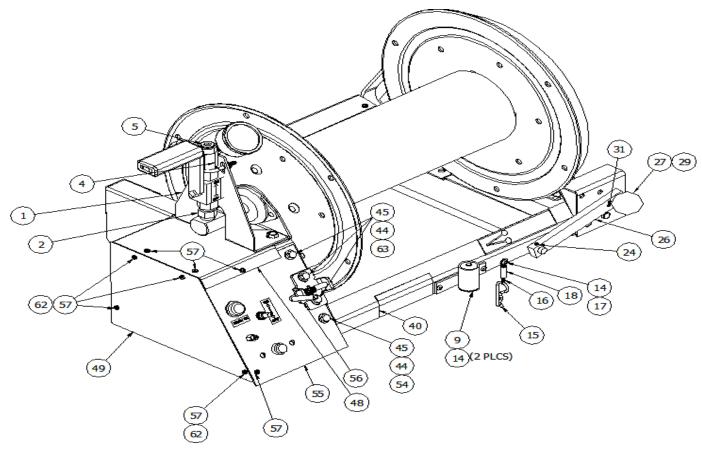


Page 40



## Assy, HP Reel 75824900





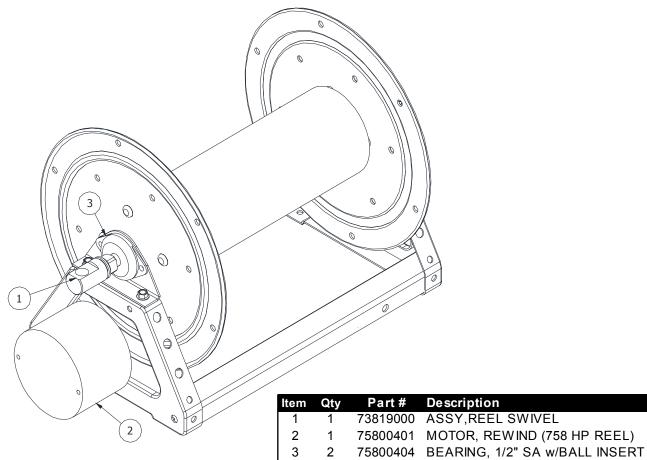
ITEM #	QTY	PART #	DESCRIPTION
1	1	73805800	SUPPORT, BALL VALVE
2	1	77770800	NIPPLE, HEX 1/2 NPT
4	1	75823900	TEE, 1/2 NPT (MODIFIED)
5	1	71101200	PLUG, INTERNAL HEX 1/2 NPT
6	1	77724300	ELBOW, 90 DEG. STREET 1/4 NPT
7	1	75801100	BRACKET, REWIND MOTOR MOUNT
8	4	75802200	SPACER, REWIND MOTOR
9	1	73816000	WELDMENT, HOSE HOLSTER (HP REEL)
10	1	71102500	GRIP, FOAM BLACK
11	1	73816100	HANDLE, HP VALVE
12	1	544000-01	GAUGE, 5000 PSI
13	1	77778900	U-BOLT, 3/4 W/NUTS
14	3	77726500	RIVET, BLIND 3/16 DIA. (.062125)
15	1	77737100	PIN, HAIR 9 GAUGE 2.45" LONG
16	1	77726800	CHAIN, #5 DOUBLE LOOP
17	1	00162400	WASHER, FLAT 3/16 USS
18	1 FT	77749400	TUBING, HEAT SHRINK 3/8
19	1	73820600	BUSHING, REDUCER 1/2 X 3/8
20	1	75802000	PLATE, PILLOW MOUNT 3/4"
21	1	75802100	PLATE, PILLOW MOUNT 5/8
22	1	75809400	ASSEMBLY, REWIND SHAFT
23	1	75802500	WELDMENT, PIVOT
24	2	75810200	PIN, ROLL 3/16 DIA. X 1
25	1	75801300	SHAFT, REEL ENGAGEMENT
26	1	75801500	,
27	1	75807200	KNOB, REWIND ENGAGEMENT
28	1	75810300	PIN, DOWEL 3/8 DIA. X 1-3/4
29	1	75812800	,
30	1	75809200	,
31	1	02821800	PIN, ROLL 1/4 DIA. X 3/4

ITEM #	QTY	PART #	DESCRIPTION
33	1	75812900	ANGLE PLATE, DISENGAGE/ENGAGE LOWER
35	1		PLATE, DISENGAGE/ENGAGE LOWER
36	1		GUARD, BACK SPRING
37	1	77763900	ELBOW, 45 DEG. STREET 1/2 NPT
38	1	75814500	REEL, HIGH PRESSURE MODIFIED
40	1	72707800	DECAL, WARNING H.P. JET
41	1	75800200	DECAL, DISENGAGE/ENGAGE
42	2	00115300	SCREW, HEXHD 5/16-18 X 1-1/4
43	8	00165800	WASHER, LOCK SPLIT 3/8
44	6	02825100	WASHER, FLAT 1/4 USS
45	6	5OH60800	BOLT, 5/16-18 X 1 1/2" HEX HD
46	1	73816200	VALVE, BALL 1/2 NPT H.P.
47	1	73817800	DECAL, BALL VALVE ON/OFF
48	1	75806300	COVER, REWIND MOTOR
49	1	75806700	COVER, REWIND MOTOR SIDE
62	9	75808900	ANGLE, CLIP
51	1	75812700	WELDMENT, GUARD BACK
52	8	77738300	SCREW, HEX HD 3/8-16 X 3/4
53	6	77747800	NUT, HEX 5/16-18
54	4	79838800	NUT, FLANGED HEX 5/16-18
55	1	75808300	CONTROL PANEL 758
56	1	73825500	ASSY, REEL LOCK
57	26	02828100	SHEET METAL SCREW #8 X 1/2"
58	1	75811000	WELDMENT, CHAIN GUARD MOTOR SID
61	1	75812300	ASSEMBLY, CHAIN GUARD
63	3	75811100	U-NUT 5/16-18
64	4	75811200	U-NUT 3/8-16
65	4 FT	77717400	SINGLE STRAND ROLLER CHAIN #35
66	1	77737000	LINK, CHAIN CONNECTING ANSI 35
67	2	77806800	RING, TERMINAL 5/16 X 12 GA



## Reel, High Pressure Mod w/Decal 75814500

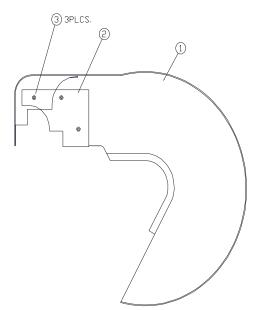






# Assembly, Chain Guard 75812300



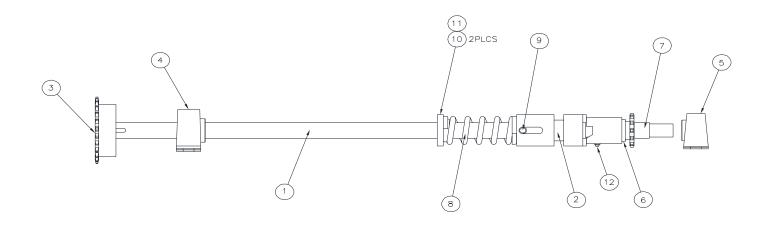


ltem	Qty	Part #	Description
1	1	75807100	Guard, Modified Chain
2	1	75812200	Plate, Chain Guard
3	3	44039500	Rivet, Pop 1/8 Dia.



# Assembly, Shaft Rewind 75809400



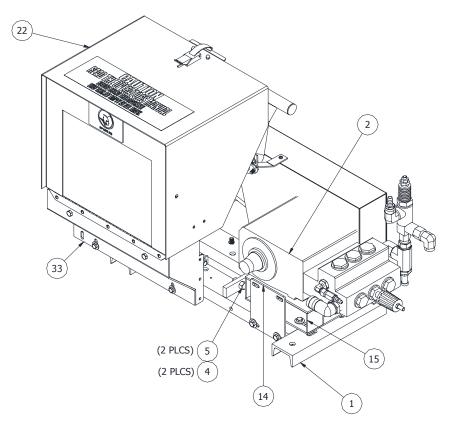


ITEM #	QTY	PART #	DESCRIPTION
1	1	75801200	SHAFT, REWIND
2	1	75801700	BUSHING, SHAFT ENGAGEMENT
3	1	75806800	SPROCKET #H3525 25 TEETH
4	1	75807600	BLOCK, PILLOW 3/4
5	1	75807700	BLOCK, PILLOW 5/8
6	1	75808800	ASSEMBLY, SPROCKET 5/8
7	1	75809100	BUSHING, BRASS 5/6" ID X 1" OD
8	1	75809300	SPRING, REWIND
9	1	75811800	PIN, SPRING 1/4" X 1"
10	2	00129500	SCREW, SET SOCK HD 1/4-20 X 1/4
11	1	75811900	BUSHING SPRING RETAINING REWIN
12	1	44218300	FITTING, STANDARD DRIVE



### 758 Power Pak - 75825000





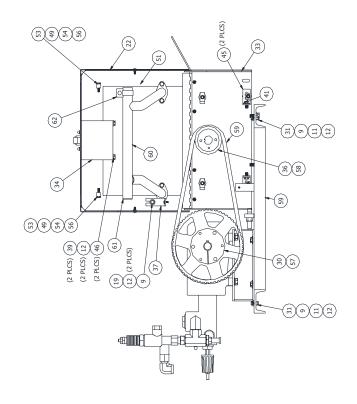
ITEM#	QTY	PART#	DESCRIPTION
1	1	73801600	WELDMENT, POWER PAK SUPPORT
2	1	75824500	ASSEMBLY, PUMP -758 SKID MOUNT
3	1	75820300	WELDMENT, BELT GUARD
4	2	77727100	BOLT, BELT ADJUSTMENT
5	2	00778000	NUT, HEX 1/2-13
6	6	77738100	SCREW, HEX HD 3/8-16 X 1
7	12	00162700	WASHER, FLAT 3/8
8	6	522132-00	NUT, NYLON LOCKING 3/8-16
9	4	00113600	SCREW, HEX HD 1/4-20 X 3/4
10	2	44119500	SCREW, SELF TAPPING 10-24 X 1/2
11	3	00165400	WASHER, LOCK SPLIT 1/4
12	7	02825100	WASHER, FLAT 1/4 USS
13	1	75820800	BRACKET, BELT GUARD
14	1	73831100	PLATE, STRAINER ASSY MOUNTING
15	1	75819300	WELDMENT, PUMP MOUNT 758
16	4	44181400	WASHER, LOCK-SPLIT M12
17	4	75823100	SCREW. CAP M12-1.75 X 25mm
18	4	78700200	WASHER, FLAT M12
19	1	02821200	NUT, JAM NYLON LOCKING 1/4-20
20	4	44029500	WASHER, SPLIT LOCK M10
22	1	75821900	ASSY, UPPER COVER ENCLOSURE
25	2	00162600	WASHER, FLAT 5/16 USS
26	2	02939000	SCREW, CAP HEX HD 5/16-18 X 3/4
27	7	03850100	NUT, HEX KEP 10-32
28	7	04723100	MACHINE SCREW 10-32 X 5/8 RD

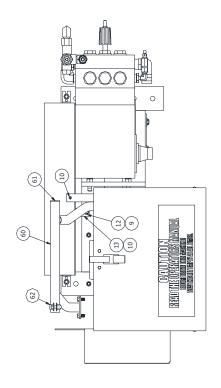
ITEM#	OTY	PART#	DESCRIPTION
29	2		NUT, LOCK 5/16-18
30	1	73810500	BUSHING, DRIVEN (SF X 28mm)
31	2	73821200	NUT, NYLON LOCKING 1/4-20
33	1	75819800	WELDMENT, LOWER ENG ENCLOSURE (27HP)
34	1	75820000	BRACKET, LATCH (HOOD ENCLOSURE)
36	1	75820500	SHEAVE, DRIVE 22HP200
37	1	75820900	BRACKET, BELT GUARD (TOP)
39	2	75821100	NUT, NYLON LOCKINGM6 X 1.00
40	4	75822800	SCREW, CAP M10 X 25mm
41	2	75821300	SCREW, HEX HD M8 X 16
45	2	75820100	ANGLE, LOWER ENGINE ENCLOSURE
46	2	75821000	SCREW, HEX HD M6 X 22mm
47	2	77759900	SCREW, HEX HD 3/8-16 X 1-1/4
48	4	77755000	WASHER, ROBO 3/8"
49	2	75822400	SPACER, NYLON 1/2 Dia.
50	2	75811200	U-NUT 3/8-16
51	1	75818000	ENGINE, 758 27HP
53	2	00113901	SCREW, HEX HD 1/4-20 X 1
54	2 FT	77749400	TUBING, HEAT SHRINK
56	2 FT	77726800	CHAIN - #5 DOUBLE LOOP
57	1	75820600	SHEAVE, DRIVEN 60HQ200
58	1	75820700	BUSHING, DRIVE P2 1-1/8
59	1	75820400	BELT, 480H200 (758 27HP)

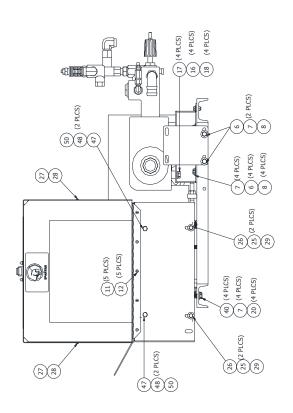


### 758 Power Pak - 75825000







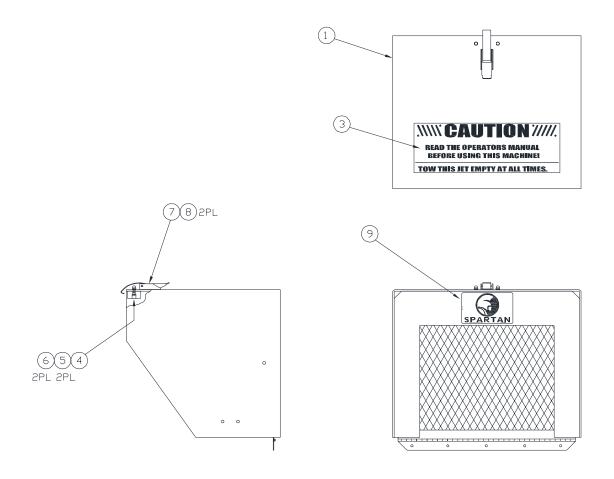


Page 45



### Assy, Upper Cover Enc 75821900



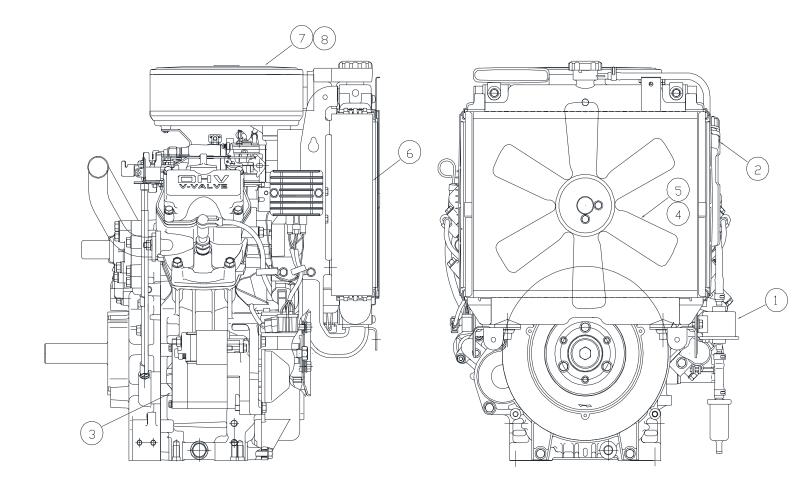


ITEM	QTY	PART#	DESCRIPTION
1	1	75804400	WELDMENT, UPPER COVER ENCLOSUR
3	1	73817200	DECAL, CAUTION READ MANUAL
4	1	75818100	BUMPER, RUBBER (758 HOOD ENC.)
5	2	04725200	ACORN NUT, #10-32 ZINC PLATED
6	2	04723100	MACHINE SCREW 10-32 X 5/8 RD
7	1	75821200	LATCH, OVER CENTER DRAW
8	2	77726500	RIVET, POP 3/16 X 3/16 GRIP
9	1	44297900	DECAL, SPARTAN 3" X 5"



# Engine, 758 27HP Kawasaki 75818000



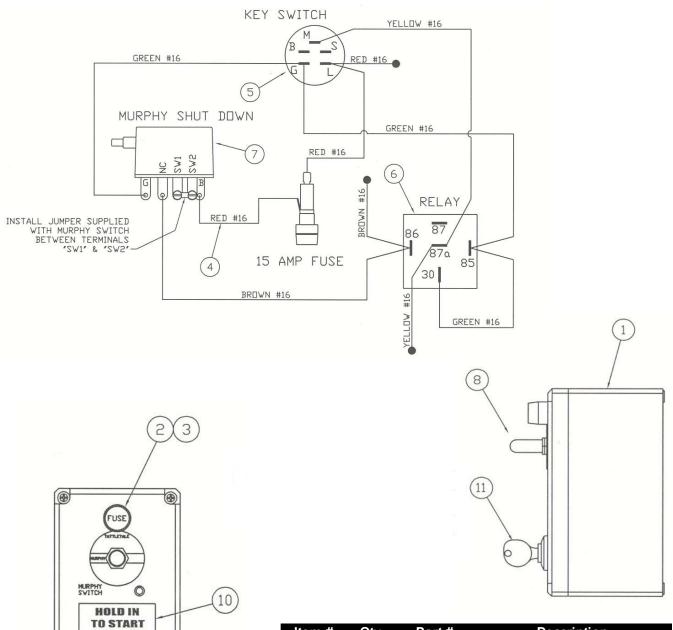


Item #	Qty	Part #	Description
1	1	75816700	Pump, Fuel Electric Kawasaki
2	1	75817300	Tank, Coolant-Kawasaki
3	1	75824000	Starter, 27 HP Kawasaki
4	1	75824100	Fan, 27 HP Kawasaki
5	1	75825100	Shoud, Fan 27 HP
6	1	75826000	Radiator, 758 Jet 27 HP
7	1	75826500	Air Filter Element Kawa 27 HP
8	1	75826600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



### 758 Engine Control Box - 75818400





ltem #	Qty	Part #	Description
1	1	75818200	Box, Ignition / Murphy (27 HP)
2	1	61018000	Fuse Holder
3	1	79850400	Fuse, 15 AMP
4	1	75810500	Wire Assy, Fuse - Murphy (Red)
5	1	75818300	Ignition Switch
6	1	75823600	Relay
7	1	75815800	Switch, Murphy Shutdown
8	1	75823700	Dust Boot
9	1	75818600	Decal, Key Switch
10	1	75814100	Decal, Hold In To Start
11	1	75815927	Ignition Key
12	1	75822700	Wiring Assy, Relay / Ignition

9

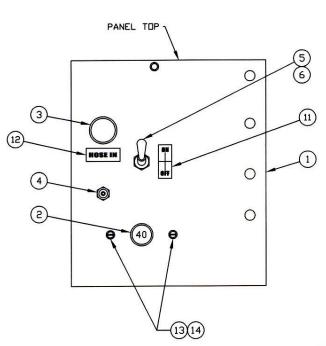
RUN

IGNITION SWITCH

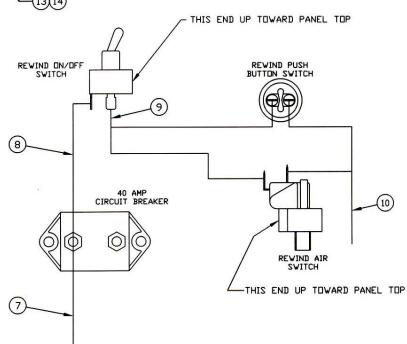


### 758 Control Panel - 75808300





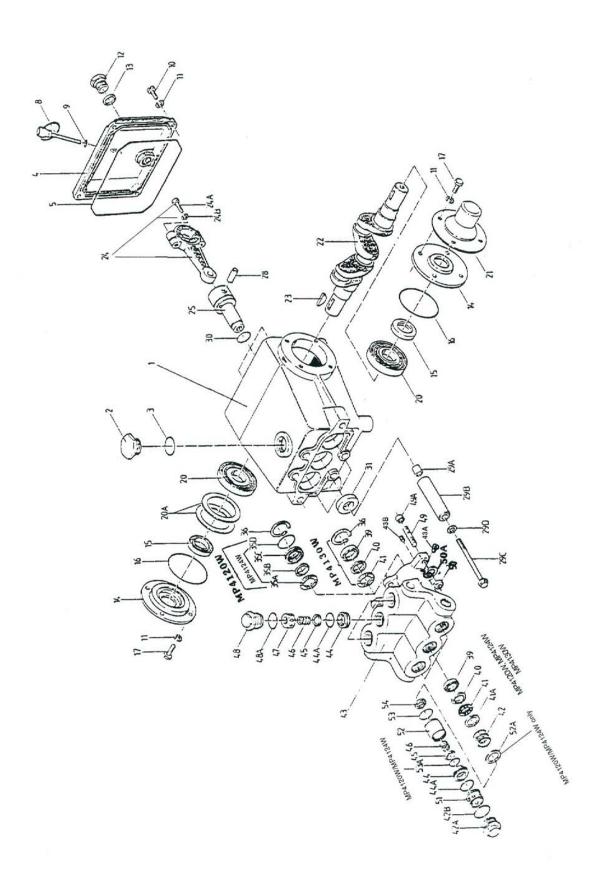
	24	5	
Item #	Qty	Part #	Description
1	1	75806200	Plate, Rewind Control
2	1	75815500	Circuit Breaker 40 Amp
3	1	75815600	Push Button
4	1	44002600	Pressure Switch
5	1	532000-01	Switch, On-Off
6	1	44110500	Rubber Boot
7	1	75809700	Wire Assy, Solenoid / Breaker
8	1	75809800	Wire Assy, Breaker / Toggle
9	1	75809900	Wire Assy, Toggle Switch
10	1	75810000	Wire Assy, Solenoid / Breaker
11	1	73817800	Decal, "ON" "OFF"
12	1	75814200	Decal, Hose In
13	2	04723100	Screw, Machine 10-32 x 5/8
14	2	03850100	Nut, Hex "Kep" 10-32
15	2	00162700	Washer, 3/8 USS Zinc





# 758 Pump - Exploded View 75824500







### **758 Pump Parts List**



14	01	Part	B : #
Item 1	Qty 1	Number 75800505	<b>Description</b> Crankcase
•	•		
2	1	75800506	Oil Filler Cap
3	1	75800507	O-Ring, Filler Cap
4	1	75800508	Cover, Crankcase
5	1	75800509	O-Ring, Crankcase Cover
8	1	75800510	Oil Dip Stick
9	1	75800511	O-Ring, Dip Stick
10	4	75800512	Screw, Crankcase Cover
11	12	75800513	Spring Washer
12	1	75800514	Oil Drain Plug
13	1	75800515	Gasket, Oil Drain Plug
14	2	75800516	Bearing Cover
15	2	75800517	Seal, Crankshaft
16	2	75800518	O-Ring, Bearing Cover
17	8	75800519	Hex Screw, Bearing Cover
20	2	75800520	Rolling Bearing, Tapered
20A	3	75800521	Shim
21	1	75800522	Shaft Protector
22	1	75800523	Crankshaft
23	1	75800524	Key
24	3	75800525	Connecting Rod
24A&B	6	75800526	Hex Screw w/Washer
25	3	75800527	Crosshead Complete
28	3	75800528	Crosshead Pin
29A	3	75800529	Centering Sleeve
29B	3	75800530	Ceramic Plunger, 24mm
29C	3	75800531	Bolt, Sold only w/#07258
29D	3	75800532	Seal Washer
30	3	75800533	Flinger
31	3	75800534	Crankcase Oil Seal

i				
	Item	Qty	Part Number	Description
	35A	3	75800535	
	35B	3	75800536	Rear V-Sleeve
	35C	3	75800537	Rear Pressure Ring
	36	3	75800538	_
	39	3	75800539	. •
	40	3	75800540	· ·
	41	3	75800541	Support Ring
	41A	3	75800542	Spacer
	42	3	75800543	Tension Spring
	42A	3	75800544	Tension Plug
Ì	42B	3	75800545	O-Ring
	43	1	75800546	Manifold Head
Ì	43A	2	75800547	Plug
	43B	2	75800548	_
	44	3	75800549	Valve Seat
	44A	3	75800550	O-Ring, Valve Seat
	45	3	75800551	Valve Plate
	46	3	75800552	Valve Spring
	47	3	75800553	Spring Retainer, Discharge
Ì	48	3	75800554	
Ì	48A	3	75800555	O-Ring Plug
	49	6	75800556	Stud, Manifold
	49A	2	75800557	Shim, Stud
	50	3	75800558	Nut, Manifold Stud
	50A	6	75800559	Spring Washer
	51	6	75800560	Spacer
Ì	52	3	75800561	Valve Housing
	52A	3	75800562	Spacer Ring
	53	3	75800563	S
Ì	53A	3	75800564	O-Ring
	54	3	75800565	Spring Retainer, Inlet

### Plunger Packing Kit (75800566)

Item	Qty	<b>Part Number</b>	Description
40	3	75800540	V-Sleeve
35B	3	75800536	Rear V-Sleeve

### Discharge Valve Assy. Kit (75800568)

ltem	Qty	<b>Part Number</b>	Description
48A	3	75800555	O-Ring, Plug
47	3	75800553	Spring Retainer
46	3	75800552	Vavle Spring
44A	3	75800550	O-Ring
44	3	75800549	Valve Seat
45	3	75800551	Valve Plate

### Inlet Valve Assy. Kit (75800567)

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



### 758 Pump Repair Kits



#### Inlet Valve Assy. Kit (75800567)

Qty	Part #	Description
3	75800545	O-Ring Tension Plug
3	75800550	O-Ring, Valve-Seat
3	75800549	Valve Seat
3	75800564	O-Ring
3	75800551	Valve Plate
3	75800552	Valve Spring
3	75800563	O-Ring
3	75800565	Spring Retainer

#### Discharge Valve Assy. Kit (75800568)

Qty	Part #	Description
3	75800555	O-Ring, Plug
3	75800553	Spring Retainer
3	75800552	Valve Spring
3	75800550	O-Ring
3	75800549	Valve Seat
3	75800551	Valve Plate

#### Plunger Packing Kits (75800566)

Qty	Part #	Description
3	75800540	V-Sleeve
3	75800536	Rear V-Sleeve



### 758 Pump Torque Specifications



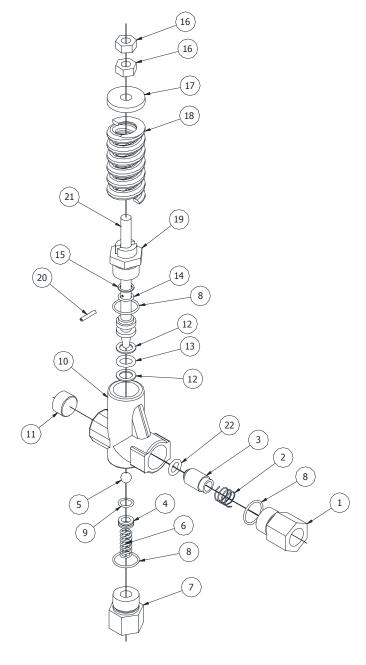
Item #	Part #	Description	Torque Amount
17	75800519	Hex Screw, Bearing Cover	125 in lbs.
24A	75800526	Hex Screw, connecting Rod	250 in lbs.
29C	75800531	Bolt, Plunger	300 in lbs.
50	75800558	Nut, Manifold Stud	700 in lbs.



### Unloader - 75802800



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



#### Unloader Repair Kit 75802823

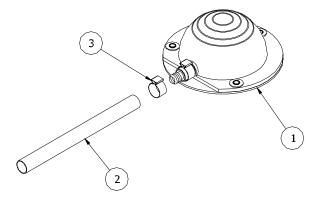
Item #	Qty	Part #	Description
4	1	75802804	Seat
5	1	75802805	Ball
8	3	75802808	O-Ring
9	1	75802809	O-Ring
12	2	75802812	Back Ring
13	1	75802813	O-Ring
14	1	75802814	O-Ring
15	1	75802815	Back Ring
22	1	75802822	O-Ring

**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.



## Air Bulb & Hose Assemby 44225800



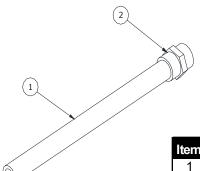


		PART	
ITEM	QTY	NUMBER	DESCRIPTION
1	1	04576900	Pressure Transmitter
2	1		Air Hose, 8'
3	2	04652700	Hose Clamp



### Assembly, 3/8" Anti-Turn Around 75866500





 Item
 Qty
 Part Number
 Description

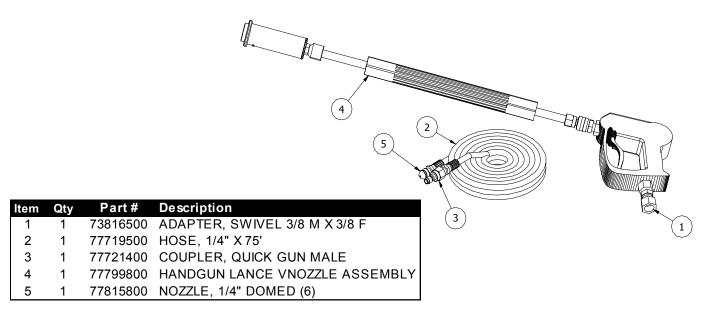
 1
 1
 75866510
 Nipple, 3/8" x 9" Long

 2
 1
 73818400
 Coupler, Female 3/8 Hose



# Wash Down Accessory Package 73817300

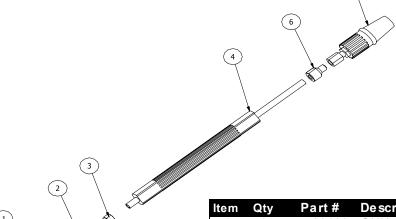






# HandGun Lance Vnozzle Assembly 77799800



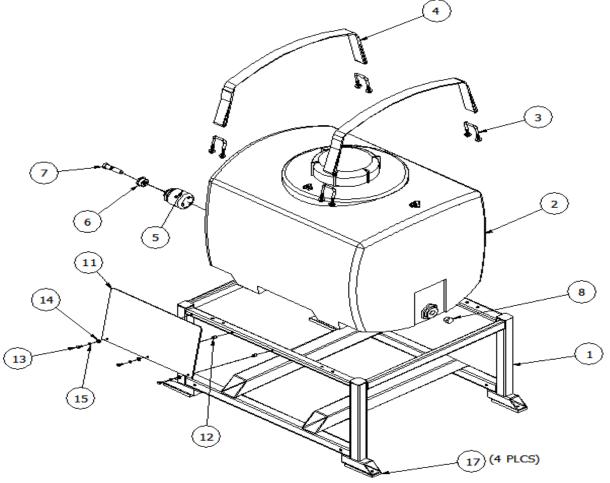


ltem	Qty	Part#	Description
1	1	77720100	GUN, HAND
2	1	77721300	COUPLER, QUICK GUN, 1/4" NPT MALE
3	1	77721400	COUPLER, QUICK GUN, MALE
4	1	553006-01	LANCE, INSULATED GRIP, 18"
5	1	71126100	NOZZLE - VARIABLE .080
6	1	79874400	FITTING, WAND ANTI-KICKBACK



## Assy, Water Tank w/Frame Skid 73829500



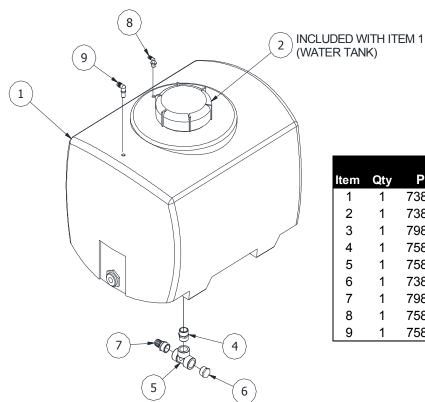


ITEM #	QTY	PART NUMBER	DESCRIPTION
1	1	73836000	ASSY,WATER TANK FRAME
2	1	73829400	ASS'Y, WATER TANK (SKID MOUNT)
3	4	73829700	U-BOLT, SQUARE 2" X 2-5/8" (3/8-16)
4	2	73829800	STRAP, WATER TANK HOLD DOWN
5	1	73827800	BULKHEAD FITTING W/PVC CAP
6	1	73827600	BUSHING, REDUCER (MODIFIED)
7	1	75823200	SWITCH, LIQUID LEVEL
8	1	61019200	PLUG, 3/4 POLYPROPYLENE
9	1	62008400	DISCONNECT, MALE .250 TAB 22-18 (NOT SHOWN)
10	1	534004-01	DISCONNECT, FEMALE .250 TAB 22-18 (NOT SHOWN)
11	1	73832900	SHIELD, HEAT - SKID MOUNT
12	3	73833000	NUT, RIVET 1/4-20 .027"165"
13	3	521012-03	SCREW, HEX HD 1/4-20 X 3/4
14	3	02825100	WASHER, FLAT 1/4 USS
15	3	00165400	WASHER, LOCK SPLIT 1/4
17	4	73832500	PAD, RUBBER ISOLATOR
18	2	73832400	SCREW, HEX HD 3/8-16 X 4-3/4 (NOT SHOWN)
19	4	00162700	WASHER, FLAT 3/8 USS ZINC PLTD (NOT SHOWN)
20	2	522132-00	NUT, NYLOCK 3/8-16 (NOT SHOWN)



## Assy, Water Tank Skid Mount 73829400





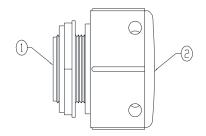
Item	Qty	Part#	Description
1	1	73828601	TANK,100 GAL WATER
2	1	73828610	CAP, WATER TANK
3	1	79818500	BULKHEAD FITTING 1-1/4 POLYPRO
4	1	75802900	NIPPLE, CLOSE 1-1/4 POLYPRO
5	1	75803000	TEE, 1-1/4 FNPT POLYPRO
6	1	73829600	PLUG, 1-1/4 POLYPRO
7	1	79812000	BARB,HOSE 1-1/4 MPT X 1-1/4 PO
8	1	75811700	EL, 90DEG HOSE BARB 1/2MPT X 1/2

75867300 ELBOW, NOZZLE BODY W/NUT 5/8



## Bulkhead Fitting w/PVC Cap 73827800



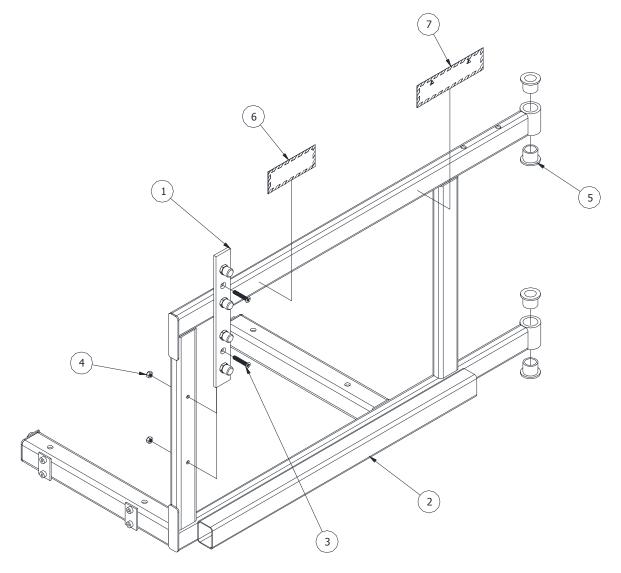


ltem	Qty	Part #	Description
1	1	73827700	Bulkhead Fitting, 1-1/4
2	1	73827500	Cap, PVC 2-1/12 NPT



# Assy, Swing Arm (Skid Mount) 73829900



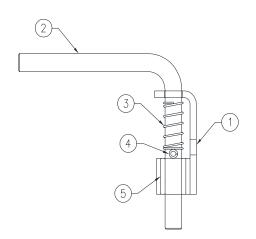


Item	Qty	Part #	Description
1	1	73829060	WELDMENT, NOZZLE HOLDER
2	1	73837500	WELDMENT, SWING ARM
3	2	73830100	SCREW, FLAT HD 1/4-20 X 1-1/2
4	2	02821200	NUT, NYLOCK JAM 1/4-20
5	4	73830200	BEARING, FLANGED BRONZE 7/8 ID
6	1	77739800	DECAL, CAUTION MANUAL REEL
7	1	77739900	DECAL, WARNING REAR



### Assy, Swivel Lock 79816600



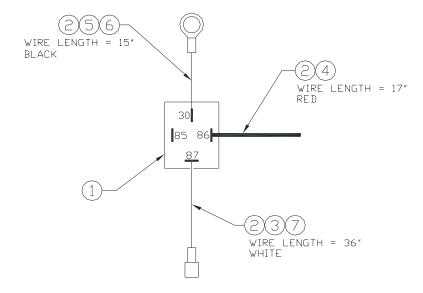


ltem	Qty	Part #	Description
1	1	79816500	WELDMENT, SWIVEL LOCK
2	1	79815300	PIN,SWIVEL LOCK
3	1	02888500	SPRING, COMPRESSION
4	1	44213000	PIN, ROLL PIN 1/4X 1/50
5	1	03421300	BRONZE BRG MDL-81



# Assy, Wire Harness-Relay 75817800



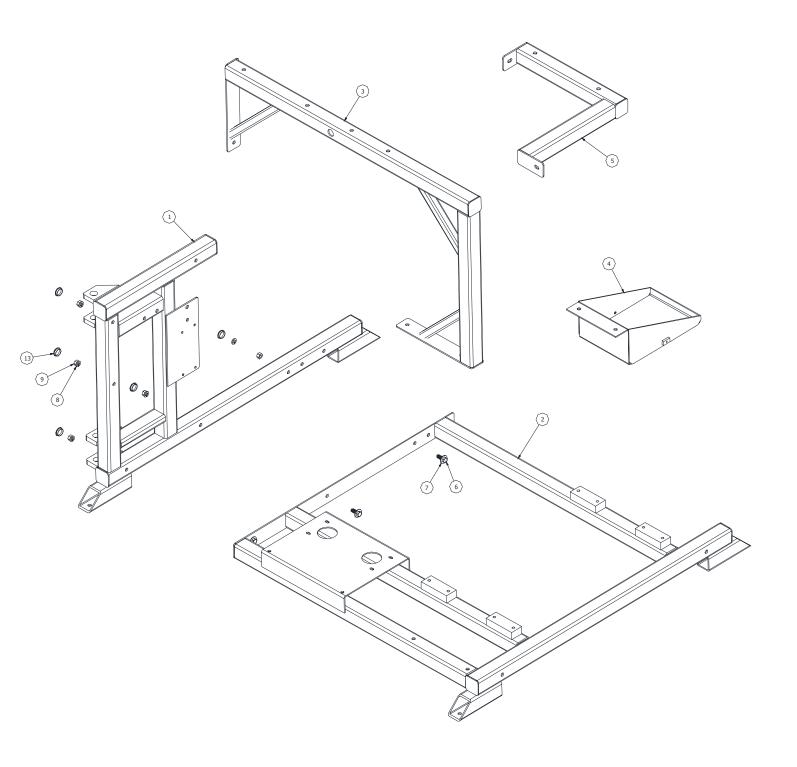


ITEM	QTY	PART #	DESCRIPTION
1	1	75823600	RELAY
2	3	44216100	DISCONNECT, .250 FEMALE 16-14
3	3	77733000	WIRE, 16 AWG STRANDED WHITE
4	1.42	77733100	WIRE, 16 AWG RED STRANDED CU
5	1.25	44222400	WIRE, HOOK-UP 16 AWG-BLACK
6	1	77733300	TERMINAL, RING 5/16"
7	1	77751600	DISCONNECT, .250 FEMALE BULLET



# Assy, Skid Mount Frame 73837000

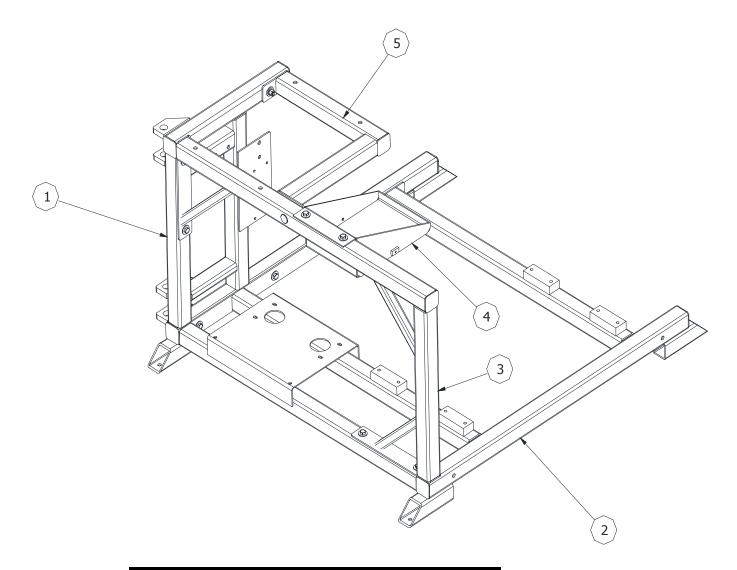






## Assy, Skid Mount Frame 73837000



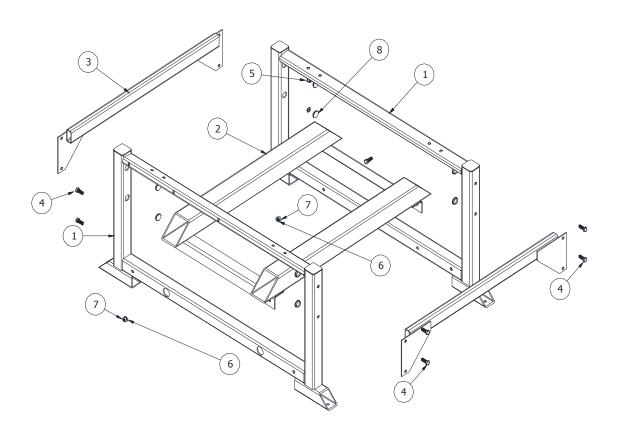


Item	Qty	Part #	Description
1	1	73836500	WELDMENT, SKID FRAME FRONT
2	1	73836600	WELDMENT, SKID FRAME BASE
3	1	73836700	WELDMENT, SKID FRAME SIDE
4	1	73836900	WELDMENT, BATTERY TRAY
5	1	73836800	WELDMENT, SKID FRAME REEL
6	11	77738100	SCREW, CAP HEX HD 3/8-16 X 1
7	11	00162700	WASHER, FLAT 3/8 USS ZINC PLTD
8	11	00165800	WASHER, LOCK SPLIT MEDIUM 3/8
9	11	02934100	3/8-16 HEX NUT ZINC PLTD
13	11	73837100	PLUG, BLK NYLON SNAP-IN



## Assy, Water Tank Frame 73836000





Item	Qty	Part #	Description
1	2	73836400	WELDMENT, WATER TANK FRAME
2	1	73836100	WELDMENT, TANK SUPPORT
3	2	73836200	WELDMENT, UPPER BRACE
4	12	77738100	SCREW, CAP HEX HD 3/8-16 X 1"
5	4	00162700	WASHER, FLAT 3/8 USS ZINC PLTD
6	12	00165800	WASHER, LOCK-SPLIT MEDIUM 3/8
7	12	02934100	3/8-16 HEX NUT ZINC PLTD
8	8	73837100	PLUG, BLK NYLON SNAP-IN



### 758 Decal Package - 75814400



Item #	Qty	Part # Description	
1	1	72706400 Decal, Untrained Persor	nnel
2	2	77763500 Decal, Crank	
3	1	77740300 Decal, Clamp	
4	1	77749500 Decal, Hitch Coupler	
5	1	77766300 Label, Danger "No Smol	king"
6	4	75800100 Decal, Spartan 758	
7	2	77739800 Decal, Caution Rear Re-	el
8	1	77739900 Decal, Warning Rear	
9	1	75815400 Decal, Spartan	
10	1	72707800 Decal, Warning HP Jet	
11	1	73817800 Decal, "On" "Off"	
12	1	75800200 Decal, Disengage/Engage	ge
13	2	73817400 USA Label	
14	1	75814100 Decal, Hold in to Start	
15	1	75814200 Decal, Hose In	
16	1	75815100 Decal, Gasoline Only	
17	1	75814300 Decal, Spartan 758	
18	1	75813900 Decal, Choke	
19	1	75814000 Decal, Throttle	
20	1	58546301 Decal, Battery	
21	1	73817200 Decal, Caution	



### **758 Accessories**



Part #	Description
75800900	<b>Description</b> 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
<b>73817300</b> *77799800 *77721400	Wash Down Accessory Kit Includes *Items Hand gun Lance Vari-Nozzle Assembly 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 Adaptor Hose
44237200	Model 468 Root Cutter & Toolbox (* accessories included w/ 468 Rootcutter)
Model 468 Acces	ssories
*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)



### **ONE YEAR WARRANTY**



Spartan Tool warrants its equipment to free from defects in material and workmanship for one year from the date of purchase. To obtain warranty service, a purchaser should notify Spartan Tool in writing, at the address provided below, within the warranty period, and Spartan Tool will direct where to take or send the equipment for service. If the defect is covered by the warranty, Spartan Tool will repair or replace, at its option, the defective equipment, without charge for labor or materials. (Freight and insurance are the purchaser's responsibility.)

This warranty is limited to the original retail purchaser and is not transferable. Spartan Tool assumes no responsibility for damage due to accident, neglect, abuse, tampering or misuse, nor damage from repairs or alterations by others. This warranty does not cover damage to the equipment resulting from the use of replacement parts other than Spartan Tool parts.

Spartan Tool's sole obligation and the original retail purchaser's exclusive remedy under this warranty shall be for repair or replacement as described above. ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL SPARTAN TOOL BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SPARTAN TOOL L.L.C. MENDOTA, ILLINOIS 61342

Spartan Tool L.L.C. reserves the right to make changes at any time, without notice, to specifications and models and also discontinue models. The right is also reserved to change specifications or parts at any time without incurring any obligation to equip same on models manufactured prior to the date of change.

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