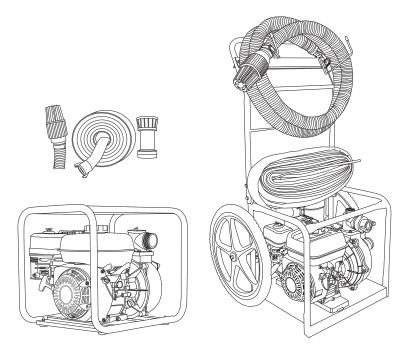
# FIRE PUMP & FIRE CART



**OPERATION MANUAL** 

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# INTRODUCTION



Attention: Read through the complete manual prior to the initial use of your fire cart.

### Using the Operator's manual

The operating manual is an important part of your fire cart/fire pump. It should be read thoroughly before initial use, and referred to often to make sure adequate safety and service concerns are being addressed.

Reading the owner's manual thoroughly will help avoid any personal injury or damage to your machine. By knowing how best to operate this machine you will be better positioned to show others who may also operate the unit.

This manual contains information for the complete range of fire carts, and is placed in order starting from the safety requirements to the operating functions of your machine. You can refer back to the manual at any time to help troubleshoot any specific operating functions, so store it with the machine at all times.



### **WARNING**



### DO NOT ATTACK THE FIRE LINE WITH THIS PUMP

- Not to be used to fight major forest fires.
- Not NFPA approved.

# PRODUCT IDENTIFICATION

# **Record Identification Numbers**

### **Fire Pump**

If you need to contact an Authorized Dealer or Customer Service line for information on servicing, always provide the product model and identification numbers.

You will need to locate the model and serial number for the machine and record the information in the places provided below.

Date of Purchase:		
Dealer Name:		
Dealer Phone:		
Product Identification Numbers		
Model Number:		
Serial Number:		

	Engine	
Horse Power:		

# Save these Instructions Safety Rules



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

The safety alert symbol ( **A** ) is used with a signal word (DANGER, CAUTION, WARNING), a pictorial and/or a safety message to alert you to hazards.

**DANGER** indicates a hazard which, if not avoided, will result in death or serious injury.

**WARNING** indicates a hazard which, if not avoided, could result in death or serious injury.

**CAUTION** indicates a hazard which, if not avoided, might result in minor or moderate injury.

**NOTICE** indicates a situation that could result in equipment damage. Follow safety messages to avoid or reduce the risk of injury or death.

# **Hazard Symbols and Meanings**



EXPLOSION



MOVING PARTS



**SLIPPERY** 



KICKBACK



FIRI



HOT SURFACE



**ELECTRIC SHOCK** 



TOXIC FUMES



READ MANUAL

# **WARNING**



Use of water pump can create puddles and slippery surfaces.

- Operate water pump from a stable surface.
- The area should have adequate slopes and drainage to reduce the possibility of a fall due to slippery surfaces.

# **A** WARNING



Running engine gives off carbon monoxide, an odorless, colorless, poison gas.

Breathing carbon monoxide can cause headache, fatigue, dizziness, vomiting, confusion, seizures, nausea, fainting or death.

- · Operate water pump ONLY outdoors.
- Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes, or other openings.
- DO NOT start or run engine indoors or in an enclosed area, even if windows and doors are open.

# **AWARNING**





Unintentional sparking can result in fire or electric shock.

### When Adjusting or Making Repairs to Your Water Pump

 Disconnect the spark plug wire from the spark plug and place the wire where it cannot contact spark plug.

# When Testing for Engine Spark

- Use approved spark plug tester.
- DO NOT check for spark with spark plug removed.

# **WARNING**



Fuel and its vapors are extremely flammable and explosive.

Fire or explosion can cause severe burns or death.

# When Adding or Draining Fuel

- Turn water pump OFF and let it cool at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Fill or drain fuel tank outdoors.
- DO NOT overfill tank. Allow space for fuel expansion.
- If fuel spills, wait until it evaporates before starting engine.
- Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources.
- DO NOT light a cigarette or smoke.



### **▲** WARNING



Fuel and its vapors are extremely flammable and explosive.

Fire or explosion can cause severe burns or death.

### When Starting Equipment

- Ensure spark plug, muffler, fuel cap, and air cleaner are in place.
- DO NOT crank engine with spark plug removed.

### When Operating Equipment

- DO NOT pump flammable liquids, such as fuel or fuel oils.
- This water pump is not for use in mobile equipment or marine applications.
- DO NOT tip engine or equipment at angle which causes fuel to
- Secure water pump. Forces produced by hoses may cause unit to tip over.

### When Transporting or Repairing Equipment

- Transport/repair with fuel tank EMPTY or with fuel shutoff valve OFF.
- Disconnect spark plug wire.

# When Storing Fuel or Equipment with Fuel in Tank

 Store away from furnaces, stoves, water heaters, clothes dryers, or other appliances that have pilot light or other ignition source because they can ignite fuel vapors.



This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov. Wash hands after handling.

# **A**WARNING



Starter cord kickback (rapid retraction) can result in bodily injury. Kickback will pull hand and arm toward engine faster than you can let go.

Broken bones, fractures, bruises, or sprains could result.

Keep hands and body clear from discharge of pump.

- When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.
- Secure discharge hose before starting engine to avoid hose from whipping.

# **A**WARNING



Contact with muffler area can result in serious burns.

Exhaust heat/gases can ignite combustibles,



structures or damage fuel tank causing a fire.

- DO NOT touch hot parts and AVOID hot exhaust gases.
- Allow equipment to cool before touching.
- Keep at least 5 feet (1.5 m) of clearance on all sides of water pump including overhead.

# **A** WARNING



Starter and other rotating parts can entangle hands, hair, clothing, or accessories.

- NEVER place hands or body parts inside of running pump or hoses.
- Never operate water pump without protective housing or covers.
- DO NOT wear loose clothing or anything that may be caught in the starter or other rotating parts.
- Tie up long hair and remove jewelry.

# **CAUTION**

Excessively high operating speeds increase risk of injury and damage to water pump.

Excessively low speeds impose a heavy load.

- DO NOT tamper with the governor speed.
- DO NOT modify the water pump.
- DO NOT allow unqualified persons or children to operate or service water pump.

### NOTICE

Improper treatment of water pump can damage it and shorten its life.

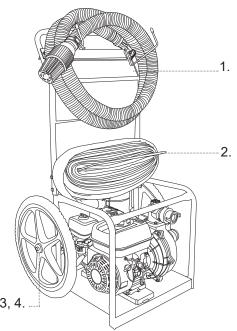
- If you have questions about intended use, contact your nearest authorized dealer.
- Be sure pump chamber is filled with water before starting the engine.

### **NEVER RUN PUMP WITHOUT PRIMING.**

- Use a non-collapsible hose on the suction side of the pump.
- Use water pump only for intended uses.
- Pumping sea water, beverages, acids, chemical solutions, or any other liquid that promotes corrosion can damage the pump.
- Ensure all connections are air tight.
- DO NOT obstruct the suction or discharge hose in any way.
- NEVER operate pump without foot valve connected to end of suction hose.
- NEVER allow vehicles to drive over hoses. If a hose must be positioned across a roadway, use planking on each side of hose to allow vehicles to pass over without obstructing or collapsing hose.
- Anchor pump to avoid equipment movement.
- Keep equipment away from edge of river or lake where it could cause the bank to collapse.
- NEVER operate units with broken or missing parts, or without protective housing or covers.
- DO NOT by-pass any safety device on this machine.
- NEVER move machine by pulling on hoses. Use frame on unit.
- Check fuel system for leaks or signs of deterioration, such as chafed or spongy hose, loose or missing clamps, or damaged tank or cap.
- · Correct all defects before operating water pump.

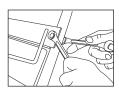


Read this operator's manual and safety rules before operating your fire cart.

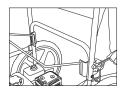


# **Cart Assembly**

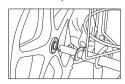
1. Bolt on suction hose rack.



2. Bolt on fire hose rack.



3. To attach wheel, slide washer on first, then insert the wheel.

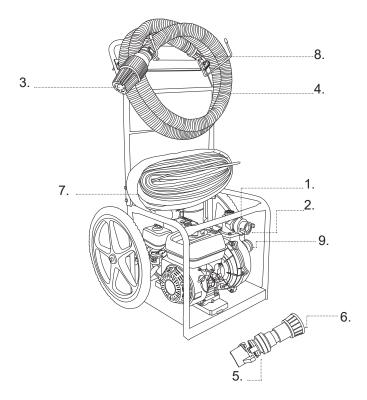


4. Slide second washer on & insert cotter pin into axle.



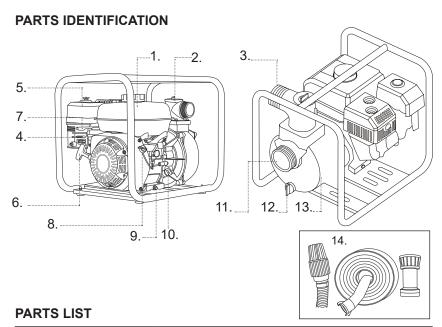
# FIRE CART PARTS DIAGRAM

# PARTS IDENTIFICATION



NO.	PART#	DESCRIPTION
1	50.015.007	REDUCING ADAPTER 2" X 1.5"
2	50.015.004	FIRE HOSE ADAPTER X 1.5" FNPSH
3	50.002.301	FOOT VALVE
4	85.400.079	SUCTION HOSE 12' X 2"
5	50.015.003	FIRE HOSE ADAPTER X 1.5" MNPT
6	50.015.002	FIRE NOZZLE 1.5"
7	50.015.001	FIRE HOSE 50' X 1.5"
8	90.392.200	TYPE C CAMLOCK - MALE BARB X FEMALE COUPLER
9	90.390.200	TYPE A CAMLOCK - MALE COUPLER X FNPT

# FIRE PUMP PARTS DIAGRAM



NO.	NAME	DESCRIPTION
1	Fuel Tank	Fill tank with regular unleaded fuel. Always leave room for fuel expansion.
2	Priming Plug	Fill the pump with water here to prime the pump before starting.
3	Discharge Outlet	Connect the discharge hose here.
4	Choke Lever	Prepares a cold engine for starting.
5	Air Cleaner	Protects the engine by filtering dust and debris out of the air intake.
6	Recoil Starter	Used for staring the engine manually.
7	Engine Speed Lever	Used to adjust the engine speed to control the pump output.
8	On / Off Switch	Set this switch to the "On" position before using the recoil starter. Set the switch to the "Off" position to stop a running engine.
9	Oil Drain	Drain the engine oil here.
10	Oil Fill	Check and add engine oil here.
11	Suction Inlet	Connect the reinforced suction hose here.
12	Water Drain Plug	Remove to drain water from the pump and flush the internal components with clean water.
13	Pump Chamber	Be sure to fill with water before starting.
14	Fire Kit	Nozzle & Hose

# **OPERATION**

### What is Suction Head?

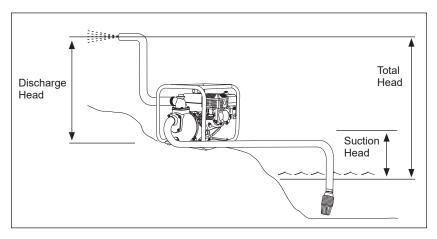
Suction Head is the vertical distance between the center of the pump and the surface of the liquid on the suction side of the pump. May also be referred to as "suction lift". The atmospheric pressure of 14.7 psi at sea level limits suction head to be less than approximately 26 feet for any pump.

Discharge Head is the vertical distance between the pump's discharge port and the point of discharge or is the liquid surface if the hose is submerged or pumping into the bottom of a tank.

Total Head is the sum of the suction head value plus the discharge head value.

As the water suction height increases, pump discharge height decreases. The length, type, and size of the suction and discharge hoses can also significantly affect pump output.

It is important for the suction height to be as short as possible. This will decrease the priming time and improve pump performance by increasing the discharge head.



# **Operating location**

For best pump performance, place the pump on a flat, level surface as close as possible to the water to be pumped. Secure water pump to avoid tipping over. Use hoses that are no longer than necessary.

**IMPORTANT:** Direct open end of discharge hose away from home, electrical devices or anything not desired to get wet.

# **A**WARNING



Fuel and its vapors are extremely flammable and explosive.

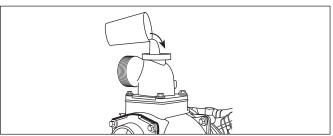


Fire or explosion can cause severe burns or death.

- This water pump is not for use in mobile equipment or marine applications
- DO NOT tip engine or equipment at angle which causes fuel to spill.
- Secure water pump. Forces produced by hoses may cause unit to tip over.

### **Prime the Water Pump**

- 1. Remove priming plug from top of pump.
- 2. Fill pump with clean, clear water up to top of discharge outlet.
- 3. Replace priming plug.



You can also prime the pump by immersing the hose end into water source and pulling back and forth until the pump body is filled with water.



### **NOTICE**

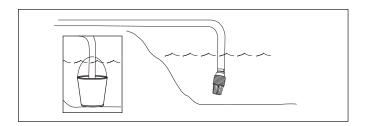
Improper treatment of water pump can damage it and shorten its life.

- Be sure chamber is filled with water before starting the engine.
- NEVER run pump without priming

# **OPERATION**

### Place Foot Valve Into Water Source

Place foot valve into water to be pumped. Foot valve must be fully submerged.



# NOTICE

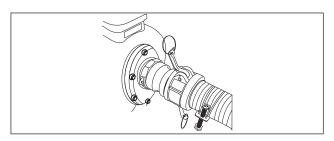
Improper treatment of water pump can damage it and shorten its life.

- NEVER operate pump without foot valve connected to end of suction hose.
- Keep strainer out of sand or silt, place in bucket or on stones.
- DO NOT let pump run dry or damage to seals may result.

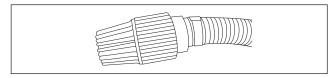
# START UP INSTRUCTIONS

# Use the following start-up instructions:

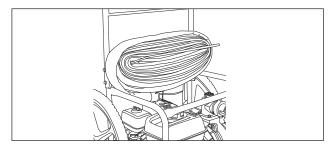
- 1. Push firecart close to water source.
- 2. Attach suction hose to pump.



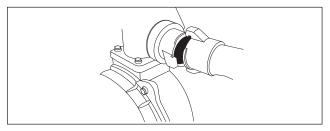
3. While one end of suction hose is attached to the pump inlet, put the foot valve in the water source.



4. Slide all the fire hose off hose rack.

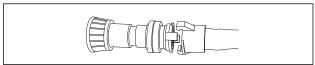


5. Attach fire hose to outlet. Twist to lock.



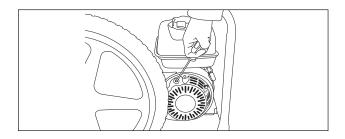
# START UP INSTRUCTIONS

6. Attach fire nozzle to fire hose. Twist to lock.



- 7. Prime the pump with water. (see page 15)
- 8. Rotate choke to left if engine is cold. When engine starts, rotate choke to right.
- 9. Turn engine switch to "ON"
- 10. Pull recoil until resistance is felt, then pull the cord briskly to start engine.

**IMPORTANT:** It may take a few seconds for water pump to begin pumping water.



# **AWARNING**



Starter cord kickback (rapid retraction) can result in bodily injury. Kickback will pull hand and arm toward engine faster than you can let go.

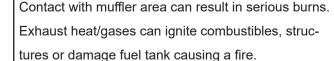
Broken bones, fractures, bruises, or sprains could result.

• When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.

# SHUTDOWN INSTRUCTIONS

# **AWARNING**





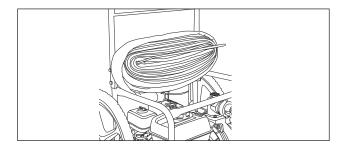


- DO NOT touch hot parts and AVOID hot exhaust gases.
- Allow equipment to cool before touching.
- Keep at least 5 feet (1.5 m) of clearance on all sides of water pump including overhead.

Pump output is controlled by adjusting engine speed. Moving the engine speed lever in the "Fast" direction will increase pump output, and moving the engine speed lever in the "Slow" direction will decrease pump output.

### Use the following shutdown instructions:

- 1. Turn engine switch to "OFF".
- 2. After using the fire cart, wrap fire hose around hose holder, once the engine is cold



3. Remove drain plug, flush pump with clean water, and then drain all water from pump.

If you need assistance with the assembly or operation of your Water Pump please call

1-866-850-6662