

**C45530**Rev C45530-20080908



10006 Santa Fe Springs Road Santa Fe Springs, CA 90670 USA Made in China

## **Owner's Manual and Operating Instructions**



# 3" Water Pump

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#### Introduction

Congratulations on your purchase of a Champion Power Equipment water pump. CPE designs and builds water pumps to strict specifications. With proper use and maintenance, this water pump will bring years of satisfying service.

#### 3" Water Pump

This unit is a gasoline engine driven, impeller based water pump. It is designed to pump clear water only.

#### Accessories

Champion Power Equipment manufactures and sells accessories designed to help you get the most from your purchase. To find out more about our covers, hose kits and other accessories, please visit our web site at

www.championpowerequipment.com

#### This Booklet

Every effort has been made to ensure the accuracy and completeness of the information in this manual. We reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

Champion Power Equipment Support
1-877-338-0999
Model Number
C45530
Serial Number
Date of Purchase
Purchase Location

#### **Manual Conventions**

#### **Manual Conventions**

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment.

Follow all safety messages to avoid or reduce the risk of serious injury or death.

#### DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

#### WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

#### CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

#### **CAUTION**

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.



#### **₽ NOTE**

If you have questions regarding your water pump, we can help. Please call our help line at 1-877-338-0999.

## **Safety Rules**

#### WARNING

Read this manual thoroughly before operating your water pump. Failure to follow instructions could result in serious injury or death.

#### **⚠** DANGER

DO NOT pump gasoline, oil-fuel mixtures, detergents, acids, chemicals, beverages, pesticides, fertilizers or any other flammable or corrosive liquids.

Pumping volatile liquids may result in an explosion or fire.

These liquids will corrode the pump and void your warranty.

#### WARNING

The engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

#### DANGER

Engine exhaust contains carbon monoxide, a colorless, odorless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death.

Operate water pump outdoors only in a well ventilated area

DO NOT operate the water pump inside any building, enclosure or compartment.

DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

#### DANGER

Rotating parts can entangle hands, feet, hair, clothing and/or accessories.

Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts. Tie up long hair and remove jewelry. Operate equipment with guards in place. DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

#### DANGER

The water pump develops powerful force.

DO NOT move the water pump when it is in use. DO NOT use hoses or connectors that are worn, damaged or frayed.

DO NOT allow children or unqualified persons to operate or service the water pump.

#### WARNING

DO NOT immerse this unit in water.

#### WARNING

Sparks can result in fire or electrical shock.

#### When servicing the water pump:

Disconnect the spark plug wire and place it where it cannot contact the plug. DO NOT check for spark with the plug removed. Use only approved spark plug testers.

## Safety Rules

#### DANGER

Fuel and fuel vapors are highly flammable and extremely explosive.

Fire or explosion can cause severe burns or death.

Unintentional startup can result in entanglement, traumatic amputation or laceration.

#### When adding or removing fuel

Turn the engine off and let it cool for at least two minutes before removing the fuel cap. Loosen the cap slowly to relieve pressure in the tank. Only fill or drain fuel outdoors in a well-ventilated area.

DO NOT overfill the fuel tank.

Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition. DO NOT light or smoke cigarettes.

#### When starting the water pump

DO NOT attempt to start a damaged water pump.

Make certain that the gas cap, air filter, spark plug, fuel lines and exhaust system are properly in place.

Allow spilled fuel to evaporate fully before attempting to start the engine.

Make certain that the water pump is resting firmly on level ground.

#### When operating the water pump:

DO NOT move or tip the water pump during operation.

DO NOT tip the water pump or allow fuel or oil to spill.

#### When transporting or servicing the water pump:

Make certain that the fuel shutoff valve is in the off position and the fuel tank is empty. Disconnect the spark plug wire.

#### When storing the water pump:

Store away from sparks, open flames, pilot lights, heat and other sources of ignition.



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#### WARNING

Water pumped through this unit shall not be used as drinking water.

#### WARNING

DO NOT pump salt, sludge, sewer, sea, or any other type of water containing solid material.

#### WARNING

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

Unintentional startup can result in entanglement, traumatic amputation or laceration.

Broken bones, fractures, bruises or sprains could result.

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

#### CAUTION

Exceeding the water pump's specification for maximum head can damage the water pump and/or hose kits connected to it

DO NOT modify the water pump in any way. DO NOT attempt to exceed the rated flow. Attempting to increase the rated flow may damage the unit and/or shorten its life.

#### CAUTION

Improper treatment or use of the water pump can damage it, shorten its life and void your warranty.

Use the water pump only for intended uses. Operate only on level surfaces.

DO NOT expose water pump to excessive moisture, dust, or dirt.

DO NOT allow any material to block the cooling

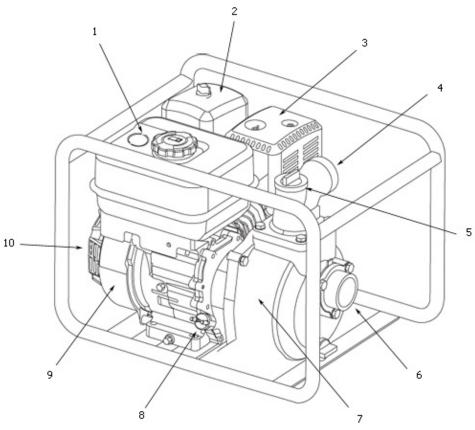
DO NOT use the water pump if:

Equipment sparks, smokes or emits flames Equipment vibrates excessively

#### **Controls and Features**

Read this owner's manual before operating your water pump. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

#### Water pump



**Fuel Tank (1)** -0.95 gallon (3.6 L) capacity fuel tank

**Air Filter (2)** – Protects the engine by filtering dust and debris from the intake air.

**Muffler (3)** – Full-sized muffler

**3" Outlet (4)** -3" NPT outlet connector

**Pump Chamber (5)** – fill with water prior to operation

**3" Inlet (6)** - 3" NPT inlet connector

**Pump Housing (7)** – Impeller-based pump

**Oil Filler Cap (8)** – Check and fill engine oil level

**Serial Number (9)** – Please have this number available when calling for assistance

**Recoil Starter (10)** – Used to start the engine

**NOT SHOWN:** 

**Throttle** – Used to adjust engine speed

**Choke** – Used to start the engine

**Engine Switch** – Used to start the engine

**Low Oil Sensor**— Senses the level of oil in the crankcase and shuts the engine down if the level falls too low

## **Controls and Features**

### Parts Included

Your Model C45530 Gasoline Powered Water Pump ships with the following part:



## **Assembly**

Your water pump requires some assembly. This unit ships from our factory without oil. It must be properly serviced with fuel and oil before operation.

If you have any questions regarding the assembly of your water pump, call our help line at 1-877-338-0999. Please have your serial number and model number available.

### Remove the Water pump from the Shipping Carton

- Set the shipping carton on a solid, flat
- 2. Remove everything from the carton except the water pump.
- 3. Carefully cut each corner of the box from top to bottom. Fold each side flat on the ground to provide a surface area.

### Add Engine Oil



#### CAUTION

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the water pump as a result of failure to follow these instructions will void your warranty.

- 1. Place the water pump on a flat, level surface.
- 2. Remove oil fill cap/dipstick to add oil.
- 3. Add 0.63 qt (0.6 L) of oil and replace oil fill cap/dipstick.
- Check engine oil level daily and add as needed.

#### CAUTION

The engine is equipped with a low-oil-shutoff and the will stop when the oil level in the crankcase falls below the threshold level.

#### V NOTE

Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

#### Add Fuel

- Use clean, fresh, regular unleaded fuel with a minimum octane rating of 85.
- DO NOT mix oil with fuel.
- Clean the area around the fuel cap.
- Remove the fuel cap 4.
- Slowly add fuel to the tank. DO NOT overfill. Allow approximately 1/4 inch of space for fuel expansion.
- Screw on the fuel cap and wipe away any spilled fuel.



#### CAUTION

Use regular unleaded gasoline with a minimum octane rating of 85.

DO NOT mix oil and gasoline.

Fill tank to approximately 1/4" below the top of the tank to allow for fuel expansion.

DO NOT fill fuel tank indoors.

DO NOT fill fuel tank when the engine is running or hot.

DO NOT overfill the fuel tank.

DO NOT light cigarettes or smoke when filling the fuel tank.

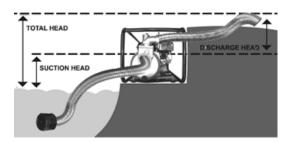
## **Operation**

#### Water pump Location

Place the water pump in a well-ventilated area. DO NOT place the water pump near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning water pump.

This water pump must have at least five feet of clearance from combustible material. Leave at least three feet of clearance on all sides of the water pump to allow for adequate cooling, maintenance and servicing.

Place the pump on a level surface free from any obstructions or potential hazards. The pump should be placed close to the water level to ensure maximum pump performance.



Pump output will be affected by the type, length, and size of the suction and discharge hoses. The pumping height, also known as the total head, is the distance from the water level to the point of discharge. As this distance increases, pump output decreases. The discharge capacity is greater than the suction capacity. Therefore, it is important that the suction head is less than the discharge head.

The time required to draw water from the source to the pump (self-priming time) can be decreased by minimizing the suction head.

### Connecting Hoses (Not Included)

Hoses are not included the following are examples of how to connect the hose to the water pump. Attach and thread the connector to the threaded flange (Figure 1).



Both the intake and discharge ports are 3 in. NPT. Please insure the connectors to the suction and discharge hose are 3 in. NPT threaded.

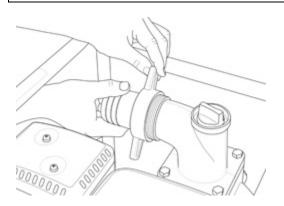


Figure 1

Slide the flexible, outlet hose over connector and secure with a hose clamp (Figure 2).

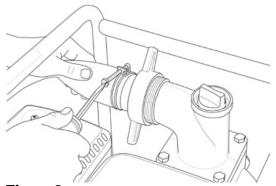


Figure 2

Wrap the 3" NPT inlet counterclockwise with plumber tape (Figure 3) to ensure a tight fit. Carefully thread the male connector to the intake port.

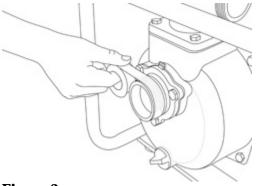


Figure 3

#### WARNING

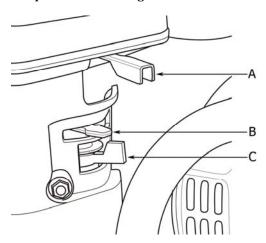
#### DO NOT run the pump dry.

Running the pump dry can destroy the pump seals and will void the warranty.

If the pump was running while dry, stop the engine and allow it to cool thoroughly before filling the chamber with water.

### Starting the Engine

- Make certain the semi-trash pump is on a flat, level surface.
- Turn the fuel valve to the "On" position.
- 3. Flip engine switch to "ON" position
- 4. Move the fuel lever (Item C) to the "ON" position (to the right).



- Move the choke lever (Item B) to the "Choke" position (to the left).
- 6. Pull the starter cord slowly until resistance is felt and then pull rapidly.
- 7. As engine warms up, move the choke lever to "Run" (to the right).
- 8. Move the throttle lever (Item A) to the "Fast" position.



#### NOTE :

If the engine starts but does not run make certain that the water pump is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

Pump performance can be adjusted using the throttle. To decrease pump output, slide the throttle to the right. To increase it, slide the throttle to the left.

#### Stopping the Engine

- 1. Turn the ignition switch to the "Off" position.
- Turn the fuel valve to the "Off" position.
- 3. Allow the engine to cool thoroughly.
- 4. Remove the bottom threaded drain plug from the cooling pump chamber and allow the pump to drain completely.

#### Maintenance

#### **Maintenance**

The owner/operator is responsible for all periodic maintenance.



#### WARNING

Never operate a damaged or defective water pump.



#### 🗘 WARNING

Improper maintenance will void your warranty.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the water pump.



#### NOTE

For service or parts assistance, contact our help line at 1-877-338-0999.

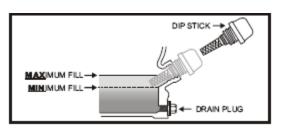
### Engine Maintenance

To prevent accidental starting, remove and ground spark plug wire before performing any service.

#### Oil

Change oil when the engine is warm. Refer to the oil specification to select the proper grade of oil for your operating environment.

- Remove the oil drain plug with a 12 mm socket and extension.
- 2. Allow the oil to drain completely.
- 3. Replace the drain plug.
- 4. Remove oil fill cap/dipstick to add oil.
- 5. Add 0.63 qt (0.6 L) of oil and replace oil fill cap/dipstick.
- 6. Dispose of used oil at an approved waste management facility.



#### Spark Plugs

- Remove the spark plug cable from the spark plug.
- 2. Use a 13/16" (21mm) long reach spark plug socket to remove the plug.
- 3. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
- 4. Make certain the spark plug gap is 0.7 -0.8mm (0.028 - 0.031 in.).
- Refer to the spark plug recommendation chart when replacing the plug.
- Carefully thread the plug into the engine.
- Use a 13/16" (21mm) spark plug tool to firmly install the plug.
- Attach the spark plug wire to the plug.

#### Air Filter

- Remove the snap-on cover holding the air filter to the assembly.
- Remove the foam element.
- Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
- Saturate in clean engine oil.
- Squeeze in a clean, absorbent cloth to remove all excess oil.
- Place the filter in the assembly.
- Reattach the air filter cover and snap in place.

#### Cleaning



#### CAUTION

DO NOT spray engine with water.

Water can contaminate the fuel system.

Use a damp cloth to clean exterior surfaces of the engine.

Use a soft bristle brush to remove dirt and

Use an air compressor (25 PSI) to clear dirt and debris from the engine.

#### **Adjustments**

CPE recommends that you contact our service line at 1-877-338-0999 for all other service and/or adjustment needs.

#### **Maintenance Schedule**

Follow the service intervals indicated in the schedule below.

Service your water pump more frequently when operating in adverse conditions. Contact our help line at 1-877-338-0999 to locate the nearest Champion Power Equipment certified service dealer for your water pump or engine maintenance needs.

Every 8 hours or daily
Check oil level
Clean around air intake and muffler
First 5 Hours
Change oil
First 10 hours
Check/Adjust Valve Clearance *
Every 50 hours or every season
Clean air filter
Change oil if operating under heavy load
or in hot environments
Every 100 hours or every season
Change oil
Clean/Adjust spark plug
Check/Adjust valve clearance *
Clean fuel tank and filter *
Every 3 years
Replace fuel line

To be performed by knowledgeable, experienced owners or Champion Power Equipment certified service dealers

### **Storage**

## **Storage**

For longer term storage, please follow these guidelines.

### **Engine Storage**

- 1. Allow the engine to cool completely before storage.
- 2. Clean the engine according to the instructions in the Maintenance section.
- 3. Drain all fuel completely from the fuel line and carburetor to prevent gum from forming.
- 4. Add a fuel stabilizer into the fuel tank.
- 5. Change the oil.

- 6. Remove the spark plug and pour about ½ ounce of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
- 7. Reattach the spark plug.

#### Water pump Storage

- 1. Allow the water pump to cool completely before storage.
- 2. Turn off the fuel supply at the fuel valve.
- 3. Drain the pump chamber thoroughly.
- 4. Clean the water pump according to the instructions in the Maintenance section.
- 5. Store the unit in a clean, dry area.
- 6. Store in a clean, dry place out of direct sunlight.

### **Specifications**

#### **Engine Specifications**

Engine 163 cc OHV CPE

### Water pump Specifications

Inlet Diameter	3 inch NPT
Outlet Diameter	3 inch NPT
Fuel Capacity	0.95 gallons (3.6 L)
Total Head	98 feet (30 m)
Suction Head	26 feet (8 m)
Max Delivery Volume	264 Gal/min
·	(999 L/min)
Weight	61.6 lbs. (25 kg)
Height	18.11 inches (46 cm)
Width	15.35 inches (39 cm)

20.87 inches (53 cm)

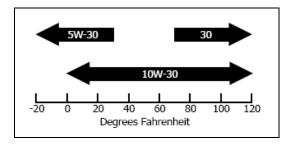
#### **Fuel**

Length

Fuel capacity is 0.95 US gallons (3.6 L). Use regular unleaded gasoline with a minimum octane rating of 85.

#### Oil

Oil capacity is 0.63 qt (0.6 L).



#### Spark Plugs

To remove the spark plug from your water pump use a 13/16" (21mm) long reach spark plug tool.

Intermittent use (less than 1 hour/month) or colder temperatures (below 60°F)

NGK B6ES or equivalent

Moderate use (less than 3 hours/month) or seasonal temperatures (50-80°F) NGK B7ES or equivalent

Extreme use (continuous) or hot climates (80-100°F)

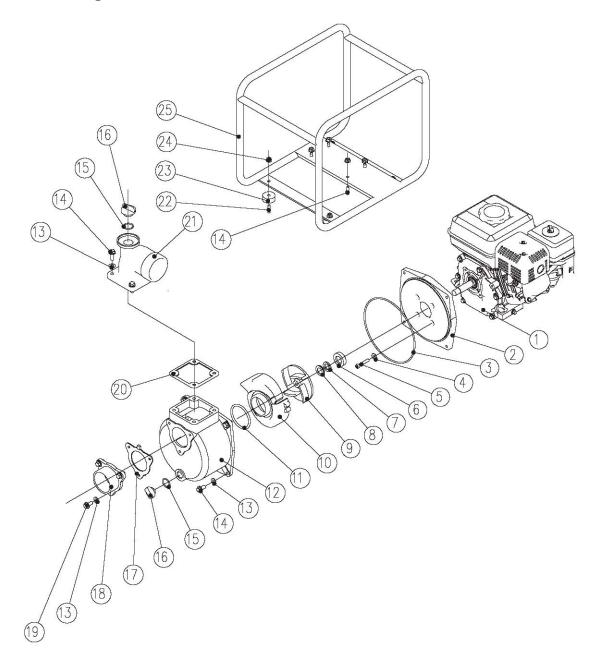
NGK B8ES or equivalent

Make certain the spark plug gap is 0.7 - 0.8mm (0.028 - 0.031 in.).

#### Valve Clearance

Intake 0.13-0.17mm (0.005 - 0.007 in.)Exhaust 0.18-0.22mm (0.007 - 0.009 in.)

## Parts Diagram



## Parts List

No	Part#	Description	Qty
1	ST168F-1000000	Engine	1
2	WP-30-1000500	Pump Body	1
3	WP-30-1000502	Pump Body "O" Seal	1
4	WP-30-1000005	Washer	4
5	GB70-86-M8×55	Hexagon Screws M8×55	4
6	WP-30-1000510	Casing Wear Ring	1
7	WP-30-1000402	Impeller Wear Ring	1
8	WP-30-1000403	Impeller Seals	1
9	WP-30-1000401	Impeller	1
10	WP-30-1000302	Spiral Case	1
11	WP-30-1000301	Spiral Case "O" Seal	1
12	WP-30-1000200	Pump Cover	1
13	GB97.1-85-8	Packing8	11
14	GB5780-86-M8×20	Flange Bolt M8×20	8
15	WP-30-1000208	Plug "O" Seal	2
16	WP-30-1000207	Plug	2
17	WP-30-1000209	Non return Vale	1
18	WP-30-1000206-CPE	Flume(NPT)	1
19	GB5789-86-M8×20	Flange Bolt M8×20	3
20	WP-30-1000204	Seal Packing	1
21	WP-30-1000203-CPE	Elbow Draft Tube(NPT)	1
22	GB5780-86-M8×25	Flange Bolt M8×25	4
23	WP-30-2000001	Flame Rubber	4
24	GB6177-86-M8	Nut M8	4
25	WP-30-2000100	Flame	1

## **Troubleshooting**

## **Troubleshooting**

Problem	Cause	Solution
Water pump will not start	No fuel	Add fuel
	Faulty spark plug	Replace spark plug
Water pump will not start;	Low oil level	Fill crankcase to the proper level
Water pump starts but runs roughly		Place water pump on a flat, level
		surface
	Choke in the wrong position.	Adjust choke.
	Spark plug wire loose	Attach wire to spark plug
Water pump shuts down during	Out of fuel	Fill fuel tank
operation	Low oil level	Fill crankcase to the proper level.
		Place water pump on a flat, level
		surface
Water pump overheating or	Strainer or hose clogged	Remove debris from strainer or hose
performing poorly	Pump not primed	Re-prime pump
	Suction hose out of water	Place suction hose under the surface
		of the water
	Head limit exceeded	Relocate pump so suction head is less
		than discharge head (maximum 98
		feet)
	Air leak	Tighten connectors and clamps or
		replace seal packing

### Warranty

CHAMPION POWER EQUIPMENT 1 YEAR LIMITED WARRANTY

Effective September 1, 2006. Replaces all undated warranties and all warranties dated before September 1, 2006.

### Warranty Qualifications

Champion Power Equipment (CPE) will register this warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of CPE's retail locations as proof of purchase.

Please submit your warranty registration and your proof of purchase within ten (10) days of the date of purchase.

## Limited Repair/Replacement Warranty

CPE warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of one (1) year from the original date of purchase (90 days for commercial & industrial use). Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty applies only to the original purchaser and is not transferable.

## Do not return the unit to the place of purchase

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

### Warranty Exclusions

This warranty does not cover the following repairs and equipment:

#### **Normal Wear**

Water pumps need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

## Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if this water pump is deemed to have been misused, neglected, involved in an accident, abused, modified,

installed improperly or connected incorrectly to any hose kit. Pumping chemicals, solvents, pesticides or any material other than clear water voids this warranty. Normal maintenance such as spark plugs, air filters, adjustments, fuel system cleaning and obstruction due to buildup is not covered by this warranty.

#### Other Exclusions

This warranty excludes:
Cosmetic defects such as paint, decals, etc.
Wear items such as filter elements, o-rings, etc.
Accessory parts such as starting batteries, storage covers and hose kits.
Failures due to acts of God and other force majeure events beyond the manufacturer's control.
Problems cause by parts that are not original Champion Power Equipment parts.

## Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this water pump. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

#### **Contact Information**

#### **Address**

Champion Power Equipment, Inc. Customer Service 10006 Santa Fe Springs Rd. Santa Fe Springs, CA 90670

#### **Customer Service**

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT) Toll Free: 1-877-338-0999 Fax no.: 1-562-236-9429

#### **Technical Service**

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT) Toll Free: 1-877-338-0999 24 hr. Voicemail: 1-626-230-5248 or email: tech@championpowerequipment.com

## **Notes**

## **Notes**