



REV: XPxxxWX\_rev04142022

This manual provides information regarding the operation and maintenance of these products. We have made every effort to ensure the accuracy of the information in this manual. We reserve the right to change this product at any time without prior notice.

5800 Ontario Mills Pkwy  
Ontario, CA 91764 USA  
[www.duromaxpower.com](http://www.duromaxpower.com)  
Call our Customer Care Team Toll Free 8-5 pm PST Mon-Fri  
**844-DUROMAX**



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POWERING EVERYONE...  
***ANYWHERE!***



## THE DUROMAX WAY

The DuroMax Way is more than just a brand, it is our understanding and appreciation of just how important power can be to someone without it...



### DUROMAX FOR HOME

Electricity in our home not only provides comfort but safety as well. From keeping the heat or A/C on to keeping our food cold, power is essential to our daily lives. Inevitably when disaster strikes and we are left without power for a prolonged period of time, our way of life is put at risk. This is by far the most critical time for reliable portable power.



### DUROMAX FOR WORK

On the job site, portable power allows you the ability to get work done in remote locations when traditional power sources are usually unavailable. Equipment like table saws, sanders, and work lights are a necessities and portable power can play a critical role in getting a job done successfully and efficiently.



### DUROMAX FOR PLAY

Camping outdoors in a remote location can get one in touch with nature and allow them to forget the stress of the day-to-day grind. Here, portable power can provide comfort as well as safety. With portable power, you can keep your cellphone charged, light up your campsite, or even brew a cup of coffee, all while being miles from civilization..

**The DuroMax Way is a commitment to excellence.** This vision is focused on the quality, reliability, and durability of our products combined with outstanding customer service. We understand that having dependable power whenever and wherever you need it provides comfort, safety, and peace of mind. It is through this philosophy that DuroMax achieves our vision of...

# POWERING EVERYONE... ANYWHERE!

# INTRODUCTION

DuroMax Power Equipment is headquartered in Ontario, California and is the industry's leader in dual fuel portable water pump technology. In addition to a full assortment of portable water pumps ranging from digital inverters to large 15,000-watt portable standby units, our product line includes pressure washers, engines, pumps, and accessories.

The foundation of our company is built on quality, reliability, durability, and customer service. At DuroMax our vision is simple, we are committed to Powering Everyone... Anywhere!



## Notice Regarding Emissions

Engines that are certified to comply with U.S. EPA emission regulations for SORE (Small Off-Road Equipment), are certified to operate on regular unleaded gasoline and may include the following emission control systems: (EM) Engine Modifications and (TWC) Three-Way Catalyst (if so equipped).

# GENERAL SAFETY PROCEDURES



## SAFETY ALERT SYMBOL

The safety alert symbol is used with one of the safety words (**DANGER**, **CAUTION**, or **WARNING**) to alert you of hazards. Please pay attention to these hazard notices both in this manual and on the water pump.

### Please familiarize yourself with the following safety symbols and words:

- **DANGER:** Indicates a hazard that will result in serious injury or death if instructions are not followed.
- **WARNING:** Indicates a strong possibility of causing serious injury or death if instructions are not followed.
- **CAUTION:** Indicates a possibility of personal injury or equipment damage if instructions are not followed.



**DANGER:** This water pump produces poisonous carbon monoxide gas when running. This gas is both odorless and colorless. Even if you do not see or smell gas, carbon monoxide may still be present. Breathing this poison can lead to headaches, dizziness, drowsiness, and eventually death.

- Use outdoors **ONLY** in non-confined areas.
- Keep several feet of clearance on all sides to allow proper ventilation of the water pump.



**WARNING:** The exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



**WARNING:** This water pump produces heat when running. Temperatures near exhaust can exceed 150°F (65°C).

- Do not touch hot surfaces. Pay attention to warning labels on the water pump denoting hot parts of the machine.
- Allow water pump to cool several minutes after use before touching engine or areas which heat during use.





**WARNING:** This water pump may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death. A nearby open flame can lead to an explosion even if not directly in contact with gasoline.

- Do not operate near an open flame.
- Do not smoke near the water pump.
- Always operate on a firm, level surface.
- Always turn the water pump off before refueling.
- Allow water pump to cool for at least 2 minutes before removing the fuel cap. Loosen cap slowly to relieve pressure in the tank.
- Do not overfill the gas tank. Gas may expand during operation. Do not fill to the top of the tank.
- Always check for spilled gas before operating.
- Empty the gasoline tank before storing or transporting the water pump.
- Before transporting, turn the fuel valve to the off position and disconnect the spark plug.

# GENERAL SAFETY PROCEDURES

In addition to the above safety notices, please familiarize yourself with the safety and hazard markings on the water pump.



<b>⚠ DANGER</b>		
<p>Using power equipment indoors CAN KILL YOU IN MINUTES.</p> <p>Power equipment exhaust contains carbon monoxide. This is a poison you cannot see or smell.</p>		
	<p><b>NEVER</b> use inside a home or garage, <b>EVEN IF</b> doors and windows are open.</p>	
		<p>Only use <b>OUTSIDE</b> and far away from windows, doors, and vents.</p>




**ATTENTION**  
CHECK ENGINE OIL LEVEL  
BEFORE EACH START  
CAPACITY: 1.1L/37oz (US)




**ATTENTION**  
CHECK ENGINE OIL LEVEL  
BEFORE EACH START  
CAPACITY: 1.1L/37oz (US)



**WARNING**  
Check that there is no fuel spillage  
or fuel leakage.  
Engine must be off before fueling.

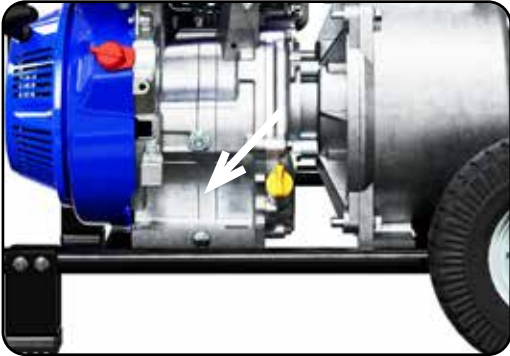


**WARNING**  
Check that there is no fuel spillage  
or fuel leakage.  
Engine must be off before fueling.



# UNIT AND PURCHASE INFORMATION

## Serial Number



### Serial Number

The serial number is located on the engine block, above and to the left of the oil fill.



### Serial number format

The serial number will be shown in two parts. The engine model, followed by the serial number.

Engine Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

## STAPLE RECEIPT HERE

A purchase receipt may be necessary for warranty parts or service in the future. If you have a paper receipt, staple it here for easy reference.

If you purchased the unit online, save the email receipt where you can access it, and record your details here for convenience in the future.

Purchase Date: \_\_\_\_\_

Order Number: \_\_\_\_\_

Retailer Name: \_\_\_\_\_

# PACKAGE CONTENTS

Your water pump comes with the items listed below. Please check to see that all of the following items are included with your water pump.



## Oil Funnel w/ Hose

Used to add oil to the water pump without messy spills.



## Spanner

Assorted wrenches used in water pump maintenance and assembly. 10mm/12mm, 13mm/15mm, and 17mm/19mm.



## Spark Plug Wrench

Used in spark plug maintenance, inspection, and installation.

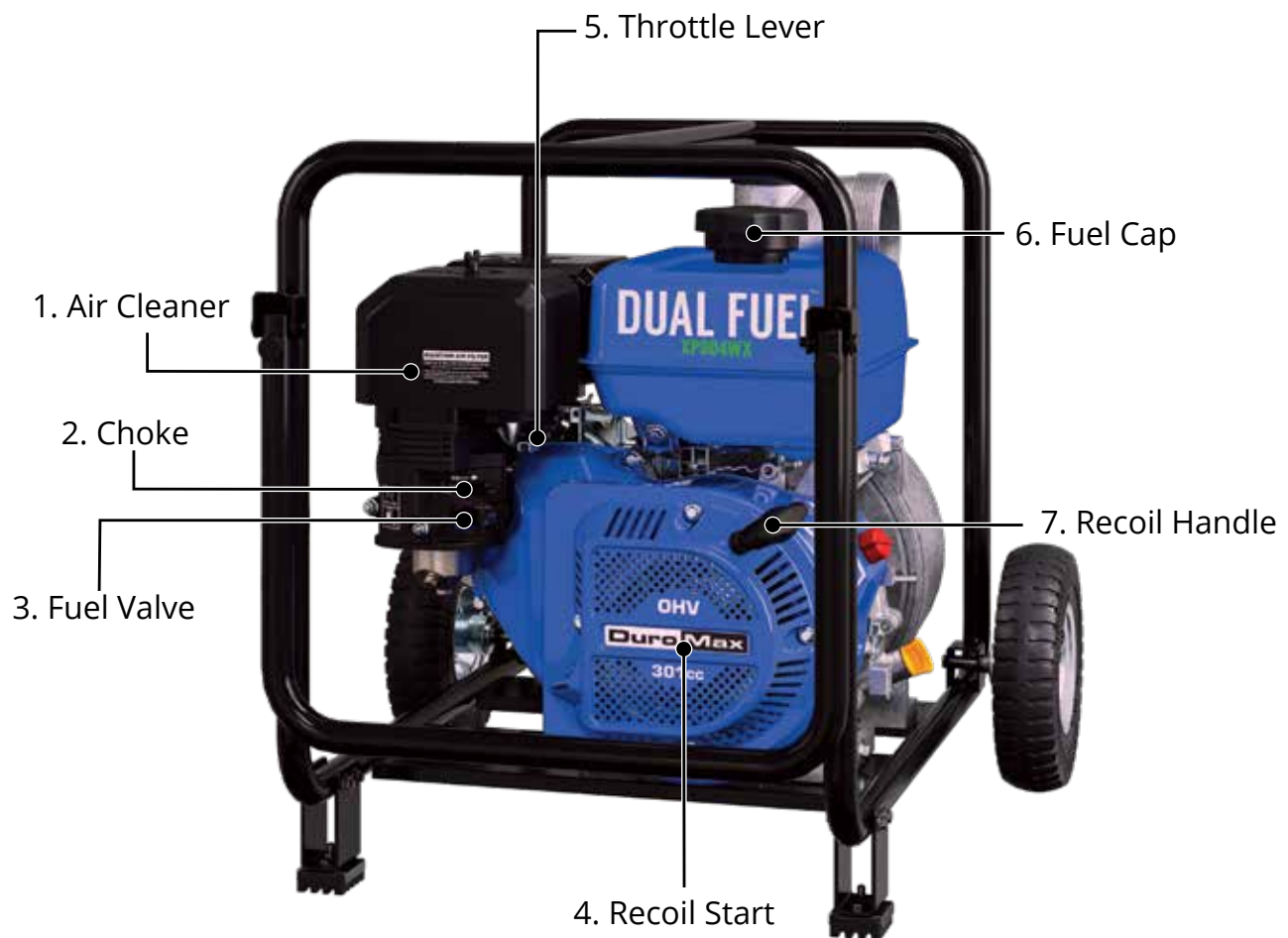


## Propane Regulator w/ Hose

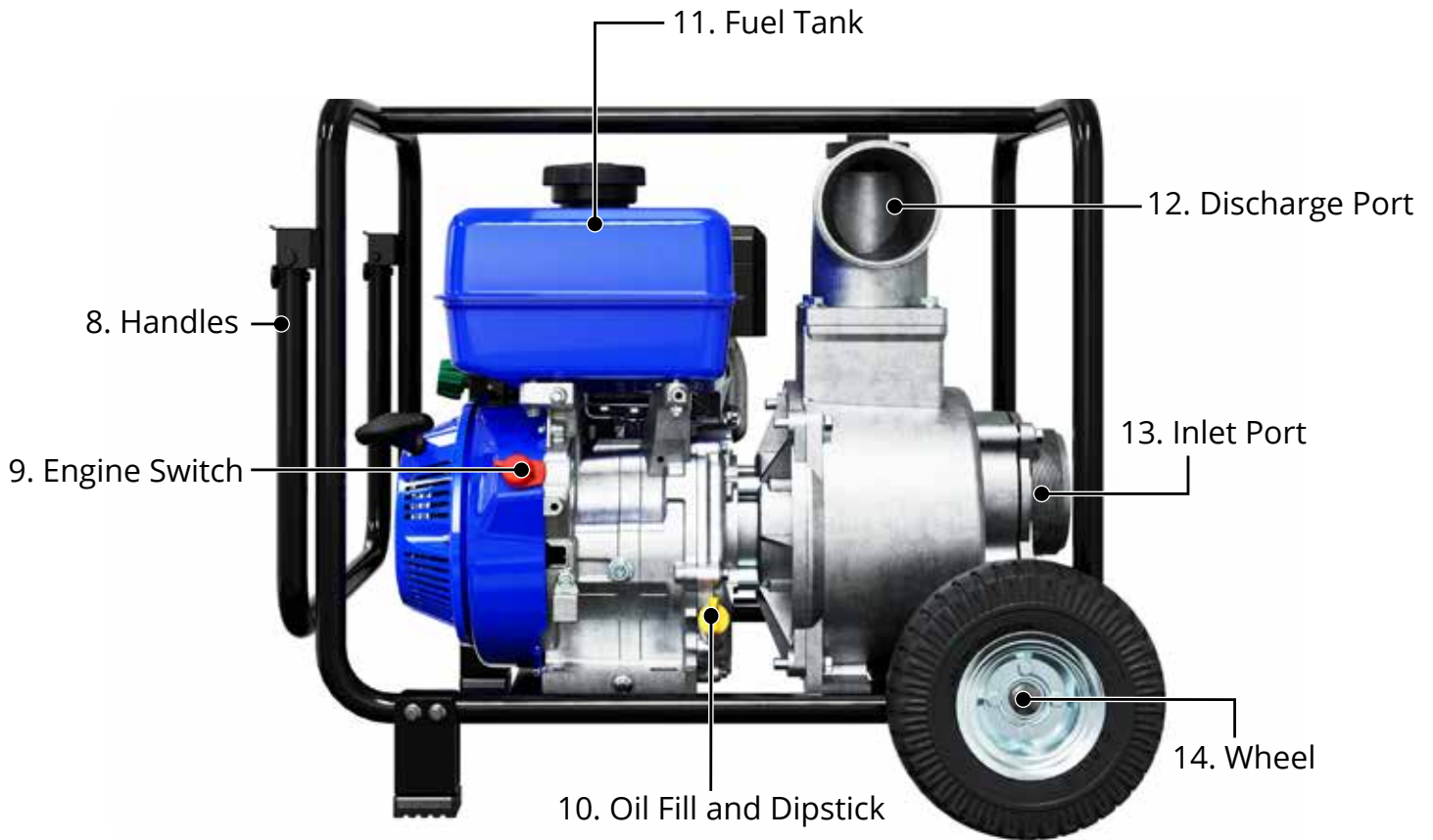
Used to provide a regulated propane supply to the propane inlet.

- Note: Actual tools may differ in appearance or design from the image shown.

# WATER PUMP COMPONENTS



1. **Air Cleaner** - A removable, cleanable, oiled, element that cleans the air going into the engine.
2. **Choke** - An On/Off choke lever that controls the fuel air mixture.
3. **Fuel Valve** - On/Off valve that allows gasoline to the fuel switch.
4. **Recoil Start** - Easy pull recoil start to start the engine.
5. **Throttle Lever** - A throttle lever that controls the engine speed.
6. **Fuel Cap** - An easily removed fuel cap.
7. **Recoil Handle** - Easy pull recoil handle used to engage the recoil start and start the engine.



8. **Handles** - Foldable handles allow easy movement across any surface.
9. **Engine Switch** - 3 Position switch to "Start", "Run", or turn "Off" the water pump.
10. **Oil Fill and Dipstick** - Use to add or check the oil.
11. **Fuel Tank** - All metal gasoline fuel tank.
12. **Discharge Port** - A discharge port used for attaching the discharge hose.
13. **Inlet Port** - An inlet port used for attaching the suction hose.
14. **Wheel** - A never flat tire built for easy movement across rough terrain.



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## WATER PUMP SETUP

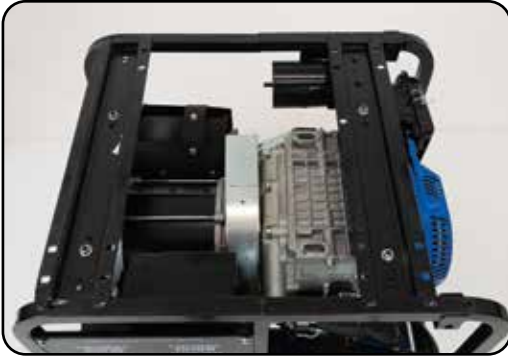
Proper setup of your water pump will get you going as soon as possible while making sure you and your equipment are safe and cared for.



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# WATER PUMP SETUP

## Step 1 - Remove Shipping Braces

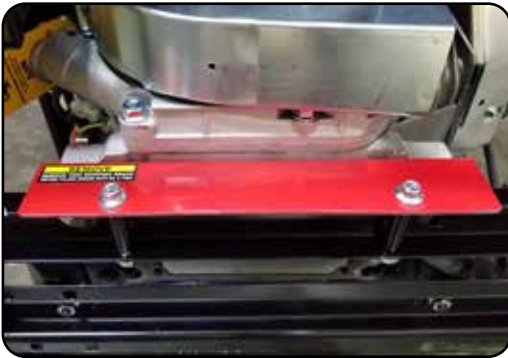


### 1. Unpack

- Remove the water pump from the box.
- Place the largest piece of packing foam on a flat surface.
- Flip the Water Pump upside down on the pad.



**CAUTION: NEVER attempt this if you have put fuel or oil in the water pump.**



### 2. Remove Braces

The shipping braces prevent engine movement during shipment. Flip the water pump over and remove the brightly colored braces between the motor and the frame, and the wood brace under the water pump.



**Note: Shipping braces can be thrown away. They will not be needed again.**

# WATER PUMP SETUP (CONTINUED)

## Step 2 - Wheel Kit Installation (Optional)



### 1. Install support legs

- a. Secure the support legs to the frame with the provided lock nuts.



### 2. Install wheel axles

- a. Place the smallest washer onto the wheel axle bolts.
- b. Insert wheel axle bolts through the frame and secure with the provided nut and wrenches.



### 3. Install inside wheel washers

- a. Place one of the large washers onto the axles.



### 4. Install wheels

- a. Place the wheels onto the axles.



## 5. Install outside wheel washers

- a. Place the other large washers onto the axles.



## 6. Install cotter pins

- a. Place the cotter pin through the hole at the end of the axle and bend it out to secure the wheel.



## 7. Flip Over

- a. Flip the assembled water pump over onto its wheels and support brackets.

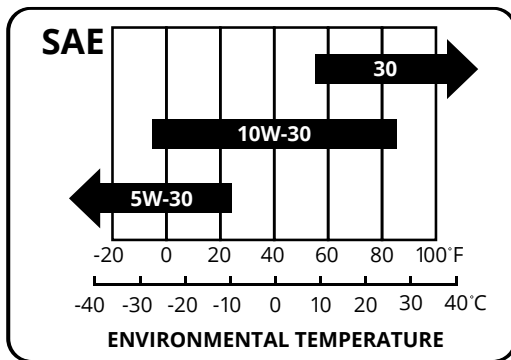
# WATER PUMP SETUP (CONTINUED)

## Step 3 - Adding Oil

The water pump requires engine oil to operate properly. The water pump, when new from the package, contains no oil in the crankcase\*. You must add the proper amount of oil before operating the water pump for the first time. This amount is equal to the oil capacity of the engine crankcase:

Model Number	XP652WX	XP650WX	XP904WX
Engine Oil Capacity	20 fl. oz. (0.6L)	20 fl. oz. (0.6L)	37.2 fl. oz. (1.1 L)

**WARNING: Do not apply engine oils with additives or 2-stroke gasoline engine oils.** They don't have enough lubrication and may shorten the engine's service life.



**Engine oil recommended: SAE 10W-30.** Viscosity varies with regions and temperatures. Choose your oil viscosity using the chart to the left.

\* A small amount of oil from factory testing may be present on arrival.



### Add oil

- Make sure the water pump is on a level surface.
- Unscrew the oil filler/dipstick cap from the engine.
- Using a funnel, add the appropriate amount of oil into the crankcase. You will know the crankcase is full when the oil level has reached the lower lip of the opening you have just poured the oil into.
- Replace the oil filler cap.



**WARNING: DO NOT overfill the crankcase. This may damage the motor and shorten the overall life of your water pump.**

## Step 4 - Adding Gasoline (Optional)



### Add gasoline

- Make sure the water pump is on a level surface.
- Unscrew gas cap and set aside (NOTE: the gas cap may be tight and hard to unscrew).
- Slowly add unleaded gasoline to the fuel tank. Be careful not to overfill. The fuel gauge on the top of the gas tank indicates how much gasoline is in the water pump gas tank.
- Replace fuel cap and wipe up any spilled gasoline with a dry cloth.

Model Number	XP652WX	XP650WX	XP904WX
Fuel Capacity	0.76 US gal (2.885 L)	0.76 US gal (2.885 L)	1.4 US gal (5.325 L)



**WARNING:** Gas can expand. Do not fill the gas tank to the very top. Leave a minimum of 1.5 in open space. Gasoline and gas fumes are highly flammable. Do not fill the tank near an open flame. Always check for fuel spills.

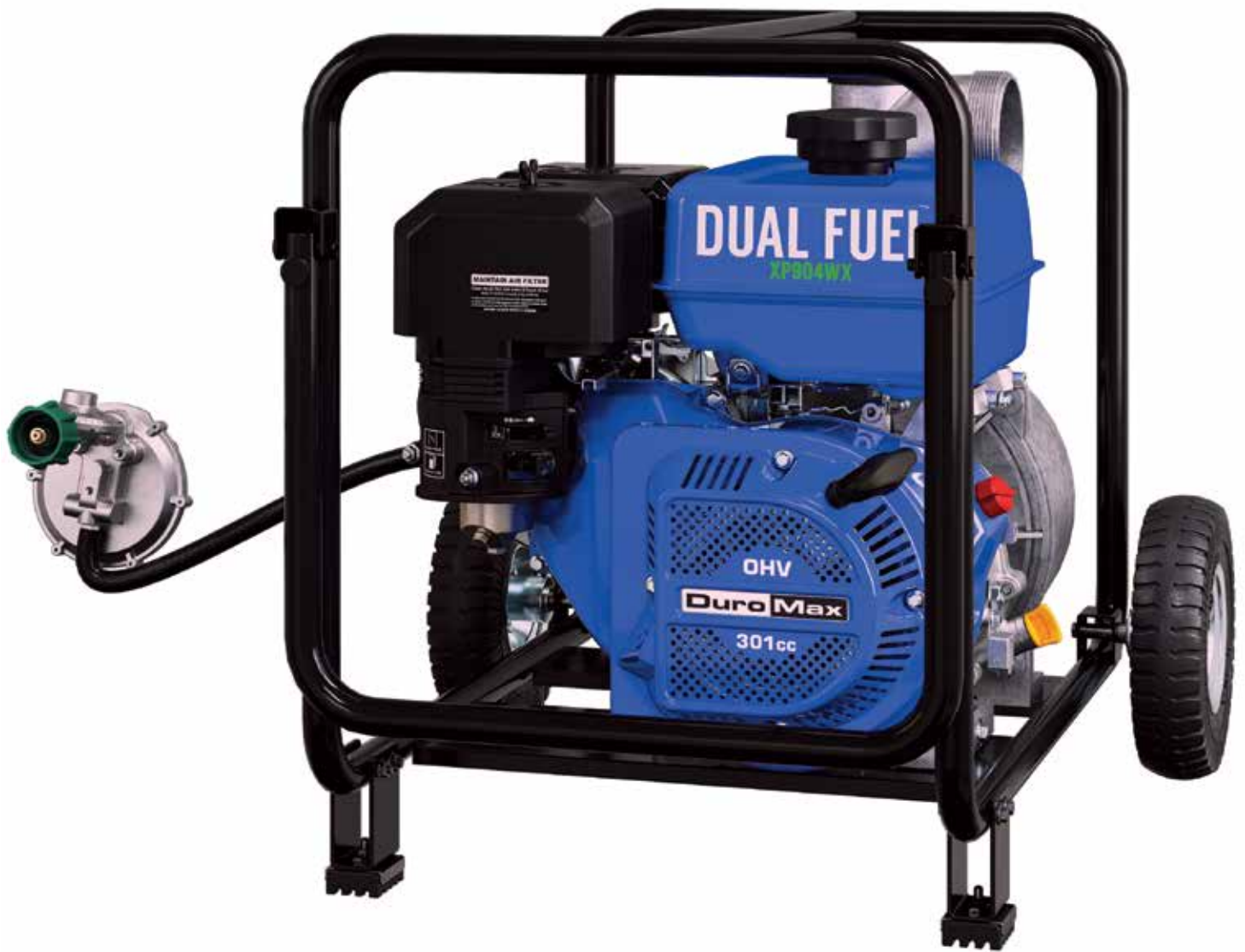
### IMPORTANT:

- To ensure that the engine runs smoothly use only FRESH, UNLEADED GAS WITH AN OCTANE RATING OF 87 OR HIGHER.
- Never use an oil/gasoline mixture. Never use old gas.
- Avoid getting dirt or water in the fuel tank.
- Gas can age in the tank and make it hard to start up the water pump in the future.
- Never store water pump for extended periods of time with fuel in the tank.



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# STARTING THE WATER PUMP

If this is not your first time using the water pump, there are still steps you should take to prepare it for operation each time you use it.

**IMPORTANT:** At this point, you should be familiar with the procedures described in the first portion of this section entitled "WATER PUMP SETUP". If you have not yet read this section, go back and read it now.

# BEFORE YOU START YOUR WATER PUMP

## Check the Oil



### Check the oil

The water pump is equipped with an automatic shutoff to protect it from damage due to low oil. Nonetheless, you should check the oil level of the engine before each use to ensure that the engine crankcase has a sufficient amount.

To check the oil level:

- a. Make sure the water pump is on a level surface.
- b. Unscrew the oil filler/dipstick cap.
- c. With a dry cloth, wipe the oil off of the stick on the inside of the cap.
- d. Insert the dipstick as if you were replacing the cap and then remove it again. There should now be oil on the stick. If there is no oil on the stick, or oil only at the very end of the stick, you should add oil until the engine crankcase is filled (see “Adding Oil” portion of the “Maintenance” section).
- e. Be sure to replace the cap when finished checking oil.



Model Number	XP652WX	XP650WX	XP904WX
Engine Oil Capacity	20 fl. oz. (0.6L)	20 fl. oz. (0.6L)	37.2 fl. oz. (1.1L)

## Check the Gas Level (Optional)



### Check fuel level

If running the engine on gasoline check to see that there is sufficient gasoline in the fuel tank. The gasoline level should always be under the red fuel level indicator located on the bottom of the fuel filter cup.



**WARNING:** Gasoline and gasoline fumes are highly flammable.

- Do not fill the tank near an open flame.
- Always allow the engine to cool for several minutes before refueling.
- DO NOT overfill the fuel tank. Fuel expands when shaken or heated. ALWAYS leave 1½" space or more at the top of the tank.
- ALWAYS use fresh fuel or stabilized fuel. Old gasoline (older than 30 days) can cause permanent damage to the fuel system.
- Always check for fuel spills.

# BEFORE YOU START YOUR WATER PUMP

## Choose the Right Suction and Discharge Hose

The water pump should have the appropriate discharge and suction hose attached based on model size. Please see the tables below for current models of DuroMax suction and discharge hoses.

<b>Model Number</b>	XP652WX	XP650WX	XP904WX
<b>Hose Diameter</b>	2"	3"	4"

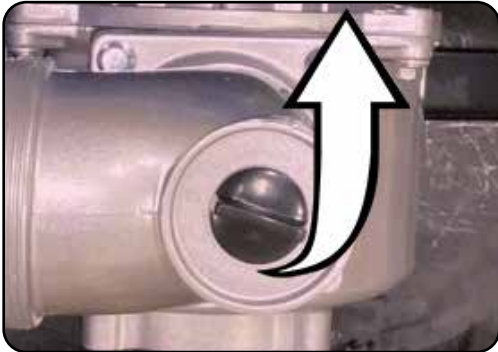


Length	Suction Hose Diameter		
	2" Suction Hose	3" Suction Hose	4" Suction Hose
10 ft	XPH0210S	XPH0310S	XPH0410S
20 ft	XPH0220S	XPH0320S	XPH0420S



Length	Discharge Hose Diameter		
	2" Discharge Hose	3" Discharge Hose	4" Discharge Hose
25 ft	XPH0225D	XPH0325D	XPH0425D
50 ft	XPH0250D	XPH0350D	XPH0450D

## Prime the Water Pump



### 1. Remove priming port plug

Unscrew the priming port plug located on the top of the discharge port.



### 2. Fill the priming port with water

Fill up priming port with water until the water pump case is full.



### 3. Fill the suction hose with water

Fill the suction hose with water until full to finish priming the pump. **NOTE:** If the suction hose is on a heavy incline its recommended to attach a check valve to the hose to allow easier priming.



**CAUTION:** Do not attempt to start pump without priming first. Attempting to start the pump without priming can damage the internal parts of the pump.

# STARTING THE WATER PUMP

## Starting the Water Pump Using Gasoline



### 1. Move gas fuel valve to ON

The gas valve is located above the carburetor bowl. Move the gasoline fuel valve lever all the way to the right-hand position to allow gasoline to flow to the engine carburetor.



### 2. Move choke lever ON

The choke lever is located above the gas valve. Move the choke lever to the left-hand side to the ON position to start. Please note that if the engine is hot, turning the choke on is unnecessary.



### 3. Adjust the throttle lever

The throttle lever is located above and to the right of the choke lever. Adjust the throttle lever to the low speed position.



### 4. Turn switch to On

Turn the engine switch to the On position.



## 5. Pull the recoil start handle

Pull the recoil handle slowly until resistance is felt, then quickly pull the recoil handle until fully extended. Continue this step until the engine starts as needed.



**CAUTION:** Release the recoil handle only after the cord has retracted. Releasing the recoil handle while extended may cause harm to yourself or your equipment.



## 6. Move the choke lever to RUN

After allowing the engine to preheat, move the choke lever to the right-hand side to the RUN position to steady the idle speed and run the engine.



## 7. Adjust the throttle lever

Adjust the throttle lever to the proper position for the desired speed and the engine is ready for use.

# STARTING THE WATER PUMP (CONTINUED)

## Starting the Water Pump Using Propane



### 1. Move gasoline fuel valve OFF

The gas valve is located above the carburetor bowl. Move the gasoline fuel valve lever all the way to the left-hand position to stop the flow of gasoline to the carburetor.



### 2. Connect propane hose to tank

Screw the open ACME nut connection on the propane hose to your propane tank and turn the tank on.



### 3. Move choke lever to ON

The choke lever is located above the gas valve. Move the choke lever to the left-hand side to the ON position to start. Please note that if the engine is hot, turning the choke on is unnecessary.



### 4. Adjust the throttle lever

The throttle lever is located above and to the right of the choke lever. Adjust the throttle lever to the high speed position.





## 5. Purge the propane regulator

Hold the propane regulator purge button for 3-5 seconds to remove excess air from the propane line.



## 6. Turn switch to ON

Turn the engine switch to the On position.



## 7. Pull the recoil start handle

Pull the recoil handle slowly until resistance is felt, then quickly pull the recoil handle until fully extended. Continue this step until the engine starts as needed.



**CAUTION:** Release the recoil handle only after the cord has retracted. Releasing the recoil handle while extended may cause harm to yourself or your equipment.



## 8. Move the choke lever to RUN

After allowing the engine to preheat, move the choke lever to the right-hand side to the RUN position to steady the idle speed and run the engine.

# STARTING THE WATER PUMP (CONTINUED)

## Starting the Water Pump Using Propane



**WARNING:** WHEN USING THE WATER PUMP WITH LPG, MAKE SURE THERE IS NO POSSIBLE IGNITION SOURCE CLOSE TO THE WATER PUMP.

1. Before using, make sure all of the LPG connectors and hoses are well connected and sealed.
2. Connect electrical devices to the water pump ONLY after the engine runs smoothly. (There may be remnant gasoline in the carburetor; this can cause unsteady engine performance for several minutes)
3. If the propane gas leaks, shut off the LPG supply first and then quickly unplug or turn off any electrical devices powered by the unit.
4. When stopping the engine, unplug or turn off any electrical devices, turn off the main circuit breaker and then turn off the LPG supply. After the engine has stopped turn the switch to the "OFF" position.



**CAUTION:** Gasoline fuel valve must be shut off while running on propane!



# MAINTENANCE AND CARE

Proper maintenance and storage of your water pump is essential to ensure trouble free use of your water pump when you need it.

By following the maintenance and care requirements, you can keep your engine running smooth and efficient for years to come.

# MAINTENANCE AND CARE

Proper routine maintenance of your water pump is essential for safe, economical, and trouble-free operation. It will also help reduce air pollution.



**WARNING:** Improper maintenance, or failure to correct a problem before operation, can cause a malfunction in which you can be seriously injured or killed. Always follow the inspection, maintenance recommendations, and schedules in this instruction manual.

- Make sure the engine is off before you begin any maintenance or repairs.
- Let the engine and exhaust system cool before touching.
- To reduce the possibility of fire or explosion, be careful when working around gasoline. Use only a nonflammable solvent, not gasoline, to clean parts. Keep cigarettes, sparks, and flames away from all fuel-related parts.

## Maintenance Schedule

Remember that this schedule is based on the assumption that your machine will be used for its designed purpose. Sustained high-load, high-temperature operation, or use in unusually wet or dusty conditions, will require more frequent service.

SERVICE	EVERY USE	1ST MO. OR 8 HRS. (BREAK IN)	EVERY 3 MO. OR 50 HRS. OF HEAVY USE	EVERY 6 MO. OR 100 HRS. OF NORMAL USE	EVERY 12 MO. OR 300 HRS.	EVERY 3 YRS. OR 500 HRS.
ENGINE OIL	CHECK	CHANGE	CHANGE	CHANGE		
AIR CLEANER	CHECK	CHECK	CHANGE	CHANGE		
SPARK PLUG			CLEAN / ADJUST	CLEAN / ADJUST		
SPARK ARRESTOR	CHECK				CLEAN	
IDLE SPEED					CHECK / ADJUST	
VALVE CLEARANCE					CHECK / ADJUST	
FUEL TUBE	CHECK				CHECK / REPLACE	
FUEL TANK / FILTER					CLEAN	
COMBUSTION CHAMBER						CLEAN

## Break-In Period

As the best practice for any new combustion motor it's recommended to perform the break in procedure as follows:

- Run the engine for the first 6-8 hours on conventional oil, then change the oil. After the break-in period synthetic oil may be used.
- During the break in period of the first 6-8 hours keep the engine speed under 50% for optimal results.
- Check and clean the air filter if necessary after the break-in period.

## Maintenance Log

As a best practice it's recommended to keep a log of the engine hours and maintenance to ensure your water pump is always operating to its full potential.

Date	Engine Hours	Maintenance Performed

## Checking the Oil



### Check the oil

The engine is equipped with an automatic shutoff to protect it from damage due to low oil. Nonetheless, you should check the oil level of the engine before each use to ensure that the engine crankcase has a sufficient amount.

To check the oil level:

- a. Make sure the engine is on a level surface.
- b. Unscrew the oil filler/dipstick cap.
- c. With a dry cloth, wipe the oil off of the stick on the inside of the cap.
- d. Insert the dipstick as if you were replacing the cap and then remove it again. There should now be oil on the stick. If there is no oil on the stick, or oil only at the very end of the stick, you should add oil until the engine crankcase is filled (see “Adding Oil” portion of the “Maintenance” section).
- e. The oil will be visible in the oil fill spout when full.
- f. Be sure to replace the cap when finished checking oil.



<b>Model Number</b>	XP652WX	XP650WX	XP904WX
<b>Engine Oil Capacity</b>	20 fl. oz. (0.6L)	20 fl. oz. (0.6L)	37.2 fl. oz. (1.1L)

# Changing the Oil



**CAUTION:** Worn out or dirty oil does not cool the engine properly and can lead to catastrophic engine damage.

In addition to regular oil changes, it is necessary to drain the oil from the crankcase if it has become contaminated with water or dirt.



## 1. Remove drain plug

Using a 12 mm hex wrench, unscrew the oil drain plug, which is located on the crankcase underneath the oil filler/dipstick cap.

Allow all the oil to drain from the engine.



## 2. Drain oil

Drain oil into an approved oil disposal container. Contact your local auto parts store for information on oil disposal.



## 3. Replace drain plug

Replace the oil drain plug and tighten with a 12 mm hex wrench.

## Changing the Air Filter

### MAINTAIN AIR FILTER

Clean air filter after every 50 hours of use  
(every 10 hours in unusually dusty conditions)

Wash filter element with household detergents.  
Wipe out dust from air filter housing before  
replacing filter element.

Never clean with a brush

Routine maintenance of the air cleaner helps maintain proper airflow to the carburetor. Check that the air cleaner is free of excessive dirt after every use.

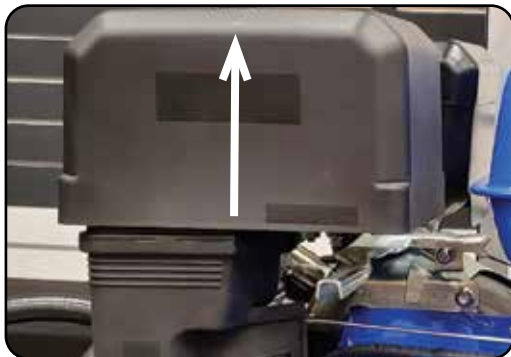


**CAUTION:** Improper maintenance may cause less air to enter the engine or dirty air to enter the engine causing overheating and engine wear.



### 1. Remove filter cover wing nut

Remove the wing nut located on the top of the air filter cover.



### 2. Remove filter cover

Remove the plastic air filter cover by lifting the cover upwards to expose the air filter element.



### 3. Remove old filter element

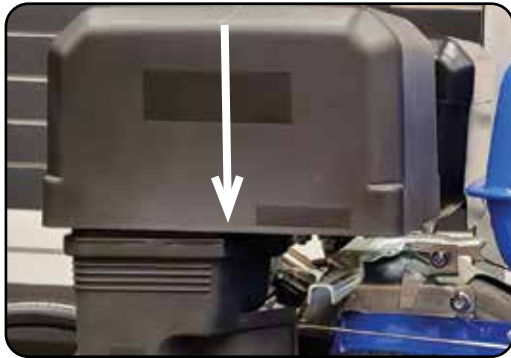
Remove the wing nut on top of the air filter element and slide filter element off center bolt. This filter is paper and is not reusable. Please call 844-DUROMAX to order a replacement filter for your engine.





## 4. Replace new filter element

Slide new filter element over center bolt, and replace wing nut. Tighten wing nut hand tight to keep filter in place.



## 5. Replace filter cover

Replace plastic air filter cover over the air filter base.



## 6. Secure filter cover

Fasten the air filter cover with the air filter cover wing nut and tighten about hand tight.

# MAINTENANCE AND CARE (CONTINUED)

## Spark Plug Maintenance



The spark plug is important for proper engine operation. A good spark plug should be intact, free of deposits, and properly gapped.



**CAUTION:** Improper maintenance may cause reduced fuel economy, misfires, trouble starting, or damage to the spark plug threads.



### 1. Remove spark plug cap

Pull on the spark plug cap to remove it.



### 2. Remove spark plug

Unscrew the spark plug from the engine using the spark plug wrench included with this product.



### 3. Inspect spark plug

Visually inspect the spark plug. If it is cracked or chipped, discard and replace it with a new spark plug. We recommend using an F6RTC spark plug such as NGK BPR6ES.



## 4. Measure plug gap

Measure the plug gap with a gauge. The gap should be 0.7-0.8 mm (0.028-0.031 in).



## 5. Clean and re-gap

If you are re-using the spark plug, use a wire brush to clean any dirt from around the spark plug base and then re-gap the spark plug.



## 6. Install spark plug

Screw the spark plug back into its place on the engine using the spark plug wrench.



## 7. Replace spark plug cap

Replace the spark plug cap.

## Removing the Propane Hose (Optional)

The propane hose is removable if needed. If the propane hose is removed please follow the instructions below for the removal.



**CAUTION:** If propane hose is removed from the carburetor, then the carburetor connection point should be covered with the provided port plug to avoid debris from entering the engine and causing internal damage.



### 1. Locate carburetor connection

First follow the propane hose until you run into the connection point on the carburetor.



### 2. Loosen the hose clamp

Locate the hose clamp at the connection point, and loosen the bolt on the clamp.



### 3. Remove the propane hose

Once the hose clamp is loose you can remove the propane hose from the carburetor.



## 4. Install cap on carburetor

Install the provided propane port cap on the carburetor to ensure no dirt gets inside the carburetor.

## Emptying the Gas Tank



If you have been using gasoline in your water pump, before storing your water pump for extended periods of time you should drain your engine fuel tank of gasoline.



**CAUTION:** Do not store fuel from one season to another. Gasoline sold at the pump today contains additives such as ethanol that even when stored properly may damage the fuel system components.

### 1. Shut fuel valve OFF

Turn the fuel valve to the "OFF" position.



### 2. Remove carburetor drain bolt

Remove the outward angled bolt that is located on the bottom of the carburetor.



### 3. Place funnel below drain port

Place funnel with container to catch the gasoline under the drain port location.





#### 4. Turn fuel valve ON and drain

Turn the fuel valve to “ON” and allow gasoline to drain into the container until the gas tank is empty.



#### 5. Shut fuel valve OFF

Once the gasoline is fully drained, move the fuel valve back to the OFF position.



#### 6. Replace carburetor drain bolt

Reinstall the carburetor drain bolt.



#### 7. Store emptied gasoline

Store the emptied gasoline in a suitable place and add fuel stabilizer to keep fuel fresh and usable.

## Storing the Water Pump for Same Day Use



### 1. Run the water pump

Allow the engine to run for 3-5 minutes.



### 2. Turn engine switch to OFF

Move the engine switch to the OFF position to shut the engine off.



### 3. Store water pump

After the engine shuts off and cools, then you can store the water pump.



**CAUTION:** Do not obstruct any ventilation openings and keep the water pump in a cool dry area.



## Storing the Water Pump for Use Within 30 Days



### 1. Run the water pump

Allow the engine to run for 3-5 minutes.



### 2. Shut fuel valve OFF and run dry

Shut the fuel valve off and allow engine to run until it stalls out.



### 3. Turn the engine switch OFF

Move the engine switch to the OFF position to shut the engine off.



### 4. Add fuel stabilizer and store

Add fuel stabilizer to gas remaining in tank, and store the water pump.

## Storing the Water Pump for Longer Than 30 Days



### 1. Run the water pump

Allow the engine to run for 3-5 minutes.



### 2. Shut fuel valve OFF and run dry

Shut the fuel valve off and allow engine to run until it stalls out.



### 3. Turn the engine switch OFF

Move the engine switch to the OFF position to shut the engine off.



### 4. Empty the gas tank

Fully drain your gas tank as shown in "Emptying the Gas Tank" on page 46-47.



## 5. Remove spark plug

Remove spark plug as shown in “Spark Plug Maintenance” on page 42.



## 6. Add oil to cylinder

Add 2 tablespoons of 10W-30 motor oil directly into the spark plug hole, and pull the recoil to lubricate cylinder. After lubricating cylinder reinstall the spark plug as shown in “Spark Plug Maintenance” on page 43.



## 7. Store water pump

The water pump is ready to be stored in a cool dry area.



**CAUTION:** Do not obstruct any ventilation openings and keep the water pump in a cool dry area.

# SPECIFICATIONS

<b>Model Number</b>	XP652WX	XP650WX	XP904WX
<b>Inlet Size</b>	2"	3"	4"
<b>Discharge Size</b>	2"	3"	4"
<b>Max Overhead Lift</b>	85 ft	85 ft	98 ft
<b>Max Suction Lift</b>	26 ft	26 ft	26 ft
<b>Max Flow Rate</b>	158 GPM	264 GPM	423 GPM
<b>Dimensions</b>	21"L x 15"W x 16"H	21"L x 15"W x 16"H	25"L x 17"W x 20"H
<b>Weight</b>	55 lbs	59 lbs	99 lbs
<b>Recommended Oil</b>	15W-40	15W-40	15W-40
<b>Engine Displacement</b>	212 cc	212 cc	301 cc
<b>Gasoline Capacity</b>	0.76 gal (2.885 L)	0.76 gal (2.885 L)	1.4 gal (5.325 L)
<b>Oil Capacity</b>	20.2 fl. oz. (0.6 L)	20.2 fl. oz. (0.6 L)	37.2 fl. oz. (1.1 L)
<b>Bore</b>	70 mm	70 mm	80 mm
<b>Stroke</b>	55 mm	55 mm	60 mm
<b>Max Output</b>	3600 rpm	3600 rpm	3600 rpm
<b>Oil Cooling Type</b>	Splash	Splash	Splash
<b>Bearing Type</b>	Stainless steel ball bearing	Stainless steel ball bearing	Stainless steel ball bearing
<b>Cylinder Sleeve</b>	Cast iron sleeve	Cast iron sleeve	Cast iron sleeve
<b>Fuel Delivery System</b>	Carburetor	Carburetor	Carburetor
<b>Valve Type</b>	OHV	OHV	OHV
<b>Engine Type</b>	4-Stroke	4-Stroke	4-Stroke
<b>Engine Cooling Type</b>	Forced air	Forced air	Forced air
<b>Emissions Compliance</b>	EPA/CARB	EPA/CARB	EPA/CARB



# TROUBLESHOOTING

This section of the manual is to help you troubleshoot problems with your water pump.



POWERING EVERYONE...  
***ANYWHERE!***

# TROUBLESHOOTING

Mode	Description	Solution
<b>Engine will not start</b>	Engine Switch is "Off"	Set engine switch to "run"
	Fuel Valve is "Closed"	Turn fuel valve to "open"
	Choke is open	Close the choke
	Engine is out of fuel	Add fuel
	Fuel is old or contaminated	Change fuel
	Spark Plug is dirty	Clean spark plug
	Spark Plug is broken	Replace spark plug
	Engine is not level	Move engine to a level surface
	Oil is low.	Add / change oil
<b>Engine starts, but shuts off after running for short time.</b>	Oil level is low	Add change oil.
	Fuel is old or contaminated	Change fuel
	Engine is on incline exceeding 15°.	Disconnect low oil sensor.



POWERING EVERYONE...  
***ANYWHERE!***





# WARRANTY

This section of the manual is to help you understand your warranty.

# WARRANTY

## 3-year Warranty

All DuroMax Power Equipment warrant the original purchasers to a 3-year Parts Warranty (Residential

Use ONLY: Unusually heavy or commercial use is covered for a period of 1-year) in the event of failure due to defects in electrical or mechanical components. Freight on any items submitted for replacement or repair under the Warranty are the responsibility of the equipment owner. This warranty is non-transferable and only valid to the original purchaser.

## Warranty Exclusions

The DuroMax Power Equipment warranty does not cover repairs or returns when the fault is: Normal Wear and Tear, Installation Use or Maintenance Services, Cosmetic defects, Accessories, Failures due to acts of God or Natural Disasters, or problems related to/from aftermarket or non-OEM parts.

## Warranty Limitations

DuroMax Power Equipment does not claim or hold any obligation to loss of time, freight charges, use of product, or any incidental damages from the use of this product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

## U.S. FEDERAL AND CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT

### YOUR WARRANTY RIGHTS AND OBLIGATIONS

The U.S. Environmental Protection Agency (EPA), California Air Resources Board, and DuroMax Power Equipment are pleased to explain the emissions control system's warranty on your 2022/2023 small off-road engine.

In California, new small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. DuroMax Power Equipment must warrant the emissions control system on your small off-road engine for the period listed below provided there has been no abuse, neglect, or improper maintenance of your small off-road engine leading to the failure of the emission control system.

Your emissions control system may include parts such as: carburetors or the fuel injection system, ignition system, catalytic converters, fuel tanks, fuel lines(for liquid fuel and fuel vapors), fuel caps, valves, filters, clamps, connectors, and other associated components. Also, included may be hoses, belts, sensors, and other emission-related assemblies.

Where a warrantable condition exists, DuroMax Power Equipment will repair your small off-road engine at no cost to you including diagnosis, parts, and labor.

### MANUFACTURER'S WARRANTY COVERAGE:

This emissions control system is warranted for two years. If any emissions-related part on your small off-road engine is defective, the part will be repaired or replaced by DuroMax Power Equipment.

## **OWNER'S WARRANTY RESPONSIBILITIES:**

As the small off-road engine owner, you are responsible for performance of the required maintenance listed in your owner's manual. DuroMax Power Equipment recommends that you retain all receipts covering maintenance on your small off-road engine, but DuroMax Power Equipment cannot deny warranty coverage solely for the lack of receipts or your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine owner, you should be aware that the DuroMax Power Equipment may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine to a DuroMax Power Equipment distribution center or service center as soon as the problem exists. The warranty repairs shall be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty coverage, contact us at 844-387-6629 or email [support@duromaxpower.com](mailto:support@duromaxpower.com).

## **DEFECTS WARRANTY REQUIREMENTS:**

The warranty period begins on the date the engine or equipment is delivered to an ultimate purchaser and extends for a period of Two Years.

### **GENERAL EMISSIONS WARRANTY COVERAGE:**

DuroMax Power Equipment warrants to the ultimate purchaser and each subsequent owner that the engine or equipment is:

1. Designed, built, and equipped to conform with all applicable regulations adopted by the Air Resources Board; and
2. Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.

The warranty on emissions-related parts will be interpreted as follows:

1. Any warranted part that is not scheduled for replacement as required maintenance in the Owner's Manual must be warranted for the warranty period stated above. If any such part fails during the period of warranty coverage, it must be repaired or replaced by DuroMax Power Equipment according to Subsection (4) below. Any such part repaired or replaced under the warranty must be warranted for a time not less than the remaining warranty period.
2. Any warranted part that is scheduled only for regular inspection in the Owner's Manual must be warranted for the warranty period stated above. A statement in such written instructions to the effect of "repair or replace as necessary" shall advise owners of the warranty coverage for emission related parts. Replacement within the warranty period is covered by the warranty and will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for a time not less than the remaining warranty period.
3. Any warranted part that is scheduled for replacement as required maintenance in the Owner's Manual must be warranted for the period prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by the engine manufacturer according to Subsection (4) below. Any such part repaired or replaced

# WARRANTY (CONTINUED)

under warranty must be warranted for a time not less than the remainder of the period prior to the first scheduled replacement point for the part.

4. Repair or replacement of any warranted part under the warranty must be performed at no charge to the owner at a warranty station.
5. Notwithstanding the provisions of Subsection (4) above, warranty services or repairs must be provided at all manufacturer distribution centers that are franchised to service the subject engines.
6. The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.
7. The manufacturer is liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.
8. Throughout the emission control system's warranty period stated above, the manufacturer must maintain a supply of warranted parts sufficient to meet the expected demand for such parts and must obtain additional parts if that supply is exhausted.
9. Manufacturer-approved replacement parts that do not increase the exhaust or evaporative emissions of the engine or emissions control system must be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of DuroMax Power Equipment.
10. Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts will be grounds for disallowing a warranty claim made in accordance with this Article. DuroMax Power Equipment will not be liable under this Article to warrant failures of warranted parts caused by the use of an add-on or modified part.
11. DuroMax Power Equipment shall provide any documents that describe warranty procedures or policies within five working days of request by the Executive Officer.

## **Exhaust Emission Warranty Parts List.**

1. Fuel Metering System
  - i. Carburetor and internal parts (and/or pressure regulator or fuel injection system).
  - ii. Air/fuel ratio feedback and control system.
  - iii. Cold start enrichment system.
2. Air Induction System
  - i. Controlled hot air intake system.
  - ii. Intake manifold.
3. Ignition System
  - i. Spark Plugs.
  - ii. Magneto or electronic ignition system.
  - iii. Spark advance/retard system.
4. Air Injection System
  - i. Air pump or pulse valve.
  - ii. Valves affecting distribution of flow.
  - iii. Distribution manifold.

## 5. Catalyst or Thermal Reactor System

i. Catalytic converter.

ii. Thermal reactor.

iii. Exhaust manifold.

## 6. Particulate Controls

7. Traps, filters, precipitators, and any other device used to capture particulate emissions.

8. Electronic controls.

9. Vacuum, temperature, and time sensitive valves and switches.

10. Hoses, belts, connectors, and assemblies.

## **Evaporative Emission Warranty Part List**

1. Fuel Tank

2. Fuel Cap

3. Fuel Line (for liquid fuel and fuel vapors)

4. Fuel Line Fittings

5. Clamps\*

6. Pressure Relief Valves\*

7. Control Valves\*

8. Control Solenoids\*

9. Electronic Controls\*

10. Vacuum Control Diaphragms\*

11. Control Cables\*

12. Control Linkages\*

13. Purge Valves\*

14. Gaskets\*

15. Liquid/Vapor Separator

16. Carbon Canister

17. Canister Mounting Brackets

18. Carburetor Purge Port Connector

\* Note: As they relate to the evaporative emission control system.

DuroMax Power Equipment will furnish with each new engine written instructions for the maintenance and use of the engine by the owner

## CUSTOMER SERVICE

DuroMax Power Equipment is committed to ensuring that our products perform when they need to. Our Water Pumps are your lifeline in the event of an emergency. Should you have any problems, please contact our customer service department:

**DUROMAX POWER EQUIPMENT**  
**5800 Ontario Mills Parkway**  
**Ontario, CA 91764**

Customer Service: 844-DUROMAX  
Customer Service Hours: 8-5 pm PST Mon-Fri

Website: [www.duromaxpower.com](http://www.duromaxpower.com)  
Email: [customerservice@duromaxpower.com](mailto:customerservice@duromaxpower.com)





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5800 Ontario Mills Parkway  
Ontario, CA 91764  
United States

844-DUROMAX