

# OWNER'S MANUAL WMP20X MULTI-PURPOSE PUMP

Before operating the pump for the first time, please read this Owner's Manual. Even if you have operated other pumps, take time to become familiar with how this pump works.

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#### **QUESTIONS?**

Contact your Honda dealer.

There is a dealer locator at powerequipment.honda.com





## **WELCOME**

Congratulations on your selection of a Honda multi-purpose pump! We are certain you will be pleased with your purchase of one of the finest pumps on the market. We want to help you get the best results from your new pump and to operate it safely. This manual contains information on how to do that; please read it carefully.

When your pump needs scheduled maintenance, keep in mind that Honda Power Equipment servicing dealership personnel are specially trained in servicing Honda pumps and are supported by the parts and service divisions of American Honda.

Please read the *DISTRIBUTOR'S LIMITED WARRANTY* on page 19 and the *EMISSION CONTROL SYSTEM WARRANTY* on page 20 to fully understand what is covered by warranty and your responsibilities of ownership.

## FOR YOUR SAFETY

Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the pump. This information alerts you to potential hazards that could hurt you or others. Please read these messages carefully.

Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a multi-purpose pump. You must use your own good judgment.

## **Safety Instructions**

You will find important safety information in a variety of forms:

- · Safety Labels on the pump.
- · Instructions how to use this pump correctly and safely.
- Safety Messages preceded by a safety alert A symbol and one
  of three signal words: DANGER, WARNING, or CAUTION.
   Each message tells you what the hazard is, what can happen, and
  what you can do to avoid or reduce injury.
   These signal words mean:



You **WILL** be KILLED or SERIOUSLY HURT if you don't follow instructions.



You **CAN** be KILLED or SERIOUSLY HURT if you don't follow instructions.

## **A** CAUTION

You **CAN** be HURT if you don't follow instructions.

 Damage Prevention Messages – You will also see other important messages that are preceded by the word NOTICE. This word means:

NOTICE

Your engine, other property, or the environment can be damaged if you don't follow instructions.



#### **WARNING:**



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

## **Important Message to Employers**

As an employer, you have special responsibilities to the people who work for you.

Before you ask anyone to operate this pump, you need to determine whether the person is old enough, large enough, and strong enough to safely handle and control the pump.

If you decide the employee is ready, make sure the employee reads and understands all instructions and warnings in this manual and on the labels before operating the pump.

Allow adequate time for hands-on training by a qualified instructor, and personally supervise practice sessions until you feel sure the employee is ready to operate the machine.

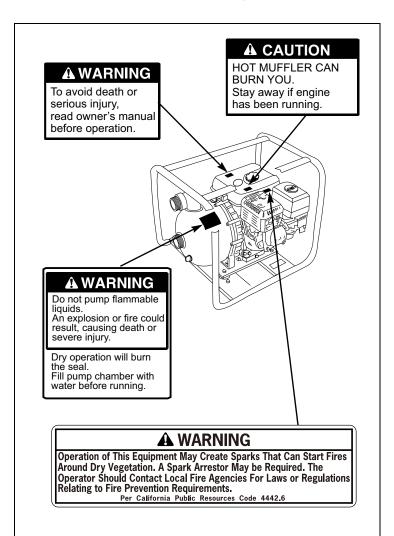
Also be sure employees wear proper clothing and have eye protection and any other gear that may be required by local ordinances or your insurance company.

Remember, too, that you are responsible for keeping the pump properly maintained and in safe operating condition.

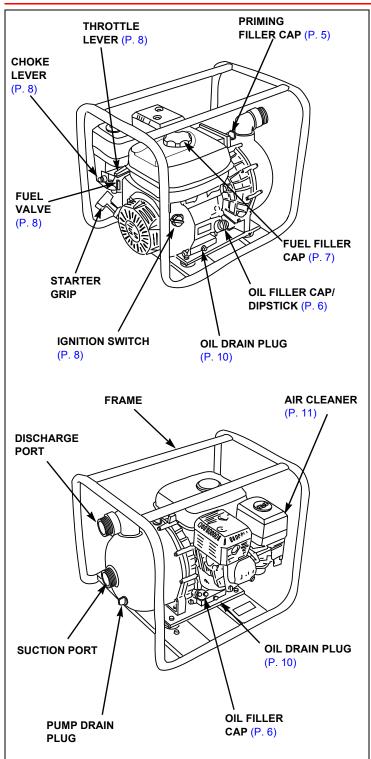
Your commitment to safety on the job can help prevent injuries and result in longer and more productive years of service.

## **Safety Label Locations**

These labels warn you of potential hazards that can cause serious injury. Read them carefully. If a label comes off or becomes hard to read, contact an authorized Honda servicing dealer for a replacement.



## **PARTS AND CONTROLS**



## **INITIAL PUMP SETUP**

## Importance of Proper Assembly

Proper assembly is essential to operator safety and the reliability of the machine. Any error or oversight made by the person assembling and servicing a machine can result in faulty operation, damage to the machine, or injury to the operator.

#### **A WARNING**

Improper assembly can cause an unsafe condition.

Failure to properly follow assembly instructions can lead to serious injury or death.

Follow the procedures and precautions in the assembly instructions carefully.

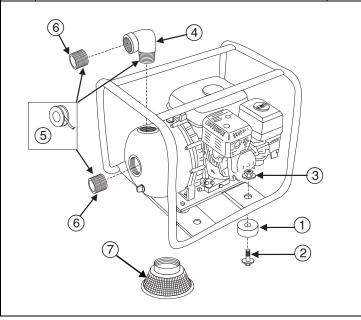
## **Tools Required**

12 mm wrench Torque wrench

#### **List of Loose Parts**

Carefully remove the pump and loose parts from the carton and compare the loose parts against the following list. Contact the authorized Honda dealer from whom you purchased the pump if any of the loose parts shown are not included with your pump.

Ref. No	Description	Qty.
1	Rubber mount	4
2	8 x 16 mm Flange bolt	4
3	8 mm Locking nut	4
4	Outlet elbow	1
(5)	Thread tape	1
6	Hose coupling	2
7	Strainer	1



## **Assembly**

1. Install the four rubber mounts ① on the pump using the 8 x 16 mm flange bolts ② and 8 mm locking nuts ③.

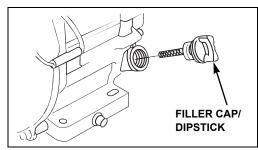
Torque to 5.8 - 7.2 ft-lb (7.8 - 9.8 N·m).

- 2. Apply thread tape (5) to the outlet elbow (4), and then install the elbow securely in the pump housing.
- 3. Apply thread tape to the two hose couplings ⑥, and securely install one in the suction port and the other in the outlet elbow ④.

## **Add Engine Oil**

The pump is shipped **WITHOUT OIL** in the engine.

All Honda engines are run at the factory prior to packaging. Most of the oil is removed prior to shipment; however, some oil remains in the engine. The amount of oil left in the engine varies.



Add enough recommended oil (page 10) to bring the oil level to the bottom edge of the oil filler hole.

#### NOTICE

Running the engine with too little or too much oil can cause engine damage. This type of damage is not covered by the DISTRIBUTOR'S LIMITED WARRANTY (page 19).

Screw in the oil filler cap/dipstick securely.

## **Please Register Your Pump**

Please take a few minutes and register your purchase with Honda.

You can register by completing and mailing the registration card on the back cover of this book or going online to powerequipment.honda.com and clicking on Product Registration.

## **Before Using Your Pump**

Before using the pump, all operators must read the following sections:

- FOR YOUR SAFETY (page 2)
- BEFORE EACH OPERATION (page 4)
- OPERATION (page 7)
- MAINTENANCE SCHEDULE (page 10)

## **BEFORE EACH OPERATION**

Your safety is your responsibility. A little time spent in preparation will significantly reduce your risk of injury.

Read and understand this manual. Know what the controls do and how to operate them.

Familiarize yourself with the pump and its operation before you begin using it. Know how to quickly shut off the engine in case of an emergency.

## **Check Your Pump**

For your safety, to ensure compliance with environmental regulations, and to maximize the service life of your multi-purpose pump, it is very important to take a few moments before you operate the pump to check its condition. Be sure to take care of any problem you find, or have your servicing dealer correct it, before you operate the pump.

#### WARNING

Improperly maintaining this multi-purpose pump, or failing to correct a problem before operation, could cause a significant malfunction.

Some malfunctions can seriously hurt or kill you.

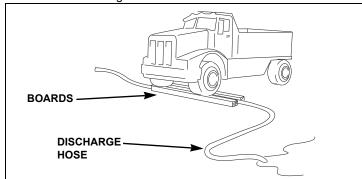
Always perform a pre-operation inspection before each operation, and correct any problem.

- · Make sure the pump is on a level surface.
- Look around and underneath the pump for signs of oil or gasoline leaks.
- · Look for signs of damage.
- · Check each control for proper operation.
- Check that all nuts, bolts, screws, and hose connectors and clamps are tightened.
- · Keep all shields and covers in place while operating the pump.
- · Check the general condition of the hoses.
- Check the air filter (page 11) and oil level (page 6).
- Check the fuel level (page 7). Starting with a full tank will help to eliminate or reduce operating interruptions for refueling.

## **Check Your Pumping Area**

For your safety and the safety of others, always inspect the area before operating the pump.

If the discharge hose must run across a roadway, the hose should cross the roadway perpendicular to traffic flow. Also, heavy boards should be placed next to the hose so the motor vehicle weight does not shut off the discharge as vehicles cross over the hose.

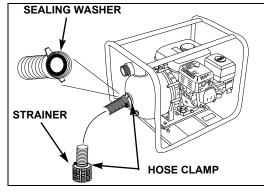


Driving over a discharge hose while the pump is running, or even possibly when the pump is stopped, may cause pump case failure.

#### **Suction Hose Connection**

Use approved hose, hose connector, and hose clamps (see page 18). The suction hose must be reinforced with a non collapsible wall or wire braided construction to prevent suction hose collapse. Keep the pump as close to the liquid to be pumped as possible. Avoid bends and sharp turns. Pump performance is best when the pump is not far above the liquid level and the hose is kept straight. Self-priming time is also proportional to the suction hose length. Using a longer suction hose will increase the self-priming time.

Tighten the hose connector to the suction hose with a hose clamp to prevent air leakage and loss of suction. Verify that the connector sealing washer is installed and in good condition. A loosely connected suction hose will reduce pump performance and self-priming ability.



The strainer provided with the pump should always be attached to the end of the suction hose with a hose clamp as shown.

The strainer will prevent debris from entering the pump, preventing clogging or damage to the pump. Clean the strainer of any debris.

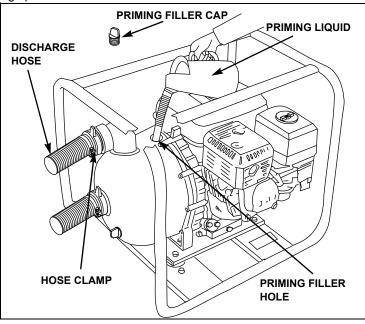
## **Discharge Hose Connection**

Use approved hose, hose connector, and hose clamps (see page 18). A short, large diameter hose will provide lower fluid friction and improve pump output. A long or small diameter hose increases fluid friction and reduces pump output.

#### NOTICE

Do not attach rigid piping or heavy fittings to the suction or discharge ports. This may cause damage to the pump.

Tighten the hose clamp to prevent the hose from disconnecting under high pressure.



## **Pump Priming**

Remove the priming filler cap and completely fill the pump chamber with water before starting the engine. Replace the priming filler cap.

## NOTICE

Operating the pump dry will destroy the pump seal.

- Ensure the pump chamber is full of liquid and the suction hose strainer is submerged in the liquid to be pumped.
- If the unit has been operated dry, stop the engine immediately and allow the pump to cool before adding priming liquid.

## **Approved Liquids**

The following tables list chemicals the multi-purpose pump is capable of pumping. Verify that the liquid to be pumped is listed in one of these tables. After each use, drain the pump chamber into a suitable container and flush with fresh water.

DO NOT PUMP LIQUIDS FOR HUMAN CONSUMPTION.

DO NOT PUMP FLAMMABLE LIQUIDS.

#### **A** WARNING

Chemicals can cause burns or serious injury.

Wear protective clothing and eye protection when handling chemicals.

Follow the chemical manufacturer's handling procedures.

Be familiar with any safety precautions that are needed to properly pump the chemicals that are listed.

#### NOTICE

Pumping liquids that are not listed may damage the pump.

#### **Industrial Chemicals**

Acetic Acid, 20%	Lactic Acid	Sodium Bisulfate
Aluminum Sulfate	Lead Acetate	Sodium Bisulfite
Ammonium Nitrate	Magnesium Chloride	Sodium Carbonate, 10%
Ammonium Sulfate	Magnesium Nitrate	Sodium Chlorate
Barium Sulfate	Magnesium Sulfate	Sodium Chloride
Borax (Sodium Borate)	Maleic Acid	Sodium Nitrate
* Calcium Chloride	Nickel Chloride	Sodium Silicate
Citric Acid	Nickel Sulfate	Sodium Sulfate
Copper Sulfate	Oleic Acid	Stearic Acid
Detergents (General)	Phosphoric Acid, 0-80%	Sulfuric Acid, 0-29%
Ethylene Glycol	Potassium Carbonate	Tartaric Acid
Fatty Acids	Potassium Chloride	Vinegar
Ferric Nitrate	Potassium Nitrate	Water (Clear)
Ferric Sulfate	Potassium Sulfate	Water (Salt)
Ferrous Sulfate	Soaps (neutral)	Zinc Sulfate
Formaldehyde, 40%	Sodium Acetate	
Glycerine (Glycerol)	Sodium Bicarbonate	

<sup>\*</sup> Temperature does not exceed 80 °F (26 °C)

The temperature operating range of the pump is between  $20 \sim 130 \,^{\circ}\text{F} \ (-7 \sim 54 \,^{\circ}\text{C})$ .

#### **Agricultural Chemicals**

Aatrex	Dual	N-Serve 24
Amiben	Eradicane	Phosphoric Acid Solutions
Ammonium Thiosulfate	Extrazine	Poly-N
Banvel	Larsban	Ranger
Basagran	Lasso	Round-up
Bicep	URAN Solutions	Sutan
Bladex	Modown	Treflan
		Vernam

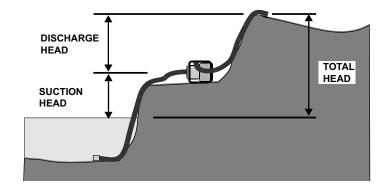
#### **Pump Performance**

The maximum pump discharge capacity is determined when pumping clear water at 0 ft (0 meters) total head and at sea level. As the total head (discharge head + suction head) increases, pump discharge capacity decreases (see figure below). If the pump is used at higher altitudes, pump discharge capacity and maximum suction head may also decrease. Other factors affecting pump discharge capacity are:

- · The type of chemical being pumped
- The length and type of the suction and discharge hose used

Pump Performance (Maximum with clear water)*	
Total head 102 ft (31 m)	
Suction head	31 ft (9.5 m)
Discharge capacity	224 gal/min (850 ℓ/min)
Self-priming time	47 sec at 16.4 ft (5 m)
Pressure	44 psi (300 kPa)

<sup>\*</sup> See page 16 for the complete performance curve.



# Oil Alert<sup>®</sup> System

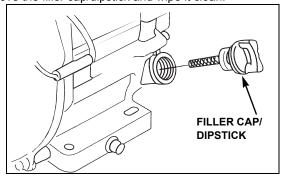
The Oil Alert system is designed to prevent engine damage caused by insufficient oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert system will automatically shut down the engine (the ignition switch will remain in the ON position).

If the engine stops and will not restart, check the oil level (page 6) before troubleshooting in other areas.

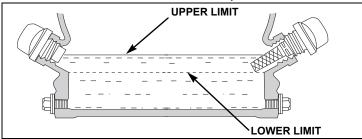
## Check the Engine Oil Level

Check the engine oil level with the engine stopped and in a level position.

1. Remove the filler cap/dipstick and wipe it clean.



Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.



- If the oil level is low, fill to the edge of the oil filler hole with the recommended oil.
- Screw in the filler cap/dipstick securely.

#### NOTICE

Running the engine with a low oil level can cause engine damage. This type of damage is not covered by the DISTRIBUTOR'S LIMITED WARRANTY (page 19).

#### Add Fuel

This engine is certified to operate on regular gasoline with a pump octane rating of 86 or higher.

Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt or water in the fuel tank.

You may use regular unleaded gasoline containing no more than 10% ethanol (E10) or 5% methanol by volume. In addition, methanol must contain cosolvents and corrosion inhibitors.

Use of fuels with content of ethanol or methanol greater than shown above may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of the fuel system.

Engine damage or performance problems that result form using a fuel with percentages of ethanol or methanol greater than shown above are not covered under warranty.

#### WARNING

Gasoline is highly flammable and explosive, and you can be burned or seriously injured when refueling.

- · Stop the engine and let it cool before refueling
- Keep heat, sparks, and flame away
- · Refuel only outdoors
- · Wipe up spills immediately.

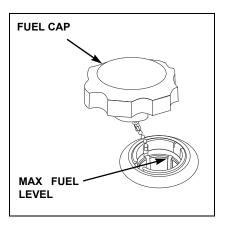
#### NOTICE

If your equipment will be used on an infrequent or intermittent basis, (more than 4 weeks before next use), refer to "AVOIDING FUEL-RELATED PROBLEMS" on page 17 for information regarding fuel deterioration.

- 1. To refuel, remove the fuel tank cap.
- Fill the tank with gasoline to the shoulder of the filler neck.
- Refuel carefully to avoid spilling fuel. Do not overfill.
- 4. After refueling, tighten the fuel tank cap securely.

Move the pump at least 10 feet (3 meters) away from the fueling source

and site before starting the engine.



#### NOTICE

Fuel can damage paint and plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilled fuel is not covered by the DISTRIBUTOR'S LIMITED WARRANTY (page 19).

## **OPERATION**

For your safety, avoid starting or operating the engine in an enclosed area, such as a garage. Your pump's exhaust contains poisonous carbon monoxide gas, which can collect rapidly in an enclosed area and cause illness or death.

#### **A** WARNING

Exhaust contains poisonous carbon monoxide gas that can build up to dangerous levels in closed areas.

Breathing carbon monoxide can cause unconsciousness or death.

Never run the pump in a closed, or even partially closed area where people may be present.

## **Safe Pumping Practices**

Honda pumps are designed to give safe and dependable service if operated according to instructions and intended use.

Honda pumps are intended to be used by an experienced, trained operator who is familiar with the use of power equipment. Do not allow a child or an inexperienced, untrained operator to use this pump. Operating this equipment requires special effort on your part to ensure your safety and the safety of others. Read and understand this owner's manual.

#### Keep Shields in Place

Guards and shields are designed to protect you from being hurt by hot or moving parts. For your safety and the safety of others, keep all shields in place when the engine is running.

#### Wear Protective Clothing

Wearing protective clothing will reduce your risk of injury. Heavy-duty gloves protect your hands. While the sound level of the pump is well within safe limits, hearing protection will further protect your hearing.

#### **Turn Engine Off When Not Pumping**

If you need to leave the pump for any reason, always turn the engine OFF.

#### **Operator Responsibility**

It is the operator's responsibility to provide the necessary safeguards to protect people and property against chemical leakage. Refer to the handling instructions provided by the manufacturer of the chemical before operating the pump.

Know how to stop the pump quickly in case of emergency. Understand the use of all controls and connections.

Be sure that anyone who operates the pump receives proper instruction. Do not let children operate the pump. Keep children, pets, and bystanders away from the area of operation.

#### **Pump Operation**

Do not use for pumping liquids for human consumption.

Never pump flammable liquids such as gasoline or fuel oils. An explosion may result, causing serious injury.

Pump only those chemicals listed in the *APPROVED LIQUIDS* table on page 6 of this manual. Pumping chemicals that are not listed may result in damage to the pump or injury to the operator.

Never start the pump without water or an approved liquid in the pump housing or damage to the pump seal will result.

Operate the pump on a level surface. If the engine is tilted, fuel may spill.

Do not enclose the pump in any structure.

Fuel vapors are extremely flammable and may ignite after the engine has started. Make sure that any spilled fuel has been wiped up before starting the pump. Keep flammable materials away from the pump.

#### **Refuel With Care**

Gasoline is extremely flammable, and gasoline vapor can explode. Refuel outdoors, in a well-ventilated area, with the engine stopped and allowed to cool, and the pump on a level surface. Do not overfill the fuel tank. Never smoke near gasoline, and keep other flames and sparks away. Always store gasoline in an approved container. Make sure that any spilled fuel has been wiped up before starting the engine.

#### **Hot Exhaust**

The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before transporting the pump or storing it indoors.

To prevent fire hazards, keep the pump at least 3 feet (1 meter) away from building walls and other equipment during operation. Do not place flammable objects close to the engine.

#### **Carbon Monoxide Hazards**

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing carbon monoxide can cause loss of consciousness and may lead to death.

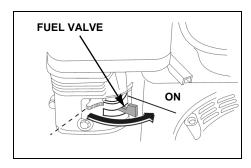
If you run the pump in an area that is confined, or even partly enclosed, the air you breathe could contain a dangerous amount of exhaust gas.

Never run the engine inside a closed garage, house, or confined area.

## **Starting the Engine**

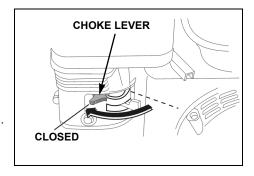
Remove the priming filler cap and completely fill the pump chamber with water before starting the engine and then replace the filler cap (page 5).

1. Turn the fuel valve to the ON position.

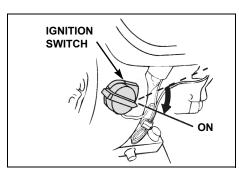


2. Move the choke lever to the CLOSED position.

Do not use the choke if the engine is warm or the ambient temperature is high.



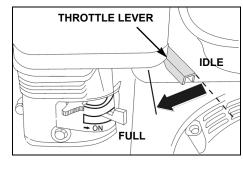
3. Turn the ignition switch to the ON position.



- 4. Move the throttle lever slightly to the left.
- 5. Pull the starter grip lightly until resistance is felt, then pull it briskly.

## NOTICE

Return the starter grip slowly back to



the engine to prevent damage to the starter.

- 6. As the engine warms up, gradually move the choke lever to the OPEN position.
- Set the throttle to the desired speed to produce the best pumping conditions.

Pump output can be controlled by adjusting the throttle lever to the desired position.

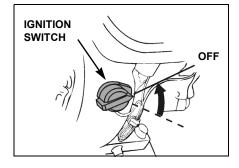
At FULL throttle position, the pump will deliver the highest output volume. Moving the throttle toward the IDLE position will decrease the output volume of the pump.

The throttle lever should be placed in the FULL position during priming, to reduce priming time.

## Stopping the Engine

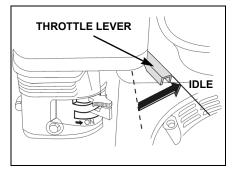
#### **Emergency**

To stop the engine in an emergency, turn the ignition switch to the OFF position.

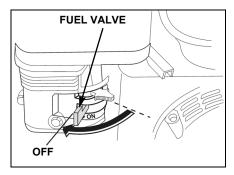


#### Normal

- Move the throttle lever fully to the right to the IDLE position.
- 2. Turn the ignition switch to the OFF position.



- 3. Turn the fuel valve to the OFF position.
- 4. If the pump is not going to be used again for the rest of the day, or is going to be stored for a long period of time, refer to page 14 for procedures on properly storing your pump.



After each use, drain the pump chamber and flush with fresh water.

## **SERVICING YOUR PUMP**

Proper maintenance is essential for safe, economical, and trouble-free operation. It also helps reduce air pollution.

#### **A WARNING**

Improper maintenance, or failure to correct a problem before operation, can cause a serious malfunction.

Some malfunctions can seriously hurt or kill you.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

To help you properly care for your pump, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools. Other service tasks that are more difficult, or require special tools, are best handled by professionals and are normally performed by a Honda technician or other qualified mechanic.

The maintenance schedule applies to normal operating conditions. If you operate your pump under severe conditions, such as sustained high-load or high-temperature operation, or use in unusually wet or

dusty conditions, consult your servicing dealer for recommendations applicable to your individual needs and use.

Remember that an authorized Honda servicing dealer knows your pump best and is fully equipped to maintain and repair it.

To ensure the best quality and reliability, use only new, Honda Genuine parts or their equivalents for repair and replacement.

Maintenance, replacement, or repair of the emission control devices and systems may be performed by any engine repair establishment or individual, using parts that are "certified" to EPA standards.

## **Maintenance Safety**

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

#### **A WARNING**

Improper maintenance can cause an unsafe condition.

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed.

Always follow the procedures and precautions in this manual.

#### **Safety Precautions**

- Make sure the engine is off before you begin any maintenance or repairs. This will eliminate several potential hazards:
  - Carbon monoxide poisoning from engine exhaust.
     Be sure there is adequate ventilation whenever you operate the engine.
  - Burns from hot parts.
     Let the engine and exhaust system cool before touching.
  - Injury from moving parts.
     Do not run the engine unless instructed to do so.
- Read the instructions before you begin, and make sure you have the tools and skills required.
- 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**

Interval <sup>1</sup>	Item	Page
Before each use	Engine oil: Check level Air filter: Check Pump hoses and strainer: Check	page 6 page 11 page 5
After each use	Pump chamber: Flush	page 13
First 20 hours	Engine oil: Change	page 10
Every 50 hours	Air filter: Clean <sup>2</sup>	page 11
Every 100 hours	Engine oil: Change Air filter: Clean <sup>2</sup> Spark plug: Inspect-adjust Spark arrester: Clean-check Sediment cup: Clean	page 10 page 11 page 11 page 12 page 12
Every 300 hours	Engine oil: Change Air cleaner paper filter: Replace <sup>2</sup> Spark plug: Replace Spark arrester: Clean-check Sediment cup: Clean Valve clearance: Check-adjust <sup>3</sup> Idle speed: Check-adjust <sup>3</sup> Fuel tank and filter: Clean <sup>3</sup>	page 10 page 11 page 11 page 12 page 12
Every 2 years	Fuel line: Check and replace if necessary <sup>3</sup>	

- 1. For professional commercial use, log hours of operation to determine proper maintenance intervals.
- 2. Service more frequently when used in dusty areas.
- These items should be serviced by an authorized Honda servicing dealer, unless you have the proper tools and are mechanically proficient. See "Honda Publications" on page 18 for ordering information.

Failure to follow this maintenance schedule could result in non-warrantable failure.

## Oil Change

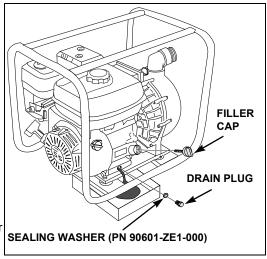
Change the oil after the first 20 hours of use. Thereafter, change the oil every 100 hours of use. Change the oil more often when used in dusty areas.

Drain the used oil while the engine is warm. Warm oil drains quickly and completely.

- 1. Place a suitable container below the engine to catch the used oil.
- 2. Remove the oil filler cap/dipstick, drain plug, and sealing washer.
- 3. Reinstall the drain plug and new sealing washer.
  Tighten the plug to the following torque.

Torque: 13 ft-lb (18 N•m)

After draining, take the oil to your local recycling center or service station. Do not

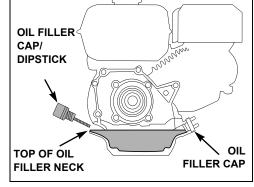


throw it in the trash, pour it on the ground, or pour it down a drain.

4. With the pump in a level position, fill with the recommended oil to the top of the oil filler neck. Do not overfill.

Refill amount: 0.61 qt (0.58 L)

Screw in the filler cap/dipstick securely.



#### **Engine Oil Recommendations**

Oil is a major factor affecting performance and service life. Always change the oil in accordance with the *MAINTENANCE SCHEDULE* (page 10).

SAE 10W-30 is recommended for general use. Other viscosities shown in the chart may be used when the average temperature in your area is within the recommended range.

The SAE oil viscosity and service category are in the API label on the oil container. Honda

30 5W-30 • 10W-30 0 20 40 60 80 100°F -20 -10 0 10 20 30 40°C OUTSIDE AIR TEMPERATURE

recommends that you use API service category SJ or later oil.

## NOTICE

Using nondetergent oil can shorten the engine's service life, and using 2-stroke oil can damage the engine.

#### Air Filter

Check the air filter after each use. Clean the filter every 50 hours of use. Clean the filter more often when used in dusty areas. Replace the filter every 300 hours of use.

A properly maintained air filter will help prevent dirt from entering your engine. Dirt entering the carburetor can be drawn into small passages in the carburetor and cause premature engine wear. These small passages can become blocked, causing starting or running problems.

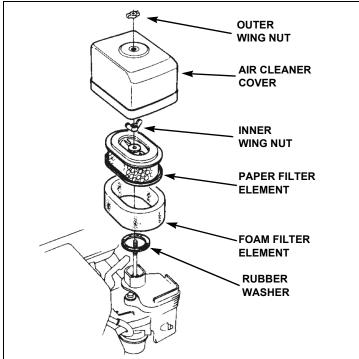
We recommend the use of a Honda Genuine air filter to ensure it seals and performs as designed. Using a non-Honda air filter can result in dirt bypassing the filter, causing damage to the engine or fuel system.

#### NOTICE

Operating the engine without an air filter, or with a dry or damaged air filter, or with an improperly installed air filter cover will allow dirt to enter the engine causing rapid engine wear. Make sure the air filter is properly installed and flush with the air filter base before installing the air filter cover. This type of damage is not covered by the DISTRIBUTOR'S LIMITED WARRANTY (page 19).

#### Inspection

- 1. Unscrew the outer wing nut and remove the air cleaner cover.
- 2. Remove the inner wing nut and both air filter elements.
- 3. Separate the air filter elements and carefully check them for holes or tears. Replace the filter elements if they are damaged.
- 4. If the air filter elements are dirty, clean them as described below.
- Wipe dirt from the inside of the air cleaner housing and cover. Be careful to prevent dirt from entering the air duct that leads to the carburetor.
- Install the foam element over the paper element, and install the assembled air filter. Secure the air filter with the inner wing nut. Make sure the rubber washer is in place under the filter elements.
- 7. Install the air cleaner cover, and secure with the outer wing nut.



#### Cleaning

A dirty air filter will restrict air flow to the carburetor, reducing engine performance. If you operate the pump in very dusty areas, clean the air filter more often than specified in the *MAINTENANCE SCHEDULE* (page 10).

#### Paper filter:

- Tap the element lightly several times on a hard surface to remove excess dirt, or blow compressed air [not exceeding 30 psi (207 kPa)] through the filter element from the inside out.
- 2. Replace the paper element if it is excessively dirty or damaged. Never try to brush the dirt off; brushing will force dirt into the paper fibers.

#### Foam filter:

- 1. Remove the foam air filter from the air filter element.
- Clean the filter in warm soapy water and rinse, or clean with nonflammable solvent.
- 3. Squeeze excess water from the filter and allow it to dry thoroughly.
- Place the filter in a resealable plastic bag and pour about 1 oz fresh engine oil into the bag (or MOTUL air filter oil).
- Seal the bag closed and knead the bag for one minute or longer until the oil is completely distributed into the foam filter. Squeeze excess oil from the filter.
- Remove the filter from the bag.
   We recommend using latex gloves when removing the oiled foam air filter from the bag.

#### NOTICE

Operating the engine with a dry air filter will allow dust to enter the engine causing engine damage. The air filter must be oiled after cleaning.

- Reinstall the foam filter over the paper element.
- 8. Wipe dirt from the air filter base and cover using a moist rag. Be careful to prevent dirt from entering the carburetor.
- 9. Reinstall the air filter assembly and air filter cover.

## Spark Plug

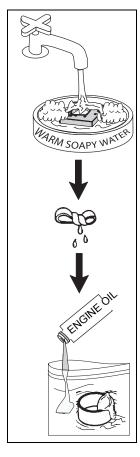
Check the spark plug every year or 100 hours of use. Replace the spark plug every 300 hours of use.

Required Spark Plug: NGK - BPR6ES

#### NOTICE

An incorrect spark plug can cause engine damage.

Allow the engine to cool before servicing the spark plug.

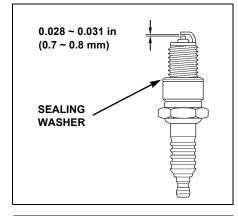


- Disconnect the spark plug cap and remove any dirt from around the spark plug area.
- Use a spark plug wrench to remove the spark plug.
- Visually inspect the spark plug. Discard it if the insulator is cracked, chipped, or fouled.
- SPARK PLUG WRENCH

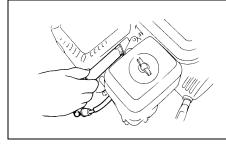
  SPARK PLUG CAP
- 4. Measure the plug gap with a suitable gauge.

Correct as necessary by carefully bending the side electrode.

Plug gap: 0.028 ~ 0.031 in (0.7 ~ 0.8 mm)



- Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross-threading.
- After the spark plug is seated, tighten with a spark plug wrench to compress the washer.



If installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer.

If reinstalling a used spark plug, tighten 1/8 - 1/4 turn after the spark plug seats to compress the washer.

## NOTICE

A loose spark plug can overheat and damage the engine. Overtightening the spark plug can damage the threads in the cylinder head.

7. Reconnect the spark plug cap.

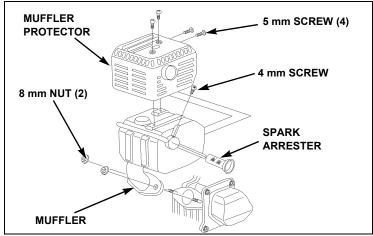
## **Spark Arrester (optional part)**

The spark arrester must be serviced every 100 hours to keep it functioning as designed.

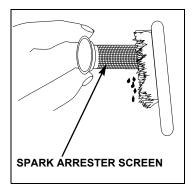
Your pump engine is not factory-equipped with a spark arrester. In some areas, it is illegal to operate an engine without a spark arrester. Check local laws and regulations. An optional USDA approved spark arrester is available from an authorized Honda servicing dealer. See page 18 for part numbers.

If the engine has been running, the muffler will be very hot. Allow the muffler to cool before servicing the spark arrester.

- 1. Allow the engine to cool, remove the two 8 mm nuts, and remove the muffler from the cylinder head.
- 2. Remove the four 5 mm screws from the muffler protector and remove the muffler protector.
- 3. Remove the 4 mm screw from the spark arrester and remove the spark arrester from the muffler.

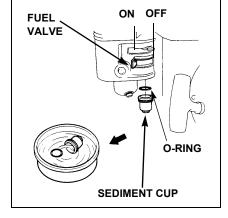


- Use a stiff brush to remove carbon deposits from the spark arrester screen. Be careful not to damage the spark arrester screen.
- Inspect the spark arrester for breaks and holes. Replace it if necessary.
- Install the spark arrester and the muffler in the reverse order of disassembly.



#### **Sediment Cup Cleaning**

- 1. Turn the fuel valve to the OFF position.
- Remove the sediment cup and O-ring and wash them in nonflammable solvent. Dry them thoroughly.
- 3. Install the O-ring and sediment cup and tighten securely.
- Turn the fuel valve to the ON position and check for leaks.



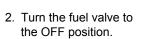
## TRANSPORTING

## **Before Loading**

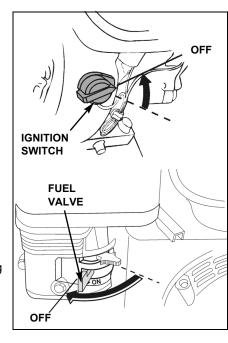
If the engine has been running, allow it to cool for at least 15 minutes before loading the pump on the transport vehicle. A hot engine and exhaust system can burn you and can ignite some materials.

When transporting the pump, be sure to keep it upright. If the pump is tilted or overturned, fuel may spill from the tank, which can result in a fire hazard.

1. Turn the ignition switch to the OFF position.



- Drain the pump chamber into a suitable container.
   Follow the chemical manufacturer's handling procedures.
- Dispose of the liquid or chemical properly and reinstall the drain plug.



## Loading

Position the pump so that it is level on the transport vehicle. Tie the pump down with rope or straps attached to the frame. Keep the tie-down rope or straps away from the controls and carburetor.

## **STORAGE**

Proper storage preparation is essential for keeping your pump trouble free and looking good. To help keep rust and corrosion from impairing your pumps function and appearance, and to make the engine easier to start after storage, follow the instructions described in this section to:

- · Drain or treat the fuel
- · Change the oil and coat the engine cylinder
- · Clean the pump and engine
- · Choose a storage location

#### **Fuel**

See "AVOIDING FUEL-RELATED PROBLEMS" on page 17 for a list of recommended procedures to avoid fuel related problems.

The DISTRIBUTOR'S LIMITED WARRANTY (page 19) does not cover fuel system damage or engine performance problems resulting from neglected storage preparation.

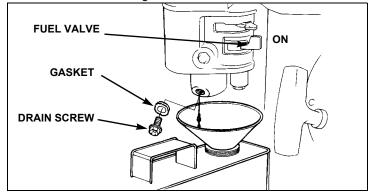
#### **Draining the Fuel Tank and Carburetor**

1. Turn the fuel valve to the OFF position.

#### WARNING

Gasoline is highly flammable and explosive, and you can be burned or seriously injured when refueling.

- Stop the engine and let it cool before refueling
- Keep heat, sparks, and flame away
- · Refuel only outdoors
- Wipe up spills immediately
- 2. Remove the carburetor drain screw with a 10 mm wrench or screwdriver, and drain fuel into an approved gasoline container.
- 3. Turn the fuel valve to the ON position. This will allow fuel in the fuel tank to drain through the carburetor bowl.



4. Reinstall the drain screw and gasket.

#### Oil

Change the engine oil (see page 10).

Add oil in the engine cylinder to prevent rust.

- 1. Remove the spark plug (page 11).
- Pour a tablespoon (5 cc) of clean engine oil into the cylinder to keep it from rusting.
- Pull the starter rope several times to distribute the oil in the cylinder.
- 4. Reinstall the spark plug and then pull the starter rope slowly until resistance is felt, and then return the starter grip gently. This will close the valves so moisture cannot enter the engine cylinder.

## Cleaning

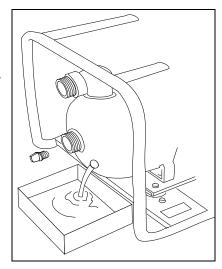
- 1. Wash the pump with a garden hose or other low pressure equipment. Keep water away from controls and all other places that are difficult to dry, as water may promote rust.
- After washing, remove as much standing water as possible with a
  dry cloth. Fill the pump chamber with water. Start the engine
  outdoors and let it run until it reaches normal operating
  temperature to evaporate any water remaining on the engine.

#### NOTICE

Operating the pump dry will damage the pump seal. Be sure the pump chamber is filled with water before starting the engine.

3. Stop the engine and allow it to cool.

- 4. If the pump was filled with a chemical, follow the chemical manufacturer's handling procedures.
  - Clean the pump interior by removing the pump drain plug and flushing with fresh water. After flushing, drain the water from the pump chamber. Install the pump drain plug.
- After the pump is clean and dry, touch up any damaged paint, and coat other areas that may rust with a light film of oil.



## **Storage Location**

If your pump will be stored with gasoline in the fuel tank and carburetor, it is important to reduce the hazard of gasoline vapor ignition. Select a well-ventilated dry storage area away from any appliance that operates with a flame, such as a furnace, water heater, or clothes dryer. Also avoid any area with a spark-producing electric motor, or where power tools are operated.

Place the pump on a level surface. Tilting can cause fuel or oil leakage.

With the engine and exhaust system cool, cover the pump to keep out dust. A hot engine and exhaust system can ignite or melt some materials. Do not use sheet plastic as a dust cover. A nonporous cover will trap moisture around the pump, promoting rust and corrosion.

## **Removing From Storage**

If the fuel was drained during storage preparation, fill the tank with fresh gasoline. If you keep a container of gasoline for refueling, be sure that it contains only fresh gasoline. Gasoline oxidizes and deteriorates over time, causing hard starting.

Check your pump as described in BEFORE OPERATION (page 4).

If the cylinder was coated with oil during storage preparation, the engine may smoke briefly at startup. This is normal.

# **TROUBLESHOOTING**

## **Engine Will Not Start**

Possible Cause	Correction
Ignition switch OFF	Turn the ignition switch ON (page 9).
Fuel valve OFF	Turn the fuel valve ON (page 8).
Out of fuel	Refuel (page 7).
Oil level low	Add oil (page 6)
Bad fuel; pump stored without treating or draining gasoline, or refueled with bad gasoline	Drain the fuel tank and carburetor (page 13). Refuel with fresh gasoline (page 7).
Spark plug faulty, fouled, or improperly gapped	Gap or replace the spark plug (page 11).
Spark plug wet with fuel (flooded engine)	Dry and reinstall the spark plug.
Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take the pump to an authorized Honda servicing dealer for repair.

#### **Loss of Power**

Possible Cause	Correction
Throttle not set to FAST	Move the throttle to the FAST position.
Air filter clogged	Clean or replace the air filter (page 11).
Bad fuel; pump stored without treating or draining gasoline, or refueled with bad gasoline	Drain the fuel tank and carburetor. (page 13) Refuel with fresh gasoline.
Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take the pump to an authorized Honda service dealer for repair.

## **Low Pump Output**

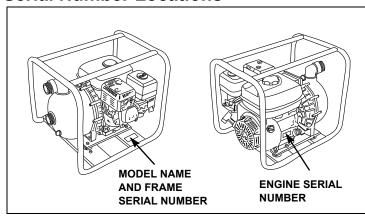
Possible Cause	Correction
Throttle not set to FAST	Move the throttle to the FAST position.
Suction strainer clogged	Clean the strainer.
Suction and/or discharge head too great	Reduce suction and/or discharge head.
Suction and/or discharge hose too long	Reduce suction and/or discharge hose length.
Hose(s) kinked or restricted	Remove obstruction or kink.
Pump components worn or engine malfunction (worn, governor adjustment, etc)	Take the pump to an authorized Honda service dealer for repair.

## **Pump Will Not Pump**

Possible Cause	Correction
Pump requires priming	Prime the pump (page 5).
Strainer clogged	Clear strainer (page 5).
Suction hose clamps loose	Tighten hose clamps (page 5).
Suction hose sealing washer not installed	Install suction hose sealing washer (page 5).
Suction head is too high	Locate pump at appropriate level (page 6).
Suction hose damaged (pin hole, etc.)	Replace suction hose.
Pump still does not pump	Take the pump to an authorized Honda servicing dealer for repair.

# TECHNICAL INFORMATION

#### **Serial Number Locations**



There are two serial numbers, one for the engine and one for the frame. Record the engine and frame serial numbers in the space below. You will need these serial numbers when ordering parts and when making technical or warranty inquiries.

Engine serial number:	
Frame serial number: _	
Date of purchase:	

## **High Altitude Operation**

At high altitudes, the standard carburetor air-fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting. Operation at an altitude that differs from that at which this engine was certified, for extended periods of time, may increase emissions.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate your pump at altitudes above 5,000 feet (1,500 meters), have your servicing dealer perform this carburetor modification. This engine, when operated at high altitude with the carburetor modifications for high altitude use, will meet each emission standard throughout its useful life.

Even with carburetor modification, engine horsepower will decrease about 3.5% for each 1,000-foot (300-meter) increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

#### NOTICE

When the carburetor has been modified for high altitude operation, the air-fuel mixture will be too lean for low altitude use. Operation at altitudes below 5,000 feet (1,500 meters) with a modified carburetor may cause the engine to overheat and result in serious engine damage. For use at low altitudes, have your servicing dealer return the carburetor to original factory specifications.

## **Emission Control System**

#### **Source of Emissions**

The combustion process produces carbon monoxide, oxides of nitrogen, and hydrocarbons. Control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

Honda utilizes appropriate air/fuel ratios and other emissions control systems to reduce the emissions of carbon monoxide, oxides of nitrogen, and hydrocarbons. Additionally, Honda fuel systems utilize components and control technologies to reduce evaporative emissions.

#### U.S. EPA and CARB

U.S. EPA and California Air Resources Board (CARB) emissions regulations require all manufacturers to furnish written instructions describing the operation and maintenance of emissions control systems.

The following instructions and procedures must be followed in order to keep the emissions from your Honda engine within the emissions standards.

#### **Tampering and Altering**

#### NOTICE

Tampering is a violation of federal and California law.

Tampering with or altering the emissions control system may increase emissions beyond the legal limit. Among those acts that constitute tampering are:

- Removal or alteration of any part of the intake, fuel, or exhaust systems.
- Altering or defeating the speed-adjusting mechanism to cause the engine to operate outside its design parameters.

#### **Problems That May Affect Emissions**

If you are aware of any of the following symptoms, have your engine inspected and repaired by your servicing dealer.

- · Hard starting or stalling after starting
- · Rough idle
- Misfiring, backfiring under load, or afterburning
- · Black exhaust smoke or high fuel consumption

#### **Replacement Parts**

The emissions control systems on your new Honda engine were designed, built, and certified to conform with EPA and California emissions regulations. We recommend the use of Honda Genuine parts whenever you have maintenance done. These original-design replacement parts are manufactured to the same standards as the original parts, so you can be confident of their performance. Honda cannot deny coverage under the emission warranty solely for the use of non-Honda replacement parts or service performed at a location other than an authorized Honda dealership; you may use comparable EPA certified parts, and have service performed at non-Honda locations. However, the use of replacement parts that are not of the original design and quality may impair the effectiveness of your emissions control system.

A manufacturer of an aftermarket part assumes the responsibility that the part will not adversely affect emissions performance. The manufacturer or rebuilder of the part must certify that use of the part will not result in a failure of the engine to comply with emissions regulations.

#### **Maintenance**

As the power equipment engine owner, you are responsible for completing all required maintenance listed in your owner's manual. Honda recommends that you retain all receipts covering maintenance on your power equipment engine, but Honda cannot deny warranty coverage solely for the lack of receipts or for your failure to ensure that all scheduled maintenance has been completed.

Follow the Maintenance Schedule on page 10. Remember this schedule is based on the assumption that your machine will be used for its designed purpose. Sustained high-load or high-temperature operation, or use in unusually wet or dusty conditions, will require more frequent service.

#### **Air Index**

An Air Index Information hang tag/label is applied to engines certified to an emission durability time period in accordance with the requirements of the California Air Resources Board.

The bar graph is intended to provide you, our customer, the ability to compare the emissions performance of available engines. The lower the Air Index, the less pollution.

The durability description is intended to provide you with information relating the engine's emission durability period. The descriptive term indicates the useful life period for the engine's emission control system. See your *EMISSION SYSTEM WARRANTY* (page 20).

Descriptive Term	Applicable to Emissions Durability Period
Moderate	50 hours (0 ~ 80 cc) 125 hours (greater than 80 cc)
Intermediate	125 hours (0 ~ 80 cc) 250 hours (greater than 80 cc)
Extended	300 hours (0 ~ 80 cc) 500 hours (greater than 80 cc) 1000 hours (225 cc and greater)

## **Specifications**

Model	WMP20X1	
Description code	WAAA	
Length x Width x Height	20.5 x 15.7 x 17.7 in	
	(520 x 400 x 450 mm)	
Dry mass (weight)	57 lbs (26 kg)	

#### **Engine**

Model	GX160T2
Engine type	4-stroke, overhead-valve, single cylinder
Displacement	9.9 cu in (163 cc)
[bore x stroke]	[2.7 x 1.8 in (68 x 45 mm)]
Oil capacity	0.61 qt (0.58 ℓ)
Fuel capacity	0.82 US gal (3.1 ℓ)
Cooling system	Forced air
Ignition system	Transistorized magneto
PTO shaft direction	Counterclockwise

#### **Pump**

Pump type	Self Priming Centrifugal	
Suction port diameter	2 in (50.8 mm)	
Discharge port diameter		
Total head (max)	102 ft (31 m)	
Suction head (max)	31 ft (9.5 m)	
Discharge capacity (max)	224 gal/min (850 ℓ/min)	
Self-priming time	47 sec at 16.4 ft (5 m)	
Pressure (max)	44 psi (300 kPa)	
Continuous running time*	1.8 hr	

<sup>\*</sup> Approximate time. Actual time will depend on pump load.

#### **Maintenance**

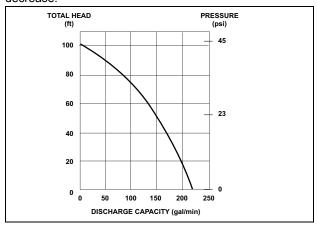
Item	Description	Page
Fuel	Unleaded gasoline with a pump octane rating of 86 or higher	See page 7
Engine oil	SAE 10W-30 API SJ or later	See page 10
Spark plug type	NGK-BPR6ES	See page 11
Maximum governed speed (no load)	3,850 <sup>+150</sup> rpm	Shop manual

#### Tune-up

Spark plug gap	0.028 - 0.031 in (0.7 - 0.8 mm)	See page 11
Carburetor idle speed	1,400 <sup>+200</sup> rpm	Shop manual
Valve clearance (cold)	Intake: 0.08 ± 0.02 mm Exhaust: 0.10 ± 0.02 mm	See your authorized Honda servicing dealer
Other specifications	No other adjustments needed	

#### **Pump Performance Curve**

This graph shows the relationship between the pump discharge capacity and the total dynamic head, based on clear water at sea level. As you increase the total head, the discharge capacity will decrease.



## **AVOIDING FUEL-RELATED PROBLEMS**

When maintained properly, your Honda pump should provide years of trouble-free operation. This includes the fuel system. However, gasoline can quickly deteriorate, causing starting or running problems and, in some cases, damage to the fuel system. Most fuel-related problems can be avoided by following the precautions listed below. Fuel system damage and engine performance problems resulting from deteriorated fuel are not covered by the *DISTRIBUTOR'S LIMITED WARRANTY* (see page 19).

### Follow These Precautions to Prevent Most Fuel-Related Problems

During Normal Usage	Reason
Do not use gasoline containing more than 10% ethanol.	A high level of ethanol in gasoline attracts water and can corrode or damage the fuel system and cause performance problems.
Store gasoline in a clean, plastic, sealed container approved for fuel storage.	A clean plastic container will prevent rust and metallic contaminants from entering the fuel system.
Store your fuel supply container away from direct sunlight; if the container has a vent, keep it closed.	Gasoline will deteriorate faster when exposed to air and sunlight.
Purchase only enough gasoline to last for 30 to 60 days.  If you purchase enough gasoline to last for more than 60 days,	Gasoline deteriorates with age, so try to avoid storing it for long periods, especially in summer heat.
add a fuel stabilizer to your storage tank when you fill it.	Fuel stabilizer will extend the shelf life of gasoline, but it will not reconstitute stale fuel.
When you finish pumping, completely fill the pump's fuel tank.	If the fuel tank is only partially filled, air in the tank will promote fuel deterioration.

3 to 4 Weeks Before Next Use	Reason
Completely fill the pump's fuel tank.	If the fuel tank is only partially filled, air in the tank will promote fuel deterioration.

1 to 3 Months Before Next Use	Reason
If you did not add fuel stabilizer to your fuel storage tank when you filled it up, fill your pump's fuel tank with fresh gasoline.	If the fuel tank is only partially filled, air in the tank will promote fuel deterioration.
Add fuel stabilizer to the pump's tank according to the stabilizer manufacturer's instructions.	Fuel stabilizer will extend the life of gasoline, but it will not reconstitute stale gasoline.
Fill the pump housing with water and run the engine outdoors for 10 minutes.	To make sure treated gasoline has replaced untreated gasoline throughout the fuel system.

More Than 3 Months Before Next Use	Reason
Drain the fuel tank into an approved container, fill the pump housing with water, and then run the engine until the engine stops. Do not allow gasoline to remain in your pump for more than 3 months of inactivity. Drain the pump housing when finished.	All fuel stabilizers have a shelf life. It is good practice to empty the fuel system for long term inactivity.

We recommend Pro Honda Fuel Stabilizer that has an improved formulation with added corrosion protection (page 18).

## **CUSTOMER INFORMATION**

## Parts, Accessories, and Service Items

Contact an authorized Honda servicing dealer to purchase any of these (or other) Honda Genuine Service parts and other approved accessories for your pump. For a complete list of pump accessories, visit us at powerequipment.honda.com and click on PUMPS.

#### **Replacement Parts**

Item	Part Number	Notes
Spark plug	98079-56846	NGK (brand) BPR6ES
Air filter	17210-ZE1-822	Includes paper and foam elements
Strainer	78325-YE0-003	Clamp not included

#### **Accessories**

Item	Part Number	Notes	
Spark arrester	18310-Z4M-811	Muffler	
	18355-ZE1-000	Arrester	
	90055-ZE1-000	Screw	
Pin lug hose kit (2 in)	124020-1145-PINKT	Each kit includes: 20' suction hose,	
Camlock hose kit (2 in)	124020-1145-CLKT	50' discharge hose, Steel strainer (3/8" hole)	
No-Spill <sup>®</sup> gas can	See your local dealer	5 gal	
MOTUL air filter oil	08207-MTL-100	4 oz bottle	

#### Service Items

Item	Part Number	Notes
SAE 10W-30 engine oil	08207-10W30	Honda Genuine recommended oil
Fuel stabilizer	08732-0800	For storage 8 oz bottle

No-Spill® is a registered trademark of NoSpill LLC.

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#### **Dealer Locator Information**

To find an Authorized Honda Servicing Dealer anywhere in the United States:

Visit powerequipment.honda.com and click on Find a Dealer.

#### **How to Contact Honda**

Honda Power Equipment dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager or General Manager can help. Almost all problems are solved in this way.

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Power Equipment Customer Relations Office. You can write:

#### American Honda Motor Co., Inc.

Power Equipment Division Customer Relations Office 4900 Marconi Drive Alpharetta, GA 30005-8847

Or telephone: (770) 497-6400 M-F, 8:30 a.m. - 7:00 p.m. ET

When you write or call, please give us this information:

- Model and serial numbers (page 15)
- · Name of the dealer who sold the pump to you
- · Name and address of the dealer who services your pump
- · Date of purchase
- · Your name, address, and telephone number
- · A detailed description of the problem

#### **Honda Publications**

These publications will give you information for maintaining and repairing your multi-purpose pump.

#### **Owner's Manual**

Keep this owner's manual handy so you can refer to it at any time. Consider this owner's manual a permanent part of the pump; please give it to the new owner if you resell the pump.

The information and specifications included in this publication were in effect at the time of approval for printing. American Honda Motor Co., Inc. reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatever. No part of this publication may be reproduced without written permission.

#### **Shop Manual**

This manual covers complete maintenance and overhaul procedures. It is intended to be used by a skilled technician. Available through your Honda dealer or visit powerequipment.honda.com and click on Product Support, then click on Shop Manuals.

#### **Parts Catalog**

This manual provides complete, illustrated parts lists, and is available through your Honda dealer.

#### **Accessories Catalog**

Your authorized Honda power equipment dealer offers a wide selection of accessories to make your pump even more useful. Visit *PowerEquipment.Honda.com* and click on Pumps and Accessories to see the entire catalog of accessories. Especially popular accessories include:

- Suction and discharge hoses
- Strainers
- · Couplers and gaskets

#### **Frequently Asked Questions**

The Honda Power Equipment web site provides additional information for users of Honda power equipment. Visit powerequipment.honda.com and click on FAQs.

## **DISTRIBUTOR'S LIMITED WARRANTY**

#### **Honda Power Equipment**

This warranty is limited to the following Honda Power Equipment products when distributed by American Honda Motor Co., Inc., Power Equipment Division, 4900 Marconi Drive, Alpharetta, Georgia 30005-8847, purchased at retail or placed in rental service on or after January 1, 2010.

PRODUCTS COVERED	LENGTH OF WARRANTY (from date of original retail purchase)		
PRODUCTS COVERED BY THIS WARRANTY	PRIVATE RESIDENTIAL <sup>(1)</sup>	COMMERCIAL/ RENTAL/ INSTITUTIONAL	
WMP20X pump	36 months	36 months	

(1) Private residential: Used in maintaining owner's primary and/or secondary residence. Any other use, including but not limited to informal "for hire" use, is considered commercial/rental/institutional use.

#### To Qualify for This Warranty:

The product must be purchased in the United States, Puerto Rico, or the U.S. Virgin Islands from American Honda or a dealer authorized by American Honda to sell those products. This warranty applies to first retail purchaser and each subsequent owner during the applicable warranty time period, unless noted otherwise.

#### What American Honda Will Repair or Replace Under Warranty:

American Honda will repair or replace, at its option, any part that is proven to be defective in material or workmanship under normal use during the applicable warranty time period. Warranty repairs and replacements will be made without charge for parts or labor. Anything replaced under warranty becomes the property of American Honda Motor Co., Inc. All parts replaced under warranty will be considered as part of the original product, and any warranty on those parts will expire coincident with the original product warranty.

#### To Obtain Warranty Service:

You must, at your expense, take the Honda Power Equipment product, accessory, replacement part, apparel, or the power equipment on which the accessory or replacement part is installed, and proof of purchase to any Honda Power Equipment dealer in the United States, Puerto Rico, or the U.S. Virgin Islands who is authorized to sell and/or service that product, during the dealer's normal business hours. To locate a dealer near you, visit our web site at PowerEquipment. Honda.com and click on Find a Dealer. If you are unable to obtain warranty service or are dissatisfied with the warranty service you receive, contact the owner of the dealership involved; normally this will resolve the problem. However, if you should require further assistance, write or call the Power Equipment Customer Relations Department of American Honda Motor Co., Inc. See "How to Contact Honda" on page 18.

#### **Exclusions:**

- 1. Any damage or deterioration resulting from the following:
  - Neglect of the periodic maintenance as specified in the product owner's manual Improper repair or maintenance
  - Operating methods other than those indicated in the product owner's manual
  - Increasing engine speed beyond factory specification
  - The use of non-genuine Honda parts, accessories, lubricants, and fluids other than those approved by Honda

    Exposure of the product to soot and smoke, chemical agents, bird droppings,
  - sea water, salt or other corrosive environments
  - Collision, fuel contamination or deterioration, neglect, unauthorized alteration,
  - misuse, incorporation or use of unsuitable attachments or parts Normal wear and tear (including, but not limited to, normal fading of painted or plated surfaces, sheet peeling, and other natural deterioration)
- Consumable parts: Honda does not warrant parts deterioration due to normal wear and tear. The following parts are not covered by warranty (unless they are needed as a part of another warranted repair): spark plug, fuel filter, air cleaner element, clutch disc, tire, wheel bearing, recoil starter rope, cable, belt, cutter
- Cleaning, adjustment, and normal periodic maintenance work (carburetor cleaning, engine oil draining, blade sharpening, belt and cable adjustments).
- Any product that has ever been declared a total loss or sold for salvage by a financial institution or insurer.
- Auger and paddle assemblies of snow throwers, tiller tines of roto-tillers, mower blades and mower deck housings, are specifically not warranted against impact damage, including but not limited to, abrasive damage

#### Disclaimer of Consequential Damage and Limitation of Implied Warranties:

American Honda disclaims any responsibility for loss of time or use of the product, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written limited warranty. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state

#### Honda Parts, Accessories, and Apparel

This warranty is limited to Honda Power Equipment parts, accessories, and apparel when distributed by American Honda Motor Co., Inc., 4900 Marconi Drive, Alpharetta, Georgia 30005-8847

	LENGTH OF WARRANTY (from date of original retail purchase)		
PRODUCTS COVERED BY THIS WARRANTY	PRIVATE RESIDENTIAL	COMMERCIAL/ RENTAL/ INSTITUTIONAL	
Parts	6 months	3 months	
Accessories	12 months	3 months	
Apparel	6 months	3 months	

#### To Qualify for This Warranty:

- 1. The parts, accessories, or apparel must be purchased from American Honda or a dealer authorized by American Honda to sell those products in the United States, Puerto Rico, and the U.S. Virgin Islands. Parts and Accessories must be purchased for installation on original Honda equipment or engines to be eligible for warranty coverage. Installing parts and accessories on non-Honda products or engines voids this warranty.
- You must be the first retail purchaser. This warranty is not transferable to subsequent owners.

#### What American Honda Will Repair or Replace Under Warranty:

American Honda will repair or replace, at its option, any Honda Power Equipment parts, accessories, replacement parts, or apparel that are proven to be defective in material or workmanship under normal use during the applicable warranty time period. Anything replaced under warranty becomes the property of American Honda Motor Co., Inc. The warranty on all parts, accessories, and apparel replaced under warranty will expire coincident with the original warranty on the replaced parts, accessories, or apparel.

Parts and accessories installed by a dealer who is authorized by American Honda to sell them will be repaired or replaced under warranty without charge for parts or labor. If installed by anyone else, parts and accessories will be repaired or replaced under warranty without charge for parts, but any labor charges will be the responsibility of the purchaser.

Apparel will be repaired or replaced under warranty without any charge.

#### To Obtain Warranty Service:

You must, at your expense, take the Honda Power Equipment part, accessory, apparel or the Honda Power Equipment on which the part or accessory is installed, and proof of purchase to any Honda Power Equipment dealer in the United States, Puerto Rico, or the U.S. Virgin Islands who is authorized to sell that product, during the dealer's normal business hours. To locate a dealer near you, visit our web site at PowerEquipment.Honda.com and click on Find a Dealer.

If you are unable to obtain warranty service or are dissatisfied with the warranty service you receive, contact the owner of the dealership involved; normally this will resolve the problem. However, if you should require further assistance, write or call the Power Equipment Customer Relations Department of American Honda Motor Co., Inc. See "How to Contact Honda" on page 18.

#### **Exclusions:**

This warranty does not extend to parts, accessories, or apparel affected or damaged by collision, normal wear, use in an application for which the product was not designed or any other misuse, neglect, incorporation or use of unsuitable attachments or parts, unauthorized alteration, improper installation, or any causes other than defects in material or workmanship of the product. Installing parts and accessories on non-Honda products or engines voids this warranty.

#### Disclaimer of Consequential Damage and Limitation of Implied Warranties:

American Honda disclaims any responsibility for loss of time or use of the product, or the power equipment on which the product is installed, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written warranty. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. PWL50623-W

## **EMISSION SYSTEM WARRANTY**

Your new Honda Power Equipment engine complies with the U.S. EPA and State of California (models certified for sale in California only) emission regulations. American Honda Motor Co., Inc. provides the emission warranty coverage for engines in the United States and its territories. In the remainder of this Emission Control System Warranty, American Honda Motor Co., Inc., will be referred to as Honda.

# YOUR WARRANTY RIGHTS AND OBLIGATIONS: CALIFORNIA

The California Air Resources Board and Honda are pleased to explain the emission control system warranty on your 2019 and later Honda Power Equipment engine. In California, new spark-ignited small off-road equipment engines must be designed, built, and equipped to meet the state's stringent anti-smog standards. Specific Honda products that do not meet the California emissions regulations can be identified by a "Not for sale in California" decal.

#### OTHER STATES AND U.S. TERRITORIES

In other areas of the United States, your engine must be designed, built, and equipped to meet the U.S. EPA emission standards for spark-ignited engines at or below 19 kilowatts.

#### ALL OF THE UNITED STATES

Honda must warrant the emission control system on your power equipment engine for the period of time listed below, provided there has been no abuse, neglect, or improper maintenance of your power equipment engine. Where a warrantable condition exists, Honda will repair your power equipment engine at no cost to you including diagnosis, parts, and labor.

Your emission control system may include such parts as the carburetor or fuel injection system, the ignition system, and catalytic converter. Also included may be hoses, connectors, and other emission-related assemblies (see the adjacent column for additional covered parts).

#### **OWNER'S WARRANTY RESPONSIBILITY:**

As the power equipment engine owner, you are responsible for completing all required maintenance listed in your owner's manual. Honda recommends that you retain all receipts covering maintenance on your power equipment engine, but Honda cannot deny warranty coverage solely for the lack of receipts or for your failure to ensure that all scheduled maintenance has been completed.

As the power equipment engine owner, you should however be aware Honda may deny you warranty coverage if your power equipment engine or a part has failed due to abuse, neglect, improper maintenance, or unapproved

You are responsible for presenting your power equipment engine to a Honda Power Equipment dealer as soon as a problem exists. The emission related warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your emission warranty rights and responsibilities, you should contact the Honda office in your region:

American Honda Motor Co., Inc. Power Equipment Customer Relations 4900 Marconi Drive Alpharetta, Georgia 30005-8847 Telephone: (888) 888-3139

Email: powerequipmentemissions@ahm.honda.com

#### **WARRANTY COVERAGE:**

Honda power equipment engines sold in the United States are covered by this warranty for a period of two years from the date of delivery to the original retail purchaser or the length of the Honda Distributor's Limited Warranty, whichever is longer. This warranty is transferable to each subsequent purchaser for the duration of the warranty period.

If any emission-related part on your engine is defective, the part will be repaired or replaced by Honda without charge for diagnosis, parts, or labor. All defective parts replaced under this warranty become the property of Honda. Only Honda approved replacement parts may be used in the performance of any warranty repairs and must be provided without charge to the owner. A list of warranted parts is on the adjacent column of this warranty statement. Normal maintenance items, such as spark plugs and filters, that are on the warranted parts list are warranted up to their required replacement interval only.

Honda will also replace other engine components damaged by a failure of any warranted part during the warranty period.

Honda cannot deny coverage under the emission warranty solely for use of non-Honda replacement parts or service performed at a location other than an authorized Honda dealership; however, use of a part that is not functionally identical to the original equipment part in any respect that may in any way affect emissions (including durability) could result in denial of coverage. If such a non-Honda replacement part is used in the repair or maintenance of your engine, and an authorized Honda dealer determines it is defective or causes a failure of a warranted part, your claim for repair of your engine may be denied. If the part in question is not related to the reason your engine requires repair, your claim will not be denied.

#### TO OBTAIN WARRANTY SERVICE:

You must, at your own expense, take your Honda Power Equipment engine or the product on which it is installed, along with your sales registration card or other proof of original purchase date, to any Honda Power Equipment dealer who is authorized by Honda to sell and service that Honda product during their normal business hours. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

If you are unable to obtain emission warranty service or are dissatisfied with the warranty service you received, contact the owner of the dealership involved. Normally this should resolve your problem. However, if you require further assistance, contact the Honda office in your region. Refer to adjacent column for contact information.

#### **EXCLUSIONS:**

Failures other than those resulting from defects in material or workmanship are not covered by this warranty. This warranty does not extend to emission control systems or parts that are affected or damaged by owner abuse, neglect, improper maintenance, misuse, misfueling, improper storage, collision, the incorporation of, or use of, unsuitable attachments, or the unauthorized alteration of any part.

This warranty does not cover replacement of expendable maintenance items made in connection with required maintenance service after the item's first scheduled replacement as listed in the maintenance section of the product owner's manual, such as: spark plugs and filters.

# DISCLAIMER OF CONSEQUENTIAL DAMAGE AND LIMITATION OF IMPLIED WARRANTIES:

American Honda Motor Co., Inc. disclaims any responsibility for incidental or consequential damages such as loss of time or the use of the power equipment, or any commercial loss due to the failure of the equipment; and any implied warranties are limited to the duration of this written warranty. This warranty is applicable only where the California and U.S. EPA emission control system warranty regulation is in effect.

SYSTEMS COVERED BY THIS WARRANTY:	PARTS DESCRIPTION:
Fuel Metering	Carburetor assembly, (includes starting enrichment system), Oxygen sensor, Throttle body, Engine temperature sensor, Engine control module, Fuel regulator, Intake manifold
Evaporative	Fuel tank, Fuel cap, Fuel hoses, Vapor hoses, Carbon canister, Canister mounting brackets, Fuel strainer, Fuel valve, Fuel pump, Fuel hose joint, Canister purge hose joint
Exhaust	Catalyst, Exhaust pipe, Muffler (with catalyst)
Air Induction	Air cleaner case, Air cleaner element*
Ignition	Flywheel magneto, Flywheel comp., Ignition pulse generator, Crankshaft position sensor, Power coil, Ignition coil assembly, Ignition control module, Spark plug cap, Spark plug*
Crankcase Emission Control	Crankcase breather tube, Breather valve assembly, Oil filler cap
Miscellaneous Parts	Tubing, fittings, seals, gaskets, and clamps associated with these listed systems.

Note: This list applies to parts supplied by Honda and does not cover parts supplied by the equipment manufacturer. Please see the original equipment manufacturer's emissions warranty for non-Honda parts.

\* Covered up to the first required replacement only. See the MAINTENANCE SCHEDULE on page 10. PWL50975-T

## **NOTES**

## **NOTES**

## PRODUCT REGISTRATION

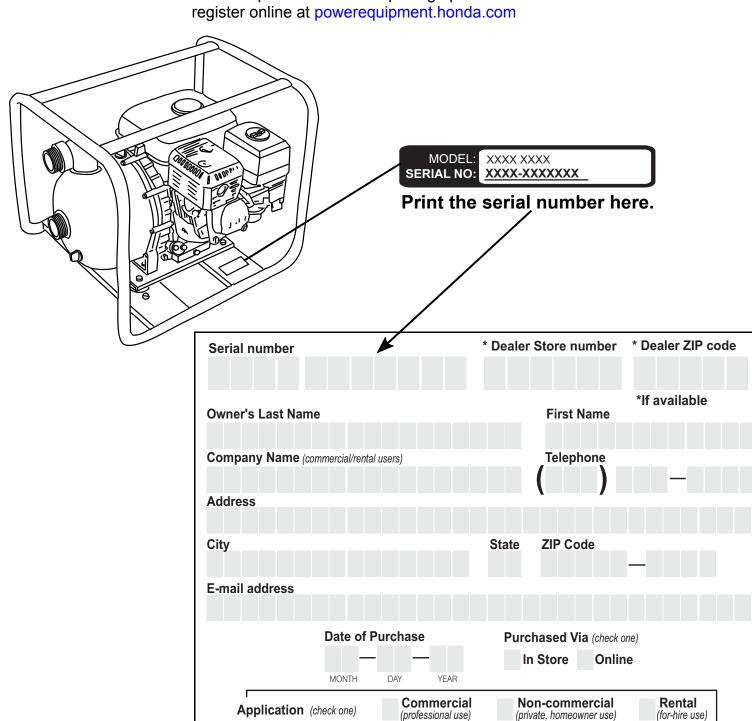
Thank you for choosing Honda. To ensure you receive important service information in the event of a product update or recall, please register your pump within 30 days of purchase.

From time to time, American Honda conducts sales promotions that require you to register your pump within 30 days of purchase. If you purchased your Honda pump during one of these promotions, you must register your pump within 30 days.

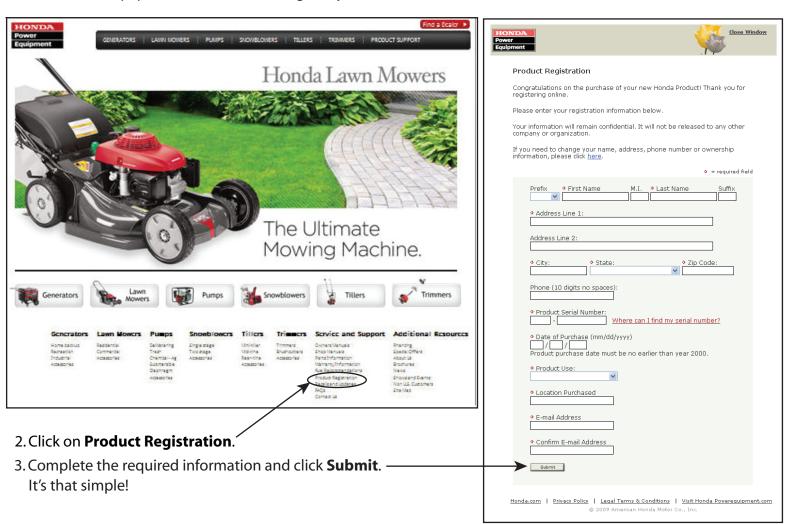
Your information will remain confidential. It will not be released to any other company or organization.

Failure to register your pump does not diminish your warranty rights.

Please complete and mail the postage paid card or



1. Go to PowerEquipment. Honda.com to register your unit.



## **Product Registration**



NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 117 ALPHARETTA GA

POSTAGE WILL BE PAID BY ADDRESSEE

Power Equipment Division American Honda Motor Co. Inc. 4900 Marconi Dr Alpharetta GA 30005-9956



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