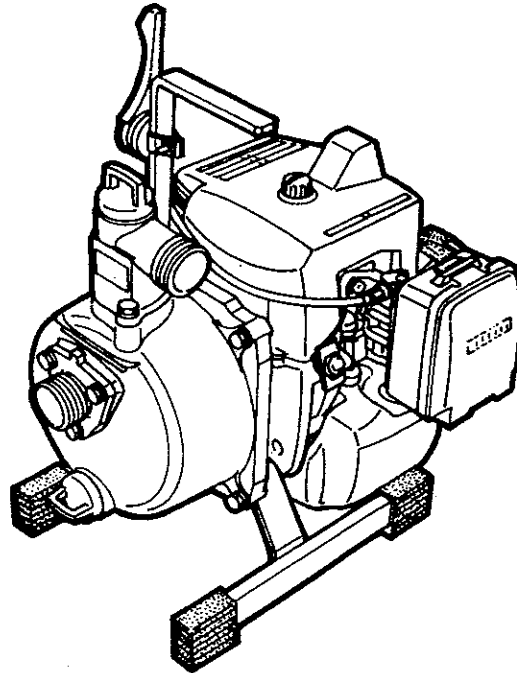




**MP2532E2**



# Owner's/Operator's Manual

Completely read and understand this manual before using this product.

# FOREWORD

This Owner's/Operator's Manual is designed to familiarize the operator with the various features and component parts of the equipment and to assist you with the assembly, operation and maintenance of your new Water Pump.

**It is essential that any operator of this Maruyama product reads and understands the contents of this manual before using the Water pump.**

Important safety instructions will be identified by the following safety symbol:



Failure to comply with the instructions in this manual may result in serious injury or death. For additional assistance, contact any local authorized Maruyama dealer or Maruyama Mfg. Co., Inc.

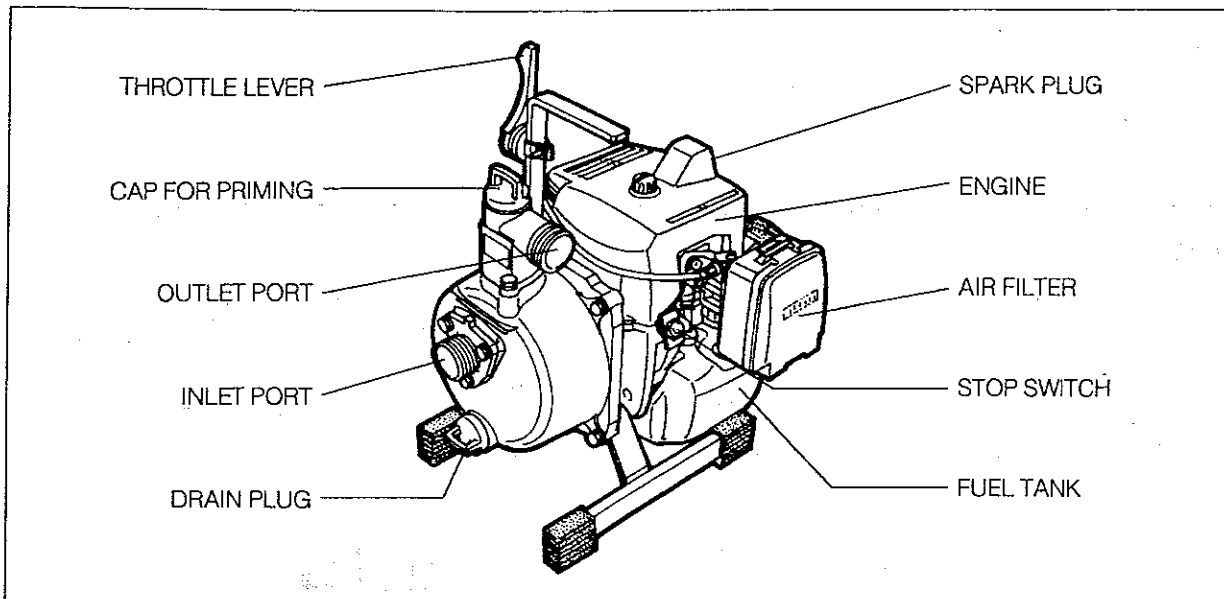
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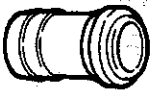


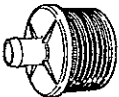

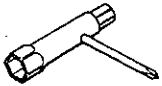
## SPECIFICATIONS

Model		MP2532E2
Pump	Length x Width x Height	305 x 253 x 334 mm (12 x 10 x 13.1 in.)
	Dry Weight	5.9 kg (13 lbs.)
	Inlet/Outlet Dia	25 mm (1 in.)
	Connection Thread	PF 1
	Maximum Outlet Flow	113 ℓ /min (30 gal/min)
	Maxim Head	36 m (118 ft.)
Engine	Displacement	31.8 cc
	Fuel Tank Capacity	1 ℓ (1.06 qts.)
	Carburetor	Walbro Diaphragm Type
	Ignition System	Solid State
	Spark Plug: Make Type Electrode Gap	NGK BPM6Y 0.6 ~ 0.7 mm (0.024 ~ 0.028 in.)
<b>Fuel Mixture:</b>		
Using Maruyama 50:1 2-Cycle Engine Oil.		50:1
Using other 2-cycle engine oils designed for air-cooled 2-cycle engines.		25:1

# PRODUCT DESCRIPTION



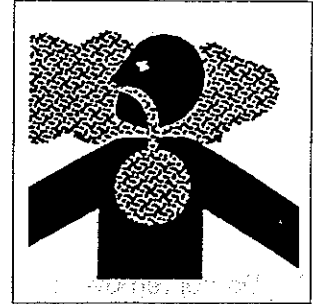
## STANDARD ACCESSORIES

	Part Name	Q'ty	Remarks
	Suction Hose	1	3 m
	Nut	2	1 in.
	Packing	2	1 in.
	Coupling	2	1 in.
	Coupling	1	3/4 in.
	Coupling	1	5/8 in.
	Strainer	1	
	Clamp	3	
	Box Spanner	1	13 x 19 x ⊕

# SAFETY INSTRUCTIONS

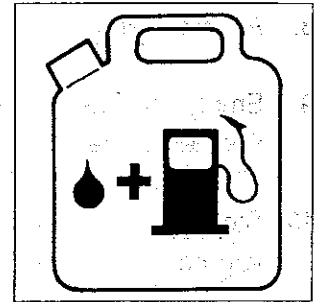
## Operator safety

1. Read and understand this Owner's/Operator's Manual before using this product. Be thoroughly familiar with the proper use of this product.
2. Never operate this water pump when you are tired, ill or under the influence of alcohol, drugs or medication.
3. Never start or run the engine inside a closed room or building. Breathing exhaust fumes can cause death.

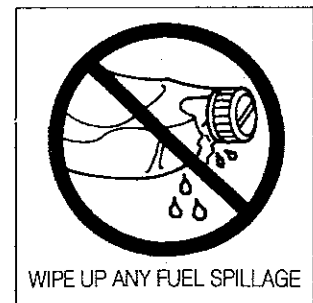


## Fuel safety

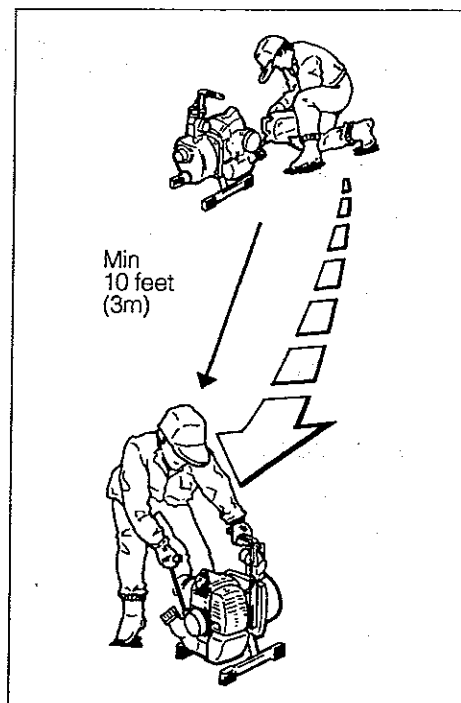
1. Gasoline is highly flammable and must be handled and stored carefully. Use a container approved for fuel for storing gasoline and/or fuel/oil mixture.



2. Mix and pour fuel outdoors and where there are no sparks or flames.
3. Do not smoke near fuel or the water pump or while using the water pump.
4. Do not overfill the fuel tank. Stop filling 1/4-1/2 inch from the top of the tank.
5. Wipe up any spilled fuel before starting the engine.



6. Move the water pump at least 10 feet (3 m) away from the fueling location before starting engine.



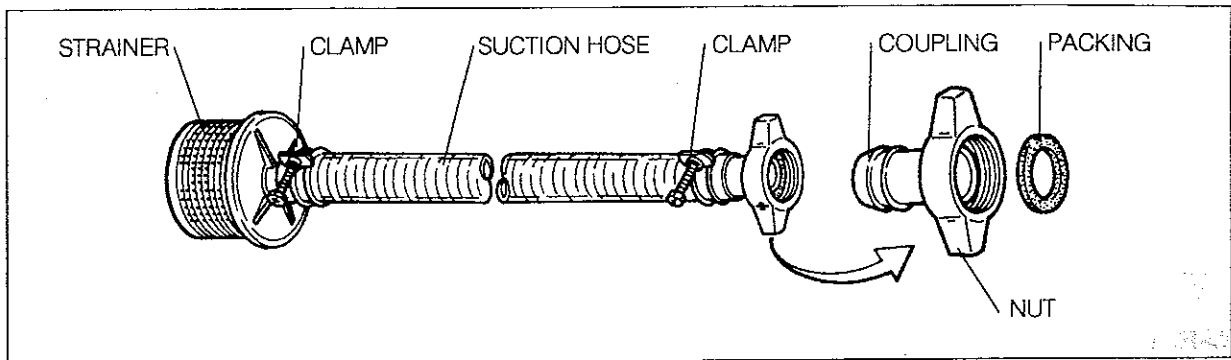
7. Do not remove the water pump fuel tank cap while the engine is running or right after stopping the engine.
8. Allow the engine to cool before refueling.
9. Empty the fuel tank before storing the water pump. Fuel should be emptied after each use. Fuel left in the tank during storage may leak.
10. Store fuel and water pump away from open flame, sparks and excessive heat. Make sure fuel vapors cannot reach sparks or open flames from water heaters, furnaces, electric motors, etc.

# ASSEMBLY INSTRUCTIONS

1. Install a rubber packing onto one of the 1 inch hose fittings. Slide a hose fitting nut over the fitting. Slide two hose clamps over the suction hose. Attach the hose coupler assembly and strainer to either end and tighten the hose clamps.

Due to different operator requirements, the outlet hose is not provided. Three hose fittings are supplied with water pump to be used with either 5/8, 3/4 or 1 inch inside diameter hose. Select an outlet hose that is the suitable diameter and length for your application.

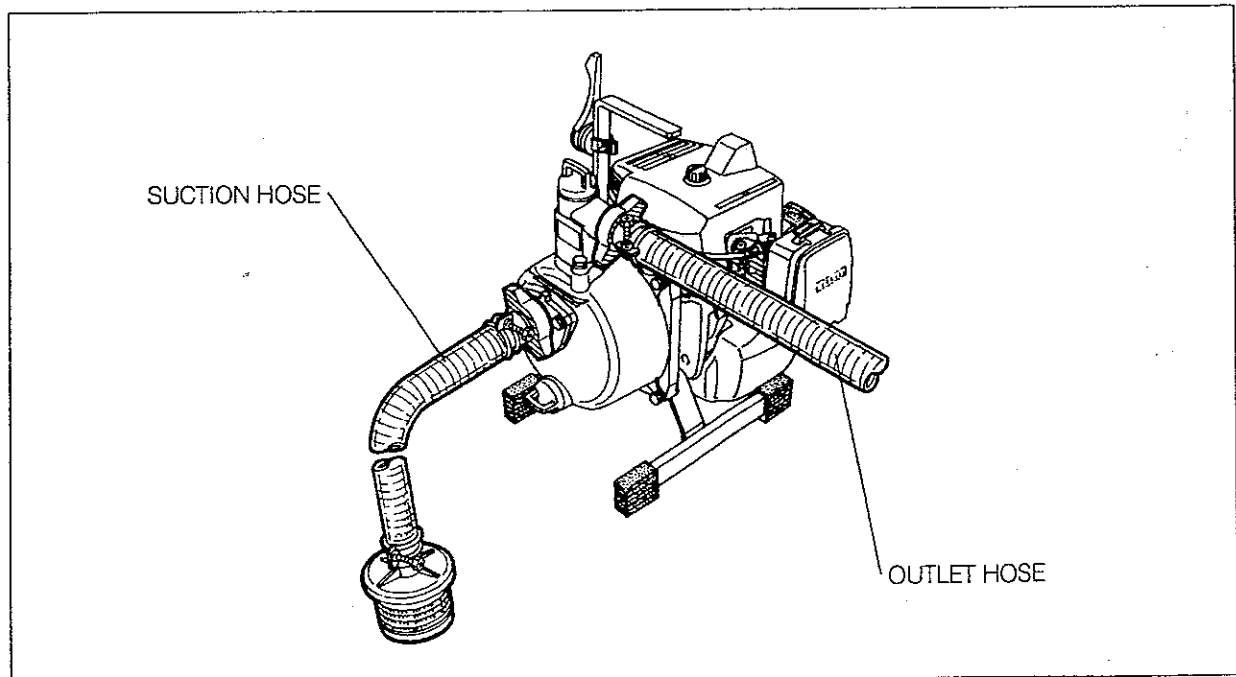
Once you have selected the outlet hose, assemble the appropriate hose fitting, packing and nut and secure the fitting to the hose with the hose clamp.



2. Fix the suction hose and the outlet hose to the pump, as shown.

**WARNING:** Always use the suction hose and strainer provided among the standard accessories. If another suction hose is used, it must be used with the strainer. A crush resistant hose is recommended.

※ During operation, if the suction hose is crushed, it can cause the pump to fail.



# BEFORE OPERATION

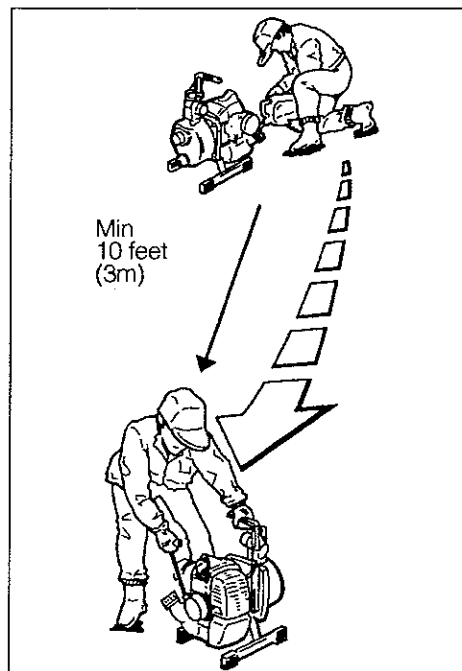
## PUMP SECTION

1. Check that there are no loose screws or components on the machinery.
2. Place the pump on a level surface, but not immediately next to the water supply. If the pump must be placed on a sloping or inclined surface, a level platform must be used. Be sure to secure the pump adequately.
3. Where the weight of the suction hose causes the pump to tilt or move, secure the pump adequately.
4. Always attach the strainer to the end of the suction hose. If the pump is operated without the strainer, pebbles and other materials will be sucked into the pump and could cause damage and pump failure.
5. Be sure that the strainer is completely submerged, but not in contact with sandy or muddy bottom surfaces.
6. Secure the suction and outlet hoses tightly to the pump to avoid sucking air.

## FUELING

**WARNING!** The following precautions will lessen the risk of fire.

1. Do not smoke near fuel.
2. Mix and pour fuel outdoors and where there are no sparks or flames.
3. Always shut off the engine before refueling. Never remove the fuel tank cap while the engine is running or right after just stopping the engine.
4. Always open the fuel tank cap slowly to release any possible overpressure inside the tank.
5. Do not overfill the fuel tank. Stop filling 1/4–1/2 inch from the top of the tank.
6. Tighten the tank fuel cap carefully but firmly after refilling.
7. Wipe up any spilled fuel before starting the engine.
8. Move the water pump at least 10 feet away from the fueling location and fuel storage container before starting the engine.



## **FUEL: MIXING GASOLINE AND OIL**

**WARNING!** The engine used on this water pump is of a 2-cycle design. The internal moving parts of the engine, i.e., crankshaft bearings, piston pin bearings and piston to cylinder wall contact surfaces, require oil mixed with the gasoline for lubrication. Failure to add oil to the gasoline or failure to mix oil with the gasoline at the appropriate ratio will cause major engine damage which will void your warranty. For your fuel premix, only use Maruyama 50:1 2-Cycle Oil or a quality oil designed for 2-cycle air-cooled engines.

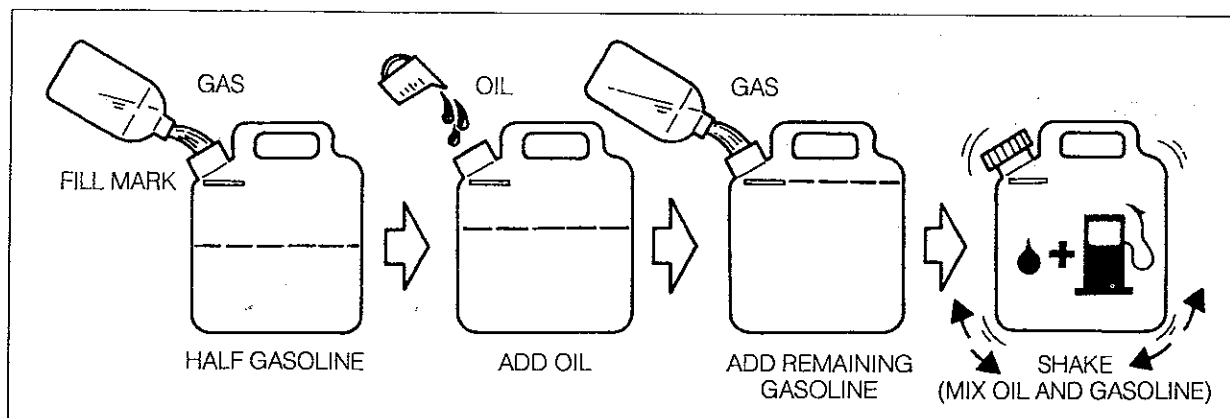
**FUEL MIXTURE:** When using genuine Maruyama 50:1 2-Cycle Oil, the fuel: oil ratio is 50 parts gasoline to 1 part oil or 50:1. If Maruyama 2-cycle engine oil is not available, use a good quality 2-cycle, are-cooled engine oil mixed at a ratio of 25:1.

**NOTE:** if Maruyama oil is not used, never use a mixing ratio less than 50:1 regardless of the oil package mixing instructions. Ratios less the 50:1, (for example, 60:1, 80:1, 100:1), reduce the amount of lubrication to the internal moving parts of the engine and can cause damage.

### **FUEL MIXTURE CHART:**

Gasoline	Maruyama 50:1 2-Cycle Oil	Gasoline	Other brands of 2-Cycle Oil
1 gallon	2.6 oz.	1 gallon	5.2 oz.
2 1/2 gallon	6.4 oz.	2 1/2 gallon	12.8 oz.
5 gallon	12.8 oz.	5 gallon	25.6 oz.

**MIXING INSTRUCTIONS:** Always mix fuel and oil in a clean container approved for gasoline. Mark the container to identify it as fuel mix for the water pump. Use regular unleaded gasoline and fill the container with half the required amount of gasoline. Pour the correct amount of oil into the container then add the remaining amount of gasoline. Close the container tightly and shake it momentarily to evenly mix the oil and the gasoline before filling the fuel tank on the water pump.



When refilling the fuel tank, clean around the fuel tank cap before removing it to prevent dirt and debris from entering the tank during cap removal. Always shake the premix fuel container momentarily before filling the fuel tank.

Always use a spout or funnel when fueling to reduce fuel spillage. Only fill the tank to within 1/4–1/2 inch from the top of the tank. Avoid filling to the top of the tank filler neck.

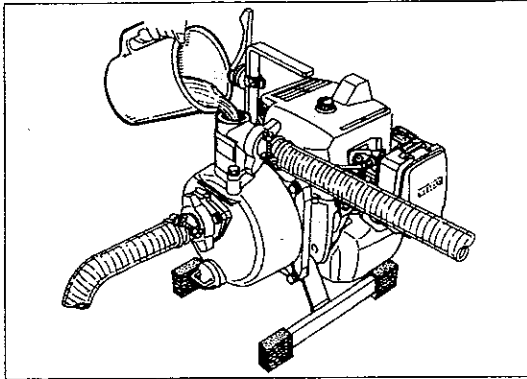


**NOTE:**

1. Never mix gasoline and oil directly in the water pump fuel tank.
2. Do not use National Marine Manufacturer's Association (NMMA) or BIA certified oils. This type of 2-cycle engine oil does not have the proper additives for air-cooled, 2-cycle engines and can cause engine damage.
3. Do not use automotive motor oil. This type of oil does not have the proper additives for air-cooled, 2-cycled engines and can cause engine damage.

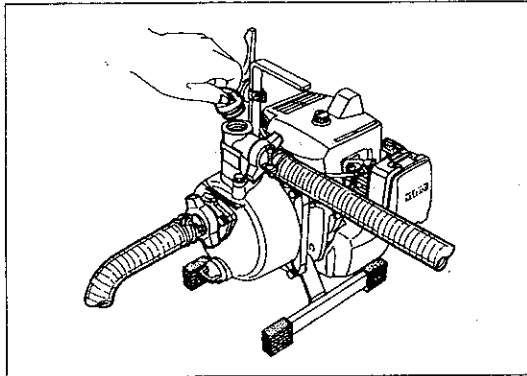
## OPERATING THE WATER PUMP

1.



Remove the water inlet cap  
Fill the pump casing with priming water until it is full.  
Shake the equipment slightly so that trapped air is easily removed.

2.



Fasten the cap tightly.

- WARNING:**
- (1) Never start the engine without first priming the pump. If the engine is started without first priming the pump with water, the water pump mechanical seal will be permanently damaged.
  - (2) Before running the engine, be sure to immerse the suction hose in the water. Running the engine with only priming water will cause the temperature of the priming water to rise, damaging the mechanical seal.

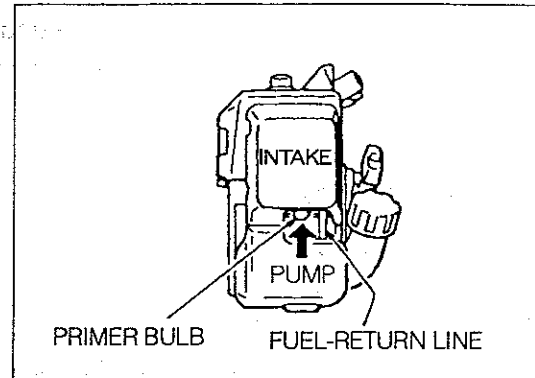
3. After the engine starts, the pump will gradually start suction. Once suction starts, let the pump run 2–3 minutes to warm up, and then operate it at the specified rpm setting.
4. To stop water pump operation, press the engine stop button.
5. When the engine is restarted, the pump will operate without priming, but the level of the water inside the casing must be checked before starting in the event that the suction hose end is exposed, the installation site is changed, or the pump has not been used for a long time.

# STARTING AND STOPPING PROCEDURE

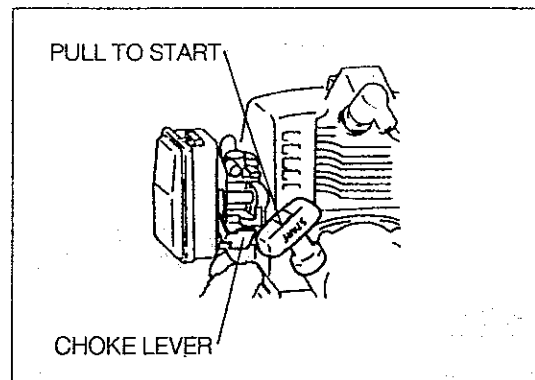
**Before Starting The Engine:** Fill the fuel tank as instructed in the BEFORE OPERATION section and prime the water pump as instructed in the operating The Water Pump section of this manual.

## To Start Engine:

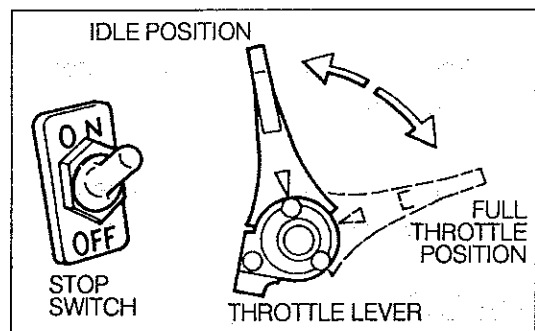
Step #1) Pump the primer-bulb at the bottom of the carburetor until fuel can be seen flowing through the fuel-return line to the fuel tank. (Flowing fuel should be clear, not foamy or full of bubbles.)



Step #2) Turn the choke lever to the close position.



Step #3) With the stop switch "ON", and the throttle lever positioned at IDLE, pull the starter cord. After the engine is started, turn the choke lever to the Open position.



For starting an engine that is already warmed-up (hot restart), or if the ambient temperature exceeds 70°F (20°C), turn the choke lever to the Open position, and perform Steps #1) and #3).

(If a MARUYAMA engine fails to start after following the above procedures, contact an authorized MARUYAMA dealer.)

## To Stop The Engine:

1. Move throttle lever to the idle position.
2. Move the stop switch to the "OFF" position.

# CARBURETOR ADJUSTMENT

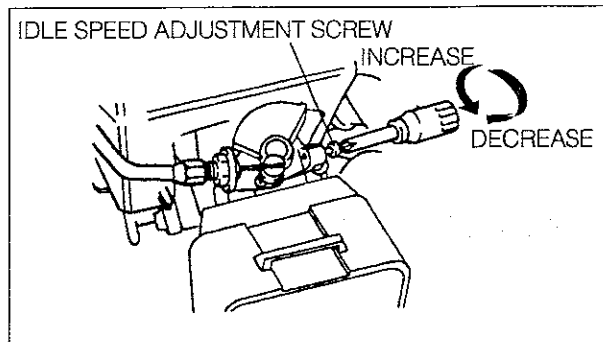
This water pump is equipped with non-adjustable fuel mixture carburetor. The engine idle speed is the only adjustment accessible to the Operator.

**CAUTION:** The water pump impeller is spinning during idle speed adjustment. Never start the engine without water in the pump housing. Running the engine without water in the pump housing will cause serious damage.

## Engine Idle Speed:

The engine idle speed should be 2,700 – 3,300 rpm.

The engine idle speed is adjusted by rotating the idle speed screw on the carburetor. Turning the idle speed screw in (clockwise) increase engine speed while turning the screw out decreases engine speed.



# REGULAR MAINTENANCE

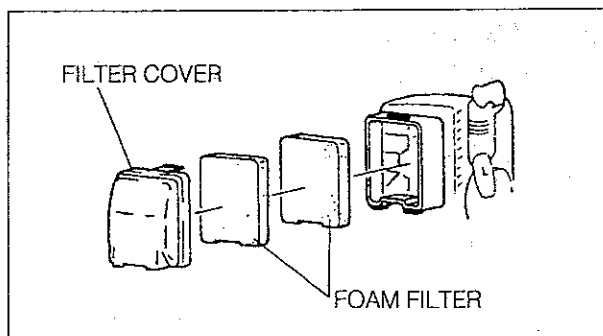
## PUMP

1. After the pump has been used with muddy water, be sure to run it with clean water for a few minutes to clean the interior of the pump before stopping operation.
2. Where outside temperatures drop to freezing or below, be sure to drain all water from the pump before storage.
3. When the unit is not to be used for a long period of time, clean the pump interior thoroughly, remove all remaining moisture, and then store it covered in a dry, cool, dark place.

## AIR FILTER

**Maintenance Interval:** The air filter should be cleaned daily or more often when working in extremely dusty conditions and replaced after every 100 hours of operation.

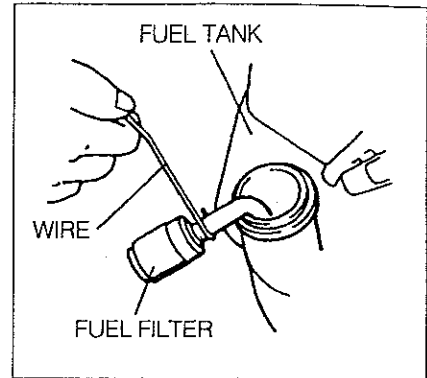
**Maintenance:** Dismantle the air filter cover and remove the foam filter. Clean the filter with warm, soapy water. Let the filter completely dry. Lightly apply SAE 30 motor oil to the foam filter and squeeze out all excess oil. Reassemble the filter and filter cover.



## FUEL FILTER

**Maintenance Interval:** The fuel filter should be replaced after every 100 hours of operation.

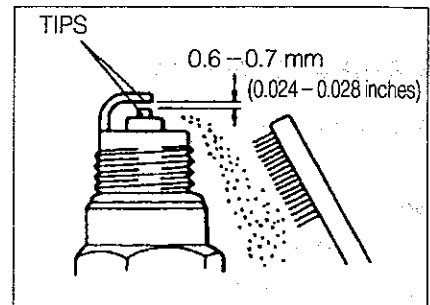
**Maintenance:** The fuel filter is attached to the end of the fuel pick-up hose inside the fuel tank. To replace the fuel filter, first make sure the fuel tank is empty. Remove the fuel cap. Using a wire hook, gently pull the fuel filter out through the fuel filter opening. Grasp the fuel hose next to the fuel filter fitting and remove the filter **but do not release the hose**. While still holding on to the fuel hose, attach the new fuel filter. Drop the fuel filter back into the fuel tank. Make sure that the fuel filter is not stuck in a corner of the tank and that the fuel hose is not doubled over (kinked) before refueling.



## SPARK PLUG

**Maintenance Interval:** The spark plug should be removed from the engine and checked after each 25 hours of operation and replaced after every 100 hours of operation.

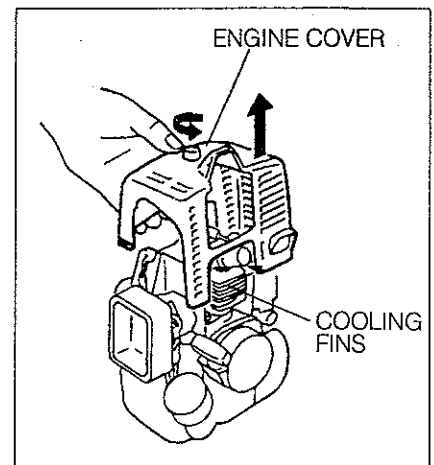
**Maintenance:** With the engine at ambient (room) temperature. Twist the high tension lead boot on the spark plug back and forth a couple of times to loosen boot then pull the boot off of the spark plug. Remove the spark plug. The electrodes can be cleaned with a stiff brush. Adjust the electrode air gap to 0.6–0.7 mm (0.024–0.028 in.). Replace the spark plug if it is oil-fouled, damaged or if the electrodes are worn down. **Do not overtighten the spark plug when installing.** The tightening torque is 10.7–16.6 Nm (95–148 in. lbs.).



## CYLINDER COOLING FINS

**Maintenance Interval:** The cylinder cooling fins should be cleaned after every 25 hours of operation or once a week whichever ever comes first. Air must flow freely around and through the cylinder cooling fins to prevent engine overheating. Leaves, grass, dirt and debris buildup on the fins will increase the operating temperature of the engine which can reduce engine performance and shorten engine life.

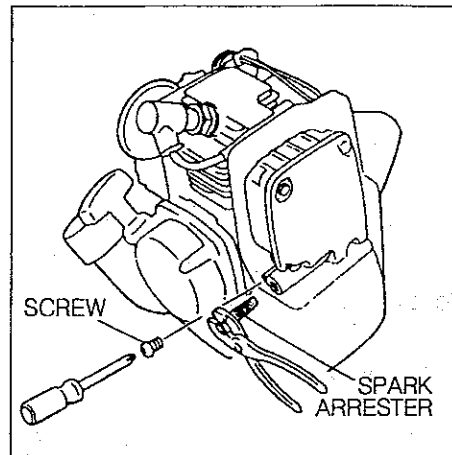
**Maintenance:** With the engine at ambient (room) temperature. Loosen the engine cover screw and lift off the engine cover. Clean all dirt and debris from the cooling fins and from around the cylinder base. Reinstall the engine cover.



## SPARK ARRESTER

**Maintenance Interval:** The spark arrester should be inspected and cleaned after every 25 hours of use. Replace the screen if it cannot be thoroughly cleaned or if it is damaged.

**Maintenance:** The spark arrester is installed inside the exhaust outlet of the muffler. One screw located on the side of the exhaust outlet holds the spark arrester in place. Remove spark arrester retaining screw, then using a suitable pair of pliers, withdraw the spark arrester. Do not crush or distort the spark arrester flange during removal.

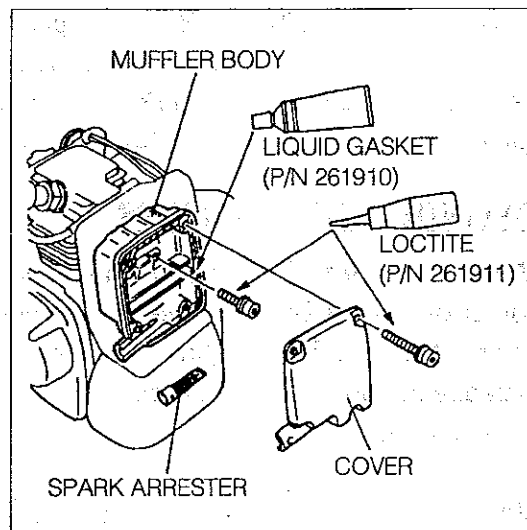


The screen can be cleaned using a non-flammable solvent and a stiff wire brush. To install insert the spark arrester into the exhaust outlet. Install the screw.

## EXHAUST MUFFLER

**Maintenance Interval:** The muffler should be inspected and cleaned after each 100 hours of use.

**Maintenance:** The engine cover must be removed for access to the muffler. Remove spark arrester retaining screw, then using a suitable pair of pliers, withdraw the spark arrester. (Refer to the illustration shown in the following SPARK ARRESTER section.) Four screws (see sketch) attach the muffler cover to the muffler body. Remove the cover, clean the cover and the spark arrester. (see instructions-Spark Arrester.) It is not necessary to remove the muffler body from the cylinder for cleaning, BUT special care should be taken to prevent any debris from entering the exhaust ports. Use liquid gasket P/N 261910 to form the gasket between the muffler body and cover. Use Loctite P/N 261911 on the four screws attaching the cover to the muffler body. Secure the spark arrester into place with the fastening screw.



# STORAGE

For long-term storage of the water pump, empty the fuel tank into a suitable fuel storage container. Pump the primer bulb on the carburetor until all fuel is discharged through the clear fuel return hose. Perform all regular maintenance procedures and any needed repairs. Remove the spark plug and squirt a very small amount of oil into the cylinder. Pull the starter grip once.

**CAUTION:** Oil may squirt out of the spark plug opening while pulling the starter cord. Protect your eyes and keep your face away from the spark plug opening. Slowly pull the starter cord to bring the piston to the top of the cylinder (TDC). Reinstall the spark plug. Clean the water pump interior thoroughly, remove all remaining moisture, and then store in a dry place away from excessive heat, sparks or open flame.

