Please carefully read and save these instructions before attempting to assemble, maintain, install, or operate this product. Observe all safety information to protect yourself and others. Failure to observe the instructions may result in property damage and/or personal injury. Please keep instructions for future reference.

Important Operating Instructions

6.5 HP WATER PUMP

CALIFORNIA PROPOSITION 65

WARNING: You can create dust when you cut, sand, drill or grind materials such as wood, paint, metal, concrete, cement, or other masonry. This dust often contains chemicals known to cause cancer, birth defects, or other reproductive harm. Wear protective gear.

WARNING: This product or its power cord may contain chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

Important!

When using equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating manual with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, give them these operating instructions as well. We accept no liability for damage or accidents which arise due to non-observance of these instructions and the safety information herein.

SPECIFICATIONS

Engine: 4-stroke, single cylinder Max Output: 6.5 HP @ 3600 RPM Fuel Tank: 1.6 Gal, Unleaded Discharge Capacity: 264 gal/min Max PSI: 45 PSI Continuous Running Time: 2-3 hours (actual time varies with load) Total head: 92 ft Suction head: 26 ft Oil type: SAE !0W-30

CAUTION:

FOR YOUR OWN SAFETY READ INSTRUCTION MANUAL COMPLETELY AND CAREFULLY BEFORE OPERATING. Failure to follow all instructions as listed below may result in electrical shock, fire, and/or serious personal injury.

CARBURETOR MODIFICATION FOR HIGH ALTITUDE USE

At a high altitude, the standard carburetor air-fuel mixture is too rich. Performance will decrease and fuel consumption will increase. A very right mixture will also cause damage to the spark plug and cause hard starting. Operation at an altitude that is different from the range in which this engine was certified may increase emissions when used for an extended period of time.

High altitude performance can be improved by specific modifications to the carburetor. If the engine is always operated at altitudes above 5,000 feet (1,500 meters), have a qualified mechanic perform the carburetor modification. This engine will meet emission standards when operated at a high altitude with the modifications for high altitude use.

For warranty purchases, please keep your dated proof of purchase. File or attach to the manual for safekeeping



Model: 679!

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

NOTE: 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 a qualified mechanic return the carburetor to its original factory specifications.

SAFETY INSTRUCTIONS

1) This pump is designed to only pump water that is not intended to be consumed by humans. Using the pump for other uses can result in injury to the operator or damage to the pump and other property. Pumping flammable liquids (ex: gasoline or fuel oils) can result in a fire or explosion that can cause serious injury. Pumping sea water, beverages, acids, chemical solutions or any other liquid that promotes corrosion can damage the pump.

2) Know how to stop the pump quickly and understand how to operate all of the controls. Never permit anyone to operate the pump without proper instructions.

3) Do not allow children to operate the pump. Keep children and pets away from the operation area.

4) Do not wear loose clothing or jewelry. Pull back long hair. Keep your hair, clothing and gloves away from moving parts.

5) Do not operate the pump in explosive atmospheres such as in the presence of flammable liquids, gases or dust. The engine creates sparks which may ignite the dust or fumes.

6) Gasoline is extremely flammable and gasoline vapors can explode. Refuel the pump outdoors and in a well ventilated area. If any fuel is spilled, ensure the area is dry before starting the pump.

7) The muffler becomes very hot during operation and remains hot for a while after the engine stops. Be careful not to touch the muffler while it is hot. Allow the engine to cool before storing the pump indoors.

8) To prevent fire hazards and provide adequate ventilation, keep the pump at least three feet away from walls and other equipment during operation. Do not place flammable objects close to the pump.

9) Exhaust gas contains

poisonous carbon monoxide. Avoid the inhalation of exhaus gas. Never run the pump in a closed garage or confined area

10) Do not overload the pump. Use the correct pump for your application. It will perform the j better and safer at the rate for which it was designed.

BEFORE OPERATION

1) Check the condition of the pump and for signs of damage Look for leaks of oil or gas. Ch that all nuts, bolts, screws, connectors and clamps are tig Remove any excessive dirt or debris, especially around the engine muffler and recoil starte

2) Check the suction and discharge hoses. Ensure the hoses are in proper condition a free of cracks and damage. Check the sealing washer in th suction hose is in working orde Ensure the hose connectors a clamps are securely installed. Ensure the strainer is in good condition and is installed on th suction hose.

3) Check the engine oil level. Running the engine with low o can cause damage. An oil sen will automatically stop the engi before the oil level falls below safe limit. To avoid an unexpected shutdown, always check the level before startup.

4) Check the air filter. A dirty fi will restrict the air flow to the

carburetor and reduce engine performance.

5) Check the fuel level. Starting with a full tank will help reduce possible operating interruptions for refueling.

OPERATION

Pump Placement

For best pump performance, place the pump near the water level and use hoses that are not longer than necessary. This will enable the pump to produce the greatest output.

As the head (pumping height) increases, the pump output decreases. The length, type and size of the suction discharge hoses can also significantly affect the pump's output.

The discharge head is always greater than the suction head capability so it is important for the suction head to be the shorter part of the total head.

Minimizing the suction head (placing the pump as near as can be to water level) is also very important for reducing selfpriming time (the time it takes the pump to bring water the distance of the suction head during initial operation).

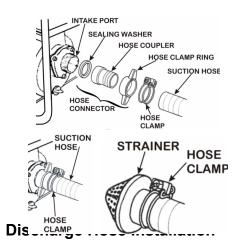
Suction Hose Installation

1) Use a hose clamp to securely fasten the hose connector to the suction hose

in order to prevent air leakage and loss of suction. Verify that the hose connector sealing washer is in good condition.

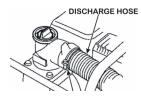
2) Install the strainer on the other end of the suction hose and secure it with a hose clamp. The strainer will help to prevent the pump from becoming clogged or damaged by debris.

3) Securely tighten the hose connector on the pump suction port.



It is best to use a short, large diameter hose. This will reduce fluid friction and improve pump output. A long or small diameter hose will increase fluid friction and reduce pump output.

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



Priming the Pump

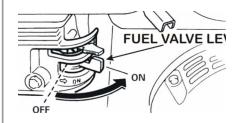
Before starting the engine, remove the filler cap from the pump chamber and completely fill the pump chamber with wat Replace the filler cap and tight it securely.

NOTE: Operating the pump dr will destroy the pump seal. If th pump has been operated dry, stop the engine immediately a allow the pump to cool before priming.

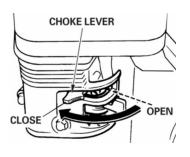
Starting the Engine

1) Prime the pump.

2) Move the fuel lever to the O position. It must be ON for the engine to run.



3) To start a cold engine, move the choke lever to the CLOSEI position. To restart a warm engine, leave the choke lever i the OPEN position.



4) Move the throttle lever away from the SLOW position, about 1/3 of the way towards the FAST position.



5) Turn the engine switch to the ON position.

6) Pull the recoil starter grip lightly until resistance is felt, then pull the grip briskly. Return the starter grip gently.

7) If the choke lever has been moved the closed position to start the engine, gradually move it to the open position as the engine warms up.

Setting Engine Speed

Position the throttle lever for the desired speed. Moving the throttle lever to the left or right will make the engine run faster or slower.

After starting the engine, move the throttle lever to the FAST position and check the pump output.

The pump output is controlled by adjusting the engine speed. Moving the throttle lever in the FAST direction will increase pump output and moving the throttle lever in the SLOW direction will decrease the pump output.

Stopping the Engine

1) Move the throttle lever to the SLOW position.

2) Turn the engine switch to the OFF position.

3) Turn the fuel valve lever to the OFF position.

When the pump is not in use, leave the fuel valve lever in the OFF position to prevent the carburetor from flooding and to reduce the chance of fuel leakage.

After use, remove the drain plug and drain the pump chamber. Remove the filler camp and flush the pump chamber then reinstall the filler camp and drain plug.

MAINTENANCE

The maintenance schedule applies to normal operating conditions. If you operate your pump in unusual conditions, such as with a sustained high load or high temperature operation, or use in an un usually wet or dusty conditions, the service period may need to be shorter.

Before Performing Maintenance

Ensure the engine and exhaust systems are completely cool before touching.

Use non-flammable solvents when cleaning parts.

Keep all sparks, flames and cigarettes away from any fuel related parts.

Each Use: -Check engine oil level -Check air filter

First month (or 20 hours): -Change engine oil

Every 3 months (or 50 hours -Clean air filter

Every 6 months (or 100 hour

- -Change engine oil
- -Clean air filter
- -Clean sediment cup
- -Check/adjust spark plug

Every year (or 300 hours):

-Replace air filter

REFUELING

WARNING: Gasoline is highly flammable and explosive. Stor the engine and keep heat, flan and sparks away. Handle fuel only outdoors. Wipe up spills immediately.

With the engine stopped and c level surface, remove the tank cap and check the fuel tank. R the tank if the level is low. Do I fill the tank completely. Fill it tc approximately one inch below top of the fuel tank. Ensure the tank cap is tightened securely.

Refuel the pump in a wellventilated area before starting engine. If it has been running, allow it to cool. Refuel carefully avoid spilling the fuel. Use unleaded gasoline with a rating of 86 or higher. The engine is certified to run on unleaded gasoline.

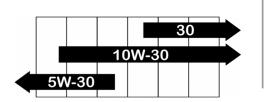
Never use a stale, contaminated or an oil/gasoline mixture. Do not allow dirt or water to enter the fuel tank.

Occasionally a light 'knocking' or 'pinging' may occur while operating under heavy loads. If the knocking or pinging continues at a steady engine speed and under normal load, change brands or use a higher octane gasoline. If it continues, see an authorized mechanic.

NOTE: Running an engine with persistent knocking and pinging can cause damage to the engine and is considered misuse. The warranty does not cover parts damaged by misuse.

OIL RECOMMENDATIONS

Use a 4-stroke automotive detergent oil. SAE !0W-30 is recommended. Other viscosities shown in the chart may be used when the average temperature in the operating area is within the recommended range.



OIL LEVEL CHECK

Check the engine oil level when the engine is stopped, cooled completely and on a level surface.

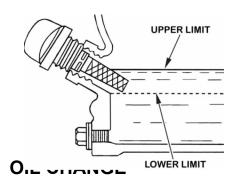
1) Remove the filler cap/dipstick and wipe it clean.

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

3) If the level is low, fill to the edge of the filler hole with the recommended oil.

4) Screw in the filler cap/dipstick securely.

Running an engine with a low oil level can cause engine damage.



Drain the oil while the engine is warm because it will drain quickly and completely.

1) Place a suitable container below the engine to catch the used oil. Remove the filer cap/dipstick, drain plug and washer.

2) Allow the used oil to drain

completely and then reinstall the drain plug, washer and tighten drain plug securely.

4) With the engine in a level position, fill it to the outer edge the oil filler hole with the prope oil.

NOTE: Please dispose of usec motor oil in a proper manner. I not throw it in the trash, pour it the ground or down a drain. Ta it in a sealed container to a recycling center or service stal



1) Remove the wing nut and a cleaner cover.

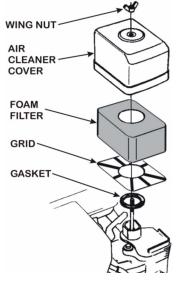
2) Remove the plastic grid fror the bottom of the cover.

3) Carefully remove the foam a filter from the cover. Wash the filter in warm, soapy water, ring and allow it to dry thoroughly.

4) Wipe dirt from the inside of air cleaner base and cover usi a moist rag. Be careful dirt doe not enter the air duct that lead the carburetor. 5) Insert the cleaned and dry or new foam air filter in the cover and replace the plastic grid.

6) Reinstall the air cleaner assembly. Ensure the gasket is in place beneath the filter.

7) Tighten the air filter wing nut securely.



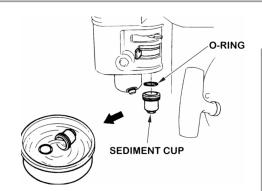
SEDIMENT CUP CLEANING

1) Ensure the fuel valve is in the OFF position and then remove the fuel sediment cup and O-ring.

2) Wash the cup and O-ring in a non flammable solvent and dry them thoroughly.

3) Place the O-ring in the fuel valve and install the sediment cup. Tighten the sediment cup securely.

4) Move the fuel valve to the ON position and check for leaks. Replace the O-ring if



SPARK PLUG SERVICE

Recommended spark plugs: BPR6ES (NGK) W20EPR-U (DENSO)

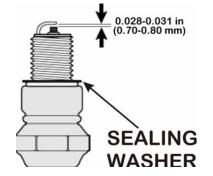
NOTE: An incorrect spark plug can cause engine damage

1) Disconnect the spark plug cap and remove any dirt from around the spark plug area.

2) Remove the spark plug with a 13/16 inch spark plug wrench.

3) Inspect the spark plug. Replace it if the electrodes are worn or if the insulator is chipped or cracked.

4) Measure the electrode gap with a suitable gauge. The gap should be 0.028-0.031 inches. Correct the gap if necessary by bending the electrode carefully.



5) Install the spark plug carefu by hand to avoid cross threadi

6) After the plug is seated, tigh with a 13/16 inch spark plug wrench to compress the sealin washer.

If reinstalling a spark plug, tigh 1/8-1/4 turn after the plug is seated.

If installing a new plug, tighten turn after the spark plug is sea

7) Attach the spark plug cap.

NOTE: A loose spark plug can overheat and damage the eng An over-tightened plug can damage the threads in the cylinder head.

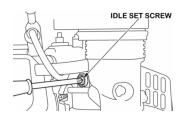
IDLE SPEED ADJUSTMENT

1) Start the engine outdoors an allow it to warm up to operating temperature.

NOTE: Dry operation will dama the pump seal. Ensure the pur chamber is filled with water be starting the engine.

2) Move the throttle lever to its slowest position.

3) Turn the throttle top screw to obtain the standard idle speed 1,400 RPMs.



STORING THE PUMP

CLEANING

1) If the engine has been running, allow it to cool for at least one half hour before cleaning. Water contacting a hot engine can cause damage.

2) Wash the engine and pump by hand. Ensure water does not enter the air cleaner or muffler opening. Keep water away from the controls and all other places that are difficult to dry.

Do not use a garden hose or pressure washing equipment to clean the pump. Water can be forced into the air cleaner or muffler opening and cause damage.

3) Wipe dry all accessible surfaces.

4) Fill the pump chamber with clean, fresh water. Start the engine outdoors and let it run until it reaches normal operating temperature to evaporate any external water.

NOTE: Dry operation will damage the pump seal. Ensure the pump chamber is filled with water before starting the engine.

5) Stop the engine and allow it to cool.

6) Remove the pump drain plug and flush the pump with clean, fresh water. Allow the water to drain from the pump chamber and then reinstall the drain plug.

FUEL

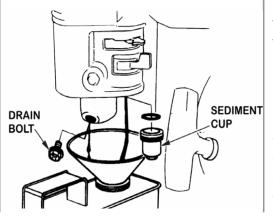
Gasoline oxidizes and deteriorates in storage. It will cause hard starting and leaves a gum deposit that will clog the fuel system. If the gasoline in your engine deteriorates during storage, you may need to have the carburetor and other fuel system components serviced or replaced.

DRAINING THE FUEL TANK AND CARBURETOR

1) Place an approved gasoline container below the carburetor and use a funnel to avoid spilling fuel.

2) Remove the carburetor drain bolt and sediment cup and then move the fuel valve lever to the ON position.

3) After all of the fuel has drained, reinstall the drain bolt and sediment cup and tighten securely.



ENGINE OIL

1) Change the engine oil.

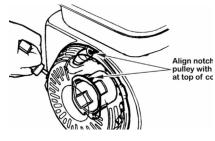
2) Remove the spark plug.

3) Pour a tablespoon of clean engine oil into the cylinder.

4) Pull the starter rope several times to distribute the oil in the cylinder.

5) Reinstall the spark plug.

6) Pull the starter rope slowly until resistance is felt and the notch on the starter pulley alig with the hole at the top of the recoil starter cover. This will close the valves so moisture cannot enter the engine cylind Return the starter rope gently.



REMOVAL FROM STORAGE

Check the pump as described the Before Operation portion o this manual.

Fill the tank with fresh gasoline

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

Limited Manufacturer Warranty

North American Tool (NAT) Industries makes every effort to ensure that this product meets high quality and durability standards. NAT warrants to the original retail consumer a 1-year limited warranty from the date the product was purchased at retail and each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations, or a lack of maintenance. NAT shall in no event be liable for death, injuries to persons or property, or for incidental, special or consequential damages arising from the use of our products. To receive service under warranty, the original manufacturer part must be returned for examination by an authorized service center. Shipping and handling charges may apply. If a defect is found, NAT will either repair or replace the product at its discretion.

DO NOT RETURN TO STORE

For Customer Service: Email: feedback@natitools.com or Call 1-800-348-5004



6.5 HP WATER PUN

Model: 679

Parts List

