

**Tanaka<sup>®</sup>**

**Owner's Manual**

**Outboard Motor**

**Model: 58611 / Bumble Bee**

045607

**WARNING**

**PLEASE READ**

YOUR NEW OUTBOARD MOTOR IS A POWERFUL TOOL. FOR YOUR OWN SAFETY, PLEASE READ THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR NEW UNIT. FAILURE TO FOLLOW INSTRUCTIONS CAN LEAD TO SERIOUS PERSONAL INJURY.

## Safety Alert Symbol and Notations

The following safety notations are used throughout this manual to call attention to special information or operating procedures. Understand the message in each notation and be alert to unsafe conditions and the possibility of personal injury.

**NOTE:** A NOTE points out general reference information regarding proper operation and maintenance practices.

**IMPORTANT:** An IMPORTANT statement indicates specific procedures or information that is required to prevent damage to the machine or its attachments.

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This safety alert symbol is used to attract your attention! **PERSONAL SAFETY IS INVOLVED!** When you see this symbol - **BECOME ALERT - HEED ITS MESSAGE.**



**CAUTION:** A CAUTION identifies safe operating practices or indicates unsafe conditions that could result in personal injury.



**WARNING:** A WARNING describes a condition where failure to follow the instructions could result in severe personal injury.



**DANGER:** A DANGER designates a condition where failure to follow instructions or heed warning will most likely result in serious personal injury or death.

# Owners Responsibility and Operating Safety Checklist

This product is not intended for children and should not be used at any time without adult supervision.

IN CASE OF EMERGENCY, THE ENGINE SHOULD BE SHUT OFF IMMEDIATELY! THE ENGINE CAN BE STOPPED BY DEPRESSING THE STOP BUTTON OR PLACING THE CHOKE KNOB IN FULL CHOKE POSITION.

Before starting, make sure your motor is securely mounted to the transom.

Do not fill fuel tank with motor running or near any flame or lighted smoking material.

Observe all U.S. Coast Guard regulations.

Do not stand in a small boat. Do not swim around boat with motor running.

Be sure to have pliers, screwdriver, wrench, spare spark plugs, and cotter pins in boat whenever leaving shore.

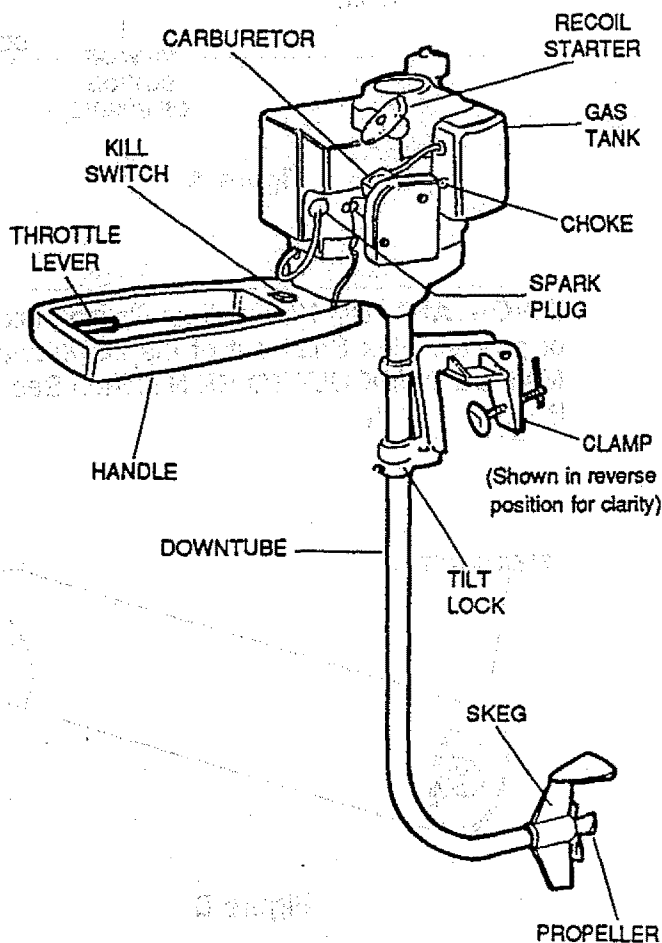
Keep fire fighting and lifesaving equipment in good condition and readily accessible at all times.

When loading boat distribute the load evenly; keep the load low; don't stand in a small boat. Take weather and water conditions into account.

Do not permit persons to ride on parts of the boat not designed for such use. Keep an alert lookout.

## Specifications

- Cylinders/H.P. .... 1/75 @ 6500
- Bore/Stroke ..... 1.268 in. (32.21 mm)/  
1.023 in. (26 mm)
- Displacement ..... 21.2 c.c.
- Controls ..... Positive action throttle, kill switch
- Steering .. "D" type handle w/360 degree sweep
- Ignition ..... Electronic, solid state
- Carburetor ..... Non-primer, all position,  
diaphragm type
- Cooling system ..... Air cooled
- Transom height ..... 15" max.
- Propeller ..... 3 blade, 2.0" diameter
- Fuel capacity ..... 16.0 fl. oz.
- Running time ..... 35-45 minutes
- Actual weight (Dry) ..... 9.2 lbs.
- Fuel mixture .. 50 to 1 Ratio of regular gasoline  
to Tanaka Perfect Mix 2 Cycle Oil  
or equivalent BIA certified TC-W  
2 Cycle Lubricant



## Assembly Lower End

Push downtube into engine (as shown) making sure that the locating hole on the tube is lined up with the small screw at the base of the engine. Tighten both screws when you are sure the lower end is properly seated on the engine.

**HINT:** Twist the tube slightly as you insert it to help you locate the flex shaft on the engine output shaft. See Figure A.

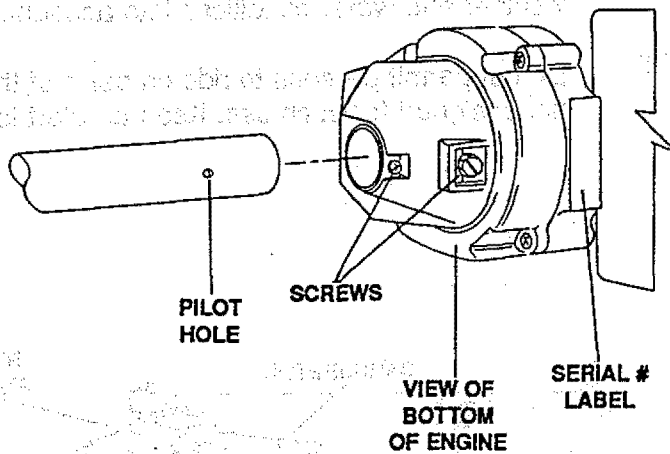


Figure A

**IMPORTANT:** DO NOT pull up on the Flex Shaft, or pull the Flex Shaft out of the Downtube, as it MAY BE DIFFICULT TO REINSTALL! See Figure B.

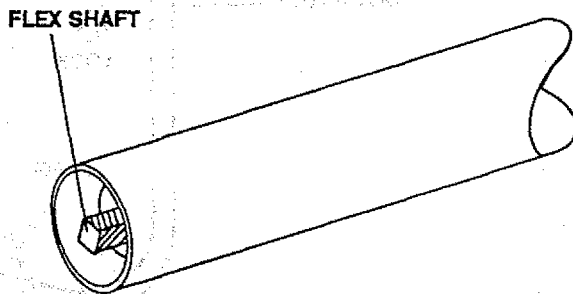


Figure B

## Fuel and Lubrication

**IMPORTANT:** Failure to mix oil with gasoline will result in seizure and severe damage to engine.

Use either regular grade leaded or regular grade unleaded gasoline. Two cycle engine fuel is a mixture of gasoline and lubricating oil. The correct ratio of gasoline to oil is very important. Always use a high quality 2 cycle engine oil. We recommend Tanaka's Perfect Mix in the self measuring bottle.

**IMPORTANT:** Always use BIATC (Boating Industry Association Two Cycle) approved oil in the 40:1 ratio. Failure to do so may result in excessive spark plug fouling, piston scoring, or bearing failure. Do not under any circumstances, use multi-grade, such as 10W-30, or other automobile oils.

We reserve the right to refuse warranty on parts which are damaged when using improper fuels or lubricants.



**WARNING:** Gasoline is highly flammable. Always mix in a well ventilated area. Do not fill tank with motor running, nor near any flame or while smoking. Be sure the gas tank is empty when transporting in the trunk of your automobile to prevent explosion.

## Fuel Mixture Table

Gasoline	Tanaka Perfect Mix 2 Cycle Oil
1/2 Gallon	1.3 oz.
1 Gallon	2.6 oz.
6 Gallon	15.6 oz.

**IMPORTANT:** Experience indicates that alcohol blended fuels (called gasohol, or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acid gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage for 30 days or longer. Drain gas tank, start the engine and let run until the fuel lines and carburetor are empty. Use fresh fuel next season. See storage instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

# OPERATING INSTRUCTIONS

## Boat Mounting

Mount the motor in the center of boats transom. (rear)

Hand Tighten the clamp bracket clamp. Do not use a wrench or any other device that would cause damage to the clamp.

Be sure the Tilt Lock is properly fastened and in the correct position for locking in reverse.



**DANGER: Keep hands and feet away from the lower end of the Bumble Bee AT ALL TIMES!**

Although the engine is air cooled, it is possible to burn your hands on the engine block and upper portion of the column **DO NOT TOUCH!**

## STARTING INSTRUCTIONS

### Cold Engine

Make sure the outboard motor bracket is securely fastened to transom of boat.

Move choke Lever to START position.

Hold throttle lever in full open position.

Pull starter rope out until resistance is felt. (Approximately 2 in.)

Pull starter rope with a series of smooth rapid pulls until engine starts or attempts to start.

Move Choke Lever to RUN position.

Pull starter rope again. Engine should start within two to four pulls. If engine fails to start repeat all previous steps.

### Warm Engine

Same as cold engine except choke lever must be in RUN position.

**IMPORTANT:** Always pull Starter Rope straight out. Pulling starter at an angle will cause rope to rub against the eyelet. This friction will cause the rope to fray and wear more quickly.

## STOPPING INSTRUCTIONS

Press "KILL SWITCH" at rear of Handle. (See Figure C)

In case of emergency, the engine can be stopped by placing the choke in the Full Choke Position.

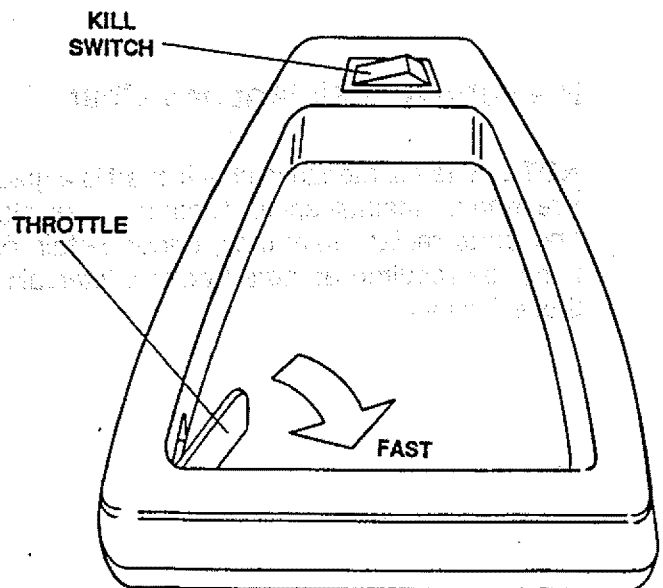


Figure C

## Removing Motor From Boat

Always tilt motor by lifting on rear of shroud. DO NOT PUSH DOWN ON THE STEERING HANDLE. When removing the motor from the boat, raise the outboard in upward direction until the propeller clears the transom.

## Salt Water Operation

To materially increase the life of all exposed parts and decorative finishes, follow the steps indicated below:

Always tilt your motor out of the water when not in use.

Spray exposed metal surfaces with WD-40 or equivalent.

Never leave the lower unit in salt water overnight.

Wipe exterior completely with fresh water cloth and then apply light coating of oil.

Lubricate propeller shaft occasionally with a water-proof type of lubricant (Lithium Grease), thus enabling the propeller to be removed easily.

It is good practice when operating in salt water to inspect your motor daily and to apply a light coating of grease to any part or area that shows evidence of corrosion or rust.

# Maintenance Instructions

## Preventive Maintenance

Service, other than the items listed here in your User's Manual maintenance instructions, should be performed by your authorized Servicing Dealer. Keep unit clean. Do not allow filters, muffler, and cylinder fins to become plugged or covered with dust, dirt or other foreign material. NEVER use dirty fuel or oil. Engine damage could result.

A good preventive maintenance program will prolong the life and maintain the performance of your Tanaka unit.

## Preventive Maintenance Chart

**NOTE:** The maintenance check chart is a guide for Preventive Maintenance. Cleaning, adjustment, and parts replacement may, under certain conditions, be required at more frequent intervals than those indicated.

CHECKLIST		E A C H  U S E	5  H O U R S	10  H O U R S	20  H O U R S
Item	Maintenance				
Screws/Nuts/Boils	Inspect/Tighten	•			
Controls	Inspect	•			
	*Replace As Required				
Air Filter	Clean or Replace				
Muffler	Clean				•
Spark Plug	Clean/Adjust/Replace				•
Exhaust Ports	Clean				•
Starter Rope	Inspect	•			
	*Replace				
Carburetor	*Clean				•
Fuel Filter -	*Replace				•
Fuel Tank	Clean (Flush with Clean Fuel)				•
Fuel Hose	Check	•			
	*Replace as Required				
Lamination Gap	*Clean/ *Adjust				•

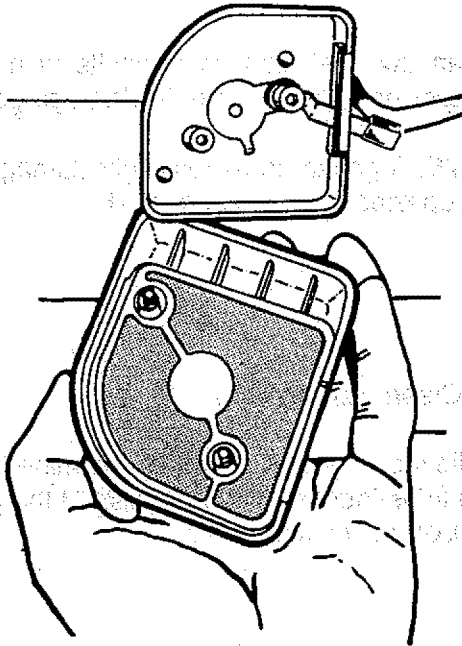
\*Recommended for Maintenance by an Authorized Dealer.

## Air Filter

**IMPORTANT:** NEVER operate your unit without the air filter. Dust and dirt will cause internal damage to the engine. The filter must be kept clean. If it becomes damaged, install a new filter.

To Clean Air Filter:

Remove dirt from around the air filter cover to prevent dirt from falling into the air box.



Move the CHOKE lever to the choke position. This will prevent dirt from accidentally falling into the carburetor.

Loosen the two air filter cover retaining screws and remove the cover and filter. Shake or gently tap the filter to remove loose dirt and dust particles.

Wash filter in warm soapy water. Rinse in cool clean water. Blot filter with paper towel to remove excess water.

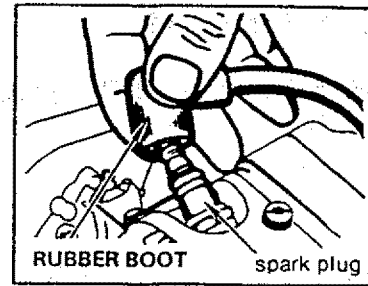
Reinstall air filter in reverse order of removal.

**NOTE:** Replace filter if frayed, torn or damaged.

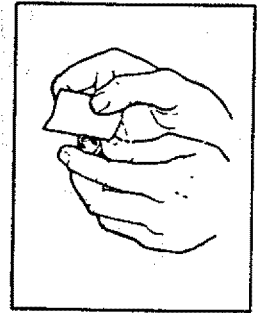
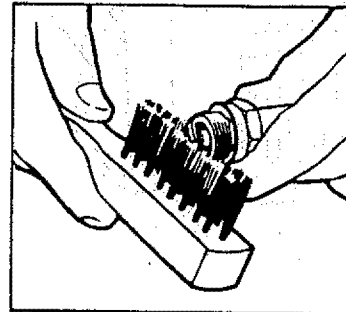
## Spark Plug

Move Ignition Switch to "OFF" (O) position.

Disconnect black rubber boot from spark plug with a twist and pull motion.



Using a spark plug wrench, remove spark plug. Do not use any other type wrench.

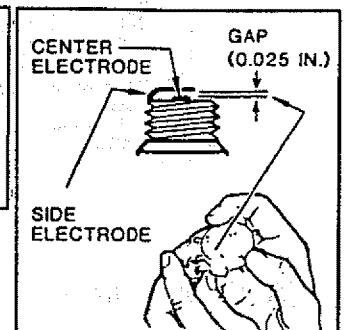
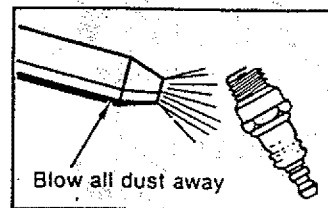


Use a wire brush to clean spark plug. Clean electrodes with emery cloth. Do not use a grit type cleaning machine.

**WARNING:** Wear eye protection during this procedure.

Use compressed air to blow all dust away after spark plug has been cleaned.

Using a gapping tool, adjust gap to .025" (.5mm). Bend only the side electrode.

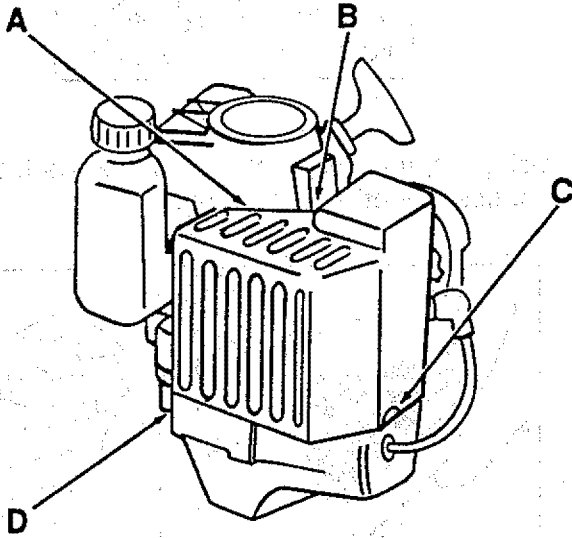


Reinstall spark plug. Install plug by hand and then using a spark plug wrench tighten to 110 inch pounds torque.

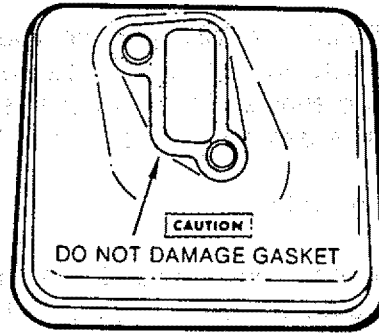
## Muffler/Exhaust Port/Cooling Fins

### Remove Muffler Shield

Turn Ignition Switch to "OFF" (O) position. Remove spark plug boot.



Remove muffler shield. Remove 2 screws and 2 washers shown as A and B in illustration above and the 2 retaining screws and 2 nuts shown as C and D. Cover lifts off.

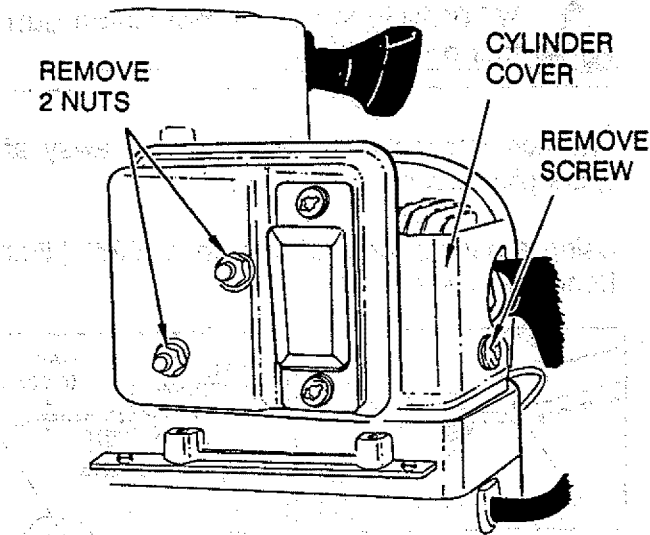


Clean away all carbon deposits with a wooden scraper being careful not to damage gasket.

**NOTE:** If gasket is excessively damaged, it must be replaced with a new gasket.

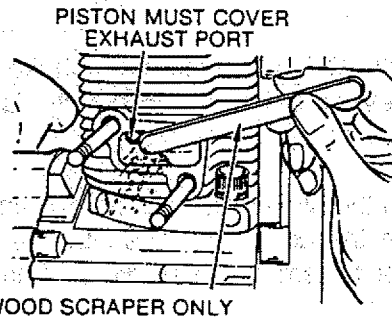
### To Clean Exhaust Port

While the muffler is removed, examine the exhaust port for evidence of carbon around the port. Clean the port as follows:



### To Clean Muffler

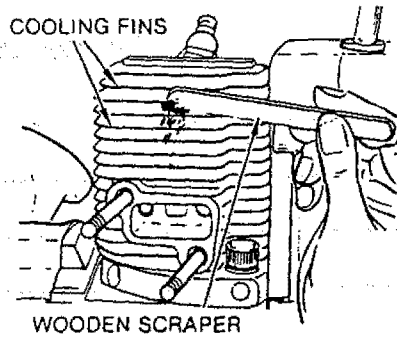
Remove 2 muffler retaining nuts. Remove muffler, being careful not to damage gasket. Remove the cylinder cover by removing the 1 retaining screw.



Pull starter handle slowly until piston completely covers exhaust port. Use **ONLY** a wooden scraper to clean in and around the exhaust port.



## To Clean Cooling Fins



Use wooden scraper to clean away debris from cylinder cooling fins.

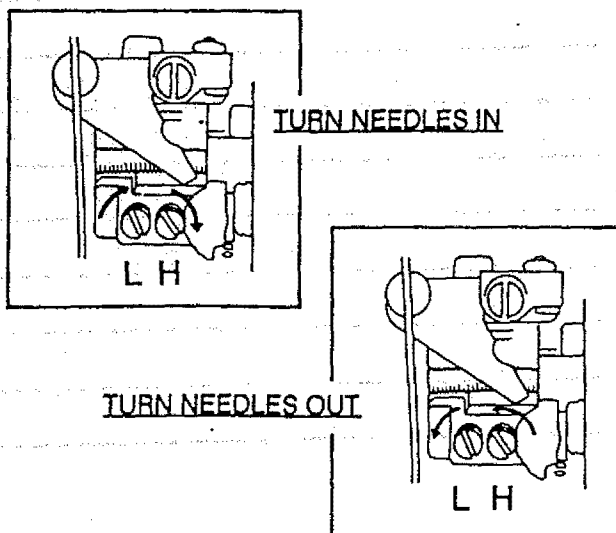
Reinstall cylinder cover and retaining screw. Reinstall muffler. Reinstall muffler retaining nuts. Tighten securely. Reinstall Muffler Shield in reverse order of removal.

## Carburetor Adjustment

Carburetor adjustment is critical and if done carelessly can damage carburetor and engine.

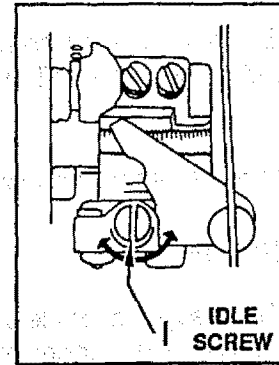
Before making any adjustments make sure air filter is clean. Very often a dirty air filter will make the engine operate as though a carburetor adjustment is needed.

To adjust Carburetor:



Carefully turn **Low** and **High** speed needles gently **clockwise** until resistance is felt. Do not turn needles in too tight or you can damage needle tips and their seats. Then open each needle turning counterclockwise one (1) full turn.

Start engine and let it warm up at low speed. If engine will not idle without stopping, turn Idle screw slowly clockwise until engine idles.



Accelerate engine several times, adjust low speed needle to obtain smooth, rapid acceleration without hesitation or falter. If needle is incorrectly adjusted, engine will hesitate or falter when accelerated.

Adjust **High** speed needle for best power under load; final position of high speed needle will usually be about one (1) turn open.

**IMPORTANT:** Improper adjustment of high speed needle may cause a lean running condition which can result in engine damage.

Check idle engine operation again. It may be necessary to readjust idler speed screw slightly for smooth idle and acceleration.

**IMPORTANT:** Engine performance is determined by the power and ease of operation under load. Do not adjust carburetor for maximum sound level as this is likely to result in a lean condition which will cause engine damage.

If uncertain about proper carburetor adjustment, take unit to your nearest Authorized Servicing Dealer for service.



# Troubleshooting Checklist

Engine Does Not Start	Starts But Does Not Run	Engine Misses	Does Not Idle	Does Not Develop Full Power	*See Your Service Dealer
X	X				Fuel Tank Empty
X	X		X	X	Fuel Line Kinked or Pinched
	X		X	X	Fuel Filter Dirty or Clogged
X	X		X	X	Vent Screw on Fuel Tank Filter Cap Closed
X	X		X	X	Carburetor Passages Clogged or Dirty
X	X	X	X	X	Incorrect Fuel-Oil Mixture
X	X	X	X	X	Carburetor Out of Adjustment
X	X				Engine Flooded
X	X	X	X	X	Wrong Type Spark Plug
X	X	X	X	X	Defective or Fouled Spark Plug
X					Defective Magneto
X					Spark Does Not Jump Spark Plug Gap
				X	Engine Out of Time
X	X	X	X	X	Weak Ignition Coil
X		X			Spark Plug Lead Wire Not Secured
X		X			Frayed or Cracked Lead Wire Insulation
X		X			Disconnected, Grounded or Loose Wiring in Electrical System
				X	Propeller Bound by Foreign Objects (Fishing Line, Weeds, Etc.)
X					High Tension Lead - Salt Water Build Up

### IMPORTANT INFORMATION

**MODEL: 58611**

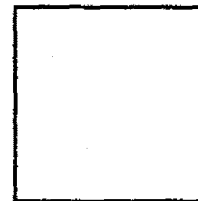
**SERIAL NUMBER** \_\_\_\_\_

**DATE OF PURCHASE** \_\_\_\_\_

#### INSURE YOUR ENGINE

Many insurance companies offer protection contracts for your boat and outboard engine. Insurance covering your own equipment against damage, theft, etc., as well as liability insurance for property damage and personal injury to others is available. It would be wise to contact your insurance agent for further information about adequate protection.

Place Serial No. Label from Product Registration Form Here.



### OPERATING LOG

Date	No. Hrs. Used	Gals. Fuel Used	Date	No. Hrs. Used	Gals. Fuel Used