CHAMPION INSTRUCTIONS FOR ALL MODELS

1935-1940

OPERATING INSTRUCTIONS

1. Open gas tank shutoff. Open gas cap vent screw about 3 turns to the left.
2. Close needle valve, and open from two to three full turns. On models D1F and D2F, turn carburetor panel lever to full rich position.
3. Place magneto lever slightly to the right of gas tank center, or to the start position marked on gas tank.
4. Place carburetor throttle in center position or half throttle. On models D1E, S1F, D1F, S2F, and D2F, this is not necessary, as the carburetor throttle is synchronized with the magneto lever. Raise choke lever on carburetor to the choke position. On models D1F and D2f, push down on choke lever and hold until gas overflows from carburetor bowl.
5. Coil starting rope clockwise on starting plate, and pull quickly.
6. After motor starts, move choke lever down; move throttle lever to the left for high speed; move magneto lever to the right for high speed; slowly close needle valve until motor runs smothly. On models D1F and D2F, turn panel lever to around 0 mark on panel.
7. Should motor slow down after starting, choke quickly once or twice.
8. To stop motor, move magneto lever to the left or stop position, or depress and hold stop button on magneto lever.
9. To adjust the slow speed screw, set magneto lever at slow position, and adjust screw to right or left until motor runs smoothly. After this adjustment is made, it never need be changed. It has no effect on high speed operation. The main needle valve should be adjusted only for high speed and is independent of low speed operation.

LUBRICATION INSTRUCTIONS

The most important factor in the operation of any internal combustion engine is proper lubrication. Properly lubricate your motor and you will enjoy many years of highly satisfactory service. Improper lubrication can result in nothing but premature wear and unnecessary expense.

Your motor is a two cycle engine and lubrication of the piston, cylinder, connecting rod, and crank shaft bearings is supplied by oil mixed with the gasoline. The proportions of this mixture are very important. Also the grades of gasoline and oil used are equally important. Clear gasoline or oil should never be poured into the gas tank. The mixing should be done in a separate clean can and mixture should be sloshed around in can until a thorough mixing is accomplished.

LUBRICANT RECOMMENDED

We recommend the use of Texaco S.A.E. 30 motor oil, or motor oil of similar quality which will mix readily with gasoline. Mix this oil with regular grade of good gasoline—if gasoline contains lead tetraethyl you will derive same benefits as occur in your automobile engine.

For the first 20 hours of operation mix ⅝ pint of S.A.E. 30 motor oil to one gallon of gasoline.

After the first 20 hours of operation mix 2/3 pint of S.A.E. 30 motor oil to one gallon of gasoline.

For trolling over long periods of time mixture can be reduced to ½ pint of oil to each gallon of gasoline.

AFTER STARTING YOUR MOTOR

With your motor started, your boat is on its way, and holding it on its course becomes a pleasure only a CHAMPION owner will know. Since you have set the main needle valve, you need pay no more attention to it. To regulate your speed move the magneto lever to the right for increasing speed or to left for decreasing speed. The synchronized control takes care of the throttle lever automatically for you. There is just one more precaution. See that the water is being pumped through the motor cooling system. If the motor runs hot, shut off immediately. The trouble can usually be traced to weeds, mud, or other foreign substances having become lodged in or over the wire screen covering the water inlet.

If you continue running your outboard motor without water circulating through the cooling system, you will cause serious damage to your motor. It can only result in scored cylinders and pistons and will result in repair bills and loss of the use of your motor while it is being repaired.

SPARK PLUG GAP ADJUSTMENT

Although the spark plug is adjusted before the motor leaves the factory, the adjustment may change from continued use or when the plug is removed for cleaning. The correct adjustment is a gap separation of .027 inch.

GREASING THE LOWER UNIT

Outside of mixing the lubrication in the form of motor oil in your gasoline, there is very little else for you to do. However, there is one more important lubricating requirement which must be attended to, that is to keep the lower unit gear housing filled with Texaco Outboard Gear Lubricant, or lubricant of similar quality. You should inspect the lower unit at least once every month and oftener if the motor is in constant use.

To fill the lower unit with grease, remove the aluminum grease plug located in the bottom of the lower unit gear case, and loosen the top rear bearing cap screw, which acts as an air vent. Then fill the gear housing with the lubricant to full capacity. Put the aluminum screw back and be sure it's in tight and also tighten top rear bearing cap screw.

Texaco Outboard Gear Lubricant is supplied in a handy tube which fits the grease opening and allows quick filling with no waste.

For long gear life, be sure to follow the above directions as closely as possible.

PROPELLER SHEAR PIN

This soft "safety" pin shears off when you strike an obstruction at full speed, thus protecting the gears, shafts, and other mechanism of your motor from damage. When this happens your motor will continue to run without the propeller rotating. To make this easy repair is simple. Shut off the motor immediately. Remove the cotter pin in the propeller nut and remove nut. Slip off the propeller and replace the pin with a spare pin which you should always have in your tool kit.

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SALT WATER INSTRUCTIONS

Your motor is built of materials which are as nearly salt water corrosion proof as anybody knows how to make them. Yet science has not succeeded in developing any metal which is absolutely impervious to the corrosive action of salt water. However, if you follow these instructions you will extend the life and performance of your motor when it is used in salt water.

After being out in salt water all day flush off the outside of your motor with fresh water. When this has been done, set the propeller and lower unit gear housing in a barrel or bucket of fresh water and rotate the fly wheel until the salt water is rinsed out of the pump mechanism, water lines, and cylinder water jackets. Do this and salt water will not hurt your motor.

COLD WEATHER CARE OF YOUR MOTOR

Your motor will freeze in cold weather if the following precaution is not taken. When your motor is idle or before storing it away in cold weather, drain it by putting it in an upright position. Revolving the fly wheel lets the water out of the lines and water jackets in the cylinder, leaving nothing to freeze and burst the mechanism. Also remove aluminum grease plug in bottom of lower unit gear case, and drain any water and old grease, and repack with fresh grease.

OUTSIDE REPAIR CHARGES

We will not be responsible for work performed and time spent by others than the factory, unless such repairs are first authorized by us in writing.

USUAL TROUBLES EXPERIENCED

The two most common troubles which cause most of the "grief" experience with any gasoline engine are exhaustion of fuel, or ignition difficulties. Anyone will soon learn where to look when trouble develops and your motor goes dead.

To test the magneto for spark, remove the high tension wire from the spark plug and hold it about ¼ inch from any metal part of the motor. Have someone crank the motor with a starting cord and see if a spark jumps from the high tension terminal to the metal surface. if it does, you can be sure that your magneto is probably in good working order. This would then indicate that your trouble lies in your fuel supply or spark plug. If there is no spark, then your trouble is undoubtedly in your magneto. This may be because the breaker points are not set to open with the correct gap setting, which is .015 inch. If the gap is incorrect, adjust it to the correct setting and again test for spark. If there still is no spark, you may need a new condenser, or the coil may be defective. Any CHAMPION Service Station will check your magneto and put it in good working order.

The spark plug should be kept clean and the point gap kept set at .027 inch. If the points are too badly corroded or burned away from long use, it should be replaced.

If your trouble apparently lies in your fuel supply (because the magneto is delivering a good spark, and the spark plug is seen to be in good order) the gas line should be disconnected at the carburetor end and the shut off vent screw opened.

If no gas flows from the line, and the tank is quite full, it would indicate that the sediment screen (which is soldered to the top of the shut off) is clogged. It should then be cleaned. If gas does flow from the line, it would indicate that the trouble lies in the carburetor. This trouble may be a sticking float, clogged jet, clogged passages, etc. If you are not extremely familiar with gasoline engine carburetors, it will be best to let a CHAMPION Service Station repair the carburetor, if they find it to be at fault.

If you have any trouble with your motor that you cannot remedy yourself, write our Service Department for advice.