**INSTRUCTION MANU**

**CARBURETOR**

Models generate considerable heat. Do not touch any part of your engine until it has cooled. Contact with the muffler (silencer) head or exhaust pipe, in particular, may result in a burn.

**SAFETY INSTRUCTIONS**

Remember that your engine is not a “toy,” but a hazardous internal-combustion machine whose power is capable of harming you, or others, if it is misused. As owner, you, alone, are responsible for the safe operation of your engine, so see discretion and care at all times. If at some future date your O.S. engine is purchased by another person, we would respectfully request that these instructions be also passed on to its new owner.

The advice which follows is grouped under two headings: according to the degree of damage or injury which might ignite it. Do not smoke or allow it to come into contact with the eyes or face.

**NOTES**

These cover the many possibilities, generally less obvious sources of danger, but which, under certain circumstances, may also cause damage or injury.

**WARRIORS**

Do not allow any tools (e.g. Allen keys, wrenches, etc.) to come into contact with the eyes or face.

**Tools**

Install the propeller and the damper of pitch specified for the engine and aircraft. Locate the propeller so that it will not come into immediate contact with the car. The damper blades face forward in the direction of flight. Firmly tighten the propeller nut using the correct wrench.

Always choose the tightest pitch to which the propeller can be readily retightened if it, necessary, after restarting the engine. Also, make sure that the lights and screws and nuts before restarting the engine.

If you install a spinner, make sure that it is a precise match for your engine and propeller. The spinner blades do not cut into the blade roots and weaken them.

**Supplementary Notes**

- For a high-torque electric starter not only makes starting the engine easier, it dispenses with the need for a choke-valve by turning the engine over fairly rapidly to a cold start.

- When to set maximum power at full throttle, this establishes the basic fuel/mixture ratio. The correct mixture is then maintained by the carburetor's built-in automatic mixture control system to cover the entire speed range from idle to full power.

**MIXTURE CONTROLS**

The carburetor can be turned 180° to reverse the needle valve. Note: 1. Remove the intake manifold retaining screws and retainers. 2. Rotate the intake manifold 180° gently without removing the carburetor from the intake manifold. 3. Reinstall the intake manifold and carburetor retaining screws. Make sure the fitting faces are clean. Do not over-tighten the screws.

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O.S. model carburetors are provided on this carburetor. 

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How to stop the engine

Procedure is called for and can be carried out with the machinery and from the best and most suitable adjustments. However, because O.S. engines are at high speed and before finalizing carburetor adjustments, it is vitally important to complete the procedure before closing the throttle to the idle setting.

1. The throttle is fully closed when the throttle lever and the aircraft to enable the needle-valve to be re-energized and the throttle at its starting setting.
2. Remember to keep your fuel container closed to prevent foreign matter from contaminating the fuel.
3. Install a fuel filter to prevent dust and fuel in the fuel tank from entering the engine. O.S. Super Filters (L-S) and (S) are available as optional extras.
4. An in-line fuel filter between the tank and carburetor to prevent dust and dirt in the tank from entering the carburetor.
5. Clean these filters periodically.
6. Check these conditions and, instead of pressing the accelerator pedal, give it a “running start”. When the engine starts, pull down the mixture control to idle and allow to run for no more than 5 seconds, or until fuel is seen to emerge from the exhaust.

REALIGNMENT OF MIXTURE CONTROL NOZZLE

In the course of making carburetor adjustments, it is just possible that the Mixture Control Nozzle may be moved, so that the mixture setting is too rich.

To re-energize the mixture control, pull down the mixture control knob 90° counter-clockwise to subdue the mixture, then back again 45° clockwise.

3. If, instead of the mixture response being sluggish and emits an excess of white smoke from the exhaust, the idle mixture is too rich. Turn the mixture control nozzle approximately 60° to the lean mixture.

4. On the other hand, if the engine hesitates before starting up, or even when firing, the idle mixture is likely to be too lean. Turn the mixture control knob 90° counter-clockwise to subdue the mixture, then back again 45° clockwise.

5. In paragraphs 3 and 4 above, the 45° total movements are, of course, approximate. It will be necessary to fine-tune the mixture control valve 10-15° at a time to reach the best setting for optimum throttle response.

When the mixture is set, the idle mixture setting must return the engine smoothly and positively to operation of the throttle at all times.

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