INSTRUCTIONS FOR THE O.S. TYPE 9B CARBURETTOR

The O.S. Type 9B carburettor has been designed to provide a correctly balanced mixture of fuel and air at all throttle settings. It ensures steady power and a smooth response — even to abrupt operation of the throttle. With the special O.S. mixture control system featured by this carburettor, adjustment can be made easily and accurately.

INSTALLATION AND LINKAGE

1. Make sure, when the engine is installed in the aircraft or boat, that there is a clearance of at least 15mm between the carburettor air intake and the firewall or adjacent bulkhead.

2. This carburettor is not provided with a screw for setting the throttle opening at the idling position. Instead, the throttle is set up as follows:

   a. Connect the throttle lever linkage so that the throttle rotor is fully open when the transmitter throttle stick is fully advanced and fully closed when the throttle stick is fully retarded.

   b. Adjustment of the throttle rotor opening at the idling position can then be made with the throttle trim lever on the transmitter.

   c. Warming: When a watercooled marine engine is started on shore, avoid running it at high r.p.m. without load. Either by keeping the throttle in the idle position, or by opening the needle-valve to reduce speed. Although the engine is designed to run at high r.p.m. even when new, such components as the cylinder, piston, connecting-rod, etc. will be seriously damaged if they are allowed to become overheated.

ADJUSTING THE CARBURETTOR

1. Advance the throttle trim lever so that the throttle rotor opens approximately 1 mm from the fully closed position as sketched.

2. In the case of a marine installation, put the boat on the water before opening the throttle and then adjust the Needle-Valve for the approximate best setting.

3. The Mixture Control Screw is for adjusting fuel mixture strength at part throttle and idling speeds. Having set the needle-valve as detailed above, close the throttle.

   a. If, however, the engine idles unevenly and hesitates when the throttle is re-opened, it is probable that the idling mixture is too rich. Check this by closing the throttle again and re-opening it after about 10 seconds. If the engine now puts out a good deal of smoke and hesitates or even stops, it will be necessary to close the Mixture Control Screw. Therefore, turn it a few degrees clockwise. (Turn the Mixture Control Screw in steps of about 10 degrees only, re-checking the running qualities each time.)

   b. If, instead of being set too rich, the Mixture Control Screw is set too lean, the engine will stop when the throttle is closed, or will lose speed while idling and then cut out abruptly (without smoking) when the throttle is opened again. In this case, turn the Mixture Control Screw counter-clockwise.

   c. Mixture Control Screw adjustment is not critical and, by remembering the symptoms of rich and lean running quoted above, it is a simple matter to establish the best setting.

   d. The correct mixture for part-throttle (medium speed) running is automatically controlled by the Mixture Control Screw when it has been adjusted to the best idling setting.

4. If, after carrying out mixture adjustments, the idling speed is found to be too high, the throttle trim lever should be moved downward until the desired idling speed is achieved.

   a. Note: Once the correct carburettor settings have been established, it should be unnecessary to alter them. Such slight needle-valve adjustments as may be required to cope with variations in atmospheric conditions, will not normally affect the other controls. A small readjustment may be required if the fuel and/or plug are changed to different types.

SUBSEQUENT OPERATION AND CARE

1. It is important that the carburettor operates under perfectly clean conditions. Make sure that fuel is properly filtered before use. We also advise fitting a filter in the delivery tube between the tank and engine. Foreign matter in the fuel system can reduce the flow of fuel, thereby weakening the mixture and risking damage to the engine by overheating. Check filters at regular intervals and remove any dirt or fibres. It is also advisable to check the cleanliness of the
リモート・ニードル（オプション）
このキャプトータルは、オプションとしてリモート・ニードル式が用意されています。キャプトータルから離れたところからニードルバルブを操作したい場合に使用ください。
- 推奨ひずみからニードルバルブホルダーを取り外し、プラグスクリューで knob をします。
- 要望の位置に穴をあけ、リモート・ニードルを固定します。

リアルイングメント・ミキサーコントロールスクリューアセンブリ
The Mixture Control Screw is factory set at the approximate best position. If, however, the Mixture Control Screw has been tampered with, or moved accidentally, set it at the original position as follows.

REALIGNMENT OF MIXTURE CONTROL SCREW
The Mixture Control Screw is factory set at the approximate best position. If, however, the Mixture Control Screw has been tampered with, or moved accidentally, set it at the original position as follows. Screw in the Mixture Control Screw until it stops while keeping the rotor fully closed. Then, unscrew 2-1/2 turns. This is the original position of the Mixture Control Screw.

Needle Control Lever
By fitting the Needle Control Lever (supplied) to the needle knob, the needle-valve can be adjusted by radio-control. Before fitting the Lever, remove the needle ratchet spring.

Type 9B Remote-mounting Needle Valve Assembly
This is an optional extra part. It enables the Needle Valve to be installed separately from the engine in a position where (especially with a cowled or enclosed engine) it may be more accessible for adjustment. (See sketch.) Install as follows:

- Remove the needle-valve holder from the carburettor and fit the plug screw in its place.
- Drill a 6mm dia. hole in the required position on the model and insert the Remote Needle Valve Assembly. If necessary, install a suitable mounting plate in the model to which the Remote Needle Valve Assembly may be fitted.
- For piping, use heavy-duty silicone tubing of at least 2mm bore and 5mm outer diameter. Tube length should be kept as short as possible.
- You may also use the Needle Control Lever in conjunction with the Remote-mounting Needle Valve Assembly.

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The specifications are subject to alteration (or improvement without notice.)