



TO: ALL TRIUMPH DEALERS - WESTERN ZONE

DEPT: SERVICE AND PARTS

BULLETIN T-63-49

SUBJECT: TR-4 STROMBERG CARBURETORS

DATE: JUNE 28, 1963

With the introduction of the Stromberg CD Carburetor on TR-4 engines, the following details of design and tuning adjustments are given pending completion of the Workshop Manual Supplement.

The unit functions on the constant vacuum or variable choke principle. It is dust proof and compact and incorporates a float chamber which surrounds the jet orifice in place of the out-rigged type of float chamber which is mounted away from the jet.

The float is manufactured of expanded synthetic material which eliminates the possibility of punctures. It is made in twin parts both being attached to the same lever to operate the fuel valve.

The float chamber can be removed from below, leaving the float and jet housing in position. This arrangement simplifies cleaning and float level adjustments.

The carburetor has a cold starting device in conjunction with the throttle which provides a specific degree of opening to give a fast idle. The accelerator pedal should not be depressed when starting from cold.

A temporarily richer mixture to compensate for sudden throttle opening is provided for by means of a hydraulic damper inside the hollow guide rod 17 of the air valve, which should be filled with SAE 20 engine oil to within of the end of the rod in which the damper 14 operates.

Adjusting and Synchronizing Carburetors

This should be carried out without the air cleaners.



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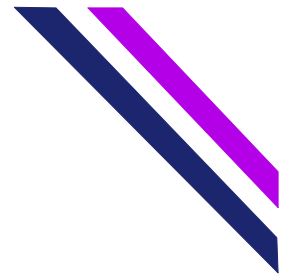
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1. Run the engine until thoroughly warm.
 2. Slacken off the clamping bolts of the throttle spindle coupling and set the carburetors independently.
 3. Set the throttle stop screws (3) on each carburetor to the fully closed position and then adjust by equal amounts until an idle speed of approximately 600 rpm is obtained. Synchronization should be checked by listening to the "hiss" of each carburetor which should be equal.
 4. Adjust the mixture on each carburetor by means of the jet adjustment screw (13). Using a suitable or small screwdriver screw up each adjusting screw until the jet is felt to contact the inside of the air valve (18). Screw back each one approximately three turns as a basis to work on and then finally adjust up or down until a regular and even exhaust beat is obtained.

The mixture adjustment may increase idling speed and each throttle screw must be altered by the same amount to keep a 600 rpm tick over.

5. The balance of the mixture should be checked by lifting each air valve approximately 1/32" independently with a long thin screwdriver. If the engine speed rises appreciably, the mixture on the carburetor is too rich. Conversely if the engine stops, it is too weak. Readjust the jet adjusting screw down to richen the mixture and up to weaken.

6. Hold each throttle adjusting screw against its stop and retighten the spindle clamping bolts.



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Float Chamber Removal

The float chamber is held to the main carburetor body by 8 screws. The rubber "O" ring (11) is situated between the jet assembly and float chamber spigot boss to prevent fuel leakage. Care must be taken when removing and refitting float chamber to avoid damage.

Float Level

With the float chamber removed and the carburetors in an inverted position, the highest point of the twin floats should be approximately 9/16" (14 to 15 MM.) above the face of the main body, with the fuel inlet needle on its seating.

Care should be taken not to twist or disturb the float arms. To reset the level, slightly bend the tag which contacts the end of the needle (8). A simpler method of lowering this level is the addition of a thin fiber washer under the needle seating assembly.

Jet Centralization

Efficient operation depends on free movement of the air valve (18) and needle (29) in the jet orifice (19).

To check freedom of the air valve, it should be lifted by means of the spring loaded pin (9) and allowed to fall freely. Failure to fall freely indicates a sticking valve or the binding of the needle in the jet orifice. The former can be rectified by removal of the valve, cleaning the outside of the valve and bore with kerosene or gasoline. The latter can be rectified by centralizing the jet needle after first ascertaining that the needle is not bent.



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if it is found necessary to clean the diaphragm, kerosene only should be used, as the use of any other volatile cleaner such as trichlorethylene must be avoided.

Should it be necessary to renew the jet neelle, it must be replaced with one bearing of a similar code marking.

When refitting, the shoulder of the needle must line up with the lower face of the air valve (18).

Whenever this jet assembly is removed, it must be recentralized to follows:

1. Lift air valve (18) and fully tighten jet assembly (12).
2. Screw up orifice adjuster until the top of the orifice (19) is just above the bridge (28).
3. Slacken off the whole jet assembly (12) approximately - turn to release the orifice bush (23).
4. Allow air valve (18) to fall, the needle will then enter the orifice and automatically centralize it.
5. Tighten assembly (12) slowly, checking frequently that the needle remains free in the orifice by raising air valve and allowing it to fall freely.
6. Reset idle.



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Diaphragm Assembly

A bead and locating tab is moulded to both the inner and outer radii of the diaphragm to ensure correct location. The diaphragm is secured to the air valve by a ring and screws with lockwashers and it is essential that the bead is correctly positioned and the screws are tight.

Location for the bead and tab on the outer radii of the diaphragm is provided by a channel at the top of the main body.

If the suction chamber cover is removed, it must be replaced so that the screw holes line up with those in the main body and the diaphragm is not disturbed.

Air Valve Rod & Guide

The air valve rod and guide must be kept clean with minimum handling when removed to avoid corrosion and a few drops of light oil applied to the rod when refitting.

