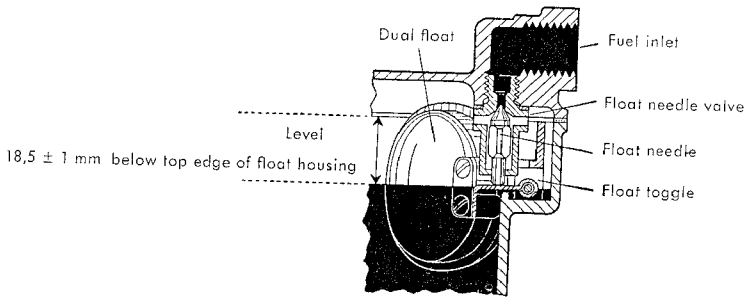
The **carburetor cover** – also made of die-cast – is mounted on the float chamber with the aid of a gasket and may be removed after loosening five retaining screws to give access to the inside of the carburetor. It is connected to the fuel pipe. The **float needle valve** controlling the fuel supply is screwed to the inside of the carburetor cover. Inside the air intake nipple of the carburetor cover, the vent pipe for the float chamber is situated. The air intake nipple serves to mount the air filter.



Float system

Fig. 2

The **float system** consists of a **dual plastic float** which is mounted in the float housing by means of a float toggle. The float system maintains a constant fuel level in the carburetor. When the fuel has reached the required level, the rising float forces the needle valve on to its seat and shuts off the fuel supply. The dual float chamber and two floats provide the correct quantity of fuel even while the car is inclined („cross-country" type carburetor).

The **central air intake** serves to clean the air for the mixture preparation for all operational conditions of the engine (starting, idling, normal operation) and at the same time ventilates the float chamber. Internal ventilation of the float chamber not only prevents particles of dirt from getting into the carburetor, but it also enables the carburetor to deliver a constant fuel air mixture even if the air filter is clogged, with the result that the fuel consumption is not affected no matter how badly the filter may be clogged.

Idling Circuit

Each barrel of the carburetor is provided with an idling circuit (see fig. 3 and 4) which also acts as a small auxiliary carburetor. The idling mixture is determined by:

the **idling jet** which meters the quantity of fuel, and

the **idling air jet** which regulates the proportion of air for the preparation of the idling mixture, and

the **idling mixture regulation screw** which reduces or increases the quantity of idling mixture drawn in.

The fuel required for idling is taken from the mixture tube holder after having passed the main jet. It is drawn to a point above the fuel level by the idling jet and mixed with the air entering through the idling air jet to form a mixture.

The idling mixture flows downwards to an orifice leading into the mixing chamber somewhat below the throttle valve. This bore can be modified by the mixture regulating screw. At idling speed of the engine the idling mixture is discharged through this orifice into the mixing chamber and then mixed with air entering through the throttle butterfly opening.