

**3. Main circuits**

Primary circuit

The primary main circuit is provided chiefly for the low speed engine operation. Fuel flows into the main nozzle through the primary main jet and is mixed with the air bled by the primary air jet in the main nozzle. Then the mixture is squirted from the tip of the main nozzle.

Secondary circuit

The secondary main circuit is provided chiefly for the normal and high speed engine operations.

Fuel flows into the needle jet through the secondary main jet and is mixed with the air bled by the secondary air jet in the needle jet. Then the mixture passes between the jet needle and needle jet and is spurted from the tip of the needle jet.

Operation of vacuum piston

The vacuum piston is operated by the vacuum within the venturi. When the negative pressure is low, the piston is pushed down by the spring pressure. As the vacuum rises, the piston overcomes the spring pressure and moves up. The jet needle built in the piston is used to supply a charge of optimum fuel-air mixture to the engine.

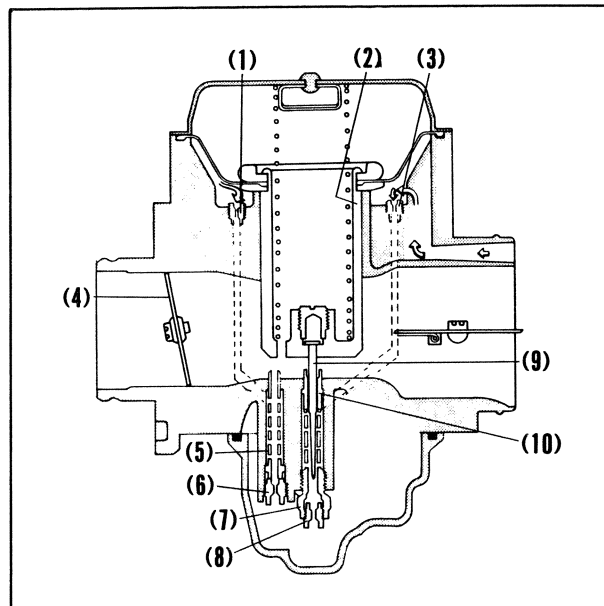


Fig. 2-17 (1) Primary air jet (6) Primary main jet  
 (2) Vacuum piston (7) Needle jet holder  
 (3) Secondary air jet (8) Secondary main jet  
 (4) Throttle valve (9) Jet needle  
 (5) Main nozzle (10) Needle jet

**4. Float circuit**

Fuel flows into the float chamber from the fuel tank through the pipe adapter and the clearance between the float valve and seat. When the fuel level exceeds the specified height, the float moves up on the fuel to cause the float valve to be closed, shutting off the supply of fuel. As the level drops below the specified height, the float valve is opened to permit fuel to flow into the float chamber. By repeating this process, the level of the fuel in the float chamber is always maintained at the same level.

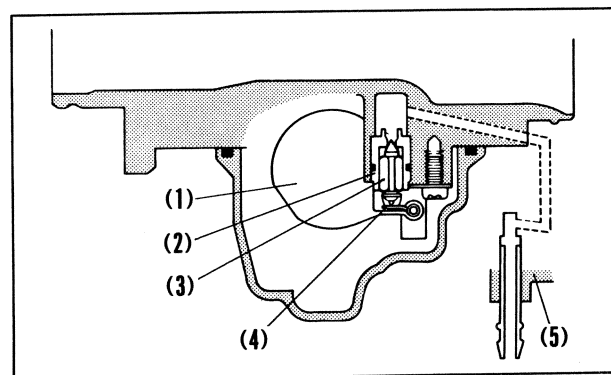


Fig. 2-18 (1) Float (5) Pipe adapter  
 (2) Valve seat  
 (3) Float valve  
 (4) Special clip