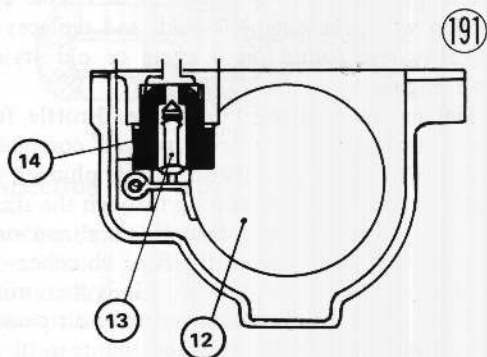


Float Mechanism



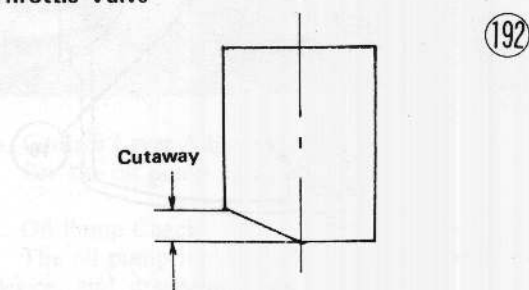
2) Functional Parts

a. Throttle Valve

The throttle valve controls the rate of engine air intake by moving up and down inside the main bore. At small throttle openings air flow control is performed chiefly by the cutaway in the valve, and by controlling air flow, the negative pressure over the needle valve is regulated, in turn governing fuel intake.

The throttle valves are numbered 1.0, 1.5, 2.0, etc., according to the size of the cutaway; the higher the number, the leaner the gasoline/air mixture.

Throttle Valve



b. Air Jet

The air jet measures the air sent to the needle jet for mixing.

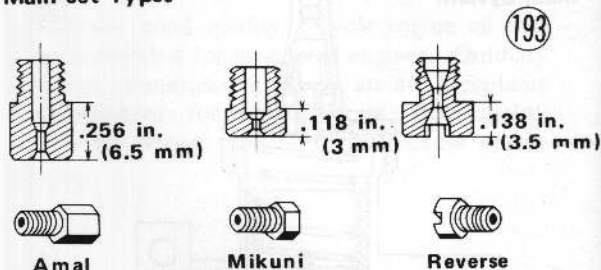
NOTE: The air jet, which is driven into the carburetor body, cannot be removed without damaging the carburetor, and is therefore not a replaceable part.

c. Main Jet

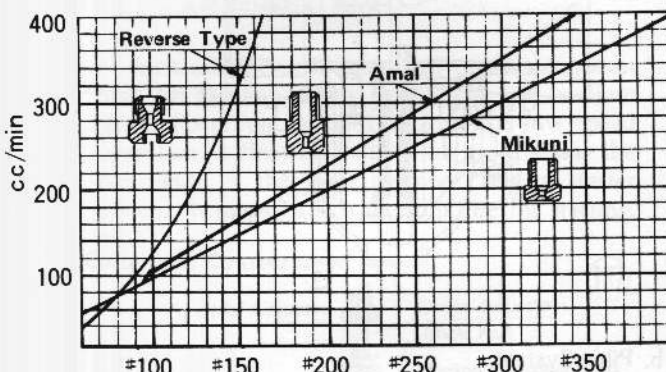
The fuel necessary for making the proper mixture is measured by the main jet, and as the throttle opening grows larger, has a great influence on mixture ratio.

The number stamped on the jet indicates the amount of fuel in cc's that passes through the jet in one minute under a given set of conditions. Since the numbers vary with the type of jet, the table shows equivalent jets for the three types used on various models.

Main Jet Types



Main Jet Capacity



d. Jet Needle

The jet needle has 5 grooves for adjustment cut in the upper portion, and is tapered from approximately the middle of the needle to the lower end. The top is fixed to the center of the throttle valve by the needle clip, and the tapered end extends into the needle jet. Fuel flows through the space between the needle jet and jet needle, which space is unvarying until the throttle reaches the 1/4 open point. At this time the tapered portion of the needle begins to move out of the jet and affect fuel flow as the opening enlarges. It follows that taper wear, and the position of the needle clip in the grooves also affect fuel flow rate. If the needle clip is changed from the standard position to a lower groove, the needle taper starts coming out of the jet sooner, resulting in a richer mixture; moving the clip higher produces a leaner mixture.

Each jet needle is designated with a number/letter code, the meaning of which is explained below. Except for the last number ("3" in this example), this code is stamped on the needle directly below the 5 grooves.

Example: 5GL3-3

Jet Needle

