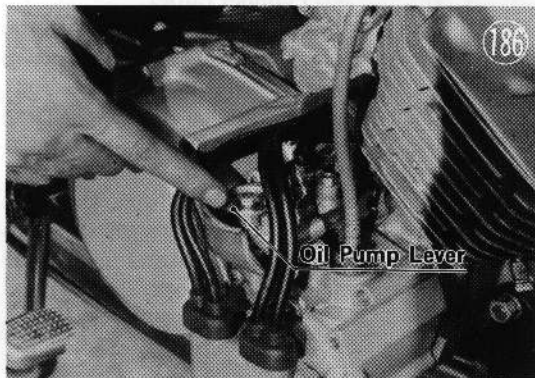


4) Inspection and Adjustment

a. Bleeding the Oil Pump

When the oil pump or oil pipes are removed, air becomes trapped inside the pipes and obstructs the flow of oil. See that oil flows from the inlet pipe before connecting it to the pump. Bleed air from the outlet pipes by idling the engine (below 2,000 r.p.m.), and holding the oil pump control lever full open by hand, i.e. to maximum plunger stroke. Keep the engine idling until the air is completely pumped out. If air bubbles continue to appear in an outlet pipe, check the oil pipe inlet and outlet connections, oil pipe connections to the banjo bolts, and banjo bolt fittings.



b. Control Lever Adjustment

See the oil pump paragraph, page 11-12.

c. Oil Pump Check

The oil pump is a carefully assembled precision device, and disassembly should be avoided. To check oil pump performance, the oil flow rate should be measured for a given engine speed.

Detach the check valve from the upper crankcase. Start the engine and set the speed of rotation at 2,000 r.p.m. Holding the oil pump lever full open by hand, measure the amount of oil pumped from the pump outlet for a single cylinder. If the amount of oil pumped over a three-minute period corresponds to the amount in the table below, the oil pump is operating correctly.

CAUTION: While checking the oil pump, a 20:1 gasoline/oil mixture should be used in place of the pure gasoline normally used.

Table 20 Oil Pump Output

| Model | Output/3 minute period @ 2,000 r.p.m. |
|-------|---------------------------------------|
| H1 | .171 - .197 oz. (5.05 - 5.83 cc) |
| H2 | .228-.255 oz. (6.75-7.53 cc) |

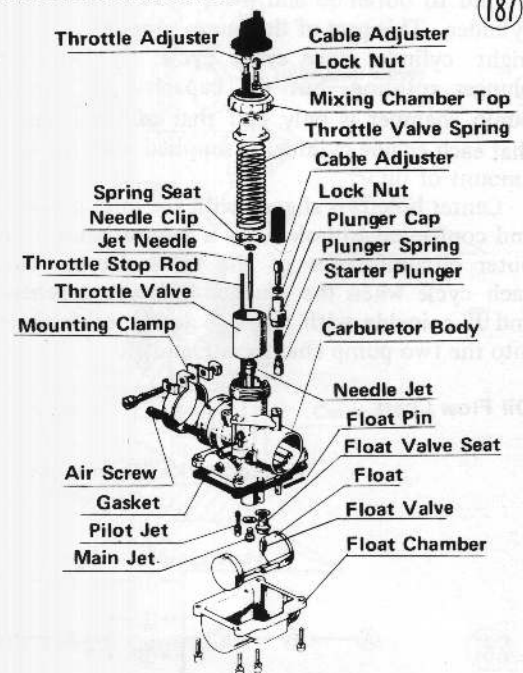
5) Injectolube Oil

Use any good quality 2 cycle engine oil that is recommended for air-cooled engines. Ordinary motor oil, transmission oil, etc. are not acceptable as replacements for the correct oil. Poor quality oil or the wrong type of oil will cause engine damage.

15. CARBURETORS

Each carburetor is comprised of a main system used for gasoline supply during high and medium speed operation, a pilot system for low speed operation, a float mechanism for maintaining the fuel level in the float chamber, and a starter system to supply a rich fuel mixture for starting.

Carburetor Construction



1) Construction and Operation

a. Main System

As Fig. 188 shows, the main system consists of the main jet (1), jet needle (2), needle jet (3), throttle valve (4), and the air jet (5).

When the throttle valve is more than 1/4 open, air is taken in principally through the main bore, flowing beneath the throttle valve. Due to this air flow, a low pressure area is produced around the jet needle, and fuel is drawn up through the main jet through the opening between the needle jet and jet needle and toward the main bore. Air coming in through the air jet mixes with the fuel inside the needle jet and expedites the atomizing process. When the mixture reaches the main bore, it is combined with and further atomized by the main stream of air, and then drawn into the engine.