118 MAINTENANCE

Cleaning and adjustment (See caution Pg. 114)

Disassemble the carburetor and wash the main jet,



Float System

4. Float
5. Overflow Pipe
6. Overflow Tube

If the engine still exhibits symptoms of overly rich or lean carburetion after ail maintenance and adjustments are correctly performed, the main jet can be replaced with a smaller or larger one. A smaller numbered jet gives a leaner mixture and a larger numbered jet a richer mixture. Many jets are available, but it is recommended that any change be limited to one jet size (2.5) difference from the standard jet.

Visually inspect the diaphragm. If there is any tear or other damage, the diaphragm should be repalced. If there is any doubt about the diaphragm, check the vacuum piston operation according to the Disassembly Section (Pg. 33).

Float System

Fig. 406 shows the float system, which consists of the float 4, float valve needle 2;, float valve seat 1, and overflow pipe 5.

The float system serves to keep a relatively constant level of fuel in the carburetor float chamber at all times so that the fuel supply to the engine will be stable. If the fuel level in the float chamber is set too low, it will be more difficult for fuel to be drawn up into the carburetor bore, resulting in too lean a mixture. If the level is set too high, the fuel can be drawn up too easily, resulting in too rich a mixture.

The fuel level is defined as the vertical distance from the center of the carburetor bore to the surface of the fuel in the float chamber. The fuel level is maintained at a constant value by the action of the float valve, which opens and closes according to the fuel level. As fuel flows through the float valve into the chamber, the fuel level rises. The float, rising with the fuel level, pushes up on the needle. When the fuel reaches a certain level, the needle is pushed completely into the valve seat, which closes the valve so that no more fuel may enter the chamber. As the fuel is drawn up out of the float chamber, the fuel level drops, lowering the float. The needle no longer blocks the float valve, and fuel once again flows through the float valve into the chamber.

Fuel level measurement and adjustment

Secure the motorcycle in a true vertical position. Turn the fuel tap off, and remove the drain screw from the bottom of the float bowl. Install the fuel level gauge (special tool). Hold the plastic tube against the side of the carburetor so that the "0" line is even with the bottom edge of the carburetor body. Turn on the fuel tap. Read the fuel level in the plastic tube.