TECHNICAL

REASSEMBLY

After the carb body and components are cleaned and inspected, reassemble can begin.

Reinstall the accelerator pump nozzle with fiber washer. Note that it is indexed so the orfice points toward the center of the carburetor. Reinstall the starter circuit housing with gasket.

Using a bit of grease, place the appropriate spring easher, and O-ring on each idle screw (photo 22). Replace them in their proper locations.

With the filter screen in place, replace the fuel inlet fitting. There should be a fiber washer under its through-bolt.

Reinstall the starter circuit jet (with O-ring), the pilot, accelerator pump, and needle jets. Install the main jet and holder in the carb body.

With the needle engaged in its slot, place the float on the carb body, insert the pivot pin, smooth end first, and press it in slightly.

Place the carb on the edge of a flat surface to measure float height (photo 23). Proper float level should be 17.5 - 18.5 millimeters.

Apply a slight bit of grease or oil to the accelerator pump jet O-ring.

With the O-ring in place around the edge of the float bowl, place it on the carburetor body. The drain plug, with fiber washer, should be snugged down.

Place the accelerator pump diaphragm and spring on the body, put the housing over them, and tighten the three hold down screws. The check valve should be in place on the housing.

Reinstall the partially assembled carburetor on the bike. Replace the air filter hose, and tighten all clamps. Reconnect the fuel line to its fitting.

Slip the slide cover followed by the spring, onto the throttle cable. Use needlenose pliers to attach the slide (photo 24). Drop the needle and clip into the slide by pulling back on the spring

Make sure the O-ring is present in the slide cover. Place the slide cutaway and accelerator pump arm toward the rear of the motorcycle. Reinstall the slide assembly and tighten the screws.

Finally, replace the starter circuit plunger into its bore.

TUNING PROCEDURES

Try an initial idle screw setting of 1½ turns. Check owners manual for idle spped RPM. Keep in mind that cable adjustment is very important and should be checked. To do this, adjust the throttle cables so a slight, but equal amount of free play is felt in each. Gently open the throttle until the slides top out. Grasp the throttle cable just above either carb and pull. If the cables are adjusted properly, neither will have free play at this point.

Release the throttle fully, and open it just to the point where initial free play is eliminated. Again neither cable, if pulled, should have any free play.

OPERATIONAL ADJUSTMENTS

The oeprating circuits of the carburetor will most likely not need alteration. But if poor running is experienced at engine speeds from one-quarter throttle on, adjustments are necessary. Final adjustments can now be made.

CARBURETOR SYNCHRONIZATION

The are several methods of synchronization, one of which you have already performed by adjusting the cables. Two methods of greater accuracy follow, one of which employs an aftermarket vacuum device.

RPM DROP
SYNCHRONIZATION METHOD

With the engine at operating temperature, and previous operations performed, the carbs should be close to sync. Disconnect either spark plug lead, and ground it with a short wire to prevent coil damage (photo 9). An alternate method would be to ground the ignition at the breaker points. Restart the engine, and adjust the idle mixture screw for maximum engine speed and smoothness. Note the rpm, then shut the engine off.

Replace the loose plug wire, and ground the opposite lead. Restart the engine and adjust the idle mixture screw of the firing cylinder for maximum rpm and smoothness. Adjust its idle speed screw for the same rpm as the opposite cylinder.

With both plug wires connected, the carbs will be in sync. Reset the idle if necessary, repeating the previously stated procedure. Check and readjust cables if necessary.

VACUUM MEASUREMENT DEVICES

Vacuum in the intake manifolds is a function of fuel/air mixture flow. By monitoring intake vacuum the carburetor can be adjusted for equal flow.

There are several devices on the market for measuring vacuum. We used a device called "Carb Stix." Operation is simple. A length of surgical tubing is fastened at one end to the intake manifold. The other end is fastened to a thin glass tube, at the bottom of which is a reservoir of mercury. When the engine is running, the manifold vacuum draws the mercury up the tube. The device can sync up to four carbs at a time. Adjustment is correct when the level of mercury in each tube is equal.

VACUUM SYNCHRONIZATION

With the engine idle coarsely adjusted, fasten a "Carb Stix" tube to each intake manifold via the fitting. Adjust each idle mixture screw for maximum smoothness and rpm. Using the idle speed screws, adjust engine speed to 1000 - 1200 rpm. At the same time, watch the levels of mercury in the "Carb Stix" and keep them as equal as possible. When the proper rpm is attained and the mercury levels are equal, the carbs are synchronized. Replace the screw fittings and repeat the cable adjustment procedure if necessary.

PROCEDURAL SUMMARY

1. Thoroughly inspect associated fuel system components including cables, tank, air filters, and hoses.
2. Refurbish carbs; replace worn or damaged components.
3. Reinstall carbs and hardware, and make preliminary mechanical adjustments.
4. Run engine to operating temperature and coarsely adjust idle and cables.
5. Run engine over full rpm range to check operacircuits.
6. Finely tune idle circuits and synchronize carburetors.