Leaking Amal Carburetors

Someone recently told me one of his 930 Amal Concentric carburetors was leaking profusely around the float bowl gasket and/or out the tickle button hole. They had removed both bowls and cleaned them, but as soon as the fuel was turned ON the leak reappeared.

Repairing these type problems is fairly straightforward, but it can take a lot of patience, care and time to find the solution. This is especially true of muti-carb bikes. Although I'll discuss the Concentric, the procedures are very similar for the Monobloc as well.

You must first understand that on all carbs (British, Jap, Polish) the fuel level never rises to fill the entire float bowl. That is, the float bowl gaskets are never submerged. The fuel level is always below the gasket, and the gaskets are simply there for splash protection.

The second thing to know is that for a multi-carb anything to run correctly, each cylinder has to be doing the exact same thing. In the area of fuel delivery, that means that all carburetor parts must exactly match and all adjustments have to be the same in every respect. This is the excruciatingly painful part of a multi-carb bike.

The flooding in question can happen for many reasons. Here are the common possibilities...

- A small spec of trash under the float needle can hold the needle off its seat.
- The float level is set too high, especially if new float parts were just installed.
- Tickle buttons may fail to go all the way up, leaving the lower tip to depress the float.
- A small nick or cut in a worn out float needle face can allow fuel to keep entering.
- Some after-market float bowl gaskets have been seen to touch the float and hold it down.
- Sometimes floats develop leaks, fill with fuel and actually sink instead of floating.
- Binding or excessive wear on the brass pivot shaft can cause the float to stick.

The only thing for sure is that your carburetor needs very close inspection. Anytime anyone takes a carburetor apart it calls for careful disassemble, close inspection and the care of a watchmaker. The best method is to disassemble both units side-by-side and compare. Don't jump to any conclusions until you inspect each part yourself. Whatever is causing that much fuel flow is usually obvious, but sometimes, bright lights and magnification are required.

Hint: Whenever I disassemble any device in which I suspect trash as a culprit (oil pumps, carbs, etc.) I always try to work over a clean, white paper towel. In that way, after solvent washing any trash is left sitting on a contrasting background and is easier to spot.

Hope this helps!

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