

Concentric Idle Issues

I've got a 1977 T140V, stock set-up, with dual 930 Amal Concentrics. The bike idles great... on one cylinder. If you increase engine speed up to 2500 RPM or so, then the right cylinder kicks in nicely. Timing was set dead on yesterday. The LH sparkplug is a bit rich, the RH is definitely lean. I have some suspicions. Do you have any suggestions?

Causes

These kinds of Concentric issues are extremely common on all dual carb British motorcycles. Sometimes the cause is poor storage procedure, sometimes is inherent to the age of the motorcycle, and sometimes of it is poor maintenance. However, the procedure for checking out and curing this issue is the same, whether you have a Commando, Bonneville, Lightning, or Interceptor. The procedures are very similar for Monobloc equipped bikes as well.

Cures

Try these repairs in this order:

1) Don't mix, but *drain and replace* **all** the fuel in your tank and carburetors that was not purchased within the last 6 weeks. Chances are that you are trying to run the engine with fuel that is several months old. Today's fuels do not stay "good" for very long and simply cannot support combustion after an extended time. It is highly suggested that you refill your motorcycle with one of the high-octane fuels with built-in cleansers, such as Chevron.

NOTE: The responsible place to "dump" your old fuel is into your car's fuel tank. Generally, car engines are not as finicky about fuel quality. And too, when the old fuel is diluted with 10-15 gallons of fresh fuel, car engines manage to burn it quite nicely.

2) Lightly turn both the pilot screws (the horizontal screws) all the way in and then back them out 1-1/2 turns. Then turn the idle speed screw (the angled screw) on the non-idling side carb upward while the bike is running and see if the idle speed on that particular carb is simply set too low.

3) Replace the offending sparkplug, or at least swap the plugs around and see if the issue moves to the other cylinder. Old fuel can foul a brand new sparkplug almost immediately.

4) You should also make sure your carburetor slides are lifting in unison. Take off the rubber intake boots or air filters, and, using the twist grip, open the slides until there is just barely enough slide exposed in the carb's throat to catch a fingernail on (about 1/64"). Check that both side heights exactly match and adjust the throttle cable adjusters accordingly. Then make sure both sides still have some slack in the cables (about 1/16" of free-play).

5) Replace and lubricate the o-rings on the pointy-tipped pilot screws. Polish off any crud on the angled tip of the screw. Save the old o-rings for use on the flat-nosed idle speed screws.

6) On dual carb bikes, replace the balance tube with 1/4" ID black neoprene FUEL hose. The balance tube, located as it is in a very high heat, fuel rich environment, usually develops

small cracks over time that make the bike run lean. This is probably not the problem, but costs only 50 cents and you're a big spender! 😊

7) If all other efforts fail, you may be experiencing an issue with one carb's idle (aka "pilot") passage. This is very common on the 930, especially if the bike sat for a time with fuel in the tank and/or carb. Often this happens after sitting for a few short months.

Use a fine .015" diameter wire (such as a strand of an old throttle cable) to poke through the pilot jet. After clearing, spray the jet and mixing chamber directly behind the pilot jet with carb cleaner. Keep spraying carb cleaner through the jet once a day for a week after clearing. See the carburetor cutaways on the GABMA web site for a clear picture of what the inside of the carb looks like and the position of the mixing chamber that is directly behind the pilot jet.

If the pilot jet is clogged, then a goodly part of the time there is additional evil waiting in the mixing chamber directly behind the jet. As the self-cleaning fuel moves through the jet, this "crud" often breaks loose and blocks the jet again, this time from behind. This does not mean that re-clearing is required, but that a squirt of carburetor cleaner is needed to help dissolve the blockage.

Prevention

The best solution is always prevention. First, *always* drain all the fuel from the fuel tank and carbs *before* storing your motorcycle for over 6 weeks. Secondly, since fuel moves through the pilot jet at all RPM ranges, starting your riding season by using a high-octane cleanser-type fuel, such as Chevron, will help remove any small deposits that may have formed.

Hope this helps! 🙏

RF Whatley
Rodi British Bikes