TROUBLESHOOTING YOUR SU CARBS

Assuming that you have followed the instructions on the preceding two pages your should now be enjoying the renewed performance and economy of your new SU carbs. You are reading this page, so maybe things have not gone as planned. Below I have listed some of the most common problems, and how to correct them. If these do not cure your problem please do not hesitate to call me. Even if you did not purchase a set of carburetors from me, I am an enthusiast and hope to help you get your MG or Triumph (or Jaguar or Sunbeam or Austin Healey, etc.) running to its highest potential.

- Fuel flows out the vent pipe or pours out the jet

1. If fuel flows out the jet but not the vent pipes make sure the vent pipes are clear. Clogged vent pipes prevent venting above the fuel level in the float bowls. As fuel fills the bowls the air above the fuel is compressed, the pressure on the fuel causes it to be 'injected' out the jet. This is an uncommon problem but it does happen.
2. Fuel flowing out the vent pipes and trickling out the jet indicate a malfunction in the float/float valve assy. The most common cause is debris becoming lodged in the float valve (needle and seat) - this is in turn most generally caused by debris in the fuel line and/or fuel tank. Install a fuel filter as close to the carburetors as possible, use new fuel line after the filter. If you feel comfortable doing so, remove the float bowl lid, pull the float hinge pin, shake the float to see if it has fuel inside - if so you need a replacement float - now remove the needle from the float valve and wipe the vitron tip with a towel - being sure to remove any debris. Blow compressed air or spray carburetor cleaner into the float valve seat and out the fuel inlet. Repeat until you are certain all debris is removed. Reassemble.

- Fast idle - even with screws backed completely out

1. Make sure linkage is not holding the carbs open. Disconnect the linkage from the bell crank where used, loosen the cable stop on MGBs and others with cable type operation. On Triumph TR3 and TR4 it is often necessary to add a return spring just to pull the linkage.
2. The most common cause of fast idle is vacuum leaks. Spray all joints and connections in the intake manifold with carb cleaner. If you notice a decrease in RPM you have located a vacuum leak which must be repaired. Also check all vacuum hoses and the vacuum canister on the distributor.
3. Make sure the fast idle screws are clear of the fast idle cam
4. Loosen the screws on the inter connecting linkage, one carburetor can easily hold the other carburetor open. With the linkage loose press down on each idle screw to make sure it is completely home. Infrequently the new shafts may be stiff in rotating (I work hard to make sure this does not happen), if this happens to be the case you may wish to add a stronger or additional springs on latter carbs - the springs on the H series may be tightened by loosening the retaining screw and rotating.

5. Overly advanced ignition timing can cause fast idle as well, check and correct as needed.

- One carburetor draw far more air than the other

1. Make sure the pistons are moving freely, and when dropped hit the bridge with a distinctive clank.
2. Follow the instructions in the tuning guide for establishing a base line, make sure linkage is loose and reset idles making sure that the fast idle screws are clear of the fast idle cam. Synchronize as per previous instructions.
3. If after resetting idle, one carb still appears to draw more air, you most likely have an internal engine problem. Recheck valve adjustments, a valve not opening or not closing will effectively eliminate air flow through that cylinder. Check compression, very low compression will significantly reduce the air flow for that cylinder. Observe, and if possible measure, valve lift - a worn cam lobe will prevent the valve form opening completely and cause significant or complete reduction in air flow.

- Backfire

1. If most pronounced on acceleration check mixture, a lean mixture may cause backfire. Check also for vacuum leaks, a vacuum leak will lean the mixture. Check the level of the dashpot oil - use 20w oil or specific SU dashpot oil. The piston rising without restriction prevents enrichment necessary for acceleration.
2. Ignition too far advanced or retarded - ignition occurs while valve is still open. Wrong firing order If static ignition timing is correct check again with an advance timing light.
3. Re check compression, use a bleed down tester if available, a burnt or non closing valve will allow burning fuels to ignite fuel in the intake stream

- Too rich mixture even with jet all the way to the top - *each of these problems remedied in restored sets, included for reference only*

1. On the H series, some after market kits include jet bearing washers which are too thick, preventing the jet from reaching its full height. The jet bearing gland nut may not be tightened sufficiently, again preventing the jet from reaching full height.
2. The shoulder of the needle should be even with the face of the piston - place too deep into the piston will cause rich running.
3. Wrong or missing piston spring will allow the piston to rise farther than intended. Too little clearance in the piston to dashpot will raise the piston farther than intended.
4. Float level too high
5. Worn needle or jet - incorrect needle or jet
6. Choke stuck open - HIF carbs - jet stuck in bearing, not returning

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