HOW TO TAKE APART THE STOCK SUZUKI DR650 CARB FOR SIMPLE CARB MODS

Credits:

Inspired by instructions in Suzuki shop manual and a ton of threads on Thumpertalk.

Also inspired by the following thread on ADVRIER: http://www.advrider.com/forums/showthread.php?t=207618

NOTE: I am not recommending any settings here, just showing what to do.

PROCEDURE:

1. Remove the side covers, one screw per side, slide forward 1/2" and pull down.

2. Remove the 12mm blots holding the seat and remove the seat by sliding it back, then upwards.

3. Remove the two bolts holding down the tank. Keep the petcock in the "ON" position and remove the vacuum hose (the smaller hose that does not go to the carb). Remove the fuel hose from the petcock (a little fuel will come out).
Leave in ON position

Some gas comes out
4. Remove the tank by pulling it back. Remove two rubber pieces where tank screws in. They are just sitting there and can slide off easy.

Take off or you could lose those!
5. Drain the gas out of the carb. Put something under the carb to catch the gas and unscrew the carb drain screw, the gas will come out. Quite a bit too! This is from the left side of the bike.
6. Take the throttle cable bracket off. I suggest doing this as if you take the whole bracket with cables, you are not risking having to adjust your cables later. Once the bracket is off and you can move it down, unhook them from the carb (I learned this after I took my cables off already 😏). Note the rubber boots for later...
7. Take off the choke cable. This is the part that is a bit tricky as the part you need to unscrew and later screw in is plastic. 12mm wrench. Be careful. When unscrewed – pull straight out:
8. Go to the right side of the bike, there are two hoses attaching to the carb, both need to come off. Kind of a pain, not a lot of space:
9. Unscrew (relax) the brackets on both rubber boots on both sides of the carb (see picture under step 6). This is so you can rotate the carb. Then rotate the carb with the top part to the left of the bike. Unscrew the two screws on top. Take the top off. Note there is a small O ring under that vacuum tube (don’t lose!):
10. Pull out the spring, slider (careful with the diaphragm!) and the needle. This is what you get:
11. Now – if you want to drill the slider, this is how it looks drilled. You are trying to make the hole circled here. Perhaps you can make it straighter than I did. Use a drill that fits through the original hole and GO SLOW:
12. Now this is your stock needle. I included a screw so you get the idea of a size:

At this point, you decide – you can shim your stock needle with some washers or you can put another needle you got somewhere else. I am showing the stock shimming here...
13. Stocker taken apart; slide the white spacer off the needle. You'll need some small washers. Washers must be smaller size than the white plastic spacer:
14. Slide the washers on the needle and then slide the white spacer all the way back. So the white spacer should be the 1st thing to go into the slider when all is put back, it will go on the “D-shelf” in the slider. I am making no suggestions how many washers etc – search, try decide ☺️:
Oh yeah this shows the D-shelf in the slider (see that thing all the way in the bottom?), you will see this mentioned in various threads:
15. Reassemble the top of the carb, in the opposite way of disassembly. Then go to the right side of the bike and see this:

This picture shows the extended fuel screw in place already. OEM bike will have a brass plug here. Drill slowly, then pull out and unscrew the original fuel screw. NOTE: the fuel screw has a small O ring, a washer and a spring. Tilt the carb so the bottom points down to help you get all the pieces out. Then put them on.
extended fuel screw (if you are replacing it) and screw that in per Jesse’s instructions. You can also use the stock screw if so desired but you need to drill the plug so you can make adjustments. If you are replacing the main jet, there are two carb bowl screws, one can be seen in the picture above. VERY careful, many have stripped this as those things are really tight!

At this point, put it all back together, tighten it all and go ride! If you need to drill holes in airbox or what not – don’t forget to do that or else engine might be starved for air.

If questions, PM me on Thumpertalk: bigboy292000