

Rotax Throttle System (RTS)

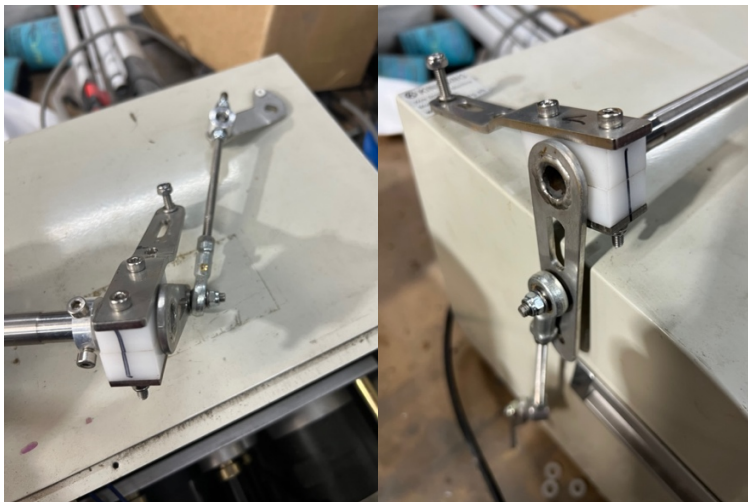
Installation

The left and right sides are stamped. Left and right is looking forward from the pilot seat.



The unit is disassembled for postage so be sure NOT to change pivot blocks around or mix them up.

Make sure the black marker lines on the blocks are lined up.



Assemble the carb pivot blocks onto the main control rod.
The longest arm welded on the cross rod is the left side of the engine.

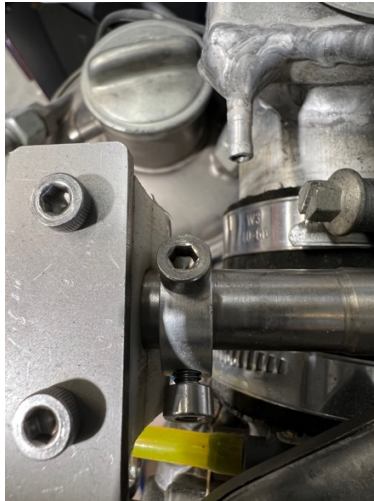
Attach the carb pushrods to the arms noting the left and right sides making sure there is a washer either side of the ball link.



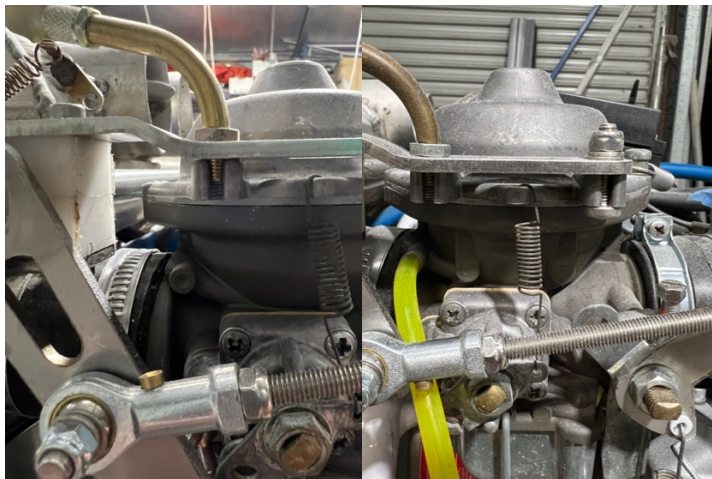
The pivot blocks are on the carb mounting brackets.
When fitting these you will need to file the small moulding ridge on the carb top to allow the bracket to sit flat when mounted



Make sure the right side round stop on the cross rod is loose



Your original choke tubes are one hold down and a 4mm pan head bolt is the other. The pan head goes onto the underside of the carb without any washer under the head. NOT on the top otherwise there will be no clearance for the carb pushrod. With the choke tube wind the locking nut as far up the thread as you can then carefully screw it back into the carb, make sure you do this carefully as to not strip the thread in the carb body you need to get the thread as far as you can into the carb body and lock it in position with the nut.



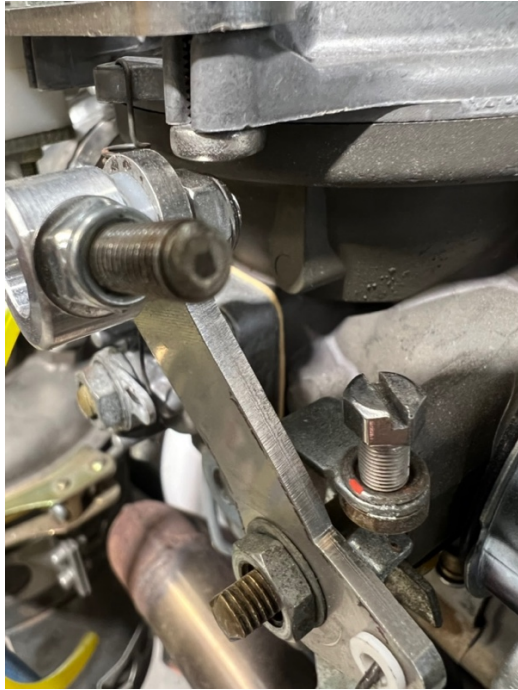
Make sure the carb rotation in the joiners to the inlet manifolds are loose as the carbs need to be aligned to the cross rod properly. Bolt the carb mount plates down then rotate the carbs so the whole assembly is nice and straight and rotates properly



The left side of the rod is locked by the welded spacer and the floating spacer will take up the small distances between different air boxes. Once aligned then do up the locking screws on the floating spacer so it is just touching the right side pivot block



Fit the new throttle levers to the carbs you may have to slightly file the laser cut edges so the arms fit over the brass shafts. DO NOT be aggressive here you need to make sure you do not damage the brass shaft threads but you don't want the arm to be sloppy on the shaft. They should be very very close but be careful with this part



The throttle lever rod adjuster needs to only be tightened so that it is loose enough to allow good rotation but no slop. You will note the plastic washer between the throttle arm and the adjuster. It is better on the slightly tighter side to stop any vibration wearing the 6061 all pivot. See below about the springs



Once everything is connected check ease of rotation then you need to set the adjusting rods so that each carb throttle setting is the same. In other words both carbs need to be set at the idle stops and adjusted so that the throttle arms move exactly the same. Also some people have not set the arms up correctly. The arm on the carb should be setup so the throws are equal between idle and full throttle. This will make sure the threaded rods with the ball links are the correct length. It will also give a more linear response on the throttle position

You can either use the carb return springs or not. It will depend on your throttle. I prefer to leave the springs off as it is now a better throttle system than cables. Because the connection to the right side of the engine on the new throttle bar lever it most likely wont be a Bowden cable. Personally I am not fitting the springs because you don't need them as both carbs are tied together

Once this is done you need to do a carb balance and only adjust one side not both. Moving the threaded rod back and forth using the two nuts on the threaded rod. Once this is done you should never need to carb balance again

Please note this modification is for home built or experimental use and no responsibility is implied or taken for the installation of this RTS

Any questions or suggestions please email me at kylecom@tpg.com.au