

47cc Pocketbike WT HP Carb Installation Instructions

Contents:

1 - wt-668 carb w/bracket & swivel
1 - Billet intake manifold
1 - Velocity stack
2 - 5x50mm allen bolts
4 - 5x20mm button allen bolts
6 - 5mm lock washers
6 - 5mm flat washers
1 - Throttle spring
1 - Manifold to reed gasket
1 - Carb to manifold gasket
1 - Velocity stack to carb gasket

Tools needed:

Phillips screwdriver
4mm allen wrench
5mm allen wrench

Basics:

High speed setting 2 turns open
Low speed setting 1-1/4 turn open
The above are initial settings and fine tuning will be required

Turning the high or low speed in is leaner, which gives the engine less fuel. Too lean on the high speed can result in a piston seizure at high rpm. Too lean on the low speed will result in hesitation during acceleration. Too rich (screw out to far) will result in gurgling and/or a fouled spark plug.

Read instructions through completely before installing!

Step 1

Remove the top seat/gas tank fairing. Then drain the fuel tank, remove the stock air filter, carb, and intake manifold. For an easier installation, also remove the rear wheel.

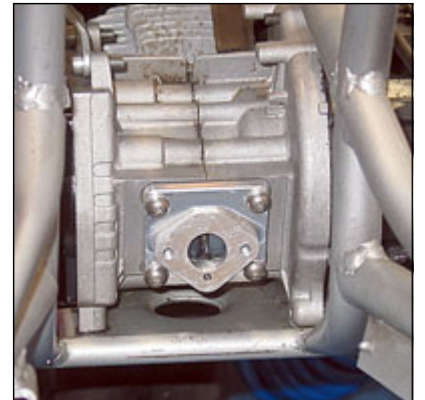
Step 2

Remove the stock gasket that was in-between the reed cage and the stock manifold. Scrape all gasket material residue from the reed cage. Do not remove the gasket that is in-between the reed cage and the cases.

Install the billet manifold using the supplied manifold to reed gasket and 5x20 button allens with lock and flat washers.

Make sure to align the gasket properly so that the pulse hole is exposed, as shown.

Install the manifold as shown, with the small pulse hole at the bottom.

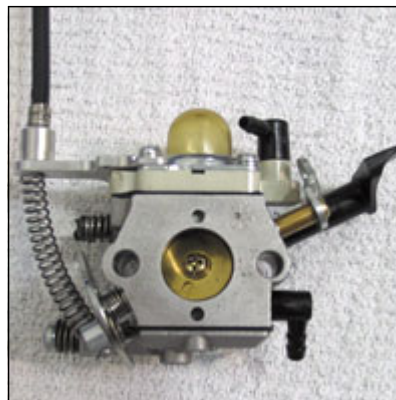


Step 3

Install the throttle cable and return spring onto the carb as shown. Insert the cable into the bracket, then slide the spring over the end of the cable and hook the end of the cable into the swivel on the carb. Be sure that the throttle cable does not come in contact with the exhaust pipe or that it gets kinked when the bars are turned in either direction.

Bolt the carb and velocity stack onto the billet manifold using the supplied 5x50mm allen bolts, lock washers, and flat washers. Be sure to use the supplied velocity stack gasket in-between the carb and velocity stack.

Note which way the choke lever is for open and closed.



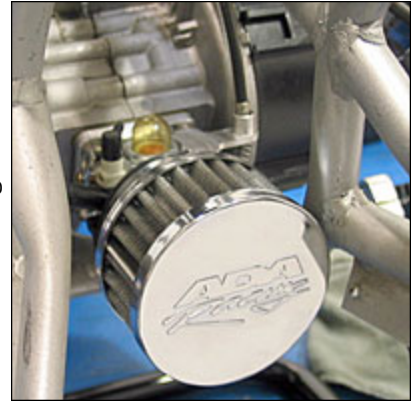
Step 4

Install air filter (not provided with carb kit). You will need a 1-3/4" clamp on style filter when using the velocity stack provided.

Install fuel lines with the supply line feeding the fitting on the bottom of the carb and the return line connecting to the top fitting. Note, the top fitting can be carefully turned. It is recommended that the optional fuel line kit is used, ADA part# pbfk-47. This carburetor requires that a supply and a return line is used. Plugging the return line can result in the carb not being able to be tuned properly.

The clear bulb on top of the carb is a fuel circulation pump, not a primer. This will not pump fuel into the engine, it will only fill the circuits in the carb. It is best to pump this bulb a few times before starting a cold engine, making sure the bulb has fuel in it.

Reinstall the rear wheel, gas tank, and fairings removed in step 1.



Tuning

Tuning of the carburetor requires patience, this is a high performance modification. Do not expect to bolt the carb kit on, set it to the initial settings, and have it run perfect. Carb tuning is affected by atmospheric conditions (i.e. altitude, air temperature, humidity), other engine modifications (i.e. pipe, reed, porting), gearing, and gas/oil ratio.

Set the carb to the initial settings, 2 turns open on the high speed and 1-1/4 turn on the low speed. You will need to turn the screws clockwise until they lightly stop, do not over tighten. Then back out the screws to the initial settings. When fine tuning, adjustments should be done in small increments, 1/16th of a turn. Plus, you need to pay close attention to the changes that are made. If an adjustment makes it run worse, then turn the adjustment screw the other way.

It is always better to first adjust richer, screw out, then adjust leaner. Running too rich will not hurt the engine, it may only foul a spark plug. Too lean of a setting can result in a piston seizure, damaging the piston, rings, and cylinder wall.

The low speed screw will also affect the idle, if the low speed is set too rich, it will not idle.

Walbro WT-668/603 Diagram

