

Instructions for the Jenks' Bolts Carburettor Tuning Kits

Cat No. CJK 10 Carb Jet Kit, Cat No MJK 10, Main Jet Kit
Cat No. NJK 10 Needle Jet Kit, Cat No. SJK 10 Super Jet Kit



Introduction

Your new Triumph is, as delivered from the factory, set up with jets that make the bike run lean, to ensure the bike works with the single way catalytic exhausts and air injection system that are needed to meet exhaust emission regulations.

Fitting off road exhausts and a free flow air filter will allow modification to the jetting that will release some extra power and optimize ride-ability. For suggestions on jetting setting for your bike, please read our Jetting Guide, available from the website as a free download, or contact "Jenks Bolts" for a copy.

The kits contain:

CJK 10: (Top photo) A pair of selected (short) and pilot (long) jets, four shims and 8 each of long (float bowl) and short (diaphragm cover) Allen headed stainless steel screws, with lock washers.

NJK 10: (Middle Photo) A pair of tapered Thrupton type needles, four shims and 8 each of long (float bowl) and short (diaphragm cover) Allen headed stainless steel screws, with lock washers.

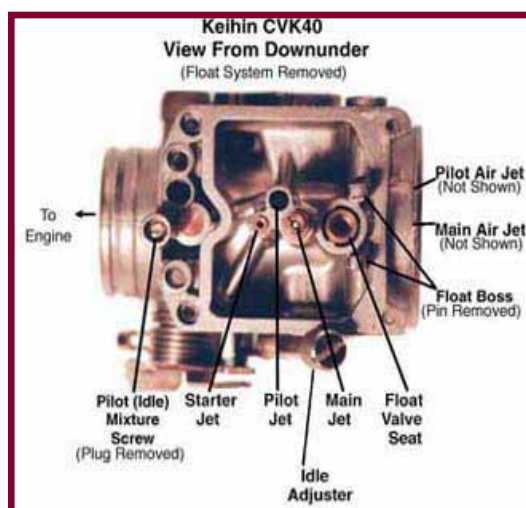
MJK 10 (lower photo) A pair of selected main jets, four shims and 8 each of long (float bowl) and short (diaphragm cover) Allen headed stainless steel screws, with lock washers.

SJK 10: (Not shown) A pair of tapered Thrupton type needles, a pair of selected (short) and pilot (long) jets, four shims and 8 each of long (float bowl) and short (diaphragm cover) Allen headed stainless steel screws, with lock washers.

The bottom photograph shows the main parts of a basic (no carburettor heating) CVK carburettor viewed from underneath with the floats and float chamber cover removed.

Application

The Jenks' Carburettor Jetting Kits are suitable for all Triumph Bonneville versions from 2001, including the T100, Thrupton, Scrambler, America and Speedmaster fitted with Keihin CVK carburettors.



Instructions

The work requires only basic workshop skills, but if you have any doubt about your ability please give this kit and the instructions to a competent mechanic. The following notes are not comprehensive and provided only for guidance when working the Bonneville/T100/Thruyton.

Where the BA / Speedmaster are different, this is noted.

The Instructions that follow are for all versions of the kit.

This work is best done when the fuel tank is near empty - a full tank is heavy! Remember that petrol/gasoline is highly flammable and a skin irritant. Work only in a well-ventilated area and ensure there is no risk of ignition or spark.

All Kits:

- 1) Remove the seat.
- 2) Disconnect the battery, negative terminal first.
- 3) Turn off the fuel and then release the fuel pipe from the tap, there should be a spring clip that needs pliers to remove it. I prefer to replace the spring clip with a "Jubilee" (worm drive) clip for re-installation.
- 4) Release the tank breather pipe from under the right (when sitting on the bike) side of the tank, just behind the fuel filler. For California Specification bikes there are additional smog control bits to remove. (The BA is different)
- 5) Remove the 2 bolts holding the tank, slide back towards the seat and lift of the tank. Place it on a flat surface, supporting the rear of the tank so that there is no load on the fuel tap. (The BA is different)
- 6) Drain the carburettor float chambers: you will need a small size hex key to do this. The drain tap can be clearly seen on the bottom side of each float chamber.
- 7) Remove the four screws that hold the vacuum chamber cover: there is a spring under the cover, so release carefully.
- 8) Remove the spring and very carefully remove the slide and diaphragm.
- 9) Using long needle nose pliers pull out the white plastic needle carrier "spider" and remove the needle.
- 10) If fitting the Thruyton Needle from the Super Jet and Needle Jet Kits, this is when to do it.
- 11) If required, place one or two shims under the needle and replace in the slide.
- 12) Replace the "spider", making sure that the hole in the bottom of the slide remains open.
- 13) Very carefully replace the slide, making sure you do not bend the needle. The slider only fits one way.
- 14) Very carefully re-seat the diaphragm: a smear of clear silicone grease helps.
- 15) Replace the spring and push down the cover.
- 16) Use the SHORT Jenks' Bolts Stainless Steel Screws and lock washers to replace the cross head screws and fix the cover.
- 17) Check the carbs work and do not stick by working the twist grip once or twice.
- 18) Go straight to stage 35 for instructions on replacing the tanks and seat.

Carburettor, Main and Super Jet Kits

- 19) Disconnect the carburettor heater wires from the carburettors. These are the two connectors on the bottom of each float chamber.

- 20) Follow the wire back from the throttle position sensor (TPS) to the connector block and disconnect. The connector is often out of sight between frame and airbox and may be a fiddle to find. DO NOT remove the TPS from the carbs.
- 21) Remove the screw clamps that hold the inlet rubber connectors between carbs and inlet manifold.
- 22) Depending on the model year, either roll back the spiral springs that secure the rubber air box connector to the carbs or undo the screw clamps.
- 23) To remove the inlet manifold rubber connectors you can force them forward over the inlet stubs. If they are cold this is almost impossible, when warm it is possible on early production bikes. From 2004 model year harder, better fitting rubbers are used, which cannot be forced over the inlet stubs. A better way is to unbolt the inlet stubs from the cylinder head. If you do this do not lose the rubber "O" rings that seal the inlet stubs to the block. On the Thruxton and 2005 model T100 and Speedmaster there are an additional set of "O" rings between the plastic spacers and the inlet manifolds.
- 24) With the carbs disconnected from the engine and air box swing them over to the left side of the bike: there is NO need to disconnect the throttle cables.
- 25) Use a zip tie or wire to hold the carbs to the frame tube in such a way that you can easily get to the bottom of the carbs.
- 26) Working one side at a time remove the float chamber cover. The result should look like the carb on the left of the photo below.
- 27) Select a broad blade screwdriver that fits the slot in the jet. Hold the main jet carrier with a ring spanner and unscrew the main jet. Replace with the new size jet.
- 28) Unscrew the pilot jet and replace with the new size.
- 29) You may want to check the float height at this point. With the carburettor inverted the round float should be $17 \pm 1.0\text{mm}$ higher than the flat edge of the float chamber.



- 30) Replace the float chamber cover, making sure the sealing "O" ring is not dislodged. Replace the cross head screws with Jenks' Bolts Stainless Steel Screws, use the LONGER screws with the lock washers provided and tighten evenly.
- 31) Repeat the process with the other float chamber, note the way the idle speed adjuster fits and replace correctly.
- 32) If you live in a market where the air bleed screws are covered with a tamper proof plug, now is the time to remove the plug. They are identified as "Idle Mixture Adjustment Screw" in the photo above.

- 33) Initially set the air bleed screws as follows: 40 pilots to 3.5 turns, 42 pilots 2.5 turns, 45 pilots 1.5 to 2 turns. All settings are from fully closed. All 2004 year and onward models have special "tamper resistant" screws that require a special "D head" screwdriver, instead a normal flat blade screwdriver. In this case the holes are not plugged. The special screwdrivers can be obtained from Triumph dealers.
- 34) Re-fit the carbs by reversing the procedures used to remove them. Make sure all the clips and sealing rings are properly seated and all wires re-connected.

All Kits

- 35) Replace the fuel tank, making sure the various hoses are properly in place and re-connect the fuel line. Turn on the fuel tap to allow the float chambers to fill up.
- 36) Re-connect the battery, positive lead first.
- 37) Start the bike and warm up. Adjust the air bleed screws, if needed, to get an even idle at about 1000 rpm with no popping. A dynamometer helps, the optimal settings may not be exactly the same for each carburettor.
- 38) You may want to balance the carbs again at this point: refer to the Triumph workshop manual for details.
- 39) Replace the seat, using a pair of the Jenks' Seat "Thumb Bolts" for preference. The photo below left shows a set of Black and Nickel Seat and Side Cover Thumb Bolts, the photo on the right shows the bolts fitted to a Bonneville.



Remember, changing the carburettor jets will increase emissions of un-burnt hydrocarbons. In many markets there are no emission tests for motorcycles, but it is your responsibility to check your local regulations.

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Issue R, February 2006

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