

## Trident/Rocket 3 Throttle gantry conversion.

### JRC 14-315A

Thank you for your purchase of JRC Engineering carburettor conversion for the BSA and Triumph 3 cylinder motorcycles 1968-1974 A75 and T150. Please note the T160 uses a different adaptor set. These instructions should make the job of changing carburetors easy. If you do not feel qualified to do this job please contact us and we can refer you to a qualified professional in your area. Figure 1 shows the completed assembly.

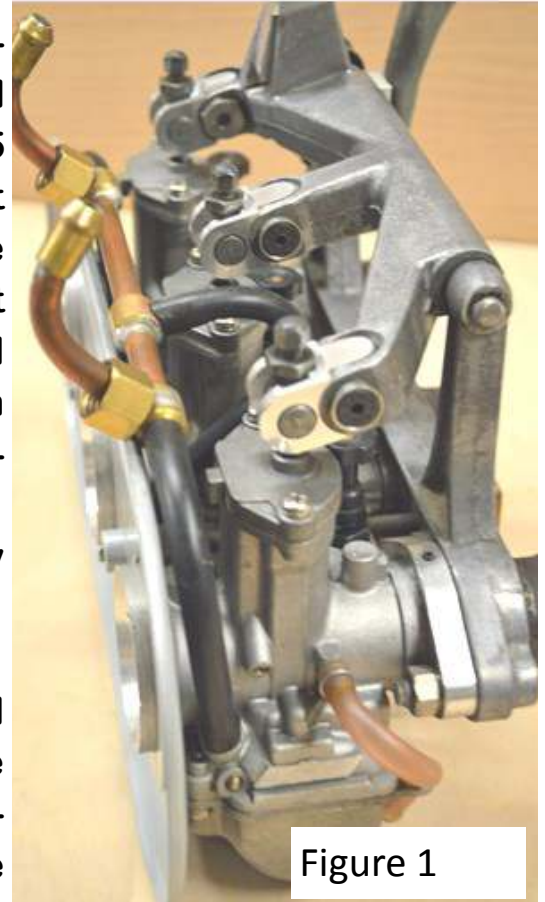


Figure 1

**Step 1.** Disconnect the battery to remove any chance of a spark igniting fuel.

**Step 2.** Remove the stock fuel lines from the fuel taps, remove the fuel tank mounting bolts at the front and rear of the tank. Be careful not to inadvertently turn the fuel tap on while removing the fuel tank. Set the tank in a safe place away from the work area. Please note that gasoline vapour can travel a long way and can be ignited by a dryer pilot light and flash back a long distance. Always work in a well ventilated area and be very careful with gasoline.

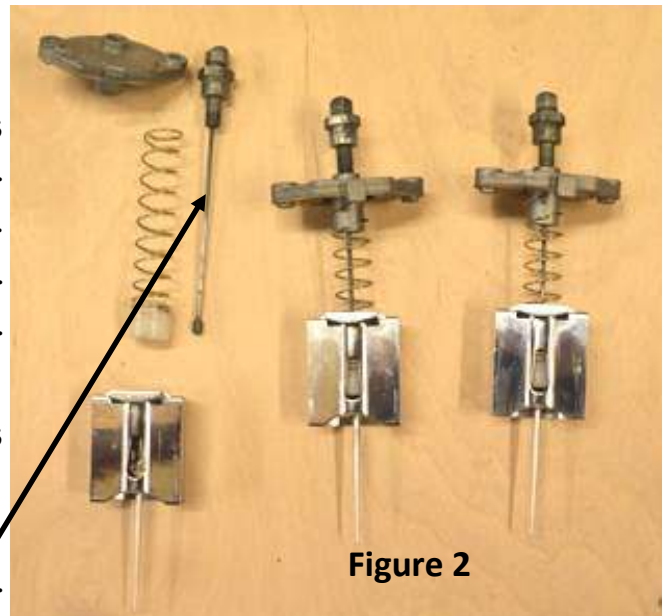
**Step 3.** Slack the hose clamps that secure the gantry to the cylinder head. Remove the throttle cable from the gantry. Remove the stock air box by slacking the two securing bolts. Lift the carburettor up gently until the gantry comes away from the rubber inlet manifolds.

**Step 4.** Take the carburettor set outside and turn upside down to drain the remaining fuel from the float chambers. Do this in a well ventilated area.

**Step 5.** Remove the six screws securing the carburettor tops to the bodies. Loosen the throttle rod lock nuts and unscrew the throttle rods from the gantry pivot. Remove the fuel line assembly from the old carburettors. Remove the 6 half inch nuts that secure the carburettors to the gantry and separate the carburettors from the gantry.

**Step 6.** Remove all standard carburettor control mechanism but retain pull wires trunnions and adjusters, these will be re-used. The kit consists of 3 sets of components comprising of one each of the following, machined aluminium link, countersunk top hat bush, threaded top hat bush and M5 countersunk screw. The pull wires may need the extra nipple removing as in figure 2.

Figure 2 showing pull wire on left with nipple removed, other two assembled ready to be installed into carbs.



**Figure 2**

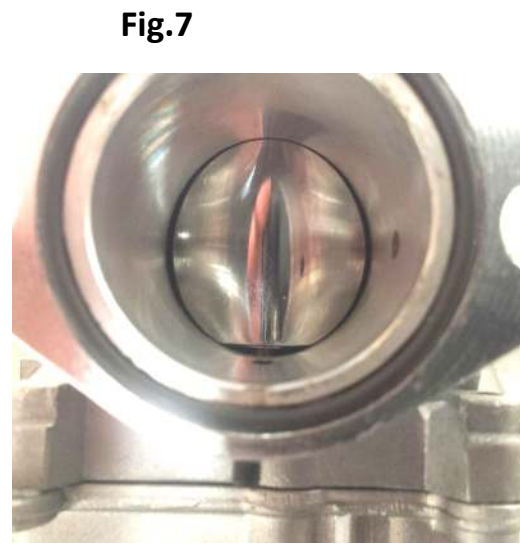
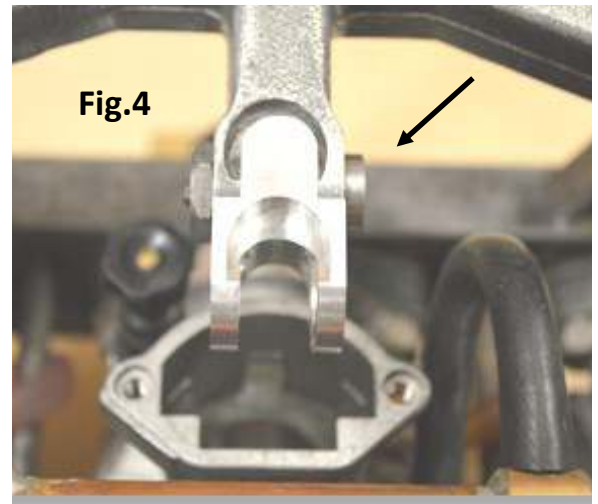
**Step 7.** Figure 3. Shows the method of assembling the components, when tightening the screw make sure the extension piece is fully positioned in the bottom of the gantry, owing to the hand finished nature of the gantry it may be necessary to fettle the external radius to enable the proper fitting of the top hat bushes to allow the screw to align. If the centre one is assembled first it is easier to gain access the screw.



**Figure 3.**

**Figure 4-5**

**Tighten the countersunk screw fully (Fig.4) , when doing this it is suggested that you align one flat of the hexagon vertically to assist clearance of the radius on the inner corner of the casting. You might like to apply some thread lock to the screw for added security. The pull wires, adjusters and trunnions are assembled as they were in the original set-up, see picture (Fig.5)**



**Step 8. Drop the slide assembly into the carburettor body making sure the throttle needle enters the needle jet hole in the bottom of the carburettor bore. Secure the top with the Phillip's screws to the carburettor body. Bolt your new JRC carburetors to the gantry using the O rings provided. Tighten the 6 securing nuts to just past snug, do not over tighten. Slide the trunnions into the gantry (figure 6) arm with the slot outward. Insert the lifting rods through the new gantry extensions and loosely tread the lifting rod down until the throttle slide is completely closed and no light can be seen through the inlet of the carburetors. Now turn the idle screw on the gantry until a slight gap can be seen at the base of the throttle slide and the carburettor bore (Fig.7 ). Adjust the throttle rods on all 3 carburetors so that the gap is identical for all 3 and lock down the larger throttle rod lock nuts.**

**Step 9.** Using care slide the gantry back into the inlet manifold rubbers. It is recommended that you replace these rubber manifolds if they have become hard or are cracked. The Triumph part number is 70-9060 and are available from us or a reputable dealer. Do not use radiator hose as it is not suitable for use with gasoline. Connect the throttle cable to the gantry.

**Step 10.** Fabricate fuel lines using the fuel hose and clamps supplied along with the Tee fittings supplied. Always use clamps with fuel hose. We have left the fuel line Simi finished so you can adjust it to your fuel tank style.

**Step 11.** Remove the rubber grommets and steel rings in the air box. Install the large O rings supplied with the kit on the mouth of each JRC carburettor and install the air filter assembly leaving out the thick grommets and sleeves. By removing the large grommets originally on the filter the air filter can move forward enough to compensate for the slightly longer JRC carburettor.

**Step 12.** Reinstall fuel tank. Attach fuel lines and turn fuel on checking for any leaks. Reattach battery leads.

Figure 7



To cold start pull up on the large black knob on each carburettor (Figure 7) . These enrich the mixture for cold starting. Start the engine and allow to come up to operating temperature. Adjust the idle speed using the large adjuster on the original gantry (A). Turn the air screws ( Fig. 9- B ) on the side of each carburettor slightly in or out until the idle speed picks up a bit. Do this for each carburettor and then set the idle speed to 6-700 RPM using the larger gantry adjuster ( A ) figure 8.

Figure 8

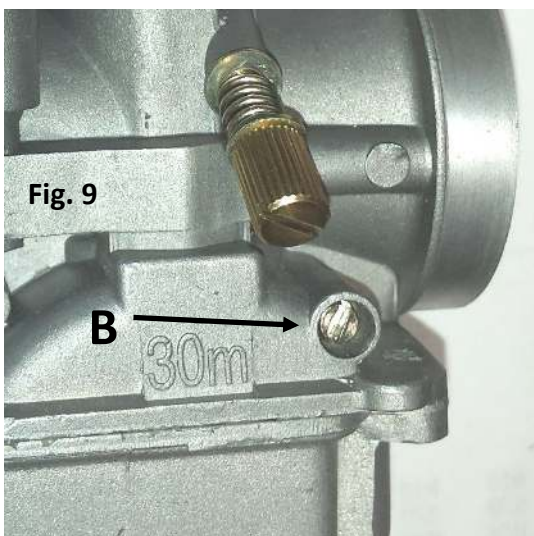
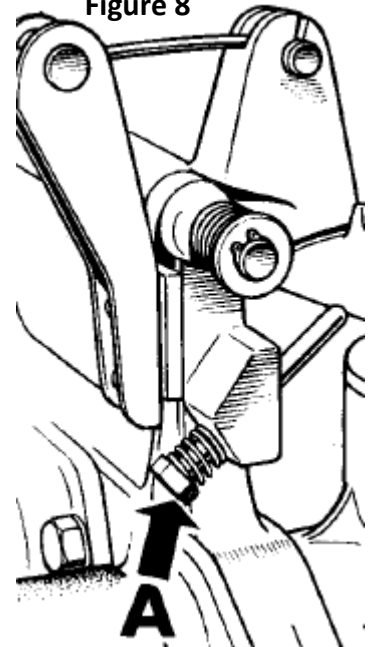
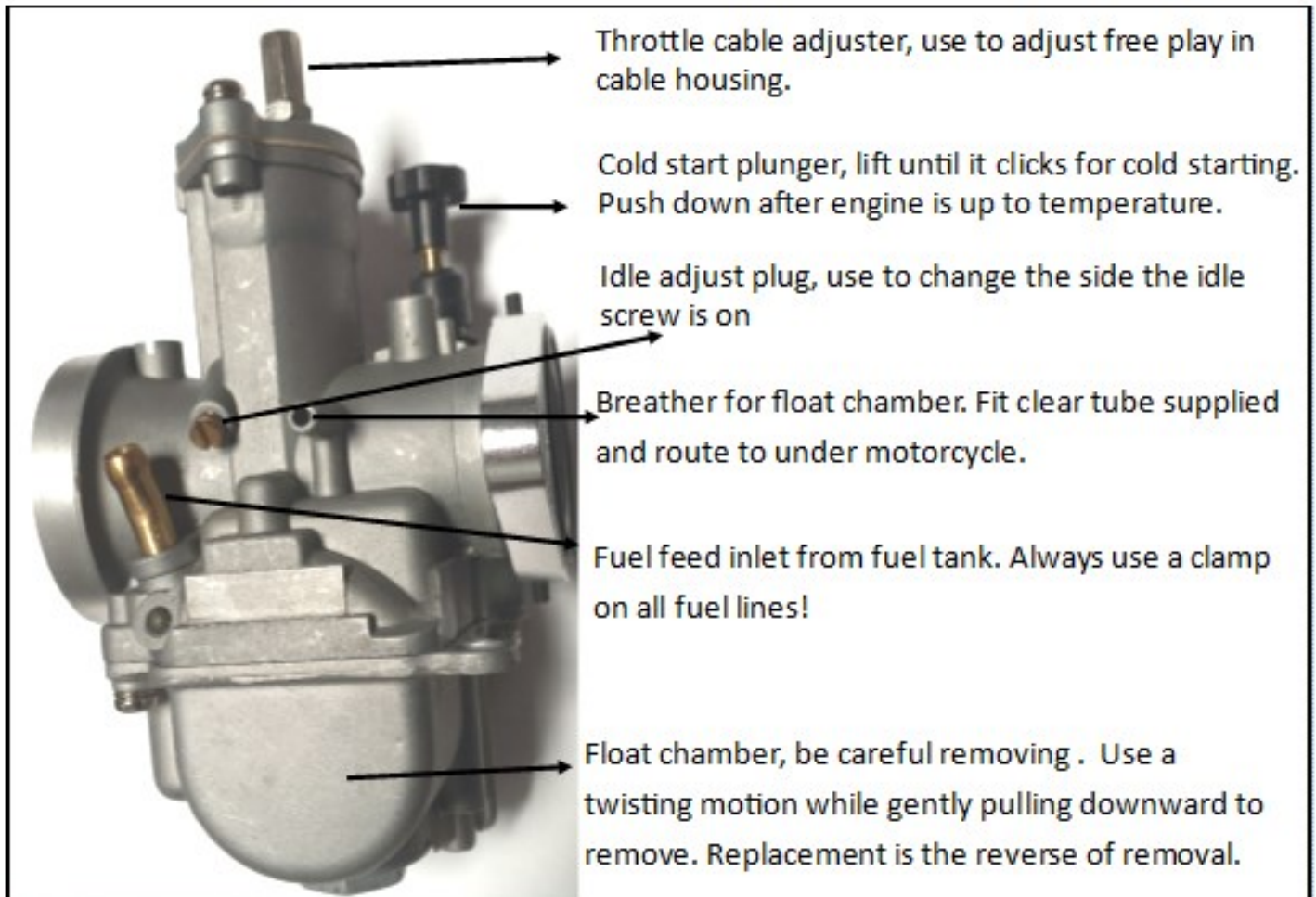


Fig. 9

B

30m

It is advisable to turn fuel off whenever the engine is not in use.



Throttle cable adjuster, use to adjust free play in cable housing.

Cold start plunger, lift until it clicks for cold starting. Push down after engine is up to temperature.

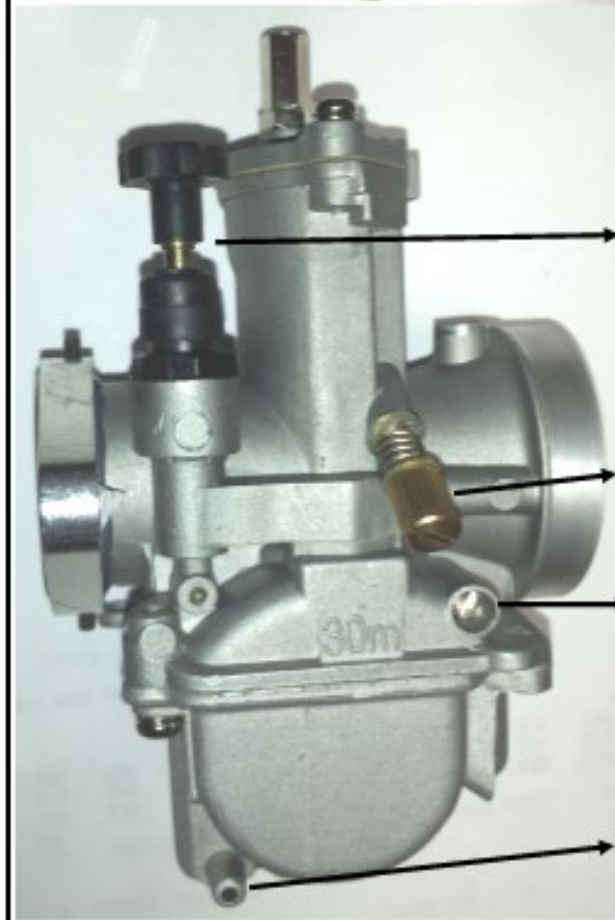
Idle adjust plug, use to change the side the idle screw is on

Breather for float chamber. Fit clear tube supplied and route to under motorcycle.

Fuel feed inlet from fuel tank. Always use a clamp on all fuel lines!

Float chamber, be careful removing . Use a twisting motion while gently pulling downward to remove. Replacement is the reverse of removal.

### The JRC Carburetor at a glance

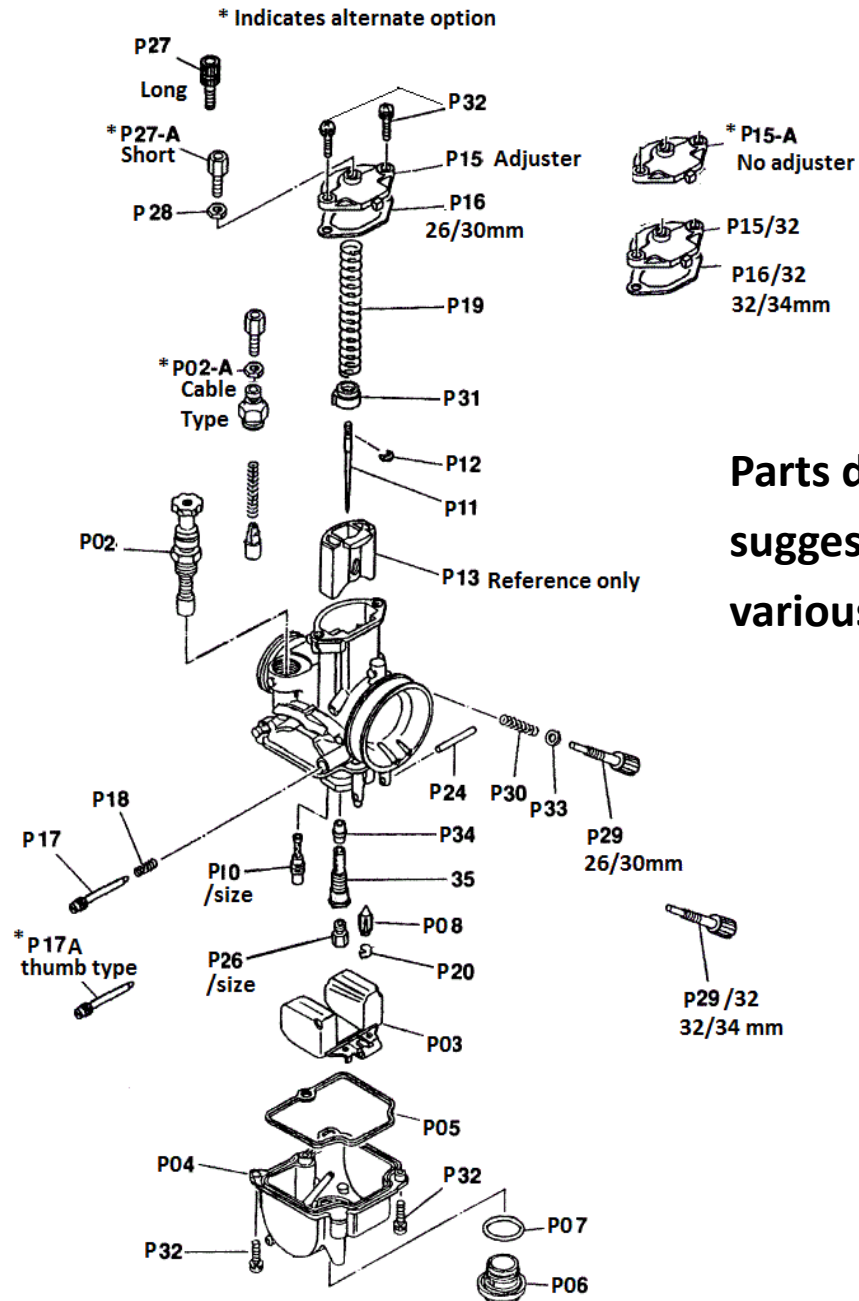


Cold start plunger , pull up to start and push down when engine is up to temperature. Cable operated unit is available

Idle speed adjuster. Screwing clockwise increases idle speed by lifting the throttle slide

Slow speed screw, turning in leans the idle circuit and screwing out richens. Start with 1 1/2 turns out

Float chamber overflow , fit supplied clear tube and route to the underside of the motorcycle.



**Parts diagram and suggested jetting for various motorcycles.**

Make	Pilot	Needle jet	Needle	Needle pos	Main elevation	Unit
BSA A10 650	35	std	std	center	125 2000	30mm
BSA A65T	35	std	std	center	118 2200	30mm
BSA A65L	30	std	std	center	130 2200	30mm
BSA B25	25	std	std	center	110 2200	26mm
BSA B44	30	std	std	center	135 2200	30mm
BSA B50T	30	std	std	bottom	130 1000	30mm
BSA B50MX	35	std	std	bottom	140 1000	30mm
Triumph T100C	30	std	std	center	115 2200	30mm
T100R	30	std	std	center	110 1000	26mm
TR6/T110/6T	35	std	std	center	135 2200	30mm
T120	35	std	std	center	137 2200	30mm
TR7	40	std	std	center	140 2200	30mm
T140	40	std	std	top	130 2200	30mm
T160	30	std	std	top	110 2200	26mm
T20 Cub	25	std	std	top	90 2200	26mm
Moto guzzi 850	38	std	std	center	130 2200	30mm
Velocette 500	35	std	std	bottom	140 1000	30mm
Vincent 1000	40	std	std	center	140 1000	30mm
Norton 750 com	35	std	p11/32	Center	132 2200	30mm
Norton 850 com	35	std	p11/32	center	132 2200	30mm