



**SPARES for ROYAL ENFIELD & AMAL**

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**HITCHCOCK'S MOTORCYCLES LTD**  
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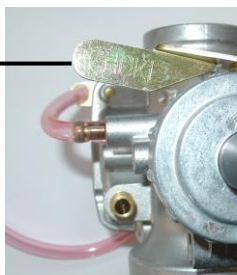
## **MIKUNI CARBURETTOR Kit: Part Nos. 90086**

### **Tuning Instructions:**

When fitting the Mikuni Carburettor to your engine, check the following points:

1. The rubber flange adapter fits correctly with no air leaks. Do not over tighten the clips, which could split the rubber.
2. The throttle cable(s) are of adequate length and there is adequate movement of the inner wire for the throttle valve to close completely.
3. Using the small circlips supplied, petrol pipes must be connected tightly to prevent leaks and in such a way that the carburettor is not prevented from moving on its rubber mounting.
4. There must be a good connection to the air cleaner if one is used.

Cold start or  
'CHOKE' lever



### **Starting from cold**

Depress starting lever (marked CHOKE), this will introduce the cold start jet system, which is completely separate from the main jet system. It will introduce over-rich mixture on the engine side of the throttle valve. Do not open the throttle valve more than one quarter or the cold start system will not work so well.

### **Tuning sequence**

To obtain correct carburetion for any stated fuel, assuming that the correct size carburettor is fitted, the sequence is as follows:

1. Main jet for power at full throttle
2. Pilot air adjuster for idling speed
3. Cutaway for take-off from the pilot jet
4. Needle jet and needle position for clean carburetion between one quarter and three quarters.

### **1st: Main jet**

If at full throttle the engine runs heavily and does not pull at full power, the main jet is generally too large. If the engine fades at full throttle or runs better with the throttle eased off slightly the main jet is too small. With the correct size main jet the engine should run freely at maximum rpm giving good power. When testing for the correct main jet, give careful attention to spark plug readings; the correct colour will be light brown or chocolate colour surrounding the central electrode.



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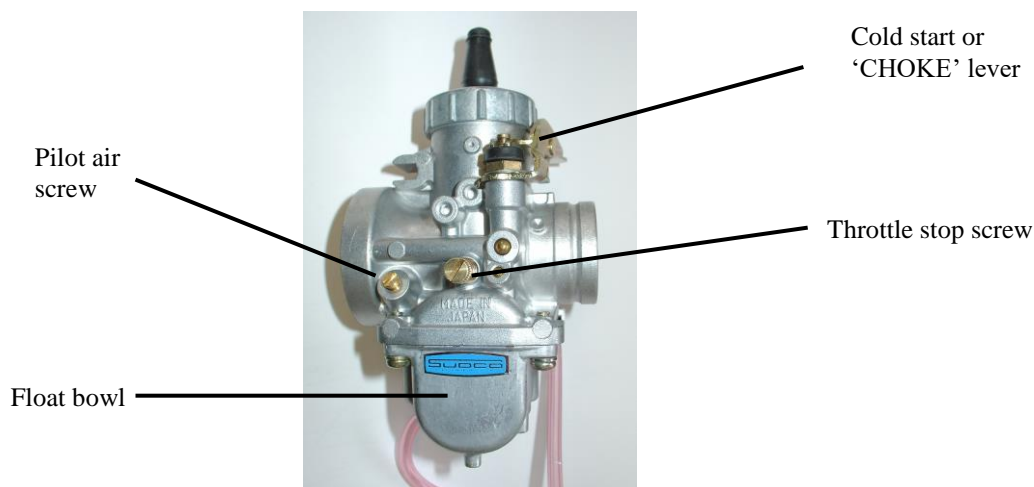
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### **2nd: Pilot jet**

The pilot system governs engine tickover and can affect pickup and transmission to the main system. Choose a jet so that with the carb set for steady idling, the pilot screw is one and a half turns from its seat. If the adjuster is further on its seat, a larger jet is needed, conversely if the adjuster is screwed out a long way a smaller jet is needed.



**To set correct tickover (or idle) speed**, start engine and allow it to reach normal running temperature. Adjust the throttle stop screw to achieve the slowest possible idle speed. Now adjust the pilot air screw for fastest engine speed. Reduce engine speed with throttle stop screw again, repeat the same series of adjustments once more.

### **Throttle valve cutaway**

The throttle valve governs transition from idling to the main system and also influences response at small throttle openings. When opening the throttle, if the engine fades or spits back this indicates a weak mixture and a smaller cutaway is needed. If the engine runs unevenly and heavily, a larger cutaway is needed. The main influence of the throttle valve takes effect up to one-third throttle opening.

### **Needle jet and needle position**

These influence the range from one quarter to three quarter's throttle: the needle jet, mainly the lower half of the range and the needle the upper part of this range. It is important to get the right combination. Usually the needle jet supplied with the carburettor is the correct one for that instrument. Raising the needle produces a richer mixture and lowering, conversely, a weaker mixture. If it is necessary to go to the extreme of the adjustment in either direction, then probably the next sized needle jet, up or down, could be utilised usefully with some further re-adjustment of the needle position.

### **Air filters**

These may affect the jet setting, so if an alternative to the supplied filter is used the main jet may need to be changed. If the carburettor is used without an air filter great care must be taken that the engine does overheat, due to too weak a mixture.