

## Carburettors

Roger Hulett

Joined: 31 May 2004

Posts: 87

Location: South West France

Posted: Sat Apr 14, 2007 3:58 pm Post subject: Carburettors

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In January/February 2006 there was some correspondence re the above. I have a leaking carb and would like to clarify certain points. What carburettors were fitted to Scotts over the years, "Technicalities" does not give any info.?

In the 2006 correspondence I noted that the words needle and spring clip were used. My Amal carb has the petrol supply into the top of the float chamber and as the float rises it meets an obstruction on the needle and pushes the needle up to close the inlet, so unless the needle point has been ground away, the fuel level is predetermined. But it still leaks from the carb body. Any comments will be appreciated  
Roger Hulett.

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efr215

Joined: 06 Nov 2004

Posts: 121

Posted: Sat Apr 14, 2007 9:46 pm Post subject:

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Roger,

The previous correspondence is half way down page 5, the last posting was Friday March 10th. 2006.

As I write I have my brand new top feed 206/151R carburettor beside me for reference. You may rest assured that the dimensions given in the previous post are accurate.

I note however there is one more piece of information that could assist. This is the dimension from the top of the float to the mating face of the screwed on float chamber top cover/ float chamber body joint. This dimension is 0.75" (19mm) with the float needle sitting in the closed position in the needle valve.

In addition I have checked the fuel height as there seems to be some disagreement on the subject, the correct height should be 0.75" (19mm) below the bottom of the carburettor's 1.0625" diameter choke. Put another way the correct fuel level is 0.25" (6.35mm) below the two 0.093" diameter holes positioned port & starboard in the carburettor body just above the screwed on bottom fitting/banjo assembly.

Gawd! I wish I could put pictures/drawings on 'ere! It'd be so much easier than trying to guess how many ways there will be of miss-reading my written word!

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Richard Moss

## Carburettors

Joined: 12 Nov 2004  
Posts: 57

Posted: Wed Apr 18, 2007 2:11 pm      Post subject: carb flooding

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Worth checking the float needles taper also as they do get worn because of engine vibration. You can get these from Don Payne at Hitchcocks Motorcycles i would think.

Don had a Scott and is a very knowledgable man in issues relating to carburation. Hitchcocks is on 01564 783 192 or [info@hitchcocksmotorcycles.com](mailto:info@hitchcocksmotorcycles.com)

or check out

[www.hitchcocksmotorcycles.com](http://www.hitchcocksmotorcycles.com)

He is not the only purveyor of fine AMAL stuff around and i recommend a visit to the Surrey cycles website also to check out the exploded diagrams of various carb models online. <http://www.amalcarburettors.co.uk>

I have recently come across a couple of instances in reputable two stroke tuning books which suggest the float height to be of much less critical importance than people generally believe. If it comes down to your carb leaking because of a combination of the carb angle, the position of the air feeds for the emulsion tube, and the float height...

well... Is there any impediment to you just swinging the float chamber back and thus reducing the height until it doesn't leak?

Has anyone out there ever seized a motor on account of lowering the float height or in fact know of anyone who has?

difficult to be sure but i'm interested..

The thing is.. In all these years of racing.. we haven't.

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Roger Hulett

Joined: 31 May 2004  
Posts: 87

Location: South West France

Posted: Wed Apr 18, 2007 6:16 pm      Post subject:

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Hi David and Richard. The other purpose of my post was to try and discover which carb fitted which bike. In the mid 80s I bought 3 basket cases. 20yrs later i'm putting them together. However !!! there are 4 carbs. One with no identification and with bottom feed to the float chamber was loosely fitted to the 1947FS. Of the other three, two are marked (rather amateurly) 6/151 and the other GT 9186. Any ideas which bike needs which carb. 1929/500 and 1936/600. Je ne sais pas .!!!

Roger Hulett

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efr215

Carburettors

Joined: 06 Nov 2004  
Posts: 121

Posted: Wed Apr 18, 2007 8:25 pm Post subject:

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Sadly I am not qualified to say anything about what fitted to what and when as I barely know wot-iz-wot having only been up close and personal with the one Scott, (or parts of many?). For example my 1950 (alleged) box-o-bits has a short frame mag/dyno, (wot no coil/distributor?), it also came with two gearboxes with different ratios both of which would seem to be intended for hand-change although one has a crudely attached foot change selector sawn off something else.

I hate to see grown men cry so I won't go on.

On the subject of fuel heights the following might be of interest:

I have a tiny side valve engine designed by Edgar T. Westbury, a name that will be know to all model engineers and it is said the inspiration for the central character in Nevil Shute's "Trustee from the Toolroom". It was intended for use in the field during WWII as a small generating set. The carburettor has no float chamber and has to suck the fuel up some four inches from the tank that forms the base of the set. This it does with some alacrity even when hand starting from cold.

As I have said before it is quite hard to have the fuel height too low! Logically, when you think about it, the fuel head need only be sufficient to keep the main jet submerged at full throttle.

As Richard says check the condition of the float needle and seat.

Take the top off the float bowl and see if the needle seals when you blow down the top connection.

As far as the needle seat is concerned I'd be inclined to go for a thin line rather than a matching taper, greater pressure per unit area plus less area for foreign bodies to get stuck to.

Also make sure the float chamber is set vertical.

If it still leaks try inserting a light spacer between the float and the needle clip and see if that improves matters, it might give some clues as to what is going on.

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efr215

Joined: 06 Nov 2004  
Posts: 121

Posted: Thu Apr 19, 2007 8:27 pm Post subject:

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An SU remote float chamber has just been listed on eBay (No.230119534487) so if you wanted to play with fuel heights this could be an easy way to do it.