

Air cleaners or just silencers? When Tractionistes meet there is always a bit of poking about under bonnets. The June long weekend was no

using, of all things, lead solder. This, of course, did not cut the mustard and it had subsequently re-broken.

A crappy repair is of little consequence

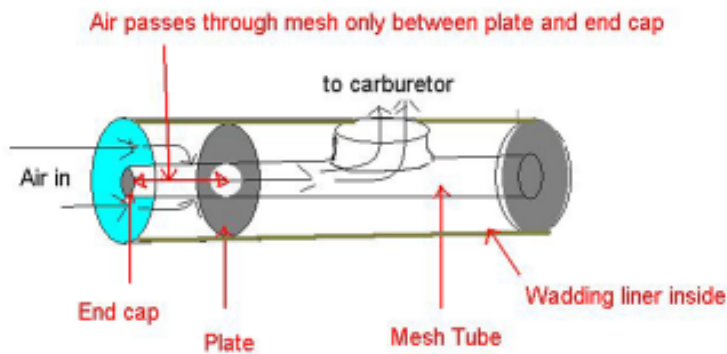
however in the grand scheme of things. The quick fix to get home was a stocking securely fixed over the open end with rubber bands. I reckon the stocking was probably more effective as an air cleaner than the original mesh and without the restrictive mesh perhaps the engine ran better on the way home. Thus I came to mulling over the best way to fix the unit and perhaps to improve the airflow as well.

Issue number 1: Anything smaller than around 1mm diameter will pass straight through the mesh and

exception.

After the movies at the Gippsland Heritage Park attention was turned to air cleaners. For some reason I grasped the inside of mine and gave it a tug. It moved! Not only that but it wouldn't reseat and thus out came the spanners to investigate further. Off came the unit - one of those long tubular types, typically found on the Slough product. The inner mesh tube had been broken from the bit that connects to the carburettor. At some time in the past it had been 'repaired'

TECHNICAL TALK



Slough type "Air Cleaner"

or is it really an "Air Intake Silencer" ?

thus down the throat and into our precious engine. Frankly I would prefer the bugs to the dust as I reckon bugs are less abrasive even though they are bigger.

Issue number 2: Airflow is restricted to only a few inches of mesh as there is a support plate fully surrounding the mesh tube just 3 inches into the outer tube. The rest of the mesh is of no use in allowing air into the engine. I reckon the cross sectional area of the holes in the mesh open to the outside air could well be less than that of the carburettor throat.

The fix 2: Allow air to freely enter the unit for its entire length.

Remove the plate supporting the mesh tube and replace it with struts. The struts can be pop riveted to the mesh and screwed to the outer

tube.

The fix 1: Filter the air with an effective medium

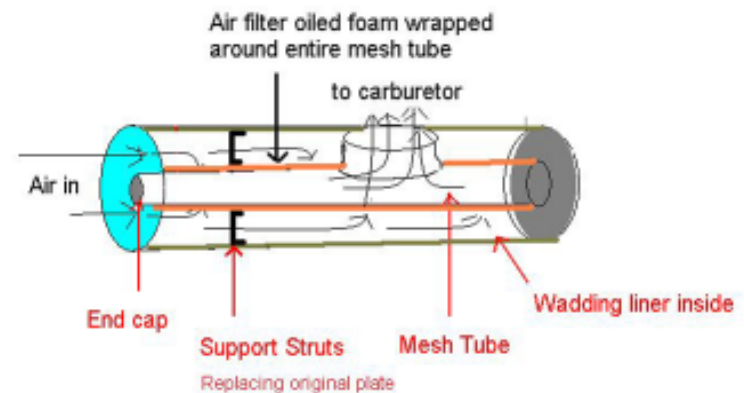
Wrap the entire length of mesh with oiled air cleaner foam. In order to preserve the external appearance of the unit the first inch of the inner mesh tube could be blocked off with foam from inside the tube.

A picture is worth many words thus below are two.

Now this is all just an idea in the mind of Rod at present. However just as soon as I can lay my hands on a sheet of appropriate foam reconstruction will commence.

If any of you tech minded persons see a problem with my solution please let me know. rodward@optusnet.com.au

Rod Ward



Modified Air Intake -

Provides increased air flow and improved air cleaning

S lough Aircleaner – The Final Solution. Well theory is just

that. While it looked good on paper, the planned air cleaner modifications from the last editions article were just a bit impractical. Finding a supply of foam sheet suitable for oil impregnation as an air filter was just not that easy.

Not only that, it turns out that the hastily reached conclusions about the original intake mesh were wrong. There are 25 holes of about 1.2mm diameter to every square centimetre of mesh. There is around 10cm of mesh tube with a diameter of 6 cm. Thus, we have about 190 square cm of mesh. If we assume an effective diameter of each hole to be 1mm, then each hole is 0.00785cm². [Anyone else would have said 0.7854mm². Ed.] Now there are 25 x 190 holes so the effective area for intake is 37.3cm². This is 157% of the area of the baffle plate opening [5.5cm ID].

So now that the original mesh intake area is shown to be OK, it is possible to take another approach using a commercially available filter pod attached to the mesh tube behind the baffle plate at the front end of the unit. Unifilter make a wide range of pod filters and one fits just perfectly into the aircleaner tube [UP6052].

The only trick now is to secure this setup inside the tube.

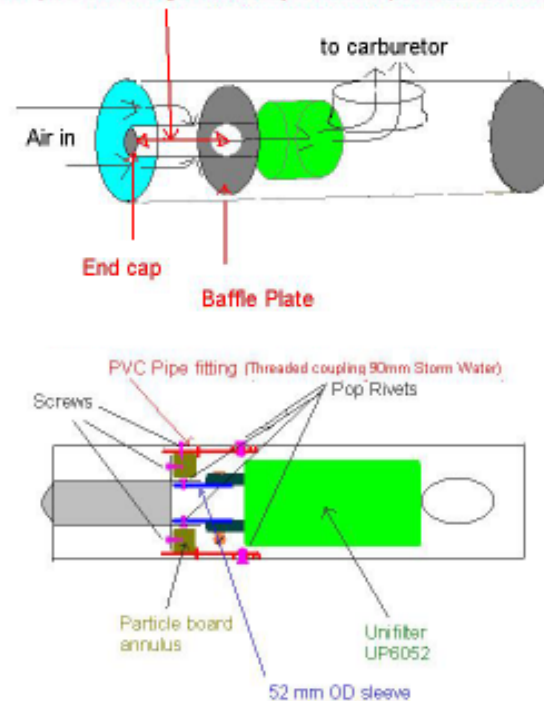
This is where a little improvisation was required. We used a 90mm threaded PVC plumbing coupler to

sleeve the tube and accept an annulus of particle board. The baffle plate of the original mesh intake is screwed onto this annulus. A 52mm OD sleeve is riveted into the mesh tube behind the plate to accommodate the filter pod. All this is far easier to visualise – have a look at the illustration below.

Stepwise it goes like this:

[1] Get rid of the carpet underlay that lines the tube along with the 60 years of grot it has collected. Then flatten the lip at the open end of the tube. Flattening is required in order to insert the PVC sleeve that supports the filter unit.

Air passes through mesh only between plate and end cap



[2] Modify the original mesh 'filter'. Cut the mesh tube about 3cm behind the baffle plate [the carburettor intake end]. Remove the lip from the plate.

Cut the mesh from the flange that

using four screws.

[6] Insert the PVC plumbing part into the tube, threaded end first. This may take a bit of force or cunning.

Secure it into place using pop rivets through the threaded section. [This creates the least

distortion] There will be a gap of about 2mm between the PVC fitting and the aircleaner tube. Fill it with gap filling goo, being careful not to get any on the inside of the PVC tube.

[7] Oil your filter, attach it to the 52mm tube, and insert it into the sleeve in the tube, securing it with three screws.

The only thing left to do now is to tidy up and paint the bloody thing again.

Leaving you with a completely original in appearance but properly functioning aircleaner that is able to be easily maintained.

Parts List:

- 1 x Unifilter Universal Pod FilterP6052: \$28.00
- 1 x Unifilter Filter Oil UBH01: Order over the web: <http://www.uniflow.com.au/> \$8.90
- 1 x PVC Coupling Threaded 90mm SW, from your local plumbing supply \$4.90
- Some scrap particle board around 18mm thick
- Assorted pop rivets and screws
- Silastic or similar.

Rod Ward



TECHNICAL TALK

bolts to the carburettor horn. Save the flange 'cos you will need it to attach the horn when you are finished.

[3] Pop rivet a length of 52mm OD tube inside the mesh tube. This is used to mount the pod filter which has a 52mm ID. [I used a convenient spray can that just happened to be the right diameter].

[4] Now make the particle board annulus. This part requires just a bit of precision. But it can be simply achieved – heck I did it as follows however those with access to wood turning equipment won't need instructions!

[a] Cut the board into a rough circle of about 100mm diameter using a jigsaw.

[b] Drill a 6mm hole in the centre and secure a 6mm bolt long enough to be attached to an electric drill.

[c] Secure the drill into a vice and using a surform rasp or similar, whittle the spinning disk to fit exactly into the PVC plumbing part [non threaded end].

[d] Use a 60mm hole saw to remove the centre.

[5] Secure the annulus to the now flat baffle plate, on the filter end,