DIY Barchetta exhaust heat shield

A common problem with the standard heat shield is that it breaks or splits then rattles. It is made of aluminium sheeting that is hardly thicker than Kipling's cake trays! Although originals are no longer available through F IAT, there are some professional after market alternatives available.   This guide is for those with some DIY skills willing to make their own.

Minimum tools are required, though a more decent set of tools will help.
Tape measure
Hacksaw
An 8mm drill bit
File
Materials:
A couple of pieces or off cuts of wood and two small cramps.
Some cardboard (a corn flakes box is ideal.) to make a template to fit/try the shield over the exhaust before cutting into the metal panel.
A small piece of sheet aluminium, or what you have available, I'm fortunate in having scrap metal and wood in the garage. **Size required 34cm by 40cm.**
Six large penny washers.

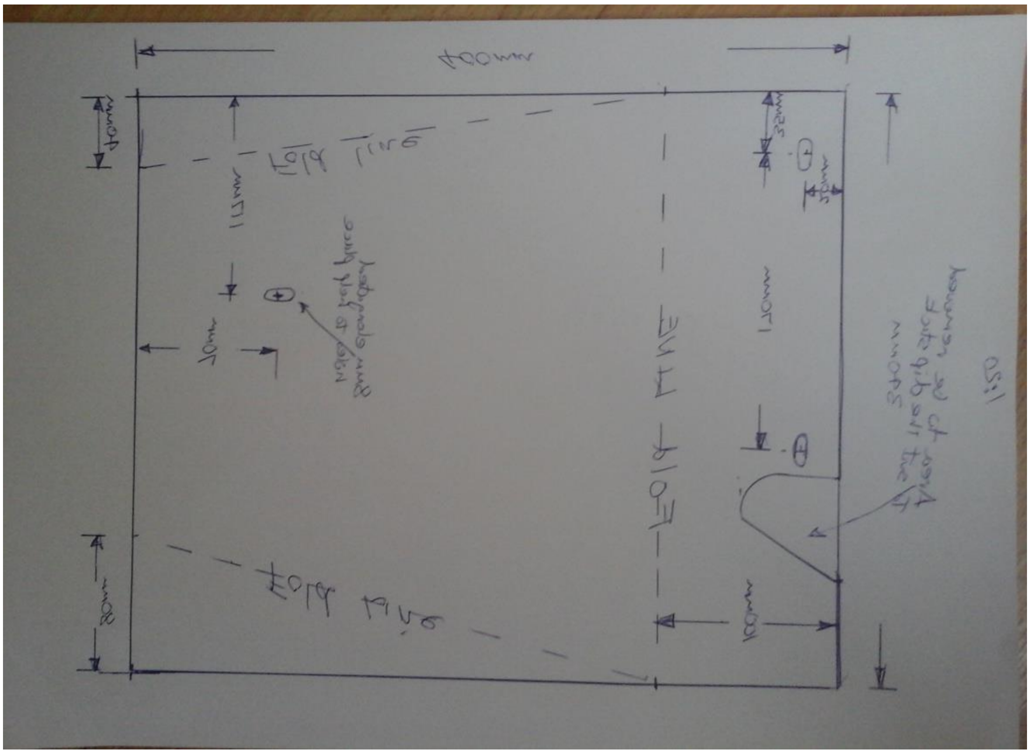
Preparation

1) Remove the long air pipe that sits above the radiator. This will give better access.

2) Undo the three nuts holding the heat shield in place. (*The studs are welded to the manifold.*) In my experience the lower nut is more difficult to get to and unfortunately may shear off. (*I managed to fix a nut on the remaining thread*

and join an extra piece of thread onto it. Today connectors are available from most good DIY shops.)

The Project Itself:



1) Using your card board and the measurements cut to size and fold the cardboard. At this point you only need to have the top two 8mm holes cut out.
2) Fold at the 100mm line.
3) Slide the cardboard template down into place; ensure that it fits nicely along the front of the engine block.
4) Mark out where you want the cut out for the dip stick.
5) Using the cardboard template you can now transfer any datum marks etc. across to the sheet metal you have.
6) Drill out for the top 2 fixings (8mm) and remove the area you want for the dip stick.
7) Using your wood off cuts and G cramps placed on the 100mm line bend the

metal to suit sitting nicely above the exhaust. (*may be a little trial and error at this point to get the correct bend)*

8) When you are happy with the top section fitting nicely and the bend is correct, slide the shield down. When it is in the correct top position, the studs sticking through. You can then, with your finger, rub the shield against the lower fixing and this will give you the correct position to drill the final and third 8mm hole.
9) Run the file round all the edges to take any sharpness away from them.

Finally fix using the penny washers, place one each side of the stud and nuts to help spread any load. (*Preferably use new nuts*.)