

Chassis Design

Several people have expressed interest in my home built chassis and in this issue I am including a sketch showing the basic design and dimensions that we worked to. (I say we as most of the work was done by my two brothers, both of which have a knack for this sort of thing. I'm totally useless when it comes to welding).

As you can see, it is a simple ladder frame with mounting holes for the axles and engine. The handbrake bracket and arm were removed from the donor chassis and welded into place on the new one. The same applies to the suspension cylinder brackets which had to be cut off of the chassis anyway to get the cylinders off due to the adjusters being rusted solid.

Anyway, the main chassis rails are made of 80mm x 40mm box steel with the cross pieces made of the same material except for the one which carries the handbrake lever which is 60mm x 40mm as this has to clear the exhaust balance box and the gearbox. The main rails are drilled to take the axles in a similar fashion to the Citroen chassis except that we have not fitted tubes through the box section. The main reason for this is that the holes are fairly close to the edge of the box section and to fit tubes would entail enlarging these holes out to the edge and require the tubes to have a flat on them to clear the edge, this edge also preventing the box from collapsing.

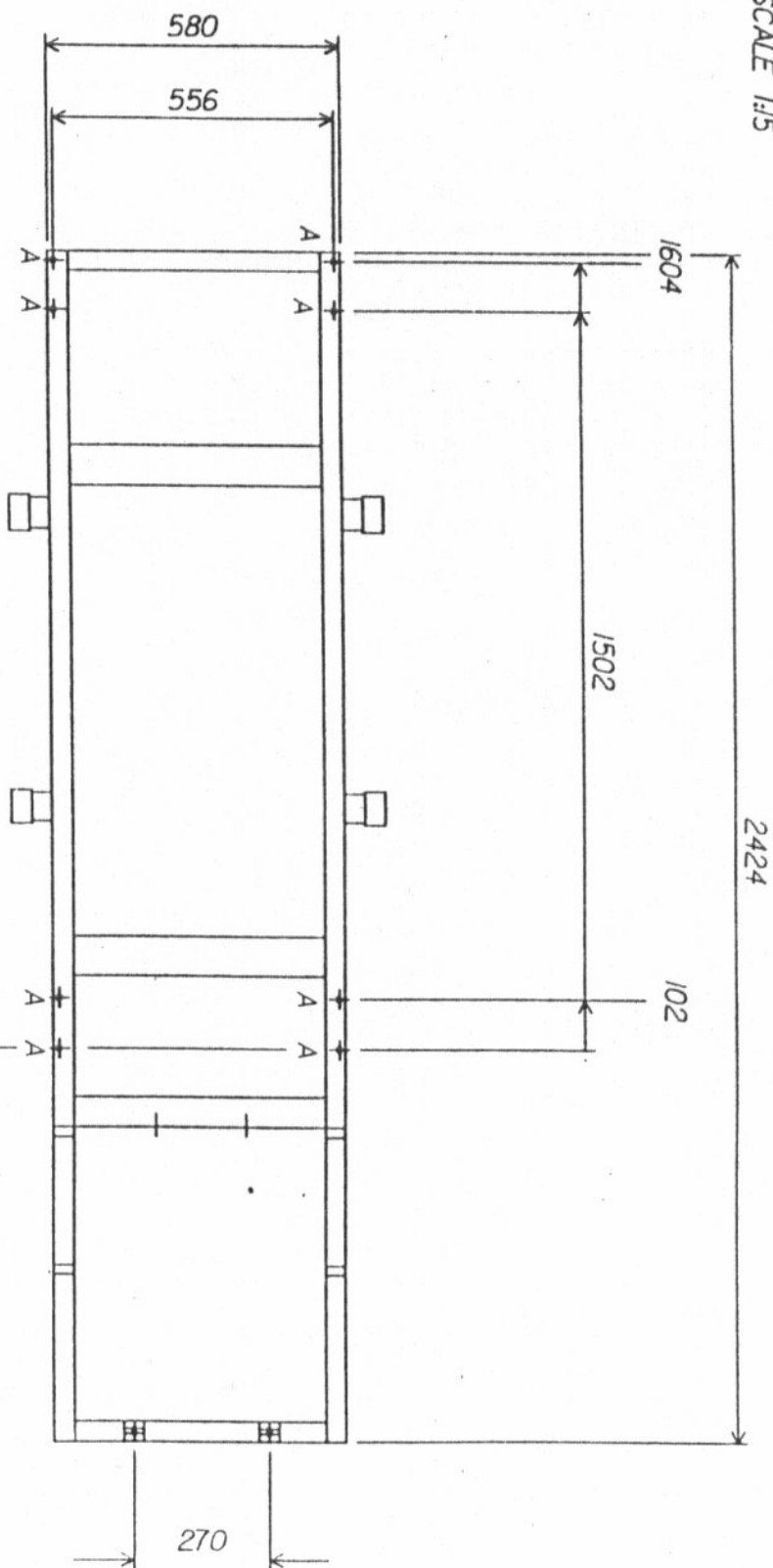
The body shell is fitted to lengths of angle welded inside the main rails so that no extra holes are needed and the seatbelt mountings will be taken to the crossmember which falls under the rear of the body shell. As yet the seatbelts have not been fitted so this may be subject to change.

The whole thing went together with no problems and when finished appeared to be a little lighter than the Citroen original in that it is relatively easy for one person to carry it. I suppose that we could have made it out of lighter section box, but we decided to go for something that should last for a reasonable length of time before the tinworms do too much damage. By the way, I shall be treating the chassis to a liberal dose of Waxoyl before I go to much further, but as I said above, the seatbelt mountings have to be made and fitted and I don't think Waxoyl and welding will go together too well!

I have plans for a revised design in the future which will probably incorporate some form of cross-bracing in the centre section, but this will not be built until the present one has been used for a while to see if anything else needs to be done. This next chassis will be designed to use the GSA 1300cc engine and 5 speed gearbox as well although what a three-wheeler with this combination in will go like I dread to think! So much for turbos!

If anyone else out there is doing something similar let me know or perhaps write a short article about your ideas which I can include in the newsletter. Colin Tester has sent me letter with his thoughts on the subject (see next issue) and David Cassell in Herne Hill has also been busy with the welding gear and has recently sent in a picture of his design. Any chance of some more details, Dave?

SCALE 1:5



Main chassis rails 80x40
 'A' holes 11mm dia.

