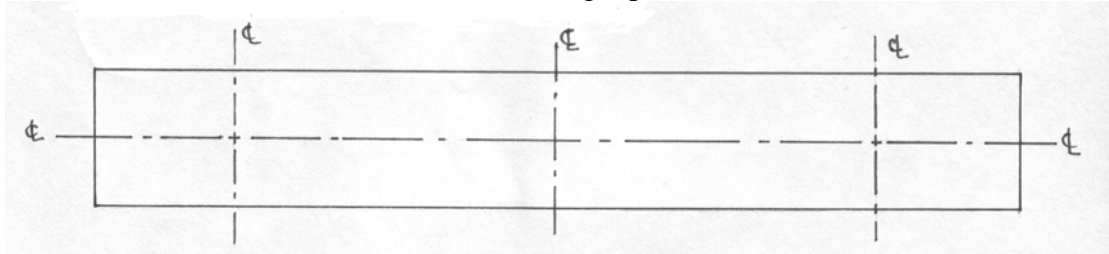


Tales from Barlow Works

Project Gresley

Part Four:- Underframe and solebars

Most of the next three sections will be with the body upside down. It is a lot easier if you have a piece of timber to rest the body on so the ends are clear of the workbench and don't wobble when you are trying to work. Mark a centreline down the centre of the floor, a line across the floor in the centre and a line across the floor where on the centre line of the bogie pivot.



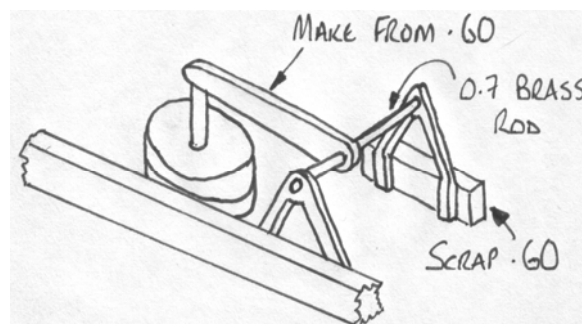
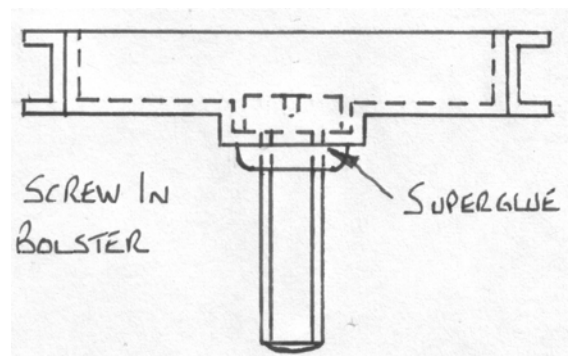
Cut the underframe ribbing to length depending on which type of coach you are constructing and mark the centre of the underframe ribbing. Glue the ribbing to the underside using the marks to line everything up.

Glue the pivot moulding to the bogie pivot and open the centre hole up very slightly. Screw the bolt into the hole until it starts to cut its own thread. When it is nearly screwed home put a touch of superglue on the remaining threads and quickly screw all the way in. The bolts were purchased from B&Q and are labelled, Machine Screws, Pan head slotted, zinc plated, 5mm 0.8mm x 20mm code avf-069901.

Glue the bogie pivot to the floor on the bogie centre lines

Glue the solebar channel to the floor level with the outside of the bogie pivots and the same width all the way down. Cut the channel to size if required.

Estimate the locations for the dynamo and vacuum cylinders, either from a drawing or from good photographs. There are two vacuum cylinders, one on each side and one dynamo. Glue together the parts for the dynamo and the vacuum cylinder. Drill a 1.5mm hole into the middle of the dynamo and superglue a length of 1.5mm brass rod into the hole.



Drill a 1.5mm hole into the floor and superglue the dynamo in so that it can just be seen below the underframe and cut off the rod flush with the inside of the floor. Drill a 1.5mm hole into the end of the vacuum cylinder and glue in a length of 1.5mm plastic rod. Determine the location of the V hangers and glue a piece of scrap .60 plasticard to the floor. Drill a 0.7mm hole in the ends of the v hangers and glue them to the underframe, one against the ribbing and one up against the piece of scrap plasticard. Make up

a pull rod from .60 plasticard and thread it onto a piece of 0.7mm brass rod for the cross shaft. Thread the rod through the V hangers and superglue the ends in place leaving the pull rod free to move and trim the ends to length. Cut the plastic rod from the vacuum cylinder to about 3mm and position the cylinder so that the end of the pull rod rests on this rod and is in the centre of the 0.7mm cross shaft. Glue the cylinder in position and the pull rod the protruding rod then the pull rod to 0.7mm cross shaft with superglue.

Glue the truss rods to the insides of the solebars and fit cross bracing if required. I chose to fill the battery boxes with sheet lead for extra weight and then glued them to the underframe. I also filled the spaces in between the underfloor ribbing with sheet lead Araldited in place, because the completed coaches are not very heavy. If you chose to do this remember to stop short of the bogies so that the lead sheet does not foul the wheels. Also always wear protective gloves when handling lead as it is not very pleasant stuff.

Next we will be doing the bogies, steps and footboards.