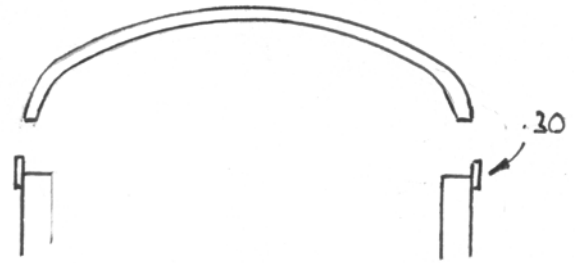


## Tales from Barlow Works

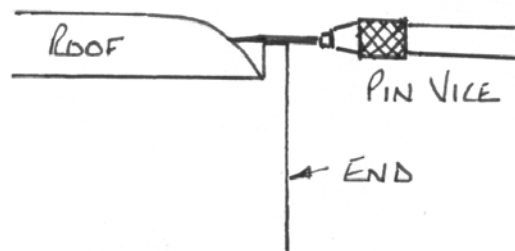
### Project Gresley

#### Part Nine:- Roof

In this section we will be detailing and fitting the roof. Again we will deviate from the kit instructions as I prefer to have the roof removable and made so it can be screwed down for a nice tight fit. Also the roof will fit down between gutter strips glued to the top of the coach sides, also for a better fit. To prepare the coach body we will require a strip of .30 plasticard 2mm wide. I used evergreen strip (ref 134), but it is possible to cut it from the sheet. This is glued along the top edge of the side to represent the cantrail or gutter. Leave about 1mm standing above the side to locate the roof. On the brake end coaches, because of the narrower brake end I had to glue the strip to the coach side for the corridor portion and then for the brake end glue the strip to the roof when it was finally cut to size and screwed in place. Remember to paint this strip teak when painting the side/roof.



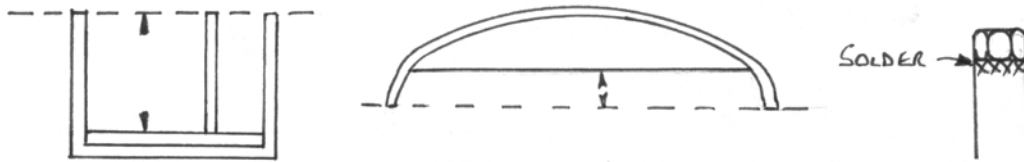
Now it is time to make more mess. Prepare the roof by cutting the outer edges from the vacuum-formed roof moulding. Do not leave a lip as in the instructions as this is now represented by the gutter strip we have glued to the side of the coach.



Scrape the edge of the roof with the craft knife blade so that there is no lip or ridge on the roof profile. The roof should now fit between the gutters. Offer the roof end up so that it fits up to the inside of the coach end and mark the top shape of the end onto the end of the roof. I used a needle held in a pin vice to mark out with. If you rub a HB pencil on your finger or rub it on a dirty surface then over the marked line it will start to show up black. Carefully cut back to this line and offer the roof up to the coach end for a trial fit. This process may need to be repeated a couple of times to get a good fit on the coach end. Finally remove any trace of the lip and shape the corners smooth. Repeat for the other end. The roof should sit down between the gutter strips and when screwed down will be a good fit. For suburban stock with arc roofs it should be just a matter of cutting the roof to length as they do not have domed ends but the sides will still have to be done the same.

Take the compartment partitions from the kit that we saved earlier and modify them so that they fit inside the roof, as in the diagram. For corridor stock with a toilet at the end measure the inside of the toilet partition on to the inside of the roof. For brake end stock anywhere in the brake compartment clear of the windows will do but as near to the end as possible. For suburban stock we may have to make the fixing coincide with a compartment wall. It may be possible to put the fixing rod down the partition wall to disguise it. This must be resolved initially when making the interiors in section seven so that they have already been modified ready for the roof. Glue a couple of the modified partitions together and glue inside the roof so that they line up just inside the toilet compartment or line up over the fixing points in suburban stock. Glue a couple of single ones inside the roof near the centre to provide support. If there are not enough partitions, use one as a template and cut some more from plasticard.

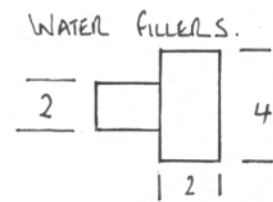
We now need to make the two fixings that will hold down the roof. I made mine from 4mm diameter brass tube and 8ba nuts but first we will need to take some measurements to determine how long



the tube will need to be. Firstly take a straight edge and put it across the top of the coach body, then with the interior in place measure down to the floor. Make a note of this dimension. Take the straight edge and place it across the underside of the roof and measure to the edge of the partitions. Also make a note of this dimension and add it to the first. Measure the thickness of 2 x 8ba nuts and add 5mm for the tightening up allowance. Take this dimension from the first and this will give you the length for the two tubes. Cut the tubes to size and solder a nut to each end using lots of solder for a good strong joint.

Turn the roof upside down and mark the coach centre line on the two double partitions. Drill an 8ba tapping size hole into the partitions and screw an 8ba bolt into the hole. Add a little superglue to the threads and screw up until there is about 10mm showing. Cut off the bolt head and file the end with a slight chamfer so that the nut will run onto the thread. Screw both fixing tubes onto the threads and secure with superglue after tightening up. Measure the distance from the end of the roof to the fixing tube and drill a clearance hole on the centre line of the coach body through the floor. Screw the roof down using 30mm x 8ba bolts passed up through the floor and screwed into the fixing tubes, tightening up until there is a snug fit of the roof on the body and coach end.

It is now time to add all the roof details. Make sure that this is done neatly and vents etc, are marked accurately and in line as nothing looks worse than a wavy line of roof vents. It is vital to consult drawings and photographs for the positions of roof detail as it sometimes varied. Mark out and fit the roof vents, either using the ones from the kit or substituting white metal ones, also it is possible to make up destination board holders in the centre just above the gutters, from microstrip (careful not to glue the roof on though). There was usually an emergency brake tell tale on one end of the coach roof. I made it from two pieces of shaped .60 plasticard and some 0.7mm brass rod, again consulting photographs. There were also small steps on the domed ends of the 61ft 6in stock plus a filler for the toilet water tank flanked by handrails of 0.7 brass rod on either side about 10mm long (not on brake ends).



The next section deals with rigid coach connections. If your coach does not require them, move on to section eleven for the teak finish.