

## Rumney Models LMS Open Wagon Body “kit”

These instructions cover Rumney Models body kits C.53 and C.53A. They are designed to backdate the Parkside Dundas BR steel ended wooden open wagon (kit PC02A) into an earlier LMS wooden open built to diagram either D.1892, D.2072 or D.2094. These all had an underframe that was 17'6" over headstocks with a 10' wheelbase.

The body “kit” will provide a frame, wooden ends and detailing parts to go with the sides from Parkside Dundas kit PC02A. Kit C.53 covers those wagons with full wooden ends and C.53A covers those that were reinforced with steel channel at the bottom of the ends.



### Prototype Notes

The LMS built just over 16500 of these wooden 5 plank opens to three diagrams over the course of 12 years. The differences in the diagrams related to the thickness of the timber planks used. D.1892 used 2½" timber throughout, D.2072 used 2½" timber for the floor and 1½" timber for the sides and ends and D.2094 used 1½" timber throughout. These changes were brought about by wartime shortages.

The first 2000 wagons built to diagram 1892 were fitted with the LMS clasp brake (Rumney Models chassis B.52). As built all the rest had unfitted RCH Morton 2 shoe brakegear (Rumney Models chassis B.12). As part of the 1955 modernisation plan huge numbers of the unfitted wagons were given Morton 4 shoe vacuum brake gear (again Rumney Models chassis B12 is suitable).

The build details are summarised below.

Diagram	Number built	Build dates	Brake gear type
D.1892	2000	1934	LMS clasp vacuum
	10300	1936/9	Morton 2 shoe
D.2072	500	1942/3	Morton 2 shoe
D.2094	3775	1943/6	Morton 2 shoe

A number of wagons to diagram D.2094 were also fitted with later type BR tarpaulin bars as part of the vacuum braking program (Rumney Models kit B.92 covers these). There are wagon numbers of the vehicles so fitted listed in “Wagons of the Middle British Railways Period” by David Larkin.

## References

“The LMS Wagon” by RJ Essery and KR Morgan has more in depth build details including lot numbers and where the lots were built.

“An illustrated History of LMS Wagons Volume 1” by R J Essery has numerous photographs of wagons in both LMS and BR periods.

“Wagons of the Middle British Railways Period” by David Larkin has some photographs of wagons in the BR period as well and details of those that were vacuum braked and given tarpaulin bars.

“Official Drawings of LMS Wagons No.2” by RJ Essery contains engineering drawings for all three diagrams covered.

Paul Bartlett has numerous photographs taken in the 1970s on his fantastic website which can be found via the url: <http://paulbartlett.zenfolio.com/>



Model built and photographed by John Chambers

## Notes

Somewhere along the line some gremlins got into the etches. The eagle eyed will note that they have the wrong product codes on them. Ignore that and pay attention to what's on the packet and the description on the etch to avoid confusion.

Read through the instructions first and familiarise yourself with the components. Drawings and photographs taken during the construction of the test etches are included to attempt to make my waffle clearer.

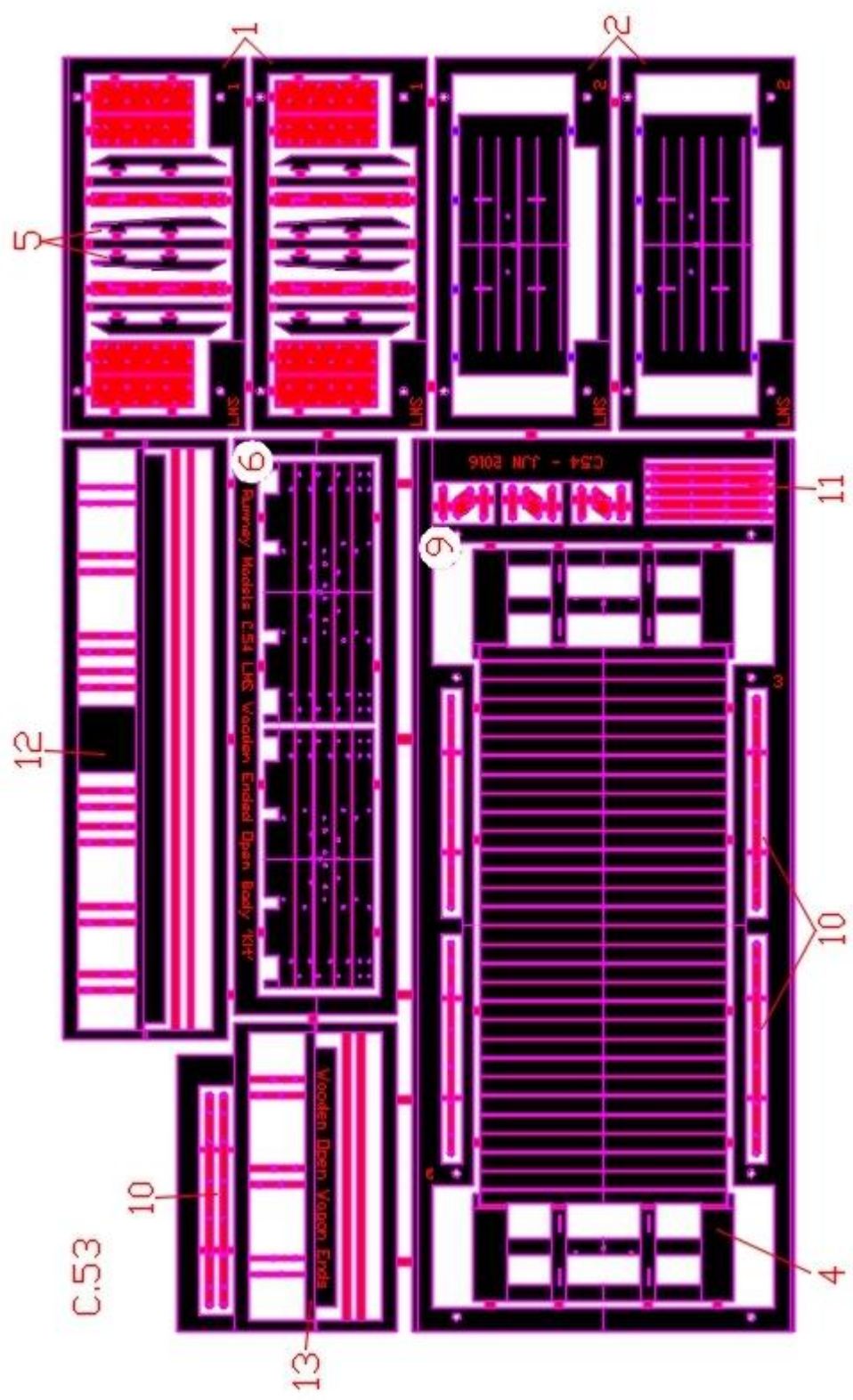
**Important: All fold lines are through 90° with the fold line on the inside unless stated otherwise.**

Everyone has their own soldering methods. I now use a temperature controlled soldering iron with predominantly 145° solder and La-Co paste flux. For a long time I used an Antex 18W soldering iron on virtually everything with few problems.

Check all holes before removing parts from the fret. The drawing process for etching, particularly if you use a CAD program as I do, is extremely accurate but the actual etching process itself is not an exact science. If the fret is slightly over etched then there is no problem but if they are under etched the holes will need enlarging. I find that this is easiest to do before removing parts from the fret. The hole sizes will be noted at the appropriate points as we go along.

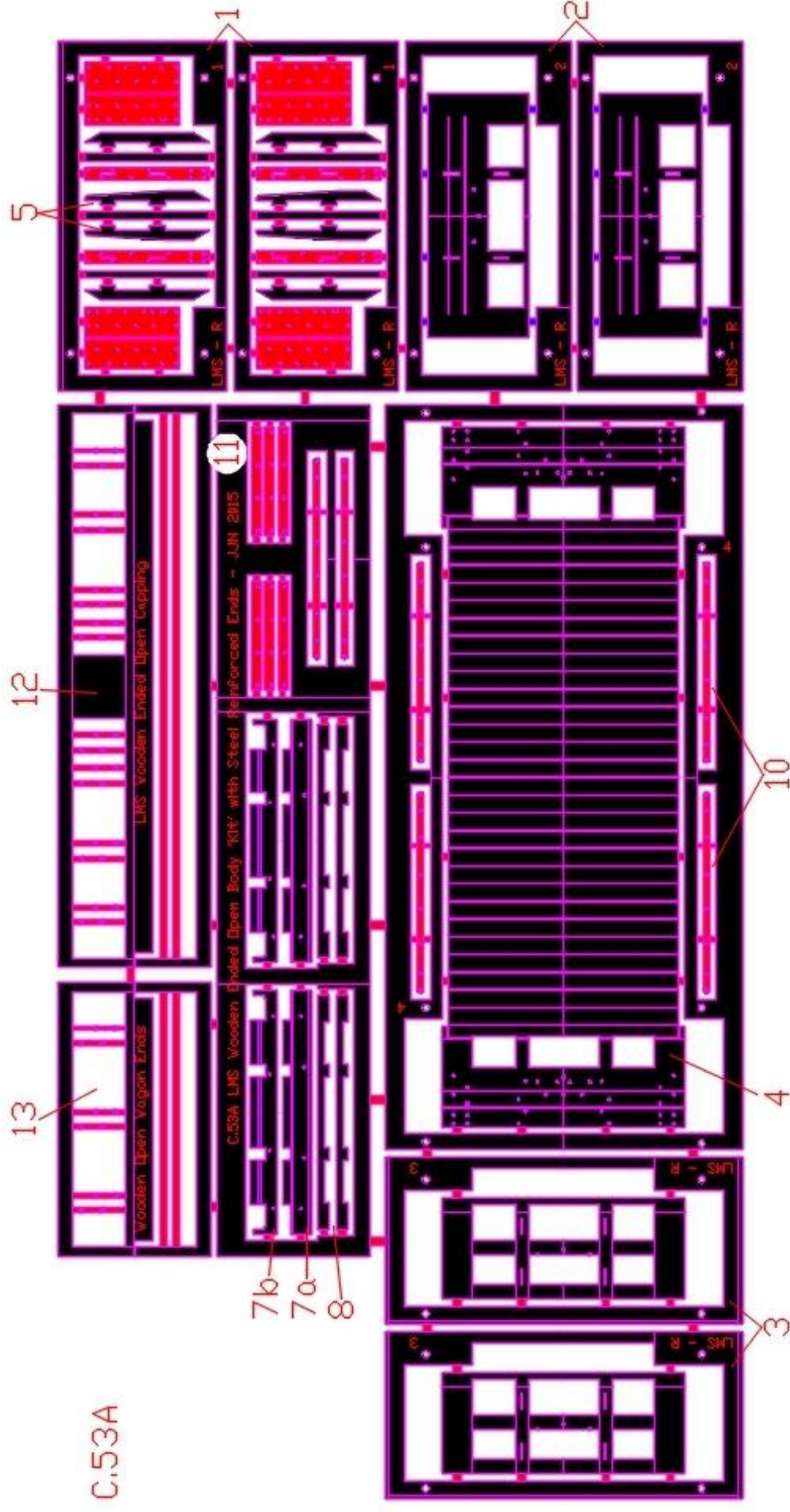
To complete the body "kit" you will need a pair of side from Parkside Dundas kit PC02A If you ask them nicely they will supply you with just the sprues for the sides so you don't need to buy a whole kit. Their details are as follows:

Parkside Dundas  
Millie Street  
Kirkcaldy  
Fife  
Scotland  
KY1 2NL  
[www.parksidedundas.co.uk](http://www.parksidedundas.co.uk)





C.53A

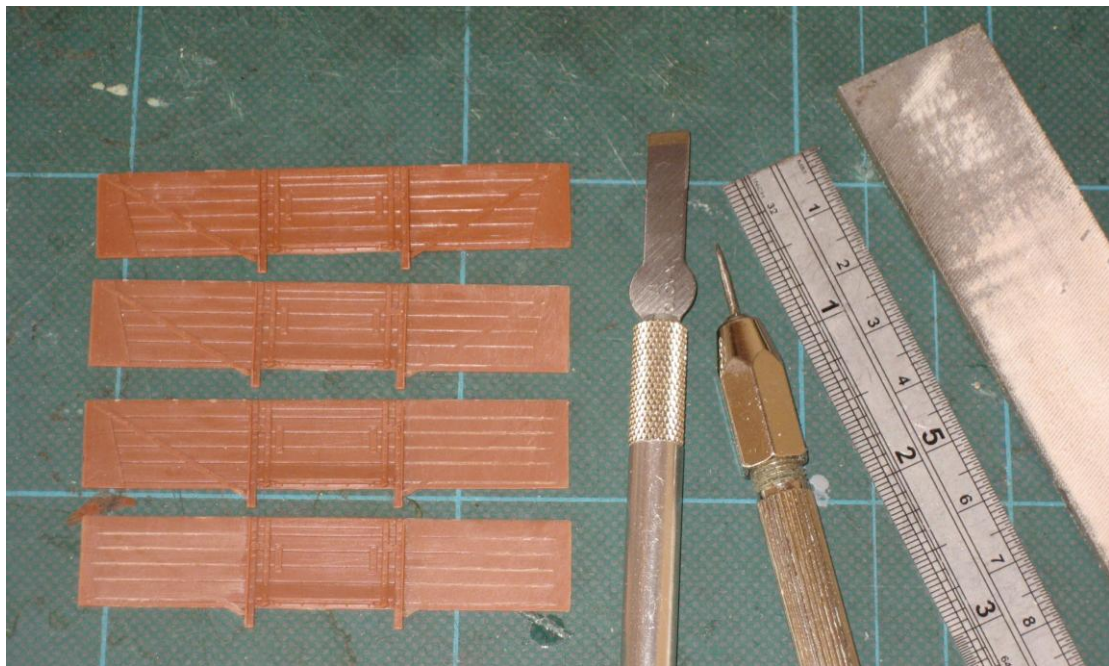


## Parts List

- 1 – End detail layer
- 2 – Main end layer
- 3 – Additional end layer for reinforced ends (C.53A only)
- 4 – Main frame
- 5 – End stanchions
- 6 – Inner end layer (C.53 only)
- 7a – Top steel channel (C.53A only)
- 7b – Bottom steel channel (C.53A only)
- 8 – Packing pieces
- 9 – Internal detailing parts for tarpaulin bars (C.53 only)
- 10 – Side strapping
- 11 – Floor reinforcing plates
- 12 – Side capping
- 13 – End capping

## Side Preparation

The sides from Parkside Dundas kit PC02A will need a small amount of work to make them suitable for use with the etched frame.



Firstly remove all the detail either side of the door. I use a big file of the type illustrated to remove the sides of the wrap around corrugated ends, the strapping and the representation of the capping. The planking will then need to be scored where the strapping was and extended for the bottom planks so that they are the same as the top one. I use a pin held in a pin vice to do this. The sides will need shortening but this is probably best left until the etches are assembled.

The Parkside kit as supplied has a chamfered top plank on the doors which is plated with a thin metal sheet. This is suitable for all wagons as built. Over time a number of wagons had this top plank replaced with an ordinary piece of timber. Those planks so treated were fitted with capping strips. I have modified a couple of my Parkside bodies by grafting on a thin piece of plasticard and fettling it to remove the chamfer.

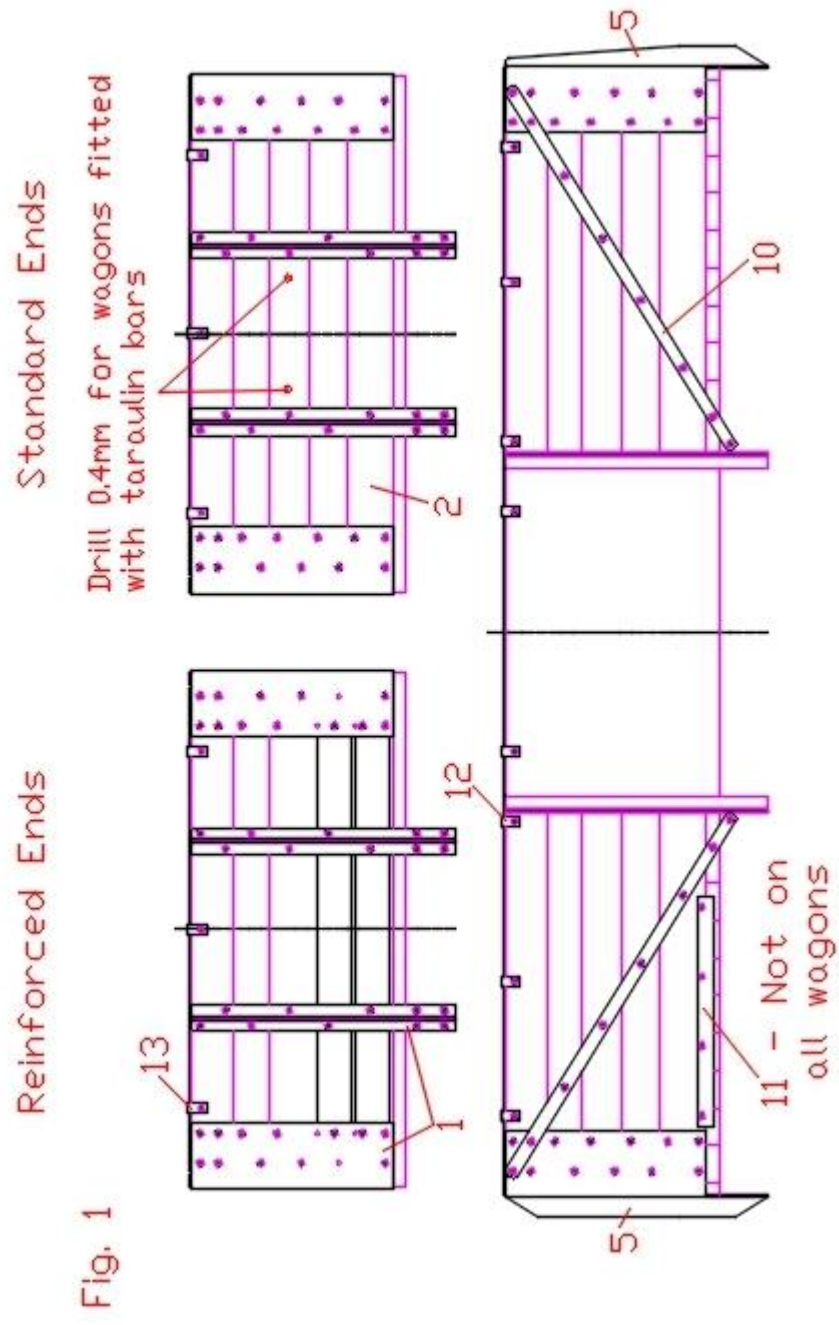


Fig. 1



## Construction

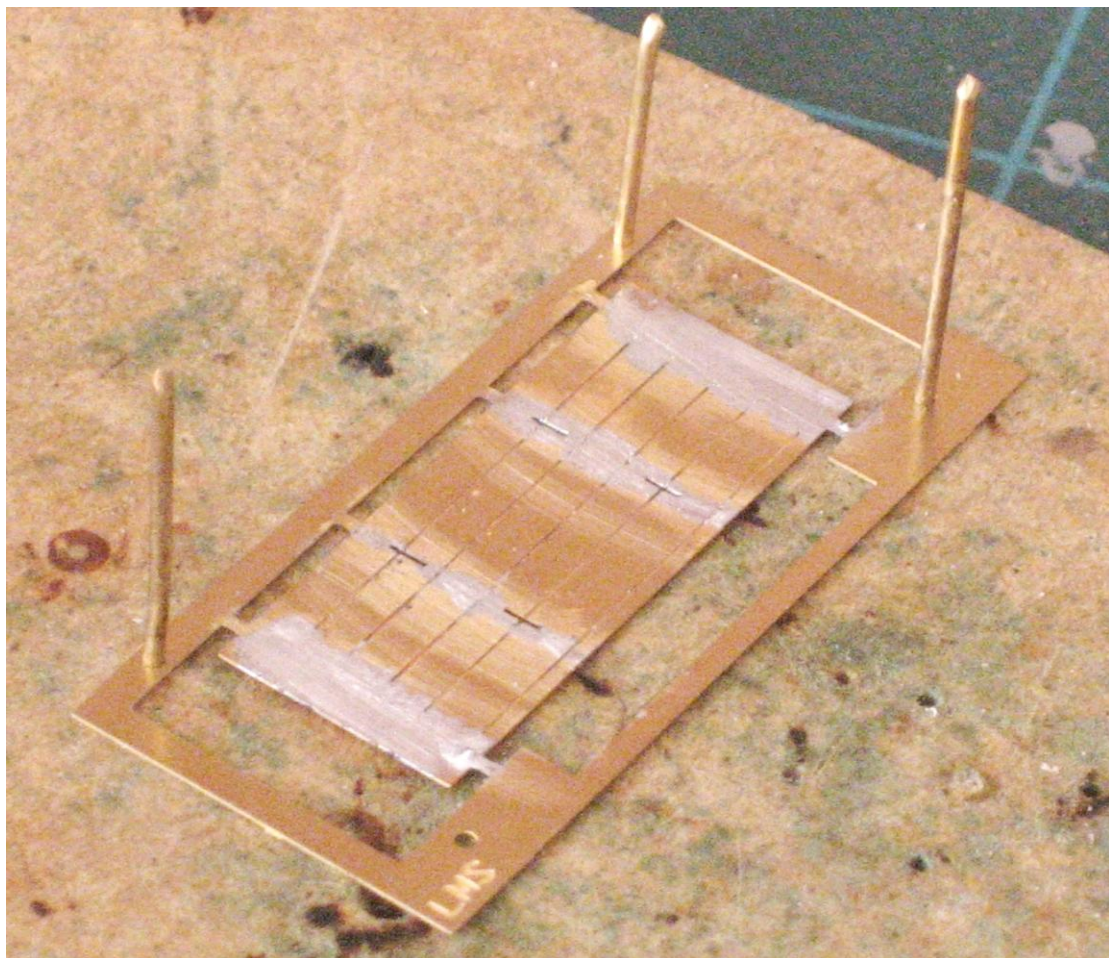
The main components of the etched part of the body are all on their own little frame with locating holes. The idea is that the components are assembled whilst still in their frame using the locating holes to align everything. Do **not** remove the frames until the end layers are soldered together.

If you plan on modelling an LMS open fitted with a tarpaulin bar (C.53 only) then now is the best time to drill out the locating holes for the tarpaulin bar hoop with a 0.4mm drill. See Fig. 1.

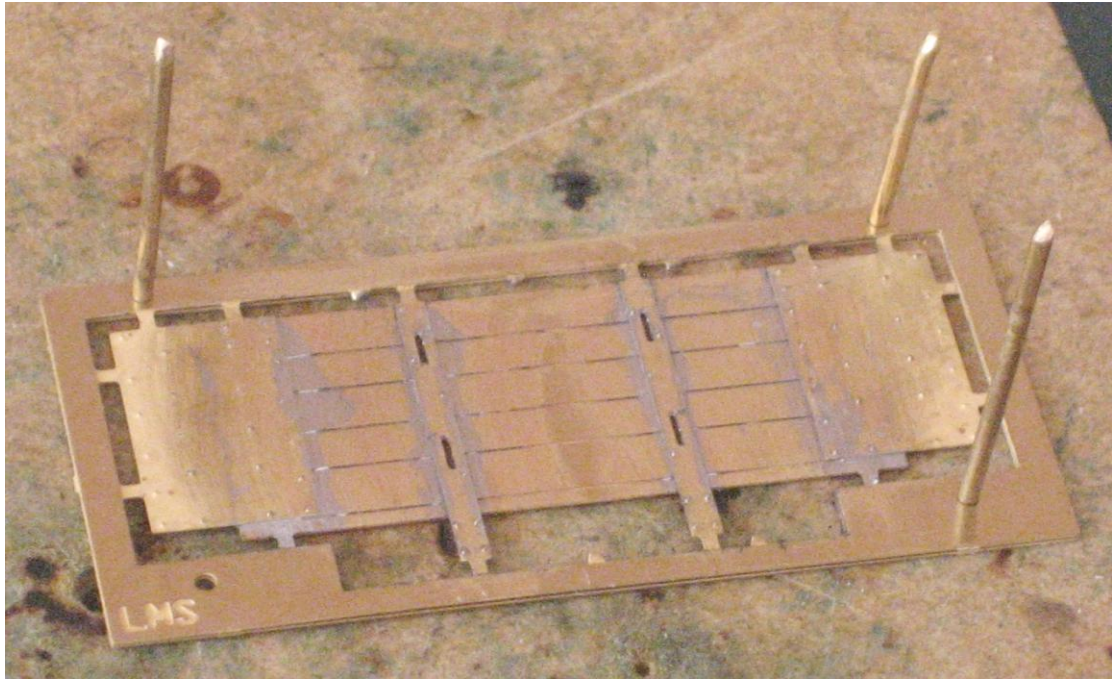
Start the assembly with the end detail layer (1) and the main end layer (2). Using the four holes around the frame of one of the layers as a guide drill four 1mm holes into a piece of scrap softwood or mdf. Use four pins made from short lengths of 1mm brass or nickel silver rod to locate the main end layer onto the piece of wood with the plating facing upwards. Tin the areas of the main end layer where the ironwork will be. Place the end detail layer onto the pins and hard up against the main end layer. Solder the two parts firmly together.

For those constructing a body with steel reinforced ends (C.53A) there is another end layer to add. Turn the detail and main end layers up the other way and then locate and solder the additional end layer for reinforced ends (3) in place. Remove and clean up the edges where the steel channel will be.

Repeat for the other end.

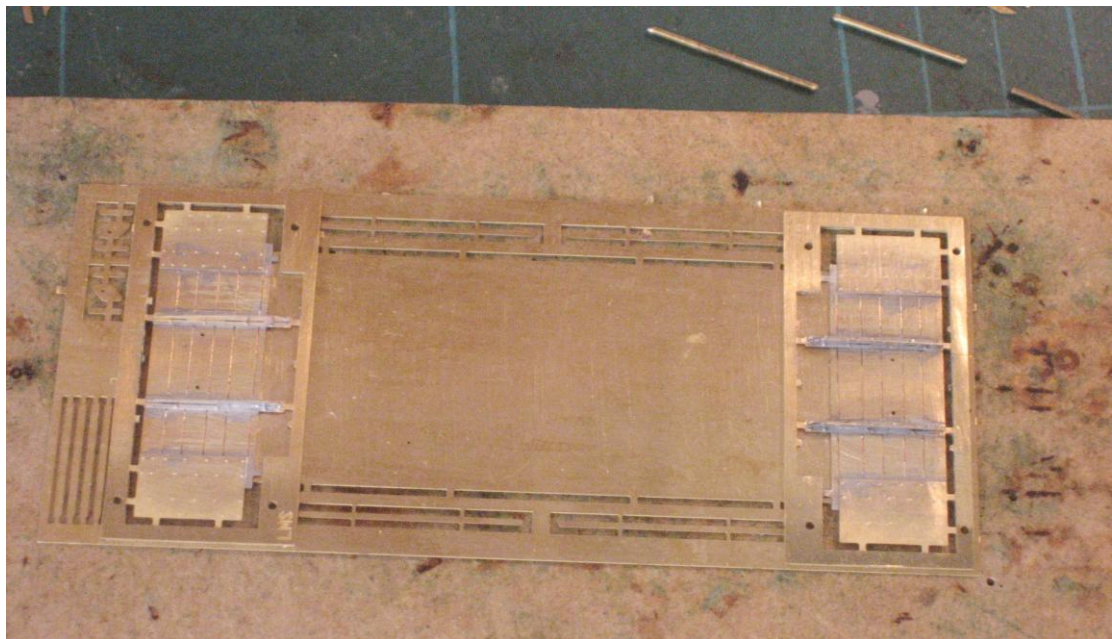




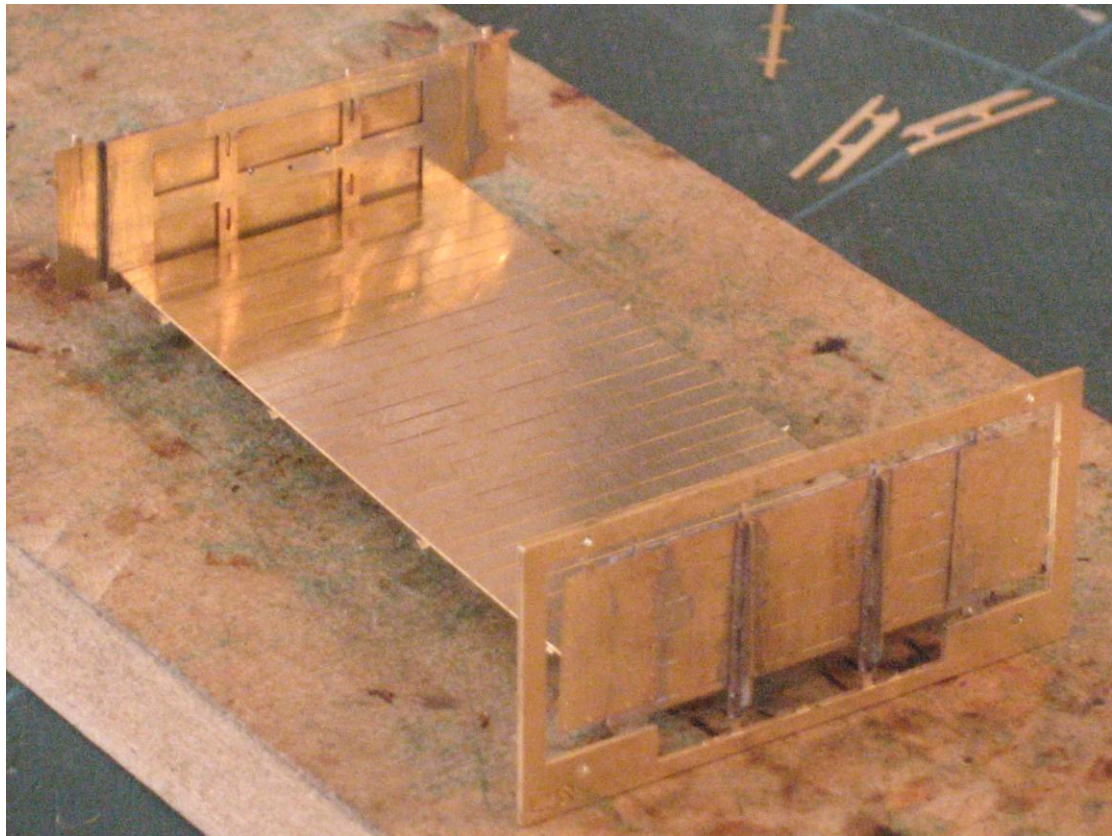


The two end assemblies need to be soldered to the main frame (4). If you are constructing C.53A you will need to press out the rivets on the ends. I use a drop head rivet press with the part held against one of those ubiquitous green cutting mats to do this. Use the same process as before; placing the ends detail side down and then soldering the main frame to the back using the pins to locate everything. Make sure that the fold lines at the ends of the main frame are facing upwards when you do this. Once everything is soldered together remove the pins and turn everything up the other way so that the detail on the ends is visible again.

There are two types of end stanchions (5) to choose from. The type used seemed to vary for no apparent reason. Check your prototype. Solder in place using the tabs and slots provided.



Remove the frames around everything and clean up the connecting tabs. Fold up the ends and reinforce the fold lines with solder.

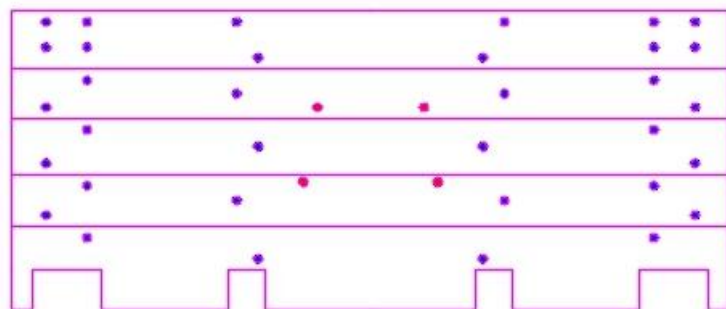


If you are constructing C.53 press out the rivets for the ironwork detail on the inner end layer (6).

If you are constructing a wagon fitted with a tie bar then you can solder the internal detailing parts for tarpaulin bars (9) in place. Drill out the four holes that mark where the bolt holes go with a 0.31mm drill; see Fig. 2, then solder the detailing in place.

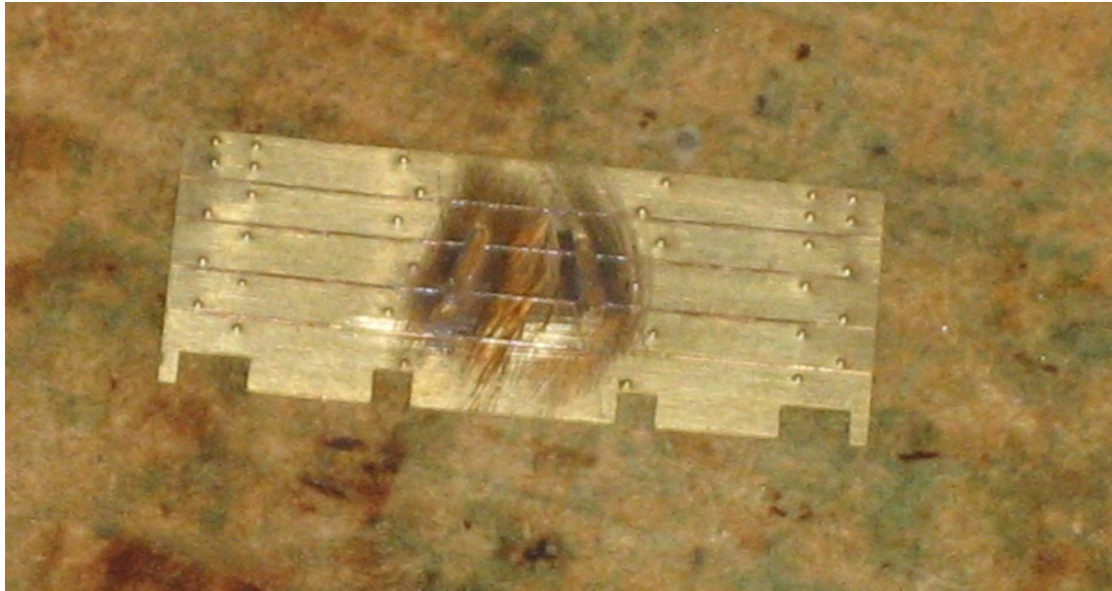
Fig. 2

Push out rivets

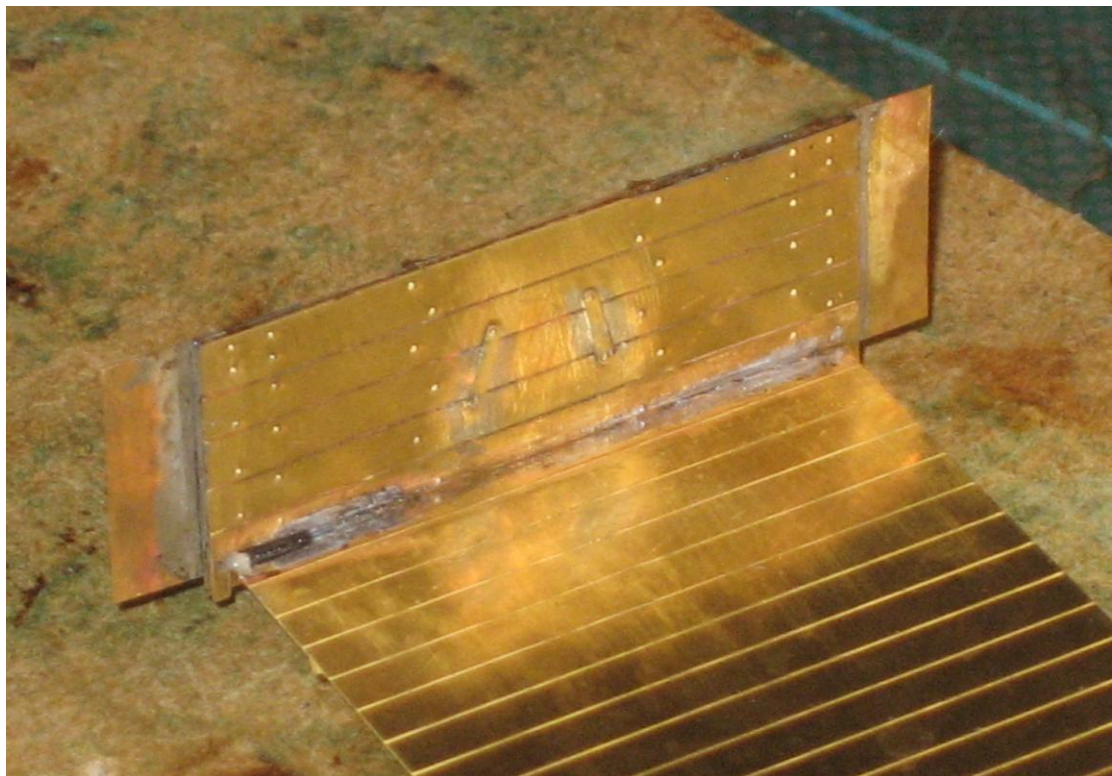


Drill out 0.3mm for  
wagons fitted with  
tarpaulin bars





Locate the inner end layer in place on the inside of the ends using the slots and tabs provided and solder in place.

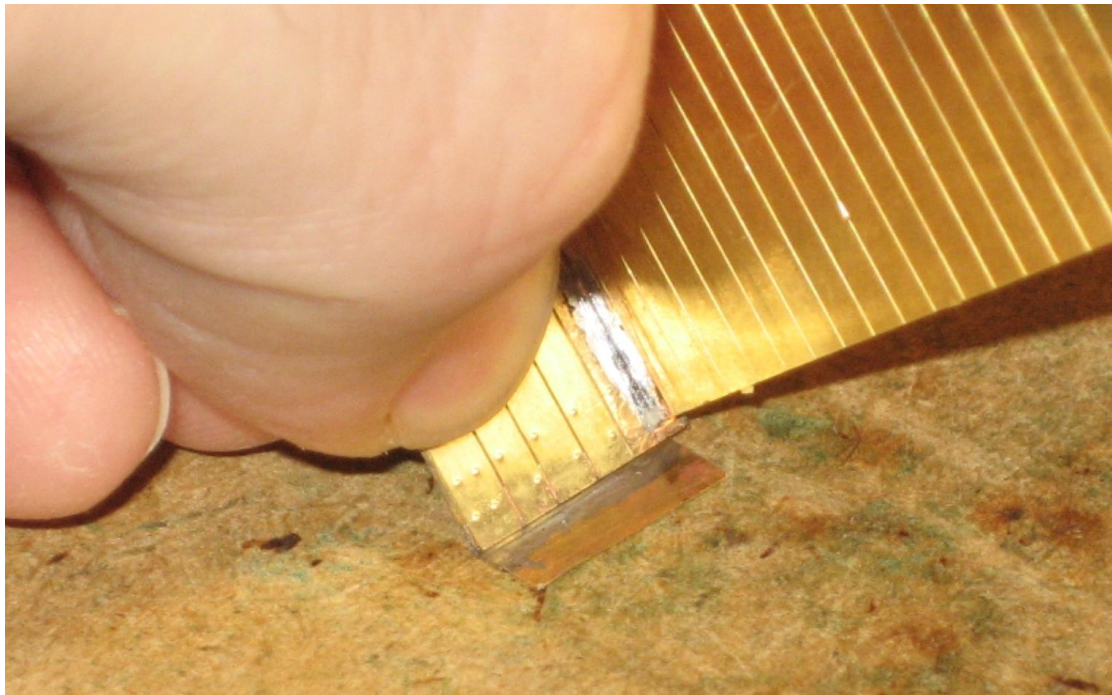


If you are constructing C.53A then now is time to fit the parts that represent the steel channel. Press out the rivets on both the top steel channel (7a) and the bottom steel channel (7b) and remove from the fret. Fold both parts in to and L. Locate the bottom steel channel into the end with the L facing downwards and solder in place. Repeat for the top steel channel.

Fold up the corner ironwork pieces. Simply hold the ends and fold through 90°.

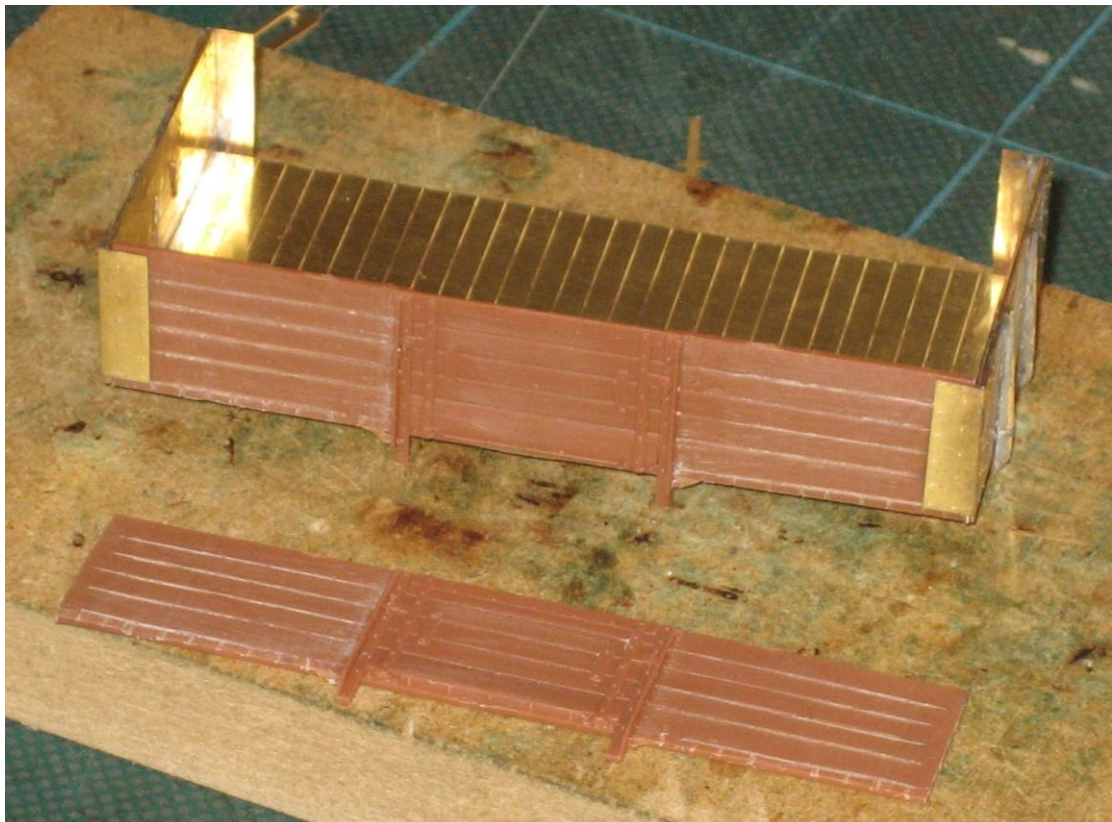
If you are constructing C.53A then there are two pacing pieces (8) to be added to the underside of the ends to finish them off. Solder in place.





Now is the time to add the sides. First glue two thin lengths of plastic section 1.5mm deep along the underside edges of the floor to aid gluing the sides in place. I used evergreen 0.060" (1.5mm) x 0.080" (2mm) rectangular section as that's what I had handy.

Carefully shorten the sides to fit neatly between the ends. Glue the sides one at a time to the metal frame and the plastic on the underside of the floor. Make sure the ends are vertical and that the floor is flat. I used two part Epoxy for this and clamped the sides in place using aluminium soldering clips to hold everything.



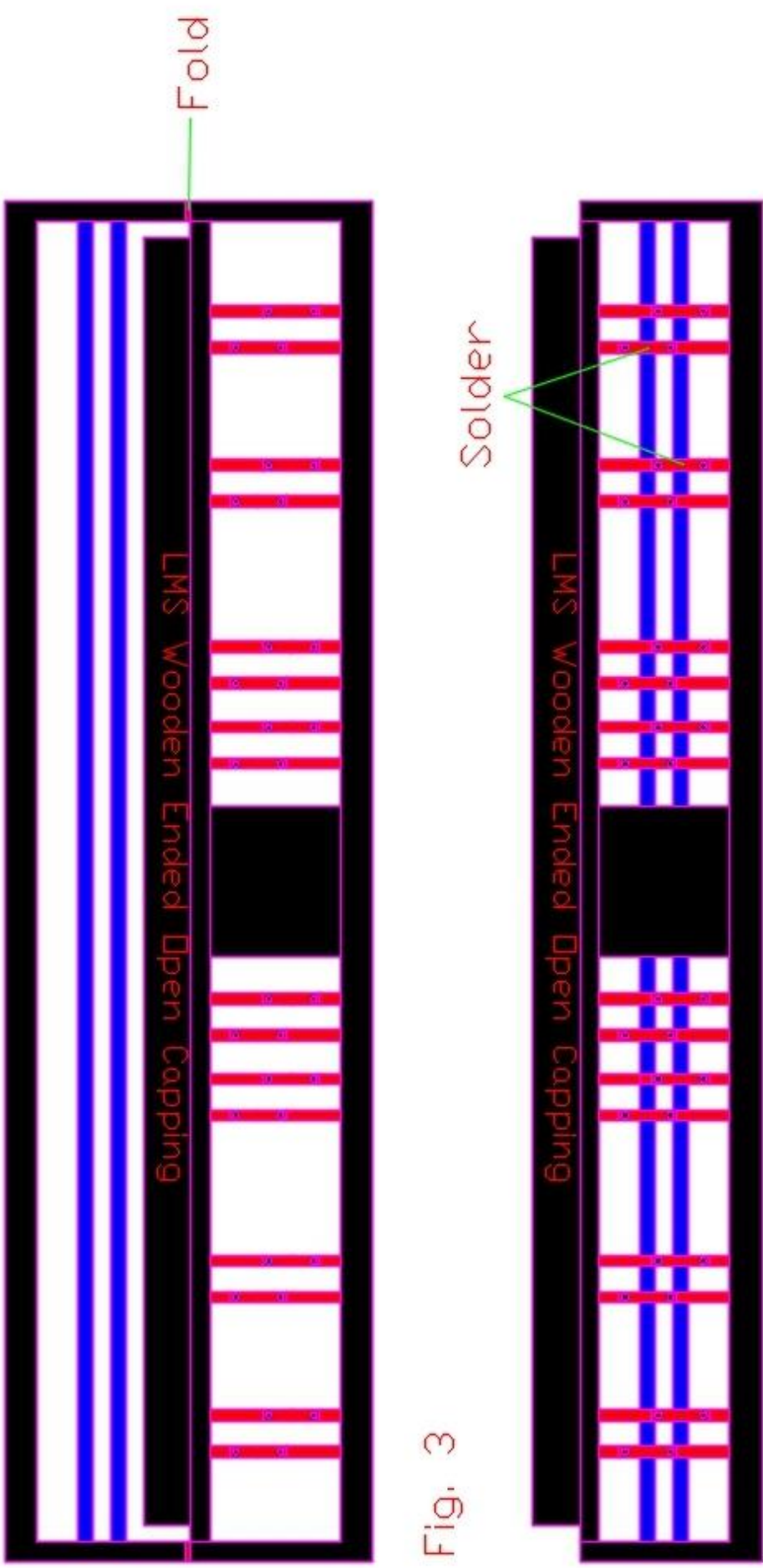


Fig. 3

Once the sides are firmly in place the detailing work can be finished.

The side strapping (10) can be removed from the fret, tidied up and glued in place. See Fig. 1. I used superglue to fix them in place.

There are floor reinforcing plates (11) included. These were designed to stop the floor planking from moving laterally but weren't fitted to all so check your prototype. See Fig. 1 again for positioning details.

Finally the capping needs to be fitted in place if required. This wasn't fitted to newly built vehicles but was added later so check your prototype. There is a set for the side (12) and a set for the end (13). Both follow the same principal. The fret is folded through 180° with the fold line on the outside about the lines in the centre of the sides. This will position the long sections in the right place respective to the short perpendicular strips. The short strips have rivets on them. The idea is to solder each point where the long strip sits in between a pair of rivets. I used a tiny amount of solder and a paste flux to stop everything getting soldered solid. Once all the necessary points have been soldered in place the capping pieces can be removed from the fret around the edges and separated. See Fig. 3 above. You should have two near identical parts. The short perpendicular strips can be trimmed on the outside of each rivet. Fold over the short perpendiculars at the point where they meet the long section with a pair of pliers. This can be less than 90°. Fit the capping pieces over the sides and clamp the short perpendiculars to the sides using a pair of pliers to finish the folds. Mark the points where the edges of the centre door are and then cut the capping about these points as well as trimming the ends. If you have left the doors as they are discard the centre section. Glue the capping parts in place. I used superglue. Repeat for the end capping.

### **Notes on weighting the wagons**

The Rumney Models underframes are designed to work under an optimal 50g load. It is very difficult to bring a model up to this weight simply by fitting lead between the solebars, especially on wagons fitted with clasp brakes. It is my practise to raise the height of the floor in open wagons and minerals to allow a piece of thin lead sheet to be fitted in a cavity under the floor. This is why the floor is arranged as it is.

### **Painting**

I use Halfords grey primer in a tin through an airbrush with cellulose thinners to prime just about everything, including plastic bodies. The primer is synthetic and has no adverse effects on the types of plastics used on RTR railway models and kits. The cellulose thinners used evaporate so quickly that they don't have time to attack the plastic. You can then put your choice of paint over the top including cellulose. Don't use the red oxide in a tin on plastic though as it won't adhere and the paint will just come off.

Justin Newitt 2016