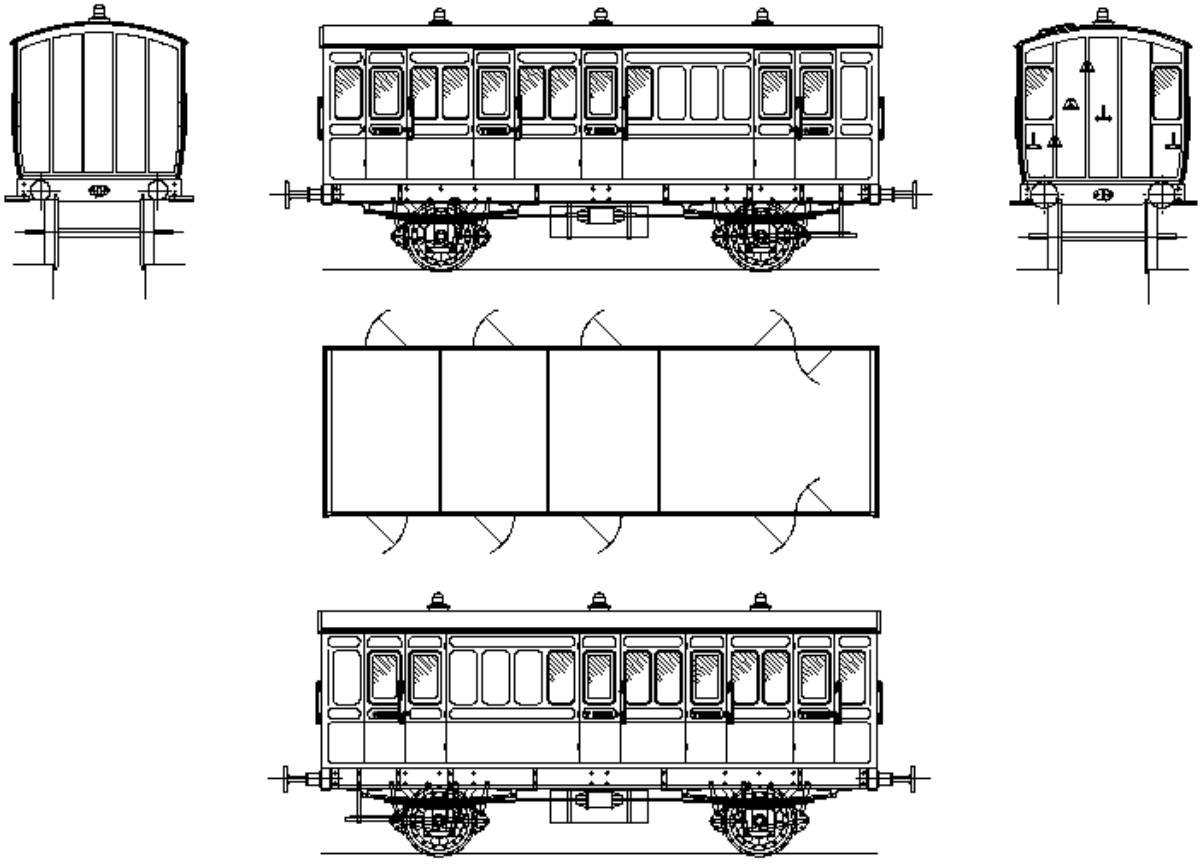
The Fareham Carriage Works Designs

By Tony Armstrong

LB&SCR Carriage Instructions based on the All Third Brake Coach



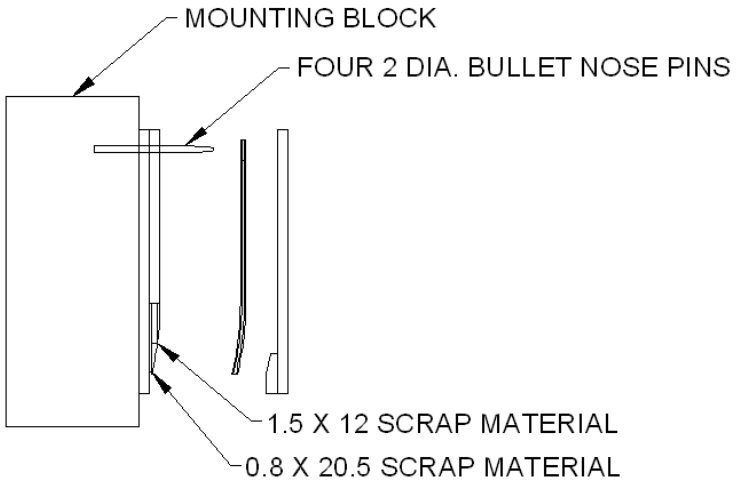
The ‘Fareham Carriage Works’ designs are not kits: they are the plywood components necessary to build the bodies and under-frames of a vehicle. The designs are exactly as supplied to Tony Armstrong who created them to take the hard work out of scratch building carriages. They are not particularly difficult to assemble, but you need to be familiar with the type of vehicle to work out what some components are and how to assemble them. They are not like an Airfix kit where everything is numbered, and has ‘Noddy’ notes telling you exactly how to build it. Please note that some fitting/adjustment may be required during assembly – you can’t just put the bits in a bag, give it a good shake, with the hope it will put itself together!

To help with detailing your carriages I would recommend you obtain a copy of LB&SCR CARRIAGES Volumes 1 & 2 by Ian White, Simon Turner and Sheina Foulkes.

Construction

Here are some notes to help you with assembly. All other class of LB&SCR carriage follows the same construction principle.

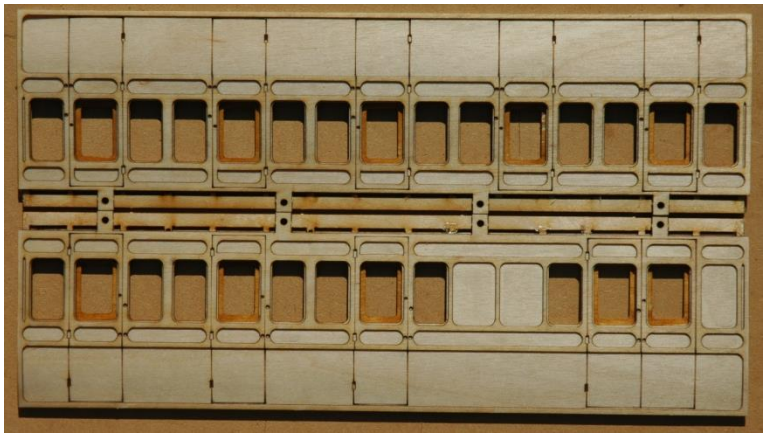
Assemble a jig to be used for laminating the sides onto a thick flat block (I used a 40mm work surface off cut): you will need to cut from scrap material a piece of 0.8mm ply 20.5 X 300 and a piece of 1.5mm ply 12 X 300, together with making four 2mm diameter location pins.



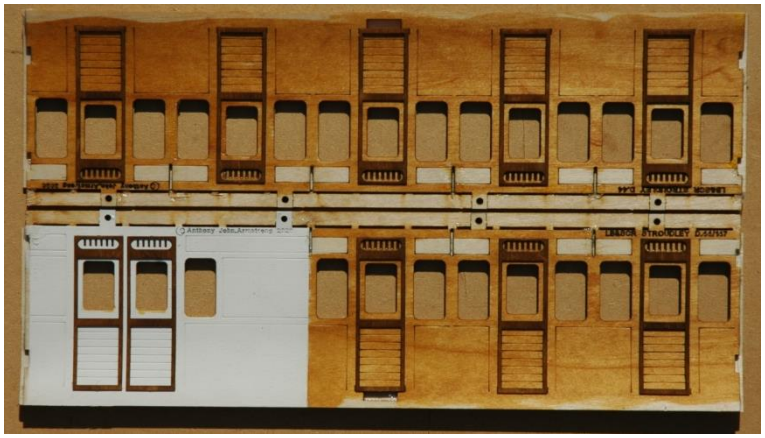
Body Assembly

Identify and remove from the ply sheets the six carriage side components for one vehicle at a time.
Before assembly, stain, paint and varnish the inside of the vehicle as required:

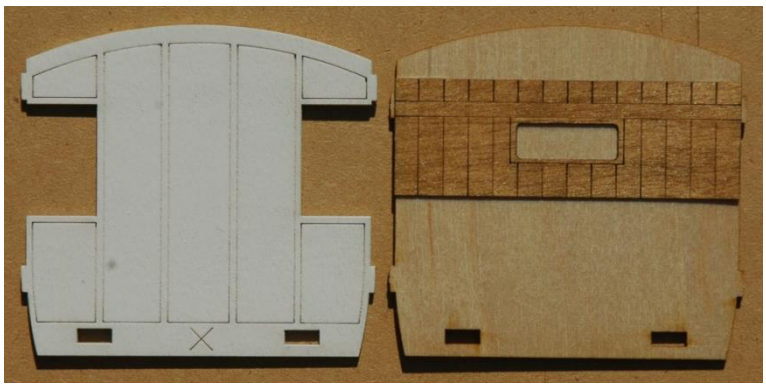
I found it quite easy to assemble something the wrong way up: so for each vehicle make two piles of sides components, with the outside skin scoring facing upwards, on top of that the core and finally the inner skin with scoring facing down. Position the inside skin, score lines down, onto the pins of the jig.
Apply slow setting cyanoacrylate to the appropriate side of the 0.8mm core, drop the core onto the pins of the jig, drop the clamp plate over the pins and clamp everything together. I use a 12” woodworking vice.
When the cyanoacrylate has set take the jig apart, apply slow setting cyanoacrylate to the face of the core and place the outer skin (score lines facing) over the pins and clamp together.
Bond the mouldings to the outside of the carriage sides:



Note: brake end doors are handed – the guard's door is to the rear of the carriage and opens inwards, hence no hinges.
Stain interior door frames as required and bond to the inside of the carriage sides:

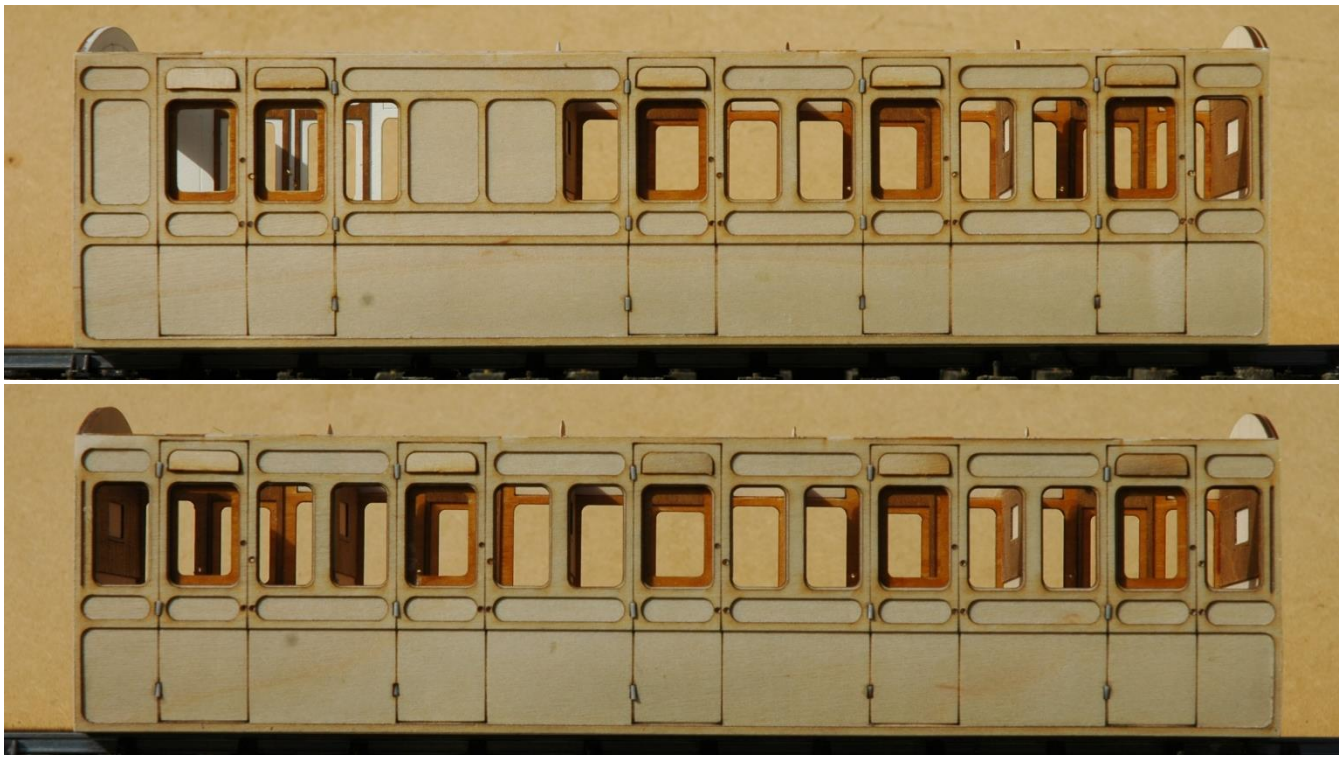


You might find an X on major components: these either face down or in the same direction axially along the length of the vehicle.
Fit the overlays to the compartment partitions and appropriate end panels, stain and paint as required:



If you are going to fit door hinges, they are easier to fit while the sides are loose. It is also a good idea to drill door handle and commode holes at this stage, together with fitting the door ventilator covers.
With the sides complete, the tabs can be removed from the top of the carriage sides and sanded off.
Clean-up all side, end and floor component joints and trial assemble the body – the sides can be held in place with elastic bands at the ends if necessary.
Take the body apart and bond the ends to the floor, ensuring they are square.

Bond the sides of the carriage to the floor and ends.
Bond the 0.8mm end overlays in place and sand off any of the side that extends beyond the end panels.
Any slight gap between the end panel profile and the sides can be filled if required.
Bond the beading to the end panels.
Fit the warning signs and mirrors to the compartment partitions as required.
Fit the compartment partition, seat supports and simplistic slatted seating or seat cushions depending on the era.
Profiled seat backs are not included. I cut and profile my own, but balsa aircraft wing trailing edge could be used.



Please note that the original third class vehicles did not have the narrow panels at the ends. These are a model maker's licence used to disguise a constructional requirement. You could fill them in but it would leave an ugly broad moulding to the side of the end windows.
For the Stroudley era stain and varnish the bodies, or under Billington paint and lacquer.
Fit door handle, commode handles, end steps, garter transfers, compartment class identification, glazing and fit droplights (some partially open).
LB&SCR transfers are not commercially available, but L&SWR classification can be used but does not have the intermediate red shadow line.

Roof Assembly

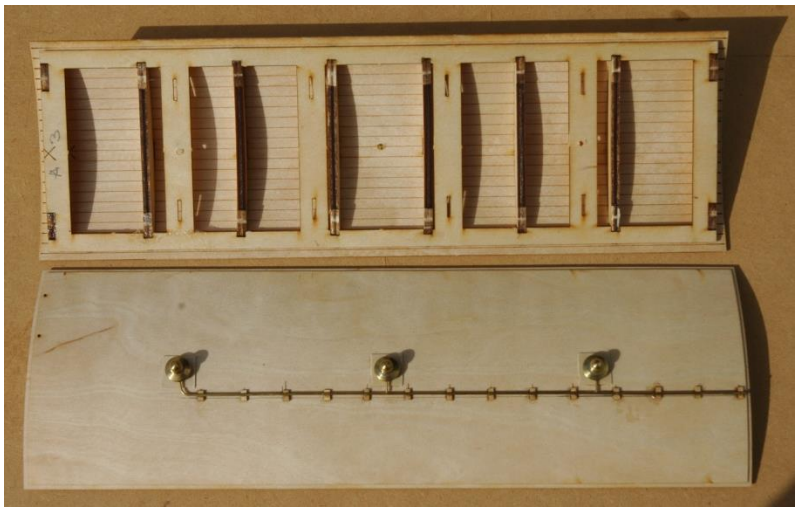
Assemble the roof mould on a flat piece of thick (18mm) plywood.

Sand the edge of the roof ring beam so that it fits snugly into the carriage.

Bond the roof beams to the ring beam, and check the ring beam still fits the body – sand as required..

Fit the first roof skin to the tabs on the beams (X facing down), then bond the roof to the beams and clamp into the roof mould.

Using location pegs fitted through the holes in the first roof skin, bond the second skin in place (score lines down).



If fitting gas lamps (Billington era) you will need to cut oil lamp holes patch plates and gas pipe pads from 0.4mm scrap material:

Paint the roof accordingly.

Under-frame Assembly:

Laminate the solebars and headstocks.

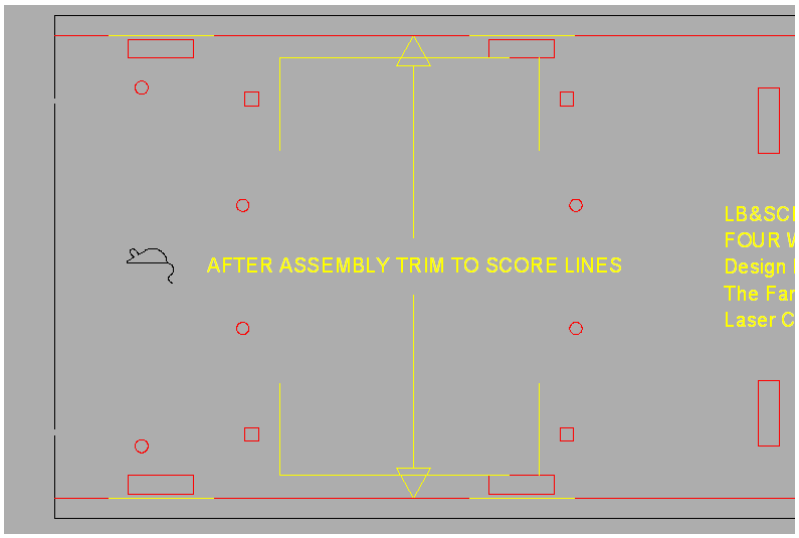
Fit the dummy footboard angle bracket supports, position as shown on the general arrangement drawing – fine dressmakers pins can be used to represent coach bolt heads.

Fit the drawhooks plates and buffer shanks.

Glue the solebars to the under-frame base board.

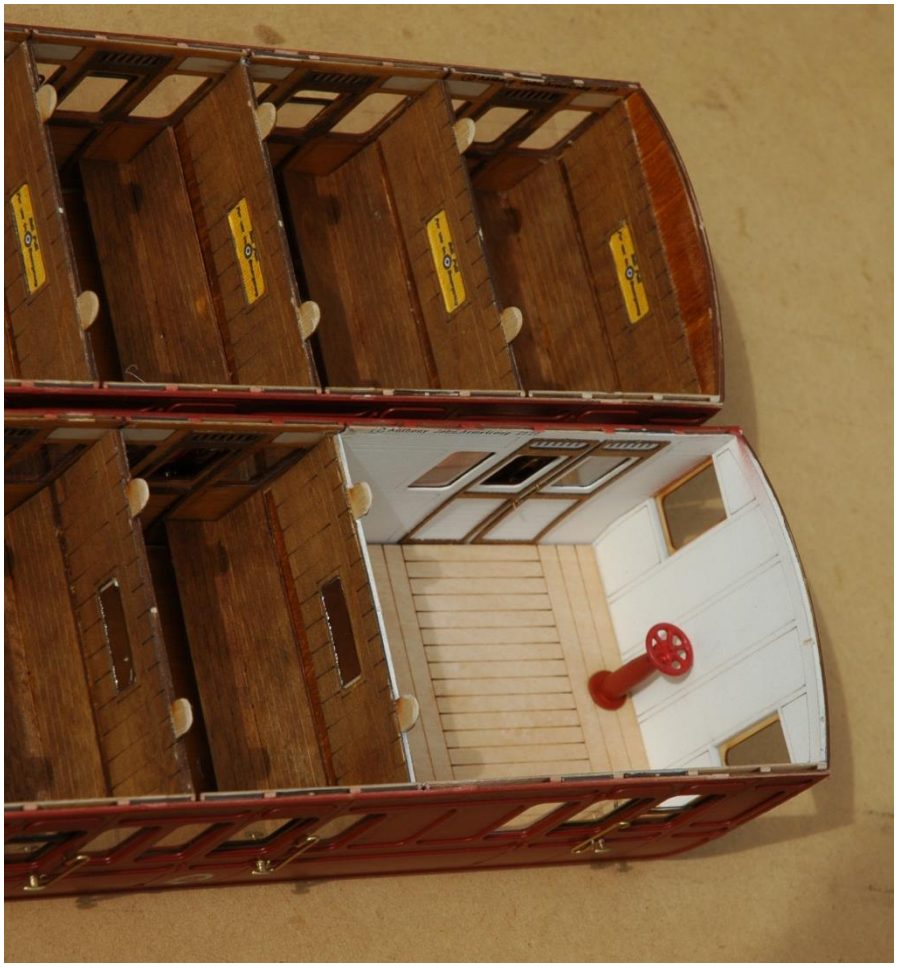
Glue the headstocks to the solebars.

If you are building at 1:32 scale trim the under-frame base plate to width:



Fit gas tank brackets and gas tanks cut from dowel or plastic rod.
Paint the under-frames as required.
Stain and fit the footboards.
Fit buffers, drawhooks and running gear of your choice.

When fitting door furniture to the guard's compartment please note: the guard's doors are handed, they are at the rear, and open inward, as illustrated in the photograph above. The brake end body in the photographs is loose on the under frame and orientated the wrong way – the guard's steps are not under the brake end



There are slatted seats and a boarded floor overlay for the guard/baggage compartment.

Or you can fit seat cushions for the Billington era