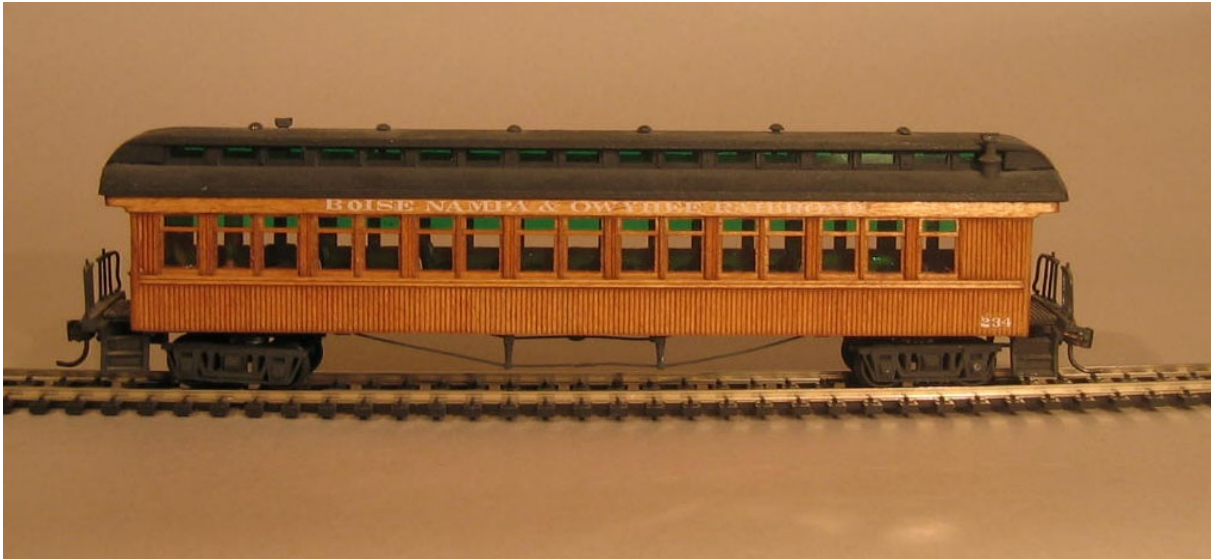


Building a Labelle Passenger car.

This article will assist you in building either an open or closed vestibule car. I will use an open vestibule car for construction and show photos of completed closed vestibule cars as appropriate. There are several articles on this web site that are necessary for construction of these kits. The constructions show are in HO scale but O scale kits assemble in the same fashion.



Completed open vestibule car, kit HO-11.

Yellow woodworker's glue is best for these kits.

Labelle has two window frame methods available in the HO kits. One is a completely framed in wood window sash with mullions and a series of kits numbered: HO 15-19 that use a white metal casting. I will use the wood framed sash for the major portion of this text but will make mention of techniques for handling the castings at the end of this article. Identify all parts and become familiar with the isometric drawings provided with the kit.

Car Sides

First make up the sides of the cars as outlined in two related articles on this web site. Make up the scribed panels that will be secured to the car side below the window sill as shown in the article "Good Cars Sides Forever". Then make up the two sides as outlined in the article "Making up Labelle Passenger Car Sides".

When these two sub steps are completed construction can begin. It is imperative that the car sides be aligned to the floor as the roof structure is very rigid when completed and has the strength to pull the car body into a twist when secured. There are two ways to apply the sides to the floor. You will notice that the scribed siding is hangs below the sub structure by about .015". If you are building this car to be judged, this protrusion must be below the level of the floor. The floor will need to be placed on a narrow strip of brass or styrene by that equals the amount of overhang. Otherwise glue up the sides to the floor on a flat work surface. Labelle is very good at matching the car side lengths to the floors so the sides only need to be aligned to the shape marks of the floor.

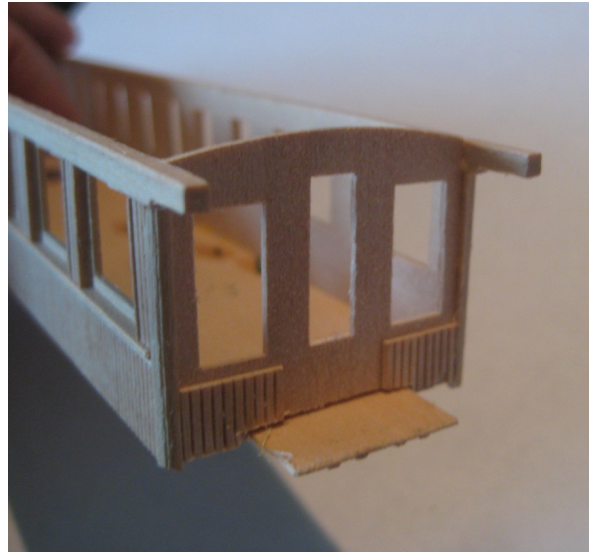
Bulkheads

Identify the end bulkheads for the car. On the open vestibule cars this will have additional parts applied to them in addition to the door assemblies. On the closed vestibule cars this is a windowless panel that will need the

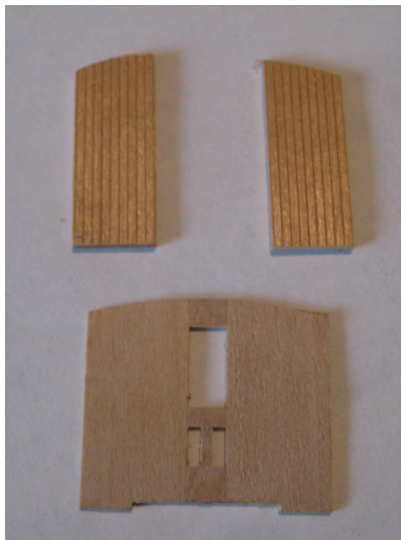
scribed panels assembled on each side of the door. Do not apply the door assembly yet. This will make squaring the bulkheads to the floor easier.

On closed vestibule cars the bulkheads sit down on the vestibule floor level and secured back to the inner floor level. This is made clear in the isometric drawings provided with the kit. On open vestibule cars the bulkhead straddles the floor tab and the side areas will fall to a level that will match the sides.

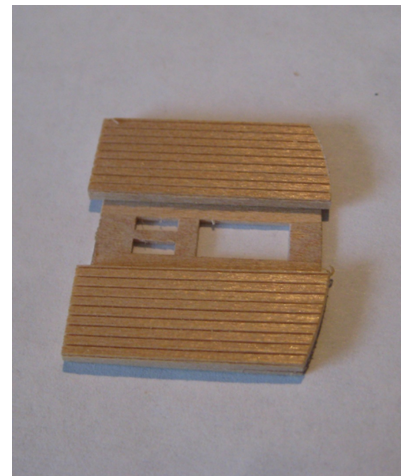
Glue the bulkheads, one at a time, to the floor and block up with a square and allow to dry. When both bulkheads are secure the sides can be glued to the floor. The sides should fall in a location where the bulkheads glue to the inside of the side panels. There will be quarter round moldings that close the corner that will be applied later.



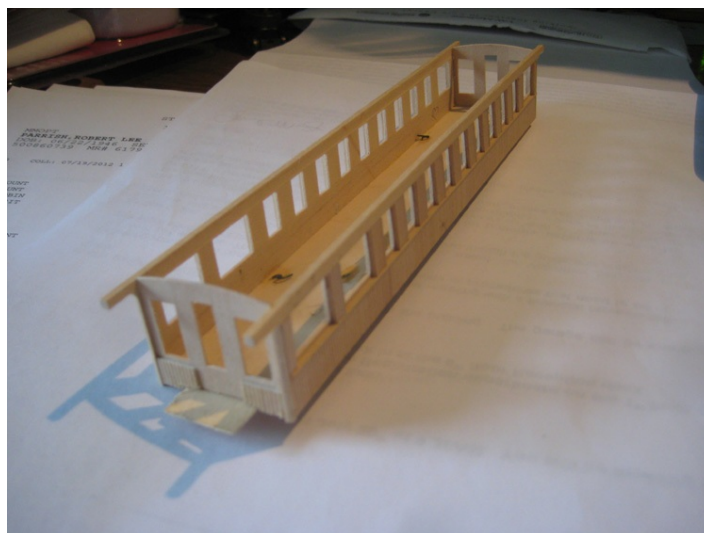
Bulkheads on open vestibule car.



Bulkhead for closed vestibule car with panels at the side.



Bulkhead for closed vestibule car with panels on the sub structure.



Core structure of passenger car. Kit HO-13 shown.

This now is the base structure of the model and all other parts will be assembled to it.

To continue with the construction, the various parts related to the bulkheads may be added at this time. For open vestibule cars this includes scribed panels below the windows and lower door panel. For closed vestibule models the bulkheads should also be completed at this time.

On open vestibule cars locate the header board that will go over the hand rails along the underside of the roof. This is supplied pre-curved and should be suspended between the tails extending from the side walls.

A scribed panel is supplied for the floor of the vestibule step and will have enough extension for the cast steps to be glued under in a later step.

To begin the outer end walls of the closed vestibule cars. As the roof is not secured this is a spindly business at best. Identify the header beam that goes across the top of the end panels. This part is identified in various instruction sheets as: header, end letter board, end wall header. Most kits come with this header shaped for the three faceted design of the walls. Labelle provides the floors cut with these angles so the header angles should be brought to match the floor angles. On early kits these headers were not shaped and needs now to be matched to the floor.

Place the roof on the model and ensure that it is long enough to extend beyond the tails that extend from the side walls. Suspend the headers between the tails and inspect again for adequate coverage of the roof over the header. If the lengths are correct, glue the header beam between the tails. Be sure that the center facet is centered on the door opening of the inner bulkhead. When dry, the end walls can be glued to the inside of the header and the outer end of the floor. Once the side doors are added this becomes safely strong to handle.

On models HO 15-19 see additional instructions at the end of this article.

Side doors are next and will glue in similarly to the ends, the tops of the doors glue to the side tails and the bottom of the doors glue to the floor board. Some doors will need to be trimmed to fit on the various models. When a door is fitted to a particular location, mark it so that it is sure to stay with that location on the model. Identify the quarter round moldings and header moldings for the doors.

Most passenger cars come with a rounded header over the side doors. These are provided in a strip of four arches and must be cut apart. Be sure that the arch is centered on the door. To round the header and take up the curved motion of the quarter round at the door sides, work these arches with a small round needle file and only get

them close. Final fitting of the arch and quarter round over the door will be done when the headers are in place. Trim out all doors with headers and quarter round.



Door arch on all closed vestibule cars except HO-4

Many kits model an oval window for the lavatory and will have a white metal casting provided. With a small square file, clean the seating surface where the casting will go into the wood side. Remove any flash and then press into the opening on the side of the car. Open with a round file any wood necessary to insert the casting then set aside for assembly later with other castings. Scientific supply houses offer microscope scope slides and are available with what is called a thumb tab. This is a three quarter inch area at one end of the slide that is sand blasted and can be used for lavatory windows. They look great as a frosted window as they still have one side shiny that can be place facing out on the model.

Proceed now to the under car detail. This includes marking for the location of truss rods and queen post castings. Also water and air tanks may be installed. The kit will come with some scribed panel for wrapping the water tanks in a wood insulation. These then are secured to the under floor and trimmed out with a wire strap. The amount of under floor detail is up to the modeler as some don't find this all that interesting. Other than the air cylinder for brakes, Labelle does not provide detailed brake rigging for their passenger offerings. These can be ordered from Labelle additional to the kit and installed. You will need to consult other materials for the precise locations of the brake rigging. Truss rods on passenger kits are of a green florist wire and forms easily. Install now and add turn buckles if desired.



Roof assembly

In most cases the roof will be the last part to go on the model and in some cases, made to be removable for viewing of interior. This is the choice of the modeler.

The roof construction is outlined in an article on this web site called, "Roof Rounding" and should be completed at this time. Once completed the car is nearly finished.

Castings and detail parts

Casting should be installed now including: end steps, window frames and under floor details not previously installed. At this point some decisions must be made. What interior may be installed which can provide weight if cast seats are used. Is the roof to be removable? Will this model use the Plexiglas that is provided in the kit or glass microscope slides?

Weighting of the car to NMRA standards should be considered now and accomplished in any way appropriate for the viewing of the model.

Painting and lettering of the model is next and completely up to the modeler. Choice of trucks is also up to the modeler and many options are out there. For couplers, consider using a Kadee #451 coupler extension that allows for tight radius operations and still has a return to center feature.

Special instructions for the models: HO 15-19

These four passenger offerings have white metal castings and require special attention. All castings must be cleaned of flashing and the relieved area on the back that will snap into the wood side wall must be brought clean and square all the way around each casting. When done handling, be sure that the window castings are square at the lower corners. These castings are very soft and bend easily. Additionally, lay them flat on a work surface and ensure that they are still flat and will seat flat into the wall assemblies.

The sub walls on these models have square openings for the windows that must be matched up to the arched window outer sides. The sides have multiple sections and should be edge glued as shown in the article "Perfect Car Sides Forever" elsewhere on this web site. Use the elevations in the supplied instructions for exact measurements and window order placement.

When the scribed sides are secured to the sub siding, carve open any window openings that may be blocked by the square areas of the sub sides.

These kits have an "L" stock strip that creates the letter board on the upper edge of the sides and continues out to become the tails. This tail portion that extends beyond the side panels is particularly fragile during handling and construction. To stiffen a bit, place a small line of super glue on the inside of the molding that will finish on the interior of the vestibule.

Many kits have small windows in the closed vestibule end walls. Pre-fit the window castings to these before securing to the model as noted above in the general instructions.

If you are building several of these kits concurrently, it is very easy to mix up the windows and scribed walls of the side panels. Work the sides to completion for each kit before going on and don't commingle parts on your work bench.