

Replacement Wood Cab Kit for Accucraft's *Ruby*



Your new laser-cut *Ruby* cab is designed to be an exact replacement for the metal cab supplied with the engine. Like the *Ruby*, the cab is based on small Baldwin engines such as the one pictured above. The kit includes wood running boards, should you wish to remove the side tanks and add a tender.

Tools

You will need some basic hobby tools and materials to assemble this kit: glue, paint or stain, extra-fine sandpaper and a small square. To glue the cab, we have successfully used wood glue, 45-second plasticized CA ("superglue"), or spray-on contact cement.

Assembly

Assembling the cab kit is very simple -- it should take between thirty and sixty minutes. If you wish to stain the cab, you should do it before assembly. Likewise, painting window frames or the inside walls may be easier before assembly. Keep stain and paint off the surfaces to be glued, if possible, and keep glue off surfaces to be stained.

First, lightly sand all the parts to remove the soot from the laser-cutting process. Each wall comes in two layers to create the effect of woodworker's paneling, window frames, etc. The wall layers must be assembled before the whole cab can be glued together. The layers are cut to form strong joints at the corners, so no reinforcement should be necessary. You must take care to align these parts correctly, however, to get a good fit and insure rigidity. We suggest that you check the fit of all pieces and familiarize yourself with how the walls go



Baldwin Class 6-11-C

together before gluing. When gluing the side panels together, we suggest you use a square to align the specified openings, which will insure the tightest joints at the corners.

You will need to choose one of the rear wall options -- one is based on original Baldwin cabs and one is modified to accommodate easy removal of the cab. The Baldwin-style rear panel with the side windows will not allow the cab to slip on and off the metal floor like *Ruby's* original, due to the position of the gas-tank valve and the lubricator. Use it if you intend to mount your cab permanently and access the gas filler and lubricator by removing the roof. If you want the cab to slide off like the original *Ruby* cab, make the rear wall from the two thin, U-shaped pieces.

Take care to assemble the walls with the scribed lines facing out. The front and back inner layers have flat tops; the outer are arched. The front layers should be assembled so the openings for the boiler are aligned with each other. This will leave $\frac{1}{16}$ " steps on the back side of the wall. The rear layers should be assembled so the large central openings are aligned with each other. This will give similar steps on the back of this wall.

The side layers should be assembled so the large window openings are aligned. This will leave a $\frac{1}{16}$ " step on the front and back edges, as well as a $\frac{1}{4}$ " step at the bottom of the inside layer. Apply glue sparingly -- it prevents wood from taking stain and varnish. While the wall panels are drying, glue on the armrests. The front sill slides into the slot under the window, while the rear sill rests on top of the framing.

After the glue has set on the four wall panels, test fit the cab onto your *Ruby's* footplate. Assemble the panels with small clamps or rubber bands. The turned-up edges on either side of the metal floor should slide snugly into the slot at the bottom of the cab. We have measured a number of *Rubys*, have found a little variation in the sizes of the footplates, and have attempted to allow for this variation. If, for some reason, your cab does not slide down onto the side flanges, you may need to do some sanding and fitting of the bottom edges before gluing.

Once you have verified the fit, you can complete the cab by gluing the walls together. Note that the front and back walls have notches where the roofline arcs down to meet the sides. The front edge of the sides should fit right up under the notch on the front wall. The rear roof extension will fit tightly into the rectangular notch above

the rear windows. The sides should cover the edges of both front and back panels.

(If your roof is permanently attached, you may want to wait until the varnishing and lettering are done on the of the cab.)

Apply your glue, then fit the edges together using a square or the unused back wall to square the corners.

Rubber bands may be used to secure the pieces while glue is drying. When it's dry, you can put a final coat of paint or varnish on the cab, just as Baldwin did.

Painting and Finishing
Up until about World War I, wood cabs were typically left natural and finished by varnishing to show the beauty of the wood. Later, when new engines usually had metal cabs, older wood cabs were often painted a color which complemented the paint on the rest of the engine (usually black). Cab interiors were always painted "apple green", a very light green believed to be easy on the eyes. Window frames were sometimes painted this color as well, or a color which complemented the lettering or decorative striping on the tender. After painting or staining, applying several light coats of clear varnish will give the cab the carefully crafted appearance of early railway equipment. Letting the coats harden thoroughly and lightly smoothing with them steel wool will give a finer finish.

Note: The full rear panel is designed to look and fit correctly when the wooden rear beam is removed and a tender is added. If you are using the full rear panel and also keeping the wooden beam attached, you will need to open up the slots at the bottom of the rear panel when glue is dry, so there is an opening for the floor flanges. (See drawing.)

Roof

The supplied wooden roof consists of eight parts: four arches (carlins) which form the roof into a curve, two stringers which connect the carlins and keep them spaced properly, and two layers of roof decking. The main carlins are notched below to match tabs on the inside walls. The intermediate carlin is notched above the stringers. The fourth carlin attaches underneath the rear of the roof. The inner layer of the roof decking is scribed to represent planking inside the cab, and there are locating holes to help you fit the roof to the tabs on the tops of the carlins. Additionally, there are two jig pieces to keep the roof square and aligned during assembly.

Running Boards
The running boards can be attached by gluing them to the cabs tank brackets, or they may be held with screws. If you wish to screw them on, you will need 1/8" No. 2 screws, a No. 2 threading tap and some 3/32"x1/4" stripwood (hardwood is best). Cut four strips of wood 3/32" thick, 1/4" wide and 1" long. Clamp the strips in place on the brackets, mark holes for drilling 1/16". Thread the holes with the tap and glue the strips to the underside of the running boards. Screw the strips to the brackets from below, spread glue on the underside then clamp the running boards in place and let dry.

To assemble the roof, slide the jig pieces on to the main arches from below, just outside the lower notches. Lay the intermediate arch across the jig, then glue the stringers to the main arches only. Look at the underside of the inner roof decking, and notice the arrow indicating the front of the cab. The arch assembly goes towards the front. Apply glue to the upper surfaces of all three arches and the stringers, then adjust the intermediate arch so the inner roof decking fits down over the tabs in the center. Bend the roof down on both sides, and clamp the edges to the arches. Apply glue to the top surface of the remaining (unnotched) roof arch, insert the tabs into holes at the rear of the roof and clamp. Let dry. Finally, apply glue to the top of the assembly and carefully fit the outer roof decking so its edges and corners are aligned with the inner layer. Clamp and let dry. Slide the jigs off the main carlins and the assembly is complete.

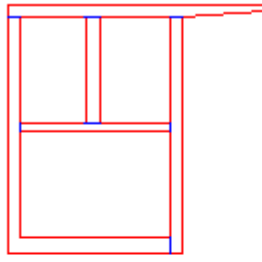
Thanks again for purchasing the F&PB cab kit!
If you have any questions or comments about the kit, please write.

The roof should be covered with "asphalt roofing paper, nailed and mopped with tar." One popular technique to simulate this is to spread a very thin coat of wood glue over the top of the roof decking. While the glue is still wet, lay 1/4" (45mm) strips of rough paper on the roof. Facial tissue or untextured paper towels are often used. Overlap the strips about 1/16" (1.5mm). Allow to dry overnight, then paint with flat black paint.

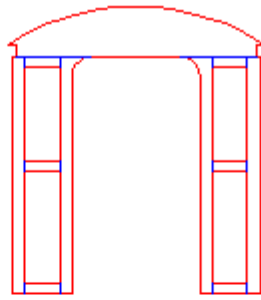
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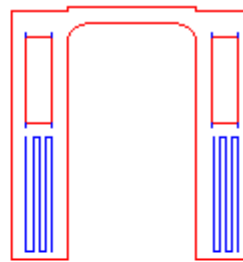
PARTS LIST



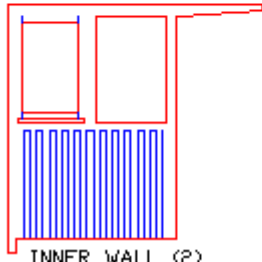
OUTER WALL (2)



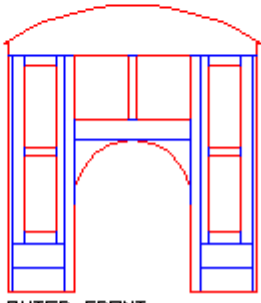
OUTER BACK



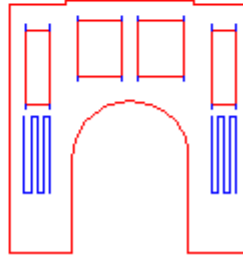
INNER BACK



INNER WALL (2)



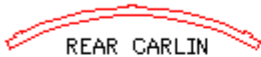
OUTER FRONT



INNER FRONT



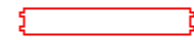
MAIN CARLIN (2)



REAR CARLIN



INTERMEDIATE CARLIN



ROOF STRINGER (2)



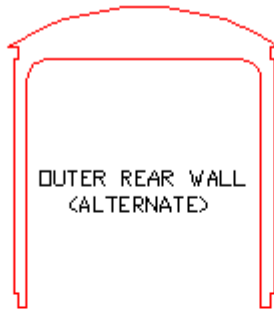
ROOF ASSEMBLY JIG (2)



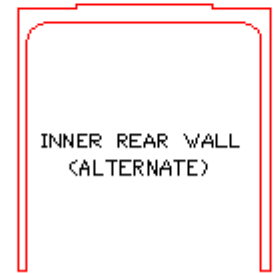
RUNNING BOARD (2)



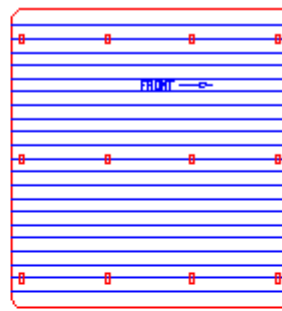
ARMREST (2)



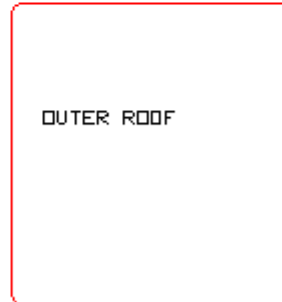
OUTER REAR WALL
(ALTERNATE)



INNER REAR WALL
(ALTERNATE)



INNER ROOF



OUTER ROOF