76ft Tie & Rail Car



N-Scale & HO-Scale

Before Starting

PREPARING BRASS The easiest way to remove the brass parts from the sheet they are produced on, is to use rail nippers. The brass is soft and won't affect their future cutting ability. This will reduce or eliminate the amount of filing to smooth the edge. The next best way is with small sharp diagonal cutters that will fit into the small areas between the part and the sheet holding them. You should always use a file to remove the balance of the tie. This will ensure a perfect fit.

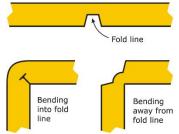
GLUING BRASS Instant super glues, Cyanoacrylate, CA for short, are very prominent in model building today. They will work perfectly with brass, and they are instant. We recommend a thick CA glue such as "**Zap-A-Gap**" from Pacer Technology. As I have also been building R/C airplanes for over 33 years, I have many airplanes built entirely with CA glue and I can tell you that the wood will break before the glue joint. So it is great stuff! Besides being almost instant, thick CA glues will help create a small fillet and fill small gaps when applied to the inside of joints. Using a toothpick to apply the CA glue works really well for getting the glue into the interior areas and controlling the amount of glue used.

PAINTING BRASS Wash your completed assembly in warm soapy water. If it is really messed up with flux etc. you can clean it with a lacquer thinner first. *Do NOT bake the model if you used CA glue for construction.* This will set the paint to the brass as well as allowing you to paint over parts of it without the first coat dissolving as you spread on the second coat. One nice thing about painting on brass, if you don't like the paint job you can use paint remover to get rid of it and start again without hurting the brass.

BENDING BRASS

To control where a fold will be, we have put a Fold or Bend line into the design. This line is a small slot that has been etched half-way through the brass sheet at the point of the bend. Normally, you fold into a bend line when the bend is less than 135 degrees. Notice how bend into the line creates a nice corner and the metal pinches together at the bend line.

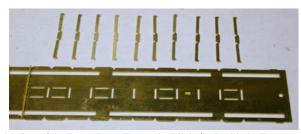
For bends of 135 to 180 degrees, you must bend against the bend line otherwise the two pieces of metal can not lay flat at the bend due to pinching each other. Other times, you bend outward for better positioning of the piece or better display. The ladder on this Caboose build is bent outward to expose and "pop out" the rungs.



Step #1 – Building Car Frame

Remove the Frame Base and the 19 Ribs from the kit sprue. On the Frame Base, there is etched in "LB" and "RB" which stands for Left Bottom and Right Bottom. Place the Base on the building surface with the etched LB & RB facing up.





Begin securing the Ribs into the slots of the Frame Base. Ensure the Rib is flush with the Frame Base before securing. Continue securing all Ribs on to the Base.



the bottom of the Frame Base with Ribs. The "LB" etching on the Base is still on the left hand side. Push the Keels so their slots engage the slots in the Ribs. Tabs on the Keel will engage slots on the Frame Base. Secure the Keels to the Base and Ribs.

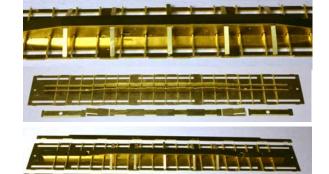


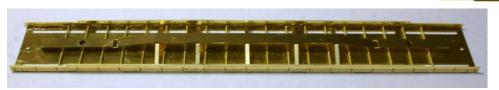
Install the five Supporting Strips into the slots in the Keels. The Supporting Strips have bend lines to allow the strip to fit into the Keel and bend down so the Strip ends can be secured to the Base.

Clean off all tie remnants from the three Keel Capstrips. The tabs on the Keels will go into the half-etched slots on the Capstrips. Secure the two end Caps first. The center Capstrip has two bend lines. Bend the ends of the Center Cap INTO the bend line and secure to the Keels.



The Frame Sides have half-etched slots for the tabs on the sides of the Base. Secure the Frame Sides to the Base Frame.



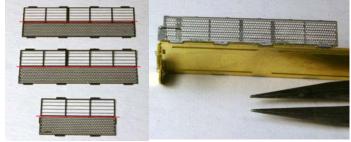


Step #2 – Building The Top Deck

Each car end has a Grated Fence consisting of two Side Fences and an End Fence. It is important to remove all tie remnants off the stainless parts before proceeding. Carefully look for the small half-etched connector tabs

Place the Fence pieces on the building surface with the half-etched bend lines facing down. Fold the Fence on the top half down over the Grating. Secure together. Repeat for all Fence pieces. The longer Fence Sides require a Grab Iron to be secured before proceeding.

The Ends of the Top Deck must be bent to about 60 degrees by bending INTO the bend line. The Ends will be bent later to their final 90 degrees after the Top Deck is secured to the Frame Base.





The builder should have noted that there are two long Fence Sides and two shorter Fence Sides. Match the tabs on the Fence Sides to the notches on the Top Deck. Secure the Fence Sides to the Top Deck with the Grated side outward and the Fence Structure to the inside. Now secure the Fence End to the end of the car. There are slots on the end of the Top Deck for the tabs on the End Fence.

Once the Fences are secured to the Top Deck, Add the Fence Cap on top of the Fence.

Fit the Top Deck on top of the Base Frame, finish bending the Top Deck Ends down to 90 degrees. Secure the Top Deck two the Base Frame.

Add two Grab Irons to each Ends and four Grab Irons to each Side.

Turn the car over and add the Brake detail.

The Coupler plate is secured to the Base Frame and the Coupler secured to the plate.

Lastly, add the three axle Trucks to the Keel.













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