PRR G22b Gondola

N-Scale & HO-Scale

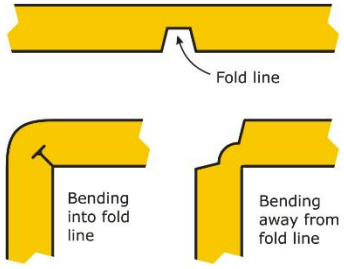
Before Starting

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

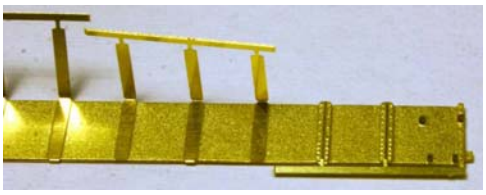


To control where a fold will be, we have put a Fold or Bend line into the design. This line is a small slot that has been etched half-way through the brass sheet at the point of the bend. Normally, you fold into a bend line when the bend is less than 135 degrees. Notice how bend into the line creates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

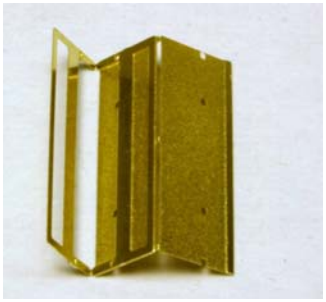
Step #1 – Building The Sides & Ends

Begin by removing both Side Panels from the kit sprue and ensure all tie remnants are removed. The builder should notice that the Outer Rivet Plates are attached to a common strip. This strip stays with the Side Panel when removed. Make the first bend such that the Inner and Outer Sides come together as shown. Secure the Inner and Outer Sides together. Leave the Outer Rivet Plates alone. Repeat for the other side.



Cut the common strip joining the Outer Rivet Plates into groups of two or three. Smaller groups make securing the Outer Rivet Plates to the Outer side easier. Fold the Outer Rivet Plates over the Outer Side and secure to the raised area for the plates. Continue until all plates are secure on both Sides.

Attach two large Grab Irons on each Gondola Side. The stirrups will be attached near the end.

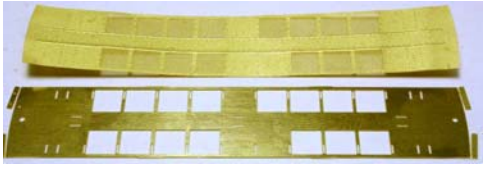


Take care in this next step as the End Panel can be fragile. Remove both End Panels from the kit sprue and ensure all tie remnants are removed.

Carefully, fold the outer Rivet Detail Layer down onto the Outer Layer ensuring the holes for the Grab Irons are properly aligned. Secure the Detail to the Outer layer. Next, fold the Inner Layer onto the Outer Layer and again ensure that the holes for the Grab Irons are properly aligned. Secure the Inner Layer.

Attach two large Grab Irons on each Gondola End.

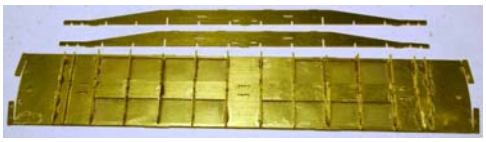
Step #2 – Assembling the Floor



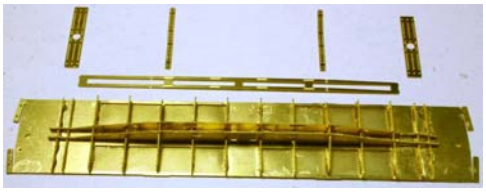
Begin this phase by removing the Sub-Floor from the kit sprue and ensure all tie remnants are removed. The Floor Detail Overlay is not in the kit sprue, but does need to be cleaned as well. Test fit the Overlay on top of the Sub-Floor taking note of how it fits. The builder should take special note of **A)** the tabs on the side of the Sub-Floor **B)** the hole for the Break Wheel Shaft and **C)** the bend lines for the End Sills. .

Place the Sub-Floor down on your building surface with the bend lines for the End Sill facing down. Secure the Detail Overlay to the Sub-Floor ensuring the holes for the Break Wheel Shaft are aligned and the side tabs are fully exposed.

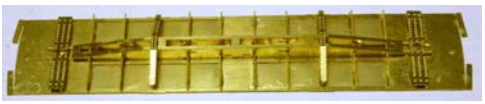
Study the image to the left. Remove each of the 14 Ribs (4 thin flat, 8 thick flat and 2 peaked) from the kit spue and clean off all tie remnants. It does not matter what side of the Sub-Floor you begin the installation on. Begin installing two thin flat Ribs towards each end of the Sub-Floor. The tabs on the Ribs must fit into the slots in the Sub-Floor. Ensure the Ribs are perpendicular to the Sub-Floor. Next, install two thick flat Ribs to the inside of the thin Ribs on each end of the Sub-Floor. Still working your way towards the middle, install the two peaked Ribs on to the Sub-Floor. Finally, install the remaining four thick Ribs in the center of the Sub-Floor.



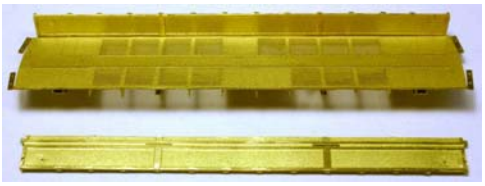
There are slots in each Rib that corresponds to a slot in the Keel. Also, there are tabs on the Keel that fit into slots of the Floor. Carefully fit the Keel into the slots of the Ribs and the Keel tabs into the Floor slots. Carefully keep working the Keel down until the Keel is flat against the Sub-Floor. Secure the Keel to the Floor and the Ribs.



Once the Keel is secure, you can add the Keel Capstrip. There are tabs on the Keel and half-etched slots on the underside of the Capstrip. Secure the Capstrip to the keel. Add the Bolster Plates and the Rib Caps to the Ribs. The builder should take note of were each Cap goes by studying the image to the right. DO NOT add the brake detail yet. Secure the Bolster Plaes over the two end Ribs. Secure the thin Rivet Plat over the peaked Ribs.

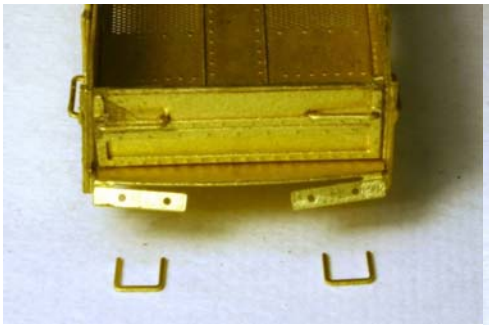


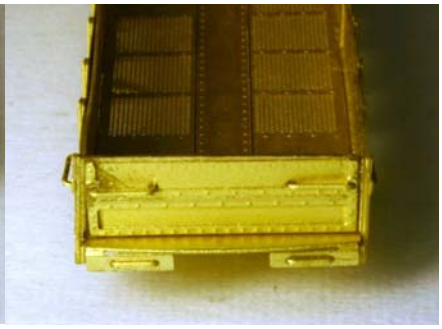
Step #3 – Building The Body Shell



The Sub-Floor has two tabs on each side while the Car Side has two slots within a grove. Test fit and secure the Sub-Floor into the grove of the Car Side allowing the Floor tabs to fit into the Side slots.

Repeat for the other Car Side.

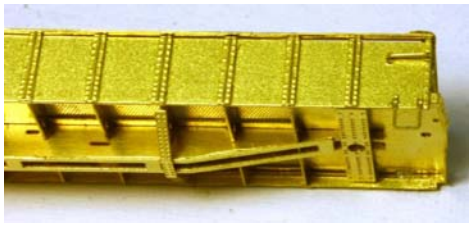


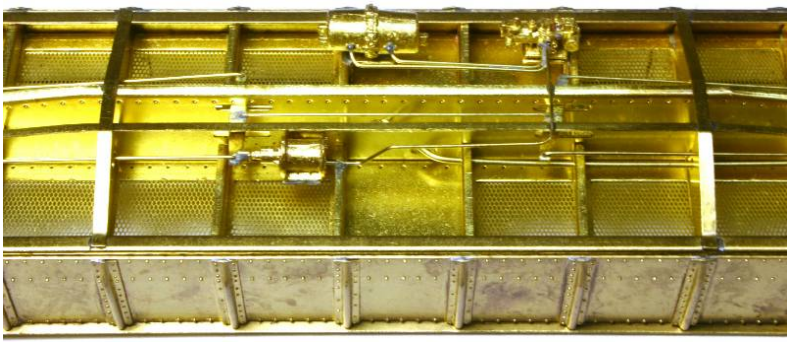


Install a Car End between the Car Sides as shown. Bend the End Sills down and install a small Grab Iron into the holes. Adjust the End Sill to follow the contour of the curved End and secure.

Repeat for the other Car End.

Remove the top Rim and Corner Details from the kit sprue and clean off all tie remnants. Test fit the rim to the upper edge of the Car Sides and Ends filing any high spots to achieve a good fit. Secure the Rim to the Car Body. Add the Corner Details and the Stirrups.





Install Break Gear as shown.