

Overhead Crane Gantry Z-Scale & N-Scale

Before Starting

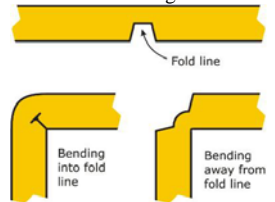
PREPARING BRASS The easiest way to remove the brass parts from the sheet they are produced on, is to use rail nippers. The brass is soft and won't affect their future cutting ability. This will reduce or eliminate the amount of filing to smooth the edge. The next best way is with small sharp diagonal 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.

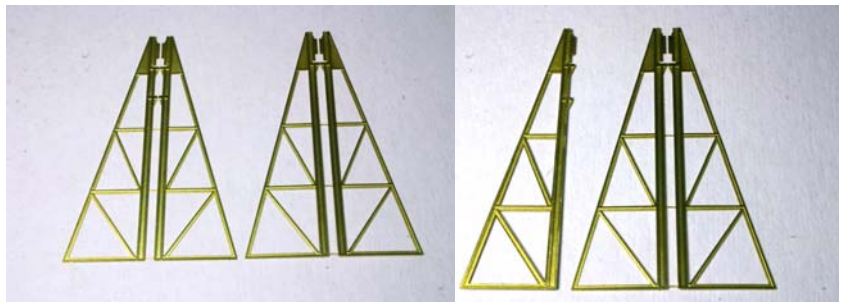
For bends of 135 to 180 degrees, you must bend against the bend line otherwise the two pieces of metal can not lay flat at the bend due to pinching each other. Other times, you bend outward for better positioning of the piece or better display. The ladder on Caboose kits are bent outward to expose and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



Step #1 – Build the Girder Supports

The kit has eight Vertical Supports that must be bent in half so the etched angle iron detail is on both sides of the Support. Notice that one Vertical Support is slightly different in that it has two Resting Supports on the vertical member. This Vertical Support is always at the end of the Crane Gantry where the Access Stairs will be.

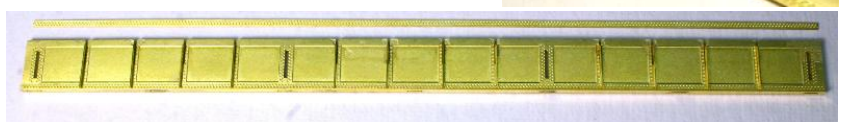
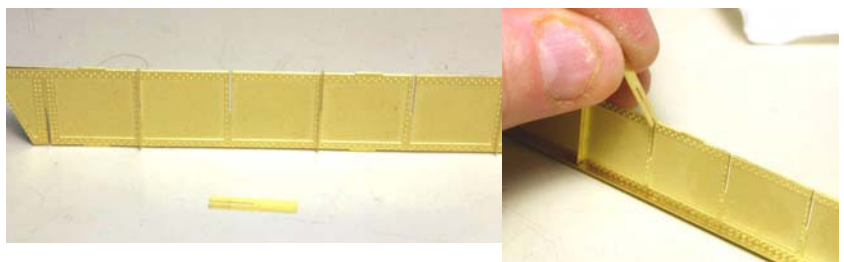
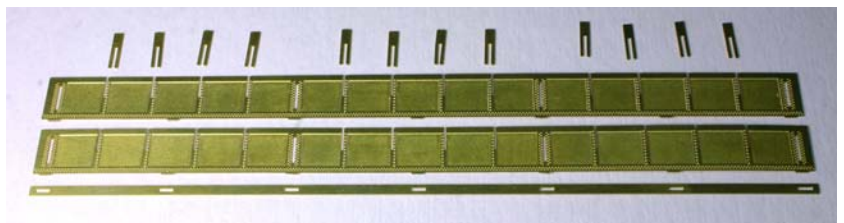
Fold all eight Vertical Supports together and secure ensuring proper alignment of all detail members.



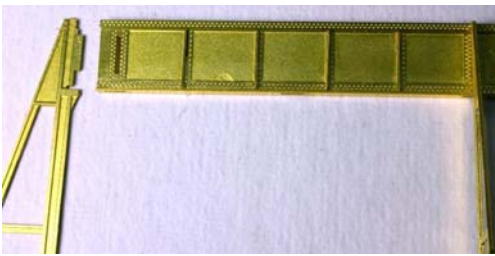
Step #2 – Build the Girders

The Girders are built-up from two identical Girder Sides that are half etched on one side to create all of the detail. The other side of the Girder half is completely flat with no detail. Place both Girder Sides together flat side against flat side. The bottom of the Girder Sides have seven tabs that will fit into the seven slots of the Bottom Capstrip. Place the tabs of the Girder Sides into the slots of the Bottom Capstrip and secure the Sides to the Capstrip. Ensure the Capstrip is perpendicular to the Sides.

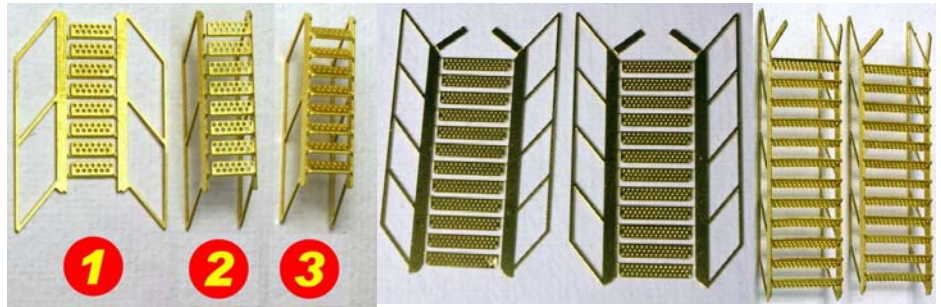
At this point, the tops of the Girder Sides have not been secured to anything yet (including themselves). The 12 Stiffeners are now inserted on to the Girder Sides. The slot of the Stiffener will go into the slot of the Girder Side. Ensuring that the Stiffeners are perpendicular to the Girder Side, secure the Stiffener. Be careful to avoid getting glue or solder on the raised detail above the Stiffeners on the Girder Sides. This raised detail is where the final piece is attached to the Girder Sides.



Add the two Rivet Capstrips to each side of the Girder directly above the Stiffeners. If joining two or more Girders together, add the simple rectangular joiner into the end of the Girder that will join the other Girder. The ends of the Girder have the Crane Stop inserted.



Fit the Vertical Support to the Girder. The large tab will go into the through slot of the Girder. The bottom Capstrip of the Girder will go into the recess on the Vertical Support and rest on the Resting Support. Ensure the Vertical Support is perpendicular in all aspects to the Girder and secure.



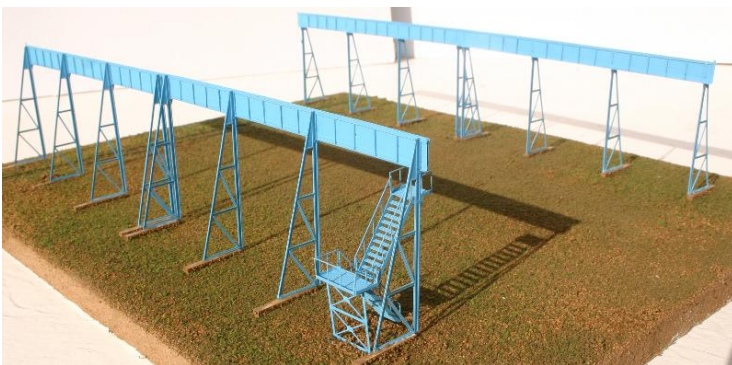
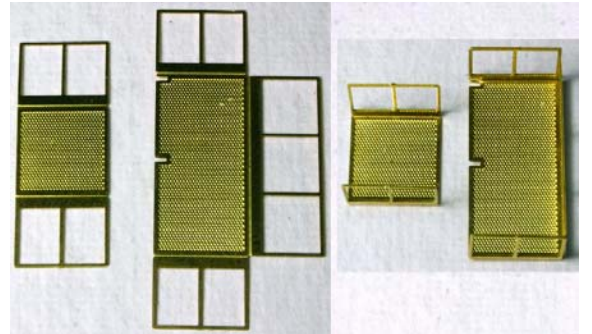
Step #3 – Build the Crane Access Stairs

Bend both of the Stairs as shown. There is an Upper Stair and Lower Stair. The difference is at the bottom of the Stair where the Upper Stair has a tab on each side that fits into the slots of the Lower Platform. The Lower Stair has a flat bottom with no tabs since it will be on the ground.

Bend the two Platforms as shown *into* the bend lines. The sides should be bent 90 degrees and a bending tool is highly recommended. Refer to the TrainCat website for the tutorial on How To Bend Brass and the options available to the builder for bending tools.

Once all bending is complete, attach the smaller Upper Stairs to the bottom of the Upper Platform. Then secure the Lower Platform to the bottom of the Upper Stairs ensuring that the tabs of the Upper Stairs are in the slots of the Lower Platform and the Stairs are properly aligned. Use the vertical posts on the Stair Railing as a guide in getting the Lower Platform to be perpendicular to the vertical posts on the Stair Railing.

Secure the Lower Stairs to the bottom of the Lower Platform. Again, use the vertical posts on the Stair Railing as a guide in getting the Lower Platform to be perpendicular to the vertical posts on the Stair Railing. Secure the cross braced Platform Support to the bottom of the Lower Platform.



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