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. Baking 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.

Step #1 – Building The Loading Frame

The main Loader Frame consists of the two Sides and Ends. Remove these from the kit frets and remove and tie remnants.

There are two different Sides to the frame. The Side with the double X-Bracing be the side that the Stairs are on. Notice that both Sides have half-etched detail at the X-Bracing center Gussets.

Position the Stair Side tabs into the Frame End slots with the half-etched detail at the X-Bracing center Gussets facing OUTWARD. Secure the Side to the End.

Now position the other Side tabs into the same Frame End slots with the half-etched detail at the X-Bracing center Gussets facing INWARD. Secure the Side to the End.

Secure the other Frame End to the assembly.

To build the Stair Support Column, remove the pieces shown from the kit fret and remove all tie remnants.

Secure the Column Ends on the Frame with the Support Brackets going through the slots in the Ends. Do both Ends.

The Stair Side of the Frame has several small notches the line-up with notches on the Stair Support Column. Remove the Spacer bars from the fret and connect the Stair Support Column with the Stair Side by inserting the top and bottom Spacers in the middle of the Column. Leaving the slot empty in the center/middle of the column, add the remaining Spacers

Add the long spacer between the two Frame Sides. This will be the Walkway support.

Now add the top Cap Strips to the Frame Sides first, then the Frame Ends and finally on the top of the Stair Column.
The Staircase has four Stair segments and three Platforms. Remove the components from the fret and group as shown.

Stairs are built by bending the sides up and pressing on the treads to the correct angle. Bend all Stairs.

Platforms have either two or three sides. The Platform sides are bent upwards with the bend-line to the inside of the bend. Bend All Platforms.

Add one of the three sided Platforms to the Stair Column. Ensure the Column Side Cap goes into the Tee-Slot in the middle of the Platform. Position the Platform so it is perpendicular to the Column and secure.

Add an eight tread Stair with the long tabs the middle three sided stairs on the outside as shown. The bottom of the Stairs has small tabs that go into slots on the Platform. Once Secure, add the two sided platform to the assembly. The long tabs on the Stairs are secured to the underside of the Platform.

Now add the eight tread Stair that has very small tabs. Be sure the tabs are bent inward 90 degrees to the Stair sides. As before, the tabs on the Stair bottom go into slots on the Platform. Secure the top of the Stairs to the Frame Side.

**Step #2 – Building The Loading Hood**

Set aside the Frame Assembly and remove the Loading Hood from the fret. Begin by bending the sides starting with the bend line closest to the center. This bend will be 90 degrees from the center of the Hood and you must have the bend on the inside of the bend. Do both sides.

Bend both ends 90 degrees from the center of the Hood. The ends will be used to help with the last two bends.

Now bend the last side bends outward until the flair angle matches the angle of the ends. Site down the length of the hood and ensure all bends are straight. Make adjustments if required. Secure all joints.

If you look back at the prototype image, you will notice that the hood has stiffeners on every panel. Remove the Stiffener Detail from the fret and remove the end details from the center of the piece.

The Stiffener Detail piece has a section that will correspond to each panel on the Hood. Small little tabs hold each section together, but allow the sections to bend to the same angle of the Hood panels. Carefully align the center of the Stiffener Detail over the center of the Hood so that the ends match up and the gap for bending is at the edges of the Hood center. Secure the Stiffener to the Hood first at the Ends and then around the opening in the center of the Hood. I used a toothpick and small amounts of CA glue to do this.

Bend the Detail over the Hood center and into the bend for the flair. Secure the detail into the bend for the Hood flair, then along the bottom and side edges.
Cut two lengths of the supplied H-Column to 3.0 inches. Secure them into the openings of the Frame so that they extend from the Frame 15/16in on the side where the Stairs come up to the top of the Frame and 9/16in on the other side (no stairs) of the Frame. The opening of the H-Column should face upwards to accept the chain. Review the images closely.

Thread the Micro-Chain through the Frame and place it in the groove of the H-Column. Suspend the Hood from the Frame by the Micro-Chain such that the top of the Detail on the Hood is 5/16in below the top of the H-Column when the Hood is level. I used some tape to hold the Chain to the H-Column while adjusting the height of the Hood. Once at the right height, first secure the Chain to the H-Column before securing the other end of the Chain to opposite rod in the Hood Side.

The Top Walkway consists of the Grated Walkway and the Railing that has two bends to create a continuous Railing. Secure the railing to the walkway after placing the Railing ends into the appropriate holes in the Walkway. Secure the Walkway to the Frame assembly.

**Step #3 – Building The Car Access Platform & Pump House**

Now that we have the Loading Frame completed, we can turn our attention to the rest of the brass components in the scene. First up is the Car Access Platform. This Platform allows worker access to the top of a loaded car where they can cover the chips with a mesh to hold the load in place.

Begin by removing the parts shown from the fret and clean off any tie remnants.

Place a Side Frame down on the work surface with the etched slots facing up. Take one End Frame and position it's tabs into the slots with the half-etched detail at the X-Bracing center Gussets facing OUTWARD. Notice the small cross bracing goes toward the top. Attach the second End Frame to the Side Frame.

Now attach the second Side Frame to the assembly ensuring the End Frame tabs are in the Side Frame's slots. The builder should notice that the tops of the Side & End Frames have tabs to align the Top Cap Strips. Add both Top Cap Strips to the Side Frames first. Then add the Top Cap Strips to the End Frames.
The following components are needed to the Access Platform. Begin with the Grated Walkway. The bottom of the Walkway has three bend lines. Begin by bending the sides down into the bend line. Next, bend the Walkway end downward. Add the Railings into the holes and set aside.

The corrugated Hinged Walkway is built in the same manner. The bottom of the Walkway has two bend lines. Begin by bending the sides down into the bend line. Add the Railings into the holes and set aside. Bend the Stairs in the same manner as down on the Loading Frame.

The Grated Walkway has two small slots that drop over the cross piece of the bottom X-Bracing. Secure the Grated Walkway to the frame. Add the Stairs to the end of the Grated Walkway.

Secure the Drop Platform to the Grated Walkway at an angle the will clear any car or loco that would be moving through.

Remove the two Pipe Supports and their Cap Strips from the kit sprue. Notice that the Center Support has tabs and the Cap Strips have slots. Also notice the Cap Strips are "handed" and will only fit on to the Support one way.

Secure the Cap Strips to the Center Support as shown.

The Last item brass item in the kit is the Pump House. Begin by removing the shown items from the sprue and clean off all tie remnants.

Turn the House Siding over with the two bend lines facing up. Attach the door to the back of the Siding. Bend the siding into the sided structure. Since the Pump House rests against the Holding Pen, the back is not needed.

Bend the Roof to the correct angle and then secure the Roof the Siding.

Step #3 – Building The Wooden Holding Pen

The woodchip Holding Pen is two sided laser-cut ply with etched lines for the individual planks and the wall supports. Begin by removing the wood components from the sheet.

Glue the Wall Support Legs to the Plank Wall suing your preferred glue. The long Wall (parallels track) has 7 Supports while the perpendicular wall has 5 supports.
Glue the top Doubler to the wall. Remember, you must leave room on one Wall at the end for the other doubler when the two Walls are joined. Join the two Wall segments.

The Delivery Pipe is comprised of two 90 degree elbows, two 45 degree elbows and 1/8 (.125)in styrene tubing. The Holding Pen can be located wherever the user wants. The following Tubing lengths are for the minimal configuration. The pipes segments that can be extended are indicated by (**).

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<th>Segment</th>
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<tr>
<td>A</td>
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