## 40' PLATE GIRDER BRIDGE KIT 7020



This kit builds 2 complete 40' plate girder bridges. It is based on the Norfolk Southern bridge over Rt. 49 in Haw River North Carolina. All parts are molded in black ABS plastic. We recommend a liquid plastic cement meant for ABS such as Plastruct Plastic Weld.

- Remove the plate girders from the sprue with sprue nippers or a sharp razor blade.
  Remove the small round overflow pins. Either scrape or file the top and bottom of the girders to remove the parting line.
- 2. Remove all the other parts from the sprues. Clean all gate marks making sure they are flush. File the top and bottom or the shoes so that they are flat. Don't worry if you mess one up, there are twice as many as you need.



- 3. Glue the four lateral (triangular parts) braces to the underside of the top plate as shown in the picture. The flat side of the gusset plates are glued to the top beam plate. The angle irons face down. Make sure the gusset plates are flush to the main beam plate.
- 4. We will now install the seven intermediate frames (there is one spare). Look closely at the picture and understand how the pieces fit before gluing anything.

The 3 frames on the left are installed with the gusset plates facing the left and the top angle facing right. The gusset plates are glued to the left side of the angles on the side plate. Make sure the same side is to the top on each x-brace.

The 3 frames on the right are installed with the gusset plates facing the right and the top angle facing left. The gusset plates are glued to the right side of the angles on the side plate. Make sure the same side is to the top on each x-brace.

Now look at the center angle on the side plate. It will match either the left or right group of 3 side angles depending on which side of the beam was on top when you started. Install the center frame to match either the left or right frame group depending on which side the center angle matched.

- 5. Finally we will install the second side. Tilt the cross frames slightly to the end of the girder which matches the side of the angle the frame is glued to. This will make it easier to align the second side. Orient the second side so the center angles on both sides face the same direction. Place the top of the second side against the notched gusset plates on the laterals. The notches fit over the angles. Make sure the gusset plates on the frames are all on the correct side of the angles. Do not worry about the exact position yet. When you are sure everything is right apply glue to the plates on the top laterals. Apply glue to each frame and hold it against the side plate angle with a tool such as a scribe until the glue sets.
- 6. Glue a shoe directly under the angles on the sides that are set in about an 1/8" from the end of the plate girder.
- 7. Spray paint in your railroad's bridge color (usually black, gray or red) and install. The track installs directly on top of the plate girders.

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