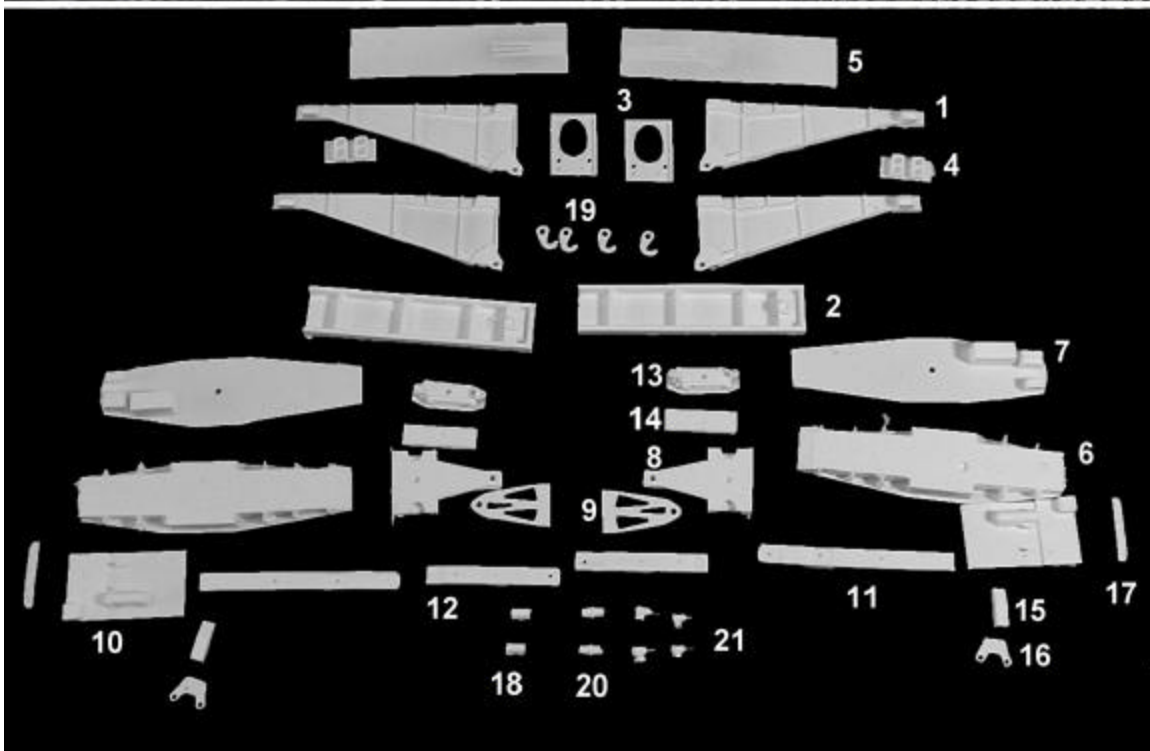


CONCEPT MODELS

<http://www.con-sys.com//Index.htm>
email:concent models@con-svs.com

8331 Sheep Ranch Rd.
Mountain Ranch, CA 95246



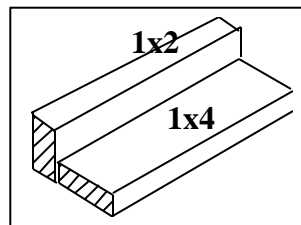
WESTINGHOUSE SCHNABEL CAR 102/301

WARNING

Some parts have lead encapsulated within them. In the event the lead is exposed for any reason, do not allow it to remain on the skin. Dispose of any lead shavings that may result. Obey all safety precautions of all suggested cements and assembly materials.

Tools

All basic model workers tools – files, motor-tool with fine burrs, hobby knife, 1/8” drill, Wood blocks for holding parts square, metal square. Files are needed to smooth the edges of the castings. The 1/8” drill is used to ream cast-in holes to correct diameter.



A gluing fixture is a great aid to assembly. It helps hold parts square while gluing.

Instructions

NOTE: This kit consists of resin castings and must be assembled with an ACC cement (not provided) – both the thicker types as well as the thin. Solvent cements will **NOT** bond the parts together! Resin parts are more fragile than common styrene plastic used in injection molded models. Use reasonable care in handling and do not apply any solvents. The illustrations at the front show the general layout of parts for the car. Work very carefully when positioning the parts for gluing. ACC cements adhere very quickly and permanently.

Gluing with ACC Cements – USE WITH CARE

ACC cements allow the modeler to work very quickly. A general rule is to use the thin cements to glue long joints taking advantage of capillary action that makes the cement run the length of the seam. The thicker cement is suited to applying large area parts to each other. An accelerator can be applied sparingly. One technique is to apply the glue to one part and the accelerator to the other part to be joined. I also use a Q-tip to apply a minute amount of accelerator to the glue after the parts have been joined. The accelerator triggers the ACC cement to set very quickly. It is only slightly slower with the thicker cement.

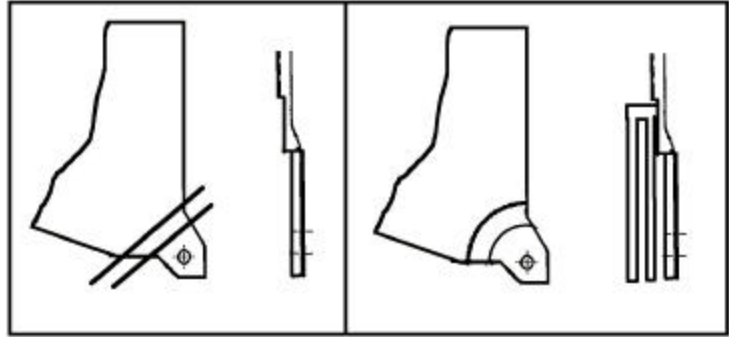
IF YOU WANT PAINT TO STICK Wash the parts before assembling with a dish washing detergent such as “Dawn”. Rub lightly with a soft sponge the rinse.

GIRDER ASSEMBLIES

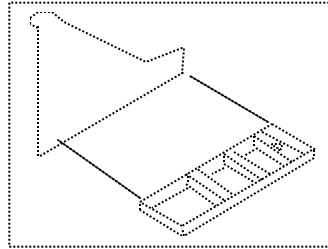
All of the following assemblies are to be made in pairs. Both ends of the car are identical.

1 Prepare the girder assemblies as follows:

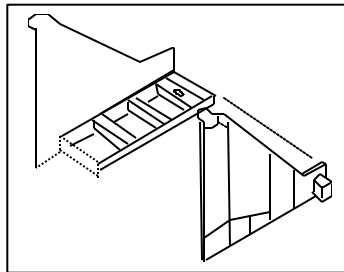
- File the back sides of the girders as shown with a straight file to get the profile as shown.
- Round off the recesses with a moto-tool as shown in the second panel. Check fit with the tension load brackets as shown.
- Use a 1/8" brass rod (not supplied) to align the load bracket holes to the girder side and and glue the load bracket to the back or the girder.



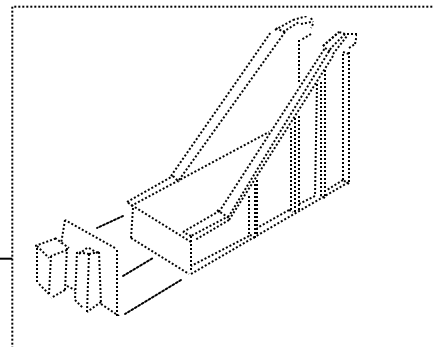
2 Glue the top spacer block so that the back end is flush with the end of the girder. Trim from the front end or leave space to get the spacer end flush with the end.



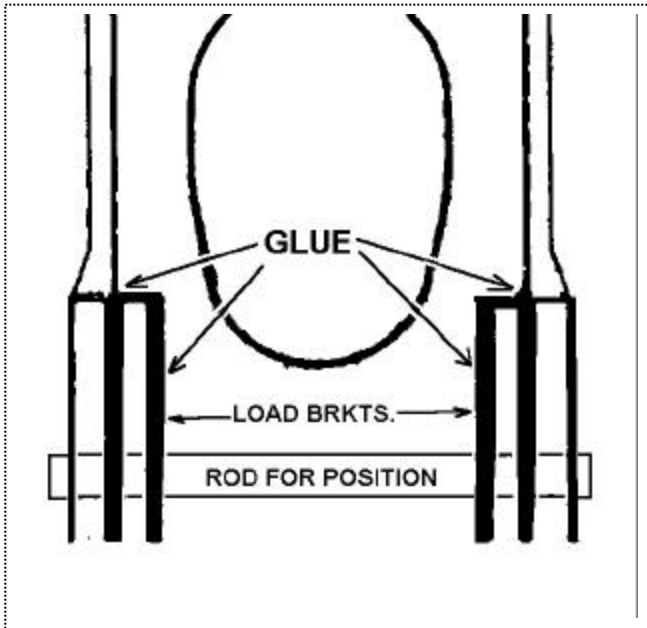
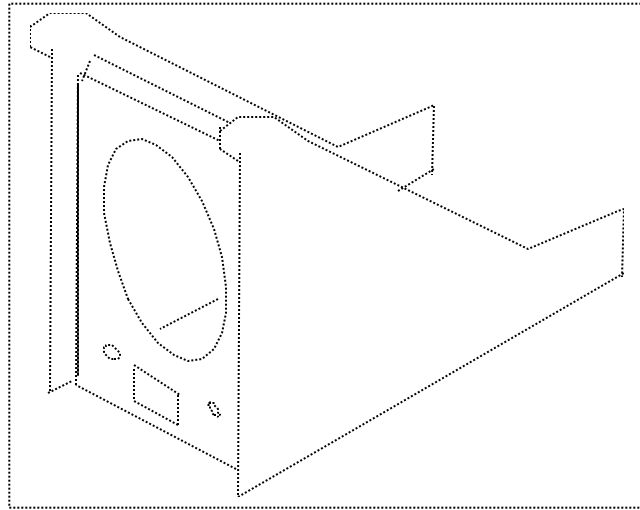
3 Attach the other girder by gluing to the top spacer and the truss end face.



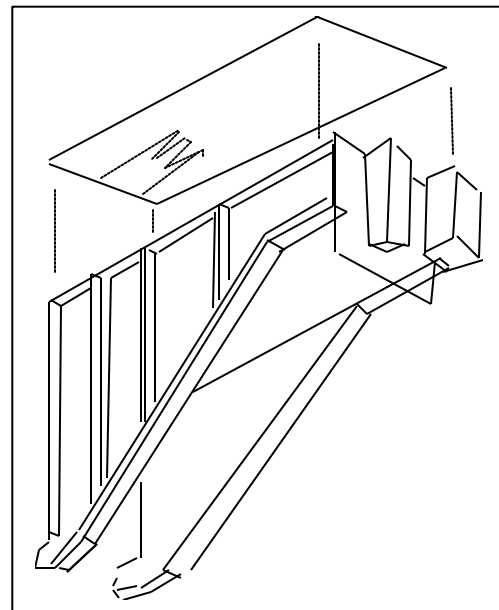
4 Glue the girder stub end to the assembly as shown.



5 Bevel the bottom of the Girder End Face to 45 degrees and glue into the girder assembly. The end face is slightly recessed with the small boss at the top being flush with the end of the girder assembly.



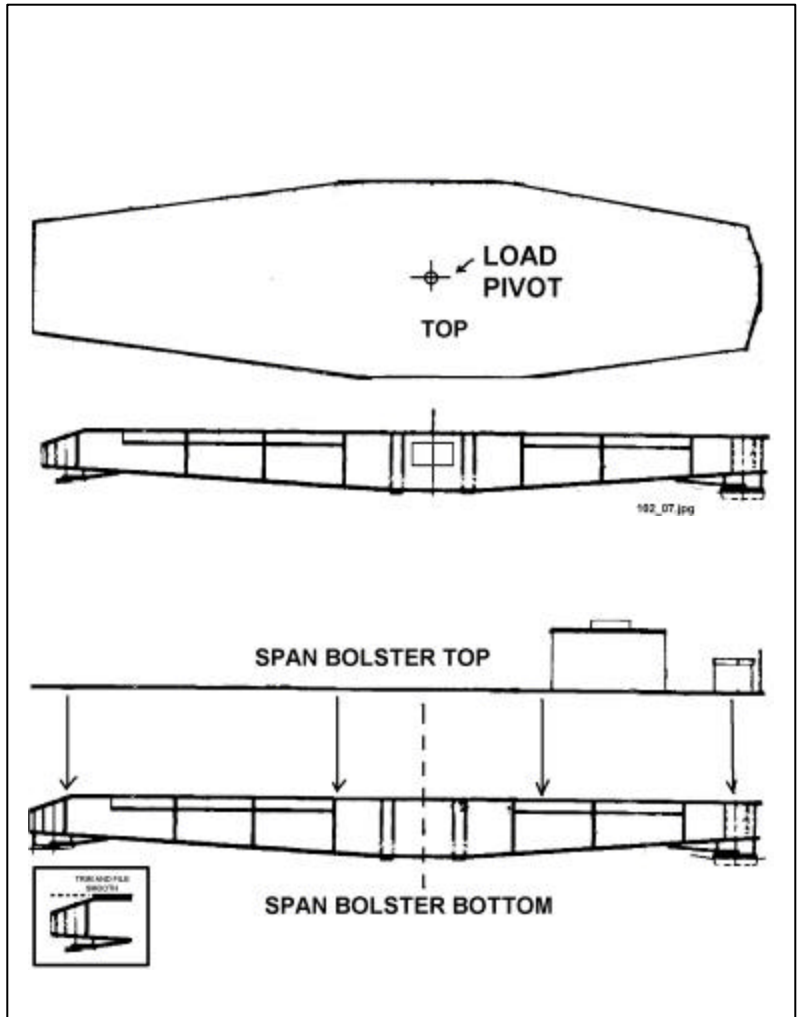
6 Thread the 1/8" tube or rod through the girder sides and the load brackets (). Apply ACC cement to the load brackets and to the backside of the girder. **DO NOT GET ANY CEMENT ON THE TUBE OR ROD.** The tension load brackets from the load kit (sold separately) should mate and pivot freely.



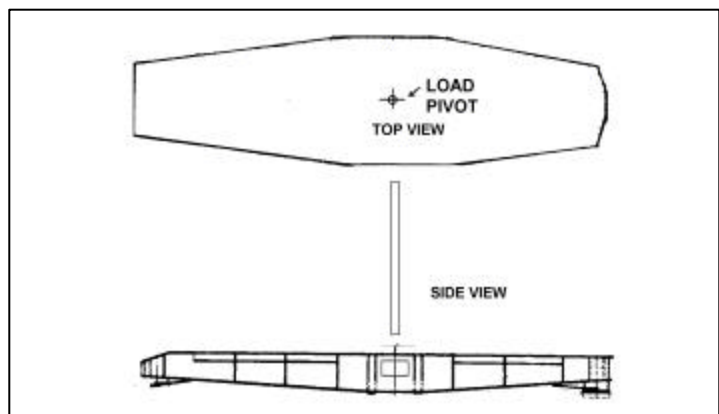
7 Attach the Girder Assembly Top to the girder assembly. The raised portion on the top should be positioned as shown. Note: This is now supplied as styrene sheet and a separate trim piece.

MAIN SPAN BOLSTER/CARRIAGE

1 Use the thick ACC cement to glue the main span bolster top to the main span bolster bottom. The top should match up to the bottom outline. After the glue is set, trim off the overhang on the tapered end and file the top edge even with the top surface.

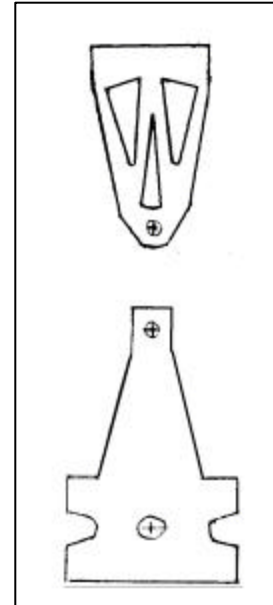


2 Drill a 1/8" hole in the top of the deck of the main span bolsters. Make sure you drill perpendicular to the top. Glue one of the 1/8" styrene tubes in place. Make sure you remove any extra cement from the top of the deck. The tube is too long but will be trimmed when the car is assembled.



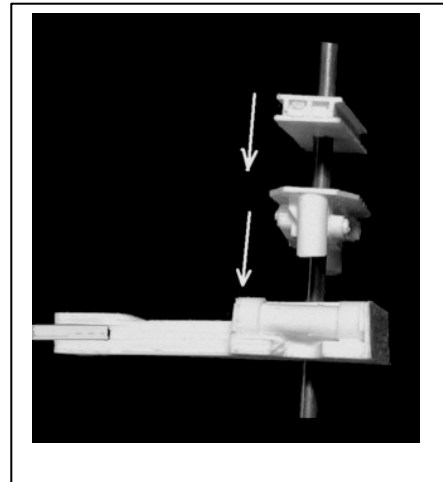
TRAVERSE FRAME & POSITIONING ASSY.

1 Fit the Yoke (9) to the clevis in the Traverse Frame & Carriage (8). Secure the parts with a pin made of a short length of 1/8" styrene tube. The tube should be an easy press-fit. If not, ream the hole slightly with an 1/8" drill bit by hand. The Yoke should be able to be moved. If the pin is too loose and needs to be secured, use ACC cement sparingly on the end that will be on the bottom.

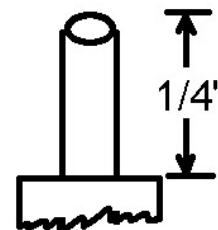


2 Thread the Traverse Frame & Carriage/Yoke assembly over the 1/8" tube on one of the Main Span Bolsters.

The rounded roller ends are closest to the deck. Now add the Hydraulic Positioning Assembly (13) by threading it over the tube. The hydraulic rams should extend into the notches of the existing assembly. Next add the roller nest (14). Stake each of the pieces by using a little of the viscous ACC cement at the outside edges away from the center hole.

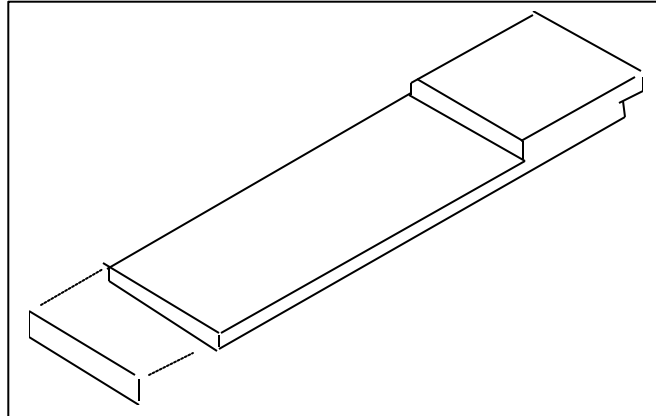


3 With the Traverse Frame in position, trim the pivot tube on the Main Span Bolster so that it extends 1/4" above the Traverse Frame. Test the fit of the girder assembly. The tube should be trimmed just so the Girder Assembly rests on the Roller Nest.

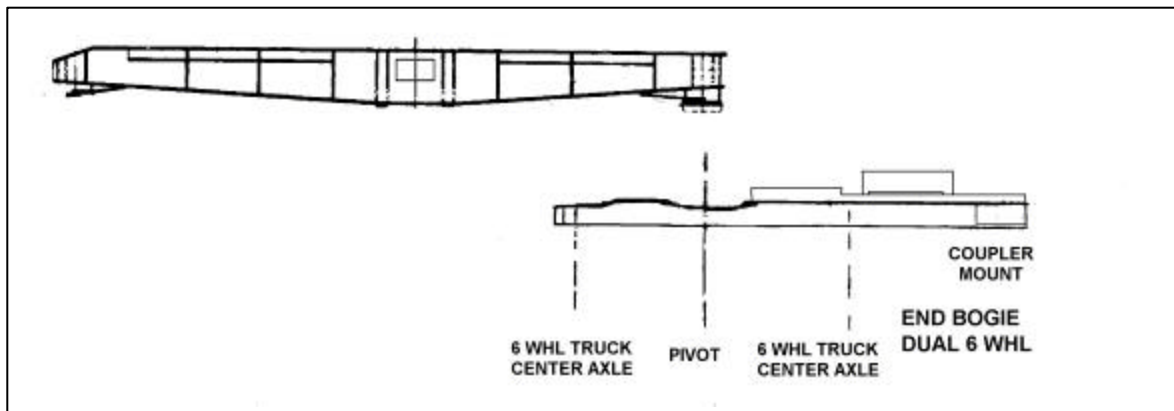


Truck Bolster - Rear

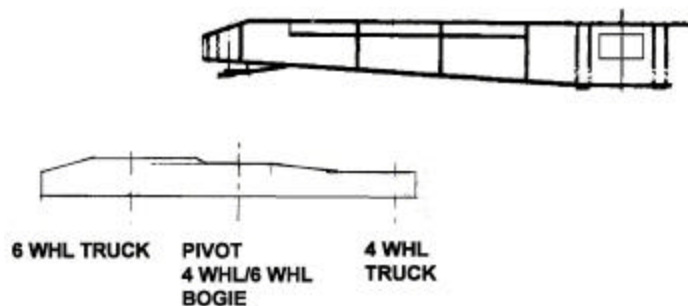
1 Attach the End Sill (17) to the Bolster Deck at what will be the low end. Carve the End Sill to fit over the bolster at the coupler end. Add the Brake stand and brake wheel with the wheel facing inboard. You may install the brake stand later if you desire.



2 Connect to center of the bolster to the rounded end of the Main Span Bolster with a 2-56 screw. Position the Bolster Deck to allow the bolster to swivel without the Bolster Deck conflicting with the movement of the Truck Bolster.



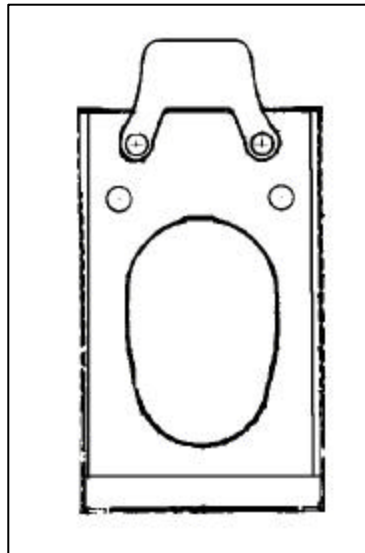
3 Attach the inboard short truck bolster with a 2-56 screw as shown. Attach trucks in positions shown with 2-56 screw and washer. Test the assembly for tracking. For shorter radii, notch the truck bolsters to give wheel clearance.



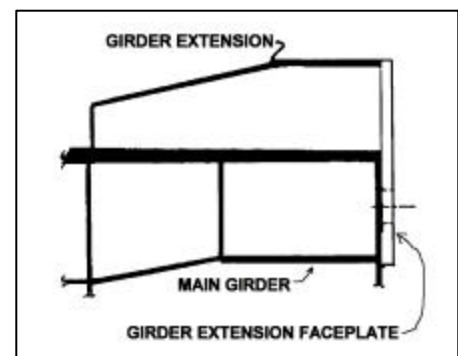
Girder Extensions

These are the items used when a taller than normal load is hauled.

1 Position the Girder Extension Faceplate on the Girder Assembly as shown. Do not cement. This is to be a removable item.



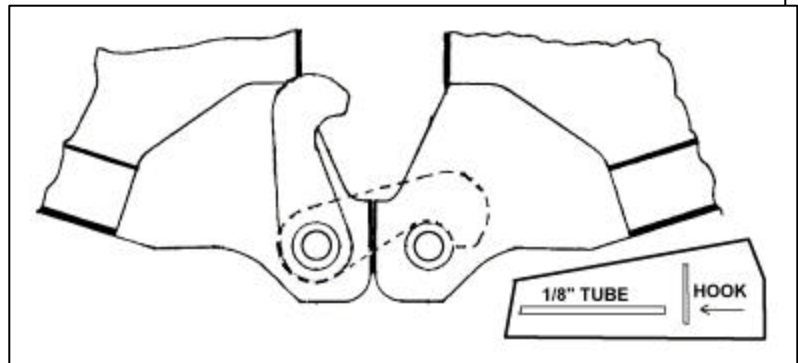
2 Place the Girder Extension as shown. Do not cement to the Girder itself. Apply a minute amount of thick ACC cement at the top of the Girder Extension where it contacts the Girder Extension Faceplate. As soon as the cement sets, remove and add thin ACC cement to fill in the seam between Girder Extension and the Girder Extension Faceplate. Set aside.



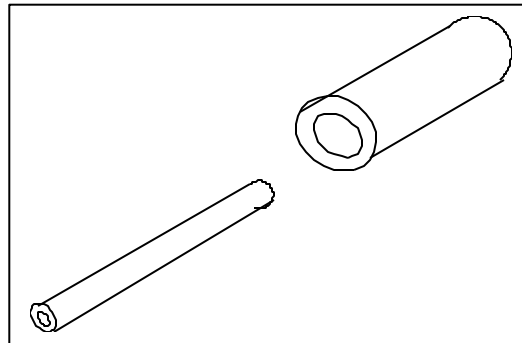
Traveling Hooks & Spacers

These are the items that allow the A & B ends of the car to be connected to run the car unloaded.

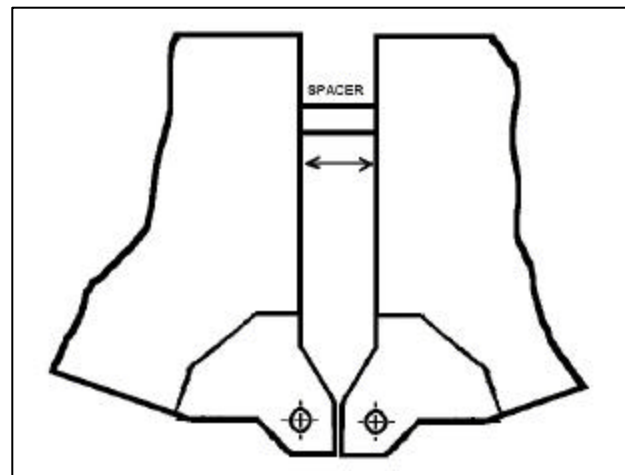
1 Cement a Traveling Hook to one of the 1/8" tubes. Use the cement sparingly! Make two. When the cement is dry, insert the tube through the holes in the Girder as shown. File the faces of the girder to allow the Traveling Hooks to engage. It may also be necessary to file the hooks slightly.



2 Release the Traveling Hooks. Fit the two spacers with the 3/32" tubes provided. Do not cement yet. Install the spacers into the face of one of the Girder faces and engage the other Girder onto the other ends of the spacer tubes. Reposition the Girders face-to-face and engage the Traveling Hooks.

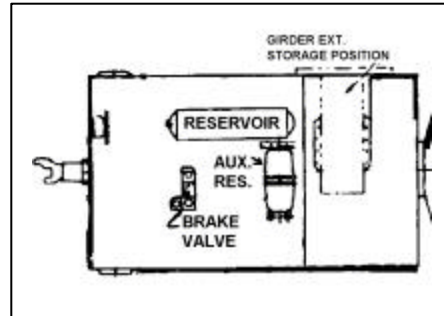


3 With the traveling hooks engaged and the spacers inserted into the holes in the girder face, check the girder sections. The tops should be aligned in a straight line across the top. If not remove the 3/32" tubes from the spacers and file to allow the girders to be closer together.

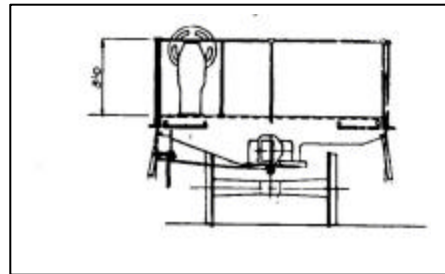


Details

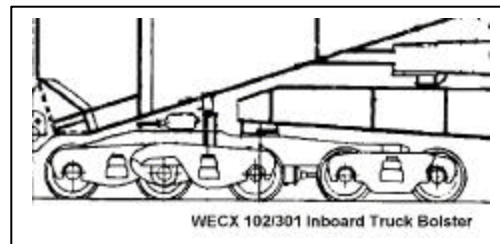
1 Install the brake reservoir (20) and brake valve (22) as shown.



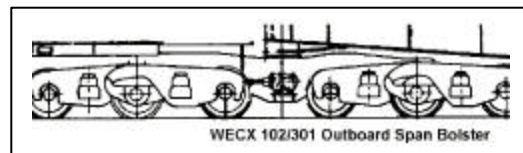
2 Install the brake stand (27) and brake wheel (28) in the position as shown. The small pin (37) may be used to attached the brake wheel to the stand. Trim the pin after installation.



3 Install brake cylinders (21) in the positions shown on the Inboard truck bolster as shown. Check for clearances.



4 Install brake cylinders (21) on the outboard span bolster as shown. Check for clearances.



PAINTING

If you followed the instructions for cleaning the parts before assembly, you are ready to paint. A primer is recommended. Allow to dry overnight before proceeding with any of the color coats. When painting with white do not over dilute with thinner.

Now that Floquil has left the scene I'm buying primer from ACE hardware's enamel part of their rust proof line. A half pint goes a long way. Dark colors can be diluted more than 50-50. Two coats with plenty of drying time in between are recommended. White on top of primer is recommended for light colors yellow through red. It improves the color.

After painting, overcoat entire car with Testor's Glosscote prior to decaling. If you decal over the Glosscote as soon as it is just dry to the touch, decal adhesion is improved.

102 The 102 car has been seen painted in a number of colors. Many pictures show this car painted light blue. Other pictures the car looks gray which may be a function of fading. The latest paint scheme at this writing is a bright green.

301 The 301 car appears to have been painted a light blue in the photographs I have reviewed. It appears to be a darker blue than the 102 car but it is still a light blue. In order for decals to stand out I opted for a light blue which may be slightly darker than the actual car. My original formula was 50:50 Floquil White and Floquil Light Blue. Add more white to get closer to the prototype in a faded condition. My experience has been that the paint appears darker after Glosscoting prior to decaling.

DECALING

The decals provided are a very thin film decal film. Success with these decals depends on following these instructions.

- 1) Cut out the decal segment you are going to apply.
- 2) Dip the decal in warm water which has had 1 drop of DAWN kitchen detergent. Do not leave the decal to soak in the water.
- 3) Slide the decal directly onto the wetted surface with a small brush. Position with the brush. Remove excess water with a tissue.

NOTE: The glue used for the decal sheet is different than what has been used in the past. The water does not dissolve the glue. Water causes a chemical reaction causing an almost immediate release of the decal. For this reason once the decal has been wetted it must be used quickly. It cannot be re-wetted later for use.

- 4) Top coat the decals with Testor's Dullcote for best results.

