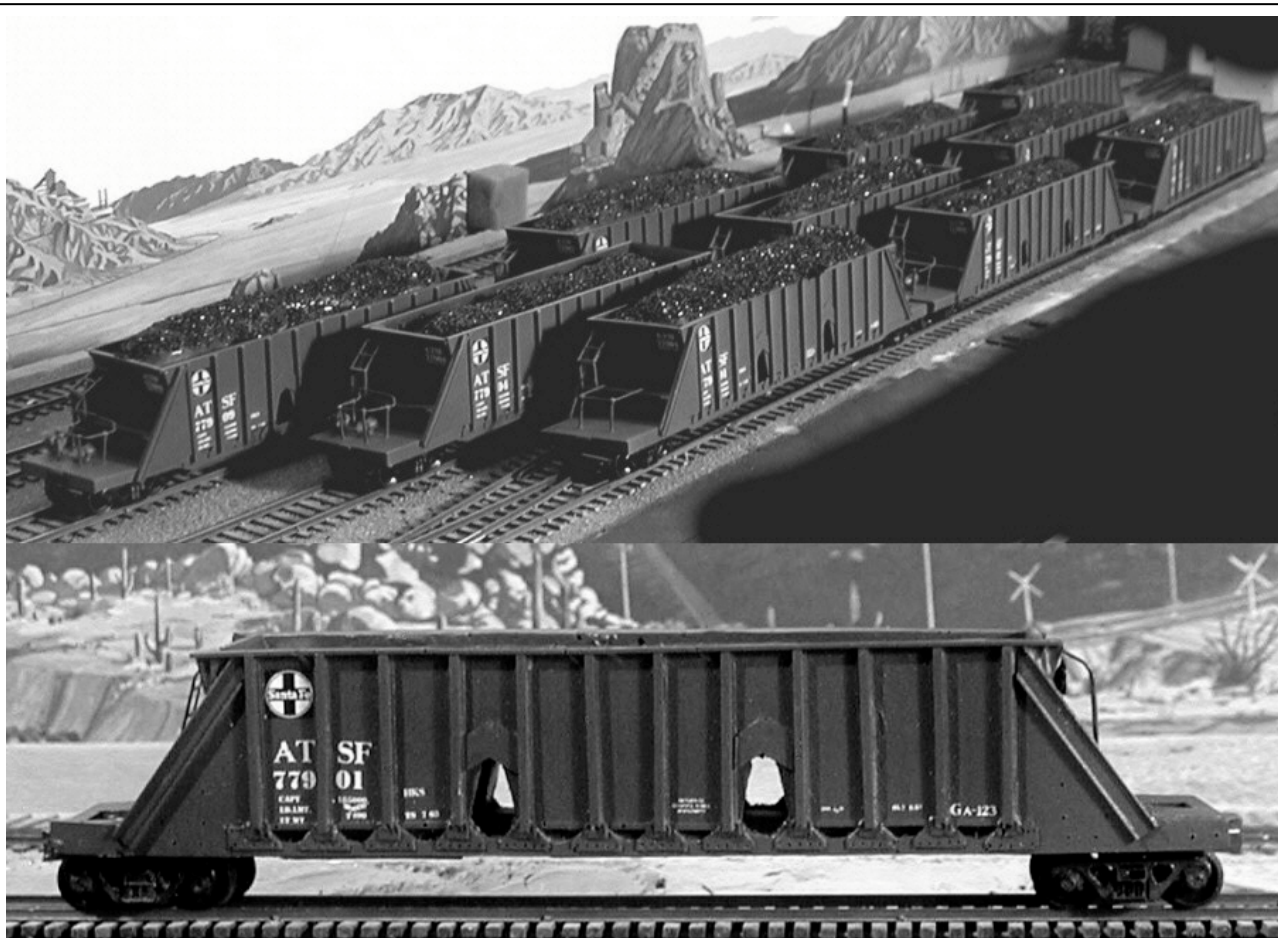


# CONCEPT MODELS

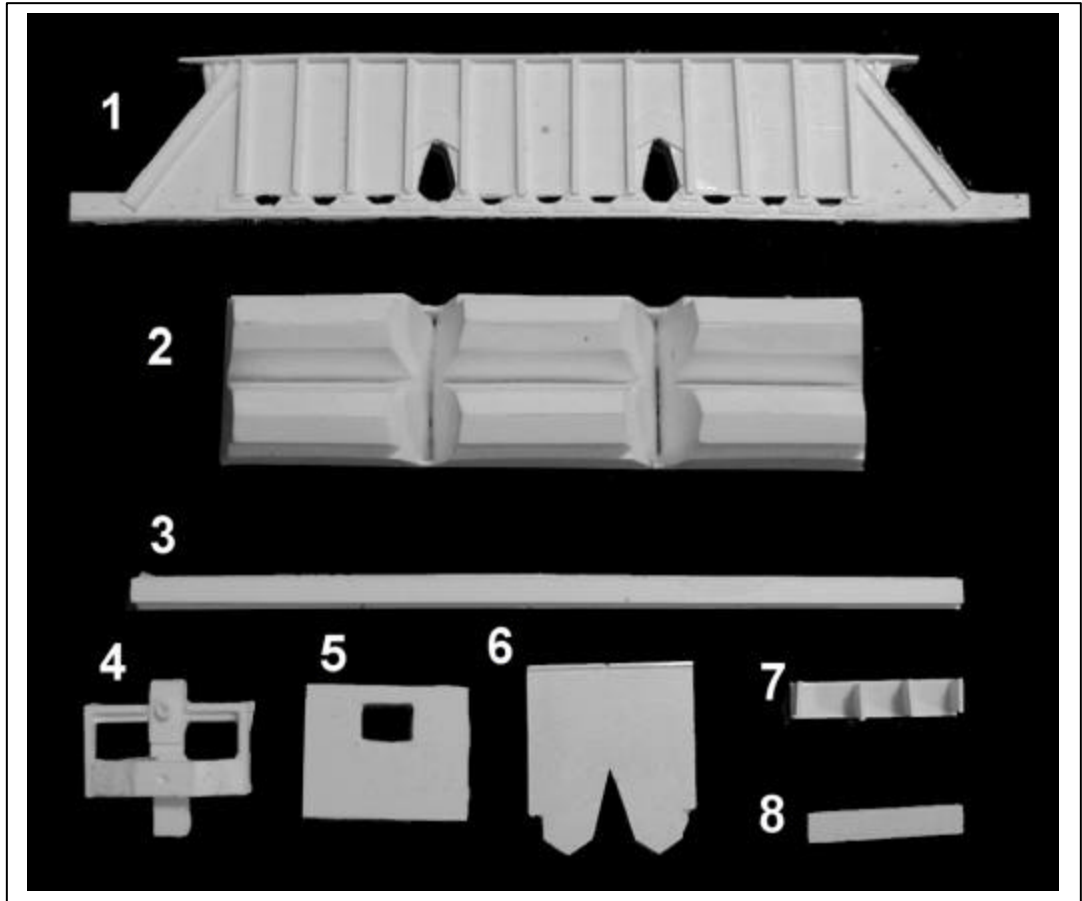
Web Address: <http://www.con-sys.com>  
Email: [concept\\_models@con-sys.com](mailto:concept_models@con-sys.com)

8810 El Toro Way  
Stockton, CA 95210



**INSTRUCTIONS FOR PRODUCT:  
ATSF GA-123 3-BAY OPEN HOPPER**

**PARTS**  
**ATSF**  
**Ga-123**



Item No.	Part No.	DESCRIPTION	QTY.
1	2002-1	Car Side	2
2	2002-2	Hopper Bottom	1
3	2002-3	Long Sill	1
4	2002-4	End Sill & Coupler	2
5	2002-5	End Deck	2
6	2002-6	Car Ends	2
7	2002-7	Platform Support	2
8	2002-8	Platform Deck	2
9	2002-9	Brake Mech. Mt.	1

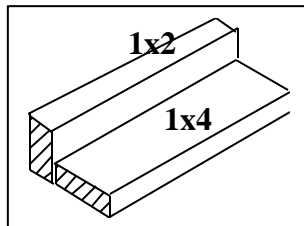
GENERIC PARTS		QTY.
1013	1/8" Screws	2
1018	Brake Valve	1
1020	Brake Reservoir	1
1019	Brake Cylinder	1
1012	Coupler Pocket Covers	2
1041	Brake Mechanism	1
1010	Brake Wheel	1
1011	Small Pin	1

## Tools

All basic model workers tools – files, motor-tool with fine burrs, hobby knife, Wood blocks for holding parts square, metal square, etc.

Drills: 1/8", #76, #72, #68, #50 (2-56 tap drill), #65

Music Wire .020" for handrails. Athearn stanchions for tanks cars.



This fixture is a great aid to assembly. It helps hold parts square while gluing and aids in drawing horizontal lines on tanks for tank cars.

## 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! They can dissolve them. 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.

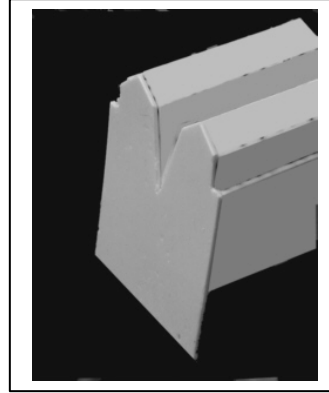
### **WARNING**

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.

**IF YOU WANT PAINT TO STICK** Wash the parts before assembling with a diluted dish washing detergent such as “Dawn”. (1/4 teaspoon to a quart of water.) Rub lightly with a soft sponge.

## ASSEMBLY

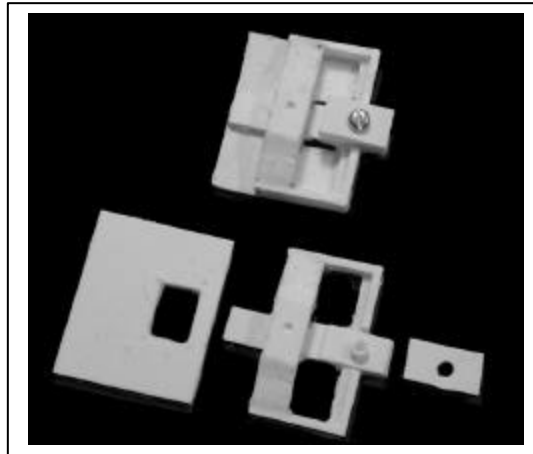
**1** Attach the Car Ends (6) to the Hopper Bottom (2) as shown. Match the outlines of the end against the bottom piece.



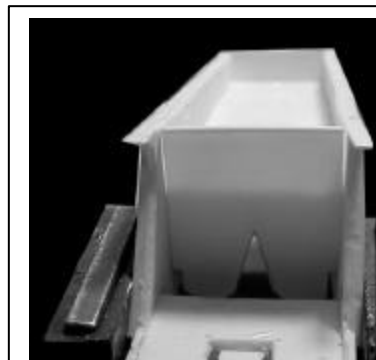
**2** Attach the sides by matching the top edge of the sides with flange on the ends. Cement to the ends and the bottom.



**3** Attache the End Deck (5) to the End Sill & Coupler Pieces as shown.



**4** Now cement the end assemblies to the side sills of the car. After the cement has cured, turn the model over and run a very small bead of cement where the end assemblies and side sills attach.



5 Notch the Long Sill (3) as shown.



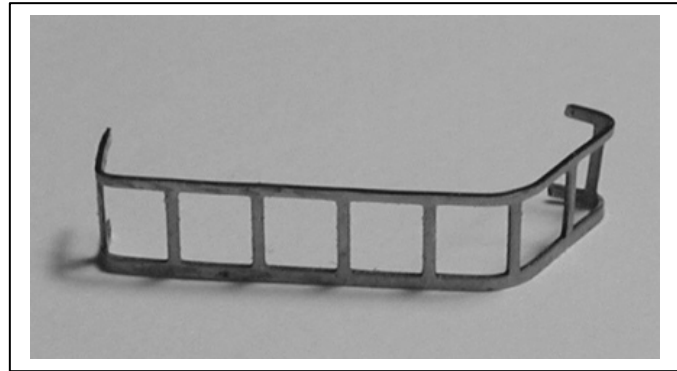
6 Fit the Long Sill to the end assemblies and cement.



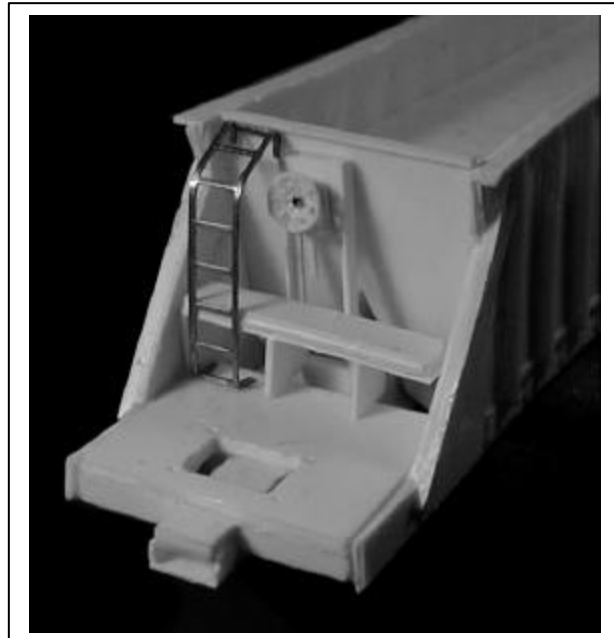
7 Attach the Brake Mechanism Mount (9) as shown.



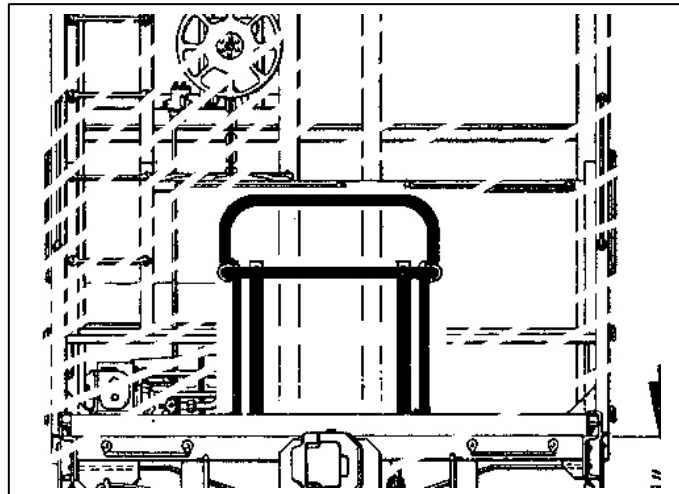
**9** Bend two pieces of metal ladder staock as shown. (Not supplied)



**10** Afer applying the Platform Deck (8) to the Platform Support (7), attach to the “B” end of the car as shown and also attached the ladder. Add another ladder in the same position on the “A” end of the car. As far as I can tell from the drawings, there is no platform at the “A” end of the car. Add the Brake Mechanism Support (9), Brake Mechaism, and Brake wheel as shown.



**11** Intall the handrails around the opening behind the couplers. There are pilot holes in the deck for this. The highest part of the railing is closest to the car hoppers rather than the end. Use .020” steel wire for the railings.



## 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. Twenty five percent thinner should be sufficient with white and will ensure coverage.

- 1) Now that Floquil has left the scene I'm buying primer from ACE hardware as an enamel part of their rust proof line. A half pint goes a long way. Especially when you thin it 3 parts lacquer thinner to 1 part paint. I've stored diluted paint for over a year and it was still good.
- 2) Dark colors can be diluted up to 50-50. Two coats of white 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.
- 3) The ACE colors Red, Yellow and Blue can be mixed to get a mineral brown color. I didn't do it this time out since I had remnants of Floquil paint.
- 4) 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.

## 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.

