

RESIN CAR WORKS
RCW
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Freight Cars of Every Description

Kit #19.1
CNJ 1900 Series
1 ½ Door 1923 Autocars



Introduction

Thank you for your interest in Resin Car Works and this kit. Resin Car Works is not a business in the traditional sense. Its purpose is to share in the fun of prototype railroad freight car modeling and their operations with others by providing unique and different equipment that is not readily available. Several friends assist with various production phases, so it is not quite a one-man operation. To list a few who helped with the production of this kit I would like to thank Tom Madden for the gorgeous castings; Ken Soroos for the decal artwork; and to Eric Hansmann the keeper of the website and blog.

This is a "CRAFTSMAN" level resin mini-kit and its construction should not be attempted by anyone who has not built similar types of models. The kit consists of a one-piece resin body, floor, and detail parts; Tahoe Models Double truss sideframes; various Tichy parts; various pieces of wire and stirrups; and decals. The modeler will have to supply all other parts to create a finish model such as couplers and wheels. See the Resin Car Works website (www.resincarworks.com) for kit instructions, more prototype information and photos.

Warranty

All sales are final. There will be no exchanges or returns. Resin Car Works will replace any part(s) found to be defective due to manufacturing or shipping to the original purchaser within the first 30 days after shipment. The damaged part(s) must be sent back with your request for replacement. As these are limited production kits, do not ask for replacement of parts that you damage or lose after the 30-day period.

Liability

Resin Car works will not be responsible or held liable for any and all personal injury and/or health problems, short and/or long term, which may result from the use and/or misuse of tools, adhesives, materials, castings, paints or any other product(s) used to construct and/or contained in this kit. This kit contains polyurethane castings. Although non-toxic in its cured state, dust is created during filing, sanding and drilling. Your workspace should have air circulation and/or ventilation. Always work in a well-ventilated room. Wear a dust mask or respirator and safety glasses for protection. Always wash your hands when you are finished working.

History

As was common for roads in the Northeast during the 1920's, the Central of New Jersey (CNJ) began buying all steel cars. One block, the 19000-19199 series, followed the 1923 ARA design but had an interior height of 10'-0" and 1 ½ Creco doors with a 10' opening for auto loading. Through the Thirties and into the Forties the 19000 series cars were classified XA for auto car service without racks. By 1948 they were obsolete having been reclassified as XM, but retained their 10' door opening. The cars were built with Ajax hand brakes and equipped with Dalman two level trucks. Youngstown doors replaced the originals while the wood running board gave way to Morton steel boards.

Construction

It's recommended that before you start construction that you familiarize yourself with the additional information and photos on the Resin Car Works website www.resincarworks.com that pertain to this kit. You should also read the entire set of instructions to familiarize yourself with all the steps needed.

- **First, give the resin parts a good cleaning with Dawn dish detergent and a toothbrush to remove any mold-releasing agents. A light sanding of joints also helps parts to bond.**
- **The cast parts are best attached with ACC. When the term “cement” is used in these instructions, it refers to ACC. ACC is a strong adhesive which dries quickly. It can easily attach a part where it is not supposed to be. It will glue skin. Be careful. Place a few drops on a plate of glass and use a wire or pin to transfer small amounts of ACC to the area to be joined. Always wear safety glasses. ACC debonder is a useful tool for removing smudges of ACC from surfaces where it should not be. Place a drop on the offending spot and wipe up.**
- **GOO or other such products are not recommended for construction except in small quantities, as it will soften the casting material.**
- **When a measurement is given, it is in prototype feet and inches.**
- **When the word “scrap” is used, it is referring to an item that the modeler is to supply.**

Body

As this is a one-piece body kit, most of the hard work is done in creating the basic car shell. As I like to get the nasty tasks done first, I drill the holes for the various detail parts. I generally use a #78 drill for all the grabs and #76 for the stirrups (sill steps). I find that it is easier to paint the model if the underframe is left off the car body and installed after painting. And it is also easier to glue parts that go through the body from the inside.

Refer to the prototype photos as to the location of the grabs, stirrups, ladders, and tack boards and install. The outer portions of the bracket hand holds are cast onto the car body. These can be used as is by gluing a piece of .010" wire or plastic rod across the brackets to form the rung of the grab. Alternately, holes can be drilled in the center of the bracket protrusions and straight grabs provided in the kit fully inserted into the holes to serve as the rungs. The Tichy ladders provided need to be shortened to 7-rungs to match those of the prototype and then applied to the car.

Note that there is an “A” and “B” end to the body casting. For both the A and B ends, the ladders, tack boards, and grab irons should first be added. Then, addressing the B end of the car, first add either the Tichy or the cast resin retainer valve, locating it per the prototype photos. Again, following the prototype photos, run 0.010" wire provided in the kit from the retainer valve to the bottom of the car end. You might consider adding the cut lever at this time, as it runs in front of the retainer line but behind the brake staff rod. Install the Tichy brake housing, plastic chain, and bellcrank on the B end using the cast on housing straps as a locating guide. Use a Tichy turnbuckle to create a clevis and attach to the bellcrank. Run 0.0125" wire from the bottom of the chain to the clevis on the bellcrank. The brake step supports could be created by cutting an A-line stirrup in half and inserting at the connection points on the end. Or scrap 0.010" x 0.030" styrene could be used to create the supports. I used a piece of scrap 1" x 12" styrene for the brake step. Shortening one of the Tichy steps and using it would also be appropriate.

One of Richard Hendrickson's building techniques was using A-line style “A” stirrups to support the lateral running boards. The stirrups are cut in half and re-bent to form the corner supports (see photo). Place small amounts of Pliobond (or Canopy Glue) on the roof supports. Then place the running board supplied in the kit on the roof supports, equidistant between ends. Touch the roof supports with small amounts of ACC when the Pliobond is dry to set the running board. Attach the corner running boards to the bent A-Line stirrups and the lateral running board.

For the end supports of the running board, cut the cast angle and cement to underside of roof walk. Cut pieces of scrap 1 x 3 styrene for diagonals and cement from the angle to the ends bending slightly to create a connection point. Form 0.0125" wire for the corner running board grabs, and with the etched eyebolts cement to the roof walk.

If you have not already done so, attach etched eyebolts for the anchors as shown on the prototype photo for the cut levers. Form the cut levers, from 0.0125" wire, to the proper shape using prototype photos and attach to car.

Attach brake wheel to the brake housing. This completes the body details.

Underframe

Add approximately three ounces of weight to the floor. I use whatever is handy from the scrap box. In this case, six steel washers did the trick. And since I do not trust any glues holding the weight I make a bracket using scrap styrene that is attached directly to the floor over the weight.

After shortening the supplied coupler pockets by six scale inches, they were attached to the underframe. The pockets and their lids should be drilled and tapped for 1-72 screws. I also drilled and tapped holes for 2-56 screws for the trucks. The coupler boxes provided with the kit will accept only Kadee No. 158 semi-scale whisker couplers.

Refer to the photos to determine the location of the brake components. Even though the location of the valve and reservoir are guesses on my part, the prototype photos do show them on the same side of the center sill.

First drill out all the holes needed for piping on the brake components – you can use the resin ones provided or those from the Tichy sprue. Use a scrap piece of 6" X 12" styrene for the valve pad and cement the valve to the pad. The reservoir supports are two-piece of scrap 4" x 6" styrene. Cement the brake cylinder bracket to the center sill. Cement the brake cylinder to the bracket. Cement the reservoir to the center crossbearer. Now install all the connecting piping using the 0.010" wire. Given the closeness of the brake components, you may wish to add the piping between the reservoir and the control valve before gluing the brake cylinder in place. Add the dirt collector to the valve.

Install brake levers with 0.0125" wire provided in the kit using the Tichy turnbuckles with one end removed as a clevis. Also, install the connecting rod from the brake cylinder to the bolster with a small piece of scrap chain at the brake cylinder.

This completes the underframe.

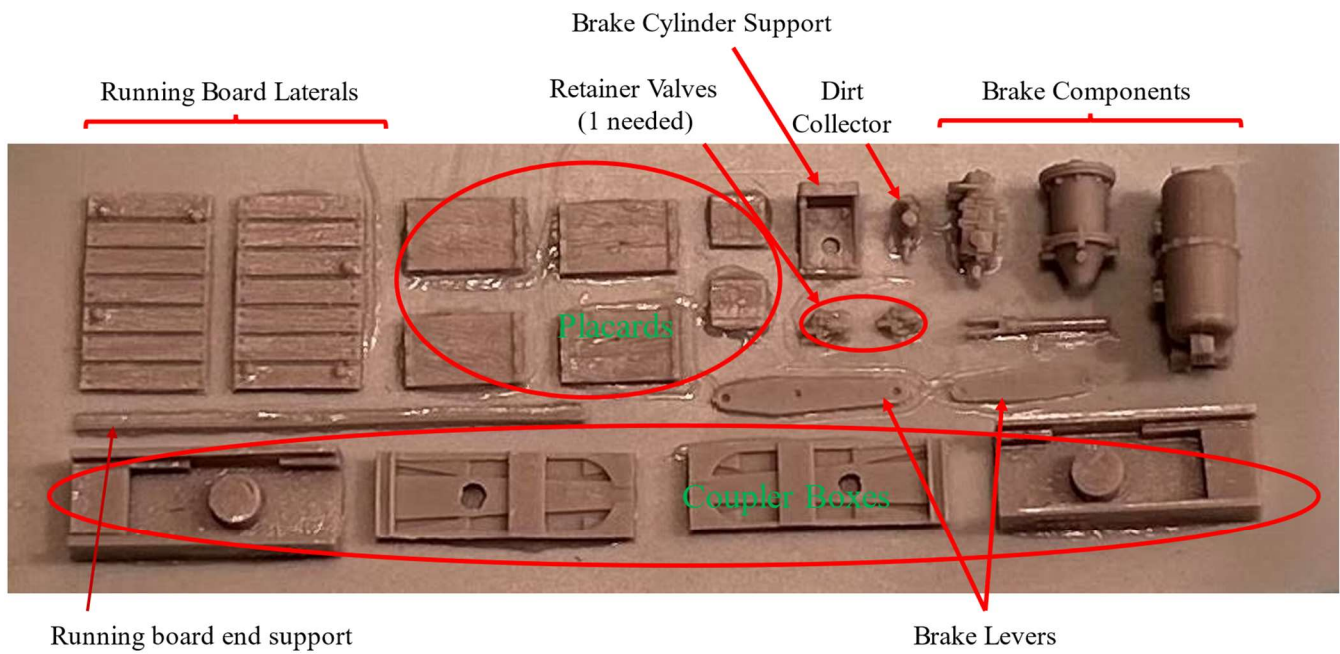
Painting and Lettering

CNJ boxcars seem to have been painted with a color similar to PRR freight car red. For this, I used a bottle of Floquil zine chromate I had. The underframe and trucks were painted black. Before painting wash the car again with Dawn, rinse and let dry.

Final Detailing

Attached the underframe to the body making sure that you are matching the "B" ends. Install trucks adjusting the coupler height with scrap Kadee fiber washers or the washers on the Tichy sprue.

Finish up the model with decal placement and then sealing the car with flat glaze. After weathering the model is ready for the layout. And don't forget to make the car card for your new piece of freight equipment.



A set of cast resin parts is included in the kit parts. The items are identified above. Some of them may have substitutes you are more comfortable with.