

**RESIN CAR WORKS**  
**RCW**

**P.O. BOX 42  
BYRON, IL 61010**

*Freight Cars of Every Description*

**2019 RPM Chicagoland  
Mini-Kit 3.01**

## **IC Single-Sheathed Boxcar Series 176000 - 176999**



*Model and Photo by Frank Hodina*

### **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 to provide unique and different equipment that isn't readily available.

This is a "CRAFTMANS" level resin-part Mini-Kit and its construction should not be attempted by anyone who has not built similar types of models or who doesn't have a knowledge of prototype freight car construction and components.

The Mini-Kit concept goes back to the Sunshine Models days, when the event was hosted by Martin Lofton. Martin enticed early registrations to the event by offering a limited run Mini-Kit as a gift. Some years it was simply a set of custom decals and other years it was a few smaller resin parts, like a set of doors or boxcar ends. The idea was that the Mini-Kit could be used to dress up a readily available plastic freight car as a new prototype model. You can actually view the list of past kits on the web at [www.sunshinekits.com](http://www.sunshinekits.com).

This year we bring you the Illinois Central Howe-Truss Single-Sheathed

Boxcar Mini-Kit. It is intended to allow the conversion of a readily available model into a unique 1927-built boxcar.

This HO scale Mini-Kit consists of an Accurail body and underframe, resin detail parts, Precision Design Company decals, correct Tahoe Model Works truck sideframes and a Tichy K style brake system (AB system components are provided on the parts sheet). All the other small parts, styrene pieces, couplers, weight, all wire, wheels, small screws, and anything else needed are up to the modeler.

### **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, don't 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, that 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 their cured state, dust is created during filing, sanding and drilling. Air circulation and/or ventilation should be provided. Always work in a well-ventilated room. Wear a dust mask or respirator and safety glasses for protection. Always wash your hands when you're finished working.

## History

These Howe-truss single-sheathed boxcars were built in 1927 by Pullman Car & Manufacturing (500 cars) and Mount Vernon (500 cars). All were originally placed in the 176000-176999 series, but in the 1941 they were renumbered into the 16000-16975 series. In 1945 AB brakes were applied to these cars and, for surviving cars, running boards were removed in 1968. Some of these cars survived ;the ICG merger.

Decals are included for both the original 176000-series lettering and for the later 16000-series renumbering and relettering. These cars were distinguished by their Dreadnaught ends with three corrugations in the top panel over five in the bottom panel.

## Getting Started

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](http://www.resincarworks.com) that pertain to this kit.

- First give the resin parts a good cleaning with Dawn 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 shouldn't 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 they will soften the casting material.
- When a measurement is given, it's in prototype feet and inches.
- When the word “scrap” is used, it refers to an item that the modeler is to supply.





## Construction - by Les Breuer

Regarding instructions for this kit, we turned to Les Breuer's blog describing his construction of the car. Les generously supplied his text and photos for our use in building this kit. Some of his detail work goes beyond what most modelers usually add to their cars. Those interested can access Les Breuer's blog posts at <http://mnrailroadcab100.blogspot.com/> where he shares photos and writeups of his resin and modified kit modeling projects.

Unlike the 2019 Chicagoland RPM Mini-Kits, these kits include an Accurail body and underframe. Les purchased an Illinois Central-lettered Accurail kit to use as the basis for his model. Thus he did not need to use the decals provided with this kit. Following is Les's description of the construction methods he used with this kit:

I was one of the Chicagoland RPM attendees to receive the Mini-Kit containing resin parts and decals to build an Illinois Central single-sheathed boxcar with unusual 3/5 dreadnaught ends. After arriving home from Chi-

cagoland RPM, I went to the Accurail website and ordered two no. 7116 Illinois Central boxcar kits.

The prototype car I chose to model was one of 500 cars built by Pullman Car & Manufacturing Company in 1927 and assigned to the number series 176000-176499. Another 500 cars built by Mt. Vernon Car Company were assigned to the 176500-176999 series. In the 1941 these car series were re-numbered into the 16000-16975 series. The cars were single-sheathed with a Hutchins Dry Lading roof, Youngstown steel doors, unusual 3/5 dreadnaught ends, angled side sills, and a fishbelly center sill underframe. Photos of cars in these series can be found in the **2019 Chicagoland RPM Program** or **Steam Era Freight Cars Reference Manual. Vol. 1: Box and Automobile Cars** (Speedwitch Media, 2006, 2007).

The kits arrived in a few days, allowing the build of car 176172 (car number on car in kit) to begin. Instructions for the build can be found in the **2019 RPM Chicagoland Program**, which I read and used, but also deviated from at times.



*IC 176172. Unless otherwise credited, all model and model construction photos are by Les Breuer.*



## Step 1

I started by cutting off the molded-on sill steps on the car body. Next I removed the running boards, cut off the mounting pins and installed them back into the roof holes. Once the glue was dry, the pins were squeezed with a square jaw pliers and then cut and sanded to height to form a roof saddle.

## Step 2

I followed the roof preparation by cutting off the ends of the Accurail boxcar. The roof cutting line was marked with a flex rule and pencil (*Photo 2*). The cuts were made with an UMM saw available from UMM-USA or Micro-Mark (*Photo 3*).

Once the ends were cut off, I cut and installed false ends cut from Evergreen .060" sheet styrene. I also installed a baffle cut from Evergreen .060" sheet (*Photo 4*).



2



4



3



### Step 3

I inserted the underframe and used the coupler pockets as a guide to install the ends. On the ends, the notches for the couplers pockets were placed over the floor coupler pockets for easy alignment. If you use this method, be careful not to apply glue below the false end so as not to glue the floor to the resin ends being installed. After the top section glue dried, I removed the floor and added glue to the lower section from the inside (*Photo 5*).

### Step 4

Next, all molded-on grab irons on the sides, ends and running boards were carved off, followed by the molded-on door handles. Since I thought the molded-on ladders were a good match to the prototype, I kept the stiles and carved off the ladder rungs. I did have the Plano Model Products #12121 photo-etched ladders that require stile bending suggested in the instruction sheet, but I chose not to use them. The corner braces on the sides were applied next. I used two kit-provided braces (.012" thick) after sanding to make them thinner for the top. However, for the bottom braces I cut two from the resin parts' .006" flash, so no thinning was needed. The corner brace fasteners were made with MEK Goop (plastic melted in MEK).



The running boards were milled and scraped with a single-edged razor blade to a .025" thickness and installed. You could purchase or scratch-build new running boards (*Photos 6 and 7*).



## Step 5

After installing corner braces, grab irons bent from Tichy Train Group (Tichy) #1101, .010" diameter phosphor bronze wire (PBW) were installed on the sides and ends. And, ladder rungs bent from the same PBW were installed on the sides. Again, the Tichy #1101 .010" diameter PBW was used to bend a door handle using a Xuron wire-bending pliers. Only one door handle is needed, as the prototype had only one and not two as came molded on the doors. Two tow loops were bent from Tichy #1101 .010" diameter PBW and installed. The fasteners for the tow loops were made with MEK Goop. Another detail needed to complete the car side work was the installation of the lower door track. It was cut from Evergreen #8203, 2" x 3" strip styrene .022' x .033" which is slightly larger than the .020" x .030" specified in the instructions. A door stop, a small triangle on the end of the track in some photos, was cut from .005" styrene and installed, resulting in the removal of the molded-on door stops on the sides. I installed A-Line, #29000 style A, sill steps to complete the sides. I would recommend adding the Evergreen #8106, 1" x 6" strip styrene for the side flange to the side sill prior to installing the A-Line sill steps. I did not, waiting until finishing the underbody work, making the install at that time harder, as it required cutting sections of the sill flange to fit around the sill steps (*Photo 8*).



## Step 6

After finishing the side details, I completed the roof work. The longitudinal running board end braces, cut from Evergreen #8102 1" x 2" were installed and fasteners were made with MEK Goop. I made a mounting bracket for the latitudinal running board from Evergreen #8012 1" x 2" shown in this photo, but it cracked. Not happy with the result, I removed this bracket and made another, which was cut from photo-etched scrap brass, and installed it (*Photos 8, 9, and 10*).