RESIN CAR WORKS
RCW
P.O. BOX 42
BYRON, IL 61010
Freight Cars of Every Description

CB&Q XM-32 AAR 40' Steel Box Car
Kit 8.01

Car 34306 is a late XM-32 built in August of 1944 and is shown here in its original mineral red paint scheme. It was part of a 500-car CB&Q order, which included 400 standard cars (34200-34599) and 100 express cars (8200-8299). 500 cars for the subsidiary Fort Worth & Denver were also produced in 1944. These cars had 8-rung ladders on both the sides and the ends. June 17, 1945, North Patterson, NJ, photographer unknown, Keith Sirman collection.

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. Several friends assist with various production phases, so it's 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 his casting work; Jerry Hamsmith for the decal artwork, which is taken directly from the prototype cars themselves; Ken Soroos for his help formatting the instructions; and to Eric Hansmann, the keeper of the website and blog.

This is a "CRAFTMANS" level resin 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 kit consists of a one-piece resin body, floor and detail parts; A-Line stirrups; Tichy AB brake set; assorted wire sizes and grabs; decals to letter the car in the standard CB&Q mineral red paint scheme; and the closest Tahoe Models truck type that are available. The modeler is to supply any small styrene bits, couplers, weight and small screws needed to complete the model.

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 its 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.

Car no. 30059 an early XM-32 with 5/5 ends built in December 1940. Note the 7-rung end ladder; all 1940 thru 1942 builds had these ladders. This encompasses 4,000 cars. No. 30059 had just been repainted in Chinese Red when the photo was taken, but all the equipment is original except the trucks. This was one of the cars originally equipped with Allied Full Cushion trucks. They have been replaced here with Unit trucks. Note also that the end sill is straight across. The end grab under the ladder is a drop grab and the lower end grab on the right side is a straight grab. The paired rivets near the center of the end hold the supports for the wood lining applied to these cars. The strengthened bolster/side sill connection can also be seen via the rivet pattern at the bolster; it forms a "bow tie." January 18,1964, Havelock, Nebraska, CB&Q photo, Jerry Hamsmith collection.

History

Beginning in November of 1940, the CB&Q railroad's Havelock shops initiated the construction the railroad's first all steel box cars. The shops produced 200 all steel 40' 6" box cars in November and December of that year. The cars were built as "kits" from readily available components acquired from major manufacturers. These components were constructed onto underframe assemblies built by the railroad.

These box cars were the first of over 16,000 cars classed XM-32 that were built between 1940 and 1958. The cars were 9' 2" inside width, 10' 6" inside height, and with 10-panel sides. They were produced not only for the parent CB&Q, but also for subsidiary roads Colorado and Southern and Fort Worth and Denver. Cars were built in various years and equipped with various component parts. Summaries of these various components can be found at the Steam Era Freight Car site in charts compiled by Ed Hawkins.

The initial production run of cars in 1940 and 1941 was needed to strengthen the Burlington's box car fleet that was beginning to feel its age. Only 1,600 40' box cars had been added to the roster during the 1930's and the fleet was being stretched by the expansion in traffic due to the war effort. By the time the shortage of steel halted initial production in late 1942, the railroad had produced a total of 4,000 cars numbered 30000-33827 and 34000-34171. The break in the sequence was due to the existence of some older refrigerator cars in the 33828-33999 series

Car 30495 is an early XM-32 built in January 1941 and is shown here in its original mineral red paint scheme. It was part of the initial 4,000-car production run of XM-32s from 1941 until late 1942. These cars were numbered 30000-33827 and 34000-34171. When built, it received the National Type B-1 trucks shown in the above photo. Circa 1941, Unknown photographer and location, Bob's Photos.

Above: *One of the early builds, 30034, a passenger service car with Allied Full Cushion trucks and painted Pullman Green, poses for the company photographer at Havelock, Nebraska on December 14, 1940. CB&Q photo, Jerry Hamsmith collection.*

Below: *As production continued in 1941 and 1942, a total of 3,800 additional non-passenger service cars were built at the Havelock shops. One of those cars, 31806, is shown here in November of 1953. This car was equipped with Unit trucks and an early Superior 7-panel door. All non-passenger service cars were painted entirely in the railroad's standard mineral red paint scheme – this included the underframe and trucks. Location unknown, W. C. Whittaker photo.*

A Note on Heralds and Slogans

When built, the cars were painted mineral red overall. Only the earliest production (1940 and early 1941) cars had black backgrounds added behind the Burlington Route herald. All future production lacked this feature.

Normal practice was to use the "Way of the Zephyrs" slogan on the left side of the car (when viewed from the "B" end) and the "Everywhere West" slogan on the right side (See previous page).

that were not readily available for renumbering. Some 150 of the first cars built (30000-30049 and 31000-31099) were originally equipped with marker lights, steam, air and signal lines for use in express service. These cars were painted Pullman Green instead of the standard Mineral Red and given high speed Allied Full Cushion trucks. No additional cars were produced in 1943, but 1944 saw another 500 CB&Q cars produced, numbered as 34200-34599 for the standard cars and 8200-8299 for additional express cars. 500 cars for the subsidiary Fort Worth & Denver were also produced.

All of these original 5,000 cars were essentially built to the modified A.A.R. 1937 standard (10' 6" IH) using Youngstown Steel Door Co. preassembled side panels, Standard Railway Equipment 12-panel improved Murphy roofs and two-piece Dreadnaught ends. These parts were riveted and welded to a railroad-fabricated structural framework. Various doors and trucks were used on the cars. Although the cars had wooden runningboards, their handbrake components came from a variety of manufacturers including Ajax, Miner and Universal. All cars built through 1942 had 8-rung side ladders and 7-rung end ladders. The 1944-built cars had 8-rung side and end ladders. None of the cars had push pole pockets.

The company shops incorporated some minor variations to the modified 1937 standard, to include: strengthening the side sill reinforcement connection to the bolster diaphragms; improving the floor beam connections to the side sills; improving the side sill reinforcement to the outside of the door posts; stiffening the door posts; doubling the number if stringers between bolsters; and providing Douglas fir plywood ceilings and plywood end linings.

An excellent and complete history of these cars is available in Burlington Bulletin No.7 from the Burlington Route Historical Society Company Store. Back issues are $5 each. There was also an article CB&Q XM-32 Box Cars by Jerry Hamsmith in the September 1993 issue of *Mainline Modeler*. This kit represents early XM-32's constructed between 1940 and 1944 with 5/5 Dreadnaught ends.

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. Especially helpful are a series of prototype drawings that show the placement of the various car parts.

• 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, so 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 it will soften the casting material.

• When a measurement is given it's in prototype feet and inches

• When the word "scrap" is used it is referring to an item that the modeler is to supply.

1. Body

As this is a one-piece body kit, most of the hard work has been done in creating the basic car shell. As I like to get the nasty tasks done first, clean the resin parts of any flash and drill the holes for the various parts. I generally use a #79 drill for all the grabs and #76 for the stirrups. Refer to the prototype photos for the locations of the grabs and stirrups and install them. The A-line stirrups will need to be re-bent to fit.

I find that it's easier to paint the model if the underframe is to left off the car body and installed after painting. It's also easier to glue parts which go through the body from the inside.

The cars had two different door types, Youngstown and Superior. Choose the correct style for the desired car to be modeled and attach to the car side. (The grain door shown is not included in the kit. It came from a Sunshine

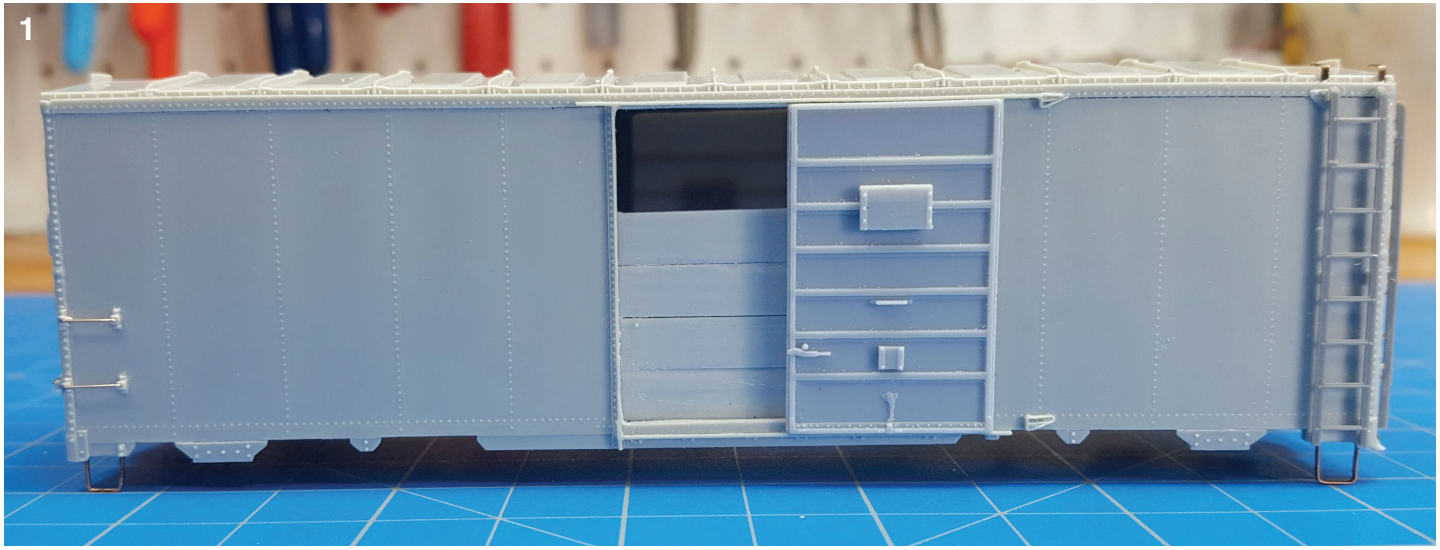
Models mini-kit. The XM-32 has thin sides, which allowed for this installation *(Photos 1, 6)*.

Attach tack boards and route cards to the doors and ends.

One of Richard Hendrickson's building techniques was to use 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 (*Photos 3, 4*). Don't attach the running boards yet. This will be the last step in the body's construction.

Tichy ladders have been provided but an additional rung will need to be added for these cars (*Photo 2*). Trim the top of one ladder just above the bolts of the rung. Trim the bottom of another ladder just above the rung itself. Dress the edges with a file to maintain spacing. Working on a plate of glass, cement the two sections together. There are small tabs on the underside of the Tichy ladder that need to be removed. Dress the ladder with a file, cut to fit ,and attach to the car. Note again that cars built through 1942 had 8-rung side ladders and 7-rung end ladders. The 1944-built cars had 8-rung side and end ladders. Install them on the taps provided on the body casting.

Note that there is an "A" and "B" end to the body casting. Install the brake housing bracket, brake hous-



ing, plastic chain and bellcrank on the end, along with the retainer valve. Run 0.010” wire from the retainer valve to the bottom of the end. Run 0.0125” wire from the bottom of the chain to the bellcrank *(Photos 3-5)*.

For the brake step supports, I use bent staples, which is another trick I learned from Richard. There is no chance of the brake step breaking off using this method. Drill #76 holes through the ends as per the photos, bend the staples and attach. Finally attach the etched brake step platform to the supports *(Photos 3-5)*.

Place small amounts of Pliobond on the roof supports. Place the running board on the roof supports, extending equidistant from the ends. When the Pliobond is dry, touch the roof supports with small amounts of ACC to set the running board.

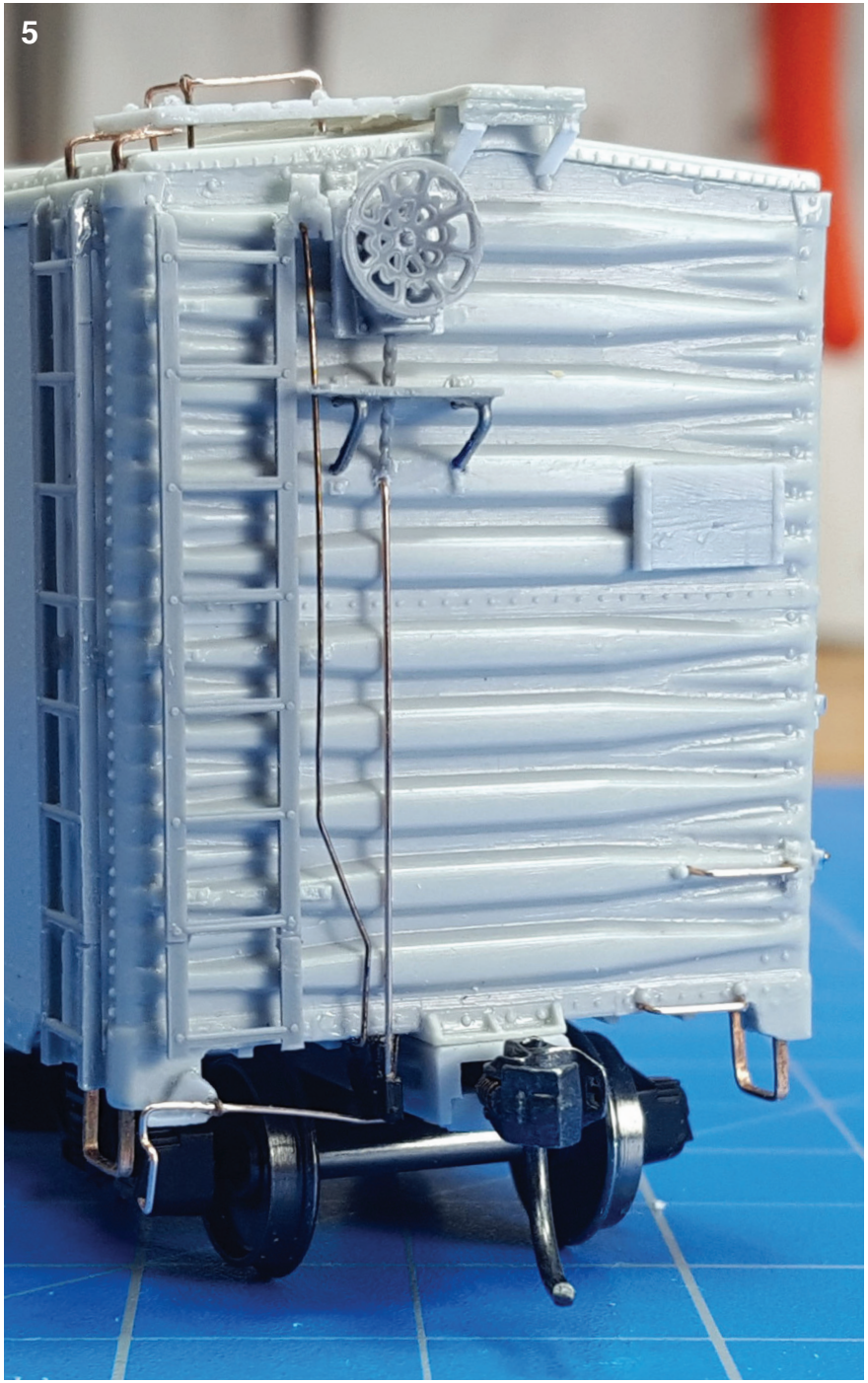
For the end supports of the running board, cut the cast angle and cement to the underside of the running board ends. Cut pieces of scrap 1 x 3 styrene for diagonal braces and cement from the angle to just above the nut and bolt castings on the ends *(Photo 5, 7)*.

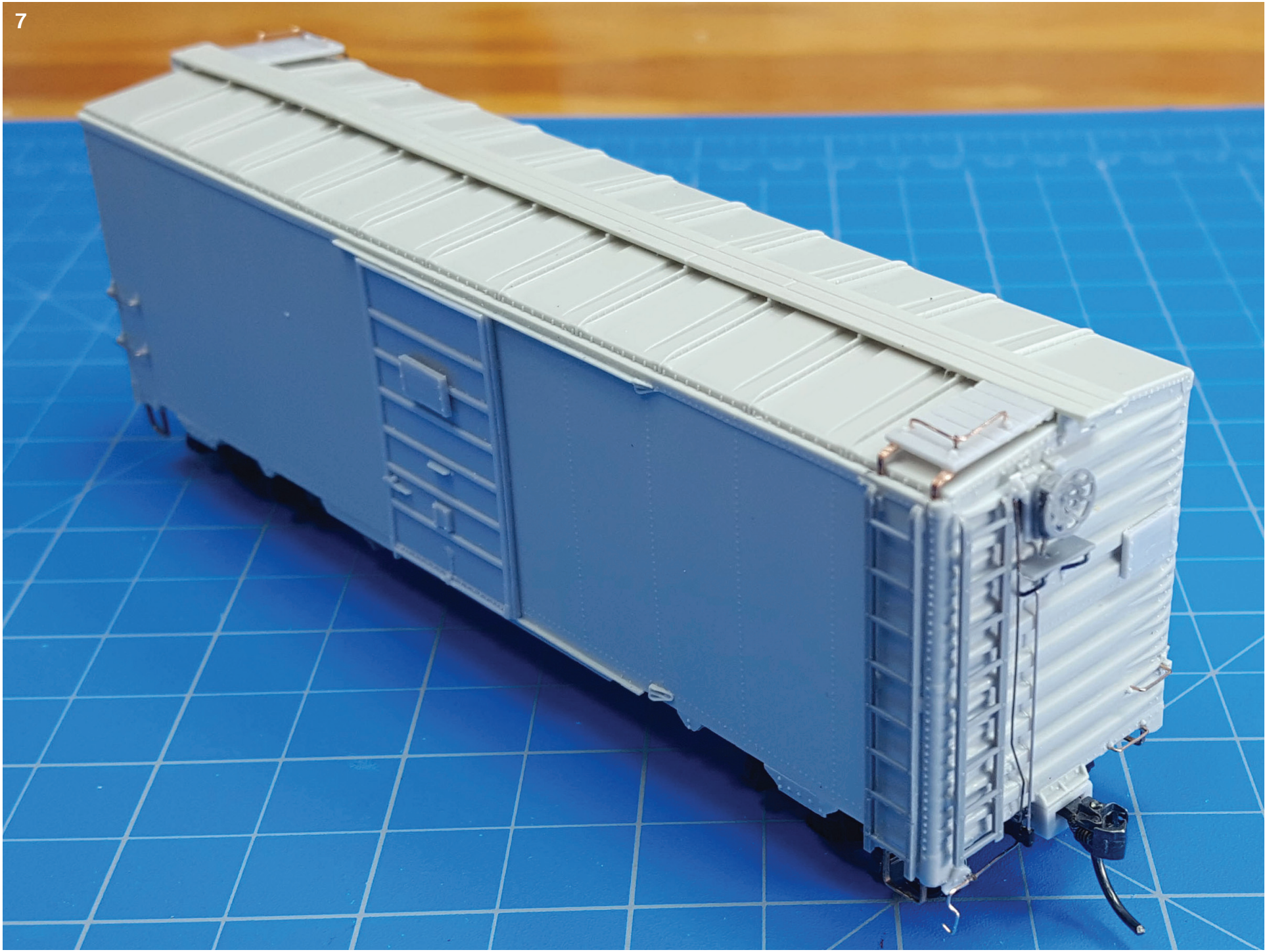
Form 0.0125” wire for the corner grabs and, with the etched eyebolts, cement to the roof walk. Cement the end running board lateral supports between the running board and the end.

Cement the cut lever brackets to the left corners of the ends. Attach etched eyebolts to cut lever brackets. Form cut levers from 0.0125” wire using the prototype photos to determine the shape and attach to car (*Photo 5*).

Attach the brake wheel to the brake housing.

This completes the body details.





8

2. Underframe

Add approximately 3 oz. of weight to the floor. I like lead sheet that is available from McMaster-Carr at http://www.mcmaster.com. And since I don't trust any glues holding the weight, I make a bracket using scrap styrene which is attached directly to the floor over the weight.

Attach coupler pockets to the underframe and drill and tap holes for 1-72 screws for the couplers. Also tap for 2-56 screws for the trucks. The coupler pockets will accept only Kadee No. 158 semi-scale Whisker couplers.

Fit and cement four bolster covers and the cover plates on the crossbearers *(Photo 8)*.

Fit and cement 8 crossties to the center sill. The crossties match the tabs on the car side between bolster and crossbearers. They are placed with the notch under the centersill flange with the channel facing outwards towards the end of the cars *(Photo 8)*.

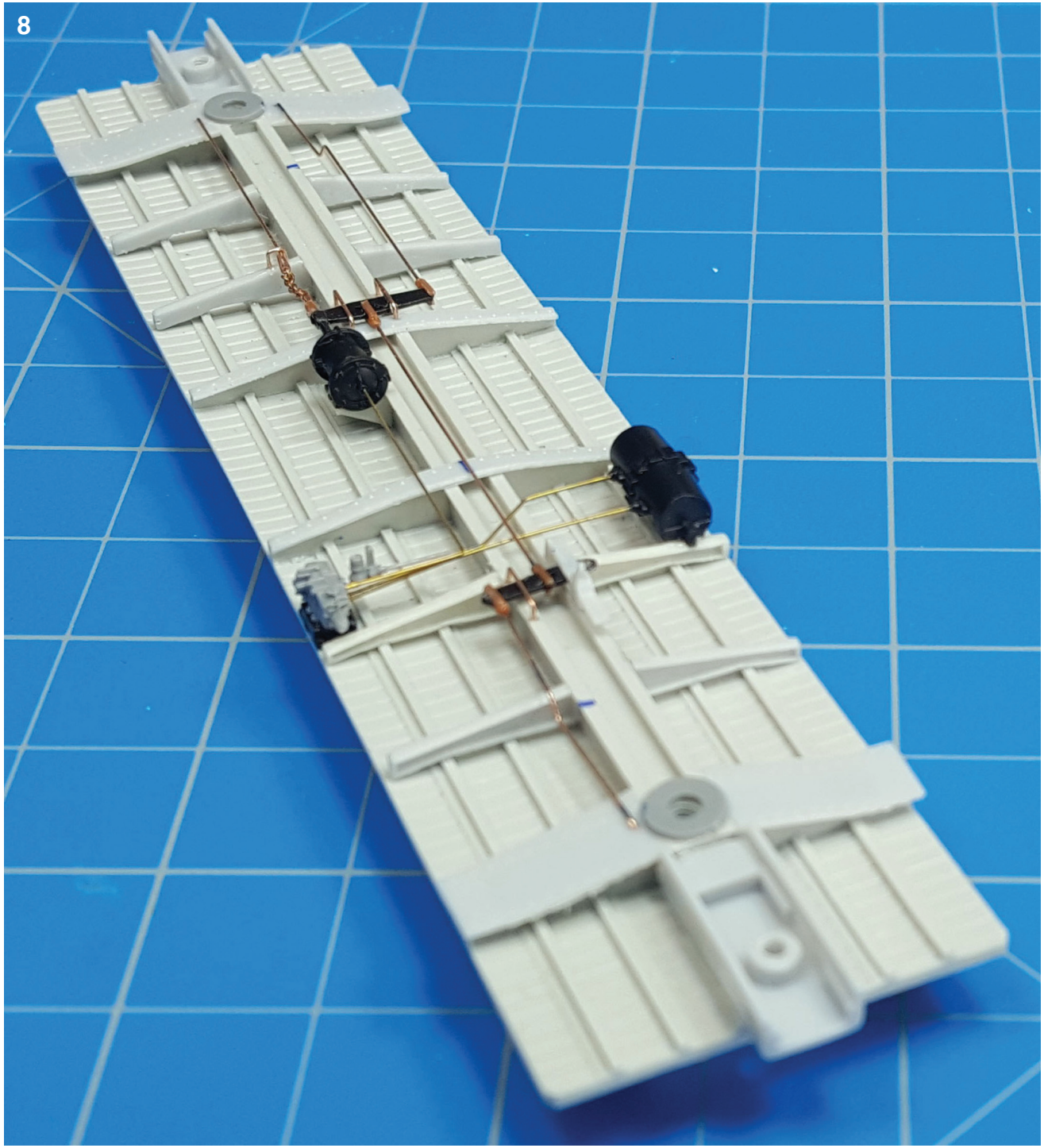
Refer to *Photos 8-13* to determine the location of brake components.

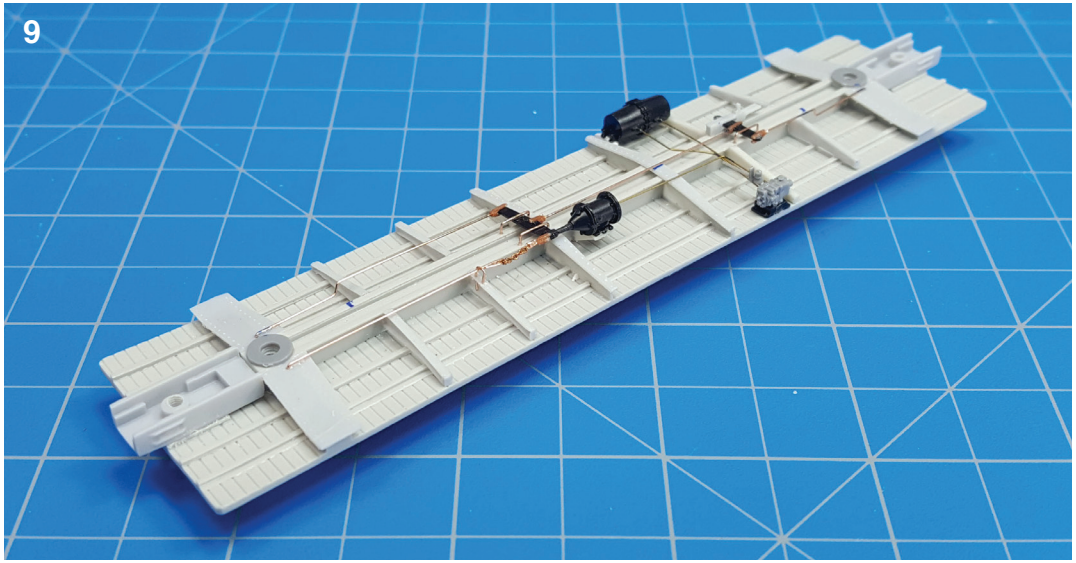
The triple valve goes on a pad made of scrap styrene that extends 8" above the floor. A bracket from scrap styrene will also be required for the brake cylinder *(Photos 8-11)*.

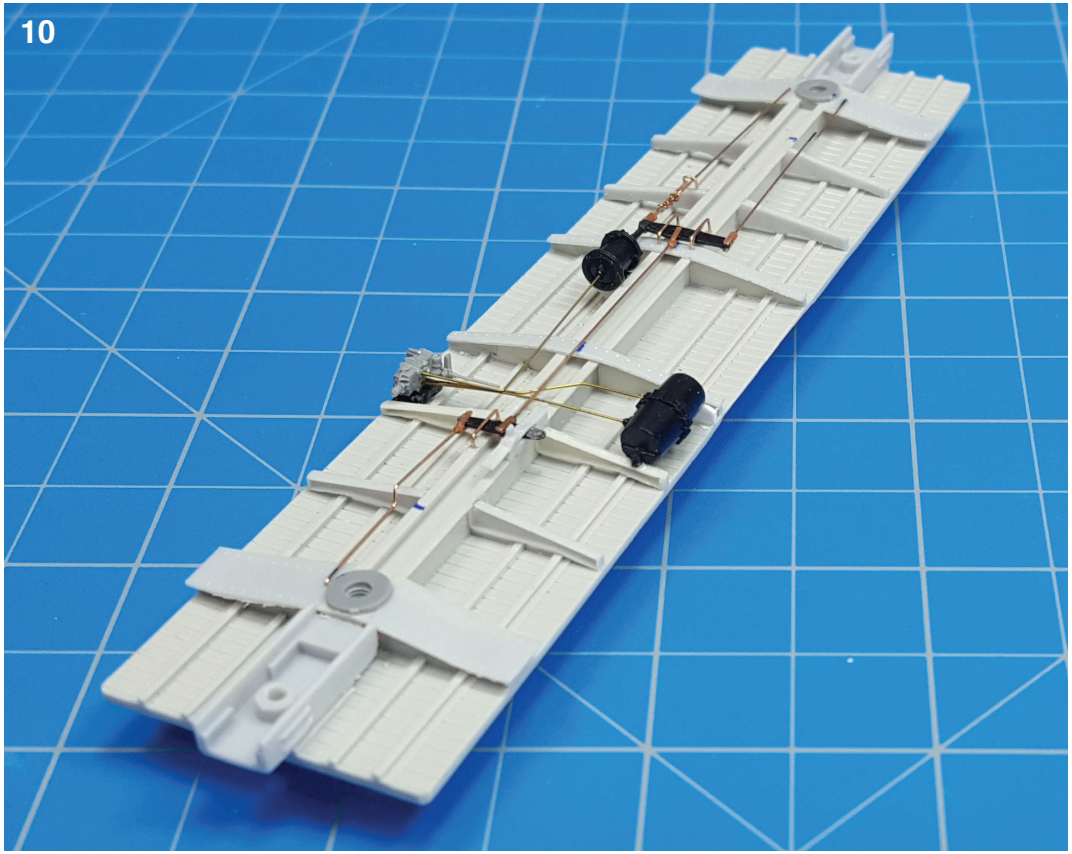
Now install all the brake components and connecting piping using 0.010" wire.

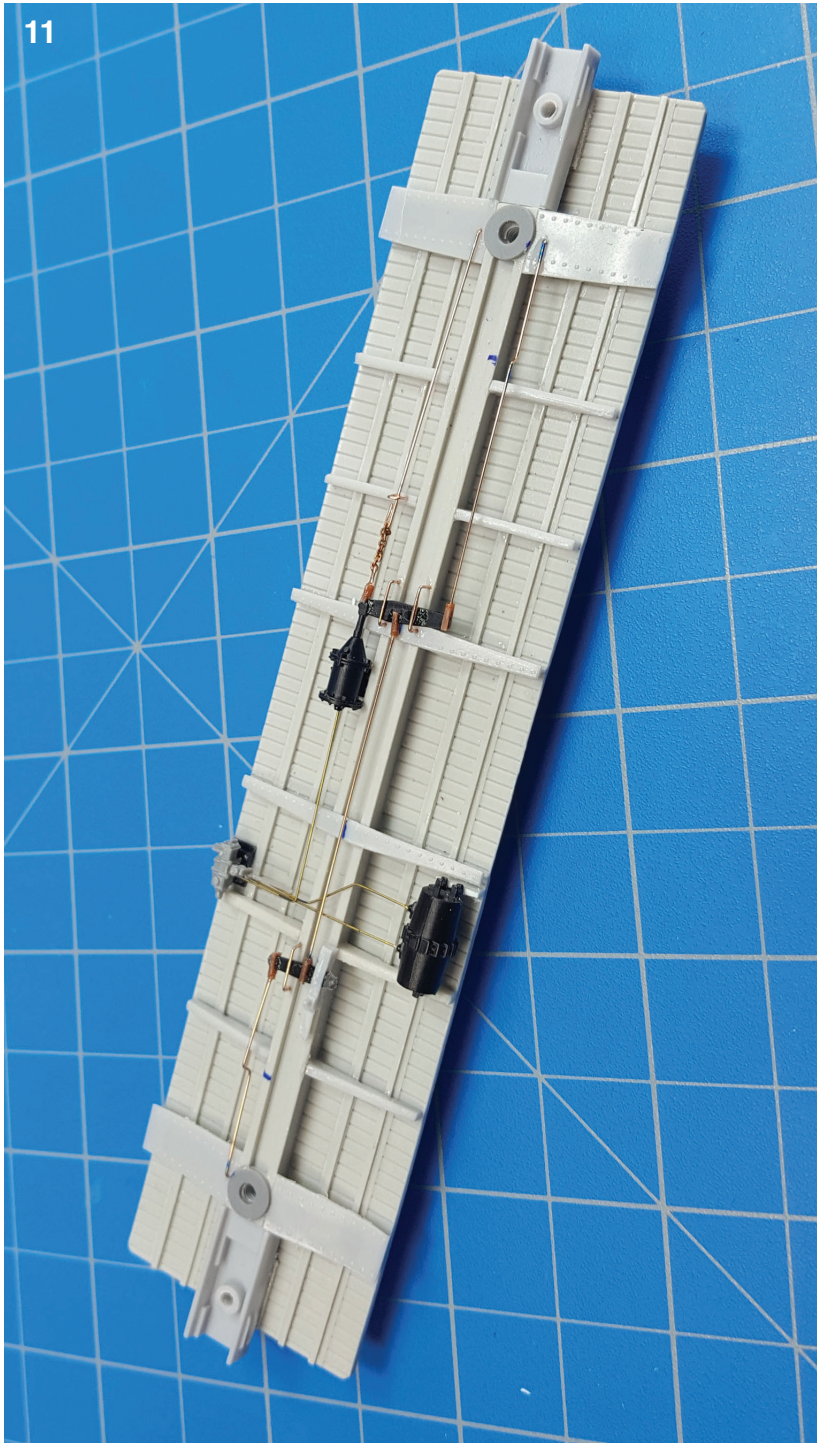
Install brake levers and rodding with 0.0125" wire, using the Tichy turnbuckles with one end removed as clevises. Use a small piece of chain to connect the brake cylinder to its brake rod *(Photos 8-13)*.

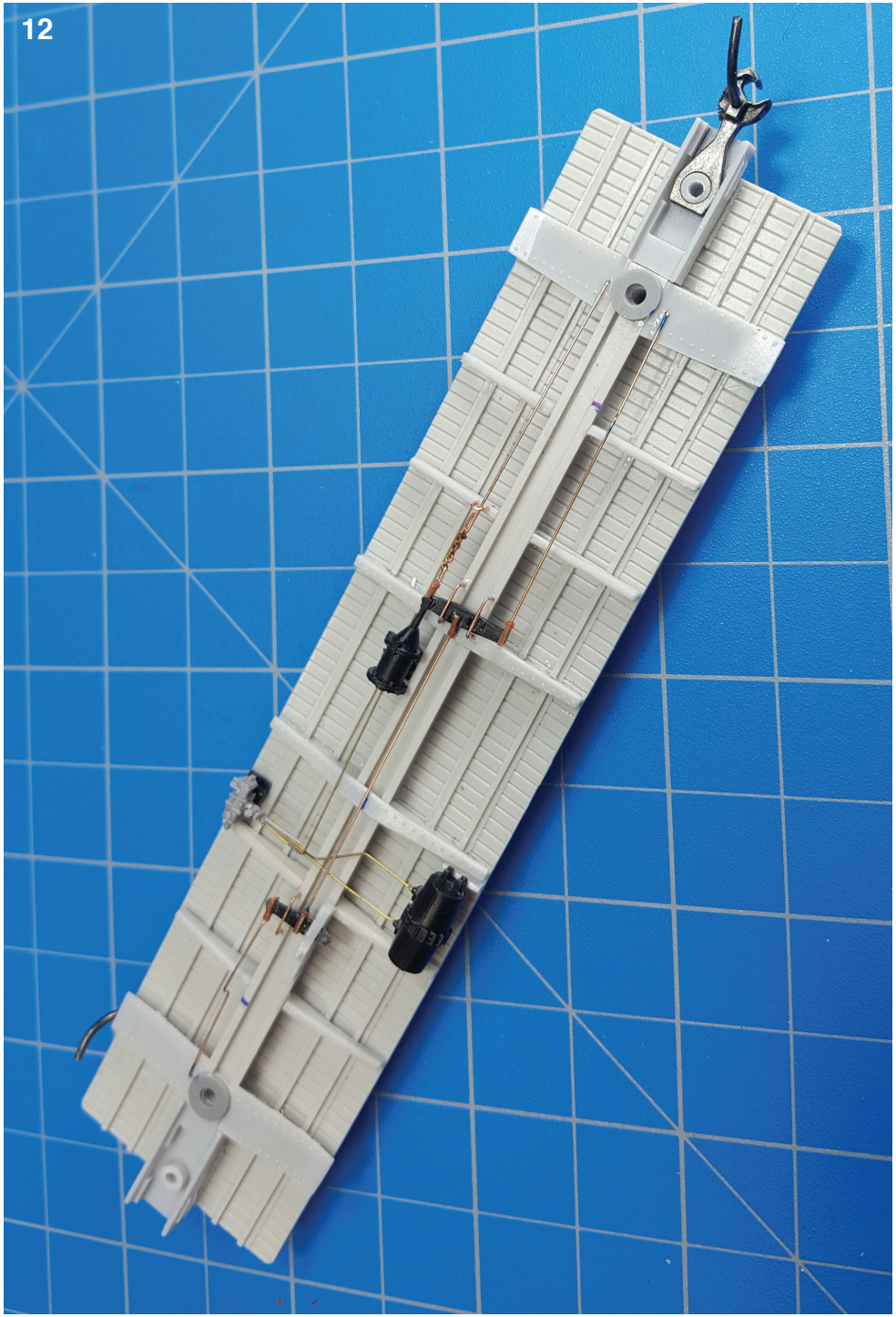
This completes the underframe.

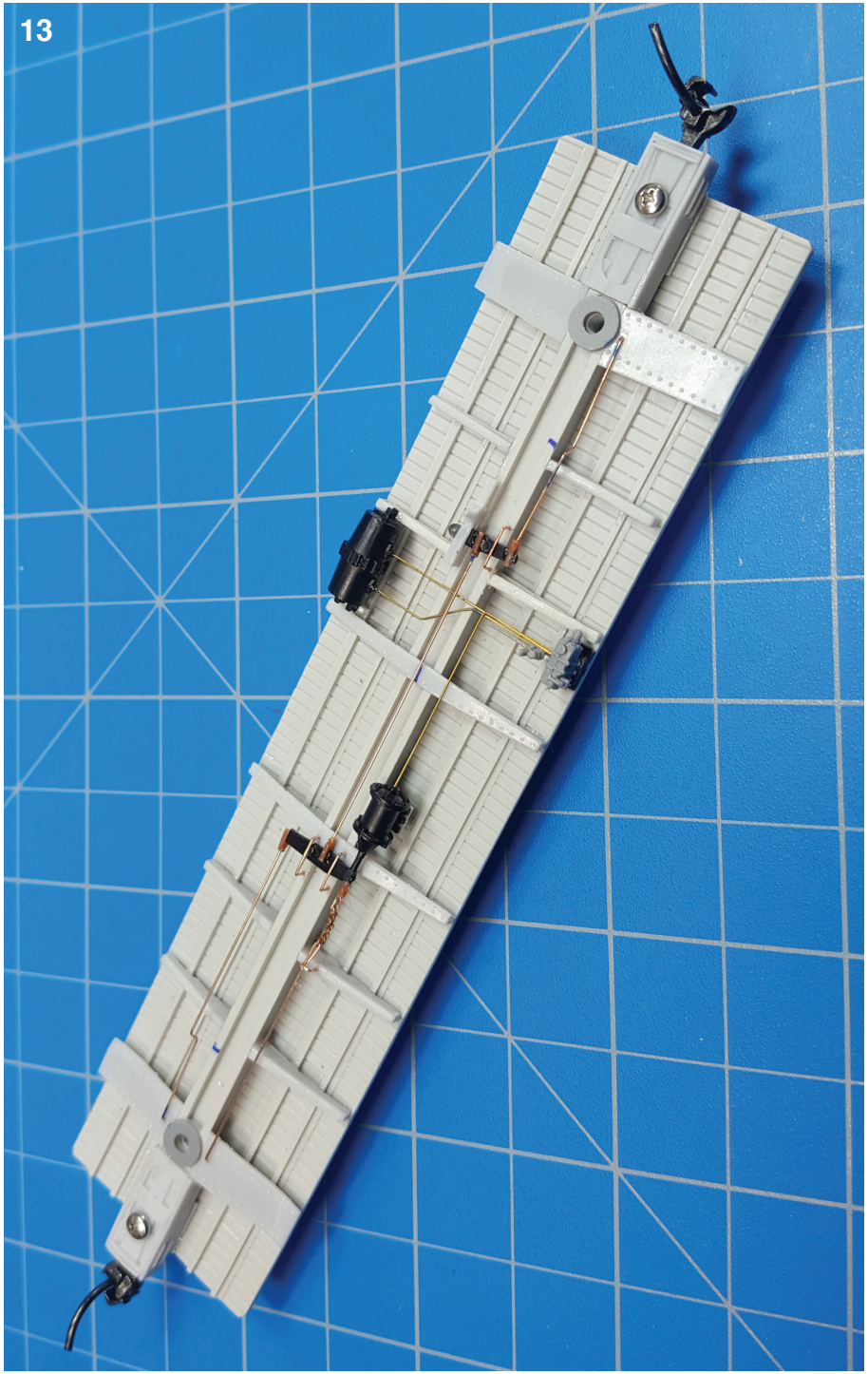



9


10


11


12


13

3. Painting and Lettering

When built, the cars were painted mineral red overall. Only the earliest production (1940 and early 1941) cars had black backgrounds added behind the Burlington Route herald. All future production lacked this feature. Normal practice was to use the "Way of the Zephyrs" slogan on the left side of the car (when viewed from the "B" end) and the "Everywhere West" slogan on the right side.

In 1958 the CB&Q started a more modern Chinese red scheme. The decals provided are only for the mineral red scheme. Before painting wash the car again with Dawn, rinse, and let dry.

As for the color and types of paint, that's an individual choice. I use Scalecoat and Testor's Model Master Paints. For this car I used 50/50 mix of Scalecoat Boxcar Red #1 and Tuscan. The flat glaze is also Scalecoat.

Once the decals are on and everything is dry attach the frame to the body and install the trucks. 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.

4. A Note on Trucks

These cars rode on a variety of trucks with the most common being what the "Q" called Truck No. 65, Truck No. 67 and Truck No. 79. Tahoe Models #007 Double Truss sideframes are provided in the kit as they're a good match for Truck No. 65.

Truck No. 67 is from Unit Truck Corp. which sold truck side frames with an alternative method of attaching the brake shoes/brake beams. Instead of hanging from chains, their design let the brake beams slide in slots.

No. 79 Ride Control trucks are offered by Kato.

Some cars also received 50-ton National Type B-1 trucks, which are offered by Kadee (See page 3).

Cars equipped for express service originally received Allied Full Cushion trucks, which are offered by Athearn (90392) and Walthers Proto (920-2215) (See page 4). However, it is up to the modeler to determine if modifications to the bolster area are necessary to allow for fit and correct car height.

Brian Leppert photos of Truck No. 67.