PC MODELER

A PUBLICATION OF PENN CENTRAL RAILROAD HISTORICAL SOCIETY, INC.

ISSUE NO. 1 JANUARY 2022

Premier Issue! Articles include:

- ***A prototypical PC layout***
- ***Modeling communications***
- ***Locomotive detailing***
- ***Vehicle modeling***

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About the PCRRHS

The PCRRHS was founded in 1999 as a 501 (c)(3) non-profit organization.

Website: www.PCRRHS.org

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MEMBERSHIP

Membership is open at Regular, Canadian, International, and Sustaining classes. All members receive our society publication, the *Post,* named after Penn Central's own employee magazine. The *Post* is published three time per year.

A highlight of membership is the annual convention, held within the service area of Penn Central. The society offers various products for sale as shown on the website. From time to time an exclusive model project may be offered to the membership.

New and renewal memberships are available online, or print and mail the form included on the last page.

Notes from the Content Editor

Welcome to the first issue of *PC Modeler*. This publication represents the culmination of a long standing goal for the Penn Central Railroad Historical Society, and has come to fruition through the collective efforts of a group of people who have repeatedly shown enthusiasm and commitment to the PCRRHS goals. Every volunteer group is propelled by a collection of people giving their time and skill, and the PCRRHS is no exception. I'm something of a newcomer to that group of people who have been organizing and leading on behalf of the members, and I'm grateful for the opportunity to be involved.

I was made aware of the PCRRHS shortly after coming back to the hobby over a decade ago. In the 20 years that I paid little attention, the railroad historical societies had flourished across North America. In the years spanning the early 1990s to the end of the twenty-aughts, the so-called information-age had completely changed the way that historical prototype information could be disseminated and circulated. I walked into an entirely new hobby, rich with information and new ways to connect people with knowledge from around the globe. When I saw the first issue of PC Post in a local hobby store, I was so thoroughly impressed with the quality of the publication that the deal was immediately cemented and I've been a member since that day.

The hobby has always been primarily about model building for me, but I couldn't possibly do that without a connection to historical information. I gained so much from the years of membership in PCRRHS that I'm pleased to be able to bring my experience with writing and publishing to the table. Indeed, I started writing about model trains almost immediately

Notes from the Content Editor (cont.)

after getting back into the hobby. Having done some writing and been published in other contexts, I created a pen-name for my writing about trains and model trains. I chose the name of the intersection where my hometown railroad's headquarters was located: Hunter (and) Hughson.

In the time that I've been back in the hobby, I've been writing blogs on Wordpress and Facebook as Hunter Hughson, and I've been writing articles and product reviews in the hobby press. Since the beginning of the COVID-19 pandemic, I've been producing a series of full-day virtual RPMs - 11 so far with more on the way. Everyone brings what they can to betterment of a historical society, and my background in writing and publishing is what I'm able to contribute.

As Content Editor, I worked closely with Jim Homoki to prepare the material in this publication. It sounds like a clearly defined role, but in reality we're both giving whatever time we can to bring the publication to you. At this point, we can celebrate that we've accomplished one issue. The challenge now is to keep this forward momentum happening so that we can do it again. I will be able to write some content and edit whatever comes in, but that's where you, the reader, play an important role. The point of producing a magazine is to showcase modeling and promote growth among modelers. Without content from the readership, there is no magazine.

If you have a Penn Central themed modelling project, please consider getting in touch with us. We can help you turn your project into an article for future issues of PC Modeler. You needn't have written articles in the past; we can help you figure out the writing and photography part of it. The team of people carrying this project forward are committed to a high quality publication, following the lead of the best historical society publications out there. This doesn't preclude projects that might be less complicated. There's a place in this publication for articles that demonstrate a range of modelling skills, and I'm hoping that my article on M.O.W. vehicles demonstrates that prototype modeling can sometimes involve making some guesses about the unknowns, or even freelancing some aspects of a project. What's important is that your submission represents your personal best efforts. We'll do our best to ensure that your work is well presented.

With issue No. 1, our next challenge is to produce No. 2, so while you're reading these pages please think about your projects and whether or not you are a member of the PCRRHS, we're interested in hearing about it. In the meantime, I hope you enjoy what we've put together.

Gerry Schaefer
Content Editor

Notes from the Layout and Graphics Editor

For a long time I thought it would be good for the PCRRHS to create an online publication specifically for modelers, similar to what a few other historical societies have done. It has taken a while, but *PC Modeler* has finally come together with this first issue. All those involved in this publication feel modeling is what is ultimately needed to keep the memory of Penn Central alive and to attract younger members. It helps that PC modelers have never had it better with the products being offered today, and we'd like to keep that momentum going.

A separate modeling publication doesn't mean there will not be any modeling articles in the *PCRRHS Post,* but with essentially no page limit, articles can delve into detail that can't be provided in our printed magazine. Also, being free and readily available from the PCRRHS website, it can easily be downloaded by non-members who may not be very familiar with Penn Central.

You may be wondering about the publication schedule for *PC Modeler*. We don't have one right now, which may sound odd, but we'll determine the frequency once we get commitments for future articles. At this time we don't want to overcommit and then find we are not able to deliver as promised. As with all volunteer efforts, the results tend to reflect the amount of involvement put into it, so please contact Gerry with your ideas. We'd like to present modeling in all the scales too, not just HO.

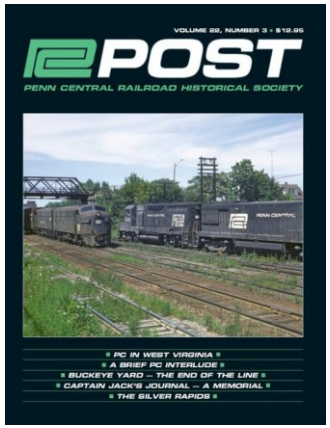
Lastly, comments on this endeavor are welcome. Feel free to contact either me or Gerry. Our email addresses are on the second page.

Jim Homoki
Layout and Graphics Editor

Steve Campbell's Penn Central Hitop Secondary

Article and Photos by Steve Campbell

The latest issue of the PCRRHS Post, Volume 22 #3, mailed to members in October 2021, featured an article by Steve which focused on the prototype operations and industries of the Penn Central Hitop Secondary in West Virginia. A few layout photos were included, but Steve provided much more on modeling than there was space for in the Post. His prototype and modeling information was expanded into the layout article presented here.



I've always been interested in the New York Central and Penn Central, having grown up around both in Ohio. I was fortunate to have ridden PRR, NYC, and PC passenger trains out of Cincinnati Union Terminal, then in later years, worked over ex-PC lines.

Like most model railroaders, my first experience with a model train was early in life. At age 5, I woke up on Christmas morning to find an American Flyer set around the Christmas tree. The next step was to build a simple HO scale layout at age 14 that was based on the BN and UP in Sterling, Colorado. That layout lasted until I moved out of my parent's house at age 18.

I joined a modular model railroad club in the Cincinnati area in the late '90s. After moving to the Denver area, I joined a large modular model railroad club in the early 2000s. My other model railroad experience comes from being a volunteer at the Colorado Model Railroad Museum in Greeley, Colorado, which houses model railroad of 5000 square feet.

In late 2011, the model railroading bug bit me again. I began looking for a suitable track plan with the intent to build a layout in my garage. In the December issue of *Model Railroader* magazine, the publication announced a new project layout starting in the January 2012 issue called the Virginian Project.

Having been to West Virginia many times, either driving through the state or on numerous Amtrak trips or steam excursions, this layout appealed to me. I decided to build this layout, but wanted to adapt it to the NYC/PC. Enter the book *A Sampling of Penn Central - The Southern Region on Display* by Jerry Taylor. After purchasing this book and looking through it, and consulting PC employee timetables, the Kanawha Secondary and Hitop Secondary stood out as lines that interested me. These two secondary tracks were located around Charleston, West Virginia. Penn Central reached into the heart of West Virginia on a former NYC line from Columbus, Ohio. The Hitop Secondary was a light-density line that served coal mines to the north of Charleston. The Kanawha Secondary followed its namesake river through the heart of a heavily industrialized area, serving not only coal mines, but also chemical plants and just about any other type of Industry you can think of.

Building the Hitop Secondary

The track plan of the Virginian project was perfect for what I had in mind for modeling what at first was primarily the Hitop Secondary Track. I made my own changes to their plan and started building the original 4' x 8' layout in February 2012. The original layout was built with 3/4 inch plywood. The layout's legs were built with casters to provide mobility. For those interested in the original layout, an article about it was published in the March 2016 issue of *Model Railroader.*

GP9 7466 waits in the siding and lead to Union Carbide's Morris Fork mine for hoppers to be loaded.

A miner heading off to work says goodbye to his wife as their dogs look on.

I have since expanded the original layout into a U-shape covering three walls of my garage. The extensions were built as modules, with a plywood frame with blue foam dropped in as the track and scenery base

The other extension down the left side represents a run from Nitro through a portion of West Charleston to Spring Street yard. The current layout, then, runs on a module down the left side of the garage that is 2' wide by 14' long, then runs across the original 4' by 8' layout then runs onto the right hand module, is 2' wide by 14' long.

My track plan simulates the area from Dickinson Yard, located to the east of Charleston, then runs through a part of Alloy onto and around the original 4x8 to Spring Street Yard in West Charleston. The Hitop Secondary starts there and heads up in elevation through Hitop to the end of track at Morris Fork. I switched the two towns and mines from the prototype to provide a better modeling experience. The main mine then, is at Hitop, while Morris Fork is represented by two truck dumps. I completed work on the modules in May 2021.

GP9 7466 drops downgrade through Hitop with the Morris Fork mine run

GP7 5628 rolls back into Dickinson Yard with loaded hoppers on the Hitop mine run

Alco S2 9806 switches tank cars in Spring Street Yard

GP7 5628 pulls loads out of Union Carbide's Hitop mine

The Nitro Turn behind Alco S2 9806 heads through West Charleston on its way to Spring Street Yard

Aerial view of the layout showing part of West Charleston and the Nitro area

Aerial view of the layout showing part of Alloy and Dickinson Yard

Chemicals are an important commodity on the Kanawha Secondary as the Nitro turn heads for Spring Street with chemical tanks

The model railroad is DCC, powered by a North Coast Engineering (NCE) system with an SB5 booster unit, plus circuit protection. The railroad has three power districts. There are multiple throttle plug-ins along the length of the layout.

Consistent with prototype operations for my era, my locomotive roster is entirely four axle. Penn Central's track was so bad that six axle power was banned! My roster includes an ex-PRR Alco S2, two GP9s, two GP7's, a leased PNC GP10, and a P&LE GP38-2. I have one more GP9 on order. All but one of my locomotives have sound, and all of the models on the layout are weathered.

A local housewife discusses the latest news with the proprietor of the company/general store in Hitop, West Virginia

Coal moves out of Morris Fork on the Hitop Secondary

Aerial view of the original part of the layout showing the Hitop area and the Hitop Secondary up to almost Morris Fork

GP9 7394 exits a tunnel on the Kanawha Secondary

Scenery

Pink foam was carved for the hills, then covered with plaster cloth. Puffballs to simulate the thick West Virginia canopy were made for the hills on the layout, while a combination of ready-made trees and hand-made trees finished out the layout. Many different types and makes of ground cover were used on the layout, with the latest addition of materials by Martin Welberg.

All my structures on the layout are either laser cut wood or plastic, with some being kitbashed.

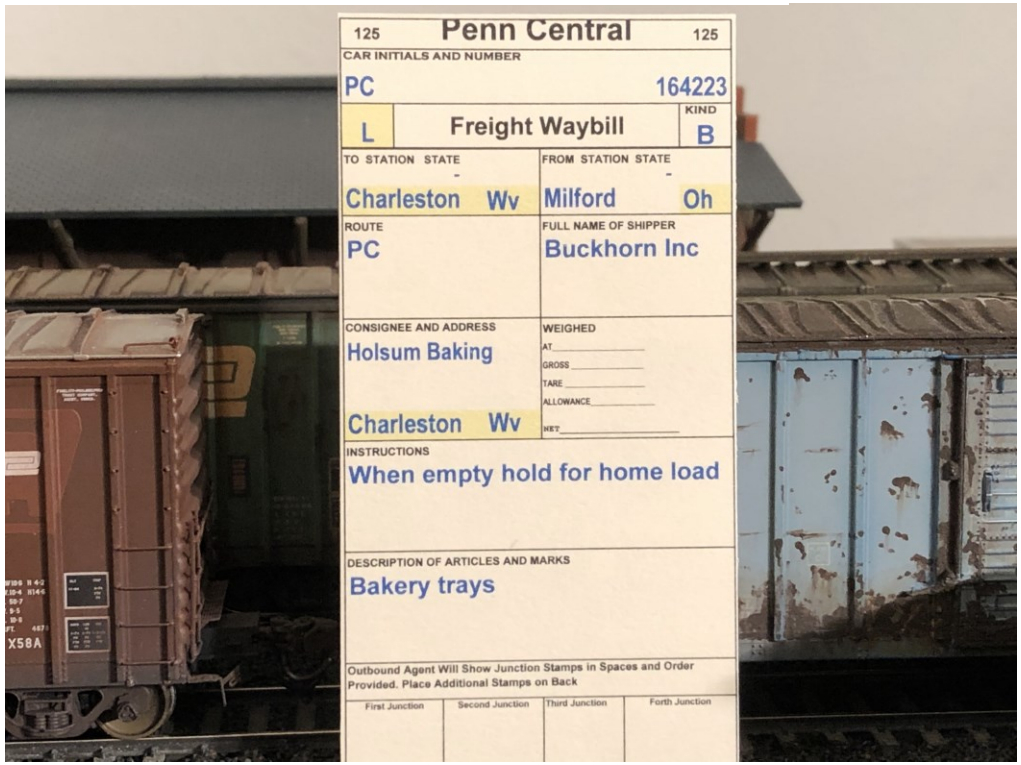
Operations

There are nineteen industries to switch on the layout, with chemicals and coal being the primary commodities, as on the prototype. My layout is operated using a car card system based on one created by C&O modeler Ted Pamperin. I use these as waybills, plus switch lists copied from an actual blank Penn Central switch list from my collection of PC paperwork. I've conducted only two operating sessions to date on the expanded layout, the last one with six operators.

My basic operating scheme is as follows. There is a turn from Dickinson to Spring Street with cars for the Spring Street yard job, plus cars for the Nitro turn. Over at Nitro, the Nitro turn makes up its train, then departs with any loads and empties for Spring Street. The two turns then swap trains there, return and complete their work.

There are two operators that work Nitro and two operators that work Dickinson. One of the Dickinson operators works the industries around Dickinson Yard and works two industries at Alloy. There is an operator at Spring Street yard that works the yard, works two industries up the valley, plus two industries in West Charleston.

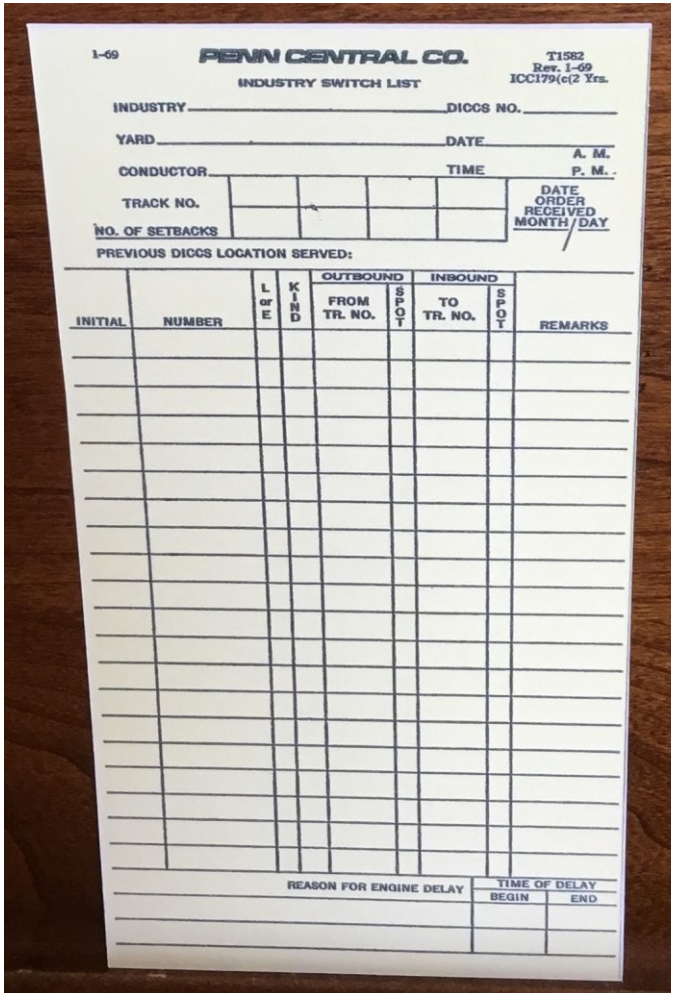
There are two mine runs from Dickinson Yard through Spring Street Yard and up to Hitop proper. One is the Hitop mine run that only works Hitop. The second mine run bypasses Hitop and works Morris Fork. These trains swap empties for loads and return to Dickinson Yard.



Most trains are run with a single locomotive due to siding constraints. Every once in a while, however, I will run a two locomotive consist. An operating session lasts about three hours. During that time, we typically move about 45 cars around the railroad.

I have to thank several modelers from the Colorado Great Western Modular Club who helped with the layout, plus a huge thank you to good friend Tom Carnahan, who helped immensely with the modules and wiring.

More on my layout can be found at: https://hitopmodelrailroad.com. I hope you've enjoyed this story as much as I enjoy operating a small piece of the Penn Central! ***PCM***



Communication on the Penn Central

Article and Photos by Chip Syme

Chip draws from his railroad experience to create small model scenes that tell a story. In this article, he describes pre-radio communication.

It was 1969 BC (Before Conrail) when I hired out at Collinwood Yard in Cleveland, Ohio. This was ex-New York Central territory, and radios in the yard were nonexistent. Hand signals were commonplace, and when handling a cut of cars, the brakeman, flagman and conductor would be spread out so the signal could be relayed to the engineer. Being a fireman, I had to relay hand signals to the engineer if the curve was on my side of the train.

When I worked at Collinwood and Conway, we encountered a system for communicating with the yardmasters in the elevated towers. In fact, Conway still used these until around 1987, at which at that time most engines had radios and the trainmen were issued portable radios. The system used speakers mounted on posts at the east and west ends of the yard, and along the switching leads as well as the entrance to the engine house tracks. A small bullhorn speaker faced each direction along the tracks. There was a button at the bottom of each horn for calling the yardmaster. In HO scale, these speakers are offered by Details West as product #454. Pushing the button would light up an indicator in the tower so the yardmaster could see where the call was coming from, and the light wouldn't go out until he answered you. The east end of the button might be the eastbound yardmaster and the other end would be the westbound yardmaster. He would give you instructions like, "MD1 pull in on 32 track and watch out for my shop engine at the at the east end. Come back on 28 track and talk to me on the west end". If the brakeman would be lining the wrong track and the yardmaster was watching he would yell over the speaker "32 track is the next track".

Speaker installations as Chip describes can be found in many photos of Penn Central facilities. Photos are from collection of Jim Homoki and Jim's HO scale layout.

A typical telephone box installation on Chip's layout.

Things were different out on the road. At some locations, there would be a shanty with a phone or just a phone box for getting instructions. A phone box was located at each end of an interlocking and some had a phone box in the middle for a signal maintainer to call the operator or dispatcher. When a train would get a stop signal at an interlocking the conductor would go to the phone box and unlock it. Before using the line to make a call, you had to first pick up the hand set to make sure nobody was already using the line. The phone had a crank on the side for ringing on the line, and normally there was a code written somewhere inside the box to indicate the rings needed to talk to the tower you wanted. For example, Fairhope might be three short cranks and a long one. Alliance might be three longs and a short or any number of four rings to reach a tower.

Every switch except in the interlocking had to have a phone. Phones were also placed every few miles, on or near signals or signal bridges. You'd also see a phone at hand thrown crossovers. If I was on a local and stopped at an industry, I'd have to ring the tower behind us. The conversation might go something like this.

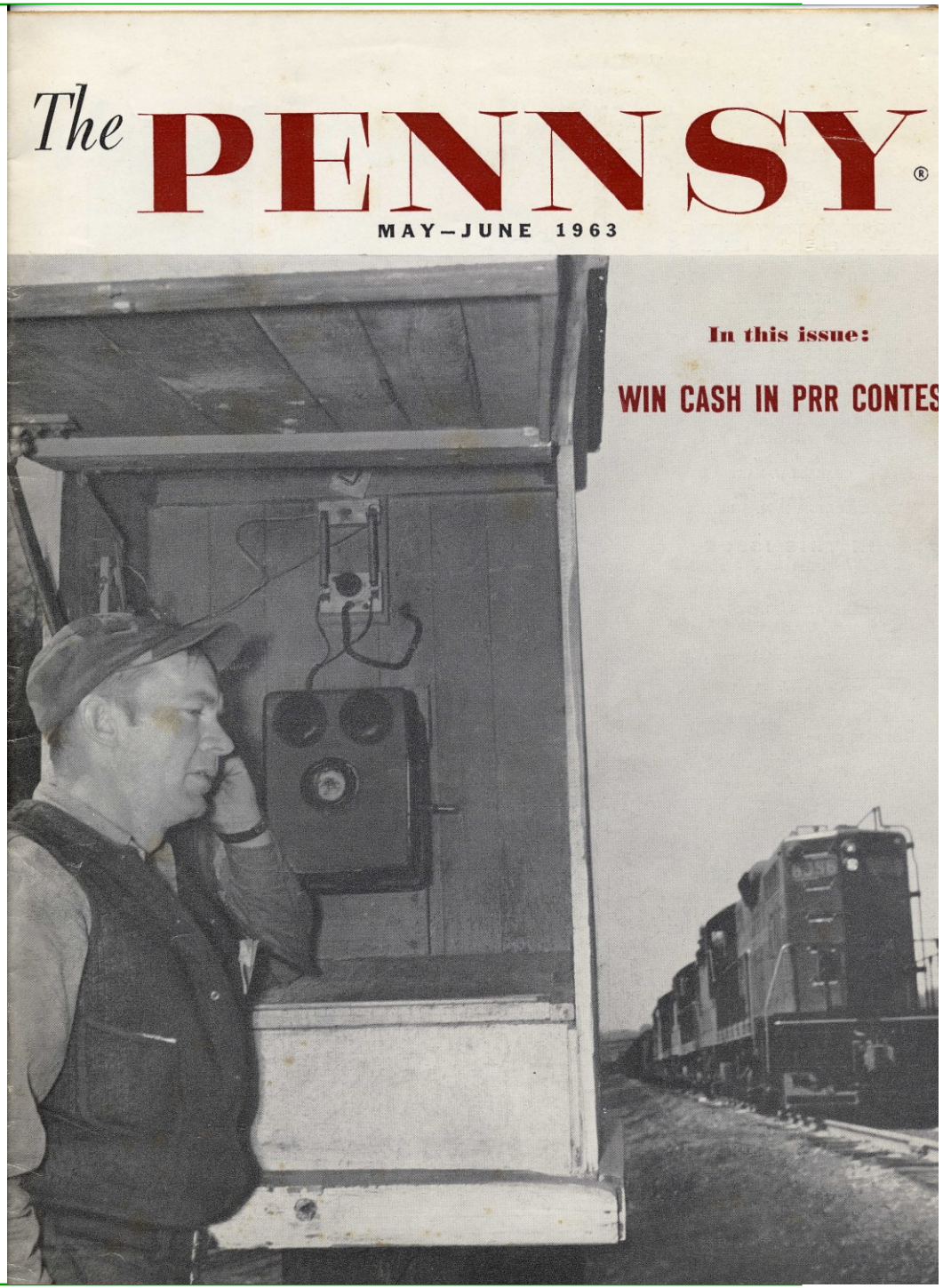
Tower: "*McKinley"*

Conductor: "*CN102 at MP 103. We'd like to hold the main for 25 minutes while we switch Harrison Paint. "*

Tower: "*OK to hold the main for 25 minutes. Where's your next work at?"*

At Leetonia, Ohio, MP 63.2 from Pittsburgh station on the Pittsburgh-Chicago ex-PRR main line, the tower had a city line that was used for townspeople to report fires. Since it was manned 24-7 someone was always on duty to receive fire calls, so the operator would push the button for the city fire siren.

Note how this telephone box is mounted at right angles to the track, matching the photo on the next page.



Pennsy's phone boxes were on a wooden platform on the ground to protect the user from being shocked. They had two 6 volt dry cell batteries inside the base of the box which I assume was to make the ringer work. The batteries were a cylinder covered in paper and were at the bottom of the box. The boxes had a long, tall lid that lifted upward to protect the person from the weather or sun using it. The NYC also used phone booths that you could go inside to use to get away from the elements. The NYC style box was quite different. They were a square with an overhang from the peaked roof and the doors opened in the middle of the box so when in use the flaps (doors) would keep out the cold and noise when copying train orders or getting instructions. Nobody makes an HO scale version of either type of these boxes. Years ago, a machinist made a mold and poured me a few of these but unfortunately, he has since passed on. This is an important detail that perhaps this group can find a way to produce.

The picture of the PRR brakeman on the phone *(left)* to me is a classic image with the brakeman wearing the wool vest and the Stormy Kromer wool cap. I worked with many guys who wore the vest and caps. I still have my black Kromer cap for when the temps drop below 20 degrees. The photo reminds me of the old poem below. **PCM**

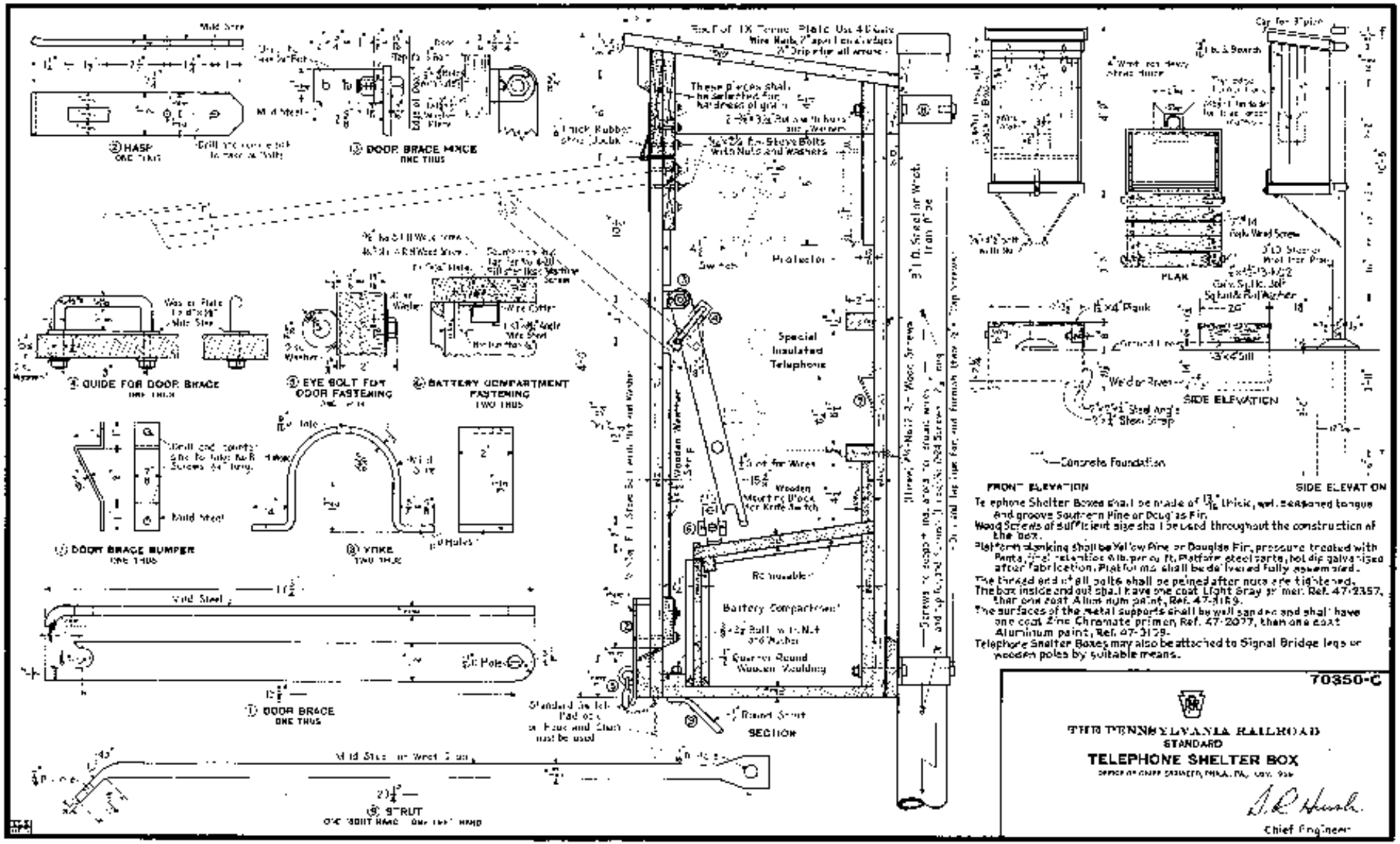
I am the conductor the boss of the train

My head in the phone box my ass in the rain

I'm not allowed to blow the whistle or even ring the bell

But let the damn thing jump the track and see who catches hell.

"The Pennsy" magazine cover image from the collection of Chip Syme



Plan of Telephone Shelter Box courtesy of Rob's PRR Pages
http://prr.railfan.net/standards/standards.cgi?plan=70350-C

Two Ways to a PC C630

Article and Model Photos by Jim Homoki

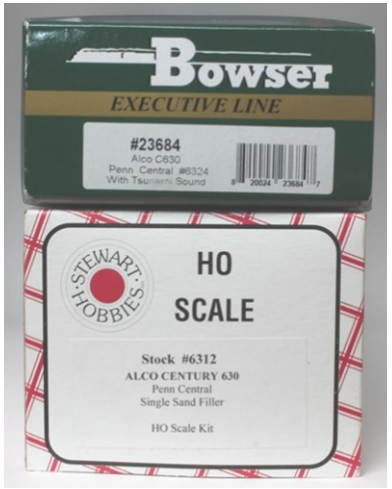
Have you ever wondered if upgrading an older model is worth the effort, compared to an improved, updated version? How much better are the new versions of an older model? What about the cost, will you save as much as you think you will? There are many models that have been available for 20 or more years that could be used as examples. I decided to use the Stewart and Bowser versions of the C630 to find out.

I acquired a Stewart model of the C630 soon after it came out, which would be about 25 years ago, but never did anything with it. There are many Stewart C630s available used or in like new condition at modest prices, so it seemed like a good one to use for this comparison. First, a little background on the Penn Central C630.

PC 6315-6329, Ex-PRR Same Numbers

PRR purchased 15 C628s of 2750 Horsepower from Alco in 1965. These were numbered 6300-6314. Soon after that, in 1966, PRR acquired 15 upgraded units that produced 3000 horsepower and were sold as the C630. The numbering followed in sequence, with the C630s filling the 6315-6329 slots. Big Alco purchases continued with the C636 ordered by the PRR but not arriving until after the merger, so they were delivered in PC paint.

Different paths were taken to obtain the two completed models shown below, as presented in this article.



The C628 and C630 were very similar, and a casual glance may not be enough to tell the two apart. The major difference in the body was the C630 had a bulge with vents behind the cab, where this vent area was flush on the C628. From the front, the C628 had the horns centered on the cab roof, while on the C630 they were offset to the engineer's side.

Starting Points

The original C630 offered by Stewart Models was a fairly plain shell lacking individual details. It was intended that the details were to be procured and installed by the modeler. A short list of suggested details to purchase and install were included with the instructions.

The Bowser model is essentially the same base model with a few upgrades, and in their Executive Line it includes many applied details, shading on the grillwork, and a Soundtraxx DCC sound decoder. The drive, however, is completely different as shown in the side by side photo. Since the time I bought mine, the Executive Line sound decoders have been changed to the ESU brand.

The Bowser model is also heavier, weighing in at over 18 ounces while the Stewart comes in at 15 ounces.

Paint Schemes and Lettering

I wanted two different paint schemes, and with some research soon found that there may not have been two C630s in service for PC that were painted exactly the same! I kept the Bowser "roadname and large herald" scheme which was on PC 6324 and selected a "roadname and small herald" scheme as found on PC 6315. The use of the large herald was not common as most units wore the smaller herald. Other variations included: roadname placement, herald placement, or none at all; PRR style or PC style thin cab numbers; and early paintouts that kept the yellow PRR cab numbers. I went with PC 6315 as it was an early repaint that had different style cab numbers from PC 6324. But in the end it didn't really matter what scheme I started with, as explained below and shown in the photos.

A close look at the factory lettering on both models was disappointing. I knew some lettering needed to be moved to match photos, but I ended up replacing nearly all the lettering on both units. The herald sizes, slant, and font used for the name and numbers were not good enough for me. Everything was removed and replaced except for the long hood herald on PC 6315, with ACI labels and small warning decals also added. On flat surfaces decal solvent and an eraser worked well to remove the lettering, with grit blasting used where doors and other hardware was in the way. As the shell is painted solid black, partial repainting where needed was easy to do. Decals from the PCRRHS and Microscale were used to match the prototypes. The maintenance base assignment did not appear under the cab numerals until about 1972 so they were not included.

Several prototype photos are on the following two pages.

(Lower Left) This view of the two locomotives show the factory lettering. The Stewart did not include a road number. Being particular about fonts and lettering, I thought everything on the Bowser unit could be improved to match the prototype, and correcting it was not difficult. The ACI label also needed to be removed and replaced to match photos. The Conway maintenance assignment under the cab number was not replaced as I wanted to represent a pre-1972 era.

(Lower Right) This side-by-side photo with the Stewart on the left and Bowser on the right shows the differences in the factory painted heralds. From a distance they look okay, but when next to each other the differences really stand out. I thought the Stewart herald was well proportioned but it was too low for PC 6315. Most units had the herald located very close to the top of the short hood. The Bowser herald was in the correct location but was too small, with spacing that looked too tight. Both were removed and replaced with a 12" x 24" herald from Microscale.

PC 6315 sports the most common paint scheme worn by the C630s, with the roadname and small herald. Despite the grime, notice how clean the numberboards are. The open access door would be a neat detail to add, though not very practical for an operating model. Photo by David P. Oroszi, August 29, 1976.

A relatively clean PC 6321 is in the same scheme as PC 6315 — at least in general terms. The roadname is lower and positioned toward the front, and the cab numbers are in the thin PC style. High nose heralds were common, and this one is located about as high it can get. This view also provides a good look at the horn and antenna placement. Photo by John P. Baukus, Jr., Mingo Jct., OH, September 4, 1976.

(Below) Some of the big Alcos received interim paint schemes, such as PC 6327. This unit has the red marker lights turned on, which is a feature that was added to both of the author's models. Donald A. Pope, Conway Yard, PA, January, 1970.

(Above) Rooftop details and so much more can be seen in this photo of PC 6325. Note the hand brake rigging, and the wheel slip hardware on each axle. The roof and sides display a range of weathering colors. The well worn gondolas in the background that appear to be in work train service are a bonus!
Photo by Steven J. Salamon, August 11, 1974.

(Right) By the time PC was folded into Conrail, many locomotives had the pilots modified with removal of the footboards, as seen on PC 6323. This view provides a good look at the C630 front end details. Photo by John P. Baukus, Jr., Mingo Jct., OH, September 4, 1976.

(Left) Herald and detail placement at the rear of a C630. Photo by John P. Baukus, Jr., Mingo Jct., OH, September 4, 1976.

Adding Details

The June 2001 issue of Model Railroading, Volume 31 #4 had an article on detailing a Stewart C630 for the Pennsy. Much of the information contained in that article applies here, so I won't repeat it. In case you don't have that issue in your collection, TrainLife has it available online at http://magazine.trainlife.com/mrr_2001_6/**.** A few of the parts I used were different, and I also declined to modify the access doors under the cab windows, though I did modify the class lights. Refer to the list of materials for the parts I used.

By the time they were acquired by the PRR the full set of red, white, and green classification lights had fallen out of favor. Only one red marker light is needed on each side of the headlight, so the others were removed and filled in – carefully! I fashioned the scraping tool shown to the right from a X-Acto chisel blade to accomplish this.

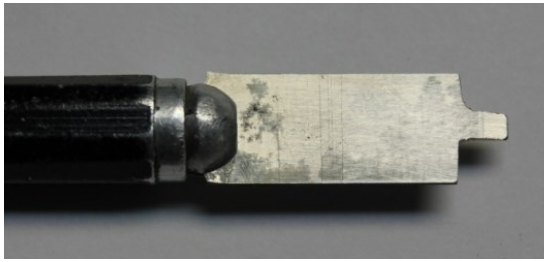
Additional work not covered in the 2001 article included buying a new, thinner, handrail set from Bowser for PC 6315, which of course did not exist at that time. These were grit blasted to provide some tooth for paint. The yellow highlights from Bowser on PC 6324 were too orange for me, so they were repainted after blasting.

PC 6324 came with a formed metal drop step as part of the upgrade, but that was pulled off and replaced with a Detail Associates part which was added to both units.

Finally, the exhaust stacks were drilled out to provide more depth with a scrap piece of an F7 etched grill added from the inside.

I chose not to address the model's shortcomings as they pertain to MU connections and the handbrake chain and pulleys. I felt that drilling a recess into the pilot might could damage to that area of the shell, and as neat as the brake chain and chain guide would look, I was concerned about possible problems with operating and maintenance of the models. I opted against those modifications.

A significant improvement in the Bowser shell was a retooling of the walkway area on the roof over the rear fans. Removing the solid cast plastic walkway on the Stewart model wasn't practical.



A narrow scraping tool was made from an X-Acto chisel blade to remove and smooth off the four unwanted class light housings.

The two body shells are shown in a side-by-side comparison with details added to the Stewart shell but not yet painted. (The drop steps have not yet been added.) Nearly all of the factory lettering has been removed and replaced with decals.

Detailing Odds and Ends

I didn't get too particular about some of the smaller details. On PC 6324, the center chime of the factory horn is too high, appearing to match Cal-Scale part #577. This didn't bother me enough to replace it, though I used a more correct part on PC 6315.

The MU hoses on the PC C630s are actually a cluster of three with a fourth, single connection, looking much like a four cluster setup. The Bowser came with a three cluster MU hose casting which I didn't replace, but should have. Interestingly, the Cal-Scale detail set includes a four cluster hose casting, which is very close to being correct.

As with most modeling projects, follow photos of the specific unit you choose to model. Note that the removal of footboards occurred over time and varied by unit and era.

A Change of Plans

Many locomotives today are being sold with a DCC function controlling numberboard lighting. Since the Bowser model comes with lit numberboards, I thought it would be neat to cut them away from the headlight and add surface mount LEDs on a function. This did not turn out well, as the clear numberboard/headlight casting was firmly glued in place, and broke as I was trying to pry it out. A spare headlight sprue was cut apart and used to replace the numberboard.

There are no decals that are a perfect match the numberboard font used on the C630, and putting a light behind regular decals does not provide very satisfactory results, so I skipped those thoughts and would light the rear markers in addition to the front ones. Even if not pushing a heavy train, red markers on a loco sitting at a terminal still looks neat. Before covering the lighting, let's address the mechanism and control.

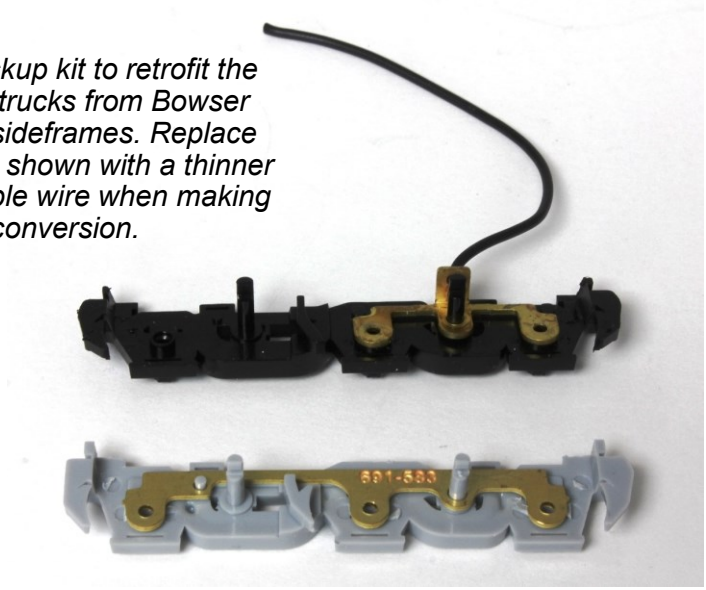
Trucks/Sideframes

A significant upgrade made by Bowser was to provide all wheel pickup. The Stewart model only picks up power on two axles of each truck, but fortunately Bowser offers a retrofit kit to improve this.

There appeared to be no lubrication on the Stewart trucks, while the Bowser trucks were terribly overlubricated. Every time I think I can get away without cleaning and relubing a gearbox I end up regretting it as over time the excess tends to migrate onto the wheels, sideframes and sometimes even onto the shell. So, as it turned out, both units needed the trucks disassembled. This was also the time to replace the stiff pickup wires from the Bowser trucks with more flexible wire.

The Stewart sideframes and stamped axle bearings were replaced with the new ones and lightly lubricated. The all wheel pickup kit includes a choice of three different journal covers, and I made good use of them. The exposed roller bearing should go on the engineer's side, while the ones with the wheel slip detectors go on the fireman's side. These were already in place on the Bowser model. Adding short lengths of stripped wire to represent the cables was a fairly tedious task.

The speed recorder on the engineer's side number 2 axle was added only on PC 6315. Photos show that some of these were removed over time.



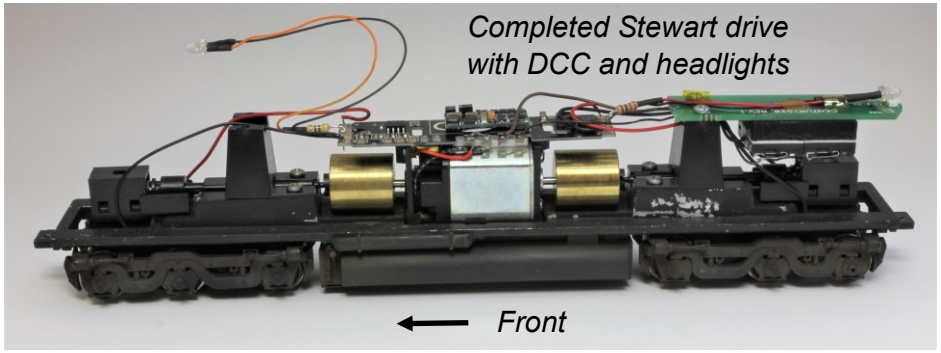
The 3 axle pickup kit to retrofit the original style trucks from Bowser incudes new sideframes. Replace the pickup wire shown with a thinner and more flexible wire when making this conversion.

Drive Train and DCC

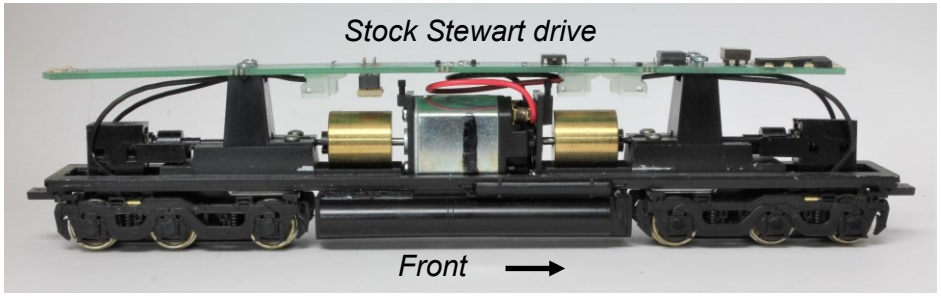
Out of the box, the Bowser model ran and sounded great. Adding a decoder and speakers to the Stewart was relatively easy as there was plenty of space available after most of the full length circuit board was removed. The LED class lights were kind of neat at the time, though functionally not very prototypical. I left the rear section of the circuit board in place to mount the speakers and rear headlight.

Early Stewart C628 and C630 models had a drive shaft that was known for making noise. Long ago (1999-2000) replacements were offered for free from Stewart, but at least today they are still available from Bowser if you should need them. Mine did not make any noise so they were not replaced.

An NCE KA-2 capacitor was added to the Soundtraxx board. With 6 axle pickup this probably isn't needed, but it was easy enough to do at this time. With the circuit board removed from the Stewart chassis there was plenty of space available for a LokSound 5 #58821 sound decoder. I skipped adding an ESU PowerPack to the Stewart, though there is plenty of space for it. A pair of sugarcube speakers in a printed enclosure from Streamline Backshop were added under the remaining section of circuit board. Using a LokProgrammer, sound file SO709 was downloaded and basic programming was set up.



Completed Stewart drive with DCC and headlights



Stock Stewart drive

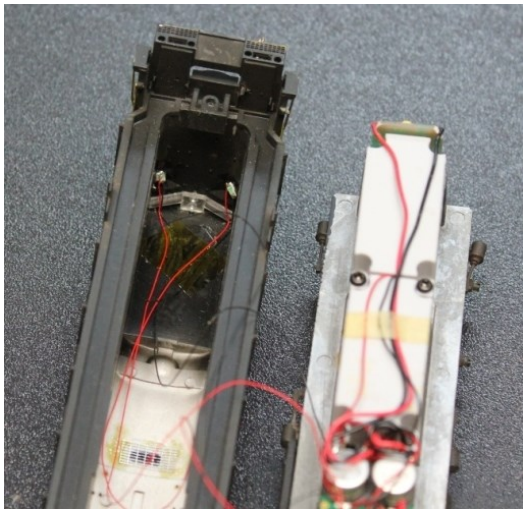
If you prefer to not acquire everything individually yourself, Bowser offers a sound retrofit kit to add a sound decoder and speakers to a non-sound locomotive. These area available for Stewart and early Bowser production and Bowser production after 2012.

Lighting

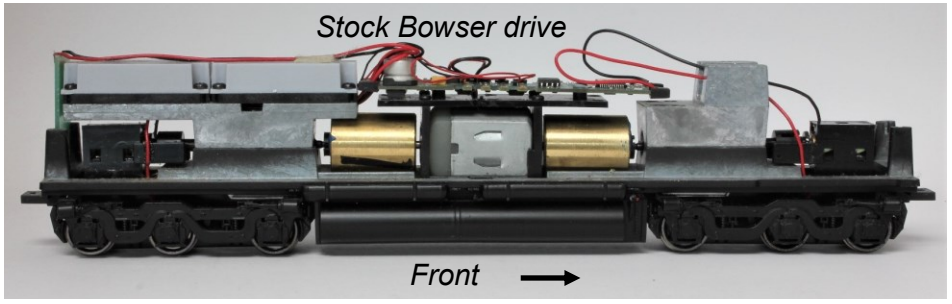
The lights required a lot more work than I expected. Most of the weathering was done first as I pondered the best way to add lighting.

Starting with the front of the Bowser unit first, I removed and discarded the circuit board near the roof of the cab, though in retrospect I may have been better off to work with it. First, the clear plastic light guides for the marker lights were glued in place, then prewired red 0805x2012 LEDs were glued behind them with Faller Expert plastic glue. The Faller glue provides several minutes working time and dries clear.

For the front headlight a 1206x3216 size white LED was glued directly to the stock lens. The Bower casting is odd in that the interior surface is slanted. It took a few tries to place the LED where it provided equal light to each lens.



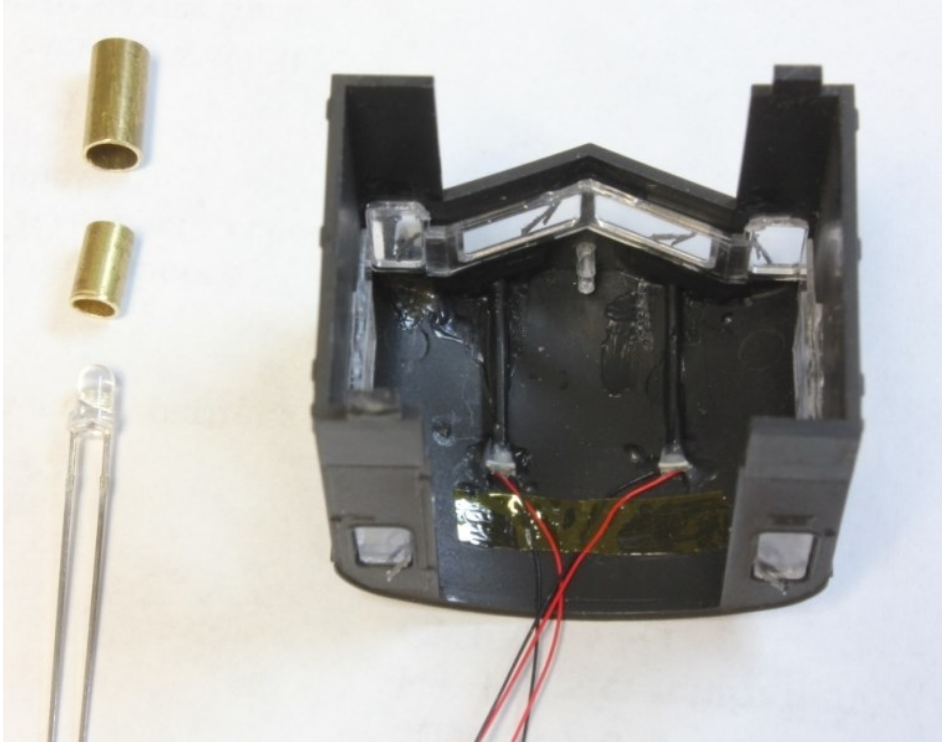
(Right) At the rear, red LEDs were glued directly to fiber optic marker lights. The Bowser stock LED rear light on a small circuit board was kept in place. The prewired LEDs included resistors.



Stock Bowser drive

For the rear marker lights I used 0.030” fiber optics with the old technique of slightly heating the end to create a lens. Several were made with the two best used. These were glued in place then trimmed flush with the inside of the shell. A large 1206x3216 size LED was glued over each to completely cover the fiber optic. The large size makes it easier to ensure the end of the fiber optic marker light is completely covered. The stock rear headlight/numberboard LED was maintained.

The headlight for the Stewart model was assembled with commercial lenses, brass tube, and a 3mm LED. The larger tube fits over the headlight lenses, the LED fits snugly in the smaller tube, and the two tubes telescope to allow for adjusting the length. Be sure to slip heat shrink tubing over the LED leads before assembly to prevent a short. The red marker light LEDs are shown installed but not yet coated with canopy cement and painted black. The Kapton tape holding down the LED leads will take the strain of an accidental tug of the wires.



Since setting up the front headlight on the Bowser unit was a hit or miss effort, a different approach was taken on the Stewart model. For the headlight lenses I used the long lenses in DA 1708. These were slightly too thin for the opening so canopy cement was used to hold them in place. Telescoping brass tubing was cut to length to hold a 3mm LED with the other piece of tubing covering the two lenses. The sizes used were 1/8” at 3/8” long, and 5/32” at ¼” long. This worked out so well I will eventually replace the headlight on PC 6324 with this setup. The marker lights were set up the same way as with the Bowser. Everything was covered with canopy cement and painted black to prevent light leaks.

At the rear I had hoped the existing circuit board mounted LED could be used, but it was too yellow and not bright enough for my liking. A 3mm LED was used with the stock headlight lens,. Directing the 3mm LED upward on a 4” thick strip of styrene provided equal lighting from both “bulbs”. This LED can be seen in the photo on the previous page. The rear marker lights were set up the same way as for the Bowser unit.

On both locomotives, Functions 5 and 6 were programmed to control the front and rear marker lights.

I sometimes add plugs between body mounted wires and the decoder, but I didn’t on this project. The LED wires are very thin and flexible, so a little extra length was provided and everything was carefully tucked into the shell when assembling.

Weathering and Final Assembly

My weathering methods use a combination of several techniques so that no one process stands out. This includes oil washes, pan pastels, acrylics, and overall sprays with an airbrush. A review of several dozen photos showed that other than when freshly painted, these units were almost uniformly filthy. However, severe weathering such as paint peeling and rust did not appear until the approach of Conrail. My weathering was intended to represent a 1970-1971 appearance. The only parts that were not covered with weathering were the numberboards as they always appeared to be very clean.

The Bowser model comes with grills painted a grey color. I felt this was too stark of a contrast with the black body, so they were repainted with a brown/black mix. The trucks received additional attention with brake shoe rust and sanding dust. Handrails received silver highlights to represent locations where the yellow paint rubbed off.

Summing It All Up

The Stewart model took a lot of time, but taken in small steps it wasn't difficult. The lighting on both took a lot of time, much more than anticipated. Adding the marker lights went fast once I determined that using a fiber optic and directly gluing the LED to it was a good solution. I usually try to attach lighting to the chassis so the body is completely detachable, but there wasn't an easy way to make that work on this project.

If you should be considering a C630, or sister unit C628, I would say the answer to where you should start is it "depends". It depends on if you want sound or not, the brand of sound you prefer (Soundtraxx or ESU), your modeling skills (and patience!), and how concerned you are about the accuracy of the factory lettering. In the end there was little difference in the total cost, but it appears the upgrade will cost more.

If you like detailing, the Stewart can be made to look as good as the Executive Line from Bowser. I had nearly all detail parts, decals, and LEDs required on hand, so I wouldn't have to buy a lot of extra parts that would go into a stockpile (though this had already been done from previous projects). Spending additional funds on thinner handrails and the pickup kit is definitely recommended. Having to change the lettering on the Bowser was something I didn't think would be required. Everything considered, I would go with the Executive Line model as the easier, and probably less expensive, way to get a C630. Just be aware that the marker lights are not set up prototypically. They should only be on if that end of the locomotive serves as the end of the train, or they can be turned on when in a terminal.

Another consideration in tackling a detailing project like this may be the age of the tooling. Upgrading the Stewart is a lot of work on a model that has some dated tooling, with details such as doors and door latches being not very crisp, and the headlight housing is rather thick. Also, the front marker light housings and numberboards seem to be too small. Perhaps I should have drilled out the two marker light housings and made my own fiber optic lenses. Detailing the Stewart is a lot of effort on a model that could use some upgraded tooling, but at least there are no grab irons to carve off.

Marker lights are sometimes found illuminated on parked locomotives in terminals. A few locomotives with operating marker lights will add interest to an otherwise static display.

Operation

The sound quality from both units is very good, yet very different. In fact, they don't even sound like the same locomotive! I'll leave the debate between ESU and Soundtraxx to others. At least there are options available with two firms offering sound decoders and Bowser previously offering factory installed Soundtraxx before switching to ESU.

The running qualities were nearly identical, with the heavier Bowser able to pull the slightly lighter Stewart in a "tug of war". The Stewart body had a slight wobble to it the Bowser did not. I'll have to see what it is different in the way the Bowser shell is mounted and fix the Stewart. I don't have a C628 yet, but one would look good with these C630s and my C636. ***PCM***

PC 6324 is working hard at the rear of a coal train on the author's layout. Operating marker lights allow for more prototypical operations, or at least the ability to stage more realistic photos.

LIST OF MATERIALS

PC 6315 (Stewart Models)
A-Line 29201 Wipers*
Bowser 691-246 Alco Century Handrail Set ($15.00)
Bowser 691-602 Tri-Mount 3 Axle Pickup Kit ($13.95)
Cal-Scale 289 brake wheel on scratchbuilt styrene stand
(Alt: Miniatures by Eric B10 Brakestand)
Cal-Scale 547 Antenna
Cal-Scale 628 3-Chime Airhorn on styrene mount
DA 1106 Alco Lift Rings
DA 1202 Bell
DA 1708 Headlight Lens
DA 2202 Drop Grab Irons*
DA 2204 Cut Bars*
DA 2206 Eye Bolts*
DA 6210 Straight Grab Irons*
DA 2231 Alco Corner Grab Irons*
DW 202 Sand Filler Hatches
DW 265 MU Hose Cluster*
DW 139 Air Filter Set
DW 172 Step Lights
DW 284 Speed Recorder
DW 354 Wind Deflectors
0.015 brass wire for pilot grab bars*
Hi-Tech Details 6034 Brake Hose Set
Miniatronics 3mm Yeloglo LED
1/8" and 5/32" brass tube
LokSound 5 Sound Decoder, No. 58821
Dual sugar cube speakers and enclosure
*Cal-Scale 190-521 Alco Century Diesel Detail Kit ($19.95) includes these parts

PC 6324 (Bowser Executive Line)
NCE KA-2 (optional)
1206x3216 size white LED (front)
PRRHS PCH-7 16" Numerals

Both Locomotives
DA 1405 drop step
0.030" fiber optics
0805x2012 size red LED (front)
1206x3216 size red LED (rear)
Kadee #156 Whisker Couplers
Microscale 87-84 PC Diesels
Microscale MC-4129 Numberboards
Highball Graphics AD-7 ACI Labels

The completed locomotives pose for a photo with the marker lights on. Though the origins of these two model as purchased were very different, the end results were very similar.

Modeling Three Maintenance Vehicles

Article and Model Photos by Hunter Hughson

Vehicles are an essential prop on our model railroads, and one need only look through the archived photos of regional RPM meets to find evidence that these essential pieces of railroad equipment occupy the imaginations of layout builders. It would be reasonable to assume that an article in a modelling magazine produced by a historical society would be entirely premised upon strict and accurate prototype information. I'm going to confound that assumption by presenting a range of possibilities that will look great on a layout.

Of the three vehicles that I'll present in this article, one is of dubious fidelity to a prototype, one is a reasonable representation of a vehicle that's very plausible but for which I have found no actual prototype, and the third is a relatively accurate rendition of a vehicle that was probably one-of-a-kind. I'll outline a range of modifications that I'm hoping nearly every modeler will find a way to put to use right away on their own vehicles. I'll use parts, supplies, and ready-to-run models that are readily available as of the time of this writing so that modelers replicate these exact projects, or apply some of the techniques and ideas presented here on their own projects. I'm hoping that everyone will find something they can use right away, regardless of their confidence or skill level.

Project 1: Athearn Boom Truck

Athearn has been building HO scale vehicles premised upon their plastic, assembled and painted model of a Ford F-850 straight chassis. This chassis was a good pick for A-Line/Athearn because Ford's F-850 was a versatile platform. The model represents the early years of the fifth generation of Ford F-850, which was in production from 1967 through the 1972 model years. Fifth generation Super Duty F-850s took most of the styling cues from the fourth generation but with simplified lines in the body panels. Within the fifth generation, and starting with the 1973 model year, Ford did a minor restyle that involved details on the front grille, so the model best represents the 1967 to through 1972 model years.

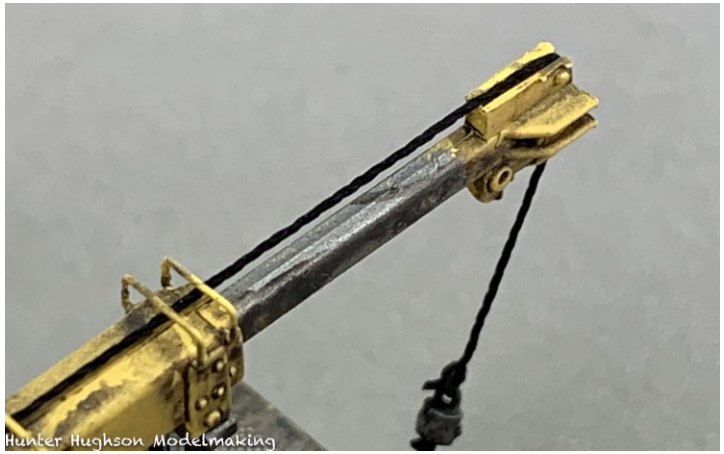
One detail Athearn misses is the fact that the majority of Super Duty F-850s had grilles where the surrounds were keyed to the body color, rather than white on the model. The grille and surround are one piece on the model, so perhaps it was an acceptable compromise for Athearn in order to simplify production of the scale model. Assuming one can color-match a factory painted model, the modeler could correct this oversight, but even after matching the paint color on one of my models, I chose to leave it and I think it looks fine. I point it out so that modelers can make their own choice, but to also acknowledge that I didn't address it on my Athearn models.

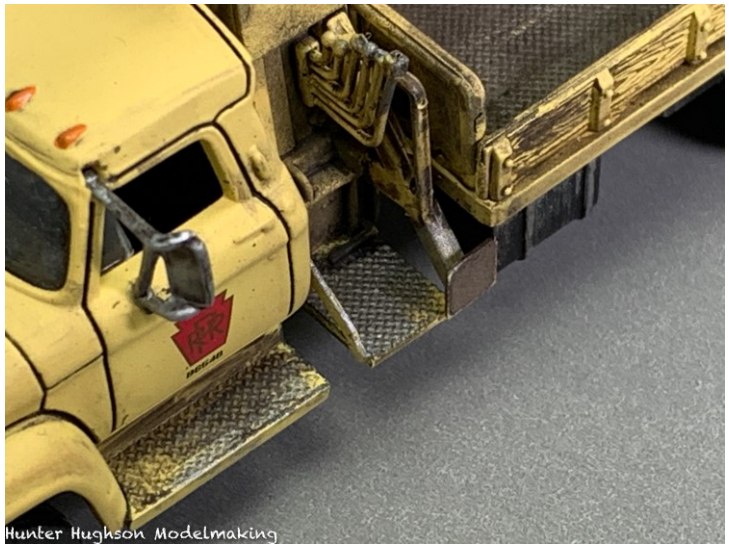
The boom truck came factory painted for PRR and this project involved only a modicum of detail painting and some weathering, with no alterations to the model itself. The work done with paint on this model was repeated on subsequent models so I'll explain it here. First, paint some places on the stock model with a color that represents bare metal.

I use a 50/50 mix of two Model Master enamel colors called “Steel” and “Light Grey.” These paints are no longer available, but you can substitute any brand of hobby paints here, and I think the names of the colors I used make the aim clear. You’re trying to create a colour that is less sparkly and much lighter than any of the colors that are intended to represent bare metals. I don’t have photos taken during the process, but I’ve highlighted the areas that will be painted with this bare metal color. Use a dry-brushing approach to slowly build up the color in places like the flatbed, the top of the swivel pedestal for the boom, the boom itself, the outriggers, handles for the boom controls, and the edges of the steps. Yours won’t look like my photos at this point because the next step will add some grime and blend the bare steel and painted metal colors together.

A simple way of adding a lot of grime to a scale vehicle to represent heavy use is to use a wash method. Before you move to this step, be sure that your bare metal color from the previous step has cured. For this vehicle I used a wash of AK Interactive panel liner (AK2071) shown in the photo and some simple tools. A fine brush was used to spread the panel liner onto the model. The panel liner needs to get into the cracks and crevices of the model but not on the windshield. You can put some on the painted surfaces of the model as well. Let it dry and then use a variety of micro brushes with AK Interactive Oderless Thinner to take most of it off again. See the photo of panel liner tools on the next page. The thinner also leaves the model’s factory paint a little bit faded, which is a good thing in this application. Apply this wash to the whole model and vary the effect by how much you take off again. The wood grain on the sides of the flat bed will pop if you only take the panel liner off the high surfaces. Same goes for the safety tread on the flatbed.

The three photos on this page show the results of the author’s weathering techniques.





The panel liner tools and AK Interactive brand finishing products are the author's preferred products for weathering and aging his vehicles.

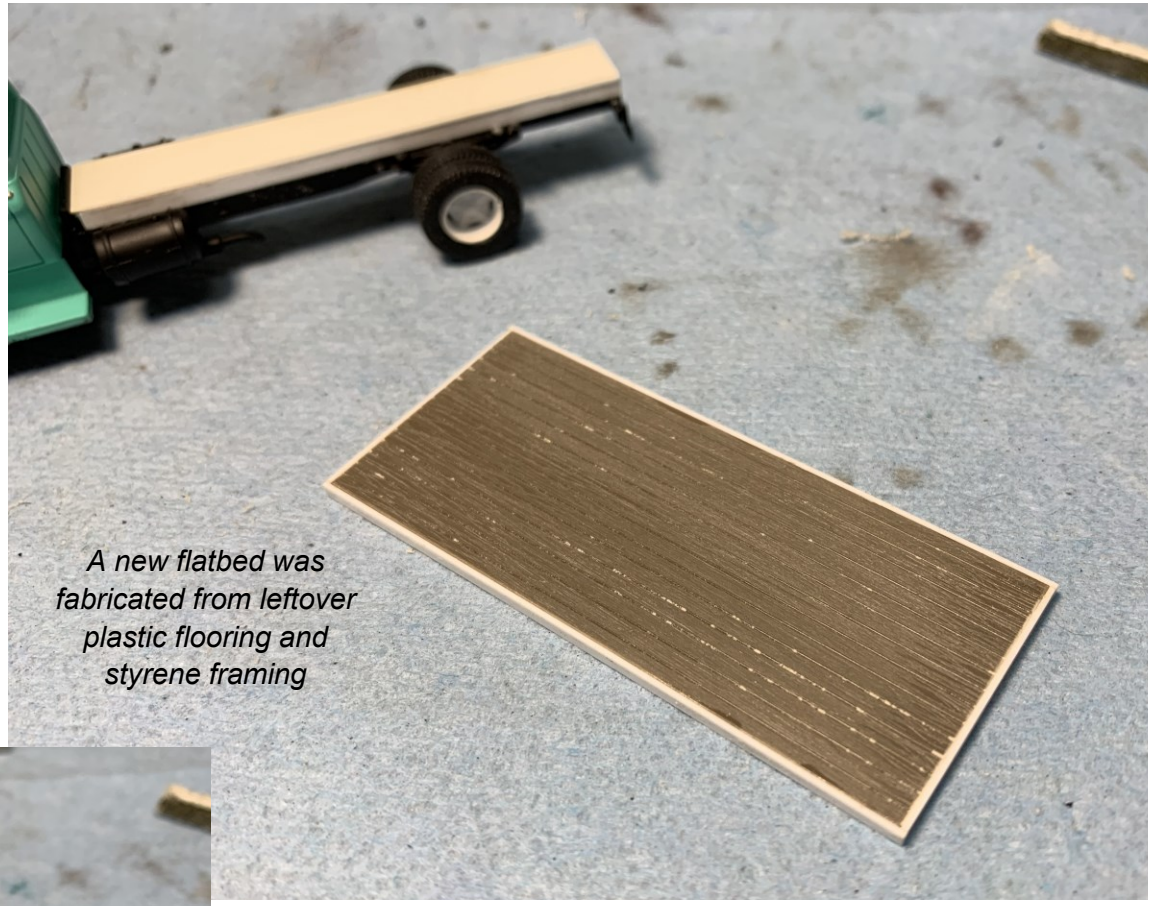
I went back to my the flatbed once the enamel thinner had dried completely and sparingly applied some various rust and grime colored Pan Pastels. That's the extent of the weathering on this otherwise stock factory painted model from Athearn. I think it fits in nicely on my layout, representing a truck that was never repainted into Penn Central colors and still carries the herald of the predecessor PRR.

Project 2: Athearn Flat Bed Truck

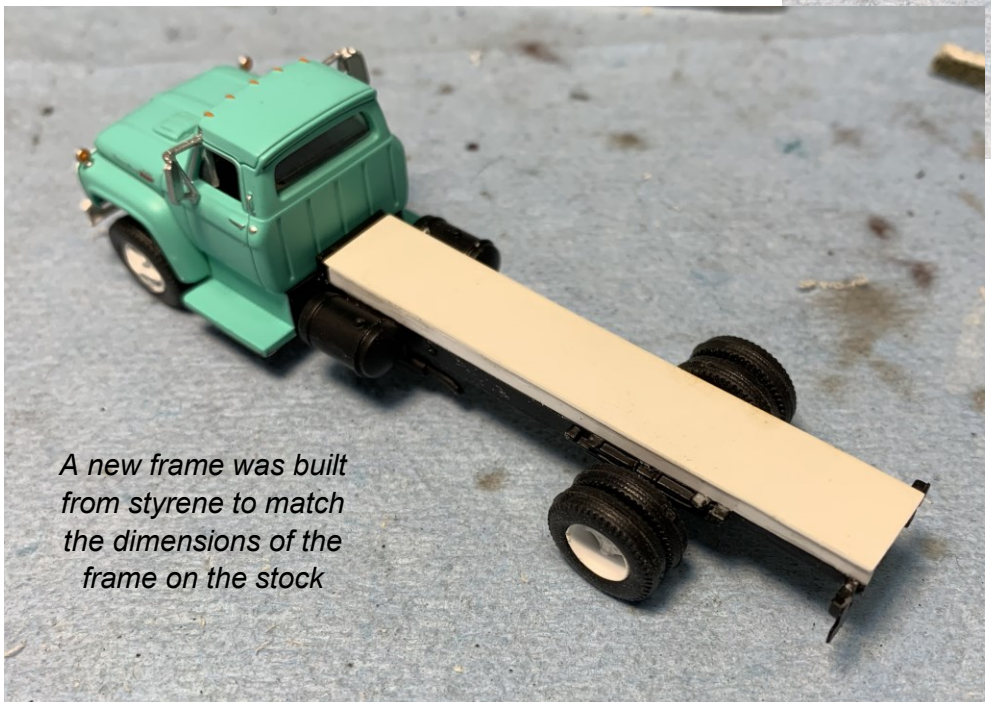
When I saw a factory painted model of a grain truck based on the F-850 chassis, with a cab that was painted in jade green, I immediately imagined some possibilities. Flat bed straight trucks are ubiquitous workhorse vehicles in any railroad's maintenance of way fleet, so this model had possibilities. The factory color bore a close enough resemblance to NYC Century Green, but to make it into a railroad vehicle, that grain box had to go.

With the grain box sides pulled off the model, it seemed like flatbed was too wide and too long, so I pulled the flatbed off the frame of the truck by carefully separating the parts with a dental scraping tool that I've ground to sharp point. With the flatbed removed, I decided to build a new flatbed from some leftover wood flooring that was in a Walthers building kit. In order to use this flatbed I had to build up a new frame from styrene strip that was dimensionally the same as the frame that was on the stock grain truck bed as shown on the next page. I built a frame around the bed from styrene and strips that cemented around the new bed with the top of the styrene strips flush with the top of the bed. This resulted in the bottom edge the frame being slightly proud, so I trimmed it back with a hobby knife. I built a headache rack from various pieces of .010" strip styrene and shaped it so it didn't extend beyond the height of the back window, which was still common practice in the 1960s and '70s. Refer to the construction photos on the next page.

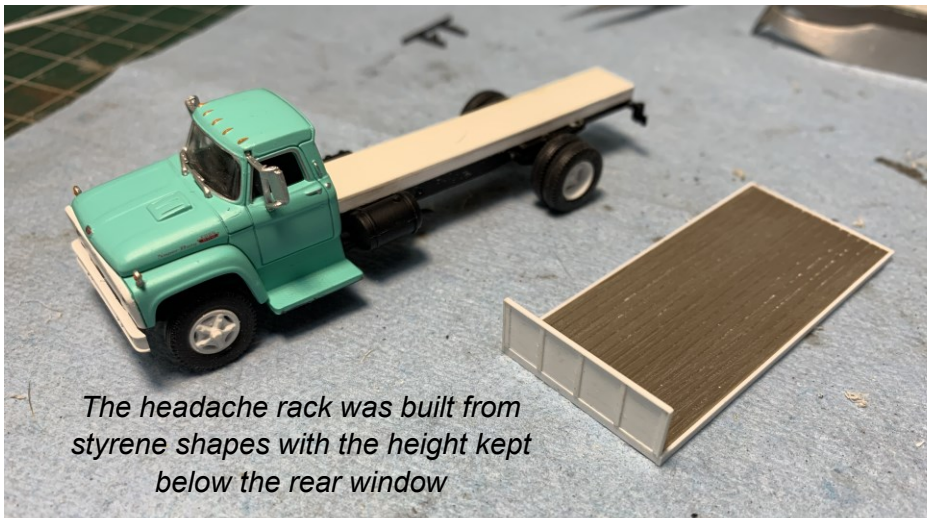
I should mention here that I've built a couple of these trucks for clients since building this one for me, and in both instances I used the stock bed from the Athearn model and removed one board from the middle of the bed on my milling machine, essentially cutting the bed in two lengthwise. I cemented the two halves back together after trimming back a total of one board. I shortened the bed by removing the front end of the bed with a razor saw and building a headache rack on that end. It's probably a little easier to build a new bed from the scrap flooring material that I used on the truck in the photos, but it's worth noting that you can build a narrower flatbed from the parts that come on the model and the finished model looks just as good. See the photo on the next page. In the photo, the truck in the foreground shows the flatbed, before paint, done this way. You can see the seam up the middle of the bed and the scratch built headache rack.



A new flatbed was fabricated from leftover plastic flooring and styrene framing



A new frame was built from styrene to match the dimensions of the frame on the stock



The headache rack was built from styrene shapes with the height kept below the rear window

Before cementing the narrower and shorter flatbed onto the frame the of truck, I hand painted any of the visible parts of the undercarriage with flat black. The simulated wood on the bed was sanded lightly to reduce the depth of the simulated woodgrain, which I felt was a little excessive. I hand painted the simulated wood with a light beige color that mixed by eye using Vallejo Model Air colour called Buff (70.976) and white. Once that was dried and cured, I used an AK Interactive product called Enamel Wash for Wood (AK263) to create the effect of a the variation in darker and lighter colors of the wood surface. The enamel product doesn't disturb the dried acrylic paint, so you can apply and remove this wash as you like until you get the effect you're after. Once I was happy with that, I hand painted the frame around the flat-bed and the headache rack with Polly Scale NYC Green, which is no longer available but similar colors are available from Scalecoat and Tru-Color. After the Century Green color was dried, I cemented the new bed onto the frame of the truck.

With the new flatbed mounted on the truck, I painted the door on each side with Future floor wax and applied a PC herald that was a spare from an old freight car decal sheet. Once the decal was properly fixed to the model and dried, I hand painted another coat of Future to seal it. Weathering followed the same procedure as the boom truck, using the same panel liner wash and thinner with the same tools. The only difference with this model is that the rear-facing side of the head-ache rack was treated with a different approach. The same bare metal colour was dry-brushed onto vertical face and when that was dry, some rust colored pigments were applied with a micro brush. The dry pigments were fixed to the model touching the pigment clumps with a paint brush that was wetted with enamel thinner. This process was repeated with very small amounts of pigment and enamel thinner until I achieved that complex scratched and rusted look.

The finished model looks good on the layout. Despite not following a prototype for this model, I'm comfortable with the fact that it looks plausible as a truck that was purchased by New York Central and was updated to reflect the new Penn Central identity with a simple PC logo. At the time that I built this model, the Penn Central Railroad Historical Society's vehicle decal sheet wasn't available. Had it been, I would unquestionably have used door heralds from that sheet. Given the nature of shade-tree style paint patching that happened during the Penn Central, I'm comfortable leaving the truck the way I built it.

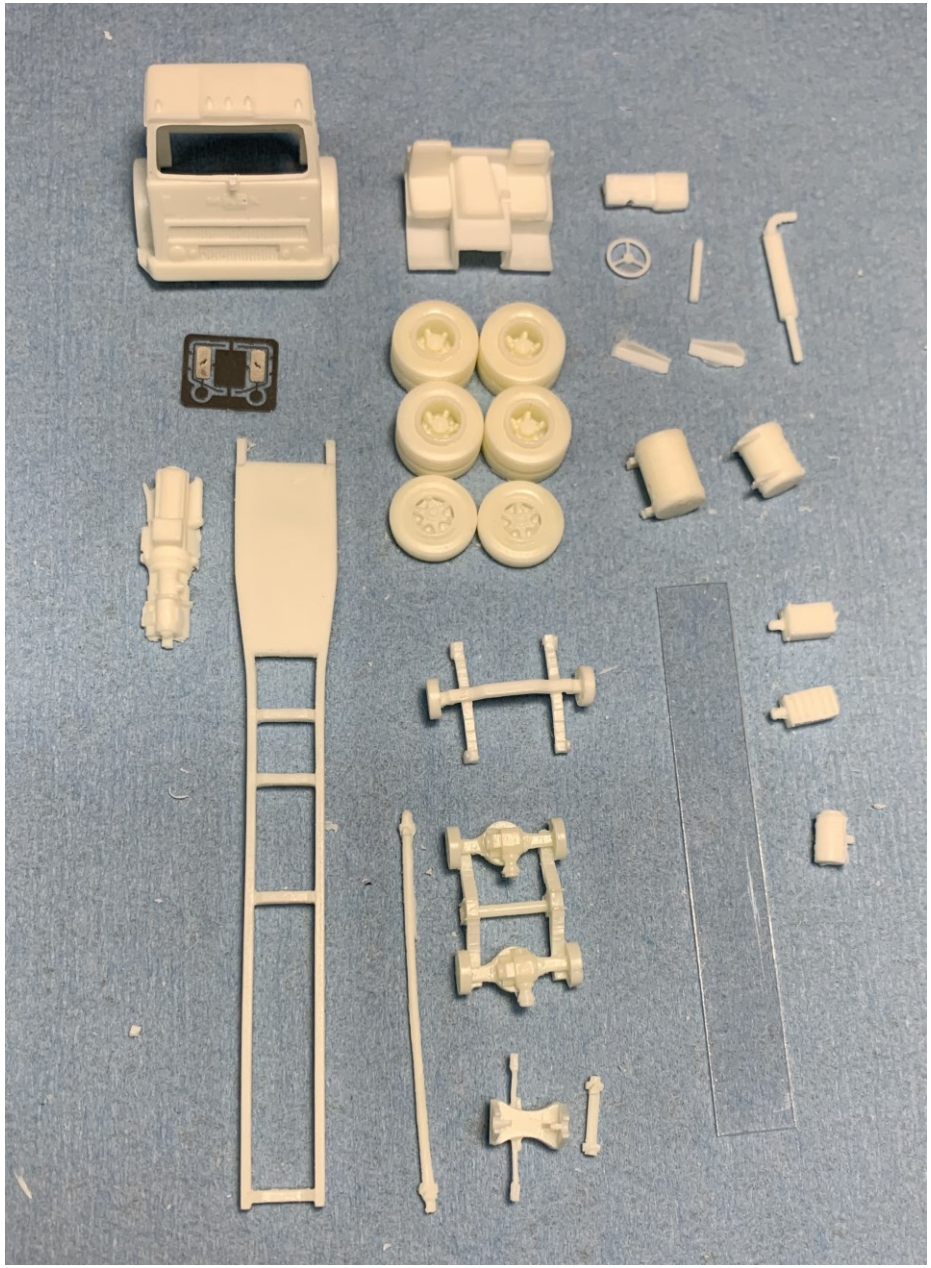
Project 3: Fuel Tender Truck Kitbash

In the 1970s, railroads in the northeast were still in the process of eliminating thousands duplicative miles of rail infrastructure, and Penn Central in particular was way out in the weeds on this front. In that context, the company inherited countless yards that were home-base for industrial switching jobs, but which operated as outposts from major classification yards. As such, these outlying yards had no direct access to sanding and fuelling facilities, or if they did, such access was impractical and therefore infrequent.

It's my suspicion that many of these places had some kind of water, coal, and sand facility during the steam era, but the railroads never adapted these facilities to diesels and instead opted to use a road vehicle to perform fueling and sanding. I have a hunch that this especially true of the New York Central, but I haven't done a thorough investigation of how that played out. This might be an interesting future article in PC Post and/or PC Modeler.

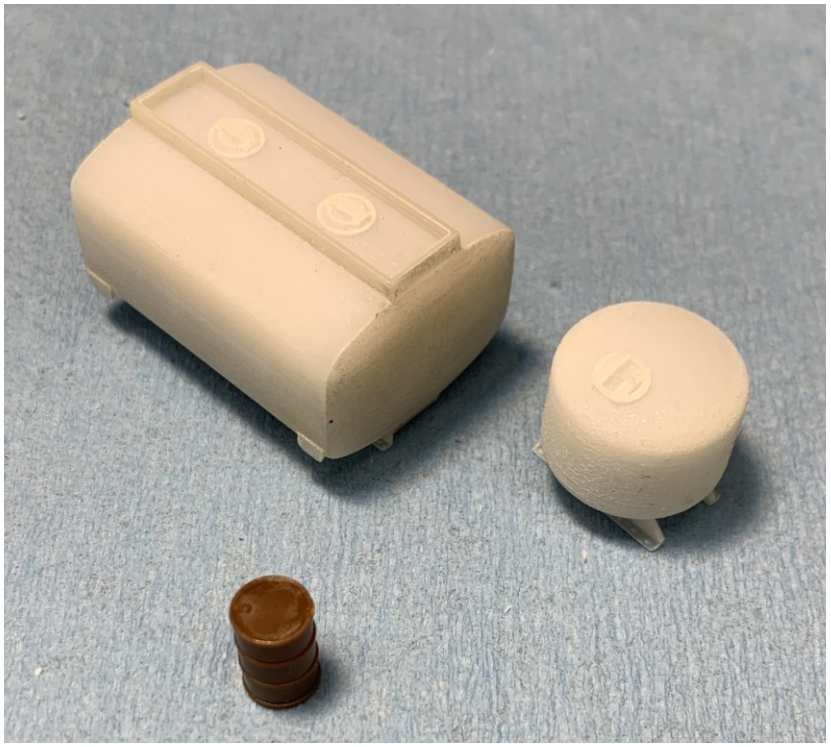
Regardless of the reasons, there is enough photo evidence to support the conclusion that such railroad-owned fuel trucks operated in many places on the Penn Central. Unfortunately, we don't have much in the way of society-owned photographs to support this article at the time of this writing. Given that this is an electronic magazine, I'm hoping that if we find more prototype photos in the future, we can run some kind of supplementary to augment the content of this article. In the meantime, I'll suggest that a search through Google, on Flickr or Pinterest will yield a photo of the very prototype I followed for this project.

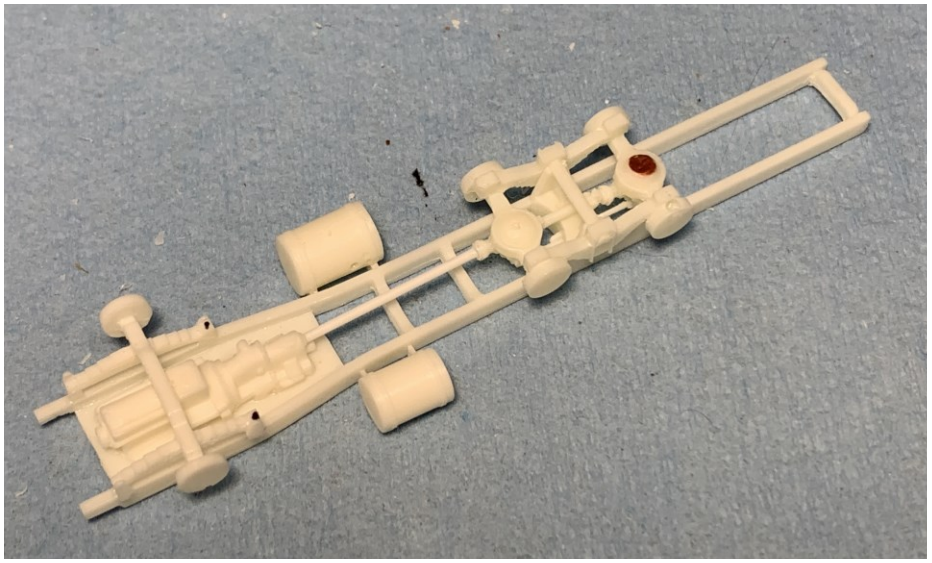
When I found the prototype photo for this truck, I knew I wanted a model of it, and I was unaware that anyone had already tackled this project. It wasn't until after I'd collected up the parts and started the build that I first saw a photo of Chip Syme's model, taken at an RPM some years ago. Blissfully unaware that someone had already solved the problem of sourcing parts, I sent a photo of the truck to Ralph Ratcliffe, who is well known to be a manufacturer of very nice HO truck models in resin. His website is www.ralphratcliffemodels.com. Ralph looked at the photo and put together a quote for all of the parts to build this project, which turned out to be nearly everything but the fuel and sand tanks. You'll see supplied the Mack cab, interior floor and seats, dash, steering column, steering wheel, all wheels and tires , tandem

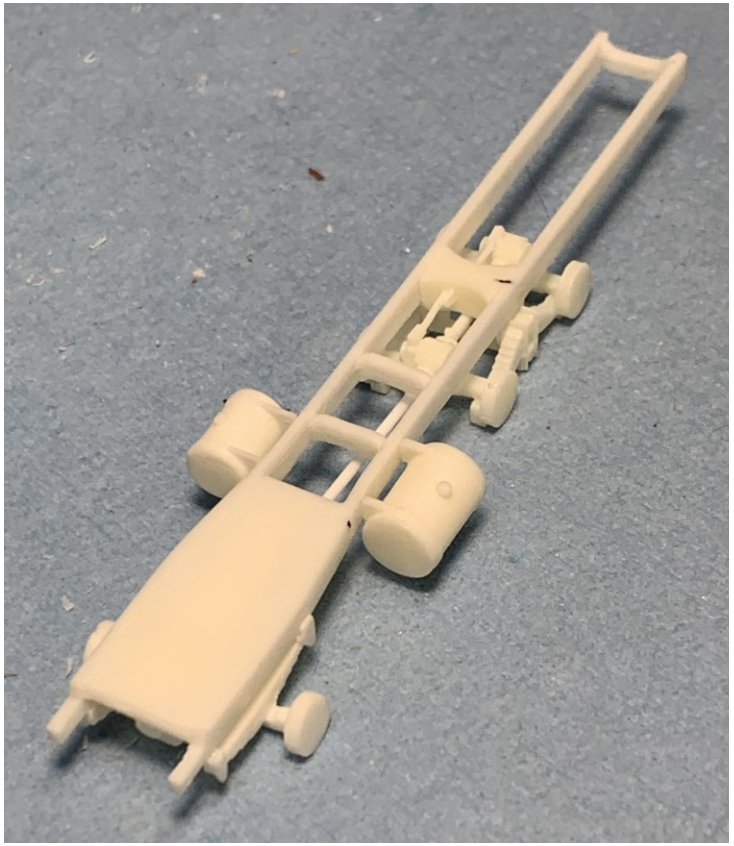


axle, front axle, frame, engine/transmission bottom, window glazing, drive shaft, battery boxes, fuel tanks, mirror etchings, exhaust pipe and muffler in the photo above.

I worked with Robin Talukdar to have the fuel and sand tanks drawn up. He traced the dimensions from some photographs (that we don't have permission to reproduce) and 3D printed the parts in the photo below for me. They are available to buy at https://bayviewjunction.com. Also in the same photo is the Tichy drum that's needed for this project.





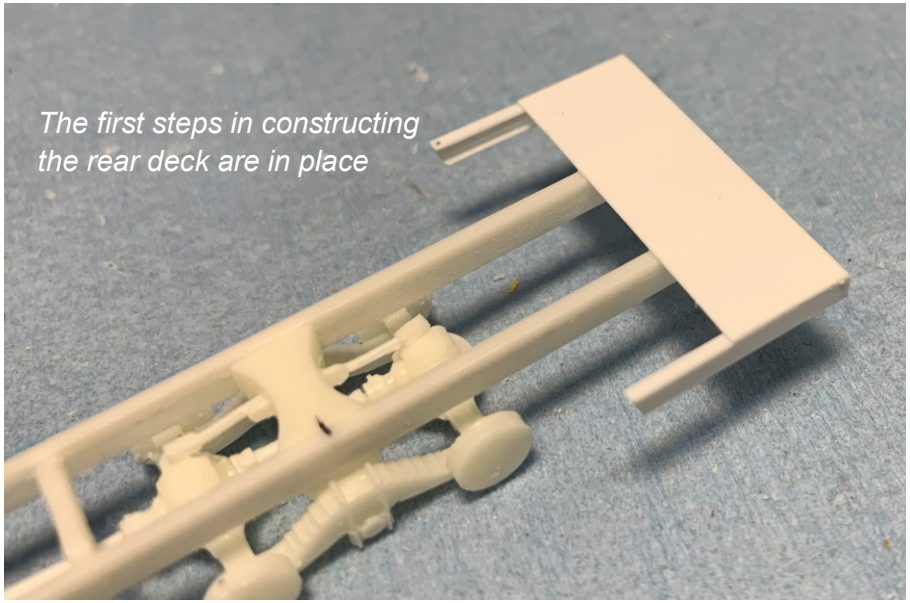


Before I built the model, all of the resin parts had the flash cleaned off and were washed with mild dish soap to remove anything that might prevent CA or paint from sticking, though the assembled model would receive another de-greasing before paint.

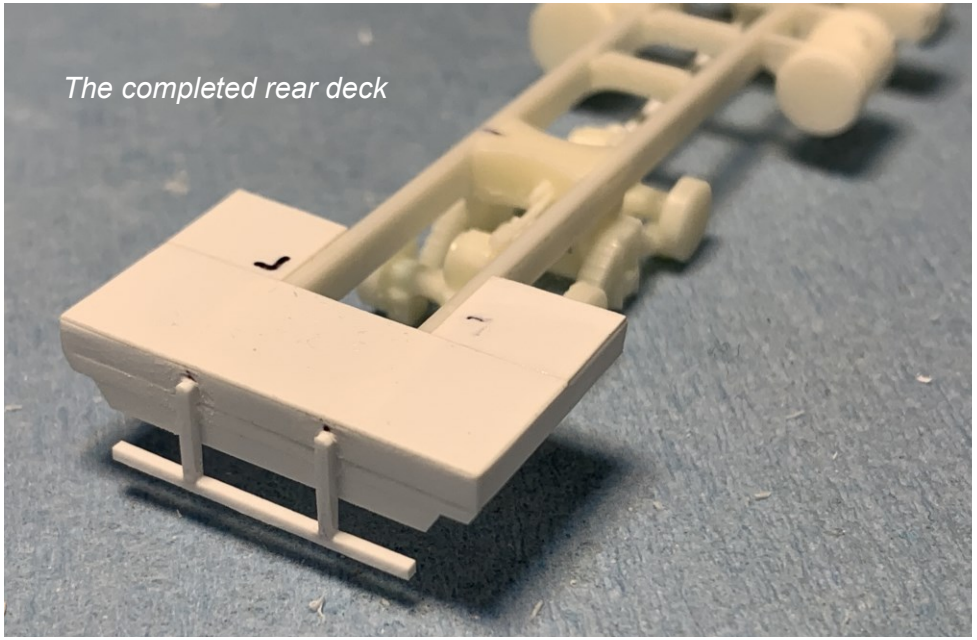
I scribed a mark .448" from the front of the frame which would mark the center of the front axle assembly. Likewise, another mark was scribed on the frame 2.375" from the front. This point marks the center of the rear tandem axle assembly. Both were glued to the frame. The frame needed to be shortened to an overall length of 3.580" which I measured from the front of the frame so that the excess is removed from the rear. The engine/transmission bottom was glued in under the front axle assembly and the drive was shortened to fit. The fuel tanks were located such that the rear of each tank was 1.530" from the front of the frame**.** Refer to the photos to the right for top and bottom views of the assembled frame.

The rear of the prototype had a platform from about the rear fenders back to the bumper on which various hose reels and tools were mounted and stored. Aside from its location in profile view, the entire platform was guesswork based on photos of the prototype. The finished platform ended up being a U-shaped affair that measures 1.028” wide and .640” long. As I describe how I went about building it, keep in mind that resin-to-styrene joints were made with CA and styrene-to-styrene were made with cement.

I started by building a T across the back of the truck connecting the two frame rails with a piece of .020”x .100” styrene centered across the centerline of the vehicle as shown in the photo below. The floor of the platform was built from three pieces of .010” sheet, the first of which is 1.028” x .350.” Two pieces of .100” C-channel styrene form the sides of the frame, with the “C” facing inwards toward the centerline of the vehicle. Those were cut to a length of .620” with an angle on the front-most end of each. The rest of the deck was built to fit from .010” styrene sheet and the rear bumper area was built from more .020” strips stacked and shaped to create the contour of the rear of the frame and .030” x .030” styrene for the bumper.



The first steps in constructing the rear deck are in place



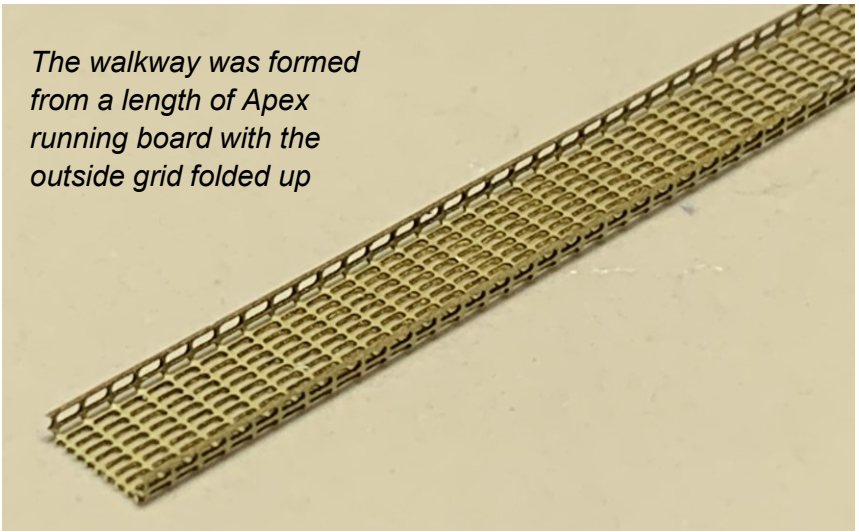
The completed rear deck

At this point I set about building the various pieces of apparatus that would be on the rear deck. This area looked empty, but I had no photos of what was actually there on the prototype, so I built a freelanced mystery device. I can see something lurking in the shadows behind the jumble of hoses in a couple of shots, so built something that has some pipe, conduit, a tank, and a box.

The mystery device described in the text may be a pump and tank assembly.

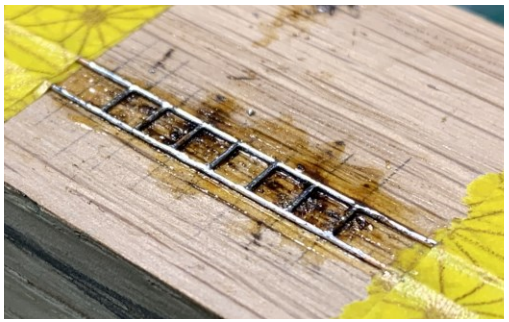
I built two hose reels and their frames for the rear deck of the truck. Basically, the reels were built by creating a spool from a piece of styrene rod and circular disks cemented to each end. The trick here is to make sure you're cutting off the rod square, and cutting the circular disks accurately. This took a lot of trial and error, with some wasted material, but I eventually got two spools. The small spool is about .200" in diameter and .085" wide, while the larger one is about .295" in diameter and .260" wide. I wrapped 36 gauge wire around the spools and fixed them in place with thin CA. I built some framework around the spools with .020" x .020" styrene and some smaller hand cut strips. I built the spools and the freelanced mystery thing on a small square of tempered glass and cut them off the glass when they were ready to be cemented to the rear deck of the truck. The completed deck with equipment is shown below.

At this point I tackled the ladder and walkway that provides access to the top of the tank. The walkway was a piece of etched Apex running board by Plano that I cut to around .220" wide and .850" long. The outermost grids of the running board were folded up vertically in an etching brake to create a U-shaped profile down the whole length. I would eventually solder the wire ladder to this running board and glue two pieces of .010" x .060" styrene along the length, but ladder had to be built first.

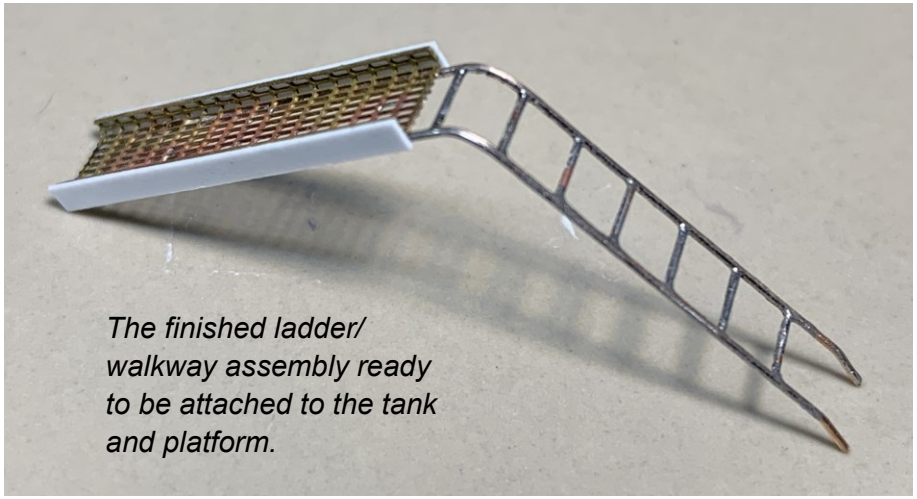


The walkway was formed from a length of Apex running board with the outside grid folded up

I carefully drew out the ladder shape in pencil on a piece of hardwood, with seven rungs drawn parallel at .115" intervals. I drilled a #74 hole .130" deep in the hardwood but away from my ladder drawing and then proceeded to cut the rungs of the ladder from .020" phosphor bronze wire by putting the wire into the hole and shearing off the wire flush with the top of the wood. I made around 15 rungs because even with this jig the rungs will vary slightly in length. Wearing an Optivisor I sorted the rungs visually to get at least 8 rungs that matched very closely in length. I taped two pieces of .020" phosphor bronze wire measuring about 2" long to the hardwood, parallel and .130" apart onto the drawing on the hardwood. I soldered the rungs between the stiles following the drawing. Plenty of flux and a sharp and very hot soldering iron tip helped immensely.



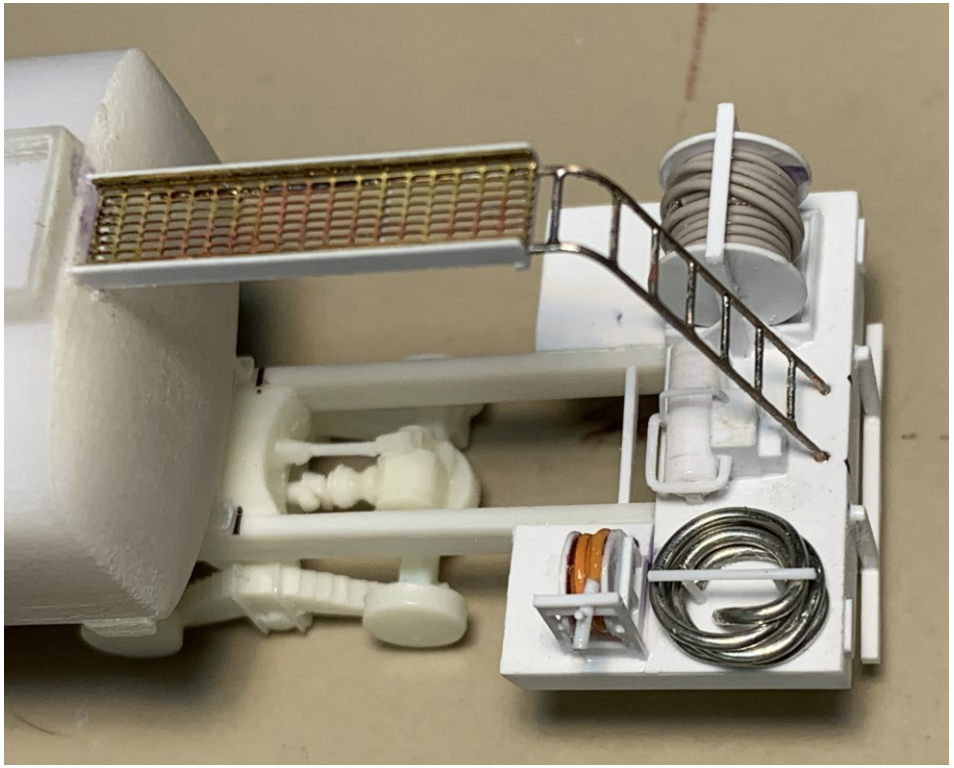
The finished ladder was cleaned up with fine sanding sticks and soldered to the underside of the running board. All of the flux was cleaned from the metal pieces and two pieces of .010” x .060” were glued along the vertical edges. This whole walkway assembly was left a little bit longer than I would need because I’d have to eventually fit this piece onto the curved back of the fuel tank. The ladder is bent at top rung and the next one down at a 75 degree angle and the stiles were cut about .250” past the bottom rung. The finished ladder/walkway assembly is set aside until the tanks are in place.



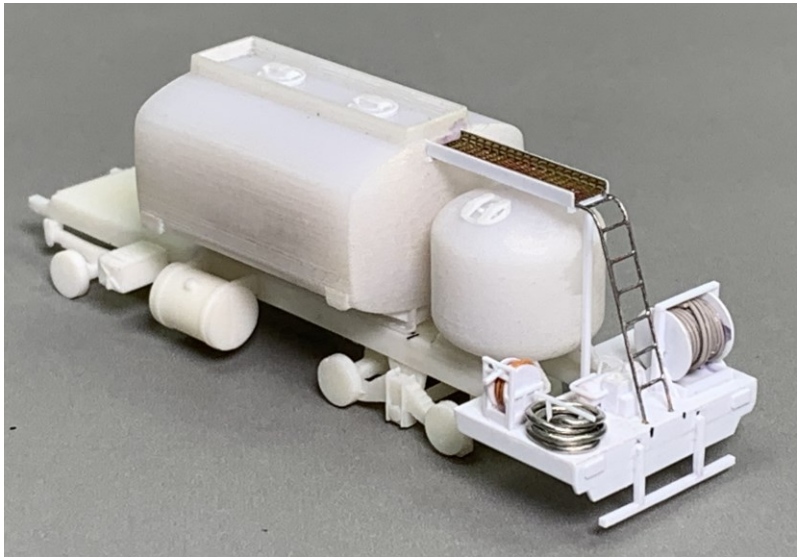
The finished ladder/ walkway assembly ready to be attached to the tank and platform.

At this point, I built a cleat from .020” styrene rod in the rear driver’s side corner of the platform and coiled some solder around it to represent a loose coiled hose that I saw in the prototype photos. The fuel tank was attached to the frame with the rear of the fuel tank support lined up with the same mark that I made when I was locating the tandem axle assembly on the frame. With the fuel tank in place, I trimmed the ladder/walkway assembly to fit. It’s anchored to the deck through a pair of #75 holes while the other end is attached to the fuel tank with CA. This is shown in the photo at the upper right.

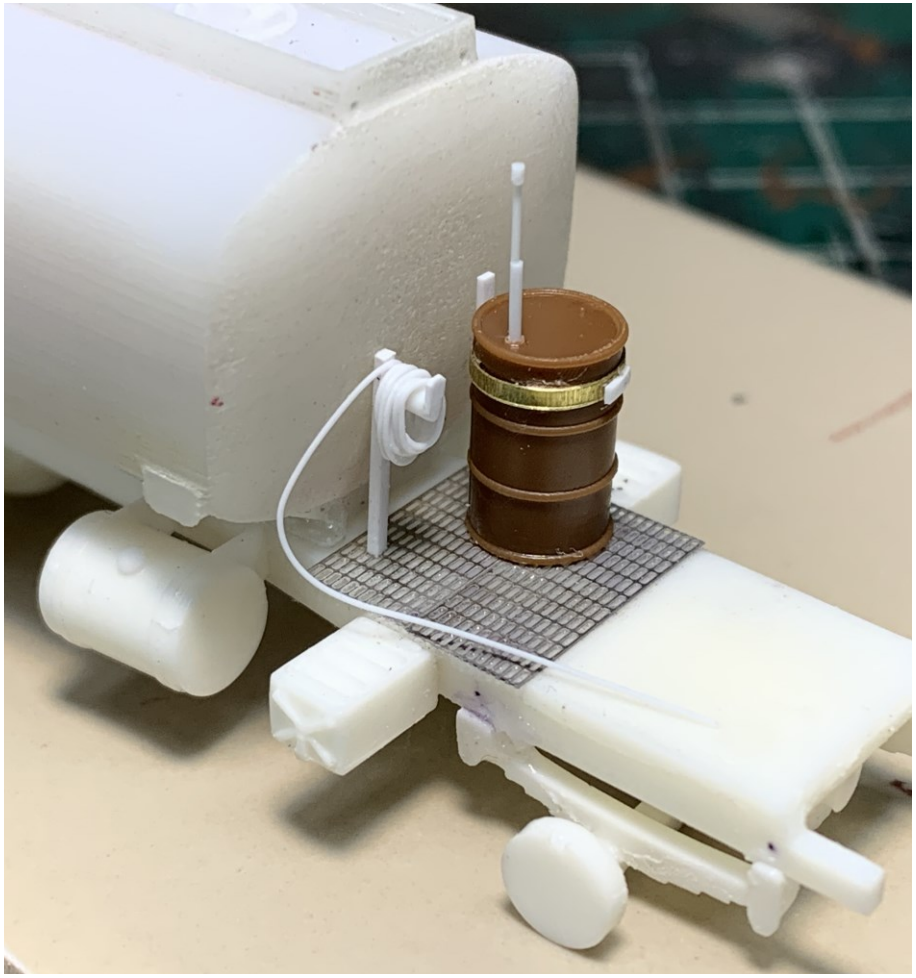
The sand tank was attached to the frame by passing it into the opening under the walkway and a post assembly holding up the walkway was fabricated from .030”x .030” styrene and glued to the sand tank. I created some tail light assemblies from pieces of .010” styrene sheet measuring about .060” x .115” and attached those in the upper corners of the rear of the truck frame. The resin battery boxes from Ratcliffe



Models were glued onto the sides of the frame, with the front-most face of each box about .795” from the front of the frame. At this point, most of the major components of the truck from the cab back were in place.



The prototype truck had a lube-oil drum in the space between the cab and the fuel tank. I glued two pieces of Apex running board to the flat area in the frame here to create a platform. I built a hand pump from .020” and .010” styrene rod and cemented it to the top of a Tichy drum with a brass band glued to it. I created a hose loop from .010” styrene rod and some bits of styrene for a freelanced hose and hanger detail. All of the details in this area are pure conjecture. I have no photographs detailing what this area looked like.



The majority of the truck assembly was finished by this point, with the exception of the cab, the wheels/tires, and the rear fenders. The cab interior goes together quite nicely as supplied by Ratcliffe Models, so I simply assembled the few pieces and painted the interior parts in a beige color with dark brown accents. The cab exterior needs no work, so I readied it for priming by cleaning it. I built the rear fenders from .010” styrene sheet with a .010 x .010” strip along the inside edge to represent the rolled edge on the sheet metal. The rest of the assembly took place after painting, so I readied the parts for primer by cleaning them mild dish soap and letting them air dry. All of the parts were primed with Tamiya Fine Surface Primer.

To paint the model, I used a pre-faded NYC Century Green color. I had two bottles of Polly Scale paint labeled NYC Jade, which was their rendition of Century Green, but the two bottles were different colors. I preferred one that seemed to be faded, so decided to use that as one of my colors in my two-color fade process. That process works as follows. I mix a faded rendition of the model’s main color and apply that over the whole model. Then I come back onto the model with a detail airbrush and feather the main color onto the model, paying attention to the places that would be in shadow and painting them darker. The surfaces that would be exposed to more sunlight were left in the lighter of the two colors. In this way, the model is pre-faded before lettering and more grime is added.

I moved back onto the cab by installing the painted interior and cutting the window glazing out of the clear styrene that is supplied by Ratcliffe Models. The windows are nearly rectangular, so I started with a rectangle for each one, cut to fit, and shaped each piece by carefully rounding the corners and reshaping the part until it fit its opening. Glazing was fixed into place with Micro Kristal Klear which is essentially a canopy cement style of glue. The assembled and painted cab was glued onto the truck at the points on the frame that I had masked before painting.

The rear fenders were glued on in a similar fashion after the undersides were weathered with a wash of the panel liner that I used for the rest of the model. After the wheels and tires were hand painted with Vallejo German Grey I glued those in place and the assembly of the model was finished. I sprayed the completed model with Tamiya X22 Clear thinned with Mr. Color Leveling Thinner so that the model would be ready for some decals and weathering.

The decals came from the new PCRRHS decal sheet for vehicles and trailers, PCH-12. Once they were sealed under another coat of X22, I proceeded with the weathering. To start, I hand painted the rusty patches along the top of the tank with Vallejo Burnt Umber, and when that was dry, I darkened the middle of each larger spot with Vallejo German Black Brown to give each spot a bit of depth. The last step of the weathering was the same panel liner wash that I used on the previous two vehicles, leaving more panel liner in places where I thought there should be an accumulation of grime.

Once the weathering was dried, I painted the marker and brake lights. I used a piece of .020" rod with the end just dampened with Tamiya Flat Aluminum and used that as a stamp to create a silver dot where I wanted a circular marker or tail light. When that was dry I applied a dot of lens color over the Aluminum with the same method using Tamiya Clear Red and Tamiya Clear Orange. I used the same Clear Orange over Flat Aluminum approach for the cab rooftop running lights, and simply used Flat Aluminum for the headlights. I didn't apply a flat finish to the model because I feel that scale vehicles look unrealistic if they're too dull. The panel liner tends to be flat when it dries, so those grimy parts have no sheen, while the rest of the model has varying degrees of gloss.

The model still lacks license plates, which is a matter I'll eventually address with all of my vehicles. There are plenty of air lines that I could have added but chose not to. I feel like the model is sufficiently detailed to capture the feel of the vehicle it represents, and it's a unique prop for my layout that has been garnering much attention when it's staged in a scene. ***PCM***

New Products

PC Vehicle Decals

A new decal set for HO scale PC vehicles and trailers is now available! There is a LOT of artwork packed onto this sheet.

This sheet is now available as PCRRHS Set PCH-12 on the Society website.

More on what this set contains and how it was developed on the next page….

CT 10 (REV 4-71) PRINTED IN USA

PENN CENTRAL TRANSPORTATION COMPANY

ALL REGIONS
ALL DISTRICTS - ALL DIVISIONS

BULLETIN ORDER

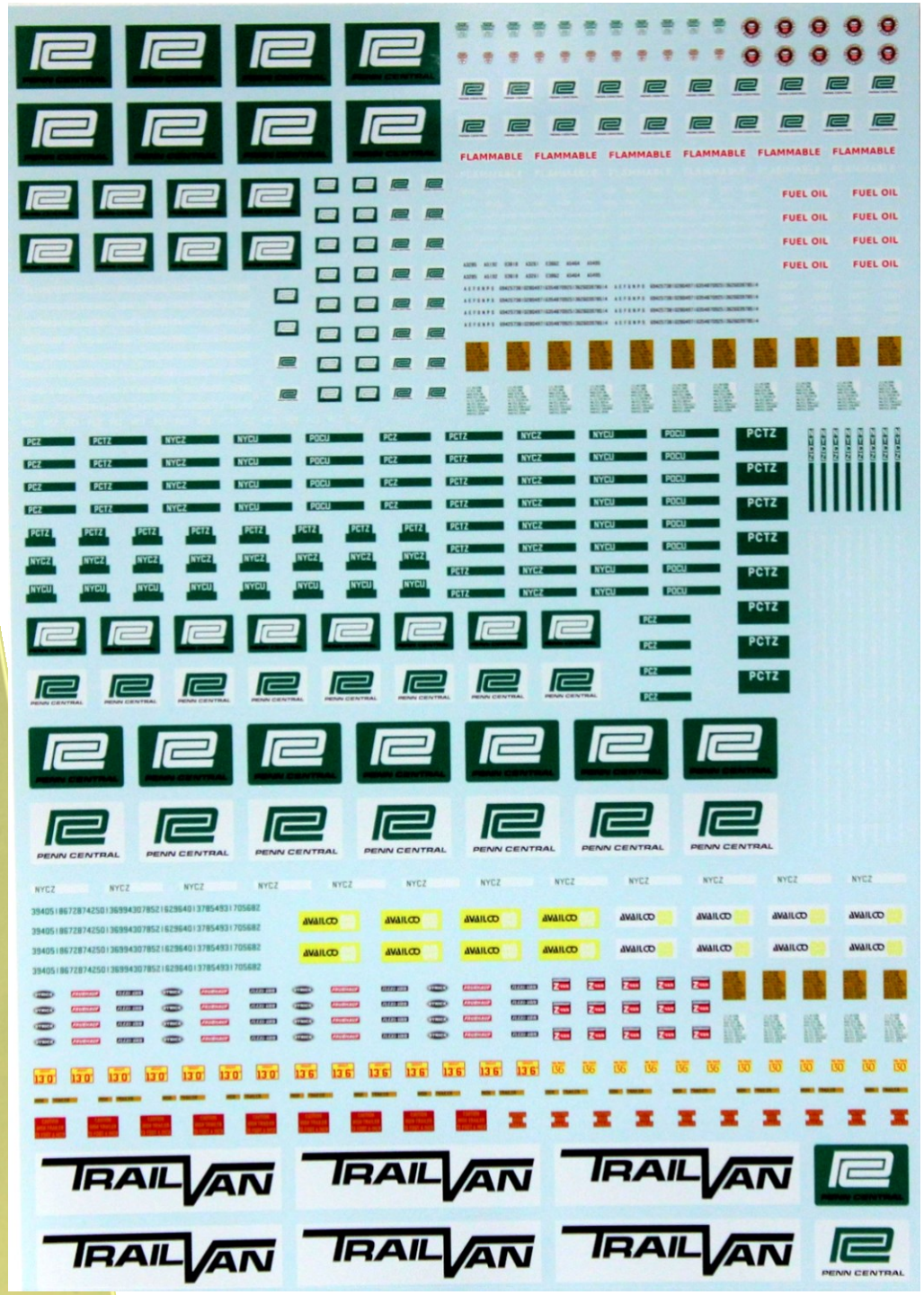
Flagtown, New Jersey
November 26, 2021

Effective 12:01 a.m., Sunday, December 12, 2021

Applies in all Districts

(a) VEHICLE AND TRAILER LETTERING
HO SCALE GRAPHICS ARE IN EFFECT AS FOLLOWS:

1. PCRRHS DECAL SET PCH-12 HAS BEEN ADDED TO THE WEBSITE WWW.PCRRHS.ORG AND IS AVAILABLE IMMEDIATELY FOR ORDER
2. PRICING IS $15 FOR MEMBERS AND $20 FOR NON-MEMBERS
3. EARLIER REPRESENTATIONS ARE MADE OBSOLETE



PC Vehicle Decals (cont.)

There are, of course, plenty of heralds for trailers and truck doors, but this set goes way beyond that. We got carried away a little bit, as variations kept turning up that we wanted to include. There are several multi-colored Excelsior Leasing decals at the top right, fuel truck decals "FLAMMABLE" and "FUEL OIL" below that, and a huge jumble of vehicle numbers with a variety of prototypical letter prefixes.

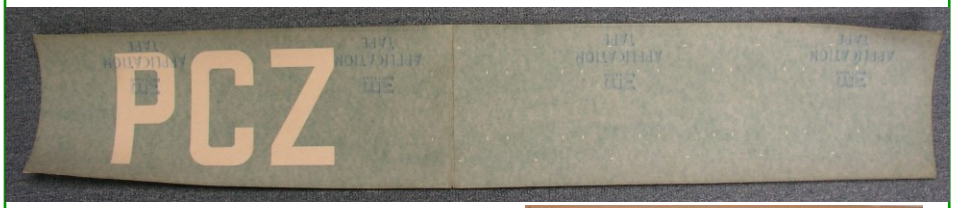
Trailers are covered with PCZ, PCTZ, POCU, and NYCU reporting marks in a variety of configurations, including never done before vertical reporting marks for trailers that had a refrigeration unit mounted on the front. Actually, much in this set has never been done before. Trailer heights are included in several styles and this set probably has one to match your photos.

Rounding out the set are trailer manufacturer names, "AVAILCO" leasing decals, and the bold TrailVan name.

Depending on the vehicles and trailers being modeled, 15 or more models can be decaled with this sheet.

The creation of this set was a joint effort between Jim Homoki and Gene Fusco. Jim did the bulk of the research, but it was Gene's CAD skills that made it a reality.

Every piece in this set is based on the prototype, with actual decals and signs measured where they were available. A few samples from Jim's collection are shown below, starting with a PCZ trailer decal that includes tick marks for placing white number decals on the green background.



One of the most common of the prototype vehicle markings was a decal applied to the doors of vehicles as shown to the right. The nominal size is 24" x 18", with the exact size 23-7/8" x 17-1/2".

The sign below is painted aluminum sheet from a rib side trailer. his one has square corners, yet the green background is rounded at the corners as many decals were. The overall size of this example is 73" x 48".

There were several other decals and signs measured for accuracy. Where none were available, the artwork was scaled from photographs. A detail of a round Excelsior decal is shown to the right. The actual size is 15" diameter in HO. Photos show some of these PRR era heralds lasted into Conrail!

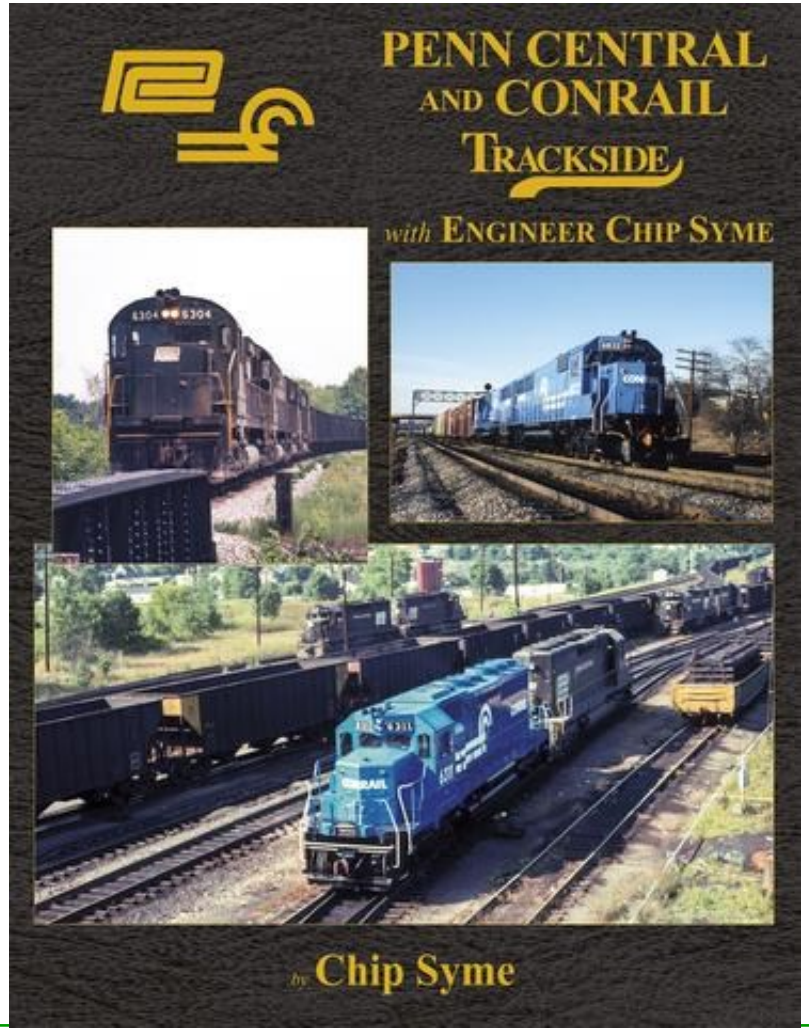
PC vehicles were numbered with a letter prefix and four digits. Most small hy-rails had an "A" prefix, with various letters used for other equipment. A jumble of letters and numbers are provided so the PC Modeler can now appropriately number his vehicles.

Printing required six colors plus black and white to accurately reproduce the prototype graphics. "Close enough" colors or substitutions were not made. Cartograf printed these and did a tremendous job on the color registration.

Pricing has been set at $15 for members and $20 for non-members, plus $1 shipping when ordered from the website, https://www.pcrrhs.org/store/decal/pch-12-pc-vehicles-and-trailers.

New Penn Central Book from Morning Sun By PCRRHS member Chip Syme!

Just released in mid-November, PCRRHS member and retired PC/CR/NS engineer Chip Syme provides a great selection of photos spanning his career. Perhaps the best feature of this book is the way Chip relates his experiences and the people he worked with to the railroad, making this much more than just another photo album. Available now from your favorite bookseller, the list price is $69.95.



ScaleTrains HO SD45 Rivet Counter Series

The first group of Penn Central SD45s at the Operator detail level were delivered in early 2021 and are sold out at ScaleTrains. In late December 2021 the Rivet Counter series arrived. Six numbers are available, including PC 6125 in the Red P scheme as shown below. Each number will be offered in a DC/DCC Ready and DCC & Sound Equipped configuration.

These are identified as Phase 1b1 from PRR series 6132-6138. There is a long list of specific details listed on the ScaleTrains website. A few of the features include an ESU LokSound 5 sound decoder with the Full Throttle feature, dual cube type speakers, red marker lights, ground lights, and LED headlights.

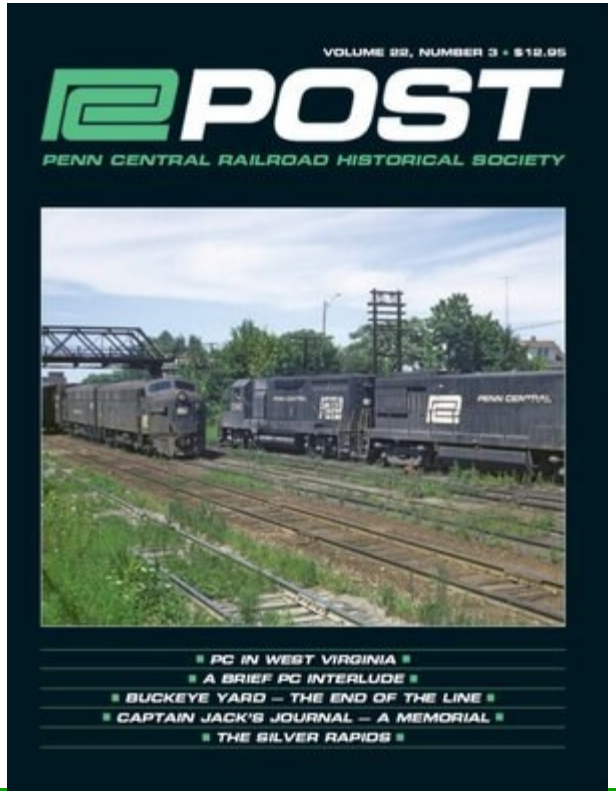
The PCRRHS Model Committee assisted Scale Trains with the Penn Central version of this release.

The PCRRHS Post

From Volume 1, Number 1, in 2000, the *Post* has grown in quality to become a premier historical society publication. Members receive all *Posts* for their calendar year of membership. Three issues are published each year, typically available in March, July, and November.

Most back issues from Volume 10 to the current issue are available. Volume 22, Number 3, is shown below. Some are in very short supply.

View the entire inventory of back issues at https://www.pcrrhs.org/store/post-back-issue. Prices vary, with most at $12.95, which includes postage.



Former NH XIH Boxcar in HO

Coming in 2022 from Eastern Seaboard Models

N scalers should be familiar with the products offered by Eastern Seaboard Models (ESM), but if not, the detail and painting on their rolling stock rivals that of the best in HO. Past runs have included several models a PC Modeler may want. Check out what is currently available at www.esmc.com.

Our subject here is their first HO release, and it should prove to be a popular one. Sometimes referred to as "potato cars", these 40' insulated boxcars were well known for their as-delivered red, white, and blue "State of Maine" paint schemes. As-built, they were also equipped with underslung charcoal heaters. This car has never been done before in ready-to-run plastic. At this time, only pre-production models are available, as shown below.

The first run will be for NH and BAR, but PC will be in the second run. These NH and BAR cars lasted into Penn Central with many NH cars repainted into a solid boxcar red scheme. Quite a few were also sold off and continued to run under OKEX reporting marks. So any way you look at it, a few of these models in different schemes are appropriate for a PC era layout.

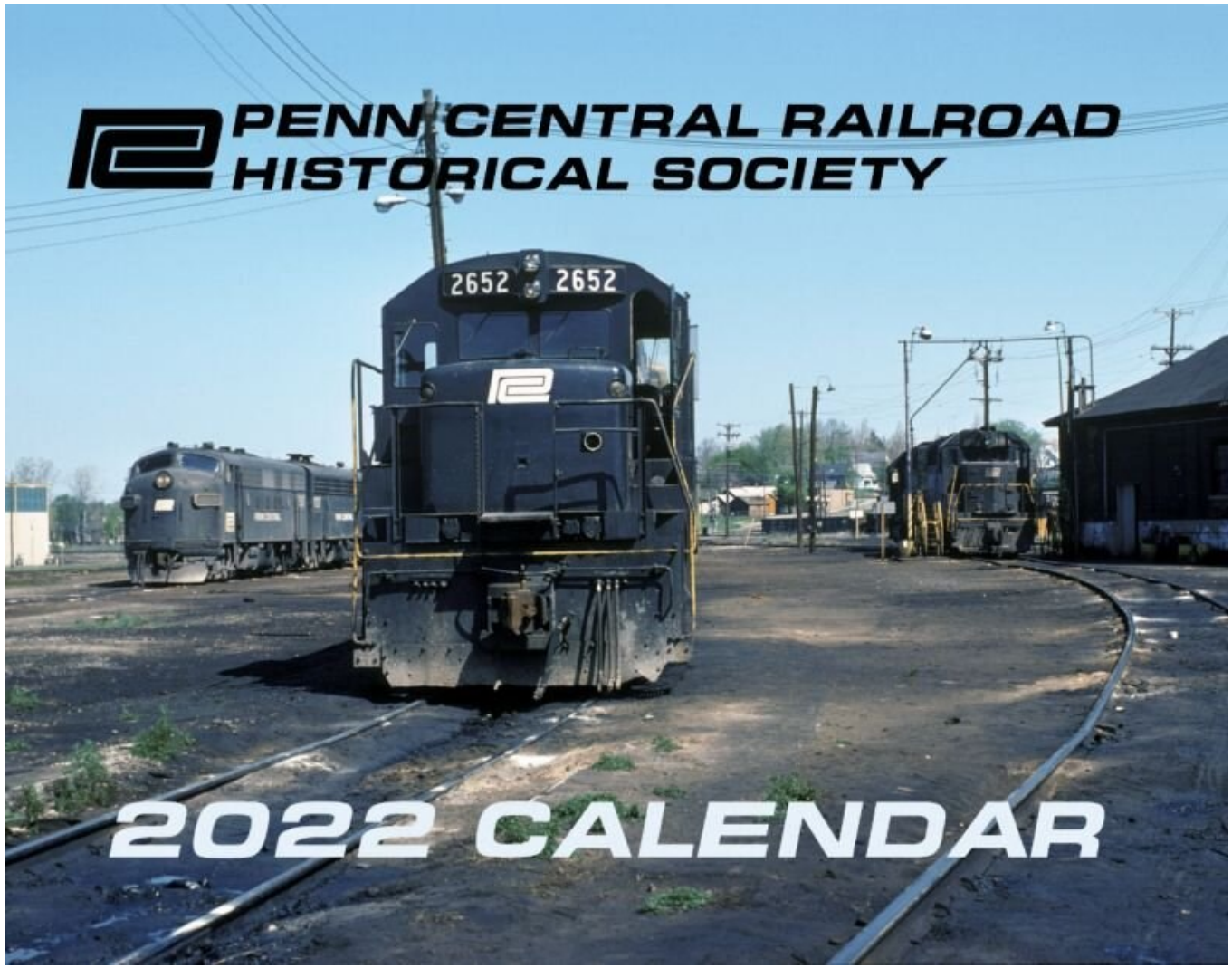
N scale models shown below; HO graphics will be similar.

Exclusive PCRRHS Run of HO Walthers Proto GP9

For 2021 the PCRRHS commissioned a 100 model run from Walthers with a road number different from the three regular stock numbers being produced. It comes equipped with LokSound 5 DCC and sound.

All but 11 were sold to PCRRHS members at a deep discount, and many picked theirs up at the convention in October, also saving on shipping. The remaining have been offered to non-members at the price of $285 which includes shipping. These are for sale now at https://www.pcrrhs.org/store/model/ho-walthers-proto-gp9 and we don't expect them to last long.

The PCRRHS calendar is now available for 2022



For sale now at https://www.pcrrhs.org/store/calendars/2022-calendar is our annual 11”x17” full color wall calendar for the member price of $14.95 and non-member price of $16.95, postage included. One photo for each month plus the cover photo provides 13 images showing a variety of Penn Central equipment and locations. These usually sell out early in the calendar year, so don’t wait to order yours.

Print and mail, or join online and save our Secretary some paperwork! PayPal and credit cards accepted at www.PCRRHS.org !

PENN CENTRAL RAILROAD HISTORICAL SOCIETY

MEMBERSHIP APPLICATION

The Penn Central Railroad Historical Society, Inc, is a 501(c)3 corporation.

Name _____

Address _____

City _____

State _____ ZIP+4 _____ Country (if not USA)_____

Phone (optional)_____

Email (optional) _____

Do you have any special area of interest in the Penn Central? _____

_____

MEMBERSHIP LEVELS – Please indicate your desired membership level.

☐ **Regular $35** ☐ **Regular Canada $40**

☐ **Sustaining $70** ☐ **Regular International $45**

Note: Membership for all classes expires on December 31 of each year.

MEMBERSHIP DIRECTORY – The PCRRHS publishes a membership directory each year to allow members to contact each other. Do you want your name and address included in the directory? (check one)

☐ **YES** ☐ **NO**

THE *POST* – Membership includes all three issues of *THE POST* published in the calendar year, along with an additional mailings.

EMAIL NEWSLETTER – The PCRRHS sends out a periodic email newsletter with society news and events. If you included your email address above, please indicate if you would like to receive our email newsletter. Your email address will not be shared with any external entity (check one):

☐ **YES** ☐ **NO**

Mail completed form with check or money order payable to "PCRRHS" to:
PCRRHS, PO Box 2553, Glenville, NY 12325-2553