



# *Chicago & North Western Historical Society* **MODELER**

Volume 14, Number 2

October 2022

70 foot commuter combine



**Bilevel E-8s**



**Weathering Bowser  
Ballast Hoppers**

## Bill of Lading

October, 2022

### Masthead

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### An Invitation to join the CNW Historical Society

The CNWHS is an independent non-profit educational corporation. The Society's purpose is to foster interest, research, preservation, and the distribution of information concerning the C&NW and related roads. Its membership is spread throughout the United States and numerous foreign countries, and its scope includes all facets of the CNW. Currently the Society has close to 3000 registered members. Members regularly receive a variety of information including a quarterly publication: NWL.

North Western Lines (NWL) is dedicated to the publication of articles and news items of historical significance. Other Society publications include monographs, calendars, equipment rosters, and reprints of original CNW source material. This publication makes otherwise unobtainable data available to the membership at reasonable cost. Membership in the Society is a vote of support and makes all of the Society's work possible. It provides those interested in the CNW with a legitimate, respected voice in the railroad and historical communities. By working together, individuals interested in CNW are able to accomplish much more than by individual efforts. No matter how diverse your interests or how arcane your specialty, others share your fascination with CNW and affiliated railroads.

The Archives Committee of the C&NWHWS is very active and maintains a large collection of the C&NW and related roads. For more information see the CNWHS web site.

Merchandise related to the C&NW, as well as back issues of NWL, Car kits and structure kits for modeling are offered through the CNWHS web site.

Chicago and North Western Historical Society Modeler is a publication of the CNW Historical Society (CNWHS) for the purpose of disseminating CNW modeling information.

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Apologies if I have inadvertently omitted anyone. Any person left out is entirely the fault of the editor.

# AND ONE MAN IN HIS TIME PLAYS MANY PARTS

by Michael Mornard

## -- Shakespeare, "As You Like It," Act II Scene VII

Or, for that matter, one woman in her time.

None of us do only one thing, and that includes me. Doing academic course work leading up to ordination as a Deacon in the Episcopal Church ate up a lot of my time last fall and winter.

But we should all remember to leave time for things we enjoy. So, I now present this issue of "North Western Lines Modeler." Enjoy!

And don't forget, you can find us on Facebook at "Chicago & North Western Modeler".

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## NWL MODELER SUBMISSION GUIDELINES

You can send correspondence (including submissions) to [northwesternlinesmodeler@gmail.com](mailto:northwesternlinesmodeler@gmail.com)

Suggested format:

Body text: Arial 12 point

Titles: Arial 20 point bold, all caps, centered

Byline: Arial 12 point bold, centered

Please avoid tables, grids, or sections

Photo captions: Arial 11 point

It's easier to move photos around if you use "Wrap Text Square". To do this, insert the photo in your article; right click on the photo to get the menu. Near the bottom of that menu you will find "Wrap Text". Click that, then choose "Square" from the choices given.

Thank you all.

Freddie Fluffbuns, Official Office Cat, "Helping"



# MODELING AN HO 70-FOOT ROLLER BEARING COMBINE

by Kenneth Bohl

The “2019 Number 3” *NorthWestern Lines* issue included an article titled “*Modeling HO 70-Foot Roller-Bearing Commuter Coaches*”. This article is a sequel to that. Almost every picture you will find of a commuter train with the 70’ roller-bearing coaches will include a combination baggage/coach car.



These were commuter trains. What good would a baggage section do? The longest trip was under 75 miles, reached in under 2 hours, so there was no need for checking baggage. But during the 1950s & 1960s the railroad delivered newspapers, which were carried in these baggage sections. One of these combination cars is part of the collection of the Illinois Railway Museum in Union, Illinois, which gave me the opportunity to measure for dimensions surrounding the baggage door.

C&NW commuter train, Joe Barth photo, CNWHS website

Chicago & North Western Combination Car  
On the Illinois Railway Museum’s web site

In the first article, I mentioned that HO Railworks produced a 70’ coach which would be suitable, and they also produced a similar combination car. But as I said in that article, these cars are costly and very difficult to locate.



While Athearn produced a coach that was a reasonable starting point for the C&NW coach, the dimensions of their combination car are extremely different from the C&NW car. So once again we begin with a regular coach. This article does not duplicate the techniques given in the first article; it



covers the beginning steps to convert that coach into a combination car. Once you have reached that point, the remaining steps are the same as those given in the first article.

On the combination car the pertinent dimensions around the baggage door are:

- vestibule door to baggage door: 94"
- width of baggage door: 43"
- baggage door to first passenger window: 9'

So that is a total of 20'5" from vestibule door to baggage door. On an Athearn coach, the closest you can come to this is to eliminate 5 windows.

The clear plastic window glass strips are done in two pieces on each side of the car. It's a little easier if you make the end with the shorter window strip (6 windows) be the baggage end.

Use a razor knife to shave off the side edges of the 5 windows. Note that even in the baggage section of the car, there is the same recess at the band of windows with a row of rivets at the top and bottom of it, so do not shave that off.



Shaving off the edges of the first 5 windows

The next couple steps are the most difficult. Fill in the 5 windows on each side with Testor's contour putty. It might seem easier to leave the "glass" windows in place, but it's better to get them out and then glue a strip of styrene over the 5 openings that receive the putty (Besides, you have to get the window strip out of the way where the baggage door will be installed.) You will cut one window out of the "glass" strip and put it back into the one window you don't fill (#6), but no reason to do that now. Do a number of iterations of filling with putty and shaving/filing flat until you are confident that you will

see only a smooth seamless surface. And while you're at it, you may as well begin applying the putty to build out the roof ends to the blunt-end shape (as described in the first article).



Here is the car with some of the shaping done.

Sanding the putty in the windows is kind of tricky. I got the best results with a combination of shaving the putty with the razor knife, and filing with an ultra-thin micro-flex file. The width of the file has to be  $11/32$ " or less so it fits into that recessed window space, and has to be flexible enough that you can press it down against the surface as you file.

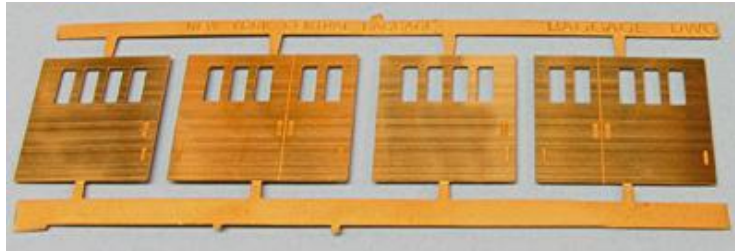
Notice how I press the file and bend it so it files a flat surface.

One way to check your progress as you go through iterations of applying & smoothing the putty is to occasionally paint the area with a paint made for plastic (like ScaleCoat II). In the picture above, I had already done this, and was then correcting the irregularities the painting revealed.





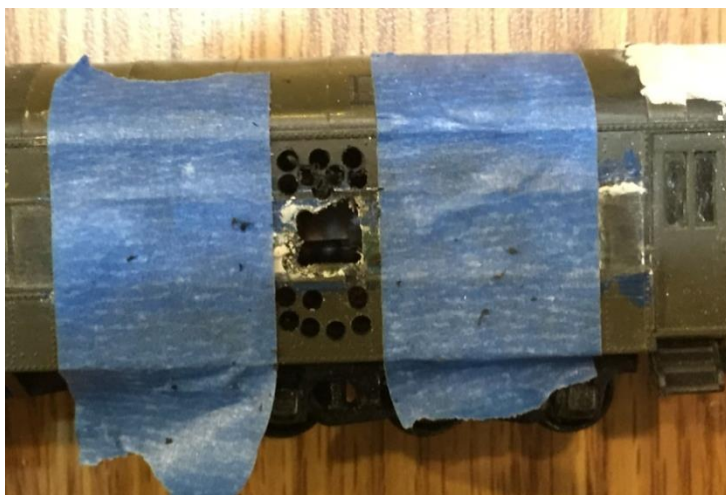
The best choice of baggage doors are made by Bethlehem Car Works as kit #115, known “steel doors (brass) @6.75 ft. and @8.5 ft.” The C&NW baggage door was 43” wide and had 3 windows. The Bethlehem package includes two 4-window doors and two 2-window/3-window door pairs. You have to make a compromise - The 2-window door is only 36” wide (and, of course, the wrong number of windows). The basic size of the 3-window door is 64”. I decided making the width of the opening 49” and not quite using the full width of the 3-window door was the closest look to the prototype.



from Bethlehem Car Works catalog

When it comes to cutting the openings in the sides for the baggage door, it would seem like the easiest way to do it would be to saw up from the bottoms of the sides. The problem with this is the thickness of the floor, defined by the double row of rivets at the bottom of the baggage door. What you want is a blind rectangular hole that does not go below the band of rivets at the bottom of the side above the band of rivets along the bottom edge of the roof.

prototype door, showing to space that should be left at the top and the bottom



The technique I used was first to apply masking tape to the sides to define the door location, then drill many holes, enough that the plastic between them can be cut away to create the opening. Then use a file to open that doorway up to create straight edges, being careful not to go beyond the size of the baggage door.

holes drilled in model to create door opening

Cutting away the floor sides by the door is not essential, but it ensures that the door won't catch on it when you assemble the car.



Here is the car body with the door opening filed open to the correct-size rectangle. Once the openings on both sides are the correct size and placement, apply the baggage doors from the inside with super-glue or epoxy - First prime them, as they are metal and the rest of the car is plastic.. The sides of the separate floor go up  $\frac{1}{4}$ ", so you will have to cut that part away, also.

Now is the time to go through all the steps in the first article:

- Create the blunt-end roof.
- Change to 4-wheel trucks.
- Add utility vents.
- Paint the car.
- Apply decals. (These cars were numbered 7700-7723. On #7700 at the Illinois Railway Museum, the number appears at both ends of the car, but in every other picture I have seen there is just one number in the middle of the car.)
- Change the undercarriage, removing large battery boxes.
- Add interior detail.
- Add lighting.
- Put a tailgate and tail light at the baggage end so the engine can be brought around to the other end of the train and the combination car can bring up the end (usually on the inbound trip, as shown in this picture).





The cars of trains were not turned, so on the inbound trip the combination car brings up the rear.

B.L Stone, George Krambles collection  
from Chicago & Northwestern in Color vol 1, Lloyd Keyser

There are several details about the techniques that I learned from experience and did better the second time around:

- When you remove the old 6-wheel trucks, before you install the 4-wheel trucks, shave off all the underbody ribbing and the truck bolster. The 4-wheel truck gets centered  $\frac{3}{8}$ " closer to the middle of the car than the mounting of the 6-wheel truck. Hold the 4-wheel truck there to indicate the range of where you should do this. Shave everything down until you have a basically smooth underside there. It's much easier to do it then.
- There are four small tabs on the bottom edges of the car body (extensions of the truck bolster), and two larger slot tabs on the car floor that originally fit into the slotted holes in the battery boxes. You may prefer to not see these, but I now have decided it's better not to file them off. The six tabs keep the car body and the floor aligned properly.
- Athearn coaches by nature are not very delicate. You can handle them and store them as you wish. But with the modification of adding the 12 utility vents to the roof, **those** are quite easy to pop off (and lose). If your car(s) will run on a home layout and remain out on the track, no problem. But if you are bringing them to a model railroad club, keep the following things in mind:
  - Avoid laying the car on its roof or sides - Keep it upright.
  - Avoid touching the roof.
  - Here is way I found to transport cars safely: I carry them in "BCW Playing card boxes". These are a good width for two cars, so I cut one box into strips to use the strips as box dividers. I lay a section of paper towel on a table and set the car on it upright. I then grab the two edges of the paper towel so it half-wraps-up the car and lay it in the box. I then insert wads of Kleenex at both ends. When I take the car out, I lift it by the edges of the paper towel.



Here is the completed combination car leading ahead of a full coach. The combination car is even less of a “fine scale” model than the coach was, but it is still really nice to have a typical consist in a commuter train.



at Prairie Scale Model Railroaders club in Lombard, IL



# KITBASHING C&NW E8s #5021A AND #5021B FOR '400' BI-LEVEL SERVICE IN N SCALE

by Dave Prawdzik

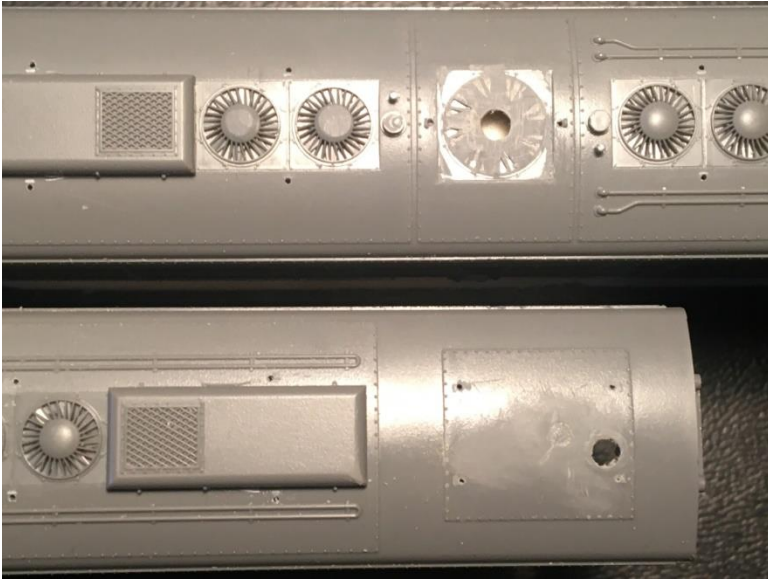


In June 1957 C&NW intended to purchase Bi-Level passenger cars for the '400' service similar to the first 16 delivered in September and October 1956 that were in commuter service at the time. Unlike the first B-Levels the '400' Bi-levels were built with the need for HEP power for electric heat, lighting, air conditioning instead of steam for heating. They were ordered from Pullman-Standard in the late fall 1957 and in revenue service October 16, 1958. With the need for HEP power C&NW rebuilt/converted 4 E8's and 2 F7's for electric operation of the B-Levels. The steam generators were placed with Cummins Diesel motors and a Marathon 480 volt alternator. This was another first for C&NW and North American railroads. Ultimately all other E8's and F7's units in passenger service were converted with HEP power. This is how I proceeded to detailed 2 Kato's N Scale undecorated E8's into C&NW's #5021A and 5021B for '400' Bi-Level service. Further information on C&NW's "400's" go to CNWHS picture archives and also Jim's Scribbins 'The 400 Story'.



Picture 1, This modification/kit bashed started with 2 Kato's undecorated E units.



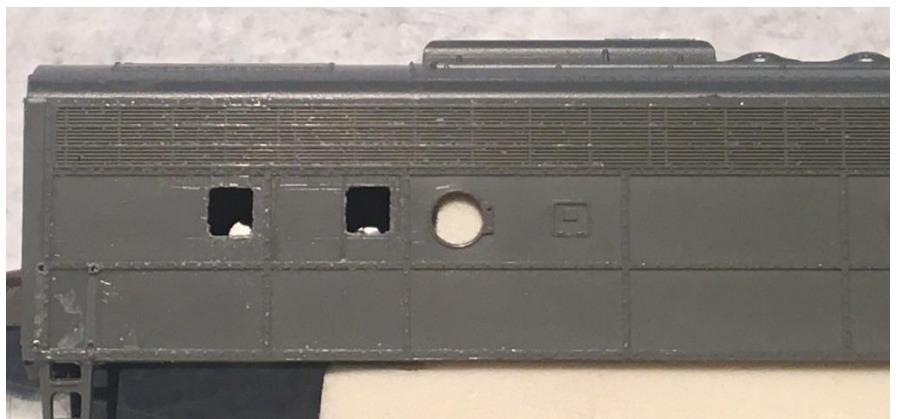


Picture 2, The removal of steam generator details, part of the dynamic brake fan an original horns. Also at this time I drilled 14 #80 holes for the lift rings.

Picture 3, The areas that were filed/sanded that were filled with white Squadron Putty. The steam generator details, dynamic brake fan area and original horn holes.



Picture 4, The addition of square vents in the rear car body, each side.





Picture 5, Number boards, molded on grab irons filed/sanded smooth. Atlas Nathan 5 chime horn in place, not glued in. Gold Metal Models ladder braces in place. 44 #80 holes were drilled for the grab irons.

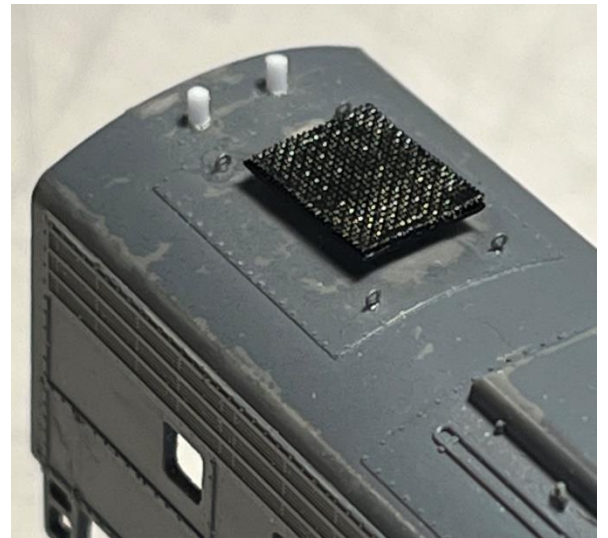


Picture 6, Gold Medal Models sunshades glued in. Homemade grab irons in place, not glued in.



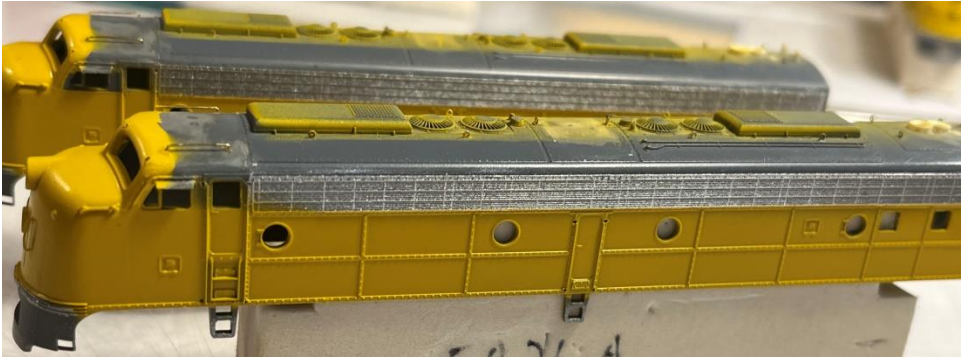
Picture 7, HEP power Intake Pipes and HEP exhaust pipes added.

Picture 8, Gold Metal Models lift rings glued in place. The HEP power protective screen in placed, not glued in place.



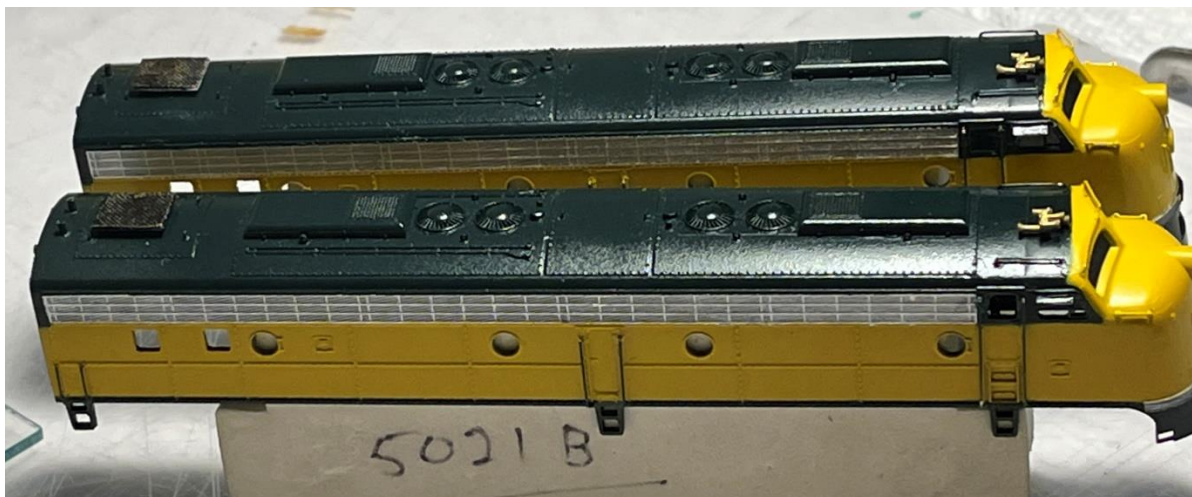
Picture 9, I hand painted the side grills silver.





Picture 10, The units were painted with Tru-Color C&NW early yellow and waited a few day for the paint to cure fully.

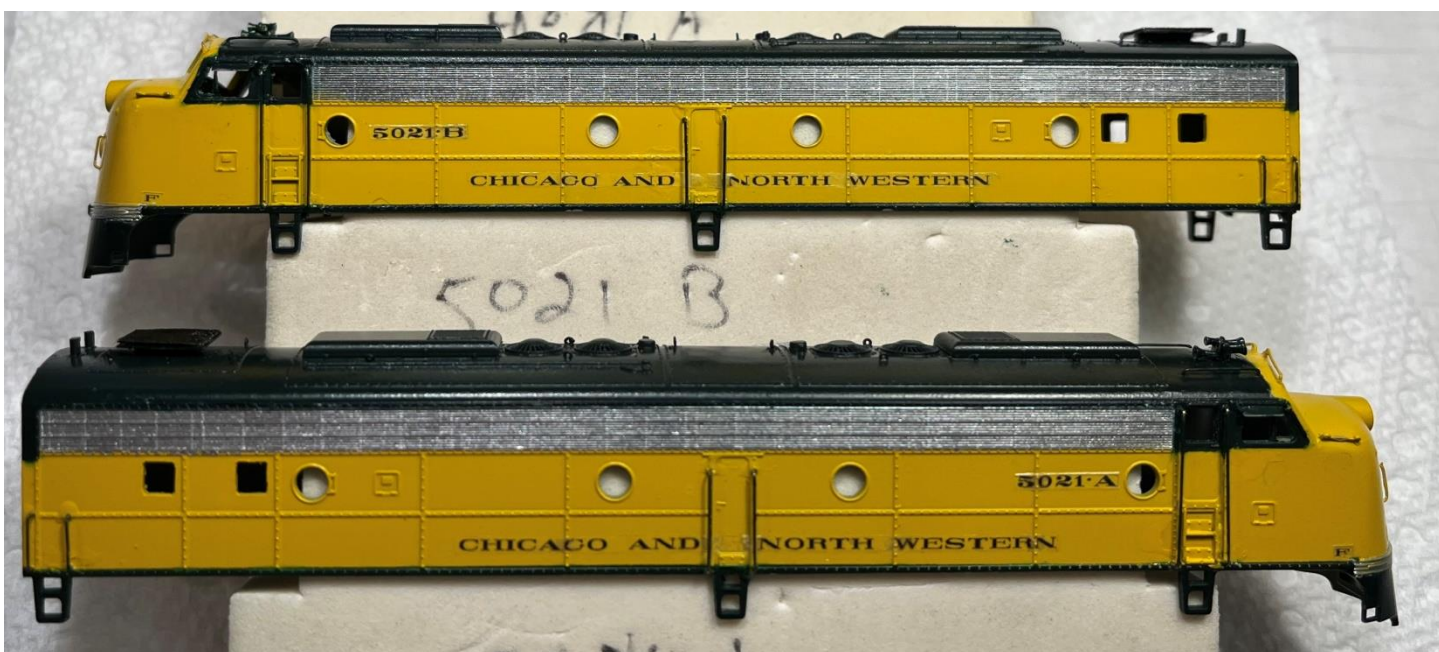
Picture 11, I taped, airbrushed Tru-color C&NW green, removed the tape, touched up area's and set aside for a few days for paint to cure.



Picture 12, The installation of balance of the grab irons and painted C&NW green, Atlas-BLMA Nathan 5 chime horns and the intake grills/screens over the HEP Power intake pipes.



Picture 13, The Printing out with paper cutouts for proper lettering size and spacing before decals made.

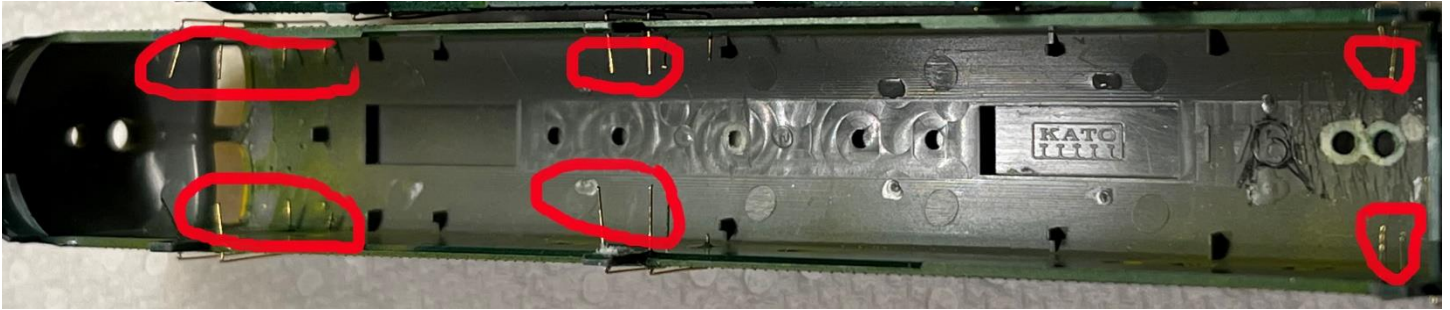


Picture 14, Homemade decals applied.



Picture 15, Microscale nose decals applied. Several coats of decal setting solution applied to all decals.





Picture 16, The legs of the homemade grab irons, cut and filed flush/smooth inside shell before windshield, headlight, side glass and drive mechanism reinstalled.



Picture 17, Windshield, headlight, side glass, Kato's short shank front coupler, Key dummy couplers on the back for close coupling and along with the drive mechanism reinstalled. The units are ready to earn their keep in C&NW,s "400" Bi-Level revenue service.



# WEATHERING BOWSER HO BALLAST HOPPERS

by Murray Bouschlicher  
Photos by the author unless otherwise noted

These two Jeff Eggert photos really show how grungy the prototype gets.





Photos 1 & 2: The trucks and outlet gates have been weathered on all three Bowser cars. Truck side frames were spray painted with Rust-Oleum 'Camouflage 1916 Black' and the wheel faces and axles were painted with Model Master 'RR Tie Brown' using a microbrush. I like being able to read the reporting marks, so the cars aren't as dark as the prototype photos provided by Jeff Eggert.



Closeup of one weathered hopper



All three cars, showing the contrast of the fully weathered car.

Photos 3 & 4: Show all three cars weathered. The outlet gates were brush painted with Vallejo Air 'Steel'. Following that the cars with sprayed with Dullcote or a similar product. Monroe Models Medium Earth was liberally applied with a soft short-bristled brush and streaked vertically on the side



panels. I used white glue thinned 50:50 with water and drop of detergent to affix Arizona Rock & Minerals Pink Lady ballast atop the Bowser plastic load. This step may need to be repeated if there are areas where the plastic load is visible.



Our string of three, properly weathered for the “Cheap & Nothing Wasted”



A Geep for power and a waycar for the crew, and we're ready to go!