



# The Keystone Modeler

Pennsylvania Railroad Technical & Historical Society

No. 85

Summer 2013

## Inside:

- Annual Meeting Models
- US&S Electro-Pneumatic Interlockings, Part 2
- Broadway NW2 Switcher Review
- PRR TrucTrain Trailers, Part 1





# The Keystone Modeler

Pennsylvania Railroad Technical & Historical Society

Published Quarterly by  
The PENNSYLVANIA RAILROAD  
TECHNICAL AND HISTORICAL SOCIETY  
A non-profit organization

## OFFICERS

President	Bruce F. Smith
Vice President	Edward Swain
Corporate Secretary	Ralph M. Weischedel
Treasurer	Richard McCarty
General Counsel	James G. Trope
Publisher	Frederick V. Shaefer
Editor	Chuck Blardone
Assistant Editor	Tim Garner
Membership Coordinator	Andrew J. Hart
Membership Expediter	Brady McGuire
Public Relations Manager	Edward Swain
Station & Archives Chairman	Rich Ader
Marketing and Sales Director	Fred Freitas
Inventory Coordinator	Donald E. Harper Jr.
Donations Administrator	John W. Romig
Historian	Christopher T. Baer
Webmaster	Steve Agostini

## BOARD OF DIRECTORS

<u>Term Expires 2013</u>	<u>Term Expires 2014</u>
Bruce F. Smith	Frank Napoleon
Ralph M. Weischedel	Dave Scott
<u>Term Expires 2015</u>	
Jack Consoli	
Edward Swain	
Marino (Joe) Acri	

## THE KEYSTONE MODELER STAFF

### EDITOR

Jim Hunter  
[jhunter6360@comcast.net](mailto:jhunter6360@comcast.net)

### ASSOCIATE EDITOR

Jack Consoli  
[jjconsoli@comcast.net](mailto:jjconsoli@comcast.net)

### NEWSWIRE EDITOR

Steve Hoxie  
[stevehpr@cox.net](mailto:stevehpr@cox.net)

### EDITOR EMERITUS

Al Buchan  
[abbuchan1@comcast.net](mailto:abbuchan1@comcast.net)

### CHAIRMAN MODELING COMMITTEE

Elden Gatwood  
[Elden.J.Gatwood@sad01.usace.army.mil](mailto:Elden.J.Gatwood@sad01.usace.army.mil)

### ART DIRECTOR

Tim Garner  
[t.a.garner@verizon.net](mailto:t.a.garner@verizon.net)

Send comments and corrections to the Editor at:  
[jhunter6360@comcast.net](mailto:jhunter6360@comcast.net)

## MEMBERSHIP INFORMATION

PRRT&HS, PO Box 54, Bryn Mawr, PA 19010-0054

### PRRT&HS MONTHLY E-NEWS

[Keystone-e-news-request@lists.keystone-pubs.org?Subject=subscribe](mailto:Keystone-e-news-request@lists.keystone-pubs.org?Subject=subscribe)

## NUMBER 85

## CONTENTS

## SUMMER 2013

### FROM THE CAB

*Jim Hunter, Editor* ..... 3

### TKM NEWSWIRE

*By Steve Hoxie* ..... 4

### MODEL PHOTOS FROM 2013 PRRT&HS ANNUAL MEETING

*By Jack Consoli* ..... 7

### MODELING PRR US&S ELECTRO-PNEUMATIC INTERLOCKINGS – PART 2

*By Tim Garner* ..... 18

### PRODUCT REVIEW: BROADWAY LIMITED EMD NW2 PRR DIESEL SWITCHER

*By Tim Garner* ..... 25

### PENNSY MERCHANDISE AND TRUCTRAIN TRAILERS – PART 1A:

#### SHORT MERCHANDISE TRAILERS

*By Curt LaRue* ..... 33

### FRONT COVER, TOP

*Doug Nelson built this industrial street switching scene to showcase his N scale model of a PRR rubber tire switcher. See page 10. (Jack Consoli)*

### FRONT COVER, MIDDLE RIGHT

*Completed HO-scale Sylvan Models trailer kit for PRR TrucTrain service. (Photo and model by Curt LaRue)*

### FRONT COVER, BOTTOM RIGHT

*Modified Broadway Limited Imports' NW2 at the rebuilt "WILL" Interlocking on Tim Garner's layout. (Tim Garner)*

### FRONT COVER, BOTTOM LEFT

*Andy Rubbo's "Best of Show" diorama of "LANE" Interlocking. (Jack Consoli)*

## The Keystone Modeler

This publication of the PRRT&HS is for the purpose of disseminating PRR modeling information. The copyright is owned by the Pennsylvania Railroad Technical and Historical Society – all rights reserved. It may be reproduced for personal use only. Not for sale other than by the PRRT&HS.

Manuscripts and photographs submitted for publication are welcome. Materials submitted are considered to be gratis and no reimbursement will be made to the author(s) or the photographer(s) or his/her representative(s). The Society reserves the right to reject, for any reason, any material submitted for publication.

Please contact the editor for information and guidelines for submission. Photo files 800x600 pixels or larger in JPG format are preferred. Statements and opinions made are those of the authors and do not necessarily represent those of the Society.

## The Keystone Modeler on CD-ROM

Disc 1	August 2003 to July 2004	TKM Nos. 1 – 12
Disc 2	August 2004 to July 2005	TKM Nos. 13 – 24
Disc 3	August 2005 to July 2006	TKM Nos. 25 – 36
Disc 4	August 2006 to July 2007	TKM Nos. 37 – 48
Disc 5	August 2007 to July 2008	TKM Nos. 49 – 60
Disc 6	August 2008 to Autumn 2009	TKM Nos. 61 – 71
Disc 7	Winter 2010 to Autumn 2010	TKM Nos. 72 – 75
Disc 8	Spring 2011 to Winter 2012	TKM Nos. 76 – 79

Each disc is \$15.00. There is also a disc containing all issues from 1 to 48 for \$60. If you are a resident of Pennsylvania, please include PA sales tax. Send a check or money order in US dollars payable to PRRT&HS to:

**Jim Hunter**  
4306 North Victoria Way  
Harrisburg, PA 17112-8641

To subscribe to **The Keystone Modeler**, click on the link below and send:  
<mailto:the-keystone-modeler-request@lists.keystone-pubs.org?Subject=subscribe>

To unsubscribe, click on the link below and send:  
<mailto:the-keystone-modeler-request@lists.keystone-pubs.org?Subject=unsubscribe>





A recent exchange on the Steam Era Freight Cars list prompted some reflection on my part about modeling. It seems that whenever there is a significant change in the quality or quantity of commercially produced models, somebody expresses fears for the future of the hobby. In his comments on the STMFC list, Tony Thompson noted that the emergence of plastic kits in the 1950s produced a similar discussion about whether there would still be a place for modeling. Of course, there was!

After the advent of the Athearn "blue box" kits, the modeling press began to publish article after article on how to kitbash an Athearn kit to more closely resemble something else. Even today's resin kits can be slightly modified or interestingly weathered to suit a modeler's desires.

I, too, have sometimes become pessimistic about the future of modeling, particularly with respect to locomotives. Why should I attempt to scratchbuild, or kitbuild, or kitbash when so many beautiful, factory-painted locomotives are on the market? And yet, not every prototype has been commercially modeled, details can be tweaked or improved, and weathering can make a model unique.

Here in the pages of *TKM*, and in the models displayed at our annual meetings, we see that modeling is alive and well. In this issue, I hope you will enjoy Part II of Tim Garner's pneumatic switch machines, Tim's review of BLI's NW2, photos from the display room at the 2013 Annual Meeting, and Curt LaRue's Pennsy trailer modeling.

**Jim Hunter**, Editor

## The Pennsylvania Railroad Technical & Historical Society

The purpose of the Pennsylvania Railroad Technical & Historical Society is to bring together persons interested in the history and modeling of the Pennsylvania Railroad, its subsidiaries and its acquired companies. Our goals are to promote the preservation and recording of all information regarding the organization, operation, facilities, and equipment of the PRR.

The Society's quarterly illustrated journal, *The Keystone*, has been published continuously since 1968. Each issue of 64 or more pages contains illustrated original authoritative articles about locomotives, cars, other equipment, facilities, and operating practices of the PRR. The Society also publishes its own thoroughly researched books and other materials concerning PRR history. *The Keystone Modeler* is also a quarterly special 30-plus page online publication of the Society.

The Society meets annually, usually during a weekend in early May, providing an opportunity for its members to get together and learn more about the PRR. Local chapters around the country also provide members and guests with regular meetings that feature PRR related programs.

Information about our Society may be found on our website – [www.prrths.com](http://www.prrths.com). To join the Society, send \$35.00 to:

**PRRT&HS**  
PO Box 54  
Bryn Mawr, PA 19010-0054

All memberships are for a calendar year, back issues of *The Keystone* for the current year are sent upon joining. Overseas membership has added postage fees.

## PRRT&HS Interchange

*Selected Society Merchandise of Interest to Modelers*

### PRR EQUIPMENT DRAWINGS ON MICROFILM

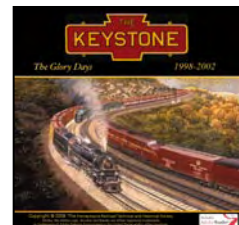
Copies of PRR equipment drawings are available from the Society's microfilm collection. To order drawings, you must know the drawing number and title. Ordering information and lists of arrangement drawings are available on the Society's website. Go to [www.prrths.com](http://www.prrths.com), select National Society, and then The Interchange. If you require a printed copy of this information, please send your address and a check for \$2.00 made out to PRRT&HS to:

**Richard C. Price**  
779 Irvin Hill Road  
McVeytown, PA 17051

### THE KEYSTONE CD 5

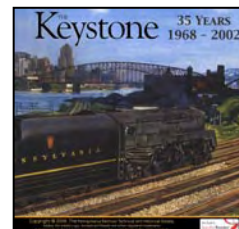
*The Keystone* CD No. 5, *The Glory Days*, covering 1998 to 2002, is now for sale at the price of \$75 for members. New Jersey residents add \$5.25 sales tax. Order CDs from:

**Al Buchan**  
785 Cornwallis Drive  
Mt. Laurel, NJ 08054-3209



### THE KEYSTONE DVD 1

*The Keystone* DVD No. 1 covering 35 years of *The Keystone* from 1968 to 2002 is available. The navigation of this product is being upgraded as are some of the administrative notes and text. The improved edition will be ready for ordering soon. Those few who have already purchased the DVD will be able to trade it in for a new one when it's available. The price of this DVD is \$375. *This DVD requires a computer with a DVD drive. It is NOT a video disk that can be played on a DVD player for viewing on your TV.*



## PRR Product News

ATLAS MODEL RAILROAD CO.

<http://www.atlasrr.com/>

PRR Alco S-2 (AS10)—HO Scale



(Atlas Model Railroad Co.)

In the Winter 2013 issue of *TKM* we announced that **Atlas** has completely retooled their venerable S-2 (AS10) switcher. Now we have learned that the sound version will use the ESU LokSound Digital Sound Decoder. Expected arrival is now 4th quarter 2013.

PRR Alco S-2 (AS10) – N Scale

**Atlas** is also producing the S-2 (AS10) in N scale. It will be offered in a DC version as well as a version using the ESU LokSound Digital Sound Decoder. It's expected to be available in the 4th quarter of 2013.

BACHMANN TRAINS

<http://www.bachmanntrains.com/>

PRR GG1—HO scale

**Bachmann** is developing a model of the GG1 with four different PRR paint schemes. There will be a DCC ready version as well as a sound version incorporating a Sound Value SoundTraxx decoder. It is expected to be available in October 2013.

PRR EMD NW2 (ES10) Switcher—N Scale

**Bachmann** has introduced an N scale model of the NW2 using all new tooling. It is DCC equipped and uses a coreless motor. It's expected to be available in September 2013.

PRR PB70 Combine and P70 Coach—HO Scale

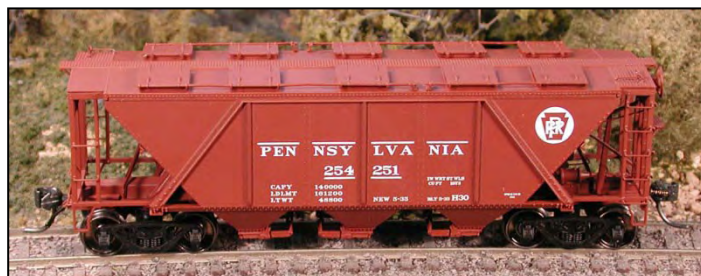
**Bachmann** PB70/P70 passenger cars have been around for many years. Maligned in some quarters for having too prominent and incorrect details, inaccurate trucks, and troublesome coupler attachment, there may now be improvement. Now the company has re-introduced these cars as "72' Heavyweight Combine" and "72' Heavyweight Coach"

citing "new and existing tooling". Until the models become available in October 2013, we will be unable to judge how much improvement has been made. I am hopeful. **Bachmann** has been doing a very good job with recent models. If you doubt that, get a B&O friend to show off his very, very nice EM-1.

BOWSER MANUFACTURING

<http://www.bowser-trains.com/>

PRR H30 Covered Hopper – HO Scale



(Bowser)

**Bowser** has available on their website photos showing samples of each of the paint schemes. Delivery is expected late August.

PRR H43A Hopper – HO Scale



(Bowser)

**Bowser** also is producing the H43A open hopper ready to run with metal wheels. Delivery is expected late August.

PRR Baldwin BS10A Switcher – HO Scale



(Bowser)



In addition, **Bowser**, as part of their Executive Line, is marketing a model of the Baldwin DS 4-4-1000 switcher, PRR class BS10A, equipped with either DC or DCC and sound using the ESU LokSound Digital Sound Decoder. It is due late August.

**BROADWAY LIMITED IMPORTS**

<http://www.broadway-limited.com/>

**PRR Baldwin BF16 Sharks – HO Scale**



(BLI)

**BLI** has announced BF16 Baldwin Sharknose Diesels. They are being offered in A and B units with the as-built five stripe scheme. They are being marketed as two differently numbered sets of a powered with sound/DC/DCC A unit and dummy B, a single powered sound/DC/DCC A unit, and a single powered sound/DC/DCC B unit. Sound decoders are the company's Paragon2.

**PRR EMD NW2 (ES10) and SD9 (ES17m) – HO Scale**

Also from **BLI**, the latest runs of the EMD NW2 (ES10) switcher (reviewed in this issue) and SD9 (ES17m) are now available.

**PRR As-Delivered T1 4-4-4-4 – HO Scale**

Arriving in September 2013, **BLI** is producing another run of the "as-delivered" version of the T1 with Paragon2 sound/DC/DCC.

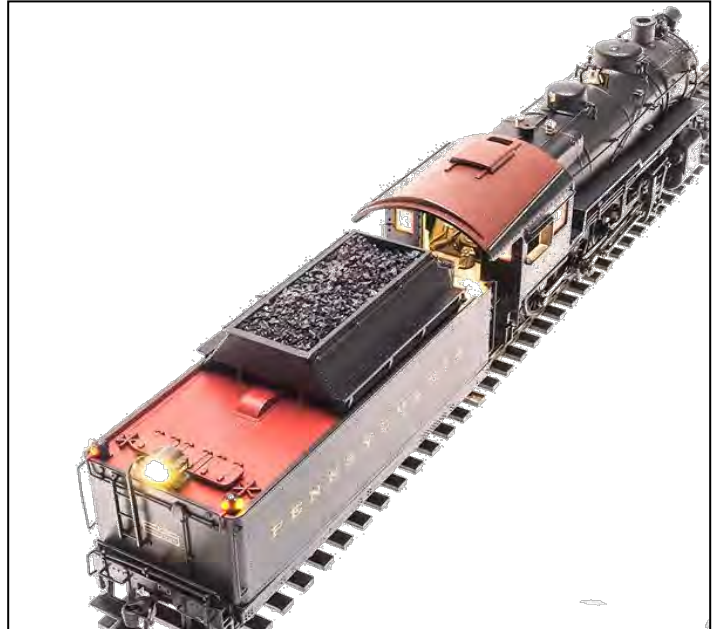
**PRR PA1/PB1 (AP20)--N Scale**



(BLI)

**BLI** has developed the attractive PA1/PB1 in dark green locomotive enamel with five "metallic gold" stripes. Unpainted A and B units will also be available. The models are being offered as a powered A with dummy B, and separate powered A and powered B units. Powered units all have a Paragon2 sound decoder and will operate on either DC or DCC. It's scheduled to be available in October 2013

**PRR H10s – HO Scale**



First generation pre-production image. (BLI)

Progress on the H10s continues. Expected delivery is now December 2013. Photos of the pre-production sample model are available at <http://www.broadway-limited.com/images/view.aspx?productId=2673>

**DIVISION POINT**

<http://www.divisionpoint.com/site/>

**PRR/B&M/MEC/NYNH&H East Wind Passenger Train – HO scale**

**Division Point** is currently planning brass models of the joint B&M/MEC/NYNH&H/PRR

*East Wind* which operated between Bangor, Maine, and Washington, DC, from 1940 to the late 1950's. Contact a **Division Point** dealer for reservations.

**PRR RS2/RS3/RSD5 – HO Scale**

Howard Holland is working with **Division Point** to market brass models in these configurations:

- Alco RS2 (Ex D&H) – 6 road numbers (10 models)
- Alco RS3 "as-delivered" with Trainphone antenna – 3 road numbers total (20 models)
- Alco RS3 with angled number boards and Trainphone antenna – 3 road numbers total (20 models)

- Alco RS3 with double Trainphone antenna – 3 road numbers total (20 Models)
- Alco RS3 “hammer head” as delivered with Trainphone antenna – 1 road number (15 Models)
- Alco RSD5 with no antenna – 6 road numbers (10 Models) a “Howiesbrasstrains Exclusive”

Contact Howie at [hph45@juno.com](mailto:hph45@juno.com) for additional information and reservations.

#### EASTERN SEABOARD MODELS

<http://www.esmc.com/>

#### PRR G32C Gondola—N Scale

ESM has announced that the G32C will be available in September.

#### PRR G41A Coil Car—N Scale

Production of the Coil Car obtained from Rail Yard Models by ESM has been pushed back to 2014.

#### FUNARO & CAMERLENGO

<http://www.fandckits.com/>

#### PRR X42 Express Boxcar Kit—HO Scale

F&C has produced a resin model of the X42 60 ft express boxcar. The kit has a one piece body, Circle Keystone decals, less trucks and couplers. Currently available.

#### PRR GPA Hopper Kit—HO Scale

F&C is marketing a resin kit modeling the GPA class open hopper. This kit also has a one piece body, includes MOW decals, less trucks and couplers.

#### MOUNT VERNON SHOPS

<http://www.mountvernonshops.com/>

#### PRR X26C Decal Set—HO Scale

MVS has produced a decal set for the X26C boxcar in the circle keystone scheme. Sufficient numbers and data are provided to letter four cars. Data for the lone X26A is also included.

#### S SCALE AMERICA

<http://www.desplaineshobbies.com/store/search/brand/S-Scale-America/>

#### PRR X29 Boxcar Kit – S Scale

A small division of Des Plaines Hobbies, **S Scale America** is producing this injection molded plastic kit with wire grabs and metal wheels. A pre-production model was seen at the NMRA National Train Show last month. Release date is to be announced.

#### TRAINCAT MODEL SALES

<http://www.traincat2.com/>

#### Various Models—HO and N Scale

Traincat advises that they are neither closed nor going out of business. Several new models are being developed for release during the upcoming months. A complete statement is on their website.

## Upcoming Events

**September 13-14** Stafford, Virginia

#### Mid-Atlantic Railroad Prototype Modelers Meet

<http://www.marpm.org/>

**October 17-19** Lisle, Illinois

#### Naperville Railroad Prototype Modelers Conference

[http://www.railroadprototypemodelers.com/naperville\\_meet.htm](http://www.railroadprototypemodelers.com/naperville_meet.htm)

**October 26** Monroe, Washington

#### 2013 Pacific Northwest Railroad Prototype Modelers Meet

TBD

**October 26-27** Timonium, Maryland

#### Great Model Train Show

<http://www.gsmts.com/>

**November 7-9** Pittsfield, Massachusetts

#### The Finescale Modeler Expo 2013

<http://www.modelrailroadexpo.com/>

**December 7-8** Marlborough, Massachusetts

#### New England Model Train EXPO

[www.hubdiv.org/fallshow/index.htm](http://www.hubdiv.org/fallshow/index.htm)

## Advance Planning

**January 9-11, 2014** Cocoa Beach, Florida

#### Prototype Rails Railroad Prototype Modelers Meet

<http://www.prototype Rails.com/>

**January 25-26, 2014** West Springfield, Massachusetts

#### Amherst Railway Society Railroad Hobby Show

<http://www.railroadhobbyshow.com/>

**May 1-4, 2014** Camp Hill, Pennsylvania

#### PRRT&HS Annual Meeting

[http://www.prrths.com/conventions/PRR\\_Annual.html](http://www.prrths.com/conventions/PRR_Annual.html)

**July 13-19, 2014** Cleveland, Ohio

#### NMRA National Convention and National Train Show

<http://www.2014cleveland.org/>





# Model Photos from 2013 PRRT&HS Annual Meeting

By Jack Consoli



This waterline HO model of the tug Philadelphia was kitbashed by Steve Getty using two Walthers Tugboat kits as its basis. Sea Port Model Works pilot house interior and searchlight parts along with Grandt Line D&RGW station door transom windows were incorporated to help represent the boat in its c.1954 appearance. The kit decals along with Tamiya Dark Red and Walmart Primer Grey paints were used to finish this model. Photographs and a painting of the prototype appeared in Vol. 25 #1 (Spring 1992) of THE KEYSTONE.



John Frantz finished this HO Railworks brass model with Mount Vernon Shops decals and an all-red paint scheme to represent a WWII era car: one of the four-digit N5 cabin cars assigned to REA express service.





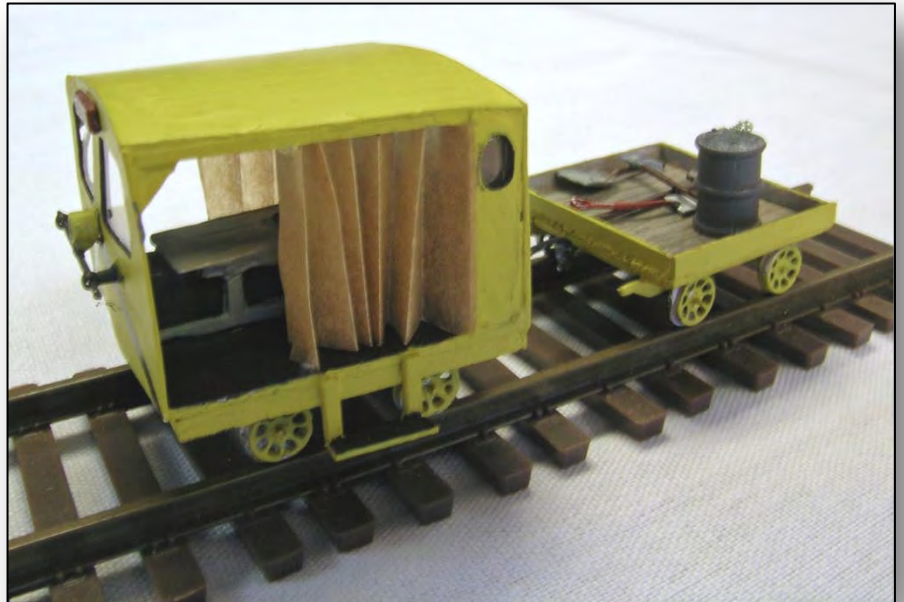
This HO Funaro & Camerlengo F29 resin kit with the distinctive kit-supplied Kiesel six-wheel trucks was built by Eric Thur along with a kitbashed/scratchbuilt transformer load. The model represents one of 10 such cars built in 1938.



Matthew Hurst brought an extensive display of HO scale Huntingdon & Broad Top scratch-built locomotives, kit-built freight cars and two scenic vignettes. This is the village of Aitch (near present day Marklesburg, PA) diorama circa late 1946/early 1947. The location was almost half way between Saxton and Huntingdon at the top of a slight grade. Modeled are the most prominent features of the town: the standard-design H&BT station and enclosed water tank and the general store. All this area was later obliterated by the formation of Raystown Lake. Matthew's father, Steve, built all these structures and vehicles. Scenery is a mixture of real earth and leaves, Woodland Scenic's static grass and Super Tree's trees.



Rob Berridge built a Wiseman Model Services S scale section car kit and scratchbuilt a styrene body to go on one of their Sn3 speeder kit frames. He painted them with Model Master Yellow Chromate.



John Johnson displayed this group of HO gondolas all from the circle keystone era.



This HO H21A was a Bowser kit modified per the PRR PRO project discussions by Yank Yankolonis. This mid-fifties rendition of the car incorporates A-Line sheet lead weights in the center sill and a MOTRAK Models coal load.





Tom Hayden kitbashed this pair of HO X43A boxcars starting with C&BT 12 panel boxcar kits. He scraped off the rivet details and added simulated weld seams. On 603062 he used fine copper wires. On 602397 he simply scribed lines in the plastic sides. Added details included Branchline roofwalks and end details, Kadee brake wheels and the cars were finished with Champ HB303N decals.



Doug Nelson built this industrial street switching scene to showcase his N scale model of a PRR rubber tire switcher. This is one of the recent offerings of models formed using commercial 3-D printing technology, this particular one coming from Shapeways (<http://www.shapeways.com>).





This N scale N4 cabin car was kitbashed by Claus Schlund from two Arnold cabooses. His model was built to represent the lone N4 prototype as it appeared in 1929.



A rarely modeled PH passenger coach was assembled by Claus Schlund from scratchbuilt sides and commercial details. This N scale model is also meant to replicate a circa 1929 car.



Claus Schlund's recreation of the "Clevelander" was the winner of the Yagodich Award this year, which honors models that exhibit extraordinary efforts to faithfully recreate the prototype. Although the DD1 locomotives are stock brass models, each of the 10 cars forming this train required heavy modifications to match the prototype as it existed in 1929.





Doug Nelson's N scale K4s 3882 is a Minitrix model that has had many upgrades applied, including tender drive.



▲ Gus Minardi brought a display of 51 different HO truck models, all with some level of customization or kit bashing/kit combining to achieve the desired prototype appearance. This is a dual axle dump. This is one of several different coal delivery trucks in Gus's display. ▲

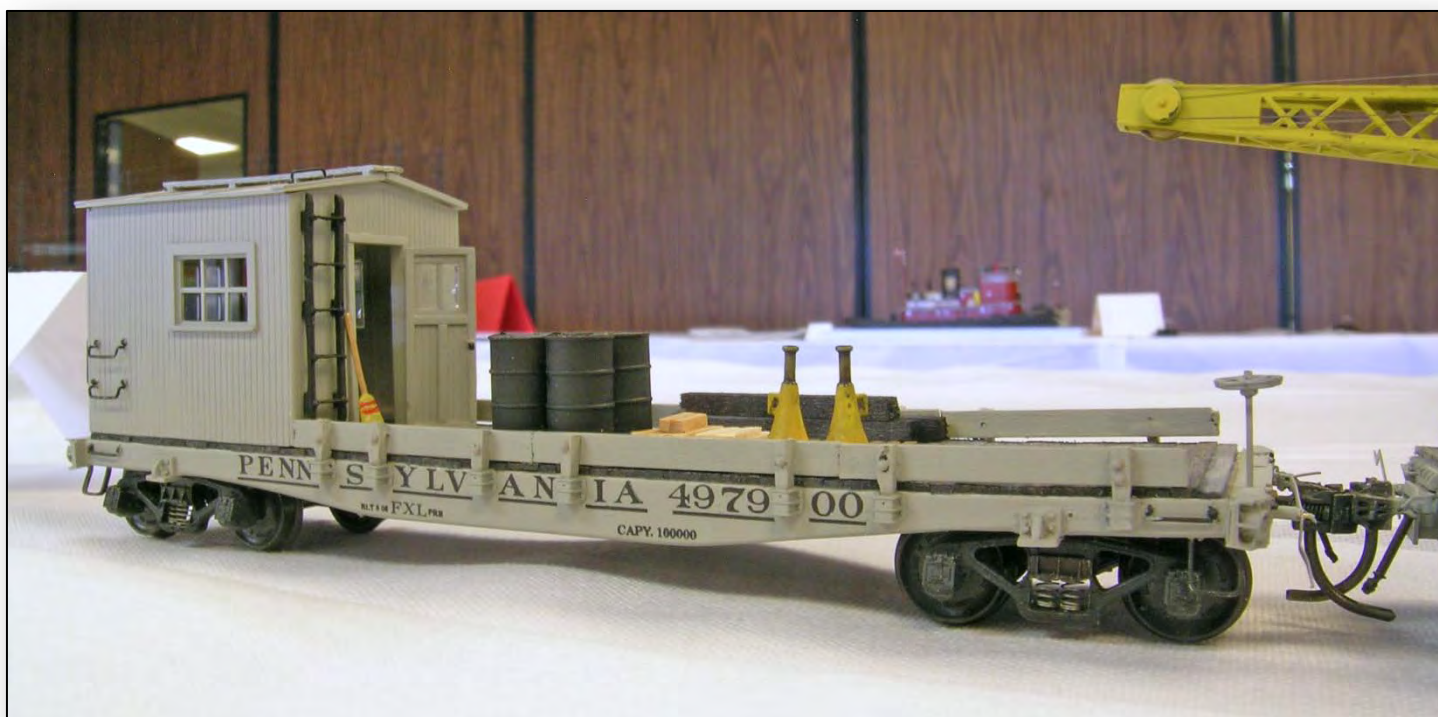
This modified Athearn concrete mixer is another example of Gus's 1940's-50's era truck models.







Elden Gatwood brought a large display of HO locomotives and freight cars built and finished to represent his early 1960's modeling era. These models were intended to serve as examples of techniques he discussed in his modeling presentation on weathering rolling stock.



Bruce Smith kitbashed this HO FXL Living and Idler car; part of the c.1944 wrecker consist he displayed. The starting point was the underframe and ends from a Westerfield XL boxcar. Upon this, he scratch built the sides, deck (board by board) and living quarters. The towing loops were made from strip styrene and 1/4 of a Kadee coupler box "ear". He painted the car Poly Scale D&H grey and applied a mix of Westerfield and Sunshine decals. This car was also based on a PRR PRO project.





Jack Consoli also brought an assortment of HO rolling stock to accompany the talk on weathering he jointly presented with Elden. As a contrast, his HO equipment represents early 1950's era models.



Jim Hunter's HO N8 cabin car was a modified and detailed Bowser kit. Jim made modifications to the ends and underframe details and applied the appropriate Trainphone equipment. He presented this project in one of the meeting's modeling presentations.





Above and below are front and rear views, respectively, of Gus Foster's HO model of the Marysville (PA) combination passenger and freight station. It was scratchbuilt from Holgate and Reynolds brick, Tichy and Grandt Line windows and doors and Bar Mills shingles on a Corian® base. All the windows and doors were resized to the correct proportions and muntins were printed on overhead projector film and applied to the window frames. He painted the structure with Floquil paints and weathered it with India ink washes and Bragdon weathering powders to match the prototype's 1956 appearance.



A large group of HO cabin cars was displayed by Kirk Fisher. The cars are an assortment of kits and brass models. One of the 15 cars, the NX23 represents the cars appearance in second hand service on the Western Allegheny Railroad. All were detailed and finished for the mid-to-late 1950's era.





Andy Rubbo's HO scale diorama of "LANE" Interlocking and the adjacent catenary structure won him Best-in-Show honors at this year's meet. The tower and surrounding details were scratchbuilt to represent the scene as it existed in 1967.



Buzz Burnley displayed an assortment of O scale Pennsylvania-Reading Seashore Lines equipment. This class ND cabin car was a brass model he painted with Floquil paints and added marker lights to represent a car used in the Atlantic City area in the early 1950's.





*This pair of brass Budd RDC-1 cars, PRSL M410 and M405, came from Sunset Models with a factory nickel plated finish to represent the stainless steel of the prototypes. Buzz had to correct the position of the roadname lettering prior to applying light weathering.*



*Buzz built PRSL #6403, a B60 baggage car, from a Weaver Kit and applied correct 2D5P2 trucks. The car was finished with Floquil Tuscan Red, custom decals and weathered with Floquil paints to represent the mid 1950's period.*



# Modeling PRR US&S Electro-Pneumatic Interlockings – Part 2 – A Tower Installation

By Tim Garner

In Part 1 [TKM #83, Winter 2013, pp. 20-34], I covered information on prototype US&S electro-pneumatic interlockings and showed how I modeled this equipment at a remote (unmanned) interlocking. In this article, I'll cover modeling this equipment at interlockings with towers.

## CHOOSING YOUR PROTOTYPE

One of the things I discovered while poring over my PRR book collection and photographs is that there is a lot of variety in how PRR installed this equipment at towers. If you are modeling a specific interlocking, gather as much photographic evidence as you can and attempt to match it. Due to space issues, I don't model a specific PRR location on my layout. This gives me some flexibility when choosing how I model the installation. I'll explain my rationale for the choices I made as I proceed.

For this project, I wanted to upgrade the appearance of the "western" and "eastern" throats of my Willsburgh passenger station. I purchased two of the new Walthers PRR Interlocking Tower kits [Reviewed by Ron Hoess in TKM 82 Autumn 2012] – one for each throat. The style and size nicely complement the appearance of my station. I followed Ron's construction methods with the exception of the mortar lines. I mixed a mortar color with tube artists' acrylic paint. Without thinning the paint, I brushed it on the brick, and wiped off the excess with paper towels. If I missed any spots, I reapplied.

To model the compressor and tank arrangement, I referred to Ron Hoess's article on "AR" Tower in TKM No. 38, September 2006. At "AR", the compressor equipment is housed in a small brick building adjacent to the tower. The style and foundation of this building nicely complement the

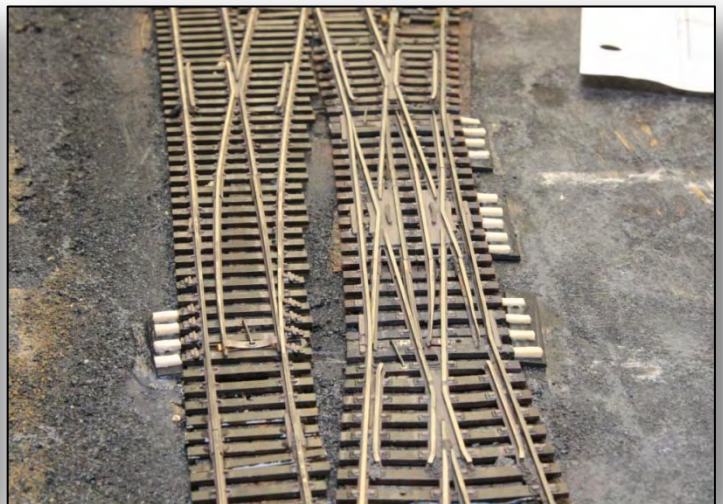
look of the Walthers tower. A 2" pipe leaves the back of this building, bends around the corner of the building, and connects to a horizontal riveted air tank on a concrete foundation. A pipe leaves the top of the tank then proceeds toward the main air line at trackside. I decided to model the same type #1146 concrete foundations for the main air line I used in Part 1 because they are the easiest type to build.

## SWITCH MACHINES ON DOUBLE-SLIP SWITCHES

I removed the existing trackage and ballast. I purchased new Shinohara #6 turnouts to replace the old less accurate-looking Atlas track. I cleaned and reused the two existing Shinohara #6 double-slip switches. After installing Tortoise switch machines, I tested the track to make sure everything was operating correctly.

Double-slip switches, sometimes called *puzzle switches* because of the many moving parts, are often used in passenger terminals. They save space over traditional yard ladders and give tower operators a lot of flexibility in getting trains from the mainline to the correct arrival track. For example, on the Washington to New York mainline, you could find them near the stations in Washington, Baltimore, Philadelphia, North Philadelphia, Trenton, and New York.

Prototype double-slips have three switch machines. At each end, there is a machine that moves four switch points. In the center, a "center-pull" machine operates the four points of the closing frogs. Off-the-shelf HO double-slips have fixed frogs instead of the complicated closing frogs. I decided to place switch machine details on mine as if the frog was the closing type.



▲ A double-slip switch outside Union Station in Washington, D.C. is controlled by three US&S A-5 switch machines. A center-pull machine moves the four points of the two closing frogs. (Tim Garner collection) On the model version, tie extensions to support the switch machines are installed. ▲





Switch machines are painted and installed on the ballasted ties.



The switch machine on the left has a non-standard CP valve position due to tight clearances.

### DETERMINING SWITCH MACHINE LOCATIONS

The space between tracks in the station throat is rather tight where the switch machines would ordinarily go. I test fit the positions of the switch machines and CP valves. In locations where I might have placed the machine and CP valve between the tracks, it was too tight. In another, the CP valve needed to be placed farther from its traditional position. I diagrammed the placements on a sheet of paper for the location of the machines, and I marked where the machine support ties would go.

### PREPARING THE MACHINE FOUNDATIONS

I trimmed the plastic ties so the ends would be even when I mounted the support ties. Four ties support the machines by regular switch points and five support the center-pull machines by the closing frogs. From HO wood ties, I cut tie extensions to support the machines and white glued them in place at the end of the ties. Remember: the surface of these tie extensions should be a scale  $4\frac{1}{4}$ " below the surface of the tie.

Once the glue dried, I painted the ties with Floquil Railroad Tie Brown to blend the wood and plastic ties together. To dress up the switches, I added five switch blocks from Details West on the outside of each stock rail with ACC. I also cemented Details West code 83 plastic joint bars on both sides of each rail every 39 scale feet and painted the rails and hardware Floquil Rail Brown. Once dry, I ballasted around these ties making sure not to get glue on the throw rod or points.

### PREPARING THE SWITCH MACHINES

The Irish Tracklayer A5 brass castings are very clean. I did grind off the nub under the piston end to have more flexibility in mounting the machine. Next I drilled shallow holes in each end of the piston and one end of the circuit controller housing with a #78 drill bit. I drilled mating holes in the base of the CP valve on the track side.

Based on my drawings for each location, I shaped short lengths of 0.0125" dia. wire to represent the air and electrical hoses. I joined the switch machine and the CP valve with the wires secured with ACC. I washed the assemblies with detergent then painted them with Floquil grimy black.

Once the paint was dry, I cemented the switch machine/CP valve assemblies in place.

### BUILDING THE COMPRESSOR BUILDING

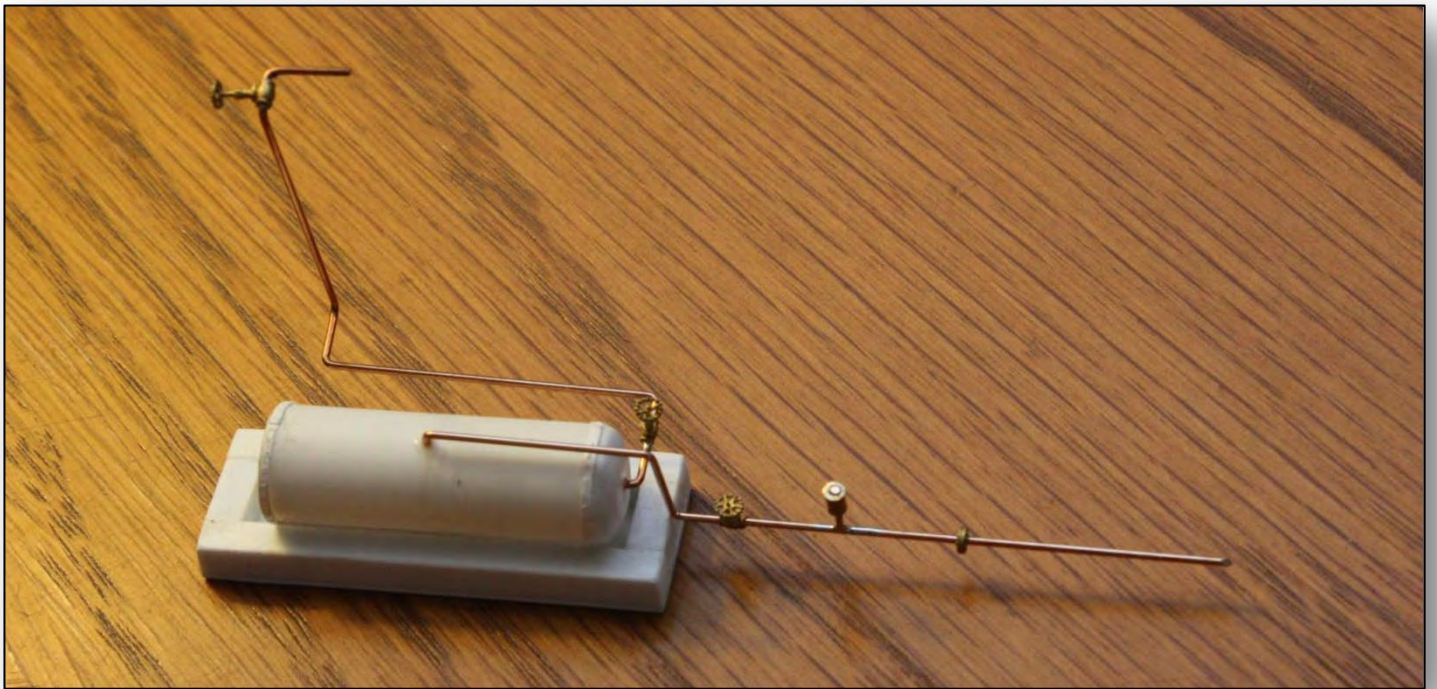
Ron Hoess's article on modeling "AR" Tower takes you through the process of modeling this building. I used his techniques and plans with some minor exceptions. For the door, I used a Tichy panel door I had in my supply box. For the brick and roof shingles, I used adhesive-back papers from Micro Mark (#82898 Red Brick, #83218 Roof Shingles). I painted the foundation with the same Floquil Old Concrete paint I used on the towers. I built the roof so it could be removed.

### TANK, TANK FOUNDATION, AND PIPING

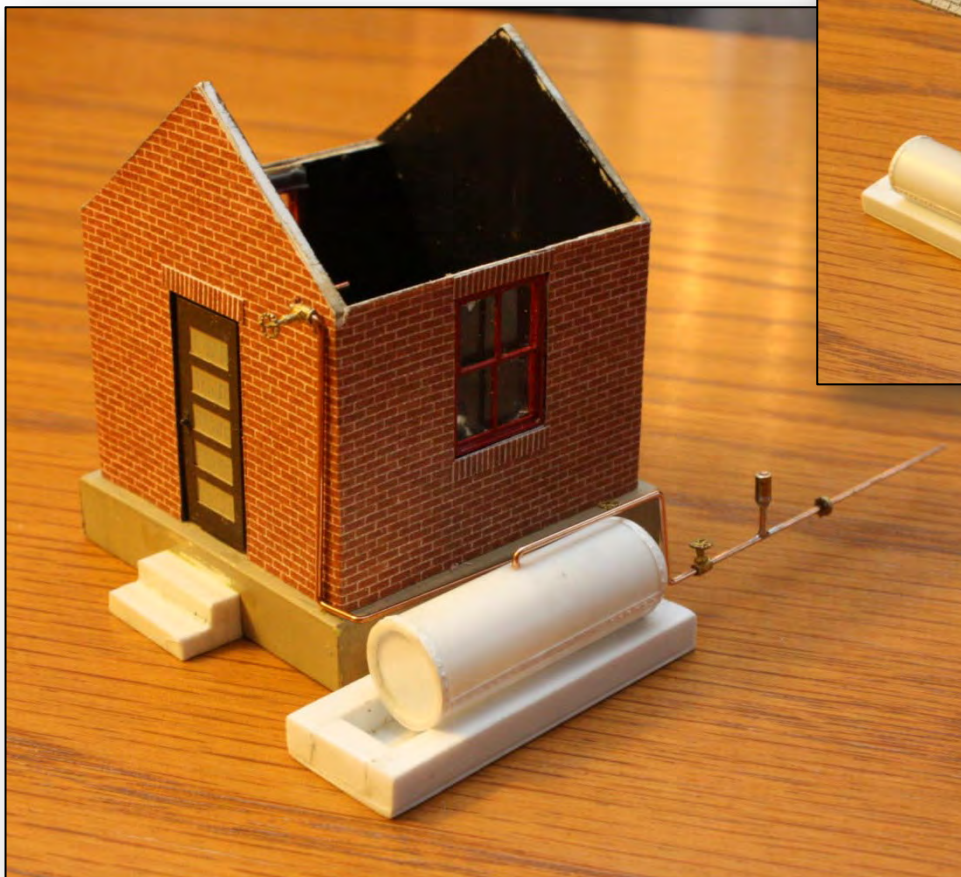
For the riveted air tank, I started with a piece of  $\frac{3}{8}$ " dia. Evergreen styrene tubing. I cut a piece of 0.030" styrene in a circle to plug the bottom of the tank. I glued a piece of 0.060" styrene on the other end, filed it into a rounded shape, and sanded it with fine sandpaper. I made rivet strips on 0.005" styrene with a pounce wheel. I glued riveted bands around the top and bottom of the tank, and one along the side.

Photographs of the tank at "AR" show what appears to be a rectangular concrete foundation supporting the tank. I created a rectangle from square styrene stock. I scraped the sharp edges of the base with the back of an Xacto #11 blade then lightly sanded the assembly.





*The air tank and foundation assembly before painting.*



*The compressor building with the air tank assembly attached shown with and without the roof.*



The 2" piping is simulated with Tichy 0.025" dia. phosphor bronze wire. I used brass globe valve castings from Cal-Scale (#190-361) where appropriate. I shaped a line coming out of the back of the compressor building and into the front of the tank. This appeared to have valves where it leaves the building and right before it enters the tank. I soldered these in place.

Next, I created a line coming out of the top of the tank, turning down toward the foundation, then out toward the track. I put a globe valve close to the tank and a flange farther down the line. In between the valve and the flange, I simulated what appears to be an alcohol drip in photographs. This is made with a short piece of 1/16" dia. brass tubing soldered onto a piece of 0.020" dia. wire.

Precision Scale Co. does make brass castings for pipe fittings for the corners. They were just a little too tiny for me to work with, but maybe you'd have more luck.

I painted the piping and tank silver. I painted the pipe foundation with Floquil Old Concrete and aged it with weathering powders.

#### MAKING AND INSTALLING THE PIPE FOUNDATIONS

To determine how many foundations to make, I marked the center point of the foundations along a ruler every 12 scale feet for the length of the interlocking. Using an awl, I created a starter hole as a drill guide for each hole. Using electrical tape as a depth stop, I drilled a 9/64" dia. hole a scale 1'-6" deep at every spot. A 1/8" dia. hole would yield a tighter fit but the bigger hole gave me some wiggle room I thought I might need to make the pipeline straight.

For the 1146 design foundations, I took strips of Evergreen HO-scale 4" x 10" strip and marked them every three scale feet. I marked the center of the curved U-shape on each length with a sharpened ice pick. I drilled out each of these with a #70 drill bit. I marked enough to fill the holes plus a few extras to support the line coming from the air tank.

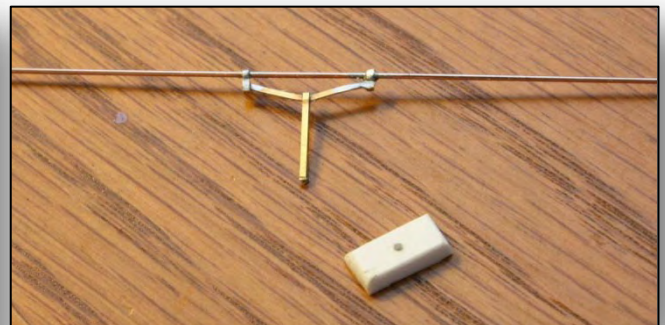
Using a sharp #11 blade, I cut the strips into the marked 3' sections, and then opened up the U-shaped opening from the holes to the ends. The drawing shows this foundation has a beveled edge. I duplicated this by scraping the back of the #11 blade along all four edges of each piece. The final and toughest part was to drill a #79 hole through both legs of the U for the retainer bolt which would be made from pieces of 0.008" dia. wire added after the foundations were on the layout.

For painting, I threaded the foundations on one piece of 0.008" wire. This trick keeps the bolt hole open while you brush or spray paint the foundations with Floquil Old Concrete. When the paint is dry, scrape any paint off the wire, then slide the foundations off the wire with your thumbnail.

For the main air line, I decided to model the #5501 anchor. There is a drawing of this detail in Part 1 on page 25. I took a length of 0.025" dia. wire I was going to use for the air line. I marked where the anchor would go with a marker. Using flat brass wire from Detail Associates, I created a wide "V" shape with each side being a scale 2' long. I crimped one piece of flat wire over the bottom the "V" and soldered it. Next, I crimped two pieces of flat wire over the air line. I soldered each end of the "V" between a crimped flat wire below the pipeline. I carefully used a Dremel grinding wheel to remove any excess. Finally, I fashioned a concrete foundation from styrene to match the drawing.



Pipe foundations ready for painting.



Pipe anchor and concrete base before and after assembly.



To install the pipe foundations, I put a drop of white glue in each hole. While the glue was still wet, I pressed the wire air line into the openings of the foundations. This helped hold them the foundations in alignment until the glue dried.

After the glue dried, I pulled the air line out then filled in around the holes with ballast or foam foliage as appropriate.

### FINISHING UP

I put a globe valve and a flange on either side of where the line from the tank was to connect. I put the main air line back in the foundations. I placed the tank and feed line at the final location and soldered the end of the feed line to the main air line.

At each location where a branch line would leave to feed a switch machine, I drilled a hole in the layout and tinned the

line with solder. Using 0.0125" wire, I bent a branch line, tinned one end, and then soldered it to the main air line. At one end, I soldered a 0.025" dia. line. This will simulate the main air line diving under the tracks. In the future, I will have it come up on another location to serve another switch.

After this was done, I removed the air lines and painted them aluminum. Once dry, I put the assembly back in the foundations. I glued down the tank foundation, the compressor building, and the tower.

With needle nose pliers, I fed 0.008" wire through the pipe foundations over the main air line, secured it with a dab of ACC, and then clipped it close to the edges of the foundation. I finished off the assembly by gluing ballast and grass around the buildings.



*"WILL" Tower, the compressor building, tank assembly, and air line in position.*





▲ Interlocking from the opposite direction. ► The pipe anchor is between two branch air lines.



The compressor building with weathering and landscaping completed.





*The completed interlocking.*



*A TI heads out of Willsburgh past "WILL" interlocking.*





# Product Review: Broadway Limited EMD NW2 PRR Diesel Switcher

By Tim Garner



Builder's photo of the PRR's first NW2. This unit, built in October 1941, was PRR's second off-the-rack diesel locomotive. This unit displays what railfans call Phase I details – stepped hood in front of the cab, no side louvers, straight stacks, and a step in the corner trim by the steps.

## THE PROTOTYPE

The NW2 was one of the earliest models offered by the Electro-Motive Division of General Motors. The Pennsylvania Railroad's first NW2 was only its second off-the-shelf diesel unit.<sup>1</sup> GM's nomenclature for this unit takes its name from the NW1 – Nine hundred horsepower, Welded frame, 1<sup>st</sup> unit in the series.

The NW2 offered EMD's customers a 1,000 h.p. V-12, 567A diesel engine (567 cubic-inch displacement per cylinder) on four axles with eight 40" dia. wheels. The engine's governed speed was 800 rpm. The coupled length of the unit was 44'-5". The weight on rail was 248,400 lbs. with a tractive force at 25% adhesion of 62,100 lbs. The top speed of the NW2 on the PRR was 65 mph.

EMD produced 1,145 NW2 switchers from February 1939 to December 1949. Some were produced at the LaGrange, Ill. plant and some were produced at EMD's #3 Plant in Cleveland, Oh. They also produced TR, TR2, and TR3 "cow and calf" sets for various railroads. A "calf" is a switcher without a cab mated to a "cow" – a switcher with a cab. While PRR

owned cab-less boosters for many road freight and passenger units, it did not own any cab-less switchers.

The NW2 outsold every other 1,000 horsepower diesel switcher except one. It was a direct competitor during its production run of several other 1,000 hp models including the ALCo S2 (1,502) and S4 (797), the Baldwin VO-1000 (548) and DS-4-4-1000 (502), the Fairbanks-Morse H-10-44 (195), and the Lima LS-1000 (38).

The PRR acquired its first NW2 in October 1941 in a one-unit order. Unit #3909 (renumbered to #5912 in 1942) was sent to the Philadelphia Division. This unit would differ in appearance from all subsequent PRR NW2 units in that it had no louvered vents along the hood. It was delivered with two very short exhaust stacks that were subsequently extended above the height of the cab roof. I suspect the shorter stacks tended to fill the cab with diesel exhaust when the wind was "just right".

The first unit was designated class AA6. This changed to AA10E in 1943, (B-B)10E in 1946, and ultimately ES10 (EMD, Switcher, 1000 hp) in 1947.

<sup>1</sup>The first was the EMC SW – the Winton-engined predecessor to the SW1 PRR acquired in 1937 to serve the General Motors plant in Linden, N.J.





Here is the same unit renumbered to 5912 in Northumberland, Pa. on June 3, 1966. The straight stacks have been extended and capped with spark arrestors. Small marker lights have been added on the nose and a window shade has been added. Many of the handrails and edges of the stair treads are now yellow. (William D. Volkmer)



This builder's photo of NW2 #5925 displays the classic Phase IV details of most PRR units. It has the conical stacks, stepped hood, and side louvers with a gap for lettering. This was the road's fifth unit with a builder's date of October 1947.





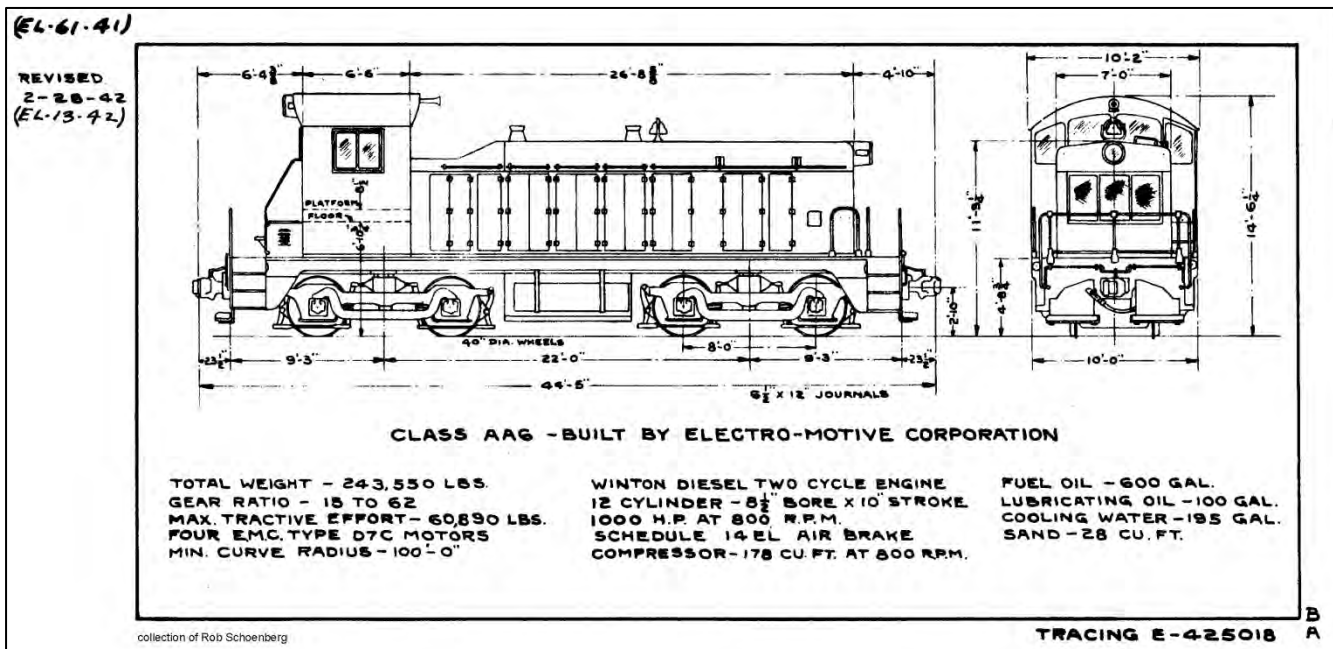
Here is #9104 at the 43<sup>rd</sup> Street Yard in Pittsburgh. With yellow handrails, this shot was probably taken in the 1950's. (Rich Baer collection)

PRR ordered its next two units near the end of WWII, but #5922 didn't arrive until November 1945 and #5921 arrived in November 1946. Three more arrived in October 1947. A large order of 22 units, followed by a final order of four units, was on the property by the end of 1948.

In the early years of dieselization, the PRR tended to order switchers to replace steam engines one-for-one in specific assignments. The ES10 was considered an appropriate swap for a B6SB 0-6-0 switcher. Most units served in the original area for most of their lives. ES10 switchers were assigned to the Philadelphia Division, the Lake Division, Pittsburgh Division,

Eastern Division (Central Region), Conemaugh Division, and Chicago Division. During the 1950's, there were 16 units in the Northwest Region and 16 in the Pittsburgh area. The remaining 11 were all over the railroad.

In 1953, ES10 #9175 was experimentally painted Tuscan red along with Baldwin BS10 #5916 supposedly for switching in passenger terminals. The experiment ended in 1955 when both units were returned to dark green enamel. Prior to the Penn Central merger, the ES10 units were renumbered between #8647 and 8678 with all 32 units surviving into the new carrier.



This arrangement drawing from Rob Schoenberg's collection shows the AA2 class of PRR's first NW2. The overall dimensions of PRR's units did not change with subsequent orders.



## PAINTING AND DETAILS ON THE PRR

On the PRR, there were several distinguishing details for the NW2. All PRR units had a step in the hood in front of the cab which was similar to the earliest EMD SW1 switchers. There were two large stacks with a bell mounted ahead of the first stack. The front radiator vent extended about three quarters of the way from the headlight to the catwalk. The top of the windows on the front of the cab closely followed the curved contours of the cab roof. None of the PRR units were equipped for multiple unit (MU) operation.

From purchase until as late as the spring of 1951, the hood, cab, frame, railings, and steps were painted dark green locomotive enamel. The trucks and fuel tank were black. "PENNSYLVANIA" and the unit number appeared in Dulux Gold on the sides of the hood and cab. In the 1940's, the brass bell was polished. Watchman's heaters were painted silver on units so equipped (photos of #9165 and #9169 show this equipment next on the running board in front of the cab on the right).

Sometime in the early 1950's, small round electric red marker lights were added to the end of the hood on these and other EMD switchers. Small Dulux gold unit numbers appeared on the end of the hood and cab and bells were either painted dark green or no longer polished.

Based on available photos of PRR EMD switchers, sometime between 1951 and 1953, the railroad began to apply yellow paint to the edges of stair treads, footboards, handrails adjacent to stairs, and horizontal end rails for safety. Fabric radiator covers for winter service began to appear around this time.

When units were renumbered in anticipation of the PC merger, they received large numerals on the cabs and may also have received simplified paint on the hoods with the "PENNSYLVANIA" painted out and PRR keystone decals applied to the hood near the radiator end.

## THE BROADWAY LIMITED MODEL

Over the course of a production run, EMD made several external changes to the NW2. Railfans have assigned "phase" numbers to the more significant changes. In the case of PRR, their first unit would be considered a Phase I with a stepped hood in front of the cab, no hood louvers, straight exhaust stacks, and step in the trim below the frame next to the stairwells. The majority of PRR units would be considered Phase IV. These have the same stepped hood in front of the cab and step in the trim below the frame near the stairwells, but differ by having hood louvers with a gap for lettering and conical exhaust stacks.

According to BLI's web site, they have modeled a Phase V locomotive. This is a version never owned by the PRR. The two main differences between a Phase IV and a Phase V are the sloping hood in front of the cab, and a step in the trim even with the frame at the corners. Altering the hood to match the stepped Phase IV is relatively simple.

Other than the Phase detail faux pas, the Broadway Limited NW2 diesel is a winner. It runs well with a very slow top speed and excellent authentic NW2 sound. The unit can be operated in DC or DCC.



*Here is the right side of the BLI model.*





*The painting is appropriate from the 1950's to the mid-1960's. In the 1940's, handrails and step edges were dark green and unit numbers were not painted on the ends.*



*The cab end of the model.*



The body is constructed from ABS plastic with a die cast chassis. Metal magnetic couplers are installed. The front and rear headlights are directional and the number boards are illuminated. A cab light is included.

Among the Paragon 2 sound features are:

- **Operates in DC & DCC** (use DCMaster for DC Sound)
- **Record & Play Operation** – Records and plays back sounds and movements once or repeatedly for automatic operation
- **16-bit Sample Rate** for exceptional high frequency sound clarity
- Choice of **3 selectable Horns**
- **Alternate Whistle / Horn** where applicable for locomotive with air horn and steam whistle - both the main whistle and alternate can be easily played
- **Adjustable bell ringing interval** for faster or slower bell
- **Numerous user-mappable** functions with available keys
- **Passenger Station Ambient Sounds** – Controlled with Function Key
- **Freight Yard Ambient Sounds** – Controlled with Function Key
- **Lumber Yard Ambient Sounds** – Controlled with Function Key

- **Farm Ambient Sounds** – Controlled with Function Key
- **Crew Radio Communications** – Controlled with Function Key
- **Maintenance Yard Ambient Sounds** – Controlled with Function Key
- **Demo Mode** for display and demonstrations
- **Grade Crossing Automatic Signal**
- **Simple Programming** with Integral DCC Decoder
- **Individually adjustable sound volumes** for each effect
- **EZ Reset Button** for quick return to factory default settings

#### ALTERING THE BLI NW2 FOR PRR SERVICE

Fortunately, altering the BLI NW2 into a Phase IV PRR ES10 is not very difficult – a one-evening project. The cab and hood pop off the chassis with a gentle squeeze. Once off, I separated the cab from the hood by releasing the lugs on the inside of the cab. With a small flathead screw driver, I disconnected the handrails from this portion of the hood.

Once separated, I cut off the sloping portion of the hood with an Xacto razor saw. I cleaned up the cuts with an Xacto #11 blade and a file.



Close up of cab details.



The grabs, grilles, and walkway tread details are nicely modeled. The tread on the steps are see through as on the prototype.



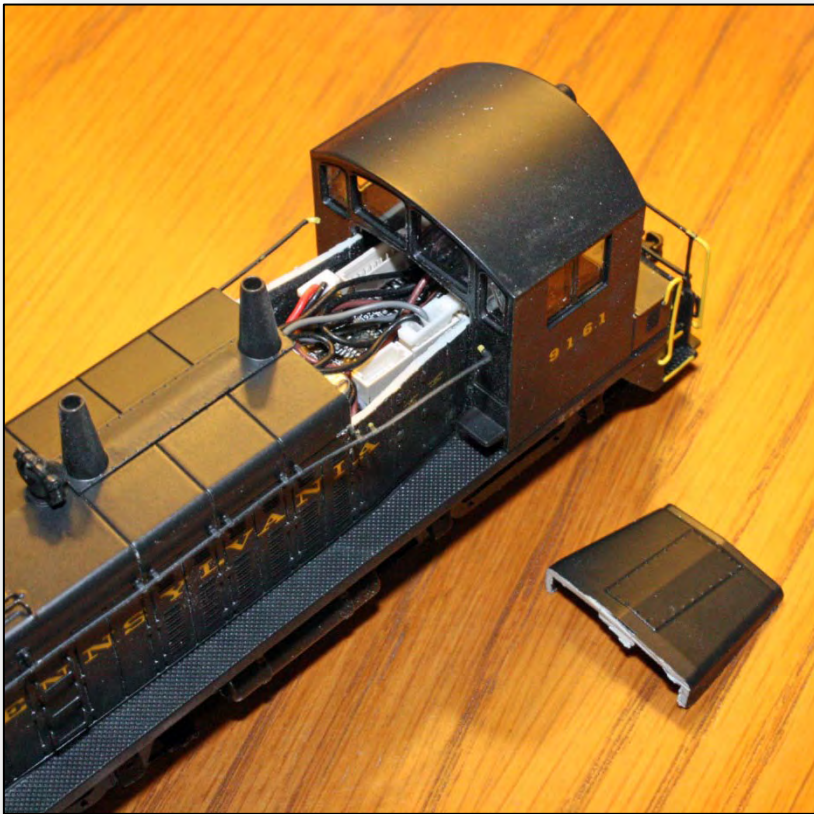
◀The gradual sloped hood in front of the cab is incorrect for PRR NW2 units.



Using prototype photos as a guide, I fashioned a stepped hood with layered pieces of Evergreen styrene sheet and strip, filled with Squadron white putty. After test fitting the piece, I cemented it in place with Plastruct cement. I elected not to make the changes to the stair "trim".

I wanted to model an ES10 in the late 1940's so I painted all the handrails and the new hood filler with Floquil Brun-

wick Green. I scraped off unit numbers on the back of the cab and the front of the hood and touched up the area with paint. I painted the bell with Testors Model Masters Gold to represent polished brass. I painted the trucks and underbody with Floquil Railroad Tie Brown, and finished up with weathering powders.



The sloping hood is easily cut off with a razor saw.

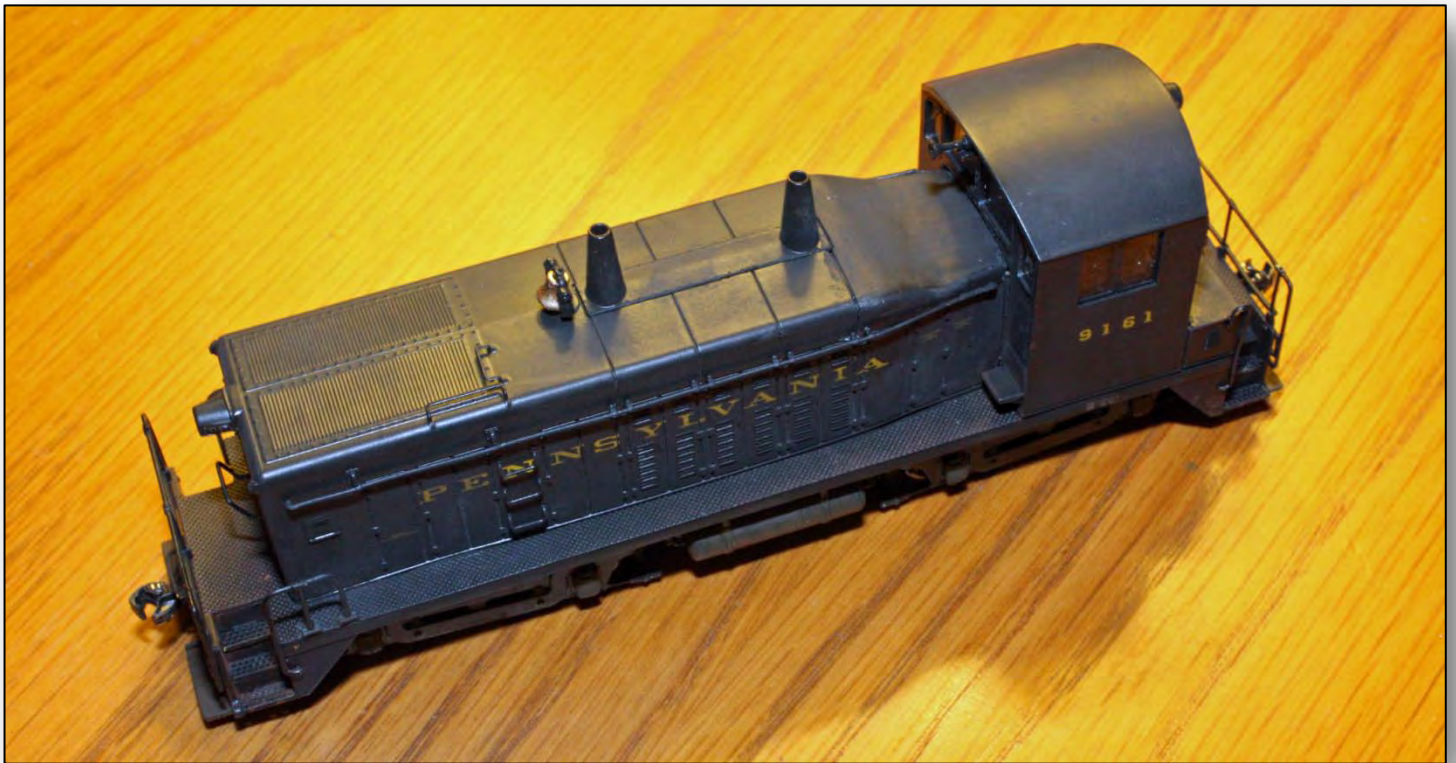


New hood piece fashioned from layers of styrene strip and sheet.

The hood piece in place before painting.







*The modified unit. The handrails and bell are painted to reflect the unit's 1940's appearance.*



*The modified and weathered unit in service.*





# Pennsy Merchandise and TrucTrain Trailers

## Part 1a – Short Merchandise Trailers

By Curt LaRue

Today's ultra-efficient intermodal rail system is not an overnight development. Trailer and container service can trace its history back to railroads carrying horse drawn wagons on flatcars and to the early containerization by the NYC and PRR in the late twenties. Due to Federal regulation the railroads were barred from carrying loaded highway trailers on the rails without "Rights," or a Motor Carrier Certificate which all trucking companies were required to have. Several railroads experimented with Trailer on Flatcar Service but because of the legal issues little progress was made. Container service thrived for a while but it began a slow decline by the late forties and early fifties. All this was to change in 1954 when the ICC ruled that railroads could haul railroad owned trailers loaded with their own freight without having a Motor Carrier Certificate.

Whether or not you are modeling TrucTrain, you can use some of these short local delivery trailers on your layout. These trailers could be seen all over the system working out of freight depots, picking up and delivering shipments to local consignees. The story of PRR trailers is one of ever increasing sizes to meet customers' demands for more capacity and ICC regulations regarding truck and trailer size and weight limits. In this series we will start with the small trailers of the late forties and early fifties and work our way up to the forty-footers of the late sixties.

My interest in TrucTrain service came from a career of over forty years as a light, medium, and heavy duty truck salesman selling FWD, GMC, Mercedes Benz, and Peterbilt trucks. This career taught me how to engineer and sell trucks for specific jobs creating a lifelong interest in the transportation industry. I became interested in early PRR intermodal service but found that there were few accurate models and there was little information available at the time. A few model manufacturers marketed trailers lettered for the PRR, but I soon found out that none were actually correct.

This series is intended to help the modeler build prototypical model trailers used in TrucTrain service from 1954 to 1968. Over the years I have not been able to find much information regarding TrucTrain trailers and their lettering schemes. However, there is an excellent article in Vol. 25, No.3, Autumn 1992 issue of *The Keystone* by Mike Nesladek which covers the history of TrucTrain and includes many photos of PRR trailers.

Unfortunately, there is little dimensional information available to help modelers build accurate PRR trailers. However, The Official Railway Equipment Register (ORER) gives some valuable information regarding type of trailer, number series, quantities, dimensions, doors, for reference. I also use

dimensional data taken from actual PRR trailers that have survived.

In this series many of the models were built from field dimensions taken from PRR trailers we have found over the years. I owe a debt of gratitude to my long-time friend Brady McGuire for sharing my interest and helping me to photograph, measure, and record the trailers we have found. Brady also impressed on me the importance of recording the lettering scheme, sizes of letters and numbers, and other marking details we found on each trailer. From these field notes I made crude sketches of each trailer. The photos I took helped to fill in details for my sketches. Many of the models in this series were built from these sketches and field notes. Other models were kitbashed from kits and parts, and some were built from published photos using the ORER for dimensional information. My ultimate goal was to build a PRR TrucTrain with accurate PRR and Common Carrier trailers as it would have appeared in 1956 and into the 1960's. These models are layout models not super detailed contest winning or museum quality models.

### DEFINITIONS OF TERMS

The following are definitions of terms used in the trucking industry to describe components and dimensions on trucks, tractors, and trailers:

- *Flatbed Trailer* is a trailer that has a flat load platform. This type of trailer often has removable sides to make it easier to off load.
- *Van Trailer* is a trailer with enclosed sides ends and roof.
- *Open Top Trailer* is a trailer with enclosed sides and ends but with an open roof. A canvas cover which is supported by roof bows is often used as a cover for the load. This type of trailer is useful for overhead loading and unloading by crane.
- *Low Boy Trailer* is a trailer with a flat load platform which drops below the drive axles of a tractor and has a low ground clearance. This type of trailer is used to haul excess height loads.
- *Electronics Trailer* is an enclosed van trailer in which the floor of the trailer drops below the drive axles of a tractor. It gives increased interior height for light weight high cube loads.
- *Single Axle* refers to either a tractor or trailer with one rear axle.
- *Tandem Axle* refers to either a tractor or trailer with two rear axles.



- *Fifth Wheel* refers to the hitch on a tractor which accepts the kingpin from the trailer and locks it into place.
- *Upper Coupler* is the plate on the bottom of the front of a trailer that the trailer kingpin is fastened to.
- *Kingpin* is the pin on the trailer that fits into the fifth wheel on a tractor and is locked into place.
- *Kingpin Setting* is the distance from the nose of the trailer to the center of the trailer kingpin.
- *Landing Gear (Dolly)* are the extendable vertical legs that support the nose of a trailer when it is not connected to a tractor. The feet of the landing gear can be either wheels or sand shoes. Most trailers in the PRR era had landing gear wheels.
- *Landing Gear Setting* is the distance from the nose of the trailer to the center of the landing gear.
- *Roll up Door* is a segmented door that “rolls” up into the ceiling of a trailer much like an overhead garage door.
- *Swing Door* is a door which opens on hinges. Most PRR trailers had this type of door.
- *Express Gate* is a low height tailgate at the rear of a trailer to retain the load. This type of tailgate often had the upper part of the rear opening covered with a canvas and chain cover.

### SHORT MERCHANDISE TRAILERS

The PRR had long been involved in the trucking business and by the early 1950’s had one of the largest fleets of straight trucks and tractor trailers in the country. A straight truck is a

unit in which the body is mounted on the truck chassis making a single unit. Examples are van trucks and flatbed trucks. A tractor is the powered unit that pulls a trailer making up a two unit combination. These highway trucks and tractor trailers supported the PRR’s extensive LCL business but were not hauled on the rails until 1954. These early trailers are very short by today’s standards. They were generally less than 30 feet long by 96 inches wide compared to today’s 53 feet long by 102 inches wide monster trailers. Many of these short trailers were pressed into TrucTrain service by the PRR until more suitable trailers could be acquired and put into service.

### 28-FOOT SINGLE-AXLE VAN TRAILER

One of the first PRR trailer models I built was from a Walker Model Service metal kit. I modeled this trailer from a similar trailer on page 40 in the TrucTrain Article. Note that the tractor has disc type wheels and the trailer has spoke wheels. Unfortunately, the photo and caption don’t give a trailer number or any dimensional data to verify its length or other dimensions. At the time, I guessed the length to be about 28 feet. Today, I believe the length is closer to 24 feet.

#### Trailer Description

Length: .....Unknown  
 Width: .....8 feet  
 Nose: .....Round  
 Sides: .....Smooth with seam lines  
 Side Door: .....Most likely on RH side  
 Rear Doors: .....Swing Type  
 Roof: .....Full Length  
 Landing Gear: .....Retractable with wheels  
 Rear Axle: .....Single



Walker Model Service 28’ smooth-side trailer with round nose. (Model and photo, Curt LaRue)

Example of short single-axle van used in local pick-up and delivery in 1950. (Railway Age)





Construction of the model was straightforward from the instructions. Care must be taken filing and fitting the parts together for a smooth fit. I added a simple ICC style rear bumper/ step fabricated from strip styrene. This type of bumper was made with steel angles with two vertical uprights and a horizontal step welded to the bottom of the vertical legs. The bumper provided protection from a roll-under accident and also a step from the ground up to the trailer floor. This model is no longer available. The Walker line of models is now distributed by Wiseman Model Services and is not listed on their website. You may be able to find one on E-bay or at a model railroad flea market. Another and better choice would be to use the Sylvan Models 26' Fruehauf Aerovan Trailer kit #T-006 for this model.

From the photo on page 40 in the 1992 *Keystone*, I made an educated guess regarding the paint scheme. Trailer body, sides, nose, and doors are bright red. The trailer side has a diagonal band from the lower front (left) upward to the upper rear (right) on the driver's side of a darker color most likely Tuscan Red. The right hand or passenger side of the trailer is not pictured, but, judging from other trailer photos, the darker band ran upwards from the lower rear corner (left) to the upper front (right) corner. The roof was painted aluminum color. The underframe and landing gear were painted yellow. A color photo later appeared on pages 58 and 59 of Volume 30, Number 2 (Summer 1997) issue of *The Keystone* of a different type of trailer with the same paint scheme, verifying my color guesswork on my model trailer.

**Paint Scheme**

Trailer body ..... Caboose Red  
 Diagonal paint band 18"wide..... Tuscan Red  
 Roof ..... Aluminum  
 Underframe, landing gear, and wheels ..... Yellow

**LETTERING SCHEME**

The bad news is that I used an old Walthers decal (set #934-77880) with the diagonal PENNSYLVANIA RAILROAD lettering scheme. This set is not very accurate, but at the time it was all that was available. The letters are not the correct font and should be outlined in white rather than black. In addition, this set did not include all of the lettering needed. The additional lettering came from a decal set that our Cincinnati group had made for us by a local supplier from lettering dimensions I had taken from other similar trailers. I also needed PRR Keystone logos. I pirated these from Microscale diesel lettering sets.

- Trailer Body Sides – Walthers diagonal “PENNSYLVANIA RAILROAD” on each side over the diagonal Tuscan red band with a 17” keystone logo at the lower and upper ends of the Tuscan band.
- “Pickup and Delivery” decal on upper corner, “Door to Door Service” on lower corner per photo.

- Nose – No photo available. Placed a 17” keystone logo on the upper nose, centered per normal PRR practice. See photo.
- Rear Doors – No photo available. Placed a 17” keystone logo on upper rear doors per normal PRR practice.

Several years after I built this trailer, Bethlehem Car Works produced a set of decals for a 32 foot Insulated Van PRR Trailer they marketed with the diagonal “PENNSYLVANIA RAILROAD” lettering scheme. The name Pennsylvania Railroad was overprinted on a red background which was used on the aluminum colored 32’ PRR Insulated Van Trailer. Since these decals are overprinted on a red background, it would be difficult to use them on this project, because a Tuscan diagonal band is needed underneath the diagonal Pennsylvania Railroad lettering. This decal set is no longer being produced. I have no data on how these trailers were numbered, so I put no numbers on the trailer.

The good news is that John Frantz of Mt. Vernon Shops is working on decal sets for both the Pre-1959 Lettering Scheme (Diagonal “PENNSYLVANIA RAILROAD”) and the Post-1959 Lettering Scheme (with Circular TrucTrain Logo Disc). I have supplied John with all of the lettering dimensions I have from trailers that Brady McGuire and I have measured over the years. The new decal sets from Mt. Vernon car shops could be used with Sylvan Kit # T-006 to make a very nice model.

**26’ SINGLE-AXLE RIB-SIDE VAN TRAILER**

The 26 foot single axle rib side van trailer is an example of an early PRR Keystone Merchandise Trailer used for local pickup and delivery and some TrucTrain service.

**Trailer Description**

Length: ..... 26 feet  
 Width: ..... 8 feet  
 Nose: ..... Round  
 Sides: ..... Ribbed  
 Side Door: ..... Right hand  
 Rear Doors: ..... Swing type  
 Roof: ..... Full length  
 Landing Gear: ..... Retractable w/wheels  
 Rear Axle: ..... Single  
 Wheels: ..... Cast spoke

**KIT CONSTRUCTION**

Sylvan Scale models kit #T-002 is a resin kit for a 26 foot Fruehauf Pennsy Trailer. The Sylvan trailer model is easy to build following the instructions. I added an ICC style rear bumper fabricated from styrene strips. The trailer body is a little wide at 102” instead of 96” which was the maximum legal width allowed at this time. Despite the width, the Sylvan kit makes up into a nice model.





These PRR photos of the 26' single-axle rib-side trailer are from the PRRT&HS collection and appeared in Elden Gatwood's article on F30 and F30A flatcars in the summer, 2006 TKM, p. 21. These photos also appeared in Nesladek's 1992 Keystone article.



## Paint Scheme

Trailer Body ..... Caboose Red  
Roof ..... Caboose Red  
Underframe, landing gear, and wheels ..... Yellow

## LETTERING

The kit comes with a complete decal set for the diagonal Pennsylvania Railroad paint scheme without the Tuscan diagonal band. The kit also includes a lettering schematic to help with decal application. The decals are very delicate so be careful when applying them. Use a sparing amount of decal set diluted with water until the decal snugs down over the ribs. A second decal set application may be necessary.

*Four photos of the completed Sylvan Models trailer kit.  
(Photos and model by Curt LaRue)*







A set of Baldwin RF16 Sharks (PRR class BF16) leaves a tunnel under Willsburgh passenger station on Tim Garner's PRR Willsburgh Division. A set of Fairbanks-Morse Erie-built units (PRR class FF20) is entering. The Sharks are modified E-R Models units. The Erie-Built are Proto 1000.  
(Tim Garner)