The Keystone Modeler

Pennsylvania Railroad Technical & Historical Society

No. 98 Autumn 2016

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The Keystone Modeler
Pennsylvania Railroad Technical & Historical Society

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

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FRONT COVER, FROM TOP OF PAGE

HO-scale ACF PRR PLC85 recreation car for the 1949 *Jeffersonian* by Andy Miller. The car has a full interior and LED lighting. *(Tim Garner)*

HO-scale Alco RS-3 (class AS-16) one-of-a-kind "Hammerhead" by Kirk Fisher. The prototype had dynamic brakes and a steam generator in the short hood. *(Tim Garner)*

Broadway Limited Imports N-scale M1A with a new smaller coupler. *(Claus Schlund)*

Three-quarter view of MTH H10s 2-8-0 model in HO scale. *(Tim Garner)*

The Keystone Modeler

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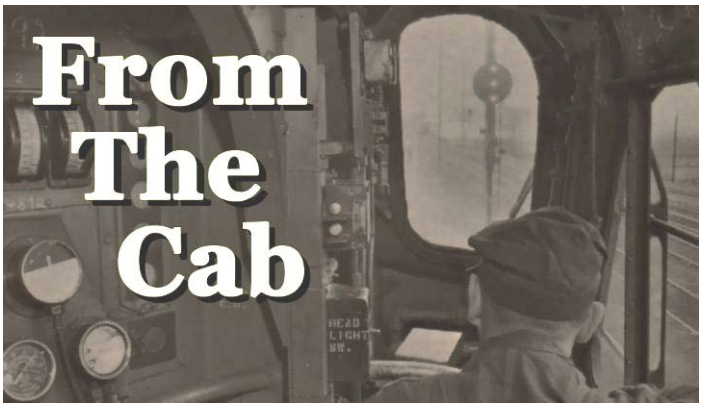

From time to time I hear or read discussions about the decline of brick-and-mortar hobby shops. Different opinions are offered to account for this decline, so I thought I'd offer my two cents as well. I am not aware of any statistical data for this, so the evidence is only anecdotal.

To begin with, small, independent businesses always seem to be struggling. Running a small business is time and money consuming and has always been a risky proposition. However, the problems of hobby stores in particular may be the result of some other factors as well.

It has been suggested that the decline is due to a lack of interest on the part of younger people. After all, they have many other things to attract them: the general fascination with electronic devices, the virtual worlds of gaming, and other forms of transportation. On the other hand, modern technologies, such a 3D printing, DCC, and computers for operations, are being applied to our hobby, and there are still some youngsters attracted to trains. I volunteer in a museum, and I have met some of these young people.

More pertinent, it seems to me, is the effect of on-line shopping. Even large retailers have felt its effects and have tried to adapt by offering more on-line shopping to their customers. Likewise, those hobby businesses that have been able to do business by phone and computer seem to be the ones most likely to survive. There will still be customers like me who enjoy browsing in a brick-and-mortar store, and who enjoy the shows which bring together a large number of vendors, but adapting to the desires of the customers is crucial.

Those of our readers who enjoy articles about layouts might look at *Great Model Railroads 2017,* which includes a piece about Dave Johnson's Pittsburgh Division and his model of the Horseshoe Curve.

Here, in our own publication this quarter, we have Tim Garner's review of the MTH H10s, a short article by Claus Schlund about attaching a working coupler to an N scale steamer, more model photos from last spring's annual meeting, and the Model Room Display Form for the 2017 meeting.

Jim Hunter, Editor

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. To join the Society, send $40.00 to:

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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, 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:

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PRR Product News

BOWSER MFG. CO.
http://www.bowser-trains.com/
PRR RS-3 Phase III – HO Scale

(Bowser)

Bowser has announced a completely newly tooled Phase III RS-3, class AS-16m. This Executive Line model will be offered in both DCC ready/DC and with a Loksound Select decoder. The Phase III was the last version. Visible distinctives include carbody doors without louvered vents, large filtered carbody openings, and "bugeye" number boards. PRR numbered these 8590-8605. With pre-orders due on 5/3/17, the model is expected in late 2017.

PRR H30 Covered Hopper—HO Scale

(Bowser)

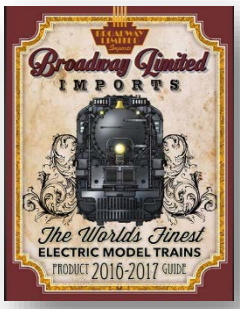
Available now is the next run of the H30 Covered Hopper in several paint and lettering schemes. Additionally, this run includes models with the early flush mounted and later raised roof walks.

PRR N8 Cabin—HO Scale

(Bowser)

Bowser has announced a production run of the N8 cabin in several paint and lettering schemes and with and without trainphone antenna. The model is ready-to-run. Delivery is expected in May 2017.

BROADWAY LIMITED IMPORTS
http://www.broadway-limited.com/
BLI 2016-2017 Product Guide—All Scales



BLI has available their new Product Guide for this year and next. Highlighted in it are potential plans for new PRR locomotives, including a streamlined K4 as well as P5 and GG1 motors.

PRR K7 Stock Car – HO Scale

(Broadway-Limited Imports)

BLI will have available next month the next run of the K7 with sounds for cattle, chicken, or sheep.

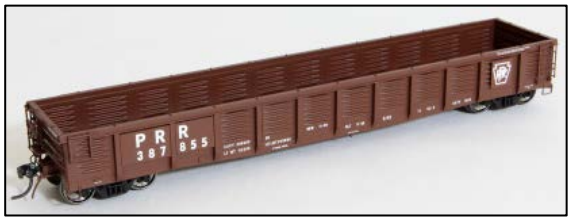
PRR L1s 2-8-2 – HO Scale

The second run of this popular engine is now expected to be available in November 2016.

PRR Baldwin RF-16 Shark – HO Scale

The latest Sharks are now due in December 2016.

TANGENT SCALE MODELS
http://www.tangentscalemodels.com/
PRR G43 Gondola – HO Scale



(Tangent Scale Models)

Tangent has announced that additional road numbers are available for this popular highly detailed and very accurate model. See the web site for specifics.

Upcoming Events

December 3-4 Marlborough, Massachusetts
New England Model Train EXPO
http://www.hubdiv.org/fallshow/index.htm

January 5-7, 2017 Cocoa Beach, Florida
Prototype Rails Prototype Modeling Meet
http://www.prototyperails.com/

January 28-29, 2017 - West Springfield, Massachusetts
Amherst Railway Society Railroad Hobby Show
http://www.railroadhobbyshow.com/

February 4-5, 2017 - Timonium, Maryland
Great Scale Model Train Show
http://www.gsmts.com/

May 18-21, 2017 Camp Hill, Pennsylvania
PRR&THS Annual Meeting
http://pennsyrr.com/index.php/home

Advance Planning

June 2-3, 2017 – Enfield, Connecticut
New England/Northeast RPM Meet
http://www.neprototypemeet.com/Welcome.html

July 30-August 6, 2017 Orlando, Florida
NMRA National Convention and National Train Show
http://nmra2017orlando.org/

Blast from the past – This image by Andy Rubbo on his HO-scale layout appeared in the May 2007 issue of *TKM*. Andy's New York Division layout is prominently featured in the November online *Model Railroad Hobbyist*. Among PRR modelers, Andy's scratchbuilt catenary is the stuff of legend! To see how he does it, see *TKM* issues 50 (Sep. '07), 52 (Nov. '07), and 56 (Mar. '08). This location recreates the PRR bridge over the Jersey Central mainline in Elizabeth, N. J. in 1968. GE E44 #4435 is heading west.

Product Review: MTH PRR H10s in HO Scale

By Tim Garner

A ¾ left-side view of the MTH H10s.

Earlier this year, MTH's PRR Consolidation, advertised as an H10s, hit the streets. The model runs well, sounds great, has some innovative features, and introduces a new PRR tender prototype, but it has a host of accuracy problems. A couple are major. Most of the problems can be corrected depending on your level of modeling ability and desire.

The MTH model bears comparison with the Broadway Limited Imports' H10s model (see review in *TKM*, Nol. 90, Autumn 2014). Both models were announced around the same time, but the BLI model hit the shores at least a year ahead. BLI worked with the PRRT&HS Modeling Committee on research and accuracy which shows in the finished product. Thus far, MTH has declined invitations to work with the Modeling Committee. That's hard to understand because the service is free to manufacturers and I believe Modeling Committee involvement results in higher sales among Society members and beyond.

The model is available with engine numbers 7103, 7099, and 7122 in PRR and 103 and 107 in Long Island. They can be purchased equipped for DCC and MTH's proprietary DCS Proto-Sound 3.0 system or a DCC/DCS/Motorola system that operates on Marklin 3-rail AC HO track (Proto-Sound 3E+).

The MTH catalog lists these features:

- Die-cast boiler and chassis
- Die-cast tender body
- Authentic paint scheme
- Real tender coal load
- Engineer and fireman figures [not in mine!]
- Metal handrails and bell
- Metal whistle
- RP25 metal wheels
- Interchangeable RP25 metal drive wheels w/o traction tires
- Sprung drivers
- Operating Kadee-compatible remote controlled proto-coupler
- Two Kadee #158 scale whisker couplers included
- Prototypical Rule 17 lighting
- Constant voltage headlight
- Operating marker lights (pilot only)
- Operating numberboard lights
- Lighted cab interior
- Operating tender back-up light
- Powerful 5-pole precision flywheel-equipped skew-would motor
- Synchronized puffing ProtoSmoke™ system
- Locomotive speed control in scale MPH increments
- Wireless drawbar w/close coupling option
- 1:87 scale proportions
- Operates on code 70, 83, and 100 track
- Proto-Sound 3.0 with the Digital Command System (DCS) featuring quillable whistle and freight yard proto effects
- Operates on 18" radius curves

The engineman's side of the MTH engine.

OUT OF THE BOX

The locomotive arrives in a huge package for such a small locomotive – 17⅞" x 6 ¼" x 3⅝". Inside, surrounded by foam, is a clear vacuum-formed piece within a clear plastic sleeve. Included is one pair of drivers without traction tires, a small smoke fluid container, a nut driver, and a quick-start guide.

As is typical these days, the most complete documentation for locomotives and decoders is not in the package. You need to go to the MTH web site. The web address for the MTH H10 manual is http://mththrains.com/sites/default/files/download/instruction/80st10059i.pdf.

I'd say the most innovative feature of the locomotive is the wireless drawbar. The half of the plastic drawbar protruding from the back of the engine has two long plastic pins. On the opposite sides of each pin are brass contacts. The half protruding from the front of the tender has two holes to accept the pins. On each side of each hole are stiff wires that touch the pin contacts when the drawbars are connected providing four connections between engine and tender. This system is more durable and easier to connect than the multi-pin JST connectors virtually all other model manufacturers use. As on the BLI H10s, the distance between the engine and tender automatically increases as it moves through sharp curves.

On the rails, the engine has a default locomotive number of 3. Using my NCE decoder, programming on the main, I changed the long number to 7122. The function keys perform the following tasks:

- F3 – Start-up and shut down – Pressing this will turn on the locomotive lights, sound, and smoke. The engine is compatible with 12, 28, and 128 speed steps, but MTH recommends 128. In that mode, the speed step is designed to correspond with the same number in scale miles per hour. Pressing F3 again will shut the engine down.
- F1 – Bell on/off
- F2 – Whistle – It stays on as long as you hold it. The ending sound varies depending on how long you hold the button.
- F4 – Freight announcements – Pressing F4 activates a sequence of sounds that lasts at least 10 seconds. There are four sequences.
- F0 – Headlight on/off – The engine or tender headlight is on depending on direction.
- F5 – Lights on/off – Turns all other lighting on and off including the pilot markers. The tender markers are not operational. (More on this later.)
- F6 – Master volume – Allows you to increase or decrease the locomotive volume.
- F9 – Forward signal – Pressing twice will sound two short whistle blasts.
- F10 – Reverse signal – Pressing this twice will sound three short whistle blasts.
- F11 – Grade crossing signal – Pressing twice will sound two longs, a short, and a long.
- F12 – Smoke on/off – Turns the smoke unit on and off.
- F13 – Smoke Volume – Allows you to choose between low, medium, and high smoke volume. The default is high. The smoke can also be fully turned off by turning the smoke potentiometer under the tender hatch fully counterclockwise.
- F14-16 – Idle sequence – Pressing F14, F15, or F16 twice will start an idle sequence of sounds if the engine is not moving.

- F17 – Extended start-up – If the engine is not moving, pressing twice will start a longer sequence of sounds than F3 including the crew talking about getting the engine ready to run.
- F18 – Extended shutdown – Pressing this twice while the engine is not moving will start a longer sequence of sounds than F3 including the crew talking about how the engine ran, time schedules, and other information.
- F19 – Marker lights – Pressing this will turn the pilot marker lights on and off.
- F20 – Train operation lighting – Working with F19, this changes whether the marker lights are on or off.
- F21 – One shot Doppler – Turns on and off a Doppler sound effect when the engine rolls past you.
- F22 – Coupler slack – Press twice when the engine is standing still and the couple slack sound will play when the engine starts to move.
- F23 – Coupler Close – Press twice when coupling the engine to standing cars.
- F24 – Single whistle blast – Push twice to play.
- F25 – Engine sounds – Press once to shut sounds off and again to turn them back on.
- F26 – Brake sounds – Press once to shut them off and again to turn them on.
- F27 – Cab chatter – Press once to disable cab chatter and again to turn it on.
- F28 – Reset – Resets all decoder features to defaults.

OPERATION

The MTH locomotive starts slowly and operates smoothly. It picks up power from all wheels except the pilot truck.

The BLI H10s has the edge in pulling power. There are a couple of reasons. The MTH engine (minus tender) is lighter. It weighs 10⅝ ounces versus 11¼ for the BLI. The MTH traction tires are on the third set of drivers while the BLI engine tires are on the fourth set. On the MTH, all drivers are sprung. On the BLI, only the first and fourth sets are sprung. I have had occasional derailments on curves with the MTH model that the BLI locomotive (and all my other engines) handle fine. I haven't confirmed the cause, but I think the inability of MTH drawbar to twist coming into and out of my super-elevated curves could be the culprit.

Right and left sides of the model. The boiler, cab, chassis, cylinder saddle, tender body, and tender chassis are diecast. The lettering is accurate for the pre-War era.

SOUND

Overall, the quality of the sound on the MTH locomotive is high. It sounds more clear and crisp than BLI locomotives. I suspect the reason is both MTH speakers are in enclosures and BLI's are not. The PRR freight banshee sounds accurate to my ear. The engine makes the sound of open cylinder cocks for the first few revolutions when starting, then switches to chuffs. The chuffs are synchronized to each quarter turn of the drivers. The cab chatter is quite loud, but it can be turned off with F27.

SMOKE

The MTH locomotive has the edge with smoke. It leaves the stack with more force and billows in a more prototypical way than BLI locomotives. BLI smoke often reminds me of a smoldering cigarette. When the engine is idle, the smoke is continuous as if the blower is on. Unfortunately, the smoke generator on the MTH engine has an audible whine to it – continuous when the engine is idle and intermittent with each chuff when moving.

LIGHTING

The MTH has working headlights on the locomotive and tender turned on by F0. The number board on the sides of both lights are lit. They should be blacked out on the tender. The MTH has working markers on the pilot beam with clear lenses to the front and on the side away from the center of the locomotive. The markers appear undersized. According to PRR rules, the markers should be red to the front and yellow to the side. The markers are controlled by F5. The markers on the tender are a little undersized and do not operate.

On the BLI locomotive, both the locomotive and tender markers light, but unfortunately they are always on. Markers should not be on except after dark or during inclement weather and only on which ever end of the locomotive is the rear end of a train. BLI markers light to the inside as well and come with changeable lenses of red and yellow.

Both locomotives have cab lights.

PAINTING

MTH's rendition of dark green locomotive enamel is good. Their rendition of dark graphite on the smokebox and firebox matches the color on the BLI H10s. The tires on the MTH drivers are an unfinished, slightly darkened stainless steel color. The painted driver tires on the BLI locomotive are more accurate. The color on the MTH tender deck looks like an accurate copy of PRR freight car color. MTH used the same color on the cab roof, but a darker color is more accurate. The builder's plates are printed on each side of the firebox and are for an engine built by Baldwin. The color of the lettering is buff. The spacing of the cab number and the "PENNSYLVANIA" are for a pre-war locomotive. The rendering of the locomotive numbers on the sides and rear of the cab appear too rounded. There is a printed badge plate on the back of the tender cistern, but none on the tender frame. The class of the tender on the plate reads 80F81A, but should read 70F81. The pilot beam has assignment codes – CP on the left and HBG on the right.

ACCURACY OF DETAILS

With help from Steve Hoxie, here is a menu of issues with the MTH model.

ENGINE FRONT END

Pilot – Most pilot details are done well. The pilot beam, grabs, coupler pocket, steps, and brake hose look good. A Kadee 158 "scale" whisker coupler is installed. A short-shank coupler would look better. The footboard supports are die-cast and have a thinner profile than the BLI model and look more realistic from the side. The pilot deck does not have safety tread as on the BLI model. The pilot bearing on top of the pilot deck is not modeled. The pilot support rods are attached to the cylinder saddle instead of the smokebox probably to simplify manufacturing.

Pilot marker lights – The operating clawfoot markers are undersized and not well detailed. It would look better to replaced them with brass castings such as Cal-Scale 190-600. The markers would no longer operate, but they are the wrong color and would rarely be used according to the PRR rules. If you are updating the model to post-WWII details, you would remove them entirely and mount "tombstone" or "bullseye" markers high on the smokebox.

Pilot Wheels – On the prototype, these wheels are 33" in diameter. On the MTH model, they scale to 28". On the BLI, they are 32". They are bright metal and need to be painted.

Smokebox front – The diameter of the smokebox door is 4" undersized. The raised rim in the center of the door should be against the brackets that hold the door closed. Instead there is a large gap. The BLI model is much more accurate. The number plate diameter is 2" too large. The rim is raised, but the numbers are not.

Smokebox steps – This has the wrong type of steps at 9 and 3 o'clock on the smokebox front. The sheet metal angle steps would only be appropriate on an engine that had the post-war relocation of the generator to the smokebox front with a servicing platform. After a quick look through a dozen PRR photo books, the only H10s I found with this modification was #7347. All the other 2-8-0 engines with the modification were the H9s.

(Clockwise from above) The face of the MTH model. The smokebox door is inaccurate and difficult to correct. The markers light up, but are white which is not accurate. The windows in the back of the cab are not glazed. The pins from the innovative drawbar connection are visible. The front of the tender is well done. The other side of the drawbar is shown. The back of the tender is not so good. It has passenger tender steps, no footboards, and no electrical conduits. The class on the tender plate is wrong. The coupler is controlled electronically. Replacing this with a more accurate Kadee-compatible is a challenging project.

The drawbar connection between the engine and tender involves two plastic pins with brass contacts on each side. The tender drawbar has wire contacts on both sides of each hole that touch the pin contacts. This results in a durable connection that is easy to connect and disconnect – much more robust than the JST plugs and sockets employed on BLI steam locomotives.

Headlight – The operating headlight is a good copy of the PRR standard. In fact, it is closer to scale than on the BLI model. The number boards on each side light when the headlight is on.

Engine Below the Running Boards

Cylinders – The width of the cylinder wrapper is 2" too narrow. The cylinder diameters for the H8, H9, and H10 were 28", 29", and 30" respectively. The cylinder head covers should be slightly larger. They scale 26" on the MTH engine and 29" on the BLI. On the MTH locomotive, the bottom inner quarter has been angled back to provide more clearance for the pilot wheels on curves.

Valve covers – The pilot valve front covers (the circular cover above the cylinder heads on the cylinder saddle) are not accurate for either an H10s or an H9s. To improve them, you could replace the cover with a larger diameter rod segment, retaining the engine's H10s class or file the front of the cover into a square shape, changing the engine's class to H9s.

Snifter valves – The MTH model has snifter valves on top of the valve chest. That would be accurate for an H9s, but not an H10s. The cylinder saddle is a die-casting so it would be challenging to grind this detail off without damaging the model.

Drivers – The prototype had 62" diameter drivers (before wear). The MTH drivers scale to 61" – not bad. BLI scales to 59". Model drivers are typically undersized due to the non-scale thickness of RP25 flanges. The driving wheelbase of both locomotives is right on at 17'-½". The tires on the MTH engine are bright metal and need to be painted.

Eccentric cranks – These are positioned to lag driver rotation in the forward direction. They should be positioned to lead the driver rotation in forward. This would be next to impossible to fix without damaging the driver or crankpin.

Brake hanger and rodding – These parts are molded in flexible plastic and are very well done. MTH and BLI did a good job here.

Left side piping – Forward of the air pump, the existing pipe under running board needs adjusting/straightening. There should be a second pipe over the air tank. To the rear of the air pump, the line coming down from the blowdown muffler should extend over the firebox and turn toward the rear of the engine.

Piping details below left side of cab – It appears MTH has copied the piping and stoker motor on the only existing H10s – #7688 at the Railroad Museum of Pennsylvania. If you want a non-stoker H10s, these details should be removed.

Right side piping – The piping hanging below the running board looks accurate until it gets below the cab. The two aftercooler pipes should turn in toward the frame rather than hang straight down. They can be clipped off where they turn down.

Power reverse – The power reverse is rendered well. The bell crank connecting it to the valve gear has no detail. The BLI model has rivet detail on this part. If you were modeling a Post-WWII model, a power reverse with an accumulator would be more accurate, but difficult to see behind the piping.

Lower portion of firebox – MTH has done a nice job on the ashpan including the cutout in the bottom to clear the rear drivers. It has greater relief than the BLI model.

In spite of MTH's mis-identification of the class, this is the first mass-produced model of the 70F81. The inaccuracies are correctable for skilled modelers. The chunks in the coal load are significantly oversize with most as big as an HO-scale human head.

Engine Above the Running Boards

Handrails around the smokebox – The two handrail posts on the smokebox sides close to the builder's plates are too long. In addition, two posts close to the front of the smokebox at approximately 11 and 1 o'clock have not been modeled. As a result, it looks like the handrails have been shifted toward the cab due to a manufacturing or packaging problem. This has bent the handrail and forced the lower conduits coming from the junction boxes out of position. The rail that goes over top of the smokebox should be even with the front edge. We know of three locomotives with the same problem, including the one shown in the *Model Railroader* review in the July 2016 issue. This appears fixable with needle nose pliers, two shorter handrail posts on the sides, two additional handrail posts at the front, and some CA cement. BLI rendered this detail perfectly.

Train control box – This is a nicely rendered detail. In most photos we've seen, the handrail should go up and over the box for the safety of someone walking on top of it (though I have seen one photo with the handrail left straight). There should be a conduit leading from the box to the left side junction box. An alternative would be to remove the box since not all engines had this equipment.

Generator – It is not the proper prototype. A Cal-Scale Sunbeam 190-212 would be better. On right side of smokebox there should be a steam line extending out of boiler jacketing forward to right side of generator. The conduit leading from the generator to the right handrail should attach to the junction box.

Smoke stack – On the prototype, the stack was a one-piece casting. On the MTH model, there is seam around the stack probably because of the die-casting process. The BLI model has the same line. This should be filled with model putty and painted.

Sand dome – The top of the dome hides a screw that holds the boiler on the frame. The top, which is held on by a magnet, unfortunately leaves an inaccurate seam. There's nothing you can do about this if you want to be able to remove the boiler for maintenance.

Boiler steps – There are three steps on the right side of the boiler for servicing the sand dome. If you were modeling a Post-WWII H10s, you would want to add them in the same position on the left side.

Bell – The bell and yoke is very primitive. A Precision Scale PRR bell bracket (#585-3155) is a good replacement.

Steam dome and whistle – The steam dome is nicely done. To the rear is a brass plated whistle with a simulated whistle cord. The whistle casting is delicate and has already cracked on mine.

Left side piping – MTH has modeled piping leading from the blowdown muffler down the side of the firebox. They left off a line supplying steam to the air pump. This could come from the left side of the steam dome (with a control rod leading from the dome back to the cab), from the cab across the firebox and down to the pump, or from the cab along the left side of the firebox to the pump.

Safety valves – These are plated metal and look okay. There is also globe valve handle extending from the top of the cab over the firebox with nice detail painted red.

The MTH H10s is on the left and the Broadway Limited Imports H10s (slightly weathered) is on the right. Although not perfect, the BLI locomotive wins from this angle. The BLI smokebox details, numberboard, and handrails are far more accurate.

Cab Detail

It is easy to remove the boiler and cab assembly if you want the improve cab details, add a crew, or paint the interior. Remove the top of the sand dome (held on by a magnet) and remove the Phillips screw then slide open the cab roof vent to access the rear screw. Pull the boiler and cab straight up. Once off, turn the assembly upside down to reveal the two screws that attach the cab to the boiler.

Sides – The cab appears to sit on its floor. The edges of the floor should be covered by the cab sides. The sides measure 7′-10″ long. The cab on the H9s drawing in the *Model Railroader Steam Locomotive Cyclopedia* (Kalmbach Publishing, ©1960) measures 7′-8″. The BLI H10s measures 7′-6″.

Toe board – The prototype is made from a piece of angle iron. MTH made a flat piece that is easily warped. The gap between the footboard and the bottom of the cab is too large.

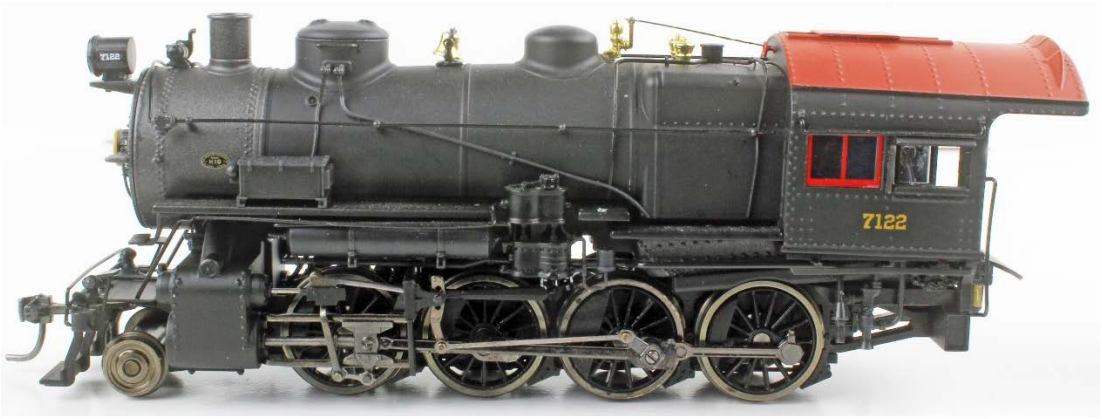
Side windows – The front window has a glossy red frame. The rear window is in a fixed half open position with a black gloss frame. The rear window would typically be completely open when the engine was being operated. This can be removed from the inside with the cab detached.

Front windows – The window frames need to be painted red, depending on the era you are modeling.

Rear windows – They should have red frames, depending on the era you are modeling, and window glass. Clear styrene can be cemented behind the openings.

Backhead – The backhead has cast-in details. Gauges are painted white and valves red. Interestingly, MTH has modeled a single fire door. Since they included details for a stoker-fired H10s on the outside, they should have done the same on the backhead. BLI's H10s is hand-fired, but has more modern air-operated butterfly doors.

Compare the left side of the MTH locomotive above and the BLI below. The differences are quite visible. MTH does a better job on the ashpan, siderods, and footboard supports. Piping to the air pump is missing. BLI has the edge in virtually every other detail. The MTH engine has a stoker motor cast into the frame below the cab, but paired it with a tender that never had a stoker.



Similar issues exist on the right-side comparison. The most noticeable discrepancy is the snifter valve on top of the cylinders. This is an H9s detail – not the H10s. It is diecast onto the cylinder and needs to be carefully ground and filed off to make correct. The diameter of the pilot wheel is undersized on the MTH model though there is room for an accurate 33" diameter wheel. A review of the BLI H10s is in the *TKM* No. 90, Autumn 2014.

These views show the top and the bottom of the MTH H10s.

Crew and seats – MTH's marketing says there is a crew in the cab. In mine, there was no crew and no cab seats.

Deckplate – This is hinged and rides on the tender deck. It does not have safety tread detail. The BLI model does.

Roof – As mentioned, the roof vent slides open. This is how you access the rear screw to remove the boiler.

TENDER

As mentioned above, the badge plate on the rear of the tender says this is a class 80F81A tender. We believe it is a class 70F81. This class was not equipped with a stoker.

Sides – The sides and frame are nicely detailed. Both the body and frame are die-cast.

Front – Details are cast in and look fine. There is no safety tread on the deck. The front steps are okay as is for an H10s. To convert to an H9s, with its 70" cab deck height, some work has to be done to change the number of steps to four+. "Four+" because photos show an irregular, "double" step arrangement at the second step. I don't think this is difficult, but probably more than you want to address here.

Rear – The rear steps and pilot beam are those of a passenger tender. The curved steps need to be removed and replaced with rectangular ones. Freight footboards should also be added. Cal-Scale 190-495 would work.

Markers – The non-operating claw-foot markers on the tender are undersized and not well-detailed. Consider replacing them with Cal-Scale 190-600. The BLI H10s would benefit from a similar change.

Backup headlight – The model has lighted numberboards on the side. These should be blacked out.

Coal load – The chunks are oversized for HO scale, especially for a stoker-equipped engine. It is possible to chisel off the load with a flat head screwdriver so more correctly sized coal can be added.

Trucks – They are nicely done. The wheels are a shiny steel color and would benefit from paint on the ends.

AND THE WINNER IS…

In a head-to-head comparison, both the MTH and BLI H10s models have a lot to offer, but I'd have to give BLI the edge. It is significantly more accurate right out of the box and deficiencies are much easier to correct. Something BLI could learn from MTH is to use air-tight speaker enclosures to improve sound quality and develop a more durable, easy to use connection between engines and tenders.

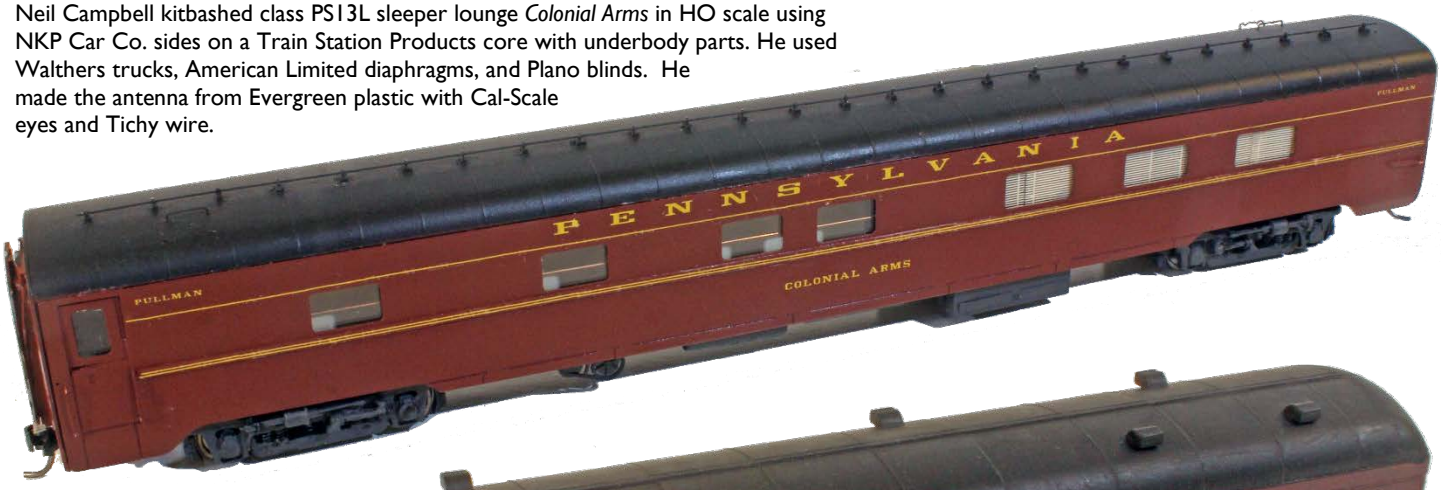
My sincere thanks to Steve Hoxie, Bruce Smith, and Jim Hunter in the preparation of this article.

2016 Annual Meeting Models – 2

The TKM Staff

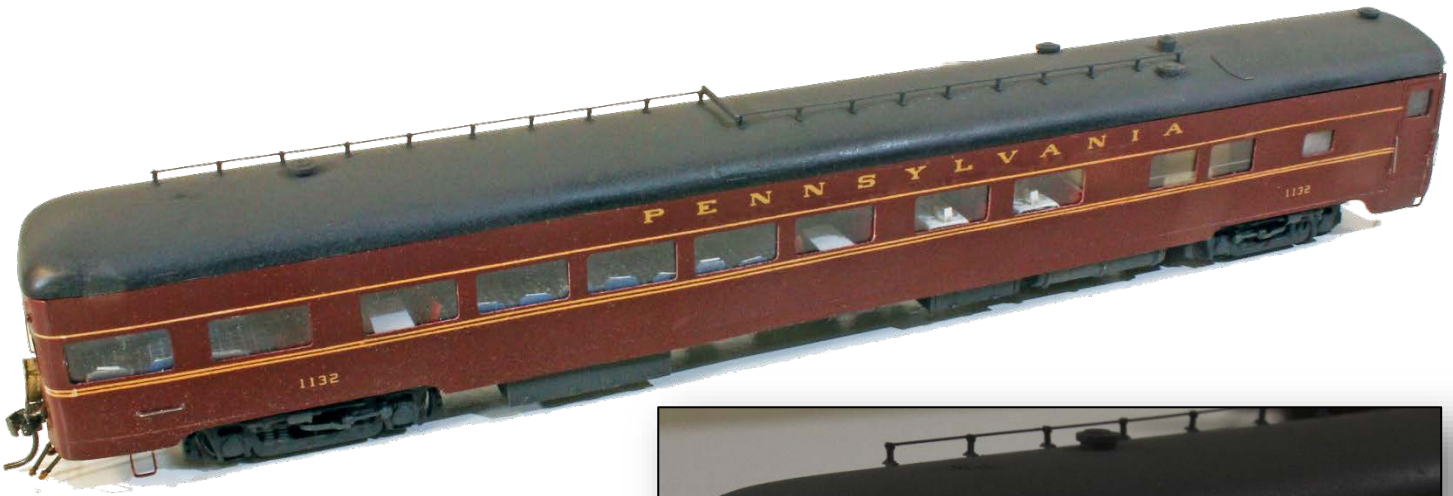
The quantity of models displayed at the annual meeting in Camp Hill, Pa. this year may have seemed less than usual, but the quality was high. Here are the remaining models.

Neil Campbell kitbashed class PS13L sleeper lounge *Colonial Arms* in HO scale using NKP Car Co. sides on a Train Station Products core with underbody parts. He used Walthers trucks, American Limited diaphragms, and Plano blinds. He made the antenna from Evergreen plastic with Cal-Scale eyes and Tichy wire.



Aaron Heany dressed up this ready-to-run Walthers B60b with grab irons, Sergent Engineering couplers, steam and signal lines, and drybrush weathering.

Andy Miller built this PLB85 baggage lounge as a commission for Tim Garner's 1949 *Trail Blazer*. Andy used Laser Horizon sides, the roof of a Rivarossi car, Walthers trucks, a scratchbuilt underbody, Red Cap seats, Kadee couplers, and a variety of parts from Grandt Line, American Limited, and Cal-Scale. The car has a completely detailed interior with strip LED lighting connected to a "keep-alive" circuit Andy designed. Lettering is Microscale decals while the stripes are masked and painted. Paint is Floquil.



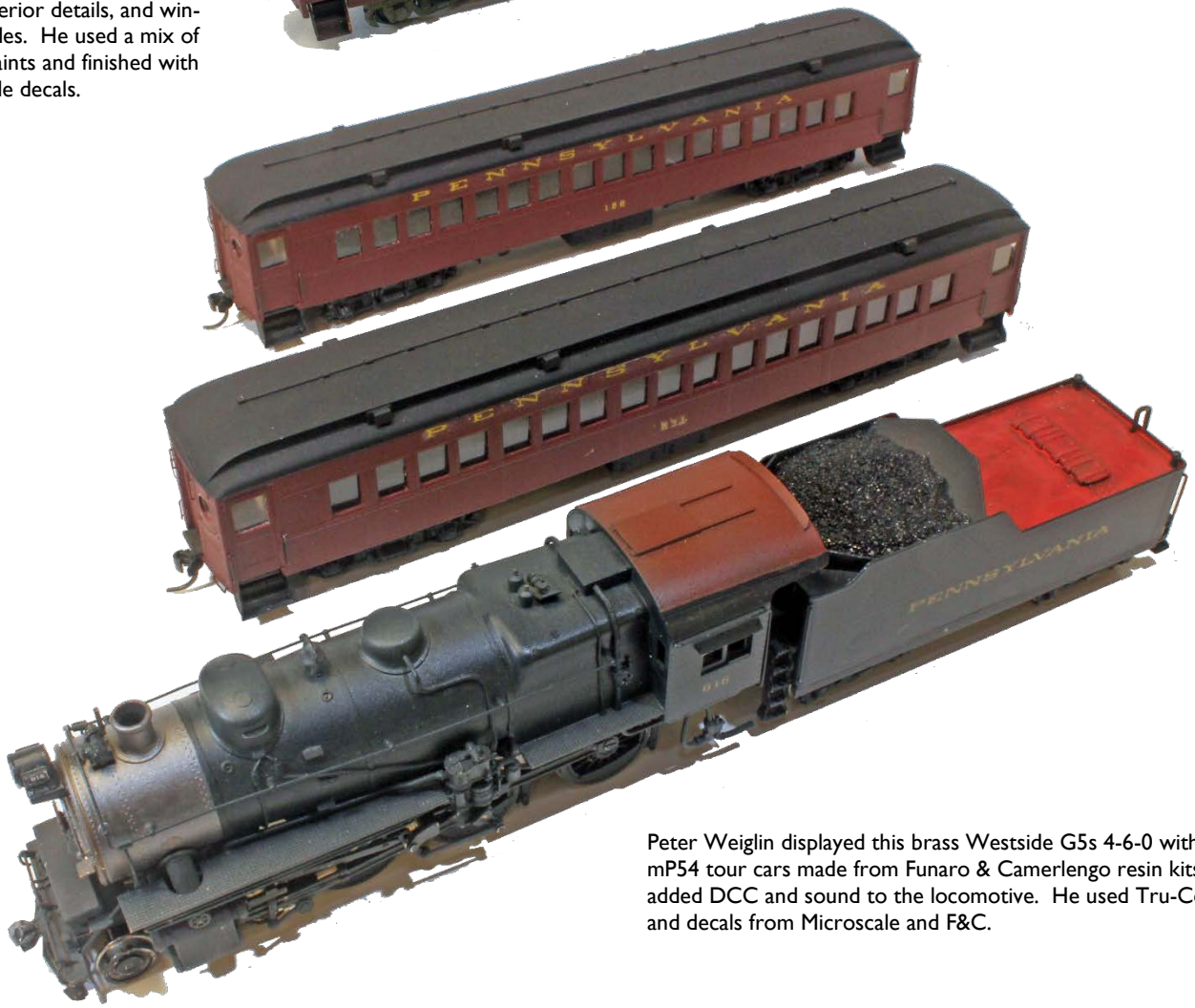
Andy also built POC85a coach observation #1132 for Tim's *Trail Blazer.* It also features Laser Horizons sides, Rivarossi roof, scratchbuilt underbody, Walthers trucks, and Kadee couplers. It includes Walthers dining chairs, Red Cap seats, Tomar tail sign, and other parts from Grandt Line, American Limited, and Cal Scale. The interior includes flowers, menus, and dinner plates in the PRR "Karasz" pattern. Lighting is by strip LEDs and Andy's "keep-alive" circuit. Decals are by Microscale. Stripes are masked and painted.

Andy displayed two more HO scale passenger cars he built for himself. Car #7301 is a PLC85 built by ACF for the 1949 Jeffersonian and later ran on the Penn Texas. He used Laser Horizons sides, AMB roof, scratchbuilt underbody, Walthers trucks, and various underbody parts. Inside, he used Walthers and Palace Car Co. seats, Prieser figures, and Red Cap ash trays. There are other parts from Grandt Line, American Limited, and Cal-Scale. Inside, there is a toy ocean liner, a children's play pen, and LED strip lighting.

Andy's last car is a pre-War PS6Lb sleeper lounge decorated for the Fleet of Modernism as it looked in 1941. Andy used USP sides, Northeastern wood roof, scratchbuilt underbody, Walthers trucks, Northeastern woods seats, Preiser figures, various underbody parts, Kadee couplers, LED strip lighting, and other parts. Using Floquil, he masked and painted the two-tone Tuscan. The decals are from a custom set made for Tim Garner by ELS Trains.

Jerry Britton kitbashed *Sumac Falls* in HO scale from a Walthers *Harbor* car. Using a Dremel tool, he expanded one window and added another to the bedroom side. Inside he added flooring, modified tables and some chairs, added Red Cap Line chairs and smoking stands, wall treatments, drapes, Plano venetian blinds, passageway handrail, passengers, and lighting. He used Tamiya paint inside. Jerry indicated the blinds in the lounge are set at half-pulled by the attendant and the bedroom blinds mostly closed, as they would have looked passing Lewistown, Pa. early in the morning. This was part of a PRR-Pro mid-train lounge project.

N scale 12-1 heavyweight Pullman *Latrobe* is by Claus Schund. He modified and decorated an Atlas model to represent the late 1920s. He gave it a new roof, new trucks, altered the window arrangement and underframe details, added diaphragms, couplers, vestibule steps, interior details, and window shades. He used a mix of Floquil paints and finished with Microscale decals.



Peter Weiglin displayed this brass Westside G5s 4-6-0 with two mP54 tour cars made from Funaro & Camerlengo resin kits. He added DCC and sound to the locomotive. He used Tru-Color paint and decals from Microscale and F&C.

Modeling historical what-ifs can be a lot of fun. With the corporate reorganization and combination of PRR and Lines West in the 1920s, the practice of lettering equipment for leased and controlled lines was discontinued. Ivan Frantz shows us what EMD F-units on the Northern Central might look like if the PRR continued the practice into the 1950's.

PRR fans celebrate when they see the PRR image peeking through newer paint schemes. John Frantz has captured the look on this HO EMD SD45 circa 1978-1980 now serving its third owner. He used decals from Microscale and Mt. Vernon Shops to create the effect.

Kirk Fisher displayed a pair of RF-16 Baldwin Sharks in HO scale. He enhanced these ready-to-run models with Cal-Scale Trainphone antennas and nose ladders, MV lenses, and Detail Associates horns. He weathered the models with an airbrush.

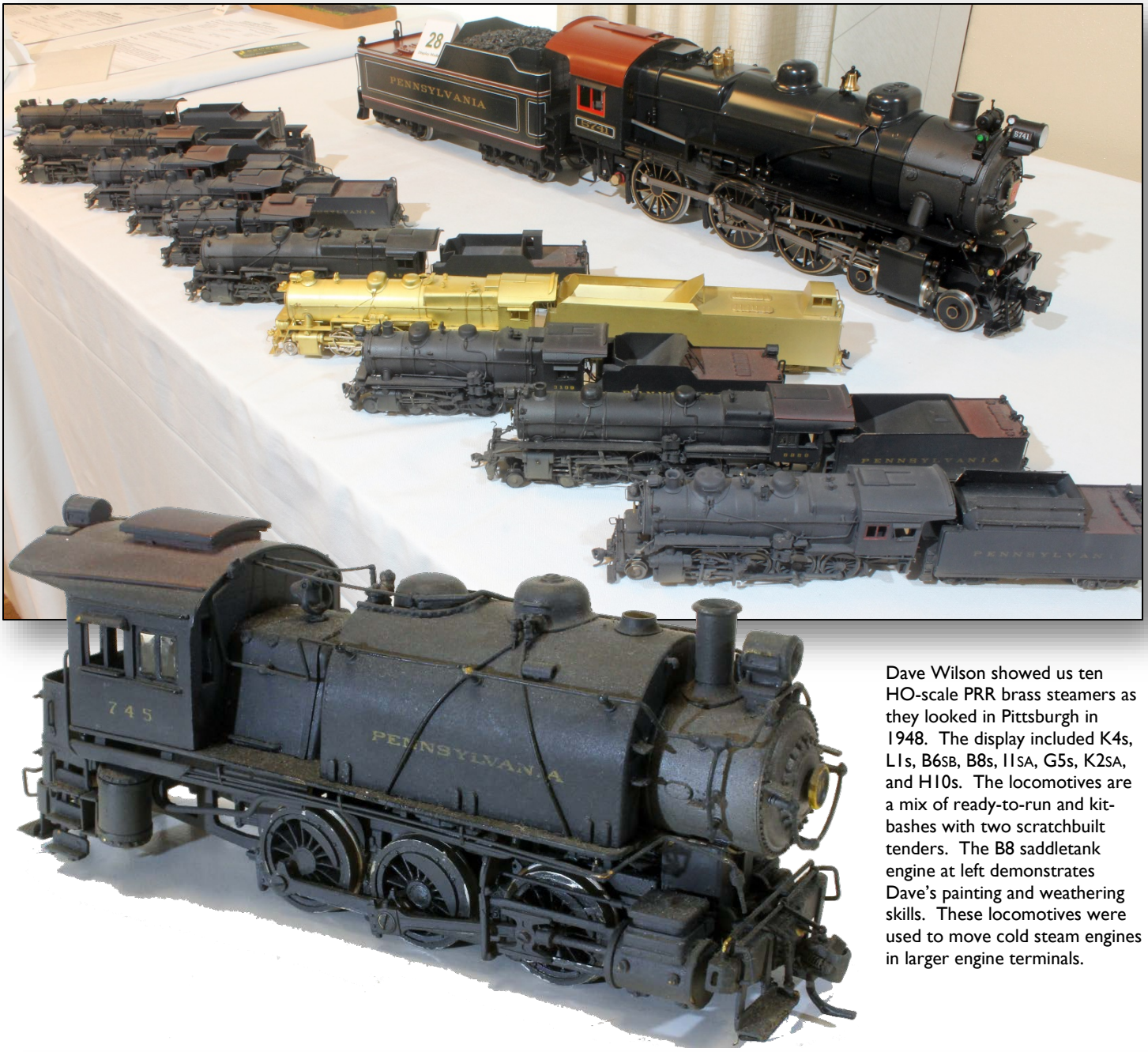
Tim Nielson displayed this set of HO scale Stewart Kato EF15a (EMD F7) locomotives. He added Trainphone antennas, diaphragms, and lift lings. He used Microscale decals, Polyscale paint, and light powder weathering. Unit #9904 has additional weathering.

▲ Kirk Fisher kitbashed this highly-detailed model of AS-16 #8445 (Alco RS3) "Hammerhead" in HO scale starting with an Athearn RS3 frame and long hood, a Stewart RS3 short hood, an Atlas RS3 cab, and a Smokey Valley hammerhead nose kit. He installed Soundtraxx sound and LED lighting. He used Scalecoat paint, Microscale decals, and Shellscale #144 Alco numbers.

Jerry Jordak displayed this BS-12 switcher (Baldwin S-12) as it appeared in the mid-1970s on the PRSL. He took a stock Bowser ready-to-run model and weathered it to match its appearance near the end of its service life.

Kirk Fisher displayed four ERS-17m (EMD GP9 and GP9B) locomotives – two regular units and two cables B-units. Cab unit 8510 also began as a Life-Like Proto 2000 chassis and shell. Kirk added Cal-Scale Trainphone antenna details, Scalecoat Brunswick green paint, Microscale decals, Floquil dull coat, and light airbrushed weathering. B-unit 7234B is set to represent 1959. He started with a Life-Like Proto 2000 chassis and shell and installed a Hi-Tech Details B-unit conversion kit. Paint is Scalecoat with Microscale decals.

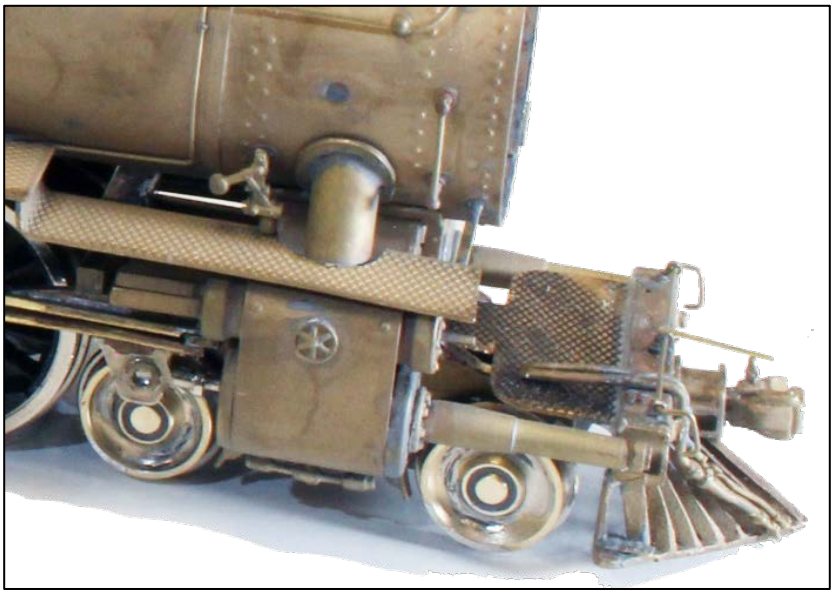
This N scale K4s circa 1954 belongs to Josh Surkosky. He kitbashed the locomotive from a Bachman Post-War K4s. Josh installed a 3D-printed sand dome from Keystone Details on Shapeways. He replaced molded piping with brass and music wire. Alkem etched brass number plates were added and tender deck markers relocated to the back of the tender on new fabricated stands to join a new back-up light, tender conduit, and etched brass ladder. The model was extensively and beautifully weathered.



Dave Wilson showed us ten HO-scale PRR brass steamers as they looked in Pittsburgh in 1948. The display included K4s, L1s, B6SB, B8s, 11SA, G5s, K2SA, and H10s. The locomotives are a mix of ready-to-run and kit-bashes with two scratchbuilt tenders. The B8 saddletank engine at left demonstrates Dave's painting and weathering skills. These locomotives were used to move cold steam engines in larger engine terminals.

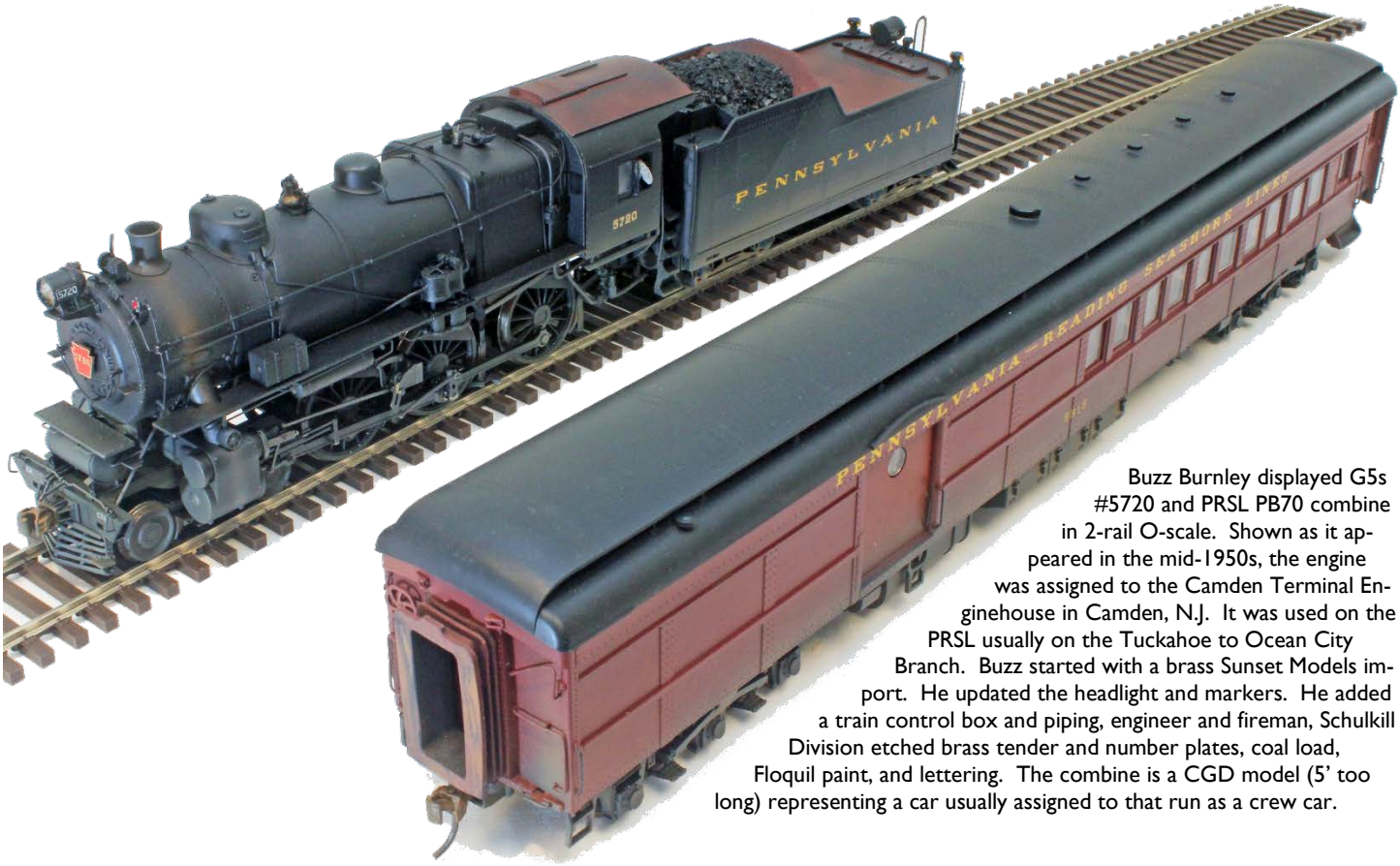
Anthony Alan Botto displayed beautifully painted live-steam G-scale model of G5s #5741.

Yank Yankolonis acquired this custom-painted model of 11SA #2945 from Howard Zane at the train show in Timonium and weathered it with Floquil paints and Pan pastel powders. He re-quartered the drivers to left lead. He added a train control box, air lines to the pilot tanks, crew figures, water lines to the injectors, LED headlight, rear headlight, function controlled tender marker lights, and firebox flicker light. He indicated the tender is unusual in having Trainphone receiving coils, but with a tender hatch not appropriate for an antenna-equipped tender. He wonders if other members can explain this. The N8 cabin car is by Rail Classics. He added curtains to match painted "curtains" crews would sometimes add with tempera paint to spruce up their home away from home.



R. L. Branin is taking a Pacific Fast Mail/United K4s brass model and backdating it to K4s #1737, the first K4s, as built in 1914. The number of modifications he has made so far is extensive. Among the highlights are new running boards, all new piping, manual reverse lever, ash pan dump lever on the left side, corrected grab irons, trailing truck bearing plates and spoked trailing truck wheels, revised smokebox front with new headlight, piston rod extensions, new steam delivery pipes, relocated snifter valve, cylinder cocks, new simulated wood pilot, new coupler and hoses, new correct 30" diameter leading truck wheels with brake shoes, scratchbuilt crosshead guide, and correct details on the tender. We hope to see the finished model at the 2017 Annual Meeting.

R. L. Branin also displayed these two HO-scale brass steamers modified to represent PRSL locomotives. The top engine is E6SA #6056 as it looked after WWII. It was built from a Gem E6SA. He lowered the boiler 10", added new steam pipes, piping, bell, new headlight, new reverse lever, new cab deck plate, junction boxes, marker lights, and builder's places. He modified a BLI 11sa short tender. The mogul is a what-if exercise – what AWJ&S F3 #6015 would have looked like if it was kept past 1928, upgraded to an F3SC, and relettered for the PRSL after 1933. He started with a Gem PRR F3B and made many modifications. The tender started as a Westside D16 tender. Both engines have new can motors and sound.



Buzz Burnley displayed G5s #5720 and PRSL PB70 combine in 2-rail O-scale. Shown as it appeared in the mid-1950s, the engine was assigned to the Camden Terminal Enginehouse in Camden, N.J. It was used on the PRSL usually on the Tuckahoe to Ocean City Branch. Buzz started with a brass Sunset Models import. He updated the headlight and markers. He added a train control box and piping, engineer and fireman, Schulkill Division etched brass tender and number plates, coal load, Floquil paint, and lettering. The combine is a CGD model (5' too long) representing a car usually assigned to that run as a crew car.

Front Coupler for an N Scale BLI M1A

by Claus Schlund

The BLI N-scale M1A is without question an excellent model. The only real complaint you hear about is the lack of a functioning front coupler. A casual inspection reveals that there is very little space between the pilot and the lead truck wheels. So little space in fact, that any sort of conventional installation of a standard Micro-Trains coupler assembly is out of the question.

As with many model railroading projects, there is often more than one solution to a problem. Some modelers have substituted a Unimate coupler. This is easy to install and it works, but the Unimate coupler has the disadvantage of being pretty darn big and ugly, an eyesore actually. It is also entirely non-automatic, requiring you to use your hands to lift the couplers

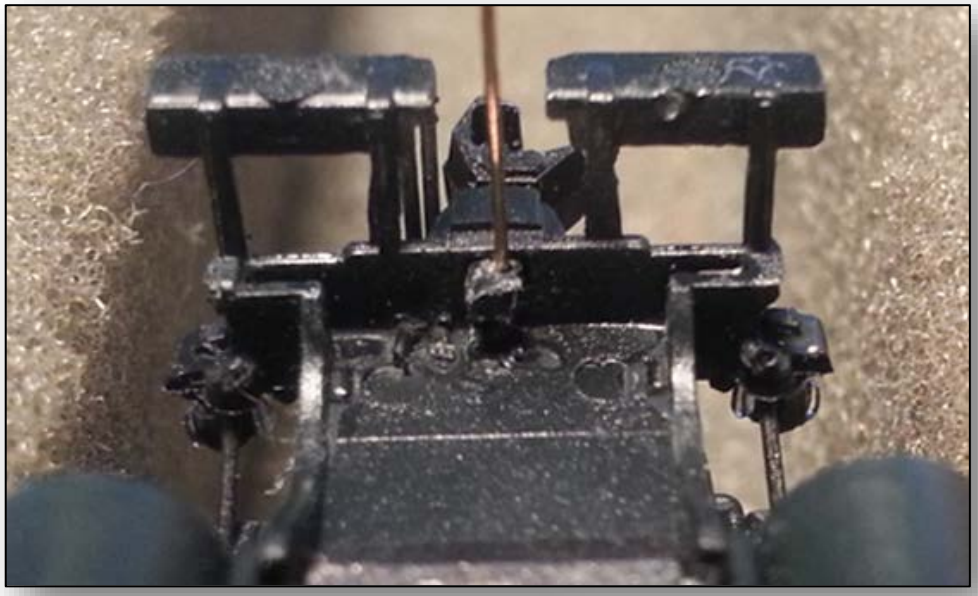
Some of the tools and supplies for this coupler conversion.

over one another to mate them together. I've also seen a solution involving a custom-designed 3-D printed coupler – certainly a very ambitious way to go!

I ended up going with yet a different solution. In my junk box I had several trucks removed from InterMountain ACF type-27 8000 gallon tank cars. These cars came factory equipped with truck-mounted InterMountain couplers. I found these couplers are very easy to install on the M1A, and have the advantage that they are of reasonable size. They are slightly smaller than a standard Micro-trains coupler. On top of that, they also offer automatic coupling when partnered with a standard Micro-Trains coupler.

To install, turn the locomotive upside down. Use a small Phillips screwdriver to remove the pilot truck. Be careful not to lose the small spring underneath! Using a hemostat, compress the retaining clips on the factory coupler mounting shaft and pull the coupler out of the pilot. I suspect you will find this is more easily said than done! Persistence and patience will be rewarded. Sometimes foul language gets rewarded too.

Open up an InterMountain truck draft gear box and remove the coupler. Trim away almost everything, leaving only a coupler attached to a straight shaft. Gently file and sand away any burrs or unevenness on the coupler shaft. The coupler shaft will fit nicely into the existing pilot coupler opening. Since this joint will at times be subject to the full pulling force of a train, I wanted to make it as strong as possible. Drill a 0.015" vertical hole through the exposed part of the coupler shaft, and glue a length of 0.0125" phosphor-bronze rod into this to serve as a retaining pin. Once the glue is set, trim the phosphor-bronze rod, reinstall the pilot truck, and you are ready to go.



▲ A short length of phosphor-bronze wire will serve as a retaining pin.

◄ InterMountain coupler before and after modification.

▼ A Micro-Trains coupler height gauge shows the result is spot on!

DISPLAY MODEL DESCRIPTION

49th ANNUAL MEETING MAY 18 – MAY 20, 2017

Radisson Hotel Harrisburg (formerly Radisson Penn Harris) ● Camp Hill, Pennsylvania

Instructions: Fill out this form and place it next to your model so members can appreciate and learn from your efforts. More detailed descriptions are encouraged and assist with coverage of your work in **The Keystone Modeler**.

Name of Modeler: _____ **Display No.** _____
Number assigned at Model Room

Category – check one:

☐ Steam Locomotive ☐ Passenger Equipment ☐ Work Equipment
☐ Electric Locomotive ☐ Freight Equipment ☐ Structure
☐ Diesel Locomotive ☐ Cabin Car ☐ Diorama
☐ Other (Specify) _____

Scale _____

PRR Class/Subclass	**Locomotive or Car Number**
Period and/or Location Represented	
Construction ☐ Kit ☐ Scratch ☐ Kit-bash ☐ 3D Printed ☐ Ready-to-Run / Brass ☐ Other	
Details Added/ Extras	
Paint / Decals	
Weathering	
Additional Comments – *Use optional page 2*	
For more information on this model:	

DISPLAY MODEL DESCRIPTION – Page 2 (Optional)

Name of Modeler: _____ **Display No. _____**
Number assigned at Model Room

Comments, continued