The Trolleyville Times

March 2014

The Bowser HO scale New Orleans Streetcar is just completing pro

Electroliner 803 (Liberty Liner) Returned to Operating Condition at Rockhill Furnace, PA!

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Matt Nawn, Rockhill Trolley Museum

The Rockhill Trolley Museum (www.rockhilltrolley.org), the operating entity of Railways To Yesterday, Inc., a 501(c) (3) non-profit educational corporation, is happy to announce the return of its historic Electroliner/Liberty Liner streamlined train to operating condition. Two of these historic trains were constructed in 1941 by the St. Louis Car Company for the Chicago, North Shore & Milwaukee Railroad, which provided high speed electric service from downtown Chicago to downtown Milwaukee until 1963. These trains were specially designed to provide the most modern comforts at the time yet still be capable of operating in the tight confines of the Chicago elevated railways and with automobile traffic in the streets of Milwaukee. These trains were studied by the designers of the original Japanese “Bullet” trains in the early 1960s and perhaps influenced some of the features of these trains. Both of these historic trains were sold in 1963 to the Philadelphia Suburban Transportation Company of Upper Darby, PA, commonly referred to as the “Red Arrow Lines”. These trains were refurbished and returned to operation on that company’s Norristown division in January 1964 and operated in regular service until 1978. Railways To Yesterday purchased train #803-804, named “Independence Hall”, in 1982 and moved the train to Rockhill Furnace where it was returned to operating condition. The train was set aside for display-only purposes in 1996 due to significant problems with the train’s electrical control system. Museum volunteers again restored the train to operation in 2011 for a special Membership event but electrical problems again sidelined the train in 2012. Thanks to a substantial donation, replacement control system components were assembled and more than a dozen volunteers from several museum departments worked as a team over the past four months to return the train to operating condition once again. The train made its ceremonial roll-out and first trip on Saturday evening, February 15, under moonlit skies at an annual gathering of volunteers from many east coast trolley museums.

The museum intends to maintain the train in operable condition in the future and operate the train on special occasions. The museum is accepting donations to help defray the costs of maintaining this historic vehicle and to rebuild additional components to provide increased reliability. The museum is a 501(c) (3) nonprofit educational corporation and donations are tax-deductible. If interested in donating towards this worthwhile project, please contact the POC provided below. The Rockhill Trolley Museum is one of the

O scale Trolley Modeling!

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Boston area O scale trolley modeler Tony Tieuli recently took on an open trolley finishing project and his work is stunning. Tony painted and decorated the 1/48 brass model for another party. "It was a basket case and needed a lot of parts, including the destination signs on all sides as well as the seat end details, etc.

Note the car cards inside in one of the views. I thought that was a nice touch and could be seen."

Tony described how he powered the open car -- a type sometimes known as a "breezer": "The car operates on Terry Russell 22-E fine scale trucks which are much lower than the old Wagner version and require no cutting of the running boards. It has DCC and, of course, LED lights. A good runner. " Tony explained his techniques for painting the car: "Spray paint - Floquil/Modelmaster for white and gray. Red, wood, flooring, benches interior all HAND painted. Graphics specially made in decal form - striping made me half blind by the time I was done". A very steady hand helps a lot when doing striping. "The secret is to work on your projects - sometimes 2 or 3 at a time to keep the enthusiasm up. Ordinarily, I have at least 3 cars at various stages of completion. When I am waiting for paint to dry on one, I can work on wiring up another, and so on. "The open car has a decoder under the floor and the interior and exterior lights are controlled as well as the motor truck. DCC really is the way to go for realistic operation."

Tony runs the "Oscaletrolleymodelers@yahoogroups.com" site and it always seeks new members interested in 1/48 traction modeling.

oldest continuously operating trolley museums in the Middle Atlantic, having operated trolleys every year since 1962. The museum offers a very scenic three mile round trip ride along scenic Blacklog Creek. For more information on the museum, as well as information on how to contribute to museum projects, when to visit, how to become a member, or how to volunteer, please visit www.rockhilltrolley.org. The restoration crew is shown in the next photo:

All photos by Joel Salomon

The New HO Scale SEPTA (Philadelphia) Kawasaki Single-End Light Rail Vehicle Model!

(Part II)

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Last month we began to report on the new Imperial Hobby Productions (IHP) scale display models of the Southeastern Pennsylvania Transportation Authority (SEPTA) 1981-vintage Kawasaki light rail trolleys. These 50-foot cars were delivered in 1981-1982, replacing the oldest of the PCC cars then still in use by SEPTA. The single-end Kawasaki cars are 50' long and 12' high, and have operator's cabs at one end.

As we previously reported, this model is only the second injected-plastic, USA-prototype LRV to be produced in HO scale, and it is IHP's first model to be produced this way.

The IHP SEPTA Kawasaki LRV is being produced as an unpowered display model. However, As we previously reported, there are ways to power this model using the Bowser 125100 and a floor that can be obtained from Shapeways. We cannot fault IHP for pursuing this model as a "gift" model. Bowser used the same approach to the San Francisco F-line models, provided them as gifts for the local transit museum store in 2009 and it was successful in introducing the models. That being said, we must mention that if you are going to make arrangements to convert a display model to a powered model, do it right. Just don't "fill a square"! In this area, despite the excellence of the model shell, IHP did not match the already achieved high level of excellence with the floor and the wheel covers provided with the model.

We received our Shapeways floor on February 11 and started to install a Bowser 125100 with an A-line 20040 flywheel kit. We reviewed the instructions on the IHP web site (also provided in the February 2014 Trolleyville Times) and began the process. The A-line 20040 instructions are provided here for your convenience. The very light Shapeways floor is somewhat similar to a metal (pewter) floor previously available from IHP with the second issue of their previous resin models. Except for the floor being too wide, matching the incorrect width of the model, this floor was adequate. The Shapeways floor fits perfectly into the shell. Both are shown below in Exhibit A with the old pewter floor on the top and the Shapeways floor on the bottom:

Railroad modelers have no difficulty identifying a boxcar but few probably are aware that trolley systems in the early 20th century had passenger-carrying boxcars. The boxcar was a closed trolley with seating enclosed in a "box," unlike the semi convertible and convertible trolleys used during the era for sunny days and warm nights. Philadelphia, for example, had five classes of boxcars -- both single and double truck -- ranging in length inside the passenger compartment from 18 to 28 feet. Boston was another city that used boxcars and modeler Tony Tieuli created one in 1/48 O scale. He had a project waiting after painting a brass open car: "When I posted the pictures of the open car, I mentioned (to some people, at least) that I had a 25' box car in the works. Not many people model cars from before the turn of the last century but I happen to be one of them. "This car represents a so-called spliced car because it was made from two 16' horse car bodies in 1891.

The West End Street Railway was very resourceful and recycled a lot of old equipment and its successor company, the Boston Elevated Railway, recycled the 20' and 25' boxcars into articulated cars from 1912 to 1918." Tony explained how he crafted the boxcar: "The model was made from cut up Japanese kits and lots of scratch built add-ons. Trucks are Black Beetle.

The hardest part (for me) was all of the elaborate lining out and lettering these cars had. The 1/64 striping eventually strained my eyes big time. Nevertheless, there are very few, if any, early electric cars represented in model form. The car has interior lighting, a motorman, conductor, DCC and a headlight." It takes research to accurately paint trolleys dating from the 1890s and early 1900s: "Jamaica Plain is a neighborhood in Boston. The West End had seven divisions throughout the metropolitan area. All had a different basic color, i.e., Lemon yellow, Orange, Pea green, Robin's egg blue, Yellow ochre, Crimson, and Scarlet. This all changed in 1911 when the Boston Elevated decided to paint all equipment in white and dark green. This Jamaica Plain car is in lemon yellow and operated on Division 2. The open car was painted for Division 6: Crimson."

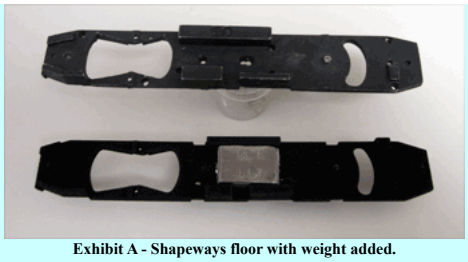

Exhibit A - Shapeways floor with weight added.

We found the weight of our Shapeways plastic floor to be only .5 ounce which was the same weight as the static plastic floor which came with the model so we immediately shaved down a 1.0 ounce weight to .9 ounces and placed it between the trucks as shown above. We then drilled out the rear truck mounting hole and the power truck mounting bracket holes with a #50 drill, tapped them for 2-56 and installed both the power and trail trucks. The motor and motor mounts were installed after modifying the front motor mount as shown in the A-line instructions. By the time the motor, flywheel, power and trailing trucks were added, the entire chassis less shell weighed only 3.8 ounces and is shown in Exhibit B.

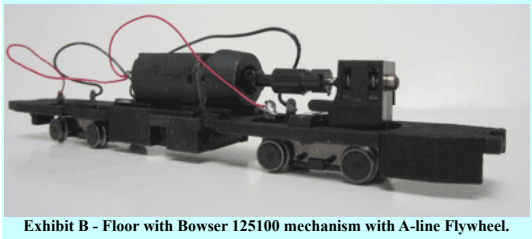

Exhibit B - Floor with Bowser 125100 mechanism with A-line Flywheel.

The Bowser chassis for the shorter PCC car with their die cast floor weighs about 5.0 ounces before we add our usual 1.0 to 1.5 ounces of weight. With the floor weighing less than one ounce, modelers will have to add weight if they expect to operate the car up any serious grades or power using overhead wire. As we mentioned before, if this is to be a serious attempt at a powered model, a metal die cast or pewter floor would have been the best choice. The use of plastic material for the floor coupled with the correct scale 102" width of the shell does not allow for a large enough opening for the swiveling power truck without seriously impairing the strength of the floor in the area of the power truck.

(Note: The preference that we have for metal floors will not be news to IHP. From the very beginning, when IHP introduced their first version of the Kawasaki car, after getting no commitment for a metal floor from IHP, Custom Traxx in concert with Bowser Manufacturing (Lee English), developed an aluminum floor for that first version of the Kawasaki car and it was used in the first and third versions shown in last months' issue. We have been advised that Custom Traxx offered the floor to IHP for their use but that offer was refused. Turns out that the floor was made for the first version and it would be too wide for this one. Overall, the Trolleyville Times represents those who run electric cars from overhead wire so our requirements may not be the same as two-rail operators or those who just place models on the shelf to admire.)

Of course we could not wait to install those great looking wheel covers that we found in the box with our car. How great was our disappointment when we discovered that they did not fit the newer Bowser 26 inch wheels. For the 125100 mechanism, Bowser is transitioning to the same wheels used in the ready-to-run line of PCC cars. Bowser upgraded their wheel sets a few years ago to include a wheel cover insert of the PCC super resilient (SR) wheel. The SR wheel was used on most (Not all, as Pittsburgh PCC fans will attest) PCC cars delivered after 1942. The mechanism shown in the instructions provided by IHP had the older flat faced wheels so their wheel cover was designed for that wheel. We have always preferred not to use a cover on those wheels as the HO scale wheels have too big a tread already without adding to the oversize appearance. Custom Traxx chose decals to simulate the super resilient wheels to avoid adding the extra thickness. This was also beneficial when modeling the Shaker Heights PCC cars which had skirting over the wheels. The recessed area in the new Bowser wheel is 6.9 mm in diameter and the 7.6 mm diameter covers provided by IHP will not fit.

HO scale Trolley Modeling!

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Modeler Bruce Battles sent us two photos of an HO scale San Francisco Municipal Railway Class A streetcar that he built from a Greg King supplied body. Custom Traxx decals and Miniatures by Eric poles were also used on the car. The provenance of this model is pretty interesting! His brother started to scratch build the car back in the early 90s, and built the floor, platforms, and the roof and end corner posts. For reasons not clear right now, he set the job aside, where it remained until early 2012. At that time, Bruce asked him how the project was coming along, and he admitted that he had lost interest in it. Bruce volunteered to try and finish the job, and he sent Bruce the car. As he got into the job, he saw where it was going to be a little more difficult than he thought. One day, about a year ago, Bruce mentioned to Greg King, in Australia, that he was having trouble getting the car built, and the sides and ends were a little more difficult than had been anticipated. Greg, bless his heart, cast me two sides and two ends out of epoxy resin! Armed with those parts, work forged ahead, and Bruce finally finished the car. It has a 27:1 Bull-Ant drive, and runs very nice.

[K-car Model, from Column 1**]**

Remember that the Bowser 1999 traction mechanism was designed considering the older heavy metal traction body castings used at that time. Custom Traxx took their first Kawasaki car model with the resin body shell and floor to San Diego Model Railroad Museum in Balboa Park and the car would not climb from under an overpass. It just sat and spun its wheels. After adding a metal floor and weight, the

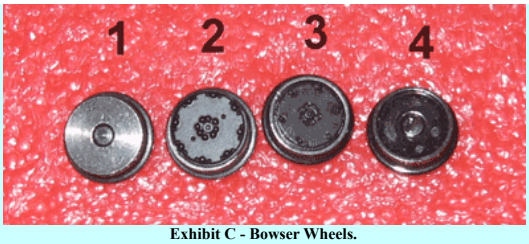

Exhibit C - Bowser Wheels.

In Exhibit C above, item 1 is the nickel silver Bowser 26" PCC wheel that had been used since Bowser upgraded from the original brass wheels. Item 2 is the same wheel with the IHP Kawasaki wheel cover installed. Item 3 is the latest Bowser wheel with the PCC Super Resilient (SR) insert installed. These wheels began to appear on the Bowser line of ready-to-run PCC cars in late 2011. Item 4 is the same wheel with the PCC SR insert removed. The IHP inserts just are too large for the latest Bowser wheel so as far as we were concerned, so they were useless to us. We will have to be content with the Bowser PCC wheel covers. If IHP decides to run follow-on batches of these cars in the SEPTA Phase 2 and Phase 3 schemes maybe they can adjust the size of the covers to make them useable on these new wheels. Unfortunately for modelers, 125100 mechanisms with both types of wheels are currently on the market.

Note: As of February 21, Bowser had about 20 125100 mechanisms still in stock with the older flat faced wheels shown above as Item 1. After that the mechanisms will be equipped with the PCC style SR wheel. We recommend that all 125100 users, including IHP, consider this when planning to use that mechanism for their models. The new Bowser wheel is so much more realistic as it has a definite tire just as the prototype.

We were able to remove the track brake assemblies from the plastic dummy floor but elected to use the Custom Traxx SCTC-3 units which were intended for the Bowser traction drive and fit right onto the mounting stubs.

We then wired the car for two-rail operation and installed a Bowser 12600 trolley pole for testing under overhead wire on the test track and the modules of the Southern California Traction Club as shown in Exhibit D below.

Exhibit D - Powered Model Operating on SCTC Modules

By now our entire car weighs only 5.0 ounces so we had reservations about the performance under wire and in tight radius curves. Now we are aware that there is a posted video of one of the cars successfully running on small radius track. However, the track used is flex track is not guarded or double guarded as is the case using street trackage such as Orr turnouts and switches.

Southern California Traction Club modelers have consistently found that there is a tendency for cars powered with the Bowser 1999 HO scale traction mechanism to experience wheel slippage or outright stalling at slow speeds when the model has insufficient weight.

[See **K-car Model**, column 2]

car performed as desired. That experience was shared with both Bowser Manufacturing as they were designing their line of HO scale Ready-To-Run PCC cars. Note that our first two Kawasaki car models shown in Exhibit E below weighed in at 8.0 and 10.0 ounces, respectively.

Exhibit E - Cars 9038 and 9011

Both of these have sort type of metal floor, aluminum or pewter. All of these have some sort of metal floor. In Exhibit F below, only the car at left has a metal floor and it weighs 10.0 ounces and performs well.

Exhibit F - Cars 9094 and 9111

So we will continue to test this model. We first will find a way to add some more weight and then we intend to find a way to get the car to take 6" radius curves. On the SCTC test track, the car did negotiate the 9" radius curve as shown in Exhibit G:

Exhibit G - Car 9111 on 9 inch radius curve.

However, it balked at the 6" radius curve. as shown in Exhibit H:

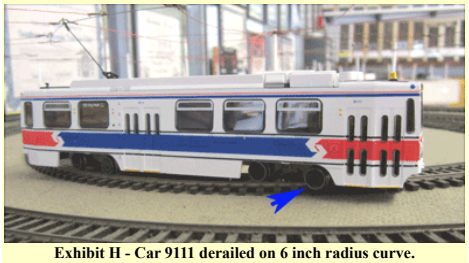

Exhibit H - Car 9111 derailed on 6 inch radius curve.

Once we solve the radius problem, we plan to add lights and DCC. We have removed as much material from the floor to allow the power truck more swing but we hare afraid that we will severely weaken this plastic floor, if we removed more material. We have checked the drive line components and feel that we have done everything we have thought of to get the car to take a 6" radius curve but we have not been successful as we go to press. If any of you modelers have some suggestions, please do not hesitate to let us know so we can inform the modeling community.

In conclusion, we must state that this shell and the decorations thereof are by far the best product we have ever seen from IHP. *(No need for "...clenched teeth..." here.)* The shell is accurate and gives the feeling of the prototype. We hope to see the models in the later paint schemes also. Now we only wish that there was a cost-effective way for someone to develop and produce a die cast floor that provided more weight for the continuously diminishing numbers of modelers who actually will operate these models. We want to run this car with the rest of our Philadelphia PCC and conventional cars on our Philadelphia type 'ogive' curves. With the proven Bowser traction drive and a few modifications, this might be turned into one great running model.