Oregon Electric Railway Historical Society

THE TRANSFER

Volume 28
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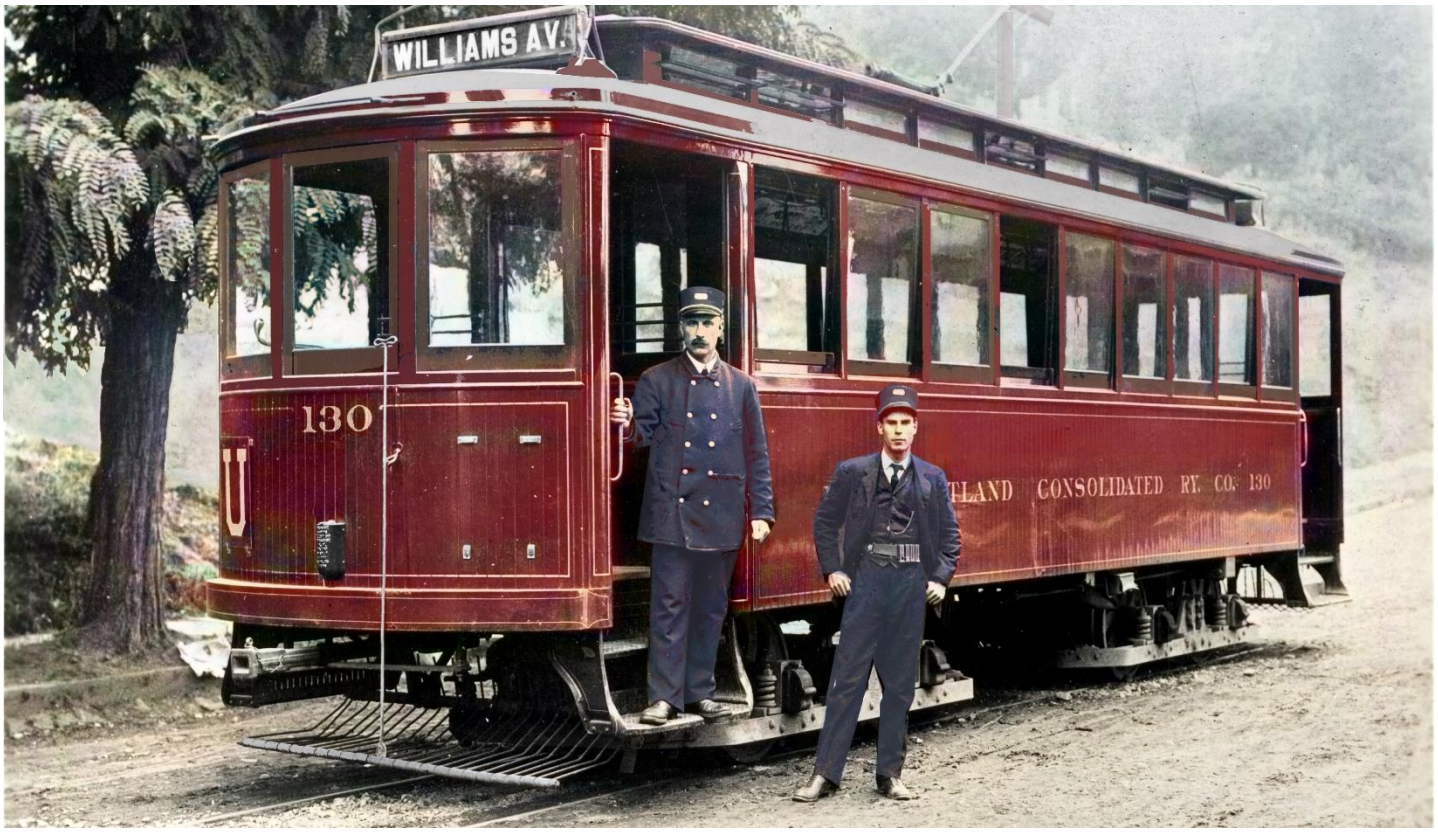
Summer 2023

Reminder to members: Please be sure your dues are up to date. They are due on Jan 1. If you have not renewed you can pay online, or download a membership form, at http://oregontrolley.com/join

In This Issue

Portland's First "Standard" Streetcars

By Richard Thompson



Former City & Suburban "Standard" car No. 130 is seen on Williams Avenue. The handsome car had just been re-lettered for the Portland Consolidated Railway, which merged Portland's two largest railway companies in April, 1904. The Portland Consolidated Railway renamed the Upper Albina Line Williams Avenue, but retained the "U" dash sign to avoid confusion.

In the early 20th Century the most prominent class of streetcars in traction company rosters were often referred to as their "standard" cars. Such was the case with Portland's City & Suburban Railway 100-146 series, which were known as "C&S Standards" long after the C&S was absorbed into the Portland Consolidated Railway in 1904. The competing Portland Railway Company also developed a standard car, but that is a story for another article.

Until 1899 the standard C&S cars had been double-truck white and gold trolleys ordered from the Pullman Company in 1892. However, the inability of national car builders to keep up with demand during this period also prompted the C&S to begin manufacturing its own streetcars. The first such attempt, in 1891, involved splicing together former horsecars to create 15 longer double-truck trolleys. In 1899 a similar technique

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If you have overlooked paying your dues for 2020 or did not realize that 2021 dues come due on Jan. 1 this is your reminder. Memberships should be renewed on January 1st each year. The OERHS is a non-profit 501-C-3 corporation, so dues are tax deductible.

Categories

Active	$ 30	Sustaining	$ 250
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Mission Statement

The mission of the Oregon Electric Railway Historical Society, Inc. Is to preserve the regional heritage of electric railway transportation as a living resource for the benefit of the present and future generations.

To fulfill this mission the Society will promote:

- The study of electric railways, their physical equipment, properties, and operations, devoting special attention to the electric railways of western Oregon.
- The procurement and preservation of historic electric railway equipment, materials, and property.
- The display, interpretation, and operation of surviving historic equipment, materials and properties.

By Laws, Article II, 9/14/93

Official Notice

The Transfer is published quarterly as the official publication of the OERHS, a state and federally recognized not-for-profit institution and operator of the Oregon Electric Railway Museum at Brooks, Oregon and the Willamette Shore Trolley between Lake Oswego and Portland.

The views expressed herein are solely those of the individual writers identified and of the editor only and may not represent the views or policies of the Society, its Board of Trustees, Officers, or Members.

Articles, photos, and letters for publication are always welcome. Please email to either transfer@oerhs.org or trolley503@frontier.com

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You can be a Motorman, Conductor, Tour Guide, help restore trolleys or participate in more great activities. Want to learn to operate a 100-year-old trolley or an electric locomotive? If you are interested in training to be a motorman, conductor, or station agent at the museum contact Greg Bonn at (971) 344-0755. If you wish to volunteer for the Willamette Shore Trolley, call David Harold or Jan Zweerts at (503) 697-7436. No experience is necessary just a passion for trolleys! We can train you in any volunteer position that meets your interest.

How we deliver *The Transfer* and *The Monthly Pass*

Our quarterly newsletter *The Transfer* is published electronically in full high-resolution color. Members can view and download current and previous issues at the OERHS website: **oregontrolley.com/transfer**. You will also find an archive here of previous issues going back to the 1970s. It is easy to print copies on your personal color or black & white printer. By default, members receive email notification as soon as an issue is available. We believe you will appreciate the higher quality pictures that this process will provide to all the interesting photos that accompany our articles.

For those who prefer a printed copy of *The Transfer* a black and white version will be mailed to your home address by request. Please send this preference to Secretary Mark Kavanagh, Oregon Electric Railway Historical Society, 3995 Brooklake Rd. NE, Brooks, OR 97303 or send him an email at mark@oerhs.org.

When needed, the OERHS also updates members on events at the Oregon Electric Museum and the Willamette Shore Trolley in a short email newsletter called *The Monthly Pass*. We must have your correct email address for distribution of both newsletters. We respect your privacy and will only use your email address to send a single notification when the latest issue of *The Transfer* is ready. We do not send promotional material or advertising.

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C &S "Standards"

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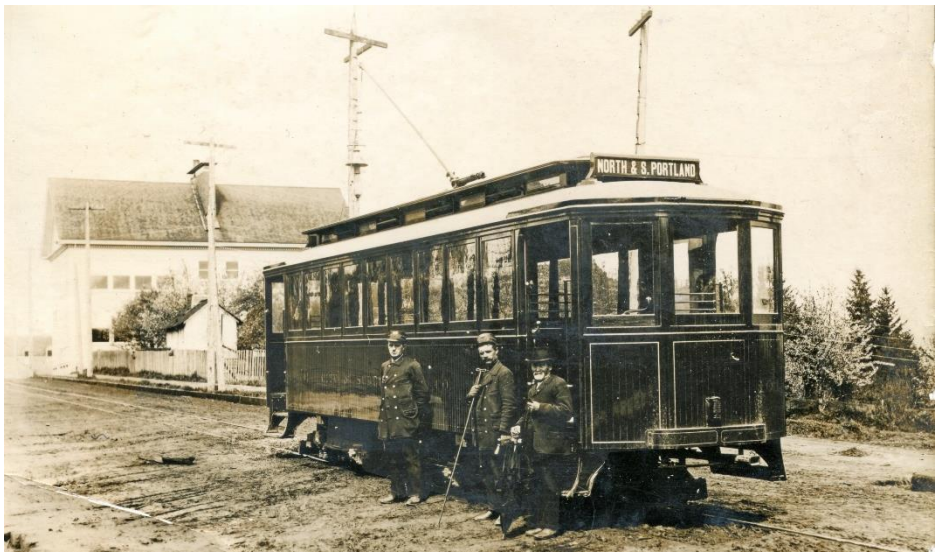
was used by Northwest Portland's Hand Manufacturing Company to build three half-open cars for the C&S. These unique trolleys were created by splicing four-wheeled open and closed cars to form double-truck "California" style vehicles.

The situation had not improved with the dawning of the 20th Century. In 1900 a continuing paucity of cars from national builders inspired the C&S to launch its most extensive car building program.

Construction of the first four C&S Standards got under way that summer. Car manufacturing was carried out in the two-story shop located at the eastern end of the Savier Street Carbarn. The barn complex had been expanded considerably from the original stables built by the Transcontinental Street Railway Company in 1887.

According to a glowing article in the March 2, 1901 *Street Railway Journal*, car manufacturing at Savier Street was state-of-the-art, "For several years this company has built its own cars, and its car houses



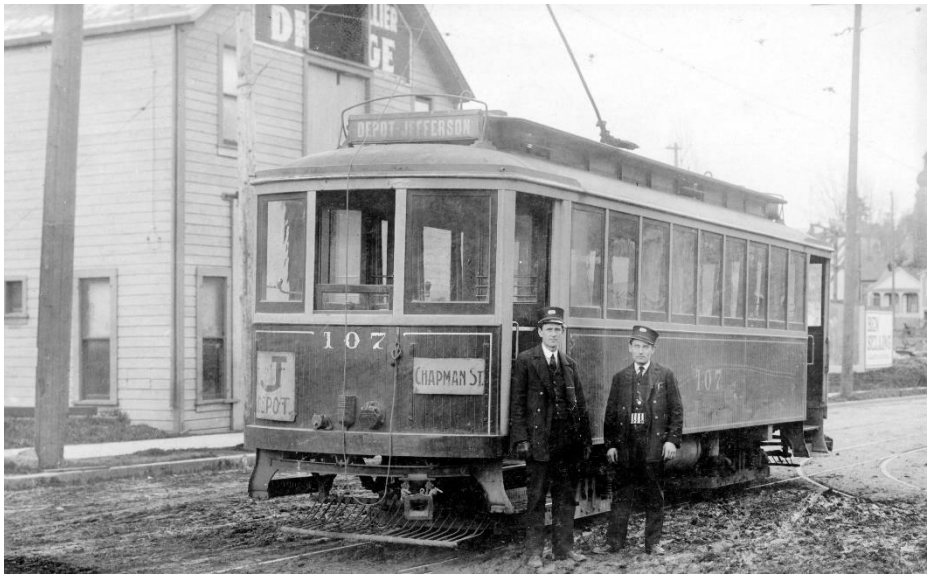
City & Suburban Standard No. 101 is laying over at the original southern terminus of the North & South Portland Line on SW Corbett and Hamilton Streets with Holman School in the background. Note the gentleman leaning on an umbrella and the motorman holding a switch iron. Both the line and the streetcar were brand new. (Charles W. Love photograph)

contain some excellent specimens of car building. There is probably no place in the United States better located, as regards lumber for car building, than Portland … All the kinds of wood that go into the construction of a car are found in the Oregon forests, and what is more, the timber is of such size that there is no difficulty in getting pieces of such a length and freedom from knots and cracks as would be marvels in an Eastern car-building shop. At present writing four closed cars are being completed."

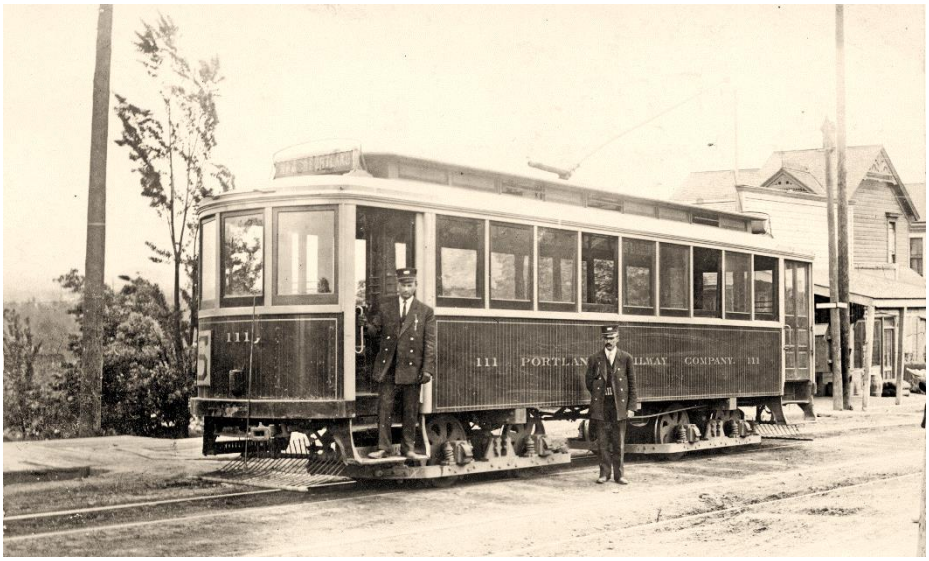
The four cars referred to were Standards 100-03. They were the first of a 45-car series that, when completed in 1901, would comprise the largest car type operated by the City & Suburban Railway.

Their straight, nine-windowed, sides gave the C&S Standards a simple, handsome appearance. At 34 ft. 6 ½ inches they were longer than earlier cars and could accommodate a half-dozen more seated passengers. Sturdy construction gave them a long life, with all but one lasting into the late 1930s.

In 1906 the Portland Railway, Light & Power Company (PRL&P) consolidated all Portland railways. The Standards saw service on all of their narrow gauge (42") lines. Photographs show them working on the Alberta, Beaumont, Depot-Jefferson, Fifth Street, Irvington, Mississippi Avenue, Montavilla, Mount Tabor, Municipal Terminal, North & South Portland, Rose City, Sixteenth Street, Sunnyside, Waverly-Woodstock, and Williams Avenue lines. For years they were the typical car on lightly patronized lines.



Although Depot-Jefferson Line car 107 is signed for Chapman Street it is laying over three blocks north of the terminus in front of a stable ("drayage") on SW Jefferson and 18th (then called Chapman). The spires of Congregation Beth Israel at SW 12th and Main are just visible at far right. (Courtesy Mark Moore)



This photograph shows Standard No. 111 working the "S" North & South Portland Line during the reign of the third Portland Railway Co. (1905-06). The location is unknown, but probably along NW Thurman St. Trucks are thought to be Peckham 14 B-2. (Courtesy Mark Moore)

Until the arrival of the Birneys in 1919 the Standards saw frequent use on stub lines as well. A few were also leased to other operators, like the Kenton Traction Company.

Although past their prime, the Standards continued to be seen during the 1920s. Like other PRL&P streetcars, most of the series were converted to one man operation between 1920 and 1926.

By 1929, however, the handwriting was on the wall. That year three Standards had their electric platform heaters removed and placed in other cars. This was seven years before they were officially retired, which suggests that most would be stored out of use during the 1930s.

Six of the Standards were experimentally remodeled. Prior to 1912 No. 137 was rebuilt with low PAYE platforms featuring five windows. In 1925 two additional motors were briefly added to cars 139 and 140. However, No's 100-101 received the most radical remodel of all when they were connected to form Portland's first, and last, articulated streetcar in 1913.

The articulated unit's design was similar to the "two rooms and a bath" concept successfully employed in Boston. But, unlike Boston, PRL&P utilized double rather than single-truck cars.

During their rebuild, each of the old high-step trolleys had one end platform removed. A new middle section was then suspended between them to function as a flexible connection between the two cars.

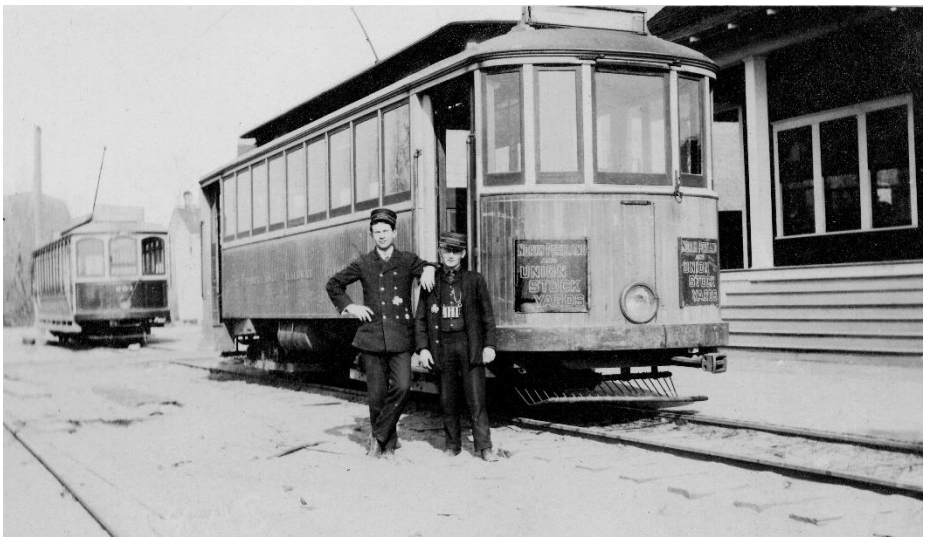
Passengers boarded the joined cars via three steps: the first two into the center vestibule and the last one onto a pivotal section between the center compartment and the front and rear cars. The third step was circular and mounted on bearings so that it rotated when the car took a curve.

There were no trucks under the center compartment, which was used only for entrance, exit, and fare collection. It was carried on a steel underframe that pivoted on center bearings and was supported by sills extending from the car bodies.

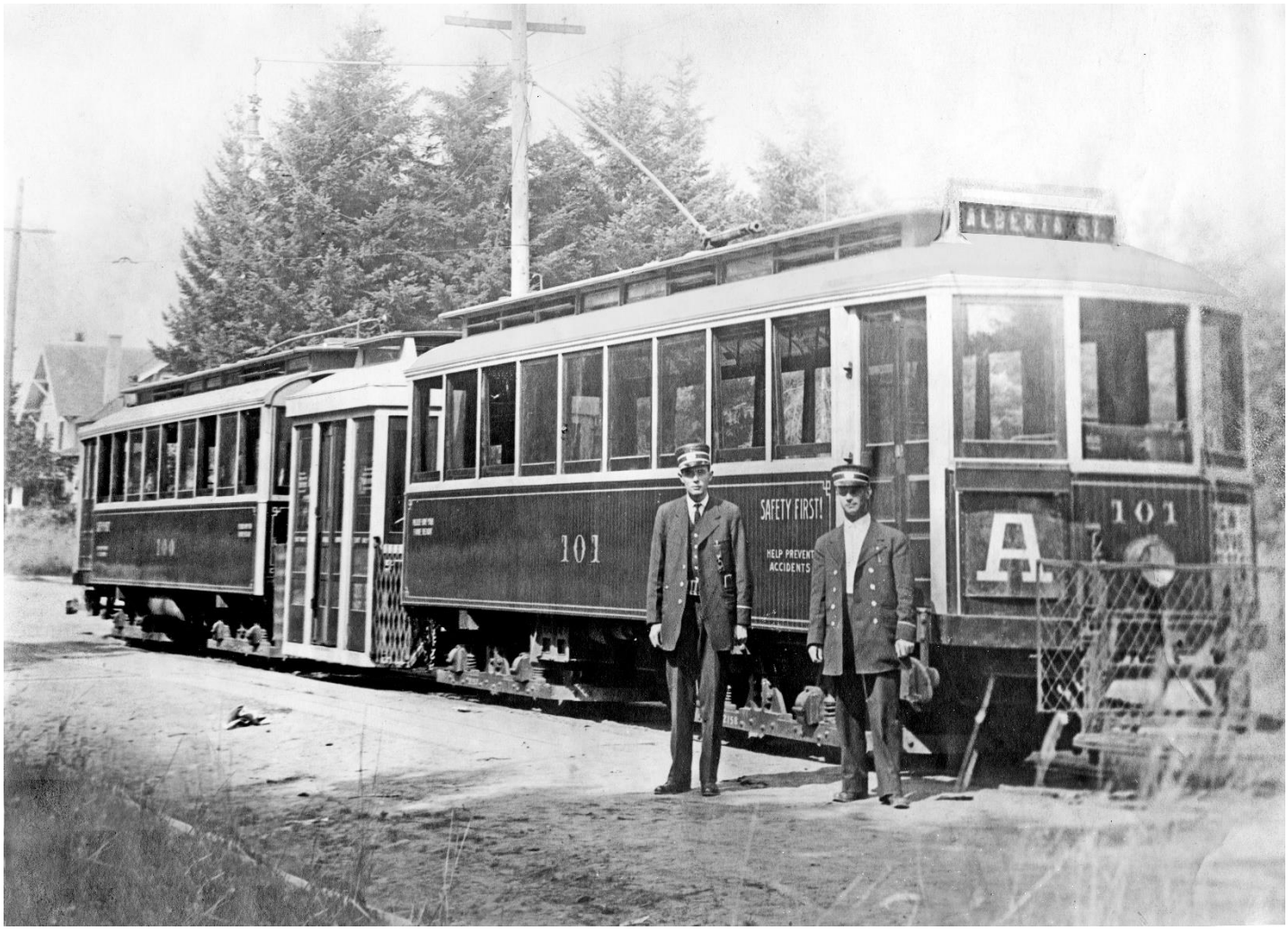
The conductor was stationed in the middle compartment and did not roam inside the cars. He was seated behind the entrance doors. Barriers at each end of the platform steps separated the flow of boarding and exiting passengers.

The conductor was responsible for operating several things from his position. A movable post holding the fare register and door operating mechanisms was placed near the conductor's stool. There was also a bell cord nearby for signaling the motorman. The trolley poles (one on each car) were raised or lowered through ventilation slots in the center compartment roof.

PRL&P's articulated design was based on three concepts: One, since it could accommodate more passengers it would reduce the number of trolleys needed during rush hour. Two, the center entrance would speed up boarding. Three, several of the outdated, small, C&S Standards



Around 1912 Standard No. 137 was rebuilt with dropped PAYE platforms featuring unique 5-windowed ends. She is shown with open car 251 at the northern terminus of the Kenton Traction Co. Line during St. Patrick's Day, 1909. (Courtesy Mark Moore)



"The Dragon," PRL&P's only articulated streetcar, as it appeared on the Alberta Line in 1914. Details of the rebuild are clearly seen, including the conductor's vestibule suspended between cars 100 and 101, whose platforms have been removed on one end. Note the use of the trolley pole on the front car only. The pole on the rear car is reversed and secured.

would be converted into modern cars at a low remodeling cost of $1,900. The new "twin car" also reduced labor costs since it was staffed with only one motorman and one conductor.

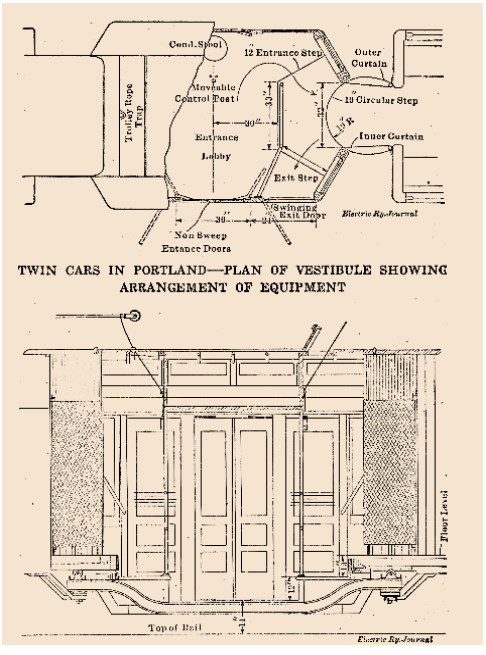
In 1914 the new car, which crews nicknamed "The Dragon," worked on the Alberta Line in Northeast Portland for about five months. As problems developed, it was leased to Kenton Traction Company.

Unfortunately, PRL&P's articulated experiment was not a success. The unit made up of cars 100 and 101 was the only one built. Four twin cars had been planned, but when the first one proved a disappointment work on the others was cancelled. In 1920 the two cars were separated again and rebuilt as single units.

Several humorous stories highlight the difficulties faced by crews on The Dragon. The first problem they faced was caused by the car being underpowered. The four GE-58 motors did not allow for rapid acceleration. That, coupled with slow boarding via the suspended vestibule made the articulated car a slow one.

A longtime Alberta Line operator interviewed by David Stearns in the mid-1950s described the car as, "so slow and clumsy it used to arrive in the downtown area with some five or six other cars bunched up behind it."

The next challenge was due to a design flaw. Streetcars normally draw their power from the rear trolley pole. However, on the articulated car the front trolley pole was normally used

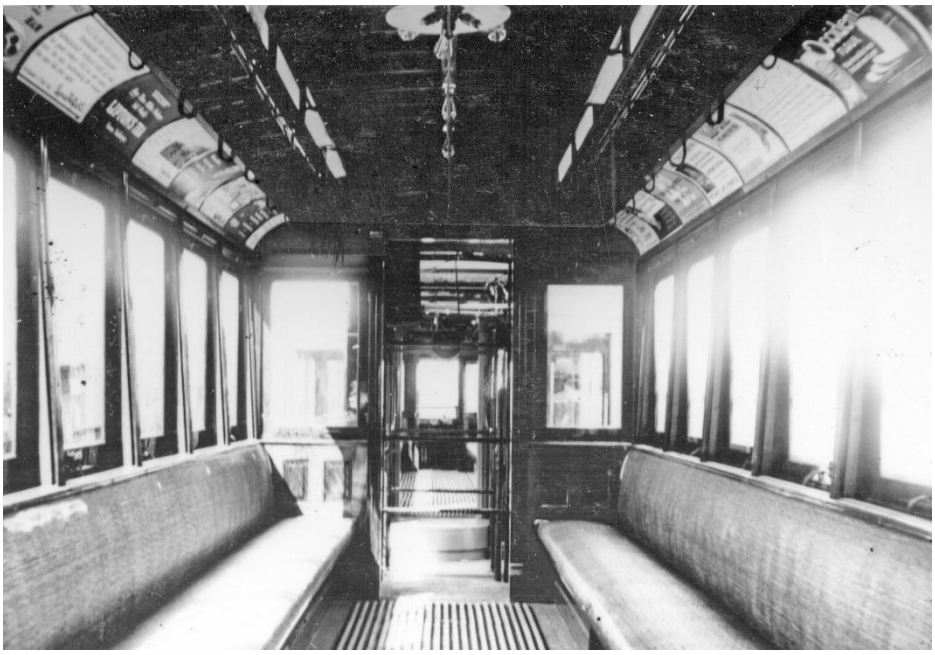


TWIN CARS IN PORTLAND—PLAN OF VESTIBULE SHOWING ARRANGEMENT OF EQUIPMENT

because the 73-foot car was too long for safe operation using the rear pole. When running beneath overhead line devices known as "frogs" a trolley pole can trip a spring that automatically opens or closes a turnout in the track depending on whether the streetcar is under power or not. Normally, motormen knew whether to power through an intersection or coast. However, a long car (with widely separated poles) complicates things, as crews aboard The Dragon discovered.

One day No. 100-01 was crossing the intersection of SW 5th and Morrison while the rear trolley pole was in use. The first car made it across the intersection when the pole on the rear car tripped the frog and opened the electric switch. Suddenly each car was taking a different route, which caused the center section to break free and drop to the ground.

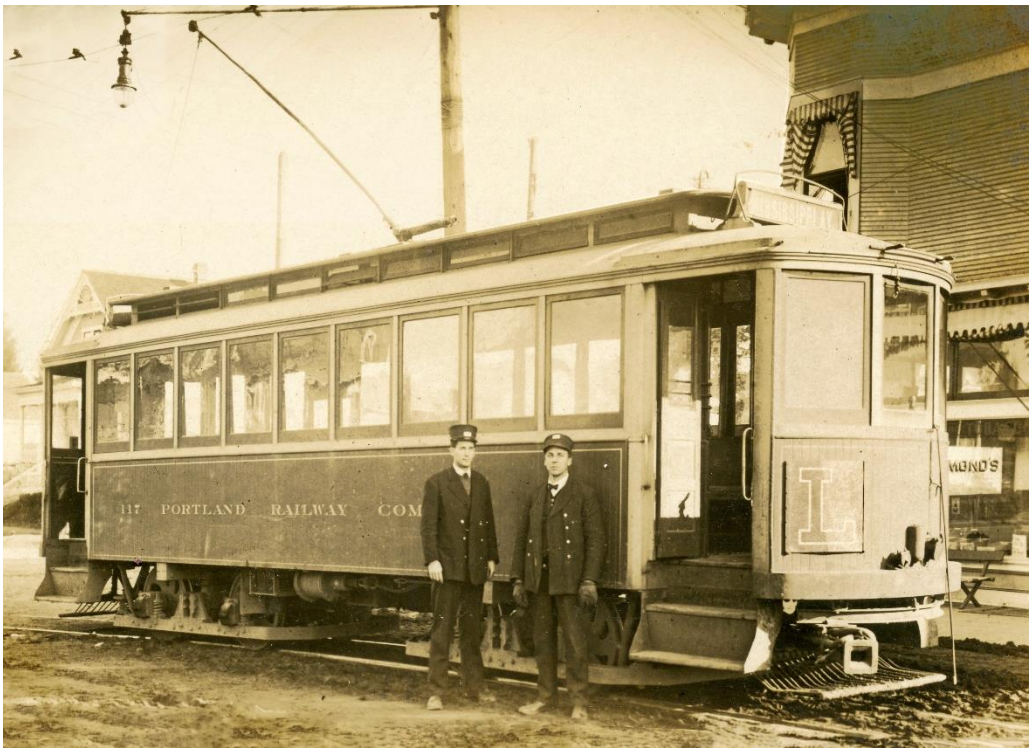
Although no one was hurt on that occasion, the conductor left sitting in his cage in the middle of the street was not happy. From then on crews assigned to the articulated car knew to use only the pole on the front car.



The Standards were not the most comfortable streetcars for riders as can be seen in this interior view inside articulated 100-101. Seating was on rattan-covered longitudinal benches. Note the center vestibule steps and railings.

David Stearns recorded another often-told story that was said to have taken place after The Dragon was transferred to the Kenton Traction Company. The big car was meant to handle the rush of humanity created when shifts changed at the Swift & Company packing plant near the northern terminus of the Kenton-Stockyards Line. But one day a group of workmen conspired to take advantage of the traction company. Two men bought tickets, each boarding a separate car, whereupon they threw open the windows and allowed their mates to scramble aboard without paying.

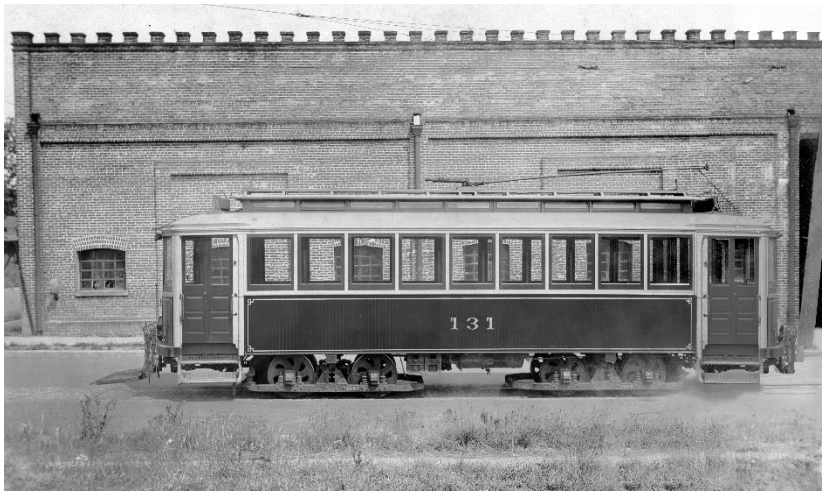
It is said that such experiences not only ended the use of the articulated car, but also soured management against center entrance cars in general. Aside from five standard gauge cars already in use (rebuilt interurbans 1134-37 and funeral car 1500) no center entrance cars ever ran in Portland until the advent of MAX in 1986. The center entrances on the Hollywood cars acquired from Pacific Electric in 1953 were permanently closed and seats placed across them.



No. 117 is at the northern end of the L – Lower Albina Line on N. Killingsworth St. and Albina Ave. around 1905. The building at right still exists today but the houses are long gone. (Courtesy Mark Moore)

Standards 100-146

Built	1901
Class	I
Body	City & Suburban Railway
Trucks	2 Peckham 14 B-2 or D-3
Motors	2 GE-58 (75 total h.p.)
Controllers	2 GE K-11
Brakes	National straight air
Length	34 feet 6 ½ inches
Width	7 feet 4 ½ inches
Weight	28,360 lbs.
Seats	2 longitudinal (36 passenger)
Gauge	42 inches (narrow gauge)



City & Suburban Standard No. 131 poses for an official picture in front of the Savier Street Carbarn on NW Raleigh St. at 24th Avenue during the PRL&P years. The Standards were built here in 1900-01.

Southbound Portland Consolidated Railway No. 118 has crossed the intersection of SW 3rd Ave. and Washington St. in this c. 1904 scene. Until the 1930s U - Williams Avenue Line cars traversed downtown via 3rd Avenue. Buildings in view include the Dekum Building and the Chamber of Commerce at left and the Postal Building on the right.(Courtesy Old Oregon Photos)

The City & Suburban "Standards"

No.	Retired	Remarks
100	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man 1920. With 101 was rebuilt as an articulated car in 1914. In 1920 the two cars were separated again and rebuilt as single units.
101	1933	Had 1 GE K-10 and 1 GE K-11 control. Rebuilt to 1-man 1920. With 101 was rebuilt as an articulated car in 1914. In 1920 the two cars were separated again and rebuilt as single units.
102	1936	Motorman's platform heaters removed in 1929 and installed on car 356.
103	1933	Had 1 GE K-10 and 1 GE K-11 controller. Leased to Kenton Traction Company 11/18/19. Never rebuilt to 1-man. Received new GE 58 armature at Piedmont shops 7/29/27. Listed as unserviceable by 12/28.
104	1936	Had 2 GE K-10 controllers. Leased to Kenton Traction Company 11/18/19. Rebuilt to 1-man in 1922.
105	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
106	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1926.
107	1933	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
108	1936	Rebuilt to 1-man in 1926.
109	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1926.
110	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
111	1936	Rebuilt to 1-man in 1926.
112	136	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1926.
113	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
114	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1926.
115	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
116	1933	Rebuilt to 1-man in 1926.
117	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
118	1936	Rebuilt to 1-man in 1926.
119	1933	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1926.
120	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1926.
121	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
122	1933	Had 2 GE K-10 controllers. Leased to Kenton Traction Co. 12/28. Rebuilt to 1-man in 1926. Motorman's platform heaters removed in 1929 and installed in car 357.
123	1938	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man 1926. Listed as unserviceable 12/31/34 and retired 1938. But was salvaged as an advertising car until retired a second time 6/14/40.

No.	Retired	Remarks
124	1938	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1926.
125	1936	Rebuilt to 1-man in 1926.
126	1926	Had 2 GE K-10 controllers. First car in series to be retired..
127	1933	Had 2 GE K-10 controllers. Motors listed as retired 1/17. No record of them being replaced but rebuilt as 1-man in 1926. Listed as unserviceable again in 3/31/31.
128	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1920.
129	1936	Rebuilt to 1-man in 1926..
130	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1920.
131	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1920.
132	1933	Had 2 GE K-10 controllers. Car weight was lighter than others in series at 29,136 lbs. Leased to Kenton Traction Co. c. 1919 and never rebuilt to 1-man. Listed as unserviceable 12/28.
133	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1920.
134	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1920.
135	1936	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1926.
136	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1920.
137	1933	Had 2 GE K-10 controllers. Prior to 1912 rebuilt experimentally with drop platform and three-panel doors making length 37 ft. 6 ½" and weight 28,960 lbs. Leased to Kenton Traction Co. 11/18/19. Rebuilt to 1-man in 1926.
138	1933	Had 1 GE K-10 and 1 GE K-11 controller. Leased to Kenton Traction Co. 11/18/19 and never rebuilt to 1-man. Still leased to Kenton Traction Co. 12/28.
139	1936	Rebuilt with 4 GE 58 motors totaling 150 hp. and 2 GE K-6 controllers creating a Class J car. Weight increased to 32,802 lbs. Had snow scrapers 1/25. Rebuilt to 1-man in 1926 and converted back to a 2-motor car with 2 GE K-11 controllers. Motorman's heaters removed in 1929 and placed in car 349.
140	1936	Like car 139 rebuilt with 4 GE 58 motors totaling 150 hp. and 2 GE K-6 controllers making a Class J car. Weight increased to 32,802 lbs. Snow scrapers 1/25. Rebuilt to 1-man 10/26 and converted back to a 2-motor car with 2 GE K-11 controllers. Motorman's heaters removed in 1929 and placed in car 355.
141	1936	Rebuilt to 1-man in 1920.
142	1937	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1920.
143	1936	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1920. Weight was heavier at 29,136.
144	1933	Had 1 GE K-10 and 1 GE K-11 controller. Rebuilt to 1-man in 1920.
145	1933	Had 2 GE K-10 controllers. Rebuilt to 1-man in 1920.
146	1933	Rebuilt to 1-man in 1920.

Two Days to Separate 1271 for Transport

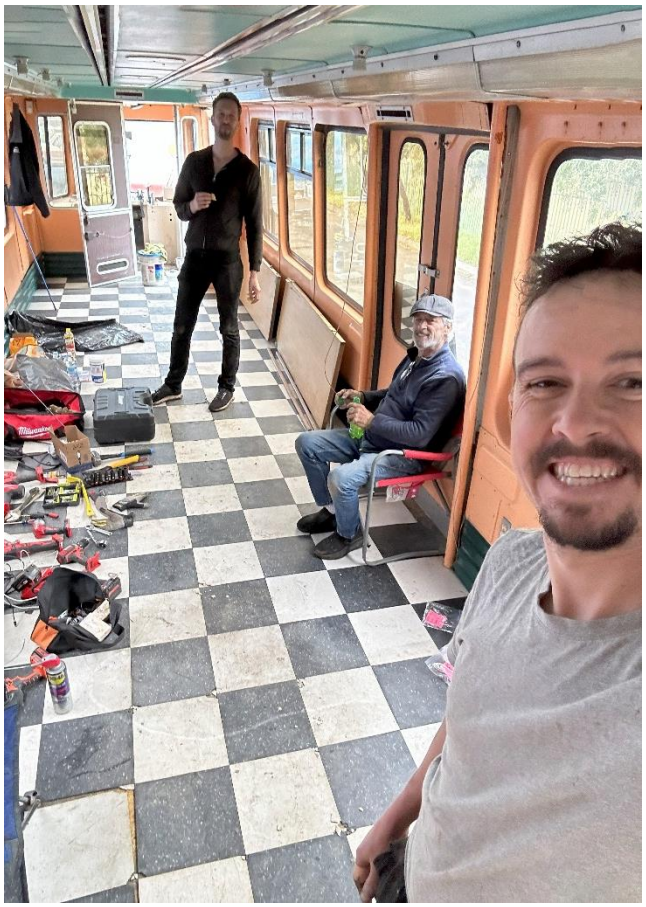
Greg Bonn

Early this year I was scanning through Facebook Marketplace and stumbled upon an old Boeing light rail car being advertised for sale in the Bay Area near Emeryville, CA. I was not the only member who saw the listing and within a week I was responding to texts and emails about No. 1271, one of the last Standard LRVs.

Since the OERHS already has Muni 1213 in the collection any idea of acquiring a sister LRV was quickly and agreeably dismissed. But that was not the end of the story.

Fast forward a bit to late February when I received a forwarded e-mail from the car's new owners Lauryn Guridi and Taylor Skillin requesting advice about separating the car halves for moving. They also asked about the Pantone paint color codes used for the car as the paint was severely faded and they were wishing to repaint the car in the original MUNI colors.

The two recruits are picked up at the hotel in Emeryville, California. Left to right: Greg Bonn, "Dino," and No. 1271 owner Taylor Skillin.



With tools spread out the crew took a break aboard No. 1271. ("Selfie" by Taylor Skillin)

After a week of thought, I replied to Lauryn letting her know that, although I had been unable to find the paint codes, I would continue looking as we are in the process of sorting and filing our archives and the paint codes may yet turn up.

I also described the process for uncoupling the two car halves. That was difficult to remember since nearly 23 years have passed since I had undertaken a similar project for the OERHS.

The process involved removing the pins under the dome floor. The dome is the center passage between the two halves and is attached to the center truck. Removing the center and top panels would also be required.

I included my phone number so Lauryn and Taylor could go over the details if needed. I hoped that after reading my emails things would be clear to the new car owners.

Instead, after a few phone calls, more emails, photo swaps, and texts I was surprised to be offered an all-expense paid trip down to the Bay Area to supervise the project! I didn't relish the thought of separating an LRV again, but I finally softened and found myself reserving a seat on Amtrak's Coast Starlight to Emeryville. Taylor reserved a room for me in a very posh hotel just a short walk over the tracks from the train station.

I was very hesitant at first, not being in the best of health, but I figured it could be an interesting, if not challenging project. Just to be sure, I scheduled appointments and

Separation completed at last! All four pins have been removed and Greg stands between the slightly separated A and B sections of MUNI car 1271.

met with my doctors to get their assurance that I would survive the trip (an upcoming ECG and MRI will determine if they were correct).

The ride aboard the Coast Starlight to Emeryville was uneventful. Spending sixteen hours in a car with a flat wheel was a bit uncomfortable but I enjoyed the beautiful Oregon countryside as we bounced our way down to Klamath Falls. Beyond K Falls, the train continued on in the dark, so it was time to get some sleep.

We rolled into Emeryville a few minutes ahead of the scheduled 8:30 a.m., giving me a little extra time to get to the hotel and check in before Taylor arrived to take us to the jobsite.

I was too early to check in, but the hotel was gracious enough to let me sit on one of their soft lobby chairs while I waited. For some reason, I was still feeling the bump-bump-bump of that flat wheel.

When Taylor arrived at the hotel, we loaded my bags, and were off to the project. Crammed into the rear jump seat was another recruit, 6-foot 7 inch "Dino" (short for Dinosaur).

After a quick stop for snacks, we made our way to No. 1271, unpacked the tools and goodies, and made a quick assessment of the project. It quickly became apparent that when the LRV had been reassembled near Emeryville many of the components securing the dome had not been put back in place.

This made separation of the two halves much easier than expected. Since many of the screws holding the roof panels in place were omitted it looked like this was going to be a simple one-day job.

A third recruit, Tom, joined in as we got started removing the side panels and roof caps to expose the dome. The tile floor installed over the original floor was cut away to access the dome floor, which was removed to access the four pins that hold the two body halves together on the center truck.

To separate the two halves of the car four pins had to be removed while jacks and bars held the weight of the body. The body had been designed with two-inch square holes for inserting short, square, bars to use as jacking points when lifting.

While Taylor phoned the local steel yard, I scrounged around the tow lot and came up with a piece of square steel tube and a pipe. We used those pieces to set the jacks and, as the weight of the body was taken up by the jacks, the first two pins slid out of their positions disconnecting the first half of the car. It took a lot of penetrating oil and tapping with a hammer and small bar.

A large backhoe provided the pull needed to separate the body just far enough to place a block under the

The last pin was pulled with the "MacGyver" rig.

free-standing half and remove the jacks so that we could repeat the process on the next half. It was still early enough in the day that we thought for sure we would have the project completed before the end of the day, but that was not to be.

It took quite a bit more "persuasion" to get the third pin removed. Then, the fourth pin refused to budge, no matter what we tried. After a couple hours of adjusting the jack and using big pry bars to try to shift the weight off the pin, we decided to call it a day and packed up the tools.

While looking at the pin, I had what the popular 1980s TV series had called a "MacGyver moment." I came up with a way to fabricate a puller to ease the unforgiving fourth pin out and complete the project. On the way back to dinner and the hotel we stopped at Home Depot to find the necessary hardware.

Taylor had a couple of meetings to attend the next day, so we made a late start. However, once onsite things progressed quickly. The hardware was assembled, and the reluctant pin finally pulled from its position. The two car bodies were now separated and ready to load and move to a new location.

After picking up the tools and organizing the pieces that had been removed, we cleaned up the worksite, and ourselves, loaded the truck and headed to the Public Market across from the Emeryville train station.

After feasting on tacos, we returned to the truck for my bags and a celebratory goodbye. To most, it would have appeared, because of the age difference, to be a father and son reunion.

Greg enjoys a final moment sitting in the operator's seat. MUNI 1271.was one of 131 Standard Light Rail Vehicles built by Boeing-Vertol in 1978. By 2001 all had been retired..

Volunteer Tom has found a new toy as he pulls No. 1271 apart with a backhoe.

It was only about 5 in the afternoon as I made my way over the tracks to the station and checked in. Since my train was not scheduled to depart for several hours I found a somewhat comfortable position for a nap on one of the benches.

I was tired and worn out when the train pulled in at 9:30 p.m. but would soon be headed for home with a feeling of accomplishment. The return ride on the Coast Starlight would turn out to be worth a complete article in itself, but that would not be suitable for this newsletter I will refrain.

In conclusion, a third Boeing car is being saved to be repurposed and will continue to represent the only US-built SLRVs (Standard Light Rail Vehicles). Lauryn and Taylor intend to display the history of the car in the interior when it is reassembled. The new site for the car is to be called Camp MUNI and is being developed as an event space as well as overnight camping accommodation with an outdoor shower and restroom.

The attendees for motorman's training day at Powerland Heritage Park pose in front of Blackpool No. 48. They are (left to right) John Ballentine, Gene Fabryka, Joe Tracy (on car steps), Rick Lucia, Ken Peters, Doug Artz, Kevin Reilly, and Mark Kavanagh.

Museum Operations Update

Mark Kavanagh

The Oregon Electric Railway Museum opened for business with the S.T.E.A.M.'d up For Kids event at Powerland Heritage Park on Saturday May 19th. Blackpool double-decker No. 48 was placed in service for the occasion and proved as popular as ever.

This event has become our third busiest Saturday of the summer, with only the two Great Oregon Steam-Up Saturdays being busier. The annual Truck Show is our fourth busiest.

Operators for S.T.E.A.M.'d up For Kids were John Ballentine, Ken Peters, Rick Lucia, and Mark Kavanagh, with Suzi Jones handling the gift shop and ticket sales.

The museum schedule for 2023 will be:

- Every Saturday through Labor day 11 a.m. - 4 p.m.
- Father's Day Sunday June 18th 10 a.m. - 4 p.m.
- Steam-Up. July 29/30 & Aug 5/6 from 9:30 a.m. – 5 p.m.
- Truck Show Aug. 10 a.m. -4 p.m.
- Halloween: Every Sat/Sun in October.

To maintain this schedule we will need more operators, especially for Steam-Up. During Steam-Up, the trolleys run non-stop, so we will need to rotate operating crews and gift shop staff often. We would like to give carbarn tours as well, which also requires more staff.

If you need to re-qualify to operate for 2023, or would like to learn and join our small cadre of professional motorman, please contact Mark Kavanagh (mark@oerhs.org).

If you are interested in helping out with ticket sales and the gift shop, also contact Mark. The more people we have the lighter work load for the entire team.

The week prior to S.T.E.A.M.'d up For Kids double-decker No. 48 was used for motormen's training day at Powerland. Ten operators were re-qualified on museum operating practices and several received promotion to higher rank. Our qualified motorman for the 2023 season thus far are:

Greg Bonn (Pilot), Ken Peters (Pilot), Mark Kavanagh (Pilot), John Ballentine (Class 1), Gene Fabryka (Class 1), Rick Lucia (Class 1), Pete Manuele (Class 1), Kevin Reilly (Class 1), Joe Tracy (Class 2), and Doug Artz (Class 3).

Vintage Trolley No. 513 was thoroughly washed and cleaned in preparation for opening day operation on the Willamette Shore Trolley on May 27th. (Dave Rowe photograph)

ERA Portland Convention

Mark Kavanagh

The Electric Railroader's Association is a non-profit organization focused on electric railways from around the world. They are based in New York, but have members far and wide. They hold monthly meetings in which members give presentations on traction properties they have visited.

ERA publications include a monthly newsletter *The Bulletin*, which reports the latest traction news, and an annual magazine called *Headlights*.

In addition to monthly meetings the ERA holds biennial international conventions where they visit traction properties, as well as an annual convention based in North America. This year's domestic convention will be in Portland and Seattle with more than 50 members expected to attend.

During the 2023 convention the ERA intends to ride MAX, Portland Streetcar, WES, Yakima Trolley, Seattle Link, Seattle Streetcar, Tacoma Link, and Sounder. There will also be shop tours of Portland Streetcar and Seattle Link.

OERHS Secretary, Mark Kavanagh is giving a welcome presentation on Oregon's traction history, past and present on Thursday July 6th at 7:30 p.m. at the Courtyard by Marriott City Center, 550 SW Oak Street, Portland.

The group will visit and ride the Willamette Shore Trolley and the Oregon Electric Railway Museum on Saturday July 8th. We will be looking for additional staff to operate trolleys and provide carbarn tours for both tours, so if you can help out please sign-up.

To learn more about the ERA, visit http://erausa.org, or contact long time member Mark Kavanagh at mark@oerhs.org.

Father's Day Promotion

Mark Kavanagh

The Oregon Fire Service Museum at Powerland is holding a Father's Day event on June 18th with breakfast, a cruise-in, and more (for details see https://oregonfiremuseum.org/fathers-day-firehouse-fun/). Since the Oregon Electric Railway Museum is located next door to the Fire Museum we have decided to add that Sunday to our operating schedule.

The promotion will be "Make Dad Feel Like a Kid Again with a Trolley Ride" All dads, granddads, and dads-to-be will be charged youth fares that day. Normal Adult fares are $5, ages 4-12 are $3. If we have enough staff, we may also offer tours of the carbarn. The trolley will operate from 10 a.m. until 4 p.m. on that day. Let your friends, family, and neighbors know about this special promotion.

WST Begins 2023 Season

David Rowe

Operation on the Willamette Shore Trolley for 2023 began over the three-day Memorial Day weekend when more than 600 passengers rode Vintage Trolley No. 513. The WST will run every Saturday and Sunday throughout the summer, leaving the depot at noon, 1:00, 2:00, and 3:00 p.m. Tickets are sold online at oregontrolley.com. Volunteers are needed for both operation and the gift shop. Contact Dave Harold if you can help at (503) 348-2349

As the battery charging receptacle is installed VT 514 begins to act like a Tesla!

VT 514 Software Installed

Kevin Reilly

The software for controlling battery propulsion on VT car 514 has been installed and control board battery management tested. We were able to successfully view the system by temporarily connecting a laptop computer to the controller area network (CAN) bus on the battery box. The CAN system is used for communication between the vehicle control unit (VCU) and equipment like the inverters and the battery charger.

Next week, we plan to energize the battery charger with 208 volts AC, which is necessary in order for it to communicate with the CAN bus.

Once all subsystems are working and the battery installed, the propulsion inverters and traction motors will be tested for proper direction of rotation. Until the drive shafts are connected they will safely spin free during testing. We will permanently install the battery and connect the drive shafts soon.

From the Carbarn

Pete Manuele

The approach of summer has brought lots of activity to the carbarn as we prepare for the 2023 operating season.

Members are undertaking maintenance or restoration on several pieces of equipment. Maintenance of our collection is an ongoing process. Here is a short summary of current activities in the carbarn:

- No. 48 – Blackpool "Doubledeck" tram. Our main vehicle for the operating season is in good shape overall. Sanding and touchup painting of all wood trim is being done. The wood on both sets of boarding steps is being replaced and both vestibules will soon receive a fresh coat of paint. As of June 1 No. 48 is operating on Saturdays and for museum events while cosmetic work continues.
- No. 210 – Portuguese "Oporto" car. An additional backup car. It is also in good operating condition.
- No. 401 – Anaconda Freight Motor. Still in the process of restoration, the 401 is being used to move cars at the museum.
- No. 1187 – Austrailian open "Breezer." This car will serve as backup for the Blackpool tram. It is in good overall condition.
- 1455 Portland Snow Sweeper "Broom" – work continues on our oldest piece of equipment. Our goal is to get the sweeper sufficiently restored to operate on the 125th anniversary of its manufacture in 2024.
- No. 2411- CCF/Brill trolley bus. 241 will be moved to the shop so that cosmetic restoration can begin. It is our hope that wire can be strung so that trolley busses can participate in our museum operations. Greg Bonn has come up with great ideas on how to implement their use.

In this article I have mentioned but a few of the pieces of equipment in our collection. There are so many more, both operating and on display. Some are in operating condition, while others will will be restored to display condition. Our goal now is to get the carbarn and our collection for Steam-Up, which is rapidly approaching. Thanks are due Rick Lucia and Mark Terkelson for their great help in the shop.

Porto tram 201/210 at Powerland Heritage Park.

DONATION REQUEST (Tax deductible receipt will be mailed to you)

Remember the OERHS in your Will or Trust. Even a small bequest can help the museum grow!

Did You Know?

Members 70.5 years and older can make tax free donations to the OERHS from their 401(k) that count towards the mandatory percentage 2.5% that they need to take out of their IRA anyway. Consider making a donation today!

Donation Opportunities

	Items	Description	Amount
Endowment Fund	Endowment Fund	*Helps create an endowment fund to support operations, staff (future) and general projects*	$_____
Board Fund	Unrestricted Funds	*Allows Board to allocate funds as needed (Projects, events, car acquisition, etc.)*	$_____
Capital Projects	Phase 1 Yard Project	*Build a permanent switch yard (~11k)*	$_____
	Carbarn #2	*Build the 2nd carbarn (will also be the temporary restoration shop) – (~$450k)*	$_____
	Mainline Loop	*Complete the loop for multiple car operation and operate single-ended cars. Adding ~ 2000 additional feet will complete the loop. (~$45k)*	$_____
	Interpretive Center	*Flooring, archives, displays, and exterior landscaping (sidewalks, platforms, etc.)*	$_____
	Buy A Tie	*$55 buys us a new fir tie to replace worn out ones (we need about 2000 of them so every single tie is a great help)*	$_____
	Buy Concrete	*~$120/yd³ for track, curbs, platforms, etc.*	$_____
Restoration Projects	PRL&P #1067	*Help refurbish the running gear we obtained the NWRM to restore this car*	$_____
	Car Restoration	*All our cars need love & care and many are awaiting restoration. Donate to the car fund or specify a car. Some of the projects underway are: 813 (Broadway car), 1159 (PCC), 1455 (snowsweeper) & locos 254 & 401*	$_____ Car:_____
Specific Items: *(Donate items or $)*	Uniform Parts	*Hats, pants, vests & jackets for volunteers*	$_____
Name Your Project		*Do you have an idea you would like to see done? Tell us about it!*	$_____
		TOTAL	$_____

To: **OERHS, 3995 Brooklake Rd, Brooks, Oregon 97303**

Name _____ Date _____ Cash $_____ Check $_____

Credit Card: $_____ Visa ☐ MasterCard ☐ American Express ☐ Discover ☐

Card # _____ _____ _____ _____ Sec Code _____ Expires _____ Signature_____

THANK YOU!