

February 1997

The Crown Zellerbach Locomotives

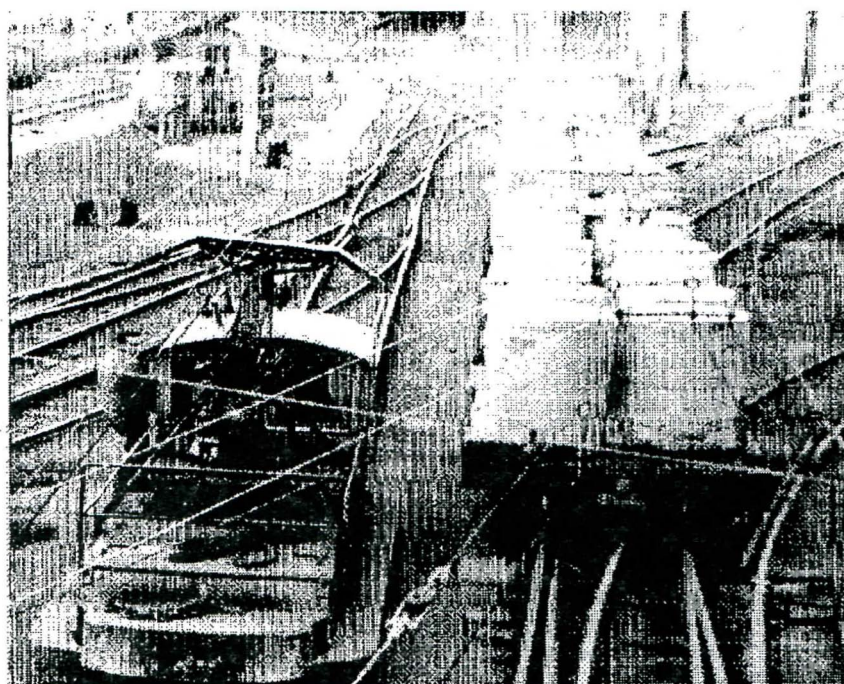
Foreword by Glenn Laubaugh

The following is reprinted from Pacific News issue number 53 (January, 1966). I have attempted to keep everything reasonably close to the same as it was in the original document. Pacific News issues from that era came with this statement on the inside front cover:

“Material contained in this publication may be reproduced, in whole or in part, provided acknowledgement is given to the author, if named, AND to the PACIFIC NEWS.”

Since this issue was printed: the Spokane, Portland and Seattle Railway was merged into the Burlington Northern railway in 1970, which is now the Burlington Northern Santa Fe railroad. Passenger traffic still moves over this line. In 1971 the trains became part of Amtrak. In 1995 service was cut back from once a day to three times a week due to budget cutting by congress.

The tramway was apparently abandoned about 1979 and four of the locomotives and the line car were eventually donated to the Pacific Northwest Chapter, National Railway Historical Society. The future of these locomotives is uncertain. They are presently in storage



Crown-Z's Three Foot Tramway

-Photo by Gil Hulin

in Glenwood, Oregon.

Lone Motor number seven of Crown Zellerbach Corporation's narrow gauge electric tramway system at Camas, Washington, is about to plunge into a short tunnel under the Spokane, Portland and Seattle Railway mainline which bisects the paper mill. The maze of tracks throughout the giant mill is equaled only by the conglomeration of wires which provide the 220 volts D.C. overhead power source.

Narrow gauge trackage in the west is relatively uncommon, and electrified track is even harder to locate. Together, the combination of a narrow gauge, electrified, line is almost unique. The Crown Zellerbach Corporation, however, does operate such a unique railroad at its Camas, Washington, pulp and paper plant. The origin of this interesting railroad dates back to the 1890's and mule power.

(see Crown-Z's on page 4)

The TRAINMASTER

is the official newsletter of the Pacific Northwest Chapter of the National Railway Historical Society, published monthly for the benefit of its members. Articles which appear in *The Trainmaster* do not express the official National Railway Historical Society position on any subject unless specifically noted as such. Material from *The Trainmaster* may be reprinted in other publications provided credit is given as to the source. Please address contributions, correspondence, and exchange copies of newsletters to:

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MEMBERSHIP in the PNWC-NRHS is available as follows:

Regular....\$30/yr.

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For more information, contact the Membership Chairperson at the above address.

DEADLINES

The deadline for each issue of The Trainmaster is the 20th of the previous month. Submissions may be made on floppy disk, in Wordperfect, MS Word, or ASCII formats.

The Editor reserves the right to edit or hold material at his/her discretion.

CHAPTER TIME TABLE No. 413

REGULAR RUNS

BOARD OF DIRECTORS MEETING Thursday, February 13 & Thursday, March 13, 7:00 P.M., at Room 208, Union Station. Enter through the main entrance, turn right two times, past the magazine stand, first door on left at hallway to Wilfs.

MONTHLY MEMBERSHIP MEETING Friday, February 21 & Friday, March 21, 7:30 P.M., at St. David's Episcopal Church, 2800 S.E. Harrison. The business meeting will start promptly at 7:30, with the newsreel and program following a short break. Refreshments will be available; please bring some money to feed the "kitty," so it can continue to feed us!

WEEKLY NO-HOST LUNCHEON every Saturday, 12:00 Noon, at the Semaphore Restaurant at S.E. 17th & S.E. Holgate Blvd. Our group is in the back. Come on down!

ROLLING STOCK WORK SESSIONS are planned to prepare cars for leases. Contact Richard Gray (657-8250), or Peter Rodabaugh (771-8545) for an update.

LIBRARY/ARCHIVES WORK SESSION: Thursday, February 13 & Thursday, March 13, 1:00 P.M. to 4:00 P.M. at Room 1 & 1A, Union Station. Help is needed to get things organized and catalogued. Contact Bob Weaver (654-4274) for more information.

CHAPTER LIBRARY OPEN HOURS Saturday, February 15 & 22, & Saturday, March 15 & 22, 1:00 to 4:00 P.M. at Room 1, Union Station. Call Jim Loomis (253-3926) for appointments, if this is a difficult day and/or time for you.

EXTRA BOARD

ANNUAL CHAPTER BANQUET: Saturday, March 15, 1997, at The Crossing, 900 W. 7th Street, Vancouver, WA. See page 7 for order form; send the page or a photocopy to Darel Mack, Activities Committee Chair. *Be sure your name and address is included!*

SWAP MEET: Saturday, March 8, 1997, 10 A.M. to 4 P.M., 8900 N. Vancouver Ave., Portland, OR. For more information, Contact the Swap Meet Chairman, c/o CGMRC, 2505 N. Vancouver Ave., Portland, OR, 97227-1949, or call (360) 694-7769 evenings.

NRHS SPRING 1997 BOARD MEETING: April 4, 5 & 6, 1997, in Portland, OR. Contact Gerald Schuler, National Director at (503) 285-7941 for schedule of events.

FEBRUARY 21 MEETING PROGRAM

Program begins after business meeting

To Be Announced

To be presented by:
Chapter member

MARCH 21 MEETING PROGRAM

To Be Announced

To be presented by:
Chapter member

NOTICE: Programs are needed for future meetings. Anyone who is willing to present a program (slides, film, etc.) at a Chapter meeting, please contact the President.

CHAPTER BUSINESS

PNWC-NRHS Chapter Meeting, January 17, 1997 Highlights of Minutes

MSC Ackerman/Edgar expressing the membership's support of the Board's proposal that we seek a home at Brooks. Discussion followed. Passed unanimously. **MSC Parker/Edgar** we follow the recommendations of the Rolling Stock Committee's motion on the locomotives. Declare the two S2's and Baldwin S12 surplus and offered for sale. The AS616 may be disposed of under the terms of the motion if necessary. (Rolling motion attached for reference.) Vote on the motion; passed.

MSC Parker/Ackerman that in accordance with the Rolling Stock Committee's recommendation we declare the RDCs surplus and authorize their sale. Motion passed.

MSC Parker/Mack that the seats in storage be declared surplus, in accordance with the Rolling Stock Committee's recommendation, to be offered to the buyer of the 1220 and if refused, then they be offered on the general market. Motion passed.

Helen & Ralph Jack's house burned down last Saturday night and lost everything. Saturday all day is a work party at their house to help them clean up the burn site. Property is for sale. They could use donations of household items and money to allow them to set up a new household. Nita White is coordinating help efforts. Work party tomorrow at their property after 9:00 A.M.

NRHS Convention at Salt Lake City will be held June 24-29. Marilyn Edgar has talked to Dan Kuhn of AMTRAK, and the *Pioneer* looks like it will be gone before the Convention. She is willing to coordinate a group trip with all participants sharing costs equally. Use of the *See America Pass* via the *Coast Starlight* to Oakland and then east from there on the *California Zephyr*. It will be a group effort to plan and carry out, but Marilyn won't be able to do all the planning.

TRAINMASTER status: Board has asked that we suspend publication of the Board meeting minutes. George Hickok asks that we suspend publication of the general business meeting minutes as well. Combination of austerity measure as well as a lack of an editor. (???-editor) **Chapter banquet** on March 15 at the Crossing in Vancouver. \$17.50 for either beef or turkey. Dan Kuhn will do the program for us. He would like us to provide a 6' square screen.

*Respectfully submitted,
Doug Auburg, Secretary*

UP Excursion- Denver to Salt Lake City

AN EXCURSION TRIP IS PLANNED OVER TENNESSEE PASS ON THE UNION PACIFIC (EX D&RGW) ON JUNE 21, 1997. IT WILL CONTINUE ON TO SALT LAKE CITY ON JUNE 22 & 23, ARRIVING FOR THE NRHS CONVENTION THERE. ACCORDING TO BOB BUNCH, OF THE CENTRAL COAST CHAPTER, THERE ARE LOCAL FAN TRIPS PLANNED IN THE SALT LAKE CITY AREA DURING THE CONVENTION. NO RETURN TRIP IS PLANNED AT THIS TIME. THIS EVENT IS ALREADY HEAVILY SOLD, REPORTS BUNCH. SOME TICKETS MAY BE AVAILABLE THRU MOUNTAIN OUTN AT (714) 837-9016, ROLAND GRAHAM. THESE ARE REPORTED TO BE PACKAGE TICKETS WITH LODGING INCLUDED. INFORMATION ON LOCAL TRIPS IS AVAILABLE FROM LES TIPPIE, SALT LAKE CITY, (801) 968-8080.

*-information provided by
Fred Dorsett*

Evolution of Standards

The US Standard railroad gauge (distance between the rails) is 4 feet, 8.5 inches. That's an exceedingly odd number. Why was that gauge used? Because that's the way they built them in England, and the US railroads were built by English expatriates.

Why did the English people build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used.

Why did "they" use that gauge then? Because the people who built the tramways used the same jigs and tools that they used for building wagons, which used that wheel spacing.

Okay.. Now we're getting somewhere. Why did the wagons use that odd wheel spacing? Well, if they tried to use any other spacing the wagons would break on some of the old, long distance roads, because that's the spacing of the old wheel ruts.

So who built these old rutted roads? The first long distance roads in Europe were built by Imperial Rome for the benefit of their legions. The roads have been used ever since. And the ruts? The initial ruts, which everyone else had to match for fear of destroying their wagons, were first made by Roman war chariots. Since the chariots were made for or by Imperial Rome they were all alike in the matter of wheel spacing.

Thus, we have the answer to the original questions. The United States standard railroad gauge of 4 feet, 8.5 inches derives from the original specification (Military Spec) for an Imperial Roman army war chariots. MilSpecs and Bureaucracies live forever.

So, the next time you are handed a specification and wonder what horse's butt came up with it, you may be exactly right. Because the Imperial Roman chariots were made to be just wide enough to accommodate the back-ends of two war horses.

Crown-Z's

(continued from page 1)

Located twenty-five miles north-east of the city of Portland, Oregon, on the north bank of the Columbia River, which divides Oregon and Washington, Crown Zellerbach's mill is the hub of Camas industry, employing over 2,700 men and women in a town with a population of about 5,700. The immense mill site sprawls over 185 acres and is bisected by the Spokane, Portland and Seattle Railway. Interwoven through the giant plant and tunneling under the Spokane, Portland and Seattle Railway mainline in two locations, is the narrow gauge electric tramway system.

The earliest use of this three foot gauge railroad was a combination of mule and gravity power, at a time when the town was known as La Camas, Washington Territory. In these early days the flat cars were loaded with slab wood at the sawmill near Lackamas Lake and were then pulled, one at a time, by mules to a hill above the town from which the cars raced by gravity down to the paper mill. The mules were then led down to pull the empty cars back up the hill. Movement of cars about the mill was also accomplished by mules.

The exact date is not known, but it was sometime around 1910 when the first power poles were put up and the first of the overhead wire strung for the electric locomotives which would allow the retirement of the mules by converting the tramway to electric power. The operations first electric locomotive, number one, weighed a mere nine tons. The electric tramway system, which now serve only the pulp and paper mill, the line to the sawmill on Lackamas Lake long abandoned, has been in continuous operation for approximately fifty-five long and faithful years.

Electrification is accomplished by an overhead wire, fourteen feet above the rails, with power collection by a pantograph on each of the locomotives. Electric power in the overhead system is at 220 volts direct current and is supplied by a Motor Generator set at the mill.

The locomotives have an enclosed cab at one end with the pantograph mounted upon an open platform at the other end. Each of the units is equipped with headlights, bell, horn, and is painted yellow with black numbers and the Crown Zellerbach Corporation emblem. Three of the operations all time roster of locomotives were acquired at first, with number 4 and number 5 being obtained in the 1930's. Locomotive number 6 was obtained in 1946, and number 7 was delivered in 1956. Locomotive number one was scrapped many years ago after being badly damaged. Number 3 was cut up within the last few years, and all of the other locomotives are still in service.

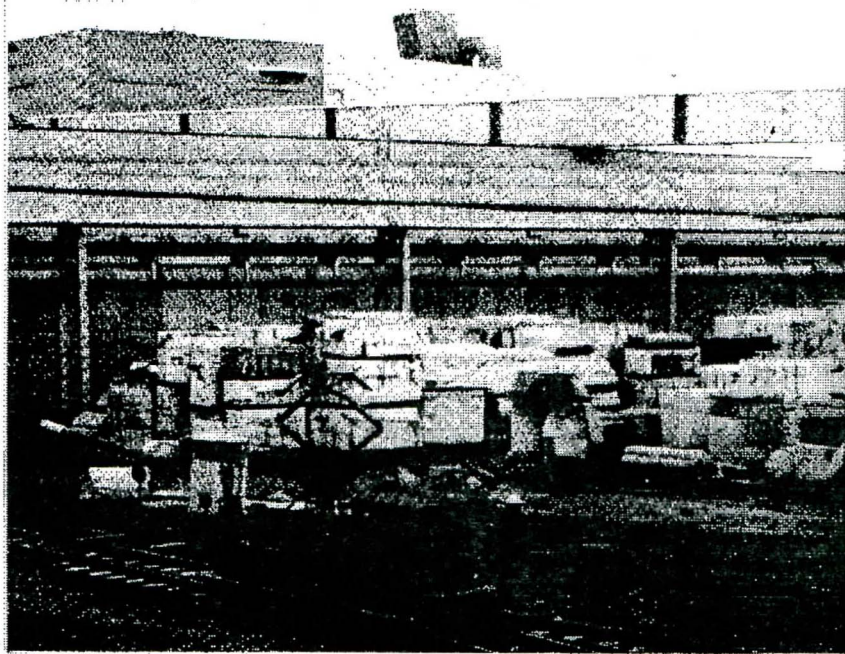
The oldest unit still remaining on the Tramway roster is number 2, a seldom used locomotive which now serves mainly for maintenance work on the track and overhead wires. Due to its age and a lack of power when compared to the newer tramway locomotives, number 2 is used for regular tramway work only during periods of extreme power shortage or when no other unit is available due to maintenance work. From time to time, when the availability of locomotives is such that a unit can be spared, one of the newer tramway locomotives, usually number 4, takes over the track and overhead maintenance from number 2.

Prior to the scrapping of number 3, which has been completed since 1959, the locomotive was used for the purpose of backing up the number 2 in maintenance duties, or to perform the maintenance work during the periods when the number 2 was in service to handle regular duties. Number 2 was in the better mechanical condition of the two older units. Due to the extreme old age of both the number 2 and number 3 and due to the scarcity of parts, it was decided to scrap the number 3 in order to obtain sufficient spare parts for the other units and to eliminate the need of maintaining both of the older units. In the end, however, number 3 was in very bad need of a considerable amount of overhaul work.

The "car barn" where repairs are made to both the locomotives and the cars, is located in the center of the mill adjacent to the Spokane, Portland, and Seattle Railway. The long peaked roof building, which sits nearly under the largest smokestack in the aerial photo, is used primarily for repairs. The twenty-four-hour operation of the mill keeps most of the tramway cars in service all of the time. All of the cars on the railroad are numbered and the flat-cars are painted black with yellow end boards.

(see Crown-Z's on page 5)

-photo by Gil Hulin



Crown-Z's

(continued from page 4)

The tramway cars have not changed during the years, except that the current bumper and chain couplings are new. "New", however, in terms of the tramway goes back considerably in time as Crown Zellerbach has no information on the "old" couplings.

The tramway railroad consists of over eight miles of track which connects fourteen shipping points. The tramway is in constant operation twenty-four hours a day for seven days a week. There are three crews regularly scheduled to operate on the day shift. Two crews are scheduled each day for the swing shift and one crew operates on the midnight shift. Each crew on the railroad consists of the motorman and one brakeman. When they are needed for the operation, spare men from the shipping department, of which the tramway is a part, are assigned to the train crews, or as additional crews, to keep the tramway operating at an efficient level.

The railroad dispatcher is centrally located among the maze of tracks in a dispatchers control center in the hub of the tramway operation.

The tramway has 91 long flat cars, six of which have side boards, three for hauling lime rock and another three for hauling rubbish. The remaining serviceable cars are in constant use hauling paper to the Waterway Terminals dock on the Columbia River. About half of these cars are needed to bring raw materials back to the giant plant. A dozen hopper cars are used to haul sulphur from a large, open pile, along the river, to the paper mill's acid plant. A few miscellaneous pieces of maintenance-of-way equipment, most notably the line car, make up the remainder of the tramway's roster of equipment. The line car does not have its own motors and has to be towed.

Minor changes are constantly taking place, such as the raising of the trolley wire to fourteen feet to clear standard gauge wood chip cars. At the present time there are no major alter-

ations planned for the tramway system, the unique little railroad that is most often viewed from the window of passing Spokane, Portland and Seattle Railway trains.

Compiled from information supplied by the Crown Zellerbach Corporation, with additional details from Joseph A. Strapac, Bob Lowry, and "Locomotive Notes".

All Locomotives are or were two-axle four-wheel units; each locomotive equipped with two traction motors.

Apparently a Baldwin -Westinghouse Locomotive built about 1910 and similar to Number 2.

Weight: 9 tons

Apparently obtained secondhand, scrapped.

Baldwin -Westinghouse Nov. 1910
-#35566

20"whls / 18,950 lbs wt / 40,000 te on a 6% grade

speed: 6 miles per hour

Built for 110 volts, modified to run on 220 v D.C.

Crown Columbia Pulp & Paper
"Ruth"

Crown Zellerbach Corporation 2
In Service

Apparently a Baldwin -Westinghouse Locomotive built about 1910 and similar to Number 2.

Scrapped since 1959.

General Electric April 1924
-#9540

30" / 20,500 lbs / 100,000 te on an 8% grade

speed: 6.5 m.p.h. / model LME2T8A / 2 HM839A motors

Rebuilt: October -November 1951
Purchased secondhand November 2, 1951

Original owner unknown, in service

General Electric, March 1930
-#11254

31" / 25,800 lbs / 100,000 te on an 8% grade

speed: 7.5 m.p.h. / model LME2C10A / 2 HM830L motors

Rebuilt February, 1951

Purchased secondhand November 2, 1951

Original Owner unknown, in service

General Electric, April 1946
-#28446

31" / 25,810 lbs / 150,000 te on an 8% grade

speed: 7.5 m.p.h. / two model 843 motors

Purchased new, in service

General Electric June 1956
-#32591

31" / 26,100 lbs / 165,000 te on an 8% grade

speed: 9 m.p.h. / two model 843 motors

purchased new, in service

Editor's Corner

The chapter desperately needs support of present and new members. If we are to continue with the goals of education and preservation of railroad history, your efforts are in great demand. Whatever your skills are, there is a place for you. Contact the president or vice-president, and inform him/her of your desires.

Amtrak still plans to cut the *Pioneer* off of its route structure around May of this year. The NRHS and the PNWC are not allowed to lobby to preserve service. You, as rail historians and enthusiasts, must write to your elected representatives your position a passenger rail service, whatever that may be.

The editor has learned recently that he will not be able work, in any employ, sometime within the next five years, due to continued deterioration in health. *The TRAINMASTER* will continue to be edited and published by your editor as long as possible, with the understanding that it will have to be taken over by someone when that time comes.

MILWAUKEE ROAD

SLIDE SHOW

SATURDAY MARCH 29

1 - 9 PM

KENT LIBRARY

212 - 2ND AVE. N.

KENT, WA.

COME FOR OUR 15TH ANNUAL SHOW!

MILWAUKEE RAILROAD AND RELATED TOPICS WILL BE WELCOME FOR A SLIDE AND MEMORABILIA SHOW. AS IN PAST YEARS, YOU ARE WELCOME TO BRING YOUR MILWAUKEE SLIDES, MODELS AND MEMORABILIA TO THE SHOW - OR JUST BRING YOUR ENTHUSIASM AND INTEREST TO SHARE WITH OTHER FANS OF THE GREAT MILWAUKEE ROAD!

PLAN TO ENTER OUR DOOR-PRIZE DRAWS
BRING A STAMPED, SELF-ADDRESSED ENVELOPE TO ENTER,
IN OUR DOORPRIZE DRAW-BOX, TO WIN RAILROAD
SOUVENIRS AND ALSO ENSURE YOU WILL BE NOTIFIED OF
THE 16TH ANNUAL SHOW NEXT YEAR.

-thanks to Ken Lantz for providing this information

PNWC NRHS ANNUAL CHAPTER BANQUET

TO BE HELD AT

THE CROSSING

900 W. 7TH ST.
VANCOUVER, WA.

ON MARCH 15, 1997

ATTITUDE ADJUSTMENT - 6:00 TO 7:00 P.M.

DINNER SERVED AT 7:00 P.M.

PLEASE CHECK YOUR MENU CHOICE BELOW AND RETURN
WITH CHECK BY MARCH 6TH TO:

DAREL MACK
2695 S.E. PINE LN.
MILWAUKIE, ORE. 97267

_____ ROAST SIRLOIN OF BEEF	\$17.50	TOTAL _____
_____ ROAST BREAST OF TURKEY	\$17.50	TOTAL _____
		\$ _____

DINNERS INCLUDE:
OVEN BROWN POTATOES FRESH VEGETABLE MEDLEY
TOSSED SALAD W/DRESSING
GANDY ROLLS W/CINNAMON BUTTER
BEVERAGE

MAKE CHECKS PAYABLE TO PNWC NRHS

SPECIAL GUEST SPEAKER: DAN KUHN, AMTRAK REPRESENTATIVE

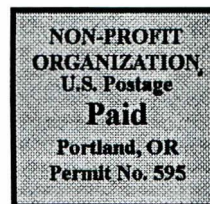
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