ROSE CITY GARDEN RAILWAY SOCIETY

NEWSLETTER

See our Web page at http://www.rcgrs.com/

April 2006

Photo by Steve Cogswell

Much new landscaping has been done and a future new bridge is planned

Quinn Mountain Open House

By Darrel Dunham

On Sunday, March 26th, another gray and sometimes wet day at Quinn Mountain, some 24 or so brave souls went up that mountain and ran trains on the Quinn Mountain Railroad. Much has happened since we we laid track at their Track Laying Party last year. There has been a lot of dirt and rocks brought in to make the layout look like a mountain scene rather than an elevated railroad.

For "Show and Tell", Dennis Peoples brought his new Aristocraft live steam engine to show. He was not able to run it as this was the first time out of the box and the batteries for the remote control had to be charged. Darrel Dunham brought a couple of things from other members who were unable to attend. One was a double track bender that belongs to Don Watson. It is able to bend both rails with ties attached at the same time. The other was an Engine Hauler belonging to Linn Merritt. The plan for the carrier was on Large Scale Online a few months ago.

About 3:30 in the afternoon, our host called everyone in for the potluck dinner. What a meal. After the meal was over, a birthday cake was brought out and "Happy Birthday" was sung to Jeff Lange as he had turned 53 a couple of days earlier.

A new farm scene

Gordon Pisle cleans up someone's train wreck

The trains ran into the night as the party wound down

Notes from the President
Darrel Dunham

One important note, this will be the last Newsletter that will be sent to past members that have not paid their 2006 dues. Our dues are only $30 and the club needs these funds to produce our newsletters and pay for the insurance to protect anyone who attends one of our events. If you are unsure if your dues have been paid or not, give our new Membership Chairman, Don Watson or our Treasurer a call and they will be able to help you.

Well another month has gone by and if the rain would stop, I may get my railroad cleaned up so I can run trains. It looks like my crop of weeds has done better than I have. I thought that last fall I had won, but it looks like I just won the battle but I have maybe lost the war!

I know that there are people needing to get their lay-out in shape for an Open House and/or the Annual Tour. Do not be afraid to ask for help. I know there are people in the club that do not have a layout, but would like to get involved. All you need to do is just ask.

We have added two new Chairperson positions added to the club. Margaret Kooken is our Club

Store Chairperson. She will have the all the club items that are for sale. We currently have shirts, patches and ballast for sale. The other is Christina Brittian, our new Programs & Education Chairperson. She will be setting up workshops and arranging for some kind of programs for our meetings. Please join me in welcoming both the volunteers to the team.

We are still in need for a Chairperson to chair the November Banquet. We have several members that have said they would help. We just need someone to lead the effort. If someone does not step up and take on this task, it will be cancelled.

The Open House list is getting full. We are now filling in the months for next year. If you want to have you Open House, give Don Golgert a call and get it scheduled.

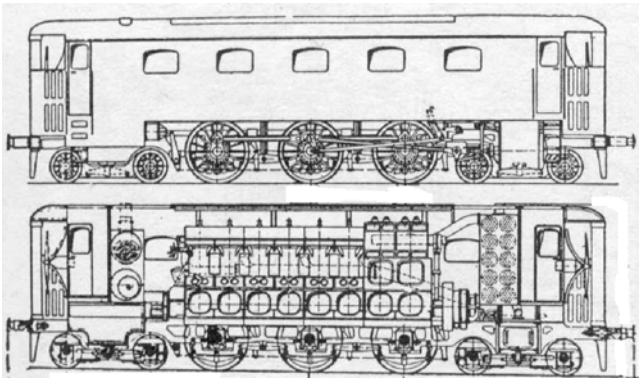
This month we have a couple of members that have asked the membership to give them a helping hand at laying track on their layout. This is a good place for someone wanting to learn about creating a layout to get some knowledge and hands on experience. Don & Barbara Golgert will be doing theirs on Saturday, 4/8/2006 at 12:00 and Barbara & Jerry Clark will have theirs on Saturday, 4/22/2660 at 1:00. Check elsewhere in the newsletter for more details.

Other Early Diesel Attempts

by Allan Warrior

Some early designs showed thinking "out–of–the–box" for solving locomotive efficiencies. Since locomotives at that time used steam (a gas), but had to stop often for water, how about using air as a gas to drive pistons and side rods? After all, air was always available.

There were at least two attempts to make a diesel–pneumatic locomotive. A large primitive diesel engine drove a large air compressor. The compressed air was then applied to the pistons and side rods in a similar arrangement to a steam engine. It was an interesting concept, but not very efficient. Märklin actually made a model available in Z- -Scale of one of these attempts.



Diesel–Pneumatic Locomotive

In the 1920s, railroads recognized that steam locomotives were expensive to operate and maintain, particularly on lightly traveled branch lines and in switch yards. Because states were developing "all weather" automobile roads, passenger travel by rail began to decline. Many railroads had agreements with the various states and the Interstate Commerce Commission that forced them to operate some lines at a loss.

Various manufacturers designed railcars and switch engines which were adopted by the railroads in hopes of cutting costs. Diesel engines were not yet powerful enough to challenge steam on the main lines. The first freight oil electric locomotive was an Ingersol–Rand product where the traction motors were powered by batteries and a diesel generator was aboard to charge the batteries. Its success was modest but it was much cheaper to operate that a similar powered steam locomotive.

Railcars

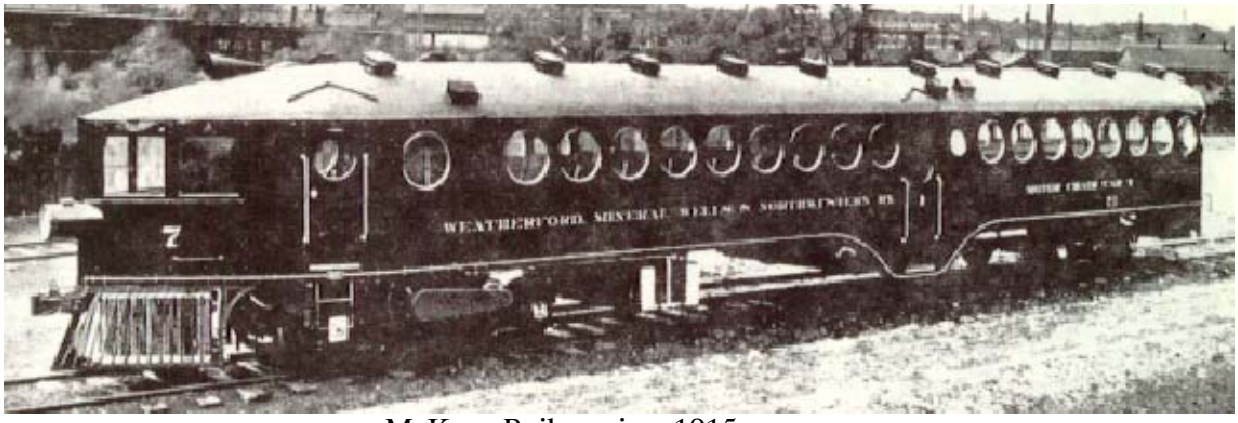
A former bus and truck salesman, Harold Hamilton, thought he knew just what the railroads needed; ***motor cars***. He rented an office, had some letter heads printed and and called his new company the Electro–Motive Corporation of Cleveland, Ohio. Hamilton contracted everything out. The Winton Engine Company supplied the distillate engines, GE supplied the controls and electrical components, and the St. Louis Car Co. built the car body. In 1924, Hamilton persuaded the Chicago Great Western to purchase and test the prototype car. The CGW was skeptical and stipulated that the car must run 30 days of continuous and dependable service or the deal was off. While primitive by today's stan-

dards, the car performed wonderfully, and operated at a respectable four miles to the gallon.

EMC was not the first manufacturer of railcars, but they were the most successful. Some of their railcars ran until 1960. The CB&Q probably had the largest population of 50 EMC railcars.

EMC Car, Serial Number 31, built in 1925

One of the earliest manufacturers was the McKeen Motor Car Company beginning in 1905. The Union Pacific was th primary customer (actually McKeen was a subsidiary of the UP) with 27 cars. These Mckeen cars were powered by a distillate engine that caused problems with maintenance and reliability. The engines and mechanical components had not been developed to a reliability suitable for the task. Most of them had mechanical transmissions. The Mckeen cars had no reverse gear. In order to move backwards, the motor had to be stopped, the camshaft arrangement changed, and then the motor started again in the reverse rotation. The last McKeen railcar ran in 1949 (rarely), but most had been retired much earlier. The UP built two McKeen railcars in their Omaha shop in 1927, 10 years after McKeen stopped doing business. However, these cars had "squared–off ends" rather than the sharp pointed front and rear of the original McKeen railcars.

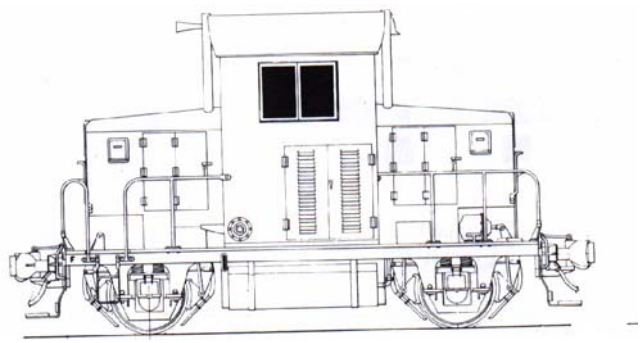


McKeen Railcar circa 1915

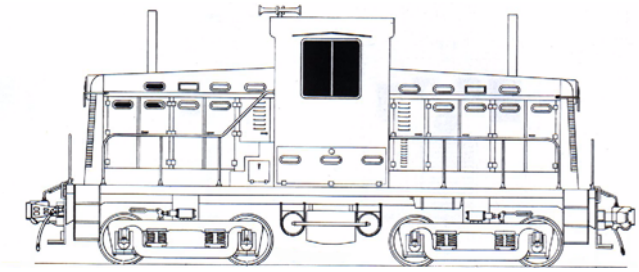
Some Early Switch Engines

Some early manufacturers of small switch engines and industrial switchers were: Plymouth, Whitcomb, Davenport, Brookville, Porter, Midwest, Milwaukee, Baldwin (gasoline), Berkeley, and Vulcan. Higher horsepower diesel engines had not been developed before the early 1930s so that the switch engines were small by today's standards. Many of these small switchers had dual diesel engines.

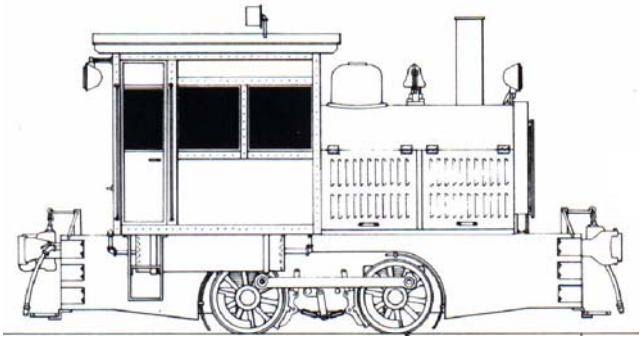
The introduction of diesel locomotives caused a long simmering dispute with the operating unions. The railroads found that multiple unit (MU) diesels (called motors) could be added together to give sufficient power to move a reasonable length train. The operating unions insisted that each "motor" should have a full crew just like the requirements for multiple steam locomotive operations. When GE reliably solved the MU control problem in 1940, the railroads finally resolved the crew requirements in their favor so that multiple "motors" only required one crew. In 1937, the railroads also concluded an agreement with the operating unions that permitted diesel locomotives of less than 45 tons to be operated with a reduced crew of 2. These requirements of engine power and small crew size caused the development of the "44 tonner" by various companies.



EMD industrial switcher of 1940. The standard size cab used on these mini–switchers produced an unusual profile. Two Detroit Diesel engines drove generators for a traction motor on each axle.

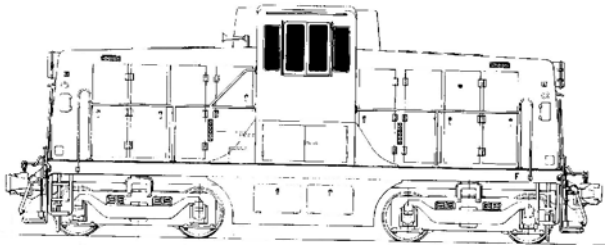


The Whitcomb 44–tonner switcher of 1940. Two Caterpillar V–8 engines (total 360 hp) drove Westinghouse electrical equipment. Whitcomb produced a large variety of electric, diesel–electric, diesel–hydraulic, diesel–mechanical, and gasoline–mechanical models in sizes of 30–40 tons.

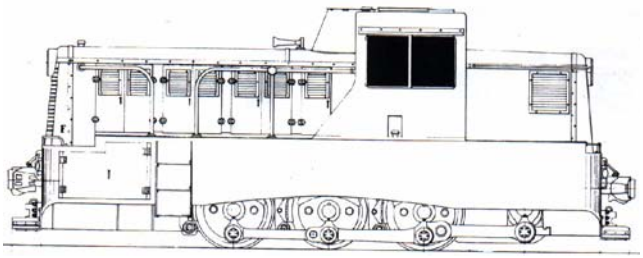


The Baldwin Locomotive Co. controlled and then owned Whitcomb Locomotive Company. Whitcomb never made a steam locomotive, but its 1930 30–ton switcher included a steam locomotive style sand dome, bell, stack and side rods on its drivers.

General Electric built the largest number of 44–tonners between 1940 and 1955. Two Caterpillar V–8 diesels of 150 hp each (later 175 hp) drove the generators for the traction motors. Over the production years, the many changes were made in the details, but the basic body shape remained the same. GE had made the business decision to stay out of the locomotive business and be a major supplier of electrical components, but it seems that each decade found them making locomotives again.



GE “44–tonner”



The Plymouth 65–ton “Flexomotive” was the largest mechanical drive locomotive produced in the U.S. A hydraulic coupling, direct drive through two planetary gear boxes in series, and side rods connected to the drivers created an imaginative and complex drive system.

Distillate

The railroads kept asking for more power, but unfortunately the Electro–Motive Company had just about reached a ceiling. It was not only difficult to crowd more than 800 horsepower into a car, but the cost of gasoline was rising to a point where the railcar’s margin of economy was disappearing. To avoid this dilemma, Harold Hamilton went hunting for a power plant burning cheaper fuel. The Winton Engine Company was asked to cooperate on an engine that would burn distillates at three cents a gallon instead of gasoline at fifteen cents.

It was a five year struggle to find a distillate burner and was considered marginally successful. The first problem was to define what distillate was. About the best definition was that it was anything that didn’t really classify as heavy fuel oil. It might range from a low–grade gasoline, to painter’s naph-

tha, to gas oil. In fact, it was anything the refinery didn't happen to want at that particular time.

The most uniform product seemed to be a liquid known as Dubbs oil, the heavy half of the pressure benzine taken off during the Dubbs cracking process. Attempting to burn this stuff in a carburetor engine was grim business.

In order to mix Dubbs oil with air and get it safely into the cylinder, required a carburetor on each pair of cylinders. These carburetors were fearful and mechanical marvels (nightmares?). On the largest engines, the intake valve of each cylinder was converted into a carburetor, so that the mixture could be introduced into the cylinder practically at once.'

Burning the stuff after it got into the cylinder was like 'trying to set fire to a wet haystack.' The designers had to put four spark plugs in each cylinder head. Where a gasoline engine would fire with one spark plug carrying about 35 milliamperes at 10,000 volts, the four spark plugs of the distillate engine each delivered 70 milliamperes at 20,000 volts.

Next Month: How EMC solved the engine power problem and the demise of the distillate engine.

RCGRS Officers

President, Darrel Dunham 503-697-4738
dwdunham@msn.com
Vice President, Jeff Lange 360-696-0799
jeffdlange@comcast.net
Secretary, Barbara Clark 360-737-0176
clarkdani@comcast.net
Treasurer, Steve Cogswell 503-650-4682
scogswell@tkw.com
Yardmaster, Gary Lee 503-695-2550
garylee@constructavision.com
Newsletter Editor, Allan R. Warrior
503-648-8112 awarrior@comcast.net
Webmaster, Allan S. Warrior
warriora@yahoo.com

Schedules & Timetables

Make sure you check the calendar on our Website at **http://www.rcgrs.com/** for the most up-to-date schedules and timetables.

Anyone interested in having an Open House or sponsoring an event, please contact **Donald Golgert at 360-896-1778 or grammabob@wa-net.com**. A goal for 2006 is to always have one open house or event on the second Saturday of the month. The other events or open houses can "float" on any of the dates in the month.

April 22, 2006, Saturday, 1:00 p.m.: Track Laying Party at Barbara Clark's, 4802 NE 32nd Court, Vancouver, WA, 360-737-0176

May 13, 2006, Saturday: Open-house at Dennis & Carolyn Rose's, 18325 Jaylee St. Beaverton, OR, 503-649-4904. Second quarterly business meeting.

June 10, 2006, Saturday: Track laying party at Steve & Mimi Cogswell's, 17520 Holly Lane, Oregon City, 503-650-4682

July 3 - 9, 2006, National Garden Railway Convention, Santa Clara, California:
Web Site: www.bagrs.org/convention/index.html

July 22-23, 2006, Saturday & Sunday, 12:00 p.m. to 6:00 p.m., RCGRS Summer Tour: Coordinator is Bill Derville. Help is needed from all members.

August 12, 2006, Saturday: Open house at Bill and Brenda Derville's. The annual auction is planned for this date.

September 9 - 10, 2006, Saturday and Sunday: Open house at Jeff Lange's. Third Quarter business meeting on Sunday.

September 17, 2006, Sunday: Open house at Gary and Jonette Lee's.

October 14, 2006, Saturday, 4 - 9 p.m.: Open House at Shannon and Millie Pratt's.

October 28, 2006, Saturday, 5 - 10 p.m.: Open house at Allan & Kathryn Warrior's. Halloween trains and night themes.

November 11, 2006, Saturday: RCGRS Annual Banquet.

December 8, 2006, Friday: Open house at Jan & Rae Zweerts'. (Christmas Ships)

Editor's Note: The deadline for the May newsletter is April 25, 2006.