

sometimes

# Mud Ring Monthly

Cinder Sniffers News

Jan, Feb 2016



## Denis builds a Coaling Tower

*for an off-the-ground, clean and dry supply of coal.*

## CSI's new Coaling Tower

**Jan 9:** The coaling tower project started a few days before Christmas on a clean, dry driveway in some of the best working weather I could have had. Since I will have to break the tower down to transport it anyway, I took the panels around to the back yard to set them up on what I thought would be a big enough tarp. The assembly the following week was in monsoon conditions. I was soaking wet by the end of two days when I had it set up and bolted together. The following two days of detailing and staining were in ankle deep mud and crawling under the tower to stain the bottom was not fun. When I sat down in a chair to stain the legs, I found myself sitting on the ground. The chair legs went nearly eighteen inches down in the mud. Needless to say, I will be reseeding the back yard this spring. At the time this photo was taken, I had cut out a gable end. Since the garage is jammed full and cold, I have been assembling the roof section in the living room. It is nearly too heavy to carry outside right now, but I hope to have it done in the next couple of weeks and maybe I will find a strong neighbor to help me lift it on to the rest of the tower. I am looking for a couple louvered 2" diameter round soffit vents for the gables. Lowe's and Home Depot both show that they have them, but they don't. I will check Menards today. Spring break for me is the week following Easter. Anyone interested in helping to set it up during the week (I have a Battlebots competition on Friday and Saturday that week).

**Jan 16:** Today I finished the roof section of the coal tower with board and batten gables, 2" round aluminum louver gable ventilators (Menards had them in stock!), and tarpaper roofing generously sold to me for cost by Campeon. I am searching for a neighbor to con into helping me lift it into place. Note that the



Three photos: Denis Larrick



only grass left in the yard is under the roof. I started the coal gate today (stainless that I found in the scrap box already to exact size!!!!) and by the end of the MLK holiday I hope to have the chute on it. I was almost dead on with the estimate on the wood, but the hardware ate me alive since I am using long bolts to hold the panels together (so I can ship it). We budgeted and approved \$300 [at the December meeting], but as of tonight I have spent \$388. Hopefully that won't break the bank. I think everyone will be pleased with the results.

Suggestions have been to put it between the Lohmoeller Car barn and Taylor Trestle, on the mainline at Ahren's Junction (Mt. McHugh), or to use the south end of the unloading platform and move the watertower down to be across the track from it. I am starting to favor the last one since it is where the passengers can see us using it and we stop there anyway. - Denis

# New Year's Day Run



Staffing the Diner, selling hot chocolate and chips:

- o Donna Hill
- o Kate Frozina
- o Donald Frozina

Motive Power:

- o Sam's Colorado Southern Motor No.2 (left)
- o Frozina's SP #2295 (below)
- o Chromik's EGB & Pacific #4
- o Larrick's Lewis Brown
- o Cinder Sniffers' SW1500 #6509, piloted by Roger Heurich and others



## 2015 Financial and Membership Report

The year began with financial assets of \$9,653. We had income and gifts of \$7,495 and expenses of \$2,162, leaving a balance at year end of \$14,985. We enjoyed a one time "gift", facilitated by Steve Chromik, of \$3000. This was a settlement for the ride-in Galloping Goose built by several Cinder Sniffers for Jim Geier. The other \$4,495 of income was made up of:

- 68% Dues
- 2% Donations from members
- 17% Donations at the farebox
- 10% Proceeds from the diner, including hot dogs
- 3% Flea market sales (net)

Our total 2015 expenses of \$2,162 were as follows:

- 13% Track related expenses, including the 2015 portion of the North Comfort realignment
- 14% Grounds
- 11% Buildings
- 19% Printing, Postage, Internet
- 6% Rolling stock maintenance
- 16% Utilities, Electric
- 14% Liability insurance
- 7% Miscellaneous

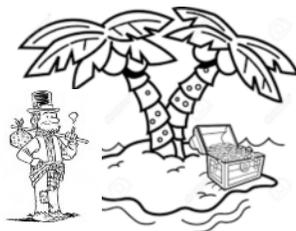
2015 was the first year in which we had no real estate tax; a savings of approximately \$1400. However, this is more than balanced by approximately \$2500 in expenses which has already occurred in 2016 for the removal of dead ash trees.

Membership counts at year end, for the last three years, are:

	2013	2014	2015
Full (Family)	40	40	40
Spousal	6	6	8
Associate	6	8	9
Junior	7	9	3
Life	4	3	3
Total	63	66	63

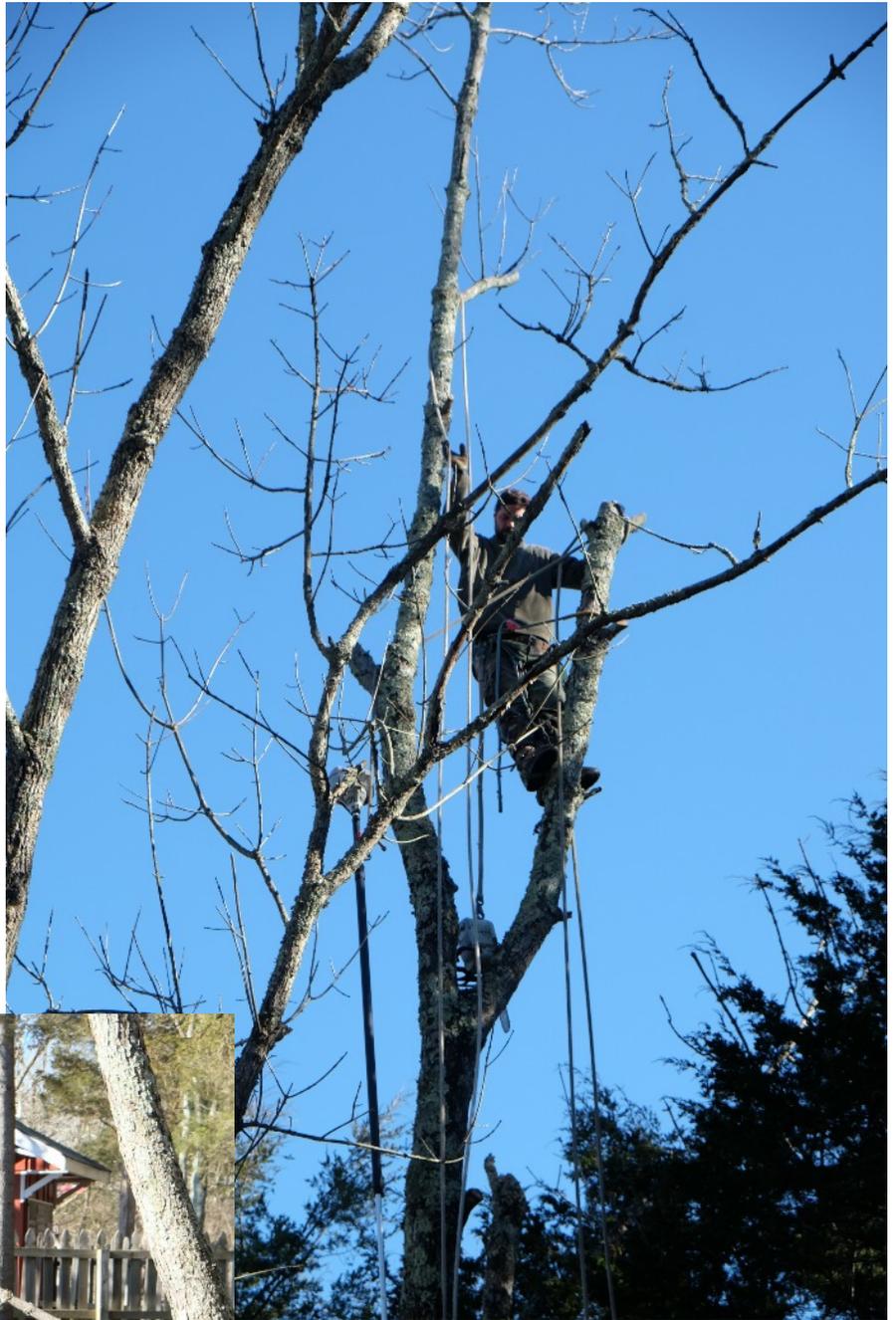
New members in 2015 are: Lee and Peggy Hodgson, Kent Bolerjack and Ed Heeg. Julie Balmer upgraded to voting status with a spousal membership. Steve Harrod switched from full to associate membership. Unfortunately, associate member Dave Luttrell passed away in September.

... Jim Keith, Treasurer 2012-2015



## Dead Tree Removal

*Roger Heurich and other members of the Wednesday crew identified twenty or more trees (mostly ash) that were dead and needed to be removed. Also dead branches needed to be cut out of the Sycamore just west of the Diner. Roger and Harvey Bond settled on Mike's Tree Service as the contractor. Here are some photos which give a hint as to the state of affairs as of January 14, 2016.*



Two Photos - Jim Keith



## Dead Tree Removal ... continued



*Removed Sycamore Branches*



Two Photos - Jim Keith

Roger, sizing up the situation, says: "We need to have some **Tree Parties** .. to clean up all of this cut wood." I'm sure that if anyone would like some fire wood, it is free for the taking. Otherwise, Roger says that he has a friend that will gladly take it all.

## Doings at the **Balmer Locomotive Works**

You might think that Chuck Balmer has worked himself out of a job after scratch-building/rebuilding/restoring eleven locomotives, plus building a number of cars **and** a backyard railroad. But during the winter of 2015-2016, Chuck has done it again. Here is his story.

A couple of years ago I purchased a partially complete ¾" Hudson chassis from Joe North's widow Martha. The boiler was beautiful and made from all stainless steel. It was a good example of Joe's skill as a professional welder. It still needed a jacket and all of the boiler fittings. The smoke box had a few holes cut in it for the stack and exhaust port but was far from complete. Joe had not started the tender chassis but had completed the 6 wheel trucks. The



Chuck Balmer

engine chassis did not have a lubricator but did have a dual piston water pump. There were no side rods, main rods, eccentric cranks, crank pins, or cross heads. The cylinders did not have any drain cocks or main steam supply piping. I don't know the history of the chassis but I suspect that Joe may have purchased it from someone else. I believe that he made the wheels and axles but I suspect that he did not build the frame, valve gear, or cylinders. The trailing truck had to be modified so that the chassis would sit on the drive wheels.

## Balmer Locomotive Works ... *continued*

The pilot truck had to have the wheel diameters reduced to solve a clearance problem with the frame and the cylinders. It also had to be moved forward by about ¼". The drive wheels had not been quartered on the axles which was fortunate because the axles would need to be modified. This was all known at the time of purchase.

As I started to build the running gear parts, I noticed that the main rods would not line up with the piston rods. When I checked the gauge on the drive wheels I found that they were 1/8" too wide. In order to correct this problem, I had to cut the frame in half and remove 1/8" from the width. I also had to cut off the front of the frame behind the cylinders since I could not change the width where the cylinders were mounted to the frame. The width of the water pump needed to be reduced to fit in between the side frames. I also had to shorten the drive wheel axles by 1/8". The bearing boxes also had to be modified because they did not line up with the pockets in the side frames. All of these changes took several months but were finally complete and I was able to move on to the next phase.

The Walschaerts valve gear had some alignment problems but with a little machining and some shims these issues were corrected. I also found that the length of the rods connecting the gear to the combination links at the valves were too long. These had to be cut apart, shortened and re-welded. In checking the clearance between the valve gear and the bottom of the boiler I found that the offset rod that connected the right and left gear interfered with the boiler. This rod had to be remade without the offset. With these issues fixed, it was time to move onto the cylinders.

Little did I know that I was about to run into the most serious problems that I would encounter. I removed the pistons and found that the cast iron rings had huge gaps and would not seal at all. All of the rings had to be remade. I also noticed that the rods were not threaded into the pistons but appeared to be Loctited in place. I was not confident that this would hold at high temperature. Rather than remake the piston rods, I chose to drill a hole through the side of the piston and through the piston rod and then press a pin into the hole locking the rod in place.

I moved onto the piston valves. The valve sleeves were made of brass and pressed into the cast iron cylinders. The internal bore of the sleeves was not constant from end to end. It was obvious that they would need to be re-bored and new valves made. I did not want to try to bore the sleeves in place, so I decided to try and press the sleeves out of the cylinders and then bore them. One sleeve pressed out easily but the other had a broken tap in one of the end cap mounting holes. This was a problem because all of the end cap mounting holes were drilled at the seams of the brass sleeves and the cast iron cylinders. This broken tap essentially locked the sleeve in place. After spending an hour drilling and chiseling, I removed the tap and was able to press out the second sleeve. This revealed another problem.

In a way it was fortunate that I had to remove the sleeves because I found that the cylinder ports were not in the same position or the same distance apart in the two sleeves. This meant that the two new piston valve spools would need to be of different lengths and that their relative positions on the valve rods would need to be different.

With all of this in mind, I re-bored the sleeves, and made new valve spools. The spools were then lapped to give a tight fit into the sleeves. All of these parts were re-assembled and mounted on the chassis. All of the running gear was installed, the valves adjusted, and the cylinder piping installed to find out if the engine would run on air. I was relieved to see the engine ticking over. While everything is a little tight, I am confident that it will loosen up after running on steam for awhile.

Since I have no experience with a stainless boiler, I'm a little skeptical that it will prove to be a good steamer, but if I can force the gas burner I may be able to compensate for the poor conductivity of the steel. We'll see.

This restoration has certainly been a challenge but I have learned a lot and I had promised Martha that I would finish it. I'll soon be on to completing the tender and maybe by next summer we'll be able to fire it up and give it a try.

. . . . *Chuck Balmer*

# The Extra Board

British Columbia Society of Model Engineers is constructing two Heavy 4-8-4s



BCSME photo from the internet

*"Here's the first of 16 wheels being machined .. for the two BCSME 4-8-4 s. Balance weights are different on some wheels. They are being cut from 4140 steel alloy annealed rod." ... Lindsay McDonnell of BCSME*

Recently Lou Lockwood brought my attention to an email exchange between his friend **Earl Mueller** and BCSME's "Chief Mechanical Engineer" (my appellation) **Lindsay McDonnell**. It seems that to haul their ever increasing passenger load (which counted to 66000 in 2015) BCSME feels they need two new heavy 1.6" scale 4-8-4s and, thus, are embarking on building them.

Lindsay writes: *"We have to move a lot of passengers, especially in the mornings. We need bigger steam power so we can haul **eight** 6-passenger ride-astride cars up our hills. Yes the weight on the drivers needs to be heavy for adhesion.*

*"Our NYC Hudson and CNR Northern both with 3" bore cylinders at 125 psi can pull 5 cars (30 people) with ease. We can have line ups out to our gate as we did over*

*Halloween so need the power. All out we move 30 passengers per train; 6 trains = 180 every 15 mins on a mile run. That's 720 paid riders ... and for 6 hours' that's 4320 rides for the day, theoretically. We do about 1600 on an average day but these special busy days we need the equipment and the members to run it. Our ridership keeps going up and we do no advertising. The public loves us."*

Lindsay continues: *"The new locos should be able to haul about 48 passengers [8 cars] up our 2.2% grades.*

*"Briggs steel boilers were chosen because we wanted the weight and with copper heat exchangers they steam like an all copper boiler as does our NYC Hudson and Britannia. With Kaowool lining the dry firebox, they are cool on the exterior, no stays to rot, and steam up fast. I am designing [these locos] as heavy duty club haulers that should require minimum maintenance."*

# The Extra Board .. *continued*

## British Columbia Society of Model Engineers' two new Heavy 4-8-4s

Some of the interesting specifications for these locomotives are:

- Frames:** Water cut mild hot rolled steel 1.25" thick.
- Cylinders:** Fabricated 3-5/8" bore, 4.4" stroke. Cast iron liners. Clupett cast iron rings.
- Drive Wheels:** Coil sprung (no equalization).
- Weight:** 1800 lbs on driving wheels .. (and 2600 to 2900 lbs total engine weight?? .. jsk).
- Brakes:** Vacuum.
- Boiler:** 1/2" wall 12" OD steel Briggs design, with copper heat exchangers and tubes/flues.  
Two fusible plugs; pressure 125 psi max.  
Co-axial stainless steel superheaters.  
Propane Burner. Teflon ball valve throttle.
- Front End:** The exhaust nozzle and stack proportions will follow British Rail's S.O. Ell's guidelines.

The BCSME club goes back to 1929, but the present 7-acre site in Burnaby, created on wetlands with 8500 loads of fill from a highway project, was opened in 1993. The BCSME railroad, named Burnaby Central Railway, has about 2 miles of main line. It is located just east of the city of Vancouver in a city park on the south side of Vancouver's Central Harbour.

More information about the new 4-8-4s may be found in their club newsletter:

<http://bcsme.org/> => The Whistle => The Whistle\_01\_January 2016\_pub.pdf => (page 7).

## Some Upcoming 2016 Events

- Mar 5 - 6 7th Annual Scale Model Expo, EnterTRAINment Junction; Cinder Sniffers meeting, Mar 5
- Apr 2 First Passenger Run, CPR&SS, Carillon Park, Dayton
- Apr 23 - 24 North American Model Engineering Society 27th Exposition, Wyandotte, MI
- Apr 28 - May 1 2016 "Rails to the Capital", NMRA Mid Central Region Convention, Columbus OH
- May 3 - 7 Mid South Live Steamers Spring Meet
- May 14 First Cinder Sniffers Run
- May 26 - 30 Memorial Day Meet, Mill Creek Central, Coshocton
- May 27 - 29 Los Angeles Live Steamers 60th Anniversary
- Jun 25 - 26 Rail Festival, CPR&SS, Carillon Park, Dayton

