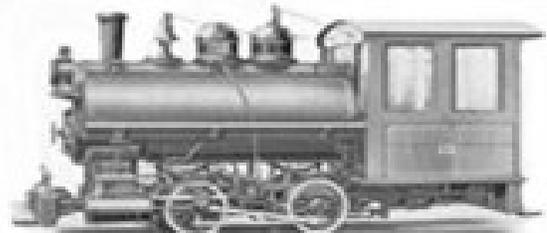


ONE YARD

DECEMBER, 2004



THREE FOOT

VOL. 1 ISSUE 3

EDITOR'S CORNER

Dan Myers

Happy New Year to everyone reading this year-ending newsletter. I hope this finds everyone safe, healthy, and thankful for a great year, and looking forward to an even better one!

First, a bit of 'housekeeping'. This issue completes 2004. We set ourselves a goal of one issue per quarter, but due to a death in the family and other unforeseen circumstances, we had to skip the Third Quarter. But our New Year's resolution is to keep to the schedule this year!

Second, I would like to ask all of you to help me keep this resolution. How can you do that? By writing us, sending photos, or putting something for sale in the classifieds! None of us working on this newsletter are professionals. We are all amateurs who enjoy railroading in general, and 'full size' narrow gauge railroads in particular. So, if you have something to sell (or something you want Santa to bring you!), please let us know. And if you have just a picture or two of your latest switch, or rail gadget, or an industrial critter you are fixing up - please, send it to us. We're happy to include it and give you credit where credit is certainly due! We couldn't do this without your support. So don't be bashful - drop us a note!

Third, many of you have asked to help by sending a monetary contribution. At this time, we're happy to run the web site and send out the newsletter for free. It truly is a 'labor of love'. If it becomes a

burden, we'll let you know. But we enjoy this work and especially enjoy hearing about all the great people out there with their neat BackYard Three-Footers! Please have some patience with the web site, as it is hosted for free. Thus, you'll get some annoying pop-up ads. Installing a good blocker will keep it from annoying you. And the free web site keeps it affordable for all!

Forth, we're starting to have a sizable readership. And I know many of us own or help with narrow gauge railroads (30 inch, 3-foot, meter, or 40 inch). So maybe it is time to think of a small get-together. If any of you have an idea of a place you would like to meet and sites you would like to see, please let us know. My suggestion is my home state of Oregon. You have the CD&M railroad (the publisher, Marie's very own). You have the 30 inch Portland Zoo train, with a steamer. And you have the great tourist three-footer, the Sumpter Valley. So, if you think you would like to gather sometime next summer, and spend a week or so with your fellow narrow gauge owners and volunteers, please drop us a line and let us know when you could attend, and what you would like to see.

Thank you again everyone, for making OY3F a success. We couldn't do it without you! Again, Happy New Year and I hope all had a peaceful and joyous Christmas and found their stockings filled to the brim.

RESTORATION OF ANOTHER THREE-FOOT RAILROAD

The ET&WNC RR at Doe River Gorge

Mark Milbourne

DRG's East Tennessee and Western North Carolina Railroad is not at all your typical backyard railroad, nor is it privately owned. However, it does have much in common with other backyard railroads in that it is operated and maintained on a low budget and with a relative handful of volunteers.

The ET&WNC is located in the extreme northeast pointed corner of Tennessee. In 1882 the ET ran its first narrow gauge train from Johnson City southeast across the North Carolina state line to haul iron ore from the mine at Cranberry. To reach their goal, the ET had to hack their way through the rugged Doe River Gorge. The gorge section is about three miles but has four tunnels, three bridges, several narrow ledges cut into sheer cliffs and many retaining walls. Passing through the gorge was literally and figuratively the centerpiece of a ride on the ET which eventually extended to Boone, NC. For pictures of gorge scenery look at this web page promoting a speeder excursion we co-hosted last year: <http://www.doerivergorge.com/motorcar>

The iron ore traffic died in the late 1920's, but the plucky little narrow gauge held on until 1950. Much more could be written here about the ET&WNC and indeed entire books have been written. The gorge ROW remained intact and in the mid-1960s an amusement park operation was established on the property at the west end of the gorge. One of

the park's attractions was a train and the present day rails (50 to 60 pound), still three-foot gauge, were relaid through the gorge for about 2.5 miles taking in three of the tunnels and two of the bridges. Various iterations of the park lasted into the mid-1970s and then the property was privately held until 1987 when the present owning organization was formed and acquired it. Doe River Gorge Ministries, Inc is a non-denominational outreach to young people. Our main summer programs are for ages 8 to 18. These weeklong programs are centered around high-adventure activities made possible or enhanced by the spectacular location. These include rock climbing, rappelling, canyoneering, challenge ropes course, whitewater inner tube rides and mountain boarding. See the DRG web site for more information about these and other programs: <http://www.doerivergorge.com>

Early friends of the organization tried out a few homebuilt rail bikes and a rail-gocart. The present day Adventure Quest programs began in 1995. Some of the activity sites are located in the gorge itself. Students hiked the tracks to reach these sites; the gorge is just too rugged to accommodate a through road or even a trail. In 1996 a Fairmont MT-19 speeder was narrow-gauged and donated, but by then many of the 30+ year old untreated ties had decayed too literally nothing and the rails wandered quite a bit in places. So after a test run of just a few hundred feet that ended in a derailment the motorcar was put in storage.

I came on staff with DRG in 1997 and a long latent interest in trains and narrow gauge was renewed by reading about the ET&WNC history and sketching possible rail bikes that wouldn't care about the rails wandering in and out of gauge. That fall, however, Phil Raynes contacted us and offered to help restore the track. Early the next spring he took time off work and drove all the way down from Ohio and we

Put in a few ties. This got the ball rolling and during the year some other folks got involved. By the end of 1998 almost 200 ties had been replaced. We put a new tie only where one was REALLY needed and thus managed to make about 1600 feet of track useable for the speeder. It could then reach the trailhead to the challenge course located below the track along the river. With only one speeder, we couldn't haul many kids, but it provided logistical support by hauling activity setup staff and gear. By the next summer, 1999, about 100 more ties had been installed and we'd figured out how to make clips from rebar to hold the rails in gauge where spikes were gone.

Between the ties and clips, we managed to band-aid the track enough to pass through our second tunnel and reach to the very scenic overlook at the high-retaining wall for a total distance of about 4400 feet.

During the summer, Phil made another visit and brought a friend, Steve Eidt, as well as Phil's recently acquired ex-East Broad Top antique Fairmont motorcar. The two of them made a railroad safari further up the gorge ducking the branches and pulling rails together wherever they derailed. They made better part of another mile before running out of band-aids for the track. Steve returned home and came up with an improved "gauge bar" made from steel channel he'd gotten a lot of at scrap prices. Dozens and dozens of these bars were made as were more trips from Ohio into the fall. Some mild early December weather saw enough ties installed for the DRG speeder to reach the end of the available rail, almost 2.3 miles. A couple of small work trailers also came on the scene by this time and during the summer of 2000 the speeder, which was regared to a lower range, was able to haul a trailer full of kids up the 2+% ruling grade about 1.3 miles to their put-in spot for inner-tubing back down the river.



Early in 2000, Phil and Steve also rescued a 5-ton Plymouth FLH from the mud at a quarry and DRG had its first critter. Events later in 2000 pushed it to the back burner, but it is mechanically restored and operable. A new cab and other topside work is partly completed at this time.

By that summer, Ken Riddle had come on the scene and convinced our director to let him have a contractor install new ties on the 1.3 miles we were actively using. By early September about 1800 new ties were installed giving us a solid tie at least every other on the original spacing of 22-23 inches. This was enough to consider heavier equipment which was exactly what Ken had in mind. He convinced the folks at Nashville's Opryland operation to loan us their steam engine, Rachel, which had been stored since their amusement park closed. Rachel arrived in time to mark the 50th anniversary of the last ET&WNC revenue train on Oct 16th by making public trips that carried about 500 people. Rachel is a 1920 Vulcan 0-4-0T rebuilt in the early 1970s as a 2-4-4T forney for Opryland. She was also converted to an oil burner at that time.

She stayed with us for the next three seasons and hauled thousands of people on the half dozen or so public operating days we now have each year as well as a number of charters.

Gaylord asked for Rachel to be returned last fall, but in the meantime we'd located an 8-ton Plymouth HSD at a scrap dealer in nearby southwest VA.



Over last winter and spring this critter was regauged from 42" to 36" and totally restored. The CAT 3304 engine was stuck so it was pulled and sent out for rebuild. The hydraulic drive system was also completely removed and sent out for overhaul. To remove the motor (which turned out to weigh 1000 pounds!) we had to dig a hole between the rails and lower it out the bottom. Ken just happens to work for a hydraulics company and he saw to it that the pump, motor and other components were gone through and new hoses made. The loco's hydraulic drive also provides braking, but our two passenger cars have airbrakes, so an air pump was located to fit the engine and a train airbrake system plumbed in. Someone donated a Nathan 3-chime airhorn to top it all off. Then he recently sent us an ex-Amtrak air-operated bell which I hope to get installed soon and then it will have "all the bells and whistles".

The ET&WNC never had a narrow gauge diesel, but the remnant standard gauge ET did which today operates as the East Tennessee Railway in Johnson City. Their two SW locos have a handsome paint scheme of green with gold lettering and stripes on a white beltline over black frame and trucks.



The "Deezul" made a successful first test run in March and has been busy ever since. After our fall public day we had some more charters in November and even on the last weekend in early December. So as we close out the year, it has pulled our pair of passenger cars up the gorge on the 2.5 mile round trip over 100 times. This was for our public operating days as well as in support of our summer Adventure Quest programs.

It's been a 7 year adventure that is still going and a second job that I didn't expect at all when I came on DRG staff to "do computer stuff". Yes it's been a great deal of fun, but a lot of times it's been a little too much like work. Over this time I've developed some ideas and opinions that I could share with a backyarder "wannabe".

To be continued in next issue with Mark's ideas and opinions on backyard railroading.

CONSTRUCTION OF THE TURNTABLE AT THE CD&M RAILROAD

Dan Myers
Charlie Myers
Marie Myers

Every railroad needs a turntable! At least the CD&M sure did. As can be seen from the map of the railroad (located online at www.cdmr.com, click on "map"), the western end of the shortline ends in a loop. But on the eastern end, before the turntable, there was no way to turn the engine or car. Given that the home-built diesel/mechanical engine, the 701, is VERY slow in reverse, going back around the loop takes quite a long time. At first, a wye was discussed, but the lack of level terrain at the eastern end of the property pushed the decision to make a turntable. Plus, it allows easy access to the two engine-barn tracks and the storage track.

First, the CD&M's Master Mechanic and all-around fabricator, Charlie, determined that the longest train to be turned would be either locomotive with the riding car. A turntable 24-feet in length would accommodate either one, with just a hair to spare (it will fit until Marie gets him to construct a caboose and then what do we do?!)

Second, the CD&M's Chief Engineer (structural), Dan, looked at the loading that would be seen with the 10-ton Porter air locomotive sitting on top, to ensure the deflection and stress wouldn't exceed a safe limit.

In late spring of 2004, Charlie started by laying out a 24 foot circle. This would make the turntable 23 feet, with one foot on the outside to be able to turn it. The center of the turntable would match up with the middle bay of the engine barn (aka the Square House). Charlie stretched a line from the center of the track on the eastern side of the turntable area to the center of the track at the door in the square house.

Then he surveyed, with the assistance of Marie, the height of each end of the line. To that measurement he added the depth that would be required to place all the materials needed for the turntable. With this figure, he staked out the 24' circumference to indicate where to dig. Starting on Father's Day weekend, Dan and Charlie began to dig out the area, using the small bulldozer and front-end loader (photo #1).



Photo #1

At a certain point, the single rail that leads to the engine barn was removed, forcing the 701 and work car to remain outdoors until this whole endeavor

was finished. It took close to two weeks of steady digging, loading and moving of dirt. Once the dirt was removed to the 24 mark, Charlie, and his friend Al, surveyed the pit area. All high or low areas were leveled out and it was surveyed again. Charlie's design of the turntable calls for the span to be supported at the center on a pivot, and at the two ends on roller-equipped trucks that ride on a circular rail. As always, the CD&M operates on slim margins (none!) and so Charlie designed to minimum cost. Already possessing the rollers for the ends and rail for the circular track, he had only to acquire the pivot and the girders for the frame. Visiting the local scrap yard, two long and deep girders that were former semi-trailer frames were acquired for scrap prices (photo #2).



(Photo #2)

The rear end, of which part was to be used as the pivot, was purchased from a local heavy-duty truck repair shop. The truck rear axle was cut off at the differential. The differential, the big round center of the axle, was put into a hole at the center of the circle and the axle was buried up to where the wheel

hub would be. The axle was secured with gravel and concrete (photo #3).



Photo #3

The hub was then placed over the axle and a 18"x4"x2" steel plate was placed next and all were bolted together (Photo #4 and #5).



(Photo #4)

This plate would support the two girders. The girders were joined by welding in 4"x 6"-1/4" I-beams as cross braces every 2 feet. The girders were then welded to the plate.



(Photo #5)

Next came the placing of the curved rail.

We will stop at this point and continue in our next issue. Stay tuned for the finished product.

SALE, TRADE AND WANTED

The B&W (St. Mary's, PA) has two 90 degree crossings in good shape. They are three-foot and made with 40 pound rail. Make offer. Merry Christmas. tpbauer@alltel.net

WHAT IS IT?

In our last issue we had a picture of a piece of equipment and ask if anyone could identify it. It didn't take long and we received three correct responses.

Mike Nix from Minnesota; Richard Wilkeson, Northwest Railway Museum, Snoqualmie, Washington; and Smitty, Baker City, Oregon. All had the right answer of a radial air compressor. It's an Ingersoll-Rand, with three of the cylinders being the gasoline engine and three cylinders making up the compressor.

There were probably more out there that knew the answer but we didn't hear from you. And, no, it isn't for sale.

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