



# THE RAMBLER

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## From the President's Desk

*By Rob Gardner*

With 2020 giving way to 2021, many of the societal COVID-19 restrictions we have been living with since March 2020 have gradually been lifted, allowing us to start a return to more normal operations and future planning. I want to thank each of you for your attendance at our regular Saturday work sessions at the roundhouse. If you haven't dipped your toes in those waters yet, I want to invite you to reach out to Forrest Nace or Gordon Hartschuh to discuss participating in a work session. No matter your skills, I know you will find a meaningful way to get involved and contribute to the progress we are making on the 2100. In most cases, you will receive specific training for most every task we do, and we will make sure you are comfortable with whatever task you undertake. Safety first! If nothing else, we would just love to see you, and show first hand what you have supported getting done as of late on Reading T-1 2100!

Perhaps the biggest news this month is the second installment of ASR's Legends of Steam, featuring Doyle McCormack of SP Daylight 4449 fame. Did you know that Doyle's life in railroading started in Conneaut, OH on the NKP? If not, you really need to make sure you attend this rare event on September 18th. You'll get to hear Doyle tell us all about his and his father's early days working the NKP out of Conneaut and his early exposure to the NKP 700 class Berkshires before he gets to the 4449, and the American Freedom Train. Get your ticket now!

Also, be sure to check out a new four-part article as Steve Wickersham shares stories about his years with T1 2101 on the American Freedom Train and Chessie Steam Special, as well as 765, 611, and the 614 on various excursions.

I also want to thank each of you who have faithfully continued supporting ASR through your memberships, purchases of ASR and 2100 items, raffle tickets, and event tickets. Each project relies on contributions from people just like you. We, as your Board of Directors, work hard to spend funds wisely and efficiently to not only continue the work on 2100, but to also provide the infrastructure that keeps ASR operating in the virtual world of our website and online store, as well as covering other expenses such as insurance and rent that are a necessary. While I'd like to say that we have the \$3,380.00 monthly overhead expenses comfortably covered every month, we at times are forced to run on very thin margins. In short, we have to keep the lights on before we get to work on the 2100. We hope you consider a summer or fall donation to strengthen our financial footing for the remainder of 2021.

Hoping to see each of you down at the roundhouse this year, as we get ever closer to making steam!

Best Regards, Rob Gardner (rob.gardner@americansteamrailroad.org)

**A Very Special Event: Seating is limited, buy your tickets today!**



**Get your tickets today at: [www.fireup2100.org/events/](http://www.fireup2100.org/events/)**

# 2100: Progress Report



*By Rob Gardner – President:*

The restoration of 2100 continues at an impressive pace, with several large projects nearing completion in preparation of a hydrostatic test.

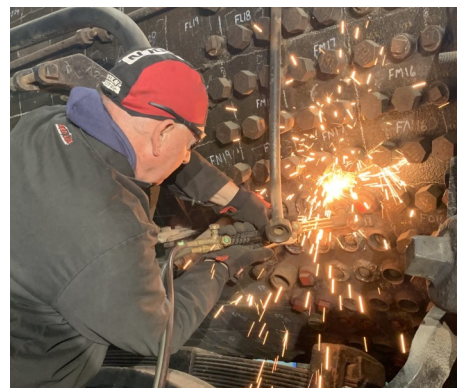


**Volunteer Greg Antz cleaning the surfaces.**

The largest project by far was the replacement of the 2 side sheets, which required the destructive removal of 548 staybolts. We are pleased to report that 409 of the new staybolts have been fully welded into place. ASR volunteers did many days of staybolt and side sheet metal cleaning with wire wheels and angle grinders, so when the professional welders arrived they could begin welding immediately, saving thousands of dollars for us to put towards other projects. Other firebox projects volunteers performed were annealing, which is a metal softening process with extreme heat, 1,000 copper sleeve gaskets; polishing 444 staybolt sleeve gasket seats; and removing old temporary sleeve repairs.

Ultrasound metal thickness (UT) readings of the entire boiler continues, with approximately 75% of the required readings now being completed and logged. This task is extremely time consuming, as the entire boiler and firebox need gridded into 8" x 8" blocks, with 3 readings taken within each block over the entire outer boiler shell and firebox, and 4 readings per block inside of the firebox and combustion chamber. To get accurate readings, light grinding must be done to remove any paint, rust, and grime, and then a light coating of petroleum jelly is applied where the UT reading probe is placed.

Our new firebox arch tubes were delivered, and our professional contractor Zach Hall prepared the placement holes in the firebox for installation. These tubes will be installed after the staybolt welding is complete.



**Gordon Hartschuh, Crew Chief, removes an old sleeve's temporary repair.**



**Staybolt welding is not done one after another, thus distributing excessive heat to a larger area to prevent new staybolt cracking. Volunteers paint the tips of the fully welded ones so the professional welders can easily see which staybolts still need welded, reducing time and project costs. Another way ASR maximizes your donations!**

inspected by Zach Hall and found to be in good condition. ASR volunteers will clean it, as well as the float tank and piping, before reassembling the unit.

Nine new staybolt sleeves, needed to replace old temporary "sleeve over sleeve" repairs, were welded into place.

Volunteers emptied approximately 1,000 pounds of sand from the sand dome, which had to be done with a Shop-Vac filling up one 5 gallon bucket at a time. The sand dome was then removed using Midwest's crane so that UT readings could also be taken in that area as required.

Also, volunteers removed and tested the ball float mechanism of the Worthington Feedwater Heater. The mechanism was then

As we are half way through 2021, I hope you are as excited and pleased with the progress as ASR is!

## Special Article Series

**The memoirs of Steve Wickersham, T1 2101 Engineer, Fireman, and CMO (Part 1 of 4)**

*By: Forrest Nace*

*ASR is pleased to present, in a 4 part article, the experiences and memories of Steve Wickersham, who was involved with the High Iron Company and the NKP 759 in his early years, and then became a fireman and engineer on the American Freedom Train and Chessie Steam Special with Reading T1 no. 2101, as well as going on to run other famous locomotives, such as NKP 765, N&W 611, and C&O 614. Steve also became the 2101's Chief Mechanical Officer in 1977, and was in charge of the restoration of the 614.*



I started first with Ross Rowland and the High Iron Company back in 1968 on a trip with NKP 759, a 2-8-4 Berkshire, which ran from Grand Central Terminal to Niagara Falls and back, in October. It was a 2 day trip. I was invited, along with my brother, to work as “grunts and gophers” on the train itself. My brother did that both directions, and I weaseled my way up into the crew car, which was a baggage car right behind the engine. I stood in the baggage door, which you can’t do anymore, chatted with the 759 crew and ingratiated myself with them, which is a nice way of saying I made a pest out of myself. This led to going on a work week the following April in Warwick, NY, where a great deal of work was being done getting the 759 ready for the Golden Spike Centennial Limited that was coming soon up. I actually got invited to go on that trip as a crew gopher. I was a 16 year old kid weighing about 110 or 115 pounds. Joe Karal, the old boilermaker, a couple of the other older heads, and a number of the younger folks like Doyle McCormack, thought I might be useful. I got their invitation, but my mother wouldn’t give me permission to take time off of school. The trip was run successfully without me, imagine that! I did continue my involvement as best I could with juggling the last 2 years of school, as I was a junior at that time.

Fast forward to early 1974. Ross Rowland had begun promoting the American Freedom Train, and I got totally captivated by the idea and took a leave of absence from an engineering college in Massachusetts, Worcester Polytechnic. Ross hired me to be an Administrative Assistant, and I worked with him on all kinds of things. Late in 1974 there was a major political upheaval with the American Freedom Train Foundation, so I was off for a few months, but then came back in March of 1975 for the initial restoration of 2101, otherwise known as “the 30 day miracle.”

2101 was selected between the two T1 engines that were at the Striegel Scrapyard and was pressed into service for the American Freedom Train. The SP Daylight, No. 4449, had already been undergoing restoration for quite some time, but late in the game it was learned that it was too big to fit in much of the northeast, especially on the Northeast Corridor, where we ran virtually all of it at one time or another starting with the first run. Tunnel clearances and all the rest in the east, having been the older parts of the railroads, couldn’t accommodate an engine as tall as the Daylight, which is a big Northern 4-8-4 with 80” drivers. There were many areas it could not have gone due to tunnels and overhead wires.

The Reading T1’s were built in a fairly compact profile, and could go anywhere a GG1 could go, so it was the perfect choice for the eastern half of the country. The 30 Day Miracle happened through the dedication of over 200 volunteers. I was one of the small core of paid crew at that time. That effort was led by Bill Benson, known for his efforts with T1 2102. We just made it in time, wet paint and all, to get onto the train for the April 1st dedication kickoff ceremony, which was at Alexandria station with various officials and dignitaries. We went then to our first display stop at Delaware Park in Wilmington, DE. Delaware was the first state to sign the Declaration of Independence, as such it was the appropriate first place to stop. We then wandered all over the northeast until we came into Chicago and turned the train over to the Daylight, with an exchange ceremony with the 2 engines pilot to pilot. At that time the 2101 was put into storage at the EMD facility in LaGrange briefly, with us all taking some much needed time off.





The 30 day miracle required 12, 14, 16 hour days with no days off, with us toiling away at everything we could in an effort to get as much done as we could to get the engine serviceable and on the train.

In early '76, we took the 2101 from La-Grange down to the Southern Railways Shop in Irondale where we did a lot of the work that we didn't have time for in the initial 30 day miracle. We replaced the firebox sidesheets,

the 3 thermic syphons in the firebox, but not the one in the combustion chamber, did work on various appliances like the air compressors, stoker engine, dynamos, and a number of other things. That was when we gave her what I still think of as my absolute favorite paint scheme, the legendary dark blue with red running boards and Great Seal of the United States on the tender. This is when I became crew chief, as Bill Benson was no longer part of the program starting in December of '75. But titles really didn't matter as we all just worked our butts off to get her back out of the shop, in service, and ready for the Freedom Train.

When it came east again in April of '76, we met the train in Birmingham where it was on display. Half way through the 4 or 5 day stay in Birmingham we swapped the engines. I think that is one of the iconic pictures that is floating around with the 2101, as AFT 1, and the 4449 side-by-side with Ross and Doyle trading flags and passing a folder of blank papers that were supposed to represent train orders, off to each other. The Daylight pulled out of the way and we backed onto the train, and continued the tour with the Freedom Train from April to August throughout much of the rest of the Northeast. Then, we met the Daylight again at the Pentagon on a track that is no longer there. In fact, the track was kept in place just for the Freedom Train. We displayed on the Pentagon grounds right in front of the building on the riverside. On the last display day, we passed the train back to the Daylight. The Daylight finished the tour on down the east coast to Miami, and we went home back to Lebanon, NJ, where it all started.

We took some time off, but were soon back in the office putting together a proposal for the Chessie System. Bill Howes, Vice President of the Casualty Prevention Department, came to Ross and asked about the possibility of doing a modest program between Baltimore and Ellicott City to celebrate the upcoming 150th anniversary of the B&O. We came back with a proposal for what became the Chessie Steam Special. The original proposal was a little more extravagant but it ended up with a 50 stop excursion tour all over the Chessie. In the early part of '77, we took the locomotive from Lebanon, NJ to Saucon Creek, which is an old Reading roundhouse, to do some updates and minor repairs, and reconfigure the engine into the Chessie Steam Special with the capable and brilliant work of Bob Lorenz. Bob was the artist who did the Great Seal on the Freedom Train. We reactivated the booster, which we had not used on the Freedom Train, and we put a Chicago Pneumatic speedometer on the engine, because Chessie insisted that we have a speedometer. We also got some coaches ready to go for part of the train. We then took the locomotive down to Philadelphia on the old Bethlehem Line of the former Reading Railroad, and then onto the B&O Philadelphia Subdivision down to Baltimore. This started the tour that would last through to the end of the summer and into the autumn, all over the Chessie.

By this time the "01's" history on the last years of the Reading, and our time running around all over the country on the Freedom Train, just caught up with her. Her running gear was in pretty rough shape. We found out later when we took the engine back to Reading in the winter of '78 just how bad things were. The spring rigging was shot. All the bearings were shot. In fact, when we lifted the bearing boxes off of the axles as we disassembled the engine, some of the bearings just came out in pieces because it is a very dense, but very brittle, bronze. They had "given their all". The bearings were long overdue to be replaced. We took all of the drivers and bearing boxes down to a General Electric shop along the northeast corridor in Philadelphia. We turned the tires, turned the journals, put new bearings in and bored them to fit, put new lateral liners on the boxes and planed them to fit so that the lateral would be right on all of the drivers, rebuild the spring and brake rigging, did some more work in the firebox, and got her "ship shape" for a second season of the Chessie Steam Special.

At this point Ross gave me a \$5 per year raise and a fancy new title, Chief Mechanical Officer. I got kidded about that a lot by the folks at Chessie that the real reason for me making the head mechanical guy had more to do with

federal reporting than my status of some kind of “ferroequinologist genius,” because I’m certainly not that! We successfully ran the rest of the ‘78 season, much like the ‘77, with 50 some odd excursions, all over the railroad. My favorite was charging up the New River Gorge in the autumn with all the fall leaves, which is just beautiful. I ran most of those myself and loved it, as that year Ross wasn’t able to be there at all, so I was a little bit greedy and loving it, running all four of those trips over two weekends. But, the end of the season came and Chessie decided that 2 years was enough, so we finished in the Cincinnati area and put the engine away in Silver Grove, KY. It was an old C&O yard and roundhouse. The roundhouse caught fire in April of 1979 due to a wiring problem in the roof.



It did not, contrary to so many of the rumors flying around, destroy 2101. She is not beyond repair, and as ASR is probably well aware, parts were shared between the two girls, the 2100 and the 2101, because we did have an incident in the 1977 season where we threw a rod, and we reclaimed one of the connecting rods from 2100 to use on the 2101. Ironically, this is really going far back now, the very first trip with the Freedom Train from Alexandria to Wilmington, DE, we cracked the right front rod and harvested the right front connecting rod from 2100 for 2101. So between the two engines there are two missing rods. The main rods on the 2101 were bent a little bit, not beyond reuse. We decided not to continue with them in '77. We ran the 2101 the rest of the '77 and '78 seasons with 2100's main rods, and I think one of the eccentric rods. That left, between the two engines, a couple of rods short. I am not sure how that's been resolved, but I think some of those got harvested back from 2101 during the original restoration of 2100 at the Hagerstown Roundhouse, under the direction of Bill Benson. At that time I was no longer involved, as I had been working for CSX for a number of years.

As things stood with the 2101 after the fire, there was considerable damage done to things like accessories, cab and cab framework, and appliances, but her running gear was largely undamaged because the fire was mostly within the roof, and as we all know flames and heat rise. There was a vortex that kept air moving up from floor into the roof to fuel that fire. The grease on the frame, grease in the cellars, and grease on the rods was all still there as none of it melted. The entire 8ET air brake system was pretty well destroyed, the electrical system was destroyed, but those are not of real major consequence to a steam locomotive. The air compressors took a bad hit, the water pump took a bad hit from a lot of heat, as there is a lot of tempered steel in all three of the components of the Worthington feedwater heater. The stoker engine came through unscathed. The whole firebox in the "01" is fine, it wasn't at all adversely impacted by the fire. That would be ironic to have a firebox damaged by a fire! Even after the fire I would have still signed off on the boiler. The tender on the 2101, which was about half full of coal, ignited, and got badly warped. The tender that is with 2100 now is the tender that was with the 2101 that went around the country on the Freedom Train and the Chessie Steam Special. We swapped that out when we did the cosmetic restoration for 2101 to go into the museum, as it was simpler and more economical to sandblast and paint the tender that is with the 2101 now. We had Bob Lorenz put the Great Seal back on the tender for the museum display. When the 2100's "new" tender from the 2101 was restored, and I'd seen pictures of it but I have no other first-hand knowledge, all of the warped steel was cut off and replaced with new metal, and everything I have seen so far seems to be fine, and more importantly holds water and coal!

The next chapter for me was the C&O 614. I get asked frequently which one was my favorite, and I say both of them. You end up with a parental kind of perspective here, they each have their strengths and weaknesses, and each have their characteristics. Like my mom used to tell me when my brother and I would fight, I was her favorite brown eyed boy, and my brother was her favorite blue eyed boy. I think that philosophy works here as well, as 614 is probably one of the finest steam locomotives ever built in the country, and the Reading T1's are legendary war babies.

***Coming in Part 2 of this story, Steve Wickersham will discuss the technical details of a T1, modifications made during shoppings, and the 2101's rebuild for the Chessie Steam Special.***

## Volunteer Spotlight: Greg & Nick Martin

### Father and Son help out on the 2100

*By Brian Smith*

In railroading, especially in the era of steam, going to work was a family affair. It wouldn't be uncommon to see the same last names on the mark-up board in the roundhouse or for a son to relieve a father from his shift working in the back shop.

It's no different at American Steam Railroad, where father Greg Martin and son Nick help out on Saturdays restoring the Reading 2100.



The two started coming to the West 3rd Street roundhouse after Nick's budding interest in trains grew from childhood experience from playing with O scale trains to wanting to work on the real thing. As a teenager not yet driving himself, Nick asked his father if he would like to start volunteering after attending an open house. Their first day was a job that both remember very well.

"One of the first projects we worked on was laying track," Greg said. "Nick stepped up and worked hard that day. That is when I knew he was serious. It was funny. At the end of the day I was looking for him, and he was in the 2100 engineer's seat, beat from a hard day's work." Nick added that while it was not easy work, he found it very rewarding when the last tie was spiked.

Since that day, they can be found performing various tasks such as doing ultrasound testing on the boiler, media blasting mill scale off of staybolts, prepping sidesheet holes for welding, along with many other tasks.

"Doing the ultrasound testing over the past several months has been very satisfying," Nick mentioned. "Especially since I've been able to do that alongside my dad. Going into the smokebox for measurements and the tender water space for inspection were two of the most exciting experiences I've had."

While often it's the father who teaches his son skills and trades, Nick is happy to share time with his dad about how the 2100 works and many things yet to be completed in the restoration.

"It's also great to teach my dad about these simple-yet-complex machines. Before we started, he wouldn't have been able to tell the difference between a crosshead and a tube sheet, and it's been great to see his knowledge grow. Likewise, Greg has enjoyed seeing how the work shapes Nick after each work session.

"The growth I have seen in Nick during this time has been tremendous, not only from a work perspective, but interactions with his peers. This has given us a common goal and the ability to work together for a shared purpose.

The father and son team enjoys other activities away from the roundhouse. Some weekends they'll go to different railroad spots for Nick's YouTube page Pennsy Productions, cast lures while fishing, or camp out at state parks with the family. They also work on the model railroad that started Nick's interest in the first place.

It will be a few more years until Nick goes to college and starts a life of his own. Greg mentions that these times volunteering on 2100 are very memorable and enjoyable between Nick and him. "This became a great way to have fun and quality time together, and it's always an adventure."



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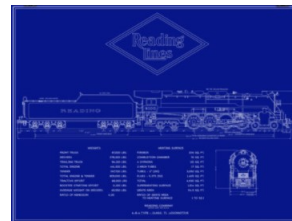
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