

Seven-Point-Four

the newsletter of the Friends of the Stewartstown Railroad, Inc. A Pennsylvania non-stock not-for-profit organization, tax-exempt under section 501(c)(3) of the Internal Revenue Code.

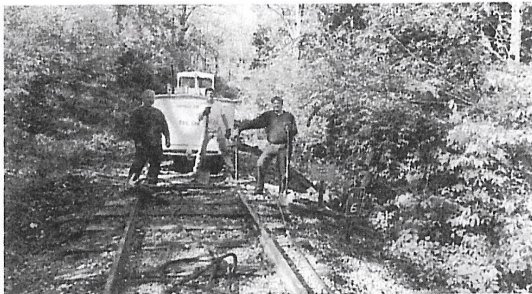


Fourth Quarter 2020

FALL 2020 WORK WEEKEND RECAP

by Mike Ruane

This past fall was a busy mix of work for the all-volunteer track crews on the Stewartstown Railroad. The work weekends in October, November, and December didn't go exactly as planned, but lots of work was completed nonetheless. In October, the plan was to tamp-up the track and spike and use the big tamper, but it was found to have some issues with the tamping heads and was out of service. So, we instead worked on track with our hand tools and air powered tools. We also replaced and reworked the guardrails on the switches we had worked on in September. Our crews were able to move the end of the class 1 track to milepost 6.



John, Chris Lutz, and Dave Williamson, as the Class 1 track reached milepost 6 on October 18, 2020.

In late September an FRA inspector visited the railroad and informed the company that many of its crossings did not have the correct signage. If we didn't get into compliance quickly, there could have been some bad consequences, so this became the railroad's highest priority. John Nolan ordered the signage needed, and with about half the order delivered, the Saturday of our November work weekend was spent putting in as many "railroad crossing" signs (crossbucks) as possible. John and his crew had purchased posts and attached the crossbucks to them, and on Saturday morning, a crew of John Nolan, Mike Ruane, Dave Williamson, Jim Hogan, and Miles Weaver, armed with a rented power auger, set out with a train and a truck to install them. We made pretty good progress until we got near high trestle fill, as a number of smaller trees had fallen across the line

because of high winds earlier that week, and was slowing up our progress. Worse news came soon, a very large tree had come down near Tolna and would require heavy equipment to clean up. We finished installing the signs we had at Hungerford (Turnpike) station, and called it a day.

On the next day a smaller crew worked to extend the class 1 track, which included tamping, gauging and spiking as we approached the picnic grounds.



Dave Williamson clearing one of the downed trees near High Trestle Fill. November 14, 2020.

For the December work weekend, since our Santa Trains had to be cancelled because of Covid-19 restrictions, we pretty much repeated what we had done in November. John and his guys assembled the crossbucks on the Friday of the work weekend, a crew went out on Saturday with a power auger and put crossing signs at the remaining crossings that needed them. That Sunday a smaller crew went out to the end of the class 1 track, and again tamped, gauged, and spiked, extending the line a little bit more.

For the January and February work weekends, we plan on working on the station switch, replacing ties and ballasting and tamping, weather permitting. If you can make it, we'd love the help, and no experience is necessary. If you can handle a rake, you'd be a help to us. Please look at our website – www.StewartstownRailroadCo.com, and look under the Volunteer Work Days.

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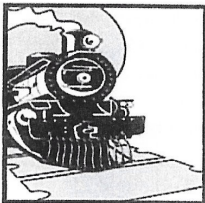
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Articles and news items to be considered for publication in 7.4 need to be submitted by the first of each month to allow time for editing, fact-checking, and possible consolidation with other submitted items to create comprehensive articles. When submitting photographs, please submit as .jpg files and identify the photographer who took the photograph. You may e-mail your submissions to: friendsofstrt@hotmail.com

The Friends of the Stewartstown Railroad outreach program has supported the following organizations through membership in and/or by donations to:

Explore York
(formerly York County Convention and Visitors Bureau)
Farm & Natural Lands Trust of York County
New Freedom Heritage, Inc.
Preservation Pennsylvania, Inc.
Stewartstown Fall Fest
Stewartstown Historical Society, Inc.
Stewartstown Area Senior Center
Stewartstown Summer Theatre
York County History Center

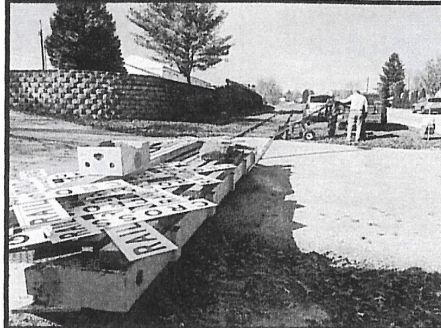


REMEMBER:

You can purchase train ride tickets in advance with your credit card through the *WhistleTix* service on the railroad company's website:

www.stewartstownrailroadco.com

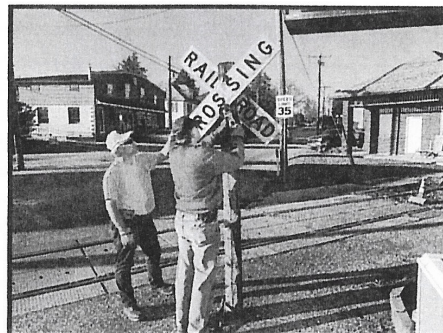
OUT ON THE LINE . . .



Crossbuck signs on the flatcar awaiting installation. A few of these will be used here at the township building on route 851.
Photo by Miles Weaver.



One of the benefits of being a volunteer with the Friends of the Stewartstown Railroad is the opportunity to work with all types of equipment. Here our volunteers are preparing to use a power-auger to open a post hole for a crossbuck to be installed at the intersection of Tolna Road and Elm Drive.
Photo by Miles Weaver.



Friends' volunteers installing new crossbuck sign at the railroad crossing on the "Old Trail" in Shrewsbury, PA. The building on the right is the Stewartstown Railroad's Hungerford (Turnpike) station.
Photo by Miles Weaver.

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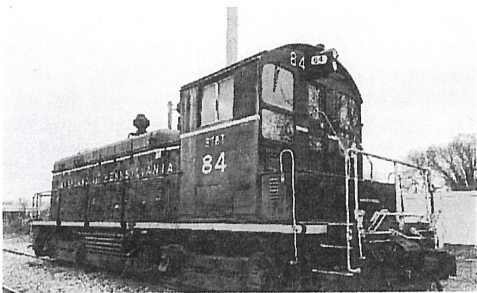
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LOCOMOTIVE 84 – 2020: A YEAR IN REVIEW

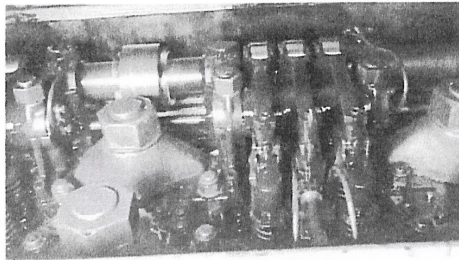
by Miles Weaver

As many of you may recall, in January 2018 the Genesee & Wyoming Inc. / York Rail Company donated former MA & PA Locomotive number 84 to the Friends of the Stewartstown Railroad, Incorporated. This locomotive is a historic GM EMD SW9, vintage 1950s diesel electric locomotive, that for many years moved consists over the MA & PA, York Rail, and at times even over the Stewartstown railroad lines.

Locomotive 84 overall was in good condition when it was so generously donated to the Friends, owing to its continued use and upkeep by the MA & PA and subsequently by Genesee & Wyoming Inc. / York Rail into 2010. So 84 remained unused for only eight years before being acquired by the Friends.



MA & PA SW9 Locomotive No. 84. Shown here in February 2019 after having been acquired by the Friends of the Stewartstown Railroad.



Fuel injectors, cams, linkages, exhaust valves and exhaust valve lifters known as the cylinder's "jewelry"

"Good condition" did not, however, translate into running condition; as revealed in the first attempt to add water to the engine's cooling system in the spring of 2018. The prime mover, an EMD 567B, 12 cylinder, 1200 horsepower diesel engine, would need new seals and rebuilds of all of its 12 cylinder power assemblies, before being able to run again.

So starting in the summer of 2018, for the remainder of 2018 throughout 2019 and into early 2020, as time and weather would allow, all 12 cylinders' power assembly's, weighing in excess of 100 lbs. each, were lifted from the engine, disassembled, cleaned, and reassembled; then reinserted into the engine housing fitted with new seals. This work was time consuming and labor intensive. Once the power assemblies were reinstalled all of the complicated fuel injectors, cams, linkages, exhaust valves, and exhaust valve lifters known as the cylinder's "jewelry" needed to be reassembled.

Then one day in April 2020 Dave Watson sent out an email. . . "Just so you guys know, someone stole the front headlight [frame] off 84." Not what we were wanting to hear. Now precious time, money, and effort would need to be spent to come up with, or recreate a replacement.

Meanwhile in April 2020 repairs progressed; until one day in the spring of 2020, 84's 12 cylinder 567B prime mover was ready. Ready for another water test to see if the engine's cooling system with newly rebuilt power assemblies and seals would hold water.

As May 2020 came and went, we charged the batteries and pre-lubed the engine. A process consisting of pumping oil into and through the lubricating system of the prime mover with an electric pump, and a prestart engine turnover. All to get ready for our first big test of turning over, and hopefully starting, and running 84's prime mover.

On June 14, 2020 after charging the batteries for an additional several hours, an attempt was made to start the engine. The attempt was unsuccessful. Another issue was becoming clear. The batteries were not charged enough and possibly not powerful enough to start the engine.

Now the push was on to start 84's prime mover. In the latter half of June we pulled out all the stops. More charging was done to the batteries. Meanwhile we adjusted the exhaust lifters and the fuel injector timing on all 12 cylinders, in an effort to make sure nothing would prevent the diesel engine from firing.

On July 3, 2020 the time had come. Water was added to the cooling system; and with the aid of a welding machine power supply to boost the batteries and a little too much starting fluid, after a decade of lying silent, 84's rebuilt EMD 567B 12 cylinder prime mover literally exploded back to life; blowing off one of its two exhaust spark arrestors in the process. But the engine was running! We ran the engine for four hour that day, monitoring operation, checking systems, and charging the

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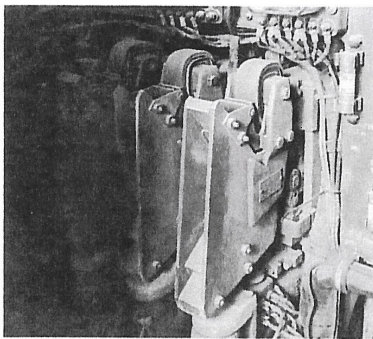
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batteries. When we finally moved 84's throttle from Idle to Stop, things were looking up. With the exception of a vibrating traction motor blower, no major mechanical issues were found. 84 was determined to be in good running condition.

A former York Rail mechanic had warned us about the rear traction motor blower bearings, noting they were going bad. This was the vibration noticed below the engineer's seat.

We then removed the engine's inspection doors to see how the new power assembly seals were holding water; BUMMER! Three of the cylinder power assemblies were leaking. One a significant amount. This meant only one thing; three of the rebuilt power assemblies would need to be pulled out of the engine again and resealed. What went wrong?

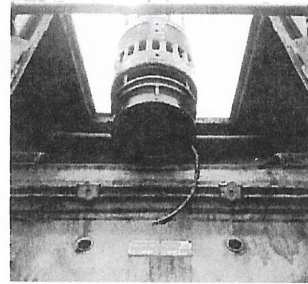
Other issues were also brought to light; among them problems with the traction motor contactors, all three were in need of service. One was seized and would not function at all.



Traction Motor Power Contactors
P1, S, P2 (left to right)

For those not familiar, the traction motor contactors are big electric switches controlled electro-pneumatically by the throttle. When these switches close (turn on), they send electricity from the diesel-electric generator to the traction motors. This in turn powers the wheels, bringing about the movement of the locomotive. Without these contactors working, 84 won't be able to move! By early July 2020, things were looking up. We had demonstrated that 84's prime mover would run, and no major show stopping problems were found. But a lot more work still needed to be done before 84 would be ready to move. So on July 8, 2020 the removal of the leaky power assemblies commenced.

On July 12, 2020 we removed cylinder power assembly number 4. This was the worst of the three power assemblies found to be leaking water. Upon removal, one of the two "water deck" O-ring seals was found to be broken. After some research and evaluation, we believe the seal caught something and got broken when the power assembly was reinserted after the first rebuild. One thing you need to understand about these power assemblies, they are big and heavy. They have to be lifted into place with a hoist, and guided in at an angle. So there are ample opportunities for things to catch and hang up when they are being inserted in the engine.



Power Assembly No. 4
Shown here suspended above the engine by a hoist, with the broken O-ring water seal dangling.

As work progressed in July, a suitable locomotive bell was found and acquired. Power assembly's seals were procured, and research was done on how best to install and seal them. Work began on the traction motor contactors, and on the rear traction motor blower. We also continued charging the batteries at every opportunity.

Come August 8, 2020, work on reinstalling the leaky cylinder power assemblies with new seals was complete. On August 9th work on the new refurbished traction motor contactors was complete and the contactors were reinstalled. The time had come for another prime mover run test.

On August 16th we attempted to start 84 using just the batteries. The attempt was unsuccessful. After all of the charging and attempts to renew the batter cells, the batteries alone still would not start 84 by themselves. Despite the battery failings, with a boost from a welding machine power supply, 84's EMD 567B prime mover roared to life once again. After idling, revving, and running the prime mover for about 3 hours allowing it to come up to normal operating temperature, we then topped the engine and checked for leaks. Upon removal of the engine inspection doors. . . The seal repairs were found to be a success! The major repairs to 84's prime mover were complete.

Now the focus would be on less major but important repairs needed to get 84 into movable condition.

1. Complete the disassembly and repair of traction motor blower #2;
2. Bypass a control air leak on one of the sander valves;
3. Repair/replace headlights and placard lights;
4. Replace broken and clouded locomotive cab windows;
5. Certify air brakes;
6. Install bell; and
7. Install a horn.

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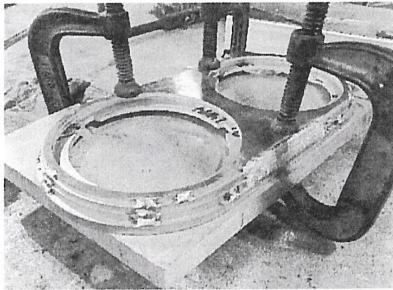
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During the remainder of August, work continued on the traction motor blower, and the bell was test fitted. No way could we leave the bell in place though. Especially after what happened to the front headlight frame. After a successful test fitting, the bell was removed and taken to a secure undisclosed location, where it will remain safe until it can be installed.

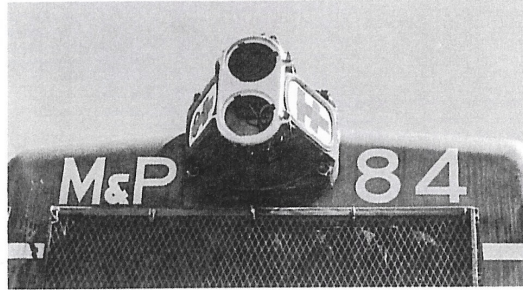
Meanwhile behind the scenes, a new front headlight frame fabrication was taking shape. In September we rewired the headlights, and replaced the old and deteriorated placard light sockets. We then tested the headlights, placard lights, and other lighting. Aside from some needed lightbulb replacements, all but the ground lights were found to be working.

Work also continued on the traction motor blower. The faulty bearings were identified, new bearings were procured, and the new bearings were assembled with the fan shaft. Now reinstallation of the fan with the new bearings could move forward.

On September 20, 2020 the newly fabricated headlight frame made its debut. Waterjet cut, laminated and welded, then shaped with a grinder; you would be hard pressed to tell the difference between the new fabrication and the original. It still needs to be painted, but 84 has a new headlight frame.



Headlight Frame Fabrication. Shown here in progress.



Headlight Frame Fabrication. Test Fitting shown here.

On September 27, 2020 we reinstalled the traction motor blower with the new bearings. Done! That was a job. It's now time to turn our focus to the windows.

As October came and went with Halloween and Halloween trains, it also came with some new developments. As we looked for suitable FRA grade window material, we found the cost of this material to be high. As a result, progress slowed a bit as we explored ways to come up with the needed funds. Meanwhile at York Rail there was a management change, we found ourselves dealing with a more strict, and less sympathetic to our cause manager. As a consequence, obtaining permission to access 84 has now become more difficult.

By the end of November, we were able to come up with funding for and procure the side cab window material. So on November 22, 2020 the engineer's side cab windows, which had over the years become clouded and impossible to see through, were removed and the hole temporarily boarded over to allow for replacement.

York Rail didn't allow us to return to 84 until December 13th, at which time the engineer's side cab windows with new clear FRA compliant window material were reinstalled, and the fireman's side cab windows, similarly clouded, were removed for replacement.

As of the writing of this article, this is where we are. A lot has transpired since the historic MA & PA locomotive number 84 was donated to the Stewartstown Railroad Friends, especially during 2020. Some additional things still need to be done, but we are VERY close to moving 84 down the NCR to a new home in New Freedom. With repair and preparation efforts continuing, we hope to be moving 84 soon.

Thank you

for your continued donations and membership renewals.
Your support helps the Friends organization
keep the railroad running!

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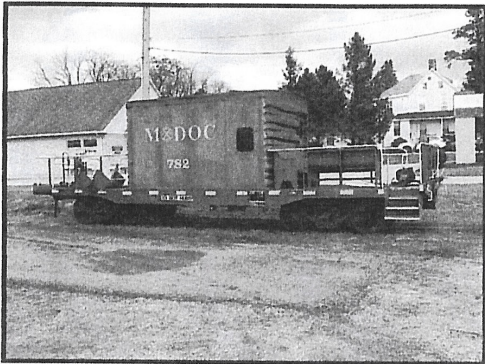
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LOOKING AHEAD TO 2021 ON THE STEWARTSTOWN RAILROAD

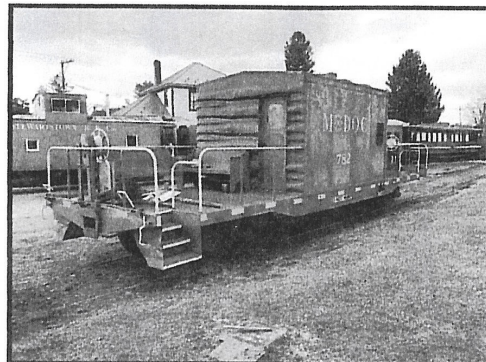
Early in 2021 the Stewartstown Railroad acquired a “transfer-style” caboose to remodel into an handicapped-accessible open-air car for its excursion trains. The caboose was delivered to the railroad’s yard in Stewartstown via truck in January 2021.

Being able to provide comfortable accommodations for its mobility-challenged customers and visitors has long been a goal of the railroad.



New to the Stewartstown Railroad, a transfer caboose sets in the yard in Stewartstown. The railroad’s HQ building appears to the left rear of the caboose.

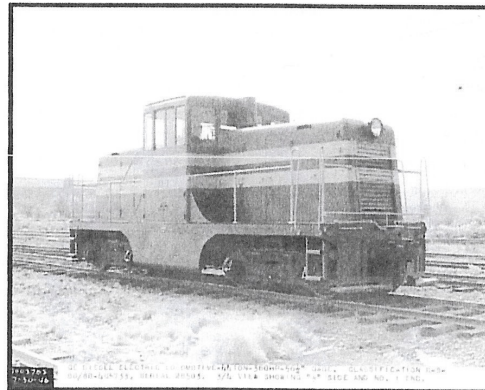
Photo by David Williamson.



This view of the “new” transfer caboose taken from in front of the railroad’s HQ building shows the railroad’s ex-UP “blue caboose” and its 1912 station building behind the transfer caboose.

Photo by David Williamson.

Right: A peak from the past: GE builders photo of now Stewartstown locomotive #10.



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