

Mechanical Department Report: October 6, 2022

Board of Directors Meeting: October 8, 2022

DS ELEMS – Mechanic

We've continued to plod through the maintenance, with only a few major updates since last month. I've been continuing to come for about four or five hours a day before work as well as most Fridays and weekends, now with the assistance Bil Jackson who has been helping with the cleaning work on SP2873 while I work on the various other projects.

There have been some more delays with getting the parts I need for us to finish up 2873, as well as some items for QRR1100. I'll get more into that in those sections below. Suffice to say, long shipping times are longer than I anticipated and work is likely to be pushed back into early or mid-November, at least for 2873.

There are going to be some new seasonal projects beginning in the next few weeks. Namely the servicing and testing of the snow blowers, and servicing of the backhoe towards the end of the month in preparation for winter.

QRR1100

1100 has been out of service since the end of the first week of September, but work didn't really get started until September 26. The antifreeze was drained into three poly barrels for later disposal to a recycling company/center; I'm currently looking for someplace local, open, and willing to handle 160 gallons at one time. The engine was flushed out, and flush water captured in a 330-gallon tote with regular testing for the concentration of glycol; the last hundred or so gallons showed no presence of ethylene glycol. The concentration of glycol in the tote seems to be low enough, 30% or less, for possible bioremediation with the same methods we use for our oil separator.

During the flushing and while draining into the tote, some possible issues were noted. The inside of the cooling tank had a slimy black appearance, and the first 130 gallons of flush water was notably brown though not the color which would be associated with flushing out loose rust. Combined with the occasional blob of oily sludge that would appear in the gauge glass, I'm guessing that at sometime in the past there was an oil cooler failure. I've never observed a constant entrance of oil into the cooling system during my tenure at the museum and further flushing and running of the engine showed no problems; it is likely that the cooler issue was fixed some time in the past but the system wasn't properly cleaned. Cleaning the system out added another three days to the flushing process, though I had to use some much milder compounds than the old manuals recommend.

We put 1100 in the shop on October 2. Over the last week I've been pulling covers and hatches in preparation for the work to come, as well as poking around the engine room getting an idea of how much cleaning we'll need to do before the work begins. There is also a list of items that have cropped up since the prior inspection last September, which I'm compiling into a single "supplementary work items" list to be attached to the annual inspection packet. These include the various old oil leaks that have plagued the engine, the new oil leaks that have cropped up, the radiator shutters sticking open again, and a variety of electrical issues just to name a few things. Some of these items required ordering some renewal gaskets/seals, which as mentioned at the head of the report are delayed; I hope to receive them in two or three weeks at best.

SP2873

2873 has been a major hassle ever since I first tried dealing with the leaking water pump inlet lines back in February of 2020. The trend continues. With the major problems identified, particularly those that represent a hazard to operating the locomotive, I started working on getting renewal parts; namely another water pump and a load of seals and gaskets. About the only good news so far has been that the pricing has been very reasonable. Unfortunately, quite a few items are awaiting restocking from the supplier, and even those that don't wont ship for another three to five weeks from the time the quote is finalized. I'm still sorting out the part numbers on one of the quotes as well. Once the parts are shipped it will likely be another week for them to actually get here.

While I could rebuild one of the water pumps we have with the remaining rebuild kit, I've chosen to go ahead and wait for the trade in pump to arrive. This is mostly to free up my time to continue working on the other many issues with 2873 and begin making progress on QRR110 which has already spent a week in the shop. The leaking right bank water pump is also just one of many issues keeping 2873 from being released for service, so changing it out now wouldn't really do anything to accelerate things.

Given that some of the critical repairs that need to be made could delayed for up to six weeks, I'm proposing that we deal with the leaking radiator this month to get it out of the way. That, in conjunction with the new water pumps and seals would give us what I expect to be a leak free coolant system. The last year and a half that 2873 was in service we typically had to add water every three days, sometimes more often.

I'd like to thank Bil Jackson for helping out the last few weeks. He's helping out with the less than thrilling job of cleaning the block and scraping the gunk out from the "v" under the exhaust manifold. This has freed me up to move around from one project to the next and spend this week prepping QRR1100, while allowing the slow progress on 2873 to march on.

Other Items

There are still a variety of other miscellaneous mechanical projects that are ongoing. Roger Stabler continues to troubleshoot the hydraulic system of the ballast tamper. Charlie Spikes is still working on the Model T, now with the assistance of Duane Vander Veen, and currently dealing with a problematic starter motor.

There will be some new projects, or rather renewed projects, starting in the next couple of weeks. The snow blowers had been left alone this summer in favor of more pressing and seasonally relevant concerns; fall is here though and winter eventually after that. I've lost track to which machine is which and what was done to whichever; at best I remember that both Sears track drive blowers need(ed) carburetor and drive mechanism work. The Torro machine likely needs new belts, of which I purchased some at the end of 2019; anyone wanting to tackle that may contact me for the belts.

The backhoe is due for filter replacements; all filters are on hand. There is also the usual post season/prewinter work to be done. I need to check with the Roadmaster about the schedule for track work, but I believe that is likely going to hinge on the work being done with the ballast tamper. The servicing of the backhoe will probably be held until after the track work is completed or the end of the month, whichever comes first.