

Mechanical Department Report

Board of Directors Meeting: February 11, 2022

DS ELEMS

As of this week we are finally making some headway on projects. QRR1100 has been looked over is ready to help move things around the yard as we prepare for the 2022 season. I've taken care of most of the post plowing inspections and repairs on the backhoe, though more will need to be done this spring as time allows. I've also finally got around to getting the clutch swapped out on the white forklift.

The last few weeks have seen some quite warm temperatures and this weekend is supposed to hit the 60's. As such, the remaining snow has been melting at an alarming rate and causing some flooding around the site with temperatures in the early morning still dipping below freezing; the days puddles are icing over and it is quite slick particularly in those perpetually shady locations. This had been causing further delays in projects as we worked on cleaning up water in the north side of the shop and breaking up ice on the walkways and out of the drains.

Forklifts

The new clutch cylinder was installed in the white forklift today but the old hard tubing and flare fitting is proving reluctant to fit up, so I'll be working on that last bit before the Board Meeting. Once that particular project is wrapped up, we'll be able to finish a number of projects around the shop that have required the use of a forklift capable of going outside the shop. At some point it will need some new rear tires.

I plan to get the issue with the steering ram on the Yale taken care of later this spring. Like the white lift it needs some minor engine work but the primary issue keeping it out of service at the moment is the leaking steering ram which causes control issues in addition leaving a mess everywhere it's driven.

Locomotives

QRR 1100 was down for approximately fifty days. I poked around and checked for any problematic coolant leaks. Other than some seepage into the airbox from a few of the upper lower liner seals (typical for cold ambient temps with 1100) no issues were found. It's been run a couple of times in the last few days and seems good to go for working in the yard this spring as we move things around in preparation for this season.

WP1503 hasn't run for over two months, and will need some work before it can be placed in service. I'll likely roll that into the annual inspections next month. At a minimum it will need to be prelubed before the engine can be turned over. Last summer we noticed signs of oil seeping around the oil pan drain line but I'm unable to determine if it is at the pipe exiting the engine room or the elbow that starts the horizontal leg to the drain valve; we'll need to get it over the pit so a closer look can be had. Any repairs to that line will necessitate draining the oil pan; in such an event I'd like to refill the engine with new oil.

SP2873, as with most of the mechanical work, has been put on the back burner this winter while everything else has been going on. My current plan is to finish it up before I start in on any other annual inspections on the other locomotives. Currently the oil scavenging line is still off, the left bank water pump needs to be pulled and repaired/relaced, and the water tank could benefit from another flushing before the rest of the lines and hoses are reinstalled.

Upcoming Mechanical Work

Once the white forklift is back in service, we can really start to claw our way through the backlog of mechanical and facilities work. Since QRR1100 isn't due for an annual inspection until June, it will be our shop switcher and likely the only locomotive in service until April. Currently my planned line-up for locomotive work is as follows:

- SP2873: Finish work on cooling and oil systems, remaining work items to complete annual inspection requirements. Radiator work may take place later in the season as other shop work is wrapped up.
- WP1503: Inspect oil drain line, repair as required. Change oil filters. Oil change is recommended. Annual inspection.
- WP707: Injector work in conjunction with annual inspection. Install new batteries. Replace missing shutter pistons.
- WP805-A: Annual inspection. Removal of automatic brake stand and valves for rework. Replace missing shutter pistons and cover panels.
- WP2001: Radiator work. Replace oil filters. Annual inspection.

As for our "rubber tire fleet," work is plentiful:

- Loed 534: Drain hydraulic system and replace rear motor directional controls and drain/return hoses. Fill with new hydraulic fluid and purge air from system.
- Case 580C: Change oil in diff/transaxle gearbox. Left inner transaxle seal leaks, parts are readily available but the required work will necessitate some planning and organization; it is possible that the entire rear end may need to be dropped.
- Kludge/tug: The usual preseason work.
- Club Car/golfcart: The usual preseason work.
- The Model T: I'm not entirely sure what is left to be done here. Charlie Spikes has been heading up this particular project; those interested in working on it can be put in touch with him for the particulars on what needs to be done.

I know I've left quite a few items out, but that should suffice for the next couple of months. It is also likely that things may be shuffled around to fit scheduling and budget, and new items will be added as we work through the current list.