An exercise in Re-constructing a Brass Locomotive

Or "How I converted a perfectly good Locomotive".

While designing my Salida Division in Hon3, the motive power was going to be a bit of a struggle, per se. The bulk of what I required was available and in brass so both of the needed requirements were met. The only sticking points were that not all of what was available managed to fit the needed time frame/ era of 1929. Case in point was paint and lettering. The flying Rio Grande was not until 1935 and I was back in 1929, seems we have a small problem Montrose. Also I was dead set to have working headlights, box style, and class lights on all of the locomotives. Both of those were / are easy conversions. The biggest challenge was number 346, a C-19. She had a wooden cab until the C&S rolled her and replaced the demolished cab with a steel one. That was the version that Westside manufactured and I acquired. Sorry, but I did not take a picture and have to ad lib here.



The first item of destruction was the removal of the existing steel cab. Fortunately the solder was ancient, almost as old as I, and with some judicious bending and folding I was able to break all of the joints without any other structural damage. That meant things were off to a smooth start so far.



Now I was tasked with attempting to retro-fit the proper wooden cab to the frame. The biggest item of note was what cab to purchase. A Precision Scale Company 1920's era wooden cab fit the requirements and was procured. As it was laid out and fitted, all seemed to be going back together as intended; better yet. Notice here that I did leave the front wall intact. I decided that a solid reference point would be most desirable for this exercise.



The next step(s) were to re-solder all the sides and rear to the frame and each other. That was not the easiest as I only have two hands and with a soldering iron on one, I was quite handicapped. There are times we all will agree that having a Durga around would be most helpful.

With the sides and rear end attached a final alignment check was made and with a few tiny adjustments things were declared well enough so leave the sleeping locomotive alone.





The next issue was paint and lettering. I did soak each part liberally with lacquer thinner and severely scrubbed them during their bath before, soldering them together. Afterwards I used a paper towel and pipe cleaners to rewash the bare brass, trying to be careful and not scorch the existing paint.

When it came to paint I was lucky and had some Floquil Engine Black stored in a safe secure location. I used an old standby for masking that I have used forever, paper towels. I wrap what I want to protect with the towels and hand hold them while sparing said remains. Yes I know, but with the towels any overspray gets sucked up and dried before any severe damage or blotching to any existing paint can be done. The towels are removed and then into the oven go the painted part(s). Here in Arizona I use an eco-friendly method for baking my painted creations: I set them outside on the wall between houses and let the sun shine on them. About an hour or so later said things are well done and then brought inside to cool off gradually.





Next up was decaling what had been repainted. That was rather easy but I did have to raid the decal sheets that I have acquired and piece together the necessary items. I found that if I mixed a bit of glaze with my paint that a smoother finish resulted so no extra step of coating was needed. I did overspray with clear cote though to serve and protect the decals.

Let me take a quick back step here while I am on the subject of paint. I did spray the cab interior and boiler black without the roof attached. I then used a brush to paint the inside green, that bilious green that is used for cab interiors. The roof was later attached after touching up a few details inside as in handles and valve wheels etc.



For the home stretch I removed the existing headlight and replaced it with a box headlight. That was an easy fix as it just about fell off and with a Dremel wire wheel plowing a road to the bare brass, the new headlight was soldered in place. Holes were drilled for wires and a LED was installed and are to be wired into the decoder. Note, the class lights have been replaced as well and with more LEDS inserted, they as well will be wired into the decoder.



I say that the LEDS will be wired into the decoder because the next picture shows things a bit out of sequence for this dialogue. I have attached two new reigns for the motor. I install the decoder and plug into my tenders first then move to the engine. That way I know if the works work so far. I do use a standard plug set up so my tenders are interchangeable if needed. So far that option has not been used but hey one never knows. The locomotive does pose a challenge as there are three diodes and a real rat's nest of wires for the LEDS to make connection to the decoder. All those wires are crammed into the space between the boiler front and weight, sometimes a bit too crammed but inside they must go. I do go overboard on lengths of wire but I do need plenty of room and slack to work on failures so the rat's nest.



I am now finished with this exercise in terror, err reconstruction. I did tweak the mechanism a bit and with some judicious CV tweaking, number 346 is now in service as a helper from Cimarron to Cerro Summit. There she is performing Yeoman Service assisting T-12 #168 and train #315 over the hump.

