

The Friends of the Pine Creek Grist Mill

Restoration Progress Report 102

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I am happy to say that after a lot of work our mill is in good shape and running well. Like past years we started off by lubricating and testing all of the machinery followed by having the Durant High School students do our mill's spring cleaning. As before the students did a good job for us. The negative being that we did not have enough adult supervision for the number of students that we had working.

The first problem that had to be dealt with concerned the three roller corn mill. In the past a rubber coupling had been installed to connect the in-feed of the mill with the shelled corn bin that hangs from the ceiling above the mill. This winter the mice had eaten away a large part of the coupling spilling a lot of corn on the floor. Dick and Clarence Klauer built a new coupling out of wood that is more historic in appearance to the old rubber one. The new wooden one looks much better.

Next on the list was the installation of the steel reinforcing plate on the wood beam that is directly above the country store. The beam is 18' long and weighs 300 pounds, getting into position was not easy.

We were fortunate to have assistance in installing the beam from park manager Jordan and his intern. Wood clips were installed on the wood beam along with safety chains to ensure that the steel plate could not fall during its installation. We used chain hoists to lift the plate up on the east end of the wood beam, then slid it horizontally along the wood clips north until it was in place on the west end.

The steel plate had pre-drilled holes in it for the bolts that attach it to the wood beam. Dick Stoltenburg drilled the deep holes in the beam, the bolts were installed and the job was done. We may decide to give the steel plate some cosmetic treatment at a later date.

A new issue: Heather Shopa noticed that the basement stairs appeared to have sagged. On closer inspection we discovered that only two nails held the stairs in place. This did not surprise us as years ago the crew had discovered the same thing on the stairs to the second floor! Apparently the original builders of the mill had great faith in nails.

After some careful inspection we decided to add a reinforcing beam under the stairs that would be bolted to a floor joist. This involved some complex shaping of the new beam to ensure that it would fit under the stairs at the correct

angles. In other words it took a lot of try, cut and fit to get the new support in place. We were fortunate that we were able to fabricate the support beam out of an old piece of wood that perfectly matched the surrounding historic lumber.

There were many other jobs that had to be done to get the mill running properly. The oil passages on a pillow block (bearing) on the steam engine feed water pump had to be cleaned and repacked so it would continue to get proper lubrication. The usual noises and vibrations had to be tracked down and dealt with and mouse nests cleaned out.

Another job that has to be done every spring is to clean out the mill's turbine trash rack. The rack keeps large objects like tree limbs from entering the penstock that feeds water from behind the dam into the turbine. When we have high water on the creek the rack becomes clogged with grass and other debris preventing water from flowing.

The back water from the flooding Mississippi River in the tail water pond had deposited a lot of mud in the pit preventing the turbine from turning. Our new volunteer Dan Litwiler used a special long nozzle on a garden hose to wash the mud from the pit and back out into the pond. Once the mud and debris on the trash rack were gone the turbine spun perfectly.

Sometimes things break in strange ways. As I inspected the mill one day I noticed a "do not use" sign on that kids favorite the mini-mill. On closer inspection I discovered that the wood runner stone bearing (located in the center of the bed stone) had fallen out. There is no apparent way that could have happened since the bearing fits very tightly, yet there it was on the base of the mill.

We hoisted the runner stone off using our lifting fixture and a come-a-long for safety. Once the runner was off some careful pounding with a mallet got the bearing back in place and the mill working again.

The contractor the DNR hired to restrain the mill's exterior is continuing their work. Currently the mill is being pressure washed to remove as much of the old stain, dirt and loose siding fragments as possible. Before staining starts some of the siding and trim that is failing will be replaced. Soon the mill will be looking "like new in 1877" again.



The Klauer brothers Dick and Clarence are working on restoring the in-feed on the corn mill. The old mouse eaten rubber connection has been replaced.

At right Dick Stoltenburg and the crew are lifting the steel reinforcing plate up to the wood beam. Note the chains hoisting gear.



At this point the steel plate is almost in place. It is held against the wood beam by wood clips. Note the safety chains that prevent it from falling.



Above Dick and Clarence are test fitting the new support beam for the basement steps.



Dan Litwiler (on the right) is being shown how to use the hoisting fixture to lift the runner stone off of the mini-mill.