

## NHLA – “Hardwood Matters”

### Filing Room or Saw Shop?

When mills decide whether to operate their own filing room or to outsource saw maintenance the analysis is usually made on a cost basis. When you make that decision be sure that your analysis is complete or the results can be ruinous. If you are thinking about sending out your saw work here are a few things to think about.

The cost of installing a modern filing room is considerable. While you might spend as little as \$20,000 for a bit of used gear to get you by, putting in modern new equipment to service one or two bandmills will cost well north of \$100,000, often several times that. In addition you have to set aside space (and more than you think) and hire staff that can get the job done. That initial investment can make sending saws out attractive, but don't make the decision yet!

Experience has shown that one of the great problems that show up too often when mills send their saws out is disconnect between the folks maintaining the saws and the folks maintaining the mill. It has been my experience that companies often fail to stay on top of the condition of the bandmills and rely on the saw shop to “make the saws run”. That may go well for 6 months or a year, and then saw performance falls off and the mill tends to presume that the saw shop has let up on their end. That's not necessarily what has happened at all.

If, for instance, after a time the saws have begun to wander in the cut and perhaps show up a few cracks that were not there before, it's likely that the bandmill just needs it's wheels ground. Conventional wisdom is that a mill should be ground annually for a one shift operation, twice a year for a two shifts. When the wheels wear it shows up first on the leading edge of the wheel. The bad news is that this is the most important part of both the bandmill and the bandsaw! If that surface is worn the “tire line” of the saw is not properly supported, the mill cannot deliver power to the saw, the saw is not rigid enough to cut a straight line, cracks develop as the saw is flexing over too much of it's width, you get the idea - bad things happen.

In the circumstance above the saw shop is obviously not to blame, but time after time they take the hit and the mill goes looking for a new saw shop. This is just one example of how mill maintenance and saw maintenance are inter-related. If you intend to get your saw work done outside make sure that you have established a maintenance program that involves the shop and that you don't fall into the trap of getting casual about scheduled maintenance on the bandmill. Regular checks of alignment, cross-line, strain mechanisms, guides, track, etc. are even more vital once the saw work leaves the building. You will still need to have “resident expertise” to keep the mill running properly.

Having your saw shop in-house means that you are much more able to experiment with saws. Particularly if you elect to use a modern CNC sharpener you can try different tooth patterns with a very small investment (just a couple saws). You can determine the benefits of variable pitch

teeth, or of different tooth shape configurations, or of different methods of benching, side grinding, and so on. This type of testing takes a lot more planning if the saw work is done somewhere else.

Using an outside shop makes it more difficult to react to emergency situations and means you will need to have a lot more saws in rotation. Owning more saws does not really raise the overall cost of your saws, it just front loads it, but don't be shy about having lots of saws on hand that are ready to run for the times when you do start to have problems on the mill. If you are using an outside shop do yourself a favor and make it a practice of setting aside saws that are near the end of their useful life, in ready to run condition, for the times when you get in trouble tearing saws up either through problems in the bandmill or trash in the logs. Cover the teeth of these saws with edge protector, oil them good to prevent rust, and set them aside under cover. It's a good plan even if you do your saws in house, you never know when you will have to run the filing room short staffed, these saws can keep you going.

If you are using an outside shop make sure that you don't fall into the trap of running saws too long. It's a very common problem and one that damages both parties. A bandsaw is made from spring steel, it has both memory and elasticity. If a saw runs too long (meaning after it begins to dull) the added strain on the blade steals elasticity at an ever increasing rate. Once that elasticity is gone it's no longer a saw, it's just a lump of steel. You should plan very specifically so that conventional (swaged) saws run no more than half a shift – ever. If you exceed that your saw performance will fall off sharply, but no amount of work can replace the elasticity, and it will not be the fault of the saws shop!

Many parts of the country are serviced by saw shops that do an excellent job of maintaining both bandsaws and circular saws for sawmills. This has become particularly important with the advent of large numbers of small bandmills running 4-6" saws going on line in a wide variety of manufacturing environments. If you are looking at outsourcing your saw work do your homework thoroughly, make sure that the shop has a sterling reputation, and don't fall into the trap of thinking that all the responsibility rests on them. The profitability, the very survival, of your mill depends on how your saws run. How you manage that is at the heart of your enterprise.

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