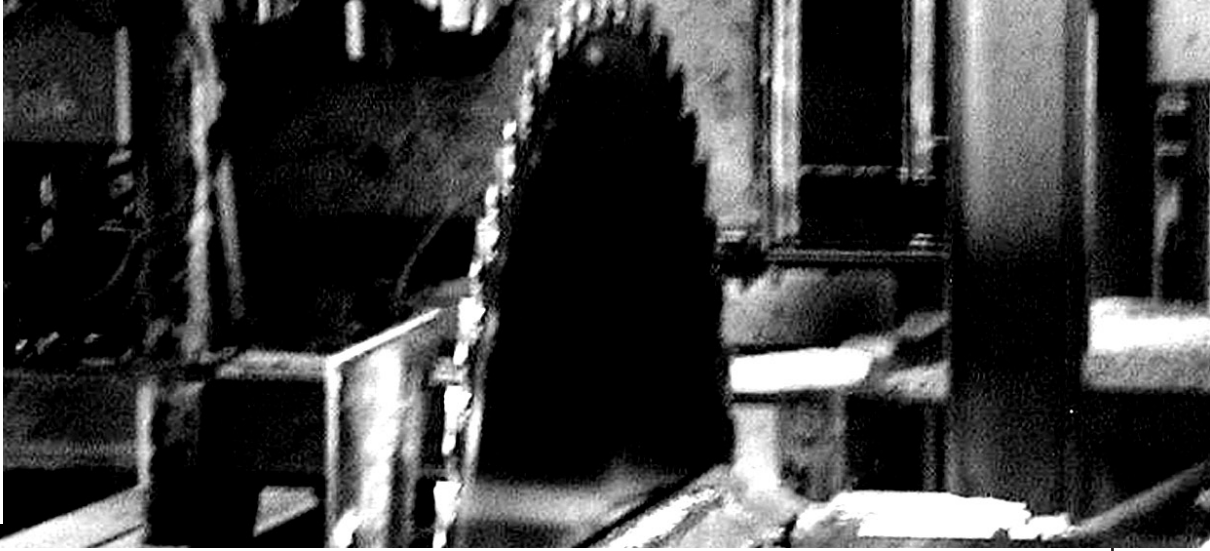


# SAWMILL FORUM

CASEY  
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SAW  
DOCTOR



**I have a circular mill that produces about 10,000 board feet of hardwood per day. I am running a 56" saw with 50 9/32" bits on the headsaw. What can I do to increase production, utilization, efficiency and profits?**

Better utilization generally equals better profits although there are no free rides in this business--or any other business, for that matter. Better utilization will always come at a cost. The question is whether the gains will outweigh the costs or not. In some ways, it's simply a math problem.

Usually when we think of running a thinner kerf saw and increased utilization, we think of bandsaws. My first thought to increase your utilization and also productivity would be to use a band resaw. But with increased production comes an increase in your mill's appetite for logs. Of course, you can increase efficiency without increasing your production if you don't want to have to buy more logs. But then you might be limiting the possible profits gained from increased efficiency and productivity, because now you might be able to do in three days what you used to do in five. Many of your fixed costs will be the same whether you saw three days a week or five days a week, so you might be limiting some profit gains there.

Basically, log carriages are pretty inefficient. The only reason we use them is because of the rounded and irregular shape of the logs. Once you can turn that log into a regular and conveyable shape like a square, you can get it away from the carriage and onto something way more efficient, such as a resaw.

When you think about it, you realize that any saw can only be productive while it is in the cut. Everything else is just material handling and as such it should be considered unproductive time. When you are loading the log onto the carriage, you are not making any sawdust. When you are dogging, setting, or gigging back, you are not making any sawdust and therefore not producing any product at all.

When you try to saw the whole log, less edgeboards, on the carriage, you are lucky if the saw is in the cut 15 percent of the day. How efficient does that sound? Can you imagine Henry Ford's Model T factory only bolting on parts 15 per-

cent of the day?

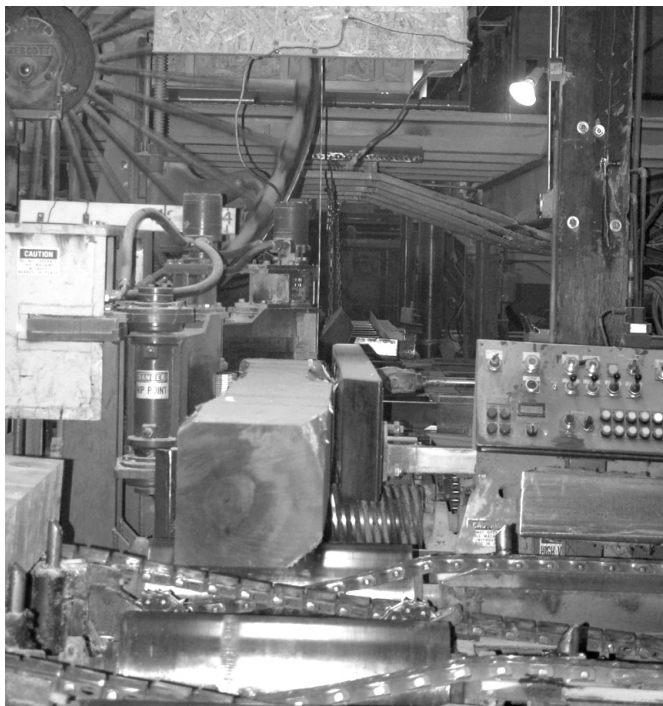
I laugh when people tell me that they want to increase their saw speed and increase their feed rate to increase their production. If you want to increase your production you should aim at everything except what happens at the saw. Instead, you should concentrate on how to get back into the cut sooner, and how to spend less on material handling.

With a good resaw and merry-go-round system, you should be able to process cants with only a few inches between the tail end of one and the leading end of the next one. A good resaw could be in the cut--producing lumber--80 or 90 percent of the day, not counting breaks and routine downtime. Now that's a productive piece of equipment.

And the added benefit of a band resaw is that it will use a thinner kerf blade than either a band or circular headsaw. Of course some mills opt for putting in a band headrig, but I tend to think of the circular saw as a better tool for the headrig application, especially if you can link it with a band resaw. My opinion is that you should do as little sawing as possible on the inefficient carriage. Take as few cuts as possible to get something that is conveyable and get it off the carriage and into the more efficient resaw system. Using that method, if you used a band headrig, the only kerf you would be saving would be in the slab wood anyway.

Some people say that they have to take a few boards on the headrig to get the cant small enough to fit their resaw. If that is the case, I think you should buy a bigger resaw so that you don't have to worry about size on the headrig. Even if you had to have two different size resaws to handle smaller and larger cants, I think that is better than doing primary breakdown with a band headrig.

That said, I must admit that many mills I know of have disregarded my advice on that point and seem to still be quite profitable operations that continue to grow and profit from not agreeing with me. They got rid of their circular headrigs and put in band headrigs and band resaws. And they are still in business and seem to be doing quite well.



**A big resaw is more efficient than a band headrig.**

What I like about a circular headrig is that they will stand much more abuse than a band headrig will. Trying to saw an irregular-shaped log is where you will certainly see most of the abuse in a sawing operation. Any band headrig has a specific size limitation because the log has to clear the guides. A circular saw will cut any size log even if it's way too big for it. It may not cut it efficiently, and you may have to finish the cut with a chainsaw, but at least the log went through--one way or another.

If you are a little lax with the sharpening on a bandsaw, the consequences can be dire, whereas with a circular saw, a missharpened saw will run--just not very well. But it will keep going and you may be able to nurse it along until break time if you don't mind some out-of-square cants. The band won't stand for that sort of abuse at all. It may crack, or may even come off the wheels if you abuse it enough.

Inserted tooth circular saws are extremely forgiving tools that are very well suited to the abusive task of having to turn an odd-shaped log into a cant that can be easily conveyed to a much more productive and efficient thinner kerf band resaw.

A proper band resaw will increase your production and your utilization fairly dramatically. Now all you have to do is look at the purchase, installation, and increased maintenance costs, versus the projected gain in utilization, and increased profits to see if the math works in your favor or not.

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**Questions about sawmills and their operation should be sent to Forum, *The Northern Logger*, P.O. Box 69, Old Forge, NY 13420, FAX #315-369-3736.**

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