

# SAWMILL FORUM

CASEY  
CREAMER

SAW  
DOCTOR



**It seems like I get into this argument from time to time: Comparing a production band saw and a production circle saw in good working order, the band saw will tend to cut more accurate lumber than the circle saw, reason being there is less stress on the band saw teeth than the circle saw teeth when cutting! I also think the band saw can cut a stressed log better than a circle saw, because of the length of the saw in the cut. What do you think?**

As you know, it is a common generalization that most saw doctors tend to lack tact and can even sometimes be considered arrogant. In keeping with that longstanding tradition let me first say that I completely disagree with your assertion that a production band saw in good working order is capable of better accuracy than a circular saw in good working order.

The operative phrase here is “good working order.” What does that really mean? If it means a saw that is just good enough to get by, then I might change my mind and agree with you. Circular saws are much more forgiving than band saws. Circular saws can get by when they are actually in pretty poor condition. I have seen sawyers make a circular saw cut acceptable lumber when the saw was in such bad shape that it hardly fit into the crate. Yet it was still producing usable lumber. I am sure it was not up to proper production levels at that point and undoubtedly while producing acceptable lumber, it is my bet that it also ruined more than its fair share of valuable product.

On the other hand, when you have a wide band that isn’t quite put up properly, it just won’t saw at all, and all of the coaxing in the world won’t change that. What this means is that the phrase “in good working order” actually represents different things when comparing bands and circles.

If you are willing to compare the accuracy of a properly put up band saw to the accuracy of a circular saw that is put up as accurately as the band saw, I will guarantee you that the circular saw will be capable of the same accuracy. Now I say “capable,” but let’s also realize that because of the differences in the forgiveness of the circular saw as compared to the band saw, we should acknowledge that when a properly put up band is mounted on a mill that is in poor condition,

it just will not work at all. In comparison, when you mount a circular saw on a mill that is in poor condition, it will have some problems, but because of the circular saw’s forgiveness level, an experienced sawyer can manage to force that saw to run properly in spite of the overall condition of the mill.

So, for a proper comparison we must consider having a circular mill and a band mill that are both in excellent condition, and then saws that are also in excellent condition. Under these circumstances the saws should perform with the same level of accuracy.

Most circular saws get sharpened and sometimes swaged while on the mandrel by the sawyer who often has poor lighting conditions for the task of sharpening and is using a hand held sharpener that may cost as much as \$500 when new. And the sawyer is in a hurry to get this task done while everyone else is taking their break—or worse yet—has to get it done during unscheduled downtime. And when does the saw get hammered? In many cases that happens after the sawyer determines that the saw just won’t saw anymore no matter what tricks he or she tries.

Band saws are changed on a regular schedule even when they are still cutting properly because as soon as you go past that schedule all you do is ruin lumber. The band goes to a dedicated filling room where it is worked on by the head filer or one of the other filers, not by the sawyer. The band is at least checked to see if it needs to be benched every time it is in the filing room for sharpening and most of the time it will get benched each time. Some filers do this with a hammer and a stretcher roll while others will do the leveling portion of the benching on an expensive automatic leveler.

The band is sharpened and swaged on a stationary grinder that certainly costs a lot more and has the capability of being a lot more accurate than the hand-held sharpener the circular saws are serviced with.

It is my contention that if you changed your circular saws on a regular schedule before they were dull, and took them to a filling room to be handled by a dedicated head filer, you would see some drastically different results. Just because circular



**A circular saw serviced here would be just as accurate as a band saw—not to mention more forgiving.**

saws are so forgiving, it doesn't mean that you have to keep testing that forgiveness level and see just how far you can push them.

My thinking is that you can get even more production and greater accuracy from your circular saw if you bench it every time it is changed, so that it can be touched up instead of needing to be completely rebuilt by the time you send it out to be hammered. And then it should be sharpened on a stationary grinder that outweighs the saw and is capable of real accuracy. At that point all of the side clearances should be checked and corrected along with the straightness of the shoulders.

If you are willing to put that much work into maintaining your circular saws, they will, easily cut with the same accuracy as your band saws.

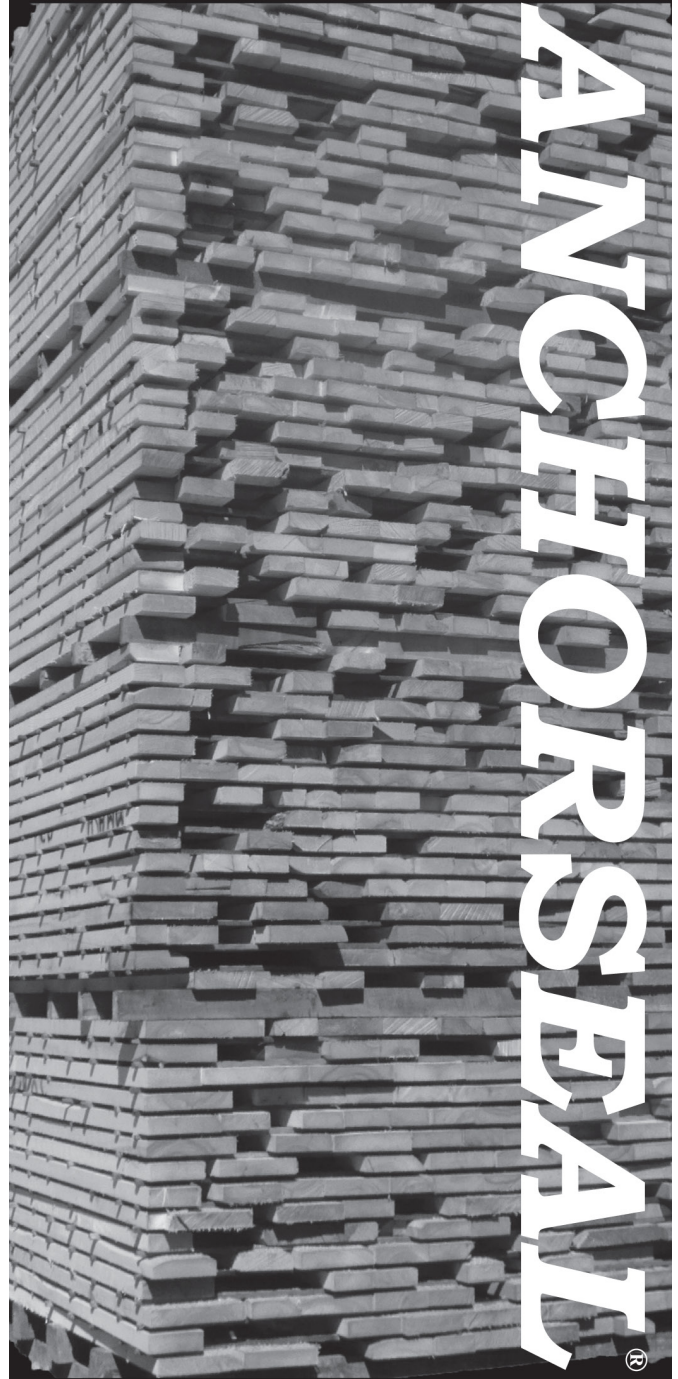
On the other hand, if you tried to treat your band saws the way most mills treat their circular saws, the band saws would completely refuse to run, let alone be persuaded to make accurate lumber.

I will concede that for any given size log, you can get a band saw to perform properly while using a thinner kerf than you can with a circular saw. On the other hand, a circular saw will withstand more abuse than a band saw will. That is why it has always been my strongly held belief that when you are in a situation where kerf doesn't matter so much, such as cutting a slab, the circular saw is the better tool because of its ability to withstand abuse. But as soon as you are in a situation where kerf matters and the smaller the kerf the larger the profit, the band becomes the tool of choice.

**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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