



BY CASEY CREAMER

## We have been having trouble with our circular saws heating lately. What if I run water on them while sawing? Would that solve my problem?

It may possibly compensate for your problem a little so that you can finish up today's sawing. Later, you can then find the cause of the problem and get it fixed. But running water on the saws will definitely not actually solve your problem.

Everyone knows that these saws are very sensitive to heat and once they start to get even a little warm, they start to ruin lumber in a hurry. If you need to cool your saws with water to try to make them run properly, you have a serious problem that needs to be dealt with directly. You should be treating the cause, not the symptoms. And just to make matters worse, I have seen a few mills go down this wet road before. The first mistake they make is to try to keep the saw cool with water instead of trying to find the cause of the heat and fixing it so that the saws don't constantly heat.

The second big mistake that people make is that they will often put the water just on the board side of the saw. What happens is the log side gets hot, which will stretch the log side. They keep the board side cool with water, which means that the log side is constantly warmer than the board side. Just getting the log side hot will stretch that side more than the board side, which will dish the saw towards the board side and will make it run out of the log. The other thing that happens is that because the saw is now dished, its belly is exposed to the log, which will make it rub the log and heat and stretch, and dish that much more. Having the board side stay that much cooler than the log side due to the cooling effect of the water will make the difference in temperature from one side to the other that much more, which will in turn dish the saw that much more and make it run out of the log that much more. That can put you on a watery path to nowhere.

You wrote that "we have been having trouble with our circular saws heating lately". That tells me that you're running more than one saw with this problem, and that at some time in the past, you didn't have this problem. So, what has changed from the time when the saws didn't heat much, to now?

Let me guess: You stalled one of your saws and sheared the

pins. Since then the saw that was on the mandrel at the time won't run properly. The freshly hammered saw that you put on won't run properly, either.

The saw that was on the mandrel when you had the accident that sheared the pins definitely needs to be hammered now. And in that process, your local saw doctor will notice and remove the extraneous collar metal that has been deposited on the board side collar line of the saw. That collar metal came from your fast collar, which means you no longer have enough taper on your fast collar. So, now both of your collars need to be re-machined. While your machinist is recutting the taper, he/she should also true up the outside diameters so that the collars mate to each other perfectly. They should also be marked so that the loose collar goes on the same way each time in the same position (relative to the fast collar) it was in when it was mated to the fast collar.

By the way, about that freshly hammered saw that you have been running on that damaged collar that has been heating. It should also be sent off to your favorite saw doctor for a tune up, because it undoubtedly needs work by now too.

There is always a possibility that you have a different set of problems causing your saws to heat. It could even be as simple as sharpening the teeth improperly so that they are out of square and high to the board side. This problem will make the saw run out, which will expose its belly to the log, which will make it heat and dish even more, and run out even worse.

Of course, there is a myriad of problems that you could be having either on their own or in conjunction with these most common issues. Either way, you need to get at the cause and rectify it instead of just trying to unsuccessfully treat the symptoms. Cold water will not wash away your problems.

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