

I have a hand set mill with a 50-inch B/F circle saw and after two years of summer sawing, it dishes toward the log with no lumps or bumps. Is this normal or do I have something wrong?

Well, it is normal in that eventually every saw will have problems. But yes, you have a problem. When you say the saw dishes but has no lumps, that means that you are not looking at the saw properly. If the saw is dished, it is bent, and if it is bent it has a high area that can be called a lump, bump, ridge, or whatever name you want to attach to it. The main point is: it can't be dished without a high area on one side and a low area on the other side.

As to what caused that problem, there are lots of possibilities. When a saw is dished in either direction, something happened on the mill that caused it to dish, unless of course it wasn't hammered properly to begin with. Was it heat on one side?



The guideline got very hot (blue) on this saw. The black patches are softwood pitch, showing the clear presence of high and low spots.

Was it bits that have a little more side clearance on one side than the other? Or is it a collar problem?

There are plenty of possibilities.

When you say it dishes, are you saying that it dishes when it gets hot? If so, it basically doesn't matter that it dishes, because whatever happens after it gets hot is irrelevant. The fact that it gets hot is the symptom of the problem that we need to deal with. Nothing else matters until that's fixed. Finding the source of the heat can be a challenge, but the following list is easy enough to check.

- 1. The saw is dished towards the board side when it is cold and the log is rubbing the log side and heating the saw.
- 2. You don't have enough kerf and the log is rubbing the saw and heating it.
- 3. Your collars are dishing the saw and the log is rubbing the high side.
- 4. Your bits are out of square and the saw is pulling in the direction of the high corner and the log is heating the saw.
- 5. Your bits are square but you have more side clearance on one side and the saw is pulling in that direction and the log is heating the saw.
- 6. Your shanks are worn and as a result you are spilling sawdust and heating the saw.
- 7. You are feeding too slow and therefore spilling fine sawdust and heating the saw.
- 8. You have a warm bearing and the heat is transferring through the collar to the saw.
- 9. Your spreader is misaligned and creating problems that generate heat in the saw.

I could go on for quite awhile with this list.

Maybe when you say the saw is dishing towards the log and has no lumps, you mean that when standing still it is flat on the log side like it is supposed to be, but when sawing, it runs in towards the log. If that's the case, you most likely have bent shoulders, or a problem with the side clearance of your bits. Again, that is assuming that when the saw is not hot and standing still, it is correctly flat on the log side.

If, on the other hand, you are saying that after a few months of sawing, your saw when cold and standing still is now dished towards the log, I would say that something happened to bend the saw in that direction and of course if it is bent then it does indeed have a high side and a low side. In this case the board side would be the high side and the log side would be the low side. Now you just have to find the lumps, bumps and ridges on the board side and straighten the saw out so that it is flat on the log side. And of course you have to do that without stretching the body of the saw too much in the process. Or if you do change the tension by hammering it in the body, you just have to go out to the rim and stretch that to compensate for the amount of stretch you put in the body.

That is of course the oversimplified version of how to hammer a saw, but with a little training it really isn't all that complicated to do if you have the right tools.

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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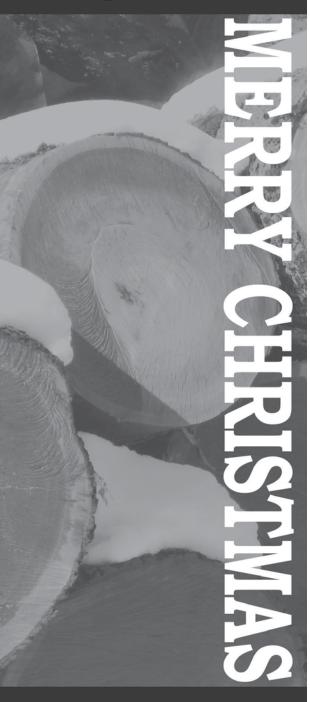


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