

Listen to your tools

THEY MAY BE TELLING YOU THAT SOMETHING'S WRONG

Listen closely to your tools, and they'll speak volumes. The sounds a tool makes can alert you to a dull blade, an incorrect setup, or a faulty technique. If you learn their language, your tools will tell you about issues so you can set them right before they become problems.

Bandsaws should hum

The bandsaw is one of the most vocal tools in the shop, so hear what it has to say before you start sawing. If all's well, you'll hear nothing but the motor's hum and the whirling wheels. If you hear scratching, something's touching where it shouldn't. Check for debris in the lower guide, or see if the blade guard is rubbing on the upper wheel or if the guides are too close to the blade. When the blade tension is inadequate, you'll hear a slapping sound just above the table on the left-hand side of the machine.

A rhythmic ticking means that one spot on the blade is hitting the guides. If it's a soft tick, it's likely nothing more than a rough weld on the blade; fix it by taking a file to the spot, but be careful not to damage the teeth or change their set. A loud tick means there's a kink in the blade that could break at any moment. The kink may have

formed when you tried to saw a radius tighter than the blade could manage. Next time you cut a tight curve, listen for the blade's wailing moan that says, "The blade is jammed against the guides. You've turned too far!" Forcing the turn beyond this point will damage the blade.

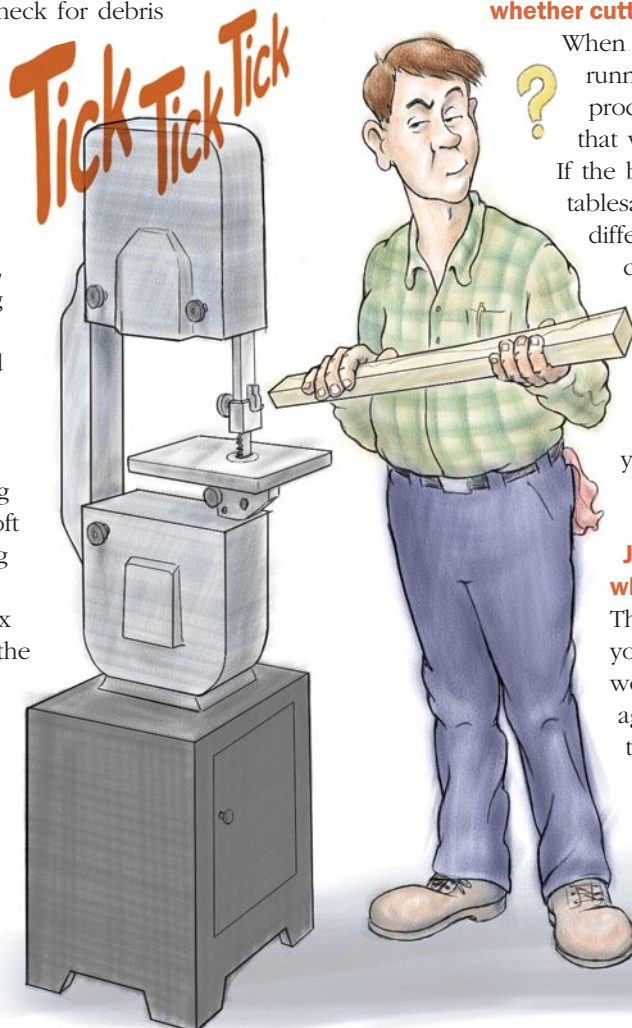
Learn when to adjust the feed rate by listening to the motor's pitch as you cut. When the pitch starts getting slower and deeper in tone, you've exceeded the speed limit. Back off the cut. Adjusting the feed rate based on pitch holds true for all saws—and just about every other power tool as well.

Tablesaws should whirl smoothly, whether cutting or not

When all's well with the tablesaw, running it without load will produce a steady, breathy whine that varies in pitch for each blade. If the blade is sharp and true, the tablesaw barely will sound any different when sawing wood. A cheap or badly balanced blade doesn't sound smooth when the saw is running without load, and it clatters when sawing. If your tablesaw makes a loud thunk when you turn it on, the belts probably need tightening.

Jointer and planer complain when you go against the grain

The jointer or planer will tell you when you're running the wood through the machine against the grain. Rather than the usual ticking noise of the knives, you'll hear something that sounds more like tearing, a kind of *kkkkkkrrrrriiick* as the chunks rip out. It's a





different sound from the *fwack-fwack-fwack* slapping of dull knives. This dull sound is similar to the sound the jointer and planer make when clogged with chips. If the dust-collection system isn't working, the slapping sound of the blades will be muffled by the chips lodged between the knives and the wood.

Routers change pitch when there's a problem

Routers whine a lot, but a screech or a wail means something's wrong—likely

a bad bearing. A lower pitch means the router is taking too big a bite and bogging down. You should reduce the cut or feed rate.

When approaching a corner on the workpiece with an edge-trimming bit in the router, you can avoid tearout by listening for tearing undertones and backing off the instant you hear them. Take a light pass around the corner in the wrong direction to stop or at least reduce tearout. These backward, or climb, cuts feel funny—be prepared for the router to buck and squirm a little. Once you have

cleared the way, go back to routing from left to right and complete the corner.

If you're using a template bit, keep the amount you cut to less than the radius of the bit. If it's more, the router won't necessarily slow down, but you will hear tearing noises as the outer edge of the bit rips away little chunks of wood (though not always so little—watch out for debris).

Drills have their own language

Even a cordless drill sounds off. You probably know how it sounds when the battery is fully charged or when it's nearly dead. But can you tell when the bit is about to punch through the wood? Listen closely next time, and you'll hear a slight lowering in pitch as the drill labors through those difficult final rotations. In metals or hardwoods, you'll also hear

a little screech that means it's time to ease off on your pushing and to prepare for that wrist-wrenching kick.

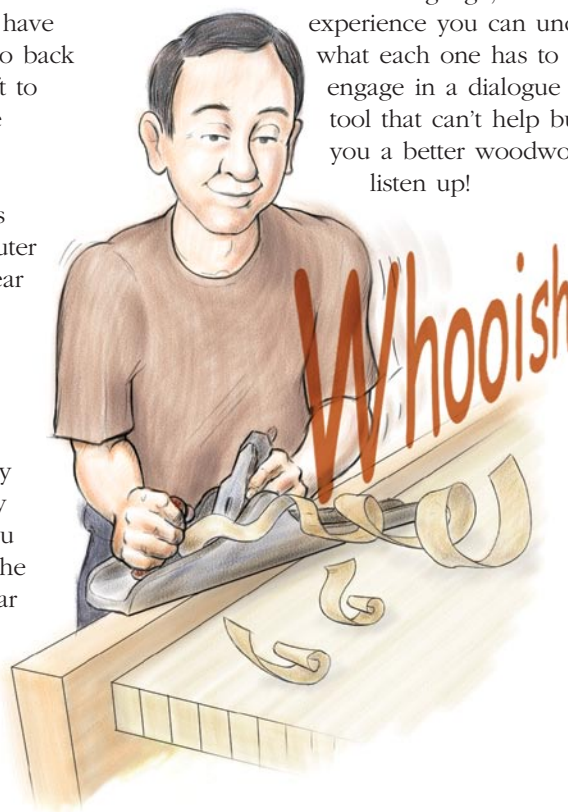
Drills make other helpful sounds. A pounding noise when driving screws means that the driver's not fully engaged—it's bouncing in and out of the screw head. Push harder to keep the driver engaged in the slot. A choppy whine means the speed switch is stuck between high and low. And, of course, there's the *brrrrripp* of the clutch release, which means the screw is in as far as it can go on that setting.

Hand tools tell you when they're happy

When all's well with a handplane, it emits a smooth *whoooooissssh*, like the tearing of silk. A dull blade makes a series of *kwooooochhh* noises, similar to the sound of someone getting ready to spit. When the iron is sharp, but you're planing against the grain, you'll hear an undertone of ripping as the fibers break off rather than get cleanly sheared.

If a handsaw is dull or is the wrong type for the job (such as ripping with a crosscut saw), you can hear it in the cut. Rather than the businesslike *voo-ba* of a good saw (or the *ba-voo* of a Japanese saw), you'll hear a less-accented *buff-ba*. If your saw is cutting well, maintain a steady rhythm. You may have to alter your stance and alignment until you get that sound for several seconds. Then you can let loose and saw right through.

Each tool has its own language, and with a little experience you can understand what each one has to say. You'll engage in a dialogue with the tool that can't help but make you a better woodworker. So listen up! ☐



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