



a fresh look at

## Western Back Saws

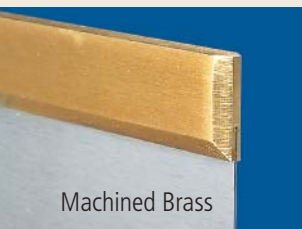
A new breed of back saws will have you rethinking how you feel about hand-cut joinery.



Folded Steel



Folded Brass



Machined Brass

▲ Saws with machined brass backs had the straightest blades and made the best cuts.

My first experience with a Western back saw involved a \$10 special from the local hardware store. The saw was hard to get started and would constantly bind in a cut. Following a line for a dovetail was all but impossible. I didn't know if the problem was my lack of skill or the saw. It's still hanging on my wall, collecting dust.

Because of that experience, I was curious about some of the new saws on the market. I decided to find out what the real differences were between my old back saw and higher-quality tools. I was particularly curious about the high-end saws from *Lie-Nielsen* and *Adria*. They were certainly great-looking, but would their performance justify their higher prices?

For comparison, I looked at saws in all price ranges to deter-

mine the components that made one saw perform better than another. Here's what I found.

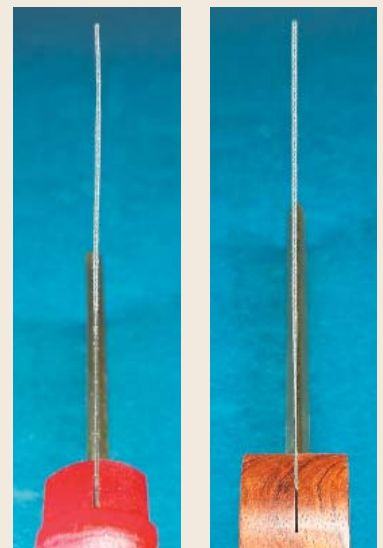
**THE BACK.** The type of back, or spine, on the saw is your first indication of quality. This spine serves as a stiffener for the blade, allowing manufacturers to use thinner steel. This results in the narrow kerf desired for joinery work. Cheaper saws use a steel spine folded over the blade and secured with small rivets. Mid-range saws use brass attached in the same manner.

The highest quality saws use a brass strip machined to hold the

A saw with bends in the blade (left) ▶ won't cut accurately. It will often bind in the cut and will seldom track a line properly. A perfectly straight blade eliminates both problems and is the key to a high-quality tool.

blade. A machined brass back keeps the blade perfectly straight. The folded backs often distort it.

**THE BLADE.** It goes without saying that a straight blade cuts better



than a bent blade. But there are a few other things on the blade to look for. If you sight down its length, the teeth should also be in a perfectly flat line. And the “set,” the bending of alternating teeth to opposite sides, must be consistent throughout the length of the blade.

All of the less expensive saws I tried had both inconsistent set and less than flat cutting edges. And you’ll find that even a very small bend in the blade or variation in set is noticeable when you’re trying to make a precision cut. These imperfections cause the saws to bind easily (nearly always, in fact) and make them difficult to start on a line.

**THE HANDLE.** You can also judge the quality of a saw by looking at its handle. Less expensive saws come in a variety of shapes and sizes, but don’t quite feel right in your hand. The top-of-the-line tools have hardwood handles that fit like a glove.

I first believed these were just cosmetic differences. A fancy handle might make a better-looking saw, but it couldn’t possibly affect performance. Not true. Those detailed pistol grips on the high-quality saws position your fingers properly to make accurate cuts. When you hold one, you have complete control of the tool. It’s balanced and feels like an extension of your hand.

**BACK SAW TYPES.** Back saws are designed primarily for joinery work. Their names define the tasks they’re best suited for. The smaller dovetail

saw is designed to cut pins and tails. These cuts require rip teeth. Since cutting a tenon requires both rip cuts (cheeks) and crosscuts (shoulders), most manufacturers offer tenon saws in either tooth pattern.

For most of us, a dovetail saw will take care of most ripping needs and is a “must-have” tool for hand-cut joinery. When coupled with a crosscut tenon saw, you can take on the most complex joints. The crosscut tenon saw is also an ideal choice for the hand miter box.

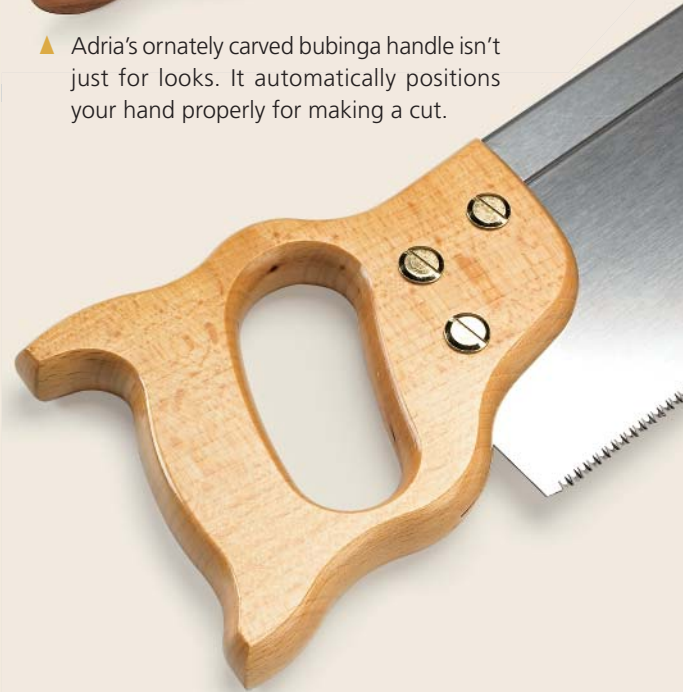
**BOTTOM LINE.** For the price of the *Adria* or *Lie-Nielsen* dovetail saw, you can get an entire set of four less-expensive saws. You get what you pay for, however. Expect the differences in manufacturing quality to cause these saws to perform poorly. Many of the cheaper saws we tried would require resetting the teeth before being put to use. Some had bends in the blade and probably could not be salvaged at all.

On the other hand, I found the saws from *Lie-Nielsen* and *Adria* to be dead-on perfect in both set and straightness. They were each well-balanced and a real pleasure to use, right out of the box.

Although the cost of these saws is high, you have to ask yourself if you want a saw to hang on the wall or a reliable tool you can use successfully. For me, the answer is clear. With tools like these available, back saws won’t be collecting dust in my shop. They’ll be making it. **W**



▲ *Adria*’s ornately carved bubinga handle isn’t just for looks. It automatically positions your hand properly for making a cut.



▲ Conventional handles may work well for framing saws, but they don’t offer the control needed for fine joinery work.

## How-To: Start a Cut

Cutting with a back saw seems like it shouldn’t require too much instruction. But if you have trouble starting a cut, you may not be using the right technique.

**PROBLEM.** A common problem is trying to start a cut on the pull stroke. Pulling the blade just makes it bounce across the surface, scratching out your line.

**SOLUTION.** Instead, try using the thumb of your other hand to steady the blade and position it on the line. Then, wrap your hand around the

handle, not through it (see inset). With no downward pressure, push the saw carefully across the line. If the saw grabs or bounces, lift it just a little bit and keep moving through the line.

Now, you can put your hand in the handle and let the weight of the saw make the cut. This way you’ll track a line every time.

