

True Japanese Dovetail Saws



Photo by Al Parrish

Sure they look like standard dozukis, but these saws have rip teeth. We compare the Kaneharu (in use) with new saws from Harima-Daizo (left) and Lee Valley (right).

2 new rip-tooth dozuki saws are efficient dovetailers.

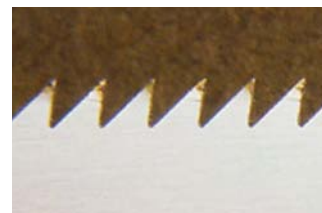
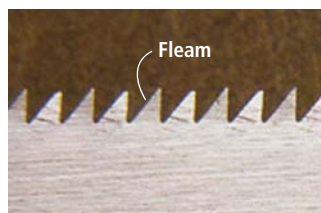
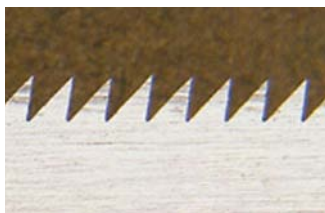
Cutting dovetail pins and tails is primarily a ripping operation. So it has always bewildered me that almost every Japanese saw sold for dovetailing had teeth designed for crosscutting or cutting plywood.

A few specialty importers do sell Japanese backsaws with a rip-tooth configuration, but these are made mostly by hand and cost between \$140 and \$1,500.

Why, I wonder, isn't there a machine-made dozuki that sells for about \$35 – the cost of a decent crosscutting dozuki? Well, I don't have the answer yet, but the two new rip-tooth dozukis on the market are considerably less expensive (between \$70 and \$80). To check the quality, I compared them to a premium rip-tooth dozuki that I'm quite familiar with – the Kaneharu ripping dozuki, sold by Hiraide America for \$182 (see the Sources box for more information).

by Christopher Schwarz

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The Kaneharu saw has graduated teeth. Near the handle (left) there are 15 teeth per inch, while at the toe (right) there are 10 tpi. This combination of tpi makes the saw simultaneously easy to start and fast-cutting.

The Lee Valley saw has 18 tpi and a small fleam that it uses for crosscutting. It cuts slower but starts easy.

The Harima-Daizo Deluxe saw has 10 tpi. This makes the saw cut faster but a bit harder to start.

To understand how the less-expensive saws are different, let me introduce you to the Kaneharu.

Kaneharu: Small and Perfect

For anyone familiar with traditional dozukis, the Kaneharu appears small. At about 18⁷/₈" long with 6³/₄" of the blade devoted to teeth, the Kaneharu is about 4"-5" shorter than many dozukis.

The teeth are different, too. Crosscut dozukis traditionally have teeth that are all the same size. The teeth on the Kaneharu start small near the handle (15 teeth per inch) and get larger toward the toe of the blade (10 tpi). This is similar to the configuration of rip teeth on a ryoba saw.

The graduated teeth make your cuts easy to start: You make your initial kerf with the smaller teeth, and once you get going you use the full blade and the saw dives through the wood. (All three of the backed saws discussed here have a maximum cutting depth of 2", which is ideal for cutting dovetails and most tenons.)

For someone accustomed to cutting dovetails with a crosscut saw, the difference is significant. A dovetail that takes 14 strokes to cut with a crosscut dozuki takes only 10 with the Kaneharu. Plus, it's my opinion that the rip saws track better than the crosscut saws during a ripping operation. The quality of the cut surface is as good as any dozuki I've tried – no matter what the tooth configuration.

Lee Valley: Easy to Use

The rip dozuki offered by Lee Valley Tools shares some of its DNA with crosscut dozukis.

The handle and blade are longer, like the traditional crosscut saw (23³/₄" total length; 9⁵/₈" of teeth). The teeth are finer than those on the Kaneharu – 18 tpi, and they have a small secondary bevel filed on them. This secondary bevel – called the "fleam" in saw parlance – is what allows crosscut saws to sever the wood fibers like a knife.

The fleam on the Lee Valley saw is small enough not to interfere with a rip cut (which is mechanically similar to levering out the sawdust with a chisel). But it's large enough to allow the saw to be used for some crosscutting.

Also, the rip teeth are more durable than crosscut teeth. In a month of testing, I didn't have any problems with snapping teeth – even in notorious ring-porous woods such as white oak.

Because the teeth are small, the saw is easy to start. And while it cuts a little slower than the Kaneharu, it's decidedly faster than a crosscut dozuki and leaves a very clean cut surface.

Harima-Daizo: For the Expert

The Harima-Daizo from Tools for Working Wood is a ripping monster. It seemed to consistently outpace the other two saws when it came down to pure speed. I chalk that up to the fact that it

has deeper gullets and fewer teeth (10 tpi) than the Lee Valley saw and a longer blade than the Kaneharu (also 9⁵/₈" long).

The downside of the Harima-Daizo is that it was harder to start the cut than the other two saws. While I personally never had any problems, beginners and those unfamiliar with Japanese rip saws reported difficulties when starting the cut, particularly in softer woods such as cherry.

Like the other two saws, the Harima-Daizo tracked perfectly straight in the cut, left an excellent finish and had durable teeth.

Which Saw is for You?

If your budget allows it, the Kaneharu is hard to beat. (The Japan Woodworker catalog offers a similar saw with graduated teeth, the Izeamon dozuki rip saw, for \$140. While I haven't tested this saw, I have heard a number of good things about it.)

For the beginning dovetail saw user, the Lee Valley (at \$69) is probably best, and it also will pick up some crosscutting chores. For the advanced user who wants to save some money, the Harima-Daizo (\$79.95) is my pick.

But more important is how well these three saws compare to the crosscutting and combination-teeth Japanese saws. The rip teeth are far more robust than the crosscut teeth – say goodbye to that "tink-tink" sound you hear when your saw teeth snap.

Another important difference is that all three of these saws can be resharpened – they are not replaceable-blade saws. This can be a good thing or a bad thing depending on your point of view.

If those differences aren't enough to convince you, remember that these three rip saws also track better in a rip cut. Plus they leave an excellent finish. They are, in short, the right tool for dovetailing. **PW**

SOURCES

Hiraide America
877-692-3624 or
japanesetools.com

- Kaneharu Ripping Dozuki, \$182

The Japan Woodworker
800-537-7820 or
japanwoodworker.com

- Izeamon 8¹/₂" -blade Dozuki Rip Saw #05.114.21, \$140 (also available in two longer sizes)

Lee Valley Tools
800-871-8158 or leevalley.com

- Rip-tooth Dozuki #60T04.04, \$69

Tools for Working Wood
800-426-4613 or
toolsforworkingwood.com

- Harima-Daizo Deluxe Rip Dozuki #MS-JS340, \$79.95

Prices as of publication date.