

Product review:

My first sawmill: Logosol Timberjig

By Rowan Reid

I wouldn't normally consider myself competent enough to test equipment on behalf of my fellow tree growers. However, this simple chainsaw jig from Sweden doesn't assume a great deal of technical competence in either milling or machines – just enthusiasm. In that respect I'm probably the ideal person to try it out.

I fitted the jig to the Stihl 044 I had previously purchased for tree falling. The first thing you notice is how simple the set up is. Simply remove the bar nuts and replace them with two adaptor nuts provided that then allow you to fit the jig to the saw. Although you need to repeat the process each time you tension the chain it is quick and simple



The first cut: the timber guide is fixed in place using two end brackets

My sample logs were of Camphor Laurel and Osage Orange. Camphor Laurel (*Cinnamomum camphora*) is a common exotic weed in northern NSW. Regular readers will recall a story about its timber potential in a past edition of *Agroforestry News* (Summer 2003). Although it's not a species I'd choose to plant I was keen to gather samples and learn more about its timber potential.

Osage Orange (*Maclura pomifera*) is a native of the southern state of the USA and widely regarded as one of the most durable, and dense, north American hardwoods. Most people think the name refers to the large orange-size fruit, but once you put the saw into the log you see that the name actually relates to the bright orange colour of the freshly sawn heartwood. With an air dried density of over 950kg/m³ it was always going to be a good test for the saw, and the operator.

In both cases the logs were trapped in suburban backyards making it impossible to extract them for milling on a conventional mill. Without something like the Timberjig the trees would have certainly ended up as one foot blocks for firewood. Being able to take the Timberjig anywhere, easily, is clearly one of its advantages.

To mill a log with the Timberjig I had to make up a timber guide rail. For this I used some reclaimed hardwood floorboards. As shown in the first photo, the guide rail is held against the log using two wooden brackets and clamps. The accuracy of the opening cuts is largely dependent on how well you construct the timber guide rail so it's worth taking some time to get this right. Detailed technical directions are available on the web site.

The first cut into any log is telling. A conventional chain cuts a kerf that is nearly twice that of a regular circular saw blade and much more than a band saw. For valuable logs the volume of sawdust could be a real issue. In this case the mill might be best used for breaking down logs to the point that they can be extracted easily rather than for milling per se. I now use a finer ripping chain that is available on order through Stihl distributors (if they don't know about it tell them to look it up on the computer). This reduces the kerf to about 5mm, which not only saves wood but also makes cutting much easier.

The Osage Orange proved a real struggle. It was like cutting concrete and the orange sawdust clogged up everything, including my eyes and nose. It's so dense I didn't even notice I'd cut through a couple of 4 inch nails embedded in the log. Each nail means more time sharpening but the damage wasn't fatal for the chain or the operator.

The softwoods in Sweden, where the mill was developed, have a low wood density, large fibres and coarse texture making ripping with a chainsaw much easier. Our dense eucalypts (and species like Osage Orange) are not only more dense, they also have very small fibres giving rise to fine sawdust. Although strictly speaking a hardwood,



The second cut: the guide is put against the clean face to produce a right angle cut. Tilting the log makes holding the saw in place a little easier.

Camphor Laurel has a wood density similar to pine and a relatively coarse texture: the 044 had no trouble ripping slabs 'off the bone'.

The first two right angle cuts open up an edge (Photos 1 and 2). Now the timber guide rail can be put aside. Using the Timberjig's dimension plate the rest of the log can be cut without having to spend any time setting up the guide rail. Although the dimension plate only reaches out about 10cm, it seems to provide a pretty sturdy fix on the edge. Turning the log on an angle certainly helps you hold the saw in place.



The timber guide can then be removed and successive boards cut off using the dimension plate. The plate can be easily adjusted out to about 20cm.

There is still plenty of room for error, particularly when pushing through heavy timber. I'm happy enough with what I was able to cut and imagine my technique will improve with experience. I also expect to generate a little more waste after drying when I put the timber through my little 10 inch thickener so cut well over final dimensions.

Accuracy and efficiency in sawmilling always come at a price, but good design is a blessing in any tool. If you have a reasonably powerful chainsaw then the Timberjig is the ideal companion. For me it's about being equipped to take advantage of an opportunity that pops up, like the call I got about the Osage Orange that had blown over in a summer storm. I'll also use it to open up my thinnings so I can learn about what's happening inside my trees and to prepare wood samples so I can test quality and show potential log buyers.

At the price, the Timberjig is the sort of tool you can take out when collecting firewood just in case you come across a log with a beautiful colour or fiddleback grain. For owner builders it would be ideal for squaring off beams and lintels. Extension agents could use it at field days to show tree growth and wood quality from farm grown trees. The Timberjig might be your first sawmill but I don't expect you'll ever throw it out if you get a real one.

If you have a good internet connection you can watch video of the Timberjig in action on the Logosol web site but bear in mind they're cutting light softwoods and the going will be much slower when cutting our dense hardwoods.

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The Australian Master TreeGrower Program won the 2000 Eureka Award for Excellence in Environmental Education

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Logosol's Australian distributor Swedex Pty Ltd, provided Rowan Reid with a Timberjig valued at under \$300.00 for use at Master TreeGrower and Agroforestry Network Events



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