



100 year-old band saw with electric motor.
Note the absence of any safety guards.

Bringing Home a Band Saw

©Trevor Pope (tpepe AT iafrica.com) – Aug 2002

Handsaws are quite versatile. I don't need to work out at the gym when I can spend half an hour resawing a plank lengthways. I can work up quite a sweat trimming off odd lumps to make a blank round enough to fit onto the lathe. They have helped to build up my arm strength and keep me warm in winter. They allow me to work in the traditional way, to appreciate the wood and how it works.

But in the back of my mind, I really wanted a bandsaw. Not a small one though – I need to fit in a good size blank. I want to be able resaw a wide plank, to be able to book-match a panel.

However, I couldn't afford the one I wanted and I don't really have the space. I have always had my eye on the large Elektra Beckum BAS 500 like the one at the WWA club. It has a 300 mm depth of cut, multiple speeds, and in the latest model is an attractive blue. However, it lists at an eye-watering R12 000-.

Two months ago, Harold (the WWA treasurer) phoned in an advert to be put in Crosscut for his old bandsaw. You may have seen it, a small Rockwell – a good solid saw at an attractive price. Why was he selling? He had upgraded to a Record Power model that was somewhat bigger than his Rockwell. Record was closing out on this model, and it was available at excellent price.

Suddenly, I was listening carefully. What was the depth of cut on his model? 200mm. I mentioned that my ideal saw would be capable of at least 250 mm like the Elektra Beckum, when Harold asked whether I had looked the larger Record model? He recalled that they were also closing out on these models, and perhaps the prices might be worth looking into.

Within minutes, I was on the phone to Alistair at Record Tools. Yes, there was a larger model, and with VAT it would work out at about half of the Elektra Beckum. It was basically a relabeled Startrite in Record's green and yellow colour scheme. He promised to send me the specs. I jumped onto the Internet and located the Startrite website (www.startrite.co.uk). There it was – a 352S: 300 mm depth of cut, two speed, one horsepower motor, cast iron table, etc. Specification wise, not quite up with the Elektra Beckum, but at half the price! I would have to think about this carefully ...



Early the next morning I phoned Alistair – when I can I fetch one? It was Friday and dispatch closed at 12h00. I checked my calendar, and there was a two-hour gap. Alistair asked how I intended to fetch it – it came on a pallet, and it was rather heavy ...

There was no way this was going to fit into the back of my Land Rover – it was 1.9m high and weighed 105kg. I picked up my trailer from home on the way to Record. (When I bought the trailer, I chose the longest Venter luggage trailer that they sold, and have not regretted that decision since.) The saw fitted in, laid on its side with the pallet protecting it, although I couldn't close the lid.

That evening, the challenging part was to lift the saw out of the trailer and move it into my workshop. It was big, heavy and awkward, and it broke two of the wheels on my small trolley, but I managed, with help from my son, to drag it into my workshop.

I was surprised to see that the blade was installed in the saw and the tension was dialed right up. On the Elektra Beckum band saw at the club, there are the instructions to slack off tension after use, so I was concerned. The saw was made in 1998, so it had been standing for four years on the pallet with the tension dialed right up – would the wheels still be round? However, after carefully reading the manual, I saw that no mention was made of slackening off, so I relaxed.

The pallet was held together with long ribbed nails that were shot in with a nail gun. It was going to be easier to persuade Robert Mugabe to resign than get these out with a claw hammer – I ended up using a crowbar and many times the wood splintered before the nail would let go.

I opened the covers and started setting it up. I have read that one important attribute of a saw is that the wheels must be in line, so to check the alignment, I slacked off the blade and removed the table. It is held onto the trunnion for tilting by a single large bolt. I undid the bolt and tried to remove the table – it wouldn't lift off, so I tried to determine what was holding it on. Nothing! I then worked out that gravity was the only impediment – it was so heavy, that I couldn't lift it off without straining. I guess that the table accounts for a third of the weight of the saw. With a long straight-edge I checked the alignment – this was fruitless, as with the tension removed, the wheels had too much play in the bearings – what now? I refitted the blade and tensioned it again – now there was no significant play, so this seems not to matter.

I duly lined up the guides and tracked the blade. I found some interaction between the tracking adjustment and the tension – I couldn't adjust them independently. However, as I mentioned above, it seems to be OK to leave the blade tensioned up, so it can be set and it doesn't seem to need fiddling once set.

I recalled seeing a mobile base on offer from SA Machinery, so the next day I bought one. It comes in a kit form, so you can assemble it to suit the size of the base of the machine. It seems fairly sturdy, but they don't mention how much weight it can handle. The example of drill press is used, and a good one is pretty hefty at say 50kg, but not 105 kg, so I was a little concerned. Some of the essential hardware was missing from the box. If you buy one, plan on a trip for a few more bolts. The only bolts supplied for the fixed wheels had threads along the full length of the shank – which is a bit like running a file inside the wheel. Also the pins for the tilt and swivel castor wheels were missing, I made do with some hex tube nuts with bolts screwed in from each end. The band saw is also aimed at the school market, so it has all the required safety features – no-volt release starter and emergency stop button, foot operated emergency stop button, interlocks on the doors covering the wheels and a separate on/off switch that can be locked out. I had to move the foot-operated switch upwards to clear the trolley. With the saw on the trolley, I could move the saw around – not easily, but on my own. From experience, the saw seems rather too heavy for the trolley: one of the brackets for the tilt and swivel castors has bent, so perhaps if you have something this heavy to move around, this may not be the best option.

The next weekend I started eyeing my woodpile. I selected a 150 mm jackaranda log that had been outside a bit too long to be used for turning blanks due to some cracking. I sawed it into planks using the fence. It only took a few minutes, and I was very pleased to see how much usable wood there was. This was what I had bought the saw for and I was delighted. The 19mm blade supplied with the saw performed excellently.

The next day (Sunday) I became more ambitious. I tackled a 350mm diam, 600mm long log of Australian Blackwood (I think). It was only partly dry, with a big crack down one side, despite having the ends sealed. It was also rather heavy. To get it to fit under the 300mm high saw guides, I had to slice off one side, which was difficult to do. Once it fitted under the saw, I cut it in half along the crack, and then started to saw it into planks. About two thirds through the job, this became more and more difficult, as the blade started screeching, with more and more pressure needed to make a cut. The blade was rapidly becoming too blunt to use. I suspect that the wood is quite abrasive. I also wondered about the quality of the Record blade. To finish the job, I attempted to sharpen the blade, by touching it up with a saw file. The teeth turned out to be really hard so I ended up with a shiny saw file and a blade that was

still blunt. Apologies to Record – I guess the blade material must be OK, if a file can't deal with the teeth!

As the blade became blunter, the saw was being expected to work really hard, and I managed to provoke the thermal/over-current trip. The manual revealed that it could found in the electrical box. Unfortunately, the lid has to be removed to reset the trip, which is a bit of a chore. Hopefully, this won't happen often.

On the Monday I purchased a small grindstone with a sharp triangular edge to fit to my router. The edge was a good fit with the tooth profile. The blade has three tpi and is 112" long, so after 15 minutes of work and more than 330 teeth later, I had a resharpened bandsaw blade. The resharpened teeth are not as uniform as the originals, but I think with practice I'll do better. I was then able to finish sawing up the last few planks.

Alastair recommended I contact First Cut in Germiston on (011) 872-1138 for replacement blades. They sell Starrett blade stock welded up to the length you need. They quoted R80- for a replacement 19mm wide 3 teeth per inch (tpi) WoodPecker blade - this is a conventional blade. I asked them about bi-metal blades, but they couldn't recommend the ones they offer for use with wood, partly because they come in 6 tpi, which is a bit fine for deep cuts. (A bi-metal blade has a conventional flexible carbon steel backing, with a strip of high-speed steel (HSS) welded along the front, from which the teeth are cut.) The 19mm bimetal blade is about 3 times the price of their WoodPecker blade, but I have seen estimates elsewhere that the teeth may last 5 times as long. I guess another advantage is that if the HSS teeth are resharpened, then the risk of overheating the teeth is much reduced compared with a carbon steel blade. If you can recommend a source of bi-metal blades for wood cutting, I'd be pleased to hear from you.

I guesstimate that wood similar to the planks that I cut would probably cost around R100-. So with replacement blades at R80-, I'm not sure about the economics of sawing up this particular log. However, I had a lot of fun and learnt something. I also have rather nice planks that are busy drying, while I work out what to make of them. Another nice thing about sawing your own planks, is you can choose the thicknesses you need.

Overall, I'm pleased with the saw – it is excellent value for money, and it can handle some really big pieces of work. Now I just need to make some space in my workshop for it ...