July 2013

Crosscut

Newsletter of the Witwatersrand Woodworkers' Association
PO Box 411346, Craighall, 2024, South Africa

◄Welsh Love Spoons, carved by Ken Bullivant.

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Next General Club Meeting on **Wednesday, the 10th July 2013** from 18h00 at WWA clubhouse at the Living Link Hall. Dremel demonstration or Routing an Elipse – Shaun Sampson.

Next Turner's monthly meeting is on **Monday, the 1st July 2013** at 18h00 at the WWA clubhouse at the Living Link Hall. Steven Barrett will demonstrate making and fitting a finial to the lid of a turned box.

News

June Turner's Meeting – Rick Florence (left) demonstrated fitting a lid to a turned box.

Ivor Appleton was remembered during a minute of silence. Ivor was a member of the WWA almost from the start.

June Meeting – Clive Stacey (above right) discussed some aspects of jointing and bending wood.

Ken Bullivant (below right) showed some Welsh Love Spoons he carved and the tools he uses to make them. Each has about 40 hours of work in them, mostly using hand tools and handwork.

The technique for making the cutting board that Dave showed at the meeting is documented in Fine Woodworking Magazine in the May/June issue (#233) and in a video on the FWW site at http://www.finewoodworking.com/how-to/video/the-coolest-cutting-board-ever.aspx

Club Notices:

Spring Challenge with a Braai. 5th October 2013. The theme is "A Toy for Westview Clinic" Barries to do the judging and we could also possibly invite Daphne to be another judge. There will also be a "Table Lamp Challenge" with both turned and non-turned entries welcome. (A source for the lamp cord sets has been located and 150 have been ordered. The cord will have a moulded plug, 1.5m cord to a switch, and 0.8m up to the lamp – these are expected to be available for R20- each.)
There will also be a Turners Challenge for you to demonstrate your skills on the day making a sphere for advanced turners with a skew or any chisel for intermediates or a mushroom for beginners – prizes for the best.

Association of Woodturners of South Africa. The AWSA continues to grapple with the problems of integrating turners scattered in clubs around South Africa, and to find a successful operating model. Rick Florence is the WWA representative for AWSA. To sustain the AWSA and meet some basic admin costs, it was agreed that all those who wish to subscribe will pay R50- for the next year. There will be another conference in September this year in Cape Town, but due to the costs of attending and convening, it will be smaller than last year – more of a regional conference. Eric

Thornton is again co-ordinating it. The Gauteng clubs have agreed to stage the 2014 conference and Lou Coetzer from the Pretoria club will chair the organisation. Gauteng last staged the AWSA congress in March 2005, at the Printers College, which was a lot of work, but very well received.

WWA Open Day – provisional date – 9 November at Parkhurst Recreation hall. We will look at including other societies & member sales.

Pretoria Woodwork Exhibition / Houtwerk Uitstalling. The Woodworking Association of Pretoria will be again holding their annual exhibition at the New Hope School on the **05th Oct 2013** from 08h00 to 14h00. (The New Hope School is a specialist school for children with various disabilities.) The school is in Cecilia, just West of the N1, close to the Atterbury Off-ramp. GPS co-ords S 25º 46' 43.70", E 28º 16' 02.21". See www.ptawoodworkers.com or contact 084 515 2773 for more information.

East Rand Woodworking Association (ERWA) Annual Fair – 21st September 2013 (See www.erwa.co.za for more.)

Hardware Centre demo week starts this Monday, the 24th June till Sunday 30th June 2013. Many specials, demos and suppliers will feature.

Saturday Workshop. Ken Bullivant previously held the Saturday workshop at the clubhouse, but when we moved from Helpmekaar, he decided to move it to his house in Boksburg. Currently 5 of our members attend these meetings and more are welcome. The location is 13 Franklin Avenue, Comet, Boksburg on the first Saturday of the month from 09:00 to 12:00. They decide on an annual project and work throughout the year making it. Individual projects are discussed and problems solved. Contact Ken on 082 809 0020 if you wish to take part.

Please Note:

Toymakers. The toymakers meet on the first and third Mondays of every month, at 09h00 till 12h00 at the new clubhouse. Contact Eddie Marchio on 011-678-8062 or rm22 AT mweb.co.za for more information.

Wednesday Workshop. The Wednesday evening workshops are on the first and third Wednesdays of every month at the new clubhouse, from 18h00 till 20h00. Contact Grant Mackay on 082-391-9769 or mackay.grant AT gmail.com or gmackay AT worldonline.co.za for more information.

Small Table Saws

Trevor Pope

Last year, I was given a small table saw from a deceased estate. I have owned and used a Ryobi Radial Arm saw for more than 15 years, without an accident. I have trained myself how to use it safely and am comfortable using it. There are some cuts that are easier on a table saw, so I wondered whether to take the trouble to learn how to use a table saw safely.

In case you think I am being an old-woman about this, and perhaps you don't know how many WWA members have injured themselves over the years with a table saw, perhaps the following will help you to understand why:

An article in Popular Woodworking provides the following figures:

> There were an average of 33,274 injuries per year over the period of 1990 to 2007 treated in US Emergency Rooms. (See http://www.popularwoodworking.com/article/actual-table-saws-in-use-a-numbers-game)
>
> "According to the *Journal of Trauma*, an estimated 565,670 table-saw-related injuries were treated from 1990 to 2007 in U.S. Emergency Rooms." That's an average of 33,274 injuries per year. Of those injuries, it is estimated that 10 percent result in amputation "
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> The actual number of saws in use is unknown, but estimated to be about 4 million. That gives an injury rate of 33274 / 4000000 per saw per year. This means that every year, one out of every 120 users will injure themselves.

Sources: http://www.finewoodworking.com/Workshop/WorkshopArticle.aspx?id=34490

You may have been following a court case in the USA, where a carpenter sued Ryobi for damages after he amputated several of his fingers on a job site. A table saw was being used to cut boards used for flooring to size. The saw was being operated without guards, the cut in question was an angled cut that was being made free-hand, the saw was resting on the ground and the blade was blunt. The claimant was an employee who had received no training on the safe use of the saw. The court held that the claimant was partially at fault, so his multi-million dollar damages claim was halved. The case is still going through the appeal process. The saw in question was very similar to the one I was given.

The small table saw I was given is a Ryobi HBT 250. It was somewhat neglected as it hadn't been used for about 5 years. The mechanism was stiff from rust, but it was basically sound. After some derusting and lubrication, the mechanism was restored to working order. A detailed inspection was made of the unit and a number of shortcomings were identified. This is a cheap saw, and it didn't have a good reputation for accuracy. It is still on the market (as model HBT255L) with a few small improvements and sells for about R1550- at Makro or Game – the picture shows the present unit on sale. (See right.)

I identified a number of issues on the unit I was given:

- **No No-Volt-Release (NVR) switch.** If you want to switch off in a hurry, there is likely to be some fumbling with the small toggle On-Off switch as shown in the picture on the right from the manual. Also, it is possible for the unit to be left switched on after a power failure, and when the power is restored, it can start up which can be dangerous. This could also occur when the unit is plugged in. You can see from the picture that the current model has an NVR switch and the specification states that there is a blade brake.

- **Poor blade guard.** The saw included the blade guard, but it wasn't installed. The reasons for this immediately became apparent. Trying to slide a piece of wood under the guard as if making a cut, caused the wood to catch on the underside of the guard. Close inspection revealed some tabs protruding underneath. These didn't look like moulding flash, so I don't understand why they were there. The guard was removed and a fine file and fine sand paper was used to remove these. Now it is possible to slide a piece of wood under the guard without it catching. (Quite why these tabs were there and that they interfered with the guard operation, is in my mind a safety issue. The average user is likely to simply remove the guard which to my mind is a safety issue!) The present model on sale seems to have resolved this issue.

- **Poor fence.** The fence doesn't always lock up parallel to the blade. Aside from leading to inaccurate work, anything that could lead to the fence locking down with the rear end closer to the blade than the front is a potential risk. This could lead to wood jamming between the rear of the fence and the blade, leading to a kick-back, which is a safety issue. It can also lead to poor quality cuts, and scorching of the wood, which is also a significant problem.

- **Flimsy splitter**. The blade guard is supported by the splitter, which can flex enough to impede the passage of the wood past the blade, particularly with asymmetrical or bevel cuts. This can lead to more frustration with the guard and its removal.

- **Mitre gauge**. This item is undersized, so it does not even come close to the blade. It is a loose fit in the slot, and the protractor scale was out of alignment – the gauge was visibly out of square when set to zero. The previous owner had attached a piece of wood to increase the width of the gauge to bring it closer to the blade.

- **Throat plate**. The throat plate is a plate that surrounds the blade where it emerges from the saw table. This is removable to facilitate the replacement of the blade. Some clearances are required to allow the blade to tilt, which is a trade-off. Tight clearances are desirable to prevent small pieces from falling between the blade and the table. Some people make a so-called zero-clearance insert to minimise the clearances, which is useful for fine work.

- **Blade movement – visible play in the bearings**. There was about 0.8mm of sideways play in the saw blade due to wear in the arbour bearings. This is not apparent in new units. However, the fact that this can occur is a concern. This was corrected as described below.

- F**lex in the saw gimbals, even when locked down.** Once the height and angle of the blade are set, the settings are locked with a red ring that is tightened by hand. There is still some sideways flex visible in the blade, which is apparent by pushing on the blade with fingertip pressure. The mechanism that allows the blade to rise and fall as well as tilt is called the gimbals. The flex in the gimbals is unfortunately inherent in the design of the saw, and was apparent in a new unit as well. This is one of those things that you avoid when you pay a lot more for a substantial design, with all the extra associated weight.

- **The internal dust collection hose was stiff and eventually broke off**. A new one was sourced from Ryobi at R100- and fitted. The dust collection is rather ineffective anyway.

- **Worn blade.** The original blade was somewhat rusty. It was derusted using electrolysis and was found to be in reasonable condition, albeit somewhat blunt. A new blade to the same spec (254mm diam, 40 tooth, ATB profile) was purchased from Builder's Warehouse for R90-. These are not high quality blades, and close examination of the carbide teeth of the new blade revealed some inconsistencies in the grinding. A good blade is about R400- upwards, so I was prepared to live with cheap blade for the moment. (Why is a worn blade a problem? Worn blades require higher cutting forces. This puts additional strain on the motor, and the mechanicals of the saw, particularly when they are not very rigid to start with. Also higher cutting forces may require the user to push harder when feeding and this increases the chances of an accident.)

- **Illegible scales.** The scales for setting the rip fence along the front had faded and were worn, but this is immaterial, as I have learned that these are only a rough guide anyway. I always measure from the fence to the blade with a ruler when setting up.

Next month, I will explain how I addressed most of these issues.