

Crosscut

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

Platter by Nick Agar, from <http://www.turningintoart.com>

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Editor: Trevor Pope ([tpope AT ifrica.com](mailto:tpope@ifrica.com)). All written content and opinions are those of the editor, unless stated. © Copyright reserved. Go to <http://mysite.mweb.co.za/residents/tpope/homepage.html> for back issues of *Crosscut*.

Next General Club Meeting on Wednesday, the 8th July 2009 from 18h00 at the WWA clubhouse at REEA. Martin Phakathi be presenting on “Making Speakers”. He will talk about impact on the sound based on the type of wood used, and the shape of the speaker box; the effect of the capacity of the box, construction techniques – including air-tight seals, wiring, bass response hole sizes and impact etc, He will also talk about finishing the box exteriors, and points to consider when including the units into ceilings etc.

Next Turner’s monthly meeting is on Monday, the 6th July 2009 at 18h00 at the WWA clubhouse at REEA. Demonstration on bowl turning.

Nick Agar’s Demo. There will be a demonstration by visiting turner Nick Agar on the 15th July at the clubhouse, starting at 18h00. The charge of R100- per person will be used to defray traveling expenses incurred during Nick’s country-wide tour. (see <http://www.turningintoart.com>) This is your chance to see a top English turner in action, to expand your repertoire of techniques and get some new ideas.

News

Wednesday Workshop – Second meeting for July cancelled. Due to Nick Agar’s visit to South Africa and his busy itinerary, the only time we are able to schedule for Nick’s visit to do a demo at the club is on Wednesday the 15th July, which unfortunately coincides with the second meeting of the Wednesday Workshop. Winston has agreed to cancel this meeting. Everybody is welcome to attend Nick Agar’s demonstration. See above for details.

June General Club Meeting.

Denis Lock was unable to give his talk, due to a death in the family, so **Milty Sauermann** kindly stepped up to talk about his training academy. Milty offers training in woodworking at various levels, including power tool usage, and vocational training for supplier sales staff. He is an accredited assessor with the EDTP seta (Education, Training and Development Practice) as well as the Fieta Seta (Forestry) up to level 2. He can be contacted on 073 1136922 or 0866843555 (fax) or milty@mweb.co.za. His premises are at 121 Main Reef Road, behind Westgate in Roodepoort. He mentioned that he has changed to a water-based finish called Woodworks that is currently being sold by Builders Warehouse. Apparently Woodoc is due to launch a waterbased finish soon as well, so that may be worth trying as well.

(I have tried a couple of water-based finishes, but have been disappointed to date. The advantages of a water-based finish are that it is non-yellowing and cleanup is with water – only small amounts of volatile solvents. The disadvantages with ones I have tried are that it doesn’t set hard enough to sand down until a few days have passed; which is an issue as being water-based it tends to raise the grain more than oil-based ones; it is difficult to brush-out and the shelf life is short – the tin rusts and discolours the contents. Hopefully the new products are an improvement?)

Eddie Marchio talked about the activities of the Toymakers and Winston Klein talked about the Wednesday workshop. Details of when they meet and their contact details can be found lower down, in the same place of every newsletter, in case you forget.

June Turner's Meeting.

Rick Florence showed how to turn small bowl with his way of doing a quick finish. He also showed how to turn an acorn box as a demonstration, with various tools and short-cuts. He uses a modified spade bit with 1" chuck jaws to mount work-pieces, prior to hollowing.

The wood of the month was Casuarina Cunninghamia. Chris van Heeswijk showed some samples and showed some pictures of the trees. It is also known as Beefwood, due to its reddish colour, particularly when freshly cut. Other names are she-oak or ironwood. It is prized for turning and furniture, being both attractive and strong.

From the committee:

Luck Draw for Paid-up Members. All members paid up before the July 8 2009 Main Club meeting will be entered into a draw for a R300- voucher, courtesy of Hardware Centre. You need not be present at the meeting to win, as the draw will be based on receipt numbers recorded by the treasurer when you pay.

Annual Turner's Challenge. This is an annual event, scheduled for the 12th Sept 2009 at the WWA clubhouse. The project is a salt and pepper set of any design, with a prize for the best on the day. Entrance R10-, bring-and-braai, from 11h00. The Pretoria and East-Rand clubs will be invited as well, so you will be able meet turners from those clubs.

Nick Agar's Master-class. This is scheduled for Thursday, the 16th July. Full day of tuition with a well known overseas turner, limited to six people. Cost R750- per person. Contact Steven Barrett on 083-556-2690 for more details.

Hardware Centre Open days. Randburg 24th to 28th June 2009 (Tel 011-791-0844), 8h30 to 14h30. Boksburg 3rd and 4th July 8h30 to 13h00 (Tel 011-826-1058/9). All the usual manufacturers, demos and specials.

Please Note:

Toymakers. The toymakers meet on the first and third Mondays of every month, at 09h00 till 12h00 at the clubhouse. Contact Eddie Marchio on (011) 678-8062 or [renato AT pixie.co.za](mailto:renato@pixie.co.za) for more information.

Wednesday Workshop. The Wednesday evening workshops are on the first and third Wednesdays of every month, from 18h00 till 20h00. Contact Winston Klein on (011) 674-1513 for more information. **The second meeting for July, scheduled for the 15th has been cancelled due to Nick Agar's demonstration.**

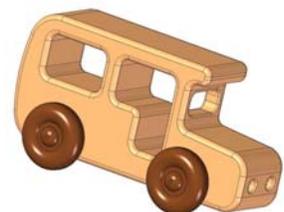
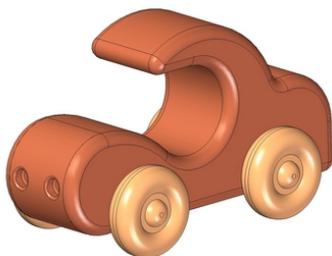
For Sale:

J-Flex. 100m x 1 m in 5grits: 120/150/180/220/320. For the set of 5, R135-. Contact Lionel Soekoe on 011-802-3046 or 072-989-6310

Ideas for Simple Toys

A Google search for free plans for toys yielded some of the following web sites:

<http://www.craftsmanspace.com/free-projects/free-kids-toy-woodworking-plans.html> - some of the pictures below are from this site, together with plans and instructions



<http://www.freewoodpuzzles.com/toys.html>

<http://www.motherearthnews.com/Do-It-Yourself/1997-12-01/Toys-for-a-Lifetime.aspx>

<http://www.binkyswoodworking.com/LilBugger.htm>



<http://www.bconnex.net/~zirgo/Car1/WoodToyCarPlans.html>

<- 18" long car with opening roof for storage. Step-by-step instructions.

http://www.freeww.com/wooden_toy_plans.html

Step by step instructions to make this toy truck. ->



Repairing Domestic Fan Heaters

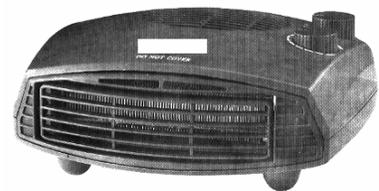
Maybe you've noticed these days that domestic appliances contain more and more plastic and seem to break more often than in the past. They are made by the million in the east and are not designed to be repaired. Being an engineer who can't stand waste, if something breaks, I must pull it apart to see if it can be fixed. More often than not, it can be, and the repair is a simple one.

Safety first: Before opening any electrical appliance, you must have an appreciation of the hazards you are exposing your self to. Also you must be sure that you can make the repair safely, and that the item does not become dangerous as a result. If in doubt, before you close up the item, ask the advice of a competent person, or bring it to the club for some free (and sometimes conflicting) advice.

In particular, domestic fan heaters seem to become more and more flimsy and plasticky. The main problem with a fan heater is that it gathers dust, which obstructs the airflow and it over-heats. As it ages, the fan also slows down and the element overheats.

In the past, these were made with a metal casing, and the element was supported on ceramic insulators, so even in the event of the element becoming red hot, it would just make a bad smell as the fluff carbonised. Eventually, the thermal cut-out would trip and the heater would sit there sulking and making bad smells – serve you right for neglecting it.

Nowadays, at the first hint of fluff, it overheats and the thermal fuse blows. It then sulks and is completely uncooperative. Modern designs are mostly plastic, so to make the heater safe, all sorts of thermal cut-outs are required to prevent the real possibility of a fire. Because heaters normally pick up fluff during use, it is inevitable that it will loose enough air flow to overheat internally. The thermal cut-out fuses and it stops working, dead!



Most units have a thermostat which can be used to set the temperature, and it turns itself on and off cycling around the set temperature. The minimum temperature setting is usually close to zero, so it can be used to prevent a room from freezing. Freezing is not usually a problem in South Africa, but can be very useful in cold climates as freezing causes all sorts of damage inside a

room. If you turn the thermostat down and up, you should hear it click on and off. If the heater seems to be dead, check that the thermostat is not set down.

If the unit seems to be dead, first check that there is power at the socket, by plugging in something else, such as a lamp. If there is power then the thermal fuse has probably blown. The thermal fuse looks something like the picture.

This picture is about twice actual size. It contains a fusible link that melts at a defined temperature, to interrupt the power in the event of overheating and make the heater safe.



The problem is that any momentary overheating can cause this, and then the heater has to be repaired or discarded. The cost of a repair vs a new replacement unit is such that it is usually dumped, which is a waste.

The temptation when repairing the unit is to simply bridge out the fuse, which is not a good idea, as the heater can then become unsafe and start a fire. The fusing temperature of the last heater that I repaired was 121°C as per the marking on the fuse. This unit simply failed. I was in the room when it did and there was no apparent reason for the failure.

Replacement thermal fuses are about R7-00 each from RS Electronics <http://za.rs-online.com> and these are the genuine items, so you will not compromise safety if you replace with one of these.

If your heater is dead, and you wish to repair it, unplug it first before opening it up. Use a continuity tester to follow the connections from the plug through the wiring to the various parts of the heater. Be careful not to disturb the heating element as these can be very delicate, and it is easy to cause a short and make further mischief. Check continuity of the fan motor, the elements and the various switches, and by a process of elimination, you are likely to discover a component that looks like the picture above with no electrical continuity. You will see that the leads are crimped and not soldered. This is because soldering would overheat it and then it would fuse. To replace it, I cut off the leads and soldered in a new one, using long nose pliers to grip each lead in turn. The pliers act as a heat-sink to conduct heat away.

If you remember germanium transistors, you will remember having to use this technique to avoid overheating them. If you can keep your finger on the body of the fuse without being burned, then you can be sure it will be safe during soldering. Once it is soldered in place, check continuity. If it is open, then you overheated it – try again – it took me two attempts on the last one I replaced. I used a 142°C fuse in place of the 121°C original, for some additional margin, but still remaining safe.

With the heater still open, I plugged it in and confirmed that it was operating. You need to be careful when you do this – check it carefully. There are moving parts – the fan, high voltages and hot elements – all hazards. Make sure nothing is interfering or touching where it shouldn't. Turn the heater switch to the fan position, then plug it in and switch it on at the plug and off again. Then try the remaining positions and confirm all is OK. Check for overheating elements and melting insulation before switching off, unplugging and closing up. Check for fluff, and blow out any that you see, being careful not damage the delicate element.

It takes longer to describe than to do this repair. New fan heaters are R200- and up, and you have the pleasure of avoiding waste in exchange for some time.

However, you must know what you are doing – if you are unsure, ask a competent person. An electrical heater is a potential electrical shock hazard, burn hazard, and a potential fire hazard.

Avoid leaving a heater unattended – it can burn your house down. Be particularly careful in your workshop – wood shavings are very easy to ignite and are highly flammable.