Tutor's Tidings No 5 - Friday 13th Feb. 2015



The 2015 Tuesday (day course) team

Left to right: Grant, Mauritz, Dave, Jan, Raewyn, Alice, Garth, James

Missing

David, Malcolm, Peter, Ken, Rob, Vicki, Sophia

Tena koutou e hoa ma!

The Tuesday numbers are building up again as the early part of the year unfolds and more returnees are expected in the coming weeks. Today we welcomed back **ALICE** and **DAVE** and these two resumed the turning of

wood as if they had never been away.

Avalon

Woodturner

Hamilton New Zealand

MAURITZ showed us his beautifully crafted lidded pot (pagoda style) made from highly figured rimu. (photo upper right) He had also completed another excellent turning (see photo lower right)

Today was the fifth and final session of course No 1 for 2015. A new course commences next week so why not bring a mate and have him/her join the team.





Members of the Thursday evening crew for 2015

Left to right: Muhannad, Juan, Paul, Míke, Spencer, Chrístíne, Robert Andre ` Colín, Bruce, <u>Missing</u>: Murray (who is checking out the Melbourne scene) On leave:

Maurice and Nigel

The Thursday numbers continue to grow and this week we welcomed **CHRISTINE GRANT** to the Avalon Woodturners' Club. Christine was launched straight into activities with the Sorby roughing tool, the 13mm gouge, bead and cove making, finding out about lathe aligning and making a spigot to snugly fit a 35mm chuck. Wow! That's a lot for someone's first foray into turning but Christine handled it all with ease. Welcome aboard Christine!

The flask turning group continued with **SPENCER**, **MUHANNAD**, and **BRUCE** joining in. All goes well.

Since our last session **MIKE** apparently braved a visit to Spotlight and found a whole new world of potential turning accessories. Goodonya Mike! It's meeting time! The ANNUAL CLUB MEETING will be held at the club's workshop this coming Wednesday 18th February at 7.00 p.m.

Your club needs YOU See you there!

Workshop happenings

searches for the best wood to make two twist pens





David slowly removed the core of his tall pot using a series of Forstner drill bits.



Alice has completed shaping the top part of a goblet. Now comes the sanding and finishing of the bowl bit. Next the base then the stem.



Jan is in full swing now making shopping bag handles. Anyone like a handle?

Mauritz excels at making smaller objects look like little treasures.





Anyone want to buy a pen?

Five pens expertly made by James all from different woods. James completed his rimu inlay bowl too!



Raewyn used an old totara fence post to turn a large teardrop shaped vase form with flowing lines and a **strialess** finish. Another turner developing a NEAGE philosophy. Woo hoo!





Grant's kauri wood turnings. (above left)

A carved start to a masterpiece (left)

Dave



The above photographs were omitted from last week's TT due to a technical hitch (which has mysteriously righted itself) The FLASK initiative is being developed by **Colin** who is keeping an eye on individual progress. Note the aspect of individuality when it comes to choice of flask shape.



Hi my name is **Mike**.

I'm not making a flask as I'm too busy making my very first large bowl from macrocarpa wood.

I am about to put the finishing touches to the foot of the bowl so I have mounted it on a 16" Longworth chuck to hold it while I do the job.

More Workshop Happenings (Thursdayites)



JUAN is all smiles as he displays his bud vase made using Australian eucalypt wood. He has achieved as great shape and a truly wonderful finish. Juan was introduced to power sanding and is now convinced that correct power sanding produces a quicker and better result.



BRUCE, the flask maker, made rapid progress with his turning project achieving attractive transition lines from the neck to the base.



SPENCER's turning clearly shows how waste wood was glued onto the native wood core. 100mm jaws clamped onto a snug spigot holds the work securely while the initial shaping takes place. **SPECIAL NOTE** for all club members

The *four* pages that follow contain VERY important information about drilling speeds for various woods and compounds. Print these pages and file them for future reference.

Many thanks

Clive

The Club's DRILL BITS and how to use them

The key to using a drill bit successfully is setting the correct speed. Knowing and using the correct speed should result in a neatly drilled hole **without stressing the drill bit.** The most common problem we have is the "burning/overheating" of drill bits, which is evidenced by blue/black burn colours. When this disaster occurs the drill bit is rendered almost useless for other users. I have produced a set of tables on the next four pages for your reference. Please use these tables when making decisions about drilling holes in various woods and compounds. I STRONGLY SUGGEST YOU PRINT THE 4 PAGES OF TABLES AND PLACE THEM IN YOUR TURNING DIARY/FOLDER FOR FREQUENT REFERENCE. Thanks, Clive.

Recommended drill bit speed in woods and compounds are indicated in the following tables

Diameter (in)	Speed (rpm)						
	Softwood (Pine)	Hardwood (Hard Maple)	Acrylic	Brass	Aluminum	Steel	
Twist drill bits							
1/16 - 3/16 mm(1.5 - 4.7)	3000	3000	2500	3000	3000	3000	
1/4 - 3/8 mm(6.3 – 9.5)	3000	1500	2000	1200	2500	1000	
7/16 - 5/8 mm(11.1 - 15.8)	1500	750	1500	750	1500	600	
11/16 — 1 mm(17.4 - 25.4)	750	500	-	400	1000	350	

Note: American **Imperial measurements** are indicated. I have converted these into **metric equivalents** (in brackets) Can you see a pattern emerging?

Do these tables suggest there is a relationship between size and speed?

Diameter (in)	Speed (rpm)						
	Softwood (Pine)	Hardwood (Hard Maple)	Acrylic	Brass	Aluminum	Steel	
	1	Bra	d-point	bits			
1/8 mm(3.1)	1800	1200	1500	_	-	-	
1/4 mm(6.3)	1800	1000	1500	_	-	-	
3/8 mm(9.5)	1800	750	1500	_	-	-	
1/2 mm(12.7)	1800	750	1000	_	-	-	
5/8 mm(15.8)	1800	500	750	_	-	-	
3/4 mm(19.05)	1400	250	750	_	-	-	
7/8 mm(22.2)	1200	250	500	_		-	
1 <i>mm(25.4)</i>	1000	250	250	-		-	
				The above columns are left blank			
				B rad point bits are not to be used on metallic compounds			

Diameter (in)	Speed (rpm)						
	Softwood (Pine)	Hardwood (Hard Maple)	Acrylic	Brass	Aluminum	Steel	
Forstner bits							
1/4 - 3/8 mm(6.3 - 9.5)	2400	700	_	_	-	-	
1/2 - 5/8 mm(12.7 - 15.8)	2400	500	250	_	_	_	
3/4 — 1 mm(19.0 – 25.4)	1500	500	250	_	_	-	
1 1/8 - 1 ¼ mm(28.5 - 31.7)	1000	250	250	-	-	-	
1 3/8 – 2 mm(34.9 – 50.8)	500	250	-	_	_	_	

Our club has *<u>TWO types</u>* of these drill bits.

- 1. FORSTNER bits can be found in our red plastic box
- 2. SAWTOOTH bits are kept in the wooden box

Use the Forstner bits when drilling into wood running (side) grain

Use the sawtooth bits for drilling into end or cross grain

For either bit type the recommended drill speed should be used.

Diameter (in)	Speed (rpm)						
	Softwood (Pine)	Hardwood (Hard Maple)	Acrylic	Brass	Aluminum	Steel	
Spade bits							
1/4 - ½ mm(6.3 - 12.7)	2000	1500	-	_	_	-	
5/8 — 1 mm(15.8 – 25.4)	1750	1500	-	_	_	-	
1 1/8 - 1 1/2 mm(28.5 - 38.1)	1500	1000	-	-	-	-	
1 5/8 – 2 mm(41.2 – 50.8)	1200	700	-	-	_	-	

Wood Spade Bits

- Spade bits are used for rough boring in wood.
- They **tend to cause splintering** when they emerge from the work piece.
- Woodworkers **avoid splintering** by finishing the hole from the opposite side of the work.
- Spade bits are flat, with a centering point and two cutters.
- The cutters are **often equipped with spurs** in an attempt to ensure a cleaner hole.

Intended for high speed use, they are used with electric hand drills.

Spade drill bits are ordinarily available in diameters from 6 to 36 mm (0.24 to 1.42 in).

If you suspect your piece of wood may create drilling problems then do check with colleagues for advice before starting the job..