



"TURNINGS"
Avon and Bristol Woodturners
*Affiliated to the Association of Woodturners of
Great Britain*

APRIL 2007

INTRODUCTION *(By Editor)*

It is AGM time and there are to be some personnel changes at the top so we need to allow time for any adjustments to the way affairs are conducted to emerge. This may affect the content of the newsletter initially, and perhaps make it shorter while things settle down, but I'm sure that topical managerial matters will be announced, no matter what. For example, essential information about the short-term forward programme has already reached me from a fresh pair of 'hands-in-waiting', and I know there is more to come. In the meantime, please keep it in mind that individual members can contribute to the value of the newsletter by providing:

1. News and Information
2. Instructional or guidance (how to) material OR
3. By asking questions or seeking advice OR
4. By offering constructive comment, and
5. By advertising members' (and close associates') surplus items for sale. The volume offered over the years has been surprisingly small for a Club with a hundred or so members.

My overriding objective is to publish material that is clearly helpful, and/or of value, in developing members' knowledge and understanding in the field of turning, and associated activities, plus any relevant humour if we can find it. That is not to say that more generalised topics are automatically excluded, but they have to pass the testis the time, effort and cost of publishing them justified?

St TERESA'S SOCIAL CLUB SUBSCRIPTIONS *(By Treasurer - Dave Ward)*

Will all members take note that the subscriptions to St Teresas's Social Club are now due for the year FEBRUARY '07 to JANUARY '08! The previous payment was for the period to end of JANUARY '07. Could members help the Treasurer please by having the correct amount ready at the AGM in APRIL - i.e. £5 for under 60s and £2.50 for seniors. Thank you in anticipation.....

DRAWINGS *(By Simon Keen)*

I have so far made some fifty line drawings for the Club as part of the training programme, or of items to make for pick-a-peg. Taking this concept forward, if anyone has designs of their own and would like to have them converted into engineering drawings for use by other Club members please let me know. And if anyone with draughtsman skills is willing to add to the 50-plus drawings the Club has at its disposal,

please do contact me on this as well. Another feature that I am aiming towards is to add photographs to complement the drawings.

I should perhaps add the rider that I tend to do most of my drawing in the winter months on the grounds that sitting by the fire on a winter's evening is more comfortable than standing out in the garage.

SHORT-TERM FORWARD PROGRAMME *(From The Organisers)*

Consideration is being given to possible re-formatting of the Club Programme Card. Whilst this is being processed we can advise that the following programme has been arranged for the next three months:

Monthly Meetings:

May 17 th	Tim McEvoy	Spiralling
June 21 st	Jason Breach	Demo
July 19 th	Gary Rance	Demo

Weekend Special:

Saturday 5 th May	Allan Batty	All Day Demo
Sunday 6 th May	Allan Batty	All Day Hands-On

SUGGESTED ELECTRONIC DESPATCH OF PAPERWORK *(By Dave Ward)*

WILL ALL MEMBERS WHO HAVE AN EMAIL ADDRESS AND A MOBILE PHONE NUMBER (indicating if always on) PLEASE FORWARD THEM TO RALPH TILBROOK AT THE EMAIL ADDRESS:
ralph.tilbrook@tiscali.co.uk

MARCH MEETING - CARLYN LINDSAY *(By Brian Oram)*

We had pencilled in the end of the third week of March for a short visit to Glasgow when, (by chance!), the Scottish Woodworking Exhibition was due to be held. However, once I saw that Carlyn Lindsay was coming to the Club, a different spring holiday was negotiated. I had had the pleasure of making Carlyn's acquaintance briefly at the Woodturners' Company competition last year, buying a couple of her knives, and I was keen to know more about her speciality of laminating and turning wood.

The evening got off to a slow start, both literally whilst a technical fault was overcome (very enterprisingly), and from Carlyn's unfamiliarity with the Club lathe, but once she hit her stride, it all settled down. She made what I imagine is one of her show specialities of a finger top, where the spindle unscrews to reveal a small pot.

After coming to terms with the lathe, by making the threaded blank for the spindle, the real 'special' came with a 3 inch square laminated block to form the base of the top. After a lively commentary to accompany her turning skills, the beautiful little top was finished and worked very well.

However, Carlyn's undoubted turning skills and unusual subject weren't the main feature of the evening, enjoyable though they were. The questions and answers on making the laminated blanks, followed by a personal conversation with her during the break on this subject, were the highlights of the evening for me. She cuts her timber on a band saw, then hand planes the pieces to a true surface and size and then makes

her blanks in units 13.25 inch long – she is quite precise in this – hand cuts the veneers by knife and ruler and then glues the whole lot together in one go without the benefit of any jiggling. One thing that I had not remembered was that she doesn't use a single veneer, like us lesser mortals, but each veneer is made up of five separate colours.

I have done a bit of this work myself. The largest single piece I have made was 1.5 inches square and six inches long and I used a jig to glue it together. The accuracy that Carlyn achieves in sizing and cutting and the skill in sticking it all together, plus the 5 separate veneers for each division, is mind boggling. I wish we could have transferred the venue and demonstration for her to show how she does all this but I suspect it would have taken more than the two and a half hours available.

It was also nice to see the pleasure she derives personally from turning her 'horrid gluey lumps', as she called them, into the intriguing shapes and curves of turned laminates; an enjoyable evening after a bumpy start.

And finally.....The first visit to St. Theresa's Church Hall six months ago produced an immediate casualty in the ranks of the Devizes trio when Peter decided that the drive was made too awful by the extra 7 or 8 miles at the height of the Bristol rush hour. Every month since then Ken and I have discussed the merits of the meeting in relation to the minimum of three hours of driving that it involves. After a fair test period we have decided that our future attendances will be irregular at best. The consequence of this decision is that this article is my swan song, so 'The Best of British Luck' to whoever takes on the task!

(By Ed: I extend to Brian my sincere thanks for all his contributions to 'Turnings' over a long period, and for their quality, thoroughness and humour!!! If there is a volunteer to take on the role of reporter/reviewer of demonstrators' performances I shall be pleased to hear from him, her or even them. If needed, I can offer some advice on a recommended technique for tackling the task).

BANDSAWS *(By 'Woodentop')*

INTRODUCTION

Most of us have a bandsaw that we tend to take for granted. It just sits there, ignored for long periods, yet we expect it to perform every time we want to use it, be that to cut out a blank, or just to cut that odd bit of wood.

Yet do we ever think of giving this valuable piece of machinery the treatment it deserves? Just like all of us, it will perform much better when given that extra little bit of TLC! Just remember - the more you expect from it, the more you will need to give it in return. Neglect can be very expensive in the long run; yet with a little care, years of trouble free service can be had.. You will only get out what you are prepared to put in

These few notes are aimed at helping you to understand your machine, in order to get the best from it, and keep it in tip-top condition.. The servicing aspects are, in the main, based on my experience gained over many years, with a few additional notes to help you get the best from your machine .After all, quality comes from care.

So when did you spend any time on it? Like most of us, I suspect you will not even remember. Maybe you brushed away some sawdust, but when did you check that it was set up as per the manufacturer's instructions, and carried out any routine maintenance? Downtime fixing things costs money, whereas maintenance SAVES money!

For best performance, we must attend to the major variables such as blade, tension, guides, wheel alignment, as well as others such as cleanliness, especially of the tyres on the wheels, and the removal of sawdust., both inside and outside.

(NEVER cut metal without cleaning out the sawdust; fires can smoulder for some time before bursting into flame, and are disastrous.

Whilst realising that in order to drive a car, one does not need to know the detailed workings of the engine, it helps to give a more sympathetic attitude to the smoother driving if we do. The same applies to any machine, and our bandsaws are just another of our more valuable machines

BLADES

The choice of **blades** has a major impact on performance. Blades come in all different shapes and sizes, and to get the best results, the correct blade for the cutting speed of the bandsaw and the material of the job in hand, must be fitted and correctly tensioned as per manufacturer's instructions (found in the handbook.)

(If you need to know the cutting speed (feet per minute) of your saw, for a normal synchronous AC motor running at 1425 rpm, it is approximately 400 x the driven wheel diameter in inches).

The angular relationship between the blade and the bandsaw cutting table must also be correct; normally 90 degrees, and this can be checked with the machine turned off, the blade guard raised high, the set square on the table, and put against the blade. (This applies to the side of the blade, and again to the rear of the blade) .Adjust the setting screws accordingly, and lock them.

Each blade is designed for a specific purpose, material and feed speed. The **tooth** is designed to cut and remove material from whatever is fed into it. As the blade moves through the material, chippings are removed, and accumulate in between the teeth, in the gap known as the **gullet**. If fed too fast into the blade, this space will overflow, and the shavings will spill out into the gap between the blade and the material being cut, which can cause frictional overheating, smoking/burning, which is extremely detrimental to both the blade and the material being cut. It can also cause jamming, so ease off! The long slope of the tooth is known as the **clearance angle**, and the sharp bit is known as the **hook**, forming the **hook angle**, the purpose of which is to permit the tooth to hook itself into the material, and pull itself in, thus cutting. The space formed between the hook angle and the clearance angle is known as the **gullet**, which varies with the cut .depth of the teeth and the distance between each tooth, known as the pitch (usually expressed as teeth per inch, or t.p.i.).

In general terms, the relationship between the **depth** of the gullet and the **pitch** of the tooth determines the choice of the blade for the material to be cut. In Europe this hook angle is 12 degrees, and the ratio of depth to pitch, for hardwoods is ¼ pitch and for softwoods ½ pitch. The feed speed (often quoted on the blade packet) should be such that the sawdust should just feel warm, most of which should be ejected, and the sound of the cutting should be regular and feel correct, with no “clunks” or “click-clicks” Cutting should never be forced, as this puts extra strain on the blade, and does not really increase the cutting rate.. Quite often if you reduce your force, the cutting will speed up!. In musician's terms, like everything else in woodworking and turning, it should sound “harmonious”, or “sweet”.

When choosing a blade, decide the type and thickness of material to be cut. There should always be at least three teeth in contact with the material, hence for thinner sheets, smaller teeth (more tpi) should be used.

The clearance between the blade and the inside of the cut edges is the **kerf**, , and this is determined by the **swage** or set of the teeth It is the amount that exceeds the thickness of the blade measured over the teeth, which for softwood is about 0.5mm to 0.8 mm, and for hardwoods tends to be less at about 0.3mm to 0.4 mm., and because the depth of the gullet is less, tends to be shorter in relationship to the overall width of the blade.(WITH THE MACHINE SWITCHED OFF, if you lightly take the blade between your finger and thumb, and rub the blade, you will feel this, and also how sharp the blade is!. Both sides should feel the same.)

For hardwoods, the hook tooth is preferred, whereas for softer woods the skip tooth is recommended. Blades are usually in the form as per table below:-.

CLASSIFICATION

	SMALL	MEDIUM	LARGE
WIDTH	1/16---1/8	3/16 3/8	1/2 +
PITCH	14- 32	4- 12	2- 4
TOOTH FORM	Standard, Skip	Skip, Standard ,Hook/Skip, Hook	Hook, HookSkip

CUTTING RADII-For cutting circles, blanks etc., the radius that each can cut is approximately

BLADE WIDTH	3/16"	1/4"	3/8"	1/2"
RADIUS	5/16"	5/8"	1 7/16"	2 1/2"

ADJUSTMENTS:

TENSION - Blade **tension** is also important. Some bandsaws have crude indicators, others are measured with a sideways deflection distance for an applied force, but adjust to the manufacturer's instructions, with final adjustments being made whilst making a few cuts, until it feels and sounds correct. **Always de-tension a few turns after use.**

(So that I don't forget, I have a large wooden label on a long string around the tension knob which has written on it "THREE TURNS", which when I've finished, I de tension the three turns, and swing the label over to the front. This reminds me every time I use it to re-tension, since I have to flick the label away to get at the throat!)

ALIGNMENT - The **wheel alignment** should also be checked because, if wrong, it will put increased strain on the blade and also cause wear of the rubber tyres on the wheels. If not convenient to do it with a straight edge, **WITH THE MACHINE SWITCHED OFF** it can be checked visually by turning the wheels by hand and observing the run of the blade over the wheel. You can usually alter the blade position on the wheel by turning a knob which alters the slope of the top (free) wheel angle. When this is correct as per manufacturer's instructions, lock in position; then the blade guides can be re-set.

(NOTE the blade guide assembly should be slackened and moved away for this check.) Whilst slowly rotating the blade, look for teeth imperfections, kinks etc in the blade. Minor "dings" on the rear or side of the blade can be corrected with a file, or stoned out. (Removing twists requires a little more effort starting with two pairs of pliers!)

GUIDES - Setting the **blade guides** correctly is very important, as these maintain the blade in the cutting position and prevent wandering., and should be done to the manufacturer's instructions. If roller bearings are used, ensure these are free to rotate, as they work in a hostile environment, and despite being "sealed for life", often get clogged up with fine sawdust. If incorrectly set, they can also get chewed up.

(Soaking in paraffin for a long period will often remove the crud, and free them, but they will need lubricating again - soaking in warm grease for emergency use). They are expensive, with the small ones costing about £6 each, so it pays to look after them since a set costs about £36.,

Basically, the rear bearing and the two side bearings should be set to "just miss"- (1/64th or 0.3 mm) (This can be set with feeler gauges, or using paper).

If solid guides are used, the same applies, but **DO NOT OVERTIGHTEN THE RETAINING SCREW**, as this tends to shear the opposite side of the retaining bracket, which is usually made of soft cast alloy which is easily broken. These are even more expensive to replace -about £30 - if still available.

Whatever method is used, the guides should be set to contact the blade, **not the teeth!** When fitting new blades, it is often advantageous to remove any sharp burrs on the rear of the blade by running it, and

holding a file against each edge for a while until smooth. This prevents the guides being chewed up if the blade comes into contact with them.

And don't forget lubrication, especially the main wheel bearings if bush type, and that final cleanout of dust.

(More specific detail can be found in the "Bandsaw Handbook" by Mark Duginske, which is in your club's library, and www.laymar-crafts.co.uk/linkc.htm, www.sharptool.com/Ref/BandSaw.htm and www.ebandsawblades.com/custom

(Editor's Note: I have left this important article virtually un-edited to retain the flow of the author's style of expression. Some of the sentences are longer, and more complex, than the norm BUT if you read carefully, and stay the course, you end up much better informed than previously (unless you are already a trained technician). It would usually not be possible to include such a long piece in a single issue of 'Turnings' but space has become available during the period of management change and absence of a Chairmanly contribution. This is fortunate because the article is particularly valuable in its own right, and there is merit in avoiding serialisation. Thanks to the author who has since provided a PS re Blades!).

FIELD UPDATE AS AT 19.2.07 (Or 'In Flagrante Delicto') *From Simon)*

The bluebells are starting to come through, so the school folk using the wood have tidied up their site, decamped and relocated to Wickwar. We have many local visitors crossing the fields. Most ask if they are permitted to walk and enjoy the surroundings, and we have to point out that they are on private land. Those who overlook the fields have volunteered to keep an eye out for any misuse. Hardly a week goes by without something eventful happening! One day last summer John and I were driving back up to the entrance gate. As we approached we found a mature gentleman with an expensive car who was in a state of undress (from the waist down) 'changing his clothes'. The young lady with him was, shall we say, nonplussed. John says that when I am a little older he will explain what he thinks they were up to. On another day while working in the field we came across a married couple who live locally 'taking their cat for a walk'. This month I was asked by the editor of the Olveston parish newsletter if I could write an article about the work we are carrying out. The parish boundary between Olveston and Alveston runs along the hedgerow on our top field. As a result of that article we have been offered donations of trees that can be planted to improve the environment. John and I have been cutting back the brambles along the edges in both fields exposing to view thereby the primroses on the banks of the stream. The top pond has attracted its first pair of ducks which is good because one of our main objectives in clearing small trees and brambles in that area was to expose the pond to view.

A PHILOSOPHIC VIEW OF AGEISM *(By Dennis Wanklyn)*

This has nothing to do with woodturning, but may provide food for thought for our mature colleagues. Reading, yet again, of early release of dangerous prisoners, others absconding from Open Prisons and so much street crime, my wife said that it must be very worrying for old people. With Doris being 80 and I'm rapidly approaching 82 she added "I don't mean our age group; I mean the elderly."

There's no doubt - "Old Age" is in the mind.

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