

# Crosscut



◀ Ready for take-off – some metal bodied spokeshaves.

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**Next Turners Meeting on Monday, the 2<sup>nd</sup> November 2020** from 18h00 at **Made in Workshop** – Steven Barrett and John Speedy will show you how to make some Christmas ornaments on the lathe.

**Next General Meeting on Wednesday, the 11<sup>th</sup> November 2020** from 18h00 at **Made in Workshop**. – Augers and braces – a little history, principles of operation and sharpening. Please bring any unusual drills, augers, spoon bits and braces to show-and-tell.

**Toys for Charity Annual braai on Saturday, the 14<sup>th</sup> November** at the Gereformeerde Kerk - 41 Third Road (41 Derdeweg), Northwold, Randburg. Coordinates S26°04'20" E27°57'30.1" Starting 10h30 for 11h00, Raffle starts at 12h00, lunch at 13h00. See Alistair's emails for more info.

## News



### Meetings restart in October 2020.

We were pleased to resume some of our normal monthly scheduled meetings in October 2020 at **Made in Workshop**, albeit with the appropriate protocols in place. MiW keep a register of all those arriving, and temperatures are recorded. Mask wearing is mandatory and the chairs are all spaced out to 2-meter intervals, allowing members peace of mind. (Some members were eating and drinking when this picture was taken, so not all had their masks on.)

**Turners meeting.** The first Turners Meeting since March 2020, took place at MiW on Monday, 5<sup>th</sup> October 2020. Henry Levine (MiW MD) took members on a brief tour of the facilities. He explained how access will work for WWA members and the emphasis they place on safety – eye protection is mandatory. The meeting was followed by an extended show-and-tell of all the work done during the lock-down. The picture shows Rick showing off one his small bowls.



**Main Club meeting.** The first Main Club meeting since the March 2020 lockdown took place at MiW on the 12<sup>th</sup> October 2020 at 18h00. In the back ground, you can see the completed MiW coffee bar, where bock-worst rolls and drinks were on sale, catered for by Costa. Henry repeated his tour for those that missed the previous meeting. In the foreground are some tools on display by Tom Howden.

A short talk on spokeshaves, wooden and metal, ended off the meeting. The different types were identified and their care and use were explained.

**WWA AGM.** The Witwatersrand Woodworkers Association Annual General Meeting for 2020 that should have taken place in May, but was postponed due to the Covid

lockdown, finally took place on Saturday 24<sup>th</sup> October at 15h00, at MiW.

The auction next door was over but there was still lots of loading of furniture activity. Despite this, there was enough secure parking in the street.

Herman Potgieter is standing down as deputy chairman and chair of the turners' group, so a volunteer is needed to replace him. Also, Michael Minassian is standing down as Treasurer and a replacement needs to be confirmed.

Michael detailed the club's financial standing, which is healthy despite a small deficit. The major expense of rent for the Albertskroon workshop has ended with the move to MiW, so the financial standing of the club is expected to improve.

Alistair will continue as chairman for another year. The committee will continue as before, with the addition of Trevor Pope and Peter Bourne.

Alistair thanked all those who contributed to the running of the club, such as catering, training, organising of meetings, presenting, etc. over the past year. In particular he thanked, Herman and Michael for their contributions to date.

**WWA Library** - Ray Deftereos catalogued the library into a digital format, so it can be accessible on-line for members looking for a title. To find the list of books, go to Ray's site at <https://handtoolbookrev.libib.com/i/wwa-library>. To take out a book, you need to fill in the details in the black book in the cupboard.



**Draft Schedule for Regular Events:**

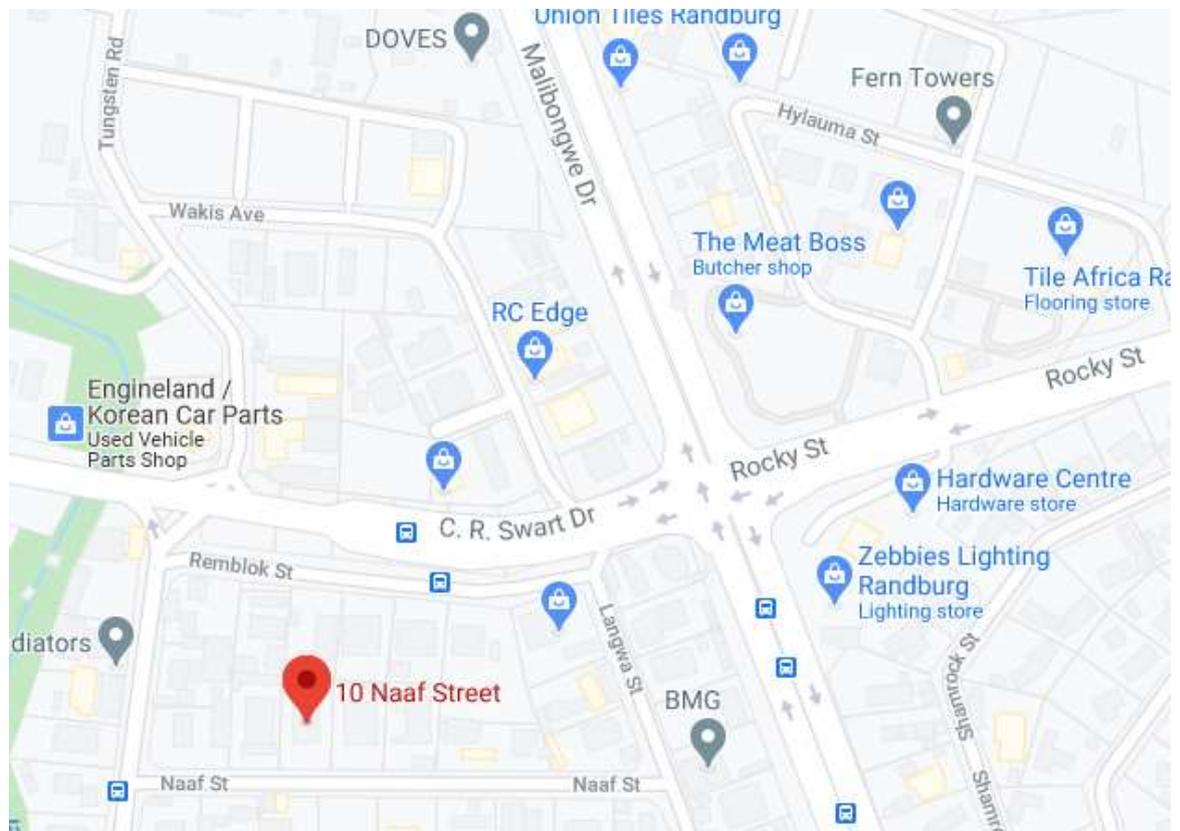
**Meetings – regular meetings in addition to those given above**

1. First Saturday – Bobby Bezuidenhout – Woodwork 101 for beginners. Contact Bobby on 083 873 3872 or [bobbymel109@gmail.com](mailto:bobbymel109@gmail.com)
2. Second Saturday of month - Herman – all things turning related – 083 631 0501  
[hermanpotgieteresq AT gmail.com](mailto:hermanpotgieteresq@gmail.com)

This list is subject to change!

All WWA club activities now take place at the **Made in Workshop** premises in Strydom Park, Randburg. The Malibongwe off-ramp from the N1 highway is perhaps the easiest way to access Strydom Park.

Most of the WWA members know where Hardware Centre is – **Made in Workshop** is just 600m to the West, at 10 Naaf Street, Strydom Park. The picture from Google maps shows the front of the building. The map below shows the location. You can see it is just a stone’s throw from Hardware Centre.



**MEMBERSHIP**

Access to the new premises and the preferential rates at **Made in Workshop** are subject to being a paid-up member of the WWA. This will be strictly enforced, so please, check that you have renewed for 2020/2021. The 2020/2021 membership cards are now available from the Treasurer for paid-up members.

**Woodworking 101** – Bobby will continue with part 2 of hand cutting dovetails on the 7<sup>th</sup> November.

**Toymaking** –

Please remember to finish off your toys to bring to the Toys for Charity Annual braai in two weeks' time. Toys should be safe for small children, with no small parts that can be swallowed, lead free paints, etc.



## Balancing your Grinder Wheels

By: John Speedy

2020

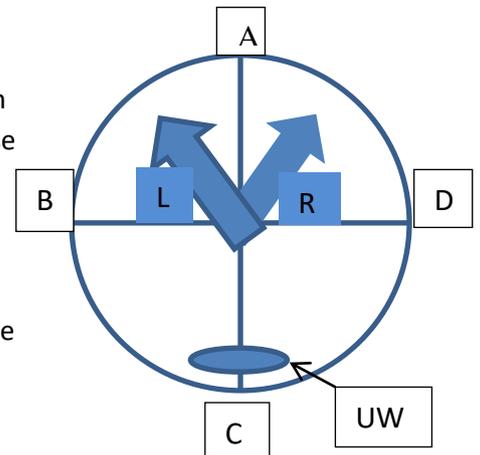
A lot of grinders used for sharpening turning tools need to be bolted down due to the unbalance of the wheels. This can be corrected by balancing the wheel using the static method described below.

### Theory of the balancing method

In the diagram the unbalanced weight (UW) is at the bottom of the wheel.

To balance the wheel, one needs two equal balancing weights (R) and (L). Each counter weight should be approximately be equal to the (UW) or greater, these are fixed to carriers that are pivoted on the shaft of the grinder.

1. When (L) & (R) placed at position (A) they will then rotate the wheel to the bottom position.
2. If placed on a horizontal position though the axis at (B) and (D) they will have no effect on overall balance.
3. Moving the balancing weights symmetrically away from (A) towards (B) and (D) there will be a position where the wheel is brought into balance.



### Requirements

1. The grinder wheel needs to be taken off the grinder and the spindle Diameter measured. Typical diameters are 12mm, 12.75mm or 16.75mm. If the wheel is supported by spigots on the flange washers, then these spigots are 31.75mm in diameter.
2. Turn a wooden spindle to fit the wheel with an axle on either end, diameter about 10mm to 12mm (as axles) to run on the parallel bars. (They must be of the same diameter)
3. Two parallel smooth level bars for the wheel axles to roll on.
4. For a 150mm diameter wheel. Use 20 cent coins for the counter weights.  
For a 200mm diameter wheel would require 50 cent coins.
5. Metal for the Counter Weight Carriers I used the metal from a Plascon Sanding sealer can. Other suitable sources of material are coffee cans, such as Ricoffee, cocoa and spray cans. (Release all pressure before puncturing the can). Don't use cans with corrugated sides or beer and cool drink cans.

### Safety

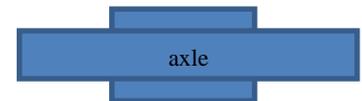
Before proceeding, inspect the wheel to be balanced for cracks and chips. Discard damaged wheels and replace with the correct wheel for the machine before proceeding. A good test is to simply hold the wheel on a piece of dowel and flick with a finger, a distinctly clear ring will indicate a sound wheel.

Be aware that grinding is hazardous and familiarise yourself with all the instructions in the user manual for the machine. Use the appropriate PPE – eye protection and a dust mask where needed.

## Wooden Spindles

1. Select a fine grain timber that can be brought to a good finish. Jacaranda is ok.
2. Turn to size with a nice snug fit for the wheel and one end slightly larger for the counter weights to be pressed on so that they will not slip when moved into position. If they do slip use an elastic band or two to support the carriers.

Axle, diameter 10mm, length 60mm,  
larger diameter to suit wheel hole, 25mm length.  
Turn as a single unit, to ensure concentricity.



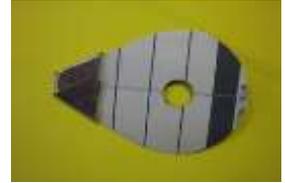
## Balancing weight Carriers

**Before starting on the counter weight carriers check that the counter weight coins are heavy enough to overcome the out of balance weight of the wheel. See the balancing procedure for more detail.**

1. The metal needs to be 0.2mm thick or thicker. The 0.2mm material can be cut with a pair of Kitchen Scissors.
2. Cut two rectangular pieces to the recommended size mark the centre line and the centre hole position, and the position for the securing holes to secure the plates to scrap piece of wood for drilling the large hole for the spindle. Drill 3 mm holes in these positions (five). Using 4 Drywall screws to secure the plates to the wood.
3. The hole for the Spindle is likely to be either ½ inch (12.75mm), 12mm or 15.87mm diameter, drilling this size hole should be done on a drill press with the plate well secured using four screws and a piece of waste wood clamped to the drill table (in my case drill press vice). Don't drill an oversize hole rather make a reamer see Tip below. This hole can also be drilled on the Lathe, with wood attached to a face plate.
4. On some grinders the flanges are stepped with spigots 31.75 (1 ¼ inch) diameter to match the hole in the grind stone wheel. Then a hole-saw can be used. Alternately the hole can be made on the lathe using a parting tool corner with the tool held at 45 deg. to the lathe axis. Start with hole that is smaller than required diameter and then open it up to the required diameter using the top front edge of the parting tool (above the centre height) with the tool parallel to the bed of the lathe.
5. Once drilled, de-burr the centre hole if required.
6. Mark out the rest of the outline and the fold lines. Cut to shape.
7. Remove any paint on the tabs.
8. Fold the two tabs using a vice see photo tabs.
9. Fold the second tab, the left end of the vice. Not per photo.
10. Place the counter weight coin in position hold it there fold the tabs over (The material is soft enough to fold over with fingers) remove the coin and using pliers gently squash the tabs so that they lie flat then reinsert the coin.



11. Solder the tabs together, use a dowel press the top tab down while soldering, and until the solder has set. Secure the coins with a drop of super glue. (Magic wood)



### Balancing the wheel

1. Place the wheel with the axils on the parallel bars and let it roll to the position where the out of balance weight UW is at the bottom. Mark the top position (A). For the 150mm diameter wheels two 20 cent coins will be required. Tape coins about 45 mm from the centre of the wheel to the centre of the coin, vertically above the UW position. They must be heavy enough to swing the wheel though 180 degrees so that point C is now at the top of the wheel. (For a 200mm wheel use 50 cent coins spaced 55mm). Mark position C on the wheel.
2. The balancing procedure, now that the counter weights have been made and fitted to the shaft, the best procedure is to start moving the CW away from position (A) an equal amount either side of (A).
3. If the wheel stops with (C) not at the top but to one side then move the opposite CW a little further from (A) until (C) is at the top centre again.
4. Proceed as above until the wheel is balanced and will stay at rest in any position. Mark the counter weights and the positions of the CW on the wheel. Transfer the wheel and counter weights to the grinder.
5. The balanced wheel is shown with both counter weights on the same side. Point (A) at the top
6. Preference is for the counter weights to be on either side of the wheel.
7. Make sure that the counter weights lie flat on the surface of the wheel.
8. Once the wheel has been remounted onto the grinder with the weights in place, **stand aside before starting the grinder in case something comes off, and run the wheel for a full minute at speed before declaring it as safe to work with.**



### Tip

#### To enlarge the pivot hole in the counterbalance weight carriers

Either use tapered reamer or make your own reamer by turning a shallow cone and gluing a piece of 120 grit sand paper on the cone. Cut the sand paper so that the edges don't overlap. Use white glue and secure with an elastic band while the glue sets. Major and minor diameters were 16mm and 9mm respectively

### Diamond Dressers.

It is recommended that the surface of the wheel is trued up using a diamond dresser, to remove any minor eccentricities.

Remember that if you are using a diamond dresser to true or clean your grinder wheels, they must be used in a trailing mode, otherwise there is a risk that the diamond will be damaged. Recommended, that only 0.025mm of material should be removed at a time.



### Templates for the Counter weight carriers for 150mm wheels left and 200 mm right

Plate sizes are 70 x 95mm and 80 x 115mm

Print the patterns on 160gsm card as a template to mark the metal for cutting, using a felt tip pen or scribe with an awl.

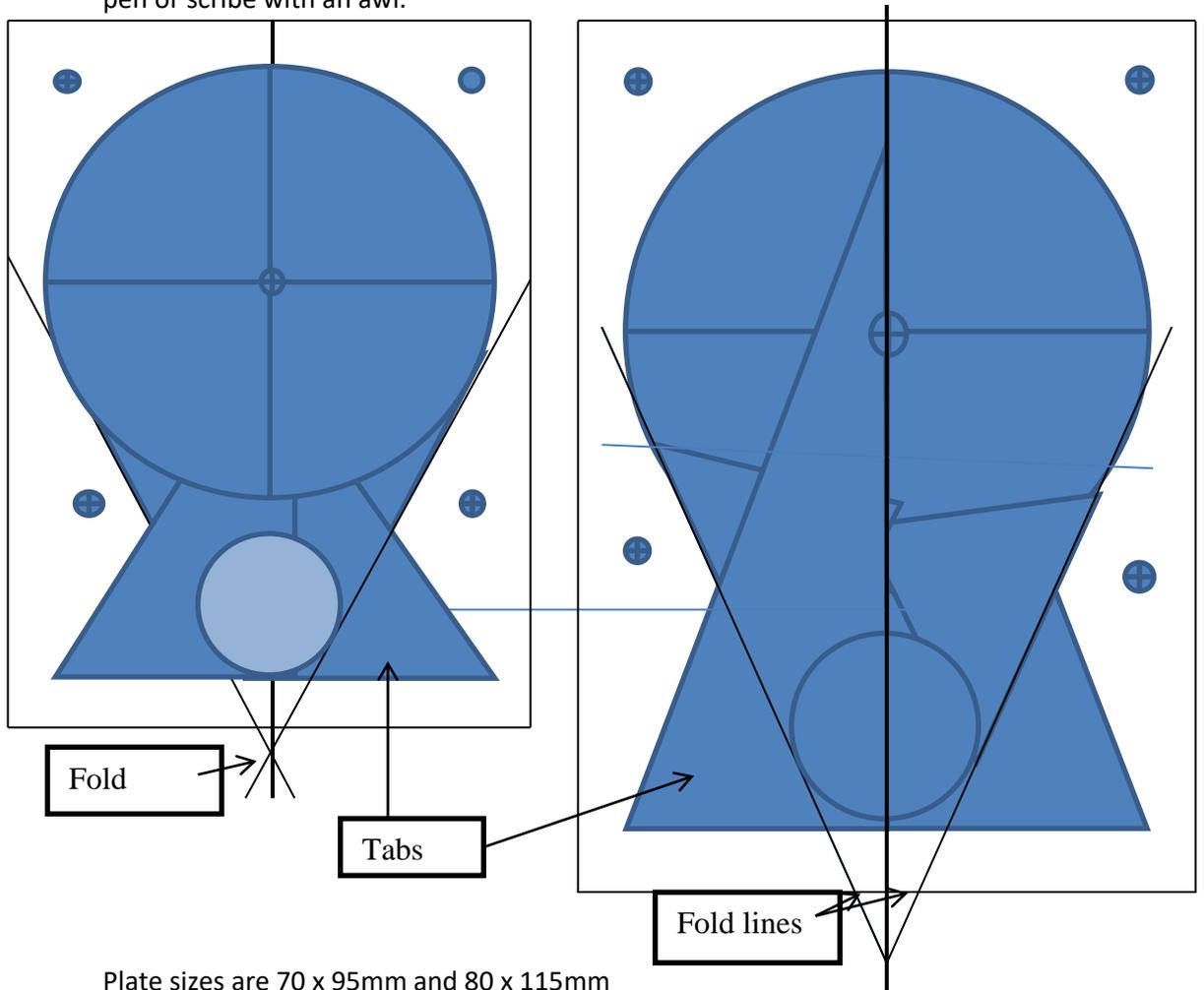


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