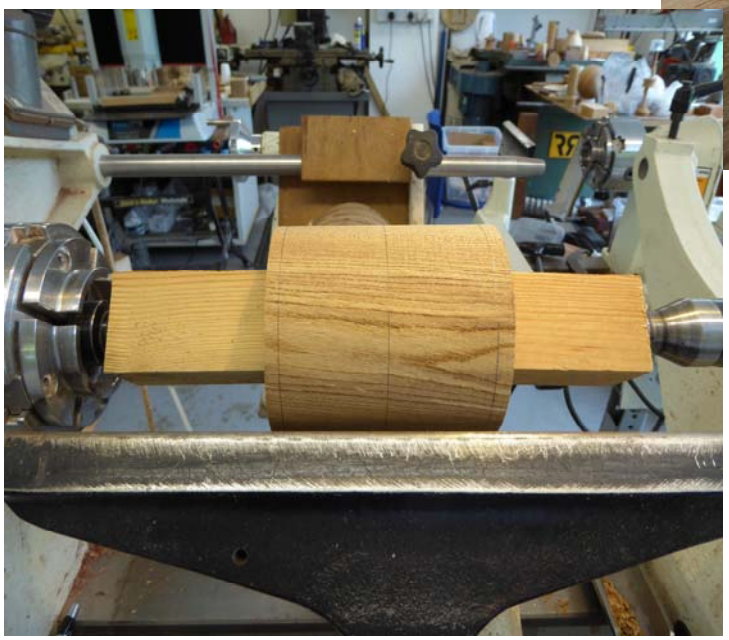
Turning Spheres With the Paul Howard Sphere Jig

This is to make a 100 mm (4”) Sphere. Cut your 100mm timber to about 110 long and mark the ends as shown above ready to hot melt glue scrap blocks to each end.

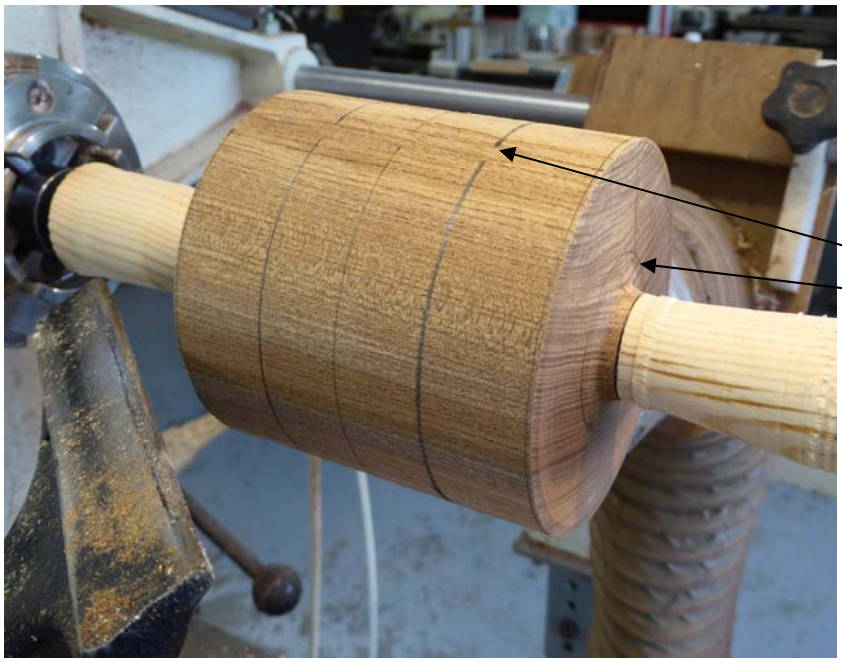
Using scrap blocks save wasting good timber.

Mark the ends as shown to find the centre on the scrap blocks.



Mount between centres and turn to a cylinder 100mm diameter

Mark the length of the cylinder to 100 mm and also mark the centre between the two lines.



Marking Out

100 mm x 0.297 = 29 mm

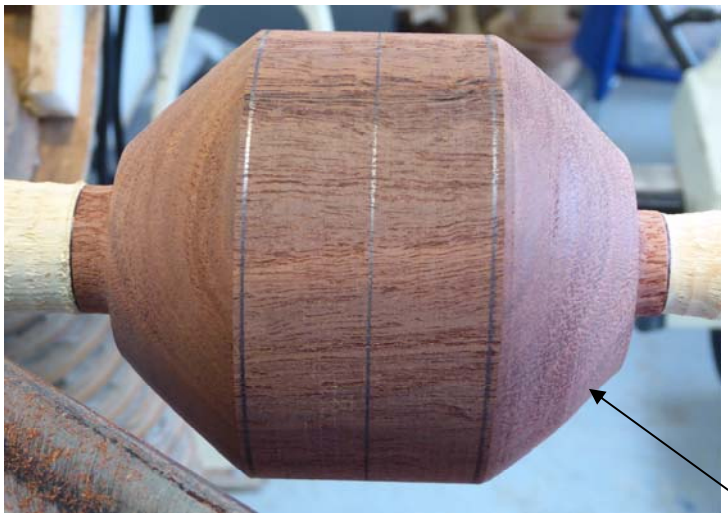
The 0.297 can be used for any size sphere to mark the waste area.

29 mm from the corner of the cylinder

Turn the ends of the cylinder to the 100mm lines and also turn the scrap blocks as shown above.

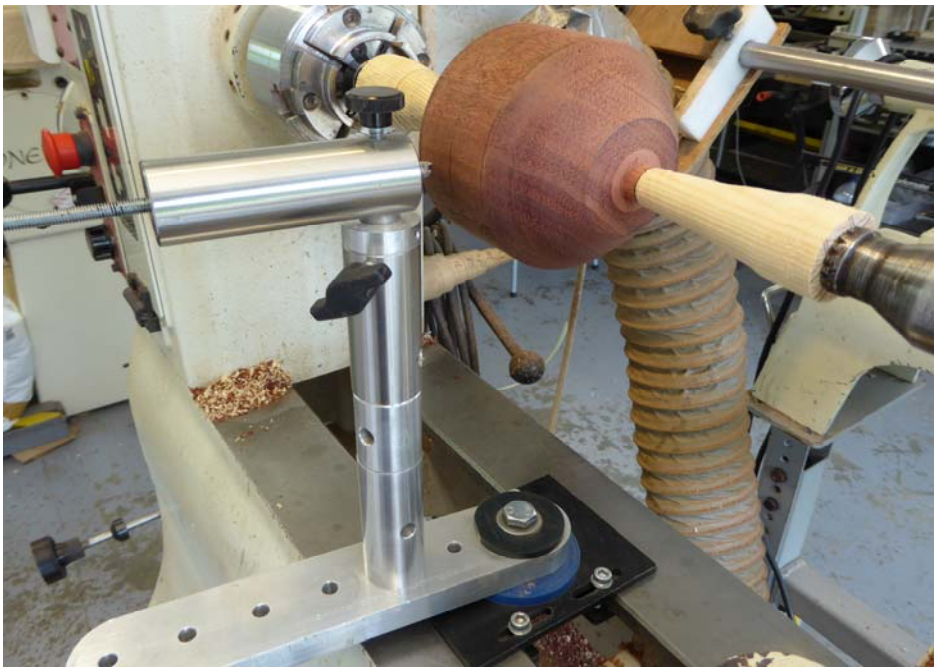
To take of most of the waste we mark a line 29 mm from the end of the cylinder and also down each end face.

Then turn away the waste



Take care not to remove to much material at the centre point as this is the finished size of the sphere

Mount the jig as shown in the manual and centre the jig and cutter at the middle of the prepared blank.



Start turning the by advancing the cutter taking light cuts .

You will not be able to get very close to the centres at each end . Keep taking light cuts until you are nearly to size.

To get closer to the end points rotate the cutter head a few degrees as shown and then advance the cutter again taking light cuts. Finish one end and then repeat for the other end offsetting the cutter head in the other direction.

OFFSET (not parallel with the base arm)

Cut the scarp material at each end but not to close to the sphere

Mount the sphere between a pair of cup chucks with the stubs offset to each other, turn each stub off taking care not to cut into the sphere. (I find a sharp bowl gouge very good for this operation) Us as large as possible cup chuck at the spindle end as this will help to make the sphere run true

Sand the finished sphere working through the grits and moving the sphere around very often so you do not ruin them shape .