## Saturn Streptohedron

From David Springett in his books Woodturning Wizardry and Woodturning Full Circle.


Start with a block that is two halves of a 65 mm cube cut and rejoined with a paper or double-sided tape joint at the centre. Mount this accurately between centres with the joint perfectly on centre and in line with the lathe drive.

Turn the wood to be round and 60 mm diameter. Measure and mark a line at the exact centre of the length of the wood. Then mark lines at 5 mm and 20 mm each side of the centre line. Outside the 20 mm lines cut down at right angles to the previously cut surface towards the axis to leave a 10 mm thickness there

From each of the lines you drew 5 mm to left and right of centre make a cut 10 mm deep into the wood and clear the wood away towards headstock and tailstock respectively.
Now cut the curve between those straight cuts to create the central sphere. This is intended to be 40 mm diameter Use part of a circle template to get the curves correct https://sawg.org.nz/sawg/wp-content/uploads/2016/10/Circle-Template.pdf Round off the central protrusion from the circle. Sand all these cut surfaces.
Remount the wood in a jam chuck. Bring up the tailstock for accuracy and keep it there as long as possible for security of the work. Cut off the wood that the tailstock is pressing on then round the end of this protrusion which should extend 10 mm from the sphere and be the same shape as the ring around the sphere. Sand this end.
Reverse the wood in a jam chuck. Bring up the tailstock for accuracy and keep it there as long as possible for security of the work. Cut off the wood that the tailstock is pressing on then round the end of this protrusion which should extend 10 mm from the sphere and be the same shape as the ring around the sphere. Sand this end.

Remove the wood from the lathe. Split the joint and ensure the two faces of the wood are clean and smooth. Rotate one of the two parts through 90 degrees and glue the wood together.
Sand and finish.


