## **Southern Turners Project Sheet**



## WTH (What the Heck) BIRD

WTH is an SMS abbreviation for 'What the heck?' It's sometimes also known as the WTF bird, though who knows what that's an abbreviation for?)

The project comprises several small parts so it can be made from scraps, or you can make it from 'chosen' wood



Assuming you're using chosen wood you will need:

A blank 65mm square and at least 120mm long, from which to turn the base, the body and neck.

A blank 20mm square and at least 200mm long, for the legs, the head and the egg.



## The required component details are:

Base: 12mm thick, 60mm in diameter

**Body:** roughly egg-shaped, 65mm long and 40mm

in diameter.

**Neck:** part of a ring with 55mm OD and with a

circular cross-section with 7mm diameter

**Legs (2):** 60mm long, 6mm in diameter

**Head:** roughly egg-shaped, 25mm long and 16mm

in diameter

**Egg:** 20mm long and 15mm in diameter



Here are some early notes which may make sense later... firstly, the neck-holes in the head and body are best done before the egg-shaped components are parted off! It can be difficult to hold and drill them

otherwise. Secondly, the leg-holes in the body are not perpendicular to the body's surface—a simple clamp with predrilled guide holes eliminates this problem. And finally, think about the finish you want to use. Gluing up with PVA glue may result in squeezed out glue spoiling a polish or wax finish. Superglue as a sealant/finish on each component as you make it works well and it is easy to quickly wipe off the squeezed out jointing glue! Spray on varnish also works well. Your choice!!!

## Right, now do it!

- 1 Mount the larger blank between centres and turn it to a cylinder 60mm in diameter, with a spigot on one end. Now mount it in a chuck and make the base, thus true up the end, slightly hollow the end and part-off a disc 12mm thick. This is the base you may need to clean up the parted-off face using a jamchuck or cole jaws. You also need to drill holes in the top face of the base to accept the ends of the legs these holes should be 6mm diameter, 5mm deep and located on either side of, and equidistant from, a base diameter line. Hole centres should be 14mm apart and slightly to one side of the base centre point.
- 2, Now make the ring (half of) which is used for the neck, thus turn the end of the blank to 55mm diameter (be careful, depending on how accurately the blank was roughed to a cylinder, it's very close to this already!). Make a around the blank 7mm from the end, and another on the end-grain of the blank, 7mm in from the cylinder's surface. These represent the thickness of the ring. With a sharp parting tool cut a trench into the end-grain inside of the mark, and hollow the inside of the ring to a depth of 9mm (maximum). Now, with the parting tool cut a trench 4mm deep on the headstock side of the other mark. This allows you access to three corners of what is so far looking like becoming a flat ring. Round over these three corners and part-off the ring. To complete the ring, mount it in a jam-chuck and carefully

round over the forth corner. Cut the ring in half.



- 3. The remainder of the blank is turned into an egg-shaped body about 65mm long and 40mm in diameter at its widest point, thus turn the blank to 40mm diameter. Mark the length of the body, and locate the position along the length where the blunt end and the pointy end of the egg meet (note: this is not the mid-point of the length but is a little closer to the blunt end). Shape tailstock end of the blank to be the blunt end of egg, and sand it. Drill a 7mm hole into the blunt end this hole needs to be only 4 or 5mm deep and is best done while the blank is still on the lathe, using a Jacobs chuck in the tailstock or a handheld drill-bit. Shape the pointy end, sanding progressively, until finally parting-off, leaving a small part right at the end to shape and sand by hand. Probably the most difficult job is drilling holes to accept the top of the legs, since these holes are not perpendicular to the egg's surface.
- 4. Cut the small blank into two equal length pieces. Mount one piece in a suitable chuck and create an egg 25mm long and 16mm in diameter at the tailstock end using the same sequence as the big body egg i.e. turn to diameter, shape the blunt end, drill the 7mm hole, shape the pointy end. This is the bird's head. Turn the remainder of the blank into a thin spindle, 6mm in diameter and 60mm in length. This is one leg. Create the bird's egg and the second leg from the remaining piece of the small blank. In this case make the egg slightly smaller, e.g. 20mm long and 15mm in diameter. Omit the hole, and sand or file a small flat on one side of the egg to make it easier to glue it to the base.
- 5. Glue the components together, thus: glue the legs into the base and the body, making sure that the legs are perpendicular to the base and the body is positioned with the front end over the short section of

the base centre-line (i.e. in front of the legs), and the pointy end is over the longer (back) section. This ensures the finished bird is stable and provides space to position the egg. Allow the glue to set. Glue the head onto the neck half-ring so that when the neck is glued into the body the head is looking between the legs and is angled to point directly at the egg. Allow the glue to set (these two glue-ups don't require full strength). Finally glue the neck into the body with care to align the neck and legs and to angle the head correctly. Allow the glue to set. NB: Avoid using excess glue!!!

6. Jigs and jam-chucks which may come in useful:

A basic recessed cylinder to hold the ring while rounding off its fourth corner.

A clamping thingy with pre-drilled holes as a guide for drilling the leg holes in the body.

A small block with a central hole right through it and a larger concentric hole part of the way through, to accept a small egg if you need to tidy up the pointy end.



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