Project: ***The Balancing Toy*** */ Title:* ***Production Plan***

Engineering

Student: EXAMPLE **Date:** **Teacher:** Mr Biles **Sheet No: 4**

Part name/Operation: Part 4 – Stand (of the Balancing toy)

Step by step production plan

Preparation:

- Collect material (Aluminium) & technical drawing
- Apply Engineers blue to one side
- Mark out the correct length of the stem

(Using a Tri-square, Scriber and Steel rule)

- Cut the Aluminium to length - 90mm using a Hacksaw /vice

Fabrication:

- Place the work in the 3 jaw chuck of the Centre lathe
- Use the lathe tool to face off both ends
- Using the drill chuck on the centre lathe – centre punch both sides of the stem
- On one side drill a 5mm hole 20mm deep using the dill chuck on the centre lathe
- Add decorative feature using the Knurling tool and Parting tool (optional)
- With work held in a vice use a 6mm Tap to create an Internal thread (6M)

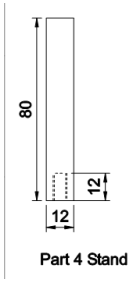
Finishing processes:

- With the work piece in the chuck – clean surface with Emory cloth
- Re-peat process with Wet & Dry paper

Quality Control

- Check the cutting tool is sharp
- Check the measurements on the technical drawing
- Make sure work is securely held in vices/chucks
- Check the tool post /tail stock is fixed securely in position
- Make sure the Centre Lathe is set to the correct speeds

Image



Part 4 Stand

Production planning sheet

Materials/Parts/Sizes

12MM Dia Aluminium

Tools/Equipment

Scribe, Engineers Square, Engineers Blue, Hacksaw, Tap

Machinery

Centre Lathe

Processes/Production Methods

Turning, Marking out, Threading

Health & Safety

Wear Goggles and Apron
Check all machinery
Make sure work is held securely

EXAMPLE