

FME 244-FEE161

TURNING OPERATION

Operation sheet

TURNING EXERCISE

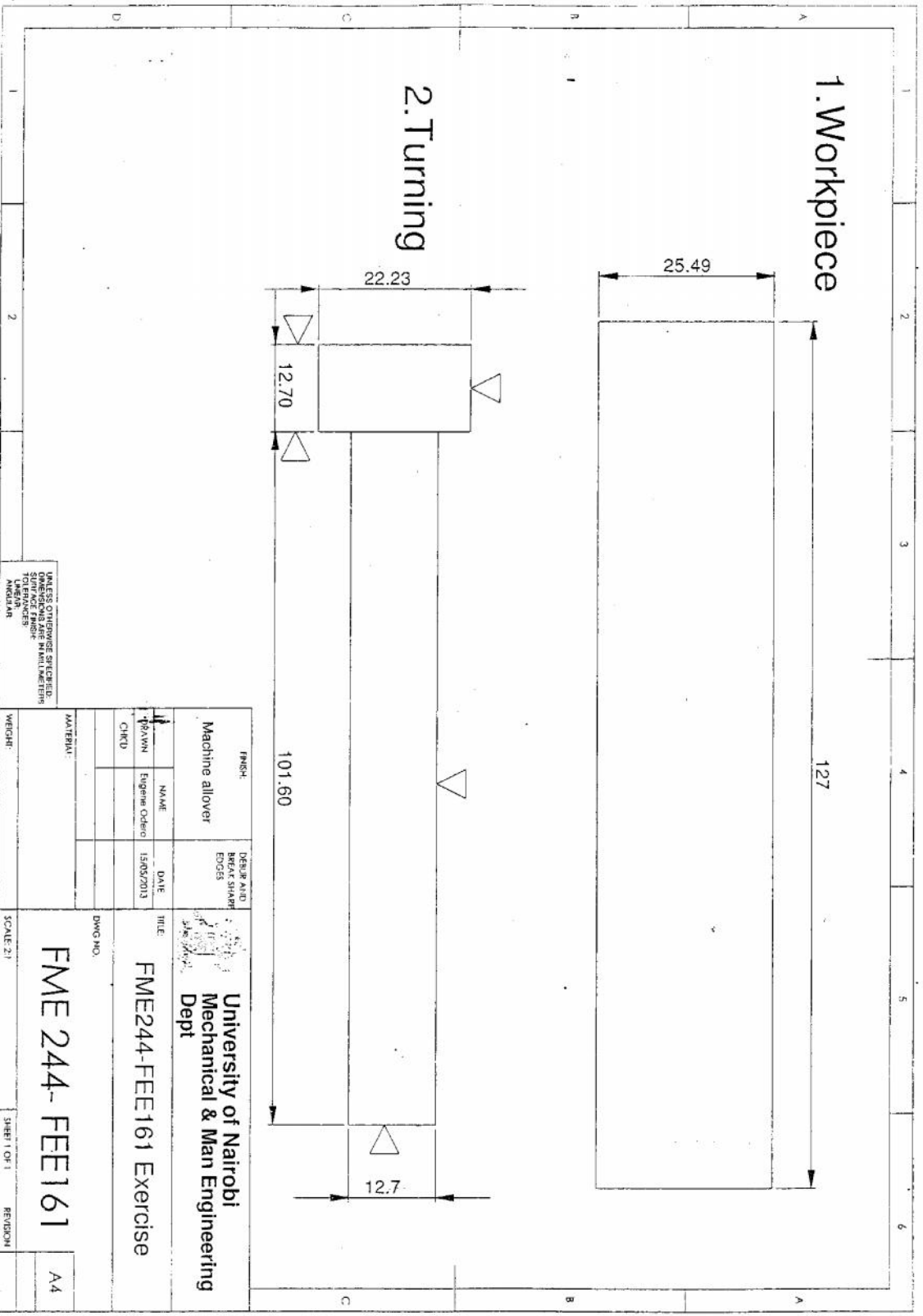
OBJECTIVE

To introduce engineering students to the use of machine tools. In this exercise a center lathe is used. Use of lathe accessories and measuring instruments such as vernier calipers and or micrometers will be demonstrated by the end of the exercise.

Operation details

TOOLS

- | | | |
|---|--|--|
| 1 | Remove the burrs from the work piece check the measurement of the workpiece | file, vernier calliper/ foot rule |
| 2 | Secure the work piece in 3 jaw chuck living 50mm from the jaw protruding | 3 jaw chuck Vernier calliper Chuck key |
| 3 | Ensure the work is running true (centrically). Face the protruding end to make it perpendicular to the machine axis | Tool bit |
| 4 | The work piece is center drilled.
Use the tool to mark the length of 101.60mm. Set it to run true | Center drill, drill chuck, tool bit and revolving center |
| 5 | Set it to run true while supporting the work piece with the running center | revolving center, vernier calliper |
| 6 | Turn the first \varnothing to 12.7mm and the length of 101.6mm | Tool bit, vernier calliper |
| 7 | Change the unmachined side to be the protruding side and mark the length of 12.7mm. machine off the unnecessary material | Tool bit, vernier calliper |
| 8 | Let the work piece protrude slightly from the chuck and machine the remaining \varnothing to 22.23mm | Tool bit, vernier calliper |



1. Workpiece

2. Turning

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FINISH	DEBUR AND BROCK SHARP EDGES	TITLE
Machine allowver		University of Nairobi Mechanical & Man Engineering Dept
DRAWN	NAME	DATE
CHFD	Engine Odoro	13/05/2013
MATERIAL:		DWG NO.
		FME244-FEE161 Exercise
WEIGHT:		SCALE: 2:1
		FME 244- FEE161
		SHEET 1 OF 1
		REGION
		A4