

QUESTION 4: ASSEMBLY DRAWING

**Given:**  
The exploded isometric drawing of the parts of a ratchet and base, showing the position of each part relative to all the others.

Orthographic views of each of the parts of the ratchet and base.

**Instructions:**  
Answer this question on page 6.  
Draw, to scale 1:1 and in third-angle orthographic projection, the following views of the assembled parts of the ratchet and base:

- 4.1 The front view** as seen from the direction of the arrow indicated in the exploded isometric drawing. NO hidden detail is required.
- 4.2 A sectional right view** on cutting plane A-A. The vertical cutting plane passes through the centre line of the assembly, as shown on the front view of the base.

- ALL drawings must comply with the guidelines contained in the *SABS 0111*.

**Add the following feature to the drawing:**

- The cutting plane A-A

- Note:**
- Show THREE faces of the M14 nut and ALL necessary construction.
- [93]

PARTS LIST		
PART	QUANTITY	MATERIAL
1. SHAFT	1	MILD STEEL
2. BASE	1	MILD STEEL
3. BUSH	1	BRASS
4. RATCHET	1	CAST IRON
5. KEY	1	MILD STEEL
6. WASHER	1	SPRING STEEL
7. M14 NUT	1	MILD STEEL
8. SCREW	1	MILD STEEL
9. RATCHET ARM	1	CAST IRON

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RATCHET AND BASE		
ALL DIMENSIONS ARE IN MILLIMETRES	ALL UNSPECIFIED RADII ARE 5	

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