

UNIT D: Dimensioning and Conventional Tolerancing

Competency: D404.00

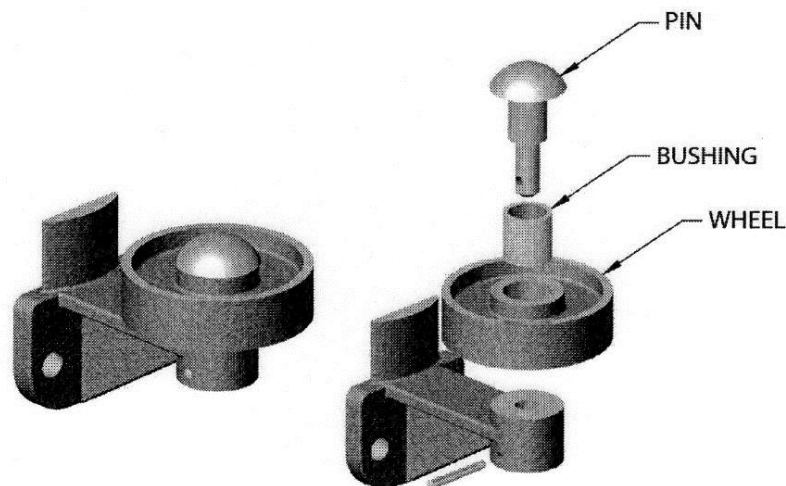
Demonstrate intermediate dimensioning and tolerancing techniques.

Objective: D404.03

Construct drawings that require conventional tolerances.

Requirements: Each student is required to apply tolerance dimensions to a design.

- Using an appropriate CAD software, create dimensioned drawings of the **PIN**, **BUSHING**, and **WHEEL** (see Figures below).
- Create drawings of the **PIN** and **WHEEL** at a scale of 1 : 1 and the **BUSHING** at a scale of 2 : 1 (*your instructor may provide you with multiview drawings of the parts within a CAD file*).
- Use decimal inches for all dimensions. Use dual dimensioning on the **BUSHING** (metric and inches).
- Using limit dimensions on each drawing, apply the following fits between parts:
 - RC1** fit between the **BUSHING** and the **PIN**.
 - LN1** fit between the **BUSHING** and the **WHEEL**.
 - RC1** fit between the **PIN** and the **BRACKET**.
- Add your name, problem number (**D404.03.001**), scale, and date in the title block.
- Time Limit = 90 minutes.
- Your work will be evaluated on dimensioning technique, the accuracy of the dimensions, correctness of the tolerance information, layout of views, and titleblock information.



Assessment: The problem will be evaluated based on the following criteria:

Criteria	Point Range
Dimensioning technique	30 points
Accuracy	25 points
Correctness of tolerance information	30 points
Layout of views	10 points
Titleblock information	5 points

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