

BA02: Mechanical Blueprint Reading

Catalog number	77-BA02-0001
Category	Foundation Skills
Duration	15 Hours
Software supplied	N/A

Introduction to Mechanical Blueprint Reading

Skill 1: Identifying Lines and their Functions

- 1.1: Blueprints and Print Reading
- 1.2: The Alphabet of Lines
- 1.3: Common Types of Lines
- 1.4: Skill Overview
- 1.5: Skill Drill
- 1.6 Concept Review

Skill 2: Single, Multiple and Auxiliary View

- 2.1: Introduction
- 2.2: Single View Blueprints
- 2.3: Two View Blueprints
- 2.4: Three View Blueprints
- 2.5: Auxiliary Views
- 2.6: Skill Overview
- 2.7: Skill Drill
- 2.8: Concept Review

Skill 3: Reading and Locating Blueprint Dimensions

- 3.1: Scaling
- 3.2: Measurement Dimensions
- 3.3: Size Dimensions
- 3.4: Location Dimensions
- 3.5: Hole Dimensions
- 3.6: Angle Dimensions
- 3.7: Chamfer Dimension
- 3.8: Points, Centers, Arcs and Reference Surfaces
- 3.9: Skill Overview
- 3.10: Skill Drill
- 3.11: Concept Review

Skill 4: Determining Tolerances

- 4.1: Introduction
- 4.2: Bilateral and Unilateral Dimensions
- 4.3: Classification of Machine Fits
- 4.4: Skill Overview
- 4.5: Skill Drill
- 4.6: Concept Review

Skill 5: Identifying Thread Dimensions

- 5.1: Introduction
- 5.2: Screw Thread Definitions
- 5.3: Crest and Root
- 5.4: External Thread Representation
- 5.5: Dimensioning Criteria for External Threads
- 5.6: Other Thread Forms
- 5.7: Internal Threads
- 5.8: Right-Hand and Left-Hand Threads
- 5.9: Skill Overview
- 5.10: Skill Drill
- 5.11: Concept Review

Skill 6: Identifying Tapers and Machine Surfaces

- 6.1: Tapers
- 6.2: Surface Finishes
- 6.3: Skill Overview
- 6.4: Skill Drill
- 6.5: Concept Review

Skill 7: Cutting Plane and Sections

- 7.1: Introduction
- 7.2: Partial Sections
- 7.3: Offset Cutting Plane
- 7.4: Revolved Sections
- 7.5: Section Linings
- 7.6: Breaks and Break Symbols
- 7.7: Skill Overview
- 7.8: Skill Drill
- 7.9: Concept Review

Skill 8: Geometric Dimensioning, Wear Limits and Assembly Drawings

- 8.1: Geometric Dimension
- 8.2: Wear Limits
- 8.3: Assembly Drawings
- 8.4: Skill Overview
- 8.5: Skill Drill
- 8.6: Concept Review

Skill 9: Identifying Welding Symbols

- 9.1: Introduction
- 9.2: Welding Processes
- 9.3: Welding Joints
- 9.4: Groove Joints
- 9.5: Basic Arc and Gas Weld Symbols
- 9.6: Skill Overview
- 9.7: Skill Drill
- 9.8: Concept Review

Skill 10: Reading Plot Plans

- 10.1: Introduction
- 10.2: Scale of the Plot Plan
- 10.3: North Direction Point
- 10.4: Property Line
- 10.5: Contour Lines
- 10.6: Skill Overview
- 10.7: Skill Drill
- 10.8: Concept Review

Skill 11: Reading Footing, Foundation and Floor Plans

- 11.1: Footing Plans
- 11.2: Foundations and Wall Plans
- 11.3: Floor Plans
- 11.4: Stairs Indicators
- 11.5: Materials Symbols
- 11.6: Skill Overview
- 11.7: Skill Drill
- 11.8: Concept Review

Skill 12: Reading Reinforced Concrete and Structural Steel Prints

- 12.1: Reinforced Concrete
- 12.2: Structural Steel
- 12.3: Grade Marks
- 12.4: Skill overview
- 12.5: Skill Drill
- 12.6: Concept Review

Comprehensive Post-Test