

ENGINEERING DRAWINGS FOR HYDRAULICS

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Learning made Simple, Visual, and Interactive

Engineering Drawings for Hydraulics starts with basic engineering drawing concepts that are included in a hydraulic drawing. The course then focuses on those items that are specific to hydraulic drawings from symbols to accessories to notes. Major components like the reservoir, manifold, pump motor group, hoses, gauges, meters, accumulators and sensors are all covered.

Credit Hours **3.50**

Learning Objectives

- Recognize aspects of engineering drawings that are unique to hydraulic systems.
- Recognize and understand the importance of symbols that appear on, and are often exclusive to, hydraulic systems.
- Identify the various main components in a hydraulic system on an engineering drawing for hydraulics.
- Understand the basic concepts of how a hydraulic system works.

Table of Contents

I. Distinct Characteristics

- **Title Block**
 - Do Not Scale Drawing
 - Drawing Tolerances
- **Cylinder Description Box**
 - Cylinders
 - Cylinder Elements
 - Cylinder Function
 - Ejectors

II. System Component Symbols

- **Hydraulic Symbol Basics**
 - Basic Symbols
 - Mechanical Operations
 - Valve Control Operations
 - Hydraulic Lines
- **Reservoir**
 - Reservoir Components
 - Breathers
 - Hydraulic Filter
 - Heat Exchangers
 - Sight Gauges
 - Cleanout Covers
 - Tank Magnets
- **Manifold**
 - Manifold Components
 - Ports
 - Valves
- **Pump Motor Group**
 - Pump
 - Piston Pump
 - Vane Pump
 - Gear Pump
 - Motor

III. Accessory Symbols and Notes

- **Hydraulic Hoses**
- **Pressure Gauges**
 - Pressure Gauge Elements
 - Quick Connects
 - Test Points
- **Flow Meters**
- **Accumulators**
- **Sensors**
- **Vibrational Isolators**
- **Notes**

