Motion & Control Involvement Training

Industrial Hydraulic Technology 2 Description and Course Outline

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I. Program Description

SNO-Motion's Industrial Hydraulic Technology 2 course is a 3-day examination of industrial hydraulic components and circuits. This hands-on course consists of about 25% lab time as students gain a working knowledge of hydraulic equipment and its usages.

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A. Aims/Objectives

In this course we:

- Learn how to read and interpret hydraulic schematics
- Understand how hydraulic systems and components work
- Be able to transfer information from a hydraulic schematic diagram to an actual application

B. Major Topics Covered

- A practical study of hydraulic circuitry, including graphic symbology
- An in-depth discussion about the system operation at the suction side of a pump
- A thorough look at hydraulic components such as pumps, directional valves, pressure valves and actuators
- Hands-on experience building hydraulic circuits on system simulators

II. Who Should Participate

Personnel who have completed the Industrial Hydraulic Technology 1 course or an equivalent course. Maintenance, sales, and engineering personnel who desire to broaden their basic knowledge of industrial hydraulics.

III. Session Information

Classes are conducted several times per year. For scheduled dates, contact our offices.

SNO-Motion Solutions
41 West Guest Avenue
Salt Lake City, UT 84115
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Fax: 801.263.6404

To Apply forTraining Class on Line:
http:www.sno-motion/trainingsignup.html
and choose the appropriate class title.

Industrial Hydraulic Technology 2
Course Outline

Note: This course outline is presented to show the areas of discussion contained in the 3-day training program. During the course, variations in the outline may occur - this would be left up to the instructor's discretion and would only be made to improve the class.

A. First Day of Class

A. Introductions and pretesting
B. Review of some existing hydraulic system schematics and interpreting the symbols
C. Review the basic operation of positive displacement versus variable displacement pumps
D. Pump operation at the suction side ("Cavitation" and "Aeration")
E. Video entitled "Cavitation"

B. Second Day of Class

A. Discussion of actuators - cylinder, rotary actuators and hydraulic motors & applications
B. Pressure control systems
C. Control of fluid flow in a hydraulic system - directional control valves and flow control
D. Classroom project - developing hydraulic circuit schematics
E. Reviewing of classroom project circuits using computer simulation package.

C. Third Day of Class

A. Lab session: Building classroom project(s) on system simulator
B. System startup tips and techniques (troubleshooting)