SNO-MOTION SOLUTIONS

Hydraulic Maintenance Technology

I. Program Description

The Hydraulic Maintenance Technology course is a 4-day program which consists of an in-depth discussion on troubleshooting industrial hydraulic components.

A. Aims/Objectives

In this course we:

- Review the operation and functional relationship of industrial hydraulic components.
- Help students to understand hydraulic troubleshooting concepts.
- Help students to read and understand hydraulic graphic symbols as found in typical hydraulic system schematics.

B. Major Topics Covered

- Graphic symbols of hydraulic components utilizing the International Standards Organization (ISO) System
- Troubleshooting common hydraulic components such as pumps, cylinders, valves, rotary actuators, hydraulic motors, etc.
- Noise and its related causes
- Maintenance of fluid power systems

II. Who Should Participate

Maintenance personnel and anyone responsible for establishing and maintaining fluid power systems. Participates should have completed the Industrial Hydraulic Technology 1 & 2 courses or equivalent.

III. Session Information

Classes are conducted several times per year. There is a tuition fee for each participant. For scheduled dates, contact our offices.

Contact:
SNO-Motion Solutions
41 West Guest Avenue
Salt Lake City, UT 84115
Phone: 801.281.4SNO(4766)
Fax: 801.263.6404

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

Hydraulic Maintenance Technology

Course Outline

Note: This course outline is presented to show the areas of discussion contained in the 4-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.

I. First Day of Class

A. Introductions
B. Pre-examination
C. Hydraulic Maintenance Principles - a discussion of steps that should be followed when troubleshooting a hydraulic system
D. Graphic symbols based upon ISO Specification 1219 are covered with an extensive exercise of circuit drawing, using proper graphic symbology.
E. Power unit construction and maintenance of power units is discussed with emphasis placed on noise reduction. Review the operation and functional relationship of industrial hydraulic components.

II. Second Day of Class

A. Pump installation and start-up procedures are covered. Pump problems at start-up are also discussed, such as cavitation and aeration.
B. Video entitled "Cavitation" followed by a lab demonstration of cavitation and aeration causes and effects.
C. Pump maintenance emphasizing pressure compensated pumps.
D. Troubleshooting charts discussed.
E. Lab Session: Pump adjustments and operation of pressure compensated pumps.

II. Third Day of Class

A. A discussion on pressure control valve maintenance, operations and troubleshooting.
B. Directional control valve operations and maintenance and troubleshooting charts covered.

IV. Fourth Day of Class

A. Discussion on troubleshooting techniques for cylinders, motors and accumulators.
B. Video entitled "Hose and Fitting Installation and Troubleshooting."
C. Filtration and fluid maintenance discussion. Types of filtration in a hydraulic system and the types of fluids found in hydraulic systems.
D. Post examination.