

## **MHT**

### **Mobile Hydraulic Technology – 5 days**

Maintenance technicians and hydraulics designers who work with hydraulic equipment and applications will develop their understanding of specific components and circuits used on mobile equipment

#### **What you will learn –**

- Overview of hydraulic components and circuits used on mobile equipment
- Review of the hydraulic principles of fluid flow, pressure, power and speed control
- Mobile hydraulic system efficiency and heat
- Hydraulic component symbols
- Reading and interpreting mobile hydraulic schematics
- Open and closed loop pumping systems for transmitting fluid energy
- Pump control options and comparisons
- LSHT and HSLT motor applications and variable displacement controller possibilities
- Mobile modular directional control valving types and control including discussions of actuation methods together with electronic controller options
- Counterbalance and load holding valves and techniques
- Pressure relief valves for system pressure control, cylinder port reliefs and hydraulic motor cross port reliefs – braking valves
- The application of pressure reducing valves with mobile hydraulic systems
- Load sensing/compensation as separate circuits or as integrated into modular directional controls
- Discussions of various hydraulic and electronic control schemes to optimize the efficient distribution of machine power
- High pressure hydraulic hose sizing and other types of fluid conductors
- Hydraulic fluids and fluid maintenance

This training course provides fundamental and necessary information on hydraulic principles as these principles are applied and implemented on mobile machinery. While there are many similarities to industrial and stationary hydraulic systems there are also many differences with how hydraulics is applied on mobile systems. The hydraulic components and methods used on mobile equipment will be the specific topic of this training course.

**Prerequisites:** Basic math and reading skills

Classroom lecture, discussions, laboratory exercises and lab demonstrations