



## Do You need to attend the NFPC 1 day course on Applied Mathematics relating to Hydraulic Systems

*If you are planning to obtain a CETOP Level 3 Competence Based Qualification in either Industrial Hydraulics (IH3) or Mobile Hydraulics (MH3), you will be required to carryout a number of Fluid Power related calculations. These will appear as part of your 20 question assignment pack and as part of the final Written Examination.*

### **CAREFULLY READ THROUGH THE FOLLOWING AND DECIDE IF YOU NEED TO ATTEND THE NFPC 1 Day Courses called “Mathematics Applied to Hydraulic Systems”**

- Do you understand the term “BODMAS”?
- Are you able to effectively carryout “Transposition of Formula” ?
- Do you understand the range of “Metrix Prefixes” and “Powers”?
- Do you know the Basic Units for: Length, Area, Volume, Force, Pressure, Velocity, Torque, Speed, Displacement, Power and associated symbols
- Do you know the Formulae that link these units together?
- Do you know the difference between Volumetric Efficiency and Torque (Mechanical) Efficiency?
- Do you know how to calculate “Overall Efficiency”?

#### **You may be asked to carryout Calculations relating to the following:**

- Prime mover power
- Pump Suction and Pressure Losses
- Pump Power
- Pump Flow Rates
- Volumetric Efficiency,
- Torque Efficiency
- Overall Efficiency
- Cylinder Sizing
- Cylinder Speeds/Input and Output Flows
- Cylinder Pushing and Pulling Forces
- Motor Speeds-effects of Efficiencies
- Motor Torques- effects of Efficiencies
- Motor Torques and Speeds employing a Gearbox
- Pipe Sizing
- Flow rates in Pipes-Laminar/Turbulent Flow
- Flushing Flow Rates



Your contact person at the NFPC is Anne Clarke-  
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**This Course is ON REQUEST**  
**Unit Cost- £350.00 Exc VAT**