World LEADER in Training
NFPC National Fluid Power Centre
for Fluid Power Motion Control

CENTRE OF VOCATIONAL EXCELLENCE

**Carlton Road,
Worksop,
Nottinghamshire
S81 7HP (UK)**

DAY 1. - Energy Saving in Industrial Hydraulic Systems (ONE DAY WORKSHOP)

Times 09.00 to 17.00 (Introduction and Coffee 08.45)

Planned Dates – 11 May, 6 July, 21 September , 9 November

Introductory cost per person- £200.00 exc vat

*This is "**DAY 1**" of a series of workshops designed to progressively provide you with the vital knowledge to create real world improvements in system design both present and future.*

***Day 1**, will also stand alone for engineers who want to clearly identify the efficiency of their hydraulic systems.*

This will be the start of a vital journey that will change your approach to system design for ever, whilst at the same time saving energy.

***YOU** will begin to question just how efficient your systems actually are.*

***YOU** will begin to realise just how much energy is lost to heat.*

***YOU** will see power in and power out of a system from a different perspective.*

FULL USE WILL BE MADE OF THE PRACTICAL FACILITIES AT THE NFPC

Who should attend?

Any engineers involved in the management, design or inspection of industrial fluid power systems

***TYPICAL PROGRAMME FOR THE DAY** at the NFPC.*

AM Session

- *Power transfer in hydraulic systems.*
- *Identify correct performance monitoring points.*
- *Identify the work done by actuators and the energy lost to heat*

GROUP LUNCH –

PM Session

- *Quantifying system efficiency (power in against power out)*
- *Use of modern monitoring equipment on live systems in the laboratory*
- *Analysis of system losses*
- *Identifying solutions to improve efficiency and power match accordingly*
- *How to implement these solutions in the workplace*
- *Group discussion*
- ***Workshop close time 17.00***

SEE ATTACHED OBJECTIVES FOR WORKSHOP No1.

To reserve your places
Contact -Vicky Cook
Business and Full Cost Co-ordinator
Tel No +44(0)1909 504704
email: vcook@nfpc.co.uk

Note. This will be limited to 9 candidates per workshop

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BFPA The British Fluid Power Association

www.nfpc.c.uk (Book ON-LINE)

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No 1, Energy Saving Workshop (relating to industrial systems)
OBJECTIVES:
Having completed this workshop attendees will:

- ***Know the mechanisms of storing energy in hydraulic fluids and its effects upon performance and energy conversion.***
- ***Know the most suitable methods to determine work done in a system.***
- ***Know the point at which power is put in to a system and the difference between real and apparent power.***
- ***Interpret results from the use of new monitoring equipment***
- ***Be able to calculate the efficiency of a system.***
- ***Know the basic solutions to match flow and pressure to system demands.***
- ***Be aware of problems associated with "perfect power" matching.***
- ***Know how to contact the Carbon Trust for financial support.***

The workshop day will involve practical activities in the laboratory area at the NFPC. You are therefore asked to bring along safety shoes and overalls.
PLEASE BRING YOUR CALCULATOR
Eye protection and gloves/barrier creams will be provided.

The day will include a group lunch and refreshments and you will be provided with a note copy of all the power point slides used in the presentation.

This workshop will be delivered at the NFPC by David Locke (NFPC Associate)
David Locke has a wealth of current knowledge and experience involving system design and control.
He has worked for a number of International Fluid Power Companies and can draw upon over 30 years of real world experience to assure you the value of this workshop.

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March 2010.