



The Engineering Integrity Society

Hydraulics: What the Engineer Needs to Know and How to Avoid the Pitfalls

Star Hydraulics, Tewkesbury
15 September 2016



The event is designed to assist engineers in understanding the individual components utilised in the design and manufacture of conventional dynamic hydraulic systems. Technical presentations by experienced engineers will help explain:-

- How to understand the application, function and performance of elements incorporated into dynamic hydraulic systems
- How these elements operate, why they are required and their effect on overall system performance
- Why hydraulic fluid temperature and cleanliness is vitally important in providing optimum system performance and protecting the longevity of hydraulic systems

Hydraulics: What the engineer needs to know and how to avoid the pitfalls

Star Hydraulics, Tewkesbury, 15 September 2016



Programme

9.00am Registration, Tea and Coffee

9.25am Introduction - Norman Thornton (Engineering Consultant, EIS)

9.30am Power and Flow - Norman Thornton (Engineering Consultant, EIS)

- Maintaining constant system pressure to accommodate cyclic flow demands
- Fixed and variable hydraulic power units
- Pressure control valves
- Specifying size and optimum location of accumulators
- Calculation and provision of adequate power

10.45am Tea and Coffee

11.00am Focus on individual components – how they operate and how to determine suitability for purpose - Norman Thornton (Engineering Consultant, EIS), Paul Shillam (Managing Director, Star Hydraulics Ltd, Anton Raath (Managing Director - CaTs³ Ltd)

- Accumulators
- Actuators
- Servo-valves
- Filters
- Control systems

12.15pm Lunch and Networking

1.00pm Practical equipment demonstrations

- Practical laboratory demonstrations of hydraulic system elements, outlining the effects of location, size and operation
- An opportunity for attendees to operate and interact with complete systems

4.00pm Q&A Session - open forum debate

4.30pm Closing Comments

Booking Form

	EIS Member	Non EIS Member
Delegate	£80+VAT	£100+VAT
Student/Apprentice	£25+VAT	
	UK	Rest of the World
Personal Membership of the EIS	£25 per year	£30 per year
I enclose a cheque for £_____ made payable to the Engineering Integrity Society. Payment can also be made by BACS.		
Name:		
Company:		
Address:		
Telephone:		
Email:		
Any Special Dietary Requirements		

Please return completed forms to the following address:
Engineering Integrity Society, 17 Harrier Close, Cottesmore, Rutland, LE15 7BT, UK
Telephone: +44(0)1572 811315 Email: info@e-i-s.org.uk

Please tick this box if you do not wish to hear about future events

The **Engineering Integrity Society** is an independent not-for-profit organisation which aims to inspire all engineers, both experienced and newly qualified, across a broad spectrum of technologies. The Society is committed to promoting events and publications, providing a forum for engineers to discuss present industrial needs, new technologies and to stimulate both company and personal development.

The annual subscription rates are £25 for UK residents and £30 for non-UK residents. Upon joining the Society you will also have the additional advantages of preferential attendance rates at EIS events, together with selected events held by some of the associated organisations. In addition you will have access to CDs containing archived copies of EIS presentations.

Star Hydraulics design and manufacture high quality electro-hydraulic servo valves and ancillary equipment, which are used in a wide variety of market sectors.

Zwick Roell is a global supplier of dynamic testing equipment, including single and multi-axis testing products.

CaTs³ provides world leading controllers, signal conditioning and software for servo-hydraulic test systems in applications ranging from simple single axis tests to complex multi-axis test rigs, including service load simulation testing.

The **Engineering Integrity Society** is pleased to acknowledge the support of the following organisations:

AcSoft	HORIBA MIRA	RAL Space
ADwin	Instron	Sensors UK
Airbus Defence & Space	Interface Force Measurements	Servotest
ANV Measurement Systems	Kemo	Siemens
ASDEC	Kistler	Smart Fibres
Bruel & Kjaer	M&P International	Star Hydraulics
CaTs3	Meggitt	Systems Services
Dassault Systemes	Micro-Epsilon	Techni Measure
Data Physics UK	Millbrook	THP Systems
Datron Technology	Moog	Tiab Ltd
DJB Instruments	MTS	TRaC
Gantner Instrumentation	Muller-BBM	Tranmission Dynamics
GOM	Nprime	Variohm
Head Acoustics	PCB Plezotronics	Vibration Research
HBM	PDS Projects Ltd	Yokogawa
HGL Dynamics	Polytec Ltd	Zwick / Roell

