

Richard Hoyle

Senior Consultant



BEng (Hons) IEng MSOE MBES

Expertise

Materials Engineering & Failure

Mechanical Engineering & Machines

Engineering Inspection

Wind Turbines, Passenger/Goods Lifts, Cranes,
Forklift Trucks, Telescopic Handlers, MEWPs, Small
Lifting Machines, Lifting Attachments, Motor Vehicle
Lifting Tables, Lifting Tackle

Pressure Systems & Equipment

Change Management

PUWER

LOLER

PSSR 2000

Machinery Directive

Work at Height

PPE

Forensic Incident Investigation

Experience

Richard Hoyle is an Incorporated Engineer with the Society of Operations Engineers and has more than 20 years' experience in materials and mechanical engineering failure investigation and prevention. Graduating from Newcastle University in 1997 he went on to work for a forensic science and engineering consultancy focussing on failure investigation, incident analysis and product liability. He investigated many facets of engineering including fatal industrial incidents, vehicle collisions/component failures, stolen vehicle identification restoration, food production machinery failures and reliability, tool mark analysis and use of equipment. Richard has also been involved in insurance fraud investigations looking at whether physical evidence could support insurance claims or not. After formal training he spent 13 years giving expert witness evidence in all levels of Court in England, Wales, Scotland, Eire, Northern Ireland and Bermuda, including Courts Martial in the UK and Germany. He has worked both as the selected agreed joint appointed expert and also with other experts under the Single Joint Expert Rules Part 35. During its time he also worked as a Membership Assessor for the Council for the Registration of Forensic Practitioners.

In 2010 he went on to work as an Engineer Surveyor for a Type A UKAS accredited inspection body. He conducted failure prevention inspections on a variety of PUWER and LOLER equipment including, traction/hydraulic passenger lifts, FLT's, telescopic handlers, motor vehicle lifting tables, overhead/pillar/mobile cranes, wind turbine passenger hoists, rescue and access equipment, mobile elevating work platforms (MEWPS), lifting accessories and tackle. He was responsible for the inspection of the UK's highest lift capacity goliath crane, including the planning and coordinating of the inspection



procedure. He has been involved in the inspection procedure and planning for all sizes of organisations by utilising efficiencies and e-planning tools to combine inspection periodicities and maintenance schedules. He has extensive experience of the inspections of wind turbine generator (WTGs) components associated with PSSR, PUWER and LOLER and was jointly responsible for ensuring the compliance of the largest onshore production windfarms in Scotland. He was trained in rescues at height and WTG access. More recently he has been involved in the regulatory inspections of pressure plant under PSSR, in particular hot water heating/supply systems and pressurised air storage plant, where he also authored and audited Written Schemes of Examination.

Since 2001 Richard has been a commissioned Army Reserve Officer in the Royal Engineers, serving in Europe, UK and on operations in Iraq. As a Sapper he has been trained in Military Civil Engineering construction and design of field force protection/security, bridge building/demolition, water supply, road/airfield/accommodation/facilities construction and repair. During his time as one of the Essential Services Officers for MND(SE) Iraq, he was involved in procurement procedures and design of sewage, waste and potable water projects across the region, as well as principal designer of the temporary security search areas for the main gate at Basra 'international airport'/Brigade HQ. Here he gained experience in multinational project management, budget control, arbitration, mediation and generation/management of stakeholder Statement of Requirement (SOR). Whilst on operational tour his forensic incident investigation skills were called upon to assist with Royal Military Police and Special Investigation Branch in an incident reconstruction and investigation. Currently he is the Training/Policy Officer for Army Training Unit (Scotland) where he is responsible for delivering the basic soldier training package, which is mandated by the Army Initial Training Group and accredited by OFSTED.

Professional Qualifications and Memberships

BEng (Hons) – Materials Engineering

City & Guilds – Leadership and Management

IEng – Incorporated Engineer

MSOE & MBES – Member of the Society of Operations Engineers and Bureau of Engineer Surveyors

Selection of Experience

Lifting Equipment

LOLER and Work at Height

During inspection of a number of refurbished and load tested overhead cranes, numerous broken wires were found on the brand new hoist ropes. The defects were reportable to HSE under Regulation 10 of LOLER. Analysis of the way the ropes were being fitted and load tested found that shock loading and poor fitting was the cause not misuse, as was postulated by the crane fitters. New ropes and adjustment to the load test procedure and operation was implemented at no extra cost to the customer.

Product Liability

Fitness for Purpose

Acted as Expert Witness in a trade descriptions case for the Complainant. A client had purchased a new food production machine that promised over 3000 units per hour, to the same standard as the handmade versions. The Complainant found that the quantity and quality of the product, as advertised, was unachievable in all aspects and investigation was commissioned. It was found that the machine controls were too rudimentary and the moulds were incorrectly designed. During further mechanical investigation it was found that poor workmanship had led to metal fragments being detached from the critical forming component leading to the contamination of the food product. The case was settled out of Court in favour of the Complainant.

PSSR 2000

Regulatory Conformity

During inspection of hot water supply boilers and associated pressure vessels for a large Council Authority, it was established that the protective devices for the expansion/pressurisation vessels at numerous locations were those fitted to the boilers. Certification for the safety valves were not available across the entire asset liability and as such a Thorough Examination of the pressurisation vessels could not take place in accordance with the Written Schemes. Advice and planning the inspection regime with the customer and implementation of software planning tools, enabled a rolling programme of safety valve replacement/recertification and record keeping was successfully implemented, keeping the public safe and the authority compliant and insured.

PPE

Incident investigation and risk analysis

Instructed by a power company to investigate a fall from height of a HV electricity pylon linesman. PPE allegedly worn at the time did not deploy but evidence of impact on the helmet and damage to the hook suggested that the linesman had not followed procedure and had climbed above the anchor point instead of moving it, which differed to his own statement, and later admitted. Internal training and development had been shown to be inadequate and protocols easily by-passed. A new programme of culture change and training was developed with the client and choice of PPE and application reviewed and updated.

Employment History



Finch Consulting Limited

Senior Consultant

September 2018 – Present

General Consultancy and Expert Witness

British Engineering Services Ltd

Unit Leader – Engineer Surveyor (Machinery & Pressure)

November 2015 – to September 2018

In 2015 RSA EI&C was sold to an investment consortium whereupon British Engineering Services regained its original name dating back to 1859 and all staff were TUPED across.

Responsible for a team of twenty-five Engineer Surveyors of all disciplines (Machinery, Pressure and Electrical) covering the Scottish Borders, central-belt, the east and northeast of Scotland and Orkney. Also conducted inspections under PUWER, LOLER and PSSR 2000.

Royal & Sun Alliance (RSA)

Engineer Surveyor (Machinery)

May 2010 – November 2015

Part of the Engineering Inspection and Consultancy (EI&C) arm of the main insurance organisation providing inspection services to individual and national organisations across the UK and Eire. 380+ Engineer Surveyors conducting preventative and compliance inspections under PUWER, PSSR, LOLER and Electrical Regulations. Consultancy work conducted NDT, PED/PES and Machinery Directive work as a Notified Body providing EU conformity certification (CE marking).

Keith Borer Consultants Ltd

Consultant Forensic Engineer

September 1997 – May 2010

An independent multidisciplinary Forensic Science and Engineering consultancy based in Durham and Huntingdon, which had experts in ballistics, explosives, fingerprints, transfer evidence (blood/fibres/paint), drugs/alcohol, imagery, mobile phones/IT analysis, DNA, vehicle collisions, industrial incidents, H&S, engineering liability/design/fit for purpose. Dealing with both criminal and civil cases. Expert witness work in all levels of Court around the UK and worldwide.





Council for the Registration of Forensic Practitioners

First Stage Application Assessor (Incident Evaluation and Incident Reconstruction)

July 2007 - March 2009

CRFP was the Government initiative that formed a recognised regulatory body for forensic practitioners. It was a peer review body set up to ensure minimum professional standards for members to be recognised throughout the UK legal system. Assisted in the initial phase and development of the entry criteria and standards.

HM Forces – Army Reserve

Officer - Royal Engineers

January 2001 – Present

Royal Engineers – Key Roles: Survivability, Mobility and Counter Mobility. After attending Royal Military Academy Sandhurst (RMAS) underwent training at Battlefield Engineering Wing, Camberley, after which he had positions of Troop Commander, Operations/Training Officer, Second in Command within the combat engineering environment in 71 and 72 Engineer Regiments. Called up for permanent engagement as an Individual Augmentee (IA) for Operation TELIC IV, as Essential Services Officer (1 Mechanised Brigade). After attending Land Warfare School and Joint Services Command and Staff College (Army Division)(Defence Academy of the UK), served as one of the selection staff at the Army Officer Selection Board (Westbury), then, more recently, becoming the Training/Policy Officer at Army Training Unit (Scotland) based in Edinburgh.

Selected Publications

