

RICHARD C. MOAKES – Chartered Engineer

Consulting Engineer in Mechanical Engineering, Accident Reconstruction, Automotive Safety, Airbag Technology, Vehicular Crash Worthiness, Production Engineering, Machine Guarding, Optical Fiber and Copper Cable Technology, Materials Handling and Industrial/Aerial Lift Equipment, and Workplace Safety.

Consulting Engineers & Scientists, Inc.
The Commons at Great Valley
41 General Warren Boulevard
Malvern, PA 19355

Office: (610) 889-0761
rmoakes@ces-experts.com
Birth Date: 12-2-52

CERTIFICATION

Chartered Engineer United Kingdom, 1979
Registered European Engineer, 1992

EDUCATION

Rolls Royce Training College, Bristol, U. K. 1973
Bachelor of Engineering (Technical) Production, University of Wales Institute of Science and Technology, U. K. 1975

PROFESSIONAL BACKGROUND

Employed by Consulting Engineers & Scientists, Inc. Malvern, Pennsylvania, from 1997 as a Consulting Engineer. Responsibilities include consulting in mechanical engineering, automotive and heavy truck accident evaluation, accident reconstruction, crash worthiness, and air bag and supplemental restraint system technology. Other responsibilities include the evaluation of materials handling and industrial/aerial lift equipment, and mechanical system failure analysis. Additional responsibilities include evaluation of design, manufacture, and installation of copper and fiber optic telecommunication cables, the evaluation of machine design, machine guarding, workplace safety, and manufacturing/production engineering.

Employed by Breed Technologies Inc., Boonton, New Jersey, from 1993 to 1997, as a Senior Staff Engineer in advanced technology research and development. Conducted research to develop automotive air bag inflators. Performed bench line testing on sodium azide and stored gas inflators to predict control parameters for computer modeling and sled testing of vehicle air bag systems. Responsibilities also included the research and development of electronic diagnostic crash sensors and smart systems to determine weight and position of passengers for controlled deployment of air bags. Additional responsibilities included developing assembly concepts, tool and fixture designs, material selection, flow charts and control plans, and initial manufacturing facility plans.

Employed by General Cable International, Inc., St. Petersburg, Florida, from 1989 to 1993 as a Consulting Project Engineer. Responsibilities included project management for the installation of new overseas manufacturing facilities, the expansion of existing facilities and plant modernization, the design of proprietary tooling, and machinery for the manufacturing of optical fiber cables. Additional responsibilities included the plant design/layout, planning of material handling equipment, production equipment design and specification writing, supervision of equipment and safety systems installation, raw material sourcing, and operator training.

Employed by General Cable Corporation South Plainfield, New Jersey, from 1988 to 1989 as a Product Line Manager. Responsibilities included establishing pricing levels and market plans for the optical fiber division (Fitel General) and the development of annual sales plans and five-year strategic plans for copper service wire.

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Employed by Philadelphia Insulated Wire Company Inc., of Moorestown, New Jersey, from 1982 to 1988 as a Manager of Optical Fiber Operations. Responsibilities included facility planning, material handling planning, production line design/layout, tooling design, equipment specification writing, and the supervision of production machinery installation. Additional responsibilities included the development of proprietary machinery including operator safety guard systems, and operator training.

Employed by British Aerospace Public Ltd., in Filton, Bristol, U. K., from 1980 to 1982 as a Project Engineer. Responsibilities included the development of production methods and manufacturing facilities for an Anglo-American missile guidance system.

Employed by Standard Telephone and Cables Ltd., Newport, Gwent, U. K., from 1976 to 1980 as a Senior Process Engineer in the hydrospace research and development laboratory and later in manufacturing. Responsibilities included developing fine wire cables, process engineering, and tool design.

Concurrent industrial experience with Bachelor of Engineering studies included working at Rolls Royce Aero-Engine Division, Filton, Bristol, U. K., in 1973. Experience included engine and airframe fitting, aircraft hydraulics, and machining operations.

CONTINUING EDUCATION

Accident Investigation - Northwestern University Traffic Institute, 1997
Vehicle Dynamics - Northwestern University Traffic Institute, 1997
Traffic Accident Reconstruction I - Northwestern University Traffic Institute, 1998.
Advanced Accident & Collision Prediction - University of North Florida - Institute of Police Technology & Management, 1998
Advanced Motorcycle Accident Reconstruction & Testing Seminar, 1998
Traffic Accident Reconstruction II – Northwestern University Traffic Institute, 1999.
Mechanics of Heavy-Duty Truck Combinations – University of Michigan Transportation Research Institute, 2000
Accident Reconstruction Topical Technical Workshop, 2001
Vetronix Crash Data Retrieval Certification – University of North Florida – Institute of Police Technology & Management, 2002
Fork Lift Operator Training, 2003
Combined Annual Conference for Collision Reconstruction
Maryland Association of Traffic Accident Investigators, 2004
Collision Reconstruction Conference
Heavy Vehicle Crash Reconstruction – Northwestern University Traffic Institute, 2007
Visual Statement Basic/Advanced Diagramming & Animation, 2008
Crash Data Retrieval Summit, Houston, Texas, 2011
Crash Data Retrieval Summit, Houston, Texas, 2012

PROFESSIONAL SOCIETY MEMBERSHIPS

European Federation of National Engineering Associations, 1992
Institute of Mechanical and Electrical Engineers United Kingdom, 1979
American Society of Mechanical Engineers
Society of Automotive Engineers
National Association of Professional Accident Reconstruction Specialists
Association of Traffic Accident Investigators, 2004