

Scott Lewis, PE

Mechanical Engineering



Mr. Lewis is a Mechanical Engineering Consultant for Western Engineering & Research Corporation. He has over 33 years of experience in the analysis and design of mobile and industrial equipment. Mr. Lewis has experience in motor vehicle accident reconstruction (VAR) and received certification by the Accreditation Commission for Traffic Accident Reconstruction (ACTAR). He is skilled in forensic analysis, commercial and industrial accident investigation, building system investigation as well as extensive residential and commercial plumbing component failure analysis. He has extensive experience designing and troubleshooting mechanical, electrical and hydraulic systems. He holds several patents in the design and development of mobile equipment. He has inspected and analyzed a variety of industrial and mobile equipment and is skilled in the use of several Finite Element Analysis (FEA) programs. He provides expert testimony for matters involved in litigation



WORK HISTORY

Mechanical Engineering Consultant, Western Engineering & Research Corporation, 2009 to present
Principle Engineer, President, Creative Engineering Design Solutions, LLC, 2006 to present
Senior Design Engineer, IMI-Norgren, 2002-2006
Senior Design Engineer, Chart Industries, 2001-2002
Engineering Manager, Stewart & Stevenson, Power Systems Division, 1996-2001
Engineering Manager, Mining Technologies International, 1995-1996
Senior Engineer/Design Engineer, John Clark, Inc., 1987-1995

ACCIDENT RECONSTRUCTION, MECHANICAL DESIGN, INVESTIGATION & ANALYSIS

Mr. Lewis is experienced in accident investigation and was ACTAR certified. He has conducted extensive failure analysis of components in vehicles and other mobile equipment. He has investigated brake and other system failures on vehicles and construction equipment. He is skilled in the design and troubleshooting of both electrical and hydraulic systems on mobile equipment. He has extensive manufacturing design experience and involvement in a variety of manufacturing processes including foundries, heat treating, stress relieving, welding, and machining. He is skilled in Failure Modes and Effects Analysis (FMEA), root cause analysis, Design Of Experiments (DOE) and other methodologies associated with Six Sigma business management strategy.

His wide-ranging design experience includes structural, mechanical, powertrain, hydraulic, pneumatic, and electrical systems. Design and evaluation work includes Rollover Protection Structures (ROPS), complex steel and aluminum weldment structures that required engineering Finite Element Analysis. Also performed natural frequency analysis of cryogenic pressure vessels. Mechanical experience includes the design of quick-connect loader attachments, wheelchair lifts for buses and rail cars, ergonomic operator interfaces and cab designs. Responsible for the comprehensive design of the structural, mechanical, powertrain, hydraulic and electrical systems, from concept through production, of several complete vehicles including an underground loader and an airport maintenance vehicle.

Practice Areas

- Mechanical Engineering
- Accident Reconstruction
- Mobile Equipment Design

Contact Information

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Credentials

- Licensed Professional Engineer in Colorado
- BS, Mechanical Engineering, Colorado School of Mines
- Former ACTAR certification
- Numerous Classes and Seminars including Accident Reconstruction, Shock and Vibration Analysis, Finite Element Analysis, Analysis of the Bolted Joint, Cryogenic Engineering, Electronic Servo Control Systems, PLC Programming, Hydraulic System Design, and various Engineering Management courses

AFFILIATIONS

- Accreditation Commission for Traffic Accident Reconstruction
- American Society of Mechanical Engineers
- National Society of Professional Engineers
- Society of Automotive Engineers

