

Tremayne Thomas, PE | Senior Forensic Mechanical Engineer

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Professional Summary:

Mr. Thomas is a mechanical engineer and ACTAR Certified Vehicle Accident Reconstructionist with over 15 years of experience. Mr. Thomas often analyzes, reconstructs, and evaluates commercial vehicle, automobile, motorcycle, bicycle, and pedestrian accidents. Additionally, Mr. Thomas has a considerable amount of experience performing failure analysis and design review of industrial, commercial, agricultural, and construction equipment/components. Mr. Thomas possesses the experience, knowledge, and expertise required to investigate product liability claims related to design defects, machine guarding, improper labeling, and OSHA compliance. Mr. Thomas is a well-respected court expert who provides educational seminars to personnel of insurance companies and legal firms. Mr. Thomas' education and work experience afford him the opportunity to develop protocols for testing and evaluation of a variety of mechanical and electro-mechanical systems. Mr. Thomas has often utilized thermal imaging technology to work closely with civil/structural engineers to identify structural anomalies and/or to identify moisture intrusion sources resulting from physical damage or defects.

Mr. Thomas' areas of expertise include:

- Accident Investigation
- Product Liability Investigations
- Mechanical Design and Engineering Review
- Forensic Investigations Involving Machines and Equipment
- Vehicle Accident Reconstruction (VAR) and Crash Data Retrieval (CDR)
- Manufacturing Processes and Equipment
- Occupational Safety and Health Administration (OSHA) Compliance
- Machine and Equipment Damage Assessments
- Mechanical Breakdown Claim Investigations
- Workplace Safety and Machine Guarding Investigations
- Passenger and Commercial Vehicle Inspections
- Commercial and Residential Heating, Ventilation, Air Conditioning (HVAC) Systems
- Shipping Damage Claims
- Product Defect Investigations
- Lightning Damage Claims
- Slips, Trips, and Falls
- Moisture Intrusion Investigations
- Expert Witness Testimony

Licenses and Certifications:

Professional Engineer, Georgia, 036787

Professional Engineer, Florida, 74217

Professional Engineer, Alabama, 32920

Professional Engineer, North Carolina, 053024

Professional Engineer, South Carolina, 39729

Professional Engineer, Tennessee, 126519

NCEES National Council Record, 13-144-30

Accreditation Commission for Traffic Accident Reconstructionists (ACTAR), 1495

Project Experience:

Machine Guarding Investigation

Investigated a workplace accident that resulted in the death of a maintenance worker. Determined the extent of functional issues that allowed an employee to access moving aspects of an assembly line while energized.

Triple Fatality Accident Investigation

Performed a full accident reconstruction including a scene survey, vehicle inspections, "Black Box" downloads, calculations, analysis, and 3-D animations.

Shipping Damage Claim

Evaluated the effect of a rollover and trailer damage on its contents. The evaluation of the product included a physical inspection of damaged / undamaged parts and development of a test plan to confirm whether or not suspect components were compromised.

Professional Experience:

EFI Global, Inc., Senior Forensic Mechanical Engineer, Present

Envista Forensics (Formerly PT&C|LWG), Project Engineer / Forensic Engineer, 2009 – 2019

Rimkus Consulting Group, Mechanical Forensic Engineer, 2003 – 2007

John Deere, Design Engineer / Test Engineer, 2001 – 2003

DaimlerChrysler, Vehicle Development Engineer / Test Engineer, 1998 - 2001

U.S. Department of Energy, Nuclear Energy Engineering Co-Op, 1996 - 1998

Education:

Master of Science, Mechanical Engineering, Wayne State University, Detroit, Michigan, 2002

Bachelor of Science, Mechanical Engineering, Howard University, Washington, DC, 1998

Specialized Education:

Crash Data Retrieval (CDR) Technician – Institute of Police Technology and Management
Crash Data Retrieval (CDR) Data Analyst – Institute of Police Technology and Management
Crash Investigation 1 & 2 - Northwestern University
Traffic Crash Reconstruction 1 & 2 - Northwestern University
Heavy Truck ECM Download Certification – Institute of Police Technology and Management
Bendix Commercial Vehicle Air Brake System Certification – Bendix Commercial Vehicle Systems
O.S.H.A. Compliance Certification - Occupational Safety and Health Administration (OSHA)
Infrared Thermographer Certification - FLIR Systems

Affiliations:

American Society of Mechanical Engineers (ASME)
National Society of Professional Engineers (NSPE)
Accreditation Commission for Traffic Accident Reconstructionists (ACTAR)
The National Council of Examiners for Engineering and Surveying (NCEES)

CE/CLE Courses Instructed:

Advanced Technologies in Vehicle Accident Reconstruction
Tractor Trailer Accident Investigations
Vehicle Accident Reconstruction
Vehicle Fire & Accident Investigations
Forensic Investigations of Mechanical Failures
Black Box Downloads
Utilizing Thermal Imaging for Moisture Intrusion Investigations

Publications and Presentations:

“The Future of Autonomous Vehicles: Risk With Privacy and Tracking” White Paper – 2018 - Andrea McKenna, Larry Daniel, Tremayne Thomas