Donald W. Marty PE

CONSULTING MECHANICAL ENGINEER



Donald is a registered Professional Engineer providing engineering consulting services regarding accident investigation, testing, design analysis, and reconstruction. He applies his expertise to motor vehicle crashes, including heavy truck incidents, as well as industrial and agricultural machinery accidents. Donald has extensive experience retrieving and analyzing information from vehicle event data recorders found in passenger and commercial vehicles. He also maintains ASE Master Technician Certifications for Medium/Heavy Trucks, Automobiles, and Auto Body/Paint and is familiar with vehicle repair techniques and shop practices.

FORENSIC ENGINEERING EXPERIENCE

4Moto Engineers Madison, WI Consulting Mechanical Engineer 2019-present

Crane Engineering / Safety Engineering Associates Madison, WI Consulting Mechanical Engineer 1984-2019

- Passenger and commercial vehicle accident investigation and reconstruction analysis
- Motor vehicle testing and design analysis
- Mechanical inspections and analysis of commercial vehicle components and systems
- Industrial and agricultural machinery accident investigation, testing, design analysis, and reconstruction
- Vehicle event data recorder, data retrieval, and analysis
- Motor vehicle and industrial equipment fire origin and cause analysis
- Motor vehicle service and repair analysis
- Research and testing with Professor A.H. Easton

EDUCATION

Master of Science-Mechanical Engineering University of Wisconsin-Madison, 1988 Bachelor of Science-Mechanical Engineering Graduated with Distinction University of Wisconsin-Madison, 1987 Two-year Diploma Madison Area Technical College, 1973

LICENSURE AND CERTIFICATIONS

Licensed Professional Engineer Wisconsin, #27923

National Institute for Automotive Service Excellence, ASE Certified Master Medium/Heavy Truck Technician National Institute for Automotive Service Excellence, ASE Certified Master Automobile Technician National Institute for Automotive Service Excellence, ASE Certified Master Auto Body/Paint Technician National Association of Fire Investigators, Certified Fire and Explosion Investigator (CFEI) National Association of Fire Investigators, Certified Vehicle Fire Investigator (CVFI)

PROFESSIONAL AFFILIATIONS

Member-American Society of Safety Engineers (ASSE) Member-Society of Automotive Engineers (SAE) Member-American Society of Mechanical Engineers (ASME)

Member-American Society of Agricultural and Biological Engineers (ASABE)

Member-National Fire Protection Association (NFPA) Member-National Association of Fire Investigators (NAFI)

Tau Beta Pi – Engineering Honor Society
Pi Tau Sigma – Mechanical Engineering Honor Society



Forensic Vehicle Engineers

CONTINUING EDUCATION

SAE International, Side Impact Occupant Safety and CAE 2018

University of Wisconsin - Madison, Engineering Professional Development, Organizational and Psychological Pressures Affecting Ethical Decision-Making in Engineering 2018

SAE International, Tire Forensic Analysis 2017

University of Wisconsin - Madison, Engineering Professional Development, Engineering Ethics and Professional Responsibility 2016

National Association of Fire Investigators, Vehicle Fire, Arson & Explosion Investigation Science & Technology Seminar 2015

National Association of Fire Investigators, International Fire, Arson & Explosion Investigation Training Program 2015

University of Wisconsin - Madison, Engineering Professional Development, Engineering Ethics and Professional Responsibility 2013

SAE International, Applying Automotive EDR Data to Traffic Crash Reconstruction 2013

SAE International, Accessing and Interpreting Heavy Vehicle Event Data Recorders 2013

University of Michigan, Dynamics of Heavy Duty Trucks 2011

University of Tulsa, How to Interpret Commercial Vehicle Event Data Recorders 2010

Collision Safety Institute, Data Analyst's Certification Course 2006

Vetronix, Crash Data Retrieval System Course 2000

Cole & Associates, Investigation of Vehicle Fires 1998

Madison Area Safety Council, Machine Safeguarding 1997

SAE International, Sensor Design for Automobile Air Bag Systems 1996

SAE International, Accident Reconstruction Subcommittee Photogrammetry Workshop 1990

Engineering Dynamics, Accident Reconstruction Course 1989

ADDITIONAL EXPERIENCE

McFarland Truck and Auto Body McFarland, WI Heavy Truck and Autobody Technician 1979-1981, Summer 1983

Kayser Ford Madison, WI Heavy Truck and Autobody Technician 1978-1979

Chariot Enterprises Madison, WI Automobile Restoration Technician 1977-1978

Vern's Body Shop Middleton, WI Autobody Technician 1975-1977

Davis Auto Body Baraboo, WI Autobody Technician 1974-1975

Smart Motors Madison, WI Automobile Technician and Autobody Technician 1972-1974

Hilldale Shell Madison, WI Automobile Technician 1971-1972