

CARR ENGINEERING, INC.

12500 CASTLEBRIDGE DRIVE HOUSTON, TEXAS 77065-4532

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LEE CARR

Specialized Professional Competence

- Failure analysis and crash reconstruction.
- Risk analysis of mechanical designs including identification of failure modes, assessment of consequences of failure, quantification of actual risk for use of existing systems, and projections of risks for systems under consideration.
- Design, design verification, manufacturing, reliability and quality control techniques for mass produced products.
- Design and evaluation of automotive crash protection systems and crashworthiness analysis of motor vehicles.
- Application of Federal Motor Vehicle Safety Standards and other requirements to automobiles, trucks, and buses.

Professional Qualifications

- Bachelor of Science (Mechanical Engineering), Northwestern University, 1968
- Master of Science (Mechanical Engineering), University of Florida, 1969
- Principal Engineer, Carr Engineering, Inc. - 1984 to present
- Managing Engineer, Failure Analysis Associates - 1981-1984
- Safety Engineering Associate, Ford Motor Company - 1978-1981 (Product Safety Engineering and Government Liaison on Safety Issues)
- Supervisor, Chassis Engineering, Ford Motor Company - 1977-1978 (Design and Testing of Motor Vehicles)
- Design and Project Engineer, Ford Motor Company - 1965-1977 (Design, Testing and Manufacture of Motor Vehicles)
- Public Health Service Fellow, University of Florida
- Member, Society of Automotive Engineers
- Registered Professional Engineer, State of Texas

Publications

- "Non-Linear Analysis of Automobile Dynamics and Control" Thesis, University of Florida, 1969
- SAE TOPTEC - Vehicle Rollovers, Carr Engineering, Inc., September, 1992
- Rollover Crashes, 1993 SAE Government/Industry Meeting, Carr Engineering, Inc., May, 1993
- SAE TOPTEC - Rollover Mechanisms, Carr Engineering, Inc. August, 1993
- SAE TOPTEC - Dynamic Tests of Rollover Resistance, Carr Engineering, Inc., December 11, 1997
- SAE Paper 05B-77 – Analysis of Axle Shaft Failures for Use in Crash Reconstruction, Carr Engineering, Inc., 2004
- SAE Paper 2007-01-0449 - Motor Vehicle Driver Characteristics - Crash Avoidance Behavior, Carr Engineering, Inc.
- SAE Paper 2007-01-0846 - Comparative Dynamic Analysis of Tire Tread Belt Detachments and Stepped Diameter (“Lumpy”) Tires, Tandy Engineering & Associates, Inc., Ford Motor Company, Carr Engineering, Inc.
- SAE Paper 2007-01-0836 - Analysis of Yaw Inducing Drag Forces Imparted During Tire Tread Belt Detachments, Tandy Engineering & Associates, Inc., Ford Motor Company, Carr Engineering, Inc.