

BEN T. RAILSBACK, M.S., P.E.



EDUCATION:

M.S. Engineering Systems, Colorado School of Mines, Golden, Colorado
B.S. Engineering, Mechanical Specialty, Minor in Economics, Colorado School of Mines, with high scholastic honors

REGISTRATION:

Registered Professional Engineer in the State of Colorado (P.E.)
Board Certified in Forensic Engineering by the National Academy of Forensic Engineers (NAFE)
Accredited Traffic Accident Reconstructionist (ACTAR)
Certified by the National Council of Examiners for Engineering and Surveying (NCEES)

EXPERIENCE:

Director of Mechanical Engineering, Knott Laboratory, LLC, Centennial, Colorado, September 2011 to present.
Manager, Mechanical Engineering, Knott Laboratory, LLC, Centennial, Colorado, April 2005 to August 2011.
Engineer, Knott Laboratory, Inc., Centennial, Colorado, June 2000 to April 2005.

RECONSTRUCTION:

Mr. Railsback performs investigation and reconstruction of high and low-speed motor vehicle accidents involving passenger cars, motorcycles, pedestrians, bicycles and commercial vehicles. His experience includes the use of energy and momentum analysis to determine the speed of vehicles involved in accidents, crashworthiness of vehicles, restraint systems, occupant compartment intrusion, driver reaction, time/space relationships and analyses, as well as headlamp filament examination. Mr. Railsback's investigations often involve analysis of vehicle dynamics, occupant kinematics, vehicle safety, human factors and visibility studies. Frequent aspects of these investigations also involve the evaluation of the performance of brakes, tires, seat belts and airbags. He also has working experience with engine, drive train and suspension failure analysis. Mr. Railsback has also employed reconstruction techniques to analyze shooting incidents, ski accidents, and industrial accidents.

PRODUCT DEVELOPMENT:

As an engineer with Knott Laboratory and in past employment Mr. Railsback has performed extensive product testing, product development and reporting in a variety of consulting, research, and manufacturing settings. While at Knott Laboratory, Mr. Railsback has assisted private companies in the development of automotive glazing products, and safety equipment for snow mobiles. In past employment, he has conducted life-cycle testing, including time-to-failure analyses, vibration analyses, stress and strain tests, pressure testing, leak-down testing, and time & frequency domain analyses. While performing research for his graduate thesis, Mr. Railsback gained a thorough understanding of data acquisition techniques and the application of data reduction and error analysis techniques to data from mechanical systems. Mr. Railsback has also gained general engineering experience in the areas of field surveying, general machining, soldering, brazing, welding, wiring and general manufacturing assembly.

SAFETY ENGINEERING:

Mr. Railsback has been involved in extensive investigation and analysis in the area of material handling equipment such as stand-up and sit-down forklifts, racking systems, and warehouses. Mr. Railsback has also been involved in liability investigation involving construction equipment such as cranes, aerial lifts, front loaders, motor graders, skid steers and various other pieces of equipment. Frequent aspects of these investigations include maintenance, safety engineering, human factors, and incident reconstruction. Mr. Railsback is fluent in the safety engineering aspects of CFR, FMVSS, ANSI, ASME, SAE and other standards applicable in product cases.

VEHICLE ENGINEERING:

Mr. Railsback was a team member of the Colorado School of Mines, Society of Automotive Engineers (SAE) sponsored, small-scale formula-style race car program for several years. In 1997, Mr. Railsback was part of a team that developed an engine test stand. In 1998, Mr. Railsback was responsible for the optimization and design of a final belt drive system, and as a team member constructed the chassis, suspension, and drive train. Mr. Railsback was the suspension design team leader of the 1999 race car, and has designed independent suspension systems and has used computer technology to produce dimensional analysis of suspension geometry.

EXPERT TESTIMONY:

As a result of his investigations and experience, Mr. Railsback has been asked to provide testimony as an expert witness over a dozen times. Mr. Railsback has testified for both plaintiffs and defendants and qualified as an expert witness in the areas of mechanical engineering and accident/incident reconstruction.

PROFESSIONAL AFFILIATIONS:

Mr. Railsback is a member of the following technical and professional societies:

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| NAFE | - National Academy of Forensic Engineers | ACTAR | - Accreditation Commission for Traffic Accident Reconstruction, Full Accreditation |
| NSPE | - National Society of Professional Engineers | NAPARS | - National Association of Professional Accident Reconstruction Specialists |
| SAE | - Society of Automotive Engineers | ASME | - American Society of Mechanical Engineers |

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