

MARK H. KITTEL, P.E.

EDUCATION:

B.Sc. M.E., University of Colorado, Denver, Colorado, specialty in vehicle design. National Honors Society, Dean's List, Dean's Leadership award, President of the student chapter of Society of Automotive Engineers (SAE).

REGISTRATION:

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

EXPERIENCE:

Principal Engineer, Veritech Consulting Engineering, LLC, Castle Rock, CO, April 2011 to present
Senior Engineer, Knott Laboratory, LLC, Centennial, Colorado, June 2006 to April 2011.
Senior Test Engineer, Honda Research and Development of Americas, Marysville, Ohio, August 1998 to June 2006.

ENGINEERING AND DESIGN:

As a Senior Engineer with the Research and Development division of Honda Motor Corporation, Mr. Kittel was a key member of Honda's Powersport Vehicle development teams. He has first-hand experience with the development and testing of several varieties of powersport vehicles including All-Terrain Vehicles (ATV's), on-road motorcycles, off-road motorcycles, jet-skis (PWC's), and side-by-side utility vehicles (UTV's) similar to the Polaris Ranger and the Yamaha Rhino. Mr. Kittel's testing and development responsibilities at Honda Research and Development included areas such as dynamic handling and stability, component part strength analysis, and fatigue life analysis of safety critical parts. Mr. Kittel's involvement at Honda R&D led to his participation in the conceptualization and development of an innovative suspension system for an experimental half-track utility terrain vehicle (UTV) for which he was awarded a patent.

While at Honda, Mr. Kittel also gained experience and knowledge of various manufacturing methods such as the casting, forging, stamping and machining of metal parts and the blow-molding and injection-molding of plastic parts. In addition to his product development responsibilities, Mr. Kittel also provided post-production support through the investigation and analysis of failures reported in the marketplace. His investigation and analysis of market failures were utilized to improve the product's quality and were occasionally used to determine whether a product should be recalled for safety concerns. As a result of his involvement at Honda, Mr. Kittel has a thorough understanding of the product development process, from initial concept to mass production release to the public.

ACCIDENT RECONSTRUCTION:

Mr. Kittel currently specializes in motor vehicle accident reconstruction and product failure analysis; with specific emphasis on the investigation and reconstruction of accidents involving motorcycles and other two-wheeled vehicles. In addition to motorcycle accidents, Mr. Kittel also investigates and reconstructs accidents involving ATV's, UTV's, passenger cars, commercial vehicles, bicycles and pedestrians. His expertise in the area of accident reconstruction includes vehicle dynamics, vehicle performance, time-space relationship, and driver/rider reaction. Frequent aspects of these investigations involve occupant kinematics, human factors, visibility analysis as well as the failure or malfunction of vehicle systems such as brakes, tires, seat belts, and airbags.

In the area of product failure analysis, Mr. Kittel has investigated and analyzed numerous product failures including the failures of individual parts as well as complicated hydraulic, pneumatic and mechanical systems and structures. He has worked with government agencies, such as OSHA, to determine system failures and to evaluate the influence of an operator's actions on a system's failure or malfunction. Mr. Kittel's development and manufacturing experience gives him unique insights as to why and how a product may have failed or malfunctioned.

MOTORCYCLE SPECIFIC EXPERIENCE:

Mr. Kittel has over 10 years of on-road motorcycle racing experience, beginning at a local club level and culminating as a Honda sponsored rider competing at a professional level in the American Motorcyclist Association (AMA) Supersport and Formula Extreme classes. In addition, Mr. Kittel also has over 20 years of off-road riding and racing experience participating in local and national level off-road competitions for hare-scramble and enduro racing. The combination of Mr. Kittel's engineering training and racing/riding experience gives him a thorough understanding of motorcycle dynamics, rider reaction and vehicle capabilities including traction limits as well as vehicle response to rider inputs.

EXPERT TESTIMONY:

As a result of his investigations and experience, Mr. Kittel has been asked to provide expert testimony in cases both nationwide and internationally. Mr. Kittel has been retained by, and testified on behalf of, both plaintiffs and defendants and has been qualified as an expert witness in the areas of mechanical engineering, accident reconstruction, vehicle dynamics and motorcycle riding techniques and practices.

PROFESSIONAL AFFILIATIONS:

NAFE - National Association of Forensic Engineers
NSPE - National Society of Professional Engineers
ACTAR - Accreditation Commission for Traffic Accident Reconstruction
ASME - American Society of Mechanical Engineers
SAE - Society of Automotive Engineers
AMA - American Motorcycle Association