



## Steven J. Roensch

### **Education**

Master of Science in Engineering Mechanics

May 1982, University of Wisconsin–Madison, GPA 4.00

Specialized in elasticity and stress analysis

Bachelor of Science in Applied Mathematics, Engineering and Physics with Honors

May 1981, University of Wisconsin–Madison, GPA 3.95

Phi Beta Kappa, Phi Kappa Phi, Phi Eta Sigma, Graduated with Distinction, Trewartha Honors Undergraduate Research Fund Grant, 1981 Radtke Scholarship—University of Wisconsin Physics Department's Outstanding Senior, James F. Lincoln Foundation 1981 Engineering Award

### **Publications**

- Consulting Project Reports – 100+ confidential reports detailing the analysis of the customers' products, with recommendations for any necessary changes, 1988–present
- *The Finite Element Method: A Four-Article Series* – Written for American Society of Mechanical Engineers, published in ASME newsletter, 1996
- College Thesis – *Bicubic Spline Interpolation and Application to Two-Dimensional Stress Analysis*, 1981

### **Teaching Experience**

- Marquette University – Guest lecturer on engineering expert witnesses
- FEA Classes – Taught *Finite Element Analysis* theory and practice classes to many customers, including J.I. Case/International Harvester, Johnson Controls, Oshkosh Truck Corporation, Giddings & Lewis, 1988–1996
- IBM Research & Development – Taught *Variational Methods* graduate-level mathematics class, focusing on the foundation of the finite element method, 1986
- University of Wisconsin – Taught *Statics* and *Strength of Materials* engineering classes, 1981–1982

**Steven J. Roensch**  
***Litigation Experience***

*Current as of August 2010*

<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Testimony</u>
1995-1997	Utility	Rakes v. Simon-RO – Utility Truck Boom Failure	Yes	Yes
1997	Utility	Electrical Insulator Lifter Failure	No	No
1998	Industrial	Toyota Material Handling U.S.A. – Forklift Fatality	No	No
1998	Energy	TU Electric v. F & E Erection – Electric Plant Vessel Failure	No	No
1998	Construction	Simon-Access – Boom Descent Time	No	No
1998	Industrial	Lattimore – Conveyor Lift Accident	No	No
1999	Industrial	Bolin – Forklift/Shipping Container Accident	No	No
1999	Transportation	Fire Truck Accident	No	No
1999	Commercial	Haynes and Giffin v. Bush Hog – Mower Blade Failure	No	No
1997-1999	Construction	Racine Federated v. Homelite – Concrete Vibrator Engine Failures	Yes	Yes
2000-2002	Energy	Fidelity & Deposit of Md. v. KFX – Coal Processing Plant Fire	Yes	Yes
1999-2003	Energy	Lankford v. Energy Industries – Natural Gas Plant Explosion	Yes	No

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***Litigation Experience (continued)***

*Current as of August 2010*

<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Testimony</u>
2004	Industrial	Chain Link Weld Flaw Failure	No	No
2004	Industrial	Toyota Material Handling U.S.A. – Forklift Accident	No	No
2004	Energy	Bridges v. Hydra Rig – Oil Field Equipment Failure	No	No
2005	Industrial	Valero Refinery – Valve Pipe Failure	No	No
2004-2006	Energy	Jackson v. Phillips – Coal Mining Shuttle Car Canopy Leg Failure	No	No
2005-2006	Residential	Grasso v. Cuno Inc. – Filtration System Polymeric Line Failure	No	No
2007	Industrial	Electric Motor Cooling Fin Failure	No	No
2006-2007	Construction	Flippin v. Crocker Crane – Derrick Boom Failure	No	No
2006-2007	Construction	Obayashi Corporation – Hoover Dam Cableway Tower Collapse	No	No
2007	Commercial	Brunner v. US Chemical – Dispenser Chemical Spill	No	No
2007-2008	Transportation	Cabell v. Great West Casualty – Flatbed Truck Accident	No	No
2008	Industrial	Robinson v. United Rentals – Forklift Battery Accident	No	No

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***Litigation Experience (continued)***

*Current as of August 2010*

<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Testimony</u>
2008-2009	Transportation	Arbella Insurance et al v. Snap-on Inc. – Motorcycle Lift Failure	No	No
2008-2009	Energy	McDaniel v. Smith International – Oil Field Equipment Failure	Yes	No
2009	Construction	Enerson v. Volvo Construction Equipment – Excavator Cab Window Support Failure	No	No
2009	Residential	Natural Gas Pipe Joint Failure	No	No
2009	Industrial	Oglebay-Norton / Foseco – Steel Hot-Top Refractory Asbestos	No	No
2009-2010	Transportation	McNicoll v. Northern Tool – Trailer Wheel Rim Failure	Yes	No
2007-2010	Medical	Surgical Tool Failure		Ongoing
2010	Residential	Bearing Failure		Ongoing

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***Representative Consulting Projects***

*Current as of August 2010*

Fuel Plant Piping	Commercial Trucks
Oil Field Equipment	Truck Racks
Space Station Components	Trailers
Wind Turbines	Motorcycle Components
Aircraft Engine Pistons	Agricultural Vehicles
Aircraft Engine Cylinders	Earth Moving Equipment
Aircraft Engine Crankshafts	Industrial Forklifts
Airliner Components	Rough Terrain Forklifts
Airliner Manufacturing Equipment	Rock Crusher Components
Marine Outboard Crankshafts	Transmission Housings
Marine Outboard Cowlings & Castings	Transmission Gears
Marine Inboard Manifolds	Cranes
Industrial Robots	Chain Links
Robot Gantries	Man Lifts
Hydraulic Motors	Medical Diagnostic Equipment
Electric Motors	Medical Beds and Lifts
High-Speed Motor Winding Equipment	Athletic Braces
Boiler Components	Computer Disk Drive Components
Generator Enclosures	HVAC Manifolds
Automotive Radiators	Pneumatic Cartridges
Automotive Mirror Housings	Food Processing Equipment
Automotive Battery Housings	High-Precision Machining Equipment
Automotive Steering Components	Concrete Vibrators
Automotive Drive Components	Plumbing Products
Automotive Seating	Commercial Windows
Crash & Rescue Vehicles	Distiller Housings
Recreational Vehicles	Plastic Gears

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***Representative Consulting Clients***

*Current as of August 2010*

ABB Robotics	Johnson Controls
Abrams Airborne	Kohler Engines
Advanced Machine & Tool	Kohler Plumbing
Allen-Bradley	Magnetrol
Boeing	Maynard Steel Casting
Brooks Stevens Design	Mercury Marine
DeltaHawk Engines	Milwaukee Metal Products
Eaton Corporation	Modine
Erie Manufacturing	Nordberg/Metso Minerals
Falk Corporation	Oshkosh Truck
G.E. Medical Systems	Osmonics Autotrol
Georgia-Pacific/Fort James	Rexnord
Giddings & Lewis	Rockwell Automation/Allen-Bradley
Harley-Davidson	Simon Aerials
Hewlett-Packard	Strattec Security Corporation
Hoyer Lifts/Sunrise Medical	Terex Cranes
IBM Corporation	Toyota
In-Sink-Erator	Trak International
J.I. Case/International Harvester	Wyco Tool
Joerns Healthcare	