

# Steven J. Roensch

## Curriculum Vitae

*Current as of October 12, 2018*

### **Work Experience**

- Roensch & Associates                1988–present  
    Grafton, Wisconsin  
    - President                    - Expert witness and litigation technical support in the following industries:
  - ✓ Energy
  - ✓ Construction
  - ✓ Industrial
  - ✓ Medical
  - ✓ Transportation
  - ✓ Marine
  - ✓ Utility
  - ✓ Commercial
  - ✓ Residential
- Failure analysis consulting
- Patent infringement technical support
- Finite element analysis consulting
- Marketing and support of finite element software and computer hardware
  
- IBM Corporation                    1982–1991  
    Milwaukee, Wisconsin  
    - Systems Engineer    - Finite element analysis consulting
- Marketing and support of finite element software and computer hardware
  
    Rochester, Minnesota  
    - Design Engineer    - Disk drive research & development- Nonlinear queuing theory analysis
  
- University of Wisconsin        1981–1982  
    Madison, Wisconsin  
    - Undergraduate Course Instructor

### **Professional Societies**

ASME – American Society of Mechanical Engineers  
SAE – Society of Automotive Engineers

## Steven J. Roensch

Current as of October 12, 2018

### **Education**

Master of Science in Engineering Mechanics

May 1982, University of Wisconsin–Madison

Specialized in elasticity and stress analysis

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

May 1981, University of Wisconsin–Madison

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 – Hundreds of confidential reports detailing the analysis of the clients' 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 October 12, 2018*

	<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Courtroom/ Arbitration</u>
1.	1995- 1997	Utility	Rakes v. Simon-RO – Utility Truck Boom Failure	Yes	Yes
2.	1997	Utility	Electrical Insulator Lifter Failure		
3.	1998	Industrial	Toyota Material Handling U.S.A. – Forklift Fatality		
4.	1998	Energy	TU Electric v. F & E Erection – Electric Plant Vessel Failure		
5.	1998	Construction	Simon-Access – Boom Descent Time		
6.	1998	Industrial	Lattimore – Conveyor Lift Accident		
7.	1999	Industrial	Bolin – Forklift/Shipping Container Accident		
8.	1999	Transportation	Fire Truck Accident		
9.	1999	Commercial	Haynes and Giffin v. Bush Hog – Mower Blade Failure		
10.	1997- 1999	Construction	Racine Federated v. Homelite – Concrete Vibrator Engine Failures	Yes	Yes
11.	2000- 2002	Energy	Fidelity & Deposit of Md. v. KFX – Coal Processing Plant Fire	Yes	Yes
12.	1999- 2003	Energy	Lankford v. Energy Industries – Natural Gas Plant Explosion	Yes	

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***Litigation Experience (continued)***

*Current as of October 12, 2018*

	<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Courtroom/ Arbitration</u>
13.	2004	Industrial	Chain Link Weld Flaw Failure		
14.	2004	Industrial	Toyota Material Handling U.S.A. – Forklift Accident		
15.	2004	Energy	Bridges v. Hydra Rig – Oil Field Equipment Failure		
16.	2005	Industrial	Valero Refinery – Valve Pipe Failure		
17.	2004- 2006	Energy	Jackson v. Phillips – Coal Mining Shuttle Car Canopy Leg Failure		
18.	2005- 2006	Residential	Grasso v. Cuno Inc. – Filtration System Polymeric Line Failure		
19.	2007	Industrial	Electric Motor Cooling Fin Failure		
20.	2006- 2007	Construction	Flippin v. Crocker Crane – Derrick Boom Failure		
21.	2006- 2007	Construction	Obayashi Corporation – Hoover Dam Cableway Tower Collapse		
22.	2007	Commercial	Brunner v. US Chemical – Dispenser Chemical Spill		
23.	2007- 2008	Transportation	Cabell v. Great West Casualty – Flatbed Truck Accident		
24.	2008	Industrial	Robinson v. United Rentals – Forklift Battery Accident		

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***Litigation Experience (continued)***

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	<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Courtroom/ Arbitration</u>
25.	2008-2009	Transportation	Arbella Insurance et al v. Snap-on Inc. – Motorcycle Lift Failure		
26.	2008-2009	Energy	McDaniel v. Smith International – Oil Field Equipment Failure	Yes	
27.	2009	Construction	Enerson v. Volvo Construction Equipment – Excavator Cab Window Support Failure		
28.	2009	Residential	Natural Gas Pipe Joint Failure		
29.	2009	Industrial	Oglebay-Norton / Foseco – Steel Hot-Top Refractory Asbestos		
30.	2009-2010	Transportation	McNicoll v. Northern Tool – Trailer Wheel Rim Failure	Yes	
31.	2010	Energy	Oil Pipeline Stepped Weld Joint		
32.	2010	Industrial	Excel Machinery Conveyor Joint		
33.	2007-2010	Medical	Sonntag v. Teleflex Inc. dba Pilling – Surgical Tool Failure		
34.	2010	Industrial	Gas Rupture Disc Failure		
35.	2011	Transportation	Bell Helicopter v. Eurocopter – Patent Infringement – Helicopter Landing Gear Assembly		
36.	2011	Construction	Superior Grouting – Water Pipe Buckling Analysis		

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***Litigation Experience (continued)***

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	<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Courtroom/ Arbitration</u>
37.	2010-2011	Transportation	Tezanos v. Boss Hoss Cycles – Motorcycle Component Failure	Yes	
38.	2010-2011	Residential	Custom Metals v. Motion Industries – Custom Gate Bearing Failure	Yes	Yes
39.	2011	Transportation	Webb v. Tyson, et al. – Rear Impact Underride Guard		
40.	2011	Energy	Oil Well Drillpipe Failure Dynamic Analysis		
41.	2011	Residential	Gas Explosion Dwelling Analysis		
42.	2012	Marine	River Barge Pelican Hook Failure Analysis		
43.	2012	Industrial	Quench Chamber Tipover Analysis		
44.	2012	Energy	Aries Well v. Hanover Insurance – Oil Well Workover Rig Collapse	Yes	
45.	2012-2013	Commercial	Shopping Mall Escalator Combplate Analysis		
46.	2013	Industrial	Harkins v. OWT Industries – Generator Wheel Rim Failure	Yes	
47.	2013	Commercial	Deere v. Duroc et al. – Mower Deck Patent Infringement		
48.	2013-2014	Transportation	Locomotive Radio Compartment Load Analysis		

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***Litigation Experience (continued)***

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	<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Courtroom/ Arbitration</u>
49.	2013- 2014	Construction	Star Alpha Corp. v. Mack Canada Inc. – Dump Truck Suspension Failures		
50.	2013- 2014	Transportation	McDonald v. Toyota – SUV Drive Shaft Failure	Yes x 2	
51.	2014	Commercial	Vehicle Material Spreader – Patent Infringement – Vibrational Dynamics Testing		
52.	2014	Transportation	Turner v. Dutchmen – Travel Trailer Frame Failure		
53.	2014	Commercial	Hoffman v. Dorel dba Cosco – Hand Truck Wheel Rim Failure	Yes	
54.	2014	Energy	Enterprise Crude Oil v. Jensen – Oil Tank Mixer Hinge/Valve Failure		
55.	2014- 2015	Industrial	Rockydale Quarries v. Vulcan Aggregates – Rock Crusher Failure		
56.	2015	Commercial	Elliott v. Tractor Supply Company – Replacement Wheel Cartridge Split Rim Failure	Yes	
57.	2015- 2016	Commercial	Evans v. Stihl Inc. – Chain Saw Fuel Tank Geysering – Patent Related		
58.	2015- 2017	Commercial	Chair Gas Spring Failure – Patent Related		
59.	2016- 2017	Energy	Chesapeake v. WDI Manufacturing, LLC – Oil Field Equipment Failure		
60.	2016- 2017	Transportation	Off-Road Vehicle Design – Patent Infringement		

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***Litigation Experience (continued)***

*Current as of October 12, 2018*

	<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Courtroom/ Arbitration</u>
61.	2017	Construction	Truck Trolley Boom Failure		
62.	2017	Energy	Oilfield Salt Water Disposal Well Pipe Victaulic Coupling Failure		
63.	2018	Commercial	Impact Analysis due to Overhead Light Support Failure		
64.	2018	Energy	Oilfield Casing Coupling Failure		
65.	2018	Construction	Step Ladder Injury		
66.	2018	Commercial	Aerial Lift Failure		

Deposition Testimony: 14

Courtroom Testimony: 3

Arbitration Testimony: 1

Patent Cases: 6

Total Cases: 66

Expert Witness Experience: 23 years

Professional Experience: 36 years



**Steven J. Roensch**  
***Representative Consulting Projects***

*Current as of October 12, 2018*

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

**Steven J. Roensch**  
***Representative Consulting Clients***

*Current as of October 12, 2018*

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