

Steven J. Roensch
Curriculum Vitae

Current as of April 11, 2023

Work Experience

- Roensch & Associates 1988–present
Fox Crossing, Wisconsin
previously Grafton, Wisconsin
 - President - Expert witness and litigation technical support in the following industries:
 - ✓ Energy
 - ✓ Construction
 - ✓ Industrial
 - ✓ Agricultural
 - ✓ 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

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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 April 11, 2023

	<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 April 11, 2023

	<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	Hernandez v. Freeport Welding – Quench Chamber Tip-over 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 – 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 – Split Rim Wheel 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.	2017	Construction	Kennedy Concrete v. Garden State Engine, et al. – Truck Trolley Boom Failure		

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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>
61.	2017	Energy	Oilfield Salt Water Disposal Well Pipe Victaulic Coupling Failure		
62.	2018	Commercial	Impact Analysis due to Overhead Light Support Failure		
63.	2018	Energy	Oilfield Casing Coupling Failure		
64.	2016- 2018	Transportation	Off-Road Vehicle Design – Patent Infringement		
65.	2018- 2019	Construction	Step Ladder Injury		
66.	2018- 2019	Commercial	Walz v. Doug's Midwest Aerial Service LLC – Aerial Lift Failure		
67.	2019	Residential	Pawlik v. Alco Manufacturing Co., et al. – Ratchet Strap Failure		
68.	2019- 2020	Industrial	Brush Cutter Design – Patent Case		
69.	2019- 2022	Residential	Climbing Stick Failure	Yes	
70.	2019- 2022	Commercial	Heat Exchanger Failure	Yes	
71.	2022	Industrial	Roll-off Waste Containers	Yes	
72.	2022	Agricultural	Tractor Loader Accident		

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<u>Date</u>	<u>Industry</u>	<u>Description</u>	<u>Deposition</u>	<u>Courtroom/ Arbitration</u>
73. 2022	Commercial	Restaurant Fire		

Litigation Case Totals:

Professional Experience: 41 years
Expert Witness Experience: 28 years
Deposition Testimony: 17
Courtroom Testimony: 3
Arbitration Testimony: 1
Patent Cases: 7
Total Cases: 73

Steven J. Roensch
Representative Consulting Projects

Current as of April 11, 2023

Space Station Components	Grain & Semi 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 Crushers
Marine Outboard Crankshafts	Jaw Crushers
Marine Outboard Cowlings & Castings	Cone Crushers
Marine Inboard Manifolds	Vibrating Gravel Screens
River Barge Equipment	Gravel Conveyors
Steel Bollard Barriers	Transmission Housings
Concrete Blast Walls	Transmission Gears
Industrial Robots	Cranes
Robot Gantries	Chain Links
Oil Field Equipment	Man Lifts
Fuel Plant Piping	Escalators
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 Battery Housings	Pneumatic Cartridges
Automotive Door Assemblies	Foundry Ovens
Automotive Drive Components	Food Processing Equipment
Automotive Mirror Housings	Cooking Platens
Automotive Radiators	High-Precision Machining Equipment
Automotive Seating	Concrete Vibrators
Automotive Steering Components	Plumbing Products
Crash & Rescue Vehicles	Commercial Windows
Recreational Vehicles	Distiller Housings
Commercial Trucks	Plastic Gears
Truck Racks	

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Representative Consulting Clients

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ABB Robotics	Joerns Healthcare
Abrams Airborne	Johnson Controls
Advanced Machine & Tool	Kohler Engines
Allen-Bradley	Kohler Plumbing
Bartell Machinery Systems	Lippmann
Bison Engineering	Magnetrol
Boeing	Maynard Steel Casting
Brooks Stevens Design	McCloskey International
DeltaHawk Engines	Mercury Marine
Dynamic Fan Corporation	Metso Minerals
Eaton Corporation	Milwaukee Metal Products
Erie Manufacturing	Modine
Falk Corporation	Nordberg/Metso Minerals
Flanders Electric	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.E.I. Metallurgical	Wyco Tool
J.I. Case/International Harvester	Zond Energy Systems