



## Steven J. Roensch

Current as of July 20, 2022

### **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 July 20, 2022*

|     | <u>Date</u>   | <u>Industry</u> | <u>Description</u>   | <u>Deposition</u> | <u>Courtroom/<br/>Arbitration</u> |
|-----|---------------|-----------------|--|-------------------|-----------------------------------|
| 1.  | 1995-<br>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-<br>1999 | Construction    | Racine Federated v. Homelite – Concrete Vibrator Engine Failures | Yes               | Yes                               |
| 11. | 2000-<br>2002 | Energy          | Fidelity & Deposit of Md. v. KFX – Coal Processing Plant Fire    | Yes               | Yes                               |
| 12. | 1999-<br>2003 | Energy          | Lankford v. Energy Industries – Natural Gas Plant Explosion      | Yes               |                                   |

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

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***Litigation Experience (continued)***

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|-----|-------------|-----------------|--|-------------------|-----------------------------------|
| 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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|-----|-------------|-----------------|--|-------------------|-----------------------------------|
| 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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|-----|---------------|-----------------|---|-------------------|-----------------------------------|
| 49. | 2013-<br>2014 | Construction    | Star Alpha Corp. v. Mack Canada Inc. – Dump Truck Suspension Failures             |                   |                                   |
| 50. | 2013-<br>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-<br>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-<br>2016 | Commercial      | Evans v. Stihl Inc. – Chain Saw Fuel Tank Geysering – Patent Related              |                   |                                   |
| 58. | 2015-<br>2017 | Commercial      | Chair Gas Spring Failure – Patent Related   |                   |                                   |
| 59. | 2016-<br>2017 | Energy          | Chesapeake v. WDI Manufacturing, LLC – Oil Field Equipment Failure                |                   |                                   |
| 60. | 2017          | Construction    | Truck Trolley Boom Failure  |                   |                                   |

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***Litigation Experience (continued)***

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|-----|---------------|-----------------|--|-------------------|-----------------------------------|
| 61. | 2017          | Energy          | Oilfield Salt Water Disposal Well<br>Pipe Victaulic Coupling Failure |                   |                                   |
| 62. | 2018          | Commercial      | Impact Analysis due to Overhead<br>Light Support Failure             |                   |                                   |
| 63. | 2018          | Energy          | Oilfield Casing Coupling Failure                                     |                   |                                   |
| 64. | 2016-<br>2018 | Transportation  | Off-Road Vehicle Design – Patent<br>Infringement                     |                   |                                   |
| 65. | 2018-<br>2019 | Construction    | Step Ladder Injury   |                   |                                   |
| 66. | 2018-<br>2019 | Commercial      | Aerial Lift Failure  |                   |                                   |
| 67. | 2019          | Residential     | Ratchet Strap Failure  |                   |                                   |
| 68. | 2019-<br>2020 | Industrial      | Brush Cutter Design – Patent Case                                    |                   |                                   |
| 69. | 2019-<br>2022 | Residential     | Climbing Stick Failure   | Yes               |                                   |
| 70. | 2019-<br>2022 | Commercial      | Heat Exchanger Failure   | Yes               |                                   |
| 71. | 2022          | Industrial      | Roll-off Waste Containers  |                   |                                   |



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***Litigation Experience (continued)***

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Litigation Case Totals:

|                            |          |
|----------------------------|----------|
| Professional Experience:   | 40 years |
| Expert Witness Experience: | 27 years |
| Deposition Testimony:      | 16       |
| Courtroom Testimony:       | 3        |
| Arbitration Testimony:     | 1        |
| Patent Cases:              | 7        |
| Total Cases:               | 71       |

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

*Current as of July 20, 2022*

|                                     |                                    |
|-------------------------------------|------------------------------------|
| 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                         |                                    |

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

*Current as of July 20, 2022*

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| 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               |