

Ben Wiers

Forensic Engineering Expertise

Mechanical Failure

Determine root cause of mechanical failure, including industrial accidents, explosions, appliances, HVAC equipment, plumbing, fireplaces and auxiliary heating appliances, and fire suppression systems.

Origin & Cause

Determine the source and responsible party or element related to a failure resulting in water damage and/or bio-organic growth in a building. Examples include failures causing moisture entry, humidity and condensation related losses, and groundwater entry.

Examination and Evaluation of Roofing Systems

Including steep and low slope roofs as well as various types of roofing materials, including both common and unique roofing applications. Past work involved offering opinions and repairs related to installation deficiencies and storm-related damages, including for hail and wind.

Education

Bachelor of Science in Engineering
Grand Valley State University, Allendale, MI
August 2017

Qualifications & Training

- Holistic Failure Analysis, West Michigan ASM International, November 2024
- Water Damage Events: Scope, Risks, and Accountability in Remediation, March 2024
- Two-Day Fire Investigation Seminar, Shand Forensic Investigations, February 2024
- Introduction to Appliances, IAAI, CFITrainer.net, January 2024
- Residential Building Construction, IAAI, CFITrainer.net, January 2024
- Residential Electrical Systems, IAAI, CFITrainer.net, January 2024
- Residential Natural Gas Systems, IAAI, CFITrainer.net, January 2024

Employment History

Forensic Engineer
Nederveld, Grand Rapids, MI
2023 - Present

Duties include forensic engineering analysis relating to mechanical system failure (industrial accidents, appliances, HVAC equipment), analysis and reconstruction of motor vehicle collisions, occupant safety, water loss events (plumbing), and storm damage (wind, snow, hail).

Mechanical Design Engineer
Altron Automation, Hudsonville, MI
2019 - 2023

Oversaw programs while leading design teams and provided feedback on colleague's designs. Instrumental in initiating and implementing a design check process. Used SolidWorks for solid modeling, 2D drawings, and Finite Element Analysis. Designed stand-alone machines, cells, and assembly lines for a variety of automotive components with an emphasis on vehicle seats.

Mechanical Design Engineer
BCN Technical Services, Hastings, MI
February 2019 - August 2019

Conducted engineering studies on tonnage and energy to determine press capacity. Redesigning old standard presses with an emphasis on geometric dimensioning and tolerances (GD&T). Created inspection reports on press assemblies and reported findings to the customer.

Mechanical Designer
MP Components, Byron Center, MI
2017 - 2019

Designed check fixtures and special machines. Used Creo PTC for solid modeling and 2D drawings. Designed tooling for automotive parts with a strong focus on surfacing. Worked on the shop floor grinding high tolerance pins and machining details. Provided substantial additions to corporate parts library.

Mechanical Design Intern
JR Automation Technologies, LLC, Holland, MI
2015 - 2016

Used Creo PTC for solid modeling and 2D drawings. Detailed and design checked drawing packages. Collaborated with engineers of multiple disciplines to review designs. Worked on the shop floor as a builder for two months.