

# John D. Zeirke, P.E.

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## Profile

Mechanical Engineer with over 20 years of experience in various design and forensic investigative roles. Licensed Professional Engineer in six states. Product and system design and development experience in on- and off-road vehicle driveline systems, steering, brakes, seats, restraints, and cooling. Certified vehicle accident reconstructionist and fire investigator with experience in product liability matters.

## Experience

### Owner and Principal Engineer | JZ Engineering, LLC | 2025 - Present

- Provide consulting services for legal, insurance, and corporate clients. Responsibilities include mechanical failure analysis, product liability, vehicle accident reconstruction, and fire investigations.

### Principal Consultant | Rimkus | 2018 - 2025

- Provide consulting services for legal, insurance, and corporate clients. Responsibilities include mechanical failure analysis, product liability, vehicle accident reconstruction, and fire investigations.

### Senior Engineer | Polaris Industries | 2014 - 2018

- Responsible for root cause and safety disposition of all new or emerging field issues on Slingshot 3-wheel on-road vehicle. Led issue investigations from initial data collection and field inspection through executive review. Performed root cause and corrective action of product safety and/or quality issues on Slingshot product. Supported field inspections and/or accident investigations, as well as safety-specific technical expertise and support to engineering teams.
- Maintained system owner responsibility for driveline and engine isolation on current production and future model year development of Slingshot 3-wheel on-road vehicle.

### Senior Design Engineer | Caterpillar | 2005 - 2014

- Responsible for lower powertrain systems on current production and future model years of large, ultra-class off-highway mining trucks ranging from 180- to 400-ton payload.

### Engineer | Strattec Security Corporation | 2002 - 2004

- Completed a Co-op program at a Tier 1 automotive supplier. Rotation assignments included testing, plant quality, manufacturing engineering, and product design.

## Education

### Bachelor of Science in Mechanical Engineering

Marquette University, Milwaukee, Wisconsin

### Specialized coursework

Crash Investigation 1 & 2 (Northwestern University); BOSCH CDR Technician Training (IPTM); BOSCH CDR Analyst (IPTM); Energy Methods and Damage Analysis (IPTM); Accessing & Interpreting HVEDR's (SAE); Heavy Vehicle Forensic Mechanical Inspections (Northwestern University); Vehicle System Forensics (Berla); NAFI Fire Investigation Training Program (CFEI & CVFI); Applied Failure Analysis of Gears & Bearings (Caterpillar); Diagnosis of Bearing Problems (NSK); Six Sigma Green Belt; Highway Crash Investigation (NTSB)

## Certifications

- Licensed P.E. in MN, WI, IL, SD, ND, IA
- NAFI CFEI & CVFI (Fire Investigation)
- FAA Part 107 Commercial Unmanned Drone Pilot
- ACTAR (Accident Reconstruction)

## Patents

- **Axle assembly for electric drive machine:** US 8544579 B2, 2013
- **Apparatus and method for lubricating a gear:** US 8366578 B2, 2013
- **Sheath assembly for a planetary gear:** US 8128524, 2012