

JAMES W. LAIRD, PE, CFEI, CWI

SUMMARY

James is a Lead Mechanical Engineer for FORCON International with over 11 years of responsibilities for conducting forensic engineering investigations and providing expert analysis on a variety of mechanical failures and issues. He has led and conducted over a sixteen hundred inspections, failure analyses and consultations, in addition to providing expert testimony services. James's experience and expertise cover a wide array of disciplines, including but not limited to the following areas:

- Motorcycle crash causation analysis with advanced rider experience
- Heavy equipment accident, failures and fire
- Vehicle parts and mechanical system failures
- Automotive crash data download and interpretation
- Vehicle/Equipment fire origin & cause
- Welding failures and analysis
- Power tools and consumer equipment accident analysis
- Product liability
- Workplace safety
- Plumbing fixture and component analysis
- Fatigue related failures
- Exercise equipment injury
- HVAC equipment malfunction and fires
- Fire sprinkler systems
- Appliance mechanical failures, flooding and fire
- Gas plumbing
- Wood fired appliances
- Industry standards
- Forklifts and aerial work platforms

EDUCATION

Master of Engineering in Mechanical Engineering – Old Dominion University; Norfolk, VA

Bachelor of Science in Mechanical Engineering - Virginia Polytechnic Institute and State University (Virginia Tech); Blacksburg, VA

Traffic Accident Reconstruction - Northwestern University Center for Public Safety

CONTINUING EDUCATION

Additional courses and certifications completed in the following areas:

- National Association of Fire Investigators
 - Fire & Explosion Investigations
 - Vehicle Fire Investigations
- California Superbike School
 - Advance Motorcycle Rider Training
- Northwestern University Center for Public Safety
 - Bosch CDR Technician and Data Analyst
 - Crash Investigation
- Earlbeck Corporation
 - Fundamentals of Welding & Technology
- Eaheart Industrial Service Inc.
 - Operator Safety Training – Forklifts

REGISTRATIONS & CERTIFICATIONS

Registered Professional Engineer

- District of Columbia
- Maryland
- North Carolina
- South Carolina
- Virginia
- West Virginia

Certified Fire and Explosion Investigator, NAFI

Certified Vehicle Fire Investigator, NAFI

Retired Motorcycle Road Racer, CCS

Certified Welding Inspector, AWS

PROFESSIONAL ASSOCIATIONS

National Society of Professional Engineers (NSPE)
National Association of Fire Investigators (NAFI)
International Association of Arson Investigators (IAAI)
American Society of Mechanical Engineers (ASME)
American Welding Society (AWS)

CAREER HISTORY

FORCON International – Lead Mechanical Engineer

Conducting forensic engineering investigations and providing expert analysis on a variety of mechanical failures and issues.

Virginia Tech (Blacksburg, VA) – Research, Extreme Laboratories

- Conducting heat flux gauge testing for fire propagation analysis.
- Analyzing data and designed experimental setup for gauge accuracy testing.

US Army Aberdeen Testing Center – Engineering Technician

- Conducting testing and analyzed combat performance of military vehicles.

Trident Engineering – Forensic Engineering Intern

- Conducting forensic engineering investigations and failure analysis with regard, to household appliances, structures and vehicle crashes.