



## Curriculum Vitae

**Brian A. Darr, P.E. IAAI-FIT(V), CFEI**

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## BACKGROUND

Mr. Darr has over 25 years of engineering experience which includes tire failure analysis on many types of tires (passenger, light truck, radial medium truck, retreads, motorcycle, etc.), vehicle and residential fire origin and cause investigations, vehicle accident reconstruction for passenger and commercial vehicles, motorcycles, vehicle component failure analysis, and insurance fraud/consistency evaluations. He also conducts crash data retrieval (CDR) downloads for passenger vehicles and engine control module (ECM) downloads for commercial vehicles. Mr. Darr evaluates traffic signal timing relating to intersection collisions. He provides services in product and material failure analysis, cause analysis of plumbing failures, mechanical equipment and machinery failures, lightning strike investigations, nondestructive examinations and testing, product design and assessment of conformance to government, corporate, industry, safety, and international standards.

Mr. Darr has over 25 years of extensive experience with tires including design, development, manufacturing, quality investigation, race tire preparation, and testing of tires at numerous testing facilities. He worked in a tire manufacturing facility as a plant technical engineer where he investigated quality related issues, and in a Research & Development (R & D) center where he designed, developed, tested, and analyzed tires. Mr. Darr has visited numerous tire production plants such as Goodyear, Bridgestone, Michelin, and Continental tire. He has inherent knowledge of the PAX run-flat tire system and C3M manufacturing process. He also was responsible for verifying standards and regulations were met, related to tire product and tire pressure monitoring sensors. Mr. Darr has been qualified as a tire expert in State and Federal court. He has completed forensic tire failure analysis on many types of tires in which he referenced hundreds of publicly available tire related documents. He reviews forensic tire reports from outlying offices along with providing marketing support and giving seminars nationwide.

Mr. Darr has conducted numerous vehicle and residential fire origin and cause investigations with various findings including fires that were intentionally set, accidental, and electrical in nature. He has also conducted fire suppression system investigations. Mr. Darr holds multiple fire certifications and designations with the International Association of Arson Investigators and the National Association of Fire Investigators.

Mr. Darr is a graduate of The Ohio State University with a Bachelor of Science Degree in Mechanical Engineering.

## AREAS OF EXPERTISE

- Tire Failure Analysis
- Vehicle Fire Investigation
- Residential Fire Investigation
- Fire Suppression System Investigation
- Vehicle Accidents

- Motorcycle Accidents
- Vehicle Component Failure Analysis
- Insurance Fraud/Consistency Evaluations
- Crash Data retrieval (CDR)
- Tractor Trailer Electronic Control Module (ECM) Analysis
- Product Failure Analysis
- Lightning Strike Investigation
- Product Design & Assessment

## PROFESSIONAL LICENSES & CERTIFICATIONS

- Certified Fire & Explosives Investigator, NAFI-CFEI #27140-115337
- Certified Fire Investigation Technician for Motor Vehicle & Marine, IAAI FIT(V) #1310590
- Certified Fire Investigation Technician, IAAI FIT
- FAA Remote Pilot Certification, #1664171
- Licensed Professional Engineer, Alabama, #32576
- Licensed Professional Engineer, Arizona, #79649
- Licensed Professional Engineer, Arkansas, #16538
- Licensed Professional Engineer, Florida, #70257
- Licensed Professional Engineer, Georgia, #040399
- Licensed Professional Engineer, Indiana, #12300777
- Licensed Professional Engineer, Kentucky, #31716
- Licensed Professional Engineer, Louisiana, 36957
- Licensed Professional Engineer, Mississippi, #25570
- Licensed Professional Engineer, Ohio, #68140
- Licensed Professional Engineer, Tennessee, #120795
- Licensed Professional Engineer, Texas, #121127

## EDUCATION

- B.S., Mechanical Engineering, The Ohio State University, Columbus, OH, 1996

## PROFESSIONAL EXPERIENCE

2023 – Present | Quality Forensic Engineering, LLC | Senior Forensic Engineer, Covington, LA

2014 – 2023 | U.S. Forensics, LLC | Senior Forensic Engineer, Metairie, LA

2009 – 2014 | Rimkus Consulting Group, Inc. | Senior Consultant – 2011 to 2014, Metairie, LA

| Senior Consultant – 2009 to 2011, Ft. Lauderdale, FL

2011 – 2011 | Darr Consulting, LLC | Principal Consultant, Tucson, AZ

2011 – 2011 | Carlson Engineering, Inc. | Principal Consultant, Tucson, AZ

2003 – 2009 | Honda R&D Americas, Inc. | Senior Tire Project Leader, Chassis Design, Raymond, OH

1997 – 2003 | Cooper Tire & Rubber Co. | SUV/LT Tire Development Engineer, Tech Center – 2001 to 2003

| Plant Technical Engineer, Findlay Plant – 2000 to 2001, Findlay, OH

| Pass Tire Development Engineer, Tech Center – 1997 to 2000

1996 – 1997 | Lockheed Martin Federal Systems | Scientist, Advanced Development Unit, Manassas, VA

1995 – 1996 | Delphi Chassis Systems, GM | Product Engineering Intern, Sandusky, OH

## NOTABLE PROJECTS

### Forensic Engineering

Mr. Darr has been involved in many forensic engineering projects, including the following:

- Thousands of tire failure investigations
- Numerous vehicle and residential fire origin and cause investigations
- Numerous vehicle collision reconstructions
- Numerous vehicle damage consistency evaluations
- Numerous product failure analysis and product design & assessment investigations
- Automobile electronic data recorder downloads
- Tractor-trailer engine control module and electronic data downloads
- Plumbing failure investigations
- Lightning strike investigations

### Tire Development

- Project leader for all North American developed vehicles (over 2 dozen) while employed at Honda R&D Americas
- Tire Project leader for the North American Car of Year, 2006 Honda Civic
- Tire Project leader for the North American Truck and Utility Vehicle of Year, 2006 Honda Ridgeline
- Project Leader for First Sport Truck tire line launched at Cooper Tire, 2002

## NOTABLE TIRE RELATED VISITS, INSPECTIONS, EMPLOYMENT

Mr. Darr has visited and/or been employed at the following tire related manufacturing plants, original equipment manufacturer (OEM) automotive plants, tire research and development centers, tire indoor test facilities and tire and vehicle proving grounds:

### **Tire Manufacturing Plant Quality Assurance Inspections**

<u>Tire Manufacturer</u>	<u>Location</u>	<u>Timeframe</u>
Bridgestone/Firestone	Wilson, NC	Sep-03
Continental AG	Korbach, Germany	Sep-04
	Mount Vernon, IL	Mar-08
Goodyear Tire & Rubber	Medicine Hat, Canada	Oct-04
	Lawton, OK	Jun-06
Kenda Tire	Kunshan, China	Oct-07

	Greenville, SC (US1)	2005-2008 Multiple visits
Michelin Americas	Greenville, SC (PAX1)	Feb-05
	Lexington, SC (US5)	Jan-07

#### **Research and Development (R&D) and Indoor Testing Center Inspections**

Bridgestone/Firestone	Akron, OH	Dec-05
Goodyear Tire & Rubber	Akron, OH	12/1/2005, 2006
Michelin Americas Research Center (MARC)	Greenville, SC	2005-2008 Multiple visits

#### **Outdoor Proving Grounds Facility Testing Inspections**

Ft. Stocken Proving Grounds	Ft. Stocken, TX	1998-2005 Multiple visits
West Yellowstone airport cold weather	West Yellowstone, MT	2005
Uvalde Proving Grounds	Uvalde, TX	1998-1999 Multiple visits
Tire and Vehicle Test Center	Pearsall, TX	1999-2003 Multiple visits
Honda Proving Center (HPC)	Kern County, CA	2007
International Falls cold weather	International Falls, MN	2004-2009 Multiple visits
Laurens Proving Grounds (LPG)	Laurens, SC	2005-2008 Multiple visits
Smither's Scientific cold weather	Sault Saint Marie, MI	2000
Transportation Research Center (TRC)	East Liberty, OH	2003-2009 Multiple visits

#### **Tire Cord R&D and Manufacturing Plant Inspection**

Allied Signal	Virginia	1999-2000 Multiple visits
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#### **R&D and Indoor Testing Center Employment**

Cooper Tire Tech Center	Findlay, OH	1997 - 2000 & 2001 - 2003
Honda R&D Americas (HRA)	Raymond, OH	2003 - 2009

#### **Manufacturing Plant Employment**

	Findlay, OH	2000 - 2001
Cooper Tire and Rubber Co.	Tupelo, MS	2001
	Texarkana, AR	2002 - 2003 Multiple
Honda Americas Manufacturing (HAM)	Marysville, OH	2003 - 2009 Multiple

#### PROFESSIONAL ASSOCIATIONS

- American Society of Mechanical Engineers (ASME)
- Society of Automotive Engineers (SAE)
- International Association of Arson Investigators (IAAI)
- National Association of Fire Investigators (NAFI)
- National Safety Council (NSC)

#### HONORS AND AWARDS

- Featured multiple times on Crime Stories with Nancy Grace Alex Murdaugh trial February 2023
- Featured on ABC News 7 Chicago regarding tire aging February 2023

#### COURSEWORK/CONTINUING EDUCATION

2022 | Certified Fire & Explosives Investigation Training, National Association of Fire Investigators, New Orleans, LA

2021 | Marine Fire Investigation Training, International Association of Arson Investigators, South Carolina

2019 | Remote Pilot Airmen Certification Part 107, Federal Aviation Administration, Hammond, LA

2019 | Certified Fire Investigation Technician for Motor Vehicles, International Association of Arson Investigators FIT(V)

2018 | HVAC Training with EPA Universal Certification, All American Technician Academy, Marietta, GA

2017 | Heavy Vehicle Event Data Recorder Training

2016 | Certified Fire Investigation Technician, International Association of Arson Investigators FIT

2015 | Fundamentals of Fire investigation, International Association of Arson Investigators

2014 | Advanced Crash Reconstruction Utilizing Human Factors, Northwestern University

2012 | HVE Reconstruction (EDCRASH), Engineering Dynamics Corp

2011 | ECM Crash Data Retrieval Specialist Training

2011 | CSI Crash Data Retrieval Specialist Training-Level II

2010 | CSI Crash Data Retrieval Data Technician and Analyst courses

2010 | Crash Reconstruction at Traffic Signal Intersections, Forensic Traffic Specialist

2010 | Northwestern Online Accident Investigation 1 & 2, Northwestern University

2010 | Pedestrian and Bicycle Accident Investigation, Institute of Police Technology and Management

#### PUBLICATIONS

Darr, Brian and Gary L. Bell. "How to Get the Most Traction on Your Tire Failure Case." *NASP Subrogator Magazine*. Spring 2016

Darr, Brian and Michael DeHarde. "U.S. Forensic: Water Heater Connector Failures: An Engineering Assessment of Cause" *NASP Subrogator Magazine*. November 2016

#### PRESENTATIONS

Darr, Brian, "Webinar Tire Presentation", National Association of Subrogation Professionals, May 2022

Darr, Brian, "International Association of Special Investigation Units Presentation", September 2017

Darr, Brian, "Accident Reconstruction Presentation", Allstate, April 2016

Darr, Brian, "Tire Presentation", National Association of Subrogation Professionals Conference, November 2015

Darr, Brian, "Tire Presentation", Allstate, July 2015

Darr, Brian, "Tire Presentation", Louisiana Claims Association Conference, June 2015

Darr, Brian, "Tire Presentation", Southwest Louisiana Claims Association, February 2015

Darr, Brian, "Accident Consistency Presentation", State Farm, March 2013

#### PATENTS

- 2002 Patent submission for nylon cap ply in load range E light truck tires.
- 1996 Patent submission for wood chipper mechanism.

*October 23, 2023*