

EDUCATION

2006 **Bachelor of Science, Mechanical Engineering**
The University of Texas, Austin, TX

EXPERIENCE

July 2022
to Present **Engineering Design & Testing Corp.**
Birmingham, Alabama

Consulting Engineer

Specialized consulting and root cause analysis in areas of mechanical systems, machinery, pressure vessels, and piping design. Investigation and analysis of mechanical fractures of materials and components. Fire and explosion cause and origin. Assessment of fire damage related to mechanical equipment. Preparation of repair and/or replacement cost estimates. Investigation of product defects.

January 2011
to June 2022 **Dril-Quip, Inc.**
Houston, TX

Engineering Lead

Lead engineer for team of 4 investigating and correcting field problems. Spearheaded design, drawing creation and any required testing of new product concepts. Trained and mentored younger engineers to assist in creation of new products. Drove development and ultimate installation of new flagship product line of subsea wellhead equipment including conception of 20 unique designs and completion of requisite industry testing for each new ideation.

Project Engineer

Liaised with largest and most active customer. Closely coordinated with customer engineering representation in all actions including day to day activities, product qualification and field problem investigation. Completed procedures and reports for all testing activities. Executed companywide initiative to develop comprehensive Advanced Product Quality Planning program. Constructed lasting global framework for documentation of risk assessment and risk mitigation used by the engineering, manufacturing, and quality departments.

Design Engineer

Coordinated with sales department on day to day product needs and questions. Collaborated with senior engineers to design new product components and associate tools. Validated new designs both empirically and through engineering calculation. Fulfilled customer specified engineering requirements put forth in new sales orders. Reviewed customer supplied specifications and determined appropriate path forward on product design.

Plant Engineer

Coordinated with customers on proposed path forward regarding critical safety parts. Fielded immediate issues and problems within manufacturing process. Handled disposition of all generated Non-Conformance Reports (NCRs).

EXPERIENCE

Field Experience and Consulting Activity (partial list)

Condo Fire — Shawnee, KS

Determine origin and cause of fire event in a condominium complex.

Senior Living Facility – Pillaged Copper, Scope of Loss — Kansas City, KS

Catalog total losses of pilfered copper materials from senior living facility

Takata Air Bag – Failure Analysis — Birmingham, AL

Consult on apparent failure mode/s of airbag inflator using provided remnants

Diesel Generator Fire — Tuscaloosa, AL

Determine origin and cause of fire event at a newly commissioned genset

Residential Fire — Sullivan, MO

Determine origin and cause of fire event resulting in multiple casualties at a residential site

Water Damaged Elevator — Panama Beach, FL

Evaluate malfunctioning elevator car and confirm reported water damage claims

HVAC System Malfunction – Lincoln, NE

Investigate malfunction for newly installed and commissioned HVAC unit at hospital

Heavy Equipment Fire (Grinder) – Pinson, AL

Determine origin and cause of heavy equipment fire used in land clearing operation

Heavy Truck Tire Blowout – Argo, AL

Evaluate tractor tire remnant to determine cause of failure

Vehicle Fire – F-250 – Mexico, MO

Determine origin and cause of vehicle fire in a 2001 Ford F-250 truck

Machine Shop Manufacturing Issues – Wichita, KS

Investigate source of machine tool breakages and repeated alignment issues with new CNC lathe.

REGISTRATIONS and CERTIFICATIONS

Registered Professional Engineer in Texas (#134424)

Registered Professional Engineer in Alabama (#51645)

Registered Professional Engineer in Mississippi (#33229)

Registered Professional Engineer in Georgia (#PE049254)

Registered Professional Engineer in Kentucky (#38099)

Registered Professional Engineer in Tennessee (#127065)

Registered Professional Engineer in Arkansas (#21238)
Registered Professional Engineer in Louisiana (#47081)
Registered Professional Engineer in Florida (#94857)
National Council of Examiners for Engineers and Surveying Record (#18-038-98)
OSHA Permit – Required Confined Space Entry (#195906)

PROFESSIONAL ORGANIZATIONS

American Society of Mechanical Engineers (ASME)
ASM International
National Association of Fire Investigators (NAFI)
National Fire Protection Association (NFPA)

PUBLICATIONS

OTC-25743-MS – Improving Product Quality through Advanced Product Quality Planning in Compliance with API Q1 at a Vertically Integrated OEM for Offshore Drilling and Production Equipment

OTC-27738-MS – Next Generation HP/HT Wellhead Seal System Validation

PRESENTATIONS

“Next Generation HP/HT Wellhead Seal System Validation”, presented at the Place of Offshore Technology Conference, May 2017 in Houston, TX

“Improving Product Quality through Advanced Product Quality Planning in Compliance with API Q1 at a Vertically Integrated OEM for Offshore Drilling and Production Equipment”, presented at the Offshore Technology Conference, May 2015 in Houston, TX

Patents

US Patent #11,371,294 – Releasable Ratchet Latch Connector

CONTINUING EDUCATION

2022 *Principles of Failure Analysis*, ASM International

International Fire, Arson, & Explosion Investigation Training Program, NAFI

OSHA 29 CFR 1910.146 – Confined Space Certification