David Bosko

PE, PEng, CFEI

Senior Managing Engineer

Department
Engineering Services

Tel: (209) 914-4046
Email: david.bosko@yaeservices.com

Locations
San Francisco, CA

Biography

Dave was introduced to engineering while pursuing an Airframe & Powerplant maintenance degree in university. A love for the details of engineering led to completing his Master's degree in Mechanical Engineering. Dave began his engineering career as a consultant for the power, oil, and gas industries. Expertise developed during this time includes fracture mechanics, welding residual stress analysis, ASME boiler and pressure vessel assessments, API 579/ASME fitness for service assessments, high energy piping design and analysis, and finite element analyses of various types. Discovering a love for the puzzles provided by forensic engineering, Dave continued on to provide consultation in the areas of root cause investigation of mechanical system and component failures. His services include evaluating incidents involving residential, commercial and industrial systems, fire and explosion investigation, product design analysis, damage evaluation, and assessment. Dave has actively consulted for insurance companies, private companies, legal clients, and individuals. Living near San Francisco, California, he can provide resolution for engineering questions throughout California and the contiguous States, Hawaii, and Alberta, Canada.

Credentials

- PE | Professional Engineer
- PEng | Professional Engineer - Canada
- CFEI | Certified Fire & Explosion Investigator

Representative Consulting Assignments

- Building Air Handlers | San Diego, CA | Determine the condition of a gun range air handling system and the cause of lead contamination
- Restaurant Kitchen Fire | Newman, CA | Determine the origin and cause of a commercial kitchen fire
- Fiber Optics | San Carlos, CA | Evaluate the cause, scope of damage, and repair of buried fiber optic communication cables
- Paramotor Propeller | San Ramon, CA | Determine the cause of fracture of a composite paramotor propeller
- Plumbing System | Monte Sereno, CA | Determine the cause of residential plumbing water supply connection failure
- Boeing 777-300 Landing Gear | San Bernardino, CA | Determine the scope of damage and repair costs of a Boeing 777-300 landing gear assembly
- Dip Brazing Salt Furnace | Hayward, CA | Determine the cause of the solidification of molten salt within a dip brazing salt furnace
- Farm Equipment | Bakersfield, CA | Evaluate the condition and operating procedures of a pull flail shredder
- Well Casing | Rifle, CO | Determine the cause and scope of damage of corrosion to a natural gas well
- Caterpillar 988 Wheel Loader Engine Crankshaft | Roseville, CA | Determine the cause of fracture of a Caterpillar diesel engine crankshaft
- Dump Truck | San Jose, CA | Determine the cause of a dump tip-over and evaluation of dump truck frame design stability

- Backup Diesel Generator | Modesto, CA | Determine the cause and scope of damage to a diesel generator used for backup power at a County office building
- Lift Station Pumps | Laughlin, NV | Determine the cause and scope of damage to pumps and piping at an underground municipal water pumping station
- Elevator | Los Angeles, CA | Determine the scope of damage to multiple elevators as a result of water intrusion
- Fire Sprinkler | Novato, CA | Determine the cause of unintended fire sprinkler activation
- Apartment Building | Los Angeles, CA | Determine the cause of water infiltration at roof and resulting scope of damage
- Airport Jetway | Oakland, CA | Determine the cause and scope of damage of a passenger boarding jetway collapse

Professional Experience

- 2021 - Current | Senior Managing Engineer | YA Engineering Services
- 2016 - 2021 | Consulting Engineer | Engineering Design & Testing Corp.
- 2002 - 2016 | Consulting Engineer | Intertek
- 2001 - 2001 | Mechanical Engineer, Quality Control Manager | Smart Products

Area of Practice

- Building Envelope
- Damage Assessment
- Failure Analysis
- HVAC and Mechanical Systems
- Infrared Thermography
- Litigation Support
- Non-Destructive Testing
- Plumbing Systems
- Repair Cost Estimating
- Roofing
- Fire Origin & Cause

Publications and Presentations

- David Bosko, Detection of Incipient SCC Damage in Primary Loop Piping Using Fiber Optic Strain Gages, EPRI, Report 3002003219
- David Bosko, Pigs may not fly yet but COW's do!, The Stress Point
- David Bosko, Using Drones for Crop Loss Claim Evaluation, The Stress Point
- David Bosko, Optimization of NDE Reexamination Locations and Intervals for Grade 91 Piping System Girth Welds,, ASME paper, PVP2015-45630
- David Bosko, Evaluation of the Pulsed Eddy Current Inspection Technique Known as the Through-Fin Inspection System for Heat Recovery Steam Generators (T-FISH) as Applicable to Power Plants, EPRI, Report 1018987
- David Bosko, 3D Laser Scanners Capture Minute Details, The Stress Point

Education

- San Jose State University - Master of Science - Mechanical Engineering - San Jose - California
- San Jose State University - Bachelor of Science - Mechanical Engineering - San Jose - California

Affiliations

- National Fire Protection Association (NFPA)
- National Association of Fire Investigators (NAFI)
- Professional Aviation Maintenance Association (PAMA)
- Failure Analysis Society (FAS)
- Society of Automotive Engineers International (SAE)
- American Society for Metals International (ASM)
- Society of Naval Architects and Marine Engineers (SNAME)
- American Society of Mechanical Engineers (ASME)

Licenses

- 235929 - Alberta, Canada - Professional Engineer
- 62906 - Arizona - Professional Engineer
- 36096 - California - Professional Engineer
- 52085 - Colorado - Professional Engineer
- 17179 - Hawaii - Professional Engineer
- P27432 - Iowa - Professional Engineer
- PE 0046087 - Louisiana - Professional Engineer
- 24310 - Nevada - Professional Engineer
- 91546 - Oregon - Professional Engineer
- 118062 - Texas - Professional Engineer
- 12373548-2202 - Utah - Professional Engineer
- 22006274 - Washington - Professional Engineer