5697 North 13th Street
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# JASON D. STIGGE, P.E.
# SENIOR CONSULTANT

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Jason D. Stigge is a Licensed Professional Mechanical Engineer (P.E.) and a Senior Consultant with Engineering Systems Inc. (ESi).

Following six years of U.S. Navy nuclear propulsion service, Mr. Stigge earned a Bachelor of Science in Mechanical Engineering at the University of Nebraska.

Mr. Stigge routinely works within the industrial, insurance, and legal industries. He has provided trial and deposition testimony on numerous occasions.

Mr. Stigge has over 20 years of broad experience in mechanical, hydraulic, and pneumatic systems, including design, operations, maintenance, and repair, and more than ten years of experience conducting complex failure investigations. His experience includes engineering investigations and reconstructions of automobile & truck accidents, including extraction & analysis of vehicle event data recorders (EDR), heavy truck & agricultural engine failures, industrial machinery & heavy equipment failures, and accidents related to industrial trucks, man lifts, earth moving equipment, elevators, cranes, pipeline failure evaluations, manufacturing & processing equipment, such as material handling equipment, conveyors, valves, pumps, compressors, turbines, steam boilers, heat exchangers, tanks, filters, flanges, gasketed joints, wind turbine gear boxes, gas turbine components, and instrumentation and control systems. Additionally, Mr. Stigge has experience in intellectual property (IP) disputes and has provided analyses & testimony on invalidity & infringement.

At ESi's Omaha location, Mr. Stigge performs low speed automotive stiffness characterization testing, which recreates vehicle collision damages to estimate the dynamic conditions and results of low-speed automotive collisions.

Mr. Stigge has vast experience with scene, vehicle, equipment & building inspections, photo documentation, evidence collection, generation of computer-aided models, and analysis of data & file material, as well as fixture design, component & materials testing, and laboratory analyses & procedures including optical microscopy, metallography, and scanning electron microscopy (SEM).

## Areas of Specialization

Vehicle Testing
Industrial Machinery Failures and Accident Analysis
Mechanical Systems
Process Equipment and Systems
Hydraulic and Pneumatic Systems
3-Dimensional Solid Modeling and Fabrication
Automotive Accident Investigation and Reconstruction
Vehicle CDR/EDR Imaging and Evaluation
Fixture Design and Fabrication
Laboratory and Industrial Testing
Data Acquisition, Instrumented Testing and Analyses
3-Dimensional FARO Focus Laser Scanning
3-Dimensional Printing
Mechanical Engineering
Biomedical Devices
Intellectual Property Matters
Transport
Safety and Maintenance
Operation and Maintainability
Repairability

## Education

B.S., Mechanical Engineering, University of Nebraska-Lincoln, 2012

## Licensed Professional Engineer (P.E.)

State of Nebraska License No. E-16927

## Professional Affiliations/Honors

**Society of Automotive Engineers (SAE)**

Member

**American Society of Mechanical Engineers (ASME)**

Member

## Positions Held

**Engineering Systems Inc., Omaha, Nebraska**

Senior Consultant, 2019 - present
Senior Staff Consultant, 2017 - 2018
Staff Consultant, 2012 - 2017
Technician, 2011 - 2012

**Drake-Williams Steel, Omaha, Nebraska**

Electrical Mechanical Technician, 2006 - 2010

**United States Navy – USS Michigan, SSGN 727, Bangor, Washington**

Nuclear Machinist Mate First Class (Submarines) – Engineering Laboratory Technician and Engine Room Supervisor, 2000 – 2006

## Continued Education

Event Data Recorder Update and Analysis,
Ruth Consulting, 2023
Aerial Boom and Scissor Lift Operator Certification
Sunbelt Rentals, 2016
Traffic Crash Reconstruction -1
Northwestern University – Center for Public Safety, 2015
Crash Data Retrieval Technician Level 1
Collision Safety Institute, 2014
Air and Foundation Brake Training
Bendix Brake Training School, 2014
Fundamentals of Engineering Exam - 2012
United States Navy Nuclear Prototype and Water Chemistry Schools
Ballston Spa, New York, 2001 - 2002
United States Navy Machinist Mate “A” and Nuclear Power Schools
Charleston, South Carolina, 2001

## Selected Project Experience

Condensate system corrosion which led to a steam leak and electrical fire

Hydraulic excavator design and operation when unexpected movement led to a fatality
Hydraulic excavator bucket coupler which dropped a bucket, injuring an employee
Mechanical failures of aerial boom lifts and scissor access platforms
Agricultural equipment failures, including drivelines and PTOs, and tub grinder fires
Food processing plant equipment failures which led to metal debris contamination
Commercial mixer failures, and assisted in a remedial seal design

Bearing damage to turbines during over-sea and over-road transportation
Gear and bearing damage within wind turbine gear boxes
Commercial and agricultural engine failures following repairs or rebuilding

Low-speed auto accident collision damage reconstructive tests
Automotive collisions and performed ACM data collection
Commercial truck collisions and performed ECM data collection
Collisions involving agricultural equipment

Various medical device investigations
On and offshore pipeline failures, as well as related operational data analyses