



Kevin L. Jones, P.E.

Director, Metallurgical and Materials Engineering

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Kevin Jones is a Director in the Mechanics and Materials group at ITC. Mr. Jones is a highly experienced materials engineer and accident investigator who has examined product failures involving transportation equipment, cranes, power and process equipment, consumer products and medical devices. Mr. Jones consults in the areas of failure analysis, accident investigation, manufacturing, design review, welding and joining, corrosion and product development.

Profile

- **Metallurgical and Materials Engineer:** Extensive experience examining the physical and chemical properties of metals and alloys, and evaluating the performance of metals under stress, corrosive environments, and temperature. Mr. Jones applies his materials, corrosion, and forensic science skills to solve complex problems related to the fields of materials science and mechanical engineering. He has extensive experience dealing with fatigue, deformation and fracture of materials, fractography, welding and joining, mechanical testing, and all aspects of corrosion as related to chemical and power plant components, consumer products, construction industry, plumbing and piping, welds and brazing, and consumer products.
 - **Failure Analyst:** Applies education and experience in the analysis of failed components and systems. Specializes in the failure analysis of engineering systems by combining his expertise in metallurgical engineering, materials science, and mechanical engineering. Mr. Jones has performed failure analysis of a wide variety of machinery and equipment related to the aerospace, automotive, construction, maritime, pipeline, power generation, and petrochemical industries.
 - **Accident Investigator:** Conducts field investigations and analyzes failures/accidents involving all types of vehicles, consumer products, and mechanical devices where it is suspected that the cause may be related to material or mechanical failure. Capable of collecting and storing subject evidence, documenting wreckage, obtaining exemplar products, and performing accident specific experiments.
- Product Development:** Consults with companies to improve operating efficiencies and reduce down time through the use of statistical process control and lean manufacturing techniques. He has worked on numerous projects to develop and/or improve a client's products and manufacturing methods.

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Expertise

Failure Analysis	Accident Reconstruction	Fracture Mechanics
Machine Design	Vehicle Inspections	Fractography
Railcars	Consumer Products	Fatigue Crack Growth
Steering & Suspension	Pressure Vessels and Piping	Metallographic Analysis
Rigging & Chain	Welding and Joining	Damage Tolerance Analysis
Turbines/Reciprocating Engines	Mechanical Fasteners	Corrosion & Corrosion Control
Plumbing & Fire Suppressions	Crane & Aerial Lifts	Wear Testing
ATV's, Snowmobiles, & Marine	Medical Devices	Mechanical Testing

Education **Degrees**

- M.A.S. - Illinois Institute of Technology, Chicago, IL - Metallurgical and Materials Engineering
- B.S. - Illinois Institute of Technology, Chicago, IL - Metallurgical and Materials Engineering

License **Professional Registration**

- Licensed Professional in the State of Illinois (License No. 62057146)

Employment

2011-Present ITC Experts – Sugar Grove, Illinois
Director Mechanics and Materials

Provides consulting engineering services in the areas of failure analysis, corrosion and corrosion control, design review and evaluation, product development and specialized testing. Specific areas of extensive training and knowledge include:

- Transportation: automobiles, railcars, trailers, bicycles
- Process Industries: petrochemical, pulping, pressure vessels, turbines, boilers
- Medical devices: tools and implants
- Construction and Material Handling: cranes, forklifts, scissor and aerial lifts, ladders
- Rigging: wire ropes, chains, slings
- Building and Construction: plumbing systems, construction materials, appliances
- Machinery: presses, hydraulic equipment,

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2005-2011 Packer Engineering, Inc. Naperville, Illinois
Director of Materials and Transportation Engineering

Provided engineering consulting services in legal cases related to both materials and mechanical issues in products and personal injury cases. He also provided engineering consulting and failure analysis services to industrial clients.

1998 – 2005 Ispat Inland Steel East Chicago, Illinois
Engineer

Responsible for surface quality improvements and technological developments in steel manufacturing. Worked with customers in the automotive industry to improve product performance in their operations.

Appointed to elite team of five engineers to solve all global quality issues and improve plant productivity. Work involved traveling to numerous plants located throughout the world to help local management solve quality issues and institute a best practice approach.

1997 – 1998 Case, Burr Ridge, Illinois
Intern

Performed failure analysis investigations on in-service failures of farm equipment. Designed testing method to evaluation surface wear of materials. Operated machines including band saws, drill processes, cut off wheels, lathes and milling equipment.

1991-1998 J. Merle Jones and Sons International Navistar - Joliet, Illinois
Mechanic and Machinist

Responsibilities included rebuilding automotive and diesel engines, machining and refinishing of cylinder heads and blocks. Performed diagnostic and repair functions of semi-tractor service technician. Also was responsible for manual and CNC machine operations, MIG and TIG welding, small project manufacturing, specialty machining and fabrication.

Technical **Selected Presentations, Papers, and Affiliations**

1. "Effect of Hot Band Coiling Temperature on Secondary Work Embrittlement" Iron and Steel Society 38th Mechanical Working and Steel Processing Conference, Cleveland, OH (1996).
2. "Failure Analysis of Anhydrous Ammonia Nurse Tank", Material Science and Technology Conference, Houston, TX (2010).

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3. "Corrosion of Weldments", DOD Corrosion, Palm Springs, CA.

AFFILIATIONS

1. American Society of Materials (ASM)
2. National Association of Corrosion Engineers (NACE)
3. American Welding Society (AWS)
4. Society of Automotive Engineers (SAE)
5. American Society of Mechanical Engineers (ASME)