

Credentials

Professional Engineer

Wisconsin

License A E-14341

(Mechanical)

Florida

License 40034562

(Mechanical & Civil)

Certification and Ratings

Master Technician (Master Mechanic), Heavy Trucks & Automobiles, by Automotive Service Excellence (ASE)

Certified Advanced Metrication Specialist (CAMS), U.S. Metric Association

Education

Bachelor of Science in Mechanical Engineering

Iowa State University, 1948

Professional Service Positions

National Standards Board, American National Standards Institute (ANSI)

General Standards Council, Chairman, Society of Automotive Engineers (SAE)

Task Team for Development of Metric Drafting Standard (SAE)

Professional Associations

Society of Automotive Engineers (SAE)

American Society of Agricultural Engineers (ASAE)

American Society of Civil Engineers (ASCE)

American Society for Testing and Materials (ASTM)

National Society of Professional Engineers (NSPE)

Florida Engineering Society (FES)

Areas of Concentration

Construction equipment maintenance
Construction equipment design
Agricultural equipment maintenance
Agricultural equipment design
Product defects/safety
Industry standard practices
Hydraulics
Pneumatics
Guarding
Rollover protection (ROPS)

Heavy truck maintenance & defects
Automotive maintenance & defects
Roadway construction safety
Metric conversion
Truck systems and equipment
Automobile systems and equipment
ASME engineering standards
ANSI engineering standards
SAE engineering standards and guidelines
Alternative fuels (methanol)

Specific Experience & Interest

Heavy Trucks
Cranes
Bulldozers
Excavators
Backhoes
Wheel Loaders
Logging Equipment
Ancillary automobile equipment
Engines - gas, diesel & propane
Cooling systems
Steering systems - manual & power
Electrical systems
Fuel systems
Frames & suspensions
Wheels & Tires
Buses

Automobiles
Repair Shop Practices
Vehicle maintenance
Construction equipment
Tractors
Farm Equipment
Exhaust systems
J.1. Case Brand Equipment
Caterpillar Brand Equipment
Massey Ferguson Brand Equipment
John Deere Brand Equipment
Koehring Brand Equipment
Bantam Brand Equipment
Lorain Brand Equipment
P & H Brand Equipment
Farm Equipment
Well-drilling Equipment

Professional Experience**Institute for Products, Engineering & Construction** **1996 to Present**

Consulting and forensic engineering services for attorneys and insurance companies. Projects involve the disciplines of mechanical and civil engineering and address motor vehicle design, maintenance and safety.

Consulting Engineer **1994 to Present**

Provide consulting services on a wide range of topics related to motor vehicle, construction equipment and roadway design, maintenance and safety.

Florida Department of Transportation **1982 - 1994**

Assistant State Specifications Engineer. Signed and sealed a majority of FDOT road and bridge construction specification packages. Project Manager of program to convert FDOT buses to run on methanol (wood alcohol). Fleet Maintenance Engineer. Responsible for all maintenance of Department cars, trucks and heavy equipment. Specifications Engineer. Wrote specifications for purchase of cars, trucks and construction equipment for all Florida state agencies.

Big Bend Equipment Co. **1979 - 1982**

President. Responsible for management of all aspects of dealership for J.I. Case brand construction, farm and logging equipment.

ITT Thompson **1978 - 1979**

Director of Research and Development for Automotive Group, Metals Division.

Massey Ferguson Ltd. **1974 - 1978**

Corporate Director of R & D. Responsible for design of all industrial and construction equipment, worldwide. Managed a line organization of over 500 engineers in Germany, Italy, England and Detroit. Designed over 30 models of crawler tractors, wheel loaders and backhoes.

Koehring Co. **1970 - 1974**

Corporate Vice President of Engineering. Responsible for operations in Germany, Japan and Brazil. Managed the design of excavators, cranes, trenchers, well-drilling equipment, farm machinery, plastics machinery and hydraulic components. Helped defend numerous lawsuits on cranes and other equipment.

Caterpillar, Inc. **1948 - 1970**

Assistant Chief Engineer. Responsible for corporate engineering standards and specifications worldwide. Held various design and management positions including Chief Engineer in Scotland for seven years.