

Robson Forensic

Engineers, Architects, Scientists & Fire Investigators

LANCE WATT Bus and Truck Expert

PROFESSIONAL EXPERIENCE

- 2000 to present **Robson Forensic, Inc.**
Associate
Provide technical investigations, analysis, reports, and testimony toward the resolution of litigation involving buses, trucks, motor vehicle crashes, commercial vehicle fires, and product liability cases.
- 1997 to 2000 **Self-Employed Consultant**
Provided services to the Automotive and Transit Bus Industries and expert witness services in product litigation.
- 1998 to 1999 **Advanced Bus Industries, L.L.C.**
Vice President – Engineering & Quality Assurance
Responsible for all Engineering and Q.A. activities in the support of an existing commercial vehicle product line, while leading the design efforts on a “from the ground up” new vehicle development program for use in Transit and Commercial vehicle vocations.
- 1996 to 1997 **Universal Coach Parts**
Director of Engineering
Responsible for all engineering activity in support of parts sales for Flxible manufactured transit buses and developing new parts and product lines.
- 1994 to 1996 **The Flxible Corporation** (Bus Manufacturer)
Vice President of Research & Development
Responsible for all Corporate Research and Development including whole vehicle and vehicle component testing and evaluation, advanced vehicle design engineering, vehicle structural analysis, liaison with state and federal government agencies, and product safety and integrity. Advanced vehicle design engineering projects included: a low floor vehicle, hybrid electric vehicle, alternative fuels (C.N.G., L.N.G., L.P.G., Methanol and Ethanol) and also new low emission diesel powered vehicles with particulate traps and catalytic converters. Other responsibilities included resolution of problems, both in-house and in the field, vehicle fire origin and cause (O&C) investigations, vendor selection, vendor qualifications, specifying of materials, parts, equipment and components and customer interface.
- 1976 to 1994 **The Flxible Corporation** (Bus Manufacturer)
Director of Engineering
Responsible for product design, research and development, whole vehicle and vehicle component testing and evaluation, product safety and integrity, vehicle structural analysis, options engineering, bid and proposal analysis with substantial customer interface. Responsibilities included resolution of problems, in-house and in the field, origin and cause

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(O&C) investigations, vendor selection and qualification and the specifying of materials, parts, equipment and components.

Previous positions held were Director of Research and Development, Manager-Liaison Engineering, Manager-Design Engineering, Manager-Special Projects, Manager-Product Improvement Engineering and Manager Quality Assurance.

Responsibilities included research and development, advanced vehicle design engineering, field failure analysis and problem correction, plant and customer liaison, product safety and integrity, vendor selection and qualification, material selection, product Quality Assurance and Control including Procedures and Standards.

Responsible for start up of a new bus manufacturing facility including site preparation, building construction, plant layout, plant facilitation, tooling and fixture design, tooling and fixture procurement, and the selection, specifying and justification of capital equipment. Responsible for the initial tool try out while conducting the pilot build of the Company's new Advanced Design Transit Bus within the new facility. Responsible for the design, procurement, installation and pilot operation of two processing and powder coating lines, one for aluminum extrusions and one for aluminum coil product.

1967 to
1976

Rohr Industries

Senior Project Engineer

Responsible for the design, development, prototype fabrication, test and evaluation of components used in military and commercial aircraft, private aircraft, buses and other passenger vehicles. Components consisted of gearboxes, power take-offs, propeller, turbine engine parts, fuselage structures and components for aircraft, and powertrains and body parts for vehicles. Consulted for other company divisions including problem solving and corrective designs to solve field problems and address customer issues and concerns.

1966 to
1967

Canadian Aircraft Products

Design Engineer

Responsible for aircraft component designs, stress analysis of aircraft structures for new designs as well as repairs and modifications to aircraft structures and their components. Structural testing of aircraft structures and components to validate designs and analytical predictions.

1963 to
1966

Several Canadian and Australian Companies

Design Engineer

Responsible for a variety of engineering and engineering design functions including stress analysis, product design, product development and the testing of components and equipment related to Automotive, Aircraft and Pulp and Paper Industries.

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PROFESSIONAL CREDENTIALS

Medium and Heavy Truck Technician – ASE Certified
Truck Equipment Installation and Repair – ASE Certified
Medium and Heavy Truck Parts Specialist – ASE Certified
Certified Inspection Mechanic, Type 7, Commonwealth of Pennsylvania

EDUCATION

Co-Operative - Education/Industry, Trades Course Program, 1958-1962
Equivalent to BSME degree
Sydney Technical College, Trades Course Certificate, 1962
Sydney Technical College, Trades Course Preparatory Certificate, 1957

Continuing Education:

Hazardous Materials First Responder Awareness – April 2008,
National Board on Fire Service Professional Qualifications, agency accredited
Emergency Response to Railroad Incidents – 2007
Farm Confined Space Emergencies – 2007
Farm Emergencies – 2007
Managing Machinery Entanglements – 2007
Managing Tractor Overturns – 2007
Managing Farm Chemical Emergencies – 2007
Aircraft Rescue Firefighting For Structural Firefighters – 2007
HazMat Cargo Tank Truck Awareness – 2007
SAE – Heavy Truck Handling, Dynamics & Control Symposium – 2005
SAE – Heavy Truck Rollover and Collision Avoidance TOPTEC – 2003
SAE – Motor Vehicle Accident Reconstruction – 2002
NYSTARS – Annual Joint Conference - Investigating Bus & Train Collisions – 2001
SAE – Natural Gas Engine & Vehicle Technology TOPTEC – 1995
Grumman Allied Industries, Inc. - Managing for Productivity – 1980
Center for Professional Advancement - Powder Coating – 1976
Vancouver College – Work Study 1 – 1966

AFFILIATIONS

National Research Council – Transportation Research Board

- Committee on Transit Fleet Maintenance (A3C02)
- Transit Co-operative Research Projects Advisory Committees

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American Public Transit Association

- Driveline Committee
- Alternate Fuels Committee
- Americans with Disabilities Act Advisory Committee

Federal Transit Administration

- Technology Advisory Committee
- Technology Development Committee
- Wheel Chair Accessibility Specification Committee

Society of Automotive Engineers (Member)

- Various Advisory and Standards Development Committees
- Bus Engineering & Operations Committee

Pennsylvania Association of Arson Investigators (PAAI) 751-E

EXPERT NOT RETAINED

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SHIPPING MATERIALS ON TRUCKS

Within positions at Flxible, responsible for determining methods of handling, packaging and shipping of materials, parts and assemblies on Company trucks between plants and also on Common Carrier trucks Nationally.

This activity included weight placement and securement methods on Company owned trucks and the design of shipping and handling aids for both Company and Common Carrier trucks.

TRUCKS AND TRAILERS

Owned, operated and maintained different types of Light, Medium and Heavy trucks. These vehicles ranged from Pick-up trucks, Straight trucks of different types (Flatbeds, Box and Dumps) over a period of about 35 years and Tractor-Trailer combinations for about 27 years.

Owned large (30-foot and longer) 5th Wheel and Recreational Pull Trailers for about 25 years.

Driver Qualifications:

Hold a Class "A" CDL (Tractor-Trailer Combinations) with endorsements for:

- Air Brakes
- Double and Triple trailer combinations.
- Commercial Passenger Vehicles (All types except School Bus).
- Tanker Vehicles
- Hazardous Materials

Light Truck Equipment:

Consulted for another Company that manufactured Light Truck Dock Bumpers that doubled as Trailer Hitches (Class 1 through Class IV). Performed product design and analysis and conducted physical certification testing of their products to meet regulatory requirements and to qualify the products to OEM and Aftermarket Customer requirements.

Motor Racing:

Involved with a FORD Motor Racing Division Team (Stock Cars) as Vehicle Engineer/Designer and performed Crew Chief and Pit Crew Details from 1968 to 1971.

Worked on Midgets and have conducted Pre-Race Inspections on most types of Racecars for Rule Compliance.

Vehicle Maintenance:

Built/re-built and worked on every kind of vehicle from Race cars to Heavy Trucks plus all associated systems, parts and components for those vehicles.

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TRUCK EXPERTISE

Experience in vehicle design includes the selection, integration, evaluation and testing of components and systems into buses, coupled with ownership, operation and maintenance of trucks up to and including Class 8 tractor trailer combinations.

Heavy truck and large bus components and on-board systems designs, operation and maintenance including:

- Steering Systems.
- Brake Systems.
- Diesel Engines.
- Transmissions (Manual and Automatic).
- Steer and Drive Axles.
- Tag and Pusher Axles (Self-Steer and Air Dump).
- Air Suspension Systems.
- Leaf Spring Suspension Systems.
- Wheels (Hub and Stud Piloted, One, Two and Three Piece).
- Wheel Hubs (Disc and Spoke Wheels, Oil and Grease lubricated bearings).
- Tires (Bias and Radial, Tube Type and Tubeless).
- Exhaust Systems and After Treatment Devices.
- Diesel and Alternate Fuel Systems.
- Air operated Windshield Wiper and Washer Systems.
- Driver's Heater and Windshield Defroster Systems.
- Air Suspension Driver's Seats.
- Electrical System (Charging and Distribution).
- Handling and operating characteristics of tractor-trailer combinations, straight trucks and buses.

TOWING AND RECOVERY – HEAVY VEHICLES

- Designed Special Tow and Recovery Equipment and Adapters.
- Developed Tow and Recovery Procedures.
- Supervised Tow and Recovery Activities.
- Supervised Loading and Securement of Vehicles for Transport.
- Supervised Cargo Loading, Placement, and Securement during Recovery Operations.

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SPECIFIC WHEELCHAIR LIFT AND SECUREMENT SYSTEM EXPERIENCE

- Worked with the Architectural Barriers Board, the Urban Mass Transit Administration (UMTA), researchers, federal and state regulators and industry representatives on a committee charged with developing specifications and requirements for transit bus wheelchair lifts, wheelchair ramps, and wheelchair securement systems. This committee work resulted in the initial Americans with Disabilities Act (ADA) pertaining to transit buses.
- Worked with the Cleveland Clinic on various contracts aimed at developing advanced wheelchair passenger securement systems and the testing of those systems.
- Worked with groups involving vehicle manufacturers, wheelchair and mobility product manufacturers, manufacturers of mobility and securement devices, and federal and state government regulators to ensure compatibility between vehicles, the various types of mobility aid products, the various types of mobility aid securement systems, and related devices and the use thereof.
- Assisted three wheelchair lift manufacturers with the development, qualification testing, and regulatory compliance of their products.
- Worked with the California Highway Patrol on development of performance standards and test procedures for wheelchair lifts. This work was in response to various incidents in California that resulted in serious injuries and death to wheelchair users while using wheelchair lifts on transit buses.
- My employees, during my tenure with Flexible, designed, developed, tested, qualified, and certified a wheelchair lift and its related control systems for use in our own vehicles and which could also be readily adapted or retrofitted into vehicles manufactured by others.

EXPERIENCE PRELIMINARY