

Robson Forensic

Engineers, Architects, Scientists & Fire Investigators

HARTFORD H. (MIKE) BUCKEL Bus Design and Operations Expert

Provide technical investigations, analysis, reports, and testimony toward the resolution of commercial and personal injury litigation involving buses and other vehicles. Areas of specializations: buses, fleet vehicle operations and management.

Bus and Vehicle Design and Engineering: Vehicle requirements definition, structural design, energy absorbing bumpers, accident analysis, seating and passenger assist requirements, propulsion and mechanical systems analysis, driver ergonomics, pneumatic systems, hydraulic systems, automatic transmissions, diesel engines petroleum and alternative fuel power trains, validation, brake systems, restraint systems, cooling, crash energy management, and ADA wheelchair lift/ramp requirements.

Product Development: New product development process, failure modes and effects analysis (FMEA), product life cycle management, product quality, component structural performance.

Engineering Process: Engineering management, design checking process, bill of material configuration, resource planning, personnel management, and change order control.

Engineering and Design: Dynamic and static systems, sheet and plate metal, stampings, welded structures, bonding, composites, structures, electrical and electronic components, finite element analysis (FEA), Computer Aided Design.

Bus and Fleet Operations: New vehicle procurements, delivery inspection and testing, bus rehabilitation, maintenance protocols, periodic maintenance (PM) schedules, route optimization.

Accident/Fire Investigations: Conducted forensic examination of buses destroyed by fires and accidents. Pursued appropriate corrective action and cost recovery against suppliers whose equipment caused the incident. Developed inspection and maintenance procedures to preclude additional incidents.

Technology Management: Alternate fuel studies and fleet implementation including Liquefied Natural Gas (LNG), Compressed Natural Gas (CNG), methanol, ethanol and electric propulsion, corrosion inspections and cost-effective plans to remediate corroded bus bodies, emissions calculations and reduction strategies, dynamometer and track testing of new power train concepts, performance and durability testing, egress/ingress studies for physically disabled persons.

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PROFESSIONAL EXPERIENCE

2010 to present **Robson Forensic, Inc.**

Associate

Provide technical investigations, analysis, reports, and testimony toward the resolution of commercial and personal injury litigation involving buses and other vehicles, fire origin and cause, operational procedure and guidelines, and failure analysis.

1996 to present **Stoney Hill Transportation, Hartwell, GA**

Principal

Provide technical and litigation support to transit and automotive industry clients. In addition, as a consultant to Booz-Allen & Hamilton, provide program management continuity and technical services on a wide range of assignments.

1971 to 1996 **Booz-Allen & Hamilton Inc., McLean, VA**

Engineering Director

Responsible for automotive and heavy vehicle technology projects for private clients and federal and local government agencies. Served as program manager for many multi-year, multi-task assignments and directed the efforts of multiple subcontractors.

1961 to 1971 **Chrysler Corporation, Detroit, MI**

Project Engineer

Directed race engine testing in three dynamometer rooms: circle track performance, circle track durability, and drag race performance. Numerous new engine systems and components were developed for racers of Chrysler products, including the 426-cubic-inch Hemi engine, methanol and nitromethane fuel injection systems, dry sump lubrication systems, oil pan windage trays, tuned exhausts, ram-tuned intake manifolds, and low-friction engine components.

As Resident Engineer for the Export Import Division's Right-Hand Drive product line, directed the design; development, release, tooling, prototype construction, and testing for the right-hand drive cars for model years 1969 and 1970. Assisted Chrysler Australia and South Africa in development of vehicle configurations suited to local conditions and markets. Focused on developing and testing special automotive and truck components and systems, including axles, brakes, suspensions, cooling systems, and various vehicle body parts.

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EDUCATION

M.S., Automotive Engineering, Chrysler Institute; Detroit, Michigan; 1964
B.S., Mechanical Engineering, Washington University; St. Louis, Missouri; 1961

PROFESSIONAL MEMBERSHIPS and AFFILIATIONS

Society of Automotive Engineers (SAE), member and frequent speaker
American Public Transit Association (APTA), only consultant invited to the APTA
Bus Emissions and Alternative Fuels Task Force.

AWARDS

Inductee, Super Stock Hall of Fame, 1996
Inductee, Michigan Motor Sports Hall of Fame, 1996.

Driver, engine coordinator, and logistics manager for the RAMCHARGERS, a Dodge sponsored professional drag-racing group that won four national championships and over 90 percent of all races over a 7-year period.

PUBLICATIONS

Wrote and edited sections of a handbook on energy and transportation, published by John Wiley.