



Exponent[®]
Engineering & Scientific Consulting

Jim Keough, Jr., P.E.

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Professional Profile

Mr. Keough specializes in the design, development, analysis, and testing of specialty vehicles such as recreational vehicles (including Class A, Class B, Class C, fifth wheels, travel trailers, toy haulers and truck campers), as well as modular homes, ambulances, terminal trucks, buses and street sweepers. He has 32 years of experience in specialty vehicle engineering design, development, sustaining engineering, and quality support for low volume production, including 17 years of engineering management for all aspects of vehicle design and production, such as, Computer Aided Design (CAD), analysis, manufacturing, systems, electrical, production support and customer service support.

Mr. Keough has led the development of RV chassis and terminal truck design from the ground up, with an emphasis on weight distribution, structural analysis, electrical systems, compliance, and testing. He implemented finite element analysis and accelerated durability testing at 5 manufacturers of specialty vehicles. He has experience with the development of slide out systems, including cable, hydraulic, and gear driven systems including full body slides. He also has experience in FMVSS compliance and testing for specialty vehicle applications. He has worked on Magnuson-Moss Warranty Act matters and Song-Beverly Act for California Lemon Law matters. Lemon law experience includes automotive and specialty vehicle applications and Texas and Florida Lemon Law matters. He has worked on Patent and Trade Dress matters.

Academic Credentials & Professional Honors

B.S.M.E., Mechanical Engineering, Purdue University, 1989

Northwestern University Center for Public Safety, Traffic Crash Reconstruction for the Forensic Engineer 2015

Licenses and Certifications

Professional Engineer Mechanical, Arizona, #63992

Prior Experience

Director of Engineering, Capacity Trucks, 2012-2015

Chassis Development Leader, Thor Motor Coach, 2012

Engineering Manager, Norco Industries, 2010-2012

Engineering Manager, Navistar - Monaco, 2009-2010

Senior Director of Engineering - Monaco, 2003-2009

Engineering Manager, McCoy Miller, 2001-2003

Senior Engineer to Director of Engineering, Coachmen Industries 1989-2001

Professional Affiliations

Purdue University Technical Assistance Program Advisory Council, 2000-2003

Member, Recreational Vehicle Industry Association (RVIA), 1994-2001

- Plumbing Technical Subcommittee
- Fire and Life Safety Technical Subcommittee

Member, Recreational Vehicle Industry Association (RVIA), 2016-Present

- Plumbing Technical Subcommittee
- Fire and Life Safety Technical Subcommittee
- Vehicular Components Subcommittee
- NHTSA Technical Subcommittee

RVIA - NHTSA Technical Subcommittee

President, St. Joseph Valley Chapter of Indiana Society of Professional Engineers, 1992-1994

Publications

Reamer, Keough, et. al - American National Standards Institute, RV Industry Association - Laboratory Test Procedures for Exterior Ladders on Recreational Vehicles. EXTLAD-1 . Elkhart, Indiana. (July 15, 2024)

Keough J. A wider margin of safety. Mechanical Engineering 1995; p. 71. Keough J. FEA design process. Computer Graphics World 1994; p. S20.

Keough J. Algor software helps coachmen industries make significant cost reductions – slideout bracket. Algor Design World 1994; p. 1.