ALPINE ENGINEERING & DESIGN, INC.

CURRICULUM VITAE

NATHAN H MORRILL

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PROFILE

Experienced mechanical engineer with eleven issued patents. Performed safety reviews for many companies including those ranked by Fortune 500. Lead engineer on the design and analysis of multiple products including: aerial lifts, custom trailers, high thrill rides, ziplines, machine guarding, high energy guarding, hydraulic design, pneumatic design, and drilling equipment. Participated in new product development, design optimization, stress and motion analysis, prototyping, testing, and safety.

Licensed professional engineer (PE) in five states; Utah, Idaho, Texas, Florida, and New York. Certified safety professional in comprehensive practice (CSP). Certified trainer for boom lifts, scissor lifts, rough terrain and counterbalanced forklifts. Over two decades of experience in product development, patents, equipment safety, risk assessments, warnings, and training.

Experienced expert witness having drafted reports/declarations in personal injury and patent cases. Experienced in designing and building multiple custom testing devices to obtain data, verify compliance with standards, and evaluate opinions. Experience testifying in deposition and at trial.

CERTIFICATIONS

- Professional Engineer (PE)
  - Utah License # 5567105-2203
  - Florida License # 72189
  - Texas License # 120869
  - Idaho License # 22093
  - New York License # 108213-01
- Certified Safety Professional (CSP)
  - Comprehensive Practice License #CSP-30841
- Certified Forklift Operator
- Certified Counterbalanced Forklift Operator Trainer
- Certified Rough Terrain Forklift Operator Trainer
- Certified Aerial Boom Lift Operator Trainer
- Certified Aerial Work Platform (Scissor Lift) Operator Trainer
- Member of the National Associations of Amusement Ride Safety Officials
- Member of the American Society for Testing and Materials F24 Committee

EDUCATION

Bachelor's of Science - Mechanical Engineering 2001-2004
University of Utah

Associate's of Science - Pre-Engineering 1998-2001
Utah Valley State College

CONSULTING FOCUS

Involved in hundreds of consulting projects. Major areas of focus and expertise include: aerial lifts, boom lifts, bucket trucks, cherry pickers, trailers, end dumps, side dumps, belly dumps, flat beds, goose neck trailers, 5th wheel trailers, specialty trailers, towing systems, tarping systems, container covers, cranes, refuse trucks, recycling trucks, automated side loaders, fall protection, exercise equipment, forklifts, forklift attachments, powered industrial trucks, telehandlers, rough terrain forklifts, drilling equipment, drill pipe handling equipment, automated drill pipe systems, oil and gas equipment, heavy equipment, construction equipment, conveyors, hydraulic equipment, mobile powered equipment, manufacturing equipment, industrial plant equipment, safety equipment, machine guarding, bunker design, consumer products, stability and tipping, ziplines, high thrill rides, swing rides, drop rides, designing to standards, and design for safety.

PATENTS

During his time at Alpine Engineering and Design, Inc., Mr. Morrill has become familiar with patents and the patent process. He has written multiple provisional patent applications, and has worked with attorneys in writing the specifications, creating drawings and drafting claims for utility patents on products he has helped design. As part of the product development process, he has performed patent searches, both for informational purposes and to lessen the likelihood that new developments would infringe other's intellectual property. Mr. Morrill is listed as in inventor on eleven issued patents.

- US 7,341,157 Enclosed Reeving Live-Line Boom
- US 7,413,234 Tarping System for Open Top Containers
- US 7,458,629 Tarping System for Open Top Containers
- US 7,673,926 Tarping System for Open Top Containers
- US 7,762,616 Cross-member for a Trailer Frame
- US 7,954,877 Tarping System for Open Top Containers
- US 8,287,026 Tarping System for Open Top Containers
- US 8.998,287 Roll Tarp System
- US9,415,667 Roll Tarp System
- US 10,071,619 Roll Tarp System
- US 10,683,176 Material Placer

EXPERT WITNESS

Mr. Morrill has been retained as an expert on over 50 cases. Has worked as the lead associated in over 75 cases. Has experience in personal injury, product failures, safety in design, litigation of patents, intellectual property. Has provided opinions for analysis of failures based on testing of products, calculations and well-known industry information. Experience drafting reports, creating simulations, and demonstratives. Provided infringement opinions, invalidity opinions, claim construction opinions, claim charts, and prior art searches. Some of the industries and products Mr. Morrill has consulted on include:

Trailers	Heavy Equipment
Dump Trucks	Ziplines
Belly Dump	Thrill Rides
Agricultural Equipment	Ladders
Trailer Tarping Systems	Garbage Trucks
Boom Lifts	Hand Tools
Aerial Lifts	Saws
Telehandlers	Canopies
Forklifts	Cage Welders
Hydraulic Equipment	RVs