

Michael T. Einhorn

Mechanical Engineer, P.E.

PERSONAL STATEMENT

Over the last twenty three years I have focused on the design, construction and operation of machinery for supporting defense, scientific and commercial endeavors at sea.

EXPERIENCE

2006 to date Managing Member of Einhorn Engineering, PLLC.

2005-2006 Sound and Sea Technology, Edmonds, Washington

1990-2005 Naval Facilities Engineering Service Center, Port Hueneme, CA

Marine Load Handling Systems

- Mastery of open ocean requirements for design and operation of the deck machinery required to deploy and recover towed arrays, scientific packages and ROVs.
- Expert at winch and overboarding system structural and machine designs, with completed projects ranging from 5 to 50 ton handling systems for both ROVs and sonar arrays.
- Planned and oversaw mechanical load testing of overboarding systems with capacities up to 85 tons.
- Adept at working with ocean-going vessels and shipyards for new ship construction, equipment installation and the modification of existing ships and equipment.

Fluid Power Systems

- Completed design of many fluid power systems and power units.
- Experienced with open, hydrostatic systems, electrohydraulic-proportional and servo control systems.
- Experienced with manifold design and manufacturing.

Sea Tests

- Planned and executed many sea tests in a variety of countries. Responsible for engineering oversight, deck layouts, logistics, mobilization requirements and field support.
- Participated in a multitude of sea tests filling the role of both engineer and/or technician. Knowledge of basic marlinspike seamanship.

Major Projects

- Compact Low Frequency Active Hydraulic SubSystem
- Deep Water Acoustic Distributed System
- Compact Lamp Array & Handling System
- LWAD Array & Handling System
- LTS Handling System, 50 Ton.
- Second Acoustic System Handling System
- Max Rover ROV Handling System
- Phantom ROV Handling System
- 10 Ton Overboarding A-frame for M/V Independence
- 2 Ton Overboarding A-frame for RSV-1
- Shore Landing Hydraulic Power System
- Echo Repeater Handling System

ENGINEERING AREAS OF INTEREST & EXPERTISE

- Solid mechanics and finite element analysis
- Fluid power systems
- Machine & Structural design
- Solid modeling and engineering drawing
- Towed and static array packaging and handling
- Deck machinery and handling gear
- Industrial electrical distribution and control systems
- Corrosion engineering
- Deep sea high voltage power systems
- Welding and machining technologies
- Ship/Machinery integration
- Wire rope and rigging

EDUCATION & CERTIFICATIONS

2002-2005 University of Washington M.S., Mechanical Engineering

- Emphasis on solid mechanics. Final project, “An Investigation of the Stress Distribution Which Occurs in a Winch Drum Due to the Wound Rope”

1984–1990 University of California, Santa Barbara B.S., Mechanical Engineering

- President of Society of Automotive Engineers UCSB Student Chapter (1990).
- Heinz-Wood award for most outstanding student in the College of Engineering.
- Lead UCSB’s first entry into the S.A.E Formula Student Competition (1990).

1991 Engineer In Training Certification, State of California

1994 Professional Engineering License, Mechanical Engineer, State of California License No. M29316

2005 Defense Acquisition University, DOD Fundamentals of Systems Acquisition Management

2006 Professional Engineering License, Mechanical Engineer, State of Washington License No. 42536

PATENTS

US 20,140,061,558 A1 Levelwinding Winch 29 Aug, 2012 (Pending)

Assignee: Michael T. Einhorn

US 6,420,802 B1 Hydraulic Winch Limit Switch Circuit 16 Jul, 2002

Assignee: United States of America, Department of the Navy

PUBLICATIONS

“Suggested Elements for a New Tow Cable & Handling System Design Standard for Littoral Towed Systems”. MTS/IEEE Oceans 2011 Proceedings.

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