



ENGINEER: MECHANICAL/MARINE

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Engineering Design & Testing Corp.
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EDUCATION

1983 **Bachelor of Science in Naval Architecture**
University of California, Berkeley, California

EXPERIENCE

June 2016
to Present **Engineering Design & Testing Corp.**
Oakland, California

Consulting Engineer/ Naval Architect

Surveys of towing vessels. Investigation of incidents involving commercial systems, industrial, and marine. Damage evaluation and assessment. Project Management. Condition assessment of structures and machinery. Root cause investigation and analysis of mechanical damage to generators, boilers, piping systems, ventilation, construction components and materials, including fracture and failure analysis. Preparation of repair and replace cost estimates. Specialized consulting in the design, evaluation and inspection of ship construction, stability, propulsion, ballast water treatment, vibrational analyses and ship motion. Application and interpretation of international (International Maritime Organization (IMO), class society, and flag state), United States Coast Guard (USCG/CFR), and regional regulations/guidelines. Assessment and evaluation of photovoltaic installations.

January 2008
to May 2016 **Cobham SATCOM, Maritime Products (Sea Tel brand)**
Concord, California

Mechanical Engineer III

Projects included the analysis of acceleration data from antenna installations to explain damage. Maintained corrosion test chamber (Singleton Model SCCH-22) and conducted corrosion tests of aluminum, stainless steel, and steel with various coating systems. Preparation of antenna installation guidelines, environmental testing of antenna systems, and the repair and upgrade of hydraulic hexapod motion simulator. Subject matter expert for ship motions, maritime electronic and electrical standards, and corrosion effects. Created environmental test plans in accordance with IEC 60068 for compliance with IEC 60945 and Mil-Std-810.

September 2004
to May 2016 **Lindholm Engineering Consultants**
Concord, California

Principal Engineer

As an independent consultant, provided Naval Architecture and Mechanical Engineering services to industry and government. Projects include analysis of environmental test specifications for electronics to assist testing of marine antennas, packaging design for water filtration equipment, finite analysis of lattice crane, proposal for use of a novel water filtration system for ballast water treatment, inclining experiments of USCG High Endurance Cutters, cargo damage surveys, machinery damage surveys, design of oily water treatment installation and design of ballast water segregation system.

February 1991
to September 2004

Det Norske Veritas
Various Locales

Station Manager and Senior Surveyor II (San Francisco, California)

Financial and operational oversight office activities in Northern California, Nevada, Utah, and Hawaii. Inspection, certification and test of diesel engines, generators, electric motors, switchgear, pumps, steam turbines, power boilers, heating boilers, valves, and materials. Damage assessment and repair oversight. Principal-in-charge of reflagging a passenger ship to U.S. flag. Principal-in-charge of reflagging a high-speed ferry to U.S. flag. Review, inspection and certification of pipe handling equipment, cryogenic gas pumps, computer-controlled dynamic positioning systems, oil rig mooring equipment, and turbo-expanders. Safety/construction inspections of tankers, bulk carriers, container ships, yachts, and other ship types.

Surveyor II (Rotterdam, Netherlands)

Responsible for safety and construction inspections of ships. Subject matter expert on USCG regulations for Vapor Collection Systems (46 CFR 39).

Surveyor II (Houston, Texas)

Projects include safety and construction inspections of general cargo, bulk cargo, oil tanker, chemical tanker and liquefied gas tanker ships; certification of modifications to comply with USCG Vapor Collection System regulations; certification of installation of Global Maritime Distress Safety Systems (GMDSS) under SOLAS Part III; structural assessment of RO/RO cargo ship for U.S. reflagging; and certification of materials and components.

September 1989
to January 1991

Ocean Systems Engineering (Oceanering International)
Houston, Texas

Senior Engineer

Managed the design and fabrication of tools and work packages for underwater Remotely Operated Vehicles (ROV). Provided preliminary design and cost estimates for proposals and Requests for Quotations. Acted as support engineer during testing of underwater trenching system delivered to Pacific Bell.

November 1987
to September 1989

Civil Engineer Support Office, Construction Battalion Center
Port Hueneme, California

Materials Engineer

Developed, reviewed, revised, and managed product purchase specifications for the U.S. Naval Facilities Command and the Construction Battalion - 'SeeBees.' Specific products include oil isolation booms; mooring bits, cleats, and chocks; steel sectional pontoon; anchors; and fenders.

December 1985
to July 1987

AMETEK Offshore Research and Engineering Division
Goleta, California

Systems Engineer

Projects included principal design engineer for a towed underwater diver training platform, project engineer for an underwater submersible launch/recovery mechanism, hydrodynamic analyses of forces on towed underwater structures at 3 knot operational speed, hydrodynamic analyses on free-flooding submersible to validate test results, and stability/propulsion design of a free-flooding submersible.

- December 1984 to September 1985 **IMODCO Marine Engineering**
Los Angeles, California
Naval Architect
Finite element analyses of foundations, mooring, and under-deck support for conversion of an oil tanker to a Floating Production, Storage and Offloading (FPSO) barge. Survey of candidate ship at shipyard to evaluate required repairs/conversion.
- September 1982 to November 1984 **Todd Pacific Shipyard**
San Pedro, California
Junior Marine Engineer
Projects include design and analysis of steel supporting structural system to stabilize Destroyers and Frigates during elevation by new dry-docking system (Syncrolift™); structural analyses of various lightweight stiffened plate bulkhead systems; assisted in preparation of new Destroyer (DDG-51) construction bid response; and acted as engineering liaison to shipyard shops.

EXPERIENCE

Naval Architecture / Marine Engineering Investigations (partial list)

Vortex Marine Construction – Derrick Barge Sinking, Oakland, California

Determined the sequence of events leading to the sinking of a derrick barge in the San Francisco Bay and oversaw the salvage of the barge.

TraPac LLC – Damage to AMP Container, Oakland, California

Determined scope of damage and scope of repair for Alternate Marine Power (AMP) container. AMP containers convert high voltage shore power to ship voltage for 'cold ironing.'

Summit Materials – Sand Dredge Foundering, Hendrix, Oklahoma

Analyzed claim receipts for fair and reasonable costs to recover foundered dredge. Researched available replacement dredges and estimated fair market value of foundered dredge.

Coalview – Coal Dredge Foundering, Centralia, Washington

Reviewed scope of work and developed appropriate recovery timeline for placing dredged slurry pond back into production after dredge foundered.

Nehalem Marine Manufacturing – Damages to Flood Control Gates, Coquille, Oregon

Determine cause of damage to wetland flood control gates for designer of flow control gates.

Emir Avinon – Powerboat Sinking at Dock, Waukengan, Illinois

Determined cause of powerboat sinking while moored in a slip during diesel engine servicing while vessel was unattended.

Naval Architecture / Marine Surveys (partial list)

Mærsk Shipping – Mast Damage, Oakland, California

Examined the extent of damage to the fore mast of a containership due to impact from a container crane.

Aalmar Surveys, Inc – Pre-purchase Survey, Richmond, California

Carried out a condition survey prior to potential purchase of an ungeared bulk carrier. Condition survey included machinery condition, hull condition including holds and ballast tanks, review of records, and accommodation condition.

Williams Sport Rentals – Ski Boat Inspection, South Lake Tahoe, California

Examination of functional test of a ski boat involved in an injury to a water skier.

Agrico Sales – Cargo Securing, Portland, Oregon and Vancouver, Washington

Reviewed cargo securing plans for grain loading equipment transported on barges. Surveyed securing arrangements for compliance with plans and industry practice.

CB's Boat Rentals – Pontoon Boat Inspection, Discovery Bay, California

Examination and functional test of a pontoon boat involved in a drowning.

Williams Sports Rentals – Jet Ski Inspection, South Lake Tahoe, California

Examination of a jet ski involved in a drowning. Functional test not possible due to water damage to electronics.

Naval Architecture / Mechanical Investigations (partial list)**City of Oakland – Water Damage to Elevators / Source of Water Damage, Oakland, California**

Determined scope of damage to 5 elevators and the cause of water release from a water heater on the top floor of an office building.

Anchor Brewing Company – Damage to Mash Tun, San Francisco, California

Determined cause of damage to recently installed mash tun for distilling line.

Kaiser Aluminum – Damage to Transfer Furnace, Los Angeles, California

Scope of damage, cause of damage, and cost to repair estimates for a molten aluminum transfer furnace.

TLC Child & Family Services – Damage to Fire Pump Engine, Sebastopol, California

Determined cause of damage and scope of repair to a fire pump diesel engine after routine testing of the engine.

Scuba Hut – Above Ground Pool Collapse, Chico, California

Determined cause of the collapse of custom above ground pool during initial filling.

Clean Focus – Photovoltaic Cabling Damage, Adelanto, California

Determined cause of damage to photovoltaic cabling resulting in loss of power and damage to inverters downstream at a utility level photovoltaic facility.

Douglas Emmett Management – Damage to Diesel Generator, Honolulu, Hawaii

Determined scope of damage and options for repair to stand-by diesel engine driven electric generator.

Yavapai Regional Medical Center – Leakage from Fuel Storage Tank, Prescott, Arizona

Determined cause for overflow from diesel engine driven emergency generator day tank due to controller programming error.

Land O'Lakes – Damage to Natural Gas Fired Boiler, Tulane, California

Determine cause of steam generating pipe fractures and leakage within a natural gas fired boiler due to poor water chemistry and improper flame adjustment after repairs.

Google – Reoccurring HVAC Fan Damage, Mountain View, California

Determined cause of reoccurring damage to HVAC fan bearings after maintenance at four (4) buildings within an office campus.

State of California – Faulty Sliding Gates, Crescent City, California

Determined cause and suggested remediation for faulty operation of sliding vehicle gates at the recently constructed Highway Patrol station in Crescent City, California.

Naval Architecture / Legal Consultations (partial list)**CNA Insurance – Compressor Coil Performance, Santa Cruz, California**

Investigated and provided opinion to retained counsel on failure of protective coating applied to air conditioning compressor coils installed by insured in Santa Cruz Police facility.

CNA Insurance – Injury from Sliding Gate, Sunnyvale, California

Provided opinion to retained counsel on injury arising from a person transiting through a sliding vehicle door.

Wilson Elser Moskowitz, Edelman, & Dicker – Injury from a Dock Cleat, Crescent City, California

Investigated and provided opinion on the fracture of a dock cleat resulting in injury.

CNA Insurance – Washing Machine Overflow, Brentwood, California

Investigated and provided opinion to retained counsel on the cause of water overflow from a clothes washer resulting in injury.

Gibson, Robb, & Lindh – Injury from Gangway Collapse, Martinez, California

Investigated and provided opinion on the cause of unanticipated sliding of gangway end ladder after modification.

REGISTRATIONS and CERTIFICATIONS

✘ _____ Mechanical Engineering Discipline

✎ _____ Naval Architecture and Marine Engineering Discipline

[Blank] ___ No engineering discipline specified by Board

Registered Professional Engineer in Alaska (M-124768 / NM-124769) ✘ ✎

Registered Professional Engineer in Arizona (64187) ✘

Registered Professional Engineer in California (M25488) ✘

Registered Professional Engineer in Florida (83691)

Registered Professional Engineer in Hawaii (17306-M) ✘

Registered Professional Engineer in Louisiana (PE.0041872) ✘ ✎

Registered Professional Engineer in Mississippi (28523)

Registered Professional Engineer in Nevada (24967) ✘ ✎

Registered Professional Engineer in Oregon (80245) ✘ ✎

Registered Professional Engineer in Texas (124337)

Registered Professional Engineer in Utah (11544967-2202)

Registered Professional Engineer in the Commonwealth of Virginia (402058298)

Registered Professional Engineer in Washington (54030) ✘ ✎

Registered Professional Engineer in Wisconsin (47651-6)

National Council of Examiners for Engineering and Surveying (NCEES) Record (#16-789-53)

North American Board of Certified Energy Practitioners (NABCEP)

Photovoltaic Entry Level Certificate of Knowledge (E1005-7)

National Association of Marine Surveyors (NAMS), Certified Marine Surveyor (NAMS-CMS)

Project Management Institute (PMI), Project Management Professional (1719679)

PROFESSIONAL ORGANIZATIONS

American Society of Mechanical Engineers (ASME)
ASM International
National Association of Fire Investigators (NAFI)
National Fire Protection Association (NFPA)
San Francisco Marine Claims Association (SFMCA)
Society of Naval Architects and Marine Engineers (SNAME)

PUBLICATIONS

“Subchapter M – What it is and how it is useful to you,” Stress Point, December 2018, EDT, Columbia, South Carolina

“Ballast Water Management: History, Application, and Legislation,” EDT Website, March 21, 2018; www.edtengineers.com

“Fuel Oils: Handling, Mis-handling, and Contamination” (3 part blog); EDT Website, October-November 2018; www.edtengineers.com

“Ballast Water Management - An Update on Requirements,” EDT Website, April 11, 2019; www.edtengineers.com

“Diesel Fire Pump Damages;” EDT Website, April 26, 2019; www.edtengineers.com

“To TSMS or Not to TSMS – Towing Vessel Safety Management for the Small Guy;” EDT Website; July 11, 2019; www.edtengineers.com

“A ‘Tun’ of Fun – Beer Making & the Failure of a Mash Tun;” EDT Website, August 8, 2019; www.edtengineers.com

“Nautical Origins of Common Phrases;” EDT Website, October 17, 2019; www.edtengineers.com

“The Impact of VIDA 2018 on Ballast Water Management;” SNAME Maritime Conference Proceedings; October 2019

“Case Study in Marine Forensics: Barge Foundering;” EDT Website/Linked-In Blog, September 24, 2020; www.edtengineers.com

“Subchapter M: Two Years in from the TPO Standpoint;” SNAME Maritime Conference Proceedings, September 2020

“A Balancing Act, Part 1: Vibration Analysis of Machinery,” EDT Website, November 12, 2020; www.edtengineers.com

“A Balancing Act, Part 2: Vibration Analysis of Structures,” EDT Website, April 15, 2021; www.edtengineers.com

PRESENTATIONS

Actors in a Maritime Casualty, San Francisco Marine Claims Association, March 2017
Inspected versus Uninspected Vessels, Marine Insurance Association of Seattle, April 2018

The Practice of Forensic Engineering, National Association of Marine Surveyors 57th Annual Conference, Vancouver, Washington, March 2019

The Impact of VIDA 2018 on Ballast Water Management; Society of Naval Architects and Marine Engineers Maritime Conference 2019, October 2019

Subchapter M: Two Years in from the TPO Standpoint; Society of Naval Architects and Marine Engineers Maritime Conference 2020 – A Virtual Event, September 2020