

CASPER, PHILLIPS & ASSOCIATES

Curriculum Vitae

Name: Richard W. Phillips

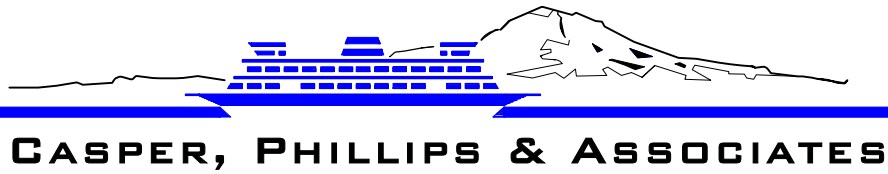
Education: Master of Science, Structural Engineering
University of California, Berkeley, 1977

Registration: Structural and Civil Engineer
Washington, California, Florida, Maryland, Oregon, Texas, and British Columbia Canada

Certified Welding Inspector – QC 1

Societies: American Welding Society (AWS), Chi Epsilon, Structural Engineers Association of
Washington (SEAW)

- Highlights :
- ❖ Worked on Port related projects for over 25 years. Internationally recognized in the design of port related equipment. Developed contacts working for crane manufacturers in United States, China, Indonesia, Korea, Japan, Australia, Argentina, Brazil, Canada, and Italy. Cranes have been located in United States, Canada, China, Indonesia, Malaysia, Taiwan, Korea, Italy, Australia, Chile and Saudi Arabia.
 - ❖ Assisted Ports with purchase of container cranes or other equipment. Ports include Tacoma, Portland, Everett, Virginia, Georgia, Boston, Baltimore, Jacksonville, Vancouver British Columbia, and Dubai UAE.
 - ❖ Worked with international crane manufacturers to modify port equipment. Designed modifications for cranes located in Tacoma, Seattle, Boston, Jacksonville, Port Everglades, New Orleans, Canada, Australia, Taiwan, China, Dubai, and Panama.
 - ❖ Responsible Structural Engineer for the design of voyage bracing for the first trans-oceanic shipment of a fully erect Continuous Bucket Ship Unloader. Designed system to be flexible for ship motions, but stiff for voyage motions. Included developing pre-stressing sequence so structure could resist voyage loads, but not be overloaded during loadout.
 - ❖ Responsible Structural Engineer for the design of voyage bracing for multiple fully erect container crane shipments using both barges and ships. Analysis combined structural models with different boundary conditions for different loads.
 - ❖ Project engineer for sea-fastenings for Cominco's floating lead/zinc processing plant at Little Cornwallis Island.



- ❖ Trained engineers at IMPSA's plant in Argentina, Hanjung's plant in Korea, and Shanghai Port Machinery Plant in China while designing container cranes to be built at various locations worldwide.
- ❖ Responsible for the development and programming of general purpose structural software used for the design of Continuous Ship Unloaders, Container Cranes, Low Profile Container Cranes, Whirley Cranes, Blow-Out Preventor Transporters, and Buildings. Software system has been sold for \$200,000.
- ❖ Peer review of other engineers' work on design of Low Profile Crane (300-foot long truss boom) at Boston. Provided peer review of cranes designed by Hanjung, Hyundai, IMPSA, KONE, Paceco, Reggiane, and Samsung.
- ❖ Designed boom structure for world's largest heavy-lift cranes (7000 metric tons).
- ❖ Project engineer for nine-story, movable, special-purpose building for The Boeing Company.

Detailed Experience:

1987 to
Present

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Responsible for all phases of projects. Extensive work for foreign companies includes crane designs, failure investigations, and purchase of equipment. Worked in foreign countries for extended periods. Worked in field as owner's representative checking contractor's work.

1980 to
1987

LIFTECH CONSULTANTS INC.

Responsible for structural engineering design of projects. This included development of design concepts to checking drawings. Designed a variety of cranes including container cranes, yard gantry cranes, polar cranes and off shore cranes. Assisted with design for KSEC cranes and developed design for Hyundai cranes. Assisted in development of structural inspection program for container cranes worldwide.

1977 to
1980

JORDAN/CASPER/WOODMAN/DOBSON

Civil engineer designing cranes and buildings.