

Disciplines

Viking Systems provides its clients with timely solutions using basic conceptual design tools to advanced analysis design tools for ships and floating marine structures. Viking Systems has applied its extensive knowledge of ship design into the development of SAGA and many other specialized in house programs. Viking Systems Disciplines include:

Mechanical Engineering

Powering and Resistance

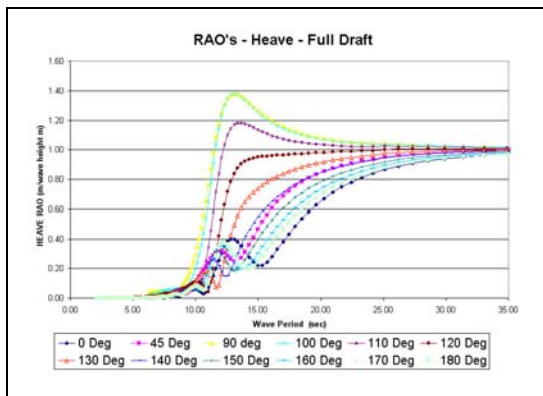
Weights and Center of Gravity

Hydrostatics

- Trim and Stability
- Damage Stability
- Floodable Length

Ship Dynamics

- Vessel RAOs
- Design Accelerations



EXAMPLE OF HEAVE RAO

Ship Vibration

- Local and Global Ship Vibration

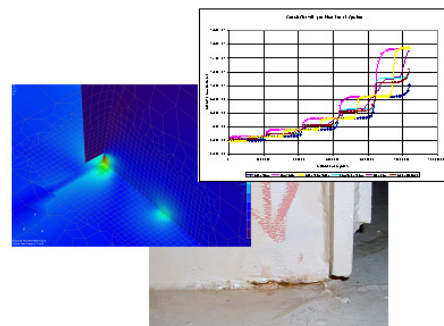
Structural Design and Analysis

- Design Loads
 - Site-specific static and Dynamic Loads
 - Liquid Cargo Tank Sloshing Loads
 - Thermal Loads
 - Mooring Analysis

- Ship Structural Design
 - Preliminary
 - Contract
 - Detailed
- Material Selection
- Class Society Rule Design
- Finite Element Analysis
 - Stresses and Deflections
 - Buckling
 - Fatigue
- Reinforcement Analysis
- Shipboard Crane Design
- Mooring Support Structure
- Foundation Design
- Details and Components

Model Testing

Forensic Damage Analysis / Repair Recommendations



EXAMPLE OF A MODEL DEVELOPED TO PREDICT A CRACK FOUND IN A SHIP – ALLOWS FOR EFFECTIVE REPAIR SOLUTION

Vessel Classification Management
 Owners Design and Build Representative