






Our field of expertise

Weight and stability surveys

Our expertise in weight and stability surveys ensures our clients maintain the highest standards of maritime safety and operational excellence.

What sets us apart?

-  **Accuracy and Precision:** Collecting and analyzing data for reliable results
-  **Expertise:** Mastering the theory and being able to apply it perfectly in practice
-  **Analytical Skills:** Interpreting the collected data and identifying significant insights
-  **Adaptability:** Quickly responding to unexpected situations or challenges
-  **Customer Focus:** Understanding and fulfilling the clients' needs and expectations



Committing to clear and transparent communication ensures reliability throughout the process, providing clients confidence and peace of mind.

Ensuring safety and stability

Weight and Stability surveys are critical for ensuring the safety and operational efficiency of a vessel. Saltwater Engineering performs thorough assessments to determine the vessel's weight distribution and stability characteristics. These surveys involve accurate measurements and analysis to assure that the vessel meets all the regulatory requirements and performs as required under the different operational conditions. Accurate weight and stability data is essential to prevent capsizing, ensure fuel efficiency and safe loading and unloading procedures under adverse weather conditions. Our expertise in this field helps the clients maintain the highest standards of maritime safety and operational excellence.



Crucial lifecycle stages

Weight and stability surveys are essential at various stages of the lifecycle of the vessel. A survey can already be required when a vessel is mobilized for a new project, to ensure the design specifications and regulations. Also significant modifications or repairs that affect the weight (distribution) of the vessel can. Additionally, surveys are crucial before undertaking specific operations, such as heavy lifting or transporting unusual cargo to ensure the vessel's safety and performance.

What gets measured gets managed

The execution of an inclination test is a critical part of the weight and stability survey. This test starts by positioning the vessel in calm waters to minimize external influences. The inclinometer and pendulums are installed at strategic points on the vessel to accurately measure angles of inclination.

The vessel's initial trim and list are determined to establish a proper starting point. During the test, weights are systematically shifted from one side of the vessel to the other. The response of the vessel is carefully measured using the pendulums and the inclinometer, capturing the angles of inclination. This data is then analyzed to determine the vessel's vertical center of gravity.

Based on our proven track record, Saltwater Engineering is the optimal choice for weight and stability surveys. Saltwater quickly adapts to changing demands and critical time paths without losing focus.

Draft surveys

Saltwater Engineering not only conducts inclining tests, but also performs draft surveys. Over the years, the weight of a vessel can change due to added constructions and residues in the tanks of the ship. By calculation the differences in displacement and considering variables such as density and ballast changes, the cargo weight can be determined. The draft surveys are essential for shipping regulations, optimizing load management and verifying the maximum allowable cargo loads.

Trackrecord

Due to busy and unpredictable schedules, it can be difficult to determine a date when the surveys will be performed. The experts of Saltwater Engineering easily adapt to these changing situations, and as past experience shows, our surveys have been conducted from Mumbai to Curaçao and from London to Kazakhstan.

Not only time and location can be a challenge, so can the ship itself. Saltwater Engineering once performed an inclination test on a small vessel in the Dutch Harbors. This vessel was not equipped with ballast tanks and approved weights were not available at the moment. The engineers of Saltwater Engineering had to come up with a flexible, reliable and safe solution. The small size of the vessel only required 2.5 tons of weight to execute the inclination test. So, 100 jerrycans and a scale were ordered, and they began filling up the jerrycans with 25 liters of water each.



Saltwater Engineering does not shy away from any challenge, within few hours notice our engineers are ready and prepared to step on board. Sometimes it is unknown what resources are available or in what state the vessel will be found. But our flexibility and agility will always lead to a solution!

**Are you facing a challenge?
Get in touch with one of our consultants**



Partner up with Saltwater

Everything Is Possible



Saltwater provides customized engineering solutions for the naval and offshore industry. Understanding your challenges enables us to deliver practical, quality products and clever solutions.

Mission

Our mission at Saltwater is to engineer and develop maritime solutions that reduce the environmental impact and support a low carbon footprint. We are committed to provide innovative and efficient engineering services that meet the needs of our clients while guaranteeing safety and quality.

Vision

At Saltwater, our vision is to be a leading force in the maritime engineering industry, striving for positive change through socially responsible practices. We envision a future where our engineering solutions help to create a healthier and more sustainable world. We are committed to ship conversions and new vessel designs, encouraging a culture of young innovators and collaborating with our partners and clients to achieve our shared goals.

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