



# LIGHTSHIP SURVEY, INCLINE EXPERIMENT & STABILITY



# LIGHTSHIP SURVEY INCLINE EXPERIMENT & STABILITY

15+

With over 15 years' experience, we take the hassle out of your project.



Our dedicated, highly qualified team have a diverse background, enabling us to offer 360° support.



We mobilise quickly, offering flexible onsite support, worldwide, at short notice.

**Offshore Operations (OOL) offers lightship management through the means of lightship surveys and incline experiments, which build the foundation of a vessel's stability information booklet.**

Offering the capability of surveying a vessel's empty state, the lightship condition can help owners, operators and charters alike maximise their vessel's efficiency. Paired with an incline experiment, it enables shipyards to verify a vessel's centre of gravity and weight characteristics pre/post refit. This survey can be offered over a wide range of vessel and hull types.

Our RINA-affiliated surveyors and naval architects provide this survey, utilising their extensive experience across a multitude of vessel types. Providing concise findings from their lightship surveys, our team's thorough reports enable you to make the most informed decision for your vessels and ultimately, your business.

A common observation of these surveys is a vessel's stores can begin to accrue past the allowed estimated weight. A result of this and/or similar observations, is a vessel sits deeper in the water, subsequently resulting in an increased fuel burn. This highlights the importance of continuous weight management throughout the service life of a vessel. Lightship surveys typically verify the contents of spaces such as:

- Storage voids.
- Tank spaces.
- Engine rooms and other machinery spaces.
- Guest cabins.
- Crew accommodation and public areas.
- Deck stores and lockers.

Lightship surveys can also be undertaken during refits, to gauge the progress of works carried out, along with their possible finished effects to the centre of gravity and weight particulars of a vessel. This results in an informed scope, indicating whether design considerations need to be made prior to the completion of a refit, mitigating any future in-service hindrances.

## LIGHTSHIP INCLINE EXPERIMENT

An essential experiment, and one that can be pivotal with some designs is a vessel's lightship incline experiment. Evaluating primarily, the vertical centre of gravity (VCG) and lightship weight, which are key contributors toward evaluating the stability of a vessel.

The experiment, although rudimentary, is fundamental to every vessel that is required to have one carried out. OOL's RINA affiliated surveyors and naval architects, work alongside the class surveyor and the vessel's crew, to carry out each experiment as per the statutory industry guidance. Providing clients with a realistic result, from which they can work with to either mock up re-fit plans minimising the effects to a vessel's stability, or to finalise the stability of a new-build or post-refit project.

Incline experiments form the basis to most stability reports/booklets that are approved by a class society and filed onboard every vessel. As such, the accuracy of such an experiment is paramount, with every effort taken to maximise the accuracy during the experiment procedure.

## STABILITY INFORMATION BOOKLET

Understandably this is a vessel's mantra when it comes to maintaining her stability and operating her within a safe operating envelope.

OOL's surveyors and naval architects can compile a new build's booklet or update a current stability booklet when a significant scope of work is carried out to a vessel deeming an update necessary.

Used to inform the master on the stability of their vessel, It is an essential document ensuring navigational crew are informed of the vessel's safe operating limits.

An incline of the completed vessel establishes the lightship particulars of a vessel. The stability information booklet, formed using industry renowned stability assessment software, is based on the result of the incline and submitted for approval by the vessel's classification society.

Once approved, it is mandatory to carry a copy onboard the vessel permanently.





## CONTACT US

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