



DEPARTMENT OF ECONOMIC DEVELOPMENT

**COMMERCIAL YACHTS
INTACT & DAMAGE STABILITY**

This notice explains the main requirements for obtaining and checking the lightship and centres of gravity of commercial yachts in compliance with the Large Yacht Code

Documents referred to in this notice: Large Yacht Code (LY2) as amended

Most regulations and notices are available on the Isle of Man Government web site: www.iomshipregistry.com or by contacting marine.survey@gov.im

Introduction

Compliance with the Large Yacht Code stability criteria at all times is fundamental for the safe operation of a yacht. It is the Master's responsibility to ensure that the criteria is fulfilled at all times.

Every Commercial Yacht has an 'Approved' Stability Booklet. Intact Stability approval is required for all yachts. Damage Stability approval is required for yachts trading in excess of 60 nautical miles from a safe haven.

It is important that when a yacht is refitted or modified in any way, a record of the weight changes is maintained in the yachts stability booklet and where necessary the yacht is re-inclined.

Over time all vessels have a tendency to 'grow', ie gain weight which cannot be easily identified, therefore it is important to regularly check that with this 'growth' the stability approval is still valid.

Initial Determination of Lightship Displacement and Centres of Gravity

Every commercial yacht, regardless of size, should be inclined upon its completion and the lightship and centres of longitudinal/vertical gravity determined. The inclining test should be carried out when the vessel is complete or at a time where weights on and off can be accurately determined.

The inclining test should be carried out in accordance with a standard procedure agreed by the Naval Architect and the Class/Flag State surveyor in attendance. All weights on and off should be agreed by all parties at this stage.

Guidance on the inclining test can be found in the Code of Intact Stability for all Ships, IMO Resolution A 749(18) as amended.

In service Lightship and Longitudinal Centre Checks

At periodic intervals not exceeding five years, a lightweight survey should be carried out on all commercial yachts, to verify any changes in lightship displacement and longitudinal centre of gravity. As per LY2 11.5.3 the yacht should be re-inclined whenever the comparison shows an increase in the lightship displacement exceeding 2% and/or a deviation in the longitudinal centre of gravity exceeding 1% and above (measured from the aft perpendicular) and/or a deviation in the calculated vertical centre of gravity rises by 0.25% and above (measured from the keel)

This lightship check should be conducted by an independent Naval Architect and witnessed by a Class or Flag State surveyor as part of the Renewal Survey for the 'Certificate of Compliance for a Large Charter Yacht'.

To assist Masters with changes to the lightship displacement and the longitudinal centre of gravity, a detailed note of changes to the vessel should be maintained in the Stability Booklet, noting items of equipment and material changes to the yacht with accurate determined weights and centres of items added or removed.

Where there is any doubt as to the intact stability of the yacht then the yacht should be re-inclined to ensure correct figures are determined and used.

At all times the distance between the bottom of the lowest porthole or window in the hull to the load waterline of the yacht must be maintained at 500 mm minimum.

Damage Stability

Changes to the lightship, the longitudinal centre of gravity and vertical centre of gravity will also affect the damage stability of the yacht, where this is required.

The damage stability should be re-assessed using the updated figures for lightship displacement, the longitudinal centre of gravity and the vertical centre of gravity to confirm that the yacht still passes the damage stability criteria.

Isle of Man Ship Registry
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Please note - The Isle of Man Ship Registry cannot give Legal Advice. Where this document provides guidance on the law it should not be regarded as definitive. The way the law applies to any particular case can vary according to circumstances - for example, from vessel to vessel. You should consider seeking independent legal advice if you are unsure of your own legal position.