

## **GUIDANCE NOTE 04/2020 (Rev. 1)**

### **COMMERCIAL YACHTS**

### **INCLINING EXPERIMENTS and LIGHTWEIGHT SURVEYS**

**To: OWNERS, MANAGERS AND MASTERS OF ALL CAYMAN ISLANDS YACHTS COMPLIANT WITH THE LARGE COMMERCIAL YACHT CODE (LY1 to LY3, now REG Code Part A)**

(Not applicable to REG Code Part B - Passenger Yachts)

#### **1. BACKGROUND**

- 1.1 Compliance with the REG Yacht Code stability criteria is fundamental for the safe operation of a yacht. It is the Master's responsibility to ensure that the criteria are fulfilled at all times.
- 1.2 Every Code compliant yacht has an approved Stability Information Booklet (SIB). Intact Stability approval is required for all yachts. Compliance with damage stability criteria is required for all yachts, other than those operating as Short-Range Yachts (i.e. 60nm of a safe haven).
- 1.3 A yacht's weight is the sum of its *lightship weight* (the weight of the ship without deadweight) and the *deadweight* (i.e. persons, baggage, toys, liquids and stores).
- 1.4 Both lightship weight and deadweight may increase over the yacht's life due to modifications or due to additional (or larger) recreational vehicles being carried and the accumulation of spare parts and personal belongings.
- 1.5 **It is therefore important that future weight growth (both lightship weight and deadweight) is accepted as adequate by the Owner at the yacht's design stage, through the yacht's specification and/or yacht building contract, to mitigate the risk that compliance with the relevant intact and damage stability criteria is affected in the future.**

#### **2. INITIAL DETERMINATION OF LIGHTWEIGHT and CENTRES OF GRAVITY**

- 2.1 Every Code compliant yacht, regardless of size, should be inclined upon its completion and the lightship weight and centres of longitudinal, vertical and transverse gravity determined.
- 2.2 The time between the inclining experiment taking place and the completion of the yacht should be minimized to mitigate errors in estimating the weights still to go on and to take off the yacht and their respective locations. Further guidance regarding this matter is contained in IACS's Recommendation no. 31 (Inclining Test Unified Procedure).
- 2.3 The inclining experiment should be carried out in accordance with a standard procedure agreed by the shipyard's Naval Architect and to the satisfaction of a surveyor to the yacht's Classification Society, who

should be in attendance. All weights on and off, together with their respective locations, should be agreed by all parties at this stage.

- 2.4 The inclining experiment report should be approved by the yacht's Classification Society as part of the vessel's first approved SIB.

### **3. IN-SERVICE LIGHTWEIGHT SURVEY**

- 3.1 At periodic intervals not exceeding five years, a lightweight survey should be carried out by a qualified Naval Architect in the presence of a surveyor from the yacht's Classification Society on all Code compliant yachts to identify any changes in lightship weight and deadweight.
- 3.2 The yacht should be re-inclined whenever the lightweight survey, major conversion or alteration shows or anticipates a change in the lightship weight of 2% and above, or a deviation of the longitudinal centre of gravity exceeding 1% of the load line length, or if the vertical centre of gravity rises by 0.25%.
- 3.3 Furthermore at the lightweight survey, any growth in the weight of toys (i.e. tenders, jet-skis), spare parts and stores, which are all deadweight items, should be ascertained and the impact on compliance with the relevant intact and damage stability criteria investigated.
- 3.4 Although REG Code Part A 11.5.4 has provision to not require a lightweight survey if it can be '*clearly demonstrated that no major change has occurred*', this option is currently not permitted by CISR for multi-deck motor yachts.
- 3.6 For yachts other than multi-deck motor yachts, '*Clearly demonstrated that no major change has occurred*' should be interpreted to mean an attestation from either the yacht's master or management company who has been responsible for vessel's operation **since the last lightweight survey or inclining experiment**. If there have been minor changes, and these are not documented, a lightweight survey will be required. For clarity 'major' and 'minor' refer to being above and below any of the tolerances set out in REG Code Part A 11.5.3. The attestation should in the first instance be presented to the Classification Society, who should forward to CISR with their recommendation.
- 3.7 A record of all changes, in a format accepted by the Classification Society, documenting weights and centroids should be maintained and appended to the stability booklet for review at future surveys.
- 3.8 For the avoidance of doubt the following should be adhered to for all Code compliant yachts
- 3.8.1 If the results from the lightweight survey are within the tolerances set out in REG Code Part A 11.5.3 then the approved lightweight survey report should be appended to the existing approved SIB onboard for future reference. The existing approved SIB will remain valid.
- 3.8.2 If the results from the lightweight survey are outside the tolerances set out in REG Code Part A 11.5.3 then an inclining experiment should take place at the earliest opportunity and a new stability information booklet submitted for approval. Subject to special consideration (i.e. adequate stability safety margin, temporary implementation of loading or voyage restrictions) a suitable time frame for the new inclining experiment to take place may be agreed with the vessel's Classification Society and Cayman Registry.
- If the time frame to have the inclining experiment and associated new approved SIB onboard is more than 6 months (but less than 12 months) from the date of the lightweight survey, then departure and arrival loading conditions (showing compliance with the intact and damage criteria, as applicable) with the weight growth should be submitted for approval by the vessel's Classification Society for appending to the existing approved SIB onboard.
- 3.9 Where there is any doubt as to the stability of the yacht then it should be re-inclined to ensure up-to-date and complete figures are determined and the approved SIB is as up-to-date as possible.