DEUTSCHE FLAGGE

Bundesrepublik Deutschland

BG Verkehr – Dienststelle Schiffssicherheit

Flag State Information

FI S/005/IS/2021/Rev. 00

replaces FI 05/2017/Rev. 00 **E**

Flag State Information are published by the Ship Safety Division of BG Verkehr, which is a part of the German Flag State Administration. Flag State Information are intended to provide a uniform interpretation of international and national rules and regulations for sea-going vessels under the German flag. Flag State Information are also published as guidance to certain current topics. They adapt to practical experience and are therefore under continuous development. New Flag State Information, as well as revisions of existing ones, is prioritized based on market demands towards rules, regulations and current topics. The period of validity results from the publication date. The German version of the Flag State Information prevails.

Unless otherwise specified below, the definitions of the FI S/-/000/2020 in the version valid at the time of completion this FI are applicable.
This FI is always to be applied together with the referenced regulations.

Types of ships:	**Cargo Vessel**		
Section:	**Shipbuilding**		
Topic category:	**Intact Stability**		
Topic:	**Evaluation of lightship data for pontoons without conducting an inclining experiment**		
Interpreted rule:	**Res. MSC.267(85), Part B, Chapter 2, Paragraph 2.2.2.5** **Res. MSC.267(85), Part B, Chapter 8, Paragraph 8.6**		
References:	**Res. MSC.267(85) (2008 IS Code)** **FI S/004/IS/2021/Rev. 00**		
Date:	**27.10.2021**	**Valid from:**	**27.10.2021**

Introduction

Pontoons or pontoon-type floating tools are characterised by their extremely high initial stability. Consequently, it may be difficult to carry out an inclining test which fulfils all the basic requirements (cf. Annex 1 of the 2008 IS Code with FI S/004/IS/2021/Rev. 00) to determine the lightship data.

This FI specifies how the assumed vertical centre of gravity of such floating structures is to be determined when an inclining test shall be waived. This FI can only be applied to vessels which:

a) are not self-propelled,
b) have a block coefficient > 0.9 and
c) have a breadth to depth ratio > 3.0.

When applying this FI, it should be noted that the term KG in the original text of the IS Code in regulation 8.6 refers to the vertical centre of gravity, which is abbreviated in the rest of the FI with VCG.

Original text of the IS Code

2.2.2 Stability drawings and calculations

The following information is typical of that required to be submitted to the Administration for approval:

[…]

.4 report of draught and density readings and calculation of lightship displacement and longitudinal centre of gravity;

.5 statement of justification of assumed vertical centre of gravity; […]

8.6 Stability test for pontoons

An inclining experiment is not normally required for a pontoon, provided a conservative value of the lightship vertical centre of gravity (KG) is assumed for the stability calculations. The KG can be assumed at the level of the main deck although it is recognized that a lesser value could be acceptable if fully documented. The lightship displacement and longitudinal centre of gravity should be determined by calculation based on draught and density readings.

Information on the topic

Determination of the VCG

1. For pontoons or pontoon-type vessels according to the above criteria, for which no inclining test is to be carried out, the VCG shall be assumed to be at the level of the main deck. This applies only to the actual buoyant body. Superstructures and deckhouses as well as spuds and equipment permanently attached to the buoyant body shall be separately included in the estimation of the resulting VCG.
2. Provided a calculation based on detailed documentation of the masses and their centres of gravity of the buoyant body proves a VCG below the main deck, the resulting VCG of the buoyant body may be taken as:

$$VCG = VCG_{weight\ calculation} + 0{,}15 \times depth$$

The depth (D_{mld}) shall be taken as defined in the 2008 IS Code.

A detailed documentation is considered to be a weight calculation in which, for example, the structure is broken down into plates, beams, stiffeners, brackets and similar structural parts. Corresponding drawings of the construction are to be attached to the listing.

3. A VCG of the buoyant body less than 0.7 x moulded depth is not acceptable, irrespective of the result of the weight calculation in conjunction with the above formula. If the above formula results in a VCG above the main deck, the VCG shall be determined in accordance with paragraph 1.

Determination of the lightweight, LCG & TCG

4. It is required to verify the weight calculation by means of a lightweight survey. In addition and as a part of the lightweight survey, the longitudinal (LCG) and the transverse centre of gravity (TCG) are to be determined.

5. In case of a lightweight deviation in excess of the tolerances specified in regulation 8.1.2 of the 2008 IS Code, resulting from a lightweight calculation (incl. the superstructures, deckhouses, spuds, permanently attached equipment etc.) in comparison to a lightweight survey, a consultation with the Shipbuilding Department is indispensable in order to coordinate whether a new lightweight survey or an inclining test is to be carried out.

Stability booklet input

6. LCG, TCG and the lightweight determined by the lightweight survey, as well as the VCG calculated according to paragraph 1 or 2, are to be used in the stability calculation. The complete documentation is to be checked by the classification society during approval of the stability booklet.

Additional Information

Without content.

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