

SUB-COMMITTEE ON SHIP DESIGN AND  
CONSTRUCTION  
1st session  
Agenda item 4

SDC 1/WP.7  
23 January 2014  
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**DEVELOPMENT OF PROVISIONS TO ENSURE THE INTEGRITY AND UNIFORM  
IMPLEMENTATION OF THE 1969 TM CONVENTION****Report of the drafting group****General**

1 The Drafting Group on Development of Provisions to Ensure the Integrity and Uniform Implementation of the 1969 TM Convention met from 22 to 23 January 2014 under the chairmanship of Mr. P. Eareckson (United States).

2 The group was attended by representatives from the following Member Governments:

CANADA  
CHINA  
FRANCE  
GERMANY  
INDIA  
JAPAN  
MARSHALL ISLANDS

NETHERLANDS  
NORWAY  
PANAMA  
REPUBLIC OF KOREA  
UNITED KINGDOM  
UNITED STATES

and observers from the following non-governmental organizations in consultative status:

INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)  
INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF)  
SUPERYACHT BUILDERS ASSOCIATION (SYBAss)

**Terms of reference**

3 Taking into account the comments made and the decisions taken in plenary, the drafting group was instructed to:

- .1 finalize the draft Unified interpretations to the 1969 TM Convention and the associated draft TM.5 circular, based on annex 1 to document SDC 1/4, taking into account documents SDC 1/4/1, SDC 1/4/4 and SDC 1/INF.4;

- .2 take into account document SDC 1/4/2, and consider a reduced gross tonnage parameter for accommodation spaces with a view towards its further development, and if necessary, prepare draft terms of reference for a future group to progress the development of a reduced gross tonnage parameter for accommodation spaces and any work outstanding from documents SDC 1/4/1 and SDC 1/4/4; and
- .3 submit a written report by Thursday, 23 January 2014.

### **Draft Unified interpretations to the 1969 TM Convention**

#### ***Materials other than metal***

4 With regard to document SDC 1/4/1, the group considered the proposed new interpretation regarding the measurement of ships constructed of materials other than metal. The group concluded that the interpretation required significant further development. Therefore, the interpretation was not included in the draft Unified interpretations circular. Among the concerns raised was the need for additional clarity when applying the language "structural boundary surfaces" to composite sandwich constructions, and distinguishing what constitutes a hull structure, as opposed to a superstructure (i.e. spaces situated below the upper deck as opposed above the upper deck). The observer from IACS did not agree that there is a lack of understanding when making reference to the hull and superstructure.

#### ***Remeasurement with no alteration or modification***

5 With regard to document SDC 1/4/4, the group considered the proposed new interpretation establishing a 2% criterion for use in remeasurement when there has not been an alteration or modification to the ship. The group concluded that the interpretation required significant development and, therefore, was not further considered for inclusion in the draft Unified interpretations circular. Among the concerns raised was the interrelationship between this criterion and criteria for use in evaluating changes affecting tonnage, and difficulties in identifying the respective specific article or regulation in the 1969 TM Convention requiring interpretation.

#### ***Well developed draft Unified interpretations***

6 The group noted the instruction by plenary to consider the well-developed draft Unified interpretations/figures (10 in total) identified in table 3-2 of annex 1 to document SDC 1/INF.4 as "favour" or "strongly favour" with moderate consensus and no more than three participants disfavouring or strongly disfavouring, with a view towards effecting amendments that could make them acceptable to the group for inclusion in the draft TM.5 circular from annex 1 of document SDC 1/4.

7 The group evaluated the 10 interpretations/figures referred to in paragraph 6 and the outcome of this evaluation is summarized in the subparagraphs which follow:

- .1 Length of Unusual Hull Configurations (A.2(8)-2 Fig) The group agreed to changes to the figure to remove the illustrations for submersibles and dockships, in response to concerns over the similarity of these hull shapes to conventional hull forms. The remaining illustration of the column-stabilized unit was included in the draft TM.5 circular.
- .2 Spaces within Awning Boundaries (R.2(4)-2) The group agreed that this draft revised interpretation required further development, to address lack of agreement on whether the awning orientation (i.e. horizontal or vertical) should be taken into consideration. In addition, concerns were expressed regarding

the relationship between this interpretation and the related interpretation on characteristics of awnings (paragraph 7.3). The interpretation was not included in the draft TM.5 circular.

- .3 Characteristics of Awnings (R.2(4)-8) The group agreed that this interpretation required further development, to reconcile the apparent conflict with the language in regulation 2(5) of the TM Convention regarding permanency of awnings, and to resolve differences in expressed views over certain characteristics (e.g. protection from the sun only). The interpretation was not included in the draft TM.5 circular.
- .4 Grates Over Deck Openings (R.2(4)-9 Fig) The group agreed to changes to the figure to remove the right hand illustration showing a grating over a deck opening, in response to concerns over possible conflicts with language in regulation 2(5) regarding constructions that provide any possibility of closing an opening. The remaining illustration of a grating connecting two deck structures was included in the draft TM.5 circular.
- .5 Spaces Opposite Side Openings (R.2(5)-1 Fig) Owing to concern over the appropriateness of incorporating criteria within the figure which do not appear in the related interpretation, and some disagreement over the specifics of the incorporated criteria, the group did not include the figure in the draft TM.5 circular.
- .6 Deck Breadth and End Openings (R.2(5)-6 Fig) The group agreed to retain only the plan view illustration of the figure, with changes to show the sides of the ship. The group concluded that the isometric and sectional views were inconsistent in their representation of "A Section" and that, subject to the changes described above, the additional views were not needed. The amended plan view illustration was included in the draft TM.5 circular.
- .7 Deck Structure Heights and Side Openings (R.2(5)(c)-1) After some discussion, the group could not reach agreement on whether the interpretation adequately addressed various side opening and deck configurations, including associated spaces fitted with false ceilings. Lacking such agreement, the interpretation, and its associated figure (see paragraph 7.8) were not included in the draft TM.5 circular.
- .8 Deck Structure Heights and Side Openings (R.2(5)(c)-1 Fig) The figure was not included in the draft TM.5 circular (see paragraph 7.7).
- .9 Cargo and Buoyant Spaces Open to the Sea (R.6(3)-3 Fig) Some delegations expressed concerns over whether enclosed spaces depicted in the top two illustrations could also be construed as cargo spaces. The group agreed that the remaining illustration was relevant and it has been revised to maintain the consistency with other figures in the draft TM.5 circular that use shading to indicate enclosed spaces. The amended figure was included in the draft TM.5 circular.
- .10 Correction to Dockship Figure (N.2(1) Fig) The group agreed to changes to the figure to maintain the consistency with other figures in the draft TM.5 circular that use shading to indicate enclosed spaces, and to include associated labelling. The amended figure was included in the draft TM.5 circular.

8 As instructed, the group finalized the draft TM.5 circular based on annex 1 to document SDC 1/4, by incorporating the changes described above (paragraphs 7.1, 7.4, 7.6, 7.9 and 7.10) and effecting minor editorial amendments (annex). Added text is underlined, deleted text is stricken through and new or modified figures have a dashed border.

### **Reduced gross tonnage parameter for accommodation spaces**

9 The group recalled the comments made in plenary regarding the importance of adequate accommodation for seafarers, including the instruction to the group to take into account document SDC 1/4/2. Therefore, in considering the work needed to further develop a reduced gross tonnage parameter for accommodation spaces, the group used document SDC 1/4/2 and document SLF 55/9/3, which is referenced by document SDC 1/4/3, as the basis for initiating discussion.

10 From the very beginning the group experienced difficulties in establishing boundaries between drafting and development to carry this work forward. The group noted that documents SDC 1/4/2 called for a simplified approach to defining a reduced gross tonnage parameter for accommodation spaces. One of the suggestions for such a simplified approach was to unlink the reduced gross tonnage parameter from minimum standards such as those defined in MLC 2006. The group also reviewed questionnaire results from the Round 2 correspondence group work, as described in document SDC 1/INF.4, in an effort to identify those areas where there had been prior support for elements of the reduced gross tonnage approach proposed by document SLF 55/9/3. The group proceeded to ascertain whether drafting changes to the annex to document SLF 55/9/3, drawing from such earlier work, could result in a simplified approach to a reduced gross tonnage parameter along the lines proposed by document SDC 1/4/2.

11 The group identified some areas from these documents that could be useful in its work, such as the relative consensus on the use of moulded dimensions for measurable volume boundaries described in table 2-5 of annex 3 to document SDC 1/INF.4. However, the group also identified a number of areas where either clarification on the approach proposed by document SDC 1/4/2 was needed, or substantive further development would be required. These include:

- .1 the matter of linkage to minimum standards, i.e. whether accommodation spaces must meet some minimum standard in order to be eligible for exclusion;
- .2 difficulties in defining accommodation spaces, for example whether the entire enclosed volume of a sailing training ship is eligible for exclusion; and
- .3 whether the approach of SLF 55/9/3 for ships eligible for assignment of reduced gross tonnage calculated under multiple provisions is appropriate, for example whether the formula for the open-top containership reduced gross tonnage "space equivalent volume" is valid.

12 Owing to time constraints and the extent of the discussions, the group concluded that the further development of a reduced gross tonnage parameter or any other options to address accommodation spaces could not be progressed within the scope of the drafting group.

### Draft terms of reference

13 As instructed and in view of the work outstanding on documents SDC 1/4/1 and SDC 1/4/4 (paragraphs 4 and 5) as well as comments and decisions taken in plenary on the further development of a reduced gross tonnage parameter for accommodation spaces (paragraph 9), the group developed the following terms of reference for a future group to be determined by the Sub-Committee:

- .1 further develop draft Unified interpretations to the 1969 TM Convention, to address those items identified in documents SDC 1/4/1 and SDC 1/4/4, taking into account document SDC 1/WP.7, SDC 1/4, SDC 1/INF.4 and comments and decisions taken by SDC 1; and
- .2 further consider matters related to the development of a reduced gross tonnage parameter for accommodation spaces, taking into account document SDC 1/WP.7, the options in annex 3 to document SDC 1/4 and the proposal in document SDC 1/4/2.

### Action requested of the Sub-Committee

14 The Sub-Committee is invited to approve the report in general and, in particular, to:

- .1 agree to the modifications made to the draft Unified interpretations and the associated draft TM.5 circular (paragraphs 7.1, 7.4, 7.6, 7.9 and 7.10 and annex) and take action as appropriate;
- .2 note the discussions and the conclusion of the group regarding the further development of a reduced gross tonnage parameter for accommodation spaces (paragraphs 9, 10, 11 and 12); and
- .3 consider the draft terms of reference prepared by the group for possible future development of Unified interpretations to the 1969 TM Convention and a reduced gross tonnage parameter for accommodation spaces (paragraph 13) and take action as appropriate.

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## ANNEX

### DRAFT TM.5 CIRCULAR

#### UNIFIED INTERPRETATIONS OF THE INTERNATIONAL CONVENTION ON TONNAGE MEASUREMENT OF SHIPS, 1969

1 The Maritime Safety Committee, at its sixty-third session (16 to 25 May 1994), agreed to a consolidated set of interpretations of the provisions of the International Convention on Tonnage Measurement of Ships, 1969 (TM.5/Circ.5).

2 The Maritime Safety Committee, at its [ninety-third session (14 to 23 May 2014)], having considered a proposal by the Sub-Committee on Ship Design and Construction, at its first session, approved the Unified interpretations of the International Convention on Tonnage Measurement of Ships, 1969 (the 1969 Tonnage Convention), as set out in the annex.

3 Member Governments are invited to use these Unified interpretations when applying the provisions of the 1969 Tonnage Convention.

4 This circular supersedes circular TM.5/Circ.5.

## ANNEX

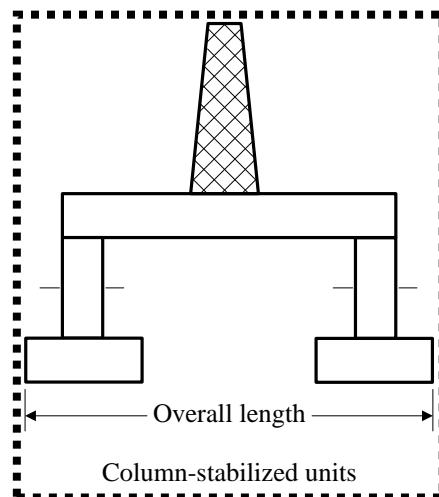
### UNIFIED INTERPRETATIONS OF THE INTERNATIONAL CONVENTION ON TONNAGE MEASUREMENT OF SHIPS, 1969

#### Articles

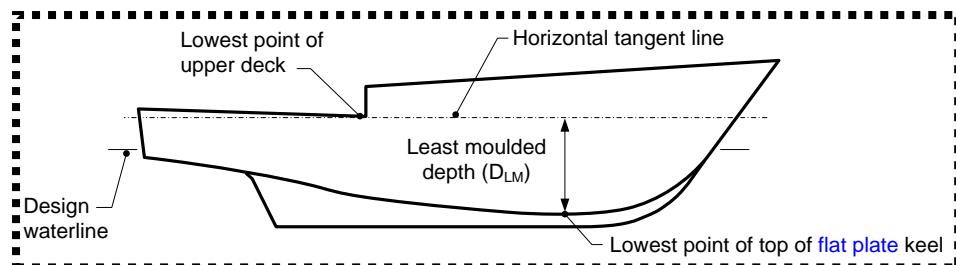
##### Art. 2 Definitions

###### Art. 2(8) Length

- A.2(8)-1 When a ship does not have a rudder stock, the length should be taken as 96% of the total length on a waterline at 85% of the least moulded depth measured as defined in regulation 2(2).
- A.2(8)-2 The 96% overall length should be used for ships that do not have a clearly defined stem or stern, such as column-stabilized units, submersibles, floating docks, and similar ships.



- A.2(8)-3 In the definition of "length" in article 2(8), the term "least moulded depth" is the vertical distance measured from the top of the flat plate keel (or equivalent lower terminus as described in regulation 2(2)) at the lowest point along the keel's length to the horizontal line that is tangent to the underside of the upper deck at the ship's side (or equivalent upper terminus as described in regulation 2(2)) at the lowest point along the upper deck's length. For the purposes of this definition, the ship is considered to be trimmed on a waterline parallel to the design waterline.



- A.2(8)-4 Where more than one rudder is fitted, the aftermost rudder stock is then the rudder stock which is to be considered when determining the length. should be taken as the aftermost rudder stock.

### **Art. 3 Application**

#### **Art. 3(2)(d) Tonnage applicability to "existing" ships**

- A.3(2)(d)-1 [The term "alterations or modifications which the Administration deems to be a substantial variation in their existing gross tonnage" means "an increase or decrease of more than 1% in the gross tonnage calculated in accordance with the 1969 Tonnage Convention."]

### **Art. 9 Form of certificate**

#### **Art. 9(2) Model in annex II**

- A.9(2)-1 The "Date" shown on the front of the International Tonnage Certificate (1969) refers to the year when the keel was laid or the ship was at a similar stage of construction (article 2(6)) or the ship underwent alterations or modifications as defined in article 3(2)(b) but when the year of construction or alteration or modification is 1982 or 1994, the month and day should also be described.
- A.9(2)-2 Information inserted in the "location" columns on the reverse of the International Tonnage Certificate (1969) should not be detailed.
- A.9(2)-3 The phrase "Date and place of original measurement" should refer to the issue of the original International Tonnage Certificate (1969) and should have no reference to measurement under pre-existing national systems.
- A.9(2)-4 The phrase "Date and place of last previous remeasurement" should refer to the date and place of issue of the last International Tonnage Certificate (1969).

### **Art. 10 Cancellation of certificate**

#### **Art. 10(2) Cancellation upon flag transfer**

- A.10(2)-1 Ships holding an International Tonnage Certificate (1969), which do not comply with agreed interpretations of the provisions of the Convention, should be remeasured. The new characteristics should be determined and applied without delay.

### **Art. 12 Inspection**

- A.12-1 A copy of the tonnage calculations may be provided together with the International Tonnage Certificate (1969) to the ship's master. Although not a requirement, nothing in the Convention would prevent Administrations from providing these calculations to ships flying their flag.

## Regulations

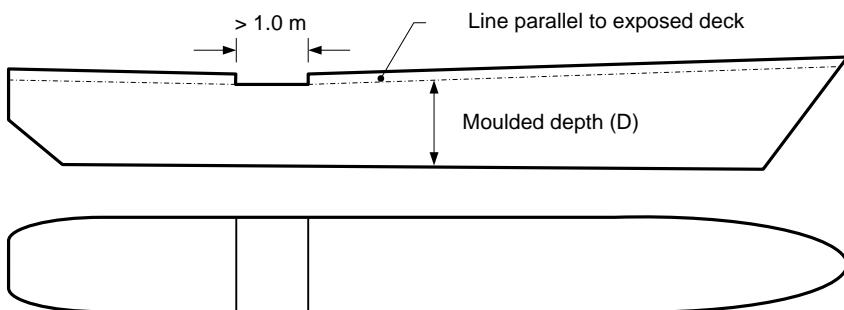
### Reg. 1(3) General

- R.1(3)-1 [The right of the Administration to determine tonnage of novel types of craft by application of methods other than those provided in the regulations should not be construed to allow exempting from measurement of those enclosed spaces which would otherwise have been included in tonnage. In applying these novel craft provisions, the resulting gross and net tonnages should be reflective of the ship's overall size and useful capacity, respectively. As such, the phrase "render the application of the provisions of these regulations unreasonable or impractical" cannot be construed as permitting deviations from these regulations for reasons unrelated to the determination of the ship's overall size or useful capacity (e.g. to accommodate constructional features that increase a ship's enclosed volume without a corresponding increase in its tonnage for the purpose of avoiding adverse economic impacts).] A novel type of craft should be understood as one which is novel in its design and should not include existing traditional types of ships of usual shape or those types already covered by the Unified Interpretations.

### Reg. 2 Definition of terms used in the annexes

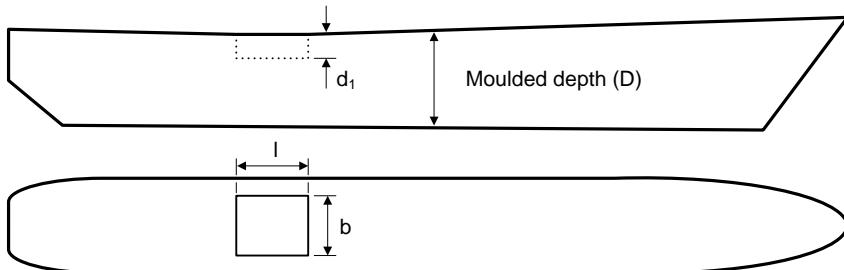
#### Reg.2(1) Upper deck

- R.2(1)-1 A discontinuity in the upper deck which extends over the full breadth of the ship and is in excess of 1 m in length should be treated as a step as defined in regulation 2(1).

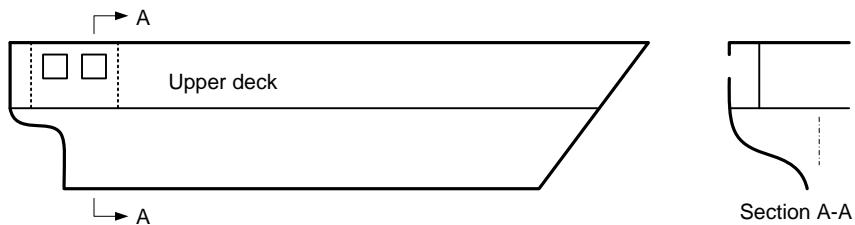


- R.2(1)-2 Steps situated outside the "length" (article 2(8)) should not be considered.

- R.2(1)-3 A discontinuity in the upper deck which does not extend to the side of the ship should be treated as a recess under the upper deck level.



- R.2(1)-4 In a ship having openings in the side of the ship below the uppermost deck, which are not closed but limited inboard by watertight bulkheads and decks, the deck below such openings should be considered the upper deck.



- R.2(1)-5 The Administration may decide on the term "watertight" as a special definition for tonnage purposes is not needed.

**Reg. 2(3) Breadth**

- R.2(3)-1 The term "amidships" should be considered as the midpoint of the length as defined in article 2(8) where the forward terminal of that length coincides with the fore side of the stem.

**Reg. 2(4) Enclosed spaces**

- R.2(4)-1 In regulation 2(4) there is no contradiction between the definition of enclosed spaces as being "bounded by the ship's hull, by fixed or portable partitions ..." and "... nor the absence of a partition or bulkhead, shall preclude a space from being included in the enclosed space".

- R.2(4)-2 Space located within the boundaries of "permanent or movable awnings" should be subject to treatment under regulation 2(5).

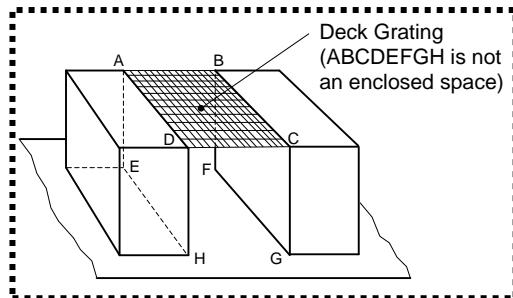
- R.2(4)-3 Tanks, permanently located on the upper deck, provided with removable pipe connections to the cargo system or the vent (de-airing) lines of the ship, should be included in  $V_c$ .

- R.2(4)-4 The volume of watertight steel pontoon covers on hatchway coamings should be included in the calculations of the total volume ( $V$ ) of the ship. If such covers are open on the underside, their volume should also be included in  $V_c$ .

- R.2(4)-5 Multipurpose ships which have the facility to trade with cargo hatches open or closed should always be measured with the hatch covers considered to be closed.

- R.2(4)-6 Masts, kingposts, cranes, crane and container support structures, which are completely inaccessible and above the upper deck, separated on all their sides from other enclosed spaces should not be included in the total volume of all enclosed spaces. Air trunks having a cross-sectional area not exceeding  $1 \text{ m}^2$  may also be excluded under the before-mentioned conditions.

- R.2(4)-7 If enclosed spaces comply with the conditions for exclusion specified in regulation 2(5), then they should be excluded from the total volume of all enclosed spaces (V). Such spaces should be treated as "enclosed but excluded spaces" to differentiate from "enclosed and included spaces" (those "enclosed spaces" which do not comply with the conditions for exclusion specified in regulation 2(5)).
- R.2(4)-8 Open gratings that are part of the ship's hull, or of any deck, covering, partition or bulkhead, are not considered to bound enclosed space, and are ignored when applying this regulation.

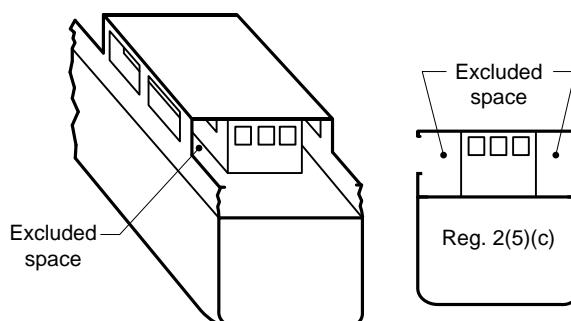


- R.2(4)-9 Machinery such as mooring and towing equipment, winches, revolving cranes, cranes with truss structures, and other similar items should not be included in the total volume of all enclosed spaces (V).
- R.2(4)-10 ~~All m~~Mobile cranes should not be included in the total volume of all enclosed spaces (V). "Mobile" means that the main structure (support) of the crane moves either longitudinally or transversely relative to the ship.

#### Reg. 2(5)

#### Excluded spaces

- R.2(5)-1 The space between the side longitudinal bulkhead of a deckhouse and the bulwark below a deck extending from side to side supported by stanchions or vertical plates connected to the bulwarks, should be treated as an excluded space in accordance with regulation 2(5)(b) and (c). Similarly, open spaces directly below a bridge wing structure should not be treated as enclosed spaces.



- R.2(5)-2 In the case of a ro-ro ship, for example, where the space at the end of an erection is fitted with means for securing cargo, the space should be included in V in accordance with the first condition of regulation 2(5).

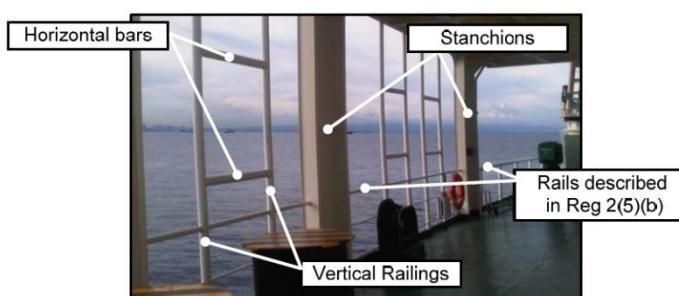
R.2(5)-3 In applying this regulation:

- .1 spaces excluded from the total volume of all enclosed spaces (V) are those spaces which are treated as enclosed ones under regulation 2(4) but also comply with the conditions for exclusion under regulation 2(5);
- .2 the volume of those enclosed spaces referred to in regulation 2(5)(a) to (e) shall be excluded from the total volume of all enclosed spaces (V), unless at least one of the following three conditions takes place:
  - the space is fitted with any means for securing cargo or stores;
  - the openings are fitted with any means of closure;
  - the construction provides any possibility of such openings being closed.

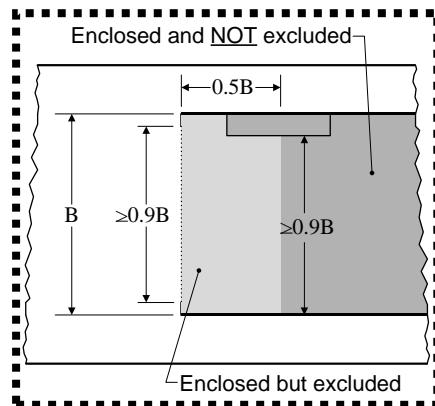
R.2(5)-4 In Appendix 1 to the Convention, labeling in the figures shall be interpreted as follows:

- .1 "O = excluded space" refers to an enclosed space or part of an enclosed space which corresponds to one of the situations described in regulation 2(5)(a) to (e) and which satisfies the conditions for exclusion from the total volume of all enclosed spaces (V) specified in this regulation;
- .2 "C = enclosed space" refers to an enclosed space or part of an enclosed space which does not correspond to any of the situations described in Regulation 2(5)(a) to (e) and consequently can never be excluded from the total volume of all enclosed spaces (V);
- .3 "I = space to be considered as an enclosed space" refers to an enclosed space or part of an enclosed space which corresponds to one of the situations described in regulation 2(5)(a) to (e) but does not satisfy the conditions for exclusion from the total volume of all enclosed spaces (V) specified in this regulation.

R.2(5)-5 In applying regulation 2(5)(b) and (c), stanchions necessary to support an overhead deck and vertical railings are not considered to close or reduce the size of a side opening. Horizontal bars connecting vertical railings should not be treated as rails as described in regulation 2(5)(b).



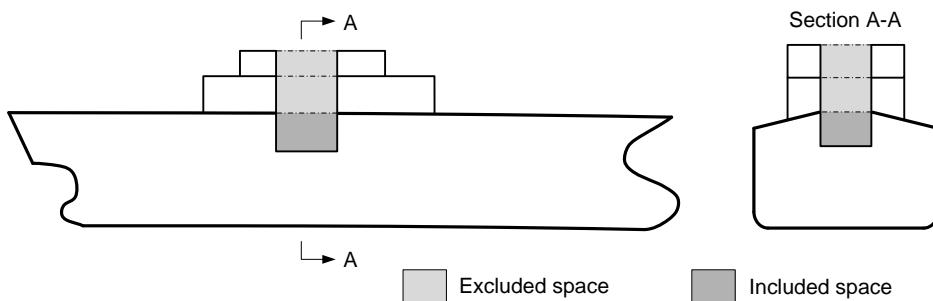
- R.2(5)-6 When applying the provisions of regulation 2(5), the phrase "breadth of the deck" means the breadth of the deckhouse structure at the line of the opening of the space, regardless of whether or not the structure extends from side to side. In addition to erections extending from side to side, the requirements for excluded spaces under regulation 2(5) are also applicable to structures that do not extend from side to side of the ship. In such structures B means breadth of a structure that does not extend from side to side, measured in way of the opening (see appendix 1 to the Convention).



- R.2(5)-7 Grates covering side or end openings should not be considered as means of closure when applying this regulation.

**Reg. 2(5)(d) Space immediately below an uncovered opening**

- R.2(5)(d)-1 The term "immediately below" means extending from the deck in which the opening occurs to the lower boundary of the opening being considered. Openings which penetrate the upper deck (as defined in regulation 2(1)) are only excluded to the line of the upper deck.



**Reg. 2(6) Passenger**

- R.2(6)-1  $N_1$  and  $N_2$  should be obtained from the Administration's maritime safety authority.

**Reg. 2(7) Cargo spaces**

- R.2(7)-1 The volumes of the segregated ballast tanks should not be included in  $V_c$  provided they are not to be used for cargo.

- R.2(7)-2 The volumes of clean ballast tanks in oil tankers should be included in  $V_c$  when the ship is fitted with a crude oil washing system which would permit dual purpose cargo/clean ballast tank use of these tanks.
- R.2(7)-3 The volumes of dedicated clean ballast tanks should not be included in  $V_c$  provided that:
- .1 the tanks are not used for cargo;
  - .2 the ship carries a single IOPP Certificate which indicates it is operating with dedicated clean ballast tanks in accordance with regulation 13A, annex I, MARPOL 73/78;
  - .3 the following notation is inserted in the REMARKS column on the International Tonnage Certificate (1969): "This ship carries an IOPP Certificate in conformity with regulation 13A, annex I, MARPOL. The following tanks are dedicated solely to the carriage of clean ballast water: \_\_\_\_\_."
- R.2(7)-4 The volumes of slop tanks for cargo residues should be included in  $V_c$ .
- R.2(7)-5 In fishing vessels, the volumes of fish processing spaces for fishmeal, liver oil and canning, tanks for re-cooling fish, wet fish bunkers, stores for salt, spices, oil and tare should be included in  $V_c$ . Fishing gear stores should not be included in  $V_c$ .
- R.2(7)-6 The volume of refrigerating machinery used for refrigerating cargoes and situated within the boundaries of the cargo spaces should be included in  $V_c$ .
- R.2(7)-7 The volumes of mail rooms, baggage compartments separate from passenger accommodation, and bonded stores for passengers should be included in  $V_c$ . The volume of provision rooms for crew or passengers and bonded stores for crew should not be included in  $V_c$ .
- R.2(7)-8 On combination carriers, where the owners request to have the dual purpose oil/ballast tanks converted to ballast tanks and excluded from  $V_c$ , the ballast tanks should be required to be permanently disconnected from the oil cargo system and not used for the carriage of cargo. The ship should then be remeasured in accordance with regulation 5(3). Any ballast tanks not to be included in  $V_c$  should be solely allocated to ballast, connected to an independent ballast system, and not used to carry cargo.
- R.2(7)-9 When determining the volumes of cargo spaces, no account should be taken of insulation, sparring or ceiling which is fitted within the boundaries of the space concerned. For ships which have permanent independent cargo tanks constructed within the ship, e.g. gas tankers, the volume to be included in  $V_c$  should be calculated to the structural boundary of such tanks, irrespective of insulation which may be fitted on the inside or outside of the tank boundary.
- R.2(7)-10 The volumes of dual purpose spaces such as those used for both ballast and cargo should be included in  $V_c$ .

R.2(7)-11 Spaces allocated to passenger automobiles should be included in  $V_c$ .

**Reg. 3                    Gross tonnage**

- R.3-1 The  $K_1$  coefficient used in the gross tonnage calculation may be derived from either the table in appendix 2 of the Convention or from the formula in regulation 3 at the discretion of the Administration.
- R.3-2 The final tonnage figure determined in accordance with regulation 3 and stated in the tonnage certificate should be given in rounded down figures without decimals.

**Reg. 4                    Net tonnage**

- R.4-1 The  $K_2$  coefficient used in the net tonnage calculation may be derived from either the table in appendix 2 of the Convention or from the formula in regulation 4 at the discretion of the Administration.
- R.4-2 The final tonnage figure determined in accordance with regulation 4 and stated in the tonnage certificate should be given in rounded down figures without decimals.

**Reg. 6                    Calculation of volumes**

- R.6-1 Enclosed spaces above the upper deck, appendages and spaces open to the sea not exceeding  $1 \text{ m}^3$  should not be measured.

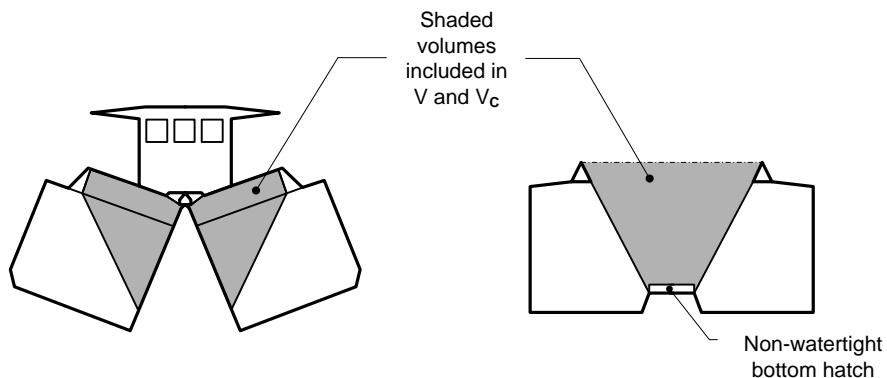
**Reg. 6(2)                Appendages**

- R.6(2)-1 Bulbs, fairwaters, propeller shaft bossings or other structures should be treated as appendages.

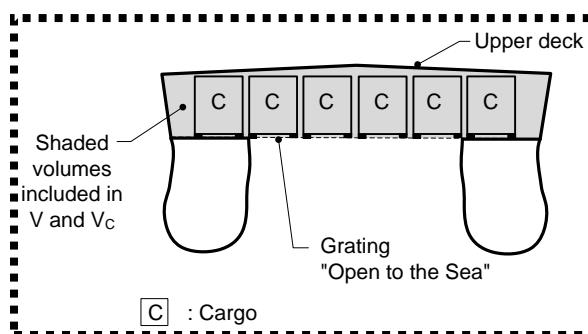
**Reg. 6(3)                Spaces open to the sea**

- R.6(3)-1 Hawse pipes, sea-valve recesses, thruster tunnels, stern chutes in fishing vessels, dredging wells in dredgers and other similar spaces fitted in the ship's hull should be dealt with as spaces open to the sea.

- R.6(3)-2 Volumes within the hulls of ships, such as split-hull barges and dredgers, should be retained in  $V$  and  $V_c$  notwithstanding that the space within the hull is temporarily opened to the sea when discharging cargo.



- R.6(3)-3 Spaces open to the sea should not be excluded from the total volume of all enclosed spaces ( $V$ ) if they are used for cargo and/or buoyancy purposes.



## Reg. 7

### Measurement and calculation

- R.7-1 When a tonnage certificate and a copy of the calculations of the tonnages are transmitted to another Government in accordance with article 8(2) or 10(3) of the Convention, they should be accompanied by a form as shown in the annex, showing the main particulars of the tonnage calculations for easy reference. When listing underdeck volumes, the volumes may be combined (e.g. underdeck/extended forecastle, etc.) on the form.

## Reg. 7(2)

### Calculation methods and accuracy

- R.7(2)-1 Administrations should decide on the degree of accuracy required for the tonnage calculations.

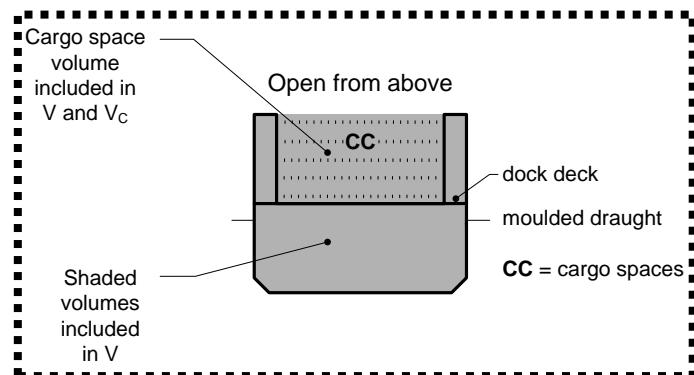
### Novel Craft Interpretations (regulation 1(3))

#### NvICr. 1      Livestock carriers

- N.1-1 Livestock carriers are most often converted ships. Above the existing upper deck, one or more decks are constructed. Between these decks, the livestock corrals and their associated spaces are arranged, separated by, for example, railings, fences or gangways. The corrals are open to the air.
- N.1-2 Stanchions, fences and railings to keep livestock in the corrals are "other means for securing cargo" according to regulation 2(5).
- N.1-3 In applying the provisions of the 1969 Tonnage Convention, livestock structures should be included in the gross tonnage.

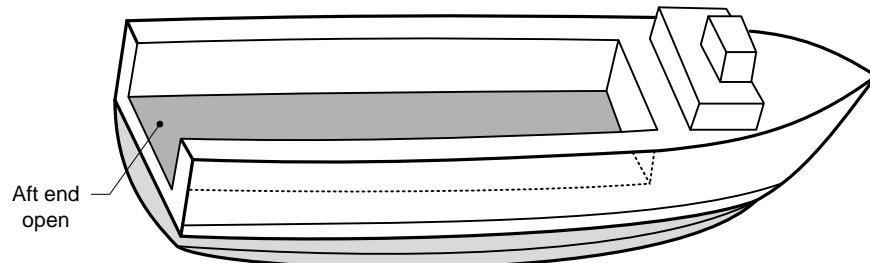
#### NvICr. 2      Dockships

- N.2-1 A dockship may include in its main structural characteristics the absence of hatch covers above the cargo space but may have a dock deck above the moulded draught together with side erections.

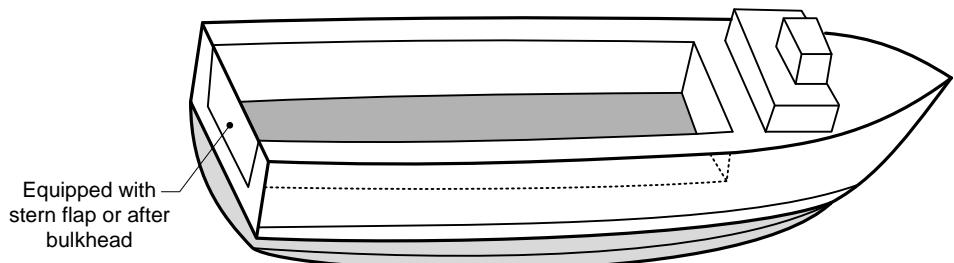


N.2-2 The dockships considered are described as:

- .1 a dockship open-ended at the stern,



- .2 a dockship fitted with a stern door or a grill stern door (see figure 8 in appendix 1).



N.2-3 The space above the dock deck, bounded on at least three sides by erections and intended for the carriage of cargo should be included.

N.2-4 In this context, an erection is defined as being an enclosed space bounded by bulkheads and a deck above.

### NvICr. 3 Open-Top Containerships

N.3-1 Refer to resolution MSC.234(82) for recommendations concerning tonnage measurement of open-top containerships.

## **Annex**

### FORM GIVING PARTICULARS OF UNIFORM TONNAGE CALCULATION

#### GROSS TONNAGE

Item No.	Name of Space	Location	Length	Moulded volume
	Underdeck Poop Bridge Forecastle Deckhouses Hatches, etc.			
		Total volume		

#### NET TONNAGE

	No. 1 hold No. 2 hold, etc. No. 1 tween decks, etc. No. 2 tween decks, etc. Hatches, etc.			
		Total volume		