

# **Merchant Shipping (Tonnage) Regulations 2017**

**GN No. 147 of 2017**

**Government Gazette of Mauritius No. 73 of 3 August 2017**

## **THE MERCHANT SHIPPING ACT**

### **Regulations made by the Minister under section 228 of the Merchant Shipping Act**

#### **PART I – PRELIMINARY**

**1. Short title**

These regulations may be cited as the **Merchant Shipping (Tonnage) Regulations 2017**.

**2. Interpretation**

In these regulations –

“Act” means the Merchant Shipping Act;

“amidships” means –

- (a) the mid-point of the length of a ship; and
- (b) in the case of a ship of less than 24 metres in length, the mid-point of the length overall;

“breadth” means the maximum breadth of a ship, measured amidships to the moulded line of the frame in the ship with a metal shell and to the outer surface of the hull in the ship with a shell of any other material;

“break” means the space bounded longitudinally by a side to side upward step in the lowest line of the upper deck and another such step or the end of a ship, transversely by the sides of the ship and vertically by the higher part of the deck and the lowest line of the upper deck continued parallel thereto;

“cargo spaces” means enclosed spaces which are appropriated for the transport of cargo to be discharged from a ship;

“combination carrier” means a ship designed to carry oil or solid cargoes in bulk;

“contracting State” means a State which is a party to the Convention;

“Convention” means the International Convention on Tonnage Measurement of Ships 1969;

“enclosed spaces” –

(a) means all spaces, other than excluded spaces, which are bounded by a ship’s hull, by fixed or portable partitions or bulkheads or by decks or coverings other than permanent or moveable awnings;

(b) includes a break in a deck, any opening in a ship’s hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space and the absence of a partition or bulkhead;

“excluded spaces” means, subject to paragraph (f), any of the spaces specified in paragraphs (a) to (e) –

- (a) that part of an enclosed space within an erection opposite an end opening and extending from the opening to an athwartship line at a fore and aft distance from the opening equal to half the breadth of the deck at the line of the opening. Such end opening shall have a breadth equal to or greater than 90 per cent of the breadth of the deck at the line of the opening and shall extend from deck to deck or to a curtain plate of a depth not exceeding by more than 25 millimetres the depth of the adjacent deck beams, as specified in Figure 1 of the First Schedule: provided that –
- (i) where at any point the width of the enclosed space, because of any arrangement except convergence of the outside plating, as specified in Figure 3 of the First Schedule, becomes less than 90 per cent of the breadth of the deck at the line of the opening, the excluded space shall extend only to an athwartship line intersecting that point, as specified in Figures 2 and 4 of the First Schedule;
  - (ii) where the opposite ends of two enclosed spaces are separated by a gap, which is completely open except for bulwarks or open rails and of fore and aft length less than half the least breadth of the deck at the gap, then no part of the enclosed spaces shall be excluded, as specified in Figures 5 and 6 of the First Schedule;
- (b) a space under an overhead deck covering open to the sea and weather having no other connection on the exposed sides with the body of the ship than the stanchions necessary for its support. In such a space, open rails or a bulwark and curtain plate may be fitted or stanchions fitted at the ship's side, provided that the distance between the top of the rails or the bulwark and the curtain plate is not less than 0.75 metres or one-third of the height of the space, whichever is greater, as specified in Figure 7 of the First Schedule;
- (c) a space in a side-to-side erection between opposite side openings not less in height than 0.75 metres or one-third of the height of the erection whichever is greater. If the opening in such an erection is provided on one side only, the

space the opening to a maximum of one half of the breadth of the deck in way of the opening, as specified in Figure 8 of the First Schedule;

- (d) a space in an erection immediately below an uncovered opening in the deck overhead, provided that such an opening is exposed to the weather and the space excluded from enclosed spaces is limited to the area of the opening, as specified in Figure 9 of the First Schedule;
- (e) a recess in the boundary bulkhead of an erection which is exposed to the weather and the opening of which extends from deck to deck without means of closing, provided that the interior width is not greater than the width at the entrance and its extension into the erection is not greater than twice the width of its entrance, as specified in Figure 10 of the First Schedule;
- (f) notwithstanding the provisions of paragraphs (a) to (e) inclusive, any space listed in those paragraphs which fulfils at least one of the following conditions shall be treated as an enclosed space –
  - (i) the space is fitted with shelves or other means for securing cargo or stores;
  - (ii) the openings are fitted with any means of closure;
  - (iii) the construction provides any possibility of such openings being closed;

“length” has the same meaning as in the Convention;

“length overall” means the distance between the foreside of the foremost fixed permanent structure and the afterside of the aftermost permanent structure;

“Load Line Regulations” means the Load Line Regulations referred to in section 114 of the Act;

“MARPOL” means the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978;

“moulded depth”, and in case of a ship of less than 24 metres “depth”, means the vertical distance measured from the top of the keel of a metal ship, or in wood and composite ships from the lower edge of the keel rabbet, to the underside of the upper deck at side, or, in the case of a ship which is not fully decked, to the top of the upper strake or gunwale, provided that –

- (a) where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel;
- (b) in the case of a glass reinforced plastic ship where no keel member is fitted and the keel is of open trough construction, the distance is measured from the top of the keel filling, if any, or the level at which the inside breadth of the trough is 100 millimetres, whichever gives the lesser depth;
- (c) in ships having rounded gunwales, the distance is measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwales were of angular design; and
- (d) where the upper deck is stepped and the raised part of the deck extends over the point at which the moulded depth is measured, the distance is measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part; and for the purposes of this definition –
  - (i) “upper deck” means the uppermost complete deck exposed to weather and sea, which has permanent means of weathertight closing of all openings in the weather part thereof, and below which all openings in the sides of the ship are fitted with permanent means of watertight closing. In a ship having a stepped upper deck, the lowest line of the exposed deck

and the continuation of that line parallel to the upper part of the deck is taken as the upper deck; and

- (ii) “weathertight” means that in any sea conditions water will not penetrate into the ship;

“moulded draught” means –

- (a) for ships assigned load lines in accordance with the Load Line Regulations, the draught corresponding to the Summer Load Line, other than timber load lines;
- (b) for passenger ships, the draught corresponding to the deepest subdivision load line assigned in accordance with Regulation 13 of Chapter II-1 of the Annex to the Safety Convention;
- (c) for ships to which no load line has been assigned but the draught of which is restricted by the Director, the maximum permitted draught; and
- (d) for other ships, 75 per cent of the moulded depth amidships;

“non-contracting State” means a State which is not a party to the Convention;

“oil tanker” –

- (a) means a ship constructed or adapted to carry oil in bulk in its cargo spaces; and
- (b) includes combination carriers;

“similar stage of construction” means the stage at which –

- (a) construction identifiable with a specific ship begins; and

- (b) assembly of a ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is lower.

## **PART II – TONNAGE MEASUREMENT OF SHIP OF NOT LESS THAN 24 METRES IN LENGTH**

### **3. Application of Part II**

This Part shall apply to every ship of not less than 24 metres in length which is entitled to be registered in Mauritius under Part III of the Act.

### **4. Calculation of volumes**

(1) All volumes included in the measurement of the gross and net tonnage of a ship shall be calculated, irrespective of the fitting of insulation or the like –

- (a) to the inner side of the shell or structural boundary plating in the ship constructed of metal; and
- (b) to the outer surface of the shell or to the inner side of the structural boundary surfaces in the ship constructed of any other material.

(2) (a) The volumes of an appendage shall be included in the total volume.

(b) The volumes of spaces open to the sea shall be excluded from the total volume.

(3) The method and accuracy of any calculation shall be sufficiently detailed to facilitate checking.

(4) Any calculation of volumes shall be taken and expressed in metres to the nearest one hundredth of a metre.

## **5. Measurement of tonnage of ship**

(1) (a) The gross tonnage of a ship shall be measured by the formula set out in Part I of the Second Schedule.

(b) The net tonnage of a ship shall be measured by the formula set out in Part II of the Second Schedule.

(2) Notwithstanding paragraph (1), the gross and net tonnage of a novel type of craft with constructional features which render the application of these regulations impracticable shall be measured in such manner as the Director may determine.

(3) The gross and net tonnage of a ship shall be expressed as whole numbers, decimals being rounded off downwards.

(4) Coefficients  $K_1$  or  $K_2$ , referred to in Part I and Part II of the Second Schedule, at intermediate values of  $V$  or  $V_c$  shall be obtained, as specified in the Third Schedule, by linear interpolation.

(5) Where the tonnage of a ship has been determined, the Director shall issue a tonnage certificate to the ship in such form as he may approve.

## **6. Measurement of tonnage of segregated ballast tanks in oil tanker**

(1) Where segregated ballast tanks, complying with Regulation 18 of Annex 1 of MARPOL, are provided in an oil tanker, an entry indicating the total tonnage of the tanks may be made in the tonnage certificate.

(2) The tonnage of segregated ballast tanks in an oil tanker shall be measured by the formula set out in Part III of the Second Schedule.

(3) Coefficients K1 or K2, referred to in Part I and Part II of the Second Schedule, at intermediate values of V or Vc shall be obtained, as specified in the Third Schedule, by linear interpolation.

## **7. Cancellation of tonnage certificate**

(1) Where alterations are made to a ship in relation to its arrangement, construction, capacity, use of spaces, total number of passengers the ship is permitted to carry under the terms of the ship's passenger certificate, assigned load line or permitted draught of the ship, and such alterations will increase the gross or net tonnage of the ship, the tonnage certificate of the ship shall cease to be valid and shall be surrendered by the owner or master of the ship to, and cancelled by, the Director.

(2) (a) Subject to subparagraph (b), where a ship is transferred from the Mauritius flag to the flag of another country, its tonnage certificate shall cease to be valid.

(b) Where a transfer is made to the flag of a contracting State, the tonnage certificate shall remain valid for a period not exceeding 3 months from the date of transfer or until the contracting State issues another tonnage certificate to the ship, whichever is the earlier.

(3) The Director shall, as soon as possible after a transfer has taken place, transmit to the contracting State a copy of the tonnage certificate which was issued by him and a copy of the tonnage measurements.

## **8. Change of net tonnage**

(1) Where alterations in the values of V, Vc, d, N1 or N2, as defined in Part I and Part II of the Second Schedule, result in an increase in the net tonnage of a ship, a new tonnage certificate, incorporating the increased net tonnage, shall be issued to the ship.

(2) (a) Where a passenger ship is assigned subdivision load lines in accordance with the relevant provisions of Chapter II-1 regulations 18 to the Safety Convention and load lines in accordance with the Load Line Regulations, only one net tonnage shall be applied.

(b) Where the draught corresponding to the Summer Load Line differs from that corresponding to the deepest subdivision load line, the net tonnage shall, subject to paragraph (3), be that determined in accordance with regulation 5(1)(b) by applying the draught corresponding to the appropriate assigned load line for the trade in which the ship is engaged.

(3) Subject to paragraph (4), where alterations in the values of  $V$ ,  $V_c$ ,  $d$ ,  $N_1$  or  $N_2$  as defined in Part I and Part II of the Second Schedule, or changes in the position of the load lines, result in a decrease in the net tonnage, a new tonnage certificate incorporating the decreased net tonnage shall not be issued until 12 months have elapsed from the date on which the current tonnage certificate was issued.

(4) A new tonnage certificate may be issued to a ship where the ship –

- (a) which is registered outside Mauritius, is re-registered in Mauritius;
- (b) undergoes alterations or modifications of a major character such as the removal of a superstructure, which requires an alteration of the assigned load line; or
- (c) is a passenger ship employed in special trades for the carriage of large numbers of special trade passengers, such as the pilgrim trade.

### **PART III – TONNAGE MEASUREMENT OF SHIP OF LESS THAN 24 METRES IN LENGTH, OTHER THAN FISHING VESSELS**

#### **9. Application of Part III**

This Part shall apply to a ship of less than 24 metres in length, other than a fishing vessel, which is entitled to be registered in Mauritius under Part III of the Act.

#### **10. Measurement of tonnage of ship**

- (1) The tonnage of a ship shall be the sum of –
  - (a) the product of multiplying together its length overall, extreme breadth over the outside hull and depth in metres and multiplying the resultant figure by 0.16; and
  - (b) the tonnage of any break or breaks, calculated for each break by multiplying together its mean length, mean breadth, and mean height in metres and multiplying the resultant figure by 0.35.
  
- (2) For the purpose of this Part –
  - (a) the breadth of a ship shall be its extreme breadth over the outside plating, planking or hull, no account being taken of rubbers or fenders even where they are moulded so as to be integral with the hull;
  - (b) the depth of a ship shall be measured vertically at the midpoint of the length overall;
  - (c) the upper terminal point for the depth of a ship shall be –
    - (i) in the case of a decked ship, the underside of the deck on the middle line or, where there is no deck on the middle line at the point of measurement, the underside of the deck at the side of the ship plus the full deck camber; and
    - (ii) in the case of an open ship, the top of the upper strake or gunwale;
  - (d) the lower terminal point for the depth of a ship shall be –

- (i) in the case of a wooden ship, the upper side of the planking at the side of the keel or hog;
  - (ii) in the case of a metal ship, the top of the plating at the side of the keel;
  - (iii) in the case of a glass reinforced plastic ship, the inside of the hull;
  - (iv) in the case where no keel member is fitted and the keel is of open trough construction, the top of the keel filling where fitted, or the level at which the inside breadth of the trough is 10 centimetres, whichever gives the greater depth;
- (e) where a break exists in way of the point of measurement for depth, the height of the break shall not be included in the measurement of depth.

(4) The tonnage determined in accordance with paragraph (1) shall be the gross tonnage and net tonnage of a ship.

(5) In the case of a multi-hull ship, the tonnage of each hull shall be measured separately and the sum of such tonnages shall be used in computing the tonnage referred to in paragraph (1).

(6) All measurements used in the calculations of volumes shall be taken and expressed in metres to the nearest one hundredth of a metre.

(7) The tonnage of a ship shall be expressed to 2 decimal places, the second decimal place being increased by one if the third decimal place is 5 or more.

(8) A surveyor shall, after determining the tonnage of a ship, forward to the Director a Certificate of Measurement in such form as the Director may approve.

(9) (a) Where alterations are made to a ship in relation to its arrangement, construction, capacity, use of spaces, total number of passengers the ship is permitted to carry under the terms of the ship's passenger certificate, assigned load line or permitted draught of the ship, and such alterations will increase the gross or net tonnage of the ship, the certificate of the ship shall cease to be valid and shall be surrendered by the owner or master of the ship to, and cancelled by, the Director.

(b) Where the tonnage certificate of a ship is cancelled under subparagraph (a), the owner of the ship shall make an application for the tonnage of the ship to be re-measured in accordance with paragraph (1).

#### **PART IV – MEASUREMENT OF TONNAGE OF FOREIGN SHIP**

##### **11. Measurement of tonnage of foreign ship**

(1) (a) The Director may, at the request of the contracting State, ascertain, in accordance with Part II, the gross and net tonnage of a foreign ship and issue to the foreign ship a tonnage certificate.

(b) A tonnage certificate issued under subparagraph (a) shall be endorsed to the effect that it has been issued at the request of the contracting State whose flag the foreign ship is or will be flying.

(c) A copy of the tonnage certificate and the measurement of the gross and net tonnage of the foreign ship shall be transmitted, as soon as possible, to the contracting State.

(2) (a) The Director may, at the request of an owner of a foreign ship flying the flag of a non-contracting State, ascertain, in accordance with Part II, the gross and net tonnage of the ship and issue a tonnage certificate to the foreign ship in such form and under such terms and conditions as he may determine.

(b) A tonnage certificate issued under subparagraph (a) shall be endorsed to the effect that the certificate shall be valid only whilst the ship is within Mauritius waters.

## **PART V – MISCELLANEOUS PROVISIONS**

### **12. Offence**

Any owner or master of a ship who fails, without reasonable cause, to surrender a tonnage certificate for cancellation under regulation 7(1) or 10(9)(a) shall commit an offence and shall, on conviction, be liable to a fine not exceeding 50,000 rupees.

### **13. Saving**

Notwithstanding these regulations, any tonnage certificate issued before the commencement of these regulations shall remain valid on such terms and conditions the tonnage certificate was issued.

### **14. Commencement**

These regulations shall come into operation on 1 July 2017.

Made by the Minister on 19 June 2017.

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## **FIRST SCHEDULE**

[Regulation 2]

### **EXCLUDED SPACES**

In this Schedule –

“B” means breadth of the deck in the way of the opening. (In ships with rounded gunwales, the breadth is measured as indicated in Figure 11.);

“C” means an enclosed space;

“I” means a space to be considered as an enclosed space. (Hatched - in parts to be included as enclosed space);

“O” means an excluded space.

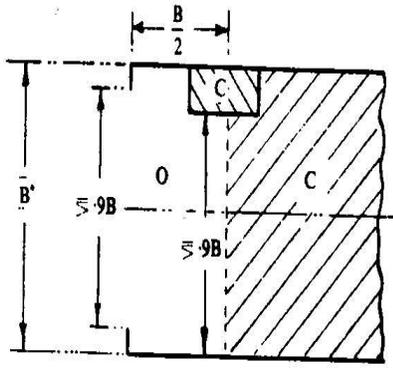


Fig. 1

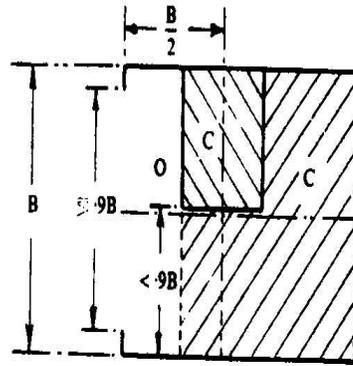


Fig. 2

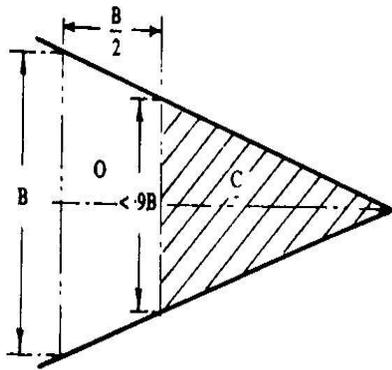


Fig. 3

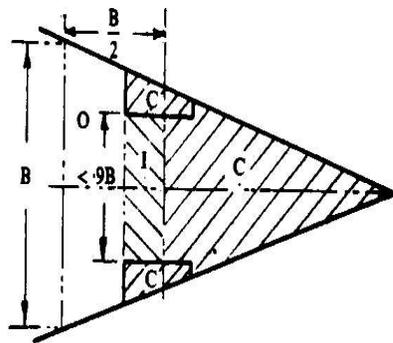


Fig. 4

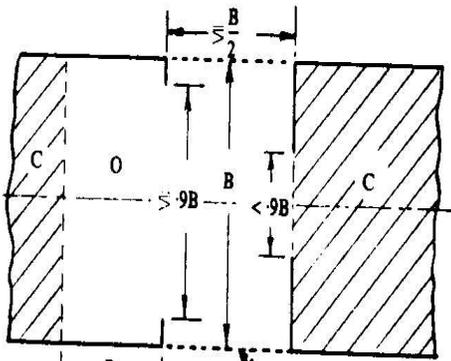


Fig. 5

OPEN RAILS OR BULWARK

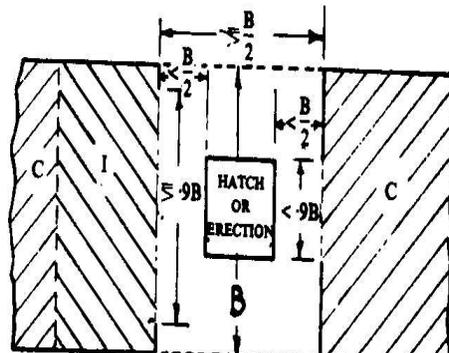
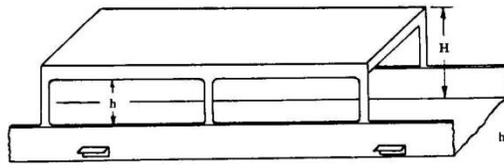


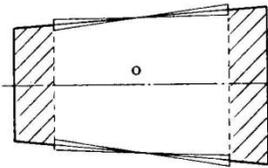
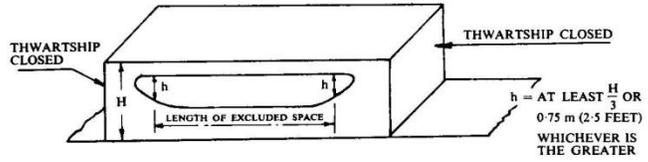
Fig. 6

OPEN RAILS OR BULWARK

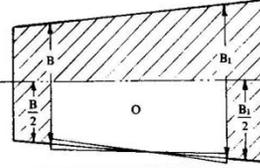


$h = \text{AT LEAST } \frac{H}{3} \text{ OR } 0.75 \text{ m (2.5 FEET)}$   
WHICHEVER IS THE GREATER

Fig. 7

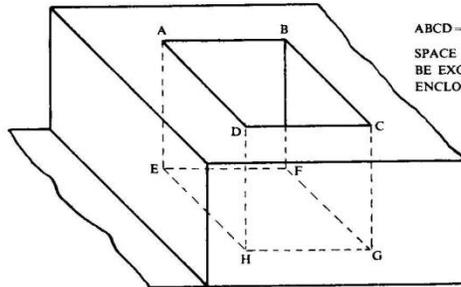


OPPOSITE SIDE OPENINGS



OPENING ON ONE SIDE ONLY

Fig. 8



ABCD = OPENING IN THE DECK  
SPACE ABCDEFGH SHALL  
BE EXCLUDED FROM  
ENCLOSED SPACE

Fig. 9

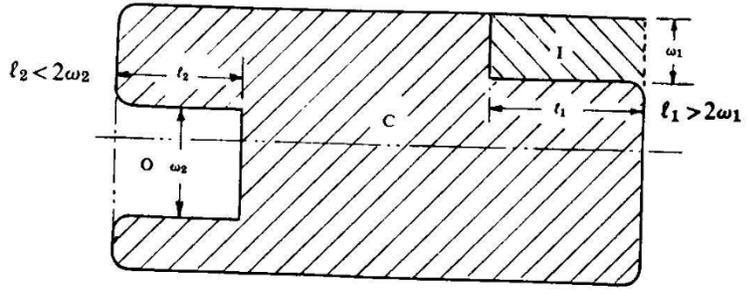


Fig. 10

SHIPS WITH ROUNDED GUNWALES

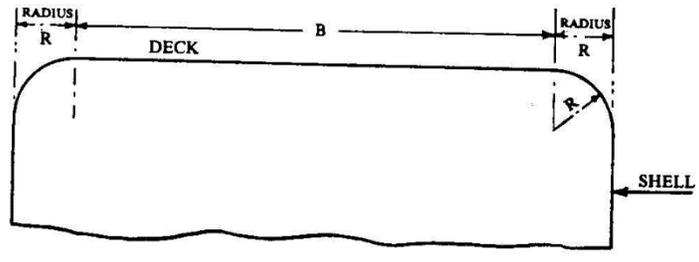


Fig. 11

## **SECOND SCHEDULE**

[Regulation 5(1)(a)]

### **PART – I**

#### **GROSS TONNAGE (GT)**

$$GT = K_1 V$$

where –

$$K_1 = 0.2 + 0.02 \log_{10} V \text{ (or as specified in the Third Schedule)}$$

V = total volume of all enclosed spaces of the ship in cubic metres

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### **PART – II**

[Regulation 5(1)(b)]

#### **NET TONNAGE (NT)**

$$NT = K_2 V_c \left( \frac{4d}{3D} \right)^2 + K_3 \left( N_1 + \frac{N_2}{10} \right)$$

where –

$$K_2 = 0.2 + 0.02 \log_{10} V_c \text{ (or as specified in the Third Schedule)}$$

$V_c$  = total volume of cargo spaces in cubic metres

d = moulded draught amidships in metres

D = moulded depth amidships in metres

$$K_3 = 1.25 \left( \frac{GT + 10,000}{10,000} \right)$$

GT = gross tonnage calculated in accordance with regulation 5(1)(a)

N<sub>1</sub> = number of passengers in cabins with not more than 8 berths

N<sub>2</sub> = number of other passengers who may be accommodated on the ship

provided that –

(a) the factor –

$$\left( \frac{4d}{3D} \right)^2 \text{ shall not be taken as greater than unity;}$$

(b) the term –

$$K_2 V_c \left( \frac{4d}{3D} \right)^2 \text{ shall not be taken as less than } 0.25GT;$$

(c) N<sub>1</sub> and N<sub>2</sub> shall be taken as zero when N<sub>1</sub> + N<sub>2</sub> is less than 13; and

(d) NT shall not be taken as less than .30GT.

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## PART – III

### SEGGREGATED BALLAST TANKS

$$K_1 \times V_b$$

where –

$$K_1 = 0.2 + 0.02 \log_{10} V \text{ (or as specified in the Third Schedule)}$$

$V$  = the total volume of all enclosed spaces of the ship in cubic metres

$V_b$  = the total volume of segregated ballast tanks in cubic metres measured in accordance with regulation 4

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### THIRD SCHEDULE

[Regulations 5(4) and 6(2)]

#### COEFFICIENTS $K_1$ AND $K_2$

V or  $V_c$  = Volume in cubic metres;

V or $V_c$	$K_1$ or $K_2$						
10	0.220 0	300	0.249 5	5 000	0.269 5	40 000	0.292 0
20	0.226 0	400	0.252 0	6 000	0.272 0	45 000	0.293 1
30	0.229 5	500	0.254 0	7 000	0.274 0	50 000	0.294 0
40	0.232 0	600	0.255 6	8 000	0.275 6	55 000	0.294 8
50	0.234 0	700	0.256 9	9 000	0.276 9	60 000	0.295 6
60	0.235 6	800	0.258 1	10 000	0.278 1	65 000	0.296 3
70	0.235 9	900	0.259 1	15 000	0.279 1	70 000	0.296 9
80	0.238 1	1 000	0.260 0	20 000	0.280 0	75 000	0.297 5
90	0.239 1	2 000	0.266 0	25 000	0.283 5	80 000	0.298 1

100	0.240	3 000	0.269	30	0.286	85	0.298
	0		5	000	0	000	6
200	0.246	4 000	0.272	35	0.288	90	0.299
	0		0	000	0	000	1

V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>	V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>	V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>	V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>
95 000	0.299	210	0.306	330	0.310	450 000	0.313
	6	000	4	000	4		1
100	0.300	220	0.306	340	0.310	460 000	0.313
000	0	000	8	000	6		3
110	0.300	230	0.307	350	0.310	470 000	0.313
000	8	000	2	000	9		4
120	0.301	240	0.307	360	0.311	480 000	0.313
000	6	000	6	000	1		6
130	0.302	250	0.308	370	0.311	490 000	0.313
000	3	000	0	000	4		8
140	0.302	260	0.308	380	0.311	500 000	0.314
000	9	000	3	000	6		0
150	0.303	270	0.308	390	0.311	510 000	0.314
000	5	000	6	000	8		2
160	0.304	280	0.308	400	0.312	520 000	0.314
000	1	000	9	000	0		3
170	0.304	290	0.309	410	0.312	530 000	0.314

000	6	000	2	000	3		5
180	0.305	300	0.309	420	0.312	540 000	0.314
000	1	000	5	000	5		6
190	0.305	310	0.309	430	0.312	550 000	0.314
000	6	000	8	000	7		8
200	0.306	320	0.310	440	0.312	560 000	0.315
000	0	000	1	000	9		0
570	0.315	680	0.316	790	0.318	900 000	0.319
000	1	000	6	000	0		1
580	0.315	690	0.316	800	0.318	910 000	0.319
000	3	000	8	000	1		2
590	0.315	700	0.316	810	0.318	920 000	0.319
000	4	000	9	000	2		3
600	0.315	710	0.317	820	0.318	930 000	0.319
000	6	000	0	000	3		4
610	0.315	720	0.317	830	0.318	940 000	0.319
000	7	000	1	000	4		5
620	0.315	730	0.317	840	0.318	950 000	0.319
000	8	000	3	000	5		6

V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>	V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>	V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>	V or V <sub>c</sub>	K <sub>1</sub> or K <sub>2</sub>
630	0.316	740	0.317	850	0.318	960 000	0.319
000	0	000	4	000	6		6

640 000	0.316 1	750 000	0.317 5	860 000	0.318 7	970 000	0.319 7
650 000	0.316 3	760 000	0.317 6	870 000	0.318 8	980 000	0.319 8
660 000	0.316 4	770 000	0.317 7	880 000	0.318 9	990 000	0.319 9
670 000	0.316 5	780 000	0.317 8	890 000	0.319 0	1 000 000	0.320 0

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