

THE SHIPPING TONNAGE RULES 1976

DENIS BLUNDELL, Governor-General

ORDER IN COUNCIL

At the Government House at Wellington this 15th day of November 1976

Present:

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

Pursuant to section 445 of the Shipping and Seamen Act 1952 (as substituted by section 21 of the Shipping and Seamen Amendment Act 1968) and to section 504 of the first-mentioned Act, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following rules.

RULES

1. Title and commencement—(1) These rules may be cited as the Shipping Tonnage Rules 1976.

(2) These rules shall come into force on a date to be fixed by the

Governor-General by Order in Council.

2. Interpretation—In these rules, unless the context otherwise requires,-

"The Act" means the Shipping and Seamen Act 1952: "Director" means the Director of the Marine Division of the Ministry of Transport; and includes his deputy:

"Existing ship" means a ship which is not a new ship:

"Gross tonnage", in relation to any ship, means the measure of the overall size of the ship determined in accordance with these rules:

"International voyage" means a sea voyage from or to a country to which the Tonnage Convention applies to or, as the case may be, from a port outside that country. For this purpose, every territory for whose international relations a Government which has accepted the Tonnage Convention is responsible, or for which the United Nations are the administering authority, shall be deemed to be a separate country:

"Length", in relation to any ship, means 96 percent of the total length on a waterline at 85 percent of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that length be the greater. In ships designed with a rake of keel, the waterline on which this length is measured shall be parallel to the designed waterline:

"Net tonnage", in relation to any ship, means the measure of the useful capacity of the ship determined in accordance with these rules, and shall be deemed to have the same meaning for the purposes of the Act as the term "register tonnage"

used in the Act:

"New ship" means a ship the keel of which is laid, or which is at a similar state of construction, on or after the date of the commencement of these rules:

"Surveyor" means a Surveyor of Ships appointed under section 13

of the Act:

"Tonnage Convention" means the International Convention on Tonnage Measurement of Ships 1969:

Other expressions defined in the Act have the meanings so defined.

- 3. Application—(1) These rules shall apply to the following New Zealand ships:
 - (a) Every new ship:
 - (b) Every existing ship-
 - (i) Which undergoes such alterations or modifications as a Surveyor considers would cause a substantial variation in the existing gross tonnage of the ship:

(ii) If the owner so requests in writing to a Surveyor:

(iii) On and after the date 12 years after the date of the commencement of these rules:

Provided that any existing ship that is remeasured under subparagraph (ii) or subparagraph (iii) of this paragraph shall retain its tonnages existing immediately before its remeasurement for the purpose of the application to it of any requirement of the Act or of any rules or regulations made pursuant to the Act which are related to tonnage.

- (2) Any existing ship which has its tonnage remeasured pursuant to a request under subclause (1) (b) (ii) of this rule shall not subsequently have its tonnage determined in accordance with the Shipping Tonnage Regulations 1969*.
- 4. Determination of tonnage—(1) The determination of gross tonnage and net tonnage of ships 24 metres in length and over shall be carried out in the manner prescribed in the First Schedule to these rules by a Surveyor of Ships or by a person or organisation authorised by the Director.
- (2) The determination of gross and net tonnage of ships under 24 metres in length shall be carried out in the manner prescribed in the Second Schedule to these rules by a Surveyor of Ships or by a person or organisation authorised by the Director.
 - (3) The owner and the master of a ship to be measured shall—
 - (a) Make it available for measurement by a Surveyor pursuant to section 388 of the Act; and

(b) Afford all necessary facilities for its inspection and measure-

ment; and

(c) Produce for the Surveyor's use and retention (if required) such plans, drawings, specifications, and other documents relating to the ship as he may require.

5. Issue of certificate—(1) An International Tonnage Certificate (1969) in the form prescribed by the Minister pursuant to section 502 of the Act shall be issued to the owner of every ship the gross and net tonnages of which have been determined in accordance with the First Schedule to these rules. That certificate shall be issued by the Director or by a person or organisation duly authorised by the Director.

(2) A New Zealand Tonnage Certificate in the form prescribed by the Minister pursuant to section 502 of the Act shall be issued to the owner of every ship the gross and net tonnages of which have been determined in accordance with the Second Schedule of these rules. That certificate shall be issued by the Director or by a person or organisa-

tion duly authorised by the Director.

6. Cancellation of certificate—(1) An International Tonnage Certificate (1969) or a New Zealand Tonnage Certificate shall, subject, in the case of an International Tonnage Certificate (1969), to clause 5 (3) of the First Schedule to these rules, cease to be valid and shall be cancelled by the Director, or by a person or an organisation authorised by the Director, if alterations have taken place in the arrangement, construction, capacity, use of spaces, total number of passengers the ship is permitted to carry as indicated in the ship's certificate of survey, assigned load line, or permitted draught of the ship, such as would necessitate an increase in gross tonnage or net tonnage.

(2) Subject to subclause (3) of this rule, an International Tonnage Certificate (1969) or a New Zealand Tonnage Certificate issued to a New Zealand ship shall cease to be valid upon transfer of the ship

to the flag of another State.

(3) Where a New Zealand ship is transferred to the flag of another State the Government of which is a contracting Government to the Tonnage Convention, the International Tonnage Certificate (1969) issued to the ship pursuant to rule 5 of these rules shall remain in force for a period not exceeding 3 months, or until another International Tonnage Certificate (1969) is issued to the ship by or on behalf of the State to whose flag the ship is transferred to replace it, whichever is the earlier.

(4) Where a ship flying the flag of another State is transferred to New Zealand registry, any International Tonnage Certificate (1969) in force for that ship at the time of transfer of registry shall remain in force for a period not exceeding 3 months or until a new International Tonnage Certificate (1969) has been issued pursuant to

rule 5 of these rules, whichever is the earlier.

7. Remeasurement of existing ships—(1) Where, pursuant to rule 3 (1) (b) of these rules an existing ship is remeasured for tonnage in accordance with the First Schedule or Second Schedule to these rules, the ship's existing certificate of registry shall be delivered by the owner to the Registrar of Ships at the ship's port of registry, or at any other port of registry.

- (2) The Registrar shall, on receipt of the Surveyor's certificate giving particulars of the ship as remeasured, grant a new certificate of registry in place of the existing certificate and, unless he is the Registrar at the ship's port of registry, shall forward the Surveyor's certificate to that Registrar and notify him of the issue of the new certificate.
- (3) The Registrar at the ship's port of registry shall alter the particulars respecting the ship in his register book accordingly and record therein the grant of the new certificate.
- 8. Space for the purposes of section 102 of Harbours Act 1950—The tonnage of any covered space which is not a "cargo space" (as defined in clause 2 of the First Schedule to these rules) and which is used for the carriage of cargo shall be determined by ascertaining the mean length, breadth, and height, in metres, of the space and dividing the product by 2.83.
- 9. Revocation—(1) The Shipping Tonnage Regulations 1969* are hereby revoked.
- (2) Notwithstanding the revocation of the Shipping Tonnage Regulations 1969*, those regulations shall continue to apply, as if they had not been revoked, to every existing ship until the date 12 years after the date of the commencement of these rules or until the ship is remeasured pursuant to rule 3 (1) (b) of these rules, whichever is the earlier.

*S.R. 1969/151

Rule (4) 1

SCHEDULES

FIRST SCHEDULE

DETERMINATION OF TONNAGES OF NEW ZEALAND SHIPS OF 24 METRES LENGTH OR OVER

- 1. General—(1) The tonnage of a ship of 24 metres length or over shall consist of gross tonnage and net tonnage.
- (2) The gross tonnage and net tonnage shall be determined in accordance with this Schedule.
- (3) The gross tonnage and net tonnage of any novel type of ship whose constructional features are, in the opinion of the Director, such as to render the application of this Schedule unreasonable or impracticable shall be determined in such manner as is prescribed by the Director.
- 2. Interpretation—For the purposes of this Schedule, unless the context otherwise requires,—
 - "Breadth" is the maximum breadth of the ship, measured amidships to the moulded line of the frame of a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material:

"Cargo spaces" to be included in the computation of net tonnage are enclosed spaces appropriated for the transport of cargo which is to be discharged from the ship, provided such spaces have been included in the computation of gross tonnage. Such cargo spaces shall be certified by permanent marking with the letters "C.C." (cargo compartment) to be so positioned that they are readily visible and shall not be less than 100 mm in height:

"Enclosed spaces" are all those spaces which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening in the ship's hull or in a deck, or in a covering of a space or in the partitions or bulkheads of a space, nor the absence of a partition or bulkhead, shall preclude a space from being included in the enclosed

spaces:

"Excluded spaces" are the spaces referred to in the following paragraphs (a) to (e) of this definition, and these shall not

be included in the volume of enclosed spaces, namely:

(a) (i) A space within an erection opposite an end opening extending from deck to deck except for a curtain plate of a depth not exceeding by more than 25 mm the depth of the adjoining deck beams, such opening having a breadth equal to or greater than 90 percent of breadth of the deck at the line of the opening of the space. This provision shall be applied so as to exclude from the enclosed spaces only the space between the actual end opening and a line drawn parallel to the line or face of the opening at a distance from the opening equal to one-half of the width of the deck at the line of the opening. (Figure 1 in Appendix 1):

(ii) Should the width of the space because of any arrangement, except by convergence of the outside plating, become less than 90 percent of the breadth of the deck, only the space between the line of the opening and a parallel line drawn through the point where the athwartships width of the space becomes equal to or less than 90 percent of the breadth of the deck shall be excluded from the volume of enclosed spaces.

(Figures 2, 3, and 4 in Appendix 1):

(iii) Where an interval which is completely open except for bulwarks or open rails separates any 2 spaces, the exclusion of one or both of which is permitted under subparagraph (i) or subparagraph (ii) or both subparagraphs (i) and (ii) of this paragraph, those exclusions shall not apply if the separation between the 2 spaces is less than the least half breadth of the deck in way of separation. (Figures 5 and 6 in Appendix 1):

(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 other 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 the distances 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 the

greater. (Figure 7 in Appendix 1):

(c) A space in a side-to-side erection directly in way of opposite side openings not less in height than 0.75 metres or one-third of the height of the erection, whichever is the greater. If the opening in such an erection is provided on one side only, the space to be excluded from the volume of the enclosed spaces shall be limited inboard from the opening to a maximum of one-half of the breadth of the deck in way of the opening. (Figure 8 in Appendix 1):

(d) A space in an erection immediately below an uncovered opening in the deck overhead, provided such an opening is exposed to the weather and the space excluded from enclosed spaces is limited to the area

of the opening. (Figure 9 in Appendix 1):

(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 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. (Figure 10 in Appendix 1):

Provided that any such space 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.
- "Moulded depth" is the vertical distance measured from the top of the keel to the underside of the upper deck at side. In wood ships and composite ships, the distance is measured from the lower edge of the keel rabbet. 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. In ships having rounded gunwales, the moulded depth shall be 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. Where the upper deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the moulded depth shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part:
- "Passenger" is every person carried on a ship other than-
 - (a) The master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship; and
 - (b) A child under 1 year of age:

"Upper deck" is 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:

"Weathertight" means that in any sea conditions water will not penetrate into the ship.

3. Gross tonnage—The gross tonnage (GT) shall be determined by the following formula:

$$GT = K_1V$$

Where—

 $K_1 = 0.2 + 0.02 \log_{10} V$ (or as tabulated in Appendix 2). V = Total volume of all enclosed spaces of the ship in cubic metres.

4. Net tonnage—(1) The net tonnage (NT) shall be determined by the following formula:

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

in which formula—

- (a) The factor $\left(\frac{4d}{3D}\right)^2$ shall not be taken as greater than unity; and
- (b) The term K_2V_c $\left(\frac{4d}{3D}\right)^2$ shall not be taken as less than 0.25 GT;
- (c) NT shall not be taken as less than 0.30 GT,and in which-

D = moulded depth amidships in metres as defined in clause 2 of this Schedule.

d = moulded draught amidships in metres as defined in subclause (2) of this clause.

 $K_2 = 0.2 + 0.02 \, \log_{10} V_c$ (or as tabulated in Appendix 2),

$$K_3 = 1.25 \left(\frac{GT + 10000}{10000} \right)$$

 N_1 = number of passengers in cabins with not more than 8 berths.

 N_2 = number of other passengers.

 $N_1 + N_2 = \text{total number of passengers the ship is permitted to carry}$ as indicated in the ship's passenger certificates; when $N_1 + N_2$ is less than 13, N_1 and N_2 shall be taken as

 V_c = total volume of cargo spaces in cubic metres.

GT = gross tonnage of the ship as determined in accordance with clause 3 of this Schedule.

(2) The moulded draught (d) referred to in subclause (1) of this clause shall be one of the following draughts:

- (a) For ships to which the International Convention on Load Lines in force applies, the draught corresponding to the summer load line (other than timber load lines) assigned in accordance with that Convention:
- (b) For passenger ships, the draught corresponding to the deepest subdivision load line assigned in accordance with the International Convention for the Safety of Life at Sea in force or other international agreement where applicable:
- (c) For ships to which the International Convention on Load Lines does not apply but which have been assigned a load line in compliance with the requirements of the Load Line Rules 1970*, the draught corresponding to the summer load line so assigned:
- (d) For ships to which no load line has been assigned under the Load Line Rules 1970* but which has been assigned a submersion line pursuant to section 284 of the Act, the maximum permitted draught:
- (e) For other ships, 75 percent of the moulded depth amidships as defined in clause 2 of this Schedule.
- 5. Change of net tonnage—(1) When the characteristics of a ship, such as V, V_c, d, N₁, or N₂, as defined in clauses 3 and 4 of this Schedule are altered and such an alteration results in an increase in its net tonnage as determined in accordance with clause 4 of this Schedule, the net tonnage of the ship corresponding to the new characteristics shall be determined and shall be applied without delay.
- (2) A ship to which load lines referred to in subclauses (2) (a) and (2) (b) of clause 4 of this Schedule are concurrently assigned shall be given only one net tonnage as determined in accordance with the said clause 4, and that tonnage shall be the tonnage applicable to the appropriate assigned load line for the trade in which the ship is engaged.
- (3) When the characteristics of a ship, such as V, V_c, d, N₁, or N₂, as defined in clauses 3 and 4 of this Schedule, are altered, or when the appropriate assigned load line referred to in subclause (2) of this clause is altered due to the change of the trade in which the ship is engaged, and such an alteration results in a decrease in its net tonnage as determined in accordance with the said clause 4, a new International Tonnage Certificate (1969) incorporating the net tonnage so determined shall not be issued until 12 months have elapsed from the date on which the current certificate was issued:

Provided that this requirement shall not apply—

- (a) If the ship is transferred to the flag of another State; or
- (b) If the ship undergoes alterations or modifications which are considered by the Director to be of a major character, such as the removal of a superstructure which requires an alteration of the assigned load line; or
- (c) To passenger ships which are employed in the carriage of large numbers of unberthed passengers in special trades, such, for example, as the pilgrim trade.
- 6. Calculation of volumes—(1) All volumes included in the calculation of gross and net tonnages shall be measured, irrespective of the

fitting of insulation or the like, to the inner side of the shell or structural boundary plating in ships constructed of metal, and to the outer surface of the shell or to the inner side of structural boundary surfaces in ships constructed of any other material.

- (2) Volumes of appendages shall be included in the total volume.
- (3) Volumes of spaces open to the sea may be excluded from the total volume.
- 7. Measurement and calculation—(1) All measurement used in the calculation of volumes shall be taken to 2 decimal places.
- (2) The volumes shall be calculated by generally accepted methods for the space concerned and with an accuracy acceptable to the Director.
- (3) The calculation shall be accompanied by a scaled general arrangement plan, and both shall be sufficiently detailed and annotated to permit easy checking.

APPENDIX 1

Figures referred to in Clause 2 of the First Schedule.

In the following figures: O = Excluded space.

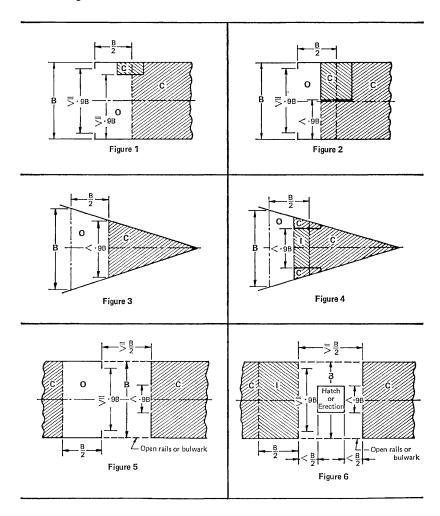
C = Enclosed space.

| = Space to be considered as an

enclosed space.

Hatched in parts to be included as enclosed spaces.

B = Breadth of the deck in way of the opening.
 In ships with rounded gunwales the breadth is measured as indicated in Figure 11.



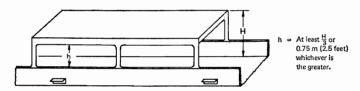
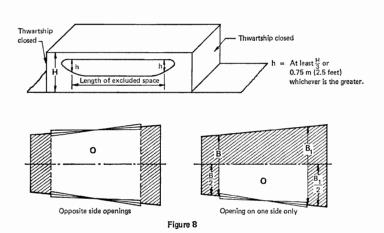
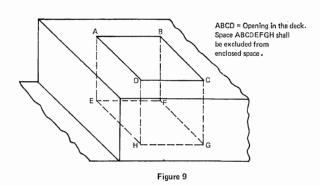


Figure 7





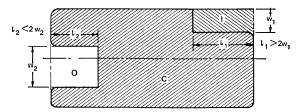
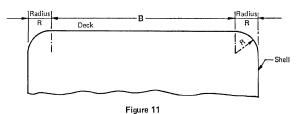


Figure 10

Ships with Rounded Gunwales



APPENDIX 2

Coefficients K $_{\rm 1}$ and K $_{\rm 2}$ Referred to in Clauses 3 and 4 (1) of the First Schedule

$V ext{ or } V_c = Volume ext{ in cubic metres}$

V or Vc	K ₁ or K ₂	V or Vc	K ₁ or K ₂	V or Vc	K ₁ or K ₂	V or Vc	K ₁ or K ₂
10	0.2200	45,000	0.2931	330,000	0.3104	670,000	0.3165
20	0.2260	50,000	0.2940	340,000	0.3106	680,000	0.3166
30	0.2295	55,000	0.2948	350,000	0.3109	690,000	0.3168
40	0.2320	60,000	0.2956	360,000	0.3111	700,000	0.3169
50	0.2340	65,000	0.2963	370,000	0.3114	710,000	0.3170
60	0.2356	70,000	0.2969	380,000	0.3116	720,000	0.3171
70	0.2369	75,000	0.2975	390,000	0.3118	730,000	0.3173
80	0.2381	80,000	0.2981	400,000	0.3120	740,000	0.3174
.90	0.2391	85,000	0.2986	410,000	0.3123	750,000	0.3175
100	0.2400	90,000	0.2991	420,000	0.3125	760,000	0.3176
200	0.2460	95,000	0.2996	430,000	0.3127	770,000	0.3177
300	0.2495	100,000	0.3000	440,000	0.3129	780,000	0.3178
400	0.2520	110,000	0.3008	450,000	0.3131	790,000	0.3180
500	0.2540	120,000	0.3016	460,000	0.3133	800,000	0.3181
600	0.2556	130,000	0.3023	470,000	0.3134	810,000	0.3182
700 800	0.2569 0.2581	140,000	0.3029	480,000	0.3136	820,000	0.3183
900	0.2591	150,000	0.3035	490,000	0.3138	830,000	0.3184
1,000	0.2591	160,000	0.3041	500,000	0.3140	840,000	0.3185
2,000	0.2660	170,000 180,000	0.3046 0.3051	510,000	0.3142	850,000	0.3186
3,000	0.2695	190,000	0.3056	520,000	0.3143	860,000	0.3187
4,000	0.2720	200,000	0.3060	530,000	0.3145	870,000	0.3188
5,000	0.2740	210,000	0.3064	540,000	0.3146 0.3148	880,000	0.3189 0.3190
6,000	0.2756	220,000	0.3068	550,000	0.3148	890,000	0.3190
7,000	0.2769	230,000	0.3072	560,000 570,000	0.3151	900,000	0.3191
8,000	0.2781	240,000	0.3076	580,000	0.3153	920,000	0.3193
9,000	0.2791	250,000	0.3080	590,000	0.3154	930,000	0.3194
10,000	0.2800	260,000	0.3083	600,000	0.3156	940,000	0.3195
15,000	0.2835	270,000	0.3086	610,000	0.3157	950,000	0.3196
20,000	0.2860	280,000	0.3089	620,000	0.3158	960,000	0.3196
25,000	0.2880	290,000	0.3092	630,000	0.3160	970,000	0.3197
30,000	0.2895	300,000	0.3095	640,000	0.3161	980,000	0.3198
35,000	0.2909	310,000	0.3098	650,000	0.3163	990,000	0.3199
40,000	0.2920	320,000	0.3101	660,000	0.3164	1,000,000	0.3200

Coefficients K 1 or K 2 at intermediate values of V or Vc shall be obtained by linear interpolation.

SECOND SCHEDULE

Rule 4 (2)

Measurement of Tonnage of New Zealand Ships of Less Than 24 Metres in Length

1. Underdeck tonnage—(1) The underdeck tonnage shall be determined from the following formula:

$$\frac{L \times B \times D \times 0.6}{2.83}$$

where—

- L = length in metres measured on the upper deck from the inside of the planking or plating at the stem to the after side of the head of the stern post or to the fore side of the head of the rudder stock if no stern post is fitted. In ships without stern post or rudder stock, the length shall be measured to the inside of the transom, or inside the planking or plating at the stern; and
- B = maximum breadth in metres to the outside of planking or plating but not including any belting or rubbing strake fitted in way of the measurement; and
- D = depth in metres at mid-length of L measured from the underside of the upper deck to the top of the keel or hog piece. In undecked boats the depth is to be measured from the upper edge of the topmost strake of planking or plating.
- (2) For the purposes of this clause, the expression "planking or plating" includes the outer shell in all forms of hull construction.
- 2. Breaks in the upper deck—A break or breaks above the line of deck is to be measured by multiplying together the inside mean length, breadth, and depth of the space or spaces and dividing each product by 2.83. The depth of break is to be measured from the top of the upper deck beams to the underside of the break.
- 3. Deck erections—All closed-in spaces (other than breaks) above the upper deck are to be measured by multiplying the inside mean length, breadth, and depth of the space or spaces and dividing each product by 2.83. No closed-in spaces are exempted from measurement under this Schedule.
- 4. Gross tonnage—The gross tonnage shall be determined by adding to the underdeck tonnage ascertained in accordance with clause 1 of this Schedule the tonnage of any break or breaks ascertained in accordance with clause 2 of this Schedule and the tonnage of all closed-in spaces above the upper deck ascertained in accordance with clause 3 of this Schedule.
- 5. Net tonnage—The net tonnage shall be determined by multiplying the gross tonnage ascertained in accordance with clause 4 of this Schedule by 0.75.

6. Measurements—All measurements shall be taken to 2 decimal places.

> P. G. MILLEN, Clerk of the Executive Council.

EXPLANATORY NOTE

This note is not part of the rules, but is intended to indicate their general effect.

These rules, which supercede the Shipping Tonnage Regulations 1969, define the procedure for measuring the gross and net tonnages of ships.

They give effect to the provisions of the International Convention on Tonnage

Measurement of Ships 1969.

The 1969 regulations will continue to apply to "existing ships" (as defined in rule 2) until the expiration of 12 years after the commencement of these rules, unless they are sooner remeasured under rule 3 (1) (b).

Issued under the authority of the Regulations Act 1936. Date of notification in Gazette: 18 November 1976. These rules are administered in the Ministry of Transport.