L.N. 78 of 1989

MERCHANT SHIPPING ACT, 1973
(ACT NO. XI OF 1973)

Merchant Shipping (Tonnage) Regulations, 1989

IN exercise of the powers conferred by section 81 of the Merchant Shipping Act, 1973, the Minister for Development of the Tertiary Sector has made the following regulations:—

PART I

General

Citation, commencement and revocation

1. (1) These Regulations may be cited as the Merchant Shipping (Tonnage) Regulations, 1989, and shall come into force on the 20th of June, 1989.

L.N. 58 of 1973.

(2) The Merchant Shipping (Tonnage) Regulations, 1973, are hereby revoked.

Definitions.

2. In these Regulations, unless the context otherwise requires:

"the Act" means the Merchant Shipping Act, 1973;

"Administration" means the Government of the state whose flag the ship is flying;

"amidships" means the mid point of the length (as defined below);

"breadth" means the maximum breadth of the ship, measured amidships to the moulded line of the frame in 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" means enclosed spaces which are included in the computation of gross tonnage and are appropriated for the transport of cargo to be discharged from the ship and which are permanently marked with the letters "CC" (cargo compartment), such letters being not less than 100 millimetres in height and so positioned as to be readily visible;

"Certifying Authority" means the Minister or any person authorised by the Minister for the purposes of these Regulations and includes in particular, American Bureau of Shipping, Bureau Veritas, Det Norske Veritas, Germanischer Lloyd, Hellenic Register of Shipping, Lloyd's Register of Shipping, Nippon Kaiji Kyokai and Registro Italiano Navale;

"Contracting Government" means the Government of a

country which has accepted the International Convention on Tonnage Measurement of Ships, 1969;

"Convention" means the International Convention on Tonnage Measurement of Ships, 1969;

"enclosed spaces" means all those spaces, other than excluded spaces, which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, or by decks or coverings other than permanent or moveable awnings. No break in a deck, nor any opening in the ship's hull, 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;

and for the purposes of this definition "excluded spaces" means any of the following spaces:

(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 Schedule 1 hereto; provided that:

(i) where at any point the width of the enclosed space, because of any arrangement except covergence of the outside plating, as specified in figure 3 of Schedule 1 hereto, 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 Schedule 1 hereto;

(ii) where the opposite ends of two enclosed spaces are separated by a gap, which is completely open except for bulwarks or open rails end 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 Schedule 1 hereto;

(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, which ever is the greater, as specified in figure 7 of Schedule 1 hereto;

(c) a space in a side-to-side erection between opposite side of 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 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, as specified in figure 8 of Schedule 1 hereto;

(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 Schedule 1 hereto;

(e) a recess in the boundary bulkheads 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 entrace and its extension into the erection is not greater than twice the width of its entrance, as specified in figure 10 of Schedule 1 hereto;

(f) notwithstanding the provisions of sub-paragraphs (a) to (e) inclusive, any space listed in those sub-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;

"existing ship" means a ship which is not a new ship;

"length" means the greater of the following distances:

(a) the distance between the fore side of the stem and the axis of the rudder stock; or

(b) a distance measured from the fore side of the stem, being 96 per cent of the distance between that point and the aft side of the stern,

the said points and measurements being taken respectively at and along a waterline at 85 per cent of the least moulded depth of the ship. In the case of a ship having a rake of keel the waterline shall be parallel to the designed waterline;

"Load Line Rules" means the Merchant Shipping (Load Line) Rules 1974; and includes in relation to any ship not registered in Malta any corresponding rules of the country in which the ship is registered;

"moulded depth" means:

(a) the vertical distance measured from the top of the keel to the underside of the upper deck at side. In wood and composite ships the distance is to be measured on 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 garbords are fitted, the distance is to be measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel;

(b) 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;

(c) where the upper deck is stepped and the raised part of the deck extends over the point at which the moulded part 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; 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 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 or other international agreement where applicable;

(c) for ships to which no load line has been assigned but the draught of which is restricted by the Minister, the maximum permitted draught;

(d) for other ships, 75 per cent of the moulded depth amidships as defined in this regulation;

"new ship" means a ship the keel of which was laid, or which was at a similar stage of construction, on or after 18th July 1982; and for the purposes of this definition "a similar stage of construction" means the stage at which:

(a) construction identifiable with a specific ship begins and

(b) assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material whichever is the less;

"passenger" means any person carried in a ship except:

(a) a person employed or engaged in any capacity on board the ship on the business of the ship;

(b) a person on board the ship either in pursuance of the obligation laid upon the master to carry shipwrecked, distressed or other persons, or by reason of any circumstances that neither the master nor the owner nor the charterer (if any) could have prevented; and

(c) a child under one year of age;

"oil tanker" means a ship constructed or adatped to carry oil in bulk in its cargo space and includes combination carriers; for the purposes of this definition a "combination carrier" means a ship designed to carry either oil or solid cargoes in bulk;

"pleasure yacht" means a vessel primarily used for sport or recreation;

"surveyor" means a surveyor appointed by a Certifying Authority.

PART II

Application, Ascertainment of Tonnage and Certification for New Ships and Certain Existing Ships of 24 Metres in Length and Over

Application of Part II.

3. (1) This Part of these Regulations and Schedules 1, 2 and 3 hereto shall apply to the following ships registered or to be registered as Maltese ships under Part II of the Act, being ships of 24 metres in length or over:

(a) new ships;

(b) existing ships to which regulation 13(1) of these Regulations would otherwise apply but which undergo alterations or modifications which result in a substantial variation in their existing gross tonnage;

(c) existing ships, if the owner so requests;

(d) all ships with effect from 18th July 1994.

(2) Existing ships the tonnage of which has once been determined under this Part of these Regulations pursuant to a request of the owner under paragraph (1)(c) above shall not subsequently have their tonnages determined in accordance with Part IV of these Regulations.

Ascertainment of Tonnage

Method of measurement.

4. (1) The owner and the master of a ship to be measured shall make it available for measurement by a surveyor and afford all necessary facilities for its survey and measurement and shall produce such plans, drawings, specifications and other documents relating to the ship that the surveyor may require for his use or retention.

(2) The gross and net tonnages shall be determined in accordance with regulations 6 and 7 of these Regulations provided that in the case of novel types of craft with constructional features which render the application of the provisions of these Regulations unreasonable or impracticable, the gross and net tonnages shall be determined as required by the Minister.

(3) All measurements used in the calculations of volumes shall be taken and expressed in metres to the nearest centimetre.

(4) Gross and net tonnages shall be expressed as whole numbers, decimals rounded off downwards.

Calculation of volumes.

5. (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 the 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 shall be excluded from the total volume.

(4) The method and accuracy of the calculations shall be to the satisfaction of the Minister and shall be sufficiently detailed to facilitate checking.

Gross tonnage.

6. The gross tonnage (GT) of a ship shall be determined by the following formula: $GT = K_1 V$

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

$K_1 = 0.2 + 0.02 \log_{10} V$ or as specified in Schedule 2.

7. The net tonnage (NT) of a ship shall be determined by the following formula: Net tonnage.

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

where:

V_c = total volume of cargo spaces in cubic metres

$K_2 = 0.2 + 0.02 \log_{10} V_c$ or as specified in Schedule 2

$$K_3 = 1.25 \frac{GT + 10{,}000}{10{,}000}$$

where GT = gross tonnage calculated in accordance with regulation 6

D = moulded depth amidships in metres

d = moulded draught amidships in metres

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

N_2 = number of other passengers

Provided that:

(a) the factor

$$\left(\frac{4d}{3D} \right)^2$$

shall not be taken as greater than unity;

(b) the term

$$K_2 V_c \left(\frac{4d}{3D} \right)^2$$

shall not be taken less than 0.25 GT;

(c) N_1 and N_2 shall be taken as zero when $N_1 + N_2$ is less than 13;

(d) NT shall not be taken as less than 0.30 GT.

8. (1) *Segregated ballast oil tankers* Miscellaneous tonnages.

Where segregated ballast tanks complying with Regulation 13 of Annex 1 of the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating

to that Convention are provided in oil tankers, an entry may be made on the International Tonnage Certificate (1969) indicating the total tonnage of these tanks. The tonnage of such segregated ballast tanks shall be calculated according to the following formula:

$K_1 \times V_b$

where: $K_1 = 0.2 + 0.02 \log_{10} V$ or as specified in Schedule 2

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 5.

Certification

Issue of certificates.

9. The Certifying Authority shall, upon receipt of the appropriate fee, issue to the owner of every ship registered under Part II of the Act, the tonnages of which have been ascertained in accordance with regulations 6 and 7 of these Regulations, an International Tonnage Certificate (1969) in the form set out in Schedule 3 to these Regulations, certifying the tonnages of the ship and containing the following particulars:

(a) the name, port of registry and official number of the ship;

(b) its length, breadth and moulded depth;

(c) its gross and net tonnages;

(d) the date on which the keel was laid or the ship was at a similar stage of construction or date on which the ship underwent alterations or modifications of a major character.

Cancellation of certificates.

10. (1) Where alterations are made in the 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 such as would cause an increase in the gross or net tonnage, the existing International Tonnage Certificate (1969) shall cease to be valid and shall be delivered up to and cancelled by the Certifying Authority.

(2) When a ship is transferred from the Malta Register the International Tonnage Certificate (1969) shall cease to be valid except when the transfer is to the Administration of a state which is a Contracting Government in which case the certificate may remain in force for a period not exceeding three months or until the new Administration issues another International Tonnage Certificate (1969) whichever is the earlier. The Certifying Authority shall transmit to the Administration of that Government as soon as possible after the transfer has taken place a copy of the certificate carried by the ship at the time of transfer and a copy of the relevant tonnage calculations.

Change of net tonnage necessitating issue of certificate.

11. (1) When alterations in the values of V, V_c, d, N_1 or N_2 as defined in regulations 6 and 7 result in an increase in the net tonnage a new International Tonnage Certificate (1969) incorporating the increased net tonnage shall be issued.

(2) In the case of a passenger ship assigned subdivision load lines in accordance with the International Convention for the Safety of Life at Sea 1974 and load lines in accordance with the Merchant Shipping (Load Lines) Rules 1974, only one net tonnage shall be applied. Where the draught corresponding to the Summer load line differs from that corresponding to the deepest subdivision load line the net tonnage shall be the greater of the two values determined in accordance with regulation 7 by applying the differing draughts.

(3) (a) Subject to sub-paragraph (b) below, where alterations in the values of V, V_c, d, N_1 or N_2 as defined in regulations 6 and 7, or changes in the position of the load lines result in a decrease in the net tonnage, a new International Tonnage Certificate (1969) incorporating the decreased net tonnage shall not be issued until twelve months have elapsed from the date on which the current certificate was issued.

(b) A new International Tonnage Certificate (1969) may be issued when:

(i) a ship which was registered elsewhere is re-registered in Malta;

(ii) a ship 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

(iii) the ship 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

Application, Ascertainment of Tonnage and Certification for all ships, including Pleasure Yachts, of less than 24 metres in length

Application of Part III.

12. (1) This part of these Regulations shall apply to all ships of less than 24 metres in length, including pleasure yachts to be registered under Part II of the Act.

(2) The tonnage of ships and pleasure yachts to which this Part of the Regulations applies shall be ascertained in accordance with the provisions set out in Schedule 4 and Appendices 1 to 5 thereto.

PART IV

Application, Ascertainment of Tonnage and Certification for Existing Ships, of 24 metres in length and over until 17th July 1994

Application of Part IV.

13. (1) This Part of these Regulations shall apply to existing ships of 24 metres and over registered or to be registered in Malta.

(2) This Part of these Regulations shall not apply to existing ships referred to in regulation 3(1)(b) and (c) of these Regulations.

(3) The tonnage of ships to which this Part of the Regulations applies shall, until 17th July 1994, be ascertained in accordance with the provisions set out in Schedule 4 and Appendices 1 to 4 thereto.

PART V

Foreign Ships whilst within Malta or the Territorial Waters thereof

Acceptance of foreign tonnage certificates.

14. (1) An International Tonnage Certificate (1969) issued under the authority of another Contracting Government to a foreign ship in accordance with the Convention shall be accepted and regarded for all purposes covered by the Convention as having the same validity as one issued under Part II of these Regulations. Whilst such a ship is within Malta or the territorial waters thereof it may be subject to inspection by a person duly authorised by the Minister in that behalf for the purpose of verifying:

(a) that the ship is provided with a valid International Tonnage Certificate (1969) and

(b) that the main characteristics of the ship correspond to the data given in the certificate.

(2) Any such inspection shall not cause any delay to the ship.

(3) If the inspection reveals that the main characteristics of the ship differ from those entered in the International Tonnage Certificate (1969) so as to lead to an increase in the gross tonnage or the net tonnage, the administration of the State whose flag the ship is flying shall be informed without delay.

Ascertainment of Tonnage and Certification.

15. (1) New Ships

(a) The Certifying Authority may, at the request of the Administration of a Contracting Government, ascertain the gross and net tonnages of a new foreign ship in accordance with Part II of these Regulations and issue to the owner an International Tonnage Certificate (1969). In such cases the certificate shall be endorsed to the effect that it has been issued at the request of the Government of the state whose flag the ship is or will be flying, and a copy of the certificate and the calculations of the tonnages shall be transmitted to the requesting Government as soon as possible.

(b) The Certifying Authority may, at the request of an owner of a new foreign ship flying the flag of an Administration of a non-Contracting Government, ascertain the gross and net tonnage of the ship in accordance with Part II of these Regulations and issue a certificate of Maltese Tonnage Measurement. In such cases the certificate will bear the endorsement "for use only whilst within Malta or the territorial waters thereof".

(2) Existing Ships

(a) The Certifying Authority may, at the request of the Administration of a Contracting Government, ascertain the gross and net tonnages of an existing foreign ship in accordancee with Part II of these Regulations and issue to the owner an International Tonnage Certificate (1969). In such cases the certificate shall be endorsed to the effect that it has been issued at the request of the Government of the state whose flag the ship is or will be flying, and a copy of the certificate and the calculations of the tonnages shall be transmitted to the reqesting Government as soon as possible.

(b) The Certifying Authority may, at the request of the owner of any existing foreign ship, ascertain the gross and net tonnages of the ship in accordance with Part IV of these Regulations until 17th July 1994. In such cases a Maltese Tonnage Certificate shall be issued.

PART VI

Interim Scheme for Tonnage Measurement for certain ships

Application of Part VI.

16. (1) The Minister may, at the written request of an owner of a Maltese ship required to be certified in accordance with Part II of these Regulations:

(a) which is a ship the keel of which was laid or was at a similar stage of construction not later than 31st December, 1985; or

(b) which is a cargo ship of less than 1600 tons gross tonnage as ascertained in accordance with regulation 13(3) of these Regulations, the keel of which is laid or is at a similar stage of construction before 18th July 1994;

permit such a ship to have, additionally, its gross tonnage ascertained by the Certifying Authority in accordance with the provisions of the tonnage regulations previously in force, as set out in Schedule 4 and Appendices 1 to 4 thereto, and to use this tonnage for the purpose of the application of the provisions of regulations implementing the International Convention for the Safety of Life at Sea 1974 and the Protocol of 1978 relating to that Convention, and for the purpose of the application of the provisions of regulations implementing the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.

(2) The Minister may, at the written request of an owner of a Maltese ship required to be measured and certified in accordance with Part II of these Regulations, which is a ship of less than 400 tons gross tonnage as ascertained in accordance with regulation 13(3) of these Regulations, the keel of which was laid or was at a similar stage of construction not later than 31st December 1985, permit such a ship to have, additionally its gross tonnage ascertained by the Certifying Authority in accordance with the provisions of the tonnage regulations previously in force, as set out in Schedule 4 and Appendices 1 to 4 thereto, and to use this tonnage for the purpose of the application of the provisions implementing the International Convention for the Prevention of Pollution from Ships, 1973 and the Protocol of 1978 relating to that Convention.

(3) The measurement of a ship in accordance with either paragraphs (1) or (2) above or with both paragraphs (1) and (2) above shall be in respect of gross tonnage only and an appropriate Maltese Tonnage Certificate shall be issued and shall be endorsed with one of the following endorsements as the case may be:

"For use only for the application of the Interim Scheme for Tonnage measurment for Certain Ships (IMO Resolutions A494 (XII) and A540 (XIII))"; or

"For use only for the application of the Interim Scheme for Tonnage measurment for Certain Ships (IMO Resolutions A541 (XII))"; or

"For use only for the application of the Interim Scheme for Tonnage Measurement for Certain Ships (IMO Resultions A494 (XII), A540 (XIII) and A541 (XIII))".

(4) Where the gross tonnage is ascertained in accordance with either paragraphs (1) and (2) above and either a Safety of Life at Sea Convention Certificate, or, and, an International Oil Pollution Certificate of MARPOL 73/78 or other such official certificate is subsequently issued, then only that tonnage shall be recorded in those certificates and the certificates shall be endorsed with the following endorsement:

"The above gross tonnage has been measured by the Certifying Authority of Malta in accordance with the tonnage regulations which were in force prior to the coming into force of the International Convention on Tonnage Measurement of Ships, 1969.".

PART VII

Penalties

Penalties.

17. (1) Any owner or master who fails without reasonable cause to deliver up a certificate for cancellation as required by regulation 10(1) or paragraph 3(3) of Part I of Schedule 4 of these Regulations shall be guilty of an offence and liable on summary conviction to a fine not exceeding 200 liri.

(2) If goods or stores are carried in a permanently closed- in space on board ship in contravention of paragraph 21 of Schedule 4 hereto the master and the owner of the ship shall each be liable to a fine not exceeding 200 liri.

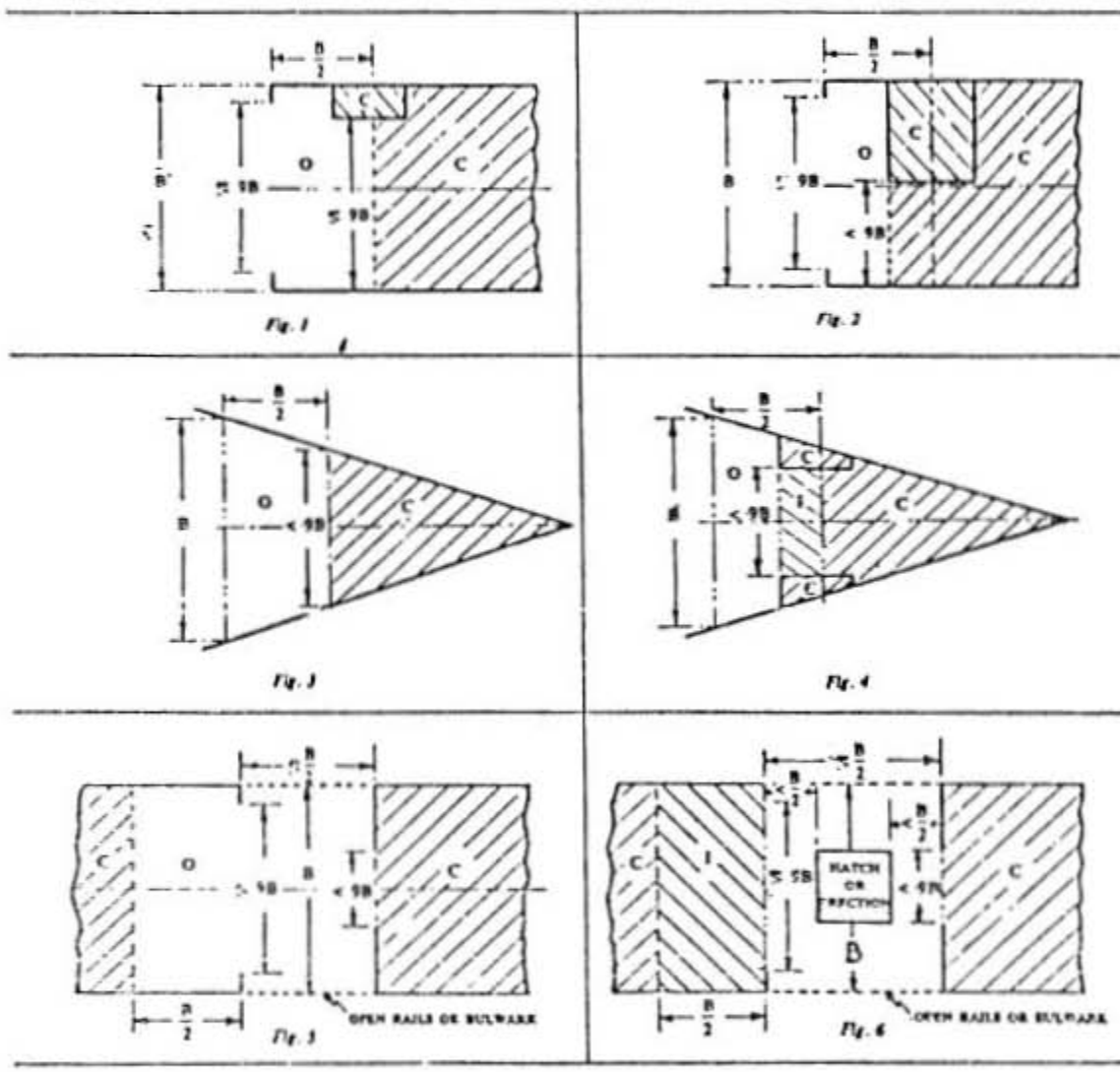
(3) Any person who contravenes or suffers any person under his control to contravene the provisions of these Regulations or any person who omits or suffers any person under his control to omit anything the performance of which is required by the provisions of these Regulations shall be guilty of an offence and shall be liable to a fine not exceeding 500 liri for each such offence.

(4) Where an offence has been committed as provided by paragraph (3) above the Minister may direct that the sailing of the ship in respect of which the offence was committed shall be prohibited until the contravention or omission constituting the effence has been removed.

SCHEDULE 1

Excluded spaces as Defined in Regulation 2

In the following figures: O = excluded space
C = enclosed space
I = 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.



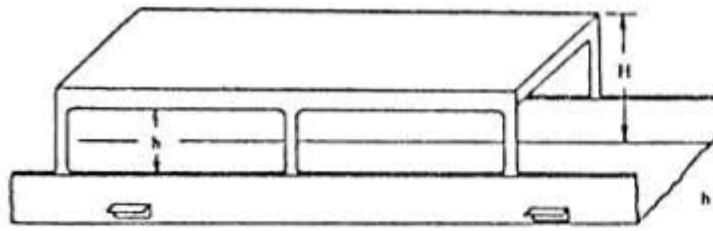


Fig. 7

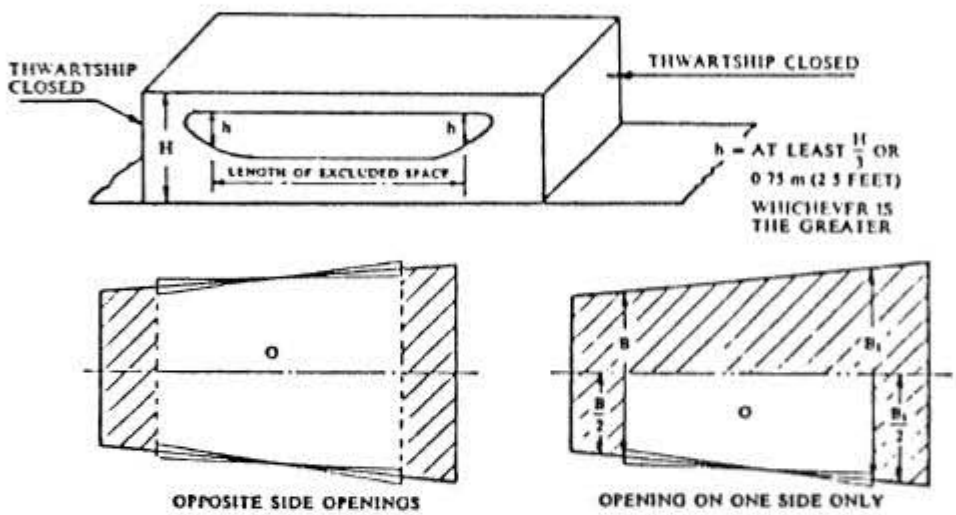


Fig. 8

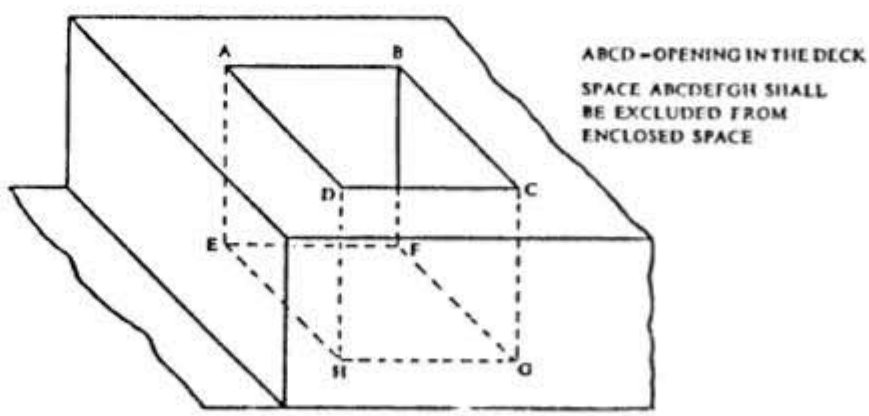


Fig. 9

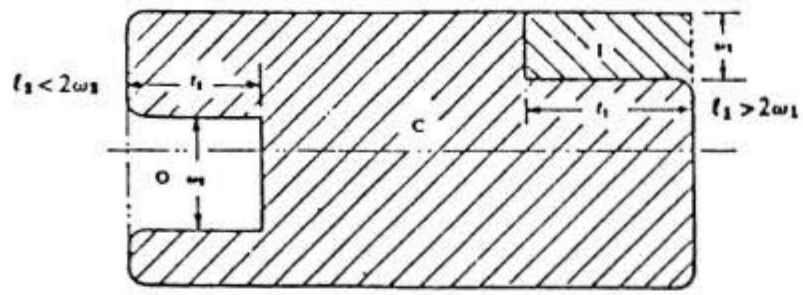


Fig. 10

SHIPS WITH ROUNDED GUNWALES

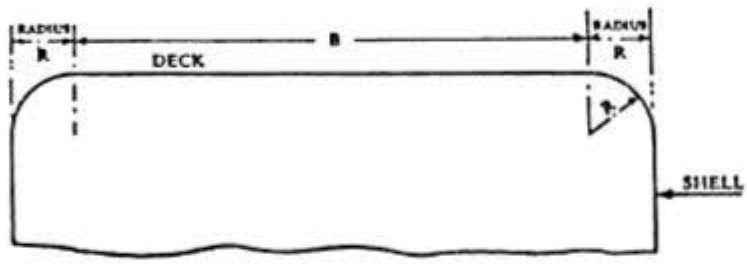


Fig. 11

SCHEDULE 2

Coefficients K_1 and K_2 Referred to in Regulations 6, 7 and 8

V or V_c = Volume in cubic metres

V or V_c	K_1 or K_2	V or V_c	K_1 or K_2	V or V_c	K_1 or K_2	V or V_c	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	0·2875	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	730 000	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	780 000	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	0·2569	140 000	0·3029	480 000	0·3136	820 000	0·3185
800	0·2581	150 000	0·3035	490 000	0·3138	830 000	0·3184
900	0·2591	160 000	0·3041	500 000	0·3140	840 000	0·3185
1000	0·2600	170 000	0·3046	510 000	0·3142	850 000	0·3186
2000	0·2660	180 000	0·3051	520 000	0·3143	860 000	0·3187
3000	0·2695	190 000	0·3056	530 000	0·3145	870 000	0·3188
4000	0·2720	200 000	0·3060	540 000	0·3146	880 000	0·3189
5000	0·2740	210 000	0·3064	550 000	0·3148	890 000	0·3190
6000	0·2756	220 000	0·3068	560 000	0·3150	900 000	0·3191
7000	0·2769	230 000	0·3072	570 000	0·3151	910 000	0·3192
8000	0·2781	240 000	0·3076	580 000	0·3153	920 000	0·3193
9000	0·2791	250 000	0·3080	590 000	0·3154	930 000	0·3194
10000	0·2800	260 000	0·3083	600 000	0·3156	940 000	0·3195
15000	0·2835	270 000	0·3086	610 000	0·3157	950 000	0·3196
20000	0·2860	280 000	0·3089	620 000	0·3158	960 000	0·3196
25000	0·2880	290 000	0·3092	630 000	0·3160	970 000	0·3197
30000	0·2895	300 000	0·3095	640 000	0·3161	980 000	0·3198
35000	0·2909	310 000	0·3098	650 000	0·3163	990 000	0·3199
40000	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 V_c shall be obtained by linear interpolation.

SCHEDULE 3

International Tonnage Certificate (1969)

Issued under the provisions of the

INTERNATIONAL CONVENTION
ON TONNAGE MEASUREMENT OF SHIPS (1969)

under the authority of the Government of the Republic of Malta.

Name of Ship	Official Number	Port of Registry	Date*

* Date on which keel was laid or the ship was at a similar stage of construction, (Article 2(6)) or date on which the ship underwent alterations or modifications of a major character, (Article 3(2)(*b*)), as appropriate.

MAIN DIMENSIONS

Length (Article 2(8))	Breadth (Regulation 2(3))	Moulded Depth Amidships to Upper Deck (Regulation 2(2))

The tonnages of the ship are:

GROSS TONNAGE .....

NET TONNAGE .....

THIS IS TO CERTIFY
that the tonnages of this ship have been determined in accordance with the provisions of the International Convention on Tonnage Measurement of Ships 1969.

Issued at .... 19.....
(place of issue of certificate) (date of issue)

The undersigned declares that he is duly authorised by the said Governments to issue this certificate

(signed) .....

(Reverse side of Certificate)

SPACES INCLUDED IN TONNAGE					
GROSS TONNAGE			NET TONNAGE		
Name of Space	Location	Length	Name of Space	Location	Length
Underdeck	—	—			

NUMBER OF PASSENGERS
(Regulation 4(1))

Number of passengers in cabins with not more than 8 berths .....

Number of other passengers .....

EXCLUDED SPACES
(Regulation 2(5))

An asterisk (*) should be added to those spaces listed above which comprise both enclosed and excluded spaces.

MOULDED DRAUGHT
(Regulation 4(2))

Date and place of orginal measurements .....

Date and place of last previous re-measurement .....

REMARKS:

SCHEDULE 4

Tonnage Regulations applicable to Ships referred to in Part III, IV, V and VI

Definitions

In addition to the definitions prescribed in regulation 2, in this Schedule and Appendices 1 to 5 inclusive, unless the context otherwise requires:

"dry cargo space" means space appropriated for the carriage of cargo other than liquid or gaseous matter in bulk;

"overall length" in relation to a pleasure yacht to which Part IV of this Schedule applies means the distance between the foreside of the foremost fixed permanent structure and the aftside of the aftermost fixed permanent structure of the yacht;

"propelling machinery space" means space below the upper deck appropriated for the main or auxiliary propelling machinery of a ship, and includes:

(a) ventilation, light or escape trunks serving any such space;

(b) space appropriated for boilers serving such machinery;

(c) shaft tunnels;

(d) engineers' storerooms and workshops not exceeding in total tonnage of three quarters of 1 per cent of the gross tonnage of the ship;

(e) oil fuel settling tanks serving the main or auxiliary propelling machinery, having a total capacity sufficient to provide not less than 24 or more than 96 hours steaming for the ship at maximum speed;

and shall also include framed-in-spaces on or above the upper deck described in paragraph 10 (e) and included in the gross tonnage of the ship in accordance with that provision;

"second deck" means the deck next below the upper deck, being a deck —

(a) which is fitted as an integral part of the ship's structure;

(b) which is continuous at least between peak bulkheads both fore and aft and transversely; and

(c) in which all hatchways are fitted with substantial and durable covers,

a deck being taken to be continuous for this purpose notwithstanding the presence in it of —

(i) openings serving propelling machinery space or leading to ladderways or stairways;

(ii) hatch or ventilation trunks, provided that they do not extend fore and aft from one main transverse bulkhead to another;

(iii) chain lockers or cofferdams; or

(iv) a break or breaks the aggregate height of which above the line of continuation of the deck does not exceed 1.22 metres;

"tonnage deck" means the second deck except in the case of single deck ships, in which case it means the upper deck;

"upper deck" means the uppermost complete deck exposed to sea and weather fitted as an integral part of the ship's structure, being a deck all openings in the weather portions of which are fitted with permanent means of closing and below which all openings in the sides of the ship are fitted with permanent means of watertight closing, but shall in the case of an open ship be taken to be the upper edge of the upper strake of the gunwale.

PART I

Ascertainment of tonnage

1. The tonnage of any ship to which Parts III and IV of these Regulations and this Schedule applies and which is to be registered in Malta under Part II of the Act, shall be ascertained in accordance with this Schedule: provided that in the case of novel types of craft with constructiuonal features which render the applicxation of the provisions of this Schedule unreasonable or impracticable, the tonnage shall be determined as required by the Minister.

Method of measurement

2. (1) The owner and the master of a ship to be measured shall upon payment of the appropriate fee make it available for measurement by a surveyor and afford all necessary facilites for its inspection and measurement and shall 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.

(2) The tonnage of a ship shall be measured in the manner specified in Rule I of Apendix 1 to this Schedule.

(3) All measurements required by this Schedule shall be taken and expressed in metres and centimetres.

(4) Tonnage in relation to any ship or space in a ship shall be measured in terms of cubic capacity, 2.83 cubic metres representing one ton.

Malta Tonnage Certificates

3. (1) The Certifying Authority shall issue to the owner of every ship registered in Malta under the Act, the tonnage of which has been ascertained in accordance with this Schedule, a Malta Tonnage Certificate certifying the registered tonnage of the ship and containing the following particulars:—

(a) the name, port of registry and official number of the ship;

(b) its registered dimensions;

(c) its gross tonnage and the tonnage of each of the components thereof specified in paragraph 7 (1);

(d) it register tonnage and the deductions and allowances made pursuant to paragraphs 13 and 14 respectively in ascertaining that tonnage;

(e) in the case of a ship to which gross and register tonnages have been aaassigned in accordance with paragraph 15 or to which alternative tonnages have been assigned in accordance with paragraph 16 particulars of the spaces the tonnage of which has been excluded by virtue of the provisions of paragraph 15 or paragraph 16, as the case may be, in ascertaining such tonnages;

(f) the position in which any tonnage mark assigned to the ship is to be placed.

(2) The gross and register tonnages as stated in that certificate shall, unless any alteration is made in the form or capacity of the ship or it is discovered that the tonnage of the ship has been erroneously computed, be taken for that purpose to be the gross and register tonnages of the ship.

Remeasurement of tonnage of ships already registered

4. (1) The Minister may on the application of the owner of a ship registered under Part II of the Act before the coming into force of these Regulations, direct that the tonnage of the ship be remeasured in accordance with the provisions of these Regulations, or if the shipowner requests to be included, exempted or deducted from the tonnage of the ship spaces which, under paragraphs 6 and 11, may be included, exempted or deducted from the tonnage at the choice of the shipowner.

(2) In such case after remeasurement of the ship the ship's existing certificates of registry shall be delivered up to the registrar.

(3) 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.

(4) The registrar shall alter the particulars respecting the ship in his register accordingly and record therein the grant of the new certificate.

(5) On remeasurement of a ship any Malta Tonnage Certificate in force in relation to that ship shall be delivered up to the Certifying Authority and the Certifying Authority shall issue a new certificate in place thereof.

Issue of Maltese Tonnage Certificate on the basis of corresponding foreign certificate

5. (1) The Minister may on the application of the owner of a ship which is to be registered under Part II of the Act, give directions that the said ship shall not be renmeasured for the purpose of ascertaining her tonnage so long as:

(a) it has been ascertained and certified by a surveyor of ships that the said ship has a certificate of tonnage issued by a competent authority or a person acting thereunder, under measurement regulations similar to those in force under the Act;

(b) it has been ascertained and certified by a surveyor that the said certificate of tonnage or, and, other documents submitted to him contain the necessary particulars for the ascertainment of the ship's tonnage in accordance with the provisions of these regulations;

(c) it has been ascertained and certified by a surveyor that no alterations or repairs modifying the tonnage of the ship have been effected since the last measurement of the same;

(d) it has been ascertained and certified by a surveyor that the marking on the sides of the ship, whenever such marking is required, corresponds fully with the particulars contained in the certificate of tonnage of the ship and that the said marking is in good condition.

(2) For the purpose of sub-paragrph (1) of this paragrph the owner and the master of the ship shall submit to the surveyor such drawings, sketches, outline specifications and other documents regarding the ship as the surveyor shall demand and the surveyor may retain any such documents.

(3) Upon receiving the directions of the Minister under sub-paragph (1) of this paragraph the surveyor shall issue a Malta Tonnage Certificate for the said ship in accordance with the relevant particulars of the Certificate of Tonnage referred to in paragraph (1) above or other documents submitted to him under this regulation reference to this fact being made in the Certificate so issued.

Selection between two pairs of ship's tonnages.

6. (1) For the purpose of defining various rights and obligations of a ship having a certificate of tonnage in which by virtue of the application of paragraph 16 two pairs of tonnage are set out, the authority defining such rights and obligations may, subject to sub-paragraph (2) of this paragraph, select any of these pairs as it shall deem fit.

(2) For the purpose of defining the obligations in matters concerning the safety of ships the pair of the highest tonnage shall always be taken into account.

For the purposes of this paragraph matters of ships' safety shall be understood to be the compliance with the provisions for the time being in force relating to the safety of navigation and of human life and property at sea and the composition of the crew.

Part II

A. Gross Tonnage

Components of gross tonnage.

7. (1) Subject to the provisions of Part III of this Schedule, the gross tonnage of a ship shall be the sum of:—

(a) the underdeck tonnage of the ship ascertained in accordance with the provisions of paragraph 8 and paragraph 1 of Rule I of Appendix 1 to this Schedule;

(b) the tonnage of betweendeck space between the second deck and the upper deck ascertained in accordance with the provisions of paragraph 2 of the said Rule I;

(c) the tonnage of permanently closed-in spaces on or above the upper deck including that of breaks situated above the line of the deck but excluding —

(i) the tonnage of hatchways described in paragraph 9;

(ii) the tonnage of framed-in spaces on or above the upper deck which contain any part of the propelling machinery or which light or ventilate space appropriated for such machinery;

(iii) any space excluded by virtue of the provisions of paragraph 10, ascertained in accordance with the provisions of paragrph 3, 4 and 5 of the said Rule I;

(d) the tonnage of hatchways described in paragraph 9, ascertained in accordance with the provisions of that paragraph and paragraph 5 of the said Rule I;

(e) the tonnage of framed-in spaces on or above the upper deck which contain any part of the propelling machinery or which light or ventilate space appropriated for such machinery, ascertained in accordance with the provisions of paragraph 5 of the said Rule I, subject to the conditions that:—

(i) the owner of the ship has applied to the Certifying Authority for the inclusion of such spaces in the propelling machinery space of the ship;

(ii) they are permanently marked by a notice stating their purpose; and

(iii) they are certified by a surveyor as safe and seaworthy and properly constructed for their purpose, as reasonable in extent for that purpose, and as being such that they cannot be used for any other purpose.

(2) For the purpose of this Schedule and Appendices 1 to 5 the expression "permanently closed-in spaces on or above the upper deck" shall include:—

(a) a poop, bridge or forecastle notwithstanding the presence of an opening in the end transverse bulkhead thereof, unless the opening extends from deck to deck for one half or more of the breadth of the deck in way of the bulkhead;

(b) a deck house notwithstanding the presence of an opening in one of the boundary bulkheads thereof exposed to the weather, unless the opening extends from deck to deck for one half or more of the length of the bulkhead in which it is situated and is 1.22 metres wide or more;

(c) a structure extending from side to side of the ship notwithstanding the presence in it of an opening in the ship's side, unless the opening extends for one half or more of the length of the space which it serves and exceeds in height one third of the distance from deck to deck in way of the opening or 760 millimetres, whichever is the greater;

(d) a passage way at the ship's side, unless it is 1.22 metres wide or more and is completely open to the weather at one end, or both ends, of its length;

(e) a recess, unless it extends from deck to deck for 910 millimetres or more of its width and is exposed to the weather; and

(f) any space having an opening in the deck over a deck exposed to the weather, unless the area of the opening is one quarter or more of the deck area over the space.

Underdeck tonnage

8. The underdeck tonnage of a ship shall be the sum of:—

(a) the tonnage of the space below the tonnage deck bounded by —

(i) the tonnage deck,

(ii) the upper surface of the double bottom tanks, open floors or ceiling as the case may be, and

(iii) the inner face of the timbers, frames or sparring as the case may be, measured in accordance with the provisions of paragraph 1 of Rule I of Appendix 1 to this Schedule, but subject to such limitations specified in Appendix 2 as may be applicable in the circumstances of the case, and excluding the tonnage of breaks above the line of tonnage deck; and

(b) the tonnage of shaft bossings and any other appendages forming part of the hull of the ship below the tonnage deck whether or not they project beyond the extreme points of measurement of that deck.

Tonnage of hatchways

9. The tonnage of all hatchways leading to space included in the gross tonnage of the ship other than internal hatchways totally enclosed within such space shall be measured in accordance with paragraph 5 of Rule I of Appendix 1 to this Schedule and from the aggregate thereof there shall be deducted ½ of 1 per cent. of the ship's gross tonnage excluding such aggregate. The remainder (if any) shall be the tonnage of hatchways, customarily referred to as "excess of hatchways", to be included in the gross tonnage of the ship.

Closed-in spaces on or above the upper deck not to be included in gross tonnage

10. Permanently closed-in spaces of the following kinds situated on or above the upper deck shall not be included in the gross tonnage of the ship:—

(a) dry cargo space, unless situated in a break above the line of the upper deck;

(b) space fitted with and appropriated for the use of machinery or condensers;

(c) the wheelhouse and chartroom, and space fitted with and appropriated for the use of radio and navigational aids;

(d) skylights, domes and trunks which light or ventilate the space they serve;

(e) chain lockers, and space appropriated for working the anchor gear and capstan;

(f) space appropriated for the storage of safety equipment or batteries;

(g) companions and access hatches serving as protection for stairways or ladderways leading to space below, and openings over such stairways and ladderways;

(h) the galley, and any separate bakery fitted with ovens, provided in either case that no part thereof is appropriated for use for any other purpose;

(i) washing and sanitary accommodation forming part of the crew accommodation or appropriated for the use of the master;

(j) workshops and storerooms appropriated for the use of pumpmen, engineers, electricians, carpenters and boatswains, and the lamp-room;

(k) water ballast tanks not appropriated for use for any other purpose;

(l) shelter space providing weather protection only for use, free of charge, by deck passengers in ships intended for use only on voyages not exceeding 10 hours duration;

(m) sheltered promenade space, glassed in and unfurnished except for deckchairs or similar light portable seating, in ships intended for use on international voyages;

(n) passenger spaces which are located above the first deck which is located over the upper deck in passenger ships engaged in pleasure voyages. A passenger space is deemed to be any private or public space which is intended to be used by the passengers:

Provided that this paragraph shall not apply in any case other than that specified at sub-paragraph (a) unless the space is certified by a surveyor as being reasonable in extent, and properly constructed, for its purpose and is permanently marked by a notice stating that purpose.

Calculation of exempted tanks below the tonnage deck

11. (1) All water ballast tanks of any ship to which Part III of these Regulations applies which have been included in the underdeck tonnage and which fulfil the requirements of sub-paragraph (3) of this paragraph shall be exempted from the under deck tonnage at the request of the shipowner.

(2) The tonnage of the water ballast tanks referred to in paragraph (1) shall not be allowed to exceed, in the aggregate, 30% of the gross tonnage before any exemption, of an existing ship which exceeds 24 meters in length, unless the Minister approves, at the request of the shipowner, an increase of the above percentage.

(3) The water ballast tanks referred to in paragraph (1) shall fulfil the following requirements:

(a) to have been constructed and tested as tanks,

(b) to be used exclusively as ballast tanks,

(c) the only means of access shall be regular size manholes, circular or elliptical, having a maximum mean diameter of 610mm, and

(d) the water ballast piping system to be totally independent from any other piping system of the ship and, in any case, from the cargo piping system.

B. Register Tonnage

Ascertainment of register tonnage

12. Subject to the provisions of Part III of this Schedule, the register tonnage of a ship shall be the tonnage obtainable by deducting from its gross tonnage:—

(a) the tonnage of spaces specified in paragraph 13, and

(b) the tonnage allowance for propelling machinery space described in paragraph 14:

Provided that:—

(i) the deduction shall in each case be subject to any condition, limit or restriction expressed to be applicable in that case; and

(ii) no deduction shall be made of or in respect of the tonnage of any space which has not first been included in the ship's gross tonnage.

Space to be deducted

13. The spaces referred to in paragraph 12 (a) are:—

(a) space appropriated for the accommodation of the master;

(b) crew accommodation, except space appropriated for the storage of fresh water and space appropriated for the storage of provisions (other than fresh water), being in the latter case space in excess of 15 per cent of the aggregate of:—

(i) space appropriated for the accommodation of the master; and
(ii) crew accommodation other than space appropriated for the storage of provisions and fresh water;

(c) the wheelhouse and chartroom, and space fitted with and appropriated for the use of radio and navigational aids;

(d) chain lockers and space appropriated for, or for the working of, the steering gear, anchor gear and capstan;

(e) space appropriated for the storage of safety equipment or batteries;

(f) workshops and storerooms appropriated for the use of pumpmen, electricians, carpenters and boatswains, and the lamp-room;

(g) space occupied by the donkey engine and boiler if they are outside the propelling machinery space and connected to the main pumps of the ship;

(h) space occupied by the main pumps of the ship if they are outside the propelling machinery space;

(i) in the case of ships wholly propelled by sails, space appropriated for the storage of sails, so however that the total tonnage of such space does not exceed 2 1/2 per cent, of the ship's gross tonnage; and

(j) water ballast tanks not appropriated for use for any other purpose:

Provided that no deductions shall be made:—

(i) in respect of any space specified in sub-paragraph (b) unless it is certified by a surveyor as complying with all applicable provisions as to crew accommodation contained in the Act and regulations made thereunder; and

(ii) in respect of any space specified in sub-paragraphs (a) or (c) to (j) unless it is certified by a surveyor to be reasonable in extent, and properly constructed, for its purpose and is permanently marked by a notice stating that purpose.

Allowance for propelling machinery space

14. The tonnage allowance for propelling machinery space to be deducted pursuant to paragraph 12 (b) shall be determined as follows:—

(a) in the case of ships propelled by screws —

(i) if the tonnage of the propelling machinery space is 13 per sent, or over but less than 20 per cent of the gross tonnage the allowance shall be 32 per cent of the gross tonnage;

(ii) if the tonnage of the propelling machinery space is less than 13 per cent of the gross tonnage the allowance shall be that lesser percentage of the gross tonnage multiplied by 32/13;

(b) in the case of ships propelled by paddle wheels:—

(i) if the tonnage of the propelling machinery space is 20 per cent or over but less than 30 per cent of the gross tonnage the alowance shall be 37 per cent of the gross tonnage;

(ii) if the tonnage of the propelling machinery space is less than 20 per cent of the gross tonnage the allowance shall be that lesser percentage of the gross tonnage multiplied by 37/20;

(c) in the case of ships to which sub-paragraphs (a) and (b) do not apply, the allowance shall be:—

(i) in the case of ships propelled by screws, 1 3/4 times the tonnage of the propelling machinery space;

(ii) in the case of ships propelled by paddle wheels, 1 1/2 times the tonnage of the propelling machinery space;

Provided that—

(i) in no case save that of tugs intended to be used exclusively as such shall the allowance exceed 55 per cent of that portion of the tonnage of the ship

which remains after deducting from its gross tonnage the deductions authorised by paragraph 13(a); and

(ii) such deductions shall be subject to the propelling machinery space and space appropriated for its lighting and ventilation being certified as adequate by a surveyor and being permanently marked by notices stating their purpose.

PART III

Modified and Alternative Tonnages and Tonnage Marks

Modified gross and register tonnage of ships with certain freeboards

15. (1) This paragraph shall apply to a ship in respect of which greater than minimum freeboards have been assigned under the Load Line Rules and the positions of the load lines:

(a) are not higher than would have been the case if the freeboards assigned to the ship and the position of the load lines appropriate thereto had been calculated treating the second deck as the freeboard deck; or

(b) are such that the uppermost load line is not higher than the position of the tonnage mark determined in accordance with Appendix 4 to this Scheule.

(2) The Certifying Authority may, on the application of the owner of a ship to which this paragraph applies, assign to the ship as its gross tonnage and register tonnage a modified gross tonnage and modified register tonnage ascertained in accordance with sub-paragraph (3) of this paragraph instead of the gross tonnage and register tonnage ascertained in accordance with Part II of this Schedule.

(3) The modified gross tonnage and modified register tonnage so to be assigned shall be ascertained in accordance with Part II of this Schedule subject to the following modifications:—

(a) for references to the upper deck in—
paragraph 7 (1) (c) and (e), and (3);
paragraph 10;
paragraph 13 (j);
the definition of "propelling machinery space" in the definitions at the beginning of this Schedule and Appendix 1, paragraphs 3, 5 and 6, there shall be substituted references to the second deck; and

(b) paragraph 7 (1)(b) and paragraph 2 of Rule I of Appendix 1 shall be omitted.

(4) Where such tonnages have been assigned to a ship there shall be placed on each side of the ship a tonnage mark in the form described in Appendix 3 to this Schedule, in a position in line with the uppermost load line to which the ship may be loaded but, subject to the foregoing, in a position determined in accordance with Appendix 4.

Alternative tonnages

16. (1) The Certifying Authority may, on the application of the owner of a ship, assign to the ship, as an alternaive to its gross tonnage and register tonnage ascertained in accordance with Part II of this Schedule, the modified gross tonnage and modified register tonnage ascertained in accordance with the provisions of sub-paragraph (3) of paragraph 15.

(2) Where alternative tonnages have been assigned to a ship there shall be placed on each side of that ship a tonnage mark in the form described in Appendix 3 to this Schedule in a position determined in accordance with the provisions of Appendix 4.

(3) The gross tonnage and register tonnage of the ship shall be taken to be respectively the modified gross tonnage and modified register tonnage when the ship is so loaded that the tonnage mark is not submerged. At all other times the gross and register tonnages of the ship shall be those ascertained in accordance with Part II of this Schedule.

PART IV

Pleasure Yachts under 24 metres in length

17. (1) This Part of this Schedule applies only in relation to pleasure yachts under 24 metres in overall length which either:—

(a) are to be registered in Malta under Part II of the Act: or

(b) being so registered fall to be re-measured thereafter pursuant to the provisions of section 82 of the Act.

(2) Parts I to III of this Schedule shall not apply in relation to pleasure yachts to which this Part of this Schedule applies.

18. The tonnage of a pleasure yacht to which this Part of this Schedule applies shall be ascertained in accordance with paragraph 20 and the tonnage so ascertained shall be taken to be its gross and register tonnage.

19. (1) The owner of such a pleasure yacht to be measured shall make it available for measurement pursuant to section 14 of the Act by a surveyor appointed by the Certifying Authority and shall afford all necessary facilities for its inspection and measurement and shall produce for the surveyor's or measurer's use and retention if required such plans, drawings, specifications and other documents relating to the pleasure yacht as he may require.

(2) The tonnage of a pleasure yacht to which this Part of this Schedule applies shall be measured in the manner specified in Appendix 5 to this Schedule.

PART V

Restriction on the Carraige of Goods or Stores in Certain Spaces

20. Goods or stores shall not be carried in any permanently closed-in space on board the ship which has not been included in the registered tonnage of the ship other than—

(a) dry cargo spaces;

(b) workshops or storerooms appropriated for the use of pumpmen, engineers, electricians, carpenters and boatswains;

(c) the lamp room; or

(d) double bottom tanks.

APPENDIX 1 TO SCHEDULE 4

Measurement of Tonnage

RULE 1

Paragraph 2
of Schedule 4

1. Underdeck tonnage

(1) The length of the tonnage deck shall be measured in a straight line in the middle plane of the ship between the points at the forward and after ends of the deck where the underside of the deck, or the line of continuation thereof in way of breaks or discontinuations of the deck, meets the inner face of the frames, timbers, ceiling or sparring as the case may be. Such length so measured is hereafter referred to in this Appendix and in Appendix 2 to this Schedule as the "tonnage length".

(2) In ships which have a break, or breaks, in a double bottom the tonnage length shall be measured in parts corresonding to the number and position of such break or breaks.

(3) The tonnage length, or the length of each of the several parts thereof obtained in accordance with sub-paragraph (2), shall be divided into equal parts as shown in the follwing table:—

length 15.24 metres or under, into 4 equal parts;
length above 15.24 metres but not exceeding 36.58 metres into 6 equal parts;
length above 36.58 metres but not exceeding 54.86 metres into 8 equal parts;
length above 54.86 metres but not exceeding 68.58 metres into 10 equal parts;
length above 68.58 metres into 12 equal parts:

Provided that the length of any of the several parts obtained in accordance with sub-paragraph (2) may be divided into 2 equal parts if such length is 9.14 metres or under.

(4) The transverse area of the ship at each point of division of the tonnage length, or of parts of that length as aforesaid, shall be calculated as follows:—

(a) The depth in the middle plane of the ship from the underside of the tonnage deck to the top of the open floor or double bottom as the case may be shall be measured, deducting therefrom the average thickness of ceiling, if fitted, and one-third the round of beam. If the top of the double bottom falls from the middle plane of the ship, there shall be added to the depth the mean of the fall; if the top of the double bottom rises from the middle plane, a corresponding correction shall be deducted from the depth.

In ships of wooden construction the lower terminal point of the depth shall be the upper side of the floor timber at the inside of the limber strake, after deducting therefrom the average thickness of ceiling between the bilge planks and the limber strake.

(b) If the depth so obtained does not exceed 4.88 metres at the amidship division of the total tonnage length, the depth at each point of division of the tonnage length, or of parts of that length as aforesaid, shall be divided into 4 equal parts; depths in excess of 4.88 metres shall be divided into 6 equal parts.

(c) At the point of division between each of the parts obtained in accordance with sub-paragraph (b) the horizontal breadths to the inner face of the timber, frame or sparring as the case may be shall be measured. Numbering these breadths from the tonnage deck, the even numbered breadths shall be multiplied by 4 and the others, with the exception of the first and last, by 2; these products shall be added together, and to the sum there shall be added the first and last breadths; the quantity thus obtained shall be multiplied by one-third of the common interval between the breadths and the product shall be the transverse area in square metres.

(5) The transverse areas so obtained shall be numbered from the extreme forward point of measurement of the tonnage length, or of the parts thereof as the case may be; the even numbered areas shall be multiplied by 4 and the odd numbered areas, other than the first and last, by 2; these products shall be added together and to the sum there shall be added the area (if any) of the first and last; the quantity thus obtained shall be multiplied by one-third of the common interval between the areas; the product so obtained divided by 2.83 shall be the underdeck tonnage of the ship exclusive of the tonnage of spaces to be included therein pursuant to paragraph 8(b) of Part II (appendages) of this Schedule.

2. *Betweendeck space between the second deck and the upper deck*

(1) (a) Betweendeck space between the second deck and the upper deck shall be measured for length in a straight line in the middle place of the ship between the points at the forward and after ends of the space where the inner surface of the frames, timbers, ceiling or sparring as the case may be meets the middle plane of the ship at half the height between the upper surface of the deck and the underside of the deck over.

(b) Where a break exists in the second deck or the upper deck the line of the deck shall be extended through the break parallel to the raised part of the break; and the tonnage of the betweendeck space shall be measured in such a case by reference to the line of the deck so extended.

(2) The length shall be divided into equal parts as provided in paragraph 1(3) of this Rule. At each of these points of division the horizontal breadth from the inner face of the frames, timbers or sparring as the case may be, shall be measured at half the height of the betweendeck space.

(3) These breadths shall be numbered from the stem, the stem being number 1. The even numbered breadths shall be multiplied by 4 and the odd numbered, other than the first and last, by 2. The products shall be added together and the first and the last breadths shall be added to the sum. The quantity thus obtained shall be multiplied by one-third of the common interval between the breadths, and the area thus obtained shall be ultiplied by the mean height between the upper surface of the deck and the underside of the deck over. The product so obtained divided by 2.83 shall be the tonnage of the betweendeck space.

3. *Breaks in the upper deck*

Breaks in the upper deck shall be measured for length in a straight line in the middle plane of the ship between the extremities of the break at half the height of the break, terminal points at the stem or stern being taken as described in paragrapgh 2(1) of this Rule. The length so obtained shall be divided into 2 equal parts for lengths of 15.24 metres or less, 4 equal parts for lengths above 15.24 metres but not more than 68.58 metres and 6 equal parts for for lengths over 68.58 metres. At each of the points of division the horizontal breadth at half the height of the break at the ship's side to the inner face of the frames, timbers or sparring as the case may be shall be measured. Numbering these breadths from the foremost terminal point, the even numbered breadths shall be multiplied by 4 and the odd numbered, other than the first and last, by 2. The products shall be added together and to the sum there shall be added the first and last breadths. The quantity thus obtained shall be multiplied by one-third of the common interval between the breadths. The area thus obtained shall be multiplied by the height of the break. The product divided by 2.83 shall be the tonnage of the break.

4. *Poop, bridge and forecastle*

A poop, bridge or forecastle shall be measured as follows:—

The mean length thereof shall be measured at half the height between the upper surface of the deck and the underside of the deck over, terminal points at the stem and stern being taken as described in paragraph 2(1) of this Rule. The length so obtained shall be divided into 2 equal parts for lengths of 15.24 metres or under, 4 equal parts for lengths over 15.24 metres but not exceeding 68.58 metres, and 6 equal parts for lengths exceeding 68.58 metres. At each of the points of division the horizontal breadth shall be measured from the inner face of the frames, timbers or sparring as the case may be at half the height between the upper surface of the deck and the underside of the deck over. Numbering these breadths from the foremost terminal point, the even numbered breadths shall be multiplied by 4 and the odd numbered, other than the first and last, by 2. The products shall be added together and to the sum there shall be added the first and last breadths. The quantity thus obtained shall be multiplied by one-third of the common interval between the breadths, and the area thus obtained shall be multiplied by the mean height of the poop, bridge or forecastle. The product divided by 2.83 shall be the tonnage of the poop, bridge or forecastle.

5. *Other permanently closed-in spaces on or above the upper deck*

Permanently closed-in spaces on or above the upper deck other than those dealt with in paragraph 4 shall be measured by ascertaining their mean length, breadth and height and the product of multiplying these dimensions together shall, when divided by 2.83 be the tonnage of the space.

6. *Propelling machinery space*

(1) Propelling machinery space which extends to the ship's side and is situated below the upper deck shall be measured as follows:—

The mean length shall be measured in each space at half the mean depth, which shall be measured in the middle plane of the ship from the underside of the deck forming the crown of the space to the top of the double bottom or open floors, allowance being made for ceiling if fitted; for amidship spaces 3 equally spaced breadths shall be used and for spaces abaft amidships 3 equally spaced breadths shall be used for lengths up to 9.14 metres, 5 equally spaced breadths for lengths over 9.14 metres to 15.24 metres and 7 equally spaced breadths for lengths over 15.24 metres, the breadths being measured from the inner face of the frames, timbers or sparring as the case may be at half the depth of the space at that point. The mean length, mean breadth and mean depth so ascertained shall be multiplied together and the product divided by 2.83 shall be the tonnage of the space.

(2) Propelling machinery space which does not extend to the ship's side and is situated below the upper deck shall be measured by ascertaining its mean length, mean breadth and mean depth, and the product of multiplying these dimensions together shall, when divided by 2.83, be the tonnage of the space.

7. *Shaft bossings and appendages*

The tonnage of shaft bossings and other appendages referred to in paragraph 8(b) of schedule 4 shall be ascertained by measuring the internal cubic capacity of the space as accurately as practicable and dividing the result by 2.83.

APPENDIX 2 TO SCHEDULE 4

Limitation of height of open floors and double bottoms, and of depths of frames and side brackets, for purposes of measurement of underdeck tonnage.

Paragraph 8
of Schedule 4

The provisions of this Appendix shall have effect for the purposes of the measurement of underdeck tonnage.

1. *Open floors*

(1) Any part of an open floor, other than a floor in the main space for the propelling machinery of a ship, which is situated above the horizontal line hereinafter described shall be disregarded for the purposes of measurement of underdeck tonnage, which shall be measured accordingly by reference to the said line.

(2) The line above referred to shall be a line passing through a point in the middle plane of the ship at a height consisting of the maximum height of open floors applicable to a ship of the tonnage length of the ship undergoing measurement, ascertained by reference to columns A and B of Table I and corrected by the addition of a distance equal to the rise of the moulded frame line at one quarter of the breadth of the ship between moulded frame lines at the said maximum height.

(3) The provisions of this paragraph shall also apply in the case of ships fitted with longitudinal floors and/or frames.

2. *Double bottoms*

A double bottom, situated in any part of a ship other than the main space for the propelling machinery, which is of greater height than a height consisting of the maximum height of double bottom applicable to a ship of the tonnage length of the ship undergoing measurement, ascertained by reference to columns A and C of Table I and corrected by the addition of a distance equal to the rise of the moulded frame line at one quarter of the breadth of the ship between moulded frame lines at the said maximum height, shall be treated not as a double bottom but as an open floor of such height ascertained in accordance with the provisions of paragraph 1(2) of this Appendix as would be applicable in the case of a ship of the tonnage length of the ship undergoing measurement.

3. *Bilge brackets*

(1) The horizontal width of bilge brackets measured from the shell of the ship to the inboard toe of the bracket shall not —

(a) if taken at the level of the top of an open floor, exceed the maximum height of open floor applicable to the ship obtained by reference to columns A and B of Table I;

(b) if taken at the level of the top of a double bottom, exceed the maximum height of double bottom applicable to the ship obtained by reference to columns A and C of that Table.

(2) In any case in which underdeck tonnage is measured by reference to a height ascertained and applied in accordance with the provisions of paragraphs 1 and 2 of this Appendix, the lowest breadth used in the measurement of underdeck tonnage area shall be the breadth between the inner sides of the shell of the ship taken at that height, less twice the maximum height of open floor applicable to the ship obtained by reference to columns A and B of Table I or twice the width of the bilge bracket whichever is the less.

4. *Allowance for ceiling*

The limitation imposed by the preceding three paragraphs are exclusive of an allowance for ceiling, if fitted.

5. *Depth of frames*

(1) Subject to sub-paragraph (2), the extent to which the depth of transverse or longitudinal ship side framing in the case of any ship, measured from its shell, exceeds the

maximum depth of frame applicable to a ship of the registered breadth of the ship undergoing measurement ascertained by reference to Table II shall be disregarded and underdeck tonnage shall be measured accordingly by reference to the maximum depth of frame so ascertianed.

(2) In the case of a ship in which alternate deep and shallow frames are fitted, the depth of frame used for purposes of measurement, measured from the shell of the ship, shall not exceed whichever is the lesser of the following dimensions:—

(a) twice the depth of the shallow frame, or

(b) the maximum depth of frame applicable to the ship ascertained as aforesaid.

(3) The limitations imposed by sub-paragraphs (1) and (2) are exclusive of an allowance for sparring fitted on the toe of the frames.

Table I

A TONNAGE LENGTH OF SHIP		B MAXIMUM HEIGHT OF OPEN FLOORS	C MAXIMUM HEIGHT OF DOUBLE BOTTOM
		The dimensions shown are to be increased by 50 per cent for the foremost 25 per cent and aftermost 15 per cent of the tonnage length of the ship	
	in metres	in millimetres	in millimetres
not exceeding	18.29	584	876
	24.38	610	914
	30.48	635	952
	36.58	660	991
	42.67	686	1029
	48.77	711	1067
	54.86	737	1105
	60.96	762	1143
	67.06	787	1181
	73.15	813	1219
	79.25	838	1257
	85.34	864	1295
	91.44	889	1333
	97.54	914	1372
	103.63	940	1410
	109.73	965	1448
	115.82	991	1486
	121.92	1016	1524
	128.02	1041	1562
	134.11	1067	1600
	140.21	1092	1638
	146.30	1118	1676

cont.

Table I (cont.)

A TONNAGE LENGTH OF SHIP	B MAXIMUM HEIGHT OF OPEN FLOORS	C MAXIMUM HEIGHT OF DOUBLE BOTTOM
	The dimensions shown are to be increased by 50 per cent for the foremost 25 per cent and aftermost 15 per cent of the tonnage length of the ship	
in metres	in millimetres	in millimetres
not exceeding 152.40	1143	1714
158.50	1168	1763
164.59	1194	1791
170.69	1219	1829
176.78	1245	1867
182.88	1270	1905
188.98	1295	1943
195.07	1321	1981
201.17	1346	2019
207.26	1372	2057
213.36	1397	2095

In the case of ships of intermediate length, the maximum height of floors or double bottoms shall be obtained by interpolation, and in the case of ships exceeding 213.36 metres, by linear extrapolation.

Table II

REGISTERED BREADTH in metres	MAXIMUM DEPTH OF FRAMES in millimetres
not exceeding 6.10	356
9.14	406
12.19	457
15.24	508
18.29	559
21.34	635
24.38	711
27.43	787
30.48 and above	864

In the case of ships of intermediate breadths, the maximum depth of frame shall be obtained by interpolation.

APPENDIX 3 TO SCHEDULE 4

Tonnage Mark

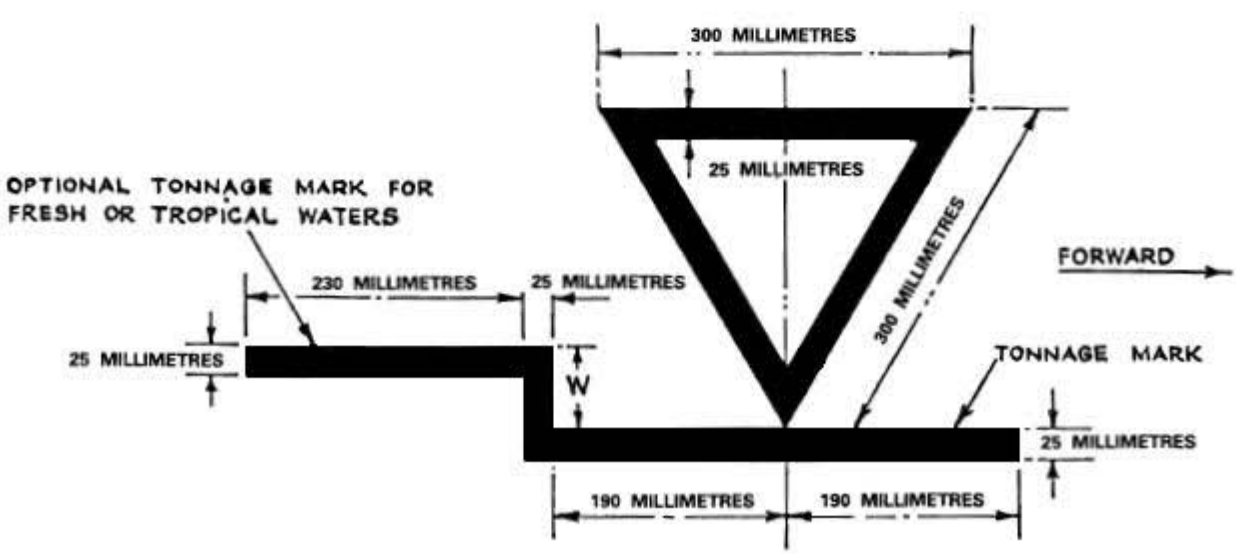
Paragraphs 15 and 16
of Schedule 4

1. Save as otherwise provided in paragraph 2, the tonnage mark shall consist as shown in figure I of a horizontal line 380 millimetres long and 25 millimetres wide upon which shall be placed for identification purposes an inverted equilateral triangle, each side of which is 300 millimetres long and 25 millimetres wide, having its apex on the mid-point of the horizontal line.

2. In the case of a ship intended to operate in fresh or tropical waters as defined in the Load Line Rules (not being a ship on which tonnage marks have been placed in accordance with paragraph 15 of schedule 4), an additional horizontal line may on the application of the owner of the ship be placed above the tonnage mark described in paragraph 1 at a distance of one forty-eight (1/48th) of the moulded draught to that tonnage mark. This additional line shall be 230 millimetres long and 25 millimetres wide measured from a 25 millimetres wide vertical line (shown marked "W" in Figure 1) at the after end of, and perpendicular to, that tonnage mark. In such a case, at all such times as the ship so marked is operating in fresh or tropical waters as aforesaid, this additional line shall be taken to be the tonnage mark in lieu of that described in paragraph 1.

3. The lines and triangle above mentioned shall be painted in white or yellow on a dark ground or in black on a light ground, and carefully cut in, centre punched or welded on the sides of the ship. They shall be so kept and maintained as to be plainly visible at all times save when submerged.

FIGURE 1



APPENDIX 4 TO SCHEDULE 4

Position of Tonnage Marks

Paragraphs 15 and 16
of Schedule 4

1. The tonnage mark shall be placed on each side of the ship at a distance below the line where the underside of the second deck stringer plate meets the ship's side plating amidships, or below the line equivalent to that line as shown in Figure 2 in case where the deck is stepped, to be ascertained by reference to the Tonnage Mark Table at the end of this Appendix.

2. In that Table —

(1) the length Lt in column A is a distance in metres on the second deck between the points at the forward and after ends of the deck where the underside of the deck or line of continuation thereof meets the inner surface of the frames, ceiling or sparring as the case may be in the middle plane of the ship, using an equivalent length in case where the deck is stepped as shown in Figure 2;

(2) the depth Ds is the depth in metres amidship from the top of the keel to the point at which the underside of the second deck stringer plate meets the ship's side plating, using an equivalent depth as shown in Figure 2 in case where the deck is stepped;

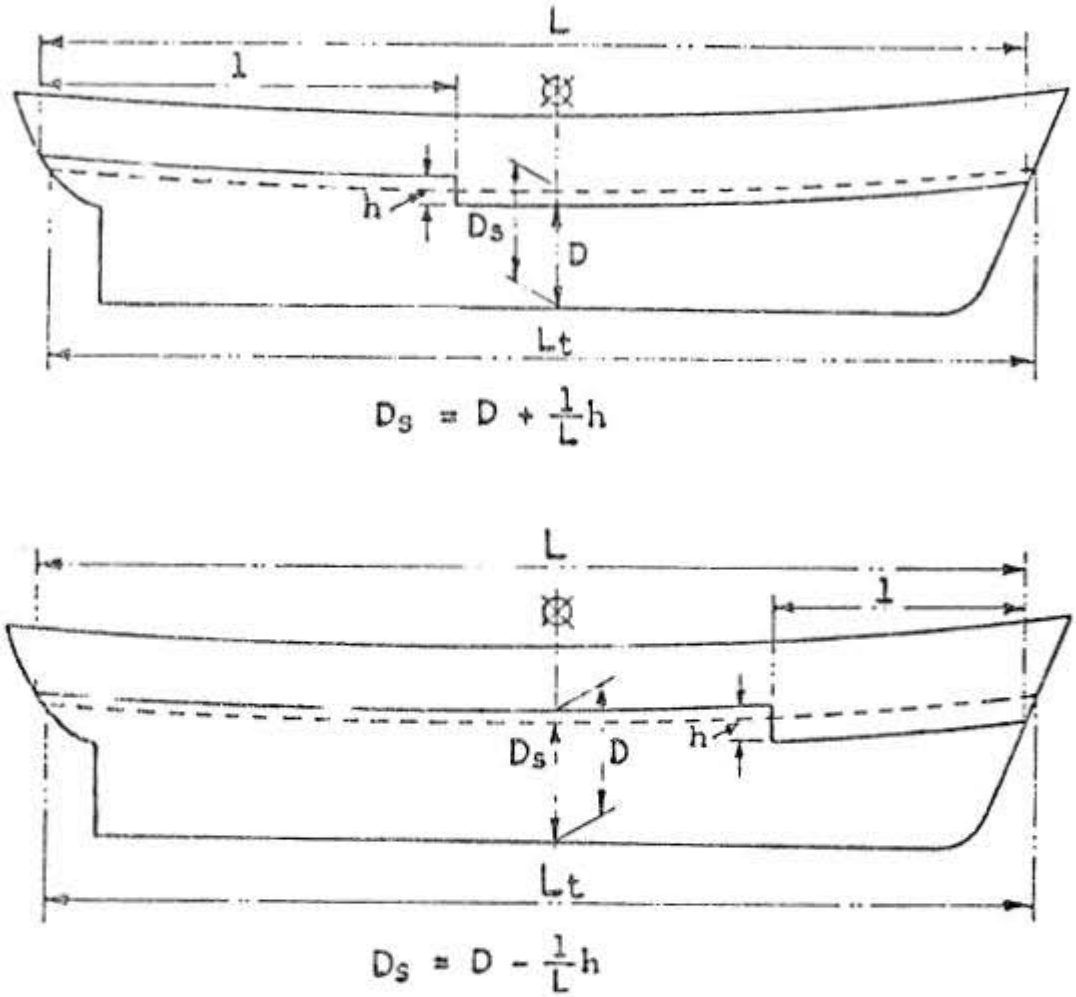
(3) the figures at the top of columns B to J represent the ratio Lt/Ds and the figures below in each column represent distances in millimetres from the line where the underside of the second deck stringer plate meets the ship's side plating amidships (or, in case where the deck is stepped, from the equivalent line thereto as shown in Figure 2) to the point at which the upper edge of the tonnage mark is to be placed.

3. In the case of any ship of intermediate length or having an intermediate Lt/Ds ratio, the relevant distance to be applied shall be obtained by interpolation, and in other cases where necessary by linear extrapolation.

4. The effective relevant distance calculated by reference to the Tonnage mark Table to be applied in the case of any ship shall be corrected to the nearest millimetre.

Figure 2

This sketch illustrates how the equivalent second deck should be determined, based on equal longitudinal areas



5. In the case of a ship to which load lines have been assigned the tonnage marks shall, subject to the provisions of paragraph 15 of Schedule 4 be placed in a position ascertained in accordance with the foregoing provisions of this Appendix with the apex of the identification triangle at a distance of 525 millimetres horizontally aft of the centre line load line disc:

Provided that in no case shall the tonnage marks be placed above the uppermost load line to which the ship may be loaded.

6. In the case of a ship to which load lines have not been assigned the tonnage marks shall be placed in a position ascertained in accordance with the foregoing provisions of this Appendix with the apex of the identification triangle at the middle of the length Lt. In every such case the line of the upper deck shall be shown by a deck line corresponding in form to that required by the Load Line Rules and placed centrally to a vertical line bisecting the identification triangle of the tonnage mark.

TONNAGE MARK TABLE

A	B	C	D	E	F	G	H	I	J
Lt/Ds	12	13	14	15	16	17	18	19	20
Length Lt. in metres									
67 and under	51	51	51	51	51	51	51	51	51
70	81	51	51	51	51	51	51	51	51
73	118	51	51	51	51	51	51	51	51
76	157	82	51	51	51	51	51	51	51
79	201	119	51	51	51	51	51	51	51
82	246	159	84	51	51	51	51	51	51
85	294	200	120	51	51	51	51	51	51
88	344	244	158	83	51	51	51	51	51
91	398	291	199	51	51	51	51	51	51
94	455	341	243	158	83	51	51	51	51
97	515	393	288	198	119	51	51	51	51
100	577	447	336	240	155	81	51	51	51
103	643	506	388	286	196	117	51	51	51
106	713	567	442	334	239	156	82	51	51
109	785	631	499	385	285	196	118	51	51
112	862	699	559	438	333	240	157	83	51
115	943	772	624	497	386	288	200	122	52
118	1026	845	690	556	439	336	243	161	87
121	1111	921	758	617	494	385	288	202	124
124	1199	1000	829	628	553	439	338	247	165
127	1279	1075	900	749	617	500	397	304	220
130	1362	1154	975	820	685	566	460	365	279
133	1450	1237	1054	896	757	635	527	429	342
136	1541	1323	1135	974	832	707	596	496	407
139	1636	1413	1222	1057	912	784	671	569	478
142	1732	1504	1309	1140	992	862	746	642	548
145	1829	1597	1397	1225	1074	941	823	717	621
148	1926	1688	1485	1309	1155	1019	898	790	692

A	B	C	D	E	F	G	H	I	J
Lt/Ds	12	13	14	15	16	17	18	19	20
Length Lt. in metres									
151	2020	1778	1570	1390	1233	1095	971	861	761
154	2112	1865	1653	1470	1309	1168	1042	930	828
157	2203	1951	1735	1548	1384	1241	1112	998	894
160	2288	2032	1812	1622	1455	1308	1177	1061	955
163	2374	2112	1888	1694	1525	1375	1241	1122	1015
166	2455	2189	1961	1763	1591	1438	1302	1181	1072
169	2537	2266	2033	1832	1656	1501	1363	1239	1128
172	2616	2340	2103	1899	1720	1562	1421	1295	1182
175	2694	2414	2173	1965	1783	1622	1479	1351	1236
178	2772	2487	2242	2030	1845	1682	1536	1406	1289
181	2850	2560	2312	2096	1907	1741	1593	1461	1342
184	2924	2629	2376	2157	1965	1797	1646	1512	1391
187	2999	2699	2441	2219	2024	1853	1700	1563	1440
190	3072	2768	2506	2280	2083	1909	1753	1614	1489
193	3144	2835	2569	2340	2139	1962	1804	1663	1536
196	3215	2901	2632	2398	2195	2015	1855	1711	1582
199	3286	2967	2694	2456	2250	2067	1905	1759	1628
202	3356	3032	2754	2513	2304	2118	1953	1805	1672
205	3425	3096	2814	2570	2357	2169	2001	1851	1716
208	3493	3160	2874	2626	2410	2219	2049	1897	1760
211	3561	3223	2933	2682	2462	2268	2096	1942	1803
214	3628	3285	2991	2736	2513	2317	2142	1986	1845
217	3694	3346	3048	2790	2562	2365	2187	2029	1886
220	3760	3407	3105	2843	2613	2412	2232	2072	1927
223	3825	3467	3161	2895	2662	2485	2276	2113	1996
226	3889	3526	3216	2947	2710	2504	2319	2154	2005
229	3951	3584	3270	2998	2758	2549	2361	2194	2043
232	4013	3642	3323	3047	2805	2593	2402	2233	2080
235	4075	3699	3376	3096	2851	2636	2443	2272	2117
238	4136	3755	3428	3144	2897	2678	2483	2310	2153
241	4197	3810	3479	3192	2941	2720	2523	2347	2188
244	4257	3865	3530	3240	2986	2762	2562	2384	2223

APPENDIX 5 TO SCHEDULE 4

Pleasure yachts under 24 metres in length — Ascertainment of Tonnage

1. Tonnage in relation to any pleasure yacht to which Part IV of this Schedule applies shall be measured in terms of cubic capacity.

2. (1) The tonnage of the yacht shall be the sum of—

(a) the product of multiplying together its overall lenght, breadth and depth, and multiplying the resultant figure by 0.16; and

(b) the tonnage of any break or breaks defined in paragraph 3 and calculated in accordance with the provisions of that paragraph.

(2) The breadth of a yacht for this purpose shall be its extreme breadth over the outside plating, planking or hull, no account being taken of rubbers or fenders even if they are moulded so as to be integral with the hull.

(3) (a) The depth of a yacht for this purpose shall be measured vertically midway between the foremost and aftermost points of measurement of its length;

(b) the upper terminal point for depth shall be —

(i) in the case of a decked yacht, the underside of deck on the middle line or, if there is no deck at the middle line at the point of measurement, the underside of the deck at side of the yacht plus the full deck camber;

(ii) in the case of an open yacht, the top of the upper strake or gunwale;

(c) the lower terminal point for depth shall be —

(i) in the case of a wooden yacht, the upper side of planking at side of keel or hog;

(ii) in the case of a metal yacht, the top of plating at side of keel;

(iii) in the case of a glass reinforced plastic yacht, the inside of hull. Where no keel member is fitted and the keel is of open trough construction, the lower terminal point for depth shall be the top of the keel filling, if fitted, or the level at which the inside breadth of the trough is 100 millimetres, whichever gives the lesser depth;

(d) where a break exists in way of the point of measurements for depth, the height of the break shall not be included in the measurement of depth.

3. A break for the purpose of paragraph 2 (1) of this Appendix shall be a side to side break existing in the line of the deck, and its tonnage shall be the figure obtained by multiplying together the mean length, mean breadth and mean height of the break and dividing the product by 2.83.

4. In the case of a catamaran or trimaran the tonnage of each hull shall be measured separately, using the breadth of each hull for the purpose of its measurements, and the sum of such tonnages shall be the tonnage of the yacht.

5. All measurements shall be taken and expressed in metres and two decimals of metres.

6. Tonnage shall be expressed to two decimal places, the second decimal place being increased by 1 if the third decimal place is 5 or more.

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