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DRAFT REGULATIONS

FOR

TONNAGE MEASUREMENT OF SHIPS

GENEVA, 1931.

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Technical Committee on Maritime Tonnage Measurement.

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TONNAGE MEASUREMENT OF SHIPS

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DRAFT REGULATIONS

FOR

TONNAGE MEASUREMENT OF SHIPS[1]

PART I

ADMINISTRATIVE PROVISIONS.

Application by the Owner.

ARTICLE 1.

When a ship requires measurement or re-measurement, the owner shall send an application to this effect to the competent tonnage measurement authority.

Such application, when it relates to a ship to be measured for the first time, shall be accompanied by the following plans:

A. Transverse section or sections showing the bottom construction of the ship.

B. Longitudinal section showing water-ballast spaces, superstructures, transverse bulkheads and hatchways.

C. General arrangement, including plan of decks, showing superstructures and spaces therein and stating their intended use.

When exemption from inclusion in gross tonnage is claimed for certain spaces, plans showing details of the conditions upon which such exemption is claimed should also be submitted.

The tonnage measurement authority concerned may in special cases request the submission of further plans which it considers necessary.

Measurement under Rule I or Rule II.

ARTICLE 2.

Measurement and re-measurement shall be carried out in accordance with Rule I (Internal Measurement) or Rule II (External Measurement), the details of which are set forth in Parts II to VI of the present Regulations.

The application of Rule II shall be limited to cases where the application of Rule I is impracticable — *e.g.*, on account of the

[1] The figures referred to in this document are to be found in a separate publication (see document C. 176 (a). M. 65 (a). 1931. VIII).

ship being loaded — and shall depend on a decision of the central tonnage measurement authority concerned. Such ship may, however, at any subsequent time, be re-measured according to Rule I at the request of the owner.

Formulæ of Measurement.

ARTICLE 3.

As measuring proceeds, the measurements taken, as well as other records which serve to determine the gross and net tonnage defined in Part II, Article 7, and which are indicated in Parts III to VI, shall be entered on the formulæ of measurement of the type reproduced in Appendices 1 *a*, *b*, *c*, *d* and *e*. When the measurement has been completed, the formulæ of measurement, duly signed, shall be forwarded to a central tonnage measurement authority.

This central authority, in carrying out the checking, shall for this purpose in all cases (except when a ship is measured under Rule II) make use of the control curves in conformity with the provisions of Part III, Article 44. The said authority shall also, if necessary, complete the measurement by means of the control curves.

Tonnage Certificates.

ARTICLE 4.

The measurement having been checked and, if necessary, completed, the central tonnage measurement authority shall arrange for the tonnage certificate to be issued under Rule I or Rule II, as the case may be.

The tonnage certificates shall be of the types reproduced in Appendices 2 and 3, and shall contain the particulars indicated therein.

Marking.

ARTICLE 5.

The spaces indicated in Articles 61 to 63, 66 to 71, 76 (*d*) and 77, if deducted from the gross tonnage referred to in Article 7, must be duly marked, their proper designation being stated in each case and their volume in register tons (or cubic metres) being indicated.

The net tonnage defined in Article 7 shall be marked in indelible characters on the main beam or on the inside of the coaming of one of the upper hatchways (by preference hatchway No. 2 counted from the bow) or, if necessary, in another suitable place.

PART II

DETERMINATION AND DEFINITION OF TONNAGE

Units of Measurement; Degree of Exactitude; Definition of Length and Breadth.

ARTICLE 6.

In ascertaining the tonnage of a ship, the cubic capacity of all spaces shall be calculated in English cubic feet, or in cubic metres. If English cubic feet are employed, these shall be converted into English register tons, each of 100 cubic feet, corresponding to 2.83 cubic metres. If the English foot is used, it will be divided decimally.

If not otherwise stated in the present Regulations:

I. Measurements shall be taken with the exactitude of the nearest twentieth part of an English foot, or of the nearest centimetre.

II. Calculations shall be carried out with the following degree of accuracy:

(*a*) When determining:

The common interval between the transverse sections (see Article 21):

If using feet, with three decimals, without taking account of the fourth; or,

If using metres, with four decimals, without taking account of the fifth;

(*b*) When determining:

(1) *One-third of the common interval between the transverse sections* (see Article 41);

(2) *One-third of the common interval between the breadths in each transverse section* (see Article 39);

(3) *The area of transverse sections* (see Article 39);

(4) *One-third of the common interval between breadths in double-bottom tanks* (see Article 45), *in 'tween-decks* (see Article 48) *and in superstructures* (see Article 53);

(5) *The mean height of a double-bottom tank* (see Article 45);

(6) *The mean height of a 'tween-deck space* (see Article 48);

(7) *The mean breadth of the propelling-machinery space;*

(8) *The mean height of the propelling-machinery space:*

If using feet, with two decimals, the second being increased by one if the third is 5 or more; or,

If using metres, with three decimals, the third being increased by one if the fourth is 5 or more.

(*c*) When determining:

The under-deck tonnage and the cubic capacity of all other spaces (e.g., double-bottom tanks, 'tween-decks, superstructures, hatchways, exempted or deducted spaces), both in register tons and in cubic metres, with two decimals, the second being increased by one if the third is 5 or more.

Before proceeding with measurement, all instruments used must be carefully checked.

Measurements taken in the longitudinal direction are called *lengths*, and measurements taken in the transverse direction are called *breadths*, irrespective of the shape of the measured space.

Gross Tonnage and Net Tonnage.

ARTICLE 7.

The tonnage is determined as gross tonnage and as net tonnage.

The gross tonnage consists of the sum of the following items, subject to the exceptions hereinafter mentioned:

1. The cubic capacity of the space below the tonnage deck (under-deck tonnage).

2. The cubic capacity of each space between decks above the tonnage deck and below the upper-deck.

3. The cubic capacity of superstructures (whether extending from side to side or not). [1]

4. The "excess of hatchways".

The net tonnage is obtained by applying to the gross tonnage the deductions provided for in the present Regulations with regard to:

(1) Master's and crew spaces (see Articles 61 to 64);

(2) Spaces for navigation and working of the ship (see Articles 65 to 71);

And, for ships propelled by machinery:

(3) Propelling machinery spaces (see Articles 74 to 81).

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[1] A superstructure shall be regarded as extending from side to side when its sides are flush with those of the ship.

PART III

MEASUREMENT AND CALCULATION OF GROSS TONNAGE UNDER RULE I.

Article 8.

The cubic capacity of each of the items of the gross tonnage referred to in Article 7 is to be determined by separate measurement and calculation, in accordance with the provisions hereafter.

Tonnage Deck and Upper deck.

Article 9.

When measuring decked ships, the tonnage deck must first be determined.

The *tonnage deck* is the upper deck in ships with not more than two decks, and the second deck from below in ships with more than two decks.

The *upper deck* is the uppermost complete deck having permanent means of closing all openings in weather portions of the deck.

Continuous Decks.

Article 10.

When determining the tonnage deck and the upper deck, only permanent and continuous decks, laid on permanent deck beams, are to be considered. Interruptions in way of engine and boiler openings, cofferdams and peak-tanks, are not to be considered as breaking the continuity of a deck.

Hatchways, skylights, companion-ways, trunks, etc., are not considered as interruptions in a deck (see Figures 1, 2, 3 and 4).

A deck below the upper deck shall still be regarded as continuous when for a part of its length it is continued at a somewhat higher or lower plane (see Figure 3).

Article 11.

When measuring the space below the tonnage deck, the cubic capacity of the space, limited by the lower surface of the tonnage deck and the ceiling at the sides and bottom, is sought (irrespective

of beams, pillars, stringers, keelsons and other projecting parts). If the ceiling is lacking, either at the sides or at the bottom, a surface is presumed to lie, as the case may be, on the inner edge of the frames, or on the top of the floors or of the double bottom. This space is considered to be empty.

ARTICLE 12.

Unless otherwise stated in the present Regulations, the measurements are taken to the inner edge of the frames, and to the top of the floors or the double bottom, deducting from these measurements the average thickness of ceiling, if fitted. When the thickness of any ceiling is greater than 0.25 foot or 0.076 metre, this dimension is to be regarded as the maximum for which allowance is to be made, except in wooden ships fitted with ordinary continuous ceiling.

Ceiling.

ARTICLE 13.

As ceiling is considered permanent lining which is fitted directly on the frames, floors or the double bottom of the ship, and, furthermore, ceiling on the bottom, fitted on grounds. In this case the bottom ceiling is presumed to be situated on the top of the double bottom, or of the floors.

As ceiling is also considered spar ceiling (of steel or wood), fitted in the usual way, provided the spacing of the battens or bars does not exceed 1 foot or 0.305 metre. If, however, this spacing is greater, the measurements are taken to the inner edge of the frames. In ships with beam brackets of ordinary size, the uppermost spacing, counted from the under side of the deck beam, may exceed 1 foot or 0.305 metre, provided the uppermost batten is fitted close up to the beam bracket. Side stringers are counted as spar ceiling, when determining the spacing of the battens or bars.

The formulæ of measurement shall contain information concerning the depths of the frames, the thickness of the side and bottom ceiling, the thickness of the grounds below the latter, if necessary, and particulars as to whether the measurements are taken to the frames, the top of the double bottom or floors where no ceiling is fitted. It shall, furthermore, contain the depth of the floors, or the height of the double bottom in the middle plane, at the intersection of the middle transverse area, or, if the space below the tonnage deck is measured in parts, at the middle position in each part.

The depths of the frames, the thickness of the side and bottom ceiling, and of the grounds below the latter are to be measured with an accuracy of a fortieth of a foot, or the nearest centimetre.

ARTICLE 14.

The cubic capacity of the space below the tonnage deck is ascertained by means of its length — "the tonnage length" —

and the areas of a number of transverse sections. This number varies with the length.

The area of each section is ascertained by means of its depth and five or seven breadths.

Tonnage Length.

ARTICLE 15.

The tonnage length is the distance between two points, of which the foremost is the point where the under side of the tonnage deck, at the stem, meets the inner surface of ceiling or frames, and the aftermost is the point where the under side of the tonnage deck meets the inner surface of ceiling or frames in the middle plane, right aft in the stern. [1]

Determination of the Extreme Points of the Tonnage Length.

ARTICLE 16.

When determining the extreme points of the tonnage length according to the principles laid down in Article 15, the following indications should be observed:

1. In the case of ships having a vertical bow (or stem) and a vertical stern both below and above the tonnage deck, measure horizontally the depth of frames and the thickness of the ceiling (if fitted) right forward and right aft, immediately below the tonnage deck. Set off these measurements on the upper side of the deck from the shell plating in the direction in which the frames have been measured and draw through the points thus obtained lines parallel to the shell. The points of intersection of these lines fore and aft are the extreme points of the tonnage length (see Figures 5 and 6).

2. In the case of ships having no vertical bow (or stem) or no vertical stern at the level of the tonnage deck, the extreme points of the tonnage length are, when practicable, to be determined at the under side of the tonnage deck. The distance from these points to a hatch-coaming, bulkhead, etc., should be measured and transferred to the upper side of the tonnage deck as indicated in Figure 7.

Should it not be practicable to determine the extreme points of the tonnage length at the under side of the tonnage deck, and should the thickness of this deck be considerable (*e.g.*, a wooden

[1] Should the tonnage deck beam at the extreme points of the tonnage length have a camber (in case of a ship with a square bow or stern) or rise in a straight line from the sides of the ship towards the middle plane, then the points are situated respectively at one-third of the round of the beam or one-half of the rise below the under side of the tonnage deck in the middle plane.

deck) the rake of the bow (or stem) or stern in the thickness of the deck is to be taken into account. This is done, after having first proceeded as indicated in paragraph 1 and as is shown in Figures 5 and 6, by measuring the thickness of the tonnage deck and determining by means of a hinged rule the angle of the rake which the bow (or stem) or the stern forms with the tonnage deck. Transfer thereafter this angle on to a plane (*e.g.*, a bulkhead or the top of the deck) by drawing the lines *a*, *b*, *c* (see Figure 8), and proceed as stated in the explanatory note.

It should be borne in mind that the condition for applying the method of setting out the angles on the upper side of the tonnage deck is that the stem and the stern have the same angle of rake above and immediately below the tonnage deck. If, for instance, the angle of rake at or immediately below the tonnage deck is a different one, then this last angle must be used.

3. Should a ship as referred to in paragraph 2 have a square bow or stern, it will be necessary to make a correction for camber where such exists. This should be done by increasing the thickness of the deck in Figure 8 by one-third of the round of beam at the extreme point of the tonnage length.

Round of Beam.

ARTICLE 17.

If the round of beam must be known when determining the extreme points of the tonnage length fore or aft, such round of beam is ascertained by stretching a line athwartship, from side to side at the foremost or aftermost point of the tonnage length, at an equal height above the deck on both sides of the ship. The distance from the line to the deck at the sides minus the distance from the line to the deck at the middle plane is the camber desired (see Figure 9).

Interruption in the Tonnage Deck.

ARTICLE 18.

If the tonnage deck is interrupted, within the meaning of Article 9, paragraph 2, for a portion of its length (see Figure 10), tonnage length should be measured on an imaginary line in continuation of the original deck.

In the case shown in Figure 10 it may be advisable to transfer the extreme points of the tonnage length to the top of the superstructures and to measure the length over the latter. As the distance from the under side of the deck which covers the superstructure to the line of continuation is equal to the height of the superstructure, the extreme points of the tonnage length are found by setting down this height. It is necessary, of course, to take into account the frames, the ceiling (if fitted) and the camber, where such exists.

Measurement of the Tonnage Length.

ARTICLE 19.

If, as is generally the case, it is impossible to measure the total tonnage length direct between its extreme points, having determined these and marked them on the tonnage deck, the foremost and aftermost parts of the length from the extreme points to a bulkhead, hatch-coaming, etc., as found practicable, should be measured.

In ships with a normal sheer, the remainder of the length shall be measured by means of a tape laid on the tonnage deck, or by a line stretched as tightly as possible from forward to aft. This length is to be measured between the bulkheads, hatch-coamings, etc., to which the foremost and aftermost parts of the length are measured. The tape is laid, or the line is stretched, clear of all obstacles, parallel to the middle plane of the ship, on or above the tonnage deck or its continuation line. In case a stretched line is used (which must always be done if the sheer is excessive) the line will be stretched horizontally fore and aft. The length of the line is measured by means of measuring rods or tape. The tonnage length is obtained by adding the length of the foremost part, that of the part measured either by the tape or on the line, and that of the aftermost part.

Determination of the Middle Transverse Section.

ARTICLE 20.

The tonnage length having been ascertained, the position of the middle transverse section must be determined. This is done by measuring half of the tonnage length forward from the aftermost point, or aft from the foremost point of the length, in the same way as explained in Article 19. The middle point of the length is marked on the line or on the deck, and its distance from a bulkhead, hatch-coaming, etc., is determined. The work is then checked by measuring the second half of the length from the middle point in the same way. If the end of half of the length coincides with the extreme point of the tonnage length, this length has been accurately measured and the position of the middle transverse section correctly marked off. If the two points do not coincide, it is necessary to re-measure the tonnage length.

As an alternative method, the positions of the various transverse sections, as indicated in Articles 21 and 22, may be determined by setting off upon the deck the common interval from each extreme point of the tonnage length, the position of the middle transverse section being found where such sections coincide amidships.

Transverse Sections.

ARTICLE 21.

The tonnage length is divided into a number of equal parts, as given in the following table:

Tonnage length	Number of parts
50 feet = 15.24 metres, or less	4
Above 50 feet = 15.24 metres, but not more than 120 feet = 36.58 metres .	6
Above 120 feet = 36.58 metres, but not more than 180 feet = 54.86 metres .	8
Above 180 feet = 54.86 metres, but not more than 225 feet = 68.58 metres .	10
Above 225 feet = 68.58 metres.	12

The common interval between the sections is ascertained by dividing the tonnage length by the divisor thus determined.

Vertical sections are taken through the points of division, and through the extreme points of the tonnage length, at right angles to the middle plane of the ship. They are numbered 1, 2, 3, etc., in such a manner that No. 1 is the section at the foremost. and the last number is the section at the aftermost point of the tonnage length.

ARTICLE 22.

The position of the middle transverse section, determined on the tonnage deck, is now transferred into the hold perpendicularly to the keel line of the ship, by using the distance from a bulkhead, hatch-coaming, etc., as measured in accordance with Article 20.

By setting out forward and aft from the position of the middle section, as determined in the hold, the common interval between the various sections, the positions of the other sections are determined and marked off on the bottom ceiling, the tunnel, the keelson or whatever may be found suitable. The common interval is set out parallel to the keel line, and in the middle plane of the ship, or parallel to it. The correctness of the positions of the various transverse sections is to be verified by measuring distances to bulkheads, hatch-coaming, etc., and checking such distances on top of the tonnage deck.

When it is not possible to measure a transverse section at its correct position, it should be measured as close thereto as possible.[1] It should be very accurately ascertained how far forward or aft of the correct position the section is being measured, and full particulars as to this should if necessary, be given in the formulæ of measurement.

[1] It may even be advisable to measure two subsidiary transverse sections situated respectively forward and aft of the correct position (see Article 44).

In ships propelled by machinery, the distance from the machinery bulkhead to the correct position of the nearest section should be ascertained, both as regards the foremost and aftermost bulkheads, and stated on the formulæ of measurement.

ARTICLE 23.

Before commencing the measurement of the transverse sections it is necessary, at the positions where these sections are to be measured, to examine, if the surface to which the tonnage depths are to be taken, whether the top of ordinary floors (transverse or longitudinal), the tank top, or the top of bottom ceiling in a wooden ship, is horizontal athwartship or rises or falls from the middle plane to the wings.[1]

ARTICLE 24.

For the purpose of determining the tonnage depths, the round of beam, to be ascertained in conformity with the provisions of Article 17 and as is shown in Figure 9, should be measured for every transverse section.

Definition of Tonnage Depth.

ARTICLE 25.

The tonnage depth of a transverse section is the distance from the under side of the tonnage deck to the top of the main floors or the top of the ordinary double bottom, as defined in Article 26, minus the thickness of the bottom ceiling and one-third of the round of beam, this depth being, if necessary, corrected as indicated in Article 28 in the case of a non-horizontal top of floor or double bottom.[2]

If a transverse section is situated at a place where the deck is interrupted the depth is the distance from the line of continuation of the tonnage deck to the top of the floor or the double bottom, with the deductions and correction mentioned above.

Main Floors and Top of Double Bottom.

ARTICLE 26.

In determining the main floors of the ship or the top of ordinary double bottom, as referred to in Article 25, the indications given below shall be followed:

---

[1] For this purpose a line is stretched across the bottom at an equal height at each side. The difference between the height of the line above the bottom at the middle plane and its height above the bottom at the sides is the fall or rise of the bottom.

[2] Should the tonnage deck beams rise in a straight line from the sides towards the middle plane, the correction for the rise of beam will be one-half instead of one-third of the spring of the beam. Such spring is determined and applied in the same manner as indicated in Articles 24, 25, 30 and 43 for the round of beam.

(*a*) With regard to the part of the ship situated between the collision bulkhead and the after peak bulkhead:

1. The bottom construction with solid transverse floors on every frame, either with a single or a double bottom, is to be considered as a standard construction, and, whenever such floors are fitted, they shall be regarded as the main floors (see Figures 11 and 12).

2. If a double bottom is fitted, the measurement of the tonnage depth to the tank top is conditional on the double bottom being constructed in conformity with regulations for strength and safety.

3. If a double-bottom tank equivalent to the standard of paragraph 2 is constructed with longitudinal girders, of a depth not exceeding what is strictly necessary for access, on top of ordinary transverse floors, the tonnage depth is to be taken to the tank top (see Figure 13).

4. If the bottom construction consists of solid floors of ordinary depth two or more frame spaces apart, and skeleton floors of same depth on the intermediate frames, such floors constitute the main floors (see Figures 14, 15, 16 and 17).

5. If the bottom construction consists of solid floors of excessive depth two or more frame spaces apart and skeleton floors of same depth on the intermediate frames, the tonnage depth must be measured to the upper edge of the shell frame (see Figures 18 and 19).

6. If the bottom construction consists of floors of different depth, it must be determined whether the higher or the lower floors should be considered as the main floors. As a general indication, it should be noted that the lower floors are to be considered as the main floors: (*a*) when the higher floors are more than two frame spaces apart, and (*b*) in all cases where the higher floors are of excessive depth (see Figures 20 and 21).

7. In the case of a bottom construction with longitudinal framing of a uniform depth, the upper edge of the longitudinals should be considered as the top of main floors (see Figure 22).

8. Should the longitudinal system consist of elements of different depth, the same provisions as given in paragraph 6 will apply (see Figures 23 and 24).

9. Mixed constructions of transverse and longitudinal framing are to be compared with the various systems referred to in the preceding paragraphs for the purpose of determining the main floors.

10. Within the meaning of paragraphs 5, 6, 8 and 9 of the present article, a depth shall be deemed "excessive" when it is more than twenty-five per cent in excess of the normal depth provided for by the regulations for strength and safety of ships. [1]

[1] Extreme cases will be dealt with on their merits.

11. The thickness of a ceiling, referred to in Article 25, is still to be deducted, even if such ceiling is laid on a double bottom or on floors, to which the tonnage depth, according to the above indications, is not to be measured.

(*b*) With regard to the parts of the ship situated forward of the collision bulkhead and aft of the after peak bulkhead:

1. If the floors are equal in height or lower than the floors or double bottom immediately contiguous to the collision bulkhead or after peak bulkhead, as the case may be, such floors constitute the main floors (see Figure 25).

2. If the floors are higher than the floors or double bottom immediately contiguous to the collision bulkhead or the after peak bulkhead, as the case may be, the tonnage depth must be measured to an imaginary line drawn parallel to the keel at a level corresponding to the height of such floors or double bottom (see Figures 26 and 27).

Measurement of Tonnage Depth.

ARTICLE 27.

The tonnage depth is to be measured at or close to the middle plane, by means of rods placed perpendicularly to the keel line of the ship, at right angles to a straight line between the extreme points of the deck beam, and in the plane of the transverse section. The depth is to be measured from the top of floor or the top of double bottom, and the thickness of ceiling is to be ascertained. The projecting parts of side keelsons or other projecting constructions for strengthening are not to be regarded as ceiling.

In the case of wooden ships, the depth is measured from the top of the ceiling, provided such ceiling is fitted directly on top of floor (see Figures 28 and 29).

In steel ships, the depth may also be measured from the top of ceiling; but when the under side of the ceiling is at any distance from the top of the floors or from the double bottom — *e.g.*, in the case of grounds — such distance is to be added to the measured depth (see Figure 30).

Corrections to Measured Depth.

ARTICLE 28.

1. In ships with a double bottom where the line of tank-top in way of a transverse section falls from the middle plane to the wings, the depth measured at centre is to be increased by one-half of the fall if the line is straight, and by one-third if it forms a convex curve (see Figure 31).

2. In ships with a double bottom, where the line of tank-top in way of a transverse section rises from the middle plane to the wings, the depth measured at centre is to be decreased by one-half

of the rise if the line is straight, and by one-third if it forms a concave curve (see Figure 32).

3. In ships with a single bottom, where the top line of floor (or of ceiling in the case of wooden ships) falls from the middle plane to the wings, the depth measured at centre is to be increased by one-half of the fall, if the line is straight (see Figure 33), and by one-third if it forms a convex curve, or by two-thirds if it forms a concave curve.

4. In ships with a single bottom, where the top line of floor (or of ceiling in the case of wooden ships) rises from the middle plane to the wings, the depth measured at centre is to be decreased by one-half of the rise, if the line is straight, and by one-third if it forms a concave curve (see Figure 34).

In the case where the line of inside framing forms with the top line of floors an easy continuous curve, no deduction from the depth on account of rise of floor shall be made (see Figure 35).

Article 29.

1. Should there be any recesses or projections in the double bottom or in the ordinary floors not extending from side to side of the ship, the depth of the transverse section is to be measured from the line of continuation of the tank-top or top of floor (see Figures 36 and 37). The recess or projection is to be measured separately and its cubic capacity respectively included in or excluded from the under-deck tonnage, provided in the latter case that the projection forms an integral part of the bottom construction of the ship.

2. Should a bottom ceiling exist under the hatchways only, no deduction for thickness of ceiling is to be made when ascertaining the tonnage depths of the various transverse sections in way of a hatchway. Such ceiling should, however, be measured separately and its cubic capacity excluded from the under-deck tonnage (see Figure 38).

Article 30.

When a transverse section is situated in way of a deck opening (*e.g.* hatchway, engine casing, etc.):

(1) The depth may be taken: at the side coaming, adding thereto the round of the beam due to the breadth of the opening;

or, alternatively:

(2) The depth at the side of the ship may be determined adding thereto the total round of beam (see Figure 39). This round of beam is determined as the average of the rounds of beam at the end-coamings of the opening.

After having measured the depth indicated above, the tonnage depth of the transverse section is to be determined by applying the provisions of Article 25.

ARTICLE 31.

Should there be any interruption in the tonnage deck, as indicated in Article 18, the depth of a transverse section situated in way of such an interruption is to be measured to the under side of the deck which continues the tonnage deck at a higher or lower level. Such depth shall be reduced or increased, as the case may be, by the distance from the line of continuation of the tonnage deck to the under side of the deck mentioned above (see Figure 40).

If there exists below the tonnage deck a recessed portion entirely open to the sea, and therefore not liable to inclusion in the gross tonnage (*e.g.*, the slipway in a whaling ship), such portion should be calculated separately and its cubic capacity excluded from the under-deck tonnage.

Number of Breadths.

ARTICLE 32.

The tonnage depth of every transverse section is to be divided into:

(*a*) Four equal parts, if the tonnage depth at the middle of the tonnage length does not exceed 16 feet or 4.88 metres;

(*b*) Six equal parts, if the tonnage depth at the middle of tonnage length exceeds 16 feet or 4.88 metres.

ARTICLE 33.

When the tonnage depth has been ascertained, the common interval between the breadths is determined by dividing the depth by the divisor indicated in Article 32. The common interval is calculated when using feet with three decimals, without taking account of the fourth decimal, and when using metres, with four decimals, without taking account of the fifth decimal. The points of division are now set off on one of the measuring rods, starting with the lowest point of division and setting off the common intervals from this point. When marking off the lowest point of division, care must be taken that this point is situated at the correct level above the actual lowest point of the tonnage depth. [1]

[1] In the case of a ship with a horizontal tank-top athwartship and a ceiling fitted on grounds, the measuring rod should be placed on top of the ceiling. The lowest point of division is now ascertained by setting off the common interval minus the height of grounds.

Measurements of Breadths.

ARTICLE 34.

The breadths of each transverse section are numbered from the top downwards, the upper breadth, at the level of the upper extreme point of the tonnage depth, being No. 1, the lowest breadth No. 5 or No. 7, as the case may be.

The breadths are measured perpendicularly to the middle plane through the points of division and the extreme points of the tonnage depth from ceiling to ceiling, if fitted, and, if not, between the inner edges of the frames. The thickness of the ceiling is also ascertained. The projecting parts of stringers, shelves, or other projecting constructions for strengthening are not to be regarded as ceiling (see Figures 41 and 42).

When spar ceiling in steel ships is not fitted directly against the edge of the frames, it is advisable to measure to the frames, and from the breadth thus obtained deduct the thickness of the ceiling measured horizontally.

Should there be no frame at the place where a breadth is to be taken, such breadth shall be measured to the shell, and the horizontal depth of the nearest frame deducted therefrom at each side.

If it is impossible to measure a breadth at its proper level, it should be measured as close thereto as possible. It should be very accurately ascertained how far above or below the proper level the breadth is being measured, and, if necessary, full particulars as to this should be given in the formulæ of measurement.

When measuring the upper and lowest breadth, the provisions of Articles 37 and 38 are to be observed.

Frames of Different Depths.

ARTICLE 35.

In ships with frames of different depths (see Figures 43 and 44), the breadths are taken to the shallower frames when the deeper frames are fitted more than two frame spaces apart. Should there be a ceiling, its thickness is to be deducted from the breadths thus ascertained, or the breadths are to be measured from ceiling to ceiling, as indicated in Article 34.

The above rule does not apply to ships with longitudinal frames of depths decreasing upwards towards the tonnage deck (see Figure 45). In such a case the provisions of the fourth paragraph of Article 34 are to be applied. Should there, however, be a ceiling, its thickness is to be deducted.

ARTICLE 36.

In the case of ships with side bulges incorporated in the hold of the ship — as, for instance, ships with corrugated sides — the

breadths are to be measured to an assumed line of framing (see Figure 46). If a ceiling is fitted, its thickness is to be deducted from the breadths thus ascertained.

Upper Breadth.

ARTICLE 37.

The upper breadth, situated at the level of the upper extreme point of the tonnage depth, must be measured immediately below the tonnage deck. Should it not be practicable to measure the breadth below the deck, the measurement may also be taken on top of the deck; but in this case it should be ascertained whether the depth of frames below and above the deck is the same and whether the sides of the ship at the level of the deck are vertical. Should the depth of frames above the deck be different from that below the deck, the measured breadth shall be corrected as indicated in Figure 47. Should there be either tumble-home or flaring sides, the measured breadth shall be corrected as indicated in Figure 48.

Lowest Breadth.

ARTICLE 38.

The lowest breadth situated at the level of the lowest extreme point of the tonnage depth must be measured on top of floors, or ceiling if fitted, or on the tank-top, as the case may be, in accordance with the following rules:

1. In ships with a double bottom the top of which is horizontal or falls or rises from the middle plane to the wings, the breadth is to be measured from ceiling to ceiling fitted on the knees connecting the double bottom with the frames (see Figure 49).

Should there be no ceiling on the said knees, the breadth is measured between the points of intersection of the knees with the tank-top (see Figures 50, 51, 52 and 53). If, however, the upper edge of the knees, or of the ceiling thereon, continues in line with the tank-top (see Figure 54), the breadth is to be measured to the inner edge of frames, or of the ceiling thereon if fitted. This last method shall also be used when, in the case of a tank-top extending to the sides of the ship, the knees are not fitted on every frame (see Figure 55).

2. In ships with a single bottom where the top line of floors is horizontal or falls or rises from the middle plane to the wings, the breadth is to be measured between the same points as indicated in paragraph 1 (see Figures 56 and 57).

Should there, however, exist no knees as described in paragraph 1, the breadth is to be measured between those points in

the wings where the top line of floors, or of the ceiling thereon, starts to rise towards the sides of the ship (see Figures 58, 59 and 60).

In case the line of inside framing, or ceiling if fitted, forms an easy continuous curve with the top line of floors, no correction for depth has been made, according to Article 28. The breadth will, in such a case, be nil or relatively small (see Figures 61 and 62). In the case of a wooden ship, the breadth should, in general, be equal to the breadth of the keelson (see Figure 63).

Area of Transverse Sections.

ARTICLE 39.

The areas of transverse sections are calculated by applying Simpson's Rule. Therefore the area of a transverse section is ascertained as follows:

(*a*) When five breadths are taken, they are to be multiplied:
Breadths Nos. 1 and 5 by 1;
Breadths Nos. 2 and 4 by 4;
Breadth No 3 by 2.

(*b*) When seven breadths are taken, the yare to be multiplied:
Breadths Nos. 1 and 7 by 1;
Breadths Nos. 2, 4 and 6 by 4;
Breadths Nos. 3 and 5 by 2.

The sum of the products thus obtained is multiplied by one-third of the common interval between the breadths, and this last product is the area of the section.

ARTICLE 40.

When it is not possible to measure a section at its correct position, it is measured as near to it as possible. The area of the correct section shall be determined by using the diagram of control curves indicated in Article 44.

Cubic Capacity of the Space below the Tonnage Deck.

ARTICLE 41.

Having calculated the area of each transverse section, the cubic capacity of the space below the tonnage deck is ascertained as follows:

The areas of the first and last transverse sections are multiplied by 1.

The areas of even-numbered transverse sections are multiplied by 4.

The areas of odd-numbered transverse sections (other than first and last) are multiplied by 2.

The sum of these products is to be multiplied by one-third of the common interval between the transverse sections. This last product gives the cubic capacity of the space below the tonnage deck in cubic feet or in cubic metres. The under-deck tonnage in register tons is obtained by dividing the number of cubic feet by 100 or by dividing the number of cubic metres by 2.83.

After having calculated the cubic capacity of the space below the tonnage deck, the cubic capacity of the spaces referred to in Article 29 or Article 31, paragraph 2, will be added thereto or deducted therefrom, as the case may be, and the remainder will constitute the under-deck tonnage of the ship.

Breaks in the Double Bottom or abrupt Change in the Depth of Floors.

ARTICLE 42.

Should there be a break or breaks in the double bottom, the space below the tonnage deck is to be measured in parts. Each part is to be measured as if it were a separate ship of a tonnage length equal to the length of the part; and, therefore, the length of each part should be divided as stated in Article 21, with the exception that, if the length is not more than 30 feet or 9.14 metres, it is only divided into two.

Within the meaning of this article, the word "break" shall apply to cases (*a*) where there is an abrupt change in the depth of the double bottom, and (*b*) where at the end of a partial double bottom the adjoining floors are of a depth different from that of the double bottom. The latter provision shall not apply to floors in peaks if such floors are deeper than the adjoining part of the double bottom (see Figures 64, 65, 66 and 67).

At the ends and at the points of division of each portion, transverse sections are measured, the tonnage depth measured at the middle of the tonnage length of the ship being the factor which determines if the other tonnage depths are to be divided into four or six equal parts, in accordance with Article 32.

The area of each transverse section and the cubic capacity of each part of the space below the tonnage deck are to be calculated in accordance with the rules given in Articles 39, 40 and 41, and the sum of the different parts will constitute the under-deck tonnage of the ship.

The procedure set forth in the first paragraph of the present article shall, subject to the provision of the last sentence of the second paragraph, also apply in the case of an abrupt change in the depth of floors in a ship with single bottom.

ARTICLE 43.

In ships with a deck below the tonnage deck, the measuring of the transverse sections must be executed partly below and partly above the lowest deck. This is done in the following way:

The positions of the transverse sections are marked on the owest deck, after which the distance from the top of this deck to

the under side of the tonnage deck at the middle plane at each transverse section is measured, and the thickness of the lowest deck is ascertained.

The positions of the transverse sections are then determined below the lowest deck and the depths from the under side of the lowest deck are measured. The sum of the depth taken in the lower hold, the thickness of the lowest deck and the depth taken in the upper hold, after applying the necessary corrections (see Article 25), constitutes the total tonnage depth. This depth is divided in the usual way in order to ascertain the points of division at which the breadths are taken.

The breadths are then measured in the lower hold, after which the breadths above the lowest deck should be taken. The positions of the latter breadths are determined by first marking off the correct position of the upper breadth.

Control Curves.

ARTICLE 44.

The dimensions measured on board shall be checked by means of a diagram of control curves made, for instance, as indicated below (see Figure 68).

This diagram shall in any case show such details as are necessary for calculating the under-deck tonnage.

1. The tonnage length shall be set off, drawn to scale, on a horizontal line AB. The points of division of this length numbered from fore to aft shall be marked. At each point of division a line at right angles shall be drawn on which, on a suitable scale, there shall be set off the tonnage depth of the corresponding transverse section. The uppermost points of those depths are then connected by a curved line formed by a batten. The curved line *cd* thus obtained is approximately equivalent to the sheer of the deck, if the top of double bottom or top line of ordinary floors is horizontal in the longitudinal direction. Should this curved line be regular and continuous, the various tonnage depths may be regarded as being accurate.

The points of division of each depth shall be set off on each of the lines perpendicular to AB, on which the depths have been marked off. Horizontal lines shall be drawn through the points of division and on these lines half the breadths measured at the corresponding points of division shall be set off on the adopted scale.

If the measurements have been taken accurately, the extreme points of the half-breadths will be connected by a regular curve; if this is not the case, the irregularities of the curve will show irregularities in the measurements.

2. (*a*) In cases where the lowest points of the tonnage depths of the various transverse sections are situated on a straight line or on a regular continuous curve, longitudinal curves of breadths of the same number will be drawn in the following way: starting from the base *xy*, distances equal to the half-breadths of the trans-

verse sections are set off on vertical lines corresponding to those sections.

If it is possible to connect the points corresponding to the breadths of the same numbers by lines forming regular curves, the accuracy of the measurements will be guaranteed.

(*b*) In cases where the lowest points of the tonnage depths of the various transverse sections are situated on a broken line, longitudinal curves situated in horizontal planes (water-lines) are drawn in the following way: a certain number of horizontal planes at an equal distance from each other (*e.g.*, seven numbered from I to VII) shall be taken parallel to the line AB.

To avoid confusion with the breadths of the transverse sections, these planes are only shown in the example (Figure 68) in the foremost and aftermost portions.

Each horizontal section thus determined meets the transverse sections at points which can easily be found. For half-sections 3 and 7 they intersect respectively at points h, i, j, k, l, m and n, and h′, i′, j′, k′, l′, m′ and n′. The next step is to determine the distance hg, ig, jg . . . . ng, h′g′, i′g′, j′g′ . . . . . n′g′ — *i.e.*, the respective distances between each of the points h, i, j . . . . . n, and h′, i′, j′ . . . . . n′ and the middle lines of sections 3 and 7. These distances shall be set off in a horizontal plane starting, from a base *xy* parallel to AB, on lines at right angles to this base, corresponding to the various transverse sections; h, i, j, k, l, m and n, and h′, i′, j′, k′, l′, m′ and n′, which are the extreme points of the distance set off, are thus obtained.

The same shall be done in the case of the other sections.

By joining the corresponding points h, i, j . . . . . n and h′, i′, j′. . . . . n′, the curves representing the horizontal sections I, II, III . . . . . VII are obtained. If the measurement is accurate, the curves will be regular.

3. On the vertical lines drawn at the points of division of the length, distances in proportion to the area of the sections should be set off to scale. The fact that the curve formed by the extreme points of these distances is regular will give an indication that the areas have been accurately measured and calculated. Errors will be shown by corresponding irregularities in the line of the curve.

4. The diagram of control curves not only provides an indispensable method of checking measurements and calculation; it also makes it possible, if necessary, to reconstitute a transverse section, the measurement of which has been prevented by material obstacles.

In such cases, at the time of measurement, it is advisable to take two subsidiary transverse sections situated respectively forward and aft of the inaccessible section and as near as possible to it (see Article 22). These two subsidiary sections, together with the regular sections which it has been possible to determine, assist in the finding of the curves of the breadths of the same number, or the curves of the horizontal sections, as the case may be.

On the vertical line passing through the point of division of the non-measured transverse section shall be taken the distances between the horizontal line representing the middle plane of the ship and the intersections of the vertical line with the curves (see lower part of Figure 68).

Such procedure may be followed both in the cases mentioned under 2 (*a*) and under 2 (*b*) of this article, and will make it easy to establish the transverse section. If the method of using the curves of the breadths of the same number has been followed, the distances obtained will correspond to one-half of the real breadths of the section.

Cubic Capacity of Double-Bottom Tanks.

ARTICLE 45.

The cubic capacity of each double-bottom tank, which must be known when determining the maximum allowance for water-ballast spaces (see Article 70), is ascertained as indicated below:

If the length of the tank does not exceed 50 feet or 15.25 metres, three breadths and three heights are taken, but if it exceeds 50 feet or 15.24 metres, the number of breadths and heights to be taken will be five.

The length of each tank is measured between the floors at the ends of the tank. At the points of division of the length and at its ends the heights are then measured at a distance of one-quarter of the tank-top breadth from the middle plane. The breadth is measured at each section where a height has been taken, at the middle of the height. If a tank is of an irregular shape, it must be measured in parts.

All measurements shall be taken to the shell, the margin plates, and the under side of the tank-top, regardless of stiffeners, or shell and side frames (see Figures 69, 70, 71 and 72).

The cubic capacity of each tank is determined in the following way:

The sum of the two end breadths plus four times the middle breadth in the case of three breadths, or the sum of the two end breadths plus four times the even breadths, plus twice the middle breadth in the case of five breadths, is multiplied by one-third of the common interval between the breadths. The area so obtained is multiplied by the mean height (*i.e.*, the arithmetic mean of the various heights measured), and 95 per cent of this last product gives the cubic capacity of the tank in cubic feet or in cubic metres. The capacity in register tons is obtained by dividing the number of cubic feet by 100 or by dividing the number of cubic metres by 2.83.

The cubic capacity in register tons or in cubic metres of each double-bottom tank or each separate compartment of the double-bottom should be noted on the tonnage certificate.

The cubic capacity of any space in a double bottom not available for the carriage of water ballast, stores, fuel oil or cargo is not to be included in the cubic capacity of the double-bottom tanks.

'Tween-Deck Spaces.

ARTICLE 46.

The spaces situated between the tonnage deck and the upper deck, and which are hereinafter designated as 'tween-deck spaces, shall be measured and included in the gross tonnage. Each 'tween-deck space is measured between two successive decks.

ARTICLE 47.

The provisions of Articles 11, 12 and 13 shall apply *mutatis mutandis* to the measurement of 'tween-deck spaces.

Methods for the Measurement of 'Tween-deck Spaces.

ARTICLE 48.

The measurement of a 'tween-deck space shall be carried out according to one of the methods indicated hereafter.

Method 1. — (*a*) The length of the space is measured in two parts. Length 1 is taken in the middle plane, at the middle of the height fore and aft, from the ceiling or the frames, as the case may be, at the stem, to the foreside of the stern post. Length 2 is taken in the middle plane, at the middle of the height, from the foreside of the stern post to the inner edge of the stern frame, or of the ceiling thereon (see Figure 73).

(*b*) Length 1 shall be divided into a number of equal parts in conformity with the provisions of Article 21, and length 2 shall be divided into four equal parts. At the extreme points of both lengths and at their various points of division the inside breadths are then measured at the middle of the height, and in conformity with the provisions of Articles 34, 35 and 36. In most cases the breadth at the stem and the breadth at the after extreme point of length 2 will be equal to nil.

(*c*) The height shall be measured in the middle plane at each point of division. Should there, however, exist a difference in the round of beam of the two decks between which the space is to be measured, the height shall be measured at one-fourth of the corresponding breadth. The heights shall be measured from the upper side of the lower deck (or from the upper side of the permanent deck covering, such as deck-planking, concrete, rubber, etc., thereon) to the under side of the deck overhead. Should there exist a panelling or similar covering at the underside of this deck, the heights shall be taken through such panelling or covering.

Method 2. — (*a*) The whole length [1] of the space in the middle plane, at the middle of the height, will be ascertained between the same points at the stem and stern as indicated under Method 1.

(*b*) The whole length shall be divided into a number of equal parts in conformity with the provisions of Article 21, and the last two common intervals shall each be divided into two equal parts. The breadth shall then be measured at the extreme point forward of the whole length, at its points of division, and also at the points of division of the last two common intervals. Each breadth is to be measured at the middle of the height and in conformity with the provisions of Articles 34, 35 and 36.

(*c*) The height shall be measured at each point of division of the whole length. In ascertaining such heights, the prescriptions given under Method 1 (*c*) shall apply.

Method 3 (*Special Cases*). — (*a*) In square-sterned ships, where the aftermost breadth can be measured at the extreme point aft of the whole length of the 'tween-deck space, and in ships with a 'tween deck space the after part of which has a shape similar to that of its fore part (see Figure 74), no special measurement of the after part is required. In the latter case the breadth at the extreme point aft of the whole length will be nil or almost nil.

(*b*) Once the whole length has been measured and divided, as indicated in Article 21, the breadths shall be measured at each point of division and also at the extreme points of the whole length. Such breadths shall be measured at the middle of the height and in conformity with the provisions of Articles 34, 35 and 36.

(*c*) The heights shall be measured at each point of division of the whole length. In ascertaining such heights, the prescriptions given under Method 1 (*c*) shall apply.

Cubic Capacity of a 'Tween-deck Space.

ARTICLE 49.

The cubic capacity of a 'tween-deck space is determined as follows:

1. In case Method 1, mentioned in Article 48, has been used, the breadths of the fore part of the space are numbered, No. 1 being at the stem, and the last number at the fore side of the stern post. The first and last-numbered breadths are then multiplied by one, the other odd-numbered breadths by two, and the even-

[1] Once the tonnage length has been ascertained, the whole length of the 'tween-deck space will easily be found by adding to or deducting from the tonnage length, as the case may be, the length of the horizontal distance, measured in the middle plane, between the extreme points of the tonnage length and the points at the stem and stern, mentioned above (see Figure 73).

numbered breadths by four. The sum of these products shall be multiplied by one-third of the common interval between the breadths, after which the areas thus obtained are multiplied by the mean height (*i.e.* — the arithmetic mean of the heights measured at each point of division of length 1, not taking into account the heights at the fore and aft extreme points of this length). This last product gives the cubic capacity of the fore part of the space in cubic feet or in cubic metres. The provisions of Article 41 shall apply with regard to the conversion into register tons.

The breadths of the after part of the space are then numbered, No. 1 being the breadth at the fore side of the stern post and No. 5 the breadth at the after extreme point of length 2. The sum of the first and last breadths, plus four times the second and fourth breadths, and plus twice the middle breadth shall be multiplied by one third of the common interval between the breadths. The area thus obtained shall then be multiplied by the mean height, as defined above, and this last product gives the cubic capacity of the after part of the 'tween-deck space in cubic feet or in cubic metres.

The sum of the cubic capacity of the fore and after part constitutes the cubic capacity of the whole 'tween-deck space.

2. In case Method 2, mentioned in Article 48, has been used, the breadths of the whole space shall be numbered from fore to aft, No. 1 being the breadth at the stem. The cubic capacity of the whole 'tween-deck space is ascertained as indicated in the first explanatory note to Figure 75.

As an alternative method, it is also possible to calculate the aftermost breadth by determining the area extending aft of the penultimate point of division of the whole length by means of a planimetre as shown in Figure 75. Once the correct aftermost breadth has thus been determined, the cubic capacity of the whole 'tween-deck space is ascertained as indicated in the second explanatory note to Figure 75.

3. In case Method 3, mentioned in Article 48, has been used, the breadths shall be numbered in the usual way from fore to aft. The cubic capacity of the whole space is then ascertained by applying the provisions given in paragraph 1 of the present article for the determination of the cubic capacity of the fore part of a 'tween-deck space.

Superstructures.

ARTICLE 50.

The spaces of a permanent character situated on or above the upper deck, and which are hereinafter designated as superstructures, shall be measured and, subject to the conditions laid down in Article 51 and to the exceptions provided for in Article 58, shall be included in the gross tonnage.

ARTICLE 51.

Subject to the exceptions provided for in Article 57, any closed superstructure (*e.g.*, forecastle, poop, bridge, deck-houses, etc.) available for cargo or stores or for the berthing or accommodation of passengers or crew shall be included in the gross tonnage.

Spaces which, in accordance with the provisions of Article 58, are deemed to be open spaces, if available, fitted and used for the berthing or accommodation of passengers or crew, shall be included in the gross tonnage. With regard to the inclusion in the gross tonnage of spaces partially used for crew or passengers, see Figure 76.

If the enclosures (coverings, bulkheads, etc.) of a superstructure are constructed in such a way [1] that doubt may arise whether such superstructure should be considered to be of a permanent character, a sketch of the superstructure, with detailed description of its construction, shall be attached to the formulæ of measurement.

ARTICLE 52.

The provisions of Articles 11, 12 and 13 shall apply *mutatis mutandis* to the measurement of superstructures.

Measurement of Superstructures.

ARTICLE 53.

The measurement of superstructures shall be carried out tier by tier in the following manner:

1. The inside lengths and breadths shall be taken to the inner edges of the frames, or of the normally spaced stiffeners of the bulkheads, or to the linings if fitted, and the heights from the upper side of the lower deck (or from the upper side of the permanent deck covering, such as deck-planking, concrete, rubber, etc., thereon) to the under side of the deck. Should there exist any panelling or similar covering at the under side of this deck, the heights shall be taken through such panelling or covering.

Should there be some doubt as to whether the spacing between the bulkhead stiffeners is to be considered as normal, the depth of such stiffeners and the spacing shall be indicated on the formulæ of measurement, together with a detailed description as to how the measurements have been taken.

If different thicknesses of deck covering exist in parts of a superstructure, the excess in thickness is neglected if the surface of the deck covered by a layer of greater thickness is small in comparison with the whole surface. In other cases, an average thickness of deck covering is taken.

[1] *e.g.*, by jamming or wedging.

2. The provisions of Article 48 relating to 'tween-deck spaces shall apply to the measurement of a poop or break extending right aft to the stern, subject to the special conditions mentioned hereafter:

Length in the case of application of Method 1, or the whole length in case of application of Methods 2, or 3, shall be divided into a number of equal parts in conformity with the following table:

Length	Number of parts
50 feet = 15.24 metres, or less	2
Above 50 feet = 15.24 metres, but not more than 225 feet = 68.58 metres . .	4
Above 225 feet = 68.58 metres.	6

If length 1, or the whole length, has been divided into two equal parts only, the heights shall be measured also at the extreme points of these lengths.

3. The length of other superstructures (*e.g.*, forecastle, bridge, etc.) shall also be divided into a number of equal parts in conformity with the above table. The length of a forecastle is to be measured from the same point at the stem as indicated in Article 48, Method 1, for the measurement of 'tween-deck spaces.

The breadths shall be measured at each point of division and at the extreme points of the length in conformity with the relevant provisions of Article 48 and of paragraph 1 of the present article.

If the length has been divided into two equal parts only, the heights shall be measured also at the extreme points of the length, and, for the remainder, the relevant provisions of Article 48 and of paragraph 1 of the present Article shall apply.

4. In the case of a superstructure not extending from side to side (*e.g.*, deck-houses, etc.), the bulkheads of which form exactly or approximately a rectangle, it will be sufficient to measure one breadth at the middle of the length.

In such a case the way in which the height shall be measured will depend upon the situation of the superstructure and on the difference in round of beam of the decks overhead and underneath (see Figure 77).

5. If a superstructure is irregular in shape, it shall be measured in parts.

Cubic Capacity of a Superstructure.

ARTICLE 54.

The cubic capacity of a superstructure is determined as follows:

1. The breadths having been numbered from fore to aft, the provisions of Article 49 relating to the determination of the cubic

capacity of 'tween-deck spaces shall apply for the purpose of ascertaining the cubic capacity of a superstructure. Should the length, however, have only been divided into two equal parts, the sum of the two end breadths, plus four times the middle breadth, shall be multiplied by one-third of the common interval between the breadths. The area so obtained is multiplied by the mean height (*i.e.*, in this case the arithmetic mean of the three measured heights) and this last product gives the cubic capacity of the superstructure in cubic feet or in cubic metres.

2. In the case of the superstructures referred to in Article 53, paragraph 4, the length is multiplied by the breadth, and the area thus obtained is multiplied by the arithmetic mean of the measured heights. This last product gives the cubic capacity of the superstructure in cubic feet or in cubic metres.

Hatchways.

ARTICLE 55.

The cubic capacity of a hatchway is obtained by multiplying the inside length by the mean inside breadth, and the product by the mean height (*i.e.*, the arithmetic mean of the heights measured from the under side of the deck to the under side of the hatch covers).

If the aggregate cubic capacity of the hatchways exceeds one-half per cent of the portion of the gross tonnage consisting of the under-deck tonnage, the 'tween-deck spaces, the non-exempted superstructures and such light and air spaces for the machinery space as may be included, the excess shall be incorporated in the gross tonnage.

ARTICLE 56.

The aggregate cubic capacity of the hatchways shall consist of the sum of the cubic capacity of all hatchways leading to spaces which are included in the gross tonnage. Therefore a hatchway leading to an exempted space, as defined in Articles 57 and 58, shall not be reckoned in this aggregate. The cubic capacity of a hatchway, however, situated within an open space but leading to a space included in the gross tonnage, shall form part of the said aggregate cubic capacity.

Hatchways leading to spaces which are not included in the gross tonnage shall nevertheless be measured, and their dimensions be stated on the formulæ of measurement.

The portion of a closed-in trunk (*e.g.*, coal-shoot) situated within the boundaries of a superstructure shall be treated as a closed superstructure and therefore included in the gross tonnage (see Figure 78), except where the said trunk leads to an exempted space (see Figure 79).

Closed Superstructures exempted from Inclusion in Gross Tonnage.

ARTICLE 57.

The following spaces situated on or above the upper deck shall not be included in the gross tonnage, provided that they are solely appropriated to, adapted and used entirely for the purposes mentioned:

1. Spaces which may be regarded as forming part of the propelling machinery space, or as serving for the admission of light and air thereto. The provisions of Article 74 shall apply with regard to the treatment of such spaces.

2. Spaces fitted with any sort of machinery, not forming part of the propelling machinery. Within the meaning of the present Article the following shall be regarded as machinery: anchor gear, chain locker, steering gear, pumps, refrigerating apparatus and distilling plant, lifts, laundry machinery, boilers and machinery for the preparation of whale oil, fish oil or guano, dynamos, storage batteries, fire-extinguishing apparatus, etc. The same provision shall apply with regard to such donkey boilers which, in accordance with Articles 78 and 79, are not to be regarded as forming part of the propelling machinery.

3. The space for sheltering the man or men at the wheel (wheel-house). If a space is used partly as a wheel-house and partly as a chart-room, the portion of it that is used as a wheel-house shall be exempted from inclusion in gross tonnage.

4. Spaces serving as galleys or bakeries fitted with ranges or ovens, without regard to the category of persons which these spaces serve.

5. Spaces such as skylights, domes and trunks, affording ventilation and light to spaces thereunder. None of the space below the roof or covering of a superstructure shall, however, be exempted from inclusion in the gross tonnage, except when there is an opening left in the floor of the superstructure under the skylight, dome or trunk to give ventilation and light to spaces below such floor (see Figures 80 and 81).

6. Spaces such as companions and booby-hatches serving as a protection for companion-ways, stairways or ladderways leading to spaces below. Should a companion-way not bulkheaded off be situated within a space used for other purposes, such as a smoking-room, only the portion of the space directly above the companion-way shall be exempted. Companion-ways (stairways or ladder-ways) directly situated below companions or booby-hatches shall also be exempted from inclusion in gross tonnage (see Figures 82, 83, 84, 85 and 86).

7. Spaces occupied by water-closets, privies and urinals for officers, crew and passengers. No exemption shall, however, be

granted for such spaces for the use of which a special charge is levied from passengers, nor shall such spaces be exempted from inclusion in gross tonnage when they form part of passengers' suites.

In cases where water-closets and urinals are combined with a lavatory in the same place, the space occupied by the lavatory shall not be exempted, unless its size is small as compared with the space occupied by the water-closets and urinals (see Figure 87).

The exemption of the spaces referred to in items 2 to 6 shall depend on the condition that such spaces are no larger than required for their purpose.

All the spaces enumerated in the present article shall be measured and entered on the formulæ of measurement under a separate heading. The measurements shall be taken externally, except where such space has part of the shell or of a bulkhead in common with a superstructure of which it forms part, in which event the length and breadth should be measured to the same surface, as in the case of the superstructure (see Figures 88 and 89). For the rest, the relevant provisions of Articles 53 and 54 shall apply as regards the measurements and the calculation of the cubic capacity.

If such spaces are situated within a superstructure, it will in general be most practical to measure first the whole superstructure and then separately the said spaces which are not to be included in the gross tonnage (see Figure 84). The cubic capacity of the said spaces shall be subtracted from the cubic capacity of the whole superstructure, and the remainder shall be included in the gross tonnage.

In cases in which, in conformity with the prescriptions of the present article, it has been found necessary to reduce the space to be exempted, on account of such space being unreasonably large or available for other purposes than those mentioned under 2 to 6 inclusive, the exemption will be limited to the space strictly necessary for the purpose — for instance, in the case of machinery it will be limited to the space strictly occupied by such machinery and necessary for its working. As a general rule, however, the full height of the space may be taken into account. Should the exemption have been limited, the limited measurements, as well as the measurements of the whole space, shall be stated on the formulæ of measurement.

Open Spaces exempted from Inclusion in Gross Tonnage.

ARTICLE 58.

As an exception to the general rule laid down in Article 50, but subject to the conditions of Article 51, the space situated between the upper deck and the shelter deck — commonly called "shelter-deck space" — and other superstructures shall be

exempted from inclusion in gross tonnage when they are deemed to be open spaces, in conformity with the following provisions:

I. A space shall be considered "open" for the purpose of tonnage measurement if a bulkhead or covering consists of expanded metal or similar grating or of planks with intervals from each other of more than 0.25 foot or 0.076 metre, in the case of a bulkhead, or than 0.08 foot or 0.025 metre, in the case of a covering.

II. (a) *Openings in Decks or Coverings.* — 1. A space shall be considered to be open for the purpose of tonnage measurement when there is an opening in the centre of the deck or covering above such space. The length of this opening shall not be less than 4 feet, or 1.219 metre, and the breadth shall be at least equal to that of the nearest cargo hatch on the same deck or covering, but in no case should the clear surface of the opening be less than 64 square feet, or 5 946 square metres.

2. If exemption from inclusion in gross tonnage is claimed for a shelter-deck space of part of it, the distance between the aft side (after coaming) of the deck opening and the aft side of the stern post shall not be less than one-twentieth of the identification length of the ship when the opening is situated aft; or the distance between the fore side (fore coaming) of the deck opening and the fore side of the stem shall not be less than one-fifth of this length if the opening is situated forward.

3. If coamings are fitted, their mean height above the deck or covering shall not exceed 1 foot, or 0.305 metre. Guard-rails, stanchions or sockets around the opening shall be fitted in such a way as to prevent any battening down of the opening; if coamings exist, the stanchions or sockets shall be riveted to the upper edge of the coamings. Only portable wooden covers are allowed, and it is permissible to hold such covers in place by lashings beneath of cordage (not steel wires) of hemp or similar material (see Figure 90).

4. Tonnage openings in the deck shall not be enclosed within a superstructure, open or otherwise (see Figure 91).

(*b*) *Openings in the Sides of the Ship or in the Side Bulkheads of a Superstructure.* — 1. A space shall be considered to be open for the purpose of tonnage measurement when there are one or more openings on both sides in the shell or in the side bulkhead of a superstructure. When there is only one opening at each side, its length shall not be less than 20 feet, or 6.096 metres, and its height shall not be less than 3 feet, or 0.914 metre. When there is more than one opening in each side, the length of each opening shall not be less than 10 feet, or 3.048 metres, and the height shall not be less than 3 feet, or 0.914 metre, and, moreover, in such a case, the area of the side openings on each side shall not be less than 90 square feet, or 8.361 square metres (see Figures 92 and 93).

2. Should there be a well between closed thwartship bulkheads, the openings in the shell or in the side bulkheads shall have a length of 20 feet, or 6.096 metres, if possible, and in no case less than three-fourths of the average length between the thwartship bulkheads, and the area of the opening on each side shall be at least 60 square feet, or 5.574 square metres.

3. All side openings shall be in corresponding positions on both sides of the ship or of the superstructure; they shall not be fitted with any means of closing whatsoever. The only means allowed for closing side openings are shifting boards, fitted in channel-bars riveted to the shell or to the side bulkheads. Neither the shell or bulkheads at the openings, nor the channel-bars, nor the frames crossing the openings are to be provided with holes, hinges, eye-bolts, cleats or any other means which may serve in permanently closing or battening down the openings.

4. Side openings shall not be enclosed by bulkheads or otherwise.

(c) *Openings in Thwartship Bulkheads.* — 1. A space shall be considered to be open, for the purpose of tonnage measurement:

(*i*) When there are, in one of the end bulkheads, two tonnage openings, one on each side of the middle plane. If coamings are fitted, their minimum height shall not exceed 2 feet, or 0.610 metre. The height of opening shall in no case be less than 4 feet, or 1.219 metre, and the breadth shall be at least 3 feet, or 0.914 metre;

(*ii*) When there is, on one of the end bulkheads, one single tonnage opening of at least 5 feet or 1.524 metre in height and 4 feet or 1.219 metre in breadth, provided that the opening is situated as near as is practicable to the middle plane of the space concerned or of the ship if the space extends from side to side (see Figures 94, 95 and 96).

2. The openings may only be closed either by shifting-boards fitted in channel-bars, the latter being riveted to the bulkheads or by loose plates held in place by hook bolts or by bolts on loose strongbacks, the bolts not passing through the bulkhead. The bulkheads or the channel-bars at the openings must not be provided with holes, hinges, eye-bolts, cleats or any other means which may serve in permanently closing or battening down the openings.

3. If the space is subdivided by bulkheads, such bulkheads shall have openings of the same dimensions as indicated hereabove, but no coamings are allowed to any tonnage opening in an intermediate bulkhead [1] (see Figure 97).

[1] Thwartship bulkheads delimiting a space situated immediately underneath a deck-opening or between two side-openings shall not be considered as intermediate bulkheads but as end bulkheads, and therefore coamings to tonnage openings in such bulkheads are allowed (see Figure 90).

4. Where exemption of any superstructure depends on the existence of a tonnage opening or openings in the boundary bulkhead, there shall not exist in this bulkhead any other means of access to the exempted space (see Figure 98).

5. Spaces which are entirely open from deck to deck with no means of closing shall be exempted, provided the breadth of such spaces is at least 3 feet, or 0.914 metre (see Figure 99).

(d) *General Provisions.* — 1. All tonnage openings on account of which exemption from inclusion in gross tonnage is claimed shall be so situated as to be open to weather and sea.

2. The dimensions of tonnage openings indicated above serve to determine the clear minimum area of an opening; therefore, the minimum length shall exist over the total minimum breadth (see Figure 100) or the minimum height over the total minimum length (see Figures 92 and 93).

3. In ascertaining the dimensions of tonnage openings, the projection or bars, stanchions, sockets or similar fittings shall be taken into account as reducing the clear area of such openings. In the case of side openings, however, shell flanges of frame angles may encroach on the free surface of the openings (see Figures 92 and 93).

Article 59.

Open superstructures and open shelter-deck spaces, as defined in Article 58, shall always be measured and entered on the formulæ of measurement with an exact description indicating the dimensions of the openings. The measurement shall be carried out in accordance with the provisions of Article 48 [1] or 53, as the case may be.

The calculation will be carried out as indicated in Articles 49 and 54.

Should there be superstructures within an open space (see Figure 90) liable to inclusion in gross tonnage, or hatchways, or spaces as referred to in Article 57, or spaces that may be regarded as forming part of the propelling machinery space (casings, etc.), all such spaces shall be measured separately and entered on the formulæ of measurement. Each of these spaces shall be treated, with regard to its inclusion or non-inclusion in gross tonnage, as indicated in the relevant articles.

The dimensions and the cubic capacity of each open space, as defined in Article 58, shall be stated on the tonnage certificate

[1] In general, a shelter-deck space will not be open from stem to stern. In most cases there will be a closed bulkhead forward and a closed bulkhead aft (see Figure 90); therefore, the provisions of Article 48 will only be applicable in very rare cases.

under a special heading. From this cubic capacity shall be subtracted the cubic capacity of such spaces situated within the open space as are indicated in the preceding paragraph, and the difference constitutes the net cubic capacity of the open spaces concerned. In cases where there is an important difference between the internal and external dimensions of a closed space situated within an open space (*e.g.*, an insulated provision room), the external dimensions shall be used in applying the above rule.

The following example, which refers to Figure 101, indicates in what manner the cubic capacity of the open part of a shelter-deck space is to be entered on the tonnage certificate:

Open Part of a Shelter-deck Space.

Total cubic capacity:

H = 8 ft. (2.44 m.); L = 360 ft. (109.8 m.);

B = { 34 ft. (10.36 m.), 48 ft. (14.63 m.), 56 ft. (17.07 m.), 56 ft. (17.07 m.), 56 ft. (17.07 m.), 53 ft. (16.15 m.), 50 ft. (15.24 m.) } = 1,497.60 tons (4,238.21 m³)

Less superstructure (n), hatchways (o) and engine casing 150 tons (424.50 m³).

Net cubic capacity ..... 1,347.60 tons (3,813.71 m³).

Open Well.

H = 8 ft. (2.44 m.); L = 6 ft. (1.83 m.);

B = { 50 ft. (15.24 m.), 49.5 ft. (15.09 m.), 49 ft. (14.93 m.) } = 23.76 tons (67.24 m³).

Shelter for Deck Passengers.

Article 60.

Notwithstanding the provisions of the first paragraph of Article 51, closed superstructures exclusively used for the shelter, without extra charge, of deck passengers in ships employed on short voyages may be exempted from inclusion in the gross tonnage, on decision of the central tonnage measurement authority concerned.[1]

[1] It is to be noted that the following conditions should be fulfilled: There shall be a separate space for female passengers and the crew should have no access to a shelter for deck passengers except in cases of emergency. The spaces shall be provided with water-closets, but no other accommodation than for seating shall be fitted, and no provision is to be made for serving meals or refreshments in such spaces.

The application for exemption shall be accompanied by a scale-drawing, showing the space or spaces and indicating the water-closets and other accommodations (if any). On the drawing shall also be indicated the possible connections (doors, staircases, etc.) between the said space or spaces and other parts of the ship.

The measurement and calculation shall be carried out as indicated in Articles 53 and 54, and the cubic capacity (excluding water-closets, which have already been exempted in accordance with Article 57) shall be stated under a special heading in the tonnage certificate.

PART IV.

MEASUREMENT AND CALCULATION OF DEDUCTIONS UNDER RULE I.

Master's Spaces.

ARTICLE 61.

Any space appropriated to and used exclusively for the accommodation of the master shall be deducted from the gross tonnage, to the extent of what is considered as reasonable.

The deductible master's spaces must conform with the national regulations as to the accommodation of master and crew, and, before deduction will be granted for such spaces, they must be certified as for the exclusive use of the master.

The deductible master's spaces may include a sleeping-room, with a living-room adjacent[1] thereto and a bathroom. In case the master's quarters are not adjacent to the wheel-house or chartroom, a master's watchroom, if existing adjacent to the wheel-house or chartroom, may also be included in the deductible spaces.

Crew Spaces.

ARTICLE 62.

Any space occupied by the crew and appropriated exclusively to their use shall be deducted from the gross tonnage.

The expression "crew" shall include every person (except master and pilots) employed or engaged in any capacity on board the ship during her intended voyage. In a pilot-ship, only the pilots required for the ordinary navigation of the pilot-ship may be regarded as members of the crew.

The rule given in the second paragraph of Article 61 shall also apply to the deductible crew spaces.

The deductible crew spaces may consist of sleeping-rooms, mess-rooms, bathrooms, washing-places, wardrobe, drying-rooms, smoke-rooms, recreation-rooms, libraries, hospitals, etc.

The chief engineer's and chief officer's office or living-room adjacent[1] to their sleeping-room may be deducted provided no berth is fitted therein. Offices for other officers, pursers and stewards shall not be deducted, nor the doctor's consulting-room on a passenger-ship.

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[1] The expression "adjacent" is meant to apply also to rooms separated by a passage-way.

Combined Master's and Crew Spaces and Passage-ways.

ARTICLE 63.

Pantries, galleys, bakeries, spaces occupied by drinking-water filtration or distilling plant, and water-closets, privies and urinals for the exclusive use of the master and crew shall be deducted, if such spaces have not been exempted from the gross tonnage, in accordance with the provisions of Article 57. On a cargo ship, where no hospital exists, a dispensary-room may be deducted.

Passage-ways and stairways exclusively serving as access to master's and crew spaces, whether such spaces are deducted or exempted, shall be deducted. This also applies when such passage-ways and stairways at the same time serve as access to other deducted or exempted spaces (including propelling-machinery spaces) (see Figure 102). Passage-ways and stairways leading to master's or crew spaces, but constituting at the same time the only access to other non-deductible spaces, are not to be deducted (see Figure 103).

Spaces properly constructed, strictly necessary and exclusively used for the storage of liquid and solid provisions for the master and crew, shall also be deducted. The deduction thus allowed shall, however, not exceed fifteen per cent of the other deductible master's and crew spaces.

Food-lockers may be deducted without any restriction in ships where the master and crew provide their own food, but no deduction for a provision-room shall be made in such cases.

ARTICLE 64.

Spare rooms shall not be deducted. The existence, however, of one spare room for the use, *e.g.*, of a pilot or extra officer will not be considered as rendering the ship a passenger-ship, on condition that the said spare room is fitted with not more than two berths, including sofa-berths.

In passenger-ships having no dining-saloon, smoke-room, pantry, galley, bakery, drinking water filtration or distilling plant, bathroom, washing-place, water-closet, privy or urinal intended for the exclusive use of passengers, the deduction for the corresponding master's or crew spaces shall be cancelled. In the case, however, of ships carrying unberthed passengers, such as pilgrims, and not having any accommodation for berthing passengers, this rule shall not apply, except in respect of water-closets, privies or urinals.

Within the meaning of the present article, the expression "passenger-ship" shall include any ship carrying paying passengers, or any ship (even if not carrying passengers) having more than one spare room.

ARTICLE 65.

The spaces referred to in Articles 66 to 71 inclusive shalls within the meaning of the present Regulations, be deemed "space,

for navigation and for working of the ship ", indicated in Article 7 under No. 2, and shall be deducted from the gross tonnage subject to the conditions laid down in those articles, and provided that they have not been exempted according to the provisions of Article 57.

The spaces for navigation and for working of the ship consist of:

(*a*) Navigation spaces (except donkey-boilers and main pumps) (Article 66).

(*b*) Spaces for donkey-boilers and for main pumps (Article 67).

(*c*) Spaces for pumping installations in ships carrying liquid cargo in bulk (Article 68).

(*d*) Spaces for boatswain's stores (Article 69).

(*e*) Sail-room spaces (Article 70).

(*f*) Water-ballast spaces (Article 71).

Spaces for Navigation
(except Donkey-Boilers and Main Pumps).

ARTICLE 66.

Spaces used exclusively for the navigation of the ship shall be deducted from the gross tonnage to the extent of what is considered reasonable.

The deductible navigation spaces will generally include rooms for keeping and using charts and instruments of navigation, wireless telegraphy and telephony spaces, [1] rooms for keeping navigation lamps, flags, rockets, etc., spaces for submarine signalling and sounding apparatus, rooms for automatic-steering compasses, gyro-stabilisers or similar apparatus and spaces for the helm, steering-gear, capstan and anchor gear with chain lockers.

In ships where part of the wheel-house is used as a chartroom, such part (which is not exempted) shall be deducted.

In cases where the helm, steering-gear, capstan, anchor-gear or similar appliances are situated in rooms larger than is necessary for the purpose, the actual space occupied by each of these appliances shall be deducted; and, in addition, an allowance will be made on every side of the apparatus for the space necessary for its working (in general, not more than 2 feet or 0.610 metre on all sides). The total height to be allowed should, as a rule, not exceed that of an ordinary 'tween-deck space.

Donkey-Boilers and Main Pumps.

ARTICLE 67.

Subject to the provisions of Article 79 relating to the treatment of donkey-boiler spaces which may be regarded as part of the propelling-machinery space, the space actually occupied by donkey-boilers, if connected with the main pumps of the ship, shall be

[1] But not the waiting-room for passengers.

deducted even if the donkey-boilers may be used at the same time for working the cargo winches or for similar purposes.

If the donkey-boilers are not connected with the main pumps, but serve exclusively for the working of the capstan, anchor-gear, steering-gear or similar appliances for navigation purposes, the space occupied may be regarded as navigation space, and therefore shall be deducted as such.

Spaces occupied by and necessary for the working of bilge pumps and for exclusive access to same shall be deducted. The same provision shall apply to pumps for water ballast if available for pumping out the ship.

If a donkey-boiler, a bilge pump or a water-ballast pump, fulfilling the above conditions, is situated within the boundaries of the propelling-machinery space and is not to be regarded as part of the propelling machinery, only the spaces strictly occupied by the said appliances shall be deducted and stated on the formulæ of measurement under Spaces for Navigation and Working of the Ship

Pumping Installations in Ships carrying Liquid Cargo in Bulk.

ARTICLE 68.

In ships carrying liquid cargo in bulk, deduction shall be made for spaces occupied by and strictly necessary for access to and for working pumps serving as cargo pumps, provided such pumps are at the same time available for pumping out the ship.

The deductible pump-room space shall be determined as follows:

The space occupied by and necessary for working of a pump shall have a height equal to that of the pump, or of 7 feet, or 2.135 metres, whichever is the larger, and a horizontal area consisting of the floor space occupied, with sufficient space around for efficient working.

The space necessary for access shall have a height extending from the top of the space hereabove-mentioned to the upper deck and a horizontal area having one dimension equal to the breadth of the ladder and the other of 3 feet or 0.914 metre, but not exceeding 6 square feet or 0.557 square metre.

The total allowance for pump-rooms shall not exceed the figures indicated in the table hereafter:

Gross tonnage	Deduction not to exceed: Percentage of gross tonnage	Tons or cubic metres, total
Over 3,000 T. (8,490 m³)	0.9	60 T. (169.80 m³)
Over 1,500 T. (4,245 m³) up to and including 3,000 T. (8,490 m³)	1.2	27 T. (76.41 m³)
Over 500 T. (1,415 m³) up to and including 1,500 T. (4,245 m³)	2	18 T. (50.94 m³)
500 T. (1,415 m³) or less	4	10 T. (28.30 m³)

Boatswain's Stores.

ARTICLE 69.

Subject to the restrictions stated below, any space exclusively appropriated to and used for the keeping of boatswain's stores shall be deducted from the gross tonnage.

The expression "boatswain's stores" shall include all stores necessary for working and upkeep of the ship and which are in charge of the boatswain. In general, the boatswain's stores will contain wires, hawsers, cordage, tar, paint, blocks, shackles, awnings, tarpaulins, tackles, brooms, swabs, buckets, etc.

The allowance for boatswain's store shall be limited according to the following scale:

Gross tonnage	Deduction not to exceed: Percentage of gross tonnage	Tons or cubic metres, total
Over 20,000 T. (56,600 m³)	1/2	125 T. (318.18 m³)
Over 10,000 T. (28,300 m³) up to and including 20,000 T. (56,600 m³) . .	3/4	100 T. (283.00 m³)
Over 2,000 T. (5,660 m³) up to and including 10,000 T. (28,300 m³) . .	1	75 T. (212.25 m³)
Over 1,000 T. (2,830 m³) up to and including 2,000 T. (5,660 m³) . . .	1½	20 T. (56.60 m³)
Over 500 T. (1,415 m³) up to and including 1,000 T. (2,830 m³) . . .	2	15 T. (42.45 m³)
Over 150 T. (424.50 m³) up to and including 500 T. (1,415 m³).	2½	10 T. (28.30 m³)
150 T. (424.50 m³) or less	—	3 T. (8.49 m³)

If in ships having a gross tonnage not exceeding 150 register tons, or 424.50 cubic metres, boatswain's stores are kept in a space not solely appropriated for such purpose, the deduction for boatswain's stores according to the above scale shall still be granted.

In fishing and hunting ships having a gross tonnage exceeding 150 register tons or 424.50 cubic metres, where there is no separate boatswain's store-room, a suitable deduction not exceeding 3 tons, or 8.49 cubic metres, shall be made for the boatswain's stores carried in the room for fishing and catching gear.

Sail-rooms.

ARTICLE 70.

In ships propelled by sails, the space exclusively appropriated to and used for the storage of sails shall be deducted from the gross tonnage in accordance with the following provisions:

1. In the case of ships wholly propelled by sails, this deduction shall not exceed four per cent of the gross tonnage.

2. In the case of ships having both sails and engines as means of propulsion and whose propelling machinery space, upon which the propelling-power allowance is to be based, does not exceed 13 per cent of the gross tonnage in screw ships and 20 per cent in

paddle-ships, the space strictly necessary for and exclusively and actually used for the storage of sails shall be allowed as a deduction up to a maximum of two per cent of the gross tonnage.

3. If the sail-room and boatswain's store are combined, the sail-room space shall first be deducted up to the limits indicated in the preceding paragraphs, and a deduction for boatswain's store shall then be made in respect of the remaining space in accordance with the scale given in Article 68.

Water-ballast Spaces.

ARTICLE 71.

Water-ballast spaces include water-ballast tanks in the double bottom and all water-ballast spaces outside the double bottom, wherever situated (*e.g.* forward and after peak-tanks, deep-tanks and coffer-dams), when the said spaces comply with the regulations indicated below.

On an application in writing from the owner, and subject to the limitations indicated hereafter, spaces not exempted which are appropriated to and exclusively used for water ballast shall be deducted from the gross tonnage, provided that they fulfil the following conditions:

(*a*) That they are properly constructed and tested as ballast tanks;

(*b*) That they are solely adapted for water ballast;

(*c*) That their only means of entrance shall be ordinary-size manholes.

Ad (*a*). — The expression "properly constructed and tested as ballast tanks" indicates that the tanks must be able to stand the pressure under a head of water. The filling of the openings in the tank-top around the frames at the sides with cement is not permissible.

Ad (*b*). — The means for filling and emptying water-ballast tanks (*e.g.*, pumps, pipes, etc.) must be of a permanent and satisfactory character and independent of the installations for water for feed or domestic purposes, oil fuel or cargo. Pumping installations must be of a suitable type and dimensions for dealing efficiently with the water ballast; suction and delivery pipes shall, in general, not be less than 2½ inches, or 64 mm., inside diameter. Hand pumps, portable pumps, or hose connections are not to be regarded as permanent and satisfactory means for filling and emptying. In all ships not exceeding 200 tons, or 566 cubic metres gross, and in ships over 200 tons or 566 cubic metres, having sails as principal means of propulsion, hand pumps, constituting the only means for filling or emptying water-ballast spaces, will not be objected to, provided that the installation is of a permanent character.

Ad (*c*). — The manholes shall be oval or circular; their dimensions shall not exceed 2 feet, or 0.610 metre, by 1.5 feet, or 0.457 metre, or 1.85 feet, or 0.564 metre, in diameter, respectively.

Coffer-dams shall be considered as water-ballast spaces, provided that they fulfil the foregoing conditions.

Double bottom tanks connected with the ballast-pumping system, or available for water for motor cooling, boiler feeding, or domestic purposes or for carrying oil fuel or cargo, shall be considered as water-ballast spaces when determining the allowance for same.

For the purpose of calculating the cubic capacity of the deductible water-ballast spaces, it should be noted that the total cubic capacity of water-ballast spaces which are exempted or deducted (including whole or partial double bottom, peak-tanks, deep-tanks, coffer-dams and all other types of *bona fide* water-ballast tanks) shall not exceed the percentages of gross tonnage indicated in the graph opposite. In case the cubic capacity of exempted water-ballast spaces in the double bottom equals or exceeds the allowance provided for in the said table, no deduction for water-ballast spaces may be granted. A part of a tank may be allowed as a deduction provided that the whole tank is fitted, constructed and tested for carrying water ballast.

Article 72.

No deduction shall be allowed in respect of any of the spaces dealt with in Part IV of the present Regulations which have not first been included in the gross tonnage (see Figures 104 and 105 indicating the method of measurement of the breadth and depth of a fore peak-tank).

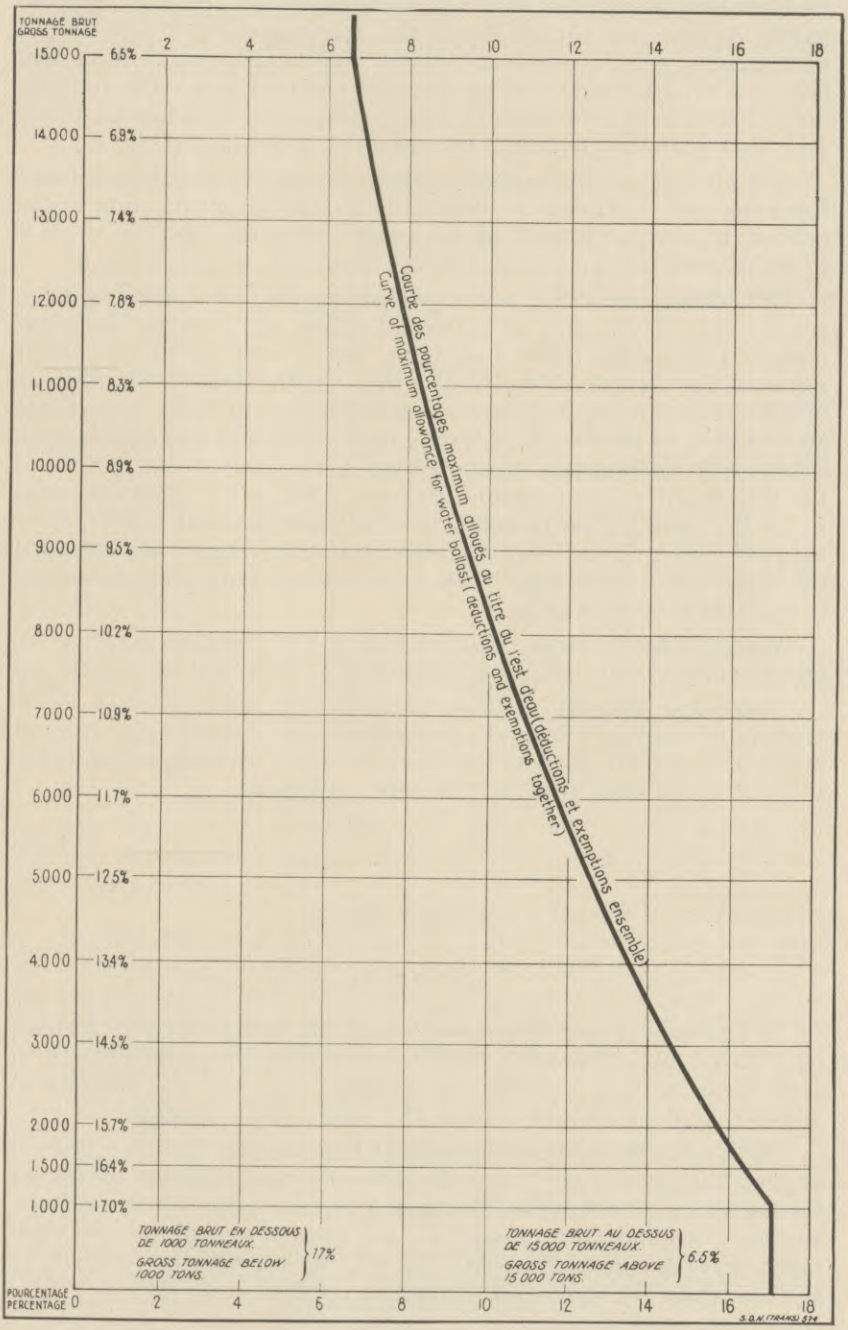
Article 73.

The measurement and the calculation of the cubic capacity of the spaces dealt with in Articles 61 to 64 inclusive and 66 to 70 inclusive shall be carried out as indicated in Articles 53 and 54. Consequently, the heights are to be measured to the under side of the deck overhead through panelling or similar sheathing, if any. The horizontal measurements shall be taken between the partitions and linings, if any, or to the inner edges of the frames and of the normally spaced bulkhead stiffeners. Each space is to be measured separately, and the formulæ of measurement should indicate the purpose for which the space is intended. If only parts of a space have been deducted, the dimensions of the whole space, along with those of the space deducted, shall be shown in the formulæ of measurement (see Figure 106).

The measurement of peak-tanks and other water-ballast spaces extending from side to side of the ship, and situated outside the double bottom and below the tonnage deck or its line of continuation, shall be carried out in conformity with the rules for the

Graph indicating the Maximum Allowance for Water Ballast as Percentage of Gross Tonnage.

(The spaces available for water ballast which are to be taken into account include the double-bottom compartments.)



measurement of the space below the tonnage deck. The length shall be measured at the top of the tank (see Figures 104 and 105). Transverse sections shall be measured in the usual way at the middle of the length and at its extreme points, but only five breadths are to be taken in each section. If a water-ballast space is situated partly below and partly above the tonnage deck or its line of continuation (*e.g.*, a peak-tank aft extending right up to the under side of a raised quarter deck), the part situated below the tonnage deck or its line of continuation shall be measured as indicated above and the remaining part shall be measured as a superstructure

For all tanks extending from side to side of the ship, the distance from the end bulkhead or bulkheads to the correct position of the nearest transverse section of the space below the tonnage deck is to be ascertained and stated in the formulæ of measurement.

The measurement of water-ballast spaces not extending from side to side of the ship and situated below the tonnage deck and outside the double bottom shall be carried out as follows: First measure the length of the tank; this length shall be divided as indicated in Article 21, but, in case this length does not exceed 30 feet, or 9.14 metres, it shall only be divided into two equal parts, Transverse sections are then measured at the extreme points of the length and at its points of division. When the spaces referred to in the present paragraph are of relatively small height, they may also be measured as provided in Article 53, if they are bounded by approximately straight planes. If a tank is irregular in shape, it shall be measured in parts.

Water-ballast spaces situated above the tonnage deck or its line of continuation shall be measured as indicated in Article 53.

The cubic capacity of each water-ballast space shall be ascertained by applying the relevant provisions given in the present regulations for the determination of the cubic capacity of the space below the tonnage deck and of superstructures.

Deduction for Propelling-machinery Space.

ARTICLE 74.

In the case of any ship propelled by machinery for which space is required, an allowance shall be made for propelling-power in accordance with the provisions of Article 75, and the amount so allowed shall be deducted from the ship's gross tonnage.

Within the meaning of the present Regulations shall be regarded as propelling-machinery space the space occupied by and necessary for the proper working of the main propelling-machinery and the auxiliary machinery necessary for the proper working of the main machinery, as specified in Articles 78 and 79, with or without, as the case may be, light and air spaces referred to in Article 77.

No space shall be included in the cubic capacity of the propelling-machinery space serving for the determination of the propelling-power allowance unless it has first been included in the ship's gross tonnage.[1]

All propelling-machinery spaces shall be measured and their cubic capacity be ascertained in accordance with the provisions of Articles 80, 81 and 82.

Determination of Propelling-power Allowance.

ARTICLE 75.

The allowance for propelling-power shall be determined as follows:

1. *Screw Ships.* — If the cubic capacity of the propelling-machinery space, ascertained in accordance with the provisions of Articles 77 to 82, is above 13 per cent and under 20 per cent of the gross tonnage, the deduction shall be 32 per cent of the gross tonnage.

If the cubic capacity of the propelling-machinery space is 13 per cent or less, or 20 per cent or more of the gross tonnage, the deduction shall be the cubic capacity of the space increased by 75 per cent.

2. *Paddle Ships.* — If the cubic capacity of the propelling-machinery space, ascertained in accordance with the provisions of Articles 77 to 82, is above 20 per cent and under 30 per cent of the gross tonnage, the deduction shall be 37 per cent of the gross tonnage.

If the cubic capacity of the propelling-machinery space is 20 per cent or less, or 30 per cent or more of the gross tonnage, the deduction shall be the cubic capacity of the space increased by 50 per cent.

3. Except for ships exclusively employed as tugs[2] and ships constructed and intended exclusively for icebreaking, the propelling-power allowance shall in no case exceed 55 per cent of that portion of the ship's tonnage which remains after subtracting from the gross tonnage all deductions other than that for propelling-machinery.

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[1] *Note.* — See Figure 107, indicating the method of measurement of the height of a shaft-tunnel when the tonnage depths in way of same are measured to the top of the ceiling supposed to be situated directly on the top of the double bottom.

[2] *Note.* — Salvage tugs and fire-floats shall not be considered as tugs. A ship shall, however, not cease to be regarded as a tug because of the fact that she is equipped with a fire-pump or extinguisher.

Items of Propelling-machinery Space.

ARTICLE 76.

The propelling-machinery space may include the following items:

(*a*) Spaces below the top of the main space;
(*b*) Shaft-tunnels or trunks in screw ships, and escape trunks;
(*c*) Spaces between the top of the main space and the upper deck;
(*d*) Spaces on or above the upper deck designated as light and air spaces.

Ad (*a*), (*b*) *and* (*c*). — These items include all spaces situated below the upper deck, which may be regarded as propelling-machinery spaces in accordance with the provisions of Articles 78 and 79.

The expression "the top of the main space" indicates the underside of the first deck above the machinery space. If, however, the machinery space extends right up to the underside of a break or a raised quarter-deck, the portion of the space situated within these superstructures shall be dealt with under item (d) (see Figs. 98 and 99).

Ad (*d*). — This item includes light and air casings framed in for the admission of light and air to the boiler- and engine-room. It also includes all other spaces, framed in for machinery which, in accordance with the provisions of Articles 78 and 79, may be regarded as propelling-machinery. [1]

The inclusion in the propelling-machinery space of spaces under item (d) shall be subject to the conditions laid down in Article 77.

Light and Air Spaces.

ARTICLE 77.

Spaces or parts of spaces referred to under item (d) of Article 76, designated as light and air spaces, shall, on an application by the owner, be added to the ship's gross tonnage and to the propelling-machinery space on which the allowance for propelling-power is to be based, provided that they are:

(*a*) reasonable in extent;
(*b*) safe and seaworthy;
(*c*) so constructed, that they cannot be used for any purpose other than the admission of light and air to the machinery space or for such machinery, appliances or apparatus as may be regarded as forming part of the propelling-machinery, in conformity with the provisions of Articles 78 and 79.

[1] *Note.* — *e.g.*, a portion of an escape trunk, situated on or above the upper deck, shall be dealt with under this item (see Fig. 110). The portion of a funnel situated above the light and air casing shall not be dealt with under this item.

The formulæ of measurement should indicate whether the spaces in question fulfil the conditions mentioned above.

Particulars as to the Spaces which may be regarded as Propelling-machinery Spaces.

ARTICLE 78.

A. The following spaces shall be regarded as propelling-machinery spaces:

(1) Spaces for the *main boilers*;

(2) Spaces for the *main machinery*;

(3) Spaces for *auxiliary machinery* necessary for the working of boilers or main machinery;

(4) *Shaft-tunnels or trunks and escape trunks*;

(5) *Engineers' stores and workshops* up to a maximum of three-quarters of one per cent of gross tonnage, if situated within the boundaries of the machinery space below the upper deck.

(6) Spaces for the following machinery, appliances or apparatus:

(a) *Settling apparatus* in oil-burning ships (not including motor ships with internal combustion machinery), if situated within the boundaries of the machinery space, in the casings above, or directly adjacent to such space or casings.[1]

(b) *Dynamos, switchboards and control-panels,* with the exception of those indicated under B.4.h. of the present article.

(c) *Silencers* (including silencers in funnels).

(d) *Hot-wells,* if situated within the boundaries of the machinery space below the upper deck.

(e) *Ash-ejectors.*

(f) *Apparatus for forced-draft to boilers*;

(g) *Oil-refiners and oil-coolers for fuel oil and lubricating oil.*

(h) *Feed-water heating apparatus* and other similar plant necessary for the working of the main machinery.

(i) *Evaporators solely for boiler feed-water.*

(j) *Pumps for lubricating oil.*

(k) *Ventilating plant* situated in and necessary for the ventilation of the machinery space.

(l) *Storage batteries,* used solely in connection with the propelling-machinery.

(m) *Steam and electric compressors and air-reservoirs* used in connection with the propelling-machinery.

[1] No part of such settling apparatus which constitutes bunker space should be regarded as propelling-machinery space.

(n) *Fuel-oil pumps*, used solely for fuel-oil purposes if situated within the boundaries of the machinery space, in the casings above, or directly adjacent to such space or casings.

B. The following spaces shall *not* be regarded as propelling machinery spaces:

(1) *Fuel spaces.*
(2) *Feed-water spaces.*
(3) *Tanks for lubricating oil.*
(4) Spaces occupied by the following machinery, appliances or apparatus:
  (a) *Auxiliary condenser plant* not used in connection with propelling-machinery;
  (b) *Fire-extinguishing plant*;
  (c) *Refrigerating machinery*;
  (d) *Machinery for ventilation and for heating of crew's and passengers' quarters*;
  (e) *Sanitary pumps*;
  (f) *Bilge pumps*;
  (g) *Ballast pumps*;
  (h) *Dynamos, switchboards and control-panels*, exclusively used for lighting or navigating purposes, cargo work, etc., quite independent from the ship's propelling-machinery ;
  (i) *Donkey-boilers* other than those referred to in Article 79.

Donkey-boiler Space.

ARTICLE 79.

Donkey-boilers which, to the satisfaction of the Central Tonnage Measurement Authority concerned, are necessary for and are used in connection with the main propelling-machinery or auxiliary machinery considered as part of same, shall be regarded as forming part of the propelling-machinery.

If situated below the upper deck, within or outside the boundaries of the machinery space, the space occupied by and necessary for the working of such donkey-boilers shall be included in the propelling-machinery space. If situated above the upper deck the space occupied by and necessary for the working of such donkey-boilers shall be regarded as light and air space referred to in Article 77.

Measurement of Propelling-machinery Spaces.

ARTICLE 80.

The measurement of propelling-machinery spaces shall be carried out as follows:

(1) *Spaces below the top of the main space*, referred to in Article 76 under item (*a*), are measured by ascertaining:
  (i) the length;
  (ii) three, five or, exceptionnally, seven depths;
  (iii) three, five or, exceptionnally, seven breadths;

The *length* of the space between its end bulkheads is measured; this length is then divided into two, four or six equal parts, according to whether three, five or seven depths are to be measured.

The *depth* is measured in the middle plane from the top of the main space to the top of the double bottom (or top of the ordinary floors or top of ceiling, as the case may be) at the extreme points of the length and at its points of division. Each depth is to be corrected on account of the round of beam, as indicated in Article 25, and if necessary on account of the rise or fall of double bottom or floors, as indicated in Article 28.

At the middle of each depth, the *breadth* is then measured between the side bulkheads (or between the inner edges of the frames at the ship's sides or the ceiling thereon, as the case may be).

The length of a space and its situation will serve as guidance with regard to the number of depths and breadths to be taken. A large engine-room situated aft and extending from side to side of the ship will require the measurement of five or seven depths and five or seven breadths. If situated admidships, however, three depths and three breadths will, as a rule, be sufficient.

When there exist in the machinery space a break or breaks in the double bottom or, in the case of a ship with single bottom, an abrupt change in the depth of floors, or when the side bulkheads of the machinery space have a curved or broken outline (*e.g.*, side bulkheads of fuel spaces) or in general when the machinery space is irregular in shape, it shall be measured in parts, each part being dealt with as prescribed for the measurement of the whole space. In case the part of which the cubic capacity is to be ascertained is a rectangular parallelepipedon, the measurement of one depth and one breadth will be sufficient.

All the measured depths and breadths shall be entered on the formulæ of measurement with an indication as to whether they have been taken to top of double bottom or to top of ordinary floors, to inner edge of frames or to ceiling.

When carrying out measurement of spaces below the top of the main space, due regard must be given to existing recesses or projections in double bottom or floors as mentioned in paragraph (1) of Article 29.

Figures 111 to 118 inclusive show details of measurement of propelling-machinery spaces.

(2) *Spaces referred to in Article 76 under Items (b), (c) and (d)* are measured as regards length, height and breadth as indicated under section (1) of the present article. In most cases, however, the measurement of one height and one breadth will be sufficient unless the space concerned extends from side to side of the ship (*e.g.*, a shaft recess), in which case three or five breadths should be measured.

Spaces situated above the top of the main space shall be measured tier by tier. Each space is measured separately and the measurements are taken between their partitions without regard to stiffeners.

(3) When ascertaining the cubic capacity of the spaces dealt with in the present article, it should be noted that spaces not to be regarded as propelling-machinery spaces should not be included. With a view to attaining this object it will, in most cases, be found practical to measure separately by their extreme outside dimensions the spaces occupied by such machinery, appliances and apparatus as are not to be regarded as propelling-machinery and then subtract their cubic capacity from the cubic capacity of the whole space (see Figures 110 and 118).

If such machinery, appliances, apparatus, etc., are bulkheaded off, the cubic capacity of the space bulkheaded off is ascertained.

The measurements of spaces occupied by machinery, appliances, apparatus, etc., not to be regarded as propelling-machinery whether bulkheaded off or not, shall be entered on the formulæ of measurement.

If, in conformity with the provisions of Article 81, it has been necessary to apply restrictions to the measurements of the propelling-machinery space, the restricted measurements as well as the full measurements of the space shall be entered on the formulæ of measurement.

Restrictions of Propelling-machinery Spaces.

ARTICLE 81.

(a) *Length of the space below the top of the main space.* — (1) If, in carrying out the measurement of the propelling-machinery space, it is found that the length of such space exceeds what is necessary for the proper working of the main propelling-machinery and for the auxiliary machinery necessary for the main machinery, such length shall be restricted, subject to the provisions of paragraph (4).

(2) In the case of steamships, the following special prescriptions shall be observed:

(i) If the fire-grates are in a fore-and-aft direction, the length equal to that of the fire-grates increased by about 1 foot or 0.305 metres shall be allowed in front of the fire-grates for the stoking or working of the fires but no additional length is required when the boilers are placed with the fire-grates athwartships.

(ii) In the case of ships propelled by reciprocating engines, the point to which the after boundary of the length of the machinery space is to be measured should be no further aft of the after cylinder or its valve-casing than is necessary for safe working, but in no case without special instructions should the actual point of measurement be more than 4 feet or 1.219 metres aft of such cylinder or valve-casing.

(3) In the case of turbine ships, the restrictions laid down in paragraph (2) of section (*a*) of the present article shall apply to the measurement of boiler spaces.

(4) The restrictions referred to in paragraphs (1), (2) and (3) of section (*a*) of the present article shall only apply in cases where the cubic capacity of the propelling-machinery spaces upon which the propelling-power allowance is based is twenty per cent or more of the gross tonnage in the case of screw ships, or thirty per cent or more of the gross tonnage in the case of paddle ships, but whatever be the size of the machinery space these restrictions shall in no case be applied to fishing and hunting ships, tugs as defined in Article 75, ships constructed and intended exclusively for ice-breaking, or yachts.

(5) If a departure from either of the above rules as to length appears to be necessary owing to the high power of the engines or any peculiarity in the arrangement of the machinery, the Central Tonnage Measurement authority concerned, to which all necessary particulars and plans should be forwarded, will have to decide as to the length to be used for the purpose of calculating the cubic capacity.

(b) *Shaft trunks in steamships, escape trunks.* — (1) Thrust-block space. When the thrust-block is not situated within an ordinary thrust-block recess and when, according to the present article, a limitation has to be applied to the length of the main machinery space, the thrust-block being situated within the main space outside the restricted part, the height of such thrust-block space to be allowed for shall in no case exceed what is considered necessary for the purpose of overhauling (see Figure 119).

(2) When there is no built tunnel:

(*a*) In the case of single-screw ships, the space allowed as a tunnel shall be of ordinary dimensions suitable for the ship; if the after machinery bulkhead is recessed, the height of the space allowed for shall not exceed, above the shaft, what is necessary for working and overhauling (see Figures 119 and 120).

(*b*) In the case of ships with two or more screws, the same provisions shall, in general, apply, but when there exists a large space or recess open from side to side immediately aft of the main space, the space included in the propelling-machinery space shall not be larger than would have been necessary in the case of ordinary-sized shaft tunnels for each shaft line (see Figure 121.)

(3) In ships with two or more screws and built shaft-tunnels, the recessed part immediately forward of the stern tubes shall not be larger than is reasonable for the purpose of overhauling of shafting, due account being taken of the general situation of that part of the ship (see Figure 122).

(4) Escape trunks shall be regarded as part of the propelling-machinery space, provided that they are not larger than is necessary for the purpose of access to and escape from the tunnel.

All doubtful cases shall be submitted, together with the necessary particulars, to the Central Tonnage Measurement authority concerned, for their decision.

(*c*) *Spaces on or above the upper deck.* — For the purpose of determining whether these spaces are "reasonnable in extent" it should be noted that:

(1) In the case of spaces situated outside the boundaries of the propelling-machinery space or the casings above same, and fitted with machinery which in accordance with the provisions of Articles 78 and 79 may be regarded as part of the propelling-machinery, such spaces are not to be larger than is necessary for the proper working of the said machinery.

(2) In the case of spaces serving for the admission of light and air to the propelling-machinery space:

(i) Their total length should not exceed the length of the machinery space underneath (see Figure 123), and if any portion is plated over, the length of the plated part should be deducted from the full length;

(ii) The breadth to be allowed should not exceed half of the extreme tonnage breadth, the restriction as to the breadth shall, however, not apply to the portion of a break or a raised quarter-deck referred to in Article 76 (see Figures 108 and 109).

Calculation of the Cubic Capacity of Propelling-machinery Spaces.

ARTICLE 82.

When the propelling-machinery spaces have been measured as indicated in Article 80 and the restrictions referred to in Article 81 have, if necessary, been applied, the cubic capacity of the propelling-machinery spaces is ascertained as follows:

The cubic capacity of each space (or each part of a space, as the case may be) is calculated separately by first multiplying its length by its breadth. The area thus obtained is then multiplied by the depth (height) and this last product constitutes the cubic capacity of the space (or of the part of the space, as the case may be) in cubic feet or in cubic mètres.

If more than one breadth has been measured, a mean of the breadths shall be used in the calculation; the same provision shall apply with regard to the depths (heights).

ARTICLE 83.

The following two examples relating to two screw ships contain more detailed indications as to the application of the provisions concerning the deduction for propelling-machinery spaces.

The attached scheme of calculation indicates how to determine the portion of light and air spaces necessary for obtaining a propelling-power allowance of thirty-two per cent of gross tonnage.

Example 1.

Cubic capacity of actual machinery space = 160 tons (452.80 m³).
Total cubic capacity of space on or above the upper deck (light and air casings, etc.) = 65 tons (183.95 m³).
Aggregate cubic capacity of hatchways = 25 tons (70.75 m³).

	A. *The owner requests no space on or above the upper deck to be included in the gross tonnage and added to the actual machinery space.*	B. *The owner requests as much space as possible on or above the upper deck to be added to the actual machinery space and included in the gross tonnage, the latter not exceeding 1600.00 tons (4528.00 m³).*	C. *The owner requests the necessary cubic capacity of spaces on or above the upper deck to be included in the gross tonnage and added to the actual machinery space in order to obtain the 32 per cent reduction.*
	The cubic capacity of the actual machinery space does not exceed 13 per cent of the gross tonnage. Consequently, the deduction for propelling machinery space will be 160 × 1.75 = 280 tons (452.80 × 1.75 = 792.40 m³).	32.89 tons (93.09 m³) of the space on or above the upper deck is added to the actual machinery space and included in the gross tonnage. 160.00 + 32.89 = 192.89 tons (452.80 + 93.08 = 545.88 m³) does not exceed 13 per cent of the gross tonnage. Consequently, the deduction for propelling-machinery space will be 192.89 × 1.75 = 337.5 tons (545.88 × 1.75 = 955.29 m³).	50.28 tons (142.29 m³) of the space on or above the upper deck is included in the gross tonnage and added to the actual machinery space. 160.00 + 50.28 = 210.28 tons (452.80 + 142.29 = 595.09 m³). 13 per cent of the gross tonnage = 210.25 tons (595.01 m³). Consequently the deduction for propelling-machinery space will be 32 per cent of the gross tonnage.
Under-deck tonnage	1350.00 tons (3820.50 m³)	1350.00 tons (3820.52 m³)	1350.00 tons (3820.50 m³)
Space above the tonnage deck .	200.00 tons (566.00 m³)	200.00 tons (566.00 m³)	200.00 tons (566.00 m³)
Space on or above the upper deck (light and air casings, etc.) .		32.89 tons (93.08 m³)	50.28 tons (142.29 m³)
Excess of hatchways	17.25 tons (48.82 m³)	17.09 tons (48.36 m³)	17.00 tons (48.11 m³)
Gross tonnage	1567.24 tons (4435.32 m³)	1599.98 tons (4527.94 m³)	1618.28 tons (4576.90 m³)
Deductions other than deduction for propelling-machinery space	120.00 tons (339.60 m³)	120.00 tons (339.60 m³)	120.00 tons (339.60 m³)
Remainder	1447.25 tons (4095.72 m³)	1479.98 tons (4188.34 m³)	1497.28 tons (4237.30 m³)
Deduction for propelling-machinery space	280.00 tons (792.40 m³)	337.56 tons (955.29 m³)	517.53 tons (1464.60 m³)
Net tonnage	1167.25 tons (3303.32 m³)	1142.42 tons (3233.05 m³)	979.75 tons (2772.70 m³)

Example 2.

Cubic capacity of actual machinery space = 360 tons (1018.80 m³).
Total cubic capacity of space on or above the upper deck (light and air casings, etc.) = 105 tons (297.15 m³).
Aggregate cubic capacity of hatchways = 30 tons (84.90 m³).

	A. *The owner requests no space on or above the upper deck to be included in the gross tonnage and added to the actual machinery space.*	B. *The owner requests as much space as possible on or above the upper deck to be added to the actual machinery space and included in the gross tonnage, the latter not exceeding 2000.00 tons (5660.00 m³).*	C. *The owner requests the total cubic capacity of space on or above the upper deck to be included in the gross tonnage and added to the actual machinery space.*
	The cubic capacity of the actual machinery space is above 13 per cent and under 20 per cent of the gross tonnage. Consequently, the deduction for propelling-machinery space will be 32 per cent of the gross tonnage.	69.88 tons (187.76 m³) of the space on or above the upper deck is added to the actual machinery space and included in the gross tonnage. 360.00 + 69.88 = 429.88 tons (1018.80 + 197.76 = 1216.56 m³) is more than 20 per cent of the gross tonnage. Consequently, the deduction for propelling-machinery space will be 429.88 + 752.29 tons (1216.56 × 1.75 = 2128.98 m³).	105 tons (297.15 m³) is included in the gross tonnage and added to the actual machinery space. 360.00 + 105.00 = 465.00 tons (1018.80 + 297.15 = 1315.95 m³) is more than 20 per cent of the gross tonnage. Consequently, the deduction for propelling-machinery space will be 465.00 × 1.75 = 813.75 tons (1315.95 × 1.75 = 2302.91m³).
Under-deck tonnage	1630.00 tons (4612.90 m³)	1630.00 tons (4612.90 m³)	1630.00 tons (4612.90 m³)
Space above the tonnage deck .	280.00 tons (792.40 m³)	280.00 tons (792.40 m³)	280.00 tons (792.40 m³)
Space on or above the upper deck (light and air casings, etc.) .		69.88 tons (197.76 m³)	105.00 tons (297.15 m³)
Excess of hatchways	20.45 tons (57.87 m³)	20.10 tons (56.88 m³)	19.92 tons (56.37 m³)
Gross tonnage	1930.45 tons (5463.17 m³)	1999.98 tons (5659.94 m³)	2034.92 tons (5758.82 m³)
Deductions other than deduction for propelling-machinery space	190.00 tons (537.70 m³)	190.00 tons (537.70 m³)	190.00 tons (537.70 m³)
Remainder	1740.45 tons (4925.47 m³)	1809.98 tons (5122.24 m³)	1844.92 tons (5221.12 m³)
Deduction for propelling-machinery space.	617.74 tons (1748.20 m³)	752.29 tons (2128.98 m³)	813.75 tons (2302.91 m³)
Net tonnage	1122.11 tons (3177 m³)	1057.69 tons (2993.26 m³)	1031.17 tons (2918.21 m³)

Scheme of Calculation.

Gross tonnage exclusive of light and air space and hatchways		1,550.00
Excess of hatchways (based on the above gross tonnage)		17.25
Gross tonnage, inclusive of excess of hatchways and exclusive of light and air space		1,567.25
13 % of 1,567 tons	203.71	
Machinery space below upper deck . . .	160.00	
Difference	43.71	
14.95 % of difference.	6.53	
Difference plus 14.95 % of itself	50.24	50.24
Gross tonnage inclusive of light and air space and exclusive of hatchways		1,617.49
Additional exemption for hatchways; account of light and air spaces = ½ % of 50.24		0.25
		1,617.24

Gross registered tonnage: 13 % *of* 1,617.24 *tons* = 210.24 *tons.*

PART V.

MEASUREMENT AND CALCULATION OF TONNAGE UNDER RULE II.

Measurement of the Space below the the Uppermost Deck.

ARTICLE 84.

When, according to the second paragraph of Article 2, Rule II is to be applied, the measurement of the space below the *uppermost deck* [1] shall be carried out by ascertaining in the following manner the ship's length, the extreme outside breadth and the girth:

(1) The length is measured on the uppermost deck from the aft side of the stem to the aft side of the sternpost. Should no sternpost exist or should the sternpost not extend right up to the uppermost deck, the length shall be taken to the fore side of the rudder-stock, the latter being, if necessary, imagined to extend right up to the uppermost deck (see Fig. 124).

(2) The extreme outside breadth is determined by measuring the greatest breadth of the uppermost deck to the outside of the ship's sides, where the upperside of the deck is marked off. The tumble-home, if any, is then measured by means of a lead or otherwise. The sum of the breadth and the tumble-home at both sides constitutes the extreme outside breadth (see Fig. 125). Rubbing-pieces should not be included in this breadth.

In cases where it is possible to determine the extreme outside breadth by inside measurement (*e.g.*, in the machinery space of a steel ship) the greatest breadth to the inside of the plating is measured and to this breadth is added the thickness of the plating at both sides.

(3) The girth should preferably be measured by means of a curb chain passed round the ship outboard at the place where the extreme breadth has been measured (see Figs. 126 and 127). The chain must be hauled tight perpendicularly to the keel line, and the upper side of the uppermost deck shall be marked on it. The girth is then found when measuring on the chain the distance between the points marked off on the chain.

Calculation of the Cubic Capacity of the Space below the Uppermost Deck.

ARTICLE 85.

The cubic capacity of the space below the uppermost deck is calculated by adding together half the girth and half the extreme

[1] *Note.* — When applying Rule II, all 'tween-deck spaces and open shelter-deck spaces will be included in the space below the uppermost deck. Other open superstructures, however, must be dealt with in accordance with the provisions of Article 58.

outside breadth. The sum thus obtained is squared, the result being multiplied by the length. This product is then multiplied, when using feet, by the factor 0.0017 in the case of wooden or composite ships and 0.0018 in the case of steel ships, and, when using metres, by the factors 0.17 and 0.18 respectively. This last product shall be deemed to be the cubic capacity of the space below the uppermost deck in register tons or in cubic metres.

ARTICLE 86.

When applying Rule II no measurement of double bottom tanks shall be carried out.

Superstructures, etc.

ARTICLE 87.

Spaces on or above the uppermost deck (forecastles, breaks, deck-houses, hatchways, etc.) shall be dealt with in accordance with the relevant provisions of Part III.

Measurement and Calculation of Cubic Capacity of Superstructures.

ARTICLE 88.

The measurement of all superstructures and hatchways on or above the uppermost deck shall be carried out by ascertaining their mean breadth, mean length and mean height, if practicable in accordance with the provisions contained in Part III. In no case, however, more than one breadth shall be used. When it is impracticable to ascertain internal measurements, external measurements shall be taken.

The cubic capacity of such spaces is ascertained by multiplying the length by the breadth, and the product of the area thus obtained, by the height. This last product shall be deemed to be the cubic capacity in cubic feet or in cubic metres.

Measurement and Calculation of the Deductible Spaces.

ARTICLE 89.

The deductible spaces referred to in Article 7 shall be measured and their cubic capacity ascertained in accordance with the provisions of Article 88. All deductions shall be subject to the limitations and restrictions imposed by Part IV and when it is impossible for any space to calculate such limitations and restrictions (*e.g.*, in case of water-ballast spaces) no deduction shall be allowed for the space concerned.

PART VI.

IDENTIFICATION DIMENSIONS.

Identification Dimensions when applying Rule I.

ARTICLE 90.

(1) The identification *length* [1] is the length from the fore side of the uppermost end of the stem (for wooden ships see Figure 128) to the aft side of the uppermost end of the sternpost.

Should no sternpost exist, the length is taken to the point of intersection of the foreside of the rudder-stock (or its line of continuation) with the uppermost deck.

(2) The identification *breadth* is the extreme outside breadth which is ascertained in the same manner as indicated under Article 84 for the breadth under Rule II (see Figure 125).

Rubbing-pieces should not be included in this breadth.

(3) The identification *depth* is the vertical distance measured in the middle plane at half the identification length between the underside of the tonnage deck and the upper side of the outer plating or planking in the ship's bottom (see Figure 129).

Identification Dimensions when applying Rule II.

ARTICLE 91.

The identification dimensions for ships measured under Rule II shall be the length, the breadth and girth determined in accordance with the terms of Article 84.

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[1] *Note.* — When the tonnage length has been ascertained, the identification length will easily be found by adding to or deducting from the tonnage length, as the case may be, the length of the horizontal distances measured in the middle plane between the extreme points of the tonnage length and the points mentioned above (see Figure 124).

Tableau I A

INDIQUANT EN PIEDS L'INTERVALLE COMMUN ET LE TIERS DE L'INTERVALLE COMMUN ENTRE LES LARGEURS POUR DIFFÉRENTES «HAUTEURS DE TONNAGE»

La « hauteur de tonnage » au milieu de la longueur de tonnage *n'excède pas* 16 pieds.

Table I A

INDICATING IN FEET COMMON INTERVALS AND ONE-THIRD OF COMMON INTERVALS BETWEEN THE BREADTHS CORRESPONDING TO DIFFERENT TONNAGE DEPTHS.

The tonnage depth at the middle of the tonnage length *does not exceed* 16 feet.

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
2,00	0,500	0,17	**3**,00	0,750	0,25	**4**,00	1,000	0,33	**5**,00	1,250	0,42
,05	0,512	0,17	,05	0,762	0,25	,05	1,012	0,34	,05	1,262	0,42
,10	0,525	0,18	,10	0,775	0,26	,10	1,025	0,34	,10	1,275	0,43
,15	0,537	0,18	,15	0,787	0,26	,15	1,037	0,35	,15	1,287	0,43
,20	0,550	0,18	,20	0,800	0,27	,20	1,050	0,35	,20	1,300	0,43
,25	0,562	0,19	,25	0,812	0,27	,25	1,062	0,35	,25	1,312	0,44
,30	0,575	0,19	,30	0,825	0,28	,30	1,075	0,36	,30	1,325	0,44
,35	0,587	0,20	,35	0,837	0,28	,35	1,087	0,36	,35	1,337	0,45
,40	0,600	0,20	,40	0,850	0,28	,40	1,100	0,37	,40	1,350	0,45
,45	0,612	0,20	,45	0,862	0,29	,45	1,112	0,37	,45	1,362	0,45
,50	0,625	0,21	,50	0,875	0,29	,50	1,125	0,38	,50	1,375	0,46
,55	0,637	0,21	,55	0,887	0,30	,55	1,137	0,38	,55	1,387	0,46
,60	0,650	0,22	,60	0,900	0,30	,60	1,150	0,38	,60	1,400	0,47
,65	0,662	0,22	,65	0,912	0,30	,65	1,162	0,39	,65	1,412	0,47
,70	0,675	0,23	,70	0,925	0,31	,70	1,175	0,39	,70	1,425	0,48
,75	0,687	0,23	,75	0,937	0,31	,75	1,187	0,40	,75	1,437	0,48
,80	0,700	0,23	,80	0,950	0,32	,80	1,200	0,40	,80	1,450	0,48
,85	0,712	0,24	,85	0,962	0,32	,85	1,212	0,40	,85	1,462	0,49
,90	0,725	0,24	,90	0,975	0,33	,90	1,225	0,41	,90	1,475	0,49
,95	0,737	0,25	,95	0,987	0,33	,95	1,237	0,41	,95	1,487	0,50
6,00	1,500	0,50	**7**,00	1,750	0,58	**8**,00	2,000	0,67	**9**,00	2,250	0,75
,05	1,512	0,50	,05	1,762	0,59	,05	2,012	0,67	,05	2,262	0,75
,10	1,525	0,51	,10	1,775	0,59	,10	2,025	0,68	,10	2,275	0,76
,15	1,537	0,51	,15	1,787	0,60	,15	2,037	0,68	,15	2,287	0,76
,20	1,550	0,52	,20	1,800	0,60	,20	2,050	0,68	,20	2,300	0,77
,25	1,562	0,52	,25	1,812	0,60	,25	2,062	0,69	,25	2,312	0,77
,30	1,575	0,53	,30	1,825	0,61	,30	2,075	0,69	,30	2,325	0,78
,35	1,587	0,53	,35	1,837	0,61	,35	2,087	0,70	,35	2,337	0,78
,40	1,600	0,53	,40	1,850	0,62	,40	2,100	0,70	,40	2,350	0,78
,45	1,612	0,54	,45	1,862	0,62	,45	2,112	0,70	,45	2,362	0,79
,50	1,625	0,54	,50	1,875	0,63	,50	2,125	0,71	,50	2,375	0,79
,55	1,637	0,55	,55	1,887	0,63	,55	2,137	0,71	,55	2,387	0,80
,60	1,650	0,55	,60	1,900	0,63	,60	2,150	0,72	,60	2,400	0,80
,65	1,662	0,55	,65	1,912	0,64	,65	2,162	0,72	,65	2,412	0,80
,70	1,675	0,56	,70	1,925	0,64	,70	2,175	0,73	,70	2,425	0,81
,75	1,687	0,56	,75	1,937	0,65	,75	2,187	0,73	,75	2,437	0,81
,80	1,700	0,57	,80	1,950	0,65	,80	2,200	0,73	,80	2,450	0,82
,85	1,712	0,57	,85	1,962	0,65	,85	2,212	0,74	,85	2,462	0,82
,90	1,725	0,58	,90	1,975	0,66	,90	2,225	0,74	,90	2,475	0,83
,95	1,737	0,58	,95	1,987	0,66	,95	2,237	0,75	,95	2,487	0,83

Tableau I A *(suite)* **Table I A** *(continued)*

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
10,00	2,500	0,83	**11**,00	2,750	0,92	**12**,00	3,000	1,00	**13**,00	3,250	1,08
,05	2,512	0,84	,05	2,762	0,92	,05	3,012	1,00	,05	3,262	1,09
,10	2,525	0,84	,10	2,775	0,93	,10	3,025	1,01	,10	3,275	1,09
,15	2,537	0,85	,15	2,787	0,93	,15	3,037	1,01	,15	3,287	1,10
,20	2,550	0,85	,20	2,800	0,93	,20	3,050	1,02	,20	3,300	1,10
,25	2,562	0,85	,25	2,812	0,94	,25	3,062	1,02	,25	3,312	1,10
,30	2,575	0,86	,30	2,825	0,94	,30	3,075	1,03	,30	3,325	1,11
,35	2,587	0,86	,35	2,837	0,95	,35	3,087	1,03	,35	3,337	1,11
,40	2,600	0,87	,40	2,850	0,95	,40	3,100	1,03	,40	3,350	1,12
,45	2,612	0,87	,45	2,862	0,95	,45	3,112	1,04	,45	3,362	1,12
,50	2,625	0,88	,50	2,875	0,96	,50	3,125	1,04	,50	3,375	1,13
,55	2,637	0,88	,55	2,887	0,96	,55	3,137	1,05	,55	3,387	1,13
,60	2,650	0,88	,60	2,900	0,97	,60	3,150	1,05	,60	3,400	1,13
,65	2,662	0,89	,65	2,912	0,97	,65	3,162	1,05	,65	3,412	1,14
,70	2,675	0,89	,70	2,925	0,98	,70	3,175	1,06	,70	3,425	1,14
,75	2,687	0,90	,75	2,937	0,98	,75	3,187	1,06	,75	3,437	1,15
,80	2,700	0,90	,80	2,950	0,98	,80	3,200	1,07	,80	3,450	1,15
,85	2,712	0,90	,85	2,962	0,99	,85	3,212	1,07	,85	3,462	1,15
,90	2,725	0,91	,90	2,975	0,99	,90	3,225	1,08	,90	3,475	1,16
,95	2,737	0,91	,95	2,987	1,00	,95	3,237	1,08	,95	3,487	1,16
14,00	3,500	1,17	**15**,00	3,750	1,25	**16**,00	4,000	1,33	**17**,00	4,250	1,42
,05	3,512	1,17	,05	3,762	1,25	,05	4,012	1,34	,05	4,262	1,42
,10	3,525	1,18	,10	3,775	1,26	,10	4,025	1,34	,10	4,275	1,43
,15	3,537	1,18	,15	3,787	1,26	,15	4,037	1,35	,15	4,287	1,43
,20	3,550	1,18	,20	3,800	1,27	,20	4,050	1,35	,20	4,300	1,43
,25	3,562	1,19	,25	3,812	1,27	,25	4,062	1,35	,25	4,312	1,44
,30	3,575	1,19	,30	3,825	1,28	,30	4,075	1,36	,30	4,325	1,44
,35	3,587	1,20	,35	3,837	1,28	,35	4,087	1,36	,35	4,337	1,45
,40	3,600	1,20	,40	3,850	1,28	,40	4,100	1,37	,40	4,350	1,45
,45	3,612	1,20	,45	3,862	1,29	,45	4,112	1,37	,45	4,362	1,45
,50	3,625	1,21	,50	3,875	1,29	,50	4,125	1,38	,50	4,375	1,46
,55	3,637	1,21	,55	3,887	1,30	,55	4,137	1,38	,55	4,387	1,46
,60	3,650	1,22	,60	3,900	1,30	,60	4,150	1,38	,60	4,400	1,47
,65	3,662	1,22	,65	3,912	1,30	,65	4,162	1,39	,65	4,412	1,47
,70	3,675	1,23	,70	3,925	1,31	,70	4,175	1,39	,70	4,425	1,48
,75	3,687	1,23	,75	3,937	1,31	,75	4,187	1,40	,75	4,437	1,48
,80	3,700	1,23	,80	3,950	1,32	,80	4,200	1,40	,80	4,450	1,48
,85	3,712	1,24	,85	3,962	1,32	,85	4,212	1,40	,85	4,462	1,49
,90	3,725	1,24	,90	3,975	1,33	,90	4,225	1,41	,90	4,475	1,49
,95	3,737	1,25	,95	3,987	1,33	,95	4,237	1,41	,95	4,487	1,50

Tableau I A *(suite)* **Table I A** *(continued)*

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
18,00	4,500	1,50	**19**,00	4,750	1,58	**20**,00	5,000	1,67	**21**,00	5,250	1,75
,05	4,512	1,50	,05	4,762	1,59	,05	5,012	1,67	,05	5,262	1,75
,10	4,525	1,51	,10	4,775	1,59	,10	5,025	1,68	,10	5,275	1,76
,15	4,537	1,51	,15	4,787	1,60	,15	5,037	1,68	,15	5,287	1,76
,20	4,550	1,52	,20	4,800	1,60	,20	5,050	1,68	,20	5,300	1,77
,25	4,562	1,52	,25	4,812	1,60	,25	5,062	1,69	,25	5,312	1,77
,30	4,575	1,53	,30	4,825	1,61	,30	5,075	1,69	,30	5,325	1,78
,35	4,587	1,53	,35	4,837	1,61	,35	5,087	1,70	,35	5,337	1,78
,40	4,600	1,53	,40	4,850	1,62	,40	5,100	1,70	,40	5,350	1,78
,45	4,612	1,54	,45	4,862	1,62	,45	5,112	1,70	,45	5,362	1,79
,50	4,625	1,54	,50	4,875	1,63	,50	5,125	1,71	,50	5,375	1,79
,55	4,637	1,55	,55	4,887	1,63	,55	5,137	1,71	,55	5,387	1,80
,60	4,650	1,55	,60	4,900	1,63	,60	5,150	1,72	,60	5,400	1,80
,65	4,662	1,55	,65	4,912	1,64	,65	5,162	1,72	,65	5,412	1,80
,70	4,675	1,56	,70	4,925	1,64	,70	5,175	1,73	,70	5,425	1,81
,75	4,687	1,56	,75	4,937	1,65	,75	5,187	1,73	,75	5,437	1,81
,80	4,700	1,57	,80	4,950	1,65	,80	5,200	1,73	,80	5,450	1,82
,85	4,712	1,57	,85	4,962	1,65	,85	5,212	1,74	,85	5,462	1,82
,90	4,725	1,58	,90	4,975	1,66	,90	5,225	1,74	,90	5,475	1,83
,95	4,737	1,58	,95	4,987	1,66	,95	5,237	1,75	,95	5,487	1,83
22,00	5,500	1,83	**23**,00	5,750	1,92	**24**,00	6,000	2,00	**25**,00	6,250	2,08
,05	5,512	1,84	,05	5,762	1,92	,05	6,012	2,00	,05	6,262	2,09
,10	5,525	1,84	,10	5,775	1,93	,10	6,025	2,01	,10	6,275	2,09
,15	5,537	1,85	,15	5,787	1,93	,15	6,037	2,01	,15	6,287	2,10
,20	5,550	1,85	,20	5,800	1,93	,20	6,050	2,02	,20	6,300	2,10
,25	5,562	1,85	,25	5,812	1,94	,25	6,062	2,02	,25	6,312	2,10
,30	5,575	1,86	,30	5,825	1,94	,30	6,075	2,03	,30	6,325	2,11
,35	5,587	1,86	,35	5,837	1,95	,35	6,087	2,03	,35	6,337	2,11
,40	5,600	1,87	,40	5,850	1,95	,40	6,100	2,03	,40	6,350	2,12
,45	5,612	1,87	,45	5,862	1,95	,45	6,112	2,04	,45	6,362	2,12
,50	5,625	1,88	,50	5,875	1,96	,50	6,125	2,04	,50	6,375	2,13
,55	5,637	1,88	,55	5,887	1,96	,55	6,137	2,05	,55	6,387	2,13
,60	5,650	1,88	,60	5,900	1,97	,60	6,150	2,05	,60	6,400	2,13
,65	5,662	1,89	,65	5,912	1,97	,65	6,162	2,05	,65	6,412	2,14
,70	5,675	1,89	,70	5,925	1,98	,70	6,175	2,06	,70	6,425	2,14
,75	5,687	1,90	,75	5,937	1,98	,75	6,187	2,06	,75	6,437	2,15
,80	5,700	1,90	,80	5,950	1,98	,80	6,200	2,07	,80	6,450	2,15
,85	5,712	1,90	,85	5,962	1,99	,85	6,212	2,07	,85	6,462	2,15
,90	5,725	1,91	,90	5,975	1,99	,90	6,225	2,08	,90	6,475	2,16
,95	5,737	1,91	,95	5,987	2,00	,95	6,237	2,08	,95	6,487	2,16

Tableau I A *(suite)* **Table I A** *(continued)*

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage delpth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
26,00	6,500	2,17	**27**,00	6,750	2,25	**28**,00	7,000	2,33	**29**,00	7,250	2,42
,05	6,512	2,17	,05	6,762	2,25	,05	7,012	2,34	,05	7,262	2,42
,10	6,525	2,18	,10	6,775	2,26	,10	7,025	2,34	,10	7,275	2,43
,15	6,537	2,18	,15	6,787	2,26	,15	7,037	2,35	,15	7,287	2,43
,20	6,550	2,18	,20	6,800	2,27	,20	7,050	2,35	,20	7,300	2,43
,25	6,562	2,19	,25	6,812	2,27	,25	7,062	2,35	,25	7,312	2,44
,30	6,575	2,19	,30	6,825	2,28	,30	7,075	2,36	,30	7,325	2,44
,35	6,587	2,20	,35	6,837	2,28	,35	7,087	2,36	,35	7,337	2,45
,40	6,600	2,20	,40	6,850	2,28	,40	7,100	2,37	,40	7,350	2,45
,45	6,612	2,20	,45	6,862	2,29	,45	7,112	2,37	,45	7,362	2,45
,50	6,625	2,21	,50	6,875	2,29	,50	7,125	2,38	,50	7,375	2,46
,55	6,637	2,21	,55	6,887	2,30	,55	7,137	2,38	,55	7,387	2,46
,60	6,650	2,22	,60	6,900	2,30	,60	7,150	2,38	,60	7,400	2,47
,65	6.662	2,22	,65	6,912	2,30	,65	7,162	2,39	,65	7,412	2,47
,70	6,675	2,23	,70	6,925	2,31	,70	7,175	2,39	,70	7,425	2,48
,75	6,687	2,23	,75	6,937	2,31	,75	7,187	2,40	,75	7,437	2,48
,80	6,700	2,23	,80	6,950	2,32	,80	7,200	2,40	,80	7,450	2,48
,85	6.712	2,24	,85	6.962	2,32	,85	7,212	2,40	,85	7,462	2,49
,90	6,725	2,24	,90	6,975	2,33	,90	7,225	2,41	,90	7,475	2,49
,95	6,737	2,25	,95	6,987	2,33	,95	7,237	2,41	,95	7,487	2,50
30,00	7,500	2,50	**30**,25	7,562	2,52	**30**,50	7,625	2,54	**30**,75	7,687	2,56
,05	7,512	2,50	,30	7,575	2,53	,55	7,637	2,55	,80	7,700	2,57
,10	7,525	2,51	,35	7,587	2,53	,60	7,650	2,55	,85	7,712	2,57
,15	7,537	2,51	,40	7,600	2,53	,65	7,662	2,55	,90	7,725	2,58
,20	7,550	2,52	,45	7,612	2,54	,70	7,675	2,56	,95	7,737	2,58

Tableau I B

INDIQUANT EN PIEDS L'INTERVALLE COMMUN ET LE TIERS DE L'INTERVALLE COMMUN ENTRE LES LARGEURS POUR DIFFÉRENTES « HAUTEURS DE TONNAGE ».

La «hauteur de tonnage» au milieu de la longueur de tonnage *excède* 16 pieds.

Table I B

INDICATING IN FEET COMMON INTERVALS AND ONE-THIRD OF COMMON INTERVALS BETWEEN THE BREADTHS CORRESPONDING TO DIFFERENT TONNAGE DEPTHS.

The tonnage depth at the middle of the tonnage length *exceeds* 16 feet.

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
14,00	2,333	0,78	**15**,00	2,500	0,83	**16**,00	2,666	0,89	**17**,00	2,833	0,94
,05	2,341	0,78	,05	2,508	0,84	,05	2,675	0,89	,05	2,841	0,95
,10	2,350	0,78	,10	2,516	0,84	,10	2,683	0,89	,10	2,850	0,95
,15	2,358	0,79	,15	2,525	0,84	,15	2,691	0,90	,15	2,858	0,95
,20	2,366	0,79	,20	2,533	0,84	,20	2,700	0,90	,20	2,866	0,96
,25	2,375	0,79	,25	2,541	0,85	,25	2,708	0,90	,25	2,875	0,96
,30	2,383	0,79	,30	2,550	0,85	,30	2,716	0,91	,30	2,883	0,96
,35	2,391	0,80	,35	2,558	0,85	,25	2,725	0,91	,35	2,891	0,96
,40	2,400	0,80	,40	2,566	0,86	,40	2,733	0,91	,40	2,900	0,97
,45	2,408	0,80	,45	2,575	0,86	,45	2,741	0,91	,45	2,908	0,97
,50	2,416	0,81	,50	2,583	0,86	,50	2,750	0,92	,50	2,916	0,97
,55	2,425	0,81	,55	2,591	0,86	,55	2,758	0,92	,55	2,925	0,98
,60	2,433	0,81	,60	2 600	0,87	,60	2,766	0,92	,60	2,933	0,98
,65	2,441	0,81	,65	2,608	0,87	,65	2,775	0,93	,65	2,941	0,98
,70	2,450	0,82	,70	2,616	0,87	,70	2,783	0,93	,70	2,950	0,98
,75	2,458	0,82	,75	2,625	0,88	,75	2,791	0,93	,75	2,958	0,99
,80	2,466	0,82	,80	2,633	0,88	,80	2,800	0,93	,80	2,966	0,99
,85	2,475	0,83	,85	2,641	0,88	,85	2,808	0,94	,85	2,975	0,99
,90	2,483	0,83	,90	2,650	0,88	,90	2,816	0,94	,90	2,983	0,99
,95	2,491	0,83	,95	2,658	0,89	,95	2,825	0,94	,95	2,991	1,00
18,00	3,000	1,00	**19**,00	3,166	1,06	**20**,00	3,333	1,11	**21**,00	3,500	1,17
,05	3,008	1,00	,05	3,175	1,06	,05	3,341	1,11	,05	3,508	1,17
,10	3,016	1,01	,10	3,183	1,06	,10	3,350	1,12	,10	3,516	1,17
,15	3,025	1,01	,15	3,191	1,06	,15	3,358	1,12	,15	3,525	1,18
,20	3,033	1,01	,20	3,200	1,07	,20	3,366	1,12	,20	3,533	1,18
,25	3,041	1,01	,25	3,208	1,07	,25	3,375	1,13	,25	3,541	1,18
,30	3,050	1,02	,30	3,216	1,07	,30	3,383	1,13	,30	3,550	1,18
,35	3,058	1,02	,35	3,225	1,08	,35	3,391	1,13	,35	3,558	1,19
,40	3,066	1,02	,40	3,233	1,08	,40	3,400	1,13	,40	3,566	1,19
,45	3,075	1,03	,45	3,241	1,08	,45	3,408	1,14	,45	3,575	1,19
,50	3,083	1,03	,50	3,250	1,08	,50	3,416	1,14	,50	3,583	1,19
,55	3,091	1,03	,55	3,258	1,09	,55	3,425	1,14	,55	3,591	1,20
,60	3,100	1,03	,60	3,266	1,09	,60	3,433	1,14	,60	3,600	1,20
,65	3,108	1,04	,65	3,275	1,09	,65	3,441	1,15	,65	3,608	1,20
,70	3,116	1,04	,70	3,283	1,09	,70	3,450	1,15	,70	3,616	1,21
,75	3,125	1,04	,75	3,291	1,10	,75	3,458	1,15	,75	3,625	1,21
,80	3,133	1,04	,80	3,300	1,10	,80	3,466	1,16	,80	3,633	1,21
,85	3,141	1,05	,85	3,308	1,10	,85	3,475	1,16	,85	3,641	1,21
,90	3,150	1,05	,90	3,316	1,11	,90	3,483	1,16	,90	3,650	1,22
,95	3,158	1,05	,95	3,325	1,11	,95	3,491	1,16	,95	3,658	1,22

Tableau I B *(suite)* **Table I B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
22,00	3,666	1,22	**23**,00	3,833	1,28	**24**,00	4,000	1,33	**25**,00	4,166	1,39
,05	3,675	1,23	,05	3,841	1,28	,05	4,008	1,34	,05	4,175	1,39
,10	3,683	1,23	,10	3,850	1,28	,10	4,016	1,34	,10	4,183	1,39
,15	3,691	1,23	,15	3,858	1,29	,15	4,025	1,34	,15	4,191	1,40
,20	3,700	1,23	,20	3,866	1,29	,20	4,033	1,34	,20	4,200	1,40
,25	3,708	1,24	,25	3,875	1,29	,25	4,041	1,35	,25	4,208	1,40
,30	3,716	1,24	,30	3,883	1,29	,30	4,050	1,35	,30	4,216	1,41
,35	3,725	1,24	,35	3,891	1,30	,35	4,058	1,35	,35	4,225	1,41
,40	3,733	1,24	,40	3,900	1,30	,40	4,066	1,36	,40	4,233	1,41
,45	3,741	1,25	,45	3,908	1,30	,45	4,075	1,36	,45	4,241	1,41
,50	3,750	1,25	,50	3,916	1,31	50	4,083	1,36	,50	4,250	1,42
,55	3,758	1,25	,55	3,925	1,31	,55	4,091	1,36	,55	4,258	1,42
,60	3,766	1,26	,60	3,933	1,31	,60	4,100	1,37	,60	4,266	1,42
,65	3,775	1,26	,65	3,941	1,31	,65	4,108	1,37	,65	4,275	1,43
,70	3,783	1,26	,70	3,950	1,32	,70	4,116	1,37	,70	4,283	1,43
,75	3,791	1,26	,75	3,958	1,32	,75	4,125	1,38	,75	4,291	1,43
,80	3,800	1,27	,80	3,966	1,32	,80	4,133	1,38	,80	4,300	1,43
,85	3,808	1,27	,85	3,975	1,33	,85	4,141	1,38	,85	4,308	1,44
,90	3,816	1,27	,90	3,983	1,33	,90	4,150	1,38	,90	4,316	1,44
,95	3,825	1,28	,95	3,991	1,33	,95	4,158	1,39	,95	4,325	1,44
26,00	4,333	1,44	**27**,00	4,500	1,50	**28**,00	4,666	1,56	**29**,00	4,833	1,61
,05	4,341	1,45	,05	4,508	1,50	,05	4,675	1,56	,05	4,841	1,61
,10	4,350	1,45	,10	4,516	1,51	,10	4,683	1,56	,10	4,850	1,62
,15	4,358	1,45	,15	4,525	1,51	,15	4,691	1,56	,15	4,858	1,62
,20	4,366	1,46	,20	4,533	1,51	,20	4,700	1,57	,20	4,866	1,62
,25	4,375	1,46	,25	4,541	1,51	,25	4,708	1,57	,25	4,875	1,63
,30	4,383	1,46	,30	4,550	1,52	,30	4,716	1,57	,30	4,883	1,63
,35	4,391	1,46	,35	4,558	1,52	,35	4,725	1,58	,35	4,891	1,63
,40	4,400	1,47	,40	4,566	1,52	,40	4,733	1,58	,40	4,900	1,63
,45	4,408	1,47	,45	4,575	1,53	,45	4,741	1,58	,45	4,908	1,64
,50	4,416	1,47	,50	4,583	1,53	,50	4,750	1,58	,50	4,916	1,64
,55	4,425	1,48	,55	4,591	1,53	,55	4,758	1,59	,55	4,925	1,64
,60	4,433	1,48	,60	4,600	1,53	,60	4,766	1,59	,60	4,933	1,64
,65	4,441	1,48	,65	4,608	1,54	,65	4,775	1,59	,65	4,941	1,65
,70	4,450	1,48	,70	4,616	1,54	,70	4,783	1,59	,70	4,950	1,65
,75	4,458	1,49	,75	4,625	1,54	,75	4,791	1,60	,75	4,958	1,65
,80	4,466	1,49	80	4,633	1,54	,80	4,800	1,60	,80	4,966	1,66
,85	4,475	1,49	,85	4,641	1,55	,85	4,808	1,60	,85	4,975	1,66
,90	4,483	1,49	,90	4,650	1,55	,90	4,816	1,61	,90	4,983	1,66
,95	4,491	1,50	,95	4,658	1,55	,95	4,825	1,61	,95	4,991	1,66

Tableau I B *(suite)* **Table I B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval betw en breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
30,00	5,000	1,67	**31**,00	5,166	1,72	**32**,00	5,333	1,78	**33**,00	5,500	1,83
,05	5,008	1,67	,05	5,175	1,73	,05	5,341	1,78	,05	5,508	1,84
,10	5,016	1,67	,10	5,183	1,73	,10	5,350	1,78	,10	5,516	1,84
,15	5,025	1,68	,15	5,191	1,73	,15	5,358	1,79	,15	5,525	1,84
,20	5,033	1,68	,20	5,200	1,73	,20	5,366	1,79	,20	5,533	1,84
,25	5,041	1,68	,25	5,208	1,74	,25	5,375	1,79	,25	5,541	1,85
,30	5,050	1,68	,30	5,216	1,74	,30	5,383	1,79	,30	5,550	1,85
,35	5,058	1,69	,35	5,225	1,74	,35	5,391	1,80	,35	5,558	1,85
,40	5,066	1,69	,40	5,233	1,74	,40	5,400	1,80	,40	5,566	1,86
,45	5,075	1,69	,45	5,241	1,75	,45	5,408	1,80	,45	5,575	1,86
,50	5,083	1,69	,50	5,250	1,75	,50	5,416	1,81	,50	5,583	1,86
,55	5,091	1,70	,55	5,258	1,75	,55	5,425	1,81	,55	5,591	1,86
,60	5,100	1,70	,60	5,266	1,76	,60	5,433	1,81	,60	5,600	1,87
,65	5,108	1,70	,65	5,275	1,76	,65	5,441	1,81	,65	5,608	1,87
,70	5,116	1,71	,70	5,283	1,76	,70	5,450	1,82	,70	5,616	1,87
,75	5,125	1,71	,75	5,291	1,76	,75	5,458	1,82	,75	5,625	1,88
,80	5,133	1,71	,80	5,300	1,77	,80	5,466	1,82	,80	5,633	1,88
,85	5,141	1,71	,85	5,308	1,77	,85	5,475	1,83	,85	5,641	1,88
,90	5,150	1,72	,90	5,316	1,77	,90	5,483	1,83	,90	5,650	1,88
,95	5,158	1,72	,95	5,325	1,78	,95	5,491	1,83	,95	5,658	1,89
34,00	5,666	1,89	**35**,00	5,833	1,94	**36**,00	6,000	2,00	**37**,00	6,166	2,06
,05	5,675	1,89	,05	5,841	1,95	,05	6,008	2,00	,05	6,175	2,06
,10	5,683	1,89	,10	5,850	1,95	,10	6,016	2,01	,10	6,183	2,06
,15	5,691	1,90	,15	5,858	1,95	,15	6,025	2,01	,15	6,191	2,06
,20	5,700	1,90	,20	5,866	1,96	,20	6,033	2,01	,20	6,200	2,07
,25	5,708	1,90	,25	5,875	1,96	,25	6,041	2,01	,25	6,208	2,07
,30	5,716	1,91	,30	5,883	1,96	,30	6,050	2,02	,30	6,216	2,07
,35	5,725	1,91	,35	5,891	1,96	,35	6,058	2,02	,35	6,225	2,08
,40	5,733	1,91	,40	5,900	1,97	,40	6,066	2,02	,40	6,233	2,08
,45	5,741	1,91	,45	5,908	1,97	,45	6,075	2,03	,45	6,241	2,08
,50	5,750	1,92	,50	5,916	1,97	,50	6,083	2,03	,50	6,250	2,08
,55	5,758	1,92	,55	5,925	1,98	,55	6,091	2,03	,55	6,258	2,09
,60	5,766	1,92	,60	5,933	1,98	,60	6,100	2,03	,60	6,266	2,09
,65	5,775	1,93	,65	5,941	1,98	,65	6,108	2,04	,65	6,275	2,09
,70	5,783	1,93	,70	5,950	1,98	,70	6,116	2,04	,70	6,283	2,09
,75	5,791	1,93	,75	5,958	1,99	,75	6,125	2,04	,75	6,291	2,10
,80	5,800	1,93	,80	5,966	1,99	,80	6,133	2,04	,80	6,300	2,10
,85	5,808	1,94	,85	5,975	1,99	,85	6,141	2,05	,85	6,308	2,10
,90	5,816	1,94	,90	5,983	1,99	,90	6,150	2,05	,90	6,316	2,11
,95	5,825	1,94	,95	5,991	2,00	,95	6,158	2,05	,95	6,325	2,11

Tableau I B *(suite)* **Table I B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
38,00	6,333	2,11	**39**,00	6,500	2,17	**40**,00	6,666	2,22	**41**,00	6,833	2,28
,05	6,341	2,11	,05	6,508	2,17	,05	6,675	2,23	,05	6,841	2,28
,10	6,350	2,12	,10	6,516	2,17	,10	6,683	2,23	,10	6,850	2,28
,15	6,358	2,12	,15	6,525	2,18	,15	6,691	2,23	,15	6,858	2,29
,20	6,366	2,12	,20	6,533	2,18	,20	6,700	2,23	,20	6,866	2,29
,25	6,375	2,13	,25	6,541	2,18	,25	6,708	2,24	,25	6,875	2,29
,30	6,383	2,13	,30	6,550	2,18	,30	6,716	2,24	,30	6,883	2,29
,35	6,391	2,13	,35	6,558	2,19	,35	6,725	2,24	,35	6,891	2,30
,40	6,400	2,13	,40	6,566	2,19	,40	6,733	2,24	,40	6,900	2,30
,45	6,408	2,14	,45	6,575	2,19	,45	6,741	2,25	,45	6,908	2,30
,50	6,416	2,14	,50	6,583	2,19	,50	6,750	2,25	,50	6,916	2,31
,55	6,425	2,14	,55	6,591	2,20	,55	6,758	2,25	,55	6,925	2,31
,60	6,433	2,14	,60	6,600	2,20	,60	6,766	2,26	,60	6,933	2,31
,65	6,441	2,15	,65	6,608	2,20	,65	6,775	2,26	,65	6,941	2,31
,70	6,450	2,15	,70	6,616	2,21	,70	6,783	2,26	,70	6,950	2,32
,75	6,458	2,15	,75	6,625	2,21	,75	6,791	2,26	,75	6,958	2,32
,80	6,466	2,16	,80	6,633	2,21	,80	6,800	2,27	,80	6,966	2,32
,85	6,475	2,16	,85	6,641	2,21	,85	6,808	2,27	,85	6,975	2,33
,90	6,483	2,16	,90	6,650	2,22	,90	6,816	2,27	,90	6,983	2,33
,95	6,491	2,16	,95	6,658	2,22	,95	6,825	2,28	,95	6,991	2,33
42,00	7,000	2,33	**43**,00	7,166	2,39	**44**,00	7,333	2,44	**45**,00	7,500	2,50
,05	7,008	2,34	,05	7,175	2,39	,05	7,341	2,45	,05	7,508	2,50
,10	7,016	2,34	,10	7,183	2,39	,10	7,350	2,45	,10	7,516	2,51
,15	7,025	2,34	,15	7,191	2,40	,15	7,358	2,45	,15	7,525	2,51
,20	7,033	2,34	,20	7,200	2,40	,20	7,366	2,46	,20	7,533	2,51
,25	7,041	2,35	,25	7,208	2,40	,25	7,375	2,46	,25	7,541	2,51
,30	7,050	2,35	,30	7,216	2,41	,30	7,383	2,46	,30	7,550	2,52
,35	7,058	2,35	,35	7,225	2,41	,35	7,391	2,46	,35	7,558	2,52
,40	7,066	2,36	,40	7,233	2,41	,40	7,400	2,47	,40	7,566	2,52
,45	7,075	2,36	,45	7,241	2,41	,45	7,408	2,47	,45	7,575	2,53
,50	7,083	2,36	,50	7,250	2,42	,50	7,416	2,47	,50	7,583	2,53
,55	7,091	2,36	,55	7,258	2,42	,55	7,425	2,48	,55	7,591	2,53
,60	7,100	2,37	,60	7,266	2,42	,60	7,433	2,48	,60	7,600	2,53
,65	7,108	2,37	,65	7,275	2,43	,65	7,441	2,48	,65	7,608	2,54
,70	7,116	2,37	,70	7,283	2,43	,70	7,450	2,48	,70	7,616	2,54
,75	7,125	2,38	,75	7,291	2,43	,75	7,458	2,49	,75	7,625	2,54
,80	7,133	2,38	,80	7,300	2,43	,80	7,466	2,49	,80	7,633	2,54
,85	7,141	2,38	,85	7,308	2,44	,85	7,475	2,49	,85	7,641	2,55
,90	7,150	2,38	,90	7,316	2,44	,90	7,483	2,49	,90	7,650	2,55
,95	7,158	2,39	,95	7,325	2,44	,95	7,491	2,50	,95	7,658	2,55

Tableau II A

INDIQUANT EN MÈTRES L'INTERVALLE COMMUN ET LE TIERS DE L'INTERVALLE COMMUN ENTRE LES LARGEURS POUR DIFFÉRENTES « HAUTEURS DE TONNAGE ».

La « hauteur de tonnage » au milieu de la longueur de tonnage *n'excède pas* 4 m. 90.

Table II A

INDICATING IN METRES COMMON INTERVALS AND ONE-THIRD OF COMMON INTERVALS BETWEEN THE BREADTHS CORRESPONDING TO DIFFERENT TONNAGE DEPTHS.

The tonnage depth and the middle of the tonnage length *does not exceed* 4.90 metres.

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
0.50	0.1250	0.042	0.70	0.1750	0.058	0.90	0.2250	0.075	1.10	0.2750	0.092
0.51	0.1275	0.043	0.71	0.1775	0.059	0.91	0.2275	0.076	1.11	0.2775	0.093
0.52	0.1300	0.043	0.72	0.1800	0.060	0.92	0.2300	0.077	1.12	0.2800	0.093
0.53	0.1325	0.044	0.73	0.1825	0.061	0.93	0.2325	0.078	1.13	0.2825	0.094
0.54	0.1350	0.045	0.74	0.1850	0.062	0.94	0.2350	0.078	1.14	0.2850	0.095
0.55	0.1375	0.046	0.75	0.1875	0.063	0.95	0.2375	0.079	1.15	0.2875	0.096
0.56	0.1400	0.047	0.76	0.1900	0.063	0.96	0.2400	0.080	1.16	0.2900	0.097
0.57	0.1425	0.048	0.77	0.1925	0.064	0.97	0.2425	0.081	1.17	0.2925	0.098
0.58	0.1450	0.048	0.78	0.1950	0.065	0.98	0.2450	0.082	1.18	0.2950	0.098
0.59	0.1475	0.049	0.79	0.1975	0.066	0.99	0.2475	0.083	1.19	0.2975	0.099
0.60	0.1500	0.050	0.80	0.2000	0.067	1.00	0.2500	0.083	1.20	0.3000	0.100
0.61	0.1525	0.051	0.81	0.2025	0.068	1.01	0.2525	0.084	1.21	0.3025	0.101
0.62	0.1550	0.052	0.82	0.2050	0.068	1.02	0.2550	0.085	1.22	0.3050	0.102
0.63	0.1575	0.053	0.83	0.2075	0.069	1.03	0.2575	0.086	1.23	0.3075	0.103
0.64	0.1600	0.053	0.84	0.2100	0.070	1.04	0.2600	0 087	1.24	0.3100	0 103
0.65	0.1625	0.054	0.85	0.2125	0.071	1.05	0.2625	0.088	1.25	0.3125	0.104
0.66	0.1650	0.055	0.86	0.2150	0.072	1.06	0.2650	0.088	1.26	0.3150	0.105
0.67	0.1675	0.056	0.87	0.2175	0.073	1.07	0.2675	0.089	1.27	0.3175	0.106
0.68	0.1700	0.057	0.88	0.2200	0.073	1.08	0.2700	0.090	1.28	0.3200	0.170
0.69	0.1725	0.058	0.89	0.2225	0.074	1.09	0.2725	0.091	1.29	0.3225	0.108
1.30	0.3250	0.108	1.50	0.3750	0.125	1.70	0.4250	9.142	1.90	0.4750	0.158
1.31	9.3275	0.109	1.51	0.3775	0.126	1.71	0.4275	0.143	1.91	0.4775	0.159
1.32	0.3300	0.110	1.52	0.3800	0.127	1.72	0.4300	0.143	1.92	0.4800	0.160
1.33	0.3325	0.111	1.53	0.3825	0.128	1.73	0.4325	0.144	1.93	0.4825	0.161
1.34	0.3350	0.112	1.54	0.3850	0.128	1.74	0.4350	0.145	1.94	0.4850	0.162
1.35	0.3375	0.113	1.55	0.3875	0.129	1.75	0.4375	0.146	1.95	0.4875	0.163
1.36	0.3400	0.113	1.56	0.3900	0.130	1.76	0.4400	0.147	1.96	0.4900	0.163
1.37	0.3425	0.114	1.57	0.3925	0.131	1.77	0.4425	0.148	1.97	0.4925	0.164
1.38	0.3450	0.115	1.58	0.3950	0.132	1.78	0.1450	0.148	1.98	0.4950	0.165
1.39	0.3475	0.116	1.59	0.3975	0.133	1.79	0.4475	0.149	1.99	0.4975	0.166
1.40	0.3500	0.117	1.60	0.4000	0.133	1.80	0.4500	0.150	2.00	0.5000	0.167
1.41	0.3525	0.118	1.61	0.4025	0.134	1.81	0.4525	0.151	2.01	0.5025	0.168
1.42	0.3550	0.118	1.62	0.4050	0.135	1.82	0.4550	0.152	2.02	0.5050	0.168
1.43	0.3575	0.119	1.63	0.4075	0.136	1.83	0.4575	0.153	2.03	0.5075	0.169
1.44	0.3600	0.120	1.64	0.4100	0.137	1.84	0.4600	0.153	2.04	0.5100	0.170
1.45	0.3625	0.121	1.65	0.4125	0.138	1.85	0.4625	0.154	2.05	0.5125	0.171
1.46	0.3650	0.122	1.66	0.4150	0.138	1.86	0.4650	0.155	2.06	0.5150	0.172
1.47	0.3675	0.123	1.67	0.4175	0.139	1.87	0.4675	0.156	2.07	0.5175	0.173
1.48	0.3700	0.123	1.68	0.4200	0.140	1.88	0.4700	0.157	2.08	0.5200	0.173
1.49	0.3725	0.124	1.69	0.4225	0.141	1.89	0.4725	0.158	2.09	0.5225	0.174

Tableau II A *(suite)* **Table II A** *(continued)*

Hauteur de tonnage / Tonnage depth	1/4 hauteur de tonnage / 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage / Tonnage depth	1/4 hauteur de tonnage / 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage / Tonnage depth	1/4 hauteur de tonnage / 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage / Tonnage depth	1/4 hauteur de tonnage / 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
2.10	0.5250	0.175	2.30	0.5750	0.192	2.50	0.6250	0.208	2.70	0.6750	0.225
2.11	0.5275	0.176	2.31	0.5775	0.193	2.51	0.6275	0.209	2.71	0.6775	0.226
2.12	0.5300	0.177	2.32	0.5800	0.193	2.52	0.6300	0.210	2.72	0.6800	0.227
2.13	0.5325	0.178	2.33	0.5825	0.194	2.53	9.6325	0.211	2.73	0.6825	0.228
2.14	0.5350	0.178	2.34	0.5850	0.195	2.54	0.6350	0.212	2.74	0.6850	0.228
2.15	0.5375	0.179	2.35	0.5875	0.196	2.55	0.6375	0.213	2.75	0.6875	0.229
2.16	0.5400	0.180	2.36	0.5900	0.197	2.56	0.6400	0.213	2.76	0.6900	0.230
2.17	0.5425	9.181	2.37	0.5925	0.198	2.57	0.6425	0.214	2.77	0.6925	0.231
2.18	0.5450	0.182	2.38	0.5950	0.198	2.58	0.6450	0.215	2.78	0.6950	0.232
2.19	0.5475	0.183	2.39	0.5975	0.199	2.59	0.6475	0.216	2.79	0.6975	0.233
2.20	0.5500	0.183	2.40	0.6000	0.200	2.60	0.6500	0.217	2.80	0.7000	0.233
2.21	0.5525	0.184	2.41	0.6025	0.201	2.61	0.6525	0.218	2.81	0.7025	0.234
2.22	0.5550	0.185	2.42	0.6050	0.202	2.62	0.6550	0.218	2.82	0.7050	0.235
2.23	0.5575	0.186	2.43	0.6075	0.203	2.63	0.6575	0.219	2.83	0.7075	0.236
2.24	0.5600	0.187	2.44	0.6100	0.203	2.64	0.6600	0.220	2.84	0.7100	0.237
2.25	0.5625	0.188	2.45	0.6125	0.204	2.65	0.6625	0.221	2.85	0.7125	0.238
2.26	0.5650	0.188	2.46	0.6150	0.205	2.66	0.6650	0.222	2.86	0.7150	0.238
2.27	0.5675	0.189	2.47	0.6175	0.206	2.67	0.6675	0.223	2.87	0.7175	0.239
2.28	0.5700	0.190	2.48	0.6200	0.207	2.68	0.6700	0.223	2.88	0.7200	0.240
2.29	0.5725	0.191	2.49	0.6225	0.208	2.69	0.6725	0.224	2.89	0.7225	0.241
2.90	0.7250	0.242	3.10	0.7750	0.258	3.30	0.8250	0.275	3.50	0.8750	0.292
2.91	0.7275	0.243	3.11	0.7775	0.259	3.31	0.8275	0.276	3.51	0.8775	0.293
2.92	0.7300	0.243	3.12	0.7800	0.260	3.32	0.8300	0.277	3.52	0.8800	0.293
2.93	0.7325	0.244	3.13	0.7825	0.261	3.33	0.8325	0.278	3.53	0.8825	0.294
2.94	0.7350	0.245	3.14	0.7850	0.262	3.34	0.8350	0.278	3.54	0.8850	0.295
2.95	0.7375	0.246	3.15	0.7875	0.263	3.35	0.8375	0.279	3.55	0.8875	0.296
2.96	0.7400	0.247	3.16	0.7900	0.263	3.36	0.8400	0.280	3.56	0.8900	0.297
2.97	0.7425	0.248	3.17	0.7925	0.264	3.37	0.8425	0.281	3.57	0.8925	0.298
2.98	0.7450	0.248	3.18	0.7950	0.265	3.38	0.8450	0.282	3.58	0.8950	0.298
2.99	0.7475	0.249	3.19	0.7975	0.266	3.39	0.8475	0.283	3.59	0.8975	0.299
3.00	0.7500	0.250	3.20	0.8000	0.267	3.40	0.8500	0.283	3.60	0.9000	0.300
3.01	0.7525	0.251	3.21	0.8025	0.268	3.41	0.8525	0.284	3.61	0.9025	0.301
3.02	0.7550	0.252	3.22	0.8050	0.268	3.42	0.8550	0.285	3.62	0.9050	0.302
3.03	0.7575	0.253	3.23	0.8075	0.269	3.43	0.8575	0.286	3.63	0.9075	0.303
3.04	0.7600	0.253	3.24	0.8100	0.270	3.44	0.8600	0.287	3.64	0.9100	0.303
3.05	0.7625	0.254	3.25	0.8125	0.271	3.45	0.8625	0.288	3.65	0.9125	0.304
3.06	0.7650	0.255	3.26	0.8150	0.272	3.46	0.8650	0.288	3.66	0.9150	0.305
3.07	0.7675	0.256	3.27	0.8175	0.273	3.47	0.8675	0.289	3.67	0.9175	0.306
3.08	0.7700	0.257	3.28	0.8200	0.273	3.48	9.8700	0.290	3.68	0.9200	0.307
3.09	0.7725	0.258	3.29	0.8225	0.274	3.49	0.8725	0.291	3.69	0.9225	0.308

Tableau II A *(suite)* **Table II A** *(continued)*

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
3.70	0.9250	0.308	3.90	0.9750	0.325	4.10	1.0250	0.342	4.30	1.0750	0.358
3.71	0.9275	0.309	3.91	0.9775	0.326	4.11	1.0275	0.343	4.31	1.0775	0.359
3.72	0.9300	0.310	3.92	0.9800	0.327	4.12	1.0300	0.343	4.32	1.0800	0.360
3.73	0.9325	0.311	3.93	0.9825	0.328	4.13	1.0325	0.344	4.33	1.0825	0.361
3.74	0.9350	0.312	3.94	0.9850	0.328	4.14	1.0350	0.345	4.34	1.0850	0.362
3.75	0.9375	0.313	3.95	0.9875	0.329	4.15	1.0375	0.346	4.35	1.0875	0.363
3.76	0.9400	0.313	3.96	0.9900	0.330	4.16	1.0400	0.347	4.36	1.0900	0.363
3.77	0.9425	0.314	3.97	0.9925	0.331	4.17	1.0425	0.348	4.37	1.0925	0.364
3.78	0.9450	0.315	3.98	0.9950	0.332	4.18	1.0450	0.348	4.38	1.0950	0.365
3.79	0.9475	0.316	3.99	0.9975	0.333	4.19	1.0475	0.349	4.39	1.0975	0.366
3.80	0.9500	0.317	4.00	1.0000	0.333	4.20	1.0500	0.350	4.40	1.1000	0.367
3.81	0.9525	0.318	4.01	1.0025	0.334	4.21	1.0525	0.351	4.41	1.1025	0.368
3.82	0.9550	0.318	4.02	1.0050	0.335	4.22	1.0550	0.352	4.42	1.1050	0.368
3.83	0.9575	0.319	4.03	1.0075	0.336	4.23	1.0575	0.353	4.43	1.1075	0.369
3.84	0.9600	0.320	4.04	1.0100	0.337	4.24	1.0600	0.353	4.44	1.1100	0.370
3.85	0.9625	0.321	4.05	1.0125	0.338	4.25	1.0625	0.354	4.45	1.1125	0.371
3.86	0.9650	0.322	4.06	1.0150	0.338	4.26	1.0650	0.355	4.46	1.1150	0.372
3.87	0.9675	0.323	4.07	1.0175	0.339	4.27	1.0675	0.356	4.47	1.1175	0.373
3.88	0.9700	0.323	4.08	1.0200	0.340	4.28	1.0700	0.357	4.48	1.1200	0.373
3.89	0.9725	0.324	4.09	1.0225	0.341	4.29	1.0725	0.358	4.49	1.1225	0.374
4.50	1.1250	0.375	4.70	1.1750	0.392	4.90	1.2250	0.408	5.10	1.2750	0.425
4.51	1.1275	0.376	4.71	1.1775	0.393	4.91	1.2275	0.409	5.11	1.2775	0.426
4.52	1.1300	0.377	4.72	1.1800	0.393	4.92	1.2300	0.410	5.12	1.2800	0.427
4.53	1.1325	0.378	4.73	1.1825	0.394	4.93	1.2325	0.411	5.13	1.2825	0.428
4.54	1.1350	0.378	4.74	1.1850	0.395	4.94	1.2350	0.412	5.14	1.2850	0.428
4.55	1.1375	0.379	4.75	1.1875	0.396	4.95	1.2375	0.413	5.15	1.2875	0.429
4.56	1.1400	0.380	4.76	1.1900	0.397	4.96	1.2400	0.413	5.16	1.2900	0.430
4.57	1.1425	0.381	4.77	1.1925	0.398	4.97	1.2425	0.414	5.17	1.2925	0.431
4.58	1.1450	0.382	4.78	1.1950	0.398	4.98	1.2450	0.415	5.18	1.2950	0.432
4.59	1.1475	0.383	4.79	1.1975	0.399	4.99	1.2475	0.416	5.19	1.2975	0.433
4.60	1.1500	0.383	4.80	1.2000	0.400	5.00	1.2500	0.417	5.20	1.3000	0.433
4.61	1.1525	0.384	4.81	1.2025	0.401	5.01	1.2525	0.418	5.21	1.3025	0.434
4.62	1.1550	0.385	4.82	1.2050	0.402	5.02	1.2550	0.418	5.22	1.3050	0.435
4.63	1.1575	0.386	4.83	1.2075	0.403	5.03	1.2575	0.419	5.23	1.3075	0.436
4.64	1.1600	0.387	4.84	1.2100	0.403	5.04	1.2600	0.420	5.24	1.3100	0.437
4.65	1.1625	0.388	4.85	1.2125	0.404	5.05	1.2625	0.421	5.25	1.3125	0.438
4.66	1.1650	0.388	4.86	1.2150	0.405	5.06	1.2650	0.422	5.26	1.3150	0.438
4.67	1.1675	0.389	4.87	1.2175	0.406	5.07	1.2675	0.423	5.27	1.3175	0.439
4.68	1.1700	0.390	4.88	1.2200	0.407	5.08	1.2700	0.423	5.28	1.3200	0.440
4.69	1.1725	0.391	4.89	1.2225	0.408	5.09	1.2725	0.424	5.29	1.3225	0.441

Tableau II A *(suite)* **Table II A** *(continued)*

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
5.30	1.3250	0.442	5.50	1.3750	0.458	5.70	1.4250	0.475	5.90	1.4750	0.492
5.31	1.3275	0.443	5.51	1.3775	0.459	5.71	1.4275	0.476	5.91	1.4775	0.493
5.32	1.3300	0.443	5.52	1.3800	0.460	5.72	1.4300	0.477	5.92	1.4800	0.493
5.33	1.3325	0.444	5.53	1.3825	0.461	5.73	1.4325	0.478	5.93	1.4825	0.494
5.34	1.3350	0.445	5.54	1.3850	0.462	5.74	1.4350	0.478	5.94	1.4850	0.495
5.35	1.3375	0.446	5.55	1.3875	0.463	5.75	1.4375	0.479	5.95	1.4875	0.496
5.36	1.3400	0.447	5.56	1.3900	0.463	5.76	1.4400	0.480	5.96	1.4900	0.497
5.37	1.3425	0.448	5.57	1.3925	0.464	5.77	1.4425	0.481	5.97	1.4925	0.498
5.38	1.3450	0.448	5.58	1.3950	0.465	5.78	1.4450	0.482	5.98	1.4950	0.498
5.39	1.3475	0.449	5.59	1.3975	0.466	5.79	1.4475	0.483	5.99	1.4975	0.499
5.40	1.3500	0.450	5.60	1.4000	0.467	5.80	1.4500	0.483	6.00	1.5000	0.500
5.41	1.3525	0.451	5.61	1.4025	0.468	5.81	1.4525	0.484	6.01	1.5025	0.501
5.42	1.3550	0.452	5.62	1.4050	0.468	5.82	1.4550	0.485	6.02	1.5050	0.502
5.43	1.3575	0.453	5.63	1.4075	0.469	5.83	1.4575	0.486	6.03	1.5075	0.503
5.44	1.3600	0.453	5.64	1.4100	0.470	5.84	1.4600	0.487	6.04	1.5100	0.503
5.45	1.3625	0.454	5.65	1.4125	0.471	5.85	1.4625	0.488	6.05	1.5125	0.504
5.46	1.3650	0.455	5.66	1.4150	0.472	5.86	1.4650	0.488	6.06	1.5150	0.505
5.47	1.3675	0.456	5.67	1.4175	0.473	5.87	1.4675	0.489	6.07	1.5175	0.506
5.48	1.3700	0.457	5.68	1.4200	0.473	5.88	1.4700	0.490	6.08	1.5200	0.507
5.49	1.3725	0.458	5.69	1.4225	0.474	5.89	1.4725	0.491	6.09	1.5225	0.508
6.10	1.5250	0.508	6.30	1.5750	0.525	6.50	1.6250	0.542	6.70	1.6750	0.558
6.11	1.5275	0.509	6.31	1.5775	0.526	6.51	1.6275	0.543	6.71	1.6775	0.559
6.12	1.5300	0.510	6.32	1.5800	0.527	6.52	1.6300	0.543	6.72	1.6800	0.560
6.13	1.5325	0.511	6.33	1.5825	0.528	6.53	1.6325	0.544	6.73	1.6825	0.561
6.14	1.5350	0.512	6.34	1.5850	0.528	6.54	1.6350	0.545	6.74	1.6850	0.562
6.15	1.5375	0.513	6.35	1.5875	0.529	6.55	1.6375	0.546	6.75	1.6875	0.563
6.16	1.5400	0.513	6.36	1.5900	0.530	6.56	1.6400	0.547	6.76	1.6900	0.563
6.17	1.5425	0.514	6.37	1.5925	0.531	6.57	1.6425	0.548	6.77	1.6925	0.564
6.18	1.5450	0.515	6.38	1.5950	0.532	6.58	1.6450	0.548	6.78	1.6950	0.565
6.19	1.5475	0.516	6.39	1.5975	0.533	6.59	1.6475	0.549	6.79	1.6975	0.566
6.20	1.5500	0.517	6.40	1.6000	0.533	6.60	1.6500	0.550	6.80	1.7000	0.567
6.21	1.5525	0.518	6.41	1.6025	0.534	6.61	1.6525	0.551	6.81	1.7025	0.568
6.22	1.5550	0.518	6.42	1.6050	0.535	6.62	1.6550	0.552	6.82	1.7050	0.568
6.23	1.5575	0.519	6.43	1.6075	0.536	6.63	1.6575	0.553	6.83	1.7075	0.569
6.24	1.5600	0.520	6.44	1.6100	0.537	6.64	1.6600	0.553	6.84	1.7100	0.570
6.25	1.5625	0.521	6.45	1.6125	0.538	6.65	1.6625	0.554	6.85	1.7125	0.571
6.26	1.5650	0.522	6.46	1.6150	0.538	6.66	1.6650	0.555	6.86	1.7150	0.572
6.27	1.5675	0.523	6.47	1.6175	0.539	6.67	1.6675	0.556	6.87	1.7175	0.573
6.28	1.5700	0.523	6.48	1.6200	0.540	6.68	1.6700	0.557	6.88	1.7200	0.573
6.29	1.5725	0.524	6.49	1.6225	0.541	6.69	1.6725	0.558	6.89	1.7225	0.574

Tableau II A *(suite)* **Table II A** *(continued)*

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
6.90	1.7250	0.575	7.10	1.7750	0.592	7.30	1.8250	0.608	7.50	1.8750	0.625
6.91	1.7275	0.576	7.11	1.7775	0.593	7.31	1.8275	0.609	7.51	1.8775	0.626
6.92	1.7300	0.577	7.12	1.7800	0.593	7.32	1.8300	0.610	7.52	1.8800	0.627
6.93	1.7325	0.578	7.13	1.7825	0.594	7.33	1.8325	0.611	7.53	1.8825	0.628
6.94	1.7350	0.578	7.14	1.7850	0.595	7.34	1.8350	0.612	7.54	1.8850	0.628
6.95	1.7375	0.579	7.15	1.7875	0.596	7.35	1.8375	0.613	7.55	1.8875	0.629
6.96	1.7400	0.580	7.16	1.7900	0.597	7.36	1.8400	0.613	7.56	1.8900	0.630
6.97	1.7425	0.581	7.17	1.7925	0.598	7.37	1.8425	0.614	7.57	1.8925	0.631
6.98	1.7450	0.582	7.18	1.7950	0.598	7.38	1.8450	0.615	7.58	1.8950	0.632
6.99	1.7475	0.583	7.19	1.7975	0.599	7.39	1.8475	0.616	7.59	1.8975	0.633
7.00	1.7500	0.583	7.20	1.8000	0.600	7.40	1.8500	0.617	7.60	1.9000	0.633
7.01	1.7525	0.584	7.21	1.8025	0.601	7.41	1.8525	0.618	7.61	1.9025	0.634
7.02	1.7550	0.585	7.22	1.8050	0.602	7.42	1.8550	0.618	7.62	1.9050	0.635
7.03	1.7575	0.586	7.23	1.8075	0.603	7.43	1.8575	0.619	7.63	1.9075	0.636
7.04	1.7600	0.587	7.24	1.8100	0.603	7.44	1.8600	0.620	7.64	1.9100	0.637
7.05	1.7625	0.588	7.25	1.8125	0.604	7.45	1.8625	0.621	7.65	1.9125	0.638
7.06	1.7650	0.588	7.26	1.8150	0.605	7.46	1.8650	0.622	7.66	1.9150	0.638
7.07	1.7675	0.589	7.27	1.8175	0.606	7.47	1.8675	0.623	7.67	1.9175	0.639
7.08	1.7700	0.590	7.28	1.8200	0.607	7.48	1.8700	0.623	7.68	1.9200	0.640
7.09	1.7725	0.591	7.29	1.8225	0.608	7.49	1.8725	0.624	7.69	1.9225	0.641
7.70	1.9250	0.642	7.90	1.9750	0.658	8.10	2.0250	0.675	8.30	2.0750	0.692
7.71	1.9275	0.643	7.91	1.9775	0.659	8.11	2.0275	0.676	8.31	2.0775	0.693
7.72	1.9300	0.643	7.92	1.9800	0.660	8.12	2.0300	0.677	8.32	2.0800	0.693
7.73	1.9325	0.644	7.93	1.9825	0.661	8.13	2.0325	0.678	8.33	2.0825	0.694
7.74	1.9350	0.645	7.94	1.9850	0.662	8.14	2.0350	0.678	8.34	2.0850	0.695
7.75	1.9375	0.646	7.95	1.9875	0.663	8.15	2.0375	0.679	8.35	2.0875	0.696
7.76	1.9400	0.647	7.96	1.9900	0.663	8.16	2.0400	0.680	8.36	2.0900	0.697
7.77	1.9425	0.648	7.97	1.9925	0.664	8.17	2.0425	0.681	8.37	2.0925	0.698
7.78	1.9450	0.648	7.98	1.9950	0.665	8.18	2.0450	0.682	8.38	2.0950	0.698
7.79	1.9475	0.649	7.99	1.9975	0.666	8.19	2.0475	0.683	8.39	2.0975	0.699
7.80	1.9500	0.650	8.00	2.0000	0.667	8.20	2.0500	0.683	8.40	2.1000	0.700
7.81	1.9525	0.651	8.01	2.0025	0.668	8.21	2.0525	0.684	8.41	2.1025	0.701
7.82	1.9550	0.652	8.02	2.0050	0.668	8.22	2.0550	0.685	8.42	2.1050	0.702
7.83	1 9575	0.653	8.03	2.0075	0.669	8.23	2.0575	0.686	8.43	2.1075	0.703
7.84	1.9600	0.653	8.04	2.0100	0.670	8.24	2.0600	0.687	8.44	2.1100	0.703
7.85	1.9625	0.654	8.05	2.0125	0.671	8.25	2.0625	0.688	8.45	2.1125	0.704
7.86	1.9650	9.655	8.06	2.0150	0.672	8.26	2.0650	0.688	8.46	2.1150	0.705
7.87	1.9675	0.656	8.07	2.0175	0.673	8.27	2.0675	0.689	8.47	2.1175	0.706
7.88	1.9700	0.657	8.08	2.0200	0.673	8.28	2.0700	0.690	8.48	2.1200	0.707
7.89	1.9725	0.658	8.09	2.0225	0.674	8.29	2.0725	0.691	8.49	2.1225	0.708

Tableau II A *(suite)* **Table II A** *(continued)*

Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/4 hauteur de tonnage 1/4 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
8.50	2.1250	0.709	8.63	2.1575	0.719	8.76	2.1900	0.730	8.89	2.2225	0.741
8.51	2.1275	0.709	8.64	2.1600	0.720	8.77	2.1925	0.731	8.90	2.2250	0.742
8.52	2.1300	0.710	8.65	2.1625	0.721	8.78	2.1950	0.732	8.91	2.2275	0.743
8.53	2.1325	0.711	8.66	2.1650	0.722	8.79	2.1975	0.733	8.92	2.2300	0.743
8.54	2.1350	0.712	8.67	2.1675	0.723	8.80	2.2000	0.733	8.93	2.2325	0.744
8.55	2.1375	0.713	8.68	2.1700	0.723	8.81	2.2025	0.734	8.94	2.2350	0.745
8.56	2.1400	0.713	8.69	2.1725	0.724	8.82	2.2050	0.735	8.95	2.2375	0.746
8.57	2.1425	0.714	8.70	2.1750	0.725	8.83	2.2075	0.736	8.96	2.2400	0.747
8.58	2.1450	0.715	8.71	2.1775	0.726	8.84	2.2100	0.737	8.97	2.2425	0.748
8.59	2.1475	0.716	8.72	2.1800	9.727	8.85	2.2125	0.738	8.98	2.2450	0.748
8.60	2.1500	0.717	8.73	2.1825	0.728	8.86	2.2150	0.738	8.99	2.2475	0.749
8.61	2.1525	0.718	8.74	2.1850	0.728	8.87	2.2175	0.739	9.00	2.2500	0.750
8.62	2.1550	0.718	8.75	2.1875	0.729	8.88	2.2200	0.740			

Tableau II B

INDIQUANT EN MÈTRES L'INTERVALLE COMMUN ET LE TIERS DE L'INTERVALLE COMMUN ENTRE LES LARGEURS POUR DIFFÉRENTES « HAUTEURS DE TONNAGE »

La « hauteur de tonnage » au milieu de la longeur de tonnage *excède* 4 m. 90.

Table II B

INDICATING IN METRES COMMON INTERVALS AND ONE-THIRD OF COMMON INTERVALS BETWEEN THE BREADTHS CORRESPONDING TO DIFFERENT TONNAGE DEPTHS.

The tonnage depth at the middle of the tonnage length *exceeds* 4.90 metres.

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
4.00	0.6666	0.222	4.20	0.7000	0.233	4.40	0.7333	0.244	4.60	0.7666	0.256
4.01	0.6683	0.223	4.21	0.7016	0.234	4.41	0.7350	0.245	4.61	0.7683	0.256
4.02	0.6700	0.223	4.22	0.7033	0.234	4.42	0.7366	0.246	4.62	0.7700	0.257
4.03	0.6716	0.224	4.23	0.7050	0.235	4.43	0.7383	0.246	4.63	0.7716	0.257
4.04	0.6733	0.224	4.24	0.7066	0.236	4.44	0.7400	0.247	4.64	0.7733	0.258
4.05	0.6750	0.225	4.25	0.7083	0.236	4.45	0.7416	0.247	4.65	0.7750	0.258
4.06	0.6766	0.226	4.26	0.7100	0.237	4.46	0.7433	0.248	4.66	0.7766	0.259
4.07	0.6783	0.226	4.27	0.7116	0.237	4.47	0.7450	0.248	4.67	0.7783	0.259
4.08	0.6800	0.227	4.28	0.7133	0.238	4.48	0.7466	0.249	4.68	0.7800	0.260
4.09	0.6816	0.227	4.29	0.7150	0.238	4.49	0.7483	0.249	4.69	0.7816	0.261
4.10	0.6833	0.228	4.30	0.7166	0.239	4.50	0.7500	0.250	4.70	0.7833	0.261
4.11	0.6850	0.228	4.31	0.7183	0.239	4.51	0.7516	0.251	4.71	0.7850	0.262
4.12	0.6866	0.229	4.32	0.7200	0.240	4.52	0.7533	0.251	4.72	0.7866	0.262
4.13	0.6883	0.229	4.33	0.7216	0.241	4.53	0.7560	0.252	4.73	0.7883	0.263
4.14	0.6900	0.230	4.34	0.7233	0.241	4.54	0.7566	0.252	4.74	0.7900	0.263
4.15	0.6916	0.231	4.35	0.7250	0.242	4.55	0.7583	0.253	4.75	0.7916	0.264
4.16	0.6933	0.231	4.36	0.7266	0.242	4.56	0.7600	0.253	4.76	0.7933	0.264
4.17	0.6950	0.232	4.37	0.7283	0.243	4.57	0.7616	0.254	4.77	0.7950	0.265
4.18	0.6966	0.232	4.38	0.7300	0.243	4.58	0.7633	0.254	4.78	0.7966	0.266
4.19	0.6983	0.233	4.39	0.7316	0.244	4.59	0.7650	0.255	4.79	0.7983	0.266
4.80	0.8000	0.267	5.00	0.8333	0.278	5.20	0.8666	0.289	5.40	0.9000	0.300
4.81	0.8016	0.267	5.01	0.8350	0.278	5.21	0.8683	0.289	5.41	0.9016	0.301
4.82	0.8033	0.268	5.02	0.8366	0.279	5.22	0.8700	0.290	5.42	0.9033	0.301
4.83	0.8050	0.268	5.03	0.8383	0.279	5.23	0.8716	0.291	5.43	0.9050	0.302
4.84	0.8066	0.269	5.04	0.8400	0.280	5.24	0.8733	0.291	5.44	0.9066	0.302
4.85	0.8083	0.269	5.05	0.8416	0.281	5.25	0.8750	0.292	5.45	0.9083	0.303
4.86	0.8100	0.270	5.06	0.8433	0.281	5.26	0.8766	0.292	5.46	0.9100	0.303
4.87	0.8116	0.271	5.07	0.8450	0.282	5.27	0.8783	0.293	5.47	0.9116	0.304
4.88	0.8133	0.271	5.08	0.8466	0.282	5.28	0.8800	0.293	5.48	0.9133	0.304
4.89	0.8150	0.272	5.09	0.8483	0.283	5.29	0.8816	0.294	5.49	0.9150	0.305
4.90	0.8166	0.272	5.10	0.8500	0.283	5.30	0.8833	0.294	5.50	0.9166	0.306
4.91	0.8183	0.273	5.11	0.8516	0.284	5.31	0.8850	0.295	5.51	0.9183	0.306
4.92	0.8200	0.273	5.12	0.8533	0.284	5.32	0.8866	0.296	5.52	0.9200	0.307
4.93	0.8216	0.274	5.13	0.8550	0.285	5.33	0.8883	0.296	5.53	0.9216	0.307
4.94	0.8233	0.274	5.14	0.8566	0.286	5.34	0.8900	0.297	5.54	0.9233	0.308
4.95	0.8250	0.275	5.15	0.8583	0.286	5.35	0.8916	0.297	5.55	0.9250	0.308
4.96	0.8266	0.276	5.16	0.8600	0.287	5.36	0.8933	0.298	5.56	0.9266	0.309
4.97	0.8283	0.276	5.17	0.8616	0.287	5.37	0.8950	0.298	5.57	0.9283	0.309
4.98	0.8300	0.277	5.18	0.8633	0.288	5.38	0.8966	0.299	5.58	0.9300	0.310
4.99	0.8316	0.277	5.19	0.8650	0.288	5.39	0.8983	0.299	5.59	0.9316	0.311

Tableau II B *(suite)* **Table II B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
5.60	0.9333	0.311	5.80	0.9666	0.322	6.00	1.0000	0.333	6.20	1.0333	0.344
5.61	0.9350	0.312	5.81	0.9683	0.323	6.01	1.0016	0.334	6.21	1.0350	0.345
5.62	0.9366	0.312	5.82	0.9700	0.323	6.02	1.0033	0.334	6.22	1.0366	0.346
5.63	0.9383	0.313	5.83	0.9716	0.324	6.03	1.0050	0.335	6.23	1.0383	0.346
5.64	0.9400	0.313	5.84	0.9733	0.324	6.04	1.0066	0.336	6.24	1.0400	0.347
5.65	0.9416	0.314	5.85	0.9750	0.325	6.05	1.0083	0.336	6.25	1.0416	0.347
5.66	0.9433	0.314	5.86	0.9766	0.326	6.06	1.0100	0.337	6.26	1.0433	0.348
5.67	0.9450	0.315	5.87	0.9783	9.326	6.07	1.0116	0.337	6.27	1.0450	0.348
5.68	0.9466	0.316	5.88	0.9800	0.327	6.08	1.0133	0.338	6.28	1.0466	0.349
5.69	0.9483	0.316	5.89	0.9816	0.327	6.09	1.0150	0.338	6.29	1.0483	0.349
5.70	0.9500	0.317	5.90	0.9833	0.328	6.10	1.0166	0.339	6.30	1.0500	0.350
5.71	0.9516	0.317	5.91	0.9850	0.328	6.11	1.0183	0.339	6.31	1.0516	0.351
5.72	0.9533	0.318	5.92	0.9866	0.329	6.12	1.0200	0.340	6.32	1.0533	0.351
5.73	0.9550	0.318	5.93	0.9883	0.329	6.13	1.0216	0.341	6.33	1.0550	0.352
5.74	0.9566	0.319	5.94	0.9900	0.330	6.14	1.0233	0.341	6.34	1.0566	0.352
5.75	0.9583	0.319	5.95	0.9916	0.331	6.15	1.0250	9.342	6.35	1.0583	0.353
5.76	0.9600	0.320	5.96	0.9933	0.331	6.16	1.0266	0.342	6.36	1.0600	0.353
5.77	0.9616	0.321	5.97	0.9950	0.332	6.17	1.0283	0.343	6.37	1.0616	0.354
5.78	0.9633	0.321	5.98	0.9966	0.332	6.18	1.0300	0.343	6.38	1.0633	0.354
5.79	0.9650	0.322	5.99	0.9983	0.333	6.19	1.0316	0.344	6.39	1.0650	0.355
6.40	1.0666	0.356	6.60	1.1000	0.367	6.80	1.1333	0.378	7.00	1.1666	0.389
6.41	1.0683	0.356	6.61	1.1016	0.367	6.81	1.1350	0.378	7.01	1.1683	0.389
6.42	1.0700	0.357	6.62	1.1033	0.368	6.82	1.1366	0.379	7.02	1.1700	0.390
6.43	1.0716	0.357	6.63	1.1050	0.368	6.83	1.1383	0.379	7.03	1.1716	0.391
6.44	1.0733	0.358	6.64	1.1066	0.369	6.84	1.1400	0.380	7.04	1.1733	0.391
6.45	1.0750	0.358	6.65	1.1083	0.369	6.85	1.1416	0.381	7.05	1.1750	0.392
6.46	1.0766	0.359	6.66	1.1100	0.370	6.86	1.1433	0.381	7.06	1.1766	0.392
6.47	1.0783	0.359	6.67	1.1116	0.371	6.87	1.1450	0.382	7.07	1.1783	0.393
6.48	1.0800	0.360	6.68	1.1133	0.371	6.88	1.1466	0.382	7.08	1.1800	0.393
6.49	1.0816	0.361	6.69	1.1150	0.372	6.89	1.1483	0.383	7.09	1.1816	0.394
6.50	1.0833	0.361	6.70	1.1166	0.372	6.90	1.1500	0.383	7.10	1.1833	0.394
6.51	1.0850	0.362	6.71	1.1183	0.373	6.91	1.1516	0.384	7.11	1.1850	0.395
6.52	1.0866	0.362	6.72	1.1200	0.373	6.92	1.1533	0.384	7.12	1.1866	0.396
6.53	1.0883	0.363	6.73	1.1216	0.374	6.93	1.1550	0.385	7.13	1.1883	0.396
6.54	1.0900	0.363	6.74	1.1233	0.374	6.94	1.1566	0.386	7.14	1.1900	0.397
6.55	1.0916	0.364	6.75	1.1250	0.375	6.95	1.1583	0.386	7.15	1.1916	0.397
6.56	1.0933	0.364	6.76	1.1266	0.376	6.96	1.1600	0.387	7.16	1.1933	0.398
6.57	1.0950	0.365	6.77	1.1283	0.376	6.97	1.1616	0.387	7.17	1.1950	0.398
6.58	1.0966	0.366	6.78	1.1300	0.377	6.98	1.1633	0.388	7.18	1.1966	0.399
6.59	1.0983	0.366	6.79	1.1316	0.377	6.99	1.1650	0.388	7.19	1.1983	0.399

Tableau II B *(suite)* **Table II B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depht	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
7.20	1.2000	0.400	7.40	1.2333	0.411	7.60	1.2666	0.422	7.80	1.3000	0.433
7.21	1.2016	0.401	7.41	1.2350	0.412	7.61	1.2683	0.423	7.81	1.3016	0.434
7.22	1.2033	0.401	7.42	1.2366	0.412	7.62	1.2700	0.423	7.82	1.3033	0.434
7.23	1.2050	0.402	7.43	1.2383	0.413	7.63	1.2716	0.424	7.83	1.3050	0.435
7.24	1.2066	0.402	7.44	1.2400	0.413	7.64	1.2733	0.424	7.84	1.3066	0.436
7.25	1.2083	0.403	7.45	1.2416	0.414	7.65	1.2750	0.425	7.85	1.3083	0.436
7.26	1.2100	0.403	7.46	1.2433	0.414	7.66	1.2766	0.426	7.86	1.3100	0.437
7.27	1.2116	0.404	7.47	1.2450	0.415	7.67	1.2783	0.426	7.87	1.3116	0.437
7.28	1.2133	0.404	7.48	1.2466	0.416	7.68	1.2800	0.427	7.88	1.3133	0.438
7.29	1.2150	0.405	7.49	1.2483	0.416	7.69	1.2816	0.427	7.89	1.3150	0.438
7.30	1.2166	0.406	7.50	1.2500	0.417	7.70	1.2833	0.428	7.90	1.3166	0.439
7.31	1.2183	0.406	7.51	1.2516	0.417	7.71	1.2850	0.428	7.91	1.3183	0.439
7.32	1.2200	0.407	7.52	1.2533	0.418	7.72	1.2866	0.429	7.92	1.3200	0.440
7.33	1.2216	0.407	7.53	1.2550	0.418	7.73	1.2883	0.429	7.93	1.3216	0.441
7.34	1.2233	0.408	7.54	1.2566	0.419	7.74	1.2900	0.430	7.94	1.3233	0.441
7.35	1.2250	0.408	7.55	1.2583	0.419	7.75	1.2916	0.431	7.95	1.3250	0.442
7.36	1.2266	0.409	7.56	1.2600	0.420	7.76	1.2933	0.431	7.96	1.3266	0.442
7.37	1.2283	0.409	7.57	1.2616	0.421	7.77	1.2950	0.432	7.97	1.3283	0.443
7.38	1.2300	0.410	7.58	1.2633	0.421	7.78	1.2966	0.432	7.98	1.3300	0.443
7.39	1.2316	0.411	7.59	1.2650	0.422	7.79	1.2983	0.433	7.99	1.3316	0.444
8.00	1.3333	0.444	8.20	1.3666	0.456	8.40	1.4000	0.467	8.60	1.4333	0.478
8.01	1.3350	0.445	8.21	1.3683	0.456	8.41	1.4016	0.467	8.61	1.4350	0.478
8.02	1.3366	0.446	8.22	1.3700	0.457	8.42	1.4033	0.468	8.62	1.4366	0.479
8.03	1.3383	0.446	8.23	1.3716	0.457	8.43	1.4050	0.468	8.63	1.4383	0.479
8.04	1.3400	0.447	8.24	1.3733	0.458	8.44	1.4066	0.469	8.64	1.4400	0.480
8.05	1.3416	0.447	8.25	1.3750	0.458	8.45	1.4083	0.469	8.65	1.4416	0.481
8.06	1.3433	0.448	8.26	1.3766	0.459	8.46	1.4100	0.470	8.66	1.4433	0.481
8.07	1.3450	0.448	8.27	1.3783	0.459	8.47	1.4116	0.471	8.67	1.4450	0.482
8.08	1.3466	0.449	8.28	1.3800	0.460	8.48	1.4133	0.471	8.68	1.4466	0.482
8.09	1.3483	0.449	8.29	1.3816	0.461	8.49	1.4150	0.472	8.69	1.4483	0.483
8.10	1.3500	0.450	8.30	1.3833	0.461	8.50	1.4166	0.472	8.70	1.4500	0.483
8.11	1.3516	0.451	8.31	1.3850	0.462	8.51	1.4183	0.473	8.71	1.4516	0.484
8.12	1.3533	0.451	8.32	1.3866	0.462	8.52	1.4200	0.473	8.72	1.4533	0.484
8.13	1.3550	0.452	8.33	1.3883	0.463	8.53	1.4216	0.474	8.73	1.4550	0.485
8.14	1.3566	0.452	8.34	1.3900	0.463	8.54	1.4233	0.474	8.74	1.4566	0.486
8.15	1.3583	0.453	8.35	1.3916	0.464	8.55	1.4250	0.475	8.75	1.4583	0.486
8.16	1.3600	0.453	8.36	1.3933	0.464	8.56	1.4266	0.476	8.76	1.4600	0.487
8.17	1.3616	0.454	8.37	1.3950	0.465	8.57	1.4283	0.476	8.77	1.4616	0.487
8.18	1.3633	0.554	8.38	1.3966	0.466	8.58	1.4300	0.477	8.78	1.4633	0.488
8.19	1.3650	0.455	8.39	1.3983	0.466	8.59	1.4316	0.477	8.79	1.4650	0.488

Tableau II B *(suite)* **Table II B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
8.80	1.4666	0.489	9.00	1.5000	0.500	9.20	1.5333	0.511	9.40	1.5666	0.522
8.81	1.4683	0.489	9.01	1.5016	0.501	9.21	1.5350	0.512	9.41	1.5683	0.523
8.82	1.4700	0.490	9.02	1.5033	0.501	9.22	1.5366	0.512	9.42	1.5700	0.523
8.83	1.4716	0.491	9.03	1.5050	0.502	9.23	1.5383	0.513	9.43	1.5716	0.524
8.84	1.4733	0.491	9.04	1.5066	0.502	9.24	1.5400	0.513	9.44	1.5733	0.524
8.85	1.4750	0.492	9.05	1.5083	0.503	9.25	1.5416	0.514	9.45	1.5750	0.535
8.86	1.4766	0.492	9.06	1.5100	0.503	9.26	1.5433	0.514	9.46	1.5766	0.526
8.87	1.4783	0.493	9.07	1.5116	0.504	9.27	1.5450	0.515	9.47	1.5783	0.536
8.88	1.4800	0.493	9.08	1.5133	0.504	9.28	1.5466	0.516	9.48	1.5800	0.527
8.89	1.4816	0.494	9.09	1.5150	0.505	9.29	1.5483	0.516	9.49	1.5816	0.527
8.90	1.4833	0.494	9.10	1.5166	0.506	9.30	1.5500	0.517	9.50	1.5833	0.528
8.91	1.4850	0.495	9.11	1.5183	0.506	9.31	1.5516	0.517	9.51	1.5850	0.528
8.92	1.4866	0.496	9.12	1.5200	0.507	9.32	1.5533	0.518	9.52	1.5866	0.529
8.93	1.4883	0.496	9.13	1.5216	0.507	9.33	1.5550	0.518	9.53	1.5883	0.529
8.94	1.4900	0.497	9.14	1.5233	0.508	9.34	1.5566	0.519	9.54	1.5900	0.530
8.95	1.4916	0.497	9.15	1.5250	0.508	9.35	1.5583	0.519	9.55	1.5916	0.531
8.96	1.4933	0.498	9.16	1.5266	0.509	9.36	1.5600	0.520	9.56	1.5933	0.531
8.97	1.4950	0.498	9.17	1.5283	0.509	9.37	1.5616	0.521	9.57	1.5950	0.532
8.98	1.4966	0.499	9.18	1.5300	0.510	9.38	1.5633	0.521	9.58	1.5966	0.532
8.99	1.4983	0.499	9.19	1.5316	0.511	9.39	1.5650	0.522	9.59	1.5983	0.533
9.60	1.6000	0.533	9.80	1.6333	0.544	10.00	1.6666	0.556	10.20	1.7000	0.567
9.61	1.6016	0.534	9.81	1.6350	0.545	10.01	1.6683	0.556	10.21	1.7016	0.567
9.62	1.6033	0.534	9.82	1.6366	0.546	10.02	1.6700	0.557	10.22	1.7033	0.568
9.63	1.6050	0.535	9.83	1.6383	0.546	10.03	1.6716	0.557	10.23	1.7050	0.568
9.64	1.6066	0.536	9.84	1.6400	0.547	10.04	1.6733	0.558	10.24	1.7066	0.569
9.65	1.6083	0.536	9.85	1.6416	0.547	10.05	1.6750	0.558	10.25	1.7083	0.569
9.66	1.6100	0.537	9.86	1.6433	0.548	10.06	1.6766	0.559	10.26	1.7100	0.570
9.67	1.6116	0.537	9.87	1.6450	0.548	10.07	1.6783	0.559	10.27	1.7116	0.571
9.68	1.6133	0.538	9.88	1.6466	0.549	10.08	1.6800	0.560	10.28	1.7133	0.571
9.69	1.6150	0.538	9.89	1.6483	0.549	10.09	1.6816	0.561	10.29	1.7150	0.572
9.70	1.6166	0.539	9.90	1.6500	0.550	10.10	1.6833	0.561	10.30	1.7166	0.572
9.71	1.6183	0.539	9.91	1.6516	0.551	10.11	1.6850	0.562	10.31	1.7183	0.573
9.72	1.6200	0.540	9.92	1.6533	0.551	10.12	1.6866	0.562	10.32	1.7200	0.573
9.73	1.6216	0.541	9.93	1.6550	0.552	10.13	1.6883	0.563	10.33	1.7216	0.574
9.74	1.6233	0.541	9.94	1.6566	0.552	10.14	1.6900	0.563	10.34	1.7233	0.574
9.75	1.6250	0.542	9.95	1.6583	0.553	10.15	1.6916	0.564	10.35	1.7250	0.575
9.76	1.6266	0.542	9.96	1.6600	0.553	10.16	1.6933	0.564	10.36	1.7266	0.576
9.77	1.6283	0.543	9.97	1.6616	0.554	10.17	1.6950	0.565	10.37	1.7283	0.576
9.78	1.6300	0.543	9.98	1.6633	0.554	10.18	1.6966	0.566	10.38	1.7300	0.577
9.79	1.6316	0.544	9.99	1.6650	0.555	10.19	1.6983	0.566	10.39	1.7316	0.577

Tableau II B *(suite)* **Table II B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
10.40	1.7333	0.578	10.60	1.7666	0.589	10.80	1.8000	0.600	11.00	1.8333	0.611
10.41	1.7350	0.578	10.61	1.7683	0.589	10.81	1.8016	0.601	11.01	1.8350	0.612
10.42	1.7366	0.579	10.62	1.7700	0.590	10.82	1.8033	0.601	11.02	1.8366	0.612
10.43	1.7383	0.579	10.63	1.7716	0.591	10.83	1.8050	0.602	11.03	1.8383	0.613
10.44	1.7400	0.580	10.64	1.7733	0.591	10.84	1.8066	0.602	11.04	1.8400	0.613
10.45	1.7416	6.581	10.65	1.7750	0.592	10.85	1.8083	0.603	11.05	1.8416	0.614
10.46	1.7433	0.581	10.66	1.7766	0.592	10.86	1.8100	0.603	11.06	1.8433	0.614
10.47	1.7450	0.582	10.67	1.7783	0.593	10.87	1.8116	0.604	11.07	1.8450	0.615
10.48	1.7466	0.582	10.68	1.7800	0.593	10.88	1.8133	0.604	11.08	1.8466	0.616
10.49	1.7483	0.583	10.69	1.7816	0.594	10.89	1.8150	0.605	11.09	1.8483	0.616
10.50	1.7500	0.583	10.70	1.7833	0.594	10.90	1.8166	0.606	11.10	1.8500	0.617
10.51	1.7516	0.584	10.71	1.7850	0.595	10.91	1.8183	0.606	11.11	1.8516	0.617
10.52	1.7533	0.584	10.72	1.7866	0.596	10.92	1.8200	0.607	11.12	1.8533	0.618
10.53	1.7550	0.585	10.73	1.7883	0.596	10.93	1.8216	0.607	11.13	1.8550	0.618
10.54	1.7566	0.586	10.74	1.7900	0.597	10.94	1.8233	0.608	11.14	1.8566	0.619
10.55	1.7583	0.586	10.75	1.7916	0.597	10.95	1.8250	0.608	11.15	1.8583	0.619
10.56	1.7600	0.587	10.76	1.7933	0.598	10.96	1.8266	0.609	11.16	1.8600	0.620
10.57	1.7616	0.587	10.77	1.7950	0.598	10.97	1.8283	0.609	11.17	1.8616	0.621
10.58	1.7633	0.588	10.78	1.7966	0.599	10.98	1.8300	0.610	11.18	1.8633	0.621
10.59	1.7650	0.588	10.79	1.7983	0.599	10.99	1.8316	0.611	11.19	1.8650	0.622
11.20	1.8666	0.622	11.40	1.9000	0.633	11.60	1.9333	0.644	11.80	1.9666	0.656
11.21	1.8683	0.623	11.41	1.9016	0.634	11.61	1.9350	0.645	11.81	1.9683	0 656
11.22	1.8700	0.623	11.42	1.9033	0.634	11.62	1.9366	0.046	11.82	1.9700	0.657
11.23	1.8716	0.624	11.43	1.9050	0.635	11.63	1.9383	0.646	11.83	1.9716	0.657
11.24	1.8733	0.624	11.44	1.9066	0.636	11.64	1.9400	0.647	11.84	1.9733	0.658
11.25	1.8750	0.625	11.45	1.9083	0.636	11.65	1.9416	0.647	11.85	1.9750	0.658
11.26	1.8766	0.626	11.46	1.9100	0.637	11.66	1.9433	0.648	11.86	1.9766	0.659
11.27	1.8783	0.626	11.47	1.9116	0.637	11.67	1.9450	0.648	11.87	1.9783	0.659
11.28	1.8800	0.627	11.48	1.9133	0.638	11.68	1.9466	0.649	11.88	1.9800	0.660
11.29	1.8816	0.627	11.49	1.9150	0.638	11.69	1.9483	0.649	11.89	1.9816	0.661
11.30	1.8833	0.628	11.50	1.9166	0.639	11.70	1.9500	0.650	11.90	1.9833	0.661
11.31	1.8850	0.628	11.51	1.9183	0.639	11.71	1.9516	0.651	11.91	1.9850	0.662
11.32	1.8866	0.629	11.52	1.9200	0.640	11.72	1.9533	0.651	11.92	1.9866	0.662
11.33	1.8883	0.629	11.53	1.9216	0.641	11.73	1.9550	0.652	11.93	1.9883	0.663
11.34	1.8900	0.630	11.54	1.9233	0.641	11.74	1.9566	0.652	11.94	1.9900	0.663
11.35	1.8916	0.631	11.55	1.9250	0.642	11.75	1.9583	0.653	11.95	1.9916	0.664
11.36	1.8933	0.631	11.56	1.9266	0.642	11.76	1.9600	0.653	11.96	1.9933	0.664
11.37	1.8950	0.632	11.57	1.9283	0.643	11.77	1.9616	0.654	11.97	1.9950	0.665
11.38	1.8966	0.632	11.58	1.9300	0.643	11.78	1.9633	0.654	11.98	1.9966	0.666
11.39	1.8983	0.633	11.59	1.9316	0.644	11.79	1.9650	0.655	11.99	1.9983	0.666

Tableau II B *(suite)* **Table II B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
12.00	2.0000	0.667	12.20	2.0333	0.678	12.40	2.0666	0.689	12.60	2.1000	0.700
12.01	2.0016	0.667	12.21	2.0350	0.678	12.41	2.0683	0.689	12.61	2.1016	0.701
12.02	2.0033	0.668	12.22	2.0366	0.679	12.42	2.0700	0.690	12.62	2.1033	0.701
12.03	2.0050	0.668	12.23	2.0383	0.679	12.43	2.0716	0.691	12.63	2.1050	0.702
12.04	2.0066	0.669	12.24	2.0400	0.580	12.44	2.0733	0.691	12.64	2.1066	0.702
12.05	2.0083	0.669	12.25	2.0416	0.681	12.45	2.0750	0.692	12.65	2.1083	0.703
12.06	2.0100	0.670	12.26	2.0433	0.681	12.46	2.0766	0.692	12.66	2.1100	0.703
12.07	2.0116	0.671	12.27	2.0450	0.682	12.47	2.0783	0.693	12.67	2.1116	0.704
12.08	2.0133	0.671	12.28	2.0466	0.582	12.48	2.0800	0.693	12.68	2.1133	0.704
12.09	2.0150	0.672	12.29	2.0483	0.683	12.49	2.0816	0.694	12.69	2.1150	0.705
12.10	2.0166	0.672	12.30	2.0500	0.683	12.50	2.0833	0.694	12.70	2.1166	0.706
12.11	2.0183	0.673	12.31	2.0516	0.684	12.51	2.0850	0.695	12.71	2.1183	0.706
12.12	2.0200	0.673	12.32	2.0533	0.684	12.52	2.0866	0.696	12.72	2.1200	0.707
12.13	2.0216	0.674	12.33	2.0550	0.685	12.53	2.0883	0.696	12.73	2.1216	0.707
12.14	2.0233	0.674	12.34	2.0566	0.686	12.54	2.0900	0.697	12.74	2.1233	0.708
12.15	2.0250	0.675	12.35	2.0583	0.686	12.55	2.0916	0.697	12.75	2.1250	0.708
12.16	2.0266	0.676	12.36	2.0600	0.687	12.56	2.0933	0.698	12.76	2.1266	0.709
12.17	2.0283	0.676	12.37	2.0616	0.687	12.57	2.0950	0.698	12.77	2.1283	0.709
12.18	2.0300	9.677	12.38	2.0633	0.688	12.58	2.0966	0.699	12.78	2.1300	0.710
12.19	2.0316	0.677	12.39	2.0650	0.688	12.59	2.0983	0.699	12.79	2.1316	0.711
12.80	2.1333	0.711	13.00	2.1666	0.722	13.20	2.2000	0.733	13.40	2.2333	0.744
12.81	2.1350	0.712	13.01	2.1683	0.723	13.21	2.2016	0.734	13.41	2.2350	0.745
12.82	2.1366	0.712	13.02	2.1700	0.723	13.22	2.2033	0.734	13.42	2.2366	0.746
12.83	2.1383	0.713	13.03	2.1716	0.724	13.23	2.2050	0.735	13.43	2.2383	0.746
12.84	2.1400	0.713	13.04	2.1733	0.724	13.24	2.2066	0.736	13.44	2.2400	0.747
12.85	2.1416	0.714	13.05	2.1750	0.725	13.25	2.2083	0.736	13.45	2.2416	0.747
12.86	2.1433	0.714	13.06	2.1766	0.726	13.26	2.2100	0.737	13.46	2.2433	0.748
12.87	2.1450	0.715	13.07	2.1783	0.726	13.27	2.2116	0.737	13.47	2.2450	0.748
12.88	2.1466	0.716	13.08	2.1800	0.727	13.28	2.2133	0.738	13.48	2.2466	0.749
12.89	2.1483	0.716	13.09	2.1816	0.727	13.29	2.2150	0.738	13.49	2.2483	0.749
12.90	2.1500	0.717	13.10	2.1833	0.728	13.30	2.2166	0.739	13.50	2.2500	0.750
12.91	2.1516	0.717	13.11	2.1850	0.728	13.31	2.2183	0.739	13.51	2.2516	0.751
12.92	2.1533	0.718	13.12	2.1866	0.729	13.32	2.2200	0.740	13.52	2.2533	0.751
12.93	2.1550	0.718	13.13	2.1883	0.729	13.33	2.2216	0.741	13.53	2.2550	0.752
12.94	2.1566	0.719	13.14	2.1900	0.730	13.34	2.2233	0.741	13.54	2.2566	0.752
12.95	2.1583	0.719	13.15	2.1916	0.731	13.35	2.2250	0.742	13.55	2.2583	0.753
12.96	2.1600	0.720	13.16	2.1933	0.731	13.36	2.2266	0.742	13.56	2.2600	0.753
12.97	2.1616	0.721	13.17	2.1950	0.732	13.37	2.2283	0.743	3.57	2.2616	0.754
12.98	2.1633	0.721	13.18	2.1966	0.732	13.38	2.2300	0.743	13.58	2.2633	0.754
12.99	2.1650	0.722	13.19	2.1983	0.733	13.39	2.2316	0.744	13.59	2.2650	0.755

Tableau II B *(suite)* **Table II B** *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/2 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/2 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/2 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/2 common interval between breadths
13.60	2.2666	0.756	13.80	2.3000	0.767	14.00	2.3333	0.778	14.20	2.3666	0.789
13.61	2.2683	0.756	13.81	2.3016	0.767	14.01	2.3350	0.778	14.21	2.3683	0.789
13.62	2.2700	0.757	13.82	2.3033	0.768	14.02	2.3366	0.779	14.22	2.3700	0.790
13.63	2.2716	0.757	13.83	2.3050	0.768	14.03	2.3383	0.779	14.23	2.3716	0.791
13.64	2.2733	0.758	13.84	2.3066	0.769	14.04	2.3400	0.780	14.24	2.3733	0.791
13.65	2.2750	0.758	13.85	2.3083	0.769	14.05	2.3416	0.781	14.25	2.3750	0.792
13.66	2.2766	0.759	13.86	2.3100	0.770	14.06	2.3433	0.781	14.26	2.3766	0.792
13.67	2.2783	0.759	13.87	2.3116	0.771	14.07	2.3450	0.782	14.27	2.3783	0.793
13.68	2.2800	0.760	13.88	2.3133	0.771	14.08	2.3466	0.782	14.28	2.3800	0.793
13.69	2.2816	0.761	13.89	2.3150	0.772	14.09	2.3483	0.783	14.29	2.3816	0.794
13.70	2.2833	0.761	13.90	2.3166	0.772	14.10	2.3500	0.783	14.30	2.3833	0.794
13.71	2.2850	0.762	13.91	2.3183	0.773	14.11	2.3516	0.784	14.31	2.3850	0.795
13.72	2.2866	0.762	13.92	2.3200	0.773	14.12	2.3533	0.784	14.32	2.3866	0.796
13.73	2.2883	0.763	13.93	2.3216	0.774	14.13	2.3550	0.785	14.33	2.3883	0.796
13.74	2.2900	0.763	13.94	2.3233	0.774	14.14	2.3566	0.786	14.34	2.3900	0.797
13.75	2.2916	0.764	13.95	2.3250	0.775	14.15	2.3583	0.786	14.35	2.3916	0.797
13.76	2.2933	0.764	13.96	2.3266	0.776	14.16	2.3600	0.787	14.36	2.3933	0.798
13.77	2.2950	0.765	13.97	2.3283	0.776	14.17	2.3616	0.787	14.37	2.3950	0.798
13.78	2.2966	0.766	13.98	2.3300	0.777	14.18	2.3633	0.788	14.38	2.3966	0.799
13.79	2.2983	0.766	13.99	2.3316	0.777	14.19	2.3650	0.788	14.39	2.3983	0.799
14.40	2.4000	0.800	14.60	2.4333	0.811	14.80	2.4666	0.822	15.00	2.5000	0.833
14.41	2.4016	0.801	14.61	2.4350	0.812	14.81	2.4683	0.823	15.01	2.5016	0.834
14.42	2.4033	0.801	14.62	2.4366	0.812	14.82	2.4700	0.823	15.02	2.5033	0.834
14.43	2.4050	0.802	14.63	2.4383	0.813	14.83	2.4716	0.824	15.03	2.5050	0.835
14.44	2.4066	0.802	14.64	2.4400	0.813	14.84	2.4733	0.824	15.04	2.5066	0.836
14.45	2.4083	0.803	14.65	2.4416	9.814	14.85	2.4750	0.825	15.05	2.5083	0.836
14.46	2.4100	0.803	14.66	2.4433	0.814	14.86	2.4766	0.826	15.06	2.5100	0.837
14.47	2.4116	0.804	14.67	2.4450	0.815	14.87	2.4783	0.826	15.07	2.5116	0.837
14.48	2.4133	0.804	14.68	2.4466	0.816	14.88	2.4800	0.827	15.08	2.5133	0.838
14.49	2.4150	0.805	14.69	2.4483	0.816	14.89	2.4816	0.827	15.09	2.5150	0.838
14.50	2.4166	0.806	14.70	2.4500	0.817	14.90	2.4833	0.828	15.10	2.5166	0.839
14.51	2.4183	0.806	14.71	2.4516	0.817	14.91	2.4850	0.828	15.11	2.5183	0.839
14.52	2.4200	0.807	14.72	2.4533	0.818	14.92	2.4866	0.829	15.12	2.5200	0.840
14.53	2.4216	0.807	14.73	2.4550	0.818	14.93	2.4883	0.829	15.13	2.5216	0.841
14.54	2.4233	0.808	14.74	2.4566	0.819	14.94	2.4900	0.830	15.14	2.5233	0.841
14.55	2.4250	0.808	14.75	2.4583	0.819	14.95	2.4916	0.831	15.15	2.5250	0.842
14.56	2.4266	0.809	14.76	2.4600	0.820	14.96	2.4933	0.831	15.16	2.5266	0.542
14.57	2.4283	0.809	14.77	2.4616	0.821	14.97	2.4950	0.832	15.17	2.5283	0.843
14.58	2.4300	0.810	14.78	2.4633	0.821	14.98	2.4966	0.832	15.18	2.5300	0.843
14.59	2.4316	0.811	14.79	2.4650	0.822	14.99	2.4983	0.833	15.19	2.5316	0.844

Tableau II B *(suite)*

Table II B *(continued)*

Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths	Hauteur de tonnage Tonnage depth	1/6 hauteur de tonnage 1/6 tonnage depth	1/3 intervalle commun entre largeurs — 1/3 common interval between breadths
15.20	2.5333	0.844	15.40	2.5666	0.856	15.60	2.6000	0.867	15.80	2.6333	0.878
15.21	2.5350	0.845	15.41	2.5683	0.856	15.61	2.6016	0.867	15.81	2.6350	0.878
15.22	2.5366	0.846	15.42	2.5700	0.557	15.62	2.6033	0.868	15.82	2.6366	0.879
15.23	2.5383	0.846	15.43	2.5716	0.857	15.63	2.6050	0.868	15.83	2.6383	0.879
15.24	2.5400	0.847	15.44	2.5733	0.858	15.64	2.6066	0.869	15.84	2.6400	0.880
15.25	2.5416	0.847	15.45	2.5750	0.858	15.65	2.6083	0.869	15.85	2.6416	0.881
15.26	2.5433	0.848	15.46	2.5766	0.859	15.66	2.6100	0.870	15.86	2.6433	0.881
15.27	2.5450	0.848	15.47	2.5783	0.859	15.67	2.6116	0.871	15.87	2.6450	0.882
15.28	2.5466	0.849	15.48	2.5800	0.860	15.68	2.6133	0.871	15.88	1.6466	0.883
15.29	2.5483	0.849	15.49	2.5816	0.861	15.69	2.6150	0.872	15.89	2.6483	0.883
15.30	2.5500	0.850	15.50	2.5833	0.861	15.70	2.6166	0.872	15.90	2.6500	0.884
15.31	2.5516	0.851	15.51	2.5850	0.862	15.71	2.6183	0.873	15.91	2.6516	0.884
15.32	2.5533	0.851	15.52	2.5866	0.862	15.72	2.6200	0.873	15.92	2.6533	0.885
15.33	2.5550	0.852	15.53	2.5883	0.863	15.73	2.6216	0.874	15.93	2.6550	0.885
15.34	2.5566	0.852	15.54	2.5900	0.863	15.74	2.6233	0.874	15.94	2.6566	0.886
15.35	2.5583	0.853	15.55	2.5916	0.864	15.75	2.6250	0.875	15.95	2.6583	0.886
15.36	2.5600	0.853	15.56	2.5933	0.864	15.76	2.6266	0.876	15.96	2.6600	0.887
15.37	2.5616	0.854	15.57	2.5950	0.865	15.77	2.6283	0.876	15.97	2.6616	0.887
15.38	2.5633	0.854	15.58	2.5966	0.866	15.78	2.6300	0.877	15.98	2.6633	0.888
15.39	2.5650	0.855	15.59	2.5983	0.866	15.79	2.6316	0.877	15.99	2.6650	0.888

Tableau III A

DE CONVERSION DE TONNEAUX DE JAUGE EN MÈTRES CUBES

Table III A

FOR CONVERTING REGISTER TONS INTO CUBIC METRES

Tonneaux Tons	Mètres cubes Cubic metres				Tonneaux Tons	Mètres cubes Cubic metres			
	1 fois once	10 fois 10 times	100 fois 100 times	1,000 fois 1,000 times		1 fois once	10 fois 10 times	100 fois 100 times	1,000 fois 1,000 times
1	2	8	3	0	51	144	3	3	0
2	5	6	6	0	52	147	1	6	0
3	8	4	9	0	53	149	9	9	0
4	11	3	2	0	54	152	8	2	0
5	14	1	5	0	55	155	6	5	0
6	16	9	8	0	56	158	4	8	0
7	19	8	1	0	57	161	3	1	0
8	22	6	4	0	58	164	1	4	0
9	25	4	7	0	59	166	9	7	0
10	28	3	0	0	60	169	8	0	0
11	31	1	3	0	61	172	6	3	0
12	33	9	6	0	62	175	4	6	0
13	36	7	9	0	63	178	2	9	0
14	39	6	2	0	64	181	1	2	0
15	42	4	5	0	65	183	9	5	0
16	45	2	8	0	66	186	7	8	0
17	48	1	1	0	67	189	6	1	0
18	50	9	4	0	68	192	4	4	0
19	53	7	7	0	69	195	2	7	0
20	56	6	0	0	70	198	1	0	0
21	59	4	3	0	71	200	9	3	0
22	62	2	6	0	72	203	7	6	0
23	65	0	9	0	73	206	5	9	0
24	67	9	2	0	74	209	4	2	0
25	70	7	5	0	75	212	2	5	0
26	73	5	8	0	76	215	0	8	0
27	76	4	1	0	77	217	9	1	0
28	79	2	4	0	78	220	7	4	0
29	82	0	7	0	79	223	5	7	0
30	84	9	0	0	80	226	4	0	0
31	87	7	3	0	81	229	2	3	0
32	90	5	6	0	82	232	0	6	0
33	93	3	9	0	83	234	8	9	0
34	96	2	2	0	84	637	7	2	0
35	99	0	5	0	85	240	5	5	0
36	101	8	8	0	86	243	3	8	0
37	104	7	1	0	87	246	2	1	0
38	107	5	4	0	88	249	0	4	0
39	110	3	7	0	89	251	8	7	0
40	113	2	0	0	90	254	7	0	0
41	116	0	3	0	91	257	5	3	0
42	118	8	6	0	92	260	3	6	0
43	121	6	9	0	93	263	1	9	0
44	124	5	2	0	94	266	0	2	0
45	127	3	5	0	95	268	8	5	0
46	130	1	8	0	96	271	6	8	0
47	133	0	1	0	97	274	5	1	0
48	135	8	4	0	98	277	3	4	0
49	138	6	7	0	99	280	1	7	0
50	141	5	0	0	100	283	0	0	0

Tableau III B

DE CONVERSION DE TONNEAUX DE JAUGE EN MÈTRES CUBES

Table III B

FOR CONVERTING REGISTER TONS INTO CUBIC METRES

Tonneaux Tons	Mètres cubes Cubic metres	Tonneaux Tons	Mètres cubes Cubic metres
0.01	0.0283	0.51	1.4433
0.02	0.0566	0.52	1.4716
0.03	0.0849	0.53	1.4999
0.04	0.1132	0.54	1.5282
0.05	0.1415	0.55	1.5565
0.06	0.1698	0.56	1.5848
0.07	0.1981	0.57	1.6131
0.08	0.2264	0.58	1.6414
0.09	0.2547	0.59	1.6697
0.10	0.2830	0.60	1.6980
0.11	0.3113	0.61	1.7263
0.12	0.3396	0.62	1.7546
0.13	0.3679	0.63	1.7829
0.14	0.3962	0.64	1.8112
0.15	0.4245	0.65	1.8395
0.16	0.4528	0.66	1.8678
0.17	0.4811	0.67	1.8961
0.18	0.5094	0.68	1.9244
0.19	0.5377	0.69	1.9527
0.20	0.5660	0.70	1.9810
0.21	0.5943	0.71	2.0093
0.22	0.6226	0.72	2.0376
0.23	0.6509	0.73	2.0659
0.24	0.6792	0.74	2.0942
0.25	0.7075	0.75	2.1225
0.26	0.7358	0.76	2.1508
0.27	0.7641	0.77	2.1791
0.28	0.7924	0.78	2.2074
0.29	0.8207	0.79	2.2357
0.30	0.8490	0.80	2.2640
0.31	0.8773	0.81	2.2923
0.32	0.9056	0.82	2.3206
0.33	0.9339	0.83	2.3489
0.34	0.9622	0.84	2.3772
0.35	0.9905	0.85	2.4055
0.36	1.0188	0.86	2.4338
0.37	1.0471	0.87	2.4621
0.38	1.0754	0.88	2.4904
0.39	1.1037	0.89	2.5187
0.40	1.1320	0.90	2.5470
0.41	1.1603	0.91	2.5753
0.42	1.1886	0.92	2.6036
0.43	1.2169	0.93	2.6319
0.44	1.2452	0.94	2.6602
0.45	1.2735	0.95	2.6885
0.46	1.3018	0.96	2.7168
0.47	1.3301	0.97	2.7451
0.48	1.3584	0.98	2.7734
0.49	1.3867	0.99	2.8017
0.50	1.4150	1.00	2.8300

Tableau IV A

DE CONVERSION DE MÈTRES CUBES EN TONNEAUX DE JAUGE

Table IV A

FOR CONVERTING CUBIC METRES INTO REGISTER TONS

Mètres cubes Cubic metres	Tonneaux Tons							Mètres cubes Cubic metres	Tonneaux Tons						
	1 fois once	10 fois 10 times	100 fois 100 times	1,000 fois 1,000 times	10,000 fois 10,000 times	100,000 fois 100,000 times			1 fois once	10 fois 10 times	100 fois 100 times	1,000 fois 1,000 times	10,000 fois 10,000 times	100,000 fois 100,000 times	
1	0	3	5	3	3	5	689	51	18	0	2	1	2	0	139
2	0	7	0	6	7	1	378	52	18	3	7	4	5	5	828
3	1	0	6	0	0	7	067	53	18	7	2	7	9	1	517
4	1	4	1	3	4	2	756	54	19	0	8	1	2	7	206
5	1	7	6	6	7	8	445	55	19	4	3	4	6	2	895
6	2	1	2	0	1	4	134	56	19	7	8	7	9	8	584
7	2	4	7	3	4	9	823	57	20	1	4	1	3	4	273
8	2	8	2	6	8	5	512	58	20	4	9	4	6	9	962
9	3	1	8	0	2	1	201	59	20	8	4	8	0	5	651
10	3	5	3	3	5	6	890	60	21	2	0	1	4	1	340
11	3	8	8	6	9	2	579	61	21	5	5	4	7	7	029
12	4	2	4	0	2	8	268	62	21	9	0	8	1	2	718
13	4	5	9	3	6	3	957	63	22	2	6	1	4	8	407
14	4	9	4	6	9	9	646	64	22	6	1	4	8	4	096
15	5	3	0	0	3	5	335	65	22	9	6	8	1	9	785
16	5	6	5	3	7	1	024	66	23	3	2	1	5	5	474
17	6	0	0	7	0	6	713	67	23	6	7	4	9	1	163
18	6	3	6	0	4	2	402	68	24	0	2	8	2	6	852
19	6	7	1	3	7	8	091	69	24	3	8	1	6	2	541
20	7	0	6	7	1	3	780	70	24	7	3	4	9	8	230
21	7	4	2	0	4	9	469	71	25	0	8	8	3	3	919
22	7	7	7	3	8	5	158	72	25	4	4	1	6	9	608
23	8	1	2	7	2	0	847	73	25	7	9	5	0	5	297
24	8	4	8	0	5	6	536	74	26	1	4	8	4	0	986
25	8	8	3	3	9	2	225	75	26	5	0	1	7	6	675
26	9	1	8	7	2	7	914	76	26	8	5	5	1	2	364
27	9	5	4	0	6	3	603	77	27	2	0	8	4	8	053
28	9	8	9	3	9	9	292	78	27	5	6	1	8	3	742
29	10	2	4	7	3	4	981	79	27	9	1	5	1	9	431
30	10	6	0	0	7	0	670	80	28	2	6	8	5	5	120
31	10	9	5	4	0	6	359	81	28	6	2	1	9	0	809
32	11	3	0	7	4	2	048	82	28	9	7	5	2	6	498
33	11	6	6	0	7	7	737	83	29	3	2	8	6	2	187
34	12	0	1	4	1	3	426	84	29	6	8	1	9	7	876
35	12	3	6	7	4	9	115	85	30	0	3	5	3	3	565
36	12	7	2	0	8	4	804	86	30	3	8	8	6	9	254
37	13	0	7	4	2	0	493	87	30	7	4	2	0	4	943
38	13	4	2	7	5	6	182	88	31	0	9	5	4	0	632
39	13	7	8	0	9	1	871	89	31	4	4	8	7	6	321
40	14	1	3	4	2	7	560	90	31	8	0	2	1	2	010
41	14	4	8	7	6	3	249	91	32	1	5	5	4	7	699
42	14	8	4	0	9	8	938	92	32	5	0	8	8	3	388
43	15	1	9	4	3	4	627	93	32	8	6	2	1	9	077
44	15	5	4	7	7	0	316	94	33	2	1	5	5	4	766
45	15	9	0	1	0	6	005	95	33	5	6	8	9	0	455
46	16	2	5	4	4	1	694	96	33	9	2	2	2	6	144
47	15	6	0	7	7	7	383	97	34	2	7	5	6	1	823
48	16	9	6	1	1	3	072	98	34	6	2	8	9	7	522
49	17	3	1	4	4	8	761	99	34	9	8	2	3	3	211
50	17	6	6	7	8	4	450	100	35	3	3	5	6	8	900

Tableau IV B

DE CONVERSION DE MÈTRES CUBES EN TONNEAUX DE JAUGE

Table IV B

FOR CONVERTING CUBIC METRES INTO REGISTER TONS

Mètres cubes Cubic metres	Tonneaux Tons	Mètres cubes Cubic metres	Tonneaux Tons
0.01	0.0035	0.51	0.1802
0.02	0.0071	0.52	0.1837
0.03	0.0106	0.53	0.1873
0.04	0.0141	0.54	0.1908
0.05	0.0177	0.55	0.1943
0.06	0.0212	0.56	0.1979
0.07	0.0247	0.57	0.2014
0.08	0.0283	0.58	0.2049
0.09	0 0318	0.59	0.2085
0.10	0.0353	0.60	0.2120
0.11	0.0389	0.61	0.2155
0.12	0.0424	0.62	0.2191
0.13	0.0459	0.63	0.2226
0.14	0.0495	0.64	0.2261
0.15	0.0530	0.65	0.2297
0.16	0.0565	0.66	0.2332
0.17	0.0601	0.67	0.2367
0.18	0.0636	0.68	0.2403
0.19	0.0671	0.69	0.2438
0.20	0.0707	0.70	0.2473
0.21	0.0742	0.71	0.2509
0.22	0.0777	0.72	0.2544
0.23	0.0813	0.73	0.2580
0.24	0.0848	0.74	0.2615
0.25	0.0883	0.75	0.2650
0.26	0.0919	0.76	0.2686
0.27	0.0954	0.77	0.2721
0.28	0.0989	0.78	0.2756
0.29	0.1025	0.79	0.2792
0.30	0.1060	0.80	0.2827
0.31	0.1095	0.81	0.2862
0 32	0.1131	0.82	0.2898
0.33	0.1166	0.83	0.2933
0.34	0.1201	0.84	0.2968
0.35	0.1237	0.85	0.3004
0.36	0.1272	0.86	0.3039
0.37	0.1307	0.87	0.3074
0.38	0.1343	0.88	0.3110
0.39	0.1378	0.89	0.3145
0.40	0.1413	0.90	0.3180
0.41	0.1449	0.91	0.3216
0.42	0.1484	0.92	0.3251
0.43	0.1519	0.93	0.3286
0.44	0.1555	0.94	0.3322
0.45	0.1590	0.95	0.3357
0.46	0.1625	0.96	0.3392
0.47	0.1661	0.97	0.3428
0.48	0.1696	0.98	0.3463
0.49	0.1731	0.99	0.3498
0.50	0.1767	1.00	0.3534

Tableau V A

DE CONVERSION DE PIEDS EN MÈTRES.

Table V A

FOR CONVERTING FEET INTO METRES.

Pieds Feet	Mètres Metres			Pieds Feet	Mètres Metres		
	1 fois once	10 fois 10 times			1 fois once	10 fois 10 times	
1	0	3	0479	51	15	5	4452
2	0	6	0959	52	15	8	4931
3	0	9	1438	53	16	1	5411
4	1	2	1918	54	16	4	5890
5	1	5	2397	55	16	7	6370
6	1	8	2877	56	17	0	6849
7	2	1	3356	57	17	3	7329
8	2	4	3836	58	17	6	7808
9	2	7	4315	59	17	9	8287
10	3	0	4794	60	18	2	8767
11	3	3	5274	61	18	5	9246
12	3	6	5753	62	18	8	9726
13	3	9	6233	63	19	2	0205
14	4	2	6712	64	19	5	0685
15	4	5	7192	65	19	8	1164
16	4	8	7671	66	20	1	1644
17	5	1	8151	67	20	4	2123
18	5	4	8630	68	20	7	2603
19	5	7	9110	69	21	0	3082
20	6	0	9589	70	21	3	3561
21	6	4	0068	71	21	6	4041
22	6	7	0548	72	21	9	4520
23	7	0	1027	73	22	2	5000
24	7	3	1507	74	22	5	5479
25	7	6	1986	75	22	8	5959
26	7	9	2466	76	23	1	6438
27	8	2	2945	77	23	4	6918
28	8	5	3425	78	23	7	7397
29	8	8	3904	79	24	0	7876
30	9	1	4383	80	24	3	8356
31	9	4	4863	81	24	6	8835
32	9	7	5342	82	24	9	9315
33	10	0	5822	83	25	2	9794
34	10	3	6301	84	25	6	0274
35	10	6	6781	85	25	9	0753
36	10	9	7260	86	26	2	1233
37	11	2	7740	87	26	5	1712
38	11	5	8219	88	26	8	2192
39	11	8	8699	89	27	1	2671
40	12	1	9178	90	27	4	3150
41	12	4	9657	91	27	7	3630
42	12	8	0137	92	28	0	4109
43	13	1	0616	93	28	3	4589
44	13	4	1096	94	28	6	5068
45	13	7	1575	95	28	9	5548
46	14	0	2055	96	29	2	6027
47	14	3	2534	97	29	5	6507
48	14	6	3014	98	29	8	6986
49	14	9	3493	99	30	1	7465
50	15	2	3972	100	30	4	7945

Tableau V B

DE CONVERSION DE VINGTIÈMES DE PIED EN MÈTRES.

Table V B

FOR CONVERTING TWENTIETHS OF FEET INTO METRES.

Pied Foot	Mètres Metres
0.05	0.0152
0.10	0.0305
0.15	0.0457
0.20	0.0610
0.25	0.0762
0.30	0.0914
0.35	0.1067
0.40	0.1219
0.45	0.1372
0.50	0.1524
0.55	0.1676
0.60	0.1829
0.65	0.1981
0.70	0.2134
0.75	0.2286
0.80	0.2438
0.85	0.2591
0.90	0.2743
0.95	0.2896
1.00	0.3048

Tableau VI A

DE CONVERSION DE MÈTRES EN PIEDS

Table VI A

FOR CONVERTING METRES INTO FEET

Mètres Metres	Pieds Feet			Mètres Metres	Pieds Feet		
	1 fois once	10 fois 10 times			1 fois once	10 fois 10 times	
1	3	2	8090	51	167	3	2586
2	6	5	6180	52	170	6	0676
3	9	8	4270	53	173	8	8766
4	13	1	2360	54	177	1	6856
5	16	4	0450	55	180	4	4946
6	19	6	8540	56	183	7	3036
7	22	9	6629	57	187	0	1125
8	26	2	4719	58	190	2	9215
9	29	5	2809	59	193	5	7305
10	32	8	0899	60	196	8	5395
11	36	0	8989	61	200	1	3485
12	39	3	7079	62	203	4	1575
13	42	6	5169	63	206	6	9665
14	45	9	3259	64	209	9	7755
15	49	2	1349	65	213	2	5845
16	52	4	9439	66	216	5	3935
17	55	7	7529	67	219	8	2025
18	59	0	5619	68	223	1	0115
19	62	3	3708	69	226	3	8205
20	65	6	1798	70	229	6	6294
21	68	8	9888	71	232	9	4384
22	72	1	7978	72	236	2	2474
23	75	4	6068	73	239	5	0564
24	78	7	4158	74	242	7	8654
25	82	0	2248	75	246	0	6744
26	85	3	0338	76	249	3	4834
27	88	5	8428	77	252	6	2924
28	91	8	6518	78	255	9	1014
29	95	1	4608	79	259	1	9104
30	98	4	2698	80	262	4	7194
31	101	7	0788	81	265	7	5284
32	104	9	8877	82	269	0	3373
33	108	2	6967	83	272	3	1463
34	111	5	5057	84	275	5	9553
35	114	8	3147	85	278	8	7643
36	118	1	1237	86	282	1	5733
37	121	3	9327	87	285	4	3823
38	124	6	7417	88	288	7	1913
39	127	9	5507	89	292	0	0003
40	131	2	3597	90	295	2	8093
41	134	5	1687	91	298	5	6183
42	137	7	9777	92	301	8	4273
43	141	0	7867	93	305	1	2363
44	144	3	5957	94	308	4	0453
45	147	6	4046	95	311	6	8542
46	150	9	2136	96	314	9	6632
47	154	2	0226	97	318	2	4722
48	157	4	8316	98	321	5	2812
49	160	7	6406	99	324	8	0902
50	164	0	4496	100	328	0	8992

Tableau VI B

DE CONVERSION DE CENTIÈMES DE MÈTRES EN PIEDS

Table VI B

FOR CONVERTING HUNDREDTHS OF METRES INTO FEET

Mètres Metres	Pieds Feet	Mètres Metres	Pieds Feet
0.01	0.0328	0.51	1.6733
0.02	0.0656	0.52	1.7061
0.03	0.0984	0.53	1.7389
0.04	0.1312	0.54	1.7717
0.05	0.1640	0.55	1.8045
0.06	0.1969	0.56	1.8373
0.07	0.2297	0.57	1.8701
0.08	0.2625	0.58	1.9029
0.09	0.2953	0.59	1.9357
0.10	0.3281	0.60	1.9685
0.11	0.3609	0.61	2.0013
0.12	0.3937	0.62	2.0342
0.13	0.4265	0.63	2.0670
0.14	0.4593	0.64	2.0998
0.15	0.4921	0.65	2.1326
0.16	0.5249	0.66	2.1654
0.17	0.5578	0.67	2.1982
0.18	0.5906	0.68	2.2310
0.19	0.6234	0.69	2.2638
0.20	0.6562	0.70	2.2966
0.21	0.6890	0.71	2.3294
0.22	0.7218	0.72	2.3622
0.23	0.7546	0.73	2.3951
0.24	0.7874	0.74	2.4279
0.25	0.8202	0.75	2.4607
0.26	0.8530	0.76	2.4935
0.27	0.8858	0.77	2.5263
0.28	0.9187	0.78	2.5591
0.29	0.9515	0.79	2.5919
0.30	0.9843	0.80	2.6247
0.31	1.0171	0.81	2.6575
0.32	1.0499	0.82	2.6903
0.33	1.0827	0.83	2.7231
0.34	1.1155	0.84	2.7560
0.35	1.1483	0.85	2.7888
0.36	1.1811	0.86	2.8216
0.37	1.2139	0.87	2.8544
0.38	1.2467	0.88	2.8872
0.39	1.2796	0.89	2.9200
0 40	1.3124	0.90	2.9528
0.41	1.3452	0.91	2.9856
0.42	1.3780	0.92	3.0184
0.43	1.4108	0.93	3.0512
0.44	1.4436	0.94	3.0840
0.45	1.4764	0.95	3.1169
0.46	1.5092	0 96	3.1497
0.47	1.5420	0.97	3.1825
0.48	1.5748	0.98	3.2153
0.49	1.6076	0.99	3.2481
0.50	1.6404	1.00	3.2809

EXEMPLES.

EXEMPLE DE L'APPLICATION DU TABLEAU III DE CONVERSION DE TONNEAUX DE JAUGE EN MÈTRES CUBES.

On doit convertir 36,503.85 tonneaux de jauge en mètres cubes:

		T.J.—R.T.		M.³
Du Tableau / From Table	III A . .	36.000	=	101,880.000
» »	III A . .	500	=	1,415.000
» »	III A . .	3	=	8.490
» »	III B . .	0.85	=	2.406
		36,503.85	=	103,305.896
			≈	103,305.90

EXAMPLES.

EXAMPLE FOR APPLICATION OF TABLE III FOR CONVERTING REGISTER TONS INTO CUBIC METRES.

One has to convert 36,503.85 register tons into cubic metres:

EXEMPLE DE L'APPLICATION DU TABLEAU IV DE CONVERSION DE MÈTRES CUBES EN TONNEAUX DE JAUGE.

On doit convertir 89,738.92 mètres cubes en tonneaux de jauge:

		M.³		T.J.—R.T.
Du Tableau / From Table	IV A . .	89,000	=	31,448.763
» »	IV A . .	730	=	257.951
» »	IV A . .	6	=	2.827
» »	IV B . .	0.92	=	0.325
		89,738.92	=	31,709.866
			≈	31,709.87

EXAMPLE FOR APPLICATION OF TABLE IV FOR CONVERTING CUBIC METRES INTO REGISTER TONS.

One has to convert 89,738.92 cubic metres into register tons:

EXEMPLE DE L'APPLICATION DU TABLEAU V DE CONVERSION DE PIEDS EN MÈTRES.

On doit convertir 428,15 pieds en mètres:

		Pieds—Feet		Mètres
Du Tableau / From Table	V A . . .	420	=	128.013
» »	V A . . .	8	=	2.438
» »	V B . . .	0.15	=	0.046
		428.15	=	130.497
			≈	130.50

EXAMPLE FOR APPLICATION OF TABLE V FOR CONVERTING FEET INTO METRES.

One has to convert 428.15 feet into metres:

EXEMPLE DE L'APPLICATION DU TABLEAU VI DE CONVERSION DE MÈTRES EN PIEDS.

On doit convertir 145,67 mètres en pieds:

EXAMPLE FOR APPLICATION OF TABLE VI FOR CONVERTING METRES INTO FEET.

One has to convert 145.67 metres into feet:

		Mètres		Pieds—Feet
Du Tableau / From Table	VI A . . .	140	=	459.326
» »	VI A . . .	5	=	16.404
» »	VI B . . .	0.67	=	2.198
		145.67	=	477.928
			~	477.95

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