SAINT LUCIA

STATUTORY INSTRUMENT, 2019, No. 97

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SAINT LUCIA

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[1st July, 2019]

In exercise of the power conferred under section 309 of the Shipping Act, Cap.13.27, the Minister responsible for shipping makes these Regulations:

PRELIMINARY

Citation

1. These Regulations may be cited as the Shipping (Load Line) Regulations, 2019.

Interpretation

- 2. In these Regulations
 - "Act" means the Shipping Act, Cap. 13.27;
 - "amidships", in relation to a ship, means the middle of the ship's length (L);
 - "appropriate load line" means a load line described under regulation 5(3), 6 or 28;
 - "appropriate marks" means a deck line, load line mark and load line:
 - "Caribbean Trading Area" means the area bounded by a line from a point on the east coast of the United States of America in latitude 35°00' north, to a point 5°00' south, 33°00' west; thence to a point 10°00' south, 33°00' west; thence to a point on the coast of Brazil in latitude 10°00' south; then northward along the coast of Continental America to a point in latitude 35°00' north, on the east coast of the United States of America:
 - "condition of assignment" means the condition relating to construction, arrangement and stability with which a ship must comply in order to be assigned a freeboard;

- "Director" means the Director of Maritime Affairs appointed under section 4 of the Act;
- "Exemption Certificate" means
 - (a) an International Load Line Exemption Certificate; and
 - (b) a Saint Lucian Local Load Line Exemption Certificate;
- "freeboard" means the distance measured vertically downwards at amidships from the upper edge of the deck line described in regulation 4 to the position at which the upper edge of the load line appropriate to the freeboard is to be marked;

"freehoard deck" means —

- (a) the deck from which a freeboard is assigned to a ship calculated as the uppermost complete deck exposed to weather and sea, which has permanent means of closing all openings exposed to the weather, and below which all openings in the sides of the ship are fitted with permanent means of watertight closing;
- (b) a deck lower than the deck under paragraph (a) that is approved by the Director on the request of an owner under regulation 31; or
- (c) a deck under regulation 32;
- "International Load Line Certificate (1966)" means an appropriate certificate issued under section 311(1)(a) of the Act;
- "International Load Line Exemption Certificate" means an appropriate certificate issued under section 318(2)(a) of the Act;
- "length (L)" in relation to a ship means the greater of the following distances
 - (a) ninety-six per cent of the total length on a waterline at eighty-five per cent of the least moulded depth measured from the top of the keel; or
 - (b) the length from the fore-side of the stem to the axis of the rudder stock on that water line,

where the stem contour is concave above the waterline at eighty-five per cent of the least moulded depth, both the forward terminal of the total length and the fore-side of the stem respectively is taken at the vertical projection to that waterline of the aftermost point of the stem contour, above that waterline, designed with a rake of keel, the waterline on which this length is measured is parallel to the designed waterline;

"load line" means a mark on the ship indicating the maximum depth to which a ship may be loaded;

"Load Line Certificate" means —

- (a) an International Load Line Certificate (1966); and
- (b) a Saint Lucian Local Load Line Certificate;
- "moulded depth", in relation to a ship, means the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side, except that
 - (a) in the case of a wood or composite ship, it is measured from the lower edge of the keel rabbet;
 - (b) if the form at the lower part of the midship section of the ship is of a hollow character or where thick garboards are fitted, it is be measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel:
 - (c) in the case of a ship having rounded gunwales, it is measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design; and
 - (d) if the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, it is measured to a line of reference extending from the lower part of the deck along a line parallel to the raised part of the deck;
- "Near Coastal Voyage" means a voyage within the Caribbean Trading Area in the course of which the ship is at no time

more than one hundred and fifty miles from a safe port of refuge;

- "non-Saint Lucian ship" means a ship other than a Saint Lucian ship under section 12 of the Act;
- "sailing ship" means a ship designed to carry sail, whether as the sole means of propulsion, or as a supplementary means:
- "Saint Lucian Local Load Line Certificate" means an appropriate certificate under section 311(2)(b) of the Act;
- "Saint Lucian Local Load Line Exemption Certificate" means an appropriate certificiate issued under section 318(2)(b) of the Act:
- "watertight", in relation to any part of the ship, means capable of preventing the passage of water in any direction.

Application

3. Subject to section 307 of the Act, these Regulations apply to Saint Lucian ships, on an international voyage or while in Saint Lucian waters and to foreign ships while in Saint Lucian waters.

PART I

DECK LINE, LOAD LINE MARK AND LOAD LINE

Description and position of deck line

- **4.**—(1) The deck line as shown in Figure 1 must
 - (a) consist of a horizontal line three hundred millimetres in length and twenty-five millimetres in breadth and marked amidships on each side of the ship so as to indicate the position of the freeboard deck;
 - (b) subject to subregulation (2), be marked in a position on the side of the ship that its upper edge passes through the point amidships if the continuation outwards of the upper surface of the freeboard deck, or of any sheathing of that deck, intersects the outer surface of the shell of the ship.

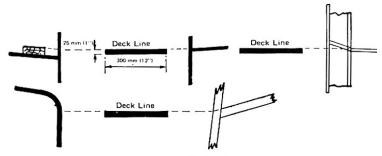


Fig. 1. Deck Line

(2) If the design of the ship, or another circumstance, makes it impracticable to mark the deck line under subregulation (1), the Minister or a person or organization authorized by the Minister may direct that it be marked by reference to another fixed point as near as practicable to the position under subregulation (1).

Description of load line mark and load lines

- **5.**—(1) A load line mark as shown in Figure 2 consists of a ring three hundred millimetres in outside diameter and twenty-five millimetres wide which is intersected by a horizontal line four hundred and fifty millimetres in length and twenty-five millimetres in breadth, the upper edge of which passes through the centre of the ring and the centre of the ring is placed amidships and at a distance equal to the assigned Summer freeboard measured vertically below the upper edge of the deck line.
- (2) A line that indicates the load line, as shown in Figure 2, must be horizontal lines of two hundred and thirty millimetres in length and twenty-five millimetres in breadth extending forward or abaft of a vertical line twenty-five millimetres in breadth marked five hundred and forty millimetres forward of the centre of the ring of the load line mark and at right angles to that line.
 - (3) A load line consists of
 - (a) a Summer Load Line that extends forward of the vertical line, and corresponds horizontally with the line passing through the centre of the ring of the load line mark, and is marked S;
 - (b) a Winter Load Line that extends forward of the vertical line, and is marked W;

- (c) a Winter North Atlantic Load Line, that extends forward of the vertical line, and is marked WNA;
- (d) a Tropical Load Line that extends forward of the vertical line, and is marked T;
- (e) a Fresh Water Load Line that extends abaft the vertical line, and is marked F;
- (f) a Tropical Fresh Water Load Line that extends abaft the vertical line and is marked TF,
- as shown in Figure 2; and
- (g) if a timber freeboard is assigned, a Timber Load Line marked under subregulations (6) and (7).

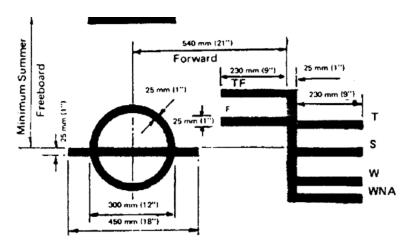


Fig. 2 Load Line Mark and load lines

- (4) The maximum depth to which a ship may be loaded in relation to a load line referred to in subregulations (1), (2) and (3) is the depth indicated by the upper edge of the appropriate load line.
 - (5) In the case of a sailing ship
 - (a) the Summer Load Line consists of the line passing through the centre of the ring of the load line mark; and
 - (b) the Winter North Atlantic Load Line marked WNA and Fresh Water Load Line marked F are marked on the ship as shown in Figure 3.

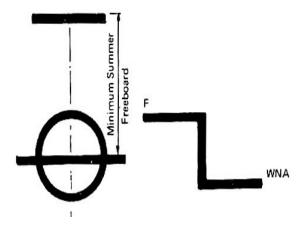


Fig.3 Load Line Mark and load lines on Sailing Ships

- (6) A Timber Load Line, as shown in Figure 4
 - (a) must be horizontal lines of the dimensions specified in respect of the lines in subregulations (2) and (3), extending abaft or forward of a vertical line twenty-five millimetres in width and marked five hundred and forty millimetres abaft the centre of the ring of the load line mark and at right angles to that line;
 - (b) consists of
 - (i) a Summer Timber Load Line that extends abaft the vertical line and is marked LS,
 - (ii) a Winter Timber Load Line that extends abaft the vertical line and is marked LW,
 - (iii) a Winter North Atlantic Timber Load Line that extends abaft the vertical line and is marked LWNA,
 - (iv) a Tropical Timber Load Line that extends abaft of the vertical line and is marked LT,
 - (v) a Fresh Water Timber Load Line that extends forward of the vertical line and is marked LF, and
 - (vi) a Tropical Fresh Water Timber Load Line that extends forward of the vertical line and is marked LTF.

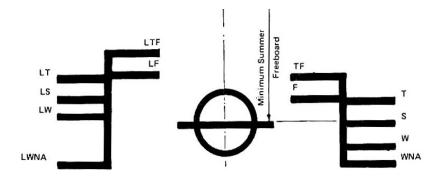


Fig.4 Timber Load Line Mark and lines to be used with this mark

(7) The maximum depth to which a ship may be loaded in relation to a Timber Load Line referred to in subregulation (6) is the depth indicated by the upper edge of the appropriate Timber Load Line.

Load line for seasonal zone, area and period

6. A load line for seasonal zone, area and period is as specified under Schedule 1.

Position of load line

7. The position of a load line on each side of a ship under section 328(d) of the Act is a distance measured vertically downwards from the upper edge of the deck line to the upper edge of the load line that is equal to the freeboard assigned to the ship which is appropriate to the load line.

Marking of appropriate marks

- **8**.—(1) Appropriate marks shall be marked by the owner of the ship on each side of the ship in accordance with the directions of the Minister or a person or organization authorized by the Minister and the requirements of this Part.
 - (2) Appropriate marks must be
 - (a) marked in such a manner as to be plainly visible;
 - (b) if the sides of the ship are of metal, cut in, centre punched or welded:
 - (c) if the sides of the ship are of wood, cut into the planking to a depth of not less than three millimetres;

- (d) if the sides of the ship are of other materials to which the methods of marking described in paragraphs (b) and (c) cannot effectively be applied, permanently affixed by bonding or some other effective method; and
- (e) painted in white or yellow if the background is dark, and in black if the background is light.
- (3) If an Exemption Certificate is issued with the assignment of a freeboard which is less than the requirement under regulation 10, the load line and the load line mark must be marked on the ship by being painted in red on a contrasting background.

Mark of Minister or person or organization authorized by the Minister

- **9.**—(1) The identity of the Minister or person or organization authorized by the Minister may be marked alongside the load line ring above the horizontal line which passes through the centre of the ring, or above and below it.
- (2) The mark under subregulation (1) consists of not more than four initials each measuring approximately one hundred and fifty millimetres in height and seventy-five millimetres in width.

PART II

ASSIGNMENT OF FREEBOARD AND CONDITION OF ASSIGNMENT

Assignment of freeboard

- **10**.—(1) The Minister or person or organization authorized by the Minister shall, in accordance with Schedule 2, assign to a new Saint Lucian ship
 - (a) a Summer Freeboard;
 - (b) a Tropical Freeboard;
 - (c) a Winter Freeboard;
 - (d) a Winter North Atlantic Freeboard;
 - (e) a Fresh Water Freeboard;
 - (f) a Tropical Fresh Water Freeboard;

- (g) in the case of a ship carrying Timber
 - (i) a Summer Timber Freeboard,
 - (ii) a Winter Timber Freeboard,
 - (iii) a Winter North Atlantic Timber Freeboard,
 - (iv) a Tropical Timber Freeboard,
 - (v) a Fresh Water Timber Freeboard, and
 - (vi) a Tropical Fresh Water Timber Freeboard;
- (h) a freeboard other than a Timber Freeboard.
- (2) A freeboard assigned under subregulation (1) is the minimum freeboard that may be assigned to the ship.
- (3) A freeboard, other than a Timber freeboard under subregulation (1)(g) may exceed the minimum freeboard by an amount determined by the Minister or person or organization authorized by the Minister.
- (4) A Timber Freeboard under subregulation (1)(g) must not be assigned to a ship to which greater than the minimum freeboard has been assigned.
- (5) If a freeboard greater than the minimum freeboard is assigned to a ship and the appropriate load line to that freeboard corresponds to, or is lower than, the position at which the lowest of the appropriate load line to the minimum freeboard would be marked
 - (a) the load line appropriate to the greater than minimum Summer Freeboard and Fresh Water Freeboard are marked on the sides of the ship;
 - (b) the load line appropriate to the greater than minimum Summer Freeboard is known as the "All Seasons load line" and consists of the horizontal line intersecting the load line mark;
 - (c) subject to paragraph (d), the Fresh Water Load Line is as described under regulation 5(2); and
 - (d) the vertical line described under regulation 5 is omitted.

Correction of freeboard for deck line under regulation 4(2)

11.—(1) In a ship where the deck line is marked under regulation 4(2), the freeboards assigned to the ship must be corrected to allow for

the vertical distance by which the position of the deck line is altered under that regulation.

(2) The reference point to which the deck line has been marked, and the identity of the deck which has been taken as the freeboard deck, must be specified in the certificate issued in respect of the ship.

Condition of assignment

12. A ship to which a freeboard is assigned under regulation 10 must comply with the condition of assignment applicable to that ship and set out in Schedule 3.

Record of particulars

- 13.—(1) A record of particulars relating to a condition of assignment in the form set out in Schedule 4 must be provided on a ship.
- (2) A record of particulars under subregulation (1) must be furnished to the Minister or a person or organization authorized by the Minister and be retained on board at all times.

Circumstances in which ship fails to comply with condition of assignment

- **14.**—(1) Subject to subregulation (2), a ship fails to comply with a condition of assignment under regulation 12
 - (a) if after the assignment of a freeboard there has been an alteration of the hull, superstructures, fittings or appliances of the ship such that
 - (i) a condition under regulation 12 is not complied with, or
 - (ii) it differs in a material respect from the record of particulars under regulation 13; or
 - (b) if the record of particulars is not on board as required under regulation 13(1).
- (2) A ship complies with a condition of assignment despite an alteration under subregulation (1)(a) if
 - (a) an amended freeboard appropriate to the condition of the ship has been assigned, and the ship has been marked with load lines and a new certificate is issued to the owner of the ship; or

(b) the alteration has been inspected by a surveyor of ships on behalf of the Minister or a person or organization authorized by the Minister and the surveyor of ships is satisfied that the alteration is not such as to require a change in the freeboard assigned to the ship, and full particulars of the alteration together with the date and place of his or her inspection have been endorsed by the surveyor of ships on the record under regulation 13(1).

Equivalents

- **15.**—(1) A ship which fails to comply with a condition of assignment specified under regulation 12 may be required to meet equivalent conditions in accordance with subregulation (2).
- (2) The Minister or a person or organization authorized by the Minister may, with the approval of the Director
 - (a) allow a fitting, material, appliance or apparatus to be fitted in a ship, or allow other provisions to be made in a ship, in the place of a fitting, material, appliance, apparatus or provision respectively which is required under the provisions of these Regulations, if satisfied by trial or otherwise that it is at least as effective as that so required; or
 - (b) allow in an exceptional case departure from the requirements of a provision under paragraph (a) on condition that the freeboard to be assigned to the ship is increased to an extent to satisfy the Director that the safety of the ship and protection afforded to the crew will be no less effective than would be the case if the ship fully complied with the conditions and there was no increase of the freeboard.

Notice

- 16.—(1) A notice of the draught and freeboard relating to the depth to which the ship is loaded, the density of the water in which the ship is floating and all other related particulars under section 332(2)(b) of the Act must be in the form set out in Schedule 5.
- (2) Subregulation (1) does not apply to a ship employed on a Near Coastal Voyage.

Information as to the stability of a ship

- 17.—(1) The owner of a ship shall provide, for the guidance of the master, information in the form of a book relating to the stability of the ship under this regulation which must be kept on the ship at all times in the custody of the master.
- (2) In the case of a Saint Lucian ship, the information under subregulation (1) includes matters specified in Schedule 6, and is in the form required by that Schedule and must be in accordance with the requirements of subregulations (3), (4) and (5).
- (3) Subject to subregulation (4), the information under subregulation (1)
 - (a) must be based on the determination of stability taken from an inclining test carried out in the presence of a surveyor of ships or marine officer or, in the case of a ship listed in Part II of Schedule 6, by the Minister or a person or organization authorized by the Minister;
 - (b) must be amended whenever alterations are made to the ship or changes occur to it which will materially affect the information and, if necessary, the ship must be re-inclined.
 - (4) An inclining test may be dispensed with if
 - (a) in the case of a ship, basic stability data is available from the inclining test of a sister ship and the Director or, in the case of a ship listed in Part II of Schedule 6, the Minister or a person or organization authorized by the Minister is satisfied that reliable stability information can be obtained from the data; and
 - (b) in the case of a ship specially designed for the carriage of liquids or ore in bulk, or a class of such ships, the information available in respect of similar ships shows that the ship's proportions and arrangements will ensure more than sufficient stability in all probable loading conditions.
- (5) Before the information under subregulation (1) is issued to the master
 - (a) in the case of a ship which is listed in Part II of Schedule 6, it shall be approved by the Director or the Minister or

- a person or organization authorized by the Minister which assigned a freeboard to the ship; and
- (b) in the case of another ship, it shall be approved by the Director.

Information as to loading and ballast of a ship

- **18.**—(1) The owner of a ship of more than one hundred and fifty metres in length specially designed for the carriage of liquids or ore in bulk shall provide, for the guidance of the master, information relating to the loading and ballast of the ship.
- (2) The information under subregulation (1) must indicate the maximum stresses permissible for the ship and specify the manner in which the ship is to be loaded and ballast to avoid the creation of unacceptable stresses in its structure.
- (3) In the case of a Saint Lucian ship, regulation 17(5) has effect in respect of information required under this regulation, and the information approved must be included in the book under regulation 17(1).

PART III

INITIAL SURVEY, RENEWAL SURVEY AND ANNUAL SURVEY

Survey of ship

- 19. A Saint Lucian ship is subject to
 - (a) an initial survey under regulation 20;
 - (b) a renewal survey under regulation 21; and
 - (c) an annual survey under regulation 22.

Initial survey

- **20.**—(1) Before a ship is put into service, the owner of the ship shall make an application to a surveyor of ships for an initial survey.
 - (2) In an initial survey a surveyor of ships shall
 - (a) include a complete inspection of a ship's structure and equipment under these Regulations; and

(b) ensure that the arrangements, materials and scantlings comply with these Regulations.

Renewal survey

- 21.—(1) Within three months before the expiry of a Load Line Certificate or after the expiry of a Load Line Certificate, the owner of a ship shall make an application to a surveyor of ships, for the purposes of section 321(2) of the Act, for a renewal survey.
- (2) In a renewal survey, a surveyor of ships shall ensure that the structure, equipment, arrangements, materials and scantlings comply with these Regulations.

Annual survey

- 22.— (1) The owner of a ship shall make an application to a surveyor of ships for an annual survey, for the purposes of section 321(3) of the Act, three months before or after the expiry of a Load Line Certificate.
 - (2) In an annual survey the surveyor of ships shall ensure that
 - (a) alterations have not been made to the hull or super structures which would affect the calculations determining the position of the load line;
 - (b) the fittings and appliances for the protection of openings, guard rails, freeing ports and means of access to crew's quarters are maintained in an effective condition;
 - (c) the appropriate marks are correctly and permanently indicated; and
 - (d) information is provided under regulations 17 and 18.
- (3) A surveyor of ships shall, on being satisfied with the annual survey under subregulation (2), endorse the Load Line Certificate.

PART IV

LOAD LINE CERTIFICATE AND EXEMPTION CERTIFICATE

Application for Load Line Certificate and Exemption Certificate

- **23.** An application for
 - (a) a Load Line Certificate is —

- (i) in the case of an International Load Line Certificate (1966), in the form set out as Form 1 in Schedule 7;
- (ii) in the case of a Saint Lucian Local Load Line Certificate in the form set out as Form 2 in Schedule 7;
- (b) an Exemption Certificate is
 - (i) in the case of an International Load Line Exemption Certificate, in the form set out as Form 3 in Schedule 7;
 - (ii) in the case of a Saint Lucian Local Load Line Exemption Certificate, in the form set out as Form 4 in Schedule 7.

Form of Load Line Certificate and Exemption Certificate

24.—(1) A Load Line Certificate is —

- (a) in the case of an International Load Line Certificate (1966), in the form set out as Form 5 in Schedule 7;
- (b) in the case of a Saint Lucian Local Load Line Certificate, in the form set out as Form 6 in Schedule 7.

(2) An Exemption Certificate is —

- (a) in the case of an International Load Line Exemption Certificate, in the form set out as Form 7 in Schedule 7;
- (b) in the case of a Saint Lucian Local Load Line Exemption Certificate, in the form set out as Form 8 in Schedule 7.

Duration of Load Line Certificate and Exemption Certificate

- **25.**—(1) The period of a Load Line Certificate is as specified under section 321 of the Act.
- (2) An Exemption Certificate issued by the Minister under section 318 of the Act, unless it is renewed, expires at the end of the period specified in the Exemption Certificate such period not to exceed five years from the date of its issue.
- (3) An International Load Line Exemption Certificate issued under section 318 of the Act is limited to the single voyage for which it is issued.

Extension of Load Line Certificate and Exemption Certificate

- **26.**—(1) The Minister or person or organization authorized by the Minister may extend the period of a Load Line Certificate and an Exemption Certificate if
 - (a) after a renewal survey, a new certificate cannot be issued to the ship before the expiry of the existing certificate;
 - (b) at the time when the certificate expires, the ship is not in a port in which it is to be surveyed to allow the ship to complete its voyage to the port in which it is to be surveyed;
 - (c) there have been no alterations in the structure, equipment, arrangements, materials or scantlings which affect the ship's freeboard; or
 - (d) the safety of the ship and a person on board the ship will not be adversely affected.
- (2) A ship to which an extension is granted under subregulation (1)(b) shall not, on its arrival in the port in which it is to be surveyed, leave that port without having a new certificate.
- (3) A Load Line Certificate in accordance with section 321(3) of the Act and an Exemption Certificate must not be extended for a period longer than three months beginning with the date of expiry.
- (4) An extension under this regulation must be endorsed on the Load Line Certificate.

Cancellation of Load Line Certificate

- **27**. A Load Line Certificate may be cancelled
 - (a) in the circumstances under paragraph (b) by
 - (i) without prejudice to section 321(3) of the Act, the Minister or person or organization authorized by the Minister, or
 - (ii) without prejudice to section 325(3) of the Act, the Director;
 - (b) if
 - (i) the Load Line Certificate is not endorsed to show that the annual survey was conducted within three months

or after the date of expiry of the Load Line Certificate, or

(ii) the ship's strength has decreased to an extent that it is unsafe.

Termination of Exemption Certificate

- **28.** The Minister or person or organization authorized by the Minister may terminate an Exemption Certificate if
 - (a) a circumstance under regulation 27(b) exists;
 - (b) a material alteration has taken place in the hull or superstructure of the ship that would necessitate the assignment of an increased freeboard; or
 - (c) the fittings and appliances for the protection of an opening, guard rail, the freeing port or the means of access to the crew's quarters have not been maintained on the ship in an effective condition.

Notice of cancellation or termination and representation

- **29.**—(1) Before a Load Line Certificate is cancelled under section 321(3) or 325(3) of the Act or regulation 27 or an Exemption Certificate is terminated under regulation 28, the Minister or person or organization authorized by the Minister or the Director shall, by a notice in writing, notify the owner of the grounds for the proposed cancellation.
- (2) A notice under subregulation (1) is made in writing if the text of the notice
 - (a) is transmitted by electronic means;
 - (b) is received in legible form; and
 - (c) is capable of being used for subsequent reference.
- (3) Subject to subregulation (4), the Minister or person or organization authorized by the Minister or Director shall not cancel a certificate until the owner has been given a reasonable opportunity to make representations, and the Minister or person or organization authorized by the Minister or Director has considered the representations made.

(4) Subregulation (3) does not apply if the Minister or person or organization authorized by the Minister or Director considers that urgent safety considerations requires the immediate cancellation or termination of the Load Line Certificate or Exemption Certificate.

Validity of foreign certificates

- **30**.—(1) Section 314(1) of the Act does not apply to a foreign ship in respect of which a valid International Load Line Certificate or a valid International Load Line Exemption Certificate is produced.
- (2) In the case of a ship that has transferred from the registry of a non-Saint Lucian government to the Saint Lucia registry, the Minister or person or organization authorized by the Minister may issue an International Load Line Certificate (1966) if satisfied that
 - (a) the ship has been subjected to a satisfactory initial survey, renewal survey or annual survey;
 - (b) the condition of the ship, including its structure and equipment, have been maintained so as to comply with the requirements of the Load Lines Convention applicable to the ship; and
 - (c) after an initial survey, renewal survey or annual survey has been completed, a material change has not been made to the ship, including its structure and equipment, subject to a survey, without the approval of the administration of the non-Saint Lucian government.
- (3) An International Load Line Certificate (1966) issued under subregulation (2) is valid for a period to be determined by the Minister, a person or organization authorized by the Minister, but the period must not exceed the period of validity of the certificate issued by or on behalf of the non-Saint Lucian government.

PART V

MISCELLANEOUS

Deck lower than freeboard deck

31. At the request of the owner and subject to the approval of the Director, a deck lower than the freeboard deck may be used if it

is a complete and permanent deck which is continuous both in fore and aft direction at least between the machinery space and the peak bulkheads of the ship, and athwartships, a deck which is stepped, being taken to consist for this purpose of the lowest line of the deck and the continuation of that line parallel to the upper part of the deck.

Determination of freeboard deck and freeboard if valid certificate cannot be produced

32. For the purposes of sections 197, 198 and 203 of the Act, if a valid Convention certificate cannot be produced, the freeboard deck and the freeboard are determined in accordance with these Regulations and the appropriate load line is the maximum depth to which the ship may be loaded in salt water.

Detention

33. If a ship is detained under section 334 of the Act, section 458 of the Act applies in relation to a detention notice issued under section 460 of the Act as it applies in relation to section 457 of the Act.

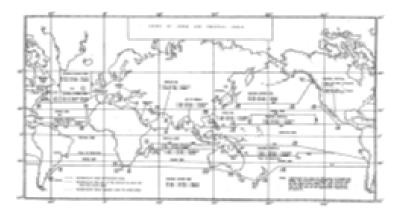
SCHEDULE 1

(Regulation 6)

APPROPRIATE LOAD LINES AND SEASONAL ZONES, AREAS AND PERIODS

Appropriate Load Lines

1. The seasonal zones, areas and periods which determine the appropriate load line in a particular sea area at a given time are set out in this Schedule and shown by way of illustration on Chart No. D.6083 "Load Line Regulations: Zones, Areas & Seasonal Periods, Edition No. 2"; available from the United Kingdom Hydrographic Office.



- 2. Subject to subparagraphs 2.4 to 2.7 the load line appropriate to a ship is -
 - 2.1 the Summer load line, when the ship is in a Summer Zone, excluding any part of such a zone which is a seasonal area in relation to the ship;
 - 2.2 the Tropical load line, when the ship is in a Tropical Zone;
 - 2.3 the Summer load line, the Winter load line or the Tropical load line, according to the season when the ship is in a seasonal zone or area, including any part of a Summer Zone which is a seasonal area in relation to the ship;
 - 2.4 the Winter North Atlantic load line, in the case of a ship of one hundred metres or less in length, when it is in these zones during the Winter seasonal periods applicable to them —
 - 2.4.1 North Atlantic Winter Seasonal Zone I, as set out in paragraph 4.1;

- 2.4.2 North Atlantic Winter Seasonal Zone II, as set out in paragraph
- 4.2 as lies between the meridians of longitude 15°W and 50°W;

during the winter seasonal periods applicable in those zones;

- 2.5 the Summer load line, in the case of a sailing ship, except in circumstances in which subparagraph 2.4 applies;
- 2.6 an All Seasons load line, in the case of a ship marked under regulation 8;
- 2.7 the Timber load line, corresponding to the seasons and zones, in the case of a ship marked with Timber load lines and carrying timber deck cargo.

Ports on Boundary Lines

3. For the purposes of applying the provisions of this Schedule to a ship at a port which stands on the boundary line between two zones or areas or between a zone and an area, or which is required by this Schedule to be considered as being on such a boundary line, the port is deemed to be within the zone or area into which the ship is about to proceed or from which the ship has arrived as the case may be.

Zones, Areas and Seasonal Periods

NORTHERN WINTER SEASONAL ZONES AND AREA

North Atlantic Winter Seasonal Zones I and II

4.1 The North Atlantic Winter Seasonal Zone I lies within the meridian of longitude 50°W from the coast of Greenland to latitude 45°N, thence the parallel of latitude 45°N to longitude 15°W, thence the meridian of longitude 15°W to latitude 60°N, thence the parallel of latitude 60°N to the Greenwich Meridian, thence this meridian northwards.

Seasonal periods:

WINTER: 16th day of October to 15th day of April.

SUMMER: 16th day of April to 15th day of October.

4.2 The North Atlantic Winter Seasonal Zone II lies within the meridian of longitude 68° 30'W from the coast of the United States to latitude 40°N, thence the rhumb line to the point latitude 36°N longitude 73°W, thence the parallel of latitude 36°N to longitude 25°W and thence the rhumb line to Cape Toriñana.

Excluded from this zone are the North Atlantic Winter Seasonal Zone I, the North Atlantic Winter Seasonal Area and the Baltic Sea bounded by the parallel of latitude of The Skaw in the Skagerrak.

The Shetland Islands are to be considered as being on the boundary line between the North Atlantic Winter Seasonal Zones I and II.

Seasonal periods:

WINTER: 1st day of November to 31st day of March. **SUMMER:** 1st day of April to 31st day of October.

North Atlantic Winter Seasonal Area

5. The boundary of the North Atlantic Winter Seasonal Area is the meridian of longitude 68°30'W from the coast of the United States to latitude 40°N, thence the rhumb line to the southernmost intersection of the meridian of longitude 61°W with the coast of Canada and thence the east coasts of Canada and the United States.

Seasonal periods:

For ships over one hundred metres in length:

WINTER: 16th day of December to 15th day of February. **SUMMER:** 16th day of February to 15th day of December.

For ships of one hundred metres or less in length:

WINTER: 1st day of November to 31st day of March. **SUMMER:** 1st day of April to 31st day of October.

North Pacific Winter Seasonal Zone

6. The southern boundary of the North Pacific Winter Seasonal Zone is the parallel of latitude 50°N from the east coast of the Russian Federation to the west coast of Sakhalin, thence the west coast of Sakhalin to the southern extremity of Cape Kril'on, thence the rhumb line to Wakkanai, Hokkaido, Japan, thence the east and south coasts of Hokkaido to longitude 145°E, thence the meridian of longitude 145°E to latitude 35°N, thence the parallel of latitude 35°N to longitude 150°W and thence the rhumb line to the southern extremity of Dall Island, Alaska.

Seasonal periods:

WINTER: 16th day of October to 15th day of April. **SUMMER:** 16th day of April to 15th day of October.

SOUTHERN WINTER SEASONAL ZONE

Southern Winter Seasonal Zone

7. The northern boundary of the Southern Winter Seasonal Zone is the rhumb line from the east coast of the American continent at Cape Tres Puntas

to the point latitude 34°S longitude 50°W, thence the parallel of latitude 34°S to longitude 17°E, thence the rhumb line to the point latitude 35°10'S, longitude 20°E, thence the rhumb line to the point latitude 34°S, longitude 28°E, thence the rhumb line to the point latitude 35°30'S, longitude 118°E, and thence the rhumb line to Cape Grim on the northwest coast of Tasmania; thence along the north and east coasts of Tasmania to the southernmost point of Bruny Island, thence the rhumb line to Black Rock Point on Stewart Island, thence the rhumb line to the point latitude 47°S, longitude 170°E, thence the rhumb line to the point latitude 33°S, longitude 170°W, and thence the parallel of latitude 33°S to the point latitude 33°S, longitude 79°W, thence the rhumb line to the point latitude 41°S, longitude 75°W, thence the rhumb line to Punta Corona lighthouse on Chiloe Island, latitude 41°47'S longitude 75°53'W, thence along the north, east and south coasts of Chiloe Island to the point latitude 43°20'S, longitude 74°20'W, and thence the meridian of longitude 74°20'W, to the parallel of latitude 45°45'S, including the inner zone of Chiloe channels from the meridian 74°20'W to the east.

Seasonal Periods:

WINTER: 16th day of April to 15th day of October. **SUMMER:** 16th day of October to 15th day of April.

TROPICAL ZONE

Northern Boundary of the Tropical Zone

8. The northern boundary of the Tropical Zone is the parallel of latitude 13°N from the east coast of the American continent to longitude 60°W, thence the rhumb line to the point latitude 10°N, longitude 58°W, thence the parallel of latitude 10°N to longitude 20°W, thence the meridian of longitude 20°W to latitude 30°N and thence the parallel of latitude 30°N to the west coast of Africa; from the east coast of Africa the parallel of latitude 8°N to longitude 70°E, thence the meridian of longitude 70°E to latitude 13°N, thence the parallel of latitude 13°N to the west coast of India; thence the south coast of India to latitude 10°30'N on the east coast of India, thence the rhumb line to the point latitude 9°N, longitude 82°E, thence the meridian of longitude 82°E to latitude 8°N, thence the parallel of latitude 8°N to the west coast of Malaysia, thence the coast of South-East Asia to the east coast of Vietnam at latitude 10°N, thence the parallel of latitude 10°N to longitude 145°E, thence the meridian of longitude 145°E to latitude 13°N and thence the parallel of latitude 13°N to the west coast of the American continent.

Saigon is to be considered as being on the boundary line of the Tropical Zone and the Seasonal Tropical Area.

Southern Boundary of the Tropical Zone

9. The southern boundary of the Tropical Zone is the rhumb line from the Port of Santos, Brazil, to the point where the meridian of longitude 40°W intersects the Tropic of Capricorn; thence the Tropic of Capricorn to the west coast of Africa; from the east coast of Africa the parallel of latitude 20°S to the west coast of Madagascar, thence the west and north coasts of Madagascar to longitude 50°E, thence the meridian of longitude 50°E to latitude 10°S, thence the parallel of latitude 10°S to longitude 98°E, thence the rhumb line to Port Darwin, Australia, thence the coasts of Australia and Wessel Island eastwards to Cape Wessel, thence the parallel of latitude 11°S to the west side of Cape York; from the east side of Cape York the parallel of latitude 11°S to longitude 150°W, thence the rhumb line to the point latitude 26°S, longitude 75°W, thence the rhumb line to the point latitude 32°47'S, longitude 72°W, and thence to the parallel of latitude 32°47'S to the west coast of South America.

Valparaiso and Santos are to be considered as being on the boundary line of the Tropical and Summer Zones.

Areas to be included in the Tropical Zone

- 10. The following areas are to be as included in the Tropical Zone
 - 10.1 the Suez Canal, the Red Sea and the Gulf of Aden, from Port Said to the meridian of longitude 45°E;

Aden and Berbera are to be considered as being on the boundary line of the Tropical Zone and the Seasonal Tropical Area;

- 10.2 the Persian Gulf to the meridian of longitude 59°E; and
- 10.3 the area bounded by the parallel of latitude 22°S from the east coast of Australia to the Great Barrier Reef, thence the Great Barrier Reef to latitude 11°S. The northern boundary of the area is the southern boundary of the Tropical Zone.

SEASONAL TROPICAL AREAS

11. The following are Seasonal Tropical Areas.

11.1 In the North Atlantic

An area bounded on the north by the rhumb line from Cape Catoche, Yucatan, to Cape San Antonio, Cuba, the north Coast of Cuba to latitude 20°N and thence the parallel of latitude 20°N to longitude 20°W; on the west by the coast of the American continent; on the south and east by the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL: 1st day of November to 15th day of July.

SUMMER: 16th day of July to 31st day of October.

11.2 In the Arabian Sea

An area bounded on the west by the coast of Africa, the meridian of longitude 45°E in the Gulf of Aden, the coast of South Arabia and the meridian of longitude 59°E in the Gulf of Oman; on the north and east by the coasts of Pakistan and India; on the south by the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL: 1st day of September to 31st day of May.

SUMMER: 1st day of June to 31st day of August.

11.3 In the Bay of Bengal

The Bay of Bengal north of the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL:1st day of December to 30th day of April.

SUMMER: 1st day of May to 30th day of November.

11.4 In the South Indian Ocean

11.4.1 An area bounded on the north and west by the southern boundary of the Tropical Zone and the east coast of Madagascar; on the south by the parallel of latitude 20°S; on the east by the rhumb line from the point latitude 20°S, longitude 50°E, to the point latitude 15°S, longitude 51°30'E, and thence by the meridian of longitude 51°30'E to latitude 10°S.

Seasonal periods:

TROPICAL: 1st day of April to 30th November.

SUMMER: 1st day of December to 31st March.

11.4.2 An area bounded on the north by the southern boundary of the Tropical Zone; on the east by the coast of Australia; on the south by the parallel of latitude 15°S from longitude 51°30'E, to longitude 114°E and thence the meridian of longitude 114°E to the coast of Australia; on the west by the meridian of longitude 51°30'E.

Seasonal periods:

TROPICAL: 1st day of May to 30th day of November.

SUMMER: 1st day of December to 30th day of April.

11.5 In the China Sea

An area bounded on the west and north by the coasts of Vietnam and China from latitude $10^{\circ}N$ to Hong Kong; on the east by the rhumb line from Hong Kong to the Port of Sual (Luzon Island) and the west coasts of the Islands of Luzon, Samar and Leyte to latitude $10^{\circ}N$; on the south by the parallel of latitude $10^{\circ}N$.

Hong Kong and Sual are to be considered as being on the boundary of the Seasonal Tropical Area and Summer Zone.

Seasonal periods:

TROPICAL: 21st day of January to 30th day of April.

SUMMER: 1st day of May to 20th day of January.

11.6 In the North Pacific

11.6.1 An area bounded on the north by the parallel of latitude 25°N; on the west by the meridian of longitude 160°E; on the south by the parallel of latitude 13°N; on the east by the meridian of longitude 130°W.

Seasonal periods:

TROPICAL: 1st day of April to 31st day of October.

SUMMER: 1st day of November to 31st day of March.

11.6.2 An area bounded on the north and east by the west coast of the American continent; on the west by the meridian of longitude $123^{\circ}W$ from the coast of the American continent to latitude $33^{\circ}N$ and by the rhumb line from the point latitude $33^{\circ}N$, longitude $123^{\circ}W$ to the point latitude $13^{\circ}N$, longitude $105^{\circ}W$; on the south by the parallel of latitude $13^{\circ}N$.

Seasonal periods:

TROPICAL: 1st day of March to 30th day of June and

1st day of November to 30th day of November.

SUMMER: 1st day of July to 31st day of October and

1st day of December to 28th or 29th day of February.

- 11.7 In the South Pacific
- 11.7.1 The Gulf of Carpentaria south of latitude 11°S

Seasonal periods:

TROPICAL: 1st day of April to 30th day of November.

SUMMER: 1st day of December to 31st day of March.

11.7.2 An area bounded on the north by the southern boundary of the Tropical Zone; on the south by the parallel of latitude of 24°S from the east coast of Australia to longitude 154°E, thence by the meridian of longitude 154°E to the Tropic of Capricorn and thence by the Tropic of Capricorn to longitude 150°W, thence by the meridian of longitude 150°W to latitude 20°S and thence by the parallel of latitude 20°S to the point where it intersects the southern boundary of the Tropical Zone; on the west by the boundaries of the area within the Great Barrier Reef included in the Tropical Zone and by the east coast of Australia.

Seasonal periods:

TROPICAL: 1st day of April to 30th day of November.

SUMMER: 1st day of December to 31st day of March.

SUMMER ZONES

12. The remaining sea areas constitute the Summer Zones.

However, for ships of one hundred metres or less in length, the area bounded on the north and west by the east coast of the United States; on the east by the meridian of longitude 68°30'W from the coast of the United States to latitude 40°N and thence by the rhumb line to the point latitude 36°N longitude 73°W; on the south by the parallel of latitude 36°N; is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1st day of November to 31st day of March.

SUMMER: 1st day of April to 31st day of October.

ENCLOSED SEAS

13. Baltic Sea

This sea bounded by the parallel of latitude of The Skaw in the Skagerrak is included in the Summer Zones.

However, for ships of one hundred metres or less in length, it is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1st day of November to 31st day of March.

SUMMER: 1st day of April to 31st day of October.

14. Black Sea

This sea is included in the Summer Zones.

However, for ships of one hundred metres or less in length, the area north of latitude 44°N is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1st day of December to 28th or 29th day of February.

SUMMER: 1st day of March to 30th day of November.

15. Mediterranean

This sea is included in the Summer Zones.

However, for ships of one hundred metres or less in length, the area bounded on the north and west by the coasts of France and Spain and the meridian of longitude 3°E from the coast of Spain to latitude 40°N; on the south by the parallel of latitude 40°N from longitude 3°E to the west coast of Sardinia; on the east by the west and north coasts of Sardinia from latitude 40°N to latitude 9°E to the south coast of Corsica, hence by the west and north coasts of Corsica to longitude 9°E and thence by the rhumb line to Cape Sicié; is a Winter Seasonal Area.

Seasonal periods:

WINTER: 16th day of December to 15th day of March.

SUMMER: 16th day of March to 15th day of December.

16. Sea of Japan

This sea south of latitude 50°N is included in the Summer Zones.

However, for ships of one hundred metres or less in length, the area between the parallel of latitude 50°N and the rhumb line from the east coast of Korea at latitude 38°N to the west coast of Hokkaido, Japan, at latitude 43°12'N is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1st day of December to 28th or 29th day of February.

SUMMER: 1st day of March to 30th day of November.

SCHEDULE 2

(Regulation 10(1))

ASSIGNMENT OF FREEBOARD

Interpretation

1. Expressions in this Schedule have the same meanings as those assigned in Schedule 3, and -

"block coefficient (C_b)" means the product of —



where -

- is the volume of the moulded displacement of the ship, excluding bossing, where the ship has a metal shell, and of displacement to the outer surface of the hull where the ship has a shell of any other material, displacement being taken in each case at a moulded draught of d,; and
- d₁ is eighty-five per cent of the least moulded depth, provided that in no case shall the block coefficient (C_b) be taken to be less than 0.68;

"depth for freeboard (D)" means —

(a) except as otherwise stated in paragraph (b) below, the moulded depth of the ship amidships plus the thickness of the freeboard deck stringer plate where fitted, plus, where the exposed freeboard deck is sheathed, the product of —

$$\frac{T(L - S)}{(L)}$$

where -

T is the mean thickness of the exposed sheathing clear of deck openings;

(b) in a ship having a rounded gunwale with a radius greater than 4 per cent of the breadth of the ship or having topsides of unusual form, the depth calculated in accordance with subparagraph (a), would be the depth for freeboard purposes of a ship having a midship section with vertical topsides and with the same round of beam and the same area of topside section as that of the midship section of the actual ship;

- "effective length (E)" in relation to a superstructure means the effective length of the superstructure determined in accordance with the provisions of paragraph 9.3.1;
- "flush deck ship" means a ship which has no superstructure on the freeboard deck:
- "length (S)" in relation to a superstructure means the length of the superstructure determined in accordance with the provisions of paragraph 9.2.1;
- "salt water" means water having a relative density of 1.025;
- "Summer draught" means the draught measured from
 - (a) in the case of a wood or composite ship, the lower edge of the keel rabbet;
 - (b) where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the point where the line of the flat of the bottom continued inwards cuts the side of the keel; and
 - (c) in any other case, the top of the keel;

to the point which, when load lines and marks have been marked on the ship's side, will correspond to the centre of the ring of the load line mark;

- "Summer Timber draught" means the draught measured from point (a),(b) or (c) described in the definition of the Summer draught to the point which when Timber load lines have been marked on the ship's side will correspond to the upper edge of the Summer Timber load line;
- "tabular freeboard" means in the case of a Type "A" ship the freeboard appropriate to the ship's length under Freeboard Table A and, in the case of a Type "B" ship, the freeboard appropriate to the ship's length under Freeboard Table B.

Freeboards: general

- 2.1 Except as otherwise provided in subparagraph 2.2, the freeboards, other than Timber freeboards, to be assigned to a ship shall be determined in accordance with the provisions of Part I, and Timber freeboards to be assigned to a ship shall be determined in accordance with Part II.
 - 2.2 The freeboards to be assigned to
 - 2.2.1 sailing ships;

- 2.2.2 tugs;
- 2.2.3 ships of wood or of composite construction or of other materials:
- 2.2.4 ships with constructional features such as to render freeboards determined in accordance with subparagraph 2.1 unreasonable or impracticable; and
- 2.2.5 unmanned barges having on the freeboard deck only small access openings closed by watertight gasketed covers of steel;

shall be determined in accordance with the provisions of Part III of this Schedule.

PART I – FREEBOARDS OTHER THAN TIMBER FREEBOARDS

Determination of freeboards

- 3.1 Subject to subparagraph 3.3, a Summer freeboard must be determined in accordance with the provisions of paragraphs 4 to 16.
- 3.2 Subject to subparagraph 3.3, a Tropical freeboard must be obtained by deducting from the Summer freeboard one forty-eighth (1/48th) of the Summer draught of the ship.
- 3.3 The freeboard under subparagraphs 3.1 and 3.2, but omitting a correction made in paragraph 8 for deck-line, must be not less than fifty millimetres except in the case of a ship with hatchways in Position 1 to which paragraph 5 applies but which do not have pontoon covers, in which case it must be not less than one hundred and fifty millimetres.
- 3.4 A Winter freeboard must be obtained by adding to a Summer freeboard one forty-eighth (1/48th) of the Summer draught of the ship.
- 3.5 A Winter North Atlantic freeboard must be obtained by adding to the Winter freeboard a distance of fifty millimetres.
- 3.6.1 Subject to subparagraph 3.6.2, a Fresh Water freeboard must be obtained by deducting from a Summer freeboard the quantity —



where -

A is the displacement in salt water in metric tons at the Summer load waterline, and T represents metric tons per centimetre immersion in salt water at that waterline.

3.6.2 In any case in which the displacement at that waterline cannot be ascertained the deduction must be one forty-eighth (1/48th) of the Summer draught of the ship.

Summer freeboard: Type "A" ships

- 4. A Summer freeboard assigned to a Type "A" ship must be determined as follows
 - 4.1 There must first be ascertained the ship's tabular freeboard from Table A.
 - 4.2 Where the block coefficient (C_b) of the ship exceeds 0.68 the tabular freeboard must be multiplied by the factor

- 4.3 Corrections in accordance with paragraphs 6 to 16 must be applied to the freeboard obtained in accordance with subparagraphs 4.1 and 4.2.
- 4.4 Subject to subparagraph 3.3, the freeboard so corrected must be the Summer freeboard assigned to the ship.

Summer freeboard: Type "B" ships

- 5. A Summer freeboard to be assigned to a Type "B" ship must be determined as follows
 - 5.1 There must first be ascertained the ship's tabular freeboard from Table B.
 - 5.2.1 If the ship has hatchways in Position 1 the covers of which are either pontoon covers complying with the requirements of subparagraph 5.4 of Schedule 3 or covers which comply with paragraph 6.2 of that Schedule, the tabular freeboard may be corrected in accordance with such of the provisions of subparagraphs 5.3 to 5.8 as are applicable to the ship.
 - 5.2.2 If the ship has hatchways in Position 1 the covers of which comply with the requirements of paragraph 5 except those of subparagraph 5.4 of that paragraph, the tabular freeboard shall be corrected in accordance with the provisions of subparagraph 5.9.
 - 5.3 The tabular freeboard of a ship to which subparagraph 5.2.1 applies and which exceeds 100 metres in length may be reduced by an amount not exceeding the maximum applicable under

- subparagraphs 5.4 and 5.5 where the Minister or any person or organization authorized by him or her is satisfied that —
- 5.3.1 all covers of hatchways in Positions 1 and 2 comply with the requirements of paragraph 6;
- 5.3.2 the freeing arrangements comply with the requirements of paragraph 14;
- 5.3.3 the measures for the protection of the crew comply with the requirements of paragraph 15;
- 5.3.4 in the case of a ship constructed before the 8th day of June, 2000, when the ship is loaded to the Summer load waterline it will remain afloat, after the flooding of a single damaged compartment other than the machinery space at an assumed permeability of 0.95, in the condition of equilibrium described in subparagraph 5.6 and if the length of the ship exceeds two hundred and twenty-five metres the machinery space shall rank as a floodable compartment for the purposes of this requirement having for the purpose an assumed permeability of 0.85.
- 5.3.5 in the case of a ship constructed on or after the 8th day of June, 2000 which is loaded in accordance with the initial condition of loading before flooding, the ship will
 - 5.3.5.1 be able to withstand the flooding of a compartment or compartments, with an assumed permeability of 0.95, consequent upon the damage assumptions specified in paragraph 5.8, and,
 - 5.3.5.2 remain afloat in a satisfactory condition of equilibrium, as referred to in subparagraph 5.6; and if the ship is over one hundered and fifty metres in length, the machinery space shall be treated for these purposes as a floodable compartment, but with a permeability of 0.85.
- 5.4 Subject to subparagraph 5.5 no reduction of freeboard under subparagraph 5.3 shall exceed 60% cent of the difference between the tabular freeboards under Freeboard Table A and Freeboard Table B.
- 5.5 The reduction of 60% under subparagraph 5.4 may be increased to 100% if the Minister or a person or organization authorized by him or her is satisfied that
 - 5.5.1 the ship complies with paragraphs 17 and 20 as if it were a Type "A" ship paragraph 22;

- 5.5.2 the ship complies with subparagraphs 5.3.1 to 5.3.3;
- 5.5.3 in the case of a ship constructed before the 8th day of June, 2000, when loaded to the Summer waterline the ship remains afloat in the condition of equilibrium under subparagraph 5.6 after the flooding
 - 5.5.3.1 of two compartments adjacent fore and aft, neither of which is the machinery space, at an assumed permeability of 0.95; and
 - 5.5.3.2 in the case of a ship exceeding two hundred and twenty-five metres in length, of the machinery space alone, at an assumed permeability of 0.85; and
- 5.5.4 in the case of a ship constructed on or after 8th June, 2000, the ship complies with the requirements of subparagraph 5.3.5; but in relation to the damage assumptions specified in subparagraph 5.8, throughout the length of the ship any one transverse bulkhead will be assumed to be damaged, such that two adjacent fore and aft compartments shall be flooded simultaneously, except that such damage will not apply to the boundary bulkheads of a machinery space.
- 5.6 In the case of a ship constructed before the 8th day of June, 2000, the condition of equilibrium referred to in subparagraphs 5.3 and 5.5 above is as follows
 - 5.6.1 the final waterline after flooding is below the top of a ventilator coaming, the lower edge of an air pipe opening, the upper edge of the sill of an access opening fitted with a weathertight door, and the lower edge of an other opening through which progressive flooding may take place;
 - 5.6.2 the angle of heel due to ssymmetrical flooding does not exceed 15°, or where no part of the deck is immersed the angle of heel does not exceed 17°; and
 - 5.6.3 the metacentric height calculated using the constant displacement method has a positive value of at least fifty millimetres in the upright condition after flooding; and
 - 5.6.4 the ship has adequate residual stability; and
 - 5.6.5 the ship has sufficient stability during intermediate stages of flooding to the satisfaction of the Minister or a person or organization authorized by him or her;

- 5.7 In the case of a ship constructed before the 8^{th} day of June, 2000, the following assumptions are made for the purposes of calculations under subparagraphs 5.3.4 and 5.5.3
 - 5.7.1 the vertical extent of damage is equal to the depth of the ship at the point of damage, measured from and including the freeboard deck at side to the underside of the keel;
 - 5.7.2 the transverse penetration of damage is not more than one fifth of the breadth of the ship (B), this distance being measured inboard from the ship's side at right angles to the centre line of the ship at the level of the Summer load waterline. The depth of transverse penetration damage assumed shall be that which results in the most severe conditions;
 - 5.7.3 except in the case of compartments under subparagraph 5.5.3.1, no transverse bulkhead is damaged;
 - 5.7.4 the height of the centre of gravity above the baseline is assessed allowing for homogeneous loading of cargo holds and for 50 per cent of the designed capacity of consumable fluids and stores.
- 5.8 In the case of a ship constructed on or after the 8^{th} day June, 2000, the following assumptions shall be made for the purposes of the calculations under subparagraphs 5.3.5 and 5.5.4
 - 5.8.1 the vertical extent of damage in all cases is assumed to be from the base line upwards without limit;
 - 5.8.2 the transverse extent of damage is equal to one fifth of the breadth of the ship (B) or 11.5 meters, whichever is the lesser, measured inboard from the side of the ship perpendicularly to the centreline at the level of the summer load waterline;
 - 5.8.3 if damage of a lesser extent than that specified in subparagraphs 5.8.1 and 5.8.2 results in a more severe condition, such lesser extent shall be assumed:
 - 5.8.4 except where otherwise required by subparagraph 5.5, the flooding shall be confined to a single compartment between adjacent transverse bulkheads provided the inner longitudinal boundary of the compartment is not in a position within the transverse extent of assumed damage. Transverse boundary bulkheads of wing tanks which do not extend over the full breadth of the ship shall be assumed not to be damaged, provided they extend beyond the transverse extent of assumed damage prescribed in subparagraph 5.8.2.

If in a transverse bulkhead there are steps or recesses of not more than 3m in length located within the transverse extent of assumed damage as defined under subparagraph 5.8.2, such transverse bulkhead may be assumed intact and the adjacent compartment may be flooded singly. If, however, within the transverse extent of assumed damage there is a step or recess of more than 3m in length in a transverse bulkhead, the two compartments adjacent to this bulkhead shall be considered as flooded. The step formed by the afterpeak bulkhead and the afterpeak tank top shall not be regarded as a step for the purpose of this subparagraph;

- 5.8.5 if a main transverse bulkhead is located within the transverse extent of assumed damage and is stepped in way of a double bottom or side tank by more than 3m, the double bottom or side tanks adjacent to the stepped portion of the main transverse bulkhead shall be considered as flooded simultaneously. If this side tank has openings, into one or several holds, such as grain feeding holes, such hold or holds shall be considered as flooded simultaneously. Similarly in a ship designed for the carriage of liquid cargoes, where a side tank has openings into adjacent compartments, such adjacent compartments shall be considered as empty and as being flooded simultaneously. This provision is applicable even where such openings are fitted with closing appliances, except in the case of sluice valves fitted in bulkheads between tanks and where the valves are controlled from the deck. Manhole covers with closely spaced bolts are considered equivalent to the unpierced bulkhead except in the case of openings in topside tanks common to the holds;
- 5.8.6 if the flooding of any two adjacent fore and aft compartments is envisaged, main transverse watertight bulkheads shall be spaced at least 1/3 L 2/3 or 14.5m, whichever is the lesser, in order to be considered effective. Where transverse bulkheads are spaced at a lesser distance, one or more of these bulkheads shall be assumed as non-existent in order to achieve the minimum spacing between bulkheads.
- 5.9 The tabular freeboard of a ship to which subparagraph 5.2.2 applies must be increased by the amount shown in Table 1 appropriate to the ship's length.

Freeboards, at intermediate lengths of ship shall be obtained by linear interpolation. The increase in the case of ships of more than two hundred metres in length shall be by an amount which the Minister determines in each particular case.

TABLE 1

Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)
108	0	139	175	170	90
and below					
109	52	140	181	171	292
110	55	141	186	172	294
111	57	142	191	173	297
112	59	143	196	174	299
113	62	144	201	175	301
114	64	145	206	176	304
115	68	146	210	177	306
116	70	147	215	178	308
117	73	148	219	179	311
118	76	149	224	180	313
119	80	150	228	181	315
120	84	151	232	182	318
121	87	152	236	183	320
122	91	153	240	184	322
123	95	154	244	185	325
124	99	155	247	186	327
125	103	156	251	187	329
126	108	157	254	188	332
127	112	158	258	189	334
128	116	159	261	190	336
129	121	160	264	191	339
130	126	161	267	192	341
131	131	162	270	193	343
132	136	163	273	194	346
133	142	164	275	195	348
134	147	165	278	196	350
135	153	166	280	197	353
136	159	167	283	198	355
137	164	168	285	199	357
138	170	169	287	200	358

- 5.10.1 This subparagraph applies to a Type "B" ship of not more than one hundred metres in length having enclosed superstructures the total effective length (E) of which does not exceed 35% of the ship's length (L).
- 5.10.2 The freeboard calculated in respect of such a ship under paragraph 5.10.1 in accordance with subparagraphs 5.1, 5.2 and 5.9 must be increased by the following amount —

7.5(100 – (L))
$$0.35 - \frac{(E)}{(L)}$$
 max

5.11 In the case of a ship with a block coefficient ($\rm C_b$) exceeding 0.68, the freeboard calculated in accordance with subparagraphs 5.1 to 5.10 must multiplied by the factor —

$$\frac{(C_b) + 0.68}{1.36}$$

5.12 Corrections in accordance with paragraphs 6 to 16 must be applied to the freeboard calculated under subparagraphs 5.1 to 5.11 and, subject to paragraph 3.3, the freeboard corrected is the Summer freeboard to be assigned to the ship.

Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)
134	147	165	278	196	350
135	153	166	280	197	353
136	159	167	283	198	355
137	164	168	285	199	357
138	170	169	287	200	358

Basic freeboard

6. In the following paragraphs "basic freeboard" means the accordance with paragraph 4 or 5, whichever is applicable, but ship, the corrections referred to in paragraph 4.3, or in the case of a referred to in paragraph 5.12.

Correction for Depth

7.1 Where the depth for freeboard (D) exceeds (L), the basic freeboard of

the ship shall be increased by
$$-\left((D)-\frac{(L)}{15}\right)R$$
 millimetres

where R is -

 (\underline{L}) , in the case of a ship less than 120 metres in length; and 0.48

250 in the case of a ship of 120 metres or more in length.

7.2 Where (D) is less than (L), the basic freeboard of the ship shall be reduced by —

$$\left((D) - \frac{(L)}{15} \right) R$$
 millimetres

where, but only where, the ship has, subject to subparagraph 7.3 —

- 7.2.1 an enclosed superstructure covering at least 0.6 (L) amidships;
- 7.2.2 an efficient trunk extending for the ship's length; or
- 7.2.3 a combination of enclosed superstructures connected by efficient trunks, being a combination extending for the ship's length.

7.3 If the height of any such superstructure or trunk in subparagraph 7.2 is less than standard height the amount of reduction shall be reduced in the ratio of the actual to the standard height of the superstructure or trunk.

Correction for position of deck-line

- 8.1 Subject to the provisions of subparagraph 8.2, if the actual depth to the upper edge of the deck-line is greater or less than the depth for freeboard, the difference where greater shall be added to, or if less shall be deducted from, the basic freeboard of the ship.
- 8.2 If the position of the deck-line has been fixed under regulation 4(2), the actual depth of the ship must be taken to the point amidships where the continuation outwards of the upper surface of the freeboard deck or of any sheathing on that deck intersects the outer surface of the shell of the ship.

Standard height, length and effective length of superstructures

9.1 The standard height of a superstructure is determined in accordance with Table 2-

Length of ship (L)(metres) Standard Height (metres) Raised Superstructure other quarter deck than a raised quarter deck 30 or less 0.901.80 1.20 1.80 75 125 or more 1.80 2.30

TABLE 2

Standard heights for intermediate lengths of the ship are obtained by linear interpolation.

- 9.2.1 Subject to subparagraph 9.2.2, the length of a superstructure (S) is the mean length of the parts of the superstructure which lie within the length of the ship.
- 9.2.2 In the case of an enclosed superstructure having an end bulkhead which extends in a fair convex curve beyond its intersection with the superstructure sides, the length of the superstructure (S) may be taken as its length determined in accordance with subparagraph 9.2.1, but increased by

two-thirds of the fore and aft extent of the curvature to a maximum of one half the breadth of the superstructure at the point of intersection of the curved end of the superstructure with its side.

- 9.3.1 In the case of an enclosed superstructure of standard height, the effective length of a superstructure (E) shall be, subject to subparagraph 9.3.3
 - 9.3.1.1 its length; or
 - 9.3.1.2 where the superstructure is set in from the sides of the ship, its length modified in the ratio b/B_s , where
 - 9.3.1.2.1 "b" is the breadth of the superstructure at the middle of its length; and
 - 9.3.1.2.2 "B_s" is the breadth of the ship at the middle of the length of the superstructure:

where the superstructure is only set in for part of its length, this modification shall be applied only to that part.

- 9.3.2 In the case of an enclosed superstructure of less than standard height the effective length of a superstructure, subject to subparagraphs 9.3.1 and 9.3.3 are its length reduced in the ratio of the actual height of the superstructure to its standard height.
- 9.3.3 In the case of an enclosed superstructure consisting of a raised quarter deck the effective length of a superstructure must, if the deck is fitted with an intact front bulkhead, be its length subject to a maximum of 0.6 of the ship's length and, where not so fitted, be determined by treating the raised quarter deck as a poop of less than standard height.
- 9.3.4 A superstructure which is not an enclosed superstructure as defined in paragraph 9.3.1 has no effective length.

Standard height and effective length of trunks

- 10.1 The standard height of a trunk is that applicable to a superstructure other than a raised quarter deck in paragraph 9.1.
- 10.2 The effective length of a trunk is determined as follows
 - 10.2.1 a trunk which is not an efficient trunk as described in subparagraph 10.2.2 has no effective length;
 - 10.2.2 a trunk is treated as an efficient trunk if —
 - 10.2.2.1 it is at least as strong as a superstructure;

- 10.2.2.2 the hatchways in way of the trunk are in the trunk deck, and the hatchway coamings and covers comply with the requirements of paragraphs 4 to 6, except that small access openings with watertight covers may be permitted in the freeboard deck;
- 10.2.2.3 the width of the trunk deck stringer provides a satisfactory gangway and sufficient lateral stiffness;
- 10.2.2.4 a permanent working platform fore and aft fitted with guard rails or guard wires complying with applicable requirements in subparagraph 18.2.1 is provided by the trunk deck, or by detached trunks connected to superstructures by efficient permanent gangways;
- 10.2.2.5 ventilators are protected by the trunk, by watertight covers or by equivalent means;
- 10.2.2.6 open rails or wires are fitted on the weather parts of the freeboard deck in way of the trunk for at least half their length;
- 10.2.2.7 the machinery casings are protected by the trunk, or by an enclosed superstructure of at least standard height, or by a deckhouse of the same height, strength and weathertightness equivalent to such an enclosed superstructure;
- 10.2.2.8 the breadth of the trunk is at least 60% of the breadth of the ship;
- 10.2.2.9 If there is no superstructure the length of the trunk is at least 0.6(L).
- 10.2.3 Except as otherwise provided in subparagraph 10.2.4, the effective length of an efficient trunk is its full length reduced in the ratio of its mean breadth to the breadth of the ship.
- 10.2.4 If the actual height of an efficient trunk is less than the standard height, its effective length shall be the length calculated under subparagraph 10.2.3 reduced in the ratio of the actual to the standard height of the trunk. In addition, where the ship is a Type "B" ship and the height of hatchway coamings on the trunk deck is less than that required by subparagraph 5.1 a reduction from the actual height of the trunk shall be made of an amount corresponding to the difference between the actual height and the required height of the hatchway coamings.

Deduction for effective length of superstructures and trunks

11.1 If the sum of the effective lengths of superstructures and trunks of a ship is 1.0(L), the basic freeboard of the ship shall be reduced by—

three hundred and fifty millimetres if the ship is twenty-four metres in length (L);

eight hundred and sixty millimetres if the ship is eighty-five metres in length (L);

one thousand and seventy millimetres if the ship is one hundred and twenty-two metres in length or more;

and by amounts obtained by linear interpolation in the case of ships of intermediate length.

- 11.2 If the sum of the effective lengths of superstructures and trunks are less than 1.0 (L), the basic freeboard of a ship shall be reduced by a percentage of the figures in subparagraph 11.1 according to the total effective length of its superstructures and trunks as follows $\frac{1}{2}$
 - 11.2.1 In the case of a Type "A" ship, by a percentage given in Table 3, the percentage in the case of a ship having superstructures and trunks of an effective length intermediate to those specified in Table 3 is to be obtained by linear interpolation.
 - 11.2.2.1 Subject to subparagraphs 11.2.2.2, 11.2.2.3 and 11.2.2.4, in the case of a Type "B" ship, by a percentage given in Table 4. The percentage in the case of a ship having superstructures and trunks of an effective length intermediate to those specified in Table 4 is to be obtained by linear interpolation.
 - 11.2.2.2 If the effective length of a bridge covers less than 0.1(L) before and 0.1(L) abaft amidships the percentages shall be obtained by linear interpolation between the lines I and II.
 - 11.2.2.3 If the effective length of a forecastle is more than 0.4 (L), the percentages are obtained from line II.
 - 11.2.2.4 If the effective length of a forecastle is less than 0.07 (L), the above percentages are reduced by —

where "f" is the effective length of the forecastle.

TABLE 3
PERCENTAGE OF DEDUCTION FOR TYPE "A" SHIPS

Percentage ofdeduction for all types of superstructure and trunks		Total effective length of superstructure and trunks									
	0	0.1 (L)	0.2 (L)	0.3 (L)	0.4 (L)	0.5 (L)	0.6 (L)	0.7 (L)	0.8 (L)	0.9 (L)	1.0 (L)
	0	7	14	21	31	41	52	63	75.3	87.7	100

TABLE 4
PERCENTAGE OF DEDUCTION FOR TYPE "B" SHIPS

Ships with		Total effective length of superstructure and trunks										
forecastle and without detached bridge	Line	0	0.1 (L)	0.2 (L)	0.3 (L)	0.4 (L)	0.5 (L)	0.6 (L)	0.7 (L)	0.8 (L)	0.9 (L)	1.0 (L)
bridge	I	0	5	10	15	23.5	32	46	63	75.3	87.7	100
Total effective length of superstructure and trunks	II	0	6.3	12.7	19	27.5	36	46	63	75.3	87.7	100

Measurement of Sheer

- 12.1 The sheer is measured from the deck at side to a line of reference drawn parallel to the keel through the sheer line amidships.
- 12.2 In ships designed with a rake of keel, the sheer is measured in relation to a line of reference drawn parallel to the design load waterline.
- 12.3 In flush deck ships and in ships with detached superstructures the sheer is measured at the freeboard deck.
- 12.4 In ships with topsides of unusual form in which there is a step or break in the topsides, the sheer is considered in relation to the equivalent depth amidships.
- 12.5 In ships with a superstructure of standard height which extends over the whole length of the freeboard deck, the sheer is measured at the superstructure deck. If the height of the superstructure exceeds the standard height the least difference (Z) between the actual and

standard heights shall be added to each end ordinate. Similarly, the intermediate ordinates at distances of 1/6(L) and 1/3(L) from each perpendicular is increased by 0.444 (Z) and 0.111 (Z) respectively.

- 12.6 If the deck of an enclosed superstructure has at least the same sheer as the exposed freeboard deck, the sheer of the enclosed portion of the freeboard deck is not taken into account.
- 12.7 If an enclosed poop or forecastle is
 - 12.7.1 of standard height with greater sheer than that of the freeboard deck; or
 - 12.7.2 is of more than standard height;

an addition to the sheer of the freeboard deck shall be made calculated in accordance with subparagraph 14.4.

Standard sheer profile

13. The ordinates of the standard sheer profile are given in Table 5 —

	Station	Ordinate (in millimetres)	Factor
After half	After perpendicular (A.P.) 1/6(L) from A.P. 1/3(L) from A.P. Amidships	25.0((L) /3 + 10) 11.1((L) /3 + 10) 2 .8((L) /3 + 10) 0	1 3 3 1
Forward half	Amidships 1/3(L) from F.P. 1/6(L) from F.P. Forward perpendicular (F.P.)	0 5.6((L) /3 + 10) 22.2((L) /3 + 10) 50.0((L) /3 + 10	1 3 3 1

TABLE 5

Measurement of variation front standard sheer profile

14.1 If the sheer profile differs from the standard sheer profile, the four ordinates of each profile in the forward or after halves of the ship shall be multiplied by the appropriate factors given in paragraph 13. The difference between the sums of the respective products and those of the standard divided by eight is the deficiency or excess of sheer in the forward or after half. The arithmetical mean of the excess or deficiency in the forward and after halves is the excess or deficiency of sheer.

- 14.2 If the after half of the sheer profile is greater than the standard sheer profile and the forward half is less than the standard sheer profile, no credit is allowed for the part in excess, and deficiency only is measured.
- 14.3 If the forward half of the sheer profile exceeds the standard sheer profile, and the after half of the sheer profile is not less than 75 % of the standard sheer profile, credit shall be allowed for the part in excess. If the after half of the sheer profile is less than 50% of the standard sheer profile, no credit shall be given for the excess of sheer forward. Where the sheer in the after half is between 50% and 75% of the standard sheer profile, intermediate allowances may be granted for excess sheer forward.
- 14.4 If sheer credit is given for a poop or forecastle the following formula is used —

$$s = \underbrace{yL^{\underline{1}}}_{3L}$$

where —

s = sheer credit, to be deducted from the deficiency or added to the excess of sheer:

y = difference between actual and standard height of superstructure at the after or forward perpendicular; and

L'= mean enclosed length of poop or forecastle up to a maximum length of 0.5 (L).

This formula provides a curve in the form of a parabola tangential to the actual sheer curve at the freeboard deck and intersecting the end ordinate at a point below the superstructure deck at a distance equal to the standard height of the poop or forecastle. The superstructure deck is not less than standard height above this curve at any point. This curve is used in determining the sheer profile for the forward and the after halves of the ship.

Correction for Variations from standard sheer profile

15.1 The correction for sheer shall be the deficiency or excess of sheer determined under paragraph 14 multiplied by —

$$0.75 - \frac{s}{2L}$$

15.2 In the case of a ship with sheer less than the standard sheer profile, the correction for deficiency of sheer determined in accordance

with subparagraph 15.1 shall be added to the basic freeboard of the ship.

- 15.3 Subject to subparagraph 15.4, in the case of a ship having an excess of sheer
 - 15.3.1 If an enclosed superstructure covers 0.1(L) before and 0.1(L) abaft amidships, the correction for excess of sheer determined in accordance with subparagraph 15.1 shall be deducted from the basic freeboard of the ship;
 - 15.3.2 If no enclosed superstructure covers amidships, no deductions shall be made from the basic freeboard of the ship;
 - 15.3.3 If an enclosed superstructure covers less than 0.1(L) before and 0.1(L) abaft amidships, the correction for excess of sheer determined in accordance with subparagraph 15.1 shall be modified in the ratio of the amount of 0.2(L) amidship which is covered by the superstructure, to 0.2(L).
- 15.4 The maximum deduction for excess sheer is at the rate of one hundred and twenty-five millimetres per one hundred metres of length (L).

Correction for minimum bow height

- 16.1 Except as otherwise provided in subparagraphs 16.2 and 16.3, if the bow height determined under subparagraph 16.4 is less than the minimum bow height determined in accordance with subparagraph 16.5, the freeboard determined for the ship is increased by an amount equal to the difference between the bow height and the minimum bow height.
- 16.2 If an existing ship to which subparagraph 16.1 applies has been so constructed or modified as to comply with all the requirements of Schedule 3 applicable to a new ship of its type and is to be assigned freeboards determined in accordance with this Schedule
 - 16.2.1 the forecastle is less than 0.07(L);
 - 16.2.2 the sheer extends for less than 15% of the ship's length (L) measured from the forward perpendicular;
 - the freeboard is increased by an amount as the Minister or person or organization authorized by the Minister determines in each particular case.

- 16.3 In the case of a ship to which subparagraph 16.1 applies, being a ship which is constructed to meet exceptional operational requirements, the correction to be made in accordance with subparagraphs 16.1 and 16.2 may be reduced or waived if the Director is satisfied that the safety of the ship will not be impaired in consequence of the worst sea and weather conditions likely to be encountered by the ship in service.
- 16.4 The bow height of a ship is the vertical distance at the forward perpendicular between the Summer load waterline at the designed trim and the top of the exposed deck at side.
 - 16.4.1 If the bow height is obtained by including sheer, the sheer shall extend for no less than 15% of length (L) measured from the forward perpendicular.
 - 16.4.2 If the bow height is obtained by including the height of a superstructure, such superstructure shall
 - 16.4.2.1 extend from the stem to a point not less than 0.07 of the ship's length (L) measured from the forward perpendicular;
 - 16.4.2.2 If length (L) is one hundred metres or less, be an enclosed superstructure; and
 - 16.4.2.3 If length (L) exceeds one hundred metres in length, be fitted with satisfactory closing appliances.
- 16.5 The minimum bow height in millimetres shall be —

$$56(L)\left(1-\frac{(L)}{500}\right)\left(\frac{1.36}{C_4+0.68}\right)_{mm}$$

where (L) is less than two hundred and fifty metres; and

$$7000\left(\frac{1.36}{C_2+0.68}\right)$$

where (L) is two hundred and fifty metres or more;

C_b shall not be taken as less than 0.68.

PART II - TIMBER FREEBOARDS

Summer Timber freeboard

17. The Summer Timber freeboard is the freeboard determined in accordance with the provisions of subparagraphs 5.1, 5.2.1, 5.10.1, 5.10.2 and 5.11 and corrected in accordance with the provisions of subparagraphs 6 to 15, except that the percentages in Table 6 are substituted for those given in Table 4 of paragraph 11.2.

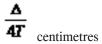
TABLE 6
PERCENTAGE OF DEDUCTION FOR TYPE SHIPS

Percentage		Total effective length of superstructure and trunks									
of deduction for all types of superstructure	0	0.1 (L)	0.2 (L)	0.3 (L)	0.4 (L)	0.5 (L)	0.6 (L)	0.7 (L)	0.8 (L)	0.9 (L)	1.0 (L)
and trunks	20	31	42	53	64	70	76	82	88	94	100

Percentages at intermediate lengths superstructures are obtained by linear interpolation.

Other Timber freeboards

- 18.1 A Winter Timber freeboard is obtained by adding to the Summer Timber freeboard one thirty-sixth of the Summer Timber draught.
- 18.2 A Winter North Atlantic Timber freeboard is the same as the Winter North Atlantic freeboard assigned.
- 18.3 A Tropical Timber freeboard is obtained by deducting from the Summer Timber freeboard one forty-eighth of the Summer Timber draught.
 - 18.4.1 The Fresh Water Timber freeboard shall, subject to subparagraph 18.4.2, obtained by deducting from the Summer Timber freeboard the quantity —



where -

- Δ
- is the displacement in salt water in tonnes at the waterline which will when load lines have been marked on the ship's side correspond to the Summer Timber load line; and
- T represents tonnes per centimetre immersion in salt water at that waterline.
 - 18.4.2 If the displacement at that waterline cannot be ascertained, the deduction is one forty-eighth (1/48th) of the Summer Timber draught of the ship.

PART III - SAILING SHIPS AND OTHER SHIPS

Sailing ships and tugs

19. The freeboards to be assigned to sailing ships and tugs are freeboards determined under Part I of this Schedule increased by such amounts as the Director directs in each particular case.

Ships of wood and other ships

20. The freeboards to be assigned to wooden ships or of composite construction or of other materials, or to ships with constructional features such as to render freeboards calculated under Part I of this Schedule unreasonable or impracticable shall be determined by the Minister or any person or organization authorized by the Minister in each particular case.

Unmanned barges

21. The freeboards to be assigned to unmanned barges having on the freeboard deck small access openings closed by watertight gasketed covers of steel shall be freeboards determined in accordance with the provisions of Part I of this Schedule omitting paragraphs 5 and 16. Such freeboards may be reduced by such amounts not exceeding twenty-five per cent as the Director may direct in each particular case.

FREEBOARD TABLES

22. The following is the Freeboard Table A referred to in paragraph 4 of this Schedule —

TABLE A
FREEBOARD TABLE TYPE "A" SHIPS

Length of Ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
24	200	64	626	104	1196
25	208	65	639	105	1212
26	217	66	653	105	1212
27	225	67	666	107	1244
28	233	68	680	107	1260
29	242	69	693	109	1276
30	250	70	706	1109	1270
31	258	70 71	700	110	1309
32	258	72	733	111	1309
33	275	73	733 746	112	1342
33	283	74			
		l	760	114	1359
35	292	75	773	115	1376
36	300	76	786	116	1392
37	308	77	800	117	1409
38	316	78 70	814	118	1426
39	325	79	828	119	1442
40	334	80	841	120	1459
41	344	81	855	121	1476
42	354	82	869	122	1494
43	364	83	883	123	1511
44	374	84	897	124	1528
45	385	85	911	125	1546
46	396	86	926	126	1563
47	408	87	940	127	1580
48	420	88	955	128	1598
49	432	89	969	129	1615
50	443	90	984	130	1632
51	455	91	999	131	1650
52	467	92	1014	132	1667
53	478	93	1029	133	1684
54	490	94	1044	134	1702
55	503	95	1059	135	1719

Length of Ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
56	516	96	1074	136	1736
57	530	97	1074	137	1753
58	544	98	1105	138	1770
59	559	99	1120	139	1787
60	573	100	1135	140	1803
6l	587	101	1151	141	1820
62	600	102	1166	142	1837
63	613	103	1181	143	1853
144	1870	197	2582	250	3012
145	1886	198	2592	251	3018
146	1903	199	2602	252	3024
147	1919	200	2612	253	3030
148	1935	201	2622	254	3036
149	1952	202	2632	255	3042
150	1968	203	2641	256	3048
151	1984	204	2650	257	3054
152	2000	205	2659	258	3060
153	2016	206	2669	259	3066
154	2032	207	2678	260	3072
155	2048	208	2687	261	3078
156	2064	209	2696	262	3084
157	2080	210	2705	263	3089
158	2096	211	2714	264	3095
159	2111	212	2723	265	3101
160	2126	213	2732	266	3106
161	2141	214	2741	267	3112
162	2155	215	2749	268	3117
163	2169	216	2758	269	3123
164	2184	217	2767	270	3128
165	2198	218	2775	271	3133
166	2212	219	2784	272	3138
167	2226	220	2792	273	3143
168	2240	221	2801	274	3148
169	2254	222	2809	275	3153
170	2268	223	2817	276	3158
171	2281	224	2825	277	3163
172	2294	225	2833	278	3167
173	2307	226	2841	279	3172
174	2320	227	2849	280	3176
175	2332	228	2857	281	3181
176	2345	229	2865	282	3185
177	2357	230	2872	283	3189

Shipping (Load Line) Regulations

Length of	Freeboard	Length of	Freeboard	Length of	Freeboard
Ship (metres)	(millimetres)	ship (metres)	(millimetres)	ship (metres)	(millimetres)
178	2369	231	2880	284	3194
179	2381	232	2888	285	3198
180	2393	233	2895	286	3202
181	2405	234	2903	287	3207
182	2416	235	2910	288	3211
183	2428	236	2918	289	3215
184	2440	237	2925	290	3220
185	2451	238	2932	291	3224
186	2463	239	2939	292	3228
187	2474	240	2946	293	3233
188	2486	241	2953	294	3237
189	2497	242	2959	295	3241
190	2508	243	2966	296	3246
191	2519	244	2973	297	3250
192	2530	245	2979	298	3254
193	2541	246	2986	299	3258
194	2552	247	2993	300	3262
195	2562	248	3000	301	3266
196	2572	249	3006	302	3270
303	3274	324	3342	345	3394
304	3278	325	3345	346	3396
305	3281	326	3347	347	3399
306	3285	327	3350	348	3401
307	3288	328	3353	349	3403
308	3292	329	3355	350	3406
309	3295	330	3358	351	3408
310	3298	331	3361	352	3410
311	3302	332	3363	353	3412
312	3305	333	3366	354	3414
313	3308	334	3368	355	3416
314	3312	335	3371	356	3418
315	3315	336	3373	357	3420
316	3318	337	3375	358	3422
317	3322	338	3378	359	3423
318	3325	339	3380	360	3425
319	3328	340	3382	361	3427
320	3331	341	3385	362	3428
321	3334	342	3387	363	3430
322	3337	343	3389	364	3432
323	3339	344	3392	365	3433

Freeboards at intermediate lengths of ship are obtained by linear interpolation.

Freeboards, in millimetres, at length of ship less than twenty-four metres shall be $-\!\!\!\!\!\!-$

See also paragraph 3 of this Schedule.

23. The following is Freeboard Table B referred to in paragraph 5 of this Schedule — $\,$

$$50 + \left[\frac{150(L)}{24}\right]$$

TABLE B FREEBOARD TABLE FOR TYPE "B" SHIPS

Ship (metres)	(millimetres) 200	ship (metres)	(millimetres)	ship (metres)	/ 1441 · · ·
24	200		,	sinp (metres)	(millimetres)
		72	754	120	1690
25	208	73	769	121	1709
26	217	74	784	122	1729
27	225	75	800	123	1750
28	233	76	816	124	1771
29	242	77	833	125	1793
30	250	78	850	126	1815
31	258	79	868	127	1837
32	267	80	887	128	1859
33	275	81	905	129	1880
34	283	82	923	130	1901
35	292	83	942	131	1921
36	300	84	960	132	1940
37	308	85	978	133	1959
38	316	86	996	134	1979
39	325	87	1015	135	2000
40	334	88	1034	136	2021
41	344	89	1054	137	2043
42	354	90	1075	138	2065
43	364	91	1096	139	2087
44	374	92	1116	140	2109
45	385	93	1135	141	2130
46	396	94	1154	142	2131
47	408	95	1172	143	2171
48	420	96	1190	144	2190
49	432	97	1209	145	2209
50	443	98	1229	146	2229
51	455	99	1250	147	2250
52	467	100	1271	148	2271
53	478	101	1293	149	2293
54	490	102	1315	150	2315
55	503	103	1337	151	2334
56	516	104	1359	152	2354
57	530	105	1380	153	2375

Ship (metres) (millimetres) ship (metres) (millimetres) (millimetres) (millimetres) 58 544 106 1401 154 2396 59 559 107 1421 155 2418 60 573 108 1440 156 2440 61 587 109 1459 157 2460 62 601 110 1479 158 2480 63 615 111 1500 159 2500 64 629 112 1521 160 2520 65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651	Length of	Freeboard	Length of	Freeboard	Length of	Freeboard
58 544 106 1401 154 2396 59 559 107 1421 155 2418 60 573 108 1440 156 2440 61 587 109 1459 157 2460 62 601 110 1479 158 2480 63 615 111 1500 159 2500 64 629 112 1521 160 2520 65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660				ı		
59 559 107 1421 155 2418 60 573 108 1440 156 2440 61 587 109 1459 157 2460 62 601 110 1479 158 2480 63 615 111 1500 159 2500 64 629 112 1521 160 2520 65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
60 573 108 1440 156 2440 61 587 109 1459 157 2460 62 601 110 1479 158 2480 63 615 111 1500 159 2500 64 629 112 1521 160 2520 65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 </td <td>59</td> <td>559</td> <td></td> <td>1421</td> <td>155</td> <td></td>	59	559		1421	155	
61 587 109 1459 157 2460 62 601 110 1479 158 2480 63 615 111 1500 159 2500 64 629 112 1521 160 2520 65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350	1	ı		ı		I I
62 601 110 1479 158 2480 63 615 111 1500 159 2500 64 629 112 1521 160 2520 65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362	1	ı		ı		l
64 629 112 1521 160 2520 65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 <td>62</td> <td>601</td> <td>110</td> <td>1479</td> <td>158</td> <td>2480</td>	62	601	110	1479	158	2480
65 644 113 1543 161 2540 66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 </td <td>63</td> <td>615</td> <td>111</td> <td>1500</td> <td>159</td> <td>2500</td>	63	615	111	1500	159	2500
66 659 114 1565 162 2560 67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408	64	629	112	1521	160	2520
67 674 115 1587 163 2580 68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 44	65	644	113	1543	161	2540
68 689 116 1609 164 2600 69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283	66	659	114	1565	162	2560
69 705 117 1630 165 2620 70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 <t< td=""><td>67</td><td>674</td><td>115</td><td>1587</td><td>163</td><td></td></t<>	67	674	115	1587	163	
70 721 118 1651 166 2640 71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285		689	116	1609	164	2600
71 738 119 1671 167 2660 168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286	69	705	117	1630		2620
168 2680 221 3601 274 4327 169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287		721	118	1651	166	2640
169 2698 222 3615 275 4339 170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288	71		119	1671		2660
170 2716 223 3630 276 4350 171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289		ı		ı		I - I
171 2735 224 3645 277 4362 172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290		l				
172 2754 225 3660 278 4373 173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291	1	l		ı		
173 2774 226 3675 279 4385 174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292	1	ı		ı		I I
174 2795 227 3690 280 4397 175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293	1	ı		ı		I I
175 2815 228 3705 281 4408 176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294		l		ı		
176 2835 229 3720 282 4420 177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295	1	l		l		I I
177 2855 230 3735 283 4432 178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296	1	l		ı		I I
178 2875 231 3750 284 4443 179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297	1	ı		ı		
179 2895 232 3765 285 4455 180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298	1	ı		ı		
180 2915 233 3780 286 4467 181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299			_	ı		
181 2933 234 3795 287 4478 182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300		ı		ı		l
182 2952 235 3808 288 4490 183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301		ı		ı		
183 2970 236 3821 289 4502 184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642	1	ı		ı		I I
184 2988 237 3835 290 4513 185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642	1	ı		ı		I I
185 3007 238 3849 291 4525 186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642						
186 3025 239 3864 292 4537 187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642	1	l		ı		I I
187 3044 240 3880 293 4548 188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642		l		ı		
188 3062 241 3893 294 4560 189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642		ı		ı		I I
189 3080 242 3906 295 4572 190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642		l		l		l
190 3098 243 3920 296 4583 191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642		ı		ı		I I
191 3116 244 3934 297 4595 192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642		1		ı		I - I
192 3134 245 3949 298 4607 193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642	1	ı		ı		I I
193 3151 246 3965 299 4618 194 3167 247 3978 300 4630 195 3185 248 3992 301 4642						
194 3167 247 3978 300 4630 195 3185 248 3992 301 4642		l		l		I I
195 3185 248 3992 301 4642		l		ı		l
		l		ı		I I
1 200 3202 210 1003 302 1003	196	3202	249	4005	302	4654
197 3219 250 4018 303 4665	197	3219	250	4018	303	4665
198 3235 251 4032 304 4676	198	3235	251	4032	304	4676

Shipping (Load Line) Regulations

Length of Ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
199	3249	252	4045	305	4686
200	3264	253	4058	306	4695
201	3280	254	4072	307	4704
202	3296	255	4085	308	4714
203	3313	256	4098	309	4725
204	3330	257	4112	310	4736
205	3347	258	4125	311	4748
206	3363	259	4139	312	4757
207	3380	260	4152	313	4768
208	3397	261	4165	314	4779
209	3413	262	4177	315	4790
210	3430	263	4189	316	4801
211	3445	264	4201	317	4812
212	3460	265	4214	318	4823
213	3475	266	4227	319	4834
214	3490	267	4240	320	4844
215	3505	268	4252	321	4855
216	3520	269	4264	322	4866
217	3537	270	4276	323	4878
218	3554	271	4289	324	4890
219	3570	272	4302	325	4899
220	3586	273	4315	326	4909
327	4920	340	5055	353	5190
328	4931	341	5065	354	5200
329	4943	342	5075	355	5210
330	4955	343	5086	356	5220
331	4965	344	5087	357	5230
332	4975	345	5108	358	5240
333	4985	346	5119	359	5250
334	4995	347	5130	360	5260
335	5005	348	5140	361	5268
336	5015	349	5150	362	5276
337	5025	350	5160	363	5285
338	5035	351	5170	364	5294
339	5045	352	5180	365	5303

Freeboards at intermediate lengths of ship shall be obtained by linear interpolation.

Freeboards, in millimeters, at length of ship less than twenty-four metres shall be $-\!\!\!\!\!-$

$$50 + \left\lceil \frac{150(L)}{24} \right\rceil$$

See also paragraphs 3 and 17 of this Schedule.

SCHEDULE 3

(Regulation 12)

CONDITION OF ASSIGNMENT

- 1.1 In this Schedule, except where the context otherwise requires—
 - "breadth (B)" means the maximum breadth of the ship measured amidships to the moulded line of the frame in the case of a ship having a metal shell, or to the outer surface of the hull in the case of a ship having a shell of another material;
 - "enclosed superstructure" means a superstructure
 - (a) which has enclosing bulkheads of efficient construction in which all access openings are fitted with sills and weathertight doors; and
 - (b) in which all other openings in sides or ends are fitted with efficient weathertight means of closing;
 - but does not include a bridge or poop fulfilling these requirements unless access to machinery and other working spaces within the bridge or poop is provided by alternative means which are available at times when access openings in the bulkheads of the bridge or poop are closed;
 - "exposed position" means a position which is
 - (a) exposed to weather and sea; or
 - (b) within a structure so exposed other than enclosed superstructure;
 - "forward perpendicular" means the perpendicular taken at the forward end of the ship's length, coinciding with the foreside of the stem on the waterline on which such length is measured; and "after perpendicular" means the perpendicular taken at the after end of such length;
 - "freeing port area (A)" means the sum of the areas of the openings of freeing ports on each side of the ship for each well;
 - "height" in relation to a superstructure means the least vertical height measured at side from the top of the superstructure deck beams to the top of the freeboard deck beams; and the "standard height" of a superstructure means the height ascertained in accordance with the provisions of paragraph 9 of Schedule 2:

- "Position 1" or "Position 2" means those positions in which structure, openings or fittings are situated
 - (a) in the case of Position 1, on exposed freeboard and raised quarter decks, and on exposed superstructure decks situated forward of a point located a quarter of the ship's length from the forward perpendicular; and
 - (b) in the case of Position 2, on exposed superstructure decks situated abaft a quarter of the ship's length from the forward perpendicular;
- "Summer load waterline" means the waterline which corresponds to the Summer load line of the ship;
- "superstructure" means a decked structure, including a raised quarter deck, situated on the freeboard deck which either extends from side to side of the ship or is such that its side plating is not inboard of the shell plating by more than four per cent of the breadth of the ship; and where the freeboard deck consists of a lower deck as described in subparagraph (b) of the definition of "freeboard deck", includes that part of the hull which extends above the freeboard deck:
- "superstructure deck" means a deck forming the top of a superstructure;
- "Type "A" ship" means a ship which is designed to carry only liquid cargoes in bulk and
 - (a) the cargo tanks of the ship have only small access openings closed by watertight gasketed covers of steel or equivalent material;
 - (b) the ship has high integrity of the exposed deck and has a low permeability of loaded cargo compartments;
 - (c) (i) in the case of a ship constructed before the 8th day of June, 2000, where over one hundred and fifty metres in length and designed to have empty compartments when loaded to the Summer load waterline, the ship shall be capable of remaining afloat after the flooding of one of these empty compartments, at an assumed permeability of zero point nine five in a condition of equilibrium; where over two hundred and twenty-five metres in length its machinery space shall be treated as a floodable compartment, but with an assumed permeability of zero point eight five;
 - (ii) in the case of a ship constructed on or after the 8th day of June 2000, where over one hundred and

fifty metres in length and a freeboard of less than required for a type "B" ship has been assigned, when loaded in accordance with the initial condition of loading before flooding, the ship is capable of remaining afloat in a satisfactory condition of equilibrium after the flooding of a compartment or compartments with an assumed permeability of zero point nine five, consequent on the damage assumptions specified in paragraph 5(8) of Part 1 of Schedule 2; in such a ship the machinery space shall be treated as a floodable compartment, but with a permeability of zero point eight five;

- (d) the condition of equilibrium referred to in subparagraph(c) (i) is as follows
 - (i) the final water line after the flooding is below the top of a ventilator coaming, the lower edge of an air pipe opening, the upper edge of the sill of an access opening fitted with a weathertight door, and the lower edge of another opening through which progressive flooding may take place;
 - (ii) the angle of heel due to unsymmetrical flooding does not exceed 150 or, if no part of the deck is immersed, an angle of heel of up to 170 may be accepted;
 - (iii) the metacentric height calculated using the constant displacement method has a positive value in the upright condition after the flooding;
 - (iv) the ship has adequate residual stability; and
 - (v) the ship has sufficient stability during intermediate stages of flooding to the satisfaction of the Minister or person or organization authorized by the Minister:
- (e) The condition of equilibrium referred to in subparagraph (c)(ii) is regarded as satisfactory if the following conditions are fulfilled
 - (i) The final waterline after flooding, taking into account sinkage, heel and trim, is below the lower edge of an opening through which progressive downflooding may take place. Such openings shall

include air pipes, ventilators and openings which are closed by means of weathertight doors or hatch covers, and may exclude those openings closed by means of manhole covers and flush scuttles, cargo hatch covers of the type described in subparagraph (a), remotely operated sliding watertight doors, and sidescuttles of non-opening type. However, in the case of doors separating a main machinery space from a steering gear compartment, watertight doors may be of a hinged, quick-acting type kept closed at sea, while not in use, provided also that the lower sill of such doors is above the summer load waterline.

- (ii) If pipes, ducts or tunnels are situated within the assumed extent of damage penetration as defined under paragraph 5.8.2 of Schedule 2, arrangements shall be made so that progressive flooding cannot thereby extend to compartments other than those assumed to be floodable in the calculation for each case of damage,
- (iii) If no part of the deck is immersed, the angle of heel due to asymmetrical flooding does not exceed 17°. If a part of the deck is immersed, the angle of heel due to asymmetrical flooding does not exceed 15o,
- (iv) The metacentric height in the flooded condition is positive,
- (v) When a part of the deck outside the compartment assumed flooded in a particular case of damage is immersed, or in a case where the margin of stability in the flooded condition may be considered doubtful, the residual stability is to be investigated by the Minister or person or organization authorized by the Minister. It may be regarded as sufficient if the righting lever curve has a minimum range of 200 beyond the position of equilibrium with a maximum righting lever of at least zero point one metres within this range. The area under the righting lever curve within this range shall not be less than zero point zero one seven five metres rad. The Minister or person or organization authorized by the Minister shall give

- consideration to the potential hazard presented by protected or unprotected openings which may become temporarily immersed within the range of residual stability,
- (vi) The Minister or a person or an organization authorized by the Minister is satisfied that the stability is sufficient during the intermediate stages of flooding;
- "Type "B" ship" means a ship other than a Type "A" ship;
- "unattended machinery space" means a machinery space which during the normal operation of the ship at sea is unattended for any period, and "attended machinery space" means a machinery space other than an unattended machinery space;
- "weathertight" in relation to a part of a ship other than a door in a bulkhead means that water will not penetrate it and so enter the hull of the ship in the worst sea and weather conditions likely to be encountered by the ship in service; and in relation to a door in a bulkhead it means a door which

- (a) is constructed of steel or other equivalent material, is strongly and permanently attached to the bulkhead, and is framed, stiffened and fitted so that the whole structure in which it is set is of equivalent strength to the unpierced bulkhead;
- (b) is closed by means of gaskets, clamping devices or other equivalent means permanently attached to the bulkhead or to the door itself;
- (c) when closed, is weathertight as above defined; and
- (d) it can be operated from either side of the bulkhead.
- 1.2 In the definition of a "Type "A" ship", the initial condition of loading before flooding referred to in paragraph (c)(ii) shall be determined as follows $\frac{1}{2}$
 - 1.2.1 the ship is loaded to its summer load waterline on an imaginary even keel;
 - $1.2.2\,$ when calculating the vertical centre of gravity, the following principles apply
 - 1.2.2.1 homogenous cargo is carried;

- 1.2.2.2 all cargo compartments, except those referred to under subparagraph 1.2.2.3, but including compartments intended to be partially filled, shall be considered fully loaded except that in the case of fluid cargoes each compartment shall be treated as 98% full;
- 1.2.2.3 if the ship is intended to operate at its Summer Load waterline with empty compartments, the compartments shall be considered empty provided the height of the centre of gravity so calculated is not less than as calculated under subparagraph 1.2.2.2;
- 1.2.2.4 50% of the individual total capacity of all tanks and spaces fitted to contain consumable liquids and stores is allowed for. It shall be assumed that for each type of liquid, at least one transverse pair or a single centreline tank has maximum free surface, and the tank or combination of tanks to be taken into account shall be those where the effect of free surfaces is the greatest; in each tank the centre of gravity of the contents shall be taken at the centre of volume of the tank. The remaining tanks shall be assumed either completely empty or completely filled, and the distribution of consumable liquids between these tanks shall be effected so as to obtain the greatest possible height above the keel for the centre of gravity;
- 1.2.2.5 at an angle of heel of not more than 5° in each compartment containing liquids, as prescribed in subparagraph 1.2.2.2 except that in the case of compartments containing consumable fluids, as prescribed in subparagraph 1.2.2.4 the maximum free surface effect shall be taken into account. Alternatively, the actual free surface effects may be used, provided the methods of calculation are acceptable to the Minister or any person or organization authorized by him or her;
- 1.2.2.6 weights shall be calculated on the basis of the following values for specific gravities —

salt water	1.025
fresh water	1.000
oil fuel	0.950
diesel oil	0.900
lubricating oil	0.900

PART I - SHIPS IN GENERAL

Structural strength and stability

- 2.1 The construction of the ship must be such that its general structural strength is sufficient for the freeboards assigned.
- 2.2 The design and construction of the ship must be such as to ensure that its stability in all probable loading conditions is sufficient for the freeboards assigned, and for this purpose due consideration is given to the intended service of the ship and to the following criteria.
 - 2.2.1 The area under the curve of righting levers (GZ curve) is not be less than
 - 2.2.1.1 zero point zero five five metre-radians up to an angle of 30°:
 - 2.2.1.2 zero point zero nine metre-radians up to an angle of 40° or the angle at which the lower edge of an opening in the hull, superstructures or deckhouses which cannot be closed weathertight, are immersed where that angle is less; and
 - 2.2.1.3 zero point zero three metre-radians between the angles of heel of 30o and 40o or such lesser angle as is referred to under subparagraph 2.2.1.2.
 - 2.2.2 The righting lever (GZ) is at least zero point two zero metres at an angle of heel equal to or greater than thirty.
 - 2.2.3 The maximum righting lever shall occur at an angle of heel not less than 30° .
 - 2.2.4 The initial transverse metacentric height shall not be less than 0.15 metres. In the case of a ship carrying a timber deck cargo which complies with subparagraph 2.2.1 by taking into account the volume of timber deck cargo, the initial transverse metacentric height shall not be less than zero point zero five metres.
- 2.3 To determine whether the ship complies with the requirements of subparagraph 2.2 the ship shall, unless otherwise permitted, be subject to an inclining test which shall be carried out in the presence of a surveyor appointed by the Minister or, for the ships listed under regulation 17 (5), a Survey or of ships appointed by the Minister or a person or an organization authorized by the Minister.

Superstructure end bulkheads

3. Bulkheads at exposed ends of enclosed superstructures shall be of efficient construction.

The height of a sill in an access opening in such a bulkhead shall, except where otherwise stated, be at least three hundred and eighty millimetres above the deck.

Hatchways: general

- 4.1 The provisions of this paragraph and of paragraphs 5 and 6 apply to all hatchways in Position 1 or in Position 2 except if otherwise stated.
- 4.2 Subject to subparagraph 4.3, the construction and the means for securing the weathertightness of a hatchway must
 - 4.2.1 in the case of a hatchway closed by a portable cover and secured weathertight by tarpaulins and battening devices, comply with the requirements of paragraph 5, and
 - 4.2.2 in the case of a hatchway closed by a weathertight cover of steel or other equivalent material fitted with gaskets and clamping devices, comply with the requirements of paragraph 6.
- 4.3 Every hatchway located in an exposed position on a deck above a superstructure deck and leading to a space below must be of such a construction and be fitted with such means as will secure the weathertightness of the hatchway, having regard to its position.

Hatchways closed by portable covers and secured weathertight by tarpaulins and battening devices.

Coamings

- $5.1~\mathrm{A}$ hatchway must have a coaming of substantial construction. The coaming must be constructed of mild steel but may be constructed of other material provided that the strength and stiffness of the coaming are equivalent to those of a coaming of mild steel. The height of the coaming above the deck must be at least
 - 5.1.1 six hundred millimetres, if the hatchway is in Position 1;
 - 5.1.2 four hundred and fifty millimetres, if the hatchway is in Position 2.

Covers

5.2.1 The width of a bearing surface for a hatchway cover must be at least sixty-five millimetres.

- 5.2.2 In the case of a cover made of wood
 - 5.2.2.1 the finished thickness of the cover shall be at least sixty millimetres in association with a span of not more than one point five metres, and the thickness of covers for larger spans shall be increased by four millimetres for each one hundred millimetres above the span of one point five metres;
 - 5.2.2.2 the ends of the cover shall be protected by galvanised steel bands efficiently secured.
- 5.2.3 In the case of a cover made of mild steel
 - 5.2.3.1 the strength of the cover shall withstand the assumed load given in Table 1, and the product of the maximum stress thus calculated and the factor 4.25 does not exceed the minimum ultimate strength of the material —

TABLE 1

Ship's Length (L)	Assumed Load, per square metre	
	Hatchway in Position 1	Hatchway in Position 2
24 metres	1 metric tonne	0.75 metric tonne
100 metres or over	1.75 metric tonnes	1.30 metric tonnes
Over 24 metres but less than 100 metres	to be ascertained by linear interpolation	

- 5.2.3.2 the cover must be so designed as to limit the deflection to not more than 0.0028 times the span under the assumed load in Table 1 appropriate to the hatchway cover.
- 5.2.4 In the case of a cover made neither of mild steel nor wood the strength and stiffness of the cover is equivalent to those of a cover of mild steel.

Portable beams

5.3.1 If portable beams for supporting hatchway covers are made of mild steel, their strength must be such as to withstand the assumed load given in Table 1, and the product of the maximum stress thus calculated and the factor 5 does not exceed the minimum ultimate strength of the material.

- 5.3.2 Portable beams must be so designed as to limit the deflection to not more than 0.0022 times the span under the assumed load in Table 1 appropriate to the beam.
- 5.3.3 In the case of portable beams not made of mild steel, the strength and stiffness of the beams are be equivalent to those of beams of mild steel.

Pontoon covers

- 5.4.1 If pontoon covers of mild steel are used in place of portable beams and covers, their strength must be such as to withstand the assumed load given in Table 1, and the product of the maximum stress thus calculated and the factor 5 does not exceed the minimum ultimate strength of the material.
- 5.4.2 Pontoon covers must be so designed as to limit the deflection to not more than 0.0022 times the span under the assumed load in Table 1 appropriate to the pontoon cover.
- 5.4.3 Mild steel plating forming the tops of pontoon covers must not be less in thickness than one per cent of the spacing of the stiffeners or six millimetres, whichever is the greater.
- 5.4.4 In the case of pontoon covers not made of mild steel, the strength and stiffness of the cover shall be equivalent to those of a cover of mild steel.

Carriers or sockets

5.5 Carriers or sockets for portable beams shall be of substantial construction and provide efficient means for the fitting and securing of the beams. If rolling types of beams are used the arrangements shall ensure that the beams remain properly in position when the hatchway is closed.

Cleats

5.6 Cleats must be set to fit the taper of the wedges. Cleats must be at least sixty-five millimetres wide and spaced not more than six hundred millimetres, centre to centre. The cleats along each side or end of the hatchway shall not be more than one hundred and fifty millimetres from the hatch corners.

Battens and wedges

5.7 Battens and wedges shall be efficient for their purpose and in good condition. Wedges shall be of tough wood or equivalent material cut to a taper of not more than 1 in 6 and must not be less than thirteen millimetres thick at the toes.

Tarpaulins

5.8 At least two layers of tarpaulin must be provided for a hatchway. The tarpaulin must be waterproof, in good condition, and have satisfactory strength and quality.

Security of hatchway covers

- 5.9.1 Except as otherwise provided in subparagraph 5.9.2, steel bars must be provided for every hatchway to ensure that each section of hatchway covers can be efficiently and independently secured after the tarpaulins have been battened down and that hatchway covers of more than one point five metres in length are secured by at least two such bars.
 - 5.9.2 Bars of material other than steel, or means of securing hatchway covers otherwise than by bars, may be used if
 - 5.9.2.1 in the case of the former, the strength and stiffness of the bars used are equivalent to those of steel bars;
 - 5.9.2.2 in either case the degree of security so achieved is not less than that which would be achieved by the use of steel bars.

Hatchways closed by weathertight covers of steel or equivalent material fitted with gaskets and clamping devices

Coamings

- 6.1.1 Except as otherwise provided in subparagraph 6.1.2, a hatchway must have a coaming of substantial construction the height of which above the deck shall be at least
 - 6.1.1.1 six hundred millimetres, where the hatchway is in Position 1;
 - 6.1.1.2 four hundred and fifty millimetres, where the hatchway is in Position 2.
- 6.1.2 A hatchway may have a coaming of less than the height applicable under the provisions of subparagraph 6.1.1, or in exceptional circumstances a coaming may be dispensed with altogether, if that
 - 6.1.2.1 the safety of the ship is not impaired in the worst sea or weather conditions likely to be encountered by the ship in service:
 - 6.1.2.2 when any coaming is fitted it is of substantial construction.

Weathertight covers

- 6.2.1 The strength of a cover of mild steel must be such as to withstand the assumed load given in Table 1, and the product of the maximum stress thus calculated and the factor 4.25 does not exceed the minimum ultimate strength of the material. A cover of mild steel must be so designed as to limit the deflection under such a load to not more than 0.0028 times the span.
- 6.2.2 A cover of mild steel made of materials other than mild steel must have a strength and stiffness equivalent to that required for a cover of mild steel.
- 6.2.3 A cover of mild steel must be fitted with efficient means by which it can be secured and made weathertight.
- 6.2.4 Mild steel plating forming the top of a cover must be not less in thickness than 1% of the spacing of the stiffeners or six millimetres whichever is the greater.

Machinery space openings

- 7.1 A machinery space opening situated in Position I or Position 2 must be efficiently framed and enclosed by a steel casing of substantial strength, account being taken of the extent, if any, to which the casing is protected by other structures.
- 7.2 A doorway in a casing under subparagraph 7.1 shall be fitted with a steel watertight door having a sill the height of which is be at least
 - 7.2.1 Six hundred millimetres above the deck, where the opening is in Position 1;
 - 7.2.2 Three hundred and eighty millimetres above the deck, where the opening is in Position 2.
- 7.3 An opening in a casing other than a doorway must be provided with a permanently attached cover of steel fitted with efficient means by which it can be secured and maintained weathertight and, except in the case of a cover consisting of a plate secured by bolts, is capable of being operated from either side of the opening.
- 7.4 A fiddley, funnel or machinery space ventilator situated in an exposed position on the freeboard deck or on a superstructure deck must have a coaming of such a height above the deck as will provide adequate protection having regard to its position.

Miscellaneous openings in freeboard and superstructure decks

- 8.1 A manhole and flush scuttle in Position I or Position 2 shall be provided with a substantial cover fitted with efficient means to secure and maintain it watertight. Unless secured by closely spaced bolts, every such cover is permanently attached by a chain or equivalent means so as to be available for immediate use at all times.
- $8.2\,$ An opening in a deck other than a hatchway, machinery space opening, manhole or flush scuttle must —
- 8.2.1 if situated in the freeboard deck, be protected either by an enclosed superstructure or by a deckhouse or companionway equivalent in strength and weathertightness to an enclosed superstructure;
 - 8.2.2 if situated in an exposed position
 - 8.2.2.1 in a deck over an enclosed superstructure and giving access to space within that superstructure; or
 - 8.2.2.2 on top of a deckhouse on the freeboard deck and giving access to space below that deck;

be protected by an efficient deckhouse or companionway fitted with weathertight doors;

- 8.2.3 if situated in an exposed position in a deck above the deck over an enclosed superstructure and giving access to space within that superstructure, be protected either in accordance with the requirements of subparagraph 8.2.2 or to such lesser extent as may be adequate having regard to its position.
- 8.3 A door in a companionway, deckhouse or enclosed superstructure referred to in subparagraph 8.2.1 or 8.2.2 must have a sill the height of which is at least
 - 8.3.1 six hundred millimetres, where the structure is in Position 1;
- 8.3.2 three hundred and eighty millimetres, where the structure is in Position 2.

Ventilators

- 9.1.1 Except as otherwise provided in subparagraph 9.1.2, a ventilator in Position 1 or Position 2 leading to spaces below the freeboard deck or below the deck of an enclosed superstructure must have a coaming of steel or equivalent material, substantially constructed and efficiently connected to the deck. The height of the coaming is at least
 - 9.1.1.1 nine hundred millimetres above the deck, if the ventilator is in Position 1;

- 9.1.1.2 seven hundred and sixty millimetres above the deck, if the ventilator is in Position 2.
- 9.1.2 If the coaming for a ventilator under subparagraph 9.1.1 above is situated in a position in which it will be especially exposed to weather and sea the height of the coaming is increased by such an amount as is necessary to provide adequate protection having regard to its position.
- 9.2 If the coaming of a ventilator referred to in the subparagraph 9.1 exceeds nine hundred millimetres in height above the deck it must be efficiently supported by stays, brackets or other means.
- 9.3 A ventilator in Position 1 or Position 2 which passes through a superstructure, other than an enclosed superstructure, must have a coaming of steel or equivalent material at the freeboard deck substantially constructed and efficiently connected to that deck and at least nine hundred millimetres in height above that deck.
- 9.4 Subject to subparagraph 9.5, a ventilator opening in Position 1 or Position 2 must be provided with an efficient appliance by which it can be closed and secured weathertight. A closing appliance provided on board a ship of not more than one hundred metres in length must be permanently attached and, in the case of another ship, must be so attached or be conveniently stowed near to the ventilator for which it is provided.
- 9.5.1 A ventilator in Position 1 the coaming of which exceeds 4.5 metres in height above the deck and a ventilator in Position 2 the coaming of which exceeds two point three metres in height above the deck, may not be fitted with a closing appliance unless the fitting of such an appliance is considered necessary by the Minister or person or organization authorized by the Minister in order to provide adequate protection.
- 9.5.2 A ventilator leading to a battery room must not be fitted with a closing appliance.

Air pipes

- 10.1 The exposed parts of an air pipe leading to a ballast or other tank and extending above the freeboard deck or a superstructure deck must be of substantial construction.
- 10.2 The exposed opening of air pipe must be fitted with efficient means of closing the opening weathertight, which must be permanently attached so as to be ready for immediate use.
- 10.3 Subject to subparagraph 10.4, the height above the deck of the exposed opening of an air pipe must be —

- 10.3.1 at least seven hundred and sity millimetres, if that deck is the freeboard deck:
- 10.3.2 at least four hundred and fifty millimetres, if that deck is a superstructure deck or, if the superstructure is of less than standard height, such height as is necessary to adequately compensate for the lower height of the superstructure.
- 10.4 The heights given in subparagraph 10.3 may be reduced if
 - 10.4.1 the working of the ship would be unreasonably impaired if those heights were adhered to; and
- 10.4.2 the closing arrangements will ensure that the lower height is adequately compensated for.

Cargo ports and similar openings

- 11.1 Cargo ports and similar openings in the ship's side below the freeboard deck or in the sides or ends of superstructures which form part of the shell of the ship must be compatible with the design of the ship and does not exceed in number those necessary for the proper working of the ship.
- 11.2 A cargo port and opening must be provided with a door or doors so fitted and designed as to ensure watertightness and structural integrity commensurate with the surrounding shell plating.
- 11.3 Unless the Minister or person or organization authorized by the Minister permits, the lower edge of cargo port or opening must not be so situated that it is below a line drawn parallel to the freeboard deck at side having as its lowest point at least 2.30 millimetres above the upper edge of the uppermost load line.

Scuppers, inlets and discharges

- 12.1 Subject to subparagraphs 12.4 and 12.9, a discharge led through the shell of a ship -
 - 12.1.1 from spaces below the freeboard deck; or
 - 12.1.2 from within an enclosed superstructure;
 - 12.1.3 from within a deckhouse on the freeboard deck which is fitted with weathertight doors;
 - must be fitted in accordance with subparagraphs 12.2 and 12.3 with the means for preventing water from passing inboard.
- 12.2 Subject to subparagraph 12.3, this consists of a single automatic non-return valve fitted at the shell of the ship and having positive means of closure from a position above the freeboard deck.

A position must be readily accessible at all times under service conditions and must be provided with an indicator showing whether the valve is open or closed.

- 12.3.1 If the vertical distance from the Summer load waterline to the inboard end of a discharge pipe exceeds 0.01(L) two automatic non-return valves having no positive means of closure may be fitted. One valve shall be situated as close to the ship's shell as practicable and be substantially connected to it and the inboard valve must be so situated that at all times under service conditions it will be readily accessible for examination.
- 12.3.2 If the vertical distance referred to in subparagraph 12.3.1 exceeds zero point zero two (L) the Minister or person or organization authorized by the Minister may permit a single automatic non-return valve having no positive means of closure, to be fitted. The valve must be situated as close to the ship's shell as practicable and substantially connected to it.
- 12.4.1 The controls of a valve in an attended machinery space and serving a main or auxiliary sea inlet or discharge or bilge injection system must be so sited as to be readily accessible for examination at all times under service conditions.
- 12.4.2 The controls of a valve in an unattended machinery space and serving a sea inlet or discharge or bilge injection system must be so sited as to be readily accessible at all times under service conditions, with particular regard to possible delay in reaching or operating the controls. In addition, the machinery space in which the valve is situated must be equipped with an efficient warning device to give warning at suitable control positions of an entry of water into the machinery space other than water resulting from the normal operation of machinery.
- 12.4.3 Valves referred to in subparagraph 12.4.1 and 12.4.2 must be equipped with an indicator showing whether the valve is open or closed.
- 12.5 Subject to subparagraph 12.6 a scupper and discharge pipe originating at any level and penetrating the shell of the ship—
 - 12.5.1 more than four hundred and fifty millimetres below the freeboard deck; or
 - 12.5.2 less than six hundred millimetres above the Summer load waterline;

must be equipped with an automatic non-return valve situated as close to the ship's shell as practicable and substantially connected to it.

- 12.6 Subparagraph 12.5 does not apply —
- 12.6.1 if the scupper or discharge pipe is fitted with the means for preventing water from passing inboard under with the provisions of subparagraphs 12.1 to 12.3; or
- 12.6.2 if the piping of the scupper or discharge pipe is of substantial thickness;
- 12.7 A scupper leading from a superstructure other than an enclosed superstructure or from a deckhouse not fitted with weathertight doors, must be led overboard.
- 12.8 All shell fittings and the valves required by this paragraph must be of steel, bronze or other suitable ductile material, and all pipes under this paragraph must be of steel or equivalent material.
- 12.9 In ships constructed on or after the 8th day of June, 2000 scuppers led through the shell from enclosed superstructures used for the carriage of cargo must be permitted only where the edge of the freeboard deck is not immersed when the ship heels 5° either way. In other cases the drainage must be led inboard to a suitable space, or spaces, of adequate capacity having a high water level alarm and provided with suitable arrangements for discharge overboard.

Side scuttles

- 13.1 Every side scuttle to a space below the freeboard deck or to a space within an enclosed superstructure must be fitted with a hinged inside deadlight so that it can be effectively closed and secured watertight.
- 13.2 No side scuttle must be fitted in a position such that its sill will be below a line drawn parallel to the freeboard deck at side and having its lowest point
 - 13.2.1 tow point five per cent of the breadth of the ship above the Summer load waterline, or Summer Timber load waterline, if assigned; or
 - 13.2.2 five hundred millimetres above the Summer load waterline, or Summer Timber load waterline, if assigned;

whichever is the greater distance.

13.3 A side scuttle, glass and deadlight, where fitted, must be of substantial construction and be efficiently fitted.

Freeing ports and arrangements

14.1 If bulwarks on the weather portions of the freeboard deck, a raised quarter deck or a superstructure deck form wells, efficient provision shall be

made for rapidly freeing the decks of water in bulk and for draining them, and in particular the requirements set out in subparagraphs 14.2 to 14.9 shall be complied with.

- 14.2 Except as otherwise provided under subparagraphs 14.4 and 14.5, the freeing port area (A) for each well shall -
- 14.2.1 if the well is on the freeboard deck or on a raised quarter deck, be not less than the area ascertained in accordance with subparagraph 14.3; and
 - 14.2.2 if the well is on a superstructure deck, other than a raised quarter-deck, be not less than one half of the area given by subparagraph 14.3.
 - 14.3.1 Subject to subparagraph 14.3.3 below, if the length (l) of a bulwark in the well is twenty metres or less -
 - (A) = 0.7 + 0.035 (1) (square metres); and
 - 14.3.2 Subject to subparagraph 14.3.3 below, where (l) exceeds twenty metres,
- (A) = 0.07 (1)(square metres).

The length (1) need in no case be greater than 0.7(L).

- 14.3.3 If the bulwark is more than one point two metres in average height the required area shall be increased by zero point zero zero four square metres per metre of length of well for each zero point one metre difference in height. If the bulwark is less than zero point nine metre in average height, the required area may be decreased by zero point zero zero four square metre per metre of length of well for each zero point one metre difference in height.
- 14.4.1 If the deck on which the well is situated has no sheer, the freeing port area shall be the area ascertained under subparagraph 14.3 increased by fifty per cent.
- 14.4.2 If the deck on which the well is situated has sheer less than standard sheer, the freeing port area is the area ascertained under subparagraph 14.3 increased by a percentage to be obtained by linear interpolation.
- 14.4.3 If the deck on which the well is situated has sheer, two thirds of the freeing port area must be situated in the half of the well which is nearest to the lowest point of the sheer.
- 14.5 The lower edge of a freeing port must be as near to the deck as practicable.
- 14.6 A freeing port more than two hundred and thirty millimetres in depth must be protected by rails or bars so fixed that the distance between the lowest

rail or bar and the lower edge of the freeing port does not exceed two hundred and thirty millimetres.

- 14.7 A freeing port fitted with a shutter must have sufficient clearance to prevent jamming of the shutter, and the shutter hinges shall have pins or bearings of efficient non-corrodible material.
- 14.8 Efficient provision must be made for freeing water from a superstructure other than an enclosed superstructure.
- 14.9 If a ship fitted with a trunk does not comply with the requirements of paragraph 10.2.2.6 of Schedule 2, "Freeboards", or if continuous or substantially continuous hatchway side coamings are fitted between detached superstructures the minimum area of the freeing port openings must be calculated using the following table:

Breadth of hatchway or tunch in relation to the breadth of ship	Area of freeing ports in relation to the total area of the bulwarks
40% or less	20%
75% or more	10%

The area of freeing ports at intermediate breadths is obtained by linear interpolation.

Protection of the crew

- 15.1 A deckhouse used for the accommodation of members of the crew must be of efficient construction.
- 15.2 Except as otherwise provided in subparagraph 15.3, exposed parts of the freeboard deck and superstructure deck must be fitted at their perimeter with efficient guard rails or guard wires and stanchions complying with the requirements of subparagraph 15.4, or with bulwarks. In either case this protection must be at least one metre in height from the deck.
- 15.3 The height specified in subparagraph 15.2 may be reduced at a particular point if
 - 15.3.1 the normal working of the ship would be unreasonably impeded; and
 - 15.3.2 adequate protection is provided at that point.

- 15.4 Guard rails or guard wires fitted under with subparagraph 15.2 consist of courses of rails or wires supported by stanchions efficiently secured to the deck. The opening between the lowest course of the rails or wires and the deck must not exceed two hundred and thirty millimetres in height and no opening above that course of rails or wires shall exceed three hundred and eighty millimetres in height. If the ship has rounded gunwales, the stanchions must be secured at the perimeter of the flat of the deck.
- 15.5 Gangways, underdeck passages and another means of access used by the crew to pass between their quarters, the machinery space and another space in the ship in the course of their necessary work shall be so designed and constructed, and be fitted, if necessary, with life lines, access ladders, guard rails, guard wires, hand rails or other safety fittings, as to afford effective protection for the crew.
- 15.6 Deck cargo carried on a ship must be so stowed that an opening which is in way of the cargo and which gives access to and from the crew's quarters, the machinery space and all other parts used in the necessary work of the ship, can be properly closed and secured against the admission of water. Effective protection for the crew in the form of guard rails or life lines must be provided above the deck cargo if there is no convenient passage on or below the deck of the ship.
- 15.7 The requirements of this paragraph do not apply in the case of unmanned barges.

PART II- SPECIAL REQUIREMENTS APPLICABLE TO TYPE "A" SHIPS

Application

16. The requirements of paragraphs 17 to 20 apply to Type "A" ships.

Machinery casings

- 17.1 Subject to subparagraph 17.2. a casing enclosing a machinery space opening in Position 1 or Position 2 must be protected by
 - 17.1.1 an enclosed poop or bridge of at least standard height; or
- 17.1.2 a deckhouse of equal height and equivalent strength and weathertightness.
- 17.2 Subparagraph 17.1 does not apply and the casing need not be protected if $\,$
- 17.2.1 there is no opening in the casing which gives direct access from the freeboard deck to the machinery space; or

17.2.2 the only opening in the casing has a steel weathertight door and leads to a space or passage way which is as strongly constructed as the casing and is separated from the stairway to the machinery space by a second steel weathertight door.

Gangway and access

- 18.1 References in this paragraph to a poop or detached bridge apply also to a deckhouse fitted in lieu of and serving the purpose of a poop or detached bridge.
- 18.2 Access between the poop and the detached bridge must be by means of -
- 18.2.1 a permanent and efficiently constructed gangway of substantial strength. The gangway must be at the level of the superstructure deck and have a platform at least one metre in width and of non-slip material. Efficient means of access from gangway level to the deck must be provided at each terminal point. The platform shall be fitted on each side throughout its length with guard rails or guard wires supported by stanchions. Such rails or wires must consist of not less than three courses, the lowest being not more than two hundred and thirty millimetres, and the uppermost being at least one metre above the platform, and no intermediate opening being more than three hundred and eighty millimetres in height. Stanchions must be at intervals of not more than one point five metres; or
- 18.2.2 an underdeck passage connecting and providing unobstructed access between those structures and complying with the following requirements
 - 18.2.2.1 the passage and all its fittings must be oil and gas tight;
 - 18.2.2.2 the passage must be well lit, and be fitted with efficient gas detection and ventilation systems;
 - 18.2.2.3 it must be situated immediately below the freeboard deck;
 - 18.2.2.4 its distance from the shell plating must at no point throughout its length be less than one fifth of the breadth of the ship. Alternatively two underdeck passages may be provided one to port and one to starboard each of which must comply with the requirements of subparagraphs 18.2.2.1, 18.2.2.2 and 18.2.2.3;
 - 18.2.2.5 means of exit from the passage to the freeboard deck must be
 - 18.2.2.5.1 so arranged as to be as near as practicable to the working areas to be used by the crew;

- 18.2.2.5.2 in no case more than ninety metres apart; and
- 18.2.2.5.3 fitted with efficient means of closing which are capable of quick release and operable from either side;
- 18.2.2.6 openings in the freeboard deck corresponding to the means of exit referred to in subparagraph 18.2.2.5, must be protected in accordance with the requirements of paragraph 8.2.1.; or
- 18.2.3 equivalent means of access.
- 18.3 In adverse weather conditions, if the crew in the course of its duties may be required to go to working areas forward of the detached bridge, or forward of the poop in cases where there is no detached bridge, access must be by means of
 - 18.3.1 a gangway complying with the requirements of subparagraph 18.2.1;
 - 18.3.2 an underdeck passage complying with the requirements of subparagraph 18.2.2; or
 - 18.3.3 a walkway complying with the following requirements
 - 18.3.3.1 be not less than one metre in width and be situated on or as near as practicable to the centre line of the ship;
 - 18.3.3.2 where obstructed by pipes or other fittings of a permanent nature, be provided with efficient means of passage over such obstruction;
 - 18.3.3.3 be fitted on each side and throughout its length with guard rails or guard wires complying with the requirements in subparagraph 18.2.1;
 - 18.3.3.4 have openings in these guard rails or guard wires which give access to and from the freeboard deck to the working areas used by the crew. Openings must be on alternate sides of the walkway and be situated not more than ninety metres apart on either side;
 - 18.3.3.5 where the length of exposed deck to be traversed by the crew exceeds seventy metres, shelters of substantial construction must be set in way of the walkway at intervals not exceeding forty-five metres, every such shelter being capable of accommodating at least one person and be so constructed as to afford weather protection on the forward, port and starboard sides.
- 18.4 The requirements of this paragraph do not apply in the case of unmanned barges.

Hatchway covers

19. The covers of hatchways in exposed positions on the freeboard deck, on a forecastle deck or on the top of an expansion trunk must be of steel, of efficient construction, and watertight when secured.

Freeing arrangements

- 20.1 Exposed parts of the freeboard deck and superstructure decks must be fitted at their perimeter for at least half their length with guard rails or guard wires in lieu of bulwarks or with other equally effective freeing arrangements. Such guard rails or guard wires must comply with the requirements set out in relation to such rails or wires in paragraph 18.2.1.
 - 20.2 The upper edge of the sheer strake must be as low as practicable.
- 20.3 If superstructures of the ship are connected by a trunk, the exposed parts of the freeboard deck in way of the trunk must be fitted at their perimeter throughout their length with guard rails or guard wires complying with the requirements set out in paragraph 18.2.1.
- 20.4 If the ship is so constructed that notwithstanding the provision of freeing ports and arrangements it will be particularly subjected under service conditions to the building up of quantities of water on the freeboard deck efficient breakwaters must be fitted in suitable positions on that deck.

PART III - SPECIAL REQUIREMENTS APPLICABLE TO CERTAIN TYPE "B" SHIPS

Application

21. The requirements of paragraphs 22 to 25 apply to Type "B" ships assigned a reduced freeboard under the paragraph 5.3 of Schedule 2.

Gangway and access

- 22. A ship must comply with the requirements of
 - 22.1 paragraph 18 as if it were a Type "A" ship; or
 - 22.2 paragraphs 23 and 24.
- 23.1 References in this paragraph to a poop or detached bridge apply also to a deckhouse fitted in lieu of and serving the purpose of a poop or detached bridge.
- 23.2 Access between the poop and the detached bridge must be by means of an efficiently constructed gangway of substantial strength fitted on or near the centre line of the ship. The gangway must be at least one metre in width

and shall be fitted on each side and throughout its length with guard rails or guard wires complying with the requirements as set out in paragraph 18.2.1. If the length of the gangway exceeds seventy metres, shelters complying with the requirements under paragraph 18.3.3.5 must be provided in way of the gangway.

- 24.1 In adverse weather conditions, if the crew in the course of its duties may be required to go to working areas forward of the detached bridge, or forward of the poop in cases where there is no detached bridge, access must be by
 - 24.1.1 the means described under paragraph 18.3;
 - 24.1.2 the means described under paragraph 23.2; or
 - 24.1.3 equivalent means of access.
- 24.2 If hatchway coamings are six hundred millimetres or more in height, two walkways complying with the following requirements may be provided in lieu of subparagraph 24.1
 - 24.2.1 the walkways must be efficiently constructed and of satisfactory strength;
 - 24.2.2 the walkways shall each be at least one metre in width and be fitted on the freeboard deck alongside the outboard structure of the hatchway coamings, one to port and the other to starboard of the hatchways; and
 - 24.2.3 on the side outboard of the hatchways each walkway must be fitted with guard rails or guard wire complying with the requirements set out in paragraph 18.2.1.

Freeing arrangements

25. A ship must comply with the requirements of paragraph 20.4.

PART IV - SPECIAL REQUIREMENTS APPLICABLE TO SHIPS ASSIGNED TIMBER FREEBOARDS

Application and interpretation

- 26.1 The requirements of paragraphs 27 to 29 apply to ships assigned Timber freeboards.
 - 26.1.2 The requirements of paragraph 30 apply in respect of timber deck cargo carried by a ship which is marked with timber load lines and is loaded to a depth greater than that indicated by the load line which, if timber load lines were not marked, would be appropriate in the circumstances.

- 26.2 In this Part, except if the context otherwise requires
 - "deck cargo" means cargo carried in an uncovered space on the deck of a ship;
 - "timber deck cargo" means deck cargo consisting of timber;
 - "weather deck" means the uppermost complete deck exposed to weather and sea, a deck which is stepped being taken to consist for this purpose of the lowest line of the deck and the continuation of that line parallel to the upper part of the deck.

Superstructures

- 27.1 A ship must have a forecastle of not less than the standard height of an enclosed superstructure and not less in length than 0.07(L).
- 27.2 If the ship is less than one hundred metres in length it must be fitted after with
 - 27.2.1 a poop of not less than standard height; or
 - 27.2.2 a raised quarter deck having either a deck house or a strong steel hood, so that the total height is not less than the standard height of an enclosed superstructure.

Double bottom tanks

28. Double bottom tanks fitted within the midship half length of the ship must have satisfactory watertight longitudinal subdivision.

Bulwarks, guard rails and stanchions

- 29. A ship must be fitted with
 - 29.1 permanent bulwarks at least one metre in height which are especially stiffened on the upper edge and supported by strong bulwark stays attached to the deck, and provided with freeing ports complying with the requirements of paragraph 14.1 to 14.7; or
 - 29.2 efficient guard rails and stanchions at least one metre in height, of specially strong construction, and complying with the requirements of paragraph 15(4).

Stowage

Siting, distribution and stowage of timber deck cargo

30.1 Cargo must be distributed and stowed so —

- 30.1.1 as to avoid excessive loading having regard to the strength of the deck and the supporting structure of the ship;
- 30.1.2 as to ensure that the ship will retain adequate stability at all stages of the voyage having regard in particular to
 - 30.1.2.1 the vertical distribution of the deck cargo;
 - 30.1.2.2 the wind moments which can be expected on the voyage;
 - 30.1.2.3 the losses of weight in the ship, including those due to the consumption of fuel and stores; and
 - 30.1.2.4 possible increases of weight of the ship or deck cargo, including those due to the absorption of water and to icing;
- 30.1.3 as not to impair the weathertight or watertight integrity of part of the ship or its fittings or appliances, and to ensure the proper protection of ventilators and air pipes;
- 30.1.4 that its height above the deck, or another part of the ship on which it stands will not interfere with the navigation or working of the ship;
- 30.1.5 that it will not interfere with, or obstruct access to, the ship's steering arrangements, including emergency steering arrangements;
- 30.1.6 that it is in accordance with paragraph 15.6.

Securing of deck cargo

30.2 Deck cargo must be so secured as to ensure, as far as practicable, that there will be no movements of that cargo relative to the ship in the worst sea and weather conditions which may normally be expected on the voyage; and lashings and all fittings used for their attachment must be of adequate strength for that purpose.

Maximum height of timber deck cargo

30.3 Timber deck cargo carried by a ship within a Winter seasonal area during the period specified as the Winter period must be so stowed that at no point throughout its length does the height of the deck cargo above the level of the weather deck at side exceed one third of the extreme breadth of the ship.

Access

30.4.1 If timber deck cargo occupies the whole or substantially the whole of the uncovered space on the deck of a ship, means of access must be provided for the crew between their quarters and the

machinery spaces and other parts of the ship used in the working of the ship, as follows.

- 30.4.2 The means of access must be provided in the form of a walkway fitted over the timber deck cargo, and the walkway must be
 - 30.4.2.1 as near as practicable on the centreline of the ship;
 - 30.4.2.2 not less than six hundred millimetres in width; and
 - 30.4.2.3 provided with a lifeline which, if practicable, has a wire rope set taut with a stretching screw.
- 30.4.3 In addition guard rails or lifelines spaced not more than three hundred and fifty millimetres apart vertically shall be provided on each side of the deck cargo to a height of at least one metre above the cargo.
- 30.4.4 The stanchion supports to all guard rails and lifelines must be so spaced as to prevent undue sagging.

Uprights

30.5 If the nature of the timber is such that uprights are necessary in order to comply with subparagraphs 30.6 and 30.7, uprights must be fitted which are of sufficient strength for the purpose and be secured in position by angles or metal sockets of sufficient strength for the purpose or by equivalent means and must be so spaced as to provide efficient support taking into account the nature and length of the timber, However the space between two uprights fore and aft must not exceed three metres.

Stowage of timber deck cargo in relation to superstructures

- 30.6.1 Timber deck cargo stowed in well between superstructures must be stowed as solidly as possible so as to extend over the entire available length of the well to a height not less than the standard height of a superstructure other than a raised quarter deck.
- 30.6.2 Timber deck cargo stowed in a position having a limiting superstructure at the forward end but no such superstructure at the after end must be stowed so as to extend over the entire available length between the superstructure and the after end of the aftermost hatchway, to the height and in the manner specified in subparagraph 30.6.1.

Securing of Timber deck cargo

30.7.1 Timber deck cargo must be efficiently secured throughout its length

by independent overall lashings spaced not more than three metres apart. Eye plates for these lashings shall be efficiently attached to the sheer strake or to the deck stringer plate at intervals of not more than three metres. The distance from an end bulk head of a superstructure to the first eye plate must be not more than two metres. Where there is no bulkhead, eye plates and lashings must be provided at distances of zero point six metres and fifteen metres from the ends of the timber deck cargo.

- 30.7.2 Lashings must be of not less than nineteen millimetres close link chain or of flexible wire rope of equivalent strength, fitted with sliphooks and turnbuckles so positioned as to be accessible at all times. Wire rope lashings must have a length of long link chain sufficient to permit the length of lashings to be regulated.
- 30.7.3 When timber is in lengths less than three point six metres, the spacing of the lashings must be reduced or suitable provision made to suit the length of timber.

SCHEDULE 4

(Regulation 13)

RECORD OF PARTICULARS RELATING TO CONDITIONS OF ASSIGNMENT

SHIPPING (LOAD LINE) REGULATIONS

In this record, references to Regulations are references to the Regulations set out in Annex I to the Convention of 1966, and reference to paragraphs are references to paragraphs of Schedule 3 Conditions of Assignment of those Regulations.

Name of ship
Port of registry
Nationality
Distinctive number or letters
Shipbuilders
Yard number
Date of Build/conversion
Freeboards assigned as a ship of Type
Classification
Date and place of initial survey

A plan of suitable size may be attached to this report in preference to the sketches on this page

Disposition and dimensions of superstructures, trunks, deckhouses, machinery casings; extent of bulwarks, guard rails and wood sheathing on exposed deck, to be inserted in the diagrams and tables following; together with positions of hatchways, gangways, and other means for the protection of the crew; cargo ports, bow and stern doors, side scuttles, scuppers, ventilators, air pipes, companionways, and other items that would affect the seaworthiness of the ship.

DOORWAYS IN SUPERSTRUCTURES, EXPOSED MACHINERY CASINGS AND DECKHOUSES PROTECTING OPENINGS IN FREEBOARD AND SUPERSTRUCTURE DECKS

LOCATION	REF NO. ON	NUMBER AND	HEIGHT OF	CLOSING	APPLIANCES
	SKETCH OR PLAN	SIZE OF OPENINGS	SILLS	TYPE AND MATERIAL	NUMBER OF CLIPS
In forecastle bulkhead					
In bridge forward bulkhead					
In bridge after bulkhead					
In raised quarter deck bulkhead					
In poop bulkhead					
In exposed machinery casings on freeboard or raised quarter decks					
In exposed machinery casings on superstructure decks					
In machinery casings within superstructures or deckhouses on freeboard deck					
In deckhouses in Position 1 enclosing openings leading below freeboard deck					

LOCATION	REF NO ON	NUMBER AND	HEIGHT OF SILLS	CLOSING APPLIANCES			
	SKETCH OR PLAN	SIZE OF OPENINGS		TYPE AND MATERIAL	NUMBER OF CLIPS		
In deckhouses in Position 2 enclosing openings leading within enclosed superstructures or below freeboard deck							
In exposed pump room casings							

HATCHWAYS AT POSITIONS 1 AND 2 CLOSED BY PORTABLE COVERS AND SECURED WEATHERTIGHT BY TARPAULINS AND BATTENING DEVICES

Position and Resketch or Plan	eference No. on			
Dimensions of cle of coaming				
Height of coaming	gs above deck			
Portable Beams	Number			
41 -01	Spacing			
t _w	$\mathbf{B}_{_{\mathrm{f}}} \mathbf{x} \mathbf{t}_{_{\mathrm{f}}}$			
	D x t _w			
₩ b ₂	b ₂ x t _f			
	Bearing surface			
	Means of securing each beam			

	Material								
PORTABLE	Thickness								İ
COVERS	Direction fi	itted							
	Bearing su	ırface							
Spacing of cleats	3								
	No. of laye	ers							
Tarpaulins	Material								
Means of so									
Are wood	covers fitted	-		ized (end bar	nds?			
Position and refe					ED WI		ASKI	ETS A	AND
on Sketch or Pla			+	\dashv			+		
at top of coaming		<u> </u>				<u> </u>	_		
Height of coamin	ng above								
Type of cover or Name	Patent								
Material									
MACHINER' OPENING			PENI RD AN			STRU	CTUI	RE DI	ANEOUS ECKS 7 and 28
Positions and Re							- 		
Dimensions			+	-					
i .									

Cover	Material				
	How attached				
Number and Toggles	spacing of				
Positions and No. on Sketc					
Dimensions	Dimensions				
Height of coa	ming				
COVER	Material				
	How attached				
Number and spacing of Toggles					

Particulars of spurling pipe closing arrangements

VENTILATORS ON FREEBOARD AND SUPERSTRUCTURE DECKS (POSITIONS 1 AND 2)

DECK ON WHICH	NUMBER FITTED	COAM	ING	TYPE (STATE	CLOSING APPLIANCES	
FITTED	DIMENSIONS	HEIGHT	PATENT NAME IF ANY)			

AIR PIPES ON FREEBOARD AND SUPERSTRUCTURE DECKS

DECK ON WHICH	NUMBER FITTED	COAM	IING	TYPE (STATE	CLOSING APPLIANCES	
FITTED		DIMENSIONS	HEIGHT	PATENT NAME IF ANY)		

CARGO PORTS AND OTHER SIMILAR OPENINGS

(Regulation 21)

POSITION OF PORT	DIMENSIONS OF OPENING	DISTANCE OF LOWER EDGE FROM FREEBOARD DECK	SECURING DEVICES	REMARKS

SCUPPERS, INLETS AND DISCHARGES

State if Discharge	Number PIPE			_	Vertical Distance Above Top of Keel			Number, Type and Material	Position of Controls	
or Scupper					From	Disc	harge	Upper- most Valve	of Discharge Valves	Controls
		Diameter	Thickness	Material		Outlet in Hull	Iboard Valve			

NOTE: In Ro- ro ships, indicate how ready accessibility to scupper valves is ensured when vehicle space is filled

S - Scupper MS - Mild Steel SD - Screw down

D – Discharge CS – Cast Steel ANR – Automatic non- retur GM – Gun Metal SD ANR – Screw down automatic non- return

Any other approved material to be designated.

SIDE SCUTTLES

Position	Number	Clear	Fixed or	Ma	aterial	Type &	Standards Used	
	Fitted	Glass Size	Opening	Frame	Deadlight	Thickness of Glass	& Type No.	

FREEING PORTS

	LENGTH OF BULWARK	HEIGHT OF BULWARK	NUMBER AND SIZE OF FREEING PORTS EACH SIDE	TOTAL AREA EACH SIDE	REQUIRED AREA EACH SIDE
FREEBOARD DECK AFTER WELL					
FORWARD WELL					
SUPER- STRUCTURE DECK					-

State fore and aft position of (After Well each freeing port in relation (to superstructure end bulkheads Forward Well

Particulars of shutters, bars or rails fitted to freeing ports.

Height of lower edge of freeing port above deck.

PROTECTION OF THE CREW

(Regulations 25 and 26)

State particulars of bulwarks or guardrails on freeboard and superstructure decks:

State details of lifelines, walkways, gangways or underdeck passageways where required to be fitted:

TIMBER DECK CARGO FITTINGS

(Regulation 44)

State particulars of uprights, sockets,	
lashings, guardrails and lifelines:	

OTHER SPECIAL FEATURES

INITIAL SURVEY
The condition of assignment shown on this form are a record of the arrangements and fittings provided on the ship and are in accordance with the requirements of the relevant regulations set out in Annex I to the Convention of 1966 and of the Shipping (Load Line) Regulations.
(Surveyor's Signature)
(Date)
CHECCHENT DEDICAL CHEVEY

I have completed the periodical survey and am satisfied that the fittings and appliances are in accordance with the particulars shown in this record and are in good condition and that approved stability information and, where applicable, information relating to loading and ballasting of the ship is on board.

Signature	Port of Survey	Date of Survey

SCHEDULE 5

(Regulation 16(1))

NOTICE OF LOAD LINES TO BE POSTED UP BEFORE SAILING

1. In this Schedule "freeboard" means the distance measured vertically downwards amidships from the upper edge of the deckline marked on the side of the ship to the surface of the water.

Availability of Standard Form

2. Copies of the "Draught of Water and Freeboard" Notice, an example of which is attached, are available from *the offices of the Division of Maritime Affairs*.

DRAUGHT OF WATER AND FREEBOARD NOTICE

SHIP PORT OF REGISTRY
GROSS TONNAGE
(1) Summer freeboardmillimetres corresponding to a mean draught ofmillimetres
(2) Winter freeboardmillimetres corresponding to a mean draught of millimetres
(3) Tropical freeboardmillimetres corresponding to a mean draught ofmillimetres
(4) Winter North Atlantic freeboardmillimetres corresponding to a mean draught ofmillimetres
(5) Allowance for fresh water for all freeboards other than Timber freeboardsmillimetres
(6) Timber Summer freeboardmillimetres corresponding to a mean draught ofmillimetres
(7) Timber Winter freeboardmillimetres corresponding to a mean draught of millimetres
(8) Timber Tropical freeboardmillimetres corresponding to a mean draught ofmillimetres

(9) Timber Winter Nor	th Atlantic freeboard	millimetres	corresponding
to a mean draught of	millimetres		

(10) A	Allowance	for	fresh	water	for	Timber	freeboards	 	
millin	netres								

Notes

- 1. The particulars to be given above of freeboards and allowances for fresh water to be taken from the load line certificate currently in force in respect of the ship.
- 2. All freeboards given on the load line certificate must be stated.
- 3. The mean draught to be given above is the mean of the draughts which would be shown on the scales of measurement on the stem and on the stern post of the ship if it were so loaded that the upper edge of the load line on each side of the ship appropriate to the particular freeboard were on the surface of the water.
- 4. Where the draught is shown on the scales of measurement on the stem and on the stern post of the ship in feet the mean draught must be given in millimetres.

PARTICULARS OF LOADING

1	2	3	4	5	6	7	8	9
DATE	PLACE	ACT	TUAL DRAFT		MEAN FI	REEBOARD	MASTER	TURE OF AND AN ICER
		FORWARD	AFT	MEAN	ACTUAL (See notes 1&2)	CORRECTED (See note 3)	MASTER	OFFICER

Notes

- 1. The actual mean freeboard (Column 6) is the mean of the freeboards on each side of the ship at the time when the ship is loaded and ready to leave.
- 2. Where the actual mean freeboard is less than the appropriate minimum saltwater freeboard as shown on the load line certificate there must be entered in Column 7 the corrected freeboard arrived at after making any allowances

for density of water, rubbish to be discharged overboard and fuel, water and stores to be consumed on any stretch of river or inland water, being allowances duly entered in the ship's official log-book.

3. Where the actual mean freeboard is greater than the appropriate salt water freeboard, Column 7 need not be filled in.

SCHEDULE 6

(Regulation 17(2))

STABILITY PART I - INFORMATION AS TO STABILITY

The information relating to the stability of a ship to be provided for the master shall include the particulars specified below.

- 1. The ship's name, official number, port of registry, gross and register tonnages, principal dimensions, displacement, deadweight and draught to the Summer load line.
- 2. A profile view and, if necessary, plan views of the ship drawn to scale showing all compartments, tanks, storerooms and crew and passenger accommodation spaces, with their position relative to mid-ship.
- 3.1 The capacity and the longitudinal and vertical centre of gravity of every compartment available for the carriage of cargo, fuel, stores, feedwater, domestic water or water ballast.
- 3.2 In the case of a vehicle ferry, the vertical centre of gravity of compartments designated for the carriage of vehicles must be based on the estimated centres of gravity of the vehicles and not on the volumetric centres of the compartments.
- 4.1 The estimated total weight and the longitudinal and vertical centre of gravity of each such total weight of
 - 4.1.1 the passengers and their effects; and
 - 4.1.2 the crew and its effects.
- 4.2 In estimating such centres of gravity, passengers and crew shall be assumed to be distributed about the ship in the spaces they will normally occupy, including the highest decks to which either or both have access.
- 5.1 The estimated weight and the disposition and centre of gravity of the maximum amount of deck cargo which the ship may reasonably be expected to carry on an exposed deck.
- 5.2 In the case of deck cargo, the arrival condition must include the weight of water likely to be absorbed by the cargo. (For timber deck cargo

the weight of water absorbed shall be taken as fifteen per cent of the weight when loaded.)

- 6. A diagram or scale showing —
- 6.1 the load line mark and load lines with particulars of the corresponding freeboards; and
- 6.2 the displacement, tonnes per centimetre immersion, and deadweight corresponding to a range of mean draughts extending between the waterline representing the deepest load line and the waterline of the ship in light condition.
- 7.1 A diagram or tabular statement showing the hydrostatic particulars of the ship, including the heights of the transverse metacentre and the values of the moment to change trim one centimetre. These particulars shall be provided for a range of mean draughts extending at least between the waterline representing the deepest load line and the waterline of the ship in light condition.
- 7.2 If a tabular statement is used to comply with subparagraph 7.1, the intervals between such draughts shall be sufficiently close to permit accurate interpolation.
- 7.3 In the case of ships having raked keels, the same datum for the heights of centres of buoyancy and metacentres must be used as for the centres of gravity referred to in paragraphs 3, 4 and 5.
- 8. The effect on stability of free surface in each tank in the ship in which liquids may be carried, including an example to show how the metacentric height is to be corrected.
- 9.1 A diagram or table showing cross curves of stability, covering the range of draughts referred to in paragraph 7.1.
- 9.2 The information must indicate the height of the assumed axis from which the righting levers are measured and the trim which has been assumed.
- 9.3 In the case of ships having raked keels and where a datum other than the top of keel has been used, the position of the assumed axis must be clearly defined.
- 9.4 Subject to subparagraph 9.5, only enclosed superstructures and efficient trunks as defined in paragraph 10 of Schedule 2 must be taken into account in deriving such curves.
- 9.5 The following structures may be taken into account in deriving such curves if the Director is satisfied that their location, integrity and means of closure will contribute to the ship's stability —

- 9.5.1 superstructures located above the superstructure deck;
- 9.5.2 deckhouses on or above the freeboard deck whether wholly or in part only; and
- 9.5.3 hatchway structures on or above the freeboard deck.
- 9.6 Subject to the approval of the Director in the case of a ship carrying timber deck cargo, the volume of the timber deck cargo, or a part thereof, may be taken into account in deriving a supplementary curve of stability appropriate to the ship when carrying such cargo.
- 9.7 An example must be included to show how a curve of righting levers (GZ) may be obtained from the cross curves of stability.
- 9.8 In the case of a vehicle ferry or a similar ship having bow doors, ship-side doors or stern doors where the buoyancy of a superstructure is taken into account in the calculation of stability information, and the cross curves of stability are based upon the assumption that such doors are secured weathertight, there must be a specific warning that such doors must be secured weathertight before the ship proceeds to sea.
- 10.1 The diagram and statements referred to in subparagraph 10.2 shall be provided separately for each of the following conditions of the ship
 - 10.1.1 *light condition*. If the ship has permanent ballast, such diagram and statements must be provided for the ship in light condition both with and without such ballast:
 - 10.1.2 ballast condition both on departure and on arrival. It is to be assumed that on arrival oil fuel, fresh water, consumable stores and the like are reduced to ten per cent of their capacity;
 - 10.1.3 condition on departure and on arrival when loaded to the Summer load line with cargo filling all spaces available for cargo. Cargo must be taken to be homogeneous except if this is clearly inappropriate, for example, in cargo spaces which are intended to be used exclusively for the carriage of vehicles or of containers;
 - 10.1.4 service loaded conditions both on departure and on arrival.
- 10.2.1 A profile diagram of the ship drawn to a suitable small scale showing the disposition of all components of the deadweight.
- 10.2.2 A statement showing the lightweight, the disposition and the total weights of all components of the deadweight, the displacement, the corresponding positions of the centre of gravity, the metacentre and also the metacentric height (GM).

- 10.2.3 A diagram showing the curve of righting levers (GZ). If credit is given for the buoyancy of a timber deck cargo the curve of righting levers (GZ) must be drawn both with and without this credit.
- 10.2.4 A statement showing the elements of stability in the condition compared to the criteria laid down in Schedule 3 paragraph 2.2.
- 10.3 The metacentric height (GM) and the curve of righting levers (GZ) must be corrected for liquid free surface.
- 10.4 If there is a significant amount of trim in a condition referred to in subparagraph 10.1 the metacentric height and the curve of righting levers (GZ) may be required to be determined from the trimmed waterline.
- 10.5 If in the view of the Minister or person or organization authorized by the Minister the stability characteristics in either or both of the conditions referred to in subparagraph 10.1.3 are not satisfactory, such conditions must be marked accordingly and an appropriate warning to the master must be inserted.
- 11. A statement of instructions on appropriate procedures to maintain adequate stability in each case where special procedures are applied such as partial or complete filling of spaces designated for cargo, fuel, fresh water or other purposes.
- 12. The report on the inclining test and of the calculation derived from it to obtain information of the light condition of the ship.

PART II – SHIPS WHICH THE APPROVAL OF MINISTER OR PERSON OR ORGANIZATION AUTHORIZED BY THE MINISTER IS REQUIRED IN RELATION TO STABILITY INFORMATION

- 13. The ships referred to in regulation 17(3), (4)(a) and (5)(a) of the Regulations are as follows:
 - 13.1 an oil tanker over one hundred metres in length;
 - 13.2 a bulk carrier, or an ore carrier, over one hundred and fifty metres in length;
 - 13.3 a single deck bulk carrier over one hundred metres in length but not exceeding one hundred and fifty metres in length;
 - 13.4 a single deck dry cargo ship over one hundred metres in length;
 - 13.5 a purpose built container ship over one hundred and twenty-five metres in length;
 - 13.6 a column stabilised mobile offshore drilling unit; or

- 13.7 a column stabilised mobile offshore support unit.
- 14. In paragraph 13
 - "column stabilised" means constructed with the main deck of the unit connected to its underwater hull or footings by columns or caissons.
 - "mobile offshore drilling unit" means a ship capable of engaging in drilling operations for the exploration or exploitation of resources beneath the sea bed such as liquid or gaseous hydrocarbons, sulphur or salt;
 - "mobile offshore support unit" means a ship used in connection with the offshore petroleum industry to provide ancillary services such as accommodation, cranes or repair facilities; and
 - "column stabilised" means constructed with the main deck of the unit connected to its underwater hull or footings by columns or caissons.

SCHEDULE 7

FORMS

FORM 1

APPLICATION FOR INTERNATIONAL LOADLINE CERTIFICATE (1966)

(Regulation 23(a)(i))



SAINT LUCIA

APPLICATION FOR INTERNATIONAL LOADLINE CERTIFICATE FOR VESSELS TWENTY-FOUR METERS AND ABOVE

PARTICULARS OF SHIP			
IMO / HIN / Caribbean Number (if known) Delete as appropriate		Port of Registry	
Type of Ship (dry cargo, oil tanker, ro-ro, passenger, etc.)			
Construction Material		Overall Length	
Year to Build		Country to Build	
PARTICULARS OF FREEBO	ARD		
Freeboard from deck line		Load line	
Tropical Mm (T)		mm. A	bove (S)
Allowance for fresh water for other than timber	or all freeboards	mm	
For timber freeboards		mm	

The upper edge of the deck line above/below from deck at side	from which these f	reeboards are measured	ismm
	<u></u> → =	Forward	→
The provisions which the ship is Completion date of survey on wh			
NB:- (Freeboards and load lines v Subdivision load lines may be en			on the certificate.
PARTICULARS OF THE APP	PLICANT(S)		
Full Name(s)			
Address(es) (Residential add individual; Registered office body corporate; Principal place a statutory body or foreign bod	address – for a e of business – for		
Telephone number(s)		Fax number(s)	
E-mail address(es)			
SIGNATURE			
Place		Signature of Witness	
Date	<mark>/_</mark> _/_/		
Signature of Owner(s) In case of a body corporate, an authorized officer of the body corporate		Full Name of Witness Address Of Witness	

SURVEYORS DECLARATION

This is to certify that —

- 1. The ship has been surveyed in accordance with the requirements of the Shipping Act, Cap 13.27.
- 2. The survey showed that the freeboards have been assigned and the load lines shown above have been marked in accordance with Part 47 of the Maritime Rules as per photographs of the port and starboard load line marks and draught marks showing the subject vessel's name.
- 3. The application for the issuance of a Saint Lucian load line is made direct to The Division of Maritime Affairs on behalf of the registered owner.

- 4. A copy of the attending Surveyor's completed check list for the load line is attached.
- 5. For an initial survey a copy of the Naval Architect's freeboard calculations and the completed and signed off Stability Book is attached.
- 6. The initial survey must make a complete inspection of the ship's structure and equipment and the relevant information.
- 7. For a renewal survey, proof of structure has been surveyed is attached, such as photographs of void space showing internal structure remaining unchanged due to modification, fracture or failure.

FOR OFFICIAL USE ONLY

Name of Surveyor:	
Signature:	
Date:	

WHEN COMPLETED YOU SHOULD SEND THIS FORM TO THE REGISTRAR OF SHIPS (see below)

OPENCIAL MOD ONLY
OFFICIAL USE ONLY
Entry in Register made on
/
(d/m/y)
At(time)
By Officer (print name)

FORM 2

APPLICATION FOR SAINT LUCIA LOCAL LOAD LINE CERTIFICATE

(Regulation 23(a)(ii)



SAINT LUCIA

APPLICATION FOR SAINT LUCIA LOCAL LOADLINE CERTIFICATE FOR VESSELS UNDER TWENTY-FOUR METERS

PARTICULARS OF SHIP			
IMO/HIN/ Caribbean Number		Port of Registry	
(if known)			
(delete as appropriate)			
Type of Ship (dry cargo, oil tanker, ro-ro, passenger, etc.)			
		Overall Length	
Construction Material			
Year to Build		Country to Build	
PARTICULARS OF FREEBOA	ARD		
Freeboard from deck line		Load line	
Tropical Mm (T)		mm	a. Above (S)
Allowance for fresh wa freeboards other than timbe		m	m
For timber freeboards		m	m
The upper edge of the deckmm above/below fi			measured is

NB:- (Freeboards and load lines which are not applicable need not be entered on the certificate. Subdivision load lines may be entered on the certificate on a voluntary basis).

PARTICULARS OF THE APPLICANT(S)			
Full Name(s)			
Address(es) (Residential address – for an individual; Registered office address – for a body corporate; Principal place of business – for a statutory body or foreign body corporate)			
Telephone number(s)		Fax number(s)	
E-mail addresse(es)			

SIGNATURE

Place			
Date	/ / / / / / / / / / / / / / / / / / /	Signature of Witness	
Signature of Owner(s)		Full Name of Witness	
In case of a body corporate, an authorised officer of the body corporate		Address of Witness	

SURVEYORS DECLARATION

This is to certify that —

- 1. The ship has been surveyed in accordance with the requirements of the Shipping Act, Cap 13.27.
- 2. The survey showed that the freeboards have been assigned and the load lines shown above have been marked in accordance with Part 47 of the Maritime Rules as per photographs of the port and starboard load line marks and draught marks showing the subject vessel's name.
- 3. The application for the issuance of a Saint Lucian load line is made direct to The Division of Maritime Affairs on behalf of the registered owner.
- 4. A copy of the attending Surveyor's completed check list for the load line is attached.
- 5. For an initial survey a copy of the Naval Architect's freeboard calculations and the completed and signed off Stability Book is attached.
- 6. The initial survey must make a complete inspection of the ship's structure and equipment and the relevant information.
- 7. For a renewal survey, proof of structure has been surveyed is attached, such as photographs of void space showing internal structure remaining unchanged due to modification, fracture or failure.

FOR OFFICIAL USE ONLY		
Name of Surveyor:		
Signature:		
Date:		
WHEN COMPLETED YOU SHOUL SHIPS (see below),	D SEND THIS FORM TO THE REGISTRAR OF	
Registrar of Ships Division of Maritime Affairs Address	OFFICIAL USE ONLY	
Telephone: Fax: Email:	Entry in Register made on	
	/(d/m/y)	
	at(time).	
	By Officer (print name)	

Or



SAINT LUCIA

APPLICATION FOR SAINT LUCIA LOCAL LOADLINE CERTIFICATE FOR VESSELS TWENTY-FOUR METERS AND ABOVE

PARTICULARS OF SHIP		
IMO / HIN / Caribbean Number	Port of Registry	
(if known) Delete as appropriate		

Type of Ship (dry cargo,			
oil tanker, ro-ro, passenger, etc.)			
		Overall Length	
Construction Material			
Year to Build		Country to Build	
PARTICULARS OF FREEBO	ARD		
Freeboard from deck line		Load line	
Tropical Mm (T)		mm. A	bove (S)
Allowance for fresh water f other than timber	or all freeboards	mm	
For timber freeboards		mm	
The provisions from which the st Completion date of survey on which the st Subdivision load lines may be en	nip is exempted are hich this certificate is which are not applica tterd on the certificat	s based:ble need not be entered o	
PARTICULARS OF THE APP Full Name(s)	LICANI (S)		
	business - for a		
Telephone number(s)		Fax number(s)	
E-mail address(es)			
SIGNATURE			1
Place		Signature of Witness	
Date	[/] (d/m/y)		

Signature of Owner(s) In case of a body corporate, an	Full Name of Witness	
authorized officer of the body corporate	Address Of Witness	

SURVEYORS DECLARATION

This is to certify that —

- 1. The ship has been surveyed in accordance with the requirements of the Shipping Act, Cap 13.27.
- 2. The survey showed that the freeboards have been assigned and the load lines shown above have been marked in accordance with Part 47 of the Maritime Rules as per photographs of the port and starboard load line marks and draught marks showing the subject vessel's name.
- 3. The application for the issuance of a Saint Lucian load line is made direct to The Division of Maritime Affairs on behalf of the registered owner.
- 4. A copy of the attending Surveyor's completed check list for the load line is attached.
- 5. For an initial survey a copy of the Naval Architect's freeboard calculations and the completed and signed off Stability Book is attached.
- 6. The initial survey must make a complete inspection of the ship's structure and equipment and the relevant information.
- 7. For a renewal survey, proof of structure has been surveyed is attached, such as photographs of void space showing internal structure remaining unchanged due to modification, fracture or failure.

FOR OFFICIAL USE ONLY

Name of Surveyor:	
Signature:	
Date:	

WHEN COMPLETED YOU SHOULD SEND THIS FORM TO THE REGISTRAR OF SHIPS (see below) $\,$

Registrar of Ships	OFFICIAL USE ONLY
Division of Maritime Affairs Address Telephone:	Entry in Register made on
Fax:	, ,
Email:	//
	At(time).
	By Officer (print name)

FORM 3

APPLICATION FOR INTERNATIONAL LOAD LINE EXEMPTION CERTIFICATE



(Regulation 23 (b)(i))

SAINT LUCIA

APPLICATION FOR INTERNATIONAL LOADLINE EXEMPTION CERTIFICATE FOR VESSELS UNDER 24 METERS AND ABOVE

PARTICULARS OF SHIP	
IMO / HIN / Caribbean Number	Port of Registry
(if known) Delete as appropriate	
Type of Ship (dry cargo, oil tanker, ro-ro, passenger, etc.)	
	Overall Length
Construction Material	
Year to Build	Country to Build
PARTICULARS OF FREEBOARD	
Freeboard from deck line	Load line
Tropical Mm (T)	mm. Above (S)

Allowance for fresh water for other than timber	or all freeboards		
		mm	
For timber freeboards		mm	
The upper edge of the deck line above/below from deck at side	from which these fi	reeboards are measured i	smm
Forward -			
The provisions from which the sh Completion date of survey on wh	nip is exempted are	based:	
NB:- (Freeboards and load lines Subdivision load lines may be en			the certificate.
PARTICULARS OF THE APP	PLICANT(S)		
Full Name(s)			
Address(es) (Residential address – for an individual; Registered office address – for a body corporate; Principal place of business – for a statutory body or foreign body corporate)			
Telephone number(s)		Fax number(s)	
E-mail address(es)			
SIGNATURE			
Place		Signature of Witness	
Date	/d/m/y)		
Signature of Owner(s)		Full Name of Witness	
In case of a body corporate, an authorized officer of the body corporate		Address of Witness	

SURVEYORS DECLARATION

This is to certify that —

1. The ship has been surveyed in accordance with the requirements of the Shipping Act, Cap 13.27.

Name of Surveyor:

Shipping (Load Line) Regulations

- 2. The survey showed that the freeboards have been assigned and the load lines shown above have been marked as per photographs of the port and starboard load line marks and draught marks showing the subject vessel's name.
- 3. The application for the issuance of a Saint Lucian load line is made direct to The Division of Maritime Affairs on behalf of the registered owner.
- 4. A copy of the attending Surveyor's completed check list for the load line is attached.
- 5. For an initial survey a copy of the Naval Architect's freeboard calculations and the completed and signed off Stability Book is attached.
- 6. The initial survey must make a complete inspection of the ship's structure and equipment and the relevant information.
- 7. For a renewal survey, proof of structure has been surveyed is attached, such as photographs of void space showing internal structure remaining unchanged due to modification, fracture or failure.

FOR OFFICIAL USE ONLY

Signature:	
Date:	
WHEN COMPLETED YOU SI SHIPS (see below)	OULD SEND THIS FORM TO THE REGISTRAR O
Registrar of Ships Division of Maritime Affairs Address Telephone: Fax: Email:	FOR OFFICIAL USE ONLY //(d/m/y)
	At(time) By Officer (print name)

FORM 4

APPLICATION FOR SAINT LUCIA LOCAL LOAD LINE EXEMPTION CERTIFICATE

(Regulation 23(b)(ii))



SAINT LUCIA

APPLICATION FOR SAINT LUCIA LOCAL LOADLINE EXEMPTION CERTIFICATE FOR VESSELS UNDER TWENTY-FOUR METERS

PARTICULARS OF SHIP			
IMO / HIN / Caribbean Number (if known)		Port of Registry	
Delete as appropriate			
Type of Ship (dry cargo, oil tanker, ro-ro, passenger, etc.)			
		Overall Length	
Construction Material			
Year to Build		Country to Build	
PARTICULARS OF FREEBO	ARD		
Freeboard from deck line		Load line	
Tropical Mm (T)			
Allowance for fresh water for all freeboards other than timber		mm	
For timber freeboards		mm	
The upper edge of the deck line from which these freeboards are measured ismm above/below from deck at side			
Forward ————————————————————————————————————			
The provisions from which the ship is exempted are			

NB:- (Freeboards and load lines Subdivision load lines may be en			n the certificate.	
PARTICULARS OF THE APP	PLICANT(S)			
Full Name(s)				
Address(es) (Residential address – for an individual; Registered office address – for a body corporate; Principal place of business – for a statutory body or foreign body corporate)				
Telephone number(s)		Fax number(s)		
E-mail address(es)				
SIGNATURE				
Place		Signature of Witness		
Date	[/] (d/m/y)			
Signature of Owner(s) In case of a body corporate, an authorized officer of the body corporate		Full Name of Witness Address Of Witness		

SURVEYORS DECLARATION

This is to certify that —

- 1. The ship has been surveyed in accordance with the requirements of the Shipping Act, Cap 13.27.
- 2. The survey showed that the freeboards have been assigned and the load lines shown above have been marked as per photographs of the port and starboard load line marks and draught marks showing the subject vessel's name.
- 3. The application for the issuance of a Saint Lucian load line is made direct to the Division of Maritime Affairs on behalf of the registered owner.
- 4. A copy of the attending Surveyor's completed check list for the load line is attached.
- 5. For an initial survey a copy of the Naval Architect's freeboard calculations and the completed and signed off Stability Book is attached.
- 6. The initial survey must make a complete inspection of the ship's structure and equipment and the relevant information.
- 7. For a renewal survey, proof of structure has been surveyed is attached, such as photographs of void space showing internal structure remaining unchanged due to modification, fracture or failure.

FOR OFFICIAL USE ONLY

Name of Surveyor:	
Signature:	
Date:	
WHEN COMPLETED YOU SHOU SHIPS (see below)	ILD SEND THIS FORM TO THE REGISTRAR OF
Registrar of Ships	OFFICIAL USE ONLY
Division of Maritime Affairs Address Telephone: Fax: Email:	Entry in Register made on
	/
	At(time).

By Officer (print name)



APPLICATION FOR SAINT LUCIA LOCAL LOADLINE EXEMPTION CERTIFICATE FOR VESSELS TWENTY-FOUR METERS AND ABOVE

PARTICULARS OF SHIP			
IMO / HIN / Caribbean Number (if known) Delete as appropriate Type of Ship (dry cargo, oil		Port of Registry	
tanker, ro-ro, passenger, etc.)			
		Overall Length	
Construction Material			
Year to Build		Country to Build	
PARTICULARS OF FREEBO	ARD		
Freeboard from deck line		Load line	
Tropical Mm (T)		mm. Above (S)	
Allowance for fresh water for all freeboards other than timber		mm	
For timber freeboards		mm	
The upper edge of the deck line from which these freeboards are measured ismm above/below from deck at side The provisions from which the ship is exempted are			
Completion date of survey on which this certificate is based:			

NB:- (Freeboards and load lines which are not applicable need not be entered on the certificate. Subdivision load lines may be entered on the certificate on a voluntary basis)			
PARTICULARS OF THE APP	LICANT(S)		
Full Name(s)			
Address(es) (Residential address – for an individual; Registered office address – for a body corporate; Principal place of business – for a statutory body or foreign body corporate)			
Telephone number(s)		Fax number(s)	
E-mail address(es)			,
SIGNATURE			
Place		Signature of Witness	
Date	[/] (d/m/y)		
Signature of Owner(s) In case of a body corporate, an authorized officer of the body corporate		Full Name of Witness Address of Witness	

SURVEYORS DECLARATION

This is to certify that —

- 1. The ship has been surveyed in accordance with the requirements of the Shipping Act, Cap 13.27.
- 2. The survey showed that the freeboards have been assigned and the load lines shown above have been marked in accordance with Part 47 of the Maritime Rules as per photographs of the port and starboard load line marks and draught marks showing the subject vessel's name.
- 3. The application for the issuance of a Saint Lucian load line is made direct to The Division of Maritime Affairs on behalf of the registered owner.
- 4. A copy of the attending Surveyor's completed check list for the load line is attached.
- 5. For an initial survey a copy of the Naval Architect's freeboard calculations and the completed and signed off Stability Book is attached.
- 6. The initial survey must make a complete inspection of the ship's structure and equipment and the relevant information.

7. For a renewal survey, proof of structure has been surveyed is attached, such as photographs of void space showing internal structure remaining unchanged due to modification, fracture, failure, etc.

FOR OFFICIAL USE ONLY

Name of Surveyor:	
Signature:	
Date:	

FORM 5

(Regulation 24(1)(a))



INTERNATIONAL LOAD LINE CERTIFICATE (1966)

(Official seal)

Issued under the provisions of the International Convention on Load Lines, 1966, under the authority of the Government of Saint Lucia by the Minister/person or organization authorized by the Minister

Name of ship	Distinctive or Letters	Number	Port of Registry	Length (L) as in Article 2(8)	defined

Freeboard assigned as*: Type of ship A new ship* Type 'A'*

Type 'B'*

An existing ship* Type 'B' with reduced freeboard*

Type 'B' with increased freeboard*

Freeboard from deck line Load line

Tropicalmm (inches) (T)mm (inches) above (S)

Summermm (inches) (S) Upper edge of line through centre of ring

Wintermm (inches) (W)mm (inches) below (S)

Winter North Atlanticmm. (inches) (WNA)mm. (inches) below (S)

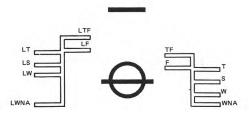
Timber tropicalmm. (inches) (LT)mm. (inches) above (LS)

Timber summermm. (inches) (LS)mm. (inches) above (S)
Timber wintermm. (inches) (LW)mm. (inches) below (LS)
Timber NorthAtlantic...mm. (inches) (LWNA)mm. (inches) below (LS)

* Delete whatever is inapplicable

Allowance for fresh water for all freeboards other than timber mm. (inches). For timber freeboards mm (inches).

The upper edge of the deck line from which these freeboards are measured is mm (inches) deck at side.



Date of initial or periodical survey.....

This is to certify that this ship has been surveyed and that the freeboards have been assigned and load lines shown above have been marked in accordance with the International Convention on Load Lines, 1966.

This certificate is valid until , subject to periodical inspections in accordance with Article 14(1)(c) of the International Convention on Load Lines, 1966.

(Place of issue of certificate)

.....

(Date of issue) (Si

(Signature of official issuing the certificate)

or

(Seal of issuing authority)

If signed, the following, paragraph is to be added:

The undersigned declares that he is authorized by the Government to issue this certificate.
(Signature)
NOTES:
1. When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the point of departure and the sea.
2. When a ship is in fresh water of unit density the appropriate load line may be submerged by the amount of the fresh water allowance shown above. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.
Reverse of certificate
This is to certify that at a periodical inspection required by Article $14(1)(c)$ of the International Convention on Load Lines, 1966, this ship was found to comply with the relevant provisions of the Convention.
Place Date
Signature or Seal of issuing authority.
Place Date
Signature or Seal of issuing authority.
Place Date
Signature or Seal of issuing authority.
Place Date
Signature or Seal of issuing authority.
The provisions of the Convention being fully complied with by this ship, the validity of this certificates, in accordance with Article 19(2) of the International Convention on Load Lines, 1966, extended until
Place Date
Signature or Seal of issuing authority.

FORM 6

(Regulation 24(1)(b))



SAINT LUCIAN LOAD LINE CERTIFICATE

Issued under the provisions of the Shipping (Load Line) Regulations

Under the authority of the Government of Saint Lucia
by [official designation of the Minister or person or organization
authorized by Minister]

PARTICULARS OF SHIP

Name of Snip
Distinctive Number or Letters
Port of Registry
Length (L) as defined under regulation 2 of the Shipping (Load Line)
Regulations
Gross Tonnage
Freeboard assigned as:
Freeboard from deck line Load line
Tropicalmm. (T)mm. above (S)
Summermm. (S) Upper edge of line through centre of ring
Wintermm (W)mm. below (S)
Winter North Atlantic mm(WNA) mm. below (S)
Note: Freeboards and Load Lines which are not applicable need not be entered on the certificate.

Allowance for Fresh water it	or all freeboards :
The upper edge of the deck li	ne from which these freeboards are measured is
Date of initial or renewal surv	vey
	this ship has been surveyed and the freeboards have been assigned in accordance with the tions.
This certificate is valid until	subject to annual surveys in
accordance with the Regulation	ons.
Issued at	on
	Signed
	An authorized official issuing the certificate
	Name
Name of Ship	
CONDITIONS:	
ENDORSEM	IENT OF ANNUAL SURVEY
This is to certify	
	red by regulation 22 of the Shipping (Load Line) and to comply with the relevant requirements of
Place	Date
Signature of an authorized of	Name
Place	Date
Signature of an authorized of	

Place	Date
Signature of an authorized official	Name
Place	Date
Signature of an authorized official	Name
Notes	
1. When a ship departs from a port situal loading shall be permitted corresponding materials required for consumption between	ng to the weight of fuel and all other
2. When a ship is in fresh water of using the submerged by the amount of above. Where the density is other that proportional to the difference between	of the freshwater allowance showed in unity, an allowance shall be made
3. This certificate must be kept framed place on board the ship, so long as it re-	
FOR	M 7
	(Regulation 24(2)(a))
INTERNATIONAL LOAD LINE	EXEMPTION CERTIFICATE
Issued under the provisions of the Inte 1966, under the authority of the Gove Person or organization authorized by the	ernment of Saint Lucia by (Minister/

Name of ship

Shipping (Load Line) Regulations

Port of Registry

	Detters			
This is to certify that the above-mentioned ship is exempted from the provisions of the International Convention on Load Lines, 1966, under the authority conferred by Article 6(2)/Article 6(4) * of the Convention.				
The provisions of the Int which the ship is exempte		Load Lines, 1966 from		
The voyage for which exe	emption is granted under A	Article 6(4) is:		
From:				
То :				
Conditions, if any on which (2) or Article 6(4):	ich the exemption is gran	ted under either Article 6		
* Delete whichever is inap	pplicable			
subje		periodical inspections in onal Convention on Load		
Issued at				
(I	Place of issue of certificate	e)		
(Date of issue)	(Signature of official issu	ing the certificate)		
		or		

(Seal of Minister or person or organization authorized by the Minister)

If signed, the following, paragraph is to be added:

The	under signed	declares	that	he	is	authorized	by	the	Government	to	issue
this	certificate.										

Reverse of Certificate	(Signature)
This is to certify that this ship continues to compl which this exemption was granted.	y with the conditions under
Place D	ate
Signature or Seal of issuing authority.	
Place D	ate
Signature or Seal of issuing authority.	
Place D	ate
Signature or Seal of issuing authority.	
Place D	ate
Signature or Seal of issuing authority.	
This ship continues to comply with the conditions was granted and the validity of this certificate is, in (4) (a) of the Convention, extended until	accordance with Article 19
Place D	ate
Signature or Seal of issuing authority.	

PARTICULARS OF SHIP

Name of Ship

Shipping (Load Line) Regulations

FORM 8

(Regulation 24(2)(b)



SAINT LUCIAN LOCAL LOAD LINE EXEMPTION CERTIFICATE

Issued under the Shipping (Load Line) Regulations under the authority of the Government by the Division of Maritime Affairs.

Name of Ship Distinctive Number or Letters _____ Port of Registry Length in metres as Gross defined by regulation 2 of Tonnage the Shipping (Load Line) Regulations THIS IS TO CERTIFY that the above-mentioned ship is exempt under sections 315 or 316 of the Shipping Act, Cap. 13.27 from the following provisions of the Shipping (Load Line) Regulations — Subject to the following conditions to annual surveys in accordance with the Shipping (Load Line) Regulations. Issued at _____ on___ Name An authorized official of the Division of Maritime Affairs

CONDITIONS (Continued):

ENDORSEMENT FOR ANNUAL SURVEY

This is to certify that at an annual survey required under regulation 22 of the Shipping (Load Line) Regulations was conducted and this ship continues to comply with the conditions under which the exemption was granted.

Place	_Date
	Name
An authorized official of the Division of Maritime Affairs	
Place	Date
Signed	
An authorized official of the Division of Maritime Affairs	
Place	_Date
Signed	Name
An authorized official of the Division of Maritime Affairs	
Place	_Date
Signed	Name
An authorized official of the Division of Maritime Affairs.	

Made this day 21st day of June, 2019.

STEPHENSON KING, *Minister responsible for shipping.*

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