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THE MERCHANT SHIPPING ACT
(CAP. 165)

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REGULATIONS

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(Made under section 253)

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THE MERCHANT SHIPPING (LOAD LINE) REGULATIONS, 2019

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THE MERCHANT SHIPPING ACT
(CAP.165)

REGULATIONS

(Made under section 253)

THE MERCHANT SHIPPING (LOAD LINE) REGULATIONS, 2019

PART I
PRELIMINARY PROVISIONS

Citation

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

Application

2.-(1) These Regulations shall apply to Tanzanian ships wherever they may be and to other ships while they are within Tanzanian waters, except-

(a) ships of war;
(b) ships solely engaged in fishing;
(c) pleasure vessels;
(d) ships which do not go to sea; and
(e) ships under 80 net tonnage falling within one of the classes specified in sub regulation (2) engaged solely in the coasting trade, and, subject to sub regulation (3), not carrying cargo.

(2) The class specified insub regulation (1)(e) shallbe:

(a) tugs or salvageships;
(b) hopper barges or dredgers;
(c) ships used by or on behalf of:
    (i) ageneral or local lighthouse authority for the purpose of the authority's functions;
    (ii) a Government department for fishery protection purposes, or a local fisheries committee for the

regulation of sea fisheries within its district;

(iii) aGovernment department for fishery or scientific research; or

(iv) the Minister responsible for Defence for the purpose of ensuring safety in the use of firing ranges or weapons at sea; and

(d) ships in respect of which passenger certificates are in force specifying limits beyond which the ship must not ply, and which operate solely within those limits.

(3) A ship referred to in sub regulation (1) (e) falling within the class in sub regulation (2)(d) shall be excepted from the provisions of these Regulations while carrying cargo in accordance with the terms of the ship's passenger certificate expressly authorizing the carriage of cargo.

Interpretation

3.-(1) In these Regulations, unless where the context requires otherwise-

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"Act" means the Merchant Shipping Act;

"alteration" includes deterioration;

"amidships" in relation to a ship, means the middle of the ship's length (L);

"anniversary date" in relation to a certificate, means the day and the month of each year which corresponds to the date of expiry of the certificate;

"appropriate certificate" means-

(a) in the case of a convention-size ship, an International Load Line Certificate or an International Load Certificate 1966; and

(b) in the case of any other ship, a Tanzanian Load Line Certificate;

"appropriate load line" means the load line directed to be marked on a ship pursuant to regulation 6(2)(b), or in the case of a ship not surveyed under these Regulations, pursuant to an International Load Line Certificate;

"appropriate marks" means the appropriate load lines, the deck-line and load line mark;

"assigning authority" means the Minister or any person or body authorized by the Minister for the purposes of these Regulations;

"category A waters" means waters in narrow rivers and dams where the depth is generally less than 1.5 metres;

"category B waters" means waters in wider rivers dams and lakes

where the depth of water is generally 1.5 metres or more and where the significant wave height could not be expected to exceed 0.6 metres at any time;

"category C waters" means waters in tidal rivers and estuaries lakes where the significant wave height could not be expected to exceed 1.2 metres at any time;

"category D waters" means waters in tidal rivers and estuaries and lakes where the significant wave height could not be expected to exceed 2.0 metres at any time;

"conditions of assignment" means the conditions relating to construction, arrangement and stability with which a ship must comply in order to be assigned freeboards;

"convention country" means a country or territory which is either:

(a) a country which is party to the International Convention on Load Lines,1966 together with its 1988 Protocol; or

(b) a territory to which the International Convention on Load Lines, 1966

(c) together which its 1988 Protocol extends;

"convention-size" in relation to a ship, means in the case of an existing ship, of not less than 150 gross tonnage (ascertained in accordance with the law in force on 21st July 1968), and in the case of a new ship, of not less than 24 metres in length;

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"Corporation" means the Tanzania Shipping Agencies Corporation established under section 4 of the Tanzania Shipping Agencies Act;

"exclusive surveyor" means a surveyor appointed by and working exclusively for an assigning authority;

"Exemption Certificate" means an International Load Line Exemption Certificate or a Tanzanian Load Line Exemption Certificate;

"existingship"means aship which is not anew ship;

"freeboard" means the distance measured vertically downwards at amidships from the upper edge ofthe deck-line described in regulation 16 to the position at which the upper edge of the loadline appropriate to the freeboard to be marked;

"freeboard deck"means-

(a) the deckfromwhichthe freeboards assignedtothe shipare calculated, being-

(i) the uppermost complete deck exposed to weather and sea, which has permanent means of closing all openings open to the weather, and below which all openings in the sides of the ship are fitted with permanent means of

watertight closing; or

(ii) at the request of the owner and subject to the approval of the Minister, a deck lower than that described in subparagraph (i), it being a complete and permanent deck which is continuous both in a fore and aft direction at least between the machinery space and peak bulkheads of the ship, and athwart ships, and

(b) adeck whichissteppedbeingtakentoconsistforthispurposeof thelowestline ofthedeckandthecontinuationofthatline parallel to theupper part ofthedeck;

"International Load Line Certificate" means a Certificate issued under the 1966 Convention as amended by the 1988 Protocol;

"International Load Line Certificate, 1966" means a Certificate issued under the 1966 Convention before the relevant entry into force date (if any);

"International Load Line Exemption Certificate" means a Certificate issued under the 1966 Convention as amended by the 1988 Protocol;

"International Load Line Exemption Certificate, 1966 means a Certificate issued under the 1966 Convention before the relevant entry into force date (if any);

"international voyage" means a voyage between-

(a) a port in the United Republic and a port outside the United Republic;

(b) a port in a Convention country (other than the United Republic) and a port in any other country or territory (whether a Convention country or not) which is outside the United Republic;

"length" and"(L)"in relation to a ship, means-

(a) the greater ofthefollowingdistances-

(i) 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or

(ii) the length from the fore-side of the stem to the axis of the rudder stock on that waterline;

(b) where the stem contourisconcave above the water line at 85%of the least moulded depth, both the forward terminal of the total length and thefore-side of the stemr espectively shall be taken at the vertical projection to that water line of theafter most point of the stem contour above that waterline);

(c) in ships designed with a rake of keel the water line on which this length is measured shall be parallel to the designed waterline;

"loadline" means a mark on the shipindicating the maximum depth to whicha ship may be loaded;

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"local fisheries committee" means a Beach Management Unit constituted under regulation 133 of the Fisheries Regulations;

"material date" for the purposes of the definitions of a new and an existing ship is-

(a) in relation to a ship whose parent country is a Convention country other than the United Republic, the date on which the 1966 Convention entered into force for that country; and

(b) in relation to any other ship, the 21st July 1968;

"Merchant Shipping Notice" means a Notice described as such and issued by the, Corporation and any reference to a particular Merchant Shipping Notice includes a reference to any Merchant Shipping Notice amending that Notice;

"Minister"means the Minister responsible for maritime transport;

"moulded depth" in relation to a ship, means the vertical distance measured from the top of the keel to the top of the free board deck be a matside, except that-

(a) in the case of a wood or composite ship, it shall be 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 if thick garboards are fitted, it shall 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 shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design; and

(d) if the free board deck is stepped and ther aised part of the deck extends over the point at which the moulded dept his to be determined, it shall be measured to aline of reference extending from the lower part of the deck along aline parallel to the raised part of thedeck;

"near-coastal voyage" means a voyage made exclusively within Tanzanian controlled waters;

"new ship" means a ship whose keel is laid, or which is at a similar stage of construction, on or after the material date;

"non-Tanzanian ship" means any ship other than a Tanzanian ship;

"parent country" in relation to a ship, means the country or territory in which the ship is registered or, if the ship is not registered anywhere, it means the country or territory whose

flag the ship files;

"pleasure vessel"means-

(a) any ship which at the time it is being used is-

(i) in the case of a ship wholly owned by an individual or individuals, used only for the sport or pleasure of the owner or the immediate family or friends of the owner; or

(ii) in the case of a ship owned by a body corporate, used only for sport or pleasure and on which the persons are employees or officers of the body corporate, or their immediate family or friends; and

(iii) on voyage or excursion for which the owner does not receive money for or inconnection with operating the ship or carrying any person, other than as a contribution to the direct expenses of the operation of the ship incurred during the voyage or excursion; or

(b) any ship wholly ownedby oron behalf of a members' club formed for the purpose of sportor pleasure which, at the time it is being used, isused only for the sport or pleasure of members of that club or their immediate family; and for the use of which any charges levied are paid into club funds and applied for the general use of the club; and

(c) in the case of any ship referred to in paragraph (a) or (b) above no other payments are made by or on behalf of users of the ship, other than by the owner.

(d) In this definition "immediatefamily" in relation to an individual means, the husband or the wife or child of the individual, and a relative of the individual or the individual's husband or wife, and "relative" means brothers, sister, ancestor or lineal descendant;

"rake of keel" means the inclination of the keel to a horizontal baseline;

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"Registrar" means the registrar appointed under section 31 of the Tanzania Shipping Agencies Act;

"relevant entry into force date" means the date when the 1988 Protocole nters into force in respect of the Government of the parent country of the ship in question;

"sailing ship"means a ship designed to carry sail, whether as the sole means of propulsion, or as a supplementary means;

"sea"does not include Category A, B, C or Dwaters;

"surveyor"means a survey or appointed by the Corporationoran exclusive survey or of any other Assigning Authority;

"Tanzania Load Line Certificate" means a certificate issued under regulation 8(1) other than an International Load Line Certificate;

"Tanzania Load Line Exemption Certificate" means a certificate issued under regulation 12(2) other than an International Load Line Exemption Certificate;

"Tanzanian controlled waters" means the water specified as areas which the United Republic jurisdiction are exercisable in accordance with the Territorial sea and Exclusive Economic Zone Act;

"Tanzanian Ship" means a ship registered or licensed under the provisions of the Act, at a port in the United Republic;

"valid Convention certificate" means-

(a) an International Load Line Certificate, 1966, or an International Load Line Exemption Certificate, 1966, which is in force, or

(b) an International Load Line Certificate or an International Load Line Exemption Certificate, which is in force;

"the 1966 Convention"means the International Conventionon Load Lines, 1966; and

"the 1998 Protocol" means Protocol of 1988 relating to the 1966 Convention.

(2) In determining the ports between which a voyage is made, for the purposes of the definition of an international voyage, no account shall be taken of any deviation by a ship from its intended voyage which is solely due to stress of weather or any other circumstance which neither the master, the owner nor the charterer of the ship could have prevented or foretold.

(3) Any reference in these Regulations to the 1966 Convention includes any amendment considered by the Minister to be relevant, and specified in a Merchant Shipping Notice.

(4) Any approval given pursuant to these Regulations shall be given in writing and shall specify the date on which it takes effect and the conditions on which it is given.

Exemptions

4.-(1) Subject to sub regulation (4), the Minister may exempt from these Regulations-

(a) any ship which embodies features of a novel kind if the development of those features and their incorporation in ships engaged on international voyages might be seriously impended if the ship had to comply with all the requirements of these Regulations;

(b) any ship plying on international voyages between near neighbouring ports if-

(i) in his opinion the sheltered nature and condition of the voyages makes it unreasonable or impracticable to apply these Regulations; and

(ii) he is satisfied that the Government of that other country concurs with that opinion.

(2) Subject to sub regulation (4), the Minister may exempt from these Regulations-

(a) a ship which is not a convention-size ship;

(b) anyother ship which does not plyon internationalvoyages.

(3) Subject to sub regulation (4), where a Tanzanian ship does not normally ply on international voyages but is, in exceptional circumstances, required to undertake a single international voyage, the Minister may exempt the ship while engaged on that voyage.

(4) Any exemption conferred under this regulation may be conferred subject to such conditions as the Minister thinks fit; and, where any such exemption is conferred subject to conditions, the exemption shall not have effect unless those conditions are complied with.

General compliance

5.-(1) Subject to any exemption conferred under these Regulations, a ship shallnot proceed, or attempt to proceed, to seaunless-

(a) it has been surveyed in accordance with these Regulations;

(b) it is marked with the appropriate marks;

(c) it complies with the conditions of assignment applicable to it; and

(d) the information required by regulation 32 and 33 is provided for the guidance of the master of the ship.

(2) Sub-regulation (1) does not apply to a non-Tanzanian ship in respect of which a valid convention certificate is produced.

(3) A ship shall notbeloadedif-

(a) the appropriate load line on each side of the ship is submerged; or

(b) the appropriate load line on each side of the ship would be submerged if the ship were in salt water and had no list.

(4) A ship shall not proceed to sea when it is in contravention of sub regulation (3).

(5) A ship shall not proceed to sea from any port in the United Republic on an international voyage, unless the master produces to

an officer of customs-

(a) in the case of a convention-size ship, a valid convention certificate, or

(b) in the case of any other ship, a Tanzanian Load Line Certificate or a Tanzanian Load Line Exemption Certificate, which is in force in relation to the ship.

(6) For the purpose of this regulation, where a valid convention certificate cannot be produced the freeboard deck and the freeboard shall be determined in accordance with these Regulations and the appropriate load line shall be the maximum depth to which the ship may be loaded in salt water.

PARTII

SURVEYSAND CERTIFICATES

Assignment of freeboards

6.-(1) An assigning authority shall assign freeboards to a Tanzanian ship in accordance with the requirements of these Regulations.

(2) The assigning authority shall prior to the assigning of freeboards-

(a) determine the particulars of the freeboards to be assigned;

(b) determine which of the load lines described in Part III are to be marked on the sides of the ship in accordance with the requirements of that Part;

(c) determine the position where the load lines, the deck-line and the load line mark are to be so marked; and

(d) complete a copy of the record of particulars relating to the conditions of assignment.

(3) Where a passenger shipis marked with subdivision loadlines and the lowest of those lines is lower than the line which is the appropriate loadline then that subdivision loadline shall have effect as if it is the appropriate load line for the purposes of these Regulations.

Initial,renewal and annual surveys

7.-(1)A Tanzanian ship shall be subject to the surveys specified below-

(a) an initial survey before the ship is put into service, shall include a complete inspection of its structure and

equipment to ensure that the arrangements, materials and scantlings comply fully with the requirements of these Regulations;

(b) a renewal survey at intervals not exceeding five years, except where sub-regulation (2)(a), (5), (6) or (7) of regulation 9 apply, which shall be such as to ensure that the structure, equipment, arrangements, materials and scantlings comply fully with the requirements of these Regulations;

(c) an annual survey within the period of three months before or after each anniversary date of the appropriate certificate to ensure that-

(i) alterations have not been made to the hullor super structures which would affect the calculations determining the position of the load line;

(ii) 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;

(iii) the appropriate marks are correctly and permanently indicated; and

(iv) information is provided in accordance with regulations 32 and 33.

(2) An owner and master shall ensure that after any of the surveys referred to in paragraph (1) has been completed, no material alteration is made to the ship, its structure and equipment, without the approval of the Assigning Authority.

(3) After a satisfactory annual survey referred to in sub regulation (1) (c), the surveyorshallendorse the International Load Line Certificate, accordingly.

Issue of appropriate certificates

8.-(1) Subject to the provisions of regulation9, the Assigning Authority shall issue an International Load Line Certificate in the case of a Convention-sizeship, or aTanzania Load Line Certificate in the case of any othership, in respect of a Tanzania ship which has been surveyed and marked in accordance with these Regulations.

(2) If the certificate is an International Load Line

Certificate it shall be in the form prescribed by Annex III to the 1988 Protocol.

(3) If the certificate is a Tanzania Load Line Certificate it shall be in the form as prescribed in the First Schedule to these Regulations.

(4) Subject to any exemption conferred by or under these Regulations, a ship shall not proceed, or attempt to proceed, to sea unless the appropriate certificate is in force in respect of that ship.

(5) The Minister may request, through a proper officer or otherwise, the Government of a Convention country to survey a Tanzanian ship and, if satisfied that the requirements of the Convention are complied with-

(a) to issue or authorize the issue of, in respect of the ship, an international Load Line Certificate, or

(b) in the case of an annual survey required under regulation 7(1)(c), to endorse or authorize the endorsement of the International Load Line Certificate, the International Load Line Certificate (1966) or, as the case may be, the Tanzania Load Line Certificate accordingly.

(6) A certificate issued or an endorsement made in accordance with such a request, and containing a statement that it has been so issued or made in accordance with sub-regulation 8(5) shall have the same effect as if it had been issued by the Minister or made by a surveyor respectively.

(7) In the case of a ship that has been transferred from the registry of the Government of another country to the Tanzanian registry, the Assigning Authority may, subject to such survey requirements it considers to be necessary, issue an International Load Line Certificate for a period to be determined by the Assigning Authority, but for not longer than the period of validity of the certificate issued by or on behalf of the Government of that other country if satisfied that-

(a) the ship has already been subjected to satisfactory initial, renewal and annual surveys, as appropriate;

(b) the condition of the ship, including its structure and equipment, have been maintained so as to comply with the

requirements of the 1966 Convention applicable to the ship; and

(c) after any of the surveys in subparagraph (a) have been completed, nomaterial change has been made to the ship, including its structure and equipment, subject to such surveys, without the approval of the administration of that state.

Duration and extension of certificatess

9.-(1) Subject to sub-regulations (2), (4) and (6), the duration of any certificate issued under these Regulations shall not exceed a period of five years beginning with the date of completion of the initial or renewal survey referred to in regulation 7(1)(a) or (b).

(2) When the renewal survey referred to in regulation 7(1)(b) is completed-

(a) within three months before the expiry of the existing certificate, the new certificate shall be valid for a period beginning with the date of completion of the renewal survey and ending on a date which does not exceed five years from the expiry of the existing certificate;

(b) after the expiry of the existing certificate, the new certificate shall be valid for a period beginning with the date of completion of the renewal survey and ending on a date which does not exceed five years from the expiry of the previous certificate; and

(c) more than three months before the expiry of the existing certificate, the new certificate shall be valid for a period beginning with the date of completion of the renewal survey and ending on a date which does not exceed five years from the date of completion of the renewal survey.

(3) If a certificate is issued for a period of less than five years, the Assigning Authority may extend the validity of the certificate beyond the expiry date to the maximum period specified in sub regulation (1), provided that the annual surveys applicable when a certificate is issued for a period of five years are carried out as appropriate.

(4) If, after the renewal survey, a new certificate cannot

be issued to the ship before the expiry of the existing certificate, the Assigning Authority may extend the validity of the existing certificate for a period which shall not exceed five months.

(5) This extension shall be endorsed on the certificate, and shall be granted only where there have been no alterations in the structure, equipment, arrangements, materials or scantling which affect the ship's freeboard.

(6) If, at the time when a certificate expires, a ship is not in a port in which it is to be surveyed, the Assigning Authority may extend the validity of the certificate but this extension shall be granted only where it appears proper and reasonable to the Assigning Authority to do so for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed.

(7) No certificate shall be extended for a period longer than three months beginning with the date of expiry, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate.

(8) When the renewal survey is completed, the new certificate shall be valid for a period ending on a date which does not exceed five years from the expiry of the previous certificate before the extension was granted.

(9) A certificate issued to a ship engaged on short voyages which has not been extended under sub-regulation (3), (4) or (5) of this regulation may be extended by the Assigning Authority for a period of not more than one month beginning with the date of its expiry When the renewal survey is completed the new certificate shall be valid for a period ending on a date which does not exceed five years from the expiry of the previous certificate before the extension was granted.

(10) In special circumstances, as determined by the Assigning Authority, a new certificate need not be dated from the expiry of the previous certificate before the extension was granted, as required by sub-regulations (2), (5) and (6). In

these special circumstances, the new certificate shall be valid for a period ending on a date which is not more than five years from the date of completion of the renewal survey.

(11) If an annual survey is completed before the period specified in regulation 7 (1)(c) then-

(a) a new anniversary date shall be endorsed on the certificate which shall not be more than three months later than the date on which the annual survey was completed;

(b) the subsequent annual survey required by regulation 7(1)(c) shall be completed at the intervals prescribed by that regulation using the new anniversary date;

(c) the expiry date of the certificate may remain unchanged provided one or more annual surveys are carried out so that the maximum intervals between the surveys prescribed by regulation 7(1), (c) are not exceeded.

Certificates ceasing tobe valid

10. An appropriate certificate issued in respect of a Tanzanian ship shall cease to be valid where-

(a) material alterations have taken place in the hull or superstructures of the ship such as would necessitate the assignment of an increased freeboard;

(b) the fittings and appliances mentioned in regulation 7(1)(c)(ii) are not maintained in an effective condition;

(c) the certificate is not endorsed in accordance with regulation 7(3) to show the ship has been surveyed in accordance with regulation 7(1)(c);

(d) the structural strength of the ship is lowered to such an extent that the ship is unsafe;

(e) a new certificate is issued in respect of the ship; or

(f) the ship ceases to be a Tanzanian ship.

Cancellationand surrenderof certificates

11.-(1) The Corporation may cancel the appropriate certificate issued in respect of a Tanzanian ship if satisfied that-

(a) it was issued basing on false or erroneous information;

(b) information on the basis of which freeboards were assigned to the ship was incorrect in a material particular; or

(c) the ship ceases to comply with the conditions of assignment relating to it.

(2) Where the Corporation intends to cancel a certificate, it shall first notify the owner in writing, specifying the grounds for the proposed cancellation.

(3) Without prejudice to sub-regulation (1), the Corporation shall not cancel the certificate until the owner has been given a reasonable opportunity to make representations.

(4) The Minister may exempt the application of sub-regulation (3) where he deems necessary to do so.

(5) The Corporation may require any certificate issued under these Regulations which has expired, ceased to be valid, or been cancelled, to be surrendered in the manner which may be directed.

Issue ofexemption certificates

12.-(1) Pursuant to regulation 4, the Corporation shall issue an International Load Line Exemption Certificate in the form prescribed by the 1966 Convention.

(2) Where a ship is exempted under sub-regulation (2), a Tanzania Load Line Exemption Certificate shall be issued in the form set out in theFirst Schedule to these Regulations.

(3) Except in so far as the nature or terms of any such exemption require, the ship shall-

(a) be assigned freeboards; and

(b) be subject to surveys in accordance with these regulations.

Publicationofloa d line certificate and notification of draughts

13.-(1) Where an appropriate certificate or an Exemption Certificate is issued in respect of a Tanzanian ship, the owner and master of the ship shall ensure that it is kept legible and placed at a conspicuous place on board the ship.

(2) Before any Tanzanian ship leaves any dock, wharf, harbour or other place for the purpose of proceeding to sea, the master of the ship shall, ensure that a notice is posted at a conspicuous place on board the ship, in the form set out in the SecondSchedule to these Regulations.

(3) Sub regulation (2) shall not apply to ships employed on a near- coastal voyage.

Non-Tanzanian ships

14.-(1) The Minister may, at the request of a Government of a Convention countrysurveyaship registered in that country.

(2) Where the Minister is satisfied that the requirements of the Convention have been complied with and a survey has been satisfactorily completed in accordance with these Regulations, he shall issue to the ship an International Load Line Certificate and, where appropriate endorse it.

(3) The certificate issued under this regulation shall contain a statement that it has been so issued and shall have the same effect as if it was issued by that Government and not by the Minister.

(4) A Tanzanian Load Line Certificate may be issued to a non- Tanzanian ship which has been surveyed and marked in accordance with these Regulations.

(5) The certificate issued under sub-regulation (3), shall be subject to the same conditions and have the same effect as a similar certificate issued to a Tanzanian ship.

(6) The certificateissuedundersub-regulation (4),inrespect of ashipregisteredinaConventioncountry,shallbevalidonly solongastheshipisnot plyingon international voyages.

(7) The Minister may cancel the certificate issued under this regulation, if he has reason to believe that the ship is plying on international voyages.

PART III

LOADLINESANDMARKS

Marking

15.-(1) The load line directed to be marked on the ship pursuant to regulation 6(2)(b), the deck-line and the load line mark shall be marked by the owner on each side of the ship in accordance with the directions of the Assigning Authority and the requirements of this Part.

(2) Where an Exemption Certificate is issued in association with the assignment of special freeboards which are less than those required by regulation 29, the ship shall be marked by the owner in accordance with regulation 22(4).

Deck-line

16.-(1) The deck-line shall consist of a horizontal line of 300

millimetres in length and 25 millimetres in width and shall be marked amidshipsoneachsideof theshipsoastoindicatethepositionof the freeboard deck.

(2) The deck-line shall be marked in such a position on the side of the ship such that its upper edge passes through the point amidships where 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 as set out herein Figure 1.

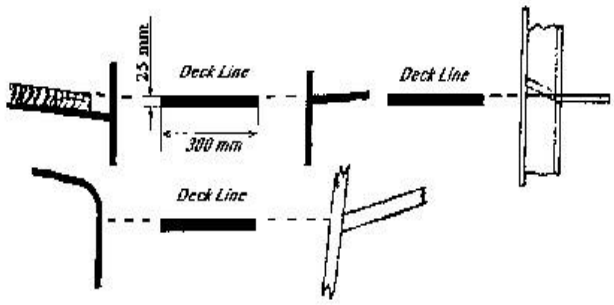

Figure 1: Deck-line

(3) Where the design of the ship, or other circumstances, renders it impracticable to mark the deck-line the Assigning Authority may direct that it be marked by reference to another fixed point as near as practicable to the position described in sub regulation (2).

Loadline mark.

17.–(1) The load line mark asset out in Figure 2 shall consist of a ring of 300 millimetres in outside diameter and 25 millimetres wide, intersected by a horizontal line 450 millimetres long and 25 millimetres wide with the upper edge passing through the centre of the ring.

(2) The centre of the ring shall be marked amidships vertically below the deck-line so that, except as otherwise provided in regulation 30, the distance from the centre of the ring to the upper edge of the deck-line is equal to the Summer freeboard assigned to the ship.

Loadlines.

18.-(1) The loadlines set out in Figure 2 shall consist of horizontal lines of 230 millimetres in length and 25 millimetres in width extending forward or abaft of a verticalline 25 millimetres in width marked 540 millimetres forward of the centreof the rightof

theload linemarkand at right angles to that line.

(2)The individual load lines shall be as follows-

(a) a*Summerloadline*,which shall extend forward of the said vertical line, and shall correspond horizontally with the line passing through the centre of the ring of the load line mark, and shall bemarked "S";

(b) a *Winterloadline*,which shall extended forward of the vertical line, and bemarked "W";

(c) a*WinterNorthAtlanticloadline*,whichshallextendforwardofth e vertical line, and bemarked "WNA";

(d) a *Tropicalloadline*,which shall extend abaft of the verticalline, and bemarked "T"; and

(e) a Tropical Fresh Water load line, which shall extend abaft the vertical line and be marked "TF".

(3) The maximum depth to which a ship may be loaded in relation to a load line referred to insubregulation (2) shall be the depthindicated by the upper edge of the appropriate load line.

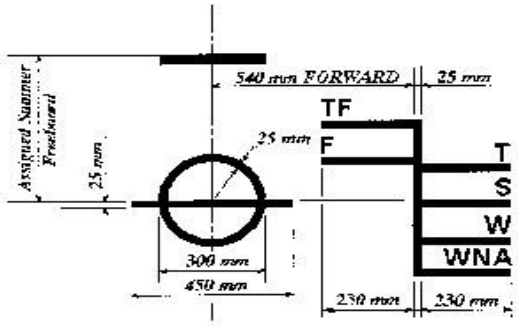

Figure 2: Load Line Mark and Lines to be used with this mark

(4) The load lines in the case of a sailing ship shall have the following-

(a) a*Summerloadline* which shall consist of the line passing through the centre of the ring of theload line mark; and

(b) aWinter *Nort hAtlantic loadline* and *Fresh Waterloadline* only, as set out in Figure3.

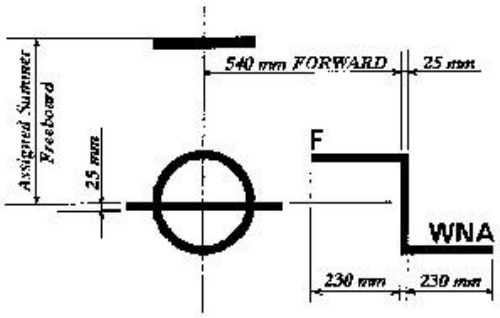

Figure 3: Load Line Mark and Lines for Sailing Ships

Timber Load lines.

19.-(1) Timber load lines shall consist of horizontal lines of the dimensions specified in respect of such lines in subregulation (2), extending abaft or forward of a verticalline 25millimetres in width and marked 540 millimetres abaft the centre of the right of the load line mark and a trightangles to that line as set outin Figure4.

(2) Individual Timberload lines shall be as follows-

(a) a *Summer Timber load line*, which shall extend abaft the said vertical line and bemarked "LS";

(b) a*Winter Timber load line*, which shallextend abaft thevertical line and bemarked "LW";

(c) a*Winter North Atlantic load line*,which shall extend a baft the vertical line and bemarked "LWNA";

(d) a *Tropical Timber loadline*,which shall extend forward of the vertical line and bemarked "LT";

(e) a *Fresh Water Timbe rload line*,which shall extend forward of the vertical line and bemarked "LF'; and

(f) a *Tropical Fresh Water Timber load line*, which shall extend forward ofthe vertical line and bemarked "LTF".

(3) The maximum depth to which a ship may be loaded in relation to a Timber load line referred to in sub regulation (2) shall be the depth indicated by the upper edge of the appropriate Timber load line.

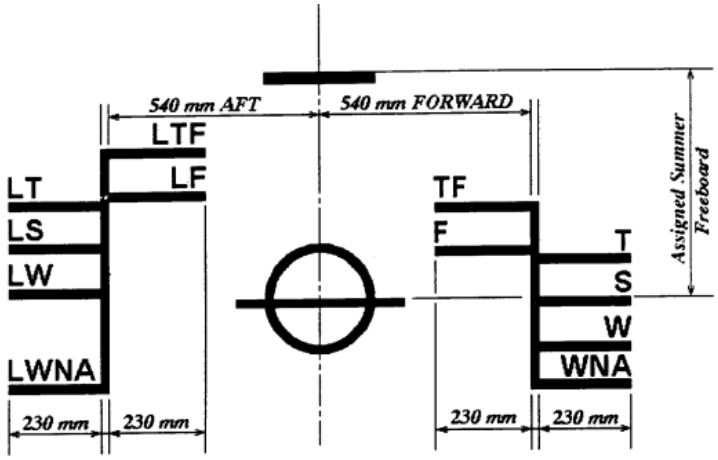

Figure 4: Timber Load Line Mark and Lines to be used with this mark

Appropriate loadline

20. The appropriate load line in respect of a ship at any particular zone or area and seasonal period shall be as set out in the Third Schedule to these Regulations.

Position of load lines

21. Each load line shall be marked in such a position on each side of the ship that the distance measured vertically downwards from the upper edge of the deck-line to the upper edge of the load line is equal to the freeboard assigned to the ship which is appropriate to that load line.

Method of marking

22.-(1) The appropriate marks shall be marked visibly.

(2) Wherethe sides of theship are:

(a) of metal the appropriate marks shall be cut in, centre punched or welded;

(b) made of wood the marks , they shall be cut into the planking to a depth of not less than 3 millimetres; and

(c) of other materials to which the methods of marking in this regulation cannot effectively be applied, the marks shall be permanently affixed by bonding or some other effective method.

(3) The appropriate marks shall be painted in white or yellow if the background is dark, and in black if the background is light.

(4) Where an Exemption Certificate is issued in association with the assignment of special freeboards the load lines and the load line mark shall be placed on the ship by being painted in red on a contrasting background in accordance with sub regulation (2).

Authorisation of removal,etc., of appropriate marks

23. Aftertheappropriatemarks havebeen madeon aship-

(a) the owner and master shall keep the ship so marked; and

(b) the marks shall not be concealed, removed, altered, defaced or obliterated except with the authority of the Assigning Authority.

Mark of Assigning Authority

24.-(1) The mark of the Assigning Authority may be placed alongside the load line ring either above the horizontal line which passes through the centre of thering, or below it.

(2) The mark in sub regulation (1) shall consist of not more than four initials each measuring approximately 115 millimetres in height and 75 millimetres in width.

PART IV
CONDITIONS OF ASSIGNMENT

Requirements relevant tothe assignment of freeboards

25.-(1)A ship to which free boards are assigned shall comply with the conditions as set outin theFourthSchedule to theseRegulations.

(2) An existing ship may, instead of complying with subregulation (1), comply with such other requirements relevant to the assignment of freeboards to ships under thelawin force immediately before 21st July, 1968.

Exemptionfrom compliance

26.-(1) A ship shall be exempted from application with the conditions of assignment where-

(a) at any time after the assignment off reeboards an alteration is made to the hull, super structures, fittings or appliances of the ship such that-
  (i) the requirements of regulation 25 arenot compliedwith;or
  (ii) it differs in a material respect from the record of particulars provided in accordance with regulation 27; or
(b) the record of particulars is not on board the ship.

(2) Notwithstanding subregulation (1), a ship shall be taken to comply with the conditions of assignment if-

(a) amended free boards have been assigned, the ship has been marked with these load lines and a new certificate is issued to the owner of the ship accordingly; or
(b) an alteration made to the ship that has been inspected by a surveyor and he is satisfied that the alteration is not such as to require any change in the freeboards assigned to the ship, and the full particulars of the alteration together with the date and place of his inspection.

Record ofparticulars

27.-(1)The record of particulars shall be provided on the ship in the set out in the Fifth Scheduleto these Regulations.

(2) The record shall be furnished by the Assigning Authority and be kept on board at all times.

PART V
FREEBOARDS

GN. No. 63 (contd.)

Types of free board

28.-(1)Thefollowing freeboards maybe assignedto a ship-

(a) summer freeboard;
(b) tropical freeboard;
(c) winter freeboard;
(d) winter North Atlanticfreeboard; and
(e) fresh waterfreeboard and tropical fresh waterfreeboard.

(2) In the case of a ship carrying timber the free boards, the following may be assigned-

(a) summer timber freeboard;
(b) winter freeboard;
(c) winter north atlantic timber freeboard;
(d) tropical timber freeboard;
(e) freshwatertimber freeboard; and
(f) tropical fresh watertimberfreeboard.

Determinationof freeboards

29.-(1) The freeboards assigned to a new ship shall be determined in accordance with the Sixth Schedule to these Regulations.

(2)The free boards assigned to an existing ships hall be determinedin accordance with the law in force immediately before 21st July 1968.

Provided that if an existing ship has been so constructed or modified as to comply with all the conditions of assignment a s set out in the Fifth and Seventh Schedules to these Regulations, freeboards shall be assigned to her.

Greater than minimum free boards

30.-(1) A free board determined in accordance with regulation 29 is the minimum freeboard that may be assigned to the ship.

(2) Timber freeboards shall not be assigned to a ship to which greater than minimum freeboards have been assigned.

(3) Notwithstanding sub regulation (2), the assigning authority may, if he is satisfied that the ship complies with the requirements of these Regulations, assign freeboards ,other than Timber freeboards, which exceed the minimum freeboards by such an amount as he may determine.

(4) Where a freeboard greater than the minimum is assigned to a ship and the load line appropriate to that freeboard corresponds to or is lower than, the position at which the lowest of the load lines appropriate to minimum freeboards would be marked then-

(a) the load lines only appropriate to the greater than minimum

Summer freeboard and fresh water freeboard shall be marked on the sides of the ship;

(b) the load line appropriate to the greater than minimum summer freeboard known as the "All Seasons load line" shall consist of the horizontal line intersecting the load line mark;

(c) the vertical line described in sub regulation (1) shall be omitted;

(d) the Fresh Water load line shall be marked in accordance with regulation 17 (1).

Special position of deck-line

31.-(1) In any ship where the deck line is marked in accordance with regulation 16(3), the freeboards assigned to the ship shall be corrected to allow for the vertical distance by which the position of the deck-line is altered by virtue of that paragraph.

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

PART VI
INFORMATION FOR THE MASTER

Information as to stability of ships

32.-(1) Every owner of a ship shall provide, for the guidance of the master, information relating to the stability of the ship in accordance with this regulation.

(2) Theinformationinsub-regulation (1), shall be in the form of a book which shallbekept on theship at all times in the custodyof themaster.

(3) In the case of a Tanzanian ship, the information shall include all matters specified in the Eighth Schedule to these Regulations.

(4) Subject to sub-regulation (5), the information shall-

(a) be based on the determination of stability taken from an inclining test carried out in the presence of a surveyorappointed by the Corporation; or

(b) in the case of a ship listed in Part II of the Eighth Schedule to these Regulations, be provided by the Assigning Authority; and

(c) be amended whenever any alterations are made to the ship or changes occur to it which will materially affect the information and, if necessary, the ship shall be re-inclined.

(5) The inclining test may be dispensed with where-

(a) in the case of any ship, basic stability data is available from the inclining test of a sister ship; and

(b) the Registrar; or in the case of a ship listed in Part II to these Regulations, the Assigning Authority,

is satisfied that reliable stability information can be obtained from such data;

(c) in the case of a ship specially designed for the carriage of liquids, or ore in bulk or any class of such ships, the information available in respect of similar ships shows that the ship's proportions and arrangements shall ensure more than sufficient stability in all probable loading conditions.

(6) Notwithstanding sub-regulation (1),information relating to the stability of the ship shallnotbeissuedtothemaster withoutapproval of theRegistrarwhere it relates to-

(a) a ship which is listed in Part II of the Eighth Schedule to these Regulations; and

(b) any other ship.

Loading and ballastingofships

33.-(1) The owner of any ship of more than 150 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 ballasting of the ship.

(2) This information shall indicate the maximum stresses permissible for the ship and specify the manner in which the ship is to be loaded and ballasted to avoid the creation of unacceptable stresses in its structure.

(3) In the case of a Tanzanian ship the provisions of regulation 32(6) shall have effect in respect of information required under this regulation, and the information so approved shall be included in the book referred in regulation 32(2).

Alterations

34. TheAssigningAuthoritymay, with the approval of theMinister-

(a) allow any 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 any fitting, material, appliance, apparatus or provision respectively which is required under any of 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 any of the said provisions on condition that the freeboards to be assigned to the ship are increased to such an extent as to satisfy the Minister 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 those requirements and there were no such increase of freeboards.

PART VII

OFFENCES, PENALTIES AND DETENTION

Penalties to specific offences

35.-(1) A person who contravenes regulation5(1) commitsan offence and is liable, upon conviction to a fineof not less than the equivalent in Tanzanian Shillingsofthe United StatesDollars five thousandor to imprisonment for atermnot exceedingtwoyearsor to both.

(2) An owner or master who contravenes regulation 5(3) commits an offence and is liable, upon conviction to a fine of not less than the equivalent in Tanzanian Shillings of the United States Dollars one thousand or to imprisonment for a term not exceeding six months or to both.

(3) A master who contravenes regulation 8(4) commits an offence and is liable, upon conviction to a fine of not less than the equivalent in Tanzanian Shillings of the United States Dollars five thousand or to imprisonment for a term not exceeding two years or to both.

(4) A master or owner who contravenes regulation 13 commits an offence and is liable, upon conviction, to a fine of not less than the equivalent in Tanzanian Shillings of the United States Dollars two thousand or to imprisonment for a term not exceeding one year or to both.

(5) An owner, master or a person who contravenes regulation 22(2)(a) or 22(2)(b) commits an offence and is liable, upon conviction, to a fine of not less than the equivalent in Tanzanian Shillings of the United States Dollars one thousand or to imprisonment for a term not exceeding six months or to both.

Offences and penalties inrelation tocertificates and surveys

36.-(1) A person shallnot-

(a) intentionally alter a certificate issued under these Regulations;

(b) falsely make a certificate issued under these Regulations;

(c) in connection with any survey required by these

Regulations, knowingly or recklessly furnish false information;

(d) with intent to deceive, use, lend, or allow to be used by another, a certificate issued under these Regulations;

(e) fail to surrender a certificate as directed under regulation 10(6).

(2) A person who contravene sub-regulation (1) commits an offence and is liable, upon conviction, to fine of not less than the equivalent in Tanzanian Shillings of the United States Dollars two thousand or to imprisonment for a term not exceeding one year or to both.

Detention

37.-(1) A ship which contravenes regulation 5(1), commits an offence and may be detained until it has fulfilled the conditions imposed by the regulation and the provisions of section 409 of the Act shall apply.

(2) A ship which violates the conditions of assignment applicable to it shall be liable to be detained until it complies accordingly.

(3) Without prejudice to any proceedings under regulation 33, a ship which is loaded in contravention of regulation 5(3) may be detained until it ceases to be so loaded.

(4) When detaining any ship-

(a) the provisions of sections 292 and 293 of the Act, shall apply in relation to a detention notice issued under this regulation.

(b) the Registrar shall serve on the master of that ship a detention notice which shall-

(i) indicate the findings of the inspector on the safety of the ship;

(ii) specify the matters which, in the relevant inspector's opinion, make the ship unsafe; and

(iii) prohibit the ship from going to sea until it is released by an enforcement officer.

(5) In the case of a ship which is not a Tanzanian ship, the officer detaining the ship shall cause a copy of the detention notice to be sent, as soon as practicable, to the nearest consular office for the country to which the ship belongs.

General penalty

38. A person who commits an offence for which no penalty has been stipulated in these Regulations shall, on conviction, be liable to a fine of not less than the equivalent in Tanzanian Shillings of

the United States Dollars one thousand or to imprisonment for a term not exceeding six months or to both.

Power to compound offence

39.-(1) Notwithstanding the provisions of these Regulations relating to penalty, where a person has committed any offence under these Regulations, the Registrar may, at any time prior to the commencement of hearing by any court of any charge in relation thereto, compound such offence and order such person to pay such sum of money, not exceeding one half of the amount of the fine to which such person would otherwise have been liable if he had been convicted of such offence:

(a) shall be reduced to writing and there shall be attached to it the written admission and request referred to in the provision to the said sub-regulation and a copy of such order shall be given if he so requests to the person who committed the offence;

(b) shall specify the offence committed, the sum of money ordered to be paid and the date or dates on which payment is to be settled;

(c) shall be final and shall not be subject to any appeal to any court;

(d) may be enforced in the same manner as a decree of a court for the payment of the amount stated in the order.

(3) On the payment of any sum of money under subsection (1)-

(a) the person who committed the offence in respect of which the payment has been made shall, if in custody, be discharged;

(b) any ship detained in respect of such offence shall be released; and

(c) no further proceedings shall be taken against such person or ship in respect of such offence.

PART VIII

GENERAL PROVISIONS

Evaluation and reporting

40.-(1) TheRegistrar shallfrom timeto time-

(a) carryoutan evaluation oftheseRegulations;

(b) preparereport of theevaluationprocess;and

(c) submitthe report to theMinister;

(2) The report under this regulation shall-

(a) set out the objectives intended to be achieved by the regulatory system established by these Regulations;

(b) assess the extent to which those objectives are achieved; and
(c) assess whether those objectives remain appropriate and, if so, the extent to which they could be achieved with a system that imposes less regulation.

Review
GN No.
338 of 2018

41. Any person who is aggrieved by the decision made under these Regulations may apply to the Corporation for review, in accordance with the TanzaniaShippingAgencies (Complaints Handling) Regulations.

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

FIRST SCHEDULE

(Made under regulation 8(3) and 12(2))

TANZANIA LOAD LINE CERTIFICATE

Issued under the provisions of the Merchant Shipping (Load Line) Regulations 2018 under the authority of the
Government of the United Republic of Tanzania

PARTICULARS OF SHIP

Name of Ship

Distinctive Number or Letters

Port of Registry

Length (L) as defined by regulation 2of the Merchant Shipping (Load Line) Regulations, 2018

Gross Tonnage

Freeboard assigned as: *Type of ship*

	Freeboard from deck line	*Load line*
Tropical	*mm.(T)*	*mm. above (S)*
Summer	*mm.(S)*	*Upper edge of ship centre of ring*
Winter	*mm.(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 for all freeboards: *mm*

The upper edge of the deck line from which these freeboards are measured is

Date of initial or renewal survey

THIS IS TO CERTIFY

that this ship has been surveyd and the freeboards and load lines shown above have been assigned in accordance with the Merchant Shipping (Load Line) Regulations, 2018.

This certificate is valid until *subject to annual surveys in accordance with these Regulations*

Issued at *on*

Signed

……

Registrar

Name

Name of Ship

CONDITIONS (Continued):

ENDORSEMENT OF ANNUAL SURVEYS

This is to certify

That at an annual survey required under regulation 7(1)(c) of the Merchant Shipping (Load Line) Regulations 2018 as amended, this ship continues to comply with the conditions under which the exemption was granted.

Place Date

Signed---------- *Name*

Surveyor

GN. No. 63 (contd.)

Place Date

Signed---------- *Name*

Surveyor

Place Date

Signed---------- *Name*

Surveyor

Place Date

Signed---------- *Name*

Surveyor

THE UNITED REPUBLIC OF TANZANIA

_____

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

_____

SECOND SCHEDULE

_____

NOTICE OF LOAD LINES TO BE POSTED UP BEFORE SAILING

_____

(Made under regulation 13(2))

_____

1. In this Schedule;

"freeboard" means the distance measured vertically downwards amidships from the upper edge of the deck-line 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 Corporation offices.

DRAUGHT OF WATER AND FREEBOARDNOTICE

S/N	SHIP	PORT OF REGISTRY	GROSS TONNAGE
(1)	Summer freeboard	millimetres corresponding to a mean draught of	millimetres
(2)	Winter freeboard	millimetres corresponding to a mean draught of	millimetres
(3)	Tropical freeboard	millimetres corresponding to a mean draught of	millimetres
(4)	Winter North Atlantic freeboard	millimetres corresponding to a mean draught of	millimetres
(5)	Allowance for fresh water for all freeboards other than Timber freeboards	millimetres corresponding to a mean draught of	millimetres
(6)	Timber summer freeboard	millimetres corresponding to a mean draught of	millimetres

(7)	Timber winter freeboard	millimetres corresponding to a mean draught of	millimetres
(8)	Timber Tropical freeboard	millimetres corresponding to a mean draught of	millimetres
(9)	Timber Winter North Atlantic freeboard	millimetres corresponding to a mean draught of	millimetres
(10)	Allowance for fresh water for Timber freeboards	millimetres corresponding to a mean draught of	millimetres

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.
5.

PARTICULARS OF LOADING

1	2	3	4	5	6	7	8	9
DATE	PLACE	ACTUAL DRAUGHT			MEAN FREEBOARD		SIGNATURE OF MASTER AND AN OFFICER	
		FORWARD	AFT	MEAN	ACTUAL (See notes 1&2)	CORRECTED (See note 3)	MASTER	AN OFFICER

GN. No. 63 (contd.)

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

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

THIRD SCHEDULE

APPROPRIATE LOAD LINES AND SEASONAL ZONES, AREAS AND PERIODS

(Made under regulation 20)

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 Hydrographic Office.

2. Subject to subparagraphs (d) to (g) below the load line appropriate to a ship shall be–

   (a) 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);
   (b) the Tropical load line, when the ship is in a Tropical Zone;
   (c) 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);
   (d) the Winter North Atlantic load line, in the case of a ship of 100 metres or less in length, when it isin these zones during the Winter seasonal periods applicable to them-
      (i) North Atlantic Winter Seasonal Zone I, as set out in paragraph 4(a);
      (ii) North Atlantic Winter Seasonal Zone II, as set out in paragraph 4(b) as lies between the meridians of longitude 15^{o}W and 50^{o}W; during the winter seasonal periods applicable in those zones;
   (e) the Summer load line, in the case of a sailing ship, except in circumstances in which subparagraph above applies;
   (f) an All Seasons load line, in the case of a ship marked in accordance with regulation 30;
   (g) 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 in accordance with Part IV of Schedule 2.

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 shall be deemed to be within the zone or area into which the ship is about to proceed or from which she 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. (a) 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 60oN, thence the parallel of latitude 60°N to the Greenwich Meridian, thence this meridian northwards.

Seasonal periods:

WINTER: 16th October to 15th April.

SUMMER: 16th April to 15th October.

(b) 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 Torinana.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 November to 31st March.

SUMMER: 1st April to 31st October.

North Atlantic Winter Seasonal Area

5. The boundary of the North Atlantic Winter Seasonal Area isthe 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 100 metres in length:

WINTER: 16th December to 15th February.

SUMMER: 16th February to 15th December.

For ships of 100 metres or less in length:

WINTER: 1st November to 31st March.

SUMMER: 1st April to 31st 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 Krilon, 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 October to 15th April.
SUMMER: 16th April to 15th 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 April to 15th October.
SUMMER: 16th October to 15th 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 –

    (a) the Suez Canal, the Red Sea and the Gulf of Aden, from Port Said to the meridian of longitude 45oE;
    (b) Aden and Berbera are to be considered as being on the boundary line of the Tropical Zone and the Seasonal Tropical Area;
    (c) the Persian Gulf to the meridian of longitude 59oE; and
    (d) the area bounded by the parallel of latitude 22oS from the east coast of Australia to the Great Barrier Reef, thence the Great Barrier Reef to latitude 11oS. The northern boundary of the area is the southern boundary of the Tropical Zone.

SEASONAL TROPICAL AREAS

11. The following are Seasonal Tropical Areas.

    (a) In the North Atlantic
    (b) 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 20oN and thence the parallel of latitude 20oN to longitude 20oW;
    (c) on the west by the coast of the American continent;
    (d) on the south and east by the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL: 1st November to 15th July.

SUMMER: 16th July to 31st October.

In the Arabian Sea

(a) An area bounded on the west by the coast of Africa, the meridian of longitude 45oE in the Gulf of Aden, the coast of South Arabia and the meridian of longitude 59oE in the Gulf of Oman;

(b) on the north and east by the coasts of Pakistan and India;

(c) on the south by the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL: 1st September to 31st May.

SUMMER: 1st June to 31st August.

In the Bay of Bengalnorth of the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL: 1st December to 30th April.

SUMMER: 1st May to 30th November.

In the South Indian Ocean

(a) 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;

(b) 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 April to 30th November.

SUMMER: 1st December to 31st March.

(a) An area bounded on the north by the southern boundary of the Tropical Zone;

(b) on the east by the coast of Australia;

(c) 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;

(d) on the west by the meridian of longitude 51°30'E.

Seasonal periods:

TROPICAL: 1st May to 30th November.

SUMMER: 1st December to 30th April.

In the China Sea

(a) An area bounded

(i) on the west and north by the coasts of Vietnam and China from latitude 10°N to Hong Kong;

(ii) 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°N;

(iii) on the south by the parallel of latitude 10°N.

(iv) 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 January to 30th April.

SUMMER: 1st May to 20th January.

In the North Pacific

(a) An area bounded

(i) on the north by the parallel of latitude 25°N;

(ii) on the west by the meridian of longitude 160°E;

(iii) on the south by the parallel of latitude 13°N;

(iv) on the east by the meridian of longitude 130°W.

Seasonal periods:

TROPICAL: 1st April to 31st October.

SUMMER: 1st November to 31st March.

An area bounded

(a) on the north and east by the west coast of the American continent;

(b) on the west by the meridian of longitude 123°W from the coast of the American continent to latitude 33°N and by the rhumb line from the point latitude 33°N, longitude 123°W to the point latitude 13oN, longitude 105oW;

(c) on the south by the parallel of latitude 13°N.

Seasonal periods:

TROPICAL: 1st March to 30th June and 1st November to 30th November.

SUMMER: 1st July to 31st October and 1st December to 28th/29th February.

In the South Pacific

(i) The Gulf of Carpentaria south of latitude 11°S

Seasonal periods:

TROPICAL: 1st April to 30th November.

SUMMER : 1st December to 31st March.

An area bounded

(a) on the north and east by the southern boundary of the Tropical Zone;

(b) on the south by the parallel of latitude of 24°S 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;

(c) 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 April to 30th November.

SUMMER: 1st December to 31st March.

SUMMER ZONES

12. The remaining sea areas constitute the Summer Zones. However, for ships of 100 metres or less in length, the area bounded on the north and west by the east coast of the United States;

(a) on the east by the meridian of longitude 68o30'S 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;

(b) on the south by the parallel of latitude 36°N;

(c) is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1st November to 31st March.

SUMMER: 1st April to 31st October.

ENCLOSED SEAS

13. Baltic Sea

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

(b) However, for ships of 100 metres or less in length, it is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1st November to 31st March.

SUMMER: 1st April to 31st October.

14. Black Sea

(a) This sea is included in the Summer Zones.

(b) However, for ships of 100 metres or less in length, the area north of latitude 44°N is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1st December to 28th/29th February.

SUMMER: 1st March to 30th November.

15. Mediterranean
   (a) This sea is included in the Summer Zones.
   (b) However, for ships of 100 metres or less in length, the area bounded
      (i) 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;
      (ii) on the south by the parallel of latitude 40°N from longitude 3°E to the west coast of Sardinia;
      (iii) 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.
      (iv) is a Winter Seasonal Area.

Seasonal periods:

WINTER: 16th December to 15th March.

SUMMER: 16th March to 15th December.

16. Sea of Japan/East Sea
   (a) This sea south of latitude 50°N is included in the Summer Zones.
   (b) However, for ships of 100 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 December to 28th/29th February.

SUMMER: 1st March to 30th November.

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATIO
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

FOURTH SCHEDULE

CONDITIONS OF ASSIGNMENT

(Made under regulation 25(1))

Interpretation

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 any other 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;

(c) but shall 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 all times when access openings in the bulkheads of the bridge or poop are closed;

"exposed position" means a position which is either –

(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 (L), 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 4;

"Position 1" or "Position 2" means those positions in which structure, openings or fittings are situated–

(a) in the case of Position 1, upon exposed freeboard and raised quarter decks, and upon 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, upon 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 4 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 has the characteristics set out below–

(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;

(i) in the case of a ship constructed before 8th June 2000, if over 150 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 any one of these empty compartments, at an assumed permeability of 0.95 in a condition of equilibrium; if over 225 metres in length its machinery space shall be treated as a floodable compartment, but with an assumed permeability of 0.85;

(ii) in the case of a ship constructed on or after 8th June 2000, if over 150m 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 any compartment or compartments with an assumed permeability of 0.95, consequent upon the damage assumptions specified in paragraph 5(8) of Part 1 of Schedule 4; in such a ship the machinery space shall be treated as a floodable compartment, but with a permeability of 0.85.

(c) 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 any ventilator coaming, the lower edge of any air pipe opening, the upper edge of the sill of any access opening fitted with a weathertight door, and the lower edge of any other opening through which progressive flooding may take place;

(ii) the angle of heel due to unsymmetrical flooding does not exceed 15 degrees or, if no part of the deck is immersed, an angle of heel of up to 17 degrees 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 Assigning Authority;

(d) The condition of equilibrium referred to in subparagraph (c)(ii) shall be regarded as satisfactory provided the following conditions are fulfilled.

(e) The final waterline after flooding, taking into account sinkage, heel and trim, is below the lower edge of any 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, whilst not in use, provided also that the lower sill of such doors is above the summer load waterline.

(i) If pipes, ducts or tunnels are situated within the assumed extent of damage penetration as defined in paragraph 5(8)(b) of Part 1 Schedule 4, 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.

(ii) If no part of the deck is immersed, the angle of heel due to unsymmetrical flooding does not exceed 17°.

(iii) If any part of the deck is immersed, the angle of heel due to unsymmetrical flooding does not exceed 15°.

(f) The metacentric height in the flooded condition is positive.

(g) When any part of the deck outside the compartment assumed flooded in a particular case of damage is immersed, or in any case where the margin of stability in the flooded condition may be considered doubtful, the residual

stability is to be investigated by the Assigning Authority. It may be regarded as sufficient if the righting lever curve has a minimum range of 20° beyond the position of equilibrium with a maximum righting lever of at least 0.1m within this range. The area under the righting lever curve within this range shall not be less than 0.0175m.rad. The Assigning Authority shall give consideration to the potential hazard presented by protected or unprotected openings which may become temporarily immersed within the range of residual stability.

(h) The Assigning Authority 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 any 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 permanently and strongly 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.

(e) 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-

(i) the ship is loaded to its summer load waterline on an imaginary even keel;

(ii) when calculating the vertical centre of gravity, the following principles apply:

(a) homogenous cargo is carried

(b) all cargo compartments, except those referred to under subparagraph (iii), 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;

(f) if the ship is intended to operate at its summer load waterline with empty compartments, such compartments shall be considered empty provided the

height of the centre of gravity so calculated is not less than as calculated under subparagraph (ii);

(g) 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;

(h) at an angle of heel of not more than 5° in each compartment containing liquids, as prescribed in subparagraph (ii) except that in the case of compartments containing consumable fluids, as prescribed in subparagraph (iv), 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 Assigning Authority;

(i) 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 shall be such that its general structural strength is sufficient for the freeboards assigned.

(2) The design and construction of the ship shall be such as to ensure that its stability in all probable loading conditions shall be sufficient for the freeboards assigned, and for this purpose due consideration shall be given to the intended service of the ship and to the following criteria.

(a) The area under the curve of righting levers (GZ curve) shall not be less than–

(i) 0.055 metre-radians up to an angle of 30 degrees;

(ii) 0.09 metre-radians up to an angle of 40 degrees or the angle at

which the lower edge of any openings in the hull, superstructures or deckhouses which cannot be closed weathertight, are immersed if that angle is less; and

(iii) 0.03 metre-radians between the angles of heel of 30 degrees and 40 degrees or such lesser angle as is referred to in subparagraph (ii) above.

(b) The righting lever (GZ) shall be at least 0.20 metres at an angle of heel equal to or greater than 30 degrees.

(c) The maximum righting lever shall occur at an angle of heel not less than 30 degrees.

(d) 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 (a) above by taking into account the volume of timber deck cargo, the initial transverse metacentric height shall not be less than 0.05 metres.

(3) To determine whether the ship complies with the requirements of subparagraph (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 in regulation 32(5), a surveyor appointed by the Assigning Authority.

Superstructure end bulkheads

3. Bulkheads at exposed ends of enclosed superstructures shall be of efficient construction. The height of any sill in an access opening in such a bulkhead shall, except where otherwise stated, be at least 380 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 where otherwise stated.

(2) Subject to subparagraph (3), the construction and the means for securing the weathertightness of a hatchway shall in the case of a hatchway closed by a –

(a) portable cover and secured weathertight by tarpaulins and battening devices, comply with the requirements of paragraph 5; and

(b) weathertight cover of steel or other equivalent material fitted with gaskets and clamping devices, comply with the requirements of paragraph 6.

(3) Every hatchway located in an exposed position on a deck above a superstructure deck and leading to a space below shall 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.

5.-(1) Every hatchway shall have a coaming of substantial construction. The coaming shall 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 shall be at least-

(2) Coamings

(a) 600 millimetres, if the hatchway is in Position 1;

(b) 450 millimetres, if the hatchway is in Position 2.

(3) Covers

(a) The width of every bearing surface for a hatchway cover shall be at least 65 millimetres.

(b) In the case of a cover made of wood–

(i) the finished thickness of the cover shall be at least 60 millimetres in association with a span of not more than l.5 metres, and the thickness of covers for larger spans shall be increased by 4 millimetres for each 100 millimetres above the span of 1.5 metres;

(ii) the ends of the cover shall be protected by galvanised steel bands efficiently secured.

(c) In the case of a cover made of mild steel–

(i) 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 shall 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 ton	0.75 metric ton
100 metres or over	1.75 metric tons	1.30 metric tons
Over 24 metres but less than 100 metres	to be ascertained by linear interpolation	

(ii) the cover shall 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.

(d) In the case of a cover made neither of mild steel nor wood the strength and stiffness of the cover shall be equivalent to those of a cover of mild steel.

(3) Portable beams

(a) Where portable beams for supporting hatchway covers are made of mild steel, their strength shall 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 shall not exceed the minimum ultimate strength of the material.

(b) Such beams shall 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.

(c) In the case of portable beams not made of mild steel, the strength and stiffness of the beams shall be equivalent to those of beams of mild steel.

(4) Pontoon covers

(a) Where pontoon covers of mild steel are used in place of portable beams and covers, their strength shall 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 shall not exceed the minimum ultimate strength of the material.

(b) Such pontoon covers shall 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.

(c) Mild steel plating forming the tops of such covers shall not be less in thickness than 1 per cent of the spacing of the stiffeners or 6 millimetres, whichever is the greater.

(d) 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.

(5) Carriers or sockets

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

(6) Cleats

Cleats shall be set to fit the taper of the wedges. They shall be at least 65 millimetres wide and spaced not more than 600 millimetres, centre to centre. The end cleats along each side or end of the hatchway shall not be more than 150 millimetres from the hatch corners.

(7) Battens and wedges

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 shall not be less than 13 millimetres thick at the toes.

(8) Tarpaulins

At least two layers of tarpaulins shall be provided for every hatchway. They shall be waterproof, in good condition, and have satisfactory strength and quality.

(9) Security of hatchway covers

(a) Except as otherwise provided in subparagraph (b), steel bars shall 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 1.5 metres in length are secured by at least two such bars.

(b) Bars of material other than steel, or means of securing hatchway covers otherwise than by bars, may be used provided–

(i) in the case of the former the strength and stiffness of the bars used are equivalent to those of steel bars;

(ii) 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) (a) Except as otherwise provided in subparagraph (b), every hatchway shall have a coaming of substantial construction the height of which above the deck shall be at least –

(i) 600 millimetres, if the hatchway is in Position 1;

(ii) 450 millimetres, if the hatchway is in Position 2.

(b) A hatchway may have a coaming of less than the height applicable under the provisions of subparagraph (a), or in exceptional circumstances a coaming may be dispensed with altogether, provided that –

(i) the safety of the ship will not be impaired in the worst sea or weather conditions likely to be encountered by the ship in service;

(ii) when any coaming is fitted it shall be of substantial construction.

(2) Weathertight covers

(a) The strength of every cover of mild steel shall 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 shall not exceed the minimum ultimate strength of the material. Every such cover shall be so designed as to limit the deflection under such a load to not more than 0.0028 times the span.

(b) Every such cover made of materials other than mild steel shall have a strength and stiffness equivalent to that required for a cover of mild steel.

(c) Every cover shall be fitted with efficient means by which it can be secured and made weathertight.

(d) Mild steel plating forming the top of any cover shall be not less in thickness than one per cent of the spacing of the stiffeners or 6 millimetres whichever is the greater.

Machinery space openings

7.-(1) Every machinery space opening situated in Position 1 or Position 2 shall 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.

(2) Every doorway in a casing referred to in the subparagraph (1) shall be fitted with a steel watertight door having a sill the height of which shall be at least –

(a) 600 millimetres above the deck, if the opening is in Position 1;

(b) 380 millimetres above the deck, if the opening is in Position 2.

(3) Every opening in such a casing other than a doorway shall 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.

(4) Every fiddley, funnel or machinery space ventilator situated in an exposed position on the freeboard deck or on a superstructure deck shall 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) Every manhole and flush scuttle in Position 1 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 shall be permanently attached by a chain or equivalent means so as to be available for immediate use at all times.

(2) Every opening in a deck other than a hatchway, machinery space opening, manhole or flush scuttle shall –

(a) 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;

(b) if situated in an exposed position –

(i) in a deck over an enclosed superstructure and giving access to space within that superstructure; or

(ii) 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;

(c) 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 (b) or to such lesser extent as may be adequate having regard to its position.

(3) Every door in a companionway, deckhouse or enclosed superstructure referred to in subparagraph (2)(a) or (b)shall have a sill the height of which shall be at least –

(a) 600 millimetres, if the structure is in Position 1;

(b) 380 millimetres, if the structure is in Position 2.

Ventilators

9.-(1) (a)Except as otherwise provided in subparagraph (b) below, every ventilator in Position 1 or Position 2 leading to spaces below the freeboard deck or below the deck of an enclosed superstructure shall have a coaming of steel or equivalent material, substantially constructed and efficiently connected to the deck. The height of such coamings shall be at least–

(i) 900 millimetres above the deck, if the ventilator is in Position 1;

(ii) 760 millimetres above the deck, if the ventilator is in Position 2.

(b) Where the coaming for any ventilator referred to in subparagraph (a) above is situated in a position in which it will be especially exposed to weather and sea the height of the coaming shall be increased by such an amount as is necessary to provide adequate protection having regard to its position.

(2) If the coaming of any ventilator referred to in the subparagraph (1) exceeds 900 millimetres in height above the deck it shall be efficiently supported by stays, brackets or other means.

(3) Every ventilator in Position 1 or Position 2 which passes through a superstructure, other than an enclosed superstructure, shall have a coaming of steel or equivalent material at the freeboard deck substantially constructed and efficiently connected to that deck and at least 900 millimetres in height above that deck.

(4) Subject to subparagraph (5), every ventilator opening in Position 1 or Position 2 shall be provided with an efficient appliance by which it can be closed and secured weathertight. Every such closing appliance provided on board a ship of not more than 100 metres in length shall be permanently attached and, in the case of any other ship, shall either be so attached or be conveniently stowed near to the ventilator for which it is provided.

(5) (a) 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 2.3 metres in height above the deck, need not be fitted with a closing appliance unless the fitting of such an appliance is considered necessary by the Assigning Authority in order to provide adequate protection.

(c) A ventilator leading to a battery room shall not be fitted with a closing appliance.

Air pipes

10.-(1) The exposed parts of any air pipe leading to a ballast or other tank and extending above the freeboard deck or a superstructure deck shall be of substantial construction.

(2) The exposed opening of any such air pipe shall be fitted with efficient means of closing the opening weathertight, which shall be permanently attached so as to be ready for immediate use.

(3) Subject to subparagraph (4), the height above the deck of the exposed opening of any such airpipe shall be–

(a) at least 760 millimetres, if that deck is the freeboard deck;

(b) at least 450 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.

(4) The heights given in subparagraph (3) may be reduced if–

(a) the working of the ship would be unreasonably impaired if those heights were adhered to; and

(b) 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 shall be compatible with the design of the ship and shall not exceed in number those necessary for the proper working of the ship.

(2) Every such cargo port and opening shall be provided with a door or doors so fitted and designed as to ensure watertightness and structural integrity commensurate with the surrounding shell plating.

(3) Unless the Assigning Authority permits, the lower edge of any such cargo port or opening shall not be so situated that it is below a line drawn parallel to the freeboard deck at side having as its lowest point the upper edge of the uppermost load line.

Scuppers, inlets and discharges

12.-(1) Subject to subparagraphs (4) and (9), every discharge led through the shell of a ship either–

(a) from spaces below the freeboard deck; or

(b) from within any enclosed superstructure, or from within any deckhouse on the freeboard deck which is fitted with weathertight doors;

shall be fitted in accordance with subparagraphs (2) and (3) with the means for preventing water from passing inboard.

(2) Subject to subparagraph (3), this shall consist of a single automatic non-return valve fitted at the shell of the ship and having positive means of closure from a position or positions above the freeboard deck. Such positions shall be readily accessible at all times under service conditions and shall be provided with an indicator showing whether the valve is open or closed.

(3) (a) 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 shall be so situated that at all times under service conditions it will be readily accessible for examination.

(b) If the vertical distance referred to in subparagraph (a) above exceeds 0.02(L) the Assigning Authority may permit a single automatic non-return valve having no positive means of closure, to be fitted. This valve shall be situated as close to the ship's shell as practicable and substantially connected to it.

(4) (a) The controls of any valve in an attended machinery space and serving a main or auxiliary sea inlet or discharge or bilge injection system shall be so sited as to be readily accessible for examination at all times under service

conditions.

(b) The controls of any valve in an unattended machinery space and serving a sea inlet or discharge or bilge injection system shall be so sited as to be readily accessible at all times under service conditions, particular attention being paid in this regard to possible delay in reaching or operating the controls. In addition, the machinery space in which the valve is situated shall be equipped with an efficient warning device to give warning at suitable control positions of any entry of water into the machinery space other than water resulting from the normal operation of machinery.

(c) Valves referred to in subparagraph (a) and (b) above shall be equipped with an indicator showing whether the valve is open or closed.

(5) Subject to subparagraph (6) every scupper and discharge pipe originating at any level and penetrating the shell of the ship either–

(a) more than 450 millimetres below the freeboard deck; or

(b) less than 600 millimetres above the Summer load waterline;

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

(6) Subparagraph (5) shall not apply–

(a) where the scupper or discharge pipe is fitted with the means for preventing water from passing inboard in accordance with the provisions of subparagraphs (1) to (3); or

(b) where the piping of the scupper or discharge pipe is of substantial thickness;

(7) Every scupper leading from a superstructure other than an enclosed superstructure or from a deckhouse not fitted with weathertight doors, shall be led overboard.

(8) All shell fittings and the valves required by this paragraph shall be of steel, bronze or other suitable ductile material, and all pipes referred to in this paragraph shall be of steel or equivalent material.

(9) In ships constructed on or after 8th June 2000 scuppers led through the shell from enclosed superstructures used for the carriage of cargo shall 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 shall 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 shall be fitted with a hinged inside deadlight so that it can be effectively closed and secured watertight.

(2) No side scuttle shall 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–

(a) 2.5 per cent of the breadth of the ship above the Summer load waterline (or Summer Timberload waterline, if assigned); or

(b) 500 millimetres above the Summer load waterline (or Summer Timber load waterline, ifassigned);

whichever is the greater distance.

(3) Every side scuttle, glass and deadlight (if fitted) shall be of substantial construction and be efficiently fitted.

Freeing ports and arrangements

14.-(1) Where 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 (2) to (9) shall be complied with.

(2) Except as otherwise provided in subparagraphs (4) and (5), the freeing port area (A) for each well shall–

(a) 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 (3); and

(b) 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 (3).

(3) (a) Subject to subparagraph (c) below, where the length (l) of a bulwark in the well is 20 metres or less–

(A) = 0.7+ 0.035 (l) (square metres); and

(b) Subject to subparagraph (c) below, where (l) exceeds 20 metres,

(A) = 0.07 (l) (square metres).

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

(c) If the bulwark is more than 1.2 metres in average height the required area shall be increased by 0.004 square metres per metre of length of well for each 0.1 metre difference in height. If the bulwark is less than 0.9 metre in average height, the required area may be decreased by 0.004 square metre per metre of length of well for each 0.1 metre difference in height.

(4) (a) If the deck on which the well is situated has no sheer, the freeing port area shall be the area ascertained in accordance with subparagraph (3) increased by 50 per cent.

(b) If the deck on which the well is situated has sheer less than standard sheer, the freeing port area shall be the area ascertained in accordance with subparagraph (3) increased by a percentage to be obtained by linear interpolation.

(c) If the deck on which the well is situated has sheer, two thirds of the freeing port area shall be situated in the half of the well which is nearest to the lowest point of the sheer.

(5) The lower edge of every freeing port shall be as near to the deck as practicable.

(6) Every freeing port more than 230 millimetres in depth shall 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 230 millimetres.

(7) Every freeing port fitted with a shutter shall have sufficient clearance to prevent jamming of the shutter, and the shutter hinges shall have pins or bearings of efficient non-corrodible material.

(8) Efficient provision shall be made for freeing water from any superstructure other than an enclosed superstructure.

(9) Where a ship fitted with a trunk does not comply with the requirements of paragraph 10(2)(b)(vi) of Schedule 4, "Freeboards", or where continuous or substantially continuous hatchway side coamings are fitted between detached superstructures the minimum area of the freeing port openings shall be calculated from the following table:

BREADTH OF HATCHWAY OR TRUNK IN RELATION TO THE BREADTH OF SHIP	AREA OF FREEING PORTS IN RELATION TO THE TOTAL AREA OF THE BULWARKS
40% or less 75% or more	20% 10%

Protection of the crew

15.-(1) Every deckhouse used for the accommodation of members of the crew shall be of efficient construction.

(2) Except as otherwise provided in subparagraph (3), all exposed parts of the freeboard deck and of every superstructure deck shall be fitted at their perimeter with efficient guard rails or guard wires and stanchions complying with the requirements of subparagraph (4), or with bulwarks. In either case this protection shall be at least 1 metre in height from the deck.

(3) The height specified in subparagraph (2) may be reduced at a particular point if –

(a) the normal working of the ship would be unreasonably impeded; and

(b) adequate protection is provided at that point.

(4) Guard rails or guard wires fitted in accordance with subparagraph (2) shall 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 shall not exceed 230 millimetres in height and no opening above that course of rails or wires shall exceed 380 millimetres in height. Where the ship has rounded gunwales the stanchions shall be secured at the perimeter of the flat of the deck.

(5) Gangways, underdeck passages and all other means of access used by members of the crew to pass between their quarters, the machinery space and any other space in the ship in the course of their necessary work shall be so

designed and constructed, and be fitted, where necessary, with life lines, access ladders, guard rails, guard wires, hand rails or other safety fittings, as to afford effective protection for the crew.

(6) Deck cargo carried on any ship shall be so stowed that any 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 shall be provided above the deck cargo if there is no convenient passage on or below the deck of the ship.

(7) The requirements of this paragraph shall not apply in the case of unmanned barges.

PART II

SPECIAL REQUIREMENTS APPLICABLE TO TYPE "A" SHIPS

Application

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

Machinery casings

3. -(1) Subject to subparagraph (2), every casing enclosing a machinery space opening in Position 1 or Position 2 shall be protected by either–

(a) an enclosed poop or bridge of at least standard height; or

(b) a deckhouse of equal height and equivalent strength and weathertightness.

(2) Subparagraph (1) shall not apply and the casing need not be protected if–

(a) there is no opening in the casing which gives direct access from the freeboard deck to the machinery space; or

(b) 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.

(2) Access between the poop and the detached bridge shall be by means of either–

(a) a permanent and efficiently constructed gangway of substantial strength. The gangway shall be at the level of the superstructure deck and have a platform at least 1 metre in width and of non-slip material. Efficient means of access from gangway level to the deck shall 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 shall consist of not less than 3 courses, the lowest being not more than 230

millimetres, and the uppermost being at least 1 metre above the platform, and no intermediate opening being more than 380 millimetres in height. Stanchions shall be at intervals of not more than 1.5 metres; or

(b) an underdeck passage connecting and providing unobstructed access between those structures and complying with the following requirements–

(i) the passage and all its fittings shall be oil and gas tight;

(ii) the passage shall be well lighted, and be fitted with efficient gas detection and ventilation systems;

(iii) it shall be situated immediately below the freeboard deck;

(iv) its distance from the shell plating shall 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 shall comply with the requirements of subparagraphs (i),(ii) and (iii) above;

(v) means of exit from the passage to the freeboard deck shall be –

(a) so arranged as to be as near as practicable to the working areas to be used by the crew;

(b) in no case be more than 90 metres apart; and

(c) fitted with efficient means of closing which are capable of quick release and operable from either side;

(vi) openings in the freeboard deck corresponding to the means of exit referred to in subparagraph (v) above shall be protected in accordance with the requirements of paragraph 8(2)(a).

(c) equivalent means of access.

(3) In adverse weather conditions, where the crew in the course of their 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 shall be by means of–

(a) a gangway complying with the requirements of subparagraph (2)(a);

(b) an underdeck passage complying with the requirements of subparagraph (2)(b); or

(c) a walkway complying with the following requirements–

(i) be not less than l metre in width and be situated on or as near as practicable to the centre line of the ship;

(ii) if obstructed by pipes or other fittings of a permanent nature, be provided with efficient means of passage over such obstruction.

(iii) be fitted on each side and throughout its length with guard rails or guard wires complying with the requirements in subparagraph (2)(a);

(iv) 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. These openings shall be on alternate sides of the walkway and be

situated not more than 90 metres apart on either side;

(v) if the length of exposed deck to be traversed by the crew exceeds 70 metres, shelters of substantial construction shall be set in way of the walkway at intervals not exceeding 45 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.

(4) The requirements of this paragraph shall 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 shall be of steel, of efficient construction, and watertight when secured.

Freeing arrangements

20.-(1) All exposed parts of the freeboard deck and superstructure decks shall 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 shall comply with the requirements set out in relation to such rails or wires in paragraph 18(2)(a).

(2) The upper edge of the sheer strake shall be as low as practicable.

(3) If superstructures of the ship are connected by a trunk, the exposed parts of the freeboard deck in way of the trunk shall be fitted at their perimeter throughout their length with guard rails or guard wires complying with the requirements set out in paragraph 18(2)(a).

(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 shall 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 only to Type "B" ships assigned a reduced freeboard under the provisions of paragraph 5(3) of Schedule 4.

Gangway and access

22. The ship shall comply with the requirements of either–

(a) paragraph 18 as if it were a Type "A" ship; or

(b) 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.

(2) Access between the poop and the detached bridge shall be by means of an efficiently constructed gangway of substantial strength fitted on or near the centre line of the ship. The gangway shall be at least 1 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)(a). If the length of the gangway exceeds 70 metres, shelters complying with the requirements set out in paragraph 18(3)(c)(v) shall be provided in way of the gangway.

24.-(1) In adverse weather conditions, where the crew in the course of their 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 shall be by–

(a) the means described in paragraph 18(3);

(b) the means described in paragraph 23(2); or

(c) equivalent means of access.

(2) Where hatchway coamings are 600 millimetres or more in height, two walkways complying with the following requirements may be provided in lieu of subparagraph (1)–

(a) the walkways shall be efficiently constructed and of satisfactory strength;

(b) the walkways shall each be at least 1 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;

(c) on the side outboard of the hatchways each walkway shall be fitted with guard rails or guard wire complying with the requirements set out in paragraph 18(2)(a).

Freeing arrangements

25. The ship shall 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 only to ships assigned Timber freeboards. The requirements of paragraph 30 shall 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.

(2) In this Part except where the context otherwise requires–

"deck cargo" means cargo carried in any 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) The ship shall have a forecastle of not less than the standard height of an enclosed superstructure and not less in length than 0.07(L).

(2) If the ship is less than 100 metres in length it shall be fitted aft with either–

(a) a poop of not less than standard height; or

(b) 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 shall have satisfactory watertight longitudinal subdivision.

Bulwarks, guard rails and stanchions

29. The ship shall be fitted with–

(a) permanent bulwarks at least 1 metre in height which are specially 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 (7); or

(b) efficient guard rails and stanchions at least 1 metre in height, of specially strong construction, and complying with the requirements of paragraph 15(4).

Stowage Siting, distribution and s`towage of timber deck cargo

30.-(1) The cargo shall be distributed and stowed so–

(a) as to avoid excessive loading having regard to the strength of the deck and the supporting structure of the ship;

(b) as to ensure that the ship will retain adequate stability at all stages of the voyage having regard in particular to –

(i) the vertical distribution of the deck cargo;

(ii) the wind moments which can be expected on the voyage;

(iii) the losses of weight in the ship, including those due to the consumption of fuel and stores; and

(iv) possible increases of weight of the ship or deck cargo, including those due to the absorption of water and to icing;

(c) as not to impair the weathertight or watertight integrity of any part of the ship or its fittings or appliances, and to ensure the proper protection of ventilators and air pipes;

(d) that its height above the deck, or any other part of the ship on which it stands will not interfere with the navigation or working of the ship;

(e) that it will not interfere with, or obstruct access to, the ship's steering arrangements, including emergency steering arrangements;

(f) that it is in accordance with paragraph 15(6).

Securing of deck cargo

(2) Deck cargo shall 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 shall be of adequate strength for that purpose.

Maximum height of timber deck cargo

(3) Timber deck cargo carried by a ship within a Winter seasonal area during the period specified as the Winter period shall 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

(4) (a) Where timber deck cargo occupies the whole or substantially the whole of the uncovered space on the deck of a ship, means of access shall 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.

(b) The means of access shall be provided in the form of a walkway fitted over the timber deck cargo, and the walkway shall be:

(i) as near as practicable on the centreline of the ship.

(ii) not less than 600mm in width, and

(iii) provided with a lifeline which, where practicable, shall be a wire rope set taut with a stretching screw.

(c) In addition guard rails or lifelines spaced not more than 350 mm apart vertically shall be provided on each side of the deck cargo to a height of at least 1 metre above the cargo.

(d) The stanchion supports to all guard rails and lifelines shall be so spaced as to prevent undue sagging.

Uprights

(5) If the nature of the timber is such that uprights are necessary in order to comply with subparagraphs (6) and (7), uprights shall be fitted which are of

sufficient strength for the purpose. They shall be secured in position by angles or metal sockets of sufficient strength for the purpose or by equivalent means and shall be so spaced as to provide efficient support taking into account the nature and length of the timber, so however that the space between any two uprights fore and aft shall not exceed 3 metres.

Stowage of timber deck cargo in relation to superstructures

(6) -(a) Timber deck cargo stowed in any well between superstructures shall 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.

(b) Timber deck cargo stowed in a position having a limiting superstructure at the forward end but no such superstructure at the after end shall 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 (a) above.

Securing of Timber deck cargo

(7) -(a) Timber deck cargo shall be efficiently secured throughout its length by independent overall lashings spaced not more than 3 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 3 metres. The distance from an end bulk head of a superstructure to the first eye plate shall be not more than 2 metres. Where there is no bulkhead, eye plates and lashings shall be provided at distances of 0.6 metres and 15 metres from the ends of the timber deck cargo.

(b) Lashings shall be of not less than 19 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 shall have a length of long link chain sufficient to permit the length of lashings to be regulated.

(c) When timber is in lengths less than 3.6 metres the spacing of the lashings shall be reduced or suitable provision made to suit the length of timber.

PART V
GENERAL

Equivalence

4. The Assigning Authority may, with the approval of the Minister,–

(a) allow any 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 any fitting, material, appliance, apparatus or provision respectively which is required under any of the provisions of the Regulations, if satisfied by trial or otherwise that it is at least as effective as that so required; or

(b) allow in any exceptional case departure from the requirements of any of the said provisions on condition that the freeboards to be assigned to the ship are increased to such an extent as to satisfy the Minister 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 those requirements and there were no such increase of freeboards.

GN. No. 63 (contd.)

THE UNITED REPUBLIC OF TANZANIA

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MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

_____

FIFTH SCHEDULE

_____

RECORD OF PARTICULARS

_____

(Made under regulation 27(1))

_____

In this record, reference 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 2 (Conditions of Assignment)

1. Name of ship
2. Port of registry
3. Nationality
4. Distinctive number or letters
5. Shipbuilders
6. Yard number
7. Date of Build/conversion
8. Freeboards assigned as a ship of Type
9. Classification
10. 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.

GN. No. 63 (contd.)

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

SIXTH SCHEDULE

FREEBOARDS

(Made under regulation 29(1) and (2))

Interpretation

1. Expressions in this Schedule have the same meanings as those assigned to them in Schedule 2, and–

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

$$\frac{V}{LBd_1}$$

where

V is the volume of the moulded displacement of the ship (excluding bossing) if the ship has a metal shell, and of displacement to the outer surface of the hull if the ship has a shell of any other material, displacement being taken in each case at a moulded draught of d_1; and

d_1 is 85 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 subparagraph (b) below, the moulded depth of the ship amidships plus the thickness of the freeboard deck stringer plate where fitted, plus, if 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) above, 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);

"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);

"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) if the form at the lower part of the midship section is of a hollow character, or if 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 set out in Schedule 4 and, in the case of a Type "B" ship, the freeboard appropriate to the ship's length under Freeboard 5 Table B.

Freeboards: general

2.-(1) Except as otherwise provided in subparagraph (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) The freeboards to be assigned to –

(a) sailing ships;

(b) tugs;

(c) ships of wood or of composite construction or of other materials;

(d) ships with constructional features such as to render freeboards determined in accordance with subparagraph (1) unreasonable or impracticable; and

(e) 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), the Summer freeboard shall be determined in accordance with the provisions of paragraphs 4 to 16.

(2) Subject to subparagraph (3), the Tropical freeboard shall be obtained by deducting from the Summer freeboard one forty-eighth (1/48th) of the Summer draught of the ship.

(3) The freeboard so obtained in subparagraphs (1) and (2), but omitting any correction made in paragraph 8 for deck-line, shall be not less than 50 millimetres except in the case of a ship with hatchways in Position 1 to which paragraph 5 of Schedule 2 applies but which do not have pontoon covers, in which case it shall be not less than 150 millimetres.

(4) The Winter freeboard shall be obtained by adding to the Summer freeboard one forty-eighth (1/48th) of the Summer draught of the ship.

(5) The Winter North Atlantic freeboard shall be obtained by adding to the Winter freeboard a distance of 50 millimetres.

(6) (a) Subject to subparagraph (b) below, the fresh water freeboard shall be obtained

by deducting from the Summer freeboard the quantity–

$$\frac{\Delta}{4T}$$

where –

Δ 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.

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

Summer freeboard: Type "A" ships

4. The Summer freeboard assigned to a Type "A" ship shall be determined as follows.

(a) There shall first be ascertained the ship's tabular freeboard from Table A in Schedule 5.

(b) If the block coefficient (C_b) of the ship exceeds 0.68 the tabular freeboard shall be multiplied by the factor:

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

(c) Corrections in accordance with paragraphs 6 to 16 shall be applied to the freeboard obtained in accordance with subparagraphs (1) and (2).

(d) Subject to paragraph 3(3), the freeboard so corrected shall be the Summer freeboard assigned to the ship.

Summer freeboard: Type "B" ships

5. The Summer freeboard to be assigned to a Type "B" ship shall be determined as follows.

(1) There shall first be ascertained the ship's tabular freeboard from Table B in Schedule 4.

(2) (a) If the ship has hatchways in Position 1 the covers of which are either pontoon covers complying with the requirements of paragraph 5 (4) of Schedule 2 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 (3) to (8) as are applicable to the ship.

(b) If the ship has hatchways in Position 1 the covers of which comply with the requirements of paragraph 5 of Schedule 2 except those of subparagraph(4) of that paragraph, the tabular freeboard shall be corrected in accordance with the provisions of subparagraph (9).

(3) The tabular freeboard of a ship to which subparagraph (2)(a) applies and which exceeds 100 metres in length may be reduced by an amount not exceeding the maximum applicable under subparagraphs (4) and (5) if the Assigning Authority is satisfied that –

(a) the measures for the protection of the crew comply with the requirements of paragraph 15 of Schedule 2;

(b) the freeing arrangements comply with the requirements of paragraph 14 of Schedule 2;

(c) all covers of hatchways in Positions 1 and 2 comply with the requirements of paragraph 6 of Schedule 2;

(d) in the case of a ship constructed before 8th June 2000, when the ship is

loaded to the Summer load waterline it will remain afloat, after the flooding of any single damaged compartment other than the machinery space at an assumed permeability of 0.95, in the condition of equilibrium described in subparagraph (6). If the length of the ship exceeds 225 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.

(e) in the case of a ship constructed on or after 8th June 2000 which is loaded in accordance with the initial condition of loading before flooding, the ship will –

(i) be able to withstand the flooding of any compartment or compartments, with an assumed permeability of 0.95, consequent upon the damage assumptions specified in paragraph 5(8), and,

(ii) remain afloat in a satisfactory condition of equilibrium, as referred to in subparagraph (c)(ii) of the definition of a Type "A" ship in paragraph 1(1) of Schedule 2; and if the ship is over 150 metres in length, the machinery space shall be treated for these purposes as a floodable compartment, but with a permeability of 0.85.

(4) Subject to subparagraph (5) no reduction of freeboard pursuant to subparagraph (3) shall exceed 60 per cent of the difference between the tabular freeboards under Freeboard Table A and Freeboard Table B.

(5) The reduction of 60 per cent referred to in subparagraph(4) may be increased to 100 per cent if the Assigning Authority is satisfied that –

(a) the ship complies with the requirements of paragraphs 17 and 20 of Schedule 2 as if it were a Type "A" ship and with those of paragraph 22 of that Schedule;

(b) the ship complies with the requirements of subparagraphs (3)(a) to (c);

(c) in the case of a ship constructed before 8th June 2000, when loaded to the Summer waterline the ship will remain afloat in the condition of equilibrium described in subparagraph (6) after the flooding–

(i) of any two compartments adjacent fore and aft, neither of which is the machinery space, at an assumed permeability of 0.95; and

(ii) in the case of a ship exceeding 225 metres in length, of the machinery space alone, at an assumed permeability of 0.85; and

(d) in the case of a ship constructed on or after 8th June 2000, the ship complies with the requirements of subparagraph (3)(e); but in relation to the damage assumptions specified in paragraph 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.

(6) In the case of a ship constructed before 8th June 2000, the condition of equilibrium referred to in subparagraphs (3) and (5) above is as follows –

(a) the final waterline after flooding is below the top of any ventilator coaming, the lower edge of any air pipe opening, the upper edge of the sill of any access opening fitted with a weathertight door, and the lower edge of any other opening through which progressive flooding may take place;

(b) the angle of heel due to unsymmetrical flooding does not exceed 15°, or if no part of the deck is immersed the angle of heel does not exceed 17°; and

(c) the metacentric height calculated using the constant displacement method has a positive value of at least 50 millimetres in the upright condition after flooding; and

(d) the ship has adequate residual stability; and

(e) the ship has sufficient stability during intermediate stages of flooding to the satisfaction of the Assigning Authority;

(7) In the case of a ship constructed before 1st January 2013, the following assumptions shall be made for the purposes of calculations pursuant to subparagraphs (3)(d) and (5)(c)–

(a) 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;

(b) 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;

(c) except in the case of compartments referred to in subparagraph (5)(c)(i), no transverse bulkhead is damaged;

(d) the height of the centre of gravity above the base-line is assessed allowing for homogeneous loading of cargo holds and for 50 per cent of the designed capacity of consumable fluids and stores.

(8) In the case of a ship constructed on or after 8th June 2000, the following assumptions shall be made for the purposes of the calculations pursuant to subparagraphs (3)(e) and (5)(d) –

(a) the vertical extent of damage in all cases is assumed to be from the base line upwards without limit;

(b) the transverse extent of damage is equal to one fifth of the breadth of the ship (B) or 11.5m, whichever is the lesser, measured inboard from the side of the ship perpendicularly to the centreline at the level of the summer load waterline;

(c) if damage of a lesser extent than that specified in subparagraphs (a) and (b) above results in a more severe condition, such lesser extent shall be assumed;

(d) except where otherwise required by subparagraph (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 postition 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 (b)above. 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 in subparagraph (b), 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 regulation;

(e) where 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, if 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;

(f) where 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 toachieve the minimum spacing between bulkheads.

(9) The tabular freeboard of a ship to which subparagraph (2)(b) applies shall 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 200 metres in length shall be by an amount which the Minister determines in each particular case.

(10)(a) This subparagraph applies to every Type "B" ship of not more than 100 metres in length having enclosed superstructures the total effective length (e) of which does not exceed 35 per cent of the ship's length (L).

(b) The freeboard calculated in respect of such a ship in accordance with subparagraphs (1), (2) and (9) shall be increased by the following amount –

$$7.5\,(100-(L))\left(0.35-\frac{(E)}{(L)}\right)$$

(11) In the case of a ship with a block coefficient (Cb) exceeding 0.68, the freeboard calculated in accordance with subparagraphs (1) to (10) shall be multiplied by the factor–

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

(12) Corrections in accordance with paragraphs 6 to 16 shall be applied to the freeboard calculated in accordance with subparagraphs (1) to (11) and, subject to paragraph 3(3), the freeboard so corrected shall be the Summer freeboard to be assigned to the ship.

TABLE 1

Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)
108 and below	50	139	175	170	290
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

Basic freeboard

6. In the following paragraphs "basic freeboard" means the Summer freeboard calculated in accordance with paragraph 4 or 5, whichever is applicable, but omitting, in the case of a Type "A" ship, the corrections referred to in paragraph 4(3), or in the case of a Type "B" ship the corrections referred to in paragraph 5(12).

Correction for Depth

7.-(1) If the depth for freeboard (D) exceeds (L)/15, the basic freeboard of the ship shall be increased by–

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

where R is – (L)/0.48 in the case of a ship less than 120 metres in length; and 250 in the case of a ship of 120 metres or more in length.

(2) If (D) is less than (L)/15, the basic freeboard of the ship shall be reduced by –

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

if, but only if, the ship has, subject to subparagraph (3), either –

(a) an enclosed superstructure covering at least 0.6 (L) amidships;

(b) an efficient trunk extending for the ship's length; or

(c) a combination of enclosed superstructures connected by efficient trunks, being a combination extending for the ship's length.

(3) If the height of any such superstructure or trunk in subparagraph (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

8. -(1) Subject to the provisions of subparagraph (2), if the actual depth to the upper edge of the deckline is greater or less than the depth for freeboard, the difference

of deck-line

if greater shall be added to, or if less shall be deducted from, the basic freeboard of the ship.

(2) If the position of the deck-line has been fixed in accordance with the provisions of regulation 16(3), the actual depth of the ship shall 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. The standard height of a superstructure shall be determined in accordance with Table 2 –

TABLE 2

Length of ship (L) (metres)	Standard Height (metres)	
	of a raised quarter deck	of a superstructure other than a raised quarter deck
30 or less	0.90	1.80
75	1.20	1.80
125 or more	1.80	2.30

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

(2) (a) Subject to subparagraph (b)below, the length of a superstructure (S) shall be the mean length of the parts of the superstructure which lie within the length of the ship.

(b) 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 (a), 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.

(3) (a) In the case of an enclosed superstructure of standard height, the effective length of a superstructure (E) shall be, subject to subparagraph (c) below, either–

(i) its length; or

(ii) if the superstructure is set in from the sides of the ship, its length modified in the ratio b/Bs, where –

(a) "b" is the breadth of the superstructure at the middle of its length; and

(b) "Bs" 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.

(b) In the case of an enclosed superstructure of less than standard height the effective length of a superstructure, subject to subparagraphs (a) above and (c) below, shall be its length reduced in the ratio of the actual height of the superstructure to its standard height.

(c) In the case of an enclosed superstructure consisting of a raised quarter deck the effective length of a superstructure shall, 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, if not so fitted, be determined by treating the raised quarter deck as a poop of less than standard height.

(d) A superstructure which is not an enclosed superstructure as defined in paragraph 1 of Schedule 2 shall have no effective length.

Standard height and effective length of trunks

10.-(1) The standard height of a trunk shall be that applicable to a superstructure other than a raised quarter deck in paragraph 9(1).

(2) The effective length of a trunk shall be determined as follows –

(a) a trunk which is not an efficient trunk as described in subparagraph (b) below shall have no effective length;

(b) a trunk shall be treated as an efficient trunk provided –

(i) it is at least as strong as a superstructure;

(ii) 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 of Schedule 2, except that small access openings with watertight covers may be permitted in the freeboard deck;

(iii) the width of the trunk deck stringer provides a satisfactory gangway and sufficient lateral stiffness;

(iv) a permanent working platform fore and aft fitted with guard rails or guard wires complying with applicable requirements in paragraph 18(2)(a) of Schedule 2 is provided by the trunk deck, or by detached trunks connected to superstructures by efficient permanent gangways;

(v) ventilators are protected by the trunk, by watertight covers or by equivalent means;

(vi) 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;

(vii) 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;

(viii) the breadth of the trunk is at least 60 per cent of the breadth of the ship;

(ix) where there is no superstructure the length of the trunk is at least 0.6(L).

(c) Except as otherwise provided in subparagraph (d) below, the effective length of an efficient trunk shall be its full length reduced in the ratio of its mean breadth to the breadth of the ship.

(d) If the actual height of an efficient trunk is less than the standard height, its effective length shall be the length calculated in accordance with subparagraph (c) above reduced in the ratio of the actual to the standard height of the trunk. In addition, if the ship is a Type "B" ship and the height of hatchway coamings on the trunk deck is less than that required by paragraph 5(1) or 6(1) of Schedule 2 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

11.-(1) Where 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–

length of superstructures and trunks

(a) 350 millimetres if the ship is 24 metres in length (L);

(b) 860 millimetres if the ship is 85 metres in length (L);

(c) 1070 millimetres if the ship is 122 metres in length or more;

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

(2) Where the sum of the effective lengths of superstructures and trunk is less than 1.0 (L), the basic freeboard of a ship shall be reduced by a percentage of the figures in subparagraph (1) according to the total effective length of its superstructures and trunks as follows.

(a) 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.

(b) (i) Subject to subparagraphs (ii), (iii) and (iv) below, 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.

(ii) Where 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.

(iii) Where the effective length of a forecastle is more than 0.4 (L),the percentages shall be obtained from line II.

(iv) Where the effective length of a forecastle is less than 0.07 (L),the above percentages shall be reduced by –

$$5.\frac{(0.07(L)-f)}{0.07(L)}$$

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

TABLE 3

PERCENTAGE OF DEDUCTION FOR TYPE "A" SHIPS

Percentage of deduction 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 forecastle and without detached bridge	Total effective length of superstructure and trunks										
	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
	I	0	5	10	15	23.5	32	46	63	75.3	87.7	100
Ships with forecastle and detached bridge	II	0	6.3	12.7	19	27.5	36	46	63	75.3	87.7	100

Measurement of Sheer

12.-(1) The sheer shall be measured from the deck at side to a line of reference drawn parallel to the keel through the sheer line at amidships.

(2) In ships designed with a rake of keel, the sheer shall be measured in relation to a line of reference drawn parallel to the Summer load waterline.

(3) In flush deck ships and in ships with detached superstructures the sheer shall be measured at the freeboard deck.

(4) In ships with topsides of unusual form in which there is a step or break in the topsides, the sheer shall be considered in relation to the equivalent depth amidships.

(5) In ships with a superstructure of standard height which extends over the whole length of the freeboard deck, the sheer shall be measured at the superstructure deck. Where 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 shall be increased by 0.444 (Z) and 0.111 (Z) respectively.

(6) Where 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 shall not be taken into account.

(7) Where an enclosed poop or forecastle is either–

(a) of standard height with greater sheer than that of the freeboard deck; or

(b) is of more than standard height;

an addition to the sheer of the freeboard deck shall be made calculated in accordance with paragraph 14(4).

Standard sheer profile

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

TABLE 5

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

Measurement of variation front standard sheer profile

14.-(1) Where 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 8 shall be 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 shall be the excess or deficiency of sheer.

(2) Where 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 shall be allowed for the part in excess, and deficiency only shall be measured.

(3) Where 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 per cent of the standard sheer profile, credit shall be allowed for the part in excess. Where the after half of the sheer profile is less than 50 per cent 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 per cent and 75 per cent of the standard sheer profile, intermediate allowances may be granted for excess sheer forward.

(4) Where sheer credit is given for a poop or forecastle the following formula shall be used –

$$s = \frac{y.\ L'}{3\ (L)}$$

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 shall not be less than standard height above this curve at any point. This curve shall be 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 in accordance with paragraph 14 multiplied by–

$$0.75 - \frac{S}{2(L)}$$

(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 (1) shall be added to the basic freeboard of the ship.

(3) Subject to subparagraph (4),in the case of a ship having an excess of sheer –

(a) 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 (1) shall be deducted from the basic freeboard of the ship;

(b) if no enclosed superstructure covers amidships, no deductions shall be made from the basic freeboard of the ship;

(c) 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 (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).

(4) The maximum deduction for excess sheer shall be at the rate of 125 millimetres per 100 metres of length (L).

Correction for minimum bow height

16.-(1) Except as otherwise provided in subparagraphs (2) and (3), where the bow height determined in accordance with subparagraph (4) is less than the minimum bow height determined in accordance with subparagraph (5), the freeboard determined for the ship shall be increased by an amount equal to the difference between the bow height and the minimum bow height.

(2) Where an existing ship to which subparagraph (1) applies has been so constructed or modified as to comply with all the requirements of Schedule 2 applicable to a new ship of her type and is to be assigned freeboards determined in accordance with this Schedule, and/or –

(a) the forecastle is less than 0.07(L);

(b) the sheer extends for less than 15 per cent of the ship's length (L) measured from the forward perpendicular;

The freeboard shall be increased by such amount as the Assigning Authority may determine in each particular case.

(3) In the case of a ship to which subparagraph (1) applies, being a ship which is constructed to meet exceptional operational requirements, the correction to be made in accordance with subparagraphs (1) and (2) may be reduced or waived if the Minister 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.

(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.

(a) Where the bow height is obtained by including sheer, the sheer shall extend for no less than 15 per cent of length (L) measured from the forward perpendicular.

(b) Where the bow height is obtained by including the height of a superstructure, such superstructure shall –

(i) extend from the stem to a point not less than 0.07 of the ship's length (L) measured from the forward perpendicular;

(ii) if length (L) is 100 metres or less, be an enclosed superstructure; and

(iii) if length (L) exceeds 100 metres in length, be fitted with satisfactory closing appliances.

(5) The minimum bow height in millimetres shall be–

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

where (L) is less than 250 metres; and

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

where (L) is 250 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 paragraphs 5(1),(2)(a),(10) and (11) and corrected in accordance with the provisions of paragraph 6 to 15, except that the percentages in Table 6 shall be substituted for those given in Table 4 of paragraph 11(2).

TABLE 6

PERCENTAGE OF DEDUCTION FOR TYPE "B" SHIPS

Percentage of deduction for all types of superstructure	Total effective length 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)
	20	31	42	53	64	70	76	82	88	94	100

Other Timber freeboards

18.-(1) The Winter Timber freeboard shall be obtained by adding to the Summer Timber freeboard one thirty-sixth (1/36th) of the Summer Timber draught.

(2) The Winter North Atlantic Timber freeboard shall be the same as the Winter North Atlantic freeboard assigned.

(3) The Tropical Timber freeboard shall be obtained by deducting from the Summer Timber freeboard one forty-eighth (1/48th) of the Summer Timber draught.

(4) (a)The Fresh Water Timber freeboard shall, subject to subparagraph (b), obtained by deducting from the Summer Timber freeboard the quantity–

$$\frac{\Delta}{4\mathbf{T}}$$

where

/\ 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

(b) Where the displacement at that waterline cannot be ascertained, the deduction shall be one forty-eighth (1/48th) of the Summer Timber draught of the ship.

T represents tonnes per centimetre immersion in salt water at that waterline.

(c) Where the displacement at that waterline cannot be ascertained, the deduction shall be 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 shall be freeboards determined in accordance with the provisions of Part I of this Schedule increased by such amounts as the Minister may direct in each particular case.

Ships of wood and other ships

20. The freeboards to be assigned to ships of wood or of composite construction or of other materials, or to ships with constructional features such as to render freeboards calculated in accordance with Part I of this Schedule unreasonable or impracticable shall be determined by the Assigning Authority in each particular case.

Unmanned barges

21. The freeboards to be assigned to unmanned barges having on the freeboard deck only 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 25 per cent as the Minister may direct in each particular case.

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

SEVENTH SCHEDULE

FREEBOARD TABLES

(Made under regulation 29(2))

1. The following is the Freeboard Table referred to in paragraph 4 of the Sixth Schedule–

TABLE A

FREEBOARD TABLE TYPE "A" SHIPS

Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)
24	200	138	1770	252	3024
25	208	139	1787	253	3030
26	217	140	1803	254	3036
27	225	141	1820	255	3042
28	233	142	1837	256	3048
29	242	143	1853	257	3054
30	250	144	1870	258	3060
31	258	145	1886	259	3066
32	267	146	1903	260	3072
33	275	147	1919	261	3078
34	283	148	1935	262	3084
35	292	149	1952	263	3089
36	300	150	1968	264	3095
37	308	151	1984	265	3101
38	316	152	2000	266	3106
39	325	153	2016	267	3112
40	334	154	2032	268	3117
41	344	155	2048	269	3123
42	354	156	2064	270	3128
43	364	157	2080	271	3133
44	374	158	2096	272	3138

45	385	159	2111	273	3143
46	396	160	2126	274	3148
47	408	161	2141	275	3153
48	420	162	2155	276	3158
49	432	163	2169	277	3163
50	443	164	2184	278	3167
51	455	165	2198	279	3172
52	467	166	2212	280	3176
53	478	167	2226	281	3181
54	490	168	2240	282	3185
55	503	169	2254	283	3189
56	516	170	2268	284	3194
57	530	171	2281	285	3198
58	544	172	2294	286	3202
59	559	173	2307	287	3207
60	573	174	2320	288	3211
61	587	175	2332	289	3215
62	601	176	2345	290	3220
63	615	177	2357	291	3224
64	626	178	2369	292	3228
65	639	179	2381	293	3233
66	653	180	2393	294	3237
67	666	181	2405	295	3241
68	680	182	2416	296	3246
69	693	183	2428	297	3250
70	706	184	2440	298	3254
71	720	185	2451	299	3258
72	733	186	2463	300	3262
73	746	187	2474	301	3266
74	760	188	2486	302	3270
75	773	189	2497	303	3274
76	786	190	2508	304	3278
77	800	191	2519	305	3281
78	814	192	2530	306	3285
79	828	193	2541	307	3288
80	841	194	2552	308	3292
81	855	195	2562	309	3295
82	869	196	2572	310	3298
83	883	197	2582	311	3302
84	897	198	2592	312	3305
85	911	199	2602	313	3308
86	926	200	2612	314	3312
87	940	201	2622	315	3315
88	955	202	2632	316	3318
89	969	203	2641	317	3322
90	984	204	2650	318	3325
91	999	205	2659	319	3328
92	1014	206	2669	320	3331
93	1029	207	2678	321	3334
94	1044	208	2687	322	3337
95	1059	209	2696	323	3339

96	1074	210	2705	324	3342
97	1089	211	2714	325	3345
98	1105	212	2723	326	3347
99	1120	213	2732	327	3350
100	1135	214	2741	328	3353
101	1151	215	2749	329	3355
102	1166	216	2758	330	3358
103	1181	217	2767	331	3361
104	1196	218	2775	332	3363
105	1212	219	2784	333	3366
106	1228	220	2792	334	3368
107	1244	221	2801	335	3371
108	1260	222	2809	336	3373
109	1276	223	2817	337	3375
110	1293	224	2825	338	3378
111	1309	225	2833	339	3380
112	1326	226	2841	340	3382
113	1342	227	2849	341	3385
114	1359	228	2857	342	3387
115	1376	229	2865	343	3389
116	1392	230	2872	344	3392
117	1409	231	2880	345	3394
118	1426	232	2888	346	3396
119	1442	233	2895	347	3399
120	1459	234	2903	348	3401
121	1476	235	2910	349	3403
122	1494	236	2918	350	3406
123	1511	237	2925	351	3408
124	1528	238	2932	352	3410
125	1546	239	2939	353	3412
126	1563	240	2946	354	3414
127	1580	241	2953	355	3416
128	1598	242	2959	356	3418
129	1615	243	2966	357	3420
130	1632	244	2973	358	3422
131	1650	245	2979	359	3423
132	1667	246	2986	360	3425
133	1684	247	2993	361	3427
134	1702	248	3000	362	3428
135	1719	249	3006	363	3430
136	1736	250	3012	364	3432
137	1753	251	3018	365	3433

Freeboards at intermediate lengths of ship shall be obtained by linear interpolation.
Freeboards, in mm, at length of ship less than 24 metres shall be–
50+[150(L)/24]

See also paragraph 3 of the Sixth Schedule.

2. The following is Freeboard Table B referred to in paragraph 5 of the Sixth Schedule–

GN. No. 63 (contd.)

TABLE B

FREEBOARD TABLE FOR TYPE "B" SHIPS

Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)
24	200	138	2065	252	4045
25	208	139	2087	253	4058
26	217	140	2109	254	4072
27	225	141	2130	255	4085
28	233	142	2131	256	4098
29	242	143	2171	257	4112
30	250	144	2190	258	4125
31	258	145	2209	259	4139
32	267	146	2229	260	4152
33	275	147	2250	261	4165
34	283	148	2271	262	4177
35	292	149	2293	263	4189
36	300	150	2315	264	4201
37	308	151	2334	265	4214
38	316	152	2354	266	4227
39	325	153	2375	267	4240
40	334	154	2396	268	4252
41	344	155	2418	269	4264
42	354	156	2440	270	4276
43	364	157	2460	271	4289
44	374	158	2480	272	4302
45	385	159	2500	273	4315
46	396	160	2520	274	4327
47	408	161	2540	275	4339
48	420	162	2560	276	4350
49	432	163	2580	277	4362
50	443	164	2600	278	4373
51	455	165	2620	279	4385
52	467	166	2640	280	4397
53	478	167	2660	281	4408
54	490	168	2680	282	4420
55	503	169	2698	283	4432
56	516	170	2716	284	4443
57	530	171	2735	285	4455
58	544	172	2754	286	4467
59	559	173	2774	287	4478
60	573	174	2795	288	4490
61	587	175	2815	289	4502
62	601	176	2835	290	4513
63	615	177	2855	291	4525
64	629	178	2875	292	4537
65	644	179	2895	293	4548
66	659	180	2915	294	4560
67	674	181	2933	295	4572

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68	689	182	2952	296	4583
69	705	183	2970	297	4595
70	721	184	2988	298	4607
71	738	185	3007	299	4618
72	754	186	3025	300	4630
73	769	187	3044	301	4642
74	784	188	3062	302	4654
75	800	189	3080	303	4665
76	816	190	3098	304	4676
77	833	191	3116	305	4686
78	850	192	3134	306	4695
79	868	193	3151	307	4704
80	887	194	3167	308	4714
81	905	195	3185	309	4725
82	923	196	3202	310	4736
83	942	197	3219	311	4748
84	960	198	3235	312	4757
85	978	199	3249	313	4768
86	996	200	3264	314	4779
87	1015	201	3280	315	4790
88	1034	202	3296	316	4801
89	1054	203	3313	317	4812
90	1075	204	3330	318	4823
91	1096	205	3347	319	4834
92	1116	206	3363	320	4844
93	1135	207	3380	321	4855
94	1154	208	3397	322	4866
95	1172	209	3413	323	4878
96	1190	210	3430	324	4890
97	1209	211	3445	325	4899
98	1229	212	3460	326	4909
99	1250	213	3475	327	4920
100	1271	214	3490	328	4931
101	1293	215	3505	329	4943
102	1315	216	3520	330	4955
103	1337	217	3537	331	4965
104	1359	218	3554	332	4975
105	1380	219	3570	333	4985
106	1401	220	3586	334	4995
107	1421	221	3601	335	5005
108	1440	222	3615	336	5015
109	1459	223	3630	337	5025
110	1479	224	3645	338	5035
111	1500	225	3660	339	5045
112	1521	226	3675	340	5055
113	1543	227	3690	341	5065
114	1565	228	3705	342	5075
115	1587	229	3720	343	5086
116	1609	230	3735	344	5087
117	1630	231	3750	345	5108
118	1651	232	3765	346	5119

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119	1671	233	3780	347	5130
120	1690	234	3795	348	5140
121	1709	235	3808	349	5150
122	1729	236	3821	350	5160
123	1750	237	3835	351	5170
124	1771	238	3849	352	5180
125	1793	239	3864	353	5190
126	1815	240	3880	354	5200
127	1837	241	3893	355	5210
128	1859	242	3906	356	5220
129	1880	243	3920	357	5230
130	1901	244	3934	358	5240
131	1921	245	3949	359	5250
132	1940	246	3965	360	5260
133	1959	247	3978	361	5268
134	1979	248	3992	362	5276
135	2000	249	4005	363	5285
136	2021	250	4018	364	5294
137	2043	251	4032	365	5303

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

Freeboards, in mm, at length of ship less than 24 metres shall be –

50+[150(L)/24]

See also paragraphs 3 and 17 of Sixth Schedule.

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION
TANZANIA SHIPPING AGENCIES CORPORATION
(TASAC)

EIGHTH SCHEDULE

INFORMATION AS TO STABILITY

(Made under regulation 32(3), (4)(b) and (6)(a))

PART I

INFORMATION AS TO STABILITY

The information relating to the stability of a ship to be provided for the master shall include theparticulars 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 or water ballast.

(2) In the case of a vehicle ferry, the vertical centre of gravity of compartments designated for the carriage of vehicles shall 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 –

(a) the passengers and their effects; and

(b) the crew and their effects.

(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.

(2) In the case of deck cargo, the arrival condition shall 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 15 per cent of the weight when loaded.)

3. A diagram or scale showing –

(a) the load line mark and load lines with particulars of the corresponding freeboards; and

(b) 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.

(2) Where a tabular statement is used to comply with subparagraph (1), the intervals between such draughts shall be sufficiently close to permit accurate interpolation.

(3) In the case of ships having raked keels, the same datum for the heights of centres of buoyancy and metacentres shall 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).

(2) The information shall indicate the height of the assumed axis from which the righting levers are measured and the trim which has been assumed.

(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 shall be clearly defined.

(4) Subject to subparagraph (5), only enclosed superstructures and efficient trunks as defined in paragraph 10 of Schedule 4 shall be taken into account in deriving such curves.

(5) The following structures may be taken into account in deriving such curves if the Minister is satisfied that their location, integrity and means of closure will contribute to the ship's stability –

(a) superstructures located above the superstructure deck;

(b) deckhouses on or above the freeboard deck whether wholly or in part only;

(c) hatchway structures on or above the freeboard deck.

(6) Subject to the approval of the Minister 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.

(7) An example shall be included to show how a curve of righting levers (GZ) may be obtained from the cross curves of stability.

(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 shall 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 (2) shall be provided separately for each of the following conditions of the ship –

(a) *light condition.* If the ship has permanent ballast, such diagram and statements shall be provided for the ship in light condition both with and without such ballast;

(b) *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 10 per cent of their capacity;

(c) *condition on departure and on arrival when loaded to the Summer load line with cargo filling all spaces available for cargo.* Cargo shall be taken to be homogeneous except where this is clearly inappropriate, for example, in cargo spaces which are intended to be used exclusively for the carriage of vehicles or of containers;

(d) *service loaded conditions both on departure and on arrival.*

(2) (a) A profile diagram of the ship drawn to a suitable small scale showing the disposition of all components of the deadweight.

(b) 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).

(c) A diagram showing the curve of righting levers (GZ). Where 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.

(d) A statement showing the elements of stability in the condition compared to the crieria laid down in Schedule 2 paragraph 2(2).

(3) The metacentric height (GM) and the curve of righting levers (GZ) shall be corrected for liquid free surface.

(4) Where there is a significant amount of trim in any of the conditions referred to in subparagraph (1) the metacentric height and the curve of righting levers (GZ) may be required to be determined from the trimmed waterline.

(5) If in the view of the Assigning Authority the stability characteristics in either or both of the conditions referred to in subparagraph (1)(c) are not satisfactory, such conditions shall be marked accordingly and an appropriate warning to the master shall be inserted.

4. 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.

5. The report on the inclining test and of the calculation derived from it to obtain information of the light condition of the ship.

GN. No. 63 (contd.)

PART II

SHIPS IN RELATION TO WHICH THE MINISTER'S OR ASSIGNING AUTHORITY'S APPROVAL OF STABILITY INFORMATION IS REQUIRED

6. The ships referred to in regulation 32(3), (4)(a) and (5)(a) of the Regulations are as follows:

(b) an oil tanker over 100 metres in length;
(c) a bulk carrier, or an ore carrier, over 150 metres in length;
(d) a single deck bulk carrier over 100 metres in length but not exceeding 150 metres in length;
(e) a single deck dry cargo ship over 100 metres in length;
(f) a purpose built container ship over 125 metres in length;
(g) a column stabilised mobile offshore drilling unit; or
(h) (a column stabilised mobile offshore support unit.

14. In paragraph 13-

"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.

Dodoma,
14th January, 2019

ISACK A. KAMWELWE,
Minister for Works,
Transport and Communications