Navigation Act 1912

Act No. 4 of 1913 as amended

This compilation was prepared on 26 November 2008
taking into account amendments up to Act No. 117 of 2008

Volume 3 includes: Table of Contents
Schedules 2–9

The text of any of those amendments not in force
on that date is appended in the Notes section

The operation of amendments that have been incorporated may be
affected by application provisions that are set out in the Notes section

Contents

Schedule 2—Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974 1

ARTICLE I ... 1
ARTICLE II ... 1
ARTICLE III ... 1
ARTICLE IV ... 2
ARTICLE V ... 2
ARTICLE VI ... 3
ARTICLE VII ... 3
ARTICLE VIII ... 4
ANNEX ... 5
MODIFICATIONS AND ADDITIONS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974 ... 5
CHAPTER I ... 5
GENERAL PROVISIONS ... 5
PART A—APPLICATION, DEFINITIONS, ETC. ... 5
Regulation 2 ... 5
PART B—SURVEYS AND CERTIFICATES ... 5
Regulation 6 ... 5
Regulation 7 ... 7
Regulation 8 ... 7
Regulation 10 ... 8
Regulation 11 ... 9
Regulation 14 ... 10
Regulation 19 ... 11
CHAPTER II–1 ... 13
CONSTRUCTION—SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS ... 13
PART A—GENERAL ... 13
Regulation 1 ... 13
Regulation 2 ... 14
PART C—MACHINERY AND ELECTRICAL INSTALLATIONS ... 14
Regulation 29 ... 14
CHAPTER II–2 ... 17
CONSTRUCTION—FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINCTION ... 17
PART A—GENERAL ... 17
Regulation 1 ... 17
Regulation 3 ... 18

PART E—FIRE SAFETY MEASURES FOR TANKERS 18
Regulation 55 18
Regulation 60 19
CHAPTER V 21
SAFETY OF NAVIGATION 21
Regulation 12 21
Regulation 19 21
Regulation 19-1 21
Regulation 19-2 21
APPENDIX 24

Schedule 3—Convention on the International Regulations for Preventing Collisions at Sea, 1972 28

ARTICLE I 28
ARTICLE II 28
ARTICLE III 29
ARTICLE IV 29
ARTICLE V 30
ARTICLE VI 30
ARTICLE VII 31
ARTICLE VIII 31
ARTICLE IX 31
INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA, 1972 32
PART A—GENERAL 32
RULE 1 32
RULE 2 33
RULE 3 33
PART B—STEERING AND SAILING RULES 34
SECTION I—CONDUCT OF VESSELS IN ANY CONDITION OF VISIBILITY 34
RULE 4 34
RULE 5 35
RULE 6 35
RULE 7 36
RULE 8 36
RULE 9 37
RULE 10 37
SECTION II—CONDUCT OF VESSELS IN SIGHT OF ONE ANOTHER 38
RULE 11 38
RULE 12 38
RULE 13 39
RULE 14 39

RULE 15 40
RULE 16 40
RULE 17 40
RULE 18 41
SECTION III—CONDUCT OF VESSELS IN RESTRICTED VISIBILITY 41
RULE 19 41
PART C—LIGHTS AND SHAPES 42
RULE 20 42
RULE 21 43
RULE 22 43
RULE 23 44
RULE 24 44
RULE 25 45
RULE 26 46
RULE 27 47
RULE 28 48
RULE 29 49
RULE 30 49
RULE 31 50
PART D—SOUND AND LIGHT SIGNALS 50
RULE 33 50
RULE 34 51
RULE 35 52
RULE 36 53
RULE 37 53
PART E—EXEMPTIONS 53
RULE 38 53
ANNEX I 55
POSITIONING AND TECHNICAL DETAILS OF LIGHTS AND SHAPES 55
ANNEX II 61
ADDITIONAL SIGNALS FOR FISHING VESSELS FISHING IN CLOSE PROXIMITY 61
ANNEX III 62
TECHNICAL DETAILS OF SOUND SIGNAL APPLIANCES 62
ANNEX IV 65
DISTRESS SIGNALS 65

Schedule 4—Articles of, and Annexes to, the Load Line Convention 66

ARTICLE 1 66
ARTICLE 2 66
ARTICLE 3 67

ARTICLE 4 67
ARTICLE 5 68
ARTICLE 6 68
ARTICLE 7 69
ARTICLE 8 69
ARTICLE 9 70
ARTICLE 10 70
ARTICLE 11 70
ARTICLE 12 71
ARTICLE 13 71
ARTICLE 14 71
ARTICLE 15 72
ARTICLE 16 72
ARTICLE 17 73
ARTICLE 18 73
ARTICLE 19 74
ARTICLE 20 75
ARTICLE 21 75
ARTICLE 22 76
ARTICLE 23 76
ARTICLE 24 76
ARTICLE 25 76
ARTICLE 26 77
ARTICLE 27 77
ARTICLE 28 78
ARTICLE 29 78
ARTICLE 30 80
ARTICLE 31 81
ARTICLE 32 81
ARTICLE 33 82
ARTICLE 34 82
ANNEX I 83
REGULATIONS FOR DETERMINING LOAD LINES 83
CHAPTER I.—GENERAL 83
Regulation 1 83
Regulation 2 83
Regulation 3 84
Regulation 4 87
Regulation 5 87
Regulation 6 87
Regulation 7 90
Regulation 8 90
Regulation 9 91

CHAPTER II.—CONDITIONS OF ASSIGNMENT OF FREEBOARD 92
Regulation 10 92
Regulation 11 92
Regulation 12 92
Regulation 13 93
Regulation 14 93
Regulation 15 93
Regulation 16 96
Regulation 17 97
Regulation 18 97
Regulation 19 98
Regulation 20 98
Regulation 21 99
Regulation 22 99
Regulation 23 100
Regulation 24 100
Regulation 25 102
Regulation 26 103
CHAPTER III.—FREEBOARDS 105
Regulation 27 105
Regulation 28 109
Regulation 29 120
Regulation 30 121
Regulation 31 121
Regulation 32 121
Regulation 33 122
Regulation 34 122
Regulation 35 123
Regulation 36 123
Regulation 37 124
Regulation 38 126
Regulation 39 129
Regulation 40 131
CHAPTER IV.—SPECIAL REQUIREMENTS FOR SHIPS ASSIGNED TIMBER FREEBOARDS 133
Regulation 41 133
Regulation 42 133
Regulation 43 133
Regulation 44 134
Regulation 45 136

ANNEX II 137
ZONES, AREAS AND SEASONAL PERIODS 137
Regulation 46 137
Regulation 47 138
Regulation 48 139
Regulation 49 140
Regulation 50 143
Regulation 51 144
Regulation 52 145
ANNEX III 146
CERTIFICATES 146

Schedule 5—International Convention for Safe Containers 151

ARTICLE I 151
ARTICLE II 151
ARTICLE III 152
ARTICLE IV 153
ARTICLE V 153
ARTICLE VI 154
ARTICLE VII 154
ARTICLE VIII 155
ARTICLE IX 155
ARTICLE X 156
ARTICLE XI 157
ARTICLE XII 157
ARTICLE XIII 157
ARTICLE XIV 158
ARTICLE XV 159
ARTICLE XVI 159

ANNEX I 160

REGULATIONS FOR THE TESTING, INSPECTION, APPROVAL AND MAINTENANCE OF CONTAINERS 160

CHAPTER I—REGULATIONS COMMON TO ALL SYSTEMS OF APPROVAL 160

Regulation 1 160
Regulation 2 161

CHAPTER II—REGULATIONS FOR APPROVAL OF NEW CONTAINERS BY DESIGN TYPE 162

Regulation 3 162
Regulation 4 162
Regulation 5 162
Regulation 6 163

Regulation 7 163
CHAPTER III—REGULATIONS FOR APPROVAL OF NEW CONTAINERS BY INDIVIDUAL APPROVAL 164
Regulation 8 164
CHAPTER IV—REGULATIONS FOR APPROVAL OF EXISTING CONTAINERS 165
Regulation 9 165
APPENDIX 166
ANNEX II 168
STRUCTURAL SAFETY REQUIREMENTS AND TESTS 168

Schedule 5A—1981 Amendments to Annex I of the International Convention for Safe Containers (CSC) 175

CHAPTER I 175
Regulation 2 175

CHAPTER IV 176
Regulation 9 176

Schedule 8—International Convention on Tonnage Measurement of Ships, 1969 177

ARTICLE 1 177
ARTICLE 2 177
ARTICLE 3 178
ARTICLE 4 179
ARTICLE 5 179
ARTICLE 6 179
ARTICLE 7 180
ARTICLE 8 180
ARTICLE 9 180
ARTICLE 10 181
ARTICLE 11 181
ARTICLE 12 181
ARTICLE 13 182
ARTICLE 14 182
ARTICLE 15 182
ARTICLE 16 183
ARTICLE 17 183
ARTICLE 18 184
ARTICLE 19 186
ARTICLE 20 186
ARTICLE 21 187
ARTICLE 22 187

ANNEX I 188

REGULATIONS FOR DETERMINING GROSS AND NET TONNAGES OF SHIPS 188
Regulation 1 188
Regulation 2 188
Regulation 3 191
Regulation 4 192
Regulation 5 193
Regulation 6 194
Regulation 7 194
ANNEX II 195
CERTIFICATE 195
APPENDIX 1 198
APPENDIX 2 201
Schedule 9 202
PART A 202
INTERNATIONAL CONVENTION ON SALVAGE, 1989 202
Article 1 202
Article 2 203
Article 3 203
Article 4 203
Article 5 203
Article 6 204
Article 7 204
Article 8 204
Article 9 205
Article 10 205
Article 11 205
Article 12 206
Article 13 206
Article 14 207
Article 15 208
Article 16 208
Article 17 208
Article 18 208
Article 19 208
Article 20 209
Article 21 209
Article 22 209
Article 23 210
Article 24 210
Article 25 210

Article 26 210
Article 27 211
Article 28 211
Article 29 211
Article 30 211
Article 31 212
Article 32 212
Article 33 213
Article 34 213
PART B 214
COMMON UNDERSTANDING CONCERNING ARTICLES 13 AND 14 OF THE INTERNATIONAL CONVENTION ON SALVAGE, 1989 214

Schedule 2—Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974

Subsection 187A(1)

ARTICLE I

General Obligations

The Parties to the present Protocol undertake to give effect to the provisions of the present Protocol and the Annex hereto which shall constitute an integral part of the present Protocol. Every reference to the present Protocol constitutes at the same time a reference to the Annex hereto.

ARTICLE II

Application

1. The provisions of Articles II, III (other than paragraph (a)), IV, VI (b), (c) and (d), VII and VIII of the International Convention for the Safety of Life at Sea, 1974 (hereinafter referred to as "the Convention") are incorporated in the present Protocol, provided that references in those Articles to the convention and to Contracting Governments shall be taken to mean references to the present Protocol and to the Parties to the present Protocol, respectively.

2. Any ship to which the present Protocol applies shall comply with the provisions of the Convention, subject to the modifications and additions set out in the present Protocol.

3. With respect to the ships of non-parties to the Convention and the present Protocol, the Parties to the present Protocol shall apply the requirements of the Convention and the present Protocol as may be necessary to ensure that no more favourable treatment is given to such ships.

ARTICLE III

Communication of Information

The Parties to the present Protocol undertake to communicate to, and deposit with, the Secretary-General of the Inter-Governmental Maritime Consultative Organization (hereinafter referred to as "the Organization"), a list of nominated surveyors or recognized organizations which are authorized to act on their

behalf in the administration of measures for safety of life at sea for circulation to the Parties for information of their officers. The Administration shall therefore notify the Organization of the specific responsibilities and conditions of the authority delegated to the nominated surveyors or recognized organizations.

ARTICLE IV

Signature, Ratification, Acceptance, Approval and Accession

1. The present Protocol shall be open for signature at the Headquarters of the Organization from 1 June 1978 to 1 March 1979 and shall thereafter remain open for accession. Subject to the provisions of paragraph 3 of this Article, States may become Parties to the present Protocol by:

(a) signature without reservation as to ratification, acceptance or approval; or

(b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or

(c) accession.

2. Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General of the Organization.

3. The present Protocol may be signed without reservation, ratified, accepted, approved or acceded to only by States which have signed without reservation, ratified, accepted, approved or acceded to the Convention.

ARTICLE V

Entry into Force

1. The present Protocol shall enter into force six months after the date on which not less than fifteen States, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant shipping, have become Parties to it in accordance with Article IV of the present Protocol, provided however that the present Protocol shall not enter into force before the Convention has entered into force.

2. Any instrument of ratification, acceptance, approval or accession deposited after the date on which the present Protocol enters into force shall take effect three months after the date of deposit.

3. After the date on which an amendment to the present Protocol is deemed to have been accepted under Article VIII of the Convention, any instrument of ratification, acceptance, approval or accession deposited shall apply to the present Protocol as amended.

ARTICLE VI

Denunciation

1. The present Protocol may be denounced by any Party at any time after the expiry of five years from the date on which the present Protocol enters into force for that party.

2. Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General of the Organization.

3. A denunciation shall take effect one year, or such longer period as may be specified in the instrument of denunciation, after its receipt by the Secretary-General of the Organization.

4. A denunciation of the Convention by a Party shall be deemed to be a denunciation of the present Protocol by that Party.

ARTICLE VII

Depositary

1. The present Protocol shall be deposited with the Secretary-General of the Organization (hereinafter referred to as "the Depositary").

2. The Depositary shall:

(a) inform all States which have signed the present Protocol or acceded thereto of:

(i) each new signature or deposit of an instrument of ratification, acceptance, approval or accession, together with the date thereof;

(ii) the date of entry into force of the present Protocol;

(iii) the deposit of any instrument of denunciation of the present Protocol together with the date on which it was received and the date on which the denunciation takes effect;

(b) transmit certified true copies of the present Protocol to all States which have signed the present Protocol or acceded thereto.

3. As soon as the present Protocol enters into force, a certified true copy thereof shall be transmitted by the Depositary to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

ARTICLE VIII

Languages

The present Protocol is established in a single original in the Chinese, English, French, Russian and Spanish languages, each text being equally authentic. Official translations in the Arabic, German and Italian languages shall be prepared and deposited with the signed original.

ANNEX

MODIFICATIONS AND ADDITIONS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

CHAPTER I

GENERAL PROVISIONS

PART A—APPLICATION, DEFINITIONS, ETC.

Regulation 2

Definitions

The following paragraph is added to the existing text:

(n) "Age of a ship" means the elapsed period of time determined from the year of build as indicated on the ship's registry papers.

PART B—SURVEYS AND CERTIFICATES

Regulation 6

Inspection and Survey

The existing text of Regulation 6 is replaced by the following:

(a) The inspection and survey of ships, so far as regards the enforcement of the provisions of the present Regulations and the granting of exemptions therefrom, shall be carried out by officers of the Administration. The Administration may, however, entrust the inspections and surveys either to surveyors nominated for the purpose or to organizations recognized by it.

(b) The Administration shall institute arrangements for unscheduled inspections to be carried out during the period of validity of the certificate. Such inspections shall ensure that the ship and its equipment remain in all respects satisfactory for the service for which the ship is intended. These inspections may be carried out by the Administration's own inspection services, or by nominated surveyors, or by recognized organizations, or by other Parties upon request of the Administration.

Where the Administration, under the provisions of Regulations 8 and 10 of this Chapter, establishes mandatory annual surveys, the above unscheduled inspections shall not be obligatory.

(c) An Administration nominating surveyors or recognizing organizations to conduct inspections and surveys as set forth in paragraphs (a) and (b) of this Regulation shall as a minimum empower any nominated surveyor or recognized organization to:

(i) require repairs to a ship, and

(ii) carry out inspections and surveys if requested by the appropriate authorities of a Port State.

The Administration shall notify the Organization of the specific responsibilities and conditions of the authority delegated to nominated surveyors or recognized organizations.

(d) When a nominated surveyor or recognized organization determines that the condition of the ship or its equipment does not correspond substantially with the particulars of the certificate or is such that the ship is not fit to proceed to sea without danger to the ship, or persons on board, such surveyor or organization shall immediately ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken the relevant certificate should be withdrawn and the Administration shall be notified immediately; and, if the ship is in the port of another Party, the appropriate authorities of the Port State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or recognized organization has notified the appropriate authorities of the Port State, the Government of the Port State concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this Regulation. When applicable, the Government of the Port State concerned shall ensure that the ship shall not sail until it can proceed to sea, or leave port for the purpose of proceeding to the appropriate repair yard, without danger to the ship or persons on board.

(e) In every case, the Administration shall fully guarantee the completeness and efficiency of the inspection and survey, and shall undertake to ensure the necessary arrangements to satisfy this obligation.

Regulation 7

Surveys of Passenger Ships

The existing text of paragraph (b) (iii) *is replaced by the following:*

(iii) A survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in Regulation 11 of this Chapter, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory, and that the ship complies in all respects with the provisions of the Convention and the present Protocol and of the International Regulations for Preventing Collisions at Sea in force, and of the laws, decrees, orders and regulations promulgated as a result thereof by the Administration.

Regulation 8

Surveys of Life-Saving Appliances and other Equipment of Cargo Ships

The existing text of Regulation 8 is replaced by the following:

(a) The life-saving appliances, except a radiotelegraph installation in a motor lifeboat or a portable radio apparatus for survival craft, the echo-sounding device, the gyro-compass, the fire-extinguishing appliances and the inert gas system of cargo ships to which Chapters II–1, II–2, III and V of the Convention and the present Protocol apply, shall be subject to initial and subsequent surveys as prescribed for passenger ships in Regulation 7 of Chapter I of the Convention and the present Protocol with the substitution of 24 months for 12 months in sub-paragraph (a) (ii) of that Regulation. The fire control plans in new ships and the pilot ladders, mechanical pilot hoists, lights, shapes and means of making sound signals carried by new and existing ships shall be included in the surveys for the purpose of ensuring that they comply fully with the requirements of the Convention and the present Protocol and, where applicable, the International Regulations for Preventing Collisions at Sea in force.

(b) Intermediate surveys shall be made for tankers of ten years of age and over, within three months before or after the anniversary date of the Cargo Ship Safety Equipment Certificate, to ensure that equipment specified in paragraph (a) of this Regulation has been maintained in accordance with Regulation 11 of this Chapter and that it is in good

working condition. Such intermediate surveys shall be endorsed on the Cargo Ship Safety Equipment Certificate issued in accordance with Regulation 12 (a) (iii) of Chapter I of the Convention.

Regulation 10

Surveys of Hull, Machinery and Equipment of Cargo Ships

The existing text of Regulation 10 is replaced by the following:

(a) The hull, machinery and equipment (other than items in respect of which Cargo Ship Safety Equipment Certificates, Cargo Ship Safety Radiotelegraphy Certificates or Cargo Ship Radiotelephony Certificates are issued) of a cargo ship shall be surveyed on completion and thereafter in such a manner as the Administration may consider necessary in order to ensure that their condition is in all respects satisfactory and at the following intervals:

(i) at intervals specified by the Administration but not exceeding five years (periodical surveys);

(ii) in addition to such periodical surveys a tanker of ten years of age and over shall undergo a minimum of one intermediate survey during the period of validity of its Cargo Ship Safety Construction Certificate. In cases where only one such intermediate survey is carried out in any one certificate validity period, it shall be held not before six months prior to, nor later than six months after, the half-way date of the certificate's period of validity.

(b) The initial and periodical survey shall be such as to ensure that the arrangements material and scantlings of the structure, boilers and other pressure vessels, their appurtenances, main and auxiliary machinery including steering gear and associated control systems, electrical installation and other equipment are in all respects satisfactory for the service for which the ship is intended. Such surveys shall, in the case of tankers, also include inspection of the outside of the ship's bottom, pump rooms, cargo and bunker piping systems, vent piping, pressure vacuum valves and flame screens.

(c) The intermediate survey of tankers of ten years of age and over shall include inspection of steering gear equipment and associated control systems, pump rooms, cargo and bunker piping systems on deck and in pump rooms, vent piping, pressure vacuum valves and flame screens, the electrical installations in dangerous zones, and the outside of the

ship's bottom. In addition to the visual inspection of the electrical installation, the insulation resistance of the electrical equipment in dangerous zones is to be tested. If, upon examination, there should be any doubt as to the condition of the piping, extra measures, such as pressure tests and thickness determination, shall be taken as necessary. Such intermediate surveys shall be endorsed on the Cargo Ship Safety Construction Certificate issued in accordance with Regulation 12 (a) (ii) of Chapter I of the Convention.

(d) A survey, either general or partial according to the circumstances, shall be made when required after an investigation prescribed in Regulation 11 of this Chapter, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory, and that the ship is fit to proceed to sea without danger to the ship or persons on board.

Regulation 11

Maintenance of Conditions after Survey

The existing text of Regulation 11 is replaced by the following:

(a) The condition of the ship and its equipment shall be maintained to conform with the provisions of the Convention and the present Protocol to ensure that the ship in all respects will remain fit to proceed to sea without danger to the ship or persons on board.

(b) After any survey of the ship under Regulations 6, 7, 8, 9 or 10 of Chapter I of the Convention and the present Protocol has been completed, no change shall be made in the structural arrangement, machinery, equipment and other items covered by the survey, without the sanction of the Administration.

(c) Whenever an accident occurs to a ship or a defect is discovered, either of which affects the safety of the ship or the efficiency or completeness of its life-saving appliances or other equipment, the master or owner of the ship shall report at the earliest opportunity to the Administration, the nominated surveyor or recognized organization responsible for issuing the relevant certificate, who shall cause investigations to be initiated to determine whether a survey, as required by Regulations 6, 7, 8, 9 or 10 of Chapter I of the Convention and the present Protocol, is necessary. If the ship is in a port of another Party, the master or owner shall also report immediately to the appropriate authorities of the Port State and

the nominated surveyor or recognized organization shall ascertain that such a report has been made.

Regulation 14

Duration and Validity of Certificates

The existing text of Regulation 14 is replaced by the following:

(a) Certificates other than the Cargo Ship Safety Construction Certificate, the Cargo Ship Safety Equipment Certificate and any Exemption Certificate shall be issued for a period not exceeding 12 months. The Cargo Ship Safety Construction Certificate shall be issued for a period not exceeding five years. The Cargo Ship Safety Equipment Certificate shall be issued for a period not exceeding 24 months. Exemption Certificates shall not be valid for longer than the period of the certificates to which they refer.

(b) No extension of the five-year period of validity of the Cargo Ship Safety Construction Certificate shall be permitted.

(c) If a survey takes place within two months before the end of the period for which a Cargo Ship Safety Radiotelegraphy Certificate or a Cargo Ship Safety Radiotelephony Certificate issued in respect of cargo ships of 300 tons gross tonnage and upwards, but less than 500 tons gross tonnage, was originally issued, that certificate may be withdrawn, and a new certificate may be issued which shall expire 12 months after the end of the said period.

(d) If the ship at the time when a certificate, other than that referred to in paragraph (b) of this Regulation, expires is not in a port of the country in which it is registered or is to be surveyed, the Administration may extend the certificate, but such extension shall be granted only for the purpose of allowing the ship to complete its voyage to the country in which it is registered or is to be surveyed, and then only in cases where it appears proper and reasonable to do so.

(e) No certificate shall be extended under the provisions of paragraph (d) of this Regulation for a longer period than five months, and a ship to which an extension is granted shall not, on its arrival in the country in which it is registered or the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port or country without having obtained a new certificate.

(f) A certificate, other than that referred to in paragraph (b) of this Regulation, which has not been extended under the foregoing provisions of this Regulation, may be extended by the Administration for a period of grace up to one month from the date of expiry stated on it.

(g) A certificate shall cease to be valid:

(i) if the inspections and surveys are not carried out within the periods specified under Regulations 7 (a), 8, 9 and 10 (a) of Chapter I of the Convention and the present Protocol or as they may have been extended in accordance with paragraphs (d), (e) or (f) of this Regulation, or

(ii) upon transfer of the ship to the flag of another Government. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of Regulation 11 (a) and (b) of this Chapter. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificates carried by the ship before the transfer and, if available, copies of the relevant survey reports.

Regulation 19

Control

The existing text of Regulation 19 is replaced by the following:

(a) Every ship when in a port of another Party is subject to control by officers duly authorized by such Government in so far as this control is directed towards verifying that the certificates issued under Regulation 12 or Regulation 13 of Chapter I of the Convention are valid.

(b) Such certificates, if valid, shall be accepted unless there are clear grounds for believing that the condition of the ship or of its equipment does not correspond substantially with the particulars of any of the certificates or that the ship and its equipment are not in compliance with the provisions of Regulation 11 (a) and (b) of this Chapter.

(c) In the circumstances given in paragraph (b) of this Regulation or where a certificate has expired or ceased to be valid, the officer carrying out the control shall take steps to ensure that the ship shall not sail until it

can proceed to sea or leave the port for the purpose of proceeding to the appropriate repair yard without danger to the ship or persons on board.

(d) In the event of this control giving rise to an intervention of any kind, the officer carrying out the control shall forthwith inform, in writing, the Consul or, in his absence, the nearest diplomatic representative of the State whose flag the ship is entitled to fly of all the circumstances in which intervention was deemed necessary. In addition, nominated surveyors or recognized organizations responsible for the issue of the certificates shall also be notified. The facts concerning the intervention shall be reported to the Organization.

(e) The Port State authority concerned shall notify all relevant information about the ship to the authorities of the next port of call, in addition to parties mentioned in paragraph (d) of this Regulation, if it is unable to take action as specified in paragraphs (c) and (d) of this Regulation or if the ship has been allowed to proceed to the next port of call.

(f) When exercising control under this Regulation all possible efforts shall be made to avoid a ship being unduly detained or delayed. If a ship is thereby unduly detained or delayed it shall be entitled to compensation for any loss or damage suffered.

CHAPTER II–1

CONSTRUCTION—SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS

PART A—GENERAL

Regulation 1

Application

The following sub-paragraphs are added to the existing text of paragraph (b)*:*

(iii) Notwithstanding the provisions of sub-paragraph (ii) of this paragraph and sub-paragraph (a) (iii) of this Regulation, for the purposes of paragraph (d) of Regulation 29 of this Chapter, a new tanker means a tanker:

(1) for which the building contract is placed after 1 June 1979; or

(2) in the absence of a building contract, the keel of which is laid, or which is at a similar stage of construction after 1 January 1980; or

(3) the delivery of which is after 1 June 1982; or

(4) which has undergone an alteration or modification of a major character:

(a) for which the contract is placed after 1 June 1979; or

(b) in the absence of a contract, the construction work of which is begun after 1 January 1980; or

(c) which is completed after 1 June 1982.

(iv) For the purposes of paragraph (d) of Regulation 29 of this Chapter, an existing tanker is a tanker which is not a new tanker as defined in sub-paragraph (iii) of this paragraph.

(v) For the purposes of sub-paragraph (iii) of this paragraph, conversion of an existing tanker of 20,000 metric tons deadweight and upwards to meet the requirements of the present Protocol or the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, shall not be deemed to constitute an alteration or modification of a major character.

Regulation 2

Definitions

The following paragraphs are added to the existing text:

(k) The remote steering gear control system is the means by which required rudder movements are transmitted from the navigating bridge to the steering gear power unit controls.

(l) The main steering gear is the machinery, the steering gear power units, if any, and ancillary equipment and the means of applying torque to the rudder stock (e.g. tiller or quadrant) necessary for effecting movement of the rudder for the purpose of steering the ship under normal service conditions.

(m) The steering gear power unit is:

(i) in the case of electric steering gear, an electric motor and its associated electrical equipment;

(ii) in the case of electro-hydraulic steering gear, an electric motor and its associated electrical equipment and connected pump;

(iii) in the case of other hydraulic steering gear, a driving engine and connected pump.

(n) The auxiliary steering gear is that equipment which is provided for effecting movement of the rudder for the purpose of steering the ship in the event of failure of the main steering gear.

PART C—MACHINERY AND ELECTRICAL INSTALLATIONS

Regulation 29

Steering Gear

The following paragraph is added to the existing text:

(d) *Tankers only*

(i) The following shall apply to every new tanker of 10,000 tons gross tonnage and upwards and, not later than two years from the date of entry into force of the present Protocol, to every existing tanker of 10,000 tons gross tonnage and upwards:

(1) two remote steering gear control systems shall be provided, each of which shall be operable separately from the navigating bridge. This does not require duplication of the steering wheel or steering lever. In the event of failure of

the remote steering gear control system in operation, the other system shall be capable of being brought into immediate operation from a position on the navigating bridge. Each remote steering gear control system, if electric, shall be served by its own separate circuit supplied from the steering gear power circuit from a point within the steering gear compartment. In the event of failure of electrical power supply to a remote steering gear control system an alarm shall be given on the navigating bridge. The alarms required in this sub-paragraph shall be both audible and visual and situated in a position on the navigating bridge where they can be readily observed;

(2) control of the main steering gear shall also be provided in the steering gear compartment;

(3) means shall be provided in the steering gear compartment to disconnect the remote steering gear control system from the power circuit;

(4) a means of communication shall be provided between the navigating bridge and the steering gear compartment;

(5) the exact angular position of the rudder shall be indicated on the navigating bridge. The rudder angle indication shall be independent of the remote steering gear control system; and

(6) the angular position of the rudder shall be recognizable in the steering gear compartment.

(ii) In every new tanker of 10,000 tons gross tonnage and upwards, in addition to the requirements of paragraph (a) and sub-paragraph (d) (i) of this Regulation, the following shall apply:

(1) the main steering gear shall comprise two or more identical power units and it shall be capable of operating the rudder as required by sub-paragraph (d) (ii) (2) of this Regulation while operating with one or more power units. As far as reasonable and practicable, the main steering gear shall be so arranged that a single failure in its piping or in one of the power units will not impair the integrity of the remaining part of the steering gear. All mechanical couplings which are part of the steering gear and the mechanical connexion with any remote steering gear

control system, if any, shall be of sound and reliable construction to the satisfaction of the Administration;

(2) the main steering gear shall, with the ship at its deepest sea-going draught, be capable of putting the rudder over from 35 degrees on one side to 35 degrees on the other side with the ship running ahead at maximum service speed. The rudder shall be capable of being put over from 35 degrees on either side to 30 degrees on the other side in not more than 28 seconds, under the same conditions;

(3) the main steering gear shall be operated by power where necessary to fulfil the requirements of sub-paragraph (d) (ii) (2) of this Regulation;

(4) the main steering gear power units shall be arranged to start automatically when power is restored after a power failure;

(5) in the event of failure of any of the steering gear power units an alarm shall be given on the navigating bridge. Every steering gear power unit shall be capable of being brought into operation either automatically or manually from a position on the navigating bridge; and

(6) an alternative power supply, at least sufficient to supply a steering gear power unit so as to enable it to move the rudder as specified below, and also to supply its associated remote steering gear control system and the rudder angle indicator, shall be provided, automatically, within 45 seconds, either from the emergency source of electrical power, or from another independent source of power located in the steering gear compartment. This independent source of power shall be used only for this purpose and shall have a capacity sufficient for half an hour of continuous operation. The steering gear power unit, when being supplied by the alternative power supply, shall at least be capable of putting the rudder over from 15 degrees on one side to 15 degrees on the other side in not more than 60 seconds with the ship at its deepest sea-going draught while running at one half of its maximum service speed ahead or 7 knots, whichever is the greater.

CHAPTER II–2

CONSTRUCTION—FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINCTION

PART A—GENERAL

Regulation 1

Application

*The following sub-paragraphs are added to the existing text of paragraph (*a*):*

(iv) Notwithstanding the provisions of sub-paragraphs (ii) and (iii) of this paragraph, for the purposes of paragraph (a) (ii) of Regulation 55 and of Regulation 60 of this Chapter, a new tanker means a tanker:

(1) for which the building contract is placed after 1 June 1979; or

(2) in the absence of a building contract, the keel of which is laid, or which is at a similar stage of construction after 1 January 1980; or

(3) the delivery of which is after 1 June 1982; or

(4) which has undergone an alteration or modification of a major character:

(a) for which the contract is placed after 1 June 1979; or

(b) in the absence of a contract, the construction work of which is begun after 1 January 1980; or

(c) which is completed after 1 June 1982.

(v) For the purposes of paragraph (a) (ii) of Regulation 55 and of Regulation 60 of this Chapter, an existing tanker is a tanker which is not a new tanker as defined in sub-paragraph (iv) of this paragraph.

(vi) For the purposes of sub-paragraph (iv) of this paragraph, conversion of an existing tanker of 20,000 metric tons deadweight and upwards to meet the requirements of the present Protocol or the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 shall not be deemed to constitute an alteration or modification of a major character.

Regulation 3

Definitions

The existing text of paragraph (v) *is replaced by the following:*

(v) "Lightweight" means the displacement of a ship in metric tons without cargo, fuel, lubricating oil, ballast water, fresh water and feed water in tanks, consumable stores, and passengers and crew and their effects.

The following paragraph is added to the existing text:

(x) "Crude oil" means any oil occurring naturally in the earth whether or not treated to render it suitable for transportation and includes:

(i) crude oil from which certain distillate fractions may have been removed; and

(ii) crude oil to which certain distillate fractions may have been added.

PART E—FIRE SAFETY MEASURES FOR TANKERS

Regulation 55

Application

The existing text of this Regulation is replaced by the following:

(a) Unless expressly provided otherwise:

(i) this Part shall apply to all new tankers carrying crude oil and petroleum products having a flashpoint not exceeding 60°C (140°F) (closed cup test) as determined by an approved flashpoint apparatus and a Reid vapour pressure which is below atmospheric pressure and other liquid products having a similar fire hazard; and

(ii) in addition, all ships covered by this Part shall comply with the requirements of Regulations 52, 53 and 54 of Chapter II–2 of the Convention except that fixed gas fire-extinguishing systems for cargo spaces shall not be used for new tankers and for those existing tankers complying with Regulation 60 of this Chapter. For existing tankers not required to comply with Regulation 60, the Administration, in applying the requirements of paragraph (f) of Regulation 52, may accept a froth system capable of discharging froth internally or externally to the tanks. The details

of the installation shall be to the satisfaction of the Administration.

(b) Where cargoes other than those referred to in sub-paragraph (a) (i) of this Regulation which introduce additional fire hazards are intended to be carried, additional safety measures shall be required to the satisfaction of the Administration.

(c) Combination carriers shall not carry solid cargoes unless all cargo tanks are empty of oil and gas freed or unless, in each case, the Administration is satisfied with the arrangements provided.

Regulation 60

Cargo Tank Protection

The existing text of this Regulation is replaced by the following:

(a) For new tankers of 20,000 metric tons deadweight and upwards, the protection of the cargo tanks deck area and cargo tanks shall be achieved by a fixed deck froth system and a fixed inert gas system in accordance with the requirements of Regulations 61 and 62 of Chapter II–2 of the Convention except that in lieu of the above installations the Administration, after having given consideration to the ship's arrangement and equipment, may accept other combinations of fixed installations if they afford protection equivalent to the above, in accordance with Regulation 5 of Chapter I of the Convention.

(b) To be considered equivalent, the system proposed in lieu of the deck froth system shall:

(i) be capable of extinguishing spill fires and also preclude ignition of spilled oil not yet ignited; and

(ii) be capable of combating fires in ruptured tanks.

(c) To be considered equivalent, the system proposed in lieu of the fixed inert gas system shall:

(i) be capable of preventing dangerous accumulations of explosive mixtures in intact cargo tanks during normal service throughout the ballast voyage and necessary in-tank operations; and

(ii) be so designed as to minimize the risk of ignition from the generation of static electricity by the system itself.

(d) Any existing tanker of 20,000 metric tons deadweight and upwards engaged in the trade of carrying crude oil shall be fitted with an inert gas system, complying with the requirements of paragraph (a) of this Regulation, not later than a date:

(i) for a tanker of 70,000 metric tons deadweight and upwards, two years after the date of entry into force of the present Protocol; and

(ii) for a tanker of less than 70,000 metric tons deadweight, four years after the date of entry into force of the present Protocol, except that for tankers less than 40,000 tons deadweight not fitted with tank washing machines having an individual throughput of greater than 60 cubic metres per hour, the Administration may exempt existing tankers from the requirements of this paragraph, if it would be unreasonable and impracticable to apply these requirements, taking into account the ship's design characteristics.

(e) Any existing tanker of 40,000 metric tons deadweight and upwards engaged in the trade of carrying oil other than crude oil and any such tanker of 20,000 metric tons deadweight and upwards engaged in the trade of carrying oil other than crude oil fitted with tank washing machines having an individual throughput of greater than 60 cubic metres per hour shall be fitted with an inert gas system, complying with the requirements of paragraph (a) of this Regulation, not later than a date:

(i) for a tanker of 70,000 metric tons deadweight and upwards, two years after the date of entry into force of the present Protocol; and

(ii) for a tanker of less than 70,000 metric tons deadweight, four years after the date of entry into force of the present Protocol.

(f) Any tanker operating with a cargo tank cleaning procedure using crude oil washing shall be fitted with an inert gas system complying with the requirements of Regulation 62 of Chapter II-2 of the Convention and with fixed tank washing machines.

(g) All tankers fitted with a fixed inert gas system shall be provided with a closed ullage system.

(h) Any new tanker of 2,000 tons gross tonnage and upwards not covered by paragraph (a) of this Regulation shall be provided with a froth system, capable of discharging froth internally or externally, to the tanks. The details of such installation shall be to the satisfaction of the Administration.

CHAPTER V

SAFETY OF NAVIGATION

Regulation 12

Shipborne Navigational Equipment

The existing text of paragraph (a) *is replaced by the following:*

(a) All ships of 1,600 tons gross tonnage and upwards but less than 10,000 tons gross tonnage shall be fitted with at least one radar. All ships of 10,000 tons gross tonnage and upwards shall be fitted with at least two radars, each capable of operating independently of the other. All radars fitted in compliance with this Regulation shall be of a type approved by the Administration and shall conform to operational standards not inferior to those adopted by the Organization. Facilities for plotting radar readings shall be provided on the bridge in those ships.

Regulation 19

Use of the Automatic Pilot

The following paragraph is added to the existing text:

(d) The manual steering shall be tested after prolonged use of the automatic pilot, and before entering areas where navigation demands special caution.

The following new Regulations are added to this Chapter:

Regulation 19-1

Operation of Steering Gear

In areas where navigation demands special caution, ships shall have more than one steering gear power unit in operation when such units are capable of simultaneous operation.

Regulation 19-2

Steering Gear—Testing and Drills

(a) Within 12 hours before departure, the ship's steering gear shall be checked and tested by the ship's crew. The test procedure shall include, where applicable, the operation of the following.

(i) the main steering gear;
(ii) the auxiliary steering gear;
(iii) the remote steering gear control systems;
(iv) the steering positions located on the navigating bridge;
(v) the emergency power supply;
(vi) the rudder angle indicators in relation to the actual position of the rudder;
(vii) the remote steering gear control system power failure alarms; and
(viii) the steering gear power unit failure alarms.

(b) The checks and tests shall include:
(i) the full movement of the rudder according to the required capabilities of the steering gear;
(ii) a visual inspection of the steering gear and its connecting linkage; and
(iii) the operation of the means of communication between the navigating bridge and steering gear compartment.

(c) (i) Simple operating instructions with a block diagram showing the change-over procedures for remote steering gear control systems and steering gear power units shall be permanently displayed on the navigating bridge and in the steering gear compartment.
(ii) All officers concerned with the operation and/or maintenance of steering gear shall be familiar with the operation of the steering systems fitted on the ship and with the procedures for changing from one system to another.

(d) In addition to the routine checks and tests prescribed in paragraphs (a) and (b) of this Regulation, emergency steering drills shall take place at least once every three months in order to practise emergency steering procedures. These drills shall include direct control from within the steering gear compartment, the communications procedure with the navigating bridge and, where applicable, the operation of alternative power supplies.

(e) The Administration may waive the requirement to carry out the checks and tests prescribed in paragraphs (a) and (b) of this Regulation for ships which regularly ply on voyages of short duration. Such ships shall carry out these checks and tests at least once every week.

(f) The date upon which the checks and tests prescribed in paragraphs (a) and (b) of this Regulation are carried out and the date and details of emergency steering drills carried out under paragraph (d) of this Regulation, shall be recorded in the log book as may be prescribed by the Administration.

APPENDIX

Form of Safety Construction Certificate for Cargo Ships

The following form of Supplement is added to the existing form:

SUPPLEMENT TO THE CARGO SHIP SAFETY CONSTRUCTION CERTIFICATE

(*Official Seal*) (*Country*)

Issued under the provisions of the

PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Deadweight of Ship (metric tons)	Year of Build

Type of ship:

Tanker engaged in the trade of carrying crude oil*

Tanker engaged in the trade of carrying oil other than crude oil*

Tanker engaged in the trade of carrying crude/other oil*

Cargo ship other than a tanker engaged in the trade of carrying oil*

Date of contract for building or alteration or modification of a major character .....

Date on which keel was laid or ship was at a similar stage of construction or on which an alteration or modification of a major character was commenced.....

Date of delivery or completion of an alteration or modification of a major character .....

* Delete as appropriate.

This Supplement shall be permanently attached to the Cargo Ship Safety Construction Certificate.

THIS IS TO CERTIFY:

That the ship has been surveyed in accordance with Regulation 10 of Chapter I of the Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 1974; and

that the survey showed that the condition of the hull, machinery and equipment as defined in the above Regulation was in all respects satisfactory and that the ship complied with the requirements of that Protocol.

This certificate is valid until..... subject to intermediate survey(s) at intervals of.....

Issued at.....

(Place of issue of certificate)

.....19..... .....

(Signature of duly authorized official issuing the certificate)

(Seal or stamp of the issuing Authority, as appropriate)

INTERMEDIATE SURVEY

This is to certify that at an intermediate survey required by Regulation 10 of Chapter I of the Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 1974, this ship was found to comply with the relevant provisions of that Protocol.

Signed .....

(*Signature of duly authorized official*)

Place. .....

Date .....

Next intermediate survey due.....

(*Seal or stamp of the Authority, as appropriate*)

Signed.....

(*Signature of duly authorized official*)

Place .....

Date .....

Next intermediate survey due.....

(*Seal or stamp of the Authority, as appropriate*)

Signed.....

(*Signature of duly authorized official*)

Place .....

Date .....

Next intermediate survey due.....

(*Seal or stamp of the Authority, as appropriate*)

Signed.....

(*Signature of duly authorized official*)

Place .....

Date .....

(*Seal or stamp of the Authority, as appropriate*)

Form of Safety Equipment Certificate for Cargo Ships

The following form of Supplement is added to existing form:

SUPPLEMENT TO THE CARGO SHIP SAFETY EQUIPMENT CERTIFICATE

(*Official Seal)* (*Country*)

Issued under the provisions of the

PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

Name of Ship	Distinctive Number or Letters	Port of Registry	Deadweight of Ship (metric tons)	Year of Build

Type of ship:

Tanker engaged in the trade of carrying crude oil*

Tanker engaged in the trade of carrying oil other than crude oil*

Tanker engaged in the trade of carrying crude/other oil*

Cargo ship other than a tanker engaged in the trade of carrying oil*

Date of contract for building or alteration or modification of a major character .....

Date on which keel was laid or ship was at a similar stage of construction or on which an alteration or modification of a major character was commenced.....

Date of delivery or completion of an alteration or modification of a major character .....

* Delete as appropriate.

This Supplement shall be permanently attached to the Cargo Ship Safety Equipment Certificate.

THIS IS TO CERTIFY:

That the ship has been surveyed in accordance with Regulation 8 of Chapter I of the Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 1974; and

that the survey showed that the condition of the safety equipment as defined in the above Regulation was in all respects satisfactory and that the ship complied with the requirements of that Protocol.

This certificate is valid until..... subject to intermediate survey(s) at intervals of .....

Issued at .....

(*Place of issue of certificate*)

..... 19 ....

(*Signature of duly authorized official issuing the certificate*)

(*Seal or stamp of the issuing Authority, as appropriate*)

INTERMEDIATE SURVEY

This is to certify that at an intermediate survey required by Regulation 8 of Chapter I of the Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 1974, the ship was found to comply with the relevant provisions of that Protocol.

Signed .....

(*Signature of duly authorized official*)

Place .....

Date .....

Next intermediate survey due.....

(*Seal or stamp of the Authority, as appropriate*)

Signed .....

(*Signature of duly authorized official*)

Place .....

Date.....

(*Seal or stamp of the Authority, as appropriate*)

Under the provisions of Regulation 14 of Chapter I of the Protocol the validity of this Certificate is extended until.....

Signed .....

(*Signature of duly authorized official*)

Place .....

Date .....

(*Seal or stamp of the Authority, as appropriate*)

Schedule 3—Convention on the International Regulations for Preventing Collisions at Sea, 1972

Subsection 187A(1)

ARTICLE I

General Obligations

The Parties to the present Convention undertake to give effect to the Rules and other Annexes constituting the International Regulations for Preventing Collisions at Sea, 1972, (hereinafter referred to as "the Regulations") attached hereto.

ARTICLE II

Signature, Ratification, Acceptance, Approval and Accession

1. The present Convention shall remain open for signature until 1 June 1973 and shall thereafter remain open for accession.

2. States Members of the United Nations, or of any of the Specialized Agencies, or the International Atomic Energy Agency, or Parties to the Statute of the International Court of Justice may become Parties to this Convention by:

(a) signature without reservation as to ratification, acceptance or approval;

(b) signature subject to ratification, acceptance or approval followed by ratification, acceptance or approval; or

(c) accession.

3. Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Inter-Governmental Maritime Consultative Organization (hereinafter referred to as "the Organization") which shall inform the Governments of States that have signed or acceded to the present Convention of the deposit of each instrument and of the date of its deposit.

ARTICLE III

Territorial Application

1. The United Nations in cases where they are the administering authority for a territory or any Contracting Party responsible for the international relations of a territory may at any time by notification in writing to the Secretary-General of the Organization (hereinafter referred to as "the Secretary-General"), extend the application of this Convention to such a territory.

2. The present Convention shall, upon the date of receipt of the notification or from such other date as may be specified in the notification, extend to the territory named therein.

3. Any notification made in accordance with paragraph 1 of this Article may be withdrawn in respect of any territory mentioned in that notification and the extension of this Convention to that territory shall cease to apply after one year or such longer period as may be specified at the time of the withdrawal.

4. The Secretary-General shall inform all Contracting Parties of the notification of any extension or withdrawal of any extension communicated under this Article.

ARTICLE IV

Entry into force

1. (a) The present Convention shall enter into force twelve months after the date on which at least 15 States, the aggregate of whose merchant fleets constitutes not less than 65 per cent by number or by tonnage of the world fleet of vessels of 100 gross tons and over have become Parties to it, whichever is achieved first.

   (b) Notwithstanding the provisions in sub-paragraph (a) of this paragraph, the present Convention shall not enter into force before 1 January 1976.

2. Entry into force for States which ratify, accept, approve or accede to this Convention in accordance with Article II after the conditions prescribed in sub-paragraph 1 (a) have been met and before the Convention enters into force, shall be on the date of entry into force of the Convention.

3. Entry into force for States which ratify, accept, approve or accede after the date on which this Convention enters into force, shall be on the date of deposit of an instrument in accordance with Article II.

4. After the date of entry into force of an amendment to this Convention in accordance with paragraph 4 of Article VI, any ratification, acceptance, approval or accession shall apply to the Convention as amended.

5. On the date of entry into force of this Convention, the Regulations replace and abrogate the International Regulations for Preventing Collisions at Sea, 1960.

6. The Secretary-General shall inform the Governments of States that have signed or acceded to this Convention of the date of its entry into force.

ARTICLE V

Revision Conference

1. A Conference for the purpose of revising this Convention or the Regulations or both may be convened by the Organization.

2. The Organization shall convene a Conference of Contracting Parties for the purpose of revising this Convention or the Regulations or both at the request of not less than one-third of the Contracting Parties.

ARTICLE VI

Amendments to the Regulations

1. Any amendment to the Regulations proposed by a Contracting Party shall be considered in the Organization at the request of that Party.

2. If adopted by a two-thirds majority of those present and voting in the Maritime Safety Committee of the Organization, such amendment shall be communicated to all Contracting Parties and Members of the Organization at least six months prior to its consideration by the Assembly of the Organization. Any Contracting Party which is not a Member of the Organization shall be entitled to participate when the amendment is considered by the Assembly.

3. If adopted by a two-thirds majority of those present and voting in the Assembly, the amendment shall be communicated by the Secretary-General to all Contracting Parties for their acceptance.

4. Such an amendment shall enter into force on a date to be determined by the Assembly at the time of its adoption unless, by a prior date determined by the Assembly at the same time, more than one-third of the Contracting Parties notify the Organization of their objection to the amendment. Determination by the Assembly of the dates referred to in this paragraph shall be by a two-thirds majority of those present and voting.

5. On entry into force any amendment shall, for all Contracting Parties which have not objected to the amendment, replace and supersede any previous provision to which the amendment refers.

6. The Secretary-General shall inform all Contracting Parties and Members of the Organization of any request and communication under this Article and the date on which any amendment enters into force.

ARTICLE VII

Denunciation

1. The present Convention may be denounced by a Contracting Party at any time after the expiry of five years from the date on which the Convention entered into force for that Party.

2. Denunciation shall be effected by the deposit of an instrument with the Organization. The Secretary-General shall inform all other Contracting Parties of the receipt of the instrument of denunciation and of the date of its deposit.

3. A denunciation shall take effect one year, or such longer period as may be specified in the instrument, after its deposit.

ARTICLE VIII

Deposit and Registration

1. The present Convention and the Regulations shall be deposited with the Organization, and the Secretary-General shall transmit certified true copies thereof to all Governments of States that have signed this Convention or acceded to it.

2. When the present Convention enters into force, the text shall be transmitted by the Secretary-General to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

ARTICLE IX

Languages

The present Convention is established, together with the Regulations, in a single copy in the English and French languages, both texts being equally authentic. Official translations in the Russian and Spanish languages shall be prepared and deposited with the signed original.

INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA, 1972

PART A—GENERAL

RULE 1

Application

(a) These Rules shall apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels.

(b) Nothing in these Rules shall interfere with the operation of special rules made by an appropriate authority for roadsteads, harbours, rivers, lakes or inland waterways connected with the high seas and navigable by seagoing vessels. Such special rules shall conform as closely as possible to these Rules.

(c) Nothing in these Rules shall interfere with the operation of any special rules made by the Government of any State with respect to additional station or signal lights or whistle signals for ships of war and vessels proceeding under convoy, or with respect to additional station or signal lights for fishing vessels engaged in fishing as a fleet. These additional station or signal lights or whistle signals shall, so far as possible, be such that they cannot be mistaken for any light or signal authorized elsewhere under these Rules.

(d) Traffic separation schemes may be adopted by the Organization for the purpose of these Rules.

(e) Whenever the Government concerned shall have determined that a vessel of special construction or purpose cannot comply fully with the provisions of any of these Rules with respect to the number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signalling appliances, without interfering with the special function of the vessel, such vessel shall comply with such other provisions in regard to the number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signalling appliances, as her Government shall have determined to be the closest possible compliance with these Rules in respect to that vessel.

RULE 2

Responsibility

(a) Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

(b) In construing and complying with these Rules due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved, which may make a departure from these Rules necessary to avoid immediate danger.

RULE 3

General Definitions

For the purpose of these Rules, except where the context otherwise requires:

(a) The word "vessel" includes every description of water craft, including non-displacement craft and seaplanes, used or capable of being used as a means of transportation on water.

(b) The term "power-driven vessel" means any vessel propelled by machinery.

(c) The term "sailing vessel" means any vessel under sail provided that propelling machinery, if fitted, is not being used.

(d) The term "vessel engaged in fishing" means any vessel fishing with nets, lines, trawls or other fishing apparatus which restrict manoeuvrability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict manoeuvrability.

(e) The word "seaplane" includes any aircraft designed to manoeuvre on the water.

(f) The term "vessel not under command" means a vessel which through some exceptional circumstance is unable to manoeuvre as required by these Rules and is therefore unable to keep out of the way of another vessel.

(g) The term "vessel restricted in her ability to manoeuvre" means a vessel which from the nature of her work is restricted in her ability to manoeuvre as required by these Rules and is therefore unable to keep out of the way of another vessel.

The following vessels shall be regarded as vessels restricted in their ability to manoeuvre:

(i) a vessel engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline;

(ii) a vessel engaged in dredging, surveying or underwater operations;

(iii) a vessel engaged in replenishment or transferring persons, provisions or cargo while underway;

(iv) a vessel engaged in the launching or recovery of aircraft;

(v) a vessel engaged in minesweeping operations;

(vi) a vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course.

(h) The term "vessel constrained by her draught" means a power-driven vessel which because of her draught in relation to the available depth of water is severely restricted in her ability to deviate from the course she is following.

(i) The word "underway" means that a vessel is not at anchor, or made fast to the shore, or aground.

(j) The words "length" and "breadth" of a vessel mean her length overall and greatest breadth.

(k) Vessels shall be deemed to be in sight of one another only when one can be observed visually from the other.

(l) The term "restricted visibility" means any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sandstorms or any other similar causes.

PART B—STEERING AND SAILING RULES

SECTION I—CONDUCT OF VESSELS IN ANY CONDITION OF VISIBILITY

RULE 4

Application

Rules in this Section apply in any condition of visibility.

RULE 5

Look-out

Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

RULE 6

Safe speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) By all vessels:
- (i) the state of visibility;
- (ii) the traffic density including concentrations of fishing vessels or any other vessels;
- (iii) the manoeuvrability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;
- (iv) at night the presence of background light such as from shore lights or from back scatter of her own lights;
- (v) the state of wind, sea and current, and the proximity of navigational hazards;
- (vi) the draught in relation to the available depth of water.

(b) Additionally, by vessels with operational radar:
- (i) the characteristics, efficiency and limitations of the radar equipment;
- (ii) any constraints imposed by the radar range scale in use;
- (iii) the effect on radar detection of the sea state, weather and other sources of interference;
- (iv) the possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;
- (v) the number, location and movement of vessels detected by radar;
- (vi) the more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.

RULE 7

Risk of Collision

(a) Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.

(b) Proper use shall be made of radar equipment if fitted and operational, including long-range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.

(c) Assumptions shall not be made on the basis of scanty information, especially scanty radar information.

(d) In determining if risk of collision exists the following considerations shall be among those taken into account:

  (i) such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change;

  (ii) such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.

RULE 8

Action to avoid collision

(a) Any action taken to avoid collision shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.

(b) Any alteration of course and/or speed to avoid collision shall, if the circumstances of the case admit, be large enough to be readily apparent to another vessel observing visually or by radar; a succession of small alterations of course and/or speed should be avoided.

(c) If there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it is made in good time, is substantial and does not result in another close-quarters situation.

(d) Action taken to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the action shall be carefully checked until the other vessel is finally past and clear.

(e) If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.

RULE 9

Narrow channels

(a) A vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable.

(b) A vessel of less than 20 metres in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.

(c) A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.

(d) A vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel which can safely navigate only within such channel or fairway. The latter vessel may use the sound signal prescribed in Rule 34 (d) if in doubt as to the intention of the crossing vessel.

(e) (i) In a narrow channel or fairway when overtaking can take place only if the vessel to be overtaken has to take action to permit safe passing, the vessel intending to overtake shall indicate her intention by sounding the appropriate signal prescribed in Rule 34 (c) (i). The vessel to be overtaken shall, if in agreement, sound the appropriate signal prescribed in Rule 34 (c) (ii) and take steps to permit safe passing. If in doubt she may sound the signals prescribed in Rule 34 (d).

(ii) This Rule does not relieve the overtaking vessel of her obligation under Rule 13.

(f) A vessel nearing a bend or an area of a narrow channel or fairway where other vessels may be obscured by an intervening obstruction shall navigate with particular alertness and caution and shall sound the appropriate signal prescribed in Rule 34 (e).

(g) Any vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel.

RULE 10

Traffic separation schemes

(a) This Rule applies to traffic separation schemes adopted by the Organization.

(b) A vessel using a traffic separation scheme shall:

(i) proceed in the appropriate traffic lane in the general direction of traffic flow for that lane;

(ii) so far as practicable keep clear of a traffic separation line or separation zone;

(iii) normally join or leave a traffic lane at the termination of the lane, but when joining or leaving from the side shall do so at as small an angle to the general direction of traffic flow as practicable.

(c) A vessel shall so far as practicable avoid crossing traffic lanes, but if obliged to do so shall cross as nearly as practicable at right angles to the general direction of traffic flow.

(d) Inshore traffic zones shall not normally be used by through traffic which can safely use the appropriate traffic lane within the adjacent traffic separation scheme.

(e) A vessel, other than a crossing vessel, shall not normally enter a separation zone or cross a separation line except:

(i) in cases of emergency to avoid immediate danger;

(ii) to engage in fishing within a separation zone.

(f) A vessel navigating in areas near the termination of traffic separation schemes shall do so with particular caution.

(g) A vessel shall so far as practicable avoid anchoring in a traffic separation scheme or in areas near its terminations.

(h) A vessel not using a traffic separation scheme shall avoid it by as wide a margin as is practicable.

(i) A vessel engaged in fishing shall not impede the passage of any vessel following a traffic lane.

(j) A vessel of less than 20 metres in length or a sailing vessel shall not impede the safe passage of a power-driven vessel following a traffic lane.

SECTION II—CONDUCT OF VESSELS IN SIGHT OF ONE ANOTHER

RULE 11

Application

Rules in this Section apply to vessels in sight of one another.

RULE 12

Sailing vessels

(a) When two sailing vessels are approaching one another, so as to involve risk of collision, one of them shall keep out of the way of the other as follows:

(i) when each has the wind on a different side, the vessel which has the wind on the port side shall keep out of the way of the other;

(ii) when both have the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward;

(iii) if a vessel with the wind on the port side sees a vessel to windward and cannot determine with certainty whether the other vessel has the wind on the port or on the starboard side, she shall keep out of the way of the other.

(b) For the purposes of this Rule the windward side shall be deemed to be the side opposite to that on which the mainsail is carried or, in the case of a square-rigged vessel, the side opposite to that on which the largest fore-and-aft sail is carried.

RULE 13

Overtaking

(a) Notwithstanding anything contained in the Rules of this Section any vessel overtaking any other shall keep out of the way of the vessel being overtaken.

(b) A vessel shall be deemed to be overtaking when coming up with another vessel from a direction more than 22.5 degrees abaft her beam, that is, in such a position with reference to the vessel she is overtaking, that at night she would be able to see only the sternlight of that vessel but neither of her sidelights.

(c) When a vessel is in any doubt as to whether she is overtaking another, she shall assume that this is the case and act accordingly.

(d) Any subsequent alteration of the bearing between the two vessels shall not make the overtaking vessel a crossing vessel within the meaning of these Rules or relieve her of the duty of keeping clear of the overtaken vessel until she is finally past and clear.

RULE 14

Head on situation

(a) When two power-driven vessels are meeting on reciprocal or nearly reciprocal courses so as to involve risk of collision each shall alter her course to starboard so that each shall pass on the port side of the other.

(b) Such a situation shall be deemed to exist when a vessel sees the other ahead or nearly ahead and by night she could see the masthead lights of the

other in a line or nearly in a line and/or both sidelights and by day she observes the corresponding aspect of the other vessel.

(c) When a vessel is in any doubt as to whether such a situation exists she shall assume that it does exist and act accordingly.

RULE 15

Crossing Situation

When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.

RULE 16

Action by give-way vessel

Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.

RULE 17

Action by stand-on vessel

(a) (i) Where one of two vessels is to keep out of the way the other shall keep her course and speed.

(ii) The latter vessel may however take action to avoid collision by her manoeuvre alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action in compliance with these Rules.

(b) When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.

(c) A power-driven vessel which takes action in a crossing situation in accordance with sub-paragraph (a) (ii) of this Rule to avoid collision with another power-driven vessel shall, if the circumstances of the case admit, not alter course to port for a vessel on her own port side.

(d) This Rule does not relieve the give-way vessel of her obligation to keep out of the way.

RULE 18

Responsibilities between vessels

Except where Rules 9, 10 and 13 otherwise require:

(a) A power-driven vessel underway shall keep out of the way of:
  (i) a vessel not under command;
  (ii) a vessel restricted in her ability to manoeuvre;
  (iii) a vessel engaged in fishing;
  (iv) a sailing vessel.

(b) A sailing vessel underway shall keep out of the way of:
  (i) a vessel not under command;
  (ii) a vessel restricted in her ability to manoeuvre;
  (iii) a vessel engaged in fishing.

(c) A vessel engaged in fishing when underway shall, so far as possible, keep out of the way of:
  (i) a vessel not under command;
  (ii) a vessel restricted in her ability to manoeuvre.

(d) (i) Any vessel other than a vessel not under command or a vessel restricted in her ability to manoeuvre shall, if the circumstances of the case admit, avoid impeding the safe passage of a vessel constrained by her draught, exhibiting the signals in Rule 28.
  (ii) A vessel constrained by her draught shall navigate with particular caution having full regard to her special condition.

(e) A seaplane on the water shall, in general, keep well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with the Rules of this Part.

SECTION III—CONDUCT OF VESSELS IN RESTRICTED VISIBILITY

RULE 19

Conduct of vessels in restricted visibility

(a) This Rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.

(b) Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility. A power-driven vessel shall have her engines ready for immediate manoeuvre.

(c) Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the Rules of Section I of this Part.

(d) A vessel which detects by radar alone the presence of another vessel shall determine if a close-quarters situation is developing and/or risk of collision exists. If so, she shall take avoiding action in ample time, provided that when such action consists of an alteration of course, so far as possible the following shall be avoided:

(i) an alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken;

(ii) an alteration of course towards a vessel abeam or abaft the beam.

(e) Except where it has been determined that a risk of collision does not exist, every vessel which hears apparently forward of her beam the fog signal of another vessel, or which cannot avoid a close-quarters situation with another vessel forward of her beam, shall reduce her speed to the minimum at which she can be kept on her course. She shall if necessary take all her way off and in any event navigate with extreme caution until danger of collision is over.

PART C—LIGHTS AND SHAPES

RULE 20

Application

(a) Rules in this Part shall be complied with in all weathers.

(b) The Rules concerning lights shall be complied with from sunset to sunrise, and during such times no other lights shall be exhibited, except such lights as cannot be mistaken for the lights specified in these Rules or do not impair their visibility or distinctive character, or interfere with the keeping of a proper look-out.

(c) The lights prescribed by these Rules shall, if carried, also be exhibited from sunrise to sunset in restricted visibility and may be exhibited in all other circumstances when it is deemed necessary.

(d) The Rules concerning shapes shall be complied with by day.

(e) The lights and shapes specified in these Rules shall comply with the provisions of Annex I to these Regulations.

RULE 21

Definitions

(a) "Masthead light" means a white light placed over the fore and aft centreline of the vessel showing an unbroken light over an arc of the horizon of 225 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the vessel.

(b) "Sidelights" means a green light on the starboard side and a red light on the port side each showing an unbroken light over an arc of the horizon of 112.5 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on its respective side. In a vessel of less than 20 metres in length the sidelights may be combined in one lantern carried on the fore and aft centreline of the vessel.

(c) "Sternlight" means a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed as to show the light 67.5 degrees from right aft on each side of the vessel.

(d) "Towing light" means a yellow light having the same characteristics as the "sternlight" defined in paragraph (c) of this Rule.

(e) "All-round light" means a light showing an unbroken light over an arc of the horizon of 360 degrees.

(f) "Flashing light" means a light flashing at regular intervals at a frequency of 120 flashes or more per minute.

RULE 22

Visibility of Lights

The lights prescribed in these Rules shall have an intensity as specified in Section 8 of Annex I to these Regulations so as to be visible at the following minimum ranges:

(a) In vessels of 50 metres or more in length:
—a masthead light, 6 miles;
—a sidelight, 3 miles;
—a sternlight, 3 miles;
—a towing light, 3 miles;
—a white, red, green or yellow all-round light, 3 miles.

(b) In vessels of 12 metres or more in length but less than 50 metres in length:
—a masthead light, 5 miles; except that where the length of the vessel is less than 20 metres, 3 miles;
—a sidelight, 2 miles;

—a sternlight, 2 miles;
—a towing light, 2 miles;
—a white, red, green or yellow all-round light, 2 miles.

(c) In vessels of less than 12 metres in length:
—a masthead light, 2 miles;
—a sidelight, 1 mile;
—a sternlight, 2 miles;
—a towing light, 2 miles;
—a white, red, green or yellow all-round light, 2 miles.

RULE 23

Power-driven vessels underway

(a) A power-driven vessel underway shall exhibit:
  (i) a masthead light forward;
  (ii) a second masthead light abaft of and higher than the forward one; except that a vessel of less than 50 metres in length shall not be obliged to exhibit such light but may do so;
  (iii) sidelights;
  (iv) a sternlight.

(b) An air-cushion vessel when operating in the non-displacement mode shall, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit an all-round flashing yellow light.

(c) A power-driven vessel of less than 7 metres in length and whose maximum speed does not exceed 7 knots may, in lieu of the lights prescribed in paragraph (a) of this Rule, exhibit an all-round white light. Such vessel shall, if practicable, also exhibit sidelights.

RULE 24

Towing and pushing

(a) A power-driven vessel when towing shall exhibit:
  (i) instead of the light prescribed in Rule 23 (a) (i), two masthead lights forward in a vertical line. When the length of the tow, measuring from the stern of the towing vessel to the after end of the tow exceeds 200 metres, three such lights in a vertical line;
  (ii) sidelights;
  (iii) a sternlight;
  (iv) a towing light in a vertical line above the sternlight;

(v) when the length of the tow exceeds 200 metres, a diamond shape where it can best be seen.

(b) When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power-driven vessel and exhibit the lights prescribed in Rule 23.

(c) A power-driven vessel when pushing ahead or towing alongside, except in the case of a composite unit, shall exhibit:

(i) instead of the light prescribed in Rule 23 (a) (i), two masthead lights forward in a vertical line;

(ii) sidelights;

(iii) a sternlight.

(d) A power-driven vessel to which paragraphs (a) and (c) of this Rule apply shall also comply with Rule 23 (a) (ii).

(e) A vessel or object being towed shall exhibit:

(i) sidelights;

(ii) a sternlight;

(iii) when the length of the tow exceeds 200 metres, a diamond shape where it can best be seen.

(f) Provided that any number of vessels being towed alongside or pushed in a group shall be lighted as one vessel,

(i) a vessel being pushed ahead, not being part of a composite unit, shall exhibit at the forward end, sidelights;

(ii) a vessel being towed alongside shall exhibit a sternlight and at the forward end, sidelights.

(g) Where from any sufficient cause it is impracticable for a vessel or object being towed to exhibit the lights prescribed in paragraph (e) of this Rule, all possible measures shall be taken to light the vessel or object towed or at least to indicate the presence of the unlighted vessel or object.

RULE 25

Sailing vessels underway and vessels under oars

(a) A sailing vessel underway shall exhibit:

(i) sidelights;

(ii) a sternlight.

(b) In a sailing vessel of less than 12 metres in length the lights prescribed in paragraph (a) of this Rule may be combined in one lantern carried at or near the top of the mast where it can best be seen.

(c) A sailing vessel underway may, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line, the upper being red and the lower green, but these lights shall not be exhibited in conjunction with the combined lantern permitted by paragraph (b) of this Rule.

(d) (i) A sailing vessel of less than 7 metres in length shall, if practicable, exhibit the lights prescribed in paragraph (a) or (b) of this Rule, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(ii) A vessel under oars may exhibit the lights prescribed in this Rule for sailing vessels, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(e) A vessel proceeding under sail when also being propelled by machinery shall exhibit forward where it can best be seen a conical shape, apex downwards.

RULE 26

Fishing vessels

(a) A vessel engaged in fishing, whether underway or at anchor, shall exhibit only the lights and shapes prescribed in this Rule.

(b) A vessel when engaged in trawling, by which is meant the dragging through the water of a dredge net or other apparatus used as a fishing appliance, shall exhibit:

(i) two all-round lights in a vertical line, the upper being green and the lower white, or a shape consisting of two cones with their apexes together in a vertical line one above the other; a vessel of less than 20 metres in length may instead of this shape exhibit a basket;

(ii) a masthead light abaft of and higher than the all-round green light; a vessel of less than 50 metres in length shall not be obliged to exhibit such a light but may do so;

(iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.

(c) A vessel engaged in fishing, other than trawling, shall exhibit:

(i) two all-round lights in a vertical line, the upper being red and the lower white, or a shape consisting of two cones with apexes together in a vertical line one above the other; a vessel of less

than 20 metres in length may instead of this shape exhibit a basket;

(ii) when there is outlying gear extending more than 150 metres horizontally from the vessel, an all-round white light or a cone apex upwards in the direction of the gear;

(iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.

(d) A vessel engaged in fishing in close proximity to other vessels engaged in fishing may exhibit the additional signals described in Annex II to these Regulations.

(e) A vessel when not engaged in fishing shall not exhibit the lights or shapes prescribed in this Rule, but only those prescribed for a vessel of her length.

RULE 27

Vessels not under command or restricted in their ability to manoeuvre

(a) A vessel not under command shall exhibit:

(i) two all-round red lights in a vertical line where they can best be seen;

(ii) two balls or similar shapes in a vertical line where they can best be seen;

(iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.

(b) A vessel restricted in her ability to manoeuvre, except a vessel engaged in minesweeping operations, shall exhibit:

(i) three all-round lights in a vertical line where they can best be seen. The highest and lowest of these lights shall be red and the middle light shall be white;

(ii) three shapes in a vertical line where they can best be seen. The highest and lowest of these shapes shall be balls and the middle one a diamond;

(iii) when making way through the water, masthead lights, sidelights and a sternlight, in addition to the lights prescribed in sub-paragraph (i);

(iv) when at anchor, in addition to the lights or shapes prescribed in sub-paragraphs (i) and (ii), the light, lights or shape prescribed in Rule 30.

(c) A vessel engaged in a towing operation such as renders her unable to deviate from her course shall, in addition to the lights or shapes prescribed

in sub-paragraphs (b) (i) and (ii) of this Rule, exhibit the lights or shape prescribed in Rule 24 (a).

(d) A vessel engaged in dredging or underwater operations, when restricted in her ability to manoeuvre, shall exhibit the lights and shapes prescribed in paragraph (b) of this Rule and shall in addition, when an obstruction exists, exhibit:

(i) two all-round red lights or two balls in a vertical line to indicate the side on which the obstruction exists;

(ii) two all-round green lights or two diamonds in a vertical line to indicate the side on which another vessel may pass;

(iii) when making way through the water, in addition to the lights prescribed in this paragraph, masthead lights, sidelights and a sternlight;

(iv) a vessel to which this paragraph applies when at anchor shall exhibit the lights or shapes prescribed in sub-paragraphs (i) and (ii) instead of the lights or shape prescribed in Rule 30.

(e) Whenever the size of a vessel engaged in diving operations makes it impracticable to exhibit the shapes prescribed in paragraph (d) of this Rule, a rigid replica of the International Code flag "A" not less than 1 metre in height shall be exhibited. Measures shall be taken to ensure all-round visibility.

(f) A vessel engaged in minesweeping operations shall, in addition to the lights prescribed for a power-driven vessel in Rule 23, exhibit three all-round green lights or three balls. One of these lights or shapes shall be exhibited at or near the foremast head and one at each end of the fore yard. These lights or shapes indicate that it is dangerous for another vessel to approach closer than 1,000 metres astern or 500 metres on either side of the minesweeper.

(g) Vessels of less than 7 metres in length shall not be required to exhibit the lights prescribed in this Rule.

(h) The signals prescribed in this Rule are not signals of vessels in distress and requiring assistance. Such signals are contained in Annex IV to these Regulations.

RULE 28

Vessels constrained by their draught

A vessel constrained by her draught may, in addition to the lights prescribed for power-driven vessels in Rule 23, exhibit where they can best be seen three all-round red lights in a vertical line, or a cylinder.

RULE 29

Pilot vessels

(a) A vessel engaged on pilotage duty shall exhibit:

(i) at or near the masthead, two all-round lights in a vertical line, the upper being white and the lower red;

(ii) when underway, in addition, sidelights and a sternlight;

(iii) when at anchor, in addition to the lights prescribed in sub-paragraph (i), the anchor light, lights or shape.

(b) A pilot vessel when not engaged on pilotage duty shall exhibit the lights or shapes prescribed for a similar vessel of her length.

RULE 30

Anchored vessels and vessels aground

(a) A vessel at anchor shall exhibit where it can best be seen:

(i) in the fore part, an all-round white light or one ball;

(ii) at or near the stern and at a lower level than the light prescribed in sub-paragraph (i), an all-round white light.

(b) A vessel of less than 50 metres in length may exhibit an all-round white light where it can best be seen instead of the lights prescribed in paragraph (a) of this Rule.

(c) A vessel at anchor may, and a vessel of 100 metres and more in length shall, also use the available working or equivalent lights to illuminate her decks.

(d) A vessel aground shall exhibit the lights prescribed in paragraph (a) or (b) of this Rule and in addition, where they can best be seen:

(i) two all-round red lights in a vertical line;

(ii) three balls in a vertical line.

(e) A vessel of less than 7 metres in length, when at anchor or aground, not in or near a narrow channel, fairway or anchorage, or where other vessels normally navigate, shall not be required to exhibit the lights or shapes prescribed in paragraphs (a), (b) or (d) of this Rule.

RULE 31

Seaplanes

Where it is impracticable for a seaplane to exhibit lights and shapes of the characteristics or in the positions prescribed in the Rules of this Part she shall exhibit lights and shapes as closely similar in characteristics and position as is possible.

PART D—SOUND AND LIGHT SIGNALS

RULE 32

Definitions

(a) The word "whistle" means any sound signalling appliance capable of producing the prescribed blasts and which complies with the specifications in Annex III to these Regulations.

(b) The term "short blast" means a blast of about one second's duration.

(c) The term "prolonged blast" means a blast of from four to six seconds' duration.

RULE 33

Equipment for sound signals

(a) A vessel of 12 metres or more in length shall be provided with a whistle and a bell and a vessel of 100 metres or more in length shall, in addition, be provided with a gong, the tone and sound of which cannot be confused with that of the bell. The whistle, bell and gong shall comply with the specifications in Annex III to these Regulations. The bell or gong or both may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the required signals shall always be possible.

(b) A vessel of less than 12 metres in length shall not be obliged to carry the sound signalling appliances prescribed in paragraph (a) of this Rule but if she does not, she shall be provided with some other means of making an efficient sound signal.

RULE 34

Manoeuvring and warning signals

(a) When vessels are in sight of one another, a power-driven vessel underway, when manoeuvring as authorized or required by these Rules, shall indicate that manoeuvre by the following signals on her whistle:

—one short blast to mean "I am altering my course to starboard";
—two short blasts to mean "I am altering my course to port";
—three short blasts to mean "I am operating astern propulsion".

(b) Any vessel may supplement the whistle signals prescribed in paragraph (a) of this Rule by light signals, repeated as appropriate, whilst the manoeuvre is being carried out:

(i) these light signals shall have the following significance:

—one flash to mean "I am altering my course to starboard";
—two flashes to mean "I am altering my course to port";
—three flashes to mean "I am operating astern propulsion";

(ii) the duration of each flash shall be about one second, the interval between flashes shall be about one second, and the interval between successive signals shall be not less than ten seconds;

(iii) the light used for this signal shall, if fitted, be an all-round white light, visible at a minimum range of 5 miles, and shall comply with the provisions of Annex I.

(c) When in sight of one another in a narrow channel or fairway:

(i) a vessel intending to overtake another shall in compliance with Rule 9 (e) (i) indicate her intention by the following signals on her whistle:

—two prolonged blasts followed by one short blast to mean "I intend to overtake you on your starboard side";
—two prolonged blasts followed by two short blasts to mean "I intend to overtake you on your port side";

(ii) the vessel about to be overtaken when acting in accordance with Rule 9 (e) (i) shall indicate her agreement by the following signal on her whistle:

—one prolonged, one short, one prolonged and one short blast, in that order.

(d) When vessels in sight of one another are approaching each other and from any cause either vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall immediately indicate such doubt by

giving at least five short and rapid blasts on the whistle. Such signal may be supplemented by a light signal of at least five short and rapid flashes.

(e) A vessel nearing a bend or an area of a channel or fairway where other vessels may be obscured by an intervening obstruction shall sound one prolonged blast. Such signal shall be answered with a prolonged blast by any approaching vessel that may be within hearing around the bend or behind the intervening obstruction.

(f) If whistles are fitted on a vessel at a distance apart of more than 100 metres, one whistle only shall be used for giving manoeuvring and warning signals.

RULE 35

Sound signals in restricted visibility

In or near an area of restricted visibility, whether by day or night, the signals prescribed in this Rule shall be used as follows:

(a) A power-driven vessel making way through the water shall sound at intervals of not more than 2 minutes one prolonged blast.

(b) A power-driven vessel underway but stopped and making no way through the water shall sound at intervals of not more than 2 minutes two prolonged blasts in succession with an interval of about 2 seconds between them.

(c) A vessel not under command, a vessel restricted in her ability to manoeuvre, a vessel constrained by her draught, a sailing vessel, a vessel engaged in fishing and a vessel engaged in towing or pushing another vessel shall, instead of the signals prescribed in paragraphs (a) or (b) of this Rule, sound at intervals of not more than 2 minutes three blasts in succession, namely one prolonged followed by two short blasts.

(d) A vessel towed or if more than one vessel is towed the last vessel of the tow, if manned, shall at intervals of not more than 2 minutes sound four blasts in succession, namely one prolonged followed by three short blasts. When practicable, this signal shall be made immediately after the signal made by the towing vessel.

(e) When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power-driven vessel and shall give the signals prescribed in paragraphs (a) or (b) of this Rule.

(f) A vessel at anchor shall at intervals of not more than one minute ring the bell rapidly for about 5 seconds. In a vessel of 100 metres or more in length the bell shall be sounded in the forepart of the vessel and

immediately after the ringing of the bell the gong shall be sounded rapidly for about 5 seconds in the after part of the vessel. A vessel at anchor may in addition sound three blasts in succession, namely one short, one prolonged and one short blast, to give warning of her position and of the possibility of collision to an approaching vessel.

(g) A vessel aground shall give the bell signal and if required the gong signal prescribed in paragraph (f) of this Rule and shall, in addition, give three separate and distinct strokes on the bell immediately before and after the rapid ringing of the bell. A vessel aground may in addition sound an appropriate whistle signal.

(h) A vessel of less than 12 metres in length shall not be obliged to give the above-mentioned signals but, if she does not, shall make some other efficient sound signal at intervals of not more than 2 minutes.

(i) A pilot vessel when engaged on pilotage duty may in addition to the signals prescribed in paragraphs (a), (b) or (f) of this Rule sound an identity signal consisting of four short blasts.

RULE 36

Signals to attract attention

If necessary to attract the attention of another vessel any vessel may make light or sound signals that cannot be mistaken for any signal authorized elsewhere in these Rules, or may direct the beam of her searchlight in the direction of the danger, in such a way as not to embarrass any vessel.

RULE 37

Distress signals

When a vessel is in distress and requires assistance she shall use or exhibit the signals prescribed in Annex IV to these Regulations.

PART E—EXEMPTIONS

RULE 38

Exemptions

Any vessel (or class of vessels) provided that she complies with the requirements of the International Regulations for Preventing Collisions at Sea, 1960, the keel of which is laid or which is at a corresponding stage of

construction before the entry into force of these Regulations may be exempted from compliance therewith as follows:

(a) The installation of lights with ranges prescribed in Rule 22, until four years after the date of entry into force of these Regulations.

(b) The installation of lights with colour specifications as prescribed in Section 7 of Annex I to these Regulations, until four years after the date of entry into force of these Regulations.

(c) The repositioning of lights as a result of conversion from Imperial to metric units and rounding off measurement figures, permanent exemption.

(d) (i) The repositioning of masthead lights on vessels of less than 150 metres in length, resulting from the prescriptions of Section 3 (a) of Annex I, permanent exemption.

(ii) The repositioning of masthead lights on vessels of 150 metres or more in length, resulting from the prescriptions of Section 3 (a) of Annex I to these Regulations, until nine years after the date of entry into force of these Regulations.

(e) The repositioning of masthead lights resulting from the prescriptions of Section 2 (b) of Annex I, until nine years after the date of entry into force of these Regulations.

(f) The repositioning of sidelights resulting from the prescriptions of Sections 2 (g) and 3 (b) of Annex I, until nine years after the date of entry into force of these Regulations.

(g) The requirements for sound signal appliances prescribed in Annex III, until nine years after the date of entry into force of these Regulations.

ANNEX I

POSITIONING AND TECHNICAL DETAILS OF LIGHTS AND SHAPES

1. *Definition*

   The term "height above the hull" means height above the uppermost continuous deck.

2. *Vertical positioning and spacing of lights*

   (a) On a power-driven vessel of 20 metres or more in length the masthead lights shall be placed as follows:

      (i) the forward masthead light, or if only one masthead light is carried, then that light, at a height above the hull of not less than 6 metres, and, if the breadth of the vessel exceeds 6 metres, then at a height above the hull not less than such breadth, so however that the light need not be placed at a greater height above the hull than 12 metres;

      (ii) when two masthead lights are carried the after one shall be at least 4.5 metres vertically higher than the forward one.

   (b) The vertical separation of masthead lights of power-driven vessels shall be such that in all normal conditions of trim the after light will be seen over and separate from the forward light at a distance of 1000 metres from the stem when viewed from sea level.

   (c) The masthead light of a power-driven vessel of 12 metres but less than 20 metres in length shall be placed at a height above the gunwale of not less than 2.5 metres.

   (d) A power-driven vessel of less than 12 metres in length may carry the uppermost light at a height of less than 2.5 metres above the gunwale. When however a masthead light is carried in addition to sidelights and a sternlight, then such masthead light shall be carried at least 1 metre higher than the sidelights.

   (e) One of the two or three masthead lights prescribed for a power-driven vessel when engaged in towing or pushing another vessel shall be placed in the same position as the forward masthead light of a power-driven vessel.

   (f) In all circumstances the masthead light or lights shall be so placed as to be above and clear of all other lights and obstructions.

(g) The sidelights of a power-driven vessel shall be placed at a height above the hull not greater than three quarters of that of the forward masthead light. They shall not be so low as to be interfered with by deck lights.

(h) The sidelights, if in a combined lantern and carried on a power-driven vessel of less than 20 metres in length, shall be placed not less than 1 metre below the masthead light.

(i) When the Rules prescribe two or three lights to be carried in a vertical line, they shall be spaced as follows:

(i) on a vessel of 20 metres in length or more such lights shall be spaced not less than 2 metres apart, and the lowest of these lights shall, except where a towing light is required, not be less than 4 metres above the hull;

(ii) on a vessel of less than 20 metres in length such lights shall be spaced not less than 1 metre apart and the lowest of these lights shall, except where a towing light is required, not be less than 2 metres above the gunwale;

(iii) when three lights are carried they shall be equally spaced.

(j) The lower of the two all-round lights prescribed for a fishing vessel when engaged in fishing shall be at a height above the sidelights not less than twice the distance between the two vertical lights.

(k) The forward anchor light, when two are carried, shall not be less than 4.5 metres above the after one. On a vessel of 50 metres or more in length this forward anchor light shall not be less than 6 metres above the hull.

3. *Horizontal positioning and spacing of lights*

(a) When two masthead lights are prescribed for a power-driven vessel, the horizontal distance between them shall not be less than one half of the length of the vessel but need not be more than 100 metres. The forward light shall be placed not more than one quarter of the length of the vessel from the stem.

(b) On a vessel of 20 metres or more in length the sidelights shall not be placed in front of the forward masthead lights. They shall be placed at or near the side of the vessel.

4. *Details of location of direction-indicating lights for fishing vessels, dredgers and vessels engaged in underwater operations*

(a) The light indicating the direction of the outlying gear from a vessel engaged in fishing as prescribed in Rule 26 (c) (ii) shall be placed at a horizontal distance of not less than 2 metres and not more than 6 metres

away from the two all-round red and white lights. This light shall be placed not higher than the all-round white light prescribed in Rule 26 (c) (i) and not lower than the sidelights.

(b) The lights and shapes on a vessel engaged in dredging or underwater operations to indicate the obstructed side and/or the side on which it is safe to pass, as prescribed in Rule 27 (d) (i) and (ii), shall be placed at the maximum practical horizontal distance, but in no case less than 2 metres, from the lights or shapes prescribed in Rule 27 (b) (i) and (ii). In no case shall the upper of these lights or shapes be at a greater height than the lower of the three lights or shapes prescribed in Rule 27 (b) (i) and (ii).

5. *Screens for sidelights*

The sidelights shall be fitted with inboard screens painted matt black, and meeting the requirements of Section 9 of this Annex. With a combined lantern, using a single vertical filament and a very narrow division between the green and red sections, external screens need not be fitted.

6. *Shapes*

(a) Shapes shall be black and of the following sizes:

(i) a ball shall have a diameter of not less than 0.6 metre;

(ii) a cone shall have a base diameter of not less than 0.6 metre and a height equal to its diameter;

(iii) a cylinder shall have a diameter of at least 0.6 metre and a height of twice its diameter;

(iv) a diamond shape shall consist of two cones as defined in (ii) above having a common base.

(b) The vertical distance between shapes shall be at least 1.5 metres.

(c) In a vessel of less than 20 metres in length shapes of lesser dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.

7. *Colour specification of lights*

The chromaticity of all navigation lights shall conform to the following standards, which lie within the boundaries of the area of the diagram specified for each colour by the International Commission on Illumination (CIE).

The boundaries of the area for each colour are given by indicating the corner co-ordinates, which are as follows:

(i) *White*

x	0.525	0.525	0.452	0.310	0.310	0.443
y	0.382	0.440	0.440	0.348	0.283	0.382

(ii) *Green*

x	0.028	0.009	0.300	0.203
y	0.385	0.723	0.511	0.356

(iii) *Red*

x	0.680	0.660	0.735	0.721
y	0.320	0.320	0.265	0.259

(iv) *Yellow*

x	0.612	0.618	0.575	0.575
y	0.382	0.382	0.425	0.406

8. *Intensity of lights*

(a) The minimum luminous intensity of lights shall be calculated by using the formula:

$$I = 3.43 \times 10^6 \times T \times D^2 \times K^{-D}$$

where I is luminous intensity in candelas under service conditions,

T is threshold factor 2×10^{-7} lux,

D is range of visibility (luminous range) of the light in nautical miles,

K is atmospheric transmissivity.

For prescribed lights the value of K shall be 0.8, corresponding to a meteorological visibility of approximately 13 nautical miles.

(b) A selection of figures derived from the formula is given in the following table:

Range of visibility (luminous range) of light in nautical miles D	Luminous intensity of light in candelas for K = 0.8 I
1	0.9
2	4.3
3	12
4	27
5	52
6	94

NOTE: The maximum luminous intensity of navigation lights should be limited to avoid undue glare.

9. *Horizontal Sectors*

(a) (i) In the forward direction, sidelights as fitted on the vessel must show the minimum required intensities. The intensities must

decrease to reach practical cut-off between 1 degree and 3 degrees outside the prescribed sectors.

(ii) For sternlights and masthead lights and at 22.5 degrees abaft the beam for sidelights, the minimum required intensities shall be maintained over the arc of the horizon up to 5 degrees within the limits of the sectors prescribed in Rule 21. From 5 degrees within the prescribed sectors the intensity may decrease by 50 per cent up to the prescribed limits; it shall decrease steadily to reach practical cut-off at not more than 5 degrees outside the prescribed limits.

(b) All-round lights shall be so located as not to be obscured by masts, topmasts or structures within angular sectors of more than 6 degrees, except anchor lights, which need not be placed at an impracticable height above the hull.

10. *Vertical Sectors*

(a) The vertical sectors of electric lights, with the exception of lights on sailing vessels shall ensure that:

(i) at least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;

(ii) at least 60 per cent of the required minimum intensity is maintained from 7.5 degrees above to 7.5 degrees below the horizontal.

(b) In the case of sailing vessels the vertical sectors of electric lights shall ensure that:

(i) at least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;

(ii) at least 50 per cent of the required minimum intensity is maintained from 25 degrees above to 25 degrees below the horizontal.

(c) In the case of lights other than electric these specifications shall be met as closely as possible.

11. *Intensity of non-electric lights*

Non-electric lights shall so far as practicable comply with the minimum intensities, as specified in the Table given in Section 8 of this Annex.

12. *Manoeuvring light*

Notwithstanding the provisions of paragraph 2 (f) of this Annex the manoeuvring light described in Rule 34 (b) shall be placed in the same fore and aft vertical plane as the masthead light or lights and, where practicable, at a minimum height of 2 metres vertically above the forward masthead light,

provided that it shall be carried not less than 2 metres vertically above or below the after masthead light. On a vessel where only one masthead light is carried the manoeuvring light, if fitted, shall be carried where it can best be seen, not less than 2 metres vertically apart from the masthead light.

13. *Approval*

The construction of lanterns and shapes and the installation of lanterns on board the vessel shall be to the satisfaction of the appropriate authority of the State where the vessel is registered.

ANNEX II

ADDITIONAL SIGNALS FOR FISHING VESSELS FISHING IN CLOSE PROXIMITY

1. *General*

The lights mentioned herein shall, if exhibited in pursuance of Rule 26 (d), be placed where they can best be seen. They shall be at least 0.9 metre apart but at a lower level than lights prescribed in Rule 26 (b) (i) and (c) (i). The lights shall be visible all round the horizon at a distance of at least 1 mile but at a lesser distance than the lights prescribed by these Rules for fishing vessels.

2. *Signals for Trawlers*

(a) Vessels when engaged in trawling, whether using demersal or pelagic gear, may exhibit:

(i) when shooting their nets: two white lights in a vertical line;

(ii) when hauling their nets: one white light over one red light in a vertical line;

(iii) when the net has come fast upon an obstruction: two red lights in a vertical line.

(b) Each vessel engaged in pair trawling may exhibit:

(i) by night, a searchlight directed forward and in the direction of the other vessel of the pair;

(ii) when shooting or hauling their nets or when their nets have come fast upon an obstruction, the lights prescribed in 2 (a) above.

3. *Signals for purse seiners*

Vessels engaged in fishing with purse seine gear may exhibit two yellow lights in a vertical line. These lights shall flash alternately every second and with equal light and occultation duration. These lights may be exhibited only when the vessel is hampered by its fishing gear.

ANNEX III

TECHNICAL DETAILS OF SOUND SIGNAL APPLIANCES

1. *Whistles*

(a) *Frequencies and range of audibility* The fundamental frequency of the signal shall lie within the range 70–700 Hz.

The range of audibility of the signal from a whistle shall be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, which lie within the range 180–700 Hz (± 1 per cent) and which provide the sound pressure levels specified in paragraph 1 (c) below.

(b) *Limits of fundamental frequencies* To ensure a wide variety of whistle characteristics, the fundamental frequency of a whistle shall be between the following limits:

(i) 70–200 Hz, for a vessel 200 metres or more in length;

(ii) 130–350 Hz, for a vessel 75 metres but less than 200 metres in length;

(iii) 250–700 Hz, for a vessel less than 75 metres in length.

(c) *Sound signal intensity and range of audibility* A whistle fitted in a vessel shall provide, in the direction of maximum intensity of the whistle and at a distance of 1 metre from it, a sound pressure level in at least one 1/3rd-octave band within the range of frequencies 180–700 Hz (± 1 per cent) of not less than the appropriate figure given in the table below.

Length of vessel in metres	1/3rd-octave band level at 1 metre in dB referred to 2×10^{-5} N/m^2	Audibility range in nautical miles
200 or more	143	2
75 but less than 200	138	1.5
20 but less than 75.....	130	1
Less than 20	120	0.5

The range of audibility in the table above is for information and is approximately the range at which a whistle may be heard on its forward axis with 90 per cent probability in conditions of still air on board a vessel having average background noise level at the listening posts

(taken to be 68 dB in the octave band centred on 250 Hz and 63 dB in the octave band centred on 500 Hz).

In practice the range at which a whistle may be heard is extremely variable and depends critically on weather conditions; the values given can be regarded as typical but under conditions of strong wind or high ambient noise level at the listening post the range may be much reduced.

(d) *Directional properties* The sound pressure level of a directional whistle shall be not more than 4 dB below the sound pressure level on the axis at any direction in the horizontal plane within ± 45 degrees of the axis. The sound pressure level at any other direction in the horizontal plane shall be not more than 10 dB below the sound pressure level on the axis, so that the range in any direction will be at least half the range on the forward axis. The sound pressure level shall be measured in that 1/3rd-octave band which determines the audibility range.

(e) *Positioning of whistles* When a directional whistle is to be used as the only whistle on a vessel, it shall be installed with its maximum intensity directed straight ahead.

A whistle shall be placed as high as practicable on a vessel, in order to reduce interception of the emitted sound by obstructions and also to minimize hearing damage risk to personnel. The sound pressure level of the vessel's own signal at listening posts shall not exceed 110 dB (A) and so far as practicable should not exceed 100 dB (A).

(f) *Fitting of more than one whistle* If whistles are fitted at a distance apart of more than 100 metres, it shall be so arranged that they are not sounded simultaneously.

(g) *Combined whistle systems* If due to the presence of obstructions the sound field of a single whistle or of one of the whistles referred to in paragraph 1 (f) above is likely to have a zone of greatly reduced signal level, it is recommended that a combined whistle system be fitted so as to overcome this reduction. For the purposes of the Rules a combined whistle system is to be regarded as a single whistle. The whistles of a combined system shall be located at a distance apart of not more than 100 metres and arranged to be sounded simultaneously. The frequency of any one whistle shall differ from those of the others by at least 10 Hz.

2. *Bell or gong*

(a) *Intensity of signal* A bell or gong, or other device having similar sound characteristics shall produce a sound pressure level of not less than 110 dB at 1 metre.

(b) *Construction* Bells and gongs shall be made of corrosion-resistant material and designed to give a clear tone. The diameter of the mouth of the bell shall be not less than 300 mm for vessels of more than 20 metres in length, and shall be not less than 200 mm for vessels of 12 to 20 metres in length. Where practicable, a power-driven bell striker is recommended to ensure constant force but manual operation shall be possible. The mass of the striker shall be not less than 3 per cent of the mass of the bell.

3. *Approval*

The construction of sound signal appliances, their performance and their installation on board the vessel shall be to the satisfaction of the appropriate authority of the State where the vessel is registered.

ANNEX IV

DISTRESS SIGNALS

1. The following signals, used or exhibited either together or separately, indicate distress and need of assistance:

(a) a gun or other explosive signal fired at intervals of about a minute;

(b) a continuous sounding with any fog-signalling apparatus;

(c) rockets or shells, throwing red stars fired one at a time at short intervals;

(d) a signal made by radiotelegraphy or by any other signalling method consisting of the group . . . - - - . . . (SOS) in the Morse Code;

(e) a signal sent by radiotelephony consisting of the spoken word "Mayday";

(f) the International Code Signal of distress indicated by N.C.;

(g) a signal consisting of a square flag having above or below it a ball or anything resembling a ball;

(h) flames on the vessel (as from a burning tar barrel, oil barrel, etc.);

(i) a rocket parachute flare or a hand flare showing a red light;

(j) a smoke signal giving off orange-coloured smoke;

(k) slowly and repeatedly raising and lowering arms outstretched to each side;

(l) the radiotelegraph alarm signal;

(m) the radiotelephone alarm signal;

(n) signals transmitted by emergency position-indicating radio beacons.

2. The use or exhibition of any of the foregoing signals except for the purpose of indicating distress and need of assistance and the use of other signals which may be confused with any of the above signals is prohibited.

3. Attention is drawn to the relevant sections of the International Code of Signals, the Merchant Ship Search and Rescue Manual and the following signals:

(a) a piece of orange-coloured canvas with either a black square and circle or other appropriate symbol (for identification from the air);

(b) a dye marker.

Schedule 4—Articles of, and Annexes to, the Load Line Convention

Section 187A

ARTICLE 1

General Obligation under the Convention

(1) The Contracting Governments undertake to give effect to the provisions of the present Convention and the Annexes hereto which shall constitute an integral part of the present Convention. Every reference to the present Convention constitutes at the same time a reference to Annexes.

(2) The Contracting Governments shall undertake all measures which may be necessary to give effect to the present Convention.

ARTICLE 2

Definitions

For the purpose of the present Convention, unless expressly provided otherwise:

(1) "Regulations" means the Regulations annexed to the present Convention.

(2) "Administration" means the Government of the State whose flag the ship is flying.

(3) "Approved" means approved by the Administration.

(4) "International voyage" means a sea voyage from a country to which the present Convention applies to a port outside such country, or conversely. For this purpose, every territory for the international relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country.

(5) A "fishing vessel" is a ship used for catching fish, whales, seals, walrus or other living resources of the sea.

(6) "New ship" means a ship the keel of which is laid, or which is at a similar stage of construction, on or after the date of coming into force of the present Convention for each Contracting Government.

(7) "Existing ship" means a ship which is not a new ship.

(8) "Length" means 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or the length from the fore side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.

ARTICLE 3

General Provisions

(1) No ship to which the present Convention applies shall proceed to sea on an international voyage after the date on which the present Convention comes into force unless it has been surveyed, marked and provided with an International Load Line Certificate (1966) or, where appropriate, an International Load Line Exemption Certificate in accordance with the provisions of the present Convention.

(2) Nothing in this Convention shall prevent an Administration from assigning a greater freeboard than the minimum freeboard determined in accordance with Annex I.

ARTICLE 4

Application

(1) The present Convention shall apply to:

(*a*) ships registered in countries the Governments of which are Contracting Governments;

(*b*) ships registered in territories to which the present Convention is extended under Article 32; and

(*c*) unregistered ships flying the flag of a State, the Government of which is a Contracting Government.

(2) The present Convention shall apply to ships engaged on international voyages.

(3) The Regulations contained in Annex I are specifically applicable to new ships.

(4) Existing ships which do not fully comply with the requirements of the Regulations contained in Annex I or any part thereof shall meet at least such lesser related requirements as the Administration applied to ships on

international voyages prior to the coming into force of the present Convention; in no case shall such ships be required to increase their freeboards. In order to take advantage of any reduction in freeboard from that previously assigned, existing ships shall comply with all requirements of the present Convention.

(5) The Regulations contained in Annex II are applicable to new and existing ships to which the present Convention applies.

ARTICLE 5

Exemptions

(1) The present Convention shall not apply to:

(*a*) ships of war;

(*b*) new ships of less than 24 metres (79 feet) in length;

(*c*) existing ships of less than 150 tons gross;

(*d*) pleasure yachts not engaged in trade;

(*e*) fishing vessels.

(2) Nothing herein shall apply to ships solely navigating:

(*a*) the Great Lakes of North America and the River St. Lawrence as far east as a rhumb line drawn from Cap des Rosiers to West Point, Anticosti Island, and, on the north side of Anticosti Island, the meridian of longitude 63°W;

(*b*) the Caspian Sea;

(*c*) the Plate, Parana and Uruguay Rivers as far east as a rhumb line drawn between Punta Norte, Argentina, and Punta del Este, Uruguay.

ARTICLE 6

Exemptions

(1) Ships when engaged on international voyages between the near neighbouring ports of two or more States may be exempted by the Administration from the provisions of the present Convention, so long as they shall remain engaged on such voyages, if the Governments of the States in which such ports are situated shall be satisfied that the sheltered nature or conditions of such voyages between such ports make it unreasonable or impracticable to apply the provisions of the present Convention to ships engaged on such voyages.

(2) The Administration may exempt any ship which embodies features of a novel kind from any of the provisions of this Convention the application of

which might seriously impede research into the development of such features and their incorporation in ships engaged on international voyages. Any such ship shall however, comply with safety requirements which, in the opinion of that Administration, are adequate for the service for which it is intended and are such as to ensure the overall safety of the ship and which are acceptable to the Governments of the States to be visited by the ship.

(3) The Administration which allows any exemption under paragraphs (1) and (2) of this Article shall communicate to the Inter-Governmental Maritime Consultative Organization (hereinafter called the Organization) particulars of the same and reasons therefor which the Organization shall circulate to the Contracting Governments for their information.

(4) A ship which is not normally engaged on international voyages but which, in exceptional circumstances, is required to undertake a single international voyage may be exempted by the Administration from any of the requirements of the present Convention, provided that it complies with safety requirements which, in the opinion of that Administration, are adequate for the voyage which is to be undertaken by the ship.

ARTICLE 7

Force Majeure

(1) A ship which is not subject to the provisions of the present Convention at the time of its departure on any voyage shall not become subject to such provisions on account of any deviation from its intended voyage due to stress of weather or any other cause of *force majeure*.

(2) In applying the provisions of the present Convention, the Contracting Governments shall give due consideration to any deviation or delay caused to any ship owing to stress of weather or any other cause of *force majeure*.

ARTICLE 8

Equivalents

(1) The Administration may allow any fitting, material, appliance or apparatus to be fitted, or any other provision to be made in a ship, other than that required by the present Convention, if it is satisfied by trial thereof or otherwise that such fitting, material, appliance or apparatus, or provision, is at least as effective as that required by the Convention.

(2) The Administration which allows a fitting, material, appliance or apparatus, or provision, other than that required by the present Convention, shall communicate to the Organization for circulation to the Contracting Governments particulars thereof, together with a report on any trials made.

ARTICLE 9

Approvals for Experimental Purposes

(1) Nothing in the present Convention shall prevent an Administration from making specific approvals for experimental purposes in respect of a ship to which the Convention applies.

(2) An Administration which makes any such approval shall communicate to the Organization for circulation to the Contracting Governments particulars thereof.

ARTICLE 10

Repairs, Alterations and Modifications

(1) A ship which undergoes repairs, alterations, modifications and outfitting related thereto shall continue to comply with at least the requirements previously applicable to the ship. An existing ship in such a case shall not, as a rule, comply to a lesser extent with the requirements for a new ship than it did before.

(2) Repairs, alterations and modifications of a major character and outfitting related thereto should meet the requirements for a new ship in so far as the Administration deems reasonable and practicable.

ARTICLE 11

Zones and Areas

(1) A ship to which the present Convention applies shall comply with the requirements applicable to that ship in the zones and areas described in Annex II.

(2) A port standing on the boundary line between two zones or areas shall be regarded as within the zone or area from or into which the ship arrives or departs.

ARTICLE 12

Submersion

(1) Except as provided in paragraphs (2) and (3) of this Article, the appropriate load lines on the sides of the ship corresponding to the season of the year and the zone or area in which the ship may be shall not be submerged at any time when the ship puts to sea, during the voyage or on arrival.

(2) When a ship is in fresh water of unit density the appropriate load line may be submerged by the amount of the fresh water allowance shown on the International Load Line Certificate (1966). Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.

(3) When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the point of departure and the sea.

ARTICLE 13

Survey, Inspection and Marking

The survey, inspection and marking of ships, as regards the enforcement of the provisions of the present Convention and the granting of exemptions therefrom, shall be carried out by officers of the Administration. The Administration may, however, entrust the survey, inspection and marking either to surveyors nominated for the purpose or to organizations recognized by it. In every case the Administration concerned fully guarantees the completeness and efficiency of the survey, inspection and marking.

ARTICLE 14

Initial and Periodical Surveys and Inspections

(1) A ship shall be subjected to the surveys and inspections specified below:

(*a*) A survey before the ship is put in service, which shall include a complete inspection of its structure and equipment in so far as the ship is covered by the present Convention. This survey shall be such as to ensure that the arrangements, material, and scantlings fully comply with the requirements of the present Convention.

(*b*) A periodical survey at intervals specified by the Administration, but not exceeding five years, which shall be such as to ensure that the structure, equipment, arrangements, material and scantlings fully comply with the requirements of the present Convention.

(*c*) A periodical inspection within three months either way of each annual anniversary date of the certificate, to ensure that alterations have not been made to the hull or superstructures which would affect the calculations determining the position of the load line and so as to ensure the maintenance in an effective condition of fittings and appliances for:

(i) protection of openings;

(ii) guard rails;

(iii) freeing ports; and

(iv) means of access to crew's quarters.

(2) The periodical inspections referred to in paragraph (1) (*c*) of this Article shall be endorsed on the International Load Line Certificate (1966) or on the International Load Line Exemption Certificate issued to a ship exempted under paragraph (2) of Article 6 of the present Convention.

ARTICLE 15

Maintenance of Conditions after Survey

After any survey of the ship under Article 14 has been completed, no change shall be made in the structure, equipment, arrangements, material or scantlings covered by the survey, without the sanction of the Administration.

ARTICLE 16

Issue of Certificates

(1) An International Load Line Certificate (1966) shall be issued to every ship which has been surveyed and marked in accordance with the present Convention.

(2) An International Load Line Exemption Certificate shall be issued to any ship to which an exemption has been granted under and in accordance with paragraph (2) or (4) of Article 6.

(3) Such certificates shall be issued by the Administration or by any person or organization duly authorized by it. In every case, the Administration assumes full responsibility for the certificate.

(4) Notwithstanding any other provision of the present Convention, any international load line certificate which is current when the present Convention comes into force in respect of the Government of the State whose flag the ship is flying shall remain valid for two years or until it expires, whichever is earlier. After that time an International Load Line Certificate (1966) shall be required.

ARTICLE 17

Issue of Certificate by another Government

(1) A Contracting Government may, at the request of another Contracting Government, cause a ship to be surveyed and, if satisfied that the provisions of the present Convention are complied with, shall issue or authorize the issue of an International Load Line Certificate (1966) to the ship in accordance with the present Convention.

(2) A copy of the certificate, a copy of the survey report used for computing the freeboard, and a copy of the computations shall be transmitted as early as possible to the requesting Government.

(3) A certificate so issued must contain a statement to the effect that it has been issued at the request of the Government of the State whose flag the ship is or will be flying and it shall have the same force and receive the same recognition as a certificate issued under Article 16.

(4) No International Load Line Certificate (1966) shall be issued to a ship which is flying the flag of a State the Government of which is not a Contracting Government.

ARTICLE 18

Form of Certificates

(1) The certificates shall be drawn up in the official language or languages of the issuing country. If the language used is neither English nor French, the text shall include a translation into one of these languages.

(2) The form of the certificates shall be that of the models given in Annex III. The arrangement of the printed part of each model certificate shall be exactly reproduced in any certificates issued, and in any certified copies thereof.

ARTICLE 19

Duration of Certificates

(1) An International Load Line Certificate (1966) shall be issued for a period specified by the Administration, which shall not exceed five years from the date of issue.

(2) If, after the periodical survey referred to in paragraph (1) (*b*) of Article 14, a new certificate cannot be issued to the ship before the expiry of the certificate originally issued, the person or organization carrying out the survey may extend the validity of the original certificate for a period which shall not exceed five months. This extension shall be endorsed on the certificate, and shall be granted only where there have been no alterations in the structure, equipment, arrangements, material or scantlings which affect the ship's freeboard.

(3) An International Load Line Certificate (1966) shall be cancelled by the Administration if any of the following circumstances exist:

(*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 sub-paragraph (*c*) of paragraph (1) of Article 14 are not maintained in an effective condition;

(*c*) the certificate is not endorsed to show that the ship has been inspected as provided in sub-paragraph (*c*) of paragraph (1) of Article 14;

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

(4) (*a*) The duration of an International Load Line Exemption Certificate issued by an Administration to a ship exempted under paragraph (2) of Article 6 shall not exceed five years from the date of issue. Such certificate shall be subject to a renewal, endorsement and cancellation procedure similar to that provided for an International Load Line Certificate (1966) under this Article.

(*b*) The duration of an International Load Line Exemption Certificate issued to a ship exempted under paragraph (4) of Article 6 shall be limited to the single voyage for which it is issued.

(5) A certificate issued to a ship by an Administration shall cease to be valid upon the transfer of such a ship to the flag of another State.

ARTICLE 20

Acceptance of Certificates

The certificates issued under the authority of a Contracting Government in accordance with the present Convention shall be accepted by the other Contracting Governments and regarded for all purposes covered by the present Convention as having the same force as certificates issued by them.

ARTICLE 21

Control

(1) Ships holding a certificate issued under Article 16 or Article 17 are subject, when in the ports of other Contracting Governments, to control by officers duly authorized by such Governments. Contracting Governments shall ensure that such control is exercised as far as is reasonable and practicable with a view to verifying that there is on board a valid certificate under the present Convention. If there is a valid International Load Line Certificate (1966) on board the ship, such control shall be limited to the purpose of determining that:

(*a*) the ship is not loaded beyond the limits allowed by the certificate;

(*b*) the position of the load line of the ship corresponds with the certificate; and

(*c*) the ship has not been so materially altered in respect to the matters set out in sub-paragraphs (*a*) and (*b*) of paragraph (3) of Article 19 that the ship is manifestly unfit to proceed to sea without danger to human life.

If there is a valid International Load Line Exemption Certificate on board, such control shall be limited to the purpose of determining that any conditions stipulated in that certificate are complied with.

(2) If such control is exercised under sub-paragraph (*c*) of paragraph (1) of this Article, it shall only be exercised in so far as may be necessary to ensure that the ship shall not sail until it can proceed to sea without danger to the passengers or the crew.

(3) In the event of the control provided for in this Article giving rise to intervention of any kind, the officer carrying out the control shall immediately inform in writing the Consul or the diplomatic representative of the State whose flag the ship is flying of this decision and of all the circumstances in which intervention was deemed to be necessary.

ARTICLE 22

Privileges

The privileges of the present Convention may not be claimed in favour of any ship unless it holds a valid certificate under the Convention.

ARTICLE 23

Casualties

(1) Each Administration undertakes to conduct an investigation of any casualty occurring to ships for which it is responsible and which are subject to the provisions of the present Convention when it judges that such an investigation may assist in determining what changes in the Convention might be desirable.

(2) Each Contracting Government undertakes to supply the Organization with the pertinent information concerning the findings of such investigations. No reports or recommendations of the Organization based upon such information shall disclose the identity or nationality of the ships concerned or in any manner fix or imply responsibility upon any ship or person.

ARTICLE 24

Prior Treaties and Conventions

(1) All other treaties, conventions and arrangements relating to load line matters at present in force between Governments parties to the present Convention shall continue to have full and complete effect during the terms thereof as regards:

(*a*) ships to which the present Convention does not apply; and

(*b*) ships to which the present Convention applies, in respect of matters for which it has not expressly provided.

(2) To the extent, however, that such treaties, conventions or arrangements conflict with the provisions of the present Convention, the provisions of the present Convention shall prevail.

ARTICLE 25

Special Rules drawn up by Agreement

When in accordance with the present Convention special rules are drawn up by agreement among all or some of the Contracting Governments, such rules

shall be communicated to the Organization for circulation to all Contracting Governments.

ARTICLE 26

Communication of Information

(1) The Contracting Governments undertake to communicate to and deposit with the Organization:

(*a*) a sufficient number of specimens of their certificates issued under the provisions of the present Convention for circulation to the Contracting Governments;

(*b*) the text of the laws, decrees, orders, regulations and other instruments which shall have been promulgated on the various matters within the scope of the present Convention; and

(*c*) a list of non-governmental agencies which are authorized to act in their behalf in the administration of load line matters for circulation to the Contracting Governments.

(2) Each Contracting Government agrees to make its strength standards available to any other Contracting Government, upon request.

ARTICLE 27

Signature, Acceptance and Accession

(1) The present Convention shall remain open for signature for three months from 5 April 1966 and shall thereafter remain open for accession. Governments of States Members of the United Nations, or of any of the Specialized Agencies, or of the International Atomic Energy Agency, or parties to the Statute of the International Court of Justice may become parties to the Convention by:

(*a*) signature without reservation as to acceptance;

(*b*) signature subject to acceptance followed by acceptance; or

(*c*) accession.

(2) Acceptance or accession shall be effected by the deposit of an instrument of acceptance or accession with the Organization which shall inform all Governments that have signed the Convention or acceded to it of each new acceptance or accession and of the date of its deposit.

ARTICLE 28

Coming into Force

(1) The present Convention shall come into force twelve months after the date on which not less than fifteen Governments of States, including seven each with not less than one million gross tons of shipping, have signed without reservation as to acceptance or deposited instruments of acceptance or accession in accordance with Article 27. The Organization shall inform all Governments which have signed or acceded to the present Convention of the date on which it comes into force.

(2) For Governments which have deposited an instrument of acceptance of or accession to the present Convention during the twelve months mentioned in paragraph (1) of this Article, the acceptance or accession shall take effect on the coming into force of the present Convention or three months after the date of deposit of the instrument of acceptance or accession, whichever is the later date.

(3) For Governments which have deposited an instrument of acceptance of or accession to the present Convention after the date on which it comes into force, the Convention shall come into force three months after the date of the deposit of such instrument.

(4) After the date on which all the measures required to bring an amendment to the present Convention into force have been completed, or all necessary acceptances are deemed to have been given under sub-paragraph (*b*) of paragraph (2) of Article 29 in case of amendment by unanimous acceptance, any instrument of acceptance or accession deposited shall be deemed to apply to the Convention as amended.

ARTICLE 29

Amendments

(1) The present Convention may be amended upon the proposal of a Contracting Government by any of the procedures specified in this Article.

(2) Amendment by unanimous acceptance

(*a*) Upon the request of a Contracting Government, any amendment proposed by it to the present Convention shall be communicated by the Organization to all Contracting Governments for consideration with a view to unanimous acceptance.

(*b*) Any such amendment shall enter into force twelve months after the date of its acceptance by all Contracting Governments unless an earlier date

is agreed upon. A Contracting Government which does not communicate its acceptance or rejection of the amendment to the Organization within three years of its first communication by the latter shall be deemed to have accepted the amendment.

(*c*) Any proposed amendment shall be deemed to be rejected if it is not accepted under sub-paragraph (*b*) of the present paragraph within three years after it has been first communicated to all Contracting Governments by the Organization.

(3) Amendment after consideration in the Organization

(*a*) Upon the request of a Contracting Government, any amendment proposed by it to the present Convention will be considered in the Organization. If adopted by a majority of two-thirds of those present and voting in the Maritime Safety Committee of the Organization, such amendment shall be communicated to all Members of the Organization and all Contracting Governments at least six months prior to its consideration by the Assembly of the Organization.

(*b*) If adopted by a two-thirds majority of those present and voting in the Assembly, the amendment shall be communicated by the Organization to all Contracting Governments for their acceptance.

(*c*) Such amendment shall come into force twelve months after the date on which it is accepted by two-thirds of the Contracting Governments. The amendment shall come into force with respect to all Contracting Governments except those which, before it comes into force, make a declaration that they do not accept the amendment.

(*d*) The Assembly, by a two-thirds majority of those present and voting, including two-thirds of the Governments represented on the Maritime Safety Committee and present and voting in the Assembly, may propose a determination at the time of its adoption that an amendment is of such an important nature that any Contracting Government which makes a declaration under sub-paragraph (*c*), and which does not accept the amendment within a period of twelve months after it comes into force, shall cease to be a party to the present Convention upon the expiry of that period. This determination shall be subject to the prior acceptance of two-thirds of the Contracting Governments to the present Convention.

(*e*) Nothing in this paragraph shall prevent the Contracting Government which first proposed action under this paragraph on an amendment to the present Convention from taking at any time such alternative action as it deems desirable in accordance with paragraph (2) or (4) of this Article.

(4) Amendment by a conference

(*a*) Upon the request of a Contracting Government, concurred in by at least one-third of the Contracting Governments, a conference of Governments will be convened by the Organization to consider amendments to the present Convention.

(*b*) Every amendment adopted by such a conference by a two-thirds majority of those present and voting of the Contracting Governments shall be communicated by the Organization to all Contracting Governments for their acceptance.

(*c*) Such amendment shall come into force twelve months after the date on which it is accepted by two-thirds of the Contracting Governments. The amendment shall come into force with respect to all Contracting Governments except those which, before it comes into force, make a declaration that they do not accept the amendment.

(*d*) By a two-thirds majority of those present and voting, a conference convened under sub-paragraph (*a*) may determine at the time of its adoption that an amendment is of such an important nature that any Contracting Government which makes a declaration under sub-paragraph (*c*), and which does not accept the amendment within a period of twelve months after it comes into force, shall cease to be a party to the present Convention upon the expiry of that period.

(5) Any amendments to the present Convention made under this Article which relate to the structure of a ship shall apply only to ships the keels of which are laid, or which are at a similar stage of construction, on or after the date on which the amendment comes into force.

(6) The Organization shall inform all Contracting Governments of any amendments which come into force under this Article, together with the date on which each such amendment will come into force.

(7) Any acceptance or declaration under this Article shall be made by a notification in writing to the Organization which shall notify all Contracting Governments of the receipt of the acceptance or declaration.

ARTICLE 30

Denunciation

(1) The present Convention may be denounced by any Contracting Government at any time after the expiry of five years from the date on which the Convention comes into force for that Government.

(2) Denunciation shall be effected by a notification in writing addressed to the Organization which shall inform all the other Contracting Governments of any such notification received and of the date of its receipt.

(3) A denunciation shall take effect one year, or such longer period as may be specified in the notification, after its receipt by the Organization.

ARTICLE 31

Suspension

(1) In case of hostilities or other extraordinary circumstances which affect the vital interests of a State the Government of which is a Contracting Government, that Government may suspend the operation of the whole or any part of the present Convention. The suspending Government shall immediately give notice of any such suspension to the Organization.

(2) Such suspension shall not deprive other Contracting Governments of any right of control under the present Convention over the ships of the suspending Government when such ships are within their ports.

(3) The suspending Government may at any time terminate such suspension and shall immediately give notice of such termination to the Organization.

(4) The Organization shall notify all Contracting Governments of any suspension or termination of suspension under this Article.

ARTICLE 32

Territories

(1) (*a*) The United Nations, in cases where they are the administering authority for a territory, or any Contracting Government responsible for the international relations of a territory, shall as soon as possible consult with such territory in an endeavour to extend the present Convention to that territory and may at any time by notification in writing to the Organization declare that the present Convention shall extend to such territory.

(*b*) The present Convention shall, from the date of the receipt of the notification or from such other date as may be specified in the notification, extend to the territory named therein.

(2) (*a*) The United Nations, or any Contracting Government which has made a declaration under sub-paragraph (*a*) of paragraph (1) of this Article, at any time after the expiry of a period of five years

from the date on which the Convention has been so extended to any territory, may by notification in writing to the Organization declare that the present Convention shall cease to extend to any such territory named in the notification.

(*b*) The present Convention shall cease to extend to any territory mentioned in such notification one year, or such longer period as may be specified therein, after the date of receipt of the notification by the Organization.

(3) The Organization shall inform all the Contracting Governments of the extension of the present Convention to any territories under paragraph (1) of this Article, and of the termination of any such extension under the provisions of paragraph (2), stating in each case the date from which the present Convention has been or will cease to be so extended.

ARTICLE 33

Registration

(1) The present Convention shall be deposited with the Organization and the Secretary-General of the Organization shall transmit certified true copies thereof to all Signatory Governments and to all Governments which accede to the present Convention.

(2) As soon as the present Convention comes into force it shall be registered by the Organization in accordance with Article 102 of the Charter of the United Nations.

ARTICLE 34

Languages

The present Convention is established in a single copy in the English and French languages, both texts being equally authentic. Official translations in the Russian and Spanish languages shall be prepared and deposited with the signed original.

ANNEX I

REGULATIONS FOR DETERMINING LOAD LINES

CHAPTER I.—GENERAL

The Regulations assume that the nature and stowage of the cargo, ballast, etc., are such as to secure sufficient stability of the ship and the avoidance of excessive structural stress.

The Regulations also assume that where there are international requirements relating to stability or subdivision, these requirements have been complied with.

Regulation 1

Strength of Hull

The Administration shall satisfy itself that the general structural strength of the hull is sufficient for the draught corresponding to the freeboard assigned. Ships built and maintained in conformity with the requirements of a classification society recognized by the Administration may be considered to possess adequate strength.

Regulation 2

Application

(1) Ships with mechanical means of propulsion or lighters, barges or other ships without independent means of propulsion, shall be assigned freeboards in accordance with the provisions of Regulations 1-40 inclusive of this Annex.

(2) Ships carrying timber deck cargoes may be assigned, in addition to the freeboards prescribed in paragraph (1) of this Regulation, timber freeboards in accordance with the provisions of Regulations 41-45 inclusive of this Annex.

(3) Ships designed to carry sail, whether as the sole means of propulsion or as a supplementary means, and tugs, shall be assigned freeboards in accordance with the provisions of Regulations 1-40 inclusive of this Annex. Such additional freeboard shall be required as determined by the Administration.

(4) Ships of wood or of composite construction, or of other materials the use of which the Administration has approved, or ships whose constructional features are such as to render the application of the provisions of this Annex unreasonable or impracticable, shall be assigned freeboards as determined by the Administration.

(5) Regulations 10 to 26 inclusive of this Annex shall apply to every ship to which a minimum freeboard is assigned. Relaxations from these requirements may be granted to a ship to which a greater than minimum freeboard is assigned on condition that the Administration is satisfied with the safety conditions provided.

Regulation 3

Definitions of Terms used in the Annexes

(1) *Length*. The length (L) shall be taken as 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or as the length from the fore side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.

(2) *Perpendiculars*. The forward and after perpendiculars shall be taken at the forward and after ends of the length (L). The forward perpendicular shall coincide with the fore side of the stem on the waterline on which the length is measured.

(3) *Amidships*. Amidships is at the middle of the length (L).

(4) *Breadth*. Unless expressly provided otherwise, the breadth (B) is the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material.

(5) *Moulded Depth*

(*a*) The moulded depth is the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side. In wood and composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.

(*b*) In ships having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design.

(*c*) Where the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the moulded depth shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

(6) *Depth for Freeboard (D)*

(*a*) The depth for freeboard (D) is the moulded depth amidships, plus the thickness of the freeboard deck stringer plate, where fitted, plus $\frac{T\,(L\ -\ S)}{L}$ if the exposed freeboard deck is sheathed, where

T is the mean thickness of the exposed sheathing clear of deck openings, and

S is the total length of superstructures as defined in sub-paragraph (10) (d) of this Regulation.

(*b*) The depth for freeboard (D) in a ship having a rounded gunwale with a radius greater than 4 per cent of the breadth (B) or having topsides of unusual form is the depth for freeboard of a ship having a midship section with vertical topsides and with the same round of beam and area of topside section equal to that provided by the actual midship section.

(7) *Block Coefficient*. The block coefficient (C_b) is given by

$$C_b = \frac{\nabla}{L.B.d_1};\ \text{where}$$

∇ is the volume of the moulded displacement of the ship, excluding bossing, in a ship with a metal shell, and is the volume of displacement to the outer surface of the hull in a ship with a shell of any other material, both taken at a moulded draught of d_1; and where

d_1 is 85 per cent of the least moulded depth.

(8) *Freeboard*. The freeboard assigned is the distance measured vertically downwards amidships from the upper edge of the deck line to the upper edge of the related load line.

(9) *Freeboard Deck*. The freeboard deck is normally the uppermost complete deck exposed to weather and sea, which has permanent means of closing all openings in the weather part thereof, and below which all openings

in the sides of the ship are fitted with permanent means of watertight closing. In a ship having a discontinuous freeboard deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck. At the option of the owner and subject to the approval of the Administration, a lower deck may be designated as the freeboard deck, provided it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwartships. When this lower deck is stepped the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck. When a lower deck is designated as the freeboard deck, that part of the hull which extends above the freeboard deck is treated as a superstructure so far as concerns the application of the conditions of assignment and the calculation of freeboard. It is from this deck that the freeboard is calculated.

(10) *Superstructure*

(*a*) A superstructure is a decked structure on the freeboard deck, extending from side to side of the ship or with the side plating not being inboard of the shell plating more than 4 per cent of the breadth (B). A raised quarter deck is regarded as a superstructure.

(*b*) An enclosed superstructure is a superstructure with:

(i) enclosing bulkheads of efficient construction;

(ii) access openings, if any, in these bulkheads fitted with doors complying with the requirements of Regulation 12;

(iii) all other openings in sides or ends of the superstructure fitted with efficient weathertight means of closing.

A bridge or poop shall not be regarded as enclosed unless access is provided for the crew to reach machinery and other working spaces inside these superstructures by alternative means which are available at all times when bulkhead openings are closed.

(*c*) The height of a superstructure is the least vertical height measured at side from the top of the superstructure deck beams to the top of the freeboard deck beams.

(*d*) The length of a superstructure (S) is the mean length of the part of the superstructure which lies within the length (L).

(11) *Flush Deck Ship*. A flush deck ship is one which has no superstructure on the freeboard deck.

(12) *Weathertight*. Weathertight means that in any sea conditions water will not penetrate into the ship.

Regulation 4

Deck Line

The deck line is a horizontal line 300 millimetres (12 inches) in length and 25 millimetres (1 inch) in breadth. It shall be marked amidships on each side of the ship, and its upper edge shall normally pass through the point where the continuation outwards of the upper surface of the freeboard deck intersects the outer surface of the shell (as illustrated in Figure 1), provided that the deck line may be placed with reference to another fixed point on the ship on condition that the freeboard is correspondingly corrected. The location of the reference point and the identification of the freeboard deck shall in all cases be indicated on the International Load Line Certificate (1966).

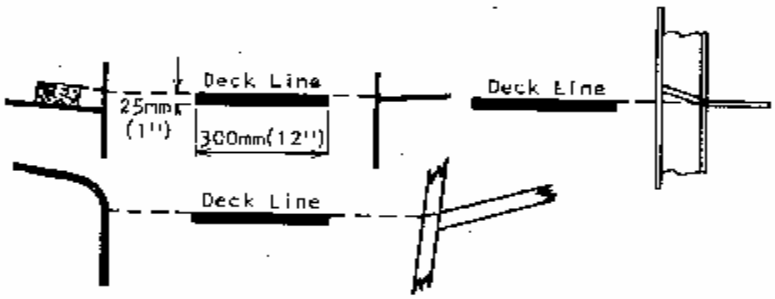


Fig. 1. Deck Line

Regulation 5

Load Line Mark

The Load Line Mark shall consist of a ring 300 millimetres (12 inches) in outside diameter and 25 millimetres (1 inch) wide which is intersected by a horizontal line 450 millimetres (18 inches) in length and 25 millimetres (1 inch) in breadth, the upper edge of which passes through the centre of the ring. The centre of the ring shall be placed amidships and at a distance equal to the assigned summer freeboard measured vertically below the upper edge of the deck line (as illustrated in Figure 2).

Regulation 6

Lines to be used with the Load Line Mark

(1) The lines which indicate the load line assigned in accordance with these Regulations shall be horizontal lines 230 millimetres (9 inches) in length and 25 millimetres (1 inch) in breadth which extend forward of, unless expressly

provided otherwise, and at right angles to, a vertical line 25 millimetres (1 inch) in breadth marked at a distance 540 millimetres (21 inches) forward of the centre of the ring (as illustrated in Figure 2).

(2) The following load lines shall be used:

(*a*) The Summer Load Line indicated by the upper edge of the line which passes through the centre of the ring and also by a line marked S.

(*b*) The Winter Load Line indicated by the upper edge of a line marked W.

(*c*) The Winter North Atlantic Load Line indicated by the upper edge of a line marked WNA.

(*d*) The Tropical Load Line indicated by the upper edge of a line marked T.

(*e*) The Fresh Water Load Line in summer indicated by the upper edge of a line marked F. The Fresh Water Load Line in summer is marked abaft the vertical line. The difference between the Fresh Water Load Line in summer and the Summer Load Line is the allowance to be made for loading in fresh water at the other load lines.

(*f*) The Tropical Fresh Water Load Line indicated by the upper edge of a line marked TF, and marked abaft the vertical line.

(3) If timber freeboards are assigned in accordance with these Regulations, the timber load lines shall be marked in addition to ordinary load lines. These lines shall be horizontal lines 230 millimetres (9 inches) in length and 25 millimetres (1 inch) in breadth which extend abaft unless expressly provided otherwise, and are at right angles to, a vertical line 25 millimetres (1 inch) in breadth marked at a distance 540 millimetres (21 inches) abaft the centre of the ring (as illustrated in Figure 3).

(4) The following timber load lines shall be used:

(*a*) The Summer Timber Load Line indicated by the upper edge of a line marked LS.

(*b*) The Winter Timber Load Line indicated by the upper edge of a line marked LW.

(*c*) The Winter North Atlantic Timber Load Line indicated by the upper edge of a line marked LWNA.

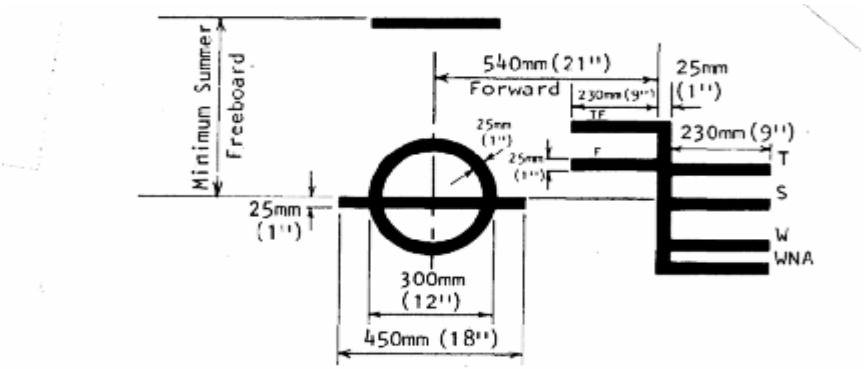


Fig. 2. Load Line Mark and lines to be used with this mark

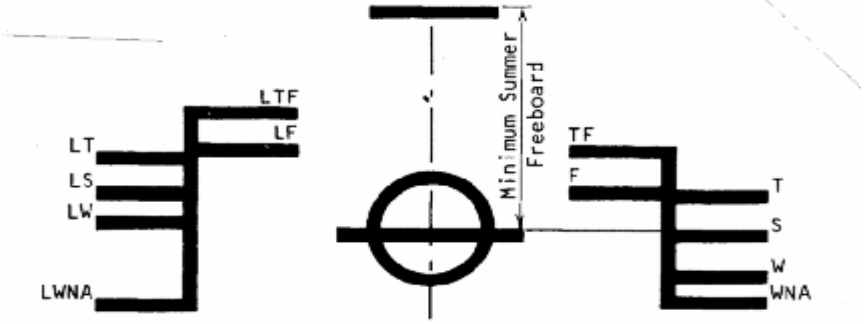


Fig. 3. Timber Load Line Mark and lines to be used with this mark

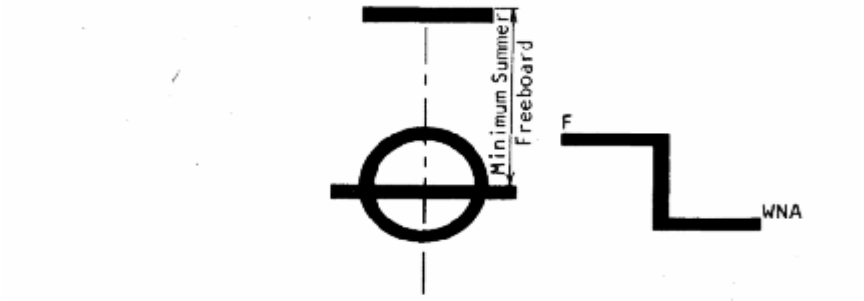


Fig. 4. Load Line Mark on sailing ships and lines to be used with this mark

(*d*) The Tropical Timber Load Line indicated by the upper edge of a line marked LT.

(*e*) The Fresh Water Timber Load Line in summer indicated by the upper edge of a line marked LF and marked forward of the vertical line.

The difference between the Fresh Water Timber Load Line in summer and the Summer Timber Load Line is the allowance to be made for loading in fresh water at the other timber load lines.

(*f*) The Tropical Fresh Water Timber Load Line indicated by the upper edge of a line marked LTF and marked forward of the vertical line.

(5) Where the characteristics of a ship or the nature of the ship's service or navigational limits make any of the seasonal lines inapplicable, these lines may be omitted.

(6) Where a ship is assigned a greater than minimum freeboard so that the load line is marked at a position corresponding to, or lower than, the lowest seasonal load line assigned at minimum freeboard in accordance with the present Convention, only the Fresh Water Load Line need be marked.

(7) On sailing ships only the Fresh Water Load Line and the Winter North Atlantic Load Line need be marked (as illustrated in Figure 4).

(8) Where a Winter North Atlantic Load Line is identical with the Winter Load Line corresponding to the same vertical line, this load line shall be marked W.

(9) Additional load lines required by other international conventions in force may be marked at right angles to and abaft the vertical line specified in paragraph (1) of this Regulation.

Regulation 7

Mark of Assigning Authority

The mark of the Authority by whom the load lines are assigned may be indicated alongside the load line ring above the horizontal line which passes through the centre of the ring, or above and below it. This mark shall consist of not more than four initials to identify the Authority's name, each measuring approximately 115 millimetres (4½ inches) in height and 75 millimetres (3 inches) in width.

Regulation 8

Details of Marking

The ring, lines and letters shall be painted in white or yellow on a dark ground or in black on a light ground. They shall also be permanently marked on the sides of the ships to the satisfaction of the Administration. The marks shall be plainly visible and, if necessary, special arrangements shall be made for this purpose.

Regulation 9

Verification of Marks

The International Load Line Certificate (1966) shall not be delivered to the ship until the officer or surveyor acting under the provisions of Article 13 of the present Convention has certified that the marks are correctly and permanently indicated on the ship's sides.

CHAPTER II.—CONDITIONS OF ASSIGNMENT OF FREEBOARD

Regulation 10

Information to be supplied to the Master

(1) The master of every new ship shall be supplied with sufficient information, in an approved form, to enable him to arrange for the loading and ballasting of his ship in such a way as to avoid the creation of any unacceptable stresses in the ship's structure, provided that this requirement need not apply to any particular length, design or class of ship where the Administration considers it to be unnecessary.

(2) The master of every new ship which is not already provided with stability information under an international convention for the safety of life at sea in force shall be supplied with sufficient information in an approved form to give him guidance as to the stability of the ship under varying conditions of service, and a copy shall be furnished to the Administration.

Regulation 11

Superstructure End Bulkheads

Bulkheads at exposed ends of enclosed superstructures shall be of efficient construction and shall be to the satisfaction of the Administration.

Regulation 12

Doors

(1) All access openings in bulkheads at ends of enclosed superstructures shall be fitted with doors of steel or other equivalent material, permanently and strongly attached to the bulkhead, and framed, stiffened and fitted so that the whole structure is of equivalent strength to the unpierced bulkhead and weathertight when closed. The means for securing these doors weathertight shall consist of gaskets and clamping devices or other equivalent means and shall be permanently attached to the bulkhead or to the doors themselves, and the doors shall be so arranged that they can be operated from both sides of the bulkhead.

(2) Except as otherwise provided in these Regulations, the height of the sills of access openings in bulkheads at ends of enclosed superstructures shall be at least 380 millimetres (15 inches) above the deck.

Regulation 13

Position of Hatchways, Doorways and Ventilators

For the purpose of the Regulations, two positions of hatchways, doorways and ventilators are defined as follows:

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.

Position 2—Upon exposed superstructure decks situated abaft a quarter of the ship's length from the forward perpendicular.

Regulation 14

Cargo and other Hatchways

(1) The construction and the means for securing the weathertightness of cargo and other hatchways in positions 1 and 2 shall be at least equivalent to the requirements of Regulations 15 and 16 of this Annex.

(2) Coamings and hatchway covers to exposed hatchways on decks above the superstructure deck shall comply with the requirements of the Administration.

Regulation 15

Hatchways closed by Portable Covers and secured Weathertight by Tarpaulins and Battening Devices

Hatchway Coamings

(1) The coamings of hatchways closed by portable covers secured weathertight by tarpaulins and battening devices shall be of substantial construction, and their height above the deck shall be at least as follows:

600 millimetres (23½ inches) if in position 1.
450 millimetres (17½ inches) if in position 2.

Hatchway Covers

(2) The width of each bearing surface for hatchway covers shall be at least 65 millimetres (2½ inches).

(3) Where covers are made of wood, the finished thickness shall be at least 60 millimetres ($2^3/_8$ inches) in association with a span of not more than 1.5 metres (4.9 feet).

(4) Where covers are made of mild steel the strength shall be calculated with assumed loads not less than 1.75 metric tons per square metre (358 pounds per square foot) on hatchways in position 1, and not less than 1.30 metric tons per square metre (266 pounds per square foot) on hatchways in position 2, and the product of the maximum stress thus calculated and the factor 4.25 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0028 times the span under these loads.

(5) The assumed loads on hatchways in position 1 may be reduced to 1 metric ton per square metre (205 pounds per square foot) for ships of 24 metres (79 feet) in length and shall be not less than 1.75 metric tons per square metre (358 pounds per square foot) for ships of 100 metres (328 feet) in length. The corresponding loads on hatchways in position 2 may be reduced to 0.75 metric tons per square metre (154 pounds per square foot) and 1.30 metric tons per square metre (266 pounds per square foot) respectively. In all cases values at intermediate lengths shall be obtained by interpolation.

Portable Beams

(6) Where portable beams for supporting hatchway covers are made of mild steel the strength shall be calculated with assumed loads not less than 1.75 metric tons per square metre (358 pounds per square foot) on hatchways in position 1 and not less than 1.30 metric tons per square metre (266 pounds per square foot) on hatchways in position 2 and the product of the maximum stress thus calculated and the factor 5 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0022 times the span under these loads. For ships of not more than 100 metres (328 feet) in length the requirements of paragraph (5) of this Regulation are applicable.

Pontoon Covers

(7) Where pontoon covers used in place of portable beams and covers are made of mild steel the strength shall be calculated with the assumed loads given in paragraph (4) of this Regulation, and the product of the maximum stress thus calculated and the factor 5 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0022 times the span. Mild steel plating forming the tops of covers shall be not less in thickness than one per cent of the spacing of stiffeners or 6

millimetres (0.24 inches) if that be greater. For ships of not more than 100 metres (328 feet) in length the requirements of paragraph (5) of this Regulation are applicable.

(8) The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the Administration.

Carriers or Sockets

(9) Carriers or sockets for portable beams shall be of substantial construction, and shall provide means for the efficient 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.

Cleats

(10) Cleats shall be set to fit the taper of the wedges. They shall be at least 65 millimetres (2½ inches) wide and spaced not more than 600 millimetres (23½ inches) centre to centre; the cleats along each side or end shall be not more than 150 millimetres (6 inches) from the hatch corners.

Battens and Wedges

(11) Battens and wedges shall be efficient and in good condition. Wedges shall be of tough wood or other equivalent material. They shall have a taper of not more than 1 in 6 and shall be not less than 13 millimetres (½ inch) thick at the toes.

Tarpaulins

(12) At least two layers of tarpaulin in good condition shall be provided for each hatchway in position 1 or 2. The tarpaulins shall be waterproof and of ample strength. They shall be of a material of at least an approved standard weight and quality.

Security of Hatchway Covers

(13) For all hatchways in position 1 or 2 steel bars or other equivalent means shall be provided in order efficiently and independently to secure each section of hatchway covers after the tarpaulins are battened down. Hatchway covers of more than 1.5 metres (4.9 feet) in length shall be secured by at least two such securing appliances.

Regulation 16

Hatchways closed by Weathertight Covers of Steel or Other Equivalent Material fitted with Gaskets and Clamping Devices

Hatchway Coamings

(1) At positions 1 and 2 the height above the deck of hatchway coamings fitted with weathertight hatch covers of steel or other equivalent material fitted with gaskets and clamping devices shall be as specified in Regulation 15 (1). The height of these coamings may be reduced, or the coamings omitted entirely, on condition that the Administration is satisfied that the safety of the ship is not thereby impaired in any sea conditions. Where coamings are provided they shall be of substantial construction.

Weathertight Covers

(2) Where weathertight covers are of mild steel the strength shall be calculated with assumed loads not less than 1.75 metric tons per square metre (358 pounds per square foot) on hatchways in position 1, and not less than 1.30 metric tons per square metre (266 pounds per square foot) on hatchways in position 2, and the product of the maximum stress thus calculated and the factor of 4.25 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0028 times the span under these loads. Mild steel plating forming the tops of covers shall be not less in thickness than one per cent of the spacing of stiffeners or 6 millimetres (0.24 inches) if that be greater. The provisions of Regulation 15 (5) are applicable for ships of not more than 100 metres (328 feet) in length.

(3) The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the Administration.

Means for Securing Weathertightness

(4) The means for securing and maintaining weathertightness shall be to the satisfaction of the Administration. The arrangements shall ensure that the tightness can be maintained in any sea conditions, and for this purpose tests for tightness shall be required at the initial survey, and may be required at periodical surveys and at annual inspections or at more frequent intervals.

Regulation 17

Machinery Space Openings

(1) Machinery space openings in position 1 or 2 shall be properly framed and efficiently enclosed by steel casings of ample strength, and where the casings are not protected by other structures their strength shall be specially considered. Access openings in such casings shall be fitted with doors complying with the requirements of Regulation 12 (1), the sills of which shall be at least 600 millimetres (23½ inches) above the deck if in position 1, and at least 380 millimetres (15 inches) above the deck if in position 2. Other openings in such casings shall be fitted with equivalent covers, permanently attached in their proper positions.

(2) Coamings of any fiddley, funnel or machinery space ventilator in an exposed position on the freeboard or superstructure deck shall be as high above the deck as is reasonable and practicable. Fiddley openings shall be fitted with strong covers of steel or other equivalent material permanently attached in their proper positions and capable of being secured weathertight.

Regulation 18

Miscellaneous Openings in Freeboard and Superstructure Decks

(1) Manholes and flush scuttles in position 1 or 2 or within superstructures other than enclosed superstructures shall be closed by substantial covers capable of being made watertight. Unless secured by closely spaced bolts, the covers shall be permanently attached.

(2) Openings in freeboard decks other than hatchways, machinery space openings, manholes and flush scuttles shall be protected by an enclosed superstructure, or by a deckhouse or companionway of equivalent strength and weathertightness. Any such opening in an exposed superstructure deck or in the top of a deckhouse on the freeboard deck which gives access to a space below the freeboard deck or a space within an enclosed superstructure shall be protected by an efficient deckhouse or companionway. Doorways in such deckhouses or companionways shall be fitted with doors complying with the requirements of Regulation 12 (1).

(3) In position 1 the height above the deck of sills to the doorways in companionways shall be at least 600 millimetres (23½ inches). In position 2 it shall be at least 380 millimetres (15 inches).

Regulation 19

Ventilators

(1) Ventilators in position 1 or 2 to spaces below freeboard decks or decks of enclosed superstructures shall have coamings of steel or other equivalent material, substantially constructed and efficiently connected to the deck. Where the coaming of any ventilator exceeds 900 millimetres (35½ inches) in height it shall be specially supported.

(2) Ventilators passing through superstructures other than enclosed superstructures shall have substantially constructed coamings of steel or other equivalent material at the freeboard deck.

(3) Ventilators in position 1 the coamings of which extend to more than 4.5 metres (14.8 feet) above the deck, and in position 2 the coamings of which extend to more than 2.3 metres (7.5 feet) above the deck, need not be fitted with closing arrangements unless specifically required by the Administration.

(4) Except as provided in paragraph (3) of this Regulation, ventilator openings shall be provided with efficient weathertight closing appliances. In ships of not more than 100 metres (328 feet) in length the closing appliances shall be permanently attached; where not so provided in other ships, they shall be conveniently stowed near the ventilators to which they are to be fitted. Ventilators in position 1 shall have coamings of a height of at least 900 millimetres (35½ inches) above the deck; in position 2 the coamings shall be of a height at least 760 millimetres (30 inches) above the deck.

(5) In exposed positions, the height of coamings may be required to be increased to the satisfaction of the Administration.

Regulation 20

Air Pipes

Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipes shall be of substantial construction; the height from the deck to the point where water may have access below shall be at least 760 millimetres (30 inches) on the freeboard deck and 450 millimetres (17½ inches) on the superstructure deck. Where these heights may interfere with the working of the ship, a lower height may be approved, provided the Administration is satisfied that the closing arrangements and other circumstances justify a lower height. Satisfactory means permanently attached, shall be provided for closing the openings of the air pipes.

Regulation 21

Cargo Ports and other similar Openings

(1) Cargo ports and other similar openings in the sides of ships below the freeboard deck shall be fitted with doors so designed as to ensure watertightness and structural integrity commensurate with the surrounding shell plating. The number of such openings shall be the minimum compatible with the design and proper working of the ship.

(2) Unless permitted by the Administration, the lower edge of such openings shall not be below a line drawn parallel to the freeboard deck at side, which has at its lowest point the upper edge of the uppermost load line.

Regulation 22

Scuppers, Inlets and Discharges

(1) Discharges led through the shell either from spaces below the freeboard deck or from within superstructures and deckhouses on the freeboard deck fitted with doors complying with the requirements of Regulation 12 shall be fitted with efficient and accessible means for preventing water from passing inboard. Normally each separate discharge shall have one automatic non-return valve with a positive means of closing it from a position above the freeboard deck. Where, however, the vertical distance from the summer load waterline to the inboard end of the discharge pipe exceeds 0.01 L, the discharge may have two automatic non-return valves without positive means of closing, provided that the inboard valve is always accessible for examination under service conditions; where that vertical distance exceeds 0.02 L a single automatic non-return valve without positive means of closing may be accepted subject to the approval of the Administration. The means for operating the positive action valve shall be readily accessible and provided with an indicator showing whether the valve is open or closed.

(2) In manned machinery spaces main and auxiliary sea inlets and discharges in connexion with the operation of machinery may be controlled locally. The controls shall be readily accessible and shall be provided with indicators showing whether the valves are open or closed.

(3) Scuppers and discharge pipes originating at any level and penetrating the shell either more than 450 millimetres (17½ inches) below the freeboard deck or less than 600 millimetres (23½ inches) above the summer load waterline shall be provided with a non-return valve at the shell. This valve,

unless required by paragraph (1), may be omitted if the piping is of substantial thickness.

(4) Scuppers leading from superstructures or deckhouses not fitted with doors complying with the requirements of Regulation 12 shall be led overboard.

(5) All valves and shell fittings required by this Regulation shall be of steel, bronze or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this Regulation refers shall be of steel or other equivalent material to the satisfaction of the Administration.

Regulation 23

Side Scuttles

(1) Side scuttles to spaces below the freeboard deck or to spaces within enclosed superstructures shall be fitted with efficient hinged inside deadlights arranged so that they can be effectively closed and secured watertight.

(2) No side scuttle shall be fitted in a position so that its sill is below a line drawn parallel to the freeboard deck at side and having its lowest point 2.5 per cent of the breadth (B) above the load waterline, or 500 millimetres (19½ inches), whichever is the greater distance.

(3) The side scuttles, together with their glasses, if fitted, and deadlights, shall be of substantial and approved construction.

Regulation 24

Freeing Ports

(1) Where bulwarks on the weather portions of freeboard or superstructure decks form wells, ample provision shall be made for rapidly freeing the decks of water and for draining them. Except as provided in paragraphs (2) and (3) of this Regulation, the minimum freeing port area (A) on each side of the ship for each well on the freeboard deck shall be that given by the following formulae in cases where the sheer in way of the well is standard or greater than standard. The minimum area for each well on superstructure decks shall be one-half of the area given by the formulae.

Where the length of bulwark (l) in the well is 20 metres or less

$A = 0.7 + 0.035l$ square metres,

where *l* exceeds 20 metres

A = 0.07*l* square metres.

l need in no case be taken as greater than 0.7 L.

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 metres per metre of length of well for each 0.1 metre difference in height.

Or,

where the length of bulwark (*l*) in the well is 66 feet or less

A = 7.6 + 0.115*l* square feet,

where *l* exceeds 66 feet

A = 0.23*l* square feet.

l need in no case be taken as greater than 0.7 L.

If the bulwark is more than 3.9 feet in average height the required area shall be increased by 0.04 square feet per foot of length of well for each foot difference in height. If the bulwark is less than 3 feet in average height, the required area may be decreased by 0.04 square feet per foot of length for each foot difference in height.

(2) In ships with no sheer the calculated area shall be increased by 50 per cent. Where the sheer is less than the standard the percentage shall be obtained by interpolation.

(3) Where a ship is fitted with a trunk which does not comply with the requirements of Regulation 36 (1) (e) 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	20%
75% or more	10%

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

(4) In ships having superstructures which are open at either or both ends, adequate provision for freeing the space within such superstructures shall be provided to the satisfaction of the Administration.

(5) The lower edges of the freeing ports shall be as near the deck as practicable. Two-thirds of the freeing port area required shall be provided in the half of the well nearest the lowest point of the sheer curve.

(6) All such openings in the bulwarks shall be protected by rails or bars spaced approximately 230 millimetres (9 inches) apart. If shutters are fitted to freeing ports, ample clearance shall be provided to prevent jamming. Hinges shall have pins or bearings of non-corrodible material. If shutters are fitted with securing appliances, these appliances shall be of approved construction.

Regulation 25

Protection of the Crew

(1) The strength of the deckhouses used for the accommodation of the crew shall be to the satisfaction of the Administration.

(2) Efficient guard rails or bulwarks shall be fitted on all exposed parts of the freeboard and superstructure decks. The height of the bulwarks or guard rails shall be at least 1 metre (39½ inches) from the deck, provided that where this height would interfere with the normal operation of the ship, a lesser height may be approved if the Administration is satisfied that adequate protection is provided.

(3) The opening below the lowest course of the guard rails shall not exceed 230 millimetres (9 inches). The other courses shall be not more than 380 millimetres (15 inches) apart. In the case of ships with rounded gunwales the guard rail supports shall be placed on the flat of the deck.

(4) Satisfactory means (in the form of guard rails, life lines, gangways or underdeck passages etc.) shall be provided for the protection of the crew in getting to and from their quarters, the machinery space and all other parts used in the necessary work of the ship.

(5) 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.

Regulation 26

Special Conditions of Assignment for Type 'A' Ship

Machinery Casings

(1) Machinery casings on Type 'A' ships as defined in Regulation 27 shall be protected by an enclosed poop or bridge of at least standard height, or by a deckhouse of equal height and equivalent strength, provided that machinery casings may be exposed if there are no openings giving direct access from the freeboard deck to the machinery space. A door complying with the requirements of Regulation 12 may, however, be permitted in the machinery casing, provided that it leads to a space or passageway which is as strongly constructed as the casing and is separated from the stairway to the engine room by a second weathertight door of steel or other equivalent material.

Gangway and Access

(2) An efficiently constructed fore and aft permanent gangway of sufficient strength shall be fitted on Type 'A' ships at the level of the superstructure deck between the poop and the midship bridge or deckhouse where fitted, or equivalent means of access shall be provided to carry out the purpose of the gangway, such as passages below deck. Elsewhere, and on Type 'A' ships without a midship bridge, arrangements to the satisfaction of the Administration shall be provided to safeguard the crew in reaching all parts used in the necessary work of the ship.

(3) Safe and satisfactory access from the gangway level shall be available between separate crew accommodations and also between crew accommodations and the machinery space.

Hatchways

(4) Exposed hatchways on the freeboard and forecastle decks or on the tops of expansion trunks on Type 'A' ships shall be provided with efficient watertight covers of steel or other equivalent material.

Freeing Arrangements

(5) Type ‘A’ ships with bulwarks shall have open rails fitted for at least half the length of the exposed parts of the weather deck or other effective freeing arrangements. The upper edge of the sheer strake shall be kept as low as practicable.

(6) Where superstructures are connected by trunks, open rails shall be fitted for the whole length of the exposed parts of the freeboard deck.

CHAPTER III.—FREEBOARDS

Regulation 27

Types of Ships

(1) For the purposes of freeboard computation ships shall be divided into Type 'A' and Type 'B'.

Type 'A' ships

(2) A Type 'A' ship is one which is designed to carry only liquid cargoes in bulk, and in which cargo tanks have only small access openings closed by watertight gasketed covers of steel or equivalent material. Such a ship necessarily has the following inherent features:

(*a*) high integrity of the exposed deck; and

(*b*) high degree of safety against flooding, resulting from the low permeability of loaded cargo spaces and the degree of subdivision usually provided.

(3) A Type 'A' ship, if over 150 metres (492 feet) in length, and designed to have empty compartments when loaded to its summer load waterline, shall be able to withstand the flooding of any one of these empty compartments at an assumed permeability of 0.95, and remain afloat in a condition of equilibrium considered to be satisfactory by the Administration. In such a ship, if over 225 metres (738 feet) in length, the machinery space shall be treated as a floodable compartment but with a permeability of 0.85.

For the guidance of Administrations the following limits may be regarded as satisfactory:

(*a*) the final waterline after flooding is below the lower edge of any opening through which progressive flooding may take place;

(*b*) the maximum angle of heel due to unsymmetrical flooding is of the order of 15 degrees;

(*c*) the metacentric height in the flooded condition is positive.

(4) A Type 'A' ship shall be assigned a freeboard not less than that based on Table A of Regulation 28.

Type 'B' ships

(5) All ships which do not come within the provisions regarding Type 'A' ships in paragraphs (2) and (3) of this Regulation shall be considered as Type 'B' ships.

(6) Type 'B' ships, which in position 1 have hatchways fitted with hatch covers complying with the requirements of Regulations 15 (7) or 16 shall, except as provided in paragraphs (7) to (10) inclusive of this Regulation, be assigned freeboards based on Table B of Regulation 28.

(7) Any Type 'B' ships of over 100 metres (328 feet) in length may be assigned freeboards less than those required under paragraph (6) of this Regulation provided that, in relation to the amount of reduction granted, the Administration is satisfied that:

(*a*) the measures provided for the protection of the crew are adequate;

(*b*) the freeing arrangements are adequate;

(*c*) the covers in positions 1 and 2 comply with the provisions of Regulation 16 and have adequate strength; special care being given to their sealing and securing arrangements;

(*d*) the ship, when loaded to its summer load waterline, will remain afloat in a satisfactory condition of equilibrium after flooding of any single damaged compartment at an assumed permeability of 0.95 excluding the machinery space; and

(*e*) in such a ship, if over 225 metres (738 feet) in length, the machinery space shall be treated as a floodable compartment but with a permeability of 0.85.

For the guidance of Administrations in applying sub-paragraphs (*d*) and (*e*) of this paragraph the limits given in sub-paragraphs (3) (*a*), (*b*) and (*c*) may be regarded as satisfactory.

The relevant calculations may be based upon the following main assumptions:

– the vertical extent of damage is equal to the depth of the ship;

– the penetration of damage is not more than B/5;

– no main transverse bulkhead is damaged;

– 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, etc.

(8) In calculating the freeboards for Type 'B' ships which comply with the requirements of paragraph (7) of this Regulation, the values from Table B of

Regulation 28 shall not be reduced by more than 60 per cent of the difference between the 'B' and 'A' tabular values for the appropriate ship lengths.

(9) The reduction in tabular freeboard allowed under paragraph (8) of this Regulation may be increased up to the total difference between the values in Table A and those in Table B of Regulation 28 on condition that the ship complies with the requirements of Regulation 26 (1), (2), (3), (5) and (6), as if it were a Type 'A' ship, and further complies with the provisions of paragraph (7) (*a*) to (*d*) inclusive of this Regulation except that the reference in sub-paragraph (d) to the flooding of any single damaged compartment shall be treated as a reference to the flooding of any two adjacent fore and aft compartments, neither of which is the machinery space. Also any such ship of over 225 metres (738 feet) in length, when loaded to its summer load waterline, shall remain afloat in a satisfactory condition of equilibrium after flooding of the machinery space, taken alone, at an assumed permeability of 0.85.

(10) Type 'B' ships, which in position 1 have hatchways fitted with hatch covers which comply with the requirements of Regulation 15, other than paragraph (7), shall be assigned freeboards based upon the values given in Table B of Regulation 28 increased by the values given in the following table:

Freeboard increase over tabular freeboard for Type 'B' ships, for ships with hatch covers not complying with Regulation 15 (7) *or* 16

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	121	87	134	147
109	52	122	91	135	153
110	55	123	95	136	159
111	57	124	99	137	164
112	59	125	103	138	170
113	62	126	108	139	175
114	64	127	112	140	181
115	68	128	116	141	186
116	70	129	121	142	191
117	73	130	126	143	196
118	76	131	131	144	201
119	80	132	136	145	206
120	84	133	142	146	210

Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)	Length of ship (metres)	Freeboard increase (millimetres)
147	215	165	278	183	320
148	219	166	280	184	322
149	224	167	283	185	325
150	228	168	285	186	327
151	232	169	287	187	329
152	236	170	290	188	332
153	240	171	292	189	334
154	244	172	294	190	336
155	247	173	297	191	339
156	251	174	299	192	341
157	254	175	301	193	343
158	258	176	304	194	346
159	261	177	306	195	348
160	264	178	308	196	350
161	267	179	311	197	353
162	270	180	313	198	355
163	273	181	315	199	357
164	275	182	318	200	358

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

Ships above 200 metres in length shall be dealt with by the Administration.

Freeboard increase over tabular freeboard for Type 'B' ships, for ships with hatch covers not complying with Regulation 15 (7) *or* 16

Length of ship (feet)	Freeboard increase (inches)	Length of ship (feet)	Freeboard increase (inches)	Length of ship (feet)	Freeboard increase (inches)
350 and below	2.0	400 410	3.7 4.2	460 470	7.0 7.6
360	2.3	420	4.7	480	8.2
370	2.6	430	5.2	490	8.7
380	2.9	440	5.8	500	9.2
390	3.3	450	6.4	510	9.6

Length of ship (feet)	Freeboard increase (inches)	Length of ship (feet)	Freeboard increase (inches)	Length of ship (feet)	Freeboard increase (inches)
520	10.0	570	11.8	620	13.4
530	10.4	580	12.1	630	13.6
540	10.7	590	12.5	640	13.9
550	11.0	600	12.8	650	14.1
560	11.4	610	13.1	660	14.3

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

Ships above 660 feet in length shall be dealt with by the Administration.

(11) A lighter, barge or other ship without independent means of propulsion shall be assigned a freeboard in accordance with the provisions of these Regulations. However, in the case of barges which are unmanned the requirements of Regulations 25, 26 (2) and (3) and 39 shall not apply. Such unmanned barges which have on the freeboard deck only small access openings closed by weathertight gasketed covers of steel or equivalent material may be assigned freeboards 25 per cent less than those calculated in accordance with these Regulations.

Regulation 28

Freeboard Tables

Type 'A' Ships

(1) The tabular freeboard for Type 'A' ships shall be determined from the following table:

TABLE A

Freeboard Table for Type 'A' Ship

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
24	200	54	490	84	897
25	208	55	503	85	911
26	217	56	516	86	926
27	225	57	530	87	940
28	233	58	544	88	955
29	242	59	559	89	969
30	250	60	573	90	984
31	258	61	587	91	999
32	267	62	600	92	1014
33	275	63	613	93	1029
34	283	64	626	94	1044
35	292	65	639	95	1059
36	300	66	653	96	1074
37	308	67	666	97	1089
38	316	68	680	98	1105
39	325	69	693	99	1120
40	334	70	706	100	1135
41	344	71	720	101	1151
42	354	72	733	102	1166
43	364	73	746	103	1181
44	374	74	760	104	1196
45	385	75	773	105	1212
46	396	76	786	106	1228
47	408	77	800	107	1244
48	420	78	814	108	1260
49	432	79	828	109	1276
50	443	80	841	110	1293
51	455	81	855	111	1309
52	467	82	869	112	1326
53	478	83	883	113	1342

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
114	1359	146	1903	178	2369
115	1376	147	1919	179	2381
116	1392	148	1935	180	2393
117	1409	149	1952	181	2405
118	1426	150	1968	182	2416
119	1442	151	1984	183	2428
120	1459	152	2000	184	2440
121	1476	153	2016	185	2451
122	1494	154	2032	186	2463
123	1511	155	2048	187	2474
124	1528	156	2064	188	2486
125	1546	157	2080	189	2497
126	1563	158	2096	190	2508
127	1580	159	2111	191	2519
128	1598	160	2126	192	2530
129	1615	161	2141	193	2541
130	1632	162	2155	194	2552
131	1650	163	2169	195	2562
132	1667	164	2184	196	2572
133	1684	165	2198	197	2582
134	1702	166	2212	198	2592
135	1719	167	2226	199	2602
136	1736	168	2240	200	2612
137	1753	169	2254	201	2622
138	1770	170	2268	202	2632
139	1787	171	2281	203	2641
140	1803	172	2294	204	2650
141	1820	173	2307	205	2659
142	1837	174	2320	206	2669
143	1853	175	2332	207	2678
144	1870	176	2345	208	2687
145	1886	177	2357	209	2696

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
210	2705	242	2959	274	3148
211	2714	243	2966	275	3153
212	2723	244	2973	276	3158
213	2732	245	2979	277	3163
214	2741	246	2986	278	3167
215	2749	247	2993	279	3172
216	2758	248	3000	280	3176
217	2767	249	3006	281	3181
218	2775	250	3012	282	3185
219	2784	251	3018	283	3189
220	2792	252	3024	284	3194
221	2801	253	3030	285	3198
222	2809	254	3036	286	3202
223	2817	255	3042	287	3207
224	2825	256	3048	288	3211
225	2833	257	3054	289	3215
226	2841	258	3060	290	3220
227	2849	259	3066	291	3224
228	2857	260	3072	292	3228
229	2865	261	3078	293	3233
230	2872	262	3084	294	3237
231	2880	263	3089	295	3241
232	2888	264	3095	296	3246
233	2895	265	3101	297	3250
234	2903	266	3106	298	3254
235	2910	267	3112	299	3258
236	2918	268	3117	300	3262
237	2925	269	3123	301	3266
238	2932	270	3128	302	3270
239	2939	271	3133	303	3274
240	2946	272	3138	304	3278
241	2953	273	3143	305	3281

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
306	3285	328	3353	347	3399
307	3288	329	3355	348	3401
308	3292	330	3358	349	3403
309	3295	331	3361	350	3406
313	3308	332	3363	351	3408
314	3312	333	3366	352	3410
315	3315	334	3368	353	3412
316	3318	335	3371	354	3414
317	3322	336	3373	355	3416
318	3325	337	3375	356	3418
319	3328	338	3378	357	3420
320	3331	339	3380	358	3422
321	3334	340	3382	359	3423
322	3337	341	3385	360	3425
323	3339	342	3387	361	3427
324	3342	343	3389	362	3428
325	3345	344	3392	363	3430
326	3347	345	3394	364	3432
327	3350	346	3396	365	3433

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

Ships above 365 metres in length shall be dealt with by the Administration.

TABLE A

Freeboard Table for Type 'A' Ships

Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)
80	8.0	130	13.0	180	19.8
90	8.9	140	14.2	190	21.3
100	9.8	150	15.5	200	22.9
110	10.8	160	16.9	210	24.5
120	11.9	170	18.3	220	26.2

Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)
230	27.8	550	88.0	870	122.1
240	29.5	560	89.6	880	122.7
250	31.1	570	91.1	890	123.4
260	32.8	580	92.6	900	124.0
270	34.6	590	94.1	910	124.6
280	36.3	600	95.5	920	125.2
290	38.0	610	96.9	930	125.7
300	39.7	620	98.3	940	126.2
310	41.4	630	99.6	950	126.7
320	43.2	640	100.9	960	127.2
330	45.0	650	102.1	970	127.7
340	46.9	660	103.3	980	128.1
350	48.8	670	104.4	990	128.6
360	50.7	680	105.5	1000	129.0
370	52.7	690	106.6	1010	129.4
380	54.7	700	107.7	1020	129.9
390	56.8	710	108.7	1030	130.3
400	58.8	720	109.7	1040	130.7
410	60.9	730	110.7	1050	131.0
420	62.9	740	111.7	1060	131.4
430	65.0	750	112.6	1070	131.7
440	67.0	760	113.5	1080	132.0
450	69.1	770	114.4	1090	132.3
460	71.1	780	115.3	1100	132.6
470	73.1	790	116.1	1110	132.9
480	75.1	800	117.0	1120	133.2
490	77.1	810	117.8	1130	133.5
500	79.0	820	118.6	1140	133.8
510	80.9	830	119.3	1150	134.0
520	82.7	840	120.1	1160	134.3
530	84.5	850	120.7	1170	134.5
540	86.3	860	121.4	1180	134.7

Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)
1190	135.0	1200	135.2		

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

Ships above 1200 feet in length shall be dealt with by the Administration.

Type 'B' ships

(2) The tabular freeboard for Type 'B' ships shall be determined from the following table:

TABLE B

Freeboard Table for Type 'B' Ships

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
24	200	43	364	62	601
25	208	44	374	63	615
26	217	45	385	64	629
27	225	46	396	65	644
28	233	47	408	66	659
29	242	48	420	67	674
30	250	49	432	68	689
31	258	50	443	69	705
32	267	51	455	70	721
33	275	52	467	71	738
34	283	53	478	72	754
35	292	54	490	73	769
36	300	55	503	74	784
37	308	56	516	75	800
38	316	57	530	76	816
39	325	58	544	77	833
40	334	59	559	78	850
41	344	60	573	79	868
42	354	61	587	80	887

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
81	905	113	1543	145	2209
82	923	114	1565	146	2229
83	942	115	1587	147	2250
84	960	116	1609	148	2271
85	978	117	1630	149	2293
86	996	118	1651	150	2315
87	1015	119	1671	151	2334
88	1034	120	1690	152	2354
89	1054	121	1709	153	2375
90	1075	122	1729	154	2396
91	1096	123	1750	155	2418
92	1116	124	1771	156	2440
93	1135	125	1793	157	2460
94	1154	126	1815	158	2480
95	1172	127	1837	159	2500
96	1190	128	1859	160	2520
97	1209	129	1880	161	2540
98	1229	130	1901	162	2560
99	1250	131	1921	163	2580
100	1271	132	1940	164	2600
101	1293	133	1959	165	2620
102	1315	134	1979	166	2640
103	1337	135	2000	167	2660
104	1359	136	2021	168	2680
105	1380	137	2043	169	2698
106	1401	138	2065	170	2716
107	1421	139	2087	171	2735
108	1440	140	2109	172	2754
109	1459	141	2130	173	2774
110	1479	142	2151	174	2795
111	1500	143	2171	175	2815
112	1521	144	2190	176	2835

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
177	2855	209	3413	241	3893
178	2875	210	3430	242	3906
179	2895	211	3445	243	3920
180	2915	212	3460	244	3934
181	2933	213	3475	245	3949
182	2952	214	3490	246	3965
183	2970	215	3505	247	3978
184	2988	216	3520	248	3992
185	3007	217	3537	249	4005
186	3025	218	3554	250	4018
187	3044	219	3570	251	4032
188	3062	220	3586	252	4045
189	3080	221	3601	253	4058
190	3098	222	3615	254	4072
191	3116	223	3630	255	4085
192	3134	224	3645	256	4098
193	3151	225	3660	257	4112
194	3167	226	3675	258	4125
195	3185	227	3690	259	4139
196	3202	228	3705	260	4152
197	3219	229	3720	261	4165
198	3235	230	3735	262	4177
199	3249	231	3750	263	4189
200	3264	232	3765	264	4201
201	3280	233	3780	265	4214
202	3296	234	3795	266	4227
203	3313	235	3808	267	4240
204	3330	236	3821	268	4252
205	3347	237	3835	269	4264
206	3363	238	3849	270	4276
207	3380	239	3864	271	4289
208	3397	240	3880	272	4302

Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)	Length of ship (metres)	Freeboard (millimetres)
273	4315	302	4654	331	4965
274	4327	303	4665	332	4975
275	4339	304	4676	333	4985
276	4350	305	4686	334	4995
277	4362	306	4695	335	5005
278	4373	307	4704	336	5015
279	4385	308	4714	337	5025
280	4397	309	4725	338	5035
281	4408	310	4736	339	5045
282	4420	311	4748	340	5055
283	4432	312	4757	341	5065
284	4443	313	4768	342	5075
285	4455	314	4779	349	5150
286	4467	315	4790	350	5160
287	4478	316	4801	351	5170
288	4490	317	4812	352	5180
289	4502	318	4823	353	5190
290	4513	319	4834	354	5200
291	4525	320	4844	355	5210
292	4537	321	4855	356	5220
293	4548	322	4866	357	5230
294	4560	323	4878	358	5240
295	4572	324	4890	359	5250
296	4583	325	4899	360	5260
297	4595	326	4909	361	5268
298	4607	327	4920	362	5276
299	4618	328	4931	363	5285
300	4630	329	4943	364	5294
301	4642	330	4955	365	5303

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

Ships above 365 metres in length shall be dealt with by the Administration.

TABLE B

Freeboard Table for Type 'B' Ships

Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)
80	8.0	380	63.2	680	133.3
90	8.9	390	65.7	690	135.3
100	9.8	400	68.2	700	137.1
110	10.8	410	70.7	710	139.0
120	11.9	420	73.2	720	140.9
130	13.0	430	75.7	730	142.7
140	14.2	440	78.2	740	144.5
150	15.5	450	80.7	750	146.3
160	16.9	460	83.1	760	148.1
170	18.3	470	85.6	770	149.8
180	19.8	480	88.1	780	151.5
190	21.3	490	90.6	790	153.2
200	22.9	500	93.1	800	154.8
210	24.7	510	95.6	810	156.4
220	26.6	520	98.1	820	158.0
230	28.5	530	100.6	830	159.6
240	30.4	540	103.0	840	161.2
250	32.4	550	105.4	850	162.8
260	34.4	560	107.7	860	164.3
270	36.5	570	110.0	870	165.9
280	38.7	580	112.3	880	167.4
290	41.0	590	114.6	890	168.9
300	43.3	600	116.8	900	170.4
310	45.7	610	119.0	910	171.8
320	48.2	620	121.1	920	173.3
330	50.7	630	123.2	930	174.7
340	53.2	640	125.3	940	176.1
350	55.7	650	127.3	950	177.5
360	58.2	660	129.3	960	178.9
370	60.7	670	131.3	970	180.3

Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)	Length of ship (feet)	Freeboard (inches)
980	181.7	1060	192.3	1140	202.3
990	183.1	1070	193.5	1150	203.5
1000	184.4	1080	194.8	1160	204.6
1010	185.8	1090	196.1	1170	205.8
1020	187.2	1100	197.3	1180	206.9
1030	188.5	1110	198.6	1190	208.1
1040	189.8	1120	199.9	1200	209.3
1050	191.0	1130	201.2		

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

Ships above 1200 feet in length shall be dealt with by the Administration.

Regulation 29

Correction to the Freeboard for Ships under 100 metres (328 feet) in length

The tabular freeboard for a Type 'B' ship of between 24 metres (79 feet) and 100 metres (328 feet) in length having enclosed superstructures with an effective length of up to 35 per cent of the length of the ship shall be increased by:

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

where L = length of ship in metres,
E = effective length of superstructure in metres as defined in Regulation 35;

or

$$0.09\,(328 - L)\left(0.35 - \frac{E}{L}\right) \text{ inches}$$

where L = length of ship in feet,
E = effective length of superstructure in feet as defined in Regulation 35.

Regulation 30

Correction for Block Coefficient

Where the block coefficient (C_b) exceeds 0.68, the tabular freeboard specified in Regulation 28 as modified, if applicable, by Regulations 27 (8), 27 (10) and 29 shall be multiplied by the factor $\frac{C_b + 0.68}{1.36}$.

Regulation 31

Correction for Depth

(1) Where D exceeds $\frac{L}{15}$ the freeboard shall be increased by $\left(D - \frac{L}{15}\right)$ R millimetres where R is $\frac{L}{0.48}$ at lengths less than 120 metres and 250 at 120 metres length and above, or $\left(D - \frac{L}{15}\right)$ R inches, where R is $\frac{L}{131.2}$ at lengths less than 393.6 feet and 3 at 393.6 feet length and above.

(2) Where D is less than $\frac{L}{15}$ no reduction shall be made except in a ship with an enclosed superstructure covering at least 0.6 L amidships, with a complete trunk, or combination of detached enclosed superstructures and trunks which extend all fore and aft, where the freeboard shall be reduced at the rate prescribed in paragraph (1) of this Regulation.

(3) Where the height of superstructure or trunk is less than the standard height, the reduction shall be in the ratio of the actual to the standard height as defined in Regulation 33.

Regulation 32

Correction for Position of Deck Line

Where the actual depth to the upper edge of the deck line is greater or less than D, the difference between the depths shall be added to or deducted from the freeboard.

Regulation 33

Standard Height of Superstructure

The standard height of a superstructure shall be as given in the following table:

Standard Height (in metres)

L (metres)	Raised Quarter Deck	All other Superstructures
30 or less	0.90	1.80
75	1.20	1.80
125 or more	1.80	2.30

Standard Height (in feet)

L (feet)	Raised Quarter Deck	All other Superstructures
98.5 or less	3.0	5.9
246	3.9	5.9
410 or more	5.9	7.5

The standard heights at intermediate lengths of the ship shall be obtained by linear interpolation.

Regulation 34

Length of Superstructure

(1) Except as provided in paragraph (2) of this Regulation, the length of a superstructure (S) shall be the mean length of the parts of the superstructure which lie within the length (L).

(2) Where the end bulkhead of an enclosed superstructure extends in a fair convex curve beyond its intersection with the superstructure sides, the length of the superstructure may be increased on the basis of an equivalent plane bulkhead. This increase shall be two-thirds of the fore and aft extent of the curvature. The maximum curvature which may be taken into account in determining this increase is one-half the breadth of the superstructure at the point of intersection of the curved end of the superstructure with its side.

Regulation 35

Effective Length of Superstructure

(1) Except as provided for in paragraph (2) of this Regulation, the effective length (E) of an enclosed superstructure of standard height shall be its length.

(2) In all cases where an enclosed superstructure of standard height is set in from the sides of the ship as permitted in Regulation 3 (10), the effective length shall be the length modified by the ratio of b/Bs, where

b is the breadth of the superstructure at the middle of its length; and

Bs is the breadth of the ship at the middle of the length of the superstructure.

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

(3) Where the height of an enclosed superstructure is less than the standard height, the effective length shall be its length reduced in the ratio of the actual height to the standard height. Where the height exceeds the standard, no increase shall be made to the effective length of the superstructure.

(4) The effective length of a raised quarter deck, if fitted with an intact bulkhead, shall be its length up to a maximum of 0.6 L. Where the bulkhead is not intact, the raised quarter deck shall be treated as a poop of less than standard height.

(5) Superstructures which are not enclosed shall have no effective length.

Regulation 36

Trunks

(1) A trunk or similar structure which does not extend to the sides of the ship shall be regarded as efficient on the following conditions:

(*a*) the trunk is at least as strong as a superstructure;

(*b*) the hatchways are in the trunk deck, and the hatchway coamings and covers comply with the requirements of Regulations 13 to 16 inclusive and the width of the trunk deck stringer provides a satisfactory gangway and sufficient lateral stiffness. However, small access openings with watertight covers may be permitted in the freeboard deck;

(*c*) a permanent working platform fore and aft fitted with guard rails is provided by the trunk deck, or by detached trunks connected to superstructures by efficient permanent gangways;

(*d*) ventilators are protected by the trunk, by watertight covers or by other equivalent means;

(*e*) open rails are fitted on the weather parts of the freeboard deck in way of the trunk for at least half their length;

(*f*) the machinery casings are protected by the trunk, by a superstructure of at least standard height, or by a deckhouse of the same height and of equivalent strength;

(*g*) the breadth of the trunk is at least 60 per cent of the breadth of the ship; and

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

(2) The full length of an efficient trunk reduced in the ratio of its mean breadth to B shall be its effective length.

(3) The standard height of a trunk is the standard height of a superstructure other than a raised quarter deck.

(4) Where the height of a trunk is less than the standard height, its effective length shall be reduced in the ratio of the actual to the standard height. Where the height of hatchway coamings on the trunk deck is less than that required under Regulation 15 (1), a reduction from the actual height of trunk shall be made which corresponds to the difference between the actual and the required height of coaming.

Regulation 37

Deduction for Superstructures and Trunks

(1) Where the effective length of superstructures and trunks is 1.0 L, the deduction from the freeboard shall be 350 millimetres at 24 metres length of ship, 860 millimetres at 85 metres length, and 1070 millimetres at 122 metres length and above (14 inches at 79 feet length of ship, 34 inches at 279 feet length, and 42 inches at 400 feet length and above); deductions at intermediate lengths shall be obtained by linear interpolation.

(2) Where the total effective length of superstructures and trunks is less than 1.0 L the deduction shall be a percentage obtained from one of the following tables:

Percentage of Deduction for Type 'A' ships

	Total Effective Length of Superstructures and Trunks										
	0	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
Percentage of deduction for all types of superstructures	0	7	14	21	31	41	52	63	75.3	87.7	100

Percentages at intermediate lengths of superstructures shall be obtained by linear interpolation.

Percentage of Deduction for Type 'B' ships

	Line	Total Effective Length of Superstructures and Trunks										
		0	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
Ships with forecastle and without detached bridge	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

Percentages at intermediate lengths of superstructures shall be obtained by linear interpolation.

(3) For ships of Type 'B':

(*a*) Where the effective length of a bridge is less than 0.2 L, the percentages shall be obtained by linear interpolation between lines I and II.

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

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

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

where f is the effective length of the forecastle.

Regulation 38

Sheer

General

(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 amidships.

(2) In ships designed with a rake of keel, the sheer shall be measured in relation to a reference line drawn parallel to the design 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 exceeds the standard 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 of standard height with greater sheer than that of the freeboard deck, or is of more than standard height, an addition to the sheer of the freeboard deck shall be made as provided in paragraph (12) of this Regulation.

Standard Sheer Profile

(8) The ordinates of the standard sheer profile are given in the following table:

Standard Sheer Profile
(Where L is in metres)

	Station	Ordinate (in millimetres)	Factor
After half	After Perpendicular	$25\left(\frac{L}{3}+10\right)$	1
	1/6 L from A.P.	$11.1\left(\frac{L}{3}+10\right)$	3
	1/3 L from A.P.	$2.8\left(\frac{L}{3}+10\right)$	3
	Amidships	0	1
Forward half	Amidships	0	1
	1/3 L from F.P.	$5.6\left(\frac{L}{3}+10\right)$	3
	1/6 L from F.P.	$22.2\left(\frac{L}{3}+10\right)$	3
	Forward Perpendicular ..	$50\left(\frac{L}{3}+10\right)$	1

Standard Sheer Profile
(Where L is in feet)

	Station	Ordinate (in inches)	Factor
After half	After Perpendicular	0.1 L + 10	1
	1/6 L from A.P.	0.0444 L + 4.44	3
	1/3 L from A.P.	0.0111 L + 1.11	3
	Amidships	0	1

	Station	Ordinate (in inches)	Factor
Forward half	Amidships	0	1
	1/3 L from F.P.	0.0222 L +2.22	3
	1/6 L from F.P.	0.0888 L + 8.88	3
	Forward Perpendicular ..	0.2 L + 20	1

Measurement of Variation from Standard Sheer Profile

(9) Where the sheer profile differs from the standard, the four ordinates of each profile in the forward or after half shall be multiplied by the appropriate factors given in the table of ordinates. The difference between the sums of the respective products and those of the standard divided by 8 measures 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 measures the excess or deficiency of sheer.

(10) Where the after half of the sheer profile is greater than the standard and the forward half is less than the standard, no credit shall be allowed for the part in excess and deficiency only shall be measured.

(11) Where the forward half of the sheer profile exceeds the standard, and the after portion of the sheer profile is not less than 75 per cent of the standard, credit shall be allowed for the part in excess; where the after part is less than 50 per cent of the standard no credit shall be given for the excess sheer forward. Where the after sheer is between 50 per cent and 75 per cent of the standard intermediate allowances may be granted for excess sheer forward.

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

$$s = \frac{y}{3}\frac{L'}{L}$$

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 end of sheer,

L′ = mean enclosed length of poop or forecastle up to a maximum length of 0.5 L,

L = length of ship as defined in Regulation 3 (1) of this Annex.

The above formula provides a curve in the form of a parabola tangent to the actual sheer curve at the freeboard deck and intersecting the end ordinate at a point below the superstructure deck a distance equal to the standard height of a superstructure. 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 forward and after halves of the ship.

Correction for Variations from Standard Sheer Profile

(13) The correction for sheer shall be the deficiency or excess of sheer (see paragraphs (9) to (11) inclusive of this Regulation), multiplied by

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

where S is the total length of enclosed superstructures.

Addition for Deficiency in Sheer

(14) Where the sheer is less than the standard, the correction for deficiency in sheer (see paragraph (13) of this Regulation) shall be added to the freeboard.

Deduction for Excess Sheer

(15) In ships where an enclosed superstructure covers 0.1 L before and 0.1 L abaft amidships, the correction for excess of sheer as calculated under the provisions of paragraph (13) of this Regulation shall be deducted from the freeboard; in ships where no enclosed superstructure covers amidships, no deduction shall be made from the freeboard; where an enclosed superstructure covers less than 0.1 L before and 0.1 L abaft amidships, the deduction shall be obtained by linear interpolation. The maximum deduction for excess sheer shall be at the rate of 125 millimetres per 100 metres of length ($1^1/_2$ inches per 100 feet of length).

Regulation 39

Minimum Bow Height

(1) The bow height defined as the vertical distance at the forward perpendicular between the waterline corresponding to the assigned summer freeboard and the designed trim and the top of the exposed deck at side shall be not less than:

for ships below 250 metres in length,

$$56\,L\left(1 - \frac{L}{500}\right)\quad\frac{1.36}{C_b + 0.68}\text{ millimetres;}$$

for ships of 250 metres and above in length,

$$7000 \frac{1.36}{C_b + 0.68} \text{ millimetres;}$$

where L is the length of the ship in metres,

C_b is the block coefficient which is to be taken as not less than 0.68

or,

for ships below 820 feet in length,

$$0.672 \text{ L} \left(1 - \frac{\text{L}}{1640}\right) \frac{1.36}{C_b + 0.68} \text{ inches;}$$

for ships of 820 feet and above in length,

$$275.6 \frac{1.36}{C_b + 0.68} \text{ inches;}$$

where L is the length of the ship in feet,

C_b is the block coefficient which is to be taken as not less than 0.68.

(2) Where the bow height required in paragraph (1) of this Regulation is obtained by sheer, the sheer shall extend for at least 15 per cent of the length of the ship measured from the forward perpendicular. Where it is obtained by fitting a superstructure, such superstructure shall extend from the stem to a point at least 0.07 L abaft the forward perpendicular, and it shall comply with the following requirements:

(*a*) for ships not over 100 metres (328 feet) in length it shall be enclosed as defined in Regulation 3 (10), and

(*b*) for ships over 100 metres (328 feet) in length it need not comply with Regulation 3 (10) but shall be fitted with closing appliances to the satisfaction of the Administration.

(3) Ships which, to suit exceptional operational requirements, cannot meet the requirements of paragraphs (1) and (2) of this Regulation may be given special consideration by the Administration.

Regulation 40

Minimum Freeboards

Summer Freeboard

(1) The minimum freeboard in summer shall be the freeboard derived from the tables in Regulation 28 as modified by the corrections in Regulations 27, as applicable, 29, 30, 31, 32, 37, 38 and, if applicable, 39.

(2) The freeboard in salt water, as calculated in accordance with paragraph (1) of this Regulation, but without the correction for deck line, as provided by Regulation 32, shall not be less than 50 millimetres (2 inches). For ships having in position 1 hatchways with covers which do not comply with the requirements of Regulations 15 (7), 16 or 26, the freeboard shall be not less than 150 millimetres (6 inches).

Tropical Freeboard

(3) The minimum freeboard in the Tropical Zone shall be the freeboard obtained by a deduction from the summer freeboard of one forty-eighth of the summer draught measured from the top of the keel to the centre of the ring of the load line mark.

(4) The freeboard in salt water, as calculated in accordance with paragraph (1) of this Regulation, but without the correction for deck line, as provided by Regulation 32, shall not be less than 50 millimetres (2 inches). For ships having in position 1 hatchways with covers which do not comply with the requirements of Regulations 15 (7), 16 or 26, the freeboard shall be not less than 150 millimetres (6 inches).

Winter Freeboard

(5) The minimum freeboard in winter shall be the freeboard obtained by an addition to the summer freeboard of one forty-eighth of summer draught, measured from the top of the keel to the centre of the ring of the load line mark.

Winter North Atlantic Freeboard

(6) The minimum freeboard for ships of not more than 100 metres (328 feet) in length, which enter any part of the North Atlantic defined in Regulation 52 (Annex II) during the winter seasonal period, shall be the winter freeboard plus 50 millimetres (2 inches). For other ships, the Winter North Atlantic Freeboard shall be the winter freeboard.

Fresh Water Freeboard

(7) The minimum freeboard in fresh water of unit density shall be obtained by deducting from the minimum freeboard in salt water:

$$\frac{\Delta}{40 \quad T} \text{ centimetres (inches)}$$

where Δ = displacement in salt water in tons at the summer load waterline,

T = tons per centimetre (inch) immersion in salt water at the summer load waterline.

(8) Where the displacement at the summer load waterline cannot be certified, the deduction shall be one forty-eighth of summer draught, measured from the top of the keel to the centre of the ring of the load line mark.

CHAPTER IV.—SPECIAL REQUIREMENTS FOR SHIPS ASSIGNED TIMBER FREEBOARDS

Regulation 41

Application of this Chapter

Regulations 42 to 45 inclusive apply only to ships to which timber load lines are assigned.

Regulation 42

Definitions

(1) *Timber Deck Cargo*. The term "timber deck cargo" means a cargo of timber carried on an uncovered part of a freeboard or superstructure deck. The term does not include wood pulp or similar cargo.

(2) *Timber Load Line*. A timber deck cargo may be regarded as giving a ship a certain additional buoyancy and a greater degree of protection against the sea. For that reason, ships carrying a timber deck cargo may be granted a reduction of freeboard calculated according to the provisions of Regulation 45 and marked on the ship's side in accordance with the provisions of Regulation 6 (3) and (4). However, in order that such special freeboard may be granted and used, the timber deck cargo shall comply with certain conditions which are laid down in Regulation 44, and the ship itself shall also comply with certain conditions relating to its construction which are set out in Regulation 43.

Regulation 43

Construction of Ship

Superstructure

(1) Ships shall have a forecastle of at least standard height and a length of at least 0.07 L. In addition, if the ship is less than 100 metres (328 feet) in length, a poop of at least standard height, or a raised quarter deck with either a deckhouse or a strong steel hood of at least the same total height shall be fitted aft.

Double Bottom Tanks

(2) Double bottom tanks where fitted within the midship half length of the ship shall have adequate watertight longitudinal subdivision.

Bulwarks

(3) The ship shall be fitted either with permanent bulwarks at least 1 metre (39½ inches) in height, specially stiffened on the upper edge and supported by strong bulwark stays attached to the deck and provided with necessary freeing ports, or with efficient rails of the same height and of specially strong construction.

Regulation 44

Stowage

General

(1) Openings in the weather deck over which cargo is stowed shall be securely closed and battened down. The ventilators shall be efficiently protected.

(2) Timber deck cargo shall extend over at least the entire available length which is the total length of the well or wells between superstructures. Where there is no limiting superstructure at the after end, the timber shall extend at least to the after end of the aftermost hatchway. The timber shall be stowed as solidly as possible to at least the standard height of the superstructure.

(3) On a ship within a seasonal winter zone in winter, the height of the deck cargo above the weather deck shall not exceed one-third of the extreme breadth of the ship.

(4) The timber deck cargo shall be compactly stowed, lashed and secured. It shall not interfere in any way with the navigation and necessary work of the ship.

Uprights

(5) Uprights, when required by the nature of the timber, shall be of adequate strength considering the breadth of the ship; the spacing shall be suitable for the length and character of timber carried, but shall not exceed 3 metres (9.8 feet). Strong angles or metal sockets or equally efficient means shall be provided for securing the uprights.

Lashings

(6) Timber deck cargo shall be efficiently secured throughout its length by independent over-all lashings spaced not more than 3 metres (9.8 feet) 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 (9.8 feet). The distance from an end bulkhead of a superstructure to the first eye plate shall be not more than 2 metres (6.6 feet). Eye plates and lashings shall be provided 0.6 metres (23½ inches) and 1.5 metres (4.9 feet) from the ends of timber deck cargoes where there is no bulkhead.

(7) Lashings shall be not less than 19 millimetres (¾ inch) close link chain or flexible wire rope of equivalent strength, fitted with sliphooks and turnbuckles, which shall be accessible at all times. Wire rope lashings shall have a short length of long link chain to permit the length of lashings to be regulated.

(8) When timber is in lengths less than 3.6 metres (11.8 feet) the spacing of the lashings shall be reduced or other suitable provisions made to suit the length of timber.

(9) All fittings required for securing the lashings shall be of strength corresponding to the strength of the lashings.

Stability

(10) Provision shall be made for a safe margin of stability at all stages of the voyage, regard being given to additions of weight, such as those due to absorption of water and icing and to losses of weight such as those due to consumption of fuel and stores.

Protection of Crew, Access to Machinery Spaces, etc.

(11) In addition to the requirements of Regulation 25 (5) of this Annex guard rails or life lines spaced not more than 330 millimetres (13 inches) apart vertically shall be provided on each side of the deck cargo to a height of at least 1 metre (39½ inches) above the cargo.

Steering Arrangements

(12) Steering arrangements shall be effectively protected from damage by cargo and, as far as practicable, shall be accessible. Efficient provision shall be made for steering in the event of a breakdown in the main steering arrangements.

Regulation 45

Computation for Freeboard

(1) The minimum summer freeboard shall be computed in accordance with Regulations 27 (5), 27 (6), 27 (11), 28, 29, 30, 31, 32, 37 and 38, except that Regulation 37 is modified by substituting the following percentages for those given in Regulation 37:

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

Percentages at intermediate lengths of superstructures shall be obtained by linear interpolation.

(2) The Winter Timber Freeboard shall be obtained by adding to the Summer Timber Freeboard one thirty-sixth of the moulded summer timber draught.

(3) The Winter North Atlantic Timber Freeboard shall be the same as the Winter North Atlantic Freeboard prescribed in Regulation 40 (6).

(4) The Tropical Timber Freeboard shall be obtained by deducting from the Summer Timber Freeboard one forty-eighth of the moulded summer timber draught.

(5) The Fresh Water Timber Freeboard shall be computed in accordance with Regulation 40 (7) based on the summer timber load waterline.

ANNEX II

ZONES, AREAS AND SEASONAL PERIODS

The zones and areas in this Annex are, in general, based on the following criteria:

Summer—not more than 10 per cent winds of force 8 Beaufort (34 knots) or more.

Tropical—not more than 1 per cent winds of force 8 Beaufort (34 knots) or more. Not more than one tropical storm in 10 years in an area of 5° square in any one separate calendar month.

In certain special areas, for practical reasons, some degree of relaxation has been found acceptable.

A chart is attached to this Annex to illustrate the zones and areas defined below.

Regulation 46

Northern Winter Seasonal Zones and Area

(1) *North Atlantic Winter Seasonal Zones I and II*

(*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 longitude 15°W to latitude 60°N, thence the parallel of latitude 60°N, to the Greenwich Meridian, thence this meridian northwards.

Seasonal periods:

WINTER: 16 October to 15 April

SUMMER: 16 April to 15 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 Toriñana.

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

Seasonal periods:
WINTER: 1 November to 31 March
SUMMER: 1 April to 31 October

(2) *North Atlantic Winter Seasonal Area*

The boundary of the North Atlantic Winter Seasonal Area is—

the meridian of longitude 68°30′W from the coast of the United States to latitude 40°N, thence the rhumb line to the southernmost intersection of the meridian of longitude 61°W with the coast of Canada and thence the east coasts of Canada and the United States.

Seasonal periods:

For ships over 100 metres (328 feet) in length:
WINTER: 16 December to 15 February
SUMMER: 16 February to 15 December

For ships of 100 metres (328 feet) and under in length:
WINTER: 1 November to 31 March
SUMMER: 1 April to 31 October

(3) *North Pacific Winter Seasonal Zone*

The southern boundary of the North Pacific Winter Seasonal Zone is—

the parallel of latitude 50°N from the east coast of the USSR to the west coast of Sakhalin, thence the west coast of Sakhalin to the southern extremity of Cape Kril'on, thence the rhumb line to Wakkanai, Hokkaido, Japan, thence the east and south coasts of Hokkaido to longitude 145°E, thence the meridian of longitude 145°E to latitude 35°N, thence the parallel of latitude 35°N to longitude 150°W and thence the rhumb line to the southern extremity of Dall Island, Alaska.

Seasonal periods:
WINTER: 16 October to 15 April
SUMMER: 16 April to 15 October

Regulation 47

Southern Winter Seasonal Zone

The northern boundary of the Southern Winter Seasonal Zone is—

the rhumb line from the east coast of the American continent to 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 along 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 along the rhumb line to the point latitude 33°S, longitude 170°W, and thence the parallel of latitude 33°S to the west coast of the American continent.

Seasonal periods:

WINTER: 16 April to 15 October

SUMMER: 16 October to 15 April

Regulation 48

Tropical Zone

(1) *Northern Boundary of the Tropical Zone*

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.

(2) *Southern Boundary of the Tropical Zone*

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, and thence the rhumb line to the west coast of the American continent at latitude 30°S.

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

(3) *Areas to be included in the Tropical Zone*

The following areas are to be treated 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 45°E.

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

(*b*) The Persian Gulf to the meridian of longitude 59°E.

(*c*) The area bounded by the parallel of latitude 22°S from the east coast of Australia to the Great Barrier Reef, thence the Great Barrier Reef to latitude 11°S. The northern boundary of the area is the southern boundary of the Tropical Zone.

Regulation 49

Seasonal Tropical Areas

The following are Seasonal Tropical Areas:

(1) *In the North Atlantic*

An area bounded—

on the north by the rhumb line from Cape Catoche, Yucatan, to Cape San Antonio, Cuba, the north coast of Cuba to latitude 20°N and thence the parallel of latitude 20°N to longitude 20°W;

on the west by the coast of the American continent;

on the south and east by the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL: 1 November to 15 July

SUMMER: 16 July to 31 October

(2) *In the Arabian Sea*

An area bounded—

on the west by the coast of Africa, the meridian of longitude 45°E in the Gulf of Aden, the coast of South Arabia and the meridian of longitude 59°E in the Gulf of Oman;

on the north and east by the coasts of Pakistan and India;

on the south by the northern boundary of the Tropical Zone.

Seasonal periods:

TROPICAL: 1 September to 31 May

SUMMER: 1 June to 31 August

(3) *In the Bay of Bengal*

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

Seasonal periods:

TROPICAL: 1 December to 30 April

SUMMER: 1 May to 30 November

(4) *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;

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: 1 April to 30 November

SUMMER: 1 December to 31 March

(*b*) An area bounded—

on the north by the southern boundary of the Tropical Zone;

on the east by the coast of Australia;

on the south by the parallel of latitude 15°S from longitude 51°30′E, to longitude 120°E and thence the meridian of longitude 120°E to the coast of Australia;

on the west by the meridian of longitude 51°30′E.

Seasonal periods:

TROPICAL: 1 May to 30 November

SUMMER: 1 December to 30 April

(5) *In the China Sea*

An area bounded—

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

on the east by the rhumb line from Hong Kong to the Port of Sual (Luzon Island) and the west coasts of the Islands of Luzon, Samar and Leyte to latitude 10°N;

on the south by the parallel of latitude 10°N.

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

Seasonal periods:

TROPICAL: 21 January to 30 April

SUMMER: 1 May to 20 January

(6) *In the North Pacific*

(*a*) An area bounded—

on the north by the parallel of latitude 25°N;

on the west by the meridian of longitude 160°E;

on the south by the parallel of latitude 13°N;

on the east by the meridian of longitude 130°W.

Seasonal periods:

TROPICAL: 1 April to 31 October

SUMMER: 1 November to 31 March

(*b*) An area bounded—

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

on the west by the meridian of longitude 123°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 13°N, longitude 105°W;

on the south by the parallel of latitude 13°N.

Seasonal periods:

TROPICAL: 1 March to 30 June and
1 November to 30 November

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

(7) *In the South Pacific*

(*a*) The Gulf of Carpentaria south of latitude 11°S.

Seasonal periods:

TROPICAL: 1 April to 30 November

SUMMER: 1 December to 31 March

(*b*) An area bounded—

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

on the south by the Tropic of Capricorn from the east coast of Australia to longitude 150°W, thence by the meridian of longitude 150°W to latitude 20°S and thence by the parallel of latitude 20°S to the point where it intersects the southern boundary of the Tropical Zone;

on the west by the boundaries of the area within the Great Barrier Reef included in the Tropical Zone and by the east coast of Australia.

Seasonal periods:

TROPICAL: 1 April to 30 November

SUMMER: 1 December to 31 March

Regulation 50

Summer Zones

The remaining areas constitute the Summer Zones.

However, for ships of 100 metres (328 feet) and under in length, the area bounded—

on the north and west by the east coast of the United States;

on the east by the meridian of longitude 68°30′W from the coast of the United States to latitude 40°N and thence by the rhumb line to the point latitude 36°N, longitude 73°W;

on the south by the parallel of latitude 36°N;

is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1 November to 31 March

SUMMER: 1 April to 31 October

Regulation 51

Enclosed Seas

(1) *Baltic Sea*

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

However, for the ships of 100 metres (328 feet) and under in length, it is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1 November to 31 March

SUMMER: 1 April to 31 October

(2) *Black Sea*

This sea is included in the Summer Zones.

However, for ships of 100 metres (328 feet) and under in length, the area north of latitude 44°N is a Winter Seasonal Area.

Seasonal periods:

WINTER: 1 December to 28/29 February

SUMMER: 1 March to 30 November

(3) *Mediterranean*

This sea is included in the Summer Zones.

However, for ships of 100 metres (328 feet) and under in length, the area bounded—

on the north and west by the coasts of France and Spain and the meridian of longitude 3°E from the coast of Spain to latitude 40°N;

on the south by the parallel of latitude 40°N from longitude 3°E to the west coast of Sardinia;

on the east by the west and north coasts of Sardinia from latitude 40°N longitude 9°E, thence by the meridian of longitude 9°E to the south coast of Corsica, thence by the west and north coasts of Corsica to longitude 9°E and thence by the rhumb line to Cape Sicié;

is a Winter Seasonal Area.

Seasonal periods:

WINTER: 16 December to 15 March

SUMMER: 16 March to 15 December

(4) *Sea of Japan*

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

However, for ships of 100 metres (328 feet) and under 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: 1 December to 28/29 February

SUMMER: 1 March to 30 November

Regulation 52

The Winter North Atlantic Load Line

The part of the North Atlantic referred to in Regulation 40 (6) (Annex I) comprises:

(*a*) that part of the North Atlantic Winter Seasonal Zone II which lies between the meridians of 15°W and 50°W;

(*b*) the whole of the North Atlantic Winter Seasonal Zone I, the Shetland Islands to be considered as being on the boundary.

ANNEX III

CERTIFICATES

INTERNATIONAL LOAD LINE CERTIFICATE (1966)

(Official seal)

Issued under the provisions of the International Convention on Load Lines, 1966, under the authority of the Government of

(full official designation of the country)

.....

(full official designation of the competent person or organization

by .....

recognized under the provisions of the International Convention

.....

on Load Lines, 1966)

.....

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

Freeboard assigned as:

* { A new ship / An existing ship }

Type of ship

* { Type 'A' / Type 'B' / Type 'B' with reduced freeboard / Type 'B' with increased freeboard }

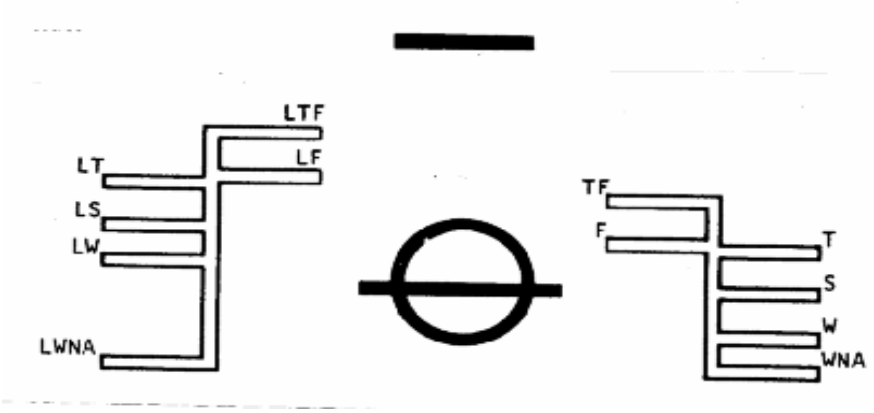
*Delete whatever is inapplicable.

	Freeboard from deck line	Load line
Tropical	.....mm. (inches) (T)	.....mm. (inches) above (S)
Summer	.....mm. (inches) (S)	Upper edge of line through centre of ring
Winter	.....mm. (inches) (W)	.....mm. (inches) below (S)
Winter North Atlantic	.....mm. (inches) (WNA)	.....mm. (inches) below (S)
Timber tropical	.....mm. (inches) (LT)	.....mm. (inches) above (LS)
Timber summer	.....mm. (inches) (LS)	.....mm. (inches) above (S)
Timber winter	.....mm. (inches) (LW)	.....mm. (inches) below (LS)
Timber winter North Atlantic	.....mm. (inches) (LWNA)	.....mm. (inches) below (LS)

NOTE: Freeboards and load lines which are not applicable need not be entered on the certificate.

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

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



Date of initial or periodical survey.....

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

This certificate is valid until....., subject to periodical inspections in accordance with Article 14 (1) (*c*) of the Convention.

Issued at.....
(Place of issue of certificate)

..... 19….. .....

(Date of issue) (Signature of official issuing the certificate)

and/or

(Seal of issuing authority)

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....

(Signature)

NOTES: 1. When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the point of departure and the sea.

2. When a ship is in fresh water of unit density the appropriate load line may be submerged by the amount of the fresh water allowance shown above. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.

Reverse of Certificate

This is to certify that at a periodical inspection required by Article 14 (1) (*c*) of the Convention, this ship was found to comply with the relevant provisions of the Convention.

Place ..... Date.....

Signature and/or Seal of issuing authority.

Place ..... Date .....

Signature and/or Seal of issuing authority.

Place ..... Date.....

Signature and/or Seal of issuing authority.

Place ..... Date.....

Signature and/or Seal of issuing authority.

The provisions of the Convention being fully complied with by this ship, the validity of this certificate is, in accordance with Article 19 (2) of the Convention, extended until.....

Place ..... Date.....

Signature and/or Seal of issuing authority.

INTERNATIONAL LOAD LINE EXEMPTION CERTIFICATE

(Official seal)

Issued under the provisions of the International Convention on Load Lines, 1966, under the authority of the Government of

(full official designation of the country)

.....

(full official designation of the competent person or organization

by.....

recognized under the provision of the International Convention

.....

on Load Lines, 1966)

.....

Name of Ship	Distinctive Number or Letters	Port of Registry

This is to certify that the above-mentioned ship is exempted from the provisions of the 1966 Convention, under the authority conferred by Article 6 (2)/Article 6 (4)* of the Convention referred to above.

The provisions of the Convention from which the ship is exempted under Article 6 (2) are:

.....

.....

.....

* Delete whichever is inapplicable.

The voyage for which exemption is granted under Article 6 (4) is:

From: .....

To: .....

Conditions, if any, on which the exemption is granted under either Article 6 (2) or Article 6 (4):

.....

.....

.....

This certificate is valid until.....subject, where appropriate, to periodical inspections in accordance with Article 14 (1) (*c*) of the Convention.

Issued at.....
(Place of issue of certificate)

.....19….. .....
(Date of issue) (Signature of official issuing the certificate)

and/or

(Seal of issuing authority)

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....
(Signature)

Reverse of Certificate

This is to certify that this ship continues to comply with the conditions under which this exemption was granted.

Place ..... Date.....

Signature and/or Seal of issuing authority.

Place ..... Date .....

Signature and/or Seal of issuing authority.

Place ..... Date.....

Signature and/or Seal of issuing authority.

Place ..... Date.....

Signature and/or Seal of issuing authority.

This ship continues to comply with the conditions under which this exemption was granted and the validity of this certificate is, in accordance with Article 19 (4) (*a*) of the Convention, extended until .....

Place ..... Date.....

Signature and/or Seal of issuing authority.

Schedule 5—International Convention for Safe Containers

Subsection 187A(1)

ARTICLE I

General Obligation under the present Convention

The Contracting Parties undertake to give effect to the provisions of the present Convention and the Annexes hereto, which shall constitute an integral part of the present Convention.

ARTICLE II

Definitions

For the purpose of the present Convention, unless expressly provided otherwise:

1. "Container" means an article of transport equipment:
   (a) of a permanent character and accordingly strong enough to be suitable for repeated use;
   (b) specially designed to facilitate the transport of goods, by one or more modes of transport, without intermediate reloading;
   (c) designed to be secured and/or readily handled, having corner fittings for these purposes;
   (d) of a size such that the area enclosed by the four outer bottom corners is either:
      (i) at least 14 sq. m. (150 sq. ft.) or
      (ii) at least 7 sq. m. (75 sq. ft.) if it is fitted with top corner fittings;

   the term "container" includes neither vehicles nor packaging; however, containers when carried on chassis are included.
2. "Corner fittings" means an arrangement of apertures and faces at the top and/or bottom of a container for the purposes of handling, stacking and/or securing.
3. "Administration" means the Government of a Contracting Party under whose authority containers are approved.
4. "Approved" means approved by the Administration.
5. "Approval" means the decision by an Administration that a design type or a container is safe within the terms of the present Convention.

6. "International transport" means transport between points of departure and destination situated in the territory of two countries to at least one of which the present Convention applies. The present Convention shall also apply when part of a transport operation between two countries takes place in the territory of a country to which the present Convention applies.
7. "Cargo" means any goods, wares, merchandise and articles of every kind whatsoever carried in the containers.
8. "New container" means a container the construction of which was commenced on or after the date of entry into force of the present Convention.
9. "Existing container" means a container which is not a new container.
10. "Owner" means the owner as provided for under the national law of the Contracting Party or the lessee or bailee, if an agreement between the parties provides for the exercise of the owner's responsibility for maintenance and examination of the container by such lessee or bailee.
11. "Type of container" means the design type approved by the Administration.
12. "Type-series container" means any container manufactured in accordance with the approved design type.
13. "Prototype" means a container representative of those manufactured or to be manufactured in a design type series.
14. "Maximum Operating Gross Weight or Rating" or "R" means the maximum allowable combined weight of the container and its cargo.
15. "Tare Weight" means the weight of the empty container including permanently affixed ancillary equipment.
16. "Maximum Permissible Payload" or "P" means the difference between maximum operating gross weight or rating and tare weight.

ARTICLE III

Application

1. The present Convention applies to new and existing containers used in international transport, excluding containers specially designed for air transport.

2. Every new container shall be approved either in accordance with the provisions for type-testing or for individual testing as contained in Annex I.

3. Every existing container shall be approved in accordance with the relevant provisions for approval of existing containers set out in Annex I within 5 years from the date of entry into force of the present Convention.

ARTICLE IV

Testing, Inspection, Approval and Maintenance

1. For the enforcement of the provisions in Annex I every Administration shall establish an effective procedure for the testing, inspection and approval of containers in accordance with the criteria established in the present Convention, provided however that an Administration may entrust such testing, inspection and approval to organizations duly authorized by it.

2. An Administration which entrusts such testing, inspection and approval to an organization shall inform the Secretary-General of the Inter-Governmental Maritime Consultative Organization (hereinafter referred to as "the Organization") for communication to Contracting Parties.

3. Application for approval may be made to the Administration of any Contracting Party.

4. Every container shall be maintained in a safe condition in accordance with the provisions of Annex I.

5. If an approved container does not in fact comply with the requirements of Annexes I and II the Administration concerned shall take such steps as it deems necessary to bring the container into compliance with such requirements or to withdraw the approval.

ARTICLE V

Acceptance of Approval

1. Approval under the authority of a Contracting Party, granted under the terms of the present Convention, shall be accepted by the other Contracting Parties for all purposes covered by the present Convention. It shall be regarded by the other Contracting Parties as having the same force as an approval issued by them.

2. A Contracting Party shall not impose any other structural safety requirements or tests on containers covered by the present Convention, provided however that nothing in the present Convention shall preclude the application of provisions of national regulations or legislation or of international agreements, prescribing additional structural safety requirements or tests for containers

specially designed for the transport of dangerous goods, or for those features unique to containers carrying bulk liquids or for containers when carried by air. The term "dangerous goods" shall have that meaning assigned to it by international agreements.

ARTICLE VI

Control

1. Every container which has been approved under article III shall be subject to control in the territory of the Contracting Parties by officers duly authorized by such Contracting Parties. This control shall be limited to verifying that the container carries a valid Safety Approval Plate as required by the present Convention, unless there is significant evidence for believing that the condition of the container is such as to create an obvious risk to safety. In that case the officer carrying out the control shall only exercise it in so far as it may be necessary to ensure that the container is restored to a safe condition before it continues in service.

2. Where the container appears to have become unsafe as a result of a defect which may have existed when the container was approved, the Administration responsible for that approval shall be informed by the Contracting Party which detected the defect.

ARTICLE VII

Signature, ratification, acceptance, approval and accession

1. The present Convention shall be open for signature until 15 January 1973 at the Office of the United Nations at Geneva and subsequently from 1 February 1973 until 31 December 1973 inclusive at the Headquarters of the Organization at London by all States Members of the United Nations or Members of any of the Specialized Agencies or of the International Atomic Energy Agency or Parties to the Statute of the International Court of Justice, and by any other State invited by the General Assembly of the United Nations to become a Party to the present Convention.

2. The present Convention is subject to ratification, acceptance or approval by States which have signed it.

3. The present Convention shall remain open for accession by any State referred to in paragraph 1.

4. Instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the Organization (hereinafter referred to as "the Secretary-General").

ARTICLE VIII

Entry into force

1. The present Convention shall enter into force twelve months from the date of the deposit of the tenth instrument of ratification, acceptance, approval or accession.

2. For each State ratifying, accepting, approving or acceding to the present Convention after the deposit of the tenth instrument of ratification, acceptance, approval or accession, the present Convention shall enter into force twelve months after the date of the deposit by such State of its instrument of ratification, acceptance, approval or accession.

3. Any State which becomes a Party to the present Convention after the entry into force of an amendment shall, failing an expression of a different intention by that State,

(a) be considered as a Party to the Convention as amended; and

(b) be considered as a Party to the unamended Convention in relation to any Party to the Convention not bound by the amendment.

ARTICLE IX

Procedure for amending any part or parts of the present Convention

1. The present Convention may be amended upon the proposal of a Contracting Party by any of the procedures specified in this article.

2. Amendment after consideration in the Organization:

(a) Upon the request of a Contracting Party, any amendment proposed by it to the present Convention shall be considered in the Organization. If adopted by a majority of two-thirds of those present and voting in the Maritime Safety Committee of the Organization, to which all Contracting Parties shall have been invited to participate and vote, such amendment shall be communicated to all Members of the Organization and all Contracting Parties at least six months prior to its consideration by the Assembly of the Organization. Any Contracting Party which is not a Member of the Organization shall be entitled to participate and vote when the amendment is considered by the Assembly.

(b) If adopted by a two-thirds majority of those present and voting in the Assembly, and if such majority includes a two-thirds majority of the Contracting Parties present and voting, the amendment shall be communicated by the Secretary-General to all Contracting Parties for their acceptance.

(c) Such amendment shall come into force twelve months after the date on which it is accepted by two-thirds of the Contracting Parties. The amendment shall come into force with respect to all Contracting Parties except those which, before it comes into force, make a declaration that they do not accept the amendment.

3. Amendment by a Conference:

Upon the request of a Contracting Party, concurred in by at least one-third of the Contracting Parties, a Conference to which the States referred to in article VII shall be invited will be convened by the Secretary-General.

ARTICLE X

Special procedure for amending the Annexes

1. Any amendment to the Annexes proposed by a Contracting Party shall be considered in the Organization at the request of that Party.

2. If adopted by a two-thirds majority of those present and voting in the Maritime Safety Committee of the Organization to which all Contracting Parties shall have been invited to participate and to vote, and if such majority includes a two-thirds majority of the Contracting Parties present and voting, such amendment shall be communicated by the Secretary-General to all Contracting Parties for their acceptance.

3. Such an amendment shall enter into force on a date to be determined by the Maritime Safety Committee at the time of its adoption unless by a prior date determined by the Maritime Safety Committee at the same time, one-fifth or five of the Contracting Parties, whichever number is less, notify the Secretary-General of their objection to the amendment. Determination by the Maritime Safety Committee of the dates referred to in this paragraph shall be by a two-thirds majority of those present and voting, which majority shall include a two-thirds majority of the Contracting Parties present and voting.

4. On entry into force any amendment shall, for all Contracting Parties which have not objected to the amendment, replace and supersede any previous provision to which the amendment refers; an objection made by a Contracting Party shall not be binding on other Contracting Parties as to acceptance of containers to which the present Convention applies.

5. The Secretary-General shall inform all Contracting Parties and Members of the Organization of any request and communication under this article and the date on which any amendment enters into force.

6. Where a proposed amendment to the Annexes has been considered but not adopted by the Maritime Safety Committee, any Contracting Party may request the convening of a Conference to which the States referred to in article VII shall be invited. Upon receipt of notification of concurrence by at least one-third of the other Contracting Parties such a Conference shall be convened by the Secretary-General to consider amendments to the Annexes.

ARTICLE XI

Denunciation

1. Any Contracting Party may denounce the present Convention by effecting the deposit of an instrument with the Secretary-General. The denunciation shall take effect one year from the date of such deposit with the Secretary-General.

2. A Contracting Party which has communicated an objection to an amendment to the Annexes may denounce the present Convention and such denunciation shall take effect on the date of entry into force of such an amendment.

ARTICLE XII

Termination

The present Convention shall cease to be in force if the number of Contracting Parties is less than five for any period of twelve consecutive months.

ARTICLE XIII

Settlement of Disputes

1. Any dispute between two or more Contracting Parties concerning the interpretation or application of the present Convention which cannot be settled by negotiation or other means of settlement shall, at the request of one of them, be referred to an arbitration tribunal composed as follows: each party to the dispute shall appoint an arbitrator and these two arbitrators shall appoint a third arbitrator, who shall be the Chairman. If, three months after receipt of a request, one of the parties has failed to appoint an arbitrator or if the arbitrators have failed to elect the Chairman, any of the parties may request the

Secretary-General to appoint an arbitrator or the Chairman of the arbitration tribunal.

2. The decision of the arbitration tribunal established under the provisions of paragraph 1 shall be binding on the parties to the dispute.

3. The arbitration tribunal shall determine its own rules of procedure.

4. Decisions of the arbitration tribunal, both as to its procedure and its place of meeting and as to any controversy laid before it, shall be taken by majority vote.

5. Any controversy which may arise between the parties to the dispute as regards the interpretation and execution of the award may be submitted by any of the parties for judgment to the arbitration tribunal which made the award.

ARTICLE XIV

Reservations

1. Reservations to the present Convention shall be permitted, excepting those relating to the provisions of articles I–VI, XIII, the present article and the Annexes, on condition that such reservations are communicated in writing and, if communicated before the deposit of the instrument of ratification, acceptance, approval or accession, are confirmed in that instrument. The Secretary-General shall communicate such reservations to all States referred to in article VII.

2. Any reservations made in accordance with paragraph 1:

(a) modifies for the Contracting Party which made the reservation the provisions of the present Convention to which the reservation relates to the extent of the reservation; and

(b) modifies those provisions to the same extent for the other Contracting Parties in their relations with the Contracting Party which entered the reservation.

3. Any Contracting Party which has formulated a reservation under paragraph 1 may withdraw it at any time by notification to the Secretary-General.

ARTICLE XV

Notification

In addition to the notifications and communications provided for in articles IX, X and XIV, the Secretary-General shall notify all the States referred to in article VII of the following:

(a) signatures, ratifications, acceptances, approvals and accessions under article VII;

(b) the dates of entry into force of the present Convention in accordance with article VIII;

(c) the date of entry into force of amendments to the present Convention in accordance with articles IX and X;

(d) denunciations under article XI;

(e) the termination of the present Convention under article XII.

ARTICLE XVI

Authentic texts

The original of the present Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General, who shall communicate certified true copies to all States referred to in article VII.

ANNEX I

REGULATIONS FOR THE TESTING, INSPECTION, APPROVAL AND MAINTENANCE OF CONTAINERS

CHAPTER I—REGULATIONS COMMON TO ALL SYSTEMS OF APPROVAL

Regulation 1

Safety Approval Plate

1. A Safety Approval Plate conforming to the specifications set out in the Appendix to this Annex shall be permanently affixed to every approved container at a readily visible place, adjacent to any other approval plate issued for official purposes, where it would not be easily damaged.

2. (a) The Plate shall contain the following information in at least the English or French language:

"CSC SAFETY APPROVAL"

Country of approval and approval reference

Date (month and year) of manufacture

Manufacturer's identification number of the container or, in the case of existing containers for which that number is unknown, the number allotted by the Administration

Maximum operating gross weight (kilogrammes and lbs)

Allowable stacking weight for 1.8 g (kilogrammes and lbs)

Transverse racking test load value (kilogrammes and lbs).

(b) A blank space should be reserved on the Plate for insertion of end-wall and/or side-wall strength values (factors) in accordance with paragraph 3 of this Regulation and Annex II, tests 6 and 7. A blank space should also be reserved on the Plate for the first and subsequent maintenance examination dates (month and year) when used.

3. Where the Administration considers that a new container satisfies the requirements of the present Convention in respect of safety and if, for such container, the end-wall and/or side-wall strength values (factors) are designed to be greater or less than those stipulated in Annex II, such values shall be indicated on the Safety Approval Plate.

4. The presence of the Safety Approval Plate does not remove the necessity of displaying such labels or other information as may be required by other regulations which may be in force.

Regulation 2

Maintenance

1. The owner of the container shall be responsible for maintaining it in safe condition.

2. The owner of an approved container shall examine the container or have it examined in accordance with the procedure either prescribed or approved by the Contracting Party concerned, at intervals appropriate to operating conditions. The date (month and year) before which a new container shall undergo its first examination shall be marked on the Safety Approval Plate.

3. The date (month and year) before which the container shall be re-examined shall be clearly marked on the container on or as close as practicable to the Safety Approval Plate and in a manner acceptable to that Contracting Party which prescribed or approved the particular maintenance procedure involved.

4. The interval from the date of manufacture to the date of the first examination shall not exceed five years. Subsequent examination of new containers and re-examination of existing containers shall be at intervals of not more than 24 months. All examinations shall determine whether the container has any defects which could place any person in danger.

5. For the purpose of this Regulation "the Contracting Party concerned" is the Contracting Party of the territory in which the owner is domiciled or has his head office.

CHAPTER II—REGULATIONS FOR APPROVAL OF NEW CONTAINERS BY DESIGN TYPE

Regulation 3

Approval of New Containers

To qualify for approval for safety purposes under the present Convention all new containers shall comply with the requirements set out in Annex II.

Regulation 4

Design Type Approval

In the case of containers for which an application for approval has been submitted, the Administration will examine designs and witness testing of a prototype container to ensure that the containers will conform with the requirements set out in Annex II. When satisfied, the Administration shall notify the applicant in writing that the container meets the requirements of the present Convention and this notification shall entitle the manufacturer to affix the Safety Approval Plate to every container of the design type series.

Regulation 5

Provisions for Approval by Design Type

1. Where the containers are to be manufactured by design type series, application made to an Administration for approval by design type shall be accompanied by drawings, a design specification of the type of container to be approved and such other data as may be required by the Administration.

2. The applicant shall state the identification symbols which will be assigned by the manufacturer to the type of container to which the application for approval relates.

3. The application shall also be accompanied by an assurance from the manufacturer that he will:

(a) produce to the Administration such containers of the design type concerned as the Administration may wish to examine;

(b) advise the Administration of any change in the design or specification and await its approval before affixing the Safety Approval Plate to the container;

(c) affix the Safety Approval Plate to each container in the design type series and to no others;

(d) keep a record of containers manufactured to the approved design type. This record shall at least contain the manufacturer's identification numbers, dates of delivery and names and addresses of customers to whom the containers are delivered.

4. Approval may be granted by the Administration to containers manufactured as modifications of an approved design type if the Administration is satisfied that the modifications do not affect the validity of tests conducted in the course of design type approval.

5. The Administration shall not confer on a manufacturer authority to affix Safety Approval Plates on the basis of design type approval unless satisfied that the manufacturer has instituted internal production-control features to ensure that the containers produced will conform to the approved prototype.

Regulation 6

Examination during Production

In order to ensure that containers of the same design type series are manufactured to the approved design, the Administration shall examine or test as many units as it considers necessary, at any stage during production of the design type series concerned.

Regulation 7

Notification of Administration

The manufacturer shall notify the Administration prior to commencement of production of each new series of containers to be manufactured in accordance with an approved design type.

CHAPTER III—REGULATIONS FOR APPROVAL OF NEW CONTAINERS BY INDIVIDUAL APPROVAL

Regulation 8

Approval of Individual Containers

Approval of individual containers may be granted where the Administration, after examination and witnessing of tests, is satisfied that the container meets the requirements of the present Convention; the Administration, when so satisfied, shall notify the applicant in writing of approval and this notification shall entitle him to affix the Safety Approval Plate to such container.

CHAPTER IV—REGULATIONS FOR APPROVAL OF EXISTING CONTAINERS

Regulation 9

Approval of Existing Containers

1. If, within 5 years from the date of entry into force of the present Convention, the owner of an existing container presents the following information to an Administration:

(a) date and place of manufacture;

(b) manufacturer's identification number of the container if available;

(c) maximum operating gross weight capability;

(d) (i) evidence that a container of this type has been safely operated in maritime and/or inland transport for a period of at least two years, or

(ii) evidence to the satisfaction of the Administration that the container was manufactured to a design type which had been tested and found to comply with the technical conditions set out in Annex II, with the exception of those technical conditions relating to the end-wall and side-wall strength tests, or

(iii) evidence that the container was constructed to standards which, in the opinion of the Administration, were equivalent to the technical conditions set out in Annex II, with the exception of those technical conditions relating to the end-wall and side-wall strength tests;

(e) allowable stacking weight for 1.8 g (kilogrammes and lbs); and

(f) such other data as required for the Safety Approval Plate,

then the Administration, after investigation, shall notify the owner in writing whether approval is granted; and if so, this notification shall entitle the owner to affix the Safety Approval Plate after an examination of the container concerned has been carried out in accordance with Regulation 2.

2. Existing containers which do not qualify for approval under paragraph 1 of this Regulation may be presented for approval under the provisions of Chapter II or Chapter III of this Annex. For such containers the requirements of Annex II relating to end-wall and/or side-wall strength tests shall not apply. The Administration may, if it is satisfied that the containers in question have been in service, waive such of the requirements in respect of presentation of drawings

and testing, other than the lifting and floor-strength tests, as it may deem appropriate.

APPENDIX

The Safety Approval Plate, conforming to the model reproduced below, shall take the form of a permanent, non-corrosive fire-proof rectangular plate measuring not less than 200 mm by 100 mm. The words "CSC Safety Approval" of a minimum letter height of 8 mm and all other words and numbers of a minimum height of 5 mm shall be stamped into, embossed on or indicated on the surface of the Plate in any other permanent and legible way.

1. Country of Approval and Approval Reference as given in the example on line 1. (The country of Approval should be indicated by means of the distinguishing sign used to indicate country of registration of motor vehicles in international road traffic).

2. Date (month and year) of manufacture.

3. Manufacturer's identification number of the container or, in the case of existing containers for which that number is unknown, the number allotted by the Administration.

4. Maximum Operating Gross Weight (kilogrammes and lbs.).

5. Allowable Stacking Weight for 1.8 g (kilogrammes and lbs.).

6. Transverse Racking Test Load Value (kilogrammes and lbs.).

7. End Wall Strength to be indicated on plate only if end walls are designed to withstand a load of less or greater than 0.4 times the maximum permissible payload, i.e. 0.4 P.

8. Side Wall Strength to be indicated on plate only if the side walls are designed to withstand a load of less or greater than 0.6 times the maximum permissible payload, i.e. 0.6 P.

9. First maintenance examination date (month and year) for new containers and subsequent maintenance examination dates (month and year) if Plate used for this purpose.

ANNEX II

STRUCTURAL SAFETY REQUIREMENTS AND TESTS

Introduction

In setting the requirements of this Annex, it is implicit that in all phases of the operation of containers the forces as a result of motion, location, stacking and weight of the loaded container and external forces will not exceed the design strength of the container. In particular, the following assumptions have been made:

(a) the container will so be restrained that it is not subjected to forces in excess of those for which it has been designed;

(b) the container will have its cargo stowed in accordance with the recommended practices of the trade so that the cargo does not impose upon the container forces in excess of those for which it has been designed.

Construction

1. A container made from any suitable material which satisfactorily performs the following tests without sustaining any permanent deformation or abnormality which would render it incapable of being used for its designed purpose shall be considered safe.

2. The dimensions, positioning and associated tolerances of corner fittings shall be checked having regard to the lifting and securing systems in which they will function.

3. When containers are provided with special fittings for use only when such containers are empty, this restriction shall be marked on the container.

Test loads and test procedures

Where appropriate to the design of the container, the following test loads and test procedures shall be applied to all kinds of containers under test:

Test loadings and applied forces	Test procedures
1. LIFTING	
The container, having the prescribed INTERNAL LOADING, shall be lifted in such a way that no significant acceleration forces are applied. After lifting, the container shall be suspended or supported for five minutes and then lowered to the ground.	
(A) Lifting from corner fittings	
Internal loading: A uniformly distributed load such that the combined weight of container and test load is equal to 2R.	(i) Lifting from top corner fittings: Containers greater than 3,000 mm (10 ft.) (nominal) in length shall have lifting forces applied vertically at all four top corner fittings. Containers of 3,000 mm (10 ft.) (nominal) in length or less shall have lifting forces applied at all four top corner fittings, in such a way that the angle between each lifting device and the vertical shall be 30°
Externally applied forces: Such as to lift the combined weight of 2R in the manner prescribed (under the heading TEST PROCEDURES).	(ii) Lifting from bottom corner fittings: Containers shall have lifting forces applied in such a manner that the lifting devices bear on the bottom corner fittings only. The lifting forces shall be applied at angles to the horizontal of: 30° for containers of length 12,000 mm (40 ft.) (nominal) or greater; 37° for containers of length 9,000 mm (30 ft.) (nominal) and up to but not including 12,000 mm (40 ft.) (nominal), 45° for containers of length 6,000 mm (20 ft.) nominal and up to but not including 9,000 mm (30 ft.) (nominal), 60° for containers of less than 6,000 mm (20 ft.) (nominal).

Test loadings and applied forces	Test procedures
(B) Lifting by any other additional methods	
Internal loading: A uniformly distributed load such that the combined weight of container and test load is equal to 1.25 R. Externally applied forces: Such as to lift the combined weight of 1. 25 R in the manner prescribed (under the heading TEST PROCEDURES).	(i) Lifting from fork lift pockets: The container shall be placed on bars which are in the same horizontal plane, one bar centred within each fork lift pocket which is used for lifting the loaded container. The bars shall be of the same width as the forks intended to be used in the handling, and shall project into the fork pocket 75 per cent of the length of the fork pocket.
Internal loading: A uniformly distributed load such that the combined weight of containers and test load is equal to 1.25 R. Externally applied forces: Such as to lift the combined weight of 1.25 R, in the manner prescribed (under the heading TEST PROCEDURES).	(ii) Lifting from grappler arm positions: The container shall be placed on pads in the same horizontal plane, one under each grappler arm position. These pads shall be of the same sizes as the lifting area of the grappler arms intended to be used. (iii) Other Methods Where containers are designed to be lifted in the loaded condition by any method not mentioned in (A) or (B) (i) and (ii) they shall also be tested with the INTERNAL LOADING AND EXTERNALLY APPLIED FORCES representative of the acceleration conditions appropriate to that method.

2. STACKING

1. For conditions of international transport where the maximum vertical acceleration forces vary significantly from 1.8 g and when the container is reliably and effectively limited to such conditions of transport, the stacking load may be varied by the appropriate ratio of acceleration forces.
2. On successful completion of this test the container may be rated for the allowable superimposed static stacking weight which should be indicated on the Safety Approval Plate against the heading “Allowable stacking weight for 1.8 g (kilogrammes and lbs)”.

Test loadings and applied forces	Test procedures
Internal loading:	
A uniformly distributed load such that the combined weight of container and test load is equal to 1.8 R.	The container, having the prescribed INTERNAL LOADING, shall be placed on four level pads which are in turn supported on a rigid horizontal surface, one under each bottom corner fitting or equivalent corner structure. The pads shall be centralized under the fittings and shall be of approximately the same plan dimensions as the fittings.
Externally applied forces:	
Such as to subject each of the four top corner fittings to a vertical downward force equal to ¼ x 1.8 x the allowable superimposed static stacking weight.	Each EXTERNALLY APPLIED FORCE shall be applied to each of the corner fittings through a corresponding test corner fitting or through a pad of the same plan dimensions. The test corner fitting or pad shall be offset with respect to the top corner fitting of the container by 25 mm (1 in.) laterally and 38 mm (1½ in.) longitudinally.
3. CONCENTRATED LOADS	
	(a) On roof
Internal loading:	
None.	
Externally applied forces:	
A concentrated load of 300 kg (660 lb.) uniformly distributed over an area of 600 mm x 300 mm (24 in.x12 in.).	The EXTERNALLY APPLIED FORCES shall be applied vertically downwards to the outer surface of the weakest area of the roof of the container.

Test loadings and applied forces	Test procedures
3. CONCENTRATED LOADS	
	(b) On floor
Internal loading:	
Two concentrated loads each of 2,730 kg (6,000 lb.) and each applied to the container floor through a contact area of 142 cm^2 (22 sq in.).	The test should be made with the container resting on four level supports under its four bottom corners in such a manner that the base structure of the container is free to deflect. A testing device loaded to a weight of 5,460 kg (12,000 lb.) that is 2,730 kg (6,000 lb.) on each of two surfaces having, when loaded, a total contact area of 284 cm^2 (44 sq in.) that is 142 cm^2 (22 sq in.) on each surface, the surface width being 180 mm (7 in.) spaced 760 mm (30 in.) apart, centre to centre, should be manoeuvred over the entire floor area of the container.
Externally applied forces:	
None.	
4. TRANSVERSE RACKING	
Internal loading:	
None.	The container in tare condition shall be placed on four level supports one under each bottom corner and shall be restrained against lateral and vertical movement by means of anchor devices so arranged that the lateral restraint is provided only at the bottom corners diagonally opposite to those at which the forces are applied.

Test loadings and applied forces	Test procedures
Externally applied forces:	
Such as to rack the end structures of the container sideways. The forces shall be equal to those for which the container was designed.	The EXTERNALLY APPLIED FORCES shall be applied either separately or simultaneously to each of the top corner fittings on one side of the container in lines parallel both to the base and to the planes of the ends of the container. The forces shall be applied first towards and then away from the top corner fittings. In the case of containers in which each end is symmetrical about its own vertical centreline, one side only need be tested, but both sides of containers with asymmetric ends shall be tested.

5. LONGITUDINAL RESTRAINT (STATIC TEST)

When designing and constructing containers, it must be borne in mind that containers, when carried by inland modes of transport may sustain accelerations of 2 g applied horizontally in a longitudinal direction.

Internal loading:	
A uniformly distributed load, such that the combined weight of a container and test load is equal to the maximum operating gross weight or rating, R.	The container having the prescribed INTERNAL LOADING shall be restrained longitudinally by securing the two bottom corner fittings or equivalent corner structures at one end to suitable anchor points.
Externally applied forces:	
Such as to subject each side of the container to longitudinal compressive and tensile forces of magnitude R, that is, a combined force of 2R on the base of the container as a whole.	The EXTERNALLY APPLIED FORCES shall be applied first towards and then away from the anchor points. Each side of the container shall be tested.

6. END-WALLS

The end-walls should be capable of withstanding a load of not less than 0.4 times the maximum permissible payload. If, however, the end-walls are designed to withstand a load of less or greater than 0.4 times the maximum permissible payload such a strength factor shall be indicated on the Safety Approval Plate in accordance with Annex I, Regulation 1.

Test loadings and applied forces	Test procedures
Internal loading: Such as to subject the inside of an end-wall to a uniformly distributed load of 0.4P or such other load for which the container may be designed. Externally applied forces: None.	The prescribed INTERNAL LOADING shall be applied as follows: Both ends of a container shall be tested except where the ends are identical only one end need be tested. The end-walls of containers which do not have open sides or side doors may be tested separately or simultaneously. The end-walls of containers which do have open sides or side doors should be tested separately. When the ends are tested separately the reactions to the forces applied to the end-wall shall be confined to the base structure of the container.

7. SIDE-WALLS

The side-walls should be capable of withstanding a load of not less than 0.6 times the maximum permissible payload. If, however, the side-walls are designed to withstand a load of less or greater than 0.6 times the maximum permissible payload, such a strength factor shall be indicated on the Safety Approval Plate in accordance with Annex I, Regulation 1.

Internal loading: Such as to subject the inside of a side-wall to a uniformly distributed load of 0.6P or such other load for which the container may be designed. Externally applied forces: None.	The prescribed INTERNAL LOADING shall be applied as follows: Both sides of a container shall be tested except where the sides are identical only one side need be tested. Side-walls shall be tested separately and the reactions to the internal loading shall be confined to the corner fittings or equivalent corner structures. Open topped containers shall be tested in the condition in which they are designed to be operated, for example, with removable top members in position.

Schedule 5A—1981 Amendments to Annex I of the International Convention for Safe Containers (CSC)

Section 187A

CHAPTER I

Regulation 2

Amend the heading of Regulation 2 to read: "Maintenance and Examination".

In paragraph 3, line 4, delete the word "maintenance" and insert therefor "examination".

Add at the end of paragraph 4 the following text:

"As a transitional provision, any requirements for marking on containers the date of the first examination of new containers or the re-examination of new containers covered in Regulation 10 and of existing containers shall be waived until 1 January 1987. However, an Administration may make more stringent requirements for the containers of its own (national) owners."

Add at the end of paragraph 5 the following text:

"However, in the event that the owner is domiciled or has his head office in a country the government of which has not yet made arrangements for prescribing or approving an examination scheme and until such time as the arrangements have been made the owner may use the procedure prescribed or approved by the Administration of a Contracting Party which is prepared to act as 'the Contracting Party concerned'. The owner shall comply with the conditions for the use of such procedures set by the Administration in question."

CHAPTER IV

Amend the heading to read:

"REGULATIONS FOR APPROVAL OF EXISTING CONTAINERS AND NEW CONTAINERS NOT APPROVED AT THE TIME OF MANUFACTURE".

Regulation 9

Add to the end of paragraph 1 the following:

"The examination of the container concerned and the affixing of the Safety Approval Plate shall be accomplished not later than 1 January 1985." Insert a new Regulation 10 reading:

"Regulation 10

Approval of New Containers Not Approved at Time of Manufacture

If, on or before 6 September 1982, the owner of a new container which was not approved at the time of manufacture presents the following information to an Administration:

(a) date and place of manufacture;
(b) manufacturer's identification number of the container if available;
(c) maximum operating gross weight capability;
(d) evidence to the satisfaction of the Administration that the container was manufactured to a design type which had been tested and found to comply with the technical conditions set out in Annex II;
(e) allowable stacking weight for 1.8g (kilogrammes and lbs); and
(f) such other data as required for the Safety Approval Plate;

the Administration, after investigation, may approve the container, notwithstanding the provisions of Chapter II. Where approval is granted, such approval shall be notified to the owner in writing, and this notification shall entitle the owner to affix the Safety Approval Plate after an examination of the container concerned has been carried out in accordance with Regulation 2. The examination of the container concerned and the affixing of the Safety Approval Plate shall be accomplished not later than 1 January 1985."

Schedule 8—International Convention on Tonnage Measurement of Ships, 1969

Section 405B

ARTICLE 1

General Obligation under the Convention

The Contracting Governments undertake to give effect to the provisions of the present Convention and the Annexes hereto which shall constitute an integral part of the present Convention. Every reference to the present Convention constitutes at the same time a reference to the Annexes.

ARTICLE 2

Definitions

For the purpose of the present Convention, unless expressly provided otherwise:

(1) "Regulations" means the Regulations annexed to the present Convention;

(2) "Administration" means the Government of the State whose flag the ship is flying;

(3) "international voyage" means a sea voyage from a country to which the present Convention applies to a port outside such country, or conversely. For this purpose, every territory for the international relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country;

(4) "gross tonnage" means the measure of the overall size of a ship determined in accordance with the provisions of the present Convention;

(5) "net tonnage" means the measure of the useful capacity of a ship determined in accordance with the provisions of the present Convention;

(6) "new ship" means a ship the keel of which is laid, or which is at a similar stage of construction, on or after the date of coming into force of the present Convention;

(7) "existing ship" means a ship which is not a new ship;

(8) "length" means 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or the length from the fore side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline;

(9) "Organization" means the Inter-Governmental Maritime Consultative Organization.

ARTICLE 3

Application

(1) The present Convention shall apply to the following ships engaged on international voyages:
   (a) ships registered in countries the Governments of which are Contracting Governments;
   (b) ships registered in territories to which the present Convention is extended under Article 20; and
   (c) unregistered ships flying the flag of a State, the Government of which is a Contracting Government.

(2) The present Convention shall apply to:
   (a) new ships;
   (b) existing ships which undergo alterations or modifications which the Administration deems to be a substantial variation in their existing gross tonnage;
   (c) existing ships if the owner so requests; and
   (d) all existing ships, twelve years after the date on which the Convention comes into force, except that such ships, apart from those mentioned in (b) and (c) of this paragraph, shall retain their then existing tonnages for the purpose of the application to them of relevant requirements under other existing International Conventions.

(3) Existing ships to which the present Convention has been applied in accordance with sub-paragraph (2) (c) of this Article shall not subsequently have their tonnages determined in accordance with the requirements which the Administration applied to ships on international voyages prior to the coming into force of the present Convention.

ARTICLE 4

Exceptions

(1) The present Convention shall not apply to:
  (a) ships of war; and
  (b) ships of less than 24 metres (79 feet) in length.

(2) Nothing herein shall apply to ships solely navigating:
  (a) the Great Lakes of North America and the River St. Lawrence as far east as a rhumb line drawn from Cap des Rosiers to West Point, Anticosti Island, and, on the north side of Anticosti Island, the meridian of longitude 63°W;
  (b) the Caspian Sea; or
  (c) the Plate, Parana and Uruguay Rivers as far east as a rhumb line drawn between Punta Rasa (Cabo San Antonio), Argentina, and Punta del Este, Uruguay.

ARTICLE 5

Force Majeure

(1) A ship which is not subject to the provisions of the present Convention at the time of its departure on any voyage shall not become subject to such provisions on account of any deviation from its intended voyage due to stress of weather or any other cause of *force majeure*.

(2) In applying the provisions of the present Convention, the Contracting Governments shall give due consideration to any deviation or delay caused to any ship owing to stress of weather or any other cause of *force majeure*.

ARTICLE 6

Determination of Tonnages

The determination of gross and net tonnages shall be carried out by the Administration which may, however, entrust such determination either to persons or organizations recognized by it. In every case the Administration concerned shall accept full responsibility for the determination of gross and net tonnages.

ARTICLE 7

Issue of Certificate

(1) An International Tonnage Certificate (1969) shall be issued to every ship, the gross and net tonnages of which have been determined in accordance with the present Convention.

(2) Such certificate shall be issued by the Administration or by any person or organization duly authorized by it. In every case, the Administration shall assume full responsibility for the certificate.

ARTICLE 8

Issue of Certificate by another Government

(1) A Contracting Government may, at the request of another Contracting Government, determine the gross and net tonnages of a ship and issue or authorize the issue of an International Tonnage Certificate (1969) to the ship in accordance with the present Convention.

(2) A copy of the certificate and a copy of the calculations of the tonnages shall be transmitted as early as possible to the requesting Government.

(3) A certificate so issued shall contain a statement to the effect that it has been issued at the request of the Government of the State whose flag the ship is or will be flying and it shall have the same validity and receive the same recognition as a certificate issued under Article 7.

(4) No International Tonnage Certificate (1969) shall be issued to a ship which is flying the flag of a State the Government of which is not a Contracting Government.

ARTICLE 9

Form of Certificate

(1) The certificate shall be drawn up in the official language or languages of the issuing country. If the language used is neither English nor French, the text shall include a translation into one of these languages.

(2) The form of the certificate shall correspond to that of the model given in Annex II.

ARTICLE 10

Cancellation of Certificate

(1) Subject to any exceptions provided in the Regulations, an International Tonnage Certificate (1969) shall cease to be valid and shall be cancelled by the Administration if alterations have taken place in the arrangement, construction, capacity, use of spaces, total number of passengers the ship is permitted to carry as indicated in the ship's passenger certificate, assigned load line or permitted draught of the ship, such as would necessitate an increase in gross tonnage or net tonnage.

(2) A certificate issued to a ship by an Administration shall cease to be valid upon transfer of such a ship to the flag of another State, except as provided in paragraph (3) of this Article.

(3) Upon transfer of a ship to the flag of another State the Government of which is a Contracting Government, the International Tonnage Certificate (1969) shall remain in force for a period not exceeding three months, or until the Administration issues another International Tonnage Certificate (1969) to replace it, whichever is the earlier. The Contracting Government of the State whose flag the ship was flying hitherto shall transmit to the Administration as soon as possible after the transfer takes place a copy of the certificate carried by the ship at the time of transfer and a copy of the relevant tonnage calculations.

ARTICLE 11

Acceptance of Certificate

The certificate issued under the authority of a Contracting Government in accordance with the present Convention shall be accepted by the other Contracting Governments and regarded for all purposes covered by the present Convention as having the same validity as certificates issued by them.

ARTICLE 12

Inspection

(1) A ship flying the flag of a State the Government of which is a Contracting Government shall be subject, when in the ports of other Contracting Governments, to inspection by officers duly authorized by such Governments. Such inspection shall be limited to the purpose of verifying:

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

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

(2) In no case shall the exercise of such inspection cause any delay to the ship.

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

ARTICLE 13

Privileges

The privileges of the present Convention may not be claimed in favour of any ship unless it holds a valid certificate under the Convention.

ARTICLE 14

Prior Treaties, Conventions and Arrangements

(1) All other treaties, conventions and arrangements relating to tonnage matters at present in force between Governments Parties to the present Convention shall continue to have full and complete effect during the terms thereof as regards:
   (a) ships to which the present Convention does not apply; and
   (b) ships to which the present Convention applies, in respect of matters for which it has not expressly provided.

(2) To the extent, however, that such treaties, conventions or arrangements conflict with the provisions of the present Convention, the provisions of the present Convention shall prevail.

ARTICLE 15

Communication of Information

The Contracting Governments undertake to communicate to and deposit with the Organization:

(a) a sufficient number of specimens of their certificates issued under the provisions of the present Convention for circulation to the Contracting Governments;

(b) the text of the laws, orders, decrees, regulations and other instruments which shall have been promulgated on the various matters within the scope of the present Convention; and

(c) a list of non-governmental agencies which are authorized to act in their behalf in matters relating to tonnages for circulation to the Contracting Governments.

ARTICLE 16

Signature, Acceptance and Accession

(1) The present Convention shall remain open for signature for six months from 23 June 1969, and shall thereafter remain open for accession. Governments of States Members of the United Nations, or of any of the Specialized Agencies, or of the International Atomic Energy Agency, or parties to the Statute of the International Court of Justice may become Parties to the Convention by:
   (a) signature without reservation as to acceptance;
   (b) signature subject to acceptance followed by acceptance; or
   (c) accession.

(2) Acceptance or accession shall be effected by the deposit of an instrument of acceptance or accession with the Organization. The Organization shall inform all Governments which have signed the present Convention or acceded to it of each new acceptance or accession and of the date of its deposit. The Organization shall also inform all Governments which have already signed the Convention of any signature effected during the six months from 23 June 1969.

ARTICLE 17

Coming into Force

(1) The present Convention shall come into force twenty-four months after the date on which not less than twenty-five Governments of States the combined merchant fleets of which constitute not less than sixty-five per cent of the gross tonnage of the world's merchant shipping have signed without reservation as to acceptance or deposited instruments of acceptance or accession in accordance with Article 16. The Organization shall inform all Governments which have signed or acceded to the present Convention of the date on which it comes into force.

(2) For Governments which have deposited an instrument of acceptance of or accession to the present Convention during the twenty-four months mentioned in paragraph (1) of this Article, the acceptance or accession shall take effect on the coming into force of the present Convention or

three months after the date of deposit of the instrument of acceptance or accession, whichever is the later date.

(3) For Governments which have deposited an instrument of acceptance of or accession to the present Convention after the date on which it comes into force, the Convention shall come into force three months after the date of the deposit of such instrument.

(4) After the date on which all the measures required to bring an amendment to the present Convention into force have been completed, or all necessary acceptances are deemed to have been given under sub-paragraph (b) of paragraph (2) of Article 18 in case of amendment by unanimous acceptance, any instrument of acceptance or accession deposited shall be deemed to apply to the Convention as amended.

ARTICLE 18

Amendments

(1) The present Convention may be amended upon the proposal of a Contracting Government by any of the procedures specified in this Article.

(2) Amendment by unanimous acceptance:
   (a) Upon the request of a Contracting Government, any amendment proposed by it to the present Convention shall be communicated by the Organization to all Contracting Governments for consideration with a view to unanimous acceptance.
   (b) Any such amendment shall enter into force twelve months after the date of its acceptance by all Contracting Governments unless an earlier date is agreed upon. A Contracting Government which does not communicate its acceptance or rejection of the amendment to the Organization within twenty-four months of its first communication by the latter shall be deemed to have accepted the amendment.

(3) Amendment after consideration in the Organization:
   (a) Upon the request of a Contracting Government, any amendment proposed by it to the present Convention will be considered in the Organization. If adopted by a majority of two-thirds of those present and voting in the Maritime Safety Committee of the Organization, such amendment shall be communicated to all Members of the Organization and all Contracting Governments at least six months prior to its consideration by the Assembly of the Organization.

(b) If adopted by a two-thirds majority of those present and voting in the Assembly, the amendment shall be communicated by the Organization to all Contracting Governments for their acceptance.

(c) Such amendment shall come into force twelve months after the date on which it is accepted by two-thirds of the Contracting Governments. The amendment shall come into force with respect to all Contracting Governments except those which, before it comes into force, make a declaration that they do not accept the amendment.

(d) The Assembly, by a two-thirds majority of those present and voting, including two-thirds of the Governments represented on the Maritime Safety Committee and present and voting in the Assembly, may propose a determination at the time of its adoption that an amendment is of such an important nature that any Contracting Government which makes a declaration under sub-paragraph (c) of this paragraph and which does not accept the amendment within a period of twelve months after it comes into force, shall cease to be a party to the present Convention upon the expiry of that period. This determination shall be subject to the prior acceptance of two-thirds of the Contracting Governments.

(e) Nothing in this paragraph shall prevent the Contracting Government which first proposed action under this paragraph on an amendment to the present Convention from taking at any time such alternative action as it deems desirable in accordance with paragraphs (2) or (4) of this Article.

(4) Amendment by a conference:

(a) Upon the request of a Contracting Government, concurred in by at least one-third of the Contracting Governments, a conference of Governments will be convened by the Organization to consider amendments to the present Convention.

(b) Every amendment adopted by such a conference by a two-thirds majority of those present and voting of the Contracting Governments shall be communicated by the Organization to all Contracting Governments for their acceptance.

(c) Such amendment shall come into force twelve months after the date on which it is accepted by two-thirds of the Contracting Governments. The amendment shall come into force with respect to all Contracting Governments except those which, before it comes into force, make a declaration that they do not accept the amendment.

(d) By a two-thirds majority of those present and voting, a conference convened under sub-paragraph (a) of this paragraph may determine at the time of its adoption that an amendment is of such an important nature that any Contracting Government which makes a declaration under sub-paragraph (c) of this paragraph, and which does not accept the amendment within a period of twelve months after it comes into force, shall cease to be a party to the present Convention upon the expiry of that period.

(5) The Organization shall inform all Contracting Governments of any amendments which may come into force under this Article, together with the date on which each such amendment will come into force.

(6) Any acceptance or declaration under this Article shall be made by the deposit of an instrument with the Organization which shall notify all Contracting Governments of the receipt of the acceptance or declaration.

ARTICLE 19

Denunciation

(1) The present Convention may be denounced by any Contracting Government at any time after the expiry of five years from the date on which the Convention comes into force for that Government.

(2) Denunciation shall be effected by the deposit of an instrument with the Organization which shall inform all the other Contracting Governments of any such denunciation received and of the date of its receipt.

(3) A denunciation shall take effect one year, or such longer period as may be specified in the instrument of denunciation, after its receipt by the Organization.

ARTICLE 20

Territories

(1) (a) The United Nations, in cases where they are the administering authority for a territory, or any Contracting Government responsible for the international relations of a territory, shall as soon as possible consult with such territory or take such measures as may be appropriate in an endeavour to extend the present Convention to that territory and may at any time by notification in writing to the Organization declare that the present Convention shall extend to such territory.

(b) The present Convention shall, from the date of receipt of the notification or from such other date as may be specified in the notification, extend to the territory named therein.

(2) (a) The United Nations, or any Contracting Government which has made a declaration under sub-paragraph (a) of paragraph (1) of this Article at any time after the expiry of a period of five years from the date on which the Convention has been so extended to any territory, may by notification in writing to the Organization declare that the present Convention shall cease to extend to any such territory named in the notification.

(b) The present Convention shall cease to extend to any territory mentioned in such notification one year, or such longer period as may be specified therein, after the date of receipt of the notification by the Organization.

(3) The Organization shall inform all the Contracting Governments of the extension of the present Convention to any territories under paragraph (1) of this Article, and of the termination of any such extension under the provisions of paragraph (2) stating in each case the date from which the present Convention has been or will cease to be so extended.

ARTICLE 21

Deposit and Registration

(1) The present Convention shall be deposited with the Organization and the Secretary-General of the Organization shall transmit certified true copies thereof to all Signatory Governments and to all Governments which accede to the present Convention.

(2) As soon as the present Convention comes into force, the text shall be transmitted by the Secretary-General of the Organization to the Secretariat of the United Nations for registration and publication, in accordance with Article 102 of the Charter of the United Nations.

ARTICLE 22

Languages

The present Convention is established in a single copy in the English and French languages, both texts being equally authentic. Official translations in the Russian and Spanish languages shall be prepared and deposited with the signed original.

ANNEX I

REGULATIONS FOR DETERMINING GROSS AND NET TONNAGES OF SHIPS

Regulation 1

General

(1) The tonnage of a ship shall consist of gross tonnage and net tonnage.

(2) The gross tonnage and the net tonnage shall be determined in accordance with the provisions of these Regulations.

(3) The gross tonnage and the net tonnage of novel types of craft whose constructional features are such as to render the application of the provisions of these Regulations unreasonable or impracticable shall be as determined by the Administration. Where the tonnage is so determined, the Administration shall communicate to the Organization details of the method used for that purpose, for circulation to the Contracting Governments for their information.

Regulation 2

Definitions of Terms used in the Annexes

(1) *Upper Deck*

The upper deck is the uppermost complete deck exposed to weather and sea, which has permanent means of weathertight closing of all openings in the weather part thereof, and below which all openings in the sides of the ship are fitted with permanent means of watertight closing. In a ship having a stepped upper deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper part of the deck is taken as the upper deck.

(2) *Moulded Depth*

(a) The moulded depth is the vertical distance measured from the top of the keel to the underside of the upper deck at side. In wood and composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.

(b) In ships having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwales were of angular design.

(c) Where the upper deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the moulded depth shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

(3) *Breadth*

The breadth is the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material.

(4) *Enclosed Spaces*

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

(5) *Excluded Spaces*

Notwithstanding the provisions of paragraph (4) of this Regulation, the spaces referred to in sub-paragraphs (a) to (e) inclusive of this paragraph shall be called excluded spaces and shall not be included in the volume of enclosed spaces, except that any such space which fulfils at least one of the following three conditions shall be treated as an enclosed space:

- the space is fitted with shelves or other means for securing cargo or stores;
- the openings are fitted with any means of closure;
- the construction provides any possibility of such openings being closed:

(a) (i) A space within an erection opposite an end opening extending from deck to deck except for a curtain plate of a depth not exceeding by more than 25 millimetres (one inch) the depth of the adjoining deck beams, such opening having a breadth equal to or greater than 90 per cent of the breadth of the deck at the line of the opening of the space. This provision shall be applied so as to

exclude from the enclosed spaces only the space between the actual end opening and a line drawn parallel to the line or face of the opening at a distance from the opening equal to one half of the width of the deck at the line of the opening (Figure 1 in Appendix 1).

(a) (ii) Should the width of the space because of any arrangement except by convergence of the outside plating, become less than 90 per cent of the breadth of the deck, only the space between the line of the opening and a parallel line drawn through the point where the athwartships width of the space becomes equal to, or less than, 90 per cent of the breadth of the deck shall be excluded from the volume of enclosed spaces (Figures 2, 3 and 4 in Appendix 1).

(a) (iii) Where an interval which is completely open except for bulwarks or open rails separates any two spaces, the exclusion of one or both of which is permitted under sub-paragraphs (a) (i) and/or (a) (ii), such exclusion shall not apply if the separation between the two spaces is less than the least half breadth of the deck in way of the separation (Figures 5 and 6 in Appendix 1).

(b) A space under an overhead deck covering open to the sea and weather, having no other connexion on the exposed sides with the body of the ship than the stanchions necessary for its support. In such a space, open rails or a bulwark and curtain plate may be fitted or stanchions fitted at the ship's side, provided that the distance between the top of the rails or the bulwark and the curtain plate is not less than 0.75 metres (2.5 feet) or one-third of the height of the space, whichever is the greater (Figure 7 in Appendix 1).

(c) A space in a side-to-side erection directly in way of opposite side openings not less in height than 0.75 metres (2.5 feet) or one-third of the height of the erection, whichever is the greater. If the opening in such an erection is provided on one side only, the space to be excluded from the volume of enclosed spaces shall be limited inboard from the opening to a maximum of one-half of the breadth of the deck in way of the opening (Figure 8 in Appendix 1).

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

enclosed spaces is limited to the area of the opening (Figure 9 in Appendix 1).

(e) A recess in the boundary bulkhead of an erection which is exposed to the weather and the opening of which extends from deck to deck without means of closing, provided that the interior width is not greater than the width at the entrance and its extension into the erection is not greater than twice the width of its entrance (Figure 10 in Appendix 1).

(6) *Passenger*

A passenger is every person other than:

(a) the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship; and

(b) a child under one year of age.

(7) *Cargo Space*s

Cargo spaces to be included in the computation of net tonnage are enclosed spaces appropriated for the transport of cargo which is to be discharged from the ship, provided that such spaces have been included in the computation of gross tonnage. Such cargo spaces shall be certified by permanent marking with the letters CC (cargo compartment) to be so positioned that they are readily visible and not to be less than 100 millimetres (4 inches) in height.

(8) *Weathertight*

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

Regulation 3

Gross Tonnage

The gross tonnage (GT) of a ship shall be determined by the following formula:

$$GT = K_1 V$$

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

$K_1 = 0.2 + 0.02 \log_{10} V$ (or as tabulated in Appendix 2).

Regulation 4

Net Tonnage

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

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

in which the formula:

(a) the factor $\left(\frac{4d}{3D}\right)^2$ shall not be taken as greater than unity;

(b) the term $K_2 V_C \left(\frac{4d}{3D}\right)^2$ shall not be taken as less than 0.25 GT; and

(c) NT shall not be taken as less than 0.30 GT,

and in which:

V_c = total volume of cargo spaces in cubic metres,

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

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

D = moulded depth amidships in metres as defined in Regulation 2 (2),

d = moulded draught amidships in metres as defined in paragraph (2) of this Regulation,

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

N_2 = number of other passengers,

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

GT = gross tonnage of the ship as determined in accordance with the provisions of Regulation 3.

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

(a) for ships to which the International Convention on Load Lines in force applies, the draught corresponding to the Summer Load Line (other than timber load lines) assigned in accordance with that Convention;

(b) for passenger ships, the draught corresponding to the deepest subdivision load line assigned in accordance with the International Convention for the Safety of Life at Sea in force or other international agreement where applicable;
(c) for ships to which the International Convention on Load Lines does not apply but which have been assigned a load line in compliance with national requirements, the draught corresponding to the summer load line so assigned;
(d) for ships to which no load line has been assigned but the draught of which is restricted in compliance with national requirements, the maximum permitted draught;
(e) for other ships, 75 per cent of the moulded depth amidships as defined in Regulation 2 (2).

Regulation 5

Change of Net Tonnage

(1) When the characteristics of a ship, such as V, V_c, d, N_1 or N_2 as defined in Regulations 3 and 4, are altered and where such an alteration results in an increase in its net tonnage as determined in accordance with the provisions of Regulation 4, the net tonnage of the ship corresponding to the new characteristics shall be determined and shall be applied without delay.

(2) A ship to which load lines referred to in sub-paragraphs (2) (a) and (2) (b) of Regulation 4 are concurrently assigned shall be given only one net tonnage as determined in accordance with the provisions of Regulation 4 and that tonnage shall be the tonnage applicable to the appropriate assigned load line for the trade in which the ship is engaged.

(3) When the characteristics of a ship such as V, V_c, d, N_1 or N_2 as defined in Regulations 3 and 4 are altered or when the appropriate assigned load line referred to in paragraph (2) of this Regulation is altered due to the change of the trade in which the ship is engaged, and where such an alteration results in a decrease in its net tonnage as determined in accordance with the provisions of Regulation 4, a new International Tonnage Certificate (1969) incorporating the net tonnage so determined shall not be issued until twelve months have elapsed from the date on which the current Certificate was issued; provided that this requirement shall not apply:
(a) if the ship is transferred to the flag of another State, or
(b) if the ship undergoes alterations or modifications which are deemed by the Administration to be of a major character, such as the removal of a superstructure which requires an alteration of the assigned load line, or

(c) to passenger ships which are employed in the carriage of large numbers of unberthed passengers in special trades, such, for example, as the pilgrim trade.

Regulation 6

Calculation of Volumes

(1) All volumes included in the calculation of gross and net tonnages shall be measured, irrespective of the fitting of insulation or the like, to the inner side of the shell or structural boundary plating in ships constructed of metal, and to the outer surface of the shell or to the inner side of structural boundary surfaces in ships constructed of any other material.

(2) Volumes of appendages shall be included in the total volume.

(3) Volumes of spaces open to the sea may be excluded from the total volume.

Regulation 7

Measurement and Calculation

(1) All measurement used in the calculation of volumes shall be taken to the nearest centimetre or one-twentieth of a foot.

(2) The volumes shall be calculated by generally accepted methods for the space concerned and with an accuracy acceptable to the Administration.

(3) The calculation shall be sufficiently detailed to permit easy checking.

ANNEX II

CERTIFICATE

INTERNATIONAL TONNAGE CERTIFICATE (1969)

(Official seal)

Issued under the provisions of the International Convention on Tonnage Measurement of Ships, 1969, under the authority of the Government of.....
.....

(full official designation of country)

for which the convention came into force on ..... 19.....

by .....

(full official designation of the competent person or organization recognized under the provisions of the International Convention on Tonnage Measurement of Ships, 1969)

Name of Ship	Distinctive Number or Letters	Port of Registry	*Date

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

MAIN DIMENSIONS

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

THE TONNAGES OF THE SHIP ARE:

GROSS TONNAGE .....

NET TONNAGE.....

This is to certify that the tonnages of this ship have been determined in accordance with the provisions of the International Convention of Tonnage Measurement of Ships, 1969.

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

.....
(Signature of official issuing the certificate)

and/or

(seal of issuing authority)

If signed, the following paragraph is to be added:

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

.....
(Signature)

SPACES INCLUDED IN TONNAGE

GROSS TONNAGE				NET TONNAGE		
Name of Space	Location	Length		Name of Space	Location	Length
Underdeck	—	—				

NUMBER OF PASSENGERS
(Regulation 4 (1))

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

Number of other passengers.....

EXCLUDED SPACES (Regulation 2 (5)) An asterisk (*) should be added to those spaces listed above which comprise both enclosed and excluded spaces.		MOULDED DRAUGHT (Regulation 4 (2))

Date and place of original measurement .....

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

REMARKS:

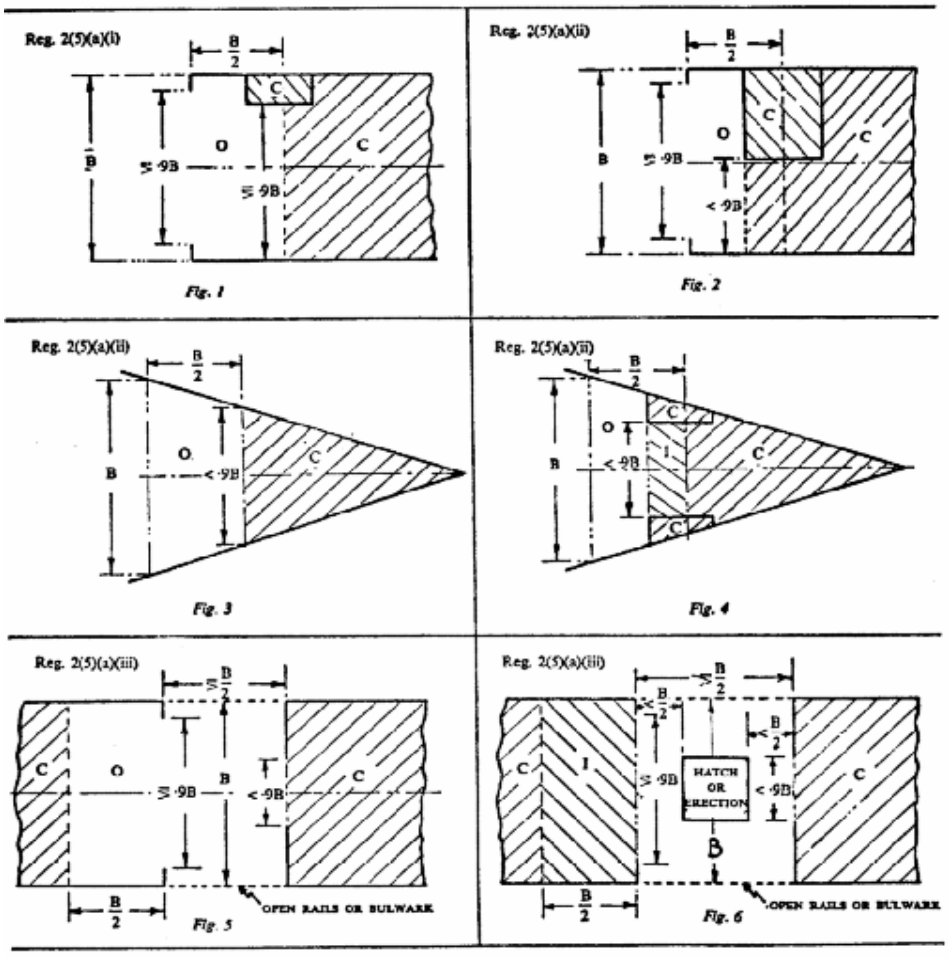
APPENDIX 1

Figures referred to in Regulation 2 (5)

In the following figures: O = excluded space.
C = enclosed space.
I = space to be considered as an enclosed space.

Hatched in parts to be included as enclosed spaces.

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



Reg. 2(5)(b)

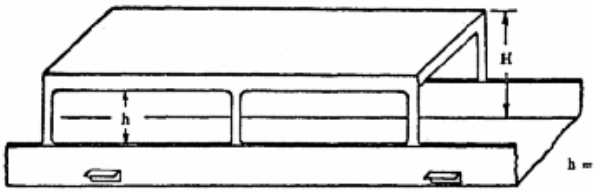


Fig. 7

Reg. 2(5)(c)

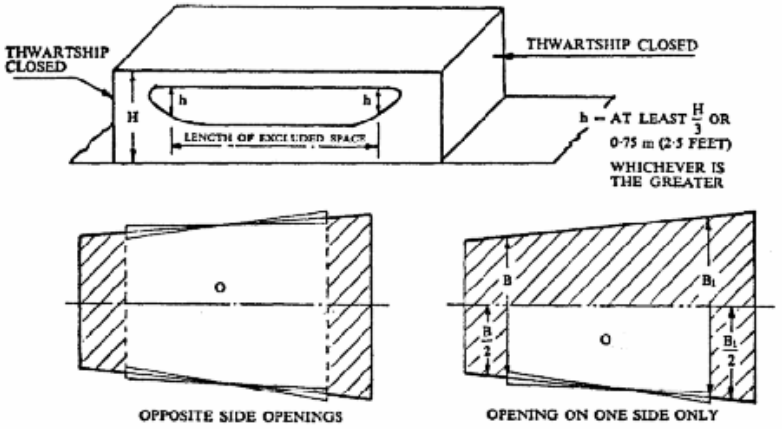


Fig. 8

Reg. 2(5)(d)

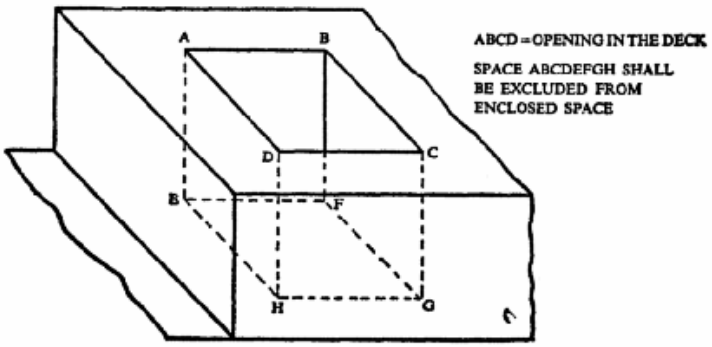


Fig. 9

Reg. 2(5)(c)

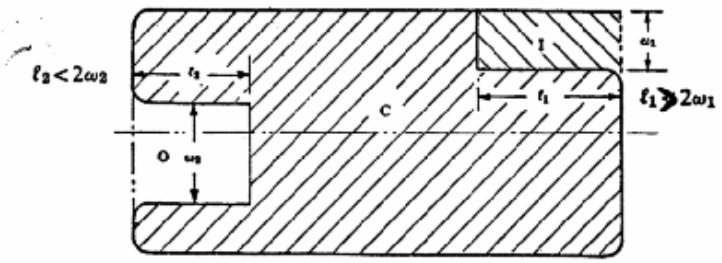


Fig. 10

SHIPS WITH ROUNDED GUNWALES

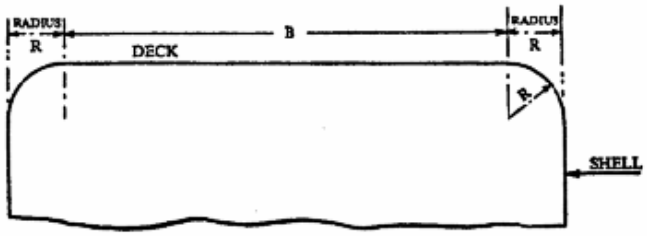


Fig. 11

APPENDIX 2

COEFFICIENTS K_1 AND K_2 REFERRED TO IN REGULATIONS 3 AND 4 (1)

V or V_c = Volume in cubic metres

V or V_c	K_1 or K_2	V or V_c	K_1 or K_2	V or V_c	K_1 or K_2	V or V_c	K_1 or K_2
10	0.2200	45 000	0.2931	330 000	0.3104	670 000	0.3165
20	0.2260	50 000	0.2940	340 000	0.3106	680 000	0.3166
30	0.2295	55 000	0.2948	350 000	0.3109	690 000	0.3168
40	0.2320	60 000	0.2956	360 000	0.3111	700 000	0.3169
50	0.2340	65 000	0.2963	370 000	0.3114	710 000	0.3170
60	0.2356	70 000	0.2969	380 000	0.3116	720 000	0.3171
70	0.2369	75 000	0.2975	390 000	0.3118	730 000	0.3173
80	0.2381	80 000	0.2981	400 000	0.3120	740 000	0.3174
90	0.2391	85 000	0.2986	410 000	0.3123	750 000	0.3175
100	0.2400	90 000	0.2991	420 000	0.3125	760 000	0.3176
200	0.2460	95 000	0.2996	430 000	0.3127	770 000	0.3177
300	0.2495	100 000	0.3000	440 000	0.3129	780 000	0.3178
400	0.2520	110 000	0.3008	450 000	0.3131	790 000	0.3180
500	0.2540	120 000	0.3016	460 000	0.3133	800 000	0.3181
600	0.2556	130 000	0.3023	470 000	0.3134	810 000	0.3182
700	0.2569	140 000	0.3029	480 000	0.3136	820 000	0.3183
800	0.2581	150 000	0.3035	490 000	0.3138	830 000	0.3184
900	0.2591	160 000	0.3041	500 000	0.3140	840 000	0.3185
1 000	0.2600	170 000	0.3046	510 000	0.3142	850 000	0.3186
2 000	0.2660	180 000	0.3051	520 000	0.3143	860 000	0.3187
3 000	0.2695	190 000	0.3056	530 000	0.3145	870 000	0.3188
4 000	0.2720	200 000	0.3060	540 000	0.3146	880 000	0.3189
5 000	0.2740	210 000	0.3064	550 000	0.3148	890 000	0.3190
6 000	0.2756	220 000	0.3068	560 000	0.3150	900 000	0.3191
7 000	0.2769	230 000	0.3072	570 000	0.3151	910 000	0.3192
8 000	0.2781	240 000	0.3076	580 000	0.3153	920 000	0.3193
9 000	0.2791	250 000	0.3080	590 000	0.3154	930 000	0.3194
10 000	0.2800	260 000	0.3083	600 000	0.3156	940 000	0.3195
15 000	0.2835	270 000	0.3086	610 000	0.3157	950 000	0.3196
20 000	0.2860	280 000	0.3089	620 000	0.3158	960 000	0.3196
25 000	0.2880	290 000	0.3092	630 000	0.3160	970 000	0.3197
30 000	0.2895	300 000	0.3095	640 000	0.3161	980 000	0.3198
35 000	0.2909	310 000	0.3098	650 000	0.3163	990 000	0.3199
40 000	0.2920	320 000	0.3101	660 000	0.3164	1 000 000	0.3200

Coefficients K_1 or K_2 at intermediate values of V or V_c shall be obtained by linear interpolation.

Schedule 9

Section 294

PART A

INTERNATIONAL CONVENTION ON SALVAGE, 1989

THE STATES PARTIES TO THE PRESENT CONVENTION,

RECOGNIZING the desirabilty of determining by agreement uniform international rules regarding salvage operations,

NOTING that substantial developments, in particular the increased concern for the protection of the environment, have demonstrated the need to review the international rules presently contained in the Convention for the Unification of Certain Rules of Law relating to Assistance and Salvage at Sea, done at Brussels, 23 September 1910,

CONSCIOUS of the major contribution which efficient and timely salvage operations can make to the safety of vessels and other property in danger and to the protection of the environment,

CONVINCED of the need to ensure that adequate incentives are available to persons who undertake salvage operations in respect of vessels and other property in danger,

HAVE AGREED as follows:

Chapter I—General provisions

Article 1

Definitions

For the purpose of this Convention:

(a) Salvage operation means any act or activity undertaken to assist a vessel or any other property in danger in navigable waters or in any other waters whatsoever.

(b) Vessel means any ship or craft, or any structure capable of navigation.

(c) Property means any property not permanently and intentionally attached to the shoreline and includes freight at risk.

(d) Damage to the environment means substantial physical damage to human health or to marine life or resources in coastal or inland waters or areas adjacent thereto, caused by pollution, contamination, fire, explosion or similar major incidents.

(e) Payment means any reward, remuneration or compensation due under this Convention.

(f) Organization means the International Maritime Organization.

(g) Secretary-General means the Secretary-General of the Organization.

Article 2

Application of the Convention

This Convention shall apply whenever judicial or arbitral proceedings relating to matters dealt with in this Convention are brought in a State Party.

Article 3

Platforms and drilling units

This Convention shall not apply to fixed or floating platforms or to mobile offshore drilling units when such platforms or units are on location engaged in the exploration, exploitation or production of sea-bed mineral resources.

Article 4

State-owned vessels

1. Without prejudice to article 5, this Convention shall not apply to warships or other non-commercial vessels owned or operated by a State and entitled, at the time of salvage operations, to sovereign immunity under generally recognized principles of international law unless that State decides otherwise.
2. Where a State Party decides to apply the Convention to its warships or other vessels described in paragraph 1, it shall notify the Secretary-General thereof specifying the terms and conditions of such application.

Article 5

Salvage operations controlled by public authorities

1. This Convention shall not affect any provisions of national law or any international convention relating to salvage operations by or under the control of public authorities.
2. Nevertheless, salvors carrying out such salvage operations shall be entitled to avail themselves of the rights and remedies provided for in this Convention in respect of salvage operations.
3. The extent to which a public authority under a duty to perform salvage operations may avail itself of the rights and remedies provided for in this

Convention shall be determined by the law of the State where such authority is situated.

Article 6

Salvage contracts

1. This Convention shall apply to any salvage operations save to the extent that a contract otherwise provides expressly or by implication.
2. The master shall have the authority to conclude contracts for salvage operations on behalf of the owner of the vessel. The master or the owner of the vessel shall have the authority to conclude such contracts on behalf of the owner of the property on board the vessel.
3. Nothing in this article shall affect the application of article 7 nor duties to prevent or minimize damage to the environment.

Article 7

Annulment and modification of contracts

A contract or any terms thereof may be annulled or modified if:

(a) the contract has been entered into under undue influence or the influence of danger and its terms are inequitable; or

(b) the payment under the contract is in an excessive degree too large or too small for the services actually rendered.

Chapter II—Performance of salvage operations

Article 8

Duties of the salvor and of the owner and master

1. The salvor shall owe a duty to the owner of the vessel or other property in danger:
   (a) to carry out the salvage operations with due care;
   (b) in performing the duty specified in subparagraph (a), to exercise due care to prevent or minimize damage to the environment;
   (c) whenever circumstances reasonably require, to seek assistance from other salvors; and
   (d) to accept the intervention of other salvors when reasonably requested to do so by the owner or master of the vessel or other property in danger; provided however that the amount of his reward shall not be prejudiced should it be found that such a request was unreasonable.

2. The owner and master of the vessel or the owner of other property in danger shall owe a duty to the salvor:
   (a) to co-operate fully with him during the course of the salvage operations;
   (b) in so doing, to exercise due care to prevent or minimize damage to the environment; and
   (c) when the vessel or other property has been brought to a place of safety, to accept redelivery when reasonably requested by the salvor to do so.

Article 9

Rights of coastal States

Nothing in this Convention shall affect the right of the coastal State concerned to take measures in accordance with generally recognized principles of international law to protect its coastline or related interests from pollution or the threat of pollution following upon a maritime casualty or acts relating to such a casualty which may reasonably be expected to result in major harmful consequences, including the right of a coastal State to give directions in relation to salvage operations.

Article 10

Duty to render assistance

1. Every master is bound, so far as he can do so without serious danger to his vessel and persons thereon, to render assistance to any person in danger of being lost at sea.
2. The States Parties shall adopt the measures necessary to enforce the duty set out in paragraph 1.
3. The owner of the vessel shall incur no liability for a breach of the duty of the master under paragraph 1.

Article 11

Co-operation

A State Party shall, whenever regulating or deciding upon matters relating to salvage operations such as admittance to ports of vessels in distress or the provision of facilities to salvors, take into account the need for co-operation between salvors, other interested parties and public authorities in order to ensure the efficient and successful performance of salvage operations for the

purpose of saving life or property in danger as well as preventing damage to the environment in general.

Chapter III—Rights of salvors

Article 12

Conditions for reward

1. Salvage operations which have had a useful result give right to a reward.
2. Except as otherwise provided, no payment is due under this Convention if the salvage operations have had no useful result.
3. This chapter shall apply, notwithstanding that the salved vessel and the vessel undertaking the salvage operations belong to the same owner.

Article 13

Criteria for fixing the reward

1. The reward shall be fixed with a view to encouraging salvage operations, taking into account the following criteria without regard to the order in which they are presented below:
   (a) the salved value of the vessel and other property;
   (b) the skill and efforts of the salvors in preventing or minimizing damage to the environment;
   (c) the measure of success obtained by the salvor;
   (d) the nature and degree of the danger;
   (e) the skill and efforts of the salvors in salving the vessel, other property and life;
   (f) the time used and expenses and losses incurred by the salvors;
   (g) the risk of liability and other risks run by the salvors or their equipment;
   (h) the promptness of the services rendered;
   (i) the availability and use of vessels or other equipment intended for salvage operations;
   (j) the state of readiness and efficiency of the salvor's equipment and the value thereof.
2. Payment of a reward fixed according to paragraph 1 shall be made by all of the vessel and other property interests in proportion to their respective salved values However, a State Party may in its national law provide that the payment of a reward has to be made by one of these interests, subject to

a right of recourse of this interest against the other interests for their respective shares. Nothing in this article shall prevent any right of defence.

3. The rewards, exclusive of any interest and recoverable legal costs that may be payable thereon, shall not exceed the salved value of the vessel and other property.

Article 14

Special compensation

1. If the salvor has carried out salvage operations in respect of a vessel which by itself or its cargo threatened damage to the environment and has failed to earn a reward under article 13 at least equivalent to the special compensation assessable in accordance with this article, he shall be entitled to special compensation from the owner of that vessel equivalent to his expenses as herein defined.
2. If, in the circumstances set out in paragraph 1, the salvor by his salvage operations has prevented or minimized damage to the environment, the special compensation payable by the owner to the salvor under paragraph 1 may be increased up to a maximum of 30% of the expenses incurred by the salvor However, the tribunal, if it deems it fair and just to do so and bearing in mind the relevant criteria set out in article 13, paragraph 1, may increase such special compensation further, but in no event shall the total increase be more than 100% of the expenses incurred by the salvor.
3. Salvor's expenses for the purpose of paragraphs 1 and 2 means the out-of-pocket expenses reasonably incurred by the salvor in the salvage operation and a fair rate for equipment and personnel actually and reasonably used in the salvage operation, taking into consideration the criteria set out in article 13, paragraph 1(h), (i) and (j).
4. The total special compensation under this article shall be paid only if and to the extent that such compensation is greater than any reward recoverable by the salvor under article 13.
5. If the salvor has been negligent and has thereby failed to prevent or minimize damage to the environment, he may be deprived of the whole or part of any special compensation due under this article.
6. Nothing in this article shall affect any right of recourse on the part of the owner of the vessel.

Article 15

Apportionment between salvors

1. The apportionment of a reward under article 13 between salvors shall be made on the basis of the criteria contained in that article.
2. The apportionment between the owner, master and other persons in the service of each salving vessel shall be determined by the law of the flag of that vessel. If the salvage has not been carried out from a vessel, the apportionment shall be determined by the law governing the contract between the salvor and his servants.

Article 16

Salvage of persons

1. No remuneration is due from persons whose lives are saved, but nothing in this article shall affect the provisions of national law on this subject.
2. A salvor of human life, who has taken part in the services rendered on the occasion of the accident giving rise to salvage, is entitled to a fair share of the payment awarded to the salvor for salving the vessel or other property or preventing or minimizing damage to the environment.

Article 17

Services rendered under existing contracts

No payment is due under the provisions of this Convention unless the services rendered exceed what can be reasonably considered as due performance of a contract entered into before the danger arose.

Article 18

The effect of salvor's misconduct

A salvor may be deprived of the whole or part of the payment due under this Convention to the extent that the salvage operations have become necessary or more difficult because of fault or neglect on his part or if the salvor has been guilty of fraud or other dishonest conduct.

Article 19

Prohibition of salvage operations

Services rendered notwithstanding the express and reasonable prohibition of the owner or master of the vessel or the owner of any other property in danger

which is not and has not been on board the vessel shall not give rise to payment under this Convention.

Chapter IV—Claims and actions

Article 20

Maritime lien

1. Nothing in this Convention shall affect the salvor's maritime lien under any international convention or national law.
2. The salvor may not enforce his maritime lien when satisfactory security for his claim, including interest and costs, has been duly tendered or provided.

Article 21

Duty to provide security

1. Upon the request of the salvor a person liable for a payment due under this Convention shall provide satisfactory security for the claim, including interest and costs of the salvor.
2. Without prejudice to paragraph 1, the owner of the salved vessel shall use his best endeavours to ensure that the owners of the cargo provide satisfactory security for the claims against them including interest and costs before the cargo is released.
3. The salved vessel and other property shall not, without the consent of the salvor, be removed from the port or place at which they first arrive after the completion of the salvage operations until satisfactory security has been put up for the salvor's claim against the relevant vessel or property.

Article 22

Interim payment

1. The tribunal having jurisdiction over the claim of the salvor may, by interim decision, order that the salvor shall be paid on account such amount as seems fair and just, and on such terms including terms as to security where appropriate, as may be fair and just according to the circumstances of the case.
2. In the event of an interim payment under this article the security provided under article 21 shall be reduced accordingly.

Article 23

Limitation of actions

1. Any action relating to payment under this Convention shall be time-barred if judicial or arbitral proceedings have not been instituted within a period of two years. The limitation period commences on the day on which the salvage operations are terminated.
2. The person against whom a claim is made may at any time during the running of the limitation period extend that period by a declaration to the claimaint. This period may in the like manner be further extended.
3. An action for indemnity by a person liable may be instituted even after the expiration of the limitation period provided for in the preceding paragraphs, if brought within the time allowed by the law of the State where proceedings are instituted.

Article 24

Interest

The right of the salvor to interest on any payment due under this Convention shall be determined according to the law of the State in which the tribunal seized of the case is situated.

Article 25

State-owned cargoes

Unless the State owner consents, no provision of this Convention shall be used as a basis for the seizure, arrest or detention by any legal process of, nor for any proceedings in rem against, non-commercial cargoes owned by a State and entitled, at the time of the salvage operations, to sovereign immunity under generally recognized principles of international law.

Article 26

Humanitarian cargoes

No provision of this Convention shall be used as a basis for the seizure, arrest or detention of humanitarian cargoes donated by a State, if such State has agreed to pay for salvage services rendered in respect of such humanitarian cargoes.

Article 27

Publication of arbitral awards

States Parties shall encourage, as far as possible and with the consent of the parties, the publication of arbitral awards made in salvage cases.

Chapter V—Final clauses

Article 28

Signature, ratification, acceptance, approval and accession

1. This Convention shall be open for signature at the Headquarters of the Organization from 1 July 1989 to 30 June 1990 and shall thereafter remain open for accession.
2. States may express their consent to be bound by this Convention by:
   (a) signature without reservation as to ratification, acceptance or approval; or
   (b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
   (c) accession.
3. Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General.

Article 29

Entry into force

1. This Convention shall enter into force one year after the date on which 15 States have expressed their consent to be bound by it.
2. For a State which expresses its consent to be bound by this Convention after the conditions for entry into force thereof have been met, such consent shall take effect one year after the date of expression of such consent.

Article 30

Reservations

1. Any State may, at the time of signature, ratification, acceptance, approval or accession, reserve the right not to apply the provisions of this Convention:
   (a) when the salvage operation takes place in inland waters and all vessels involved are of inland navigation;

(b) when the salvage operations take place in inland waters and no vessel is involved;

(c) when all interested parties are nationals of that State;

(d) when the property involved is maritime cultural property of prehistoric, archaeological or historic interest and is situated on the sea-bed.

2. Reservations made at the time of signature are subject to confirmation upon ratification, acceptance or approval.

3. Any State which has made a reservation to this Convention may withdraw it at any time by means of a notification addressed to the Secretary-General. Such withdrawal shall take effect on the date the notification is received. If the notification states that the withdrawal of a reservation is to take effect on a date specified therein, and such date is later than the date the notification is received by the Secretary-General, the withdrawal shall take effect on such later date.

Article 31

Denunciation

1. This Convention may be denounced by any State Party at any time after the expiry of one year from the date on which this Convention enters into force for that State.

2. Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General.

3. A denunciation shall take effect one year, or such longer period as may be specified in the instrument of denunciation, after the receipt of the instrument of denunciation by the Secretary-General.

Article 32

Revision and amendment

1. A conference for the purpose of revising or amending this Convention may be convened by the Organization.

2. The Secretary-General shall convene a conference of the States Parties to this Convention for revising or amending the Convention, at the request of eight States Parties, or one fourth of the States Parties, whichever is the higher figure.

3. Any consent to be bound by this Convention expressed after the date of entry into force of an amendment to this Convention shall be deemed to apply to the Convention as amended.

Article 33

Depositary

1. This Convention shall be deposited with the Secretary-General.
2. The Secretary-General shall:
   (a) inform all States which have signed this Convention or acceded thereto, and all Members of the Organization, of:
      (i) each new signature or deposit of an instrument of ratification, acceptance, approval or accession together with the date thereof;
      (ii) the date of the entry into force of this Convention;
      (iii) the deposit of any instrument of denunciation of this Convention together with the date on which it is received and the date on which the denunciation takes effect;
      (iv) any amendment adopted in conformity with article 32;
      (v) the receipt of any reservation, declaration or notification made under this Convention;
   (b) transmit certified true copies of this Convention to all States which have signed this Convention or acceded thereto.
3. As soon as this Convention enters into force, a certified true copy thereof shall be transmitted by the Depositary to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

Article 34

Languages

This Convention is established in a single original in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

IN WITNESS WHEREOF the undersigned being duly authorized by their respective Governments for that purpose have signed this Convention.

DONE AT LONDON this twenty-eighth day of April one thousand nine hundred and eighty-nine.

PART B

COMMON UNDERSTANDING CONCERNING ARTICLES 13 AND 14 OF THE INTERNATIONAL CONVENTION ON SALVAGE, 1989

It is the common understanding of the Conference that, in fixing a reward under article 13 and assessing special compensation under article 14 of the International Convention on Salvage, 1989 the tribunal is under no duty to fix a reward under article 13 up to the maximum salved value of the vessel and other property before assessing the special compensation to be paid under article 14.