

Protocol of 1988 relating to the International Convention on Load Lines, 1966

THE PARTIES TO THE PRESENT PROTOCOL,

BEING PARTIES to the International Convention on Load Lines, 1966, done at London on 5 April 1966,

RECOGNIZING the significant contribution which is made by the above-mentioned Convention to the promotion of the safety of ships and property at sea and the lives of persons on board,

RECOGNIZING ALSO the need to improve further the technical provisions of the above-mentioned Convention,

RECOGNIZING FURTHER the need for the introduction into the above-mentioned Convention of provisions for survey and certification harmonized with corresponding provisions in other international instruments,

CONSIDERING that these needs may best be met by the conclusion of a Protocol relating to the International Convention on Load Lines, 1966,

HAVE AGREED as follows:

Article I

General obligations

1 The Parties to the present Protocol undertake to give effect to the provisions of the present Protocol and the Annexes 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 Annexes hereto.

2 As between the Parties to the present Protocol, the provisions of the International Convention on Load Lines, 1966 (hereinafter referred to as "the Convention"), except article 29, shall apply subject to the modifications and additions set out in the present Protocol.

3 With respect to ships entitled to fly the flag of a State which is not a Party 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 II

Existing certificates

1 Notwithstanding any other provisions of the present Protocol, any International Load Line Certificate which is current when the present Protocol enters into force in respect of the Government of the State whose flag the ship is entitled to fly shall remain valid until it expires.

2 A Party to the present Protocol shall not issue certificates under, and in accordance with, the provisions of the International Convention on Load Lines, 1966, as adopted on 5 April 1966.

Article III ***Communication of information***

The Parties to the present Protocol undertake to communicate to, and deposit with, the Secretary-General of the International Maritime Organization (hereinafter referred to as "the Organization"):

- (a) the text of laws, decrees, orders and regulations and other instruments which have been promulgated on the various matters within the scope of the present Protocol;
- (b) a list of nominated surveyors or recognized organizations which are authorized to act on their behalf in the administration of load line matters for circulation to the Parties for information of their officers, and a notification of the specific responsibilities and conditions of the authority delegated to those nominated surveyors or recognized organizations; and
- (c) a sufficient number of specimens of their certificates issued under the provisions of the present Protocol.

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 March 1989 to 28 February 1990 and shall thereafter remain open for accession. Subject to the provisions of paragraph 3, States may express their consent to be bound by 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, accepted or acceded to the Convention.

Article V ***Entry into force***

1 The present Protocol shall enter into force twelve months after the date on which both the following conditions have been met:

- (a) 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 expressed their consent to be bound by it in accordance with article IV, and
- (b) the conditions for the entry into force of the Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974 have been met,

provided that the present Protocol shall not enter into force before 1 February 1992.

2 For States which have deposited an instrument of ratification, acceptance, approval or accession in respect of the present Protocol after the conditions for entry into force thereof have been met but prior to the date of entry into force, the ratification, acceptance, approval or accession

shall take effect on the date of entry into force of the present Protocol or three months after the date of deposit of the instrument, whichever is the later date.

3 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.

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

Article VI ***Amendments***

1 The present Protocol and, as between the Parties to the present Protocol, the Convention may be amended by either of the procedures specified in the following paragraphs.

2 Amendments after consideration within the Organization:

- (a) Any amendment proposed by a Party to the present Protocol shall be submitted to the Secretary-General of the Organization, who shall then circulate it to all Members of the Organization and all Contracting Governments to the Convention at least six months prior to its consideration.
- (b) Any amendment proposed and circulated as above shall be referred to the Maritime Safety Committee of the Organization for consideration.
- (c) States which are Parties to the present Protocol, whether or not Members of the Organization, shall be entitled to participate in the proceedings of the Maritime Safety Committee for the consideration and adoption of amendments.
- (d) Amendments shall be adopted by a two-thirds majority of the Parties to the present Protocol present and voting in the Maritime Safety Committee expanded as provided for in subparagraph (c) (hereinafter referred to as "the expanded Maritime Safety Committee") on condition that at least one third of the Parties shall be present at the time of voting.
- (e) Amendments adopted in accordance with subparagraph (d) shall be communicated by the Secretary-General of the Organization to all Parties to the present Protocol for acceptance.
- (f) (i) An amendment to an article or Annex A to the present Protocol or an amendment, as between Parties to the present Protocol, to an article of the Convention, shall be deemed to have been accepted on the date on which it is accepted by two thirds of the Parties to the present Protocol.
(ii) An Amendment to Annex B to the present Protocol or an amendment, as between Parties to the present Protocol, to an Annex to the Convention, shall be deemed to have been accepted:
 - (aa) at the end of two years from the date on which it is communicated to Parties to the present Protocol for acceptance; or
 - (bb) at the end of a different period, which shall not be less than one year, if so determined at the time of its adoption by a two-thirds majority of the Parties present and voting in the expanded Maritime Safety Committee.

However, if within the specified period either more than one third of the Parties, or Parties the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of all the merchant fleets of all Parties, notify the Secretary-

General of the Organization that they object to the amendment, it shall be deemed not to have been accepted.

- (g) (i) An amendment referred to in subparagraph (f)(i) shall enter into force with respect to those Parties to the present Protocol which have accepted it, six months after the date on which it is deemed to have been accepted, and with respect to each Party which accepts it after that date, six months after the date of that Party's acceptance.
- (ii) An amendment referred to in subparagraph (f)(ii) shall enter into force with respect to all Parties to the present Protocol, except those which have objected to the amendment under that subparagraph and which have not withdrawn such objections, six months after the date on which it is deemed to have been accepted. However, before the date set for entry into force, any Party may give notice to the Secretary-General of the Organization that it exempts itself from giving effect to that amendment for a period not longer than one year from the date of its entry into force, or for such longer period as may be determined by a two-thirds majority of the Parties present and voting in the expanded Maritime Safety Committee at the time of the adoption of the amendment.

3 Amendment by a Conference:

- (a) Upon the request of a Party to the present Protocol concurred in by at least one third of the Parties, the Organization shall convene a Conference of Parties to consider amendments to the present Protocol and the Convention.
- (b) Every amendment adopted by such a Conference by a two-thirds majority of the Parties present and voting shall be communicated by the Secretary-General of the Organization to all Parties for acceptance.
- (c) Unless the Conference decides otherwise, the amendment shall be deemed to have been accepted and shall enter into force in accordance with the procedures specified in subparagraphs 2(f) and 2(g) respectively, provided that references in these paragraphs to the expanded Maritime Safety Committee shall be taken to mean references to the Conference.

4 (a) A Party to the present Protocol which has accepted an amendment referred to in subparagraph 2(f)(ii) which has entered into force shall not be obliged to extend the benefit of the present Protocol in respect of the certificates issued to a ship entitled to fly the flag of a State Party which, pursuant to the provisions of that subparagraph, has objected to the amendment and has not withdrawn such an objection, in so far as such certificates relate to matters covered by the amendment in question.

(b) A Party to the present Protocol which has accepted an amendment referred to in subparagraph 2(f)(ii) which has entered into force shall extend the benefit of the present Protocol in respect of the certificates issued to a ship entitled to fly the flag of a State Party which, pursuant to the provisions of the subparagraph 2(g)(ii), has notified the Secretary-General of the Organization that it exempts itself from giving effect to the amendment.

5 Unless expressly provided otherwise, any amendment made under this article which relates 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 enters into force.

6 Any declaration of acceptance of, or objection to, an amendment or any notice given under subparagraph 2(g)(ii) shall be submitted in writing to the Secretary-General of the Organization, who shall inform all Parties to the present Protocol of any such submission and the date of its receipt.

7 The Secretary-General of the Organization shall inform all Parties to the present Protocol of any amendments which enter into force under this article, together with the date on which each such amendment enters into force.

Article VII ***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. Such denunciation shall take effect on the same date as denunciation of the Convention takes effect according to paragraph (3) of article 30 of the Convention.

Article VIII ***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 the Governments of 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 the Governments of 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 IX ***Languages***

The present Protocol is established in a single original in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

DONE AT LONDON this eleventh day of November one thousand nine hundred and eighty eight.

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments for that purpose, have signed the present Protocol.

* Signatures omitted.

Anexo A
***Modifications and additions to articles of the
International Convention on Load Lines, 1966***

Article 2
Definitions

The existing text of paragraph (8) is replaced by the following:

- (8) *Length* means 96% of the total length on a waterline at 85% 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. Where the stem contour is concave above the waterline at 85% of the least moulded depth, both the forward terminal of the total length and the fore-side of the stem respectively shall be taken at the vertical projection to that waterline of the aftermost point of the stem contour (above that waterline). In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.
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Add a new paragraph (9) to read as follows:

- (9) *Anniversary date* means the day and the month of each year which will correspond to the date of expiry of the relevant certificate.
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Articles 3, 12, 16 and 21

In the existing text of these articles all references to "(1966)" in relation to the International Load Line Certificate are deleted.

Article 4
Application

The existing text of paragraph (3) is replaced by the following:

- (3) The regulations contained in annex I, unless expressly provided otherwise, are applicable to new ships.
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Article 5
Exceptions

In paragraph (2)(c) the words "Punta Norte" are replaced by "Punta Rasa (Cabo San Antonio)".

Article 13
Survey, inspection and marking

The existing heading is replaced by the following:

"Surveys and marking"

In lines 1, 4 and 7 replace the words "survey, inspection and marking" by "surveys and marking".

Article 14
Initial and periodical surveys and inspections

The existing heading is replaced by the following:

"Initial, renewal and annual surveys"

The existing text is replaced by the following:

- (1) A ship shall be subjected to the surveys specified below:
 - (a) An initial 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. The survey shall be such as to ensure that the arrangements, materials and scantlings fully comply with the requirements of the present Convention.
 - (b) A renewal survey at intervals specified by the Administration but not exceeding 5 years, except where paragraphs (2), (5), (6) and (7) of article 19 are applicable, which shall be such as to ensure that the structure, equipment, arrangements, materials and scantlings fully comply with the requirements of the present Convention.
 - (c) An annual survey within 3 months before or after each anniversary date of the certificate to ensure that:
 - (i) alterations have not been made to the hull or superstructures which would affect the calculations determining the position of the load line;
 - (ii) the fittings and appliances for the protection of openings, guard rails, freeing ports and means of access to crew's quarters are maintained in an effective condition;
 - (iii) the freeboard marks are correctly and permanently indicated;
 - (iv) the information required by Regulation 10 is provided.
 - (2) The annual surveys referred to in paragraph (1)(c) of this article shall be endorsed on the International Load Line Certificate or the International Load Line Exemption Certificate issued to a ship exempted under paragraph (2) of article 6 of the present Convention.
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Article 16
Issue of certificates

Delete paragraph (4).

Article 17
Issue of certificates by another Government

The existing heading is replaced by the following:

"Issue or endorsement of certificates by another Government"

The existing text of paragraph (1) is replaced by the following:

(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 the International Load Line Certificate to the ship and, where appropriate, endorse or authorize the endorsement of the certificate on the ship in accordance with the present Convention.

In paragraph (4) reference to "(1966)" is deleted.

Article 18
Form of certificates

The existing text is replaced by the following:

The certificates shall be drawn up in the form corresponding to the models given in Annex III to the present Convention. If the language used is neither English nor French, the text shall include a translation into one of these languages.

Article 19
Duration of certificates

The existing heading is replaced by the following:

"Duration and validity of certificates"

The existing text is replaced by the following:

(1) An International Load Line Certificate shall be issued for a period specified by the Administration, which shall not exceed 5 years.

(2) (a) Notwithstanding the requirements of paragraph (1), when the renewal survey is completed within 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.

(b) When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.

(c) When the renewal survey is completed more than 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.

- (3) If a certificate is issued for a period of less than 5 years, the Administration may extend the validity of a certificate beyond the expiry date to the maximum period specified in paragraph (1), provided that the annual surveys referred to in article 14 applicable when a certificate is issued for a period of 5 years are carried out as appropriate.
- (4) If, after the renewal survey referred to in paragraph (1)(b) of article 14, a new certificate cannot be issued to the ship before the expiry date of the existing certificate, the person or organization carrying out the survey may extend the validity of the existing certificate for a period which shall not exceed 5 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, materials or scantlings which affect the ship's freeboard.
- (5) If a ship at the time when a certificate expires is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than 3 months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.
- (6) A certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this article may be extended by the Administration for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.
- (7) In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate as required by paragraphs (2), (5) and (6). In these special circumstances, the new certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.
- (8) If an annual survey is completed before the period specified in article 14 then:
- (a) the anniversary date shown on the certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;
 - (b) the subsequent annual survey required by article 14 shall be completed at the intervals prescribed by that article using the new anniversary date;
 - (c) the expiry date may remain unchanged provided one or more annual surveys are carried out so that the maximum intervals between the surveys prescribed by article 14 are not exceeded.
- (9) An International Load Line Certificate shall cease to be valid 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 paragraph (1)(c) of article 14 are not maintained in an effective condition;
 - (c) the certificate is not endorsed to show that the ship has been surveyed as provided in paragraph (1)(c) of article 14;
 - (d) the structural strength of the ship is lowered to such an extent that the ship is unsafe.

(10) (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 5 years. Such certificate shall be subject to a renewal, endorsement, extension and cancellation procedure similar to that provided for an International Load Line Certificate 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.

(11) 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 21
Control

In paragraph (1)(c) the reference to "paragraph (3)" is replaced by "paragraph (9)".

Anexo B
*Modifications and additions to annexes to the
International Convention on Load Lines, 1966*

Annex I
Regulations for determining load lines

Chapter I
General

Regulation 1
Strength of hull

In the heading the words "Strength of hull" are replaced by the words "Strength of ship".

In the first sentence of the regulation the word "hull" is replaced by the word "ship".

Regulation 2
Application

Add new paragraphs (6) and (7) to read as follows:

(6) Regulation 22(2) and Regulation 27 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 Protocol of 1988 relating to the International Convention on Load Lines, 1966 enters into force.

(7) New ships, other than those specified in paragraph (6), shall comply either with Regulation 27 of the present Convention (as amended) or with Regulation 27 of the International Convention on Load Lines, 1966 (as adopted on 5 April 1966), as determined by the Administration.

Regulation 3
Definitions of terms used in the annexes

The existing text of paragraph (1) is replaced by the following:

(1) *Length.* The length (L) shall be taken as 96% of the total length on a waterline at 85% 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. Where the stem contour is concave above the waterline at 85% of the least moulded depth, both the forward terminal of the total length and the fore-side of the stem respectively shall be taken at the vertical projection to that

waterline of the aftermost point of the stem contour (above that waterline). In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.

In paragraph (5)(b) the words "the moulded lines of the deck and side shell plating" are replaced by the words "the moulded lines of deck and sides".

Regulation 5 ***Load line mark***

In the last sentence of the regulation the words "(as illustrated in figure 2)" are deleted.

Regulation 9 ***Verification of marks***

The reference to "(1966)" in relation to the International Load Line Certificate is deleted.

Chapter II ***Conditions of assignment of freeboard***

Regulation 10 ***Information to be supplied to the master***

The existing text of paragraph (2) is replaced by the following:

- (2) Every ship which is not required under the International Convention for the Safety of Life at Sea in force to undergo an inclining test upon its completion shall:
- (a) be so inclined and the actual displacement and position of the centre of gravity shall be determined for the light ship condition;
 - (b) have supplied for the use of its master such reliable information in an approved form as is necessary to enable him by rapid and simple processes to obtain accurate guidance as to the stability of the ship under all conditions likely to be encountered in normal service;
 - (c) carry on board at all times its approved stability information together with evidence that the information has been approved by the Administration;
 - (d) if the Administration so approves, have its inclining test on completion dispensed with, provided basic stability data are available from the inclining test of a sister ship and it is shown to the satisfaction of the Administration that reliable stability information for the ship can be obtained from such basic data.
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Regulation 15

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

In the last sentence of paragraph (5) the word "linear" is inserted before the word "interpolation".

Regulation 22
Scuppers, inlets and discharges

In the first sentence of paragraph (1) the words ", except as provided in paragraph (2)," are inserted between the words "shall" and "be".

The following paragraph is added to the existing text:

(2) Scuppers led through the shell from enclosed superstructures used for the carriage of cargo shall be permitted only where the edge of the freeboard deck is not immersed when the ship heels 5deg. either way. In other cases the drainage shall be led inboard in accordance with the requirements of the International Convention for the Safety of Life at Sea in force.

The existing paragraphs (2) to (5) are renumbered (3) to (6).

In renumbered paragraph (4) the reference to "paragraph (1)" is replaced by "paragraph (2)".

In the first sentence of renumbered paragraph (6) the words "All valves and shell fittings" are replaced by the words "All shell fittings, and the valves".

Regulation 23
Side scuttles

In paragraph (2) of the regulation the words "load waterline" are replaced by the words "summer load line (or summer timber load line, if assigned)".

Regulation 24
Freeing ports

In the first sentence of paragraph (2) the words "calculated area" are replaced by the words "area calculated according to paragraph (1)".

In the second sentence of paragraph (2) the word "linear" is inserted before the word "interpolation".

In paragraph (3) the words "a ship is fitted with a trunk which" are replaced by the words "a ship fitted with a trunk".

Chapter III

Freeboards

Regulation 27

Types of ships

The existing text is replaced by the following:

- (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:
- (a) is designed to carry only liquid cargoes in bulk;
 - (b) has a high integrity of the exposed deck with only small access openings to cargo compartments, closed by watertight gasketed covers of steel or equivalent material; and
 - (c) has low permeability of loaded cargo compartments.
- (3) A type "A" ship if over 150 m in length to which a freeboard less than type "B" has been assigned, when loaded in accordance with the requirements of paragraph (11), shall be able to withstand the flooding of any compartment or compartments, with an assumed permeability of 0.95, consequent upon the damage assumptions specified in paragraph (12), and shall remain afloat in a satisfactory condition of equilibrium as specified in paragraph (13). In such a ship the machinery space shall be treated as a floodable compartment, but with a permeability of 0.85.
- (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) shall be considered as type "B" ships.
- (6) 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:
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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 (m)	Freeboard increase (mm)	Length of ship (m)	Freeboard increase (mm)	Length of ship (m)	Freeboard increase (mm)
108 and below	50	139	175	170	290
109	52	140	181	171	292
110	55	141	186	172	294
111	57	142	191	173	297
112	59	143	196	174	299
113	62	144	201	175	301
114	64	145	206	176	304
115	68	146	210	177	306
116	70	147	215	178	308
117	73	148	219	179	311
118	76	149	224	180	313
119	80	150	228	181	315
120	84	151	232	182	318
121	87	152	236	183	320
122	91	153	240	184	322
123	95	154	244	185	325
124	99	155	247	186	327
125	103	156	251	187	329
126	108	157	254	188	332
127	112	158	258	189	334
128	116	159	261	190	336
129	121	160	264	191	339
130	126	161	267	192	341
131	131	162	270	193	343
132	136	163	273	194	346
133	142	164	275	195	348
134	147	165	278	196	350
135	153	166	280	197	353
136	159	167	283	198	355
137	164	168	285	199	357
138	170	169	287	200	358

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.

(7) Type "B" ships, which in position 1 have hatchways fitted with hatch covers complying with the requirements of Regulation 15(7) or Regulation 16, shall, except as provided in paragraphs (8) to (13) inclusive of this regulation, be assigned freeboards based on table B of Regulation 28.

(8) Any type "B" ship over 100 m in length may be assigned freeboards less than those required under paragraph (7), 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; and
- (d) the ship, when loaded in accordance with the requirements of paragraph (11), shall be able to withstand the flooding of any compartment or compartments, with an assumed permeability of 0.95, consequent upon the damage assumptions specified in paragraph (12), and shall remain afloat in a satisfactory condition of equilibrium, as specified in

paragraph (13). In such a ship, if over 150 m in length, the machinery space shall be treated as a floodable compartment, but with a permeability of 0.85.

(9) In calculating the freeboards for type "B" ships which comply with the requirements of paragraphs (8), (11), (12) and (13), the values from table B of Regulation 28 shall not be reduced by more than 60% of the difference between the B and A tabular values for the appropriate ship lengths.

(10) (a) The reduction in tabular freeboard allowed under paragraph (9) 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:

- (i) Regulation 26, other than paragraph (4), as if it were a type "A" ship;
- (ii) paragraphs (8), (11) and (13) of this regulation; and
- (iii) paragraph (12) of this regulation, provided that throughout the length of the ship any one transverse bulkhead will be assumed to be damaged, such that two adjacent fore and aft compartments shall be flooded simultaneously, except that such damage will not apply to the boundary bulkheads of a machinery space.

(b) In such a ship, if over 150 m in length, the machinery space shall be treated as a floodable compartment but with a permeability of 0.85.

Initial condition of loading

(11) The initial condition of loading before flooding shall be determined as follows:

- (a) The ship is loaded to its summer load waterline on an imaginary even keel.
- (b) When calculating the vertical centre of gravity, the following principles apply:
 - (i) homogeneous cargo is carried.
 - (ii) all cargo compartments, except those referred to under (iii), but including compartments intended to be partially filled, shall be considered fully loaded except that in the case of fluid cargoes each compartment shall be treated as 98% full.
 - (iii) if the ship is intended to operate at its summer load waterline with empty compartments, such compartments shall be considered empty provided the height of the centre of gravity so calculated is not less than as calculated under (ii).
 - (iv) 50% of the individual total capacity of all tanks and spaces fitted to contain consumable liquids and stores is allowed for. It shall be assumed that for each type of liquid, at least one transverse pair or a single centreline tank has maximum free surface, and the tank or combination of tanks to be taken into account shall be those where the effect of free surfaces is the greatest; in each tank the centre of gravity of the contents shall be taken at the centre of volume of the tank. The remaining tanks shall be assumed either completely empty or completely filled, and the distribution of consumable liquids between these tanks shall be effected so as to obtain the greatest possible height above the keel for the centre of gravity.
 - (v) at an angle of heel of not more than 5deg. in each compartment containing liquids, as prescribed in (ii) except that in the case of compartments containing consumable fluids, as prescribed in (iv), the maximum free surface effect shall be taken into account. Alternatively, this actual free surface effects may be used, provided the methods of calculation are acceptable to the Administration.
 - (vi) Weights shall be calculated on the basis of the following values for specific gravities:

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

Damage assumptions

- (12) The following principles regarding the character of the assumed damage apply:
- (a) The vertical extent of damage in all cases is assumed to be from the base line upwards without limit.
 - (b) The transverse extent of damage is equal to $B/5$ or 11.5 m, whichever is the lesser, measured inboard from the side of the ship perpendicularly to the centreline at the level of the summer load waterline.
 - (c) If damage of a lesser extent than specified in subparagraphs (a) and (b) results in a more severe condition, such lesser extent shall be assumed.
 - (d) Except where otherwise required by paragraph (10)(a), the flooding shall be confined to a single compartment between adjacent transverse bulkheads provided the inner longitudinal boundary of the compartment is not in a position within the transverse extent of assumed damage. Transverse boundary bulkheads of wing tanks which do not extend over the full breadth of the ship shall be assumed not to be damaged, provided they extend beyond the transverse extent of assumed damage prescribed in subparagraph (b). If in a transverse bulkhead there are steps or recesses of not more than 3 m in length located within the transverse extent of assumed damage as defined in subparagraph (b), such transverse bulkhead may be considered intact and the adjacent compartment may be floodable singly. If, however, within the transverse extent of assumed damage there is a step or recess of more than 3 m in length in a transverse bulkhead, the two compartments adjacent to this bulkhead shall be considered as flooded. The step formed by the afterpeak bulkhead and the afterpeak tank top shall not be regarded as a step for the purpose of this regulation.
 - (e) Where a main transverse bulkhead is located within the transverse extent of assumed damage and is stepped in way of a double bottom or side tank by more than 3 m, the double bottom or side tanks adjacent to the stepped portion of the main transverse bulkhead shall be considered as flooded simultaneously. If this side tank has openings, into one or several holds, such as grain feeding holes, such hold or holds shall be considered as flooded simultaneously. Similarly in a ship designed for the carriage of fluid cargoes, if a side tank has openings into adjacent compartments, such adjacent compartments shall be considered as empty and as being flooded simultaneously. This provision is applicable even where such openings are fitted with closing appliances, except in the case of sluice valves fitted in bulkheads between tanks and where the valves are controlled from the deck. Manhole covers with closely-spaced bolts are considered equivalent to the unpierced bulkhead except in the case of openings in topside tanks making the topside tanks common to the holds.
 - (f) Where the flooding of any two adjacent fore and aft compartments is envisaged, main transverse watertight bulkheads shall be spaced at least $\frac{1}{3} L^{2/3}$ or 14.5 m, whichever is the lesser, in order to be considered effective. Where transverse bulkheads are spaced at a lesser distance, one or more of these bulkheads shall be assumed as non-existent in order to achieve the minimum spacing between bulkheads.

Conditions of equilibrium

- (13) The condition of equilibrium after flooding shall be regarded as satisfactory provided:
- (a) The final waterline after flooding, taking into account sinkage, heel and trim, is below the lower edge of any opening through which progressive downflooding may take place. Such openings shall include air pipes, ventilators and openings which are closed by means of weathertight doors (even if they comply with Regulation 12) or hatch covers (even if they comply with Regulation 16 or Regulation 19(4)), and may exclude those

openings closed by means of manhole covers and flush scuttles (which comply with Regulation 18), cargo hatch covers of the type described in Regulation 27(2), remotely operated sliding watertight doors, and sidescuttles of the non-opening type (which comply with Regulation 23). However, in the case of doors separating a main machinery space from a steering gear compartment, watertight doors may be of a hinged, quick-acting type kept closed at sea, whilst not in use, provided also that the lower sill of such doors is above the summer load waterline.

- (b) If pipes, ducts or tunnels are situated within the assumed extent of damage penetration as defined in paragraph (12)(b), arrangements shall be made so that progressive flooding cannot thereby extend to compartments other than those assumed to be floodable in the calculation for each case of damage.
- (c) The angle of heel due to unsymmetrical flooding does not exceed 15deg.. If no part of the deck is immersed, an angle of heel of up to 17deg. may be accepted.
- (d) The metacentric height in the flooded condition is positive.
- (e) When any part of the deck outside the compartment assumed flooded in a particular case of damage is immersed, or in any case where the margin of stability in the flooded condition may be considered doubtful, the residual stability is to be investigated. It may be regarded as sufficient if the righting lever curve has a minimum range of 20deg. beyond the position of equilibrium with a maximum righting lever of at least 0.1 m within this range. The area under the righting lever curve within this range shall be not less than 0.0175 m. rad. The Administration shall give consideration to the potential hazard presented by protected or unprotected openings which may become temporarily immersed within the range of residual stability.
- (f) The Administration is satisfied that the stability is sufficient during intermediate stages of flooding.

Ships without means of propulsion

(14) A lighter, barge or other ship without independent means of propulsion shall be assigned a freeboard in accordance with the provisions of these regulations. Barges which meet the requirements of paragraphs (2) and (3) may be assigned type "A" freeboards.

- (a) The Administration should especially consider the stability of barges with cargo on the weather deck. Deck cargo can only be carried on barges to which the ordinary type "B" freeboard is assigned.
- (b) However, in the case of barges which are unmanned, the requirements of Regulations 25, 26(2), 26(3) and 39 shall not apply.
- (c) Such unmanned barges which have on the freeboard deck only small access openings closed by watertight gasketed covers of steel or equivalent material may be assigned a freeboard 25% less than those calculated in accordance with these regulations.

Regulation 37

Deduction for superstructures and trunks

In the footnote to tables for both type "A" and type "B" ships in paragraph (2) the words "and trunks" are inserted after the word "superstructures".

Regulation 38

Sheer

In the definition of "y" in paragraph (12) the words "end of sheer" are replaced by "after or forward perpendicular".

Regulation 40 *Minimum freeboards*

In the first sentence of paragraph (4) the words "paragraph (1)" are replaced by the words "paragraph (3)".

Chapter IV *Special requirements for ships assigned timber freeboards*

Regulation 44 *Stowage*

The existing text is replaced by the following:

General

(1) Openings in the weather deck over which cargo is stowed shall be securely closed and battened down.

The ventilators and air pipes shall be efficiently protected.

(2) Timber deck cargoes 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 deck cargo shall extend athwartships as close as possible to the ship's side, due allowance being made for obstructions such as guard rails, bulwark stays, uprights, pilot access, etc., provided any gap thus created at the side of the ship shall not exceed a mean of 4% of the breadth. The timber shall be stowed as solidly as possible to at least the standard height of the superstructure other than any raised quarterdeck.

(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 strength of the uprights shall not exceed the strength of the bulwark and the spacing shall be suitable for the length and character of timber carried, but shall not exceed 3 m.

Strong angles or metal sockets or equally efficient means shall be provided for securing the uprights.

Lashings

(6) Timber deck cargo shall be effectively secured throughout its length by a lashing system acceptable to the Administration for the character of the timber carried.

Stability

(7) 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 arising from absorption of water or icing, if applicable, and to losses of weight such as those arising from consumption of fuel and stores.

Protection of crew, access to machinery spaces, etc.

(8) In addition to the requirements of Regulation 25(5), guard-rails or lifelines not more than 350 mm apart vertically shall be provided on each side of the cargo deck to a height of at least 1 m above the cargo.

In addition a lifeline, preferably wire rope set up taut with a stretching screw, shall be provided as near as practicable to the centreline of the ship. The stanchion supports to all guard-rails and lifelines shall be so spaced as to prevent undue sagging. Where the cargo is uneven a safe walking surface of not less than 600 mm in width shall be fitted over the cargo and effectively secured beneath or adjacent to the lifeline.

(9) Where the requirements prescribed in paragraph (8) are impracticable, alternative arrangements satisfactory to the Administration shall be used.

Steering arrangements

(10) 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

In paragraph (5) the words "or with Regulation 40(8) based on the summer timber draught measured from the top of the keel to the summer timber load line" are added after the word "waterline".

Annex II
Zones, areas and seasonal periods

Regulation 46
Northern Winter Seasonal Zones and Area

The last sentence of paragraph (1)(b) is replaced by the following:

Excluded from this zone are the North Atlantic Winter Seasonal Zone I, the North Atlantic Winter Seasonal Area and the Baltic Sea bounded by the parallel of latitude of the Skaw in the Skagerrak. The Shetland Islands are to be considered as being on the boundary of the North Atlantic Winter Seasonal Zones I and II.

Seasonal periods:

WINTER: 1 November to 31 March

SUMMER: 1 April to 31 October

Regulation 47
Southern Winter Seasonal Zone

The words "to the west coast of the American continent" at the end of the regulation are replaced by the following:

to the point latitude 33° S, longitude 79° W, thence the rhumb line to the point latitude 41° S, longitude 75° W, thence the rhumb line to Punta Corona lighthouse on Chiloe Island, latitude 41°47' S, longitude 73°53' W, thence along the north, east and south coasts of Chiloe Island to the point latitude 43°20' S, longitude 74°20' W, and thence the meridian of longitude 74°20' W to the parallel of latitude 45°45' S, including the inner zone of Chiloe channels from the meridian 74°20' W to the east.

Regulation 48
Tropical Zone

At the end of the first subparagraph of paragraph (2) the words "and thence the rhumb line to the west coast of the American continent at latitude 30° S" are replaced by the words "thence the rhumb line to the point latitude 32°47' S, longitude 72° W, and thence to the parallel of latitude 32°47' S to the west coast of South America".

In the second paragraph of paragraph (2) the word "Coquimbo" is replaced by the word "Valparaiso".

Regulation 49
Seasonal Tropical Areas

In paragraph 4(b) the words "to longitude 120° E and thence the meridian of longitude 120° E to the coast of Australia" are replaced by the words "to longitude 114° E and thence the meridian of longitude 114° E to the coast of Australia".

Chart of Zones and Seasonal Areas

The words "SEASONAL WINTER ZONE" where they indicate the area along the eastern coast of the United States are replaced by the words "WINTER SEASONAL AREA".

The words "SEASONAL WINTER ZONE" wherever they appear in the chart (except in the cases mentioned above) are replaced by the words "WINTER SEASONAL ZONE" and the words "SEASONAL TROPICAL" are replaced by the words "SEASONAL TROPICAL AREA".

In the note the word "western" is replaced by the word "eastern".

The border line of the seasonal tropical area at the coast of Australia is moved from longitude 120° E to longitude 114° E.

The southern border line of the southern summer zone east of the point latitude 33° S, longitude 79° W to the west coast of the American continent is deleted. A rhumb line from the point latitude 33° S, longitude 79° W to the point latitude 41° S, longitude 75° W is inserted. From there a rhumb line to Punta Corona lighthouse on Chiloe Island latitude 41°47' S, longitude 73°53' W is inserted. From there the north, east and south coast of Chiloe Island is marked as border to the point latitude 43°20' S, longitude 74°20' W. The meridian of longitude 74°20' W to the parallel of latitude 45°45' S and then this parallel to the west coast of South America are marked.

The rhumb line from the point latitude 26° S, longitude 75° W to the west coast of South America at latitude 30° S is deleted from the southern boundary of the tropical zone. A rhumb line from the point latitude 26° S, longitude 75° W to the point latitude 32°47' S, longitude 72° W and then the parallel of latitude 32°47' S to the west coast of South America are inserted.

Annex III Certificates

The existing forms of the International Load Line Certificate (1966) and the International Load Line Exemption Certificate are replaced by the following:

Form of International Certificate on Load Lines

INTERNATIONAL LOAD LINE CERTIFICATE

(Official seal)

(State)

Issued under the provisions of the
INTERNATIONAL CONVENTION ON LOAD LINES, 1966,
as modified by the Protocol of 1988 relating thereto

under the authority of the Government of

(name of the State)

by

(person or organization authorized)

Particulars of ship¹

Name of ship

Distinctive number or letters

Port of registry

Length (L) as defined in article 2(8) (in metres)

IMO number²

Freeboard assigned as:³

A new ship

An existing ship

Type of ship:³

Type "A"

Type "B"

Type "B" with reduced freeboard

Type "B" with increased freeboard

Freeboard from deck line⁴

Tropical

Summer

Winter

Winter North Atlantic

Timber tropical

Timber summer

Timber winter

Timber winter North Atlantic

..... mm (T)

..... mm (S)

..... mm (W)

..... mm (WNA)

..... mm (LT)

..... mm (LS)

..... mm (LW)

..... mm (LWNA)

Load line

..... mm above (S)

Upper edge of line through centre of ring

..... mm below (S)

..... mm below (S)

..... mm above (LS)

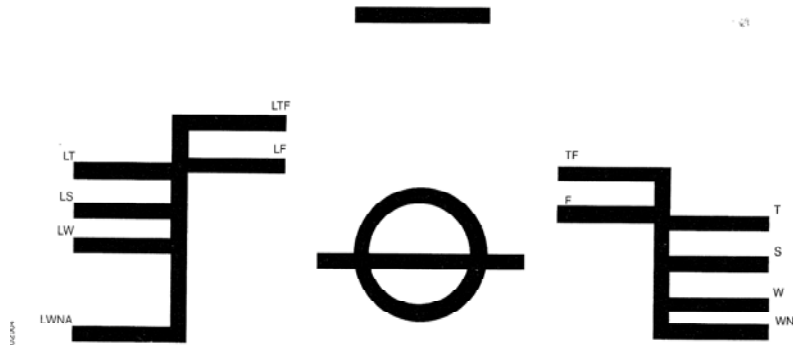
..... mm above (S)

..... mm below (LS)

..... mm below (LS)

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

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



THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with the requirements of article 14 of the Convention.
- 2 That the survey showed that the freeboards have been assigned and load lines shown above have been marked in accordance with the Convention.

This certificate is valid until⁵ subject to annual surveys in accordance with Article 14(1)(c) of the Convention.

Issued at
(Place of issue of certificate)

.....
(Date of issue)

.....
Signature of authorized official issuing the certificate)

(Seal or stamp of the authority, as appropriate)

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 or unit density the appropriate load line may be submerged by the amount of 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.

1 Alternatively, the particulars of the ship may be placed horizontally in boxes.
 2 In accordance with resolution A.600(15) - IMO Ship Identification Number Scheme, this information may be included voluntarily.
 3 Delete as appropriate.
 4 Freeboards and load lines which are not applicable need not be entered on the certificate. Subdivision load lines may be entered on the certificate on a voluntary basis.
 5 Insert the date of expiry as specified by the Administration in accordance with Article 19(1) of the Convention. The day and the month of this date correspond to the anniversary date as defined in Article 2(9) of the Convention, unless amended in accordance with Article 19(8) of the Convention.

Endorsement for annual surveys

THIS IS TO CERTIFY that, at an annual survey required by Article 14(1)(c) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual survey: Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Annual survey in accordance with Article 19(8)(c)

THIS IS TO CERTIFY that, at a survey in accordance with Article 19(8)(c) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the certificate if valid for less than 5 years where Article 19(3) applies

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Article 19(3) of the Convention, be accepted as valid until

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and Article 19(4) applies

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Article 19(4) of the Convention, be accepted as valid until

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where Article 19(5) or 19(6) applies

This certificate shall, in accordance with Article 19(5)/19(6)* of the Convention, be accepted as valid until

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement for advancement of anniversary date where Article 19(8) applies

In accordance with Article 19(8) of the Convention the new anniversary date is

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

In accordance with Article 19(8) of the Convention the new anniversary date is

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

Form of International Exemption Certificate on Load Lines
INTERNATIONAL LOAD LINE EXEMPTION CERTIFICATE

(Official seal)

(State)

Issued under the provisions of the
INTERNATIONAL CONVENTION ON LOAD LINES, 1966,
as modified by the Protocol of 1988 relating thereto

under the authority of the Government of

(name of the State)

by

(person or organization authorized)

Particulars of ship ¹

Name of ship

Distinctive number or letters

Port of registry

Length (L) as defined in article 2(8) (in metres)

IMO number ²

THIS IS TO CERTIFY:

That the ship is exempted from the provisions of the Convention, under the authority conferred by Article 6(2)/6(4)³ of the Convention referred to above.

The provisions of the Convention from which the ship is exempted under Article 6(2) are:

.....
.....
.....

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):

.....
.....
.....

Annual survey in accordance with Article 19(8)(c)

THIS IS TO CERTIFY that, at a survey in accordance with Article 19(8)(c) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the certificate if valid for less than 5 years where Article 19(3) applies

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Article 19(3) of the Convention, be accepted as valid until

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and Article 19(4) applies

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Article 19(4) of the Convention, be accepted as valid until

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where Article 19(5) or 19(6) applies

This certificate shall, in accordance with Article 19(5)/19(6)* of the Convention, be accepted as valid until

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement for advancement of anniversary date where Article 19(8) applies

In accordance with Article 19(8) of the Convention the new anniversary date is

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

In accordance with Article 19(8) of the Convention the new anniversary date is

Signed:
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.