

1980 No. 536

MERCHANT SHIPPING

SAFETY

The Merchant Shipping (Grain) Regulations 1980

<i>Made</i>	- - - -	17th April 1980
<i>Laid before Parliament</i>		2nd May 1980
<i>Coming into Operation</i>		25th May 1980

The Secretary of State, after consultation with the persons referred to in section 22(2) of the Merchant Shipping Act 1979(a), in exercise of the powers conferred on him by subsections (1), (3)(b) and (q), (5), (6)(a) and (b) of section 21 and by section 22(1)(c) and (d) and (3)(a) of that Act and of all other powers enabling him in that behalf, hereby makes the following Regulations:—

Citation, interpretation and revocation

1.—(1) These Regulations may be cited as the Merchant Shipping (Grain) Regulations 1980 and shall come into operation on 25th May 1980.

(2) In these Regulations:—

- “Certifying Authority” means the Secretary of State or any person authorised by the Secretary of State and includes in particular (if so authorised) Lloyd’s Register of Shipping, the British Committee of the Bureau Veritas, the British Committee of Det norske Veritas, the British Committee of Germanischer Lloyd, and the British Technical Committee of the American Bureau of Shipping;
- “existing ship” means a ship the keel of which was laid or which was at a similar stage of construction before 25th May 1980;
- “filled compartment” means any compartment in which, after loading and trimming as required under paragraph 1 of the Schedule to these Regulations, the bulk grain is at its highest possible level;
- “grain” includes wheat, maize, oats, rye, barley, rice, pulses and seeds whether in natural form or in such a processed form that its characteristics resemble those of its natural form with regard to liability to shift when loaded;
- “new ship” means a ship the keel of which is laid or which is at a similar stage of construction on or after 25th May 1980;
- “partly filled compartment” means any compartment wherein bulk grain is not loaded in the manner prescribed by paragraph 1 of the Schedule to these Regulations;
- “the 1960 Safety Convention” means the International Convention for the Safety of Life at Sea 1960 (Cmnd. 2812);
- “Safety Convention” means the International Convention for the Safety of Life at Sea 1974 (Cmnd. 7874);

“Safety Convention ship” means a ship registered in a country to which the Safety of Life at Sea Convention of 1948 or of 1960 or of 1974 applies;

“surveyor” means a marine surveyor of the Department of Trade;

“United Kingdom ship” means a ship as defined in section 21(2) of the Merchant Shipping Act 1979.

(3) Section 24 of the Merchant Shipping (Safety Convention) Act 1949(a) (carriage of grain) and section 1(5) of the Merchant Shipping (Safety Convention) Act 1977(b) (amendment of section 24 of the 1949 Act) are hereby repealed, and the Merchant Shipping (Grain) Rules 1965(c) are hereby revoked to the extent that they apply to United Kingdom ships, and to other Safety Convention ships while they are within the United Kingdom or the territorial waters thereof.

Application

2. These Regulations apply in relation to:—

(a) sea-going United Kingdom ships, and

(b) other sea-going Safety Convention ships while they are within the United Kingdom or the territorial waters thereof,

when loaded with grain in bulk.

Carriage of grain

3.—(1) Where grain in bulk is loaded on board any United Kingdom ship or is loaded within any port in the United Kingdom on board any other sea-going ship, it shall be loaded in accordance with the loading arrangements prescribed in the Schedule hereto or with loading arrangements recognised by the Secretary of State under regulation 6 of these Regulations as equivalent thereto. If such loading arrangements are not complied with, the owner, master or charterer of the ship, or any agent of the owner or charterer who was charged with the loading or with sending the ship to sea laden with grain, shall each be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or, on conviction on indictment, to imprisonment for a term not exceeding two years and a fine.

(2) Where any ship, having been loaded with grain outside the United Kingdom without complying with the loading arrangements required by paragraph (1) of this regulation, enters any port in the United Kingdom so laden, the owner, master or charterer of the ship shall each be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or, on conviction on indictment, to imprisonment for a term not exceeding two years and a fine.

Power to detain

(3) In any case where a ship to which these Regulations apply does not comply with the requirements of these Regulations, the ship shall be liable to be detained and section 692 of the Merchant Shipping Act 1894 (which relates to the detention of a ship) shall have effect in relation to the ship, subject to the modification that for the words “this Act” wherever they appear, there were substituted “the Merchant Shipping Acts 1894 to 1979 or any Regulations made thereunder.”

(a) 1949 c. 43.

(b) 1977 c. 24.

(c) S.I. 1965/1062.

(4) Nothing in this regulation shall have effect if the ship would not have entered any such port but for stress of weather or any other circumstance that neither the master nor the owner nor the charterer (if any) could have prevented.

Document of Authorisation

4.—(1) Every ship to which these Regulations apply shall have on board a valid document of authorisation, which shall be produced, on demand, to a surveyor.

(2)(a) In the case of a new United Kingdom ship, the document of authorisation shall be issued by the Certifying Authority and shall:

- (i) state that the ship is capable of complying with these Regulations and with Chapter VI of the Safety Convention; and
- (ii) incorporate therein the grain loading information required by Regulation 11 of Part A of Chapter VI of the Safety Convention.

(b) In the case of an existing United Kingdom ship, a valid document of authorisation, as required by paragraph (1) above, shall include a document issued by the Certifying Authority stating that the ship is capable of complying with the requirements of:

- (i) Regulation 12 of Chapter VI of the 1960 Safety Convention; or
- (ii) IMCO Resolution A184(VI); or
- (iii) IMCO Resolution A264(VIII).

(3)(a) In the case of any other new Safety Convention ship, the document of authorisation shall be issued by the Government of the State whose flag the ship is flying or by a person authorised by that Government and:

- (i) state that the ship is capable of complying with Chapter VI of the Safety Convention;
- (ii) incorporate the information mentioned in paragraph (2)(ii) above; and
- (iii) be in the English or French language.

(b) In the case of any other existing Safety Convention ship, a valid document of authorisation, as required by paragraph (1) above, shall include a document issued by the said Government stating that the ship is capable of complying with the requirements of:

- (i) Regulation 12 of Chapter VI of the 1960 Safety Convention; or
- (ii) IMCO Resolution A184(VI); or
- (iii) IMCO Resolution A264(VIII); and
- (iv) be in the English or French language.

(4) Subject to paragraph (5) below, where the master of a ship to which these Regulations applies cannot produce the document of authorisation, the ship shall not load grain at any port in the United Kingdom until the master demonstrates, if so required, to the satisfaction of the surveyor, that the ship in the proposed loading condition is capable of complying with the relevant requirements of these Regulations and of Chapter VI of the Safety Convention throughout the intended voyage.

(5) In the case of an existing ship, grain may be loaded in accordance with the provisions of Section V(A) and (B) of Part B of Chapter VI of the Safety Convention where the master demonstrates, if so required, to the satisfaction of either a surveyor or of the Secretary of State by the production of documents.

that the ship in the proposed loading condition is capable of complying with the said Safety Convention requirements throughout the intended voyage. Any such documents so produced shall, in the case of a ship other than a United Kingdom ship, be in English or French.

(6) In the case of a ship which is not a United Kingdom ship and in respect of which a valid document of authorisation is produced, she shall only be required to comply with the provisions of paragraphs 2(d) and (e) (intact stability requirements) and 4 (securing of grain surfaces in partly filled compartments) of the Schedule hereto.

Exemptions

5.—(1) The Secretary of State may exempt any ship, or class of ships, which complies with the stability criteria set out in paragraph 2 of the Schedule hereto from the requirements of Part B (calculation of assumed heeling moments) and Part C (grain fittings and securing) of Chapter VI of the Safety Convention where he is satisfied as to the provisions for loading or the structural arrangements of the ship. Where such exemption is granted, particulars thereof shall be included in the document of authorisation or grain loading information.

(2) The Secretary of State may, if he considers that the sheltered nature and conditions of the voyage are such as to render any of the requirements of these Regulations unreasonable or unnecessary, exempt any ship or class of ships from any of those requirements.

(3) The Secretary of State may alter or cancel any exemption granted pursuant to this regulation.

Equivalent

6.—(1) Where these Regulations require that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Secretary of State may approve any other fitting, material, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that ship, if he is satisfied by trial thereof or otherwise that such other fitting, material, appliance or apparatus or type thereof, or provision is at least as effective as that required by these Regulations.

(2) Where an equivalent is approved by the Secretary of State in accordance with paragraph (1) above, particulars thereof shall be included in the document of authorisation.

Norman Tebbit,
Parliamentary Under-Secretary of State,
Department of Trade.

17th April 1980.

SCHEDULE

Trimming of Grain

1. In all ships to which these Regulations apply, all necessary and reasonable trimming shall be carried out in order to level all free grain surfaces and to minimise the effect of the grain from shifting. In any filled compartment, the bulk grain shall be trimmed so as to fill all the spaces under the decks and hatch covers to the maximum extent possible. After loading all free grain surfaces in partly filled compartments shall be level:

Provided that the Certifying Authority when issuing the document of authorisation referred to in regulation 4(2) of these Regulations may allow ships not to trim where the underdeck void geometry resulting from free flowing grain into a compartment, which may be provided with feeding ducts, perforated decks or other similar means, is taken into account to its satisfaction when demonstrating compliance with the intact stability requirements of the document of authorisation.

Intact Stability Requirements

2.—(a) In all ships to which these Regulations apply, the intact stability characteristics of any ship carrying grain in bulk shall be shown to meet, throughout the voyage, at least the following criteria:

- (i) the angle of heel due to the shift of grain shall be not greater than 12 degrees, unless, in relation to a particular ship or class of ships the Secretary of State directs a lesser angle of heel;
- (ii) in the statical stability diagram, the net or residual area between the heeling arm curve and the righting arm curve up to the angle of heel of maximum difference between the ordinates of the two curves, or 40 degrees or the angle of flooding (Θ_f), whichever is the least, shall, in all conditions of loading, be not less than 0.075 metre-radians; and
- (iii) the initial metacentric height, after correction for the free surface effects of liquids in tanks, shall not be less than 0.30 metre.

(b) In sub-paragraph (ii) above, "angle of flooding (Θ_f)" means an angle of heel at which openings in the hull, superstructures or deckhouses, which cannot be closed weathertight, immerse. Small openings through which progressive flooding cannot take place, shall not be regarded as openings.

(c) The criteria referred to in sub-paragraph (a) above shall be met after taking account of the calculations of heeling moments due to a shift of grain set out in Part B of Chapter VI of the Safety Convention.

(d) Before loading grain in bulk the master of a ship to which these Regulations apply, if so directed by a surveyor, shall demonstrate the ability of the ship throughout the voyage to comply with the stability criteria referred to in sub-paragraph (a) of this paragraph by using the grain loading information required by regulation 4(2)(b) of these Regulations.

(e) After loading, the master shall ensure that the ship is upright before proceeding to sea.

(f) The stability requirements and the grain loading information required by this paragraph to be provided shall, in the case of a United Kingdom ship, be based upon the stability information provided in accordance with the Merchant Shipping (Load Line) Rules 1968(a) and, in the case of any other ship, shall be based upon the stability requirements of the Government of the State whose flag the ship is entitled to fly.

Longitudinal or Transverse Divisions and Saucers

3.—(a) In both filled compartments and partly filled compartments, longitudinal or transverse divisions may be provided as a device either to reduce the adverse heeling

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- (a) S.I. 1968/1053, to which there are amendments not relevant to these Regulations.

effect of grain shift or to limit the depth of cargo used for securing the grain surface. Such divisions shall:

- (i) extend in accordance with regulation 5(b) and (c) of Part A of Chapter VI of the Safety Convention and shall be fitted graintight; and
- (ii) be constructed in accordance with the provisions of Section I of Part C of Chapter VI of the Safety Convention.

(b) In addition, the adverse heeling effects of grain shift may be reduced by tightly stowing the wings and ends of a compartment with bagged grain or other suitable cargo adequately restrained from shifting.

Securing of grain surfaces in partly filled compartments

4. Unless account is taken of the adverse heeling effect due to grain shift in accordance with these Regulations, the surface of the bulk grain in any partly filled compartment shall be secured by either of the following methods:—

- (a) overstowing in accordance with the provisions of regulation 6 of Part A and Section II of Part C; or
- (b) strapping or lashing in accordance with the provisions of Section II of Part C

of Chapter VI of the Safety Convention.

Feeders and Trunks

5. If feeders or trunks are fitted, proper account shall be taken of the effects thereof when calculating the heeling moments as described in Section III of Part B of Chapter VI of the Safety Convention. The strength of the divisions forming the boundaries of such feeders shall conform to the provisions of Section I of Part C of Chapter VI of the Safety Convention.

Combination arrangements

6. Lower holds and between-deck spaces directly above may be loaded as one compartment provided that, in calculating transverse heeling moments, proper account is taken of the flow of grain into the lower spaces.

EXPLANATORY NOTE

(This Note is not part of the Regulations.)

These Regulations repeal section 24 of the Merchant Shipping (Safety Convention) Act 1949 and section 1(5) of the Merchant Shipping (Safety Convention) Act 1977 (carriage of grain) and revoke the Merchant Shipping (Grain) Rules 1965 to the extent that they apply to United Kingdom ships, and to ships registered in a country to which a Safety of Life at Sea Convention applies while they are within the United Kingdom or the territorial waters thereof. Those provisions will continue to apply to ships of non-Convention countries while they are within United Kingdom ports. These Regulations apply to sea-going United Kingdom ships and to other Safety Convention ships while they are within the United Kingdom or the territorial waters thereof when loaded with grain in bulk, and give effect to Chapter VI of the International Convention for the Safety of Life at Sea 1974 ("the 1974 Convention") (Cmnd. 7874) obtainable from Her Majesty's Stationery Office. Chapter VI of the 1974 Convention is issued by the Department of Trade in the form of a booklet entitled "The IMCO Grain Rules" obtainable from Her Majesty's Stationery Office. The 1960 Safety Convention is obtainable from Her Majesty's Stationery Office.

Ships to which the Regulations apply must, when loaded in United Kingdom ports, comply with the loading arrangements set out in the Schedule, which refer

to the specified requirements of the 1974 Convention (regulation 3). The Regulations require all new ships to carry a document of authorisation which states that the ship is capable of complying with the 1974 Convention requirements; that document incorporates the grain loading information specified in the 1974 Convention (regulation 4). Existing ships can produce specified documents which will constitute a document of authorisation; but those ships which do not have such a document of authorisation will need to satisfy the Secretary of State as to the intended method of loading (regulation 4(5)). The Secretary of State can grant exemptions from the loading requirements (regulation 5) and can approve equivalent fittings and provisions (regulation 6).

The IMCO Resolutions referred to in regulation 4 means those Resolutions published by the Inter-governmental Maritime Consultative Organisation and obtainable from the Organisation at Piccadilly, London.

