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 STATUTORY INSTRUMENTS
 

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1985 No. 1217

## MERCHANT SHIPPING

## SAFETY

**The Merchant Shipping (Grain) Regulations 1985***Laid before Parliament in draft*

Made - - - - 29th July 1985

Coming into Operation 12th August 1985

The Secretary of State for Transport, after consulting 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), (c), (o) and (q), (4), (5) and 6(a), (b), (ba) and (bb) of section 21 and subsection (1) of section 22 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 1985 and shall come into operation two weeks after they are made.

(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 the bulk grain is loaded and trimmed in accordance with paragraph 1(a) and (b) of the Schedule to these Regulations;

“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;

“loader” means the person undertaking the loading of grain in bulk into a ship;

“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;

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(a) 1979 c.39; section 21(6)(b), (ba) and (bb) was substituted by section 49(3) of the Criminal Justice Act 1982 (c.48).

“partly filled compartment” means any compartment in which bulk grain is loaded which is not a filled compartment;

“the 1960 Safety Convention” means the International Convention for the Safety of Life at Sea 1960 (a) ;

“Safety Convention” means the International Convention for the Safety of Life at Sea 1974 (b) ;

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

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

(3) The Merchant Shipping (Grain) Regulations 1980 (c) and the Merchant Shipping (Grain) (Amendment) Regulations 1981 (d) are hereby revoked.

(4) In these Regulations, unless the context otherwise requires, a reference to a numbered regulation is a reference to the regulation of that number in these Regulations.

#### *Application*

2.—(1) Subject to paragraph (2) below, these Regulations apply in relation to:

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

when loaded with grain in bulk.

(2) These Regulations shall not apply to any ship which is not a United Kingdom ship if it would not have been within the United Kingdom or the territorial waters thereof but for stress of weather or any other circumstances which could not have been prevented by the owner or the master or the charterer (if any): Provided that if any such ship then loads grain in bulk in a port in the United Kingdom the Regulations shall apply to it.

#### *Carriage of grain*

3.—(1) Where grain in bulk is loaded on board any United Kingdom ship, or is loaded within a port in the United Kingdom on board any other ship, it shall be loaded:

- (a) in the case of a new ship, in accordance with the loading arrangements prescribed in Chapter VI of the Safety Convention contained in the Schedule hereto or with arrangements permitted by the Secretary of State under regulation 8 as equivalent thereto; or
- (b) in the case of an existing ship, in accordance with the loading arrangements prescribed in:
  - (i) Chapter VI of the Safety Convention contained in the Schedule hereto; or
  - (ii) Regulation 12 of Chapter VI of the 1960 Safety Convention; or
  - (iii) IMCO Resolution A.184 (VI); or
  - (iv) IMCO Resolution A.264 (VIII) (the “IMCO Grain Rules”);

(a) Cmnd. 2812.

(b) Cmnd. 7874, amended by the Maritime Safety Committee of the International Maritime Organization at its forty-fifth session.

(c) S.I. 1980/536.

(d) S.I. 1981/576.

or in accordance with arrangements permitted by the Secretary of State under regulation 8 as equivalent thereto.

(2) If such loading arrangements are not complied with the owner, master and charterer shall each be guilty of an offence and liable on summary conviction to a fine not exceeding £2000, or on conviction on indictment, to imprisonment for a term not exceeding two years and a fine.

(3) Where any ship, having been loaded with grain in bulk 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 and charterer of the ship shall each be guilty of an offence and liable on summary conviction to a fine not exceeding £2000 or, on conviction on indictment, to imprisonment for a term not exceeding two years and a fine.

(4) It shall be an offence for a loader to load grain in bulk into a ship in the United Kingdom unless and until there has been produced to him the document of authorisation described in regulation 4 or a copy thereof, or a document signed by the Secretary of State or by a surveyor stating that the master of the ship has satisfied him in accordance with regulation 6 that the ship is capable of complying with the relevant requirements of these Regulations. Such offence shall be punishable on summary conviction by a fine not exceeding £500.

#### *Document of authorisation*

4.—(1) Every ship to which these Regulations apply shall either have on board a valid document of authorisation or shall comply with regulation 6.

(2) Every document of authorisation shall be produced on demand to a surveyor.

(3) (a) In the case of a new ship, the document of authorisation shall:

- (i) state that the ship is capable of complying with Chapter VI of the Safety Convention;
- (ii) contain the particulars of any exemption granted by the Secretary of State under regulation 7 or, where the ship is not a United Kingdom ship, by the Administration of the State whose flag the ship is flying; and
- (iii) incorporate the grain loading information required by Regulation 11 of Part A of Chapter VI of the Safety Convention including particulars of any equivalent accepted under Regulation 12 of that Part.

(b) In the case of an existing ship, the document of authorisation shall:

- (i) state that the ship is capable of complying with the requirements of:—
  - (A) Chapter VI of the Safety Convention; or
  - (B) Regulation 12 of Chapter VI of the 1960 Safety Convention; or
  - (C) IMCO Resolution A.184(VI); or
  - (D) IMCO Resolution A.264 (VIII) (the “IMCO Grain Rules”);
- (ii) contain the particulars of any exemption granted by the Secretary of State under regulation 7 or, where the ship is not a United

Kingdom ship, by the Administration of the State whose flag the ship is flying; and

- (iii) incorporate the grain loading information (including any equivalent) appropriate to the Chapter, Regulation or Resolution, as the case may be, with which it states that the ship complies.

(4) The document of authorisation shall:

- (a) in the case of a United Kingdom ship, be issued by a United Kingdom Certifying Authority and be in the English language;
- (b) in the case of any other ship, be issued by the Administration of the State whose flag the ship is flying or by a person authorised by that Administration, and be in the English or French language.

(5) If paragraph (1) of this regulation is not complied with, the owner, charterer and master shall each be guilty of an offence, and liable on summary conviction to a fine in the case of the owner and charterer not exceeding £1,000 and in the case of the master not exceeding £500.

*Demonstration of compliance*

5.—(1) The master of any ship may, before loading grain in bulk for a proposed voyage, be required to demonstrate to the satisfaction of a surveyor the ability of the ship in the proposed loading condition to comply throughout the intended voyage with the stability criteria specified in paragraph 2 of the Schedule hereto or in the document of authorisation or as required by regulation 6 as appropriate.

(2) Where the master of the ship produces a document of authorisation complying with regulation 4(3) such demonstration shall be done by using the grain loading information incorporated in that document of authorisation.

*Ships without documents*

6.—(1)(a) Where the master of a ship cannot produce the document of authorisation referred to in regulation 4 the ship shall not load grain in bulk in any port in the United Kingdom until the master demonstrates to the satisfaction of the Secretary of State or a surveyor that the ship in the proposed loading condition will be capable of complying with all the requirements of these Regulations applicable to that ship throughout the intended voyage and has obtained a document signed by the Secretary of State or a surveyor to this effect. The demonstration shall be done by using grain loading information based upon stability information provided, in the case of a United Kingdom ship, in accordance with the Merchant Shipping (Load Line) Rules 1968 (a) and in the case of any other ship upon the stability requirements of the Administration of the State whose flag the ship is flying. The accuracy of the grain loading information shall be proved to the satisfaction of the Secretary of State or the surveyor.

(b) Where a ship which has been loaded with grain in bulk outside the United Kingdom is not in possession of a document of authorisation referred to in regulation 4, that ship shall, when within the United Kingdom or the territorial waters thereof and also elsewhere in the case of a United Kingdom ship, have on board a statement of the Administration of the State of the port of loading that it is satisfied that the ship is capable of complying with the relevant requirements of Chapter VI of the Safety Convention applicable to that ship throughout the intended voyage.

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

(2) All information and any statement referred to in paragraph (1)(b) shall in the case of a ship other than a United Kingdom ship be in the English or French language.

#### *Exemptions*

7.—(1) The Secretary of State may exempt any ship 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.

(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 from any of those requirements, subject to such conditions as he may think appropriate.

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

#### *Equivalents*

8. Where these Regulations require that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried or that any particular method of securing the cargo shall be used or any provision shall be made in a ship the Secretary of State may permit any other fitting, material, appliance or apparatus, or type thereof, to be fitted or carried, or any other method of securing the cargo to be used 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 method of securing or provision is at least as effective as that required by these Regulations.

#### *Power to detain*

9. In any case where a ship to which these Regulations apply does not comply with the requirements of regulation 3 or 4, it shall be liable to be detained and section 692 of the Merchant Shipping Act 1894 (a) (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 (Grain) Regulations 1985".

#### *Offences*

10.—(1) In any proceedings for an offence under these Regulations it shall be a defence for the person charged to show that he exercised all due diligence to avoid the commission of the offence.

(2) Where the commission by any person of an offence under these Regulations is due to the act or default of some other person, that other person shall be guilty of the offence, and a person may be charged with and convicted of the offence by virtue of this regulation whether or not proceedings are taken against the first mentioned person.

*Nicholas Ridley,*  
Secretary of State for Transport.

29th July 1985.

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(a) 1894 c.60.

Regulation 3(1)

## SCHEDULE

LOADING OF GRAIN IN BULK IN ACCORDANCE WITH CHAPTER VI OF THE SAFETY CONVENTION

*Trimming of grain*

1.(a) All necessary and reasonable trimming shall be carried out in order to level all free grain surfaces and to minimise the effect of the shift of the grain cargo.

(b) 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:

Provided that the Certifying Authority issuing the document of authorisation may allow the grain in any such compartment not to be trimmed where the underdeck void geometry resulting from free flowing grain into the 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.

(c) After loading all free grain surfaces in partly filled compartments shall be level.

*Intact stability requirements*

2.(a) The intact stability characteristics of any ship carrying grain in bulk shall meet, throughout the voyage, at least the following criteria:

- (i) the angle of heel due to the shift of grain shall not be greater than 12 degrees unless, in relation to a particular ship, the Secretary of State directs that a lesser angle of heel shall be required;
- (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 ( $\Theta_f$ ), 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 be not less than 0.30 metre.

(b) In sub-paragraph (ii), the "angle of flooding ( $\Theta_f$ )" means an angle of heel at which the lower edge of any openings in the hull, superstructures or deckhouses, being openings which cannot be closed weathertight are immersed.

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

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

*Longitudinal divisions, saucers and bundles of bulk grain*

3.(a) In both filled and partly filled compartments longitudinal divisions may be provided as a means of reducing the adverse heeling 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)(i), (ii) and (c) of Part A of Chapter VI of the Safety Convention and shall be fitted gaintight; and
- (ii) be constructed in accordance with the provisions of Section I of Part C of Chapter VI of the Safety Convention.

(b) Except in the case of linseed and other seeds having similar properties a longitudinal division beneath a hatchway in a filled compartment may be replaced by a saucer or bundle of bulk grain formed in the manner described in Section 1 of Part C of Chapter VI of the Safety Convention.

*Transverse divisions*

4.(a) Where the volume of a compartment is restricted to reduce the adverse heeling effects of grain shift by the fitting of a transverse division, the division shall be

constructed in accordance with the requirements of Section 1 of Part C of Chapter VI of the Safety Convention and shall be fitted graintight.

(b) The adverse heeling effects of grain shift may also 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*

5. Unless account is taken of the adverse heeling effect due to grain shift in accordance with paragraph 2(c) 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*

6. 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*

7. 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.

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## EXPLANATORY NOTE

*(This Note is not part of the Regulations.)*

These Regulations revoke the Merchant Shipping (Grain) Regulations 1980 (as amended) and re-enact them with amendments. The Regulations apply to sea-going United Kingdom ships, and to other sea-going ships while they are within the United Kingdom or the territorial waters thereof, which are loaded with grain in bulk. The Regulations give effect to Chapter VI of the International Convention for the Safety of Life at Sea, 1974 ("the 1974 Convention") (Cmd. 7874) as amended at the forty-fifth session of the Maritime Safety Committee of the International Maritime Organization on 20th November 1981.

The major amendments are:

1. agents of the owner or charterer are no longer made directly responsible for the loading, or for sending a ship to sea when not loaded in accordance with the requirements of the Regulations;
2. persons undertaking the loading are required prior to loading to see the appropriate documents showing that the ship is authorised to load grain (regulation 3(4));
3. the regulation dealing with the document of authorisation (regulation 4) is redrafted;
4. provision is made for the procedure to be followed when a ship which wishes to load grain does not have a document of authorisation (regulation 6); and

5. it is made an offence to load grain without a document of authorisation or other appropriate document or to arrive loaded without such document (regulation 4(5)).

The IMCO Resolutions referred to in regulations 3 and 4 are those Resolutions published by the International Maritime Organization. The 1981 Amendments to the 1974 Convention are contained in the IMO Publication "Amendments to the International Convention for the Safety of Life at Sea, 1974". (Sales Number 092 82.01.E). IMO publications can be obtained from IMO, 4 Albert Embankment, London SE1 7SR.

SI 1985/1217  
ISBN 0-11-057217-3

