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STATUTORY INSTRUMENTS

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**1975 No. 330**

**The Fishing Vessels (Safety Provisions) Rules 1975**

**PART II**

**FISHING VESSEL CONSTRUCTION RULES**

**B**

**WATERTIGHT INTEGRITY**

**Closing arrangements**

**3.** In every vessel of 12 metres in length and over to which these Rules apply the number of openings in the outer watertight structure of the vessel shall be as few as reasonably practicable and shall be provided with effective closing arrangements where required by the provisions of these Rules.

**Doors**

**4.** In every vessel of 12 metres in length and over to which these Rules apply doors fitted in the outer watertight structure shall be of substantial construction permanently and strongly attached to the bulkhead and so framed, stiffened and fitted that the whole structure of which they are part is of equivalent strength to the unpierced bulkhead. They shall be capable of being closed weathertight by means of gaskets and clamping arrangements or other equally effective means permanently attached to the bulkhead or to the door and arranged so that they may be operated from each side of the bulkhead.

**Hatchway covers**

**5.—(1)** Subject to paragraph (2) of this Rule, in every vessel of 12 metres in length and over to which these Rules apply where hatchway covers are constructed of wooden boards with waterproof covers—

- (a) the unsupported span of the wooden boards shall not exceed 1.5 metres;
- (b) the finished thickness of the wooden boards shall be not less than 4 millimetres for each 100 millimetres of unsupported span and the width of their bearing surfaces shall not be less than 65 millimetres, except that no wooden board shall have a finished thickness of less than 40 millimetres;
- (c) a waterproof cover of suitable material and of adequate strength shall be provided for every hatchway and be capable of being secured in place in accordance with sub-paragraphs (e) and (f) below;
- (d) where portable beams are provided to support hatchway covers the strength of such beams shall be calculated using the assumed static loads given in sub-paragraph (3)(a) below and the mechanical properties of the material used in the construction and such beams shall be of adequate strength for their intended service;

- (e) cleats shall be set to fit the taper of the wedges, spaced 600 millimetres centre to centre and at least 65 millimetres wide. The end cleats on each end or side shall be not more than 150 millimetres from the hatch corners;
- (f) an adequate number of battens and wedges of efficient pattern and in good condition shall be provided. The wedges shall be of tough wood or equivalent material cut to a taper of not more than 1 in 6 and shall not be less than 12 millimetres thick at the toes;
- (g) steel bars shall be provided to ensure that each section of the hatchway covers can be efficiently and independently secured after the waterproof covers have been battened down;
- (h) hatchway covers shall be permanently marked to indicate their correct position.

(2) In any such vessel less than 24.4 metres in length other arrangements equally effective to the requirements of sub-paragraphs (1)(c), (e), (f) and (g) of this Rule may be provided to maintain wooden hatch covers in position and secure them weathertight.

(3) In every vessel of 12 metres in length and over to which these Rules apply where hatchway covers are constructed of material other than wood:—

- (a) for the purpose of strength calculations it shall be assumed that such covers are subjected to the weight of cargo intended to be carried on them or to the following static loads whichever is the greater:—
  - (i) 1.0 tonne per square metre, where the length of the vessel is 24.4 metres or less;
  - (ii) 1.75 tonnes per square metre, where the length of the vessel is 100 metres or more.

For vessels of lengths more than 24.4 metres but not exceeding 100 metres the loads shall be determined by linear interpolation provided that where a hatchway is situated on the superstructure deck in a position abaft a point 0.25 of the Principal Length from the forward perpendicular, the assumed loads may be reduced to not less than 75% of the requirement of this paragraph;

- (b) where such covers are constructed of mild steel, the maximum stress calculated using the assumed static loads set out in sub-paragraph (a) above when multiplied by 4.25 shall not exceed the minimum ultimate strength of the material. Under these loads the deflections shall not be more than 0.0028 times the span;
- (c) every such cover constructed of material other than mild steel shall have strength and stiffness equivalent to those required in the case of a cover of mild steel;
- (d) every such cover shall be fitted with gaskets and clamping devices, or other equally effective arrangements, sufficient to ensure weather-tightness.

### **Machinery space openings**

6.—(1) In every vessel of 12 metres in length and over to which these Rules apply machinery space openings in exposed positions on the freeboard deck shall be properly framed and efficiently enclosed by casings of adequate strength and fitted with doors complying with the requirements of Rule 4 of these Rules.

(2) In every such vessel every such opening, other than a doorway provided in a casing, shall be fitted with covers of strength equivalent to the unpierced structure, and shall be permanently attached thereto and capable of being closed weathertight.

(3) In every such vessel where casings are not fitted the access openings to the machinery space shall be closed in accordance with the provisions of Rule 7(1) of these Rules.

### **Other deck openings**

7.—(1) In every vessel of 12 metres in length and over to which these Rules apply, flush deck scuttles of the screw, bayonet or equivalent type and manholes may be fitted where these are essential for fishing operations and shall be capable of being closed watertight and shall be permanently attached to the structure, provided that such scuttles and manholes may be effectively weathertight only when closed if their design, size and disposition is such that no danger is likely to result from the absence of complete watertightness.

(2) In every such vessel an efficient superstructure, deckhouse or companionway fitted with weathertight doors or other equally effective closing arrangements shall be provided to protect deck openings in the freeboard and superstructure decks other than hatchways, machinery space openings, manholes and flush scuttles.

### **Ventilators**

8. In every vessel of 12 metres in length and over to which these Rules apply coamings of ventilators shall be of substantial construction and capable of being closed weathertight by devices permanently attached to the ventilator or adjacent structure provided that, subject to the requirements of Rule 59(1), weathertight closing appliances need not be fitted to ventilators in which the coamings extend more than 4.5 metres above the freeboard deck or more than 2.3 metres above the superstructure deck and provided further that the requirements of this Rule shall not apply to vessels under 24.4 metres in length where the ventilators are fitted in the top of the casing or deckhouse and where such ventilators are positioned not more than one-fifth of the moulded breadth of the vessel from the centreline of the vessel and the lowest point at which water might gain access through the ventilator is not less than 1.5 metres above the freeboard deck.

### **Air pipes**

9. In every vessel of 12 metres in length and over to which these Rules apply where air pipes to tanks and other spaces below deck extend above the freeboard or superstructure decks the exposed parts of the pipes shall be of substantial construction. Exposed openings of air pipes shall be provided with efficient means of closing weathertight permanently attached to the pipe or adjacent structure. Provision shall be made to prevent excessive pressure on tank boundaries.

### **Side scuttles and skylights**

10.—(1) In every vessel of 12 metres in length and over to which these Rules apply side scuttles to spaces below the freeboard deck and to enclosed superstructures, deckhouses or companionways on the freeboard deck shall be fitted with hinged deadlights capable of being closed watertight.

(2) In every such vessel every side scuttle shall be fitted in a position such that its sill is above a line drawn parallel to the freeboard deck at side having its lowest point 1 metre above the highest load waterline.

(3) In every such vessel side scuttles, glasses and deadlights shall be of substantial construction.

(4) In every such vessel skylights leading to spaces below the freeboard deck shall be of substantial construction and capable of being closed and secured weathertight, and with provision for adequate means of closing in the event of damage to the inserts.

### **Side openings**

11. In every vessel of 12 metres in length and over to which these Rules apply the number of openings in the sides of the vessel below the freeboard deck shall be the minimum compatible with the design and proper working of the vessel and such openings shall be provided with closing

arrangements of adequate strength to ensure watertightness and the structural integrity of the surrounding structure.

### **Inlets, discharges, and scuppers other than deck scuppers**

**12.**—(1) In every vessel of 12 metres in length and over to which these Rules apply each discharge pipe leading through the hull from spaces below the freeboard deck or from within an enclosed superstructure or deckhouse on the freeboard deck shall have an automatic non-return valve and a positive means of closure from an accessible position except that the requirements of this paragraph shall not apply in those cases where the piping of the scupper or discharge pipe is of substantial thickness and where the entry of water into the vessel through the opening is not likely to lead to dangerous flooding.

(2) In manned machinery spaces in every such vessel controls for main and auxiliary machinery, sea inlets and discharges shall be readily accessible and be provided with indicators showing whether the valves are open or closed. In unmanned machinery spaces suitable warning devices shall be installed to indicate leakage of water into the space or leakage from any other system.

(3) In every such vessel valves and other fittings attached to the hull shall be of steel, bronze or other ductile material and pipes between the hull opening and the valve shall be of steel except that in positions elsewhere and in vessels constructed of materials other than steel, other materials may be used provided that they are suitable for their intended service.

### **Heights of hatchway coamings, doorways sills, ventilators and air pipes**

**13.**—(1) Subject to paragraph (2) of this Rule, in every vessel of 12 metres in length and over to which these Rules apply every hatchway on the freeboard deck shall have a coaming of substantial construction and the height of the coaming above the deck shall be not less than:—

- (a) 300 millimetres for vessels with Vessel Numerals up to and including 200;
- (b) 380 millimetres for vessels with Vessel Numerals above 200 but no more than 315;
- (c) 460 millimetres for vessels with Vessel Numerals above 315 but not more than 1400;
- (d) 600 millimetres for vessels with Vessel Numerals above 1400.

On superstructure decks the height of the coamings shall be not less than 300 millimetres.

(2) In any such vessel the height of hatch coamings specified in paragraph (1) above may be reduced, or the coamings omitted, where compliance with the requirements of paragraph (1) above is not reasonably practicable provided watertight hatch covers are fitted. Such covers shall be kept as small as reasonably practicable, be permanently attached by hinges or equivalent means and capable of being rapidly closed and battened down.

(3) In every such vessel the height of sills above the level of the deck in doorways provided in companionways, superstructures, deckhouses and machinery casings which give access to parts of the deck exposed to the weather and sea from spaces below the freeboard deck shall be not less than those specified for hatchway coamings in paragraph (1) above provided that the height of such sills above deck may be reduced where there is no direct access to spaces leading below the freeboard deck and where the deckhouse, superstructures or companionways on the freeboard deck are subdivided internally.

(4) In every such vessel the lowest point at which water might gain access through the air pipes shall be not less than 760 millimetres above the freeboard deck or not less than 450 millimetres above the superstructure deck, provided that these heights may be reduced where compliance with the requirements of this paragraph of these Rules is not reasonably practicable because of interference with fishing operations and provided adequate closing arrangements are fitted.

(5) On the freeboard deck of every such vessel the height above deck of ventilators, other than machinery space ventilators, shall be not less than 900 millimetres and on superstructure decks not less than 760 millimetres. The height of ventilators of machinery spaces shall be as high as is reasonable and practicable.

(6) In every such vessel the requirements of the preceding paragraphs of this Rule shall apply in relation to the heights of coamings, sills, air pipes and ventilators above an enclosed deck where water may accumulate and present a hazard to the vessel as they apply in relation to the heights of coamings, sills, air pipes and ventilators above the freeboard deck or superstructure deck as the case may be.

### Freeing ports

14.—(1) In every vessel of 12 metres in length and over to which these Rules apply where bulwarks on weather parts of the freeboard deck form wells, the minimum freeing port area in square metres (in this Rule referred to as “A”) on each side of the vessel for each well on the freeboard deck shall be determined in accordance with the following formula in relation to the length and height of the bulwark in the well (in this Rule referred to as “l” and “h” respectively) as follows:

$$A=(1.0+3.5\#h)\#l\times h100$$

l = length of the bulwark in metres.

h = mean height of the bulwark in metres.

Where side houses of superstructures fitted within the well contribute positive buoyancy to the vessel. A may be reduced except that, where such side houses or superstructures are discontinuous and provide pockets for the accumulation of water, no reduction shall be made.

(2) In any such vessel if the well is on a deck whose minimum height at side above the deepest operational waterline is equal to or greater than “R” metres, A may be multiplied by the factor “f” where:—

$$f=10.5\#(HR)(2.35R)$$

$$R=0.95\#+(L30)\#0.9(.95)$$

H = minimum height in metres measured from the deepest operational waterline to the lowest part of the deck at side upon which the well is formed.

L = registered length in metres.

In no case shall the factor “f” be less than 0.75.

(3) In any such vessel, A may include—

- (a) the area of those freeing ports with attached means of closing provided that the freeing ports shall only be closed during fishing operations; and
- (b) in stern trawlers the apertures in and under the stern doors.

(4) In every such vessel freeing ports shall be so arranged throughout the length of the bulwarks as to provide an effective means of freeing the deck of water. Lower edges of freeing ports shall be as near to the deck as is practicable. Freeing ports greater than 230 millimetres in depth shall be fitted with bars spaced not more than 230 millimetres apart or by other equivalent arrangements.

(5) In every such vessel the arrangements provided in the well for the stowage of equipment and the catch shall not impair the effectiveness of the freeing ports.

(6) In every such vessel intended to operate in zones where icing occurs the means of closing freeing ports when fitted shall be capable of being readily removed.