

## ANNEX 2

**RESOLUTION MSC.169(79)  
(adopted on 9 December 2004)****STANDARDS FOR OWNERS' INSPECTION AND MAINTENANCE OF  
BULK CARRIER HATCH COVERS**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO SOLAS chapter XII on Additional safety measures for bulk carriers, which the 1997 SOLAS Conference adopted with the aim of enhancing the safety of ships carrying solid bulk cargoes,

RECALLING FURTHER that, having recognized the need to further improve the safety of bulk carriers in all aspects of their design, construction, equipment and operation, it examined the results of various formal safety assessment (FSA) studies on bulk carrier safety,

RECOGNIZING that, on the basis of the outcome of the aforementioned FSA studies, replacing hatch covers in existing bulk carriers would not be cost-effective and that, instead, more attention should be paid to hatch cover securing mechanisms and the issue of horizontal loads, especially with regard to maintenance and frequency of inspection,

RECALLING that, at its seventy-seventh session, in approving MSC/Circ.1071 – Guidelines for bulk carrier hatch cover surveys and owners' inspections and maintenance, it invited Member Governments to ensure that companies, as defined in the ISM Code, that operate bulk carriers flying their flag are made aware of the need to implement regular maintenance and inspection procedures for hatch cover closing mechanisms in existing bulk carriers in order to ensure proper operation and efficiency at all times,

NOTING resolution MSC.170(79) by which it adopted, *inter alia*, amendments to regulation XII/7 (Survey and maintenance of bulk carriers) of the Convention, where reference is made to mandatory Standards for owners' inspection and maintenance of bulk carrier hatch covers,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Ship Design and Equipment at its forty-seventh session,

1. ADOPTS, for the purposes of the application of regulation XII/7 of the Convention, the Standards for owners' inspection and maintenance of bulk carrier hatch covers, set out in the Annex to the present resolution;

2. INVITES Contracting Governments to the Convention to note that the annexed Standards will take effect on 1 July 2006 upon the entry into force of the revised chapter XII of the Convention;

3. REQUESTS the Secretary-General to transmit certified copies of this resolution and the text of the annexed Standards to all Contracting Governments to the Convention;

4. FURTHER REQUESTS the Secretary-General to transmit certified copies of this resolution and the text of the annexed Standards to all Members of the Organization which are not Contracting Governments to the Convention.

## ANNEX

### **STANDARDS FOR OWNERS' INSPECTION AND MAINTENANCE OF BULK CARRIER HATCH COVERS**

#### **1 Application**

These Standards define requirements for the owners' inspection and maintenance of cargo hatch covers on board bulk carriers.

#### **2 Maintenance of hatch covers and hatch opening, closing, securing and sealing systems**

##### 2.1 Lack of weathertightness may be attributed to:

- .1 normal wear and tear of the hatch cover system: deformation of the hatch coaming or cover due to impact; wear of the friction pads where fitted; wear and tear of the cleating arrangement; or
- .2 lack of maintenance: corrosion of plating and stiffeners due to breakdown of coatings; lack of lubrication of moving parts; cleats, joint gaskets and rubber pads in need of replacement, or replaced with incorrect specification parts.

2.2 Insecure hatch covers may be particularly attributed to damage or wear of securing devices, or incorrect adjustment, and incorrect pre-tension and load sharing, of cleating systems.

2.3 Ship owners and operators shall therefore institute a programme of maintenance. This maintenance shall be directed to:

- .1 protecting exposed surfaces of plating and stiffeners of hatch covers and coamings in order to preserve overall structural strength;
- .2 preserving the surface of trackways of rolling covers, and of compression bars and other steel work bearing on seals or friction pads, noting that surface smoothness and correct profile are important for reducing wear rates on these components;
- .3 maintaining hydraulic or mechanically powered opening, closing, securing or cleating systems in accordance with manufacturer's recommendations;
- .4 maintaining manual cleats in adjustment, with replacement when significant wastage, wear or loss of adjustment capability is identified;
- .5 replacing seals and other wear components in accordance with manufacturers' recommendations, noting the need to carry on board or obtain such spares of correct specification, and that seals are designed for a particular degree of compression, hardness, chemical and wear resistance; and

- .6 keeping all hatch cover drains and their non-return valves, where fitted, in working order, noting that any drains fitted to the inboard side of seal lines will have non-return valves for prevention of water ingress to holds in the event of boarding seas.

2.4 The equalization of securing loads shall be maintained following the renewal of components such as seals, rubber washers, peripheral and cross joint cleats.

2.5 Ship owners and operators shall keep a Maintenance Plan and a record of maintenance and component replacement carried out, in order to facilitate maintenance planning and statutory surveys by the Administration. Hatch cover maintenance plans shall form part of a ship's safety management system as referred to in the ISM Code.

2.6 Where the range of cargoes carried requires different gasket materials, a selection of gasket materials of the correct specifications shall be carried on board, in addition to other spares.

2.7 At each operation of a hatch cover, the cover and, in particular, bearing surfaces and drainage channels shall be free of debris and as clean as practicable.

2.8 Attention is drawn to the dangers of proceeding to sea without fully secured hatch covers. Securing of all covers shall always be completed before the commencement of a sea passage. During voyages, especially on loaded passages, cover securing devices and tightness of cleating and securing arrangements shall be checked, especially in anticipation of, and following periods of, severe weather. Hatch covers may only be opened on passage, when necessary, during favourable sea and weather conditions; imminent weather forecasts shall also be considered.

2.9 Operators shall consult the Cargo Securing Manual when planning the loading of containers or other cargo on hatch covers and confirm that they are designed and approved for such loads. Lashings shall not be secured to the covers or coamings unless these are suitable to withstand the lashing forces.

### **3 Inspection of hatch covers and hatch opening, closing, securing and sealing systems**

3.1 Statutory surveys of hatch covers and their coamings are carried out by the Administration as part of the annual survey required by article 14 of the International Convention on Load Lines, 1966, as modified by the 1988 Protocol relating thereto and in accordance with the requirements for Enhanced Surveys contained in resolution A.744(18), as amended. However, the continued safe operation is dependent on the shipowner or operator instituting a regular programme of inspections to confirm the state of the hatch covers in between surveys.

3.2 Routines shall be established to perform checks during the voyage, and inspections when the hatch covers are opened.

3.3 Voyage checks shall consist of an external examination of the closed hatch covers and securing arrangements in anticipation of, and after, heavy weather but in any event at least once a week, weather permitting. Particular attention shall be paid to the condition of hatch covers in the forward 25% of the ship's length, where sea loads are normally greatest.

3.4 The following items, where provided, shall be inspected for each hatch cover set when the hatch covers are opened or are otherwise accessible on each voyage cycle, but need not be inspected more frequently than once per month:

- .1 hatch cover panels, including side plates, and stiffener attachments of opened covers for visible corrosion, cracks or deformation;
- .2 sealing arrangements of perimeter and cross joints (gaskets, flexible seals on combination carriers, gasket lips, compression bars, drainage channels and non-return valves) for condition and permanent deformation;
- .3 clamping devices, retaining bars and cleating for wastage, adjustment, and condition of rubber components;
- .4 closed cover locating devices for distortion and attachment;
- .5 chain or wire rope pulleys;
- .6 guides;
- .7 guide rails and track wheels;
- .8 stoppers;
- .9 wires, chains, tensioners and gypsies;
- .10 hydraulic system, electrical safety devices and interlocks; and
- .11 end and inter-panel hinges, pins and stools where fitted.

As part of this inspection, the coamings with their plating, stiffeners and brackets shall be checked at each hatchway for visible corrosion, cracks and deformation, especially of the coaming tops and corners, adjacent deck plating and brackets.

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