

SUB-COMMITTEE ON SHIP SYSTEMS AND
EQUIPMENT
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Agenda item 10

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**REQUIREMENTS FOR ONBOARD LIFTING APPLIANCES
AND ANCHOR HANDLING WINCHES**

**Comments on the report of the Correspondence Group on Onboard Lifting Appliances
and Anchor Handling Winches**

Submitted by IACS

SUMMARY

Executive summary: This document provides comments on the report of the Correspondence Group on Onboard Lifting Appliances and Anchor Handling Winches (SSE 5/10)

Strategic direction:

High-level action:

Output: OW 34

Action to be taken: Paragraph 17

Related document: SSE 5/10

Background

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5) and comments on the report of the Correspondence Group on Onboard Lifting Appliances and Anchor Handling Winches (SSE 5/10).

2 IACS participated in the work of the Correspondence Group and would like to thank the coordinator and the other participants for the constructive discussions. However, IACS does have some concerns with the proposed texts set out in the annexes to document SSE 5/10 (annex 1, hereafter referred to as the "draft SOLAS amendments"; and annex 2, hereafter referred to as the "draft guidelines"), as discussed below.

Discussion

3 In the draft SOLAS amendments, the proposed regulation II-1/3-13.1.2.2 limits the application "to lifting appliances used for raising and lowering [pontoon type] hold hatch covers". This limitation was not fully discussed in the Correspondence Group and IACS is of the view that such a restriction should not be included. The limitation of the application of the regulation to the raising and lowering of pontoon type hatch covers would only mean that lifting appliances raising and lowering other types of hatch covers would not be regulated. To address this issue IACS suggests adding "mechanically operated hatch covers, which undergo any raising and lowering operation using integrated mechanical equipment", to the list of non-applicable systems in regulation II-1/3-13.1.3, so there would be no ambiguity arising if the phrase "pontoon type" in paragraph 1.2.2 of said regulation were to be deleted.

4 IACS understands that there are different types of thorough examination, inspection and testing. These may include:

- .1 inspections conducted by the ship's crew members immediately prior to using the equipment or after routine maintenance;
- .2 thorough examinations conducted by surveyors at the time of installation or at annual/periodic intervals; and
- .3 load and functional testing carried out by the ship's crew members/authorized personnel after installation, after major repairs or at periodic intervals.

In this regard, IACS would recommend that the regulations and associated guidelines be clear on which type of thorough examination, inspection or testing is being referenced.

5 In order to place additional emphasis on thorough examination and testing, IACS proposes to amend regulation II-1/3-13.5 of the draft SOLAS amendments, in particular, subparagraphs .1, .2 and .5, as follows (additions/deletions):

"5 Regulations [Requirements]

Onboard lifting appliances and anchor handling winches [and loose gears] shall comply with the following requirements*:

[In order to comply with the functional requirements of paragraphs 4.1 to 4.7, the following apply:]

- .1 onboard lifting appliances and anchor handling winches are [to be] designed, constructed, and installed, tested and thoroughly examined in accordance with requirements of a classification society which is recognized by the Administration in accordance with the provisions of regulation XI-1/1, or with applicable national standards which provide an equivalent level of safety and are acceptable to the Administration;
- .2 onboard lifting appliances and anchor handling winches are [to be] tested and thoroughly examined before being taken into use for the first time or after any major repairs, alterations or modifications, or at periodic intervals, as required by the Administration; [~~inspected [surveyed] and tested [in suitable condition] for their intended purpose~~] [~~to be inspected and appropriately tested for their intended purpose~~], taking into account any restrictions related to safe loading;

~~[onboard lifting appliances and anchor handling winches are inspected [surveyed] and tested in accordance with Section 3.3 of the [draft] Guidelines to confirm that they are in, or remain in, a suitable condition for their intended purpose and SWL;]~~

....

.5 every item of loose gear is [to be] [inspected [surveyed] and proof tested and thoroughly examined before being taken into use for the first time or after any major repairs, alterations or modifications. Every item of loose gear is further to be thoroughly examined at periodic intervals, as required by the Administration. [in suitable condition] for their intended purpose] [to be inspected and appropriately tested for their intended purpose], taking into account any restrictions related to safe loading;

~~[loose gear is inspected [surveyed] and tested in accordance with Section 3.3 of the [draft] Guidelines (a sentence will need to be added here as loose gear is currently not referred to in 3.3) to confirm that they are in, or remain in, a suitable condition for their intended purpose and load rating;]~~

6 Section 3.2 of the draft guidelines addresses routine maintenance. IACS recommends changing the title of this section to "Maintenance and inspection by the ship's crew". IACS also recommends including a section on inspection and testing prior to use.

7 In the view of IACS, regulation II-1/2 of the draft SOLAS amendments and paragraph 2 of the draft guidelines need to be developed further in order to include the definitions of key terms. These should include the definitions for terms such as "Thorough examination", "Inspection" and "Safe Working Load".

8 Regarding the definition of the term "Lifting appliance" provided in regulation II-1/2.1.[31] of the draft SOLAS amendments, IACS prefers to use the term "ship's equipment". This regulation would then read:

"Lifting appliance means any ship's equipment installed on board a ship used for suspending, raising..."

9 Paragraph 68.1 of document SSE 5/10 requests the Sub-Committee to decide on whether a list of inclusions with some exclusions, or a list of exclusions, is used. IACS prefers to use a list of inclusions with some exclusions.

10 With reference to paragraph 16 of document SSE 5/10, IACS supports the inclusion of "cranes used for the handling of personnel" within the scope of the regulations, irrespective of whether the crane is solely or occasionally used for handling personnel. IACS notes that this is a critical application and that general purpose cranes such as cargo cranes are increasingly being used for handling personnel. However, IACS notes that there was a general consensus in the Correspondence Group to exclude "personnel lifts/elevators" from the scope of the regulations. In this context, appropriate regulations will be needed to cover the requirements when lifting appliances are used for the handling of personnel.

11 The definition of "Repairs, alterations or modifications of a major character" in regulation II-1/2.1.[34] of the draft SOLAS amendments does not appear to align well either with the paragraph on repairs or modifications in regulation II-1/3-13.2.2, or with paragraph 3.3.1.1 of the draft guidelines. IACS notes that this definition was not discussed in the Correspondence Group. In the view of IACS, this definition is too long and appears to describe multiple scenarios rather than defining terminology. IACS recommends deleting this definition and moving the

existing text in draft regulation II-1/2.1.(34) to draft regulation II-1/3-13.2.2. Thereafter, the text under these two draft regulations could be combined so that they align with each other, as well as with paragraph 3.3.1.1 of the draft guidelines.

12 Regarding the draft SOLAS amendments, the reference to paragraph 3-1.3.5 in the proposed regulation II-1/3-13.2.3 appears to be incorrect. IACS requests confirmation that the correct reference is paragraph 3-13.5, i.e. all the requirements in "section 5" of regulation 3-13. Also, the term "re-certification" in the second sentence of regulation II-1/3-13.2.3 would not be appropriate for cases when the lifting appliance or anchor handling winch was not initially certified. In such cases, this would be a "new" certification, rather than a re-certification. IACS further notes that draft SOLAS regulation II-1/3-13.2.3 requires existing lifting appliances or anchor handling winches to be certified. However, in reviewing the draft SOLAS amendments, IACS is unable to locate any requirements regarding the certification of new construction lifting appliances or anchor handling winches. IACS recommends addressing this issue in regulation II-1/3-13.5.1 or some other appropriate paragraph of the draft SOLAS amendments.

13 Regarding the draft SOLAS amendments, regulations II-1/3-13.1.2 and II-1/3-13.1.3 provide a list of inclusions and exclusions, which, having read regulation II-1/3-13.1.1, appears to apply only to new construction lifting appliances or anchor handling winches. In the view of IACS, it is not clear as to how this list of inclusions and exclusions would apply to existing equipment. For existing lifting appliances or anchor handling winches, regulation II-1/3-13.2.1 appears to cover all types of appliances or winches above a threshold safe working load (1,000 kg or 500 kg); therefore, IACS recommends that the list of inclusions and exclusions in draft regulations II-1/3-13.1.2 and II-1/3-13.1.3 be appropriately referenced by regulation II-1/3-13.2.1.

14 Regarding the draft SOLAS amendments, IACS notes that the acronym "OLAW" in regulation II-1/3-13.4.1 has not been defined. IACS recommends that all acronyms used in the draft SOLAS amendments be clearly defined.

15 With reference to the draft guidelines, IACS notes that paragraph 3.1.1.2 was added without any discussion in the Correspondence Group. This paragraph appears to be a detailed technical requirement on single failures of piping, electrical systems or their associated components. The rest of section 3.1 of the draft guidelines does not state other detailed technical requirements for lifting appliances, since the understanding is that the detailed technical requirements should be covered by the requirements of a classification society or industry standards (see section 3.1 of the draft guidelines). Such requirements and standards would address a single failure, as well as the fail-safe criteria for lifting appliances. Furthermore, paragraph 3.1.1.2 selectively addresses certain aspects and is not comprehensive, e.g. whereas the last sentence requires means to be provided for lowering the load, in some cases, emergency means may also be needed for luffing the load in board in case it is suspended over the side of the ship. Therefore, IACS recommends deleting paragraph 3.1.1.2 or amending it as follows (additions/deletions):

[3.1.1.2 ~~Power-operated~~ Lifting appliances should be designed in such a way that a single failure ~~occurring to a pump, motor, control device, power supply or pressure circuits~~ does not cause the fall of the load or a loss of control of the appliance which poses an immediate danger to the operator or the personnel on board. ~~In particular, in the event of a loss of power or in the event of a rupture of a pressurized fluid line, the lifting appliances shall be equipped with automatic devices to keep them in position. In the latter case, appropriate means should be provided to lower the load by controlling the speed of descent.~~]

16 Regarding the draft guidelines, IACS notes that the requirements for "Anchor handling winches" (section 4) have a more detailed technical requirements than those for "Onboard lifting appliances" (section 3). This appears to make the package of measures uneven. The various subsections under section 4.1 cover a host of issues such as tension control, spooling devices and emergency release. In the view of IACS, there is no need to go into such detail in the guidelines, since the detailed requirements would be addressed in the requirements of a classification society or industry standards (see subsection 4.1.1 of the draft guidelines). Therefore, IACS recommends deleting these detailed requirements in section 4.1.

Action requested of the Sub-Committee

17 The Sub-Committee is invited to consider the foregoing comments and proposals related to the Correspondence Group report and take action as appropriate.
