

SUB-COMMITTEE ON SHIP DESIGN AND
CONSTRUCTION
6th session
Agenda item 3

SDC 6/3/4
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**REVISED SOLAS REGULATION II-1/3-8 AND ASSOCIATED GUIDELINES
(MSC.1/CIRC.1175) AND NEW GUIDELINES FOR SAFE MOORING
OPERATIONS FOR ALL SHIPS**

Comments on the report of the Correspondence Group

Submitted by IACS

SUMMARY

Executive summary: This document comments on the report of the Correspondence Group on Safe Mooring Operations (SDC 6/3) with respect to facilitating the global and consistent implementation of the draft revised SOLAS regulation II-1/3-8

Strategic direction, if applicable: Other work

Output: OW 31

Action to be taken: Paragraph 7

Related document: SDC 6/3

Introduction

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/Rev.1) and provides comments on the report of the Correspondence Group on Safe Mooring Operations, as provided in document SDC 6/3 (Japan).

2 IACS has reviewed the draft guidelines on the design of mooring arrangements and the selection of appropriate mooring equipment and fittings for safe mooring (SDC 6/3, annex 1), in particular with respect to facilitating the consistent and global implementation of the draft revised SOLAS regulation II-1/3-8.7.

Discussion

3 IACS has identified the following provisions in the draft guidelines which are considered to be in need of clarification in order to facilitate their global and consistent implementation:

.1 Paragraphs 5.1.2.2 and 5.1.2.3:

"Where a straight lead (authors note: of a mooring line) is not possible:

[...]

.2 the leads should minimize the distance the line traverses the mooring area from winch to the fairlead; and

.3 the need for frequent changes of direction of mooring line is minimized to prevent reductions in mooring line strength due to bend loss and introduction of complex snap-back areas."

.2 Paragraphs 5.1.10.1 and 5.1.10.5:

"The mooring arrangements should be designed to minimize the exposure of the shipboard personnel to lines under tension through snap back or sudden movements of mooring lines. In this respect the following measures should be considered:

.1 locate, as far as possible, winches close to shipside fairleads. The position of winches should not result in inappropriate mooring line orientations, or block or otherwise interfere with the use of shipside fairleads for additional mooring lines, connecting up of tugs for towage during mooring operations or the ability to safely moor the ship;

[...]

.5 mooring lines as far as reasonably practicable are permanently fixed to a mooring winch[.]; or]

[...]"

.3 Paragraph 5.1.11.1:

"To minimize the need for manual handling of towing and mooring lines, the following measures should be considered:

.1 equipment and fitting arrangements should minimize the distance over which any mooring line may need to be handled;

[...]"

.4 Paragraphs 5.2.1.1 and 5.2.1.3:

"The selection of winches should take into account:

- .1 the availability of winches with alternative drum arrangements, including split drum arrangements, which can reduce the need for manual handling of mooring lines during mooring operations;

[...]

- .3 the availability of constant tension winches and their appropriateness for the normal operation of the ship; and

[...]"

4 The provisions quoted in paragraph 3 above include terms such as "minimize", "as far as possible" or "as far as reasonably practicable". IACS is of the view that these terms require clarification. However, the development of prescriptive requirements to facilitate the uniform implementation of these provisions is not considered to be appropriate, recognizing their application to a large variety of ship types and sizes and the need to retain flexibility of the solutions that designers may identify.

5 IACS has identified the following further provisions in the draft guidelines which are considered to be clarified in order to facilitate their uniform implementation, but without additional prescriptive requirements being developed:

.1 Paragraph 5.1.7:

"Deck illumination should provide a clear view of the mooring deck and the equipment and lines being worked during hours of darkness or in conditions of limited visibility."

.2 Paragraph 5.1.9:

"Unless the size and special features of the ship do not permit it, equipment and fittings in mooring areas should be positioned to provide mooring personnel with unobstructed access to the following during mooring operations:

- .1 mooring winches and winch controls;
- .2 mooring fittings;
- .3 mooring lines and mooring line stowage; and
- .4 the space between shipside fairleads and winches to permit mooring personnel to safely apply stoppers to mooring lines when necessary."

.3 Paragraphs 5.1.11.6:

"To minimize the need for manual handling of towing and mooring lines, the following measures should be considered:

[...]

- .6 a sufficient number of mooring winches so that, during mooring operations, manual use of warping ends, stoppers, capstans and bitts is minimized, as far as possible."
- .4 Paragraph 5.2.1.4:
 "The selection of winches should take into account:
 [...]
 .4 limiting noise levels to ensure proper communication during mooring operations"
- .5 Paragraphs 5.2.3.5 to 5.2.3.7:
 "The selection of mooring lines should take into account:
 [...]
 .5 the characteristics and limitations of mooring lines including material properties and environmental operating conditions anticipated during normal operation of the ship;
 .6 the anticipated behaviour of the mooring line in the event of failure;
 .7 the influence on stored energy and the potential for snap-back of high stiffness mooring lines caused by the use of tails; and
 [...]"

6 Paragraph 31 of document SDC 6/3 considers consequential amendments that may be required to the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), to support draft new SOLAS regulation II-1/3-8.7. Inter alia, the following additional initial survey provision for new ships is proposed:

"Examining drawings and checking the installation and position of mooring equipment and fittings on mooring areas to confirm that the ship is provided with mooring arrangements based on the requirement in resolution MSC.[XXX(YY)] (SOLAS regulation II-1/3-8.7)".

In view of the above and the comments provided in paragraphs 3 to 5 above, IACS would like to emphasize the need to discuss and decide on how, either the draft new SOLAS regulation II-1/3-8.7 and the supporting guidance could be revised to facilitate their global and consistent implementation; or the HSSC survey guidelines could be revised to provide for examination of drawings only regarding parts of the guidelines that allow for uniform implementation. IACS prefers the latter proposal rather than adding more prescriptive content to the draft guidelines.

Action requested of the Sub-Committee

7 The Sub-Committee is invited to consider the comments on the Correspondence Group's report in paragraphs 3 to 6 above and take action, as appropriate.