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UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY AND ENVIRONMENT-RELATED CONVENTIONS

Proposal for a unified interpretation relating to level gauges with self-closing valves for oil tanks in passenger ships under the SOLAS Convention

Submitted by IACS

SUMMARY

Executive summary:	This document proposes a unified interpretation of SOLAS regulation II-2/4.2.2.3.5.2.1 regarding acceptable equivalent arrangements.
Strategic direction, if applicable:	7
Output:	7.1
Action to be taken:	Paragraph 9
Related documents:	None

Introduction

1 IACS recognizes that while the requirement of SOLAS regulation II-2/4.2.2.3.5 regarding safe and efficient means of ascertaining the amount of oil fuel contained in any oil fuel tank set forth in SOLAS is clear, it is mainly set for fuel oil and does not distinguish between types of oil (i.e. hydraulic and lubrication oil), location and/or size of relevant tanks.

2 SOLAS regulations II-2/4.2.3.1 and II-2/4.2.4 mention other flammable oils and make references to SOLAS regulation II-2/4.2.2.3.5 which in fact is related to fuel oil, without offering specific consideration for SOLAS regulation II-2/4.2.2.3.5.2.1 when applied to other flammable oil.

3 Based on industry practice and existing arrangements on board, it has been noted that for expansion tanks and other smaller tanks outside the engine room, arrangements with flat magnetic level gauges with self-closing valves have been used to a large degree.

Discussion

4 Since SOLAS regulation II-2/4.2.2.3.4 accepts fuel oil tanks in the engine room with volumes less than 500 l capacity without quick closing valves, IACS considers that SOLAS already offers specific consideration with respect to spills from such tanks. The same consideration is given in SOLAS regulation II-2/4.2.3.2 for lubricating oil tanks having capacity less than 500 l. These specific considerations apply for both passenger ships and cargo ships.

5 It is acknowledged that spills of flammable oils represent a fire risk, however hydraulic oils and especially lubrication oils have much higher flash points than fuel oils. Hence, IACS considers that the risk of ignition in case of such oil spills is lower compared to fuel oil spills.

6 According to SOLAS regulation II-2/4.2.2.3.5.2.1, gauges shall not require penetration below the top of the tank. This requirement addresses the risk of oil release into the space resulting from a mechanical damage to the gauge arrangement. IACS is of the view that this concern may be addressed in an equivalent way by providing mechanical protection. Expansion tanks often used on board, for example for thrusters, are situated high above the floor, where they are normally protected against mechanical damage.

7 Taking into account the above discussion and permitted use of oil-level gauges with flat glasses and self-closing valves by SOLAS regulation II-2/4.2.2.3.5.2.2, IACS is of the view that equivalent arrangements based on SOLAS regulation II-2/4.2.2.3.5.2.2 for cargo ships will maintain the safety level also for passenger ships under the following conditions:

.1 the tank is for hydraulic or lubrication oil;

.2 the tank is located outside the engine room;

.3 the tank is of less than 500 l capacity; and

.4 the gauging arrangement is protected from mechanical damage.

Proposal

8 To reflect the above understanding, IACS proposes an interpretation of SOLAS regulation II-2/4.2.2.3.5.2.1 contained in the annex, for consideration of the Sub-Committee.

Action requested of the Sub-Committee

9 The Sub-Committee is invited to consider the foregoing, the proposal in paragraph 8 and an interpretation provided in the annex, and take action as appropriate.

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ANNEX

PROPOSED INTERPRETATION REGARDING LEVEL GAUGES FOR OIL TANKS IN PASSENGER SHIPS

SOLAS regulation II-2/4.2.2.3.5.2.1 reads as follows:

"2.2.3.5.2 Other oil-level gauges may be used in place of sounding pipes subject to the following conditions:

.1 in passenger ships, such gauges shall not require penetration below the top of the tank and their failure or overfilling of the tanks shall not permit release of fuel; and…"

Interpretation

In passenger ships, a tank containing hydraulic or lubrication oil located in machinery space other than category A may be permitted to be installed with sounding arrangements requiring penetrations below top of tank, such as flat glass type gauges or magnetic level indicators, provided the following conditions are met:

.1 the tank is of less than 500 l capacity, and

.2 the arrangement is fitted with self-closing valves between the gauges and tank penetrations, and is protected against mechanical damage.