

ESCAPE FROM MACHINERY SPACES OF CATEGORY A

This Regulatory News provides an update and guidance on the latest developments regarding the arrangements for the emergency escape trunk from Category A machinery spaces.

BACKGROUND

SOLAS regulations II-2/13.4.1 and 13.4.2 specify the requirements for the means of escape from machinery spaces on passenger and cargo ships, respectively. Those regulations require one of the two means of escape from machinery spaces to be located inside a protected enclosure from the "lower part of the space".

The term "lower part" refers to the protected enclosure but is not explicitly defined in the SOLAS regulations. In this context, IACS proposed a unified interpretation, which was approved by the IMO Maritime Safety Committee during its 95th session in June 2015. This unified interpretation was released as MSC.1/Circ.1511 and applies to vessels with a keel laying date on or after January 1, 2016. The document specifies the "lower part" as the "lowest deck level, platform, or passageway within the space."

To be noted that the IACS unified interpretations, SC 277 for cargo ships and SC 276 for passenger ships, provide the same clarification for vessels contracted for construction on or after February 1, 2016. Specifically, they state that the term "lower part of the space it serves" should be understood as referring to "the lowest deck level, platform, or passageway within that space."

KEY NOTES

Application:

- Passenger and cargo ships above 500GT

References:

- SOLAS regulations II-2/13.4.1 and 13.4.2
- MSC.1/Circ.1511 - Unified Interpretations of SOLAS Regulations II-2/9 and 13
- IACS SC 277 - Escape from machinery spaces on cargo ships
- IACS SC 276 - Escape from machinery spaces on passenger ships

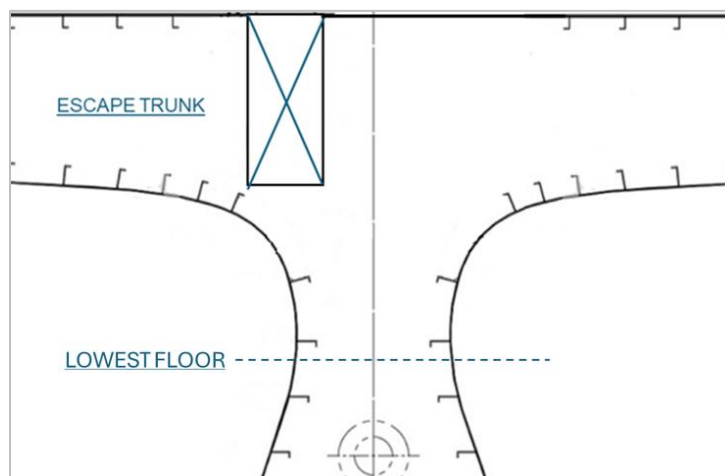


Figure 1 : Example of structural restrictions and the geometry of the shell line that prevents the escape trunk from extending from the lowest floor of the engine room

THE ISSUE AND INVOLVED PARTIES

Industry Practice

Due to hull form restrictions and/or aft end structure optimization in the design of the machinery space on certain ships, it is not technically feasible to provide access to the protected emergency escape trunk from the absolute lowest deck level to a safe position outside.

For such arrangements, industry practice dictates that access to the protected enclosure is provided by an inclined steel ladder or stairway with an inclination not exceeding 60°. The clear width must be no less than 600 mm and shall comply with SOLAS regulation II-2/13.4.1.5. Such ladder or stairway commonly has a vertical height ranging from 1 to 2.5 meters. This design aims to provide safe and quick passage to the protected enclosure in the event of an emergency.

PSC Authorities

Due to varying interpretations, there has been a noticeable rise in the number of vessels with these arrangements being targeted and, in some cases, detained. This occurrence stems from claims that they do not meet the requirements of the unified interpretation, which states that the term applies only to the lowest deck, platform, or passageway, whichever is the lowest.

Detentions can occur following unsatisfactory drill performance. In most cases, the drill involves a combined fire and evacuation scenario. If the drill does not meet the satisfaction of the Port State Control (PSC) authority, the vessel is detained. It is worth noting that these detentions included vessels that had already received agreement or acceptance from the flag Administration regarding the as-built arrangement of the escape trunk. Ships have been released under the condition to either undergo modifications during their next dry docking or after PSC accepted that no modifications are feasible and was satisfied with the evacuation drill.

Flag Administration

A detailed technical engineering statement is required to justify why the emergency escape trunk cannot be extended to the lowest deck, platform, or passageway in its current as-built location. This statement must be officially accepted by the flag Administration to facilitate the release of the vessels by the Port State Control (PSC) authority. Additionally, the process includes comprehensive evacuation procedures outlined in the vessel's Safety Management System (SMS), crew training, regular drills, and an efficient drill conducted in the presence of the PSC Authority.

RECENT DISCUSSIONS AT IMO

In January 2025, the IMO Sub-Committee on Ship Design and Construction (SDC) held its 11th session, during which IACS submitted a proposal regarding regulations SOLAS II-2/13.4.1 and 13.4.2. This proposal aimed to clarify the term "lower part" in relation to escape routes from areas below the bulkhead deck by revising MSC.1/Circ.1511 to define "lower part" as the lowest deck level or any working platform up to 2.3 meters above it.

However, during the Sub-Committee's discussions, there was concern that the 2.3 meters might be considered "too prescriptive," potentially adding requirements beyond the current regulations. Despite these concerns, many delegations at SDC 11 concluded that the "lower part" of the space should encompass the lowest deck level, a platform, or a passageway. They stressed that the Unified Interpretation was not intended to be understood as "whichever is lowest" among the lowest deck level, platform, or passageway but be regarded as either of those. The IMO SDC 11 emphasized that the flag State should retain the authority to determine escape arrangements based on specific assessments of the ship. Additionally, the discussion raised concerns about Port State Control (PSC) inspections, where ships have been detained due to differing interpretations of escape arrangements. SDC 11 agreed that PSC officials should respect the approvals from flag States and

refrain from imposing their interpretations (reference par. 6.1 of Appendix 6 of Res. A.1185(33) - Procedures for Port State Control).

For future consideration, the decision made by the SDC 11, which states that local PSC officers should refrain from providing their own interpretations, is anticipated to be reaffirmed by the IMO Sub-Committee on Implementation of IMO Instruments (III 11) in July 2025, along with the need for issuance of associated guidance to harmonize PSC activities.

GENERAL RECOMMENDATIONS

A. Ships with a keel laying date on or after January 1, 2016 or/and contracted for construction on or after February 1, 2016

- The emergency escape trunk should be extended to the lowest part of the space following SOLAS regulation II-2/13, IACS UI SC276 & SC277, and where the flag Administration has incorporated MSC.1/Circ.1511 into its regulatory compliance scheme.
- If this extension of the emergency escape trunk is not technically feasible, a detailed technical engineering statement is required to justify why the emergency escape trunk cannot be extended solely to the lowest deck, platform, or passageway. This statement must receive official acceptance from the flag Administration
- The technical justification statement from ABS Engineering, supporting the claim that extending the emergency escape trunk further below its as-built position is not feasible, must be available onboard, along with acceptance from the flag Administration.
- Based on the latest developments, the following actions are advised:
 - a. Comprehensive evacuation procedures to be outlined in the vessel's SMS. For example, drill plans for escaping and evacuating from the bottom of the machinery space into the escape trunk are included in the SMS. It is suggested that the plans also incorporate provisions for using a stretcher, trolley, or other means to facilitate the emergency recovery of individuals located near the emergency escape trunk.
 - b. Crew training to be conducted and properly documented according to the procedures included in the SMS.
 - c. Regular drills utilizing personal protective equipment (PPE) are conducted in accordance with the relevant evacuation procedures in SMS to ensure preparedness and documented in ship's records.

B. Ships not falling under the previous paragraph

- As there have been reported cases of intervention to vessels built before January 1, or February 1, 2016, the following measures are advised:
 - a. Flag Administration be contacted to confirm acceptance of the emergency escape trunk as-built arrangement.
 - b. Comprehensive evacuation procedures to be outlined in the vessel's SMS.
 - c. Crew training to be conducted and properly documented according to the procedures included in the SMS.
 - d. Regular drills are conducted to ensure preparedness and documented in ship's records.

REFERENCES

Document	Title
SOLAS Convention	Regulations II-2/13.4.1 and 13.4.2
MSC.1/Circ.1511	Unified Interpretations of SOLAS Regulations II-2/9 and 13
IACS SC 276	Escape from machinery spaces on passenger ships
IACS SC 277	Escape from machinery spaces on cargo ships
Res. A.1185(33)	Procedures for Port State Control
ABS Brief	SDC 11

WORLD HEADQUARTERS

1701 City Plaza Drive | Spring, TX 77389 USA

P 1-281-877-6000 | F 1-281-877-5976

ABS-WorldHQ@eagle.org

www.eagle.org

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