

SC 305 Single essential propulsion components and their reliability

(Dec 2024)

Interpretation of SOLAS regulation II-1/26.2

SOLAS regulation II-1/26.2 states reads as follows:

“The Administration shall give special consideration to the reliability of single essential propulsion components and may require a separate source of propulsion power sufficient to give the ship a navigable speed, especially in the case of unconventional arrangements.”

Interpretation

1 The possibility of failures in electric machines shall be considered. Sufficient propulsion capacity shall be maintained or restored within due time for the following failure modes of electric machines, as a minimum:

.1 winding insulation failures; and

.2 excitation failures.

2 Single electric propulsion motors (both single and dual winding with a single rotor) for main propulsion shall not be considered to provide the reliability required for a single essential propulsion component. A separate propulsion unit sufficient to give the ship a navigable speed should be required for such arrangements.

3 Propulsion arrangements with two independent rotors on a single shaft shall be considered to provide the required reliability, provided it is possible to de-excite or de-flux each of the rotors individually and to supply independently the stators.

Note:

1. This Unified Interpretation is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2026.
2. The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of “contract for construction”, refer to IACS Procedural Requirement (PR) No. 29.

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