

Regulation 22

Navigation bridge visibility

Refer to the [IACS UI SC226](#) IACS Unified Interpretations (UI) for the application of SOLAS regulations to conversions of Single Hull Tanker to Double Hull Tanker or Bulk Carrier/Ore Carrier

1 Ships of not less than 55 m in length, as defined in regulation 2.4, constructed on or after 1 July 1998, shall meet the following requirements:

.1 The view of the sea surface from the conning position shall not be obscured by more than two ship lengths, or 500 m, whichever is the less, forward of the bow to 10° on either side under all conditions of draught, trim and deck cargo;

.2 No blind sector caused by cargo, cargo gear or other obstructions outside of the wheelhouse forward of the beam which obstructs the view of the sea surface as seen from the conning position, shall exceed 10 degrees. The total arc of blind sectors shall not exceed 20 degrees. The clear sectors between blind sectors shall be at least 5 degrees. However, in the view described in .1, each individual blind sector shall not exceed 5 degrees;

.3 The horizontal field of vision from the conning position shall extend over an arc of not less than 225 degrees that is from right ahead to not less than 22.5 degrees abaft the beam on either side of the ship;

.4 From each bridge wing the horizontal field of vision shall extend over an arc at least 225 degrees that is from at least 45 degrees on the opposite bow through right ahead and then from right ahead to right astern through 180 degrees on the same side of the ship;

.5 From the main steering position the horizontal field of vision shall extend over an arc from right ahead to at least 60 degrees on each side of the ship;

.6 The ship's side shall be visible from the bridge wing;

Refer to [IACS UI SC235](#) Navigation bridge visibility to ship's side

Refer to [MSC.1/Circ.1350/Rev.1](#) UNIFIED INTERPRETATIONS OF SOLAS CHAPTER V

.7 The height of the lower edge of the navigation bridge front windows above the bridgedeck shall be kept as low as possible. In no case shall the lower edge present an obstruction to the forward view as described in this regulation;

.8 The upper edge of the navigation bridge front windows shall allow a forward view of the horizon, for a person with a height of eye of 1,800 mm above the bridge deck at the conning position, when the ship is pitching in heavy seas. The Administration, if satisfied that a 1,800 mm height of eye is unreasonable and impractical, may allow reduction of the height of eye but not less than 1,600 mm;

.9 Windows shall meet the following requirements:

.9.1 To help avoid reflections, the bridge front windows shall be inclined from the vertical plane top out, at an angle of not less than 10 degrees and not more than 25 degrees;

.9.3 Polarized and tinted windows shall not be fitted.

.9.4 A clear view through at least two of the navigation bridge front windows and, depending on the bridge configuration, an additional number of clear-view windows shall be provided at all times, regardless of weather conditions.

2 Ships constructed before 1 July 1998 shall, where practicable, meet the requirements of paragraphs 1.1 and 1.2. However, structural alterations or additional equipment need not be required.

3 On ships of unconventional design which, in the opinion of the Administration, cannot comply with this regulation, arrangements shall be provided to achieve a level of visibility that is as near as practical to that prescribed in this regulation.

4 Notwithstanding the requirements of paragraphs 1.1, 1.3, 1.4 and 1.5, ballast water exchange may be undertaken provided that:

.1 the master has determined that it is safe to do so and takes into consideration any increased blind sectors or reduced horizontal fields of vision resulting from the operation to ensure that a proper lookout is maintained at all times;

.2 the operation is conducted in accordance with the ship's ballast water management plan, taking into account the recommendations on ballast water exchange adopted by the Organization; and

.3 the commencement and termination of the operation are recorded in the ship's record of navigational activities pursuant to regulation 28. (added by [Res.MSC.201\(81\)](#))