

(s) Upon entering U.S. waters, the steering wheel or lever on the navigating bridge is operated to determine if the steering equipment is operating properly under manual control, unless the vessel has been steered under manual control from the navigating bridge within the preceding 2 hours, except when operating on the Great Lakes and their connecting and tributary waters.

(t) At least two of the steering-gear power units on the vessel are in operation when such units are capable of simultaneous operation, except when the vessel is sailing on the Great Lakes and their connecting and tributary waters, and except as required by paragraph (u) of this section.

(u) On each passenger vessel meeting the requirements of the International Convention for the Safety of Life at Sea, 1960 (SOLAS 60) and on each cargo vessel meeting the requirements of SOLAS 74 as amended in 1981, the number of steering-gear power units necessary to move the rudder from 35° on either side to 30° on the other in not more than 28 seconds must be in simultaneous operation.

[CGD 74-77, 42 FR 5956, Jan. 31, 1977, as amended by CGD 83-004, 49 FR 43466, Oct. 29, 1984; CGD 91-203, 58 FR 27633, May 10, 1993; CGD 83-043, 60 FR 24771, May 10, 1995]

§ 164.13 Navigation underway: tankers.

(a) As used in this section, "tanker" means a self-propelled tank vessel, including integrated tug barge combinations, constructed or adapted primarily to carry oil or hazardous material in bulk in the cargo spaces and inspected and certificated as a tanker.

(b) Each tanker must have an engineering watch capable of monitoring the propulsion system, communicating with the bridge, and implementing manual control measures immediately when necessary. The watch must be physically present in the machinery spaces or in the main control space and must consist of at least a licensed engineer.

(c) Each tanker must navigate with at least two licensed deck officers on watch on the bridge, one of whom may be a pilot. In waters where a pilot is required, the second officer, must be an individual licensed and assigned to the vessel as master, mate, or officer in

charge of a navigational watch, who is separate and distinct from the pilot.

(d) Except as specified in paragraph (e) of this section, a tanker may operate with an auto pilot engaged only if all of the following conditions exist:

(1) The operation and performance of the automatic pilot conforms with the standards recommended by the International Maritime Organization in IMO Resolution A.342(IX).

(2) A qualified helmsman is present at the helm and prepared at all times to assume manual control.

(3) The tanker is not operating in any of the following areas:

(i) The areas of the traffic separation schemes specified in subchapter P of this chapter.

(ii) The portions of a shipping safety fairway specified in part 166 of this chapter.

(iii) An anchorage ground specified in part 110 of this chapter.

(iv) An area within one-half nautical mile of any U.S. shore.

(e) A tanker equipped with an integrated navigation system, and complying with paragraph (d)(2) of this section, may use the system with the auto pilot engaged while in the areas described in paragraphs (d)(3) (i) and (ii) of this section. The master shall provide, upon request, documentation showing that the integrated navigation system—

(1) Can maintain a predetermined trackline with a cross track error of less than 10 meters 95 percent of the time;

(2) Provides continuous position data accurate to within 20 meters 95 percent of the time; and

(3) Has an immediate override control.

[CGD 91-203, 58 FR 27633, May 10, 1993, as amended by CGD 91-203, 58 FR 36141, July 6, 1993]

§ 164.15 Navigation bridge visibility.

(a) The arrangement of cargo, cargo gear, and trim of all vessels entering or departing from U.S. ports must be such that the field of vision from the navigation bridge conforms as closely as possible to the following requirements:

(1) From the conning position, the view of the sea surface must not be obscured by more than the lesser of two

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hip lengths or 500 meters (1640 feet) from dead ahead to 10 degrees on either side of the vessel. Within this arc of visibility any blind sector caused by cargo, cargo gear, or other permanent obstruction must not exceed 5 degrees.

(2) From the conning position, the horizontal field of vision must extend over an arc from at least 22.5 degrees abaft the beam on one side of the vessel, through dead ahead, to at least 22.5 degrees abaft the beam on the other side of the vessel. Blind sectors forward of the beam caused by cargo, cargo gear, or other permanent obstruction must not exceed 10 degrees each, nor total more than 20 degrees, including any blind sector within the arc of visibility described in paragraph (a)(1) of this section.

(3) From each bridge wing, the field of vision must extend over an arc from at least 45 degrees on the opposite bow, through dead ahead, to at least dead astern.

(4) From the main steering position, the field of vision must extend over an arc from dead ahead to at least 60 degrees on either side of the vessel.

(b) A clear view must be provided through at least two front windows at all times regardless of weather conditions.

[CGD 85-099, 55 FR 32247, Aug. 8, 1990]

§ 164.19 Requirements for vessels at anchor.

The master or person in charge of each vessel that is anchored shall ensure that:

(a) A proper anchor watch is maintained;

(b) Procedures are followed to detect a dragging anchor; and

(c) Whenever weather, tide, or current conditions are likely to cause the vessel's anchor to drag, action is taken to ensure the safety of the vessel, structures, and other vessels, such as being ready to veer chain, let go a second anchor, or get underway using the vessel's own propulsion or tug assistance.

[CGD 74-77, 42 FR 5956, Jan. 31, 1977]

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§ 164.25 Tests before entering or getting underway.

(a) Except as provided in paragraphs (b) and (c) of this section no person may cause a vessel to enter into or get underway on the navigable waters of the United States unless no more than 12 hours before entering or getting underway, the following equipment has been tested:

(1) Primary and secondary steering gear. The test procedure includes a visual inspection of the steering gear and its connecting linkage, and, where applicable, the operation of the following:

(i) Each remote steering gear control system.

(ii) Each steering position located on the navigating bridge.

(iii) The main steering gear from the alternative power supply, if installed.

(iv) Each rudder angle indicator in relation to the actual position of the rudder.

(v) Each remote steering gear control system power failure alarm.

(vi) Each remote steering gear power unit failure alarm.

(vii) The full movement of the rudder to the required capabilities of the steering gear.

(2) All internal vessel control communications and vessel control alarms.

(3) Standby or emergency generator, for as long as necessary to show proper functioning, including steady state temperature and pressure readings.

(4) Storage batteries for emergency lighting and power systems in vessel control and propulsion machinery spaces.

(5) Main propulsion machinery, ahead and astern.

(b) Vessels navigating on the Great Lakes and their connecting and tributary waters, having once completed the test requirements of this subpart, are considered to remain in compliance until arriving at the next port of call on the Great Lakes.

(c) Vessels entering the Great Lakes from the St. Lawrence Seaway are considered to be in compliance with this sub-part if the required tests are conducted preparatory to or during the passage of the St. Lawrence Seaway or within one hour of passing Wolfe Island.