

§ 130.140

46 CFR Ch. I (10-1-02 Edition)

(3) Capable of moving the rudder from 35 degrees on one side to 30 degrees on the other side in no more than 28 seconds with the vessel moving ahead at maximum service speed.

(d) Control of the main steering gear must be available from the pilothouse, including control of any necessary ancillary device (motor, pump, valve, or the like). If a power-driven main steering gear is used, a pilot light must be installed in the pilothouse to indicate operation of the power units.

(e) The auxiliary means of steering (auxiliary steering gear) must be—

(1) Of adequate strength for steering the OSV at navigable speed;

(2) Capable of steering the vessel at navigable speed; and

(3) Controlled from a place that—

(i) Can communicate with the pilothouse; or

(ii) Enables the master to safely maneuver the vessel.

(f) The steering gear must be designed so that transfer from the main steering gear or its control to the auxiliary steering gear or its control can be achieved rapidly. Any tools or equipment necessary for transfer must be readily available. Instructions for transfer must be posted.

(g) Each vessel must have instantaneous protection against short circuit for electrical-power circuits and control circuits, the protection sized and located to comply with §§58.25-55 (d) and (e) of this chapter.

(h) A rudder-angle indicator independent of the control of the main steering gear must be installed at the steering-control station in the pilothouse.

(i) No auxiliary steering gear need be installed if—

(1) The main steering gear, including power systems, is installed in duplicate; or

(2) Multiple-screw propulsion—with independent control of propulsion from the pilothouse for each screw and with a means to restrain and center the rudder—is installed, and if that control is capable of steering the OSV.

(j) Each vessel with duplicate (parallel but cross-connected) power systems for the main steering gear by way of compliance with paragraph (i)(1) of

this section may use one of the systems for other purposes if—

(1) Control of the subordinate parallel system is located at the steering-control station in the pilothouse;

(2) Full power is available to the main steering gear when the subordinate parallel system is not in operation;

(3) The subordinate parallel system can be isolated from the means of steering, and instructions on procedures for isolating it are posted; and

(4) The subordinate parallel system is materially equivalent to the steering system.

§ 130.140 Steering on OSVs of 100 or more gross tons.

(a) Each OSV of 100 or more gross tons must have a means of steering that meets the—

(1) Applicable requirements of subchapters F and J of this chapter; or

(2) Requirements for a hydraulic-helm steering-system in paragraph (b) of this section.

(b) Each hydraulic-helm steering-system must have the following:

(1) A main steering gear of adequate strength for, and capable of, steering the vessel at every service speed without being damaged at maximum astern speed.

(2) A hydraulic system with a maximum allowable working pressure of not more than 12,411 kPa (1,800 psi), dedicated to steering.

(3) Piping materials that comply with subchapter F of this chapter, and piping thickness of at least schedule 80.

(4) Each fore-and-aft run of piping located as far inboard as practicable.

(5) Rudder stops.

(6) Either—

(i) Two steering pumps in accordance with §130.130(c)(3) of this part; or

(ii) A single hydraulic sump of the “cascading overflow” type with a centerline bulkhead open only at the top, if each half has enough capacity to operate the system.

(7) Control of the main steering gear from the pilothouse, including—

(i) Control from the helm;

(ii) Control of any necessary ancillary device (motor, pump, valve, or the like); and

(iii) Adequate visibility when going astern.

(8) Multiple-screw propulsion with independent control of propulsion from the pilothouse, complying with § 130.120 of this part and being capable of steering the vessel.

(9) Dual hydraulic cylinders arranged so that either cylinder can be readily isolated, permitting the other cylinder to remain in service and move each rudder.

(10) The steering alarms and indicators required by § 58.25–25 of this chapter, located in the pilothouse.

(11) Instantaneous protection against short circuit for electrical power, and control circuits sized and located as required by §§ 58.25–55 (d) and (e) of this chapter.

(12) A rudder-angle indicator, at the steering-control station in the pilothouse, that is independent of the control of the main steering gear.

(13) Means to locally start and stop the steering pumps.

(14) Means to isolate any auxiliary means of steering so as not to impair the reliability and availability of the control required by paragraph (b)(7) of this section.

(15) Manual capability to center and steady the rudder if the vessel loses normal steering power.

(c) For compliance with paragraph (b) of this section, a common piping system for pumps, helm, and cylinders is acceptable.

Subpart B—Miscellaneous Equipment and Systems

§ 130.210 Radiotelegraph and radiotelephone.

Each vessel must comply with 47 CFR part 80 as applicable.

§ 130.220 Design of equipment for cooking and heating.

(a) Doors on each cooking appliance must be provided with heavy-duty hinges and locking-devices to prevent accidental opening in heavy weather.

(b) Each cooking appliance must be installed so as to prevent its movement in heavy weather.

(c) Each grill or similar cooking appliance must have means to collect

grease or fat and to prevent its spillage onto wiring or the deck.

(d) On each cooking appliance, grab rails must be installed when determined by the cognizant OCMI to be necessary for safety.

(e) On each cooking appliance, sea rails, with suitable barriers to prevent accidental movement of cooking pots, must be installed.

(f) Each heater must be constructed and installed so as to prevent the hanging from it of items such as towels and clothing.

§ 130.230 Protection from refrigerants.

(a) For each refrigeration system that exceeds 0.6 cubic meters (20 cubic feet) of storage capacity if using ammonia or other hazardous gas, or exceeds 28.3 cubic meters (1,000 cubic feet) of storage capacity if using a fluorocarbon, as a refrigerant, there must be available one pressure-demand, open-circuit, self-contained breathing apparatus, approved by the National Institute for Occupational Safety and Health (NIOSH) and having at a minimum a 30-minute air supply, and a full facepiece.

(b) Each self-contained breathing apparatus must be stowed convenient to, but outside, the space containing the refrigeration equipment.

(c) A complete recharge in the form of a spare charge must be carried for each self-contained breathing apparatus. The spare charge must be stowed with the equipment it is to reactivate.

(d) The self-contained breathing apparatus in a fireman's outfit, if fitted, complies with this section.

§ 130.240 Anchors and chains for OSVs of 100 or more gross tons.

(a) Each OSV of 100 or more gross tons must be fitted with anchors and chains meeting the applicable standards set by the ABS for classed vessels, including equipment, except as permitted by paragraphs (b) and (c) of this section.

(b) As well as the standards incorporated by paragraph (a) of this section, each vessel of under 61 meters (200 feet) in length and with an equipment number from the ABS of less than 150 may be equipped with either—