

of the wheel must be plainly marked with arrows and lettering for right and left rudder, or a suitable notice indicating these directions must be posted directly in the helmsman's line of sight.

(b) Each steering wheel must turn clockwise for "right rudder" and counterclockwise for "left rudder." When the vessel is running ahead, after clockwise movement of the wheel the vessel's heading must change to the right.

(c) If a lever-type control is provided, it must be installed and marked so that its movement clearly indicates both the direction of the rudder's movement and, if followup control is also provided, the amount of the rudder's movement.

(d) Markings in the pilothouse must not interfere with the helmsman's vision, but must be clearly visible at night.

NOTE: See § 113.40–10 of this chapter for the arrangement of rudder-angle indicators at steering stations.

#### § 58.25–40 Arrangement of the steering-gear compartment.

(a) The steering-gear compartment must—

(1) Be readily accessible and, as far as practicable, separated from any machinery space;

(2) Ensure working access to machinery and controls in the compartment; and

(3) Include handrails and either gratings or other non-slip surfaces to ensure a safe working environment if hydraulic fluid leaks.

NOTE: Where practicable, all steering gear should be located in the steering-gear compartment.

(b) [Reserved]

#### § 58.25–45 Buffers.

For each vessel on an ocean, coastwise, or Great Lakes voyage, steering gear other than hydraulic must be designed with suitable buffering arrangements to relieve the gear from shocks to the rudder.

#### § 58.25–50 Rudder stops.

(a) Power-operated steering gear must have arrangements for cutting off

power to the gear before the rudder reaches the stops. These arrangements must be synchronized with the rudder stock or with the gear itself rather than be within the control system for the steering gear, and must work by limit switches that interrupt output of the control system or by other means acceptable to the Commanding Officer, Marine Safety Center.

(b) Strong and effective structural rudder stops must be fitted; except that, where adequate positive stops are provided within the steering gear, such structural stops need not be fitted.

#### § 58.25–55 Overcurrent protection for steering-gear systems.

(a) Each feeder circuit for steering must be protected by a circuit breaker on the switchboard that supplies it and must have an instantaneous trip set at a current of at least—

(1) 300% and not more than 375% of the rated full-load current of one steering-gear motor for a direct-current motor; or

(2) 175% and not more than 200% of the locked-rotor current of one steering-gear motor for an alternating-current motor.

(b) No feeder circuit for steering may have any overcurrent protection, except that required by paragraph (a) of this section.

(c) Neither a main or an auxiliary steering-gear motor, nor a motor for a steering-gear control system, may be protected by an overload protective device. The motor must have a device that activates an audible and a visible alarm at the main machinery-control station if there is an overload that would cause overheating of the motor.

(d) No control circuit of a motor controller, steering-gear control system, or indicating or alarm system may have overcurrent protection except short-circuit protection that is instantaneous and rated at 400% to 500% of—

(1) The current-carrying capacity of the conductor; or

(2) The normal load of the system.

(e) The short-circuit protective device for each steering-gear control system must be in the steering-gear compartment and in the control circuit immediately following the disconnect switch for the system.