

§ 58.25-80

(1) The materials are within a compartment having little or no risk of fire;

(2) Because of redundancy in the system, damage by fire to any component would not prevent immediate restoration of steering capability; or

(3) The materials are within a steering-gear power actuating system.

§ 58.25-80 Automatic pilots and ancillary steering gear.

(a) Automatic pilots and ancillary steering gear, and steering-gear control systems, must be arranged to allow immediate resumption of manual operation of the steering-gear control system required in the pilothouse. A switch must be provided, at the primary steering position in the pilothouse, to completely disconnect the automatic equipment from the steering-gear controls.

(b) Automatic pilots and ancillary steering gear must be arranged so that no single failure affects proper operation and independence of the main or auxiliary steering gear, required controls, rudder-angle indicators, or steering-failure alarm.

§ 58.25-85 Special requirements for tank vessels.

(a) Each tank vessel must meet the applicable requirements of §§ 58.25-1 through 58.25-80.

(b) On each tank vessel of 10,000 gross tons or over, the main steering gear must comprise two or more identical power units that comply with § 58.25-10(e)(2).

(c) Each tank vessel of 10,000 gross tons or over constructed on or after September 1, 1984, must comply with the following:

(1) The main steering gear must be arranged so that, in case of loss of steering capability due to a single failure in any part of the power actuating system of the main steering gear, excluding seizure of a rudder actuator or failure of the tiller, quadrant, or components serving the same purpose, steering capability can be regained not more than 45 seconds after the loss of one power actuating system.

(2) The main steering gear must include either—

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(i) Two separate and independent power actuating systems, complying with § 58.25-10(b)(2); or

(ii) At least two identical hydraulic-power actuating systems, which, acting simultaneously in normal operation, must comply with § 58.25-10(b)(2). (When they must so comply, these systems must be connected. Loss of hydraulic fluid from one system must be capable of being detected, and the defective system automatically isolated, so the other system or systems remain fully operational.)

(3) Steering gear other than hydraulic must meet equivalent standards to the satisfaction of the Commanding Officer, Marine Safety Center.

(d) On each tank vessel of 10,000 gross tons or over, but less than 100,000 deadweight tons, the main steering gear need not comply with paragraph (c) of this section if the rudder actuator or actuators installed are non-duplicated hydraulic and if—

(1) The actuators comply with § 58.25-60; and

(2) In case of loss of steering capability due to a single failure either of any part of the piping systems or in one of the power units, steering capability can be regained in not more than 45 seconds.

(e) On each tank vessel of less than 70,000 deadweight tons, constructed before, and with a steering-gear installation before, September 1, 1986, and on an international voyage, the steering gear not complying with paragraph (c) (1), (2), or (3) of this section, as applicable, may continue in service if the steering gear has a proved record of reliability and is in good repair.

(f) Each tank vessel of 10,000 gross tons or over, constructed before, and with a steering-gear installation before, September 1, 1984, must—

(1) Meet the applicable requirements in §§ 58.25-15, 58.25-20(c), 58.25-25 (a), (d), and (e), and 58.25-70 (e), (h), (i), and (j);

(2) Ensure working access to machinery and controls in the steering-gear compartment (which must include handrails and either gratings or other non-slip surfaces to ensure a safe working environment in case hydraulic fluid leaks);

(3) Have two separate and independent steering-gear control systems,