

### **§ 164.35 Equipment: All vessels.**

Each vessel must have the following:

- (a) A marine radar system for surface navigation.
- (b) An illuminated magnetic steering compass, mounted in a binnacle, that can be read at the vessel's main steering stand.
- (c) A current magnetic compass deviation table or graph or compass comparison record for the steering compass, in the wheelhouse.
- (d) A gyrocompass.
- (e) An illuminated repeater for the gyrocompass required by paragraph (d) of this section that is at the main steering stand, unless that gyrocompass is illuminated and is at the main steering stand.
- (f) An illuminated rudder angle indicator in the wheelhouse.
- (g) The following maneuvering information prominently displayed on a fact sheet in the wheelhouse:
  - (1) A turning circle diagram to port and starboard that shows the time and distance and advance and transfer required to alter course 90 degrees with maximum rudder angle and constant power settings, for either full and half speeds, or for full and slow speeds. For vessels whose turning circles are essentially the same for both directions, a diagram showing a turning circle in one direction, with a note on the diagram stating that turns to port and starboard are essentially the same, may be substituted.
  - (2) The time and distance to stop the vessel from either full and half speeds, or from full and slow speeds, while maintaining approximately the initial heading with minimum application of the rudder.
  - (3) For each vessel with a fixed propeller, a table of shaft revolutions per minute for a representative range of speeds.
  - (4) For each vessel with a controllable pitch propeller, a table of control settings for a representative range of speeds.
  - (5) For each vessel that is fitted with an auxiliary device to assist in maneuvering, such as a bow thruster, a table of vessel speeds at which the auxiliary device is effective in maneuvering the vessel.
  - (6) The maneuvering information for the normal load and normal ballast condition for:
    - (i) Calm weather—wind 10 knots or less, calm sea;
    - (ii) No current;
    - (iii) Deep water conditions—water depth twice the vessel's draft or greater; and
    - (iv) Clean hull.
  - (7) At the bottom of the fact sheet, the following statement:  
warning

The response of the (name of the vessel) may be different from that listed above if any of the following conditions, upon which the maneuvering information is based, are varied:

- (1) Calm weather—wind 10 knots or less, calm sea;
  - (2) No current;
  - (3) Water depth twice the vessel's draft or greater;
  - (4) Clean hull; and
  - (5) Intermediate drafts or unusual trim.
- (h) An echo depth sounding device.
- (i) A device that can continuously record the depth readings of the vessel's echo depth sounding device, except when operating on the Great Lakes and their connecting and tributary waters.
- (j) Equipment on the bridge for plotting relative motion.
- (k) Simple operating instructions with a block diagram, showing the change-over procedures for remote steering gear control systems and steering gear power units, permanently displayed on the navigating bridge and in the steering gear compartment.
- (l) An indicator readable from the centerline conning position showing the rate of revolution of each propeller, except when operating on the Great Lakes and their connecting and tributary waters.
- (m) If fitted with controllable pitch propellers, an indicator readable from the centerline conning position showing the pitch and operational mode of such propellers, except when operating on the Great Lakes and their connecting and tributary waters.
- (n) If fitted with lateral thrust propellers, an indicator readable from the centerline conning position showing the direction and amount of thrust of such propellers, except when operating on the Great Lakes and their connecting and tributary waters.
- (o) A telephone or other means of communication for relaying headings to the emergency steering station. Also, each vessel of 500 gross tons and over and constructed on or after June 9, 1995 must be provided with arrangements for supplying visual compass-readings to the emergency steering station.

(92 Stat. 1471 (33 U.S.C. 1221 *et seq.* ); 49 CFR 1.46(n)(4))

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