
STATUTORY INSTRUMENTS

1993 No. 69

**The Merchant Shipping (Navigational
Equipment) Regulations 1993**

PART VII

DIRECTION-FINDER INSTALLATION

Direction-finder performance standard

32. Every direction-finder installation required to be provided shall comply with the performance standard adopted by the Organisation and shall, in the case of a United Kingdom ship, comply with the relevant performance standard.

Siting of direction-finder installation

33.—(1) The direction-finder shall be so sited that efficient determination of radio bearings by means of the direction-finder will not be affected by extraneous noises.

(2) The direction-finder antenna system shall be mounted in such a manner that the efficient determination of radio bearings by means of the direction-finder will be affected as little as possible by the proximity of antennas, derricks, wire halyards and other large metal objects.

Means of communication

34.—(1) In every ship required to be fitted with a direction-finder installation an efficient two-way means of calling and voice communication shall be provided between the receiver forming part of the direction-finder and the position from which the ship is normally navigated.

(2) In every such ship an efficient means of signalling shall be provided for use when calibrating or taking check bearings of the direction-finder installation between the receiver forming part of the direction-finder installation and the place on the ship from which visual bearings are taken.

Calibration

35.—(1) The master of every ship required to be fitted with a direction-finder installation shall cause the direction-finder installation to be calibrated in accordance with this regulation as soon as practicable after it has been installed in the ship and whenever any change is made in the position of the direction-finder antenna system.

- (a) (2) (a) The direction-finder installation shall be calibrated by two persons, one being experienced in the taking of radio bearings and the other experienced in the taking of visual bearings. The calibration shall be carried out by taking simultaneous radio and visual bearings of a transmitter, and such bearings shall be taken at intervals of not greater than 5 degrees throughout 360 degrees on a frequency between 283.5 kHz and 315 kHz.

- (b) Calibration tables and curves which enable radio bearings obtained by the direction-finder installation to be adjusted to within two degrees of the correct bearing shall be prepared on the basis of the bearings taken in accordance with paragraph (2)(a) of this regulation.
- (c) Following satisfactory calibration and the preparation of calibration tables and curves, a Certificate of Calibration of Direction-Finder shall be completed in the form specified in Schedule 1 to these Regulations.

(3) The master of every such ship shall cause the calibration tables and curves prepared in accordance with the foregoing provisions of this regulation to be verified by check bearings or by a further calibration whenever any changes are made in the position of:

- (a) any antennas; or
- (b) any structure on deck; or
- (c) the arrangement of cargo above deck,

which might affect appreciably the accuracy of the direction-finder.

Records of calibration and verification

36. The master of every ship required to be fitted with a direction-finder installation shall cause the following records to be kept in a place accessible to any person operating the direction-finder, and to be available for inspection at any reasonable time by a surveyor of ships:

- (a) a list or diagram indicating the position, on the most recent occasion on which the direction-finder was calibrated, of the antennas and all moveable structures on board the ship which might affect the accuracy of the direction-finder;
- (b) the calibration tables and curves which were prepared on the most recent occasion on which the direction-finder was calibrated;
- (c) a certificate of calibration signed by the persons making the calibration relating to the most recent occasion on which the direction-finder was calibrated; and
- (d) a record, in the form specified in Schedule 2 to these Regulations, of checkbearings taken for the verification of calibration, the bearings being numbered in the order in which they were taken.