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shall be obtained by linear interpolation. The maximum deduction for excess sheer shall be at the rate of 1½ inches per 100 feet of length.

[CGFR 68-60, 33 FR 10066, July 12, 1968, as amended by CGFR 68-126, 34 FR 9016, June 5, 1969]

§ 42.20-70 Minimum bow height.

(a) The bow height defined as the vertical distance at the forward perpendicular between the waterline corresponding to the assigned summer freeboard and the designed trim and the top of the exposed deck at side shall be not less than:

(1) For vessels below 820 feet in length,

$$0.672L[1 - (L/1640)][1.36/(C_b + 0.68)] \text{ inches;}$$

where:

L is the length of the vessel in feet.

C_b is the block coefficient which is to be taken as not less than 0.68.

(2) For vessels of 820 feet and above in length,

$$275.6[1.36/(C_b + 0.68)] \text{ inches;}$$

where:

C_b is the block coefficient which is to be taken as not less than 0.68.

(b) Where the bow height required in paragraph (a) of this section is obtained by sheer, the sheer shall extend for at least 15 percent of the length of the vessel measured from the forward perpendicular. Where it is obtained by fitting a superstructure, such superstructure shall extend from the stem to a point at least 0.07 L abaft the forward perpendicular, and it shall comply with the following requirements:

(1) For vessels not over 328 feet in length it shall be enclosed as defined in § 42.13-15(j); and,

(2) For vessels over 328 feet in length it need not comply with § 42.13-15(j) but shall be fitted with closing appliances to the satisfaction of the assigning authority.

(c) Vessels which, to suit exceptional operational requirements, cannot meet the requirements of paragraphs (a) and (b) of this section may be given special

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consideration by the assigning authority.

[CGFR 68-60, 33 FR 10066, July 12, 1968, as amended by CGFR 68-126, 34 FR 9016, June 5, 1969]

§ 42.20-75 Minimum freeboards.

(a) *Summer freeboard.* (1) The minimum freeboard in summer must be the freeboard derived from the tables in § 42.20-15 as modified by the corrections in §§ 42.20-3 and 42.20-5, as applicable, and §§ 42.20-20, 42.20-25, 42.20-30, 42.20-35, 42.20-60, 42.20-65 and, if applicable, § 42.20-70.

(2) The freeboard in salt water, as calculated in accordance with paragraph (a)(1) of this section, but without the correction for deck line, as provided by § 42.20-35, shall not be less than 2 inches. For vessels having in position 1 hatchways with covers which do not comply with the requirements of §§ 42.15-25(d)(1), 42.15-30, or 42.15-80, the freeboard shall be not less than 6 inches.

(b) *Tropical freeboard.* (1) The minimum tropical freeboard shall be the freeboard obtained by a deduction from the summer freeboard of one forty-eighth of the summer draft measured from the top of the keel to the center of the ring of the load line mark.

(2) The freeboard in salt water, as calculated in accordance with paragraph (b)(1) of this section, but without the correction for deck line, as provided by § 42.20-35, shall not be less than 2 inches. For vessels having in position 1 hatchways with covers which do not comply with the requirements of § 42.15-25(d)(1), § 42.15-30, or § 42.15-80, the freeboard shall be not less than 6 inches.

(c) *Winter freeboard.* (1) The minimum winter freeboard shall be the freeboard obtained by an addition to the summer freeboard of one forty-eighth of summer draft, measured from the top of the keel to the center of the ring of the load line mark.

(d) *Winter North Atlantic freeboard.* (1) The minimum freeboard for vessels of not more than 328 feet in length which enter any part of the North Atlantic defined in § 42.30-35 during the winter seasonal period shall be the winter

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freeboard plus 2 inches. For other vessels the winter North Atlantic freeboard shall be the winter freeboard.

(e) *Fresh water freeboard.* (1) The minimum freeboard in fresh water of unit density shall be obtained by deducting from the minimum freeboard in salt water:

$(\Delta/40 T)$ inches

where:

Δ =displacement in salt water in tons at the summer load waterline; and,

T =tons per inch immersion in salt water at the summer load waterline.

(2) Where the displacement at the summer load waterline cannot be certified, the deduction shall be one forty-eighth of summer draft, measured from the top of the keel to the center of the ring of the load line mark.

[CGFR 68–60, 33 FR 10066, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969; CGD 79–153, 48 FR 38650, Aug. 25, 1983]

Subpart 42.25—Special Requirements for Vessels Assigned Timber Freeboards

§ 42.25–1 Application of this subpart.

(a) The provisions of this subpart 42.25 apply only to vessels to which timber load lines are assigned.

[CGFR 68–60, 33 FR 10067, July 12, 1968]

§ 42.25–5 Definitions of terms used in this subpart.

(a) *Timber deck cargo.* The term “timber deck cargo” means a cargo of timber carried on an uncovered part of a freeboard or superstructure deck. The term does not include wood pulp or similar cargo.

(b) *Timber load line.* A timber deck cargo may be regarded as giving a vessel a certain additional buoyancy and a greater degree of protection against the sea. For that reason, vessels carrying a timber deck cargo may be granted a reduction of freeboard calculated according to the provisions of § 42.25–20 and marked on the vessel's side in accordance with the provisions of § 42.13–30(c) and (d). However, in order that such special freeboard may be granted and used, the timber deck cargo shall comply with certain conditions which are laid down in § 42.25–15,

and the vessel itself shall also comply with certain conditions relating to its construction which are set out in § 42.25–10.

[CGFR 68–60, 33 FR 10067, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.25–10 Construction of vessel.

(a) *Superstructure.* (1) Vessels, shall have a forecastle of at least standard height and a length of at least $0.07L$. In addition, if the vessel is less than 328 feet in length, a poop of at least standard height, or a raised quarter deck with either a deckhouse or a strong steel hood of at least the same total height shall be fitted aft.

(b) *Double bottom tanks.* (1) Double bottom tanks where fitted within the midship half length of the vessel shall have adequate watertight longitudinal subdivision.

(c) *Bulwarks.* (1) The vessel shall be fitted either with permanent bulwarks at least $39\frac{1}{2}$ inches in height, specially stiffened on the upper edge and supported by strong bulwark stays attached to the deck and provided with necessary freeing ports, or with efficient rails of the same height and of specially strong construction.

[CGFR 68–60, 33 FR 10067, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.25–15 Stowage.

(a) *General.* (1) Openings in the weather deck over which cargo is stowed shall be securely closed and battened down. The ventilators shall be efficiently protected.

(2) Timber deck cargo shall extend over at least the entire available length which is the total length of the well or wells between superstructures. Where there is no limiting superstructure at the after end, the timber shall extend at least to the after end of the aftermost hatchway. The timber shall be stowed as solidly as possible, to at least the standard height of a superstructure other than a raised quarter deck.

(3) On a vessel within a seasonal winter zone in winter, the height of the deck cargo above the weather deck shall not exceed one-third of the extreme breadth of the vessel.