

Fig. 10

SHIPS WITH ROUNDED GUNWALES

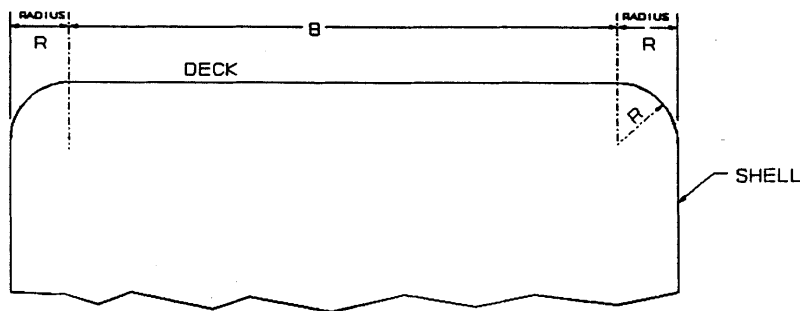


Fig. 11

(f) *Passenger* means every person other than:

- (1) the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship; and
- (2) a child under one year of age.

(g) *Weathertight* means that in any sea conditions water will not penetrate into the ship.

**§ 135.13 Determination of PC/UMS Net Tonnage.**

PC/UMS Net Tonnage shall be determined as follows:

(a) For all vessels with tolls fixed in accordance with § 133.1(a) or (b) of this chapter, unless subject to the transitional relief measures established in § 135.31 of this chapter, the formula for determining PC/UMS Net Tonnage is:

$$\text{PC/UMS Net Tonnage} = K_4(V) + K_5(V) + CF_1(\text{VMC})$$

in which formula:

§ 135.14

35 CFR Ch. I (7-1-97 Edition)

(1) “K<sub>4</sub>”=(0.25 + [0.01 × Log<sub>10</sub>(V)]) × 0.830

(2) “K<sub>5</sub>”=[Log<sub>10</sub>(DA-19)]/([Log<sub>10</sub>(DA-16)] × 17). If the number of passengers (N<sub>1</sub> + N<sub>2</sub>) is greater than 100 or DA is equal to or less than 20.0 meters then K<sub>5</sub> is equal to zero.

(3) “V”=Total volume of all enclosed spaces of the ship in cubic meters and is identical to V as specified in the 1969 International Convention on Tonnage Measurement of Ships.

(4) “DA” (Average depth)=The result of the division of the Total Volume by the product of the length in meters multiplied by the moulded breadth in meters. DA=V/(L × MB).

(5) “L” (Length) is defined as 96 percent of the total length on a waterline at 85 percent of the least moulded depth measured from the top of the keel, or the length from the fore side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel, the waterline on which this length is measured shall be parallel to the designed waterline.

(6) Moulded breadth is defined in § 135.12(c).

(7) N<sub>1</sub>=number of passengers in cabins with not more than 8 berths.

(8) N<sub>2</sub>=number of other passengers.

(9) N<sub>1</sub> + N<sub>2</sub>=total number of passengers the ship is permitted to carry as indicated in the ship’s passenger certificate.

(10) “CF<sub>1</sub>”=.031 for ships which the Commission determines are designed to carry containers on or above the upper deck; otherwise “CF<sub>1</sub>”=0. In making the foregoing determination, the Commission may consider documentation provided by such officials as are authorized by national governments to undertake surveys and issue national tonnage certificates.

(11) “VMC”=the volume (in cubic meters) of maximum capacity of the containers that can be carried on or above the upper deck. This volume may be calculated by multiplying the maximum number of containers by 29.2 m<sup>3</sup>, or by other generally accepted methods that meet the Commission’s accuracy standards. VMC will not include any container capacity that is included in “V”.

(b) For vessels subject to transitional relief measures, the existing Panama Canal Net Tonnage as specified on the certificate issued by the Commission plus CF<sub>1</sub> (VMC) shall be the PC/UMS Net Tonnage. In such case, the formula for determining PC/UMS Net Tonnage is: PC/UMS Net Tonnage=Panama Canal Net Tonnage+CF<sub>1</sub>(VMC).

[59 FR 43255, Aug. 22, 1994, as amended at 61 FR 60612, Nov. 29, 1996]

**§ 135.14 Change of PC/UMS Net Tonnage.**

(a) Vessels whose PC/UMS Net Tonnage is determined in accordance with § 135.13(a) shall have a new PC/UMS Net Tonnage issued if “V” changes.

(b) A vessel whose PC/UMS Net Tonnage is determined in accordance with § 135.13(b) shall retain that tonnage until the vessel undergoes a significant structural change as defined in § 135.14(c). In the event of a significant structural change, the vessel’s PC/UMS Net Tonnage shall be determined in accordance with § 135.13(a).

(c) For the purposes of paragraph (b) of this section, significant structural change means an actual change of at least 10 percent in the total volume of the vessel. Vessels without comparative ITC 69 total volumes, or other suitable sources of total volume comparison, shall have a fair and equitable volume comparison made by the Commission to determine if a significant structural change has occurred.

(d) If the VMC of a vessel is changed due to any physical modification after the vessel’s PC/UMS Net Tonnage has been determined at the Canal, the PC/UMS Net Tonnage may be revised by the Commission.

[59 FR 43255, Aug. 22, 1994, as amended at 61 FR 60612, Nov. 29, 1996]

**§ 135.15 Calculation of volumes.**

(a) All volumes included in the calculation of PC/UMS Net Tonnage shall be measured, irrespective of the fitting of insulation or the like, to the inner side of the shell or structural boundary plating in ships constructed of metal, and to the outer surface of the shell or to the inner side of structural boundary surfaces in ships constructed of any other material.