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(C) 40 degrees.

[CGD 79–023, 48 FR 51010, Nov. 4, 1983, as amended by CGD 85–080, 61 FR 944, Jan. 10, 1996; CGD 95–028, 62 FR 51218, Sept. 30, 1997; 62 FR 51353, Sept. 30, 1997; USCG–2007–0030, 75 FR 78084, Dec. 14, 2010]

Subpart F—Determination of Lightweight Displacement and Centers of Gravity

§ 170.174 Specific applicability.

This subpart applies to each vessel for which the lightweight displacement and centers of gravity must be determined in order to do the calculations required in this subchapter.

§ 170.175 Stability test: General.

(a) Except as provided in paragraphs (c) and (d) of this section and in § 170.200, the owner of a vessel must conduct a stability test of the vessel and calculate its vertical and longitudinal centers of gravity and its lightweight displacement.

(b) An authorized Coast Guard representative must be present at each stability test conducted under this section.

(c) The stability test may be dispensed with, or a deadweight survey may be substituted for the stability test, if the Coast Guard has a record of, or is provided with, the approved results of a stability test of a sister vessel.

(d) The stability test of a vessel may be dispensed with if the Coast Guard determines that an accurate estimate of the vessel's lightweight characteristics can be made and that locating the precise position of the vessel's vertical center of gravity is not necessary to ensure that the vessel has adequate stability in all probable loading conditions.

[CGD 79–023, 48 FR 51010, Nov. 4, 1983, as amended by CGD 95–028, 62 FR 51218, Sept. 30, 1997; USCG–1998–4442, 63 FR 52192, Sept. 30, 1998; USCG–2007–0030, 75 FR 78084, Dec. 14, 2010]

§ 170.180 Plans and information required at the stability test.

The owner of a vessel must provide the following Coast Guard approved plans and information to the authorized Coast Guard representative at the time of the stability test:

(a) Lines.

(b) Curves of form.

(c) Capacity plans showing capacities and vertical and longitudinal centers of gravity of stowage spaces and tanks.

(d) Tank sounding tables.

(e) Draft mark locations.

(f) General arrangement plan of decks, holds, and inner bottoms.

(g) Inboard and outboard profiles.

(h) The stability test procedure described in § 170.185(g).

[CGD 79–023, 48 FR 51010, Nov. 4, 1983, as amended by CGD 95–028, 62 FR 51218, Sept. 30, 1997; USCG–2007–0030, 75 FR 78084, Dec. 14, 2010]

§ 170.185 Stability test preparations.

The following preparations must be made before conducting a stability test:

(a) The vessel must be as complete as practicable at the time of the test.

(b) Each tank vessel must be empty and dry, except that a tank may be partially filled or full if the Coast Guard Marine Safety Center determines that empty and dry tanks are impracticable and that the effect of filling or partial filling on the location of the center of gravity and on the displacement can be accurately determined.

(c) All dunnage, tools, and other items extraneous to the vessel must be removed.

(d) The water depth at the mooring site must provide ample clearance against grounding.

(e) Each mooring line must be arranged so that it does not interfere with the inclination of the unit during the test.

(f) The draft and axis of rotation selected for testing a mobile offshore drilling unit must be those that result in acceptable accuracy in calculating the center of gravity and displacement of the unit.

(g) The stability test procedure required by § 170.085 must include the following:

(1) Identification of the vessel to be tested.

(2) Date and location of the test.

(3) Inclining weight data.

(4) Pendulum locations and lengths.

(5) Approximate draft and trim of the vessel.

(6) Condition of each tank.

(7) Estimated items to be installed, removed, or relocated after the test, including the weight and location of each item.

(8) Schedule of events.

(9) Person or persons responsible for conducting the test.

[CGD 79–023, 48 FR 51010, Nov. 4, 1983, as amended by CGD 88–070, 53 FR 34537, Sept. 7, 1988; CGD 95–028, 62 FR 51218, Sept. 30, 1997; USCG–2007–0030, 75 FR 78084, Dec. 14, 2010]

§ 170.190 Stability test procedure modifications.

The authorized Coast Guard representative present at a stability test may allow a deviation from the requirements of §§ 170.180 and 170.185 if the representative determines that the deviation would not decrease the accuracy of the test results.

[CGD 95–028, 62 FR 51218, Sept. 30, 1997, as amended by USCG–2007–0030, 75 FR 78084, Dec. 14, 2010]

§ 170.200 Estimated lightweight vertical center of gravity.

(a) Each tank vessel that does not carry a material listed in either Table 1 of part 153 or Table 4 of part 154 of this chapter may comply with this section in lieu of § 170.175 if it—

(1) Is 150 gross tons or greater;

(2) Is of ordinary proportions and form;

(3) Has a flush weather deck, one or more longitudinal bulkheads, and no independent tanks; and

(4) Is designed not to carry cargo above the freeboard deck.

(b) When doing the calculations required by §§ 170.170 and 172.065, the vertical center of gravity of a tank vessel in the lightweight condition must be assumed to be equal to the following percentage of the molded depth of the vessel measured from the keel amidship:

(1) For a tank ship—70%.

(2) For a tank barge—60%.

(c) As used in this section, *molded depth* has the same meaning that is provided for the term in § 42.13–15(e) of this chapter.

[CGD 79–023, 48 FR 51010, Nov. 4, 1983, as amended by CGD 85–080, 61 FR 944, Jan. 10, 1996]

Subpart G—Special Installations

§ 170.235 Fixed ballast.

(a) Fixed ballast, if used, must be—

(1) Installed under the supervision of the OCMI; and

(2) Stowed in a manner that prevents shifting of position.

(b) Fixed ballast may not be removed from a vessel or relocated unless approved by the Coast Guard Marine Safety Center. However, ballast may be temporarily moved for vessel examination or repair if done under the supervision of the OCMI.

[CGD 79–023, 48 FR 51010, Nov. 4, 1983, as amended by CGD 88–070, 53 FR 34537, Sept. 7, 1988; CGD 95–028, 62 FR 51218, Sept. 30, 1997; USCG–2007–0030, 75 FR 78084, Dec. 14, 2010]

§ 170.245 Foam flotation material.

(a) Installation of foam must be approved by the OCMI.

(b) If foam is used to comply with § 171.070(d), § 171.095(c), or § 173.063(e) of this subchapter, the following applies:

(1) Foam may be installed only in void spaces that are free of ignition sources.

(2) The foam must comply with NPFC MIL–P–21929B (incorporated by reference; see 46 CFR 170.015), including the requirements for fire resistance.

(3) A submergence test must be conducted for a period of at least 7 days to demonstrate whether the foam has adequate strength to withstand a hydrostatic head equivalent to that which would be imposed if the vessel were submerged to its margin line.

(4) The effective buoyancy at the end of the submergence test must be used as the buoyancy credit; however, in no case will a credit greater than 55 lbs per cubic foot (881 kilograms per cubic meter) be allowed.

(5) The structure enclosing the foam must be strong enough to accommodate the buoyancy of the foam.

(6) Piping and cables must not pass through foamed spaces unless they are within piping and cable trunks accessible from both ends.