

§ 183.550

33 CFR Ch. I (7-1-05 Edition)

MANUFACTURER REQUIREMENTS

§ 183.550 Fuel tanks: Installation.

- (a) Each fuel tank must not be integral with any boat structure or mounted on an engine.
- (b) Each fuel tank must not move at the mounting surface more than one-fourth inch in any direction.
- (c) Each fuel tank must not support a deck, bulkhead, or other structural component.
- (d) Water must drain from the top surface of each metallic fuel tank when the boat is in its static floating position.
- (e) Each fuel tank support, chock, or strap that is not integral with a metallic fuel tank must be insulated from the tank surface by a nonmoisture absorbing material.
- (f) Cellular plastic must not be the sole support for a metallic fuel tank.
- (g) If cellular plastic is the sole support of a non-metallic fuel tank, the cellular plastic must meet the requirements of § 183.516 (b) or (c).
- (h) Each fuel tank labeled under § 183.514(b)(8) for installation aft of the boat's half length must be installed with its center of gravity aft of the boat's half length.

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 81-092, 48 FR 55737, Dec. 15, 1983; USCG-1999-5832, 64 FR 34716, June 29, 1999]

§ 183.552 Plastic encased fuel tanks: Installation.

- (a) Each fuel tank encased in cellular plastic foam or in fiber reinforced plastic must have the connections, fittings, and labels accessible for inspection and maintenance.
- (b) If a metallic fuel tank is encased in cellular plastic or in fiber reinforced plastic, water must not collect between the plastic and the surface of the tank or be held against the tank by capillary action.
- (c) If the plastic is bonded to the surface of a metallic fuel tank, the adhesive strength of the metal to the plastic bond must exceed the cohesive strength of the plastic.

§ 183.554 Fittings, joints, and connections.

Each fuel system fitting, joint, and connection must be arranged so that it can be reached for inspection, removal, or maintenance without removal of permanent boat structure.

§ 183.556 Plugs and fittings.

- (a) A fuel system must not have a fitting for draining fuel.
- (b) A plug used to service the fuel filter or strainer must have a tapered pipethread or be a screw type fitted with a locking device other than a split lock washer.

§ 183.558 Hoses and connections.

- (a) Each hose used between the fuel pump and the carburetor must be "USCG Type A1" hose.
- (b) Each hose used—
 - (1) For a vent line or fill line must be:
 - (i) "USCG Type A1" or "USCG Type A2"; or
 - (ii) "USCG Type B1" or "USCG Type B2" if no more than five ounces of fuel is discharged in 2½ minutes when:
 - (A) The hose is severed at the point where maximum drainage of fuel would occur,
 - (B) The boat is in its static floating position, and
 - (C) The fuel system is filled to the capacity marked on the tank label under § 183.514(b)(3).
 - (2) From the fuel tank to the fuel inlet connection on the engine must be:
 - (i) "USCG Type A1"; or
 - (ii) "USCG Type B1" if no more than five ounces of fuel is discharged in 2½ minutes when:
 - (A) The hose is severed at the point where maximum drainage of fuel would occur,
 - (B) The boat is in its static floating position, and
 - (C) The fuel system is filled to the capacity marked on the tank label under § 183.514(b)(3).
- (c) Each hose must be secured by:
 - (1) A swaged sleeve;
 - (2) A sleeve and threaded insert; or
 - (3) A hose clamp.
- (d) The inside diameter of a hose must not exceed the actual minor outside diameter of the connecting spud,

pipe, or fitting by more than the distance shown in Table 8.

TABLE 8

If minor outside diameter of the connecting spud, pipe, or fitting is—	The inside diameter of the hose must not exceed the minor outside diameter of the connecting spud, pipe, or hose fitting by more than the following distance:
Less than 3/8 in	0.020 in.
3/8 in. to 1 in	0.035 in.
Greater than 1 in	0.065 in.

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 85-098, 52 FR 19728, May 27, 1987]

§ 183.560 Hose clamps: Installation.

Each hose clamp on a hose from the fuel tank to the fuel inlet connection on the engine, a hose between the fuel pump and the carburetor, or a vent line must:

- (a) Be used with hose designed for clamps;
- (b) [Reserved]
- (c) Be beyond the bead, flare, or over the serrations of the mating spud, pipe, or hose fitting; and
- (d) Not depend solely on the spring tension of the clamp for compressive force.

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 81-092, 48 FR 55737, Dec. 15, 1983]

§ 183.562 Metallic fuel lines.

- (a) Each metallic fuel line that is mounted to the boat structure must be connected to the engine by a flexible fuel line.
- (b) Each metallic fuel line must be attached to the boat's structure within four inches of its connection to a flexible fuel line.

§ 183.564 Fuel tank fill system.

- (a) Each fuel fill opening must be located so that a gasoline overflow of up to five gallons per minute for at least five seconds will not enter the boat when the boat is in its static floating position.
- (b) Each hose in the tank fill system must be secured to a pipe, spud, or hose fitting by:
 - (1) A swaged sleeve;
 - (2) A sleeve and threaded insert; or
 - (3) Two adjacent metallic hose clamps that do not depend solely on

the spring tension of the clamps for compressive force.

(c) Each hose clamp in the tank fill system must be used with a hose designed for clamps.

(d) Hose clamps used in the tank fill system must:

- (1) Have a minimum nominal band width of at least one-half inch; and
- (2) Be over the hose and the spud, pipe, or hose fitting.

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 81-092, 48 FR 55737, Dec. 15, 1983]

§ 183.566 Fuel pumps: Placement.

Each fuel pump must be on the engine it serves or within 12 inches of the engine, unless it is a fuel pump used to transfer fuel between tanks.

§ 183.568 Anti-siphon protection.

Each fuel line from the fuel tank to the fuel inlet connection on the carburetor must:

- (a) Be above the level of the tank top; or
- (b) Have an anti-siphon device or an electrically operated fuel stop valve:
 - (1) At the tank withdrawal fitting; or
 - (2) Installed so the line from the fuel tank is above the top of the tank; or
- (c) Provided that the fuel tank top is below the level of the carburetor inlet, be metallic fuel lines meeting the construction requirements of §183.538 or "USCG Type A1" hose, with one or two manual shutoff valves installed as follows:
 - (1) Directly at the fuel tank connection arranged to be readily accessible for operation from outside of the compartment, and
 - (2) If the length of fuel line from the tank outlet to the engine inlet is greater than 12 feet, a manual shutoff valve shall be installed at the fuel inlet connection to the engine.

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 81-092, 48 FR 55737, Dec. 15, 1983; CGD 85-098, 52 FR 19729, May 27, 1987]

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 81-092, 48 FR 55737, Dec. 15, 1983; CGD 85-098, 52 FR 19729, May 27, 1987]

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 81-092, 48 FR 55737, Dec. 15, 1983; CGD 85-098, 52 FR 19729, May 27, 1987]

§ 183.570 Fuel filters and strainers: Installation.

Each fuel filter and strainer must be supported on the engine or boat structure independent from its fuel line connections, unless the fuel filter or strainer is inside a fuel tank.