

## § 183.532

### § 183.532 Clips, straps, and hose clamps.

(a) Each clip, strap, and hose clamp must:

(1) Be made from a corrosion resistant material; and

(2) Not cut or abrade the fuel line.

(b) If tested in accordance with the fire test under §183.590, a hose clamp installed on a fuel line system requiring metallic fuel lines or "USCG Type A1" hose must not separate under a one pound tensile force.

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

### § 183.534 Fuel filters and strainers.

If tested under §183.590, each fuel filter and strainer, as installed in the boat, must not leak more than five ounces of fuel in 2½ minutes inclusive of leaks from the fuel pump and fuel line.

[CGD 77-98, 42 FR 36253, July 14, 1977]

### § 183.536 Seals and gaskets in fuel filters and strainers.

(a) [Reserved]

(b) Each gasket and each sealed joint in a fuel filter and strainer must not leak when subjected for 24 hours to a gasoline that has at least a 50 percent aromatic content at the test pressure marked on the fuel tank label.

[CGD 81-092, 48 FR 55737, Dec. 15, 1983]

### § 183.538 Metallic fuel line materials.

Each metallic fuel line connecting the fuel tank with the fuel inlet connection on the engine must:

(a) Be made of seamless annealed copper, nickel copper, or copper-nickel; and

(b) Except for corrugated flexible fuel line, have a minimum wall thickness of 0.029 inches.

### § 183.540 Hoses: Standards and markings.

(a) "USCG Type A1" hose means hose that meets the performance requirements of:

(1) SAE Standard J1527DEC85, Class 1 and the fire test in §183.590; or

(2) Underwriters' Laboratories, Inc. (UL) Standard 1114.

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(b) "USCG Type A2" hose means hose that meets the performance requirements of SAE Standard J1527DEC85, Class 2 and the fire test in §183.590;

(c) "USCG Type B1" hose means hose that meets the performance requirements of SAE Standard J1527DEC85, Class 1.

(d) "USCG Type B2" hose means hose that meets the performance requirements of SAE Standard J1527DEC85, Class 2.

NOTE: SAE Class 1 hose has a permeation rating of 100 grams or less fuel loss per square meter of interior surface in 24 hours.

SAE Class 2 hose has a permeation rating of 300 grams or less fuel loss per square meter of interior surface in 24 hours.

(e) Each "USCG Type A1," "USCG Type A2," "USCG Type B1," and "USCG Type B2" hose must be identified by the manufacturer by a marking on the hose.

(f) Each marking must contain the following information in English:

(1) The statement "USCG TYPE (insert A1 or A2 or B1 or B2)."

(2) The year in which the hose was manufactured.

(3) The manufacturer's name or registered trademark.

(g) Each character must be block capital letters and numerals that are at least one eighth-inch high.

(h) Each marking must be permanent, legible, and on the outside of the hose at intervals of 12 inches or less.

[CGD 85-098, 52 FR 19728, May 27, 1987]

### § 183.542 Fuel systems.

(a) Each fuel system in a boat must have been tested by the boat manufacturer and not leak when subjected to the greater of the following pressures:

(1) Three pounds per square inch; or

(2) One and one-half times the pressure created in the lowest part of the fuel system when it is filled to the level of overflow with fuel.

(b) The test pressure shall be obtained with air or inert gas.

[CGD 81-092, 48 FR 55737, Dec. 15, 1983]

## 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,