

(g) Perform the static pressure test under § 183.580.

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by USCG-1999-5832, 64 FR 34716, June 29, 1999]

**§ 183.590 Fire test.**

(a) A piece of equipment is tested under the following conditions and procedures:

(1) Fuel stop valves, "USCG Type A1" or USCG Type A2" hoses and hose clamps are tested in a fire chamber.

(2) Fuel filters, strainers, and pumps are tested in a fire chamber or as installed on the engine in the boat.

(3) Fuel tanks must be tested filled with fuel to one-fourth the capacity marked on the tank in a fire chamber or in an actual or simulated hull section.

(b) Each fire test is conducted with free burning heptane and the component must be subjected to a flame for 2½ minutes.

(c) If the component is tested in a fire chamber:

(1) The temperature within one inch of the component must be at least 648 °C sometime during the 2½ minute test;

(2) The surface of the heptane must be 8 to 10 inches below the component being tested; and

(3) The heptane must be in a container that is large enough to permit the perimeter of the top surface of the heptane to extend beyond the vertical projection of the perimeter of the component being tested.

(d) If the component is being tested as installed on an engine, heptane sufficient to burn 2½ minutes must be poured over the component and allowed to run into a flat bottomed pan under the engine. The pan must be large enough to permit the perimeter of the top surface of the heptane to extend beyond the vertical projection of the perimeter of the engine.

(e) If a fuel tank is being tested in an actual or simulated hull section, the actual or simulated hull section must be of sufficient size to contain enough heptane to burn for 2½ minutes in a place adjacent to the tank.

[CGD 74-209, 42 FR 5950, Jan. 31, 1977, as amended by CGD 77-98, 42 FR 36253, July 14, 1977; CGD 85-098, 52 FR 19729, May 27, 1987]

**Subpart K—Ventilation**

SOURCE: CGD 76-082, 44 FR 73027, Dec. 17, 1979, unless otherwise noted.

**§ 183.601 Applicability.**

This subpart applies to all boats that have gasoline engines for electrical generation, mechanical power, or propulsion.

[USCG-1999-5832, 64 FR 34716, June 29, 1999]

**§ 183.605 Definitions.**

As used in this subpart:

"Fuel" means gasoline.

"Open to the atmosphere" means a compartment that has at least 15 square inches of open area directly exposed to the atmosphere for each cubic foot of net compartment volume.

[CGD 76-082, 44 FR 73027, Dec. 17, 1979, as amended by CGD 85-098, 52 FR 19729, May 27, 1987]

**§ 183.607 Incorporation by reference.**

(a) The following standards are incorporated by reference. Copies may be obtained from the sources indicated. They are also available for inspection at Coast Guard Headquarters, 2100 Second Street, SW., Washington, DC 20593-0001 and at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(1) AMCA Standard 210-74, Figure 12. Air Moving and Conditioning Association, 30 West University Drive, Arlington Heights, Illinois 60004.

(2) ASTM Standard D 471. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(3) UL Standard 1128, Underwriters Laboratories, Incorporated, 12 Laboratory Drive, Research Triangle Park, NC 27709-3995.

(b) The Director of the Federal Register approved the incorporation by reference in paragraph (a)(2) on September 26, 1976 and the incorporations

**§ 183.610**

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in paragraphs (a) (1) and (3) on March 24, 1978.

[CGD 76-082, 44 FR 73027, Dec. 17, 1979, as amended by CGD 82-010, 48 FR 8273, Feb. 28, 1983; USCG-2000-7223, 65 FR 40059, June 29, 2000; 69 FR 18803, Apr. 9, 2004]

**§ 183.610 Powered ventilation system.**

(a) Each compartment in a boat that has a permanently installed gasoline engine with a cranking motor must:

- (1) Be open to the atmosphere, or
- (2) Be ventilated by an exhaust blower system.

(b) Each exhaust blower or combination of blowers must be rated at an air flow capacity not less than that computed by the formulas given in Table 183.610, Column 2. Blower rating must be determined according to AMCA Standard 210-74, Figure 12, or UL Standard 1128.

TABLE 183.610

Col. 1 <sup>1</sup>	Col. 2 <sup>2</sup>	Col. 3 <sup>3</sup>
Below 34 .....	Fr=50 .....	Fo=20
34 to 100 .....	Fr=1.5V .....	Fo=0.6V
Over 100 .....	Fr=V/2+100 .....	Fo=0.2V+40

<sup>1</sup>Net compartment volume of engine compartment and compartments open thereto (V) cubic feet.  
<sup>2</sup>Rated blower capacity (Fr) cubic feet per minute.  
<sup>3</sup>Blower system output (Fo) cubic feet per minute.

(c) Each exhaust blower system required by paragraph (a)(2) of this section must exhaust air from the boat at a rate which meets the requirements of Table 183.610, Column 3 when the engine is not operating.

(d) Each intake duct for an exhaust blower must be in the lower one-third of the compartment and above the normal level of accumulated bilge water.

(e) More than one exhaust blower may be used in combination to meet the requirements of this section.

(f) Each boat that is required to have an exhaust blower must have a label that:

- (1) Is located as close as practicable to each ignition switch;
- (2) Is in plain view of the operator; and
- (3) Has at least the following information:

WARNING—GASOLINE VAPORS CAN EXPLODE. BEFORE STARTING ENGINE OPERATE BLOWER FOR 4 MINUTES AND CHECK ENGINE COMPARTMENT BILGE FOR GASOLINE VAPORS.

**§ 183.620 Natural ventilation system.**

(a) Except for compartments open to the atmosphere, a natural ventilation system that meets the requirements of § 183.630 must be provided for each compartment in a boat that:

- (1) Contains a permanently installed gasoline engine;
- (2) Has openings between it and a compartment that requires ventilation, where the aggregate area of those openings exceeds 2 percent of the area between the compartments, except as provided in paragraph (c) of this section;
- (3) Contains a permanently installed fuel tank and an electrical component that is not ignition protected in accordance with § 183.410(a);
- (4) Contains a fuel tank that vents into that compartment; or
- (5) Contains a non-metallic fuel tank:

(i) With an aggregate permeability rate exceeding 1.2 grams of fuel loss in 24 hours per cubic foot of net compartment volume, or

(ii) If the net compartment volume is less than one cubic foot, having a permeability rate exceeding 1.2 grams of fuel loss in 24 hours.

NOTE: Reference fuel "C" at 40 degrees Celsius plus or minus 2 degrees Celsius from ASTM standard D 471 (incorporated by reference, see § 183.5) is to be used in determining the permeability rate.

(b) Each supply opening required in § 183.630 must be located on the exterior surface of the boat.

(c) An accommodation compartment above a compartment requiring ventilation that is separated from the compartment requiring ventilation by a deck or other structure is excepted from paragraph (a)(2) of this section.

[CGD 76-082, 44 FR 73027, Dec. 17, 1979, as amended by CGD 76-082(a), 46 FR 27645, May 21, 1981; CGD 85-059, 51 FR 37577, Oct. 23, 1986; USCG-1999-5832, 64 FR 34716, June 29, 1999; USCG-1999-5151, 64 FR 67176, Dec. 1, 1999]

**§ 183.630 Standards for natural ventilation.**

(a) For the purpose of § 183.620, "natural ventilation" means an airflow in a compartment in a boat achieved by having: