Guidance for Recreational Crafts

(For internal opinion inquiry)

2026. 2.

Machinery Rule Development Team

- Main Amendments -

(1) Request for Establishment/Revision of Classification Technical Rules
〈ships contracted for construction on or after 2026/07/01〉

◉ Revised for replacing KS standards with equivalent International standards, where applicable.

◉ Revised for correcting an error in the reference for fuel tank test requirements.

Present	Amendment	Reason
CHAPTER 8 MACHINERY INSTALLATIONS **Section 6 Fuel System** **603. Fuel tanks** **1. – 2.** *⟨Omitted⟩* **3. Petrol fuel tanks** (1) Petrol fuel tanks are not to be integral with the hull. (2) Petrol fuel tanks are to have all fittings and openings on top, except metallic filling and ventilation pipes, which may be connected to the sides or ends of metal petrol fuel tanks, provided that they are welded to the tank and reach above the top of the tank. (3) Tank drains are not permitted on petrol fuel tanks. (4) Petrol fuel tanks are to be subjected to leakage test in accordance with 7.1.2 of **ISO 21487** and to be subjected to pressure-impulse test in accordance with 7.2 of **ISO 21487**. (5) Non-metallic petrol fuel tanks are to meet the fire test in accordance with 7.3 and 7.4 of **ISO 21487**. **4. Diesel fuel tanks** (1) Diesel fuel tanks may be constructed independent of or integral with the hull. Care should be taken to avoid penetration of fuel in the hull. (2) Diesel fuel integral tanks are to be built in accordance with **ISO 12215-5**. (3) Diesel fuel tanks may have side inspection openings. Fittings in the bottom, sides or ends are allowed provided that each connection has a shut-off valve directly coupled to the tank. The valve is to be protected or located to prevent physical damage or be of at least 25 mm nominal diameter. (4) Diesel fuel tank drains, where fitted, are to have a shut-off valve with a plug on the outlet that can only be removed by the use of tools, or the handle of the drain shut-off valve is to be removable with the valve in its closed position. (5) Diesel tanks are to be subjected to leakage test in accordance with 7.1.2 **and** are to be subjected to pressure/strength test in accordance with 7.1.3 of **ISO 21487**.	**CHAPTER 8 MACHINERY INSTALLATIONS** **Section 6 Fuel System** **603. Fuel tanks** **1. – 2.** *⟨Omitted⟩* **3. Petrol fuel tanks** (1) Petrol fuel tanks are not to be integral with the hull. (2) Petrol fuel tanks are to have all fittings and openings on top, except metallic filling and ventilation pipes, which may be connected to the sides or ends of metal petrol fuel tanks, provided that they are welded to the tank and reach above the top of the tank. (3) Tank drains are not permitted on petrol fuel tanks. (4) Petrol fuel tanks are to be subjected to leakage test in accordance with 7.2.1 of **ISO 21487** and to be subjected to pressure-impulse test in accordance with 7.3 of **ISO 21487**. (5) Non-metallic petrol fuel tanks are to meet the fire test in accordance with 7.3 and 7.4 of **ISO 21487**. **4. Diesel fuel tanks** (1) Diesel fuel tanks may be constructed independent of or integral with the hull. Care should be taken to avoid penetration of fuel in the hull. (2) Diesel fuel integral tanks are to be built in accordance with **ISO 12215-5**. (3) Diesel fuel tanks may have side inspection openings. Fittings in the bottom, sides or ends are allowed provided that each connection has a shut-off valve directly coupled to the tank. The valve is to be protected or located to prevent physical damage or be of at least 25 mm nominal diameter. (4) Diesel fuel tank drains, where fitted, are to have a shut-off valve with a plug on the outlet that can only be removed by the use of tools, or the handle of the drain shut-off valve is to be removable with the valve in its closed position. (5) Diesel tanks are to be subjected to leakage test in accordance with 7.2.1 **and** are to be subjected to pressure/strength test in accordance with 7.2.2 of **ISO 21487**.	Correcting an error in the reference for fuel tank test requirements.

Present	Amendment	Reason
CHAPTER 8 MACHINERY INSTALLATIONS **Section 7 Ventilation** **702. Ventilation of petrol engine and/or petrol tank compartments** 1. *〈Omitted〉* **2. Power ventilation systems** (1) Unless open to the atmosphere, each compartment containing a permanently installed petrol engine is to be provided with power ventilation system removing air from the compartment to the atmosphere outside the craft by an exhaust blower system. (2) Each exhaust blower or combination of blowers are to be rated at an airflow capacity Qr not less than that given in **Table 8.3**. Blower rating is to be determined according to ISO 9097. *〈Omitted〉*	**CHAPTER 8 MACHINERY INSTALLATIONS** **Section 7 Ventilation** **702. Ventilation of petrol engine and/or petrol tank compartments** 1. *〈Omitted〉* **2. Power ventilation systems** (1) Unless open to the atmosphere, each compartment containing a permanently installed petrol engine is to be provided with power ventilation system removing air from the compartment to the atmosphere outside the craft by an exhaust blower system. (2) Each exhaust blower or combination of blowers are to be rated at an airflow capacity Qr not less than that given in **Table 8.3**. Blower rating is to be determined according to ISO 5801. *〈Omitted〉*	Replacing KS standards with equivalent International standards, where applicable.

Present	Amendment	Reason
# Chapter 9 ELECTRICAL EQUIPMENT ## Section 1 Direct Current System **111. Ignition protection** **1.** Electrical components installed in compartments which may contain explosive vapour and gases shall be ignition-protected in accordance with **ISO 8846**(protection against ignition of surrounding flammable gases). Compartments which may contain explosive gases are those containing, or which have open connections with compartments containing, such items as (1) spark-ignition engines or their fuel tanks (2) joints or fittings in fuel lines connecting spark-ignition engines with their fuel tanks Open compartments having 0.34 m^2 of open area per cubic metre of compartment volume exposed to the open atmosphere outside the craft constitute an exception to this requirement. **2.** Electrical components installed in certain compartments in the craft with liquefied petroleum gas (LPG) systems, such as lockers and housings containing LPG cylinders and pressure regulators, shall be ignition-protected (refer to **ISO 8846**) as required in **ISO 10239**(Small craft-Liquefied petroleum gas (LPG) systems) **3.** Electrical fans shall be in accordance with the requirements of **ISO 9097** and shall be ignition-protected in accordance with the requirements of **ISO 8846**.	# Chapter 9 ELECTRICAL EQUIPMENT ## Section 1 Direct Current System **111. Ignition protection** **1.** Electrical components installed in compartments which may contain explosive vapour and gases shall be ignition-protected in accordance with **ISO 8846**(protection against ignition of surrounding flammable gases). Compartments which may contain explosive gases are those containing, or which have open connections with compartments containing, such items as (1) spark-ignition engines or their fuel tanks (2) joints or fittings in fuel lines connecting spark-ignition engines with their fuel tanks Open compartments having 0.34 m^2 of open area per cubic metre of compartment volume exposed to the open atmosphere outside the craft constitute an exception to this requirement. **2.** Electrical components installed in certain compartments in the craft with liquefied petroleum gas (LPG) systems, such as lockers and housings containing LPG cylinders and pressure regulators, shall be ignition-protected (refer to **ISO 8846**) as required in **ISO 10239**(Small craft-Liquefied petroleum gas (LPG) systems) **3.** Electrical fans shall be in accordance with the requirements of ~~**ISO 9097**~~ **ISO 5801** and shall be ignition-protected in accordance with the requirements of **ISO 8846**.	Replacing KS standards with equivalent International standards, where applicable.

Present	Amendment	Reason
Chapter 9 ELECTRICAL EQUIPMENT **Section 2 Alternating Current System** **207. System wiring** **1.** Conductors shall have a minimum rating of 300/500 V. Flexible cords shall have a minimum rating of 300/300 V. **2.** Conductors and flexible cords shall be of multistrand copper, and of sizes no smaller than those determined by reference to **Table 9.1**. **3.** The insulation-temperature rating of conductors and flexible cords outside engine spaces shall be at least 60 °C. **4.** Conductors shall be at least 1 mm^2 in area. An exception may be made for conductors of minimum 0.75 mm^2 area which may be used as internal wiring in switchboards. **5.** Temperature ratings of conductor insulation in engine spaces shall be 70 °C minimum. The conductors shall be rated oil-resistant, or shall be protected by an insulating conduit or sleeving, and shall be de-rated in allowable current-carrying capacity in accordance with **ISO 13297** annex A. **6.** The protective conductor shall not have a cross-sectional area less than that of the live conductor in the supply circuit. **7.** Live, neutral and protective conductors of the a.c. system shall be identified. Identification may be made by the insulation colour, by numbering or other means, if a wiring diagram for the system indicating the means of identification is supplied with the craft. Insulation colours used, in conformance with **IEC 60446**: (1) Live conductors : black or brown (2) Neutral conductors : white or light blue (3) Protective conductors : green or green with a yellow stripe(refer to **201. 1**)	**Chapter 9 ELECTRICAL EQUIPMENT** **Section 2 Alternating Current System** **207. System wiring** **1.** Conductors shall have a minimum rating of 300/500 V. Flexible cords shall have a minimum rating of 300/300 V. **2.** Conductors and flexible cords shall be of multistrand copper, and of sizes no smaller than those determined by reference to **Table 9.1**. **3.** The insulation-temperature rating of conductors and flexible cords outside engine spaces shall be at least 60 °C. **4.** Conductors shall be at least 1 mm^2 in area. An exception may be made for conductors of minimum 0.75 mm^2 area which may be used as internal wiring in switchboards. **5.** Temperature ratings of conductor insulation in engine spaces shall be 70 °C minimum. The conductors shall be rated oil-resistant, or shall be protected by an insulating conduit or sleeving, and shall be de-rated in allowable current-carrying capacity in accordance with **ISO 13297** annex A. **6.** The protective conductor shall not have a cross-sectional area less than that of the live conductor in the supply circuit. **7.** Live, neutral and protective conductors of the a.c. system shall be identified. Identification may be made by the insulation colour, by numbering or other means, if a wiring diagram for the system indicating the means of identification is supplied with the craft. Insulation colours used, in conformance with ~~IEC 60446~~ IEC 40445: (1) Live conductors : black or brown (2) Neutral conductors : white or light blue (3) Protective conductors : green or green with a yellow stripe(refer to **201. 1**)	Replacing International standards, where applicable.