

Notice from the Danish Maritime Authority L – the Construction and Equipment, etc. of Recreational Craft

Chapter VIII Design, construction and equipment, etc. of certain large recreational craft of 1 October 2006

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Part A – General requirements

Regulation 1 – Application

- 1 The provisions of this chapter shall apply to:
 - .1 Recreational craft with a hull length of more than 24 m the keels of which are laid before 1 January 2004.
 - .2 Recreational craft complying with all of the below stipulations:
 - .1 The hull length is 15 m¹ or more, but not above 24 m,
 - .2 The boat is older than 15 years of age calculated from the date of keel, and
 - .3 The boat is used for navigation with more than six passengers below the age of 18 on board.
- 2 The provisions of this chapter shall not apply to the following boats:
 - .1 Boats covered by the recreational craft Directive.
 - .2 Boats solely designed for racing.

Regulation 2 – Definitions

For the purposes of this chapter, the following definitions shall apply:

- 1 “Tonnes”: Gross tonnage (GT) measured in accordance with the provisions in force on the measurements of ship’s tonnage; for boats with a length of or above 24 m in accordance with the provisions of the International Convention on Tonnage Measurement of Ships, 1969. For boats constructed before 18 July 1994 that are measured in accordance with the regulations on tonnage measurement of ships in force before the entry into force of the International Convention on Tonnage Measurement of Ships, 1969, and where this tonnage is recorded on the International Tonnage Certificate (1969), this gross tonnage shall be applied in connection with these regulations. For boats with a length of less than 24 m, only measured in accordance with the previous regulations on tonnage measurement of ships (1947) the gross register tonnage (GRT) shall be used. For boats equipped with a tonnage certificate with two sets of tonnages, the term shall mean the greatest gross tonnage given on the tonnage certificate.
- 2 “Classed” used in connection with ships, machinery, etc.: A boat or system, etc. holding a valid certificate from a classification society recognised by the Danish Maritime Authority.
- 3 “Freeboard deck” as defined in the International Load Line Convention in force at any time.
- 4 “Steel or other equivalent material”: “Equivalent material” means any material which, by itself or due to insulation provided, has structural and integrity properties equivalent to steel at the end of an appropriate fire test (such as aluminium with appropriate insulation).
- 5 “Non-combustible materials” are materials which neither burn nor give off flammable vapours in sufficient quantity for self-ignition when heated to approximately 750 C. All other materials shall be considered “combustible materials”.
- 6 “Public spaces” are those portions of the accommodation which are used for halls, dining rooms, lounges and similar permanently enclosed spaces.
- 7 “Accommodation spaces” are those spaces used for public spaces, corridors, avatories, cabins, offices, crew accommodation, isolated pantries and linen storage spaces as well as similar spaces.

¹ The length limit of 15 m corresponds to the tonnage limit of 20 gross tonnage stipulated in the main Order previously in force (Order no. 173 of 21 May 1965). Craft of less than 20 gross tonnage, but with a length of or above 15 m shall not be covered by the requirements of this chapter.

- 8 “Machinery spaces” are all spaces containing propelling machinery, auxiliary machinery or refrigerating machinery, boilers, pumps, workshops, generators, ventilation and air conditioning machinery, oil filling stations and similar spaces, and trunks to such spaces.
- 9 “Accommodation” shall mean spaces arranged for the use and convenience of those on board, except for luggage, stores and provisions.

Part B – Surveys and certificates

Regulation 3 – Inspection and survey

- 1 Inspections and surveys shall be carried out by the Danish Maritime Authority. The Danish Maritime Authority may, however, entrust the inspections and surveys either to surveyors nominated for the purpose or to organizations recognized by it.
- 2 Any recreational craft covered by the provisions of this chapter shall, before being put in service, be approved by the Danish Maritime Authority at an initial survey. For boats purchased from abroad, the Danish Maritime Authority may lay down more detailed guidelines.
- 3 A boat may not proceed to sea if the validity of a trade permit issued by or on behalf of the Danish Maritime Authority has expired or if a prescribed survey has not been held.

Regulation 4 – Special surveys and survey intervals

- 1 The Danish Maritime Authority may, at any time, determine that a boat shall be subjected to an extra-ordinary survey and may, in special conditions, lay down survey intervals deviating from those stipulated in regulation 5.
- 2 For boats that have been laid up, the Danish Maritime Authority may permit that prescribed renewal surveys be omitted, wholly or in part, for as long as the boat remains laid up.
- 3 An additional survey, either a renewal survey or a partial survey according to the circumstances, shall be made after major repairs, rebuildings, alterations or renewals.
- 4 Boats that are rebuilt, re-rigged or in any other way altered to an extent that may, in the opinion of the Danish Maritime Authority, reduce the strength or stability of the boat shall be subjected to a more detailed assessment of its conditions of stability and strength. Such an assessment shall include measurement and actual calculations if the Danish Maritime Authority considers it necessary.

Regulation 5 – Surveys of structure, machinery, equipment and life-saving appliances

1. The structure, machinery, equipment and life-saving appliances of recreational craft as referred to in regulation 1 shall be subject to the surveys and inspections specified below:
 - 1.1. An initial survey including an inspection of the outside of the boat’s bottom before the boat is put in service.
 - 1.2. A renewal survey at intervals not exceeding 5 years.
 - 1.3. A minimum of two inspections of the outside of the boat’s bottom during any five year period. In all cases the interval between any two such inspections shall not exceed 36 months.
2. The surveys and inspections referred to in paragraph 1 shall be carried out as follows:
 - 2.1. The initial survey shall include a complete inspection of the structure, machinery and equipment, including the outside of the boat’s bottom. This survey shall be such as to ensure that the arrangements, materials, scantlings and workmanship of the structure, boilers and other pressure vessels, their appurtenances, main and auxiliary machinery including steering gear and associated control systems, electrical installation and other equipment comply with the requirements of the present regulations, are in satisfactory

condition and are fit for the service for which the boat is intended. In addition, a complete inspection of fire-safety systems and fire-extinguishing systems, life-saving appliances and measures shall be carried out. Nautical publications, lights, shapes and sound signalling devices and distress signals shall also be subjected to the above-mentioned surveys to ensure that they comply with the requirements of these regulations and those of the International Regulations for Preventing Collisions at Sea where they apply.

- 2.2. The renewal survey shall include an inspection of the structure, including the outside of the boat's bottom, machinery and equipment as referred to in paragraph 2.1 to ensure that they comply with the relevant requirements of the present regulations and the International Regulations for Preventing Collisions at Sea, are in satisfactory condition and are fit for the service for which the boat is intended.
- 2.3. The inspection of the outside of the boat's bottom and the survey of related items inspected at the same time shall be such as to ensure that they remain satisfactory for the service for which the boat is intended. The survey shall also include an examination of the rudder, propeller shaft² and all sea connections below the deepest waterline.
3. Inspections of the outside of the boat's bottom shall be endorsed on the trade permit of the boat.

Regulation 6 – Maintenance of conditions after survey

1. The condition of the boat and its equipment shall be maintained to conform with the provisions of the regulations in force to ensure that the boat in all respects will remain fit to proceed to sea without danger to the ship or persons on board.
2. After any survey of the boat under regulation 5 has been completed, no change shall be made in the structural arrangements, machinery, equipment and other items covered by the survey, without the sanction of the Administration.

Regulation 7 – Trade permit and survey book

1. All boats shall carry a survey book with an appendix. The survey book, which shall be issued by the Danish Maritime Authority, shall be kept in accordance with the instructions printed in the book. A completed survey book shall be kept on board until all necessary information has been transferred from the completed to the new survey book.
2. After the completion of an initial survey or every renewal survey, a trade permit shall be issued stating the duration, trade area and maximum number of persons permitted on board.
3. A trade permit shall remain valid for as long as the conditions of the boat's application and the survey intervals are observed.

Part C – Hull, rigging and fittings

Regulation 8 – General structural regulations

1. Every boat shall, as regards its entire general arrangement, possess the integrity necessary for the intended purpose.
2. For unclassified boats, unless otherwise provided, in general regulations equivalent to those used by a recognized classification society shall be used as regards design, construction, integrity and scantlings as a condition for the boat being classed in consideration of its type and application.

² However, the rudder stock and propeller shaft are normally examined only in connection with surveys carried out together with renewal surveys.

3. For classed boats or boats constructed with the purpose of being classed, the rules of the class as regards design, construction, integrity and scantlings shall be recognised as satisfactory in the areas covered by these regulations.

Regulation 9 – Openings in the boat’s side

1. Openings in the boat’s side below deck shall be fitted with weathertight doors or weathertight covers of sufficient integrity.
2. Sidescuttles in spaces below the freeboard deck or in superstructures immediately above this shall be fitted with internal, unremovable deadlights capable of being closed watertight easily and effectively. However, in cabins in superstructures removable deadlights may be used.
3. Discharges
 - 3.1. Discharges led through the boat’s side from spaces below the freeboard deck shall be fitted with effective and accessible means for preventing water from passing in to the boat. For each individual discharge, either an automatic non-return valve with a positive means of closing it from a position above the freeboard deck or in the machinery space may be used or two automatic non-return valves without such means of closing where the uppermost of these valves shall be located above the deepest waterline so that it is always accessible for inspection during the normal operation of the boat, which shall be of a type that is normally closed.
 - 3.2. Other discharges shall, if they end below the deepest waterline, be fitted with similar means of closing on the boat’s side; if they end above the deepest waterline, they shall be fitted with a normal storm valve. In both cases, the valves may be omitted if pipes of the same thickness as the shell plating are used, however direct outlets from toilets, wash basins and floor drains from washrooms and the like shall always be fitted with deadlights or be secured against water hammering in some other way. However, the thickness of such pipes need not be more than 14 mm.
4. If a valve with direct means of closing is fitted, the position from which it is operable shall always be easily accessible and means shall be provided for indicating whether the valve is open or closed. If valves with direct means of closing are located in machinery spaces, it shall suffice if they are operable from the position where they are located provided that this place is easily accessible under all conditions.
5. All valves located below the freeboard deck shall be made of steel, bronze or any other approved tough material. Ordinary cast iron or similar may not be used.

Regulation 10 – Weathertightness above freeboard decks

1. The freeboard deck or a deck above this shall be weathertight in the sense that seawater may not flood into the ship under general conditions of operation.
2. All openings in the exposed weatherdeck shall have coamings of a sufficient height and integrity and shall be fitted with effective means of closing them weathertight quickly.
3. All superstructures, deck houses and other structures as well as air pipes, etc. on exposed decks shall be solidly connected to the boat and have the necessary integrity.

Regulation 11 – Bilge pumping arrangements

1. The boat shall be fitted with appropriate bilge pumps or other means of pumping from large spaces. If the boat is above 50 tonnes, at least one independent power-driven pump shall be provided. Where bilge wells are provided for collecting ballast water, at least one suction pipe shall be led to each bilge well if they do not empty into a common well.

2. Boats above 100 tonnes shall be provided with at least two power-driven pumps, one of which shall be driven independently from the main engine.
3. All pipes from pumps required for pumping from cargo spaces or machinery spaces shall be kept separate from pipes that may be used for filling or emptying spaces in which water or oil is carried.
4. All suction pipes used in or below bunkers or fuel oil tanks or in boiler or machinery spaces, including spaces in which service tanks or fuel oil pumping systems are located, shall be made of steel or any other approved material.
5. All suction pipes shall end in strainers.

Regulation 12 – Wheelhouse, rudder, etc.

1. From the conning position, sufficient visibility shall be provided in the forward direction.
2. The rudder shall have the area necessary to acquire a good steering and turning capability.

Regulation 13 – Rigging and associated fittings

1. The rigging and associated fittings shall be sound and secure.
2. Yards, booms, etc.
 - 2.1. Yards, bowsprits and jib booms with the exception of loose outriggers shall in general be fitted with solid footropes, including the necessary hand ropes and yard ropes.
 - 2.2. Footropes of steel shall be overlaid.
3. As regards any hoisting and unloading gear, reference is made to the provisions in force.

Regulation 14 – Anchors and associated fittings

1. All boats shall be fitted with sound and secure anchors and chains or wires.

Part D – Machinery and electrical installations

Regulation 17 – Machinery

1. Provisions on the construction and arrangement of ship machinery, including boilers with associated steam piping and other fittings, turbine and machinery installations as well as refrigerating systems, shall be laid down by special Order.³

Regulation 18 – Electrical installations

1. Application:
 - 1.1. The regulations in this part cover all electrical installations, however not installations for ship propulsion. For such exempted installations, approval shall be acquired from the Danish Maritime Authority in each individual case.
 - 1.2. Radio installations and other special installations requiring specifically trained operation and not accessible to others than operators shall, however, be covered by the provisions only in so far as regards the installation's source of power and associated wires and installation parts.
2. Application of the rules of recognized organizations:
 - 2.1. For unclassified boats, regulations similar to those used by a classification society recognized by the Danish Maritime Authority shall apply as regards electrical material and the workmanship of the installation, unless otherwise provided.

³ Order no. 387 of 7 July 1969 on provisions for machinery installations, etc. in ships (the Machinery Order).

- 2.2. For classed boats the rules of the class shall be recognized as regards the electrical installation and its workmanship in the areas covered by these regulations.

Part E – Fire-detection and fire-extinction

Regulation 19 – Fire-extinguishing equipment in boats with a gross tonnage of or above 100

1. All boats shall, in consideration of their arrangement and size, be equipped with the necessary fire-extinguishing systems capable of having a strong effect any place in the boat.
2. Fire pumps
 - 2.1. All boats shall be equipped with at least two power-driven pumps, one of which shall be an emergency pump. The emergency pump may be a portable diesel-powered pump. The pumps shall be located so that a fire in one room cannot stop both pumps.
 - 2.2. The prescribed non-portable pumps shall have a capacity of at least 24 m³ per hour and shall otherwise be appropriate in relation to the boat's size and arrangement, however the capacity shall not be less than what is required to maintain a pressure of 1.6 kg/cm² through the two fire hydrants that are most remote from the pumps using two 12 mm nozzles.
 - 2.3. Portable pumps shall have a capacity that is appropriate in relation to the boat's size and arrangement, however the capacity shall not be less than 24 m³ per hour at 2.6 kg/cm², measured at the pump hydrant.
3. Fire mains
 - 3.1. The diameter of the fire main and water service pipes shall be sufficient for the effective distribution of the maximum required discharge from the fire pumps.
 - 3.2. Non-portable fire pumps shall be permanently connected to the fire main, and it shall be possible to connect the portable pump, cf. paragraph 2.3.
4. Fire hydrants, fire hoses and nozzles
 - 4.1. The number and position of fire hydrants shall be such that at least two jets of water not emanating from the same hydrant, one of which shall be from a single length of hose, may reach any part of the boat normally accessible to persons on board during navigation.
 - 4.2. In machinery spaces containing propulsion machinery or auxiliary machinery, boilers, incinerators, etc., at least one fire hydrant shall be provided.
 - 4.3. In the accommodation and on deck, the number of fire hoses with their associated couplings, combined dual-purpose nozzles and coupling tools shall be at least three.
 - 4.4. All fire hydrants in machinery spaces, cf. paragraph 4.2, shall be fitted with hoses with dual-purpose nozzles.
 - 4.5. Fire hoses shall be stored in a protected and easily accessible place as close to the fire hydrants as possible.
5. Fixed fire-extinguishing systems
 - 5.1. For use in spaces containing propulsion machinery, auxiliary machinery, boilers, incinerators, etc., one of the following fixed, approved fire-extinguishing systems shall be provided, operable from outside the relevant space:
 - 5.1.1. either a pressure water-spraying installation,
 - 5.1.2. or a fire-smothering gas installation,
 - 5.1.3. or a fire-extinguishing installation using vapours from evaporating liquids of low toxicity,
 - 5.1.4. or a fire-extinguishing installation using high-expansion foam.
 - 5.2. New installations of halogenated hydrocarbon systems used as fire-extinguishing media shall be prohibited on boats.

6. Portable fire-extinguishers in accommodation and machinery spaces.
 - 6.1. For use in accommodation, service and machinery spaces, the number of portable fire-extinguishers approved for the specific purpose shall be provided necessary for the size and arrangement of the relevant space.
 - 6.2. For use in machinery spaces containing either propulsion machinery or auxiliary machinery with a total output of or above 375 kW, a portable fire-extinguisher shall be provided for each 750 kW or part hereof, however at least two.
 - 6.3. If oil-burning auxiliary or heating boilers are fitted in the machinery spaces mentioned in paragraph 6.2, one additional portable fire-extinguisher shall be located in the vicinity.
 - 6.4. If oil-burning auxiliary or heating boilers are fitted outside the machinery spaces mentioned in paragraph 6.2, a portable fire-extinguisher shall be located in the vicinity.
7. Fixed fire-detection systems
 - 7.1. In machinery spaces, an automatic fire-detection system shall be installed.
 - 7.2. Detectors shall be of a type approved according to recognized standards.

Regulation 20 – Fire-extinguishing equipment in boats with a gross tonnage below 100

1. All boats shall, in consideration of their arrangement, size and trade area, be equipped with the necessary fire-extinguishing systems capable of having a strong effect any place in the boat if used together.
2. Fire pumps
 - 2.1. All boats shall be equipped with one power-driven pumps as well as the necessary fire mains, fire hoses and nozzles. The pump shall have a capacity that is appropriate in relation to the boat's size and arrangement, however the capacity shall not normally be less than 15 m³ per hour at 2.5 kg/cm².
 - 2.2. Fire hoses shall be stored in a protected and easily accessible place as close to the fire hydrants as possible.
3. Fixed fire-extinguishing systems
 - 3.1. In all boats with a gross tonnage of or above 20, for use in the machinery space, one of the following fixed, approved fire-extinguishing systems shall be provided, operable from outside the relevant space and of as simple a design as possible:
 - 3.1.1. either a pressure water-spraying installation,
 - 3.1.2. or a fire-smothering gas installation,
 - 3.1.3. or a fire-extinguishing installation using vapours from evaporating liquids of low toxicity,
 - 3.1.4. or a fire-extinguishing installation using high-expansion foam.
 - 3.2. New installations of halogenated hydrocarbon systems used as fire-extinguishing media shall be prohibited on boats.
4. Fixed fire-detection systems
 - 4.1. On boats with a gross tonnage of or above 20, for use in the machinery space, an automatic fire-detection system shall be installed, of as simple a design as possible.
 - 4.2. Detectors shall be of a type approved according to recognized standards.
5. Portable fire-extinguishers
 - 5.1. For use in machinery and accommodation spaces, etc., on all boats with a gross tonnage of or above 20, fire-extinguishers approved for the specific purpose shall be provided.
 - 5.2. For use in the machinery space, at least one portable fire-extinguisher shall be provided. In addition, a similar fire-extinguisher shall be provided outside the machinery space, but in its vicinity.

- 5.3. If auxiliary machinery or oil burners are fitted outside the machinery space, a portable fire-extinguisher shall be located in the vicinity.
- 5.4. For use in the accommodation, a number of portable fire-extinguishers necessary for the size and arrangement of the accommodation shall be provided.

Part F – Life-saving appliances

Regulation 21 – Lifejackets

1. Lifejackets approved according to recognized standards shall be provided for everyone on board as well as additional lifejackets corresponding to 5% of the persons on board.
2. If children are on board the boat, children's lifejackets shall be provided, in addition, in a quantity corresponding to at least the actual number of children on board. Children shall mean persons with a mass of up to 32 kg.
3. Lifejackets shall be fitted with approved lights.
4. Lifejackets shall be stored on deck in boxes or lockers clearly marked "LIFEJACKETS" (in Danish: "REDNINGSVESTE") or with an approved pictogram. At suitable places, approved guidelines for donning lifejackets shall be affixed.

Regulation 22 – Immersion suits

1. Boats equipped with a rescue boat shall for each person designated to man the boat carry one approved immersion suit or anti-exposure suit.

Regulation 23 – Thermal protective aids

1. Boats navigating during the period from 30 September to 1 May shall carry thermal protective aids in a number corresponding to either 10% of the number of persons for which the liferaft is approved or two, whichever is the greatest.

Regulation 24 – Lifebuoys

1. At least two approved lifebuoys shall be carried on board. In boats with a gross tonnage above 150 four such lifebuoys shall, however, be carried. The lifebuoys shall be located in an appropriate place in the boat. One lifebuoy shall be fitted with a 30 metre buoyant line. The other lifebuoys shall be fitted with self-igniting lights.

Regulation 25 – Embarkation arrangement

1. The embarkation arrangement shall be such that it is possible to evacuate all those on board within a period of ten minutes.
2. It shall be possible to secure liferafts and rescue boats at the embarkation area until the total number of persons on board have embarked.
3. In boats where the height from the surface of the sea to the embarkation deck exceeds 1.5 metres, an embarkation ladder shall be provided at each embarkation station of the same design as a pilot ladder.
4. In boats where the height from the surface of the sea to the embarkation station on the boat exceeds 1.5 metre, it shall be possible to lower the liferafts with their complement of persons by means of a davit or crane.

Regulation 26 – Liferafts

1. Boats shall be provided with liferafts for all those on board. If the number of persons on board is greater than 12, there shall be at least two liferafts.

2. In boats equipped with two liferafts, each of these shall be capable of carrying at least half of those on board. In boats equipped with more than two liferafts, the size and location of the liferafts shall be approved by the Danish Maritime Authority.
3. The liferafts shall be equipped in accordance with the provisions on the equipment of liferafts in cargo ships engaged in domestic voyages.
4. Liferafts shall be stowed so that two persons can launch the liferaft in maximum one minute without using any considerable physical power and without using any means other than those forming an integral part of the launching arrangement.
5. Liferaft lashings shall be fitted with a hydrostatic release device approved by the Danish Maritime Authority so that the liferaft floats freely to the surface of the sea and is automatically inflated if the boat sinks.
6. Liferafts and hydrostatic release devices shall be inspected by an approved service station at intervals not exceeding the recommendations of the manufacturer.
7. Liferafts may be fully or partly replaced by lifeboats located below davits. In such cases, the lifeboats shall comply with the provisions for lifeboats, arrangements and launching arrangements stipulated in “Notice B from the Danish Maritime Authority”.

Regulation 27 – Rescue boats

1. Boats which the Danish Maritime Authority finds suitable for manoeuvring to and retrieving a person from the sea may be exempted from being fitted with a rescue boat. Such boats shall be equipped with an arrangement suitable for retrieving persons from the surface of the sea.
2. Boats with a gross tonnage of or above 150 that are not exempted from being equipped with a rescue boat in accordance with paragraph 1 above shall be equipped with rescue boats approved according to recognized standards.

Regulation 28 – Emergency lighting

1. Boats used during the period from 1800 hours and 0600 hours as well as all boats with a gross tonnage of or above 150 shall be fitted with emergency lighting capable of illuminating the life-saving appliances while they are being made ready and launched as well as the part of the sea where they are being launched.

Regulation 29 – Distress signals

1. The boat shall carry 12 rocket parachute flares and 2 orange smoke signals. The signals shall be of an approved type and replaced in accordance with the instructions of the manufacturer, however not later than 4 years after the date of manufacture. Boats that are only engaged on voyages from sunrise to sunset need carry only 6 rocket parachute flares and 2 orange smoke signals.