normal positions to 1 side of the centreline, shall have a freeboard, measured from the waterline to the lowest opening through which the boat may become flooded, of at least 1.5 per cent of the boat's length or 100mm, whichever is the greater.

(11) All boats shall:

(a) be not less than 3.8 metres and not more than 8.5 metres in length;

(b) be capable of carrying at least 5 seated persons and a person lying down.

(12) Unless the boat has adequate sheer, it shall be provided with a bow cover of highly visible colour extending for not less than 15 percent of its length, and shall be angled upwards to deflect water and spray.

(13) Boats shall be capable of manoeuvring at speeds of at least 6 knots and maintaining that speed for a period of at least 4 hours.

(14) Boats shall have sufficient mobility and manoeuvrability in a seaway to enable persons to be retrieved from the water, marshal liferafts and tow the largest liferaft carried on the ship, when loaded with its full complement of persons and equipment, or its equivalent, at a speed of at least 2 knots.

(15) The boat shall be fitted with an inboard or outboard engine complying with the relevant parts of clause 15 of this performance standard.

(16) Arrangements for towing shall be permanently fitted in boats and shall be sufficiently strong to marshal or tow liferafts as required by subclause 14 of this clause.

(17) All boats shall be fitted with weathertight stowage for small items of equipment.

(18) An inflated rescue boat shall be constructed in such a way that, when suspended by its bridle or lifting hook:

(a) it is of sufficient strength and rigidity to enable it to be lowered and recovered with its full complement of persons and equipment;

(b) it is of sufficient strength to withstand a load of 1.1 times the mass of its full complement of persons and equipment at an ambient temperature of $-30°C$ with all relief valves operative;

(c) it is of sufficient strength to withstand a load of 4 times the mass of its full complement of persons and equipment at an ambient temperature of $20°C \pm 3°C$ with all relief valves inoperative.

(19) Inflated rescue boats shall be so constructed as to be capable of withstanding exposure:

(a) when stowed on an open deck on a ship at sea;

(b) for 30 days afloat in all sea conditions.

(20) The buoyancy of an inflated rescue boat shall be provided by either a single tube subdivided into at least 5 separate compartments of approximately equal volume or 2 separate tubes neither exceeding 60 percent of the total volume. The buoyancy tubes shall be so arranged that, in the event of any one of the compartments being damaged, the intact compartments shall be able to support, with positive freeboard over the boat's entire periphery, the number of persons which the boat is permitted to accommodate, each having a mass of 75kg, and seated in their normal positions.

(21) The buoyancy tubes forming the boundary of the inflated rescue boat shall on inflation provide a volume of not less than $0.17m^3$ for each person the rescue boat is permitted to accommodate and the diameter of the main buoyancy chamber must be at least 0.43 metres.

(22) Each buoyancy compartment shall be fitted with a non-return valve for manual inflation and means for deflation. A safety relief valve shall also be fitted to each buoyancy compartment.

(23) When inverted in the water a boat shall be capable of being righted by not more than 2 persons.

(24) Rubbing strips shall be provided underneath the bottom and on vulnerable places on the outside of the inflated rescue boat.

(25) Where a transom is fitted it shall not be inset by more than 20 percent of the overall length of the inflated rescue boat.

(26) Suitable patches shall be provided for securing painters forward and aft and becketed lifelines inside and outside the boat.

(27) The inflated rescue boat shall be maintained at all times in a fully inflated condition.

(28) All boats shall be fitted with a protective stowage cover and shall be kept covered at all times when the boat is not in use. The cover shall be arranged for quick removal in an emergency.

15. Inflated rescue boat propulsion—(1) Inboard Engine

Where a boat is powered by an inboard engine it shall be of the compression ignition type. No engine shall be used for any boat if its fuel has a flashpoint of 43°C or less (Closed Cup Test), and the engine shall:

(a) be provided with either a manual starting system, or a power starting system with 2 independent rechargeable energy sources. Any necessary starting aids shall also be provided; the engine starting systems and starting aids shall start the engine at an ambient temperature of $-15°C$ within 2 minutes of commencing the start procedure unless, in the opinion of the Director having regard to the particular voyages in which the ship carrying the boat is constantly engaged, a different temperature is appropriate; the starting systems shall not be impeded by the engine casing, thwarts or other obstructions;

(b) be capable of operating for not less than 5 minutes after starting from cold with the boat out of the water;

(c) be capable of operating when the boat is flooded up to the centreline of the crank shaft.

(2) Outboard Engine

(a) Petrol-driven outboard engines with an approved fuel system may be fitted to boats provided the tanks are specially protected against fire and explosion.

(b) A petrol engine shall be provided with either a manual starting system, or a power starting system. Any necessary starting aids shall also be provided. The engine starting systems and starting aids shall start the engine at an ambient temperature of $-15°C$ within 2 minutes of commencing the start procedure unless, in the opinion of the Director having regard to the particular voyages in which the ship carrying the boat is constantly engaged, a different temperature is appropriate. The starting systems shall not be impeded by the engine casing, thwarts or other obstructions.

(3) Unless the propeller is so arranged so as to avoid its rotation constituting a danger to people in the water adjacent to it the drive arrangement between the prime mover and the propeller shall be such that the propeller can be brought to rest without stopping the prime mover. Provision shall be made for ahead and astern propulsion of the craft.

(4) The exhaust pipe shall be so arranged as to prevent water from entering the engine in normal operation.

(5) All boats shall be designed with due regard to the safety of persons in the water and to the possibility of damage to the propulsion system by floating debris.

(6) The boat engine, transmission and engine accessories shall be enclosed in a fire-retardant casing or other suitable arrangements providing similar protection. Such arrangements shall also protect persons from coming into accidental contact with hot or moving parts and protect the engine from exposure to weather and sea. Adequate means shall be provided to reduce the engine noise. Starter batteries