

position on its pivot when the bowl is inverted and then returned to its normal position.

(4) The strength and durability of the materials used, and the quality of manufacture shall be such that the compass will remain efficient under sea-going conditions. Any paint inside the bowl shall show no signs of blistering.

(5) The bowl of the compass, or the housing, if integral with the bowl shall be permanently marked with the maker's name or other identification mark.

**16. Magnet**—The magnet shall have ample directive force. In New Zealand a period of 16 to 20 seconds after a deflection of 40 degrees at a temperature of  $15^{\circ}\text{C} \pm 2^{\circ}\text{C}$  shall be deemed to indicate compliance with this requirement. The "period" is defined as the time taken for a complete oscillation of the card after being released from a deflection of 40 degrees, swinging past the position of rest, and back again to the completion of its swing on the side of which it was originally deflected.

**17. Supporting force on pivot**—Over the temperature range of  $-30^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ , the supporting force of the immersed card system on the pivot shall be between 0.04 and 0.10 newtons.

**18. Card size and markings**—The compass card shall be not less than 60mm in diameter. When the diameter of the card is less than 100mm, magnification of the card shall be incorporated to allow a person with normal vision to read the compass at a distance of not less than 1 metre. The card shall be graduated in 5 degree intervals, with a numerical indication at least every 30 degrees. The cardinal points shall be distinctively marked. Edge graduations, where provided, shall be at 5 degree intervals with numerical indication at least every 30 degrees.

**19. Lubber mark and illumination.**—The compass shall be fitted with a lubber line or point and the compass card shall be luminised or provided with a suitable means of illumination which does not include the use of an oil lamp. If only part of the card is visible (or if magnification is used) it shall be possible to read a minimum of 15 degrees on either side of the lubber mark.

**20. Material for card centre**—The centre of the card shall be of sapphire or equally hard jewel.

**21. Material for card pivot**—The pivot of the card shall be of iridium or equally hard material.

Dated at Wellington this 31st day of October 1989.

W. P. JEFFRIES, Minister of Transport.  
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### The Shipping (Lifebuoys) Notice 1989

Pursuant to section 235 of the Shipping and Seamen Act 1952, the Minister of Transport hereby gives the following notice.

#### Notice

**1. Title and commencement**—(1) This notice may be cited as the Shipping (Lifebuoys) Notice 1989.

(2) This notice shall come into force on the 1st day of November 1989.

**2. Performance Standard prescribed**—The Performance Standard set out in the Schedule to this notice is hereby prescribed for the purposes of the Shipping (Lifesaving Appliances) Regulations 1989.

#### Schedule

##### Performance Standard for Lifebuoys

###### Part I

##### Lifebuoys (Solos) for Use on Ships of Classes I to X Inclusive

**1. Construction**—(1) A lifebuoy shall be constructed with proper workmanship and materials.

(2) As applicable the materials of a lifebuoy shall be rot-proof, corrosion resistant, and not be unduly affected by sea water, oil or fungal attack.

(3) A lifebuoy shall be of a highly visible colour.

(4) It shall be fitted on each side at four evenly spaced points with a piece of retro-reflective material 50mm  $\times$  100mm in size.

(5) A lifebuoy shall have an outer diameter of not more than 800mm and an inner diameter of not less than 400mm.

(6) A lifebuoy shall be constructed of inherently buoyant material. It shall not depend upon rushes, cork shavings or granulated cork, any other loose granulated material or any air compartment which depends on inflation for buoyancy.

(7) It shall have a mass of not less than 2.5kg provided that if intended to operate a quick release arrangement for a self-activating smoke signal and self-igniting light it shall have a mass sufficient to operate the quick release arrangement or 4kg, whichever is the greater.

(8) It shall be constructed to withstand a drop into water from the height at which it is stowed above the waterline in the lightest seagoing condition or 30 metres, whichever is the greater, without impairing either its operating capability or that of its attached components.

(9) It shall be fitted with a grabline not less than 9.5mm in diameter and of length not less than 4 times the outside diameter of the lifebuoy. The grabline shall be secured at 4 equidistant points around the circumference of the lifebuoy to form 4 equal loops.

(10) Lifebuoys constructed to the requirements of the Shipping (Lifesaving Appliances) Rules 1968 shall be deemed to comply with this performance standard so long as they remain in good condition to the satisfaction of a Surveyor.

**2. Performance**—(1) A lifebuoy shall not be damaged in stowage throughout the air temperature range  $-30^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ .

(2) It shall operate throughout a sea water temperature range of  $-1^{\circ}\text{C}$  to  $+30^{\circ}\text{C}$ .

(3) A lifebuoy shall be resistant to deterioration from exposure to sunlight.

(4) It shall be capable of satisfactory operation in a seaway.

(5) A lifebuoy shall be capable of supporting not less than 14.5kg of iron in fresh water for a period of 24 hours.

(6) It shall be deemed to be capable of supporting 2 persons in the water.

(7) It shall not sustain burning or continue melting after being totally enveloped in a fire for a period of 2 seconds.

**3. Marking**—(1) A lifebuoy shall be marked in block capitals of the Roman alphabet with the name and the port of registry of the ship on which it is carried.

(2) A lifebuoy constructed of synthetic materials shall be permanently marked with the manufacturer's trade mark or trade name of the lifebuoy and the words "M.O.T. APPROVED", or mark of another approving authority.

(3) A lifebuoy shall be permanently marked with the maximum height above the waterline at which it can be stowed if this exceeds 30 metres.