construction and afford complete control and limitation of speed in the operation of lowering. The hand brake shall be so arranged that it is normally in the "ON" position and returns to the "ON" position when the control handle is not being operated. The mass of the brake lever shall be sufficient to operate the brake effectively without additional pressure. The winch brakes of a launching appliance shall be of sufficient strength to withstand:

(a) a static load test with a proof load of not less than 1.5 times the maximum working load; and

(b) a dynamic test with a proof load of not less than 1.1 times the maximum working load at the maximum lowering speed.

(2) The speed at which the fully laden liferaft is lowered into the water shall be not less than that obtained from the formula:

$S = 0.4 + (0.02 \times H)$

where S = speed of lowering in metres per second

and H = height in metres from davit head, at the outboard position, to the waterline at the lightest seagoing condition.

In the case of a ship where "H" exceeds 15 metres the lowering speeds need not exceed 0.7 metre per second.

(3) Notwithstanding the requirements of sub-clause (2) of this clause the speed of lowering shall not exceed 1 metre per second.

(4) The brake gear of the winch shall include means for automatically controlling the speed of lowering to within the limits specified in sub-clauses (2) and (3) of this clause. A ratchet gear shall be incorporated in these winches.

(5) Hand gear handles shall not be rotated by moving parts of the winch when the liferaft is being lowered or hoisted by power.

(6) The launching mechanism shall be so arranged that it may be actuated by 1 person from a position on the ship's deck. It shall also be operable by 1 person from within the liferaft. The launching arrangements shall be such that the winch operator on the ship's deck is able to observe the liferaft at all times during the lowering.

(7) When the lowering of the liferaft is actuated from within the raft by means of a control wire paid off from an auxiliary drum on the winch:

(a) the mass of the control wire shall be sufficient to overcome the friction of the various pulleys on the control wire;

(b) the winch brake shall be operable from within the liferaft;

(c) the winch brake shall not be affected by the mass of the fully extended control wire nor the wind effects on it; and

(d) there shall be sufficient length of control wire available at the liferaft during all stages of lowering.

**25. Release of the Liferaft**—(1) The launching appliance shall be so arranged as to prevent premature release during the lowering of the liferaft but shall be such that on becoming waterborne the raft shall be automatically released from the release hook which shall comply with requirements of Part V of the Performance Standard for Liferafts.

## *Part IV*

## *Inflated Boat Launching Appliances*

**26. Definitions**— In this Part the expression "working load" means the sum of the masses of:

(a) the inflated boat and its full equipment;

(b) the blocks and falls;

(c) a launching crew of 2 persons each of mass 75kg; and

(d) a mass of 60kg or the mass of the engine together with its fuel tank and sufficient fuel for 2 hours operation, whichever is the greater.

(2) In this Part the expression "inflated boat" means any inflated boat or rigid inflated boat other than a dedicated rescue boat.

**27. Construction**—(1) Every inflated boat launching appliance shall be so constructed to be:

(a) capable of recovering the inflated boat and bringing it on board the ship;

(b) readily available and not stowed or used for any purpose other than the launching of the inflated boat whilst the ship is at sea; and

(c) provided with a suitable means for manual operation.

(2) Each launching appliance shall be so constructed that the minimum amount of routine maintenance is necessary. All parts requiring regular maintenance by the ship's crew shall be readily accessible and easily maintained.

(3) A launching appliance shall be dependent only on manual effort, gravity or stored mechanical power which, if the boat is part of the ship's statutory life saving appliances, is independent of the ship's power supplies when used to launch the inflated boat. The arrangement shall be such that the inflated boat can be lowered by gravity when loaded in accordance with clauses 26(c) and 26(d) of this Part and with its full equipment.

**28. Strength**— Every launching appliance servicing an inflated boat shall, together with its winch if fitted, falls, blocks and other associated lowering gear be of such strength that the inflated boat with its full equipment can be safely lowered into the water from the embarkation position with a complement of 2 persons, when the ship has a list of up to 20° either way and a trim of up to 10°, or such angles as may be required by clause 1(2) of Part I of this performance standard.

**29. Stresses**—(1) Structural members and all blocks, falls, padeyes, links, fastenings and all other fittings used in connection with a launching appliance shall be designed with not less than a minimum factor of safety on the basis of the maximum working load assigned and the ultimate strength of the material used for construction. A minimum factor of safety of 4.5 shall be applied to all structural members and a minimum factor of safety of 6 shall be applied to the falls, links and blocks.

**30. Static Load Test**—(1) Every launching appliance and its attachments other than the winch brakes shall be capable of withstanding a static test load, in a direction simulating a 20° list and 10° trim, or such other angle as may be required under clause 1 (2) of Part I of this performance standard of not less than 2.2 times the maximum working load.

**31. Winches**—(1) Every such launching appliance shall be provided with a winch when the inflated boat is situated more than 4.5 metres above the lightest sea going waterline.

(2) Winch brakes shall be of robust construction and afford complete control and limitation of speed in the operation of lowering. The hand brake shall be so arranged that it is normally in the "ON" position and returns to the "ON position when the control handle is not being operated. The mass of the brake lever shall be sufficient to operate the brake effectively without additional pressure. The winch brakes of a launching appliance shall be of sufficient strength to withstand:

(a) a static load test with a proof load of not less than 1.5 times the maximum working load; and

(b) a dynamic test with a proof load of not less than 1.1 times the maximum working load at the maximum lowering speed.

(3) The speed at which the inflated boat is lowered into the water shall be not less than that obtained from the formula: