

SCHEDULE 6

LAUNCHING APPLIANCES AND EMBARKATION LADDERS Regulations 2(3), 5 and 6

PART III

LIFERAFT LAUNCHING APPLIANCES

General

Definition of “Working Load”

1

1.1 In this Part the expression “working load” means:

(1.1.1) the sum of the mass of the liferaft and its equipment, all other associated gear that is supported by the launching appliance during the lowering operation and the maximum number of persons which the liferaft is deemed fit to carry, the mass of each person being taken to be 75 kg.

Construction

General

2

2.1 Each liferaft launching appliance shall be so constructed that a minimum amount of routine maintenance is necessary. All parts requiring regular maintenance by the ship’s crew shall be readily accessible and easily maintained.

2.2 A liferaft launching appliance shall not be solely dependent on the use of means other than manual effort, gravity or stored mechanical power which is independent of the ship’s power supplies to launch the liferaft. The arrangements shall be such that the liferaft can be lowered in the fully loaded and equipped condition by gravity.

2.3 The arrangements of the launching appliance shall be such as to enable safe boarding of the liferaft in accordance with the requirements of paragraph 6.3 of Part I of Schedule 4.

Strength

3

3.1 Every launching appliance serving a liferaft which is required by these Regulations to be put into the water when loaded with its full complement of persons shall, together with its winch, falls, blocks and all other associated launching equipment, be of such strength that the liferaft with its full equipment can be safely lowered into the water from the embarkation position with its full complement of persons, when the ship has a list of up to 20° either way and a trim of up to 10°.

Stresses

4

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4.1 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 davit and winch structural members, and a minimum factor of safety of 6 shall be applied to falls, links and blocks.

Static load test

5

5.1 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 of not less than 2.2 times the maximum working load.

Wire ropes

6

6.1 Falls shall be of rotation-resistant and corrosion-resistant steel wire rope.

6.2 The braking tensile load of each wire rope used for lowering shall be not less than six times the maximum load on the wire rope when lowering, hoisting or stowing.

6.3 Wire ropes shall be securely attached to the drum of the winch, and the end attachments of the wires and other parts from which the liferaft is to be suspended shall be capable of withstanding a proof load of not less than 2.2 times the load on such attachments and other parts.

6.4 Where wire rope splices or ferrule-secured eye terminals are used they shall be capable of withstanding a proof test of not less than 2.2 times the load imposed on them in service.

6.5 The falls of a liferaft launching appliance shall be at least long enough to reach the water with the ship at her lightest sea-going draught under unfavourable conditions of trim and listed to 20° either way.

Winches

7

7.1 Winch brakes shall be of robust construction and afford complete control and limitation of speed in the operation and 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:

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

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

7.2 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 meters 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.

7.3 Notwithstanding the requirements of paragraph 7.2 the speed of lowering shall not exceed 1 metre per second.

7.4 The brake gear of the winch shall include means for automatically controlling the speed of lowering to within the limits specified in paragraphs 7.2 and 7.3. A ratchet gear shall be incorporated in these winches.

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

7.6 The launching mechanism shall be so arranged that it may be actuated by one person from a position on the ship’s deck. It shall also be operable by one 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.

7.7 If 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:

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

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

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

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

Release of the liferaft

8

8.1 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 Schedule 4.