

essential, watertight doors of satisfactory construction may be fitted in watertight bulkheads dividing cargo between deck spaces. Such doors may be hinged, rolling or sliding doors but shall not be remotely controlled. They shall be fitted at the highest level and as far from the shell plating as practicable, but in no case shall the outboard vertical edges be situated at a distance from the shell plating which is less than one fifth of the breadth of the ship, such distance being measured at right angles to the centreline of the ship at the level of the deepest subdivision load line.

(26) Should any such door be accessible during the voyage, it shall be fitted with a device which prevents unauthorised opening. When it is proposed to fit such doors, the number and arrangements shall receive the special consideration of the Chief Surveyor.

(27) Portable plates on bulkheads shall not be permitted except in machinery spaces.

(28) Where trunkways or tunnels for access from crew accommodation to the stokehold, for piping, or for any other purpose are carried through main transverse watertight bulkheads, they shall be watertight and in accordance with the requirements of clause 18 of this Code. The access to at least one end of each such tunnel or trunkway, if used as a passage at sea, shall be through a trunk extending watertight to a height sufficient to permit access above the margin line. The access to the other end of the trunkway or tunnel may be through a watertight door of the type required by its location in the ship. Such trunkways or tunnels shall not extend through the first subdivision bulkhead abaft the collision bulkhead.

(29) Where it is proposed to fit tunnels or trunkways for forced draught, piercing main transverse watertight bulkheads, these shall receive the special consideration of the Chief Surveyor.

**13. Ships Carrying Goods Vehicles and Accompanying Personnel**—(1) This clause applies to passenger ships regardless of the date of construction designed or adapted for the carriage of goods vehicles and accompanying personnel where the total number of passengers exceeds 12.

(2) If in such a ship the total number of passengers which include personnel accompanying vehicles does not exceed  $N = 12 + A/25$ , where  $A =$  total deck area (square metres) of spaces available for the stowage of goods vehicles and where the clear height at the stowage position and at the entrance to such spaces is not less than 4m, the provisions of clause 12 sub-clause (25) of this Code apply except that the doors may be fitted at any level in such watertight bulkheads. Additionally, indicators are required on the navigating bridge to show automatically when each door is closed and all door fastenings are secured.

(3) When applying the provisions of this Code to such a ship,  $N$  shall be taken as the maximum number of passengers for which the ship may be certified in accordance with this clause.

(4) In applying clause 25 of this Code for the worst operating conditions, the permeability for cargo spaces intended for the stowage of goods vehicles and containers shall be derived by calculation in which the goods vehicles and containers shall be assumed to be non-watertight and their permeability taken as 65. For ships engaged in dedicated services the actual value of permeability for goods vehicles or containers may be applied. In no case shall the permeability of the cargo spaces in which the goods vehicles and containers are carried be taken as less than 60.

**14. Openings in the Shell Plating Below the Margin Line**—

(1) The number of openings in the shell plating shall be reduced to the minimum compatible with the design and proper working of the ship.

(2) The arrangement and efficiency of the means for closing any opening in the shell plating shall be consistent with its intended purpose and the position in which it is fitted and generally to the satisfaction of the Chief Surveyor.

(3) Subject to the requirements of the Load Line Rules 1970, no sidescuttle shall be fitted in such a position that its sill is below a line drawn parallel to the bulkhead deck at side and having its lowest point 2.5 per cent of the breadth of the ship above the deepest subdivision load line, or 500mm, whichever is the greater.

(4) All sidescuttles the sills of which are below the margin line, as permitted by sub-clause (3) of this clause shall be of such construction as will effectively prevent any person opening them without the consent of the master of the ship.

(5) Efficient hinged inside deadlights so arranged that they can be easily and effectively closed and secured watertight, shall be fitted to all sidescuttles except that abaft one eighth of the ship's length from the forward perpendicular and above a line drawn parallel to the bulkhead deck at side and having its lowest point at a height of 3.7m plus 2.5 per cent of the breadth of the ship above the deepest subdivision load line, the deadlights may be portable in passenger accommodation other than that for steerage passengers, unless the deadlights are required by the Load Line Rules 1970 to be permanently attached in their proper positions. Such portable deadlights shall be stowed adjacent to the sidescuttles they serve.

(6) No sidescuttles shall be fitted in any spaces which are appropriated exclusively to the carriage of cargo or coal.

(7) Sidescuttles may, however, be fitted in spaces appropriated alternatively to the carriage of cargo or passengers, but they shall be of such construction as will effectively prevent any person opening them or their deadlights without the consent of the master.

(8) Automatic ventilating sidescuttles shall not be fitted in the shell plating below the margin line without the special sanction of the Chief Surveyor.

(9) The number of scuppers, sanitary discharges and other similar openings in the shell plating shall be reduced to the minimum either by making each discharge serve for as many as possible of the sanitary and other pipes, or in any other satisfactory manner.

(10) All inlets and discharges in the shell plating shall be fitted with efficient and accessible arrangements for preventing the accidental admission of water into the ship.

(11) Subject to the requirements of the Load Line Rules 1970, and except as provided by sub-clause (13) of this clause, each separate discharge led through the shell plating from spaces below the margin line shall be provided with either one automatic non-return valve fitted with a positive means of closing it from above the bulkhead deck or with two automatic non-return valves without positive means of closing, provided that the inboard valve is situated above the deepest subdivision load line and is always accessible for examination under service conditions. Where a valve with positive means of closing is fitted, the operating position above the bulkhead deck shall always be readily accessible and means shall be provided for indicating whether the valve is open or closed.

(12) The requirements of the Load Line Rules 1970 shall apply to discharges led through the shell plating from spaces above the margin line.

(13) Machinery space main and auxiliary sea inlets and discharges in connection with the operation of machinery shall be fitted with readily accessible valves between the pipes and the shell plating or between the pipes and fabricated boxes attached to the shell plating. The valves may be controlled locally and shall be provided with indicators showing whether they are open or closed.

(14) All shell fittings and valves required by this clause shall be of steel, bronze or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this regulation refers shall be of steel or other equivalent material to the satisfaction of the Chief Surveyor.

(15) Gangway, cargo and coaling ports fitted below the margin