

deck, but, if both compartments are below the bulkhead deck, they shall not be in adjacent watertight compartments.

(3) Other than for ships of Class I of less than 24 metres in length, at least one set of portable gas or pneumatic cutting equipment shall be kept in a locked compartment in an approved position accessible only to ship's personnel authorised by the master.

SECTION B

50. Periodically Unattended Machinery Spaces—This section, except for clause 59 applies to cargo ships and only to ships with machinery spaces containing machinery used or essential for propulsion, which are intended to be periodically unattended under any sailing condition, including manoeuvring.

51. General—(1) The arrangements provided shall be such as to ensure that the safety of the ship in all sailing conditions, including manoeuvring is equivalent to that of a ship having the machinery spaces manned.

(2) Measures shall be taken to the satisfaction of the Chief Surveyor to ensure that the equipment is functioning in a reliable manner and that satisfactory arrangements are made for regular inspections and routine tests to ensure continuous reliable operation.

(3) Every ship shall be provided with documentary evidence, to the satisfaction of the Chief Surveyor of its fitness to operate with periodically unattended machinery spaces.

52. Protection Against Flooding—(1) Bilge wells in periodically unattended machinery spaces shall be located and monitored in such a way that the accumulation of liquids is detected at normal angles of trim and heel, and shall be large enough to accommodate easily the normal drainage during the unattended period.

(2) Where the bilge pumps are capable of being started automatically, means shall be provided to indicate when the influx of liquid is greater than the pump capacity or when the pump is operating more frequently than would normally be expected. In these cases, smaller bilge wells to cover a reasonable period of time may be permitted. Where automatically controlled bilge pumps are provided, special attention shall be given to oil pollution prevention requirements.

(3) The location of the controls of any valve serving a sea inlet, a discharge below the waterline or a bilge injection system shall be so sited as to allow adequate time for operation in case of influx of water to the space, having regard to the time likely to be required in order to reach and operate such controls. If the level to which the space could become flooded with the ship in the fully loaded condition so requires, arrangements shall be made to operate the controls from a position above such level.

53. Control of Propulsion Machinery from the Navigating Bridge—(1) Under all sailing conditions, including manoeuvring, the speed, direction of thrust and, if applicable, the pitch of the propeller shall be fully controllable from the navigating bridge.

Such remote control shall be performed by a single control device for each independent propeller, with automatic performance of all associated services, including, where necessary, means of preventing overload of the propulsion machinery.

The main propulsion machinery shall be provided with an emergency stopping device on the navigating bridge which shall be independent of the navigating bridge control system.

(2) Propulsion machinery orders from the navigating bridge shall be indicated in the main machinery control room or at the propulsion machinery control position as appropriate.

(3) Remote control of the propulsion machinery shall be possible only from one location at a time; at such locations

interconnected control positions are permitted. At each location there shall be an indicator showing which location is in control of the propulsion machinery. The transfer of control between the navigating bridge and machinery spaces shall be possible only in the main machinery space or in the main machinery control room. The system shall include means to prevent the propelling thrust from altering significantly when transferring control from one location to another.

(4) It shall be possible for all machinery essential for the safe operation of the ship to be controlled from a local position, even in the case of failure in any part of the automatic or remote control systems.

(5) The design of the remote automatic control system shall be such that in case of its failure an alarm will be given. Unless the Chief Surveyor considers it impracticable, the preset speed and direction of thrust of the propeller shall be maintained until local control is in operation.

(6) Indicators shall be fitted on the navigating bridge for:

(a) propeller speed and direction of rotation in the case of fixed pitch propellers; or

(b) propeller speed and pitch position in the case of controllable pitch propellers.

(7) The number of consecutive automatic attempts which fail to produce a start shall be limited to safeguard sufficient starting air pressure. An alarm shall be provided to indicate low starting air pressure set at a level which still permits starting operations of the propulsion machinery.

54. Communication—A reliable means of vocal communication shall be provided between the main machinery control room or the propulsion machinery control position as appropriate, the navigating bridge and the engineer officers' accommodation.

55. Alarm System—(1) An alarm system shall be provided indicating any fault requiring attention and shall:

(a) be capable of sounding an audible alarm in the main machinery control room or at the propulsion machinery control position, and indicate visually each separate alarm function at a suitable position;

(b) have a connection to the engineers' public rooms and to each of the engineers' cabins through a selector switch, to ensure connection to at least one of those cabins. The Chief Surveyor may permit equivalent arrangements;

(c) activate an audible and visual alarm on the navigating bridge for any situation which requires action by or attention of the officer on watch;

(d) as far as is practicable be designed on the fail-to-safety principle; and

(e) activate the engineers' alarm required by Clause 43 if an alarm function has not received attention locally within a limited time.

(2) The alarm system shall be continuously powered and shall have an automatic change-over to a stand-by power supply in case of loss of normal power supply.

Failure of the normal power supply of the alarm system shall be indicated by an alarm.

(3) The alarm system shall be able to indicate at the same time more than one fault and the acceptance of any alarm shall not inhibit another alarm.

Acceptance at the position referred to in sub-clause (1) of this clause of any alarm condition shall be indicated at the positions where it was shown. Alarms shall be maintained until they are accepted and the visual indications of individual alarms shall remain until the fault has been corrected, when the alarm system shall automatically reset to the normal operating condition.

56. Safety Systems—A safety system shall be provided to ensure that serious malfunction in machinery or boiler