

# **TUVALU SHIP REGISTRY**

**Safety regulations for non-SOLAS vessels of more than 12 metres in length**

## CONTENTS

Chapter 1	General provisions	3
Chapter 2	Ship surveys and certificates	4
Chapter 3	Load lines	5
Chapter 4	Structure, divisions and equipment	6
Chapter 5	Stability and bilge pumping arrangements	7
Chapter 6	Machinery installations	8
Chapter 7	Electrical installations	9
Chapter 8	Fire protection	10
Chapter 9	Life-saving appliances and arrangements	14
Chapter 10	Radiocommunications	18
Chapter 11	Safety of navigation	18
Chapter 12	Prevention of pollution	21

## **CHAPTER 1**

### **GENERAL PROVISIONS**

#### **Regulation 1**

##### **Application**

1 The present Regulations apply to new cargo ships, including barges, engaged in maritime navigation, whose length overall is 12 metres or over and for which the provisions of the Conventions listed in the following paragraph do not apply.

2 Where the provisions in force of:

.1 The International Convention for the Safety of Life at Sea (SOLAS), 1974, as modified by its Protocol of 1988;

.2 The International Convention on Load Lines (LL), 1966, as modified by its Protocol of 1988;

.3 The International Convention on Standards of Training, Certification and Watchkeeping (STCW), 1978, as amended;

.4 The International Convention for the Prevention of Pollution from Ships (MARPOL), 1973/78; and

.5 International Regulations for Preventing Collisions at Sea (COLREG), 1972, apply to the ships, including barges, subject to the present Regulations, those provisions shall be considered to be part of the present Regulations and shall consequently apply.

#### **Regulation 2**

##### **Definitions**

Administration means the Government of the Republic of Tuvalu.

Approved means approved by the Administration of the Tuvalu as applicable.

Recognized Organization means an organization officially authorised by the Republic of Tuvalu for issuing applicable statutory certificates.

A passenger ship is a ship which carries more than twelve passengers.

A cargo ship is any ship which is not a passenger ship.

A fishing vessel is a vessel used for the purpose of catching fish, whales, seals, walrus or other living resources of the sea.

New Ship means a ship the keel of which is laid or which is at similar stage of construction on or after 1st July 2011.

Barge means a cargo ship without its own means of propulsion.

Length is the overall length of the ship's hull.

Freeboard assigned is the distance measured vertically downwards amidships from the upper edge of the deck line to the upper edge of the related load line.

Gross tonnage (GT) means the measure of the overall size of a ship determined in accordance with the provisions of the International Convention on Tonnage Measurement of Ships, 1969.

International voyage means a voyage between ports in two different countries.

A pleasure craft means a craft not engaged in trade used for tourism or sport.

The present Regulations are the present safety regulations for non-SOLAS cargo ships of more than 12 metres in length.

A tanker is a cargo ship constructed or adapted for the carriage in bulk of liquid cargoes of an inflammable nature.

LSA Code refers to the International Life-Saving Appliance (LSA) Code adopted by the IMO Maritime Safety Committee in Resolution MSC 48(66).

### **Regulation 3**

#### **Exceptions and Exemptions**

1 The present Regulations do not apply to:

- .1 existing cargo ships and barges, unless expressly provided otherwise;
- .2 ships belonging to the State and used for non-commercial purposes, ships of war and troopships;
- .3 passenger ships;
- .4 pleasure craft not engaged in trade;
- .5 fishing vessels;
- .6 wooden ships of primitive build; and
- .7 ships, including barges, whose overall length is less than 12 metres.

2 The Administration may exempt from any requirement in these regulations that it regards as either impracticable or unreasonable for any vessel in view of the distance of the ship's area of operation from its base port, the type of ship, the weather conditions and the absence of general navigational hazards, provided that it complies with such other requirements which, in the opinion of the Administration, are adequate for the service for which it is intended.

### **Regulation 4**

#### **Equivalent**

1 Where in this Regulations any special type of appliance, apparatus, extinguishing medium or arrangement is specified, any other type of appliance, etc., may be allowed if the Administration is satisfied that it is not less effective.

## **CHAPTER 2**

### **SHIP SURVEYS AND CERTIFICATES**

#### **Regulation 1**

##### **Surveys and Bottom Inspections**

1 All ships to which the present Regulations apply shall be subjected to surveys, carried out by the Administration in accordance with the said Regulations, including bottom inspection which

includes shafting and propeller, rudder, sea inlets, scuppers, shell valves and other underwater parts. A minimum of two bottom inspections of the outside of the ship's bottom shall be carried out during any five year period and the interval between any two such inspections shall not exceed 36 months.

## **Regulation 2**

### **Issue or endorsement of the Certificate**

1 A certificate called a "Cargo Ship Safety Construction Certificate" shall be issued to a ship that complies with the provisions of Chapter 4, 5, 6 and 7 and any other relevant requirements of the present Regulations after an Initial or a Renewal survey.

2 A certificate called a "Cargo Ship Safety Equipment Certificate" shall be issued to a ship that complies with the provisions of Chapter 4, 5, 6, 7, 8, 9 and 11 and any other relevant requirements of the present Regulations after an Initial or a Renewal survey.

3 A certificate called a "Cargo Ship Safety Radio Certificate" shall be issued to a ship that complies with the provisions of Chapter 10 and any other relevant requirements of the present Regulations after an Initial or a Renewal survey.

4 When an exemption is granted to a ship under and in accordance with the present Regulations, a certificate called an Exemption Certificate shall be issued in addition to the certificate prescribed in the present Regulations. The Exemption Certificate shall be attached to the Certificate.

5 A "Load Line Certificate" shall be issued in accordance with the regulations under the Convention and the relevant requirements of this chapter.

After the completion of Initial, Renewal or a Flag Entry survey, Interim certificates shall be issued by the Administration or a Recognised Organisation which has been approved by the Administration. Normally, the Interim certificates would be for a period of 5 months. Full term certificates would be issued for a period of 5 years before the expiry of the Interim certificates.

All vessels are subjected to an annual survey. Upon the completion of the annual surveys, the Full-Term certificates can be endorsed as appropriate.

## **CHAPTER 3**

### **LOAD LINES**

#### **Regulation 1**

##### **General**

1 A Load Line shall be assigned to all ships, including barges, covered by the present Regulations.

2 Ships covered by the present Regulations are subject to the provisions of the International Conference on Load Line, 1966, as amended, except for vessels less than 24 m shall comply with the provisions of the Convention to an extent as deemed necessary by the Administration with restriction to its voyages.

#### **Regulation 2**

##### **Freeboard Assignment Table**

1 The following freeboard assignment table, including corrections, shall be applicable to ships of less than 24 metres in length.

Freeboard Assignment Table (including corrections)

<b>Length of Ship (m)</b>	<b>Freeboard (mm)</b>	<b>Length of Ship (m)</b>	<b>Freeboard (mm)</b>
12	340	18	580
13	380	19	620
14	420	20	660
15	460	21	700
16	500	22	740
17	540	23	780

## **CHAPTER 4**

### **STRUCTURE, SUBDIVISION AND EQUIPMENT**

#### **Regulation 1**

##### **General**

1 The machinery and electrical installations, mechanical and electrical equipment, boilers and other pressure vessels, pipes, cables and other associated fittings shall be of a design and construction adequate for the service for which they are intended. They shall be so installed and protected as to reduce to a minimum any danger to persons on board and the environment, due regard being paid to moving parts, hot surfaces and other hazards. The design shall have regard to materials used in construction, the purpose for which the equipment is intended and the working and environmental conditions in which it will be used.

#### **Regulation 2**

##### **Construction**

1 The strength and method of construction of the shell, superstructures, deckhouses, machinery trunks, doors and other structures as well as the equipment shall allow the ship to withstand any of the conditions foreseeable in the service for which it is intended and shall be considered satisfactory by the Administration. A ship constructed and maintained in conformity with the standards recognized by the Administration may be considered to comply with the requirements of the present Regulation.

#### **Regulation 3**

##### **Anchor and Mooring Equipment**

1 Every vessel shall be fitted with anchor equipment designed for quick operation which are safe and shall consist of anchor, anchor chains or wire ropes, stoppers and windlass or arrangements for dropping and hoisting the anchor and for holding the vessel at anchor in all foreseeable service conditions.

2 Every vessel shall also be fitted with adequate mooring equipment for safe mooring in all operating conditions.

3 Anchor and mooring equipment shall comply with the requirements of the Administration or those of a Recognised Organisation authorised by the Administration.

## CHAPTER 5

### STABILITY AND BILGE PUMPING ARRANGEMENTS

#### Regulation 1

##### Intact stability

1 The intact stability booklet shall be endorsed by the Administration or by the Recognised Organisation which issues the load line.

2 The stability test shall be carried out to the satisfaction of the Administration. The vessel shall be supplied with reliable stability information to enable him to obtain accurate guidance as to the stability of the ship under varying conditions of service.

3 If there is any alteration or modification made to a ship, the Administration shall require additional stability information.

4 The intact stability booklet shall include the following minimum loading conditions of the vessel:

- .1 Full homogeneous load condition - departure with 100% of consumables on board.
- .2 Ballast condition - departure with 100% of consumables on board.
- .3 Ballast condition - arrival with 10% of consumables on board.

5 The following minimum stability criteria shall be met unless the Administration is satisfied that operating experience justifies departure there from:

- .1 The area under the curve of righting levers (GZ curve) shall be not be less than;
  - (i) 0.075 meter-radians up to an angle of 20° when the maximum righting lever ( $GZ_{max}$ ) occurs at 20° and 0.055 meter-radians up to an angle of 30° when the maximum righting lever ( $GZ_{max}$ ) occurs at 30° or above. Where the maximum righting lever ( $GZ_{max}$ ) occurs at angles between 20° and 30° the corresponding area under the righting lever curve shall be determined by linear interpolation.
  - .2 0.03 meter-radians, between the angle of heel of 30° and 40° or angle of flooding if this angle is less than 40°.
  - .3 the righting lever (GZ) shall be at least 200 mm at an angle of heel equal to or greater than 30°.
  - .4 the maximum righting lever ( $GZ_{max}$ ) shall occur at an angle of heel of 20° or more.
  - .5 the initial metacentric height ( $GM_0$ ), after correction for free surface, shall be not less than 150 mm.

#### Regulations 2

##### Stability data

1 The vessel shall be provided with the following approved plans and data:

.1 Capacity Plan / Deadweight Scale.

The Capacity Plan shall show the distribution of all tanks and holds in the ship together with their centres of gravity, longitudinal and vertical, and their free surface inertias. Additionally, there should be a Deadweight Scale, tons per centimetre (or tons per inch), etc., plotted against a scale of drafts, ranging between the vessel's light and loaded drafts

.2 Cross Curves of Stability.

The Cross Curves of Stability shall be calculated to include any enclosed structures.

.3 Hydrostatic Curves or Particulars.

The hydrostatic particulars either in curve or tabular form shall be available on board the vessel.

2 For Special vessels, additional or alternative stability requirements may be required by the Administration.

### **Regulation 3**

#### **Bilge pumping arrangements**

##### **1 General**

.1 All vessels shall be provided with appliances or means of draining water from all watertight compartment and bilges. Unless, the Administration is satisfied that the safety of the ship is not impaired, the bilge pumping arrangements can be dispensed within a particular compartment.

##### **2 Bilge pumps**

.1 All vessels shall be provided with at least two independent power operated bilge pumps.

.2 The bilge main has to be of sufficient size to accommodate the pumping capacity of the bilge pump delivering water at a speed of 2 m/s. However, for vessels of less than 35 m in length, this speed may be reduced to 1.2 m/s.

.3 Sanitary, ballast, general service and fire pumps may be accepted as the independent power operated bilge pump provided it is connected to the bilge pumping system and its outflow complies with paragraph 2.2.

.4 The locations of suctions, non-return valves and control spindles and distribution boxes shall comply with requirements as to accessibility and penetration through bulkheads as the Administration may require. Means shall be provided for sounding every compartment which is served by the bilge pumping system and not readily accessible at all times during the voyage.

In any unattended propulsion machinery space, an automatic remote bilge level alarm shall be fitted.

##### **3 Direct suction by pumps**

.1 In the machinery compartment, at least one suction duct shall be directly connected to a bilge pump.

.2 The diameter of this duct shall be at least equal to that of the bilge main.

.3 Such direct suction may be via a fixed pipe or flexible hose. When the suction is through a fixed pipe, it shall be placed as low as possible. It shall be accessible for cleaning and fitted with a non-return valve.

## **CHAPTER 6**

### **MACHINERY INSTALLATIONS (not applicable to unmanned barges)**

#### **Regulation 1**

##### **General**

1 All main and auxiliary machineries, boilers, steering gear, fuel oil system, air compressors and air bottles, electrical system/ piping and pumping arrangements and refrigeration system shall be designed, constructed and installed in accordance with acceptable marine standards involving, where applicable, the requirements of Administration or rules of Recognized Organisation, as is appropriate.



The above machineries and equipment shall be so installed, protected and maintained as not to cause any harm or danger to any person.

2 Indicators shall be fitted on the navigation bridge for:

- .1 propeller speed and direction of rotation in the case of fixed pitch propellers,
- .2 propeller speed and pitch position in the case of controllable pitch propellers.

## **Regulation 2**

### **Steering Gear**

1 All vessels shall be provided with a main steering gear capable of guiding the vessel at maximum speed. The main steering gear and rudder shall be so designed as not to suffer damage at maximum speed while going astern.

2 All vessels shall be provided with an auxiliary steering gear of adequate strength, capable of steering the vessel at navigable speed and of being brought quickly into action in an emergency. The emergency steering arrangements shall be clearly identified to indicate how the emergency system is being brought into effect with instructions visibly displayed.

3 On the bridge, an indicator shall be provided to show the exact position of the rudder. Appropriate means of communication shall be provided between the bridge and the tiller position.

## **Regulation 3**

### **Communication between navigation bridge and machinery space**

1 Two means of communication should be provided between the bridge and the engine room, one of which shall be an engine room telegraph giving visual indication of the orders and responses both in the engine room and on the navigating bridge.

2 A ship may be exempt from the installation of an engine-room telegraph as specified in paragraph 1 if the main means of propulsion is directly controlled from the navigation bridge under normal service conditions.

3 Any ship of length less than 24 m may, instead of the provisions of paragraph 1, be provided with only one of the means specified in paragraph 1 if, to the satisfaction of the Administration, two means of communications are considered unnecessary bearing in mind the proximity of the navigation bridge to the position of the control room of the main propulsion machinery.

## **CHAPTER 7**

### **ELECTRICAL INSTALLATIONS**

#### **Regulation 1**

##### **General**

1 All vessels shall be provided with a source of electrical power, a distribution switch board and a system of electric wiring well protected to provide power to machinery, heating, lighting, ventilation, alarms and other circuits required on board, without posing as electrical hazards to the crew and vessel.

## **Regulation 2**

### **Safety precautions**

- 1 All vessels shall be provided with precautions against shock by an earthing system, protection against short circuits and prevention of temperature rises in electrical fittings, etc.
- 2 The hull return system of distribution shall not be used for any purpose in a tanker or a barge carrying flammable liquids in bulk.
- 3 Where the hull return system is used, all final sub-circuits, i.e. all circuits fitted after the last protective device, shall be two-wire and special precautions shall be taken such as considered satisfactory by the Administration.

## **Regulation 3**

### **Emergency source of electrical power**

- 1 All vessels shall be provided with an independent emergency source of electrical power located above the uppermost continuous deck and outside the machinery space readily accessible from the open deck. The emergency source of electrical power may be a generator or an accumulator battery provided with an emergency switchboard installed nearby.
- 2 The emergency power shall be capable of supplying the following services simultaneously:
  - .1 Lighting in passage ways, stairways, main machinery, generating and steering gear spaces, navigation bridge and chartroom, fire control station, lifeboats, rescue boat, liferaft stowage position and other emergency stations.
  - .2 Navigation lights.
  - .3 General alarm, fire alarm, fire detection system and other alarm systems.
  - .4 All means of communication for transmitting distress and safety messages, including the vessel's whistle and internal communication as required in an emergency situation.

## **CHAPTER 8**

### **FIRE PROTECTION**

#### **Regulation 1**

##### **General**

- 1 When the nature and conditions of the voyage are such that the application of the present Regulations is neither necessary nor reasonable, the Administration may adopt alternative arrangements if it is satisfied that they are as effective as the measures set out in the present chapter.
- 2 All fire-fighting appliances must be of an approved type, either by Administration or other Administration.
- 3 In case of fire, all vessels shall be provided with remote means outside the space concerned, for stopping ventilating fans serving machinery and cargo spaces and for closing all doorways, ventilators, annular spaces around funnels and other openings to such spaces.
- 4 All forced and induced draft fans, oil pumps, purifiers and other oil-handling equipment shall be fitted with remote controls situated outside the space concerned so that they may be stopped in the event of a fire arising in the space in which they are located.

5 All oil suction pipes from storage, settling or daily service tanks located above the double bottom shall be fitted with quick closing valve capable of being closed remotely from outside the space in which these tanks are located.

## **Regulation 2**

### **Pressurized water fire-extinguishing systems**

1 Any pressurized water fire-extinguishing system, where required to be installed by the present chapter, shall consist of pipes fed by one or more pumps and serving nozzles through hydrants and hoses.

#### **2 Fire pumps**

1 All vessels shall be provided with two fire pumps:

.1 One of these pumps shall be power-driven and may be a bilge, ballast or general service pump. The capacity of the power-driven pump shall be such that it can deliver a 12 meter jet of water through a 12mm diameter nozzle and its hose to maintain a pressure of 0.2 N/mm<sup>2</sup> at any hydrant.

.2 The other may be a hand-operated pump or a power pump operated by a means independent from the vessel's main source of power. It shall be located outside the machinery space and be capable of producing a jet of water having a throw of not less than 6 meters into any part of the ship.

2 Relief valves shall be fitted to prevent excessive pressure in any part of the fire main. Every fire pump connected to the fire main shall be fitted with a non-return valve.

3 Vessels undertaking voyages less than 12 miles from the nearest land shall only be required to have one power-driven fire pump preferably independent of the main source of power.

#### **3 Fire mains, hydrants, hoses, couplings and nozzles**

1 All vessels shall be provided with a fire main with hydrants, hoses with couplings and nozzles. There shall be at least 3 hoses of not less than 10 meters long, one of which is to be fitted with a dual purpose jet-spray nozzle and the other two may have normal jet nozzles. The diameter of hoses and hydrants generally shall be at least 4 cm. All nozzles shall be fitted with a shutoff device and the diameter of nozzles shall be not less than 12 mm for ships of 24 metres or more in length and not less than 10 mm for other ships, . All vessels of 300 GT or more shall be provided with two additional fire hoses.

2 For every vessel of 300 GT and more the number and position of the hydrants shall be such that at least two jets of water not from the same hydrant, one of which shall be from a single length of hose, may reach any part of the ship normally accessible to the crew. For ship less than 300 GT one jet of water will be sufficient.

3 At least one hydrant shall be provided in the machinery space and one adjacent to the entrance.

4 The fire mains shall have no connections other than those necessary for fire-fighting and washing down, Materials that are readily rendered ineffective by heat shall not be used for fire mains. Where the fire-main is not self-draining, drain cocks shall be fitted.

5 The hoses couplings shall be either of the bayonet type or instantaneous release type. Hoses shall be stowed in boxes in conspicuous positions near the hydrants with which they are intended to be used.

6 All fire fighting equipment shall be maintained in a permanently serviceable condition and are to be painted red and clearly labelled for its specific purpose either in the working language of the crew and in English or by means of IMO symbols.

### **Regulation 3**

#### **Machinery spaces**

1 In any unattended propulsion machinery space or oil-fired boiler space, it must be provided with one of the following fixed fire fighting systems:

- .1 a pressurised water spray system or
- .2 a gas smothering system or
- .3 a fixed low expansion foam smothering system or
- .4 a fixed high-expansion foam-smothering system.

The detailed requirements for the above system shall be in accordance with the size of the vessel.

The Administration may exempt the fixed fire fighting system for vessels engaged in voyages of less than 12 miles from the nearest land.

### **Regulation 4**

#### **Fixed fire detection and alarm systems in unattended propulsion machinery spaces**

1 For unattended propulsion machinery spaces, a fire detection and alarm system is to be fitted.

### **Regulation 5**

#### **Fire extinguishers**

1 All vessels shall be provided with a sufficient number of approved portable fire extinguishers for use in accommodation and service spaces with at least one on each deck.

2 For oil-fired boiler space, at least three portable fire extinguishers suitable for use on oil fires shall be provided. One of the fire extinguishers may be substituted by a receptacle containing at least 0.15 m<sup>3</sup> of sand and a scoop.

3 For each space containing internal combustion type machinery, it shall be provided with one foam fire extinguisher of not less than 45 litres capacity or one carbon dioxide fire extinguisher of at least 30 kg capacity. In addition, one portable foam extinguisher for each 750 KW of engine power output part thereof and the total number of portable extinguishers shall not be less than two.

4 All extinguishers shall be charged every year and there shall be a spare charge provided for each portable fire extinguisher capable of being recharged or additional spare portable fire extinguisher if not. When the strength of the containers appears suspicious, it shall be pressure tested.

5 All extinguishers intended for use in a particular space shall be stowed near the entrance to that space.

6 Ships sailing not more than 12 miles from the nearest land shall be provided with an appropriate number of portable extinguishers, at least one of which shall be appropriate to extinguish an oil fire. At least three portable extinguishers shall be provided.

## **Regulation 6**

### **Fireman's outfit**

1 All vessels shall be provided with at least one fireman's outfit completely equipped in accordance with SOLAS 74 Convention, as amended.

## **Regulation 7**

### **Emergency escape breathing devices**

1 Vessels of more than 300 GT shall carry at least one emergency escape breathing devices within accommodation spaces.

## **Regulation 8**

### **Fire alarm system, muster lists. Fire patrols. Fire drills**

1 Vessels of 35 metres or more in length shall have a fire alarm system comprising of manually operated call points effectively placed throughout the ship to ensure a readily accessible means of notification of a fire.

2 Vessels of 24 metres or more in length shall have a fire duty roster, drawn up and updated before sailing. The muster lists shall contain all specific tasks. In particular, it shall show call signals and the station to which each man shall report and the tasks he shall perform in the event of fire. It shall be permanently displayed in several parts of the vessel, especially in places used by the crew.

3 Fire drills shall be conducted in order to check the condition of fire-fighting equipment and train the crew in its use.

## **Regulation 9**

### **Fire control plans**

1 Vessels of 24 metres or more in length shall have a fire control plan permanently exhibited to the satisfaction of the Administration.

## **Regulation 10**

### **Ready availability of fire-extinguishing appliances**

1 Fire-extinguishing appliances shall be kept in good order and be available for immediate use at all times.

2 Equipment and systems shall be subject to periodic checks to ensure that they are in good working order at least once a year. The date and purpose of such inspections shall be recorded in a maintenance and test log, and noted in the vessel's log.

## **CHAPTER 9**

### **LIFE-SAVING APPLIANCES AND ARRANGEMENTS**

#### **Regulation 1**

##### **General**

1 The provisions on life-saving appliances and arrangements under the present chapter shall comply with the LSA Code.

2 When the nature and conditions of the voyage are such that the application of the present Regulations is neither necessary nor reasonable, the Administration may adopt alternative arrangements if it is satisfied that they are as effective as the measures set out in this chapter.

#### **Regulation 2**

##### **Approval of life-saving appliances and arrangements and their equipment**

1 The life-saving appliances and arrangements and their equipment required by this chapter shall be approved by the Administration. Before giving approval to life-saving appliances and arrangements and their equipment, the Administration shall ensure that such life-saving appliances and arrangements and their equipment comply with the requirements of the LSA Code and are to be clearly labelled in the working language of crew and in the English language or by means of IMO symbols.

#### **Regulation 3**

##### **Communications**

1 Apart from the means of alarm and communications set out in the present Regulations, any vessel or manned barge shall have on board:

.1 An emergency means comprising either fixed or portable equipment or both shall be provided for two-way communication between emergency control stations, muster and embarkation stations and strategic positions on board.

.2 A general emergency alarm system capable of giving the signal to go to muster stations consisting of seven or more short blasts followed by a long blast on the ship's siren or whistle supplied by the main or emergency source of power. The system shall be capable of being controlled from the ship's bridge and shall be audible in all accommodation and spaces used by the crew.

#### **Regulation 4**

##### **Line-throwing appliances**

Vessels engaged on voyages of more than 12 miles from the nearest land shall have a line-throwing appliance of an approved type.

#### **Regulation 5**

##### **Personal life-saving appliances**

###### **1 Lifebuoys**

.1 Each lifebuoy shall be marked in capital letters in the Roman alphabet with the name and port of registry of the ship.

.2 Lifebuoys shall be installed on board at readily accessible positions for all persons on board. They shall be capable of being rapidly cast loose and not permanently secured in any way.

.3 Vessels of 24 metres or more in length shall have at least 4 lifebuoys, two of which shall be fitted with an automatic light, and one of the buoys also fitted with an automatic smoke signal.

Two lifebuoys, one on each side located on the main deck nearest to the waterline, shall be provided with a buoyant lifeline of 20 metres in length.

.4 Vessels of less than 24 metres in length shall have at least two lifebuoys, one of which shall be fitted with an automatic light.

.5 While the ship is in port or at anchorage, one of the lifebuoys provided with a lifeline shall be placed permanently at the gangway or the embarkation ladder.

.6 For vessels of 300 GT and more, on each side of the bridge wings, one lifebuoy with self-activating light and smoke signals shall be fitted in quick-release chutes fitted.

## **2 Life jackets**

Any ship or manned barge shall have on board a sufficient number of life jackets for every person on board. In addition, they shall have a sufficient number of lifejackets for persons on watch. Each lifejacket shall be provided with a whistle and a light.

## **Regulation 6**

### **Training and abandon ship drills**

1 Every crew member shall be trained in launching and manoeuvring life-saving appliances.

2 The method and instructions for use of life-saving appliances and arrangements shall be exhibited at muster stations and common crew areas.

3 Muster stations and embarkation stations for lifeboats shall be provided with lighting supplied by the emergency source of power.

4 Every crew member shall participate in at least one abandon ship drill and one fire drill every month. Each drill shall be the occasion of a training session on the use of the corresponding equipment. In addition these musters shall take place within 24 hours of leaving port whenever 25 percent of the crew has been replaced since the last muster. In ships fitted with lifeboats, different boats shall be swung out at successive drills. The lifeboats shall, where practicable, be lowered into the water at least once every four months at which time checks shall be carried out for the condition of all apparatus and system and the watertight integrity of the boats, as well as operation of the releasing devices. The musters shall be so arranged as to ensure that the crew thoroughly understand and is practiced in the duties it has to perform including instructions in the handling and operation of liferafts, where these are carried.

5 The conduct of the above drills and corresponding training shall be recorded in a log, subject to inspection by the Administration.

## **Regulation 7**

### **Survival craft**

1 Cargo ships other than oil tankers, chemical tankers and gas carriers, and manned barges, shall comply with the following requirements:

.1 they shall carry, on each side, one or more survival craft conforming to the above-mentioned LSA Code, and have a total capacity sufficient to carry all the persons on board.

.2 except where the survival craft required by paragraph 1.1 can be rapidly transferred from one side of the ship to the other to be launched, additional survival craft shall be provided such that the total capacity on each side is sufficient to accommodate 125% of the total number of persons on board.

2 Any tanker carrying oil or petroleum products with a flashpoint less than 60°C, any tanker carrying chemical products and any gas carrier shall, in addition to complying with the requirements of paragraph 1, carry at least one rigid power-driven rescue boat unless:

.1 all the required survival craft consist of lifeboats, or

.2 at least one of the required lifeboats is a rescue boat as defined in the above-mentioned LSA Code.

3 The equipment of the survival craft shall be to the satisfaction of the Administration, taking into account:

.1 the area of navigation,

.2 the distance from the nearest safe haven, and

.3 the search and rescue services available in the area

4 For vessels undertaking voyages of less than 12 miles from the nearest land, only throw-overboard inflatable liferafts sufficient for all persons on board need to be provided on each side of the ship. If the liferaft is of a mass of less than 185 kg and stowed in a position for easy side-to-side transfer at a single open deck level, one or more liferaft of such aggregate capacity as will accommodate the total number of persons on board is sufficient.

5 The Administration may give dispensation from the above requirements based on the particular conditions of the vessel and the nature of its voyage.

## **Regulation 8**

### **Stowage, launching and recovery of survival craft**

1 Survival craft shall be stowed such that:

.1 neither the survival craft nor its launching gear will interfere with the operation of any other survival craft at any other launching station,

.2 they are as near to the water surface as is safe and practicable, and

.3 they are kept in a state of continuous readiness and two members of the crew can carry out preparations for embarkation and launching in less than five minutes.

2 The arrangements for the recovery of survival craft shall be to the satisfaction of the Administration.

3 Survival craft which are not stowed under davits or equivalent systems shall be stowed such that they are secured to the ship by hydrostatic release units.



## **Regulation 9**

### **Marking of survival craft**

All survival craft shall be marked in capital letters in the Roman alphabet with:

- .1 the name of the ship and its port of registry,
- .2 the name of the authority which approved the craft, and
- .3 the maximum number of persons for which it is approved.

## **Regulation 10**

### **Operational readiness, maintenance and inspections**

#### **1 Operational readiness**

Before the ship leaves port and at all times during the voyage, and in the case of barges, at any time when they are manned, all life-saving appliances shall be in working order and ready for immediate use.

#### **2 Maintenance**

Instructions for maintenance on board of rigid survival craft shall be exhibited and such maintenance shall be effected in accordance with such instructions

#### **3 Weekly inspection**

The following tests and inspections shall be carried out weekly:

- .1 all survival craft and launching appliances shall be visually inspected to ensure that they are ready for use; and
- .2 the general emergency alarm system shall be tested.

#### **4 Monthly inspections**

Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using a checklist to ensure that they are complete and in good order. A report of the inspection shall be entered in the logbook.

#### **5 Servicing of inflatable liferafts and inflated rescue boats**

Every inflatable liferaft and inflated rescue boat shall be serviced at intervals not exceeding twelve months in a servicing station approved by the Administration. In case of difficulty, the Administration may authorize a seventeen months interval.

#### **6 Servicing of hydrostatic release units**

Hydrostatic release units shall be serviced at intervals not exceeding twelve months in a servicing station approved by the Administration. In case of difficulty, the Administration may authorize a seventeen months interval.

## CHAPTER 10

### RADIOCOMMUNICATIONS

#### Regulation 1

##### General

- 1 Every vessel of 100 GT or more not fitted with a radiotelegraph station shall be provided with a radiotelephone station according to Chapter IV of SOLAS 74 Convention, as amended.
- 2 Every vessel not fitted with a radiotelephone or radiotelegraph station shall have a VHF radiotelephone station according to Chapter IV of SOLAS 74 Convention, as amended.
- 3 Vessel engaged on voyage of more than 12 miles from the coast, shall be fitted with a radar transponder and a NAVTEX receiver according to Chapter IV of SOLAS 74 Convention, as amended.

#### Regulation 2

##### Exemptions

- 1 The Administration may permit exemptions from the above requirements for vessels engaged on voyages of less than 12 miles from the nearest land or having regard to the search and rescue facilities in the vessel's area of operation.

## CHAPTER 11

### SAFETY OF NAVIGATION

#### Regulation 1

##### General

- 1 The provisions of Chapter V of the SOLAS Convention on safety of navigation and the following provisions shall apply to ships covered by the present Regulations.

#### Regulation 2

##### Shipborne navigational equipment

- 1 Ships subject to the present Regulations shall carry the equipment, instruments and nautical documents shown in tables 1, 2, 3 and 4 below.
- 2 The Administration may exempt ships from carrying the equipment, instruments and nautical publications if it is satisfied that they are neither reasonable nor necessary for the safety of the ship.
- 3 Equipment for ships navigating exclusively in ports, roads and sheltered bays shall be determined by the Administration during the inspection prior to entry into service.

Table 1. Nautical instruments

Item	Remarks
1 radar	Capable of operating in the 9 GHz frequency band
1 GPS receiver	

1 echo sounder	Applicable to vessels above 300 GT Every vessel shall be provided with a means of obtaining the depth of water at the ship. This may be an echo sounder or a hand-lead properly marked and graduated up to 45 meters (25 fathoms).
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Table 2. Miscellaneous equipment

Item	Remarks
6 distress signals of an approved type	These signals shall be of the parachute type. They shall be stowed in damp-proof containers placed close to the bridge or within it
2 floating smoke signals of an approved type	Emitting smoke for a period of not less than 3 minutes.
First aid equipment with medical guide	

Table 3. Nautical publications and documents

Item	Remarks
1 list of coastal stations or  1 list of coastal stations with which the ship is likely to have communications.	Manual for Use by the Maritime Mobile and Maritime Satellite Services International Telecommunications Union (ITU), if fitted with a radio station.  Applicable to vessels of 300 GT and above
1 chart of zones for the application of load lines	Compulsory on board ships with voyages that change zones
1 copy of Regulations for the Prevention of Collisions at Sea in force	An illustrated table summarizing the lights and signals to be carried by ships to prevent collisions at sea shall be exhibited.
1 copy of current laws and regulations in force on safety of maritime navigation	
1 International Convention on Safety of Life at Sea in force	Compulsory on board ships engaged in international navigation, in order to inform the master of his obligations abroad.
1 International Maritime Dangerous Goods Code (IMDG Code)	For ships or voyages concerned.

Table 4. Ship's gangway and pilot ladder

Gangway ladder	
Pilot Ladders	

### **Regulation 3**

#### **Magnetic compass**

1 Every magnetic compass required by Chapter V of the SOLAS 74 Convention, as amended, shall be properly compensated and its table or curve of residual deviations shall be available at all times.

2 The Administration may, when it considers if necessary, require the adjustment of the magnetic compasses to be calibrated regularly.

### **Regulation 4**

#### **Means of signalling to prevent collisions at sea**

##### **Signalling Lamps**

1 Ships shall be provided with the signalling lamps and other visual and audible means of signalling required by the regulations in force to prevent collisions at sea, applicable to their type and size. All signalling lamps and audible means of signalling shall be of an approved type. Their positioning on board shall comply with the requirements of the regulations on preventing collisions at sea.

All ships of over 150 GT shall have on board an efficient daylight signalling lamp which shall not be solely dependent upon the ship's main source of electrical power,

2 The whistle required by the regulations in force to prevent collisions at sea shall be capable of being supplied by 2 sources of power. No obstacle shall interfere with the projection of the sound forward.

### **Regulation 5**

#### **Plans and documents to be carried on board**

1 Ships shall carry the following plans and documents in the working language of the crew; if not in English then an English translation shall also be available:

- .1 an overall plan of the ship GA
- .2 a plan or diagram of capacities
- .3 a stability booklet
- .4 an engine room plan
- .5 a plan or diagram of the bilge-pumping systems
- .6 a plan or diagram of the steam and fuel lines
- .7 a plan or diagram of the electrical installations
- .8 a plan or diagram of the fire safety systems

The graphic symbols used shall conform to IMO standards unless the meaning of the symbols used is clearly indicated.

The information required for two or more of the above headings may be combined in a single document, provided that clarity and readability are not affected. Plans and documents shall include a note of their source and the date of production.

2 The list of plans and documents required on board for vessels not navigating more than 12 miles from the nearest land shall be determined by the Administration.

## **Regulation 6**

### **Ship's log**

1 Every ship shall maintain a ship's log, with numbered pages and initialled with all entries being made in ink and signed each day by the Master. The navigation log, the engine-room log and the radio log shall constitute the ship's log.

2 Matters relating to the safety of the ship, in all circumstances, shall be entered in chronological order in the ship's log, as well as meteorological conditions and any incidents relating to safety of life at sea.

3 On ships of less than 24 metres in length which do not navigate more than 12 miles from the nearest land, the navigational, engine room and radio logs may be replaced by a single ship's log in which shall be recorded the main events relating to the voyage and safety of life at sea.

## **CHAPTER 12**

### **PREVENTION OF POLLUTION**

#### **Regulation 1**

##### **Certificates**

1 Ships of 400 gross tonnage and upwards, engaged in international voyages and subject to the present Regulations, shall be issued the following certificates according to the relevant provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978, hereinafter referred to as MARPOL:

- .1 an International Oil Pollution Prevention Certificate,
- .2 an International Air Pollution Prevention Certificate,
- .3 for the ships certified to carry noxious liquid substances in bulk, an International Pollution Prevention Certificate for the carriage of Noxious Liquid Substances in Bulk.

2 Ships of less than 400 gross tonnage, engaged in international voyages and certified to carry more than 15 persons shall be issued an International Sewage Pollution Prevention Certificate.

3 Oil tankers of 150 gross tonnage and above shall be issued an International Oil Pollution Prevention Certificate.

4 Every ship subject to certification under paragraphs 1 to 3 complies with all the relevant requirements of the relevant Annex to MARPOL.

#### **Regulation 2**

##### **Discharge at sea**

1 Any discharge into the sea of oil or oily mixtures from ships shall be prohibited, except when the following provisions are satisfied:

- .1 the ship is proceeding en route;
- .2 the ship has in operation equipment of a design approved by the Administration that ensures that the oil content of the effluent without dilution does not exceed 15 parts per million;
- .3 the oily mixture does not originate from cargo pump room bilges on oil tankers; and

- .4 the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.
- 2 Disposal of garbage at sea is prohibited, except food waste at a distance of more than 12 nautical miles from the nearest land.

### **Regulation 3**

#### **Retention on board**

- 1 Ships shall be provided with a tank or tanks of adequate capacity, having regard to the type of machinery and length of voyage, to receive the oil residues (sludge) which cannot be dealt with, such as those resulting from the purification of fuel and lubricating oils and oil leakages in the machinery spaces.
- 2 The crew shall be notified, by placards or another information mode, of the garbage disposal prohibition. They shall be informed on the locations where garbage they could detain or generate may be stored on board.

### **Regulation 4**

#### **Disposal ashore and record keeping**

- 1 Substances or garbage that is retained on board shall be disposed of ashore in accordance with the relevant national or local regulations.
- 2 Record shall be kept on the ship's log book of any discharge of oil or oily substances, either:
- .1 at sea in accordance with Regulation 2.1, with indication of the amount discharged and conditions;
  - or
  - .2 in a shore reception facility, the receipt shall be kept for a minimum duration of 3 months.