



MALTA MARITIME AUTHORITY

COMMERCIAL YACHT CODE

2006

Version 1.1

Malta Maritime Authority

Commercial Yacht Code 2006

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SECTION 1
FOREWORD

1 FOREWORD

1.1 This Code has been drawn up by the Malta Maritime Authority which will be referred to as the 'Administration'

1.2 This Code is drawn up for vessels which do not carry cargo and do not carry more than 12 passengers. The following classes of vessels will be considered for registration under the Malta flag:

- Yachts in commercial use of not less than 10 metres in length overall and not more than 24 metres in length.
- Yachts in commercial use of more than 24 metres in length and less than 500 GT.
- Yachts in commercial use of more than 24 metres in length and 500 GT and over but less than 3000 GT.

1.3 Yachts complying with this Code are required to comply with the other relative regulations of the Administration

1.4 *The Administration has notified the International Maritime Organisation of this Code and its application to pleasure craft engaged in trade as an equivalent arrangement under the provisions of Article 8 of the International Convention on Load Lines, 1966, Regulation I-5 of the International Convention of Safety of Life at Sea, and Article 9 of the International Convention on Standards of Training Certification and Watchkeeping for Seafarers 1978 as amended.*

1.5 The Code sets the required standards of safety and pollution prevention which are appropriate for this type and size of vessels.

The standards applied are set by relevant International Conventions, EU norms or equivalent standards.

The Administration may consider specific alternatives equivalent to any standard mentioned in this Code. Any proposed alternative on request for exemption from any specific requirement of the Code is to be made to the Administration.

1.6 A vessel complying with the standards (or equivalent) set out in this Code will entitle a vessel to be issued with the relevant certification upon the satisfactory completion of the designated surveys and inspections.

1.7 Due attention should be paid to the requirements of the Marine Equipment Directive, EU Directive 1996/98/EC.

1.8 For vessels entitled to fly the flag of a Member State of the European Union, the Commission of the European Communities' general mutual recognition clause should be accepted. The clause states:

Any requirement for goods or materials to comply with a specified standard should be satisfied by compliance with:

1. a relevant standard or Code of practice of a national standards body or equivalent body of a Member State of the European Community; or
 2. any relevant international standard recognised for use in any Member State of the European Community; or
 3. a relevant specification acknowledged for use as a standard by a public authority of any Member State of the European Community; or
 4. traditional procedures of manufacture of a Member State of the European Community where these are the subject of a written technical description sufficiently detailed to permit assessment of the goods or materials for the use specified; or
 5. a specification sufficiently detailed to permit assessment of goods or materials of an innovative nature (or subject to innovative processes of manufacture such that they cannot comply with a recognised standard or specification) and which fulfil the purpose provided by the specified standard provided that the proposed standard, Code of practice, specification or technical description equivalent levels of safety, suitability and fitness for the proposed use.
- 1.9 The Administration will revise this Code in light of experience gained in its application.
- 1.10 The Administration will update a list of all yachts registered under the “Commercial Yacht Code” on its website.

SECTION 2
DEFINITIONS

2. DEFINITIONS

(Note – where a definition is not contained within this Code, guidance should be taken from meanings given within the International Conventions):

Administration with regard to this Code means the Government of the State whose flag the ship is entitled to fly;

Authority means the Malta Maritime Authority;

Approved in respect to materials or equipment means approved by the Administration or approved by an administration or organisation which is formally recognised by the Administration;

Approved Authority is any organisation or person, authorised by the MMA to act on its behalf for the purposes of this Code.

Authorised Surveyor means a surveyor who by reason of professional qualifications, practical experience and expertise is authorised by the Administration to carry out the survey required for the vessel; (an updated list is shown in Annex II).

Bareboat Charter means a charter for which the charterer provides a skipper and crew.

Buoyant lifeline means a line complying with the requirements of the IMO International Life-Saving Appliance Code;

Cargo means an item(s) of value that is carried from one place and discharged at another place and for which either a charge or no charge is made and is not for use exclusively onboard the vessel;

Charter means an agreement between the Owner/Managing Agent and another party, which allows the other party to operate. The “Charterer” is that other party.

Classification Society is an international organisation that is principally involved with the publication of standards for the building, surveying and certification of ships. The updated list of approved Certification Societies is shown in Annex I.

Commercial vessel means a seagoing vessel which is not a pleasure vessel;

Control stations are those spaces in which the ship’s radio or main navigating equipment or the emergency source of power are located or where the fire recording or fire control equipment is centralised;

Efficient in relation to a fitting, item of equipment or material means that all reasonable and practicable measures have been taken to ensure that it is suitable for the purpose for which it is intended to be used;

Embarkation ladder means a ladder complying with the requirements of the IMO International Life-Saving Appliances Code.

Emergency source of electrical power is a source of electrical power, intended to supply the emergency switchboard in the event of failure of the supply from the main source of electrical power,

Emergency switchboard is a switchboard which in the event of failure of the main electrical power supply system is directly supplied by the emergency source of electrical power and is intended to distribute electrical energy to the emergency services;

EPIRB means a satellite emergency position-indicating radio beacon, being on earth station in the mobile-satellite service, the emissions of which are intended to facilitate search and rescue operations, complying with performance standards adopted by the IMO contained in either Resolution A.810(19) or Resolution A.812(19) and Resolution A.662(16), or any Resolution amending or replacing these from time to time and which is considered by the Administration to be relevant, and is capable of:-

- a. floating free and automatically activating if the ship sinks
- b. being manually activated, and
- c. being carried by one person;

Existing vessel means any vessel, the keel of which was laid or the construction was started before coming into force of this Code.

Float-free launching means that method of launching a liferaft whereby the liferaft is automatically released from a sinking ship and is ready for use, complying with the requirements of the IMO International Life-Saving Appliances Code;

Freeboard has the meaning given in Annex I of ICLL. The 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;

Freeboard deck has the meaning given in Annex I of ICLL. The freeboard deck is normally the uppermost complete deck exposed to the weather and sea, which has permanent means of closing all openings in the weather part thereof, and below which all openings in the sides of the ship are fitted with permanent means of watertight closing.

In a ship having a discontinuous freeboard deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck.

At the option of the Owner and subject to the approval of the Administration, a lower deck may be designated as the freeboard deck provided it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwartships.

When a lower deck is designated as the freeboard deck, that part of the hull which extends above the freeboard deck is treated as a superstructure so far as concerns the application of the conditions of assignment and the calculation of freeboard. It is from this deck that the freeboard is calculated.

Garbage means all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the vessel and liable to be disposed of continuously or periodically except sewage originating from vessels;

GT (Gross Tonnage) 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.

Hazardous space means a space or compartment in which combustible or explosive gases or vapours are liable to accumulate in dangerous concentrations;

ICLL means the International Convention on Load Lines, 1966, as amended;

IMO means the International Maritime Organisation, a specialised agency of the United Nations devoted to maritime affairs;

Inflatable lifejacket means a lifejacket complying with the requirements of the IMO International Life-Saving Appliances Code

Instructions for on-board maintenance means the instructions complying with the requirements of SOLAS III/Part B – Life Saving Appliances and Arrangements, Regulation 36;

Launching appliance means a provision complying with the requirements of the IMO International Life-Saving Appliances Code for safely transferring a lifeboat, rescue boat, or liferaft respectively, from its stowed position to the water and recovery where applicable.

Length means 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. Where the stem contour is concave above the waterline at 85% of the least moulded depth, both the forward terminal of the total length and the fore side of the stem respectively shall be taken at the vertical projection to that waterline of the aftermost point of the stem contour (above that waterline). In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.

Length overall means the length referred to in the Merchant Shipping (Tonnage Measurement) Regulations, 2002.

Lifeboat means a lifeboat complying with the requirements of the IMO International Life-Saving Appliances Code;

Lifebuoy means a lifebuoy complying with the requirements of the IMO International Life-Saving Appliances Code;

Lifejacket means a lifejacket complying with the requirements of the IMO International Life-Saving Appliances Code;

Liferaft means a liferaft complying with the requirements of the IMO International Life Saving Appliances Code;

Line throwing appliance means an appliance complying with the requirements of the IMO International Life-Saving Appliances Code;

Low Flame Spread means that the surface thus described will adequately restrict the spread of flame, this being determined to the satisfaction of the Administration by an established procedure;

Machinery spaces are all machinery spaces of category A and all other spaces containing propelling machinery, boilers, oil fuel units, steam and internal combustion engines, generators and major electrical machinery, oil filling stations, refrigerating, stabilising, ventilation and air conditioning machinery, and similar spaces, and trunks to such spaces;

Machinery space of Category A are those spaces and trunks to such spaces which contain;

- a. internal combustion machinery used for main propulsion, or
- b. internal combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less than 375Kw, or;
- c. any oil fired boiler or oil fuel unit

Main source of electrical power is a source intended to supply electrical power to the main switchboard for distribution to all services necessary for maintaining the ship in normal operation and habitable condition.

Main steering gear is the machinery, rudder, activators, steering power units and ancillary equipment and the means of applying the necessary torque to the rudder, necessary for effecting movement of the rudder.

Main switchboard is a switchboard which is directly supplied by the main source of electrical power and is intended to distribute electrical energy to the ship's services;

Main vertical zone means those sections into which the hull, superstructure and deckhouses are divided by A class divisions, the mean length of which on any deck does not normally exceed 40 metres;

Major Alteration : A vessel with previously approved stability information which undergoes a major refit or alterations should be subjected to a complete reassessment of stability and provided with newly approved stability information. A major refit or alteration is one which results in either a change in the lightship weight of 2% and above, longitudinal centre of gravity of 1% and above (measured from the aft perpendicular) and/or the calculated vertical gravity rises by 0.25% and above (measured from the keel).

Malta Maritime Authority (MMA) means the Administration set up in terms of the Malta Maritime Authority Act (CAP. 352)

MARPOL means the International Convention for the Prevention of Pollution from Ships, 1973, as amended;

Mile means a nautical mile of 1852 metres

Motor vessel means a vessel which is described in the register and on the certificate of registry as such, and which has a sole means of propulsion either one or more power units;

Multihull vessel means any vessel which in any normally achievable operating trim or heel angle, has a rigid hull structure which penetrates the surface of the sea over more than one separate or discrete area;

New vessel means a vessel to which this Code applies, the keel of which was laid or the construction or lay up was started on or after the coming into force of this Code.

Not readily ignitable means that the surface thus described will not continue to burn for more than 20 seconds after removal of a suitable impinging test flare

Notified Body means an approved organisation which certifies vessels to the Recreational Craft Directive 94/25/EC

Owner(s)/Managing Agent(s) means the registered owner(s) or the owner(s) of the managing agent(s) of the registered owner(s) or the owner(s) or owner(s) ipso facto, as the case may be.

Passenger means any person carried in a ship except

- a. a person employed or engaged in any capacity on board the ship on the business of the ship
- b. a person board the ship either in pursuance of the obligation laid upon the master to carry shipwrecked, distressed or other persons, or by reason of any circumstances that neither the master nor the owner nor the charterer (if any) could have prevented and
- c. a child under one year of age

Passenger ship means a ship carrying more than 12 passengers

Person means a person over the age of one year

Position 1 means upon exposed freeboard and raised quarter decks and upon exposed superstructure decks situated forward of a point located a quarter of the ship's length from the forward perpendicular

Position 2 means upon exposed superstructure decks situated abaft a quarter of the ships length from the forward perpendicular

Radar Reflector means a device installed on board a yacht not built of metal to give a good target on a radar screen. .

Radar Transponder means a radar transponder for use in survival craft to facilitate location of survival craft and rescue operations

Recess means an indentation or depression in a deck and which is surrounded by the deck and has no boundary common with the shell of the vessel;

Registrar means the "Registrar-General or Shipping and Seamen": in terms of the Merchant Shipping Act.(CAP.234)

Rescue Boat means a boat complying with the requirements of the IMO International Life Saving Appliances Code and designed to rescue persons in distress and for marshalling liferafts;

Retro-reflective materials means a material which reflects in the opposite direction a beam of light directed on it;

Rocket parachute flare means a pyrotechnic signal complying with the requirements of the IMO International Life-Saving Appliances Code;

Safe haven means a harbour or shelter of any kind which affords entry, subject to prudence in the weather conditions, prevailing and protection from the force of the weather;

Sailing vessel means a vessel designed to carry sail, whether as a sole means of propulsion or as a supplementary means;

Sail training vessel means a sailing vessel, which at the time, is being used either;

- a. to provide instruction in the principles of responsibility, resourcefulness, loyalty and team endeavour and to advance education in the art of seamanship, or
- b. to provide instruction in navigation and seamanship for yachtsmen;

Self-activating smoke signal means a signal complying with the requirements of the IMO International Life Saving Appliances Code;

Self-igniting light means a light complying with the requirements of the IMO International Life Saving Appliances Code;

Short Range Yacht means an existing vessel under 500 GT or a new vessel under 300 GT, within 60 nautical miles of a safe haven. (The Administration may permit operation on specified routes up to 90 nautical miles from a safe haven as appropriate).

SOLAS means the International Convention of Safety of Life at, 1974, as amended;

SOLAS A Pack means a liferaft emergency pack complying with the requirements of the IMO International Life Saving Appliances Code;

SOLAS B Pack means a liferaft emergency pack complying with the requirements of the IMO International Life Saving Appliances Code;

Standard Fire Test means a test in which specimens of the relevant bulkheads, decks or other constructions are exposed in a test furnace by a specified test method in accordance with the IMO Fire Test Procedure Code;

STCW means the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, as amended..

Superstructure has the meaning given in Annex I to ICLL;

Survival Craft means a craft capable of sustaining the lives of persons in distress from the time of abandoning ship;

Training manual with regard to live-saving appliances means a manual complying with the requirements of SOLAS III/Part B – Life Saving Appliances and Arrangements, Regulation 35;

Two-way VHF Radiotelephone set means a portable or a fixed portable two-way VHF radiotelephone apparatus used for on-scene communications and conforming to IMO performances standard A.809 (19) as may be amended, Annex I or Annex 2, as applicable.

Vessel means a commercial yacht which is operated by the Owner or the Body Corporate owning the vessel for financial gain.

Voyage: includes an excursion;

Watertight means capable of preventing the passage of water in any direction;

Weather deck means the uppermost complete Weathertight deck fitted as an integral part of the vessel's structure and which is exposed to the sea and weather.

Weathertight has the meaning given in Annex I of ICLL. Weathertight means that in any sea conditions water will not penetrate into the ship;

Wheelhouse means the control position occupied by the officer of the watch who is responsible for the safe navigation of the vessel;

Window means a ship's window, being any window, regardless of shape, suitable for installation aboard ships;

SECTION 3
APPLICATION AND INTERPRETATION

3 APPLICATION AND INTERPRETATION

3.1 Application

3.1.1 This Code applies to commercially operated motor or sailing yachts which do not carry cargo and which do not carry more than 12 passengers.

The Code applies to:-

- Yachts in commercial use of not less than 10 metres in length overall and not more than 24 metres in length
- Yachts in commercial use of more than 24 metres in length and less than 500 GT.
- Yachts in commercial use of more than 24 metres in length and 500 GT and over but less than 3000 GT.

3.1.2 All applicable provisions of the Code shall be deemed to be a requirement

3.2 Area of Operation

3.2.1 The requirements given in the Code are based on unrestricted geographical operation. However, where considered appropriate, standards for vessels operating as Short Range Yachts are included in this Code.

3.2.2 In particular, yachts having a length below 24 metres and which have been built under the Recreational Craft Directive 94/25/EC, would have to comply with the requirements of their relevant category (Categories A, B or C).

3.2.3. Existing vessels under 24 metres in length will be considered for operation up to 60 miles from safe haven.

Any such existing vessel which is required to be operated in an “unrestricted area of operation” will have to be checked against the Code for its suitability.

3.2.4 Vessels built to Design Category A of the Recreational Craft Directive 94/25/EC would normally be assigned an “unrestricted” area of operation.

3.2.5 Vessels built to Design Category B of the Recreational Craft Directive 94/25/EC would normally be assigned a permitted area of operation up to 60 miles from safe haven.

3.2.6 Vessels built to Design Category C of the Recreational Craft Directive 94/25/EC would not be normally considered suitable for registration under this Code.

In exceptional cases a particular yacht may be considered for compliance and certification for restricted operation up to 20 miles from safe haven in restricted weather conditions.

3.3 Weather Conditions.

3.3.1 In all cases, each vessel has to comply with all relevant sections of this Code.

3.4 **Number of Passengers to be carried**

3.4.1 The number of passengers than can be safely carried is to be clearly stated.

In the case of yachts having a length below 24 metres and which have been built under the Recreational Craft Directive 94/25/EC then the number of persons that are carried on board (passengers and crew) cannot exceed the number shown in the “Declaration of Conformity” issued by the Builder.

3.5 **Equivalent Standards and Exemptions**

Proposals for the application of alternative standards which are to be considered to be at least equivalent to the requirements of the Code are to be submitted to the Registrar.

Any proposal should include details to prove that the overall level of safety has been retained.

3.5.2 Application for any exemptions are to be made to the Registrar. Exemptions can only be granted by the Administration.

An application for any exemption has to be supported with the necessary justification for the request/s.

3.6 **Existing Vessels**

3.6.1 In case of existing vessels which may not comply with certain sections of the Code, the Administration may give a consideration to proposals made by the Owners / Managers to phase in the necessary requirements within a timescale not exceeding 24 months.

3.6.2 When an existing vessel does not comply with any item of the safety standards as set in this Code, proposals for alternative arrangements are to be submitted to the Registrar for approval.

The Administration when considering individual cases will take into consideration the service history and any other factors relating to the particular vessel.. The main aim will be that the minimum safety standards as set out in the Code are achieved.

When an existing vessel cannot prove that its design and construction strength comply with the requirements set out in the Code, proposals for alternative methods to prove that the vessel is of adequate strength are to be submitted to the Registrar for consideration.

The Administration when considering individual vessels will take into consideration the service history and any other factors relating to the particular vessel.

3.6.3 Repairs, alterations and refurbishments are to comply with standards applicable to a new vessel.

In case of major alterations and refurbishments, then the whole vessel would require to be upgraded to the standards applicable to a new vessel.

3.6.4 **Interpretation of this Code**

Where a question of interpretation of any part of this Code arises which cannot be resolved between the attending Surveyor and the Owners/Managers (or their Representative) a decision on the interpretation may be obtained on written application to the Registrar.

SECTION 4
HULL

4 HULL

4.1 Construction and Strength

4.1.1 The objective of the Code is to ensure that all vessels are constructed to a consistent standard in respect of strength and watertight integrity. New vessels are to be built to the requirements and standards of any of the Classification Societies (listed in Annex I of this Code).

New vessels having a length below 24 metres may be certified by a Notified Body.

4.1.2 Existing vessels not built to Classification Society Rules or a Notified Body (under 24m) would be dealt with individually. Vessels which have been in service for at least 5 years and have been proven in service may be considered as short range yachts.

4.1.3 Existing vessels not built to Classification Society Rules and which have not been in service for 5 years will be requested to submit a full set of drawings and specifications to an Approved Authority which will evaluate the constructional strength of these vessels.

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.1.4	<u>DECKS</u>		
	All vessels should have a watertight weather deck which extends for the whole length. The deck is to be of adequate strength to withstand the environmental conditions likely to be encountered in the area of operation. Any recesses in the deck should be of watertight construction and should have draining facilities.		
4.1.5	<u>STRUCTURAL STRENGTH</u>		
	New vessels built to Classification Society rules or to the Recreational Craft Directive 94/25/EC	New vessels must be built to Classification Society Rules and vessels over 500 GT to be maintained in Class.	
4.1.5.2	Any solid ballast used would be required to be properly supported to take in consideration the hull strength.		
		If ballast tanks are used on these larger vessels then the global hull strength is to be taken in consideration not to place the vessel under undue stress in any ballasted condition.	
4.1.6	<u>BULKHEADS</u>		
	Watertight bulkheads should be so arranged that A minor damage which results in the free flooding of any one compartment will not cause the vessel to float at a waterline which is less than 75mm below the weather deck at any point.	Watertight bulkheads, their penetrations, watertight integrity of the divisions should be in line with the requirements of any one of the Classification Societies.	
4.1.6.2	Any bulkhead penetrations should be of an approved type.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.1.6.3		(Openings in watertight bulkheads should comply with the standards required for cargo vessels)	
4.1.6.4	Approved hinged doors may be used on transverse watertight bulkheads. Such doors are to be spring loaded so that they are kept closed at all times. Notices are to be affixed on the doors clearly indicating that these doors are to be kept closed.	Approved hinged doors may be used for openings in infrequent use. If such doors are used then audible and visual alarms are to be installed in the navigation stand that will clearly indicate the status of these doors. In case of vessels below 500 GT hinged doors will be approved for other opening subject that they are equipped with audible and visual alarms in the navigation stand which will clearly indicate the status of these doors. These doors are to be clearly marked that they are to be kept closed at all times.	
4.1.6.5	-	Frequently used doors are to be of an approved sliding type which can be operated both locally and from the navigation stand.	
4.1.6.6	-	Any enclosed compartments within the hull and below the freeboard deck which have an access through the hull should be bounded by a watertight boundary which shall have no openings. A sliding type w/t door may be allowed.	
4.1.6.7	-	Any hull opening below the freeboard deck should comply with SOLAS Reg II-1/25-10. All such openings should be able to be manually closed and locked under all circumstances. Such openings should be watertight and have sufficient strength for the proposed use.	

4.2 WATERTIGHT INTEGRITY

The yachts should be designed and constructed in a manner which will prevent ingress of sea water and maintain the watertight integrity.

As far as practicable the ICLL is to be followed.

New vessels are to comply to the rules for watertight integrity as stated in the Classification Society rules.

An existing vessel's arrangements that provide an equivalent level of safety in respect of risks of downflooding and swamping by green seas may be considered.

Reference is to be made to the definition at the "Freeboard Deck".

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.1	<u>POSITION OF FREEBOARD DECK / SUPERSTRUCTURE HEIGHT</u>		
4.2.1.1	-	Where the actual freeboard to the weather deck exceeds that required by ICLL by one superstructure height, openings on that deck aft of the forward ¼ deck may be assumed to be position 2. This is to be considered, unless otherwise stated, as defined in ICLL.	
		For vessels up to 75m length the standard superstructure heights are to be taken as 1.8 metres. For vessels over 125 m length the superstructure height is to be taken as 2.3 metres. Intermediate sizes are calculated by interpolation.	
4.2.2	<u>HATCHWAYS, SKYLIGHTS AND HATCHES</u>		
4.2.2.1	A hatchway which gives access to spaces below the weatherdeck should be of efficient construction and be efficient for watertight closure.	A hatchway which gives access to spaces below deck and which cannot be closed watertight must be enclosed within the superstructure or weathertight deck house as per ICLL.	
4.2.2.2	The cover of a hatchway should be permanently secured, hinged or sliding. The cover should be provided with sufficient locking devices to enable it to be positively secured in the closed position.	All exposed hatchways which give access from position 1 and position 2 are to be of a weather tight construction and approved for use. Weathertight hatch covers should be permanently attached to the vessel and provided with adequate arrangements for securing the hatch in the closed position.	
4.2.2.3	A hatchway with a hinged cover which is located at the forward part of the vessel should have the hinges fitted on the forward end.		
4.2.2.4	Any hatches that have to remain open at sea should:-	Any hatches which may be kept open for access at sea should:-	
	- not exceed the area of 1m ² at the top of the coaming.	- not exceed an area of 1m ² at the top of the coaming.	
		- fitted as close as possible to the centre line (in case of sailing vessels, this is to	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
- be located as close as possible to the centre	be strictly adhered to.	
line.	- fitted with an access opening at least 300mm above the top of the deck in both	
- fitted with an access opening at least 300mm	positions 1 and 2.	
above the top of the weather deck.		
4.2.2.5	Hatches that are designated for escape purposes are to be equipped with covers which can be opened from both sides and the	
	handles are to be of a permanent and non removable type. The escape hatch should be readily identified and a notice to this	
	effect to be fitted. Access to the escape hatch to be made readily available in the vicinity of each hatch.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.3	<u>DOORWAYS AND COMPANIONWAYS</u>		
4.2.3.1	A doorway located at the main deck level which gives access to spaces below main deck should be provided with a weathertight door. Such a door should always open outwards and should have an efficient means to secure it in the closed position and which can be operated from both sides.	Doorways in superstructures that give access to spaces below deck are to be weathertight. Each doorway should have coamings heights as follows:-	
		- doors located ¼ forward length and used at sea :	
		600mm for unrestricted service, 300mm for short range service	
		- forward facing location aft of ¼ forward length:	
		300mm for unrestricted service, 150mm for short range service	
		- protected location anywhere other than above and at 1 st deck above main deck:	
		150mm for unrestricted service, 75mm for short range service.	
4.2.3.2	The doorway should be located as close as possible to the centre line. In case of hinged doors the door should be hinged at the fwd end	Doors should be hinged at the forward end.	
4.2.3.3	A door which is fitted on the forward side or on the sides of the superstructure at the main deck level should have a coaming of at least 300mm above the weather deck. Such a coaming may be portable but it has to be able to be secured in place.		
4.2.3.4	Access doors leading directly from the deck to the engine room should be fitted aft of the ¼ length from forward and should be fitted with a coaming of at least 450mm in height.	Access doors leading directly from the weather deck to the engine rooms should Be fitted aft of the ¼ length from forward. These doors should be fitted with Coamings having a height of:-	
		- 600mm for vessels having unrestricted service	
		- 450mm for vessels on Short Range Service	
		Doors located above the main / weather deck are to have a coaming height of 380mm.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.4	<u>COMPANIONWAY HATCH OPENINGS</u>		
4.2.4.1	The companion hatch opening from the cockpit to the spaces should:-		
	- not exceed 1 metre in width.		
	- be fitted with a coaming at least 300mm above the sole or recess of the cockpit.		
4.2.4.2	When washboards are used to close the vertical opening they should be so arranged that they will not get loose or be dislodged.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.5	<u>SKYLIGHTS</u>		
4.2.5.1	Skylights should be of an efficient weather tight construction and should be located on the centre line or as near to the centre line of the vessel.		
4.2.5.2	Skylights of the opening type should be provided with efficient means whereby they can be secured in the closed position.		
4.2.5.3	Skylights which are designated as a means of escape should be able to be opened from both sides and the locking handles should remain in place at all times. Such skylights should be properly marked and be in a position that they are always accessible from both sides.		
4.2.5.4	The construction of the skylights should be of the approved type.		
4.2.5.5	One portable cover for each glazed opening should be provided on board. This has to be able to be properly secured in case of the breakage of the glass panel		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.6	PORT LIGHTS		
4.2.6.1	Any port light fitted below the weather deck should be of good construction and suitable for the intended use.	All Portlights fitted below the weather deck shall be of good construction and meet a National or International standard. In general, all port lights fitted below the weather deck shall be fitted with a dead light.	
	In case of existing vessels the quality of the port lights would have to be proven to be suitable for the intended use.	In case of existing vessels the quality of the port lights would have to be proven to be suitable for the intended use.	
	In case of new vessels any port light fitted in the main hull and below the weather deck should:- - have the equivalent strength of the hull - be of the non-opening type	In case of new vessels all port lights fitted in the hull below the weather deck shall be of the approved type. They should be of the non-opening type. The lower edge of the port lights should be at least 500mm or 2.5% of the breadth of the vessel (whichever is the greatest) above the load line mark.	
4.2.6.2	Blanks shall be provided for 50% of each size of port lights fitted below the weather deck which are not equipped with deadlights.		
4.2.6.3	No port light should exceed 250mm in diameter (or equivalent area).		
4.2.6.4	-	No port lights should be fitted in way of the machinery space.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.7	WINDOWS		
4.2.7.1	Windows fitted below the weather deck should provide the watertight integrity necessary for safe operation.	Windows fitted on existing vessels have to be proven to be suitable for the intended use. The calculated thickness of the glazing should satisfy National or Classification Society Rules. Existing vessels will be dealt with on an individual basis to confirm safety is not prejudiced.	
4.2.7.2	All windows fitted below the weather deck on new vessels should be of the approved type.	Windows fitted on new yachts below the weather deck should be of the approved type and suitable for the particular use.	
4.2.7.3	Portable blanks are to be carried on board for all windows fitted below the weather deck.	Portable blanks are to be carried on board for all windows fitted below the weather deck. Such blanks are to be strong to act as storm blanks as well.	
4.2.7.4	Windows fitted above the weather deck on the hull or in way of the superstructure should be of sound and weather tight construction.	Windows fitted above the weather deck on the hull or in the superstructure are to be substantially built and efficiently secured. The glass is to be of the toughened safety glass type.	
4.2.7.5		Where chemically toughened glass is used, the glass is to be of the laminated type and the minimum depth of the chemical toughening is to be shown on the equipment certificate issued by the Makers. The surface condition is to be inspected regularly.	
4.2.7.6	The fitting of windows below the weather deck should be avoided as far as practicable. If it is found necessary to install windows in this position then they are to be as small as possible. Windows should never be fitted in the ¼ forward length or in way of engine rooms. If windows are fitted then operational instructions are to be made available on board clearly instructing the crew when and how the blanks (4.2.7.3) are to be installed.		
4.2.7.7	Only clear glass is to be used in the navigation position. The laying of tinted film is not allowed.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.8	<u>VENTILATORS AND EXHAUST DUCTS / PIPES</u>		
4.2.8.1	A ventilator should be efficiently constructed and should be provided with permanently attached means of weather tight closure. Such closing device is to be easily accessible.	Ventilators should be of efficient construction and provided with means of weather tight closure. Such closing device is to be easily accessible. The minimum coaming height above the weather deck is to be:- - forward ¼ length : 900mm (450mm for short range yachts) - all other areas : 760mm (350mm for short range yachts)	
4.2.8.2	Ventilators should be installed as far inboard as possible and their height above the deck is to be such that it would prevent the admission of water when the vessel is heeled.		
4.2.8.3	Goose necks and ventilators fitted on the ¼ forward length are to be of the type that they can face backwards so that they will not be flooded with green seas.		
4.2.8.4	A ventilator which must be kept open at all times (such as a machinery space) are to be specially considered with respect to its location and height above deck. Special consideration is to be given to the down-flooding angle.		
		Additional means of closure for such ventilators should be installed taking in consideration the fire protection and the fire extinguishing medium provided in the particular space.	
4.2.8.5	Engine exhaust outlets which penetrate the hull below the weather deck should be provided with anti-syphon equipment to avoid back flooring into the hull through the exhaust system.		
		Additional: For vessels operation on an “unrestricted service” a mechanical means of closing the exhausts should be supplied. The closing device should have the equivalent strength of the hull.	
		For short range yachts, if such a closing device is not possible then an anti-syphon loop having a minimum height of 1000mm will be considered.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.9	<u>AIR PIPES</u>		
4.2.9.1	An air pipe fitted on the weather deck should be of an efficient construction and properly supported.		
4.2.9.2	An air pipe fitted on the weather deck should be kept as far inboard as possible and have an adequate height above the deck to prevent the entrance of water into the tanks being vented when the vessel is heeled.	An air pipe fitted on the weather deck should be kept as far inboard as possible. Air pipes to tanks should have a minimum coaming height of: - Weatherdeck : 760mm (380mm for short range yachts) - All other locations : 450mm (220mm for short range yachts)	
4.2.9.3	An air pipe on the weather deck having a diameter 10mm or more should have a permanently attached means of closure.	All air pipes are to be equipped with a permanently attached means of closure.	
4.2.9.4	-	Air pipes to fuel tanks should be fitted at a height of not less than 760mm above the top of the filler pipes.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.10	<u>SEA INLETS, DISCHARGES AND SCUPPERS</u>		
	The standards of ICLL should generally be applied to every hull fitting. All sea inlet and overboard discharges should be provided with approved type shut off valves. Adequate access should be made available to all the shut off valves.		
4.2.10.1	A valve or similar fitting attached to the side of the vessel below the water line within the engine room or any other high fire risk area should be of steel, bronze, brass or other approved metal. In general, the sealing of the valve should be metal to metal.		
4.2.10.2	-	-	All valves fitted on the hull are to be certified by a Classification Society
4.2.10.3	No plastic valves are allowed to be fitted on the hull below the weather deck.		
4.2.10.4	An openings for speed logs or any other sensors which can be withdrawn are to be supplied with closing valves. These valves are to be equipped with blanking devices.		
4.2.10.5	The use of synthetic material piping should be kept to a minimum. Should any such piping be used in the engine room or other high fire risk spaces, such piping should be adequately supported and protected against chafing.	In general no synthetic material piping should be used in the engine rooms and high fire risk spaces on yachts of this Class.	
	Such piping should be certified to the IMO Fire Test Procedures Code and the relevant certificates should be made available. The couplings between synthetic pipes/hoses and metal pipes should be of the approved type.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.2.11	<u>WATER FREEING ARRANGEMENTS</u>		
	This Section takes in consideration the dangers of green waters being shipped on board and the resulting consequences with respect to the stability of the vessels and the safety of the personnel on board.		
	In general the standards for the water-freeing arrangements should follow the ICLL rules.		
4.2.11.1	When a bulwark is fitted it should be provided with freeing ports. The freeing ports should be located as close to the deck as possible and not higher than the lower 1/3 height. the total area of the freeing ports should be 10% of the bulwark area.	The ICLL requirements are to be applied for these classes of vessels. In certain cases if the ICLL requirements may not be met, the Administration may consider and approve alternative arrangements as long as safety will not be prejudiced. In considering such cases the past performance and the declared areas of operation will be taken in consideration. Any condition issued will be shown on the Load Line Certificate.	
4.2.11.2	Should a non return flap be fitted in way of the freeing parts these should be kept free to move at all times.		
4.2.11.3	The freeing ports should be fairly distributed along the full length of the deck. If the vessel tends to draw by the stern during operation adequate capacity of freeing ports is to be allowed for at the stern.		
4.2.11.4	-	Any recesses on the weather deck should be of weathertight construction and should be self draining under all conditions. Swimming pools and spas open to the elements are to be treated as a recess. Means should be provided to prevent the backflow of sea water into the recess.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
4.3	Bulwarks and Guard Rails		
4.3.1	Bulwarks and guard rails should have a minimum height of 1000mm.		
4.3.2	In case of guard rails the vertical distance between the different rails should not exceed 330mm If steel wire is used for guard rails the wire used is to be stainless steel with a stainless steel core. The minimum diameter of the wire used for the railing should be calculated as follows:-		
	Diameter of Top Rail : $\frac{\text{length of vessel in metre}}{4} = \quad (\text{mm})$		
	Diameter of other railing : $\frac{\text{length of vessel in metre}}{5} = \quad (\text{mm})$		
	The minimum wire diameter in any position should not be less than 5mm.		
	Note: Toe rails should be fitted in case guard rails are fitted. Toe rails should have a minimum height of 25mm (vessels \leq 24m) or 40mm (vessels $>$ 24m).		
4.3.3	Vertical stanchions are to be fitted at a distance of not less than 2.2 metres from each other.		

SECTION 5
RIGGING ON SAILING VESSELS

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
5.0	<u>RIGGING ON SAILING VESSELS</u>		
	The condition of the masts, booms and the rigging should be the subject of continuous monitoring. The records of all inspections are to be recorded and inspected by the Surveyor during the Annual Surveys and Special Surveys.		
5.1	<u>Masts and Spars</u>		
	Masts and spars on new yachts should form part of the evaluation by the Notified Body.	Masts and spars on new vessels should be in accordance with the requirements of the Classification Societies or a recognised National or International Standard.	
5.1.2	Masts and spars on existing vessels shall be subjected to a thorough inspection prior to the entry into the Registry. Due consideration will be given to the past performance and the declared areas of operation of the yacht.		
5.1.3	There should be adequate access to inspect the condition of the masts in way where it passes through the deck and in way of the mast step.		
5.1.4	The structure supporting the masts and spars should be constructed to effectively carry and transmit all forces involved.		
5.2	<u>STANDING RIGGING</u>		
5.2.1	Wire rope used for standing rigging should be non flexible wire rope. Fibre core rope should not be used. The vessel should carry a log of all rope used clearly recording when each rope has been put in use.		
5.2.2	When solid rod is used for standing rigging the vessel is to log the time when each element has been put in use. The solid rods are to be renewed strictly within the time limit set by the Makers.		
5.2.3	The strength of all parts of the rig, including blocks, shackles, rigging screws, cleats, running rigging, winches and all other associated fittings and attachment points should exceed the breaking point of the rigging.		
5.2.4	Chainplates for standing rigging should be of strong construction and adequate to carry and transmit all forces involved. Adequate access to be given to examine the attachment to the hull of all chain plates.		

SECTION 6
MACHINERY

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
6.0	<u>MACHINERY</u>		
6.1	<u>Machinery Spaces</u>		
6.1.1	Machinery spaces are to be totally enclosed. They are to be heat and sound insulated. The materials used are to be of the type that do not absorb oil and do not support fires.	The machinery spaces and machinery installation are to meet the standards of SOLAS Regulations II – 1 Part C, for Machinery Installations. In case of unattended machinery spaces then the Machinery Installations are also to comply with Regulation II – 1 Part E. Any item which does not comply will be considered by the Administration.	
6.1.2	Every vessel is to be fitted with a diesel powered inboard engine of adequate power to navigate the vessel safely.		
6.1.3	No petrol engines are allowed to power the vessels. If petrol driven outboard engines are installed then special attention is to be given to the storage of petrol. No petrol can be stored below deck.		
6.1.4	The machinery installation should be adequately designed and outfitted for the intended use. The design and outfit should be such that all parts are properly shielded and protected to minimise the danger of personal injury to persons in the engine room. Due regard is to be given to moving parts, hot surfaces and other hazards.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
6.1.5	The fuel system shall have means to close the source of fuel that may feed a fire in the machinery spaces. This means of closure shall be a valve which can be closed from outside the machinery spaces. In case of sailing yachts below 15 alternative arrangements may be considered.		
6.1.6	Glass gauges on a fuel tank shall be of the flat glass type and shall be fitted with cocks at the top and bottom ends of the gauges.		
6.1.7	If flexible hoses are used for the fuel system, such hoses are to be made of fire retarding material and should be certified for such use. The end connections are to be of an approved screwed type. No temporary fittings are to be allowed. All materials used on fuel systems are to be of an approved type and certified.		
6.1.8	<u>Engine Starting</u>		
6.1.8.1	Means shall be provided to ensure that the machinery can be brought in to operation from a dead ship condition without external aid. Engines can be started manually, mechanically, or by batteries.		
6.1.8.2	When the sole means of starting is by battery, the battery should be in duplicate and connected to the starter motor via a charge over switch so that either battery or set of batteries can be used for starting either engine. Charging facilities for the batteries should be available on board. Batteries should be located above the floor plates in the machinery space.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
6.2	<u>Steering Gear</u>		
6.2.1	Every vessel should be fitted with an efficient means of steering. This is to be of adequate strength and design to enable the heading and direction of the vessel to be effectively controlled at all operating speeds.		
6.2.2	The control position is to be located so that the person at the steering position will have a clear view for the safe navigation of the vessel.		
6.2.3	When the steering gear is equipped with remote control, arrangements should be provided for emergency steering.		
6.2.4	The steering gear of any new vessel is to form part of the approval by the Notified Body.		
6.2.5	In case of existing vessels the Administration will consider the existing arrangements to ensure the safety standards. Sea trials will be carried out at initial survey to confirm the efficiency of the existing steering system.	In case of existing vessels and in case the steering arrangements have not been built to Class, the Administration will consider existing arrangements and take in consideration the experience factor of the particular vessel. Sea trials will be carried out at initial survey to confirm the efficiency of the existing steering system.	
6.3	<u>Bilge Systems</u>		
6.3.1	Each vessel is to be outfitted with an efficient Bilge pumping system. It should consist of at least:- - one engine drive pump	The bilge pumping system should be in compliance with the requirements of a Classification Society. If the vessel is not classed then a statement of compliance	The bilge pumping system should be in compliance with the requirements of a Classification Society.

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	- one independent power bilge pump	is to be issued by a Classification or by an	
	- one manual pump	Approved Surveyor.	
		Each vessel is to be supplied by two independently powered pumps.	
6.3.2	The bilge lines should be made of metal. The suction pipes are to be so arranged that any compartment can be pumped dry when the vessel is heeled up to an angle of 10°. The diameter of the main bilge line should be calculated as follows:-		
	$d = 25 + 1.68 \sqrt{L(B+D)}$		
	<i>where</i> d = diameter of bilge main in mm		
	L = length of vessel in metres		
	B = breadth of vessel in metres		
	D = moulded depth of vessel in metres		
6.3.3	The two pumps and their power supplies should be located in two different compartments. Whilst the engine driven pump will be located in the machinery space the power driven pump will be located outside the machinery compartment. Any one of the two pumps can take suction from any of the compartments.		
	The manually operated pump is to be located in the cockpit or weather deck and it should be able to take suction from all compartments.		
6.3.4	The bilge lines should be equipped with strum boxes.		
6.3.5	A bilge level alarm should be fitted. The alarm should be able to provide an audible alarm at the control position and in the crew quarters or Captain's quarters.		
6.3.6			In addition to the foregoing, vessels falling under this category should also comply with the SOLAS Regulations II-1/Part B – Subdivision and Stability

SECTION 7
ELECTRICAL INSTALLATION

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
7.0	<u>ELECTRICAL INSTALLATION</u>		
7.1	The electrical installation shall be such that:-	The electrical installation shall be designed and outfitted to the rules and requirements of a Classification Society. The installation shall be such that:-	
7.1.1	All electrical auxiliary services necessary for maintaining the vessel in normal, operational and habitable conditions are to be ensured without relying on the emergency service of power.		
7.1.2	Electrical services essential for the safety of the vessel and personnel on board are to be confirmed to be able to be operational under various emergency conditions.		
7.1.3	The vessel and personnel on board are to be protected from electrical hazards.		
7.2	<u>Overload and short circuit protection.</u>		
7.2.1	The electrical system shall be provided with overload and short circuit protection of all circuits with the exception of the engine starting circuits from the batteries.		
7.2.2	Lighting circuits including any circuits should be distributed through all spaces and in such a manner that a total black-out cannot occur due to the tripping of a single protective device.		
7.2.3	An alternative source of lighting shall be provided sufficient to enable persons to make their way to the open deck and to allow work on essential machinery.	An emergency source of lighting shall be provided. This shall be independent and distinct of the general lighting. The source shall be sufficient for 3 hours duration and should also supply the navigation lights.	
	Such alternative sources of lighting may be torches or flash lights which would be located at prescribed locations.	This source of lighting should be sufficient to allow the personnel to evacuate all spaces on board. It should be totally separate from the main power supply, external to the engine room and with an independent distribution.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
7.3	Batteries		
7.3.1	Batteries suitable for marine use and not easily liable to leakage are to be used. Stowage areas for batteries are to be equipped with adequate ventilation to avoid the build up of explosive gases.		
	In the case of steel vessels or equivalent, the battery lockers are to be lined with an inert material.		
7.4.1	All electric cables and wiring external to equipment shall be confirmed to be flame retardant marine cables. The installation of the cables shall be such so as not to in any way impact their mechanical and chemical properties.		
7.4.2	Cables and wiring serving essential or emergency power, lighting, internal communications or signals shall be routed clear of galleys, laundries, machinery spaces of Category A and any other high fire risk areas.		

SECTION 8
STABILITY

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
8.0	<u>STABILITY</u>		
8.1	The stability of this class of vessel is to be calculated per EN ISO 12217-1 for non sailing yachts and EN ISO 12217-2 for sailing yachts.		
	The assigned Category, i.e. :-		
	- Category 'A' (Ocean Going):- wind force exceeding 8, significant wave height exceeding 4m		
	- Category 'B' (Offshore) :- wind force up to and including 8, significant wave height up to and including 4m		
	- Category 'C' (Inshore) :- wind force up to and including 6, significant wave height up to and including 2m		
8.2	Existing motor vessels not having stability data complying with 8.1.	8.1 This section deals with the standards for both intact and damaged stability.	
8.2.1	Existing motor vessels not having stability data may have a "simplified" test.	8.1.1. An intact stability standard proposed for assessment of a vessel type not covered by the standards defined in the Code should be submitted to the Administration for approval at the earliest opportunity.	

8.2.1.1

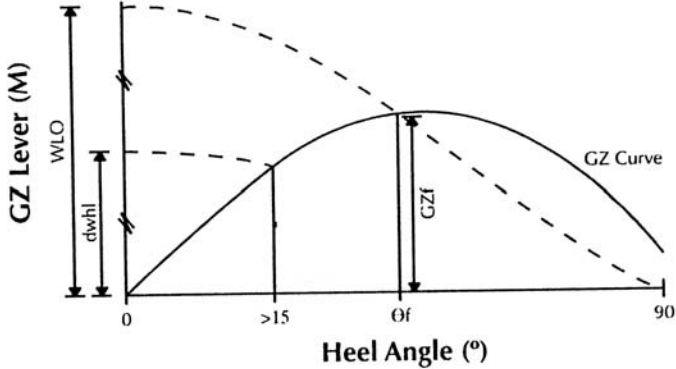
Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
<p>A vessel should be tested in the fully loaded conditions (which should correspond to the freeboard assigned) to ascertain the angle of the heel and the position of the waterline which results when all persons which the vessel is to be certified to carry are assembled along one side of the vessel (The helmsman may be assumed to be at the helm). Each person may be substituted by a mass of 75kg for the purpose of the test.</p>	<p>8.1.2 If used, permanent ballast should be located in accordance with a plan approved by the Administration and in a manner that prevents shifting of position. permanent ballast should not be removed from the ship or relocated within the ship without the approval of the Administration. Permanent ballast particulars should be noted in the ship's stability booklet. Attention should be paid to local or global hull strength requirements from the fitting of additional ballast.</p>	
<p>The vessel will be judged to have an acceptable standard of stability if the test shows that:-</p>	<p>8.2 Intact Stability Standards</p>	
<p>.1 the angle of heel does not exceed 7 degrees; And</p>	<p>Motor vessels</p>	
<p>.2 in the case of a vessel with a watertight weather deck extending from stem to stern, as described in Section 4.1.4, the freeboard to deck is not less than 75mm at any point.</p>	<p>Monohull Vessels</p>	
<p>.3 The angle of heel may exceed 7 degrees, but Should not exceed 10 degrees, if the freeboard in the heeled condition is in accordance with that required by Section 9 in the upright condition.</p>	<p>The curves of statical stability for seagoing conditions should meet the following criteria:</p>	
	<p>1. the area under the righting lever curve (GZ curve) should not be less than 0.055 metre-radians up to 30° angle of heel and not less than 0.09 metre-radians up to 40° angle of heel, or the angle of downflooding, if this angle is less;</p>	
	<p>2. the area under the GZ curve between the angles of heel of 30° and 40° or between 30° and the angle of downflooding if this is less than 40°, should not be less than 0.03 metre-radians;</p>	
	<p>3. the righting lever (GZ) should be at least 0.20 metres at an angle of heel equal to or greater than 30°;</p>	
	<p>4. the maximum GZ should occur at an angle of heel of preferably exceeding 30° but not less than 25°;</p>	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
8.2.1.2	Additionally, for vessels over 15 metres in length overall, the heeling moment applied during the test described in 8.2.1.1 should be calculated using the formula below, the vessel should attain a value of initial GM not less than 0.5m if using an estimated displacement, or 0.35m if the displacement of the vessel is known and can be verified by the Certifying Authority.	5. after correction for free surface effects, the initial metacentric height (GM) should not be less than 0.15 metres; and 6. in the event that the vessels intact stability standard fails to comply with the criteria defined in 1. to 5. the Administration may be consulted for the purpose of specifying alternative but equivalent criteria	
		8.2.1.2 Monohull Vessels operating as Short Range Yachts	
		Where Short Range Yachts are unable to meet the criteria above, the following criteria may be used:-	
	Where: HM = Heeling moment in kilogram Metres		
	θ = angle of heel in degrees obtained from the test as defined in 8.2.1.1.	1.	the area under the righting lever curve (GZ curve) should not be less than 0.07 metre-radians up to 15° angle of heel, when maximum GZ occurs at 15°, and 0.055 metre-radians up to 30° angle of heel, when maximum GZ occurs at 30° or above. Where the maximum GZ occurs at angles of between 15° and 30°, the corresponding area under the GZ curve, A_{req} should be taken as follows:-
	Δ = the displacement of the vessel In kilogrammes, either estimated or measured and verified by the certifying Authority		
			$A_{req} = 0.055 + 0.001 (30^\circ - \theta_{max})$ metre-radians
	In all cases, the maximum permissible weights of persons derived from the tests conducted shall be recorded on the certificate. Vessel loading will be restricted by the position freeboard mark and maximum permissible weight, and thus for the purposes of this test, attention should be paid to any activity related equipment where this may be significant e.g. diving equipment.		Where θ_{max} is the angle of heel in degrees where the GZ curve reaches its maximum.
		2.	the area under the GZ curve between the angles of heel of 30° and 40° or between 30° and the angle of downflooding if this is less than 40°, should not be less than 0.03 metre-radians;
		3.	the righting lever (GZ) should be at least 0.20 metres at an angle of heel equal to or greater than 30°;

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	4. the maximum GZ should occur at an angle of heel not less than 15°;	
	5. after correction for free surface effects, the initial metacentric height (GM) should not be less than 0.15 metres.	
	8.2.1.3 Multi-hulls	
	The curves of statical stability for seagoing conditions should meet the following criteria:-	
	1. the area under the righting lever curve (GZ curve) should not be less than 0.075 metre-radians up to an angle of 20° when the maximum righting lever (GZ) occurs at 20° and, not less than 0.055 metre-radians up to an angle of 30° when the maximum righting lever (GZ) occurs at angles between 20° and 30° the corresponding area under the GZ curve, A_{req} should be taken as follows:-	
	$A_{req} = \{0.055 + 0.002 (30 - \theta_{max})\}$ metre-radians;	
	Where θ_{max} is the angle of heel in degrees where the GZ curve reaches its maximum.	
	2. The area under the GZ curve between the angles of heel of 30° and 40° or between 30° and the angle of downflooding if this is less than 40° should not be less than 0.03 metre-radians;	
	3. the righting lever (GZ) should be at least 0.20 metres at an angle of heel where it reaches its maximum;	
	4. the maximum GZ should occur at an angle of heel not less than 20°;	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500GT
	5.	after correction for free surface effects, the initial metacentric height (GM) should be not less than 0.15 metres; and
	6.	if the maximum righting lever (GZ) occurs at an angle of less than 20° approval of the stability should be considered by the Administration as a special case.
	8.2.1.4 For the purpose of assessing whether the stability criteria are met GZ curves should be produced for the loading conditions applicable to the operation of the vessels.	
	8.2.1.5 Superstructures	
	8.2.1.5.1 The buoyancy of enclosed superstructures complying with regulation 3(10)(b) of the ICLL may be taken into account when producing GZ curves.	
	8.2.1.5.2 Superstructures, the doors of which do not comply with the requirements of Regulation 12 of ICLL, should not be taken into account.	
	8.2.1.6 High Speed Vessels	
	In addition to the criteria above, designers and builders should address the following hazards which are known to effect vessels operating in planing modes or these achieving relatively high speeds:	
	1.	directional instability, often coupled to roll and pitch instabilities;
	2.	bow diving of planing vessels due to dynamic loss of longitudinal stability in calm seas;
	3.	reduction in transverse stability with increasing speed in monohulls;

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	4. porpoising of planing monohulls being coupled with pitch and heave oscillations;	
	5. generation of capsizing moments due to immersion of chines in planing monohulls (chine tripping).	
	8.2.2 Sailing Vessels	
	8.2.2.1 Monohulls	
	1. Curves of statical stability (GZ curves) for at least the Loaded Departure with 100% consumables and the Loaded Arrival with 10% consumables should be produced.	
	2. The GZ curves required by 1. should have a positive range of not less than 90°. For vessels of more than 45m, a range of less than 90° may be considered but may be subject to agreed operational criteria.	
	3. In addition to the requirements of 2., the angle of steady heel should be greater than 15 degrees (see figure). The angle of steady heel is obtained from the intersection of a 'derived wind heeling lever' curve with the GZ curve required by 1.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	In the figure:	
	‘dwhl’ = the ‘derived wind heeling lever’ at any angle θ°	
	$= 0.5 \times WLO \times \cos^{1.3} \theta$ <hr style="width: 10%; margin: 10px auto;"/> <p>where $WLO = \frac{GZ_f}{\cos^{1.3} \theta_f}$</p> 	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	Noting that:-	
	WLO is the magnitude of the actual wind heeling lever at 0° which would cause The vessel to heel to the ‘down flooding angle’ θ_f or 60° whichever is least.	
	GZf is the lever of the vessel’s GZ at the down flooding angle (θ_f) or 60° whichever is the least.	
	θ_f is the angle at which the ‘derived wind heeling’ curve intersects the GZ curve. (If θ_d is less than 15° the vessel will be considered as having insufficient stability for the purpose of the Code).	
	θ_d the ‘down-flooding angle’ is the angle of heel causing immersion of the lower edge of openings having an aggregate area, in square metres, greater than:	
	$\frac{\Delta}{1500}$ where Δ = vessels displacement in tonnes.	
	All regularly used openings for access and for ventilation should be Considered when determining the downflooding angle. No opening Regardless of size which may lead to progressive flooding should be Immersed at an angle of heel of less than 40°. Air pipes to tanks can, However, be disregarded.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	If as a result of immersion of openings in a superstructure a vessel cannot meet the required standard those superstructure openings may be ignored and the openings in the weather deck used instead to determine (f. in such cases the GZ curve should be derived without the benefit of the buoyancy of the superstructure.	
	It might be noted that provided the vessel complies with the requirements of 11.2.2.1.1, 11.2.2.1.2 and 11.2.2.1.3 and is sailed with an angle of heel which is no greater than the 'derived angle of heel', it should be capable of withstanding a wind gust equal to 1.4 times the actual wind velocity (i.e. twice the actual wind pressure) without immersing the 'down flooding openings', or heeling to an angle greater than 60°.	
	8.2.2.3 Multi-hull	
	1. Curves of statical stability in both roll and pitch shall be prepared for at least the Loaded Arrival with 10% consumables. The VCG shall be obtained by one of the three methods listed below:-	
	i. inclining of complete craft in air on load cells, the VCG being calculated from the moments generated by the measured forces, or	
	ii. separate determination of weights of hull and rig (comprising masts and all running and standing rigging), and subsequent calculation assuming that the hull is 75% of the hull depth above the bottom of the canoe body, and that the VCG of the rig is at half the length of the mast (or a weighted means of the lengths of more than one mast), or	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	iii. detailed calculation of the weight and CG position of all components of the vessel, plus a 15% margin of the resulting VCG height above the underside of canoe body.	
	2. If naval architecture software is used to obtain a curve of pitch restoring moments, then the trim angle must be found for a series of longitudinal centre of gravity (LCG) positions forward of that necessary for the design waterline. The curve can be derived as follows:	
	<p style="text-align: center;">GZ in pitch = CG' x cos (trim angle)</p> $\text{Trim angle} = \tan^{-1} \left[\frac{T_{FP} - T_{AP}}{L_{BP}} \right]$	
	Where:	
	CG' = shift of LCG forward of that required for design trim, measured parallel to baseline	
	T _{FP} = draught at forward perpendicular	
	T _{AP} = draught at aft perpendicular	
	L _{BP} = length between perpendiculars	
	Approximations to maximum roll or pitch moments are not acceptable.	
	3. Data shall be provided to the user showing the maximum advised mean apparent wind speed appropriate to each combination of sails, such wind speeds being calculated as the lesser of the following:-	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	$v_w = 1.5 \sqrt{\frac{LM_R}{A'_S h \cos \phi_R + A_D b}}$ <p>or</p> $v_w = 1.5 \sqrt{\frac{LM_P}{A'_S h \cos \phi_P + A_D b}}$	
	where:	
	$V_w =$ maximum advised apparent wind speed (knots)	
	$LM_R =$ maximum restoring moment in roll (N-m)	
	$LM_P =$ limiting restoring moment in pitch (N-m), defined as the pitch restoring moment at the least angle of the following:	
	a) angle of maximum pitch restoring moment, or	
	b) angle at which foredeck is immersed	
	c) 10° from design trim	
	$A'_S =$ area of sails set including mast and boom (square metres)	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	h = height of combined centre of effort of sails and spars above the waterline	
	ϕ_R = heel angle at maximum roll righting moment (in conjunction with LMR)	
	ϕ_P = limiting pitch angle used when calculating LMP (in conjunction with LMP)	
	A_D = plan area of the hulls and deck (square metres)	
	b = distance from centroid of AD to the centreline of the leeward hull.	
	This data shall be accompanied by the note:	
	In following winds, the tabulated safe wind speed for each sail combination should be reduced by the boat speed.	
	4. If the maximum safe wind speed under full fore-and-aft sail is less than 27 knots, it shall be demonstrated by calculation using annex D of ISO 12217-2 (2002) that, when inverted and/or fully flooded, the volume of buoyancy, expressed in cubic metre (m ³), in the hull, fittings and equipment is greater than:	
	1.2 x (fully loaded mass in tonnes)	
	Thus ensuring that it is efficient to support the mass of the fully loaded vessel by a margin. Allowance for trapped bubbles of air (apart from dedicated air tanks and watertight compartments) shall not be included.	
	5. The maximum safe wind speed with no sails set calculated in accordance with 3. above should exceed 36 knots. For Short Range Yachts this wind speed should exceed 32 knots.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	6.	Trimarans used for unrestricted operations should have sidehulls each having a total buoyant volume of at least 150% of the displacement volume in the fully loaded condition.
	7.	The stability information booklet shall include information and guidance on:-
	1.	the stability hazards to which these craft are vulnerable, including the risk of capsize in roll and/or pitch;
	2.	the importance of complying with the maximum advised apparent wind speed information supplied;
	3.	the need to reduce the tabulated safe wind speeds by the vessel speed in following winds;
	4.	the choice of sails to be set with respect to the prevailing wind strength, relative wind direction and sea state;
	5.	the precautions to be taken when altering course from a following to a beam wind.
	8.	In vessels required to demonstrate the ability to float after inversion (according to 3. above) an emergency escape hatch shall be fitted to each main inhabited watertight compartment such that it is above both upright and inverted waterlines.
	8.3 Damaged Stability	
	The following requirements are applicable to all vessels, other than those operating as Short Range Yachts. Whilst Short Range Yachts are not required to meet the damage stability criteria defined above, ultimate survivability after minor damage or flooding is recommended.	
	It should be noted that compliance with the damage stability criteria is not required for vessels that obtain full compliance with the ICLL conditions of assignment.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT										
	<p>8.3.1 The watertight bulkheads of the vessel should be so arranged that minor hull damage that results in the free flooding of any one compartment, will cause the vessel to float at a waterline which, at any point, is not less than 75mm below the weather deck, or bulkhead deck if not concurrent.</p>											
	<p>8.3.2 Minor damage should be assumed to occur anywhere in the length of the vessel, but not on a watertight bulkhead.</p>											
	<p>8.3.3 Standard permeabilities should be used in this assessment, as follows:-</p>											
	<table border="1"> <thead> <tr> <th data-bbox="842 729 1402 776">Space</th> <th data-bbox="1402 729 1871 776">Percentage Permeability</th> </tr> </thead> <tbody> <tr> <td data-bbox="842 784 1402 831">Stores</td> <td data-bbox="1402 784 1871 831">60</td> </tr> <tr> <td data-bbox="842 839 1402 886">Stores but not a substantial quantity thereof</td> <td data-bbox="1402 839 1871 886">95</td> </tr> <tr> <td data-bbox="842 894 1402 941">Accommodation</td> <td data-bbox="1402 894 1871 941">95</td> </tr> <tr> <td data-bbox="842 950 1402 997">Machinery</td> <td data-bbox="1402 950 1871 997">85</td> </tr> </tbody> </table>		Space	Percentage Permeability	Stores	60	Stores but not a substantial quantity thereof	95	Accommodation	95	Machinery	85
Space	Percentage Permeability											
Stores	60											
Stores but not a substantial quantity thereof	95											
Accommodation	95											
Machinery	85											
	<p>8.3.4. In the damaged condition, considered in 11.3.1, the residual stability should be such that any angle of equilibrium does not exceed 7° from any upright, the resulting righting lever curve has a range to the downflooding angle of at least 15° beyond any angle of equilibrium, the maximum righting lever within that range is not less than 100mm and the area under the curve is not less than 0.015 metre radians.</p>											

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	<p>8.3.5 A vessel of 85 metres and above should meet a SOLAS 1-compartment standard of subdivision, calculated using the deterministic damage stability methodology.</p>	
	<p>8.4 Elements of Stability</p>	
	<p>8.4.1. The lightship weight, vertical centre of gravity (KG) and longitudinal centre of gravity (LCG) of a vessel should be determined from the results of an inclining experiment.</p>	
	<p>8.4.2 An inclining experiment should be conducted in accordance with a detailed standard which is approved by the Administration and, in the presence of an Authorised Surveyor.</p>	
	<p>8.4.3 The report of the inclining experiment and the lightship particulars derived should be approved by the Administration prior to its use in stability calculations.</p>	
	<p>At the discretion of the owner(s)/managing agent(s) and prior to approval of the lightship particulars by the Administration, a margin for safety may be applied to the lightship weight and KG calculated after the inclining experiment. Such a margin should be clearly identified and recorded in the stability booklet.</p>	
	<p>A formal record should be kept in the stability booklet of alterations or modifications to the vessel for which the effects on lightship weight and vertical centres of gravity are offset against of the margin.</p>	
	<p>8.4.4 When sister vessels are built at the same shipyard, the Administration may accept a lightweight check on subsequent vessels to corroborate the results of the inclining experiment conducted on the lead vessel of the class.</p>	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
8.5	Stability Documents		
8.5.1	A vessel should be provided with a stability information booklet for the Master, that is to be approved by the Administration.		
8.5.2	The content, form and presentation of information contained in the stability information booklet should be based on the model booklet for the vessel type (motor or sailing) published by/for the Administration.		
8.5.3	A vessel with previously approved stability information which undergoes a major alteration or refit alterations should be subjected to a complete reassessment of stability and provided with newly approved stability information. Refer to the Definitions.		
	Additionally, unless it can be clearly demonstrated that no major change has occurred, a lightweight check should be carried out at the renewal survey.		
8.5.4	Sailing vessels should have, readily available, a copy of the Curves of Maximum Steady Heel Angle to Prevent Downflooding in squalls, or in the case of a multihull, the values of maximum advised mean apparent windspeed, for the reference of the watchkeeper. This should be a direct copy taken from that contained in the approved stability booklet.		
8.5.5	The overall sail area and spare weights and dimensions should be as documented in the vessel's stability information booklet. Any rigging modifications that increase the overall sail area, or the weight/dimensions of the rig aloft, must be accompanied by an approved updating of the stability information booklet.		

SECTION 9
FREEBOARD AND FREEBOARD MARKING

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
9.0	<u>FREEBOARD AND FREEBOARD MARKING</u>		
9.1	A freeboard mark should be placed on each side of the hull at the longitudinal position of the longitudinal centre of flotation for the maximum draught at which the stability of the vessel has been determined. This mark shall consist of a horizontal bar having a length of 300mm and a width of 25mm. The top of the bar is to be in line with the relevant water line.	Vessels should comply with ICLL for the assignment of the freeboard mark which corresponds to the deepest load condition. This is to be included in the stability information of the vessel.	
9.2		The assigned freeboard should be compatible with the strength of the hull structure, intact and damage stability requirements for the vessel and the minimum bow height requirements are to be met.	
		The Authority who shall assign the loadline should provide the Owners / Managers of the vessel a copy of the documentation showing the particulars relating to the conditions of assignment.	
9.3		The assigned freeboard mark should be painted on both sides of the vessel amidships.	
		The mark should be the permanent freeboard disc and should be of contrasting colour to that of the adjacent hull.	
9.4		If the vessel is to operate in sea water and fresh water then the freeboard allowance for fresh water is also to be painted on the port and stbd sides.	
9.5	A vessel must not operate in any condition which will result in the freeboard marks being submerged when the vessel is moored in calm water.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
9.6		Datum Draught Marks.	
		Datum draught reference marks are to be provided on both sides of the vessel at the bow and stern. These may be single datum lines and be adequate to determine the trim of the vessel. Only one datum line in each position need be marked. These positions are to be at the same level and should be above but within 1000mm of the assigned deepest water line.	
		These datum lines are also to be shown on a diagram to be included in the stability booklet forwarded to the Administration.	
9.7	<u>Minimum Freeboard</u>		
9.7.1	In the case of a vessel with a continuous watertight weather deck in accordance with section 4.1.4 which is neither stepped or Recessed or raised, have a freeboard measured down from the lowest point of the weather deck of not less than 425mm for vessels of 10m in length and not less than 994mm for vessels of 24 metres in length. For a vessel of intermediate length the freeboard should be determined by linear interpolation;		
9.7.2	In the case of a vessel with a continuous watertight weather deck in accordance with section 4.1.4 which may be stepped, recessed or raised, have a freeboard measured down from the lowest point of the weather deck, of not less than 255mm for vessels of 10m in length and not less than 510mm for vessels of 24m in length.		

9.8

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
<p>For a vessel of intermediate length the freeboard should be determined by linear interpolation. The raised portion(s) of the watertight weather deck should extend across the full breadth of the vessel and the average freeboard over the length of the vessel should comply with .1 above for a vessel with a continuous watertight weather deck.</p>		
<p>A vessel required to be provided with an approved Stability Information Booklet or whose stability has been calculated per EN ISO 12217-1 for non sailing yachts or EN ISO 12217-2 for sailing yachts should be assigned a freeboard which corresponds to the draught of the vessel in sea water when fully loaded (each persons taken as 75kg) but which in no case should be less than the freeboard required by Section 9.7.1 or 9.7.2 nor that corresponding to the scantling draught.</p>		

SECTION 10
LIFE SAVING EQUIPMENT

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
10.0	<u>LIFE SAVING EQUIPMENT</u>		
10.1	Life saving equipment is to be provided onboard. All equipment is to be of an approved type.		
10.2	Inflatable liferafts, hydrostatic release devices and gas inflated lifejackets should be serviced annually by Makers approved servicing stations. Servicing certificates are required to be maintained on board		
	Liferafts are to be equipped with a SOLAS B pack	Liferafts are to be equipped with a SOLAS B pack in case of short range yachts and with a SOLAS A Pack in case of other yachts.	Liferafts are to be equipped with a SOLAS A pack.
10.3	All lifejackets carried on board are to be of the SOLAS approved type.		
10.4	When personal safety equipment used for watersports is carried, this is to be distinctly stored apart from the life saving equipment so that it would not be mistaken for the approved type of Life Saving Equipment in case of emergencies.		
10.5	All life saving equipment is to be fitted with retro reflective tape.		
10.6	Liferafts on multihull vessels are to be located in a position which would be accessible when the vessel is upright or in the capsized position.		
10.7	The liferaft embarkation arrangements should comply with the following:-		
10.7.1	- an embarkation ladder is to be provided when the distance between the lowest embarkation deck of the vessel and the topmost edge of the liferaft tube exceeds 1000mm.		
10.7.2	- Davit launched liferafts are to be installed when the distance between the embarkation deck and the topmost edge of the liferaft tube exceeds 4500mm.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
10.7.3		-	All launching devices for liferafts and rescue boats are to be type approved and comply with the principles of the IMO Life Saving Appliances Code, Ch VI/6.1.2..
			The appliance should be able to launch the boat within 5 minutes. When a power operated device is fitted, it should be capable of operation either by hand or by an emergency source of power in the event of a main power failure. The routing of an emergency source of power should be considered in respect of damaged waterlines and fire. The launching appliance and its attachments should be constructed to withstand a static proof load on test of not less than 2.2 times the maximum working load. Acceptable factors of safety are 6 for wires, hooks and sheaves, and 4.5 for the remainder of the launching appliance. The appliance and its attachments should also be tested dynamically to 1.1 times the working load. It should be noted that there is no requirement to recover the rescue boat provided that the casualty and the boat's crew can be recovered on board from the boat in the water.
			Galvanised steel falls are to be certified and non-rotating type. Their position is to be changed end for end every two years and they are to be renewed every four years.
			Stainless steel falls are to be renewed at intervals not exceeding the Makers' recommendations.
10.7.4	On vessels having projections on the side (such as but not only fin stabilisers), special provisions are to be made to ensure that such projections do not interfere with the safe evacuation of the vessel or damage the life saving equipment. Means should be provided to prevent overboard discharge of water into the survival craft.		
10.7.5	The maintenance of equipment should be carried out in accordance with the instructions for on board maintenance. Type approval certificates and/or Declaration of Conformity should be kept on board in an Equipment Record File.		
10.7.6	All life saving equipment is to be maintained in a good state of maintenance and ready for immediate use at all times. The equipment is to be stored in easily accessible locations on board and such locations should never be blocked by equipment, furniture or any other encumbrance.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
<u>Life Saving Appliances</u>			
- Liferaft (See note 1)	Full capacity of number of persons onboard.	Full capacity of number of persons onboard.	Full capacity of number of persons onboard.
- Lifeboats (See note 2)	-	-	On vessels above 85m.
- Rescue Boat (See note 3)	-	Long range vessels only.	Yes.
- Lifebuoys (See note 4)	2	4	8
- with self-igniting lights	2	2	2
- with smoke & light	-	2	2
- with buoyant line	2	2	2
- Lifejackets with lights	120% of total persons	120% of total persons	120% of total persons
- Safety Harness	100% on sailing boats	100% on sailing vessels	100% on sailing vessels
- Pyrotechnics:			
- Parachute signals	4	6	12
- Red hand flares	4	6	12
- Buoyant smoke signals	2	-	-
- Line throwing appliance	-	1	1
- General Positioning Satellite (GPS)	Yes	Yes	Yes
- NAVTEX	Yes	Yes	Yes
- EPIRB (See note 5)	1	1	1
- SART (See note 5)	1	1	2
- Radar Reflector (GRP and Wooden Hulls only)	1	1	-
- Two way Radio Telephone Sets (GMDSS Approved)	2	2	2
- General Alarm	-	Yes	Yes
- Emergency Lighting	Yes	Yes	Yes
- Life Saving Signals and Rescue Poster (SOLAS No.1) in Wheelhouse	Yes	Yes	Yes

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
- Posters and signs describing Survival craft and equipment Operating instructions	Yes	Yes	Yes
- Training manual	-	Yes	Yes
- Instructions for onboard Maintenance	-	Yes	Yes
- Thermal Protective Aids	100% (see note 6 below)	100% (see note 6 below)	100% (see note 6 below)
- Immersion Suits		2 (see note 7 below)	100% (see note 7 below)
	Note 1: Approved type of Liferafts are to be carried. They must contain emergency packs.		
	Their stowage on board is to be such that they may be launched easily.		
	Liferafts are to be fitted with hydrostatic release device so they would be able to float free.		
	Note 2: In case lifeboats are fitted, their launching devices are to be of the approved type.		
	Note 3: Vessels below 500 GT can either be equipped with a SOLAS approved rescue boat or a boat which is suitable for rescue purposes. The boat may be a rigid hull, RIB or inflatable and should have a capacity of not less than 4 persons one of which will be assumed to be lying down.		
	Tubes of float free or inflatables and RIB's should have at least three compartments.		
	Short range yachts should have sufficient mobility and manoeuvrability in a sea way to enable persons to be retrieved from the water. The retrieval of persons over the stern is not considered acceptable. The recovery position should be visible from the control station.		
	vessels should be provided with the necessary equipment and arrangements to enable the person/s to be recovered without further persons entering the water.		
	All vessels above 500 GT should be equipped with a rescue boat meeting SOLAS requirements.		
	Note 4: In the case of short range yachts, each lifebuoy shall be marked with the vessel's name and port of registry. Buoyant lines should have a minimum length of 30 metres.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	Note 5 : All EPIRB's and SART's are to be installed in an easily accessible position so that they can be either float free or manually released and placed in the survival craft.		
	All EPIRB's should be registered with the Administration.		
	Note 6 : Required on all vessels operating during summer only and where the temperature in the area of operation does not fall below 20°C.		
	Note 7 : Required on all vessels having an unrestricted range and which may trade in areas where the temperature may fall below 20°C. The amount listed above can be reduced to 3 units per life boat if lifeboats are fitted		

SECTION 11
FIRE SAFETY

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
11.0	<u>FIRE SAFETY</u>		
11.1	All vessels.	Reference is to be made to Section 12 of this Code.	
11.1.1	The engine space is to be separated from accommodation spaces and store rooms containing combustible materials or liquids.		
11.1.2	Combustible materials or liquids should not be stored in the engine spaces. Any other materials stored in the engine room are to be properly secured so they would not cause any obstruction to any area.	Reference is to be made to Section 12 of this Code.	
	The boundary of the machinery space is to be constructed to contain the fire extinguishing medium. All ventilators, fans and other openings should be able to be closed externally. Any automatic closing devices should be also equipped with manual overriding facilities.		
11.1.3	If the engine space is provided with a gas extinguishing system then the engine space should be capable of being closed down so that the gas extinguishing medium can act effectively on the fire and it does not leak/penetrate other areas with the resulting risks to personnel.	Reference is to be made to Section 12 of this Code.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
11.1.4	No port lights or windows can be fitted on the boundary of the engine space. The most that can be allowed is an observation port having a maximum diameter of 150mm. Such a port is to be a non-opening type, have a steel frame and is supplied with a permanently attached cover with closing devices. The glass is to be of a fire rated toughened safety glass.	Reference is to be made to Section 12 of this Code.	
11.1.5	Special consideration is to be given to vessels having unrestricted trading range, vessels carrying 16 or more persons and any vessel having a total installed power exceeding 750kW.		
11.1.5.1	Steel vessels having a steel boundary for the machinery spaces do not require additional fire protection. However surfaces on the opposite side of the machinery space should be coated with finishes with low flame spread characteristics.		
11.1.5.2	Fibre glass vessels should have the machinery boundaries that prevent the passage of smoke and flame for at least 15 minutes.		
11.1.5.3	Aluminium and wooden vessels are to be treated as 11.1.5.2.		
11.1.5.4	Where fire insulation is fitted in the machinery space it need not be fitted more than 300mm below the water line.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
11.2	<u>New Vessels</u>		
	In addition to all requirements noted in this section, new vessels require to comply with the requirements set out in EN ISO 9094-2 : 2003. (Small Craft : Fire Protection).		
11.3	<u>Insulation</u>		
11.3.1	Thermal and/or acoustic insulation fitted inside the engine space is to be of a non-combustible material. Furthermore, such insulation is to be protected against impregnation by flammable vapours and liquids.	Reference is to be made to Section 12 of this Code.	
11.4	Protection of spaces containing vehicles or craft with fuel in their tanks or lockers storing such fuel.		
11.4.1	Petrol or other highly flammable liquids shall be kept to a minimum and should not exceed 150 litres.		
11.4.2	Containers used for the carriage of flammable liquids should be constructed to a recognised standard. Each container is to be clearly marked.		
11.4.3	Small lockers on open deck used for the stowage of hand-held petrol containers, should be:-		
	- located away from any high risk area		
	- have no electrical fittings in or around them		
	- have natural ventilation at the top and bottom		
	- have self draining holes leading to overboard		
	- have means to secure the fuel containers		
	- have a facility to boundary cool the lockers. A readily available fire hose is considered to be adequate.		
	- the area is to be clearly marked that it contains flammable material and no-smoking signs posted.		
11.4.4	Enclosed spaces, garages and larger lockers on open deck should be fitted with:-		
	- a manual water spray having a coverage of 3.5 ltr / m ² / minute over the total deck area. This may be supplied from the fire main connection adjacent to the garage. Alternatively, it may have a fixed drencher system which can be remotely operated.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
11.4.4.1	A fixed smoke and heat detection system suitable for the application. A fixed gas detection system is also to be installed. The alarm should be installed in the bridge and the port station.		
11.4.4.2	A fixed, ducted, mechanical ventilation system which is exclusive to this space and not connected to any other space on board. The motor used is to be intrinsically safe. The ventilation system is to have a capacity of 6 air charges per hour. An available alarm is to be fitted to indicate when the ventilation fan goes off. The ducting should take suction from the lower area of the bilge. The exhaust ducting is to be fitted with a shut down flap which can be easily closed externally.		
11.4.4.3	All electrical equipment fitted up to 450mm above the deck of this space is to be certified to be suitable for use with petrol. All other electrical equipment should be rated IP55 as a minimum standard. emergency lighting is to be installed in this space.		
11.5	<u>Fire Detection in Machinery Spaces</u>		
11.5.1	In vessels where the total installed power (propulsion and electrical generation) is greater than 750kW an efficient fire detection system is to be fitted in the machinery spaces.		
	The fire/smoke detection equipment is to be of an approved type.		
	The alarm panel is to be located in the steering position and the alarm is to be such that it can be heard from the crew sleeping quarters.		
	The detection systems referred to in 11.4.5 and 11.6.3 are to be connected to the same panel and the location of the fire is to be clearly indicated on the panel.		
11.6	<u>Galleys, Galley Equipment</u>		
11.6.1	Linings on bulkheads and ceilings around cookers should be of non-combustible material having a fire rating. Combustible materials not certified should not be left unprotected within the following distances:-		
	- 400mm vertically above the cooker for horizontal surfaces when the vessel is upright.		
	- 200mm above the top of the cooker for horizontal surfaces, when the vessel is heeled to 30 degrees.		
	- 125mm horizontally from the cooker for vertical services.		
	- curtains or any other suspended materials should not be fitted within 600mm of the top of the cooker.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
11.6.2	Deep fat cooking equipment is to be supplied with fire extinguishing systems for SOLAS II – 2 / 10.6.4 requirements. Refer also to EU Directive 96-98 EC item A.1/3. 43. In case of fryers having a capacity of not more than 15 litres of cooking oil a Class F extinguisher (BS.7937 : 2000) or equivalent should be installed.		
11.6.3	Fire/smoke detection system is to be installed in the galley space.		
11.7	<u>Wooden Vessels</u>		
11.7.1	On wooden vessels, measures should be taken to prevent the absorption of oil into the structure.		
11.7.2	Metal drip trays may be installed under engines. Such drip trays are to have draining facilities so that they can be drained in appropriate containers. Such containers are to be properly disposed of ashore at oil reception facilities.		
11.7.3	Engine rooms are to be kept clean and free from oily waste, oily rags and other combustible material.		
11.8	<u>Furnishing Materials</u>		
11.8.1	Foams used in upholstery and furniture should be of the combustion modified High Resilient (CMHR) type. On existing vessels this requirement may be delayed until the materials are due for renewal.		
11.8.2	Fabrics should satisfy the Cigarette and Butane flame tests. On existing vessels this requirement may be delayed until the materials are due for renewal. These materials should be of the not readily ignitable type.		
11.9	<u>Means of Escape</u>		
11.9.1	Each accommodation space which is used for sleeping / rest of which is considered to be a high fire risk shall be provided with two means of escape.		

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
11.9.2	A single means of escape can only be accepted in exceptional cases and when a second mode of escape cannot be installed if:-		
	i) the existing single escape route is directly to the open air.		
	ii) if the provision of a second means of escape would be detrimental to the overall safety of the vessel.		
	iii) effective smoke detection and alarm system is installed so as to give enough early warning of any fire emergency that could cut off the single means of escape from the space in question. Emergency lighting should also be installed.		
	iv) the distance of the exit from the space to the deck does not exceed 5 metres.		
11.10	<u>Fire Control Plan</u>		
11.10.1		A fire control plan should be permanently exhibited for the guidance of Master and Crew. The plan should indicate and describe the fire prevention and protection equipment and materials.	
		The symbols used on the plans are to comply with international standards normally used in the shipping industry.	
		The fire control plan may be combined with the safety plan as the “Fire and Safety Plan”.	
11.10.2		The plans should be kept updated.	
11.10.3		The plan should include details of each deck and space and indicate the positions of all equipment.	
11.10.4		Two duplicate sets of plans are to be kept in a properly marked weather tight enclosure, one plan readily exhibited on each side of the vessel and readily accessible to assist non vessel fire fighting personnel who may board the vessel in case of a fire emergency.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
11.11	List of Fire Fighting Appliances		
11.11.1	One hand powered or powered fire pump located outside engine space with sea suction and hose connection, capable of delivering a jet to any part of the vessel.	One powered fire pump. This can be engine driven or independently powered and be capable of delivering a jet to any part of the vessel.	This class of vessels are to comply with the requirements of SOLAS II-Reg. 2/10 for cargo ships.
11.11.2	One fire hydrant.	Adequate number of fire hydrants to deliver 11.10.1.	
11.11.3	One fire hose of adequate length with a 10mm nozzle and a spray nozzle.	Three fire hoses of adequate length with a 10mm nozzle and a spray nozzle.	In no case should the standards applied to this class of vessel be less than that applied to vessels having a length above 24m but below 500 GT
11.11.4	Fixed fire extinguishing medium in engine space. This may be automatically or manually discharged. See Note 8.	Fixed fire extinguishing medium in the engine space. This may be automatically or manually discharged. See Note 8.	
	Adequate quantity of fire extinguisher of the approved type.	Adequate fire extinguishers of the approved type.	
	The quantities and types required will be on a vessel by vessel basis but should not be less than five.	Accommodation: - minimum of 4 fire extinguishers	
		Bridge: - 1 CO ₂ and 1 powder	
		Engine Room: - 2 portable extinguishers	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		For oil fires:	
		- 1 x 20 lt foam extinguisher	
		- 1 x 16kg CO ₂ extinguisher	
11.11.5		Emergency fire pump.	
		This may be a hand operated pump	
		which may give a throw of 6 metres	
		through a 10mm nozzle or a power	
		driven pump which is also connected to	
		the main fire line.	
		The emergency fire pump is to be located	
		outside the engine space.	
11.11.6		2 fire buckets with lanyards.	
11.11.7		1 fire blanket in galley.	
11.11.8		One fireman's outfit, including BA Set.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
<i>Notes:</i>		
1. The location of any concealed fire (or safety) appliances is to be clearly marked.		
2. The capacity of the power driven fire pumps (including engine driven pumps) should have a capacity of $2.5 \times \{1 + 0.066 \times (L(B+D))^{0.5}\}^2 \text{m}^3 / \text{hr}$.		
Where : L is the length of the vessel		
B is the moulded breadth		
D is the moulded depth at mid length		
3. The second (emergency) fire pump (which may be a portable pump) is to have a capacity of at least 80% of the main fire pump. Such a pump is to take suction from a location outside the engine space. This pump is to have a separate source of power.		
4. Fire mains are to be dedicated solely for the purpose and are to be made of steel (adequately protected against corrosion). Fire mains located on deck are to be provided with drain points to avoid freezing. The size of the fire main is to be designed to suit the size of the fire pumps.		
5. Fire hydrants should be located in easily accessible locations and be fitted with valves and couplings to allow the quick attachment of the fire hoses.		
6. Fire hoses should have jet / spray nozzles. Only hoses made uniquely for this purpose should be used.		
7. Both main and emergency fire pumps should be connected to the same fire main. An isolation valve should be installed in the fire main. This valve is to be operated from outside the engine room.		
8. CO ₂ systems should comply with SOLAS Chapter II-2 Regulation 5, paras 1 and 2.		
Other systems should comply with SOLAS Chapter II – 2 Regulation 5, para 1 and MSC / Circ.668.		
All new systems should be certified by an Authorised Body.		
9. Maintenance and servicing of fire systems should be done regularly as recommended by the Makers. A log of all maintenance and certificates is to be maintained on board.		

SECTION 12
STRUCTURAL FIRE PROTECTION

12.0

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
STRUCTURAL FIRE PROTECTION		
<p>The purpose of this important section is to ensure a consistent and safe level of structural fire protection. It is concerned with protecting high risk spaces such as the engine room, galleys, etc. It makes provisions for the restriction of the use of combustible materials and proposes the requirements for fire detection and effective escape. For vessels not constructed in steel, the fire class of bulkheads and walls will be determined for each case separately on the basis of functional equivalence. Excessive toxic fumes are not to be released at any time and the necessary arrangements are required to prevent this.</p>		
12.1 Structure		
Containment of fires:		The structure fire protection of this class of vessels shall generally follow the SOLAS Amendments 2000, Chapter II-2, part F, Regulation 17.
- the vessel is to be subdivided by structural and thermal boundaries.	- thermal insulation of boundaries shall take in consideration the fire risk to particular space and adjacent areas.	
- fire integrity of the divisions should be maintained at all openings and penetrations.		In any case, the arrangements on this class of vessel should not be less than that of vessels above 24m in length but below 500 GT.
		The following guidelines may be followed:

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	12.2 Fire Divisions	12.2 Fire Resistance Classes
	12.2.1 The fire divisions have to have the fire resistance required.	The fire resistance classes are defined in accordance with the relevant SOLAS Rules.
	12.2.2 The insulation and fire resistance is to be such that the temperature of the structural core does not rise above that	Those Rules are summarised below:
	At which the structure would start to lose its structural strength during the	The following designations are used for the various boundary bulkheads
	Period of time of the rating of the	and decks:
	insulation.	a. Class A
		b. Class B
	Category A machinery spaces and spaces containing any internal combustion	c. Class F
	machinery are to be enclosed by A-30	d. Non-classified bulkheads
	Class divisions.	
		a. Class A bulkheads and decks shall comply with the following requirements:
	In case of short range yachts these spaces Are to be enclosed by a minimum of	
	B-15 Class divisions.	<ul style="list-style-type: none"> • They shall be made of steel or an equivalent material;
		<ul style="list-style-type: none"> • They shall be sufficiently stiffened
	12.2.3 Aluminium alloy structures require to be insulated in such a manner that the structural core does not rise more than	<ul style="list-style-type: none"> • They shall prevent the passage of smoke and flames up to the end of the standard one-hour fire test
	200°C above the ambient temperature at any time during the applicable fire	
	exposure.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		<ul style="list-style-type: none"> They shall be insulated with approved non-flammable materials so that the average temperature at the unexposed
	<p>12.2.4 For composite structures the insulation is to be such that the laminate temperature is protected from rising above the maximum allowable temperature at any time during the applicable fire exposure.</p>	
	<p>12.2.5 Insulation need only be applied on the side exposed to the greatest fire risk. If a bulkhead is exposed to fire risks from both sides then the bulkhead is to be protected from both sides.</p>	<p>Side does not exceed 140°C above the initial temperature and the temperature at any point, including the joints, does not exceed 180°C above the initial temperature within the period of time indicated below</p>
	<p>12.2.6 Any doors fitted in the insulated bulkheads are to have the same rating as the insulation itself. Such doors and all their fixtures are to be certified and type approved.</p>	<p>during the standard fire test:</p> <p>Class A-60 : 60 minutes</p> <p>Class A-30 : 30 minutes</p> <p>Class A-15 : 15 minutes</p> <p>Class A-0 : 0 minutes</p>
	<p>The doors and their fixtures are to be installed as per Maker's instructions. such doors (or other openings are to be fitted with spring loaded devices to normally keep Them in the closed position.</p>	<p>b. Class B shall comply with the following requirements:</p> <ul style="list-style-type: none"> They shall be made entirely of non-combustible material
	<p>Such doors or openings are to be able to opened from both sides.</p>	<ul style="list-style-type: none"> They shall prevent the passage of smoke up to the end of the first half hour of the standard fire test

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	<u>12.3 Structural Fire Protection</u>	
		<ul style="list-style-type: none"> Their insulating capacity shall
	12.3.1 Category ‘A’ machinery spaces are to be insulated by ‘A-30’ Class divisions. Machinery spaces includes any internal combustion machinery, oil fired boilers or any oil burning equipment. Machinery spaces of short range yachts may be insulated by ‘B-15’ Class divisions	<ul style="list-style-type: none"> be such that the average temperature at the unexposed side does not exceed 140°C above the initial temperature and such that the temperature at any point, including the joints, does not exceed 225°C above
	12.3.2 Electrical cables, pipes, ventilation trunks Girders etc. which penetrate ‘A Class’ or ‘B Class’ divisions are to have accepted and type approved arrangements installed so that the fire resistance is not impaired.	<p>The initial temperature within the period indicated below during the standard fire test:</p> <p>class B-15 : 15 minutes</p> <p>class B-0 : 0 minutes</p>
	12.3.3 Where the structure or ‘A Class’ divisions are required it is to be ensured that intersections, joints, penetrations etc. do not result in uninsulated points which may result in heat transmission.	All class A and B bulkheads shall comply with SOLAS requirements
	<u>12.4 Materials</u>	
	12.4.1 All insulation materials used are to be of the not readily ignitable or combustible quality.	<p>c. Bulkheads, decks, ceilings or panelling of Class F shall comply with the following requirements:</p> <ul style="list-style-type: none"> They shall prevent the passage of flames up to the end of the first half hour of the standard fire test;
		<ul style="list-style-type: none"> Their insulating capacity shall be

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	12.4.2 Pipes or ducts penetrating ‘A’ or ‘B’ Class divisions are to be made of metal and be of a structural construction to withstand the same conditions as the protected spaces	such that, at the end of the first half hour of the standard fire test, the average temperature at the unexposed sides does not exceed 139°C above the initial temperature and such that the
	12.4.3 Materials which are adversely effected by heat are not to be used for hull fittings or other outlets close to the waterline and which may result in flooding. Due regard to be given to IMO Fire Test Procedure Code (also refer to 11.7).	temperature at any point, including the joints, does not exceed 225°C above the initial temperature during the standard fire test.
	12.4.4 Adhesives used in the installation of insulation materials need not be of the Non-combustible type but are to be kept to a minimum and their exposed surfaces are to have low flame spread characteristics.	The Authority may require a test of a prototype of a class ‘F’ bulkhead to assure that it satisfies the above requirements for stiffness, passage of flames and temperature increase.
	12.5 Fuel Systems	d. If this test does not provide requirements for a bulkhead, that bulkhead is considered an unclassified bulkhead.
	12.5.1 No fuel or flammable liquids having a flash point below 60°C may be carried in machinery spaces.	12.3 Non-Combustible Material
	12.5.2 No fuel, lub oils or any other flammable materials may be carried in the forecabin space or the forepeak (if fitted).	Material can be classified as non-combustible if it satisfies the relevant tests described in the FTP Code

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		issued by IMO.
	12.5.3 The fuel pipes from all tanks are to be fitted with remotely operated closing valves. Such valves are to be mechanically closed.	<u>12.4 Fire Resistant Separating Bulkheads And Decks</u>
	12.5.4 Means shall be provided for the fuel transfer pumps to be stopped from outside the machinery spaces.	The following rules apply to all vessels.
	12.5.5 Fuel filter bowls should be of all metal construction.	a. The engine room shall be separated from accommodation and storage rooms, galley, wheelhouse etc. by bulkheads and decks of
	<u>12.6 Means of Escape</u>	class A-60 on vessels over 50 m. length L, and class A-30 for vessels up to and including 50m L.
	12.6.1 Stairways, corridors and ladders serving all spaces are to provide a direct means of escape to the embarkation deck.	b. Other spaces for machines (see definitions), shall be separated from accommodation and storage rooms galley, wheelhouse, etc. by bulkheads and decks of class A0.
	12.6.2 All accommodation spaces are to have two distinct and easily accessible means of escape.	c. All bulkheads and ceilings of corridors and/or navigation rooms shall be class B-15, at least.
	All escape routes are to be clearly indicated. Concealed or 'unusual' Escape routes are to be clearly marked.	Moreover, exposed surfaces in these spaces shall have low flame-spread properties.
	Each accommodation space is to have its escape route clearly indicated.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	12.6.3 Reference is to be made to Para. 11.8.2, Machinery spaces are to have two escapes as widely separated as possible.	properties.
	If a machinery space is too small to allow a second escape then the layout is to be such that a person cannot be trapped inside the machinery space.	d. The separating bulkheads of storage rooms for flammable agents, paint lockers, lamp lockers shall be class A (unless stated otherwise under a).
	12.6.4 The means of escape from the accommodation spaces are not to be led through any high risk area such as the machinery space, galley, paint store, etc.	e. All decks that separate accommodation spaces shall be of steel or equivalent material.
	12.6.5 If the accommodation arrangements are such that one of the escapes from a compartment is through another compartment, then this second escape is to be as far as possible from the other escape.	Except for passenger vessels, Class F separation may be used instead of B-15 if the surface on both sides satisfies the requirements for low flame spread.
	The second escape route can be through adequately sized hatches.	On vessels with a hull not constructed of non-combustible materials, the separating bulkheads, shell and decks of spaces that accommodate the emergency power supply and
	12.6.6 Single escape routes from spaces other than accommodation spaces may be exceptionally accepted as long as these are not through high risk spaces.	bulkheads and decks between galleys, paint lockers, lamp lockers or storage rooms containing substantial quantities of flammable materials and

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	12.6.7 Lifts are not considered to be escape routes. In addition, lift and dumb waiter shafts are to have 'B – 30' rated doors and linings.	spaces for accommodation, service rooms and control stations are class B-15. In general, bilges are not insulated to achieve a fire class B-15.
	12.6.8 Multi-hull vessels are to have additional means of escape through the hull in case of capsized. Such escape hatches are to be type approved for this particular application.	12.4.1 Use of class B-15 bulkheads (general)
	12.7 Ventilation	If class B-15 bulkheads are required, they shall extend to the shell insulation or other separating walls with
	12.7.1 Ventilation fans for machinery spaces and galleys are to be capable of being stopped from outside these spaces.	equivalent fire resistant properties, unless continuous ceilings and/or panelling of class B-15 are installed on both sides of the bulkheads. In that case the bulkhead may end at the
	The stopping controls of these ventilation fans is to be from an area which would be easily accessible in case of a fire.	

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	12.7.2 Ventilation ducts from machinery spaces, galleys and any other high risk areas are generally not to pass through accommodation areas.	continuous ceiling or continuous panelling.
	If it is inevitable that such ventilation ducting passes through accommodation spaces then:-	12.5 Galley
	i) the material of the ventilation ducting passing through the accommodation spaces should be made of metal (galvanised steel or equivalent) having a thickness of 3mm. (minimum)	The separating bulkheads and ceilings of a galley shall be at least A-0. On composite material yachts, this can be replaced by B-15 provided that the fire hazard of the cooking equipment in the galley is low.
	ii) Automatic temperature activated dampers are fitted inside the trunking at the place where the ventilation ducts passes from the 'high risk' zones to the accommodation spaces. These dampers are to have manual controls as well.	In this connection, a low fire hazard is assumed for:- • coffee machines, toaster, dish washers, microwave ovens, water heaters and similar appliances, each with a maximum power rating of 5kW. • electric cookers and electric hotplates, each with a maximum power rating of 2kW and a
	12.7.3 Store rooms used to store highly flammable products are to be provided with totally independent ventilation systems. Such systems are to be served by intrinsically safe fans. The exhaust side of these ventilation systems are to be fitted with spark arrestors.	surface temperature not exceeding 150°C. A high fire hazard is assumed for:- • deep frying equipment • cooking appliances that use open fire.

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
12.8	<u>Use of LPG or equivalent on Yachts</u>		Galleys may be combined with a mess room if the separating bulkheads and ceilings of the entire space satisfy the requirements for the galley.
12.8.1	An LPG installation has to be approved. <u>Any</u> open flame appliance should comply with the requirements of EC Directive 90/39/EC.		
12.8.2	Gas detectors and CO detectors are to be installed in the areas where LPG is used.		<u>12.6 Requirements relating to low flame spread and limited use of combustible material</u>
12.8.3	Gas cylinders, regulators and safety devices should be stowed in a dedicated locker on open deck. This locker should be equipped with a natural ventilation facility which is to be designed to drain away from the cockpit, recesses or the accommodation spaces.		<u>12.6.1 Definition</u>
12.8.4	If gas fired space heaters are used on board they are to be secured in position and they should be installed in a position away from soft furnishings, curtains etc.		“Low flame spread” is the property required for the surface of certain non-combustible material that ensures that the spread of flame on the surface takes place at a limited rate.
12.8.5	Gas piping should be of metal with only the shortest possible lengths of rubber hoses used for the connection with the gas liners and the appliances. Any rubber hoses used are to be of the type approved and suitable for the intended use. The couplings are to be crimped and threaded. Rubber hoses have a definite life and they are to be replaced at regular intervals. If copper piping is used care is to be taken that copper can work harden and fracture. Any parts of the copper pipe that may vibrate would have to be identified and annealed as necessary.		A surface can be considered “low flame spread” when that has been demonstrated in the relevant test in the FTP Code issued by the IMO and it has been certified under the FTP Code.

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
	12.9 Fixed Fire Detection Systems	<u>12.7 Objective of the articles on low Flame Spread Characteristics</u>
	12.9.1 Fixed fire detection systems are to be fitted in:-	The objective of the following requirements regarding low flame spread for surfaces as well as the requirement for limiting the quantity of combustible material within a space is to limit the propagation rate as well as the size of a fire in a space.
	a) machinery spaces	
	b) accommodation spaces	
	c) service spaces	
	d) control stations	
	12.10 Automatic Sprinkler System or Equivalent	If this objective can be achieved in a different manner, the Authority may permit alternative arrangements if equivalence is demonstrated
	These systems are to be fitted in yachts that do not meet restrictions on combustible materials.	adequately.
		<u>12.7.1 Requirement low flame spread</u>
	Reference is to be made to 11.7 and 12.4	On all vessels, all exposed surfaces of walls, ceilings and floors in corridors and stairways for which structural fire protection is required shall have low flame spread properties.

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		Moreover on all vessels:-
		• the exposed surfaces of all ceilings shall comply with the requirements for low flame spread;
		• all exposed surfaces in concealed and inaccessible spaces shall comply with the requirements for low flame spread.
		<u>12.7.2 Limited use of Combustible material</u>
		Veneer layers applied on surfaces and panelling that shall comply with the requirements for low flame spread.
		The thickness of these combustible decorative layers shall not exceed 1.5mm
		<u>12.7.3 Limited use of combustible material for decoration</u>
		Otherwise, in the various spaces, only limited quantities of combustible material may be used for decoration.
		The total volume of combustible lining, decorations and veneer in any room for accommodation or general use shall not exceed the volume corresponding to a veneer lining of 2.5mm on the total area of walls and ceiling.

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		<u>12.8 Doors</u>
		Doors shall have a level of fire resistance equivalent to what is required for the bulkhead in which they are installed and they shall comply with the requirements of EU Directive 96/98/EC.
		Ventilation openings are permitted in
		The bulkhead doors of class B but only in their bottom section, with the exception of doors that shut off staircases. The nominal area of these openings shall not exceed 0.05m ² .
		gratings shall be of non-combustible material.
		<u>12.9 Storage rooms for flammable substances</u>
		Storage rooms with a floor area not exceeding 4m ² for filled lamps, paraffin and open mixed paint cans and flammable materials shall have suitable ventilation features. They shall not have any direct connection with any accommodation. For paint lockers with a floor area > 4m ² , additional requirements will be defined for fire extinguishers and fire alarms.

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		<u>12.10 Openings to propulsion machinery rooms</u>
		It shall be possible to close access
		openings in the trunk walls of
		propulsion machinery rooms with steel
		doors or doors that have been shown
		to be functionally equivalent. The
		walls shall not contain any windows,
		portholes or fixed port lights. Skylights
		of propulsion machinery rooms shall
		not have any windows, port holes or
		fixed port lights and they shall be
		designed for easy closing from outside
		the spaces in which they are installed.
		Ventilating trunks on propulsion
		rooms shall be fitted with fire dampers,
		which can be closed properly from the
		deck. Access to propulsion machinery
		rooms shall be from a corridor or
		from the open deck.
		<u>12.11 Pipe Systems</u>
		Pipes carrying oil or combustible
		liquids shall be made of approval
		material and produced with the risk of
		fire in mind.
		Use of materials that can be rendered
		ineffective easily by heat is not

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		permitted for scupper pipes, sanitary discharges and other discharges close to the load line when melting in the event of fire may result in flooding.
		<u>12.12 Penetrations</u>
		If bulkheads and decks which have to be class A and class B or class F pursuant to the above include openings for electric cables, pipes, shafts. ducts etc., measures shall be taken to ensure that the fire resistance of bulkheads and decks is not reduced.
		<u>12.13 Void spaces</u>
		Void spaces behind walls and panelling and between ceilings and decks in rooms for accommodation, service rooms and monitoring stations shall be subdivided by draught stops that prevent the free passage of fire, smoke and heat and which are no more than seven metres apart.

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		<u>12.14 Paints etc.</u>
		Paints, varnishes and other finishing materials used on exposed internal surfaces shall be such that in the opinion of the Authority they do not constitute an unnecessary fire hazard and there should be no possibility of them producing excessive quantities of smoke or toxic gases.
		<u>12.15 Insulation materials</u>
		All insulation material shall comply with the requirements of article 12.3.
		<u>12.16 Deck covering</u>
		The lowest covering layer of decks in accommodation spaces, wheelhouses, navigation rooms, staircases and corridors situated above rooms with a fire hazard shall be of an approved material that is not easily flammable, c.f. the FTP code.

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		<u>12.7 Fire detection and alarm system</u>
		Every vessel shall have an automatic fire detection system. The system shall include detectors in all rooms where there is a fire hazard such as cabins, accommodation and engine rooms.
		For all new vessels, this also applies to galleys and paint lockers with a floor area >4m ² .
		All detectors shall be of an approved marine type. Cabin spaces shall be equipped with smoke detectors. In day rooms and in the engine room, thermo differential detectors or other fire detectors that have class or Authority approval for the room in question shall be used. It is not permitted to install more than eight detectors in each detection loop. The detectors shall be powered by the central unit.
		The central unit shall have an audible and optical alarm for every detection loop. It shall be possible to supply the system from an emergency source of power. In the event of a failure of the main supply, the system shall switch automatically to the emergency source of power.

Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
		As a minimum requirement, the central unit shall be furnished with the following fault messages:
		a. Mains power failure. System working on emergency power source;
		b. Detection loop interruption;
		c. Alarm line (call line) interruption.
		Alarms b and c shall be optical as well as audible.
		If necessary, additional alarm bells shall be connected to ensure that the alarm shall be audible in all spaces. It is preferable to use the evacuation signal in order to prevent panic..
		Joints in the lines are not permitted. The linking of detectors is only permitted in the detector base. The detection loop lines and the alarm lines should preferably be installed in a cable duct. Use of lines with a red protection sleeve is recommended.
		The detectors should first trigger an alarm at the steering position and one or more crew rooms and, if it is not acknowledged, the general alarm shall be activated after one minute.

SECTION 13
EQUIPMENT

13 **EQUIPMENT**

(Not previously mentioned in this Code).

13.1 **Anchors and Cables**

This section sets out the minimum standards for the anchoring and mooring arrangements.

The size / strength of the chain cable and the anchors for vessels above 24 metres in length will be arrived at by Classification Rules and Requirements.

For vessels below 24 metres in length, the requirements are shown in *13.1.4*.

13.1.1 All vessels are to have at least two (2) anchors. At least one anchor is to be rigged and ready for use at all times.

13.1.2 Electrically operated anchor winches / windlasses should be supplied by an emergency source of power or be able to be manually operated.

13.1.3 The sizing of anchors and cables should take into account of the additional windage forces of the masts and rigging of sailing vessels.

Up to 50% increase in the size / weight of anchors and the chain may have to be allowed for sailing vessels (over and above the figure allowed for motor vessels).

13.1.4 Anchors and Cables for Vessels below 24m in length

<u>Loa + Lwl</u> 2	Anchor Mass		Anchor Cable Diameter			
	Main	Kedge	Main Chain	Rope	Kedge Chain	Rope
(metres)	(kg)	(kg)	(mm)	(mm)	(mm)	(mm)
10	13	6	8	12	6	10
11	15	7	8	12	6	10
12	18	9	8	14	8	12
13	21	10	10	14	8	12
14	24	12	10	14	8	12
15	27	13	10	-	8	12
16	30	15	10	-	8	12
17	34	17	10	-	8	14
18	38	19	10	-	8	14
19	42	21	12	-	10	14
20	47	23	12	-	10	14
21	52	26	12	-	10	14
22	57	28	12	-	10	16
23	62	31	12	-	10	16
24	68	34	12	-	10	16

13.1.4.1 Chain cable diameter given is for short link chain. Chain cable should be sized in accordance with EN 24565:1989 (covering ISO 4565:1986 and covered by BS7160:1990 – Anchor chains for small craft), or equivalent.

13.1.4.2 The rope diameter given is for nylon construction. When rope of another construction is proposed, the breaking load should be not less than that of the nylon rope specified in the table.

13.2 **Tenders**

13.2.1 A vessel should carry a tender.
This may be of rigid construction, inflatable or a combination of both. The tender should be clearly marked with the number of people it can safely carry and the name of the vessel is to be clearly marked.

13.2.2 The tender is to be maintained in a good state of maintenance. It is to be of a proven stability when used to collect persons from the sea.

13.2.3 A new tender having a length over 2.5 metres is to be certified to the Recreational Craft Directive 94/25/EC.

13.3 **Storm Sails**

13.3.1 Sailing vessels should carry efficient storm sails. These are to be proven capable to take the vessel to windward in cases of heavy weather.

13.4 **Wire Cutters**

13.4.1 All sailing vessels are to carry adequately sized wire cutters suitable for the largest size of rigging wire used on board.

13.5 **Nautical Instruments, Navigational Equipment, Navigational and Hydrographic Data**

A vessel should be equipped with adequate nautical instruments, navigational equipment and navigational and hydrographic data to ensure safe operation and safe navigation.

13.5.1 **Signalling Lamp**

A vessel should be provided with an efficient signalling lamp.

On vessels below 24 metres in length an efficient waterproof electric torch suitable for morse signalling may be considered.

13.5.2 **Magnetic Compass**

All vessels should be provided with an efficient magnetic compass or other means to indicate the vessel's heading.

13.5.2.1 The compass is to be independent of any source of power. It is to be supplied with an independent source of lighting.

13.5.2.2 On steel vessels, it should be able to correct the compass for co-efficient B, C and D and heeling error.

13.5.2.3 The magnetic compass and repeater should be so positioned as to be easily seen and read by the helmsman at the main steering position.

13.5.2.4 Magnetic compasses on vessels above 24 metres are to be supplied with a deviation card.

13.5.3 **Echo Sounding Device**

All vessels are to be equipped with echo sounding equipment.

This is to be easily visible from the navigation position.

13.5.4 **9 GHz Radar**

All vessels are to be equipped with a 9 GHz radar. This is to be easily visible from the Navigation position.

13.5.5 **GPS**

All vessels are to be equipped with a receiver for a global navigation satellite system or other means suitable for use at all times throughout the intended voyage to establish and automatically update the ship's position.

13.5.6 **Distance Measuring Log**

A distance measuring log is to be installed on every vessel.

13.5.7 **Rudder Angle Indicator**

Every vessel above 24 metres in length is to be equipped with a rudder angle indicator.

13.5.8 **Engine Revolution Counter**

All vessels are to be equipped with an engine revolution counter in the navigation stand.

13.5.9 **Wind Instruments**

All sailing vessels are to be fully equipped with wind instruments.

There are to include:-

- wind speed

- wind direction
- wind force

13.5.10 **Gyro Compass**

A gyro compass is to be supplied on vessels above 500 GT.

13.5.11 **Automatic Identification System (AIS)**

All vessels above 300 GT engaged on international voyages shall be fitted with an approved automatic identification system (AIS) in accordance with SOLAS Chapter V, Reg. 19, para 2.4.

If vessels are only trading nationally (within territorial waters) then vessels above 500 GT need to comply.

13.5.12 **Search Light**

All vessels are to be equipped with a search light of adequate size and intensity for search and rescue operations at night and to assist any berthing operations in dark hours.

13.5.13 **Nautical Publications**

13.5.13.1 Every vessels should carry on board the necessary Nautical Publications.

These include:-

- Nautical charts
- Pilot Books
- Tide Tables
- Radio Aids to Navigation

13.5.13.2 An electronic chart system (ECDIS) may be considered to be an accepted alternative to the chart requirements.

For vessels **above 300 GT** this system is to be type approved.

In case of an electronic chart system being the main system then back up arrangements to meet the basic requirements should be provided on board.

13.5.14 **Measuring Instruments**

- Each vessel shall carry a barometer
- In addition, each sailing vessel shall carry an anemometer and an inclinometer.

13.5.15 **Navigation Lights, Shapes and Sound Signals**

- Every vessel above 24 metres in length should comply with the COLREG Regulations.
- All navigation lights on **all** classes of vessels should be provided with a main and emergency power supply.
- The bulbs of all navigation lights should be easily changed within a short period of time.

SECTION 14
ACCOMMODATION

14 **ACCOMMODATION**

14.1 **General**

14.1.1 An adequate standard of accommodation should be provided on board to ensure the safety of all persons on board and the comfort and recreation of the passengers

14.1.2 The standards of the crew accommodation should be suitable for this class of yachts.

Crew accommodation should, in general, not be sited below the deepest water line and they should not be sited within hazardous spaces.

On vessels below 500 GT the above rules may be relaxed subject to the accommodation being safe.

14.1.3 The accommodation spaces shall be equipped with sufficient hand holds and grab rails within the accommodation spaces to allow safe movement around the accommodation when the vessel is in a seaway.

14.2 **Access and Escape Arrangements**

The means of access and escape should comply with the requirements set in Section 12 of this Code.

14.3 **Lighting in Accommodation Spaces**

An electric lighting system is to be installed in the accommodation and working spaces. The system is to give adequate lighting in ALL enclosed spaces.

14.4 **Ventilation**

All enclosed spaces which will be used or entered by the personnel on board have to be effectively ventilated.

When mechanical ventilation is provided for the accommodation spaces this should have a capacity of 6 air changes per hour (with all openings closed).

Enclosed galleys should have mechanical ventilation with a supply of 20 air changes per hour and a mechanical exhaust of 30 changes per hour.

14.5 **Fresh Water Supply**

14.5.1 There should be an adequate supply of fresh drinking water on board. This should be piped to the different accommodation spaces on board.

The fresh water system should be maintained in a clean condition to protect against the contamination of the water.

14.5.2 In addition to 14.5.1, an emergency reserve of drinking water is to be carried on board. This may be in dedicated tanks or bottles. The amount required is to be not less than 2 litres / person on board.

14.6 **Galley**

14.6.1 Every vessel shall be provided with a galley with a means for cooking.

This space is to be supplied with a sink and adequate working surface.

The floor of the galley is to be of the non skid type.

All furniture and fittings in the galley shall be made of a material which is impervious to dirt and moisture.

Non rusting metals only may be used.

14.6.2 When gimballed cooking appliances are provided, this should be provided by a crash bar or by other means to retain the cooking equipment lying on top of the appliances and avoid personal injury.

Means shall be provided to lock the gimbaling mechanism.

14.6.3 **Storage of Food and Garbage**

- means shall be provided for the secure and hygienic storage of food.

- means shall be provided for the storage of garbage which will not in any way contaminate the stored food.

14.6.4 **Messing Facilities**

Adequate messing facilities are to be provided. Each messing area shall be large enough to accommodate the greatest number of persons likely to make use of it at any time.

14.6.5 **Toilet and Shower Facilities**

14.6.5.1 Adequate sanitary facilities should be supplied on board.

- There should be at least one water closet per eight persons on board;

- There should be at least one fresh water shower for every eight persons on board;

- There should be at least one wash basin for every six persons on board

14.6.5.2 In cases when the sanitary system includes a holding tank care should be taken to ensure that no fumes or odours would leak from any part of the system to the toilet and into the accommodation spaces.

14.6.6 **Stowage and Storage Facilities**

Adequate stowage and storage facilities for personal effects should be provided for each person on board.

14.6.7 **Heavy Equipment**

All items of heavy equipment are to be able to be secured during the sea voyage.

The doors of all stowage lockers containing heavy items should be capable of being securely fastened.

SECTION 15
PROTECTION OF PERSONNEL

15.1 **PROTECTION OF PERSONNEL**

15.1 **Gangways, Passarelles, Accommodation Ladders etc.**

15.1.1 A safe means of access is to be provided whilst the vessel is moored in port.

15.1.2 Any gangways, passarelles and accommodation ladders should be manufactured to a national or international standards. They should be clearly marked by the number of persons and the total weight that can be safely carried.

In case such equipment has not been manufactured to these standards and there are no details of the capacity, then a load test is to be carried out and witnessed by an Authorised Surveyor.

This test should:-

- be carried out to 120% of the rated load at mid span
- Deflections are measured
- Confirmation that no permanent deformations are suffered by the equipment

A test certificate is to be issued and retained on board.

15.2 **Sea and Harbour Pilots**

Should it be necessary for a vessel to take a pilot on board then boarding arrangements are to be provided.

Reference is also to be made to any National Requirements where the yacht is trading.

15.3 **Safework Aloft, Overside and on the bow sprit of Sailing Vessels**

15.3.1 When it is necessary to access any of the above mentioned areas the following arrangements are to be made:-

- Safety nets are laid below the bow sprit. Safety grab rails and strong points for the attachment of safety harnesses are to be provided.
- The use of safety harnesses is to be mandatory.

- Sufficient foot supports are to be rigged to enable the crew working on the yards or on the bow sprit to step on them.
- For climbing aloft, the mast should be equipped with fixed metal steps or ladders. An alternative ratlines or rattling bars fitted across the shrouds on traditional rigs may be considered to form an acceptable permanent ladder.

15.4 **Personal Clothing**

- 15.4.1 Each person on board shall have the necessary protective clothing required for the prevailing atmospheric conditions.
- 15.4.2 Each member of the crew shall have the necessary safety working clothing required to carry out his work in a safe manner.
- 15.4.3 Each person on board should wear non skid deck shoes.

15.5 **Chemicals**

Each crew member shall be given suitable protective clothing to protect him / her from the effects of corrosive chemicals that may be used for maintenance on board. This may include special gloves, goggles and eyewash points.

15.6 **Noise**

Noise levels on board vessels should be kept to the lowest possible levels.

- 15.6.1 The noise levels in machinery spaces, workshops and stores which are continuously manned or manned for long periods of time should not exceed:-
- 90 dB(A) for machinery spaces
 - 85 dB(A) for workshops and stores
- 15.6.2 The noise levels in machinery spaces which are not intended to be continuously manned or are only attended for short periods should not exceed 110 dB(A).
- 15.6.3 The wearing of ear defenders in spaces where the noise levels exceeds 85dB(A) is mandatory.

Under the circumstances signs and symbols for the use of ear protectors are to be posted on the entrance of the machinery spaces.

Ear defenders having the correct level of noise attenuation required for each particular application are to be supplied for each member of the crew who may have to enter the spaces.

SECTION 16
RADIO INSTALLATION

16 RADIO INSTALLATION

All vessels should carry adequate transmitting and receiving radio equipment adequate for the area and range of operation.

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
16.1	All vessels should carry a VHF/RT radio installation capable of transmitting DSC on Channel 70 and also possible to initiate transmission of distress alerts on Channel 70. (VHF RT with DSC).	16.1 All vessels are to comply with the requirements of the Global Marine Distress and Safety System (GMDSS).	
16.2	A vessel operation at a distance of <u>over</u> 60 miles from a safe port shall be provided with a radio installation capable of transmitting and receiving messages to and from a land based radio communication centre. Such equipment provided shall have a range capability commensurate with that needed for the intended area of operation. (MF/HF RT with DSC or an IMMARSAT ship earth station). Mobile telephones or satellite telephones are not considered adequate.	16.2 The following equipment is to be carried: Vessels operating up to 60 miles from a safe port: - One VHF Radio telephone with Digital Selective Calling (DSC) Vessels operating over 60 miles from safe port: - One VHF Radio telephone with Digital Selective Calling (DSC) - One MF/HF Radiotelephone with DSC and/or Immarsat ship earth station.	
16.3	A vessel operating up to 60 miles from nearest port but in low shipping density areas and low density of radio communications, the vessel should then be equipped with an adequate radio installation as noted in 16.2.	16.3 <u>Operation Performance</u> 16.3.1 All radio communication equipment is to be type approved. 16.3.2 The installation should be installed in an easily accessible position. 16.3.3 The installation is to be protected against the effects of sea water/ spray, extremes of temperature and other adverse conditions. 16.3.4 The following should be clearly marked next to the equipment: - the stations call sign - the vessel's station I.D. - any other applicable codes.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
16.4	Sources of Power	16.4 Sources of Power	
	When the electrical supply to the radio equipment is from a battery charging facility or additional batteries sufficient for the voyages are to be supplied. The electrical supply to the radio is to be arranged in such a way that radio communications can never be interrupted. The battery / batteries for the radio installation shall be installed as high as possible in the vessel so that any form of flooding will not effect the efficiency of the batteries.	16.4.1 Whilst the vessel is at sea there should be a continuous supply of electrical energy adequate to operate the radio installation and to charge any batteries used as the reserve source of energy.	
		16.4.2 A reserve source of energy, independent of the propelling machinery of the vessel and its electrical systems, should be provided. This shall have a minimum capacity of one hour of operation.	
		16.4.3 When the reserve source of energy consists of a re-chargeable accumulator battery such batteries should be able to be automatically re-charged to the minimum capacity requirements within 10 hours.	
		16.4.4 All accumulator batteries for the radio installation shall be installed as high as possible in the vessel so that any form of flooding will not effect the efficiency of the batteries.	
16.5	On board sailing vessels, if the radio antenna is fitted on the mast then an emergency antenna is to be provided on board.	16.5 Watches	
		A vessel at sea shall maintain a continuous watch on (as applicable):-	
		- VHF Channel 16	
		- VHF Channel 13	
		- VHF (DSC) Channel 70	
		- MF on the distress and safety DSC frequency 2187.5 KHz	
		- Satellite shore to ship distress alerts if fitted with a radio facility for reception of maritime safety information by INMARSAT enhanced group calling systems.	

	Yachts below 24m Length	Yachts above 24m Length but below 500 GT	Yachts above 500 GT
16.6	A summary of radio telephone distress and safety procedures is to be displayed near to the radio telephone operating position.	16.6 Radio Personnel	
		A vessel should carry a person qualified for GMDSS distress and safety radio telecommunications purposes. Such a person should hold a certificate of competence accepted by the Administration.	
16.7	Watches		
	A vessel at sea shall maintain a continuous watch on:-		
	- VHF Channel 16		
	- VHF Channel 13		
	- VHF (DSC) Channel 70 (as applicable)		
16.8	- All GMDSS equipment (where applicable) Should be provided with automatic position Updating information from the on board Navigation receiver or ensure positioned Information as manually updated at intervals not Exceeding 4 hours.		
16.9	It is recommended that vessels carry on board Volume 5 of Admiralty List of Radio Signals (ALRS). (Reference is also to be made to Section 10 of This Code: a) up to 60 nautical miles b) see 16.5 for large boats.		
16.10	A vessel should carry a person qualified for distress and safety radio telecommunications purposes.		

SECTION 17

MARINE POLLUTION PREVENTION

17 MARINE POLLUTION PREVENTION

17.1 It is the responsibility of the crew and all persons on board vessels to comply with the requirements of MARPOL.

Vessels above 400 GT shall comply with MARPOL regulations.

17.2 Vessels below 400 GT it is the Owner's / Master's responsibility to comply with the requirements of the local administration or port.

Oily bilge water cannot be discharged overboard and must be retained on board until it can be disposed of ashore. Records are to be maintained on board as proof of proper disposal.

17.3 For existing yachts over 200 GT and new yachts carrying more than 10 persons, the provision of holding sewage tanks of sufficient capacity is to be allowed for. These tanks are to have facilities to discharge ashore.

17.4 These vessels shall have a garbage management plan which should include written procedures agreed for the collection, storage, processing and disposal of garbage and a garbage record book which has a record of the disposal and incineration as outlined in Reg. 9 of Annex V of MARPOL.

17.5 Yachts having a tonnage of 500GT and more are to comply with Regulation 5 of Annex VI of the Convention for the Prevention of Pollution from Ships, 1973.

SECTION 18
MANNING AND CREW CERTIFICATION

18 MANNING AND CREW CERTIFICATION

18.1 The aim of this section is to determine the minimum safe manning requirements and the minimum level of certification of the crew.

18.2 The manning levels noted in this Code relate to the vessel at sea.

During lay up or wintering periods the number of crew may be reduced. However the number of crew on board during these periods would have to be adequate to handle any emergencies. Furthermore, the number of crew on board required by marinas and ports would have to be complied with.

18.3 Vessels below 24 metres in length

18.3.1	<u>Sailing Vessels</u>	<u>Motor Vessels</u>
up to 20m from safe port	Yacht Master Offshore (Sailing)	Yacht Master Offshore (Motor)
up to 60m from safe port	Yacht Master Offshore (Sailing)	Yacht Master Offshore (Motor)
	One experienced seaman	One experienced seaman
up to 150m from safe port	Yacht Master Offshore (Sailing)	Yacht Master Offshore (Motor)
	One experienced seaman (also holding Coastal Skipper licence)	One experienced seaman holding coastal skipper licence . One of the two crew to have attended motorman course.
unlimited service	One Yacht Master Ocean (Sailing)	One Yacht Master Ocean (Motor)
	One Yacht Master Offshore	One Yacht Master Offshore (Motor)
	One of the above experienced in maintenance and trouble-shooting of machinery and should be certified to have attended such a course.	One of the above experienced in maintenance and trouble-shooting of machinery and should be certified to have attended such a course.

- 18.3.2 The placing on board of a cook / stewards remain the Owners' responsibility if and as required.
- 18.3.3 All crew on board should hold a valid medical fitness certificate.
- 18.3.4 There shall be at least one person holding the appropriate GMDSS Operator's Certificate.
- 18.3.5 Masters are to hold an approved Basic Sea Survival course.
- 18.3.6 The Master and one person on board are to hold an approved First Aid at Sea Certificate.
- 18.3.7 One crew member on board is to hold an approved Fire Fighting Certificate.

18.4 **Vessels above 24 metres in length**

- 18.4.1 The Administration has adopted IMO Resolution A.890(21) and the principles of this Resolution will be applied to all yachts above 24 metres in length.
- 18.4.2 The comments noted in 18.2 refer to this class of yachts as well.
- 18.4.3 The STCW 95 regulations clearly identify the minimum hours of rest that each crew member requires.

The set limits should be observed as far as possible.

There may be exceptions. Such exceptions are to be agreed by the Master and crew. However the Health and Safety of the crew and the safety of navigation and that of the vessel must never be compromised.

18.4.4 **Minimum Manning Requirements**

The Administration will issue a Minimum Safe Manning Certificate for each vessel. The operational condition of the vessel will be taken in consideration when determining the minimum safe manning level. The following factors will be taken in consideration:-

- i) Length and nature of voyages with passengers on board.
- ii) Frequency of Port Calls
- iii) Nature of areas of operation including the environmental conditions and time of year.
- iv) Size, type of vessel, type of rig (in case of sailing vessels), equipment and layout.
- v) Type, number and power of main propulsion units and auxiliary machinery.
- vi) Type of construction and type of equipment on board.

- vii) STCW requirements
- viii) Vessel's operational requirements and the minimum number of crew required to maintain a safe operational level for the crew and to handle emergency situations and muster and disembark the passengers.
- ix) Maintain a safe engineering watch and operate the ship's machinery in a safe manner.

18.4.5.1 The proposed manning scales are indicated in the following lists:-

18.4.5.1 **Manning Scale for Motor Yachts 24 metres or more in length**

Certificates to be accepted by the Administration

Miles from a Safehaven	Personnel	Vessel Type		
		>24m <200 GT	200 – 500 GT	500 – 3000 GT
Up to 60	Master	1	1	1
	Chief Officer	-	1	1
	OOW (Navigation)	-	-	-
	Chief Engineer	1	1	1
	Second Engineer	-	-	-
	Assistant Engineer	-	1	1
	Yacht Rating	1	2	2
Up to 150	Master	1	1	1
	Chief Officer	1	1	1
	OOW (Navigation)	-	-	-
	Chief Engineer	1	1	1
	Second Engineer	-	-	1
	Assistant Engineer	-	1	-
	Yacht Rating	1	2	2
Unlimited	Master	1	1	1
	Chief Officer	1	1	1
	OOW (Navigation)	-	1	1
	Chief Engineer	-	1	1
	Second Engineer	1	1	1
	Assistant Engineer	1	-	-
	Yacht Rating	2	2	2

18.4.5.2 **Manning Scale for Sailing Yachts 24 metres or more in length**

Certificates to be accepted by the Administration

Miles from a Safehaven	Personnel	Vessel Type		
		>24m <200 GT	200 – 500 GT	500 – 3000 GT
Up to 60	Master	1	1	1
	Chief Officer	1	1	1
	OOW (Navigation)	-	-	-
	Chief Engineer	1	1	1
	Second Engineer	-	-	-
	Assistant Engineer	-	1	1
	Yacht Rating	2	2	3
Up to 150	Master	1	1	1
	Chief Officer	1	1	1
	OOW (Navigation)	-	-	-
	Chief Engineer	1	1	1
	Second Engineer	-	-	1
	Assistant Engineer	-	1	-
	Yacht Rating	2	2	3
Unlimited	Master	1	1	1
	Chief Officer	1	1	1
	OOW (Navigation)	-	1	1
	Chief Engineer	1	1	1
	Second Engineer	-	-	1
	Assistant Engineer	1	1	-
	Yacht Rating	2	2	3

Note i) Dual Certification

Dual deck and engineer roles may be considered provided that the Officer is suitably qualified and experienced in both disciplines. Such a person cannot be the Master.

ii) Sailing Vessels

The indicated manning scales for sailing vessels is based on a standard rig. The level of automation and/or complication of the rig may require additional personnel to operate the rig.

18.4.6 **Personnel Certification**

All crew are to be properly qualified for the position held on board. Qualifications approved by other Administration will be considered for equivalence.

SECTION 19
SPECIAL CATEGORY VESSELS

19 SPECIAL CATEGORY VESSELS

19.1 High Speed Vessels

- 19.1.1 High speed vessels shall comply with the IMO HSSC Code in its entirety.
- 19.1.2 High speed vessels shall be built to Class and maintained in Class.
- 19.1.3 High speed vessels below 24m in length have to be built under Class rules and outfitted to the HSSC Code as far as practicable.

19.2 Sail Training Vessels

- 19.2.1 Sail training vessels should comply with the contents of this Code as new vessels.
- 19.2.2 The number of passengers on board should never exceed 12.
- 19.2.3 The crew compliment on board requires to be set by the Administration taking in consideration the area of operation, the time of year and weather condition and the level of competence of the passengers being trained.

19.3 Traditional / Historical Ships

- 19.3.1 This class of vessels will be considered by the Administration on an individual basis.
- 19.3.2 These vessels, as far as practicable, comply with the contents of this Code.

However the Administration is conscious that these vessels may not be able to comply with all the requirements set out in this Code.

Under the circumstances, what traditional / historical ships lack in modern technology or structural details **must** be compensated for by operational measures that ensure their safe operation without destroying their particular historical character.

- 19.3.3 In general, reference is to be made to the memorandum of understanding on the conclusion of a major conference in Wilhelmshaven on the 8th September 2000.
- 19.3.4 Such vessels would be certified to operate within 60 miles from safe haven in good weather conditions only.

19.4 Bare Boat Charter Vessels (Vessels below 24 metres in length only)

19.4.1 Duty of Familiarisation at Handover

The Owner / Manager of the vessel or his representative (which could be the Master and Engineer) must be present for the handover to the crew taking over the vessel. The following items should be dealt with:-

The Owner / Managing Agent or appointed representative with intimate knowledge of the vessel would be present at the handover of the vessel to the chartering skipper and crew in order to complete the following familiarisation process:

1. A demonstration of the stowage of all gear and the method of use of all lifesaving and fire-fighting appliances on board the vessel should be given;
2. The location and method of operation of all sea cocks and bilge pumps should be explained;
3. A demonstration to ensure familiarisation with all mechanical, electrical and electronic equipment should be carried out;
4. Checks to be carried out on the engine prior to starting, whilst running and after stopping to be demonstrated;
5. The method of setting, sheeting and reefing each sail should be shown

19.4.2 Documentation

The Owner / Manager of the vessel or his representative should make sure that the Original Trading Certificates are handed over to the incoming Master and Crew. The documents should include:-

- .1 Certificate of Registry
- .2 Safe Manning Certificate (if issued)
- .3 Certificate of Compliance to trade as a commercial yacht
- .4 All certificates issued to the vessel
- .5 Details of permitted operating area and any special instructions which may affect the operational safety of the vessel.
- .6 All instruction manuals
- .7 All the vessel's technical drawings and diagrams
- .8 Vessel's maintenance records. The due dates of maintenance of all equipment are to be highlighted.
- .9 Vessel's Class records (if vessel in Class)
- .10 Inventory of vessel's equipment and spare parts.
Details of spare parts suppliers to be provided.
- .11 Plan of stowage of all moveable equipment necessary for the safe operation of the vessel.
- .12 A list of contact telephone numbers (24 hours) of persons who may be contacted by the Chartering Master and Crew in case of emergencies or when special advise is given.
- .13 The original copy of the insurance policy (unless the Charterers will take separate insurance cover for the duration of the charter).

19.4.3 **Handover Documentation**

- .1 The handing over and taking over Masters should sign a handing over document. This document should list all items noted in 19.4.1 and 19.4.2 and any other items they deem important.
- .2 The quantities of fuels and unbroached consumables remaining on board at time of hand over should be agreed upon and a separate hand over document drawn up and signed by both parties.
- .3 A crew list of the taking over crew is to be forwarded to the Administration. This is to be accompanied with a copy of the Crew Certificates.

19.4.4 **Off-Hire Procedures**

- .1 When the vessel is returned to the Owners / Managers after the period of Charter the same procedures indicated in 19.4.1, 19.4.2 and 19.4.3 are to be followed.
- .2 All documents are to be signed by both parties.

19.5 **Vessels taking part in races**

- 19.5.1 Vessels holding a Certificate of Compliance to trade as a Commercial Yacht do not need to comply with the Code if and when they take part in races.
- 19.5.2 Any person on board other than the Owner and Crew is to be advised of the status of certification of the vessel for the duration of the race.
- 19.5.3 It remains the responsibility of the Owner / Agents of the vessel to have the persons on board covered by a valid insurance policy for the duration of the race.

SECTION 20
MEDICAL STORES

20 MEDICAL STORES

All vessels are to carry adequate medical stores suitable for the area and range of operation.

20.1 Vessels below 24 metres in length should carry:-

Name of Item and Ordering Description	Quantity Required
FIRST AID KIT The following to be in a damp proof strong canvas bag, satchel or box with a strap for carrying:	1*
(1) 4 x triangular bandages with sides of about 90cm and a base of about 127cm.	
(2) 6 x standard dressings No.8 or 13 BPC	
(3) 2 x standard dressings No.9 or 14 BPC	
(4) 2 x extra large sterile unmedicated dressings 28cm x 17.7cm	
(5) 6 medium size safety pins, rustless	
(6) 20 assorted adhesive dressing strips medicated BPC	
(7) 2 sterile pads with attachments	
(8) 2 x packages each containing 15g sterile cotton wool	
(9) 5 pairs of large, disposable polythene gloves.	
PARACETAMOL 500mg tablets	50*
SEASICKNESS REMEDY Tablets (Hyoscine hydrobromide 0.3mg recommended)	50*
BUTTERFLY CLOSURES Adhesive skin closures, length about 5cm individually sealed sterile, in a container	20*
FORECEPS Epilation with oblique ends, 12.5cm of stainless steel throughout	1
SCISSORS (approved medical type) About 18cm, one blade sharp pointed and the other round-ended	1
THERMOMETER Ordinary range clinical thermometer, stubby bulb pattern	1
FIRST AID MANUAL (Published by an approved Body or Authority)	1

20.2 Vessels above 24 metres in length should comply with the Merchant Shipping Act (Cap. 234) and the Merchant Shipping (Medical Stores) Regulations, 2002.

SECTION 21

SURVEYS, CERTIFICATION, INSPECTIONS

21 SURVEYS, CERTIFICATION, INSPECTIONS

21.1 All vessels covered by this Code are required to be surveyed and certified. Vessels will be divided in three categories:-

- .1 Vessels below 24 metres in length
- .2 Vessels over 24 metres in length but below 500 GT.
- .3 Vessels over 24 metres in length and above 500 GT.

21.2 **Vessels below 24 metres in length**

21.2.1 These vessels may be surveyed by an Approved Surveyor or by a Classification Society.

The Classification Society will act under the direction of the Administration.

21.2.2 **Existing Vessels. Initial Survey.**

.1 An initial survey is to be carried out.

During this survey a record of compliance with the Code is to be drawn up.

.2 Any deviation from the Code or any equivalent proposals as may be proposed by the Owners will be considered and forwarded to the Registrar.

.3 A full survey of the hull and equipment will be carried out on the hard. This survey will be equivalent to a Class Survey and carried out to Class rules. If the vessel is surveyed afloat then the survey of the underwater parts is to be carried out within 12 months on the initial survey.

.4 A full survey of safety equipment, fire detection and fire fighting equipment will be carried out. Tests of equipment will be carried out.

.5 All items relating to freeboard, waterfreeing and crew safety will be checked against the Code.

.6 The stability data of the vessel will be checked for compliance with the minimum requirements set out in the Code.

.7 The radio installation will be inspected by an approved radio inspector.

.8 The type and operational range of the vessel will be determined.

A Certificate of Compliance to trade as a Commercial Yacht (below 24 metres in length) will be issued.

.9 Trials will be carried out.

.10 Reference is to be made to 21.7.

21.2.3 New Vessels

- .1 The following drawings / calculations are to be presented to a Classification Society or a Notified Body for their approval:
 - General arrangement plan
 - Structure / scantlings plan
 - Lines plan
 - Midship section and transverse sections
 - Structural fire protection plan
 - Material specifications
 - Rigging plan and full specifications of the rig
 - Full safety and fire safety plan (ISO 17631 : 2002)
 - Calculation of engine power
 - Design and details of fuel system
 - Bilge diagram
 - Fire fighting plan
 - Design of electrical systems (including navigation lighting)
 - Rudder details / design
 - Equipment number

- .2 In addition to the above the following documents will require to be forwarded for approval:-
 - Stability calculations
 - Freeboard determination
 - Record of compliance with the Code
 - Record of Radio Equipment on board

21.2.3.1 Reference to be made to 21.8.

21.2.4 **Renewal Survey**

- .1 A renewal survey will be carried out every 4th year.
- .2 During a renewal survey a full inspection of the vessel similar to that carried out at the Initial Survey will be carried out. The vessel will be inspected on the hard. All parts, machinery and systems of the vessel will be inspected.

The ship's documents will be inspected.

On successful completion of the renewal survey the Certificate of Compliance will be re-issued.

21.2.5 **Annual Surveys**

- .1 Annual Surveys will be carried out by the Master/Engineer.

The Annual Surveys carried out by the crew are to be endorsed on the prescribed space on the Certificate of Compliance.
- .2 Any accidents are to be reported to the Administration.
- .3 Major repairs or conversions are to be surveyed by an Approved Surveyor.
- .4 At the end of the 4th year the vessel will undergo a Renewal Survey by the Approved Surveyor.

21.3 **Vessels above 24 metres in length but below 500 GT**

21.3.1 These vessels may be surveyed by an Approved Surveyor or by a Classification Society.

The Classification Society will act under the direction of the Administration.

21.3.2 **Existing Vessels. Initial Survey.**

- .1 An initial survey is to be carried out. During this survey a record of compliance with the Code is to be drawn up.
- .2 Any deviations from the Code or any equivalent proposals as may be proposed by the Owners will be forwarded to the Registrar for consideration.
- .3 A full survey of the hull, machinery and equipment. This survey will be equivalent to a Class Renewal Survey and will be carried out to Class Rules. If the vessel is surveyed afloat then the survey of the underwater parts is to be carried out within 12 months of the initial survey.
- .4 A full survey of safety equipment, fire detection and fire fighting equipment will be carried out. Tests of equipment will be carried out.
- .5 All items relating to freeboard, water freeing and crew safety will be checked against the Code.

- .6 Load line items will be checked against the ILLC.
- .7 On vessels above 300 GT the radio installation is to be inspected and certified in line with the requirements of the Code. This inspection is to be carried out by an Approved Inspection Company, approved by the Administration.
- .8 On vessels above 400 GT the equipment on board is to be checked against the MARPOL Convention.
- .9 The stability data of the vessel will be checked for compliance with the Code.
- .10 The type and operational range of the vessel will be determined.

A Certificate of Compliance to Trade as a Commercial Yacht (Vessels above 24 metres in length but below 500 GT) will be issued.
- .11 Trials will be carried out.
- .12 Reference to be made to 21.7.

21.3.4 **New Vessels**

- .1 The following drawings / calculations are to be presented to a Classification Society for their approval:-
 - General arrangement plan
 - Structure / scantlings plan
 - Lines plan
 - Midship section and transverse sections
 - Structural fire protection plan
 - Material specifications
 - Rigging plan and full specifications of the rig
 - Full safety and fire safety plan (ISO 17631 : 2002)
 - Calculation of engine power
 - Design and details of fuel system
 - Bilge diagram
 - Fire fighting plan
 - Design of electrical systems (including navigation lighting)
 - Rudder details / design
 - Equipment number

21.3.4 Certificates to be issued on the completion of the initial survey:-

- Certificate of Registry
- “Certification of Compliance to Trade as a Commercial Yacht (Vessels above 24 metres in length but below 500 GT)”.
- International Tonnage Certificate
- International Load Line Certificate
- International Cargo Ship Safety Radio Certificate (In case of vessels above 300 GT) (in compliance with Chapter 16 of this Code)
- International Oil Pollution Prevention Certificate (In case of vessels above 400 GT)
- Minimum Safe Manning Certificate

21.3.4.1 Reference to be made to 21.8.

21.3.5 **Annual Surveys**

- .1 All vessels will be surveyed annually by a Classification Society or by an Approved Surveyor.

Annual surveys will cover all items relating to Class and Statutory requirements.

- .2 The due date of the annual surveys will be ± 3 months from the anniversary of the last Special Survey (or the date of the Initial Survey).

21.3.6 **Renewal Surveys**

- .1 A renewal survey will be carried out every 5th year.

- .2 During a special survey a full inspection similar to that carried out at the initial survey will be carried out.

The vessel will be inspected on the hard.

All parts, machinery and systems of the vessel will be inspected.

The ships documents will be inspected.

- .3 On successful completion of the special survey the Trading Certificates will be re-issued.

21.4 **Vessels above 24 metres in length and 500 GT or more**

21.4.1 These vessels are to be surveyed by a Classification Society.

The Classification Society will act under the direction of the Administration.

21.4.2 **Existing Vessels. Initial Survey.**

- .1 An initial survey is to be carried out. During this survey a record of compliance with the Code is to be drawn up. All drawings required for the evaluation of the vessel is to be forwarded to Class.
- .2 Any deviations from the Code or any equivalent proposals as may be proposed by the Owners will be forwarded to the Registrar for consideration.
- .3 A full survey of the hull, machinery and equipment on the hard. This survey will be equivalent to a Class Special Survey and will be carried out to Class rules.
- .4 A full survey of the safety equipment, fire detection and fire fighting equipment will be carried out and compliance to the Code and SOLAS confirmed.
- .5 A freeboard report to be drawn up for the assignment of freeboard.
- .6 A full Load Line inspection to be carried out.
- .7 The radio installation on board to be checked against the SOLAS requirements to be checked against the SOLAS requirements by an approved inspection company.
- .8 The pollution control installation on board to be checked against the MARPOL Convention.
- .9 The stability data of the vessel will be checked for compliance with the Code and the relevant SOLAS requirements.
- .10 The type and operational range of the vessel will be determined.

A Certificate of Compliance to trade as a Commercial Yacht (over 24m and over 500 GT) will be issued.
- .11 Trials will be carried out.
- .12 Reference to be made to 21.7.

21.4.3 This Class of vessel would require to be issued with the following additional certificates:-

- ISM
- ISPS

21.4.3 New Vessels

- .1 The following drawings / calculations are to be presented to a Classification Society for their approval:-
- General arrangement plan
 - Structure / scantlings plan
 - Lines plan
 - Midship section and transverse sections
 - Structural fire protection plan
 - Material specifications
 - Rigging plan and full specifications of the rig
 - Full safety and fire safety plan (ISO 17631 : 2002)
 - Calculation of engine power
 - Design and details of fuel system
 - Bilge diagram
 - Fire fighting plan
 - Design of electrical systems (including navigation lighting)
 - Rudder details / design
 - Equipment number

21.4.3.1 Reference to be made to 21.8.

21.4.4 Certificates to be issued on the completion of the Initial Survey:

- Certificate of Registry
- “Certificate of Compliance to Trade as a Commercial Yacht” (Vessels above 24 metres in length and 500 GT and above)
- “International Tonnage Certificate”
- “Minimum Safe Manning Certificate”
- “International Cargo Ship Safety Construction Certificate”
- “International Load Line Certificate”
- “International Cargo Ship Safety Equipment Certificate”
- “International Cargo Ship Safety Radio Certificate”

- International Oil Pollution Prevention Certificate”
-
- ISM Certificate
- ISPS Certificate

21.4.5 **Annual Surveys**

- .1 All vessels will be surveyed once annually by a Classification Society.
- .2 Annual Surveys will cover all items relating to Class and statutory requirements.
- .3 The due date of the annual surveys will be \pm 3 months from the anniversary of the last special survey (or the date of the initial survey).

21.4.6 **Special Surveys**

- .1 A special survey will be carried out every 5th year.
- .2 During a special survey a full inspection similar to that carried out at the initial survey will be carried out.

The vessel will be inspected on the hard.

All parts, machinery and systems of the vessel will be inspected.

The ships documents will be inspected.
- .3 On successful completion of the special survey the Trading Certificates will be re-issued.

21.5 **Drydocking Surveys**

- .1 Vessels are to be inspected in drydock or on the hard during the Initial Survey and during Special Survey.
- .2 In addition, vessels are to be additionally surveyed in drydock or on the hard between the second and third year after the special survey, i.e. mid way between special surveys.

21.6 **Historical Vessels**

- .1 These vessels will be surveyed by the Approved Surveyors.
- .2 An Initial Survey will be carried out to determine the requirements and level / quantity of inspections required.

21.7 **Existing Vessels**

Guidelines for Initial and Other Surveys

	Statutory	Class
Hull Surveys		
Dry dock survey: The hull shall be inspected from the outside twice every five years with a maximum period between the surveys of 36 months. For ships older than 15 years, the Administration may require an annual dry dock survey.		X
In-water survey: For hull surveys, the Authority may, under specific conditions, be satisfied with an In-Water Survey (IWS). The requirements for an IWS are those set out by Classification Societies: - the hull survey to obtain a new five-year Certificate of Seaworthiness shall always be conducted in dry conditions.		X
Inspection and checking of load line data		X
For the dry dock survey, the vessel's hull shall be dry and clean. It is not permitted to apply new coats of paint until after the survey. Limbers and bilges shall be clean and dry for the survey. If necessary, panelling, floor ceilings or inner planking shall be removed on the surveyor's instructions. Machinery and rigging parts etc. shall be dismantled for the survey if the surveyor considers it necessary. The surveyors and other persons acting for the Administration shall be granted free access to the vessel and the workshops. The surveyors of the Administration shall receive the necessary assistance from the owner or on the owner's behalf.		X
Structural fire protection	X	X
Rigging		X
Stability heeling test		X
<u>Machinery Installation</u>		
Alarms		X
Fire Alarms		X
Emergency stops		X
Emergency start safeties		X
Bilge and ballast systems		X
Emergency lighting		X
Inspection gas attestation validity		X
Inspection MARPOL		X

List of statutory and class rules	Statutory	Class
Inspection fire-fighting installation		X
Steering gear		X
Dirty water and oil systems (MARPOL) (where applicable)		X
General safety engine room		X
Fire-fighting equipment		X
Fixed fire fighting installation		X
<u>Equipment</u>	X	
Equipment inspection	X	
Nautical equipment	X	
Inspection medical equipment	X	
Safety appliances (check certificates)	X	
Life-saving appliances (check certificates)	X	
Check inspection radio communication equipment (inspection by approved companies)	X	
<u>Five-year acceptance and inspections</u>		
The five year survey includes those inspections that do not have to take place annually, but once every five years. These include:		X
Main engine and auxiliary engines		X
Compression pressure		X
Pressure testing fuel nozzles		X
Pressure-testing cooling water system		X
Meters	X	
Alarms	X	
Operation		X
Reversing gear		X
Endurance tests		X
Permanent fire-fighting system		X
Megger test		X
Propeller shaft inspection		X
Opening valves		X
Inspection MARPOL equipment		X
<u>Hull and Equipment</u>		
Hull		X
Shell thickness measurements		X
Bow thruster – shell penetration inspection		X
Anchor gear inspection anchor chain (carried out in dock)		X
Rudder inspection		X
Rigging		X
Lowered mast inspection		X
Spars inspection		X
<u>Special Survey</u>		
During a period of three months before expiry of the five-year Certificate of Compliance		X

21.8 New Vessels / New Construction

Guidelines for Initial and Other Surveys

	Statutory	Class
Ship Construction		
Assignment operating area based on vessel structure (strength and watertightness) and rigging		
Stability calculations	X	
Heeling test		X
Load line aspects	X	
Vessel structure, shell, structural members, welds for strength and watertightness		X
Rudder and rudder gear		X
Anchor gear		X
Watertight closing arrangements (hatches, doors, etc)	X	X
Windows, fixed port lights and portholes	X	X
Railing and bulwark	X	X
Accommodation and exits / emergency exits	X	
Lighting	X	
Toilets	X	X
Structural fire protection	X	
Watertight doors and their remote controls	X	X
Electrical Systems		
Plan approval		X
Generators / electric motors		X
Accumulators		X
Emergency installations	X	X
Shore connection		X
Distribution systems		X
Cables and wiring		X
Protection electrical systems		X
Earthing		X
Switchboards		X
Switchgear and protective devices		X
Measuring instruments		X
Starting devices for propulsion engines		X
Lighting	X	
Navigation lights system	X	
Emergency stop switches	X	
Public address system	X	
Load test		X
Test emergency installations and alarms	X	
Rigging		
Rigging (strength mast, spars, blocks, running and standing rigging, sails, puttings, additional fixations etc.)	X	X

	Statutory	Class
Machinery		
Main and auxiliary engines		
Propeller shafting and propeller, aligning, bearings etc.	X	X
Starting the main engine		X
Charging generator for the starting battery		X
Exhaust gas lines		X
Fuel lines		X
Cooling water lines		X
Outboard valves		X
Bilge cooling	X	X
Box cooling	X	X
Air vessels		X
Pressure water tanks		X
Bilge and ballast systems		X
Operation and monitoring propulsion systems		X
Dirty water systems (MARPOL)	X	
Environmental provisions	X	
Gas systems	X	
Alarms and safeties	X	
Fire fighting systems	X	X
Remotely controlled valves		X
Equipment		
Life saving appliances	X	
Safety appliances	X	
Navigation aids	X	
Radio communication equipment	X	
Medicines	X	
Trial Run	X	X
Steering tests	X	
Anchor tests	X	X
Engine tests	X	X
Rigging tests	X	X

ANNEX I

LIST OF CLASSIFICATION SOCIETIES

American Bureau of Shipping

Bureau Veritas

China Classification Society

Croatian Register of Shipping

Class NK

Det Norske Veritas

Germanischer Lloyd

Hellenic Register of Shipping

Korean Register of Shipping

Lloyds Register of Shipping

Polish Register of Shipping

Registro Italiano Navale

Russian Maritime Register of Shipping

ANNEX II
LIST OF APPROVED SURVEYORS

Mr Joe Amato
'The Petals'
Triq l-Istasija
Ta' L-Ibragg
St Andres STJ 03

Tel: 21376332

Mr Paul Cardona
'Knejna'
Triq Il-Pedidalwett
Swieqi

Tel: 21370823

Capt Mario Grech
62, Ghammar Street
Ghasri
Gozo

Tel: 21555685

Mr Daniel Grima
'Anchor Lodge'
Qrib San Anton
Attard

Tel: 21418130

Mr Philip Grima
62, St Andrews Street
Lija BZN 10

Tel: 21421984/5

Capt Joseph Zerafa
35, 'Medora'
Triq il-Bruka
Santa Lucia

Tel: 21665943

ANNEX III

LIST OF APPROVED NAVAL ARCHITECTS AND OFFICES TO EXAMINE AND APPROVE STABILITY DATA

American Bureau of Shipping

Bureau Veritas

China Classification Society

Class NK

Croatian Register of Shipping

Det Norske Veritas

Germanischer Lloyd

Hellenic Register of Shipping

Korean Register of Shipping

Lloyds Register of Shipping

Polish Register of Shipping

Registro Italiano Navale

Russian Maritime Register of Shipping